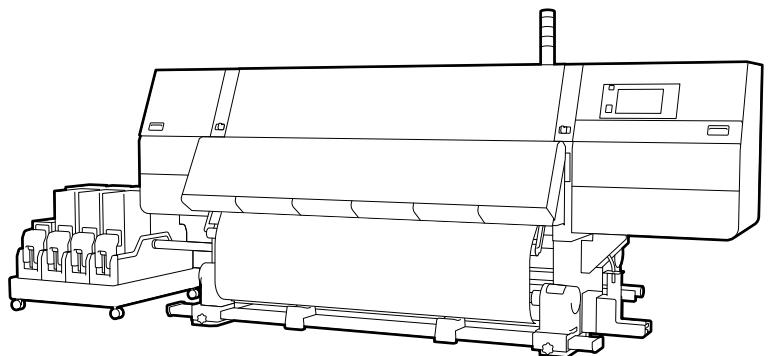


SERVICE MANUAL



Large Format Color Inkjet Printer

**SC-F10000 Series
SC-F10000H Series**

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Service Support Planning Department

PRECAUTIONS

Precautionary notations throughout the text are categorized relative to 1) Personal injury and 2) Damage to equipment.

DANGER Signals a precaution which, if ignored, could result in serious or fatal personal injury. Great caution should be exercised in performing procedures preceded by DANGER Headings.

WARNING Signals a precaution which, if ignored, could result in damage to equipment.

The precautionary measures itemized below should always be observed when performing repair/maintenance procedures.

DANGER

1. ALWAYS DISCONNECT THE PRODUCT FROM THE POWER SOURCE AND PERIPHERAL DEVICES PERFORMING ANY MAINTENANCE OR REPAIR PROCEDURES.
2. NO WORK SHOULD BE PERFORMED ON THE UNIT BY PERSONS UNFAMILIAR WITH BASIC SAFETY MEASURES AS DICTATED FOR ALL ELECTRONICS TECHNICIANS IN THEIR LINE OF WORK.
3. WHEN PERFORMING TESTING AS DICTATED WITHIN THIS MANUAL, DO NOT CONNECT THE UNIT TO A POWER SOURCE UNTIL INSTRUCTED TO DO SO. WHEN THE POWER SUPPLY CABLE MUST BE CONNECTED, USE EXTREME CAUTION IN WORKING ON POWER SUPPLY AND OTHER ELECTRONIC COMPONENTS.
4. WHEN DISASSEMBLING OR ASSEMBLING A PRODUCT, MAKE SURE TO WEAR GLOVES TO AVOID INJURY FROM METAL PARTS WITH SHARP EDGES.

WARNING

1. REPAIRS ON EPSON PRODUCT SHOULD BE PERFORMED ONLY BY AN EPSON CERTIFIED REPAIR TECHNICIAN.
2. MAKE CERTAIN THAT THE SOURCE VOLTAGES IS THE SAME AS THE RATED VOLTAGE, LISTED ON THE SERIAL NUMBER/RATING PLATE. IF THE EPSON PRODUCT HAS A PRIMARY AC RATING DIFFERENT FROM AVAILABLE POWER SOURCE, DO NOT CONNECT IT TO THE POWER SOURCE.
3. ALWAYS VERIFY THAT THE EPSON PRODUCT HAS BEEN DISCONNECTED FROM THE POWER SOURCE BEFORE REMOVING OR REPLACING PRINTED CIRCUIT BOARDS AND/OR INDIVIDUAL CHIPS.
4. IN ORDER TO PROTECT SENSITIVE MICROPROCESSORS AND CIRCUITRY, USE STATIC DISCHARGE EQUIPMENT, SUCH AS ANTI-STATIC WRIST STRAPS, WHEN ACCESSING INTERNAL COMPONENTS.
5. REPLACE MALFUNCTIONING COMPONENTS ONLY WITH THOSE COMPONENTS BY THE MANUFACTURE; INTRODUCTION OF SECOND-SOURCE ICs OR OTHER NON-APPROVED COMPONENTS MAY DAMAGE THE PRODUCT AND VOID ANY APPLICABLE EPSON WARRANTY.
6. WHEN AIR DUSTER IS USED ON THE REPAIR AND THE MAINTENANCE WORK, THE USE OF THE AIR DUSTER PRODUCTS CONTAINING THE INFLAMMABLE GAS IS PROHIBITED.
7. MAKE SURE AN ANTIVIRUS SOFTWARE IS INSTALLED ON THE COMPUTER USED FOR SERVICE SUPPORT. BE SURE TO HAVE THE LATEST VIRUS DEFINITION FILE FOR THE SOFTWARE.

About This Manual

About This Manual: This manual is made for the sole purpose of providing necessary information in order that a serviceperson qualified by Epson performs his / her appropriate repair / maintenance for the applicable Epson's products. You shall not use this manual out of this purpose.

This manual is Epson's confidential information. When you use this manual, you shall hold it in strict confidence and shall not disclose to any third party without prior consent of Epson.

The instructions and procedures included herein are intended for the experienced repair technicians, and attention should be given to the precautions on the preceding page.

Manual Configuration

This manual consists of six chapters and Appendix.

CHAPTER 1.PRODUCT DESCRIPTIONS

Provides a general overview and specifications of the product.

CHAPTER 2.TROUBLESHOOTING

Describes the step-by-step procedures for the troubleshooting.

CHAPTER 3.DISASSEMBLY / ASSEMBLY

Describes the step-by-step procedures for disassembling and assembling the product.

CHAPTER 4.ADJUSTMENT

Provides Epson-approved methods for adjustment.

CHAPTER 5.MAINTENANCE

Provides preventive maintenance procedures and the lists of Epson-approved lubricants and adhesives required for servicing the product.

CHAPTER 6.APPENDIX

Provides the following additional information for reference:

- Wiring Diagram
- Panel Menu Maps

Symbols Used in this Manual

Various symbols are used throughout this manual either to provide additional information on a specific topic or to warn of possible danger present during a procedure or an action. Be aware of all symbols when they are used, and always read NOTE, CAUTION, or WARNING messages.

Indicates an operating or maintenance procedure, practice or condition that, if not strictly observed, could result in injury or loss of life.



Indicates an operating or maintenance procedure, practice, or condition that, if not strictly observed, could result in damage to, or destruction of, equipment.



May indicate an operating or maintenance procedure, practice or condition that is necessary to accomplish a task efficiently. It may also provide additional information that is related to a specific subject, or comment on the results achieved through a previous action.



Indicates an operating or maintenance procedure, practice or condition that is necessary to keep the product's quality.



Indicates that a particular task must be carried out according to a certain standard after disassembly and before re-assembly, otherwise the quality of the components in question may be adversely affected.



Indicates that lubrication is needed for the parts after disassembly, when doing a maintenance or replacing a part with a new one.



Revision Status

| Revision | Date of Issue | Description |
|----------|---------------|---|
| A | June 11, 2020 | <p>First release</p> |
| B | July10, 2020 | <p>Revised</p> <ul style="list-style-type: none"> <input type="checkbox"/> Overall <ul style="list-style-type: none"> • Following part names were changed. <ul style="list-style-type: none"> • Pump Unit Assy -> Ink Supply Pump • Cap Unit -> Anti-Drying Caps Drive Assembly • Air Unit -> Cleaning Pump • Cloth Wiper Carriage -> Wiper Unit Drive Assembly • Suction Cap Unit -> Suction Pump • Tube Assy -> Ink Tube • SUB-C Board 1 -> LED Control Board 1 • SUB-C Board 2 -> LED Control Board 2 • Cloth Wiper Pad -> Flushing Pad • Cartridge Cover -> Cartridge Holder • CR Timing Belt -> CR Belt <input type="checkbox"/> Chapter 1 <ul style="list-style-type: none"> • "1.5 Various Startup Mode" (p.27): Added descriptions <input type="checkbox"/> Chapter 2 <ul style="list-style-type: none"> • "2.3.1 Service Call Classification Table" (p.35): Newly added • "2.3.2 Service Call List" (p.36): Newly added • "2.3.3 Details of Service Call" (p.43): Newly added • "2.4.3 Detail of each Problem Phenomenon" (p.237): Modified descriptions • "2.6 Fuse Positions" (p.265): Newly added • "2.7 LED Positions" (p.279): Newly added |

| Revision | Date of Issue | Description |
|----------|---------------|---|
| B | July 10, 2020 | <p><input checked="" type="checkbox"/> Chapter 3</p> <ul style="list-style-type: none"> • "3.2 Parts Diagram" (p.293): "Electric Circuit Components (2)" was added • "3.3 Disassembly Flowchart" (p.309): "CAUTION" was added • "3.4.2.12 Front Left Top Cover" (p.332): Procedure was added • "3.4.2.13 Front Right Top Cover" (p.333): Procedure was added • "3.4.2.15 Maintenance Cover (L) Open Sensor" (p.335): Procedure order was changed • "3.4.2.16 Maintenance Cover (L) Lock Lever Sensor" (p.336): Procedure order was changed • "3.4.2.17 Maintenance Cover (R) Open Sensor" (p.338): Procedure order was changed • "3.4.2.18 Maintenance Cover (R) Lock Lever Sensor" (p.339): Procedure order was changed • "3.4.3.14 Panel Assy" (p.368): Procedure order was changed • "3.4.3.30 Printer Drying Fan" (p.393): "CHECK POINT" description was added, "ASSEMBLY" was added • "3.4.4.1 Print Head" (p.402): "ASSEMBLY" was added • "3.4.3.13 Leakage Breaker" (p.366): "CHECK POINT" was added • "3.4.3.17 LED Board" (p.373): Procedure order was changed • "3.4.4.4 Anti-Drying Caps Drive Assembly" (p.405): Mistakes were corrected • "3.4.4.11 Ink Leak Sensor (Pump)" (p.413): Procedure order was changed • "3.4.4.12 Ink Supply Pump (SC-F10000 Series)" (p.414): Procedure was added • "3.4.4.14 Ink Supply Sub Pump Assy" (p.420): Procedure was partially changed • "3.4.4.17 Ink Leak Sensor (Cloth Wiper)" (p.425): Newly added • "3.4.4.23 CR Obstacle Sensor" (p.432): "ASSEMBLY" was added • "3.4.4.25 Ink Leak Sensor (Duct Carriage Assy)" (p.437): Newly added • "3.4.4.27 Ink Leak Sensor (Filter Unit)" (p.439): Newly added • "3.4.4.34 Ink Tube (SC-F10000 Series)" (p.452): Procedure was partially changed • "3.4.4.36 Light Cable" (p.462): Procedure order was changed • "3.4.4.37 Power Cable" (p.467): Procedure order was changed • "3.4.4.37 Left Pulley Assy" (p.474): Procedure order was changed • "3.4.7.1 Hardening Fan" (p.504): Procedure was partially changed, "ASSEMBLY" description was added • "3.4.7.6 Thermistor Relay A/D Board (SUB-S)" (p.512): Newly added |

| Revision | Date of Issue | Description |
|----------|---------------|---|
| B | July 10, 2020 | <ul style="list-style-type: none"> <input type="checkbox"/> Chapter 4 <ul style="list-style-type: none"> • "4.1.3 Firmware Version" (p.538): Procedure was partially changed • "4.1.4 Adjustment Items and the Order by Repaired Part" (p.539): Added • "4.1.5 Adjustment Items" (p.548): Added • "4.1.7 Service Program Basic Operations" (p.557): Changed • "4.3 ADJUSTMENTS (Individual)" (p.564): Changed • "4.4 ADJUSTMENTS (Sequence)" (p.565): Changed • "4.7.2 CR Belt Tension Adjustment" (p.592): Procedure was partially changed • "4.7.3 CR Timing Belt Tension Adjustment" (p.595): Procedure was partially changed <input type="checkbox"/> Chapter 5 <ul style="list-style-type: none"> • "5.3 Disassembly when carrying in/installing the printer" (p.635): Procedure was added • "5.5 Exchange Parts" (p.647): Newly added <input type="checkbox"/> Chapter 6 <ul style="list-style-type: none"> • "6.1 Block Wiring Diagram" (p.670): “SUB-S Board” added • "6.4 Part names used in this manual" (p.700): Newly added • "6.8 Installation Assessment" (p.710): Newly added |

| Revision | Date of Issue | Description |
|----------|------------------|--|
| C | August 24, 2020 | <ul style="list-style-type: none"> <input type="checkbox"/> Chapter 2 <ul style="list-style-type: none"> • "2.3.3 Details of Service Call" (p.43): Partially changed • "2.6 Fuse Positions" (p.265): Describe was partially added <input type="checkbox"/> Chapter 3 <ul style="list-style-type: none"> • "3.3 Disassembly Flowchart" (p.309): "CHECK POINT" description was added, "standard operation time" was added • "3.4.3.17 LED Board" (p.373): Procedure order was changed • "3.4.3.30 Printer Drying Fan" (p.393): "ASSEMBLY" description was partially changed • "3.4.4.4 Anti-Drying Caps Drive Assembly" (p.405): Mistakes were corrected • "3.4.4.11 Ink Leak Sensor (Pump)" (p.413): Procedure order was changed • "3.4.4.34 Ink Tube (SC-F10000 Series)" (p.452): Procedure order was changed • "3.4.7.1 Hardening Fan" (p.504): "ASSEMBLY" description was partially changed <input type="checkbox"/> Chapter 4 <ul style="list-style-type: none"> • "4.1.5 Adjustment Items" (p.548): Describe was partially added • "4.2.2 NVRAM Viewer Basic Operation" (p.559): Describe was changed, screens were changed • "4.6 Adjustment in the Control Panel" (p.569): Newly added • "4.7.5 Nozzle Verification Technology Check" (p.598) to "4.7.9 RGB Camera Check & Adjustment" (p.602): Newly added • "4.8 Ink System related Adjustment" (p.603): Newly added • "4.9.2 PF Scale Check" (p.610) to "4.9.4 Input Dry Fan" (p.612): Newly added • "4.10 Board related Adjustment" (p.614): Newly added • "4.11 Others Adjustment" (p.621): Newly added • "4.12 Maintenance" (p.627): Newly added <input type="checkbox"/> Chapter 5 <ul style="list-style-type: none"> • "5.2.3 Transporting from One Building to Another" (p.633): Procedure was partially changed <input type="checkbox"/> Chapter 6 <ul style="list-style-type: none"> • "6.8 Installation Assessment" (p.710): Mistakes were corrected |
| D | November 4, 2020 | <p>Revised</p> <ul style="list-style-type: none"> <input type="checkbox"/> Chapter 2 <ul style="list-style-type: none"> • Parts name was changed (SUB-B ->CR Motor Control Board (SUB-B)) • "2.2 Remedies for Maintenance Requests" (p.34): Maintenance name were changed • "2.3 Remedies for Service Call Error" (p.35): Error code were corrected (203002 -> 303002 -> 256222 -> 356222) • "2.3 Remedies for Service Call Error" (p.35): Error 001A5F was added • "2.3 Remedies for Service Call Error" (p.35): Remedies of 001228, 001439, 00143A, 00143C, 00143D, 00143E and 00143F were added • "2.4 Troubleshooting from Problem Phenomenon" (p.234): Mistakes were corrected • "2.6 Fuse Positions" (p.265): Descriptions were added • "2.7 LED Positions" (p.279): Descriptions were added |

| Revision | Date of Issue | Description |
|----------|------------------|---|
| D | November 4, 2020 | <ul style="list-style-type: none"> <input type="checkbox"/> Chapter 3 <ul style="list-style-type: none"> • "3.3 Disassembly Flowchart" (p.309): Flowchart of "CARRIAGE MECHANISM/INK SYSTEM MECHANISM (3)" was partially changed • "3.4.3.3 Main Board A" (p.355): Mistakes were corrected • "3.4.3.11 CR Motor Control Board (SUB-B)" (p.363): Mistakes were corrected • "3.4.3.29 MCU Board" (p.392): Mistakes were corrected • "3.4.4.12 Ink Supply Pump (SC-F10000 Series)" (p.414): "Reassembly" was partially added • "3.4.4.15 Cleaning Pump" (p.421): "Reassembly" was partially added • "3.4.4.21 RGB Camera" (p.430): Procedure was partially changed • "3.4.4.24 Duct Carriage Assy" (p.435): Procedure was partially changed • "3.4.4.34 Ink Tube (SC-F10000 Series)" (p.452): "Reassembly" was partially added <input type="checkbox"/> Chapter 4 <ul style="list-style-type: none"> • Paper name was changed • "4.5 Installing Firmware" (p.566): "Caution" was added • "4.10.2 MAC Address Check & Input" (p.615): Procedure was partially changed • "4.10.4 NVRAM Backup/Restore" (p.617): "Caution" was added <input type="checkbox"/> Chapter 5 <ul style="list-style-type: none"> • "5.3 Disassembly when carrying in/installing the printer" (p.635): Procedure was partially changed |
| E | January 29, 2021 | <p>Revised</p> <ul style="list-style-type: none"> <input type="checkbox"/> Chapter 4 <ul style="list-style-type: none"> • "4.7.1 Head Slant/PG Check & Adjustment" (p.587): Partially changed • "4.8.4 Ink Tube Position Adjustment" (p.606): Newly added • "4.9.5 Rear AD Adjustment" (p.613): Procedure was changed |
| F | March 4, 2021 | <p>Revised</p> <ul style="list-style-type: none"> <input type="checkbox"/> Chapter 2 <ul style="list-style-type: none"> • "2.6 Fuse Positions" (p.265) "DRV Board" (p.271): Misdescription is corrected. • "2.7 LED Positions" (p.279) "DRV Board" (p.284): Misdescription is corrected. |
| G | April 28, 2021 | <p>Revised</p> <ul style="list-style-type: none"> <input type="checkbox"/> Overall <ul style="list-style-type: none"> • Information of SC-F10000H Series is added • Part name was changed (Dryer Fan -> Hardening Fan) <input type="checkbox"/> Chapter 1 <ul style="list-style-type: none"> • "1.1 Product Description" (p.19): Information of SC-F10000H Series is added • "1.2.1 Basic Specifications" (p.20): Information of SC-F10000H Series is added |

| Revision | Date of Issue | Description |
|----------|----------------|---|
| G | April 28, 2021 | <ul style="list-style-type: none"> <input type="checkbox"/> Chapter 1 <ul style="list-style-type: none"> • "1.2.2 Ink Specifications" (p.21): Information of SC-F1000H Series is added • "1.4.1 Dimensions and Weight" (p.23): Information of SC-F1000H Series is added • "1.4.2 Installation Room Requirement" (p.23): Information of SC-F1000H Series is added • "1.4.3 Part Names" (p.24): Information of SC-F1000H Series is added <input type="checkbox"/> Chapter 2 <ul style="list-style-type: none"> • "2.2 Remedies for Maintenance Requests" (p.34): Partially changed • "2.3.1 Service Call Classification Table" (p.35): Partially changed • "2.3.2 Service Call List" (p.36): Items added, partially changed • "2.3.3 Details of Service Call" (p.43): Items added, partially changed • "2.4.2 Problem Phenomenon Overview" (p.235): Items added • "2.4.3 Detail of each Problem Phenomenon" (p.237): Items added • "2.6 Fuse Positions" (p.265): Illustration partially changed • "2.7 LED Positions" (p.279): Illustration partially changed <input type="checkbox"/> Chapter 3 <ul style="list-style-type: none"> • "3.2 Parts Diagram" (p.293): Illustration partially changed, Illustration of SC-F1000H Series is added • "3.3 Disassembly Flowchart" (p.309): Parts/information of SC-F1000H Series is added • "3.4.1.1 Unlocking the CR unit" (p.319): Illustration changed • "3.4.2.24 Caster" (p.346): Newly added • "3.4.2.25 Adjuster" (p.347): Newly added • "3.4.2.26 Front Cover Lock Sensor (Left)" (p.348): Newly added • "3.4.2.27 Front Cover Lock Sensor (Right)" (p.350): Newly added • "3.4.3.19 Head Drive Board Frame" (p.375): Information of SC-F1000H Series is added • "3.4.3.20 Head Drive Board (DRV)" (p.378): Information of SC-F1000H Series is added • "3.4.3.21 Head FFC/Head Connector Board" (p.381): Information of SC-F1000H Series and procedure of Head Connector Board is added • "3.4.3.29 MCU Board" (p.392): Mistakes were corrected • "3.4.3.30 Printer Drying Fan" (p.393): "ASSEMBLY" description was changed • "3.4.3.31 Panel FFC" (p.395): Newly added • "3.4.3.32 SUB-M (Left) Board Relay FFC" (p.398): Newly added • "3.4.3.33 SUB-M (Right) Board Relay FFC" (p.400): Newly added • "3.4.4.1 Print Head" (p.402): Information of SC-F1000H Series is added • "3.4.4.2 Charging Unit" (p.403): Information of SC-F1000H Series is added |

| Revision | Date of Issue | Description |
|----------|----------------|---|
| G | April 28, 2021 | <p><input type="checkbox"/> Chapter 3</p> <ul style="list-style-type: none"> • "3.4.4.3 Cap" (p.404): Information of SC-F10000H Series is added • "3.4.4.4 Anti-Drying Caps Drive Assembly" (p.405): Information of SC-F10000H Series is added • "3.4.4.12 Ink Supply Pump (SC-F10000 Series)" (p.414): Procedure was changed • "3.4.4.13 Ink Supply Pump (SC-F10000H Series)" (p.417): Newly added • "3.4.4.14 Ink Supply Sub Pump Assy" (p.420): Procedure was changed • "3.4.4.24 Duct Carriage Assy" (p.435): Information of SC-F10000H Series is added • "3.4.4.26 Filter Unit" (p.438): Information of SC-F10000H Series is added • "3.4.4.27 Ink Leak Sensor (Filter Unit)" (p.439): Information of SC-F10000H Series is added • "3.4.4.33 CR Belt" (p.447): "ASSEMBLY" description was changed • "3.4.4.34 Ink Tube (SC-F10000 Series)" (p.452): Procedure was changed • "3.4.4.35 Ink Tube (SC-F10000H Series)" (p.462): Newly added • "3.4.4.36 Light Cable" (p.462): "ASSEMBLY" description was added/changed • "3.4.4.37 Power Cable" (p.467): "ASSEMBLY" description was added/changed • "3.4.4.38 CR FFC" (p.472): "ASSEMBLY" description was changed • "3.4.4.38 CR Obstacle Sensor FFC Assy" (p.476): Newly added • "3.4.4.39 CR Encoder FFC" (p.478): Newly added • "3.4.4.40 Tube Support Plate" (p.480): Newly added • "3.4.4.41 Shutter" (p.487): Newly added • "3.4.5.9 PE Sensor" (p.497): Mistakes were corrected • "3.4.5.10 PF Encoder Sensor FFC" (p.499): Newly added • "3.4.7.1 Hardening Fan" (p.504): "ASSEMBLY" description was changed • "3.4.8.1 Ink Supply Unit" (p.517): Information of SC-F10000H Series is added • "3.4.8.3 Ink Supply Tube Assy" (p.521): Information of SC-F10000H Series is added • "3.4.8.10 Caster" (p.533): Newly added <p><input type="checkbox"/> Chapter 4</p> <ul style="list-style-type: none"> • "4.1.1 PC settings before starting adjustment" (p.535): Newly added • "4.1.4 Adjustment Items and the Order by Repaired Part" (p.539): Modified descriptions • "4.1.5 Adjustment Items" (p.548): Modified descriptions • "4.2.2 NVRAM Viewer Basic Operation" (p.559): Modified descriptions • "4.6.2 Replace Print Head" (p.570): Modified descriptions • "4.6.4 Replace Ink Path Filter" (p.574): Information of SC-F10000H Series is added • "4.6.5 PF Function Auto Adjustment" (p.575): Modified descriptions |

| Revision | Date of Issue | Description |
|----------|------------------|--|
| G | April 28, 2021 | <p><input type="checkbox"/> Chapter 4</p> <ul style="list-style-type: none"> • "4.6.6 Print Quality Auto Adjustment" (p.576): Modified descriptions • "4.6.7 Ink Charging" (p.577): Information of SC-F10000H Series is added • "4.6.8 Tube Washing" (p.578): Information of SC-F10000H Series is added • "4.6.11 Long-term Storage Preparation" (p.581): Information of SC-F10000H Series is added • "4.6.15 Head replace (all heads)" (p.585): Newly added • "4.7.4 Nozzle Verification Technology Noise Inspection" (p.597): Newly added • "4.7.5 Nozzle Verification Technology Check" (p.598): Modified descriptions • "4.9.3 Input Hardening Fan" (p.611): Modified descriptions • "4.9.4 Input Dry Fan" (p.612): Modified descriptions • "4.11.5 Head Exchanging Flag Reset" (p.625): Newly added • "4.11.6 Color Mode Setting" (p.626): Newly added <p><input type="checkbox"/> Chapter 5</p> <ul style="list-style-type: none"> • "5.2.3 Transporting from One Building to Another" (p.633): Information of SC-F10000H Series is added • "5.5 Exchange Parts" (p.647): Mistakes were corrected • "5.6 Cleaning" (p.648): "Cleaning RGB Camera LED", "Cleaning Shutter" were added <p><input type="checkbox"/> Chapter 6</p> <ul style="list-style-type: none"> • "6.1 Block Wiring Diagram" (p.670): Modified descriptions • "6.2 Connection Diagram" (p.671): Partially changed, information of SC-F10000H Series is added • "6.4 Part names used in this manual" (p.700): Modified descriptions • "6.8 Installation Assessment" (p.710): Illustration changed |
| H | January 25, 2022 | <p>Revised</p> <p><input type="checkbox"/> Chapter 2</p> <ul style="list-style-type: none"> • "2.3.1 Service Call Classification Table" (p.35): Items added • "2.3.2 Service Call List" (p.36): Items added • "2.3.3 Details of Service Call" (p.43): Items added, partially changed • "2.4.3 Detail of each Problem Phenomenon" (p.237): Partially changed • "2.6 Fuse Positions" (p.265): Items added • "2.7 LED Positions" (p.279): Items added <p><input type="checkbox"/> Chapter 3</p> <ul style="list-style-type: none"> • "3.2 Parts Diagram" (p.293): Partially changed • "3.3 Disassembly Flowchart" (p.309): Partially changed |

| Revision | Date of Issue | Description |
|----------|------------------|---|
| H | January 25, 2022 | <p><input type="checkbox"/> Chapter 3</p> <ul style="list-style-type: none"> • ""3.4.1.1 Unlocking the CR unit" (p.319): Procedure partially changed • ""3.4.3.20 Head Drive Board (DRV)" (p.378): Procedure partially changed, picture partially changed • ""3.4.3.21 Head FFC/Head Connector Board" (p.381): Procedure partially changed, picture partially changed • ""3.4.4.2 Charging Unit" (p.403): "ASSEMBLY" description added • ""3.4.4.4 Anti-Drying Caps Drive Assembly" (p.405): Procedure partially changed • ""3.4.4.11 Ink Leak Sensor (Pump)" (p.413): "CAUTION" description added • ""3.4.4.36 Light Cable" (p.462): Item deleted • ""3.4.4.37 Power Cable" (p.467): Item deleted • ""3.4.4.38 CR FFC" (p.472): Item deleted • ""3.4.4.41 Shutter" (p.487): "CHECK POINT" description added • ""3.4.8.3 Ink Supply Tube Assy" (p.521): Partially changed • <p><input type="checkbox"/> Chapter 4</p> <ul style="list-style-type: none"> • ""4.1.4 Adjustment Items and the Order by Repaired Part" (p.539): Partially changed • ""4.6.2 Replace Print Head" (p.570): "CAUTION" description added • ""4.7.9 RGB Camera Check & Adjustment" (p.602): Partially changed <p><input type="checkbox"/> Chapter 5</p> <ul style="list-style-type: none"> • ""5.5 Exchange Parts" (p.647): Partially changed • ""5.7 Lubrication" (p.667): Item added <p><input type="checkbox"/> Chapter 6</p> <ul style="list-style-type: none"> • ""6.2 Connection Diagram" (p.671): Partially changed • ""6.4 Part names used in this manual" (p.700): Partially changed |

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CHAPTER

1

PRODUCT DESCRIPTION

1.1 Product Description

The SC-F10000 Series/SC-F10000H Series is a color inkjet printer equipped with sublimation dye ink that supports media with a maximum width of 76 inches. The main features of this printer are as described below.

- Available paper type
 - Supported media width: 1950 mm (76 inches) max., 300 mm min.
 - Printing width: 1944 mm max.
 - Paper thickness: 1 mm max., 0.04 mm min.
- Media handling

Supports commercially-available media for sublimation transfer printing (there is no genuine media). The supported roll size is as described below.

 - Weight: 60 kg max.
 - Roll outer diameter: 250 mm max.
 - Paper tube width: 2 and 3 inches
- Supports RIP made by 3rd parties

EPSON driver is not provided for Windows nor Mac.
- High image quality, high productivity, high reliability
 - Equipped with μ TFP-S4 heads (SC-F10000 Series: x4, SC-F10000H Series: x6) to realize high-speed and high-quality printing.
 - Through the addition of an auxiliary heater, the occurrence of wrinkles due to insufficient drying can be prevented.
 - Two large-capacity ink cartridges of each color are loaded in the Ink Supply Unit, which enables hot swapping.
 - Equipped with a wide range of Cloth Wiper Unit.
 - Equipped with a Anti-Drying Caps Drive Assembly to prevent evaporation of ink when printing is not being performed.
- Realizes high usability
 - 9-Inch touch panel
 - Signal Lamp for easily checking the printer status

- Maintainability
 - A large window for facilitating easy maintenance
 - Equipped with internal lighting
- The following functions are provided to the user through integrated utility (Epson Control Dashboard)
 - Printer status display
 - Media adjustment/settings/backup
 - Firmware update

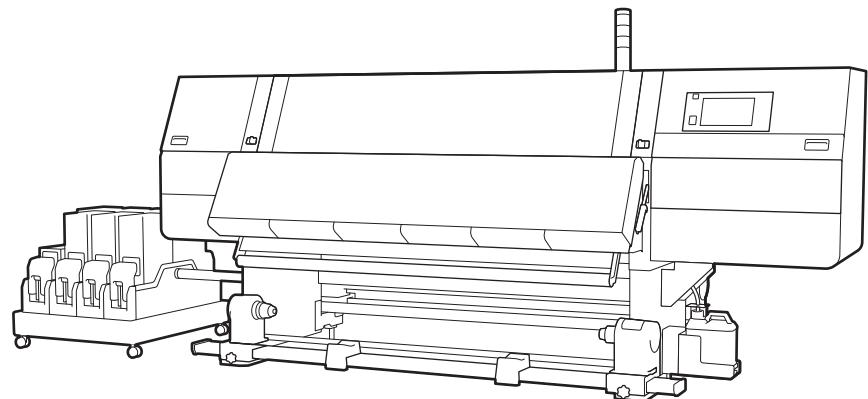


Figure 1-1. External View

1.2 Basic Specifications

1.2.1 Basic Specifications

Table 1-1. Basic Specifications

| Item | | Specification |
|---|-------------------------------|--|
| Print method | | On-demand inkjet |
| Number of loaded Print Heads | SC-F10000 Series | 4 |
| | SC-F10000H Series | 6 |
| Nozzle configuration | | 400 nozzles x 2 columns x 4 chips/Print Head (3200 nozzles per color) |
| Ink color | SC-F10000 Series | High density black, cyan, magenta, yellow |
| | SC-F10000H Series | High density black, cyan, magenta, yellow, flashing pink/flashing yellow or light cyan/light magenta ^{*1} |
| Resolution (maximum) | | 1200 x 1200 dpi (Print resolution at 300 x 300 dpi 16-layer HT) |
| Control code | | ESC/P raster (undisclosed command) |
| Media feed method | | Friction feed |
| Interface | USB port for PC connection | USB 3.0 (Super Speed USB) |
| | Wired LAN compliance standard | 1000Base-T ^{*2} |
| Rated voltage (Power connector #1/power connector #2) | | AC 200 to 240 V |
| Rated frequency (Power connector #1/power connector #2) | | 50/60Hz |
| Rated current (Power connector #1/power connector #2) | | 16A |
| Power consumption (Total of power connector #1/power connector #2) | | During operation: Approximately 3.9 kW When power is OFF: Approximately 9.6 W |

Table 1-1. Basic Specifications

| Item | Specification | |
|-------------------------------------|---|--|
| Temperature /Humidity ^{*3} | During operation | 10 to 35°C, 20 to 80% Recommended: 18 to 28°C, 40 to 60% |
| | In storage (before unpacking) | -20 to 60°C, 5 to 85% (within 120 hours at 60°C, within 1 month at 40°C) |
| | In storage (before ink filling) | -20 to 40°C, 5 to 85% (within 1 month at 40°C) |
| | In storage (after ink filling) | 5 to 35°C, 5 to 85% |
| Temperature /Humidity ^{*3} | | |
| | Gray area: During media setting/ maintenance, etc. Shaded area: During printing | |
| | Main unit (storage) | 3710 (W) x 1303 (D) x 1886 (H) mm |
| | Ink supply unit | SC-F10000 Series 877 (W) x 556 (D) x 541 (H) mm SC-F10000H Series 1278 (W) x 556 (D) x 541 (H) mm |
| Dimension | Main unit | SC-F10000 Series Approx. 683 kg SC-F10000H Series Approx. 689 kg |
| | Ink supply unit | SC-F10000 Series Approx. 53 kg SC-F10000H Series Approx. 80 kg |

Note ^{*1}: Select when setting the printer

^{*2}: Use a shielded twisted pair cable (category 5 or better).

^{*3}: Without condensation

^{*4}: Excluding ink cartridges

1.2.2 Ink Specifications

| Item | Description |
|-----------------------------------|--|
| Type | Dedicated ink cartridges |
| Sublimation dye ink | High density black, cyan, magenta, yellow, flashing pink/flashing yellow or light cyan/light magenta |
| Use by date | See the date printed on the package (at normal temperature) |
| Print quality guarantee expiry | 6 months (from date package containing ink cartridge is opened) |
| Storage temperature | 5 to 35°C |
| Capacity | 10000 ml, 3000 ml |
| Ink Cartridge external dimensions | 10000 ml: 150 mm (W) x 235 mm (L) x 412 mm (H) 3000 ml: 158 mm (W) x 260 mm (L) x 168 mm (H) |

1.3 Supported Media

- Roll media

Table 1-2. Roll media

| Item | Description |
|---------------------|------------------------------|
| Roll core size | 2 or 3 inches |
| Roll outer diameter | Up to 250 mm |
| Media width | 300 to 1950 mm (76 inches) |
| Media thickness | 0.04 mm min. to 1.00 mm max. |
| Roll weight | Up to 60 kg* |

Note "/*": The specifications of the lifter that can be used when setting media weighing 40 Kg or more are as follows:

- Thickness of fork or base: 28 mm or less
- The surface of the fork or base can be lowered up to approximately 190 mm from the floor.

1.4 Hardware Specifications

1.4.1 Dimensions and Weight

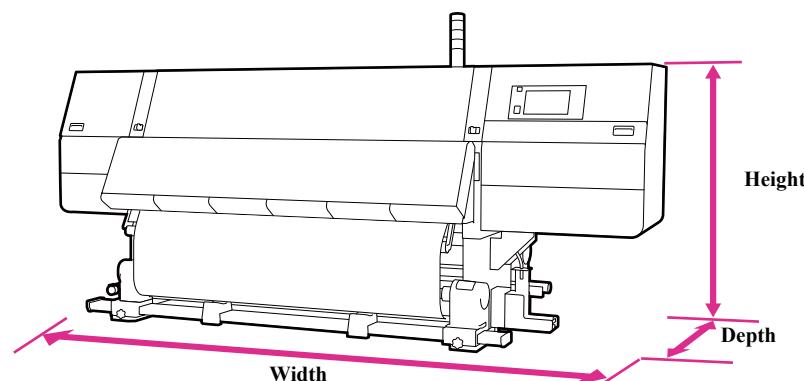


Figure 1-2. Dimensions (Printer)

| Description | Width | Depth | Height | Mass |
|-------------|----------|----------|----------|-----------------------------------|
| Storage | 3,710 mm | 1,303 mm | 1,886 mm | SC-F10000 Series: Approx. 683 kg |
| Maximum | 3,710 mm | 1,350 mm | 1,931 mm | SC-F10000H Series: Approx. 689 kg |

SC-F10000 Series

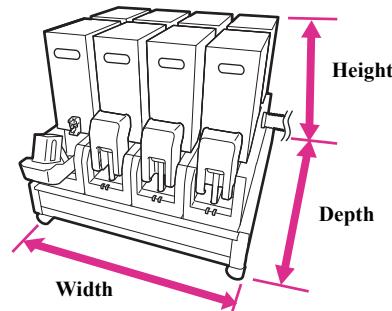


Figure 1-3. Dimensions (Ink supply unit)

| Description | Width | Depth | Height | Mass |
|---------------------------------------|--------|--------|--------|---------------|
| Ink Supply Unit only | 877 mm | 556 mm | 541 mm | Approx. 53 kg |
| When a 3L Ink Cartridge is installed | 877 mm | 556 mm | 580 mm | --- |
| When a 10L Ink Cartridge is installed | 877 mm | 556 mm | 790 mm | --- |

SC-F10000H Series

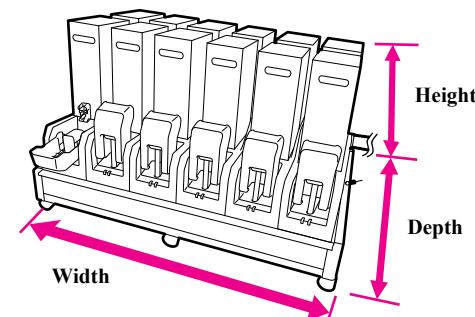


Figure 1-4. Dimensions (Ink supply unit)

| Description | Width | Depth | Height | Mass |
|---------------------------------------|---------|--------|--------|---------------|
| Ink Supply Unit only | 1278 mm | 556 mm | 541 mm | Approx. 80 kg |
| When a 3L Ink Cartridge is installed | 1278 mm | 556 mm | 580 mm | --- |
| When a 10L Ink Cartridge is installed | 1278 mm | 556 mm | 790 mm | --- |

1.4.2 Installation Room Requirement

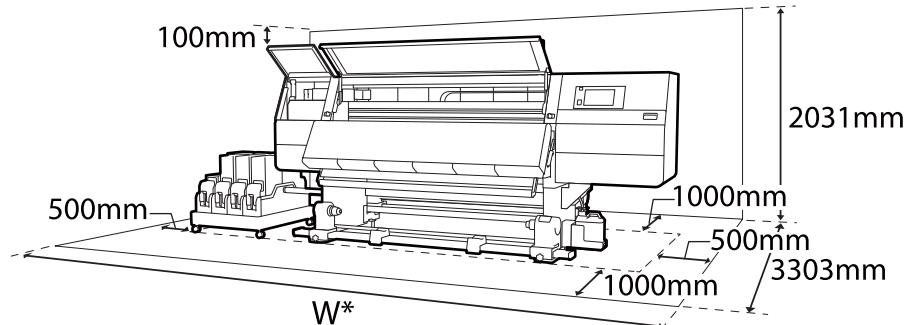


Figure 1-5. Installation Room Requirement

1.4.3 Part Names

FRONT SECTION

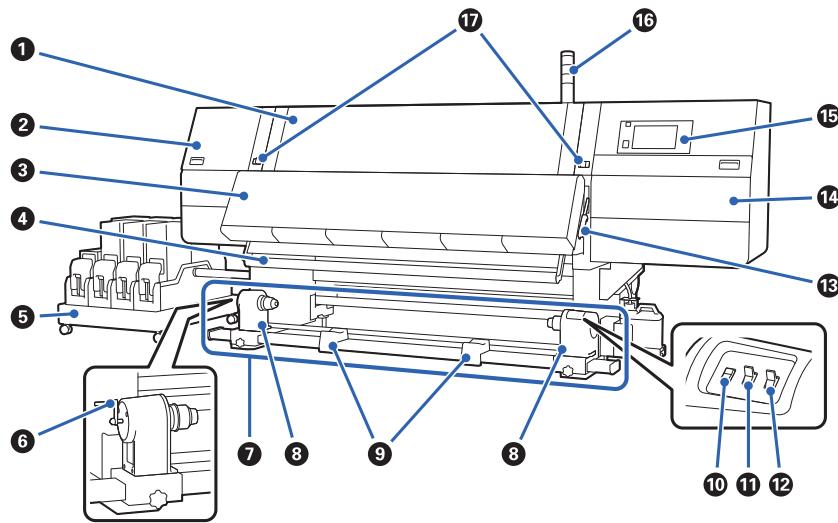
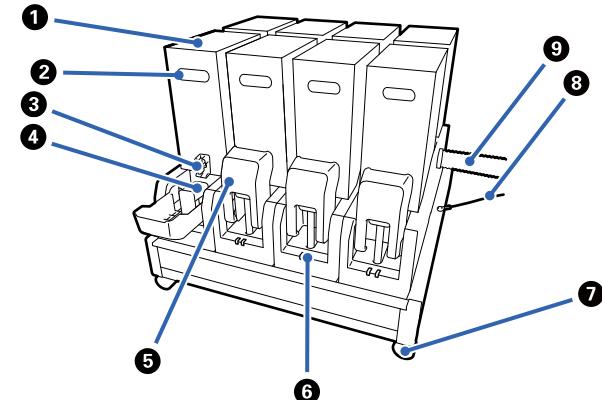


Figure 1-6. Front Side

| No. | Name | No. | Name |
|-----|--------------------------|-----|---------------------------|
| 1 | Front cover | 10 | Media feed switch |
| 2 | Maintenance cover (left) | 11 | Auto switch |
| 3 | Dryer | 12 | Manual switch |
| 4 | Media guide bar | 13 | Media loading lever |
| 5 | Ink supply unit | 14 | Maintenance cover (right) |
| 6 | Handle | 15 | Control panel |
| 7 | Auto Take-up Reel Unit | 16 | Signal lamps |
| 8 | Media holder | 17 | Lock levers |
| 9 | Roll support | | |

INK SUPPLY UNIT

SC-F10000 Series



SC-F10000H Series

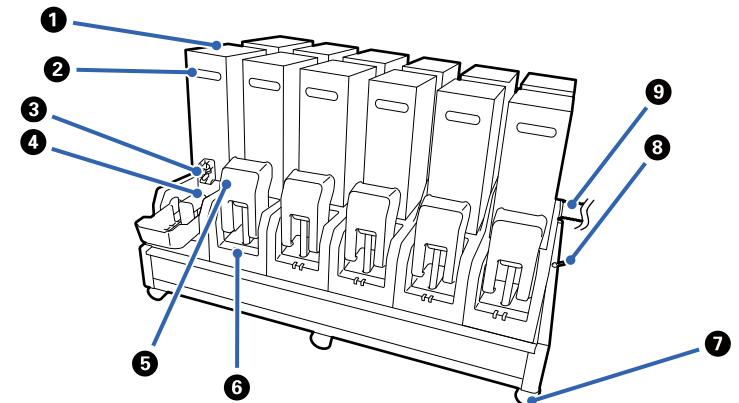
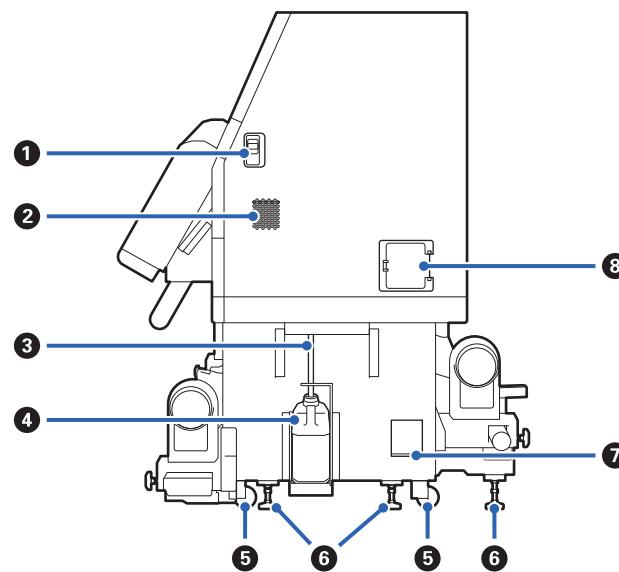
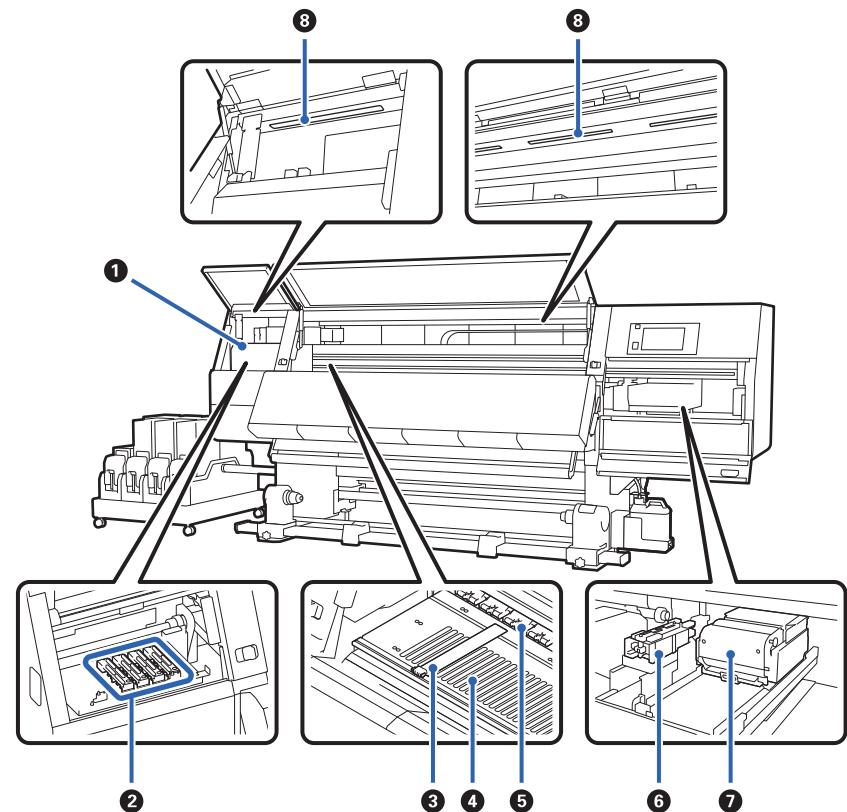


Figure 1-7. Ink Supply Unit

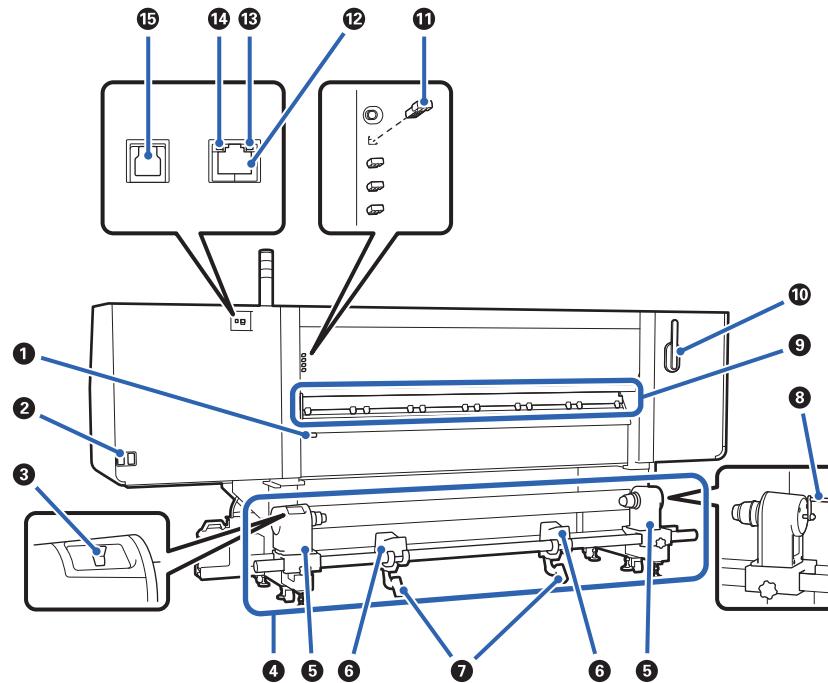
| No. | Name | No. | Name |
|-----|-------------------|-----|----------------------|
| 1 | Ink cartridges | 6 | Cartridge check lamp |
| 2 | Handle | 7 | Casters |
| 3 | Ink supply outlet | 8 | Ink supply unit wire |
| 4 | Connector | 9 | Ink supply tube |
| 5 | Cartridge cover | | |

RIGHT**Figure 1-8. Right**

| No. | Name | No. | Name |
|-----|---------------------|-----|-----------------|
| 1 | Lock release levers | 5 | Casters |
| 2 | Airflow vents | 6 | Levelers |
| 3 | Waste ink tube | 7 | Level gauge |
| 4 | Waste Ink Bottle | 8 | Circuit breaker |

INSIDE**Figure 1-9. Inside**

| No. | Name | No. | Name |
|-----|-------------------|-----|------------------|
| 1 | Print head | 5 | Pressure rollers |
| 2 | Anti-drying caps | 6 | Suction cap |
| 3 | Media edge plates | 7 | Wiper unit |
| 4 | Platen | 8 | Internal lamp |

REAR**Figure 1-10. Rear**

| No. | Name | No. | Name |
|-----|-------------------------|-----|-----------------------|
| 1 | Media loading lever | 9 | Media cleaner |
| 2 | AC inlet #1/AC inlet #2 | 10 | Media cleaner brush |
| 3 | Drive switch | 11 | Presser roller spacer |
| 4 | Media Feeding Unit | 12 | LAN port |
| 5 | Media holder | 13 | Data lamp |
| 6 | Roll support | 14 | Status lamp |
| 7 | Lift lever | 15 | USB port |
| 8 | Handle | | |

1.5 Various Startup Mode

1.5.1 Self Repair Mode

This mode is used when the user performs maintenance such as replacement of parts, etc.

OPERATION

1. Press and hold the [Power] button while keeping the [Feed] button + [Back feed] button pressed until the screen turns on. (10 seconds or longer)
2. Remove your finger from the button when the printer starts in Self Repair mode.

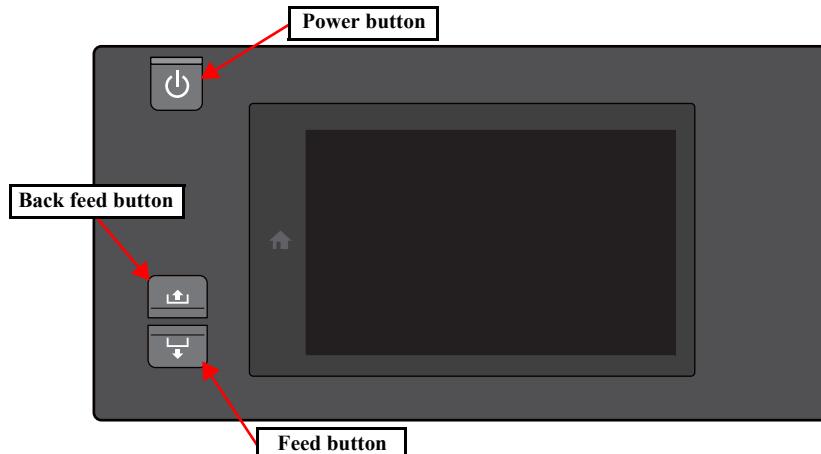


Figure 1-11. Operation

1.5.2 Serviceman Mode (Inspection Mode)

This mode is for self-diagnosis.

OPERATION

1. With the printer power turned OFF, place a coin or something similar on the left portion of the touch panel as shown in the figure below. Alternatively, touch the portion with a finger.
2. Press and hold the [Power] button when a coin or something similar is placed or the portion is pressed with a finger until the screen turns on. (10 seconds or longer)

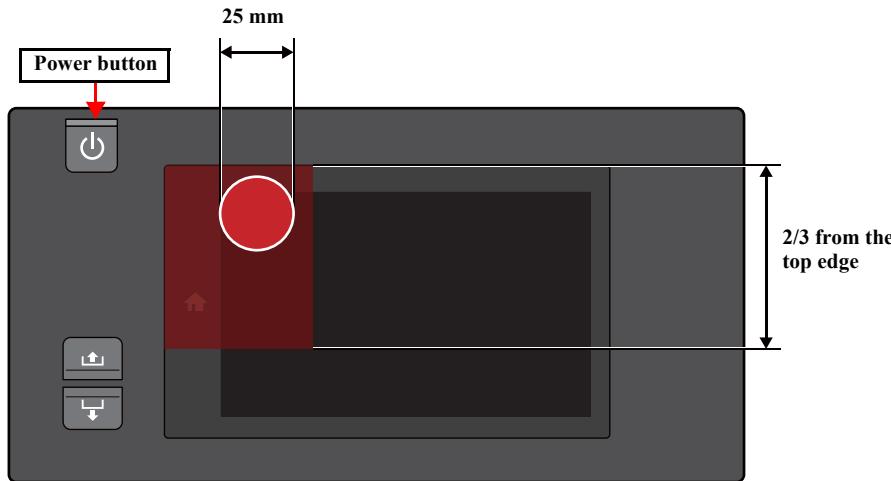


Figure 1-12.

3. Remove the coin or any other object when the printer starts in Inspection mode. Alternatively, remove your finger (the selected item is indicated in red).

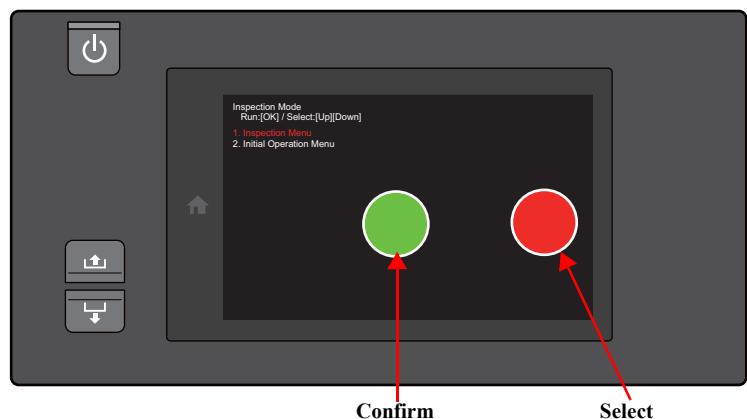


Figure 1-13.

1.5.3 Repair Mode

This mode is for the maintenance of the printer.

When starting up the printer in the repair mode, the printer starts up quickly because the initializing operations and timer cleaning are skipped during boot-up. Other states are as same as normal mode.

OPERATION

- With the printer power turned OFF, place a coin or something similar on the left portion of the touch panel as shown in the figure below. Alternatively, touch the portion with a finger.
- Press and hold the [Power] button while keeping the [Back feed] button pressed when a coin or something similar is placed or the portion is pressed with a finger until the screen turns on. (10 seconds or longer)
- Remove the coin or any other object when the menu is displayed. Alternatively, remove your finger.

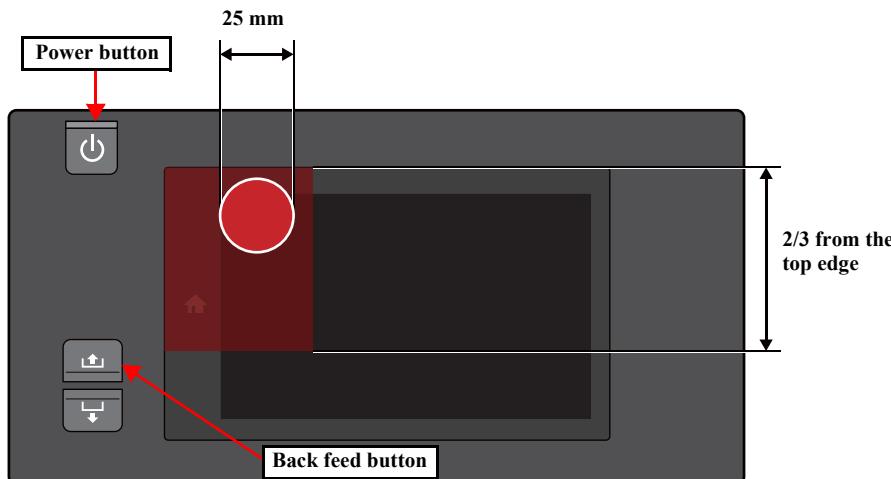


Figure 1-14.

- Touch the right side of the screen to select the repair mode and touch the center to confirm the item (the selected item is indicated in red).
- The printer restarts in the repair mode.

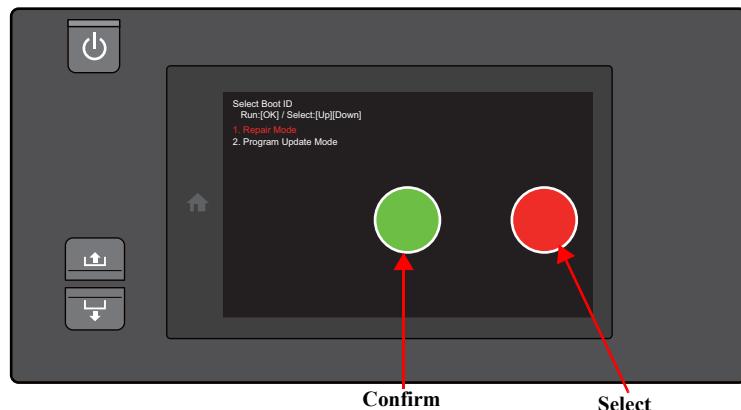


Figure 1-15.



When the printer is started in Repair mode, “Repair Mode” is displayed on the panel screen.

- Press the mark and scroll the screen to display the repair mode menu.

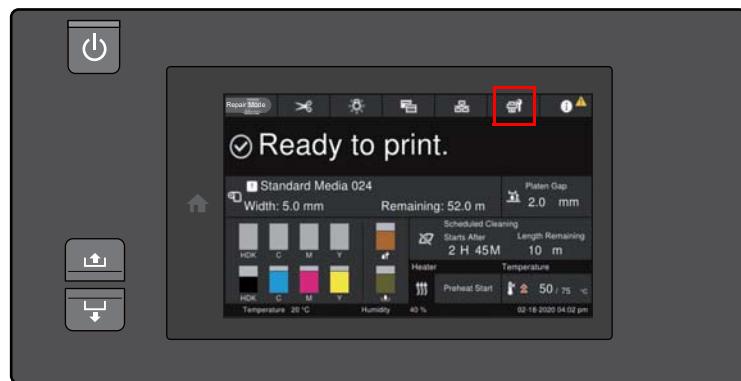


Figure 1-16.

1.5.4 Firmware Update Mode

When updating the firmware, turn the printer on in the Firmware Update Mode.

OPERATION

1. With the printer power turned OFF, place a coin or something similar on the left portion of the touch panel as shown in the figure below. Alternatively, touch the portion with a finger.
2. Press and hold the [Power] button while keeping the [Back feed] button pressed when a coin or something similar is placed or the portion is pressed with a finger until the screen turns on. (10 seconds or longer)
3. Remove the coin or any other object when the menu is displayed. Alternatively, remove your finger.

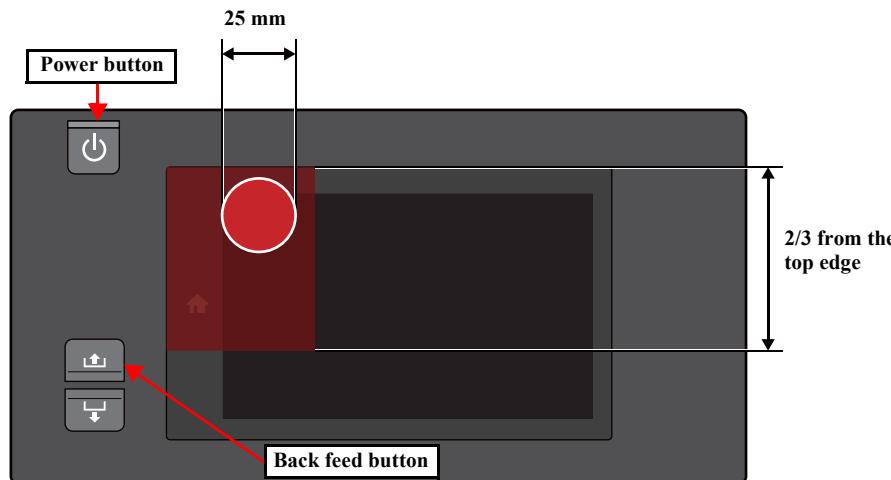


Figure 1-17.

4. Touch the right side of the screen to select the firmware update mode and touch the center to confirm the item (the selected item is indicated in red).
5. The printer restarts in the firmware update mode.

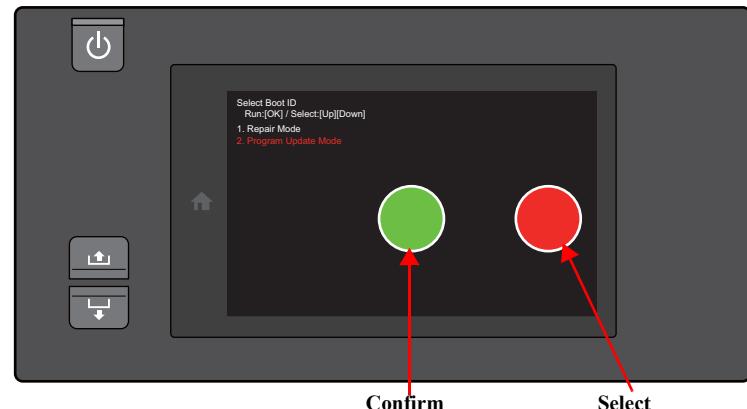


Figure 1-18.

CHAPTER

2

TROUBLESHOOTING

2.1 Overview

This section explains the basic procedure for troubleshooting problems on the printer quickly and efficiently.

When carrying out the troubleshooting procedures, take a flexible measure following your sales company's policy and considering the troubling situation.

2.1.1 Preliminary Check

Make sure to verify or perform the following basic items whenever servicing the printer.

2.1.1.1 Check for the usage environment

Check the user's usage environment.

- Temperature/humidity of the installation site
(For the guaranteed environment, see "1.2.1 Basic Specifications" (See P 20).)
- What type of media is used?
- Genuine ink or 3rd party's ink?
- F/W version (the latest?)
- Check also the following if necessary.

| Phenomenon | Check Item |
|--------------------------------|--|
| Bad print quality | The installation site inclined? |
| | Any vibrating equipment near the site? |
| | The user's panel settings |
| | Is the interior dirty? |
| | Clean it if dirty. |
| Missing dots/bad print quality | Near a conditioner's ventilation duct? |

2.1.1.2 Recurrence check of the trouble

Check if the trouble the user claims recurs with the returned printer.

- If the F/W was not the latest, with the user's agreement, update the F/W to the latest one and check if the trouble recurs.

2.1.1.3 Check for the counter values/history

Download NVRAM and check the following with NVRAM Viewer. (For the check method, see [p558](#).)

- Counter history of the periodic replacement parts. (if any part's life is near.)
- Printer's operating history (if any cause for the trouble exists)
- Error history (the frequency/history of errors related with the trouble)

2.1.2 Troubleshooting Procedure

Refer to the following items according to the observed symptom, carry out the corresponding troubleshooting following the procedures described in the next sections.

1. Trouble with a Maintenance Request or Service Call Error.
2. Trouble on print quality
3. Trouble on paper feeding
4. Other troubles
5. Trouble on Service Program
6. Trouble on NVRAM Viewer

2.1.3 Procedure after troubleshooting

2.1.3.1 If the trouble has been successfully solved

- Check if the movement of the covers is normal (without any damage, noises).
If any abnormality is found, lubricate or replace the faulty parts.
- Carry out the cleaning after repair.
- Prepare a report on the repair. (follow your company/local office's policy.)

2.1.3.2 If necessary to escalate the trouble case

Make a report with the following data.

- Backed-up NVRAM data
- Firmware version.
- Service program version.
- For bad print quality: a print sample with the marked symptom and a printed test pattern.
- For faulty parts: the faulty parts themselves and a photos of the troubling section.
- Information on the user/the repair listed below
This is a format of the escalation report. At least check out the items on the list and register the case in the escalation system.
 - Model name
 - Serial number
 - With or without options
 - Content of the claim from the user
 - Date of occurrence
 - Trouble occurrence conditions/recurrence method
 - What the service person actually observed
(Check items before check, the content of troubleshooting and repair.)
 - Date of escalation
 - Purpose of escalation
(Measures what the user/service person want done)
 - Degree of urgency (S/A/B/C)
S: High (those which may cause a death, ignition, etc.)
A: Problems, bugs
B: Strong request
C: Inquiry
 - Deadline for the response
 - Repair history
 - Part-replacement history

2.2 Remedies for Maintenance Requests

This section describes the remedies for maintenance requests. Maintenance requests do not effect the printer's operation; therefore, you can continue the current printing. When a maintenance request error occurs, the printer displays on the LCD a hexadecimal code of "NNNN" which correspond to the bit numbers assigned to error statuses as shown in the table below.

Table 2-1. Maintenance call list

| | | Bit assignment (binary code) | | | | | | | | | | | | | | | | | | | | | | | | | hexadecimal code | Maintenance name | | | | | | | |
|------------------------------------|---|------------------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|---|---|---|------------------|------------------|---|---|---|----------|---|--|--|
| | | 31 | 30 | 29 | 28 | 27 | 26 | 25 | 24 | 23 | 22 | 21 | 20 | 19 | 18 | 17 | 16 | 15 | 14 | 13 | 12 | 11 | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 | 0 | | |
| Near life end or other maintenance | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00000001 | Suction Cap Drive Unit life near end | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00000002 | Ink path pump unit life near end | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00000004 | CR ink tube life near end | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00000008 | Pressure CL unit life near end | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00000010 | Cloth wiper unit life near end | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00000020 | Anti-Drying Caps Drive Assembly life near end | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00000040 | Roll unit life near end | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00000080 | Reel unit life near end | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00000100 | - | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00000200 | - | | |
| Life end (life lengthening) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00000400 | - | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00000800 | - | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00001000 | - | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00002000 | - | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00004000 | RTC date not set | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00008000 | Out of RTC battery | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00010000 | Suction Cap Drive Unit life end | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00020000 | Ink path pump unit life end | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00040000 | CR ink tube life end | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00080000 | Pressure CL unit life end | | |
| Life end (life shortening) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00100000 | Cloth wiper unit life end | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00200000 | Anti-Drying Caps Drive Assembly life end | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00400000 | Roll unit life end | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00800000 | Reel unit life end | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 01000000 | - | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 02000000 | - | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 04000000 | - | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 08000000 | - | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 01000000 | - | | |
| | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 02000000 | - | | |
| Near life end or other maintenance | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 02000000 | - | | |
| | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 04000000 | - | | |

Note "*1": When "Maintenance Request 00008001" is displayed

As “00008001” in hexadecimal means “00000000000000010000000000000001” in binary, you can find out the code is assigned to Bit-0 and Bit-15 referring to the above table. In this case, two errors are occurring simultaneously. (Bit-0: Suction Cap Drive Unit life end/ Bit-15: Out of RTC battery)

"*2": When the part reached the end of the life and the user decided to continue using the part, Maintenance Call (life lengthening) occurs and is able to continue printing.

2.3 Remedies for Service Call Error

2.3.1 Service Call Classification Table

| Error code | Classification | Ref. |
|-----------------------------------|---|---------------------|
| 00112X | Origin Detection Related | p36 |
| 00113X | CR Related | p36 |
| 00122X | PF Related | p36 |
| 00141X | Suction Cap Related | p36 |
| 00142X | Cap Related | p36 |
| 00143X | Circulation Pump Related | p36 |
| 00146X | Cleaning Pump Related | p36 |
| 00149X, 0014AX | Cloth Wiper Related | p36 |
| 0014BX | Ink System Exception Related | p37 |
| 00151X | APG Related | p37 |
| 00152X | Nip/Release Related | p37 |
| 00153X | Release Related | p37 |
| 00159X | ATC Related | p37 |
| 00164X | REEL Related | p37 |
| 00166X, 00167X, 00169X, 0016AX | Fan Related | p37 |
| 001A3X, 001A4X | Print Head Related | p38 |
| 001B6X | Ink Leak Sensor Related | p38 |
| 001CXX | Ink Supply Unit Related | p38 |
| 001FXX | Board Related | p38 |
| 0021XX to 0024XX | Head Maintenance Related Error Codes | p39 |
| 0028XX | Heater Related | p39 |
| 002AXX | RGB Camera Related | p40 |
| Others | Others | p41 |
| 20XXXX to 35XXXX | System Error Codes | p41 |
| Dxxx to Fxxx | Debug Error, System Error, Others | p42 |

2.3.2 Service Call List

| Error code | Error | Ref. |
|--|---|------|
| “00112X” (Origin Detection Related Error Codes) | | |
| 001120 | CR Cap Position Detection Error | p43 |
| 001124 | CR Obstacle Sensor Failure | p43 |
| 001125 | CR Origin Detection Error | p44 |
| 001129 | PG Origin Detection Error | p45 |
| 00112A | Nip Load Origin Detection Error | p45 |
| “00113X” (CR Related Error Codes) | | |
| 001130 | Drive Request before CR Motor Initialization Completion | p46 |
| 001131 | CR Motor Initialization Count Exceeded | p46 |
| 001132 | CR Motor Initialization Rotation Amount Deviation Error | p47 |
| 001133 | Current Detection Origin Adjustment Error | p47 |
| 001134 | CR Overvoltage Error | p48 |
| 001135 | CR Motor Disconnection Error | p49 |
| 001138 | CR Overcurrent Error | p51 |
| 00113C | UART Communication Error with BLDC | p52 |
| 00113D | CR Driving Time-Out Error | p52 |
| 00113E | CR Velocity Deviation Error | p53 |
| 00113F | CR Lock Error | p54 |
| “00122X” (PF Related Error Codes) | | |
| 001228 | PF Overcurrent Error | p55 |
| 001229 | PF Oscillation Error | p56 |
| 00122A | PF Overload Error | p57 |
| 00122C | PF Reversing Error | p58 |
| 00122D | PF Driving Time-Out Error | p59 |
| 00122E | PF Velocity Deviation Error | p59 |
| 00122F | PF Lock Error | p60 |
| “00141X” (Suction Cap Related Error Codes) | | |
| 0x1418 | Suction Cap Drive Unit Overcurrent Error | p60 |
| 0x1419 | Suction Cap Drive Unit Oscillation Error | p61 |
| 0x141A | Suction Cap Drive Unit Overload Error | p61 |
| 0x141C | Suction Cap Drive Unit Reversing Error | p62 |
| 0x141D | Suction Cap Drive Unit Driving Time-Out Error | p62 |

| Error code | Error | Ref. |
|--|---|------|
| 0x141E | Suction Cap Drive Unit Velocity Deviation Error | p63 |
| 0x141F | Suction Cap Drive Unit Lock Error | p63 |
| “00142X” (Cap Related Error Codes) | | |
| 001429 | Anti-Drying Caps Oscillation Error | p64 |
| 00142A | Anti-Drying Caps Overload Error | p64 |
| 00142C | Anti-Drying Caps Reversing Error | p65 |
| 00142D | Anti-Drying Caps Driving Time-Out Error | p65 |
| 00142E | Anti-Drying Caps Velocity Deviation Error | p66 |
| 00142F | Anti-Drying Caps Lock Error | p66 |
| “00143X” (Circulation Pump Related Error Codes) | | |
| 001439 | CIR Oscillation Error | p67 |
| 00143A | CIR Overload Error | p67 |
| 00143C | CIR Reversing Error | p68 |
| 00143D | CIR Driving Time-Out Error | p68 |
| 00143E | CIR Velocity Deviation Error | p69 |
| 00143F | CIR Lock Error | p69 |
| “00146X” (Pressurization Pump Related Error Codes) | | |
| 001469 | Cleaning Pump Oscillation Error | p70 |
| 00146A | Cleaning Pump Overload Error | p70 |
| 00146C | Cleaning Pump Reversing Error | p71 |
| 00146D | Cleaning Pump Driving Time-Out Error | p71 |
| 00146E | Cleaning Pump Velocity Deviation Error | p72 |
| 00146F | Cleaning Pump Lock Error | p72 |
| “00149X”/“0014AX” (Cloth Wiper Related Error Codes) | | |
| 001499 | Cloth Wiper Unit (WIP) Oscillation Error | p73 |
| 00149A | Cloth Wiper Unit (WIP) Overload Error | p73 |
| 00149C | Cloth Wiper Unit (WIP) Reversing Error | p74 |
| 00149D | Cloth Wiper Unit (WIP) Driving Time-Out Error | p74 |
| 00149E | Cloth Wiper Unit (WIP) Velocity Deviation Error | p75 |
| 00149F | Cloth Wiper Unit (WIP) Lock Error | p75 |
| 0014A9 | Cloth Wiper Unit (TAKEUP) Oscillation Error | p76 |
| 0014AA | Cloth Wiper Unit (TAKEUP) Overload Error | p76 |
| 0014AC | Cloth Wiper Unit (TAKEUP) Reversing Error | p77 |

| Error code | Error | Ref. |
|--|--|------|
| 0014AD | Cloth Wiper Unit (TAKEUP) Driving Time-Out Error | p77 |
| 0014AE | Cloth Wiper Unit (TAKEUP) Velocity Deviation Error | p78 |
| 0014AF | Cloth Wiper Unit (TAKEUP) Lock Error | p78 |
| “0014BX” (Ink System Exception Related Error Codes) | | |
| 0014B0 | Printing Not Possible Error due to FA Slot Settings Change | p79 |
| 0014B1 | CL Unit Pressurization Time-Out Error | p79 |
| 0014B2 | CL Unit Decompression Time-Out Error | p80 |
| 0014B3 | CL Unit Pressurization Time-Out Error Abnormal Value Error | p80 |
| 0014B4 | CL Unit Decompression Abnormal Value Error | p81 |
| 0014B7 | Cloth Feed Amount Unsettled Error | p81 |
| 0014B8 | Cloth Roll Lock Position Unsettled Error | p82 |
| 0014B9 | Cloth Carriage Position Unsettled Error | p82 |
| 0014BA | Cap Position Unsettled Error | p83 |
| 0014BB | Suction Cap Position Unsettled Error | p83 |
| 0014BC | Reference Atmospheric Pressure Acquisition Time-Out Error | p84 |
| 0014BD | Ink Leakage Detection Error | p85 |
| “00151X” (APG Related Error Codes) | | |
| 001519 | APG Oscillation Error | p86 |
| 00151A | APG Overload Error | p86 |
| 00151C | APG Reversing Error | p87 |
| 00151D | APG Driving Time-Out Error | p87 |
| 00151E | APG Velocity Deviation Error | p88 |
| 00151F | APG Lock Error | p88 |
| “00152X” (Nip/Release Related Error Codes) | | |
| 001529 | NIP Oscillation Error | p89 |
| 00152A | NIP Overload Error | p89 |
| 00152C | NIP Reversing Error | p90 |
| 00152D | NIP Driving Time-Out Error | p90 |
| 00152E | NIP Velocity Deviation Error | p91 |
| 00152F | NIP Lock Error | p91 |
| “00153X” (Release Related Error Codes) | | |
| 001539 | RLS Oscillation Error | p92 |
| 00153A | RLS Overload Error | p92 |

| Error code | Error | Ref. |
|--|------------------------------------|------|
| 00153C | RLS Reversing Error | p93 |
| 00153D | RLS Driving Time-Out Error | p93 |
| 00153E | RLS Velocity Deviation Error | p94 |
| 00153F | RLS Lock Error | p94 |
| “00159X” (ATC Related Error Codes) | | |
| 001598 | ATC Overcurrent Error | p95 |
| 001599 | ATC Oscillation Error | p95 |
| 00159A | ATC Overload Error | p96 |
| 00159C | ATC Reversing Error | p96 |
| 00159D | ATC Driving Time-Out Error | p97 |
| 00159E | ATC Velocity Deviation Error | p97 |
| 00159F | ATC Lock Error | p98 |
| “00164X” (REEL Related Error Codes) | | |
| 001649 | REEL Oscillation Error | p98 |
| 00164A | REEL Overload Error | p99 |
| 00164C | REEL Reversing Error | p99 |
| 00164D | REEL Driving Time-Out Error | p100 |
| 00164E | REEL Velocity Deviation Error | p100 |
| 00164F | REEL Lock Error | p101 |
| “00166X”/“00167X”/“00169X”/“0016AX” (Fan Related Error Codes) | | |
| 0x1661 | Suction Fan Lock Error (Home) | p101 |
| 0x1662 | Suction Fan Lock Error (Center) | p102 |
| 0x1663 | Suction Fan Lock Error (Full) | p102 |
| 0x1664 | CR Motor Cooling Fan Lock Error | p103 |
| 0x1665 | PF Motor Cooling Fan Lock Error | p103 |
| 0x1666 | BLDC Board Cooling Fan Lock Error | p104 |
| 0x1667 | OnCR Board Cooling Fan Lock Error | p104 |
| 0x166A | MCU Board Cooling Fan Lock Error | p105 |
| 0x166B | MCU Board Cooling Fan 2 Lock Error | p105 |
| 0x166E | Suction Fan Lock Error | p106 |
| 00167F | Board Cooling Fan Lock Error | p106 |
| 00169F | Drying Fan Lock Error | p107 |
| 0016AF | Hardening Fan Lock Error | p107 |

| Error code | Error | Ref. |
|---|--|------|
| “001A3X”/“001A4X” (Print Head Related Error Codes) | | |
| 001A39 | Head Fuse Error | p109 |
| 001A3A | Head Hot Error | p110 |
| 001A3C | VBS Overvoltage Error | p111 |
| 001A41 | Head Rank ID Error | p112 |
| 001A42 | Head Temperature Error | p112 |
| 001A43 | Head Memory Read Error | p113 |
| 001A46 | HCS Communication Error Head | p114 |
| 001A47 | HCS Communication Error Main | p114 |
| 001A48 | HCS Error Head | p115 |
| 001A49 | HCS Error Main | p115 |
| 001A50 | Head Not Connected Error | p116 |
| 001A51 | Head Driver Error | p116 |
| 001A5F | SUB-H Board Illegal Data Error | p117 |
| “001B6X” (Ink Leak Sensor Related Error Codes) | | |
| 001B60 | Ink Leak Sensor Not Connected Error 1 | p117 |
| 001B61 | Ink Leak Sensor Not Connected Error 2 | p118 |
| 001B62 | Ink Leak Sensor Not Connected Error 3 | p118 |
| “001CXX” (Ink Supply Unit Related Error Codes) | | |
| 001C00 | Replenishment Pump Switching Valve 1 Error | p119 |
| 001C01 | Replenishment Pump Switching Valve 2 Error | p119 |
| 001C02 | Replenishment Pump Switching Valve 3 Error | p120 |
| 001C03 | Replenishment Pump Switching Valve 4 Error | p120 |
| 001C04 | Replenishment Pump Switching Valve 5 Error | p121 |
| 001C05 | Replenishment Pump Switching Valve 6 Error | p121 |
| 001C06 | Replenishment Pump Switching Valve 7 Error | p122 |
| 001C07 | Replenishment Pump Switching Valve 8 Error | p122 |
| 001C10 | BIB Switching Valve 1 Error | p123 |
| 001C11 | BIB Switching Valve 2 Error | p124 |
| 001C12 | BIB Switching Valve 3 Error | p125 |
| 001C13 | BIB Switching Valve 4 Error | p126 |
| 001C14 | BIB Switching Valve 5 Error | p127 |
| 001C15 | BIB Switching Valve 6 Error | p128 |

| Error code | Error | Ref. |
|---|---|------|
| 001C16 | BIB Switching Valve 7 Error | p129 |
| 001C17 | BIB Switching Valve 8 Error | p130 |
| 001C18 | BIB Switching Valve 9 Error | p131 |
| 001C19 | BIB Switching Valve 10 Error | p132 |
| 001C1A | BIB Switching Valve 11 Error | p133 |
| 001C1B | BIB Switching Valve 12 Error | p134 |
| 001C20 | Pressure Selector Valve Fuse 1 Error | p135 |
| 001C21 | Pressure Selector Valve Fuse 2 Error | p135 |
| 001C30 | Pressure Selector Valve 1 Error | p136 |
| 001C31 | Pressure Selector Valve 2 Error | p136 |
| 001C32 | Pressure Selector Valve 3 Error | p137 |
| 001C33 | Pressure Selector Valve 4 Error | p137 |
| 001C34 | Pressure Selector Valve 5 Error | p138 |
| 001C35 | Pressure Selector Valve 6 Error | p138 |
| 001C40 | CL Pressurization/Decompression Switching Valve Error | p139 |
| 001C41 | OnCR Atmospheric Pressure Release Valve Error | p139 |
| “001FXX” (Board Related Error Codes) | | |
| 001F00 | CSIC FA Slot 1 Error | p140 |
| 001F01 | CSIC FA Slot 2 Error | p140 |
| 001F02 | CSIC FA Slot 3 Error | p141 |
| 001F03 | CSIC FA Slot 4 Error | p141 |
| 001F80 | Blown Fuse Error | p142 |
| 001F81 | EPC Check Error | p142 |
| 001F82 | Destination Outside Setting Range | p143 |
| 001F90 | SOC Operation Error | p143 |
| 001F91 | MR Data Error | p144 |
| 001F92 | In-process Life End Error | p144 |
| 001FA0 | Blown Fuse Error (Home side) | p145 |
| 001FA1 | Blown Fuse Error (Full side) | p145 |
| 001FB9 | CS Rank Outside Setting Range | p146 |
| 001FC0 | ASIC Read Communication Error (CRCM1) | p146 |
| 001FC8 | ASIC Write Communication Error (CRCM1) | p147 |

| Error code | Error | Ref. |
|--|--|----------------------|
| “0021XX” to “0024XX” (Head Maintenance Related Error Codes) | | |
| 002100 | Startup Mode Error | p147 |
| 002200 | Head Replacement: Head Connection Check Failure | p148 |
| 002201 | Head Replacement: B-to-B Connection Error | p148 |
| 002202 | Head Replacement: B-to-B Connection Error (Specified Count or Higher) | p149 |
| 002203 | Head Replacement: Head Incorrectly Installed Error | p149 |
| 002204 | Head Replacement: Fixing Plate Checksum Not OK (Specified Count or Higher) | p150 |
| 002205 | Head Replacement: Fixing Plate Checksum Not OK (Below Specified Count), Head Connection Problem | p150 |
| 002206 | Head Replacement: NVT Ranking Not OK | p151 |
| 002207 | Head Replacement: NVT Noise Inspection Not OK (Below Specified Count) | p151 |
| 002208 | Head Replacement: NVT Noise Inspection Not OK (Specified Count or Higher, OK Before Replacement) | p152 |
| 002209 | Head Replacement: NVT Noise Inspection Not OK (Specified Count or Higher, Not OK Before Replacement) | p152 |
| 00220A | Head Replacement: Nozzle Clogging Not Resolved | p153 |
| 00220B | Head Replacement: Adjustment Not OK | p153 |
| 00220C | Head Replacement: Out of Guaranteed NVT Temperature Range | p154 |
| 002410 | AD Abnormality Error Temperature and Humidity Sensor | p154 |
| “0028XX” (Heater Related Error Codes) | | |
| 002800 | AD Abnormality Error Thermistor 1 | p155 |
| 002801 | AD Abnormality Error Thermistor 2 | p155 |
| 002808 | Over-heat Error Heater 1 | p156 |
| 002809 | Over-heat Error Heater 2 | p156 |
| 002810 | Temperature Deviation Error Heater 1 | p157 |
| 002811 | Temperature Deviation Error Heater 2 | p157 |
| 002818 | Over-cool Error Heater 1 | p158 |
| 002819 | Over-cool Error Heater 2 | p158 |
| 002820 | Temperature Acquisition Communication Error Board 1 | p159 |
| 002821 | Temperature Acquisition Communication Error Board 2 | p159 |

| Error code | Error | Ref. |
|------------|---|----------------------|
| 002824 | Abnormal Heat Generation Error (Low Current Detected) Board 1 | p160 |
| 002825 | Abnormal Heat Generation Error (Low Current Detected) Board 2 | p160 |
| 002828 | Temperature Acquisition Communication Time-Out Error Board 1 | p161 |
| 002829 | Temperature Acquisition Communication Time-Out Error Board 2 | p161 |
| 00282C | Heater Board Power OFF Error | p162 |
| 002830 | Heater Board Communication Error Host Side | p162 |
| 002838 | Heater Board Communication Time-Out Error Board 1 | p163 |
| 002839 | Heater Board Communication Time-Out Error Board 2 | p163 |
| 00283A | Heater Board Communication Time-Out Error Board 3 | p164 |
| 002840 | Heater Board 1 Initial Heater Overcurrent | p164 |
| 002841 | Heater Board 1 Current Leak | p165 |
| 002842 | Heater Board 1 Overcurrent during Operation | p165 |
| 002843 | Heater Board 1 Heater Not Connected | p166 |
| 002844 | Heater Board 1 24 V Non Input | p166 |
| 002845 | Heater Board 1 FAN Lock | p167 |
| 002846 | Heater Board 1 IGBT Thermistor High Temperature | p167 |
| 002847 | Heater Board 1 Frequency Detection | p168 |
| 002848 | Heater Board 1 Initialization Wait Time-Out Error | p168 |
| 002849 | Heater Board 1 AC Overvoltage | p169 |
| 00284A | Heater Board 1 Communication Error | p169 |
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| Error code | Error | Ref. |
|--|---|----------------------|
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| Error code | Error | Ref. |
|------------|---|----------------------|
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| Error code | Error | Ref. |
|--------------------------|---|----------------------|
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| 002AC1 | No Image Error (Response Command Without Image Data) Occurrence Source: Image Data Transfer | p208 |
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| 002AE1 | No Image Error (Response Command Without Image Data) Occurrence Source: Shutter Open Detection | p213 |
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| 002AE3 | LActiveError (Response Command Error) Occurrence Source: Shutter Open Detection | p214 |
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| 003001 | During Power ON MAIN <--> SUBH Communication Check Failure | p215 |
| 003002 | During Power ON MAIN <--> ONCR Communication Check Failure | p215 |
| 003003 | During Power ON MAIN <--> MCU0 Communication Check Failure | p216 |

| Error code | Error | Ref. |
|---------------------------|---|----------------------|
| 003004 | During Power ON MAIN <--> MCU1 Communication Check Failure | p216 |
| 003005 | ROM Version Check Failure at Power On SUB-H | p217 |
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| 003007 | ROM Version Check Failure at Power On MCU | p218 |
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| 004000 | Print Data Reception in Self-diagnosis Mode (An error occurs because printing is not performed in Self diagnosis mode.) | p219 |
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| 203002 / 303002 | The optical touch panel has failed. | p231 |
| 203004 / 303004 | The Panel Unit has failed. | p219 |
| 205633 / 305633 | The SSD has failed. | p220 |
| 205636 / 305636 | An error occurred in the SSD format process. | p220 |
| 205637 / 305637 | An error occurred in the SSD mount process. | p221 |
| 256200 / 356200 | Main Board failure (overvoltage) has occurred. | p221 |
| 256201 / 356201 | Motor Drive Board failure (overvoltage) has occurred. | p222 |
| 256202 / 356202 | Belt Drive Board failure (overvoltage) has occurred. | p222 |
| 256203 / 356203 | Printer Internal Light Board failure (overvoltage) has occurred. | p223 |
| 256210 / 356210 | The FAIL signal of the SUB-H Board was detected. | p223 |
| 256211 / 356211 | The FAIL signal of the SUB-C Board was detected. | p224 |
| 256212 / 356212 | The FAIL signal of the SUB-M (Left) Board was detected. | p224 |
| 256213 / 356213 | The FAIL signal of the SUB-M (Right) Board was detected. | p225 |
| 256214 / 356214 | The FAIL signal of the MCU Board was detected. | p225 |
| 256215 / 356215 | The FAIL signal of the CR Motor Control Board (SUB-B) was detected. | p226 |
| 256216 / 356216 | 42 V OFF of the MCU Board was detected. | p226 |
| 256217 / 356217 | A WDT error of the MCU Board was detected. | p227 |
| 256218 / 356218 | Connection error of the Sub Board was detected. | p227 |
| 256219 / 356219 | The FAIL signal of the DRV Board was detected. | p228 |
| 256220 / 356220 | An abnormality of Cooling Fan 1 of the Main Board was detected. | p230 |

| Error code | Error | Ref. |
|--|---|----------------------|
| 256221 / 356221 | An abnormality of Cooling Fan 2 of the Main Board was detected. | p230 |
| 256222 / 356222 | A Brushless Control Board failure (overvoltage) has occurred. | p231 |
| Debug Error, System Error, Others | | |
| DXXX | Service call for FW debugging | p232 |
| EXXX | Service call for FW debugging | p232 |
| FXXX | CPU related service call | p233 |

2.3.3 Details of Service Call

001120 (CR Cap Position Detection Error)

Description

The CR Cap Position Sensor cannot be read.

Suspected cause

- Position sensor damage, coming off
- Position sensor failure
- Connector disconnection
- Shield plate damage

Parts/Components to be checked

1. Cap HP Sensor
2. Flag, CR

Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | <p>Check the state of the position sensor (Anti-Drying Caps Drive Assembly)</p> <ul style="list-style-type: none"> ■ Check if there is any abnormality in the connection or installation state of the position sensor (Anti-Drying Caps Drive Assembly). If it has a failure replace it. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | <p>Check the state of the cable</p> <ul style="list-style-type: none"> ■ Check the connection state of the cable, and if an abnormality is found, reconnect the cable. If it is damaged, replace the cable. <p>Does the product recover from the error?</p> | End | Go to step 3 |
| 3 | <p>Check the state of the shield plate (Anti-Drying Caps Drive Assembly)</p> <ul style="list-style-type: none"> ■ If it is damaged, replace the shield plate (Anti-Drying Caps Drive Assembly). <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

001124 (CR Obstacle Sensor Failure)

Description

Suspected cause

- The output from the CR Obstacle Sensor is an abnormal value.

Parts/Components to be checked

1. CR Obstacle Sensor (Left)/(Right)
2. CR Obstacle Sensor (Left)/(Right) FFC

Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | <p>Check the state of the CR Obstacle Sensor (Left)/(Right) cables</p> <ul style="list-style-type: none"> ■ Check the connection state of the cables, and if an abnormality is found, reconnect the cable. If it is damaged, replace the cables. <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

001125 (CR Origin Detection Error) Description

 Suspected cause

- The CR HP Sensor cannot detect the CR Unit.
- Since the home contact position cannot be detected, the CR home position cannot be set.

 Parts/Components to be checked

1. CR HP Sensor
2. Shield Plate of CR Unit
3. CR Scale
4. Paper jam inside the printer
5. CR Lock
6. CR Encoder

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Check if the paper jam occurred. <ul style="list-style-type: none"> ■ If so, remove the jammed paper. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | Check the state of the CR HP Sensor <ul style="list-style-type: none"> ■ Check if there is any abnormality in the connection or installation state of the CR HP Sensor. If it has a failure replace it. <p>Does the product recover from the error?</p> | End | Go to step 3 |
| 3 | Check the state of the shade plate of the CR Unit <ul style="list-style-type: none"> ■ Check if there is any abnormality in the connection or installation state of it. If it has a failure replace the Pump Cap. <p>Does the product recover from the error?</p> | End | Go to step 4 |
| 4 | Check the state of the CR Scale <ul style="list-style-type: none"> ■ Check if there is any abnormality in the connection or installation state of the CR Scale. If it has a failure replace it. <p>Does the product recover from the error?</p> | End | Go to step 5 |
| 5 | Check if the CR lock operation is normally <ul style="list-style-type: none"> ■ Check if there is any abnormality in the installation state of the CR lock. If it has a failure replace the CR Encoder. <p>Does the product recover from the error?</p> | End | Go to step 6 |
| 6 | Check the state of the CR Encoder <ul style="list-style-type: none"> ■ Check if there is any abnormality in the connection or installation state of the CR Encoder. If it has a failure replace it. <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

001129 (PG Origin Detection Error)

- Description

- Suspected cause
 - The PG Origin Sensor cannot be read.
- Parts/Components to be checked
 1. PG Origin Sensor
 2. Flag, APG
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Check the state of the position sensor (Anti-Drying Caps Drive Assembly) <ul style="list-style-type: none"> ■ Check if there is any abnormality in the installation state of the position sensor (Anti-Drying Caps Drive Assembly). If it has a failure replace it. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | Check the state of the cable <ul style="list-style-type: none"> ■ Check the connection state of the cable, and if an abnormality is found, reconnect the cable. If it is damaged, replace the cable. <p>Does the product recover from the error?</p> | End | Go to step 3 |
| 3 | Check the state of the shade plate (Anti-Drying Caps Drive Assembly) <ul style="list-style-type: none"> ■ If it is damaged, replace the shade plate (Anti-Drying Caps Drive Assembly). <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

00112A (Nip Load Origin Detection Error)

- Description
The Nip Origin Sensor cannot be read.
- Suspected cause
 - Position sensor damage, coming off
 - Position sensor failure
 - Connector disconnection
 - Shield plate damage
- Parts/Components to be checked
 1. Nip Load Switchover Origin Sensor
 2. Spur Gear, 45
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Check the state of the position sensor (Anti-Drying Caps Drive Assembly) <ul style="list-style-type: none"> ■ Check if there is any abnormality in the installation state of the position sensor (Anti-Drying Caps Drive Assembly). If it has a failure replace it. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | Check the state of the cable <ul style="list-style-type: none"> ■ Check the connection state of the cable, and if an abnormality is found, reconnect the cable. If it is damaged, replace the cable. <p>Does the product recover from the error?</p> | End | Go to step 3 |
| 3 | Check the state of the shade plate (Anti-Drying Caps Drive Assembly) <ul style="list-style-type: none"> ■ If it is damaged, replace the shade plate (Anti-Drying Caps Drive Assembly). <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

001130 (Drive Request before CR Motor Initialization Completion) Description

 Suspected cause

An operation request was sent to the CR Motor before the initialization of the CR Motor.

 Parts/Components to be checked

1. ---

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Check if the firmware version is latest <ul style="list-style-type: none"> ■ Update the firmware Does the product recover from the error? | End | Escalate to person in charge |

001131 (CR Motor Initialization Count Exceeded) Description

Failed to initialize the CR Motor at the specified count.

 Suspected cause

- Position sensor failure
- Make sure the CR Motor can be initialized when the CR Unit is at the center position.
- CR Motor, CR Scale damage

 Parts/Components to be checked

1. Position Sensor
2. CR Motor

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Check the state of the position sensor (Anti-Drying Caps Drive Assembly) <ul style="list-style-type: none"> ■ Check if there is any abnormality in the connection or installation state of the position sensor (Anti-Drying Caps Drive Assembly). If it has a failure replace it. Does the product recover from the error? | End | Go to step 2 |
| 2 | Check if there are any foreign objects around the Cap <ul style="list-style-type: none"> ■ Check if there are any foreign objects on Cap. If so, remove them. Does the product recover from the error? | End | Go to step 3 |
| 3 | Check the state of the CR Motor, CR Encoder Sensor and CR Scale <ul style="list-style-type: none"> ■ Check if there is any abnormality in the connection or installation state of the CR Motor, CR Encoder Sensor and CR Scale. If it has a failure replace it. Does the product recover from the error? | End | Escalate to person in charge |

001132 (CR Motor Initialization Rotation Amount Deviation Error) Description

The rotation amount of the motor is either less or more than the specified value when the CR Motor is initialized.

 Suspected cause

- Make sure there is no foreign object around the Anti-Drying Caps Drive Assembly that hinders the operation of the CR Unit.
- Make sure the CR Motor can be initialized when the CR Unit is at the center position.
- CR Motor, CR Scale damage

 Parts/Components to be checked

1. CR Motor

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Check if there are any foreign object hindering the CR operation <ul style="list-style-type: none"> ■ If so, remove them. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | Check the state of the CR Motor, CR Encoder and CR Scale <ul style="list-style-type: none"> ■ Check if there is any abnormality in the installation state of them. If it has a failure replace the CR Motor. <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

001133 (Current Detection Origin Adjustment Error) Description

The motor is rotating when the CR Motor is initialized (Current Detection Sensor 0-Point Adjustment).

 Suspected cause

CR Motor, CR Scale damage

 Parts/Components to be checked

1. CR Motor
2. CR Motor Control Board (SUB-B)

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Check the state of the CR Motor, CR Encoder and CR Scale <ul style="list-style-type: none"> ■ Check if there is any abnormality in the installation state of them. If it has a failure replace the CR Motor and CR Motor Control Board (SUB-B). <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

001134 (CR Overvoltage Error) Description

The detected voltage exceeded a fixed value during CR Motor control.

 Suspected cause

 Parts/Components to be checked

1. CR Motor Control Board (SUB-B)
2. CR Motor

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Replace the CR Motor Control Board (SUB-B) Does the product recover from the error? | End | Go to step 2 |
| 2 | Replace the CR Motor Does the product recover from the error? | End | Escalate to person in charge |

001135 (CR Motor Disconnection Error) Description

 Suspected cause

- CR Motor failure
- CR Motor cable abnormality (connection, broken)
- Incorrect reading of the CR Scale (scratches, contamination)
- CR Encoder Sensor failure
- CR Motor Control Board failure CR Sub Board failure

 Parts/Components to be checked

1. CR Motor
2. CR Scale
3. CR Encoder
4. CR Motor Control Board (SUB-B)

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Check the state of the CR Motor cable <ul style="list-style-type: none"> ■ Check the connection state of the cable, and if an abnormality is found, reconnect the cable. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | Check the state of the CR Motor <ul style="list-style-type: none"> ■ Check the connection state of the cable, and if an abnormality is found, reconnect the CR Motor. <p>Does the product recover from the error?</p> | End | Go to step 3 |
| 3 | Check the state of the CR Scale <ul style="list-style-type: none"> ■ Clean the CR Scale if it is contaminated. If it is damaged, replace it <p>Does the product recover from the error?</p> | End | Go to step 4 |
| 4 | Check the state of the cable <ul style="list-style-type: none"> ■ Check the connection state of the cable, and if an abnormality is found, reconnect the cable. <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

001137 (CR Movement Prohibition Error) Description

 Suspected cause

Interlock was released while CR movement was prohibited by a command (cover was opened/closed).

 Parts/Components to be checked

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Power ON/OFF Does the product recover from the error? | End | Escalate to person in charge |

001138 (CR Overcurrent Error) Description

 Suspected cause

- CR Motor failure
- CR Belt state abnormality (tension, installation position)
- CR Motor cable abnormality (connection, broken)
- Incorrect reading of the CR Scale (scratches, contamination)

 Parts/Components to be checked

1. CR Motor
2. CR Belt
3. CR Scale
4. CR Encoder
5. Main Board
6. CR Motor Control Board (SUB-B)

|

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Check the state of the CR Motor <ul style="list-style-type: none"> ■ Check if there is any abnormality in the connection or installation state of the CR Motor. If it has a failure replace it. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | Check the state of the CR Belt <ul style="list-style-type: none"> ■ Check if there is any abnormality in the connection or installation state of the CR Belt. If it has a failure reattach it. <p>Does the product recover from the error?</p> | End | Go to step 3 |
| 3 | Perform CR Belt tension adjustment <p>Does the product recover from the error?</p> | End | Go to step 4 |
| 4 | Check the state of the CR Motor cable <ul style="list-style-type: none"> ■ Check the connection state of the CR Motor cable, and if an abnormality is found, reconnect the cable. If it is damaged, replace it. <p>Does the product recover from the error?</p> | End | Go to step 5 |
| 5 | Check the state of the CR Scale <ul style="list-style-type: none"> ■ Clean the CR Scale if it is contaminated. If it is damaged, replace it <p>Does the product recover from the error?</p> | End | Go to step 6 |
| 6 | Check the state of the CR Encoder Sensor <ul style="list-style-type: none"> ■ Check if there is any abnormality in the connection or installation state of the CR Encoder Sensor. If it has a failure replace it. <p>Does the product recover from the error?</p> | End | Go to step 7 |
| 7 | Replace the Main Board <p>Does the product recover from the error?</p> | End | Go to step 8 |
| 8 | Replace the CR Motor Control Board (SUB-B) <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

00113C (UART Communication Error with BLDC)

- Description

- Suspected cause
 - CR Encoder cable abnormality (polarity reversal)
 - CR Motor cable abnormality (polarity reversal)
 - Slipping of the teeth of the CR Belt
 - CR Encoder Sensor failure
- Parts/Components to be checked
 1. CR Belt
 2. CR Encoder
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Connect the cables again <ul style="list-style-type: none"> ■ Check the connection state of the Encoder Board cable and CR Sub Board cable, and if an abnormality is found, reconnect the cable. Does the product recover from the error? | End | Go to step 2 |
| 2 | Check the state of the CR Motor cable <ul style="list-style-type: none"> ■ Check the connection state of the CR Motor cable, and if an abnormality is found, reconnect the cable. Does the product recover from the error? | End | Go to step 3 |
| 3 | Check the state of the CR Belt <ul style="list-style-type: none"> ■ Check if there is any abnormality in the connection or installation state of the CR Belt. If it has a failure reattach it. Does the product recover from the error? | End | Go to step 4 |
| 4 | Perform CR Belt tension adjustment Does the product recover from the error? | End | Go to step 5 |
| 5 | Replace the CR Encoder Sensor Does the product recover from the error? | End | Escalate to person in charge |

00113D (CR Driving Time-Out Error)

- Description

- Suspected cause
 - Abnormal load
 - Firmware becomes out of control
- Parts/Components to be checked
 1. Main Board
 2. CR Motor Control Board (SUB-B)
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Check if the firmware version is latest <ul style="list-style-type: none"> ■ Update the firmware Does the product recover from the error? | End | Go to step 2 |
| 2 | Replace the Main Board Does the product recover from the error? | End | Go to step 3 |
| 3 | Replace the CR Motor Control Board (SUB-B) Does the product recover from the error? | End | Escalate to person in charge |

00113E (CR Velocity Deviation Error) Description

 Suspected cause

- Abnormal load
- CR Encoder Sensor failure
- CR Motor failure
- Main Board failure
- CR Motor Control Board (SUB-B) failure

 Parts/Components to be checked

1. CR Encoder
2. CR Motor
3. Main Board
4. CR Motor Control Board (SUB-B)

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Replace the CR Encoder Sensor Does the product recover from the error? | End | Go to step 2 |
| 2 | Replace the CR Motor Does the product recover from the error? | End | Go to step 3 |
| 3 | Replace the Main Board Does the product recover from the error? | End | Go to step 4 |
| 4 | Replace the CR Motor Control Board (SUB-B) Does the product recover from the error? | End | Escalate to person in charge |

00113F (CR Lock Error) Description

 Suspected cause

- CR Encoder Sensor cable abnormality (connection, broken)
- CR Motor cable abnormality (connection, broken)
- Abnormal load
- CR Encoder Sensor failure
- CR Motor failure
- Cover Open Sensor cable abnormality (connection, broken)

 Parts/Components to be checked

1. CR Encoder
2. CR Motor
3. Printer Cover Open Sensor
4. IH Cover Open Sensor
5. Maintenance Cover Open Sensor
6. Manual Insertion Cover Sensor/Roll Cover Sensor

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Connect the cables again <ul style="list-style-type: none"> ■ Check the connection state of the Encoder Board cable and CR Sub Board cable, and if an abnormality is found, reconnect the cable. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | Check the state of the CR Motor cable <ul style="list-style-type: none"> ■ Check the connection state of the CR Motor cable, and if an abnormality is found, reconnect the cable. <p>Does the product recover from the error?</p> | End | Go to step 3 |
| 3 | Check the state of the Cover Open Sensor cable <ul style="list-style-type: none"> ■ Check the connection state of the Cover Open Sensor cable, and if an abnormality is found, reconnect the cable. <p>Does the product recover from the error?</p> | End | Go to step 4 |
| 4 | Replace the CR Encoder Sensor <p>Does the product recover from the error?</p> | End | Go to step 5 |
| 5 | Replace the CR Motor <p>Does the product recover from the error?</p> | End | Go to step 6 |
| 6 | Replace the Cover Open Sensor <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

001228 (PF Motor Overcurrent Error) Description

The number of occurrences of overcurrent to the PF Motor has reached a predetermined limit.

 Suspected cause

- PF Motor failure
- PF Belt state abnormality (tension, installation position)
- PF Motor cable abnormality (connection, broken)
- Misreading of PF Scale (scratch, dirt)

 Parts/Components to be checked

1. PF Motor
2. PF Belt
3. PF Scale
4. PF Encoder
5. SUB-M (Left) Board
6. MCU Board

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Check the PF Motor operation state <ul style="list-style-type: none"> ■ When the PF Motor is malfunctioning, replace it. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | Check the PF Belt state <ul style="list-style-type: none"> ■ Check if the PF Belt is installed properly. If not, install it again. ■ Check if the PF Belt tension is in the standard range. If not, perform PF Timing Belt Tension Adjustment. <p>Does the product recover from the error?</p> | End | Go to step 3 |
| 3 | Check the PF Motor cable connection <ul style="list-style-type: none"> ■ Check the PF Motor connection state. If there is any abnormality, connect it again. <p>Does the product recover from the error?</p> | End | Go to step 4 |
| 4 | Check the PF Scale state <ul style="list-style-type: none"> ■ Check visually if the PF Scale have any scratches or dirt. <ul style="list-style-type: none"> □ When the PF Scale is dirty: clean it. □ When there is a scratch on the PF Scale: replace it. <p>Does the product recover from the error?</p> | End | Go to step 5 |
| 5 | Replace the PF Encoder <p>Does the product recover from the error?</p> | End | Go to step 6 |
| 6 | Replace the SUB-M (Left) Board <p>Does the product recover from the error?</p> | End | Go to step 7 |
| 7 | Replace the MCU Board <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

001229 (PF Oscillation Error) Description

 Suspected cause

- SUB-M (Left) Board failure
- MCU Board failure

 Parts/Components to be checked

1. SUB-M (Left) Board
2. MCU Board
3. PF Motor

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Remove the foreign object Does the product recover from the error? | End | Go to step 2 |
| 2 | Replace the SUB-M (Left) Board Does the product recover from the error? | End | Go to step 3 |
| 3 | Replace the MCU Board Does the product recover from the error? | End | Go to step 4 |
| 4 | Replace the PF Motor Does the product recover from the error? | End | Escalate to person in charge |

00122A (PF Overload Error) Description

 Suspected cause

- Abnormal load
- PF Encoder Sensor cable abnormality (connection, broken)
- PF Motor cable abnormality (connection, broken)
- PF Encoder Sensor failure
- PF Motor failure

 Parts/Components to be checked

1. PF Encoder
2. PF Motor

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | <p>Check if there are any foreign objects around the PF Encoder Sensor.</p> <ul style="list-style-type: none"> ■ Check if there are any foreign objects on the PF Encoder Sensor. If so, remove them. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | <p>Check the state of the PF Encoder Sensor Cable</p> <ul style="list-style-type: none"> ■ Check the connection state of the PF Encoder Sensor cable, and if an abnormality is found, reconnect the cable. <p>Does the product recover from the error?</p> | End | Go to step 3 |
| 3 | <p>Check the state of the PF Motor cable</p> <ul style="list-style-type: none"> ■ Check the connection state of the PF Motor cable, and if an abnormality is found, reconnect the cable. <p>Does the product recover from the error?</p> | End | Go to step 4 |
| 4 | <p>Check the state of the PF Encoder Sensor</p> <ul style="list-style-type: none"> ■ Check if there is any abnormality in the connection or installation state of the PF Encoder Sensor. If it has a failure replace it. <p>Does the product recover from the error?</p> | End | Go to step 5 |
| 5 | <p>Check the state of the PF Motor</p> <ul style="list-style-type: none"> ■ Check if there is any abnormality in the connection or installation state of the PF Motor. If it has a failure replace it. <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

00122C (PF Reversing Error) Description

 Suspected cause

- PF Encoder Sensor cable abnormality (polarity reversal)
- PF Motor cable abnormality (polarity reversal)
- Slipping of the teeth of the PF Belt
- PF Encoder Sensor failure

 Parts/Components to be checked

1. PF Belt
2. PF Encoder

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Check the state of the PF Encoder Sensor Cable <ul style="list-style-type: none"> ■ Check the connection state of the PF Encoder Sensor cable, and if an abnormality is found, reconnect the cable. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | Check the state of the PF Motor Cable <ul style="list-style-type: none"> ■ Check the connection state of the PF Motor cable, and if an abnormality is found, reconnect the cable. <p>Does the product recover from the error?</p> | End | Go to step 3 |
| 3 | Check the state of the CR Belt <ul style="list-style-type: none"> ■ Check if there is any abnormality in the connection or installation state of the CR Belt. If it has a failure reattach it. <p>Does the product recover from the error?</p> | End | Go to step 4 |
| 4 | Perform CR Belt tension adjustment <p>Does the product recover from the error?</p> | End | Go to step 5 |
| 5 | Check the state of the PF Encoder Sensor <ul style="list-style-type: none"> ■ Check if there is any abnormality in the connection or installation state of the PF Encoder Sensor. If it has a failure replace it. <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

00122D (PF Driving Time-Out Error)

- Description

- Suspected cause
 - Abnormal load
 - Firmware becomes out of control
- Parts/Components to be checked
 1. SUB-M (Left) Board
 2. MCU Board
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Update the firmware Does the product recover from the error? | End | Go to step 2 |
| 2 | Replace the SUB-M (Left) Board Does the product recover from the error? | End | Go to step 3 |
| 3 | Replace the MCU Board Does the product recover from the error? | End | Escalate to person in charge |

00122E (PF Velocity Deviation Error)

- Description

- Suspected cause
 - Abnormal load
 - PF Encoder Sensor failure
 - PF Motor failure
 - SUB-M (Left) Board failure
 - MCU Board failure
- Parts/Components to be checked
 1. PF Encoder
 2. PF Motor
 3. SUB-M (Left) Board
 4. MCU Board
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Replace the PF Encoder Sensor Does the product recover from the error? | End | Go to step 2 |
| 2 | Replace the PF Motor Does the product recover from the error? | End | Go to step 3 |
| 3 | Replace the SUB-M (Left) Board Does the product recover from the error? | End | Go to step 4 |
| 4 | Replace the MCU Board Does the product recover from the error? | End | Escalate to person in charge |

00122F (PF Lock Error) Description

 Suspected cause

- PF Encoder Sensor cable abnormality (connection, broken)
- PF Motor cable abnormality (connection, broken)
- Abnormal load
- PF Encoder Sensor failure
- PF Motor failure

 Parts/Components to be checked

1. PF Encoder
2. PF Motor

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Check the state of the PF Encoder Sensor Cable <ul style="list-style-type: none"> ■ Check the connection state of the PF Encoder Sensor cable, and if an abnormality is found, reconnect the cable. Does the product recover from the error? | End | Go to step 2 |
| 2 | Check the state of the PF Motor cable <ul style="list-style-type: none"> ■ Check the connection state of the PF Motor cable, and if an abnormality is found, reconnect the cable. Does the product recover from the error? | End | Go to step 3 |
| 3 | Replace the PF Encoder Sensor Does the product recover from the error? | End | Go to step 4 |
| 4 | Replace the PF Motor Does the product recover from the error? | End | Escalate to person in charge |

001418 (Suction Cap Drive Unit Overcurrent Error) Description

 Suspected cause

- Pump Motor or Pump Motor Encoder cable
- Abnormality (connection, broken)
- Abnormal load
- Pump Motor Encoder failure
- Pump Motor failure
- Pump Cap Unit cable abnormality (connection, broken)

 Parts/Components to be checked

1. Relay Connector
2. Suction Cap Drive Unit
3. SUB-M (Right) Board
4. Relay Cable

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Check the state of the Suction Cap Drive Unit <ul style="list-style-type: none"> ■ Check if there is any abnormality in the connection or installation state of the Suction Cap Drive Unit. If it has a failure replace it. Does the product recover from the error? | End | Go to step 2 |
| 2 | Check the state of the connector <ul style="list-style-type: none"> ■ Check the connection state of the Suction Cap Drive Unit cable, and if an abnormality is found, reconnect the cable. Does the product recover from the error? | End | Go to step 3 |
| 3 | Replace the SUB-M (Right) Board Does the product recover from the error? | End | Go to step 3 |
| 4 | Replace the Relay Cable Does the product recover from the error? | End | Escalate to person in charge |

001419 (Suction Cap Drive Unit Oscillation Error) Description

 Suspected cause

- SUB-M (Right) Board failure

 Parts/Components to be checked

1. SUB-M (Right) Board
2. Suction Cap Drive Unit

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | <p>Check the Main Board state</p> <ul style="list-style-type: none"> ■ Check if there is any abnormality in the connection or installation state of the Main Board. If it has a failure replace the SUB-M (Right) Board. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | <p>Check the SUB-M (Right) Board state</p> <ul style="list-style-type: none"> ■ Check if there is any abnormality in the connection or installation state of the SUB-M (Right) Board. If it has a failure replace the Suction Cap Drive Unit. <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

00141A (Suction Cap Drive Unit Overload Error) Description

 Suspected cause

- Pump Motor Encoder cable abnormality (connection, broken)
- Pump Motor cable abnormality (connection, broken)
- Abnormal load
- Pump Motor Encoder failure
- Pump Motor failure

 Parts/Components to be checked

1. Relay Connector
2. Suction Cap Drive Unit
3. SUB-M (Right) Board
4. Relay Cable

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | <p>Check the obstacle in the Suction Cap Drive Unit operation range</p> <ul style="list-style-type: none"> ■ Turn the power off and then back on <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | <p>Check the state of the Suction Cap Drive Unit cable</p> <ul style="list-style-type: none"> ■ Check the connection state of the Suction Cap Drive Unit cable, and if an abnormality is found, reconnect the cable. If it is damaged, replace it. <p>Does the product recover from the error?</p> | End | Go to step 3 |
| 3 | <p>Check the state of the Suction Cap Drive Unit</p> <ul style="list-style-type: none"> ■ Replace the Relay Board <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

00141C (Suction Cap Drive Unit Reversing Error)

- Description

- Suspected cause
 - Pump Motor Encoder cable abnormality (polarity reversal)
 - Pump Motor cable abnormality (polarity reversal)
- Parts/Components to be checked
 1. Suction Cap Drive Unit
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Check the state of the Suction Cap Drive Unit cable <ul style="list-style-type: none"> ■ Check the connection state of the Suction Cap Drive Unit cable, and if an abnormality is found, reconnect the cable. If it is damaged, replace it. Does the product recover from the error? | End | Go to step 2 |
| 2 | Check the state of the Suction Cap Drive Unit <ul style="list-style-type: none"> ■ Replace the Relay Board Does the product recover from the error? | End | Escalate to person in charge |

00141D (Suction Cap Drive Unit Driving Time-Out Error)

- Description

- Suspected cause
 - As a result of damage to a part inside the Pump Cap due to an abnormal load or sensor abnormality, the specified signals are not received within the specified period (unable to detect).
 - Firmware becomes out of control
- Parts/Components to be checked
 1. SUB-M (Right) Board
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Update the firmware Does the product recover from the error? | End | Go to step 2 |
| 2 | Replace the SUB-M (Right) Board Does the product recover from the error? | End | Escalate to person in charge |

00141E (Suction Cap Drive Unit Velocity Deviation Error)

- Description

- Suspected cause
 - Update the firmware
 - Abnormal load
 - Pump Cap Unit failure
 - SUB-M (Left) Board failure
- Parts/Components to be checked
 1. Suction Cap Drive Unit
 2. SUB-M (Right) Board
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Check the state of the Suction Cap Drive Unit <ul style="list-style-type: none"> ■ Check if there is any abnormality in the connection or installation state of the Suction Cap Drive Unit. If it has a failure replace it. Does the product recover from the error? | End | Go to step 2 |
| 2 | Replace the SUB-M (Left) Board Does the product recover from the error? | End | Escalate to person in charge |

00141F (Suction Cap Drive Unit Lock Error)

- Description

- Suspected cause
 - Pump Motor Encoder cable abnormality (connection, broken)
 - Pump Motor cable abnormality (connection, broken)
 - Abnormal load
 - Pump Motor Encoder failure
 - Pump Motor failure
- Parts/Components to be checked
 1. Suction Cap Drive Unit
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Check the state of the Suction Cap Drive Unit cable <ul style="list-style-type: none"> ■ Check the connection state of the Suction Cap Drive Unit cable, and if an abnormality is found, reconnect the cable. If it is damaged, replace it. Does the product recover from the error? | End | Go to step 2 |
| 2 | Check the state of the Suction Cap Drive Unit <ul style="list-style-type: none"> ■ Check if there is any abnormality in the connection or installation state of the Suction Cap Drive Unit. If it has a failure replace it. Does the product recover from the error? | End | Escalate to person in charge |

001429 (Anti-Drying Caps Oscillation Error) Description

 Suspected cause

- SUB-M (Left) Board failure

 Parts/Components to be checked

1. SUB-M (Left) Board
2. Anti-Drying Cap Drive Unit

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | <p>Check the SUB-M (Left) Board state</p> <ul style="list-style-type: none"> ■ Check if there is any abnormality in the connection or installation state of the Main Board. If it has a failure replace the SUB-M (Left) Board. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | <p>Check the Anti-Drying Cap Drive Unit state</p> <ul style="list-style-type: none"> ■ Check if there is any abnormality in the connection or installation state of the Anti-Drying Cap Drive Unit. If it has a failure replace the Anti-Drying Cap Drive Unit. <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

00142A (Anti-Drying Caps Overload Error) Description

 Suspected cause

- Cap Motor Encoder cable abnormality (connection, broken)
- Cap Motor cable abnormality (connection, broken)
- Abnormal load
- Cap Motor Encoder failure
- Cap Motor failure

 Parts/Components to be checked

1. Relay Connector
2. Anti-Drying Caps Drive Unit
3. SUB-M (Left) Board
4. Relay Cable

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | <p>Check the obstacle in the Anti-Drying Caps Drive Unit operation range</p> <ul style="list-style-type: none"> ■ Turn the power off and then back on <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | <p>Check the state of the Anti-Drying Caps Drive Unit cable</p> <ul style="list-style-type: none"> ■ Check the connection state of the Anti-Drying Caps Drive Unit cable, and if an abnormality is found, reconnect the cable. If it is damaged, replace it. <p>Does the product recover from the error?</p> | End | Go to step 3 |
| 3 | <p>Check the state of the Anti-Drying Caps Drive Unit</p> <ul style="list-style-type: none"> ■ Replace the Relay Board <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

00142C (Anti-Drying Caps Reversing Error)

- Description

- Suspected cause
 - Cap Motor Encoder cable abnormality (polarity reversal)
 - Cap Motor cable abnormality (polarity reversal)
- Parts/Components to be checked
 1. Anti-Drying Caps Drive Unit
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Check the state of the Anti-Drying Caps Drive Unit cable <ul style="list-style-type: none"> ■ Check the connection state of the Anti-Drying Caps Drive Unit cable, and if an abnormality is found, reconnect the cable. If it is damaged, replace it. Does the product recover from the error? | End | Go to step 2 |
| 2 | Check the state of the Anti-Drying Caps Drive Unit <ul style="list-style-type: none"> ■ Replace the Relay Board Does the product recover from the error? | End | Escalate to person in charge |

00142D (Anti-Drying Caps Driving Time-Out Error)

- Description

- Suspected cause
 - As a result of damage to a part inside the Cap due to an abnormal load or sensor abnormality, the specified signals are not received within the specified period (unable to detect).
 - Firmware becomes out of control
- Parts/Components to be checked
 1. SUB-M (Left) Board
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Update the firmware Does the product recover from the error? | End | Go to step 2 |
| 2 | Replace the SUB-M (Left) Board Does the product recover from the error? | End | Escalate to person in charge |

00142E (Anti-Drying Caps Velocity Deviation Error)

- Description

- Suspected cause
 - Abnormal load
 - Cap Unit failure
 - SUB-M (Left) Board failure
- Parts/Components to be checked
 1. Anti-Drying Caps Drive Unit
 2. SUB-M (Left) Board
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Replace the Anti-Drying Caps Drive Unit Does the product recover from the error? | End | Go to step 2 |
| 2 | Replace the SUB-M (Left) Board Does the product recover from the error? | End | Escalate to person in charge |

00142F (Anti-Drying Caps Lock Error)

- Description

- Suspected cause
 - Cap Motor Encoder cable abnormality (connection, broken)
 - Cap Motor cable abnormality (connection, broken)
 - Abnormal load
 - Cap Motor Encoder failure
 - Cap Motor failure
- Parts/Components to be checked
 1. Anti-Drying Caps Drive Unit
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Check the state of the Anti-Drying Caps Drive Unit cable <ul style="list-style-type: none"> ■ Check the connection state of the Anti-Drying Caps Drive Unit cable, and if an abnormality is found, reconnect the cable. If it is damaged, replace it. Does the product recover from the error? | End | Go to step 2 |
| 2 | Check the state of the Anti-Drying Caps Drive Unit <ul style="list-style-type: none"> ■ Check if there is any abnormality in the connection or installation state of the Anti-Drying Caps Drive Unit. If it has a failure replace it. Does the product recover from the error? | End | Escalate to person in charge |

001439 (CIR Oscillation Error)

- Description
 -
- Suspected cause
 - Unit failure, electric failure
- Parts/Components to be checked
 - 1. Unit failure, electric failure
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---------------------------------|-----|------------------------------|
| 1 | Replace the correspond parts. | End | Escalate to person in charge |

00143A (CIR Overload Error)

- Description
 -
- Suspected cause
 - Unit failure, electric failure
- Parts/Components to be checked
 - 1. Unit failure, electric failure
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---------------------------------|-----|------------------------------|
| 1 | Replace the correspond parts. | End | Escalate to person in charge |

00143C (CIR Reversing Error)

- Description
 -
- Suspected cause
 - Unit failure, electric failure
- Parts/Components to be checked
 - 1. Unit failure, electric failure
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---------------------------------|-----|------------------------------|
| 1 | Replace the correspond parts. | End | Escalate to person in charge |

00143D (CIR Driving Time-Out Error)

- Description
 -
- Suspected cause
 - Unit failure, electric failure
- Parts/Components to be checked
 - 1. Unit failure, electric failure
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---------------------------------|-----|------------------------------|
| 1 | Replace the correspond parts. | End | Escalate to person in charge |

00143E (CIR Velocity Deviation Error)

- Description
 -
- Suspected cause
 - Unit failure, electric failure
- Parts/Components to be checked
 - 1. Unit failure, electric failure
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---------------------------------|-----|------------------------------|
| 1 | Replace the correspond parts. | End | Escalate to person in charge |

00143F (CIR Lock Error)

- Description
 -
- Suspected cause
 - Unit failure, electric failure
- Parts/Components to be checked
 - 1. Unit failure, electric failure
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---------------------------------|-----|------------------------------|
| 1 | Replace the correspond parts. | End | Escalate to person in charge |

001469 (Cleaning Pump Oscillation Error) Description

 Suspected cause

- SUB-M (Left) Board failure

 Parts/Components to be checked

1. SUB-M (Left) Board
2. Cleaning Pump Drive Unit

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Check the Main Board state <ul style="list-style-type: none"> ■ Check if there is any abnormality in the connection or installation state of the Main Board. If it has a failure replace the SUB-M (Left) Board. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | Check the SUB-M (Left) Board state <ul style="list-style-type: none"> ■ Check if there is any abnormality in the connection or installation state of the SUB-M (Left) Board. If it has a failure replace the Cleaning Pump Drive Unit. <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

00146A (Cleaning Pump Overload Error) Description

 Suspected cause

- Pump Motor Encoder cable abnormality (connection, broken)
- Pump Motor cable abnormality (connection, broken)
- Abnormal load
- Pump Motor Encoder failure
- Pump Motor failure

 Parts/Components to be checked

1. Relay Connector
2. Cleaning Pump Drive Unit
3. SUB-M (Left) Board
4. Relay Cable

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Check the obstacle in the Cleaning Pump Drive Unit operation range <ul style="list-style-type: none"> ■ Turn the power off and then back on <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | Check the state of the Cleaning Pump Drive Unit cable <ul style="list-style-type: none"> ■ Check the connection state of the Cleaning Pump Drive Unit cable, and if an abnormality is found, reconnect the cable. If it is damaged, replace it. <p>Does the product recover from the error?</p> | End | Go to step 3 |
| 3 | Check the state of the Cleaning Pump Drive Unit <ul style="list-style-type: none"> ■ Replace the Relay Board <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

00146C (Cleaning Pump Reversing Error)

- Description

- Suspected cause
 - Pump Motor Encoder cable abnormality (polarity reversal)
 - Pump Motor cable abnormality (polarity reversal)
- Parts/Components to be checked
 1. Cleaning Pump Drive Unit
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Check the state of the Cleaning Pump Drive Unit cable <ul style="list-style-type: none"> ■ Check the connection state of the Cleaning Pump Drive Unit cable, and if an abnormality is found, reconnect the cable. If it is damaged, replace it. Does the product recover from the error? | End | Go to step 2 |
| 2 | Check the state of the Cleaning Pump Drive Unit <ul style="list-style-type: none"> ■ Check if there is any abnormality in the connection or installation state of the Cleaning Pump Drive Unit. If it has a failure replace it. Does the product recover from the error? | End | Escalate to person in charge |

00146D (Cleaning Pump Driving Time-Out Error)

- Description

- Suspected cause
 - As a result of damage to a part inside the Pump due to an abnormal load or sensor abnormality, the specified signals are not received within the specified period (unable to detect).
 - Firmware becomes out of control
- Parts/Components to be checked
 1. SUB-M (Left) Board
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Update the firmware Does the product recover from the error? | End | Go to step 2 |
| 2 | Replace the SUB-M (Left) Board Does the product recover from the error? | End | Escalate to person in charge |

00146E (Cleaning Pump Velocity Deviation Error) Description

 Suspected cause

- Abnormal load
- Cleaning Pump failure
- SUB-M (Left) Board failure

 Parts/Components to be checked

1. Cleaning Pump Drive Unit
2. SUB-M (Left) Board

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Check the state of the Cleaning Pump Drive Unit <ul style="list-style-type: none"> ■ Check if there is any abnormality in the connection or installation state of the Cleaning Pump Drive Unit. If it has a failure replace it. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | Replace the SUB-M (Left) Board <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

00146F (Cleaning Pump Lock Error) Description

 Suspected cause

- Pump Motor Encoder cable abnormality (connection, broken)
- Pump Motor cable abnormality (connection, broken)
- Abnormal load
- Pump Motor Encoder failure
- Pump Motor failure

 Parts/Components to be checked

1. Cleaning Pump Drive Unit

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Check the state of the Cleaning Pump Drive Unit cable <ul style="list-style-type: none"> ■ Check the connection state of the Cleaning Pump Drive Unit cable, and if an abnormality is found, reconnect the cable. If it is damaged, replace it. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | Check the state of the Cleaning Pump Drive Unit <ul style="list-style-type: none"> ■ Check if there is any abnormality in the connection or installation state of the Cleaning Pump Drive Unit. If it has a failure replace it. <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

001499 (Cloth Wiper Unit (WIP) Oscillation Error)

- Description

- Suspected cause
 - SUB-M (Right) Board failure
- Parts/Components to be checked
 1. SUB-M (Right) Board
 2. Cloth Wiper Unit
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Check the Main Board state <ul style="list-style-type: none"> ■ Check if there is any abnormality in the connection or installation state of the Main Board. If it has a failure replace the SUB-M (Right) Board. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | Check the SUB-M (Right) Board state <ul style="list-style-type: none"> ■ Check if there is any abnormality in the connection or installation state of the SUB-M (Right) Board. If it has a failure replace the Cloth Wiper Unit. <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

00149A (Cloth Wiper Unit (WIP) Overload Error)

- Description

- Suspected cause
 - Wiper Motor cable abnormality (connection, broken)
 - Abnormal load
 - Wiper Motor failure
- Parts/Components to be checked
 1. Relay Connector
 2. Cloth Wiper Unit
 3. SUB-M (Left) Board
 4. Relay Cable
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Check the obstacle in the Cloth Wiper Unit operation range <ul style="list-style-type: none"> ■ Turn the power off and then back on <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | Check the state of the Cloth Wiper Unit cable <ul style="list-style-type: none"> ■ Check the connection state of the Cloth Wiper Unit cable, and if an abnormality is found, reconnect the cable. If it is damaged, replace it. <p>Does the product recover from the error?</p> | End | Go to step 3 |
| 3 | Check the state of the Cloth Wiper Unit <ul style="list-style-type: none"> ■ Replace the Relay Board <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

00149C (Cloth Wiper Unit (WIP) Reversing Error)

- Description

- Suspected cause
 - Wiper Motor cable abnormality (polarity reversal)
- Parts/Components to be checked
 1. Cloth Wiper Unit
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Check the state of the Cloth Wiper Unit cable <ul style="list-style-type: none"> ■ Check the connection state of the Cloth Wiper Unit cable, and if an abnormality is found, reconnect the cable. If it is damaged, replace it. Does the product recover from the error? | End | Go to step 2 |
| 2 | Check the state of the Cloth Wiper Unit <ul style="list-style-type: none"> ■ Check if there is any abnormality in the connection or installation state of the Cloth Wiper Unit. If it has a failure replace it. Does the product recover from the error? | End | Escalate to person in charge |

00149D (Cloth Wiper Unit (WIP) Driving Time-Out Error)

- Description

- Suspected cause
 - As a result of damage to a part inside the Wiper Unit due to an abnormal load or sensor abnormality, the specified signals are not received within the specified period (unable to detect).
 - Firmware becomes out of control
- Parts/Components to be checked
 1. SUB-M (Right) Board
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Update the firmware Does the product recover from the error? | End | Go to step 2 |
| 2 | Replace the SUB-M (Right) Board Does the product recover from the error? | End | Escalate to person in charge |

00149E (Cloth Wiper Unit (WIP) Velocity Deviation Error) Description

 Suspected cause

- Abnormal load
- Wiper Unit failure
- SUB-M (Right) Board failure

 Parts/Components to be checked

1. Wiper Drive Unit

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Check the state of the Cloth Wiper Unit <ul style="list-style-type: none"> ■ Check if there is any abnormality in the connection or installation state of the Cloth Wiper Unit. If it has a failure replace it. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | Replace the SUB-M (Right) Board <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

00149F (Cloth Wiper Unit (WIP) Lock Error) Description

 Suspected cause

- Pump Motor cable abnormality (connection, broken)
- Abnormal load
- Pump Motor failure

 Parts/Components to be checked

1. Wiper Drive Unit

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Check the state of the Cloth Wiper Unit cable <ul style="list-style-type: none"> ■ Check the connection state of the Cloth Wiper Unit cable, and if an abnormality is found, reconnect the cable. If it is damaged, replace it. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | Check the state of the Cloth Wiper Unit <ul style="list-style-type: none"> ■ Check if there is any abnormality in the connection or installation state of the Cloth Wiper Unit. If it has a failure replace it. <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

0014A9 (Cloth Wiper Unit (TAKEUP) Oscillation Error) Description

 Suspected cause

- SUB-M (Right) Board failure

 Parts/Components to be checked

1. SUB-M (Right) Board
2. Cloth Wiper Unit

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | <p>Check the Main Board state</p> <ul style="list-style-type: none"> ■ Check if there is any abnormality in the connection or installation state of the Main Board. If it has a failure replace the SUB-M (Right) Board. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | <p>Check the SUB-M (Right) Board state</p> <ul style="list-style-type: none"> ■ Check if there is any abnormality in the connection or installation state of the SUB-M (Right) Board. If it has a failure replace the Cloth Wiper Unit. <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

0014AA (Cloth Wiper Unit (TAKEUP) Overload Error) Description

 Suspected cause

- Cloth Take-up Reel Motor cable abnormality (connection, broken)
- Abnormal load
- Cloth Take-up Reel Motor failure

 Parts/Components to be checked

1. Relay Connector
2. Cloth Wiper Unit
3. SUB-M (Right) Board
4. Relay Cable

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | <p>Check the obstacle in the Cloth Wiper Unit operation range</p> <ul style="list-style-type: none"> ■ Turn the power off and then back on <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | <p>Check the state of the Cloth Wiper Unit cable</p> <ul style="list-style-type: none"> ■ Check the connection state of the Cloth Wiper Unit cable, and if an abnormality is found, reconnect the cable. If it is damaged, replace it. <p>Does the product recover from the error?</p> | End | Go to step 3 |
| 3 | <p>Check the state of the Cloth Wiper Unit</p> <ul style="list-style-type: none"> ■ Replace the Relay Board <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

0014AC (CLOTH_TAKEUP Reversing Error)

- Description

- Suspected cause
 - Cloth Take-up Reel Motor cable abnormality (polarity reversal)
- Parts/Components to be checked
 1. Cloth Wiper Unit
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Connect the connectors again Does the product recover from the error? | End | Go to step 2 |
| 2 | Replace the Cloth Wiper Unit Does the product recover from the error? | End | Escalate to person in charge |

0014AD (Cloth Wiper Unit (TAKEUP) Driving Time-Out Error)

- Description

- Suspected cause
 - As a result of damage to a part inside the Cloth Take-up Reel Unit due to an abnormal load or sensor abnormality, the specified signals are not received within the specified period (unable to detect).
 - Firmware becomes out of control
- Parts/Components to be checked
 1. SUB-M (Right) Board
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Update the firmware Does the product recover from the error? | End | Go to step 2 |
| 2 | Replace the SUB-M (Right) Board Does the product recover from the error? | End | Escalate to person in charge |

0014AE (Cloth Wiper Unit (TAKEUP) Velocity Deviation Error)

- Description

- Suspected cause
 - Abnormal load
 - Cloth Take-up Reel Unit failure
 - SUB-M (Left) Board failure
- Parts/Components to be checked
 1. Cloth Wiper Unit
 2. SUB-M (Right) Board

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Check the state of the Cloth Wiper Unit <ul style="list-style-type: none"> ■ Check if there is any abnormality in the connection or installation state of the Cloth Wiper Unit. If it has a failure replace it. Does the product recover from the error? | End | Go to step 2 |
| 2 | Replace the SUB-M (Right) Board Does the product recover from the error? | End | Escalate to person in charge |

0014AF (Cloth Wiper Unit (TAKEUP) Lock Error)

- Description

- Suspected cause
 - Cloth Take-up Reel Motor cable abnormality (connection, broken)
 - Abnormal load
 - Cloth Take-up Reel Motor failure
- Parts/Components to be checked
 1. Cloth Wiper Unit
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Check the state of the Cloth Wiper Unit cable <ul style="list-style-type: none"> ■ Check the connection state of the Cloth Wiper Unit cable, and if an abnormality is found, reconnect the cable. If it is damaged, replace it. Does the product recover from the error? | End | Go to step 2 |
| 2 | Check the state of the Cloth Wiper Unit <ul style="list-style-type: none"> ■ Check if there is any abnormality in the connection or installation state of the Cloth Wiper Unit. If it has a failure replace it. Does the product recover from the error? | End | Escalate to person in charge |

0014B0 (Printing Not Possible Error due to FA Slot Settings Change) Description

Operation error (Printing was performed during cleaning or discharge)

 Suspected cause

 Parts/Components to be checked

1. ---

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Restart the printer Does the product recover from the error? | End | Escalate to person in charge |

0014B1 (CL Unit Pressurization Time-Out Error) Description

The CL Unit is not being pressurized, or the sensor does not react.

 Suspected cause

 Parts/Components to be checked

1. Air tube path and joints
2. Pressurization Pump
3. Replace the Pressurizing Force Adjustment Sensor
4. Replace the SUB-M (Right) Board

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Check if there is a leakage in the CL Unit Pressurization Air Path Does the product recover from the error? | End | Go to step 2 |
| 2 | Check operation of the Pressure CL Pump <ul style="list-style-type: none"> ■ Check if there is any abnormality operation of Pressure CL Pump. Replace the Pressure CL Pump if it has a failure. Does the product recover from the error? | End | Go to step 3 |
| 3 | Check the state of the sensor <ul style="list-style-type: none"> ■ Check the connection state of the sensor board cable on the Home side (panel side) of the Cleaning Pump. If there is no abnormality, replace the Cleaning Pump. Does the product recover from the error? | End | Go to step 4 |
| 4 | Replace the SUB-M (Right) Board Does the product recover from the error? | End | Escalate to person in charge |

0014B2 (CL Unit Decompression Time-Out Error) Description

The CL Unit is not being decompressed, or the sensor does not react.

 Suspected cause

 Parts/Components to be checked

1. Air tube path and joints
2. Decompression Pump
3. Replace the Decompressing Force Adjustment Sensor
4. Replace the SUB-M (Right) Board

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Check if there is a leakage in the CL Unit Pressurization Air Path Does the product recover from the error? | End | Go to step 2 |
| 2 | Check operation of the Pressure CL Pump ■ Check if there is any abnormality operation of Decompression Pump. Replace the Decompression Pump. if it has a failure. Does the product recover from the error? | End | Go to step 3 |
| 3 | Check the state of the sensor ■ Check the connection state of the sensor board cable on the Full side (Cap side) of the Cleaning Pump. If there is no abnormality, replace the Cleaning Pump. Does the product recover from the error? | End | Go to step 4 |
| 4 | Replace the SUB-M (Right) Board Does the product recover from the error? | End | Escalate to person in charge |

0014B3 (CL Unit Pressurization Time-Out Error Abnormal Value Error) Description

Abnormal pressure is detected by the CL Unit Pressurization Sensor.

 Suspected cause

 Parts/Components to be checked

1. Air tube path and joints
2. Pressurization Pump
3. Replace the Pressurizing Force Adjustment Sensor
4. Replace the SUB-M (Right) Board

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Check if there is a leakage in the CL Unit Pressurization Air Path Does the product recover from the error? | End | Go to step 2 |
| 2 | Check the state of the sensor ■ Check the connection state of the sensor board cable on the Home side (panel side) of the Cleaning Pump. If there is no abnormality, replace the Cleaning Pump. Does the product recover from the error? | End | Go to step 3 |
| 3 | Replace the SUB-M (Right) Board Does the product recover from the error? | End | Escalate to person in charge |

0014B4 (CL Unit Decompression Abnormal Value Error) Description

Abnormal pressure is detected by the CL Unit Decompression Sensor.

 Suspected cause

 Parts/Components to be checked

1. Air tube path and joints
2. Decompression Pump
3. Replace the Decompressing Force Adjustment Sensor
4. Replace the SUB-M (Right) Board

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Check if there is a leakage in the CL Unit Pressurization Air Path Does the product recover from the error? | End | Go to step 2 |
| 2 | Check the state of the sensor <ul style="list-style-type: none"> ■ Check the connection state of the sensor board cable on the Full side (Cap side) of the Cleaning Pump. If there is no abnormality, replace the Cleaning Pump. Does the product recover from the error? | End | Go to step 3 |
| 3 | Replace the SUB-M (Right) Board Does the product recover from the error? | End | Escalate to person in charge |

0014B7 (Cloth Feed Amount Unsettled Error) Description

 Suspected cause

- There is no cloth.
- The cloth has been set incorrectly.
- The cloth has been used up. (Unit or electric failure)

 Parts/Components to be checked

1. Cloth Roll (unit or electric failure)

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Check the state of Cloth Wiper Roll <ul style="list-style-type: none"> ■ Correctly set a cloth roll with some remaining amount of cloth (Replace the cloth roll in the case of a failure) Does the product recover from the error? | End | Escalate to person in charge |

0014B8 (Cloth Roll Lock Position Unsettled Error)

- Description

- Suspected cause
Wiper Unit Drive Assembly failure.
- Parts/Components to be checked
1. Cloth Wiper Unit
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Check the state of the Wiper Unit Drive Assembly <ul style="list-style-type: none"> ■ Check if there is any abnormality in the connection or installation state of the Wiper Unit Drive Assembly. If it has a failure replace it. Does the product recover from the error? | End | Escalate to person in charge |

0014B9 (Cloth Carriage Position Unsettled Error)

- Description

- Suspected cause
The Wiper Cassette is not set. (Unit or electric failure)
- Parts/Components to be checked
1. Wiper Cassette
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Check the state of Cloth Wiper Roll <ul style="list-style-type: none"> ■ Correctly set a cloth roll with some remaining amount of cloth (Replace the cloth roll in the case of a failure) Does the product recover from the error? | End | Escalate to person in charge |

0014BA (Cap Position Unsettled Error) Description

 Suspected cause

 Parts/Components to be checked

1. Planetary gear
2. Entire unit

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Restart the printer Does the product recover from the error? | End | Escalate to person in charge |

0014BB (Suction Cap Position Unsettled Error) Description

 Suspected cause

- Unit operation trouble
- Sensor trouble

 Parts/Components to be checked

1. Around gear train
2. Entire unit

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Restart the printer Does the product recover from the error? | End | Escalate to person in charge |

0014BC (Reference Atmospheric Pressure Acquisition Time-Out Error) Description

The CL Unit, Pressurization, Decompression Path do not reach the atmospheric pressure, or there is a difference in the read value of the two sensors.

 Suspected cause

 Parts/Components to be checked

1. Air tube path and joints
2. Pressurization and Decompression Pumps
3. Replace the Pressurizing and Decompressing Force Adjustment Sensors
4. Replace the SUB-M (Right) Board

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Check if there is a leakage or kink in the air path inside the CL Unit Does the product recover from the error? | End | Go to step 2 |
| 2 | Check the state of the sensor ■ Check if there is any abnormality in the connection or installation state of the sensor. If it has a failure replace the Pressurization and Decompression Pumps. Does the product recover from the error? | End | Escalate to person in charge |

0014BD (Ink Leakage Detection Error)

- Description

- Suspected cause
 - Occurrence of ink leakage inside the printer
 - Faulty detection by sensor
- Parts/Components to be checked
 1. Wiper Unit Drive Assembly
 2. Flushing Pad
 3. Suction Pump
 4. Ink Supply Sub Pump
 5. Cap
 6. Duct Carriage Assy
 7. Filter Unit
 8. Print Head
 9. Ink Cartridge
 10. Pump Cap Unit
 11. Ink Holder
 12. Ink Tube
 13. Ink Leak Sensor (Cloth Wiper)
 14. Ink Leak Sensor (Pump)
 15. Ink Leak Sensor (Cap)
 16. Ink Leak Sensor (Duct Carriage Assy)
 17. Ink Leak Sensor (Filter Unit)

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|--------------|------------------------------|
| 1 | Replace the Ink Leak Sensor in accordance with the ink leakage location Check the error code displayed on the panel and identify the failed Ink Leak Sensor. A: Ink Leak Sensor (Cloth Wiper) B/C: Ink Leak Sensor (Pump) D/E: Ink Leak Sensor (Cap) F: Ink Leak Sensor (Duct Carriage Assy) G: Ink Leak Sensor (Filter Unit) Example: When 0014BD-AC is displayed: The Ink Leak Sensor (Cloth Wiper) and Ink Leak Sensor (Pump) have failed. | Go to step 2 | Go to step 2 |
| 2 | Replace the ink leaking parts Check by sight and replace the ink leaking part(s). | Go to step 3 | Go to step 3 |
| 3 | Reset ink leakage detection Does the product recover from the error? | End | Escalate to person in charge |

001519 (APG Oscillation Error) Description

The motor velocity control is oscillating (output command is oscillating between + and -).

 Suspected cause

 Parts/Components to be checked

1. MCU Board
2. Motor

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Check the state of the motor cable and scale cable <ul style="list-style-type: none"> ■ Check the connection state of the cables, and if an abnormality is found, reconnect the cable. If not improved, replace the MCU Board. ■ Does the product recover from the error? | End | Go to step 2 |
| 2 | Replace the motor Does the product recover from the error? | End | Escalate to person in charge |

00151A (APG Overload Error) Description

The maximum output was applied continuously for a fixed period of time on the motor.

 Suspected cause

 Parts/Components to be checked

1. Motor
2. MCU Board

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Check if there are any foreign objects around the APG Motor. <ul style="list-style-type: none"> ■ Check if there are any foreign objects on APG Motor. If so, remove them. Does the product recover from the error? | End | Go to step 2 |
| 2 | Check the state of the motor cable and encoder cable <ul style="list-style-type: none"> ■ Check the connection state of the cables, and if an abnormality is found, reconnect the cable. Does the product recover from the error? | End | Go to step 3 |
| 3 | Replace the motor Does the product recover from the error? | End | Go to step 4 |
| 4 | Replace the MCU Board Does the product recover from the error? | End | Escalate to person in charge |

00151C (APG Reversing Error) Description

Reversing was performed for a fixed distance during motor velocity control.

 Suspected cause

 Parts/Components to be checked

1. Motor Harness
2. Motor
3. MCU Board

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Check if there are any foreign objects around the APG Motor. ■ Check if there are any foreign objects on APG Motor. If so, remove them. Does the product recover from the error? | End | Go to step 2 |
| 2 | Check if the cable routing of the APG Motor is correctly (malfunction caused by noises entering) ■ Check the routing of the APG Motor cable Does the product recover from the error? | End | Go to step 3 |
| 3 | Replace the motor Does the product recover from the error? | End | Go to step 4 |
| 4 | Replace the MCU Board Does the product recover from the error? | End | Escalate to person in charge |

00151D (APG Driving Time-Out Error) Description

The desired position was not reached even after performing motor control for a fixed period of time

 Suspected cause

Inappropriate external command

 Parts/Components to be checked

1. ---

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Driving command correction (FW) Does the product recover from the error? | End | Go to step 2 |
| 2 | Driving command correction (external programs such as the inspection program, etc.) Does the product recover from the error? | End | Escalate to person in charge |

00151E (APG Velocity Deviation Error) Description

A deviation equal to or more than a fixed value from the desired velocity occurred during motor velocity control.

 Suspected cause

 Parts/Components to be checked

1. Motor
2. MCU Board

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Check if there are any foreign objects around the APG Motor. ■ Check if there are any foreign objects on APG Motor. If so, remove them. Does the product recover from the error? | End | Go to step 2 |
| 2 | Replace the motor Does the product recover from the error? | End | Go to step 3 |
| 3 | Replace the MCU Board Does the product recover from the error? | End | Escalate to person in charge |

00151F (APG Lock Error) Description

The motor could not be rotated for a fixed period of time.

 Suspected cause

 Parts/Components to be checked

1. Motor
2. MCU Board

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Check if there are any foreign objects around the APG Motor. ■ Check if there are any foreign objects on APG Motor. If so, remove them. Does the product recover from the error? | End | Go to step 2 |
| 2 | Replace the motor Does the product recover from the error? | End | Go to step 3 |
| 3 | Replace the MCU Board Does the product recover from the error? | End | Escalate to person in charge |

001529 (NIP Oscillation Error) Description

The motor velocity control is oscillating (output command is oscillating between + and -).

 Suspected cause

 Parts/Components to be checked

1. MCU Board
2. Motor

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Check the state of the motor cable and scale cable <ul style="list-style-type: none"> ■ Check the connection state of the cables, and if an abnormality is found, reconnect the cable. If not improved, replace the MCU Board. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | Replace the motor Does the product recover from the error? | End | Escalate to person in charge |

00152A (NIP Overload Error) Description

The maximum output was applied continuously for a fixed period of time on the motor.

 Suspected cause

 Parts/Components to be checked

1. Motor
2. MCU Board

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Check if there are any foreign objects around the Nip Motor. <ul style="list-style-type: none"> ■ Check if there are any foreign objects on Nip Motor. If so, remove them. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | Check if the cable routing of the Nip Motor is correctly (malfunction caused by noises entering) <ul style="list-style-type: none"> ■ Check the routing of the Nip Motor cable <p>Does the product recover from the error?</p> | End | Go to step 3 |
| 3 | Replace the motor Does the product recover from the error? | End | Go to step 4 |
| 4 | Replace the MCU Board Does the product recover from the error? | End | Escalate to person in charge |

00152C (NIP Reversing Error) Description

Reversing was performed for a fixed distance during motor velocity control.

 Suspected cause

 Parts/Components to be checked

1. Motor Harness
2. Motor
3. MCU Board

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Check if there are any foreign objects around the Nip Motor ■ Check if there are any foreign objects on Nip Motor. If so, remove them. Does the product recover from the error? | End | Go to step 2 |
| 2 | Check if the cable routing of the Nip Motor is correctly (malfunction caused by noises entering) ■ Check the routing of the Nip Motor cable Does the product recover from the error? | End | Go to step 3 |
| 3 | Replace the motor Does the product recover from the error? | End | Go to step 4 |
| 4 | Replace the MCU Board Does the product recover from the error? | End | Escalate to person in charge |

00152D (NIP Driving Time-Out Error) Description

The desired position was not reached even after performing motor control for a fixed period of time.

 Suspected cause

Inappropriate external command

 Parts/Components to be checked

1. ---

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Driving command correction (FW) Does the product recover from the error? | End | Go to step 2 |
| 2 | Driving command correction (external programs) Does the product recover from the error? | End | Escalate to person in charge |

00152E (NIP Velocity Deviation Error) Description

A deviation equal to or more than a fixed value from the desired velocity occurred during motor velocity control.

 Suspected cause

 Parts/Components to be checked

1. Motor
2. MCU Board

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Check if there are any foreign objects around the Nip Motor ■ Check if there are any foreign objects on Nip Motor. If so, remove them. Does the product recover from the error? | End | Go to step 2 |
| 2 | Replace the motor Does the product recover from the error? | End | Go to step 3 |
| 3 | Replace the MCU Board Does the product recover from the error? | End | Escalate to person in charge |

00152F (NIP Lock Error) Description

The motor could not be rotated for a fixed period of time.

 Suspected cause

 Parts/Components to be checked

1. Motor
2. MCU Board

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Check if there are any foreign objects around the Nip Motor ■ Check if there are any foreign objects on Nip Motor. If so, remove them. Does the product recover from the error? | End | Go to step 2 |
| 2 | Replace the motor Does the product recover from the error? | End | Go to step 3 |
| 3 | Replace the MCU Board Does the product recover from the error? | End | Escalate to person in charge |

001539 (RLS Oscillation Error) Description

The motor velocity control is oscillating (output command is oscillating between + and -).

 Suspected cause

 Parts/Components to be checked

1. MCU Board
2. Motor

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Check the state of the motor cable and scale cable <ul style="list-style-type: none"> ■ Check the connection state of the cables, and if an abnormality is found, reconnect the cable. If not improved, replace the MCU Board. ■ Does the product recover from the error? | End | Go to step 2 |
| 2 | Replace the motor Does the product recover from the error? | End | Escalate to person in charge |

00153A (RLS Overload Error) Description

The maximum output was applied continuously for a fixed period of time on the motor.

 Suspected cause

 Parts/Components to be checked

1. Motor
2. MCU Board

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Check if there are any foreign objects around the RLS Motor <ul style="list-style-type: none"> ■ Check if there are any foreign objects on RLS Motor. If so, remove them. Does the product recover from the error? | End | Go to step 2 |
| 2 | Check if the cable routing of the RLS Motor is correctly (malfunction caused by noises entering) <ul style="list-style-type: none"> ■ Check the routing of the RLS Motor cable Does the product recover from the error? | End | Go to step 3 |
| 3 | Replace the motor Does the product recover from the error? | End | Go to step 4 |
| 4 | Replace the MCU Board Does the product recover from the error? | End | Escalate to person in charge |

00153C (RLS Reversing Error) Description

Reversing was performed for a fixed distance during motor velocity control.

 Suspected cause

 Parts/Components to be checked

1. Motor Harness
2. Motor
3. MCU Board

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Check if there are any foreign objects around the RLS Motor ■ Check if there are any foreign objects on RLS Motor. If so, remove them. Does the product recover from the error? | End | Go to step 2 |
| 2 | Check if the cable routing of the RLS Motor is correctly (malfunction caused by noises entering) ■ Check the routing of the RLS Motor cable Does the product recover from the error? | End | Go to step 3 |
| 3 | Replace the motor Does the product recover from the error? | End | Go to step 4 |
| 4 | Replace the MCU Board Does the product recover from the error? | End | Escalate to person in charge |

00153D (RLS Driving Time-Out Error) Description

The desired position was not reached even after performing motor control for a fixed period of time.

 Suspected cause

 Parts/Components to be checked

1. Inappropriate external command

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Driving command correction (FW) Does the product recover from the error? | End | Go to step 2 |
| 2 | Driving command correction (external programs) Does the product recover from the error? | End | Escalate to person in charge |

00153E (RLS Velocity Deviation Error) Description

A deviation equal to or more than a fixed value from the desired velocity occurred during motor velocity control.

 Suspected cause

 Parts/Components to be checked

1. Motor
2. MCU Board

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Check if there are any foreign objects around the RLS Motor ■ Check if there are any foreign objects on RLS Motor. If so, remove them. Does the product recover from the error? | End | Go to step 2 |
| 2 | Replace the motor Does the product recover from the error? | End | Go to step 3 |
| 3 | Replace the MCU Board Does the product recover from the error? | End | Escalate to person in charge |

00153F (RLS Lock Error) Description

The motor could not be rotated for a fixed period of time.

 Suspected cause

 Parts/Components to be checked

1. Motor
2. MCU Board

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Check if there are any foreign objects around the RLS Motor ■ Check if there are any foreign objects on RLS Motor. If so, remove them. Does the product recover from the error? | End | Go to step 2 |
| 2 | Replace the motor Does the product recover from the error? | End | Go to step 3 |
| 3 | Replace the MCU Board Does the product recover from the error? | End | Escalate to person in charge |

001598 (ATC Overcurrent Error)

- Description

- Suspected cause
 - Check the operation state of the ATC Motor.
 - Check the connection state of the ATC Motor cable.
- Parts/Components to be checked
 1. ATC Motor
 2. MCU Board
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Check the state of the ATC Motor <ul style="list-style-type: none"> ■ Check if there is any abnormality in the connection or installation state of the ATC Motor. If it has a failure Does the product recover from the error? | End | Go to step 2 |
| 2 | Check the state of the cable <ul style="list-style-type: none"> ■ Check the connection state of the cable, and if an abnormality is found, reconnect the cable. Does the product recover from the error? | End | Go to step 3 |
| 3 | Replace the MCU Board Does the product recover from the error? | End | Escalate to person in charge |

001599 (ATC Oscillation Error)

- Description

- Suspected cause
 - Main Board failure
 - CR Motor Control Board (SUB-B) failure
- Parts/Components to be checked
 1. MCU Board
 2. ATC Motor
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Check if there are any foreign objects around the ATC Motor. <ul style="list-style-type: none"> ■ Check if there are any foreign objects on Main Board and CR Motor Control Board (SUB-B). If so, remove them. Does the product recover from the error? | End | Go to step 2 |
| 2 | Replace the MCU Board Does the product recover from the error? | End | Go to step 3 |
| 3 | Replace the ATC Motor Does the product recover from the error? | End | Escalate to person in charge |

00159A (ATC Overload Error)

- Description

- Suspected cause
 - Abnormal load
 - ATC Motor cable abnormality (connection, broken)
 - ATC Motor failure
- Parts/Components to be checked
 1. ATC Motor
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Check if there are any foreign objects around the ATC Motor. <ul style="list-style-type: none"> ■ Check if there are any foreign objects on Main Board and CR Motor Control Board (SUB-B). If so, remove them. Does the product recover from the error? | End | Go to step 2 |
| 2 | Check the state of the cable <ul style="list-style-type: none"> ■ Check the connection state of the cable, and if an abnormality is found, reconnect the cable. Does the product recover from the error? | End | Go to step 3 |
| 3 | Replace the ATC Motor Does the product recover from the error? | End | Escalate to person in charge |

00159C (ATC Reversing Error)

- Description

- Suspected cause
 - ATC Motor cable abnormality (polarity reversal)
 - ATC Motor failure
- Parts/Components to be checked
 1. ATC Motor
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Check the state of the cable <ul style="list-style-type: none"> ■ Check the connection state of the cable, and if an abnormality is found, reconnect the cable. Does the product recover from the error? | End | Go to step 2 |
| 2 | Check operation of the ATC Motor <ul style="list-style-type: none"> ■ Check if there is any abnormality operation of ATC Motor. Replace the ATC Motor if it has a failure. Does the product recover from the error? | End | Escalate to person in charge |

00159D (ATC Driving Time-Out Error)

- Description

- Suspected cause
 - Abnormal load
 - Firmware becomes out of control
- Parts/Components to be checked
 1. MCU Board
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Update the firmware Does the product recover from the error? | End | Go to step 2 |
| 2 | Replace the MCU Board Does the product recover from the error? | End | Escalate to person in charge |

00159E (ATC Velocity Deviation Error)

- Description

- Suspected cause
 - Abnormal load
 - ATC Motor failure
 - Main Board failure
 - CR Motor Control Board (SUB-B) failure
- Parts/Components to be checked
 1. ATC Motor
 2. MCU Board
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Replace the ATC Motor Does the product recover from the error? | End | Go to step 2 |
| 2 | Replace the MCU Board Does the product recover from the error? | End | Escalate to person in charge |

00159F (ATC Lock Error)

- Description

- Suspected cause
 - ATC Motor cable abnormality (connection, broken)
 - Abnormal load
 - ATC Motor failure
- Parts/Components to be checked
 1. ATC Motor
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Check the state of the cable <ul style="list-style-type: none"> ■ Check the connection state of the cable, and if an abnormality is found, reconnect the cable. Does the product recover from the error? | End | Go to step 2 |
| 2 | Replace the ATC Motor Does the product recover from the error? | End | Escalate to person in charge |

001649 (REEL Oscillation Error)

- Description
The motor velocity control is oscillating (output command is oscillating between + and -).
- Suspected cause

- Parts/Components to be checked
 1. MCU Board
 2. Motor
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Check the state of the motor cable and scale cable <ul style="list-style-type: none"> ■ Check the connection state of the cables, and if an abnormality is found, reconnect the cable. If not improved, replace the MCU Board. Does the product recover from the error? | End | Go to step 2 |
| 2 | Replace the motor Does the product recover from the error? | End | Escalate to person in charge |

00164A (REEL Overload Error) Description

The maximum output was applied continuously for a fixed period of time on the motor.

 Suspected cause

 Parts/Components to be checked

1. Motor
2. MCU Board

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Check if there are any foreign objects around the REEL Motor <ul style="list-style-type: none"> ■ Check if there are any foreign objects on REL Motor. If so, remove them. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | Check the state of the cable <ul style="list-style-type: none"> ■ Check the connection state of the cable, and if an abnormality is found, reconnect the cable. <p>Does the product recover from the error?</p> | End | Go to step 3 |
| 3 | Replace the motor <p>Does the product recover from the error?</p> | End | Go to step 4 |
| 4 | Replace the MCU Board <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

00164C (REEL Reversing Error) Description

Reversing was performed for a fixed distance during motor velocity control.

 Suspected cause

 Parts/Components to be checked

1. Motor Harness
2. Motor
3. MCU Board

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Check if there are any foreign objects around the REEL Motor <ul style="list-style-type: none"> ■ Check if there are any foreign objects on REL Motor. If so, remove them. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | Check if the cable routing of the REEL Motor is correctly (malfunction caused by noises entering) <ul style="list-style-type: none"> ■ Check the routing of the REEL Motor cable <p>Does the product recover from the error?</p> | End | Go to step 3 |
| 3 | Replace the motor <p>Does the product recover from the error?</p> | End | Go to step 4 |
| 4 | Replace the MCU Board <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

00164D (REEL Driving Time-Out Error) Description

The desired position was not reached even after performing motor control for a fixed period of time.

 Suspected cause

Inappropriate external command

 Parts/Components to be checked

1. ---

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Driving command correction (FW) Does the product recover from the error? | End | Go to step 2 |
| 2 | Driving command correction (external programs) Does the product recover from the error? | End | Escalate to person in charge |

00164E (REEL Velocity Deviation Error) Description

A deviation equal to or more than a fixed value from the desired velocity occurred during motor velocity control.

 Suspected cause

 Parts/Components to be checked

1. Motor
2. MCU Board

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Check if there are any foreign objects around the REEL Motor ■ Check if there are any foreign objects on REL Motor. If so, remove them. Does the product recover from the error? | End | Go to step 2 |
| 2 | Replace the motor Does the product recover from the error? | End | Go to step 3 |
| 3 | Replace the MCU Board Does the product recover from the error? | End | Escalate to person in charge |

00164F (REEL Lock Error) Description

The motor could not be rotated for a fixed period of time.

 Suspected cause

 Parts/Components to be checked

1. Motor
2. MCU Board

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Check if there are any foreign objects around the REEL Motor <ul style="list-style-type: none"> ■ Check if there are any foreign objects on REL Motor. If so, remove them. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | Replace the motor <p>Does the product recover from the error?</p> | End | Go to step 3 |
| 3 | Replace the MCU Board <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

001661 (Suction Fan Lock Error (Home)) Description

 Suspected cause

- Foreign objects inside the right Suction Fan.
- Right Suction Fan cable abnormality (connection, broken)
- Right Suction Fan failure
- MCU Board failure

 Parts/Components to be checked

1. Right Suction Fan
2. MCU Board

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Check the state of the Right Suction Fan cable <ul style="list-style-type: none"> ■ Check the connection state of the Right Suction Fan cable, and if an abnormality is found, reconnect the cable. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | Check the state of the Right Suction Fan <ul style="list-style-type: none"> ■ Check if there is any abnormality operation of the Right Suction Fan. Replace the Right Suction Fan if it has a failure. <p>Does the product recover from the error?</p> | End | Go to step 3 |
| 3 | Replace the MCU Board <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

001662 (Suction Fan Lock Error (Center))

- Description

- Suspected cause
 - Foreign objects inside the center Suction Fan
 - Center Suction Fan cable abnormality (connection, broken)
 - Center Suction Fan failure
 - MCU Board failure
- Parts/Components to be checked
 1. Center Suction Fan
 2. MCU Board
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Check the state of the Center Suction Fan cable <ul style="list-style-type: none"> ■ Check the connection state of the Center Suction Fan cable, and if an abnormality is found, reconnect the cable. Does the product recover from the error? | End | Go to step 2 |
| 2 | Check the state of the Center Suction Fan <ul style="list-style-type: none"> ■ Check if there is any abnormality operation of the Center Suction Fan. Replace the Center Suction Fan if it has a failure. Does the product recover from the error? | End | Go to step 3 |
| 3 | Replace the MCU Board Does the product recover from the error? | End | Escalate to person in charge |

001663 (Suction Fan Lock Error (Full))

- Description

- Suspected cause
 - Foreign objects inside the left Suction Fan.
 - Left Suction Fan cable abnormality (connection, broken)
 - Left Suction Fan failure
 - MCU Board failure
- Parts/Components to be checked
 1. Right Suction Fan
 2. MCU Board
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Check the state of the Left Suction Fan cable <ul style="list-style-type: none"> ■ Check the connection state of the Left Suction Fan cable, and if an abnormality is found, reconnect the cable. Does the product recover from the error? | End | Go to step 2 |
| 2 | Check the state of the Left Suction Fan <ul style="list-style-type: none"> ■ Check if there is any abnormality operation of the Left Suction Fan. Replace the Left Suction Fan if it has a failure. Does the product recover from the error? | End | Go to step 3 |
| 3 | Replace the MCU Board Does the product recover from the error? | End | Escalate to person in charge |

001664 (CR Motor Cooling Fan Lock Error)

- Description

- Suspected cause
■ Fan failure
- Parts/Components to be checked
1. CR Motor Cooling Fan
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Replace the CR Motor Cooling Fan Does the product recover from the error? | End | Escalate to person in charge |

001665 (PF Motor Cooling Fan Lock Error)

- Description

- Suspected cause
■ Fan failure
- Parts/Components to be checked
1. PF Motor Cooling Fan
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Replace the PF Motor Cooling Fan Does the product recover from the error? | End | Escalate to person in charge |

001666 (BLDC Board Cooling Fan Lock Error) Description

 Suspected cause
■ Fan failure Parts/Components to be checked
1. BLDC Board Cooling Fan Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Replace the BLDC Board Cooling Fan Does the product recover from the error? | End | Escalate to person in charge |

001667 (OnCR Board Cooling Fan Lock Error) Description

 Suspected cause
■ Fan failure Parts/Components to be checked
1. OnCR Board Cooling Fan Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Replace the OnCR Board Cooling Fan Does the product recover from the error? | End | Escalate to person in charge |

00166A (MCU Board Cooling Fan Lock Error)

- Description

- Suspected cause
■ Fan failure
- Parts/Components to be checked
1. MCU Board Cooling Fan
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Replace the MCU Board Cooling Fan Does the product recover from the error? | End | Escalate to person in charge |

00166B (MCU Board Cooling Fan 2 Lock Error)

- Description

- Suspected cause
■ Fan failure
- Parts/Components to be checked
1. MCU Board Cooling Fan 2
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Replace the MCU Board Cooling Fan 2 Does the product recover from the error? | End | Escalate to person in charge |

00166E (Suction Fan Lock Error) Description

 Suspected cause
■ Fan failure Parts/Components to be checked
1. Suction Fan Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Replace the Suction Fan Does the product recover from the error? | End | Escalate to person in charge |

00167F (Board Cooling Fan Lock Error) Description

 Suspected cause
Fan failure Parts/Components to be checked
1. Board Cooling Fan Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | <p>Check that the following fans operate when the printer power is turned on. A normal fan operates for about 1 second. Any fan that does not operate may have failed, so replace it with a new one.</p> <input type="checkbox"/> CR Motor Control Board Fan <input type="checkbox"/> CR Motor Fan <input type="checkbox"/> PF Motor Fan <input type="checkbox"/> Printer Drying Fan <input type="checkbox"/> Suction Fan Does the product recover from the error? | End | Escalate to person in charge |

00169F (Drying Fan Lock Error)

- Description

- Suspected cause
Fan failure
- Parts/Components to be checked
1. Printer Drying Fan
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Replace the printer drying fan (p393) Does the product recover from the error? | End | Escalate to person in charge |

0016AF (Hardening Fan Lock Error)

- Description

- Suspected cause
Fan failure
- Parts/Components to be checked
1. Hardening Fan
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Replace the hardening fan (p504) Does the product recover from the error? | End | Escalate to person in charge |

001A38 (Transistor Ambient Temperature Error) Description

 Suspected cause

Print Head failure

 Parts/Components to be checked

1. Print Head

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Replace the Print Head Does the product recover from the error? | End | Escalate to person in charge |

001A39 (Head Fuse Error) Description

 Suspected cause

- Head FFC (Print Head to Head Drive Board (DRV)) abnormality (connection, broken)
- Print Head failure
- Head Drive Board failure

 Parts/Components to be checked

1. Head FFC
2. Print Head
3. Head Drive Board

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | <p>Check the connection state of the Head FFC (disconnection, skewed connection, inserted halfway, peeled terminal).</p> <ul style="list-style-type: none"> ■ Connect the Head FFC again <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | <p>If an abnormality is found with the Head FFC and reconnecting does not work, replace the Head FFC</p> <p>Does the product recover from the error?</p> | End | Go to step 3 |
| 3 | <p>Replace the Print Head</p> <p>Does the product recover from the error?</p> | End | Go to step 4 |
| 4 | <p>Replace the Head Drive Board</p> <p>Does the product recover from the error?</p> | End | Go to step 5 |
| 5 | <p>Simultaneously replace the Print Head, Head Drive Board, and Head FFC</p> <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

001A3A (Head Hot Error) Description

 Suspected cause

- Head FFC (Print Head to Head Drive Board (DRV)) abnormality (connection, broken)
- Print Head failure

 Parts/Components to be checked

1. Head FFC
2. Print Head

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Check the connection state of the Head FFC (disconnection, skewed connection, inserted halfway, peeled terminal). ■ Connect the Head FFC again Does the product recover from the error? | End | Go to step 2 |
| 2 | If an abnormality is found with the Head FFC and reconnecting does not work, replace the Head FFC Does the product recover from the error? | End | Go to step 3 |
| 3 | Replace the Print Head Does the product recover from the error? | End | Escalate to person in charge |

001A3C (VBS Overvoltage Error) Description

 Suspected cause

- Head FFC abnormality (connection, broken)
- Print Head failure
- Head Drive Board failure

 Parts/Components to be checked

1. Head FFC
2. Print Head
3. Head Drive Board

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | <p>Check the connection state of the Head FFC (disconnection, skewed connection, inserted halfway, peeled terminal).</p> <ul style="list-style-type: none"> ■ Connect the Head FFC again <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | <p>If an abnormality is found with the Head FFC and reconnecting does not work, replace the Head FFC</p> <p>Does the product recover from the error?</p> | End | Go to step 3 |
| 3 | <p>Replace the Print Head</p> <p>Does the product recover from the error?</p> | End | Go to step 4 |
| 4 | <p>Replace the Head Drive Board</p> <p>Does the product recover from the error?</p> | End | Go to step 5 |
| 5 | <p>Simultaneously replace the Print Head, Head Drive Board, and Head FFC</p> <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

001A41 (Head Rank ID Error) Description

 Suspected cause

Head ID parameter trouble

 Parts/Components to be checked

1. Print Head

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Enter the correct Head ID Does the product recover from the error? | End | Go to step 2 |
| 2 | Replace the Print Head Does the product recover from the error? | End | Escalate to person in charge |

001A42 (Head Temperature Error) Description

 Suspected cause

- Print Head failure
- Drive waveform abnormality
- Head Thermistor abnormality (Print Head failure)

 Parts/Components to be checked

1. Head FFC
2. Print Head

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Connect the Head FFC again Does the product recover from the error? | End | Go to step 2 |
| 2 | If an abnormality is found with the Head FFC and reconnecting does not work, replace the Head FFC Does the product recover from the error? | End | Go to step 3 |
| 3 | Replace the Print Head Does the product recover from the error? | End | Escalate to person in charge |

001A43 (Head Memory Read Error)

- Description

- Suspected cause
 - Head ID parameter trouble
 - Print Head failure
- Parts/Components to be checked
 1. Print Head
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Enter the correct Head ID Does the product recover from the error? | End | Go to step 2 |
| 2 | Replace the Print Head Does the product recover from the error? | End | Escalate to person in charge |

001A45 (Head Incorrectly Installed Error)

- Description

- Suspected cause
 - Work mistake
- Parts/Components to be checked
 1. ---
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Replace the Print Head. Does the product recover from the error? | End | Escalate to person in charge |

001A46 (HCS Communication Error Head) Description

Head communication error

 Suspected cause

 Parts/Components to be checked

1. Print Head

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Check the Head FFC connection Does the product recover from the error? | End | Escalate to person in charge |

001A47 (HCS Communication Error Main) Description

Head communication error

 Suspected cause

 Parts/Components to be checked

1. Print Head
2. Main Board (probability of Main Board failure is low)

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Connect the Head FFC again Does the product recover from the error? | End | Go to step 2 |
| 2 | Check the connection of the Main Board B connector (CN401) Does the product recover from the error? | End | Go to step 3 |
| 3 | Check the connection of the SUB-H Board (CN4001) Does the product recover from the error? | End | Go to step 4 |
| 4 | Check the connection state of the Head Drive Board and SUB-H Board Does the product recover from the error? | End | Go to step 5 |
| 5 | Check the connections of the Head Drive Board connectors (CN101 and CN102) Does the product recover from the error? | End | Escalate to person in charge |

001A48 (HCS Error Head)

- Description
Head Error
- Suspected cause

- Parts/Components to be checked
 1. Print Head
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Check the Head FFC connection Does the product recover from the error? | End | Escalate to person in charge |

001A49 (HCS Error Main)

- Description
Head Error
- Suspected cause

- Parts/Components to be checked
 1. Print Head
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Connect the Head FFC again Does the product recover from the error? | End | Go to step 2 |
| 2 | Check the connection of the Main Board B connector (CN401) Does the product recover from the error? | End | Go to step 3 |
| 3 | Check the connection of the SUB-H Board (CN4001) Does the product recover from the error? | End | Go to step 4 |
| 4 | Check the connection state of the Head Drive Board and SUB-H Board Does the product recover from the error? | End | Go to step 5 |
| 5 | Check the connections of the Head Drive Board connectors (CN101 and CN102) Does the product recover from the error? | End | Escalate to person in charge |

001A50 (Head Not Connected Error)

- Description

- Suspected cause
 - Communication between the Print Head and Head Driver Board is not possible.
- Parts/Components to be checked
 1. Print Head
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Check the connection of the Print Head Does the product recover from the error? | End | Go to step 2 |
| 2 | Check the connection of the Head Drive Board (DRV) Does the product recover from the error? | End | Go to step 3 |
| 3 | Check the connections of the Head Drive Board (DRV) connectors (CN101 and CN102) Does the product recover from the error? | End | Escalate to person in charge |

001A51 (Head Driver Error)

- Description

- Suspected cause
 - An error is occurring with the Head Drive Board (DRV)
- Parts/Components to be checked
 1. Print Head
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Check the connection of the Print Head Does the product recover from the error? | End | Go to step 2 |
| 2 | Check the connection of the Head Drive Board (DRV) Does the product recover from the error? | End | Go to step 3 |
| 3 | Check the connections of the Head Drive Board (DRV) connectors (CN101 and CN102) Does the product recover from the error? | End | Escalate to person in charge |

001A5F (SUB-H Board Illegal Data Error) Description

The illegal data in the SUB-H Board is detected.

 Suspected cause

 Parts/Components to be checked

1. SUB-H Board

 Troubleshooting

Bring the two SUB-H Board.

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | <p>Replace the SUB-H Board, and perform the “NVRAM Restore from SSD”.</p> <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | <p>If 001A5F error occurred, replace the SUB-H Board again, and perform the sequence flow “Boards (Main Board A, MCU Board, SUB-C, SUB-H) (NVRAM Backup NG, SSD Backup NG)”. (p539)</p> <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

001B60 (Ink Leak Sensor Not Connected Error 1) Description

Ink Leak Sensor connection trouble

 Suspected cause

Check the connection of the Ink Sensor (Board, Harness, Sensor Board).

 Parts/Components to be checked

1. Ink Leak Sensor
2. Harness

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | <p>Check the connection state of the cable, and if an abnormality is found, reconnect the cable (board, harness, sensor board).</p> <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

001B61 (Ink Leak Sensor Not Connected Error 2)

- Description

- Suspected cause
Ink Leak Sensor connection trouble
- Parts/Components to be checked
1. Ink Leak Sensor
2. Harness
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | <p>Check the connection state of the cable, and if an abnormality is found, reconnect the cable (board, harness, sensor board).</p> <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

001B62 (Ink Leak Sensor Not Connected Error 3)

- Description

- Suspected cause
Ink Leak Sensor connection trouble
- Parts/Components to be checked
1. Ink Leak Sensor
2. Harness
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | <p>Check the connection state of the cable, and if an abnormality is found, reconnect the cable (board, harness, sensor board).</p> <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

001C00 (Replenishment Pump Switching Valve 1 Error)

- Description

- Suspected cause
 - Ink Supply Sub Pump Assy Harness abnormality (connection, broken)
 - Ink Supply Sub Pump Assy Solenoid Valve failure
 - SUB-M (Left) Board failure
- Parts/Components to be checked
 1. Ink Supply Sub Pump Assy Harness
 2. Switching Valve on the Ink Supply Sub Pump Assy
 3. SUB-M (Left) Board
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Check the state of the cable <ul style="list-style-type: none"> ■ Check the connection state of the cable, and if an abnormality is found, reconnect the cable. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | Check the state of the Replenishment Pump Switching Valve on the Ink Supply Sub Pump Assy <ul style="list-style-type: none"> ■ Check if there is any abnormality in the installation state of the Replenishment Pump Switching Valve. If it has a failure replace the Ink Supply Sub Pump Assy. <p>Does the product recover from the error?</p> | End | Go to step 3 |
| 3 | Check the SUB-M (Left) Board state <ul style="list-style-type: none"> ■ Check if there is any abnormality in the connection or installation state of the SUB-M (Left) Board. If it has a failure replace the SUB-M (Left) Board. <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

001C01 (Replenishment Pump Switching Valve 2 Error)

- Description

- Suspected cause
 - Ink Supply Sub Pump Assy Harness abnormality (connection, broken)
 - Ink Supply Sub Pump Assy Solenoid Valve failure
 - SUB-M (Left) Board failure
- Parts/Components to be checked
 1. Ink Supply Sub Pump Assy Harness
 2. Switching Valve on the Ink Supply Sub Pump Assy
 3. SUB-M (Left) Board
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Check the state of the cable <ul style="list-style-type: none"> ■ Check the connection state of the cable, and if an abnormality is found, reconnect the cable. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | Check the state of the Replenishment Pump Switching Valve on the Ink Supply Sub Pump Assy <ul style="list-style-type: none"> ■ Check if there is any abnormality in the installation state of the Replenishment Pump Switching Valve. If it has a failure replace the Ink Supply Sub Pump Assy. <p>Does the product recover from the error?</p> | End | Go to step 3 |
| 3 | Check the SUB-M (Left) Board state <ul style="list-style-type: none"> ■ Check if there is any abnormality in the connection or installation state of the SUB-M (Left) Board. If it has a failure replace the SUB-M (Left) Board. <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

001C02 (Replenishment Pump Switching Valve 3 Error)

- Description

- Suspected cause
 - Ink Supply Sub Pump Assy Harness abnormality (connection, broken)
 - Ink Supply Sub Pump Assy Solenoid Valve failure
 - SUB-M (Left) Board failure
- Parts/Components to be checked
 1. Ink Supply Sub Pump Assy Harness
 2. Switching Valve on the Ink Supply Sub Pump Assy
 3. SUB-M (Left) Board
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Check the state of the cable <ul style="list-style-type: none"> ■ Check the connection state of the cable, and if an abnormality is found, reconnect the cable. Does the product recover from the error? | End | Go to step 2 |
| 2 | Check the state of the Replenishment Pump Switching Valve on the Ink Supply Sub Pump Assy <ul style="list-style-type: none"> ■ Check if there is any abnormality in the installation state of the Replenishment Pump Switching Valve. If it has a failure replace the Ink Supply Sub Pump Assy. Does the product recover from the error? | End | Go to step 3 |
| 3 | Check the SUB-M (Left) Board state <ul style="list-style-type: none"> ■ Check if there is any abnormality in the connection or installation state of the SUB-M (Left) Board. If it has a failure replace the SUB-M (Left) Board. Does the product recover from the error? | End | Escalate to person in charge |

001C03 (Replenishment Pump Switching Valve 4 Error)

- Description

- Suspected cause
 - Ink Supply Sub Pump Assy Harness abnormality (connection, broken)
 - Ink Supply Sub Pump Assy Solenoid Valve failure
 - SUB-M (Left) Board failure
- Parts/Components to be checked
 1. Ink Supply Sub Pump Assy Harness
 2. Switching Valve on the Ink Supply Sub Pump Assy
 3. SUB-M (Left) Board
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Check the state of the cable <ul style="list-style-type: none"> ■ Check the connection state of the cable, and if an abnormality is found, reconnect the cable. Does the product recover from the error? | End | Go to step 2 |
| 2 | Check the state of the Replenishment Pump Switching Valve on the Ink Supply Sub Pump Assy <ul style="list-style-type: none"> ■ Check if there is any abnormality in the installation state of the Replenishment Pump Switching Valve. If it has a failure replace the Ink Supply Sub Pump Assy. Does the product recover from the error? | End | Go to step 3 |
| 3 | Check the SUB-M (Left) Board state <ul style="list-style-type: none"> ■ Check if there is any abnormality in the connection or installation state of the SUB-M (Left) Board. If it has a failure replace the SUB-M (Left) Board. Does the product recover from the error? | End | Escalate to person in charge |

001C04 (Replenishment Pump Switching Valve 5 Error) Description

 Suspected cause

- Ink Supply Sub Pump Assy Harness abnormality (connection, broken)
- Ink Supply Sub Pump Assy Solenoid Valve failure
- SUB-M Board failure

 Parts/Components to be checked

1. Ink Supply Sub Pump Assy Harness
2. Switching Valve on the Ink Supply Sub Pump Assy
3. SUB-M (Left) Board

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | <p>Check the state of the cable</p> <ul style="list-style-type: none"> ■ Check the connection state of the cable, and if an abnormality is found, reconnect the cable. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | <p>Check the state of the Replenishment Pump Switching Valve on the Ink Supply Sub Pump Assy</p> <ul style="list-style-type: none"> ■ Check if there is any abnormality in the installation state of the Replenishment Pump Switching Valve. If it has a failure replace the Ink Supply Sub Pump Assy. <p>Does the product recover from the error?</p> | End | Go to step 3 |
| 3 | <p>Check the SUB-M (Left) Board state</p> <ul style="list-style-type: none"> ■ Check if there is any abnormality in the connection or installation state of the SUB-M (Left) Board. If it has a failure replace the SUB-M (Left) Board. <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

001C05 (Replenishment Pump Switching Valve 6 Error) Description Suspected cause

- Ink Supply Sub Pump Assy Harness abnormality (connection, broken)
- Ink Supply Sub Pump Assy Solenoid Valve failure
- SUB-M Board failure

 Parts/Components to be checked

1. Ink Supply Sub Pump Assy Harness
2. Switching Valve on the Ink Supply Sub Pump Assy
3. SUB-M (Left) Board

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | <p>Check the state of the cable</p> <ul style="list-style-type: none"> ■ Check the connection state of the cable, and if an abnormality is found, reconnect the cable. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | <p>Check the state of the Replenishment Pump Switching Valve on the Ink Supply Sub Pump Assy</p> <ul style="list-style-type: none"> ■ Check if there is any abnormality in the installation state of the Replenishment Pump Switching Valve. If it has a failure replace the Ink Supply Sub Pump Assy. <p>Does the product recover from the error?</p> | End | Go to step 3 |
| 3 | <p>Check the SUB-M (Left) Board state</p> <ul style="list-style-type: none"> ■ Check if there is any abnormality in the connection or installation state of the SUB-M (Left) Board. If it has a failure replace the SUB-M (Left) Board. <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

001C06 (Replenishment Pump Switching Valve 7 Error)

- Description

- Suspected cause
 - Ink Supply Sub Pump Assy Harness abnormality (connection, broken)
 - Ink Supply Sub Pump Assy Solenoid Valve failure
 - SUB-M Board failure
- Parts/Components to be checked
 1. Ink Supply Sub Pump Assy Harness
 2. Switching Valve on the Ink Supply Sub Pump Assy
 3. SUB-M (Left) Board
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Check the state of the cable <ul style="list-style-type: none"> ■ Check the connection state of the cable, and if an abnormality is found, reconnect the cable. Does the product recover from the error? | End | Go to step 2 |
| 2 | Check the state of the Replenishment Pump Switching Valve on the Ink Supply Sub Pump Assy <ul style="list-style-type: none"> ■ Check if there is any abnormality in the installation state of the Replenishment Pump Switching Valve. If it has a failure replace the Ink Supply Sub Pump Assy. Does the product recover from the error? | End | Go to step 3 |
| 3 | Check the SUB-M (Left) Board state <ul style="list-style-type: none"> ■ Check if there is any abnormality in the connection or installation state of the SUB-M (Left) Board. If it has a failure replace the SUB-M (Left) Board. Does the product recover from the error? | End | Escalate to person in charge |

001C07 (Replenishment Pump Switching Valve 8 Error)

- Description

- Suspected cause
 - Ink Supply Sub Pump Assy Harness abnormality (connection, broken)
 - Ink Supply Sub Pump Assy Solenoid Valve failure
 - SUB-M Board failure
- Parts/Components to be checked
 1. Ink Supply Sub Pump Assy Harness
 2. Switching Valve on the Ink Supply Sub Pump Assy
 3. SUB-M (Left) Board
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Check the state of the cable <ul style="list-style-type: none"> ■ Check the connection state of the cable, and if an abnormality is found, reconnect the cable. Does the product recover from the error? | End | Go to step 2 |
| 2 | Check the state of the Replenishment Pump Switching Valve on the Ink Supply Sub Pump Assy <ul style="list-style-type: none"> ■ Check if there is any abnormality in the installation state of the Replenishment Pump Switching Valve. If it has a failure replace the Ink Supply Sub Pump Assy. Does the product recover from the error? | End | Go to step 3 |
| 3 | Check the SUB-M (Left) Board state <ul style="list-style-type: none"> ■ Check if there is any abnormality in the connection or installation state of the SUB-M (Left) Board. If it has a failure replace the SUB-M (Left) Board. Does the product recover from the error? | End | Escalate to person in charge |

001C10 (BIB Switching Valve 1 Error) Description

 Suspected cause

- Switching Valve Harness abnormality (connection, broken)
- Air tube abnormality (kink, connection, tear)
- Solenoid valve failure
- Air vacuum pump failure
- SUB-M (Left) Board failure

 Parts/Components to be checked

1. Harness (Switching Valve Harness and Electric Relay Harness)
2. Air Tubes (Pump to Relay Box and Relay Box to Gas Mask)
3. Solenoid Valve
4. Vacuum Pump
5. SUB-M (Left) Board

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Check the state of the cable <ul style="list-style-type: none"> ■ Check the connection state of the cable, and if an abnormality is found, reconnect the cable. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | Check the connection of the air tube <ul style="list-style-type: none"> ■ Check the connection state of the air tube (kinked, disconnection, broken), and if an abnormality is found, reconnect the tube. <p>Does the product recover from the error?</p> | End | Go to step 3 |
| 3 | Check the state of the Solenoid Valve <ul style="list-style-type: none"> ■ Check if there is any abnormality operation of it. Replace the Ink Supply Unit if it has a failure. <p>Does the product recover from the error?</p> | End | Go to step 4 |
| 4 | Check the state of the vacuum pump <ul style="list-style-type: none"> ■ Check if there is any abnormality operation of vacuum pump. Replace it if it has a failure. <p>Does the product recover from the error?</p> | End | Go to step 5 |
| 5 | Replace the SUB-M (Left) Board <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

001C11 (BIB Switching Valve 2 Error) Description

 Suspected cause

- Switching Valve Harness abnormality (connection, broken)
- Air tube abnormality (kink, connection, tear)
- Solenoid valve failure
- Air vacuum pump failure
- SUB-M (Left) Board failure

 Parts/Components to be checked

1. Harness (Switching Valve Harness and Electric Relay Harness)
2. Air Tubes (Pump to Relay Box and Relay Box to Gas Mask)
3. Solenoid Valve
4. Vacuum Pump
5. SUB-M (Left) Board

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Check the state of the cable <ul style="list-style-type: none"> ■ Check the connection state of the cable, and if an abnormality is found, reconnect the cable. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | Check the connection of the air tube <ul style="list-style-type: none"> ■ Check the connection state of the air tube (kinked, disconnection, broken), and if an abnormality is found, reconnect the tube. <p>Does the product recover from the error?</p> | End | Go to step 3 |
| 3 | Check the state of the Solenoid Valve <ul style="list-style-type: none"> ■ Check if there is any abnormality operation of it. Replace the Ink Supply Unit if it has a failure. <p>Does the product recover from the error?</p> | End | Go to step 4 |
| 4 | Check the state of the vacuum pump <ul style="list-style-type: none"> ■ Check if there is any abnormality operation of vacuum pump. Replace it if it has a failure. <p>Does the product recover from the error?</p> | End | Go to step 5 |
| 5 | Replace the SUB-M (Left) Board <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

001C12 (BIB Switching Valve 3 Error) Description

 Suspected cause

- Switching Valve Harness abnormality (connection, broken)
- Air tube abnormality (kink, connection, tear)
- Solenoid valve failure
- Air vacuum pump failure
- SUB-M (Left) Board failure

 Parts/Components to be checked

1. Harness (Switching Valve Harness and Electric Relay Harness)
2. Air Tubes (Pump to Relay Box and Relay Box to Gas Mask)
3. Solenoid Valve
4. Vacuum Pump
5. SUB-M (Left) Board

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Check the state of the cable <ul style="list-style-type: none"> ■ Check the connection state of the cable, and if an abnormality is found, reconnect the cable. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | Check the connection of the air tube <ul style="list-style-type: none"> ■ Check the connection state of the air tube (kinked, disconnection, broken), and if an abnormality is found, reconnect the tube. <p>Does the product recover from the error?</p> | End | Go to step 3 |
| 3 | Check the state of the Solenoid Valve <ul style="list-style-type: none"> ■ Check if there is any abnormality operation of it. Replace the Ink Supply Unit if it has a failure. <p>Does the product recover from the error?</p> | End | Go to step 4 |
| 4 | Check the state of the vacuum pump <ul style="list-style-type: none"> ■ Check if there is any abnormality operation of vacuum pump. Replace it if it has a failure. <p>Does the product recover from the error?</p> | End | Go to step 5 |
| 5 | Replace the SUB-M (Left) Board <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

001C13 (BIB Switching Valve 4 Error) Description

 Suspected cause

- Switching Valve Harness abnormality (connection, broken)
- Air tube abnormality (kink, connection, tear)
- Solenoid valve failure
- Air vacuum pump failure
- SUB-M (Left) Board failure

 Parts/Components to be checked

1. Harness (Switching Valve Harness and Electric Relay Harness)
2. Air Tubes (Pump to Relay Box and Relay Box to Gas Mask)
3. Solenoid Valve
4. Vacuum Pump
5. SUB-M (Left) Board

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Check the state of the cable <ul style="list-style-type: none"> ■ Check the connection state of the cable, and if an abnormality is found, reconnect the cable. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | Check the connection of the air tube <ul style="list-style-type: none"> ■ Check the connection state of the air tube (kinked, disconnection, broken), and if an abnormality is found, reconnect the tube. <p>Does the product recover from the error?</p> | End | Go to step 3 |
| 3 | Check the state of the Solenoid Valve <ul style="list-style-type: none"> ■ Check if there is any abnormality operation of it. Replace the Ink Supply Unit if it has a failure. <p>Does the product recover from the error?</p> | End | Go to step 4 |
| 4 | Check the state of the vacuum pump <ul style="list-style-type: none"> ■ Check if there is any abnormality operation of vacuum pump. Replace it if it has a failure. <p>Does the product recover from the error?</p> | End | Go to step 5 |
| 5 | Replace the SUB-M (Left) Board <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

001C14 (BIB Switching Valve 5 Error) Description

 Suspected cause

- Switching Valve Harness abnormality (connection, broken)
- Air tube abnormality (kink, connection, tear)
- Solenoid valve failure
- Air vacuum pump failure
- SUB-M (Left) Board failure

 Parts/Components to be checked

1. Harness (Switching Valve Harness and Electric Relay Harness)
2. Air Tubes (Pump to Relay Box and Relay Box to Gas Mask)
3. Solenoid Valve
4. Vacuum Pump
5. SUB-M (Left) Board

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Check the state of the cable <ul style="list-style-type: none"> ■ Check the connection state of the cable, and if an abnormality is found, reconnect the cable. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | Check the connection of the air tube <ul style="list-style-type: none"> ■ Check the connection state of the air tube (kinked, disconnection, broken), and if an abnormality is found, reconnect the tube. <p>Does the product recover from the error?</p> | End | Go to step 3 |
| 3 | Check the state of the Solenoid Valve <ul style="list-style-type: none"> ■ Check if there is any abnormality operation of it. Replace the Ink Supply Unit if it has a failure. <p>Does the product recover from the error?</p> | End | Go to step 4 |
| 4 | Check the state of the vacuum pump <ul style="list-style-type: none"> ■ Check if there is any abnormality operation of vacuum pump. Replace it if it has a failure. <p>Does the product recover from the error?</p> | End | Go to step 5 |
| 5 | Replace the SUB-M (Left) Board <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

001C15 (BIB Switching Valve 6 Error) Description

 Suspected cause

- Switching Valve Harness abnormality (connection, broken)
- Air tube abnormality (kink, connection, tear)
- Solenoid valve failure
- Air vacuum pump failure
- SUB-M (Left) Board failure

 Parts/Components to be checked

1. Harness (Switching Valve Harness and Electric Relay Harness)
2. Air Tubes (Pump to Relay Box and Relay Box to Gas Mask)
3. Solenoid Valve
4. Vacuum Pump
5. SUB-M (Left) Board

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Check the state of the cable <ul style="list-style-type: none"> ■ Check the connection state of the cable, and if an abnormality is found, reconnect the cable. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | Check the connection of the air tube <ul style="list-style-type: none"> ■ Check the connection state of the air tube (kinked, disconnection, broken), and if an abnormality is found, reconnect the tube. <p>Does the product recover from the error?</p> | End | Go to step 3 |
| 3 | Check the state of the Solenoid Valve <ul style="list-style-type: none"> ■ Check if there is any abnormality operation of it. Replace the Ink Supply Unit if it has a failure. <p>Does the product recover from the error?</p> | End | Go to step 4 |
| 4 | Check the state of the vacuum pump <ul style="list-style-type: none"> ■ Check if there is any abnormality operation of vacuum pump. Replace it if it has a failure. <p>Does the product recover from the error?</p> | End | Go to step 5 |
| 5 | Replace the SUB-M (Left) Board <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

001C16 (BIB Switching Valve 7 Error) Description

 Suspected cause

- Switching Valve Harness abnormality (connection, broken)
- Air tube abnormality (kink, connection, tear)
- Solenoid valve failure
- Air vacuum pump failure
- SUB-M (Left) Board failure

 Parts/Components to be checked

1. Harness (Switching Valve Harness and Electric Relay Harness)
2. Air Tubes (Pump to Relay Box and Relay Box to Gas Mask)
3. Solenoid Valve
4. Vacuum Pump
5. SUB-M (Left) Board

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Check the state of the cable <ul style="list-style-type: none"> ■ Check the connection state of the cable, and if an abnormality is found, reconnect the cable. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | Check the connection of the air tube <ul style="list-style-type: none"> ■ Check the connection state of the air tube (kinked, disconnection, broken), and if an abnormality is found, reconnect the tube. <p>Does the product recover from the error?</p> | End | Go to step 3 |
| 3 | Check the state of the Solenoid Valve <ul style="list-style-type: none"> ■ Check if there is any abnormality operation of it. Replace the Ink Supply Unit if it has a failure. <p>Does the product recover from the error?</p> | End | Go to step 4 |
| 4 | Check the state of the vacuum pump <ul style="list-style-type: none"> ■ Check if there is any abnormality operation of vacuum pump. Replace it if it has a failure. <p>Does the product recover from the error?</p> | End | Go to step 5 |
| 5 | Replace the SUB-M (Left) Board <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

001C17 (BIB Switching Valve 8 Error) Description

 Suspected cause

- Switching Valve Harness abnormality (connection, broken)
- Air tube abnormality (kink, connection, tear)
- Solenoid valve failure
- Air vacuum pump failure
- SUB-M (Left) Board failure

 Parts/Components to be checked

1. Harness (Switching Valve Harness and Electric Relay Harness)
2. Air Tubes (Pump to Relay Box and Relay Box to Gas Mask)
3. Solenoid Valve
4. Vacuum Pump
5. SUB-M (Left) Board

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Check the state of the cable <ul style="list-style-type: none"> ■ Check the connection state of the cable, and if an abnormality is found, reconnect the cable. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | Check the connection of the air tube <ul style="list-style-type: none"> ■ Check the connection state of the air tube (kinked, disconnection, broken), and if an abnormality is found, reconnect the tube. <p>Does the product recover from the error?</p> | End | Go to step 3 |
| 3 | Check the state of the Solenoid Valve <ul style="list-style-type: none"> ■ Check if there is any abnormality operation of it. Replace the Ink Supply Unit if it has a failure. <p>Does the product recover from the error?</p> | End | Go to step 4 |
| 4 | Check the state of the vacuum pump <ul style="list-style-type: none"> ■ Check if there is any abnormality operation of vacuum pump. Replace it if it has a failure. <p>Does the product recover from the error?</p> | End | Go to step 5 |
| 5 | Replace the SUB-M (Left) Board <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

001C18 (BIB Switching Valve 9 Error) Description

 Suspected cause

- Switching Valve Harness abnormality (connection, broken)
- Air tube abnormality (kink, connection, tear)
- Solenoid valve failure
- Air vacuum pump failure
- SUB-M (Right) Board failure

 Parts/Components to be checked

1. Harness (Switching Valve Harness and Electric Relay Harness)
2. Air Tubes (Pump to Relay Box and Relay Box to Gas Mask)
3. Solenoid Valve
4. Vacuum Pump
5. SUB-M (Right) Board

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Check the state of the cable <ul style="list-style-type: none"> ■ Check the connection state of the cable, and if an abnormality is found, reconnect the cable. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | Check the connection of the air tube <ul style="list-style-type: none"> ■ Check the connection state of the air tube (kinked, disconnection, broken), and if an abnormality is found, reconnect the tube. <p>Does the product recover from the error?</p> | End | Go to step 3 |
| 3 | Check the state of the Solenoid Valve <ul style="list-style-type: none"> ■ Check if there is any abnormality operation of it. Replace the Ink Supply Unit if it has a failure. <p>Does the product recover from the error?</p> | End | Go to step 4 |
| 4 | Check the state of the vacuum pump <ul style="list-style-type: none"> ■ Check if there is any abnormality operation of vacuum pump. Replace it if it has a failure. <p>Does the product recover from the error?</p> | End | Go to step 5 |
| 5 | Replace the SUB-M (Right) Board <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

001C19 (BIB Switching Valve 10 Error) Description

 Suspected cause

- Switching Valve Harness abnormality (connection, broken)
- Air tube abnormality (kink, connection, tear)
- Solenoid valve failure
- Air vacuum pump failure
- SUB-M (Right) Board failure

 Parts/Components to be checked

1. Harness (Switching Valve Harness and Electric Relay Harness)
2. Air Tubes (Pump to Relay Box and Relay Box to Gas Mask)
3. Solenoid Valve
4. Vacuum Pump
5. SUB-M (Right) Board

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Check the state of the cable <ul style="list-style-type: none"> ■ Check the connection state of the cable, and if an abnormality is found, reconnect the cable. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | Check the connection of the air tube <ul style="list-style-type: none"> ■ Check the connection state of the air tube (kinked, disconnection, broken), and if an abnormality is found, reconnect the tube. <p>Does the product recover from the error?</p> | End | Go to step 3 |
| 3 | Check the state of the Solenoid Valve <ul style="list-style-type: none"> ■ Check if there is any abnormality operation of it. Replace the Ink Supply Unit if it has a failure. <p>Does the product recover from the error?</p> | End | Go to step 4 |
| 4 | Check the state of the vacuum pump <ul style="list-style-type: none"> ■ Check if there is any abnormality operation of vacuum pump. Replace it if it has a failure. <p>Does the product recover from the error?</p> | End | Go to step 5 |
| 5 | Replace the SUB-M (Right) Board <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

001C1A (BIB Switching Valve 11 Error) Description

 Suspected cause

- Switching Valve Harness abnormality (connection, broken)
- Air tube abnormality (kink, connection, tear)
- Solenoid valve failure
- Air vacuum pump failure
- SUB-M (Right) Board failure

 Parts/Components to be checked

1. Harness (Switching Valve Harness and Electric Relay Harness)
2. Air Tubes (Pump to Relay Box and Relay Box to Gas Mask)
3. Solenoid Valve
4. Vacuum Pump
5. SUB-M (Right) Board

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Check the state of the cable <ul style="list-style-type: none"> ■ Check the connection state of the cable, and if an abnormality is found, reconnect the cable. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | Check the connection of the air tube <ul style="list-style-type: none"> ■ Check the connection state of the air tube (kinked, disconnection, broken), and if an abnormality is found, reconnect the tube. <p>Does the product recover from the error?</p> | End | Go to step 3 |
| 3 | Check the state of the Solenoid Valve <ul style="list-style-type: none"> ■ Check if there is any abnormality operation of it. Replace the Ink Supply Unit if it has a failure. <p>Does the product recover from the error?</p> | End | Go to step 4 |
| 4 | Check the state of the vacuum pump <ul style="list-style-type: none"> ■ Check if there is any abnormality operation of vacuum pump. Replace it if it has a failure. <p>Does the product recover from the error?</p> | End | Go to step 5 |
| 5 | Replace the SUB-M (Right) Board <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

001C1B (BIB Switching Valve 12 Error) Description

 Suspected cause

- Switching Valve Harness abnormality (connection, broken)
- Air tube abnormality (kink, connection, tear)
- Solenoid valve failure
- Air vacuum pump failure
- SUB-M (Right) Board failure

 Parts/Components to be checked

1. Harness (Switching Valve Harness and Electric Relay Harness)
2. Air Tubes (Pump to Relay Box and Relay Box to Gas Mask)
3. Solenoid Valve
4. Vacuum Pump
5. SUB-M (Right) Board

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Check the state of the cable <ul style="list-style-type: none"> ■ Check the connection state of the cable, and if an abnormality is found, reconnect the cable. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | Check the connection of the air tube <ul style="list-style-type: none"> ■ Check the connection state of the air tube (kinked, disconnection, broken), and if an abnormality is found, reconnect the tube. <p>Does the product recover from the error?</p> | End | Go to step 3 |
| 3 | Check the state of the Solenoid Valve <ul style="list-style-type: none"> ■ Check if there is any abnormality operation of it. Replace the Ink Supply Unit if it has a failure. <p>Does the product recover from the error?</p> | End | Go to step 4 |
| 4 | Check the state of the vacuum pump <ul style="list-style-type: none"> ■ Check if there is any abnormality operation of vacuum pump. Replace it if it has a failure. <p>Does the product recover from the error?</p> | End | Go to step 5 |
| 5 | Replace the SUB-M (Right) Board <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

001C20 (Pressure Selector Valve Fuse 1 Error) Description

 Suspected cause

- Blown fuse due to solenoid heat generation
- Harness not connected

 Parts/Components to be checked

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Check if the fuse is blown Does the product recover from the error? | End | Go to step 2 |
| 2 | Check the state of the cable <ul style="list-style-type: none"> ■ If not improved, replace the cable. Does the product recover from the error? | End | Escalate to person in charge |

001C21 (Pressure Selector Valve Fuse 2 Error) Description

 Suspected cause

- Blown fuse due to solenoid heat generation
- Harness not connected

 Parts/Components to be checked

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Check if the fuse is blown Does the product recover from the error? | End | Go to step 2 |
| 2 | Check the state of the cable <ul style="list-style-type: none"> ■ If not improved, replace the cable. Does the product recover from the error? | End | Escalate to person in charge |

001C30 (Pressure Selector Valve 1 Error)

- Description

- Suspected cause
 - Switching Valve Harness abnormality (connection, broken)
 - Solenoid valve failure
 - SUB-C Board failure
- Parts/Components to be checked
 1. Harness
 2. Switching Valve
 3. SUB-C Board
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Check the cable connection <ul style="list-style-type: none"> ■ If not improved, replace the Switching Valve Harness. Does the product recover from the error? | End | Go to step 2 |
| 2 | Check the state of the Pressing Selector Valve <ul style="list-style-type: none"> ■ Check if there is any abnormality operation of the Pressing Selector Valve. Replace the Solenoid if it has a failure. Does the product recover from the error? | End | Escalate to person in charge |

001C31 (Pressure Selector Valve 2 Error)

- Description

- Suspected cause
 - Switching Valve Harness abnormality (connection, broken)
 - Solenoid valve failure
 - SUB-C Board failure
- Parts/Components to be checked
 1. Harness
 2. Switching Valve
 3. SUB-C Board
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Check the cable connection <ul style="list-style-type: none"> ■ If not improved, replace the Switching Valve Harness. Does the product recover from the error? | End | Go to step 2 |
| 2 | Check the state of the Pressing Selector Valve <ul style="list-style-type: none"> ■ Check if there is any abnormality operation of the Pressing Selector Valve. Replace the Solenoid if it has a failure. Does the product recover from the error? | End | Escalate to person in charge |

001C32 (Pressure Selector Valve 3 Error)

- Description

- Suspected cause
 - Switching Valve Harness abnormality (connection, broken)
 - Solenoid valve failure
 - SUB-C Board failure
- Parts/Components to be checked
 1. Harness
 2. Switching Valve
 3. SUB-C Board
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Check the cable connection <ul style="list-style-type: none"> ■ If not improved, replace the Switching Valve Harness. Does the product recover from the error? | End | Go to step 2 |
| 2 | Check the state of the Pressing Selector Valve <ul style="list-style-type: none"> ■ Check if there is any abnormality operation of the Pressing Selector Valve. Replace the Solenoid if it has a failure. Does the product recover from the error? | End | Escalate to person in charge |

001C33 (Pressure Selector Valve 4 Error)

- Description

- Suspected cause
 - Switching Valve Harness abnormality (connection, broken)
 - Solenoid valve failure
 - SUB-C Board failure
- Parts/Components to be checked
 1. Harness
 2. Switching Valve
 3. SUB-C Board
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Check the cable connection <ul style="list-style-type: none"> ■ If not improved, replace the Switching Valve Harness. Does the product recover from the error? | End | Go to step 2 |
| 2 | Check the state of the Pressing Selector Valve <ul style="list-style-type: none"> ■ Check if there is any abnormality operation of the Pressing Selector Valve. Replace the Solenoid if it has a failure. Does the product recover from the error? | End | Escalate to person in charge |

001C34 (Pressure Selector Valve 5 Error)

- Description

- Suspected cause
 - Switching Valve Harness abnormality (connection, broken)
 - Solenoid valve failure
 - SUB-C Board failure
- Parts/Components to be checked
 1. Harness
 2. Switching Valve
 3. SUB-C Board
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Check the cable connection <ul style="list-style-type: none"> ■ If not improved, replace the Switching Valve Harness. Does the product recover from the error? | End | Go to step 2 |
| 2 | Check the state of the Pressing Selector Valve <ul style="list-style-type: none"> ■ Check if there is any abnormality operation of the Pressing Selector Valve. Replace the Solenoid if it has a failure. Does the product recover from the error? | End | Escalate to person in charge |

001C35 (Pressure Selector Valve 6 Error)

- Description

- Suspected cause
 - Switching Valve Harness abnormality (connection, broken)
 - Solenoid valve failure
 - SUB-C Board failure
- Parts/Components to be checked
 1. Harness
 2. Switching Valve
 3. SUB-C Board
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Check the cable connection <ul style="list-style-type: none"> ■ If not improved, replace the Switching Valve Harness. Does the product recover from the error? | End | Go to step 2 |
| 2 | Check the state of the Pressing Selector Valve <ul style="list-style-type: none"> ■ Check if there is any abnormality operation of the Pressing Selector Valve. Replace the Solenoid if it has a failure. Does the product recover from the error? | End | Escalate to person in charge |

001C40 (CL Pressurization/Decompression Switching Valve Error) Description

 Suspected cause

- Switching Valve Harness abnormality (connection, broken)
- Solenoid valve failure
- SUB-C Board failure

 Parts/Components to be checked

1. Harness
2. Switching Valve
3. SUB-C Board

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | <p>Check the cable connection</p> <ul style="list-style-type: none"> ■ If not improved, replace the Switching Valve Harness. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | <p>Check the state of the Pressing Selector Valve</p> <ul style="list-style-type: none"> ■ Check if there is any abnormality operation of the Pressing Selector Valve. Replace the Solenoid if it has a failure. <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

001C41 (On CR Atmospheric Pressure Release Valve Error) Description

 Suspected cause

- Switching Valve Harness abnormality (connection, broken)
- Solenoid valve failure
- SUB-C Board failure

 Parts/Components to be checked

1. Harness
2. Switching Valve
3. SUB-C Board

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | <p>Check the cable connection</p> <ul style="list-style-type: none"> ■ If not improved, replace the Switching Valve Harness. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | <p>Check the state of the Pressing Selector Valve</p> <ul style="list-style-type: none"> ■ Check if there is any abnormality operation of the Pressing Selector Valve. Replace the Solenoid if it has a failure. <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

001F00 (CSIC FA Slot 1 Error)

- Description

- Suspected cause
 - Ink Holder cable abnormality (connection, broken)
 - Ink Holder failure
 - SUB-M (Left) Board failure
- Parts/Components to be checked
 1. Ink Holder
 2. SUB-M (Left) Board
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Check the state of the Ink Supply Unit cable <ul style="list-style-type: none"> ■ Check the connection state of the cable, and if an abnormality is found, reconnect the cable. Does the product recover from the error? | End | Go to step 2 |
| 2 | Replace the Ink Supply Unit Does the product recover from the error? | End | Go to step 3 |
| 3 | Replace the SUB-M (Left) Board Does the product recover from the error? | End | Escalate to person in charge |

001F01 (CSIC FA Slot 2 Error)

- Description

- Suspected cause
 - Ink Holder cable abnormality (connection, broken)
 - Ink Holder failure
 - SUB-M (Left) Board failure
- Parts/Components to be checked
 1. Ink Holder
 2. SUB-M (Left) Board
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Check the state of the Ink Supply Unit cable <ul style="list-style-type: none"> ■ Check the connection state of the cable, and if an abnormality is found, reconnect the cable. Does the product recover from the error? | End | Go to step 2 |
| 2 | Replace the Ink Supply Unit Does the product recover from the error? | End | Go to step 3 |
| 3 | Replace the SUB-M (Left) Board Does the product recover from the error? | End | Escalate to person in charge |

001F02 (CSIC FA Slot 3 Error)

- Description

- Suspected cause
 - Ink Holder cable abnormality (connection, broken)
 - Ink Holder failure
 - SUB-M (Left) Board failure
- Parts/Components to be checked
 1. Ink Holder
 2. SUB-M (Left) Board
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Check the state of the Ink Supply Unit cable <ul style="list-style-type: none"> ■ Check the connection state of the cable, and if an abnormality is found, reconnect the cable. Does the product recover from the error? | End | Go to step 2 |
| 2 | Replace the Ink Supply Unit Does the product recover from the error? | End | Go to step 3 |
| 3 | Replace the SUB-M (Left) Board Does the product recover from the error? | End | Escalate to person in charge |

001F03 (CSIC FA Slot 4 Error)

- Description

- Suspected cause
 - Ink Holder cable abnormality (connection, broken)
 - Ink Holder failure
 - SUB-M (Left) Board failure
- Parts/Components to be checked
 1. Ink Holder
 2. SUB-M (Left) Board
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Check the state of the Ink Supply Unit cable <ul style="list-style-type: none"> ■ Check the connection state of the cable, and if an abnormality is found, reconnect the cable. Does the product recover from the error? | End | Go to step 2 |
| 2 | Replace the Ink Supply Unit Does the product recover from the error? | End | Go to step 3 |
| 3 | Replace the SUB-M (Left) Board Does the product recover from the error? | End | Escalate to person in charge |

001F80 (Blown Fuse Error) Description

 Suspected cause

- A fuse in a high-voltage line has blown (there is a reason for the fuse blowing)
- Broken wire of high-voltage line between the Power Supply Board and CRCM
- Power Supply Board failure (42 V was not output from the power source to begin with)

 Parts/Components to be checked

1. CH12 DRV-M Board Fuse (F1)
2. Cables between Power Supply Board and CH12 DRV-M Board and CRCM
3. CH12 DRV-M Board
4. Power Supply Board

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Check the state of the Head Drive Board (DRV) cable and FFC <ul style="list-style-type: none"> ■ Check the connection state of the cable and FFC, and if an abnormality is found, reconnect the FFC. Does the product recover from the error? | End | Go to step 2 |
| 2 | Check if the fuse is blown <ul style="list-style-type: none"> ■ If blown, replace the Head Drive Board (DRV). Does the product recover from the error? | End | Go to step 3 |
| 3 | Replace the Power Supply Board Does the product recover from the error? | End | Escalate to person in charge |

001F81 (EPC Check Error) Description

 Suspected cause

Damage of the FlashROM on the Main Board

 Parts/Components to be checked

1. Main Board

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Replace the Main Board Does the product recover from the error? | End | Escalate to person in charge |

001F82 (Destination Outside Setting Range)

- Description

- Suspected cause

Main Board failure

- Parts/Components to be checked
1. Main Board

- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Replace the Main Board Does the product recover from the error? | End | Escalate to person in charge |

001F90 (SOC Operation Error)

- Description

- Suspected cause

Damage of the Flash ROM on the Main Board

- Parts/Components to be checked
1. Main Board

- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Replace the Main Board Does the product recover from the error? | End | Escalate to person in charge |

001F91 (MR Data Error)

- Description

- Suspected cause
Damage of the Flash ROM on the Main Board
- Parts/Components to be checked
1. Main Board
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Replace the Main Board Does the product recover from the error? | End | Escalate to person in charge |

001F92 (In-process Life End Error)

- Description
Unintended Jig mode operation
- Suspected cause
Manufacturing defect in process or a user operation
- Parts/Components to be checked
1. ---
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Turn the printer ON/OFF Does the product recover from the error? | End | Escalate to person in charge |

001FA0 (Blown Fuse Error (Home side))

- Description

- Suspected cause
 - SUB-M Board and Ink Supply Unit cable (FFC) abnormality (connection, broken)
 - BIB-CRCM Board abnormality
- Parts/Components to be checked
 1. Sub M Board
 2. BIB Unit
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Check the state of the connection between Sub M Board (Left) and Ink Supply Unit <ul style="list-style-type: none"> ■ Check the connection state of the cable, and if an abnormality is found, reconnect the cable. Does the product recover from the error? | End | Go to step 2 |
| 2 | Check the state of the CRCM Board <ul style="list-style-type: none"> ■ Check if there is any abnormality operation of CRCM Board. Replace the Ink Supply Tube Assy if it has a failure. Does the product recover from the error? | End | Go to step 3 |
| 3 | Replace the Ink Supply Unit Does the product recover from the error? | End | Escalate to person in charge |

001FA1 (Blown Fuse Error (Full side))

- Description

- Suspected cause
 - SUB-M Board and Ink Supply Unit cable (FFC) abnormality (connection, broken)
 - BIB-CRCM Board abnormality
- Parts/Components to be checked
 1. Sub M Board
 2. BIB Unit
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Check the state of the connection between SUB-M Board (Left) and Ink Supply Unit <ul style="list-style-type: none"> ■ Check the connection state of the cable, and if an abnormality is found, reconnect the cable. Does the product recover from the error? | End | Go to step 2 |
| 2 | Check the state of the CRCM Board <ul style="list-style-type: none"> ■ Check if there is any abnormality operation of CRCM Board. Replace the Ink Supply Tube Assy if it has a failure. Does the product recover from the error? | End | Go to step 3 |
| 3 | Replace the Ink Supply Unit Does the product recover from the error? | End | Escalate to person in charge |

001FB9 (CS Rank Outside Setting Range)

- Description

- Suspected cause
Damage of the FlashROM on the Main Board
- Parts/Components to be checked
1. Main Board
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Replace the Main Board Does the product recover from the error? | End | Escalate to person in charge |

001FC0 (ASIC Read Communication Error (CRCM1))

- Description

- Suspected cause
 - SUB-M Board and Ink Supply Unit cable (FFC) abnormality (connection, broken)
 - BIB-CRCM Board abnormality
- Parts/Components to be checked
 1. SUB-M (Left) Board
 2. BIB Unit
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Check the state of the connection between SUB-M Board (Left) and Ink Supply Unit <ul style="list-style-type: none"> ■ Check the connection state of the cable, and if an abnormality is found, reconnect the cable. Does the product recover from the error? | End | Go to step 2 |
| 2 | Check the state of the CRCM Board <ul style="list-style-type: none"> ■ Check if there is any abnormality operation of CRCM Board. Replace the Ink Supply Tube Assy if it has a failure. Does the product recover from the error? | End | Go to step 3 |
| 3 | Replace the Ink Supply Unit Does the product recover from the error? | End | Escalate to person in charge |

001FC8 (ASIC Write Communication Error (CRCM1))

- Description

- Suspected cause
 - SUB-M Board and Ink Supply Unit cable (FFC) abnormality (connection, broken)
 - BIB-CRCM Board abnormality
- Parts/Components to be checked
 1. SUB-M (Left) Board
 2. BIB Unit
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Check the state of the connection between SUB-M Board (Left) and Ink Supply Unit <ul style="list-style-type: none"> ■ Check the connection state of the cable, and if an abnormality is found, reconnect the cable. Does the product recover from the error? | End | Go to step 2 |
| 2 | Check the state of the CRCM Board <ul style="list-style-type: none"> ■ Check if there is any abnormality operation of CRCM Board. Replace the Ink Supply Tube Assy if it has a failure. Does the product recover from the error? | End | Go to step 3 |
| 3 | Replace the Ink Supply Unit Does the product recover from the error? | End | Escalate to person in charge |

002100 (Startup Mode Error)

- Description

- Suspected cause
 - Startup mode mismatch after head replacement
- Parts/Components to be checked

- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Start the printer in the self repair mode or repair mode. Does the product recover from the error? | End | Escalate to person in charge |

002200 (Head Replacement: Head Connection Check Failure)

- Description

- Suspected cause
■ Head communication error
- Parts/Components to be checked
1. Print Head
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Check the connection of the Print Head ■ Check the connection state of the cable and FFC, and if an abnormality is found, reconnect the cable or FFC. Does the product recover from the error? | End | Go to step 2 |
| 2 | Replace the Print Head. Does the product recover from the error? | End | Escalate to person in charge |

002201 (Head Replacement: B-to-B Connection Error)

- Description

- Suspected cause
■ Head communication error
- Parts/Components to be checked
1. Print Head
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Check the connection of the Print Head ■ Check the connection state of the cable and FFC, and if an abnormality is found, reconnect the cable or FFC. Does the product recover from the error? | End | Go to step 2 |
| 2 | Replace the Print Head. Does the product recover from the error? | End | Escalate to person in charge |

002202 (Head Replacement: B-to-B Connection Error (Specified Count or Higher)) Description

- Suspected cause
 - Head communication error
- Parts/Components to be checked
 1. Print Head
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | <p>Check the connection of the Print Head</p> <ul style="list-style-type: none"> ■ Check the connection state of the cable and FFC, and if an abnormality is found, reconnect the cable or FFC. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | <p>Replace the Print Head.</p> <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

002203 (Head Replacement: Head Incorrectly Installed Error) Description

- Suspected cause
 - Replaced the head of a different slot than the specified one.
- Parts/Components to be checked
 1. Print Head
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | <p>Check the slot of the replaced Print Head.</p> <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | <p>Replace the Print Head.</p> <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

002204 (Head Replacement: Fixing Plate Checksum Not OK (Specified Count or Higher)) Description

 Suspected cause
■ Head defect detected Parts/Components to be checked
1. Print Head Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Replace the Print Head. Does the product recover from the error? | End | Escalate to person in charge |

002205 (Head Replacement: Fixing Plate Checksum Not OK (Below Specified Count), Head Connection Problem) Description

 Suspected cause
■ Head defect detected Parts/Components to be checked
1. Print Head Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Replace the Print Head. Does the product recover from the error? | End | Escalate to person in charge |

002206 (Head Replacement: NVT Ranking Not OK) Description

 Suspected cause
■ Head defect detected Parts/Components to be checked
1. Print Head Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Replace the Print Head. Does the product recover from the error? | End | Escalate to person in charge |

002207 (Head Replacement: NVT Noise Inspection Not OK (Below Specified Count)) Description

 Suspected cause
■ Head defect detected Parts/Components to be checked
1. Print Head Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Replace the Print Head. Does the product recover from the error? | End | Escalate to person in charge |

002208 (Head Replacement: NVT Noise Inspection Not OK (Specified Count or Higher, OK Before Replacement)) Description

 Suspected cause
■ Head defect detected Parts/Components to be checked
1. Print Head Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Replace the Print Head. Does the product recover from the error? | End | Escalate to person in charge |

002209 (Head Replacement: NVT Noise Inspection Not OK (Specified Count or Higher, Not OK Before Replacement)) Description

 Suspected cause
■ Head defect detected Parts/Components to be checked
1. Print Head Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Replace the Print Head. Does the product recover from the error? | End | Escalate to person in charge |

00220A (Head Replacement: Nozzle Clogging Not Resolved)

- Description

- Suspected cause
■ Nozzle clogging
- Parts/Components to be checked
1. Print Head
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Replace the Print Head. Does the product recover from the error? | End | Escalate to person in charge |

00220B (Head Replacement: Adjustment Not OK)

- Description

- Suspected cause
Adjustment failure
- Parts/Components to be checked
1. Print Head
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Replace the Print Head. Does the product recover from the error? | End | Escalate to person in charge |

00220C (Head Replacement: Out of Guaranteed NVT Temperature Range) Description

 Suspected cause

Out of guaranteed temperature range

 Parts/Components to be checked

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Check the temperature in the installation space <ul style="list-style-type: none"> ■ Regulate the room temperature to within the guaranteed temperature range. <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

002410 (AD Abnormality Error Temperature and Humidity Sensor) Description

 Suspected cause

- Values of the Temperature and Humidity Sensor are abnormal.

 Parts/Components to be checked

1. Temperature and Humidity Sensor

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Check the state of the Temperature and Humidity Sensor cable <ul style="list-style-type: none"> ■ Check the connection state of the cable, and if an abnormality is found, reconnect the cable. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | Check the state of the Temperature and Humidity Sensor <ul style="list-style-type: none"> ■ Check if there is any abnormality in the connection or installation state of the Temperature and Humidity Sensor. If it has a failure replace it. <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

002800 (AD Abnormality Error Thermistor 1) Description

Hardening Heater Internal Temperature Sensor abnormal

 Suspected cause

 Parts/Components to be checked

1. Temperature Sensor
2. CF84 SUB-S Board

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | <p>Check the state of the Temperature Sensor cable in the Dryer</p> <ul style="list-style-type: none"> ■ Check the connection state of the cable, and if an abnormality is found, reconnect the cable. If not improved, replace the Temperature Sensor. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | <p>Check the state of the cables connected Thermistor Relay A/D Board (SUB-S) cable</p> <ul style="list-style-type: none"> ■ Check the connection state of the cable, and if an abnormality is found, reconnect the cable. If not improved, replace the Thermistor Relay A/D Board (SUB-S). <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

002801 (AD Abnormality Error Thermistor 2) Description

Media Path Internal Temperature Sensor abnormal

 Suspected cause

 Parts/Components to be checked

1. Temperature Sensor
2. CF84 SUB-S Board

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | <p>Check the state of the Temperature Sensor cable in the Dryer</p> <ul style="list-style-type: none"> ■ Check the connection state of the cable, and if an abnormality is found, reconnect the cable. If not improved, replace the Temperature Sensor. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | <p>Check the state of the cables connected Thermistor Relay A/D Board (SUB-S) cable</p> <ul style="list-style-type: none"> ■ Check the connection state of the cable, and if an abnormality is found, reconnect the cable. If not improved, replace the Thermistor Relay A/D Board (SUB-S). <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

002808 (Over-heat Error Heater 1) Description

Hardening heater detection temperature has exceeded the set temperature for the specified count consecutively.

 Suspected cause

 Parts/Components to be checked

1. Temperature Sensor
2. CF84 SUB-S Board

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Check the state of the hardening heater thermistor <ul style="list-style-type: none"> ■ Check the connection state of the cable, and if an abnormality is found, reconnect the cable. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | Check the state of the CF84 SUB-S Board <ul style="list-style-type: none"> ■ Check the connection state of the cable, and if an abnormality is found, reconnect the cable. <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

002809 (Over-heat Error Heater 2) Description

Media path internal heater detection temperature has exceeded the set temperature for the specified count consecutively.

 Suspected cause

 Parts/Components to be checked

1. Temperature Sensor
2. CF84 SUB-S Board

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Check the state of the hardening heater thermistor <ul style="list-style-type: none"> ■ Check the connection state of the cable, and if an abnormality is found, reconnect the cable. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | Check the state of the CF84 SUB-S Board <ul style="list-style-type: none"> ■ Check the connection state of the cable, and if an abnormality is found, reconnect the cable. <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

002810 (Temperature Deviation Error Heater 1) Description

 Suspected cause

The difference between the target temperature and current temperature has become the specified temperature or higher.

 Parts/Components to be checked

1. Thermistor (Heater 1)

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Check operation of the Thermistor (Heater 1) <ul style="list-style-type: none"> ■ Check if there is any abnormality operation of Thermistor (Heater 1). Replace it if it has a failure. Does the product recover from the error? | End | Go to step 2 |
| 2 | Check the state of the cable <ul style="list-style-type: none"> ■ Check the connection state of the cable, and if an abnormality is found, reconnect the cable. If not improved, replace the Main Board. Does the product recover from the error? | End | Escalate to person in charge |

002811 (Temperature Deviation Error Heater 2) Description

 Suspected cause

The difference between the target temperature and current temperature has become the specified temperature or higher.

 Parts/Components to be checked

1. Thermistor (Heater 2)

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Check operation of the Thermistor (Heater 2) <ul style="list-style-type: none"> ■ Check if there is any abnormality operation of Thermistor (Heater 2). Replace it if it has a failure. Does the product recover from the error? | End | Go to step 2 |
| 2 | Check the state of the cable <ul style="list-style-type: none"> ■ Check the connection state of the cable, and if an abnormality is found, reconnect the cable. If not improved, replace the Main Board. Does the product recover from the error? | End | Escalate to person in charge |

002818 (Over-cool Error Heater 1) Description

Hardening heater detection temperature has exceeded the set temperature for the specified count consecutively.

 Suspected cause

Hardening Heater Thermistor failure

 Parts/Components to be checked

1. Hardening Heater Internal Temperature Sensor
2. CF84 SUB-S Board

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Check operation of the Hardening Heater Internal Temperature Sensor <ul style="list-style-type: none"> ■ Check if there is any abnormality operation of the Hardening Heater Internal Temperature Sensor. Replace it if it has a failure. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | Check the state of the cable <ul style="list-style-type: none"> ■ Check the connection state of the cable, and if an abnormality is found, reconnect the cable. If not improved, replace the SUB-S Board. <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

002819 (Over-cool Error Heater 2) Description

Media path internal heater detection temperature has exceeded the set temperature for the specified count consecutively.

 Suspected cause

- Media Path Internal Thermistor failure

 Parts/Components to be checked

1. Media Path Internal Temperature Sensor
2. CF84 SUB-S Board

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Check operation of the Media Path Internal Temperature Sensor <ul style="list-style-type: none"> ■ Check if there is any abnormality operation of the Media Path Internal Temperature Sensor. Replace it if it has a failure. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | Check the state of the cable <ul style="list-style-type: none"> ■ Check the connection state of the cable, and if an abnormality is found, reconnect the cable. If not improved, replace the Thermistor Relay A/D Board (SUB-S). <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

002820 (Temperature Acquisition Communication Error Board 1) Description

An error occurred in communication with the Hardening Heater Internal SUB-S Board.

 Suspected cause

 Parts/Components to be checked

1. Hardening Heater Internal F84 SUB-S Board

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Check the state of the cable <ul style="list-style-type: none"> ■ Check the connection state of the Thermistor Relay A/D Board (SUB-S) cable, and if an abnormality is found, reconnect the cable. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | Check operation of the Thermistor Relay A/D Board (SUB-S) <ul style="list-style-type: none"> ■ Check if there is any abnormality operation of the Thermistor Relay A/D Board (SUB-S). Replace it if it has a failure. <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

002821 (Temperature Acquisition Communication Error Board 2) Description

An error occurred in communication with the Media Path Internal Heater Internal SUB-S Board.

 Suspected cause

 Parts/Components to be checked

1. Media Path Heater Internal F84 SUB-S Board

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Check the state of the cable <ul style="list-style-type: none"> ■ Check the connection state of the Thermistor Relay A/D Board (SUB-S) cable, and if an abnormality is found, reconnect the cable. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | Check operation of the Thermistor Relay A/D Board (SUB-S) <ul style="list-style-type: none"> ■ Check if there is any abnormality operation of the Thermistor Relay A/D Board (SUB-S). Replace it if it has a failure. <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

002824 (Abnormal Heat Generation Error (Low Current Detected) Board 1) Description

Abnormal heat generation was detected.

 Suspected cause

 Parts/Components to be checked

1. Heater Board 1
2. Thermistor 1

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Check the state of the cable <ul style="list-style-type: none"> ■ Check the connection state of the Heater Board 1 cable, and if an abnormality is found, reconnect the cable. If not improved, replace the Heater Board 1. Does the product recover from the error? | End | Go to step 2 |
| 2 | Check the state of the cable <ul style="list-style-type: none"> ■ Check the connection state of the Thermistor 1 cable, and if an abnormality is found, reconnect the cable. If not improved, replace the Thermistor 1. Does the product recover from the error? | End | Escalate to person in charge |

002825 (Abnormal Heat Generation Error (Low Current Detected) Board 2) Description

Abnormal heat generation was detected.

 Suspected cause

 Parts/Components to be checked

1. Heater Board 2
2. Thermistor 2

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Check the state of the cable <ul style="list-style-type: none"> ■ Check the connection state of the Heater Board 2 cable, and if an abnormality is found, reconnect the cable. If not improved, replace the Heater Board 2. Does the product recover from the error? | End | Go to step 2 |
| 2 | Check the state of the cable <ul style="list-style-type: none"> ■ Check the connection state of the Thermistor 2 cable, and if an abnormality is found, reconnect the cable. If not improved, replace the Thermistor 2. Does the product recover from the error? | End | Escalate to person in charge |

002828 (Temperature Acquisition Communication Time-Out Error Board 1) Description

Acquisition of the temperature sensor information timed out.

 Suspected cause

 Parts/Components to be checked

1. Thermistor
2. Thermistor Relay A/D Board (SUB-S)

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Check the state of the cable <ul style="list-style-type: none"> ■ Check the connection state of the thermistor cable, and if an abnormality is found, reconnect the cable. If not improved, replace the thermistor. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | Check the state of the cable <ul style="list-style-type: none"> ■ Check the connection state of the Thermistor Relay A/D Board (SUB-S) cable, and if an abnormality is found, reconnect the cable. If not improved, replace the Thermistor Relay A/D Board (SUB-S). <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

002829 (Temperature Acquisition Communication Time-Out Error Board 2) Description

Acquisition of the temperature sensor information timed out.

 Suspected cause

 Parts/Components to be checked

1. Thermistor
2. Thermistor Relay A/D Board (SUB-S)

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Check the state of the cable <ul style="list-style-type: none"> ■ Check the connection state of the thermistor cable, and if an abnormality is found, reconnect the cable. If not improved, replace the thermistor. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | Check the state of the cable <ul style="list-style-type: none"> ■ Check the connection state of the Thermistor Relay A/D Board (SUB-S) cable, and if an abnormality is found, reconnect the cable. If not improved, replace the Thermistor Relay A/D Board (SUB-S). <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

00282C (Heater Board Power OFF Error)

- Description

- Suspected cause
- The cable of Heater Control Board 1/2/3 is disconnected or broken or the fuse is blown.
 - Heater Control Board failure
- Parts/Components to be checked
1. Heater Board 1/2/3
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | <p>Check the state of the cable</p> <ul style="list-style-type: none"> ■ Check the connection state of the Heater Control Board 1/2/3 cable, and if an abnormality is found, reconnect the cable. If not improved, replace the Heater Control Board 1/2/3. <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

002830 (Heater Board Communication Error Host Side)

- Description
An error occurred in communication with Heater Control Board 1/2/3.
- Suspected cause

- Parts/Components to be checked
1. Heater Board 1/2/3
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | <p>Check the state of the cable</p> <ul style="list-style-type: none"> ■ Check the connection state of the Heater Control Board 1/2/3 cable, and if an abnormality is found, reconnect the cable. If not improved, replace the Heater Control Board 1/2/3. <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

002838 (Heater Board Communication Time- Out Error Board 1) Description

Communication with a Heater Control Board timed out.

 Suspected cause

 Parts/Components to be checked

1. Heater Board 1

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Check the state of the AC cable <ul style="list-style-type: none"> ■ Check the connection state of the AC cable, and if an abnormality is found, reconnect the cable. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | Check the state of the cable <ul style="list-style-type: none"> ■ Check the connection state of the Heater Control Board 1 cable, and if an abnormality is found, reconnect the cable. If not improved, replace the Heater Control Board 1. <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

002839 (Heater Board Communication Time- Out Error Board 2) Description

Communication with a Heater Control Board timed out.

 Suspected cause

 Parts/Components to be checked

1. Heater Board 2

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Check the state of the cable <ul style="list-style-type: none"> ■ Check the connection state of the Heater Control Board 2 cable, and if an abnormality is found, reconnect the cable. If not improved, replace the Heater Control Board 2. <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

00283A (Heater Board Communication Time- Out Error Board 3) Description

Communication with a Heater Control Board timed out.

 Suspected cause

 Parts/Components to be checked

1. Heater Board 3

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | <p>Check the state of the cable</p> <ul style="list-style-type: none"> ■ Check the connection state of the Heater Control Board 3 cable, and if an abnormality is found, reconnect the cable. If not improved, replace the Heater Control Board 3. <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

002840 (Heater Board 1 Initial Heater Overcurrent) Description

An overcurrent was detected in Heater Control Board 1.

 Suspected cause

 Parts/Components to be checked

1. Heater Board 1

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | <p>Check the state of the cable</p> <ul style="list-style-type: none"> ■ Check if the cable is caught. If not improved, replace the After Heater and Heater Control Board 1. <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

002841 (Heater Board 1 Current Leak) Description

A current leak was detected in Heater Control Board 1.

 Suspected cause

 Parts/Components to be checked

1. Heater Board 1

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Check the state of the cable <ul style="list-style-type: none"> ■ Check if the cable is caught. If not improved, replace the After Heater and Heater Control Board 1. <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

002842 (Heater Board 1 Overcurrent during Operation) Description

An overcurrent was detected in Heater Control Board 1.

 Suspected cause

 Parts/Components to be checked

1. Heater Board 1

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Check the state of the cable <ul style="list-style-type: none"> ■ Check if the cable is caught. If not improved, replace the After Heater and Heater Control Board 1. <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

002843 (Heater Board 1 Heater Not Connected) Description

 Suspected cause

The heater is not connected.

 Parts/Components to be checked

1. Heater
2. Heater Board 1

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | <p>Check the state of the cable</p> <ul style="list-style-type: none"> ■ Check the connection state of the Heater Control Board 1 cable, and if an abnormality is found, reconnect the cable. If not improved, replace the After Heater and Heater Control Board 1. <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

002844 (Heater Board 1 24 V Non Input) Description

 Suspected cause

- 24 V is not being input.

 Parts/Components to be checked

1. Heater Board 1

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | <p>Remove the foreign objects</p> <ul style="list-style-type: none"> ■ Check if there are any foreign objects on the Heater Control Board 1. If not improved, replace the Board Cooling Fan. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | <p>Check the state of the cable</p> <ul style="list-style-type: none"> ■ Check the connection state of the Heater Control Board 1 cable, and if an abnormality is found, reconnect the cable. If not improved, replace the Heater Control Board 1. <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

002845 (Heater Board 1 FAN Lock) Description

 Suspected cause

The Board Cooling Fan is not rotating.

 Parts/Components to be checked

1. Board Cooling Fan
2. Heater Board 1

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | <p>Check the state of the cable</p> <ul style="list-style-type: none"> ■ Check the connection state of the Board Cooling Fan cable. If not improved, replace the Board Cooling Fan and the Heater Control Board 1. <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

002846 (Heater Board 1 IGBT Thermistor High Temperature) Description

An abnormality was detected with the thermistor on the board.

 Suspected cause

 Parts/Components to be checked

1. Heater Board 1

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | <p>Replace Heater Control Board 1</p> <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

002847 (Heater Board 1 Frequency Detection) Description

A frequency abnormality was detected on the board.

 Suspected cause

 Parts/Components to be checked

1. Heater Board 1

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Replace Heater Control Board 1 Does the product recover from the error? | End | Escalate to person in charge |

002848 (Heater Board 1 Initialization Wait Time-Out Error) Description

Board initialization could not be performed normally.

 Suspected cause

■

 Parts/Components to be checked

1. Heater Board 1

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Remove the foreign objects ■ Check if there are any foreign objects on the Heater Control Board 1. If not improved, replace the Board Cooling Fan. Does the product recover from the error? | End | Go to step 2 |
| 2 | Check the state of the cable ■ Check the connection state of the Heater Control Board 1 cable, and if an abnormality is found, reconnect the cable. If not improved, replace the Heater Control Board 1. Does the product recover from the error? | End | Escalate to person in charge |

002849 (Heater Board 1 AC Overvoltage) Description

An overvoltage was detected for the AC.

 Suspected cause

 Parts/Components to be checked

1. Heater Board 1

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Remove the foreign objects <ul style="list-style-type: none"> ■ Check if there are any foreign objects on the Heater Control Board 1. If not improved, replace the Board Cooling Fan. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | Check the state of the cable <ul style="list-style-type: none"> ■ Check the connection state of the Heater Control Board 1 cable, and if an abnormality is found, reconnect the cable. If not improved, replace the Heater Control Board 1. <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

00284A (Heater Board 1 Communication Error) Description

Communication could not be performed normally.

 Suspected cause

 Parts/Components to be checked

1. Heater Board 1

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Remove the foreign objects <ul style="list-style-type: none"> ■ Check if there are any foreign objects on the Heater Control Board 1. If not improved, replace the Board Cooling Fan. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | Check the state of the cable <ul style="list-style-type: none"> ■ Check the connection state of the Heater Control Board 1 cable, and if an abnormality is found, reconnect the cable. If not improved, replace the Heater Control Board 1. <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

00284B (Heater Board 1 Undefined Command) Description

An undefined command was sent.

 Suspected cause

 Parts/Components to be checked

1. Heater Board 1

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Remove the foreign objects <ul style="list-style-type: none"> ■ Check if there are any foreign objects on the Heater Control Board 1. If not improved, replace the Board Cooling Fan. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | Check the state of the cable <ul style="list-style-type: none"> ■ Check the connection state of the Heater Control Board 1 cable, and if an abnormality is found, reconnect the cable. If not improved, replace the Heater Control Board 1. <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

00284C (Heater Board 1 Communication Invalid Timing Error) Description

Communication could not be performed normally.

 Suspected cause

 Parts/Components to be checked

1. Heater Board 1

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Remove the foreign objects <ul style="list-style-type: none"> ■ Check if there are any foreign objects on the Heater Control Board 1. If not improved, replace the Board Cooling Fan. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | Check the state of the cable <ul style="list-style-type: none"> ■ Check the connection state of the Heater Control Board 1 cable, and if an abnormality is found, reconnect the cable. If not improved, replace the Heater Control Board 1. <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

00284D (Heater Board 1 Communication Time-Out Error) Description

Communication could not be performed normally.

 Suspected cause

 Parts/Components to be checked

1. Heater Board 1

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Remove the foreign objects <ul style="list-style-type: none"> ■ Check if there are any foreign objects on the Heater Control Board 1. If not improved, replace the Board Cooling Fan. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | Check the state of the cable <ul style="list-style-type: none"> ■ Check the connection state of the Heater Control Board 1 cable, and if an abnormality is found, reconnect the cable. If not improved, replace the Heater Control Board 1. <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

00284E (Heater Board 1 Board Type Error) Description

A board mismatch was detected.

 Suspected cause

 Parts/Components to be checked

1. Heater Board 1

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Remove the foreign objects <ul style="list-style-type: none"> ■ Check if there are any foreign objects on the Heater Control Board 1. If not improved, replace the Board Cooling Fan. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | Check the state of the cable <ul style="list-style-type: none"> ■ Check the connection state of the Heater Control Board 1 cable, and if an abnormality is found, reconnect the cable. If not improved, replace the Heater Control Board 1. <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

002850 (Heater Board 2 Initial Heater Overcurrent) Description

An overcurrent was detected in Heater Control Board 2.

 Suspected cause

 Parts/Components to be checked

1. Heater Board 2

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Check the state of the cable <ul style="list-style-type: none"> ■ Check if the cable is caught. If not improved, replace the After Heater and Heater Control Board 2. <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

002851 (Heater Board 2 Current Leak) Description

A current leak was detected in Heater Control Board 2.

 Suspected cause

 Parts/Components to be checked

1. Heater Board 2

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Check the state of the cable <ul style="list-style-type: none"> ■ Check if the cable is caught. If not improved, replace the After Heater and Heater Control Board 2. <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

002852 (Heater Board 2 Overcurrent during Operation) Description

An overcurrent was detected in Heater Control Board 2.

 Suspected cause

 Parts/Components to be checked

1. Heater Board 2

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Check the state of the cable <ul style="list-style-type: none"> ■ Check if the cable is caught. If not improved, replace the After Heater and Heater Control Board 2. <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

002853 (Heater Board 2 Heater Not Connected) Description

The heater is not connected.

 Suspected cause

 Parts/Components to be checked

1. Heater Board 2

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Check the state of the cable <ul style="list-style-type: none"> ■ Check the connection state of the Heater Control Board 2 cable, and if an abnormality is found, reconnect the cable. If not improved, replace the Heater Control Board 2. <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

002854 (Heater Board 1/2 24 V Non Input) Description

24 V is not being input.

 Suspected cause

 Parts/Components to be checked

1. Heater Board 1/2

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Remove the foreign objects <ul style="list-style-type: none"> ■ Check if there are any foreign objects on the Heater Control Board 1/2. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | Check the state of the cable <ul style="list-style-type: none"> ■ Check the connection state of the Heater Control Board 1/2 cable, and if an abnormality is found, reconnect the cable. If not improved, replace the Heater Control Board 1/2. <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

002855 (Heater Board 2 FAN Lock) Description

The Board Cooling Fan is not rotating.

 Suspected cause

 Parts/Components to be checked

1. Board Cooling Fan
2. Heater Board 2

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Check the state of the cable <ul style="list-style-type: none"> ■ Check the connection state of the Board Cooking Fan cable, and if an abnormality is found, reconnect the cable. If not improved, replace the Heater Control Board 2. <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

002856 (Heater Board 2 IGBT Thermistor High Temperature) Description

An abnormality was detected with the thermistor on the board.

 Suspected cause

 Parts/Components to be checked

1. Heater Board 2

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Remove the foreign objects <ul style="list-style-type: none"> ■ Check if there are any foreign objects on the Heater Control Board 2. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | Check the state of the cable <ul style="list-style-type: none"> ■ Check the connection state of the Heater Control Board 2 cable, and if an abnormality is found, reconnect the cable. If not improved, replace the Heater Control Board 2. <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

002857 (Heater Board 2 Frequency Detection) Description

A frequency abnormality was detected on the board.

 Suspected cause

 Parts/Components to be checked

1. Heater Board 2

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Remove the foreign objects <ul style="list-style-type: none"> ■ Check if there are any foreign objects on the Heater Control Board 2. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | Check the state of the cable <ul style="list-style-type: none"> ■ Check the connection state of the Heater Control Board 2 cable, and if an abnormality is found, reconnect the cable. If not improved, replace the Heater Control Board 2. <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

002858 (Heater Board 2 Initialization Wait Time-Out Error) Description

Board initialization could not be performed normally.

 Suspected cause

 Parts/Components to be checked

1. Heater Board 2

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Remove the foreign objects <ul style="list-style-type: none"> ■ Check if there are any foreign objects on the Heater Control Board 2. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | Check the state of the cable <ul style="list-style-type: none"> ■ Check the connection state of the Heater Control Board 2 cable, and if an abnormality is found, reconnect the cable. If not improved, replace the Heater Control Board 2. <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

002859 (Heater Board 2 AC Overvoltage) Description

An overvoltage was detected for the AC.

 Suspected cause

 Parts/Components to be checked

1. Heater Board 2

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Remove the foreign objects <ul style="list-style-type: none"> ■ Check if there are any foreign objects on the Heater Control Board 2. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | Check the state of the cable <ul style="list-style-type: none"> ■ Check the connection state of the Heater Control Board 2 cable, and if an abnormality is found, reconnect the cable. If not improved, replace the Heater Control Board 2. <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

00285A (Heater Board 2 Communication Error) Description

Communication could not be performed normally.

 Suspected cause

 Parts/Components to be checked

1. Heater Board 2

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Remove the foreign objects <ul style="list-style-type: none"> ■ Check if there are any foreign objects on the Heater Control Board 2. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | Check the state of the cable <ul style="list-style-type: none"> ■ Check the connection state of the Heater Control Board 2 cable, and if an abnormality is found, reconnect the cable. If not improved, replace the Heater Control Board 2. <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

00285B (Heater Board 2 Undefined Command) Description

An undefined command was sent.

 Suspected cause

 Parts/Components to be checked

1. Heater Board 2

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Remove the foreign objects <ul style="list-style-type: none"> ■ Check if there are any foreign objects on the Heater Control Board 2. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | Check the state of the cable <ul style="list-style-type: none"> ■ Check the connection state of the Heater Control Board 2 cable, and if an abnormality is found, reconnect the cable. If not improved, replace the Heater Control Board 2. <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

00285C (Heater Board 2 Communication Invalid Timing Error) Description

Communication could not be performed normally.

 Suspected cause

 Parts/Components to be checked

1. Heater Board 2

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Remove the foreign objects <ul style="list-style-type: none"> ■ Check if there are any foreign objects on the Heater Control Board 2. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | Check the state of the cable <ul style="list-style-type: none"> ■ Check the connection state of the Heater Control Board 2 cable, and if an abnormality is found, reconnect the cable. If not improved, replace the Heater Control Board 2. <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

00285D (Heater Board 2 Communication Time-Out Error) Description

Communication could not be performed normally.

 Suspected cause

 Parts/Components to be checked

1. Heater Board 2

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Remove the foreign objects <ul style="list-style-type: none"> ■ Check if there are any foreign objects on the Heater Control Board 2. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | Check the state of the cable <ul style="list-style-type: none"> ■ Check the connection state of the Heater Control Board 2 cable, and if an abnormality is found, reconnect the cable. If not improved, replace the Heater Control Board 2. <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

00285E (Heater Board 2 Board Type Error) Description

A board mismatch was detected.

 Suspected cause

 Parts/Components to be checked

1. Heater Board 2

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Remove the foreign objects <ul style="list-style-type: none"> ■ Check if there are any foreign objects on the Heater Control Board 2. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | Check the state of the cable <ul style="list-style-type: none"> ■ Check the connection state of the Heater Control Board 2 cable, and if an abnormality is found, reconnect the cable. If not improved, replace the Heater Control Board 2. <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

002860 (Heater Board 3 Initial Heater Overcurrent) Description

An overcurrent was detected in Heater Control Board 3.

 Suspected cause

 Parts/Components to be checked

1. Heater Board 3

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Check the state of the cable <ul style="list-style-type: none"> ■ Check if the cable is caught. If not improved, replace the After Heater and Heater Control Board 3. <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

002861 (Heater Board 3 Current Leak) Description

A current leak was detected in Heater Control Board 3.

 Suspected cause

 Parts/Components to be checked

1. Heater Board 3

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Check the state of the cable <ul style="list-style-type: none"> ■ Check if the cable is caught. If not improved, replace the After Heater and Heater Control Board 3. <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

002862 (Heater Board 3 Overcurrent during Operation) Description

An overcurrent was detected in Heater Control Board 3.

 Suspected cause

 Parts/Components to be checked

1. Heater Board 3

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Check the state of the cable <ul style="list-style-type: none"> ■ Check if the cable is caught. If not improved, replace the After Heater and Heater Control Board 3. <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

002863 (Heater Board 3 Heater Not Connected) Description

 Suspected cause

 Parts/Components to be checked

1. Heater Board 3

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | <p>Check the state of the cable</p> <ul style="list-style-type: none"> ■ Check the connection state of the Heater Control Board 3 cable, and if an abnormality is found, reconnect the cable. If not improved, replace the Heater Control Board 3. <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

002864 (Heater Board 3 24 V Non Input) Description

 Suspected cause

24 V is not being input.

 Parts/Components to be checked

1. Heater Board 3

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | <p>Remove the foreign objects</p> <ul style="list-style-type: none"> ■ Check if there are any foreign objects on the Heater Control Board 3. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | <p>Check the state of the cable</p> <ul style="list-style-type: none"> ■ Check the connection state of the Heater Control Board 3 cable, and if an abnormality is found, reconnect the cable. If not improved, replace the Heater Control Board 3. <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

002865 (Heater Board 3 FAN Lock) Description

 Suspected cause

The Board Cooling Fan is not rotating.

 Parts/Components to be checked

1. Board Cooling Fan
2. Heater Board 3

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Check the state of the Heater Control Board Fan cable <ul style="list-style-type: none"> ■ Check the connection state of the cable, and if an abnormality is found, reconnect the cable. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | Check the state of the Heater Control Board Fan <ul style="list-style-type: none"> ■ Check if there is any abnormality operation of the Heater Control Board Fan. Replace it if it has a failure. <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

002866 (Heater Board 3 IGBT Thermistor High Temperature) Description

An abnormality was detected with the thermistor on the board.

 Suspected cause

 Parts/Components to be checked

1. Heater Board 3

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Remove the foreign objects <ul style="list-style-type: none"> ■ Check if there are any foreign objects on the Heater Control Board 3. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | Check the state of the cable <ul style="list-style-type: none"> ■ Check the connection state of the Heater Control Board 3 cable, and if an abnormality is found, reconnect the cable. If not improved, replace the Heater Control Board 3. <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

002867 (Heater Board 3 Frequency Detection) Description

A frequency abnormality was detected on the board.

 Suspected cause

 Parts/Components to be checked

1. Heater Board 3

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Remove the foreign objects <ul style="list-style-type: none"> ■ Check if there are any foreign objects on the Heater Control Board 3. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | Check the state of the cable <ul style="list-style-type: none"> ■ Check the connection state of the Heater Control Board 3 cable, and if an abnormality is found, reconnect the cable. If not improved, replace the Heater Control Board 3. <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

002868 (Heater Board 3 Initialization Wait Time-Out Error) Description

Board initialization could not be performed normally.

 Suspected cause

 Parts/Components to be checked

1. Heater Board 3

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Remove the foreign objects <ul style="list-style-type: none"> ■ Check if there are any foreign objects on the Heater Control Board 3. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | Check the state of the cable <ul style="list-style-type: none"> ■ Check the connection state of the Heater Control Board 3 cable, and if an abnormality is found, reconnect the cable. If not improved, replace the Heater Control Board 3. <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

002869 (Heater Board 3 AC Overvoltage) Description

An overvoltage was detected for the AC.

 Suspected cause

 Parts/Components to be checked

1. Heater Board 3

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Remove the foreign objects <ul style="list-style-type: none"> ■ Check if there are any foreign objects on the Heater Control Board 3. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | Check the state of the cable <ul style="list-style-type: none"> ■ Check the connection state of the Heater Control Board 3 cable, and if an abnormality is found, reconnect the cable. If not improved, replace the Heater Control Board 3. <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

00286A (Heater Board 3 Communication Error) Description

Communication could not be performed normally.

 Suspected cause

 Parts/Components to be checked

1. Heater Board 3

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Remove the foreign objects <ul style="list-style-type: none"> ■ Check if there are any foreign objects on the Heater Control Board 3. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | Check the state of the cable <ul style="list-style-type: none"> ■ Check the connection state of the Heater Control Board 3 cable, and if an abnormality is found, reconnect the cable. If not improved, replace the Heater Control Board 3. <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

00286B (Heater Board 3 Undefined Command) Description

An undefined command was sent.

 Suspected cause

 Parts/Components to be checked

1. Heater Board 3

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Remove the foreign objects <ul style="list-style-type: none"> ■ Check if there are any foreign objects on the Heater Control Board 3. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | Check the state of the cable <ul style="list-style-type: none"> ■ Check the connection state of the Heater Control Board 3 cable, and if an abnormality is found, reconnect the cable. If not improved, replace the Heater Control Board 3. <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

00286C (Heater Board 3 Communication Invalid Timing Error) Description

Communication could not be performed normally.

 Suspected cause

 Parts/Components to be checked

1. Heater Board 3

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Remove the foreign objects <ul style="list-style-type: none"> ■ Check if there are any foreign objects on the Heater Control Board 3. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | Check the state of the cable <ul style="list-style-type: none"> ■ Check the connection state of the Heater Control Board 3 cable, and if an abnormality is found, reconnect the cable. If not improved, replace the Heater Control Board 3. <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

00286D (Heater Board 3 Communication Time-Out Error) Description

Communication could not be performed normally.

 Suspected cause

 Parts/Components to be checked

1. Heater Board 3

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Remove the foreign objects <ul style="list-style-type: none"> ■ Check if there are any foreign objects on the Heater Control Board 3. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | Check the state of the cable <ul style="list-style-type: none"> ■ Check the connection state of the Heater Control Board 3 cable, and if an abnormality is found, reconnect the cable. If not improved, replace the Heater Control Board 3. <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

00286E (Heater Board 3 Board Type Error) Description

A board mismatch was detected.

 Suspected cause

 Parts/Components to be checked

1. Heater Board 3

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Remove the foreign objects <ul style="list-style-type: none"> ■ Check if there are any foreign objects on the Heater Control Board 3. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | Check the state of the cable <ul style="list-style-type: none"> ■ Check the connection state of the Heater Control Board 3 cable, and if an abnormality is found, reconnect the cable. If not improved, replace the Heater Control Board 3. <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

002A01 (PCIe Image Transfer Error)

- Description

- Suspected cause
 - SSD failure
 - There is a problem with communication between the SSD and Main Board A.
- Parts/Components to be checked
 1. SSD
 2. Main Board A
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Reattach the SSD Does the product recover from the error? | End | Go to step 2 |
| 2 | Replace the SSD Does the product recover from the error? | End | Go to step 3 |
| 3 | Replace Main Board A Does the product recover from the error? | End | Escalate to person in charge |

002A11 (RstError (I/O Signal Time-Out))
Occurrence Source: Camera Power ON

- Description

- Suspected cause
 - USB cable abnormality (connection, broken)
 - 6-wire cable abnormality (connection, broken)
 - Failure of the SUB-P Board inside the RGB Camera
 - SUB-C Board failure
- Parts/Components to be checked
 1. USB cable
 2. 6-wire cable
 3. SUB-P Board inside OASIS
 4. SUB-C Board

Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Check the state of the USB cable <ul style="list-style-type: none"> ■ Check the connection state of the cable, and if an abnormality is found, reconnect the cable. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | Check the state of the 6-wire cable <ul style="list-style-type: none"> ■ Check the connection state of the cable, and if an abnormality is found, reconnect the cable. <p>Does the product recover from the error?</p> | End | Go to step 3 |
| 3 | Replace the cables <p>Does the product recover from the error?</p> | End | Go to step 4 |
| 4 | Replace the RGB Camera <p>Does the product recover from the error?</p> | End | Go to step 5 |
| 5 | Replace the SUB-C Board <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

002A30 (NoResponseError (Response Command Time-Out))
Occurrence Source: Light Source Initialization

- Description
 -
- Suspected cause
 - USB cable abnormality (connection, broken)
 - 6-wire cable abnormality (connection, broken)
 - Failure of the SUB-P Board inside the RGB Camera
 - SUB-C Board failure
- Parts/Components to be checked
 1. USB cable
 2. 6-wire cable
 3. SUB-P Board inside OASIS
 4. SUB-C Board

Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Check the state of the USB cable <ul style="list-style-type: none"> ■ Check the connection state of the cable, and if an abnormality is found, reconnect the cable. Does the product recover from the error? | End | Go to step 2 |
| 2 | Check the state of the 6-wire cable <ul style="list-style-type: none"> ■ Check the connection state of the cable, and if an abnormality is found, reconnect the cable. Does the product recover from the error? | End | Go to step 3 |
| 3 | Replace the cables Does the product recover from the error? | End | Go to step 4 |
| 4 | Replace the RGB Camera Does the product recover from the error? | End | Go to step 5 |
| 5 | Replace the SUB-C Board Does the product recover from the error? | End | Escalate to person in charge |

002A31 (LActiveError (Response Command Error))
Occurrence Source: Light Source Initialization

- Description

- Suspected cause
 Failure of the SUB-P Board inside the RGB Camera
- Parts/Components to be checked
 1. SUB-P Board inside RGB Camera
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Replace the RGB Camera Does the product recover from the error? | End | Escalate to person in charge |

002A32 (LInitError (Response Command Error))
Occurrence Source: Light Source Initialization)
 Description

 Suspected cause

Failure of the SUB-P Board inside the RGB Camera

 Parts/Components to be checked

1. SUB-P Board inside RGB Camera

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Replace the RGB Camera Does the product recover from the error? | End | Escalate to person in charge |

002A33 (LStandbyError (Response Command Error))
Occurrence Source: Light Source Initialization)
 Description

 Suspected cause

Failure of the SUB-P Board inside the RGB Camera

 Parts/Components to be checked

1. SUB-P Board inside RGB Camera

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Replace the RGB Camera Does the product recover from the error? | End | Escalate to person in charge |

002A40 (NoResponseError (Response Command Time-Out)**Occurrence Source: Camera Initialization** Description

 Suspected cause

- USB cable abnormality (connection, broken)
- 6-wire cable abnormality (connection, broken)
- Failure of the SUB-P Board inside the RGB Camera
- SUB-C Board failure

 Parts/Components to be checked

1. USB cable
2. 6-wire cable
3. SUB-P Board inside RGB Camera
4. SUB-C Board

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Check the state of the USB cable <ul style="list-style-type: none"> ■ Check the connection state of the cable, and if an abnormality is found, reconnect the cable. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | Check the state of the 6-wire cable <ul style="list-style-type: none"> ■ Check the connection state of the cable, and if an abnormality is found, reconnect the cable. <p>Does the product recover from the error?</p> | End | Go to step 3 |
| 3 | Replace the cables <p>Does the product recover from the error?</p> | End | Go to step 4 |
| 4 | Replace the RGB Camera <p>Does the product recover from the error?</p> | End | Go to step 5 |
| 5 | Replace the SUB-C Board <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

002A41 (CActiveError (Response Command Error))
Occurrence Source: Camera Initialization)

- Description

- Suspected cause
-Failure of the SUB-P Board inside the RGB Camera

- Parts/Components to be checked
1. SUB-P Board inside RGB Camera

Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Replace the RGB Camera Does the product recover from the error? | End | Escalate to person in charge |

002A42 (CInitError (Response Command Error))
Occurrence Source: Camera Initialization)

- Description

- Suspected cause
Failure of the Sensor Board inside the RGB Camera

- Parts/Components to be checked
1. Sensor Board inside RGB Camera

Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Replace the RGB Camera Does the product recover from the error? | End | Escalate to person in charge |

002A50 (NoResponseError (Response Command Time-Out))
Occurrence Source: Imaging Control Preparation)

- Description
 -
- Suspected cause
 - USB cable abnormality (connection, broken)
 - 6-wire cable abnormality (connection, broken)
 - Failure of the SUB-P Board inside the RGB Camera
 - SUB-C Board failure
- Parts/Components to be checked
 1. USB cable
 2. 6-wire cable
 3. SUB-P Board inside RGB Camera
 4. SUB-C Board

Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | <p>Check the state of the USB cable</p> <ul style="list-style-type: none"> ■ Check the connection state of the cable, and if an abnormality is found, reconnect the cable. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | <p>Check the state of the 6-wire cable</p> <ul style="list-style-type: none"> ■ Check the connection state of the cable, and if an abnormality is found, reconnect the cable. <p>Does the product recover from the error?</p> | End | Go to step 3 |
| 3 | <p>Replace the cables</p> <p>Does the product recover from the error?</p> | End | Go to step 4 |
| 4 | <p>Replace the RGB Camera</p> <p>Does the product recover from the error?</p> | End | Go to step 5 |
| 5 | <p>Replace the SUB-C Board</p> <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

002A51 (CActive Error (Response Command Error))
Occurrence Source: Imaging Control Preparation)

 Description

 Suspected cause

Failure of the SUB-P Board inside the RGB Camera

 Parts/Components to be checked

1. SUB-P Board inside RGB Camera

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Replace the RGB Camera Does the product recover from the error? | End | Escalate to person in charge |

002A80 (No Response Error (Response Command Time-Out))
Occurrence Source: Black Imaging)

Description

Suspected cause

- USB cable abnormality (connection, broken)
- 6-wire cable abnormality (connection, broken)
- Failure of the SUB-P Board inside the RGB Camera
- SUB-C Board failure

Parts/Components to be checked

1. USB cable
2. 6-wire cable
3. SUB-P Board inside RGB Camera
4. SUB-C Board

Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | <p>Check the state of the USB cable</p> <ul style="list-style-type: none"> ■ Check the connection state of the cable, and if an abnormality is found, reconnect the cable. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | <p>Check the state of the 6-wire cable</p> <ul style="list-style-type: none"> ■ Check the connection state of the cable, and if an abnormality is found, reconnect the cable. <p>Does the product recover from the error?</p> | End | Go to step 3 |
| 3 | <p>Replace the cables</p> <p>Does the product recover from the error?</p> | End | Go to step 4 |
| 4 | <p>Replace the RGB Camera</p> <p>Does the product recover from the error?</p> | End | Go to step 5 |
| 5 | <p>Replace the SUB-C Board</p> <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

002A81 (LStandbyError (Response Command Error))
Occurrence Source: Black Imaging)
 Description

 Suspected cause

Failure of the SUB-P Board inside the RGB Camera

 Parts/Components to be checked

1. SUB-P Board inside RGB Camera

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Replace the RGB Camera Does the product recover from the error? | End | Escalate to person in charge |

002A82 (NoImageError (Response Command Without Image Data))
Occurrence Source: Black Imaging)
 Description

 Suspected cause

- USB cable abnormality (connection, broken)
- Failure of the SUB-P Board inside the RGB Camera
- SUB-C Board failure

 Parts/Components to be checked

1. USB cable
2. SUB-P Board inside RGB Camera
3. SUB-C Board

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Check the state of the USB cable <ul style="list-style-type: none"> ■ Check the connection state of the cable, and if an abnormality is found, reconnect the cable. Does the product recover from the error? | End | Go to step 2 |
| 2 | Replace the cable Does the product recover from the error? | End | Go to step 3 |
| 3 | Replace the RGB Camera Does the product recover from the error? | End | Go to step 4 |
| 4 | Replace the SUB-C Board Does the product recover from the error? | End | Escalate to person in charge |

002A83 (DJudgeError (Response Command Error))
Occurrence Source: Black Imaging)

 Description

 Suspected cause

- Failure of the SUB-P Board inside the RGB Camera
- Failure of the Sensor Board inside the RGB Camera

 Parts/Components to be checked

1. SUB-P Board inside RGB Camera
2. Sensor Board inside RGB Camera

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Replace the RGB Camera Does the product recover from the error? | End | Escalate to person in charge |

002A90 (NoResponseError (Response Command Time-Out))
Occurrence Source: Light Amount Adjustment)

- Description
 -
- Suspected cause
 - USB cable abnormality (connection, broken)
 - Power Cable abnormality (connection, broken)
 - Failure of the SUB-P Board inside the RGB Camera
 - SUB-C Board failure
 - CR Motor Control Board (SUB-B) failure (MOTOR_SIGNAL signal abnormality)
 - SUB-H Board failure (MOTOR_SIGNAL signal abnormality)
 - MAIN-B Board failure (MOTOR_SIGNAL signal abnormality)
 - MCU Board failure (MOTOR_SIGNAL signal abnormality)
- Parts/Components to be checked
 1. CR Motor Control Board (SUB-B)
 2. SUB-H Board
 3. MAIN-B Board
 4. MCU Board
 5. USB cable
 6. 6-wire cable
 7. SUB-P Board inside RGB Camera
 8. SUB-C Board

Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Check the connection of the cables of the CR Motor Control Board (SUB-B) <ul style="list-style-type: none"> ■ If no improvement is seen, replace the board. Does the product recover from the error? | End | Go to step 2 |
| 2 | If the problem persists even after performing 1., check the connection of the cables of the SUB-H Board, MAIN-B Board, or the MCU Board <ul style="list-style-type: none"> ■ If no improvement is seen, replace the board. Does the product recover from the error? | End | Go to step 3 |
| 3 | Check the state of the USB cable <ul style="list-style-type: none"> ■ Check the connection state of the cable, and if an abnormality is found, reconnect the cable. Does the product recover from the error? | End | Go to step 4 |
| 4 | Check the state of the 6-wire cable <ul style="list-style-type: none"> ■ Check the connection state of the cable, and if an abnormality is found, reconnect the cable. Does the product recover from the error? | End | Go to step 5 |
| 5 | Replace the cables <ul style="list-style-type: none"> Does the product recover from the error? | End | Go to step 6 |
| 6 | Replace the RGB Camera <ul style="list-style-type: none"> Does the product recover from the error? | End | Go to step 7 |
| 7 | Replace the SUB-C Board <ul style="list-style-type: none"> Does the product recover from the error? | End | Escalate to person in charge |

002A91 (LActiveError1 (Response Command Error))
Occurrence Source: Light Amount Adjustment)
 Description

 Suspected cause

Failure of the SUB-P Board inside the RGB Camera

 Parts/Components to be checked

1. SUB-P Board inside RGB Camera

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Replace the RGB Camera Does the product recover from the error? | End | Escalate to person in charge |

002A92 (LInitError (Response Command Error))
Occurrence Source: Light Amount Adjustment)
 Description

 Suspected cause

Failure of the SUB-P Board inside the RGB Camera

 Parts/Components to be checked

1. SUB-P Board inside RGB Camera

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Replace the RGB Camera Does the product recover from the error? | End | Escalate to person in charge |

002A95 (LActiveError2 (Response Command Error))
Occurrence Source: Light Amount Adjustment)

Description

- Suspected cause
- Failure of the SUB-P Board inside the RGB Camera

Parts/Components to be checked

Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Replace the RGB Camera Does the product recover from the error? | End | Escalate to person in charge |

002A98 (AJudgeError1 (Response Command Error))
Occurrence Source: Light Amount Adjustment)

Description

- Suspected cause
- Failure of the SUB-P Board inside the RGB Camera
 - Failure of the Sensor Board inside the RGB Camera

- Parts/Components to be checked
1. SUB-P Board inside RGB Camera
 2. Sensor Board inside RGB Camera

Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Replace the RGB Camera Does the product recover from the error? | End | Escalate to person in charge |

**002A99 (AJudgeError2 (Response Command Error)
Occurrence Source: Light Amount Adjustment)**

 Description

 Suspected cause

- Failure of the SUB-P Board inside the RGB Camera
- Failure of the Sensor Board inside the RGB Camera

 Parts/Components to be checked

1. SUB-P Board inside RGB Camera
2. Sensor Board inside RGB Camera

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Replace the RGB Camera Does the product recover from the error? | End | Escalate to person in charge |

002AA0 (NoResponseError (Response Command Time-Out))
Occurrence Source: White Imaging)

- Description
 -
- Suspected cause
 - USB cable abnormality (connection, broken)
 - Power Cable abnormality (connection, broken)
 - Failure of the SUB-P Board inside the RGB Camera
 - SUB-C Board failure
 - CR Motor Control Board (SUB-B) failure (MOTOR_SIGNAL signal abnormality)
 - SUB-H Board failure (MOTOR_SIGNAL signal abnormality)
 - MAIN-B Board failure (MOTOR_SIGNAL signal abnormality)
 - MCU Board failure (MOTOR_SIGNAL signal abnormality)
- Parts/Components to be checked
 1. CR Motor Control Board (SUB-B)
 2. SUB-H Board
 3. MAIN-B Board
 4. MCU Board
 5. USB cable
 6. 6-wire cable
 7. SUB-P Board inside RGB Camera
 8. SUB-C Board

Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | <p>Check the connection of the cables of the CR Motor Control Board (SUB-B)</p> <p>If no improvement is seen, replace the board.</p> <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | <p>If the problem persists even after performing 1., check the connection of the cables of the SUB-H Board, MAIN-B Board, or the MCU Board</p> <p>If no improvement is seen, replace the board.</p> <p>Does the product recover from the error?</p> | End | Go to step 3 |
| 3 | <p>Check the state of the USB cable</p> <ul style="list-style-type: none"> ■ Check the connection state of the cable, and if an abnormality is found, reconnect the cable. <p>Does the product recover from the error?</p> | End | Go to step 4 |
| 4 | <p>Check the state of the 6-wire cable</p> <ul style="list-style-type: none"> ■ Check the connection state of the cable, and if an abnormality is found, reconnect the cable. <p>Does the product recover from the error?</p> | End | Go to step 5 |
| 5 | <p>Replace the cables</p> <p>Does the product recover from the error?</p> | End | Go to step 6 |
| 6 | <p>Replace the RGB Camera</p> <p>Does the product recover from the error?</p> | End | Go to step 7 |
| 7 | <p>Replace the SUB-C Board</p> <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

**002AA1 (LActiveErrorLActiveError (Response Command Error)
Occurrence Source: White Imaging)**

Description

Suspected cause

Failure of the SUB-P Board inside the RGB Camera

Parts/Components to be checked

1. SUB-P Board inside RGB Camera

Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Replace the RGB Camera Does the product recover from the error? | End | Escalate to person in charge |

**002AA3 (NoImageError (Response Command Without Image Data)
Occurrence Source: White Imaging)**

Description

Suspected cause

- USB cable abnormality (connection, broken)
- Failure of the SUB-P Board inside the RGB Camera
- SUB-C Board failure

Parts/Components to be checked

1. USB cable
2. SUB-P Board inside RGB Camera
3. SUB-C Board

Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Check the state of the USB cable ■ Check the connection state of the cable, and if an abnormality is found, reconnect the cable. Does the product recover from the error? | End | Go to step 2 |
| 2 | Replace the cable Does the product recover from the error? | End | Go to step 3 |
| 3 | Replace the RGB Camera Does the product recover from the error? | End | Go to step 4 |
| 4 | Replace the SUB-C Board Does the product recover from the error? | End | Escalate to person in charge |

002AA4 (WJudgeError (Response Command Error))
Occurrence Source: White Imaging

 Description

 Suspected cause

- Failure of the SUB-P Board inside the RGB Camera
- Failure of the SUB-L Board inside the RGB Camera (LED does not light)
- Failure of the Sensor Board inside the RGB Camera

 Parts/Components to be checked

1. SUB-P Board inside RGB Camera
2. SUB-L Board inside RGB Camera
3. Sensor Board inside RGB Camera

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Replace the RGB Camera Does the product recover from the error? | End | Escalate to person in charge |

002AB0 (NoResponseError (Response Command Time-Out))
Occurrence Source: Pattern Imaging Control)

- Description
 -
- Suspected cause
 - USB cable abnormality (connection, broken)
 - Power Cable abnormality (connection, broken)
 - Failure of the SUB-P Board inside the RGB Camera
 - SUB-C Board failure
 - CR Motor Control Board (SUB-B) failure (MOTOR_SIGNAL signal abnormality)
 - SUB-H Board failure (MOTOR_SIGNAL signal abnormality)
 - MAIN-B Board failure (MOTOR_SIGNAL signal abnormality)
 - MCU Board failure (MOTOR_SIGNAL signal abnormality)
- Parts/Components to be checked
 1. CR Motor Control Board (SUB-B)
 2. SUB-H Board
 3. MAIN-B Board
 4. MCU Board
 5. USB cable
 6. 6-wire cable
 7. SUB-P Board inside GB Camera
 8. SUB-C Board

Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | <p>Check the connection of the cables of the CR Motor Control Board (SUB-B)</p> <p>If no improvement is seen, replace the board.</p> <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | <p>If the problem persists even after performing 1., check the connection of the cables of the SUB-H Board, MAIN-B Board, or the MCU Board</p> <p>If no improvement is seen, replace the board.</p> <p>Does the product recover from the error?</p> | End | Go to step 3 |
| 3 | <p>Check the state of the USB cable</p> <ul style="list-style-type: none"> ■ Check the connection state of the cable, and if an abnormality is found, reconnect the cable. <p>Does the product recover from the error?</p> | End | Go to step 4 |
| 4 | <p>Check the state of the 6-wire cable</p> <ul style="list-style-type: none"> ■ Check the connection state of the cable, and if an abnormality is found, reconnect the cable. <p>Does the product recover from the error?</p> | End | Go to step 5 |
| 5 | <p>Replace the cables</p> <p>Does the product recover from the error?</p> | End | Go to step 6 |
| 6 | <p>Replace the RGB Camera</p> <p>Does the product recover from the error?</p> | End | Go to step 7 |
| 7 | <p>Replace the SUB-C Board</p> <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

002AB1 (LActiveError (Response Command Error))
Occurrence Source: Pattern Imaging Control

 Description

 Suspected cause

Failure of the SUB-P Board inside the RGB Camera

 Parts/Components to be checked

1. SUB-P Board inside OASIS

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Replace the RGB Camera Does the product recover from the error? | End | Escalate to person in charge |

002AC0 (NoResponseError (Response Command Time-Out))
Occurrence Source: Image Data Transfer)

- Description
 -
- Suspected cause
 - USB cable abnormality (connection, broken)
 - 6-wire cable abnormality (connection, broken)
 - Failure of the SUB-P Board inside the RGB Camera
 - SUB-C Board failure
- Parts/Components to be checked
 1. USB cable
 2. 6-wire cable
 3. SUB-P Board inside OASIS
 4. SUB-C Board

Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | <p>Check the state of the USB cable</p> <ul style="list-style-type: none"> ■ Check the connection state of the cable, and if an abnormality is found, reconnect the cable. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | <p>Check the state of the 6-wire cable</p> <ul style="list-style-type: none"> ■ Check the connection state of the cable, and if an abnormality is found, reconnect the cable. <p>Does the product recover from the error?</p> | End | Go to step 3 |
| 3 | <p>Replace the cables</p> <p>Does the product recover from the error?</p> | End | Go to step 4 |
| 4 | <p>Replace the RGB Camera</p> <p>Does the product recover from the error?</p> | End | Go to step 5 |
| 5 | <p>Replace the SUB-C Board</p> <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

002AC1 (NoImageError (Response Command Without Image Data))
Occurrence Source: Image Data Transfer)

- Description

- Suspected cause
 - USB cable abnormality (connection, broken)
 - Failure of the SUB-P Board inside the RGB Camera
 - SUB-C Board failure
- Parts/Components to be checked
 1. USB cable
 2. SUB-P Board inside RGB Camera
 3. SUB-C Board
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|--------------|
| 1 | Check the state of the USB cable <ul style="list-style-type: none"> ■ Check the connection state of the cable, and if an abnormality is found, reconnect the cable. Does the product recover from the error? | End | Go to step 2 |
| 2 | Replace the cable Does the product recover from the error? | End | Go to step 4 |
| 3 | Replace the RGB Camera Does the product recover from the error? | End | Go to step 3 |

002AC2 (PShootReplyError (Response Command Error))
Occurrence Source: Image Data Transfer)

- Description

- Suspected cause
 - Failure of the SUB-P Board inside the RGB Camera
- Parts/Components to be checked
 1. SUB-P Board inside RGB Camera
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Replace the RGB Camera Does the product recover from the error? | End | Escalate to person in charge |

002AD0 (NoResponseError (Response Command Time-Out))
Occurrence Source: Shutter Closed Detection)

Description

Suspected cause

- USB cable abnormality (connection, broken)
- 6-wire cable abnormality (connection, broken)
- Failure of the SUB-P Board inside the RGB Camera
- SUB-C Board failure

Parts/Components to be checked

1. USB cable
2. 6-wire cable
3. SUB-P Board inside RGB Camera
4. SUB-C Board

Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | <p>Check the state of the USB cable</p> <ul style="list-style-type: none"> ■ Check the connection state of the cable, and if an abnormality is found, reconnect the cable. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | <p>Check the state of the 6-wire cable</p> <ul style="list-style-type: none"> ■ Check the connection state of the cable, and if an abnormality is found, reconnect the cable. <p>Does the product recover from the error?</p> | End | Go to step 3 |
| 3 | <p>Replace the cables</p> <p>Does the product recover from the error?</p> | End | Go to step 4 |
| 4 | <p>Replace the RGB Camera</p> <p>Does the product recover from the error?</p> | End | Go to step 5 |
| 5 | <p>Replace the SUB-C Board</p> <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

002AD1 (NoImageError (Response Command Without Image Data))
Occurrence Source: Shutter Closed Detection)
 Description

 Suspected cause

- USB cable abnormality (connection, broken)
- Failure of the SUB-P Board inside the RGB Camera
- SUB-C Board failure

 Parts/Components to be checked

1. USB cable
2. SUB-P Board inside OASIS
3. SUB-C Board

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Check the state of the USB cable <ul style="list-style-type: none"> ■ Check the connection state of the cable, and if an abnormality is found, reconnect the cable. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | Replace the USB cable <p>Does the product recover from the error?</p> | End | Go to step 3 |
| 3 | Replace the RGB Camera <p>Does the product recover from the error?</p> | End | Go to step 4 |
| 4 | Replace the SUB-C Board <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

002AD2 (ShutterCloseError (Shutter Close Error))
Occurrence Source: Shutter Closed Detection)
 Description

 Suspected cause

- The shutter is not closed.
- Failure of the SUB-P Board inside the RGB Camera
- Failure of the SUB-L Board inside the RGB Camera

 Parts/Components to be checked

1. Shutter
2. SUB-P Board inside RGB Camera
3. SUB-L Board inside RGB Camera

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | If the shutter does not close, replace the shutter <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | If the shutter closes, remove the shutter and check the detection pattern on the back side <ul style="list-style-type: none"> □ If dirt or peeling is seen, replace the shutter. □ If there is no dirt or peeling, replace the RGB Camera. □ Does the product recover from the error? | End | Escalate to person in charge |

002AD3 (LActiveError (Response Command Error))
Occurrence Source: Shutter Closed Detection)
 Description

 Suspected cause

Failure of the SUB-P Board inside the RGB Camera

 Parts/Components to be checked

1. SUB-P Board inside RGB Camera

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Replace the RGB Camera Does the product recover from the error? | End | Escalate to person in charge |

002AD5 (PShootReplyError (Response Command Error))
Occurrence Source: Shutter Closed Detection)
 Description

 Suspected cause

Failure of the SUB-P Board inside the RGB Camera

 Parts/Components to be checked

1. SUB-P Board inside RGB Camera

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Replace the RGB Camera Does the product recover from the error? | End | Escalate to person in charge |

002AE0 (NoResponseError (Response Command Time-Out))
Occurrence Source: Shutter Open Detection)

Description

Suspected cause

- USB cable abnormality (connection, broken)
- 6-wire cable abnormality (connection, broken)
- Failure of the SUB-P Board inside the RGB Camera
- SUB-C Board failure

Parts/Components to be checked

1. USB cable
2. 6-wire cable
3. SUB-P Board inside RGB Camera
4. SUB-C Board

Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | <p>Check the state of the USB cable</p> <ul style="list-style-type: none"> ■ Check the connection state of the cable, and if an abnormality is found, reconnect the cable. <p>Does the product recover from the error?</p> | End | Go to step 2 |
| 2 | <p>Check the state of the 6-wire cable</p> <ul style="list-style-type: none"> ■ Check the connection state of the cable, and if an abnormality is found, reconnect the cable. <p>Does the product recover from the error?</p> | End | Go to step 3 |
| 3 | <p>Replace the cables</p> <p>Does the product recover from the error?</p> | End | Go to step 4 |
| 4 | <p>Replace the RGB Camera</p> <p>Does the product recover from the error?</p> | End | Go to step 5 |
| 5 | <p>Replace the SUB-C Board</p> <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

002AE1 (NoImageError (Response Command Without Image Data))
Occurrence Source: Shutter Open Detection
 Description

 Suspected cause

- USB cable abnormality (connection, broken)
- Failure of the SUB-P Board inside the RGB Camera
- SUB-C Board failure

 Parts/Components to be checked

1. USB cable
2. SUB-P Board inside RGB Camera
3. SUB-C Board

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Check the state of the USB cable ■ Check the connection state of the cable, and if an abnormality is found, reconnect the cable. Does the product recover from the error? | End | Go to step 2 |
| 2 | Replace the cable Does the product recover from the error? | End | Go to step 3 |
| 3 | Replace the RGB Camera Does the product recover from the error? | End | Go to step 4 |
| 4 | Replace the SUB-C Board Does the product recover from the error? | End | Escalate to person in charge |

002AE2 (ShutterOpenError (Shutter Open Error))
Occurrence Source: Shutter Open Detection
 Description

 Suspected cause

- The shutter is not open.
- Failure of the SUB-P Board inside the RGB Camera
- Failure of the SUB-L Board inside the RGB Camera

 Parts/Components to be checked

1. Shutter
2. SUB-P Board inside RGB Camera
3. SUB-L Board inside RGB Camera

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | If the shutter does not open, replace the shutter Does the product recover from the error? | End | Go to step 2 |
| 2 | If the shutter opens, remove the shutter and check the detection pattern on the back side <ul style="list-style-type: none"> □ If dirt or peeling is seen, replace the shutter. □ If there is no dirt or peeling, replace the RGB Camera □ Does the product recover from the error? | End | Escalate to person in charge |

002AE3 (LActiveError (Response Command Error))
Occurrence Source: Shutter Open Detection)

Description

Suspected cause

Failure of the SUB-P Board inside the RGB Camera

Parts/Components to be checked

1. SUB-P Board inside RGB Camera

Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Replace the RGB Camera Does the product recover from the error? | End | Escalate to person in charge |

002AE5 (PShootReplyError (Response Command Error))
Occurrence Source: Shutter Open Detection)

Description

Suspected cause

Failure of the SUB-P Board inside the RGB Camera

Parts/Components to be checked

1. SUB-P Board inside RGB Camera

Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Replace the RGB Camera Does the product recover from the error? | End | Escalate to person in charge |

003001 (During Power ON MAIN <--> SUBH Communication Check Failure) Description

An error occurred in communication between the Main Board and SUBH Board.

 Suspected cause

 Parts/Components to be checked

1. CF84 SUB-H
2. Main Board

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Check the connection of the Main Board A connector (CN401) Does the product recover from the error? | End | Go to step 2 |
| 2 | Check the connection of the SUB-H Board connector (CN4001) Does the product recover from the error? | End | Go to step 3 |
| 3 | Replace the Light Cable Does the product recover from the error? | End | Go to step 4 |
| 4 | Replace the SUB-H Board Does the product recover from the error? | End | Go to step 5 |
| 5 | Replace Main Board A Does the product recover from the error? | End | Escalate to person in charge |

003002 (During Power ON MAIN <--> ONCR Communication Check Failure) Description

An error occurred in communication between the Main Board and ONCR Board.

 Suspected cause

 Parts/Components to be checked

1. CF84 SUB-C
2. Main Board

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Check the connection of the Main Board A connector (CN500) Does the product recover from the error? | End | Go to step 2 |
| 2 | Check the connection of the SUB-C Board connector (CN531) Does the product recover from the error? | End | Go to step 3 |
| 3 | Replace the FFC Does the product recover from the error? | End | Go to step 4 |
| 4 | Replace the SUB-C Board Does the product recover from the error? | End | Go to step 5 |
| 5 | Replace Main Board A Does the product recover from the error? | End | Escalate to person in charge |

003003 (During Power ON MAIN <--> MCU0 Communication Check Failure) Description

An error occurred in communication between the Main Board and MCU1 Board.

 Suspected cause

 Parts/Components to be checked

1. CF84 MCU
2. Main Board

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Check the connections of the Main Board A connectors (CN600, CN601, and CN602) Does the product recover from the error? | End | Go to step 2 |
| 2 | Check the connections of the MCU Board connectors (CN901 and CN902) Does the product recover from the error? | End | Go to step 3 |
| 3 | Replace the FFC Does the product recover from the error? | End | Go to step 4 |
| 4 | Replace the SUB-C Board Does the product recover from the error? | End | Go to step 5 |
| 5 | Replace Main Board A Does the product recover from the error? | End | Escalate to person in charge |

003004 (During Power ON MAIN <--> MCU1 Communication Check Failure) Description

An error occurred in communication between the Main Board and MCU2 Board.

 Suspected cause

 Parts/Components to be checked

1. CF84 MCU
2. Main Board

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Check the connections of the Main Board A connectors (CN600, CN601, and CN602) Does the product recover from the error? | End | Go to step 2 |
| 2 | Check the connections of the MCU Board connectors (CN901 and CN902) Does the product recover from the error? | End | Go to step 3 |
| 3 | Replace the FFC Does the product recover from the error? | End | Go to step 4 |
| 4 | Replace the SUB-C Board Does the product recover from the error? | End | Go to step 5 |
| 5 | Replace Main Board A Does the product recover from the error? | End | Escalate to person in charge |

003005 (ROM Version Check Failure at Power On SUB-H)

- Description

- Suspected cause
 - The version of the SUB-H Board firmware is different.
 - Firmware update failure
- Parts/Components to be checked
 1. SUB-H Board
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Perform a firmware update Does the product recover from the error? | End | Go to step 2 |
| 2 | Return the firmware to the original version Does the product recover from the error? | End | Go to step 3 |
| 3 | Replace the SUB-H Board Does the product recover from the error? | End | Escalate to person in charge |

003006 (ROM Version Check Failure at Power On SUB-C)

- Description

- Suspected cause
 - The version of the SUB-C Board firmware is different.
 - Firmware update failure
- Parts/Components to be checked
 1. SUB-C Board
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Perform a firmware update Does the product recover from the error? | End | Go to step 2 |
| 2 | Return the firmware to the original version Does the product recover from the error? | End | Go to step 3 |
| 3 | Replace the SUB-C Board Does the product recover from the error? | End | Escalate to person in charge |

003007 (ROM Version Check Failure at Power On MCU)

- Description

- Suspected cause
 - The version of the MCU Board firmware is different.
 - Firmware update failure
- Parts/Components to be checked
 1. MCU Board
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Perform a firmware update Does the product recover from the error? | End | Go to step 2 |
| 2 | Return the firmware to the original version Does the product recover from the error? | End | Go to step 3 |
| 3 | Replace the MCU Board Does the product recover from the error? | End | Escalate to person in charge |

003008 (ROM Version Check Failure at Power On MCU)

- Description

- Suspected cause
 - The version of the MCU Board firmware is different.
 - Firmware update failure
- Parts/Components to be checked
 1. MCU Board
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Perform a firmware update Does the product recover from the error? | End | Go to step 2 |
| 2 | Return the firmware to the original version Does the product recover from the error? | End | Go to step 3 |
| 3 | Replace the MCU Board Does the product recover from the error? | End | Escalate to person in charge |

004000 (Print Data Reception in Self-diagnosis Mode (An error occurs because printing is not performed in Self diagnosis mode)) Description

Print data was received in the self-diagnosis mode.

 Suspected cause

- Check the startup mode.
- Check for foreign objects on the panel.

 Parts/Components to be checked

1. Panel

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Restart the printer in the normal mode. Does the product recover from the error? | End | Go to step 2 |
| 2 | Replace the Panel Assy Does the product recover from the error? | End | Escalate to person in charge |

203004 / 303004 Description

The Panel Unit has failed.

 Suspected cause

- Panel Unit failure

 Parts/Components to be checked

1. Panel Unit

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Replace the Panel Unit. Does the product recover from the error? | End | Escalate to person in charge |

205633 / 305633 Description

The SSD has failed.

 Suspected cause
■ SSD failure Parts/Components to be checked
1. SSD Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Replace the SSD Does the product recover from the error? | End | Escalate to person in charge |

205636 / 305636 Description

An error occurred in the SSD format process.

 Suspected cause
■ SSD failure Parts/Components to be checked
1. SSD Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Replace the SSD Does the product recover from the error? | End | Escalate to person in charge |

205637 / 305637 Description

An error occurred in the SSD mount process.

 Suspected cause

- SSD failure

 Parts/Components to be checked

1. SSD

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Replace the SSD Does the product recover from the error? | End | Escalate to person in charge |

256200 / 356200 Description

Main Board failure (overvoltage) has occurred.

 Suspected cause

- Main Board A failure

 Parts/Components to be checked

1. Main Board A

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Replace Main Board A Does the product recover from the error? | End | Escalate to person in charge |

256201 / 356201 Description

Motor Drive Board failure (overvoltage) has occurred.

 Suspected cause

- CR Motor Control Board (SUB-B) failure

 Parts/Components to be checked

1. CR Motor Control Board (SUB-B)

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Replace the CR Motor Control Board (SUB-B) Does the product recover from the error? | End | Escalate to person in charge |

256202 / 356202 Description

Belt Drive Board failure (overvoltage) has occurred.

 Suspected cause

- Head Drive Board failure

 Parts/Components to be checked

1. Head Drive Board

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Replace the Head Drive Board Does the product recover from the error? | End | Escalate to person in charge |

256203 / 356203

- Description
Printer Internal Light Board failure (overvoltage) has occurred.
- Suspected cause
 - LED Control Board failure
- Parts/Components to be checked
 1. LED Control Board
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Replace the LED Control Board Does the product recover from the error? | End | Escalate to person in charge |

256210 / 356210

- Description
The FAIL signal of the SUB-H Board was detected.
- Suspected cause
 - SUB-H Board failure
- Parts/Components to be checked
 1. SUB-H Board
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Replace the SUB-H Board Does the product recover from the error? | End | Escalate to person in charge |

256211 / 356211 Description

The FAIL signal of the SUB-C Board was detected.

 Suspected cause

- SUB-C Board failure

 Parts/Components to be checked

1. SUB-C Board

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Replace the SUB-C Board Does the product recover from the error? | End | Escalate to person in charge |

256212 / 356212 Description

The FAIL signal of the SUB-M (Left) Board was detected.

 Suspected cause

- SUB-M (Left) Board failure

 Parts/Components to be checked

1. SUB-M (Left) Board

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Replace the SUB-M (Left) Board Does the product recover from the error? | End | Escalate to person in charge |

256213 / 356213 Description

The FAIL signal of the SUB-M (Right) Board was detected.

 Suspected cause

- SUB-M (Right) Board failure

 Parts/Components to be checked

1. SUB-M (Right) Board

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Replace the SUB-M (Right) Board Does the product recover from the error? | End | Escalate to person in charge |

256214 / 356214 Description

The FAIL signal of the MCU Board was detected.

 Suspected cause

- MCU Board failure

 Parts/Components to be checked

1. MCU Board

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Replace the MCU Board Does the product recover from the error? | End | Escalate to person in charge |

256215 / 356215 Description

The FAIL signal of the CR Motor Control Board (SUB-B) was detected.

 Suspected cause

- CR Motor Control Board (SUB-B) failure

 Parts/Components to be checked

1. CR Motor Control Board (SUB-B)

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Replace the CR Motor Control Board (SUB-B) Does the product recover from the error? | End | Escalate to person in charge |

256216 / 356216 Description

42 V OFF of the MCU Board was detected.

 Suspected cause

- MCU Board failure

 Parts/Components to be checked

1. MCU Board

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Replace the MCU Board Does the product recover from the error? | End | Escalate to person in charge |

256217 / 356217

- Description
A WDT error of the MCU Board was detected.
- Suspected cause
■ MCU Board failure
- Parts/Components to be checked
1. MCU Board
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Replace the MCU Board Does the product recover from the error? | End | Escalate to person in charge |

256218 / 356218

- Description
Connection error of the Sub Board was detected.
- Suspected cause
■ SUB-H Board failure
- Parts/Components to be checked
1. SUB-H Board
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | SUB-H Board Connection Check Follow the procedure below. 1. Disconnect the light cable from CN4001 connector on the board. 2. Turn the printer on and then off. 3. Reconnect the light cable to CN4001 connector on the board and then turn the printer on. Does the product recover from the error? | End | Go to step 2 |
| 2 | Replace the SUB-H Board Does the product recover from the error? | End | Escalate to person in charge |

256219 / 356219 Description

The FAIL signal of the DRV Board was detected.

 Suspected cause

- Head Drive Board failure

 Parts/Components to be checked

1. Head Drive Board

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | <p>Replace the Head Drive Board (DRV)/Head FFC/Head Connector Board</p> <p>Find out which Head Drive Board is causing the error by following "How to Find Out Faulty Head Drive Board (p228)", and then replace the faulty board together with the Head FFC and Head Connector Board.</p> <p>Does the product recover from the error?</p> | End | Escalate to person in charge |

How to Find Out Faulty Head Drive Board

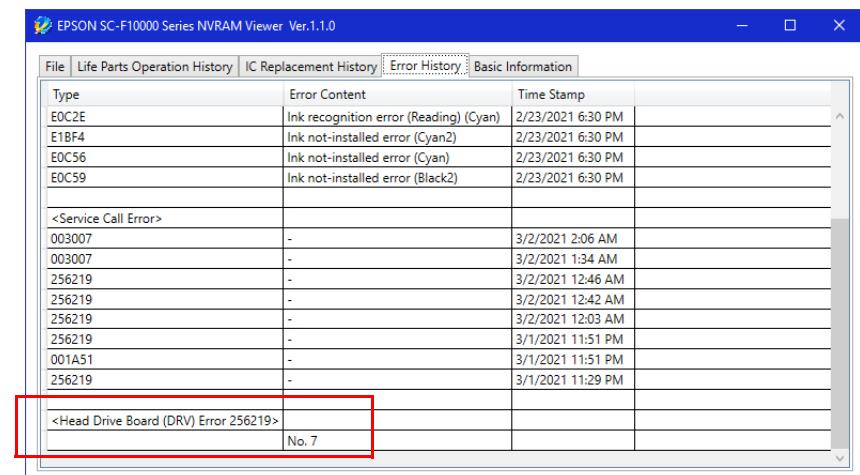
If a service call error 256219 occurs, follow the procedure below to find out which Head Drive Board is faulty, and then replace it.

 Necessary tools

- Service program
- NVRAM Viewer

 Procedure

1. Back up parameters using the Service Program. ([p558](#))
2. Open the backup file using NVRAM Viewer. ([p559](#))
3. Check the number displayed on "Error History" of NVRAM Viewer.

**Figure 2-1.**

Continue to the next page.

4. Referring to [Table 2-2](#), find out No. of faulty and possibly faulty Head Drive Boards, and the number of sets of the parts that you need to prepare.

Table 2-2.

| No. displayed on NVRAM Viewer | No. of Head Drive Board ^{*1} | | | | | | Number of part sets to be prepared |
|-------------------------------|---------------------------------------|------|------|------|------|--------------------|---|
| | No.3 ^{*2} | No.4 | No.5 | No.6 | No.7 | No.8 ^{*2} | |
| No.3 | ■ | □ | □ | □ | --- | --- | 4 |
| No.4 | --- | ■ | □ | □ | --- | --- | 3 |
| No.5 | --- | --- | ■ | □ | --- | --- | 2 |
| No.6 | --- | --- | --- | ■ | --- | --- | 1 |
| No.7 | □ | □ | □ | □ | ■ | □ | SC-F10000 Series: 4 SC-F10000H Series: 6 |
| No.8 | □ | □ | □ | □ | --- | ■ | 5 |

Note *1: ■: Faulty □: Possibly faulty ---: Not faulty

*2: Only SC-F10000H Series has Head Drive Board No.3 and No.8.

*3: Prepare a new Head Drive Board, Head FFC, and Head Connector Board as one set. The above table shows the maximum number of sets required for servicing.



- **No. of Head Drive Board shown in [Table 2-2](#) is the same as No. of the connected Print Head.**
- **Head FFCs are supplied as ASP for each No. of the print head to be connected. Prepare correct Head FFC(s) according to the No. of the print head.**
- **When servicing, bring the number of sets of the new parts shown in [Table 2-2](#).**

5. Replace the faulty (■) Head Drive Board together with the connected Head FFC/ Head Connector Board. ([See P. 378, P. 381](#))

6. Turn the printer on to see if the same error still occurs or not.

- When the error occurs
Go back to [Step 1](#) to restart from finding out faulty Head Drive Board.
If the error still occurs after replacing the all boards, escalate the issue to the person in charge of the printer.
- When the error does not occur
Finish servicing.

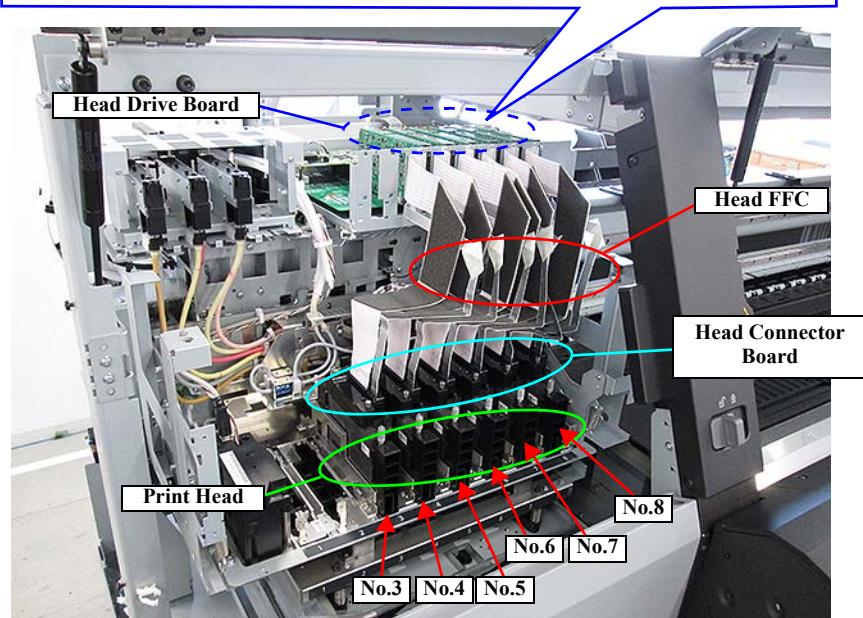
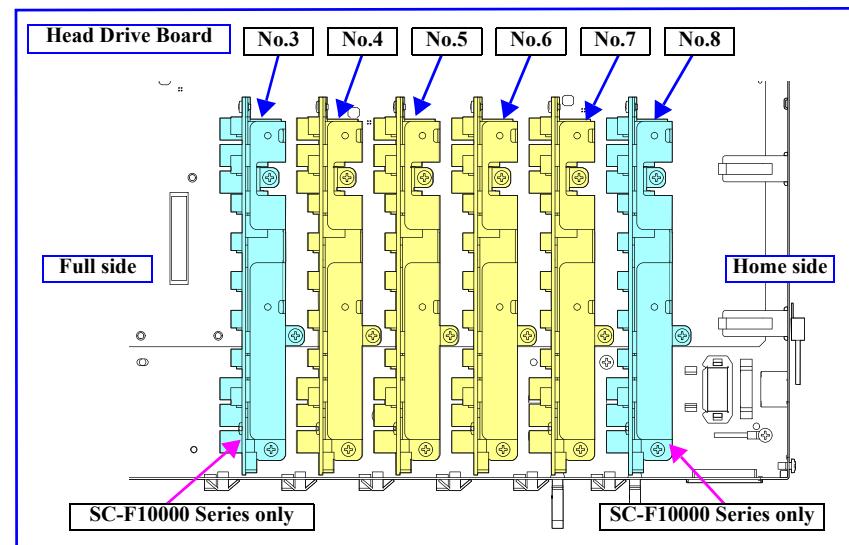


Figure 2-2.

256220 / 356220 Description

An abnormality of Cooling Fan 1 of the Main Board was detected.

 Suspected cause

- Main Board Fan A

 Parts/Components to be checked

1. Main Board Fan A

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Replace Main Board Fan A Does the product recover from the error? | End | Escalate to person in charge |

256221 / 356221 Description

An abnormality of Cooling Fan 2 of the Main Board was detected.

 Suspected cause

- Main Board Fan B

 Parts/Components to be checked

1. Main Board Fan B

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Replace Main Board Fan B Does the product recover from the error? | End | Escalate to person in charge |

203002 / 303002 Description

The optical touch panel has failed.

 Suspected cause

- Touch panel failure

 Parts/Components to be checked

1. Panel Unit

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Replace the Panel Unit. Does the product recover from the error? | End | Escalate to person in charge |

256222 / 356222 Description

A Brushless Control Board failure (overvoltage) has occurred.

 Suspected cause

- CR Motor failure
- CR Motor Control Board (SUB-B) failure

 Parts/Components to be checked

1. CR Motor
2. CR Motor Control Board (SUB-B)

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|------------------------------|
| 1 | Replace the CR Motor Does the product recover from the error? | End | Go to step 2 |
| 2 | Replace the CR Motor Control Board (SUB-B) Does the product recover from the error? | End | Escalate to person in charge |

Dxxx Description

This error is intended to be used in the product development stage. It is supposed to not occur with marketed product

 Suspected cause

- External noises

 Parts/Components to be checked

1. Main Board A

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Power ON/OFF Does the product recover from the error? | End | Go to step 2 |
| 2 | FW reinstall ■ Install the firmware referring to " Installing Firmware " (p566). Does the product recover from the error? | End | Go to step 3 |
| 3 | Replace the Main Board A Does the product recover from the error? | End | Escalate to person in charge |

Exxx Description

This error is intended to be used in the product development stage. It is supposed to not occur with marketed product

 Suspected cause

- External noises

 Parts/Components to be checked

1. Main Board A

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | Power ON/OFF Does the product recover from the error? | End | Go to step 2 |
| 2 | FW reinstall ■ Install the firmware referring to " Installing Firmware " (p566). Does the product recover from the error? | End | Go to step 3 |
| 3 | Replace the Main Board A Does the product recover from the error? | End | Escalate to person in charge |

Fxxx Description

There is something wrong with the firmware or the Main Board A is broken.

 Suspected cause

- Firmware abnormality
- Main Board A failure

 Parts/Components to be checked

1. Main Board A

 Troubleshooting

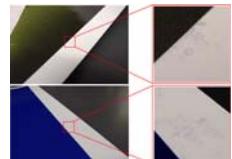
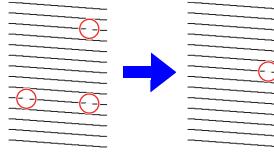
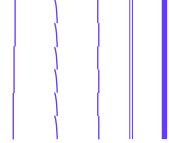
| Step | Confirmation points and methods | YES | NO |
|------|--|-----|------------------------------|
| 1 | FW reinstall ■ Install the firmware referring to " Installing Firmware " (p566). Does the product recover from the error? | End | Go to step 2 |
| 2 | Replace the Main Board A Does the product recover from the error? | End | Escalate to person in charge |

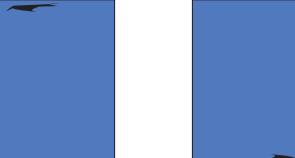
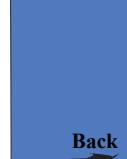
2.4 Troubleshooting from Problem Phenomenon

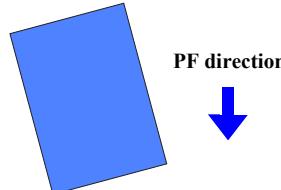
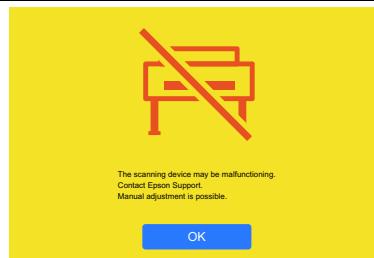
2.4.1 Problem Phenomenon Classification Table

| Phenomenon classification | Phenomenon | Ref. |
|-----------------------------------|--|----------------------|
| Trouble on print quality | Problem Phenomenon related to print quality of the printer. | p235 |
| Trouble on paper feeding/ejecting | Problem Phenomenon related to paper ejection of the printer. | p236 |
| Other troubles | Problem Phenomenon related to other troubles of the printer. | p236 |
| Trouble on Service Program | Problem Phenomenon related to Service Program. | p236 |
| Trouble on NVRAM Viewer | Problem Phenomenon related to NVRAM Viewer. | p236 |

2.4.2 Problem Phenomenon Overview

| Phenomenon | Image | Ref. |
|--|---|------|
| Print quality related trouble | | |
| Nozzles are clogged (Approx. one to five nozzles) |  | p237 |
| Nozzle clogging recurs after a while if improved (Approx. one to five nozzles) |  | p238 |
| Foggy smudge on the media surface |  | p239 |
| The nozzles are still clogging after cleaning |  | p240 |
| Horizontal or vertical lines look misaligned |  | p241 |
| Bandings in the paper feeding direction |  | p242 |

| Phenomenon | Image | Ref. |
|---|---|------|
| Bandings in the carriage movement direction |  | p243 |
| Printed side is smudged or smeared with ink |  | p244 |
| The backside of paper is smudged or smeared with ink |  | p246 |
| Color or print density unevenness within a page or across pages |  | p247 |
| Text or images are dimmed |  | p248 |
| Paper dust is attached or the traces of the rollers appear |  | p249 |
| Ink mist is attached | --- | p249 |

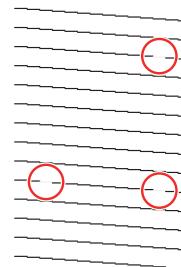
| Phenomenon | Image | Ref. |
|---|---|------|
| Paper ejection related trouble | | |
| Paper is not fed into the printer properly | --- | p250 |
| Paper feeding or paper ejecting is abnormal | --- | p251 |
| Paper is skewing |  | p252 |
| Actual margins differ from the specified margins |  | p253 |
| The end of roll paper is not detected and paper falls | --- | p254 |
| Roll paper is reeled off at a slant, or the reeled-off paper gets wrinkled | --- | p254 |
| “Media Out” occurs | --- | p255 |
| Other troubles | | |
| The printer is not powered | --- | p256 |
| Cannot access to a network | --- | p257 |
| The printer makes a strange noise when the CR is moving | --- | p258 |
| After heater power failure occurs | --- | p259 |
| It takes a longer time to warm up the heater | --- | p259 |
| A message saying “The scanning device may be malfunctioning.” is displayed. |  | p260 |

| Phenomenon | Image | Ref. |
|--|-------|------|
| Service Program related trouble | | |
| The printer does not operate even though the program function is executed. | --- | p260 |
| “Media has been fed” error | --- | p261 |
| NVRAM Viewer related trouble | | |
| NVRAM Viewer does not start/File does not open. | --- | p261 |
| The button used to open NVRAM Viewer is not displayed. | --- | p261 |
| The content displayed on NVRAM Viewer does not match the item names. | --- | p262 |
| The counter reset history and error history are not displayed on NVRAM Viewer. | --- | p263 |

2.4.3 Detail of each Problem Phenomenon

NOZZLES ARE CLOGGED (APPROX. ONE TO FIVE NOZZLES)

Image



Suspected cause

- Dirt, fuzz, or foreign material on the CR operation area touches the nozzle surface.
- Dirt, fuzz, or foreign material is attached on the nozzle surface.
- Dirt, fuzz, or foreign material has penetrated into nozzles.

Parts/Components to be checked

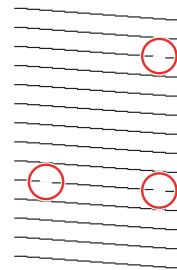
1. Print Head

Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|----------------------------------|
| 1 | <p>Check if there is any dirt, fuzz, or foreign material on the CR operation area.</p> <p>Does the product recover from the failure?</p> | End | Go to step 2 |
| 2 | <p>Run CL1->CL2->CL3->Print Head Refresh in that order.</p> <p>Does the product recover from the failure?</p> | End | Go to step 3 |
| 3 | <p>Select “Diagnosis” in the repair mode and perform diagnosis according to the instructions on the panel.</p> <p>Does the product recover from the failure?</p> | End | Escalate to the person in charge |

NOZZLE CLOGGING RECURS AFTER A WHILE IF IMPROVED (APPROX. ONE TO FIVE NOZZLES)

Image



Suspected cause

- Mist generated due to a PG setting higher than the standard PG has been attached on the nozzle surface.
- Due to insufficient execution frequency of periodic cleanings, the mist attached on the nozzle surface is not removed.
- Too much electrification of media and ink due to low humidity has caused mist to be attached on the nozzle surface. (Can be seen more frequently when using a film media such as a transparent or backlit film.)
- High PG due to a mechanical factor increases the amount of mist and some of the mist is attached on the nozzle surface.
- S,Mdot increases the amount of mist and some of the mist is attached on the nozzle surface.

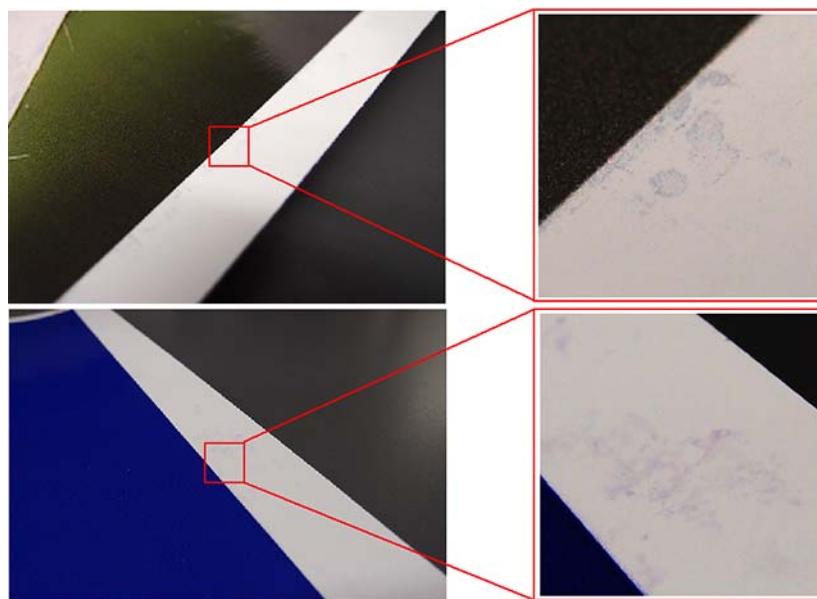
Parts/Components to be checked

Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|----------------------------------|
| 1 | Check if the PG setting for each media is higher than the standard PG. <ul style="list-style-type: none"> ■ Adjust the PG for each media to their standard PG. Does the product recover from the failure? | End | Go to step 2 |
| 2 | Check if the frequency of periodic cleanings is longer than the default value. <ul style="list-style-type: none"> ■ Set the frequency of periodic cleanings to the default value. ■ Increase the frequency of periodic cleanings. Does the product recover from the failure? | End | Go to step 3 |
| 3 | Check if the ambient humidity is 60% or more. <ul style="list-style-type: none"> ■ Add humidity until it becomes 60% or more using a humidifier. Does the product recover from the error? | End | Go to step 4 |
| 4 | Check the PG using thickness gauges. <ul style="list-style-type: none"> ■ Adjust the PG again if it is too high. Does the product recover from the failure? | End | Go to step 5 |
| 5 | Adjust (lower) S,Mdot, and then create and provide a profile configured by Ldot main. (may not be possible depending on RIP.) <ul style="list-style-type: none"> ■ Does the product recover from the failure? | End | Escalate to the person in charge |

FOGGY SMUDGE ON THE MEDIA SURFACE

Image



Suspected cause

- Mist generated due to a PG setting higher than the standard PG has been attracted on the electrified media.
- Too much electrification of media and ink due to low humidity has caused mist to be attracted on the electrified media surface. (Can be seen more frequently when using a film media such as a transparent or backlit film.)
- High PG due to a mechanical factor increases the amount of mist and some of the mist is attracted on the electrified media surface.

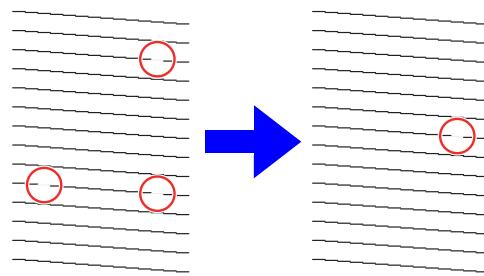
Parts/Components to be checked

Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|----------------------------------|
| 1 | Check if the PG setting for each media is higher than the standard PG. <ul style="list-style-type: none"> ■ Adjust the PG for each media to their standard PG. Does the product recover from the failure? | End | Go to step 2 |
| 2 | Check if the ambient humidity is 60% or more. <ul style="list-style-type: none"> ■ Add humidity until it becomes 60% or more using a humidifier. Does the product recover from the failure? | End | Go to step 3 |
| 3 | Check the PG using thickness gauges. <ul style="list-style-type: none"> ■ Adjust the PG again if it is too high. Does the product recover from the failure? | End | Go to step 4 |
| 4 | Adjust (lower) S,Mdot, and then create and provide a profile configured by Ldot main. (may not be possible depending on RIP.) <ul style="list-style-type: none"> Does the product recover from the failure? | End | Escalate to the person in charge |

THE NOZZLES ARE STILL CLOGGING AFTER CLEANING

Image



Suspected cause

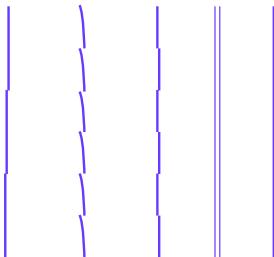
- The Wiper is contaminated and wiping the print head cannot be performed properly.
- The head cap is contaminated.
- There is some foreign material on the print head.
- There is something wrong in the pump tube and the cleaning (suctioning of ink) cannot be performed properly.
- The ink is leaking.
- There is air inside the ink path.
- The Head FFC (Print Head to Head Drive Board (DRV)) is not connected correctly.

Parts/Components to be checked

1. Cap
2. Print Head
3. Head FFC (Print Head to Head Drive Board (DRV))
4. Main Board

Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|----------------------------------|
| 1 | Check if the cap contaminated. <ul style="list-style-type: none"> ■ Check if there is something wrong with the Cap, and replace it if any abnormality is found. Does the product recover from the failure? | End | Go to step 2 |
| 2 | Check if there any foreign materials on the print head. <ul style="list-style-type: none"> ■ Clean the Print Head. Does the product recover from the failure? | End | Go to step 3 |
| 3 | Check the pump tube being bent or getting caught between surrounding parts or components. <ul style="list-style-type: none"> Does the product recover from the failure? | End | Go to step 4 |
| 4 | Check there any ink leakage observed on the ink flow paths. <ul style="list-style-type: none"> Does the product recover from the error? | End | Go to step 5 |
| 5 | Check there any air bubbles observed in the ink flow paths. <ul style="list-style-type: none"> ■ Run a head cleaning. Does the product recover from the failure? | End | Go to step 6 |
| 6 | Check if no ink comes out, or an entire row of nozzles are clogged. <ul style="list-style-type: none"> ■ Reconnect the Head FFC. Does the product recover from the failure? | End | Go to step 7 |
| 7 | Check the head FFC connected properly without being connected at an angle and any abnormalities such as ripped terminal cover. <ul style="list-style-type: none"> ■ If the trouble still occurs, the cause may be breaking of the Head FFC. Replace the Head FFC. Does the product recover from the failure? | End | Go to step 8 |
| 8 | Replace the Print Head. <ul style="list-style-type: none"> Does the product recover from the failure? | End | Go to step 9 |
| 9 | Replace the Main board (The fuse may have blown). <ul style="list-style-type: none"> Does the product recover from the failure? | End | Escalate to the person in charge |

HORIZONTAL OR VERTICAL LINES LOOK MISALIGNED Image Suspected cause

- The print head has not been adjusted properly.
- Improper PG adjustment

 Parts/Components to be checked

1. Print Head

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|----------------------------------|
| 1 | Select “Print Quality Auto Adjustment” in the repair mode and make the adjustments. Does the product recover from the failure? | End | Go to step 2 |
| 2 | Check if the paper thickness setting correct. ■ Correct the paper thickness setting. Does the product recover from the failure? | End | Go to step 3 |
| 3 | Check the PG adjustment been made properly. ■ Perform the PG adjustment. Does the product recover from the failure? | End | Escalate to the person in charge |

BANDINGS IN THE PAPER FEEDING DIRECTION **Image** **Suspected cause**

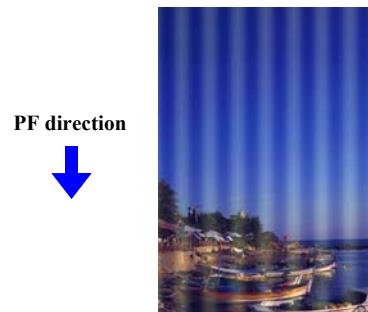
- The print head has not been adjusted properly.
- The paper was not fed properly.
- PF scale or PF encoder failure
- The tension of the PF timing belt is not proper.
- PF motor failure

 Parts/Components to be checked

1. PF Scale
2. PF Encoder Sensor
3. PF Motor

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|----------------------------------|
| 1 | Select “Print Quality Auto Adjustment” in the repair mode and make the adjustments. Does the product recover from the failure? | End | Go to step 2 |
| 2 | Adjust the custom settings of the feed amount through the panel. Does the product recover from the failure? | End | Go to step 3 |
| 3 | Check the following settings. · Feed Adjustment · Media Tension Does the product recover from the failure? | End | Go to step 4 |
| 4 | Clean the PF Scale. Does the product recover from the error? | End | Go to step 5 |
| 5 | Reinstall the PF Scale and PF Encoder Sensor. Does the product recover from the failure? | End | Go to step 6 |
| 6 | Replace the PF Scale and PF Encoder Sensor. Does the product recover from the failure? | End | Go to step 7 |
| 7 | Replace the PF Motor. Does the product recover from the failure? | End | Escalate to the person in charge |

BANDINGS IN THE CARRIAGE MOVEMENT DIRECTION Image Suspected cause

- The print head has not been adjusted properly.
- Improper PG adjustment
- CR Scale or CR Encoder Sensor failure
- The tension of the CR Belt is not proper.
- Suction setting failure.
- Suction fan failure.
- Lubrication on the CR moving parts is insufficient.

 Parts/Components to be checked

1. CR Scale
2. CR Encoder Sensor
3. Suction Fan

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|----------------------------------|
| 1 | Select “Print Quality Auto Adjustment” in the repair mode and make the adjustments. Does the product recover from the failure? | End | Go to step 2 |
| 2 | Check if the paper thickness setting correct. ■ Correct the paper thickness setting. Does the product recover from the failure? | End | Go to step 3 |
| 3 | Check the PG adjustment been made properly. ■ Perform the PG adjustment. Does the product recover from the failure? | End | Go to step 4 |
| 4 | Clean the CR Scale. Does the product recover from the error? | End | Go to step 5 |
| 5 | Reinstall the CR Scale and CR Encoder Sensor. Does the product recover from the failure? | End | Go to step 6 |
| 6 | Replace the CR Scale and CR Encoder Sensor. Does the product recover from the failure? | End | Go to step 7 |
| 7 | Correct the tension of the CR Belt. Does the product recover from the failure? | End | Go to step 8 |
| 8 | Make the suction setting properly. Does the product recover from the failure? | End | Go to step 9 |
| 9 | Replace the Suction Fan. Does the product recover from the failure? | End | Escalate to the person in charge |

PRINTED SIDE IS SMUDGED OR SMEARED WITH INK Image Suspected cause

- There is a problem with the paper used.
- Drying failure.
- Improper PG adjustment.
- The paper feed roller is contaminated
- There is something wrong with the media edge plates.
- The bottom of the CR unit is contaminated.

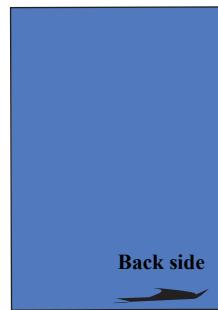
 Parts/Components to be checked

1. Media edge plate

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|---------------|
| 1 | Check if the paper wrinkled, bent, rippled, or warped. Does the product recover from the failure? | End | Go to step 2 |
| 2 | Check if the paper too thick and contacting with the head <ul style="list-style-type: none">■ Replace the paper with a proper new one.■ Adjust the PG setting according to the paper thickness. Does the product recover from the failure? | End | Go to step 3 |
| 3 | Check if the paper too thin and loosening when being fed. <ul style="list-style-type: none">■ Replace the paper with a proper new one.■ Adjust the PG setting according to the paper thickness. Does the product recover from the failure? | End | Go to step 4 |
| 4 | Check if paper advanced before ink on it dries. <ul style="list-style-type: none">■ Change the drying time setting to a longer one. Does the product recover from the error? | End | Go to step 5 |
| 5 | Check if the paper used a kind of paper that absorbs ink easily and takes longer time to being dried. <ul style="list-style-type: none">■ Change the paper with another one. Does the product recover from the failure? | End | Go to step 6 |
| 6 | Check if the heater temperature setting appropriate <ul style="list-style-type: none">■ Set the heater temperature higher. Does the product recover from the failure? | End | Go to step 7 |
| 7 | Check if the PG adjustment been made properly. <ul style="list-style-type: none">■ Perform the PG adjustment. Does the product recover from the failure? | End | Go to step 8 |
| 8 | Check if the PF roller smudged or smeared with ink or anything. <ul style="list-style-type: none">■ Clean the roller with a soft cloth damped and wrung out of water. Does the product recover from the failure? | End | Go to step 9 |
| 9 | Check if media edge plates being raised improperly. <ul style="list-style-type: none">■ Replace the media edge plates if any bend is observed.■ Install the plate so that it properly presses paper. Does the product recover from the failure? | End | Go to step 10 |

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|--|
| 10 | Check if the plates pressing paper too much and bringing the paper too close to the print head side. ■ Align the holes on the plate with the edges of paper. Does the product recover from the failure? | End | Go to step 11 |
| 11 | Check the contamination and fluff on the bottom of the CR unit. ■ Clean the bottom of the CR unit. Does the product recover from the failure? | End | Go to step 12 |
| 12 | Check the contamination and fluff on the flushing box. ■ Clean the flushing box and inside of the printer. Does the product recover from the failure? | End | Escalate to the person in charge |

THE BACKSIDE OF PAPER IS SMUDGED OR SMEARED WITH INK Image

- Suspected cause
 - The platen is contaminated.
 - Suction fan is making the ink mists drift to the back of the printing paper.
- Parts/Components to be checked
 1. Suction Fan
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|----------------------------------|
| 1 | Check if the platen contaminated with ink. <ul style="list-style-type: none">■ Clean the platen. Does the product recover from the failure? | End | Go to step 2 |
| 2 | Check if the Media Size Check function enabled. <ul style="list-style-type: none">■ Enable (select “ON”) the Media Size Check function. Does the product recover from the failure? | End | Go to step 3 |
| 3 | Check if the suction level of the fan proper. <ul style="list-style-type: none">■ Change the suction level appropriately. Does the product recover from the failure? | End | Escalate to the person in charge |

COLOR OR PRINT DENSITY UNEVENNESS WITHIN A PAGE OR ACROSS PAGES

Image



Suspected cause

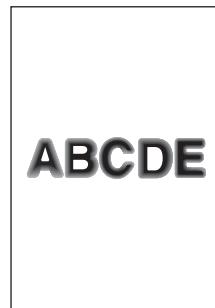
- Some of the nozzles are clogging.
- The ink in the ink cartridge is not agitated enough.
- Deterioration of ink quality
- Improper PG adjustment
- Ink settles in the tube.

Parts/Components to be checked

1. Ink cartridge

Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|----------------------------------|
| 1 | Check the nozzle check pattern and alignment check pattern. <ul style="list-style-type: none"> ■ Carry out the cleaning. Does the product recover from the failure? | End | Go to step 2 |
| 2 | Shake the ink cartridges so that ink droplets spread evenly inside the cartridges. <ul style="list-style-type: none"> Does the product recover from the failure? | End | Go to step 3 |
| 3 | Make sure the installed ink cartridges expired. <ul style="list-style-type: none"> ■ Replace the expired ink cartridges with new ones. Does the product recover from the failure? | End | Go to step 4 |
| 4 | Ask the user about how frequently the printer is used. <ul style="list-style-type: none"> ■ Agitate the ink cartridge and carry out CL3 three times or run the initial ink charge. Does the product recover from the failure? | End | Escalate to the person in charge |

TEXT OR IMAGES ARE DIMMED Image Suspected cause

- Too much ink discharge.
- The ink droplet sizes are not proper.
- PG is too high.
- Bi-D adjustment is not appropriate.
- Resolution of images is insufficient.

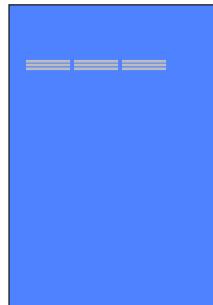
 Parts/Components to be checked

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|----------------------------------|
| 1 | Check the Head rank ID been written correctly. <ul style="list-style-type: none"> ■ Rewrite the Head rank ID with a correct one. Does the product recover from the failure? | End | Go to step 2 |
| 2 | Check if the RIP settings proper. <ul style="list-style-type: none"> ■ Change the RIP settings accordingly. Does the product recover from the failure? | End | Go to step 3 |
| 3 | Check the current PG settings. <ul style="list-style-type: none"> ■ Improve the PG settings. Does the product recover from the failure? | End | Go to step 4 |
| 4 | Check if it recurs in the Uni-D printing. <ul style="list-style-type: none"> ■ If it does not recur in the Uni-D printing, carry out the gap adjustment through the panel because the Bi-D adjustment is not appropriate. Does the product recover from the error? | End | Go to step 5 |
| 5 | Check if the resolution of the original images are sufficient. <ul style="list-style-type: none"> ■ Replace them with the images with sufficient resolution. Does the product recover from the failure? | End | Escalate to the person in charge |

PAPER DUST IS ATTACHED OR THE TRACES OF THE ROLLERS APPEAR

Image



Suspected cause

- Traces of pressure roller are caused because the paper had been kept set in the printer for a long time.
- The paper dust attached on the PF rollers transferred to the paper.

Parts/Components to be checked

Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|----------------------------------|
| 1 | Remove the paper if the printer is left for a long time. Does the product recover from the failure? | End | Go to step 2 |
| 2 | Check if any paper dust attached to the PF rollers. <ul style="list-style-type: none"> ■ Clean the rollers. Print some blank pages to clean them. Does the product recover from the failure? | End | Escalate to the person in charge |

INK MIST IS ATTACHED

Image

Suspected cause

Parts/Components to be checked

Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|----------------------------------|
| 1 | Replace the air filter. Does the product recover from the failure? | End | Go to step 2 |
| 2 | Check if the PG too wide. <ul style="list-style-type: none"> ■ Carry out the PG Adjustment. Does the product recover from the failure? | End | Go to step 3 |
| 3 | Check if the print duty too high. <ul style="list-style-type: none"> ■ Lower the print duty. Does the product recover from the failure? | End | Go to step 4 |
| 4 | Check the ambient environment the one with low temperature and low humidity. <ul style="list-style-type: none"> ■ Improve the environmental conditions by humidifying the air. Does the product recover from the error? | End | Escalate to the person in charge |

PAPER IS NOT FED INTO THE PRINTER PROPERLY Image

 Suspected cause

- Improper PE Sensor adjustment
- PE Sensor failure
- PW Sensor failure

 Parts/Components to be checked

1. PE Sensor
2. PW Sensor

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|----------------------------------|
| 1 | Perform the Rear AD Adjustment. Does the product recover from the failure? | End | Go to step 2 |
| 2 | Check if the paper is fed normally with the PW sensor off. <ul style="list-style-type: none">■ If the paper is fed normally with the PW sensor off, the PW sensor may be abnormal, so replace the PW sensor. Does the product recover from the failure? | End | Escalate to the person in charge |

PAPER FEEDING OR PAPER EJECTING IS ABNORMAL Image

 Suspected cause

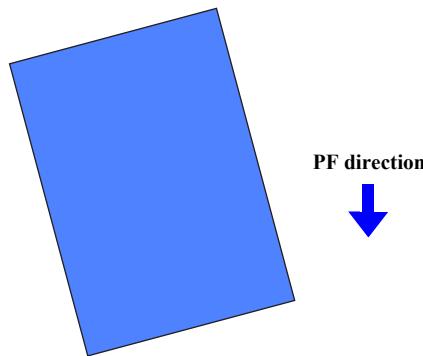
- An abnormal value is set in the custom media settings.
- PF scale or PF encoder failure.
- The tension of the PF timing belt is not proper.
- Suction setting failure
- Suction fan failure
- PF rollers failure

 Parts/Components to be checked

1. PF Scale
2. PF Encoder Sensor
3. Suction Fan

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|----------------------------------|
| 1 | Check the custom media settings. <ul style="list-style-type: none"> ■ Set the standard values in the settings for each media. Does the product recover from the failure? | End | Go to step 2 |
| 2 | Check if the PF Scale damaged or contaminated. <ul style="list-style-type: none"> ■ Clean the PF Scale. Does the product recover from the failure? | End | Go to step 3 |
| 3 | Check if the PF Scale attached properly. <ul style="list-style-type: none"> ■ Reinstall the PF Scale and PF Encoder Sensor. Does the product recover from the failure? | End | Go to step 4 |
| 4 | Check if the PF encoder installed correctly. <ul style="list-style-type: none"> ■ Replace the PF Scale and PF Encoder Sensor. Does the product recover from the error? | End | Go to step 5 |
| 5 | Correct the tension of the PF timing belt. <ul style="list-style-type: none"> Does the product recover from the failure? | End | Go to step 6 |
| 6 | Check if the suction setting proper. <ul style="list-style-type: none"> ■ Make the suction setting properly. Does the product recover from the failure? | End | Go to step 7 |
| 7 | Does the suction fan work normally? Check it using the Service Program. <ul style="list-style-type: none"> ■ Replace the Suction Fan. Does the product recover from the failure? | End | Go to step 8 |
| 8 | Check the PF rollers contaminated or damaged. <ul style="list-style-type: none"> ■ Clean the rollers or replace them. Does the product recover from the failure? | End | Escalate to the person in charge |

PAPER IS SKEWING Image Suspected cause

- The roll unit or reel unit is not parallel.
- The Paper Size Check function has been disabled.
- The PW sensor is not working.
- Roll paper edge is attached to the take-up reel at an angle.
- The paper hold-down plate is pressing paper too strong.
- The printer is not installed horizontally.

 Parts/Components to be checked

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|----------------------------------|
| 1 | Perform the parallelism adjustment of the roll unit or reel unit referring to the Set Up Guide. Does the product recover from the failure? | End | Go to step 2 |
| 2 | Enable (select “ON”) the Media Size Check function. Does the product recover from the failure? | End | Go to step 3 |
| 3 | Does the PW sensor work normally? Check it using the Service Program. ■ Replace the PW Sensor. Does the product recover from the failure? | End | Go to step 4 |
| 4 | Check the roll paper edge is attached to the take-up reel at an angle. ■ Attach the paper to the take-up reel correctly. Does the product recover from the error? | End | Go to step 5 |
| 5 | Align the holes on the plate with the edges of paper. Does the product recover from the failure? | End | Go to step 6 |
| 6 | Check the level on the foot. ■ Set the printer horizontally by adjusting the adjusters on the bottom of the printer. Does the product recover from the failure? | End | Escalate to the person in charge |

ACTUAL MARGINS DIFFER FROM THE SPECIFIED MARGINS Image Suspected cause

- Paper feed amount is not configured correctly.
- The Media Size Check function has been disabled.
- The Media End Check function has been disabled.
- The Tension Check function has been set to OFF.

 Parts/Components to be checked

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|----------------------------------|
| 1 | Perform the Feed Adjustment. Does the product recover from the failure? | End | Go to step 2 |
| 2 | Enable (select “ON”) the Media Size Check function. (The printer is not capable of precisely correcting less than 2 mm differences.) Does the product recover from the failure? | End | Go to step 3 |
| 3 | Enable (select “ON”) the Media End Check function. Does the product recover from the failure? | End | Go to step 4 |
| 4 | Set the Tension Check function to other than OFF. Does the product recover from the error? | End | Escalate to the person in charge |

THE END OF ROLL PAPER IS NOT DETECTED AND PAPER FALLS Image

 Suspected cause

- Roll paper whose end edge is secured to the core was used with the Tension Check function set to OFF.
- The Tension Check function has been set to OFF with the Media End Check function disabled.

 Parts/Components to be checked

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|----------------------------------|
| 1 | <p>Make either one or both of the following settings.</p> <ul style="list-style-type: none"> · Set the Tension Check function to other than OFF. · Enable (select “ON”) the Media End Check function. <p>Does the product recover from the failure?</p> | End | Go to step 2 |
| 2 | <p>Make either one or both of the following settings.</p> <ul style="list-style-type: none"> · Set the Tension Check function to other than OFF. · Enable (select “ON”) the Media End Check function. <p>Does the product recover from the failure?</p> | End | Escalate to the person in charge |

ROLL PAPER IS REELED OFF AT A SLANT, OR THE REELED-OFF PAPER GETS WRINKLED Image

 Suspected cause

- The tensioner has become distorted for some reason. (It can be distorted if excessive force is applied.)

 Parts/Components to be checked

1. Reel Unit

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|----------------------------------|
| 1 | <p>Replace the reel unit.</p> <p>Does the product recover from the failure?</p> | End | Escalate to the person in charge |

“MEDIA OUT” OCCURS

- Image

- Suspected cause
- PE sensor is contaminated.
 - PE sensor is not working.
- Parts/Components to be checked
1. PE Sensor
- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|--|
| 1 | Clean the PE Sensor. Does the product recover from the failure? | End | Go to step 2 |
| 2 | Perform the Rear AD Adjustment. ■ Replace the PE Sensor if it is abnormal. Does the product recover from the failure? | End | Escalate to the person in charge |

THE PRINTER IS NOT POWERED Image

 Suspected cause

- The power cable is unplugged
- The power voltage is unstable.
- Connection failure of the power supply board
- Connection failure of the control panel board

 Parts/Components to be checked

1. AC inlet
2. Power Supply Box Assy

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|----------------------------------|
| 1 | Check if the power plug connected properly. ■ Connect it properly. Does the product recover from the failure? | End | Go to step 2 |
| 2 | Check the electrical outlet overloaded sharing with any other electric equipment. ■ Use one electrical outlet for the printer only if possible. Does the product recover from the failure? | End | Go to step 3 |
| 3 | Check if there any problem in the connection between the Power Supply Box Assy and the Main Board. ■ Correct the problem. Does the product recover from the failure? | End | Go to step 4 |
| 4 | Check if there any problem in the connection between the Panel Board and the Main Board. ■ Correct the problem. Does the product recover from the error? | End | Go to step 5 |
| 5 | Replace the AC inlet. Does the product recover from the failure? | End | Go to step 6 |
| 6 | Replace the Power Supply Box Assy. Does the product recover from the failure? | End | Escalate to the person in charge |

CANNOT ACCESS TO A NETWORK Image

 Suspected cause

- A wrong type of network cable is used.
- Network cable failure
- LAN connector failure
- The MAC address is invalid.
- Connection failure of the Main Board A.

 Parts/Components to be checked

1. Main Board A

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|----------------------------------|
| 1 | Check if a crossing cable used as the network cable. <ul style="list-style-type: none"> ■ Replace the cable with a straight cable. Does the product recover from the failure? | End | Go to step 2 |
| 2 | Check if there any abnormalities observed on the cable. <ul style="list-style-type: none"> · Are the connectors firmly inserted? · Is the cable breaking? · Is the cable being bent or is there anything placed on the cable? ■ Correct the problem. Does the product recover from the failure? | End | Go to step 3 |
| 3 | Check if the connector deformed or damaged. <ul style="list-style-type: none"> ■ Replace the Main Board B. Does the product recover from the failure? | End | Go to step 4 |
| 4 | Rewrite the address with a correct one. <ul style="list-style-type: none"> Does the product recover from the error? | End | Go to step 5 |
| 5 | Check if there any problem in the connection between the Main Board A and the Main Board. <ul style="list-style-type: none"> ■ Correct the problem. Does the product recover from the failure? | End | Go to step 6 |
| 6 | Replace the Main Board A. <ul style="list-style-type: none"> Does the product recover from the failure? | End | Escalate to the person in charge |

THE PRINTER MAKES A STRANGE NOISE WHEN THE CR IS MOVING **Image**

 Suspected cause

- The tension of the CR Belt is not proper.
- Lubrication of the CR unit and CR shaft is insufficient.
- CR Scale or CR Encoder Sensor failure.
- Unexpected tension was applied to the tubes.

 Parts/Components to be checked

1. CR Scale
2. CR Encoder Sensor
3. CR Motor

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|----------------------------------|
| 1 | Correct the tension of the CR Belt. Does the product recover from the failure? | End | Go to step 2 |
| 2 | Does the CR unit move smoothly? Check it by pulling the CR Belt. ■ If the unit does not move smoothly, lubricate it. Does the product recover from the failure? | End | Go to step 3 |
| 3 | Is the CR Scale damaged or contaminated? ■ Clean the CR Scale. Does the product recover from the failure? | End | Go to step 4 |
| 4 | Check if the CR scale attached properly. ■ Reinstall the CR Scale and CR Encoder Sensor. Does the product recover from the error? | End | Go to step 5 |
| 5 | Check if the CR Encoder Sensor installed correctly. ■ Reinstall the CR Scale and CR Encoder Sensor. Does the product recover from the failure? | End | Go to step 6 |
| 6 | Is the resin film on the CR FFC attached properly. ■ Attach the resin film properly. Does the product recover from the failure? | End | Go to step 7 |
| 7 | Replace the CR Motor. Does the product recover from the failure? | End | Escalate to the person in charge |

AFTER HEATER POWER FAILURE OCCURS Image

 Suspected cause

- The power cable of the after heater is not connected.

 Parts/Components to be checked

1. After Heater

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|----------------------------------|
| 1 | Connect the power cable of the after heater. Does the product recover from the failure? | End | Escalate to the person in charge |

IT TAKES A LONGER TIME TO WARM UP THE HEATER Image

 Suspected cause

- It takes 10 minutes or longer until the heater temperature reaches the preset level.

 Parts/Components to be checked

1. After Heater

 Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|----------------------------------|
| 1 | Check the heater setting appropriate in the ambient temperature. <ul style="list-style-type: none"> ■ Raise the ambient temperature. ■ Turn the heater temperature setting down. Does the product recover from the failure? | End | Go to step 2 |
| 2 | Check if the thermistor detached from the plate. <ul style="list-style-type: none"> ■ See the panel display to identify which heater has not been warmed up. ■ Screw the thermistor on the plate. Does the product recover from the failure? | End | Escalate to the person in charge |

A MESSAGE SAYING “THE SCANNING DEVICE MAY BE MALFUNCTIONING.” IS DISPLAYED.

Image

Suspected cause

- The LED of the RGB camera is dirty.
- The shutter is dirty.

Parts/Components to be checked

1. RGB Camera
2. Shutter

Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|----------------------------------|
| 1 | <p>Clean the LED of the RGB camera (p666) and clean the shutter (p666).</p> <p>Does the product recover from the failure?</p> | End | Escalate to the person in charge |

THE PRINTER DOES NOT OPERATE EVEN THOUGH THE PROGRAM FUNCTION IS EXECUTED

Image

Suspected cause

- The printer power is off
- The printer is in a state in which it cannot accept commands.
- After the USB ID was changed, the model name was not selected again.

Parts/Components to be checked

Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|----------------------------------|
| 1 | <p>Power ON</p> <p>Does the product recover from the failure?</p> | End | Go to step 2 |
| 2 | <p>Check that no error has occurred</p> <p>Does the product recover from the failure?</p> | End | Go to step 3 |
| 3 | <p>Eliminate errors that occurred</p> <p>Does the product recover from the failure?</p> | End | Escalate to the person in charge |

"MEDIA HAS BEEN FED" ERROR

- Image

- Suspected cause
 - Media has been set for adjustment that does not involve printing.
- Parts/Components to be checked

- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|----------------------------------|
| 1 | Check if the media is set Does the product recover from the failure? | End | Go to step 2 |
| 2 | Remove the media Does the product recover from the failure? | End | Escalate to the person in charge |

NVRAM VIEWER DOES NOT START/FILE DOES NOT OPEN

- Image

- Suspected cause
 - NVRAM Viewer is not installed
- Parts/Components to be checked

- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|----------------------------------|
| 1 | Install the NVRAM Viewer, then start the Service Program Does the product recover from the failure? | End | Escalate to the person in charge |

THE BUTTON USED TO OPEN NVRAM VIEWER IS NOT DISPLAYED

- Image

- Suspected cause
 - The NVRAM Viewer function is set to be hidden.
- Parts/Components to be checked

- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|--|-----|----------------------------------|
| 1 | Use a text editor to open the ini file (ext_dlg.ini) in the “Service” folder of the Service Program <ul style="list-style-type: none"> ■ Check the NVRAM Viewer setting state. (0 = Don't display, 1 = Display) Does the product recover from the failure? | End | Go to step 2 |
| 2 | Change settings according to the policy of each local sales subsidiary <ul style="list-style-type: none"> Does the product recover from the failure? | End | Escalate to the person in charge |

THE CONTENT DISPLAYED ON NVRAM VIEWER DOES NOT MATCH THE ITEM NAMES

- Image

- Suspected cause
 - The Service Program being used is not for this product.
- Parts/Components to be checked

- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|----------------------------------|
| 1 | Is the Service Program for this product being used? <ul style="list-style-type: none"> Does the product recover from the failure? | End | Go to step 2 |
| 2 | Use the Service Program for this product <ul style="list-style-type: none"> Does the product recover from the failure? | End | Escalate to the person in charge |

THE COUNTER RESET HISTORY AND ERROR HISTORY ARE NOT DISPLAYED ON NVRAM VIEWER

- Image

- Suspected cause

- Because there are many items, the counter reset history and the error history are not displayed on the Viewer, and they are displayed only in the CSV file.

- Parts/Components to be checked

- Troubleshooting

| Step | Confirmation points and methods | YES | NO |
|------|---|-----|----------------------------------|
| 1 | <p>Click the “Output CSV” button at the lower right corner of the NVRAM Viewer screen</p> <ul style="list-style-type: none">■ History data is included in the CSV file that is output. Does the product recover from the failure? | End | Escalate to the person in charge |

2.5 Resistance values

| Motor | Resistance value (Ω) |
|--------------|-------------------------------|
| CR | 0.89±10% |
| PF | 4.9±10% |
| ATC | 17.9 ±10% |
| APG | 17.9±10% |
| REEL | 17.9±10% |
| NIPLV | 21.2±10% |
| HC | 17.9±10% |
| CAP | 9.95±10% |
| WIP | 21.2±10% |
| CLOTH_TAKEUP | 21.2±10% |
| CL_PRES | 21.2±10% |
| IH_DEPRES | 88±15% |
| CL_DEPRES | 88±15% |

2.6 Fuse Positions

Main Board B

| Fuse | Points to measure when blows | Failure point prediction | Ref. |
|------|------------------------------|--------------------------|---|
| F1 | --- | --- | Overcurrent due to cooling fan lock The harness coming from CN901 has a ground fault Figure 2-3 |
| F2 | --- | --- | Overcurrent due to cooling fan lock The harness coming from CN902 has a ground fault Figure 2-3 |
| F3 | --- | --- | --- |

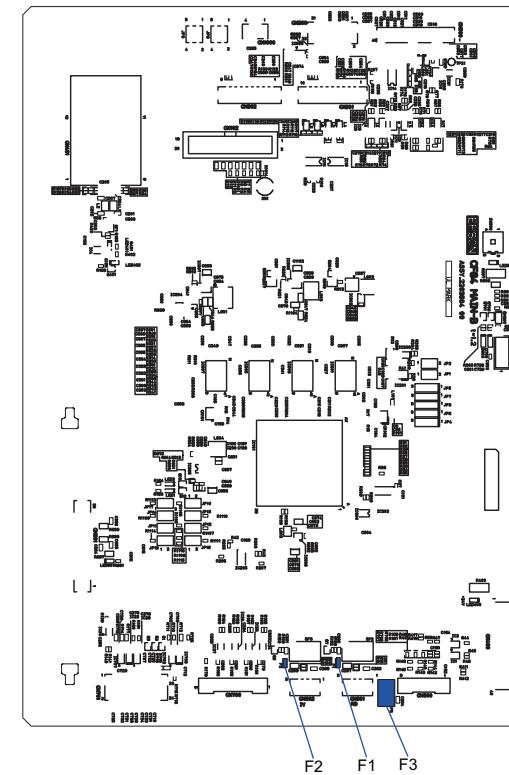


Figure 2-3.

Main Board A

| Fuse | Points to measure when blows | Failure point prediction | Ref. |
|------|------------------------------|--|----------------------------|
| F401 | --- | The harness coming from CN405 to the panel has a ground fault <input type="checkbox"/> Panel failure <input type="checkbox"/> SUB-DC failure | Figure 2-4 |
| F402 | --- | The harness coming from CN405 to the panel has a ground fault <input type="checkbox"/> Panel failure <input type="checkbox"/> SUB-DC failure | Figure 2-4 |
| F601 | --- | The harness coming from CN608 to the SSD has a ground fault <input type="checkbox"/> SSD failure <input type="checkbox"/> SUB-DC failure | Figure 2-4 |
| F602 | --- | The harness coming from CN608 to the SSD has a ground fault <input type="checkbox"/> SSD failure <input type="checkbox"/> SUB-DC failure | Figure 2-4 |
| F901 | --- | --- | Figure 2-4 |

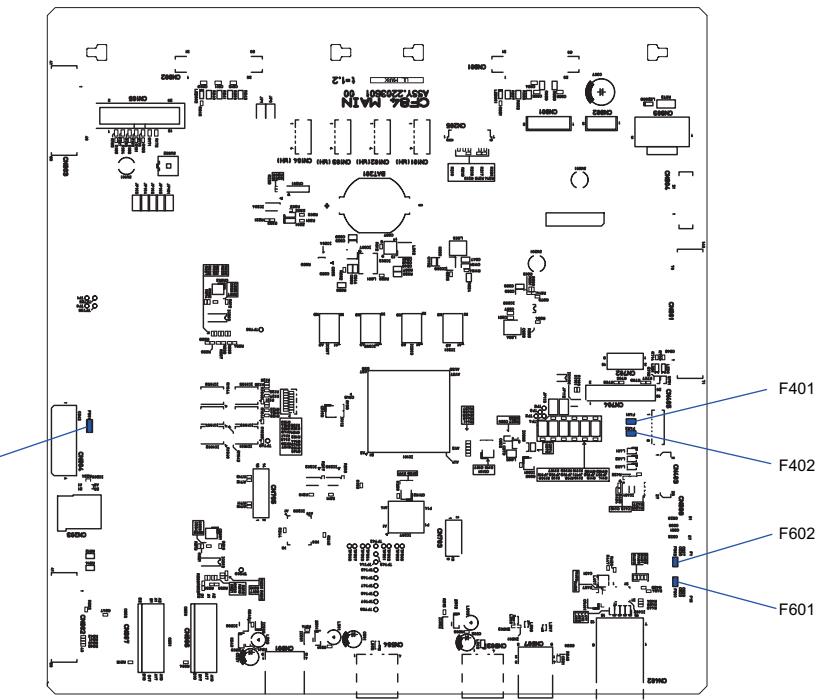


Figure 2-4.

CR Motor Control Board (SUB-B)

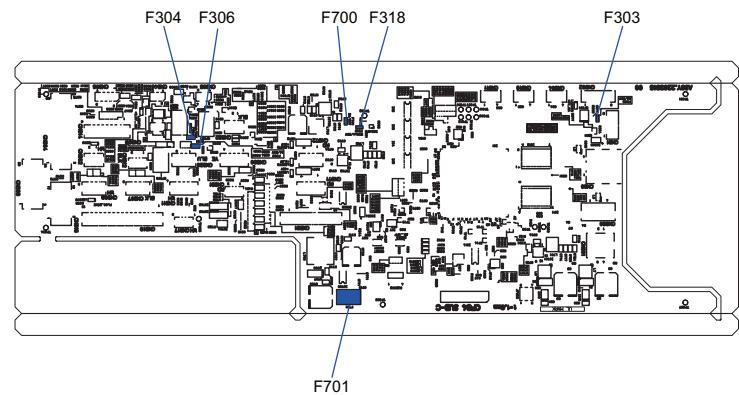
| Fuse | Points to measure when blows | Failure point prediction | Ref. |
|------|------------------------------|--|----------------------------|
| F300 | --- | <ul style="list-style-type: none"> <input type="checkbox"/> The harness coming from CN301 is shorting with a metal plate <input type="checkbox"/> A fan drive circuit part in the board has a short failure (ex. D307) | Figure 2-5 |
| F301 | --- | An interlock circuit part in the board has a short failure (ex. D306) | Figure 2-5 |
| F400 | --- | A DCDC circuit part for 5V/14V generation in the board has a short failure (ex. input capacitor, DCDC I/O) | Figure 2-5 |
| F401 | --- | <ul style="list-style-type: none"> <input type="checkbox"/> The harness coming from CN300 is shorting with a metal plate <input type="checkbox"/> A motor drive circuit part in the board has a short failure (ex. C225, C224) <input type="checkbox"/> SUB-B microcomputer failure (firmware becomes out of control) | Figure 2-5 |
| F402 | --- | A 14V system circuit part in the board has a short failure (ex. DCDC output capacitor, gate driver IC bypass capacitor) | Figure 2-5 |
| F403 | --- | <ul style="list-style-type: none"> <input type="checkbox"/> The harness coming from CN104 is shorting with a metal plate <input type="checkbox"/> A 5V system circuit part in the board has a short failure (ex. DCDC output capacitor, 5V system IC bypass capacitor) | Figure 2-5 |



Figure 2-5.

SUB-C Board

| Fuse | Points to measure when blows | Failure point prediction | Ref. |
|------|------------------------------|---|----------------------------|
| F303 | --- | <ul style="list-style-type: none"> <input type="checkbox"/> The harness (CN81) is shorting with a metal plate. <input type="checkbox"/> The circuit inside the RGB Camera is shorting. | Figure 2-6 |
| F304 | --- | <ul style="list-style-type: none"> <input type="checkbox"/> The harness (CN320) is shorting with a metal plate. <input type="checkbox"/> The Pressurization/Decompression Switching Valve is shorting. | Figure 2-6 |
| F306 | --- | <ul style="list-style-type: none"> <input type="checkbox"/> The harness (CN320) is shorting with a metal plate. <input type="checkbox"/> The circuit inside the cooling fan inside the CR Unit is shorting. | Figure 2-6 |
| F309 | --- | <ul style="list-style-type: none"> <input type="checkbox"/> The harness (CN303) is shorting with a metal plate. <input type="checkbox"/> The Pressurization Selector Valve is shorting. | --- |
| F318 | --- | <ul style="list-style-type: none"> <input type="checkbox"/> The harness (CN305/CN309) is shorting with a metal plate. <input type="checkbox"/> The CR Obstacle Sensor is shorting. | Figure 2-6 |
| F500 | --- | <ul style="list-style-type: none"> <input type="checkbox"/> The harness (CN332) is shorting with a metal plate. <input type="checkbox"/> The Atmospheric Pressure Release Valve inside the CR Unit is shorting. | --- |
| F700 | --- | The circuit of the SUB-C Board is shorting. | Figure 2-6 |
| F701 | --- | --- | --- |

**Figure 2-6.**

SUB-H Board (Back Side)

| Fuse | Points to measure when blows | Failure point prediction | Ref. |
|-------|------------------------------|--------------------------|--|
| F501 | --- | --- | Figure 2-7 |
| F601 | --- | --- | Figure 2-7 |
| F701 | --- | --- | Figure 2-7 |
| F1501 | --- | --- | The circuit of the CF84 DRV board connected to CN503 has a short Figure 2-7 |
| F1601 | --- | --- | The circuit of the CF84 DRV board connected to CN504 has a short Figure 2-7 |
| F1701 | --- | --- | The circuit of the CF84 DRV board connected to CN505 has a short Figure 2-7 |
| F2501 | | | The circuit of the CF84 DRV board connected to CN506 has a short --- |
| F2601 | | | The circuit of the CF84 DRV board connected to CN507 has a short --- |
| F2701 | | | The circuit of the CF84 DRV board connected to CN508 has a short --- |
| F3501 | --- | --- | Figure 2-7 |
| F3601 | --- | --- | Figure 2-7 |

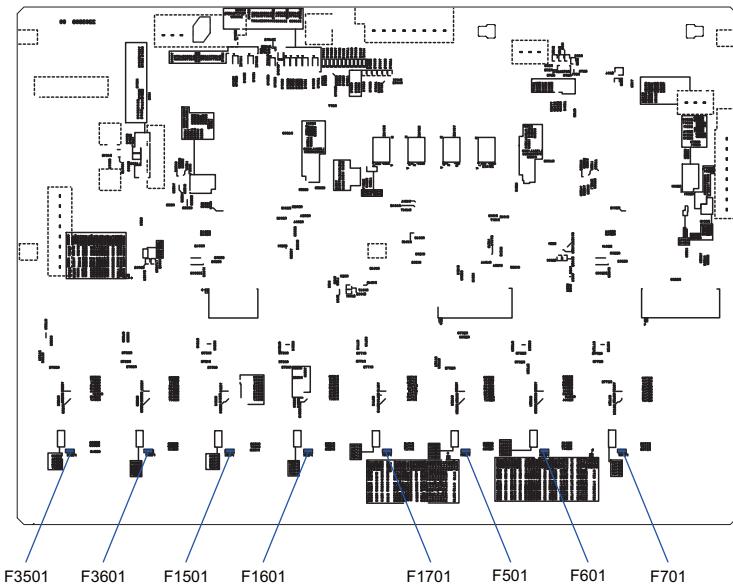
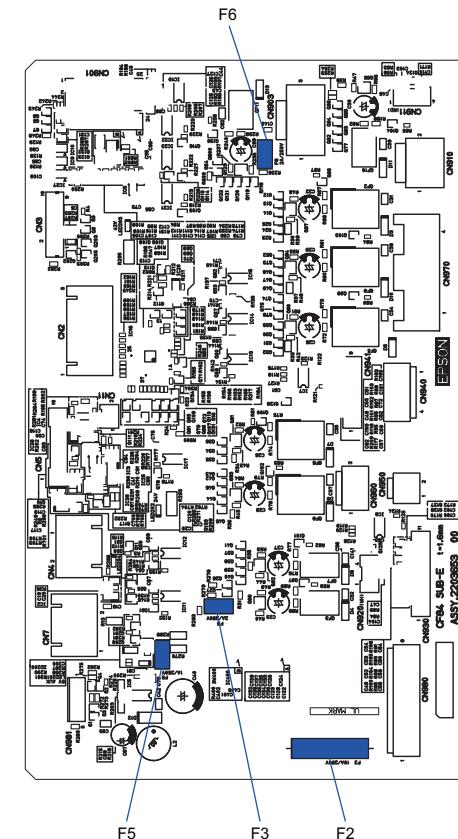


Figure 2-7.

SUB-E Board

| Fuse | Points to measure when blows | Failure point prediction | Ref. |
|------|------------------------------|---|----------------------------|
| F2 | --- | --- | Figure 2-8 |
| F3 | --- | --- | Figure 2-8 |
| F5 | --- | <ul style="list-style-type: none"> <input type="checkbox"/> Nipron 24V power supply failure <input type="checkbox"/> IC5 has failed or electrolytic capacitor C40 or C42 is damaged <input type="checkbox"/> A part of the +5V_AUX power supply destination has failed. | Figure 2-8 |
| F6 | --- | <ul style="list-style-type: none"> <input type="checkbox"/> The harness coming from CN903 to MAIN-B has a ground fault <input type="checkbox"/> QF11 has failed or Q129 has failed <input type="checkbox"/> Ground fault of ON/OFF circuit part for power to main board <input type="checkbox"/> Reverse flow from line connected to 24V. | Figure 2-8 |



DRV Board

| Fuse | Points to measure when blows | Failure point prediction | Ref. |
|------|------------------------------|--|----------------------------|
| F100 | --- | Check that SUBJ and head BtoB are connected properly with their jacks inserted straight and not at an angle. Check that the sheath of the 80-core FFC is not peeled off by the sharp edge of the metal plate. Check that GND is not short-circuited. | Figure 2-9 |
| F101 | --- | Check that SUBJ and head BtoB are connected properly with their jacks inserted straight and not at an angle. Check that the sheath of the 80-core FFC is not peeled off by the sharp edge of the metal plate. Check that GND is not short-circuited. | Figure 2-9 |
| F102 | --- | Check that SUBJ and head BtoB are connected properly with their jacks inserted straight and not at an angle. Check that the sheath of the 80-core FFC is not peeled off by the sharp edge of the metal plate. Check that GND is not short-circuited. | Figure 2-9 |
| F103 | --- | Check that SUBJ and head BtoB are connected properly with their jacks inserted straight and not at an angle. Check that the sheath of the 80-core FFC is not peeled off by the sharp edge of the metal plate. Check that GND is not short-circuited. | Figure 2-9 |

| Fuse | Points to measure when blows | Failure point prediction | Ref. |
|------|------------------------------|--|----------------------------|
| F104 | --- | Check that SUBJ and head BtoB are connected properly with their jacks inserted straight and not at an angle. Check that the sheath of the 80-core FFC is not peeled off by the sharp edge of the metal plate. Check that GND is not short-circuited. | Figure 2-9 |
| F106 | --- | Check that SUBJ and head BtoB are connected properly with their jacks inserted straight and not at an angle. Check that the sheath of the 80-core FFC is not peeled off by the sharp edge of the metal plate. Check that GND is not short-circuited. | Figure 2-9 |
| F107 | --- | Check that SUBJ and head BtoB are connected properly with their jacks inserted straight and not at an angle. Check that the sheath of the 80-core FFC is not peeled off by the sharp edge of the metal plate. Check that GND is not short-circuited. | Figure 2-9 |
| F200 | --- | Check that SUBJ and head BtoB are connected properly with their jacks inserted straight and not at an angle. Check that the sheath of the 80-core FFC is not peeled off by the sharp edge of the metal plate. Check that GND is not short-circuited. | Figure 2-9 |
| F201 | --- | Check that SUBJ and head BtoB are connected properly with their jacks inserted straight and not at an angle. Check that the sheath of the 80-core FFC is not peeled off by the sharp edge of the metal plate. Check that GND is not short-circuited. | Figure 2-9 |

| Fuse | Points to measure when blows | Failure point prediction | Ref. | Fuse | Points to measure when blows | Failure point prediction | Ref. |
|------|------------------------------|--------------------------|--|----------------------------|------------------------------|--------------------------|----------------------------|
| F300 | --- | --- | Check that SUBJ and head BtoB are connected properly with their jacks inserted straight and not at an angle. Check that the sheath of the 80-core FFC is not peeled off by the sharp edge of the metal plate. Check that GND is not short-circuited. | Figure 2-9 | --- | --- | Figure 2-9 |
| F301 | --- | --- | Check that SUBJ and head BtoB are connected properly with their jacks inserted straight and not at an angle. Check that the sheath of the 80-core FFC is not peeled off by the sharp edge of the metal plate. Check that GND is not short-circuited. | Figure 2-9 | --- | --- | Figure 2-9 |
| F400 | --- | --- | Check that SUBJ and head BtoB are connected properly with their jacks inserted straight and not at an angle. Check that the sheath of the 80-core FFC is not peeled off by the sharp edge of the metal plate. Check that GND is not short-circuited. | Figure 2-9 | --- | --- | Figure 2-9 |
| F401 | --- | --- | Check that SUBJ and head BtoB are connected properly with their jacks inserted straight and not at an angle. Check that the sheath of the 80-core FFC is not peeled off by the sharp edge of the metal plate. Check that GND is not short-circuited. | Figure 2-9 | --- | --- | Figure 2-9 |
| F500 | --- | --- | Check that SUBJ and head BtoB are connected properly with their jacks inserted straight and not at an angle. Check that the sheath of the 80-core FFC is not peeled off by the sharp edge of the metal plate. Check that GND is not short-circuited. | Figure 2-9 | --- | --- | Figure 2-9 |
| F501 | --- | --- | Check that SUBJ and head BtoB are connected properly with their jacks inserted straight and not at an angle. Check that the sheath of the 80-core FFC is not peeled off by the sharp edge of the metal plate. Check that GND is not short-circuited. | Figure 2-9 | --- | --- | Figure 2-9 |

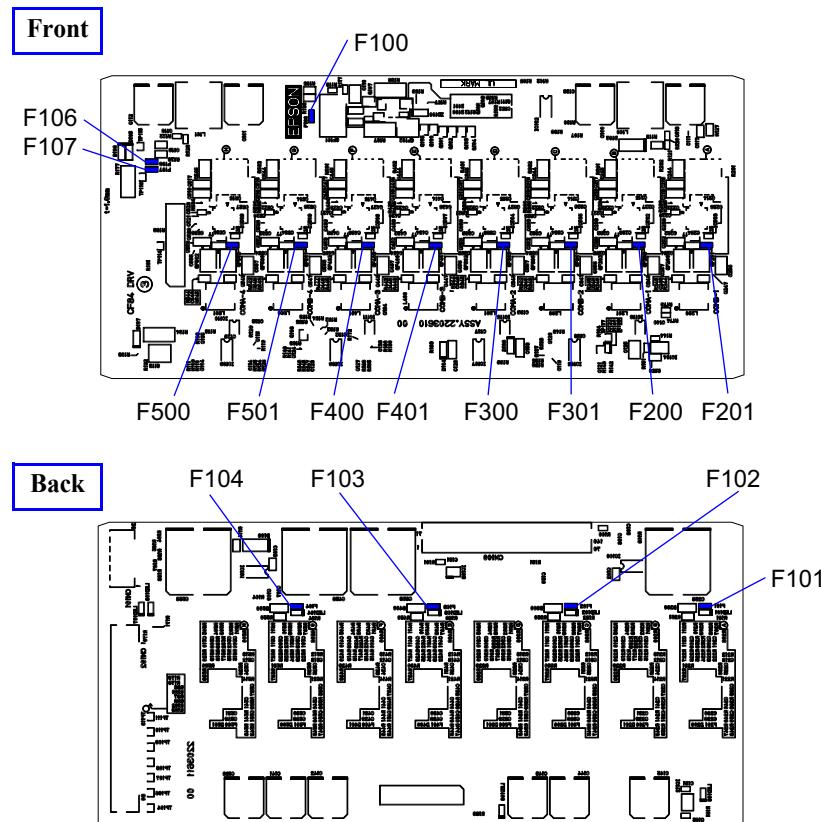


Figure 2-9.

MCU Board

| Fuse | Points to measure when blows | Failure point prediction | Ref. |
|------|------------------------------|--|-------------|
| F200 | --- | --- | --- |
| F201 | --- | <ul style="list-style-type: none"> <input type="checkbox"/> Overcurrent due to suction fan 1 lock <input type="checkbox"/> The harness coming from CN201 has a ground fault | Figure 2-10 |
| F202 | --- | <ul style="list-style-type: none"> <input type="checkbox"/> Overcurrent due to suction fan 1 lock <input type="checkbox"/> The harness coming from CN201 has a ground fault | Figure 2-10 |
| F203 | --- | <ul style="list-style-type: none"> <input type="checkbox"/> Overcurrent due to suction fan 1 lock <input type="checkbox"/> The harness coming from CN201 has a ground fault | Figure 2-10 |
| F204 | --- | <ul style="list-style-type: none"> <input type="checkbox"/> Overcurrent due to suction fan 1 lock <input type="checkbox"/> The harness coming from CN201 has a ground fault | Figure 2-10 |
| F500 | --- | --- | Figure 2-10 |
| F600 | --- | IC603 motor driver IC failure | Figure 2-10 |
| F601 | --- | IC602 motor driver IC failure | Figure 2-10 |
| F602 | --- | IC601 motor driver IC failure | Figure 2-10 |
| F603 | --- | IC600 motor driver IC failure | Figure 2-10 |
| F700 | --- | Either of IC702, IC703, or IC704 motor driver IC failure | Figure 2-10 |
| F800 | --- | --- | Figure 2-10 |
| F801 | --- | IC802 5V -> 3.3V DCDC converter IC failure | Figure 2-10 |
| F802 | --- | IC805 5V -> 3.3V DCDC converter IC failure | Figure 2-10 |
| F900 | --- | <ul style="list-style-type: none"> <input type="checkbox"/> The harness coming from CN600 has a ground fault <input type="checkbox"/> MCU Board failure (short circuit occurred for some reason) | Figure 2-10 |

| Fuse | Points to measure when blows | Failure point prediction | Ref. |
|-------|------------------------------|--|--|
| F901 | --- | --- | <ul style="list-style-type: none"> <input type="checkbox"/> The harness coming from CN600 has a ground fault <input type="checkbox"/> MCU Board failure (short circuit occurred for some reason) |
| F1001 | --- | --- | Figure 2-10 |
| F1002 | --- | --- | Figure 2-10 |
| F1003 | --- | --- | Figure 2-10 |
| F1004 | --- | --- | Figure 2-10 |
| F1500 | --- | IC608 motor driver IC failure | Figure 2-10 |
| F1501 | --- | IC701 motor driver IC failure | Figure 2-10 |
| F1502 | --- | <ul style="list-style-type: none"> <input type="checkbox"/> The harness coming from CN1211 has a ground fault <input type="checkbox"/> Connected CF84 SUB-S Board is broken <input type="checkbox"/> MCU Board failure (short circuit occurred for some reason) | Figure 2-10 |
| F1503 | --- | <ul style="list-style-type: none"> <input type="checkbox"/> The harness coming from CN1210 has a ground fault <input type="checkbox"/> Connected CF84 SUB-S Board is broken <input type="checkbox"/> MCU Board failure (short circuit occurred for some reason) | Figure 2-10 |
| F1504 | --- | --- | Figure 2-10 |
| F1505 | --- | <ul style="list-style-type: none"> <input type="checkbox"/> The harness coming from CN1202 has a ground fault <input type="checkbox"/> IMS broken | Figure 2-10 |

| Fuse | Points to measure when blows | Failure point prediction | Ref. |
|-------|------------------------------|--------------------------|---|
| F1506 | --- | --- | <ul style="list-style-type: none"> <input type="checkbox"/> Power supply - GND short circuit occurred on CE46 SUB-C Board <input type="checkbox"/> Power supply - GND short circuit occurred on LED Board <input type="checkbox"/> The harness coming from CN501 and CN1550 has a ground fault |
| F2000 | --- | --- | IC705 motor driver IC failure |
| F2001 | --- | --- | IC706 motor driver IC failure |

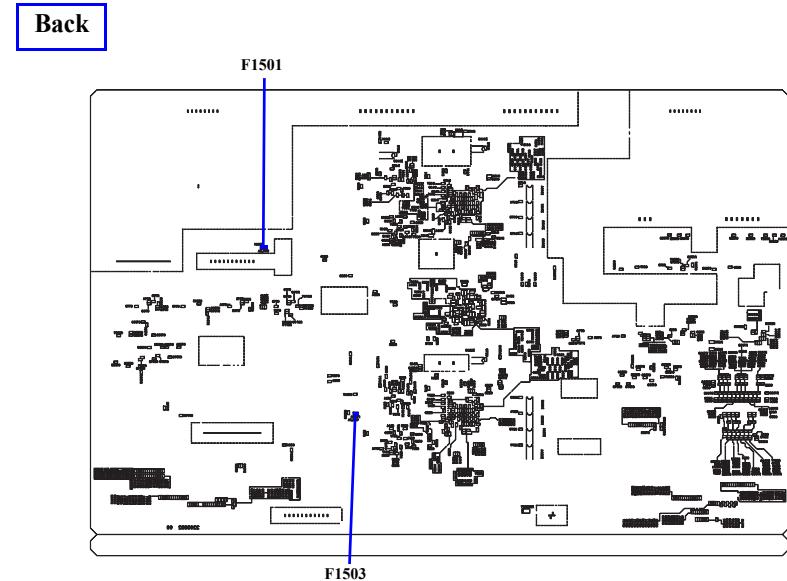
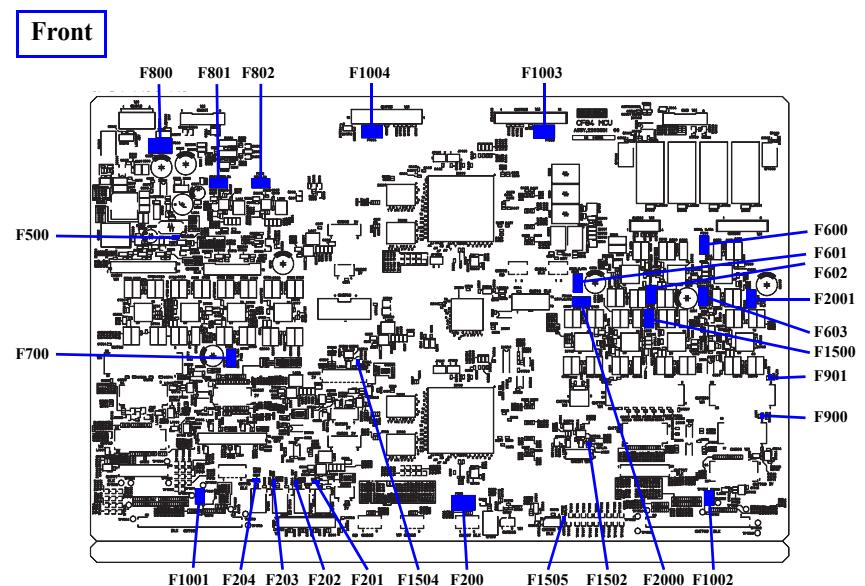
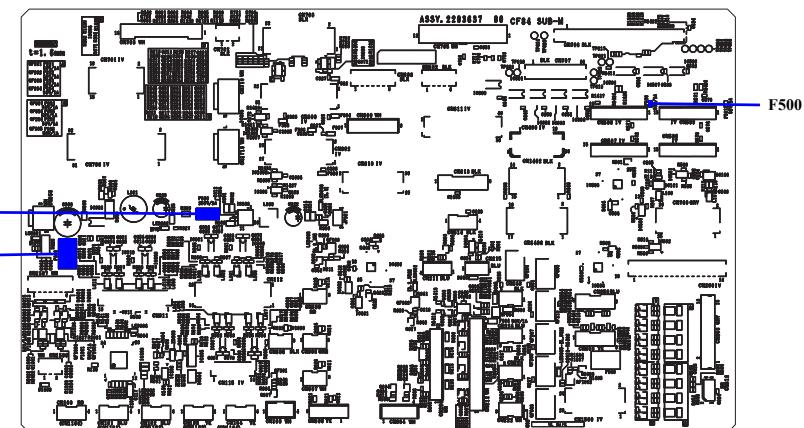


Figure 2-10.

SUB-M (Left) Board

| Fuse | Points to measure when blows | Failure point prediction | Ref. |
|------|------------------------------|--|-------------|
| F300 | --- | --- | --- |
| F309 | --- | --- | Figure 2-11 |
| F310 | --- | IC303 24V -> 5V DCDC converter IC failure | Figure 2-11 |
| F500 | --- | --- | Figure 2-11 |
| F803 | --- | The harness coming from CN606 has a ground fault | Figure 2-11 |

Front



Back

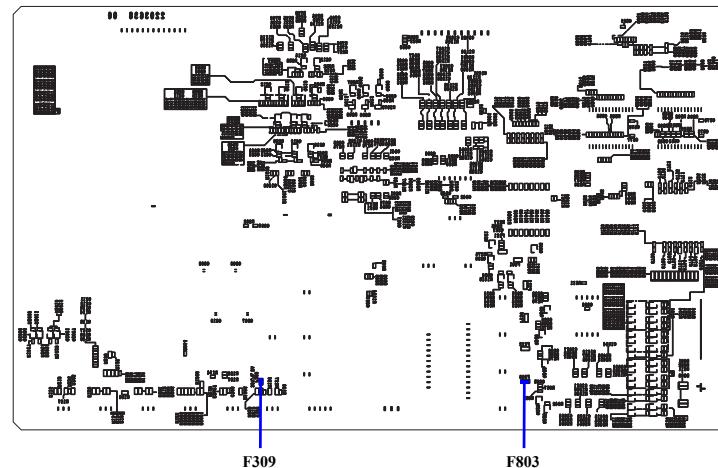


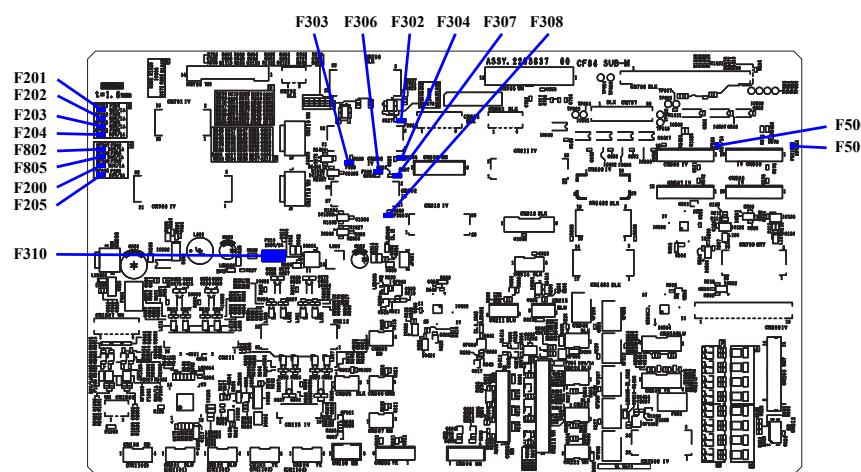
Figure 2-11.

SUB-M (Right) Board

| Fuse | Points to measure when blows | | Failure point prediction | Ref. |
|------|------------------------------|-----|---|-----------------------------|
| F310 | --- | --- | IC303 24V -> 5V DCDC converter IC failure | Figure 2-12 |
| F302 | --- | --- | <input type="checkbox"/> Overcurrent due to drying fan lock <input type="checkbox"/> The harness coming from CN300 has a ground fault | Figure 2-12 |
| F303 | --- | --- | <input type="checkbox"/> Overcurrent due to drying fan lock <input type="checkbox"/> The harness coming from CN300 has a ground fault | Figure 2-12 |
| F304 | --- | --- | <input type="checkbox"/> Overcurrent due to drying fan lock <input type="checkbox"/> The harness coming from CN300 has a ground fault | Figure 2-12 |
| F306 | --- | --- | <input type="checkbox"/> Overcurrent due to hardening fan lock <input type="checkbox"/> The harness coming from CN302 has a ground fault | Figure 2-12 |
| F307 | --- | --- | <input type="checkbox"/> Overcurrent due to hardening fan lock <input type="checkbox"/> The harness coming from CN302 has a ground fault | Figure 2-12 |
| F308 | --- | --- | <input type="checkbox"/> Overcurrent due to hardening fan lock <input type="checkbox"/> The harness coming from CN302 has a ground fault | Figure 2-12 |
| F803 | --- | --- | The harness coming from CN222 has a ground fault | Figure 2-12 |
| F500 | --- | --- | <input type="checkbox"/> The harness coming from CN506 has a ground fault <input type="checkbox"/> Short circuit due to the CRCM Board failure | Figure 2-12 |
| F501 | --- | --- | <input type="checkbox"/> The harness coming from CN508 has a ground fault <input type="checkbox"/> Short circuit due to the CRCM Board failure | Figure 2-12 |
| F309 | --- | --- | --- | Figure 2-12 |

| Fuse | Points to measure when blows | | Failure point prediction | Ref. |
|------|------------------------------|-----|--|-----------------------------|
| F200 | --- | --- | <input type="checkbox"/> Control solenoid of the BIB switching valve 5 or 6 failure <input type="checkbox"/> The harness coming from CN208 has a ground fault | Figure 2-12 |
| F201 | --- | --- | <input type="checkbox"/> Control solenoid between replenishment pump switching valve and BIB1 or BIB2 failure <input type="checkbox"/> The harness coming from CN200 has a ground fault | Figure 2-12 |
| F202 | --- | --- | <input type="checkbox"/> Control solenoid between replenishment pump switching valve and BIB3 or BIB4 failure <input type="checkbox"/> The harness coming from CN200 has a ground fault | Figure 2-12 |
| F203 | --- | --- | <input type="checkbox"/> Control solenoid between replenishment pump switching valve and BIB5 or BIB6 failure <input type="checkbox"/> The harness coming from CN200 has a ground fault | Figure 2-12 |
| F204 | --- | --- | <input type="checkbox"/> Control solenoid between replenishment pump switching valve and BIB7 or BIB8 failure <input type="checkbox"/> The harness coming from CN200 has a ground fault | Figure 2-12 |
| F205 | --- | --- | <input type="checkbox"/> Control solenoid of the BIB switching valve 7 or 8 failure <input type="checkbox"/> The harness coming from CN208 has a ground fault | Figure 2-12 |
| F802 | --- | --- | <input type="checkbox"/> Control solenoid of the BIB switching valve 1 or 2 failure <input type="checkbox"/> The harness coming from CN208 has a ground fault | Figure 2-12 |
| F805 | --- | --- | <input type="checkbox"/> Control solenoid of the BIB switching valve 3 or 4 failure <input type="checkbox"/> The harness coming from CN208 has a ground fault | Figure 2-12 |

Front



Back

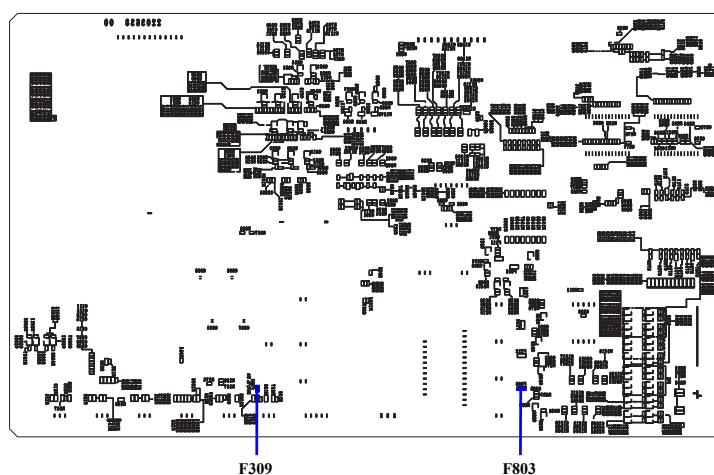


Figure 2-12.

2.7 LED Positions

Main Board B

| LED | On/off when idle | On/off specifications | Ref. |
|--------|------------------|---|-----------------------------|
| LED1 | --- | Debugging application (HI output: On/L output: Off) | Figure 2-13 |
| LED2 | --- | Debugging application (HI output: On/L output: Off) | Figure 2-13 |
| LED400 | On | On when 24 V enabled from the MAIN | Figure 2-13 |
| LED401 | On | On when the optical module power turns on | Figure 2-13 |
| LED402 | On | On when an optical module SD signal is received. | Figure 2-13 |
| LED801 | On | On when SUB-DC 3.3 V enabled | Figure 2-13 |
| LED900 | On | --- | Figure 2-13 |

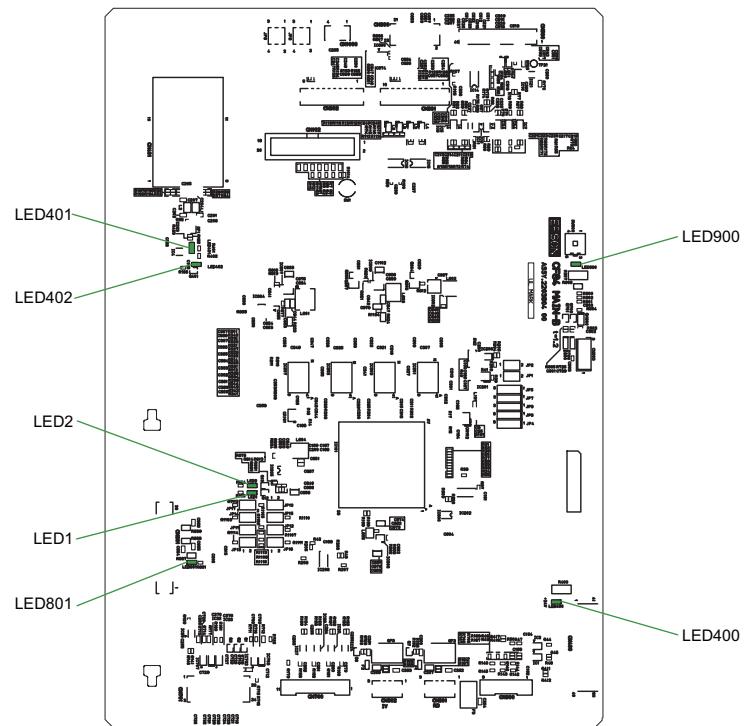


Figure 2-13.

Main Board A

| LED | On/off when idle | On/off specifications | Ref. |
|--------|--------------------------|---|-----------------------------|
| LED0 | --- | Debugging application (HI output: On/L output: Off) | Figure 2-14 |
| LED1 | --- | Debugging application (HI output: On/L output: Off) | Figure 2-14 |
| LED801 | On | On when SUB-DC 3.3 V_A1 enabled | Figure 2-14 |
| LED802 | --- (Not implemented) | On when 24 V enabled from the SUB-E | Figure 2-14 |
| LED802 | On | --- | --- |

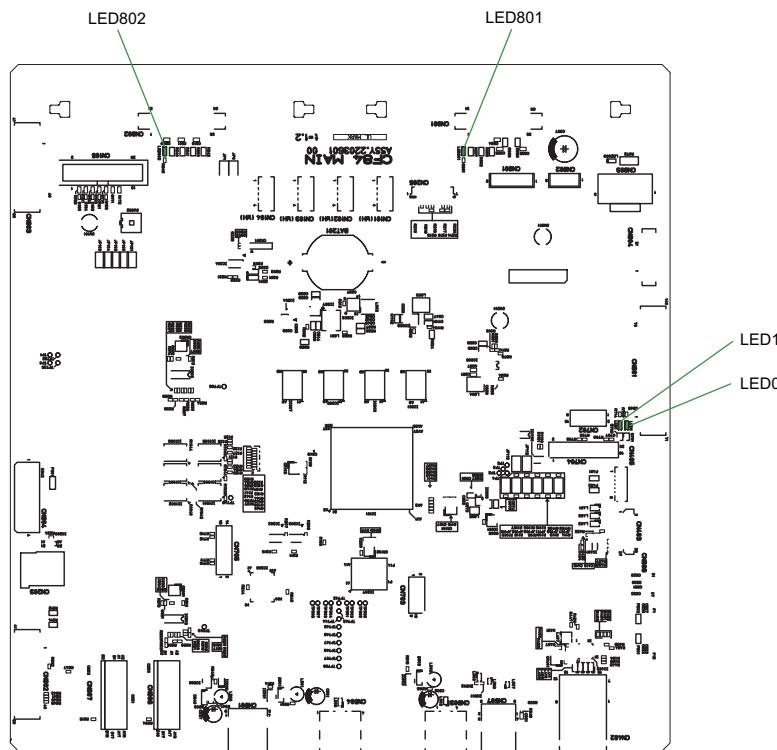


Figure 2-14.

CR Motor Control Board (SUB-B)

| LED | On/off when idle | | Ref. |
|--------|------------------|---|-----------------------------|
| LED100 | --- | On when HI and off when LO for firmware debugging | Figure 2-15 |
| LED101 | --- | On when HI and off when LO for firmware debugging | Figure 2-15 |
| LED102 | --- | On when HI and off when LO for firmware debugging | Figure 2-15 |
| LED400 | On | On when 3.3 V enabled | Figure 2-15 |
| LED401 | On | On when 14V enabled | Figure 2-15 |

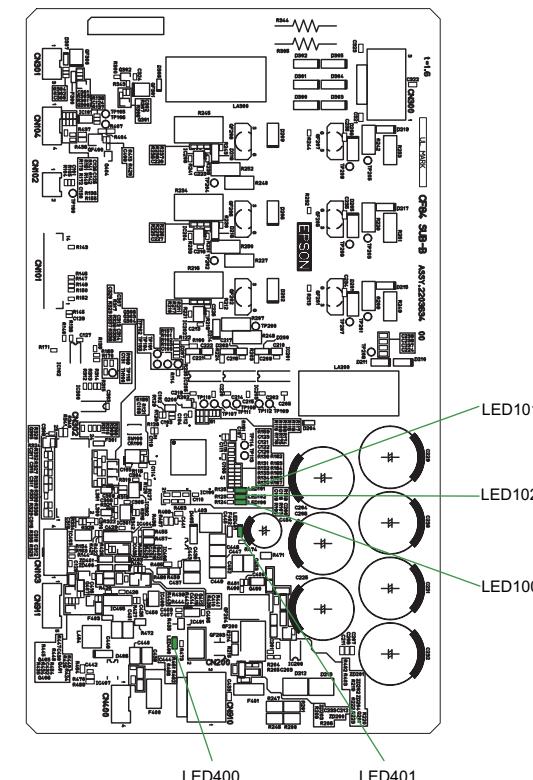


Figure 2-15.

Panel Board

| LED | On/off when idle | On/off specifications | Ref. |
|--------|------------------|--|-----------------------------|
| LED101 | On | Blue LED of panel | Figure 2-16 |
| LED102 | --- | Blue LED of panel (Not implemented) | Figure 2-16 |
| LED103 | On | Blue LED of panel | Figure 2-16 |

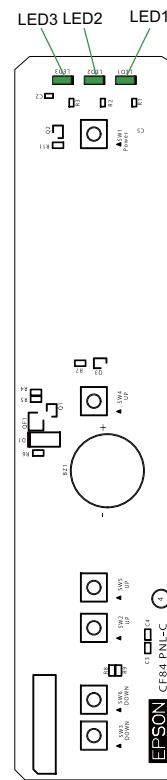


Figure 2-16.

SUB-C Board

| LED | | On/off specifications | Ref. |
|--------|-----|---|-----------------------------|
| LED910 | Off | On when HI and off when LO for firmware debugging | Figure 2-17 |
| LED911 | Off | On when HI and off when LO for firmware debugging | Figure 2-17 |
| LED912 | Off | On when HI and off when LO for firmware debugging | Figure 2-17 |
| LED913 | Off | On when HI and off when LO for firmware debugging | Figure 2-17 |
| LED971 | On | On when 42V enabled | Figure 2-17 |
| LED972 | On | On when 24V enabled | Figure 2-17 |
| LED973 | On | On when 3.3 V enabled | Figure 2-17 |
| LED974 | On | On when 3.3 V_SN enabled | Figure 2-17 |
| LED975 | On | On during power supply for the keep solenoid | Figure 2-17 |
| LED976 | On | On when 5 V_SN enabled | Figure 2-17 |

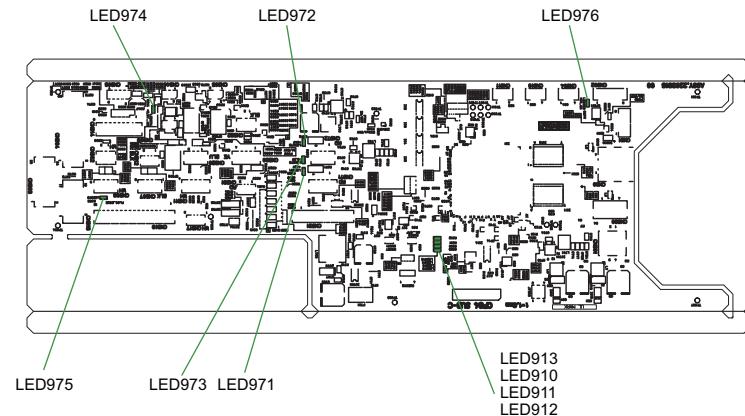


Figure 2-17.

SUB-H Board (Front Side)

| LED | On/off when idle | On/off specifications | Ref. |
|---------|------------------|---|-----------------------------|
| LED800 | On | On when SUB-DC 3.3 V enabled | Figure 2-18 |
| LED1001 | --- | Debugging application (HI output: On/L output: Off) | Figure 2-18 |
| LED1002 | --- | Debugging application (HI output: On/L output: Off) | Figure 2-18 |
| LED1003 | --- | Debugging application (HI output: On/L output: Off) | Figure 2-18 |
| LED1004 | --- | Debugging application (HI output: On/L output: Off) | Figure 2-18 |
| LED2001 | --- | Debugging application (HI output: On/L output: Off) | Figure 2-18 |
| LED2002 | --- | Debugging application (HI output: On/L output: Off) | Figure 2-18 |
| LED2003 | --- | Debugging application (HI output: On/L output: Off) | Figure 2-18 |
| LED2004 | --- | Debugging application (HI output: On/L output: Off) | Figure 2-18 |
| LED3001 | --- | Debugging application (HI output: On/L output: Off) | Figure 2-18 |
| LED3002 | --- | Debugging application (HI output: On/L output: Off) | Figure 2-18 |
| LED3003 | --- | Debugging application (HI output: On/L output: Off) | Figure 2-18 |
| LED3004 | --- | Debugging application (HI output: On/L output: Off) | Figure 2-18 |
| LED4001 | On | On when an optical module SD signal is received. | Figure 2-18 |
| LED4002 | On | On when the optical module power turns on | Figure 2-18 |

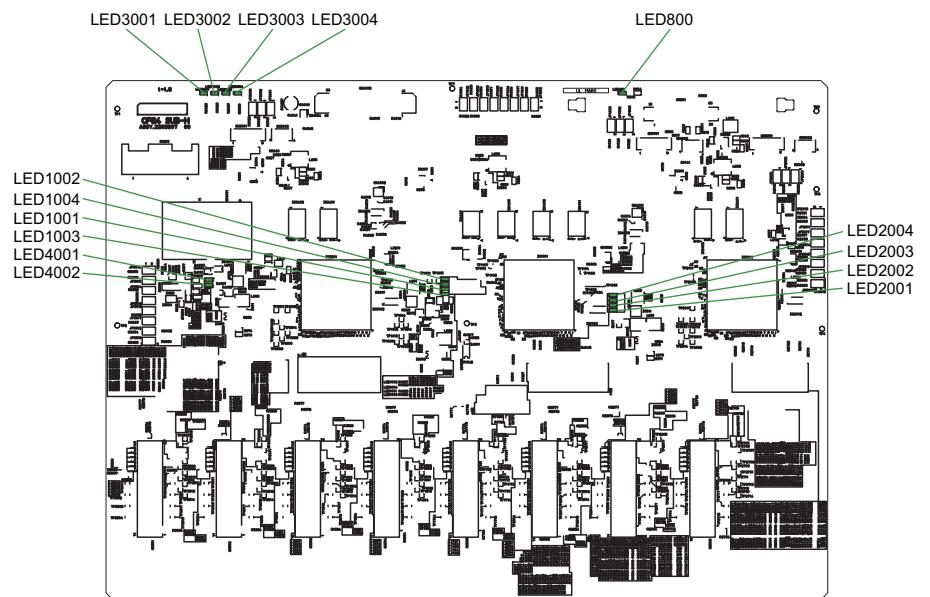


Figure 2-18.

SUB-E Board

| LED | On/off when idle | On/off specifications | Ref. |
|---------|------------------|--|-----------------------------|
| LED201 | On | On when 5 V enabled for DCDC generation | Figure 2-19 |
| LED202 | On | On when Nipron Power Supply 24 V enabled | Figure 2-19 |
| LED203 | On | On when Nipron Power Supply 42V enabled | Figure 2-19 |
| LED 204 | On | On when 3.3 V enabled for LDO generation | Figure 2-19 |

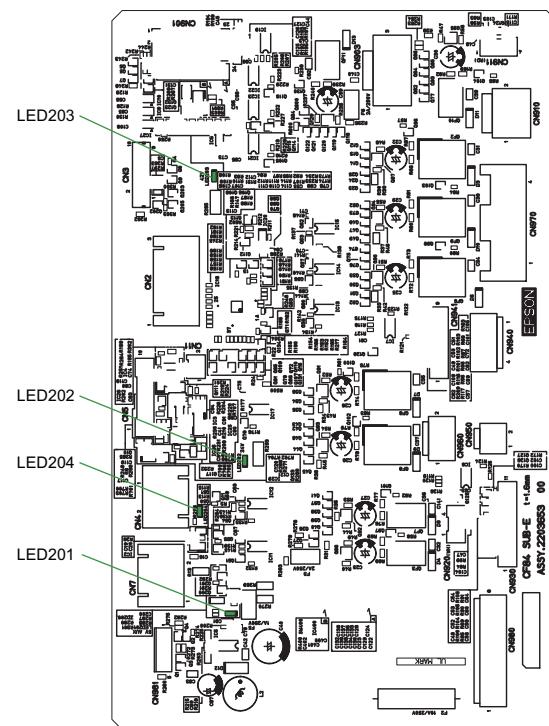


Figure 2-19.

SUB-J Board

| LED | On/off when idle | On/off specifications | Ref. |
|------|------------------|-----------------------|-----------------------------|
| LED1 | On | On when 42V enabled | Figure 2-20 |

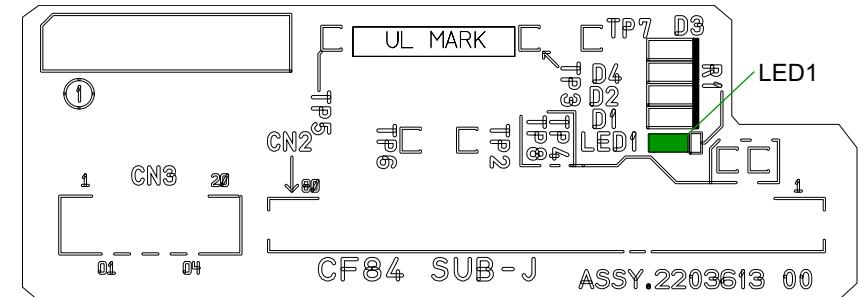


Figure 2-20.

DRV Board

| LED | On/off when idle | On/off specifications | Ref. |
|--------|------------------|---------------------------------|-----------------------------|
| LED101 | On | On when VHV-1 enabled | Figure 2-21 |
| LED102 | On | On when VHV-2 enabled | Figure 2-21 |
| LED103 | On | On when VHV-3 enabled | Figure 2-21 |
| LED104 | On | On when VHV-4 enabled | Figure 2-21 |
| LED105 | On | On when GVDD (7.5V) enabled | Figure 2-21 |
| LED106 | On | On when VBS (6.0V) enabled | Figure 2-21 |
| LED107 | On | On when VDD_DRV (3.3V) enabled | Figure 2-21 |
| LED108 | On | On when VDD_HEAD (3.3V) enabled | Figure 2-21 |

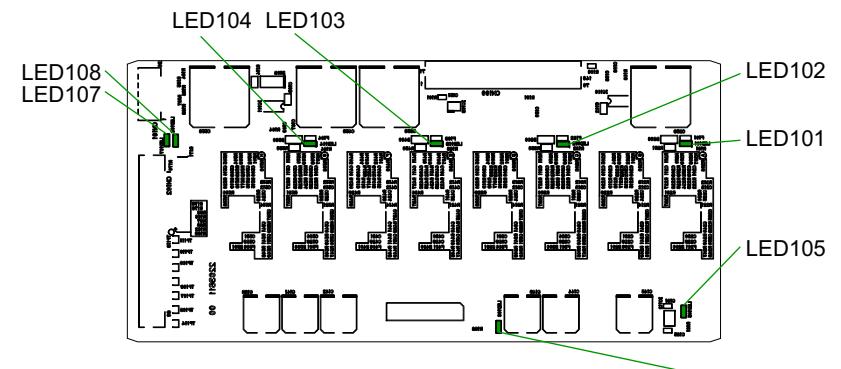


Figure 2-21.

MCU Board

| LED | On/off when idle | On/off specifications | Ref. |
|---------|------------------|--|-----------------------------|
| LED400 | --- | MC1 PA_006 Debugging application (HI output: On/L output: Off) | Figure 2-22 |
| LED401 | --- | MC1 PA_007 Debugging application (HI output: On/L output: Off) | Figure 2-22 |
| LED402 | --- | MC1 PA_008 Debugging application (HI output: On/L output: Off) | Figure 2-22 |
| LED403 | --- | MC1 PA_009 Debugging application (HI output: On/L output: Off) | Figure 2-22 |
| LED500 | On | Configuration finish display (when configuration is finished: on) | Figure 2-22 |
| LED1000 | On | External 24V input confirmation (24V ON: on) | Figure 2-22 |
| LED1001 | On | External 42V input confirmation (42V ON: on) | Figure 2-22 |
| LED1500 | --- | MC0 PB_066 Debugging application (HI output: On/L output: Off) | Figure 2-22 |
| LED1501 | --- | MC0 PB_061 Debugging application (HI output: On/L output: Off) | Figure 2-22 |
| LED1502 | --- | MC0 PB_013 Debugging application (HI output: On/L output: Off) | Figure 2-22 |
| LED1503 | On | 42 -> 12VDCDC output confirmation (12V ON: on) | Figure 2-22 |
| LED1504 | On | 5 -> 3.3VDCDC output confirmation (3.3V ON: on) | Figure 2-22 |
| LED1505 | --- | 5 -> 3.3V_SN DCDC output confirmation (3.3V_SN ON: on/saving power: off) | Figure 2-22 |
| LED1506 | --- | 5 -> 3.3V_SN2 DCDC output confirmation (3.3V_SN2 ON: on/saving power: off) | Figure 2-22 |

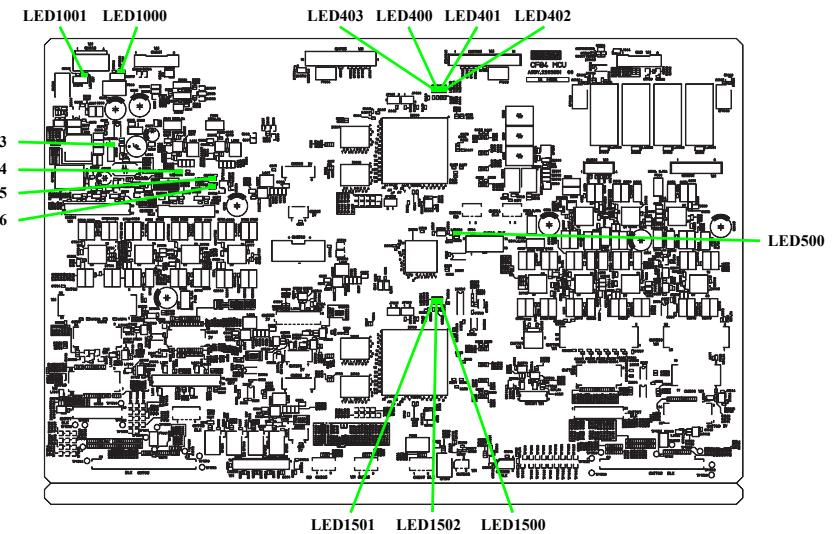


Figure 2-22.

SUB-M (Left) Board

| LED | On/off when idle | On/off specifications | Ref. |
|--------|------------------|---|-----------------------------|
| LED301 | On | External (power supply control module SUB-E) 24V input confirmation (24V ON: on) | Figure 2-23 |
| LED302 | On | 24V -> 5.0V DCDC output confirmation (5.0V ON: on) | Figure 2-23 |
| LED303 | On | 3.3V_SN output confirmation (3.3V output and JP301 short circuit: on) | Figure 2-23 |
| LED800 | On | 5V -> 3.3V DCDC output confirmation (3.3V ON: on) | Figure 2-23 |
| LED801 | On | 5V -> 3.3V_SN2 output confirmation (3.3V_SN2 ON: on) | Figure 2-23 |
| LED802 | --- | RL78 P63 Debugging application (HI output: On/L output: Off) | Figure 2-23 |
| LED803 | --- | RL78 P62 Debugging application (HI output: On/L output: Off) | Figure 2-23 |
| LED804 | --- | RL78 P51 Debugging application (HI output: On/L output: Off) | Figure 2-23 |
| LED805 | On | 5.0V_SN2 output confirmation (5.0V_SN2 ON: on) | Figure 2-23 |

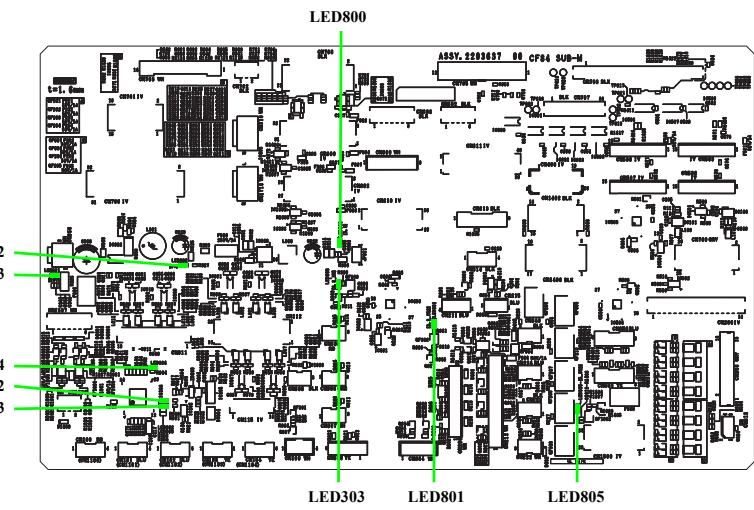


Figure 2-23.

SUB-M (Right) Board

| LED | On/off when idle | On/off specifications | Ref. |
|--------|------------------|---|-----------------------------|
| LED301 | On | External (power supply control module SUB-E) 24V input confirmation (24V ON: on) | Figure 2-24 |
| LED302 | On | 24V -> 5.0V DCDC output confirmation (5.0V ON: on) | Figure 2-24 |
| LED303 | On | 3.3V_SN output confirmation (3.3V output and JP301 short circuit: on) | Figure 2-24 |
| LED800 | On | 5V -> 3.3V DCDC output confirmation (3.3V ON: on) | Figure 2-24 |
| LED801 | On | 5V -> 3.3V_SN2 output confirmation (3.3V_SN2 ON: on) | Figure 2-24 |
| LED805 | On | 5.0V_SN2 output confirmation (5.0V_SN2 ON: on) | Figure 2-24 |

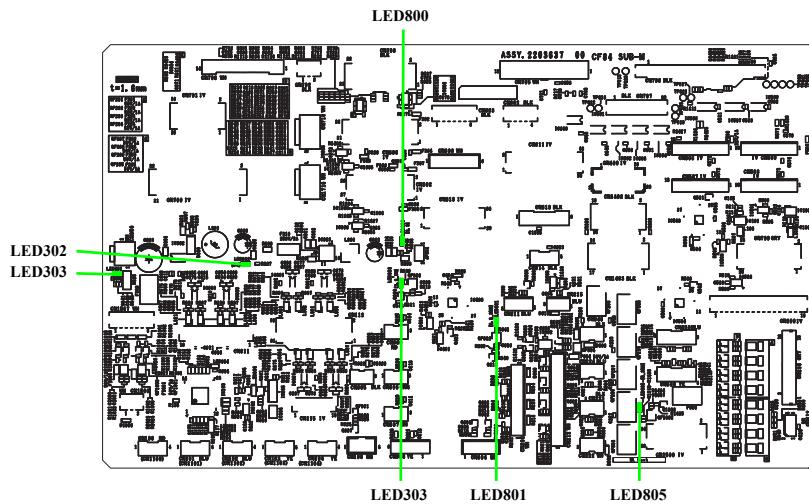


Figure 2-24.

CHAPTER

3

DISASSEMBLY & ASSEMBLY

3.1 Overview

This chapter describes procedures for disassembling the main components of SC-F10000 Series/SC-F10000H Series.

Be sure to follow the procedure described in this chapter when disassembling the unit. Unless otherwise specified, disassembled units or components can be reassembled by reversing the disassembly procedure.

WARNING

Procedures which, if not strictly observed, could result in personal injury are described under the heading "WARNING".

CAUTION

"CAUTION" signals a precaution which, if ignored, could result in damage to equipment.

CHECK POINT

Important tips for procedures are described under the heading "CHECK POINT".

REASSEMBLY

If the assembly procedure is different from the reversed disassembly procedure, the correct procedure is described under the heading "REASSEMBLY".

ADJUSTMENT

Any adjustments required after reassembly of components or parts are described under the heading "ADJUSTMENT". Be sure to perform the specified adjustments with reference to Chapter 4 "ADJUSTMENT".

LUBRICATION

"LUBRICATION" signals that the part needs to be lubricated when replacing or maintaining it after disassembling.

3.1.1 Precautions

Before starting the disassembly or reassembly of the product, read the following precautions given under the headings "WARNING" and "CAUTION".



- When the front cover is opened, the CR motor and the PF motor are stopped by the safety-interlock mechanism. When you need to work with the safety-interlock disabled, be extremely careful to ensure your safety, and make sure to turn the safety-interlock back on when finished.
- This printer is equipped with a lithium battery. Observe the following cautions in the handling of the battery.
 - When replacing the battery, replace it only with a specified type of battery. Using a different type of battery may cause excess heat or explosion. Recommended battery: CR2032 (Sony)
 - Dispose of used batteries according to manufacturer's instructions and local regulations. Contact your local government agency for information about battery disposal and recycling.
 - When disposing of the battery, be sure to securely cover its (+) end with tape to prevent combustion or explosion.
 - Do not recharge the battery.
 - Do not use the battery if it is discolored or damaged, or if any leakage of electrolyte is observed.
 - Do not dismantle, solder or heat the battery. Doing so could result in leakage of electrolyte, heat generation, or explosion.
 - Do not heat the battery or dispose of it in fire.
 - If the electrolyte leaked from the battery contacts with your skin or gets into your eyes, wash it off with clean water and see a physician immediately.

警告

如果更換不正確之電池型式會有爆炸的風險

請依製造商說明書處理用過之電池

Vorsicht

Explosionsgefahr, wenn die Batterie durch einen falschen Typ ersetzt wird. Entsorgen Sie gebrauchte Batterien gemäß den Anweisungen.



WARNING

- The power switch for this printer is installed on the secondary side of the power circuit; therefore, the power is always supplied unless the power cable is unplugged. To prevent electric shock and circuit damage during servicing, make sure to follow the instructions below.
 - Before removing a circuit board, make sure to unplug the power cable from the AC outlet. Then press the power button on the operating panel to confirm that the LEDs go on and off. This operation discharges the residual charge in the printer.
 - Make sure not to place the removed circuit boards on the metal and such directly.
- Always wear gloves for disassembly and reassembly to avoid injury from sharp metal edges.
- If ink gets in your eye, flush the eye with fresh water and see a doctor immediately.
- Never touch the ink or wasted ink with bare hands. If ink comes into contact with your skin, wash it off with soap and water immediately. If irritation occurs, contact a physician.
- When replacing the main board, power supply board, or power harnesses and such, make sure to visually check if any harness is caught in between or any wrong connection exists.



CAUTION

- Locate the printer on a stable and flat surface.
- Use only recommended tools for disassembly, assembly or adjustment of the printer.
- Apply lubricants and adhesives as specified.
- Be careful not to soil the printer or the floor with the leaked ink when removing the ink-path-related components or parts. Spread a sheet of paper or cloth on the floor in advance.
- Do not touch electrical circuit boards with bare hands as the elements on the board are so sensitive that they can be easily damaged by static electricity. If you have to handle the boards with bare hands, use static electricity discharge equipment such as anti-static wrist straps.
- When the printer has to be operated with the covers removed, take extra care not to get your fingers or clothes caught in moving parts.
- When you have to remove any parts or components that are provided as after-service-parts but are not described in this chapter, carefully observe how they are installed and make sure to remember it before removing them.
- Disassembling the frame and the PF shaft of the printer is prohibited because they are assembled with precise measurements in 1/100 mm unit at the factory.

3.1.2 Cautions After Assembling



- The ink-path-related components or parts should be firmly and securely reinstalled on the printer to prevent the ink from leakage.
- When reassembling the printer, make sure to connect the connectors of the electric components or parts correctly and securely. Use extreme care when connecting FFCs (flexible flat cables). Improper connection of the FFCs, such as inserting them diagonally into the connectors, could cause short-circuiting and lead to breakdown of the electric elements on the boards.
- When reassembling the printer, make sure to route the FFCs and other cables as specified in this chapter. Failure to do so may cause an unexpected contact of the cables with sharp metal edges, or lead to lower the noise immunity.
- When you removed any parts (especially cables) that are secured with acetate tape or two-sided tape, be sure to reinstall and secure them with the tape as exactly the same as they were.

3.1.3 Orientation Definition

The terms used for indicating the orientation/direction throughout this chapter are as follows.

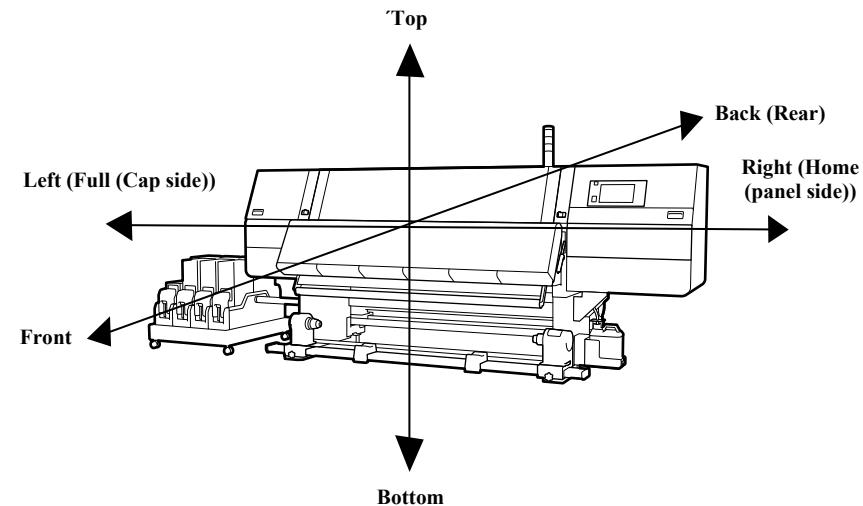


Figure 3-1.

3.1.4 Recommended Tools

To protect this product from damage, use the tools indicated in the following table. For the tools required to perform the adjustment, refer to “Tools/Consumables for Adjustments” in Chapter 4.

Table 3-1. Tools

| Name | Description | Target Part |
|-----------------------------|--|---|
| Phillips screwdriver, No. 1 | --- | --- |
| Phillips screwdriver, No. 2 | --- | --- |
| Flathead screwdriver | --- | --- |
| Ratchet screwdriver | --- | --- |
| Tweezers | --- | --- |
| Acetate tape | To secure the cable/harness, or for the protection against the sharp edge | Use this tape when it is removed or when replacing the part |
| Waste cloth | To prevent staining the printer with ink during operation | --- |
| Stepladder | Required when performing assembly and disassembly work for parts at high positions | --- |

3.2 Parts Diagram

□ Housing (1)

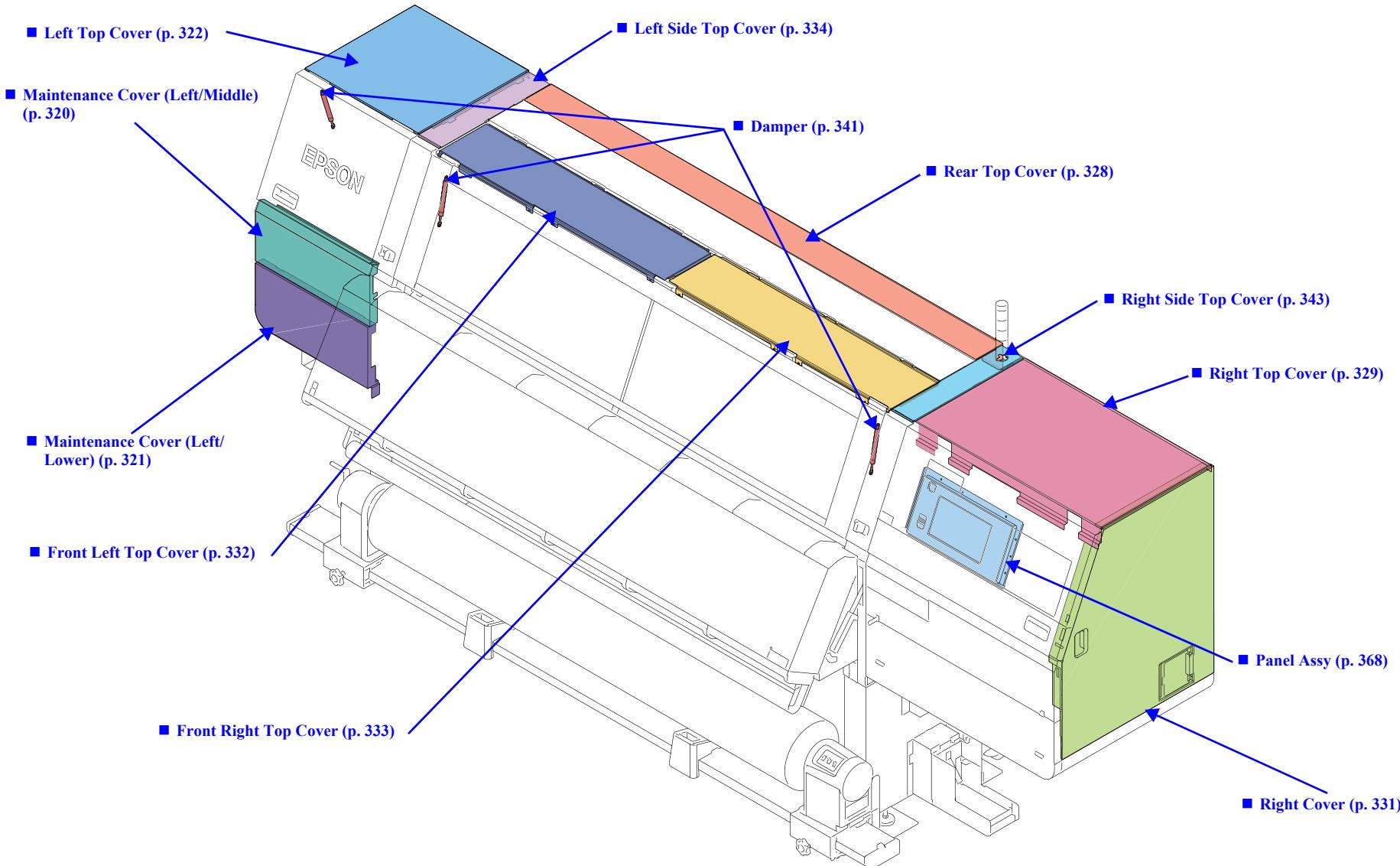


Figure 3-2.

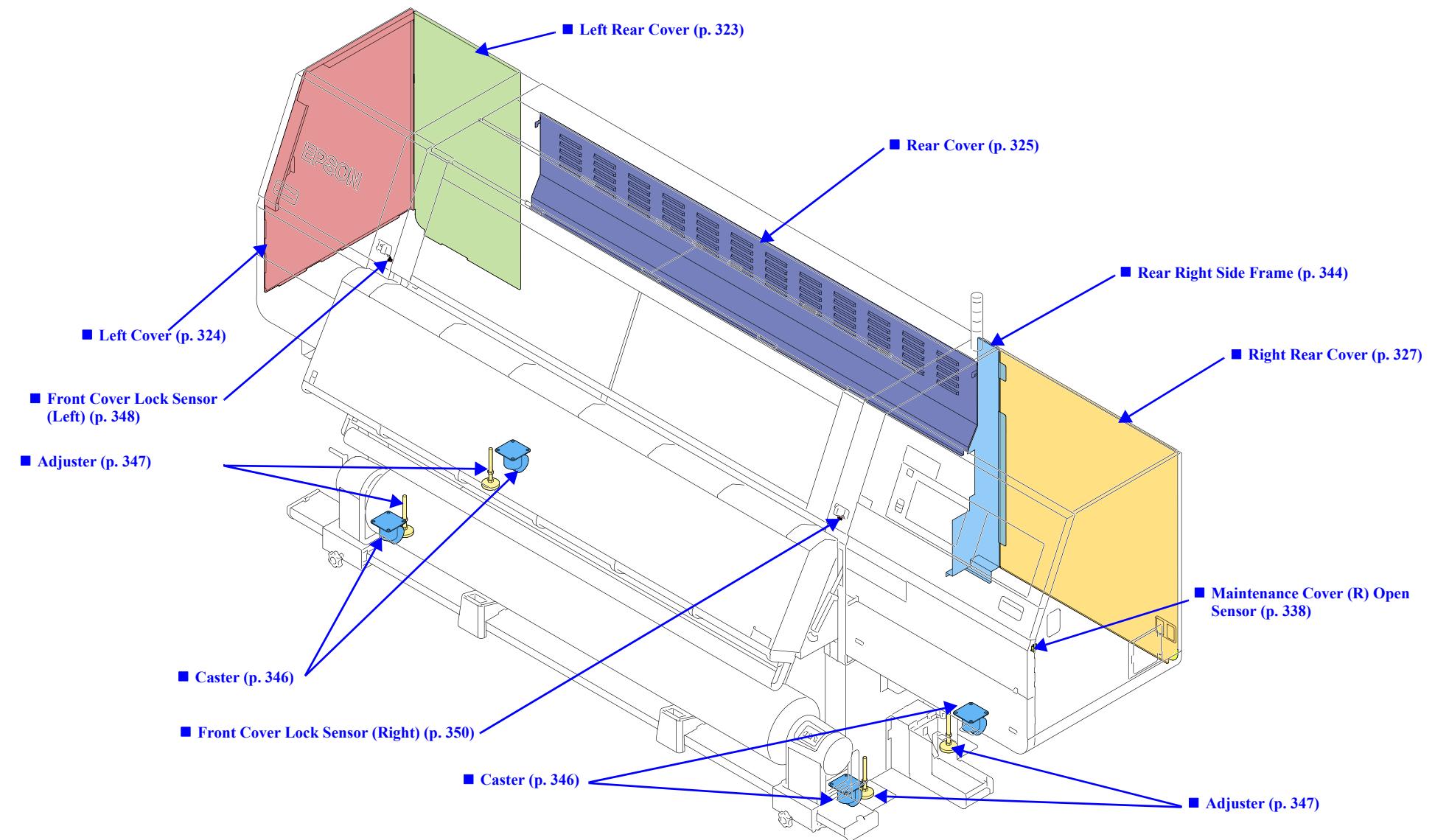
Housing (2)

Figure 3-3.

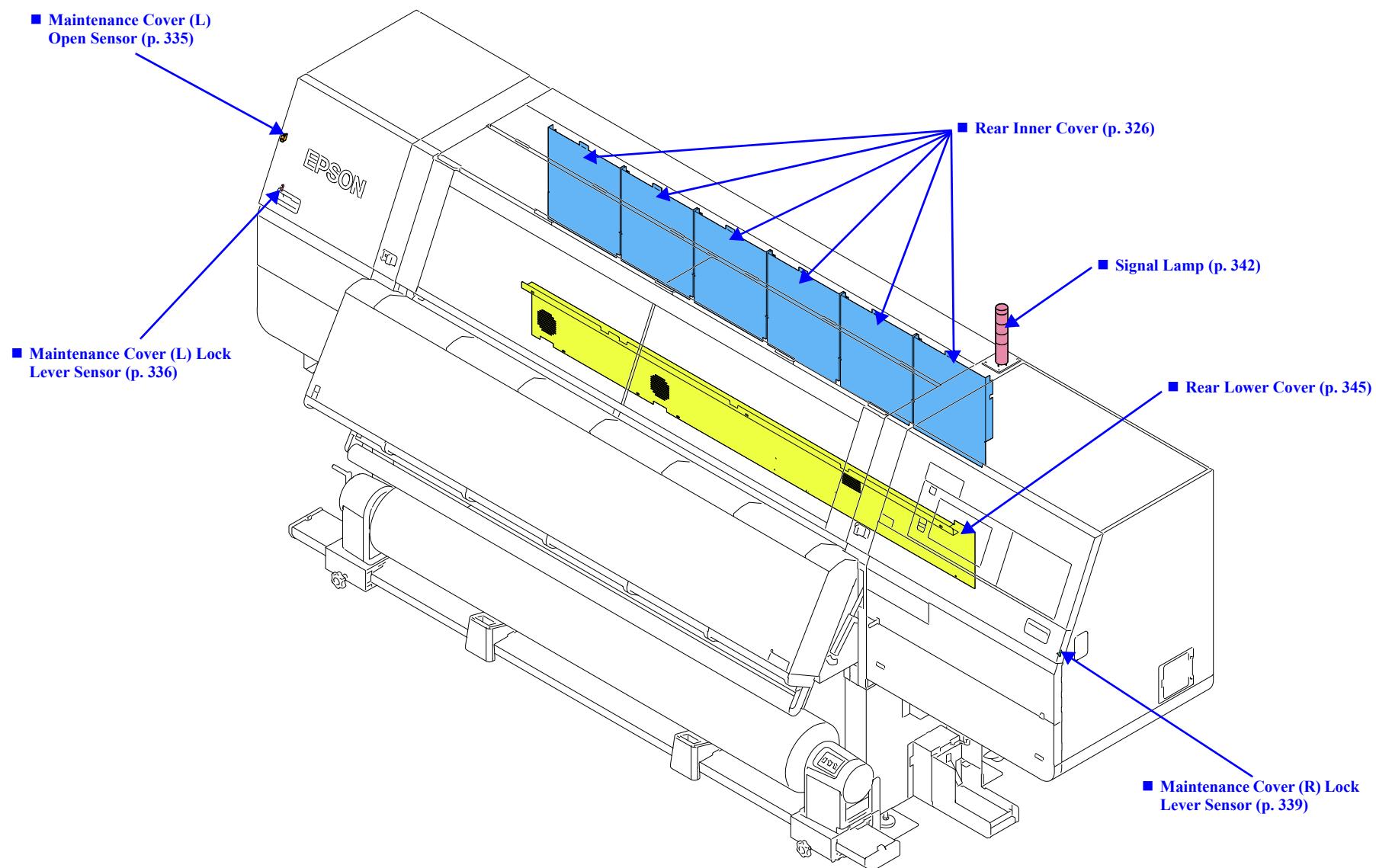
Housing (3)

Figure 3-4.

Electric Circuit Components (1)

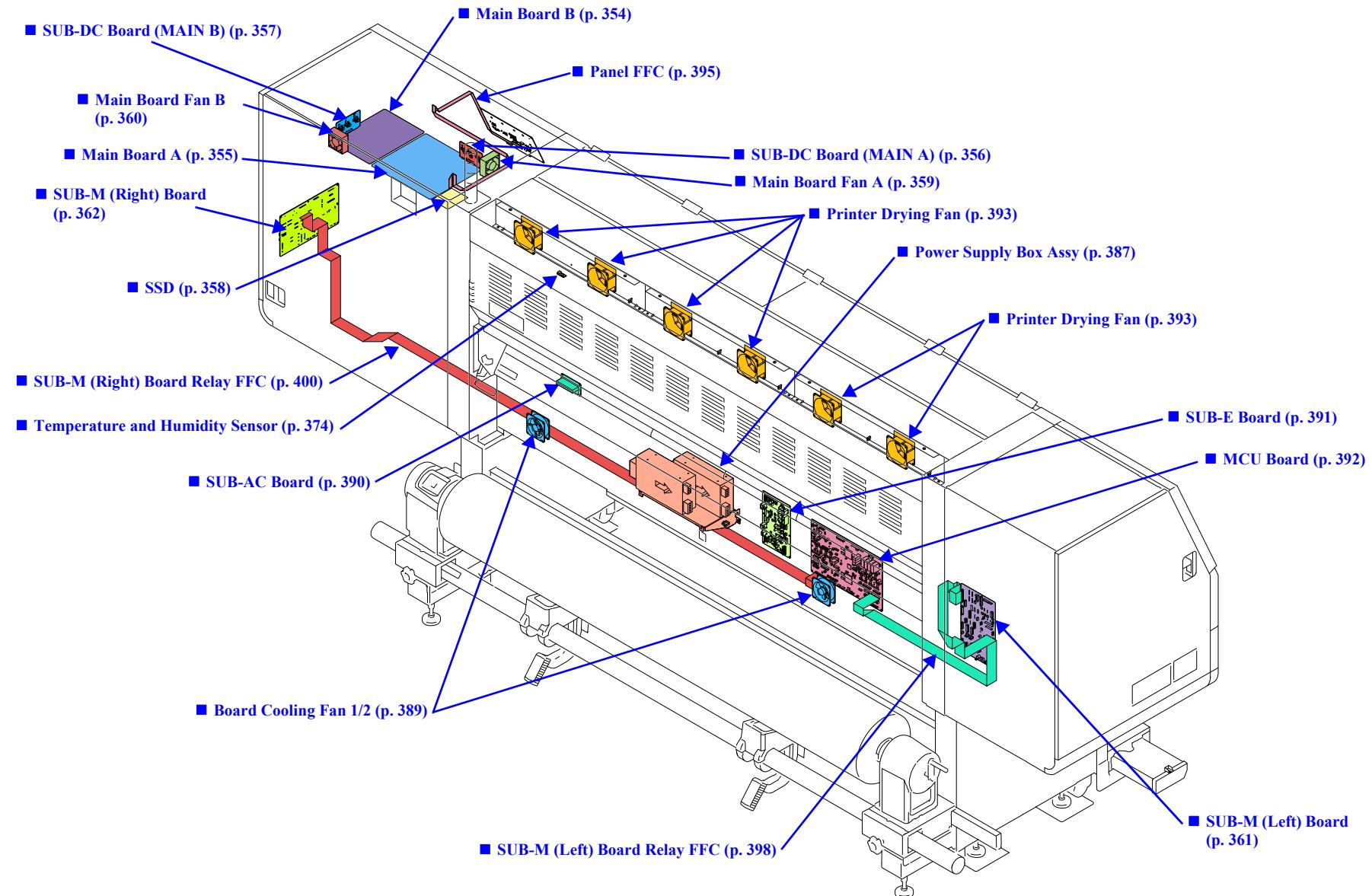


Figure 3-5.

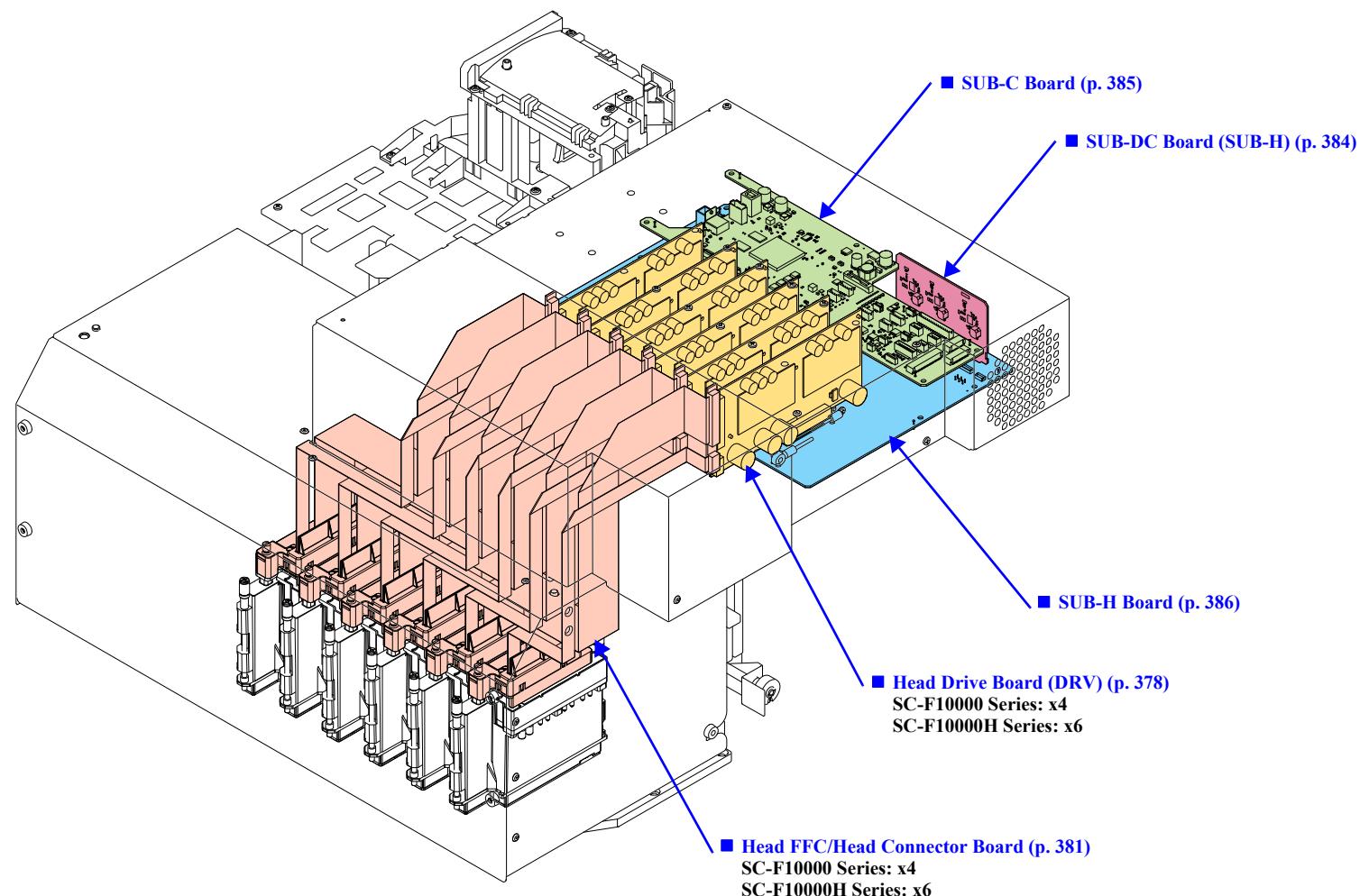
Electric Circuit Components (2)

Figure 3-6.

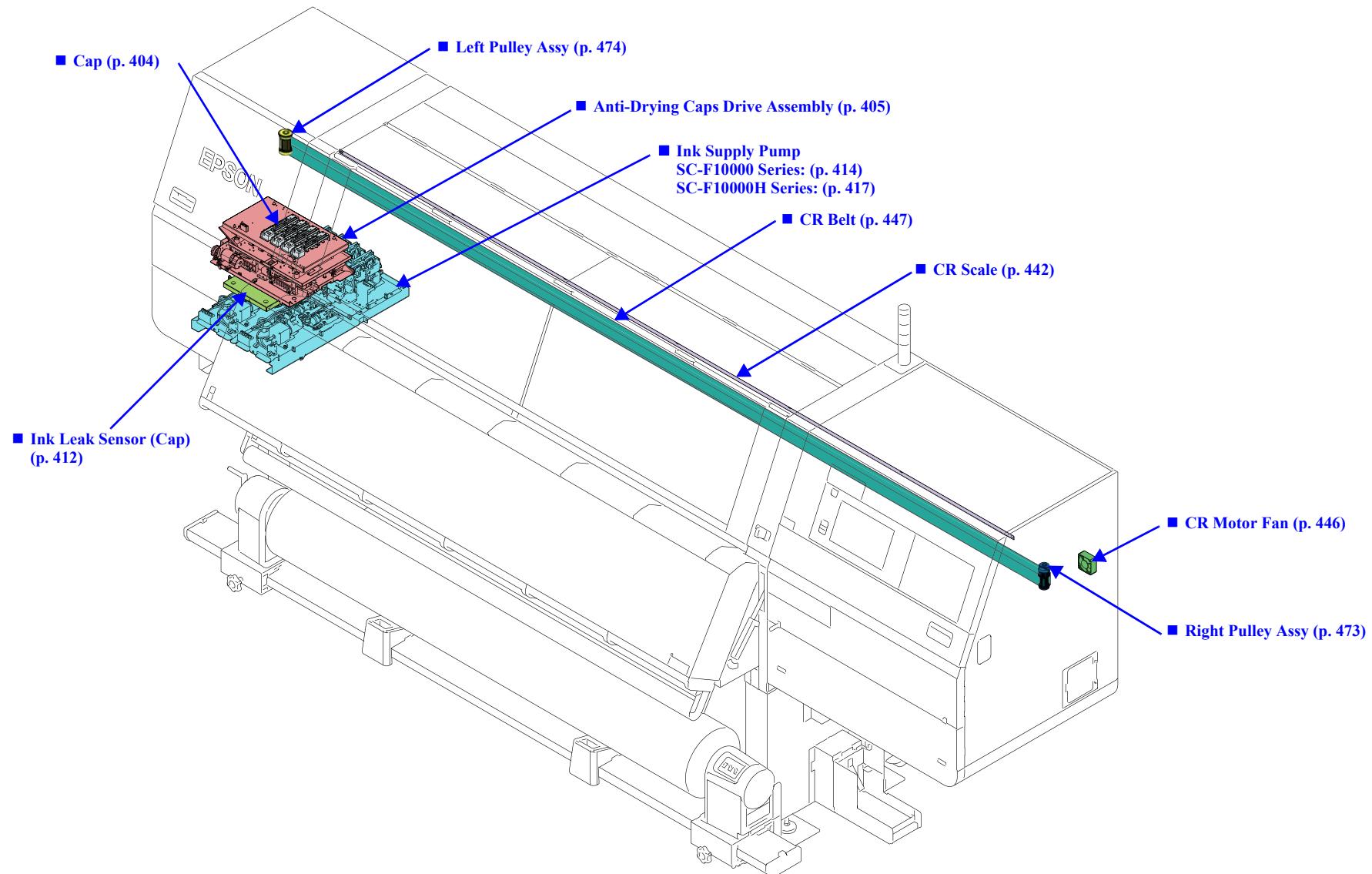
Carriage Mechanism/Ink System Mechanism (1)

Figure 3-7.

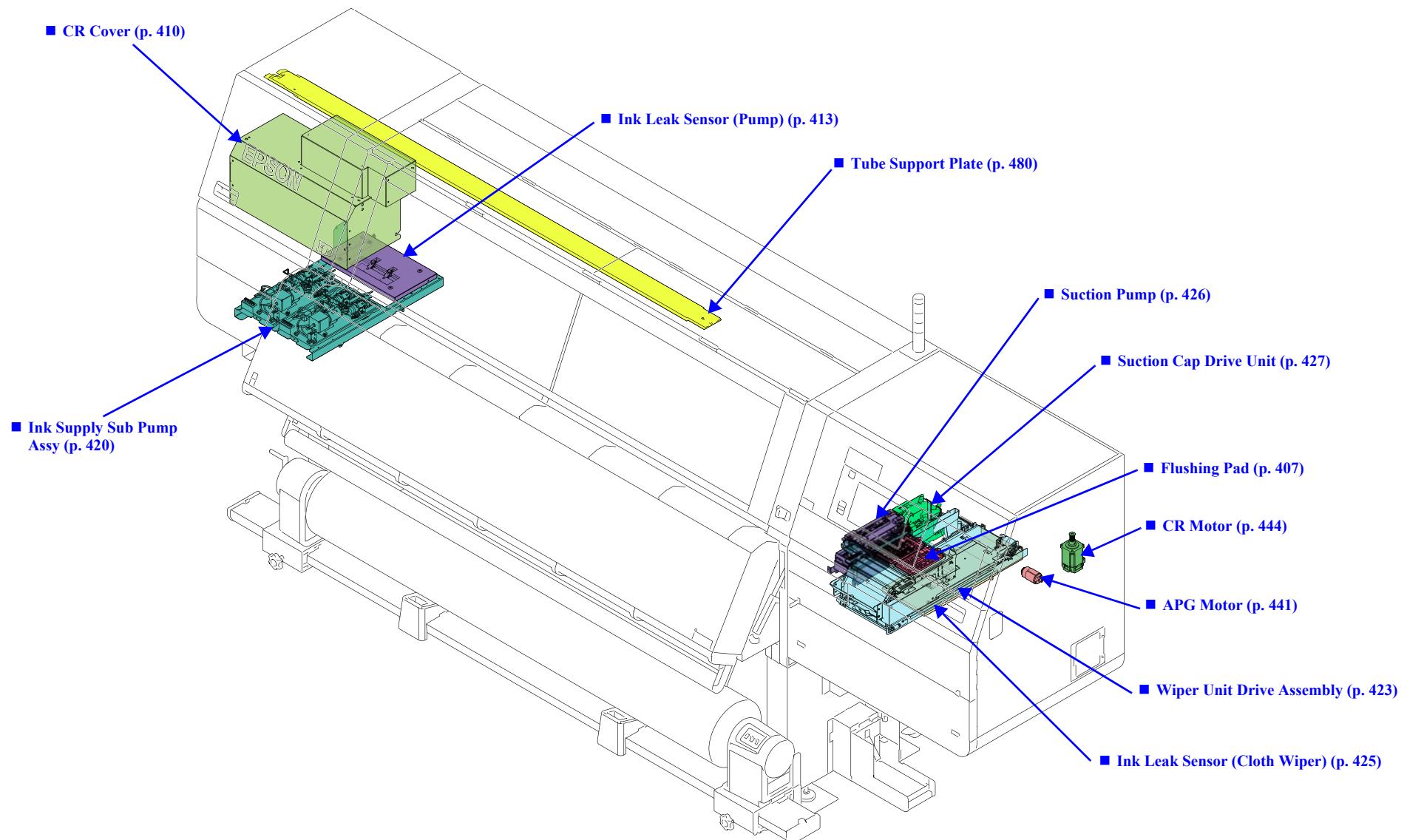
Carriage Mechanism/Ink System Mechanism (2)

Figure 3-8.

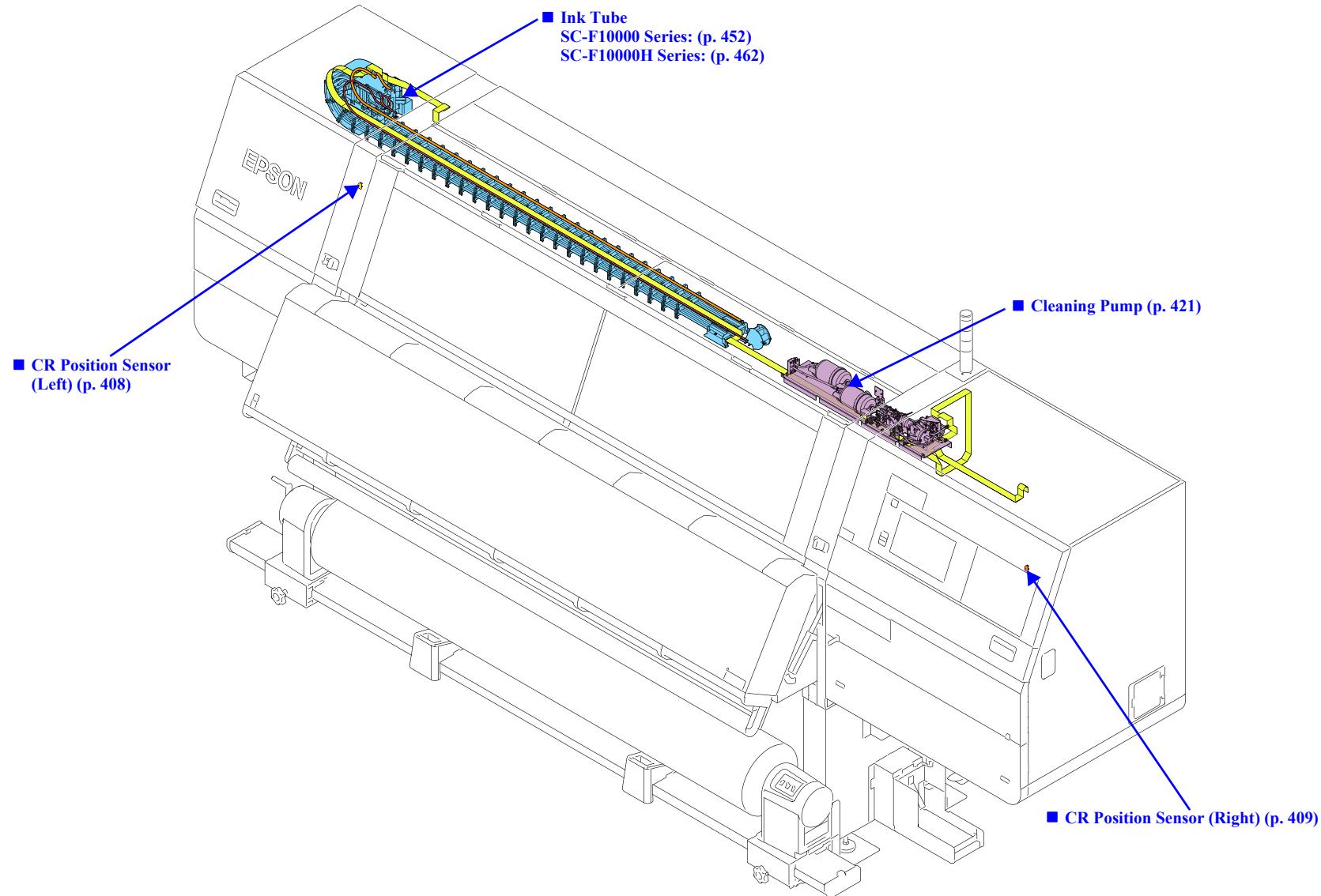
Carriage Mechanism/Ink System Mechanism (3)

Figure 3-9.

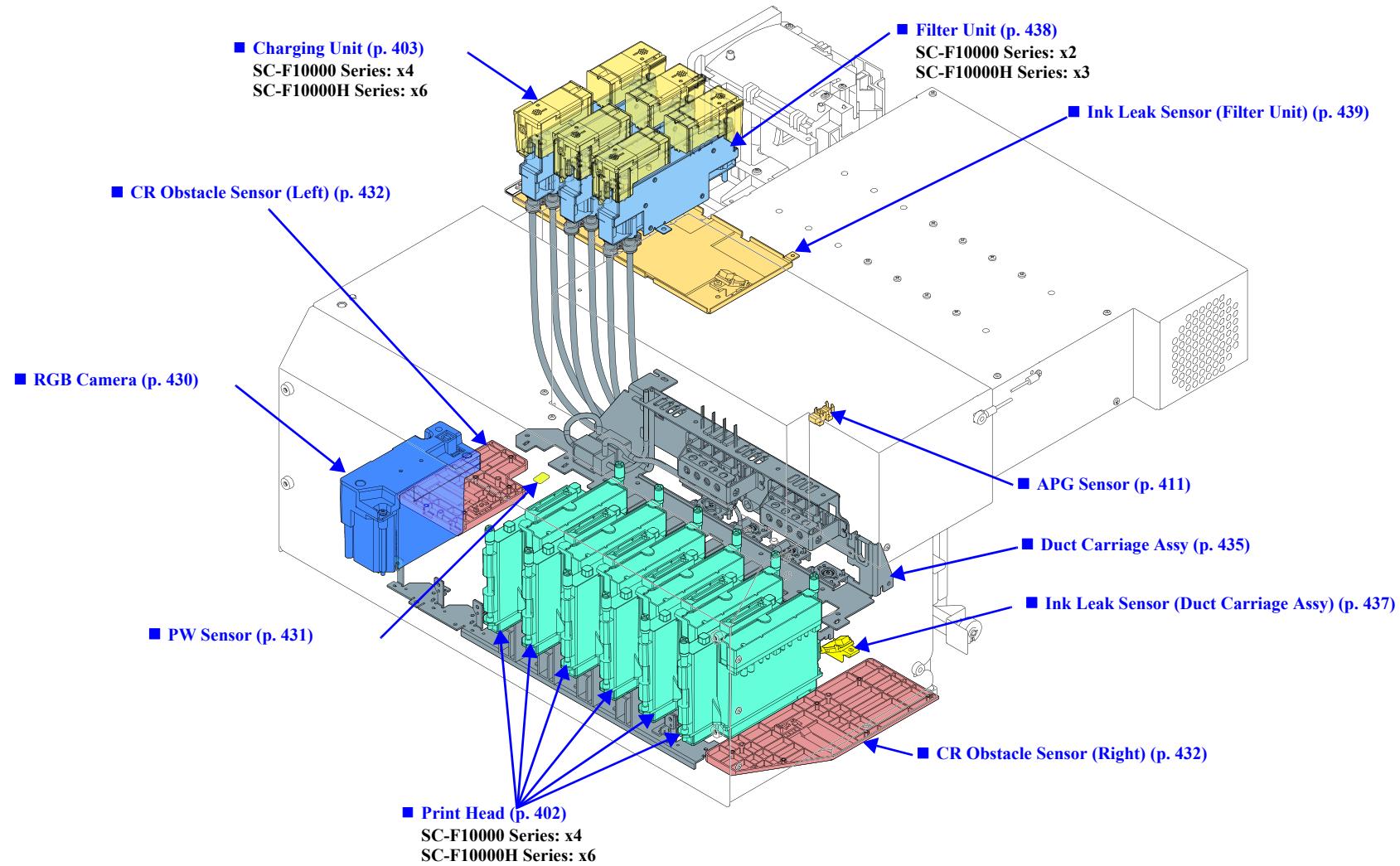
Carriage Mechanism/Ink System Mechanism (4)

Figure 3-10.

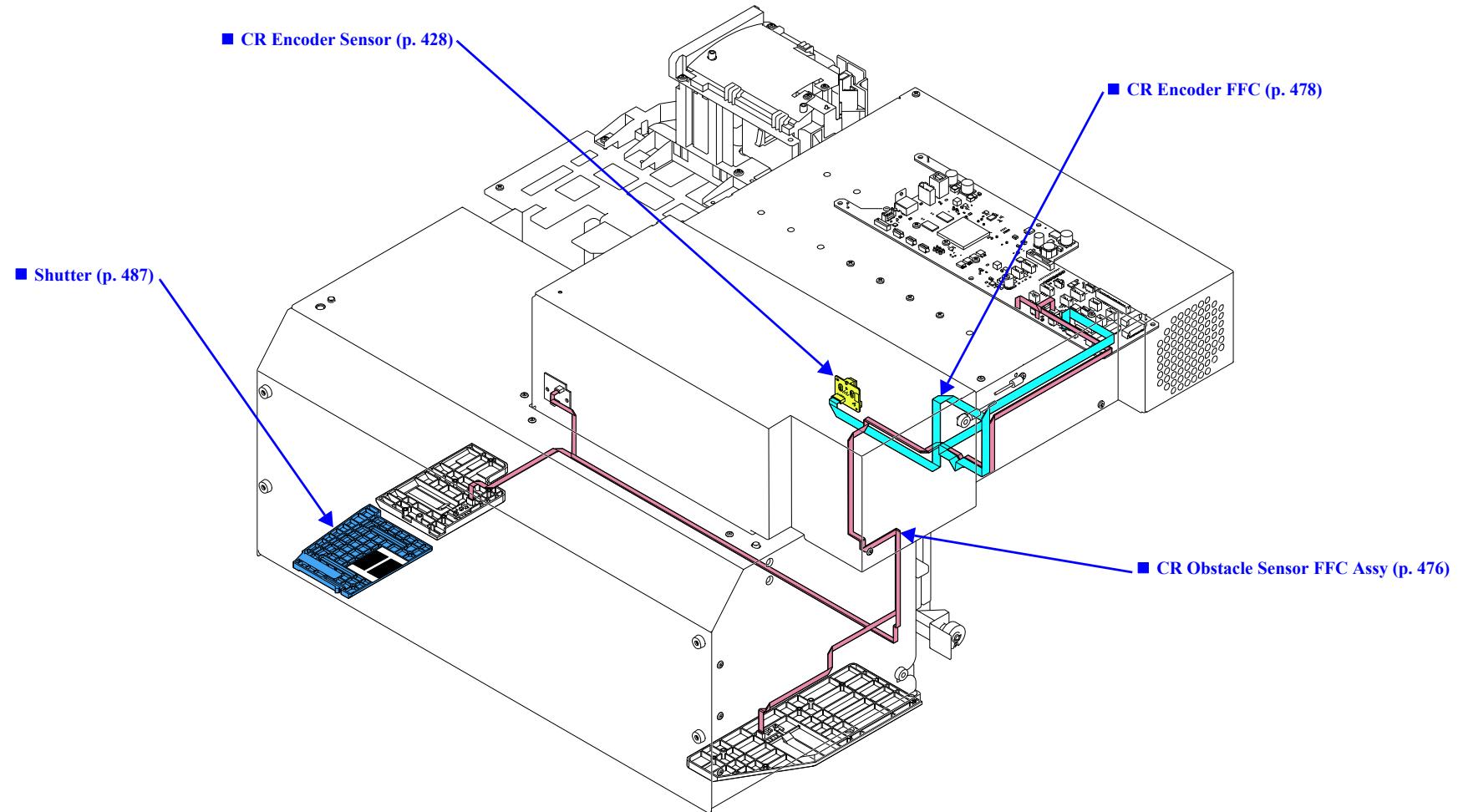
Carriage Mechanism/Ink System Mechanism (5)

Figure 3-11.

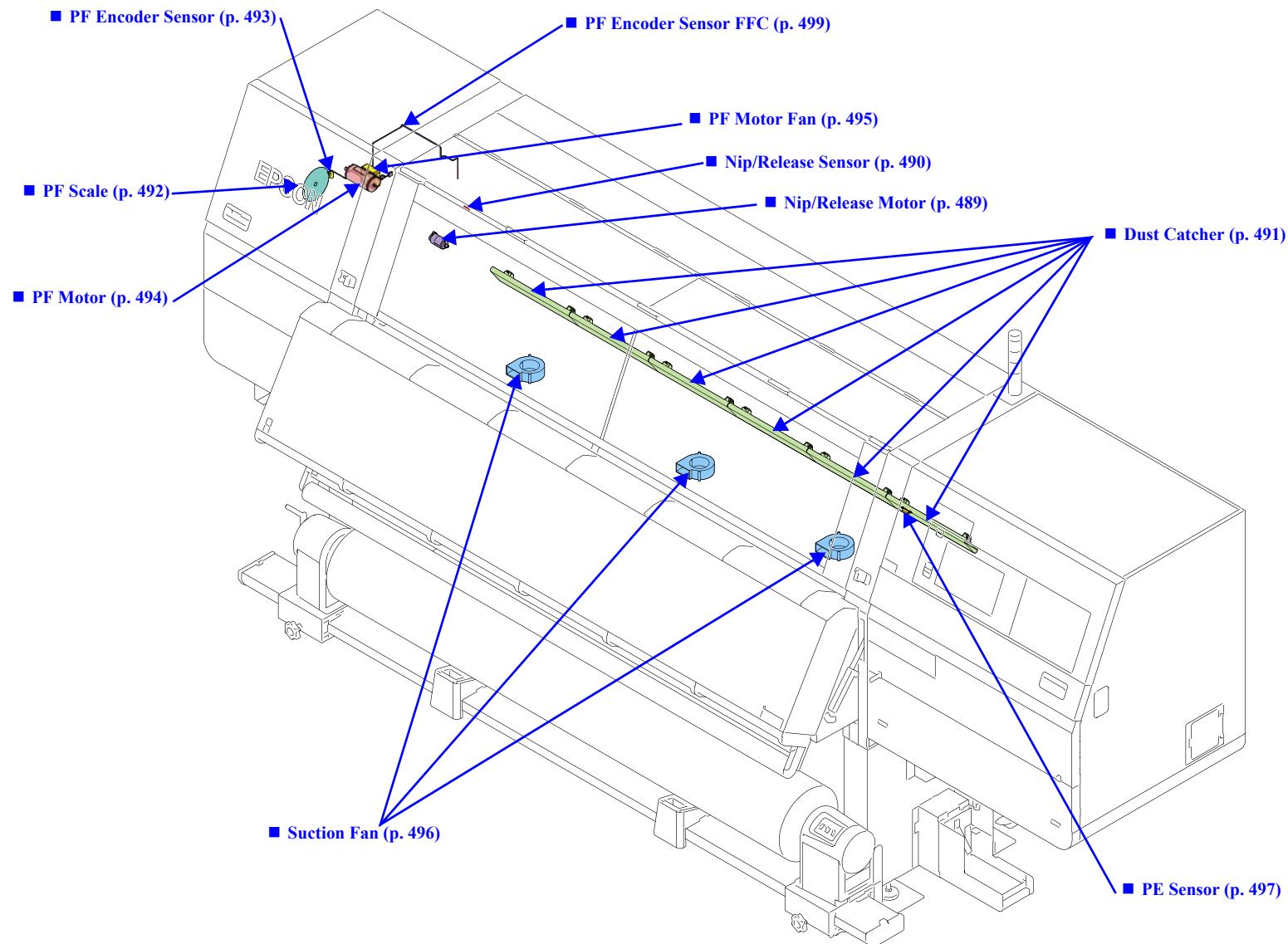
Paper Feed Mechanism

Figure 3-12.

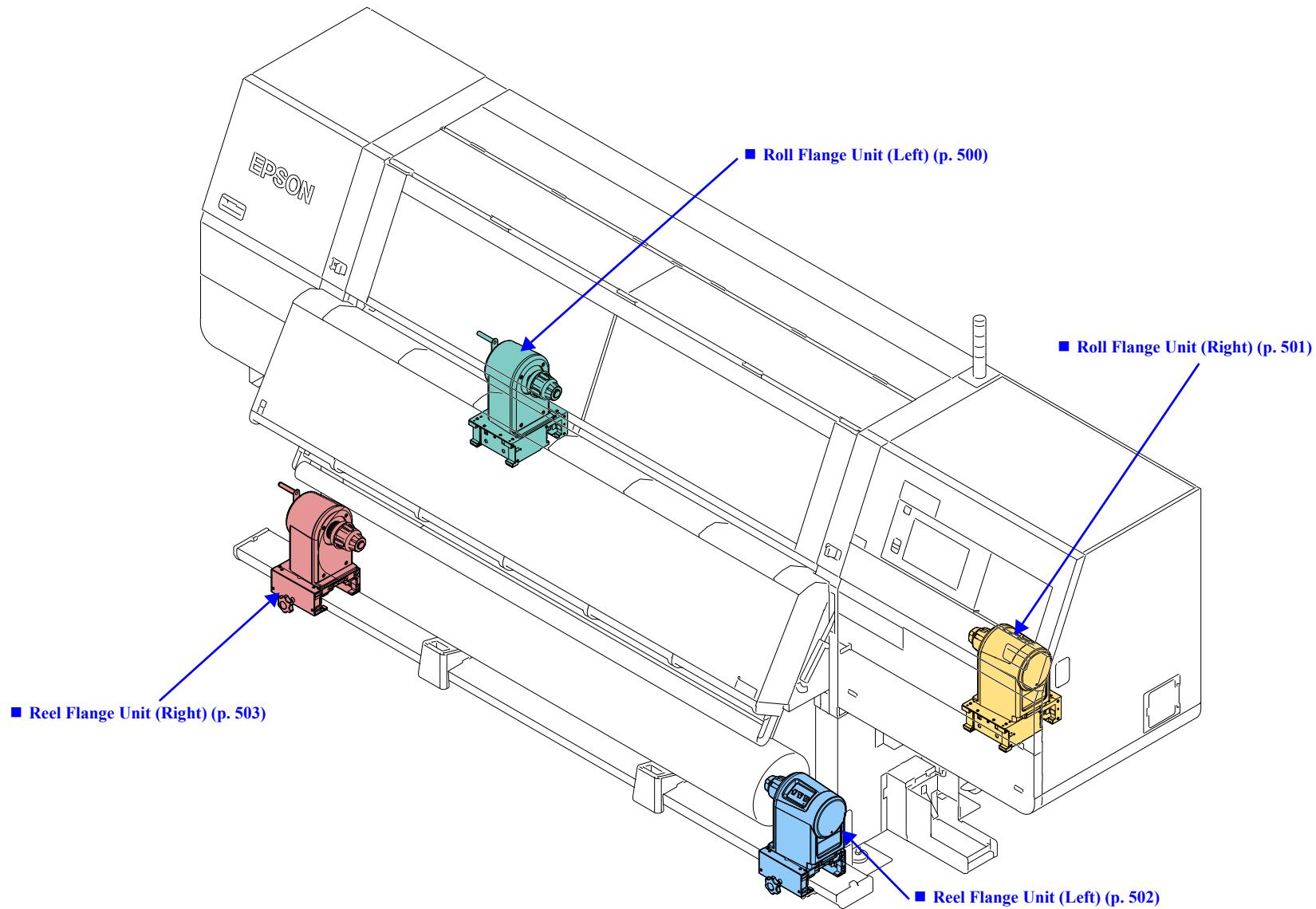
Roll Unit/ Reel Unit

Figure 3-13.

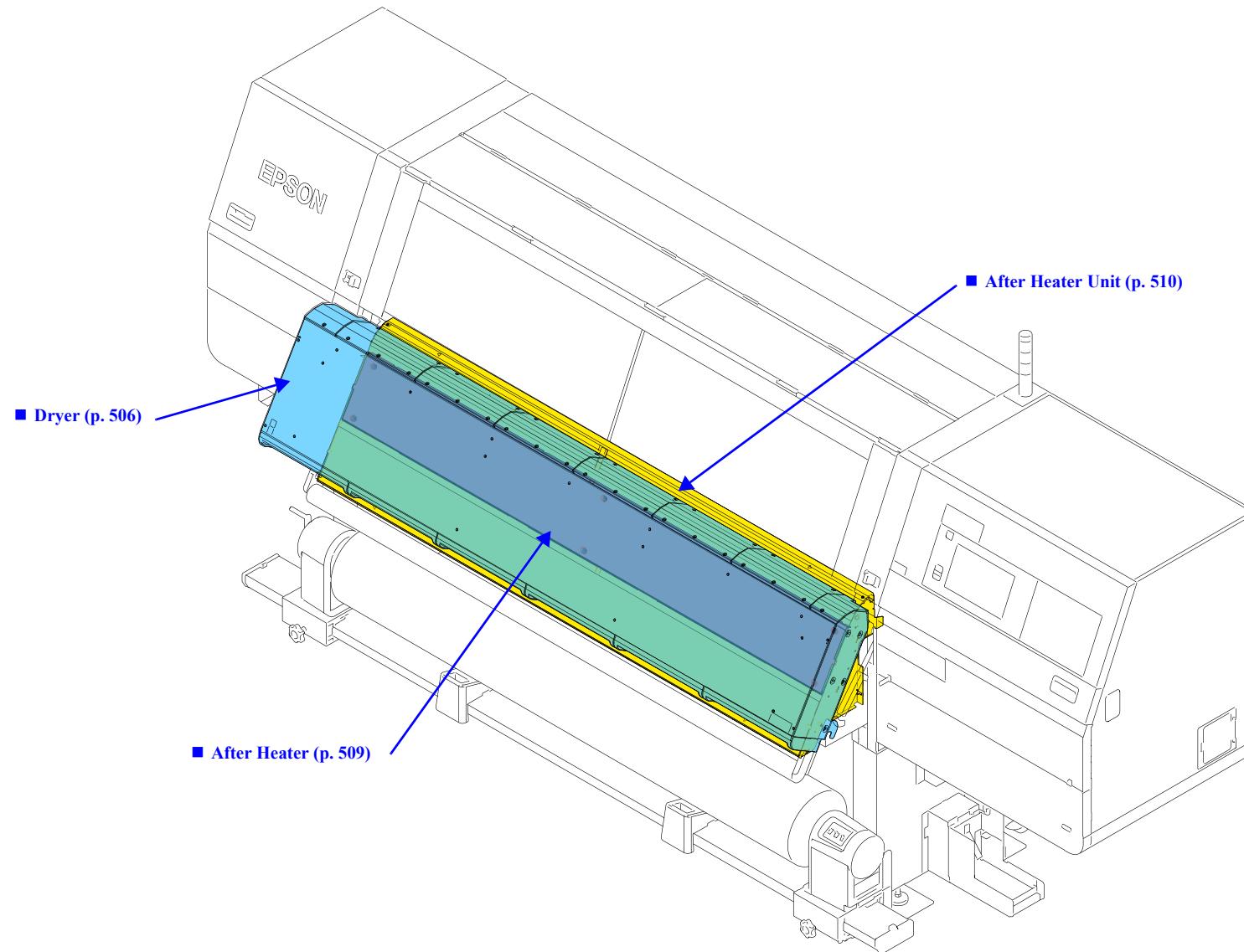
Heater Mechanism (1)

Figure 3-14.

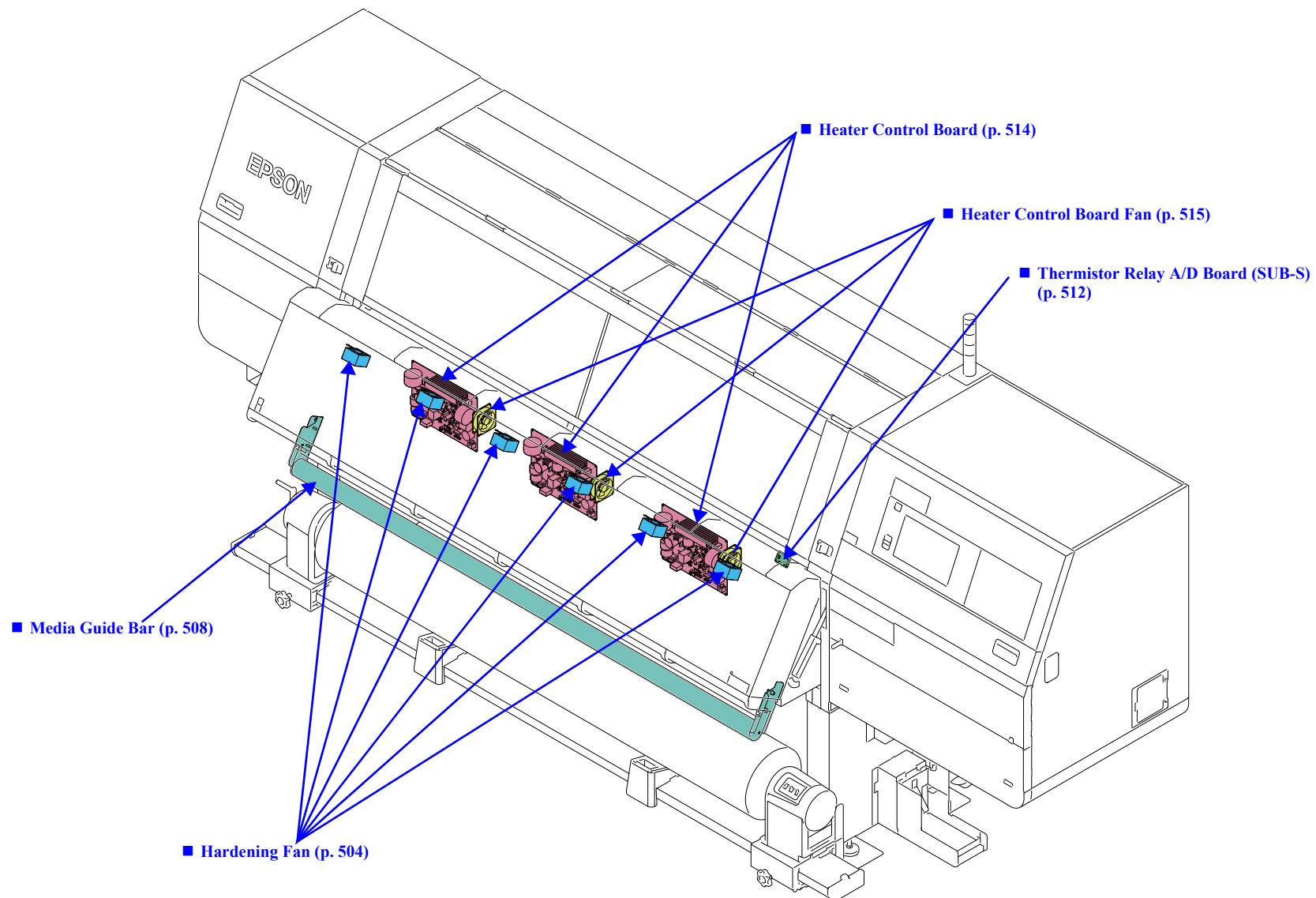
Heater Mechanism (2)

Figure 3-15.

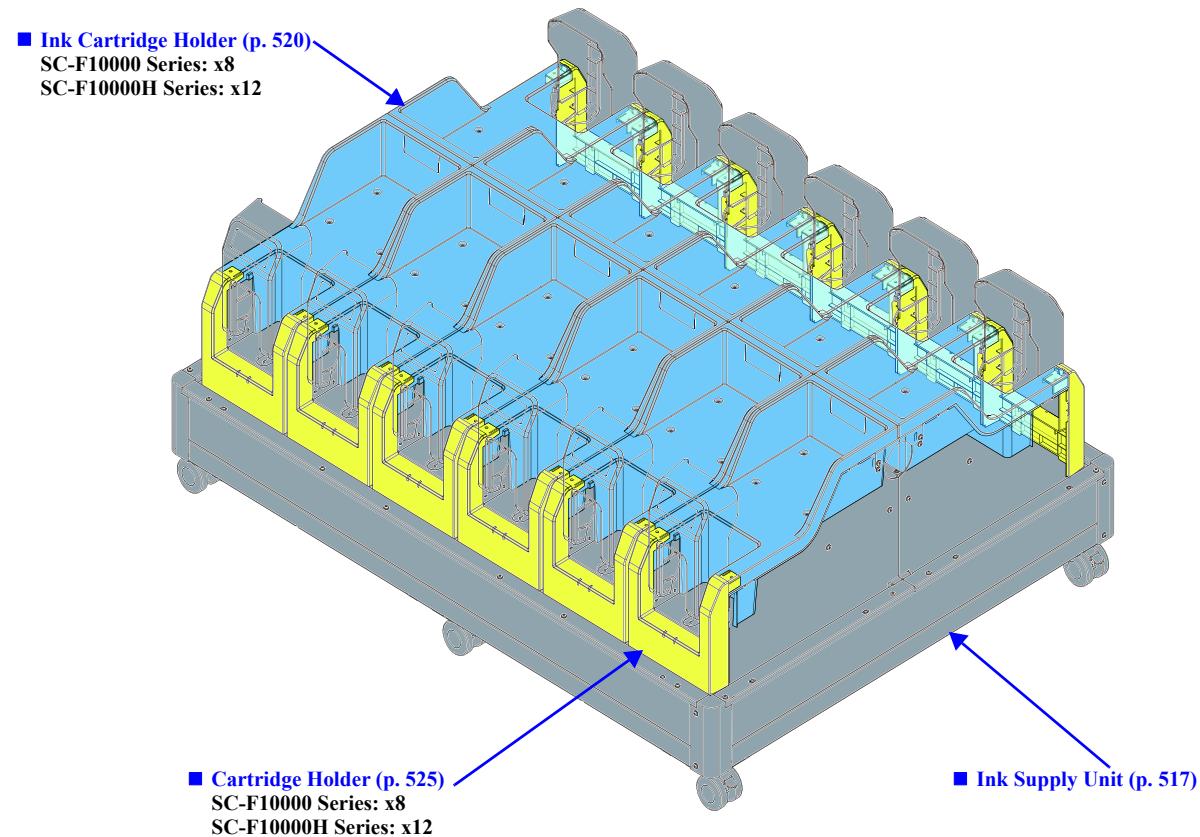
Ink Supply Mechanism (1)

Figure 3-16.

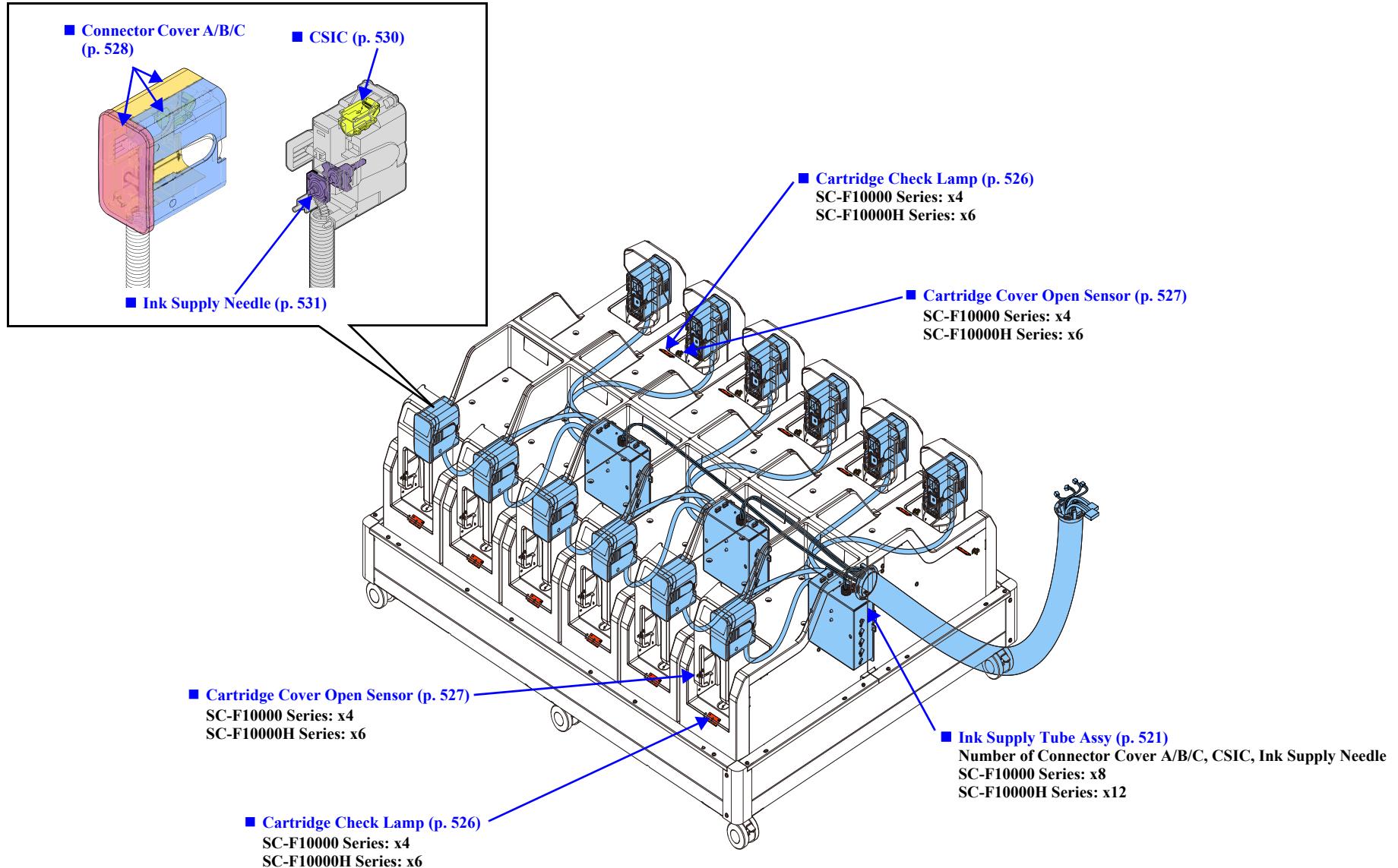
Ink Supply Mechanism (2)

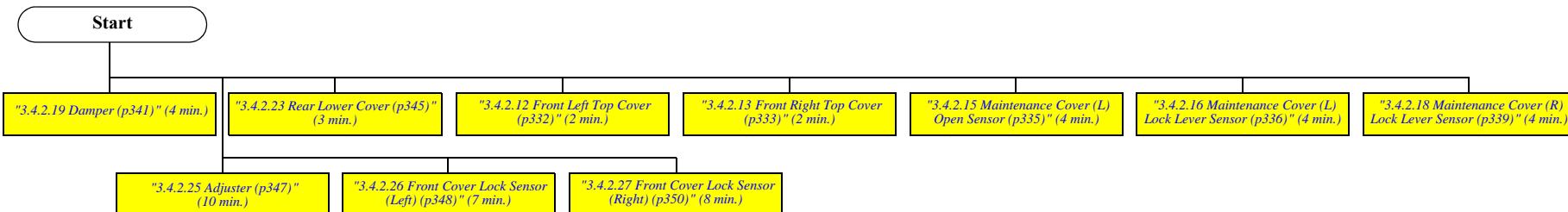
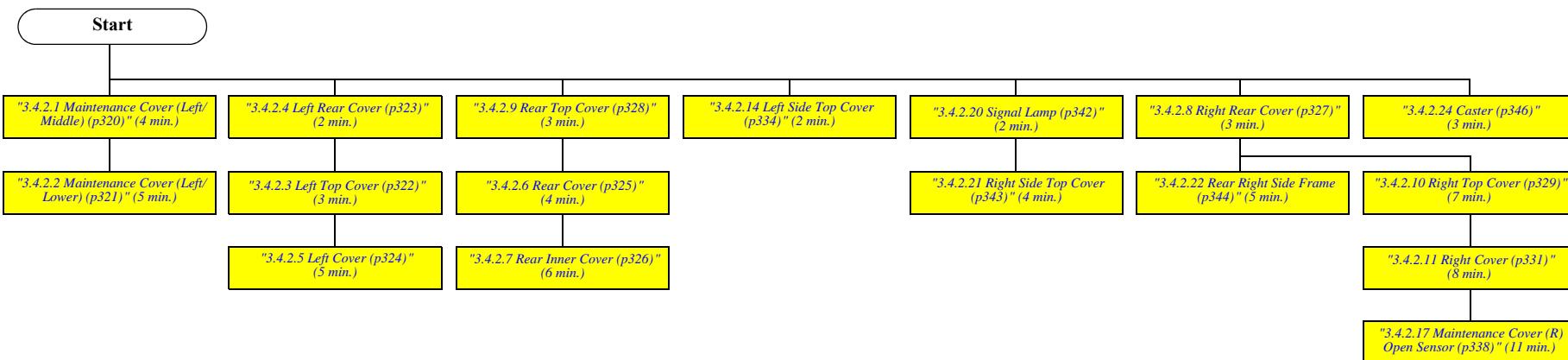
Figure 3-17.

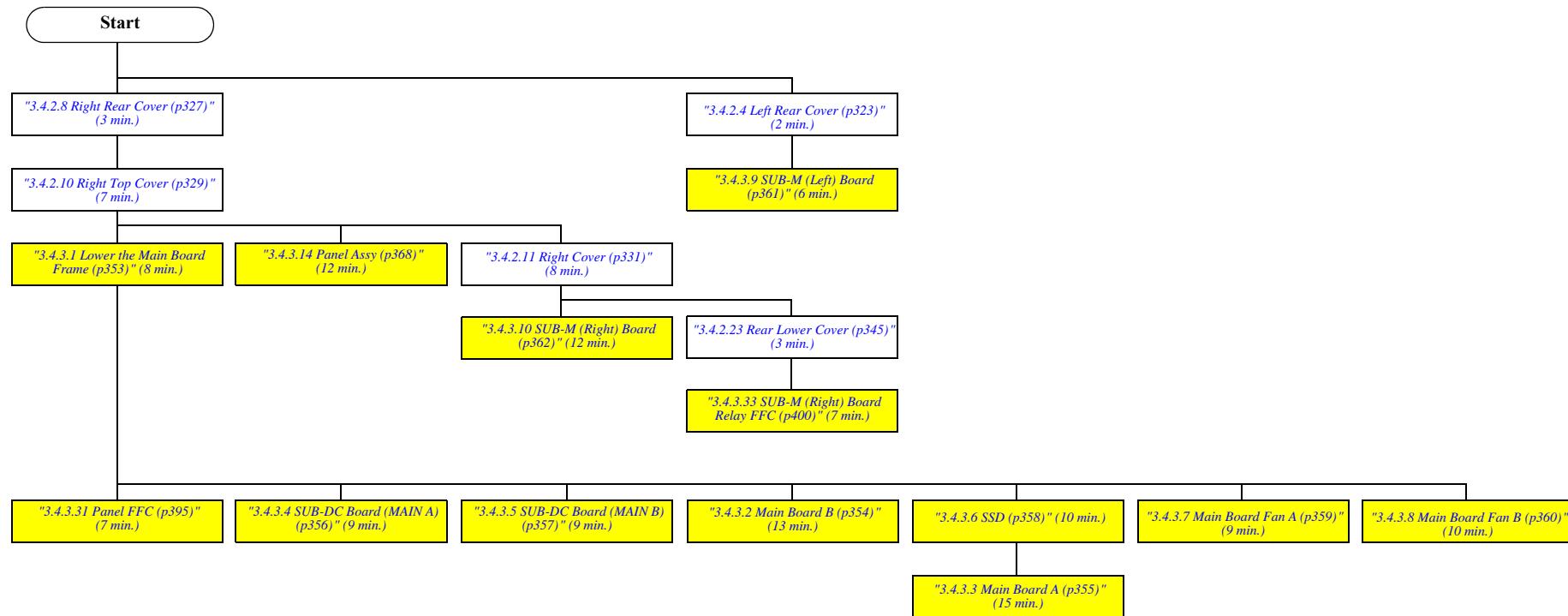
3.3 Disassembly Flowchart

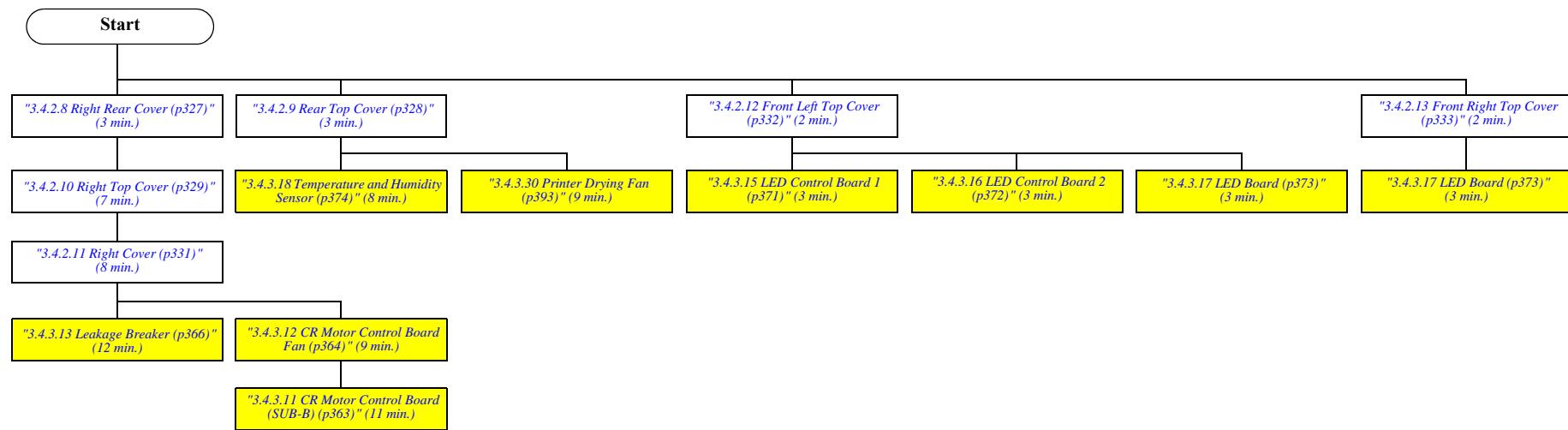


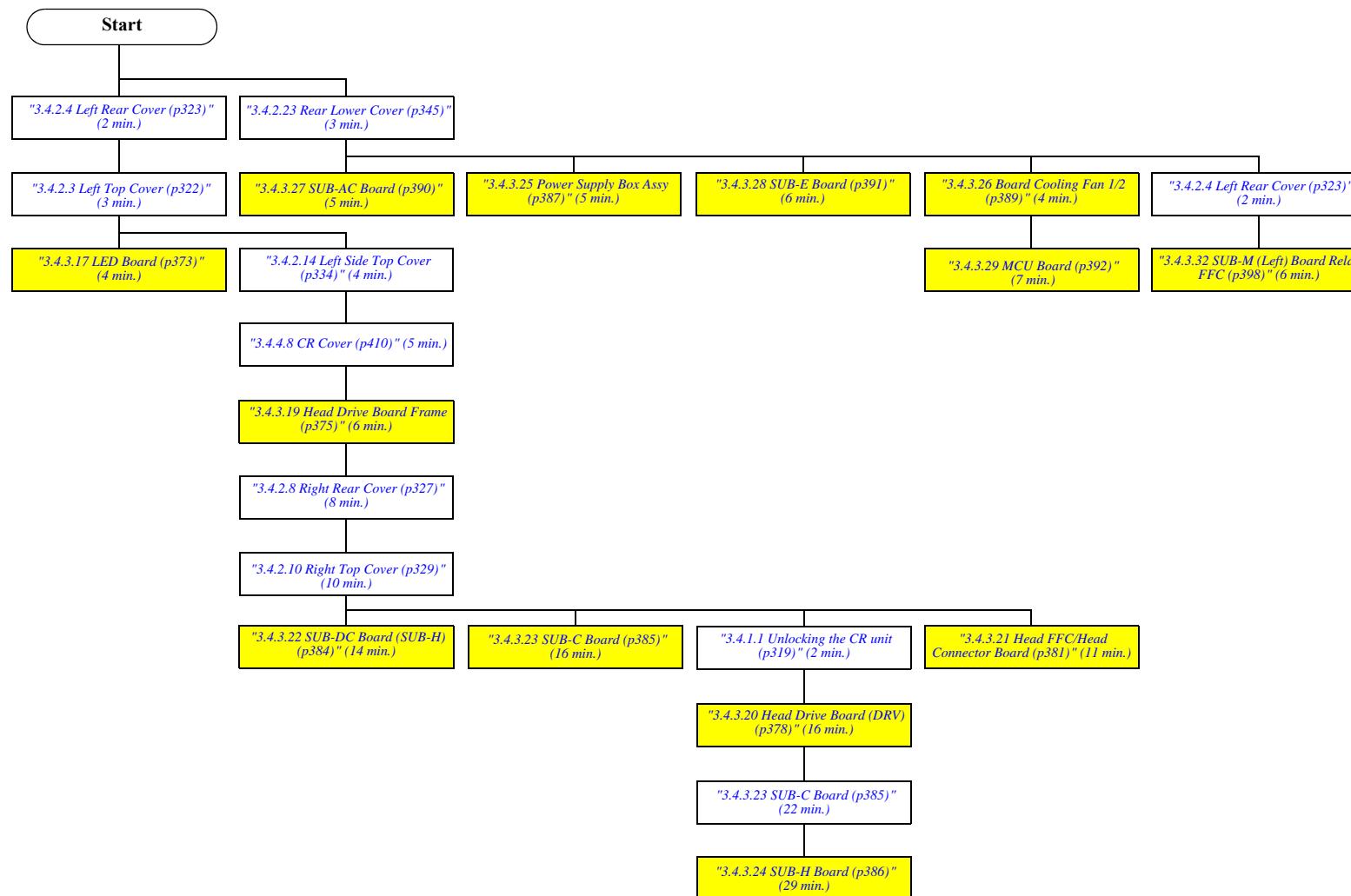
- The number at the end of each item indicates the approximate total time required for disassembly and assembly.
- The parts in yellow are target parts in their category. They are explained in details in the corresponding sections so as to reach the parts in the shortest way.
- The parts in white are those which are required to be removed to reach the parts in yellow.

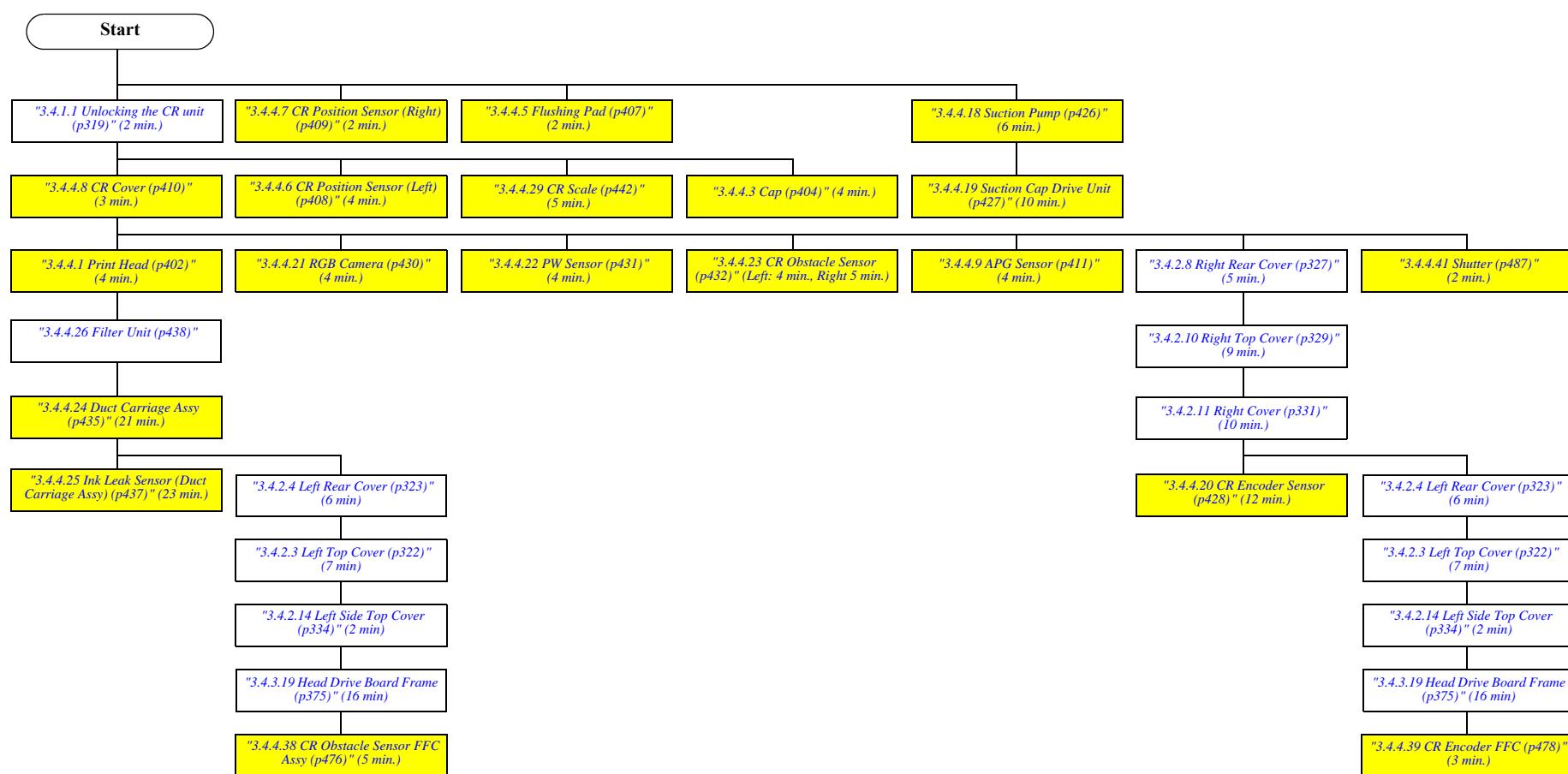
HOUSING



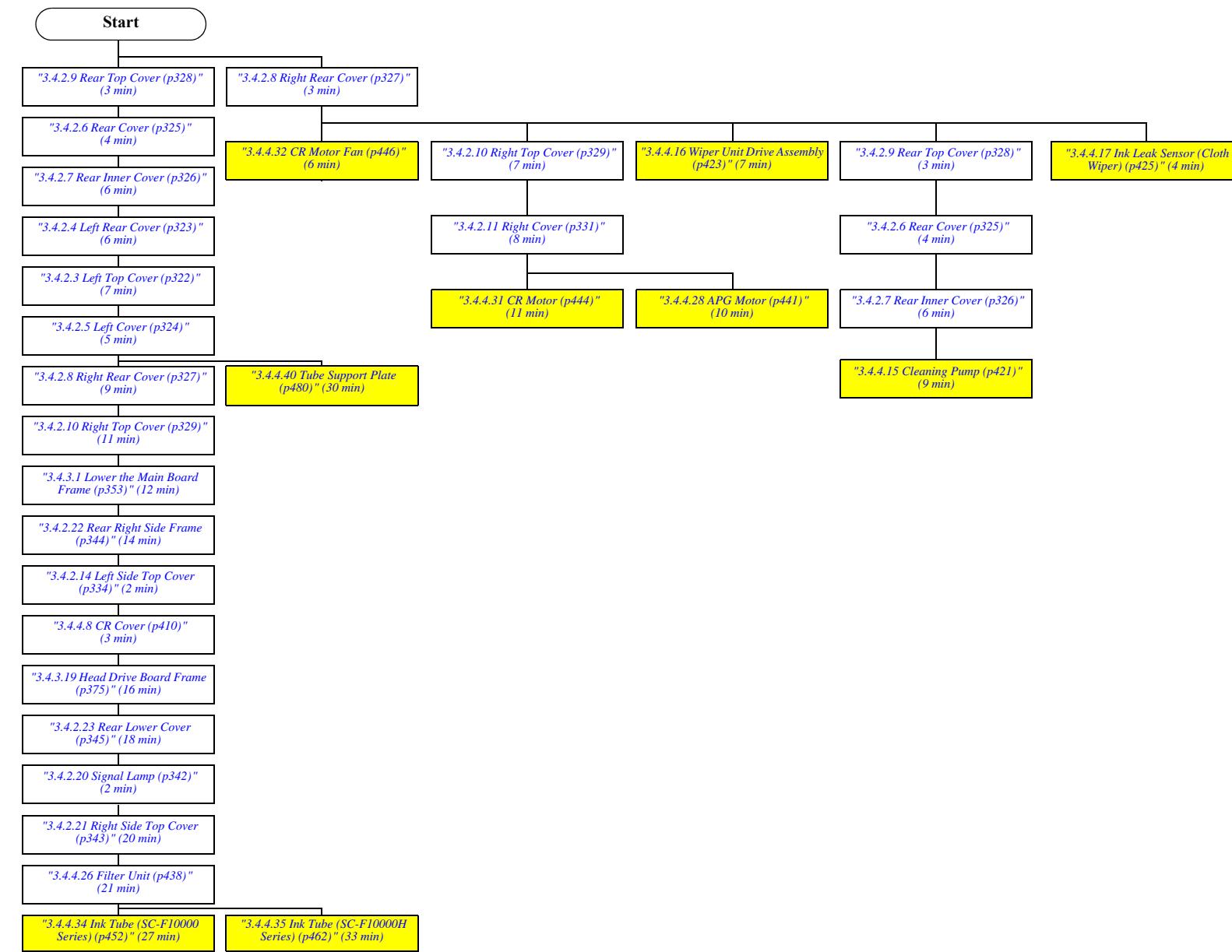
ELECTRIC CIRCUIT COMPONENTS (1)

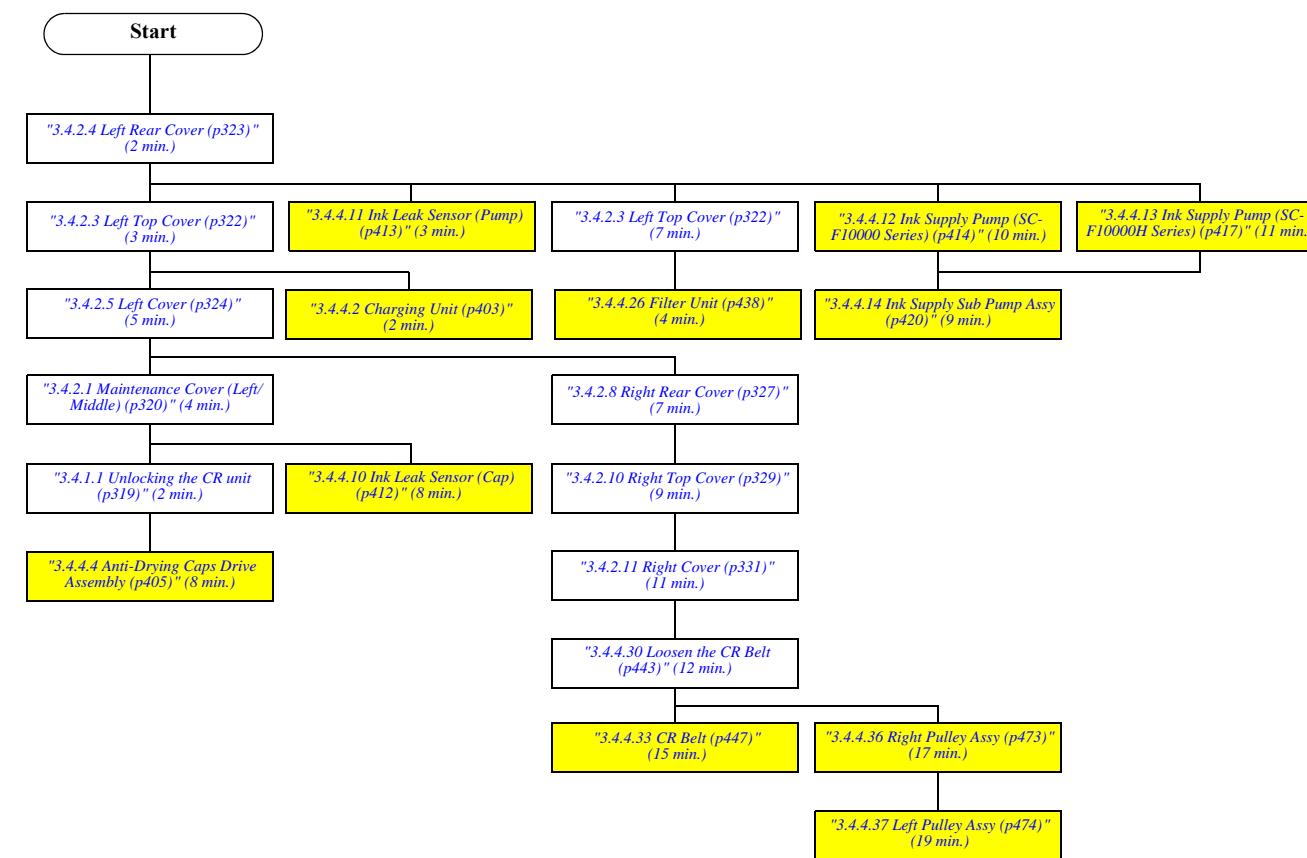
ELECTRIC CIRCUIT COMPONENTS (2)

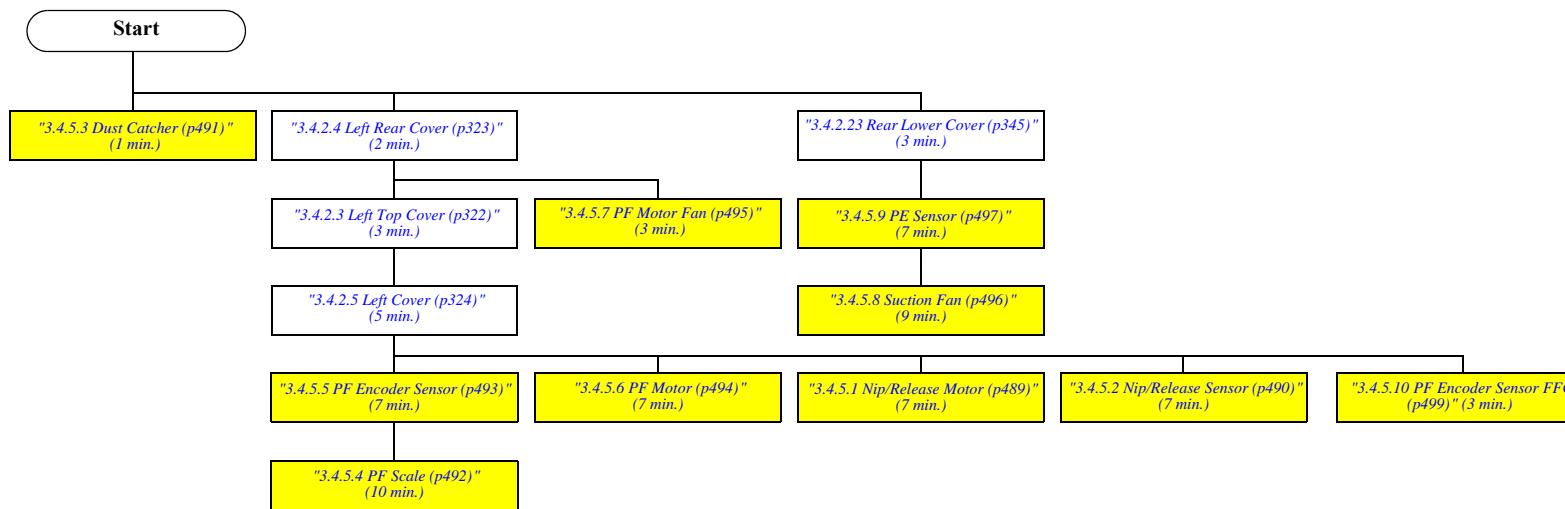
ELECTRIC CIRCUIT COMPONENTS (3)

CARRIAGE MECHANISM/INK SYSTEM MECHANISM (1)

CARRIAGE MECHANISM/INK SYSTEM MECHANISM (2)



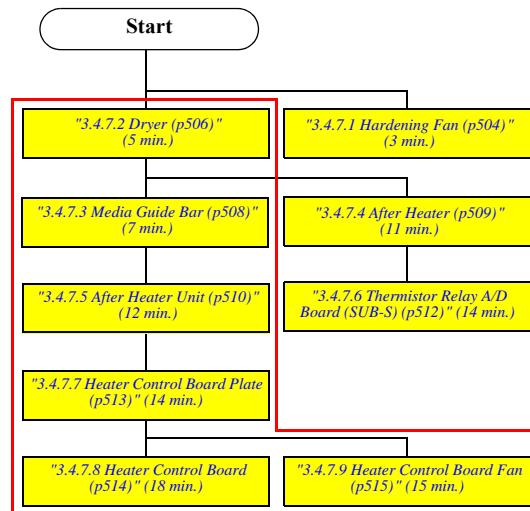
CARRIAGE MECHANISM/INK SYSTEM MECHANISM (3)

PAPER FEED MECHANISM

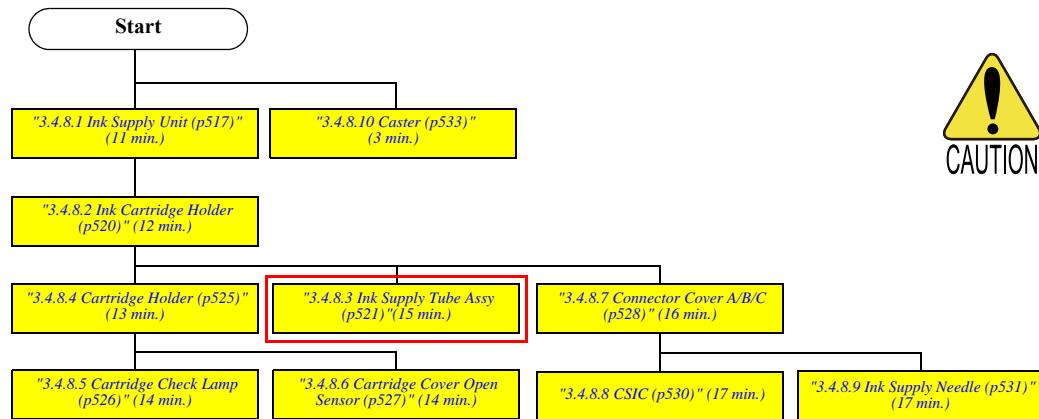
Roll Unit / Reel Unit



Heater Mechanism



Ink Supply Mechanism



For SC-F10000H Series, the work enclosed in red must be carried out by at least 2 persons.

3.4 Disassembly and Assembly Procedure

This section describes procedures for disassembling the components allowed to be disassembled. Unless otherwise specified, disassembled units or components can be reassembled by reversing the disassembly procedure.

3.4.1 Preparation for Servicing

3.4.1.1 Unlocking the CR unit

1. Open the Maintenance Cover (Left/Upper).
2. Rotate the CR lock manual gear clockwise by hand.



If it is difficult to rotate the CR lock, remove the Maintenance Cover (Left/Middle) (p320).

3. Check that the shaft has risen up.



Move the CR Unit by moving the CR Belt.

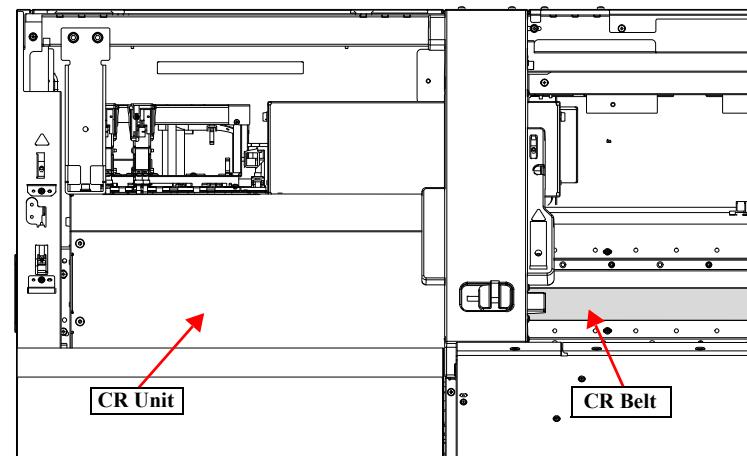


Figure 3-18.

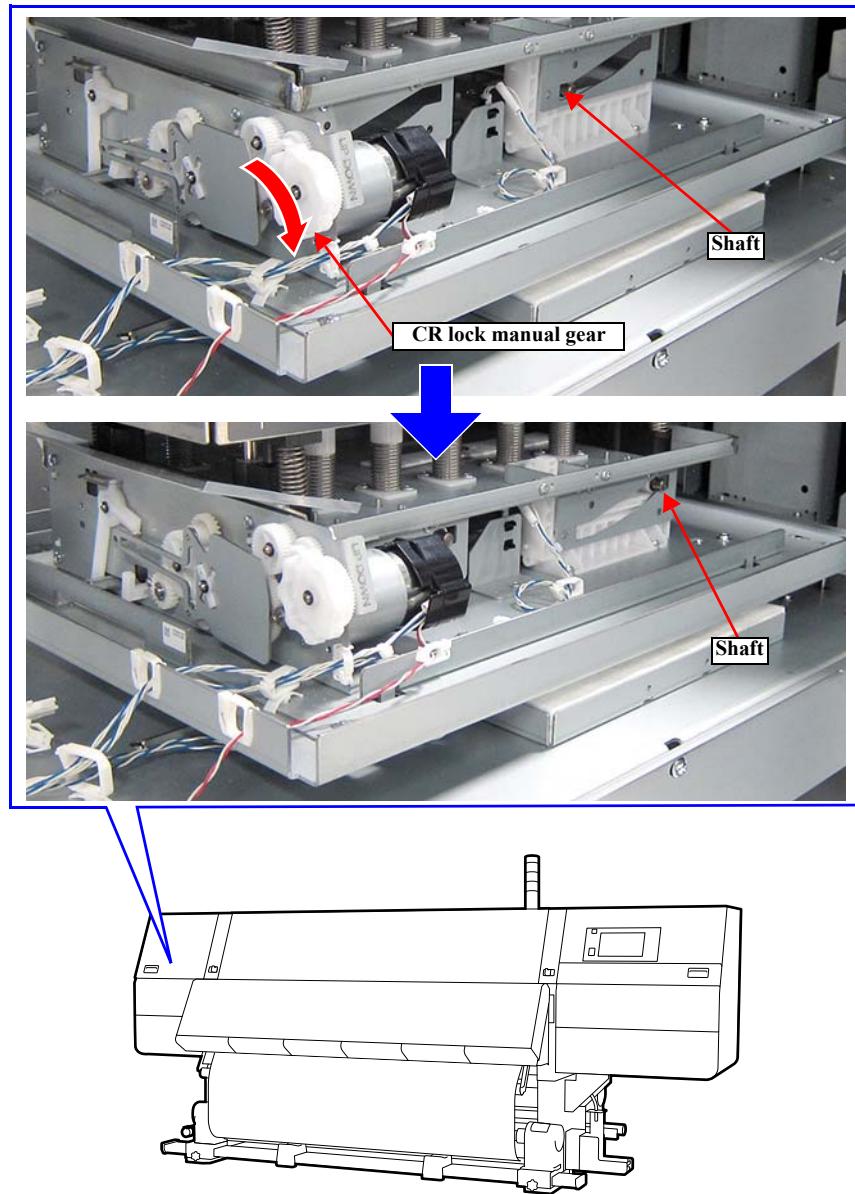


Figure 3-19.

3.4.2 Housing

3.4.2.1 Maintenance Cover (Left/Middle)

1. Open the Maintenance Cover (Left/Upper).
2. Remove the 3 screws and then remove the Maintenance Cover (Left/Middle).
 - A) Black M4x8 S-tite screw with built-in washer: 2 pcs
 - B) Black M4x8 S-tite screw with built-in washer: 1 pc



CHECK

- When removing screw B, remove it by inserting a screwdriver into the hole indicated in [Figure 3-21](#).
- Insert the 2 tabs on the Maintenance Cover (Left/Middle) into the positioning holes in the Maintenance Cover (Left/Lower).

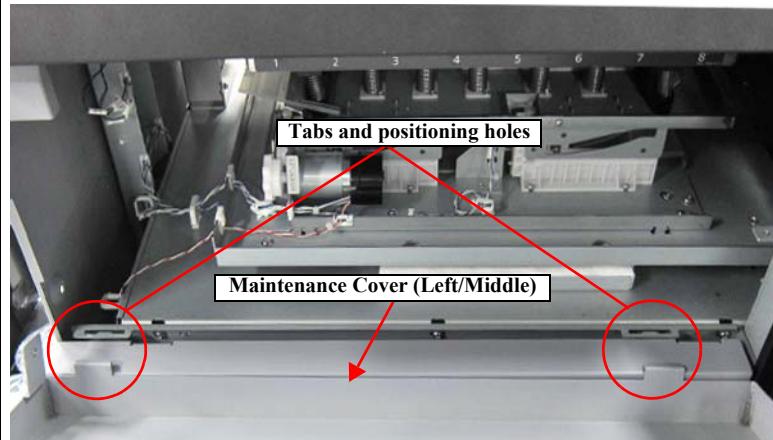


Figure 3-20.

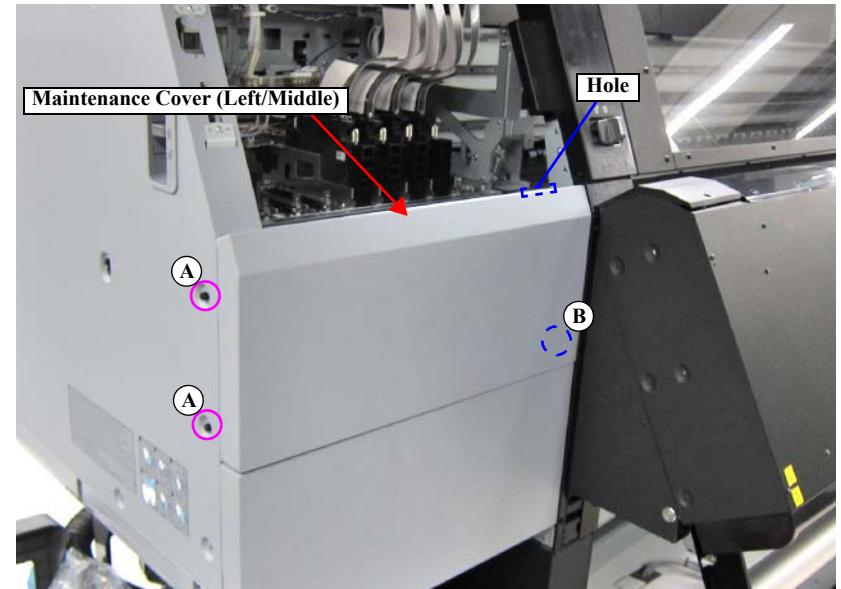


Figure 3-21.

3.4.2.2 Maintenance Cover (Left/Lower)

1. Remove the Maintenance Cover (Left/Middle). ([p320](#))
2. Remove the 4 screws and then remove the Maintenance Cover (Left/Lower).
 - A) Black M4x8 S-tite screw with built-in washer: 4 pcs

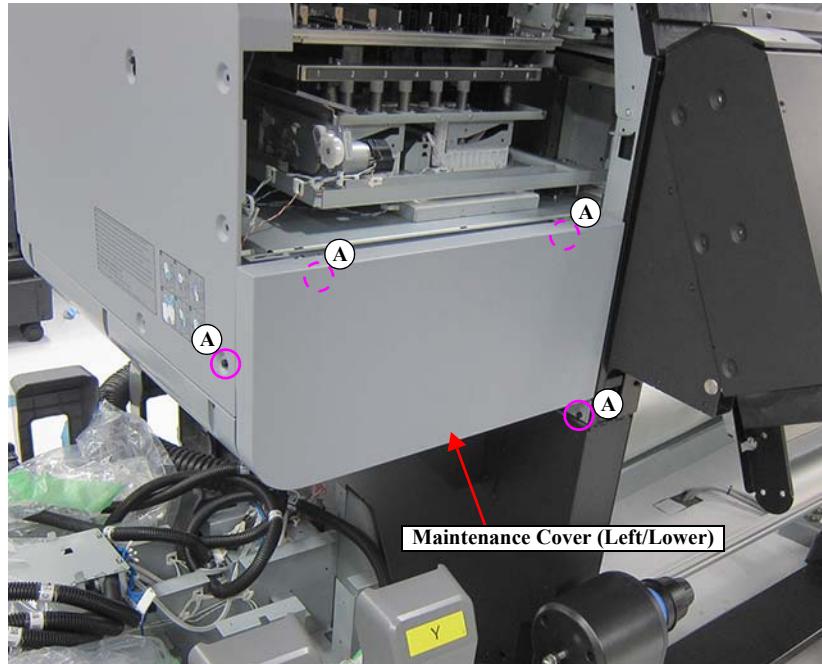


Figure 3-22.

3.4.2.3 Left Top Cover

1. Remove the Left Rear Cover. ([p323](#))
2. Remove the 4 screws and then remove the Left Top Cover.
 - A) Black M4x8 S-tite screw with built-in washer: 4 pcs

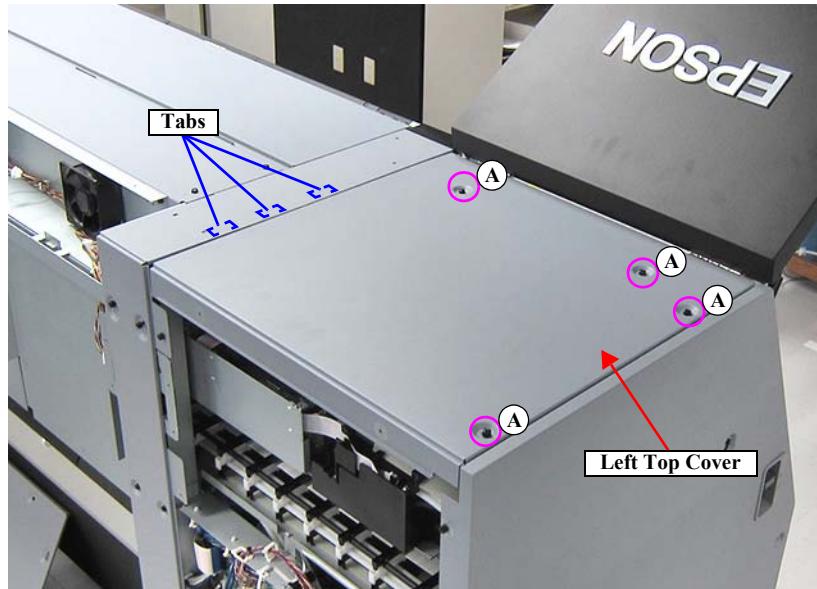


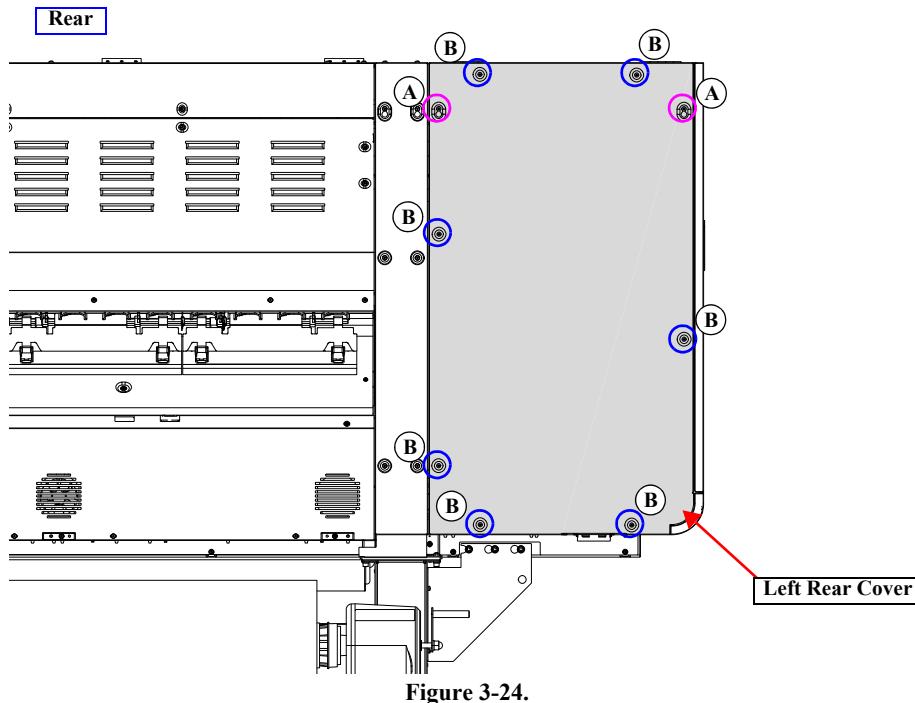
Figure 3-23.



Insert the 3 tabs on the Left Top Cover into the positioning holes of the frame. ([Figure 3-23](#))

3.4.2.4 Left Rear Cover

1. Remove the Rear Top Cover. ([p328](#))
2. Remove the Rear Cover. ([p325](#))
3. Loosen the 2 screws.
 - A) Black M4x8 S-tite screw with built-in washer: 2 pcs
4. Remove the 7 screws and then remove the Left Rear Cover.
 - B) Black M4x8 S-tite screw with built-in washer: 7 pcs



3.4.2.5 Left Cover

1. Remove the Left Rear Cover. ([p323](#))
2. Remove the Left Top Cover. ([p322](#))
3. Open the Maintenance Cover (Left/Upper) to the position indicated in [Figure 3-25](#).
4. Disconnect the cables (18-20 and 18-22) from the relay connectors.
 - A) Black M4x8 S-tite screw with built-in washer: 2 pcs
5. Release the cables from the clamp.
6. Loosen the 2 screws that secure the Left Cover.
7. Remove the 4 screws and then remove the Left Cover in the direction of the arrow.
 - B) Black M4x8 S-tite screw with built-in washer: 4 pcs

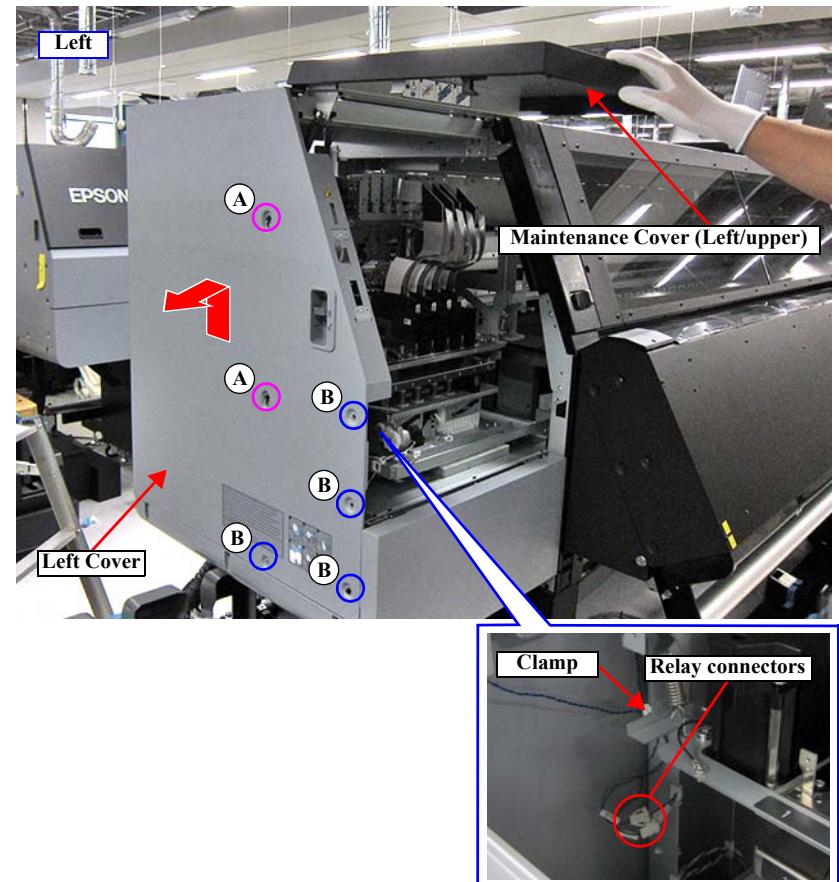


Figure 3-25.

3.4.2.6 Rear Cover

1. Remove the Rear Top Cover. ([p328](#))
2. Remove the 17 screws that secure the Rear Cover.
 - A) Black M4x8 S-tite screw with built-in washer: 17 pcs
3. Disengage the 2 hooks and then remove the Rear Cover.

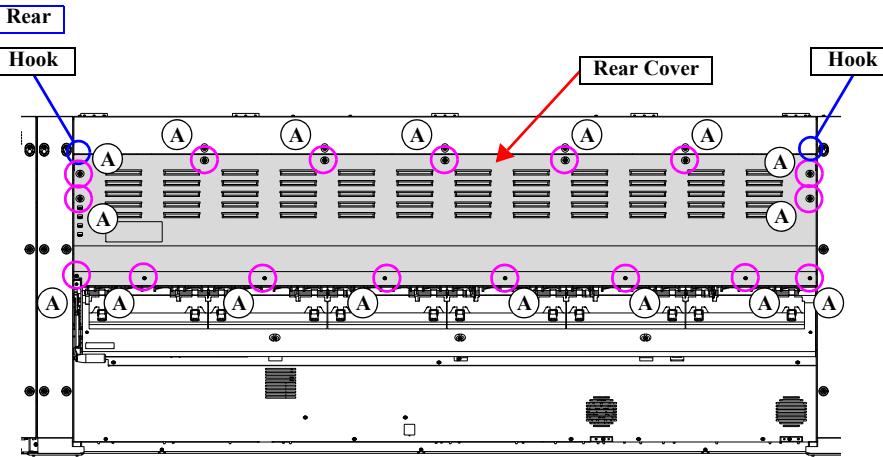


Figure 3-26.

3.4.2.7 Rear Inner Cover

1. Remove the Rear Top Cover. ([p328](#))
2. Remove the Rear Cover. ([p325](#))
3. Release the cables from the clamps of the Rear Inner Covers 1 and 6.
4. Remove each set of 2 screws that secure the Rear Inner Covers.
 - A) Silver M4x8 Cup S-tite screw: each 2 pcs
5. Detach the Rear Inner Covers from the tabs and then remove them.

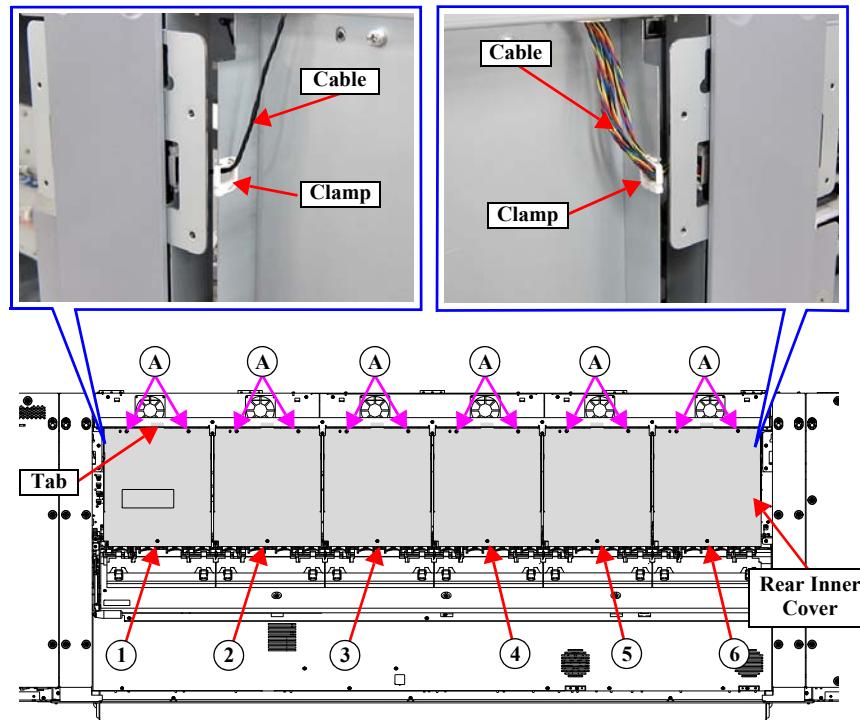
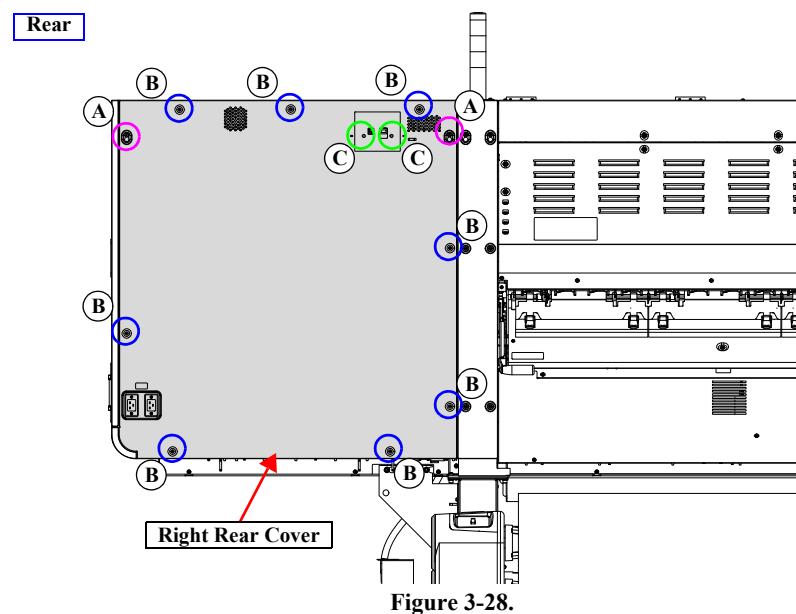


Figure 3-27.

3.4.2.8 Right Rear Cover

1. Loosen the 2 screws that secure the Right Rear Cover.
 - A) Black M4x8 S-tite screw with built-in washer: 2 pcs
2. Remove the 10 screws and then remove the Right Rear Cover.
 - B) Black M4x8 S-tite screw with built-in washer: 8 pcs
 - C) Black M3x8 S-tite screw with built-in washer: 2 pcs



3.4.2.9 Rear Top Cover

1. Remove the 11 screws and then remove the Rear Top Cover toward the front.

A) Black M3x8 S-tite screw with built-in washer: 11 pcs

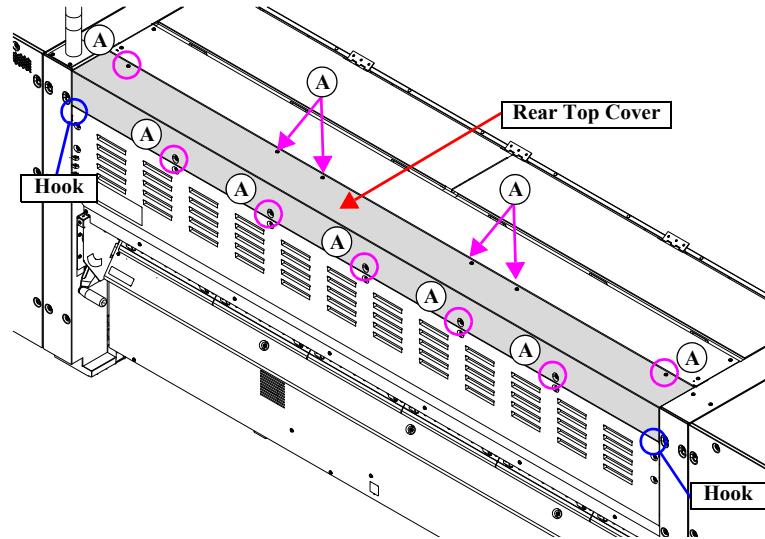


Figure 3-29.

3.4.2.10 Right Top Cover

1. Remove the Right Rear Cover. ([p327](#))
2. Open the Maintenance Cover (Right/Upper).
3. Remove the 2 screws that secure the Panel Assy.
 - A) Black M4x8 S-tite screw with built-in washer: 2 pcs

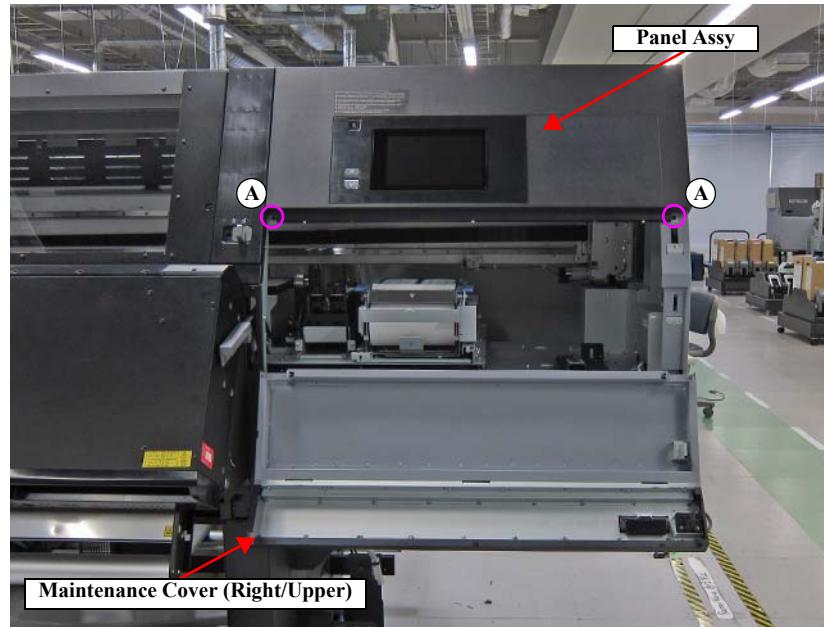


Figure 3-30.

4. Pull the Panel Assy a little toward the front and then open it.

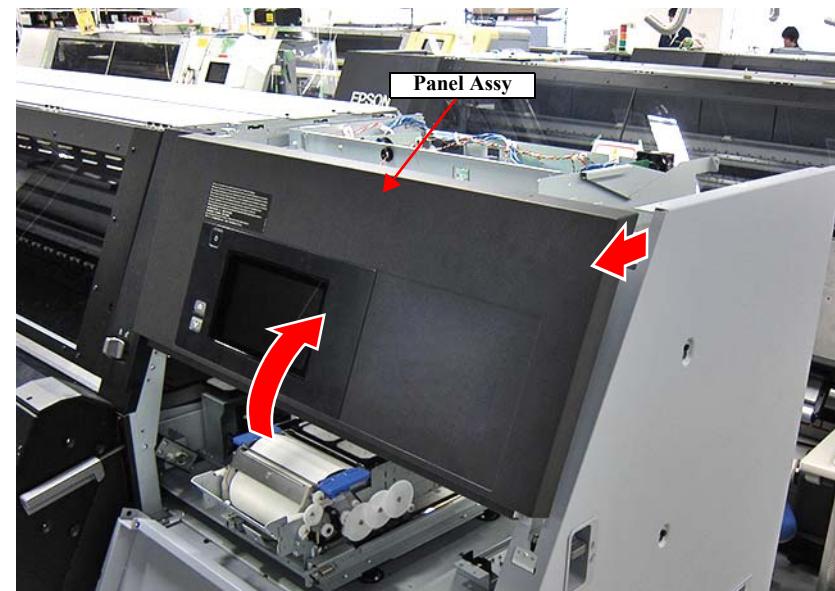


Figure 3-31.

Continue to the next page.

5. Open the Panel Assy to the position in [Figure 3-32](#).
6. Remove the 7 screws that secure the Right Top Cover.
 - B) Black M4x8 S-tite screw with built-in washer: 7 pcs
7. Close the Panel Assy.
8. Remove the Right Top Cover in the upward direction.

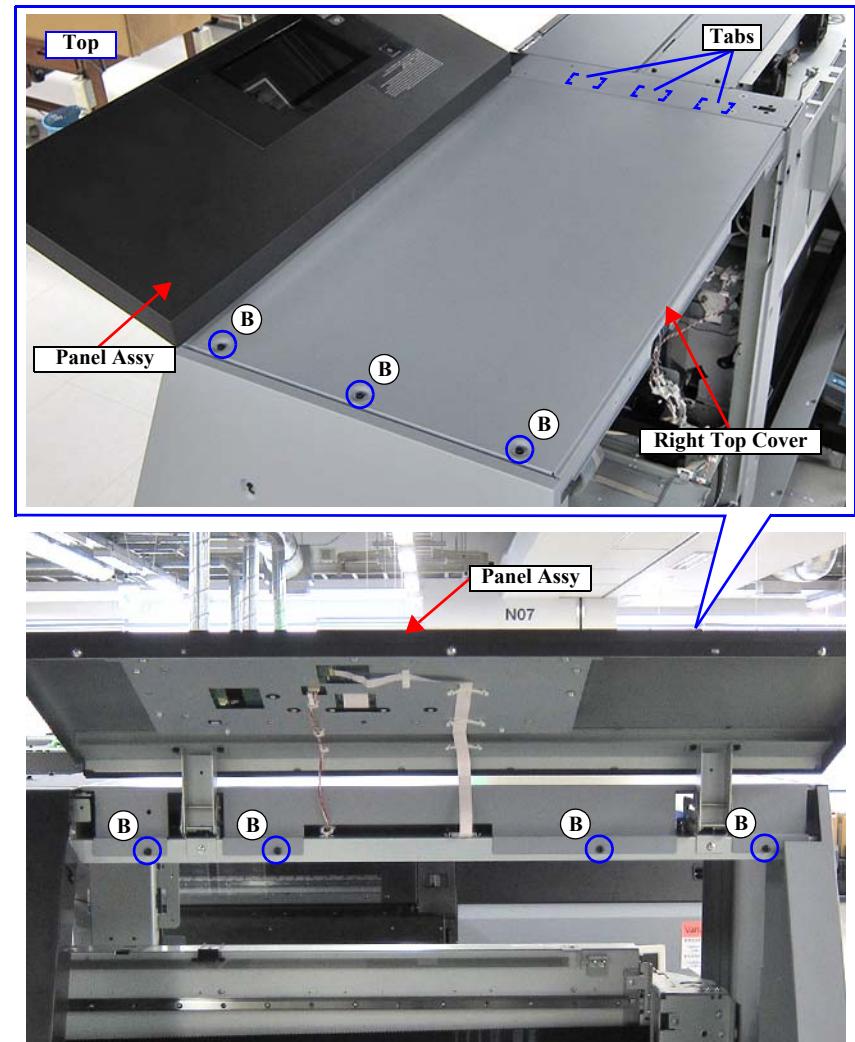


Figure 3-32.



Insert the 3 tabs on the Right Top Cover into the positioning holes of the frame. ([Figure 3-32](#))

3.4.2.11 Right Cover

1. Remove the Right Rear Cover. ([p327](#))
2. Remove the Right Top Cover. ([p329](#))
3. Disconnect the cables (9-29 and 9-31) from the relay connectors.
4. Release the cables from the clamp.
5. Loosen the 2 screws that secure the Right Cover.
 - A) Black M4x8 S-tite screw with built-in washer: 2 pcs
6. Remove the 2 screws and then remove the Right Cover in the direction of the arrow.
 - B) Black M4x8 S-tite screw with built-in washer: 2 pcs

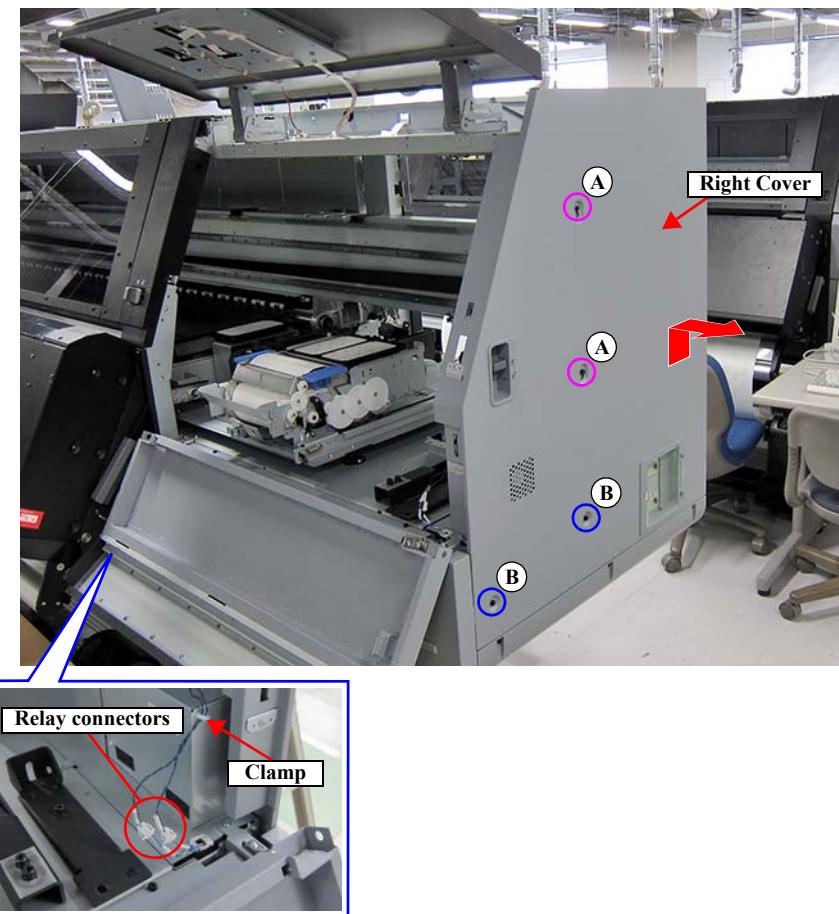


Figure 3-33.

3.4.2.12 Front Left Top Cover

1. Open the Front Cover.
2. Remove the 4 screws that secure the Front Left Top Cover.
 - A) Black M4x8 S-tite screw with built-in washer: 4 pcs
3. Close the Front Cover.
4. Remove the Front Left Top Cover toward the front.



- Insert the 3 tabs on the Front Left Top Cover into the positioning holes of the frame. (Figure 3-34)
- Insert the rib of the Front Left Top Cover beneath the Left Side Top Cover. (Figure 3-34)

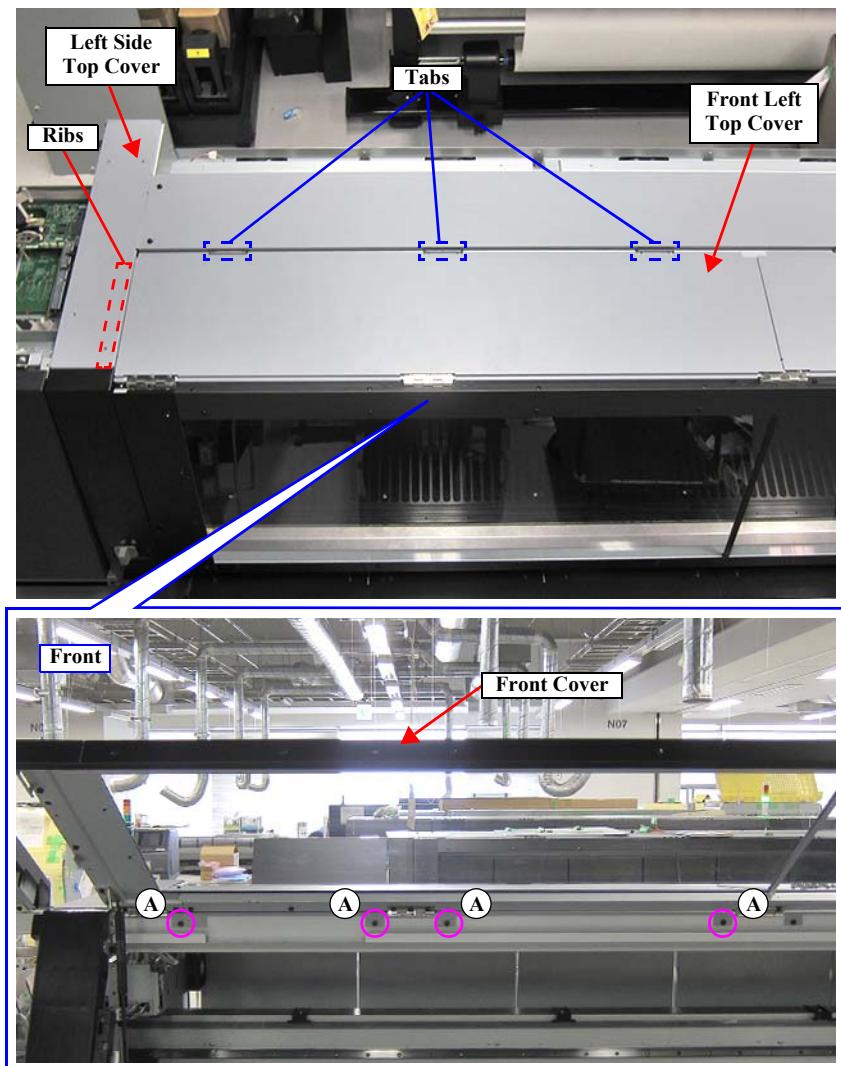


Figure 3-34.

3.4.2.13 Front Right Top Cover

1. Open the Front Cover.
2. Remove the 4 screws that secure the Front Right Top Cover.
 - A) Black M4x8 S-tite screw with built-in washer: 4 pcs
3. Close the Front Cover.
4. Remove the Front Right Top Cover toward the front.



- Insert the 3 tabs on the Front Right Top Cover into the positioning holes of the frame. (Figure 3-35)
- Insert the rib of the Front Right Top Cover beneath the Right Side Top Cover. (Figure 3-35)

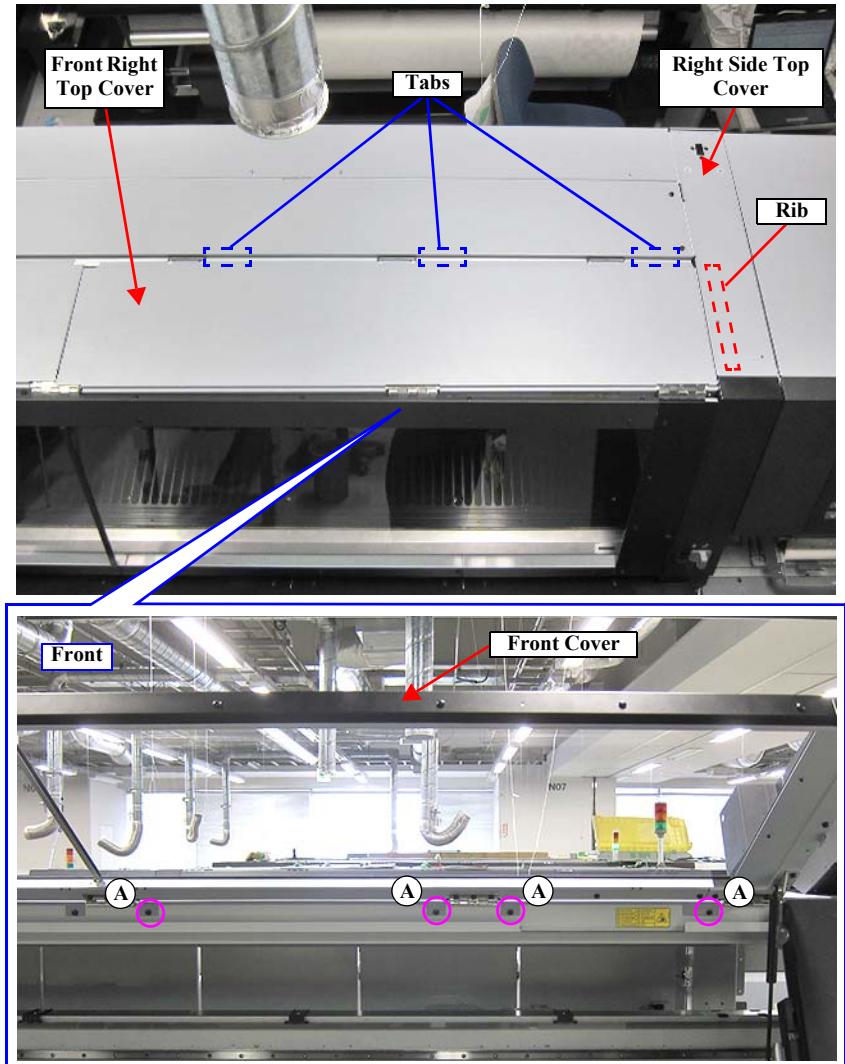


Figure 3-35.

3.4.2.14 Left Side Top Cover

1. Remove the 4 screws and then remove the Left Side Top Cover.

A) Black M4x8 S-tite screw with built-in washer: 4 pcs

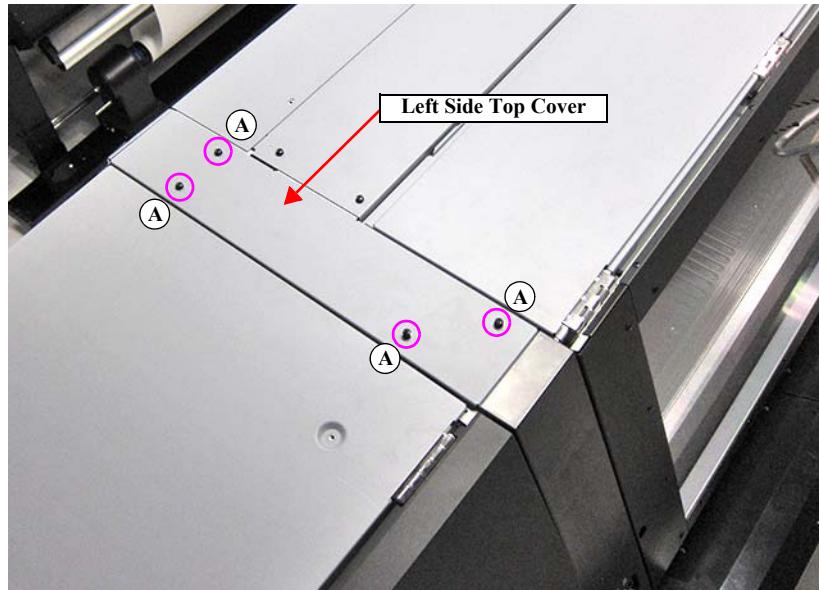


Figure 3-36.

3.4.2.15 Maintenance Cover (L) Open Sensor

1. Disconnect the cable (No. 18-20) from the relay connector.
2. Release the cables from the clamp.
3. Remove the screw and then remove the Maintenance Cover (L) Open Sensor Assy.
A) Silver M3x8 Cup S-tite screw: 1 pc

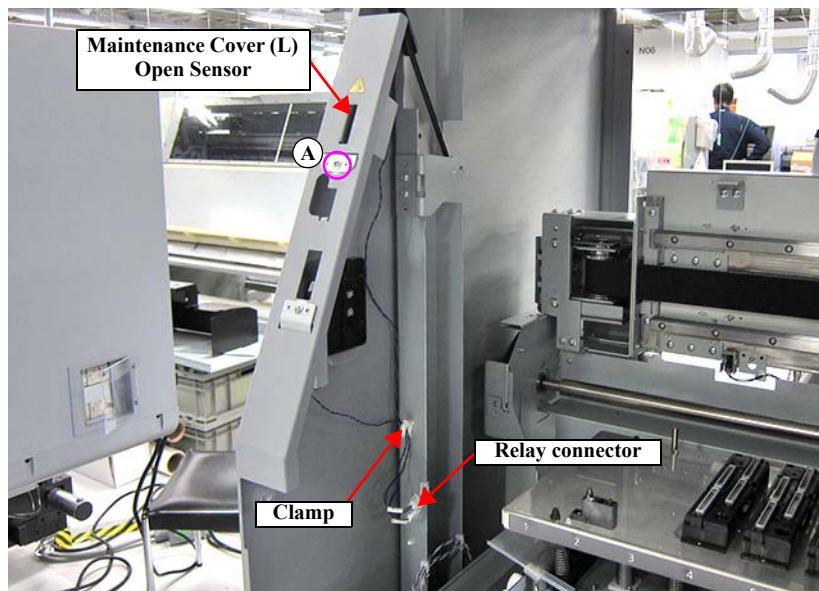


Figure 3-37.

4. Release the cables from the clamp.
5. Disengage the hook and then remove the Maintenance Cover (L) Open Sensor.
6. Disconnect the cable from the connector.

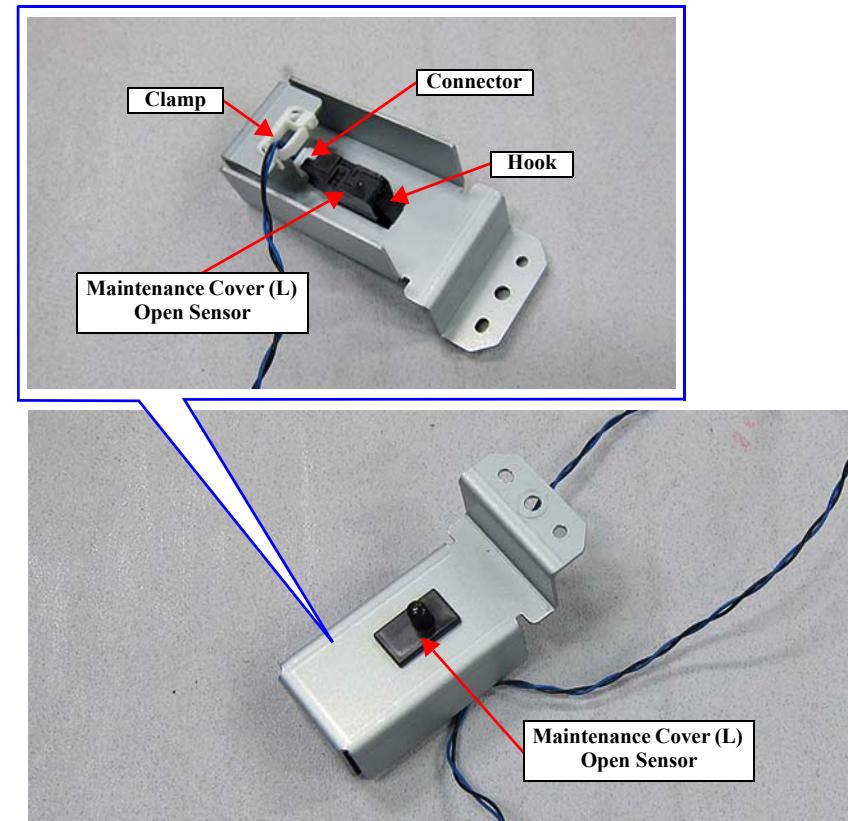


Figure 3-38.

3.4.2.16 Maintenance Cover (L) Lock Lever Sensor

1. Disconnect the cable (No. 18-22) from the relay connector.
2. Release the cables from the clamp.
3. Remove the extension spring.
4. Remove the 2 screws and then remove the Lock Lever (Inner) and Lock Lever (Outer).
 - A) Silver M3x8 Cup P-tite screw: 2 pcs
5. Remove the screw and then remove the Maintenance Cover (L) Lock Lever Sensor Assy.
 - B) Silver M3x8 Cup S-tite screw: 1 pc

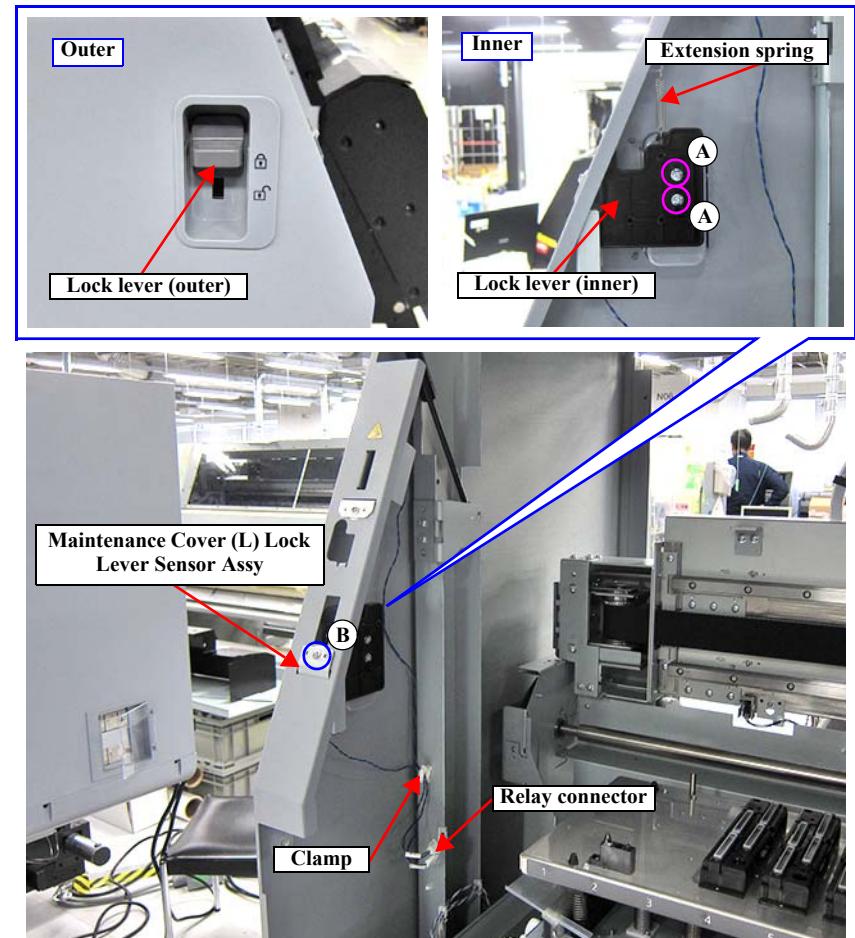


Figure 3-39.

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6. Release the cables from the clamp.
7. Disengage the hooks and then remove the Maintenance Cover (L) Lock Lever Sensor.
8. Disconnect the cable from the connector.

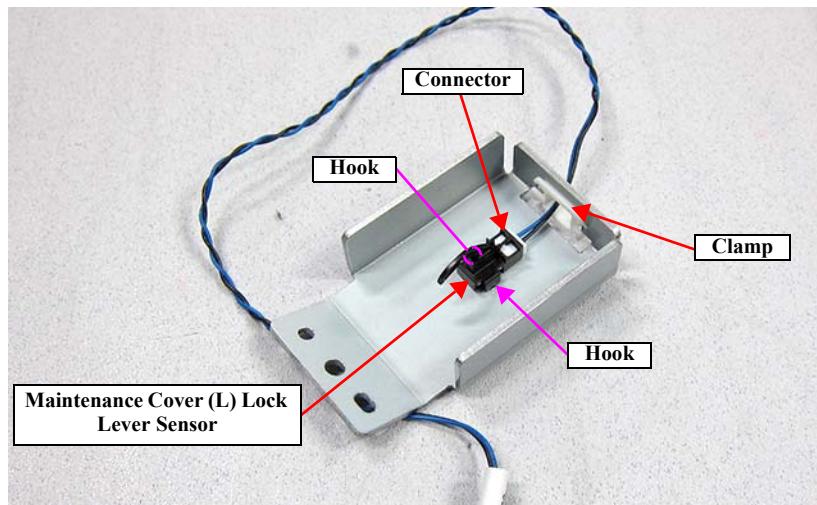


Figure 3-40.

3.4.2.17 Maintenance Cover (R) Open Sensor

1. Remove the Right Rear Cover. ([p327](#))
2. Remove the Right Top Cover. ([p329](#))
3. Remove the Right Cover. ([p331](#))
4. Remove the screw and then remove the Maintenance Cover (R) Open Sensor Assy.
 - A) Silver M3x8 Cup S-tite screw: 1 pc

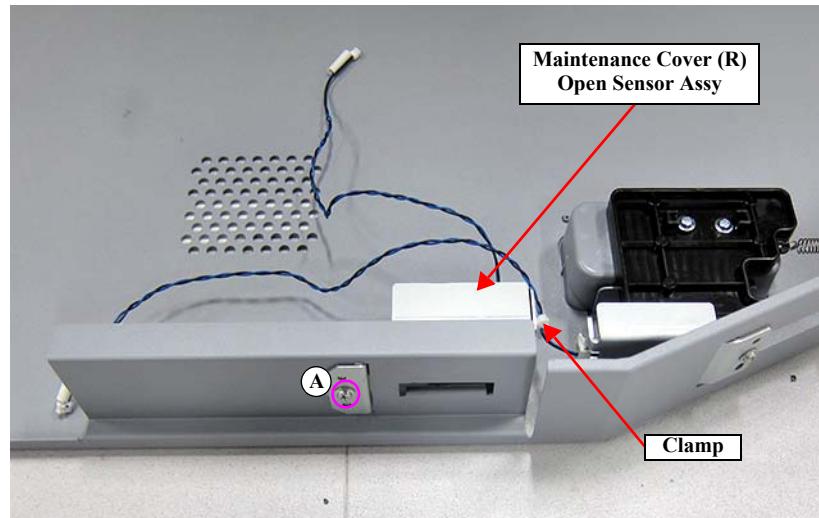


Figure 3-41.

5. Release the cables from the clamp.

6. Disengage the hook and then remove the Maintenance Cover (R) Open Sensor.
7. Disconnect the cable from the connector.

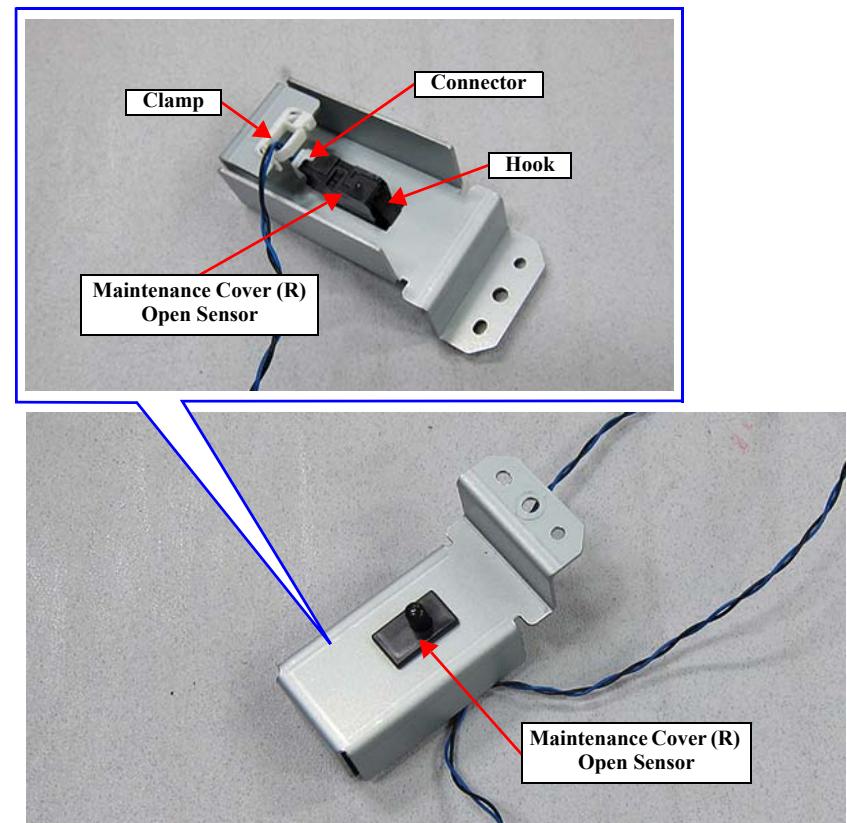


Figure 3-42.

3.4.2.18 Maintenance Cover (R) Lock Lever Sensor

1. Disconnect the cable (No. 9-29) from the relay connector.
2. Release the cables from the 2 clamps.
3. Remove the extension spring.
4. Remove the 2 screws and then remove the Lock Lever (Inner) and Lock Lever (Outer).
 - A) Silver M3x8 Cup P-tite screw: 2 pcs
5. Remove the screw and then remove the Maintenance Cover (R) Lock Lever Sensor Assy.
 - B) Silver M3x8 Cup S-tite screw: 1 pc

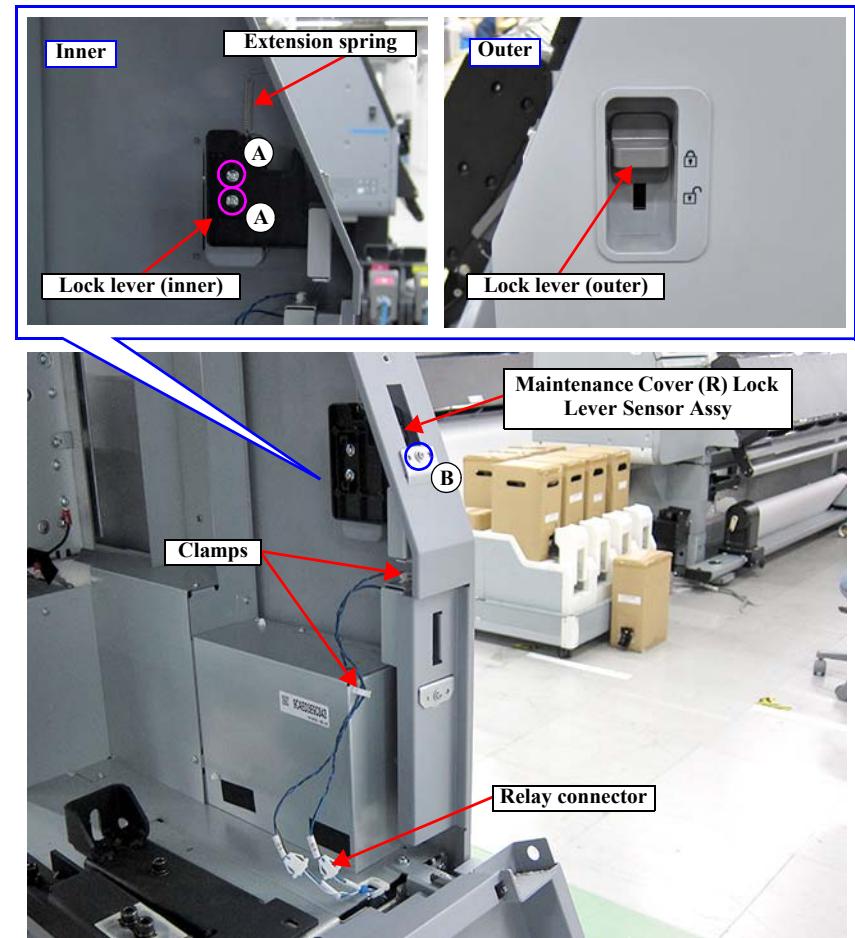


Figure 3-43.

Continue to the next page.

6. Release the cables from the clamp.
7. Disengage the hook and then remove the Maintenance Cover (R) Lock Lever Sensor.
8. Disconnect the cable from the connector.

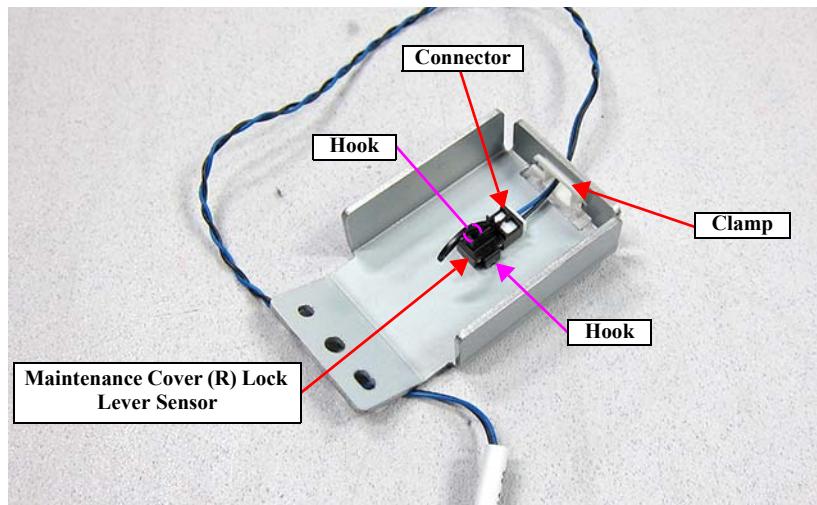


Figure 3-44.

3.4.2.19 Damper



This section describes the disassembly procedure for Damper 1. Damper 2/Damper 3 can also be disassembled using the same procedure.

1. Open the Maintenance Cover (Left/Upper).



To prevent the cover from falling, remove the screws while supporting the cover with a hand.

2. Remove the 4 screws and then remove Damper 1.

- A) Silver M4x10 S-tite screw with built-in spring washer: 2 pcs
- B) Silver M4x8 Cup S-tite screw: 2 pcs



Figure 3-45.

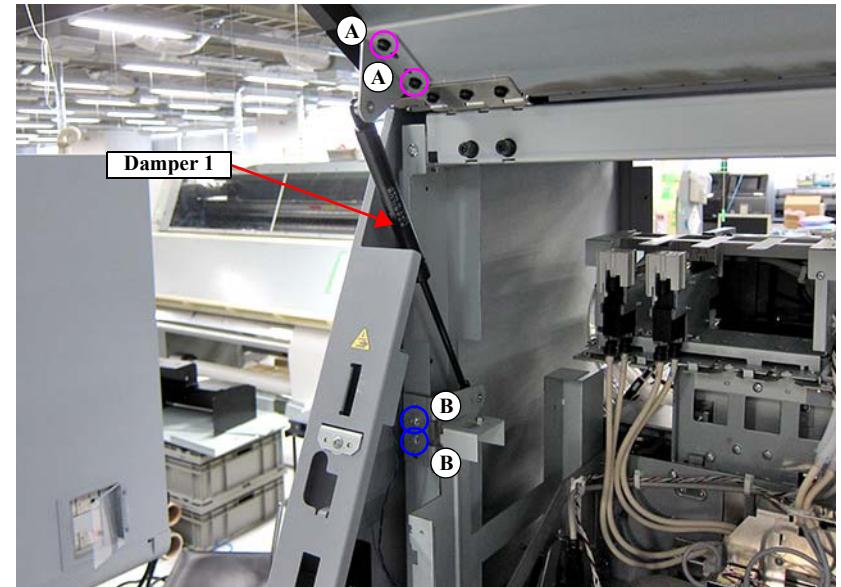


Figure 3-46.

3.4.2.20 Signal Lamp

1. Remove the 4 screws and then remove the Signal Lamp.
 - A) Black M4x8 S-tite screw with built-in washer: 4 pcs
2. Disconnect the cable from the relay connector.

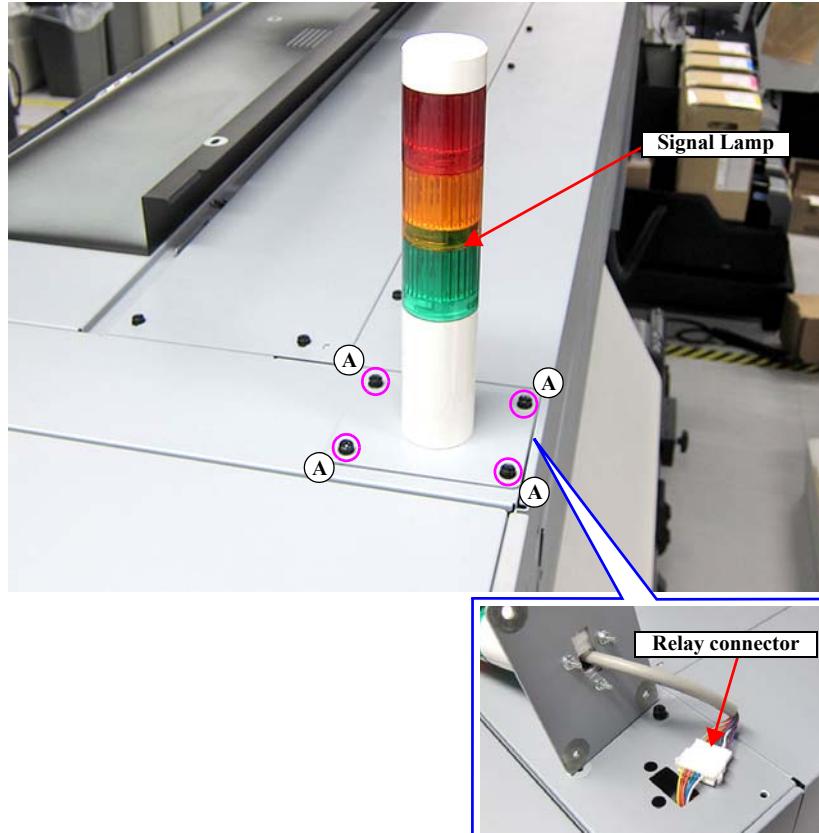


Figure 3-47.

3.4.2.21 Right Side Top Cover

1. Remove the Signal Lamp. ([p342](#))
2. Remove the 2 screws and then remove the Right Side Top Cover.
A) Black M4x8 S-tite screw with built-in washer: 2 pcs

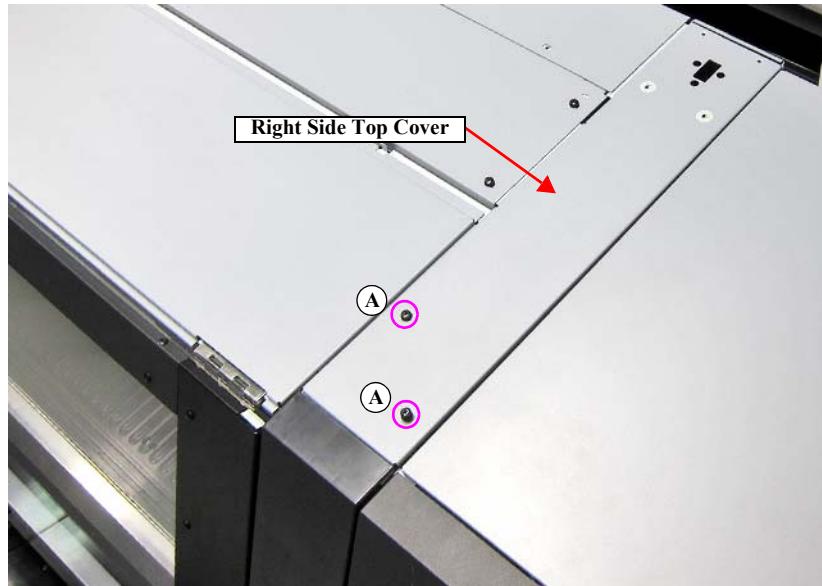


Figure 3-48.

3.4.2.22 Rear Right Side Frame

1. Remove the Right Rear Cover. ([p327](#))
2. Loosen the 2 screws that secure the Rear Right Side Frame.
 - A) Black M4x8 S-tite screw with built-in washer: 2 pcs
3. Remove the 4 screws and then remove the Rear Right Side Frame in the direction of the arrow.
 - B) Black M4x8 S-tite screw with built-in washer: 4 pcs

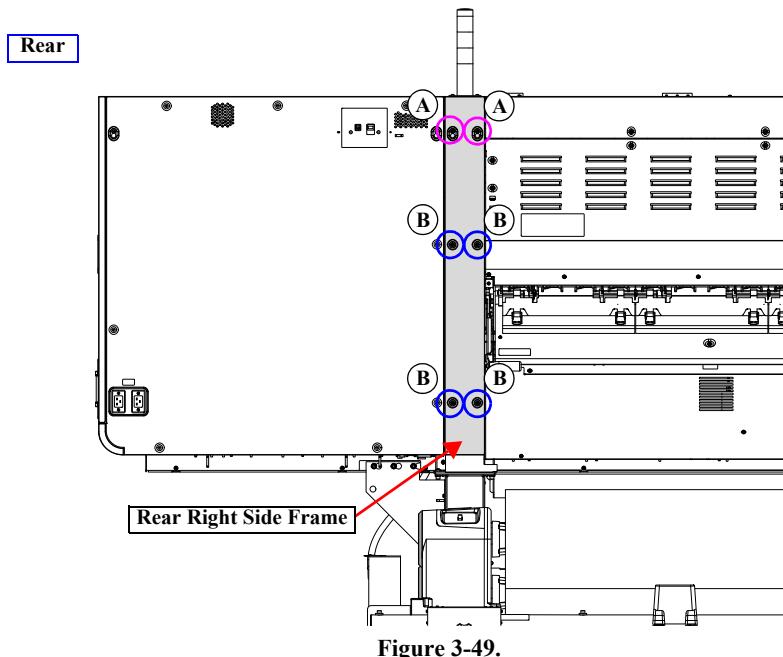


Figure 3-49.

3.4.2.23 Rear Lower Cover

1. Remove the 10 screws and then remove the Rear Lower Cover toward the front.

A) Black M4x8 S-tite screw with built-in washer: 7 pcs

B) Silver M4x8 Cup S-tite screw: 3 pcs

Rear

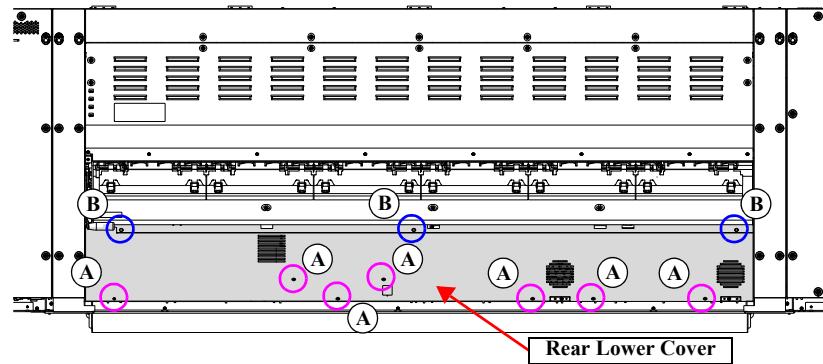


Figure 3-50.

3.4.2.24 Caster



There are 4 Casters, but all of them can be removed in the same procedure.

1. Turn the nut of the adjuster in the direction of the arrow to extend the adjuster, and cause the Front Caster to lift up.
2. Remove the hexagon screws and then remove the Caster.

A) Black M6x20 Hexagon screw with built-in spring washer: 3 pcs

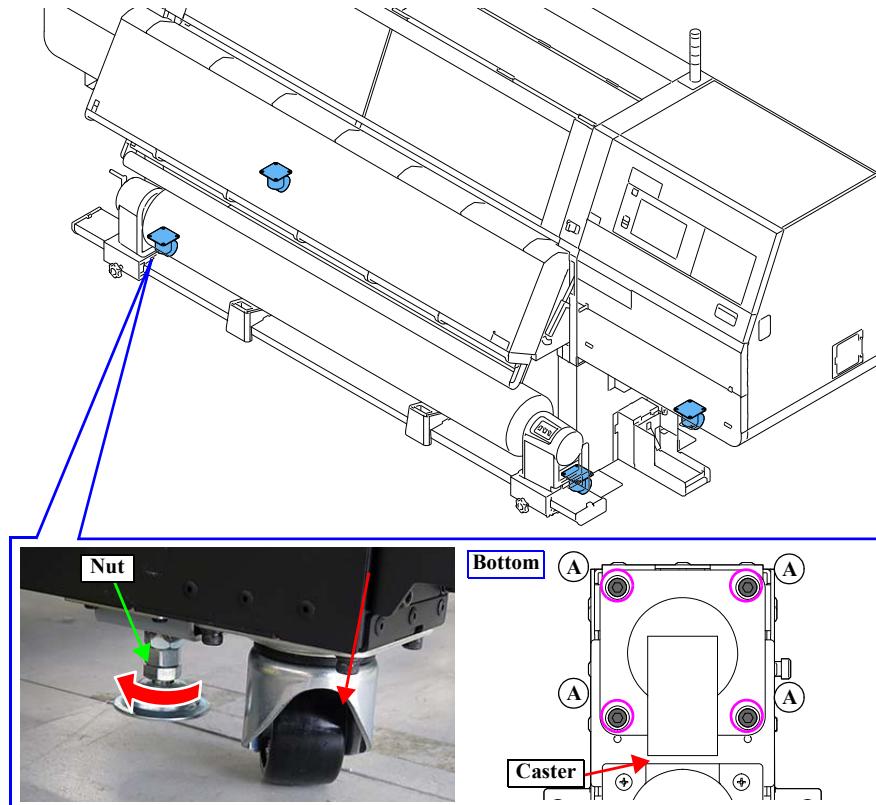


Figure 3-51.

3.4.2.25 Adjuster



There are 4 Adjusters, but all of them can be removed in the same procedure.

1. Remove the 4 screws securing the Adjuster.
 - A) Black M4x10 S-tite screw with built-in spring washer: 4 pcs
2. Lift up the printer, place an iron plate or something similar below the caster, and remove the Adjuster.

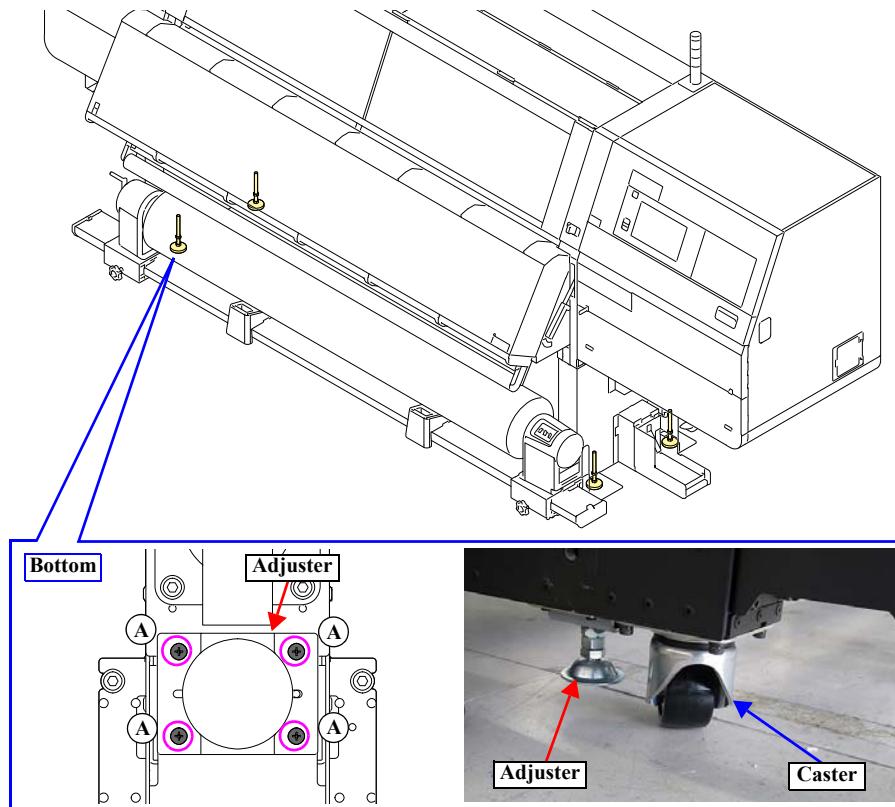


Figure 3-52.

3.4.2.26 Front Cover Lock Sensor (Left)

1. Open the Maintenance Cover (Left/Upper).
2. Open the Front Cover.
3. Remove the 2 screws, and remove the plate.
 - A) Black M4x12 S-tite screw with built-in washer: 2 pcs



Figure 3-53.

4. Remove the 4 screws that secure the Left Side Front Cover
 - B) Black M4x12 S-tite screw with built-in washer: 4 pcs
- CAUTION**

In the next step, make sure not to remove the Left Side Front Cover vigorously since the cable is routed.
5. Slightly lift the Left Side Front Cover, then turn it over while avoiding the Lock Lever.

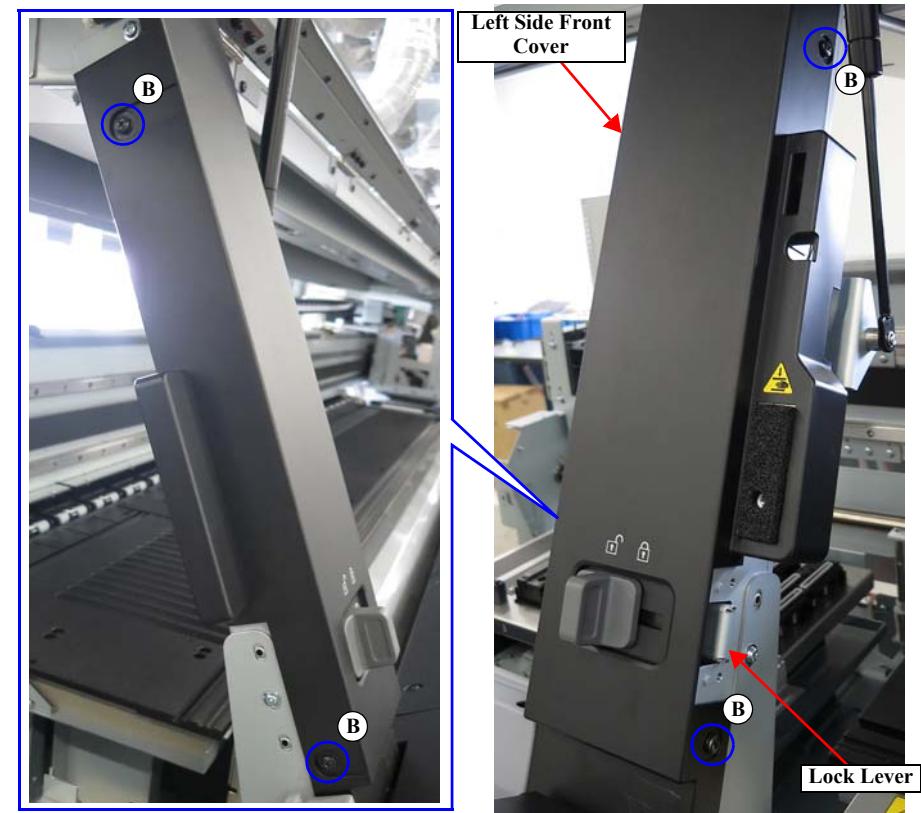


Figure 3-54.

Continue to the next page.

6. Disconnect the cable from the connector of the Front Cover Lock Sensor (Left).
7. Release the hook, disengage the rib from the hole of the frame, and remove the Front Cover Lock Sensor (Left).

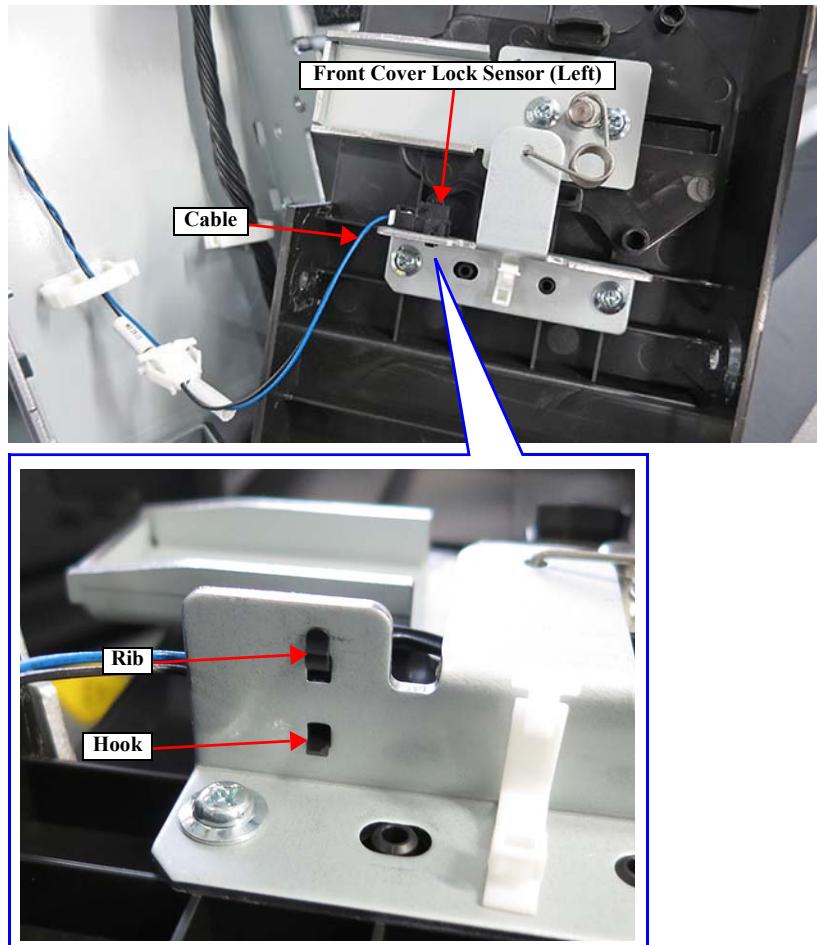


Figure 3-55.

3.4.2.27 Front Cover Lock Sensor (Right)

1. Remove the Right Rear Cover. ([p327](#))
2. Open the Maintenance Cover (Right/Upper).
3. Remove the 2 screws that secure the Panel Assy.
 - A) Black M4x8 S-tite screw with built-in washer: 2 pcs

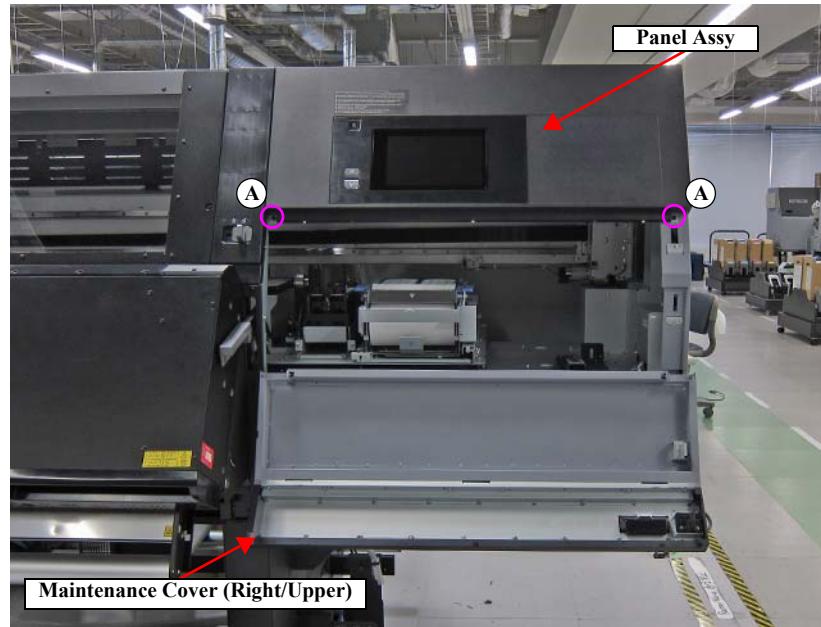


Figure 3-56.

4. Pull the Panel Assy a little toward the front and then open it.

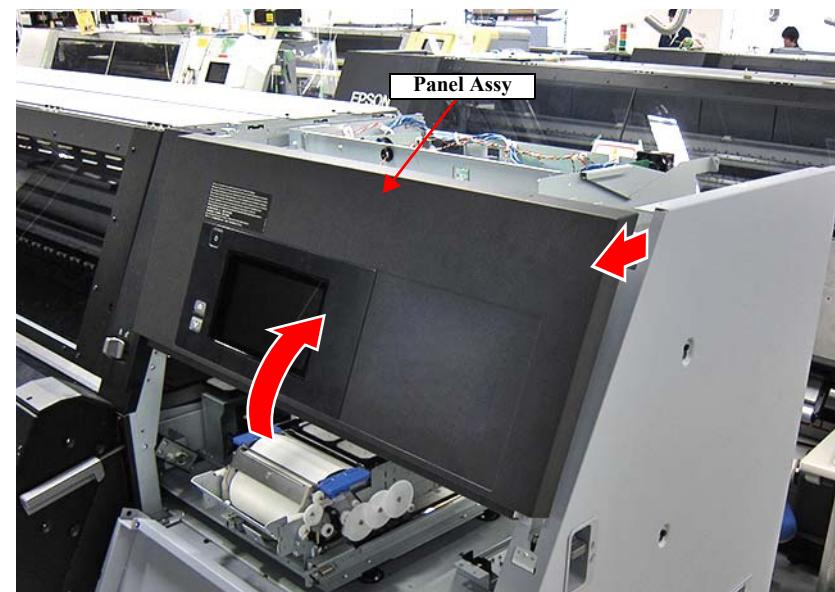


Figure 3-57.

Continue to the next page.

5. Remove the 2 screws, and remove the plate.

A) Black M4x12 S-tite screw with built-in washer: 2 pcs

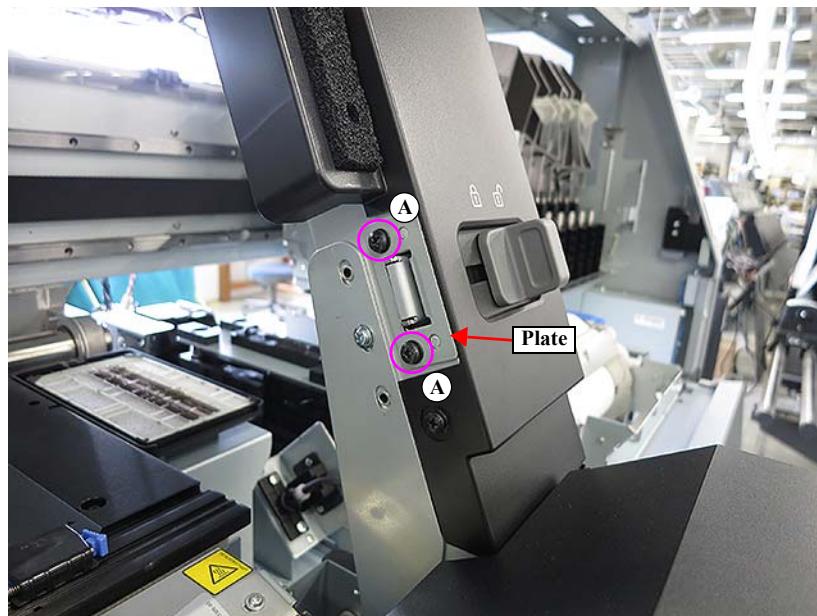


Figure 3-58.

6. Remove the 4 screws that secure the Right Side Front Cover

B) Black M4x12 S-tite screw with built-in washer: 4 pcs



In the next step, make sure not to remove the Right Side Front Cover vigorously since the cable is routed.

7. Slightly lift the Right Side Front Cover, then turn it over while avoiding the Lock Lever.

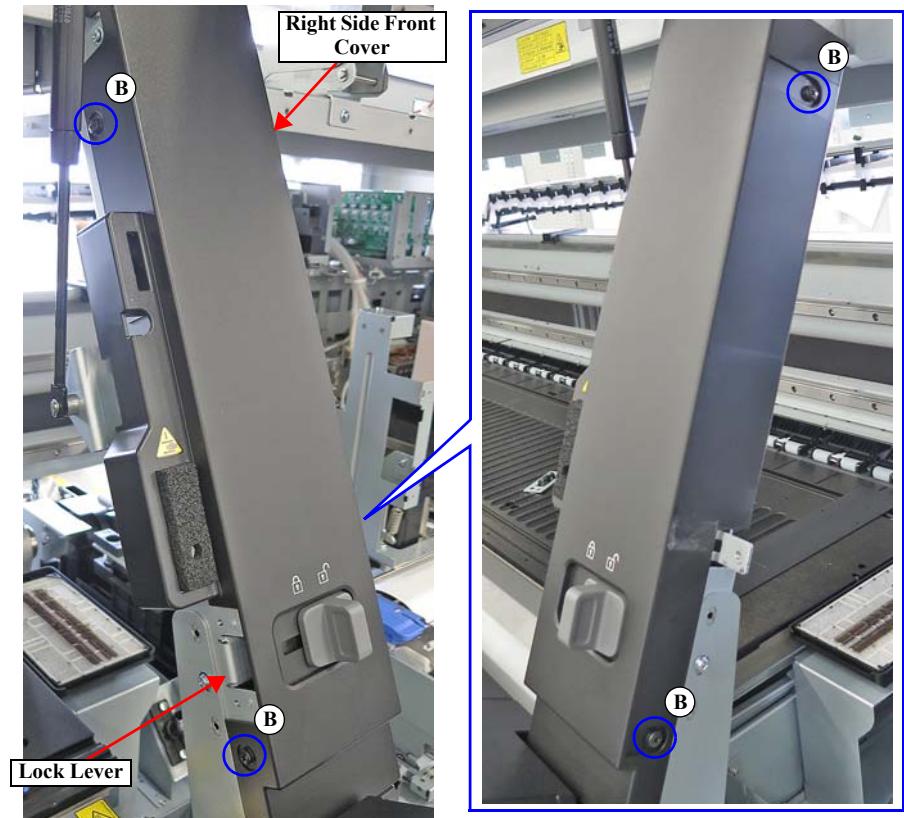


Figure 3-59.

Continue to the next page.

8. Disconnect the cable from the connector of the Front Cover Lock Sensor (Right).
9. Release the hook, disengage the rib from the hole of the frame, and remove the Front Cover Lock Sensor (Right).

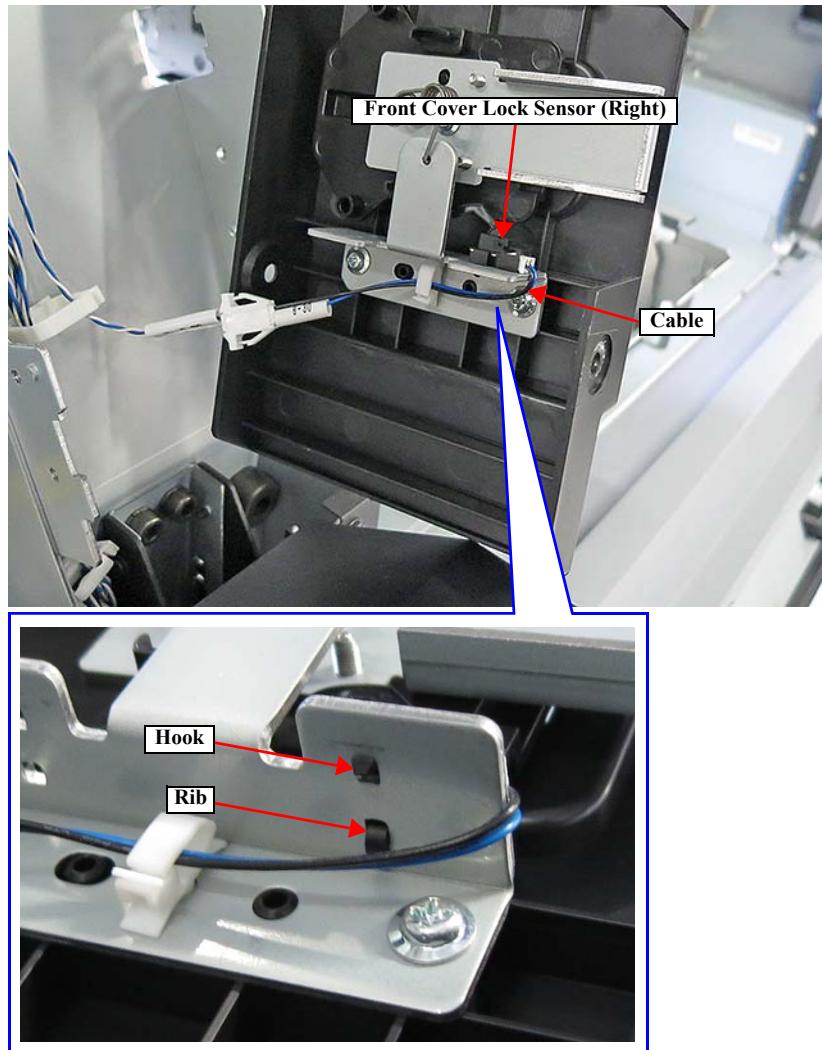


Figure 3-60.

3.4.3 Electric Circuit Components

3.4.3.1 Lower the Main Board Frame

1. Remove the Right Rear Cover. ([p327](#))
2. Remove the Right Top Cover. ([p329](#))
3. Remove the screw that secures the Main Board Frame.
 - A) Silver M4x8 Cup S-tite screw: 1 pc
4. Loosen the screw and then lower the Main Board Frame while supporting it with a hand.
 - B) Silver M4x8 Cup S-tite screw: 1 pc

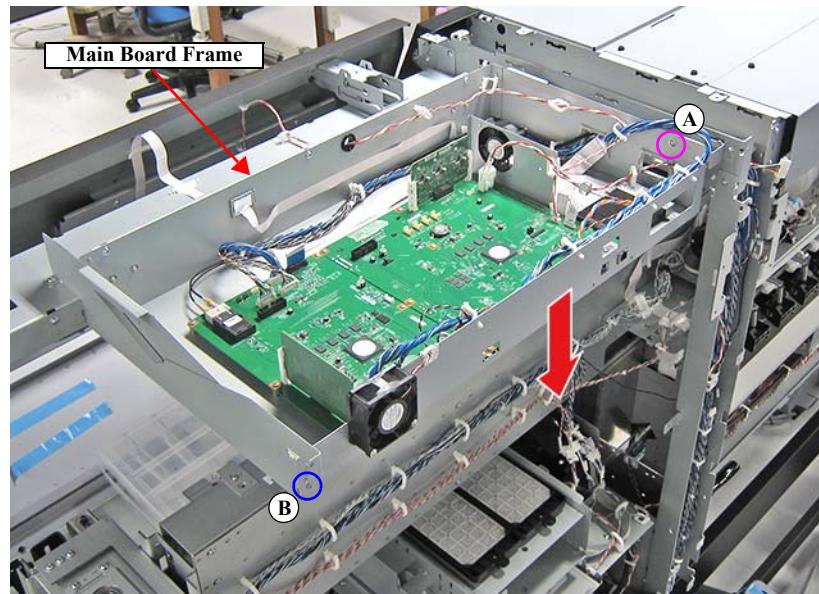


Figure 3-61.

3.4.3.2 Main Board B

1. Remove the Right Rear Cover. ([p327](#))
2. Remove the Right Top Cover. ([p329](#))
3. Lower the Main Board Frame. ([p353](#))
4. Disconnect the FFC (CN500) while pushing the hook.
5. Disconnect the remaining cables and FFC connected to Main Board B.
6. Remove the 6 screws that secure Main Board B.
A) Silver M3x6 Bind machine screw: 6 pcs
7. Disconnect the connection with the connector (CN602) of Main Board A and then remove Main Board B.

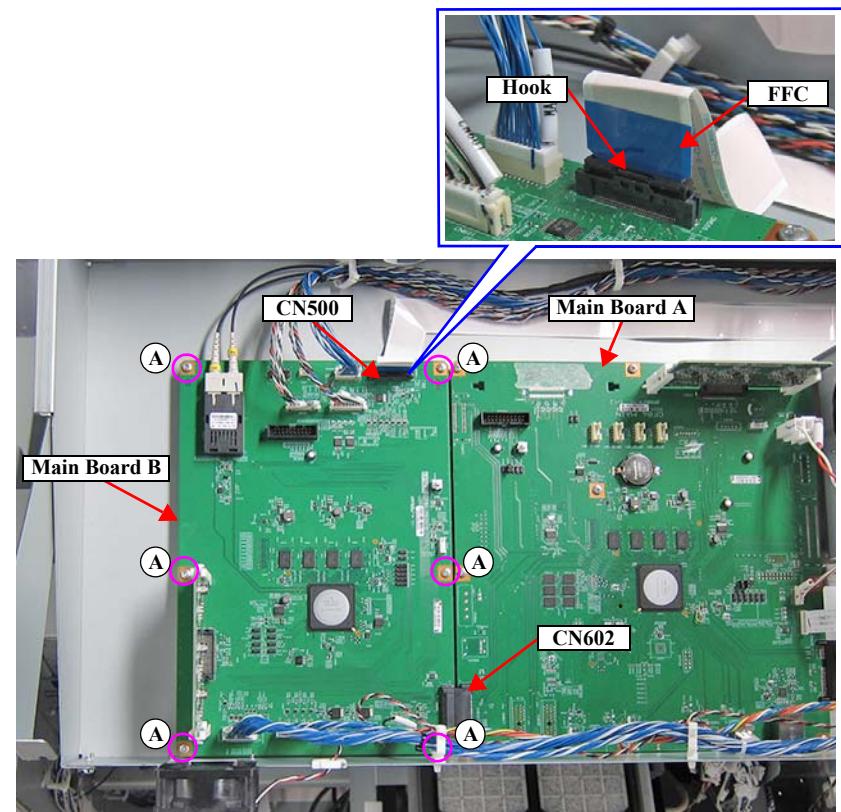


Figure 3-62.

3.4.3.3 Main Board A

1. Remove the Right Rear Cover. ([p327](#))
2. Remove the Right Top Cover. ([p329](#))
3. Lower the Main Board Frame. ([p353](#))
4. Remove the SSD. ([p358](#))
5. Disengage the hook and disconnect the cable (CN903).
6. Disconnect the remaining cables and FFC connected to Main Board A.
7. Remove the 9 screws that secure Main Board A.
 - A) Silver M3x6 Bind machine screw: 9 pcs
8. Disconnect the connection with the connector (CN400) of Main Board B while releasing the LAN connector, and then remove Main Board A.

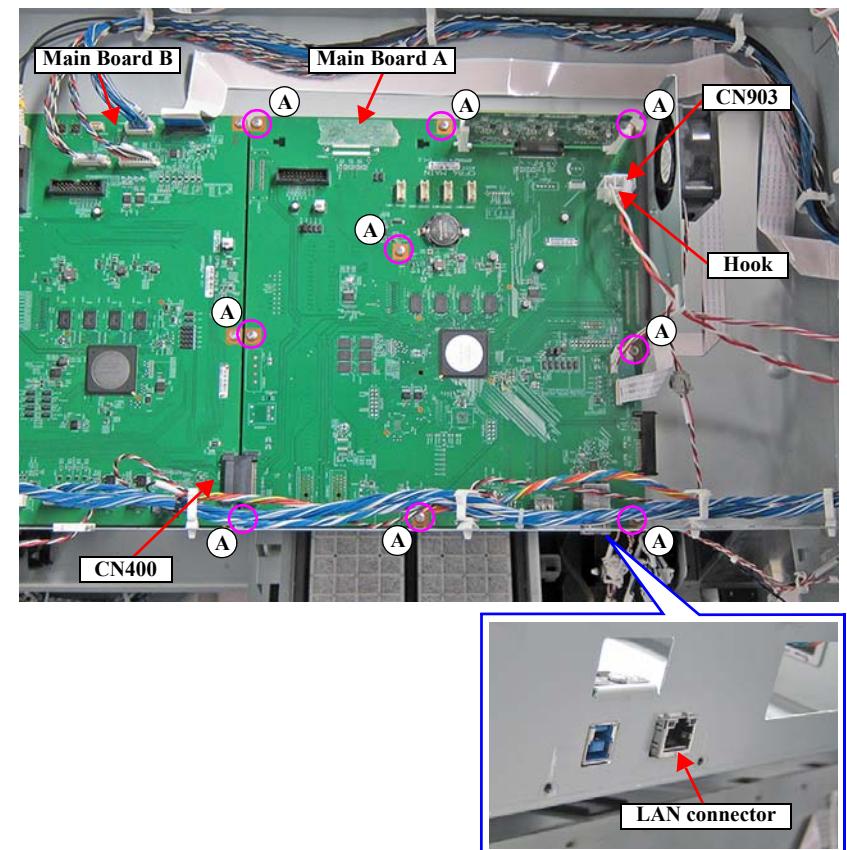


Figure 3-63.

3.4.3.4 SUB-DC Board (MAIN A)

1. Remove the Right Rear Cover. ([p327](#))
2. Remove the Right Top Cover. ([p329](#))
3. Lower the Main Board Frame. ([p353](#))
4. Remove the SUB-DC Board (MAIN A) while pushing the lock levers in the directions of the arrows.

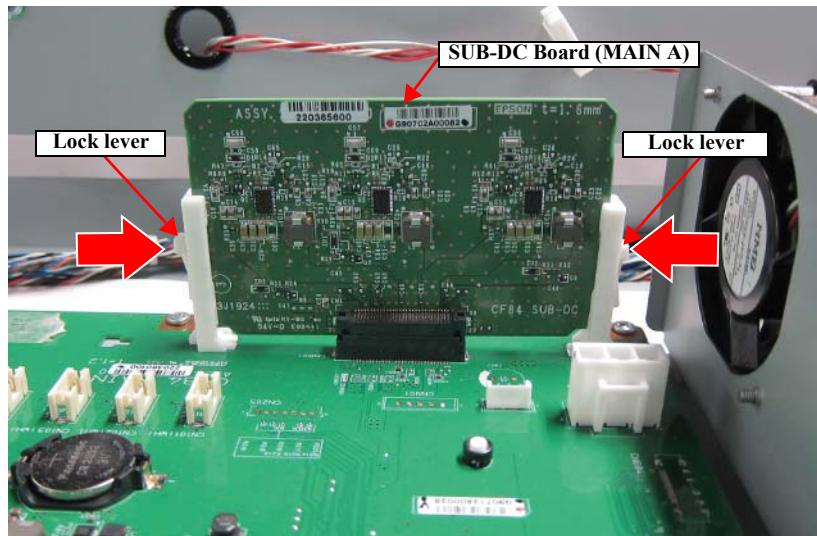


Figure 3-64.

3.4.3.5 SUB-DC Board (MAIN B)

1. Remove the Right Rear Cover. ([p327](#))
2. Remove the Right Top Cover. ([p329](#))
3. Lower the Main Board Frame. ([p353](#))
4. Remove the SUB-DC Board (MAIN B) while pushing the lock levers in the directions of the arrows.

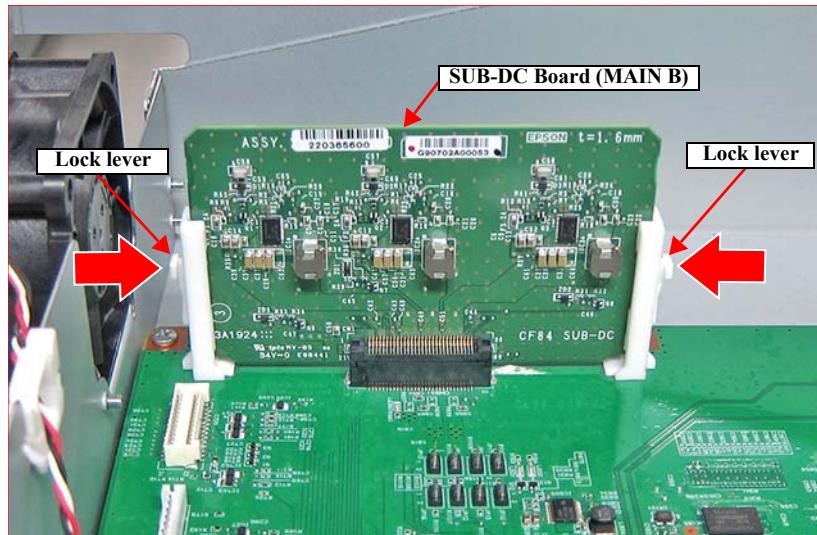


Figure 3-65.

3.4.3.6 SSD

1. Remove the Right Rear Cover. ([p327](#))
2. Remove the Right Top Cover. ([p329](#))
3. Lower the Main Board Frame. ([p353](#))
4. Release the cables from the clamp.
5. Remove the 2 screws that secure the SSD.
 - A) Silver M3x6 Bind machine screw: 2 pcs
6. Disconnect the connection with the connector (CN602) of Main Board A and then remove the SSD.

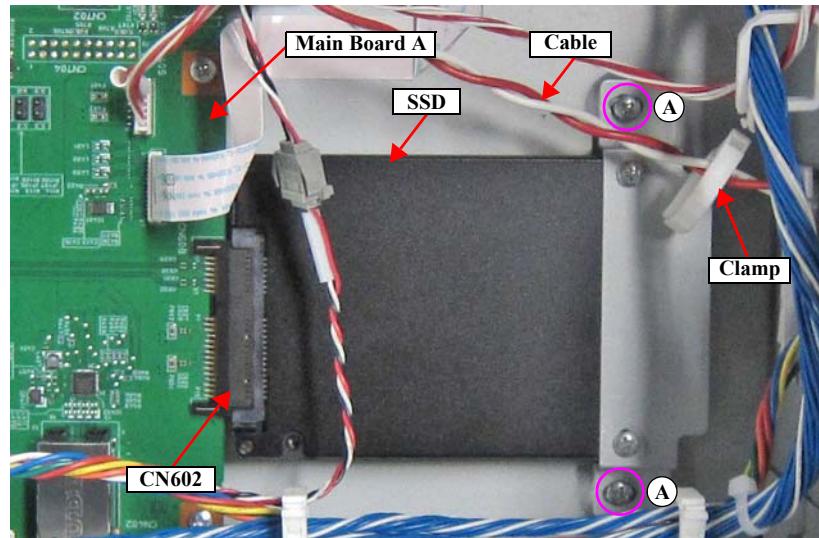


Figure 3-66.

3.4.3.7 Main Board Fan A

1. Remove the Right Rear Cover. ([p327](#))
2. Remove the Right Top Cover. ([p329](#))
3. Lower the Main Board Frame. ([p353](#))
4. Disconnect the cable from the connector (CN902) of Main Board B.
5. Release the cables from the clamp.
6. Remove the 2 screws and then remove the Main Board Fan A.
A) Silver M3x6 Bind machine screw: 2 pcs

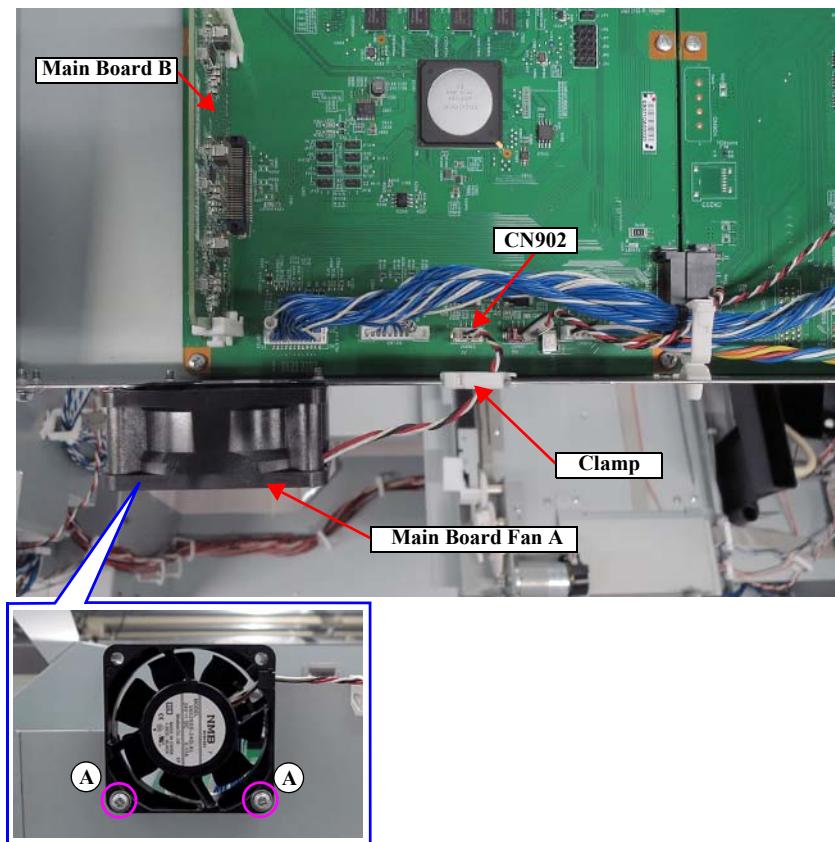


Figure 3-67.

3.4.3.8 Main Board Fan B

1. Remove the Right Rear Cover. ([p327](#))
2. Remove the Right Top Cover. ([p329](#))
3. Lower the Main Board Frame. ([p353](#))
4. Disconnect the cables from the relay connector.
5. Release the cables from the clamp.
6. Remove the 2 screws and then remove the Main Board Fan B.

A) Silver M3x6 Bind machine screw: 2 pcs

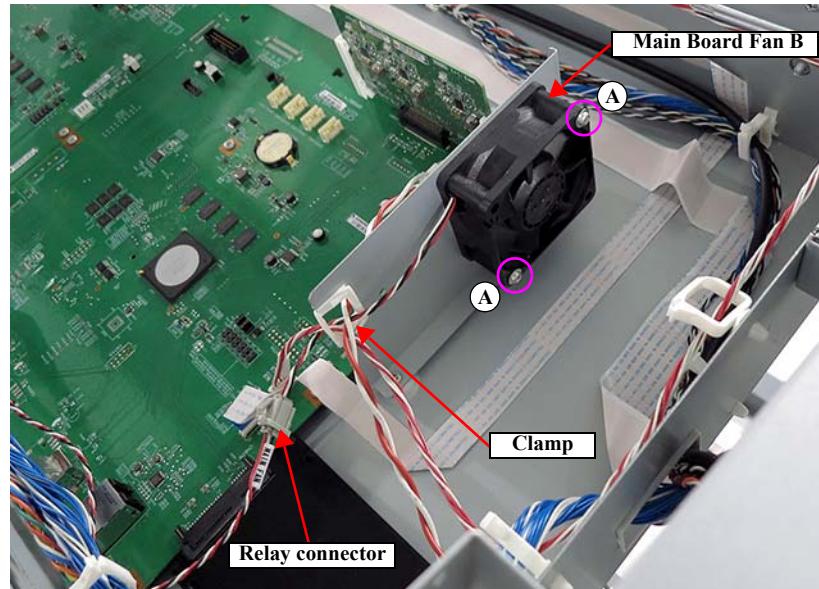


Figure 3-68.

3.4.3.9 SUB-M (Left) Board

1. Remove the Left Rear Cover. ([p323](#))
2. Disconnect the FFC (CN706) while pushing the hook.
3. Disconnect the cables (CN709, CN1500, CN1402, CN1403, CN950, CN700, CN701, CN1710, CN710, CN302, CN300, CN708, CN610) while pushing the hook.
4. Disconnect the remaining cables and FFC connected to the SUB-M (Left) Board.

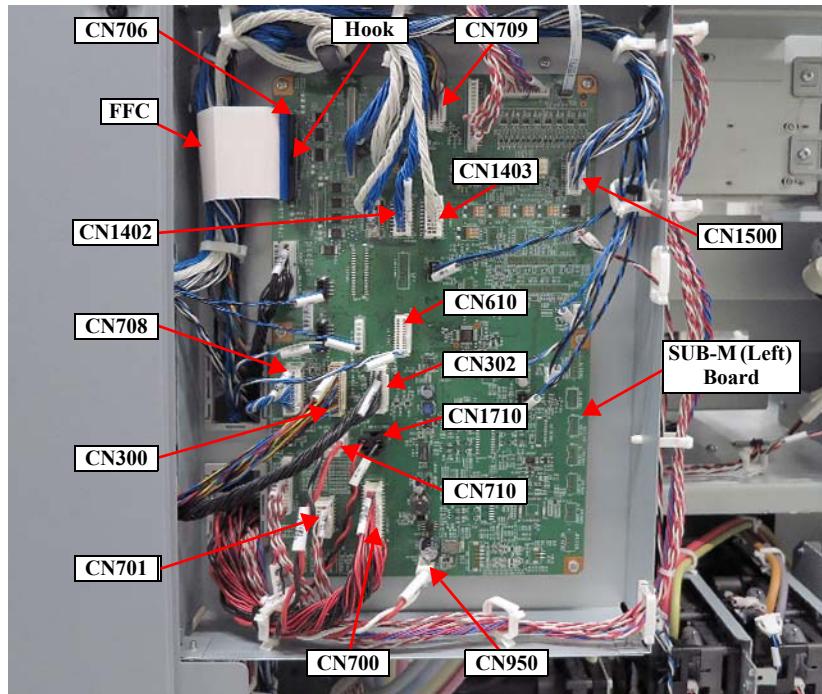


Figure 3-69.

5. Remove the 6 screws and then remove the SUB-M (Left) Board.

A) Silver M3x6 Bind machine screw: 6 pcs

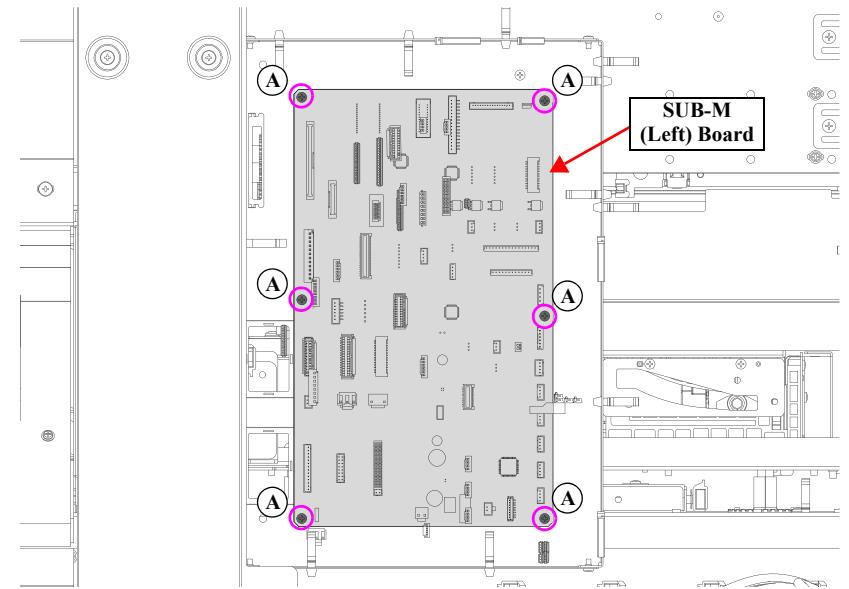


Figure 3-70.

3.4.3.10 SUB-M (Right) Board

1. Remove the Right Rear Cover. ([p327](#))
2. Remove the Right Top Cover. ([p329](#))
3. Remove the Right Cover. ([p331](#))
4. Disconnect the FFC (CN706) while pushing the hook.
5. Disconnect the cables (CN701, CN700, CN950, CN108, CN709, CN610) while pushing the hook.
6. Disconnect the remaining cables connected to the SUB-M (Right) Board.
7. Remove the 6 screws that secure the SUB-M (Right) Board.
A) Silver M3x6 Bind machine screw: 6 pcs

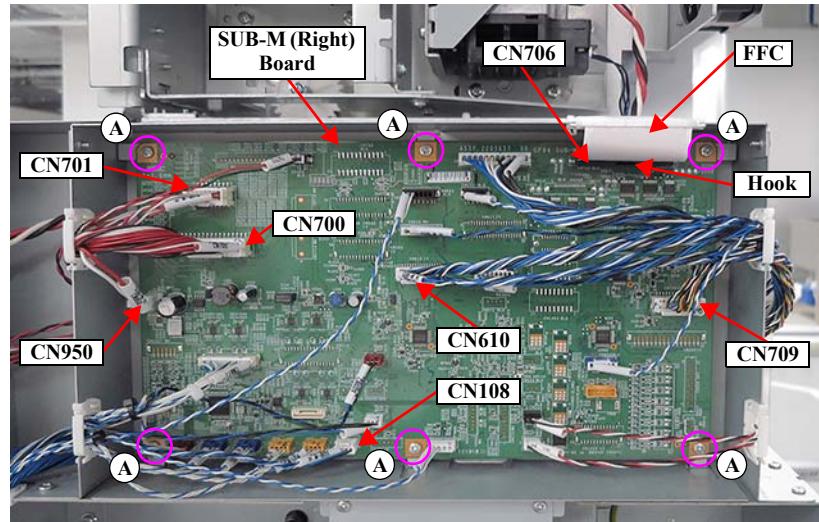


Figure 3-71.

3.4.3.11 CR Motor Control Board (SUB-B)

1. Remove the Right Rear Cover. ([p327](#))
2. Remove the Right Top Cover. ([p329](#))
3. Remove the Right Cover. ([p331](#))
4. Remove the CR Motor Control Board Fan. ([p364](#))
5. Disconnect the cables (CN300, CN910, CN911) while pushing the hook.
6. Disconnect the remaining cables connected to the CR Motor Control Board (SUB-B).
7. Remove the 6 screws and then remove the CR Motor Control Board (SUB-B).

A) Silver M3x6 Bind machine screw: 6 pcs

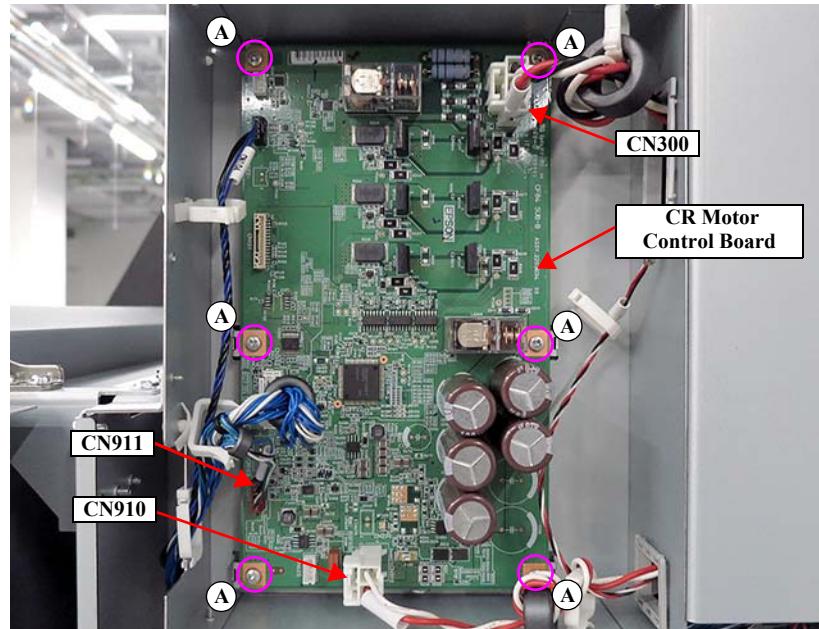


Figure 3-72.

3.4.3.12 CR Motor Control Board Fan

1. Remove the Right Rear Cover. ([p327](#))
2. Remove the Right Top Cover. ([p329](#))
3. Remove the Right Cover. ([p331](#))
4. Disconnect the cables from the relay connector.
5. Release the cables from the clamp.
6. Remove the 2 screws and then remove the CR Motor Control Board Fan Assy.
A) Silver M3x6 Bind machine screw: 2 pcs

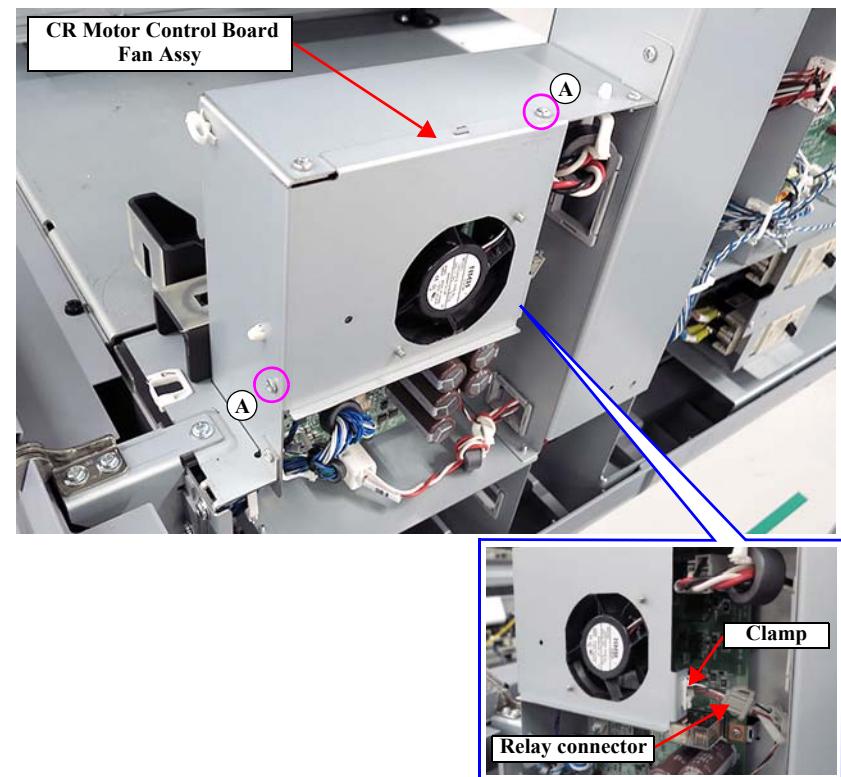


Figure 3-73.

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7. Remove the 2 screws and then remove the CR Motor Control Board Fan.

B) Silver M3x30 Cup S-tite screw: 2 pcs

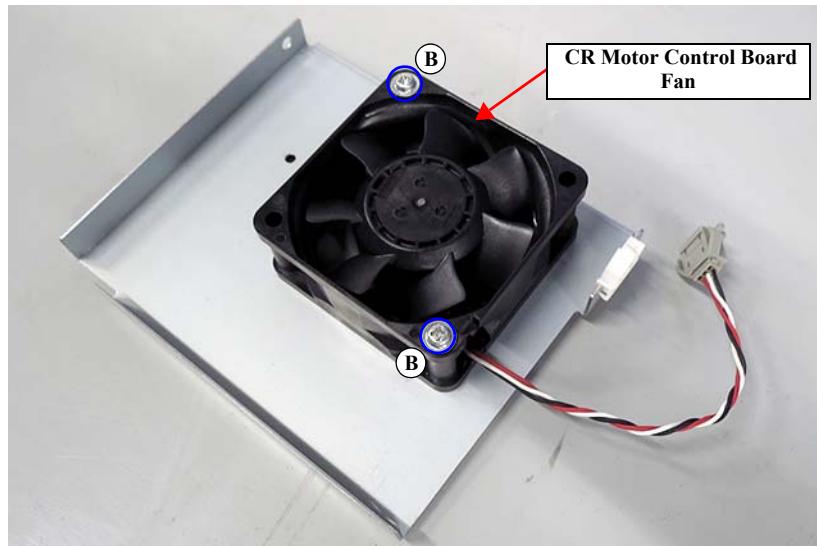


Figure 3-74.

3.4.3.13 Leakage Breaker

1. Remove the Left Rear Cover. ([p323](#))
 2. Remove the Right Top Cover. ([p329](#))
 3. Remove the Right Cover. ([p331](#))
 4. Remove the 4 screws and then remove the cover.
- A) Silver M3x6 Bind machine screw: 4 pcs

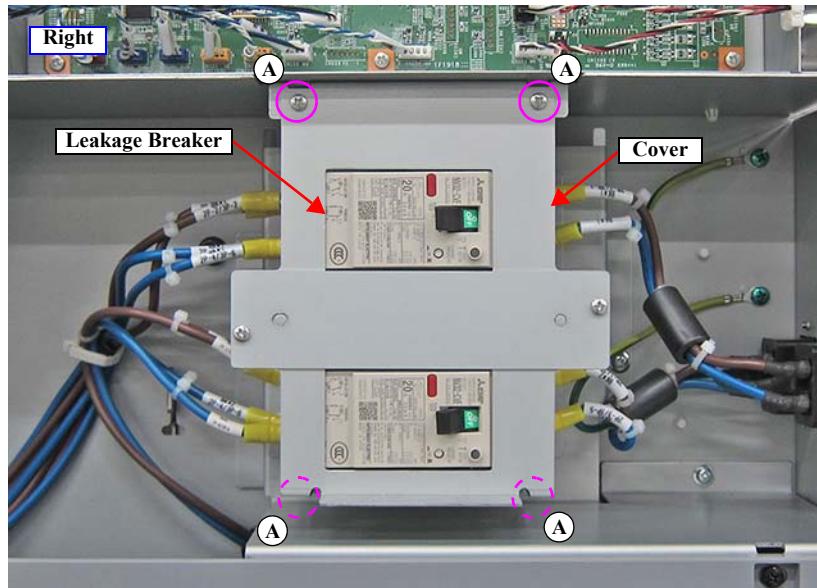


Figure 3-75.

5. Open the 4 screw covers.
 6. Remove the screw from each terminal and then disconnect the wires from the 12 terminals.
- B) Silver M4x6 S-tite screw with built-in spring washer: each 1 pc

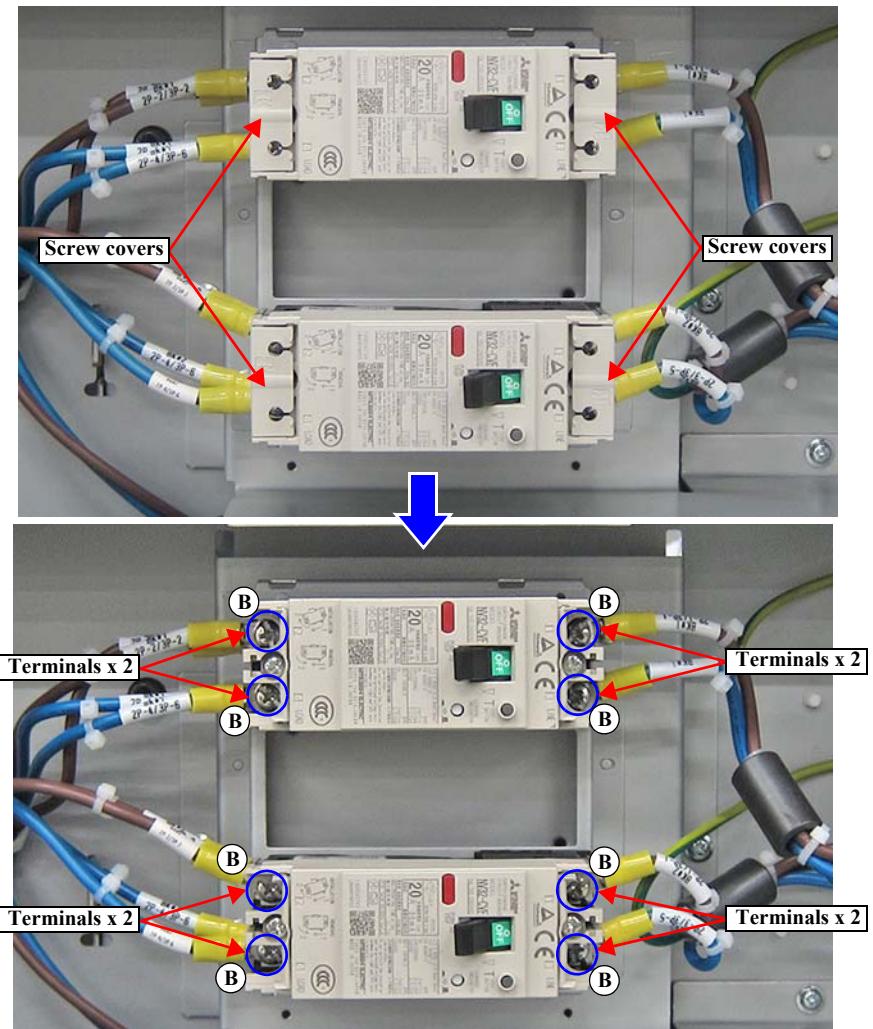


Figure 3-76.

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7. Remove the 2 screws and then remove the Leakage Breaker.



There may be 4 screws depending on the destination.

- C) Silver M3x6 Bind machine screw: 2 pcs

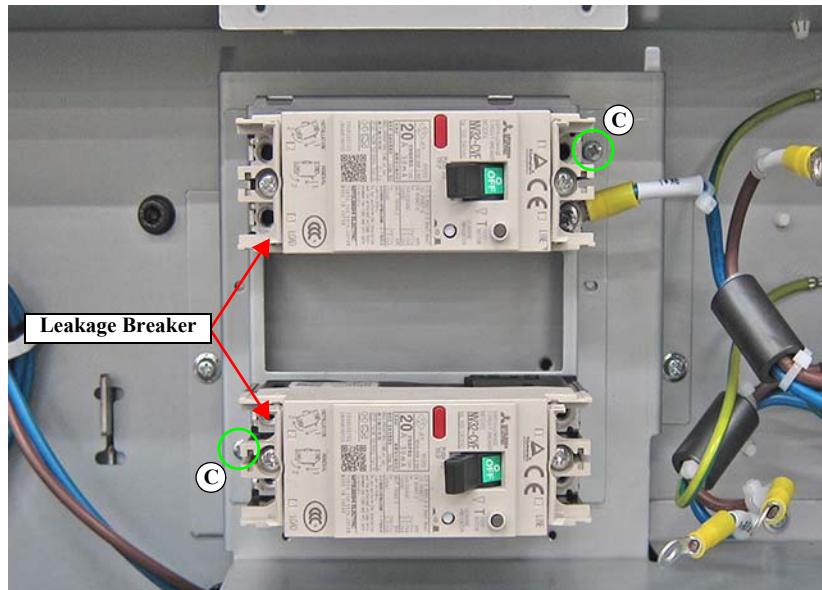


Figure 3-77.



Check the terminal labels and connect the wires.

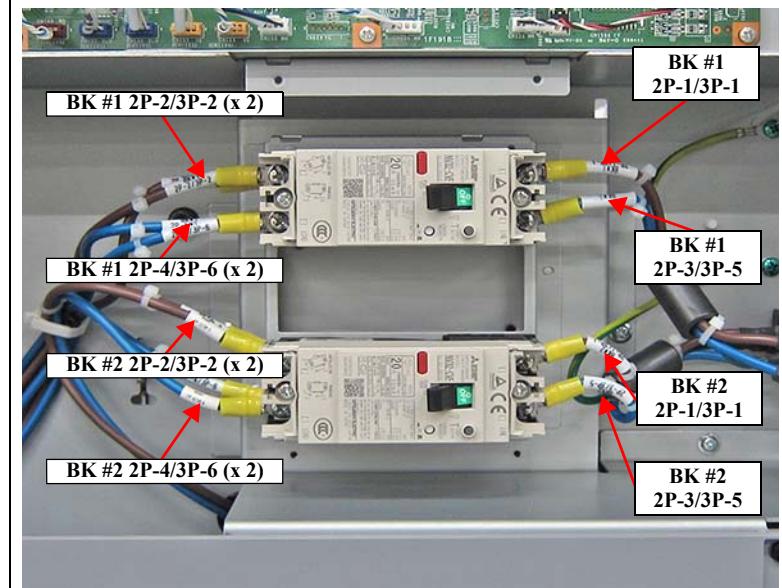


Figure 3-78.

3.4.3.14 Panel Assy

1. Remove the Right Rear Cover. ([p327](#))
2. Remove the Right Top Cover. ([p329](#))
3. Open the Maintenance Cover (Right/Upper).
4. Remove the 2 screws that secure the Panel Unit.
A) Black M4x8 S-tite screw with built-in washer: 2 pcs

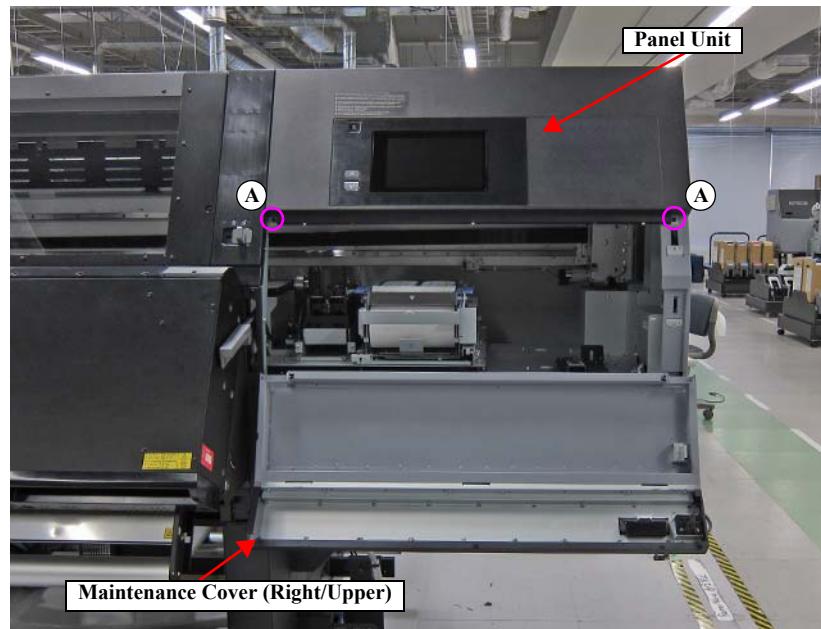


Figure 3-79.

5. Pull the Panel Unit a little toward the front and then open it.

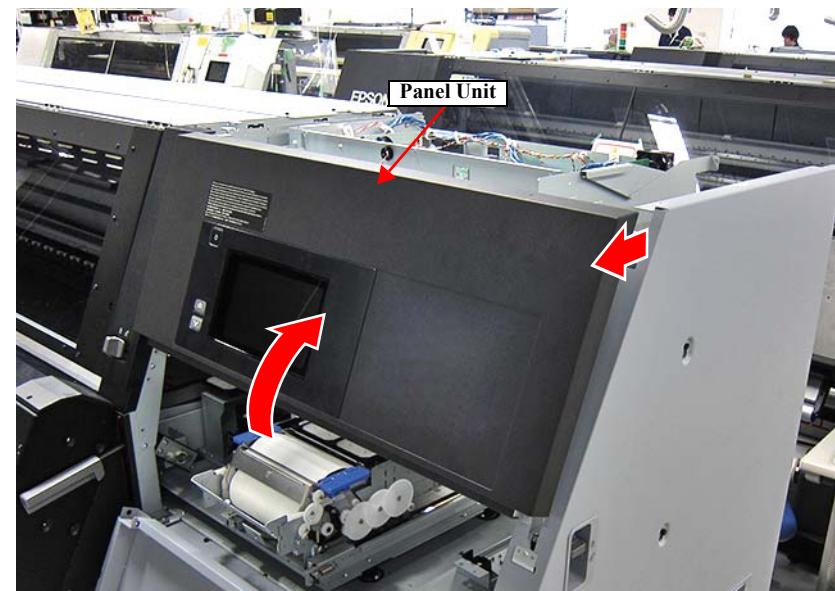


Figure 3-80.

Continue to the next page.

6. Open the connector lock (CN100) of the Panel Board and then disconnect the Panel FFC.
7. Remove the 4 FFC clamps.
8. Disconnect the cable from the connector (CN201) of the Panel Board.
9. Release the cable from the 3 clamps.

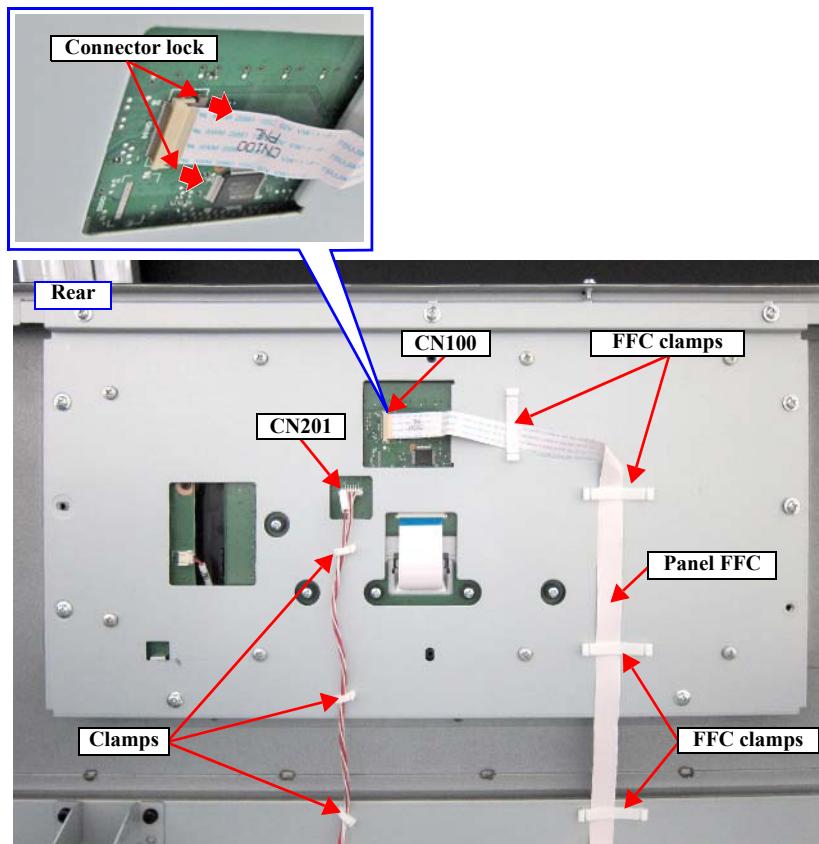


Figure 3-81.

10. Remove the 4 screws that secure the Panel Unit.
- B) Silver M4x8 Cup S-tite screw: 4 pcs
11. Disengage the 4 hooks and then remove the Panel Unit.

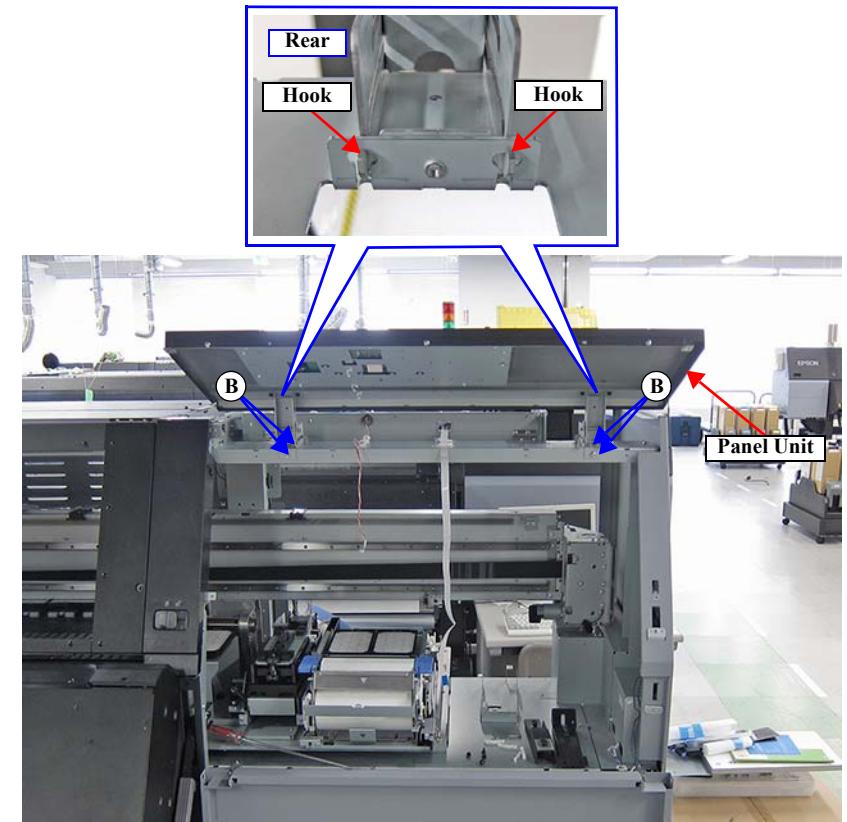


Figure 3-82.

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12. Remove the 9 screws, and remove the Panel Assy from the Panel Unit.

C) Silver M4x8 Cup S-tite screw: 9 pcs

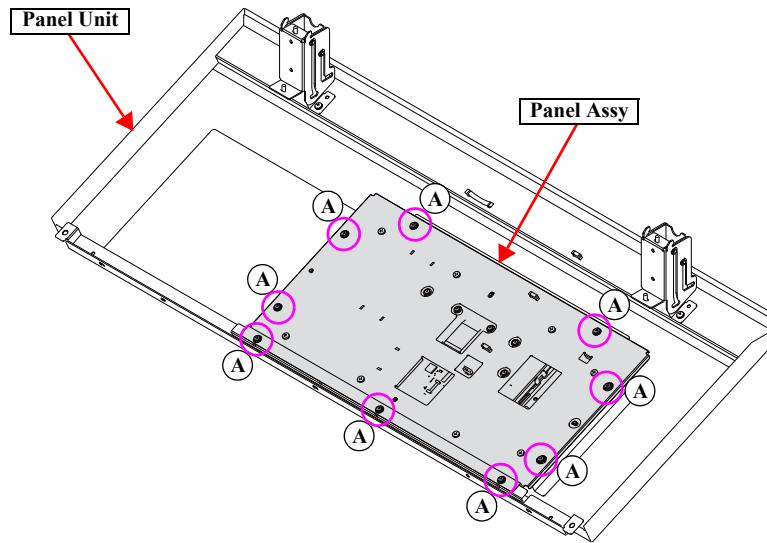


Figure 3-83.

3.4.3.15 LED Control Board 1

1. Remove the Front Left Top Cover. ([p332](#))
2. Disconnect the cables from LED Control Board 1.
3. Remove the 4 screws and then remove LED Control Board 1.
 - A) Silver M3x6 Bind machine screw: 4 pcs

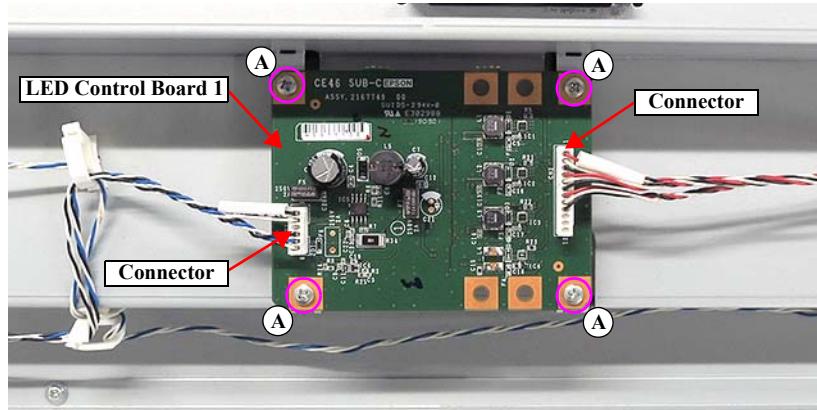


Figure 3-84.

3.4.3.16 LED Control Board 2

1. Remove the Rear Top Cover. ([p328](#))
2. Disconnect the cables from LED Control Board 2.
3. Remove the 4 screws and then remove LED Control Board 2.
 - A) Silver M3x6 Bind machine screw: 4 pcs

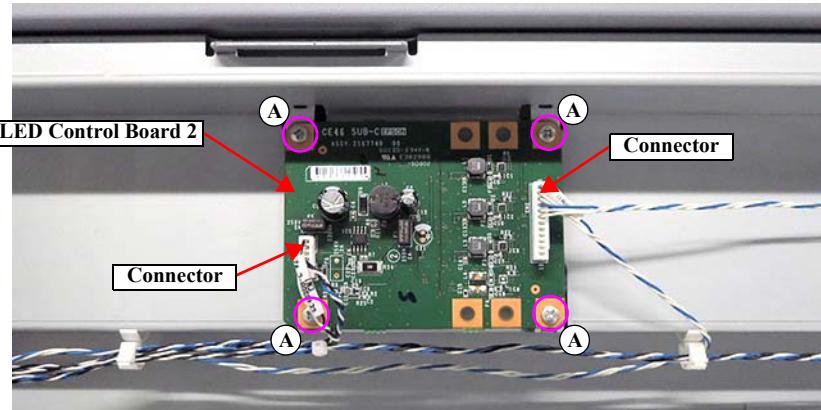


Figure 3-85.

3.4.3.17 LED Board



- This section describes the procedure for removing LED Board Assy 1. LED Board Assy 2/3/4/5 can also be removed using the same procedure.
- The parts to be removed before removing LED Board Assy 1/2/3/4/5 are different for each.

When removing LED Board Assy 1/2

1. Remove the following part:

1. Front Right Top Cover ([p333](#))

When removing LED Board Assy 3/4

1. Remove the following part:

1. Front Left Top Cover ([p332](#))

When removing LED Board Assy 5

1. Remove the following parts:

1. Left Rear Cover ([p323](#))
2. Left Top Cover ([p322](#))

2. Remove the 2 screws and then remove the LED Board Assy.

- A) Silver M3x6 Cup S-tite screw: 2 pcs

3. Disconnect the cable from the LED Board.

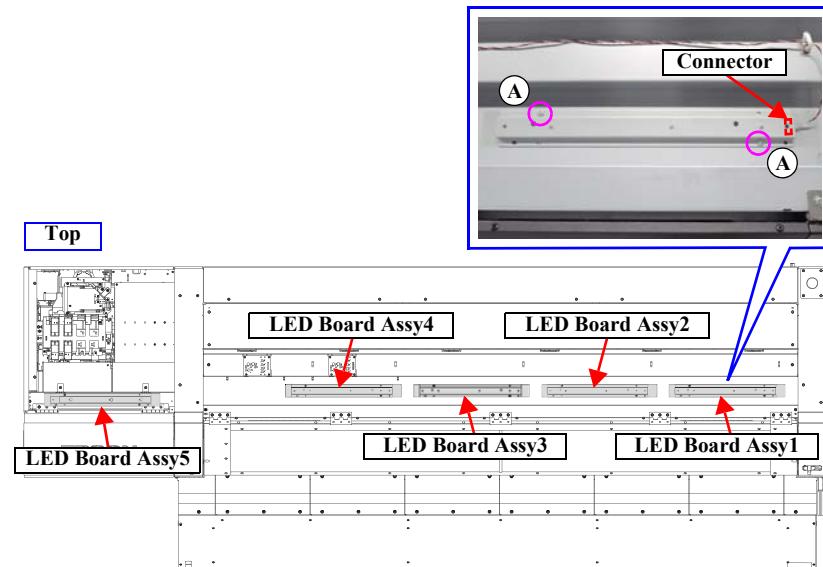


Figure 3-86.

4. Loosen the 3 screws and then remove the LED Board.
- B) Silver M3x6 S-tite screw: 3 pcs

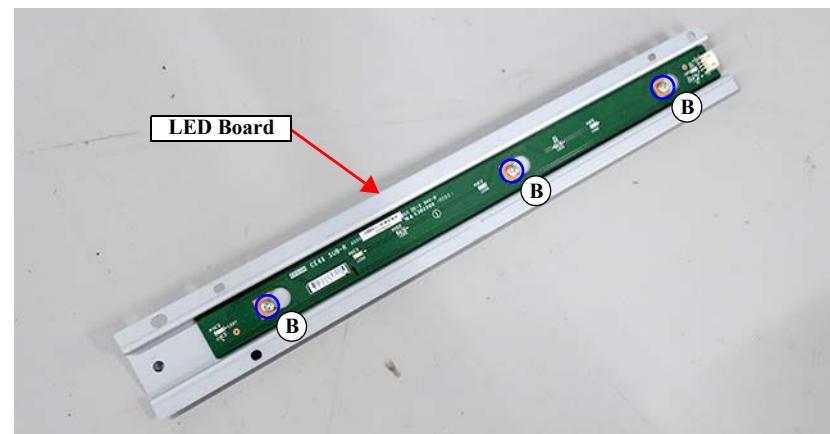


Figure 3-87.

3.4.3.18 Temperature and Humidity Sensor

1. Remove the Rear Top Cover. ([p328](#))
2. Disconnect the cable from the connector.
3. Remove the screw and then remove the Temperature and Humidity Sensor.
A) Silver M3x6 Bind machine screw: 1 pc

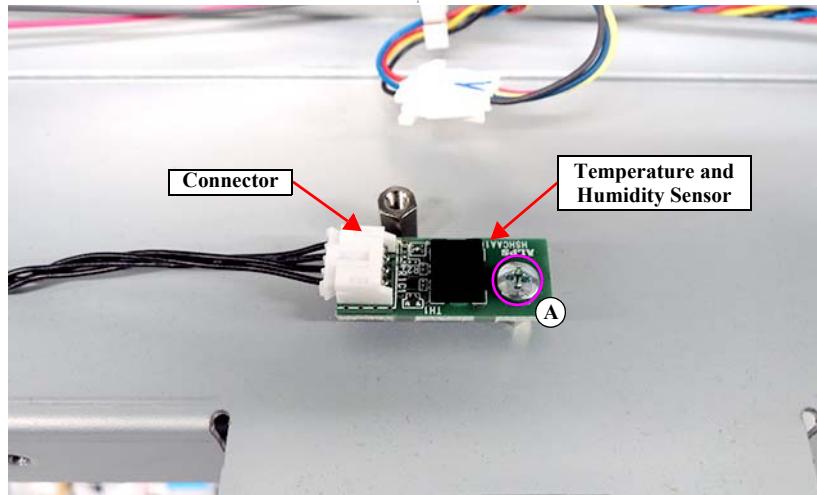


Figure 3-88.

3.4.3.19 Head Drive Board Frame

1. Remove the Left Rear Cover. ([p323](#))
2. Remove the Left Top Cover. ([p322](#))
3. Remove the Left Side Top Cover. ([p334](#))
4. Remove the CR Cover. ([p410](#))
5. Remove the screws that secure the Head Drive Board Frame.

■ For SC-F10000 Series

- A) Silver M3x6 Bind machine screw: 10 pcs
- B) Silver M3x6 Bind machine screw: 2 pcs



CHECK

Remove screw B by inserting a screwdriver into the holes of the frame indicated in the figure below.

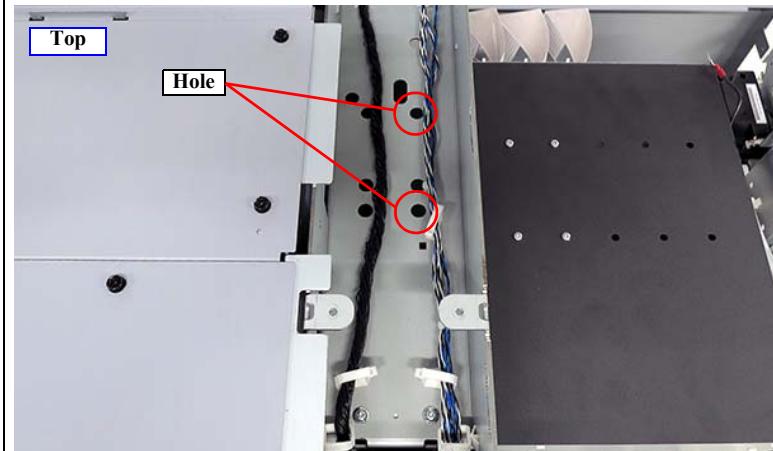


Figure 3-89.

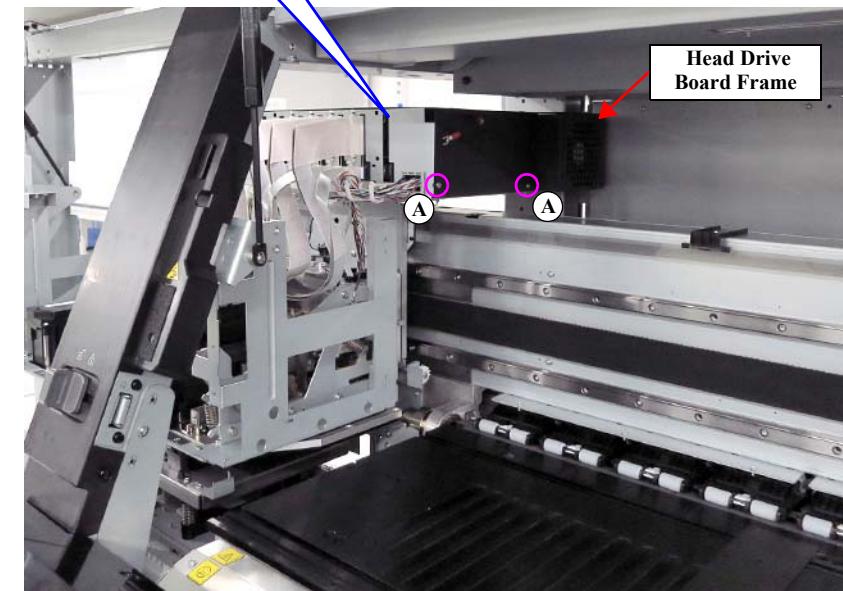
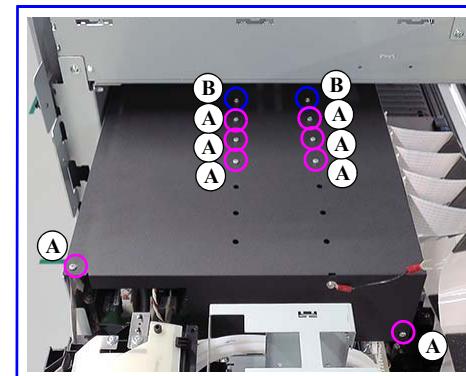


Figure 3-90.

Continue to the next page.

■ For SC-F10000 Series

- A) Silver M3x6 Bind machine screw: 12 pcs
- B) Silver M3x6 Bind machine screw: 4 pcs



Remove screw B by inserting a screwdriver into the holes of the frame indicated in the figure below.

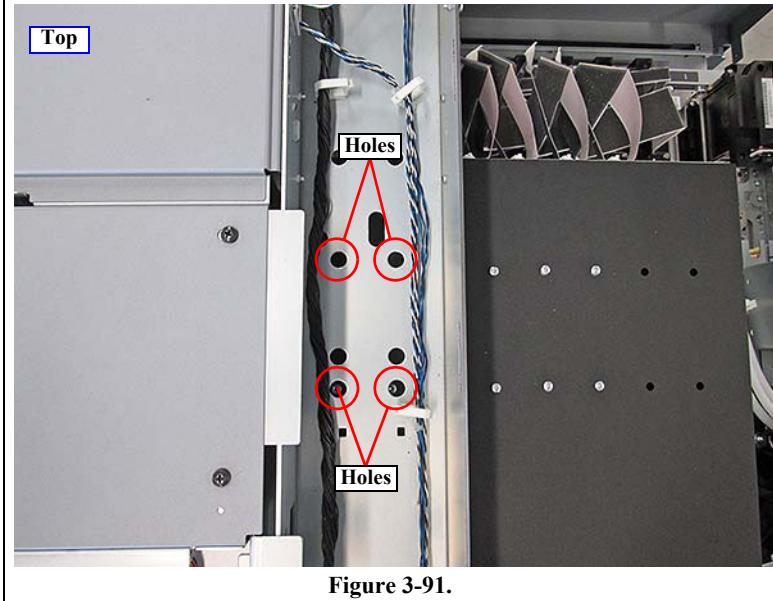


Figure 3-91.

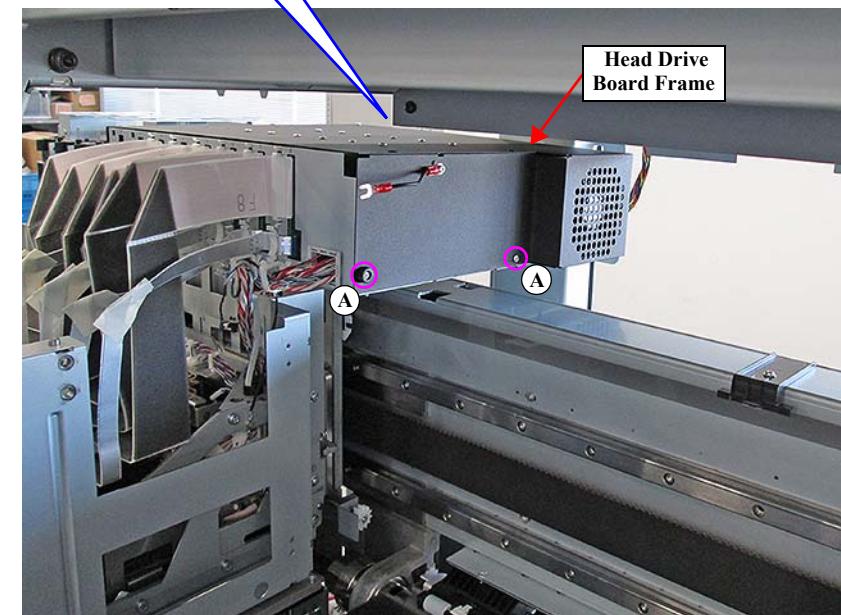
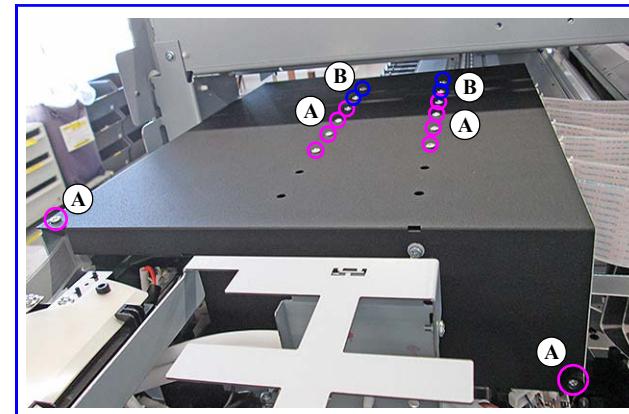


Figure 3-92.

Continue to the next page.

6. Move the CR Unit to the Home (panel side).
7. Remove the Head Drive Board Frame toward the front.

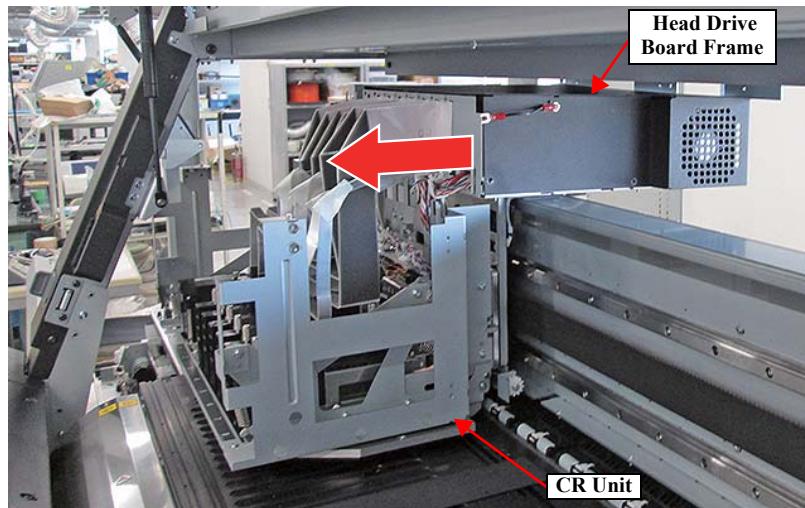


Figure 3-93.

3.4.3.20 Head Drive Board (DRV)



- Number of the Head Drive Board (DRV) differs between models.
 - SC-F10000 Series: x4
 - SC-F10000H Series: x6
- Head Drive Board Assy 1 and Head Drive Board Assy 6 are mounted on SC-F10000H Series only.
- Picture of SC-F10000H Series is used for description.

1. Remove the Left Rear Cover. ([p323](#))
2. Remove the Left Top Cover. ([p322](#))
3. Remove the Left Side Top Cover. ([p334](#))
4. Remove the CR Cover. ([p410](#))
5. Remove the Head Drive Board Frame. ([p375](#))
6. Remove the Right Rear Cover. ([p327](#))
7. Remove the Right Top Cover. ([p329](#))
8. Unlock the CR Unit. ([p319](#))
9. Remove the 2 FFC clamps.
10. Peel off the Head FFC.
11. Disconnect the FFC from the connector (CN102) of the Head Drive Board while pushing the hook.
12. Open the connector lock and disconnect the FFC from the connector (CN101) of the Head Drive Board.

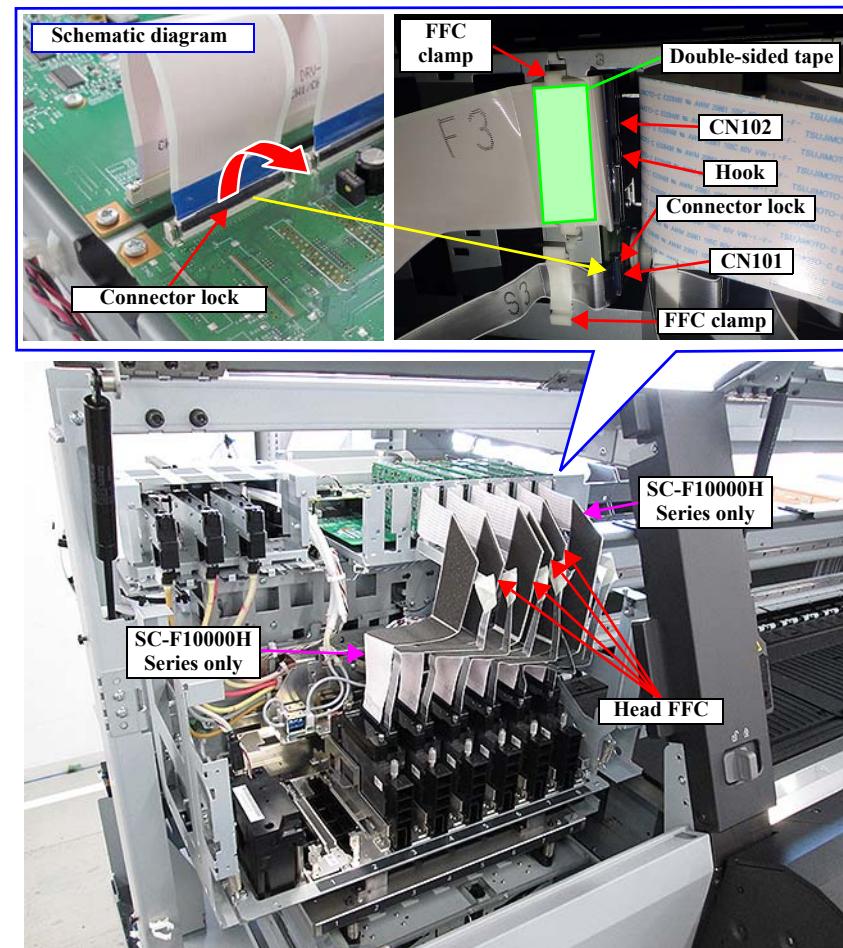


Figure 3-94.

Continue to the next page.

13. Remove each set of 3 screws that secure the Head Drive Board Assy 1/2/3.

 - A) Silver M3x6 Bind machine screw: 3 pcs

14. Disconnect the Head Drive Board Assy 1/2/3 from the connectors (CN504, CN505) of the SUB-H Board, and then remove them.

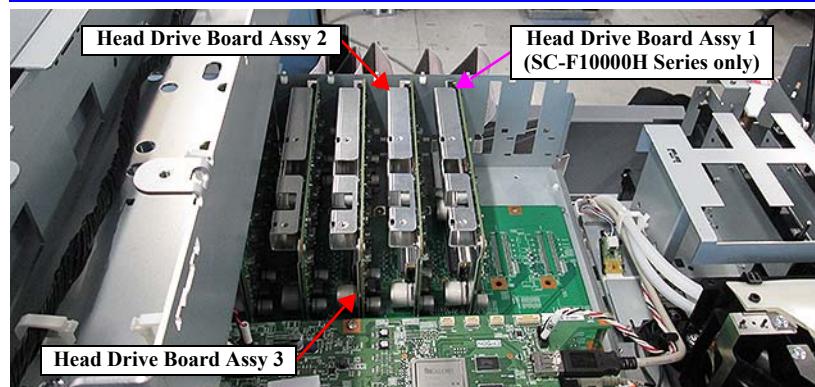
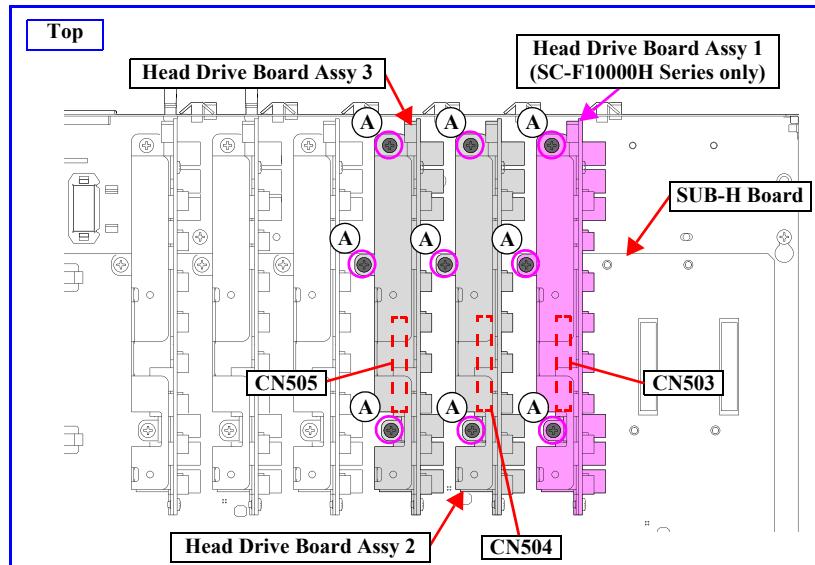


Figure 3-95.

15. Move the CR Unit to the Home (panel side).

16. Remove each set of 3 screws that secure the Head Drive Board Assy 4/5/6.

 - B) Silver M3x6 Bind machine screw: 3 pcs

17. Disconnect the Head Drive Board Assy 4/5/6 from the connectors (CN506, CN507) of the SUB-H Board, and then remove them.

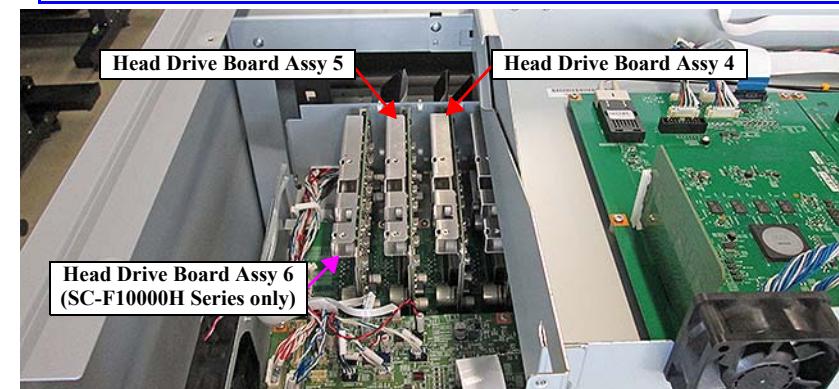
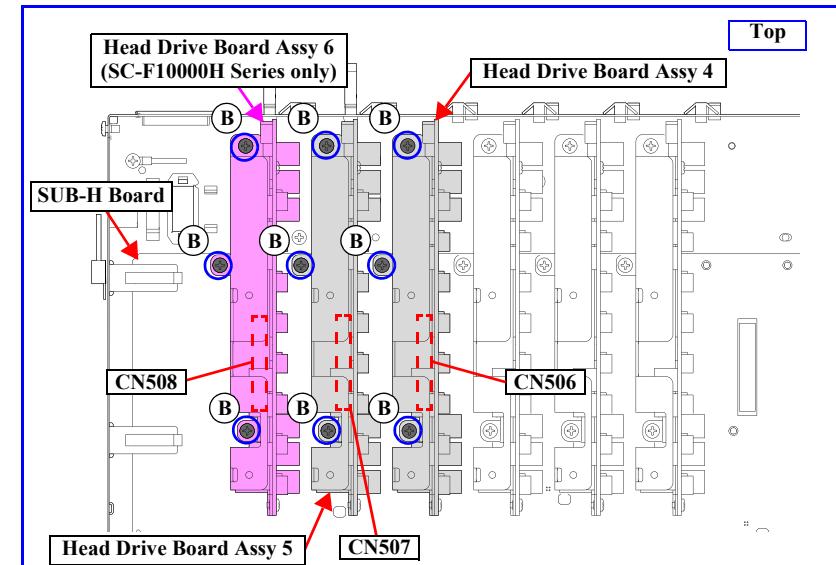


Figure 3-96.

Continue to the next page.

18. Remove the 3 screws and then remove the Head Drive Board.

C) Silver M2.5x4 Bind machine screw: 3 pcs

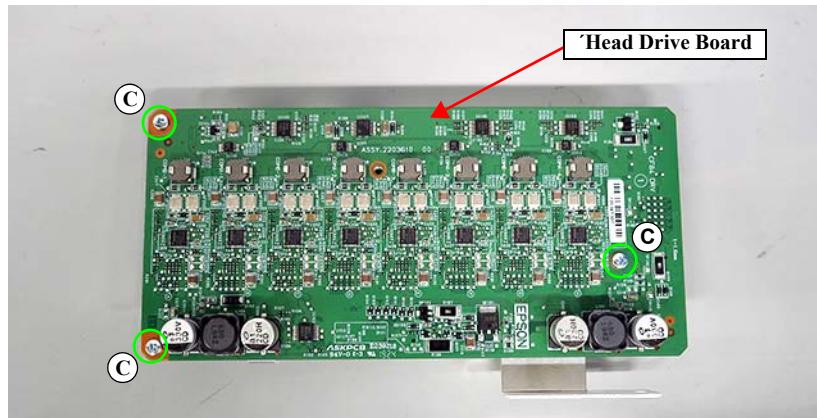


Figure 3-97.

3.4.3.21 Head FFC/Head Connector Board



- Number of the Head FFC/Head Connector Board differs between models.
 - SC-F10000 Series: x4
 - SC-F10000H Series: x6
- Picture of SC-F10000H Series is used for description.

1. Remove the Left Rear Cover. ([p323](#))
2. Remove the Left Top Cover. ([p322](#))
3. Remove the Left Side Top Cover. ([p334](#))
4. Remove the CR Cover. ([p410](#))
5. Remove the Head Drive Board Frame. ([p375](#))
6. Remove the Right Rear Cover. ([p327](#))
7. Remove the Right Top Cover. ([p329](#))
8. Loosen the 2 knurled screws.
9. Remove the Head Connector Assy.

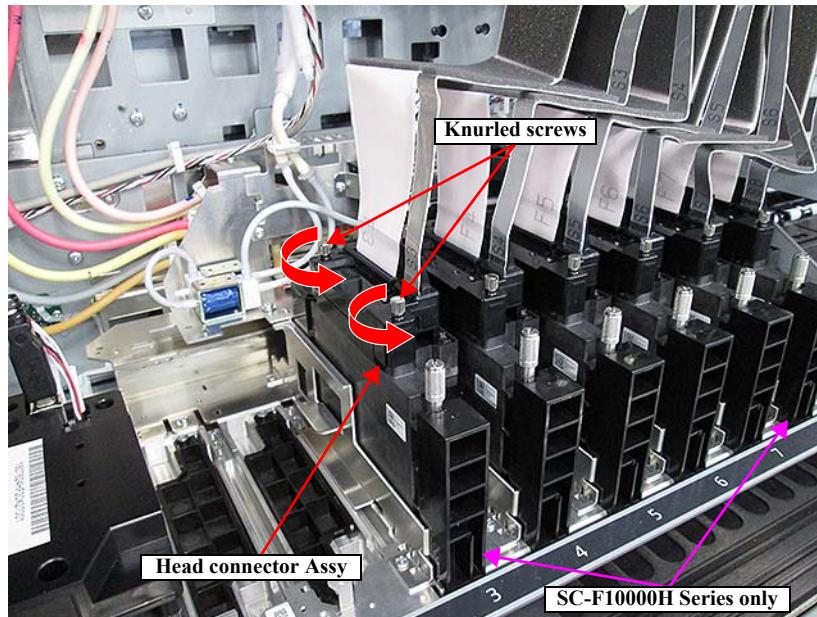


Figure 3-98.

10. Remove the 2 FFC clamps.
11. Peel off the Head FFC.
12. Disconnect the FFC from the connector (CN102) of the Head Drive Board while pushing the hook.
13. Open the connector lock and disconnect the FFC from the connector (CN101) of the Head Drive Board.

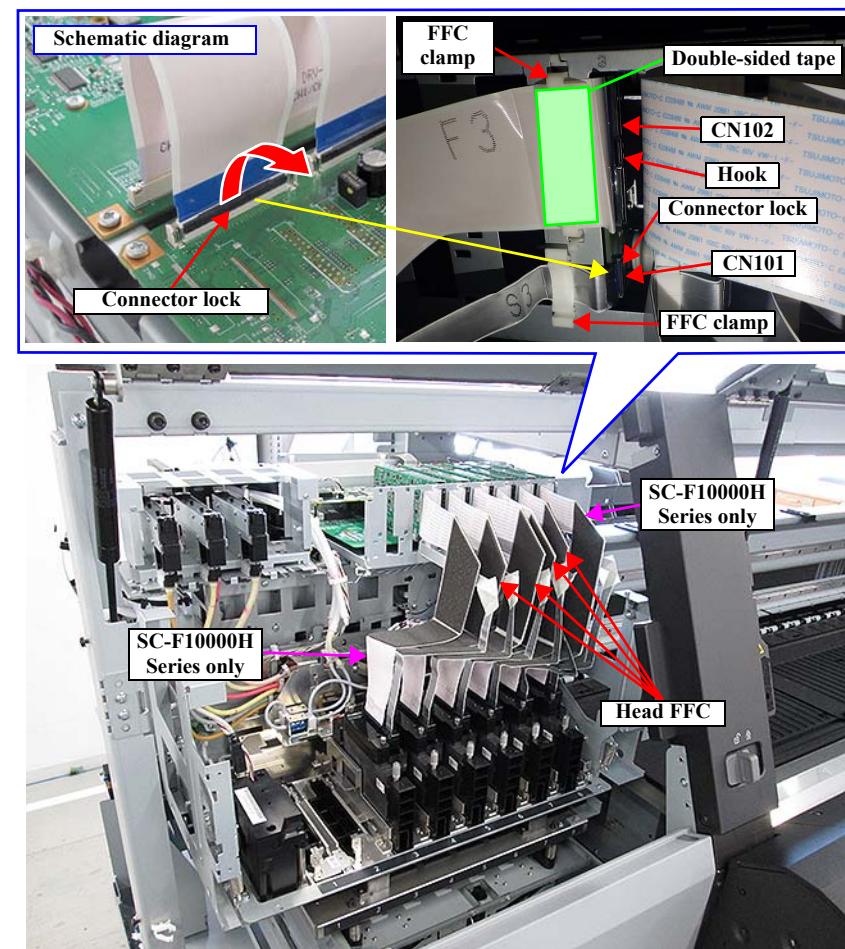


Figure 3-99.

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14. Remove the two screws from the Head Connector Assy.

A) Silver M2x12 Bind P-tite screw: 2 pcs

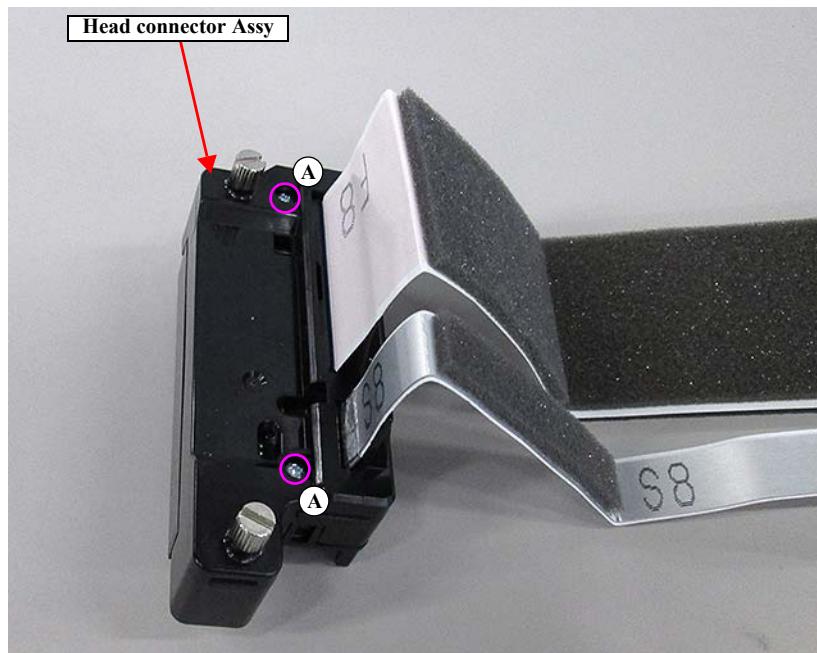


Figure 3-100.

15. Remove the Head Connector Base.

16. Peel off the Head FFC from the Head Connector Cover.

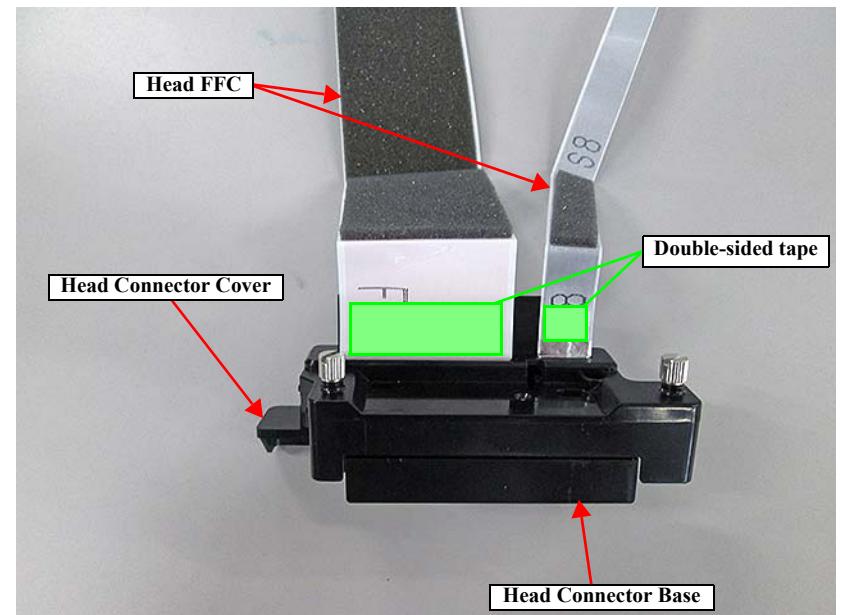


Figure 3-101.

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17. Pull out the Head Connector Board in the direction of the arrow.

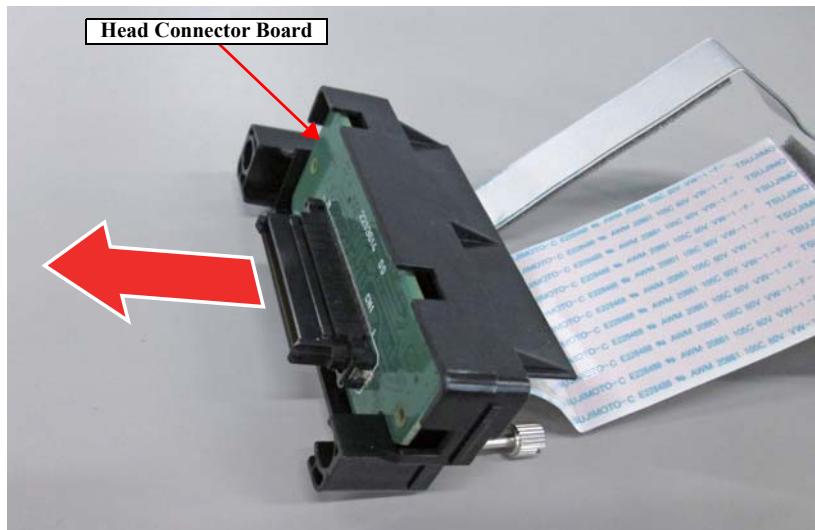


Figure 3-102.

18. Disconnect the Head FFC from the connector (CN2) of the Head Connector Board while pushing the hook.
19. Open the connector lock and disconnect the Head FFC from the connector (CN3) of the Head Connector Board.

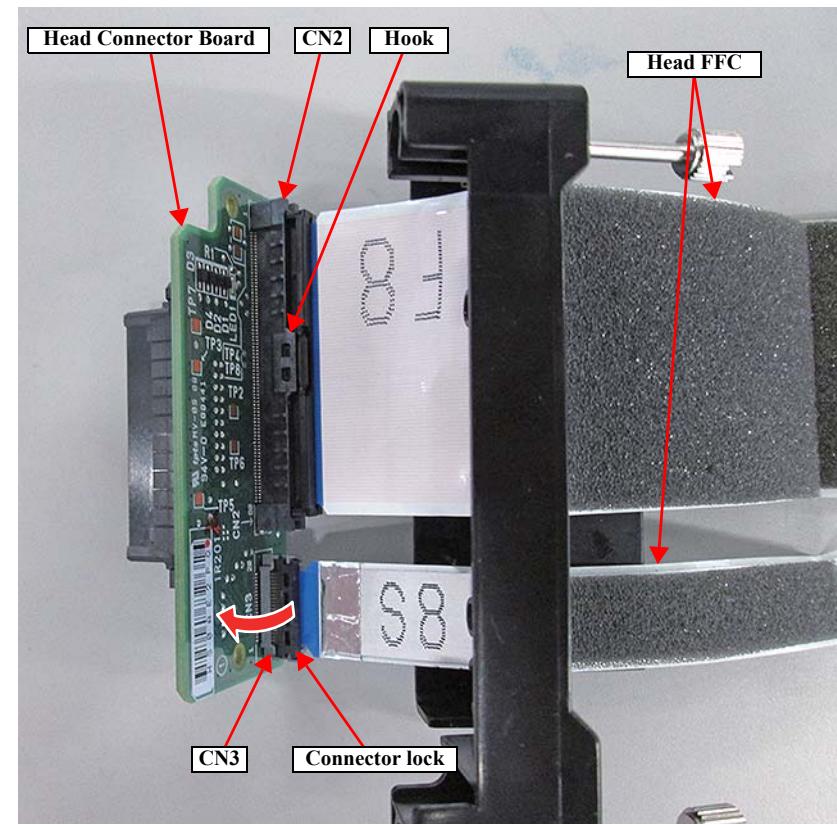


Figure 3-103.

3.4.3.22 SUB-DC Board (SUB-H)

1. Remove the Left Rear Cover. ([p323](#))
2. Remove the Left Top Cover. ([p322](#))
3. Remove the Left Side Top Cover. ([p334](#))
4. Remove the CR Cover. ([p410](#))
5. Remove the Head Drive Board Frame. ([p375](#))
6. Remove the Right Rear Cover. ([p327](#))
7. Remove the Right Top Cover. ([p329](#))
8. Remove the SUB-DC Board (SUB-H) while pushing the lock levers in the direction of the arrows.

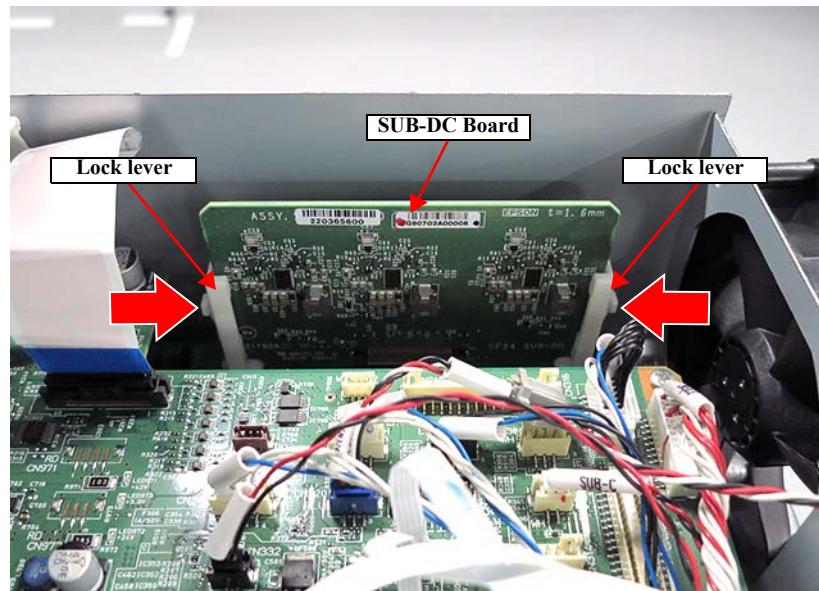


Figure 3-104.

3.4.3.23 SUB-C Board

1. Remove the Left Rear Cover. ([p323](#))
2. Remove the Left Top Cover. ([p322](#))
3. Remove the Left Side Top Cover. ([p334](#))
4. Remove the CR Cover. ([p410](#))
5. Remove the Head Drive Board Frame. ([p375](#))
6. Remove the Right Rear Cover. ([p327](#))
7. Remove the Right Top Cover. ([p329](#))
8. Disconnect the FFC from the connector (CN531) of the SUB-C Board while pushing the hook.
9. Disconnect the cable from the connectors (CN80, CN81) of the SUB-C Board.
10. Remove the 4 screws that secure the SUB-C Board.

A) Silver M3x6 Bind machine screw: 4 pcs

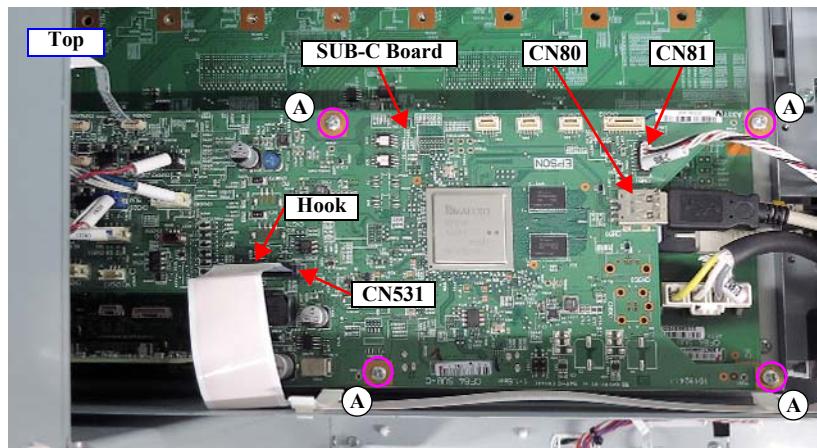


Figure 3-105.

11. Move the CR Unit to the Home (panel side).
 12. Disconnect the cables (CN303, CN316) while pushing the hook.
 13. Disconnect the remaining cables and FFC connected to the SUB-C Board.
 14. Remove the 2 screws and then remove the SUB-C Board.
- B) Silver M3x6 Bind machine screw: 2 pcs

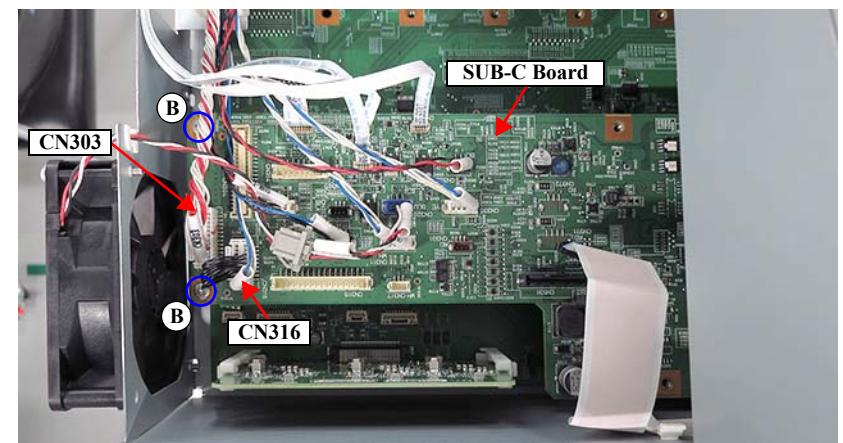


Figure 3-106.

3.4.3.24 SUB-H Board

1. Remove the Left Rear Cover. ([p323](#))
2. Remove the Left Top Cover. ([p322](#))
3. Remove the Left Side Top Cover. ([p334](#))
4. Remove the CR Cover. ([p410](#))
5. Remove the Head Drive Board Frame. ([p375](#))
6. Remove the Right Rear Cover. ([p327](#))
7. Remove the Right Top Cover. ([p329](#))
8. Remove the Head Drive Board (DRV). ([p378](#))
9. Remove the SUB-C Board. ([p385](#))
10. Disconnect the cables (CN801, CN4001) connected to the SUB-H Board.
11. Remove the 4 screw receivers that secure the SUB-H Board.

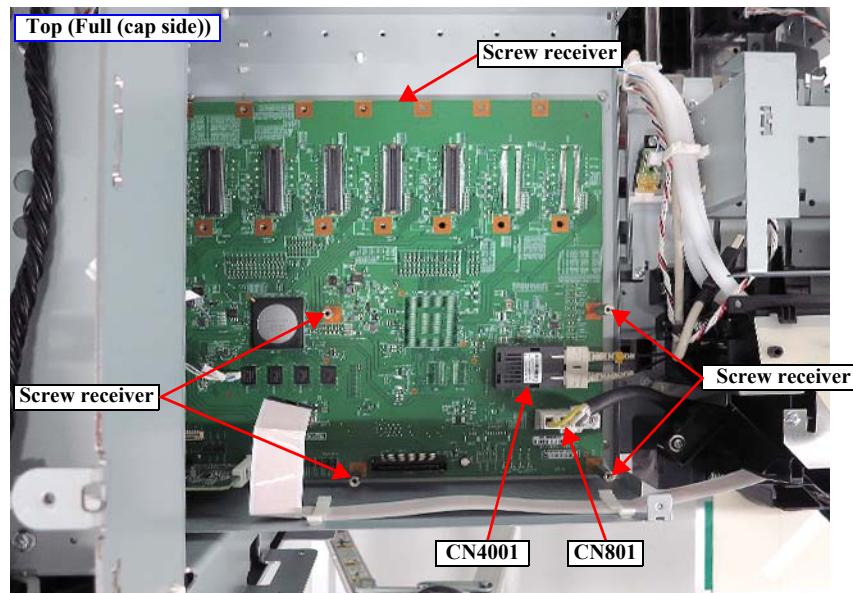


Figure 3-107.

12. Move the CR Unit to the Home (panel side).
13. Remove the 2 screw receivers and then remove the SUB-H Board.

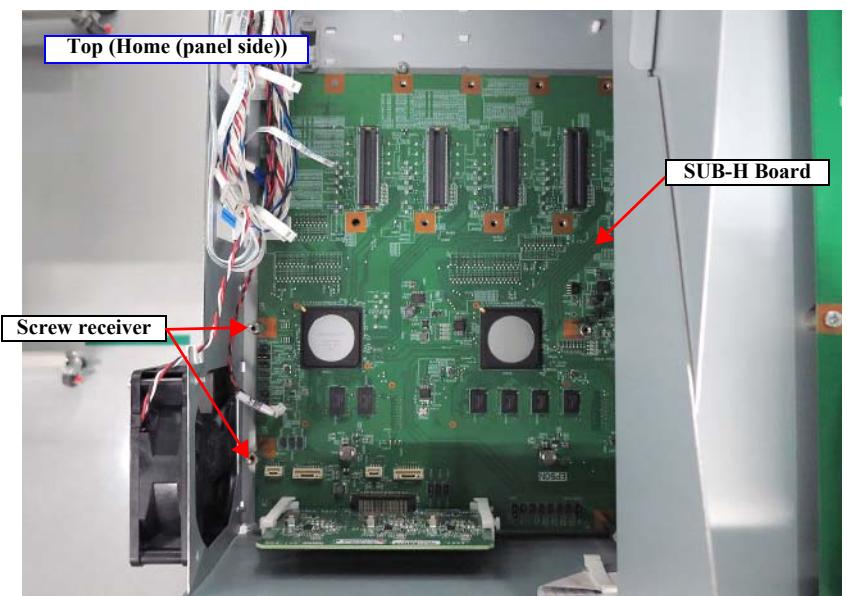


Figure 3-108.

3.4.3.25 Power Supply Box Assy

1. Remove the Rear Lower Cover. ([p345](#))
2. Disengage the hooks and disconnect the 2 (blue) cables from the connectors.
3. Release the (blue) cables from the clamp.
4. Remove the 2 screws that secure the earth wires.
 - A) Silver M4x5 S-tite screw with external tooth washer: each 2 pcs
5. Remove the 4 covers.

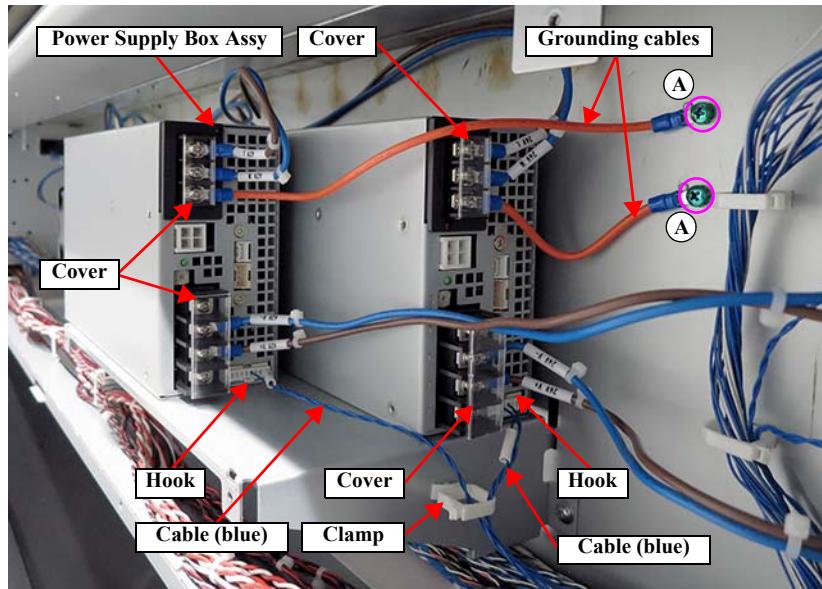


Figure 3-109.

6. Remove the 8 screws and then disconnect the 8 cables from the terminals.

B) Silver M4x5 S-tite screw with external tooth washer: each 8 pcs

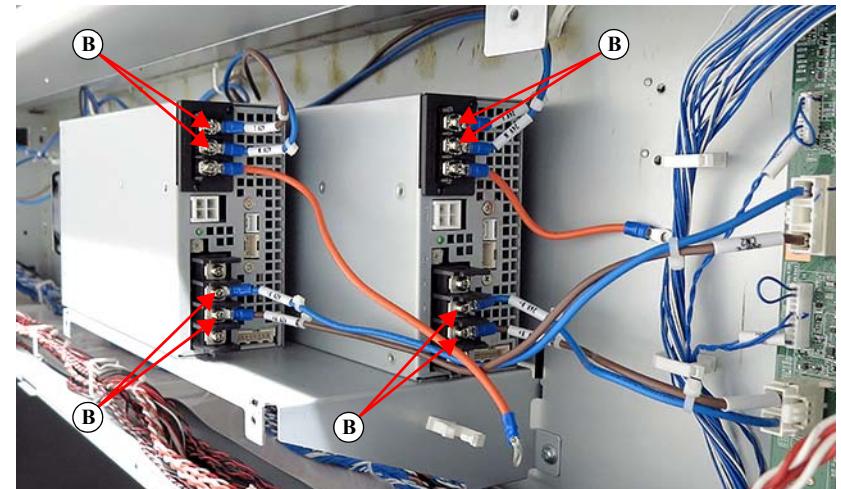


Figure 3-110.

Continue to the next page.

7. Remove the 4 screws that secure the Power Supply Box Assy.
C) Black M4x8 S-tite screw with built-in washer: 4 pcs
8. Disengage the 2 hooks and then remove the Power Supply Box Assy.

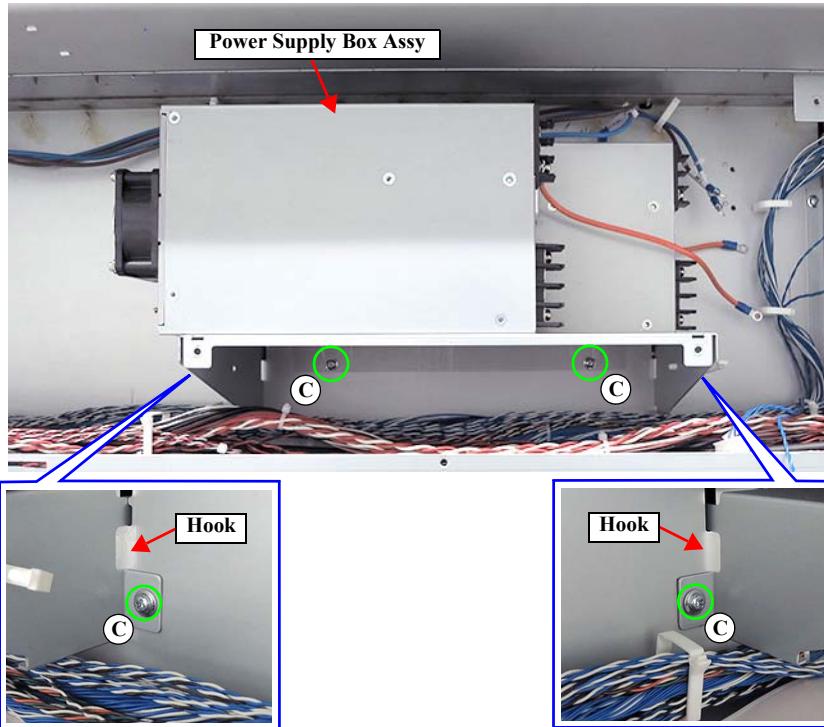


Figure 3-111.



Check the label on the cable terminals and connect the cables.

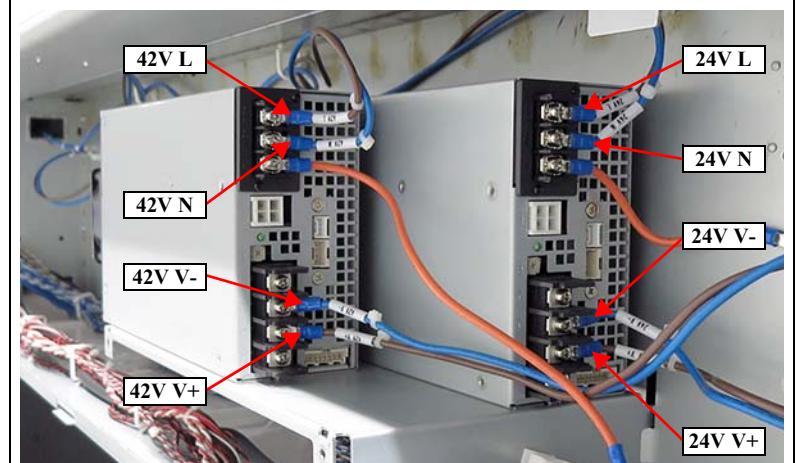


Figure 3-112.

3.4.3.26 Board Cooling Fan 1/2



This section describes the procedure for removing Board Cooling Fan 1. Board Cooling Fan 2 can also be removed using the same procedure.

1. Remove the Rear Lower Cover. ([p345](#))
2. Disconnect the relay connector.
3. Remove the screw and then remove the Board Cooling Fan 1/2 Assy.
 - A) Silver M4x8 Cup S-tite screw: 1 pc

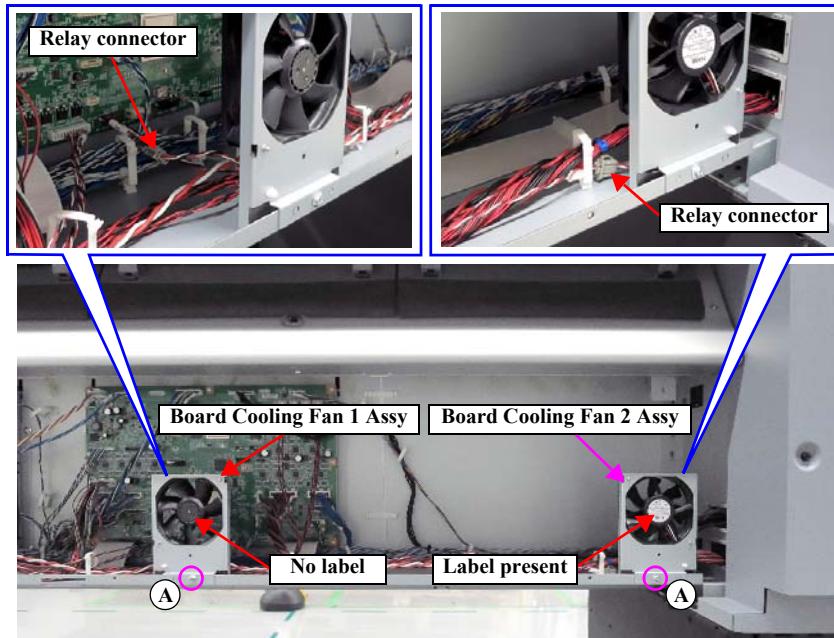


Figure 3-113.

4. Remove the 2 screws and then remove Board Cooling Fan 1/2.
 - B) Silver M3x30 Cup S-tite screw: 2 pcs



When attaching Board Cooling Fan 1/2, check the direction of the fan label. ([Figure 3-113](#))

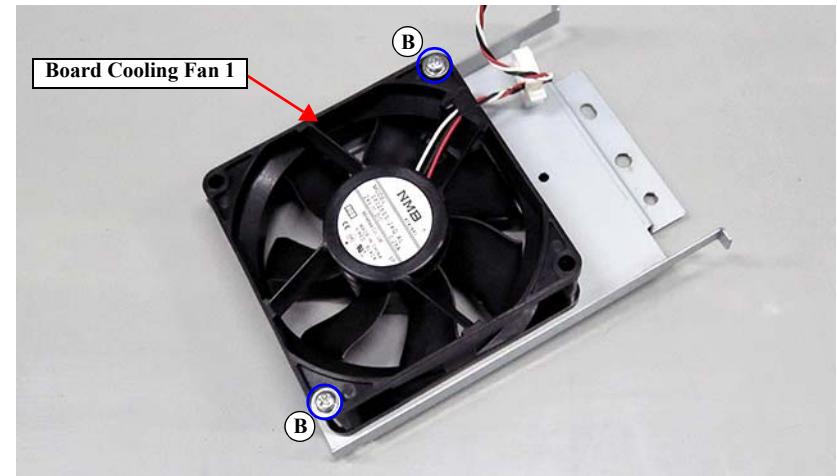


Figure 3-114.

3.4.3.27 SUB-AC Board

1. Remove the Rear Lower Cover. ([p345](#))
2. Disconnect the cables connected to the SUB-AC Board while pushing the hook.
3. Remove the 4 screws and then remove the SUB-AC Board.
 - A) Silver M3x6 Bind machine screw: 4 pcs

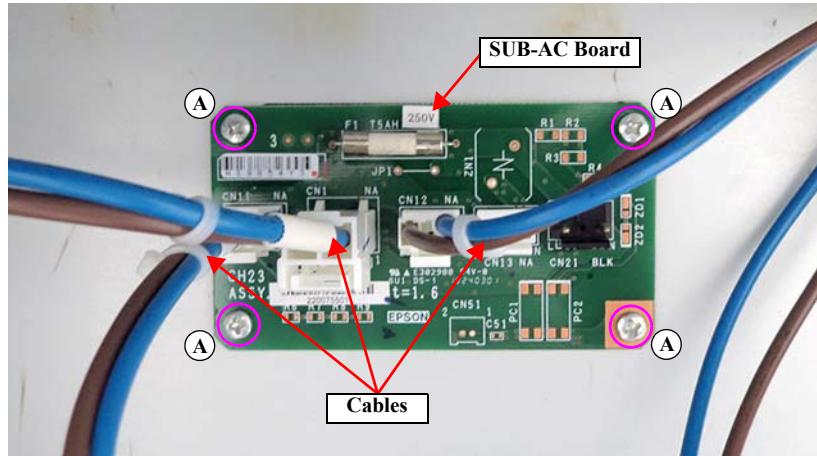


Figure 3-115.

3.4.3.28 SUB-E Board

1. Remove the Rear Lower Cover. ([p345](#))
2. Disengage the hooks and then disconnect the cables (CN901, CN903, CN910, CN970, CN940, CN950, CN960, CN4, CN2).

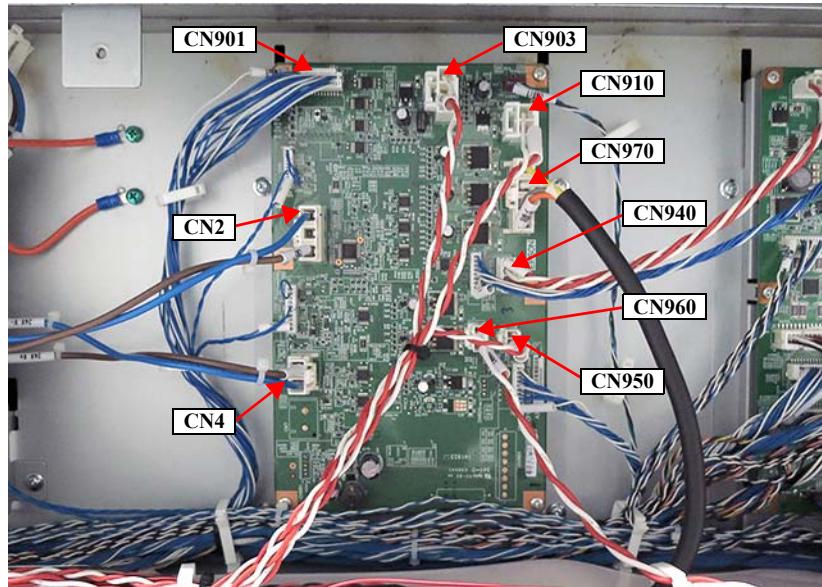


Figure 3-116.

3. Disconnect the remaining cables connected to the SUB-E Board.
4. Remove the 6 screws and then remove the SUB-E Board.
 - A) Silver M3x6 Bind machine screw: 6 pcs

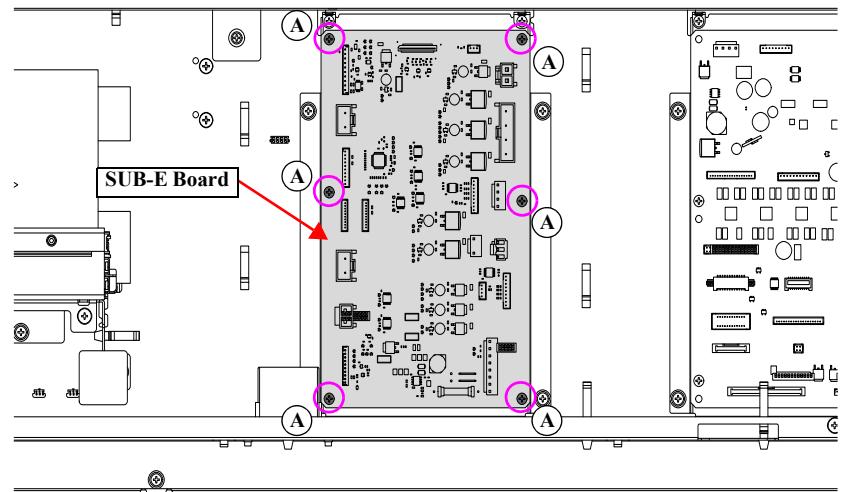


Figure 3-117.

3.4.3.29 MCU Board

1. Remove the Rear Lower Cover. ([p345](#))
2. Remove the Board Cooling Fan 1/2. ([p389](#))
3. Disconnect the FFC (CN706, CN1706) while pushing the hook.
4. Disengage the hooks and then disconnect the cables (CN1, CN600, CN700, CN709, CN901, CN940, CN1600, CN1700, CN1708, CN1709, CN1710).
5. Disconnect the remaining cables (CN6, CN201, CN205, CN206, CN501, CN601, CN705, CN902, CN941, CN1203, CN1210, CN1211, CN1601, CN1705) connected to the MCU Board.

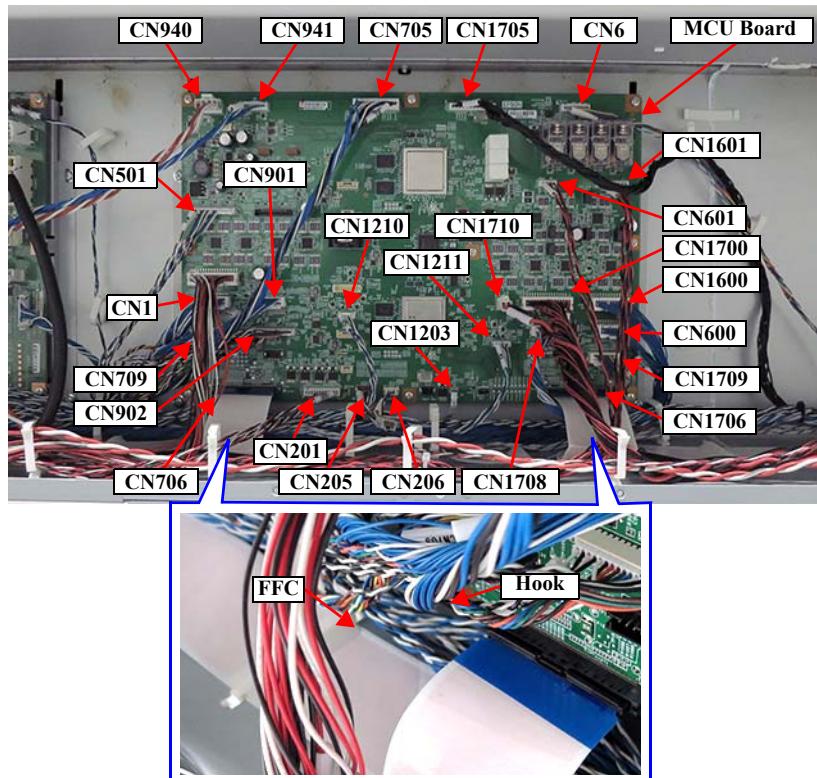


Figure 3-118.

6. Remove the 9 screws and then remove the MCU Board.

- A) Silver M3x6 Bind machine screw: 9 pcs

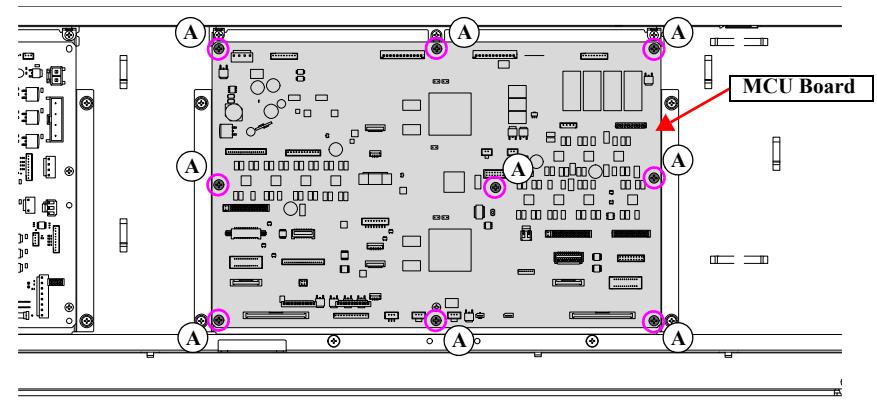


Figure 3-119.

3.4.3.30 Printer Drying Fan



- This section describes the procedure for removing Printer Drying Assy 1. Printer Drying Assy 2/3 can also be removed using the same procedure.
- When a Printer Drying Fan is to be replaced, all 6 of them must be replaced at the same time.

1. Remove the Rear Top Cover. ([p328](#))
2. Disconnect the cables from the 2 relay connectors.
3. Release the cables from the 2 clamps.
4. Remove the 4 screws and then remove the Printer Drying Fan Assy.
 - A) Black M4x8 S-tite screw with built-in washer: 2 pcs
 - B) Silver M3x6 S-tite screw: 2 pcs

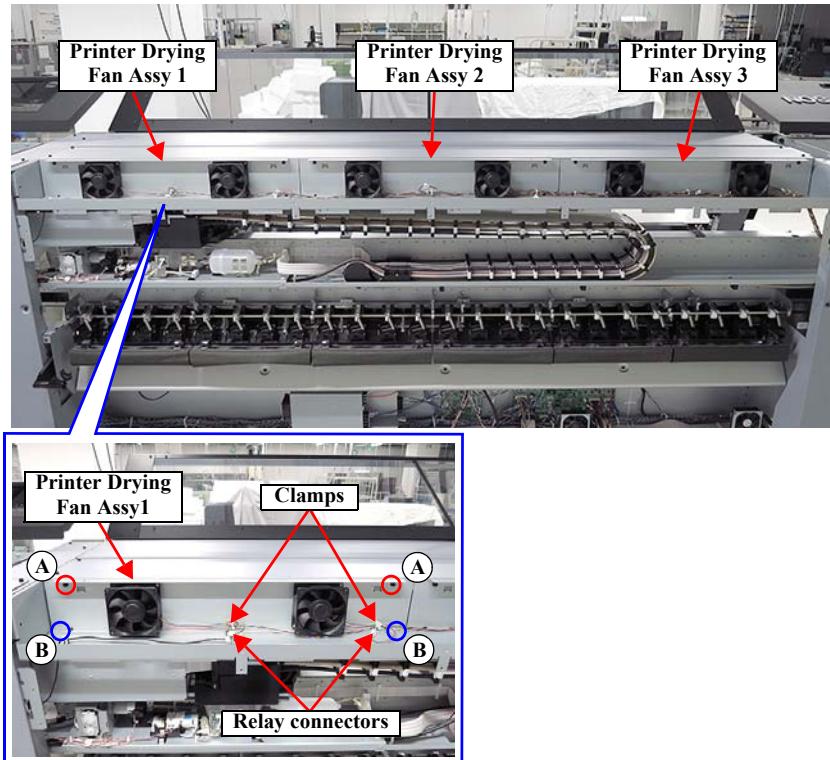


Figure 3-120.

Continue to the next page.

5. Remove the 2 pins and pin stops and then remove the Printer Drying Fan.

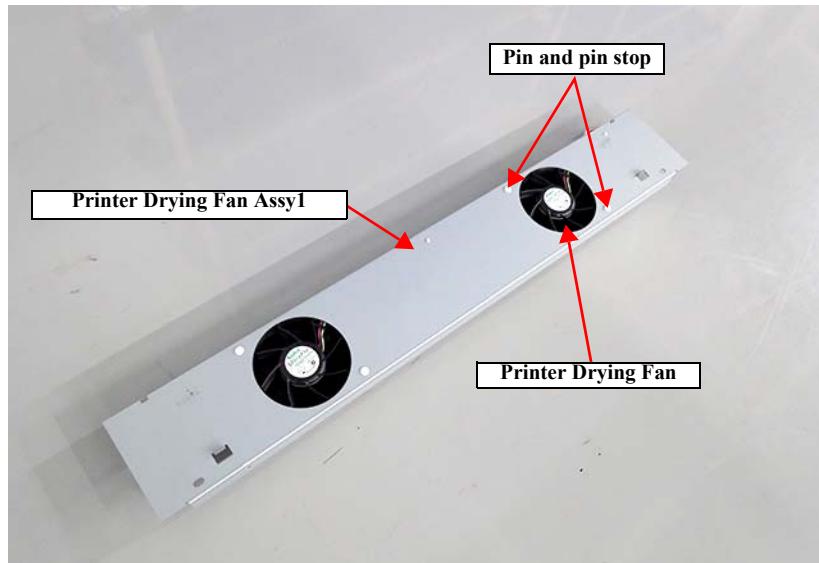


Figure 3-121.



When replaced the Printer Drying Fan, paste a label with adjustment value supplied together with a new Printer Drying Fan on the position shown in [Figure 3-123](#). Also, input the value written on the label in [Input Dry Fan \(p612\)](#) of adjustment program.

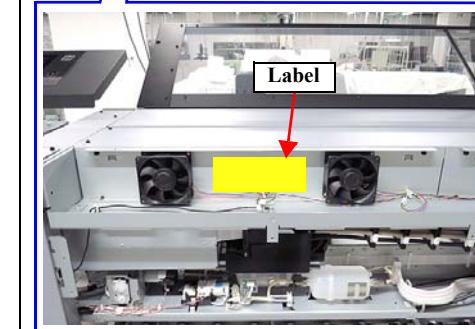
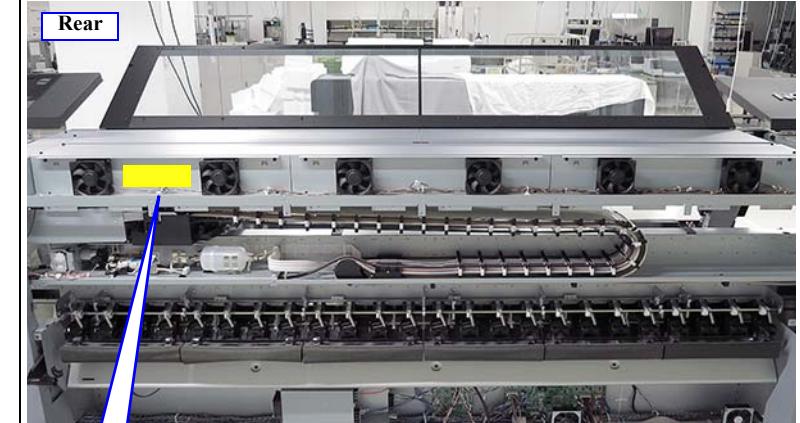


Figure 3-123.



- The fans of the numbers indicated in the following figure must be attached.

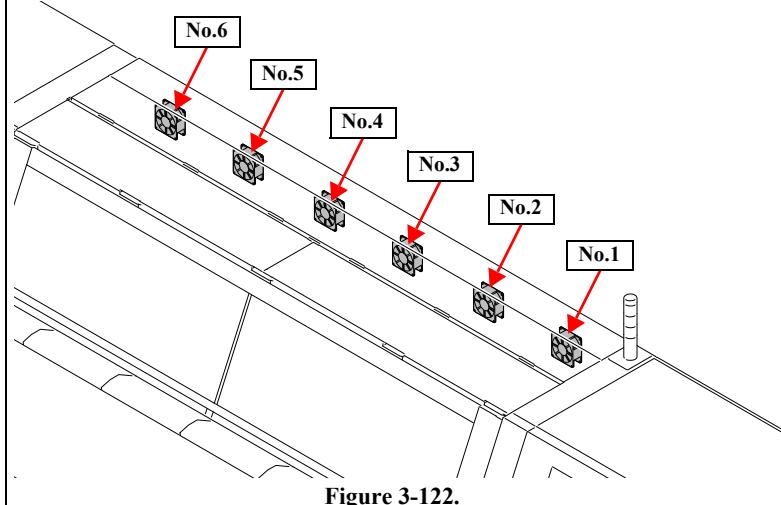


Figure 3-122.

3.4.3.31 Panel FFC

1. Remove the Right Rear Cover. ([p327](#))
2. Remove the Right Top Cover. ([p329](#))
3. Lower the Main Board Frame. ([p353](#))
4. Open the Maintenance Cover (Right/Upper).
5. Remove the 2 screws that secure the Panel Unit.
A) Black M4x8 S-tite screw with built-in washer: 2 pcs

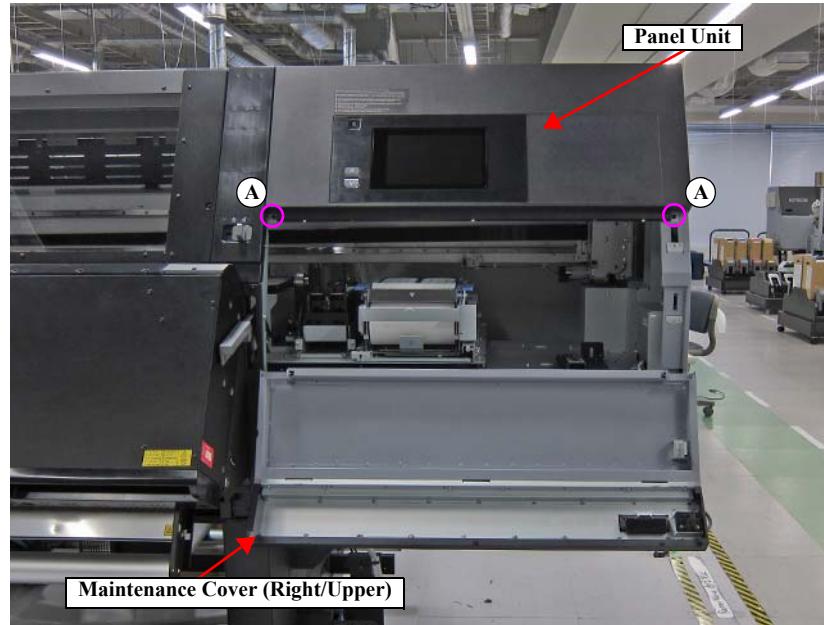


Figure 3-124.

6. Pull the Panel Unit a little toward the front and then open it.

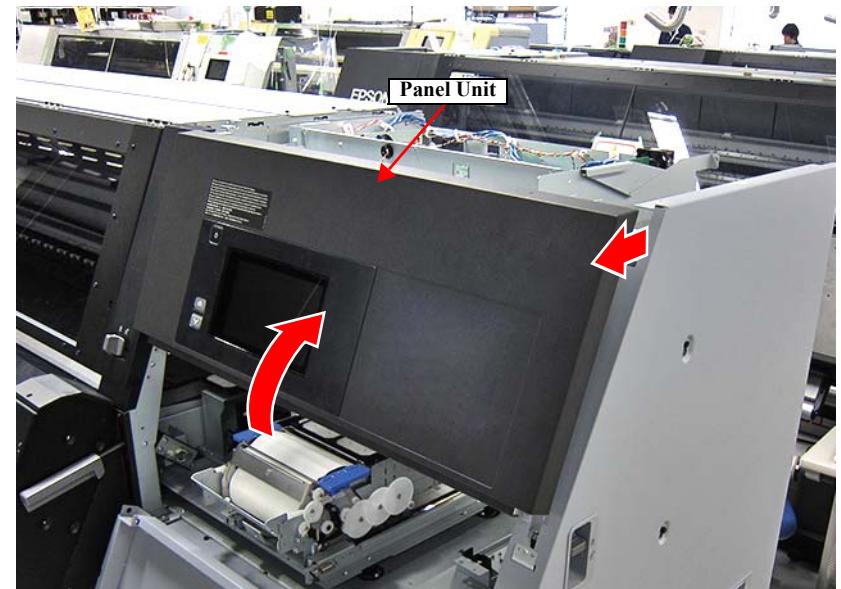


Figure 3-125.

Continue to the next page.

7. Open the connector lock (CN100) of the Panel Board and then disconnect the Panel FFC.
8. Remove the 4 FFC clamps.
9. Peel off the Panel FFC.

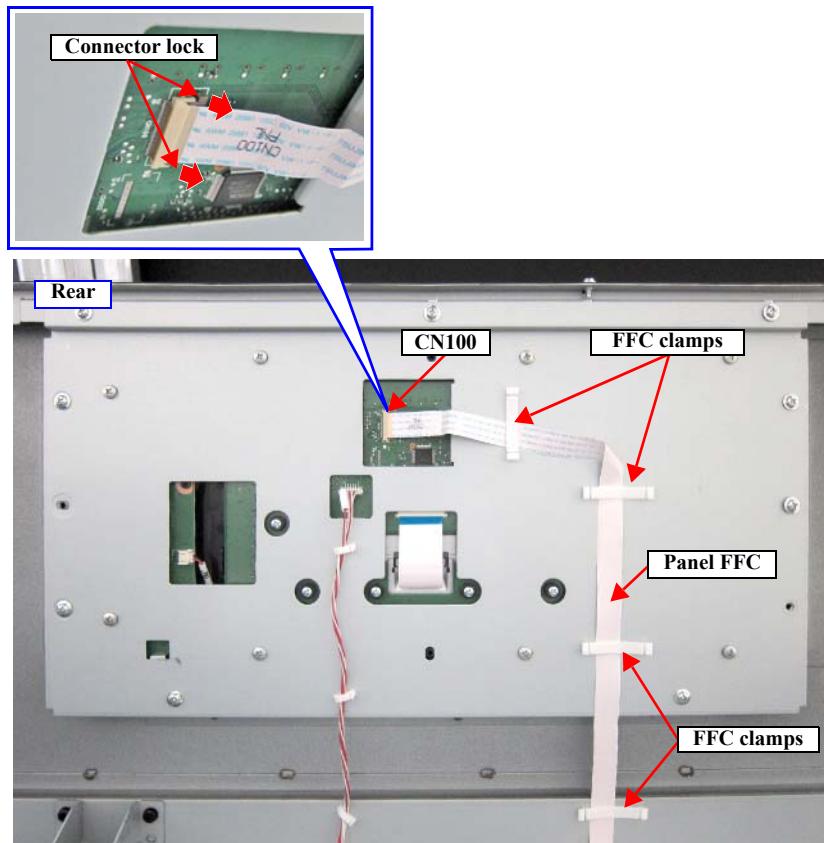


Figure 3-126.

10. Remove the 2 FFC clamps on the top.
11. Pull out the Panel FFC from the hole of the frame to the Main Board A side.

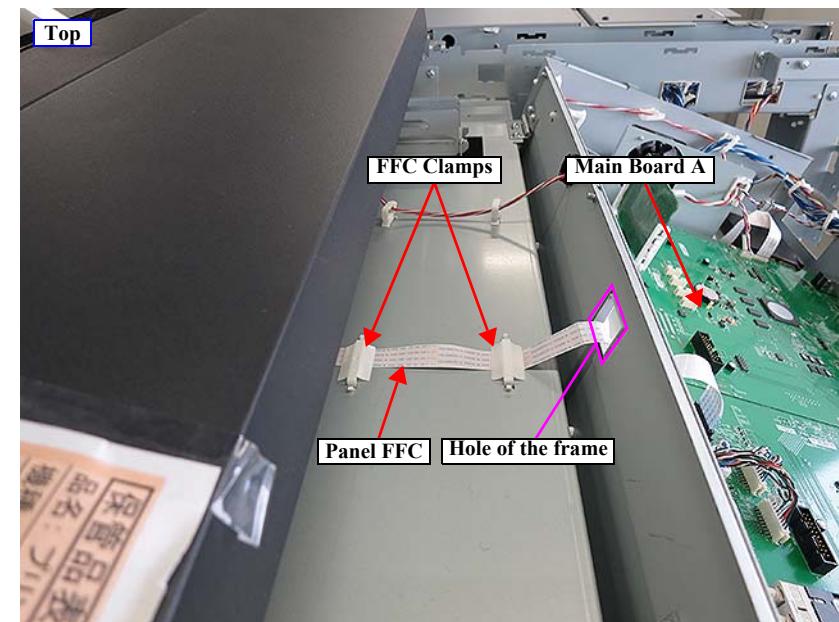


Figure 3-127.

Continue to the next page.

12. Peel off the FFC from the frame.
13. Disconnect and remove the Panel FFC from the connector (CN403) of the Main Board.

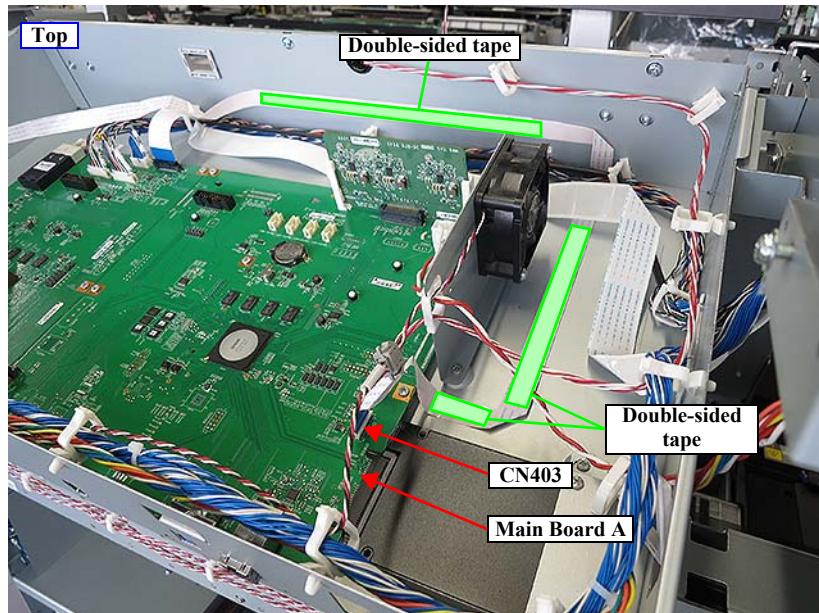


Figure 3-128.

3.4.3.32 SUB-M (Left) Board Relay FFC

1. Remove the Rear Lower Cover. ([p345](#))
2. Remove the Left Rear Cover. ([p323](#))
3. Disconnect the SUB-M (Left) Board Relay FFC from the connector (CN706) of the SUB-M (Left) Board while pushing the hook.

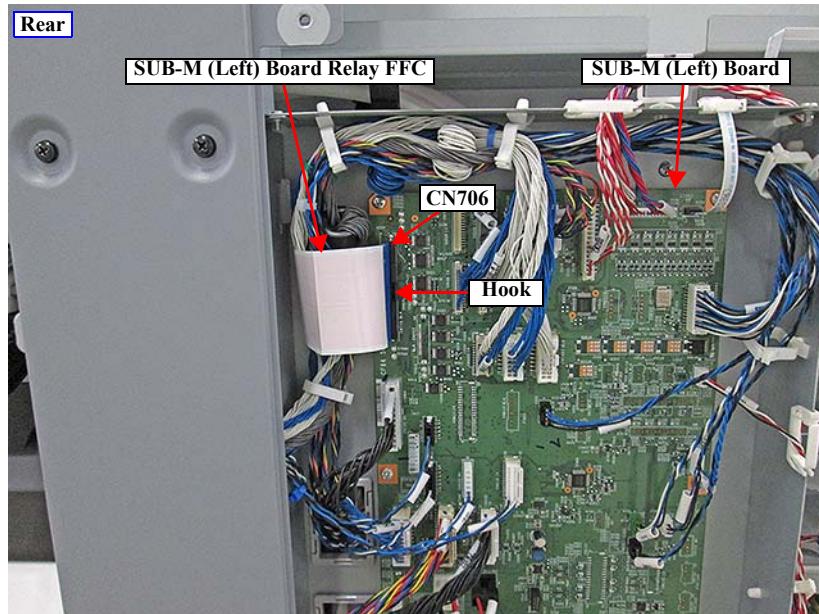


Figure 3-129.

4. Pull the SUB-M (Left) Board Relay FFC to the inner side of the hole of the frame.

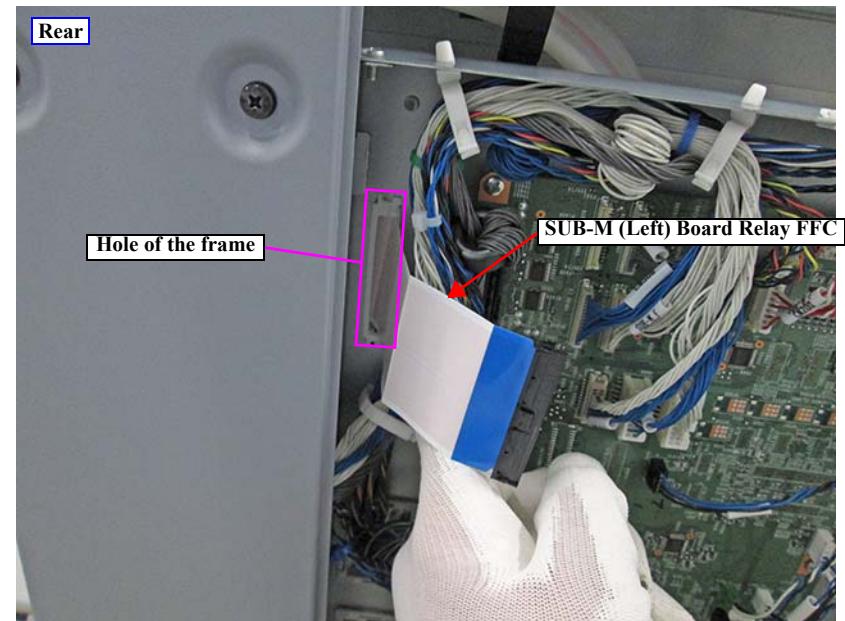


Figure 3-130.

Continue to the next page.

5. Remove the 4 FFC clamps.

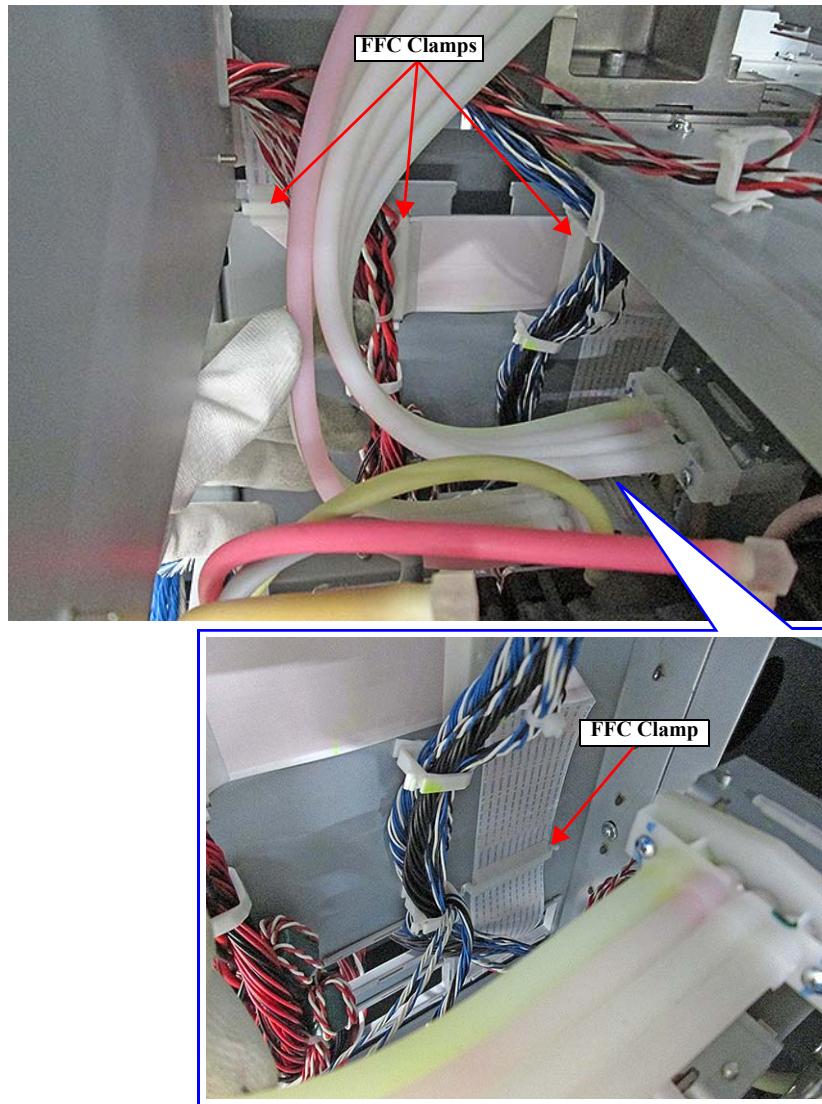


Figure 3-131.

6. Pull out the SUB-M (Left) Board Relay FFC from the hole of the frame.
7. Remove the 2 FFC clamps.
8. Disconnect the SUB-M (Left) Board Relay FFC from the connector (CN1706) of the MCU Board while pushing the hook.

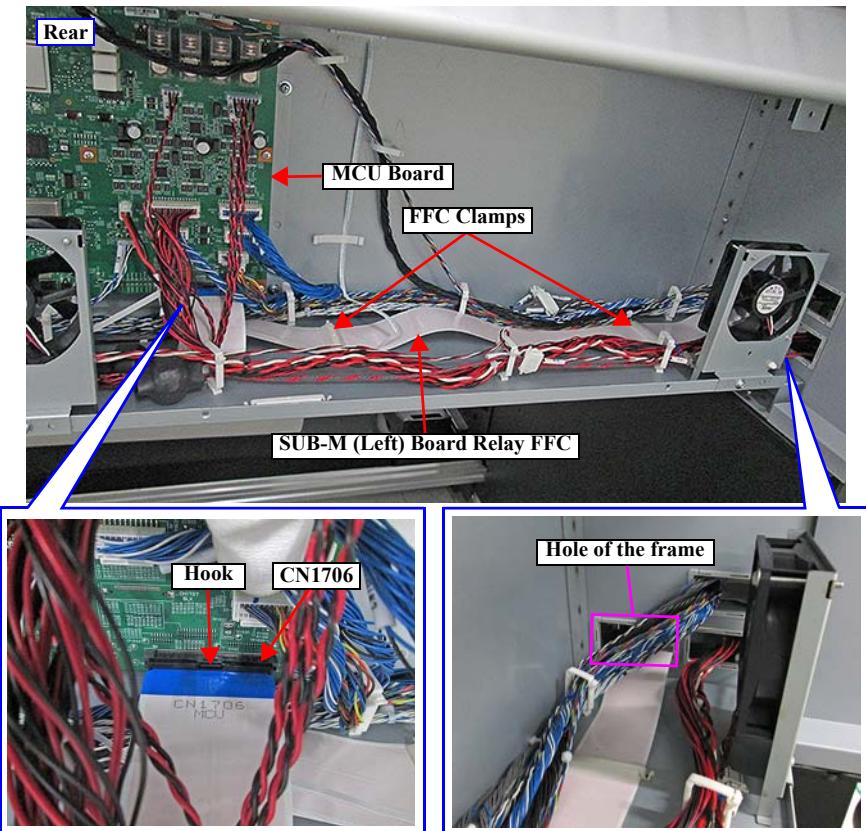


Figure 3-132.

3.4.3.33 SUB-M (Right) Board Relay FFC

1. Remove the Right Rear Cover. ([p327](#))
2. Remove the Right Top Cover. ([p329](#))
3. Remove the Right Cover. ([p331](#))
4. Remove the Rear Lower Cover. ([p345](#))
5. Disconnect the SUB-M (Right) Board Relay FFC from the connector (CN706) of the SUB-M (Right) Board while pushing the hook.

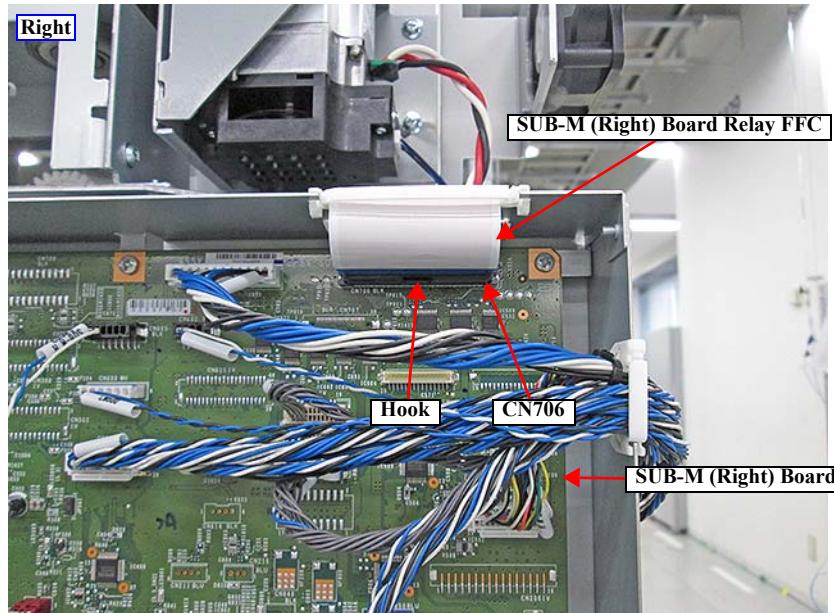


Figure 3-133.

6. Release the SUB-M (Right) Board Relay FFC from the clamp.
7. Remove the 10 FFC clamps.

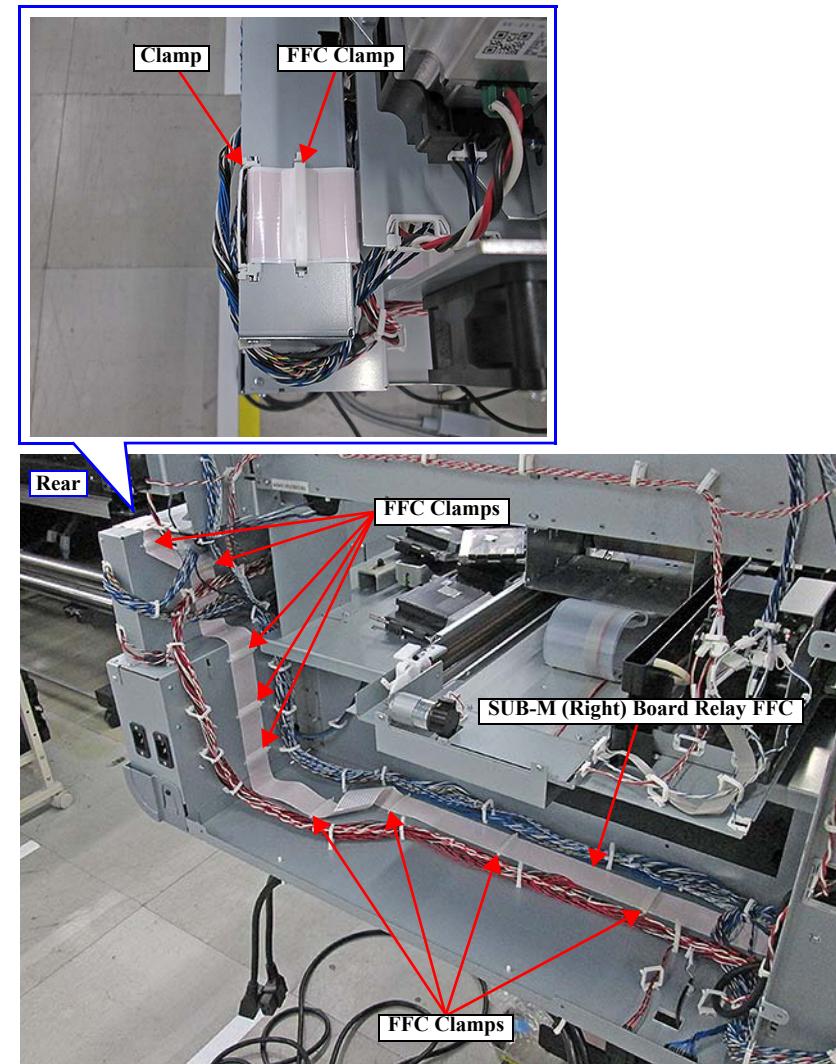


Figure 3-134.

Continue to the next page.

8. Pull out the SUB-M (Right) Board Relay FFC from the hole of the frame.
9. Remove the 5 FFC clamps.
10. Disconnect the SUB-M (Right) Board Relay FFC from the connector (CN706) of the MCU Board while pushing the hook.

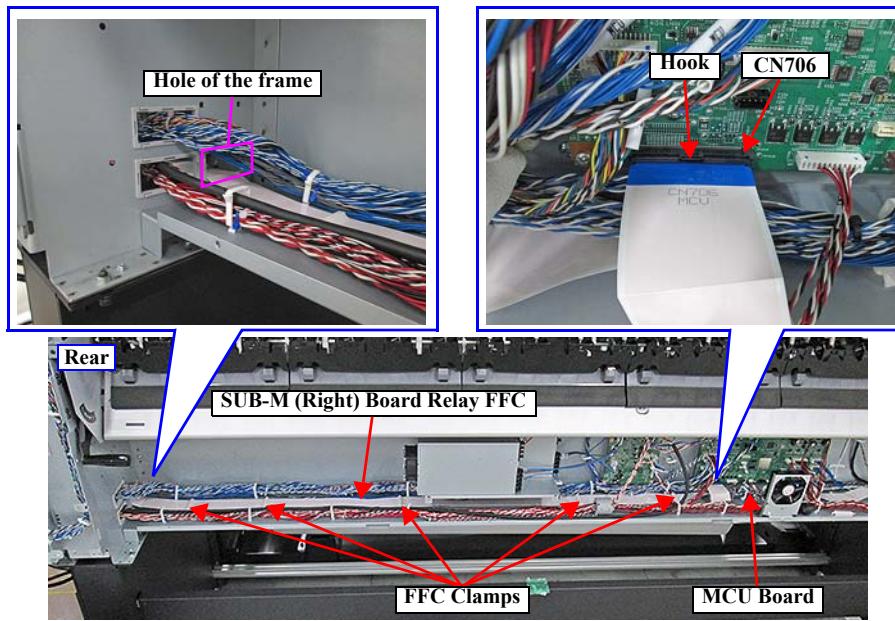


Figure 3-135.

3.4.4 Carriage Mechanism/Ink System Mechanism

3.4.4.1 Print Head



- Number of the Print Head differs between models.
 - SC-F10000 Series: x4
 - SC-F10000H Series: x6
- Picture of SC-F10000H Series is used for description.

1. Unlock the CR Unit, and move it onto the platen. ([p319](#))
2. Remove the CR Cover. ([p410](#))
3. Loosen the 2 knurled screws.
4. Remove the Head Connector Assy.

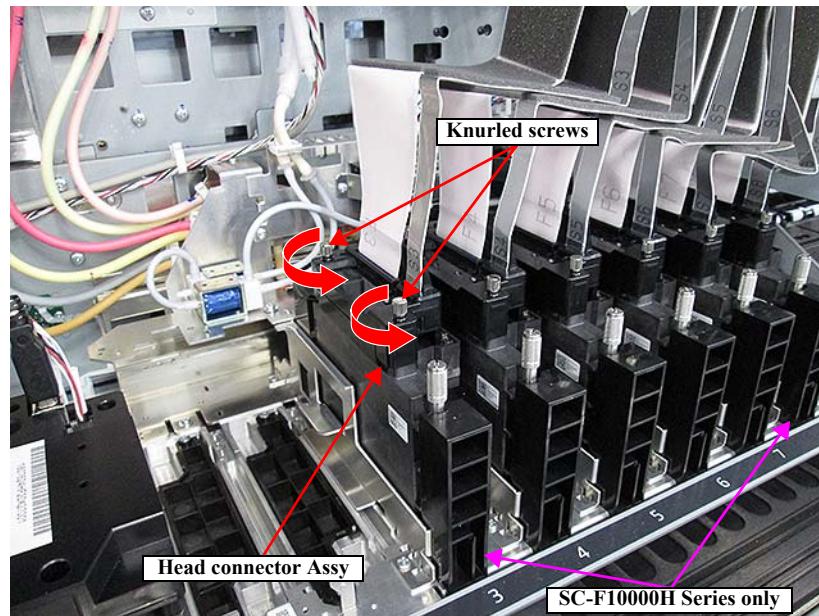


Figure 3-136.

5. Loosen the 2 knurled screws.



Be careful not to touch the nozzle surface of the Print Head.

6. Remove the Print Head in the upward direction while holding the knurled screws.



Alternately tighten the knurled screws that secure the Print Head.

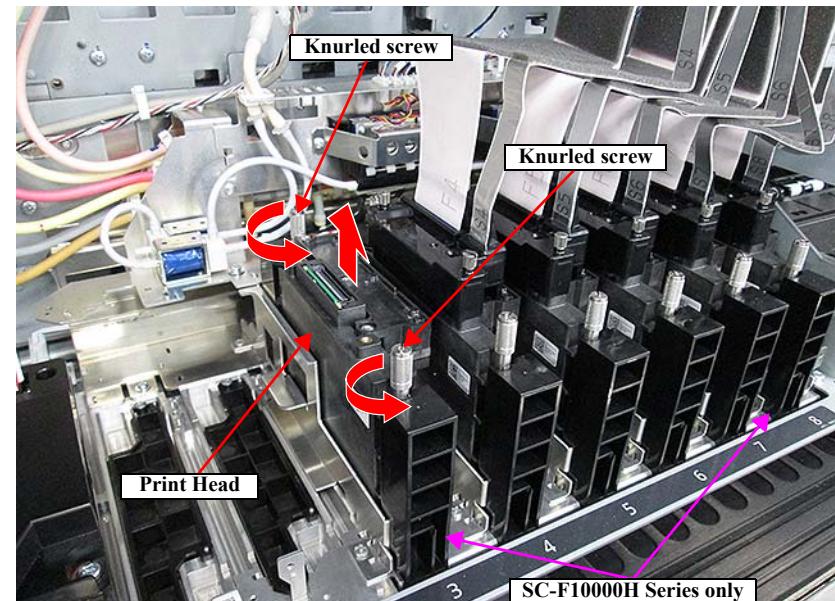


Figure 3-137.



The printer must be started in the self repair mode ([p27](#)) after Print Head replacement. If it is started in the normal mode, an error will occur.

3.4.4.2 Charging Unit



Attach 2 Charging Unit per 1 Filter Unit.

1. Remove the Left Rear Cover. ([p323](#))
2. Remove the Left Top Cover. ([p322](#))
3. Remove the Charging Units in the upward direction while pushing the levers.

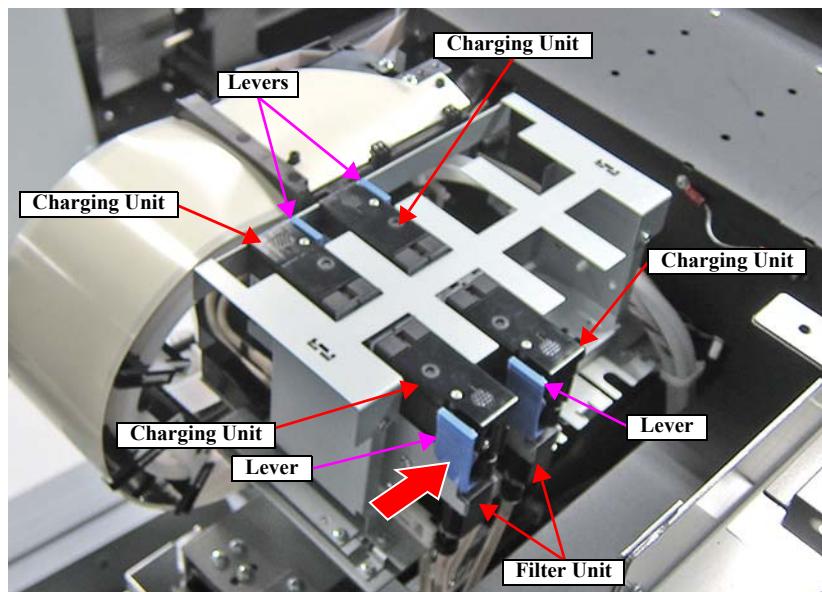


Figure 3-138.



When attaching the Charging Unit, apply cleaning liquid to the points shown below.

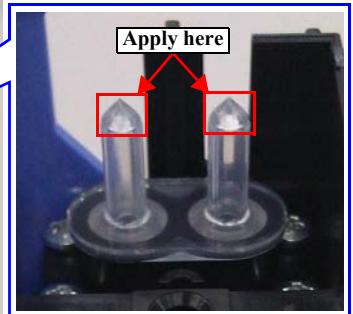
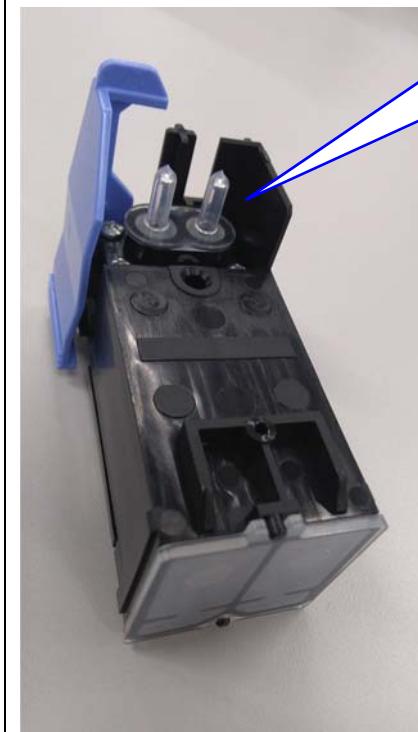


Figure 3-139.

3.4.4.3 Cap



- Number of the Cap differs between models.
 - SC-F10000 Series: x4
 - SC-F10000H Series: x6
- Picture of SC-F10000H Series is used for description.

1. Unlock the CR Unit. ([p319](#))
 2. Remove the screw from each cap and then remove the caps.
- A) Silver M3x18 Bind machine screw: each 1 pc

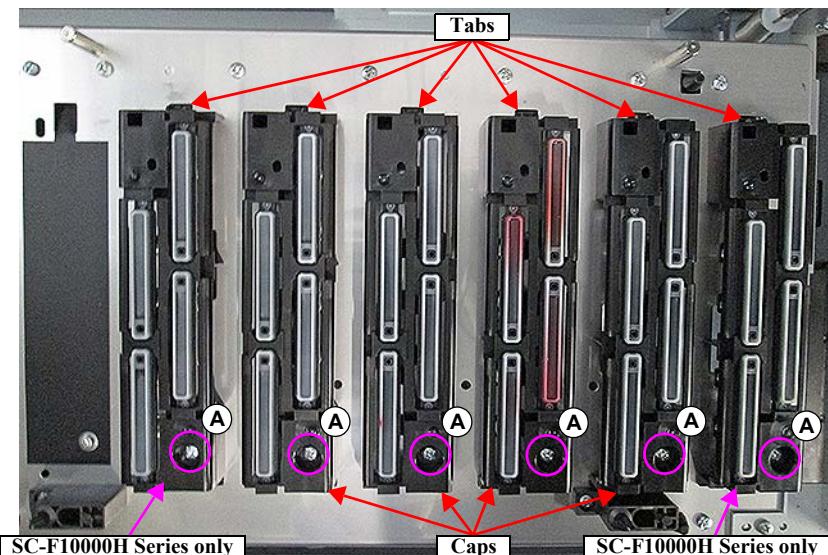


Figure 3-140.



Insert the tabs on the caps into the frame. ([Figure 3-140](#))

3.4.4.4 Anti-Drying Caps Drive Assembly

1. Remove the Left Rear Cover. ([p323](#))
2. Remove the Left Top Cover. ([p322](#))
3. Remove the Left Cover. ([p324](#))
4. Remove the Maintenance Cover (Left/Middle). ([p320](#))
5. Unlock the CR Unit. ([p319](#))
6. Disconnect the cables (19-1, 19-2 and 19-4) from the relay connectors.
7. Release the cables from the clamps.

■ SC-F10000 Series: 10 clamps

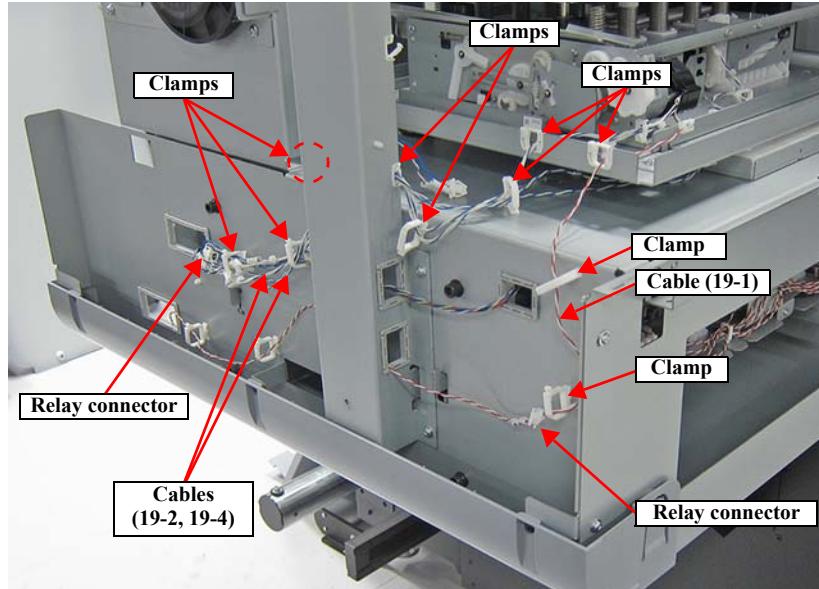


Figure 3-141.

■ SC-F10000H Series: 9 clamps

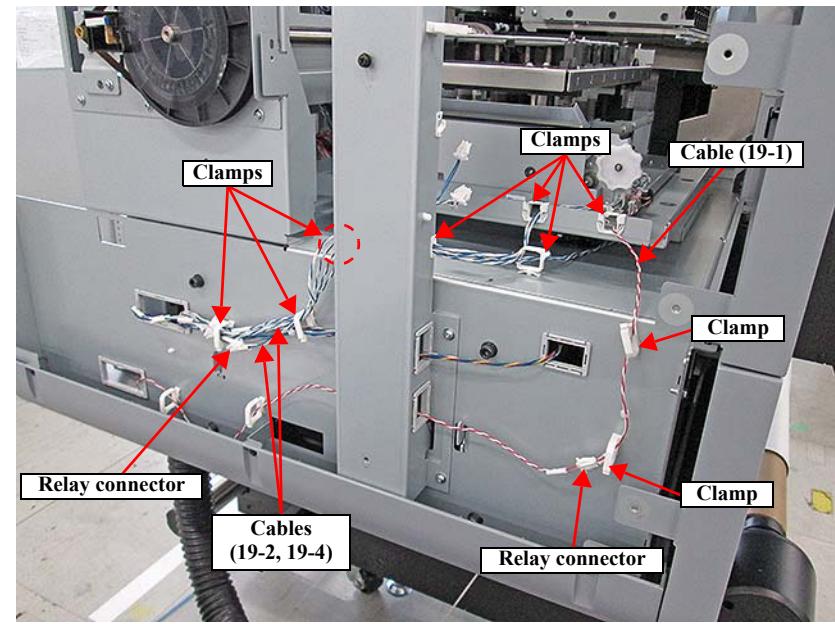


Figure 3-142.

Continue to the next page.

8. Remove the 4 screws and then remove the Anti-Drying Caps Drive Assembly.

A) Silver M4x8 Cup S-tite screw: 4 pc

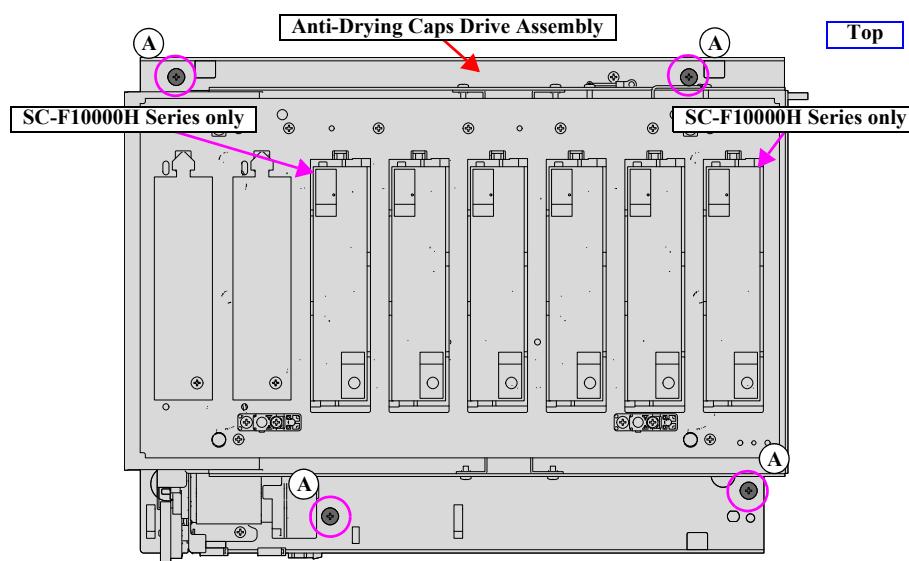


Figure 3-143.



Set the lever of the Anti-Drying Caps Drive Assembly on top of the CR Lock Lever.

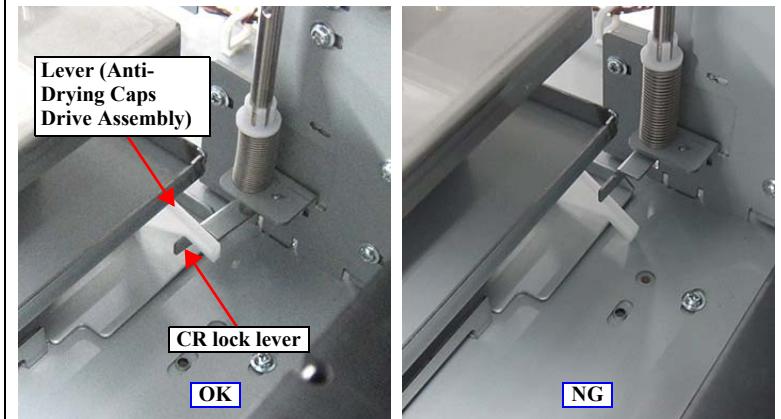


Figure 3-144.

3.4.4.5 Flushing Pad

1. Hold the handle and pull the Cloth Wiper out toward the front.
2. Disengage the hooks and remove the Flushing Pad.

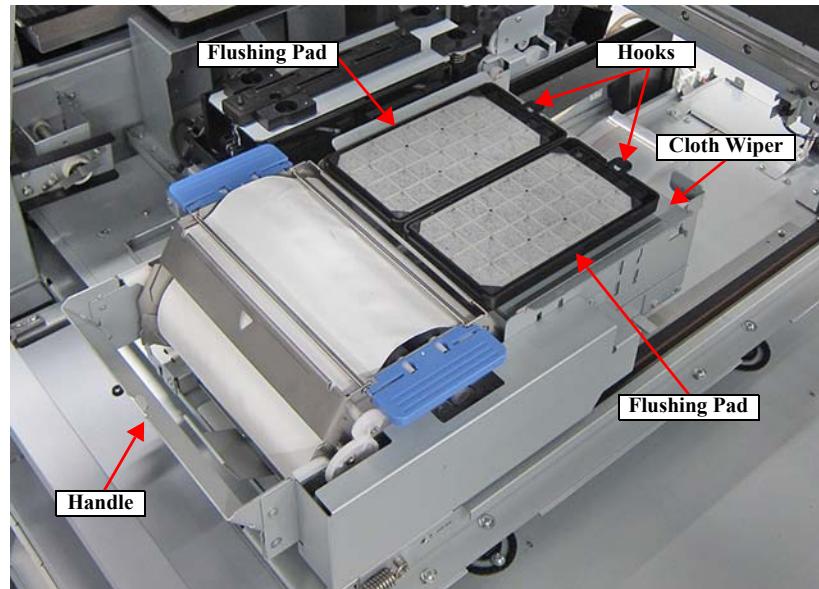


Figure 3-145.

3.4.4.6 CR Position Sensor (Left)

1. Unlock the CR Unit. ([p319](#))
2. Disconnect the cable from the connector of the sensor.
3. Release the cables from the clamp.
4. Loosen the screw and then remove the CR Position Sensor (Left) Assy.

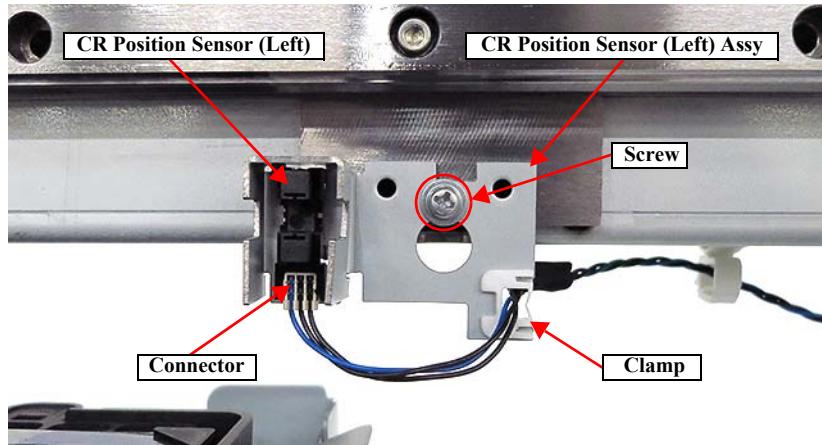


Figure 3-146.

5. Disengage the hooks and then remove the CR Position Sensor (Left).

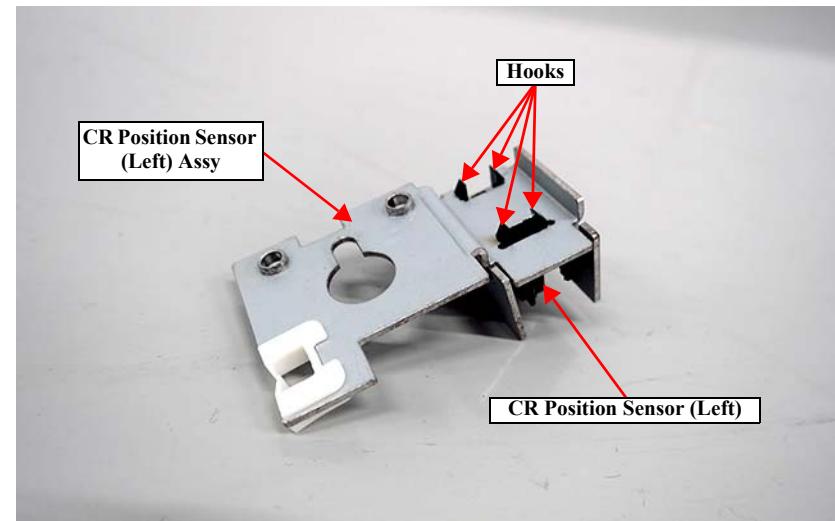


Figure 3-147.

3.4.4.7 CR Position Sensor (Right)

1. Disconnect the cable from the CR Position Sensor (Right) of the connector of the sensor.
2. Release the cables from the clamp.
3. Loosen the screw and then remove the CR Position Sensor (Right) Assy.

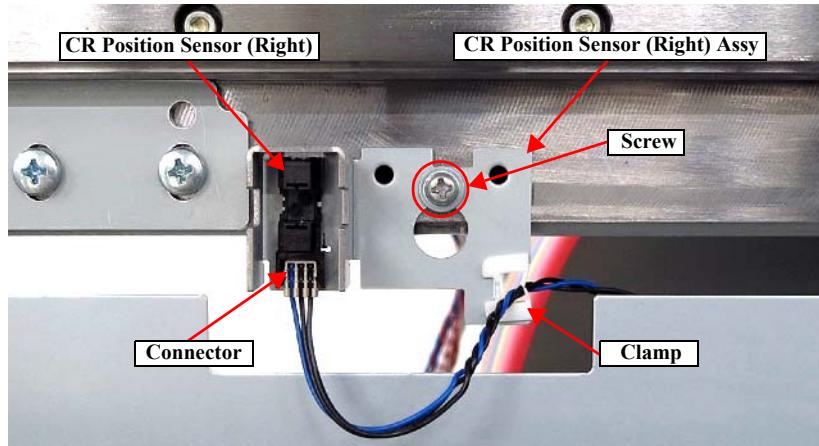


Figure 3-148.

4. Disengage the hooks and then remove the CR Position Sensor (Right).

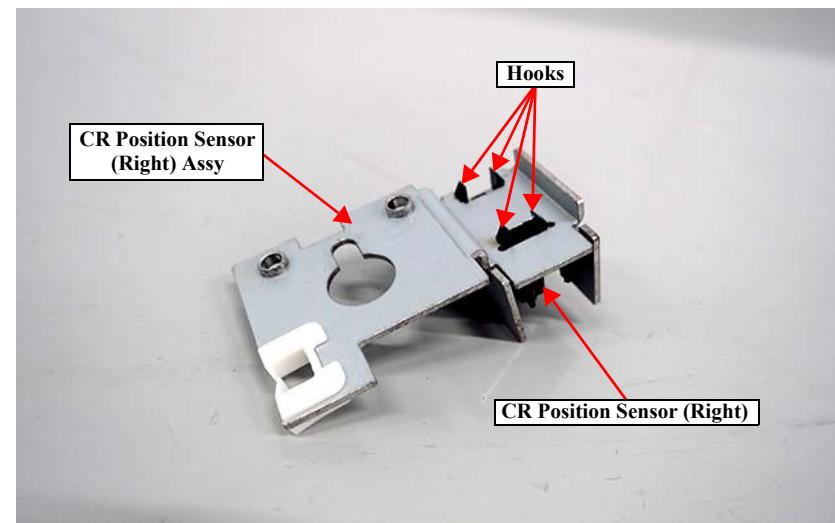


Figure 3-149. 1

3.4.4.8 CR Cover

1. Unlock the CR Unit. ([p319](#))
2. Remove the 4 thumbscrews that secure the CR Cover.
 - A) Black M3x6 S-tite Thumbscrew: 4 pcs
3. Loosen the 6 thumbscrews.
 - B) Black M3x6 S-tite Thumbscrew: 4 pcs
 - C) Black M3x6 S-tite Thumbscrew: 2 pcs



Fasten the 2 screws C indicated in [Figure 3-150](#) together with the earth wires.

4. Remove the CR Cover in the direction of the arrow.

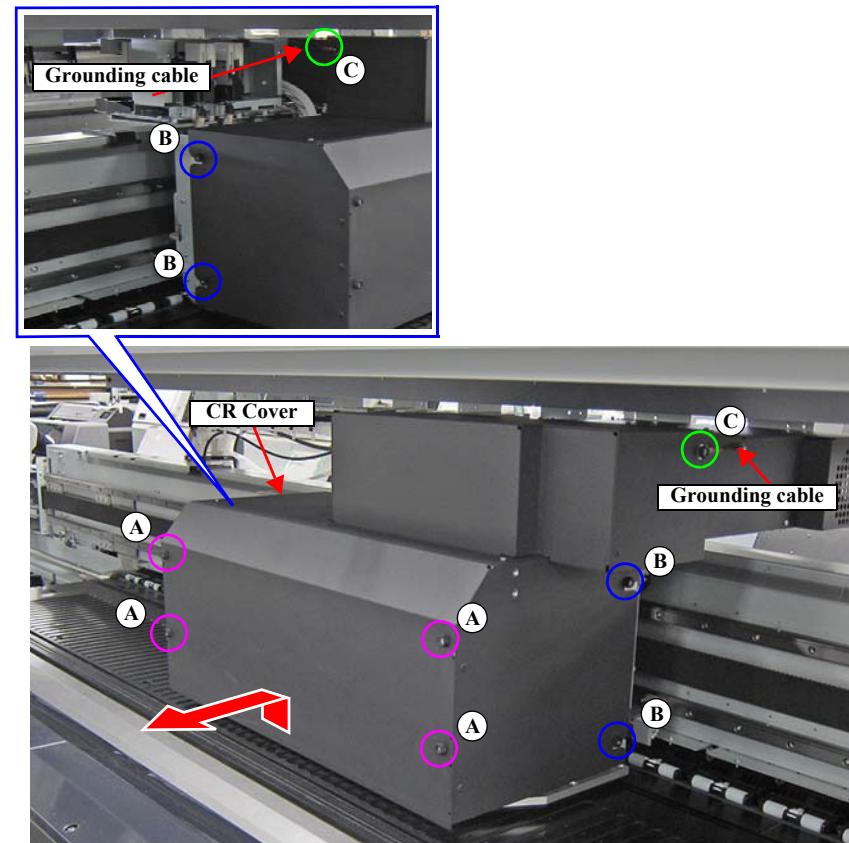


Figure 3-150.

3.4.4.9 APG Sensor

1. Unlock the CR Unit. ([p319](#))
2. Remove the CR Cover. ([p410](#))
3. Disconnect the cable from the connector.
4. Disengage the hooks and then remove the APG Sensor.

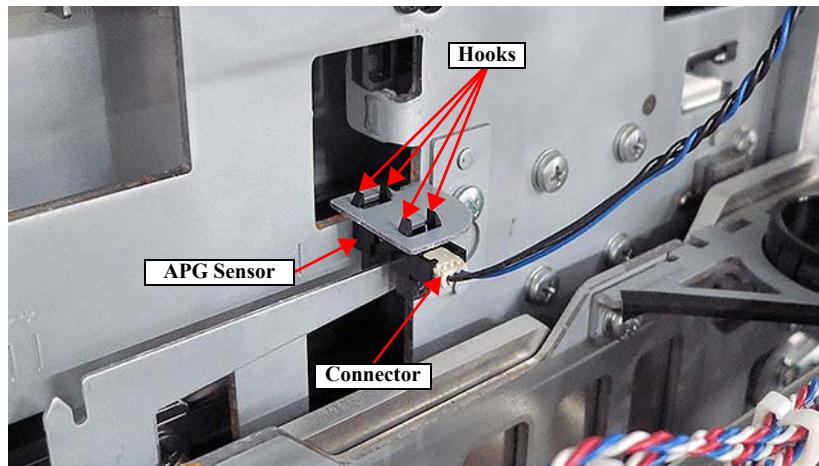


Figure 3-151.

3.4.4.10 Ink Leak Sensor (Cap)

1. Remove the Left Rear Cover. ([p323](#))
2. Remove the Left Top Cover. ([p322](#))
3. Remove the Left Cover. ([p324](#))
4. Remove the Maintenance Cover (Left/Middle). ([p320](#))
5. Remove the 2 screws and then pull the Ink Leak Sensor (Cap) toward the front.
A) Silver M3x8 Cup S-tite screw: 2 pcs

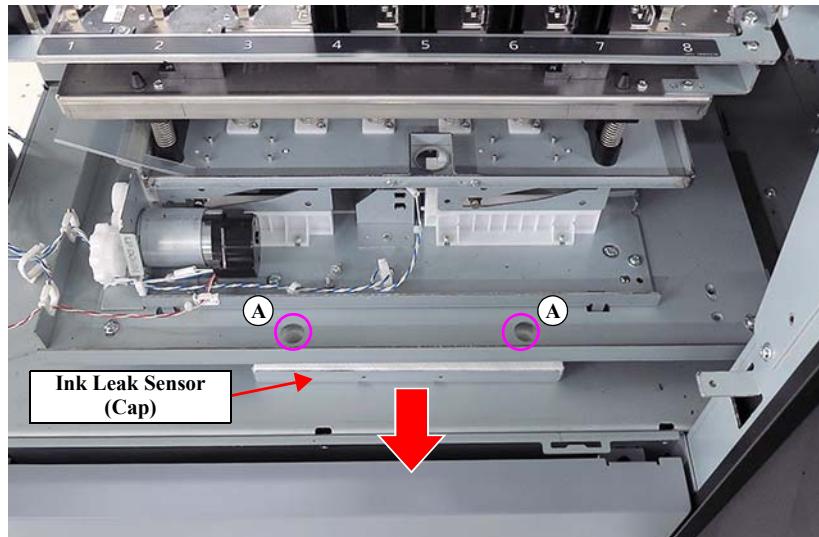


Figure 3-152.

6. Release the cables from the clamp.
7. Disconnect the 2 cables from the connector of the sensor.
8. Remove the Ink Leak Sensor (Cap).



Connect the cables to the sensor with reference to [Figure 3-153](#).

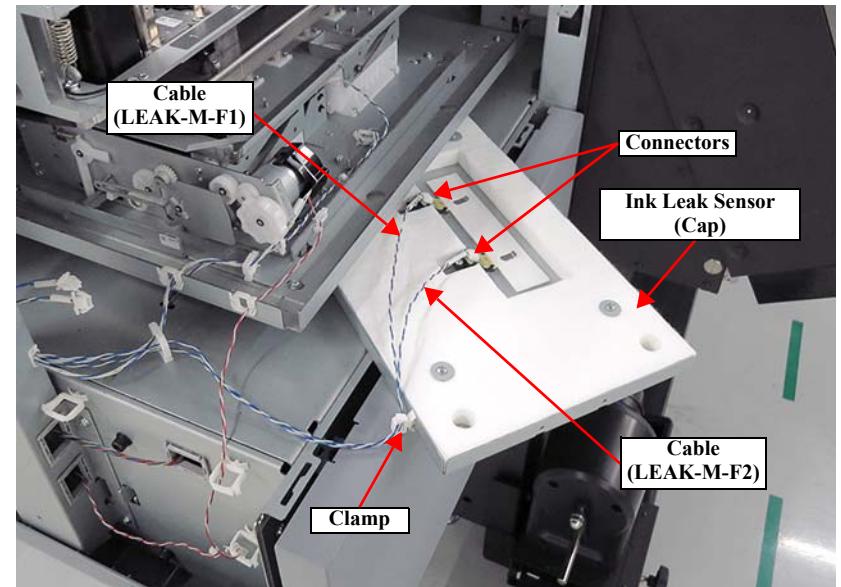


Figure 3-153.

3.4.4.11 Ink Leak Sensor (Pump)

1. Remove the Left Rear Cover. ([p323](#))
2. Remove the two screws, and remove the two grounding cables.
 - A) Silver M3x6 Bind machine screw: 2 pcs
3. Release the cables from the clamp.
4. Remove the screw and then pull out the Ink Leak Sensor (Pump).
 - B) Silver M3x8 Cup S-tite screw: 1 pc



Since the connector of the Ink Leak Sensor (Pump) interferes with the frame and may deform, pull out the Ink Leak Sensor (Pump) without lifting it.

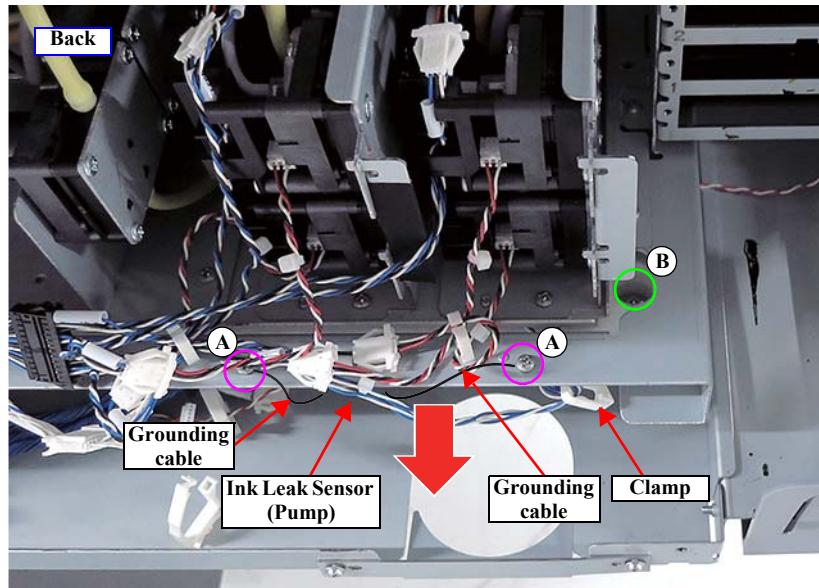


Figure 3-154.

5. Disconnect the 2 cables from the connector of the sensor.



Connect the cables to the sensor with reference to [Figure 3-155](#).

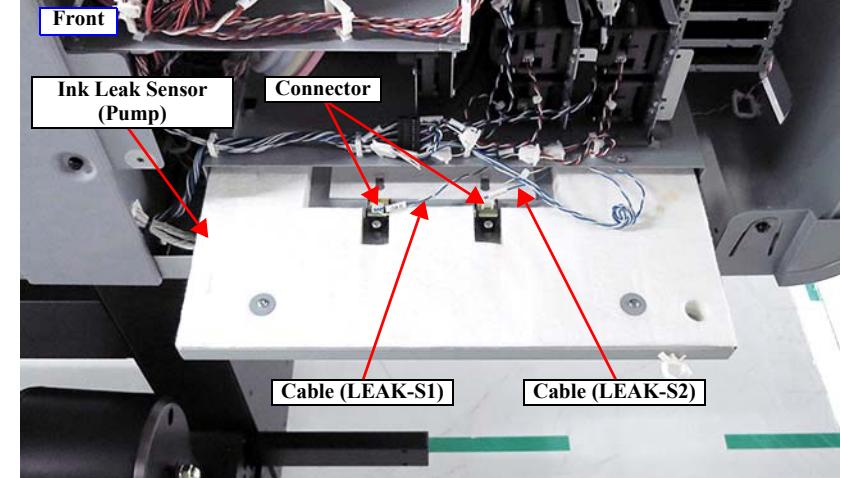


Figure 3-155.

3.4.4.12 Ink Supply Pump (SC-F10000 Series)



When the ink tubes are removed in the following procedure, ink may drip from the tubes. Therefore, prepare a waste cloth or the like in advance and be careful not to contaminate the surroundings.

1. Remove the Left Rear Cover. ([p323](#))
2. Loosen each set of 2 screws that secure the 2 joints of the tubes of the Ink Supply Unit.
3. Remove the 2 tubes of the Ink Supply Unit.
4. Remove the 2 screws and then disconnect the 2 earth wires.
A) Silver M3x6 Bind machine screw: 2 pcs
5. Disconnect the 3 cables (19-15, 19-7, and 19-8) from the relay connectors.
6. Release the cables from the 3 clamps.



Leave the relay connectors at the main body side to reuse them.

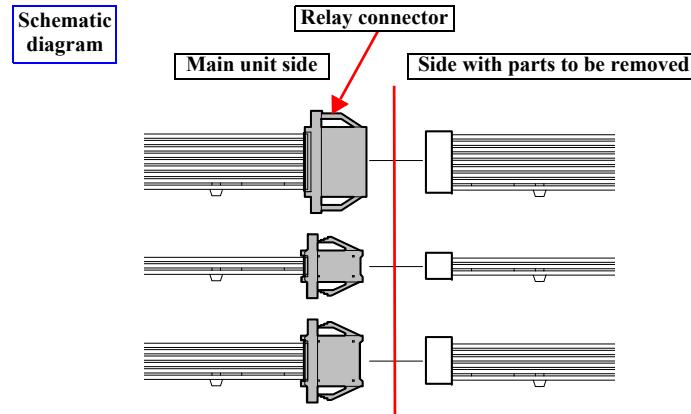


Figure 3-156.

7. Remove the 2 screws and then remove the ink tube.
B) Silver M2.5x16 S-tite screw with built-in spring washer: 2 pcs

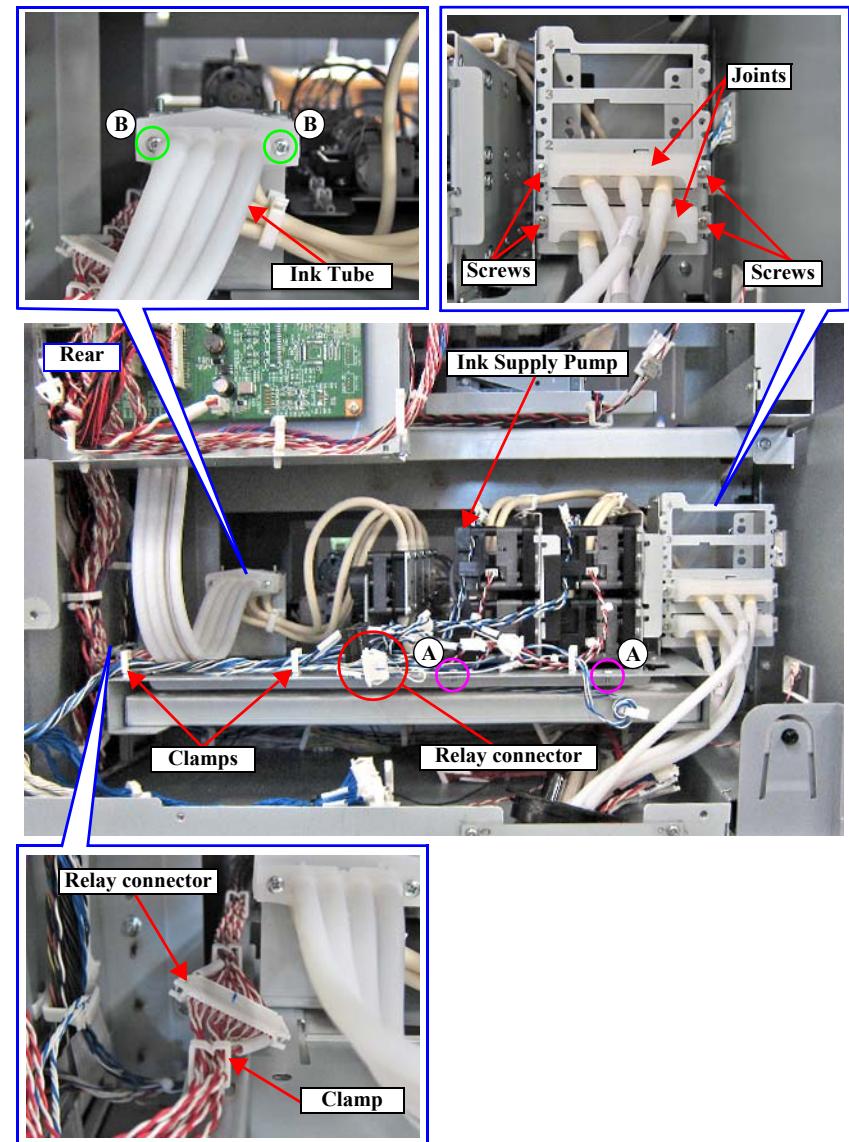


Figure 3-157.

Continue to the next page.

8. Remove the 2 screws that secure the Ink Supply Pump.

C) Silver M4x8 Cup S-tite screw: 2 pcs

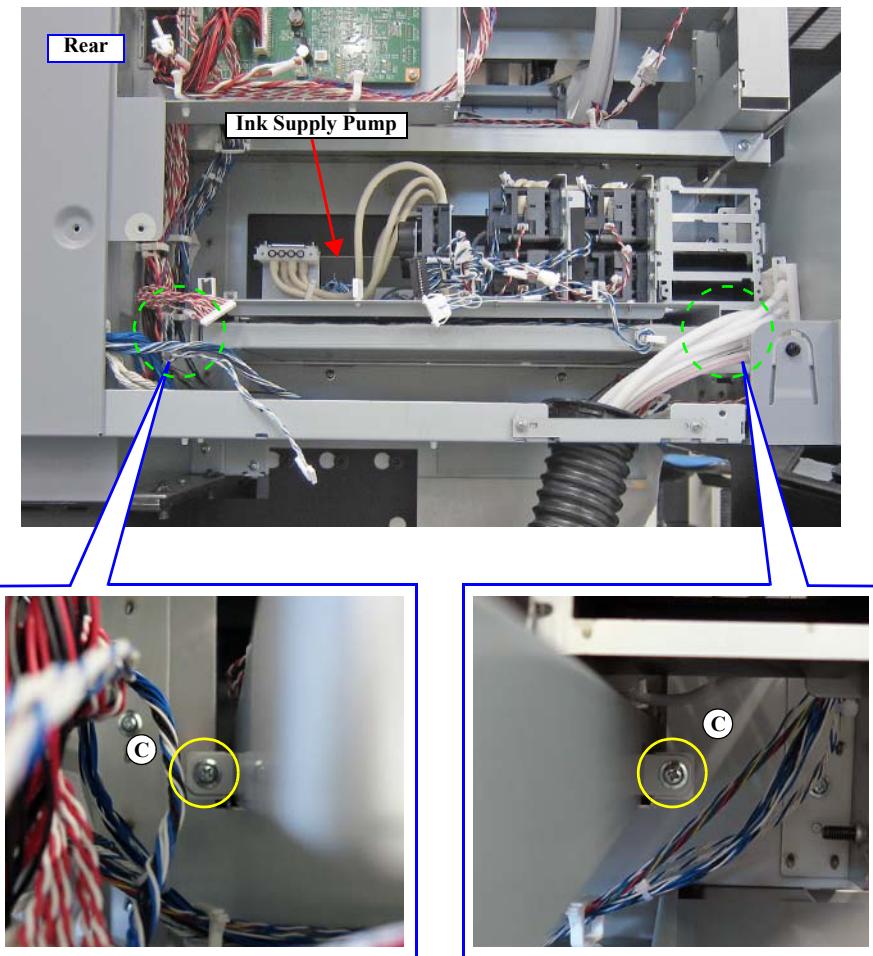


Figure 3-158.

9. Slightly lift the Ink Supply Pump to release the 2 hooks on the bottom from the hole of the frame, and remove it in the direction of the arrow.

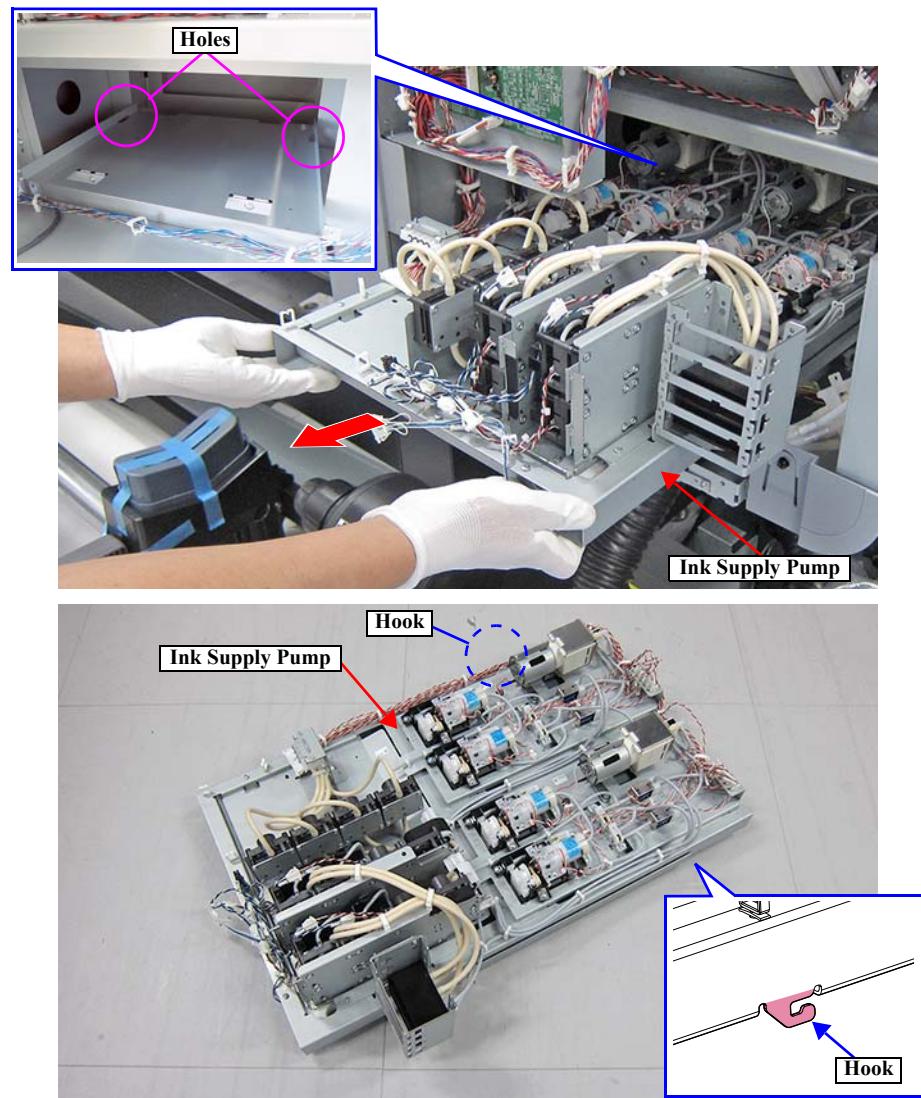


Figure 3-159.

Continue to the next page.



ASSEMBLY

- Before installing the Ink Tube, make sure the Joint Rubber is attached to it.

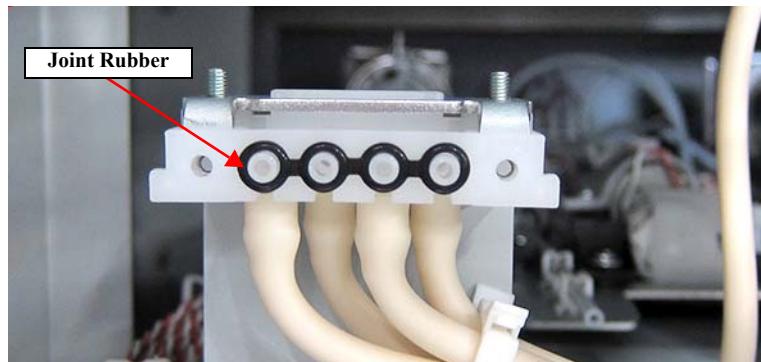


Figure 3-160.

- Replace the joint rubber with the new one because it cannot be reused.
- Before attaching the Joint Rubber, let it get wet with cleaning liquid.
- Tighten the screws that secure the Ink Tube alternately two times with a torque driver.
 - Specified torque: 0.29 ± 0.05 N.m

3.4.4.13 Ink Supply Pump (SC-F10000H Series)

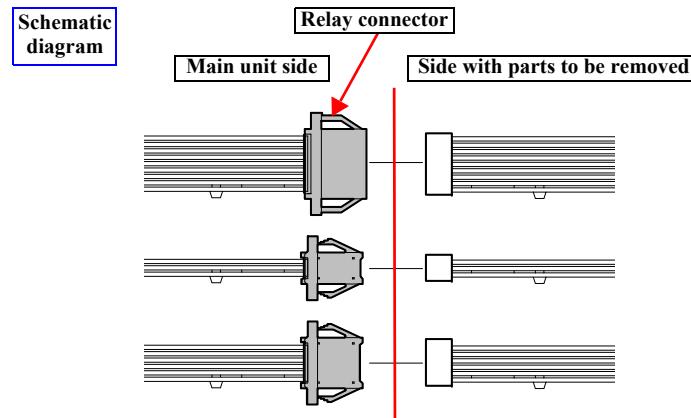


When the ink tubes are removed in the following procedure, ink may drip from the tubes. Therefore, prepare a waste cloth or the like in advance and be careful not to contaminate the surroundings.

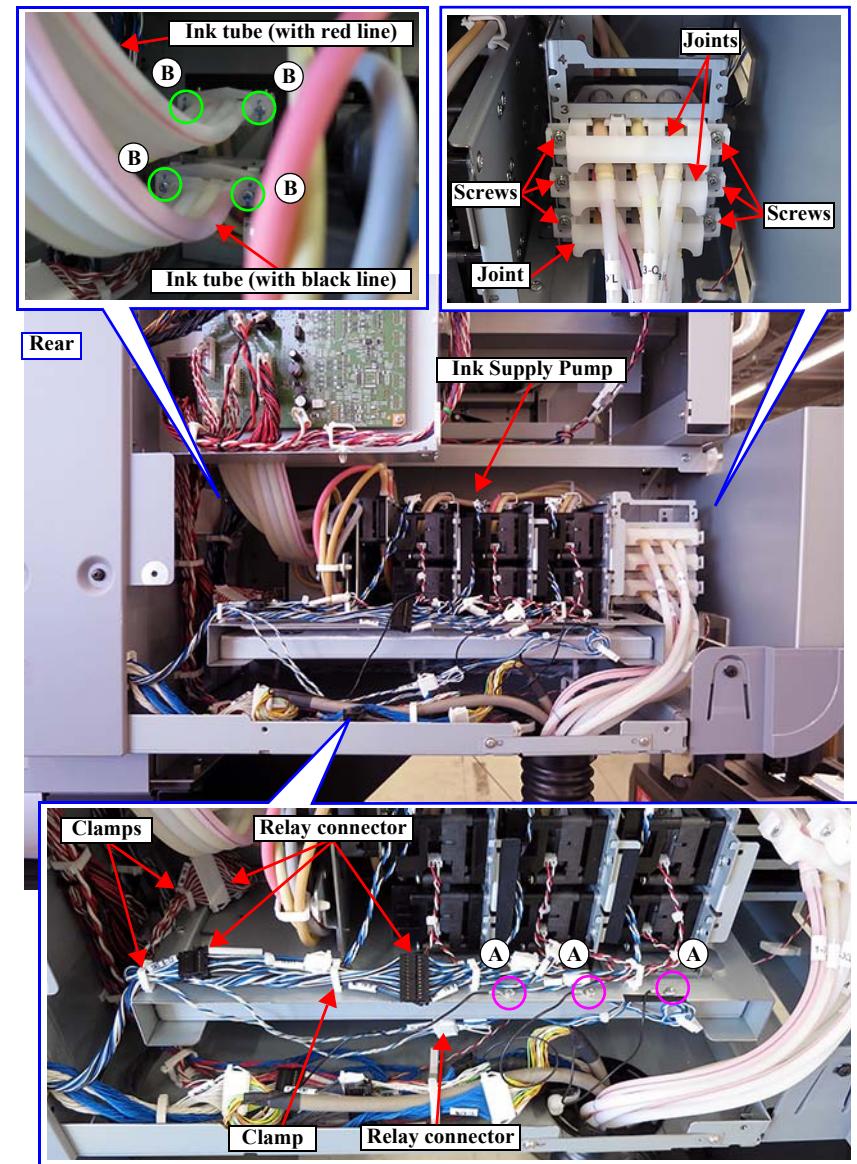
1. Remove the Left Rear Cover. ([p323](#))
2. Loosen each set of 2 screws that secure the 3 joints of the tubes of the Ink Supply Unit.
3. Remove the 3 tubes of the Ink Supply Unit.
4. Remove the 3 screws and then disconnect the 3 earth wires.
A) Silver M3x6 Bind machine screw: 3 pcs
5. Disconnect the 4 cables (19-12, 19-15, 19-7, and 19-8) from the relay connectors.
6. Release the cables from the 3 clamps.



Leave the relay connectors at the main body side to reuse them.



7. Remove each set of 2 screws and then remove the 2 ink tubes.
B) Silver M2.5x16 S-tite screw with built-in spring washer: 4 pcs



Continue to the next page.

8. Remove the 2 screws that secure the Ink Supply Pump.

C) Silver M4x8 Cup S-tite screw: 2 pcs

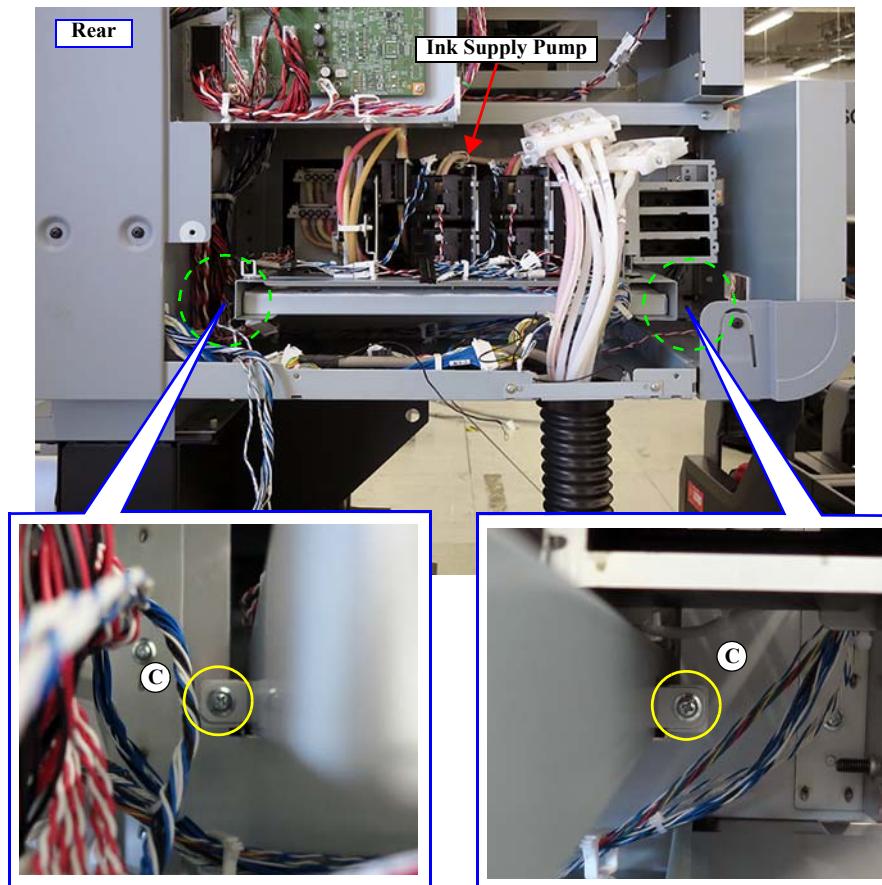


Figure 3-163.

9. Slightly lift the Ink Supply Pump to release the 2 hooks on the bottom from the hole of the frame, and remove it in the direction of the arrow.

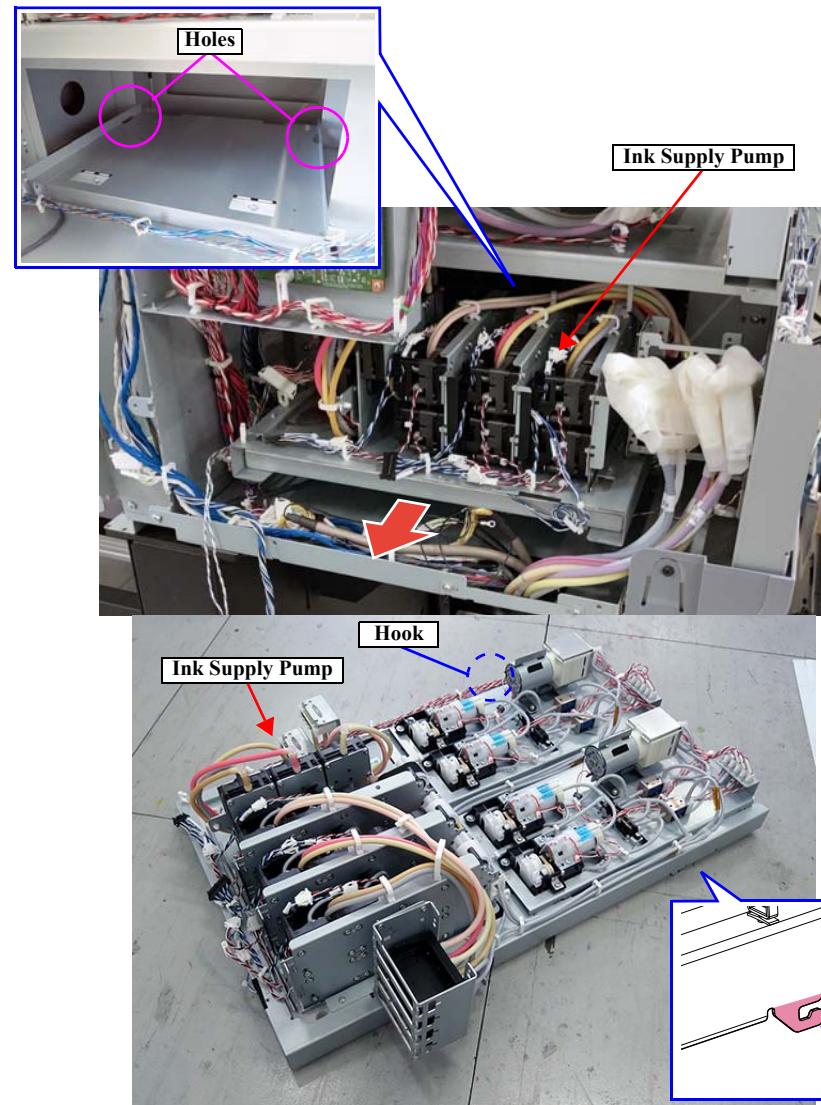


Figure 3-164.

Continue to the next page.



ASSEMBLY

- Before installing the Ink Tube, make sure the Joint Rubber is attached to it.

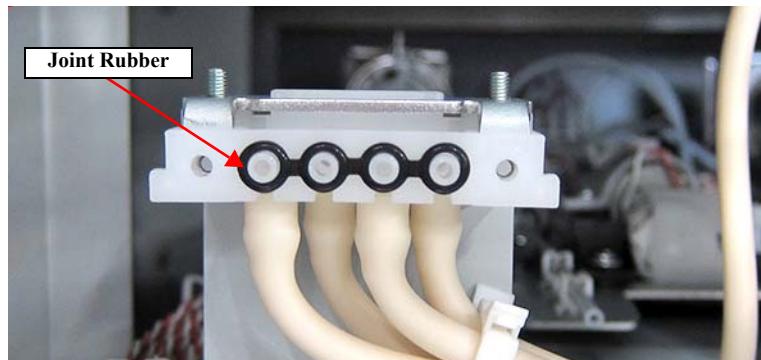


Figure 3-165.

- Replace the joint rubber with the new one because it cannot be reused.
- Before attaching the Joint Rubber, let it get wet with cleaning liquid.
- Tighten the screws that secure the Ink Tube alternately two times with a torque driver.
 - Specified torque: 0.29 ± 0.05 N.m



ASSEMBLY

- Attach the ink tubes as shown below.

- Ink tube marked with red line
Upper Ink Supply Pump connecting joint
- Ink tube marked with black line
Lower Ink Supply Pump connecting joint

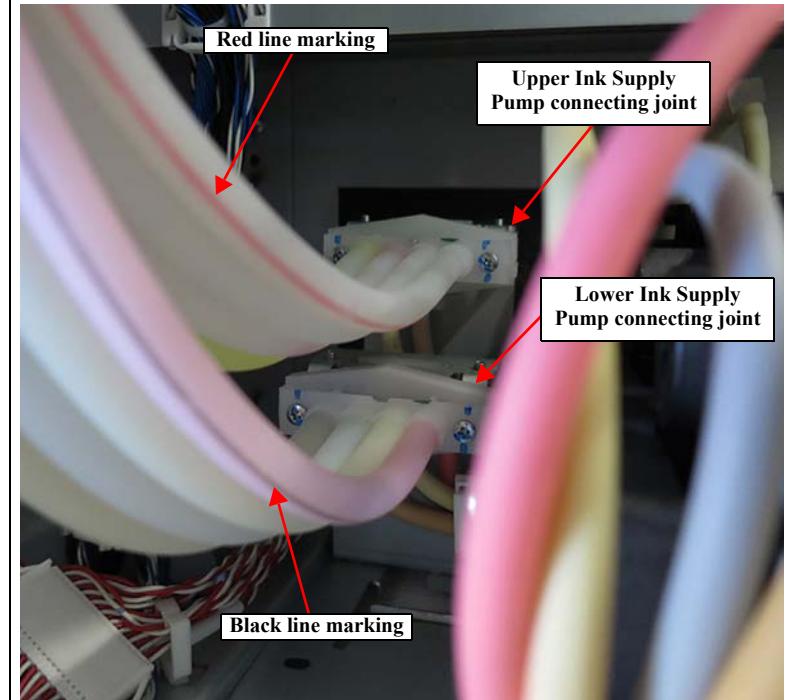


Figure 3-166.

3.4.4.14 Ink Supply Sub Pump Assy



This section describes the disassembly procedure for the Ink Supply Sub Pump Assy (Left). The Ink Supply Sub Pump Assy (Right) can also be disassembled using the same procedure.

1. Remove the Left Rear Cover. ([p.323](#))
2. Remove the Ink Supply Pump.
 - SC-F10000 Series: [p. 414](#)
 - SC-F10000H Series: [p. 417](#)
3. Disconnect the cables (S1, S2, D1, D2, and P1) from the 5 connectors.



The connector numbers are printed on the frame. Connect the cables for the Ink Supply Sub Pump Assy (Left) according to the connector numbers at the top, and the connectors for the Ink Supply Sub Pump Assy (Right) according to the connector numbers at the bottom.

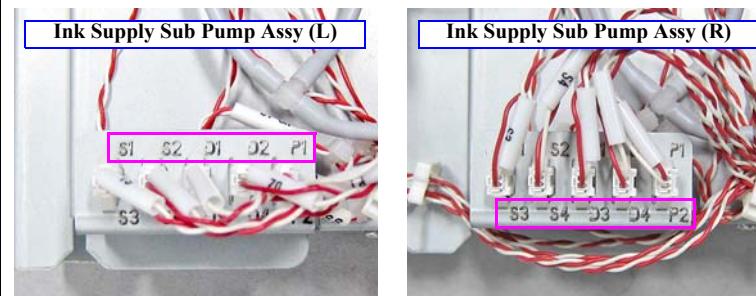


Figure 3-167.

4. Release the cables from the 1 clamps.
5. Remove the air tubes from the joints in 4 places.
6. Remove the screw and then remove the Ink Supply Sub Pump Assy (Left) toward the front.
 - A) Silver M3x6 Bind machine screw: 1 pc

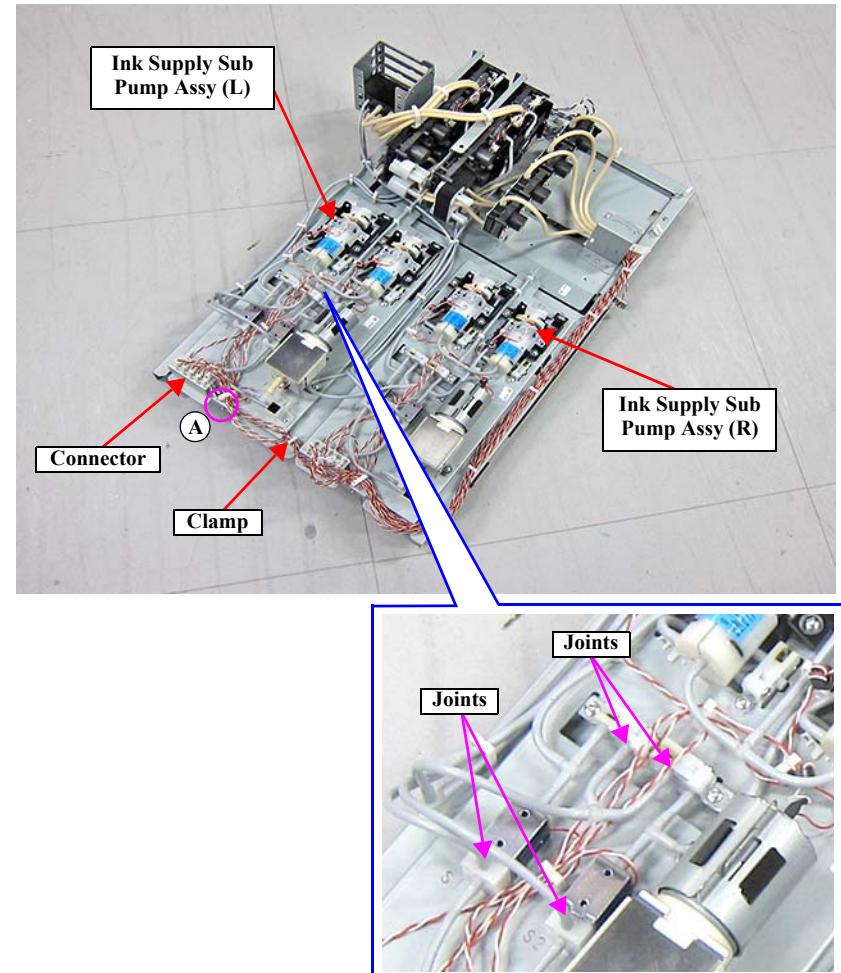


Figure 3-168.

3.4.4.15 Cleaning Pump

1. Remove the Right Rear Cover. ([p327](#))
2. Remove the Rear Top Cover. ([p328](#))
3. Remove the Rear Cover. ([p325](#))
4. Remove the Rear Inner Cover. ([p326](#))
5. Remove the 2 screws and then remove the air tubes.
A) Silver M2.5x16 S-tite screw with built-in spring washer: 2 pcs



ASSEMBLY

- Before installing the tube, make sure the Joint Rubber is attached to it.

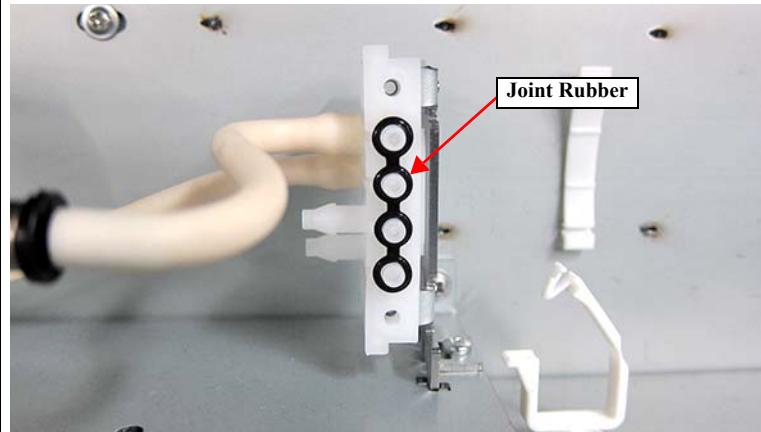


Figure 3-169.

- Replace the joint rubber with the new one because it cannot be reused.
- Before attaching the Joint Rubber, let it get wet with cleaning liquid.
- Tighten the screws that secure the tube alternately two times with a torque driver.
 - Specified torque: 0.29 ± 0.05 N.m

6. Disconnect the 4 cables (9-9, 9-10, 9-11, and 9-12) from the relay connectors.



Leave the relay connectors at the main body side to reuse them.

Schematic diagram

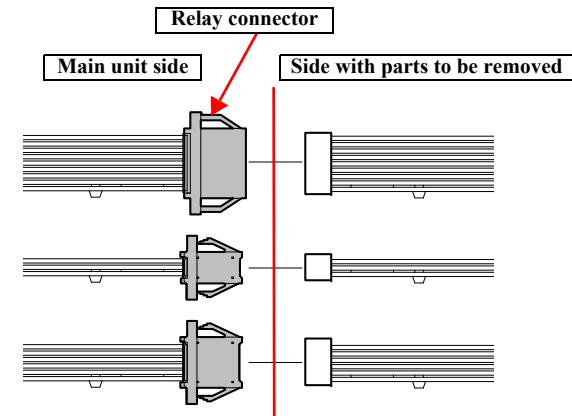


Figure 3-170.

Continue to the next page.

7. Remove the 4 screws and then remove the Cleaning Pump.

B) Silver M3x8 Cup S-tite screw: 4 pcs

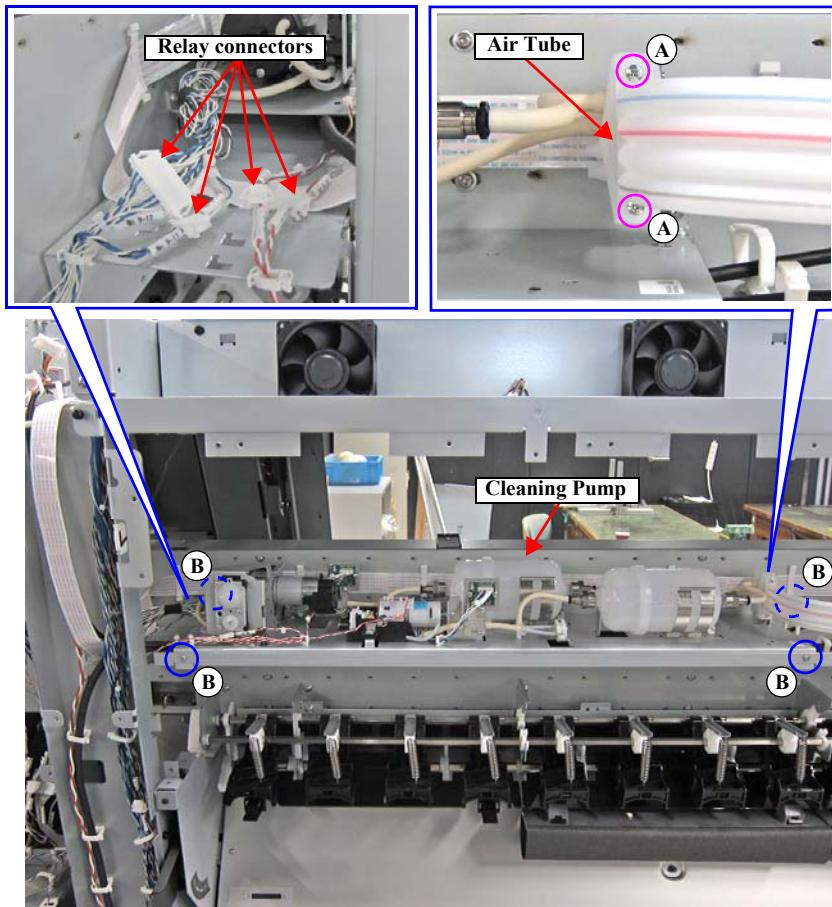


Figure 3-171.

3.4.4.16 Wiper Unit Drive Assembly

1. Remove the Right Rear Cover. ([p327](#))
2. Disconnect the 4 cables (9-1, 9-2, 9-3, and 9-4) from the relay connectors.



Leave the relay connectors at the main body side to reuse them.

Schematic diagram

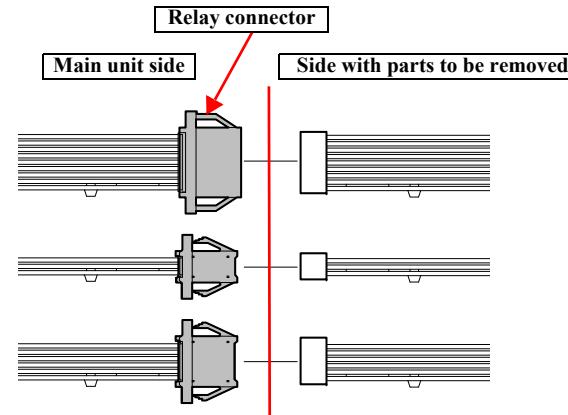


Figure 3-172.

3. Release the cables from the 6 clamps.

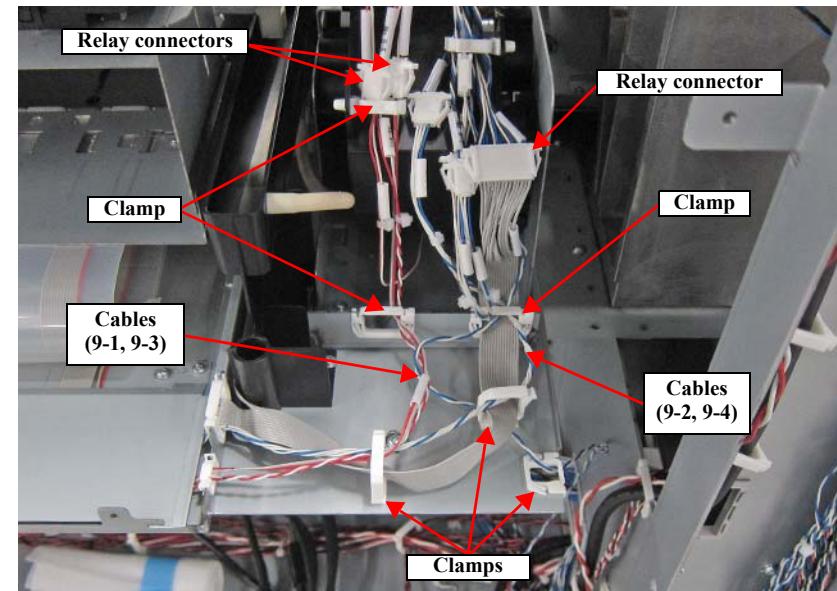


Figure 3-173.

Continue to the next page.

4. Remove the 6 screws that secure the Wiper Unit Drive Assembly.

- A) Silver M3x8 Cup S-tite screw: 4 pcs
- B) Silver M3x6 Bind machine screw

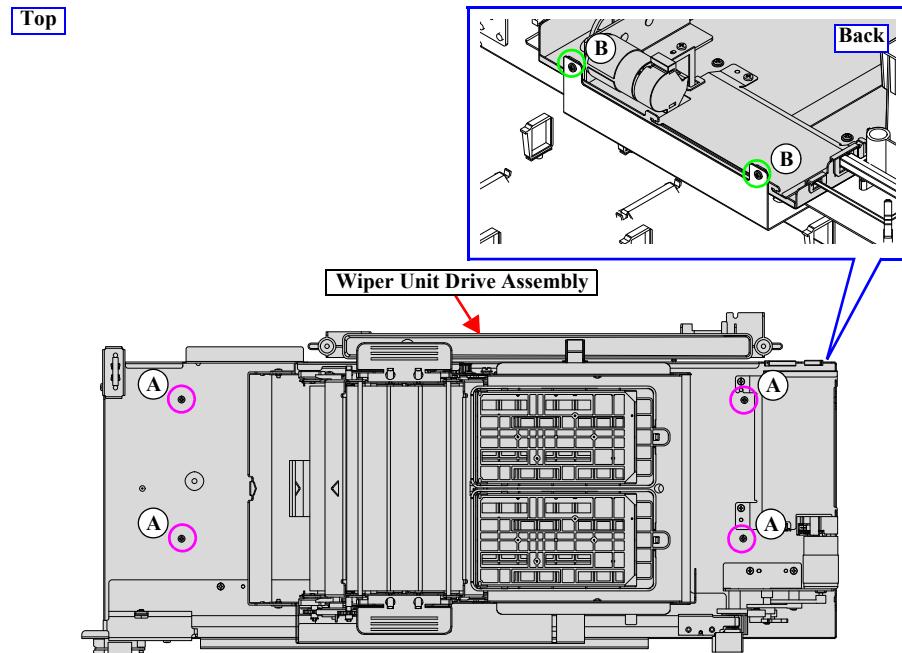


Figure 3-174.

5. Remove the Wiper Unit Drive Assembly toward the front.

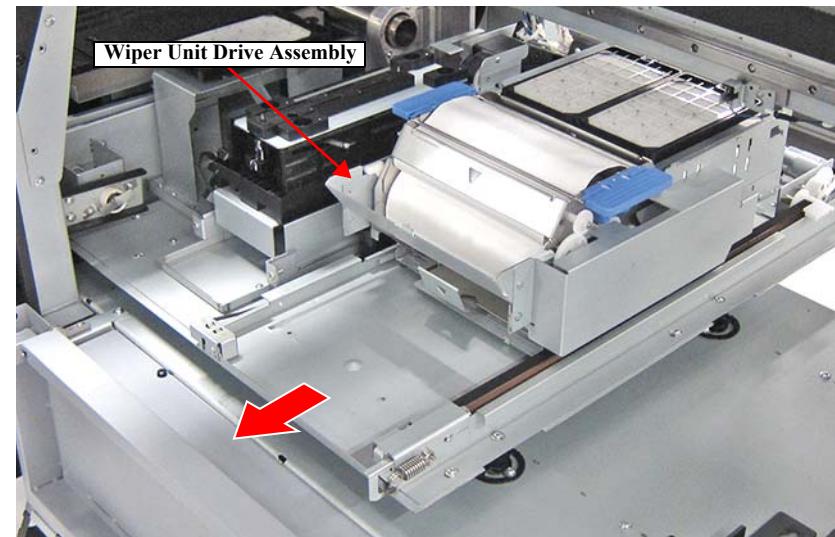


Figure 3-175.

3.4.4.17 Ink Leak Sensor (Cloth Wiper)

1. Remove the Right Rear Cover. ([p327](#))
2. Remove the two screws that secure the Ink Leak Sensor (Cloth Wiper).
 - A) Silver M3x6 Bind machine screw: 2 pcs
3. Pull out the Ink Leak Sensor (Cloth Wiper) toward you.

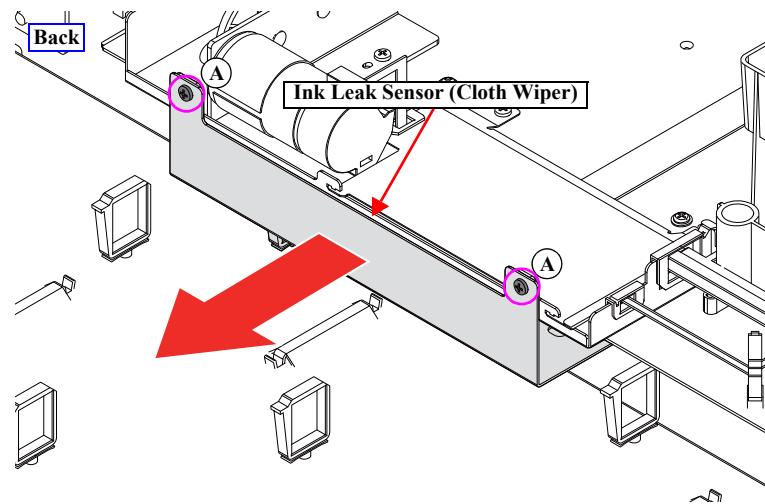


Figure 3-176.

4. Disconnect the cable from the connector.

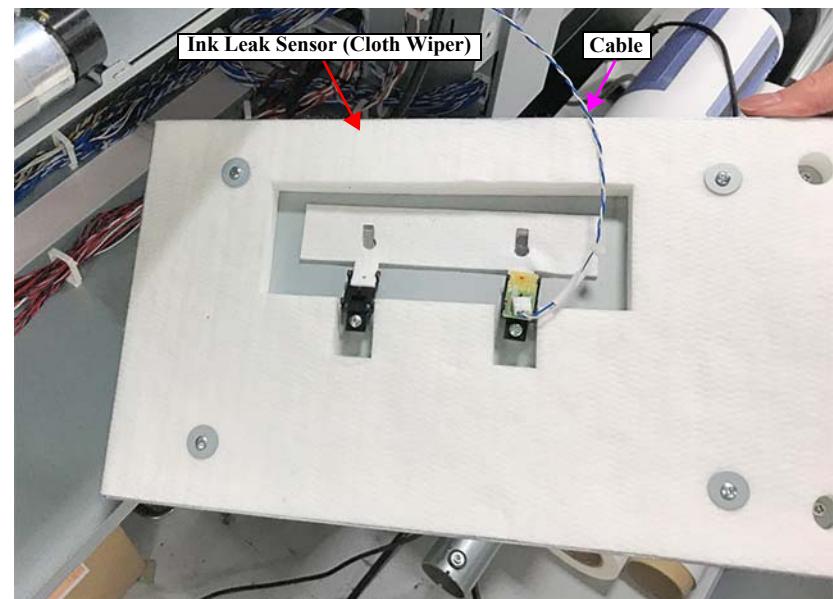


Figure 3-177.

3.4.4.18 Suction Pump



When the Waste Ink Tube is removed at the following step, waste ink may drip off from the tube. Prepare a waste cloth or the like in advance and be careful not to contaminate the surroundings.

1. Remove the 2 screws and then disconnect the joint of the Waste Ink Tube.
 - A) Silver M4x12 Bind machine screw: 2 pcs
2. Remove the 2 screws and then remove the Suction Pump toward the front.
 - B) Silver M4x12 Bind machine screw: 2 pcs

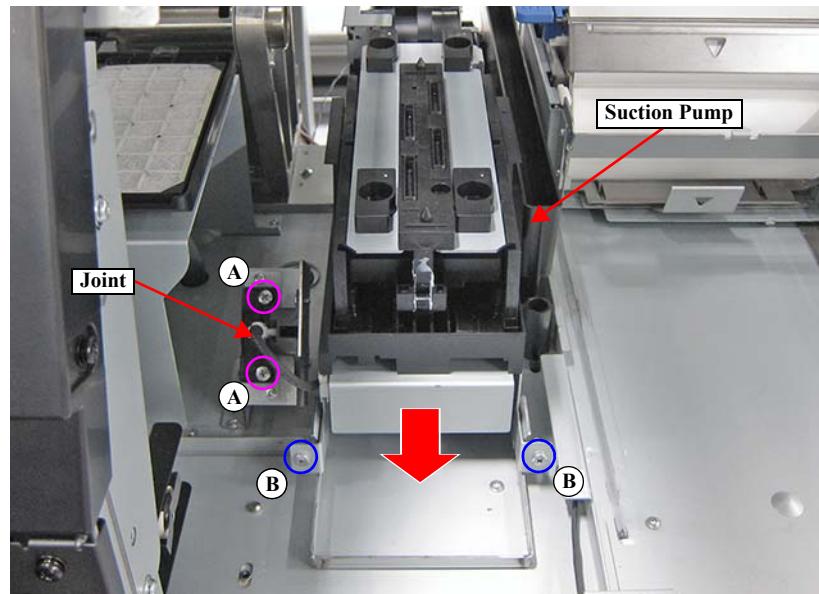


Figure 3-178.

3.4.4.19 Suction Cap Drive Unit

1. Remove the Right Rear Cover. ([p327](#))
2. Remove the Suction Pump. ([p426](#))
3. Disconnect the 3 cables (9-5, 9-6, and 9-7) from the relay connectors.



Leave the relay connectors at the main body side to reuse them.

Schematic diagram

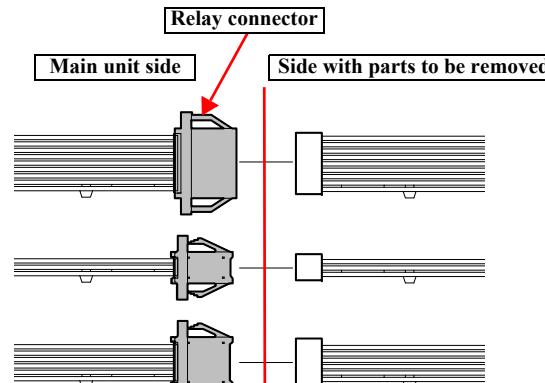


Figure 3-179.

4. Release the cables from the 2 clamps.

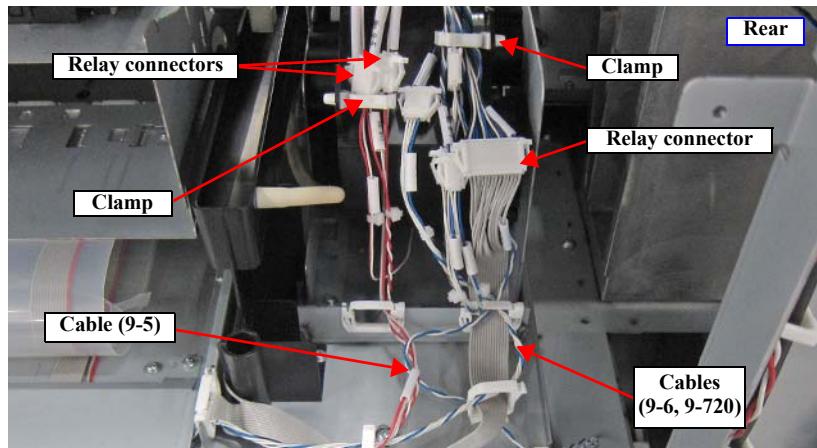


Figure 3-180.

5. Remove the 4 screws and then remove the Suction Cap Drive Unit toward the front.
- A) Silver M3x8 Cup S-tite screw: 4 pcs

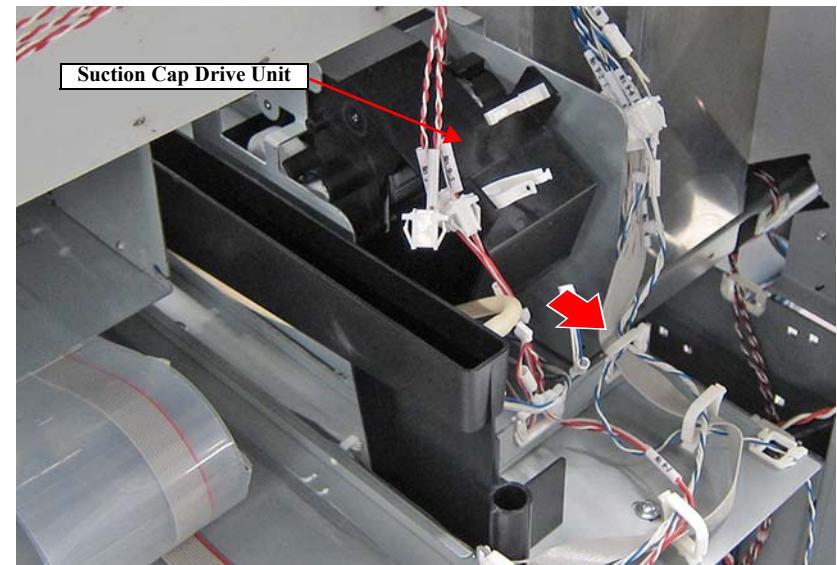
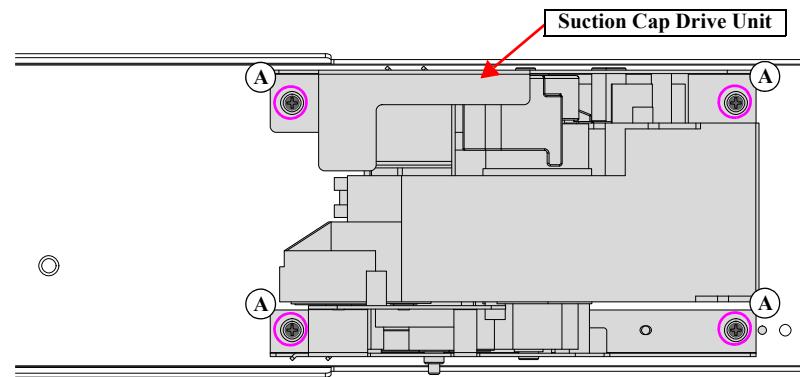


Figure 3-181.

3.4.4.20 CR Encoder Sensor

1. Unlock the CR Unit. ([p319](#))
2. Remove the CR Cover. ([p410](#))
3. Remove the Right Rear Cover. ([p327](#))
4. Remove the Right Top Cover. ([p329](#))
5. Remove the Right Cover. ([p331](#))
6. Loosen the 2 screws that secure the CR Encoder Sensor Assy.

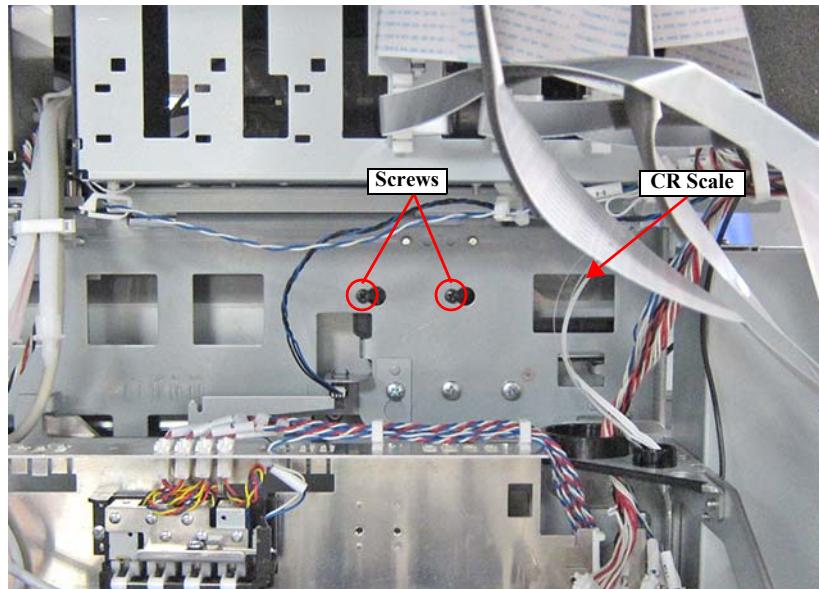


Figure 3-182.



Be careful not to damage the CR Scale in the following procedure.

7. Pull out the CR Encoder Sensor Assy.

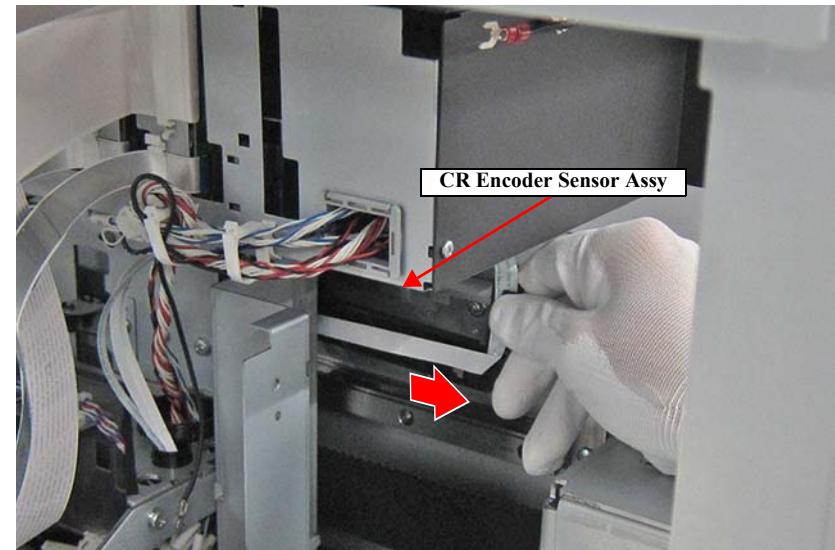


Figure 3-183.

8. Disconnect the FFC from the connector of the CR Encoder Sensor.

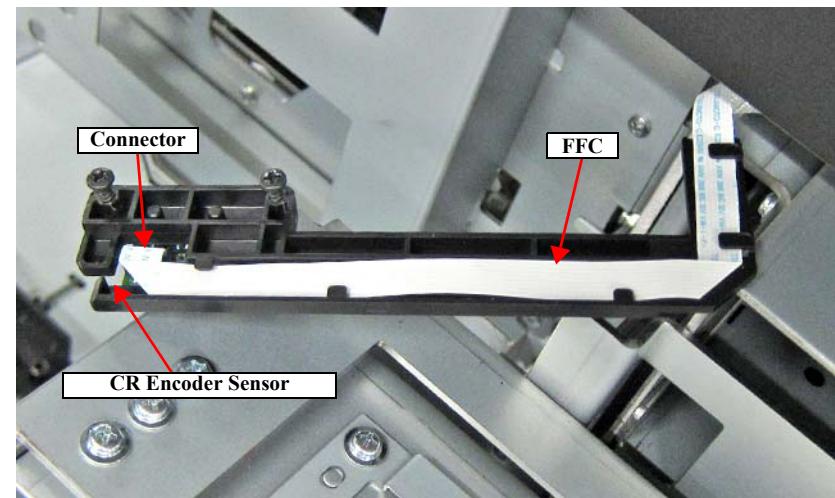


Figure 3-184.

Continue to the next page.

9. Remove the 2 screws and then remove the CR Encoder Sensor.

A) Silver M2x8 P-tite screw: 2 pcs

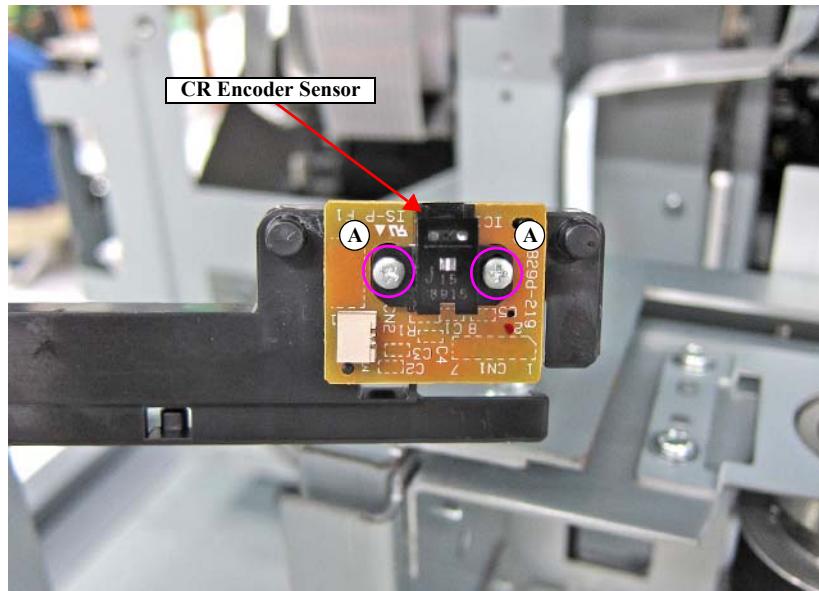


Figure 3-185.

3.4.4.21 RGB Camera

1. Unlock the CR Unit. ([p319](#))
2. Remove the CR Cover. ([p410](#))
3. Disconnect the 2 cables from the connectors.
4. Remove the 2 screws and then remove the RGB Camera.
A) Silver M3x18 Bind machine screw: 2 pcs

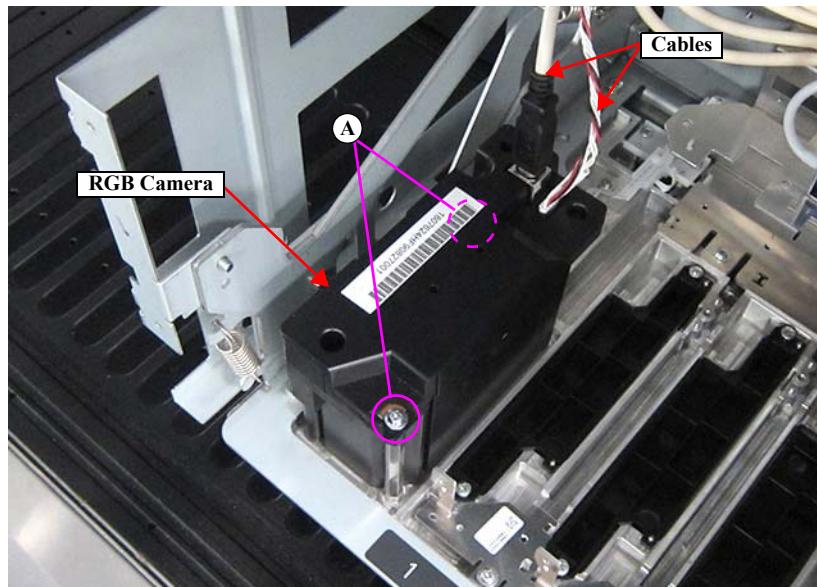


Figure 3-186.

3.4.4.22 PW Sensor

1. Unlock the CR Unit. ([p319](#))
2. Remove the CR Cover. ([p410](#))
3. Move the CR Unit to the home side.
4. Release the 2 FFC from the sensor cover.
5. Remove the 2 screws and then remove the sensor cover.
- A) Silver M3x6 Bind machine screw: 2 pcs

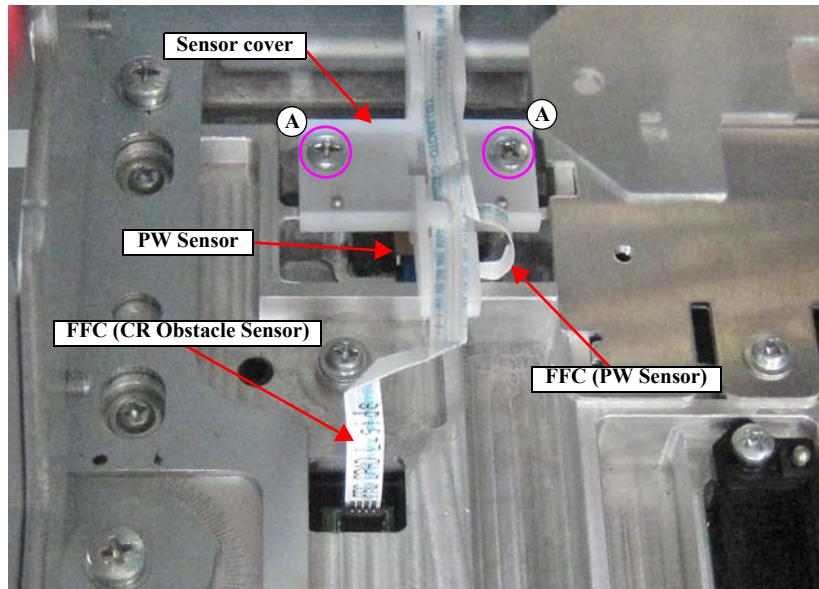


Figure 3-187.

6. Remove the PW Sensor Assy while pushing it from the bottom.

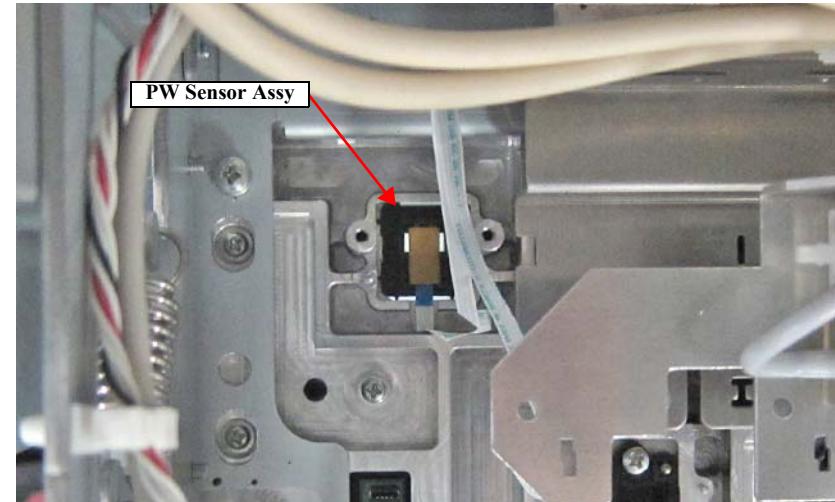


Figure 3-188.

7. Remove the PW Sensor from the sensor holder.
8. Disconnect the FFC from the connector of the PW Sensor.

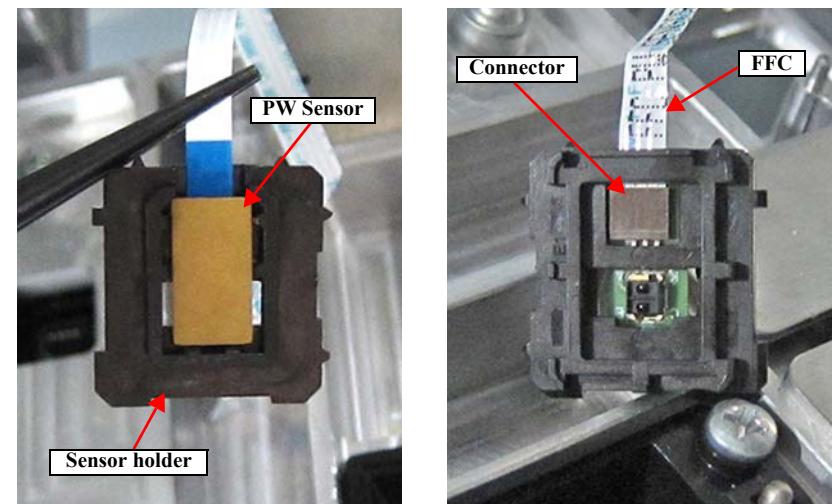


Figure 3-189.

3.4.4.23 CR Obstacle Sensor

□ When removing the sensor on the left side

1. Unlock the CR Unit. ([p319](#))
2. Remove the CR Cover. ([p410](#))
3. Disconnect the FFC from the connector of the sensor.
4. Remove the 5 screws and then remove the CR Obstacle Sensor (Left).
- A) Silver M3x8 Cup S-tite screw: 5 pcs

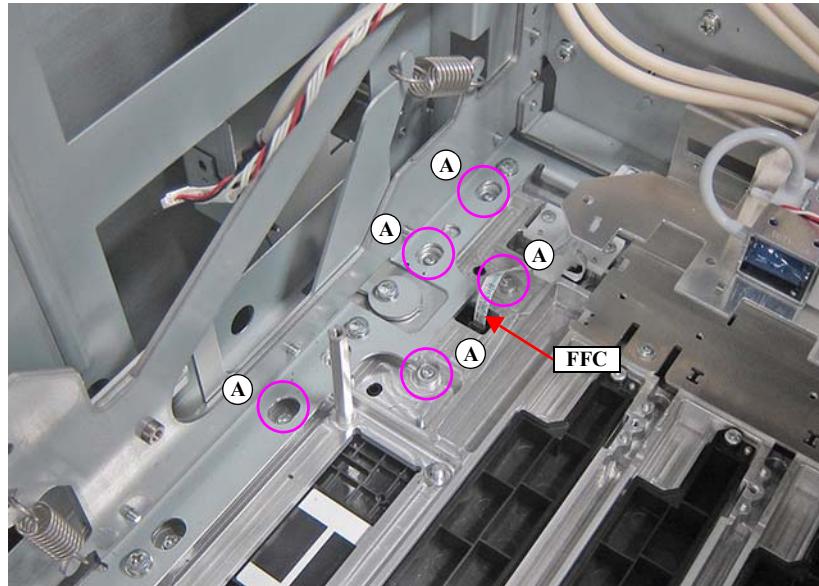


Figure 3-190.

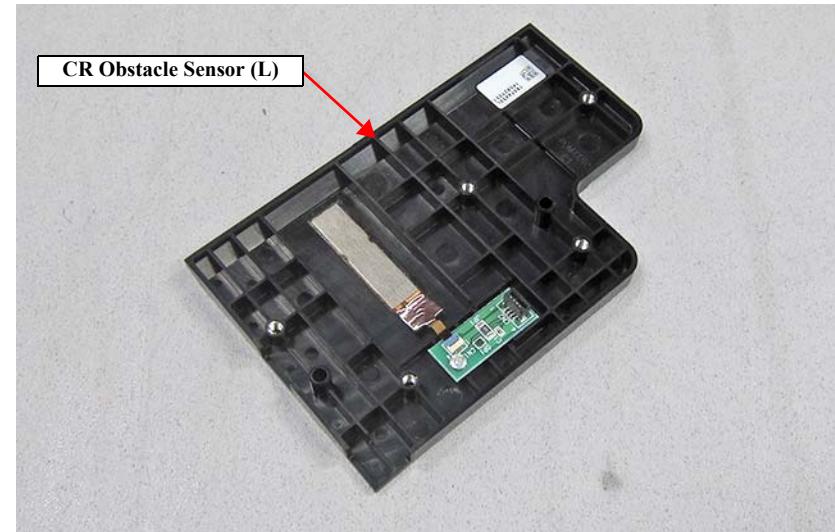


Figure 3-191.



When replacing the CR Obstacle Sensor, check the following points.

- Before replacement, write down the 3-digit number printed on the label of the new CR Obstacle Sensor.

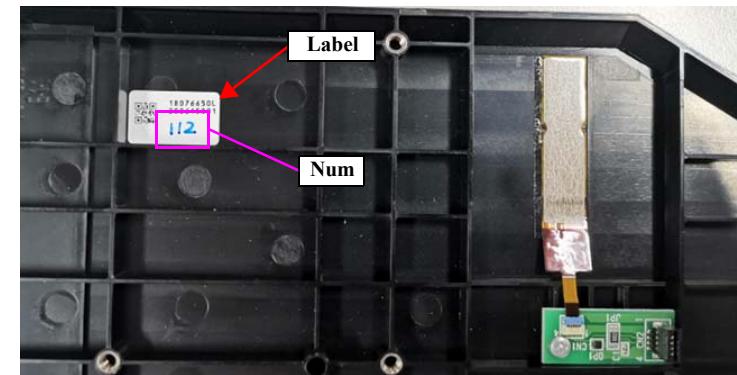


Figure 3-192.

- After replacement, enter the number you wrote down in “Input Contact Sensor” of the service program.

Continue to the next page.

□ When removing the sensor on the right side

1. Unlock the CR Unit. ([p319](#))
2. Remove the CR Cover. ([p410](#))
3. Remove the 3 screws and then remove the CR Right Side Frame.
 - A) Silver M4x8 Bind machine screw: 3 pcs

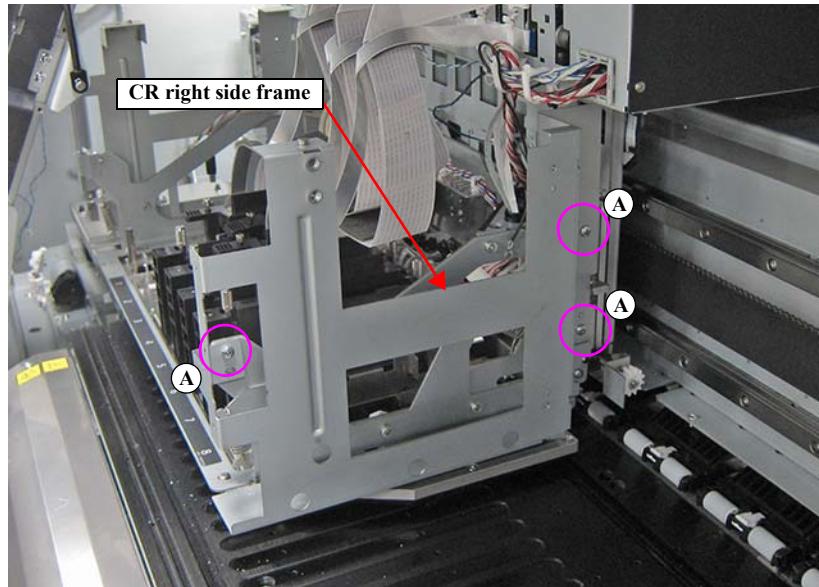


Figure 3-193.

4. Disconnect the FFC from the connector of the sensor.

5. Remove the 6 screws and then remove the CR Obstacle Sensor (Right).

- B) Silver M3x8 Cup S-tite screw: 6 pcs

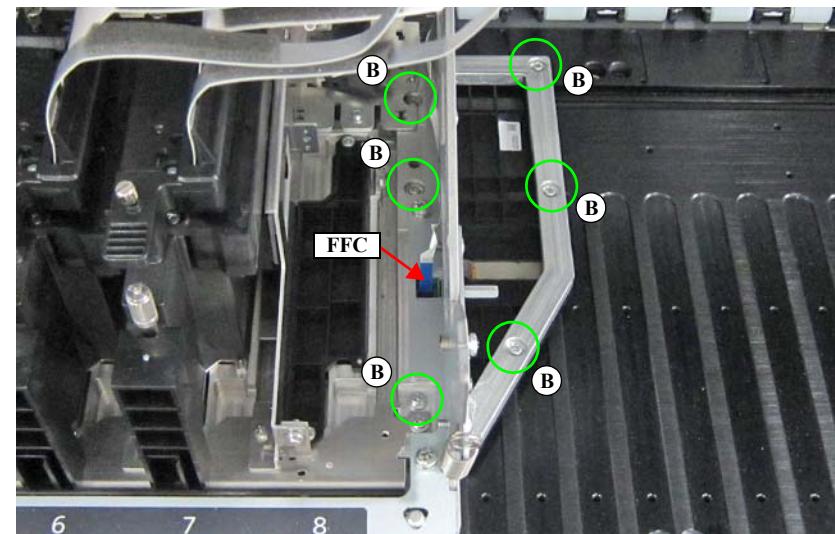


Figure 3-194.

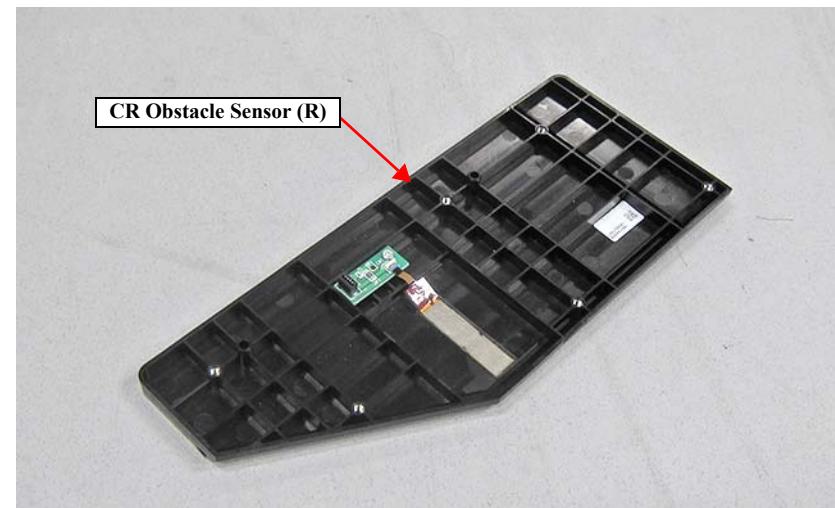


Figure 3-195.

Continue to the next page.



When replacing the CR Obstacle Sensor, check the following points.

- Before replacement, write down the 3-digit number printed on the label of the new CR Obstacle Sensor.

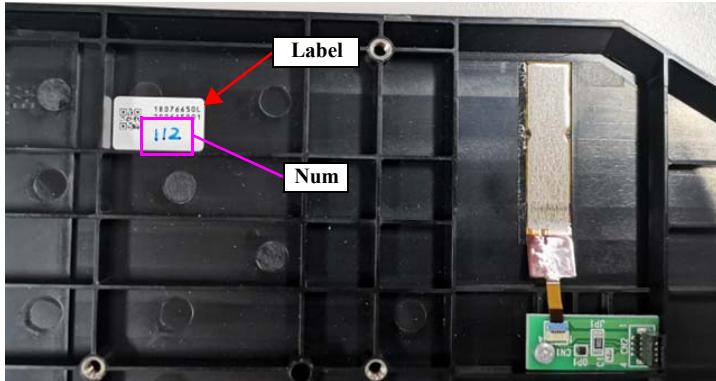


Figure 3-196.

- After replacement, enter the number you wrote down in “Input Contact Sensor” of the service program.

3.4.4.24 Duct Carriage Assy

1. Unlock the CR Unit. ([p319](#))
2. Remove the CR Cover. ([p410](#))
3. Remove the Print Head. ([p402](#))
4. Remove the Filter Unit. ([p438](#))
5. Remove the 5 screws that secure the Duct Carriage Assy.
A) Silver M3x8 Cup S-tite screw: 5 pcs

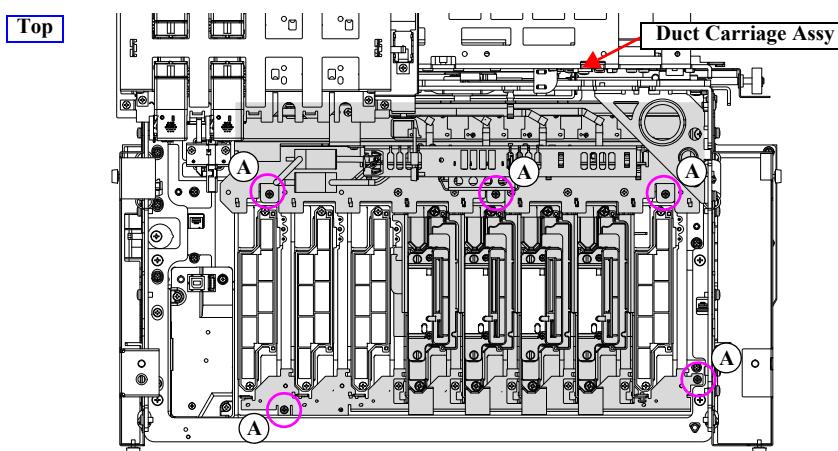


Figure 3-197.

6. Disconnect the cables given below from the relay connectors of the Solenoid Valve Assy.
 - SC-F10000 Series: 6-1, 6-2, 6-3, 6-7
 - SC-F10000H Series: 6-1, 6-2, 6-3, 6-7, Select V, Selector Fuse2
7. Release the cables from the clamp.
8. Remove the 2 air tubes from the joints.



When the tube holder are removed at the following step, ink may drip off from the tube. Prepare a waste cloth or the like in advance and be careful not to contaminate the surroundings.

9. Slide the tube holders (SC-F10000 Series: x2, SC-F10000H Series: x3) of the Filter Units and remove them.
10. Remove the Duct Carriage Assy.

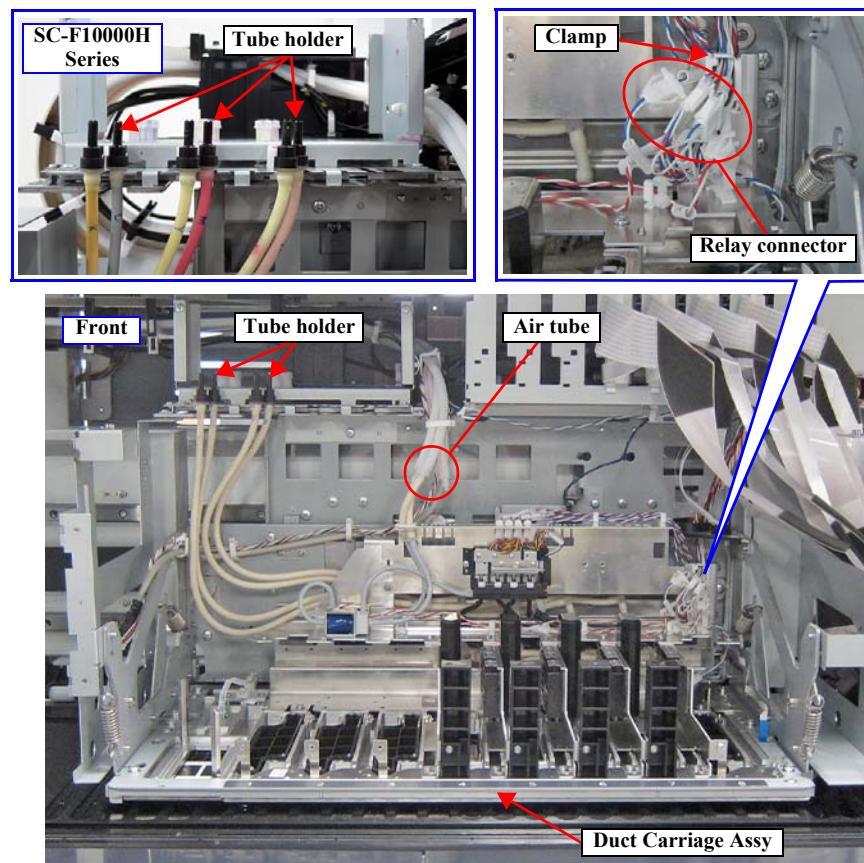
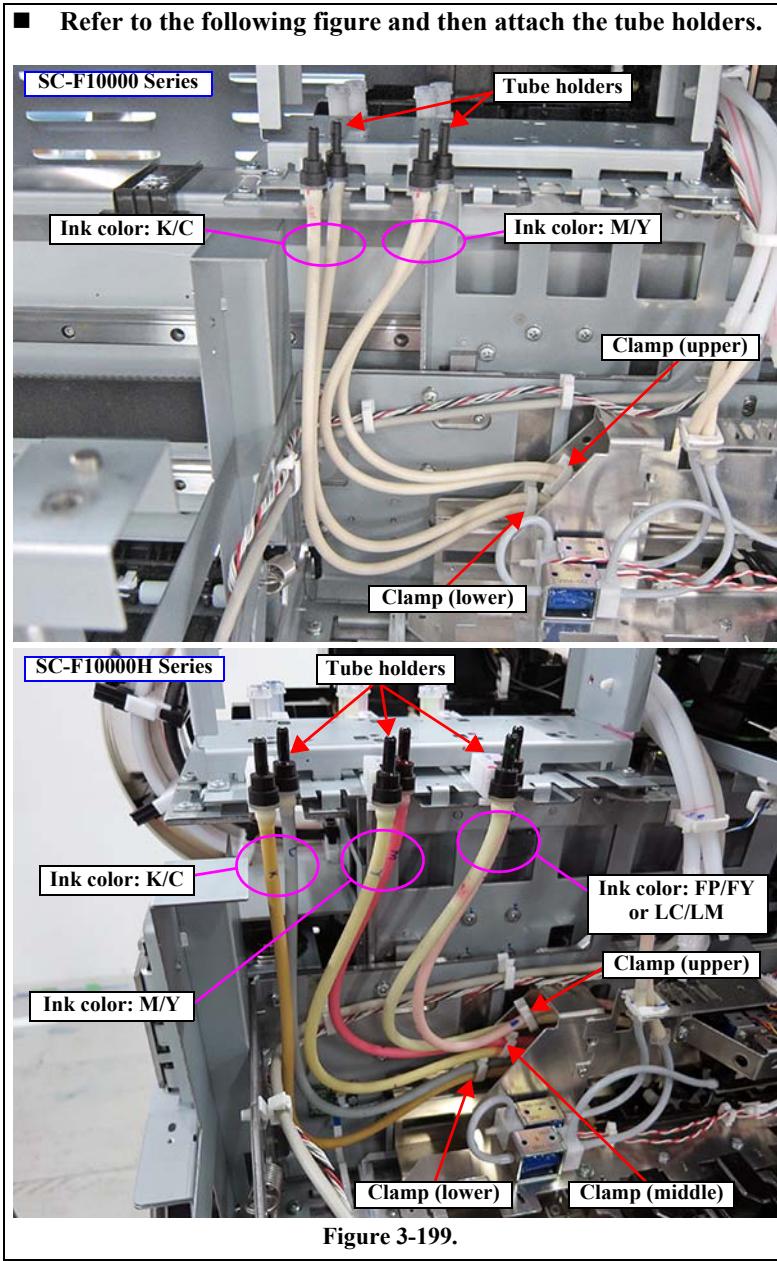


Figure 3-198.

Continue to the next page.



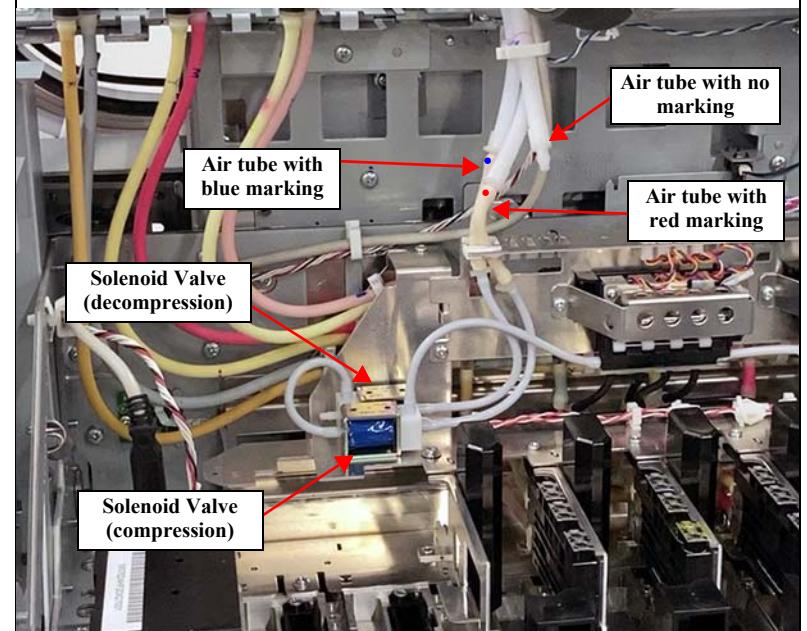
ASSEMBLY



ASSEMBLY

- Make sure to connect the air tube firmly to the root of the joint.
- Make sure to check the marking and connect the air tube correctly. if not, cleaning and ink filling will not work.

- Blue marking
Connect to the tube of Solenoid Valve (decompression)
- Red marking
Connect to the tube of Solenoid Valve (compression)
- No marking
Not connecting



3.4.4.25 Ink Leak Sensor (Duct Carriage Assy)

1. Unlock the CR Unit. ([p319](#))
2. Remove the CR Cover. ([p410](#))
3. Remove the Print Head. ([p402](#))
4. Remove the Duct Carriage Assy. ([p435](#))
5. Disconnect the cable from the connector on the sensor.
6. Remove the screw, and remove the Ink Leak Sensor (Duct Carriage Assy).

A) Silver M3x6 Bind machine screw: 1 pc

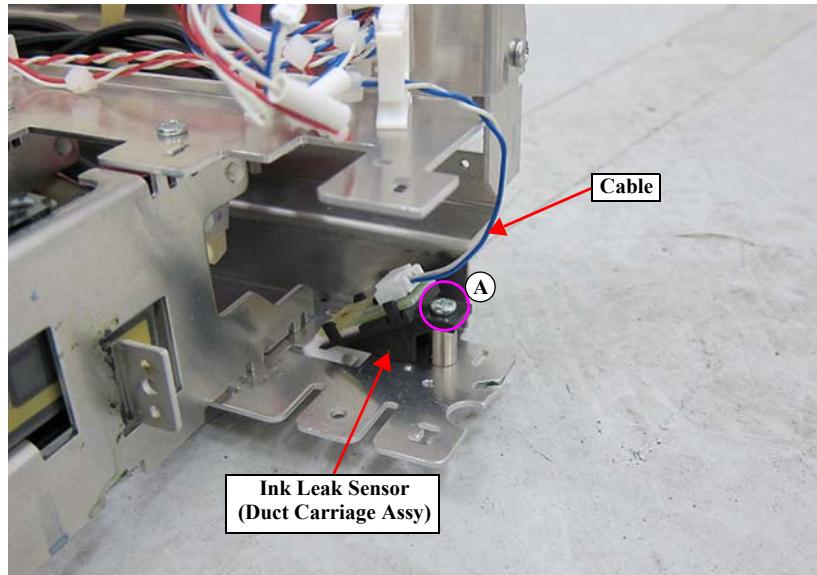


Figure 3-201.

3.4.4.26 Filter Unit



- Number of the Filter Unit differs between models.
 - SC-F10000 Series: x2
 - SC-F10000H Series: x3
- Picture of SC-F10000H Series is used for description.

1. Remove the Left Rear Cover. ([p323](#))
2. Remove the Left Top Cover. ([p322](#))
3. Loosen the 2 screws and then remove the plate.

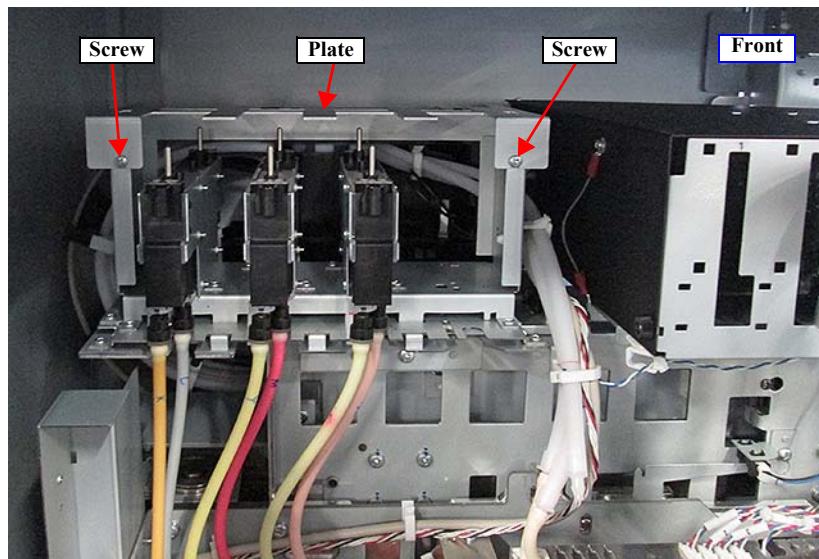


Figure 3-202.

4. Remove each set of 2 screws and then remove the Filter Units in the upward direction.

- A) Silver M3x4 Bind machine screw: each 2 pcs

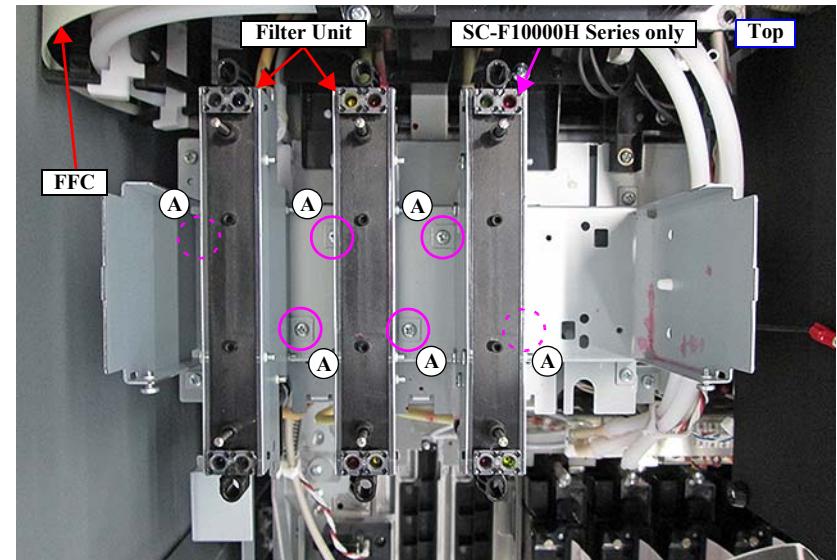


Figure 3-203.



Check the attachment orientation of the Filter Units.

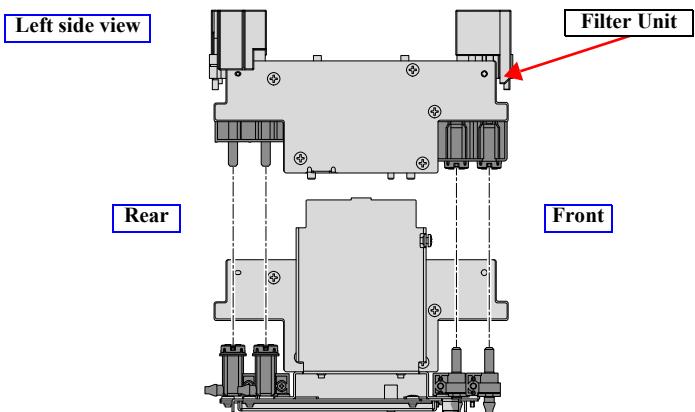


Figure 3-204.

3.4.4.27 Ink Leak Sensor (Filter Unit)



Number of the tube holder differs between models.

- SC-F10000 Series: x2
- SC-F10000H Series: x3

1. Remove the Left Rear Cover. ([p323](#))
2. Remove the Left Top Cover. ([p322](#))
3. Remove the Filter Unit. ([p438](#))
4. Remove the 2 air tubes from the joints.
5. Release the air tubes and cables from the clamp.
6. Disengage dowels, and slide the tube holders of the Filter Unit at front side to remove them.
 - SC-F10000 Series: 2 tube holders
 - SC-F10000H Series: 3 tube holders
7. Disengage dowels, and slide the tube holders of the Filter Unit at rear side.
 - SC-F10000 Series: 2 tube holders
 - SC-F10000H Series: 3 tube holders
8. Remove the 7 screws.
 - A) Silver M3x8 Cup S-tite screw: 2 pcs
 - B) Silver M3x4 Bind machine screw: 3 pcs
 - C) Silver M3x6 Bind machine screw: 2 pcs



**Make sure to check the marking and connect the air tube correctly.
if not, cleaning and ink filling will not work. ([Figure 3-200 \(p436\)](#)).**

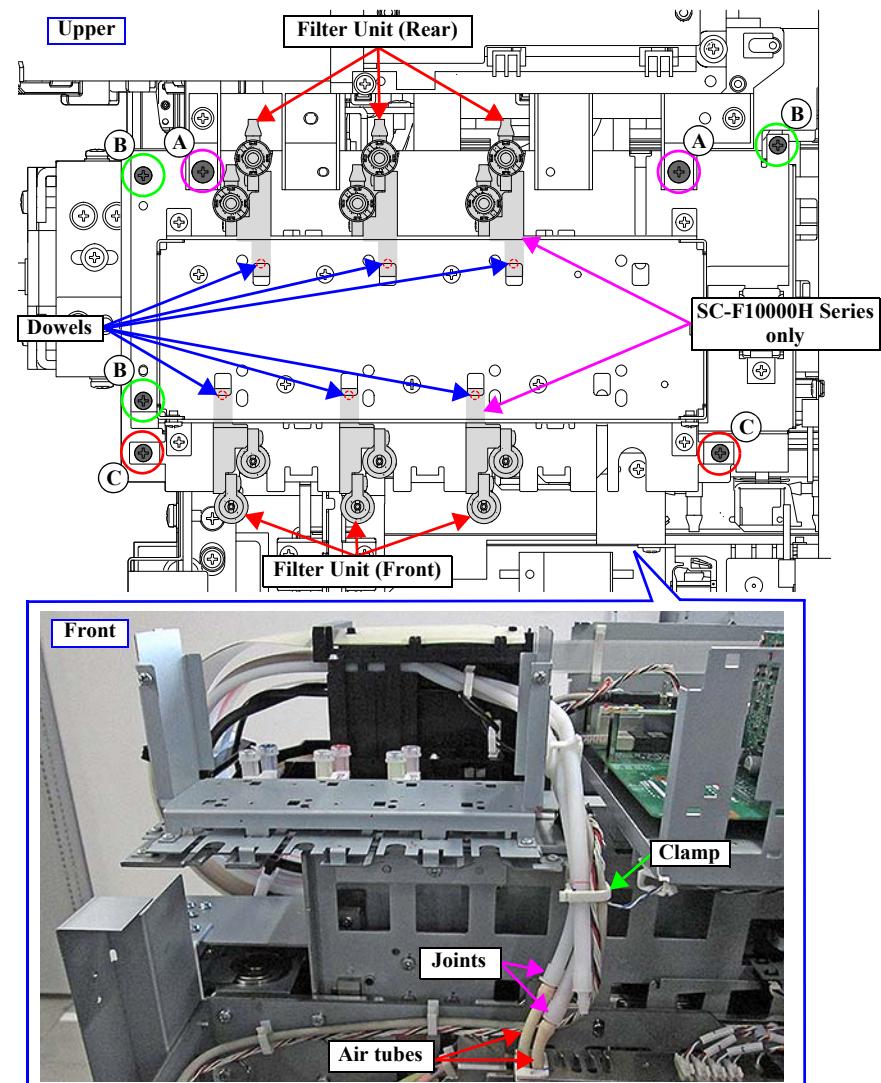


Figure 3-205.

Continue to the next page.

9. Disconnect the cable from the connector of sensor.
10. Slide the Ink Leak Sensor (Filter Unit) while lifting the frame to remove it.

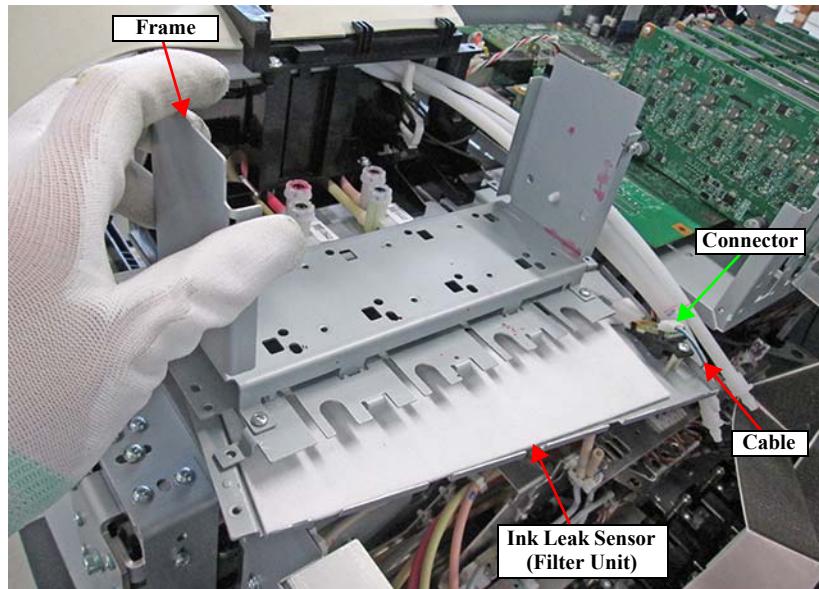


Figure 3-206.

3.4.4.28 APG Motor

1. Remove the Right Rear Cover. ([p327](#))
2. Remove the Right Top Cover. ([p329](#))
3. Remove the Right Cover. ([p331](#))
4. Remove the Cable Holder.
5. Disconnect the cable from the connector of the motor.

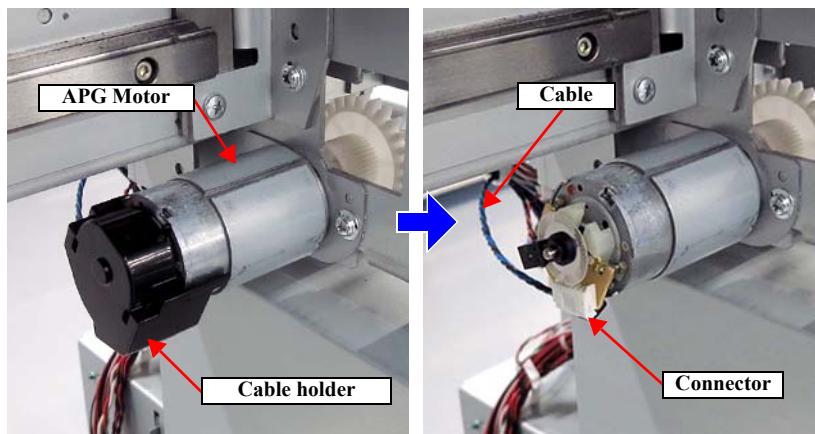


Figure 3-207.



Take care not to lose the spring when performing the procedure below.

6. Remove the screw and then remove the spring and gear.
- A) Silver M4x8 Cup S-tite screw: 1 pc

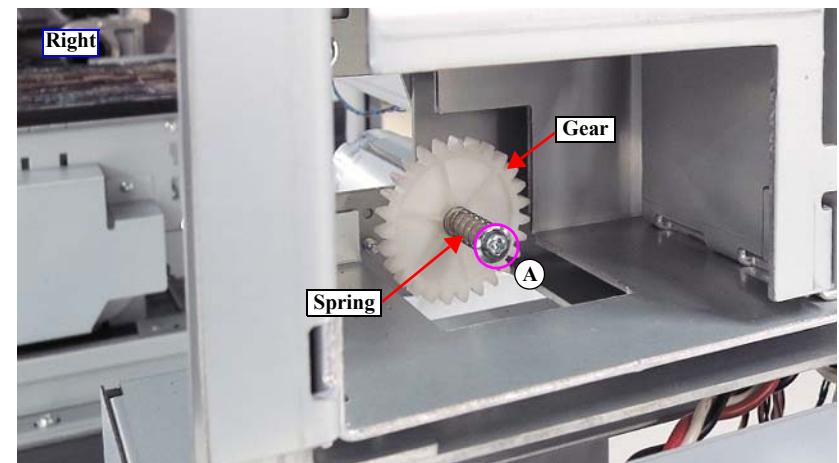


Figure 3-208.

7. Remove the 2 screws and then remove the APG Motor while supporting with hand.
- B) Silver M3x8 Cup S-tite screw: 2 pcs

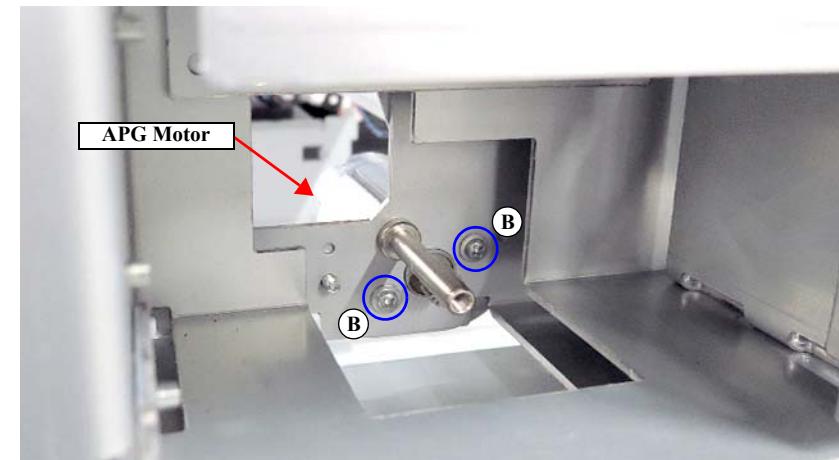


Figure 3-209.

3.4.4.29 CR Scale

1. Unlock the CR Unit. ([p319](#))
2. Remove the extension spring at the Full side (Cap side).
3. Remove the CR Scale from the hook.
4. Release the CR Scale from each set of 2 hooks on the 5 scale holders.
5. Remove the CR Scale from the hook at the Home side (Panel side).
6. Remove the CR Scale from the slit in the CR Encoder Sensor.

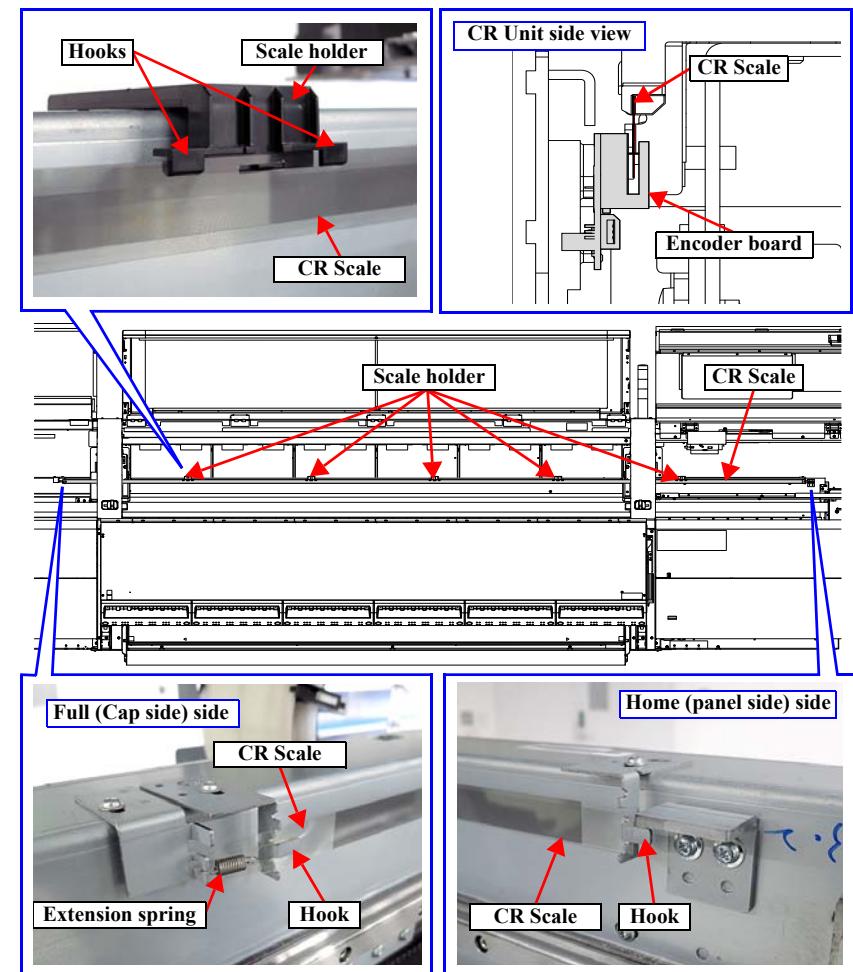


Figure 3-210.

3.4.4.30 Loosen the CR Belt

1. Remove the Left Rear Cover. ([p323](#))
2. Remove the Left Top Cover. ([p322](#))
3. Remove the Left Cover. ([p324](#))
4. Remove the Right Rear Cover. ([p327](#))
5. Remove the Right Top Cover. ([p329](#))
6. Remove the Right Cover. ([p331](#))
7. Loosen the 6 screws that secure the Left Pulley Assy.
8. Loosen the tension adjustment screw (hexagon screw) to loosen the CR Belt.



After attaching the Left Pulley Assy in its original position, you must adjust the CR Belt tension and CR Motor Belt tension.

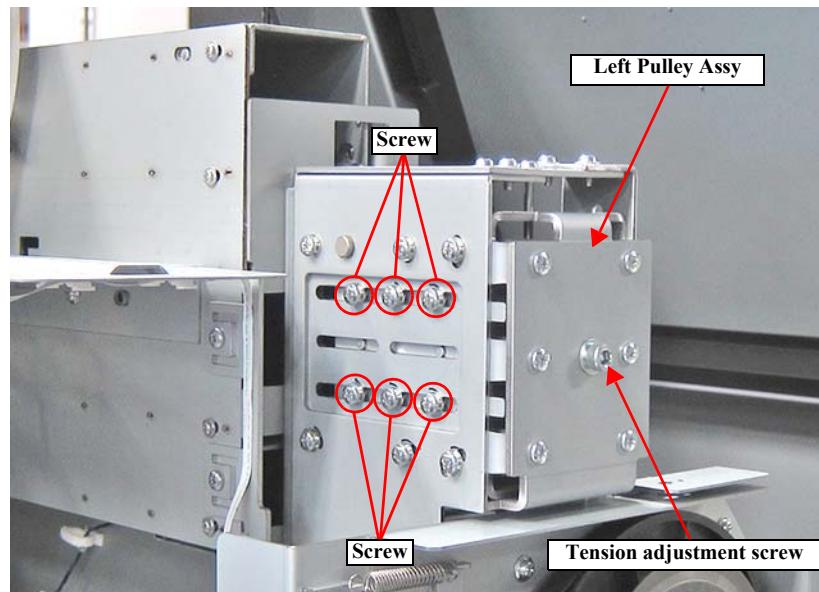


Figure 3-211.

3.4.4.31 CR Motor

1. Remove the Right Rear Cover. ([p327](#))
2. Remove the Right Top Cover. ([p329](#))
3. Remove the Right Cover. ([p331](#))
4. Disengage the hook and then disconnect the encoder cable from the connector.
5. Release the cables from the clamp.
6. Disconnect the cable from the relay connector.

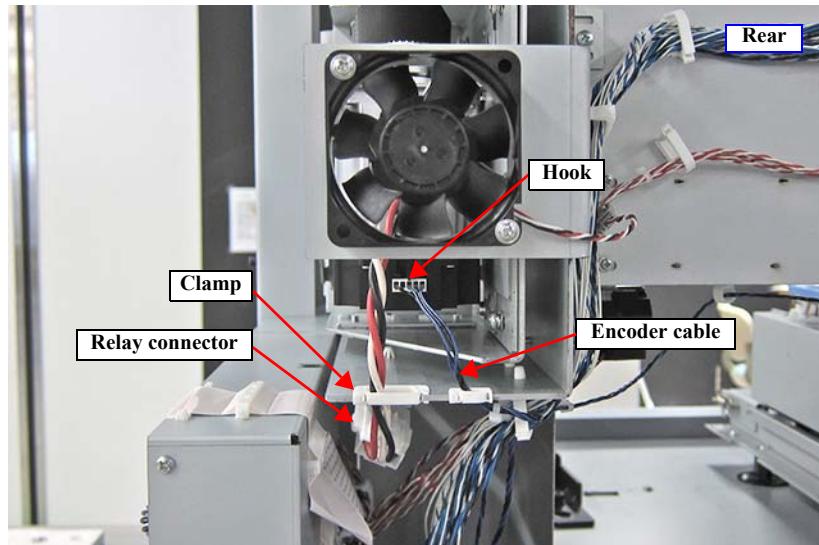


Figure 3-212.

7. Remove the 4 screws and then remove the CR Motor Assy.

- A) Silver M4x8 Cup S-tite screw: 4 pcs

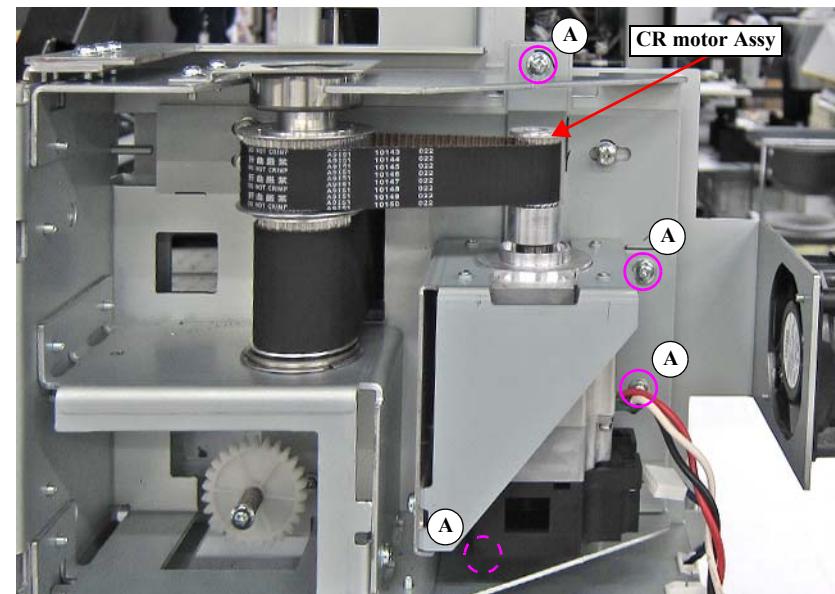


Figure 3-213.

Continue to the next page.

8. Remove the 4 screws and then remove the CR Motor from the CR motor mounting plate.

B) Black M4x10 Bind machine screw: 4 pcs



ASSEMBLY

- Confirm the positions of the connectors of the CR Motor and then attach the CR Motor to the CR Motor mounting plate. ([Figure 3-214](#))
- After attaching the CR Motor mounting plate in its original position, you must adjust the tension of the CR Motor Belt.

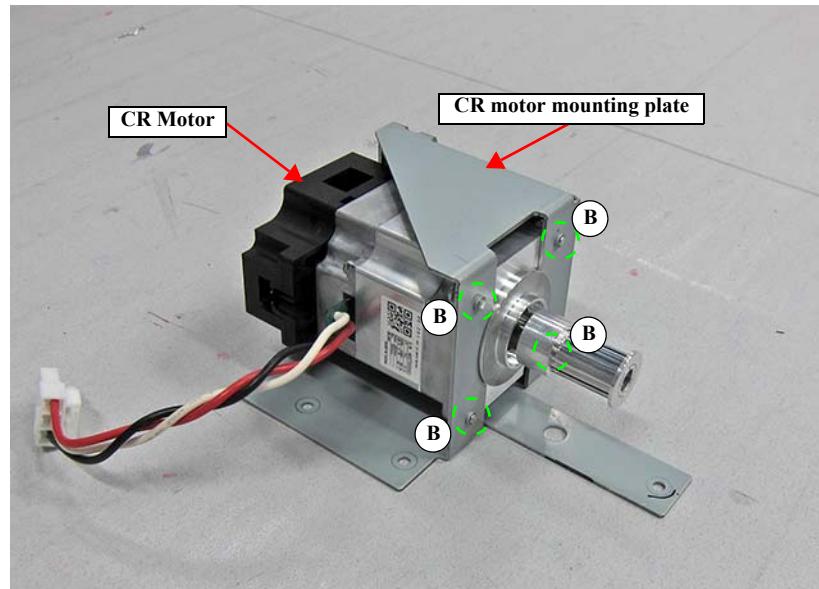


Figure 3-214.

3.4.4.32 CR Motor Fan

1. Remove the Right Rear Cover. ([p327](#))
2. Disconnect the cables from the relay connector.
3. Remove the 2 screws and then remove the CR Motor Fan.
 - A) Silver M3x30 Cup S-tite screw: 2 pcs

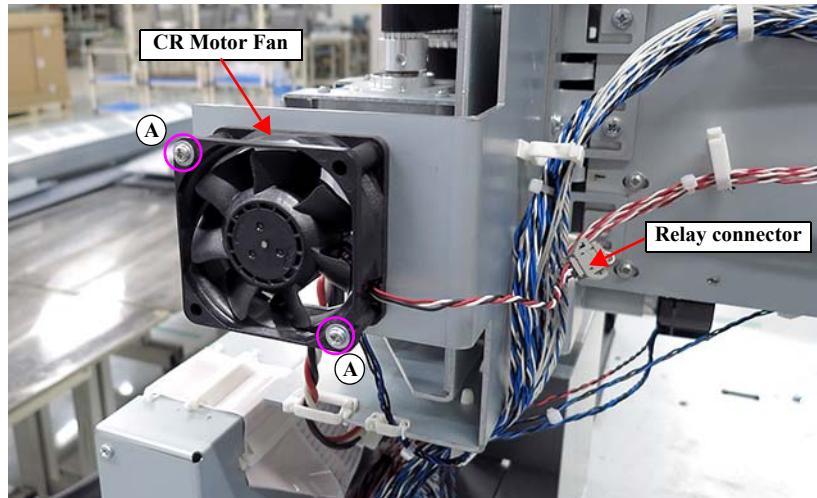


Figure 3-215.

3.4.4.33 CR Belt

1. Remove the Left Rear Cover. ([p323](#))
2. Remove the Left Top Cover. ([p322](#))
3. Remove the Left Cover. ([p324](#))
4. Remove the Right Rear Cover. ([p327](#))
5. Remove the Right Top Cover. ([p329](#))
6. Remove the Right Cover. ([p331](#))
7. Loosen the CR Belt. ([p443](#))
8. Remove the 2 screws and then remove the Solenoid Valve Assy.
A) Silver M3x6 Bind machine screw: 2 pcs
9. Remove the 2 air tubes.



Make sure to check the marking and connect the air tube correctly. if not, cleaning and ink filling will not work. ([Figure 3-200 \(p436\)](#)).

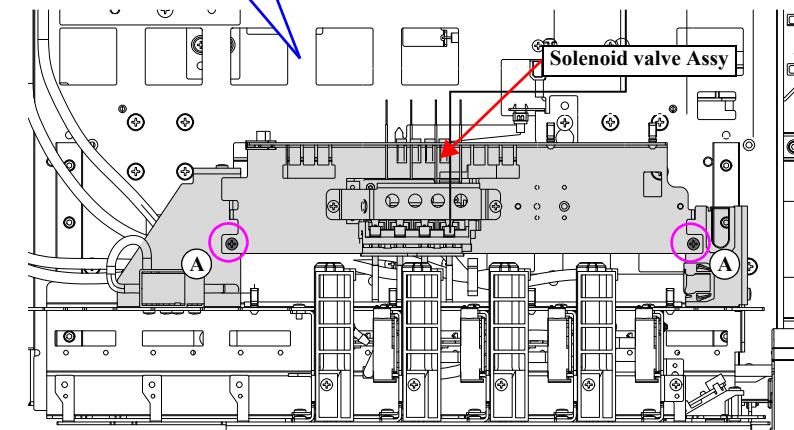
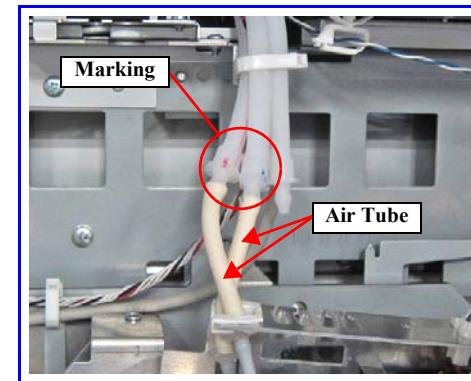


Figure 3-216.

Continue to the next page.

10. Remove the 8 screws and then remove the Belt Holder Assy.

B) Silver M4x8 Bind machine screw: 8 pcs



When attaching the Belt Holder Assy, attach it using the following procedure.

1. Turn the tension adjustment screw to tighten the CR Belt.
[\(p443\)](#)
2. Fold an A4 sheet of paper into half and then fold it into 3 equal parts and place it between the Belt Holder Assy and CR Main Frame.
3. Insert the Belt Holder Assy together with the A4 sheet of paper into the CR Unit.

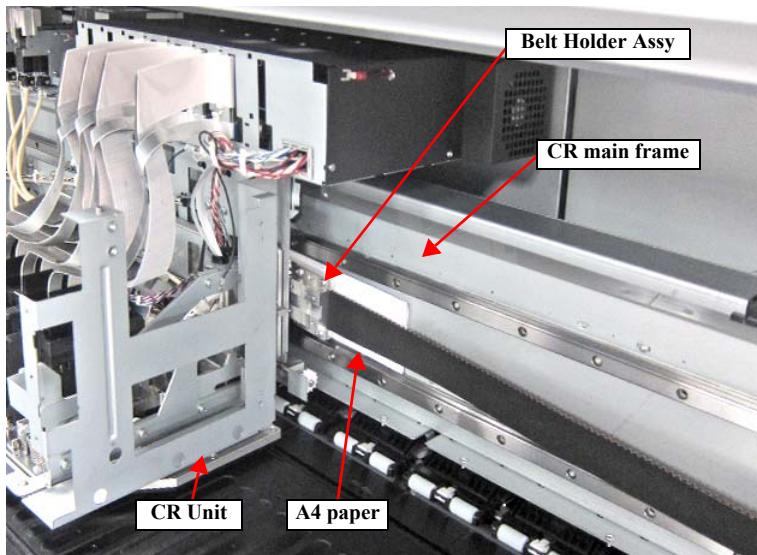


Figure 3-217.

4. Fix the Belt Holder Assy in place with the 8 screws.

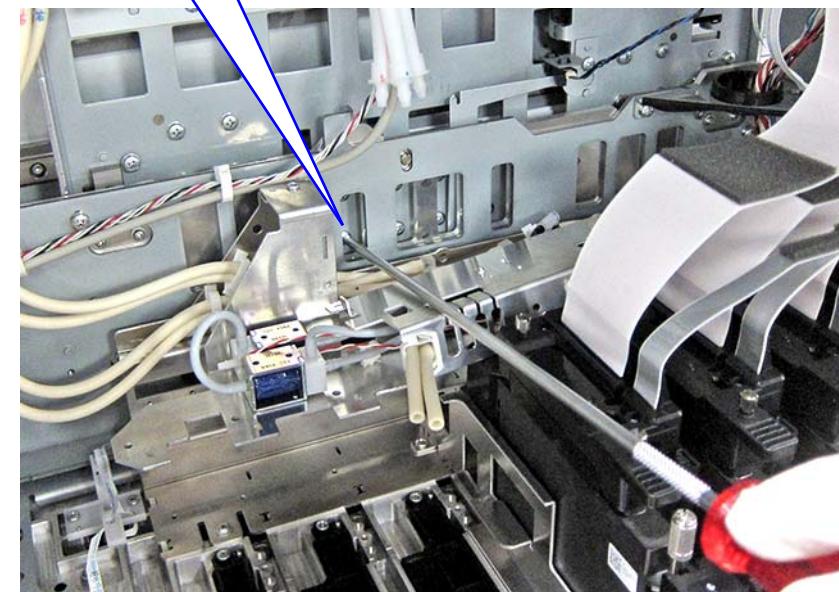
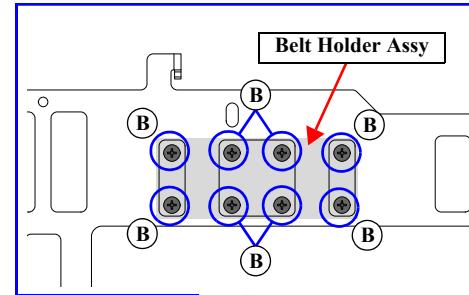


Figure 3-218.

Continue to the next page.

11. Remove each set of 4 screws and then remove the 2 Belt Holders.
- C) Silver M4x8 Bind machine screw: each 4 pcs
12. Remove the CR Belt.

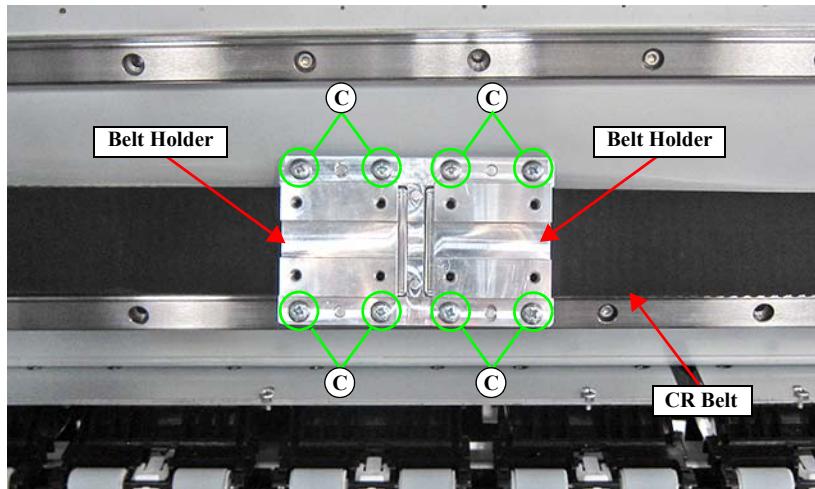


Figure 3-219.

13. If the CR Belt is not broken, affix the new CR Belt to the old CR Belt using tape and pass it through the hole in the main frame. Then, attach the CR Belt by performing the procedure in reverse from [Step 12](#).
If the CR Belt is broken, perform the subsequent steps.

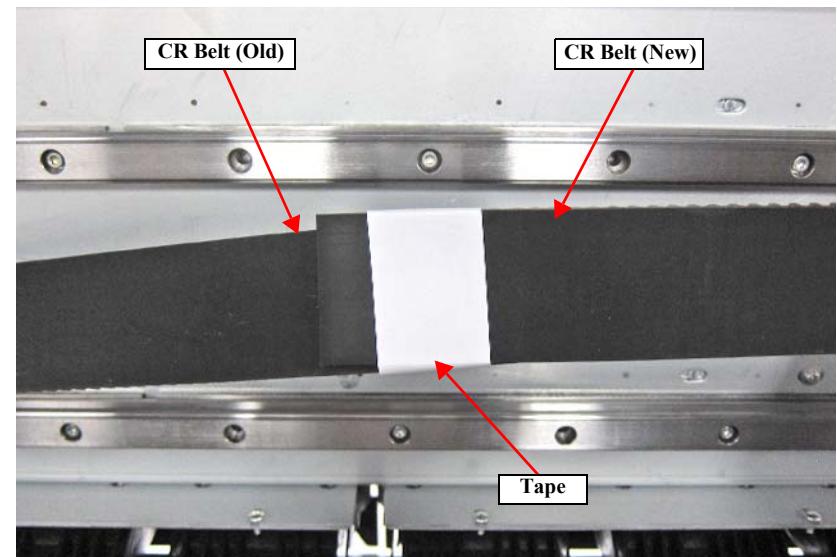


Figure 3-221.



Attach the 2 Belt Holders by setting them in place so that the teeth on the CR Belt are aligned with the projections and depressions of the Belt Plate.

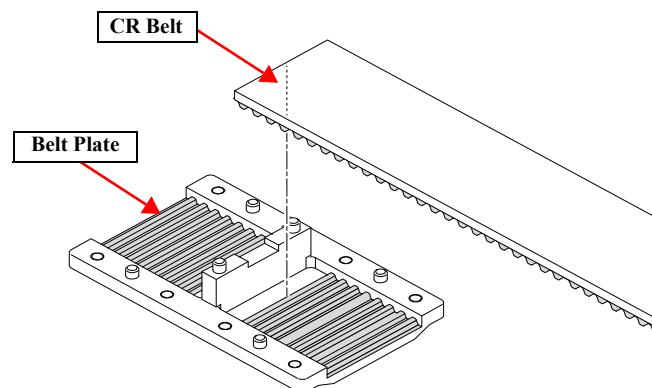


Figure 3-220.

Continue to the next page.

14. Release the PF encoder FFC from the clamp and then remove it.
15. Remove the 4 screws that secure the Left Belt Holder Assy.
 - D) Silver M4x8 Bind machine screw: 4 pcs

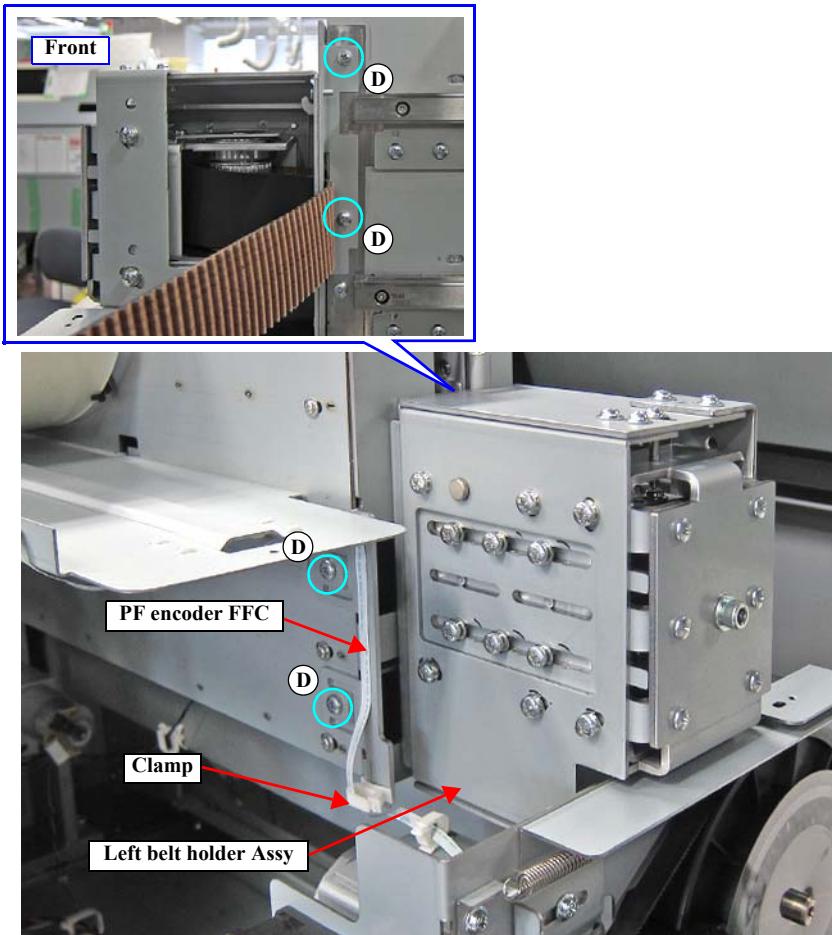


Figure 3-222.

16. Disengage the hook and then remove the Left Belt Holder Assy.

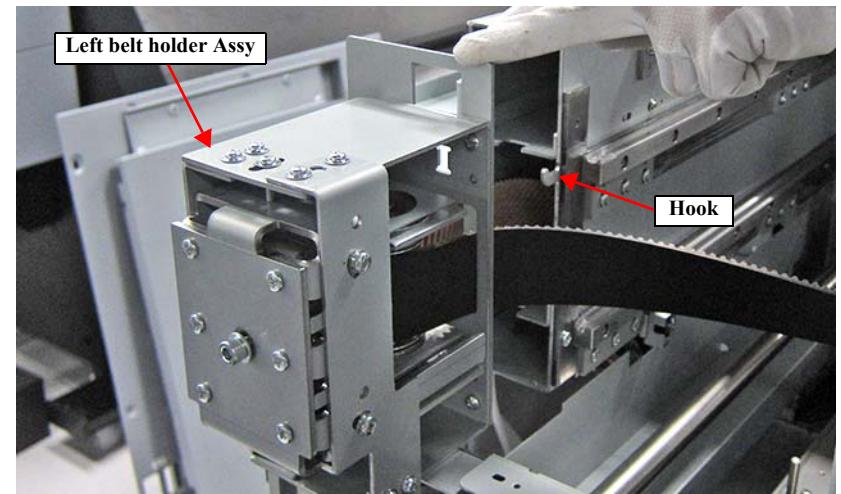


Figure 3-223.

17. Pull out the CR Belt from the Left Belt Holder Assy.

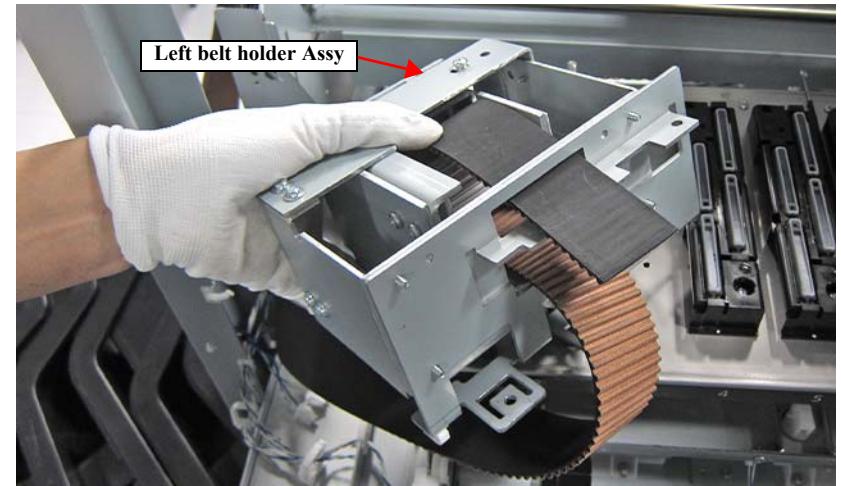


Figure 3-224.

18. Pull out the CR Belt from the hole in the main frame.

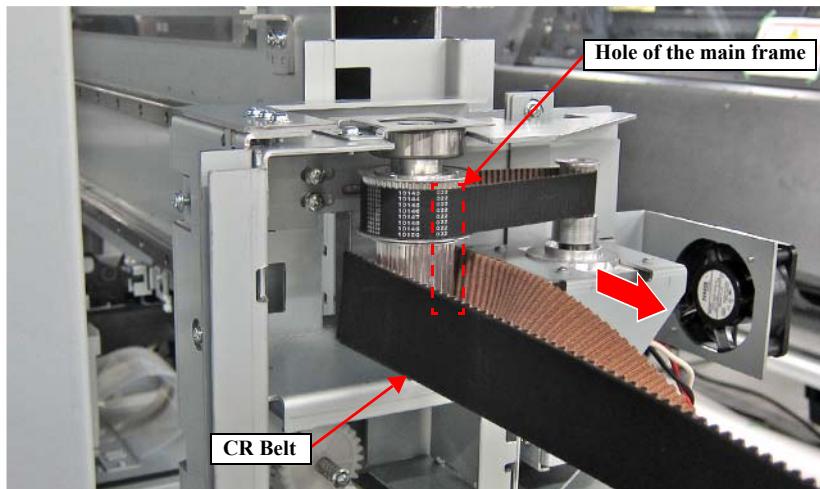


Figure 3-225.

19. Pass a tape measure though the hole in the main frame from the home side to the full side.

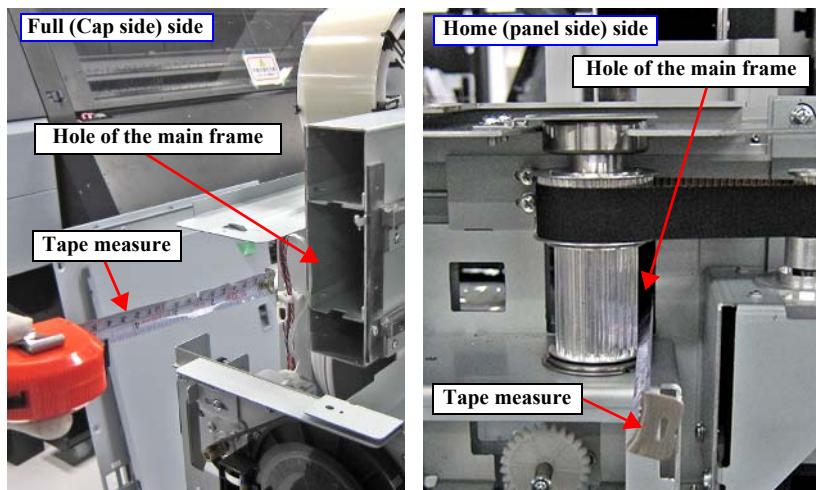


Figure 3-226.

20. Affix the new CR Belt to the tape measure by wrapping tape around them.

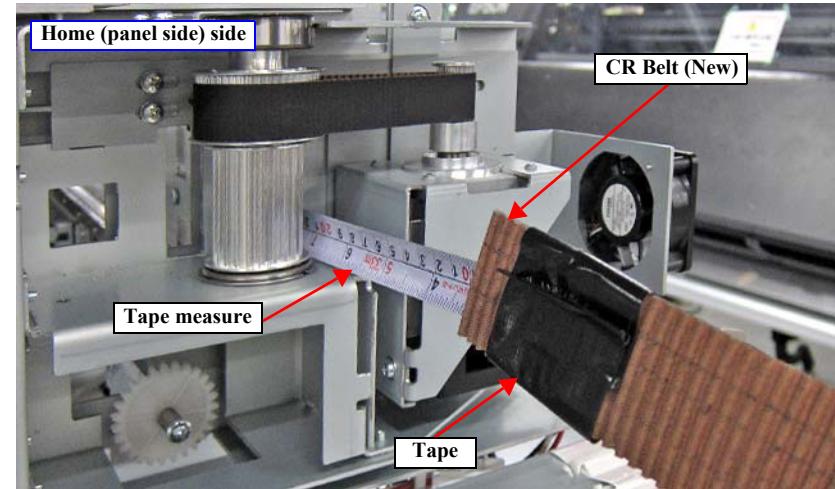


Figure 3-227.

21. Retract the tape measure to pass the CR Belt through the main frame.

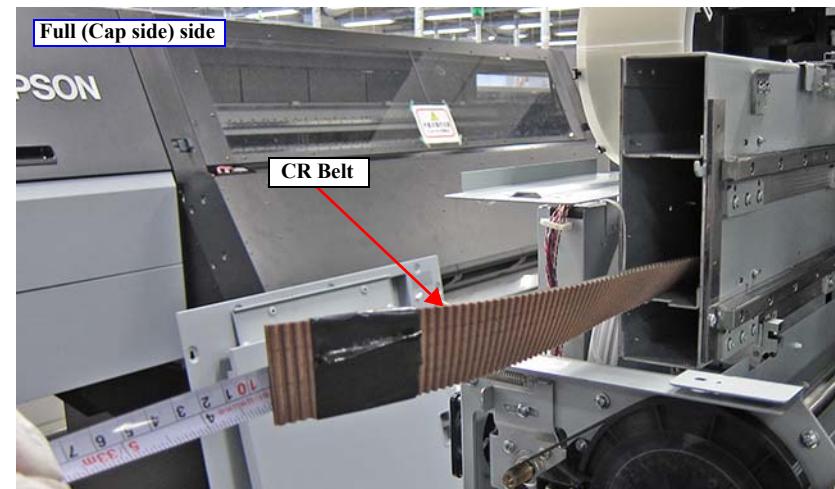


Figure 3-228.

22. Attach the CR Belt by performing the procedure in reverse from Step 12.

3.4.4.34 Ink Tube (SC-F10000 Series)

1. Remove the Rear Top Cover. ([p328](#))
2. Remove the Rear Cover. ([p325](#))
3. Remove the Rear Inner Cover. ([p326](#))
4. Remove the Left Rear Cover. ([p323](#))
5. Remove the Left Top Cover. ([p322](#))
6. Remove the Left Cover. ([p324](#))
7. Remove the Right Rear Cover. ([p327](#))
8. Remove the Right Top Cover. ([p329](#))
9. Lower the Main Board Frame. ([p353](#))
10. Remove the Rear Right Side Frame. ([p344](#))
11. Remove the Left Side Top Cover. ([p334](#))
12. Remove the CR Cover. ([p410](#))
13. Remove the Head Drive Board Frame. ([p375](#))
14. Remove the Rear Lower Cover. ([p345](#))
15. Remove the Signal Lamp. ([p342](#))
16. Remove the Right Side Top Cover. ([p343](#))
17. Remove the Filter Unit. ([p438](#))
18. Disconnect the CR FFC.

1. Disconnect the CR FFC from the connector (CN500) of Main Board B while pushing the hook.
2. Detach the CR FFC and pull it out from the two holes in the frame.

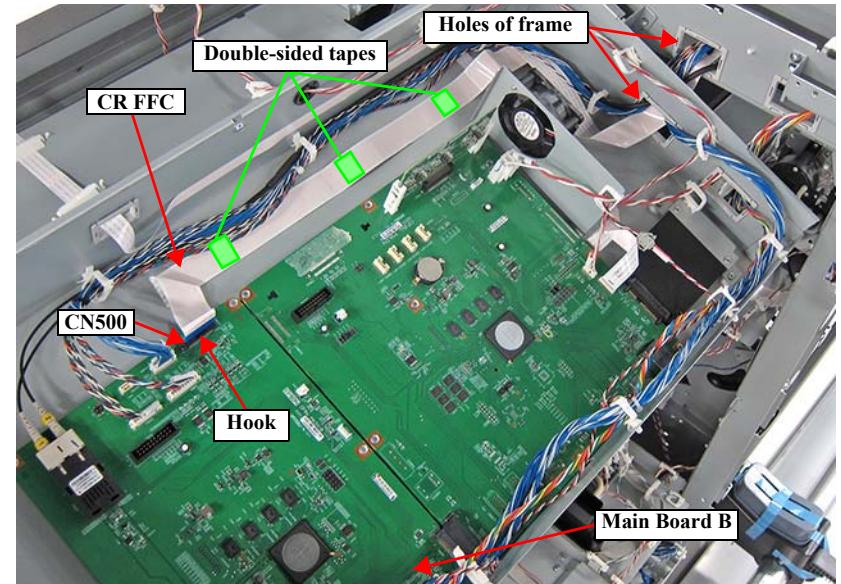


Figure 3-229.

3. Release the CR FFC from the 3 FFC clamps and then pull it out from the hole in the frame.

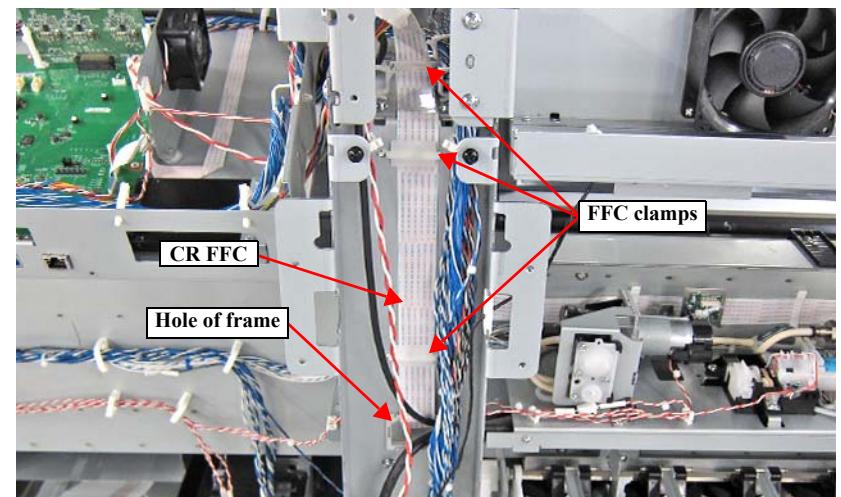


Figure 3-230.

4. Release the CR FFC from the 9 clamps.

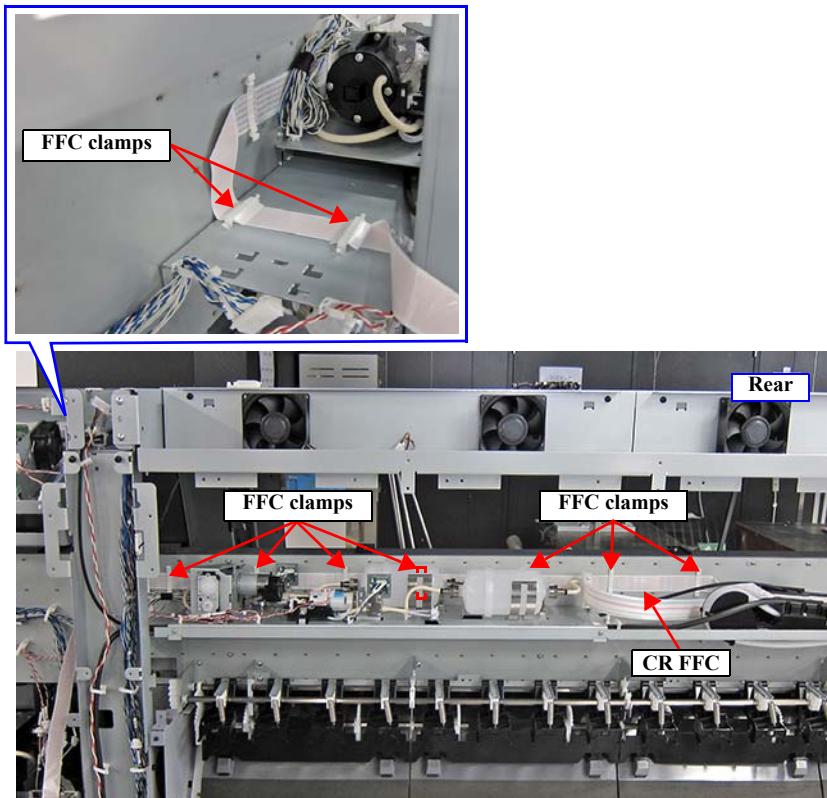


Figure 3-231.

19. Remove the Light Cable.

1. Disconnect the Light Cable from the connector (CN401) of Main Board B.
2. Release the Light Cable from the 4 clamps.

3. Pull out the Light Cable from the 2 holes in the frame.

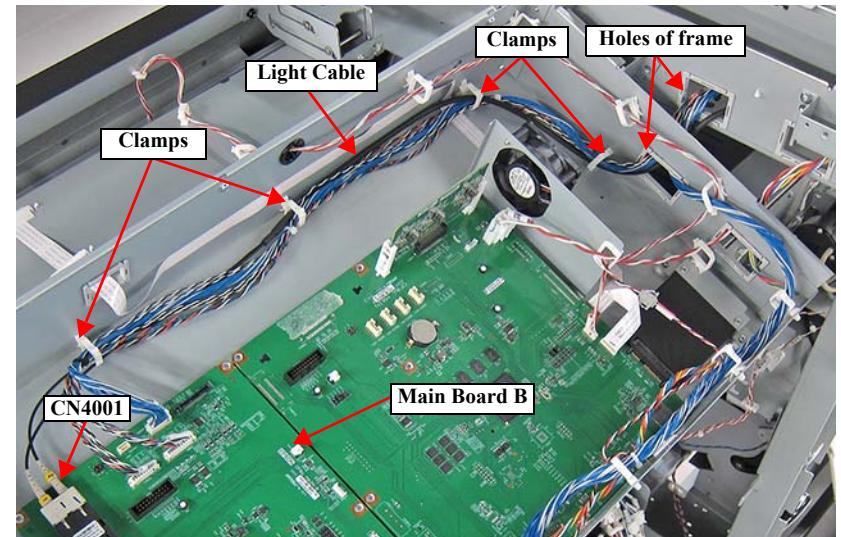


Figure 3-232.

4. Release the Light Cable from the 3 clamps.
5. Pull out the Light Cable from the hole in the frame.

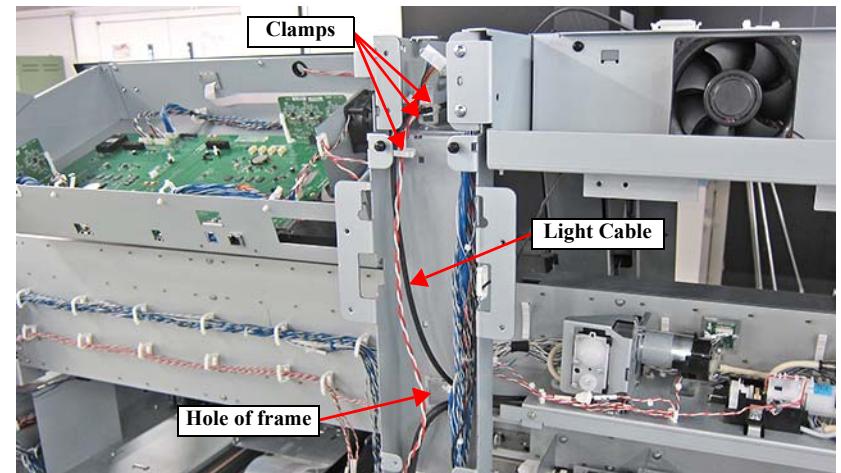


Figure 3-233.

- Pull out the Light Cable from beneath the Cleaning Pump and release it from the clamp.

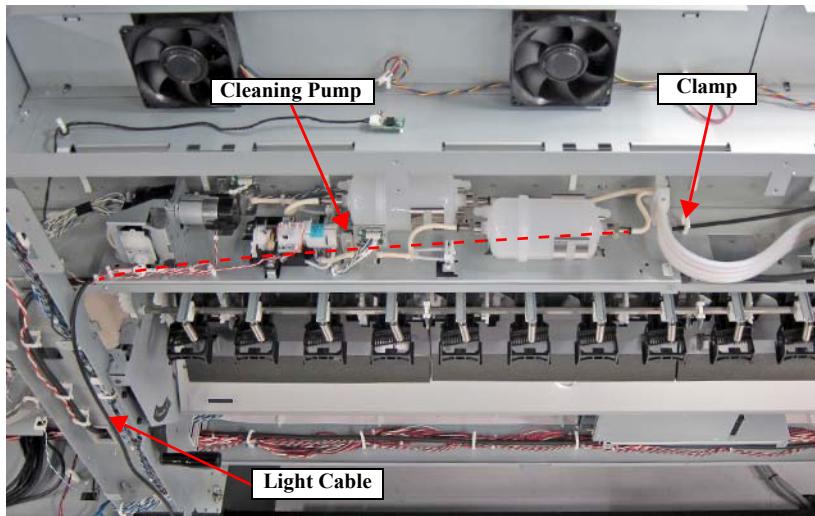


Figure 3-234.

- Remove the Power Cable.

- Disconnect the Power Cable from the connector (CN970) of the SUB-E Board.
- Release the Power Cable from the 6 clamps.

- Bring the Power Cable to the hole of the frame.

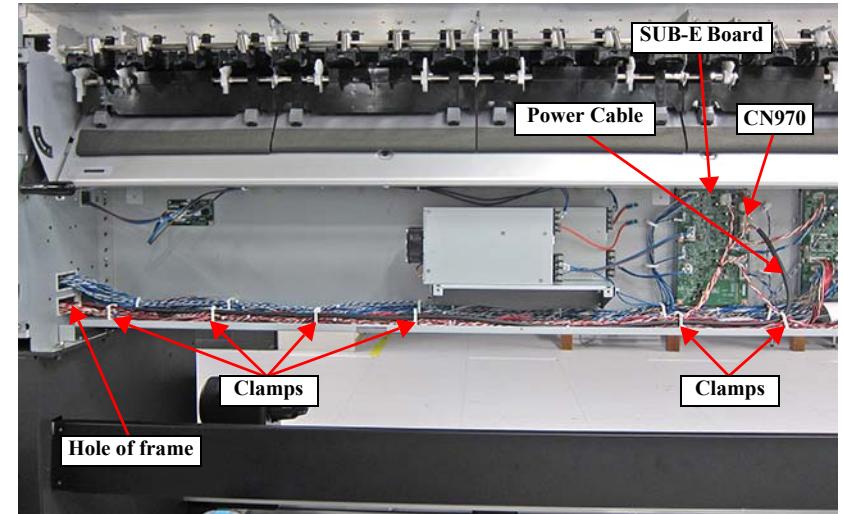


Figure 3-235.

- Pull out the Power Cable from the hole of the frame and release it from the 3 clamps.

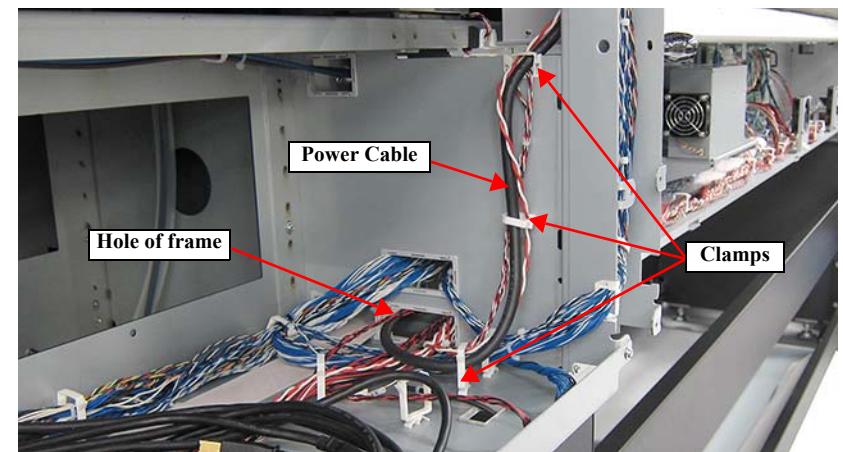


Figure 3-236.

Continue to the next page.

5. Pull out the Power Cable from the hole of the frame and release it from the 3 clamps.
6. Bring the Power Cable to the hole of the frame.

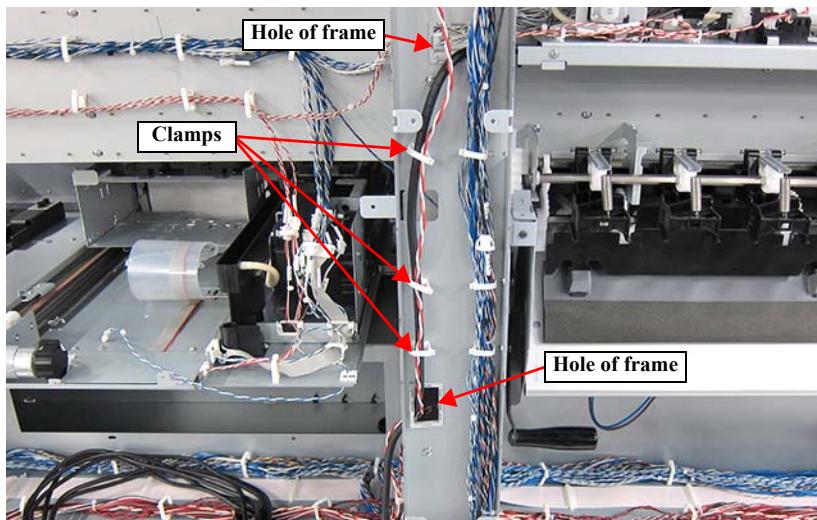


Figure 3-237.

7. Pull out the Power Cable from beneath the Cleaning Pump and release it from the clamp.

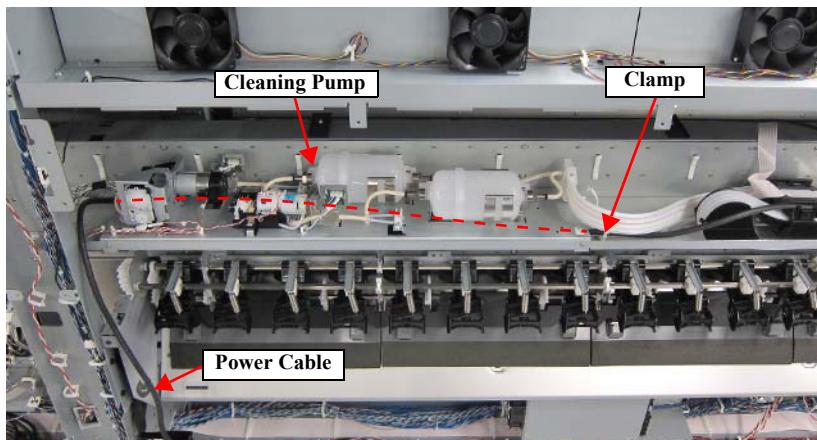


Figure 3-238.

21. Remove the air tube.

1. Remove the 2 screws and then disconnect the air tubes from the joint.
- A) Silver M2.5x16 S-tite screw with built-in spring washer: 2 pcs

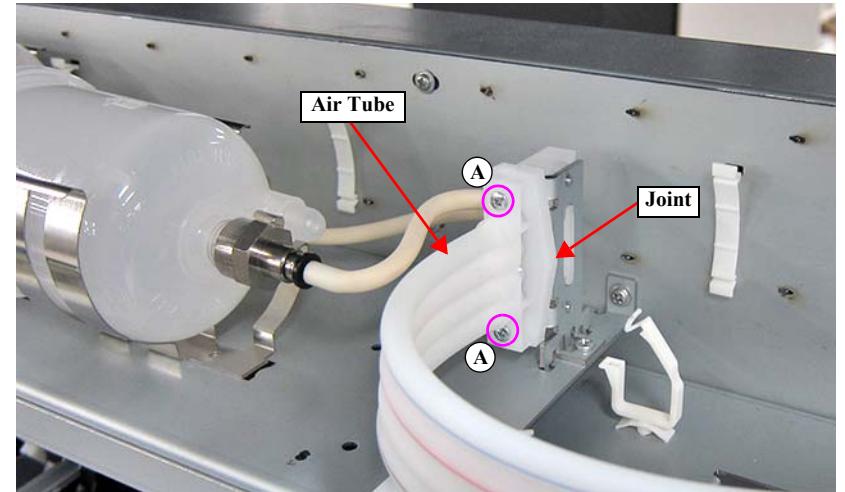


Figure 3-239.

Continue to the next page.



- Before installing the tube, make sure the Joint Rubber is attached to it.

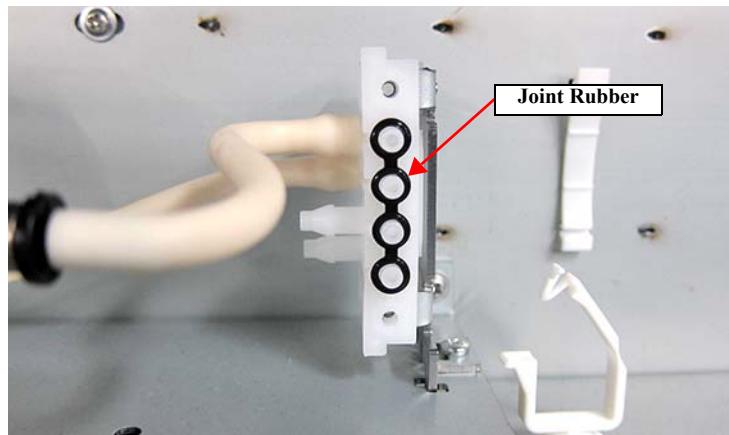


Figure 3-240.

- Replace the joint rubber with the new one because it cannot be reused.
- Before attaching the Joint Rubber, let it get wet with cleaning liquid.
- Tighten the screws that secure the tube alternately two times with a torque driver.
 - Specified torque: 0.29 ± 0.05 N.m

22. Remove the ink tube.



When the Waste tube is removed at the following step, ink may drip off from the tube. Prepare a waste cloth or the like in advance and be careful not to contaminate the surroundings.

1. Remove the 2 screws and then disconnect the ink tube from the joint.

A) Silver M2.5x16 S-tite screw with built-in spring washer: 2 pcs

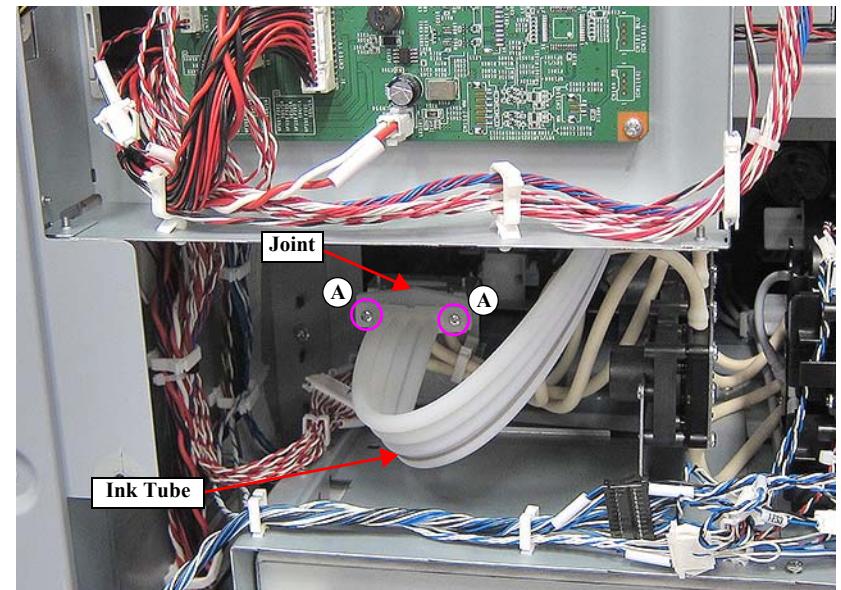


Figure 3-241.

Continue to the next page.



ASSEMBLY

- Before installing the Ink Tube, make sure the Joint Rubber is attached to it.

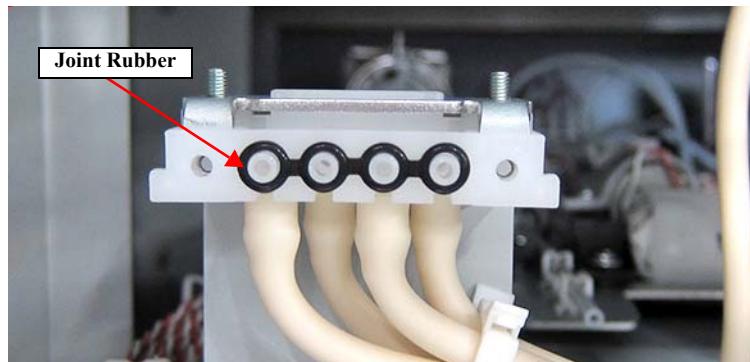


Figure 3-242.

- Replace the joint rubber with the new one because it cannot be reused.
- Before attaching the joint rubber, let it get wet with cleaning liquid.
- Tighten the screws that secure the Ink Tube alternately two times with a torque driver.
 - Specified torque: 0.29 ± 0.05 N.m

2. Remove the 4 tube clamps by pressing each hook to release each clamp.

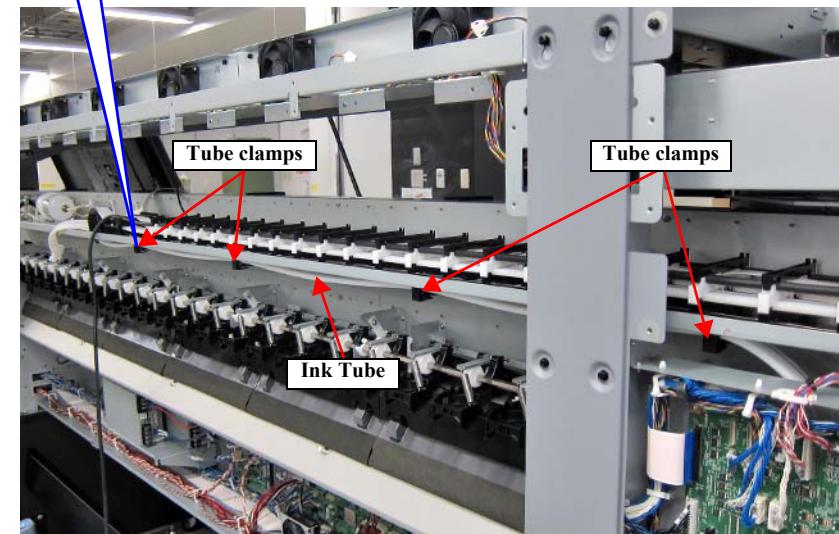
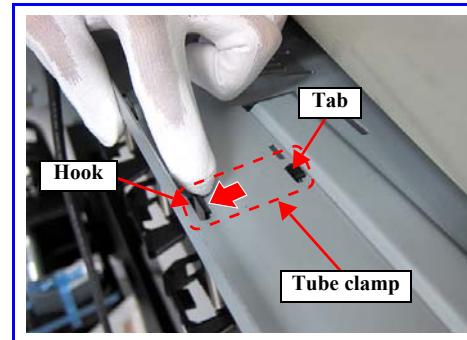


Figure 3-243.



ASSEMBLY

Insert the tabs on the tube clamps into the frame. ([Figure 3-243](#))

Continue to the next page.

3. Release the ink tube from the 3 hooks on the tube holder.

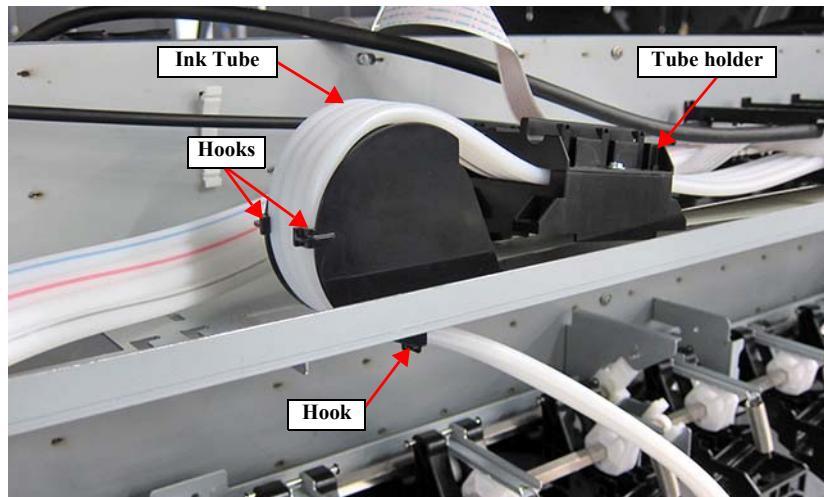


Figure 3-244.

4. Disengage the hook and remove the tube holder by sliding it in the direction of the arrow.

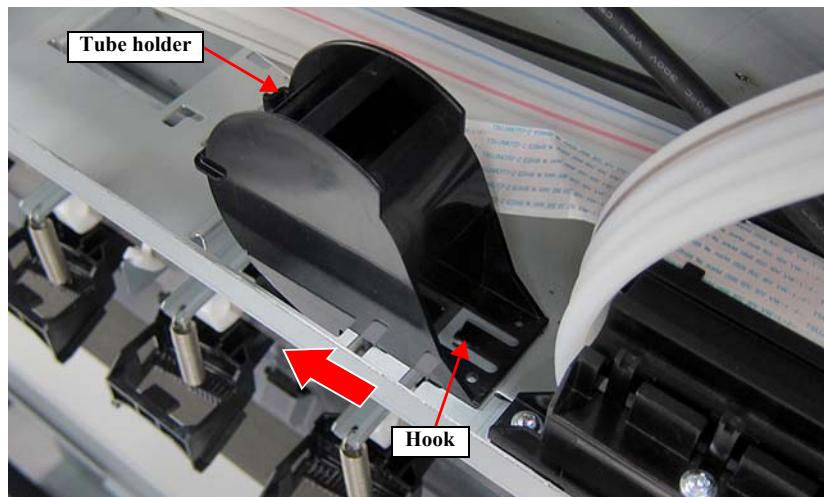


Figure 3-245.

23. Remove Tube Holder Assy1.

1. Remove the 4 screws and then remove Tube Holder Assy1.

- A) Silver M3x8 Cup S-tite screw: 4 pcs

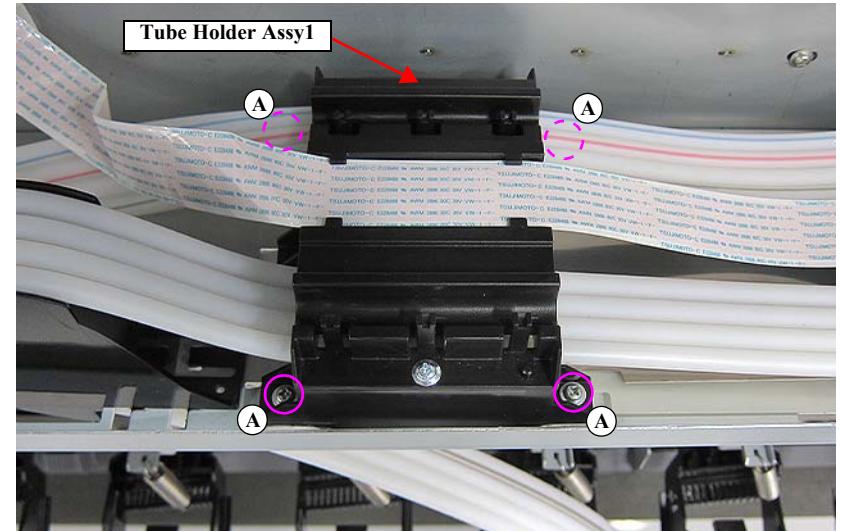


Figure 3-246.

Continue to the next page.



Check the following and then attach the shield plate and sheet to Tube Holder Assy1.

1. Align the positioning holes of the shield plate with the 2 dowels of Tube Holder Assy1.
2. Set the shield plate on the inside of the 2 tabs of Tube Holder Assy1.

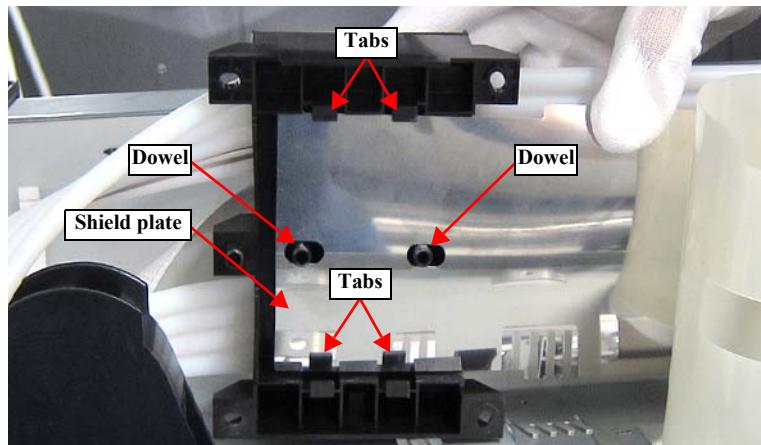


Figure 3-247.

3. Align the positioning holes of the sheet with the 2 dowels of Tube Holder Assy1.

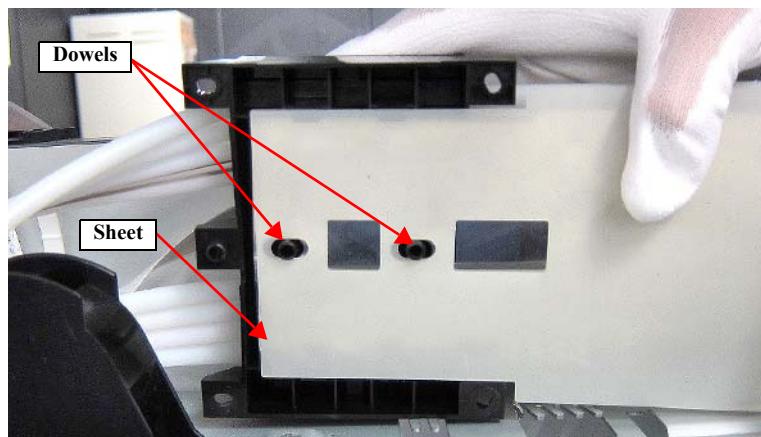


Figure 3-248.

24. Disconnect the cables and FFC on the CR Unit.

1. Disconnect the Light Cable from the connector (CN4001) of the SUB-C Board.
2. Disconnect the Power Cable from the connector (CN810) of the SUB-C Board.
3. Disconnect the CR FFC from the connector (CN531) of the SUB-C Board while pushing the hook of the connector.
4. Remove the 2 FFC clamps.

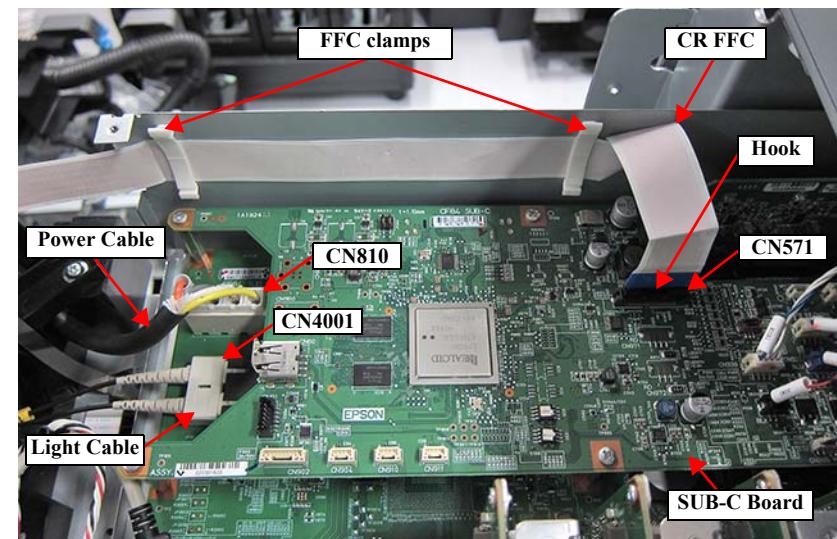


Figure 3-249.

Continue to the next page.

25. Remove Tube Holder Assy 2.

1. Release the air tube from the 2 clamps.
2. Remove the 2 air tubes from the joints.
3. Remove the 8 screws and then remove Tube Holder Assy 2.

A) Silver M3x8 Cup S-tite screw: 6 pcs

B) Silver M4x50 Cup S-tite screw: 2 pcs

26. Remove the tube holder from the tab of the frame.



Make sure to check the marking and connect the air tube correctly.
if not, cleaning and ink filling will not work. (Figure 3-200 (p436)).

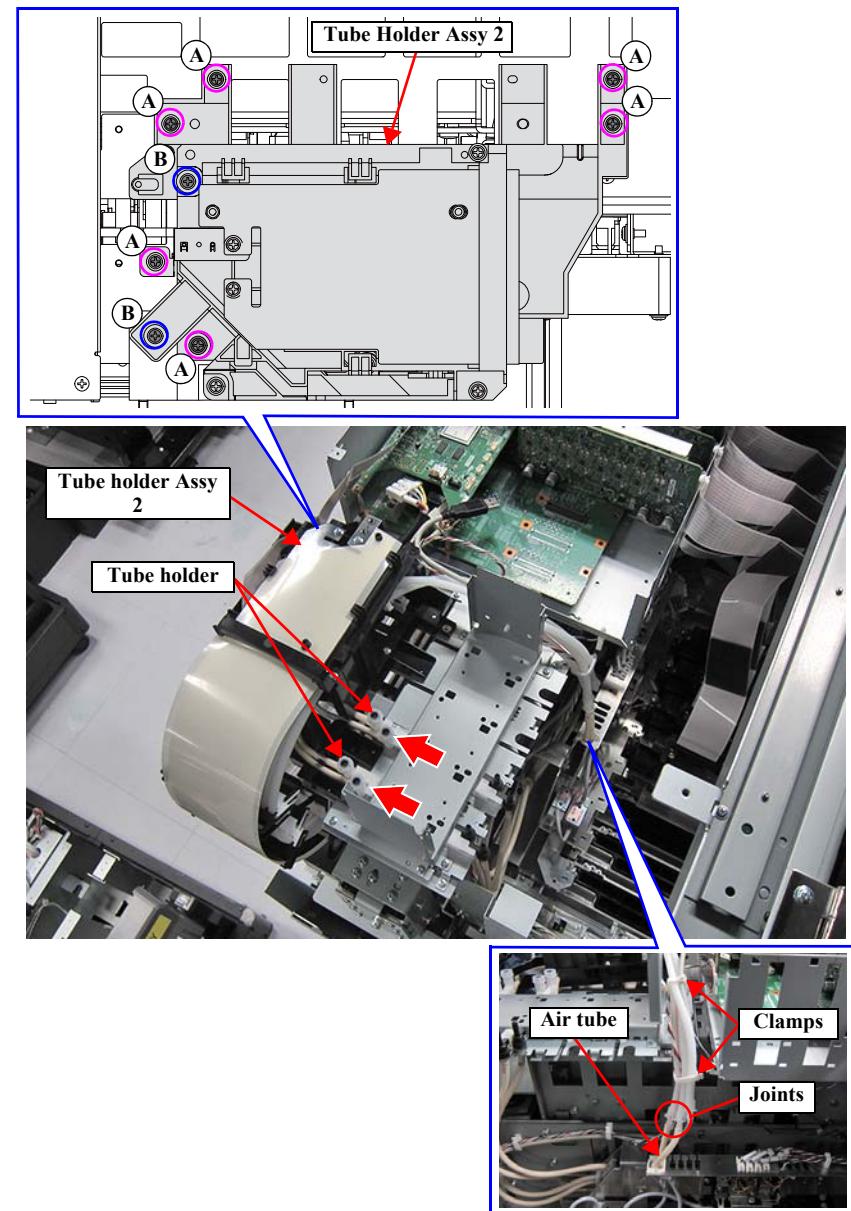


Figure 3-250.

27. Remove the Ink Tube.

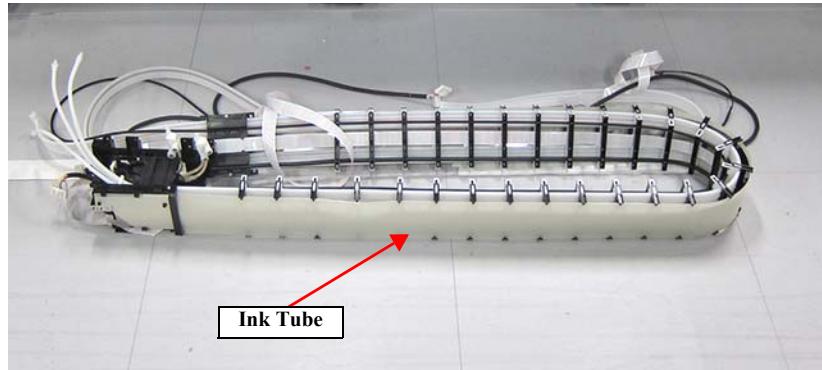


Figure 3-251.

3.4.4.35 Ink Tube (SC-F10000H Series)

1. Remove the Rear Top Cover. ([p328](#))
2. Remove the Rear Cover. ([p325](#))
3. Remove the Rear Inner Cover. ([p326](#))
4. Remove the Left Rear Cover. ([p323](#))
5. Remove the Left Top Cover. ([p322](#))
6. Remove the Left Cover. ([p324](#))
7. Remove the Right Rear Cover. ([p327](#))
8. Remove the Right Top Cover. ([p329](#))
9. Lower the Main Board Frame. ([p353](#))
10. Remove the Rear Right Side Frame. ([p344](#))
11. Remove the Left Side Top Cover. ([p334](#))
12. Remove the CR Cover. ([p410](#))
13. Remove the Head Drive Board Frame. ([p375](#))
14. Remove the Rear Lower Cover. ([p345](#))
15. Remove the Signal Lamp. ([p342](#))
16. Remove the Right Side Top Cover. ([p343](#))
17. Remove the Filter Unit. ([p438](#))
18. Disconnect the CR FFC.
 1. Disconnect the CR FFC from the connector (CN500) of Main Board B while pushing the hook.
 2. Detach the CR FFC and pull it out from the two holes in the frame.

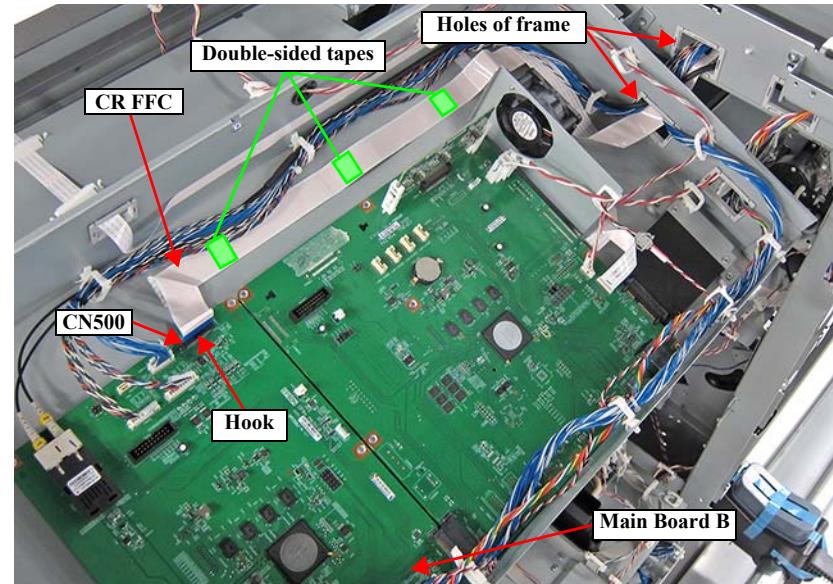


Figure 3-252.

3. Release the CR FFC from the 3 FFC clamps and then pull it out from the hole in the frame.

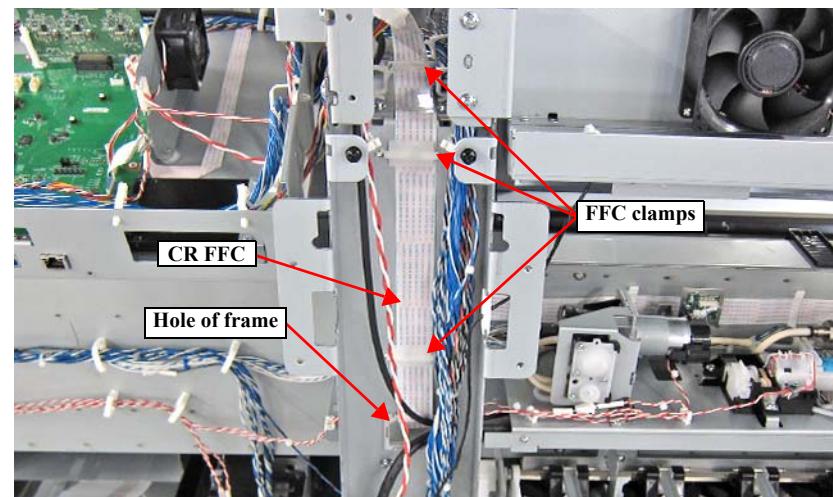


Figure 3-253.

4. Release the CR FFC from the 9 clamps.

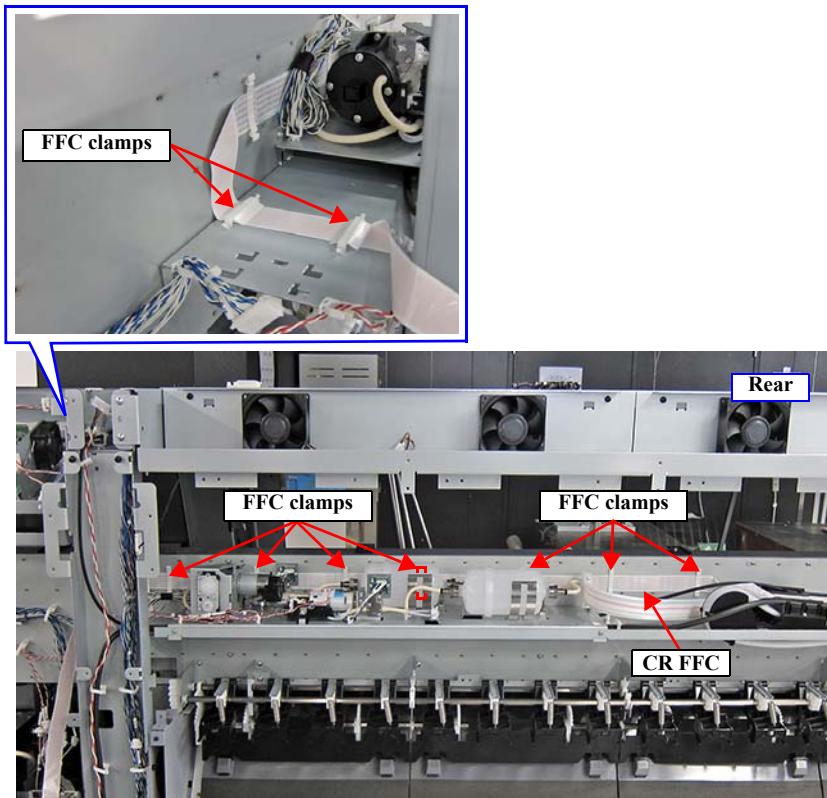


Figure 3-254.

19. Remove the Light Cable.

1. Disconnect the Light Cable from the connector (CN401) of Main Board B.
2. Release the Light Cable from the 4 clamps.

3. Pull out the Light Cable from the 2 holes in the frame.

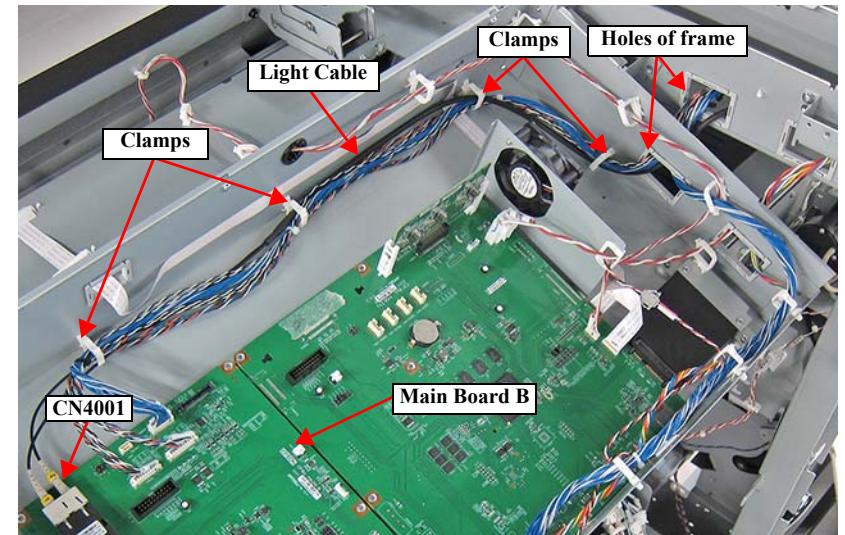


Figure 3-255.

4. Release the Light Cable from the 3 clamps.
5. Pull out the Light Cable from the hole in the frame.

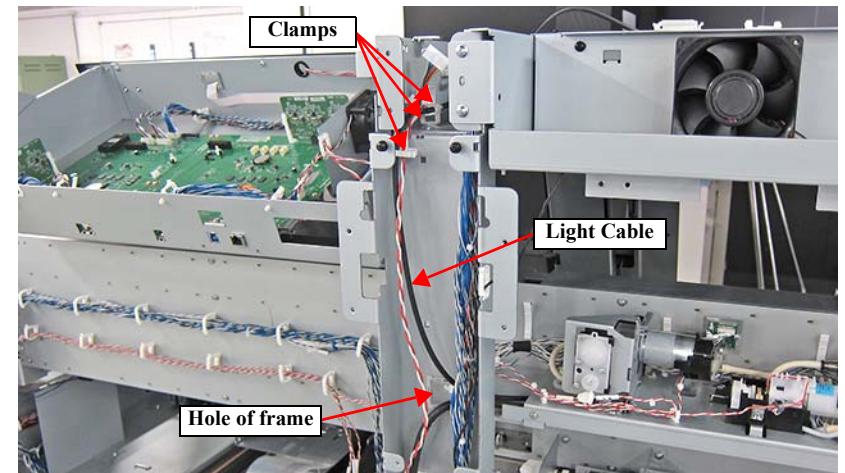


Figure 3-256.

6. Pull out the Light Cable from beneath the Cleaning Pump and release it from the clamp.

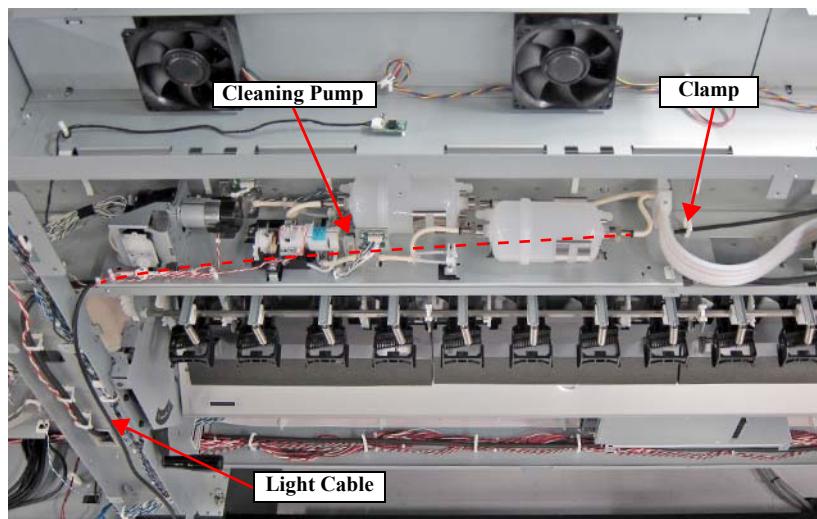


Figure 3-257.

20. Remove the Power Cable.

1. Disconnect the Power Cable from the connector (CN970) of the SUB-E Board.
2. Release the Power Cable from the 6 clamps.

3. Bring the Power Cable to the hole of the frame.

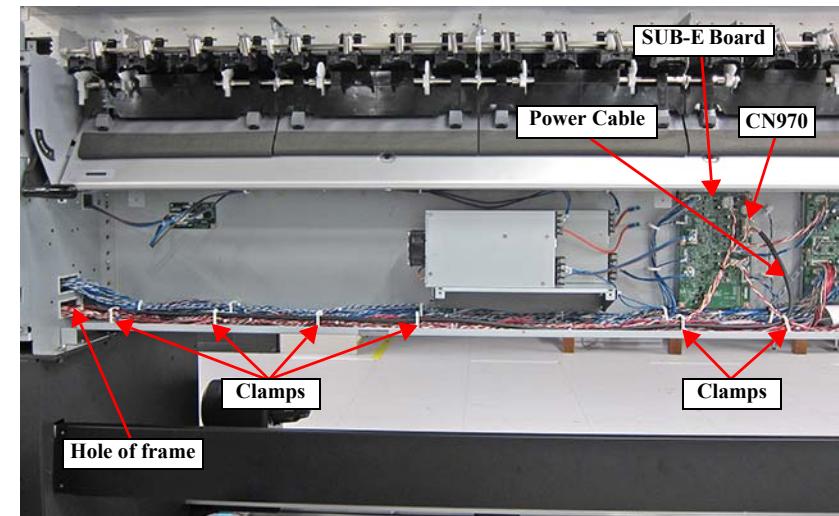


Figure 3-258.

4. Pull out the Power Cable from the hole of the frame and release it from the 3 clamps.

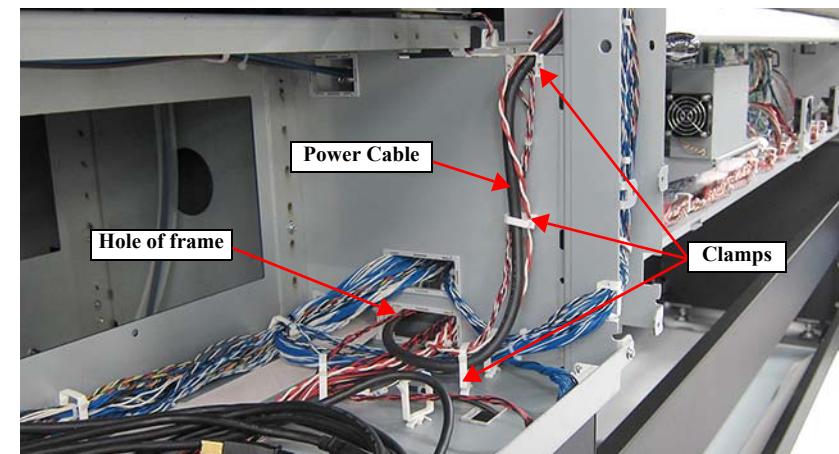


Figure 3-259.

Continue to the next page.

5. Pull out the Power Cable from the hole of the frame and release it from the 3 clamps.
6. Bring the Power Cable to the hole of the frame.

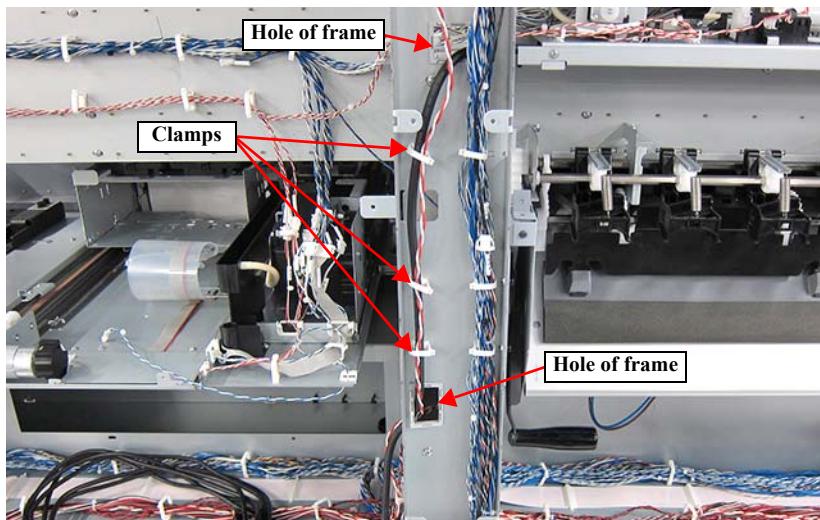


Figure 3-260.

7. Pull out the Power Cable from beneath the Cleaning Pump and release it from the clamp.

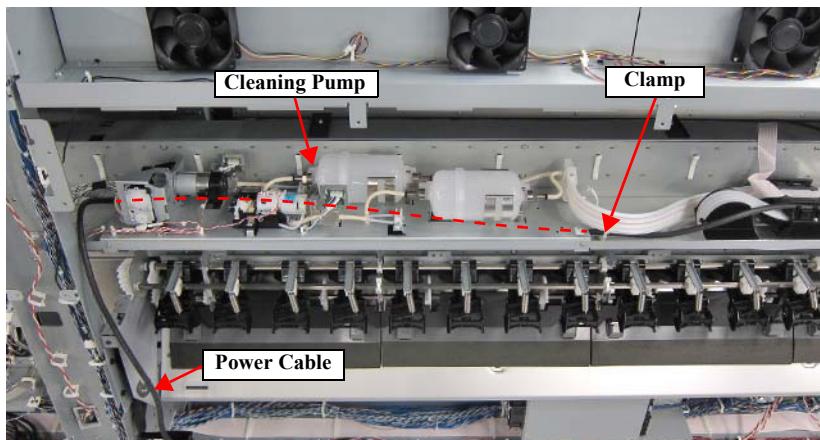


Figure 3-261.



When routing the Light Cable and the Power Cable, cross them as the light Cable comes to the bottom as shown below.

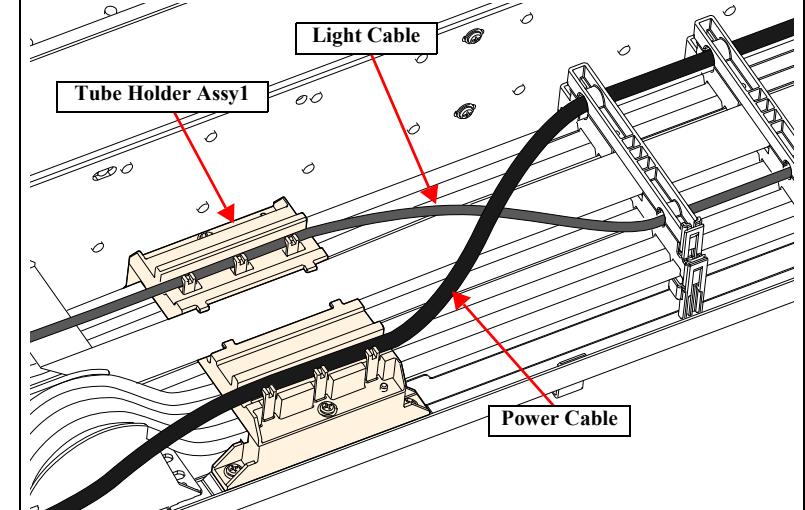


Figure 3-262.

Continue to the next page.

21. Remove the air tube.

1. Remove the 2 screws and then disconnect the air tubes from the joint.
A) Silver M2.5x16 S-tite screw with built-in spring washer: 2 pcs

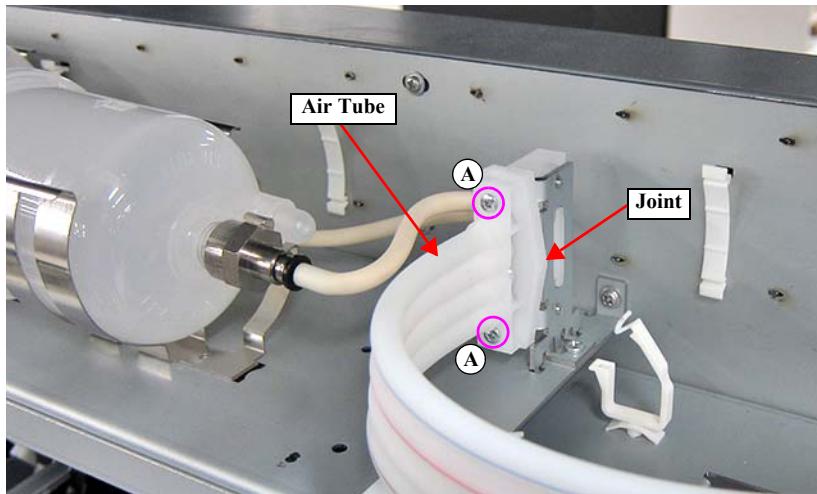


Figure 3-263.



- Before installing the tube, make sure the Joint Rubber is attached to it.

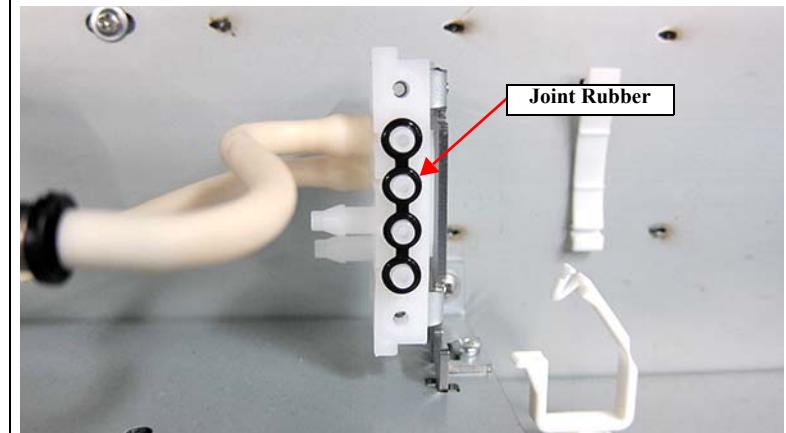


Figure 3-264.

- Replace the joint rubber with the new one because it cannot be reused.
- Before attaching the Joint Rubber, let it get wet with cleaning liquid.
- Tighten the screws that secure the tube alternately two times with a torque driver.
 - Specified torque: $0.29 \pm 0.05 \text{ N.m}$

Continue to the next page.

22. Remove the ink tube.



When the Waste tube is removed at the following step, ink may drip off from the tube. Prepare a waste cloth or the like in advance and be careful not to contaminate the surroundings.

1. Remove each set of 2 screws and then disconnect the 2 ink tubes from the joint.

A) Silver M2.5x16 S-tite screw with built-in spring washer: 2 pcs

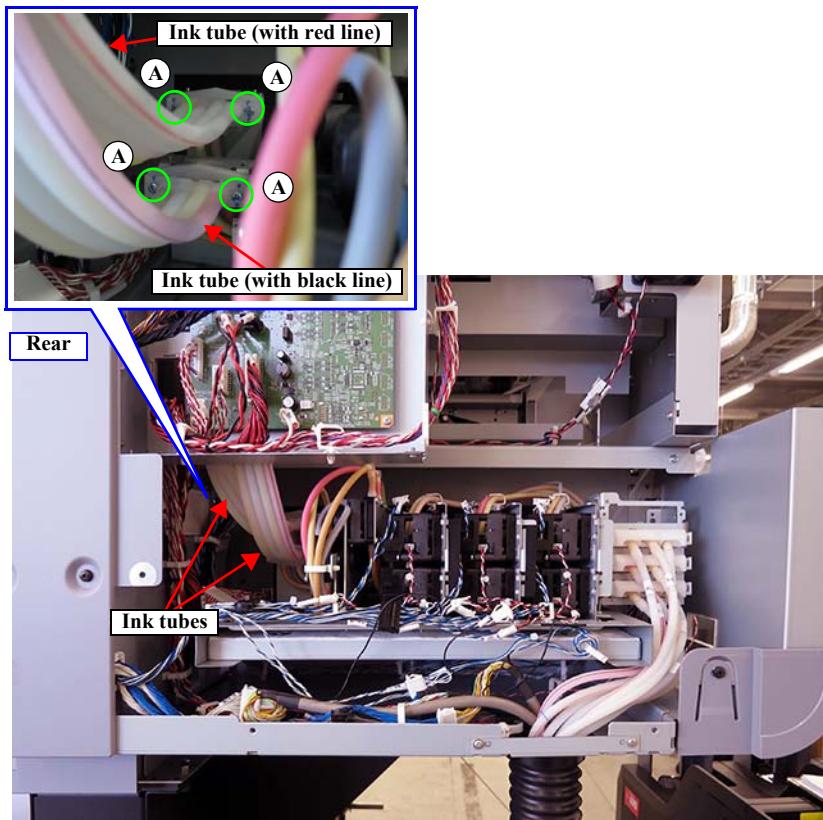


Figure 3-265.



- Before installing the Ink Tube, make sure the Joint Rubber is attached to it.

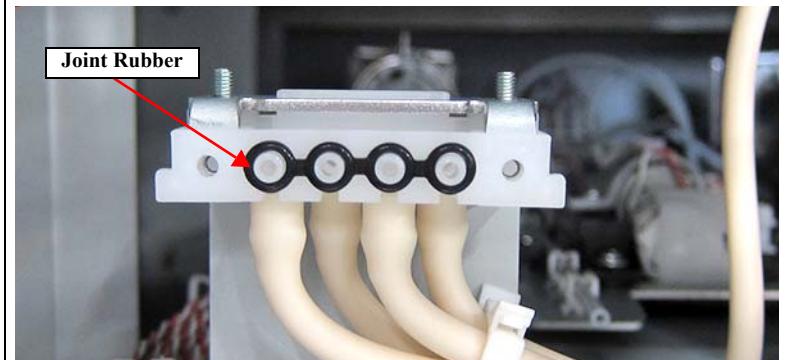


Figure 3-266.

- Replace the joint rubber with the new one because it cannot be reused.
- Before attaching the joint rubber, let it get wet with cleaning liquid.
- Tighten the screws that secure the Ink Tube alternately two times with a torque driver.
 - Specified torque: 0.29 ± 0.05 N.m

Continue to the next page.



■ Attach the ink tubes as shown below.

- Ink tube marked with red line
Upper Ink Supply Pump connecting joint
- Ink tube marked with black line
Lower Ink Supply Pump connecting joint

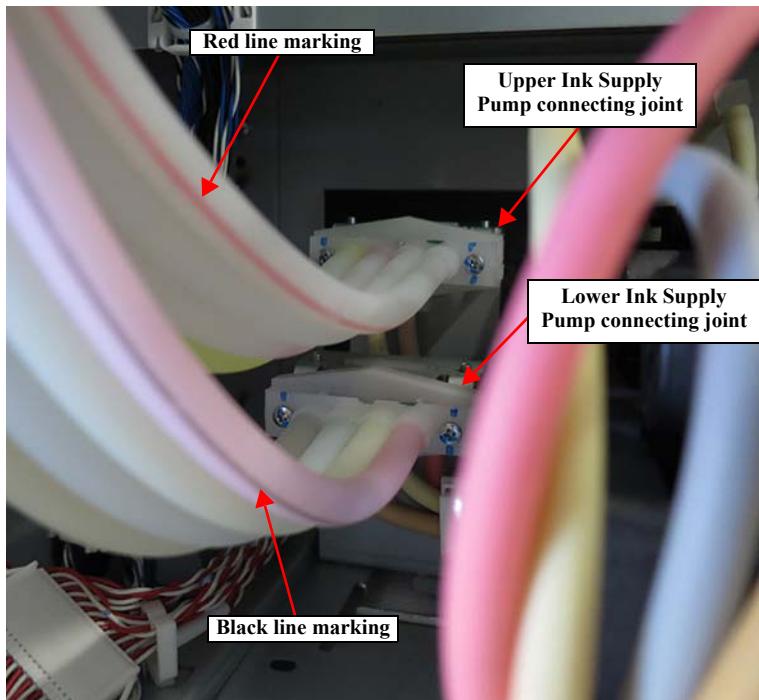


Figure 3-267.

2. Remove the 4 screws and then remove Tube Holder Assy1.

- A) Silver M3x8 Cup S-tite screw: 4 pcs

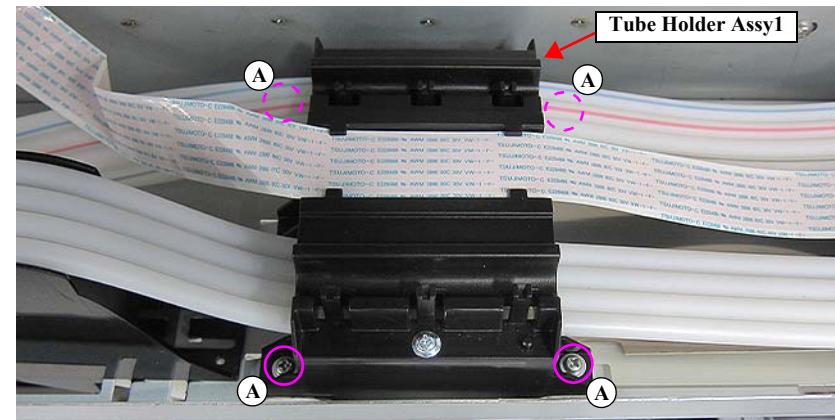


Figure 3-268.

Continue to the next page.

3. Slightly lift the ink tubes, press and disengage each hook, and remove the 8 tube clamps.

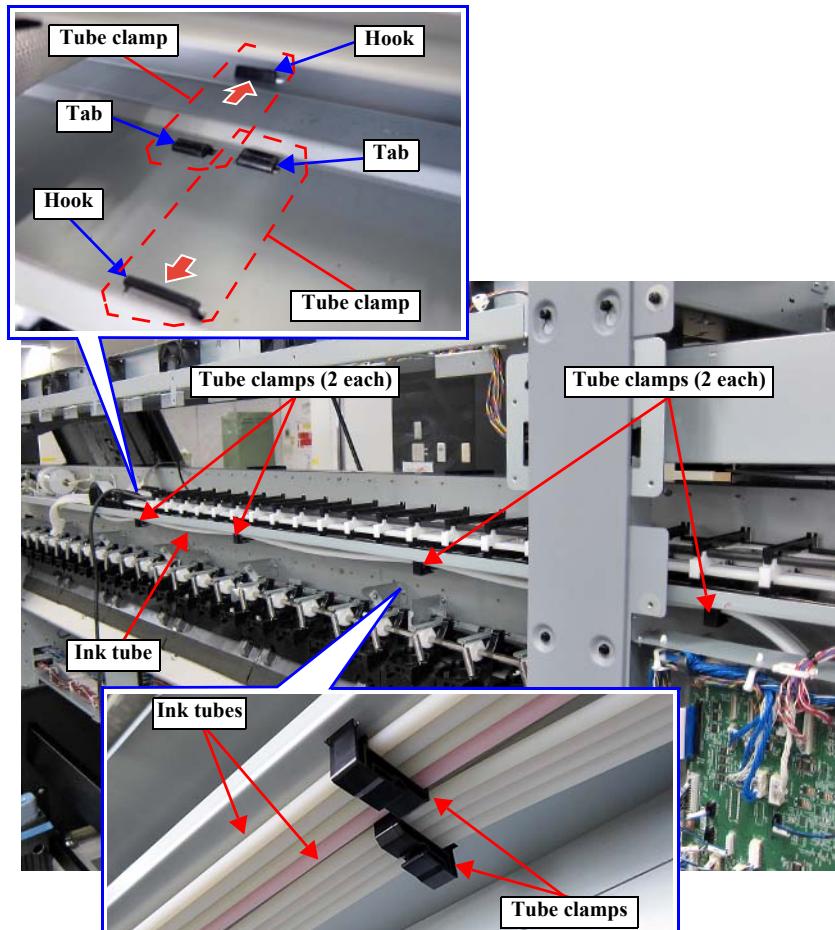


Figure 3-269.

4. Release the 2 ink tubes from the each set of 3 hooks on the tube holder.

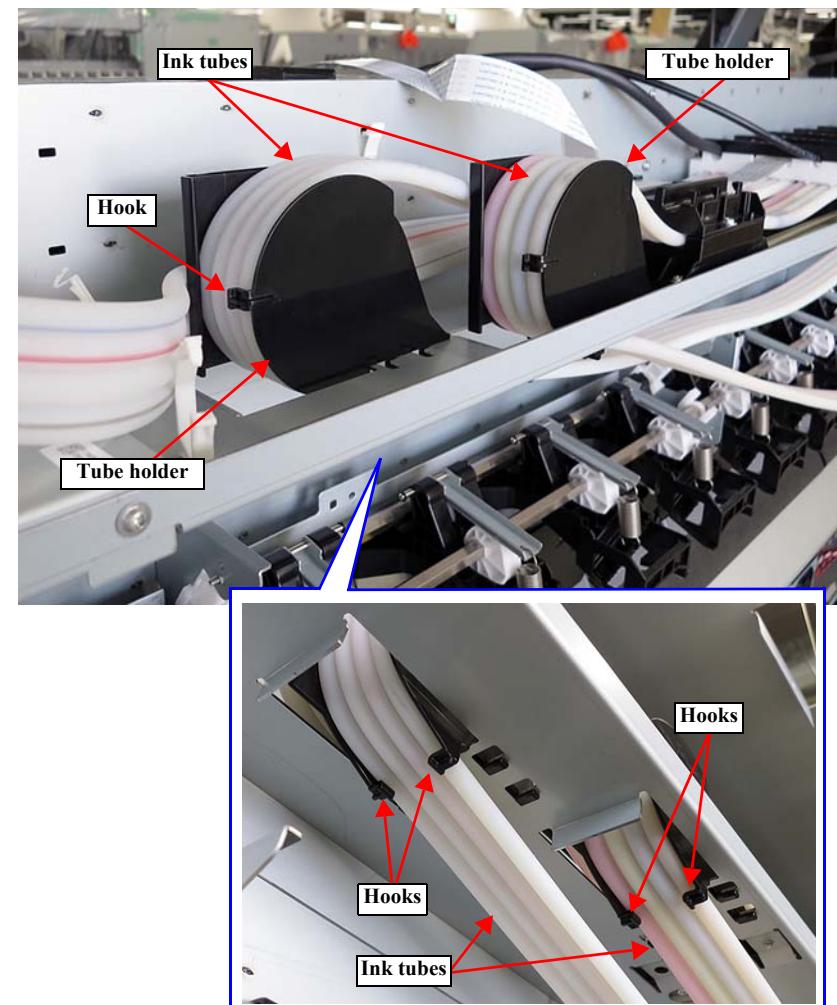


Figure 3-270.



Insert the tabs on the tube clamps into the frame. ([Figure 3-269](#))

Continue to the next page.

5. Disengage the hook and remove the tube holder by sliding it in the direction of the arrow.

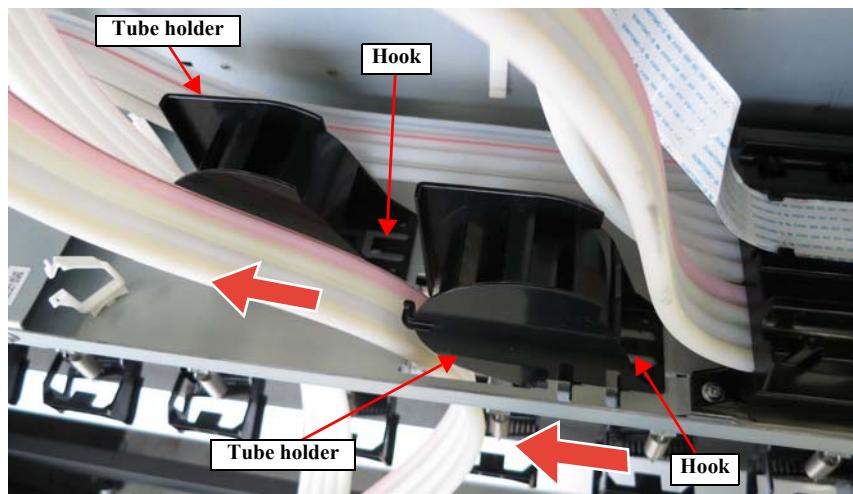


Figure 3-271.

23. Disconnect the cables and FFC on the CR Unit.

1. Disconnect the Light Cable from the connector (CN4001) of the SUB-C Board.
2. Disconnect the Power Cable from the connector (CN810) of the SUB-C Board.
3. Disconnect the CR FFC from the connector (CN531) of the SUB-C Board while pushing the hook of the connector.
4. Remove the 2 FFC clamps.

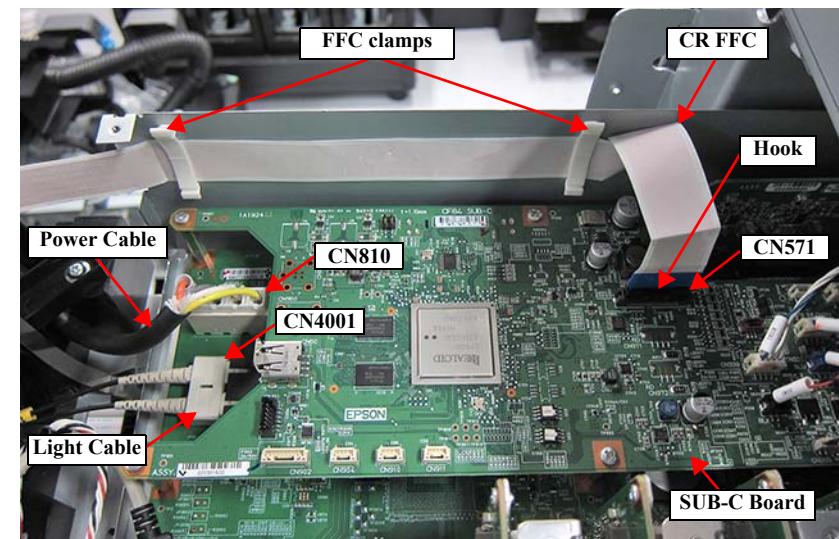


Figure 3-272.

Continue to the next page.

24. Remove Tube Holder Assy 2.

1. Release the air tube from the 2 clamps.
2. Remove the 2 air tubes from the joints.
3. Remove the 8 screws and then remove Tube Holder Assy 2.

A) Silver M3x8 Cup S-tite screw: 6 pcs

B) Silver M4x50 Cup S-tite screw: 2 pcs

25. Remove the tube holder from the tab of the frame.



Make sure to check the marking and connect the air tube correctly.
if not, cleaning and ink filling will not work. (Figure 3-200 (p436)).

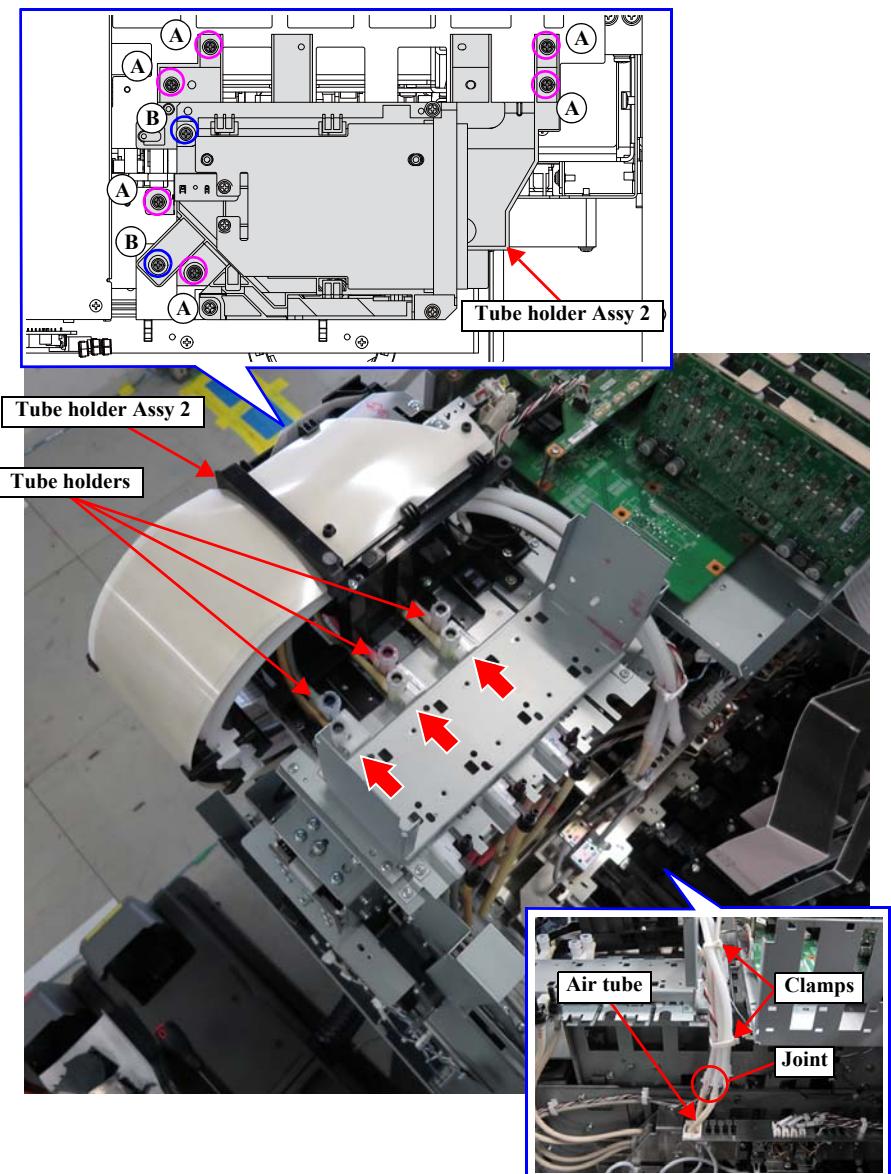


Figure 3-273.

Continue to the next page.

26. Remove the Ink Tube.

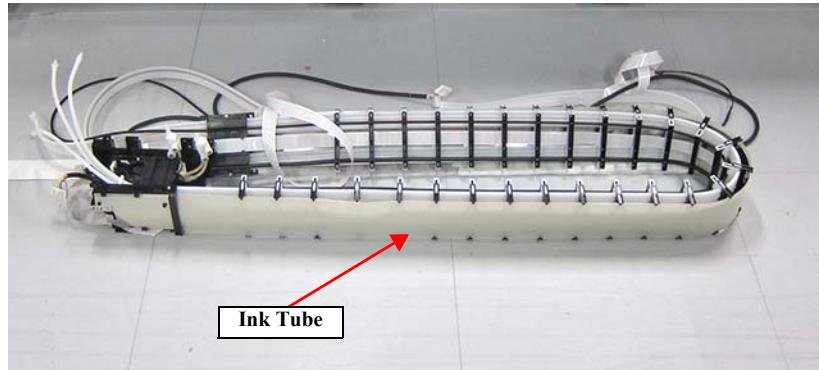


Figure 3-274.

3.4.4.36 Right Pulley Assy

1. Remove the Left Rear Cover. ([p323](#))
2. Remove the Left Top Cover. ([p322](#))
3. Remove the Left Cover. ([p324](#))
4. Remove the Right Rear Cover. ([p327](#))
5. Remove the Right Top Cover. ([p329](#))
6. Remove the Right Cover. ([p331](#))
7. (3-36) Loosen the CR Belt. ([p443](#))
8. Remove the 2 screws that secure the Pulley Fixing Plate.
 - A) Silver M4x8 Cup S-tite screw: 2 pcs
9. Remove the Right Pulley Assy and CR Motor Belt.

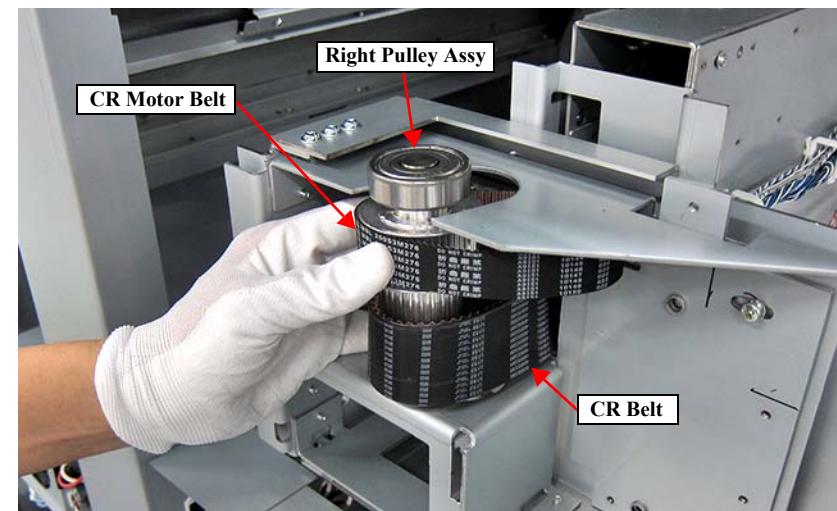
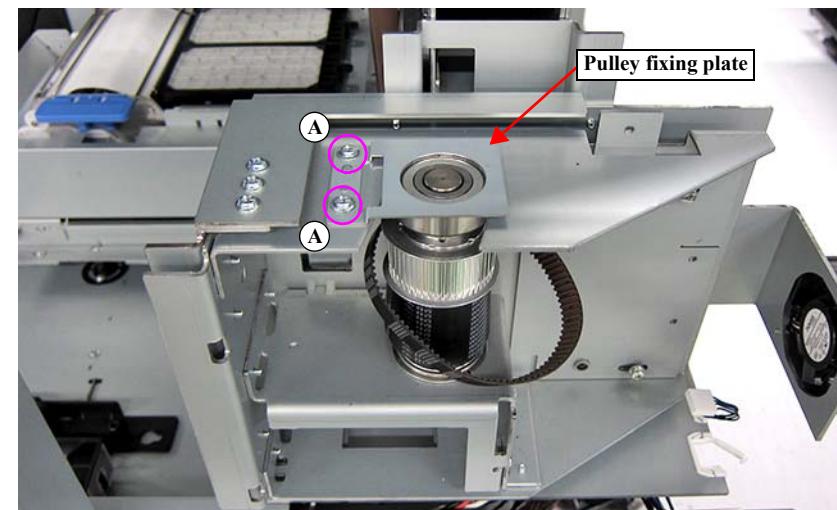


Figure 3-275.

3.4.4.37 Left Pulley Assy

1. Remove the Left Rear Cover. ([p323](#))
2. Remove the Left Top Cover. ([p322](#))
3. Remove the Left Cover. ([p324](#))
4. Remove the Right Rear Cover. ([p327](#))
5. Remove the Right Top Cover. ([p329](#))
6. Remove the Right Cover. ([p331](#))
7. Loosen the CR Belt. ([p443](#))
8. Remove the Right Pulley Assy. ([p473](#))
9. Remove the 6 screws that secure the Left Pulley Assy.
 - A) Silver M4x10 S-tite screw with built-in spring washer: 6 pcs
10. Remove the 6 screws and then remove the Left Pulley Holder.
 - B) Silver M4x10 S-tite screw with built-in spring washer: 2 pcs
11. Remove the tension adjustment screw.

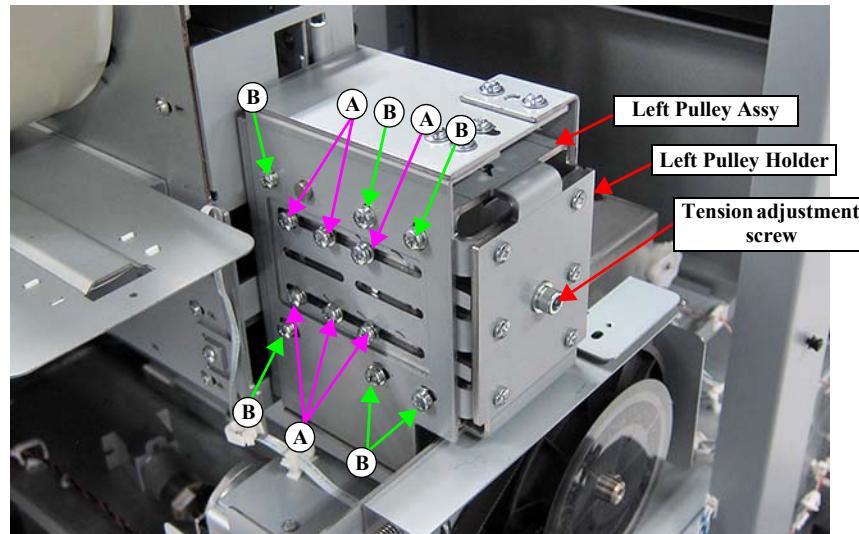


Figure 3-276.

12. Mark the attachment position of the height adjustment screw.
13. Remove the height adjustment screw.
14. Remove the 6 screws and then remove the front plate.
 - C) Silver M4x8 Cup S-tite screw: 4 pcs
 - D) Silver M4x10 S-tite screw with built-in spring washer: 2 pcs

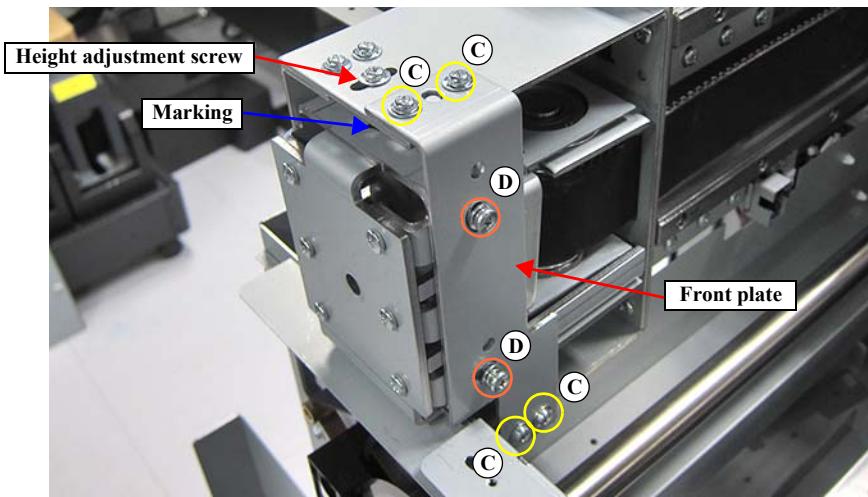


Figure 3-277.

Continue to the next page.

15. Remove the left pulley holder

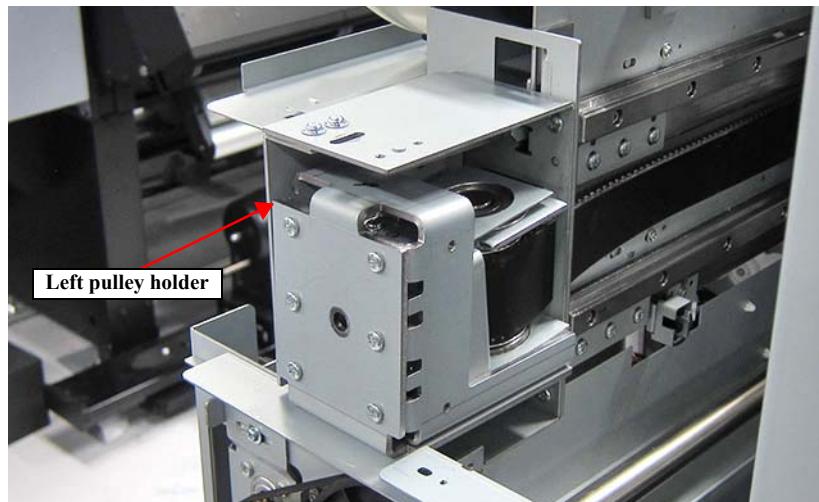


Figure 3-278.

16. Remove the 2 screws and then remove the Pulley Fixing Plate.

E) Silver M4x8 Cup S-tite screw: 2 pcs

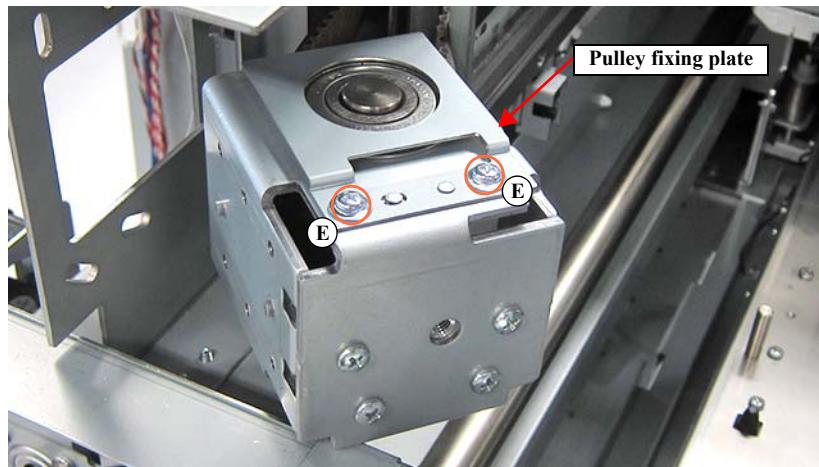


Figure 3-279.

17. Pull out the CR Belt from the Left Pulley Assy.

18. Remove the Left Pulley Assy.

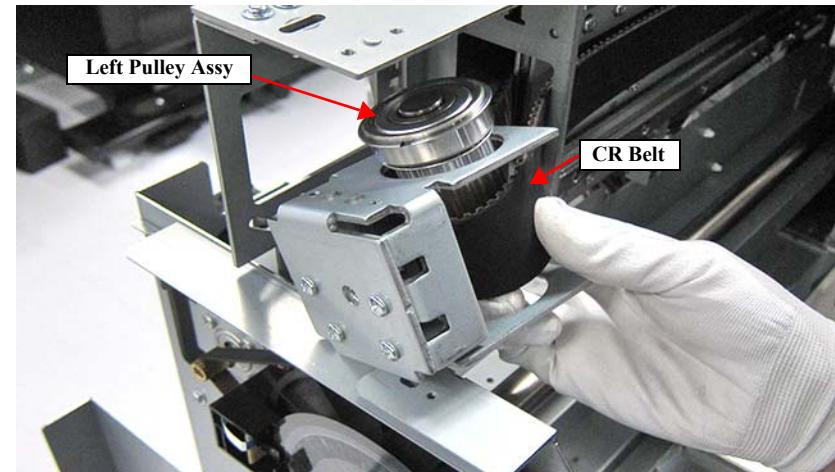


Figure 3-280.

3.4.4.38 CR Obstacle Sensor FFC Assy

1. Unlock the CR Unit. (p319)
2. Remove the CR Cover. (p410)
3. Remove the Print Head. (p402)
4. Remove the Filter Unit. (p438)
5. Remove the Duct Carriage Assy. (p435)
6. Remove the Left Rear Cover. (p323)
7. Remove the Left Top Cover. (p322)
8. Remove the Left Side Top Cover. (p334)
9. Remove the Head Drive Board Frame. (p375)
10. Disconnect the FFC of the CR Obstacle Sensor FFC Assy from the connector of the CR Obstacle Sensor (Left/Right).
11. Disconnect the FFC of the CR Obstacle Sensor FFC Assy from the connector of the Relay Board.
12. Release the FFC of the CR Obstacle Sensor FFC Assy from the 2 hooks.
13. Peel off the CR Obstacle Sensor FFC Assy, and pull it out from the hole A.
14. Release the CR Obstacle Sensor FFC Assy from the 3 FFC clamps, and pull it out from the hole B to the SUB-C Board side.

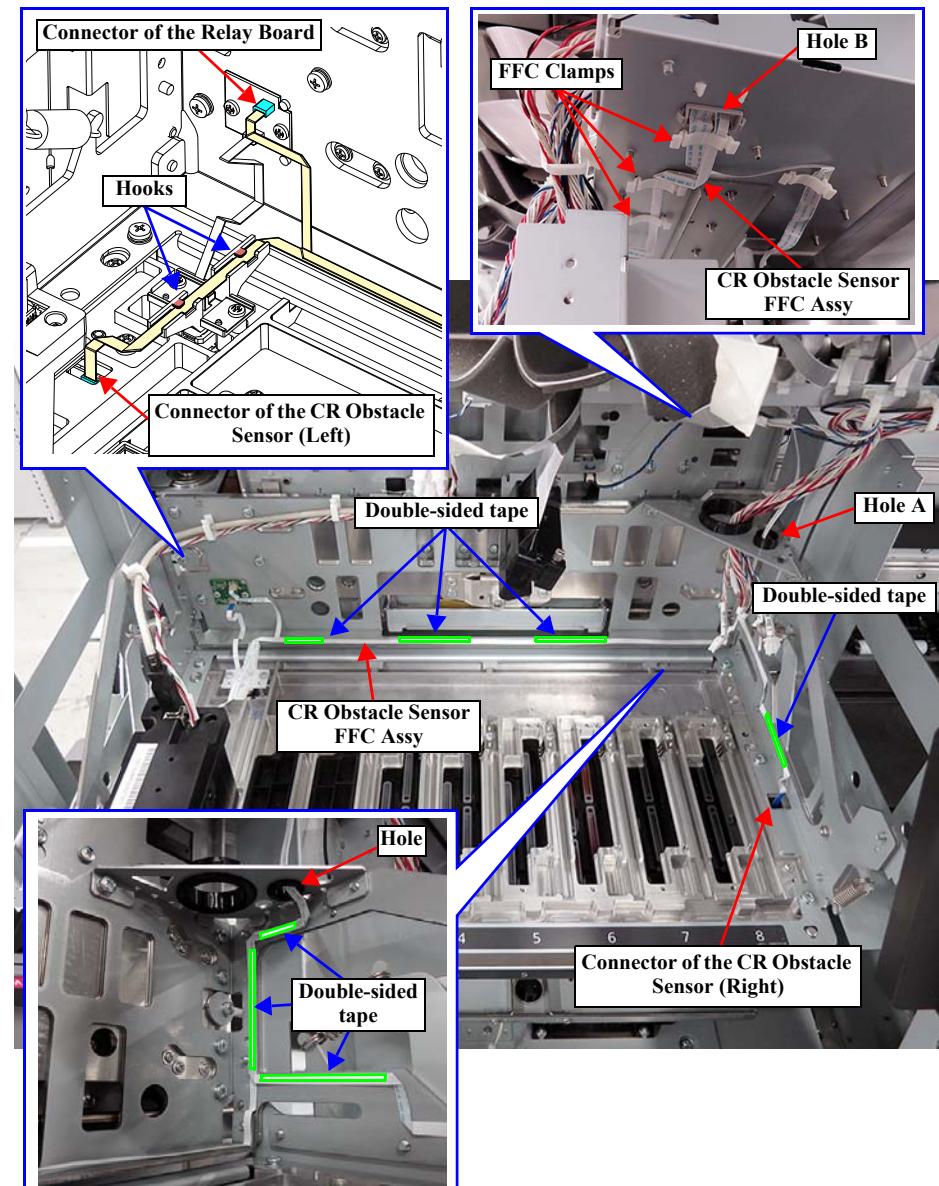


Figure 3-281.

Continue to the next page.

15. Remove the FFC clamp, and peel off the CR Obstacle Sensor FFC Assy from the frame.
16. Disconnect the CR Obstacle Sensor FFC Assy from the connector (CN305, CN309, CN340) from the SUB-C Board and remove the CR Obstacle Sensor FFC Assy.

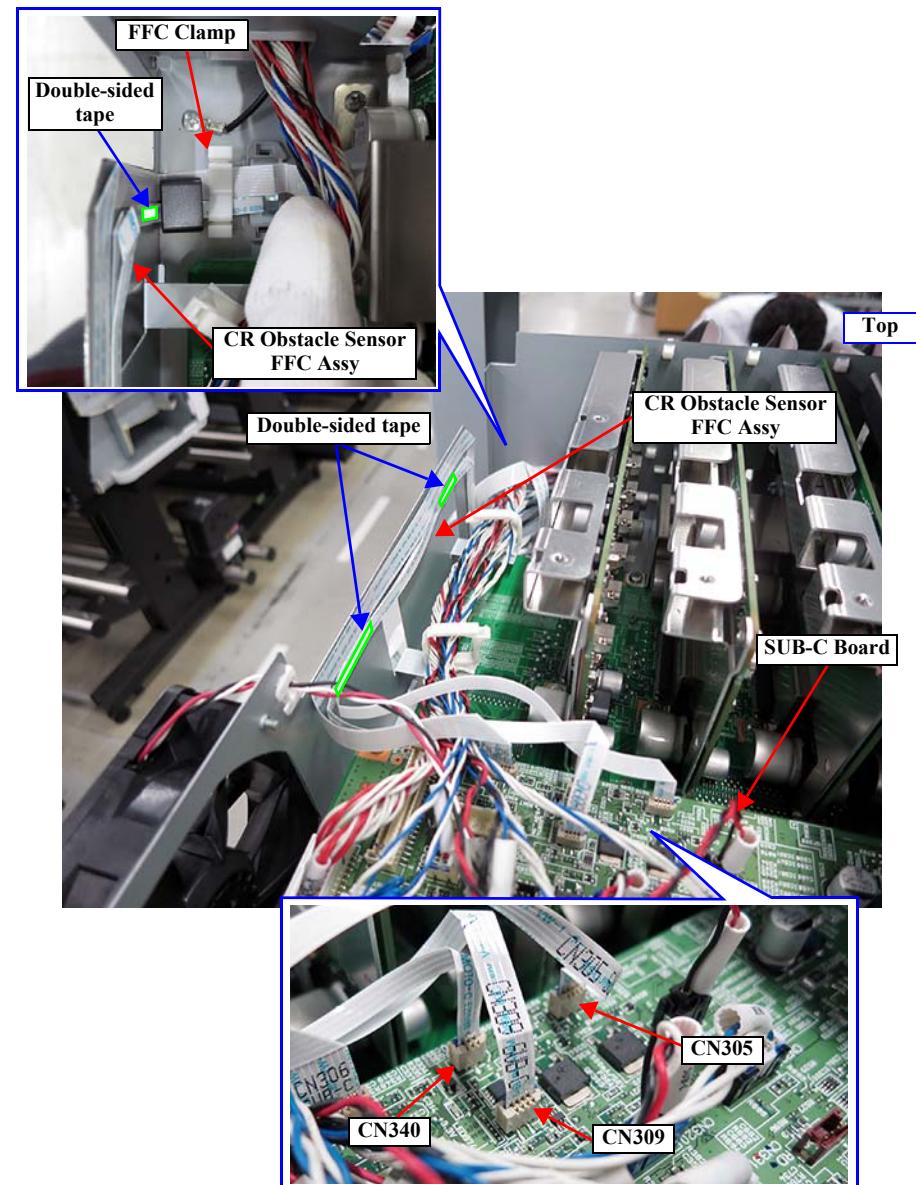


Figure 3-282.

3.4.4.39 CR Encoder FFC

1. Unlock the CR Unit. ([p319](#))
2. Remove the CR Cover. ([p410](#))
3. Remove the Right Rear Cover. ([p327](#))
4. Remove the Right Top Cover. ([p329](#))
5. Remove the Right Cover. ([p331](#))
6. Remove the Left Rear Cover. ([p323](#))
7. Remove the Left Top Cover. ([p322](#))
8. Remove the Left Side Top Cover. ([p334](#))
9. Remove the Head Drive Board Frame. ([p375](#))
10. Loosen the 2 screws that secure the CR Encoder Sensor Assy.

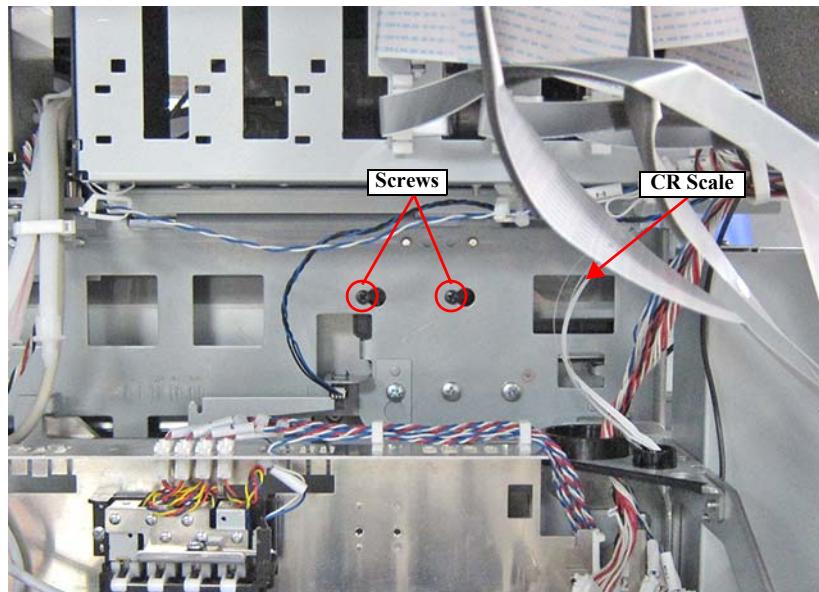


Figure 3-283.



Be careful not to damage the CR Scale in the following procedure.

11. Pull out the CR Encoder Sensor Assy.

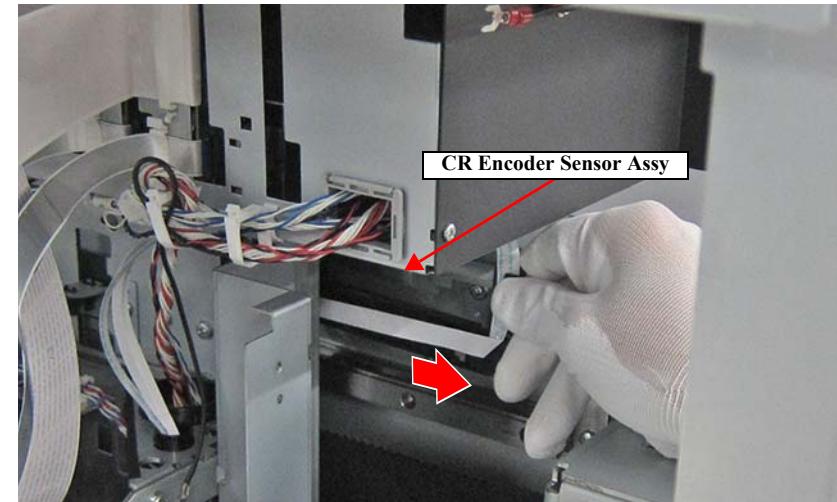


Figure 3-284.

12. Disconnect the CR Encoder FFC from the connector of the CR Encoder Sensor.

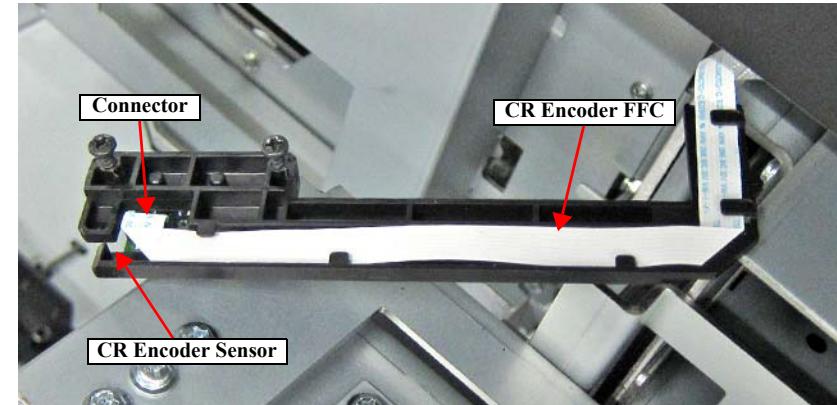


Figure 3-285.

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13. Remove the 2 FFC clamps on the bottom of the frame.
14. Pull out the FFC from the hole of the frame to the SUB-C Board side.
15. Remove the FFC clamp.
16. Peel off and release the CR Encoder FFC
17. Disconnect the CR Encoder FFC from the connector (CN306) of the SUB-C Board and remove it.

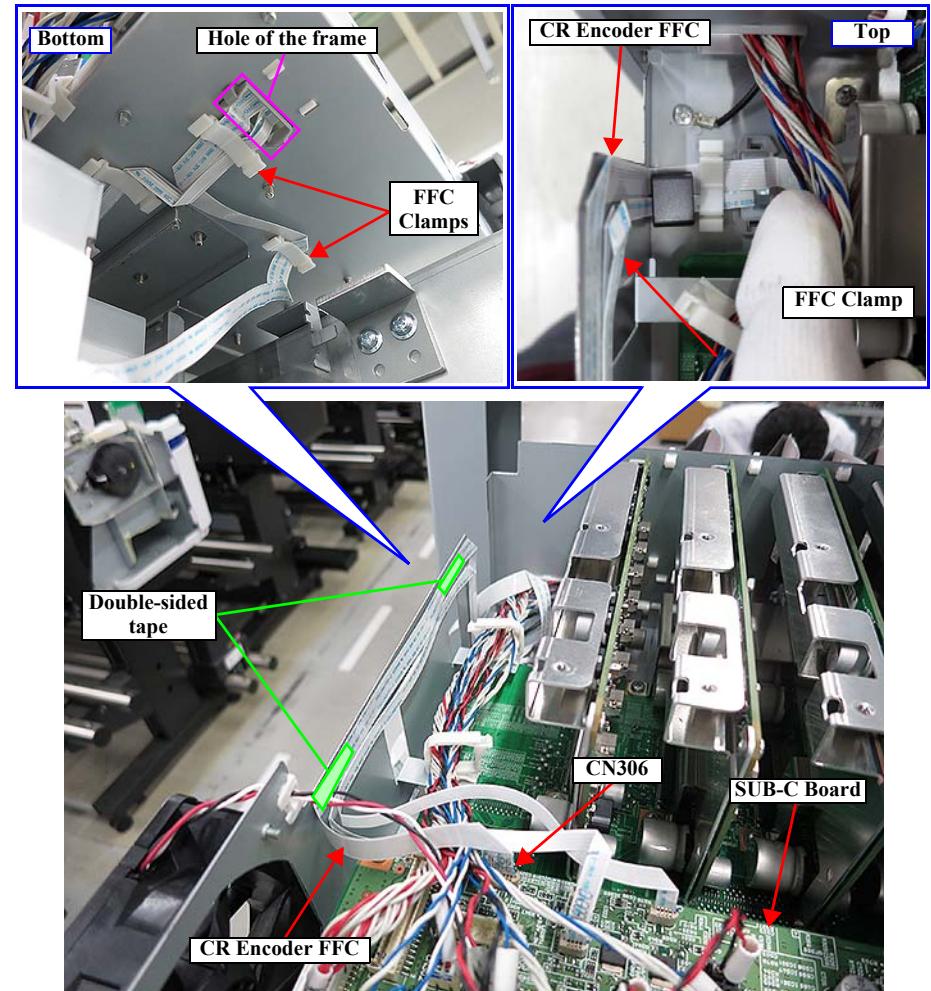


Figure 3-286.

3.4.4.40 Tube Support Plate

1. Remove the Left Rear Cover. ([p323](#))
 2. Remove the Left Top Cover. ([p322](#))
 3. Remove the Left Cover. ([p324](#))
 4. Remove the Rear Cover. ([p325](#))
 5. Remove the Rear Inner Cover. ([p326](#))
 6. Write the marking along both edges of the Tube Holder Assy1.
 7. Remove the 4 screws, and remove the Tube Holder Assy1.
- A) Silver M3x8 Cup S-tite screw: 4 pcs



Be careful not to damage the Ink Tube with the tip of the screwdriver.



When attaching the Tube Holder Assy1, Align it with the marking.

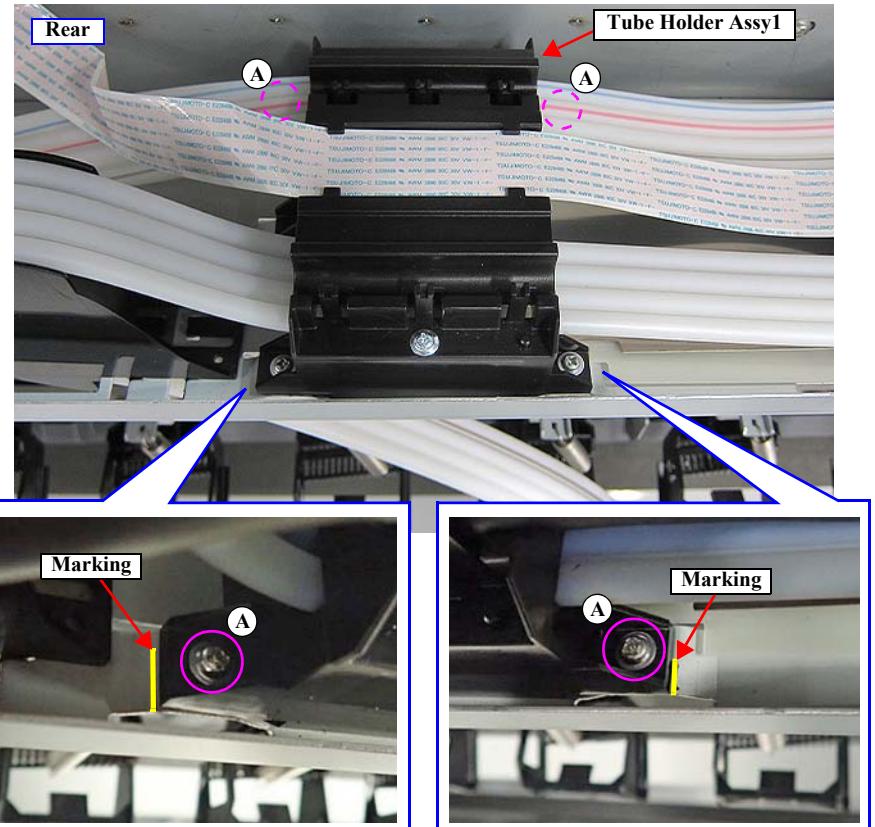


Figure 3-287.

Continue to the next page.

8. Remove the 2 screws.
- B) Silver M3x8 Cup P-tite screw: 2pcs
9. Release the Tube Support Plate and the Tube Support Plate Sheet from the 4 hooks of the Tube Holder Assy1.

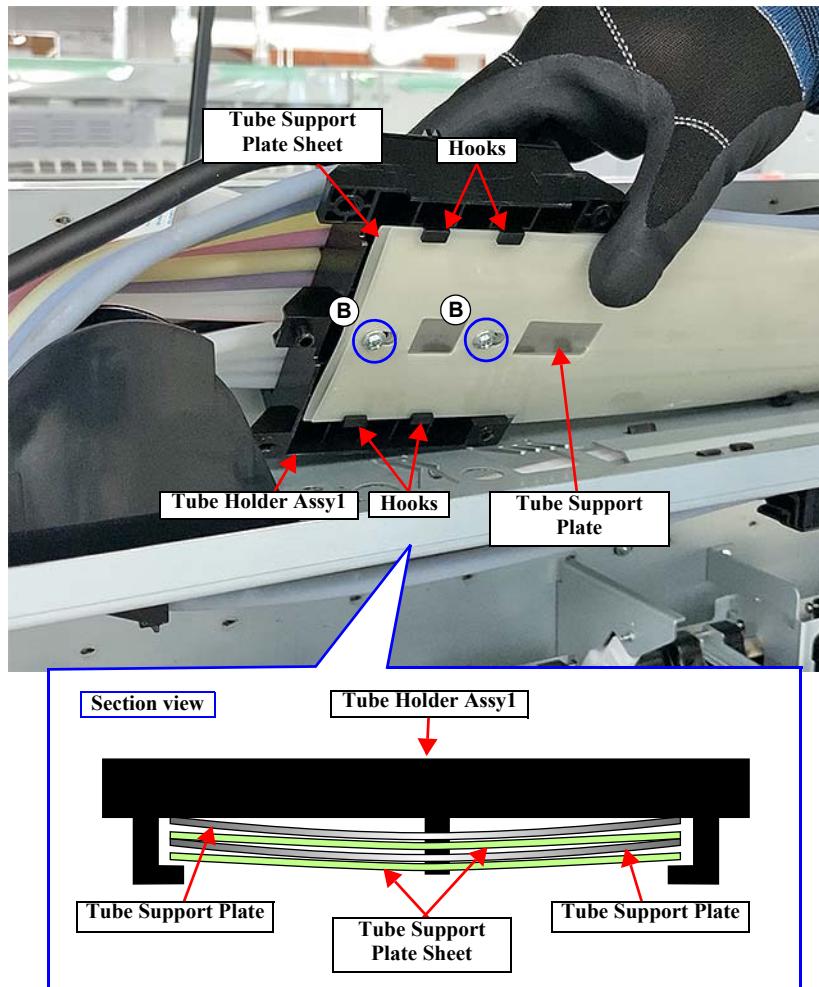


Figure 3-288.

10. Remove the 2 screws securing the Tube Support Plate.
- C) Silver M3x8 Cup P-tite screw: 2pcs
11. Release the Tube Support Plate and the Tube Support Plate Sheet from the 2 dowels and the 3 hooks of the Tube Support Plate Holder.

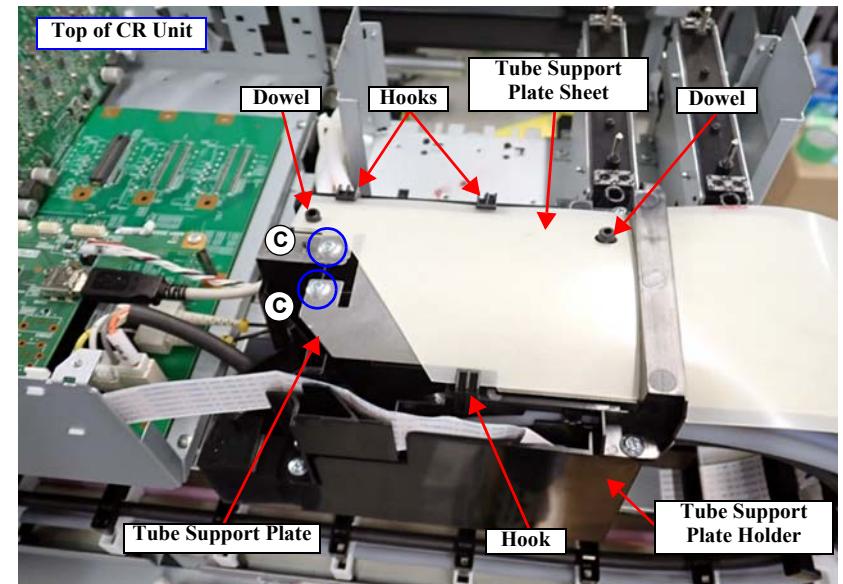


Figure 3-289.

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12. Release the Tube Support Plate and the Tube Support Plate Sheet from the 4 hooks.

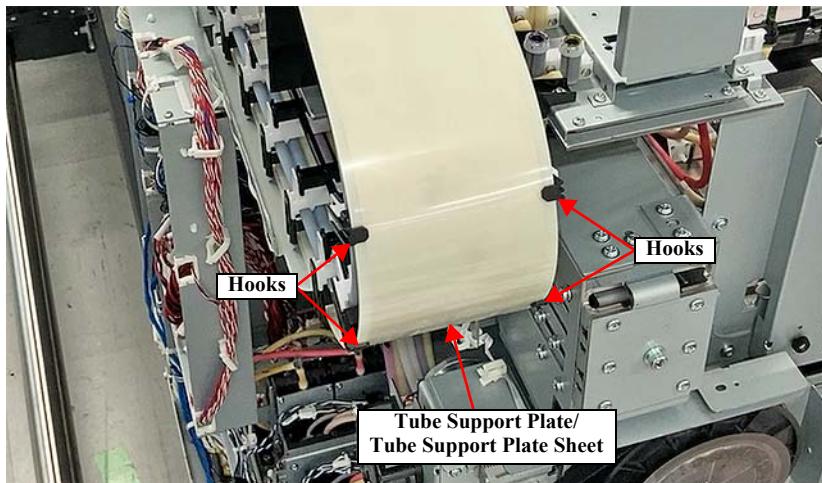


Figure 3-290.

13. Pull out the Tube Support Plate and the Tube Support Plate Sheet from the Tube Support Plate Holder.

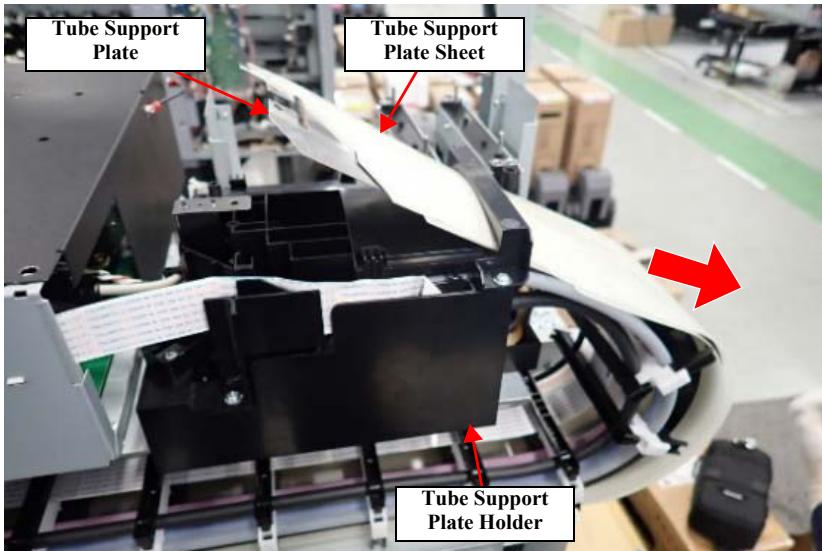


Figure 3-291.

14. Pull out the 2 Tube Support Plate and the 2 Tube Support Plate Sheet from the gap of the clamps.

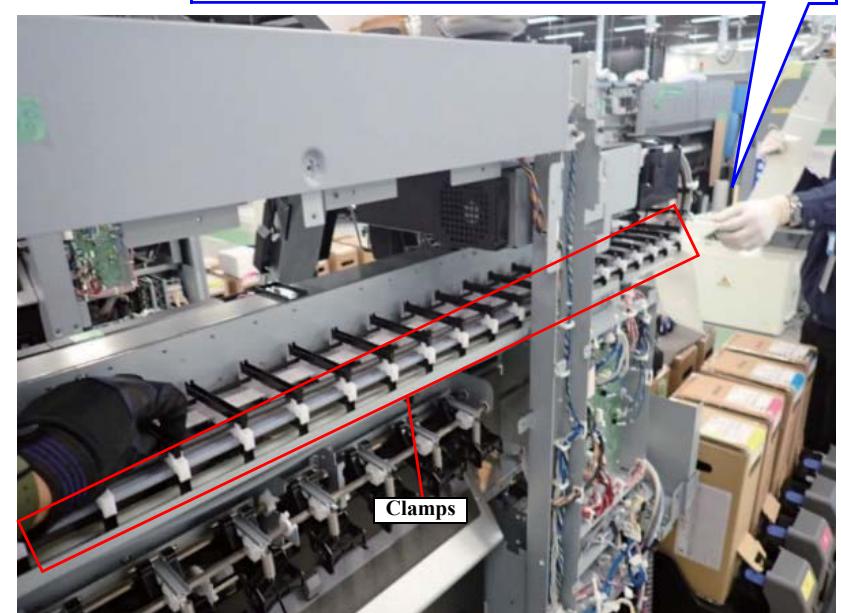
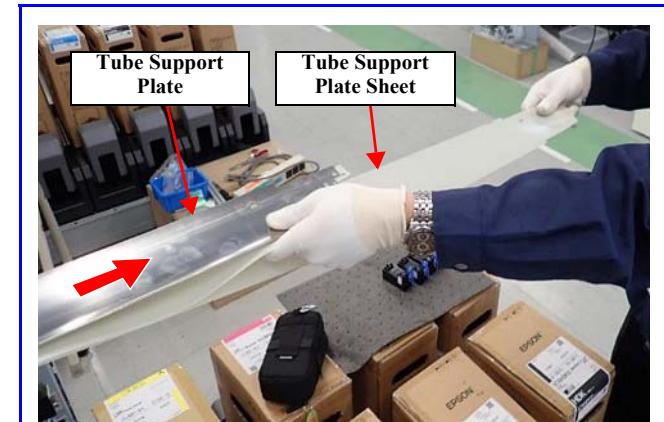


Figure 3-292.

Continue to the next page.



ASSEMBLY

- When attaching the Tube Support Plate and the Tube Support Plate Sheet, insert them from the end with 2 circular holes.



Figure 3-293.

- When inserting the Tube Support Plate and the Tube Support Plate Sheet into the gap of clamps, carry out by at least 2 persons. 1 person slightly lift the clamps, and the other person insert the two Tube Support Plate and the two Tube Support Plate Sheet.

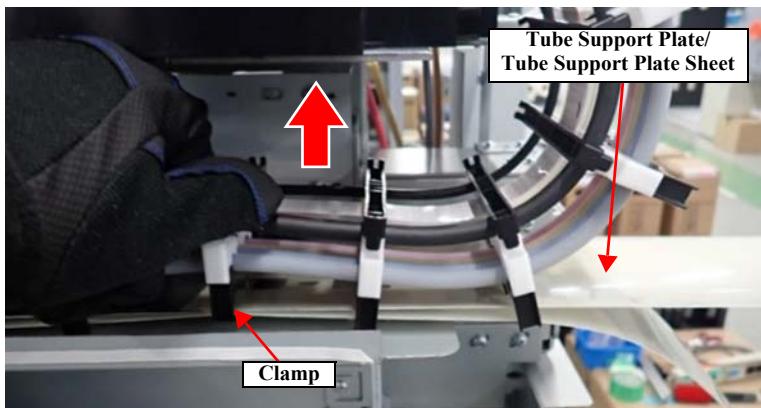


Figure 3-294.



ASSEMBLY

- Secure the Tube Support Plate Sheet and the Tube Support Plate on the CR Unit side to the Tube Support Plate Holder in the procedure given below.

- Place the Tube Support Plate Sheet and the Tube Support Plate on top of each other as shown in [Figure 3-295](#), and set them through the hole of the Tube Support Plate Holder.
- Align the holes of the 2 Tube Support Plate Sheet and the 2 Tube Support Plate with the dowel of the Tube Support Plate Holder.

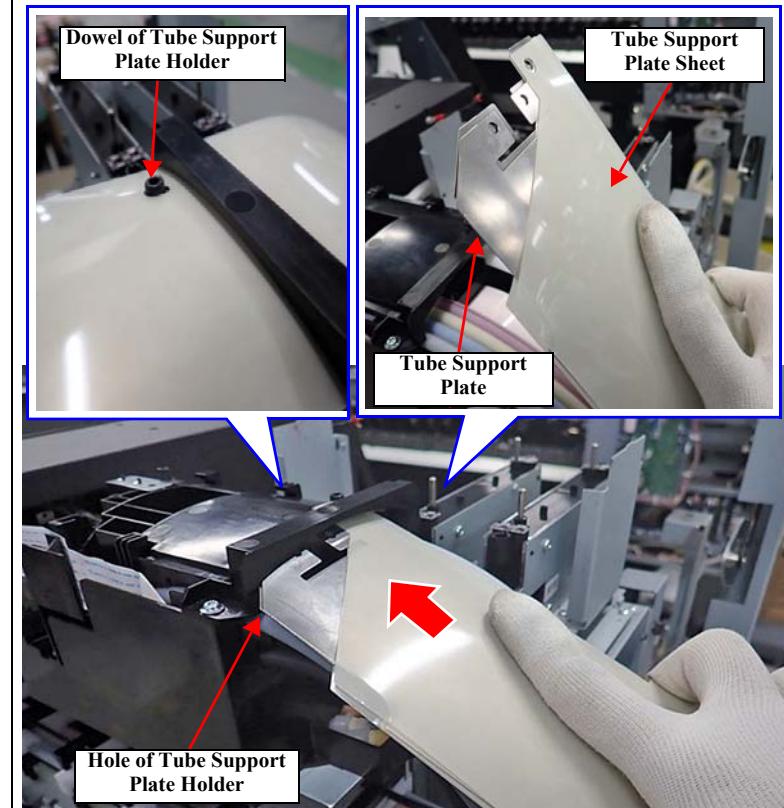
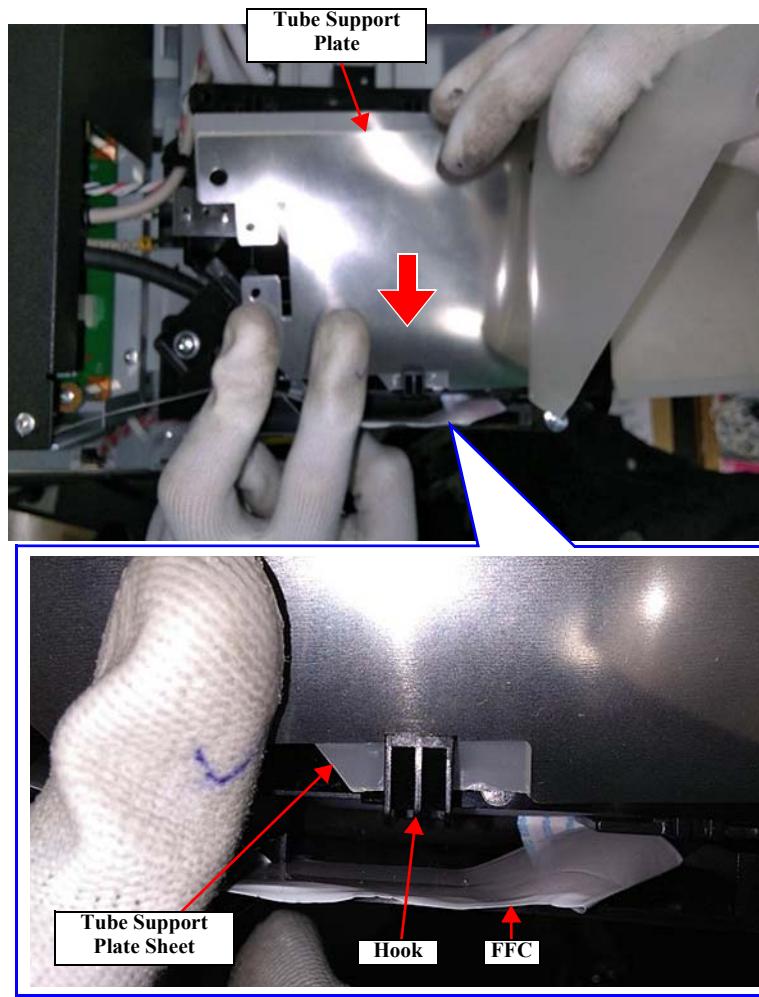


Figure 3-295.

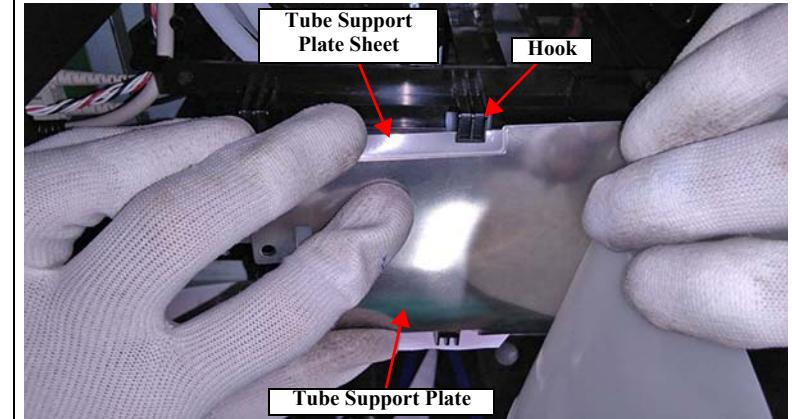
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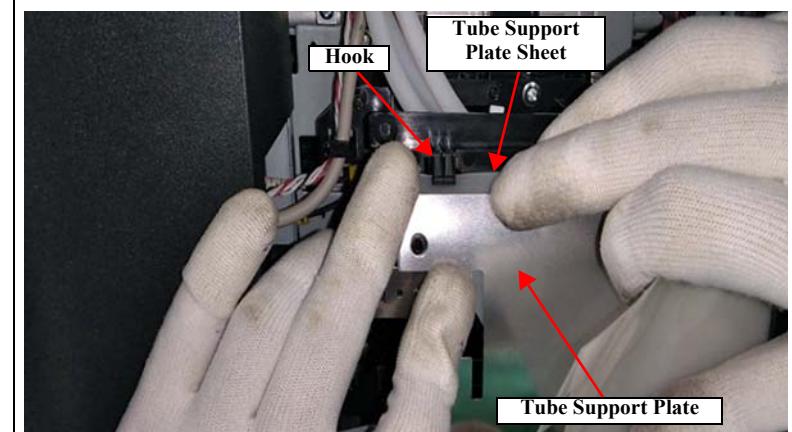
3. Insert the Tube Support Plate Sheet in the FFC side hook, and pull it toward the hook with the 2 Tube Support Plate.



4. Slightly wind the Tube Support Plate Sheet under the Tube Support Plate, and set it into the hook shown in [Figure 3-297](#).



5. While pressing and holding the Tube Support Plate and the Tube Support Plate Sheet set into the hook in [Step 3](#), slightly wind the Tube Support Plate Sheet under the Tube Support Plate, and set it into the hook shown in [Figure 3-298](#).



Continue to the next page.



6. Align the hole of the Tube Support Plate Sheet and the 2 Tube Support Plate with the dowel shown in [Figure 3-299](#) and make sure the Tube Support Plate Sheet and the 2 Tube Support Plate are set in 3 hooks.

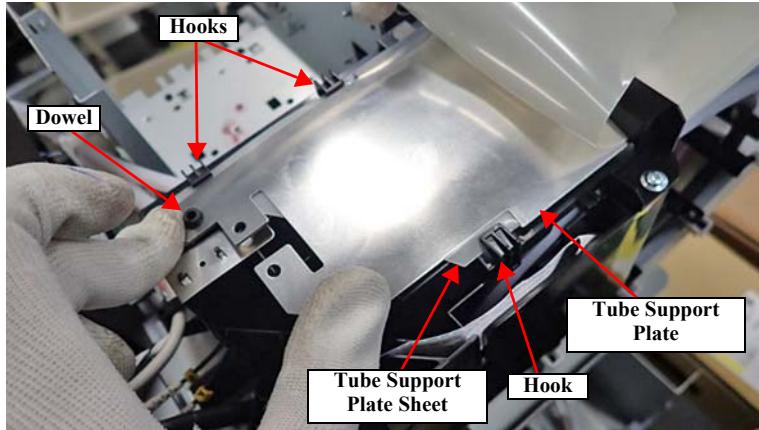


Figure 3-299.

7. Secure the 2 Tube Support Plate with the 2 screws. ([Figure 3-289](#))
 8. Align the Tube Support Plate Sheet on top with the 2 dowels, and set it to the 3 hooks.

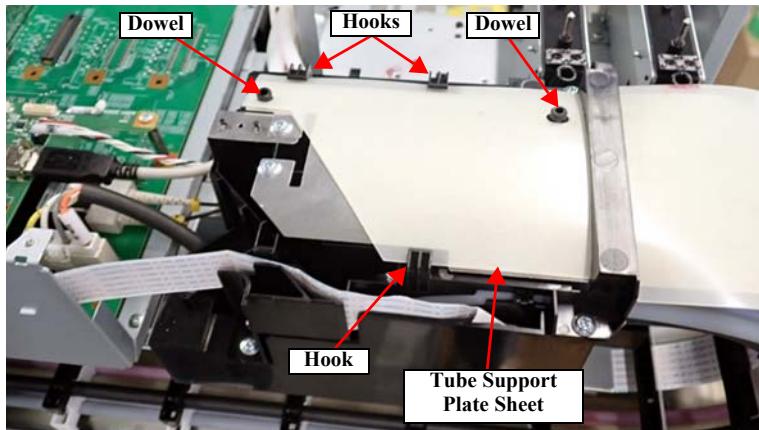


Figure 3-300.

- When attached the Tube Support Plate and the Tube Support Plate Sheet, make sure there is no gap between them.

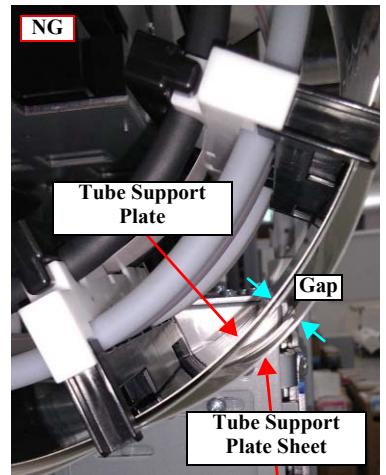
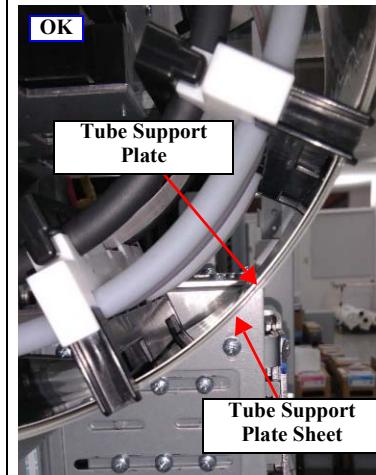


Figure 3-301.

- Make sure the hooks of all clamps (2 each) are set to the Tube Support Plate Sheet.

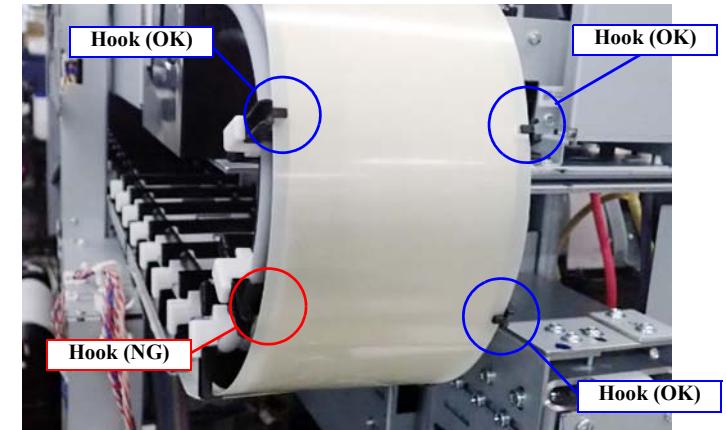


Figure 3-302.

Continue to the next page.



- 5 clamps will be sent together with the Tube Support Plate supplied as ASP for when the hook is broken.
- Attach the Tube Holder Assy1 along the marking. ([Figure 3-287](#))
- After attaching the Tube Holder Assy1, check the items given below. If not satisfying the standard, remove the Tube Holder Assy1 and attach it again.
 - Wear a glove, grab and pull the 2 Tube Support Plate Sheet to the full side, and make sure the movement of the Tube Support Plate Sheet is 4 mm or less. (Return the 2 Tube Support Plate Sheet to the original position after checking.)

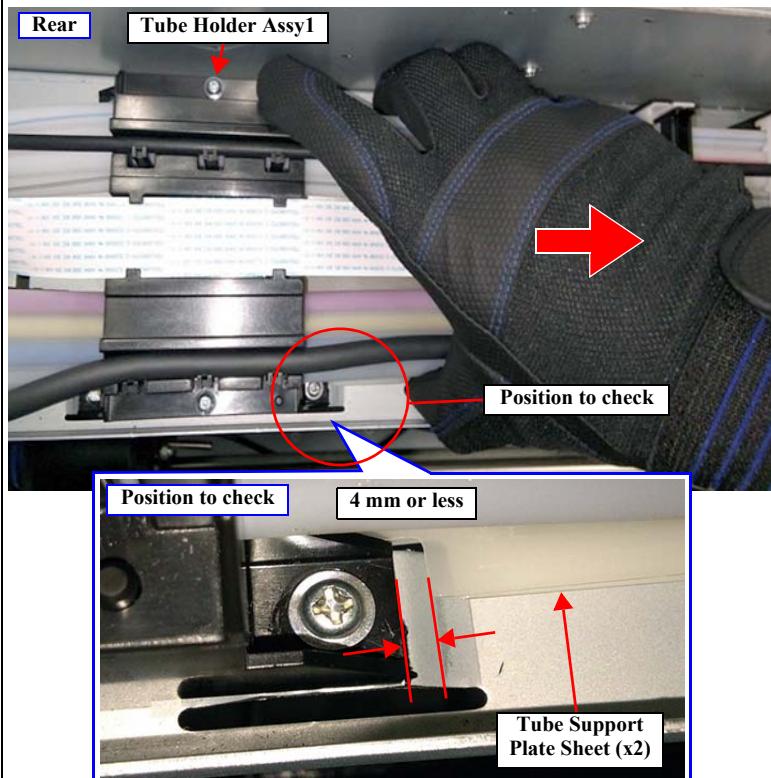


Figure 3-303.



- Make sure the misalignment between cutoff sections of the Tube Support Plate Sheet and the Tube Support Plate is 10 mm or less.
- Make sure the misalignment between cutoff sections of the upper and lower Tube Support Plate Sheet is 5 mm or less.

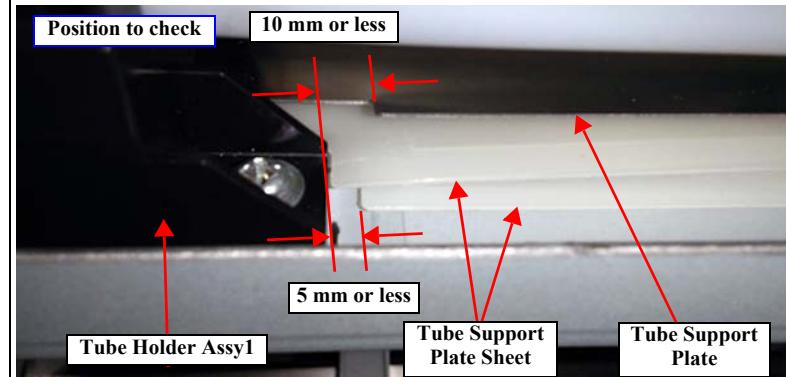


Figure 3-304.

- Make sure the misalignment between cutoff sections of the upper and lower Tube Support Plate is 6 mm or less.

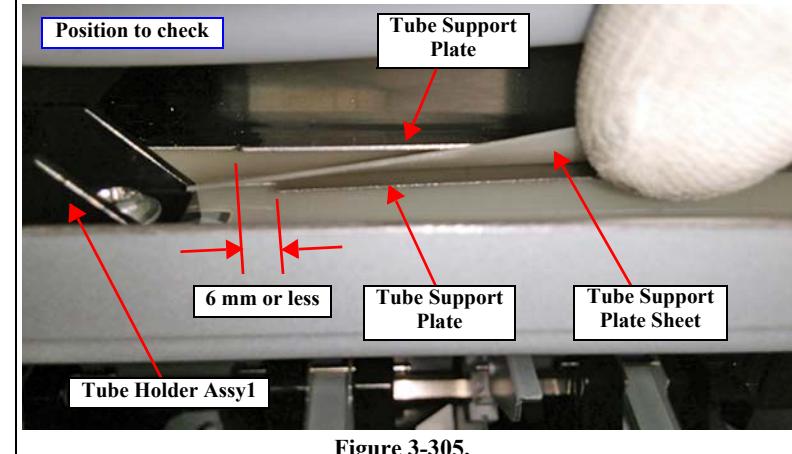


Figure 3-305.

3.4.4.41 Shutter



Replace this part if the reading section (white section) is damaged when cleaning (p666).

1. Unlock the CR Unit. (p319)
2. Remove the CR Cover. (p410)
3. Move the CR Unit to the position shown in [Figure 3-306](#).
4. Remove the 2 screws.
 - A) Silver M3x6 Bind machine screw: 2 pcs

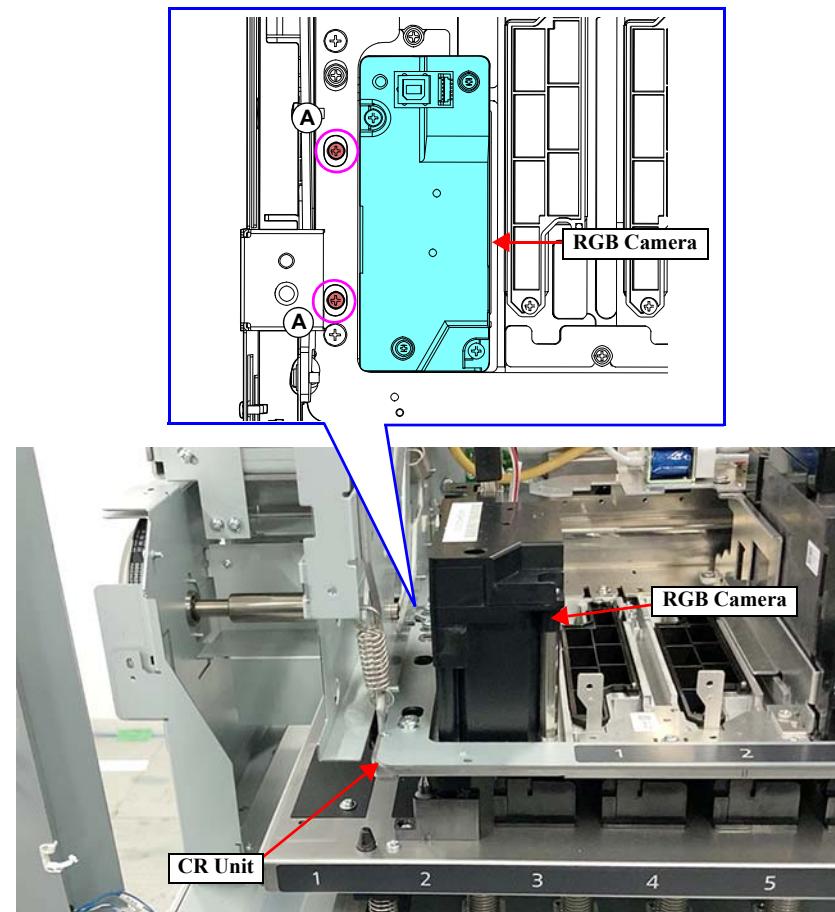


Figure 3-306.

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In the next step, be careful not to touch the Cap and the Print Head.

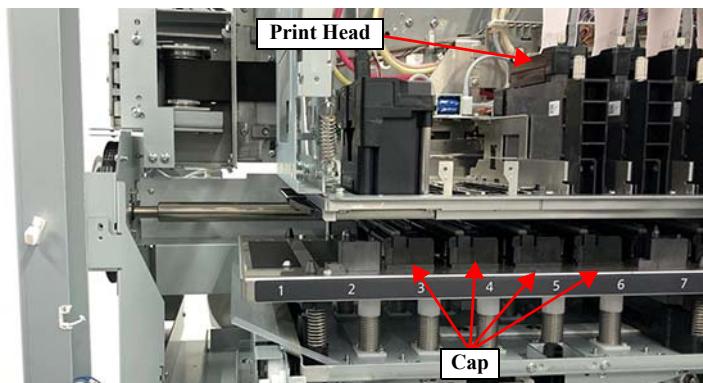


Figure 3-307.

5. Remove the shutter in the direction of the arrow.

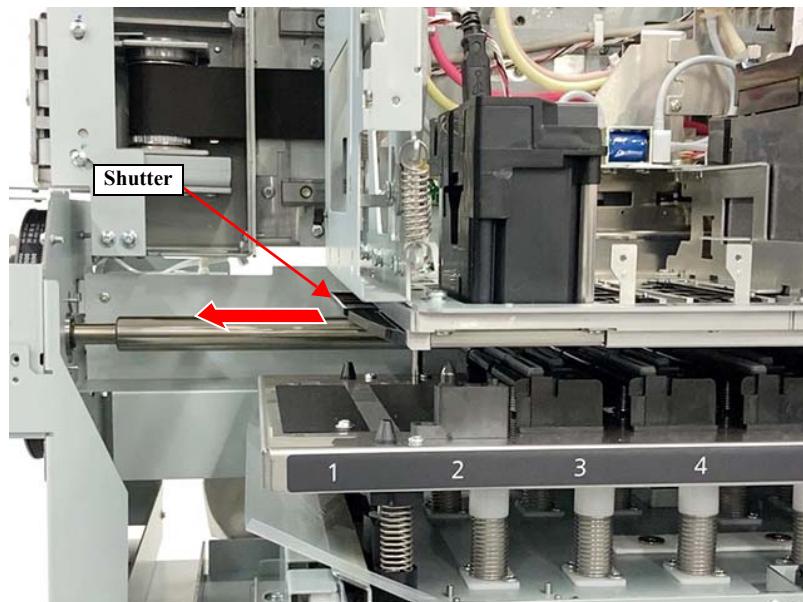


Figure 3-308.

3.4.5 Paper Feed Mechanism

3.4.5.1 Nip/Release Motor

1. Remove the Left Rear Cover. ([p323](#))
2. Remove the Left Top Cover. ([p322](#))
3. Remove the Left Cover. ([p324](#))
4. Disconnect the cable from the connector.
5. Loosen the 2 screws.
 - A) Silver M4x8 Cup S-tite screw: 2 pcs
6. Remove the Nip/Release Motor Assy by sliding it upward while taking care that the gear does not fall.

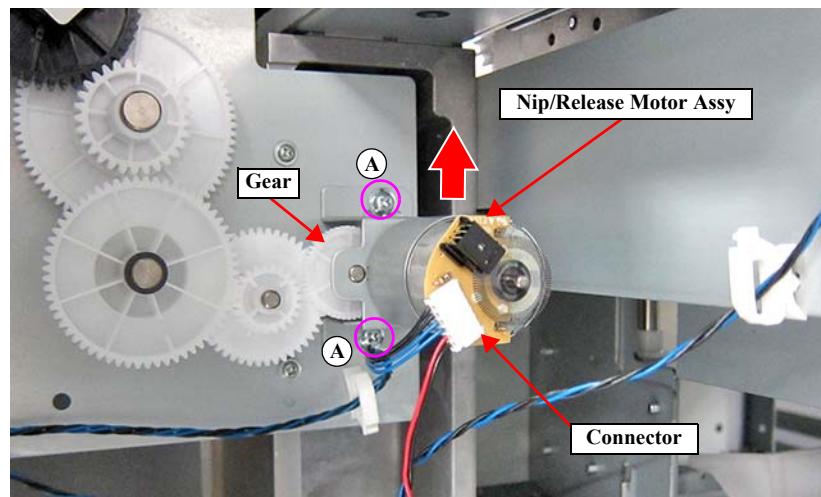


Figure 3-309.

7. Remove the 2 screws and then remove the Nip/Release Motor.

B) Silver M3x6 Bind machine screw: 2 pcs

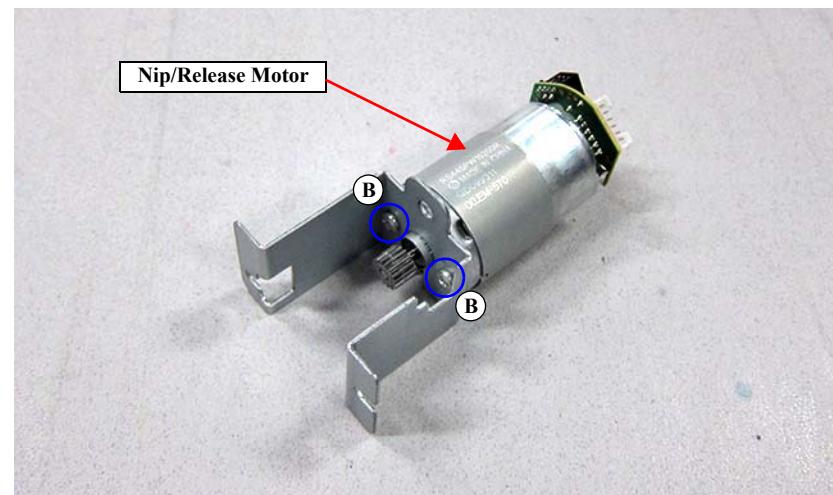


Figure 3-310.

3.4.5.2 Nip/Release Sensor

1. Remove the Left Rear Cover. ([p323](#))
2. Remove the Left Top Cover. ([p322](#))
3. Remove the Left Cover. ([p324](#))
4. Disconnect the cable from the connector.
5. Remove the screw and then remove the Nip/Release Sensor Assy.
 - A) Silver M3x6 S-tite screw: 1 pc



Pay attention to the positioning points. ([Figure 3-311](#))

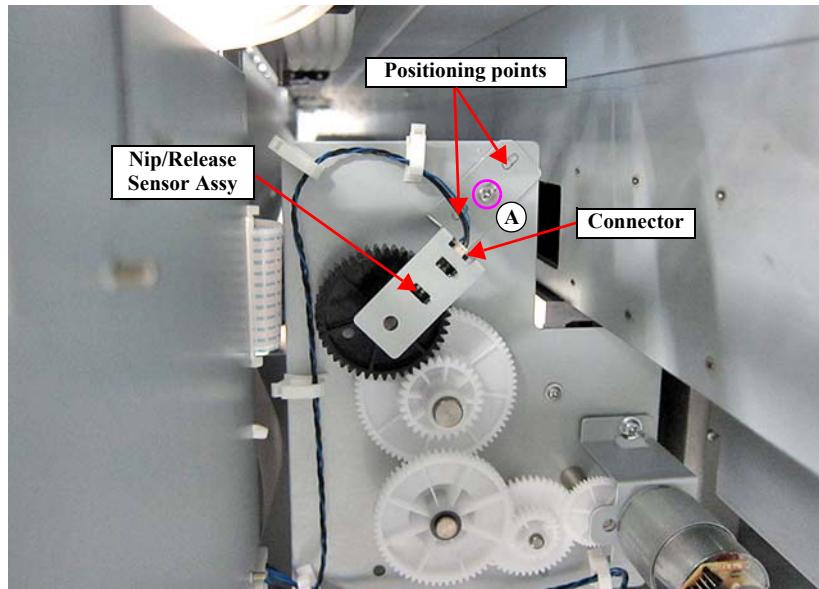


Figure 3-311.

6. Disengage the hooks and then remove the Nip/Release Sensor.

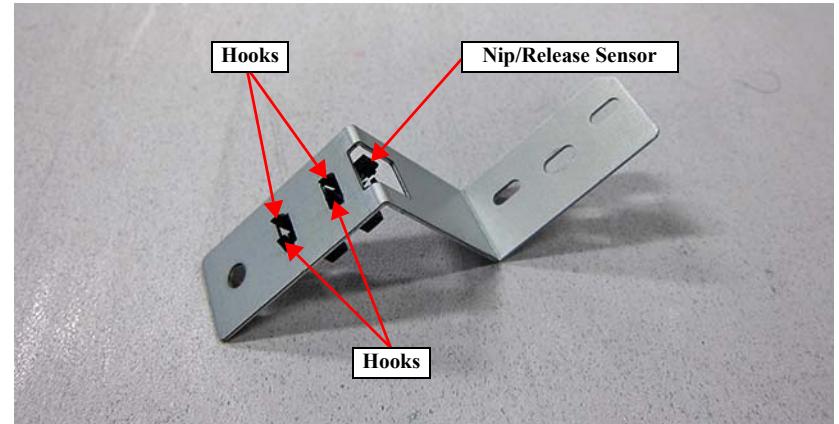


Figure 3-312.

3.4.5.3 Dust Catcher

1. Raise the media set lever.
2. Hold the 2 grips of the Dust Catcher and then remove the Dust Catcher toward the front.

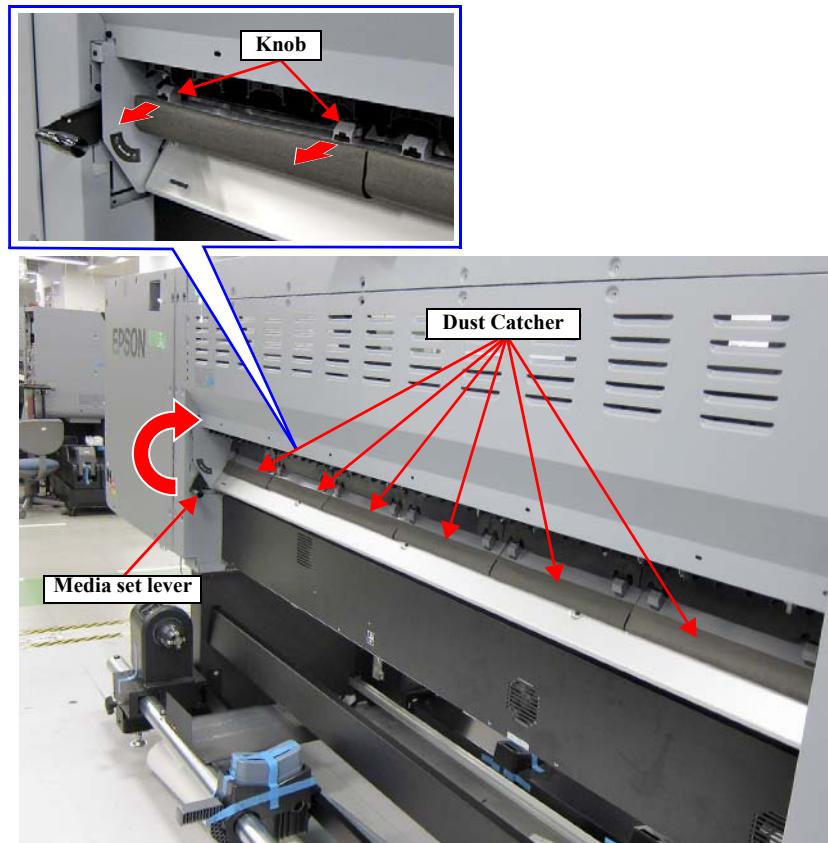


Figure 3-313.

3.4.5.4 PF Scale

1. Remove the Left Rear Cover. ([p323](#))
2. Remove the Left Top Cover. ([p322](#))
3. Remove the Left Cover. ([p324](#))
4. Remove the PF Encoder Sensor. ([p493](#))
5. Remove the PF Scale.

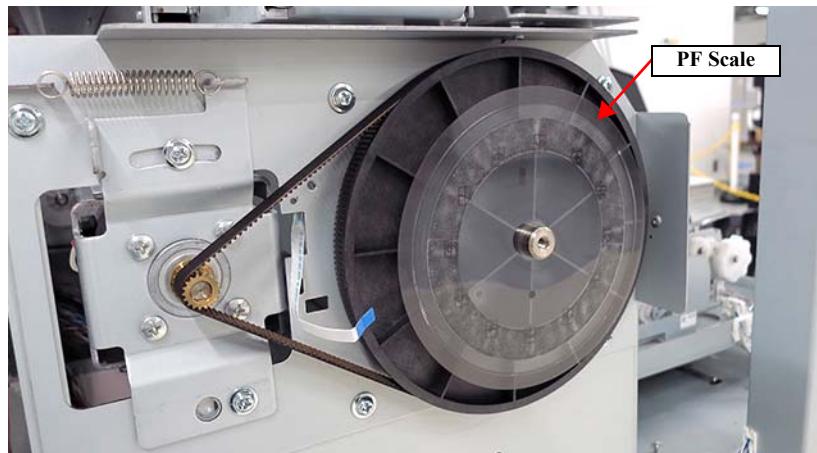


Figure 3-314.

3.4.5.5 PF Encoder Sensor

1. Remove the Left Rear Cover. ([p323](#))
2. Remove the Left Top Cover. ([p322](#))
3. Remove the Left Cover. ([p324](#))
4. Disconnect the FFC from the PF Encoder Sensor Assy.
5. Remove the screw and then remove the PF Encoder Sensor Assy.
 - A) Silver M3x8 Cup S-tite screw: 1 pc



- When attaching, tighten the screws after inserting the hook of the PF Encoder Sensor Assy into the frame. ([Figure 3-315](#))
- Insert the PF Scale into the slit in the PF Encoder Sensor. ([Figure 3-315](#))

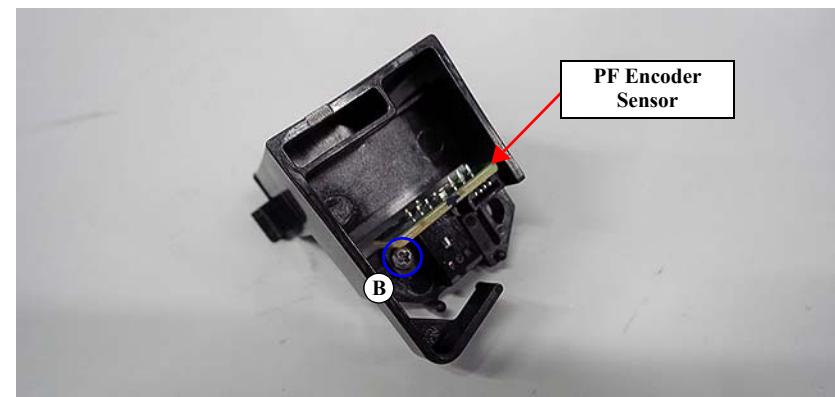


Figure 3-316.

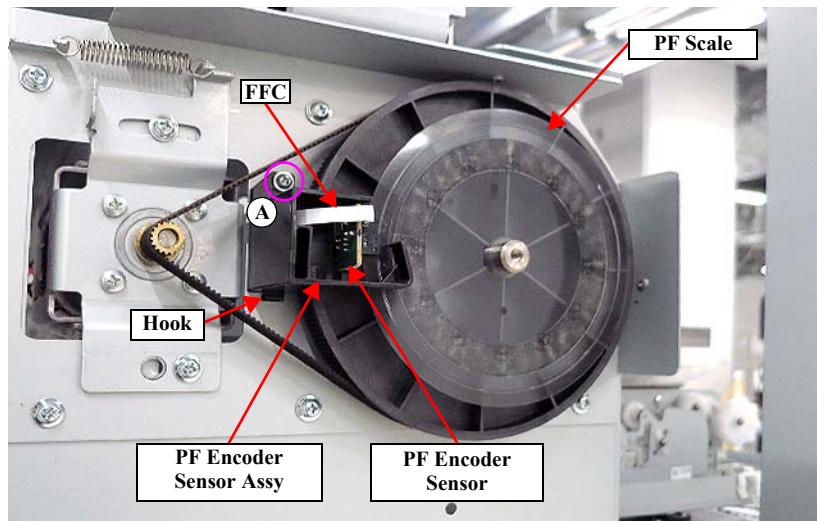


Figure 3-315.

6. Remove the screw and then remove the PF Encoder Sensor.
 - B) Silver M2x6 P-tite screw: 1 pc

3.4.5.6 PF Motor

1. Remove the Left Rear Cover. ([p323](#))
2. Remove the Left Top Cover. ([p322](#))
3. Remove the Left Cover. ([p324](#))
4. Disconnect the cables from the relay connector while pushing the hook.
5. Release the cables from the clamp.

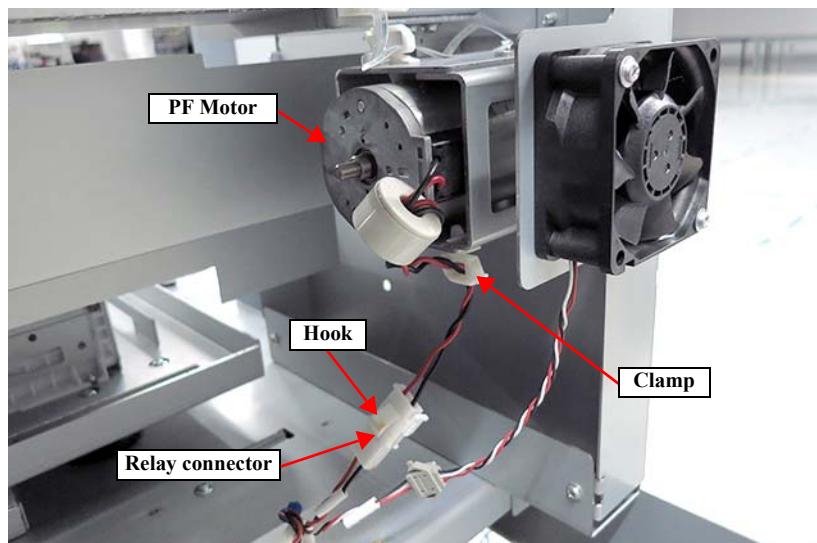


Figure 3-317.

6. Remove the 4 screws and then remove the PF Motor.
 - A) Silver M4x5 Bind machine screw: 4 pcs

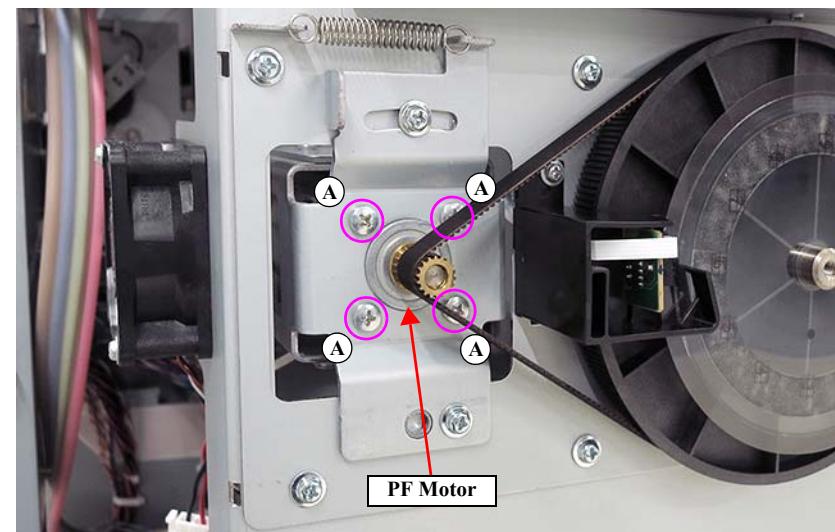


Figure 3-318.

3.4.5.7 PF Motor Fan

1. Remove the Left Rear Cover. ([p323](#))
2. Disconnect the cables from the relay connector.
3. Remove the 2 screws and then remove the PF Motor Fan.
A) Silver M3x30 Cup S-tite screw: 2 pcs

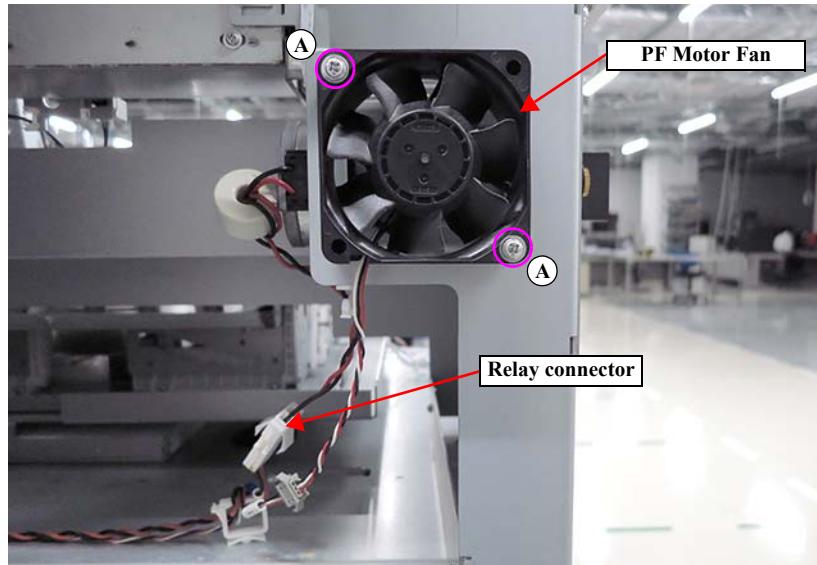


Figure 3-319.

3.4.5.8 Suction Fan

1. Remove the Rear Lower Cover. ([p345](#))
2. Remove the PE Sensor. ([p497](#))
3. Disconnect the cables from the relay connector.
4. Remove each set of 2 thumbscrews and then remove the Suction Fan.
A) Silver M2.4x40 thumbscrew: each 2 pcs

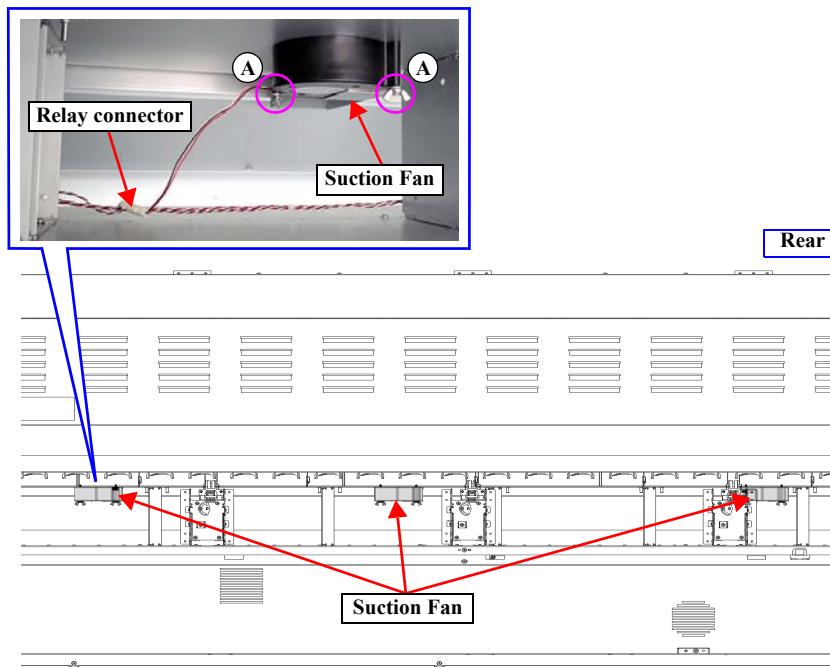


Figure 3-320.

3.4.5.9 PE Sensor

1. Remove the Rear Lower Cover. ([p345](#))
2. Disconnect the connector (CN1203) of the MCU Board.
3. Release the FFC from the 4 clamps.

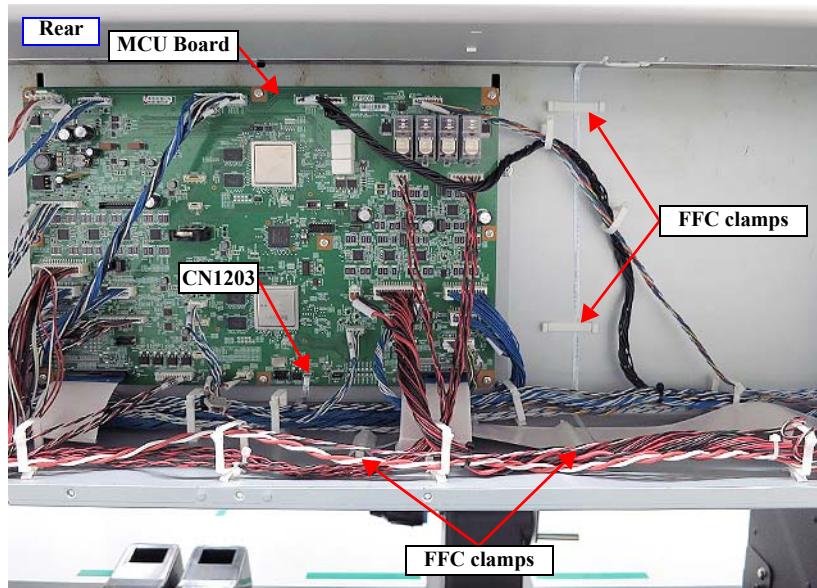


Figure 3-321.

4. Raise the media set lever.



In the procedure described below, the paper guide may fall. Therefore, remove the screws while supporting the paper guide with hand.

5. Remove the 5 screws and then open the paper guide.
 - A) Silver M4x8 Cup S-tite screw: 3 pcs
 - B) Silver M3x8 Cup S-tite screw: 2 pcs

6. Disconnect the FFC from the clamp and then remove the paper guide.

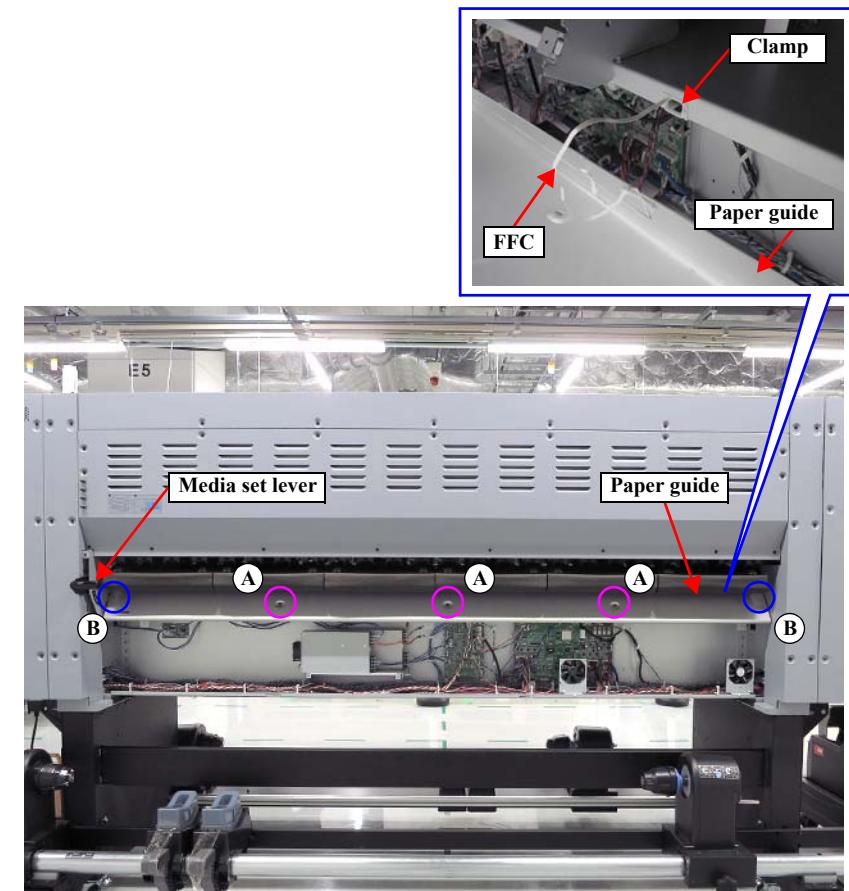


Figure 3-322.

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7. Remove the 2 screws and then remove the PE Sensor.

C) Silver M2.5x4 Bind machine screw: 2 pcs

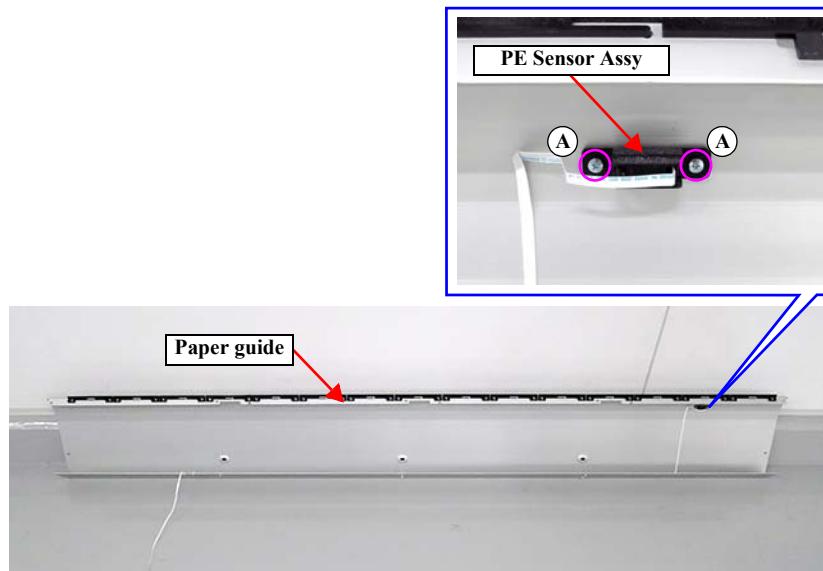


Figure 3-323.

8. Disengage the hook and then remove the sensor cover.

9. Disconnect the FFC from the connector of the PE Sensor.

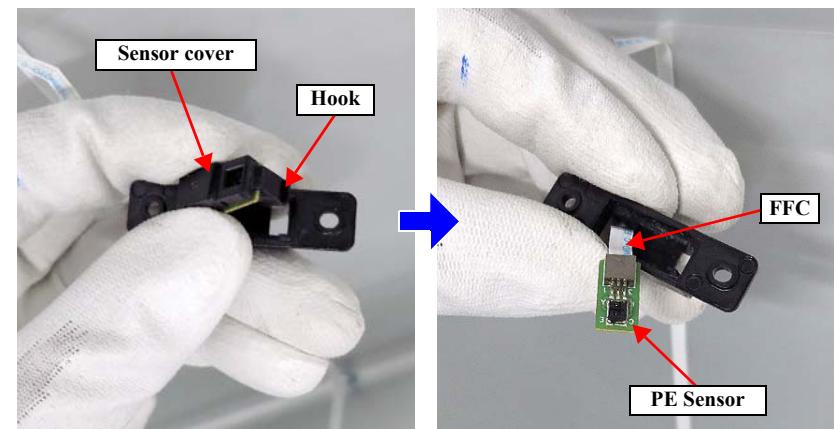


Figure 3-324.

3.4.5.10 PF Encoder Sensor FFC

1. Remove the Left Rear Cover. ([p323](#))
2. Remove the Left Top Cover. ([p322](#))
3. Remove the Left Cover. ([p324](#))
4. Disconnect the PF Encoder Sensor FFC from the connector of the PF Encoder Sensor.
5. Pull out the Pf Encoder Sensor FFC from the hole to the rear side.

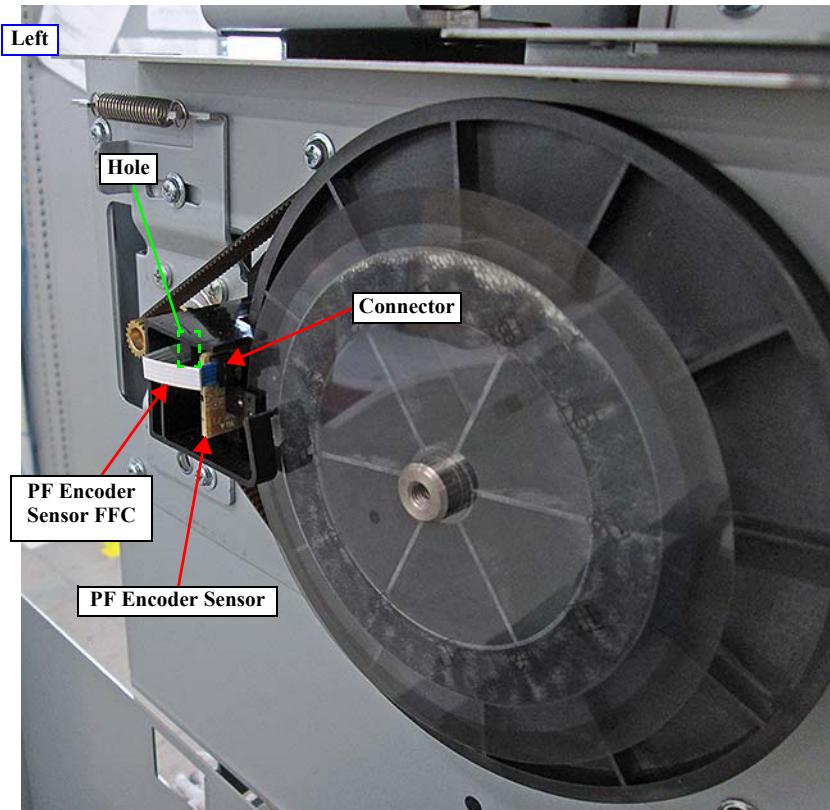


Figure 3-325.

6. Release the PF Encoder Sensor FFC from the 3 clamps.
7. Remove the 2 FFC clamps.
8. Peel off the PF Encoder Sensor FFC and release it from the frame.
9. Disconnect the PF Encoder Sensor FFC from the connector (CN612) of the SUB-M (Left) Board.

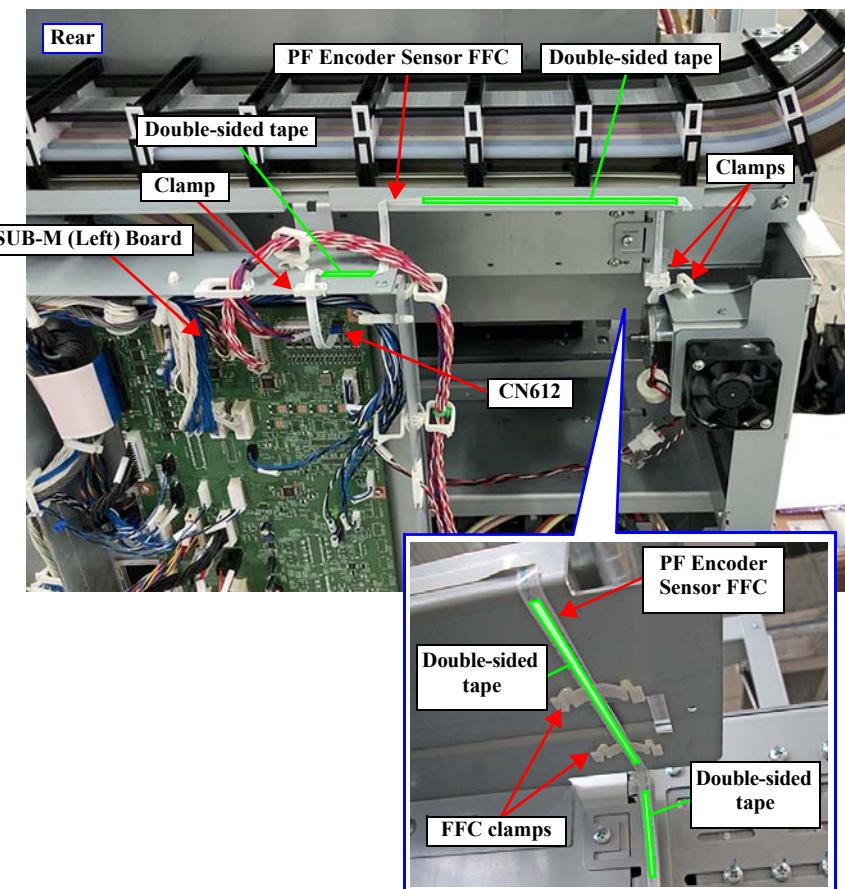


Figure 3-326.

3.4.6 Roll Unit/Reel Unit

3.4.6.1 Roll Flange Unit (Left)



When replacing the Roll Flange Unit (Left), also replace the Roll Flange Unit (Right) simultaneously.

1. Remove the hexagon bolt.
 - A) Sliver M6x30 Hexagon screw: 1 pc
2. Remove the clamp.
3. Pull out the stopper in the upward direction.



When attaching the stopper, push it in with the tip of a screwdriver as the stopper rubber may harden, making it difficult to insert the stopper.



Figure 3-327.

4. Remove the Roll Flange Unit (Left) by sliding in the direction of the arrow.

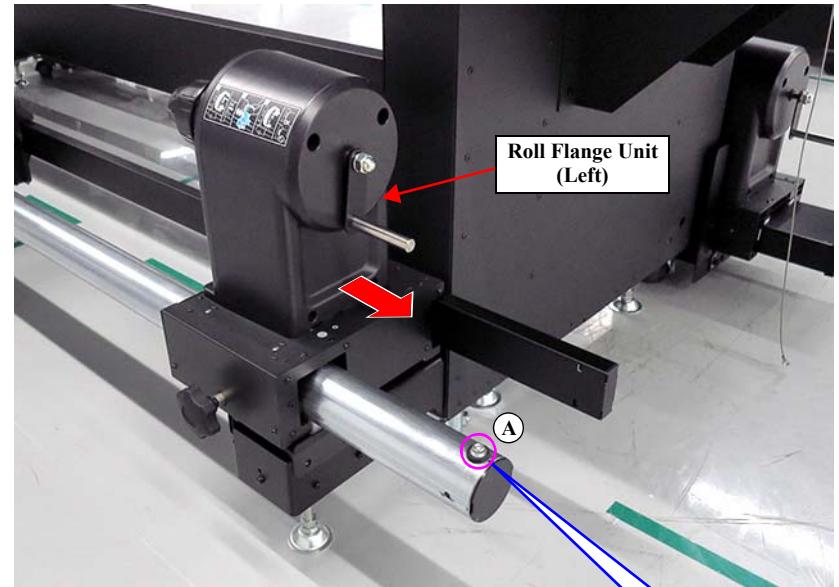
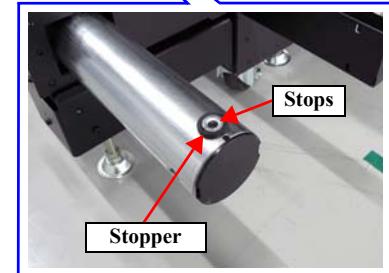


Figure 3-328.



3.4.6.2 Roll Flange Unit (Right)



When replacing the Roll Flange Unit (Right), also replace the Roll Flange Unit (Left) simultaneously.

1. Disconnect the cables of the Roll Flange Unit (Right).
2. Release the cables of the Roll Flange Unit (Right) from the 2 clamps.
3. Remove the hexagon bolt.
 - A) Sliver M6x30 Hexagon screw: 1 pc
4. Remove the clamp.
5. Pull out the stopper in the upward direction.



When attaching the stopper, push it in with the tip of a screwdriver as the stopper rubber may harden, making it difficult to insert the stopper.



Figure 3-329.

6. Remove the Roll Flange Unit (Right) by sliding in the direction of the arrow.

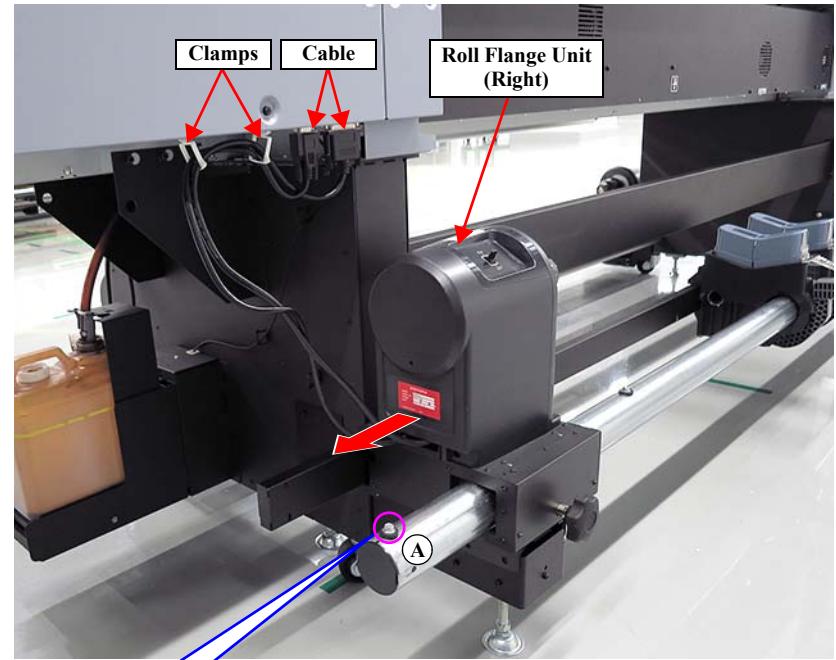


Figure 3-330.

3.4.6.3 Reel Flange Unit (Left)

1. Remove the screw and then remove the stopper.
 - A) Black M4x8 Cup S-tite screw: 1 pc
2. Remove the Reel Flange Unit (Left) in the direction of the arrow.

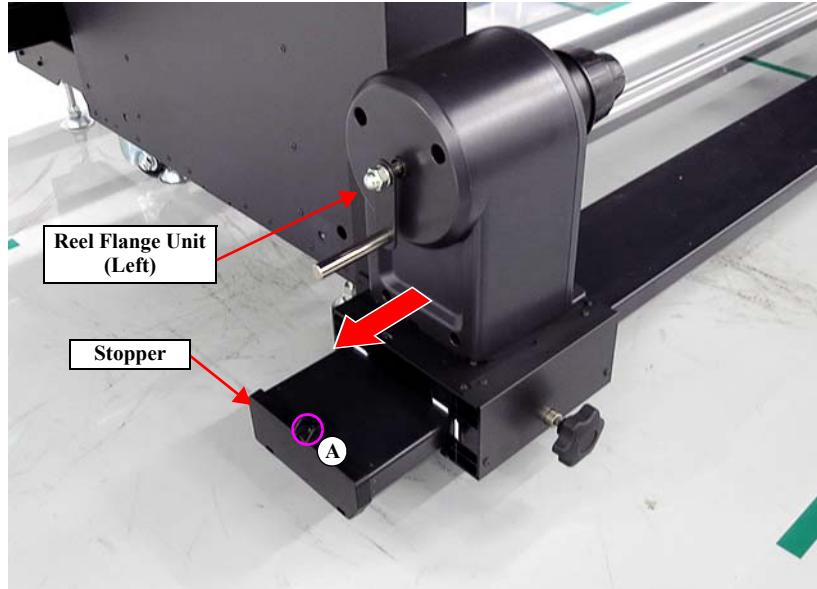


Figure 3-331.

3.4.6.4 Reel Flange Unit (Right)

1. Disconnect the cables of the Reel Flange Unit (Right).
2. Release the cables of the Reel Flange Unit (Right) from the 2 clamps.
3. Remove the screw and then remove the stopper.
A) Black M4x8 Cup S-tite screw: 1 pc
4. Remove the Reel Flange Unit (Right) in the direction of the arrow.

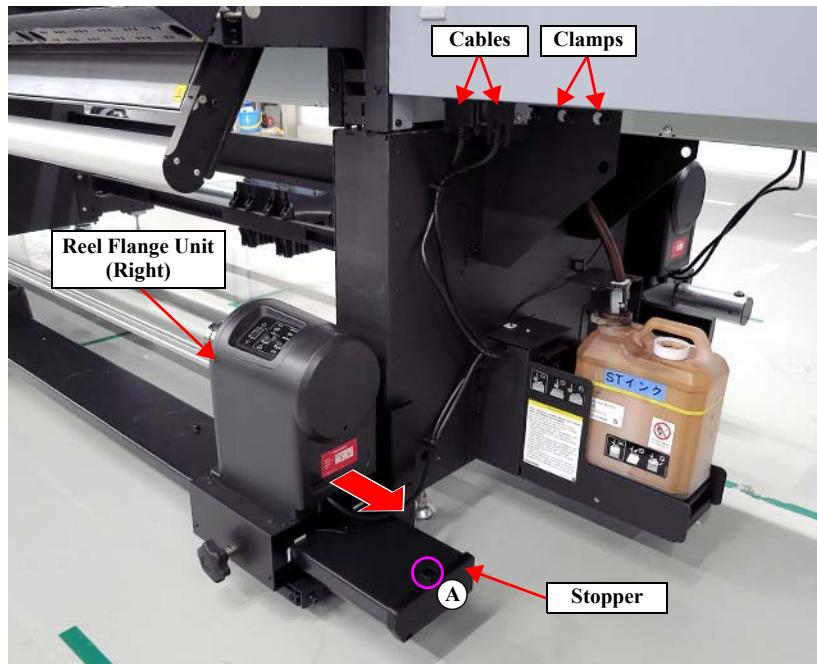


Figure 3-332.

3.4.7 Heater Mechanism

3.4.7.1 Hardening Fan



When a Hardening Fan is to be replaced, all 6 of them must be replaced at the same time.

1. Remove each set of 5 screws and then remove the 6 fan covers.
A) Black M3x8 S-tite screw with built-in washer: each 5 pcs

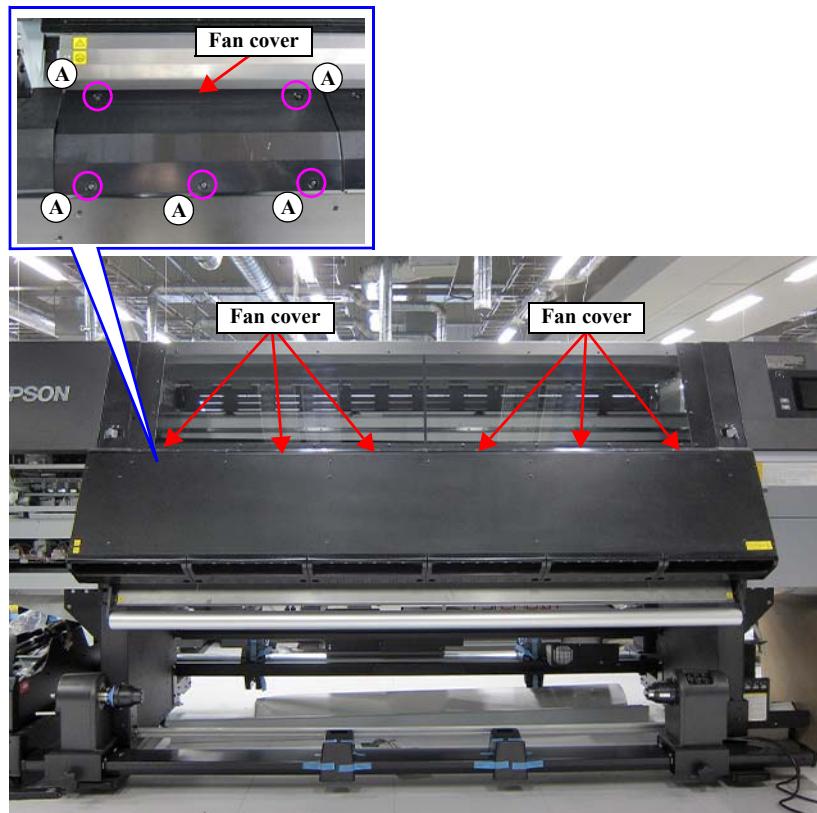


Figure 3-333.

2. Remove the 2 screws and then remove the Hardening Fan Assy.
B) Silver M3x8 Cup S-tite screw: 2 pcs
3. Disconnect the cable from the relay connector.
4. Release the cable from the clamp.

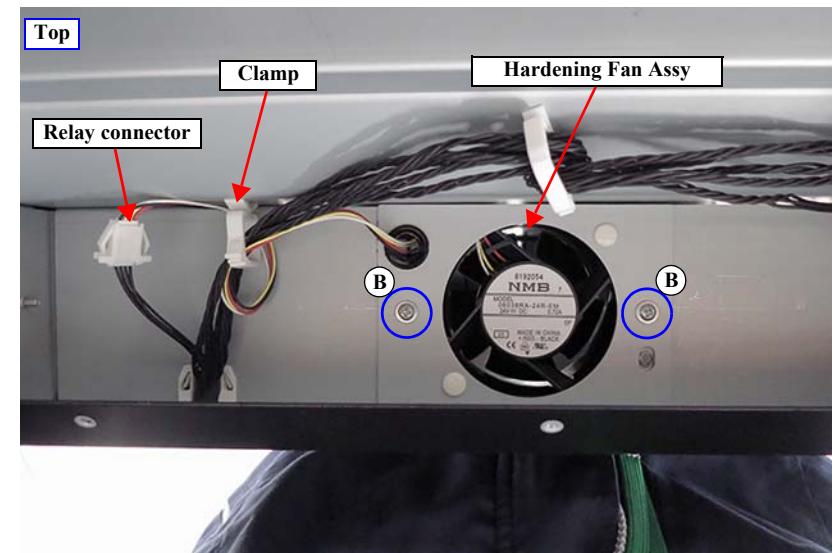


Figure 3-334.

Continue to the next page.

5. Remove the 2 pins and pin stops and then remove the Hardening Fan.

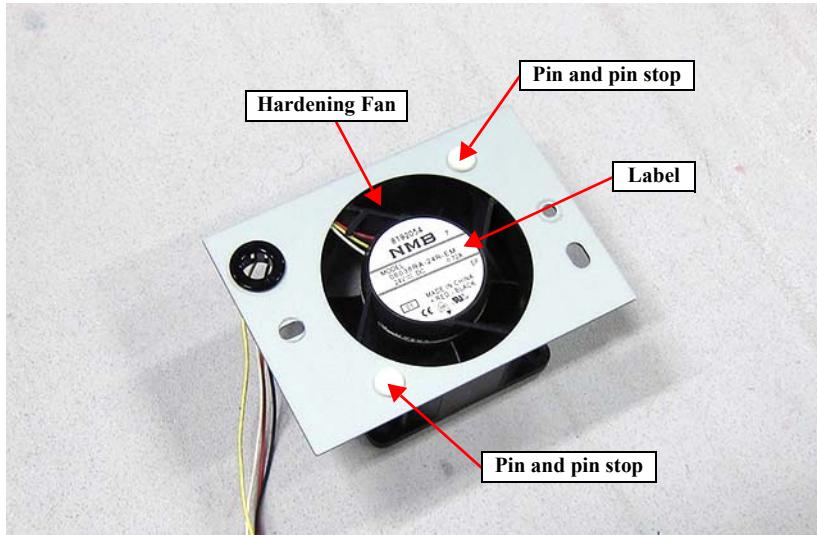


Figure 3-335.



- Be careful not to attach the Hardening Fan reversed.
- Attach the Hardening Fan in the correct orientation with the surface with the label at the top.
- The fans of the numbers indicated in the following figure must be attached.

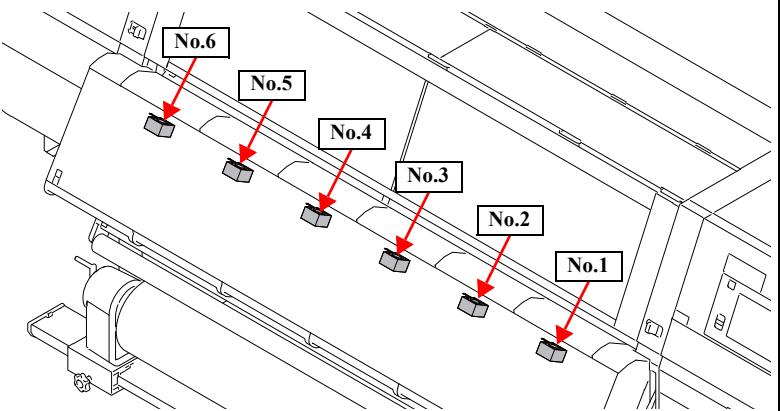


Figure 3-336.

- When replaced the Hardening Fan, paste a label with adjustment value that supplied together with a new Hardening Fan on the position shown in [Figure 3-337](#).
Also, input the value written on the label in [Input Hardening Fan \(p611\)](#) of adjustment program.
If not, printing unevenness may occur.

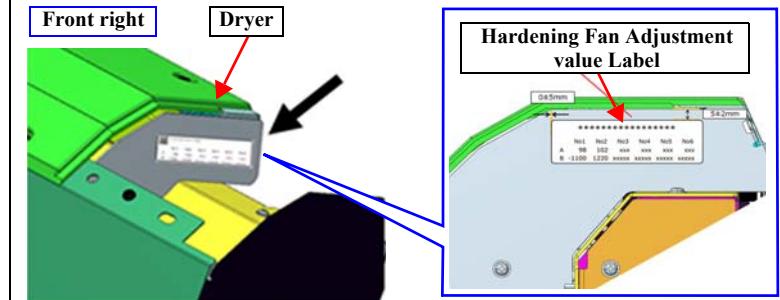


Figure 3-337.

3.4.7.2 Dryer



The removal and installation work must be performed by at least 2 persons because the dryer is heavy.

1. Remove the screw from each connector cover and then remove the 2 connector covers.
A) Black M3x8 S-tite screw with built-in washer: each 1 pc

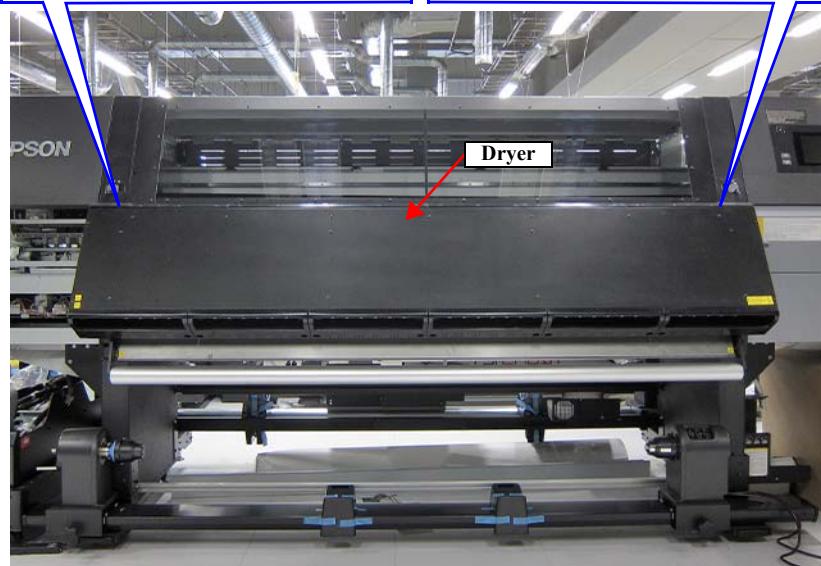
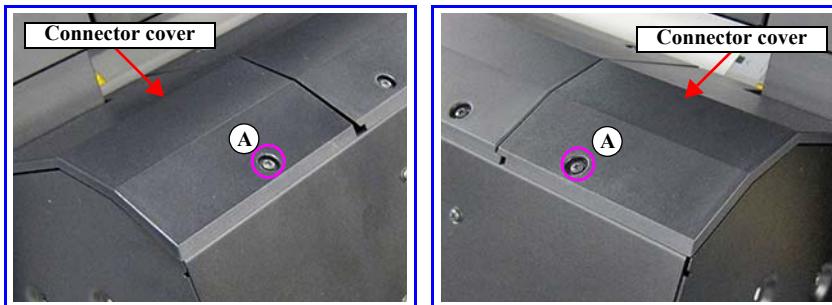


Figure 3-338.

2. Disconnect the 3 cables (left side: 12-2, 12-1, and 19-56; right side: 22-1) from the connectors.
3. Remove the 2 screws that secure the dryer.
B) Black M6x12 Hexagon screw: 2 pcs

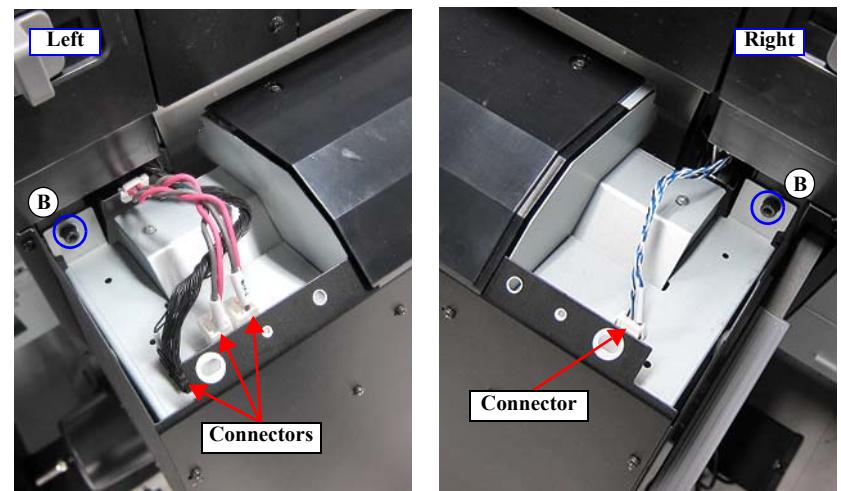


Figure 3-339.

Continue to the next page.

4. Lower the dryer a little toward the front, disengage the 2 hooks, and then remove the dryer.

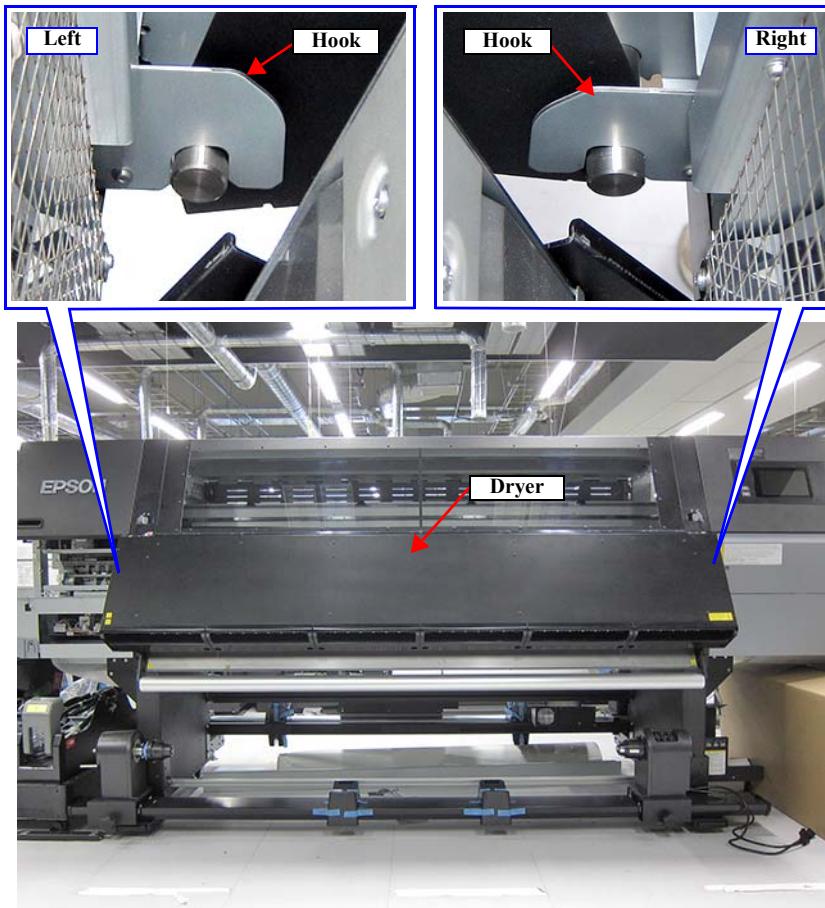


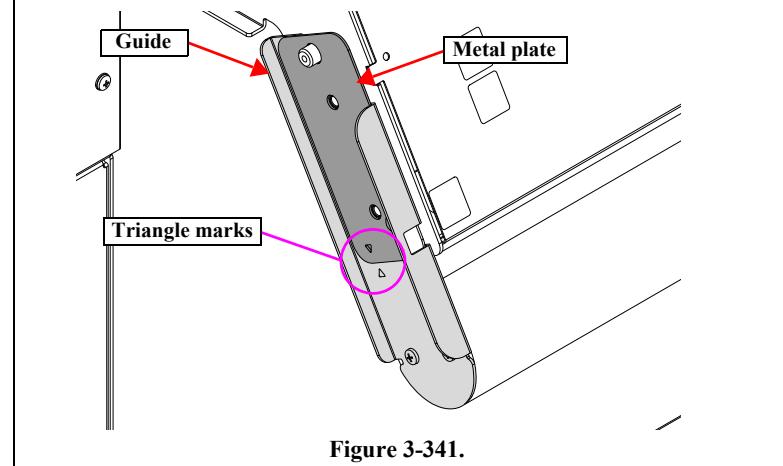
Figure 3-340.

3.4.7.3 Media Guide Bar

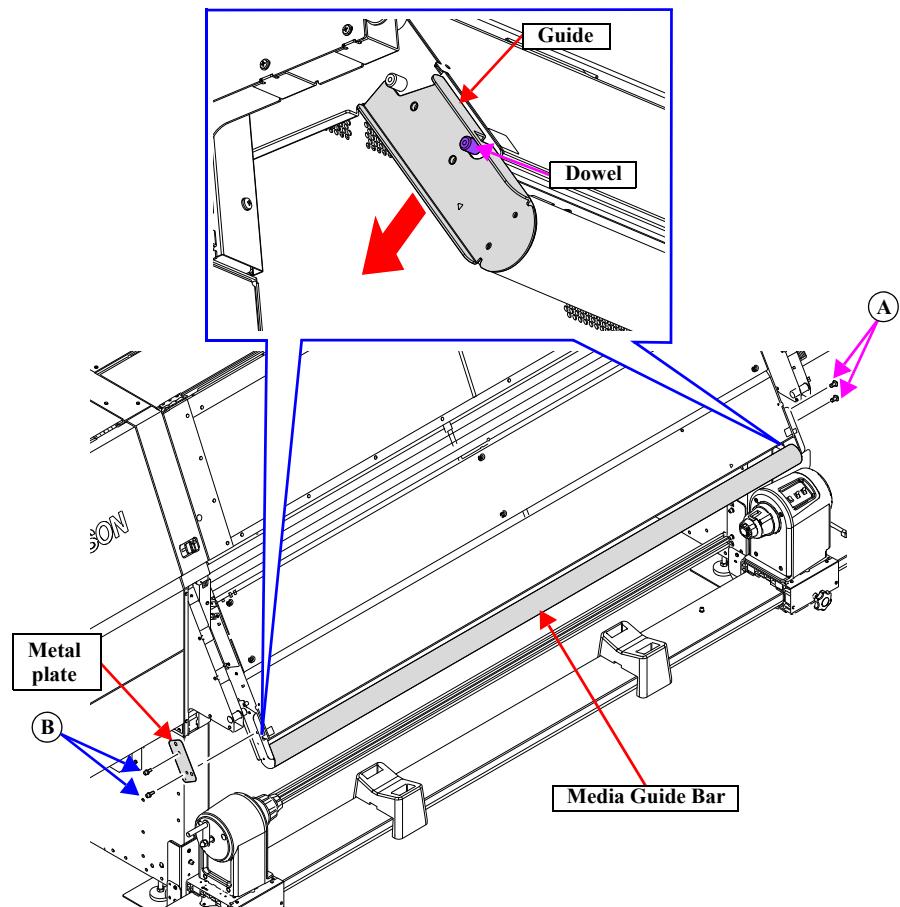
1. Remove the Dryer. ([p506](#))
2. Remove the 2 hexagon screws and then remove the metal plate.
 - A) Black M6x20 Hexagon screw with built-in spring washer: 2 pcs
3. Remove the 2 hexagon screws on the left side of the printer and then remove the metal plate.
 - B) Black M6x20 Hexagon screw with built-in spring washer: 2 pcs



Attach the metal plate by aligning the triangular marks on the metal plate and guide.



4. Move the guide in the direction of the arrow and extract it from the dowel, and then remove the Media Guide Bar.



3.4.7.4 After Heater

1. Remove the Dryer. ([p506](#))
2. Remove the 6 screws that secure the After Heater.
 - A) Silver M3x8 Cup S-tite screw: 6 pcs

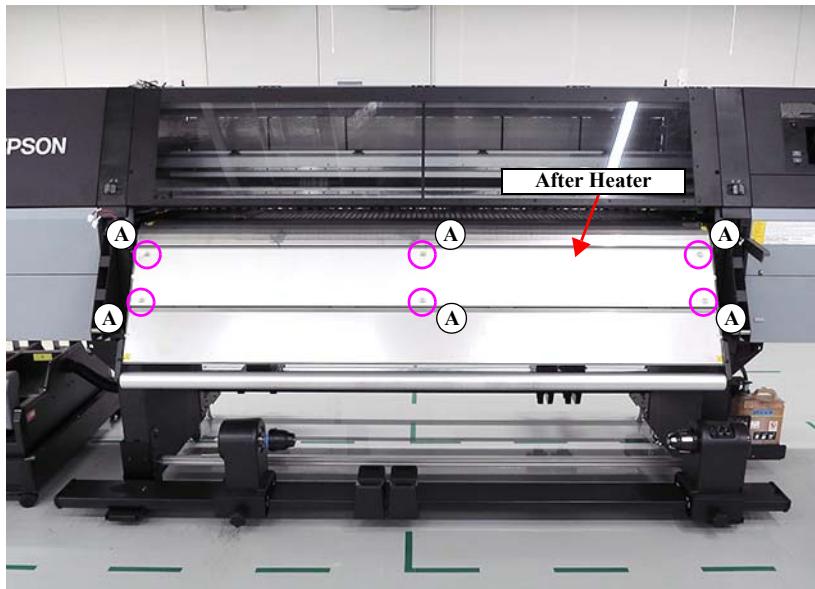


Figure 3-343.

3. Disconnect the thermistor cable from the relay connector.
4. Push the hook and disconnect the 2 relay connectors.
5. Disconnect the 2 connectors of the heater cables from the frame.
6. Release the heater cables from the 6 clamps.
7. Remove the After Heater.

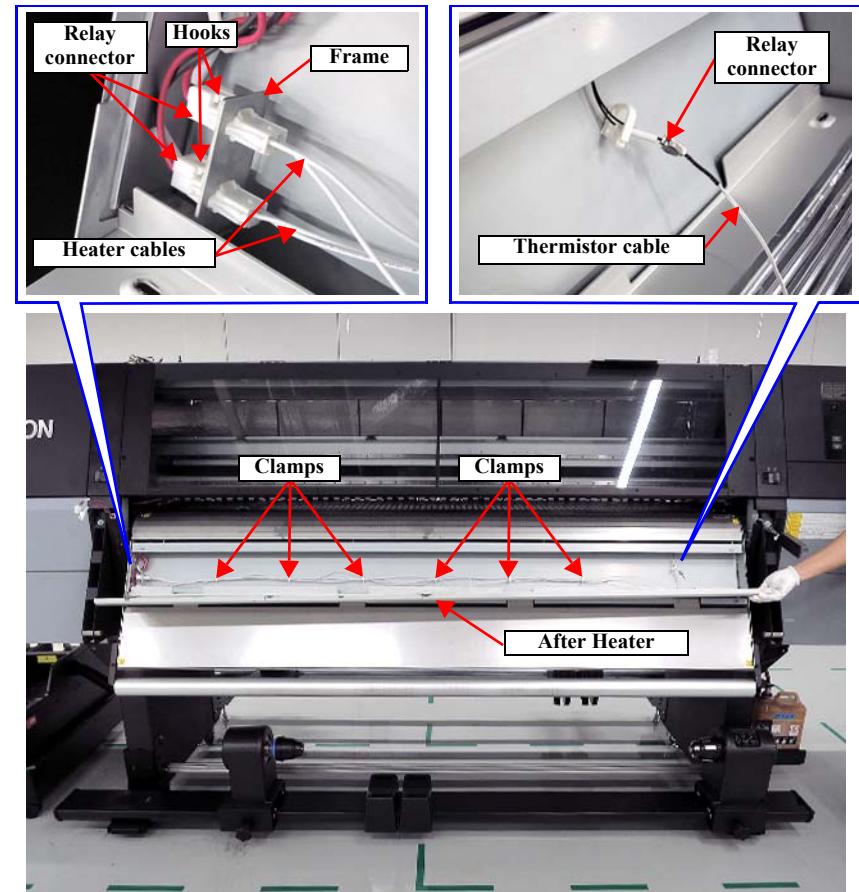


Figure 3-344.

3.4.7.5 After Heater Unit

1. Remove the Dryer. ([p506](#))
2. Remove the Media Guide Bar. ([p508](#))
3. Remove each set of 3 hexagon screws and then remove the two pillar frames.
 - A) Black M6x12 Hexagon screw: each 3 pcs
4. Disconnect the cables from the relay connector.
5. Release the cables from the clamp.
6. Bring the cables inward from the hole.
7. Remove the two screws and then remove the sensor cover.
 - B) Silver M3x8 Cup S-tite screw: 2 pcs
8. Disconnect the two cables from the connectors.
9. Release the cables from the two clamps.

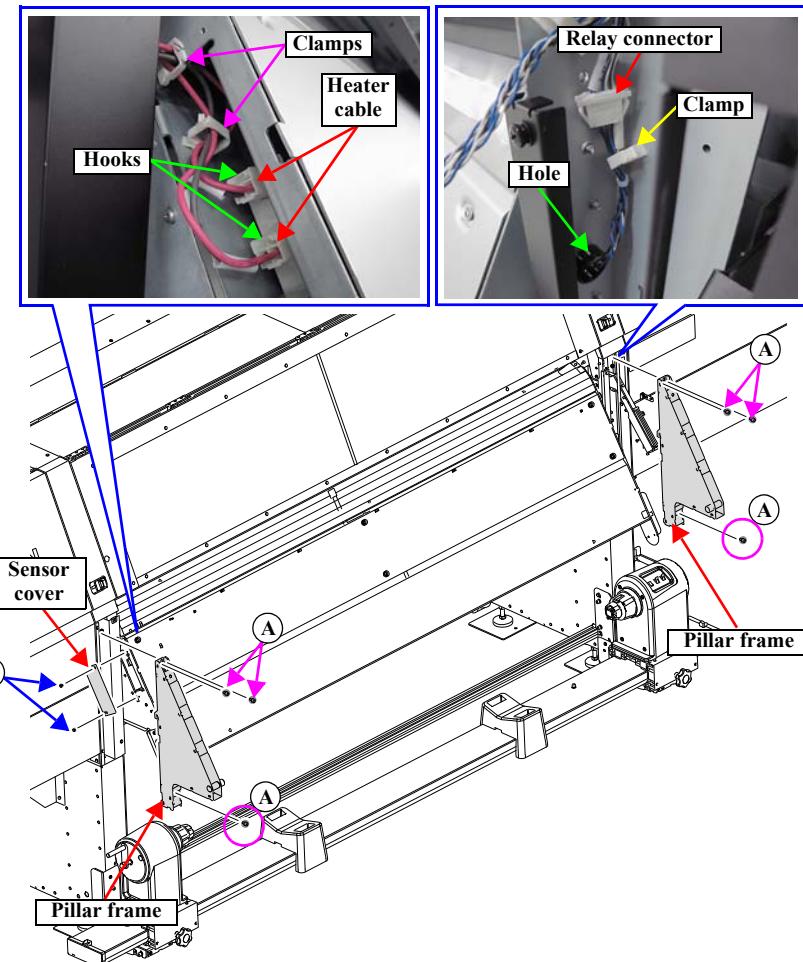


Figure 3-345.

Continue to the next page.

10. Remove the 2 hexagon screws that secure the After Heater Unit.

- C) Black M6x12 Hexagon screw: 2 pc



The removal and installation work must be performed by at least 2 persons because the After Heater Unit is heavy.

11. Remove the After Heater Unit while freeing it from the 2 shafts.



- Attach the After Heater Unit while keeping it level.
- Take care that the heater cables do not get pinched.

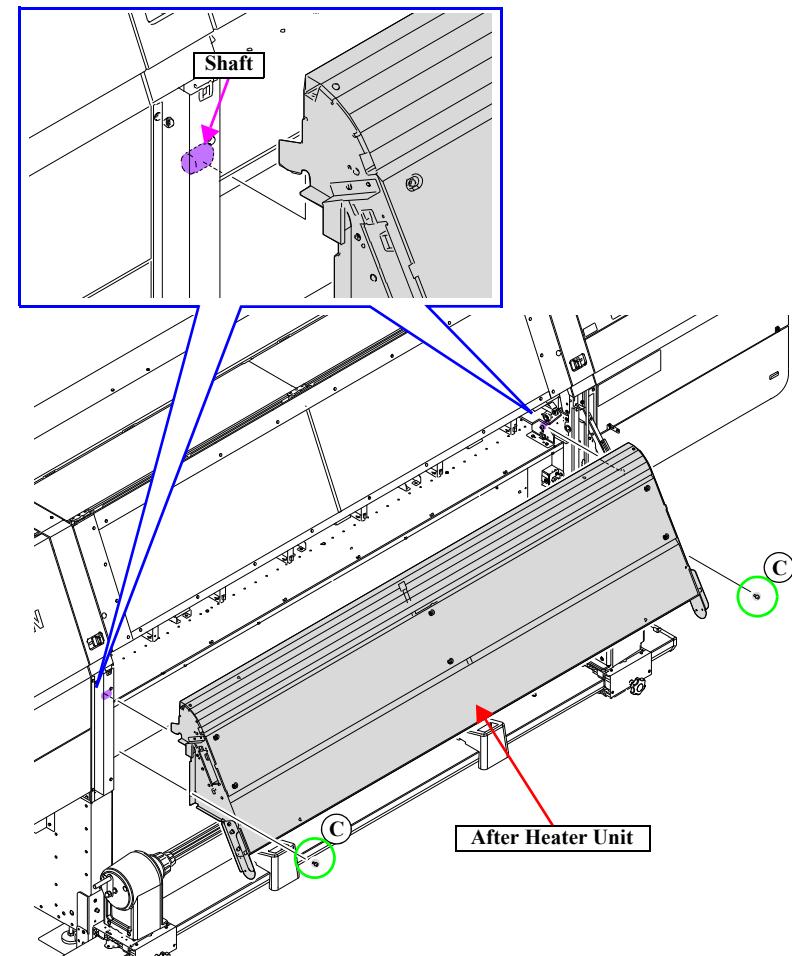


Figure 3-346.

3.4.7.6 Thermistor Relay A/D Board (SUB-S)

1. Remove the Dryer. ([p506](#))
2. Remove the After Heater. ([p509](#))
3. Remove the two screws, and remove the plate.
 - A) Silver M3x8 Cup S-tite screw: 2 pcs
4. Slide the plate in the direction of the arrow to release it from 8 shafts.

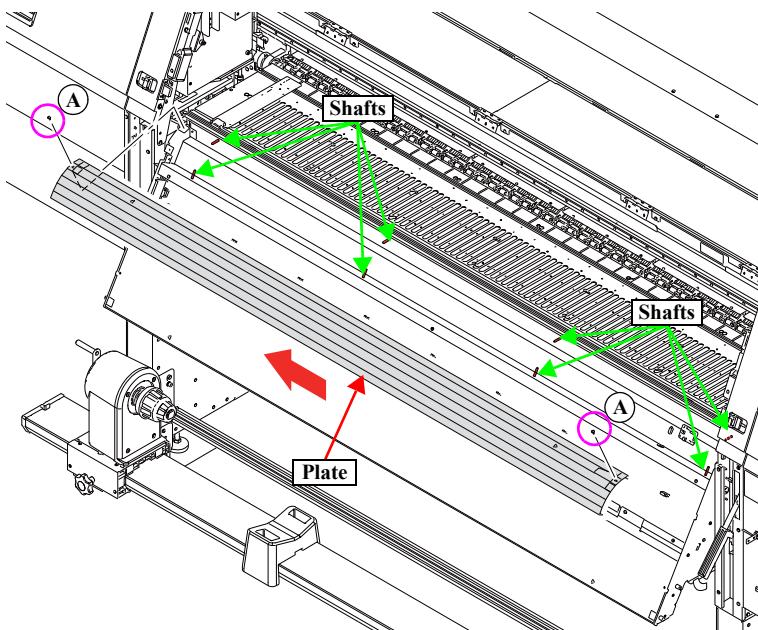


Figure 3-347.

5. Disconnect the all cables connected the Thermistor Relay A/D Board (SUB-S).
6. Remove the two screws, and remove the Thermistor Relay A/D Board (SUB-S).
 - B) Silver M3x6 Bind machine screw: 2 pcs

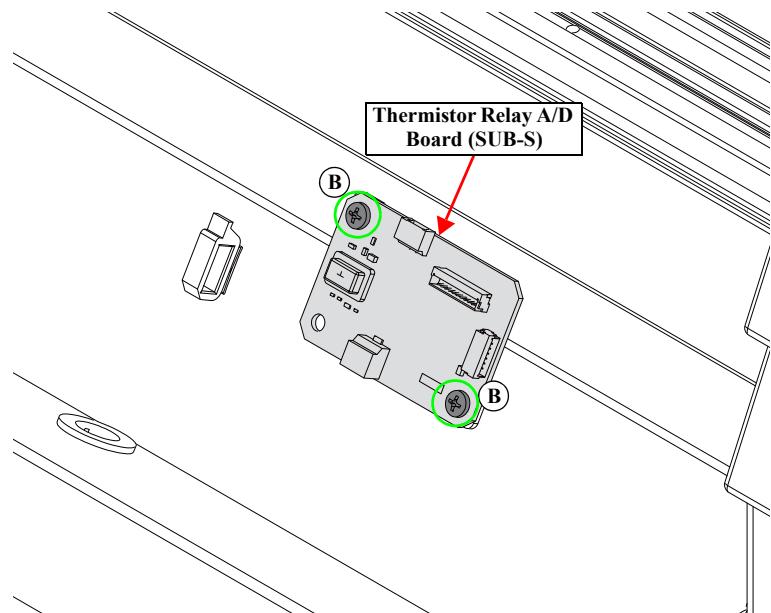


Figure 3-348.

3.4.7.7 Heater Control Board Plate

1. Remove the Dryer. ([p506](#))
2. Remove the Media Guide Bar. ([p508](#))
3. Remove the After Heater Unit. ([p510](#))
4. Remove the 7 screws and then remove the Heater Control Board Plate.
 - A) Silver M4x8 Bind machine screw: 4 pcs
 - B) Silver M4x8 Cup S-tite screw: 3 pcs

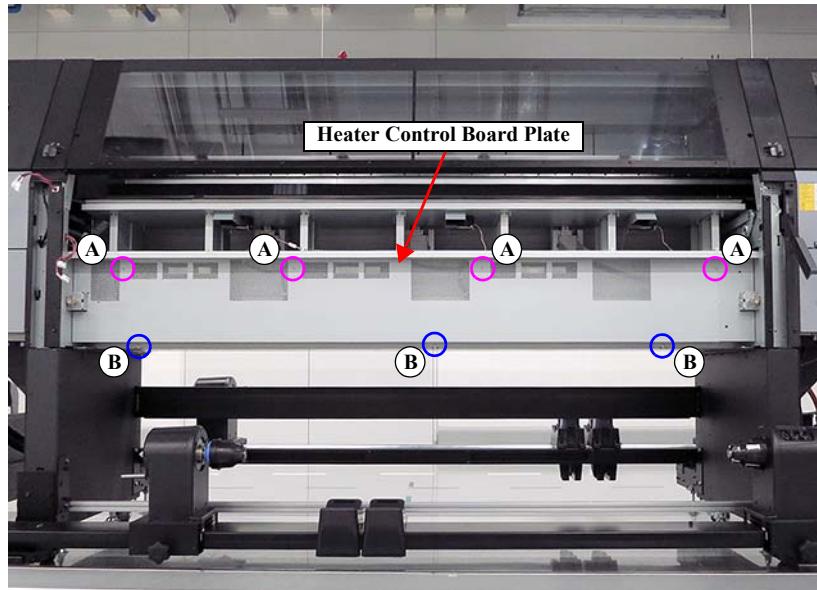


Figure 3-349.

3.4.7.8 Heater Control Board



This section describes the disassembly procedure for Heater Control Board 1. Heater Control Board 2/3 can also be disassembled using the same procedure.

1. Remove the Dryer. ([p506](#))
2. Remove the Media Guide Bar. ([p508](#))
3. Remove the After Heater Unit. ([p510](#))
4. Remove the Heater Control Board Plate. ([p513](#))
5. Disengage the hooks and disconnect the cables from connectors CN1, CN10 of Heater Control Board 1.
6. Disconnect the remaining cables connected to Heater Control Board 1.



Heater Control Board 3 does not have any cables to be connected to CN10.

7. Remove the 7 screws and then remove the Heater Control Board.

A) Silver M3x6 Bind machine screw: 7 pcs

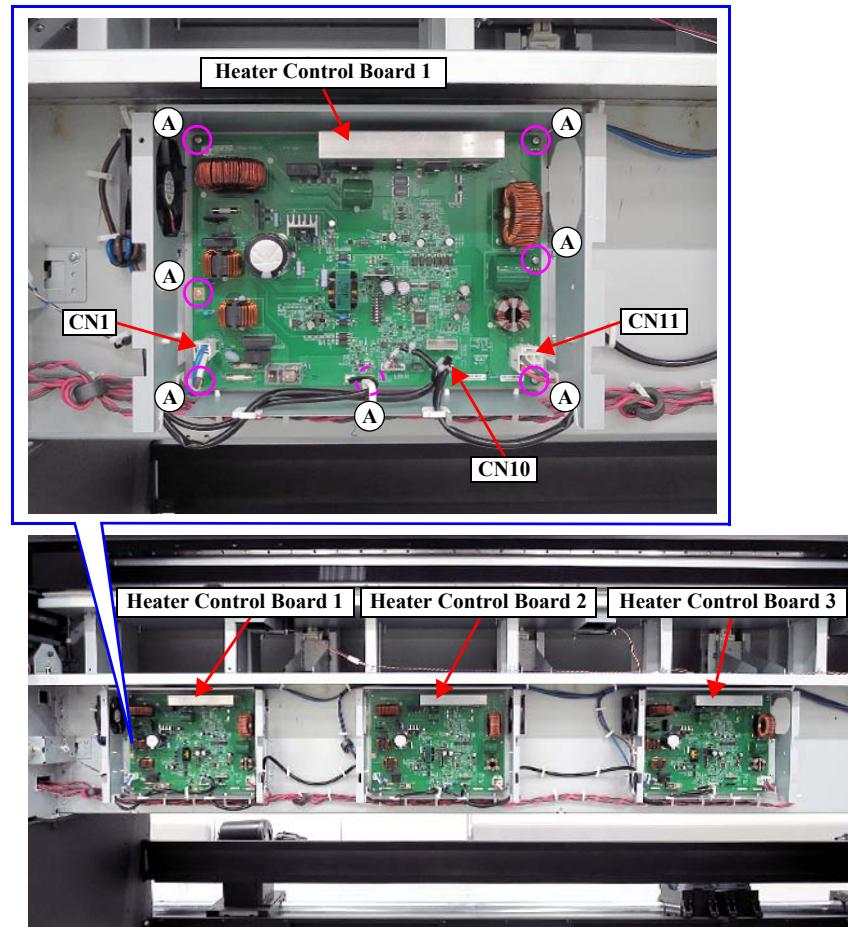


Figure 3-350.

3.4.7.9 Heater Control Board Fan



This section describes the disassembly procedure for Heater Control Board Fan 1. Heater Control Board Fan 2/3 can also be disassembled using the same procedure.

1. Remove the Dryer. ([p506](#))
2. Remove the Media Guide Bar. ([p508](#))
3. Remove the After Heater Unit. ([p510](#))
4. Remove the Heater Control Board Plate. ([p513](#))
5. Disconnect the cables from the relay connector.
6. Release the cables from the clamp.
7. Remove the 2 screws and then remove Heater Control Board Fan 1.
 - A) Silver M3x30 Cup S-tite screw: 2 pcs



In the case of Heater Control Board Fan 2, release the cables from the 2 clamps.

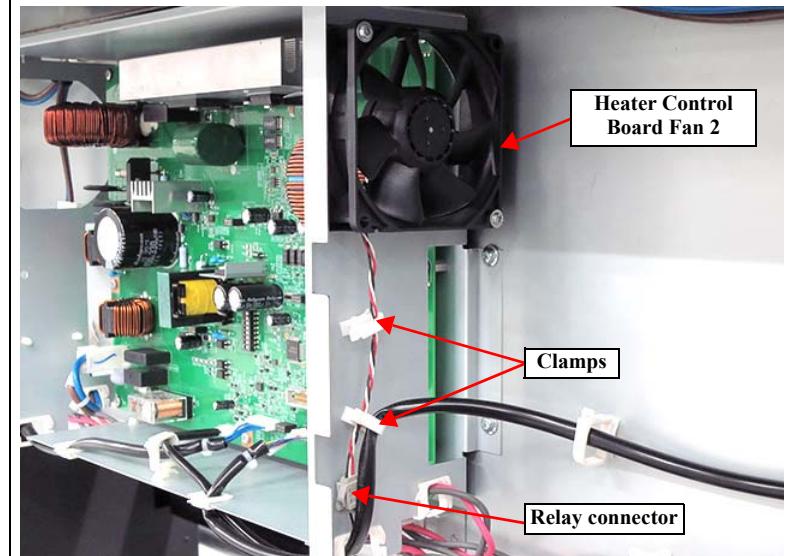


Figure 3-351.

Continue to the next page.

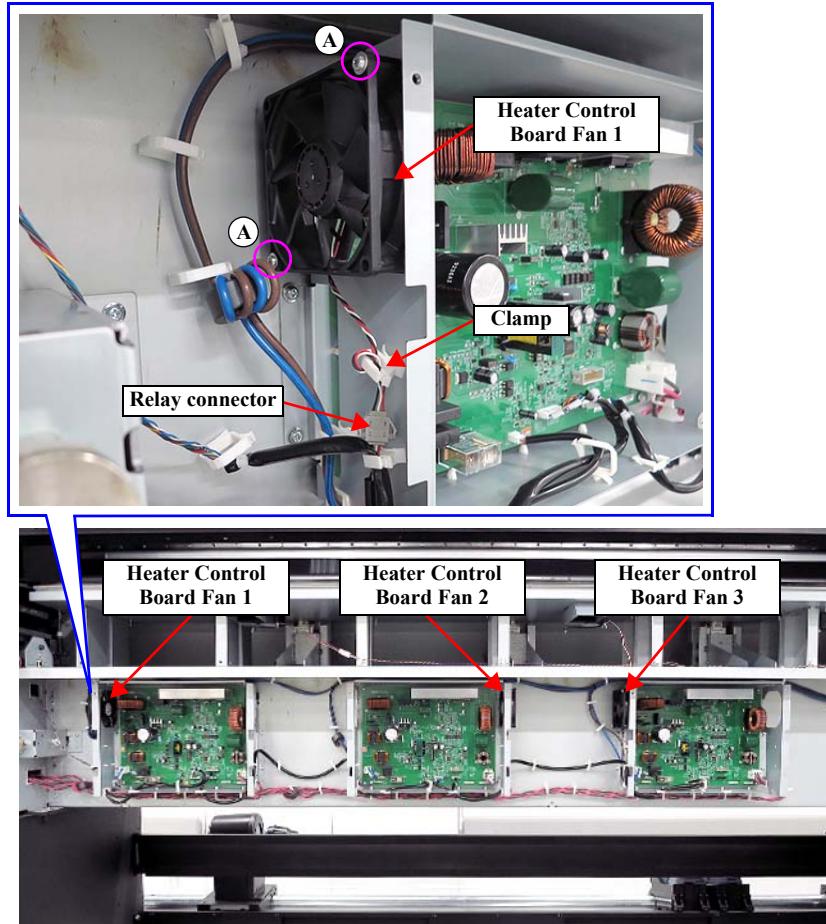


Figure 3-352.

3.4.8 Ink Supply Mechanism

3.4.8.1 Ink Supply Unit



- Since the number of the mountable ink cartridge differs between models, number of some parts such as ink tube differs between models.
- Picture of SC-F10000H Series is used for description.

1. Release the cables from the clamp.
2. Disconnect the cables from the relay connectors.
 - SC-F10000 Series: 8 cables
(19-9, 19-10, 19-11, 19-12, 19-13, 19-14, 19-15, 19-16)
 - SC-F10000H Series: 6 cables
(19-15, 19-16, BIB VAL SNS LED1, BIB VAL SNS LED2, BIB VAL SNS LED3, BIB CRCM3)
3. Remove the screws and then disconnect the earth wires (SC-F10000 Series: x2, SC-F10000H Series: x3).
 - A) Silver M3x6 Bind machine screw:
SC-F10000 Series: 2 pcs, SC-F10000H Series: 3 pcs

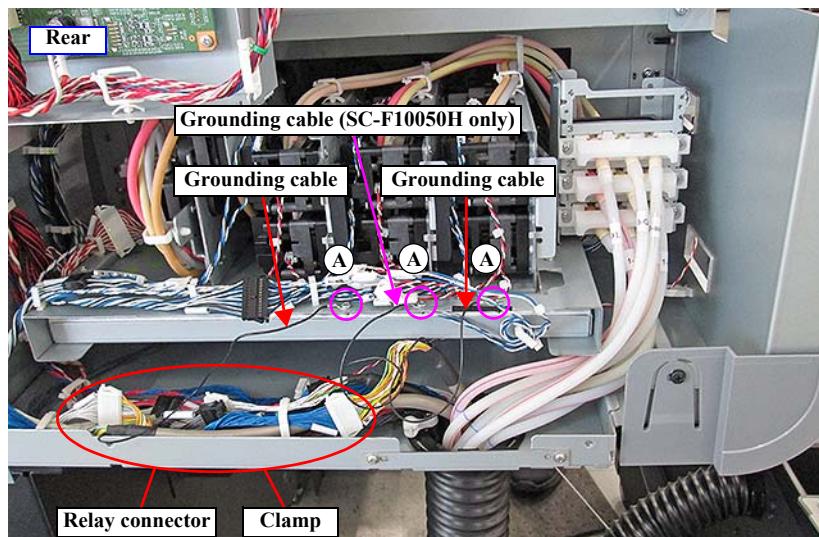


Figure 3-353.

4. Loosen each set of 2 screws and then remove the ink tubes (SC-F10000 Series: x2, SC-F10000H Series: x3).
 - B) Silver M3x8 Cup S-tite screw: each 2 pcs
5. Remove the 2 screws and then remove the frame.
 - C) Silver M3x8 Cup S-tite screw: 2 pcs

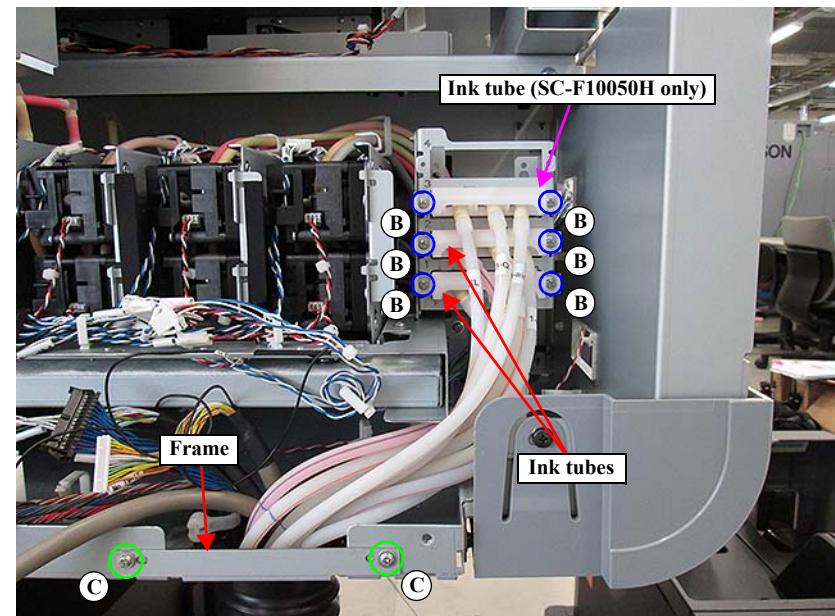


Figure 3-354.

Continue to the next page.



ASSEMBLY

Check the tabs on the joints of the ink tubes and the shape of the frame, and then attach the ink tubes.

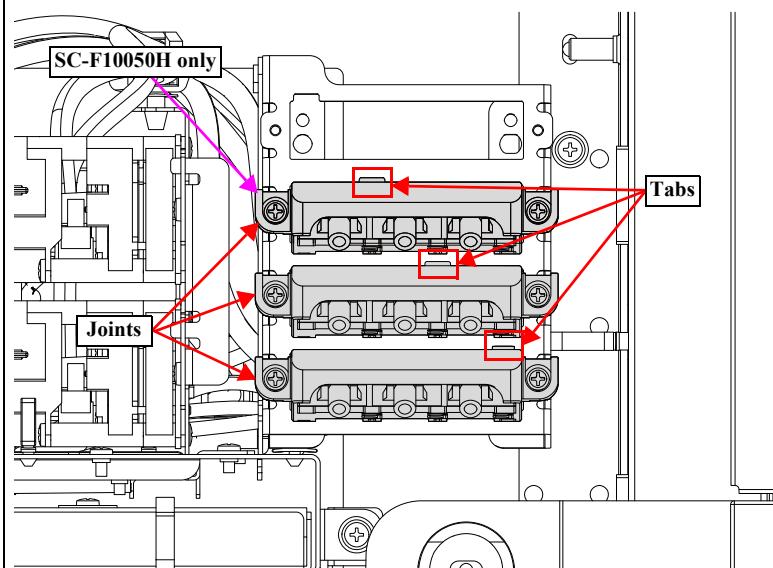


Figure 3-355.

6. Remove the screw that secures the wire.
D) Black M4x8 S-tite screw with built-in washer: 1 pc
7. Remove the wire from the hole in the frame.

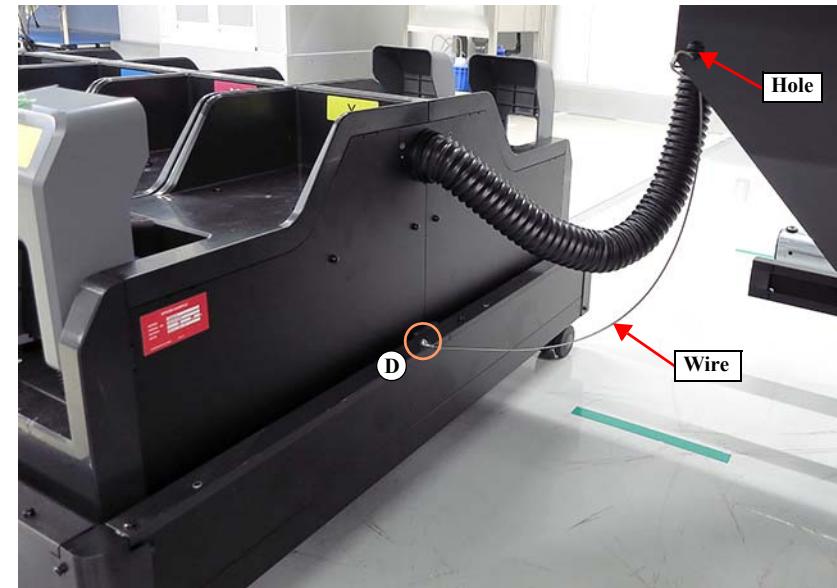


Figure 3-356.

Continue to the next page.

8. Remove the Ink Supply Tube Assy from the printer, and then remove the Ink Supply Unit.

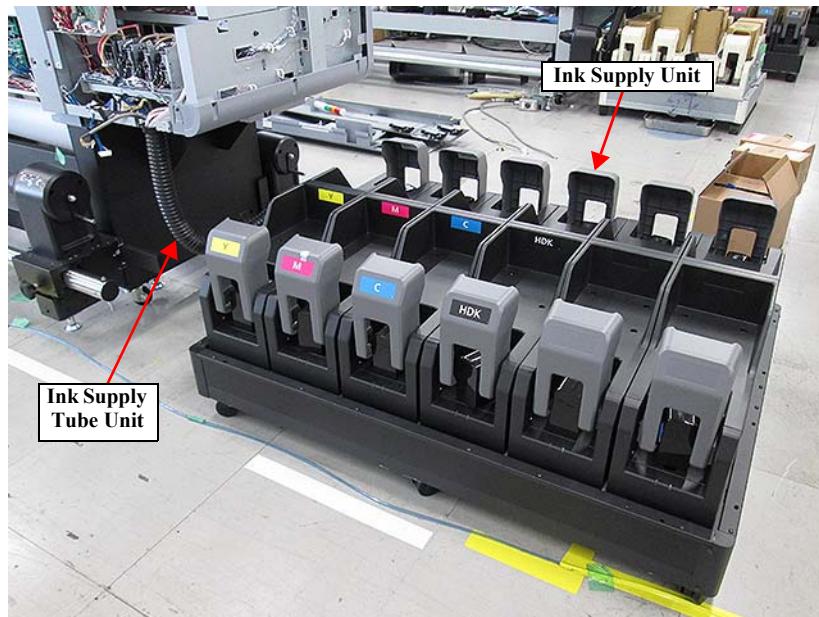


Figure 3-357.

3.4.8.2 Ink Cartridge Holder

1. Remove the Ink Supply Unit. ([p517](#))
2. Remove the 4 screws and then remove the Ink Cartridge Holder.
 - A) Black M3x8 S-tite screw with built-in washer: each 4 pcs

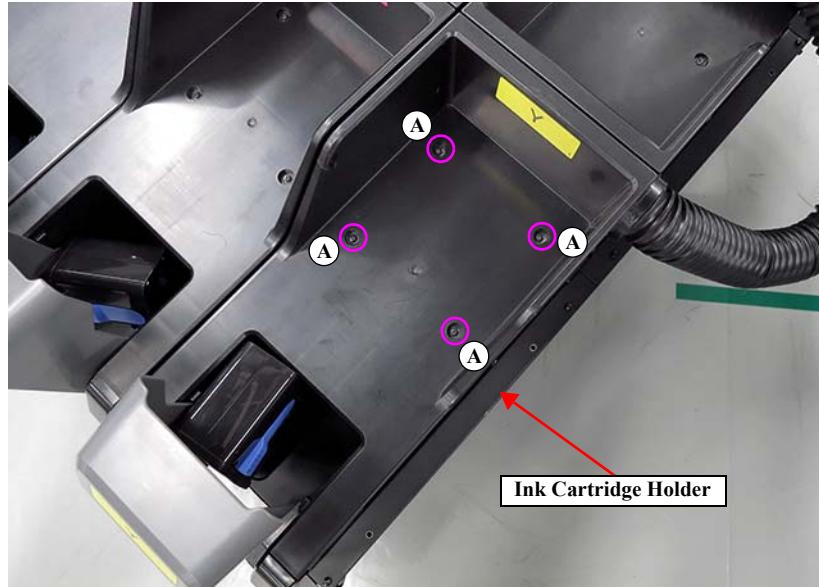


Figure 3-358.

3.4.8.3 Ink Supply Tube Assy



- Since the number of the mountable ink cartridge differs between models, number of some parts such as Solenoid Assy differs between models.
- Picture of SC-F10000H Series is used for description.

1. Remove the Ink Supply Unit. ([p517](#))
2. Remove the Ink Cartridge Holder. ([p520](#))
3. Disconnect the cables from the relay connectors.
 - SC-F10000 Series: 4 cables
 - SC-F10000H Series: 6 cables
4. Loosen each set of 3 screws that secure the Solenoid Assy.
 - SC-F10000 Series: 2 Solenoid Assy
 - SC-F10000H Series: 3 Solenoid Assy
- A) Silver M3x8 Cup S-tite screw: each 3 pcs

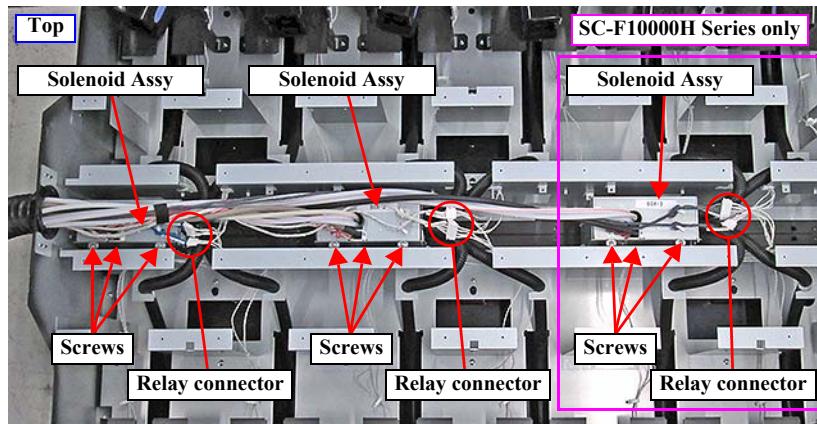


Figure 3-359.

5. Release the ink tubes from the frame.

- SC-F10000 Series: 8 ink tubes
- SC-F10000H Series: 12 ink tubes

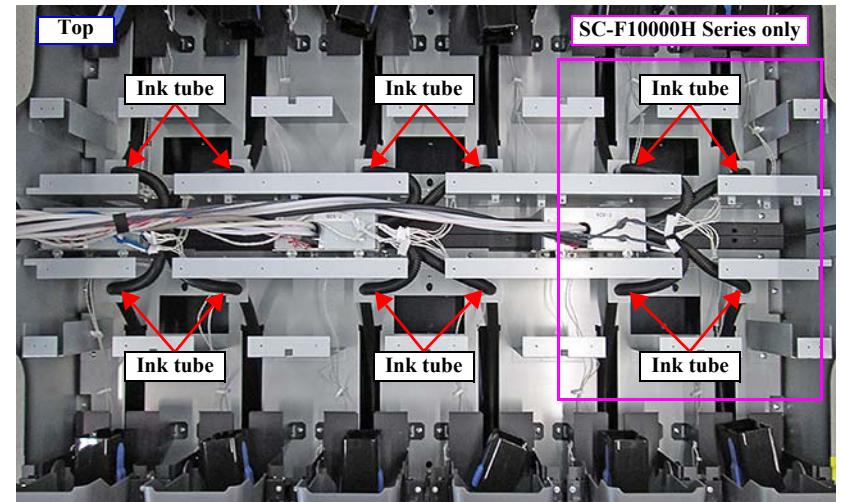


Figure 3-360.

Continue to the next page.

6. Remove the 2 screws and then remove the plate.
B) Black M4x8 S-tite screw with built-in washer: 2 pcs

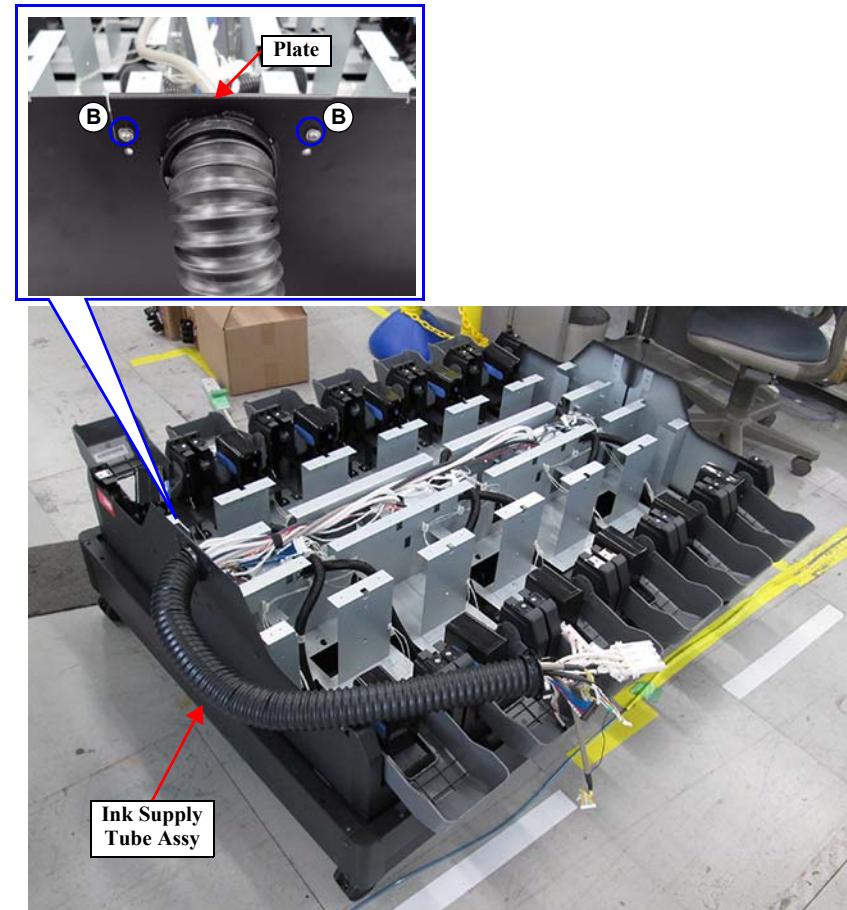


Figure 3-361.

Continue to the next page.

7. Remove the Ink Supply Tube Assy.



**When removing the Ink Supply Tube Assy of SC-F10000H Series,
make sure to carry out by at least 2 persons.**

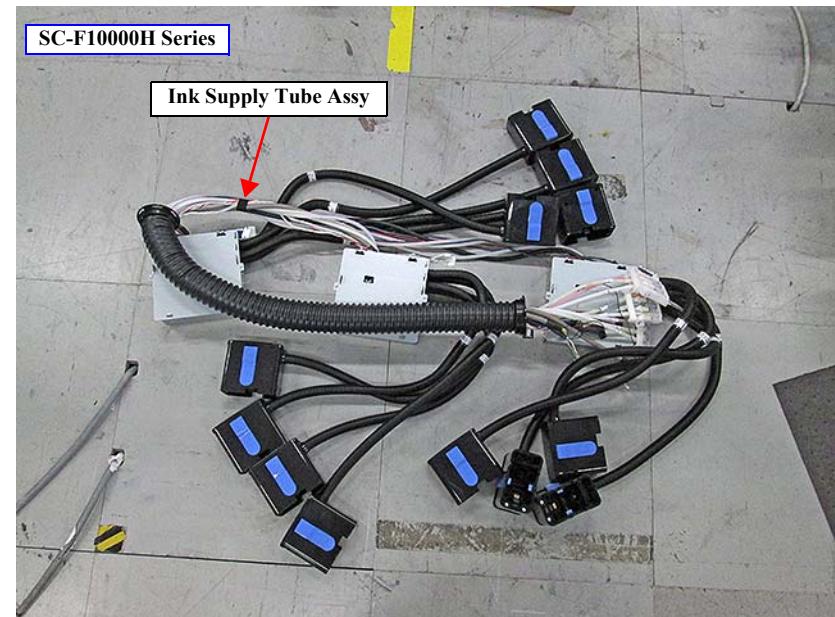
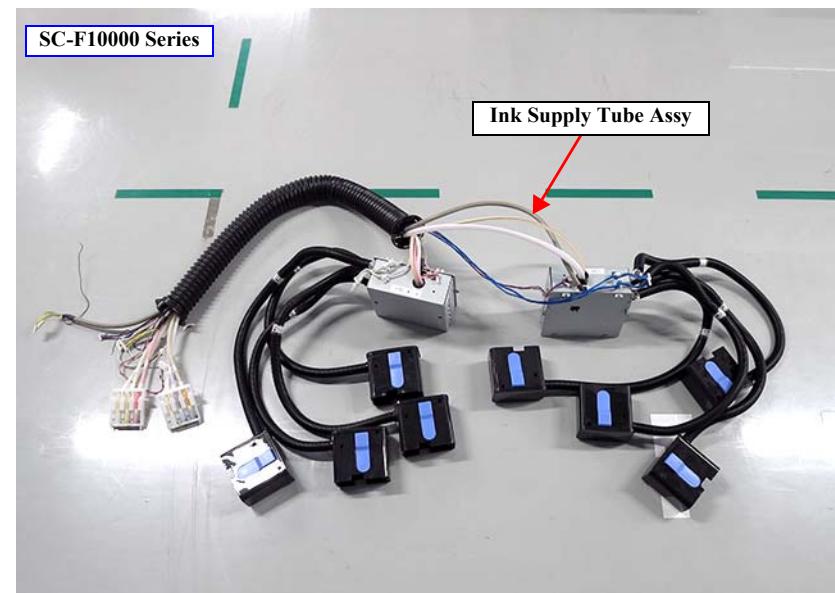


Figure 3-362.

Continue to the next page.



ASSEMBLY

When setting the ink tubes, make sure to check the number specified on the label on the tube and the number of the ink slot in the figure below before attaching the ink tubes.

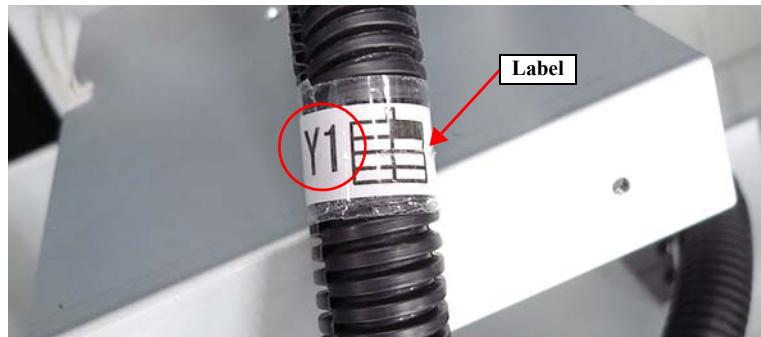


Figure 3-363.



ASSEMBLY

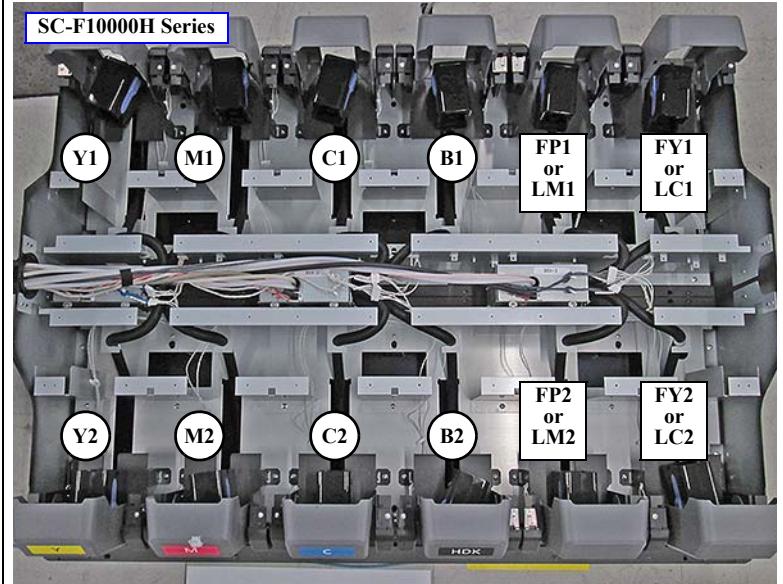
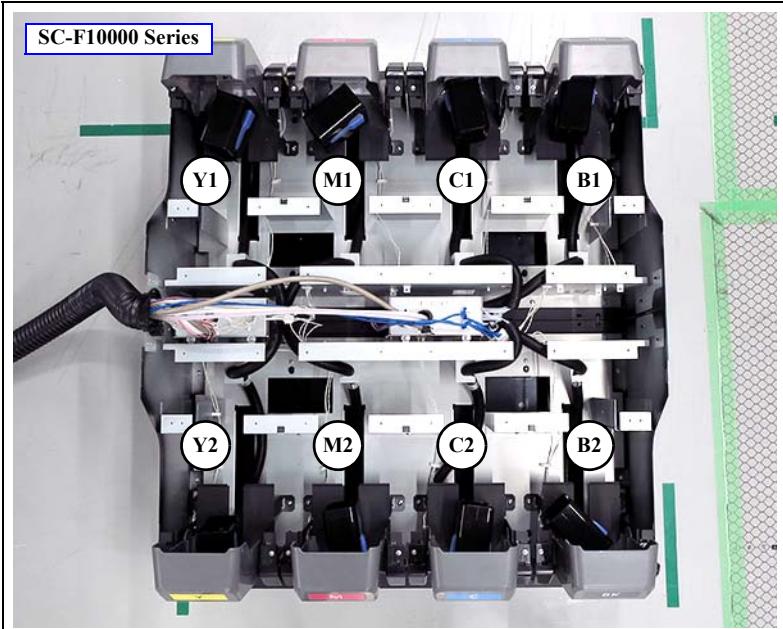


Figure 3-364.

3.4.8.4 Cartridge Holder

1. Remove the Ink Supply Unit. ([p517](#))
2. Remove the Ink Cartridge Holder. ([p520](#))
3. Remove the 2 screws and then remove the Cartridge Holder.
A) Silver M3x8 Cup S-tite screw: 2 pcs

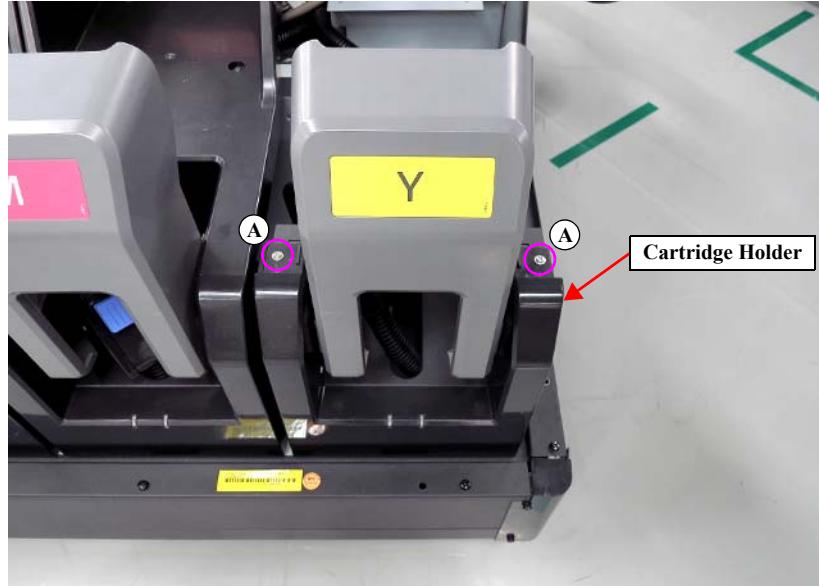


Figure 3-365.

3.4.8.5 Cartridge Check Lamp

1. Remove the Ink Supply Unit. ([p517](#))
2. Remove the Ink Cartridge Holder. ([p520](#))
3. Remove the Cartridge Holder. ([p525](#))
4. Disconnect the connector.
5. Remove the screw and then remove the Cartridge Check Lamp.
 - A) Silver M3x6 Bind machine screw: 1 pc

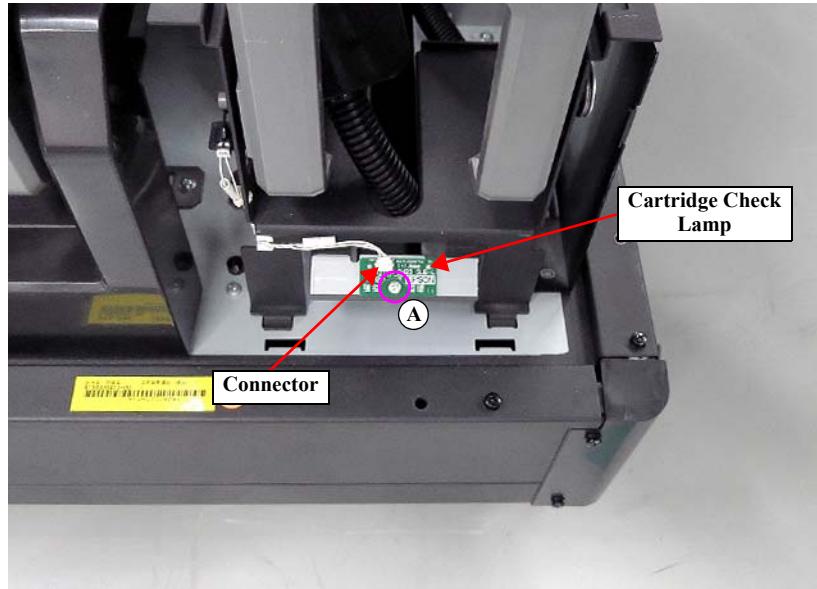


Figure 3-366.

3.4.8.6 Cartridge Cover Open Sensor

1. Remove the Ink Supply Unit. ([p517](#))
2. Remove the Ink Cartridge Holder. ([p520](#))
3. Remove the Cartridge Holder. ([p525](#))
4. Open the Cartridge Cover.
5. Disconnect the cable from the connector.
6. Release the sensor hook (short).
7. Disengage the sensor hook (long) and then remove the Cartridge Cover Open Sensor.



Set the hook (short) after pushing in the hook (long).

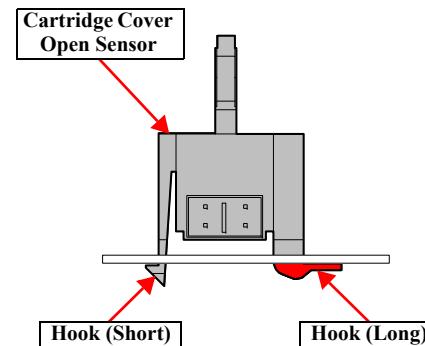


Figure 3-367.

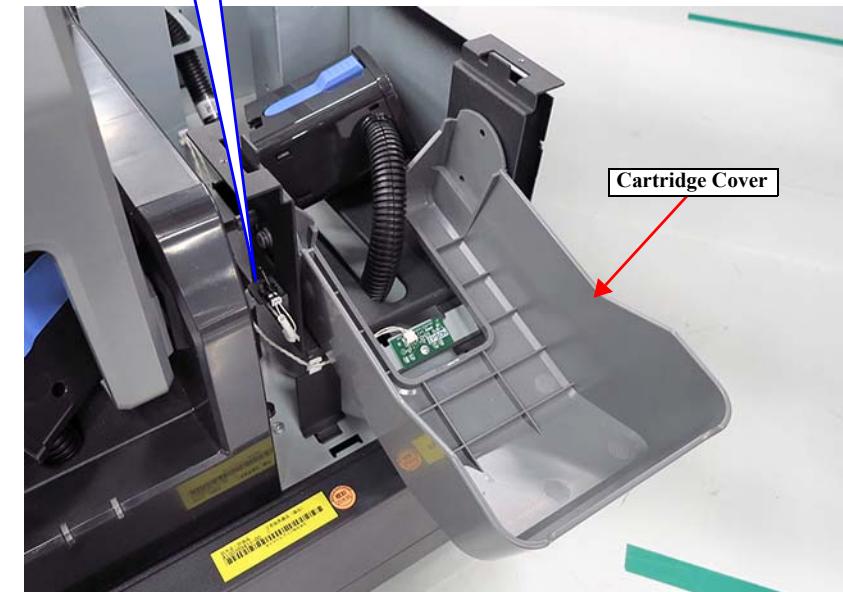
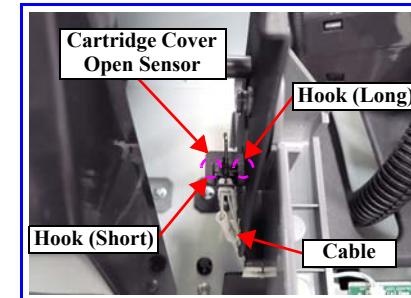


Figure 3-368.

3.4.8.7 Connector Cover A/B/C

1. Remove the Ink Supply Unit. ([p517](#))
2. Remove the Ink Cartridge Holder. ([p520](#))
3. Remove the 2 screws and then remove Connector Cover A.
 - A) Silver M3x8 P-tite screw: 2 pcs



Figure 3-369.

Continue to the next page.

4. Remove the 4 screws.

B) Silver M3x8 P-tite screw: 4 pcs

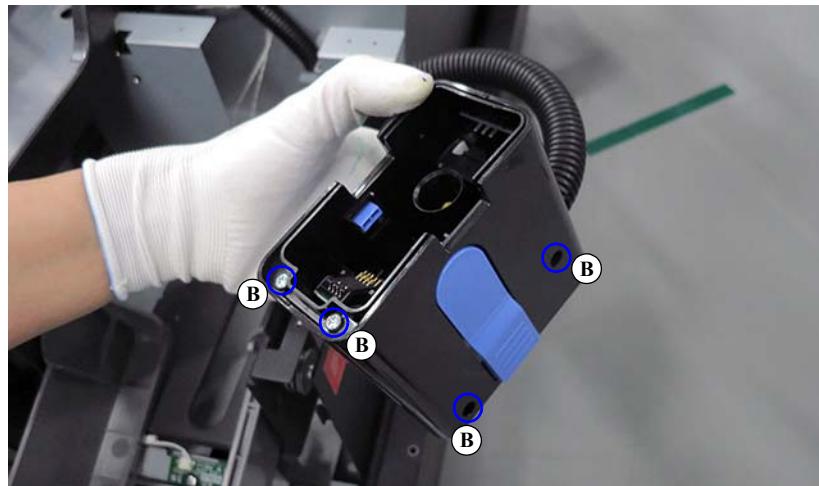


Figure 3-370.

5. Disengage the hook and then remove Connector Cover B.

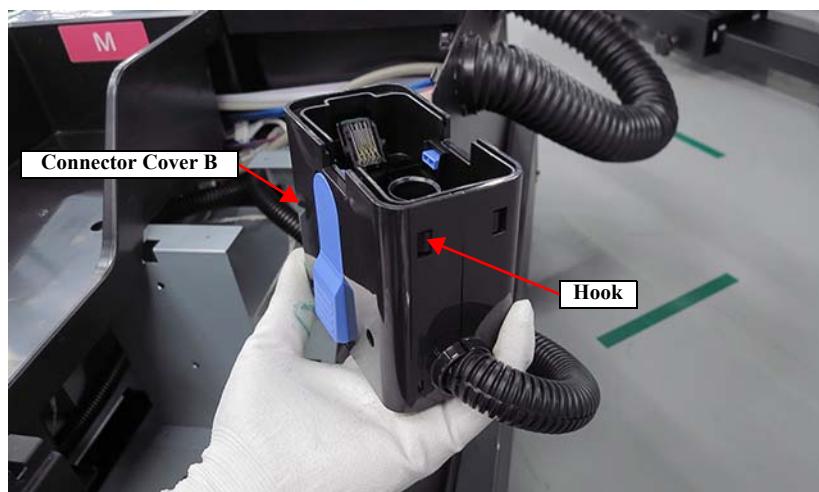


Figure 3-371.

6. Disengage the hook and then remove Connector Cover C.

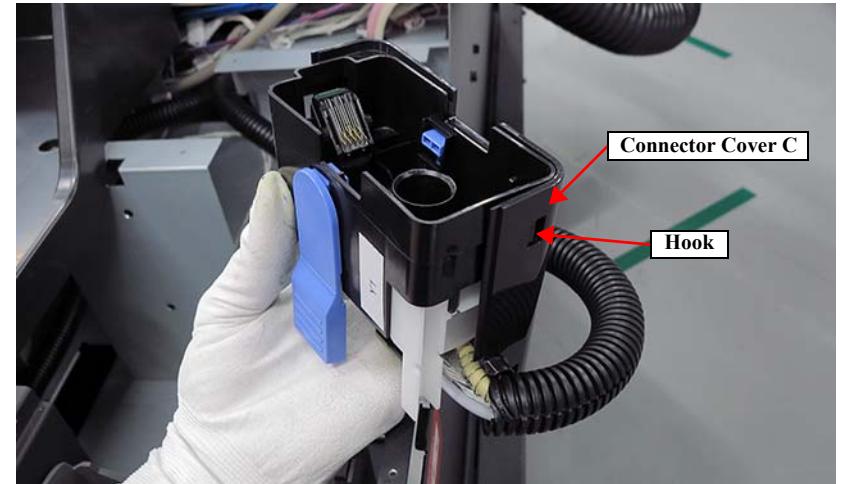


Figure 3-372.



Set the bellows of the ink tube into the grooves of Connector Cover C.

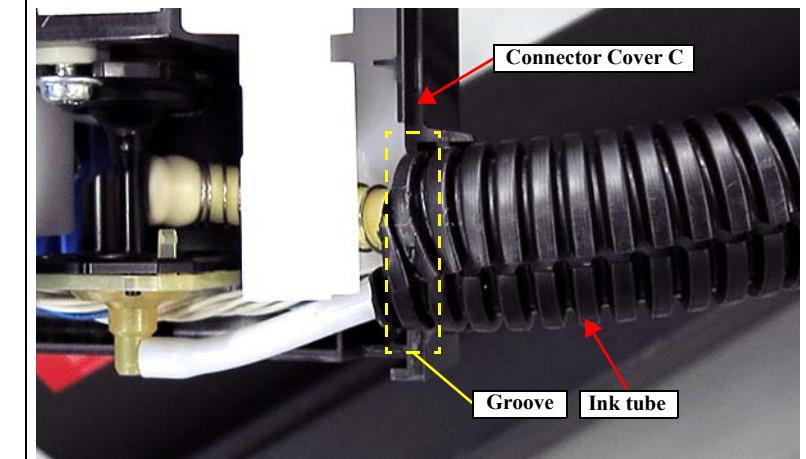


Figure 3-373.

3.4.8.8 CSIC

1. Remove the Ink Supply Unit. ([p517](#))
2. Remove the Ink Cartridge Holder. ([p520](#))
3. Remove the Connector Cover A/B/C. ([p528](#))
4. Disconnect the cable from the CSIC connector.
5. Remove the 2 springs.

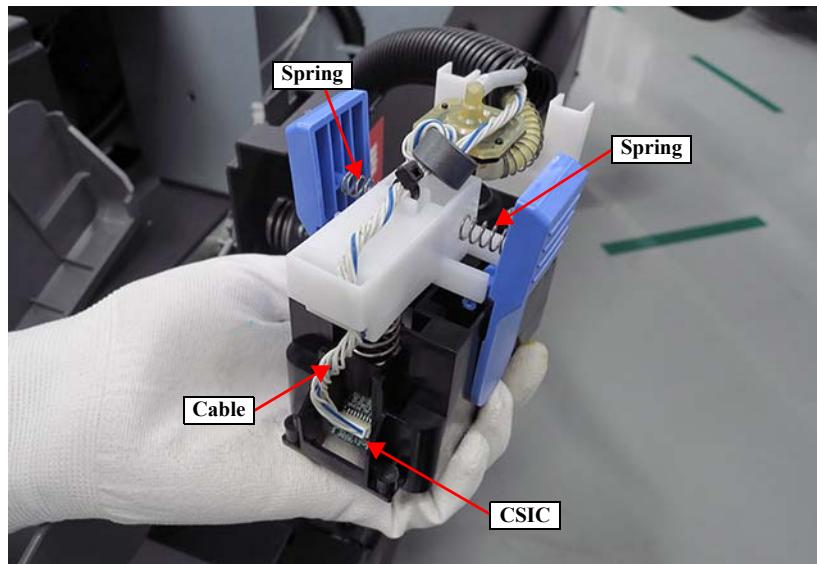


Figure 3-374.

6. Remove the screw and then remove the cable holder.
 - A) Silver M3x8 P-tite screw: 1 pc

7. Remove the spring.

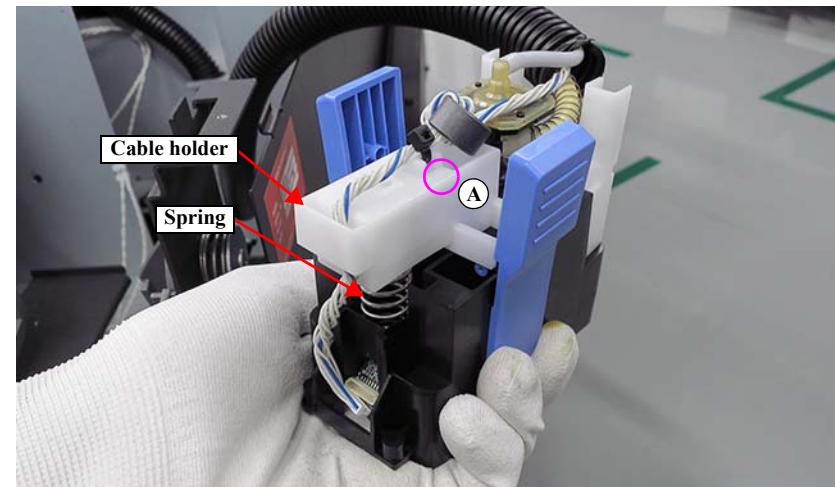


Figure 3-375.

8. Remove the CSIC in the upward direction.



Figure 3-376.

3.4.8.9 Ink Supply Needle



Take care not to drop the screw holder when performing the procedure below.

1. Remove the Ink Supply Unit. ([p517](#))
2. Remove the Ink Cartridge Holder. ([p520](#))
3. Remove the Connector Cover A/B/C. ([p528](#))
4. Remove the 2 screws that secure the Ink Supply Needle.
 - A) Silver M3x8 P-tite screw: 2 pcs
5. Remove the 2 springs.



Align the dowel of the Ink Supply Needle with the positioning hole of the screw holder. ([Figure 3-377](#))

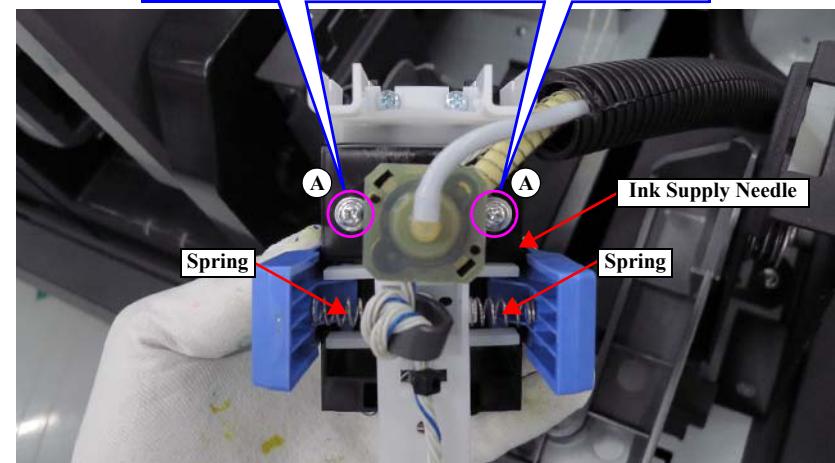
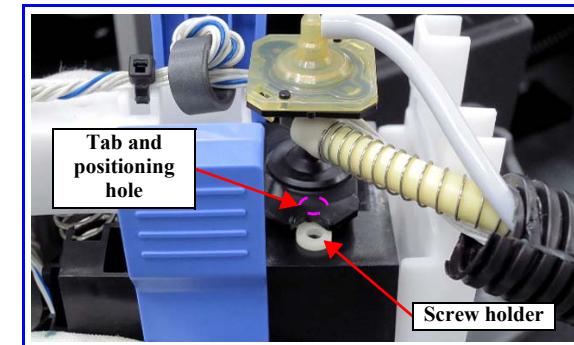


Figure 3-377.

Continue to the next page.

6. Remove the air tube and ink tube from the Ink Supply Needle.

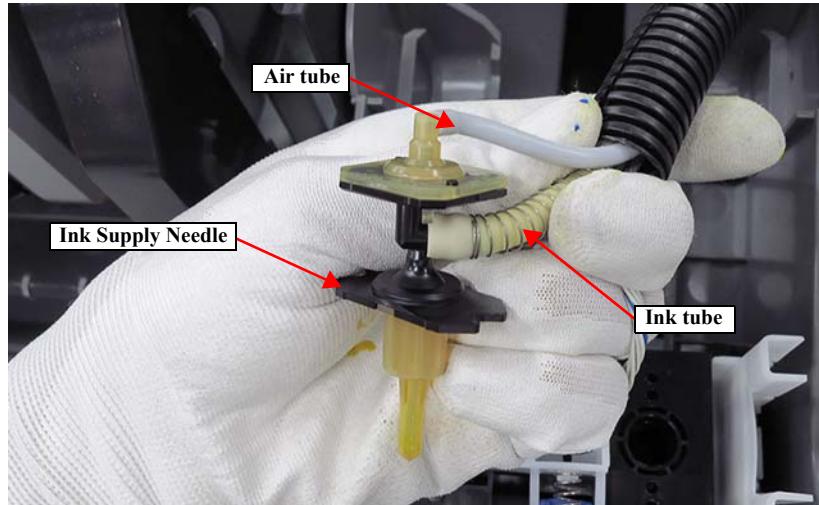


Figure 3-378.

3.4.8.10 Caster



- Number of the Caster differs between models.
 - SC-F10000 Series: x4
 - SC-F10000H Series: x6
- Picture of SC-F10000H Series is used for description.

1. Remove all ink cartridges.
2. Lift and hold the Ink Supply Unit with something stands a weight of the Ink Supply Unit, and make caster come off the floor.
3. Remove the 4 screws, and remove the Caster.
 - A) Black M4x10 Cup S-tite screw: 4 pcs

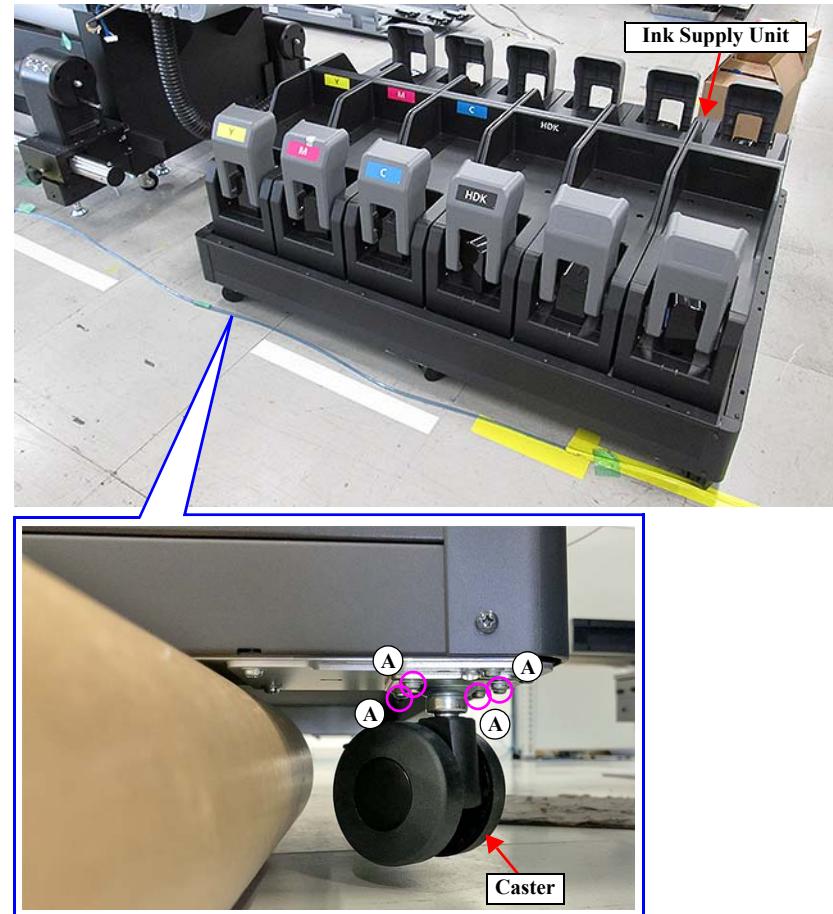


Figure 3-379.

CHAPTER

4

ADJUSTMENT

4.1 Overview

This chapter describes adjustment item and method on repairing or replacing certain parts.

4.1.1 PC settings before starting adjustment

Before starting the adjustment work, perform the following procedure to use service program without any conflict with EPSON Edge Dashboard.

1. Click the [Start] button on your PC, and then select [Control Panel] in the “PC Setting” menu.
2. Click the [All Control Panel Items], and then select [Services] from “Administrative Tools”.

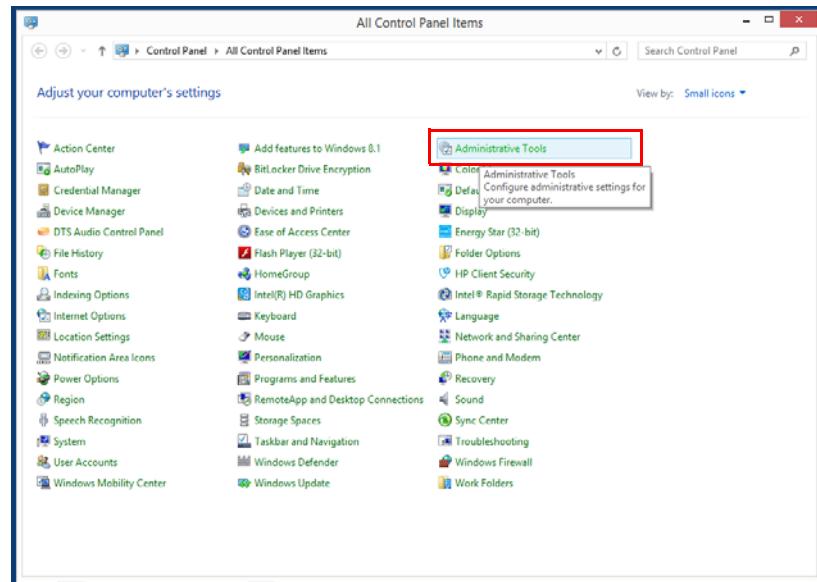


Figure 4-1.

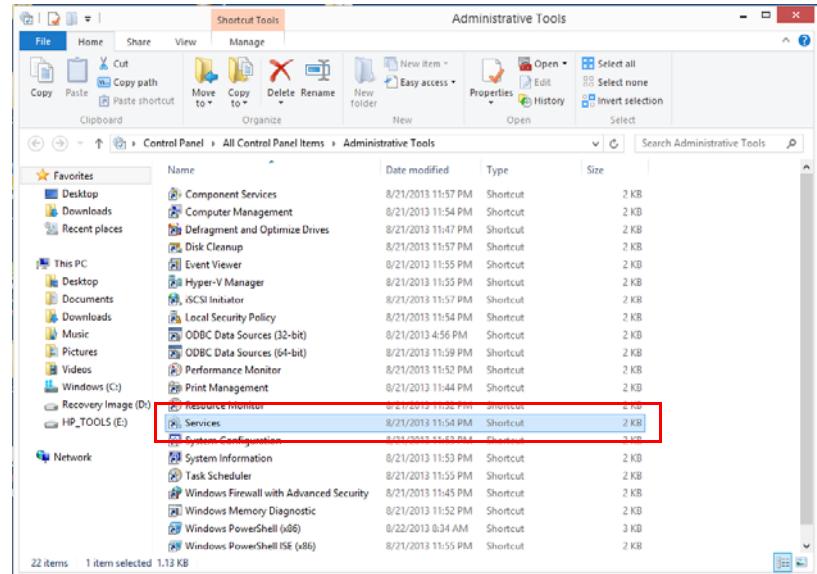


Figure 4-2.

3. Right-click the “EPSON DFAgency” in service list, and then select [Stop].



“EPSON DFAgency” is printer communication module for EPSON Edge Dashboard.

4. Confirm the “Status” has changed to “ ” (blank) from “Running” to start the adjustment work.



To use “EPSON Edge Dashboard” again, either right-click the “EPSON DFAgency” in the services list and select [Start] or restart the PC.

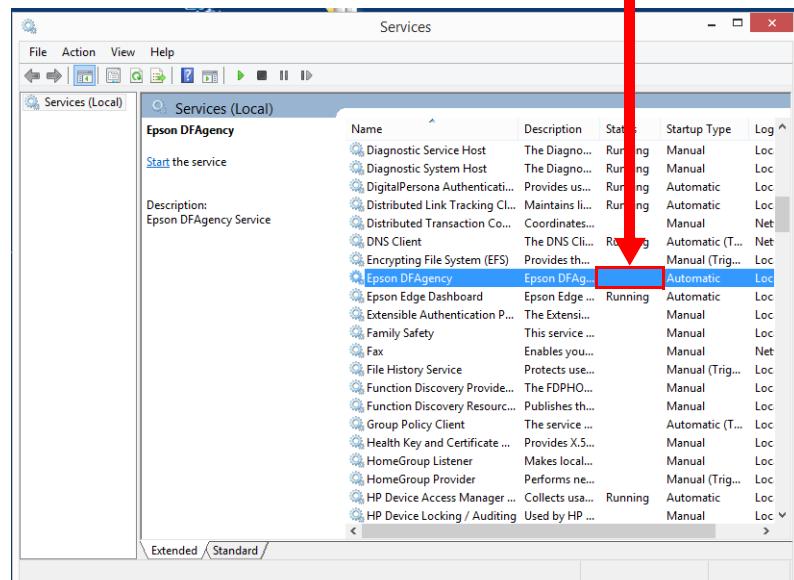
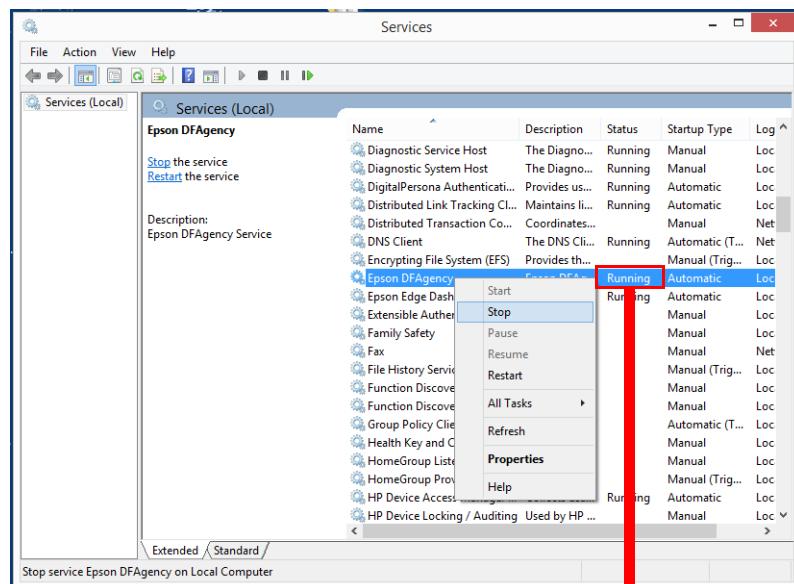
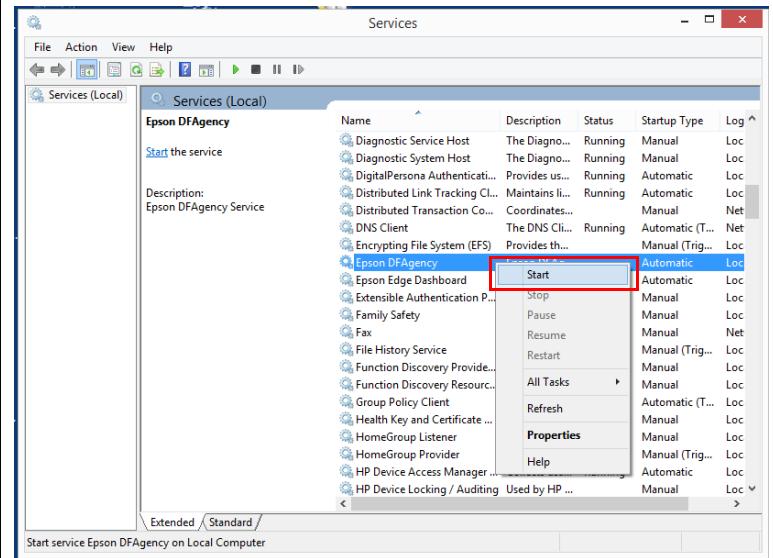


Figure 4-3.

4.1.2 Precautions

Always observe the following cautions whenever making an adjustment on the printer.



- Always refer to [**4.1.4 Adjustment Items and the Order by Repaired Part \(p539\)**](#) and make sure to perform all the adjustments listed in the table in the given order.
- Always read and follow the precautions given in each section that explains each adjustment. Ignoring the precautions can result in malfunction of the printer.

4.1.3 Firmware Version

It is possible to check the firmware version from control panel. And can be check status of waveform from Firmware version.

PROCEDURE

1. Turn the printer ON in the Normal Mode.
2. Select “Printer Status” → “Firmware Version” on the control menu.
3. Check the Firmware version.

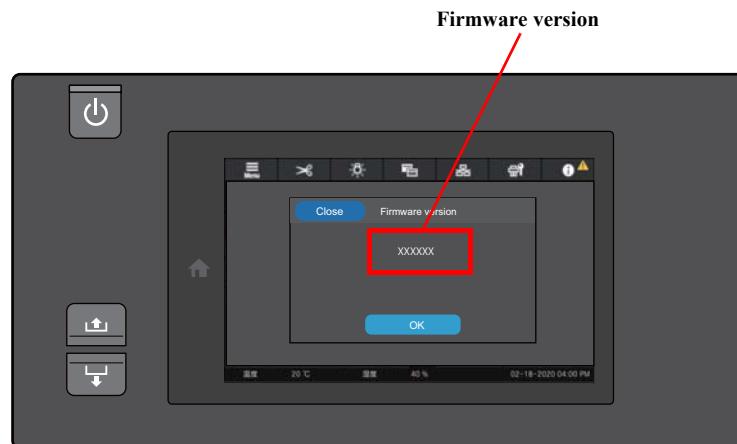


Figure 4-4.

4.1.4 Adjustment Items and the Order by Repaired Part

The following table shows the required adjustments by repaired or replaced part and the order in which the adjustments must be performed.

Table 4-1. Adjustment items and the order by repaired part

| Class | Replaced or Repaired (Reattached) Part/Unit | Required Operations | | | Service Program | Jig | Media* | Replaced | Reattached | Page |
|--------------------------|---|---------------------|----|---|-----------------|-----|--------|----------|------------|--|
| Board related Adjustment | Boards (Main Board A, MCU Board, SUB-C, SUB-H) (NVRAM Backup OK) | Before replacement | 1 | Remove the Ink Cartridges. | --- | | | ✓ | --- | --- |
| | | | 2 | Turn the power on in Serviceman Mode | --- | | | ✓ | --- | p. 28 |
| | | | 3 | NVRAM Backup | ✓ | | | ✓ | --- | p. 617 |
| | | | 4 | Turn the printer off | --- | | | ✓ | --- | --- |
| | | Replacement | 5 | | --- | | | ✓ | ✓ | p. 355, p. 392, p. 386, p. 385 |
| | | | 6 | Turn the power on in Firmware Update Mode | --- | | | ✓ | --- | p. 30 |
| | | After replacement | 7 | Firmware Update | --- | | | ✓ | --- | p. 566 |
| | | | 8 | Turn the printer off | --- | | | ✓ | --- | --- |
| | | | 9 | Turn the power on in Serviceman Mode | --- | | | ✓ | --- | p. 28 |
| | | | 10 | Write NVRAM (Automatically power OFF) | ✓ | | | ✓ | --- | p. 617 |
| | | | 11 | Turn the power on in Serviceman Mode | --- | | | ✓ | --- | p. 28 |
| | | | 12 | RTC Input | ✓ | | | ✓ | --- | p. 614 |
| | | | 13 | Turn the printer off | --- | | | ✓ | --- | --- |
| | | | 14 | Install the Ink Cartridges. | --- | | | ✓ | --- | --- |
| | | | 15 | Turn the power on in Repair Mode | --- | | | ✓ | --- | p. 29 |
| | | | 16 | Nozzle Verification Technology Noise Inspection | ✓ | | | ✓ | --- | p. 597 |
| | | | 17 | Nozzle Verification Technology Check | ✓ | | | ✓ | --- | p. 598 |
| | | | 18 | Turn the printer off | --- | | | ✓ | --- | --- |

Table 4-1. Adjustment items and the order by repaired part

| Class | Replaced or Repaired (Reattached) Part/Unit | Required Operations | | | Service Program | Jig | Media* | Replaced | Reattached | Page |
|--------------------------|--|---------------------|----|---|-----------------|-----|--------|----------|------------|--|
| Board related Adjustment | Boards (Main Board A, MCU Board, SUB-C, SUB-H) (NVRAM Backup NG, SSD Backup OK) | Before replacement | 1 | Remove the Ink Cartridges. | --- | | | ✓ | --- | --- |
| | | Replacement | 2 | | --- | | | ✓ | ✓ | p. 355, p. 392, p. 386, p. 385 |
| | | After replacement | 3 | Turn the power on in Firmware Update Mode | --- | | | ✓ | --- | p. 30 |
| | | | 4 | Firmware Update | --- | | | ✓ | --- | p. 566 |
| | | | 5 | Turn the printer off | --- | | | ✓ | --- | --- |
| | | | 6 | Turn the power on in Serviceman Mode | --- | | | ✓ | --- | p. 28 |
| | | | 7 | Write SSD backup data (Automatically power OFF) | ✓ | | | ✓ | --- | p. 623 |
| | | | 8 | Turn the power on in Serviceman Mode | --- | | | ✓ | --- | p. 28 |
| | | | 9 | RTC Input | ✓ | | | ✓ | --- | p. 614 |
| | | | 10 | Turn the printer off | --- | | | ✓ | --- | --- |
| | | | 11 | Install the Ink Cartridges. | --- | | | ✓ | --- | --- |
| | | | 12 | Turn the power on in Repair Mode | --- | | | ✓ | --- | p. 29 |
| | | | 13 | Nozzle Verification Technology Noise Inspection | ✓ | | | ✓ | --- | p. 597 |
| | | | 14 | Nozzle Verification Technology Check | ✓ | | | ✓ | --- | p. 598 |
| | | | 15 | Turn the printer off | --- | | | ✓ | --- | --- |

Table 4-1. Adjustment items and the order by repaired part

| Class | Replaced or Repaired (Reattached) Part/Unit | Required Operations | | | Service Program | Jig | Media* | Replaced | Reattached | Page |
|--------------------------|--|---------------------|----|--|-----------------|---------------|--------|----------|------------|---|
| Board related Adjustment | Boards (Main Board A, MCU Board, SUB-C, SUB-H) (NVRAM Backup NG, SSD Backup NG) | Before replacement | 1 | Remove the Ink Cartridges. | --- | | | ✓ | --- | --- |
| | | Replacement | 2 | | | | | ✓ | ✓ | p. 355, p. 392, p. 386, p. 385 |
| | | After replacement | 3 | Turn the power on in Firmware Update Mode | --- | | | ✓ | --- | p. 30 |
| | | | 4 | Firmware Update | --- | | | ✓ | --- | p. 566 |
| | | | 5 | Turn the printer off | --- | | | ✓ | --- | --- |
| | | | 6 | Turn the power on in Serviceman Mode | --- | | | ✓ | --- | p. 28 |
| | | | 7 | Main Board Initial Setting (Automatically power OFF) | ✓ | | | ✓ | --- | p. 619 |
| | | | 8 | Turn the power on in Serviceman Mode | --- | | | ✓ | --- | p. 28 |
| | | | 9 | RTC Input | ✓ | | | ✓ | --- | p. 614 |
| | | | 10 | MAC Address Check & Input | ✓ | Network cable | | ✓ | --- | p. 615 |
| | | | 11 | Serial Number Read & Write | ✓ | | | ✓ | --- | p. 616 |
| | | | 12 | Input Offset Value | ✓ | | | ✓ | --- | p. 620 |
| | | | 13 | Rear AD Adjustment | --- | | | ✓ | --- | p. 613 |
| | | | 14 | Color Mode Setting (SC-F10000H Series only) | ✓ | | | ✓ | --- | p. 626 |
| | | | 15 | Turn the printer off | --- | | | ✓ | --- | --- |
| | | | 16 | Install the Ink Cartridges. | --- | | | ✓ | --- | --- |
| | | | 17 | Turn the power on in Repair Mode | --- | | | ✓ | --- | p. 29 |
| | | | 18 | Print Quality Auto Adjustment (From Control Panel) | --- | | | ✓ | --- | p. 576 |
| | | | 19 | Input Hardening Fan | ✓ | | | ✓ | --- | p. 611 |
| | | | 20 | Input Contact Sensor | ✓ | | | ✓ | --- | p. 601 |
| | | | 21 | Head replace (all heads) | --- | | | ✓ | --- | p. 585 |
| | | | 22 | Turn the printer off | --- | | | ✓ | --- | --- |

Table 4-1. Adjustment items and the order by repaired part

| Class | Replaced or Repaired (Reattached) Part/Unit | Required Operations | | | Service Program | Jig | Media* | Replaced | Reattached | Page |
|--------------------------|---|---------------------|---|--|-----------------|-----|--------|----------|------------|------------------------|
| Board related Adjustment | SSD | Replacement | 1 | | --- | | | ✓ | ✓ | p. 358 |
| | | After replacement | 2 | Turn the power on in Firmware Update Mode | --- | | | ✓ | --- | p. 30 |
| | | | 3 | Firmware Update | --- | | | ✓ | --- | p. 566 |
| | | | 4 | Turn the printer off | --- | | | ✓ | --- | --- |
| | | | 5 | Turn the power on in Serviceman Mode | --- | | | ✓ | --- | p. 28 |
| | | | 6 | Print Quality Auto Adjustment (From Control Panel) | --- | | | ✓ | --- | p. 576 |
| | | | 7 | Turn the printer off | --- | | | ✓ | --- | --- |
| | Head Drive Board (DRV) | Replacement | 1 | | --- | | | ✓ | ✓ | p. 378 |
| | | After replacement | 2 | Turn the power on in Repair Mode | --- | | | ✓ | --- | p. 29 |
| | | | 3 | Nozzle Verification Technology Noise Inspection | ✓ | | | ✓ | --- | p. 597 |
| | | | 4 | Nozzle Verification Technology Check | ✓ | | | ✓ | --- | p. 598 |
| | | | 5 | Turn the printer off | --- | | | ✓ | --- | --- |
| | Head FFC/ Head Connector Board | Replacement | 1 | | --- | | | ✓ | ✓ | p. 381 |
| | | After replacement | 2 | Turn the power on in Repair Mode | --- | | | ✓ | --- | p. 29 |
| | | | 3 | Nozzle Verification Technology Noise Inspection | ✓ | | | ✓ | --- | p. 597 |
| | | | 4 | Nozzle Verification Technology Check | ✓ | | | ✓ | --- | p. 598 |
| | | | 5 | Turn the printer off | --- | | | ✓ | --- | --- |
| | RTC Battery | Replacement | 1 | | --- | | | ✓ | ✓ | --- |
| | | After replacement | 2 | Turn the power on in Serviceman Mode | --- | | | ✓ | --- | p. 28 |
| | | | 3 | RTC Input | ✓ | | | ✓ | --- | p. 614 |
| | | | 4 | Turn the printer off | --- | | | ✓ | --- | --- |

Table 4-1. Adjustment items and the order by repaired part

| Class | Replaced or Repaired (Reattached) Part/Unit | Required Operations | | | Service Program | Jig | Media* | Replaced | Reattached | Page |
|---|---|---------------------|----|--|-----------------|-----|--------|----------|------------|--|
| CR/Head/ Ink System related parts/unit | Print Head | Before replacement | 1 | Turn the power on in Repair Mode | --- | | | ✓ | --- | p. 29 |
| | | | 2 | Head/Filter Check (From Control Panel) | --- | | | ✓ | --- | p. 585 |
| | | | 3 | Diagnosis (From Control Panel) | --- | | | ✓ | --- | p. 569 |
| | | Replacement | 4 | Replace Print Head (From Control Panel) | --- | | | ✓ | ✓ | p. 570 |
| | | | 5 | Get verification data after Head Replacement | ✓ | | | ✓ | --- | p. 600 |
| | | After replacement | 6 | Turn the printer off | --- | | | ✓ | --- | --- |
| | Print Head (Service call error due to print head failure) | Replacement | 1 | | --- | | | ✓ | ✓ | p. 402 |
| | | | 2 | Turn the power on in Repair Mode | --- | | | ✓ | --- | p. 29 |
| | | After replacement | 3 | Cleaning | ✓ | | | ✓ | --- | p. 603 |
| | | | 4 | Print Quality Auto Adjustment (From Control Panel) | --- | | | ✓ | --- | p. 576 |
| | | | 5 | Get verification data after Head Replacement | ✓ | | | ✓ | --- | p. 600 |
| | | | 6 | Turn the printer off | --- | | | ✓ | --- | --- |
| | Ink Supply Pump | Before replacement | 1 | Turn the power on in Repair Mode | --- | | | ✓ | --- | p. 29 |
| | | | 2 | Ink Draining (From Control Panel) | --- | | | ✓ | --- | p. 579 |
| | | | 3 | Turn the printer off | --- | | | ✓ | --- | --- |
| | | Replacement | 4 | | --- | | | ✓ | ✓ | p. 414 p. 417 |
| | | | 5 | Turn the power on in Repair Mode | --- | | | ✓ | --- | p. 29 |
| | | After replacement | 6 | Ink Charging (From Control Panel) | --- | | | ✓ | --- | p. 577 |
| | | | 7 | Cleaning | ✓ | | | ✓ | --- | p. 603 |
| | | | 8 | Nozzle Check | --- | | | ✓ | --- | --- |
| | | | 9 | Counter Reset (From Control Panel) | --- | | | ✓ | --- | p. 582 |
| | | | 10 | Turn the printer off | --- | | | ✓ | --- | --- |
| | | | 1 | | --- | | | ✓ | ✓ | p. 405 |
| | Ink Supply Pump | Replacement | 2 | Turn the power on in Repair Mode | --- | | | ✓ | --- | p. 29 |
| | | | 3 | Counter Reset (From Control Panel) | --- | | | ✓ | --- | p. 582 |
| | | After replacement | 4 | Turn the printer off | --- | | | ✓ | --- | --- |

Table 4-1. Adjustment items and the order by repaired part

| Class | Replaced or Repaired (Reattached) Part/Unit | Required Operations | | | Service Program | Jig | Media* | Replaced | Reattached | Page |
|---|---|---------------------|----|------------------------------------|-----------------|-----|--------|----------|------------|--|
| CR/Head/ Ink System related parts/unit | Cleaning Pump | Replacement | 1 | | --- | | | ✓ | ✓ | p. 421 |
| | | After replacement | 2 | Turn the power on in Repair Mode | --- | | | ✓ | --- | p. 29 |
| | | | 3 | Counter Reset (From Control Panel) | --- | | | ✓ | --- | p. 582 |
| | | | 4 | Turn the printer off | --- | | | ✓ | --- | --- |
| | Wiper Unit Drive Assembly | Replacement | 1 | | --- | | | ✓ | ✓ | p. 423 |
| | | After replacement | 2 | Turn the power on in Repair Mode | --- | | | ✓ | --- | p. 29 |
| | | | 3 | Counter Reset (From Control Panel) | --- | | | ✓ | --- | p. 582 |
| | | | 4 | Turn the printer off | --- | | | ✓ | --- | --- |
| | Suction Pump | Replacement | 1 | | --- | | | ✓ | ✓ | p. 426 |
| | | After replacement | 2 | Turn the power on in Repair Mode | --- | | | ✓ | --- | p. 29 |
| | | | 3 | Counter Reset (From Control Panel) | --- | | | ✓ | --- | p. 582 |
| | | | 4 | Turn the printer off | --- | | | ✓ | --- | --- |
| | Ink Tube | Before replacement | 1 | Turn the power on in Repair Mode | --- | | | ✓ | --- | p. 29 |
| | | | 2 | Ink Draining (From Control Panel) | --- | | | ✓ | --- | p. 579 |
| | | | 3 | Turn the printer off | --- | | | ✓ | --- | --- |
| | | Replacement | 4 | | --- | | | ✓ | ✓ | p. 452 p. 462 |
| | | After replacement | 5 | Turn the power on in Repair Mode | --- | | | ✓ | --- | p. 29 |
| | | | 6 | Ink Charging (From Control Panel) | --- | | | ✓ | --- | p. 577 |
| | | | 7 | Cleaning | ✓ | | | ✓ | --- | p. 603 |
| | | | 8 | Nozzle Check | --- | | | ✓ | --- | --- |
| | | | 9 | Counter Reset (From Control Panel) | --- | | | ✓ | --- | p. 582 |
| | | | 10 | Turn the printer off | --- | | | ✓ | --- | --- |

Table 4-1. Adjustment items and the order by repaired part

| Class | Replaced or Repaired (Reattached) Part/Unit | Required Operations | | | Service Program | Jig | Media* | Replaced | Reattached | Page |
|---|---|---------------------|----|--|-----------------|-----|--------|----------|------------|------------------------|
| CR/Head/ Ink System related parts/unit | Ink Supply Tube Assy | Before replacement | 1 | Turn the power on in Repair Mode | --- | | | ✓ | --- | p. 29 |
| | | | 2 | Ink Draining (From Control Panel) | --- | | | ✓ | --- | p. 579 |
| | | | 3 | Turn the printer off | --- | | | ✓ | --- | --- |
| | | Replacement | 4 | | --- | | | ✓ | ✓ | p. 521 |
| | | After replacement | 5 | Turn the power on in Repair Mode | --- | | | ✓ | --- | p. 29 |
| | | | 6 | Ink Charging (From Control Panel) | --- | | | ✓ | --- | p. 577 |
| | | | 7 | Cleaning | ✓ | | | ✓ | --- | p. 603 |
| | | | 8 | Nozzle Check | --- | | | ✓ | --- | --- |
| | | | 9 | Turn the printer off | --- | | | ✓ | --- | --- |
| | | | 10 | | --- | | | ✓ | --- | --- |
| | Duct Carriage Assy | Before replacement | 1 | Turn the power on in Repair Mode | --- | | | ✓ | --- | p. 29 |
| | | | 2 | Tube Decompression (From Control Panel) | --- | | | ✓ | --- | p. 580 |
| | | | 3 | Turn the printer off | --- | | | ✓ | --- | --- |
| | | Replacement | 4 | | --- | | | ✓ | ✓ | p. 435 |
| | | After replacement | 5 | Turn the power on in Repair Mode | --- | | | ✓ | --- | p. 29 |
| | | | 6 | Ink Charging (From Control Panel) | --- | | | ✓ | --- | p. 577 |
| | | | 7 | Cleaning | ✓ | | | ✓ | --- | p. 603 |
| | | | 8 | Nozzle Check | --- | | | ✓ | --- | --- |
| | | | 9 | Print Quality Auto Adjustment (From Control Panel) | --- | | | ✓ | --- | p. 576 |
| | | | 10 | Turn the printer off | --- | | | ✓ | --- | --- |
| | | | 11 | | --- | | | ✓ | --- | --- |
| | Cap | Before replacement | 1 | Turn the power on in Repair Mode | --- | | | ✓ | --- | p. 29 |
| | | Replacement | 2 | | --- | | | ✓ | ✓ | p. 404 |
| | | After replacement | 3 | Replace Anti-Drying Caps (From Control Panel) | --- | | | ✓ | --- | p. 573 |
| | | | 4 | Turn the printer off | --- | | | ✓ | --- | --- |
| | Filter Unit | Before replacement | 1 | Turn the power on in Repair Mode | --- | | | ✓ | --- | p. 29 |
| | | Replacement | 2 | | --- | | | ✓ | ✓ | p. 438 |
| | | After replacement | 3 | Replace Ink Path Filter (From Control Panel) | --- | | | ✓ | --- | p. 574 |
| | | | 4 | Turn the printer off | --- | | | ✓ | --- | --- |

Table 4-1. Adjustment items and the order by repaired part

| Class | Replaced or Repaired (Reattached) Part/Unit | Required Operations | | | Service Program | Jig | Media* | Replaced | Reattached | Page |
|---|---|---------------------|---|-----------------------------------|-----------------|------------------------|--------|----------|------------|--|
| CR/Head/ Ink System related parts/unit | Ink Leak Sensor | Replacement | 1 | | --- | | | ✓ | --- | p. 412 p. 413 p. 425 p. 437 p. 439 |
| | | After replacement | 2 | Turn the power on in Repair Mode | --- | | | ✓ | --- | p. 29 |
| | | | 3 | Ink Leak Flag Reset | ✓ | | | ✓ | --- | p. 604 |
| | | | 4 | Turn the printer off | --- | | | ✓ | --- | --- |
| | | Replacement | 1 | | --- | | | ✓ | ✓ | p. 447 |
| Mechanical parts | CR Belt | After replacement | 2 | Turn the power on in Repair Mode | --- | | | ✓ | --- | p. 29 |
| | | | 3 | CR Belt Tension Adjustment | ✓ | Sonic Tensimeter U-507 | | ✓ | --- | p. 592 |
| | | | 4 | Turn the printer off | --- | | | ✓ | --- | --- |
| | CR Motor Belt | Replacement | 1 | | --- | | | ✓ | ✓ | p. 473 |
| | | After replacement | 2 | Turn the power on in Repair Mode | --- | | | ✓ | --- | p. 29 |
| | | | 3 | CR Timing Belt Tension Adjustment | ✓ | Sonic Tensimeter U-507 | | ✓ | --- | p. 595 |
| | | | 4 | Turn the printer off | --- | | | ✓ | --- | --- |
| | CR Scale | Replacement | 1 | | --- | | | ✓ | ✓ | p. 442 |
| | | After replacement | 2 | Turn the power on in Repair Mode | --- | | | ✓ | --- | p. 29 |
| | | | 3 | CR Scale Check | ✓ | | | ✓ | --- | p. 599 |
| | | | 4 | Turn the printer off | --- | | | ✓ | --- | --- |
| Mechanical parts | PF Belt | Replacement | 1 | | --- | | | ✓ | ✓ | p. 494 |
| | | After replacement | 2 | Turn the power on in Repair Mode | --- | | | ✓ | --- | p. 29 |
| | | | 3 | PF Belt Tension Adjustment | ✓ | Sonic Tensimeter U-507 | | ✓ | --- | p. 608 |
| | | | 4 | Turn the printer off | --- | | | ✓ | --- | --- |
| | PF Scale | Replacement | 1 | | --- | | | ✓ | ✓ | p. 492 |
| | | After replacement | 2 | Turn the power on in Repair Mode | --- | | | ✓ | --- | p. 29 |
| | | | 3 | PF Scale Check | ✓ | | | ✓ | --- | p. 610 |
| | | | 4 | Turn the printer off | --- | | | ✓ | --- | --- |

Table 4-1. Adjustment items and the order by repaired part

| Class | Replaced or Repaired (Reattached) Part/Unit | Required Operations | | | Service Program | Jig | Media* | Replaced | Reattached | Page |
|------------------|---|---------------------|---|--------------------------------------|-----------------|-----|--------|----------|------------|--------|
| Mechanical parts | PE Sensor | Replacement | 1 | | --- | | | ✓ | ✓ | p. 497 |
| | | After replacement | 2 | Turn the power on in Serviceman Mode | --- | | | ✓ | --- | p. 28 |
| | | | 3 | Rear AD Adjustment | --- | | | ✓ | --- | p. 613 |
| | | | 4 | Turn the printer off | --- | | | ✓ | --- | --- |
| | Hardening Fan | Replacement | 1 | | --- | | | ✓ | ✓ | p. 504 |
| | | After replacement | 2 | Turn the power on in Repair Mode | --- | | | ✓ | --- | p. 29 |
| | | | 3 | Input Hardening Fan | ✓ | | | ✓ | --- | p. 611 |
| | | | 4 | Turn the printer off | --- | | | ✓ | --- | --- |
| | Printer Drying Fan | Replacement | 1 | | --- | | | ✓ | ✓ | p. 393 |
| | | After replacement | 2 | Turn the power on in Repair Mode | --- | | | ✓ | --- | p. 29 |
| | | | 3 | Input Dry Fan | ✓ | | | ✓ | --- | p. 612 |
| | | | 4 | Turn the printer off | --- | | | ✓ | --- | --- |
| Electrical parts | RGB Camera | Replacement | 1 | | --- | | | ✓ | ✓ | p. 430 |
| | | After replacement | 2 | Turn the power on in Repair Mode | --- | | | ✓ | --- | p. 29 |
| | | | 3 | RGB Camera Check & Adjustment | ✓ | | | ✓ | --- | p. 602 |
| | | | 4 | Turn the printer off | --- | | | ✓ | --- | --- |
| | CR Obstacle Sensor | Replacement | 1 | | --- | | | ✓ | ✓ | p. 432 |
| | | After replacement | 2 | Turn the power on in Repair Mode | --- | | | ✓ | --- | p. 29 |
| | | | 3 | Input Contact Sensor | ✓ | | | ✓ | --- | p. 601 |
| | | | 4 | Turn the printer off | --- | | | ✓ | --- | --- |

4.1.5 Adjustment Items

The following table describes the general outline of the adjustments.

Table 4-2. Adjustment Items

| Class | Adjustment Items | Overview | Symptoms that the Adjustment is Needed | Printer Mode | Service Program | Jig | Media | Page |
|---------------------------------|-------------------------------|---|--|----------------------------------|-----------------|-----|-----------------------------|------------------------|
| Adjustment in the control panel | Diagnosis | When print quality is poor, the printer automatically judges and identify the defective part, either print head or cap. | --- | Repair mode (from Control Panel) | --- | | | p. 569 |
| | Replace Print Head | Perform in sequence the adjustment required when replacing the Print Head. | --- | Repair mode (from Control Panel) | --- | | Enhanced matte paper 24inch | p. 570 |
| | Replace Anti-Drying Caps | Perform in sequence the adjustment required when replacing the Anti-Drying Caps. | --- | Repair mode (from Control Panel) | --- | | | p. 573 |
| | Replace Ink Path Filter | Perform in sequence the adjustment required when replacing the Ink Path Filter. | --- | Repair mode (from Control Panel) | --- | | | p. 574 |
| | PF Function Auto Adjustment | Perform in sequence the adjustment required when replacing paper feed related parts. | --- | Repair mode (from Control Panel) | --- | | Enhanced matte paper 24inch | p. 575 |
| | Print Quality Auto Adjustment | Automatically perform print quality adjustment. | --- | Repair mode (from Control Panel) | --- | | Enhanced matte paper 24inch | p. 576 |
| | Ink Charging | Charge ink to the ink flow paths. Perform charging for all flow paths. | --- | Repair mode (from Control Panel) | --- | | | p. 577 |
| | Tube Washing | Charge cleaning solution to the ink flow paths. Perform charging of cleaning solution for all flow paths. | --- | Repair mode (from Control Panel) | --- | | | p. 578 |
| | Ink/Cleaning Liquid Draining | Discharge the ink or cleaning solution in the ink flow paths. Perform discharging for all flow paths. | --- | Repair mode (from Control Panel) | --- | | | p. 579 |

Table 4-2. Adjustment Items

| Class | Adjustment Items | Overview | Symptoms that the Adjustment is Needed | Printer Mode | Service Program | Jig | Media | Page |
|---------------------------------|-------------------------------|---|---|----------------------------------|-----------------|-----|-------|------------------------|
| Adjustment in the control panel | Tube Decompression | Reduce the pressure inside the ink flow paths. Reducing the pressure will prevent ink from leaking when you remove the ink flow path related parts. Reduce the pressure for all flow paths. | --- | Repair mode (from Control Panel) | --- | | | p. 580 |
| | Long-term Storage Preparation | Function used when the printer will not be used for 2 months or more. | --- | Repair mode (from Control Panel) | --- | | | p. 581 |
| | Replacement Part Information | Reset the usage counter corresponding to the replaced part. | <ul style="list-style-type: none"> If a new part is used without counter reset, the counter will reach the maximum value and a service call will occur before the end of the part's life. Correct printer operational information will not remain and analysis will become difficult. | Repair mode (from Control Panel) | --- | | | p. 582 |
| | Air infiltration Check | This function is used to check if air is contained inside the tubes after a Print Head replacement. | --- | Repair mode (from Control Panel) | --- | | | p. 583 |
| | Head/Filter Check | This function is used to identify which part is causing abnormal printing, either print head or filter. | --- | Repair mode (from Control Panel) | --- | | | p. 584 |
| | Head replace (all heads) | Perform head replacement sequence from repair mode, and select replacement of all print head in the sequence. Head replacement will be indicated after ejecting ink, but continue without replacing to rewrite the adjustment value. | Ink not injected, color defection, line misalignment. | Repair mode (from Control Panel) | | | | p. 585 |

Table 4-2. Adjustment Items

| Class | Adjustment Items | Overview | Symptoms that the Adjustment is Needed | Printer Mode | Service Program | Jig | Media | Page |
|----------------------------|----------------------------------|---|--|--------------|-----------------|--|-------|------------------------|
| CR/Head related parts/unit | Head Slant/PG Check & Adjustment | Check and adjust the platen gap of the CR unit and the slant of the Print Head in the PF direction. | <p>When the PG height is out of the standard value range, the following symptoms may occur.</p> <ul style="list-style-type: none"> • Gap is too wide: Discharge deflection or firing position misalignment will occur, which may lead to a deterioration in print quality such as banding, printing misalignment, or graininess deterioration. • Gap is too narrow: The head rubs the fabric. <p>If slant adjustment is not made, discharge deflection or firing position misalignment will occur, which may lead to a deterioration in print quality such as reduced graininess, banding, or color unevenness, because the distance from the media surface will differ between at the front and back of the head.</p> | --- | --- | Thickness gauge | | p. 587 |
| | CR Belt Tension Adjustment | Use a sonic tensimeter to measure the tension of the CR Belt, and check that it is within the standard value range. If it is out of the standard value range, perform adjustment. | <p>When the tension is out of the standard value range, the following symptoms may occur.</p> <ul style="list-style-type: none"> • When the belt tension is high: The life of the belt will be shortened. The load becomes high and wait control begins for carriage operation due to heat generation restrictions. • When the belt tension is low: The belt teeth slip and the carriage swings. The print quality abnormality of vertical unevenness occurs. Carriage operation control is not performed well and a carriage related service call error occurs. | --- | --- | <input type="checkbox"/> Sonic Tensimeter U-507 <input type="checkbox"/> Something to flip the belt | | p. 592 |

Table 4-2. Adjustment Items

| Class | Adjustment Items | Overview | Symptoms that the Adjustment is Needed | Printer Mode | Service Program | Jig | Media | Page |
|----------------------------|---|--|--|--------------|-----------------|--|-------|------------------------|
| CR/Head related parts/unit | CR Timing Belt Tension Adjustment | Use a sonic tensimeter to measure the tension of the CR Timing Belt, and check that it is within the standard value range. If it is out of the standard value range, perform adjustment. | When the tension is out of the standard value range, the following symptoms may occur. <ul style="list-style-type: none">• When the belt tension is high: The life of the belt will be shortened. The load becomes high and wait control begins for carriage operation due to heat generation restrictions.• When the belt tension is low: The belt teeth slip and the carriage swings. The print quality abnormality of vertical unevenness occurs. Carriage operation control is not performed well and a carriage related service call error occurs. | Repair mode | ✓ | <input type="checkbox"/> Sonic Tensimeter U-507 <input type="checkbox"/> Something to flip the belt | | p. 595 |
| | Nozzle Verification Technology Noise Inspection | Check if there are any noises due to the connection state or damage of the Print Head or FFCs. | Since Nozzle Verification Technology does not work normally, auto nozzle check may not be performed correctly. | Repair mode | ✓ | --- | | p. 597 |
| | Nozzle Verification Technology Check | Perform the nozzle verification technology operation for all nozzles to check that no abnormality is detected. | The nozzle verification technology may not operate properly and a nozzle check may not be performed correctly. | Repair mode | ✓ | --- | N/A | p. 598 |
| | CR Scale Check | Use the Service Program to check that CR Scale is not scratched, contaminated, or otherwise abnormal and that it is read properly by the encoder. | The CR may not operate properly and an error may occur because the CR Scale is not read properly. | Repair mode | ✓ | --- | | p. 599 |
| | Get verification data after Head Replacement | Get the verification data after head replacement. | --- | Repair mode | ✓ | --- | | p. 600 |
| | Input Contact Sensor | Input the threshold values of the CR Obstacle Sensor. | --- | Repair mode | ✓ | --- | | p. 601 |
| | RGB Camera Check & Adjustment | Check whether the RGB Camera is functioning normally. | --- | Repair mode | ✓ | --- | | p. 602 |

Table 4-2. Adjustment Items

| Class | Adjustment Items | Overview | Symptoms that the Adjustment is Needed | Printer Mode | Service Program | Jig | Media | Page |
|-------------------------------|--------------------------------|--|--|-----------------|-----------------|-----|-------|------------------------|
| Ink System related parts/unit | Cleaning | Specify the strength and row from the Service Program and perform head cleaning. | Nozzle clogging is not resolved and the printing cannot be performed properly. | Repair mode | ✓ | --- | | p. 603 |
| | Ink Leak Flag Reset | Turn OFF the flag set on the printer when an ink leak is detected. * If an ink leak has occurred, be sure to escalate the information via the predetermined route. | The ink leak error (SC0014BD) is not cleared. | Serviceman mode | ✓ | --- | | p. 604 |
| | Initial Ink Charge Flag On/Off | <ul style="list-style-type: none"> Turn ON the flag for performing initial charging when the printer power is turned ON. When replacing the Main Board, turn the flag OFF if the NVRAM has not been backed up. | <ul style="list-style-type: none"> Initial charge cannot be performed during refurbishment. When replacing the Main Board (NVRAM backup is NG), initial charging is performed. | Serviceman mode | ✓ | --- | | p. 605 |
| | Ink Tube Position Adjustment | Adjust the position of the Ink Tube. | --- | Repair mode | ✓ | --- | | p. 606 |

Table 4-2. Adjustment Items

| Class | Adjustment Items | Overview | Symptoms that the Adjustment is Needed | Printer Mode | Service Program | Jig | Media | Page |
|------------------------|----------------------------|---|---|-----------------|-----------------|--|-------|------------------------|
| PF related parts/ unit | PF Belt Tension Adjustment | Use a sonic tensimeter to measure the tension of the PF Belt, and check that it is within the standard value range. If it is out of the standard value range, perform adjustment. | When the tension is out of the standard value range, the following symptoms may occur. <ul style="list-style-type: none"> • When the belt tension is high: The life of the belt will be shortened. The load becomes high and wait control begins for TF operation due to heat generation restrictions. If the tension is excessively high, the shaft of the motor leans and the brush in the motor becomes worn, causing a TF overload error to occur. • When the belt tension is low: The belt teeth slip, TF operation control is not performed well, and a TF related service call error occurs. | Repair mode | ✓ | □ Sonic Tensimeter U-507 □ Something to flip the belt | | p. 608 |
| | PF Scale Check | Use the Service Program to check that PF Scale is not scratched, contaminated, or otherwise abnormal and that it is read properly by the encoder. | The PF may not operate properly and an error may occur because the TF Scale is not read properly. | Repair mode | ✓ | --- | | |
| | Input Hardening Fan | Input the adjustment values into the Hardening Fan. | --- | Repair mode | ✓ | --- | | |
| | Input Dry Fan | Input the adjustment values into the Printer Drying Fan. | --- | Repair mode | ✓ | --- | | |
| | Rear AD Adjustment | Adjust the detection sensitivity of the PE Sensor so that it can recognize the paper inserted in the printer correctly. Let the sensor detect the Standard Sheet (translucent media) which is hard to recognize to check the result on the Control Panel. (By using the media which is hard to recognize, paper can be recognized regardless of the environmental condition or the media) | If the adjustment is not executed, paper recognition failures may occur (e.g. paper empty error occurs even with paper inserted, some media are not recognized). | Serviceman mode | --- | Standard Sheet | | |

Table 4-2. Adjustment Items

| Class | Adjustment Items | Overview | Symptoms that the Adjustment is Needed | Printer Mode | Service Program | Jig | Media | Page |
|---------------------------|----------------------------------|--|--|---------------------------------|-----------------|---------------|-------|------------------------|
| Board related parts/ unit | RTC Input | Configure the RTC setting. | A maintenance error (RTC) error will occur. | Repair mode/ Serviceman mode | ✓ | --- | | p. 614 |
| | MAC Address Check & Input | Read (check) the MAC address set on the printer, and write a new MAC address. | If the address is not input or an address different from that of the actual printer is set, a network connection problem will occur. | Serviceman mode | ✓ | --- | | p. 615 |
| | Serial Number Read & Write | Write the printer serial number to the printer main board. | If the serial number is not input or a number different from that of the actual printer is set, service management (prints/NVRAM, etc.) will become difficult. | Repair mode/ Serviceman mode | ✓ | --- | | p. 616 |
| | NVRAM Backup/Restore | Make a backup of the data stored in the NVRAM or restore the data from a backup. | NVRAM data cannot be obtained. When the Main Board is replaced, the previous NVRAM data cannot be written. | Repair mode/ Serviceman mode | ✓ | Network cable | | p. 617 |
| | NVRAM Restore from SSD | Write the NVRAM data stored in the SSD to the main board. | --- | Repair mode | ✓ | --- | | p. 618 |
| | Main/MCU 1 Board Initial Setting | Perform initial setting of the Main Board or MCU Board. | Does not work correctly. | Serviceman mode | ✓ | --- | | p. 619 |
| | Input Offset Value | Write the correction values related to the positional relationship of the Print Head and Pump Cap. (Only when replacing the Main Board and cannot obtain the NVRAM data) | If the positional relationship of the Print Head and Pump Cap is not correct, head cleaning may not be performed properly. | Repair mode/ Serviceman mode | ✓ | --- | | p. 620 |
| Others | Reset Job History | Reset the user usage history of the printer. | --- | Repair mode | ✓ | --- | | p. 621 |
| | Print Image | Print an arbitrary image (.prn). | --- | Normal mode | ✓ | --- | | p. 622 |
| | SSD File Read & Write | Back up the data in the SSD. Or write data to the SSD. | --- | Repair mode/ Serviceman mode | ✓ | --- | | p. 623 |
| | Signal Tower Check & Setting | Check and change the settings of the Signal Lamp. | --- | Repair mode/ Serviceman mode | ✓ | --- | | p. 624 |

Table 4-2. Adjustment Items

| Class | Adjustment Items | Overview | Symptoms that the Adjustment is Needed | Printer Mode | Service Program | Jig | Media | Page |
|-------------|--|--|--|--------------|-----------------|-----|-------|------------------------|
| Others | Head Exchanging Flag Reset | Reset the Head Exchanging Flag when can't recover the printer from the Print Head Exchange Sequence. | --- | Repair mode | ✓ | --- | | p. 625 |
| | Color Mode Setting (SC-F10000H Series only) | Set whether to use flashing pink/flashing yellow or light cyan/light magenta. | --- | Repair mode | ✓ | --- | | p. 626 |
| Maintenance | Sensor Check MCU0 & OnCR | Display the status of each sensor. | --- | Repair mode | ✓ | --- | | p. 627 |
| | Sensor Check MCU1 | | | Repair mode | ✓ | --- | | p. 628 |

4.1.6 Tools/Consumables for Adjustments

The tables below show the tools required for adjusting this printer.

Hardware Tools

Table 4-3. Hardware tools

| Tool Name | Part Number | Target Adjustment |
|----------------------------------|--|--|
| Sonic tension meter U-507 | 1294120 | <input type="checkbox"/> CR Belt Tension Adjustment <input type="checkbox"/> PF Belt Tension Adjustment |
| Standard Sheet (JETRAS JP-D300S) | 1476228 | Operation check of the PE sensor. |
| Thickness Gauge | Commercially available | PG Adjustment |
| Calibrated Loupe | Commercially available | For measure the adjustment pattern. |
| Ruler | Recommend the below for insure accuracy <input type="checkbox"/> SHINWA Round End Stainless Rule: 1m Item code: 13048(21108) | Paper feed adjustment |

Software Tools

Table 4-4. Software tools

| Software Name | Explanation |
|----------------------------|--|
| Service Program | Used for almost all of the required adjustments. |
| Communication Driver | To connect with the printer. |
| Latest version of firmware | --- |

Consumables

Table 4-5. Consumables

| Consumable Name | Explanation |
|---|---|
| Media for adjustment (Enhanced Matte Paper 24inches or more) | Used for adjustments that require paper. (For more details, see 4.1.4 Adjustment Items and the Order by Repaired Part) |
| Ink Cartridge | --- |
| Cleaning Cartridge 21 (ASP No.: 1803916) | Tubes Cleaning |
| Waste Ink Bottle | --- |



CAUTION

Bring back the following brought and used items, then dispose of them based on the local regulations in your country, please.

- Ink cartridges
- Cleaning cartridges
- Draining cartridges

Especially in case of ink cartridges in Europe, please refer to the following web site to confirm the regulation in detail.

ECO Info: <http://www.epson.eu/weee> (available from July 2015)

4.1.7 Service Program Basic Operations

This section describes the basic operations of the Service Program.

System Requirements

- OS: Windows 7, 8/8.1, 10
- Interface: USB, Network

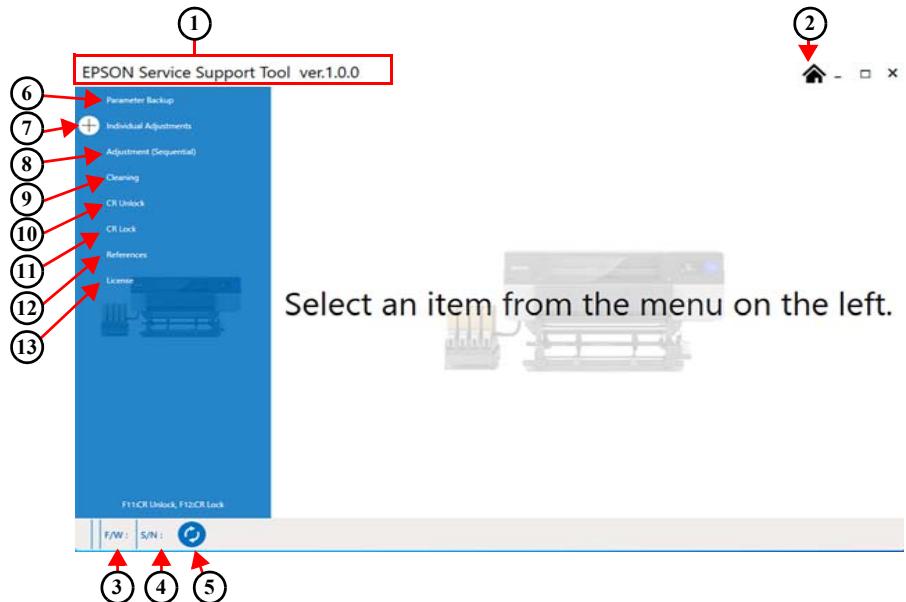


The network can be used only for MAC Address Check & Input.

Startup

1. Click “EPSON SC-F10000 Series Service Program Ver,X,X,X” in [Start] of Windows.

Description for each menu



Select an item from the menu on the left.

Table 4-6. Description for each menu

| No. | Name | Explanation |
|-----|--------------------------|---|
| 1 | Program name and version | Displays name and version of the program. |
| 2 | Home button | Return to home screen |
| 3 | F/W | Displays the current Firmware version of the printer. |
| 4 | S/N | Displays the serial number of the connected printer. |
| 5 | Update button | Updates the information by connecting to the printer again. |
| 6 | Parameter Backup | Backup the printer information (NVRAM) |
| 7 | Individual Adjustments | Every adjustment can be performed individually. |
| 8 | Adjustment (Sequential) | Proper adjustment flow is made by selecting the replaced parts. Follow the flow and perform adjustment. |
| 9 | Cleaning | Perform cleaning |
| 10 | CR Unlock | Releases CR Lock |
| 11 | CR Lock | Locks the carriage. |
| 12 | References | Display panel menu map and block diagram of electric circuit components/ |
| 13 | License | Displays license related information. |

4.2 NV-RAM BACKUP / NVRAM Viewer

Parameters stored in the NVRAM on the Main Board are read/stored and written onto the other NVRAM on the Main Board using this menu. Also, the read parameter information is displayed on the computer screen. (NVRAM Viewer)

4.2.1 Parameter Backup procedure

PROCEDURE FOR SC-F10000 SERIES/SC-F10000H SERIES

1. Turn the printer ON. (Normal mode, repair mode, Inspection mode)
2. Start the service program.
3. Select **Parameter Backup** in the menu.
4. Parameter backup starts by clicking [**Backup**]. Saving dialog opens when backup finishes, so select destination, name the file and save it.

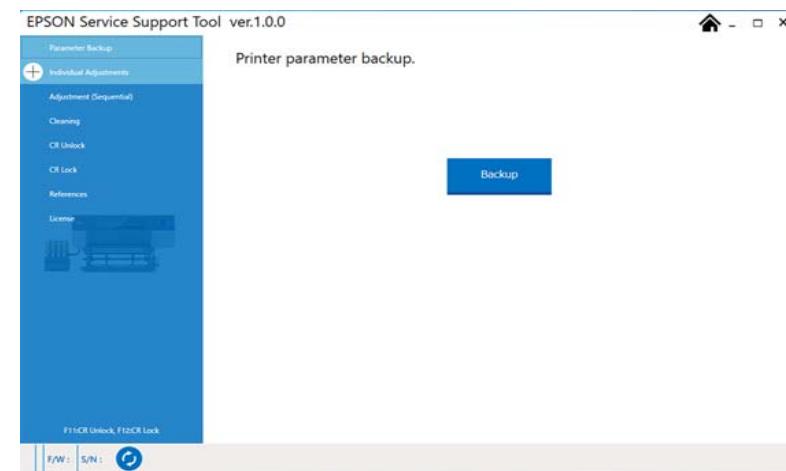


Figure 4-5.

4.2.2 NVRAM Viewer Basic Operation

The following functions are provided.

| Item | Explanation |
|------------------------------|--|
| Life Parts Operation History | Displays operation state of life parts. |
| IC Replacement History | Displays history of ink cartridge replacement. |
| Error History | Displays error history. |
| Basic Information | Displays basic information of the printer. |

PROCEDURE

1. Start NVRAM Viewer.
2. Click **[File Open]** button and select NVRAM data.
3. Select the tab to switch the screen.
4. After displayed the information, information is saved in Excel file by clicking **[Excel Export]** button of the file tab.

DESCRIPTION

File

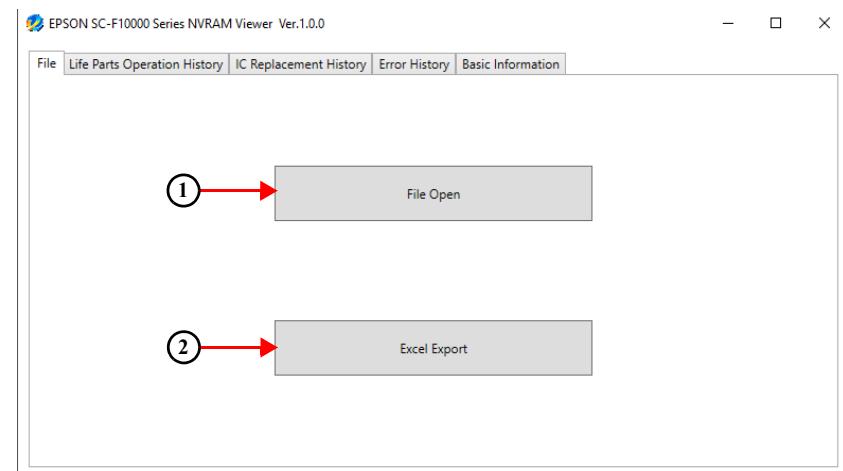


Figure 4-6.

| | | |
|---|------------------------------|---|
| 1 | [File Open] button | Displays file selecting dialog. Able to select backup file of NVRAM (filename extension: bin) to display with NVRAM Viewer. |
| 2 | [Excel Export] button | All data that can be displayed with NVRAM Viewer is saved as the Excel file. |

Life Parts Operation History

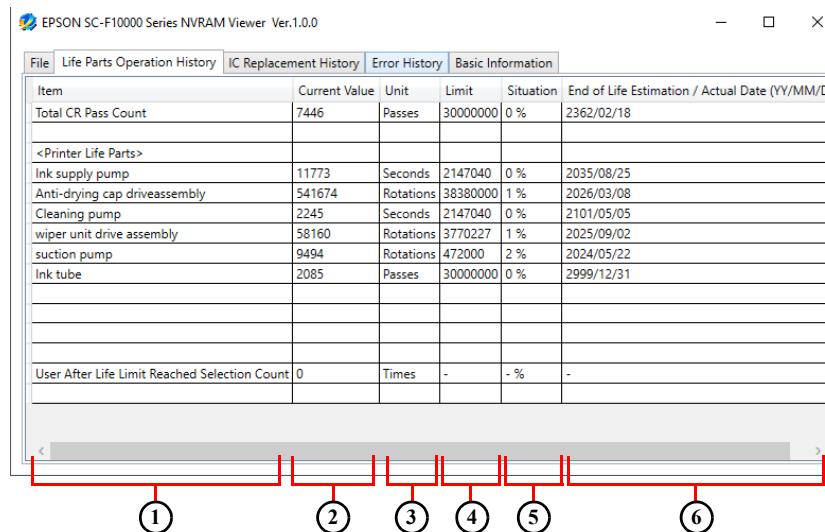


Figure 4-7.

IC Replacement History

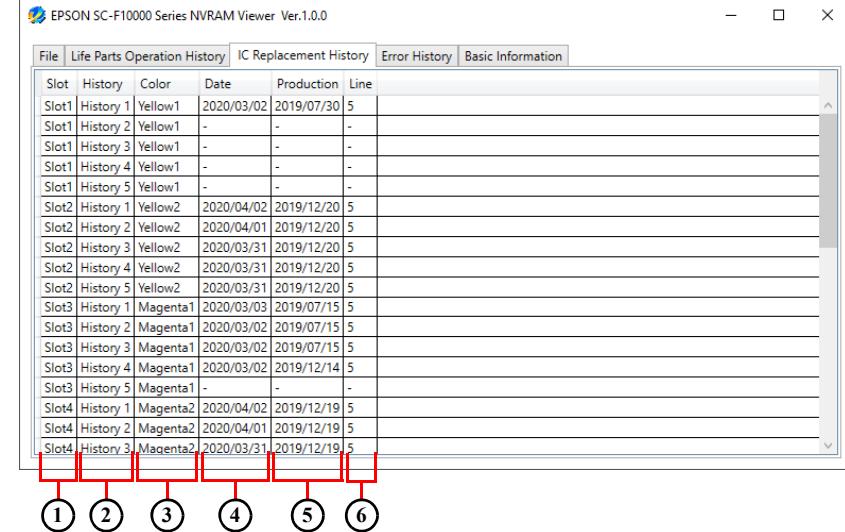


Figure 4-8.

| | | |
|---|---|--|
| 1 | Items | --- |
| 2 | Current Value | Life count for each part or unit. |
| 3 | Unit | Unit of the counter |
| 4 | Limit | Displays the life limit of the part if it has. |
| 5 | Situation | Displays the percentage of Current Value (2) considering the Limit (4) as 100%. |
| 6 | End of Life Estimation / Actual Date (YY/MM/DD) | The estimated or actual date when the parts or unit reaches the end of its service life. |

| | | |
|---|------------|-----------------------------------|
| 1 | Slot | Slot name |
| 2 | History | Ink cartridge replacement history |
| 3 | Color | Replaced ink color |
| 4 | Date | Ink cartridge replacement date |
| 5 | Production | Ink cartridge manufacturing date |
| 6 | Line | --- |

Error History

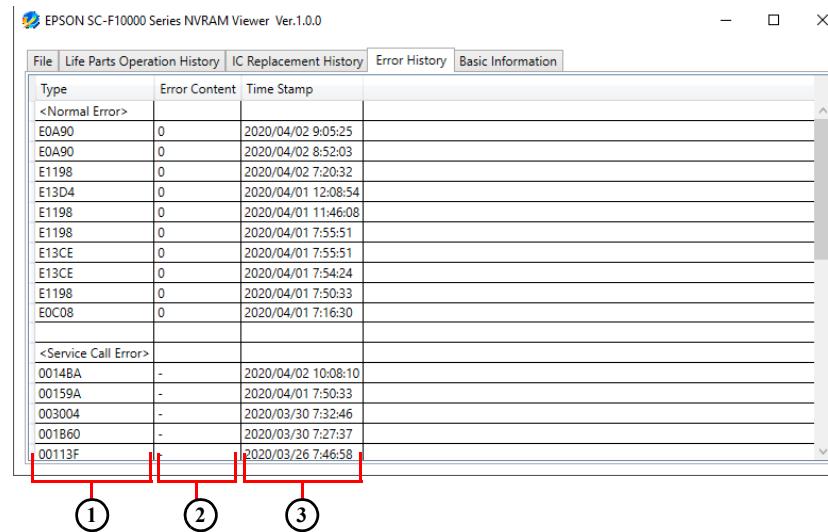


Figure 4-9.

| | | |
|---|----------------|---------------------------------------|
| 1 | Type | Error code |
| 2 | Error Contents | Error contents |
| 3 | Time Stamp | Date and time of when error occurred. |

Basic Information

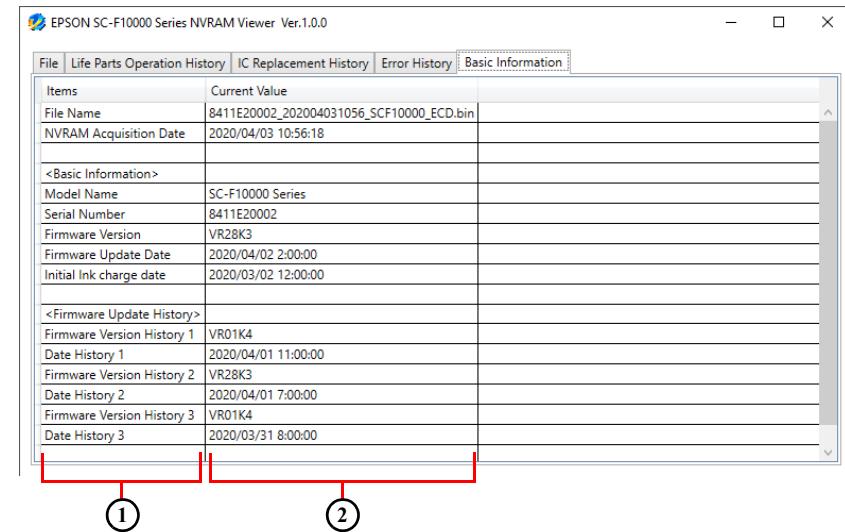


Figure 4-10.

| | | |
|---|---------------|--------------------------------|
| 1 | Items | --- |
| 2 | Current Value | The current value of the item. |

INFORMATION SAVED TO EXCEL FILES

- Life Parts Operation History

Table 4-7. Life Parts Operation History

| Item | Description |
|---|--|
| Total CR Pass Count | |
| <Printer Life Parts> | Operation history (the following information is displayed for each of the items.) |
| Ink supply pump | <input type="checkbox"/> Current value <input type="checkbox"/> Limit <input type="checkbox"/> Situation |
| Anti-drying cap drive assembly | |
| Cleaning pump | <input type="checkbox"/> End of life Estimated Date/Actual Date (YYYY/MM/DD) |
| Wiper unit drive assembly | |
| Suction pump | |
| Ink tube | |
| User After Life Limit Reached Selection Count | --- |

- Ink Cartridge History

Table 4-8. Ink Cartridge History

| Item | Description |
|---------|------------------------|
| Slot1 | History 1 to History 5 |
| Slot2 | History 1 to History 5 |
| Slot3 | History 1 to History 5 |
| Slot4 | History 1 to History 5 |
| Slot5 | History 1 to History 5 |
| Slot6 | History 1 to History 5 |
| Slot7 | History 1 to History 5 |
| Slot8 | History 1 to History 5 |
| Slot9* | History 1 to History 5 |
| Slot10* | History 1 to History 5 |
| Slot11* | History 1 to History 5 |
| Slot12* | History 1 to History 5 |

Note **: SC-F10000H Series only

- Utilization

Table 4-9. Utilization

| Item | Description |
|--------------------------------|---|
| AC Shut-off History | Date |
| Manual Cleaning History | Date |
| | Type |
| Auto Cleaning History | Date |
| | Type |
| Auto Cleanings Count | CL1 Execution |
| | CL2 Execution |
| | CL3 Execution |
| Cleanings Count (Can be reset) | CL0 Execution |
| | CL1 Execution |
| | CL2 Execution |
| | CL3 Execution |
| | CL4 Execution |
| Temperature | CL0 Execution |
| | CL1 Execution |
| | CL2 Execution |
| | CL3 Execution |
| | CL4 Execution |
| | Print Head temperature when Print Start |
| | Max. temperature |
| | Max. Temperature Date |
| | Min. temperature |
| | Min. Temperature Date |

History of power shut off

Performed number of each cleaning

Temperature related information

Table 4-9. Utilization

| Item | Description |
|---|-----------------------------|
| Print Pages per Head Temperature | -11°C |
| | -10 - 0°C |
| | 1 - 10°C |
| | 11 - 15°C |
| | 16 - 25°C |
| | 26 - 35°C |
| | 35°C- |
| Storage History | Storage Mode Execution Date |
| | Storage Mode Return Date |
| NVT Out of Operation Temperature Range Executions History | Date |
| | Temperature |
| Nozzle Compensation Function Activation History | Nozzle |
| | Line |
| <User Head Replacement History> | |
| <Printer Mode Replacement History> | |
| History (Date) | YYYY/MM/DD/hh |
| History (Type) | --- |
| <Consumable Replacement History> | |
| <User Maintenance History> | |
| <CR Scale related Error History> | |
| <Amount of Ink Consumed (Epson Genuine)> | |
| <Amount of Ink Consumed (Non-Genuine)> | |

Error History

Table 4-10. Error History

| Item | Description |
|-------------------------------------|---|
| Normal Errors History | The details of the last six errors and their time stamps |
| Service Calls Errors History | The details of the last six service calls and their time stamps |
| Head Drive Board (DRV) error 256219 | Indicates the failed Head Drive Board. |

Basic Information

Table 4-11. Basic Information

| Item | Description | |
|---------------------------|--|---|
| NVRAM acquired date | Date and time when the information saved in the xlsx file was acquired | |
| Printer Basic Information | Model | Name of the product |
| | Printer Serial No. | Serial number of the printer |
| | Printer Firmware Version | The version of the firmware |
| | Firmware Install Date | The date of the firmware install |
| | Initial Ink Charge Date & Time | Date and time when the initial ink charge was carried out |
| | Color Mode | Installed ink set |
| Firmware Update History | Firmware Version | History of firmware update |
| | Firmware Update Date | |
| Panel Setting Value | | Panel setting value |

4.3 ADJUSTMENTS (Individual)

This mode executes the adjustment required for the repair individually.

PROCEDURE

1. Click [**Individual Adjustments**] from the main menu.
2. Select the category, and select the adjustment from the adjustment items shown on the right side of the screen.
3. Follow the instructions on the screen to execute the adjustment.

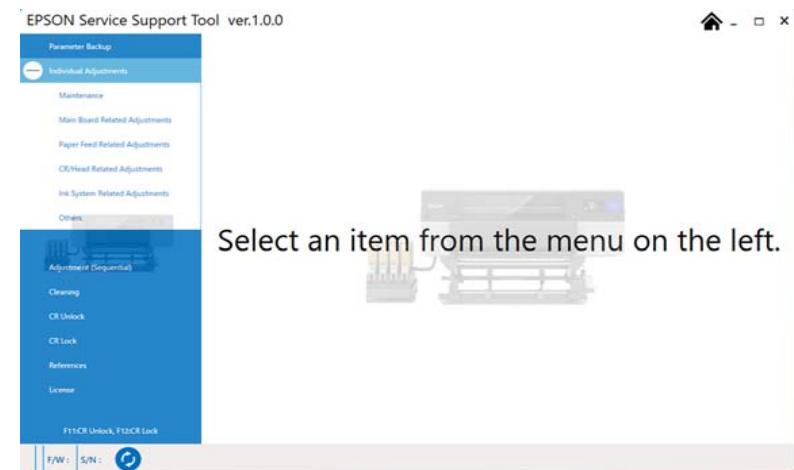


Figure 4-11.

4.4 ADJUSTMENTS (Sequence)

Mode that generates necessary adjustment item by selecting the removed/replaced parts. Executes the adjustments in order. Able to select multiple parts.

PROCEDURE

1. Click **Adjustment (Sequential)** from the main menu.
2. Select the name of the removed/replaced part.
3. Click the **[OK]** button.

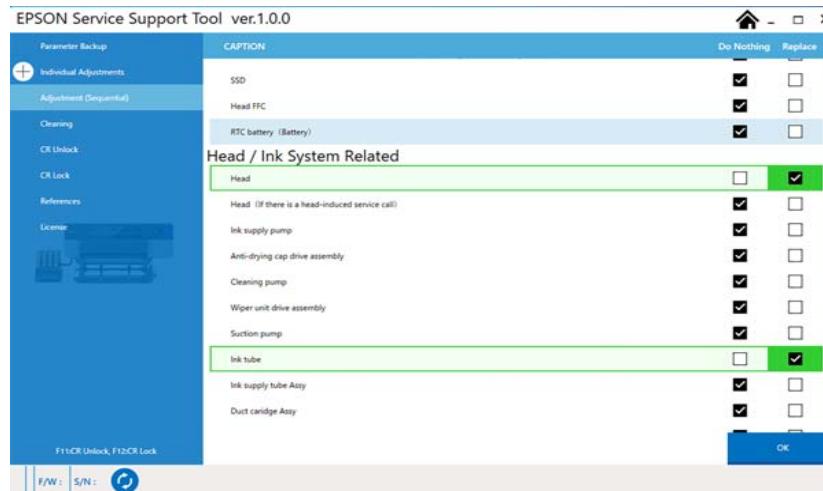


Figure 4-12.

4. Follow the instructions on the screen to execute the adjustment.
5. Click the **[OK]** button when the adjustment is finished. Color of the adjustment name changes. (Notifies the adjustment is finished)
6. Click **[next]** to proceed to the next adjustment.



- Click the **[prev]** button to return to the previous adjustment.
- The list of adjustment that should be performed is displayed by clicking the adjustment name.

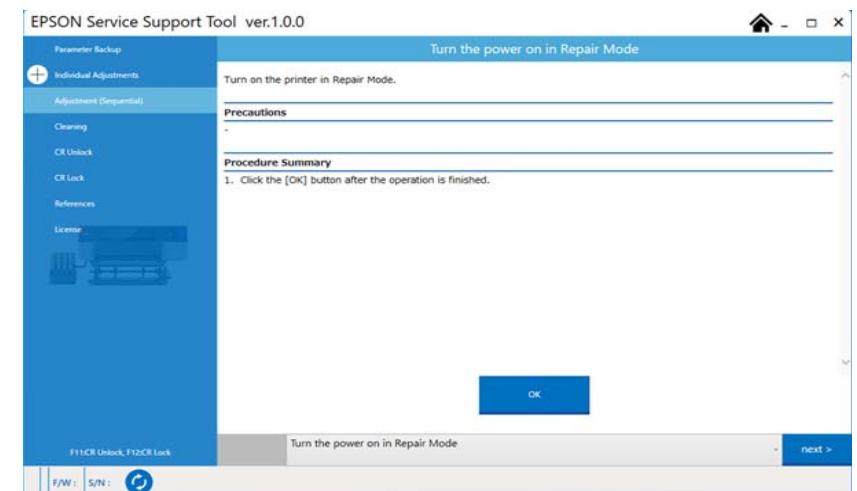


Figure 4-13.

4.5 Installing Firmware

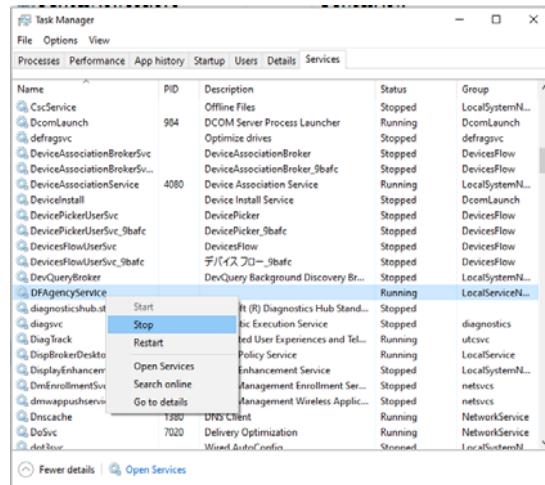
The firmware of this printer is written in the Main Board. If the Main Board is replaced or the firmware needs to be updated, follow the procedure below to write the firmware to the Main Board.



CAUTION

When the Epson Edge Dashboard turning on, firmware update failures. therefore, uninstall the Epson Edge Dashboard, or turn off communication for Epson Edge Dashboard as follows.

1. Start up Windows 10 task manager.
2. Select “Services” tab.
3. Search by name and find “DFAgencyService”, then select it.
4. Select “Stop” on right click menu.



PROCEDURE

- Normal firmware update (Not replacing the Main Board)
1. Connect the Printer and PC with a USB cable.
 2. Turn the printer ON in normal mode.
 3. Start the Firmware updater (EPFWUPD.exe).
 4. When the Firmware updater started, click [Next].

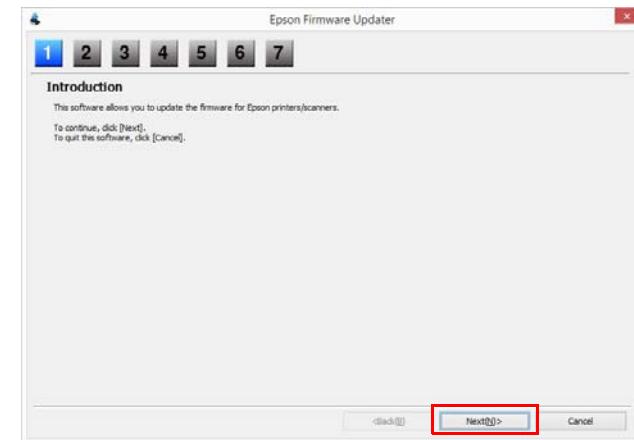


Figure 4-14.

Continue to the next page.

5. Read license agreement, select **I agree**, and click **[Next]**.

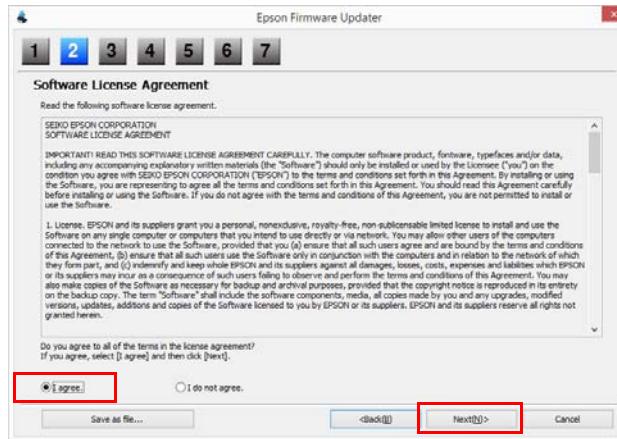


Figure 4-15.

6. Click **[Browse]**, select the firmware data which you install.

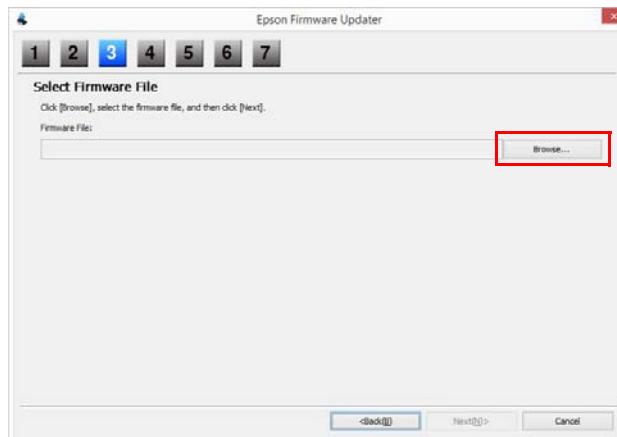


Figure 4-16.

7. Since precaution is displayed by clicking **[Next]**, click **[Next]** again.

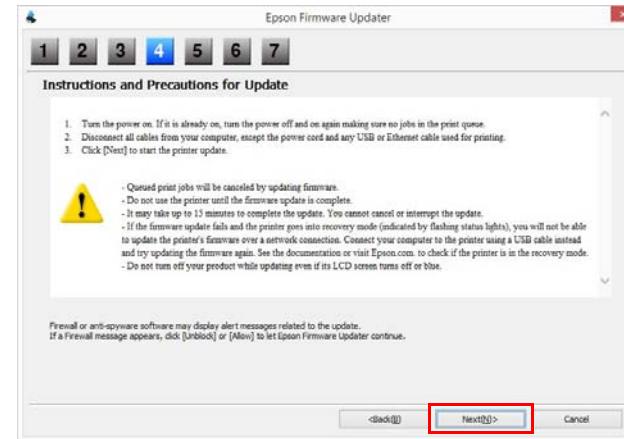


Figure 4-17.

8. The information of firmware updating and the printer connected currently is displayed. Check the check box, and click **[Start]** to start Firmware update.

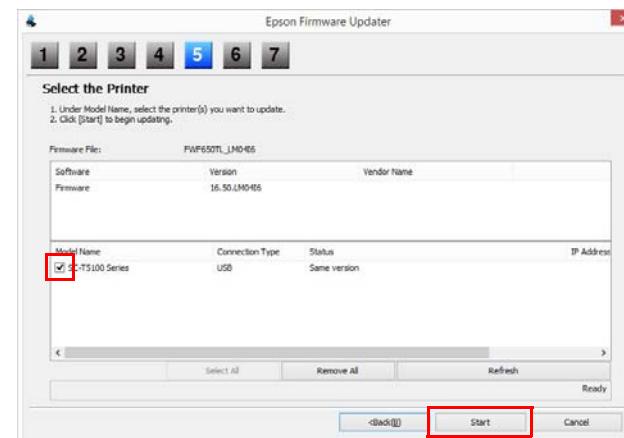


Figure 4-18.

Continue to the next page.

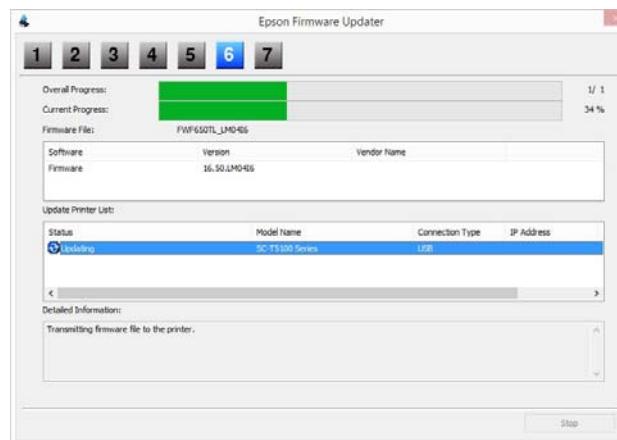


Figure 4-19.



Make sure not to turn off the printer until updating is complete. Otherwise, the printer may not operate normally.

9. The printer automatically turns off and back on again when the update is finished.
10. Click [Finish] of the firmware updater to finish.



Downgrading firmware is not recommended, but it can be performed in firmware update mode.

- Firmware update after replacing the Main Board
- 1. Remove the ink cartridge and Maintenance Box.
- 2. Connect the Printer and PC with a USB cable.
- 3. Turn the printer ON in Firmware update mode.
Turn the power ON while pressing [**right side of the screen**], press and hold until the power LED lights. (P. 64)
- 4. Start the firmware updater (EPFWUPD.exe).
- 5. Perform [Step 4 to Step 8](#) of normal firmware update (Not replacing the Main Board).



CHECK

Printer information is not displayed in the Firmware update mode.



CAUTION

- Make sure not to turn off the printer until updating is complete. Otherwise, the printer may not operate normally.
- Printer update is not finished when “Finish” is displayed on the screen of firmware updater. When printer update is finished, “FINISHED” is displayed on the panel and the LED flashes regularly.

6. When update is finished, turn the printer off, and click [Finish] on the updater.

4.6 Adjustment in the Control Panel

4.6.1 Diagnosis

THINGS TO PREPARE

--

ESTIMATED TIME

EXECUTION MODE

Repair mode

STANDARD VALUE

--

PROCEDURE

- Start the printer in the repair mode.

Press and hold the [Media rewind] button and [Power] button while touching [top left of the screen] until the screen turns on. (10 seconds or longer) (P. 29)

- Execute **Print Head Cleaning (Print Head Refresh)** in the panel menu twice.
- Set Nozzle Verification Technology in the panel menu to **Yes**.
-  Touch **Maintenance menu**.
- Scroll the screen down, and touch **Repair Menu**.
- Select **Diagnosis**, and touch **[Start]**.

- Touch **[Next]**.

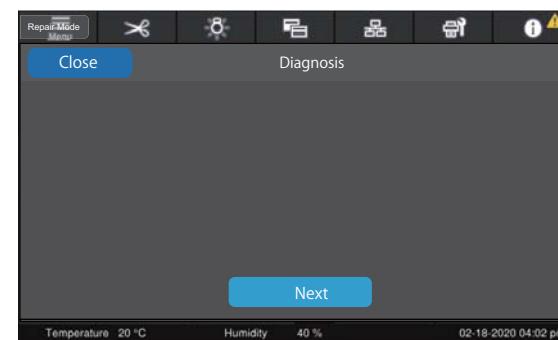


Figure 4-20.

- The printer determines whether printer cleaning or Print Head replacement is needed from information such as the nozzle state, clogging history, and head cleaning history of the printer.

Respond in accordance with the displayed results.

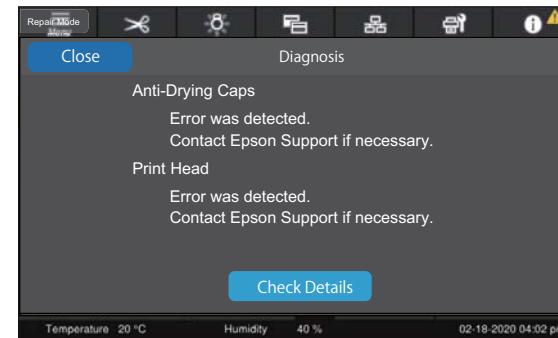


Figure 4-21.

4.6.2 Replace Print Head



If replacing board(s) (Main Board A, SUB-C Board, SUB-H Board) during Print Head replacement, perform the procedure given below.

1. Perform **Head Exchanging Flag Reset** after replacing the board(s).
2. Check the Print Head replaced after backup from replacement history of ERMS and backup date of **NVRAM Restore from SSD**.
3. Perform **NVRAM Restore from SSD**.
4. Perform the Print Head replacement flow in the repair mode.
5. Select the Print Head during replacement and the Print Head replaced after backup, skip the replacement, and finish the adjustment.

THINGS TO PREPARE

Enhanced matte paper 24inch

ESTIMATED TIME

EXECUTION MODE

Repair mode

STANDARD VALUE

PROCEDURE

1. Load the paper into the printer.
(Do not use the Reel Unit)
2. Start the printer in the repair mode.
Press and hold the [Media rewind] button and [Power] button while touching [top left of the screen] until the screen turns on. (10 seconds or longer) ([P. 29](#))
3. Touch **Maintenance**.
4. Scroll the screen down, and touch **Repair Menu**.
5. Select **Replace Print Head**, and touch **[Start]**.
6. Select the Print Head to be replaced. (Multiple selectable)

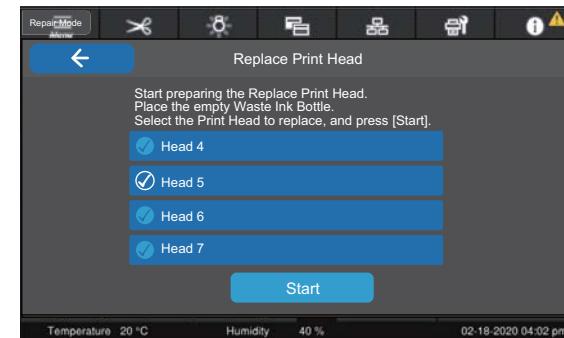


Figure 4-22.

7. When the Suction Cap cleaning instructions are displayed, clean the Suction Cap.

8. When cleaning is finished, click [Finish].



Figure 4-23.

9. Click [Start]. Ink discharging starts (approximately 4 minutes).

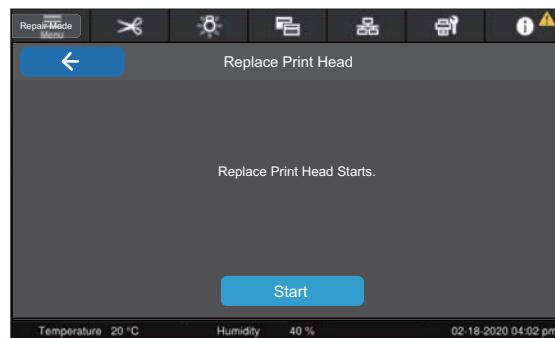


Figure 4-24.

10. When the power-off instructions are displayed, turn the printer power off.

11. Replace the Print Head.



**Print Head replacement must finish within 30 minutes.
If it takes longer than that, the ink will solidify and nozzle clogging may occur.**

12. Start the printer in the repair mode. Initial charging starts (approximately 15 minutes).

Press and hold the [Media rewind] button and [Power] button while touching [top left of the screen] until the screen turns on. (10 seconds or longer)
[\(P. 29\)](#)



**If the power is turned on in the normal mode, an error will occur.
In that case, turn the power off and then start the printer in the repair mode.**



Figure 4-25.

13. Print the nozzle check pattern and then perform cleaning if necessary.

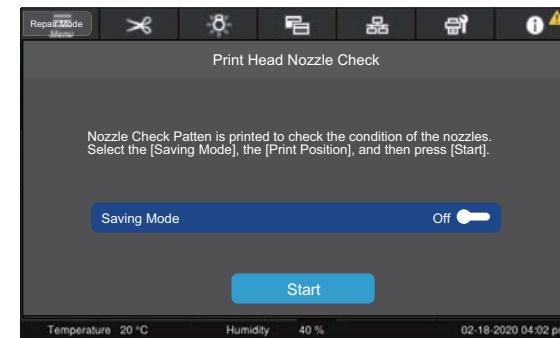


Figure 4-26.

14. Click [Start] to print the adjustment pattern.

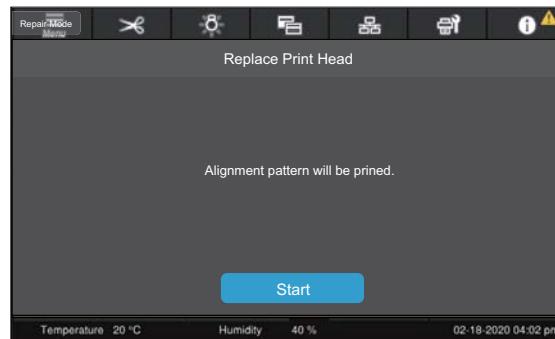


Figure 4-27.

15. When the completion screen is displayed, click [OK].

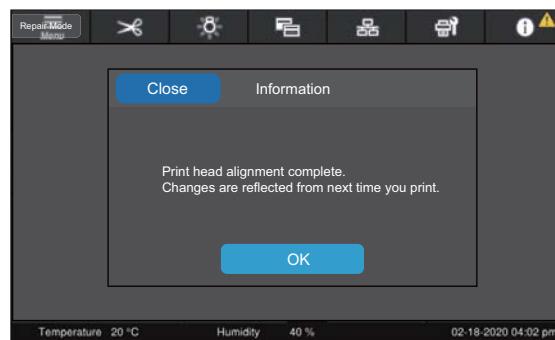


Figure 4-28.

4.6.3 Replace Anti-Drying Caps

THINGS TO PREPARE

ESTIMATED TIME

EXECUTION MODE

Repair mode

STANDARD VALUE

PROCEDURE

- Start the printer in the repair mode.

Press and hold the [Media rewind] button and [Power] button while touching [top left of the screen] until the screen turns on. (10 seconds or longer) (P. 29)

- Touch  Maintenance.
- Scroll the screen down, and touch Repair Menu.
- Select Replace Anti-Drying Caps, and touch [Start].
- A Cap that is recommended to be replaced is displayed red. Select the Cap to be replaced. (Multiple selectable)
- Click [Start]. The CR Lock is unlocked.



Figure 4-29.

- Replace the Cap.

4.6.4 Replace Ink Path Filter

THINGS TO PREPARE

- Charging Unit
 - SC-F10000 Series: x4
 - SC-F10000H Series: x6

ESTIMATED TIME

EXECUTION MODE

Repair mode

STANDARD VALUE

PROCEDURE

1. Start the printer in the repair mode.

Press and hold the [Media rewind] button and [Power] button while touching [top left of the screen] until the screen turns on. (10 seconds or longer) (P. 29)

2. Touch  **Maintenance**.
3. Scroll the screen down, and touch **Repair Menu**.
4. Select **Replace Ink Path Filter**, and touch **[Start]**.
5. A Filter Unit that is recommended to be replaced is displayed red. Select the Filter Unit to be replaced. (Multiple selectable)
6. Replace the Filter Unit.

4.6.5 PF Function Auto Adjustment

THINGS TO PREPARE

Enhanced matte paper 24inch

ESTIMATED TIME

EXECUTION MODE

Repair mode

STANDARD VALUE

PROCEDURE

1. Load the paper into the printer.
(Do not use the Reel Unit)
2. Start the printer in the repair mode.
Press and hold the [Media rewind] button and [Power] button while touching [top left of the screen] until the screen turns on. (10 seconds or longer) (P. 29)
3. Touch  Maintenance.
4. Scroll the screen down, and touch Repair Menu.
5. Select PF Function Auto Adjustment, and touch [Start].
6. Adjustment is performed automatically.

4.6.6 Print Quality Auto Adjustment

THINGS TO PREPARE

Enhanced matte paper 24inch

ESTIMATED TIME

EXECUTION MODE

Repair mode

STANDARD VALUE

PROCEDURE

1. Load the paper into the printer.
(Do not use the Reel Unit)
1. Start the printer in the repair mode.
Press and hold the [Media rewind] button and [Power] button while touching [top left of the screen] until the screen turns on. (10 seconds or longer) (P. 29)
2. Touch  Maintenance.
3. Scroll the screen down, and touch Repair Menu.
4. Select Print Quality Auto Adjustment, and touch [Start].
5. Adjustment is performed automatically.

4.6.7 Ink Charging

THINGS TO PREPARE

- Filter Unit
 - SC-F10000 Series: x2
 - SC-F10000H Series: x3
- Charging Unit
 - SC-F10000 Series: x4
 - SC-F10000H Series: x6

ESTIMATED TIME

EXECUTION MODE

Repair mode

STANDARD VALUE

--

PROCEDURE

1. Start the printer in the repair mode.
Press and hold the [Media rewind] button and [Power] button while touching [top left of the screen] until the screen turns on. (10 seconds or longer) (P. 29)
2. Touch  **Maintenance**.
3. Scroll the screen down, and touch **Repair Menu**.
4. Select **Ink Charging**, and touch **[Start]**.
5. Ink charging is performed.

4.6.8 Tube Washing

THINGS TO PREPARE

Cleaning cartridge

- SC-F10000 Series: x8
- SC-F10000H Series: x12

ESTIMATED TIME

EXECUTION MODE

Repair mode

STANDARD VALUE

--

PROCEDURE

1. Start the printer in the repair mode.

Press and hold the [Media rewind] button and [Power] button while touching [top left of the screen] until the screen turns on. (10 seconds or longer) (P. 29)

2. Touch  **Maintenance**.
3. Scroll the screen down, and touch **Repair Menu**.
4. Select **Tube Washing**, and touch **[Start]**.
5. Tube washing is performed.

4.6.9 Ink/Cleaning Liquid Draining

THINGS TO PREPARE

ESTIMATED TIME

EXECUTION MODE

Repair mode

STANDARD VALUE

PROCEDURE

1. Start the printer in the repair mode.
Press and hold the [Media rewind] button and [Power] button while touching [top left of the screen] until the screen turns on. (10 seconds or longer) (P. 29)
2. Touch  Maintenance.
3. Scroll the screen down, and touch Repair Menu.
4. Select Ink/Cleaning Liquid Draining, and touch [Start].
5. Remove all of the ink cartridges.
6. Replace the waste liquid bottle with a new one, and touch [OK].
7. Ink/cleaning liquid draining is performed.

4.6.10 Tube Decompression

THINGS TO PREPARE

ESTIMATED TIME

EXECUTION MODE

Repair mode

STANDARD VALUE

PROCEDURE

1. Start the printer in the repair mode.

Press and hold the [Media rewind] button and [Power] button while touching [top left of the screen] until the screen turns on. (10 seconds or longer) (P. 29)

2. Touch  Maintenance.
3. Scroll the screen down, and touch Repair Menu.
4. Select Tube Decompression, and touch [Start].
5. Tube decompression is performed.

4.6.11 Long-term Storage Preparation

THINGS TO PREPARE

- When preparing for storage
 - Cleaning cartridge
 - SC-F10000 Series: x4
 - SC-F10000H Series: x6
- When restoring from storage
 - Charging Unit
 - SC-F10000 Series: x4
 - SC-F10000H Series: x6

ESTIMATED TIME

EXECUTION MODE

Repair mode

STANDARD VALUE

PROCEDURE

1. Start the printer in the repair mode.
Press and hold the [Media rewind] button and [Power] button while touching [top left of the screen] until the screen turns on. (10 seconds or longer) ([P. 29](#))
2. Touch  **Maintenance**.
3. Scroll the screen down, and touch **Repair Menu**.
4. Select **Long-term Storage Preparation**, and touch **[Start]**.
5. Long-term storage preparation is performed.

4.6.12 Replacement Part Information

THINGS TO PREPARE

ESTIMATED TIME

Approximately 1 minute

EXECUTION MODE

Repair mode

STANDARD VALUE

PROCEDURE

1. Start the printer in the repair mode.
2. Press and hold the [Media rewind] button and [Power] button while touching [top left of the screen] until the screen turns on. (10 seconds or longer) (P. 29)
3. Touch  Maintenance.
4. Scroll the screen down, and touch Repair Menu.
5. Select Replacement Part Information, and touch [Start].
6. Select the part for which to perform a counter reset, and touch [Yes] when the confirmation screen is displayed.
The counter is reset.

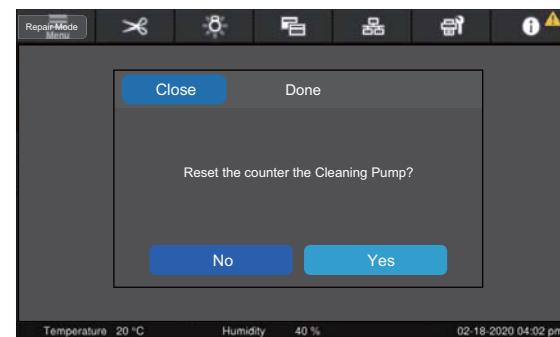
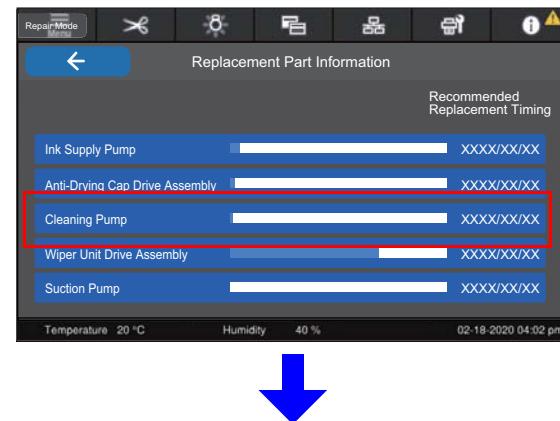


Figure 4-30.

4.6.13 Air infiltration Check

THINGS TO PREPARE

ESTIMATED TIME

EXECUTION MODE

Repair mode

STANDARD VALUE

PROCEDURE

1. Start the printer in the repair mode.
Press and hold the [Media rewind] button and [Power] button while touching [top left of the screen] until the screen turns on. (10 seconds or longer) (P. 29)
2. Touch  **Maintenance**.
3. Scroll the screen down, and touch **Repair Menu**.
4. Select **Air infiltration Check**, and touch **[Start]**.

4.6.14 Head/Filter Check

THINGS TO PREPARE

ESTIMATED TIME

EXECUTION MODE

Repair mode

STANDARD VALUE

PROCEDURE

1. Start the printer in the repair mode.
Press and hold the [Media rewind] button and [Power] button while touching [top left of the screen] until the screen turns on. (10 seconds or longer) (P. 29)
2. Touch  Maintenance.
3. Scroll the screen down, and touch Repair Menu.
4. Select Head/Filter Check, and touch [Start].
5. Follow the instructions on the screen to replace the Print Head and Filter Unit.

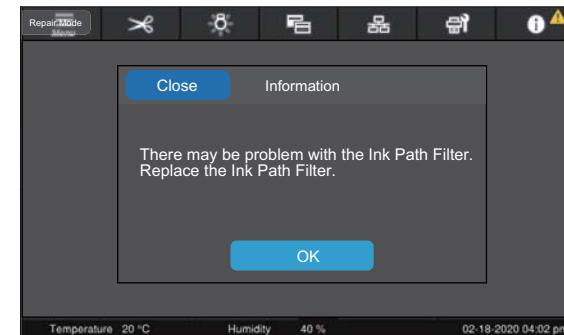


Figure 4-31.

4.6.15 Head replace (all heads)

THINGS TO PREPARE

Enhanced matte paper 24inch

ESTIMATED TIME

EXECUTION MODE

Repair mode

STANDARD VALUE

PROCEDURE

1. Load the paper into the printer.
(Do not use the Reel Unit)
2. Start the printer in the repair mode.
Press and hold the [Media rewind] button and [Power] button while touching [top left of the screen] until the screen turns on. (10 seconds or longer) (P. 29)
3. Touch  Maintenance.
4. Scroll the screen down, and touch Repair Menu.
5. Select Head replace (all heads), and touch [Start].
6. Select all Print Head.



Figure 4-32.

7. When the Suction Cap cleaning instructions are displayed, clean the Suction Cap.
8. When cleaning is finished, click [Finish].



Figure 4-33.

9. Click [Start]. Ink discharging starts (approximately 4 minutes).

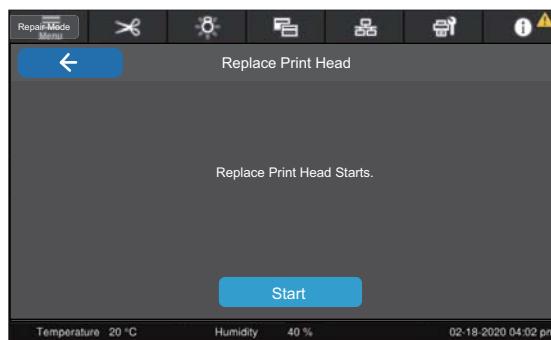


Figure 4-34.

10. When the power-off instructions are displayed, turn the printer power off.
11. Print Head replacement is indicated, but do not replace them and start the printer in the repair mode. Initial charging starts (approximately 15 minutes).

Press and hold the [Media rewind] button and [Power] button while touching [top left of the screen] until the screen turns on. (10 seconds or longer)
(P. 29)



If the power is turned on in the normal mode, an error will occur.
In that case, turn the power off and then start the printer in the repair mode.



Figure 4-35.

12. Print the nozzle check pattern and then perform cleaning if necessary.

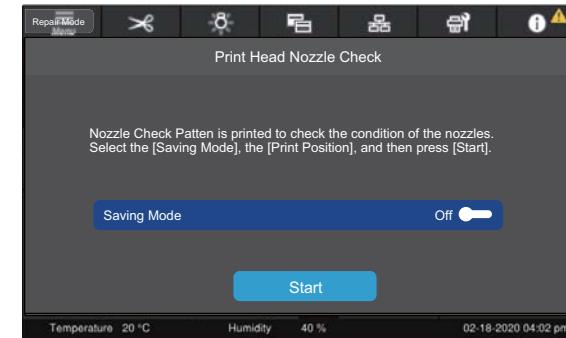


Figure 4-36.

13. Click [Start] to print the adjustment pattern.

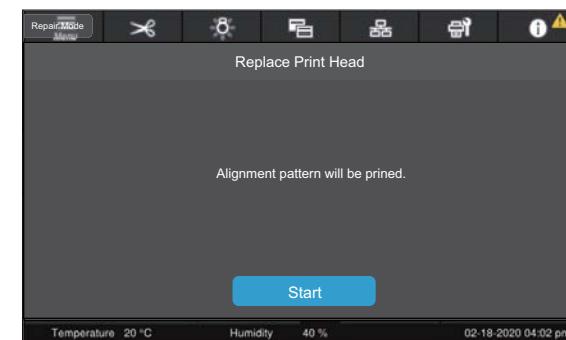


Figure 4-37.

14. When the completion screen is displayed, click [OK].

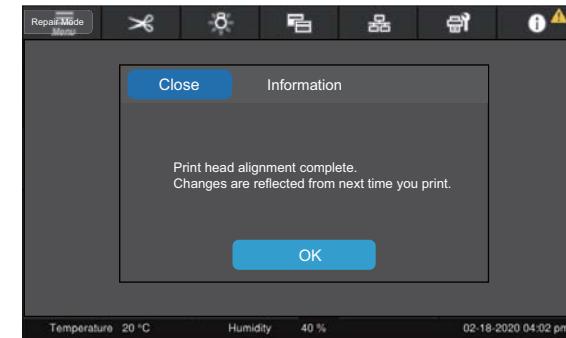


Figure 4-38.

4.7 CR Related Adjustments

4.7.1 Head Slant/PG Check & Adjustment

THINGS TO PREPARE

- Thickness gauge (3.0 mm/3.1 mm/3.2 mm/4.0 mm/4.1 mm/4.2 mm)

STANDARD VALUE

- PG Adjustment
 - 4.1 mm passing
 - 4.2 mm stopped
- Head slant adjustment
 - 3.1 mm passing
 - 3.2 mm stopped

EXECUTION MODE

PROCEDURE

- Preparation
 1. Turn off the power of the printer.
 2. Manually unlock the CR Unit. ([P. 319](#))
 3. Move the CR Unit to the specified position on the platen.0

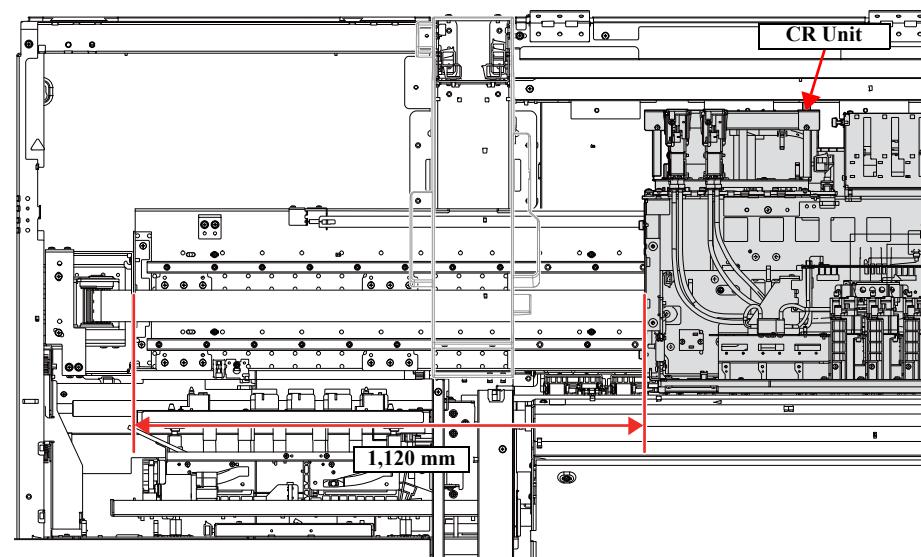
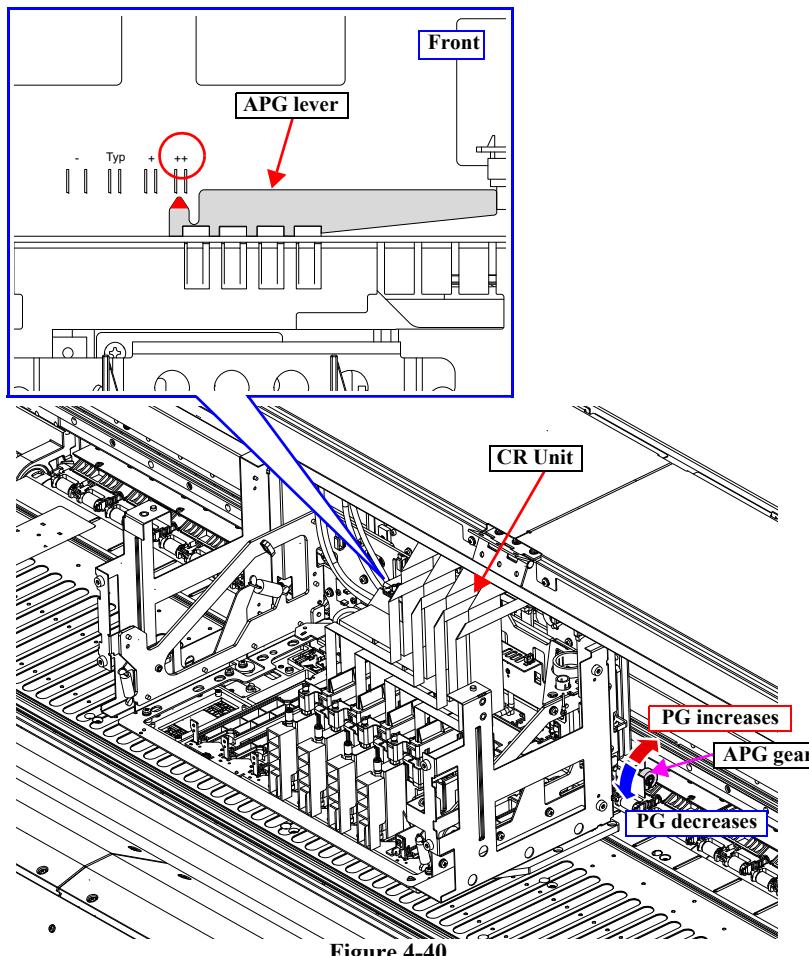
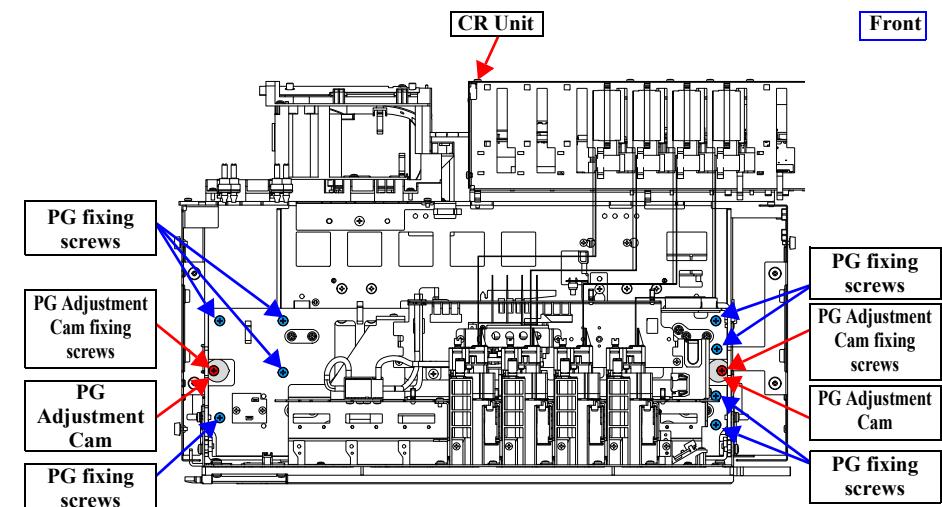


Figure 4-39.

4. Remove the following part.
 - CR Cover (P. 410)
5. Turn the APG gear to set the tip of the APG lever to “++.”



- PG Adjustment
 1. Loosen the 2 PG Adjustment Cam fixing screws a half turn.
 2. Loosen the 8 PG fixing screws one full turn.



3. Set the thickness gauge at the position indicated in the figure below.
4. Move the PG Adjustment Lever to adjust the PG to the standard value (4.1 mm passing/4.2 mm stopped).

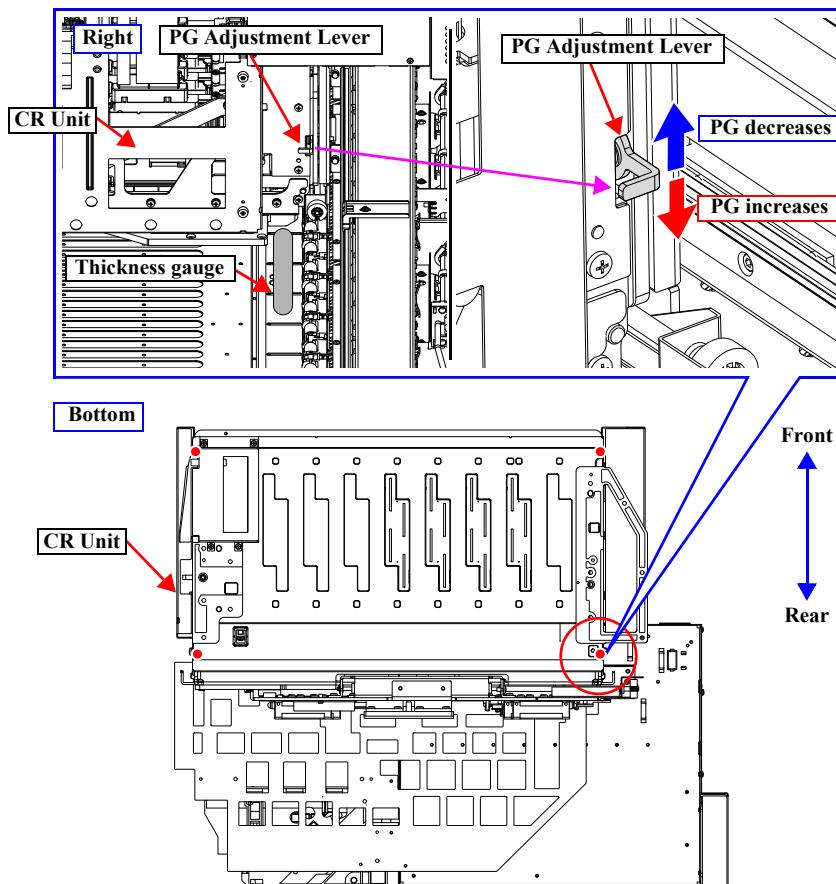


Figure 4-42.

5. Set the thickness gauge at the position indicated in the figure below.
6. Move the PG Adjustment Lever to adjust the PG to the standard value (4.1 mm passing/4.2 mm stopped).

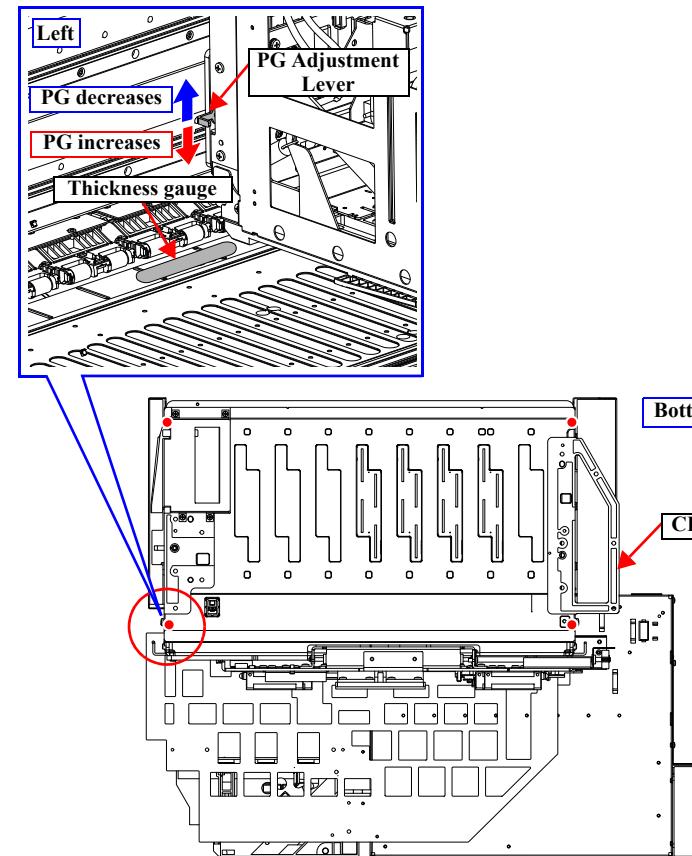


Figure 4-43.

7. Again perform [Step 3](#) and [Step 4](#) to measure the PG value on the right side, and check whether the value is within the standard value range.
8. Tighten the 8 PG fixing screws. [Figure 4-41](#)
9. Tighten the 2 PG Adjustment Cam fixing screws. [Figure 4-41](#)

Head slant adjustment

1. Loosen the 2 Head Slant Adjustment Cam fixing screws a half turn.
2. Loosen the 8 head slant fixing screws one full turn.

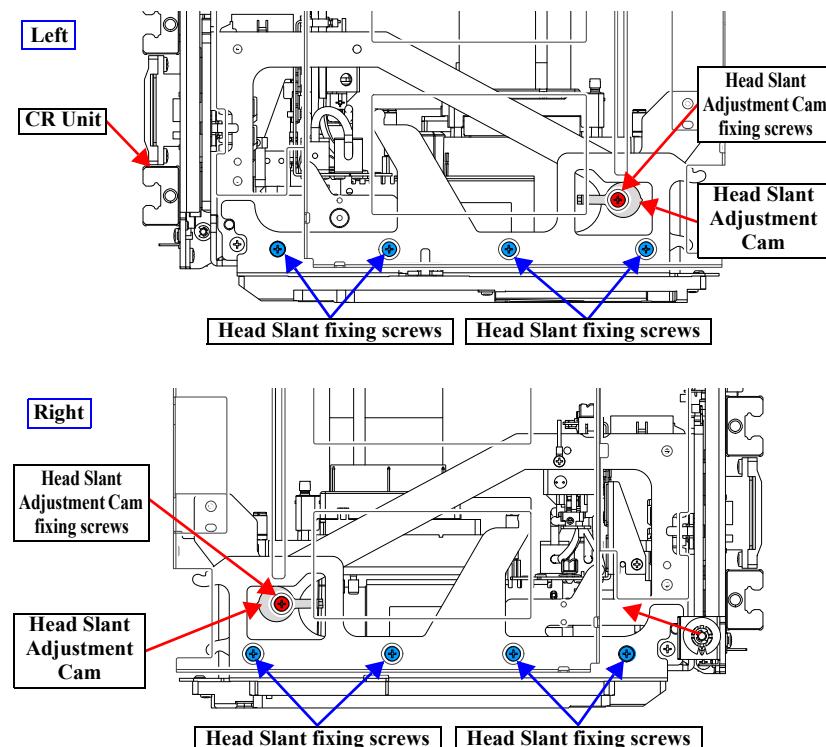


Figure 4-44.

3. Set the thickness gauge at the position indicated in the figure below.

4. Move the Head Slant Adjustment Lever to adjust the PG to the standard value (3.1 mm passing/3.2 mm stopped).

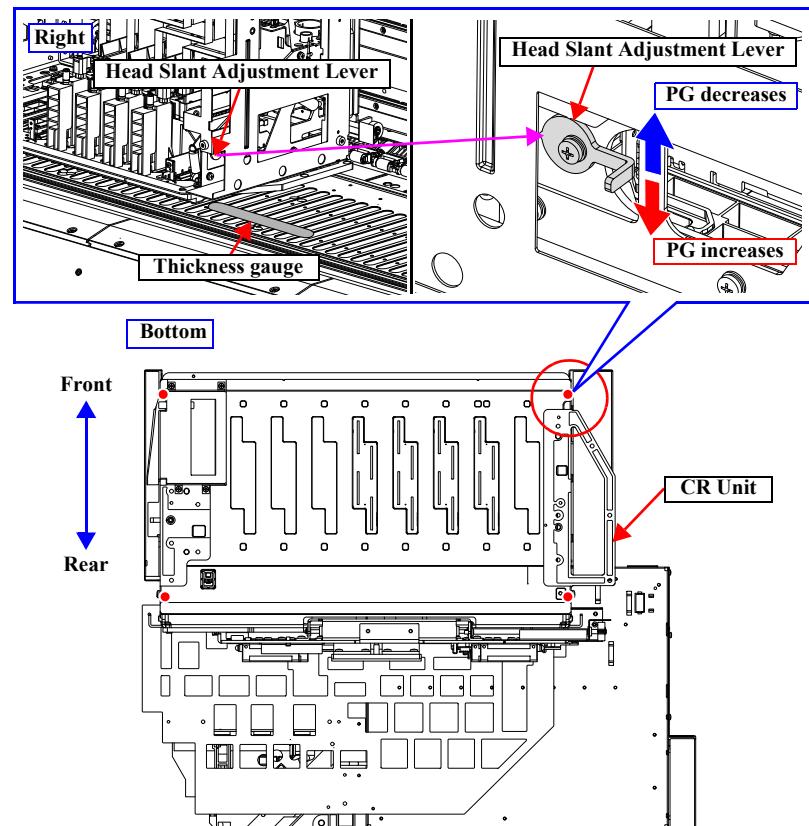


Figure 4-45.

5. Set the thickness gauge at the position indicated in the figure below.
6. Move the Head Slant Adjustment Lever to adjust the PG to the standard value (3.1 mm passing/3.2 mm stopped).

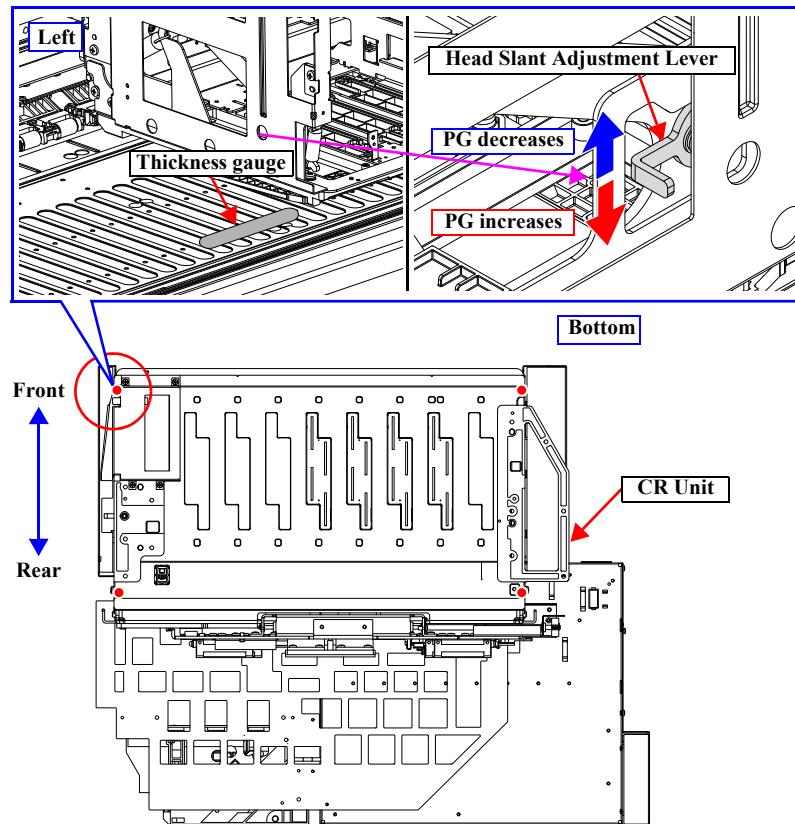


Figure 4-46.

7. Again perform [Step 3](#) and [Step 4](#) to measure the PG value on the right side, and check whether the value is within the standard value range.
8. Tighten the 8 head slant fixing screws. [Figure 4-41](#)
9. Tighten the 2 Head Slant Adjustment Cam fixing screws. [Figure 4-41](#)

Final Adjustment

1. Measure the PG for PG adjustment and head slant adjustment again, and check whether the measured values have become within the standard value ranges.

If the measured values are within the standard value ranges, proceed to the next procedure.

If the measured values are outside of the standard value ranges, perform the procedure again from [PG Adjustment](#).

2. Attach the following part.
 - CR Cover ([P. 410](#))
3. Move the CR Unit to the home position.
4. Manually lock the CR Unit. ([P. 319](#))

4.7.2 CR Belt Tension Adjustment

THINGS TO PREPARE

- Sonic Tensimeter U-507
- Something to flip the belt

STANDARD VALUE

- 300 ± 10 N
- Difference between measured values of belt tension at top and bottom is within 10 N

EXECUTION MODE

--

PROCEDURE

1. Remove the following part.
 - Right Cover (P. 331)
2. Loosen the screws indicated in the following figure.
 - Screw A (x 2)
 - Screw B (x 6)
 - Screw C (x 6)
 - Tilt adjustment screw

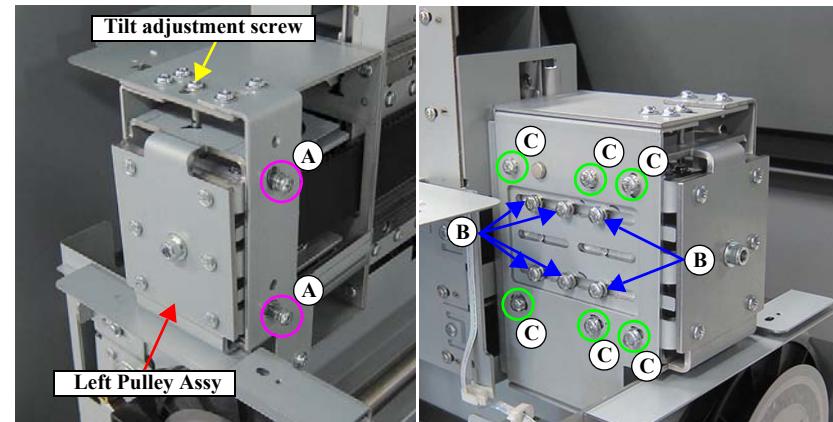


Figure 4-47.

3. Check that the Left Pulley Assy is tilted.

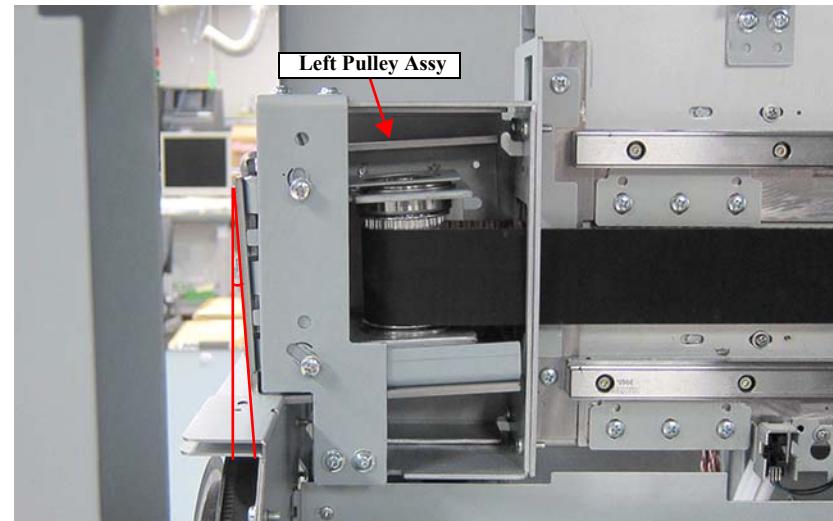


Figure 4-48.

4. Move the CR Unit to the position indicated in the [Figure 4-49](#).
5. Enter the following belt information in the tensimeter.

 - MASS: 3.4 g/m
 - WIDTH: 40 mm
 - SPAN: 646 mm

6. Bring the measurement microphone of the tensimeter near the position indicated in [Figure 4-49](#).



Bring the measurement microphone to a position where it is not touching the belt and the distance between it and the belt is within approximately 5 mm.

7. Press the [MEASURE] button on the tensimeter and flick the top of the belt with tweezers or a similar tool to measure the tension.
8. Using the same method, flick the bottom of the belt with tweezers or a similar tool to measure the tension.



- When measuring, flick the belt with as weak a force as possible that allows measurement with the tensimeter.
- When flicking the belt, make sure the measurement microphone and belt do not touch.

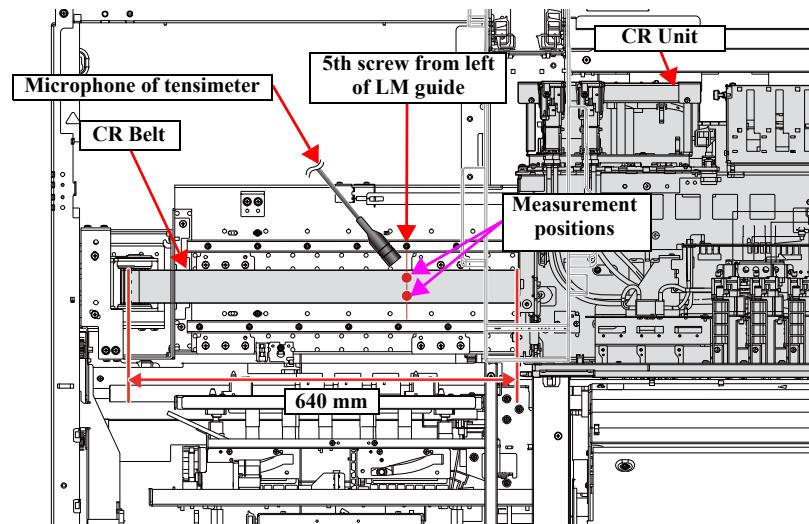


Figure 4-49.

9. Rotate the belt tension adjustment screw to adjust the belt tension at the top of the belt to within the standard value range.

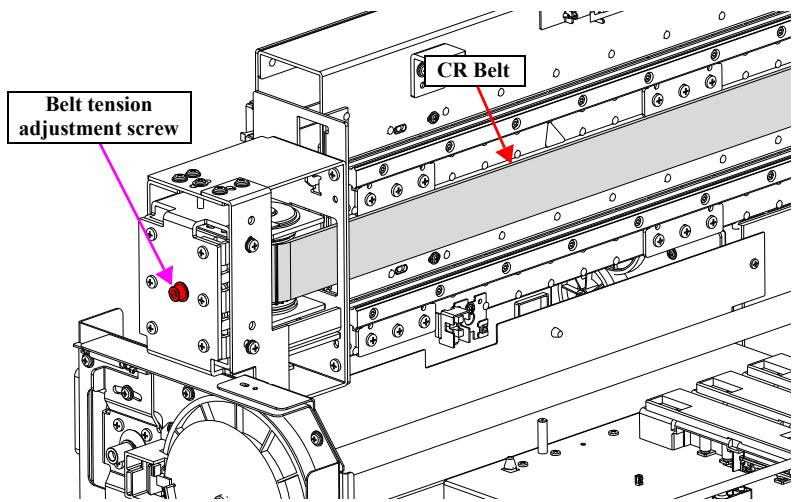


Figure 4-50.

10. Tighten the 8 screws C. [Figure 4-48](#)
11. Measure the belt tension at the bottom of the belt.
If the measured value is within the standard value range, proceed to [Step 13](#).
If the measured value is outside of the standard value range, proceed to [Step 12](#).
12. Tighten the tilt adjustment screw to adjust the tension so that difference between the tension values for the top and bottom of the belt becomes within 10 N.
13. Tighten the 2 screws A and 4 screws B. [Figure 4-48](#)
14. Move the CR Unit back and forth on the platen 4 times.
15. Measure the tension at the top and at the bottom of the belt, and check that the tensions are standard values.
If the measured values are within the standard value range, adjustment is finished.
If the measured values are outside of the standard value range, perform the procedure again from [Step 2](#).

4.7.3 CR Timing Belt Tension Adjustment

THINGS TO PREPARE

- Sonic Tensimeter U-507
- Something to flip the belt

STANDARD VALUE

- 100 ± 30 N

EXECUTION MODE

--

PROCEDURE

1. Remove the following part.
 - Right Cover (P. 331)
2. Enter the following belt information in the tensimeter.
 - MASS: 1.9 g/m
 - WIDTH: 20 mm
 - SPAN: 85 mm
3. Bring the measurement microphone of the tensimeter near the position indicated in Figure 4-51.



Bring the measurement microphone to a position where it is not touching the belt and the distance between it and the belt is within approximately 5 mm.

4. Press the [MEASURE] button on the tensimeter and flick the top of the belt with tweezers or a similar tool to measure the tension.
5. Using the same method, flick the bottom of the belt with tweezers or a similar tool to measure the tension.



- When measuring, flick the belt with as weak a force as possible that allows measurement with the tensimeter.
- When flicking the belt, make sure the measurement microphone and belt do not touch.

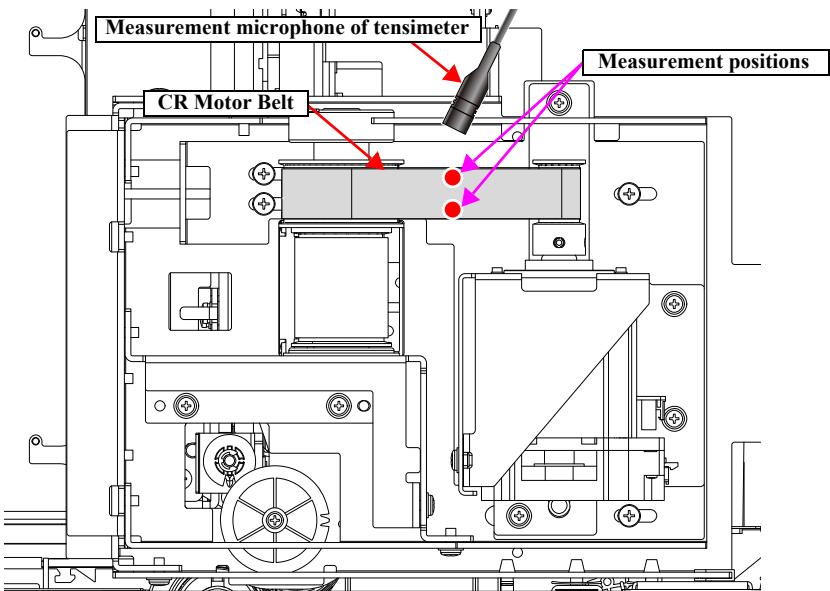


Figure 4-51.

6. Start the printer in the repair mode.

Press and hold the [Media rewind] button and [Power] button while touching [top left of the screen] until the screen turns on. (10 seconds or longer) (P. 29)

7. Start the Service Program and then select **CR Motor Belt Tension Adjustment**.

8. Click the **[Execute]** button.

The Motor Pulley rotates 90 degrees.

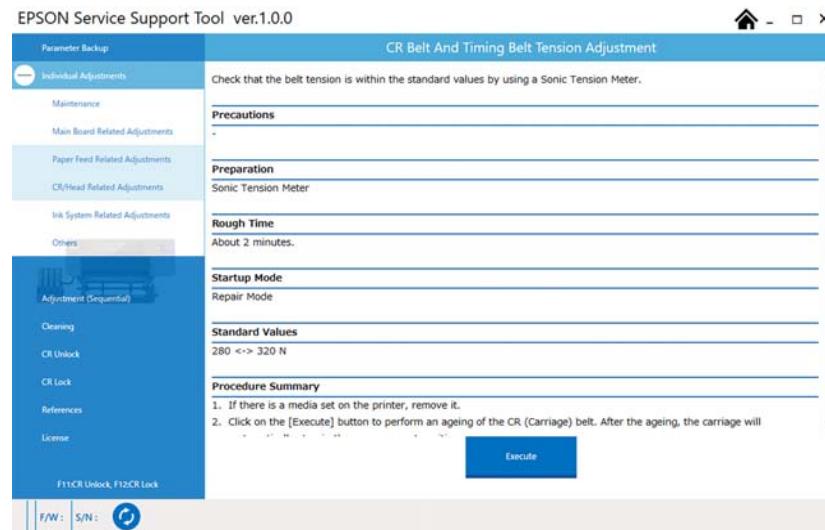


Figure 4-52.

9. Measure the belt tension.

10. Perform the procedure of **Step 6** to **Step 9** another 2 times.

11. Check whether the measured values of the 8 positions are within the standard value range.

- If the measured values are within the standard value range: Adjustment is finished.
- If the measured values are outside of the standard value range: Proceed to **Step 12**.

12. Loosen the 4 screws that secure the CR Motor Fixing Plate.

13. Turn the tension adjustment screw to adjust the belt tension.

14. Tighten the 4 screws that secure the CR Motor Fixing Plate.

15. Perform the procedure again from **Step 3**.

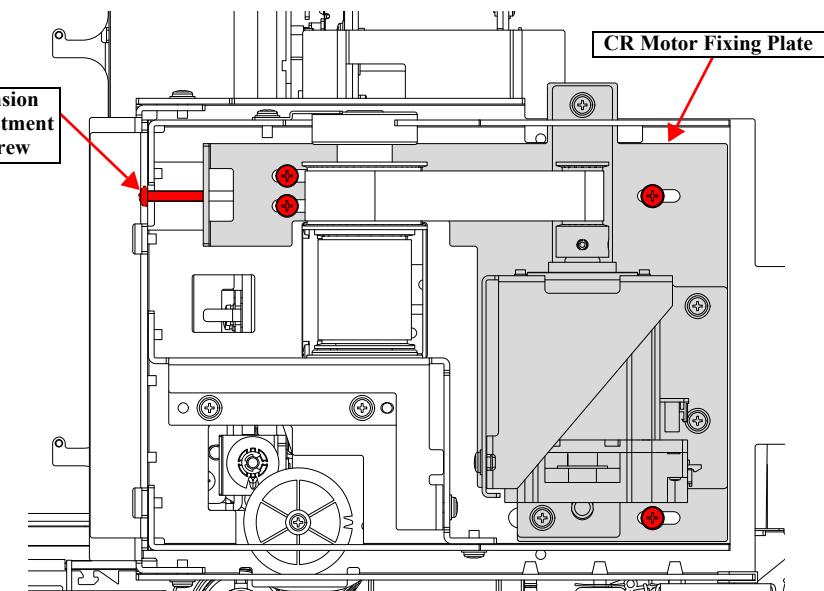


Figure 4-53.

4.7.4 Nozzle Verification Technology Noise Inspection

THINGS TO PREPARE

Paper

ESTIMATED TIME

Approximately 2 minute

EXECUTION MODE

Repair mode

STANDARD VALUE

--

PROCEDURE

1. Start the printer in the repair mode.
Press and hold the [Media rewind] button and [Power] button while touching [top left of the screen] until the screen turns on. (10 seconds or longer) (P. 29)
2. Start the service program and select **Nozzle Verification Technology Noise Inspection**.
3. Click the **[Execute]** button to perform the noise check. The check is carried out automatically.
4. When the check is finished and **Success** appears, click the **[OK]** button.
If **Fail** appears, confirm the head FFC is connected properly (normal-connection or slant connection, etc.).
If not improved yet, replace the head FFC or Print Head with a new one.

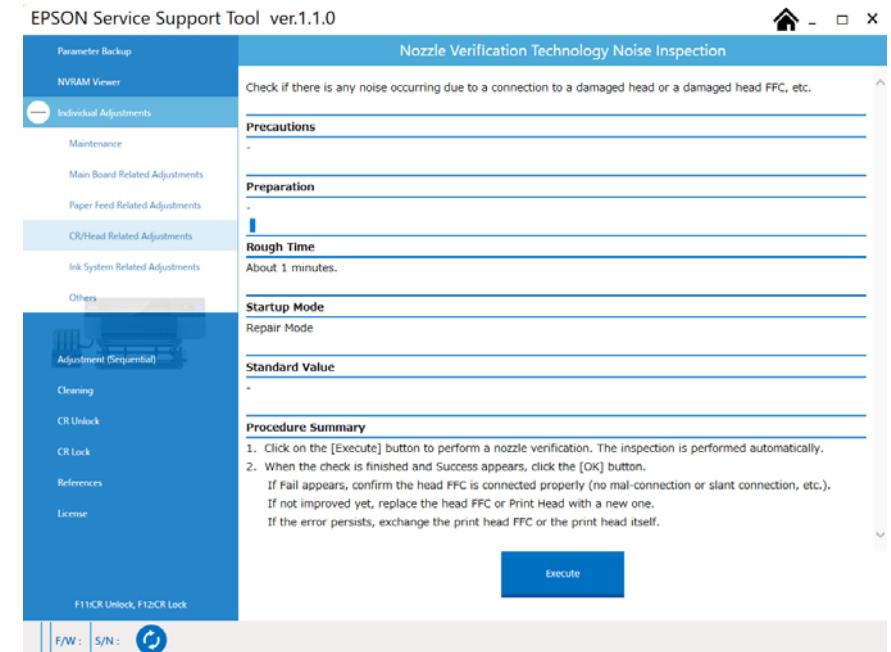


Figure 4-54.

4.7.5 Nozzle Verification Technology Check

THINGS TO PREPARE

Paper

ESTIMATED TIME

Approximately 2 minute

EXECUTION MODE

Repair mode

STANDARD VALUE

PROCEDURE

1. Start the printer in the repair mode.
Press and hold the [Media rewind] button and [Power] button while touching [top left of the screen] until the screen turns on. (10 seconds or longer) (P. 29)
2. Start the Service Program, and select **Nozzle Verification Technology Check**.
3. Load the paper into the printer.
4. Click the **[Execute]** button to confirm the missing nozzle detection result of the nozzle verification technology.
5. Click the **[Print]** button to print the nozzle check pattern if happen the error to check the head failure.

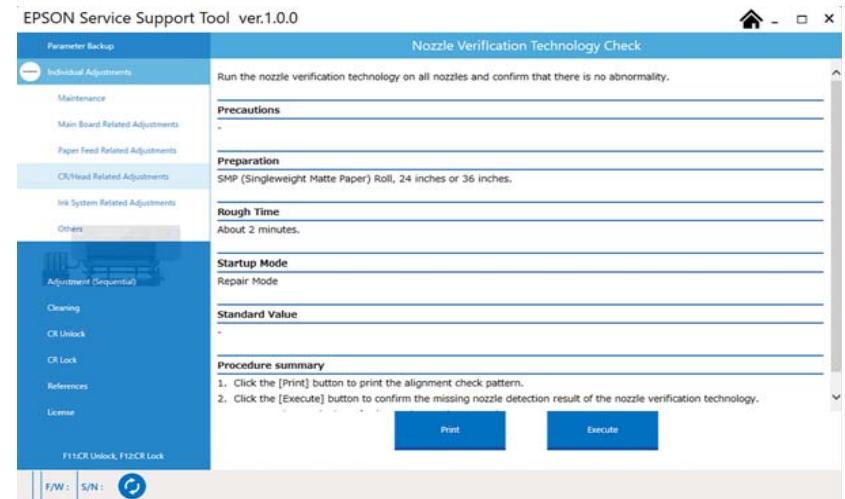


Figure 4-55.

4.7.6 CR Scale Check

THINGS TO PREPARE

--

ESTIMATED TIME

Approximately 3 minute

EXECUTION MODE

Repair mode

STANDARD VALUE

--

PROCEDURE

- Start the printer in the repair mode.

Press and hold the [Media rewind] button and [Power] button while touching [top left of the screen] until the screen turns on. (10 seconds or longer) (P. 29)

- Start the Service Program, and select **CR Scale Check**.
- Click the **[Execute]** button to check automatically that the CR Scale is not scratched, contaminated, or otherwise abnormal, and that it is read properly.
 - If “Finished” is displayed: Click the **[OK]** button to end the check.
 - If “Fail” is displayed: Proceed to [Step 4](#).

- Clean the CR Scale using ethanol because it may be contaminated. After cleaning, perform the check again.

If the fail message is displayed even after performing the check again, replace the CR Scale because it may be scratched.

Or replace the CR Encoder Sensor and perform the check again.

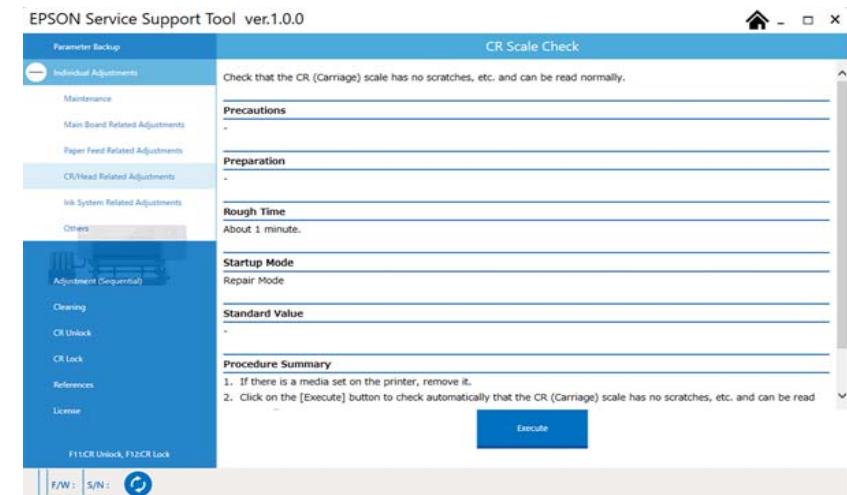


Figure 4-56.

4.7.7 Get verification data after Head Replacement

THINGS TO PREPARE

ESTIMATED TIME

Approximately 1 minute

EXECUTION MODE

Repair mode

STANDARD VALUE

PROCEDURE

1. Start the printer in the repair mode.
Press and hold the [Media rewind] button and [Power] button while touching [top left of the screen] until the screen turns on. (10 seconds or longer) (P. 29)
2. Start the Service Program, and select **Get verification data after Head Replacement**.
3. Click the [Read] button. The verification data is read.

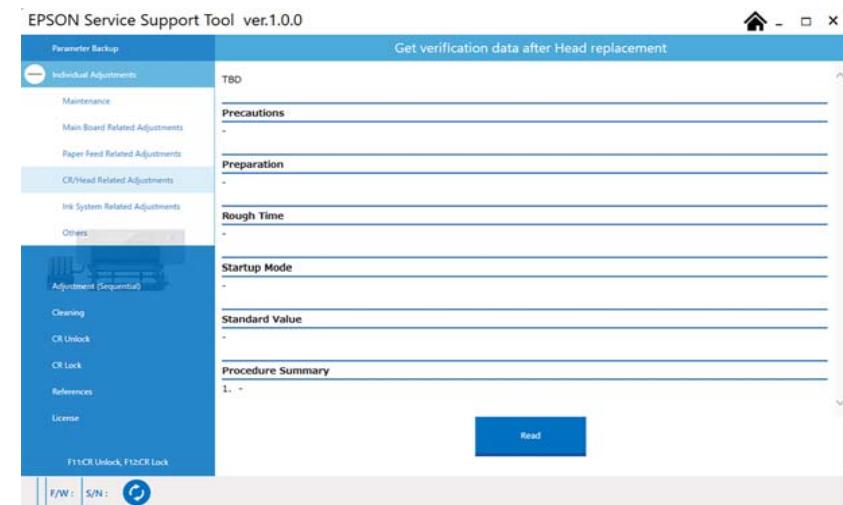


Figure 4-57.

4.7.8 Input Contact Sensor

THINGS TO PREPARE

ESTIMATED TIME

Approximately 1 minute

EXECUTION MODE

Repair mode

STANDARD VALUE

PROCEDURE

1. Start the printer in the repair mode.
Press and hold the [Media rewind] button and [Power] button while touching [top left of the screen] until the screen turns on. (10 seconds or longer) (P. 29)
2. Start the Service Program, and select **Input Contact Sensor**.
3. Click the **[Check]** button. The current adjustment values are displayed.
4. Enter new adjustment values, and click the **[Input]** button.

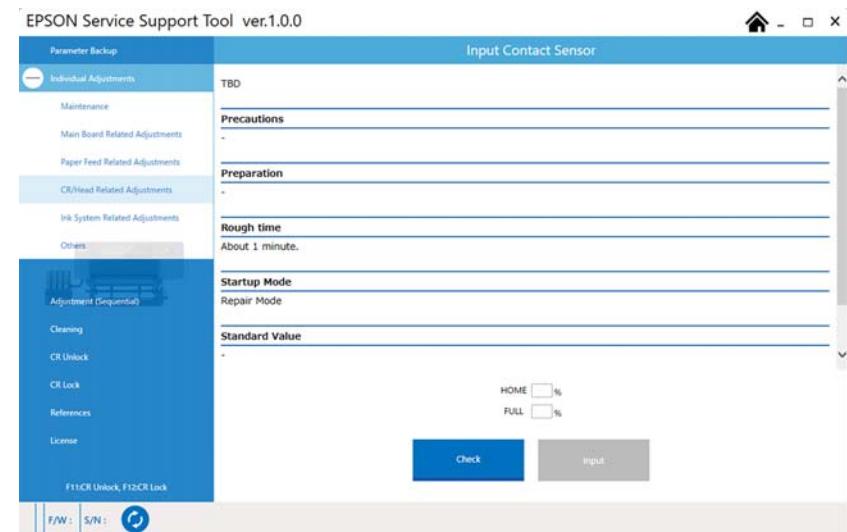


Figure 4-58.

4.7.9 RGB Camera Check & Adjustment

THINGS TO PREPARE

Paper

ESTIMATED TIME

Approximately 1 minute

EXECUTION MODE

Repair mode

STANDARD VALUE

PROCEDURE

1. Start the printer in the repair mode.
Press and hold the [Media rewind] button and [Power] button while touching [top left of the screen] until the screen turns on. (10 seconds or longer) (P. 29)
2. Start the Service Program, and select **RGB Camera Check & Adjustment**.
3. Click the [Execute] button. The RGB Camera Check & Adjustment starts.

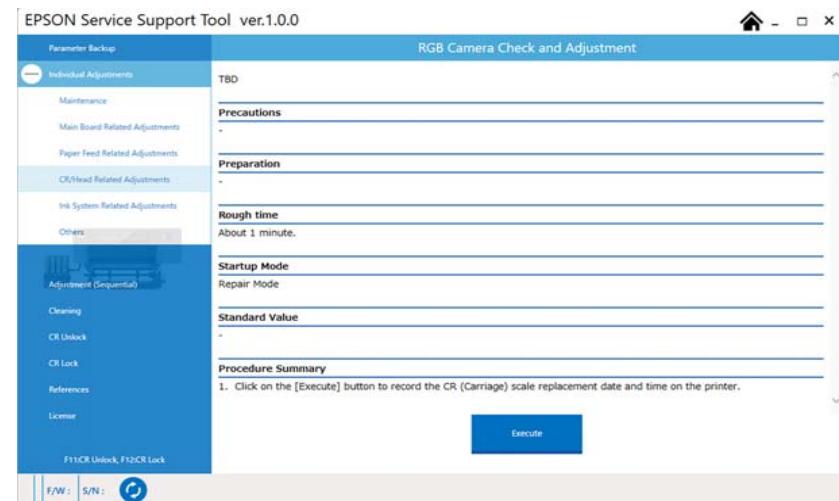


Figure 4-59.

4.8 Ink System related Adjustment

4.8.1 Cleaning

THINGS TO PREPARE

--

ESTIMATED TIME

3 to 5 minutes

EXECUTION MODE

Repair mode

STANDARD VALUE

--

PROCEDURE

1. Start the printer in the repair mode.
Press and hold the [Media rewind] button and [Power] button while touching [top left of the screen] until the screen turns on. (10 seconds or longer) (P. 29)
2. Start the Service Program, and select **Cleaning**.
3. Select the level for cleaning, and click the **[Execute]** button. Head cleaning starts.

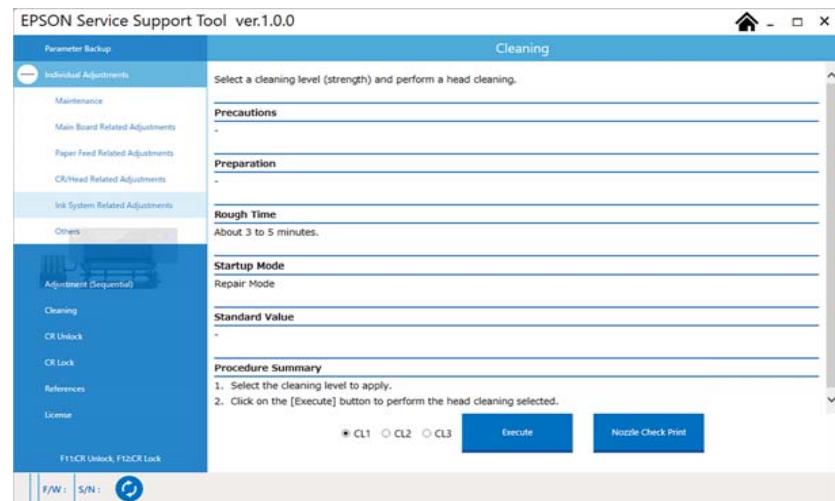


Figure 4-60.

4.8.2 Ink Leak Flag Reset

THINGS TO PREPARE

ESTIMATED TIME

Approximately 1 minute

EXECUTION MODE

Serviceman mode

STANDARD VALUE

PROCEDURE

- Start the printer in the Serviceman Mode.

Press and hold the [Power] button while touching [top left of the screen] until the screen turns on. (10 seconds or longer) (P. 28)

- Start the Service Program, and select **Ink Leak Flag Reset**.
- Click the **[Execute]** button to reset the flag.



If a sensor has detected an ink leak, that history is written to the printer. Unless you reset the history with this adjustment, the Ink Leak Error (0014BD) will occur when the printer starts.

- The printer power is turned off automatically once the history reset completes.
- Restart the printer and check that a service call does not occur.



If an ink leak occurred, be sure to escalate the information to the person in charge.

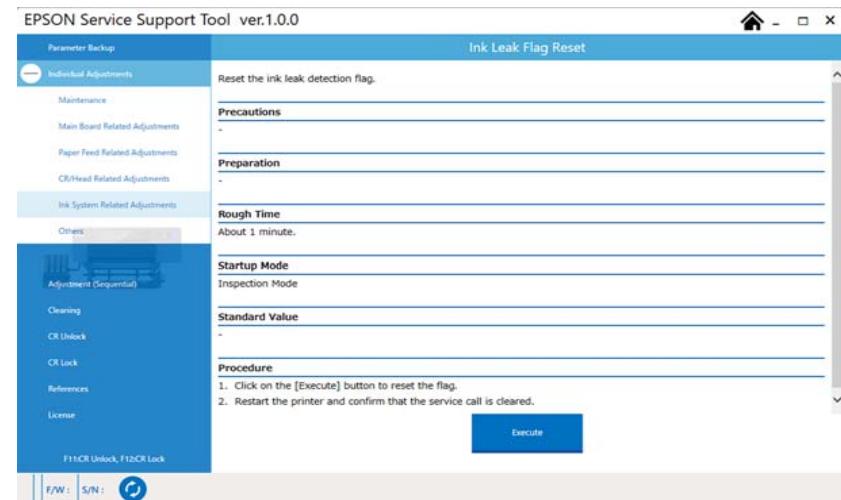


Figure 4-61.

4.8.3 Initial Ink Charge Flag On/Off

THINGS TO PREPARE

ESTIMATED TIME

Approximately 1 minute

EXECUTION MODE

Serviceman mode

STANDARD VALUE

PROCEDURE

1. Start the printer in the Serviceman Mode.
Press and hold the [Power] button while touching [top left of the screen] until the screen turns on. (10 seconds or longer) (P. 28)
2. Start the **Service Program**, and select **Initial Ink Charge Flag On/Off**.
3. Click the **[Confirm]** button to check the current flag state.
4. Click the **[Change]** button to switch the flag.

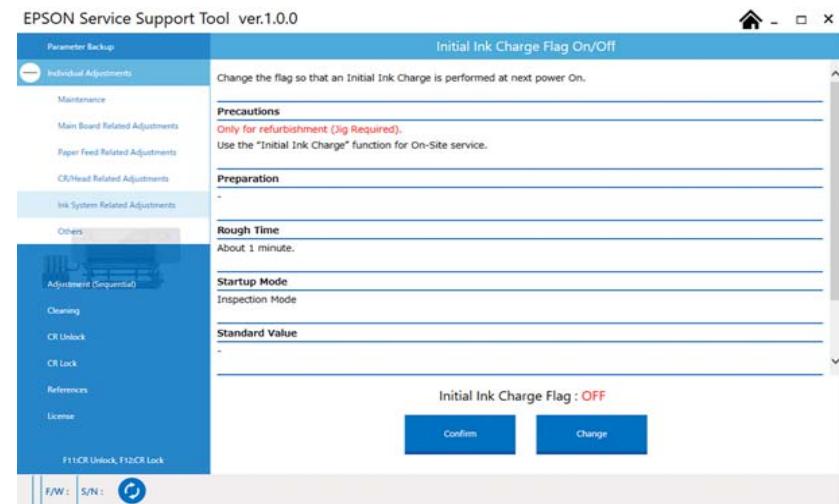


Figure 4-62.

4.8.4 Ink Tube Position Adjustment

THINGS TO PREPARE

ESTIMATED TIME

EXECUTION MODE

Repair mode

STANDARD VALUE

PROCEDURE

1. Remove the following part.
 - Rear Cover (P. 325)
 - Left Top Cover (P. 322)
2. Start the printer in the repair mode.
Press and hold the [Media rewind] button and [Power] button while touching [top left of the screen] until the screen turns on. (10 seconds or longer) (P. 29)
3. Move the CR Unit using the Service Program, and check the contact between the Ink Tube and frame.
4. If there is Confirm the rubbing sound, loosen the 4 screws of the tube holder Assy 1, and then move the Ink Tube in the direction of the arrow as shown Figure 4-63.
5. After adjustment, tighten the 4 screws of the tube holder Assy 1, and check the contact between the Ink Tube and frame again.

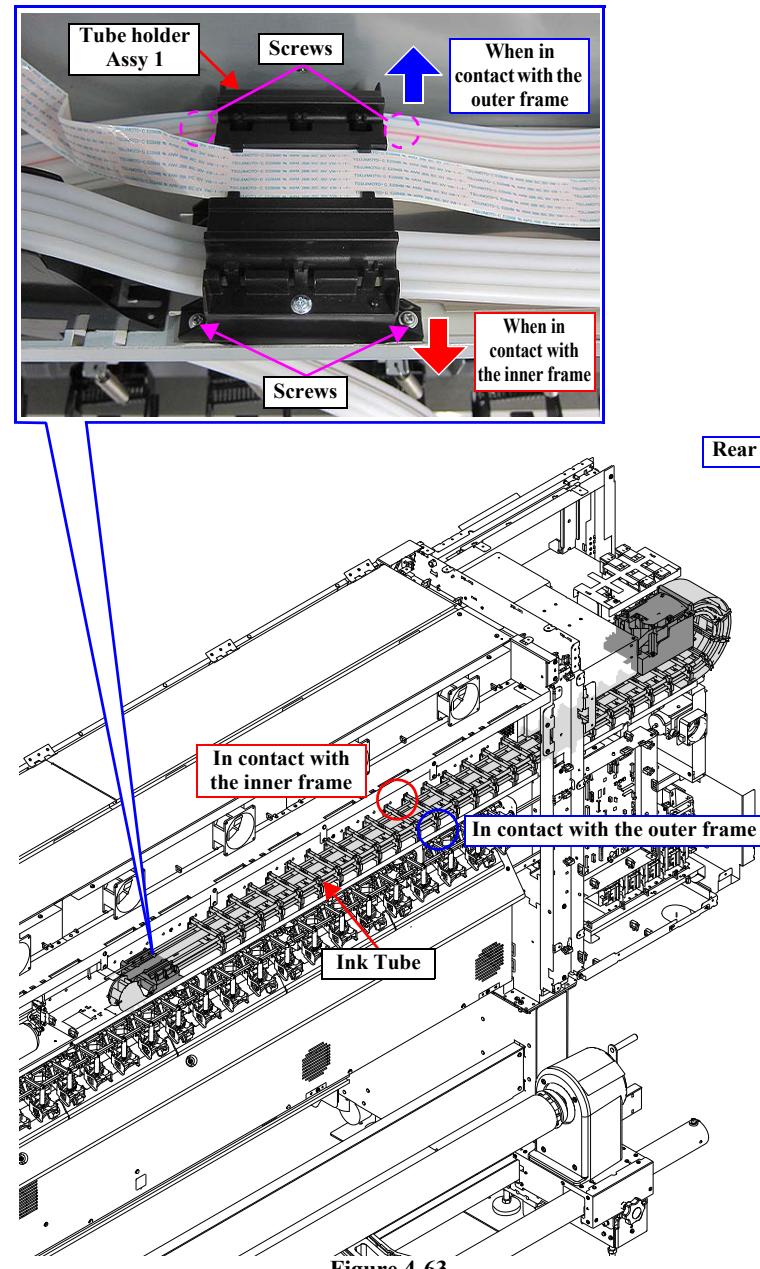


Figure 4-63.

6. If not improved, loosen the 5 screws of the tube holder Assy 2, and then move the Ink Tube in the direction of the arrow as shown [Figure 4-64](#).
7. After adjustment, tighten the 5 screws of the tube holder Assy 2, and check the contact between the Ink Tube and frame again.

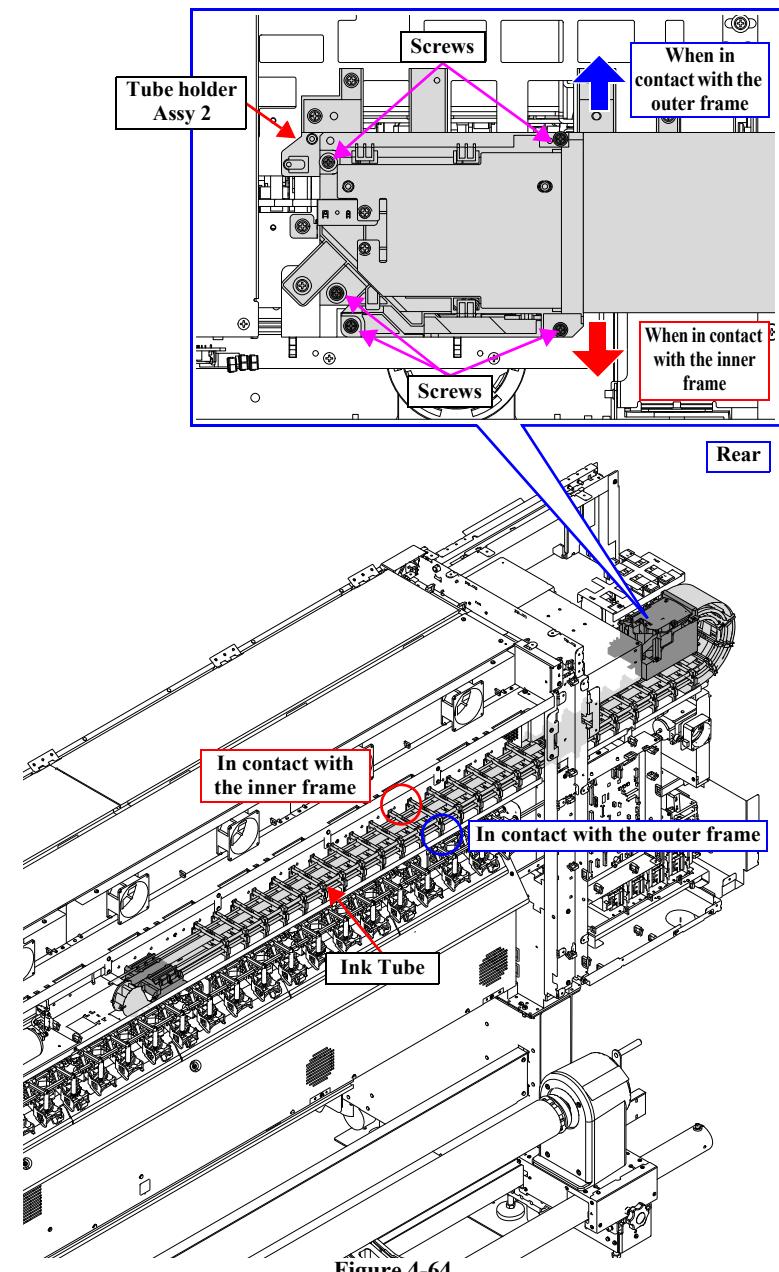


Figure 4-64.

4.9 PF related Adjustment

4.9.1 PF Belt Tension Adjustment

THINGS TO PREPARE

- Sonic Tensimeter U-507
- Something to flip the belt

STANDARD VALUE

- 24.3 ± 3.3 N (average value)

EXECUTION MODE

PROCEDURE

1. Remove the following part.
 - Left Cover ([P. 324](#))
2. Loosen the 2 screws that secure the PF Motor Fixing Plate.
3. Move the PF Motor Fixing Plate forward and backward 3 times to allow the PF Motor Belt to adapt.
4. Tighten the 2 loosened screws in the order indicated in [Figure 4-65](#).

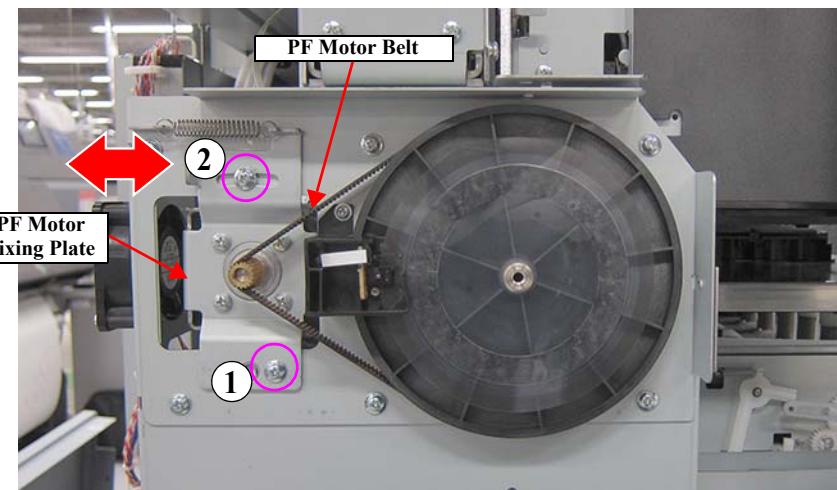


Figure 4-65.

5. Enter the following belt information in the tensimeter.
 - MASS: 1.3 g/m
 - WIDTH: 10 mm
 - SPAN: 96.4 mm
6. Bring the measurement microphone of the tensimeter near the position indicated in [Figure 4-66](#).



Bring the measurement microphone to a position where it is not touching the belt and the distance between it and the belt is within approximately 5 mm.

7. Press the [MEASURE] button on the tensimeter and flick the belt with tweezers or a similar tool to measure the tension.



- When measuring, flick the belt with as weak a force as possible that allows measurement with the tensimeter.
- When flicking the belt, make sure the measurement microphone and belt do not touch.

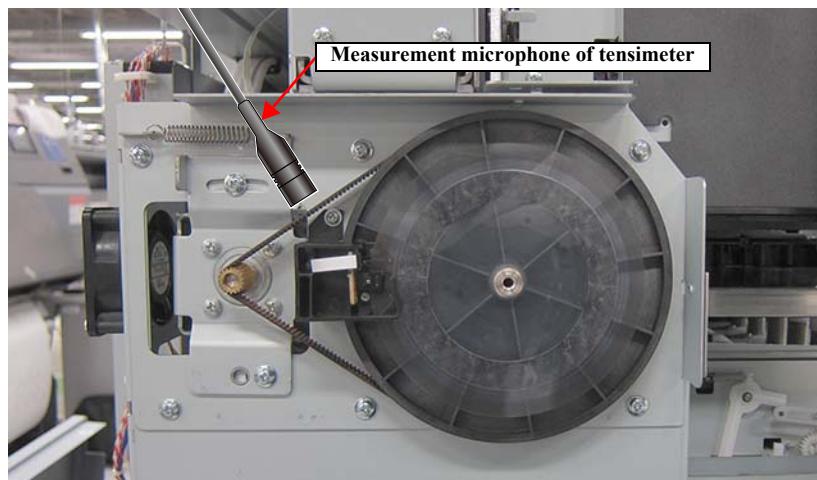


Figure 4-66.

8. Start the printer in the repair mode.

Press and hold the [Media rewind] button and [Power] button while touching [top left of the screen] until the screen turns on. (10 seconds or longer) (P. 29)

9. Start the Service Program and then select **PF Motor Belt Tension Adjustment**.
10. Click the **[Execute]** button.
The PF Shaft rotates 90 degrees.

Figure 4-67.

11. Measure the belt tension.
12. Perform the procedure of Step 8 another 2 times.
13. Check whether the average value of the measured values of the 4 positions are within the standard value range.
 - If the measured values are within the standard value range: Adjustment is finished.
 - if the measured values are outside of the standard value range: Return to **Step 2**.

4.9.2 PF Scale Check

THINGS TO PREPARE

ESTIMATED TIME

Approximately 1 minute

EXECUTION MODE

Repair mode

STANDARD VALUE

PROCEDURE

- Start the printer in the repair mode.

Press and hold the [Media rewind] button and [Power] button while touching [top left of the screen] until the screen turns on. (10 seconds or longer) (P. 29)

- Start the Service Program, and select **PF Scale Check**.
- Click the **[Execute]** button to check automatically that the PF Scale is not scratched, contaminated, or otherwise abnormal, and that it is read properly.
 - If “Finished” is displayed: Click the **[OK]** button to end the check.
 - If “Fail” is displayed: Proceed to [Step 4](#).

- Clean the PF Scale using ethanol because it may be contaminated. After cleaning, perform the check again.

If the fail message is displayed even after performing the check again, replace the PF Scale because it may be scratched.

Or replace the PF Scale Encoder and perform the check again.

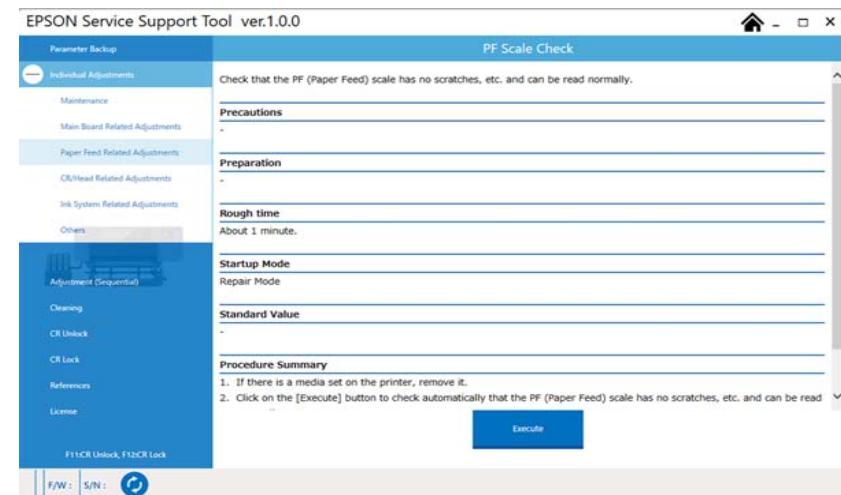


Figure 4-68.

4.9.3 Input Hardening Fan

THINGS TO PREPARE

ESTIMATED TIME

Approximately 1 minute

EXECUTION MODE

Repair mode

STANDARD VALUE

PROCEDURE

- Start the printer in the repair mode.
Press and hold the [Media rewind] button and [Power] button while touching [top left of the screen] until the screen turns on. (10 seconds or longer) (P. 29)
- Start the Service Program, and select **Input Hardening Fan**.
- Click the [Check] button. The current adjustment values are displayed.
- Enter adjustment values on the label, and click the [Input] button.

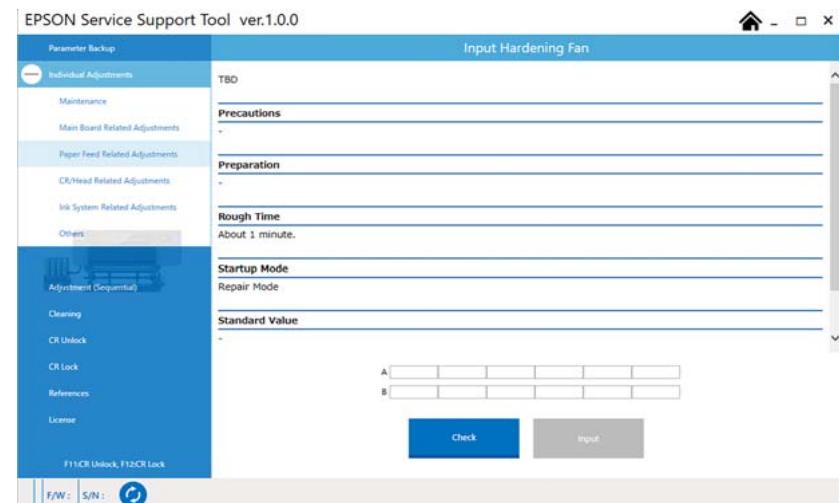


Figure 4-69.

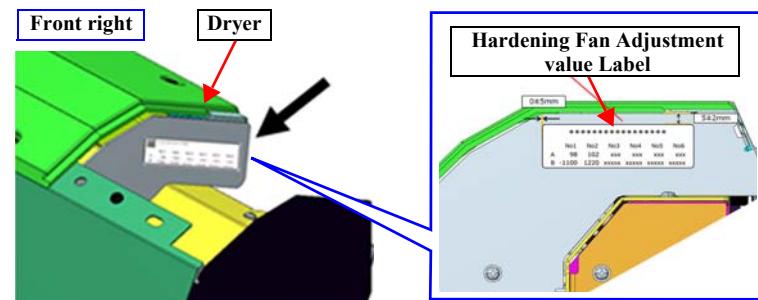


Figure 4-70.

4.9.4 Input Dry Fan

THINGS TO PREPARE

ESTIMATED TIME

Approximately 1 minute

EXECUTION MODE

Repair mode

STANDARD VALUE

PROCEDURE

- Start the printer in the repair mode.
Press and hold the [Media rewind] button and [Power] button while touching [top left of the screen] until the screen turns on. (10 seconds or longer) (P. 29)
- Start the Service Program, and select **Input Dry Fan**.
- Click the **[Check]** button. The current adjustment values are displayed.
- Enter adjustment values on the label, and click the **[Input]** button.

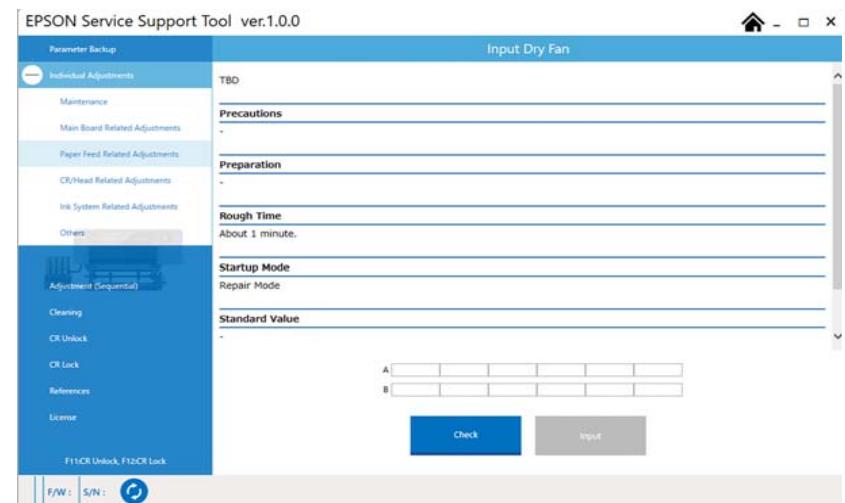


Figure 4-71.

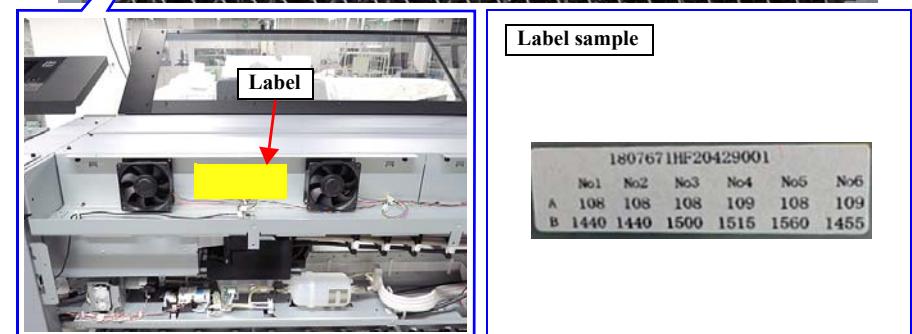


Figure 4-72.

4.9.5 Rear AD Adjustment

REQUIRED TOOL

- Standard Sheet (JETRAS JP-D300S)

EXECUTION MODE

Serviceman Mode

PROCEDURE

1. When any paper is loaded, remove it.
2. Lower the media loading lever.
3. Turn the printer ON in the Serviceman Mode.
Press and hold the [Power] button while touching [top left of the screen] until the screen turns on. (10 seconds or longer) (P. 28)
4. Touch the center of the screen to select 1. **Rear AD**.
5. When a message is displayed, touch the center of the screen.
6. Open the front cover.
7. Raise the media loading lever, and set it to the release position.
8. Insert the Standard Sheet to the position shown in below figure and lower the Media Loading Lever to press the sheet.
 - Set the sheet at left edge of driven roller of third position from the right.
 - Set the sheet at rear suction holes of platen.

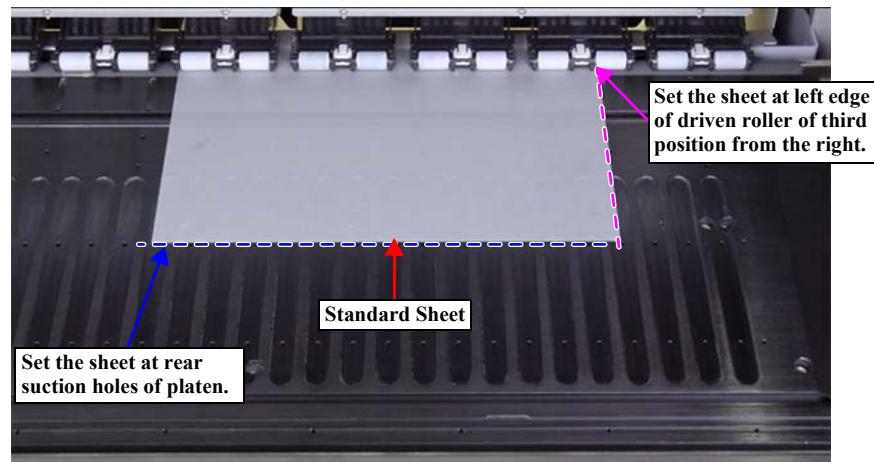


Figure 4-73.



When executing the following step, do not remove the external covers to acquire proper AD value.

9. Close the front cover.
10. Touch the center of the screen.
11. When a number is displayed, touch the center of the screen.
12. Turn over the Standard Sheet.
13. Touch the center of the screen.
14. Make sure “OK” is displayed, and then touch the center of the screen.

4.10 Board related Adjustment

4.10.1 RTC Input

THINGS TO PREPARE

--

ESTIMATED TIME

Approximately 1 minute

EXECUTION MODE

Repair mode/serviceman mode

STANDARD VALUE

--

PROCEDURE

1. Start the printer in the repair mode or serviceman mode.

- Repair mode

Press and hold the [Media rewind] button and [Power] button while touching [top left of the screen] until the screen turns on. (10 seconds or longer) [\(P. 29\)](#)

- Serviceman mode

Press and hold the [Power] button while touching [top left of the screen] until the screen turns on. (10 seconds or longer) [\(P. 28\)](#)

2. Start the Service Program, and select **RTC Input**.

3. Click the [Update] button to display the time of the PC in the Service Program.
4. Change the date and time manually if necessary.
5. Click the [Input] button to set the RTC.

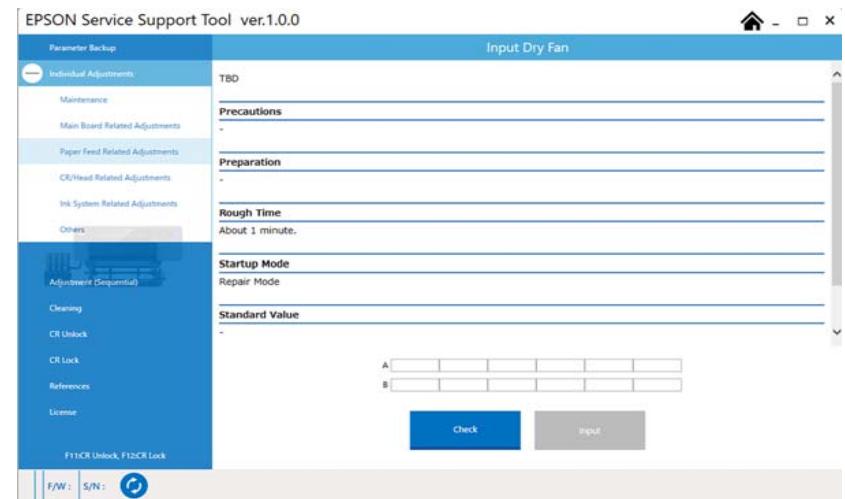


Figure 4-74.

4.10.2 MAC Address Check & Input

THINGS TO PREPARE

Network cable

ESTIMATED TIME

Approximately 1 minute

EXECUTION MODE

Serviceman mode

STANDARD VALUE

PROCEDURE

- Start the printer in the Serviceman Mode.
Press and hold the [Power] button while touching [top left of the screen] until the screen turns on. (10 seconds or longer) (P. 28)
- Start the Service Program, and select **MAC Address Check & Input**.
- Turn off the wireless setting of the PC.
- Connect the PC and printer with the USB cable and network cable.
- Refer to [Figure 4-75](#) and enter the MAC address printed on the label affixed to the printer right inner side.
- Click the **[Input]** button to set the MAC address.

- Click the **[Check]** button to check that the MAC address displayed on the screen matches the written value.

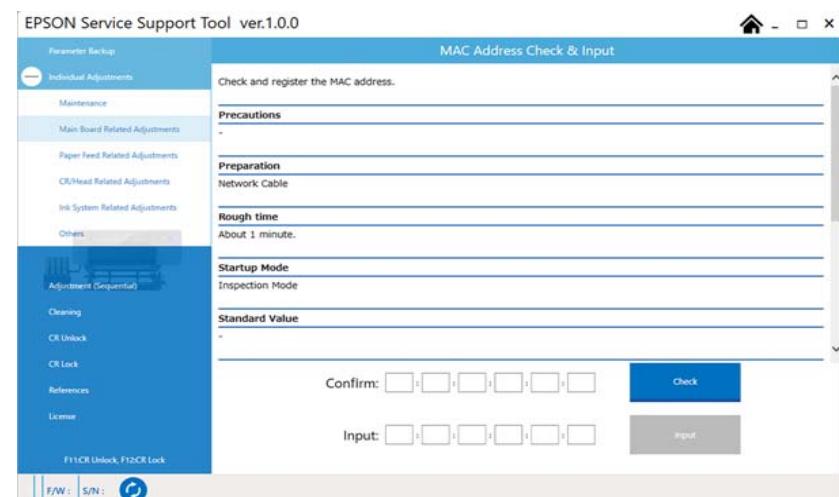


Figure 4-75.

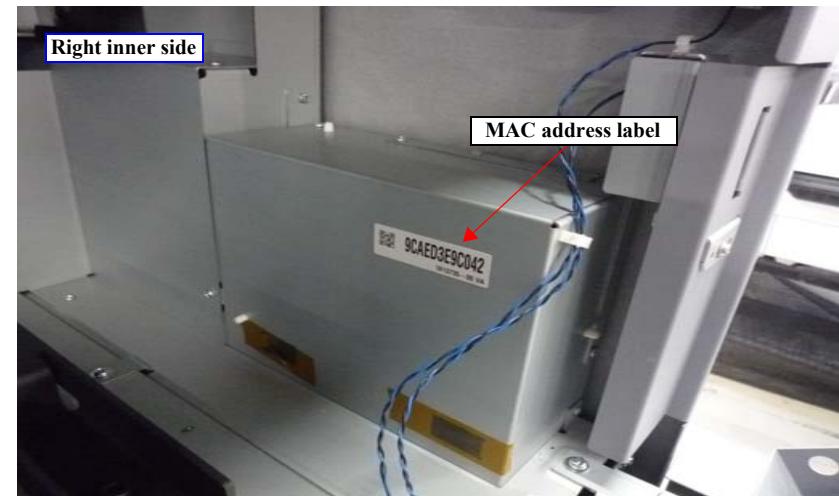


Figure 4-76.

4.10.3 Serial Number Read & Write

THINGS TO PREPARE

ESTIMATED TIME

Approximately 1 minute

EXECUTION MODE

Repair mode/serviceman mode

STANDARD VALUE

PROCEDURE

- Start the printer in the repair mode or serviceman mode.

- Repair mode

Press and hold the [Media rewind] button and [Power] button while touching [top left of the screen] until the screen turns on. (10 seconds or longer)
[\(P. 29\)](#)

- Serviceman mode

Press and hold the [Power] button while touching [top left of the screen] until the screen turns on. (10 seconds or longer)
[\(P. 28\)](#)

- Start the Service Program, and select **Serial Number Read & Write**.
- Refer to [Figure 4-77](#) and enter the serial number printed on the label affixed to the printer.

- Click the [**Input**] button to write the serial number to the printer.
- Check that the serial number (S/N) displayed on the bottom left of the Service Program screen is the written value.

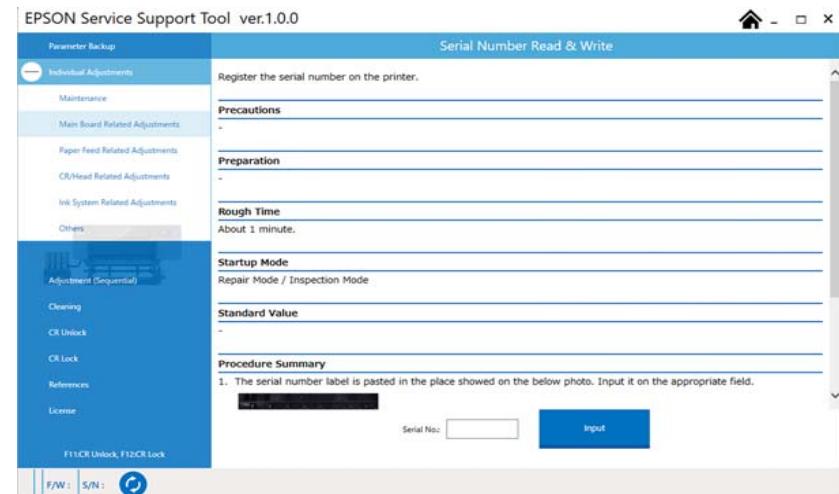


Figure 4-77.

4.10.4 NVRAM Backup/Restore



Do not write the other printer NVRAM data. otherwise, analysis cannot execute.

THINGS TO PREPARE

ESTIMATED TIME

Approximately 1 minute

EXECUTION MODE

Repair mode/serviceman mode

STANDARD VALUE

PROCEDURE

- Start the printer in the repair mode or serviceman mode.

- Repair mode

Press and hold the [Media rewind] button and [Power] button while touching [top left of the screen] until the screen turns on. (10 seconds or longer)
[\(P. 29\)](#)

- Serviceman mode

Press and hold the [Power] button while touching [top left of the screen] until the screen turns on. (10 seconds or longer)
[\(P. 28\)](#)

- Start the Service Program, and select **NVRAM Backup/Restore**.
- To back up the NVRAM data, click the **[Read]** button.

- To restore the NVRAM data, select the board to perform writing and click the **[Write]** button.
- To select the NVRAM data to restore, click the **[File Reference]** button and then select the file.
 Select the board to perform writing and click the **[Write]** button.

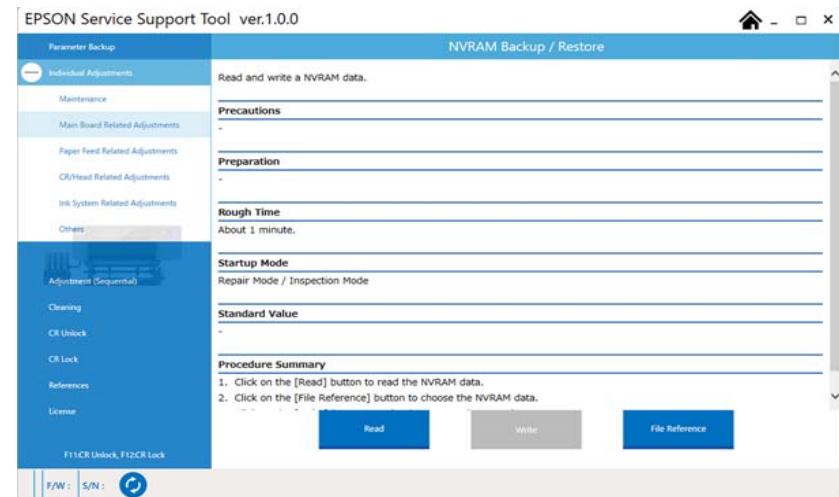


Figure 4-78.

4.10.5 NVRAM Restore from SSD

THINGS TO PREPARE

ESTIMATED TIME

Approximately 1 minute

EXECUTION MODE

Repair mode

STANDARD VALUE

PROCEDURE

1. Start the printer in the repair mode.
Press and hold the [Media rewind] button and [Power] button while touching [top left of the screen] until the screen turns on. (10 seconds or longer) (P. 29)
2. Start the Service Program, and select **NVRAM Restore from SSD**.
3. Click the **[Check]** button, and check the date and time that the NVRAM was backed up to the SSD.
4. To restore the NVRAM data, click the **[Execute]** button.

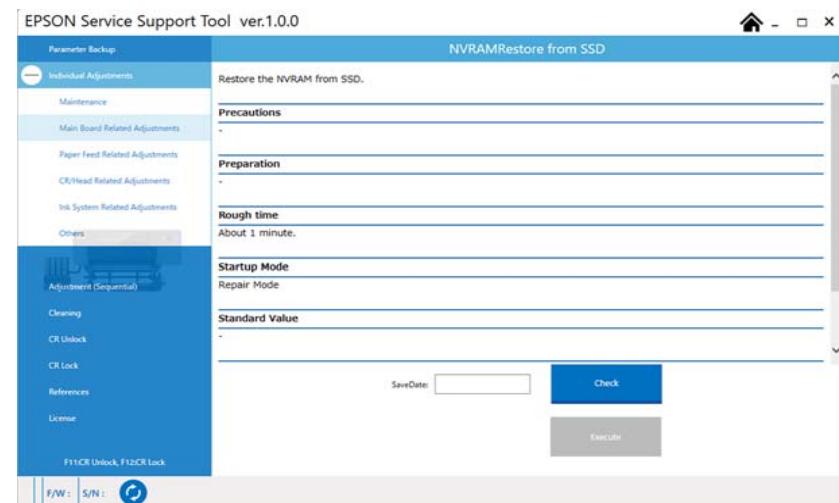


Figure 4-79.

4.10.6 Main/MCU 1 Board Initial Setting

THINGS TO PREPARE

ESTIMATED TIME

Approximately 1 minute

EXECUTION MODE

Serviceman mode

STANDARD VALUE

PROCEDURE

1. Start the printer in the Serviceman Mode.
Press and hold the [Power] button while touching [top left of the screen] until the screen turns on. (10 seconds or longer) (P. 28)
2. Start the Service Program, and select **Main/MCU 1 Board Initial Setting**.
3. To obtain the offset values, access the site for obtaining printer information (<https://support2.epson.net/scp120kos/>).
4. Enter the serial number and password (7777) of the printer on the site.

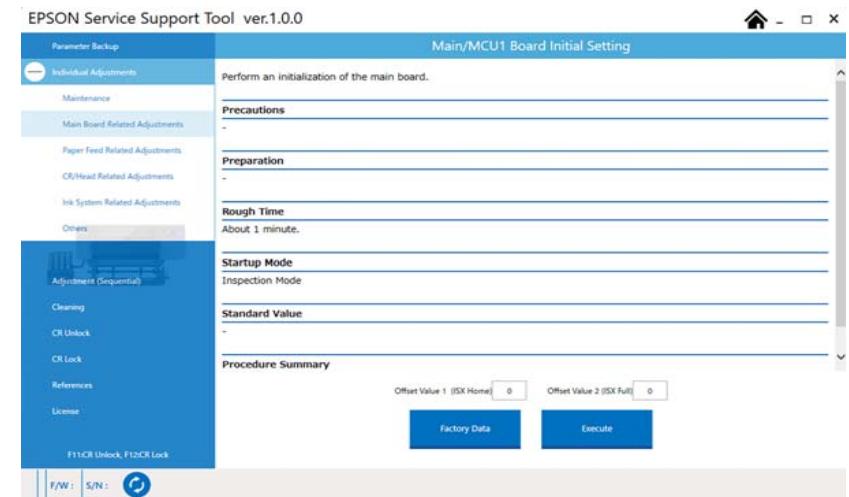


Figure 4-80.

5. Note down the displayed offset values.
6. Enter the noted down offset values in the input fields of the Service Program, select the printer mode, and click the [**Execute**] button.
Main Board initial setting is performed.

4.10.7 Input Offset Value

THINGS TO PREPARE

ESTIMATED TIME

Approximately 1 minute

EXECUTION MODE

Repair mode/serviceman mode

STANDARD VALUE

PROCEDURE

- Start the printer in the repair mode or serviceman mode.

- Repair mode

Press and hold the [Media rewind] button and [Power] button while touching [top left of the screen] until the screen turns on. (10 seconds or longer) [\(P. 29\)](#)

- Serviceman mode

Press and hold the [Power] button while touching [top left of the screen] until the screen turns on. (10 seconds or longer) [\(P. 28\)](#)

- Start the Service Program, and select **Input Offset Value**.

- To obtain the offset values, access the site for obtaining printer information (<https://support2.epson.net/scp120kos/>).

- Enter the serial number and password (7777) of the printer on the site.

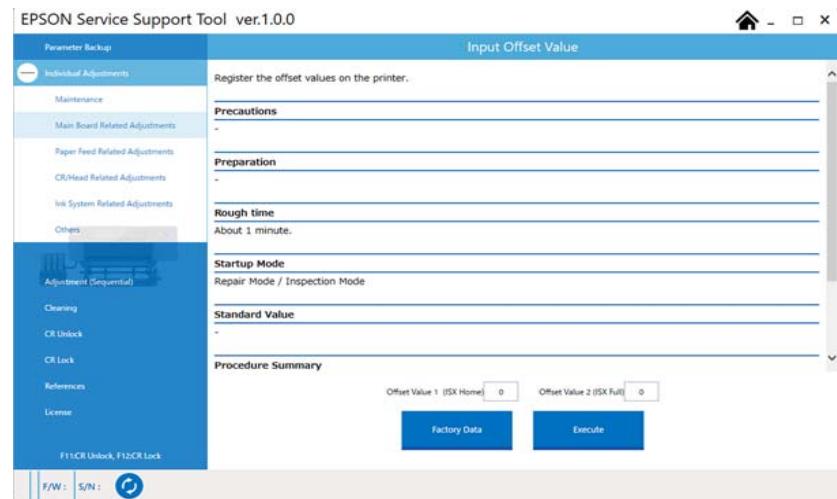


Figure 4-81.

- Note down the displayed offset values.
- Enter the noted down offset values in the input fields of the Service Program, and click the [Execute] button.
The offset values are written to the printer.

4.11 Others Adjustment

4.11.1 Reset Job History

THINGS TO PREPARE

--

ESTIMATED TIME

Approximately 1 minute

EXECUTION MODE

Repair mode

STANDARD VALUE

--

PROCEDURE

1. Start the printer in the repair mode.
Press and hold the [Media rewind] button and [Power] button while touching [top left of the screen] until the screen turns on. (10 seconds or longer) (P. 29)
2. Start the Service Program, and select **Reset Job History**.
3. Click the **[Execute]** button to reset the Reset Job History.

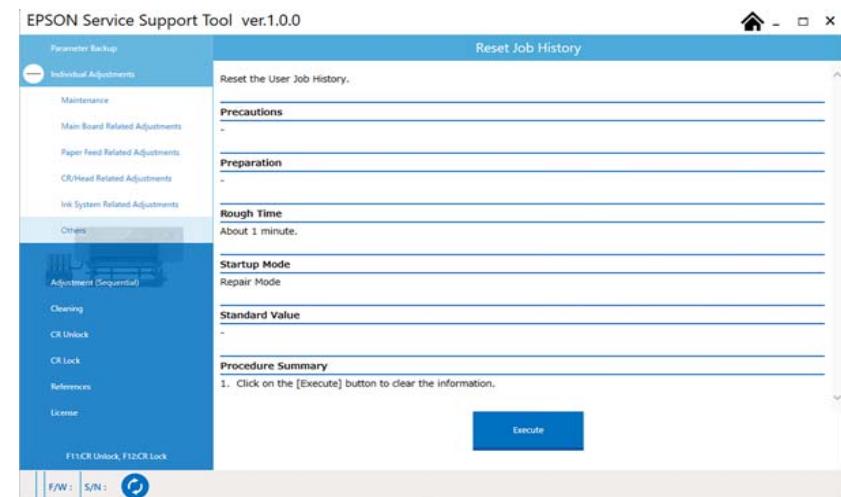


Figure 4-82.

4.11.2 Print Image

THINGS TO PREPARE

ESTIMATED TIME

EXECUTION MODE

Normal mode

STANDARD VALUE

PROCEDURE

1. Start the printer in the normal mode.
2. Start the Service Program, and select **Print Image**.
3. Click the **[File Reference]** button and then select the data (.prn) to print.
4. Click the **[Print]** button to print.

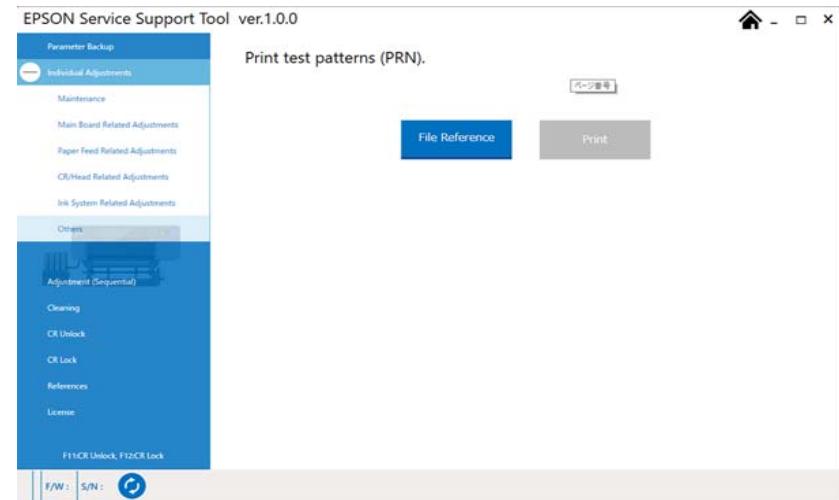


Figure 4-83.

4.11.3 SSD File Read & Write

THINGS TO PREPARE

ESTIMATED TIME

EXECUTION MODE

Repair mode/serviceman mode

STANDARD VALUE

PROCEDURE

1. Start the printer in the repair mode or serviceman mode.

- Repair mode

Press and hold the [Media rewind] button and [Power] button while touching [top left of the screen] until the screen turns on. (10 seconds or longer)
[\(P. 29\)](#)

- Serviceman mode

Press and hold the [Power] button while touching [top left of the screen] until the screen turns on. (10 seconds or longer) [\(P. 28\)](#)

2. Start the Service Program, and select **SSD File Read & Write**.

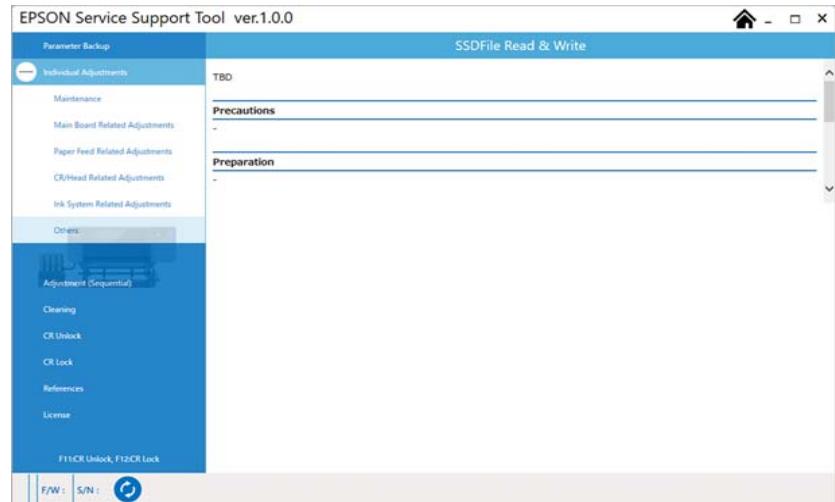


Figure 4-84.

4.11.4 Signal Tower Check & Setting

THINGS TO PREPARE

ESTIMATED TIME

EXECUTION MODE

Repair mode/serviceman mode

STANDARD VALUE

PROCEDURE

- Start the printer in the repair mode or serviceman mode.

- Repair mode

Press and hold the [Media rewind] button and [Power] button while touching [top left of the screen] until the screen turns on. (10 seconds or longer) [\(P. 29\)](#)

- Serviceman mode

Press and hold the [Power] button while touching [top left of the screen] until the screen turns on. (10 seconds or longer) [\(P. 28\)](#)

- Start the Service Program, and select **Signal Tower Check & Setting**.

Select the items for which you wish to change the display from the list box.

Select the items to change from the “Red,” “Yellow,” and “Green” list boxes, and click **[Set]**.

If you want to confirm the new display, click **[Test Run]**.

- If you click **[Get]**, you can check the current settings.
- If you click **[Get Default]**, the settings are returned to the factory default settings.

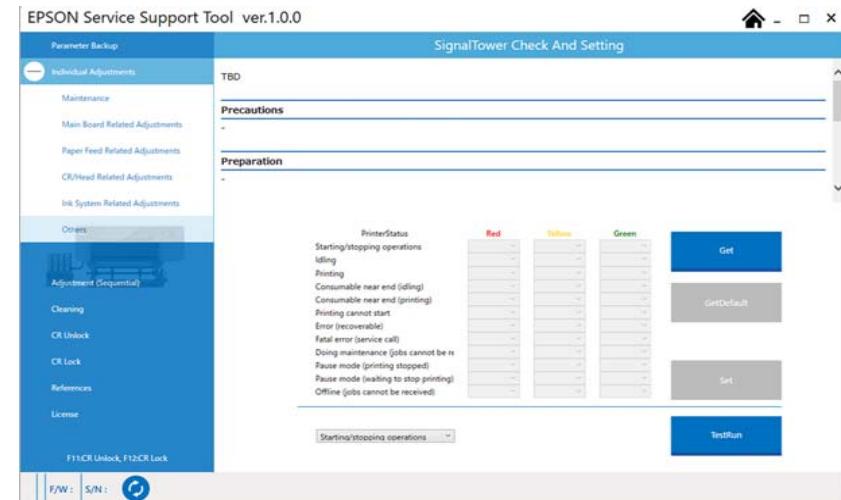


Figure 4-85.

4.11.5 Head Exchanging Flag Reset

THINGS TO PREPARE

ESTIMATED TIME

EXECUTION MODE

Repair mode

STANDARD VALUE

PROCEDURE

1. Start the printer in the repair mode.
Press and hold the [Media rewind] button and [Power] button while touching [top left of the screen] until the screen turns on. (10 seconds or longer) (P. 29)
2. Start the Service Program, and select **Head Exchanging Flag Reset**.
3. Click [**Execute**], and reset the head exchange flag.
4. Restart the printer.

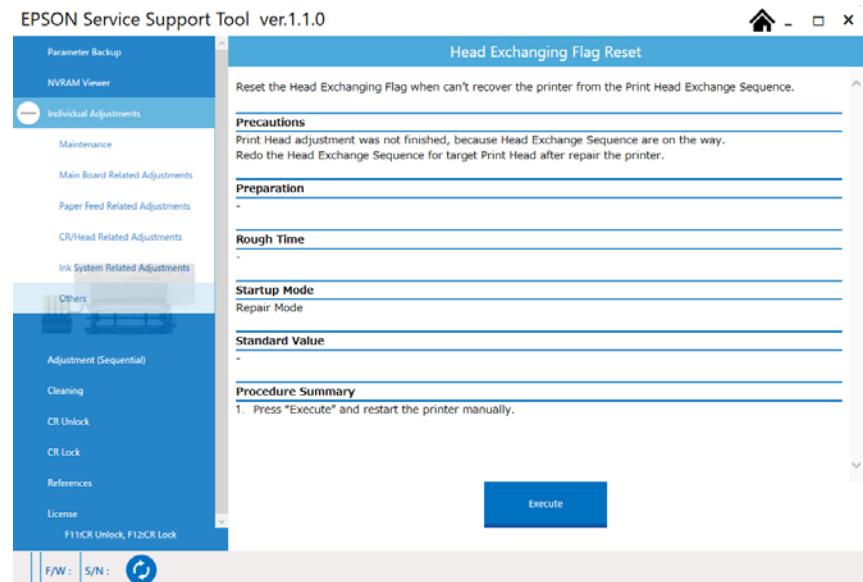


Figure 4-86.

4.11.6 Color Mode Setting



Change the color mode of ink-charged printer is prohibited.

THINGS TO PREPARE

ESTIMATED TIME

EXECUTION MODE

Repair mode

STANDARD VALUE

PROCEDURE

1. Start the printer in the repair mode.

Press and hold the [Media rewind] button and [Power] button while touching [top left of the screen] until the screen turns on. (10 seconds or longer) (P. 29)

2. Start the Service Program, and select **Color Mode Setting**.
3. Select the using ink color, and click [**Execute**].

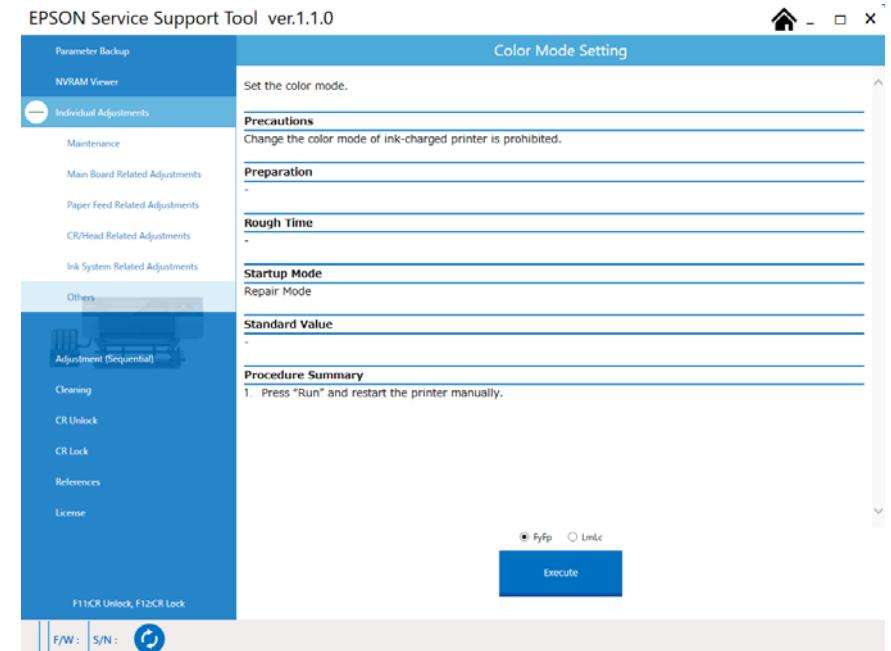


Figure 4-87.

4.12 Maintenance

4.12.1 Sensor Check MCU0 & OnCR

THINGS TO PREPARE

--

ESTIMATED TIME

--

EXECUTION MODE

Repair mode

STANDARD VALUE

--

PROCEDURE

1. Start the printer in the repair mode.

Press and hold the [Media rewind] button and [Power] button while touching [top left of the screen] until the screen turns on. (10 seconds or longer) (P. 29)

2. Start the Service Program, and select **Sensor Check MCU0 & OnCR**.
3. Click the [Execute] button to display the current sensor status.

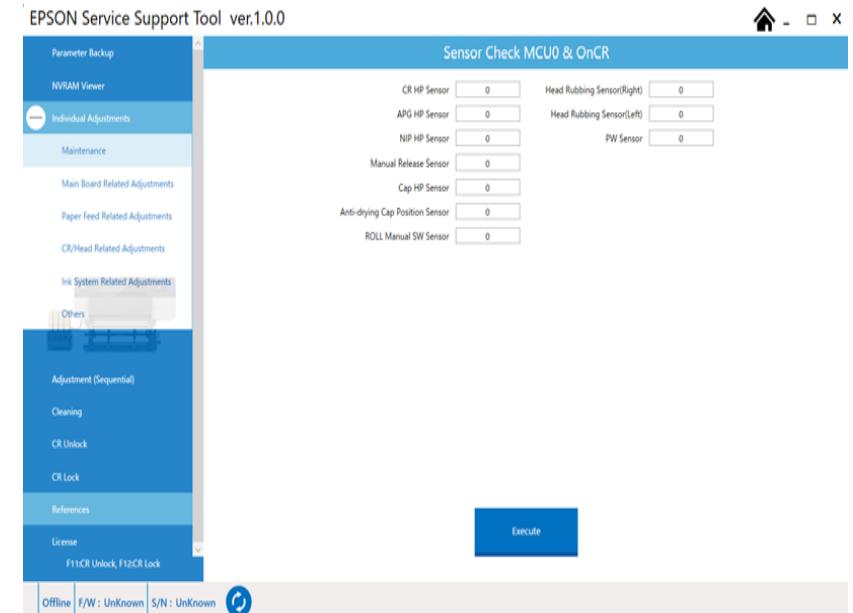


Figure 4-88.

4.12.2 Sensor Check MCU1

THINGS TO PREPARE

ESTIMATED TIME

EXECUTION MODE

Repair mode

STANDARD VALUE

PROCEDURE

1. Start the printer in the repair mode.

Press and hold the [Media rewind] button and [Power] button while touching [top left of the screen] until the screen turns on. (10 seconds or longer) (P. 29)

2. Start the Service Program, and select **Sensor Check MCU1**.
3. Click the **[Execute]** button to display the current sensor status.

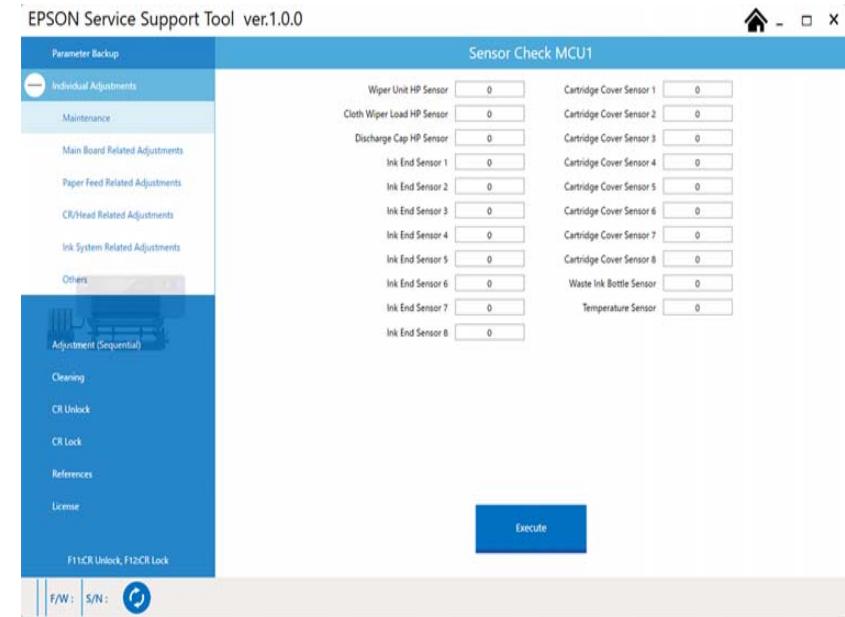


Figure 4-89.

CHAPTER

5

MAINTENANCE

5.1 Overview

This chapter provides information on how to maintain the printer in its optimum operating condition.

Basically, servicing on the printer should be performed on-site. Be sure to strictly observe the following precautions when servicing to avoid an accident or injury causing the user trouble.



WARNING

- The power switch is installed on the secondary side of the power circuit, so power is always supplied to the power supply circuit even when the switch is OFF unless the power cord is unplugged from the wall power outlet. Unless otherwise stated (for printing or operation checks), be sure to unplug the power cord from the wall outlet before disassembling or assembling the printer to prevent electric shock and damage to the circuit.
- The Front Sensor provided for detecting open/close status of the Printer Cover also acts as a safety interlock switch. Never disable the switch function to prevent possible injury.
- A lithium battery is mounted on the Main Board (control circuit) for memory backup. Be sure to observe the following precautions when handling the Main Board.
 - Be careful not to short the electrode of the battery.
 - When replacing the battery, make sure to insert it in correct orientation.
 - Never heat the battery or plunge it into the flames.
 - Do not put the Main Board directly on conductive materials.
- Be extremely careful not to get the ink into your eye or let it come into contact with your skin. If it happens, wash out your eye or skin with water immediately. If any abnormality is found, contact a physician.



CAUTION

- Ensure sufficient work space for servicing.
- Locate the printer on a stable and flat surface.
- When using compressed air products; such as air duster, for cleaning during repair and maintenance, the use of such products containing flammable gas is prohibited.
- Be sure to spread a sheet of paper or cloth on the work space before removing any ink-path-related parts or components to keep the space from being soiled with leaked ink.
- Do not touch electrical circuit boards with bare hands as the elements on the board are so sensitive that they can be easily damaged by static electricity. If you have to handle the boards with bare hands, use static electricity discharge equipment such as anti-static wrist straps.
- When the printer has to be operated with the covers removed, take extra care not to get your fingers or clothes caught in moving parts such as the fan unit.
- When the printer needs to be repacked for transportation after being used, make sure to follow the steps below after turning the power OFF.
 - Check that the Printhead is capped properly.
 - Leave the ink cartridges installed in the printer.
 - Repack the printer using the packaging box, cushioning materials and protective equipment indicated in the unpacking guide.

5.2 Movement & Transportation

The procedure varies depending on the location where the printer is to be moved or transported.

- Moving the printer on the same floor:

["5.2.1 Moving on the Same Floor" \(p631\)](#)

- Moving the printer to another floor:

["5.2.2 Moving from One Floor to Another" \(p632\)](#)

- Transporting the printer to another building:

["5.2.3 Transporting from One Building to Another" \(p633\)](#)

5.2.1 Moving on the Same Floor

For details on each procedure, refer to the user's guide.

1. Remove the roll paper.
2. Secure the pressure roller spacer with a tape or something similar.
3. Move the printer together with the Ink Supply Unit.
4. Adjust the adjusters so that the printer is level.

5.2.2 Moving from One Floor to Another

ITEMS TO BE PREPARED (EQUIPMENT)

- Wasted ink tank (x2)
- Plastic bag (20 cm x 30 cm or larger) (x1)
- Tape (20 cm) (x2)

PROCEDURES TO BE PERFORMED BEFORE SETTING THE PRINTER ASIDE FOR MOVEMENT

1. Remove the roll paper.
2. Turn the nut of the 6 adjusters in the counterclockwise direction so that the adjusters rise above the level of casters.
3. Remove the wasted ink tank and the ink cartridge.
4. Disconnect the Ink Supply Unit from the printer, and place the ink tubes of the Ink Supply Unit in the plastic bag.



Figure 5-1.

5. Attach the carriage fixing jig.



If the carriage fixing jig is not attached, the LM guide may be damaged and the printer may become unusable.

6. If necessary, perform the procedure of "[Disassembly when carrying in/installing the printer](#)" ([p635](#)) to reduce the size of the printer in the depth direction.
7. Secure the pressure roller spacer with the tape.

INSTALLATION AND REFILLING

1. Before turning the printer ON, assemble the printer according to the setup manual.
2. Clean the Anti-Drying Caps Drive Assembly according to the setup manual.

5.2.3 Transporting from One Building to Another

EQUIPMENT

- Air suspension truck
- Fork lift

PARTS

- Waste ink bottle x2
- Plastic bag (20 cm x 30 cm or bigger one) x1
- Tape (20cm) x2
- Charging unit
 - SC-F10000 Series: x4
 - SC-F10000H Series: x6
- Filter unit
 - SC-F10000 Series: x2
 - SC-F10000H Series: x3
- Cleaning cartridge
 - SC-F10000 Series: x8
 - SC-F10000H Series: x12

PREPARATION FOR TRANSPORTATION

1. Remove the Paper Roll.
2. Set new Waste ink bottle.
3. Start the printer in the repair mode.

Press and hold the [Media rewind] button and [Power] button while touching [top left of the screen] until the screen turns on. (10 seconds or longer) (P. 29)

4. Execute **Tube washing** on the panel menu. (Use 8 Cleaning cartridge in the panel flow.)

5. Execute **Ink Eject** on the panel menu.
6. Turn off the printer.
7. Roll up the height adjusters locating under the printer stand.
8. Remove waste ink bottle and ink cartridges.
9. Remove Ink Supply Unit from printer, and cover with plastic bag and tape the ink tube.



Figure 5-2.

10. Attach the carriage fixing jigs.



If the carriage fixing jig is not attached, the LM guide may be damaged and the printer may become unusable.

11. If necessary, perform the procedure of "Disassembly when carrying in/installing the printer" (p635) to reduce the size of the printer in the depth direction.
12. Fix the passive holder release rods by the tape.
Secure the pressure roller spacer with the tape.

RE-PACKING

TRANSPORTATION



You must use Air suspension track for the transportation.

INSTALLATION & INK CHARGE AGAIN

1. Assemble the printer according to the Installation Manual before turning the printer on.
2. Exchange filter unit. (x2 pcs)
3. Install the charging unit. (x4 pcs)
4. Start the printer in the repair mode.

Press and hold the [Media rewind] button and [Power] button while touching [top left of the screen] until the screen turns on. (10 seconds or longer) (P. 29)

5. Execute Ink Charge from the panel menu. (Use 4 Charging Unit in the panel flow.)
6. Remove the charging unit. (x4 pcs)
7. Clean the caps referring with the Install Manual.

5.3 Disassembly when carrying in/installing the printer

When the printer will be carried through a narrow doorway, perform the following procedure to reduce the size of the main unit.



Make sure to remove the power cable before starting work.

- Removing the Dryer



The removal and installation work must be performed by at least 2 persons because the dryer is heavy.

1. Remove the screw from each connector cover and then remove the 2 connector covers.
 - A) Black M3x8 S-tite screw with built-in washer: each 1 pc

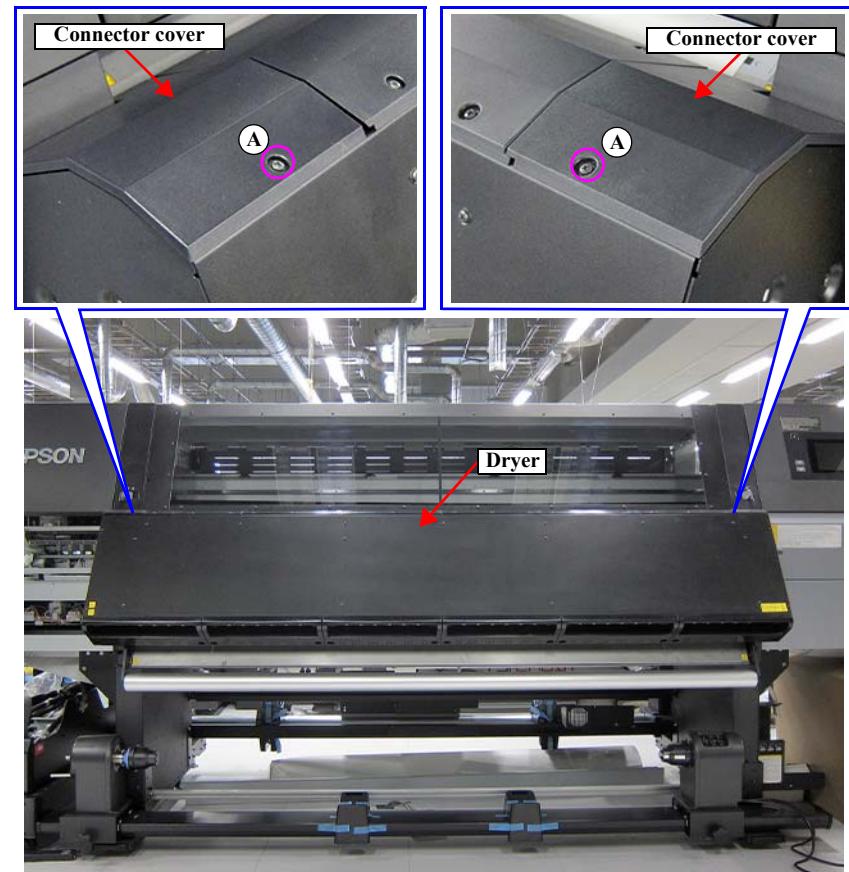


Figure 5-3.

2. Disconnect the 4 cables (left side: 12-2, 12-1, and 19-56; right side: 22-1) from the connectors.
 3. Remove the 2 hexagon screws that secure the dryer.
- B) Black M6x12 Hexagon screw: 2 pcs

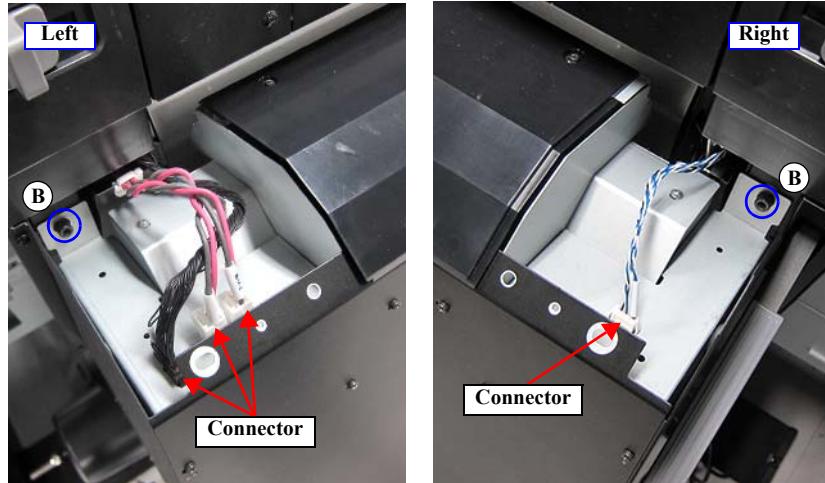


Figure 5-4.

4. Lower the dryer a little toward the front, disengage the 2 hooks, and then remove the dryer.

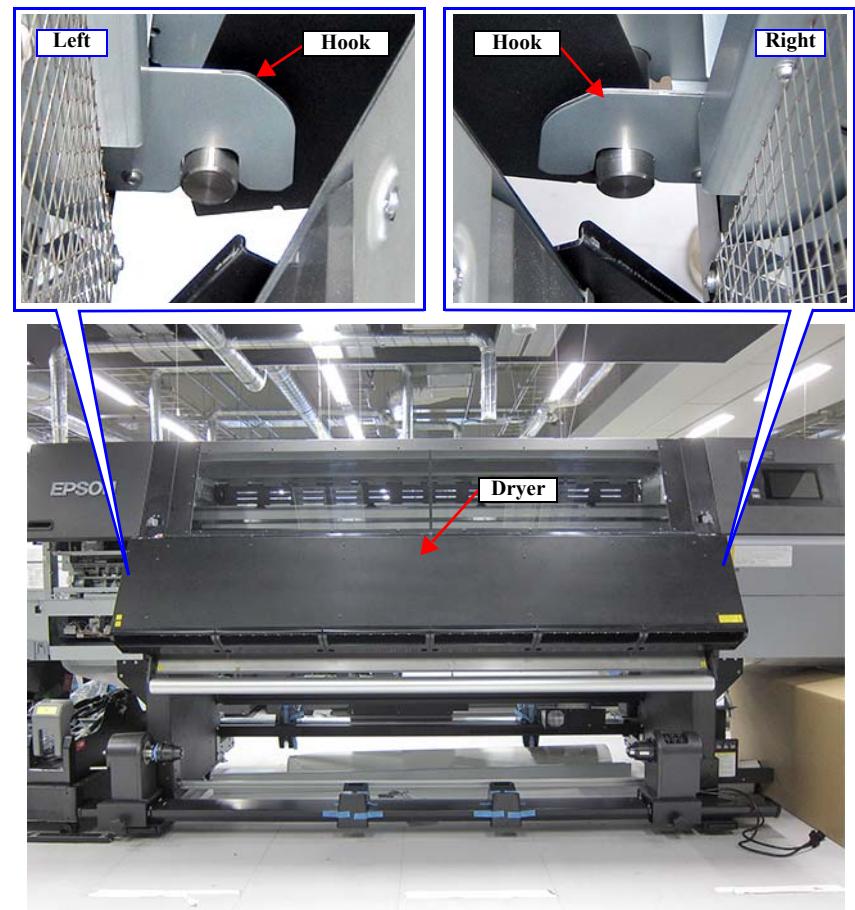


Figure 5-5.



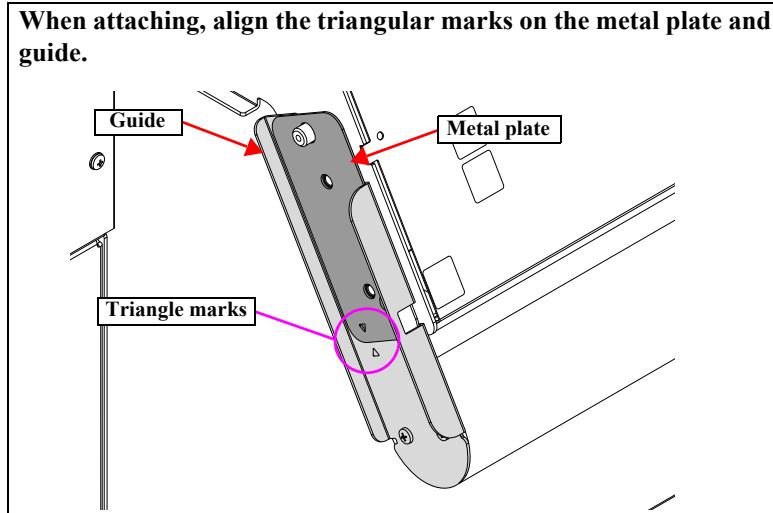
The removal and installation work must be performed by at least 2 persons because the dryer is heavy.

Removing the Media Guide Bar

1. Remove the 2 hexagon screws and then remove the metal plate.
 - A) Black M6x20 Hexagon screw with built-in spring washer: 2 pcs
2. Remove the 2 hexagon screws on the left side of the printer and then remove the metal plate.
 - B) Black M6x20 Hexagon screw with built-in spring washer: 2 pcs



ASSEMBLY



3. Move the guide in the direction of the arrow and extract it from the dowel, and then remove the Media Guide Bar.

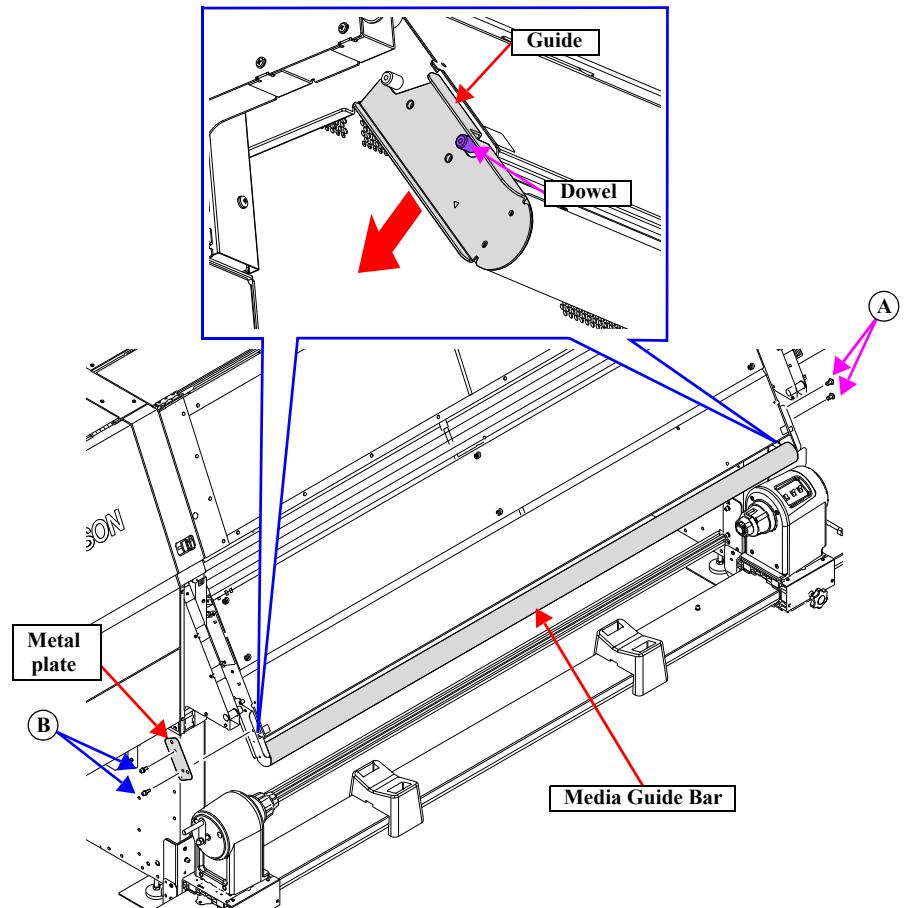


Figure 5-6.

Removing the After Heater Unit

1. Remove each set of 3 hexagon screws and then remove the 2 pillar frames.
 - A) Black M6x12 Hexagon screw: each 3 pcs
2. Disconnect the cables from the relay connector.
3. Release the cables from the clamp.
4. Bring the cables inward from the hole.
5. Remove the 2 screws and then remove the sensor cover.
 - B) Silver M3x8 Cup S-tite screw: 2 pcs
6. Disconnect the 2 cables from the connectors.
7. Release the cables from the 2 clamps.

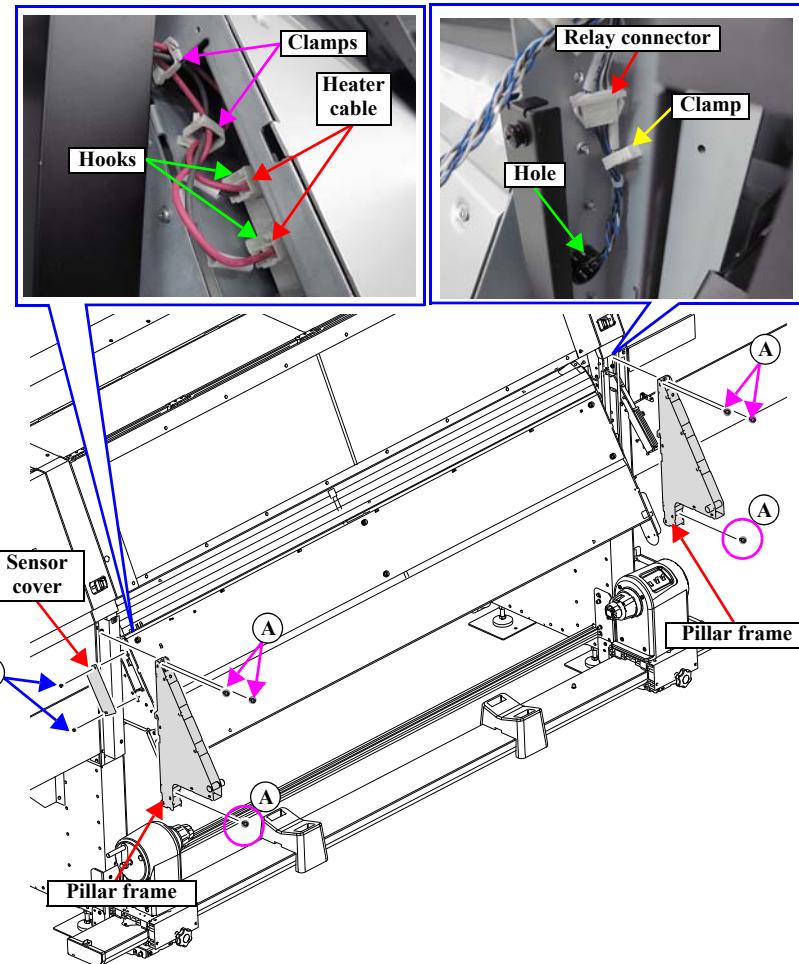


Figure 5-7.

8. Remove the 2 hexagon screws that secure the After Heater Unit.

C) Black M6x12 Hexagon screw: 2 pc



The removal and installation work must be performed by at least 2 persons because the After Heater Unit is heavy.

9. Remove the After Heater Unit while freeing it from the 2 shafts.



- Attach the After Heater Unit while keeping it level.
- Take care that the heater cables do not get pinched.

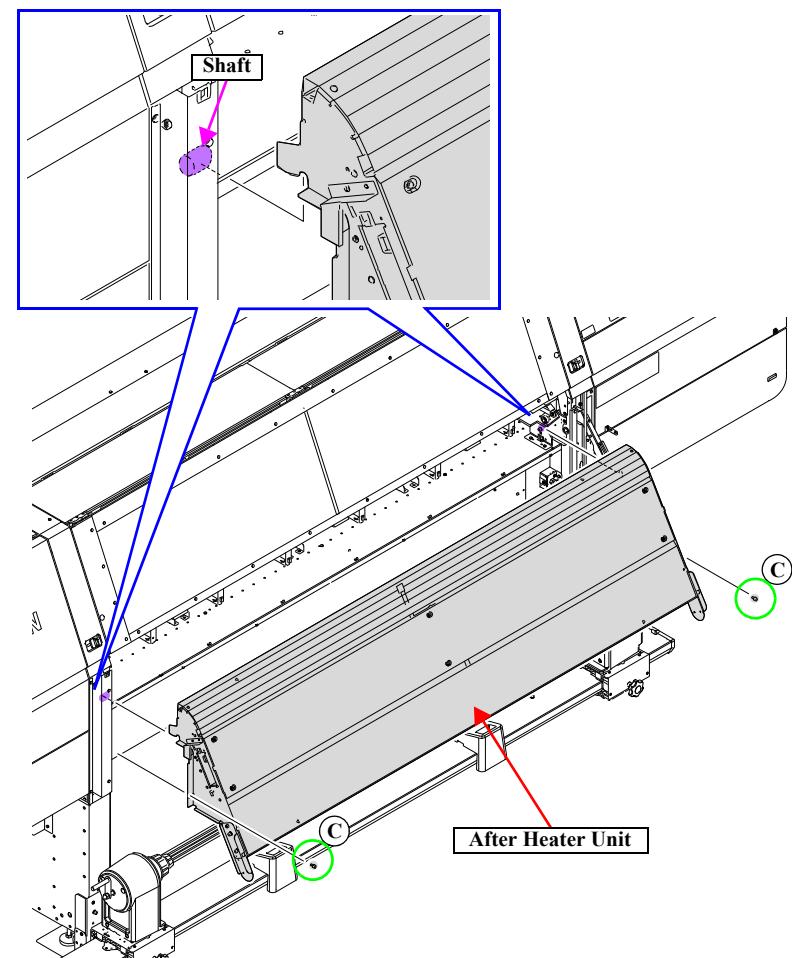


Figure 5-8.

Removing the Reel Unit

1. Disconnect the 2 cables of the Reel Flange Unit (Right).
2. Release the cables from the 2 clamps.

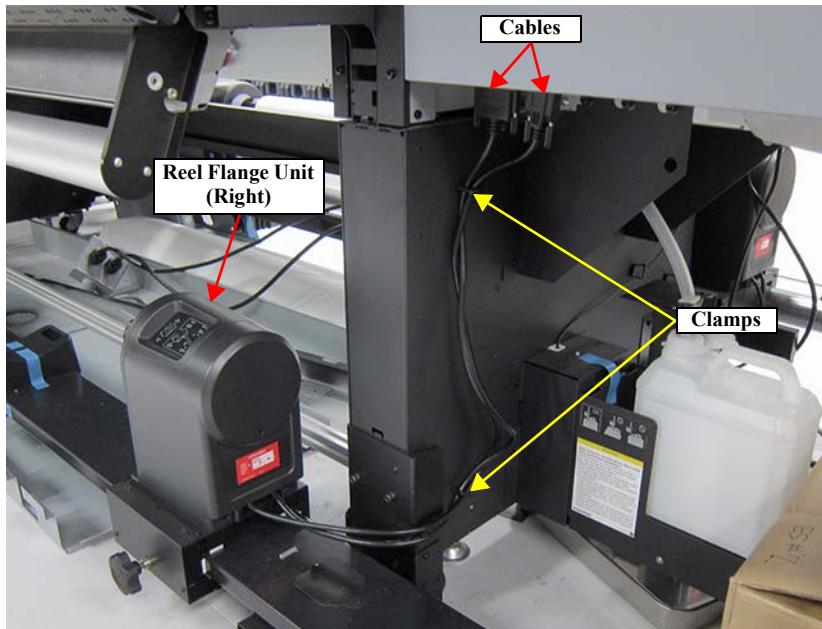


Figure 5-9.

3. Remove the thumbscrew from each screw cover and then slide the 2 screw covers.
- A) Black M3x6 S-tite Thumbscrew: each 1 pc
4. Remove each set of 2 hexagon screws that secure the Reel Unit.
- B) Black M6x20 Hexagon screw with built-in spring washer: each 2 pcs

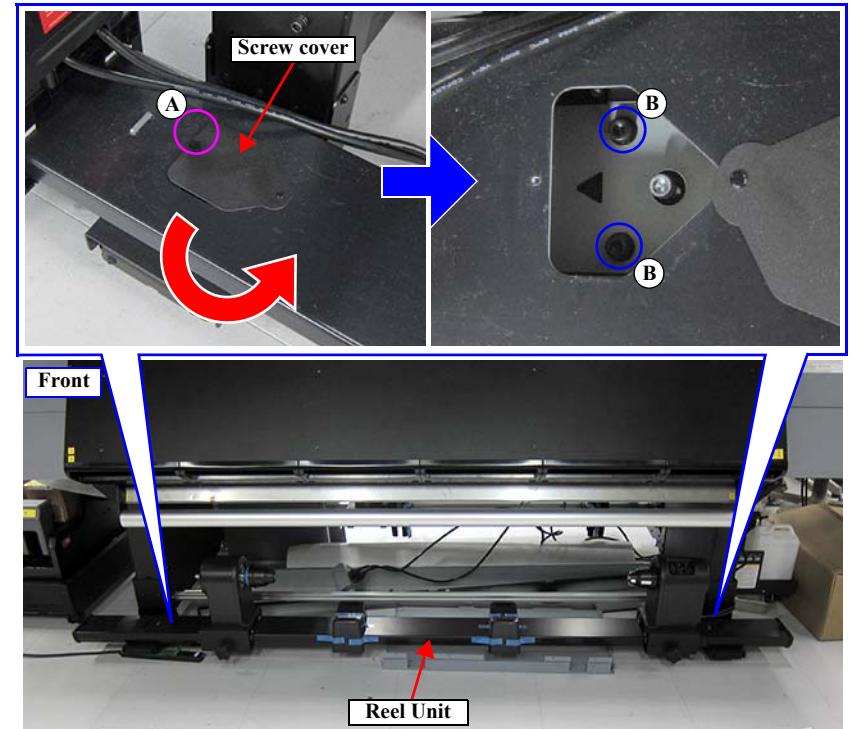


Figure 5-10.



The removal and installation work must be performed by at least 2 persons because the Reel Unit is heavy.

5. Lift up the Reel Unit and remove it.



There are positioning points (Figure 5-11).

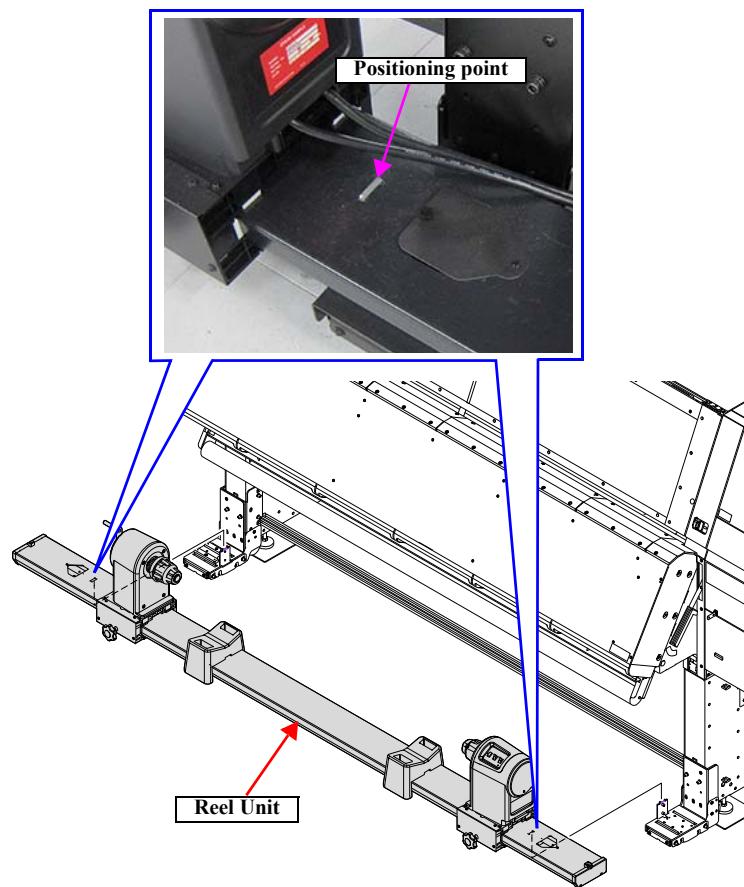


Figure 5-11.

6. Remove each set of 4 hexagon screws and then remove the 2 Reel Unit Holders.

C) Black M6x20 Hexagon screw with built-in spring washer: each 4 pcs

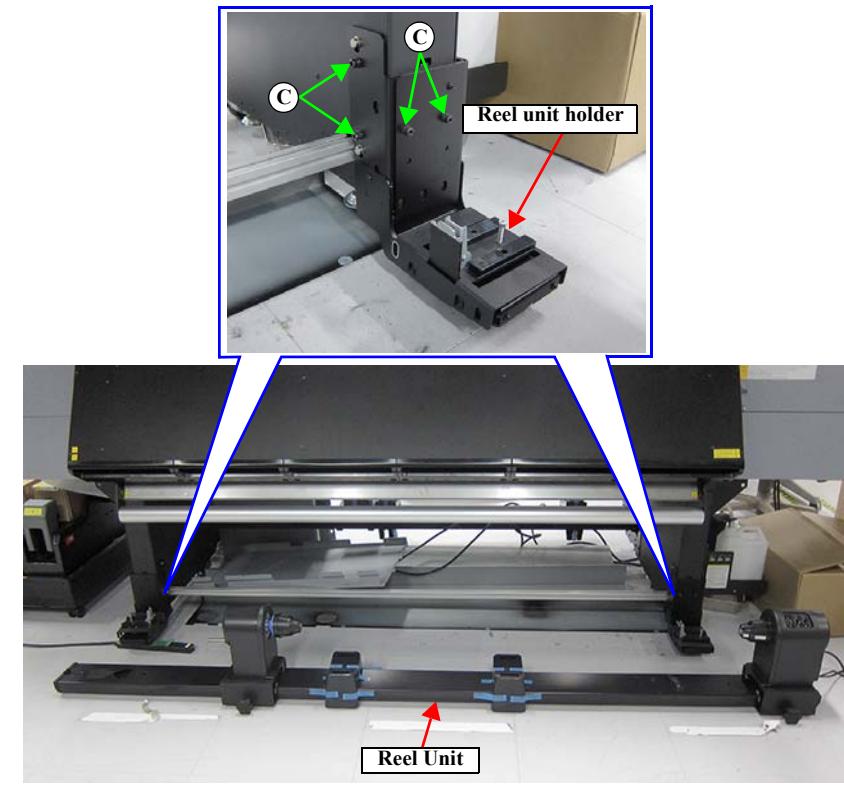


Figure 5-12.

Removing the Roll Unit

1. Disconnect the 2 cables of the Roll Flange Unit (Right).
2. Release the cables from the 2 clamps.

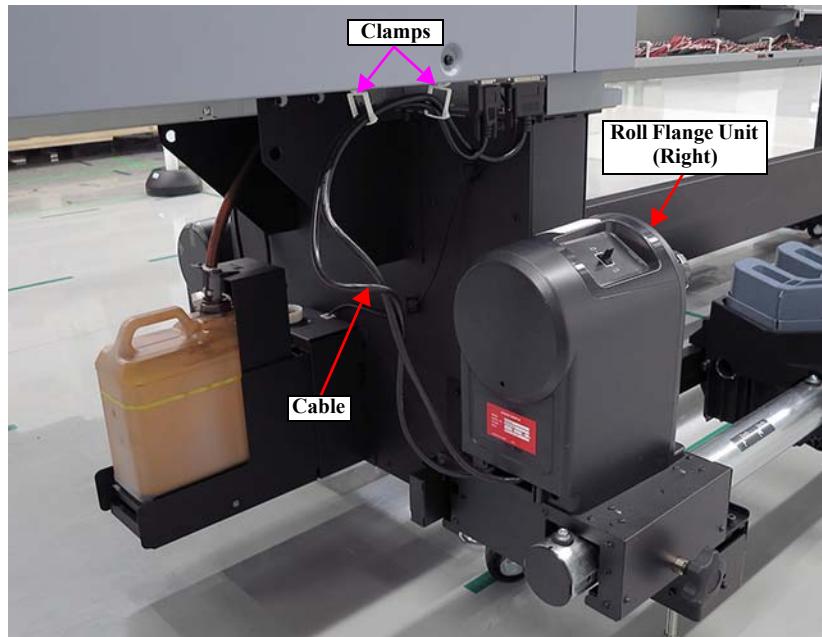


Figure 5-13.

3. Remove each set of 4 hexagon screws that secure the Roll Unit.

A) Black M6x20 Hexagon screw with built-in spring washer: each 4 pcs

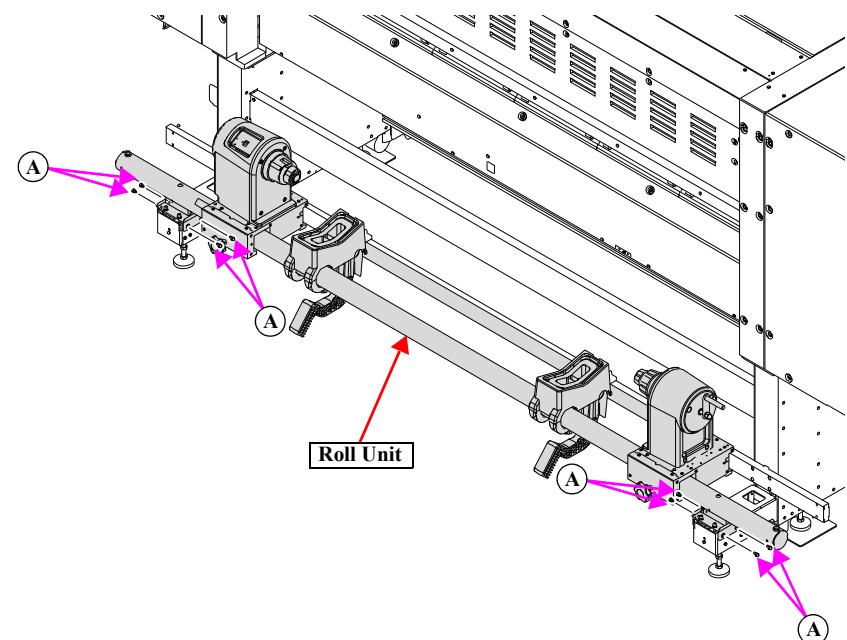


Figure 5-14.



The removal and installation work must be performed by at least 2 persons because the Roll Unit is heavy.

4. Remove the Roll Unit while freeing it from the frame.

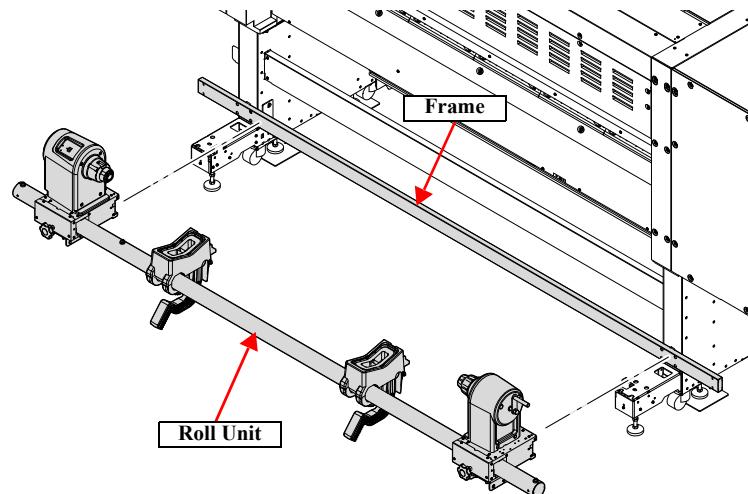


Figure 5-15.

5. Remove each set of 4 hexagon screws that secure the Roll Unit Holder.
B) Black M6x20 Hexagon screw with built-in spring washer: each 4 pcs

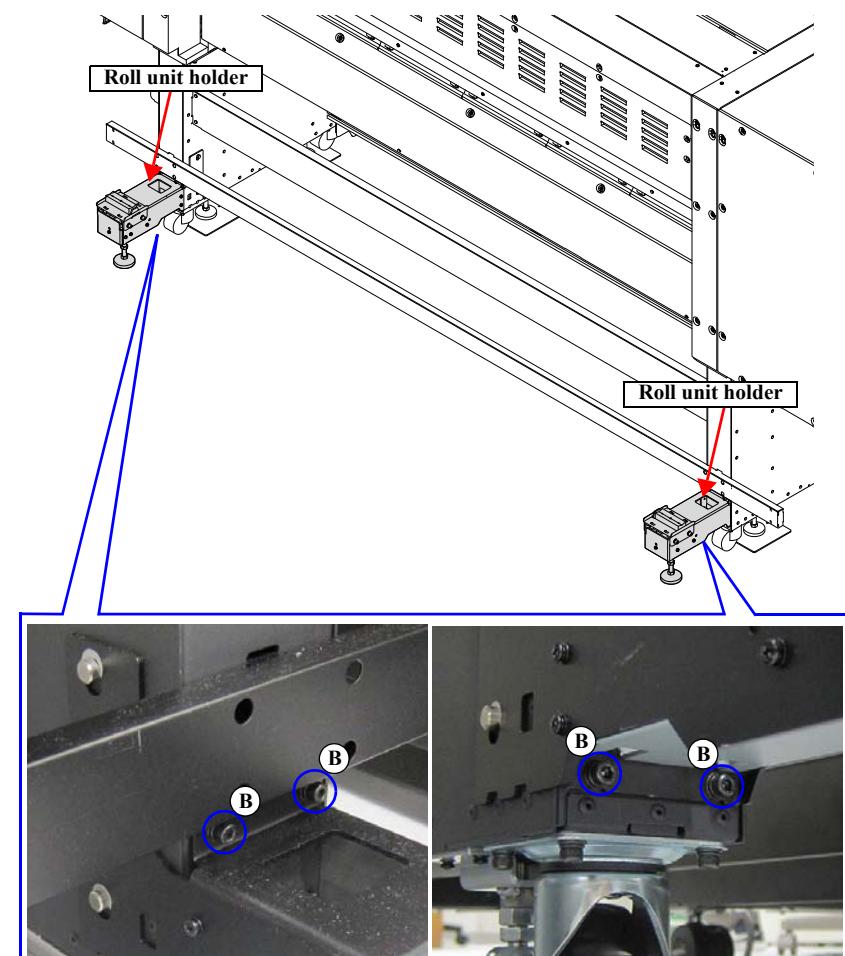


Figure 5-16.

6. Remove the Roll Unit Holders while freeing them from each set of 2 dowels of the frame.

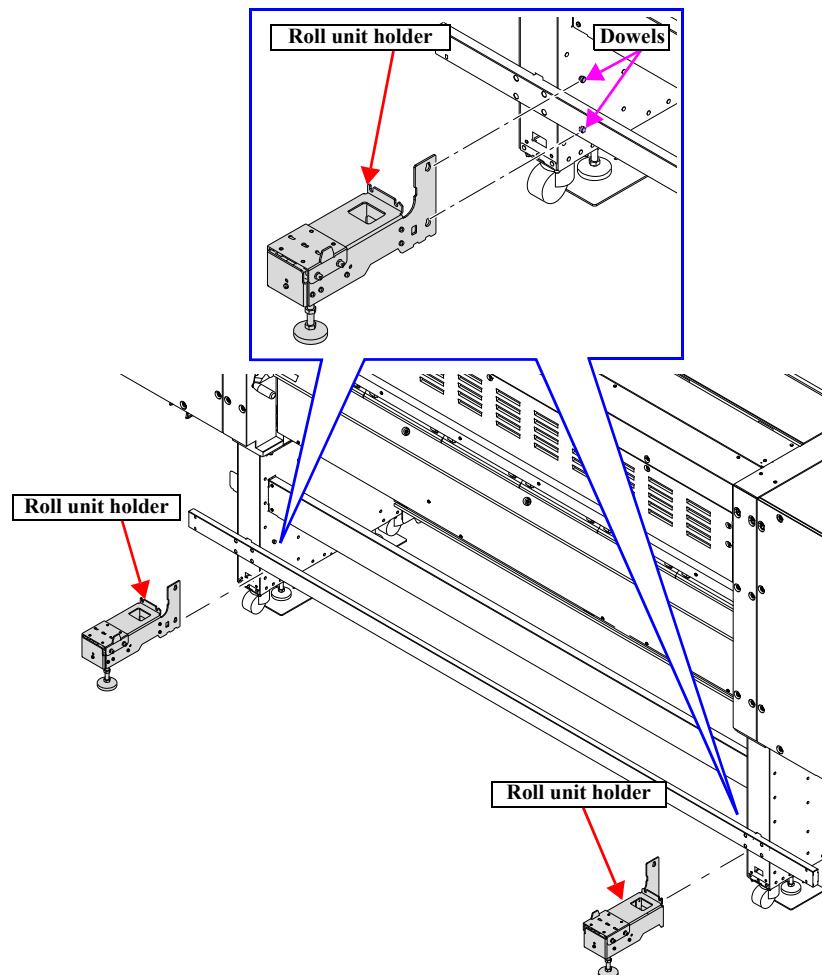


Figure 5-17.

- Removing the Lever
- 1. Remove the four screws, and remove the Lever.

- A) Black M3x8 S-tite screw with built-in washer: 2 pcs
- B) Silver M4x10 S-tite screw with built-in washer: 2 pc

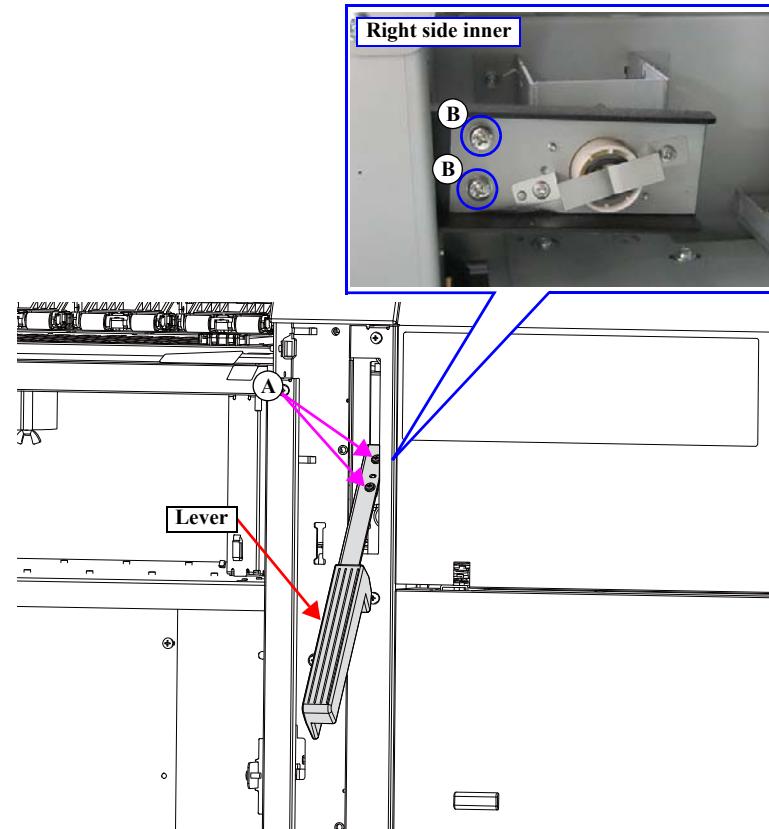
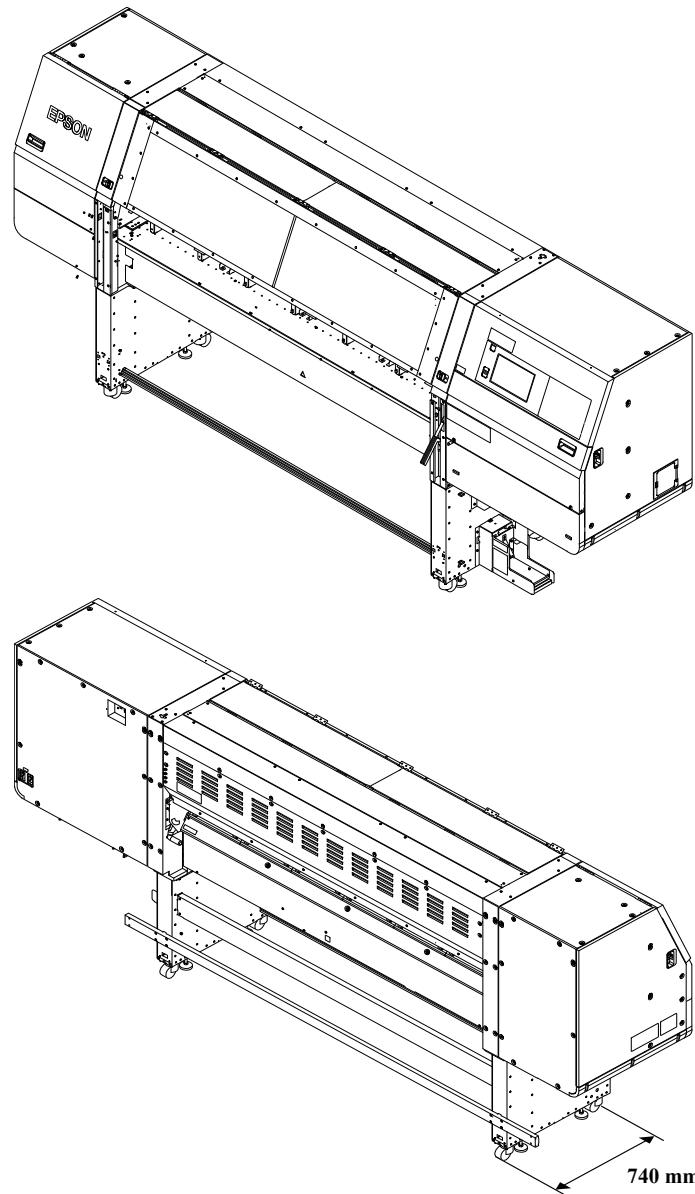


Figure 5-18.

After main unit size reduction**Figure 5-19.**

5.4 Consumables

| Parts | Life Detection Counter | Exchange message |
|-----------------------|------------------------|--|
| Ink cartridges | Dot counter | Ink is low You can continue printing until replacement is required. |
| Cleaning Kit | --- | --- |
| Wiper Roll | --- | --- |
| Waste Ink Bottle | Waste ink counter | The waste ink bottle is nearing the end of its service life. Prepare a new one. You can continue printing until replacement is required. |
| Take Up Media Holder | --- | --- |
| Take In Media Holder | --- | --- |
| Media Cleaner Brush | --- | --- |
| Presser Roller Spacer | --- | --- |

5.5 Exchange Parts

Exchange parts of this printer are as follows.

Table 5-1. Exchange Parts

| Parts | Life | Life Value | Exchange Timing (call) | |
|---------------------------------|----------------|-----------------------|-------------------------------------|--------------------------------|
| | | | Maintenance call (near life end) | Maintenance call (life end) |
| Ink Supply Pump | 5 year or more | 2,847,096 sec. | --- | --- |
| Anti-Drying Caps Drive Assembly | 5 year or more | 115,315,786 rotations | 00000020 | 00200000 |
| Cleaning Pump | 5 year or more | 2,847,096 rotations | --- | --- |
| Wiper Unit Drive Assembly | 5 year or more | 3,897,643 rotations | 00000010 | 00100000 |
| Suction Pump | 5 year or more | 3,620,353 rotations | --- | --- |
| Ink Tube | 5 year or more | 26,400,000 pass | 00000004 | 00040000 |

5.6 Cleaning

DAILY CLEANING

When lint, dust, or ink adheres to the platen or the media edge plates, it could cause clogged nozzles or ink drops to occur.

Dirt on the media path around the dryer could make the printouts dirty. To maintain optimum printing quality, we recommend cleaning before starting work every day.



- The dryer may be hot; observe all necessary precautions. Failure to observe the necessary precautions could result in burns.
- Do not put your hand inside the dryer. Failure to observe the necessary precautions could result in burns.
- Be careful not to trap your hands or fingers when opening or closing the front cover or the maintenance cover. Failure to observe these precautions could result in injury.

1. Make sure the printer is turned off and the screen has turned off, and then unplug the power cable from the outlet.
Disconnect both of the power cables.
2. Wait for one minute after unplugging the power plug.
3. Move the lock lever on the left and right side outwards to open the front cover.

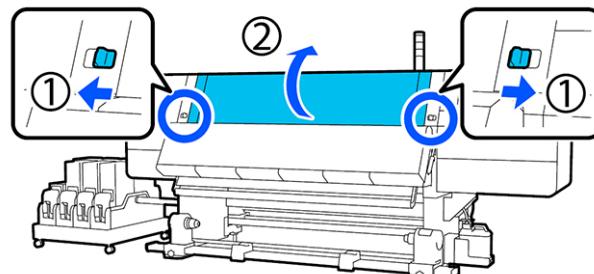


Figure 5-20.

4. Soak a soft cloth in water, wring it out thoroughly, and then wipe off any ink, lint, or dust that has adhered to the platen.
Carefully remove lint and dust stuck in the groove of the platen.

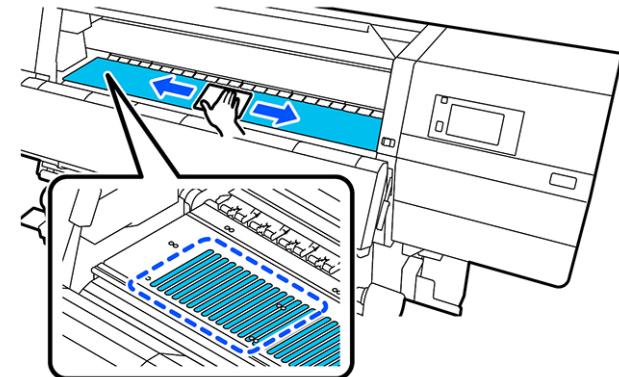


Figure 5-21.

5. Soak a soft cloth in water, wring it out thoroughly, and then wipe off any lint, or dust that has adhered to the media edge plates.



When media with glue has been used or when ink has adhered to the media edge plates, follow the procedure in the “Cleaning the media edge plates when media with glue has been used or when ink has adhered” in the next section to clean the front and back of the plates. If you continue printing while glue is stuck to the rear, it may rub against the print head.

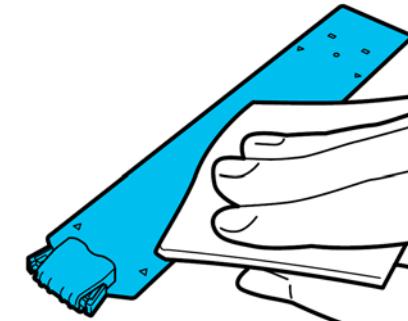


Figure 5-22.

6. Soak a soft cloth in water, wring it out thoroughly, and then wipe off any ink, lint, or dust that has adhered to the upper and lower parts of the dryer.

Wipe the area shown in the illustration below.

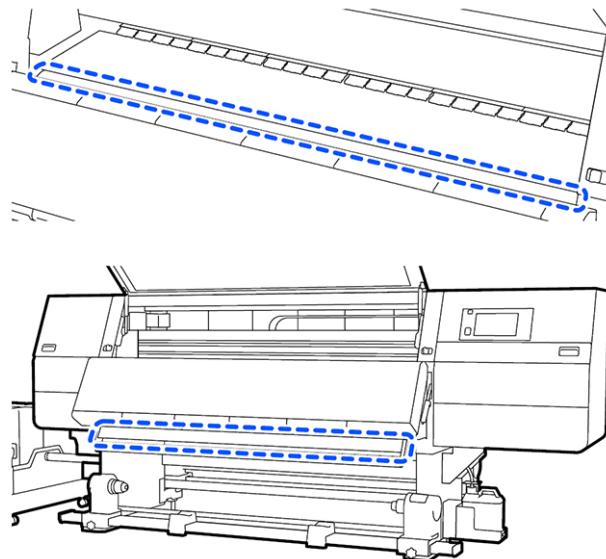


Figure 5-23.

7. After wiping off stains, close the front cover and move the left and right lock levers inwards.

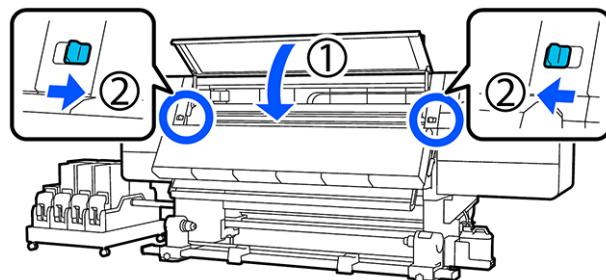


Figure 5-24.

8. Plug in both of the two power cables and turn the printer on.



Cleaning the media edge plates when media with glue has been used or when ink has adhered

1. Remove the media edge plates from the printer, and clean the front and back of the plates using a diluted neutral detergent.
2. When stains are removed, attach the plates to their original positions.

1. Open the left-side maintenance cover while lowering the lock release levers.

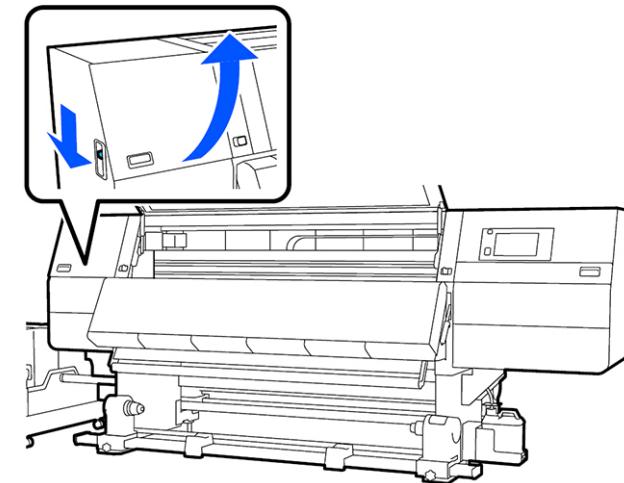


Figure 5-25.

2. While holding the tabs of the media edge plate on both sides, move the plate to the left edge of the platen to remove it.
Remove the right media edge plate also from the left side.

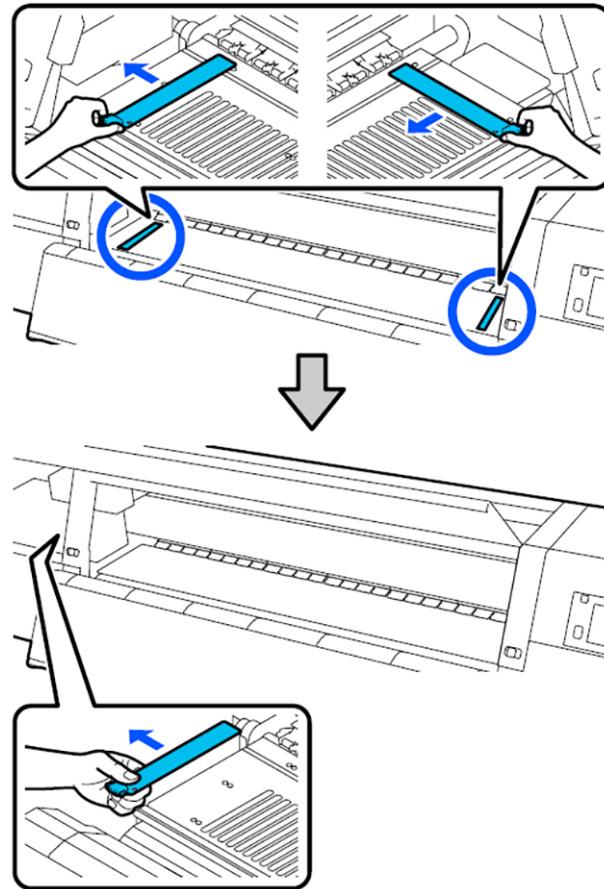


Figure 5-26.

3. Soak a soft cloth in diluted neutral detergent, wring it out thoroughly, and then wipe off any glue or ink that has adhered to the front and back of the media edge plates.

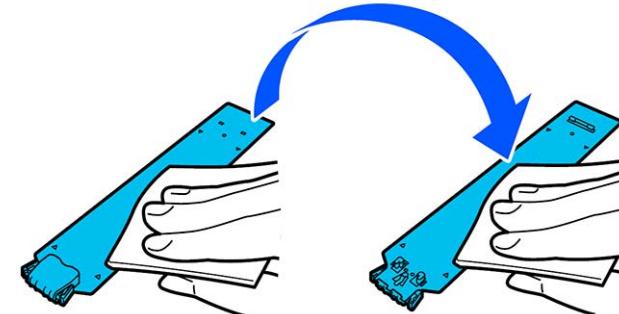


Figure 5-27.

4. After wiping off stains, insert the media edge plate from the left side of the platen. Insert the right media edge plate also from the left side.
When inserting the plate, attach the hooked sections to the front corner of the platen while pressing the tip of the metallic plate against the platen.

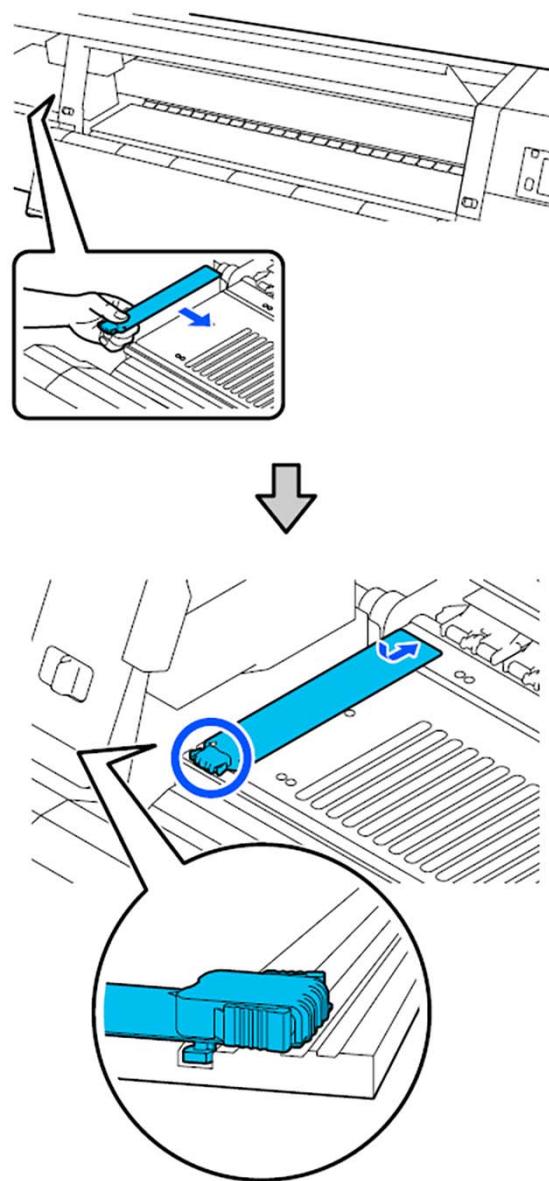


Figure 5-28.

5. Check that two hooked sections at the rear of the media edge plate are securely applied as shown below and that they are attached with no gap between the platen and media edge plate.
 1. Hook into the tip: Corners of the platen
 2. Hook into the rear of tab: Front corner of the platen



If hooked sections are not positioned correctly, return to [Step 4](#) to attach them again. Otherwise, the head may be damaged.

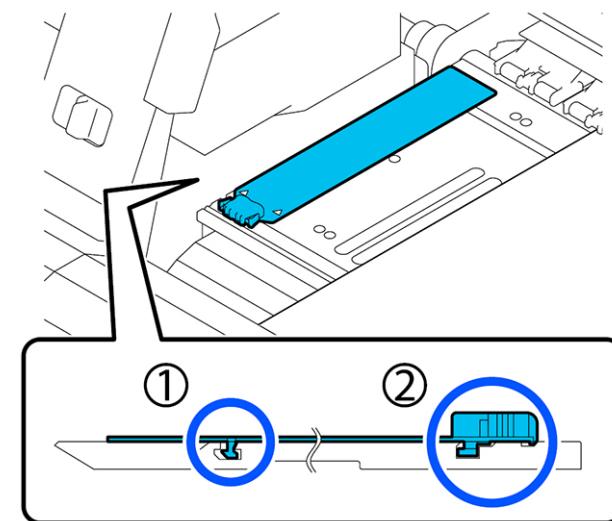


Figure 5-29.

6. While holding the tabs of each media edge plate on both sides, move both the plates to the left and right edges of the platen respectively. Releasing the tab fixes the media edge plate.

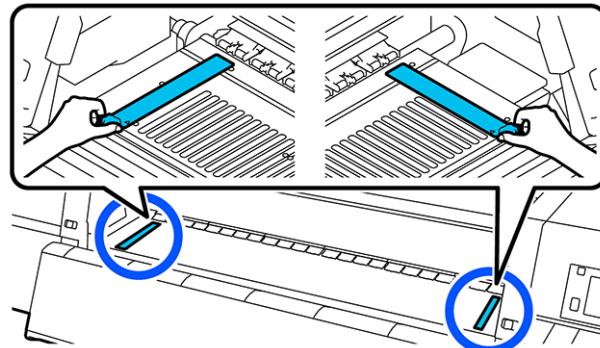


Figure 5-30.

7. Close the left-side maintenance cover.

USING CLEANING LIQUID

Only use Cleaning liquid to clean the parts indicated in the manual.

1. Put the cup supplied with the Cleaning Kit on the tray, and pour approximately 10 ml of Cleaning liquid into the cup.

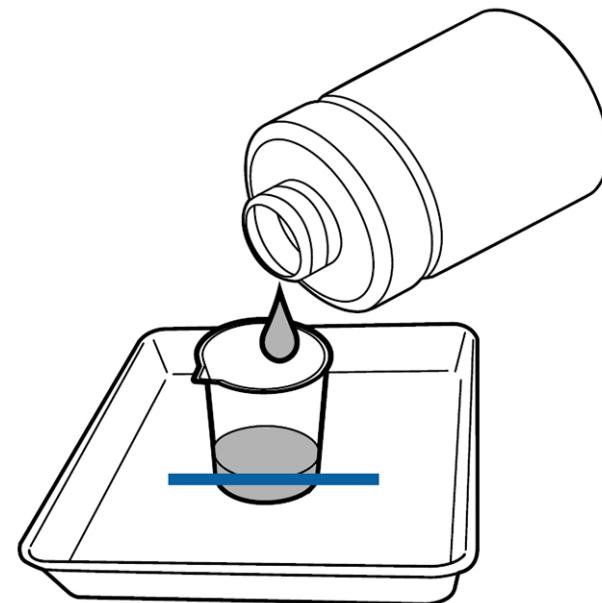


Figure 5-31.

2. Dampen the cleaning stick with Cleaning liquid.

When doing this, do not allow Cleaning liquid to drip from the cleaning stick



CAUTION

- Do not use Cleaning liquid that you have used for cleaning to clean the next time. Using dirty Cleaning liquid will make staining worse.
- Tightly close the lid of the Cleaning liquid and store it at room temperature out of direct sunlight and away from high temperatures or humidity.
- Used Cleaning liquid and cleaning sticks are industrial waste. Dispose of them in the same way as for waste inks.

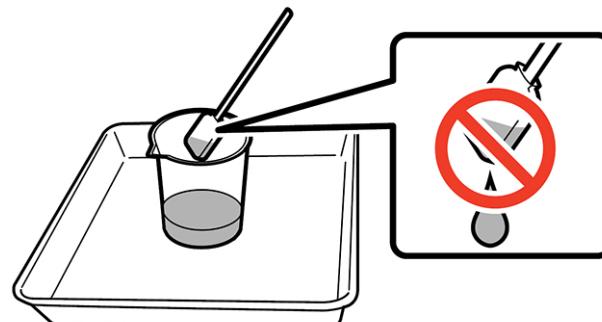


Figure 5-32.

CLEANING THE MEDIA CLEANERS

If the media cleaners are dirty, they cannot sufficiently wipe dirt and dust off the surface of the media, so there is a risk that problems may occur, such as clogged nozzles.

If the Clean the media cleaner. After cleaning is complete, press [OK]. message appears on the control panel's screen, use the supplied media cleaner brush to clean them.

1. Check the on-screen message, and then move to the back side and remove the media cleaners.\

While pressing the tabs on both sides, pull it off.

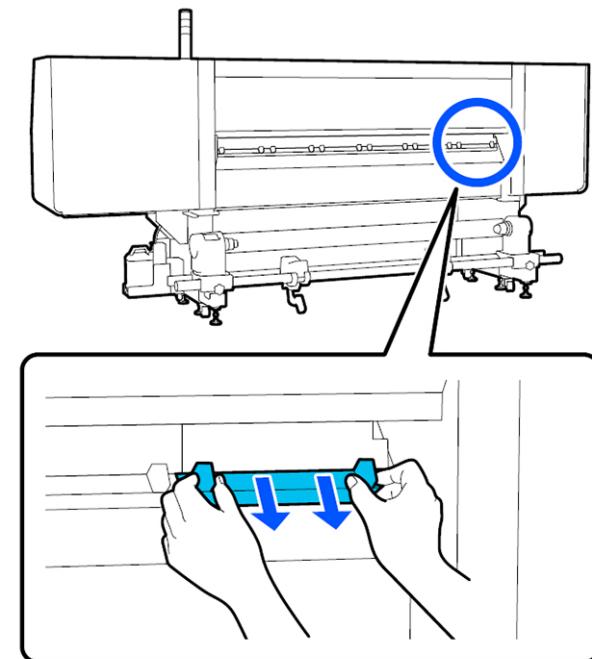


Figure 5-33.

2. Check the on-screen message, and then move to the back side and remove the media cleaners.
While pressing the tabs on both sides, pull it off.
4. Repeat Steps 2 and 3 to clean all of the media cleaners.
5. On the screen, press **Done**.



You can switch the direction in which to wipe.

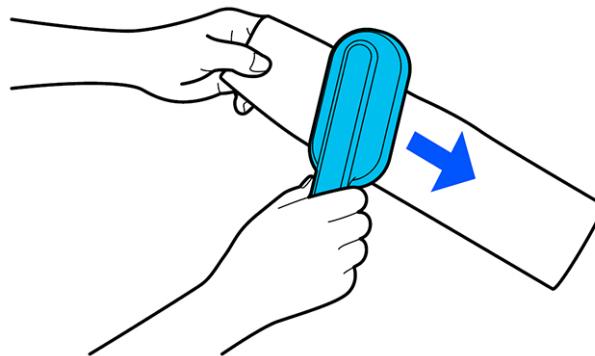


Figure 5-34.

3. When you finish cleaning a media cleaner, install it to the printer.
Hold the tabs as you insert the media cleaner until you hear a click.

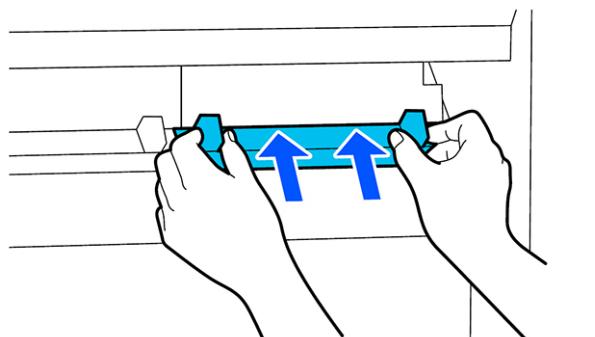


Figure 5-35.

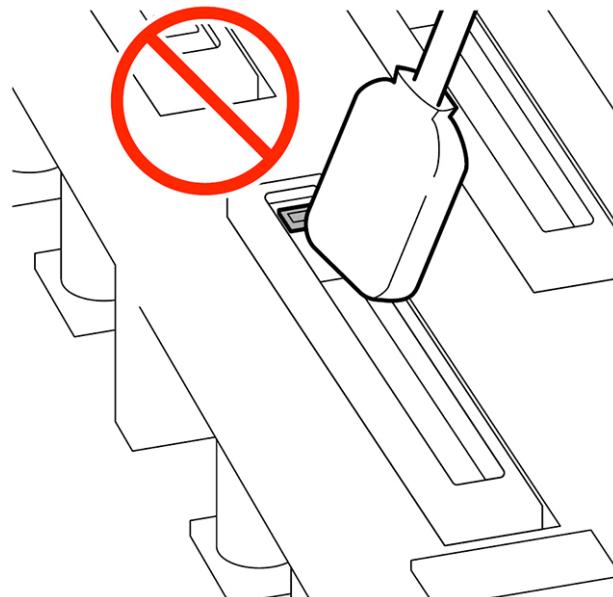
CLEANING ANTI-DRYING CAPS

When an anti-drying cap needs to be cleaned, the Cleaning the Anti-Drying Caps. message appears on the screen, and the cap that needs to be cleaned is indicated.

When this message appears, follow the steps below to clean only the indicated cap



When using a cleaning stick to wipe off a cap, do not wipe off the area around the hole inside the cap. The cleaning fluid may get into the hole, causing the cap to not function correctly.



1. If Cleaning the Anti-Drying Caps. appears on screen, confirm which cap to clean. The cap that needs to be cleaned is highlighted, as shown in the illustration. After confirming, and then pressing Start, the print head moves to the right side.

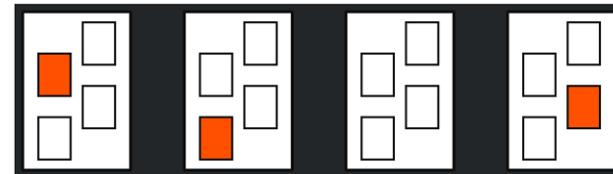


Figure 5-36.

2. Lower the lock release lever to open the left-side maintenance cover.

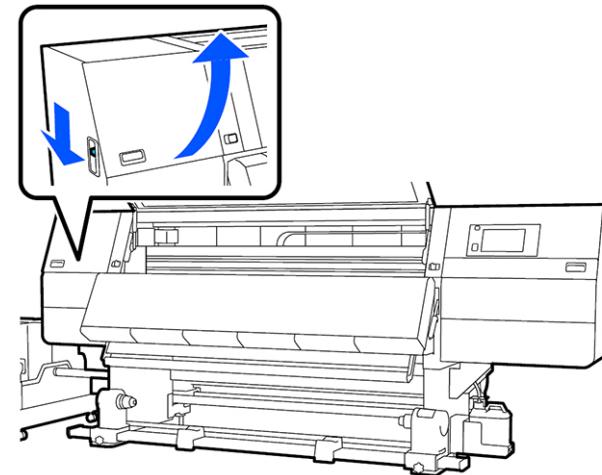


Figure 5-37.

3. Dampen the cleaning stick with cleaning fluid.
4. Hold the cleaning stick in a perpendicular orientation, and wipe the outer area of the cap that needs to be cleaned.
While wiping, avoid the area around the hole inside the cap.

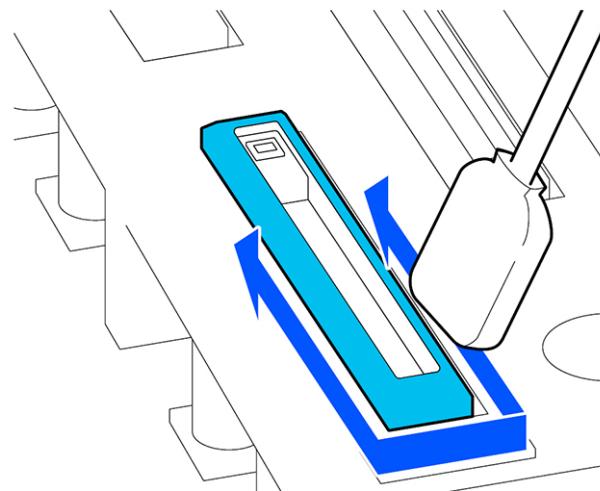


Figure 5-38.

5. Hold the cleaning stick flat and wipe the edges of the cap. While wiping, avoid the area around the hole inside the cap.

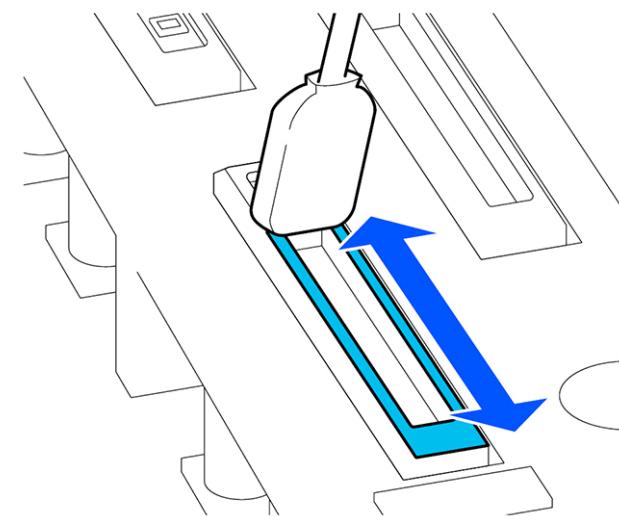
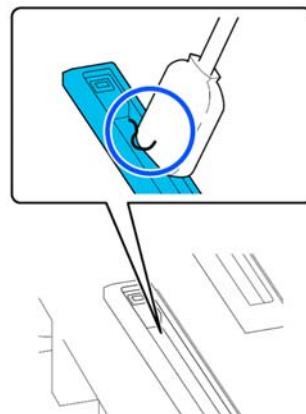


Figure 5-39.



When there is lint or dust on the cap, remove it by using the tip of the cleaning stick.



6. Hold the cleaning stick in a perpendicular orientation, and wipe the inside of the cap.

While wiping, avoid the area around the hole inside the cap and move the cleaning stick only in the direction away from the hole.

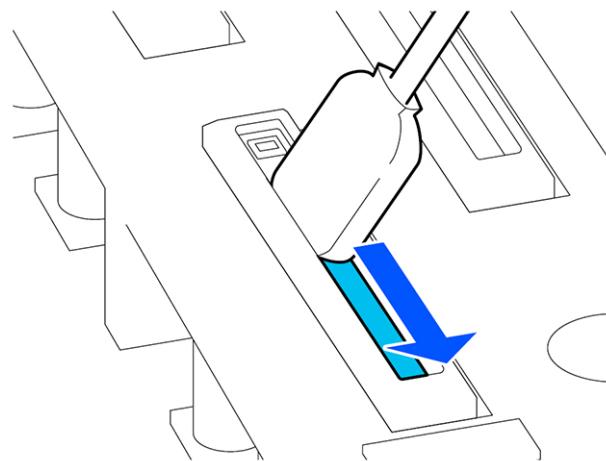


Figure 5-40.

7. Use a new dry cleaning stick to wipe up all the ink and cleaning fluid on the inside, edges, and area around the cap.

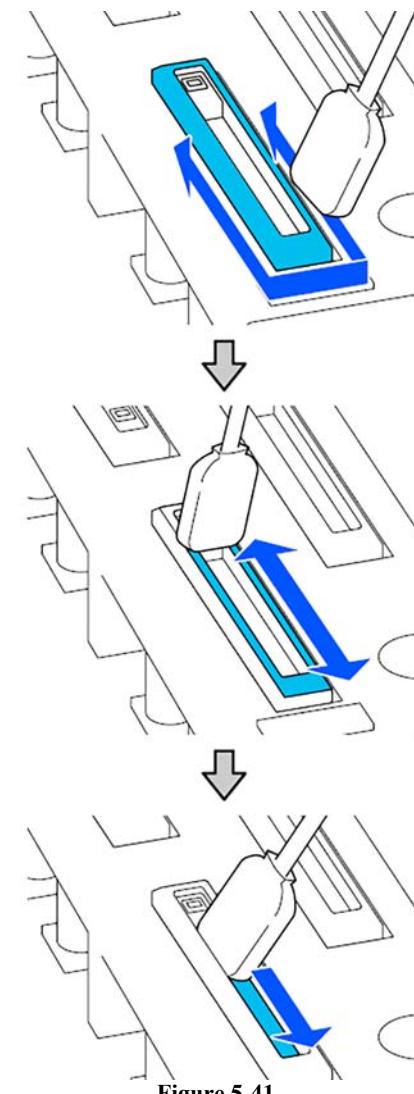


Figure 5-41.

Wipe up all the ink and cleaning fluid, leaving no residue, as shown in the illustration below. If any ink or cleaning fluid is left over, it could clog the nozzles.



Figure 5-42.

8. Close the maintenance cover, and then press **Done**.

The print head returns to its normal position.

When the print head returns to its normal position, the screen for checking if the print head is dirty appears.

If necessary, clean the print head.

CLEANING SUCTION CAPS

Clean the suction caps before doing Print Head Refresh. If you do not clean the suction caps, doing Print Head Refresh is not fully effective. Before doing Print Head Refresh, use the following procedure to clean the suction caps.

1. On the Home screen, press , and then press in the order of **Cleaning the Maintenance Parts - Suction Cap**.
2. Check the on-screen message, and then press **Start**.
3. Lower the lock release lever to open the right-side maintenance cover.

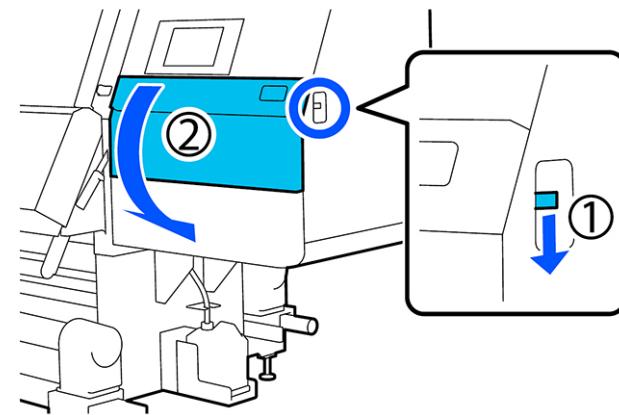


Figure 5-43.

4. Dampen the cleaning stick with cleaning fluid.
Use new cleaning sticks and cleaning fluid.
5. Hold the cleaning stick in a perpendicular orientation, and wipe the outer areas of all the caps.

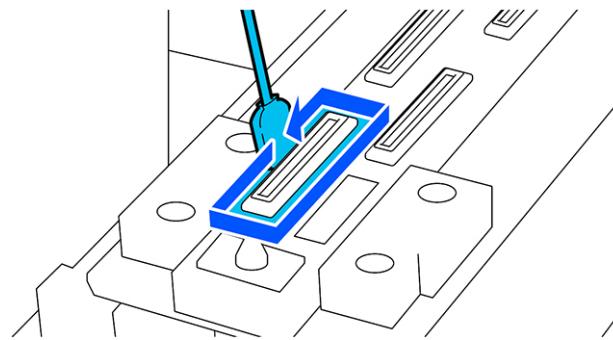


Figure 5-44.

6. Hold the cleaning stick flat and wipe the edges of all the caps.

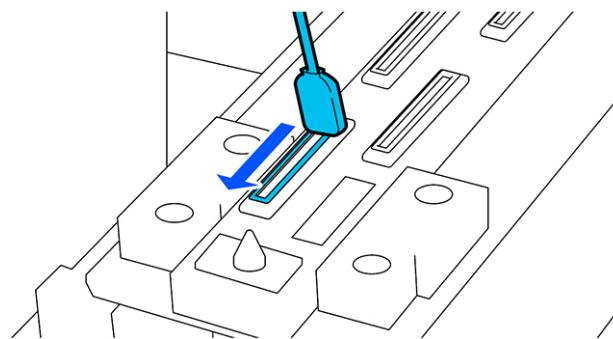


Figure 5-45.

7. Check that there are no ink stains, lint, or dust attached to the edges or outer area of the cap.
If they are not dirty, cleaning is complete.
If any dirt remains, repeat Steps 5 and 6 to wipe off any dirt.
8. Close the maintenance cover.

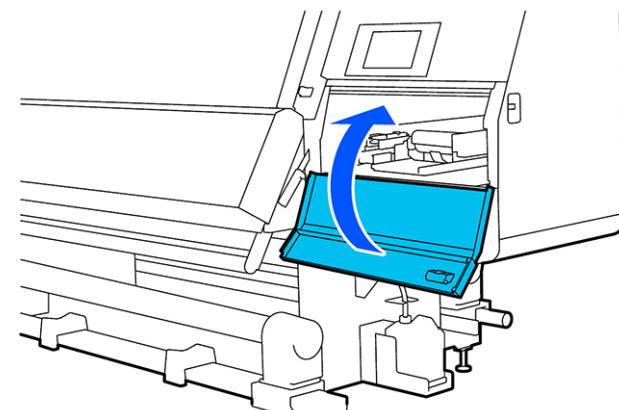


Figure 5-46.

9. On the control panel screen, press **Done**.

CLEANING AROUND THE PRINT HEAD

If any of the following problems occur, check the print head and clean it if there are any ink clots, lint, or dust.

- Media jams
- Print head striking
- Print results are dirty

1. Move the print head to the cleaning position.

If the media has jammed, remove the jammed media, and when Open the Maintenance Cover and clean around the print heads if they are dirty. appears, press Confirmation.

For problems other than jammed media, press  on the Home screen, and then press in the order of **Cleaning the Maintenance Parts - Around the Head**.

2. Check the on-screen message, and then press **Start**.

3. Confirm that the print head has moved to the right side, and then press the lock release lever to open the right-side maintenance cover.

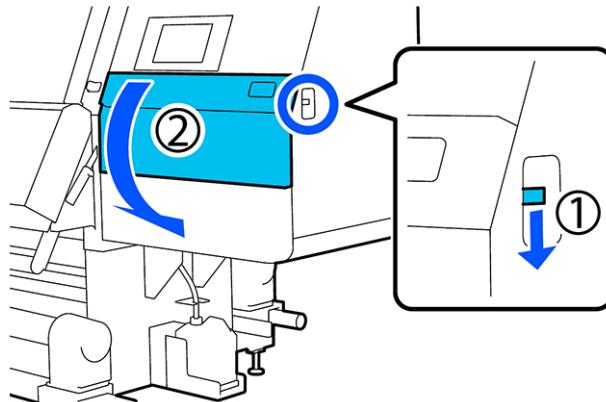


Figure 5-47.

4. Check for dirt on the print head.

Check that there is no ink, lint, or dust stuck to the area  shown in the illustration.

If it is dirty, then move on to the next procedure.

If it is not dirty, then move on to Step 7.

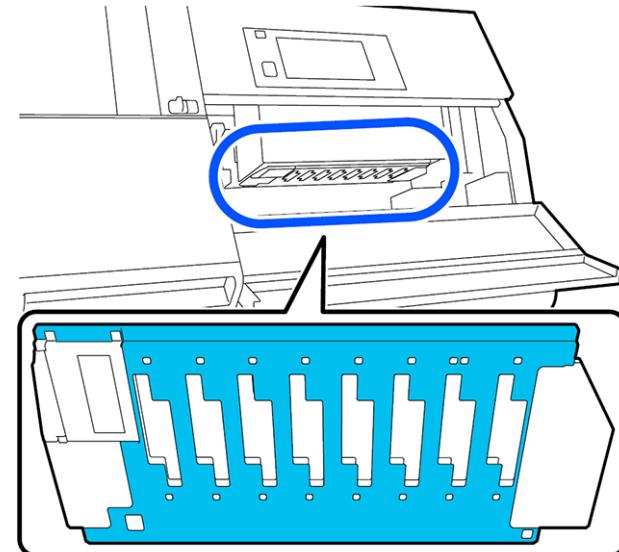


Figure 5-48.

5. Dampen the cleaning stick with cleaning fluid. Use new cleaning sticks and cleaning fluid.

6. Wipe off any ink, lint, or dust that is stuck to the area  shown in the illustration.



- If the cleaning stick becomes dirty, rinse it with cleaning fluid as you wipe.
- After removing a clot of ink with a cleaning stick, wipe the cleaning stick against the edge of the cup to remove the clot.

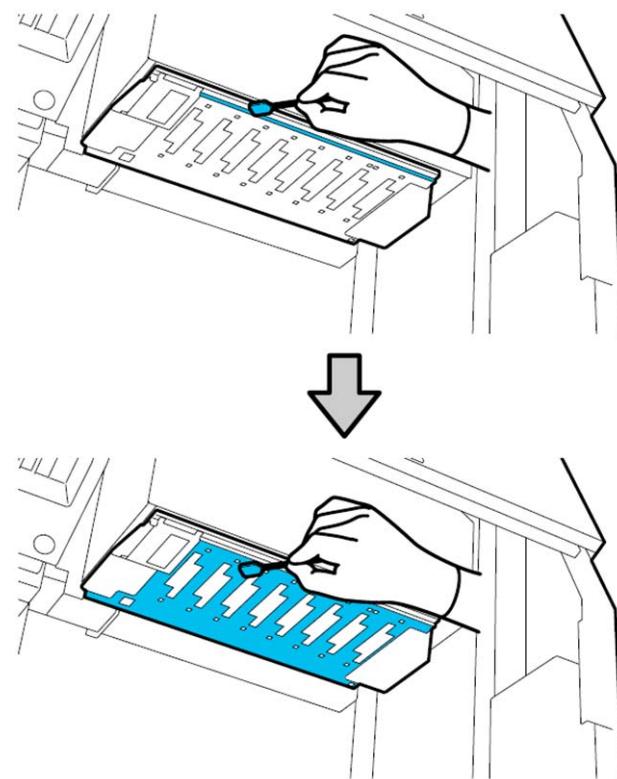
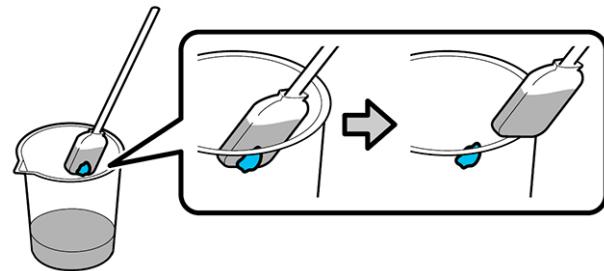


Figure 5-49.

Wipe off the ink stains until you can see the metal surface of the print head, as shown in the illustration.

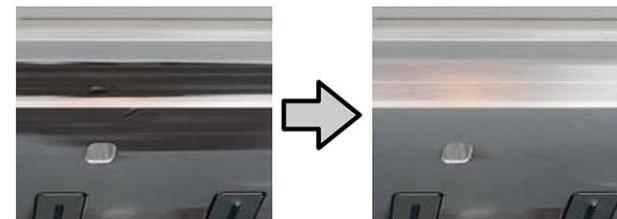


Figure 5-50.

7. Close the maintenance cover.

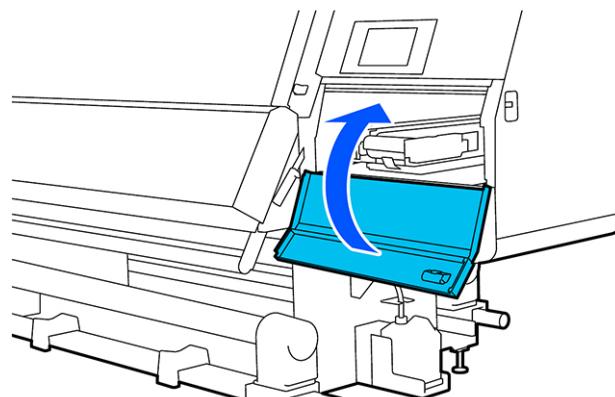


Figure 5-51.

8. On the control panel screen, press **Done**.

CLEANING THE INSIDE LIGHT

The printer has an inside light inside the front cover and maintenance covers to make it easy to check print results and areas for maintenance. If ink mist makes the surface of the inside light dirty, it becomes dim so checking becomes difficult. If it seems dim, follow the steps below to clean it.



Be careful not to trap your hands or fingers when opening or closing the front cover or the maintenance covers. Failure to observe these precautions could result in injury.

1. Move the lock levers on the left and right sides outwards to open the front cover.

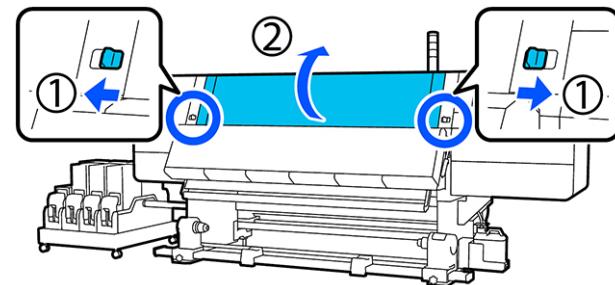


Figure 5-52.

2. Soak a soft cloth in water, wring it out thoroughly, and then wipe any dirt off of the inside light surfaces shown in the illustration.

There are a total of 4 inside lights inside the front cover. Wipe the dirt from all these surfaces.

For anything that cannot be removed with a damp cloth, dip a cloth in neutral detergent, squeeze it out, and then wipe the stubborn stain.

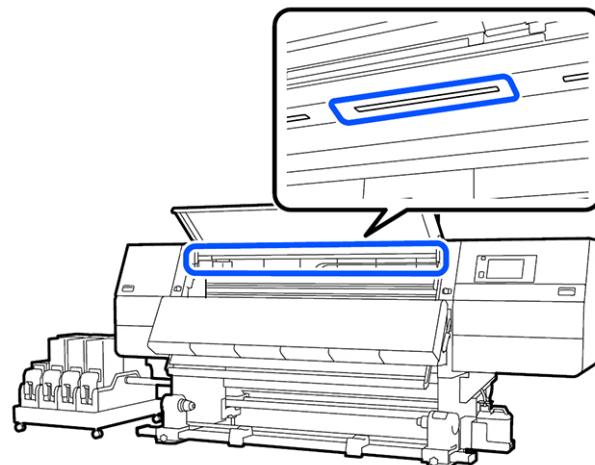


Figure 5-53.

3. After wiping off stains, close the front cover and move the left and right lock levers inwards.

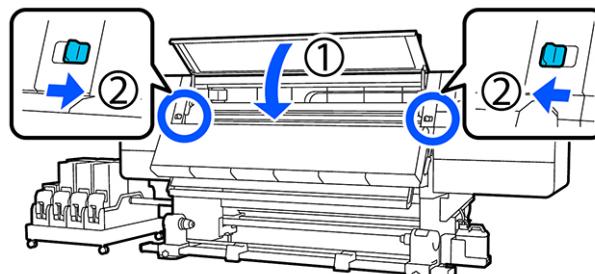


Figure 5-54.

4. Lower the lock release lever to open the left-side maintenance cover.

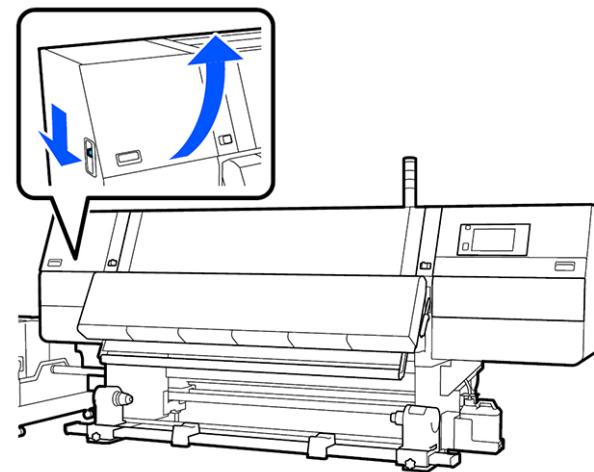


Figure 5-55.

5. Soak a soft cloth in water, wring it out thoroughly, and then wipe any dirt off of the inside light surfaces shown in the illustration.

For anything that cannot be removed with a damp cloth, dip a cloth in neutral detergent, squeeze it out, and then wipe the stubborn stain.

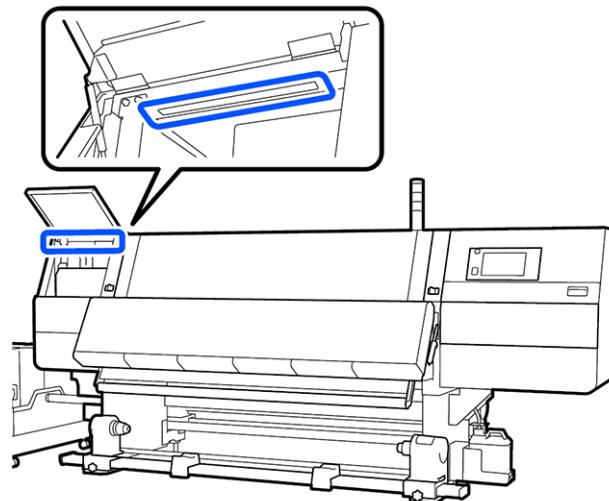


Figure 5-56.

6. After wiping off the dirt, close the maintenance cover.

CLEANING THE FRONT COVER

The front cover becomes dirty from dust and ink mist, etc., if you continue to use the printer in this condition, the inside of the printer becomes difficult to see. If it is dirty, follow the steps below to clean.



Be careful not to trap your hands or fingers when opening or closing the front cover or the maintenance covers. Failure to observe these precautions could result in injury.

1. Make sure the printer is turned off and the screen has turned off, and then unplug the power cable from the outlet.
Disconnect both of the 2 power cables.
2. Soak a soft cloth in water, wring it out thoroughly, and then wipe any dirt off of the window on the front cover.
For anything that cannot be removed with a damp cloth, dip a cloth in neutral detergent, squeeze it out, and then wipe the stubborn stain.

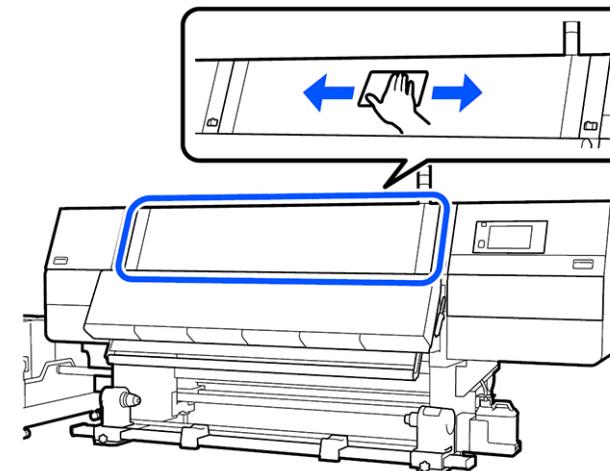


Figure 5-57.

3. Move the lock levers on the left and right sides outwards to open the front cover.

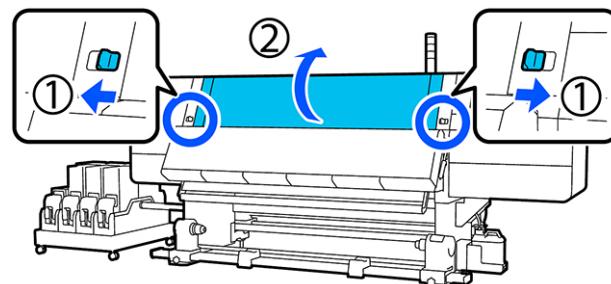


Figure 5-58.

4. Wipe the inner side of the window.

For anything that cannot be removed with a damp cloth, dip a cloth in neutral detergent, squeeze it out, and then wipe the stubborn stain.

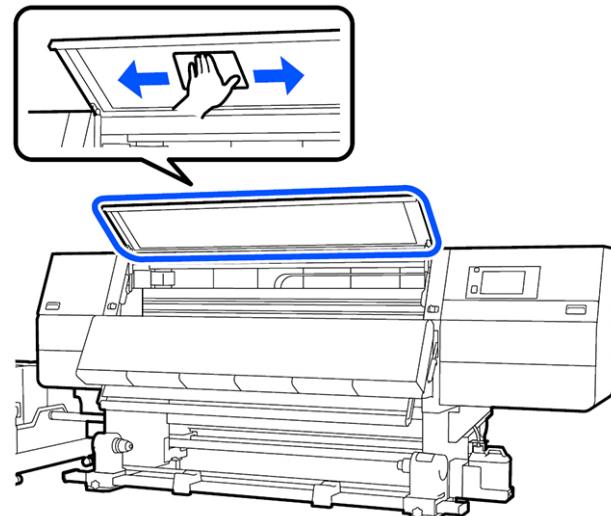


Figure 5-59.

5. After wiping off stains, close the front cover and move the left and right lock levers inwards.

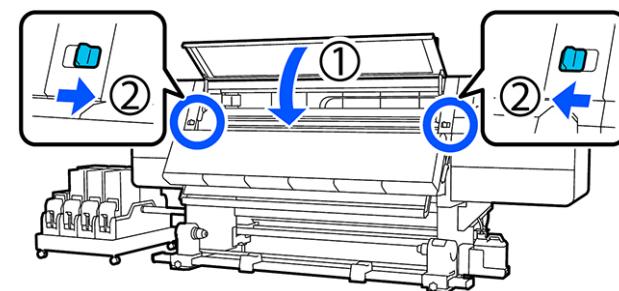


Figure 5-60.

CLEANING RGB CAMERA LED

LED of the RGB Camera may get stained with mist or the like. If so, clean the LED in the procedure given below.

1. Remove the RGB Camera. ([p430](#))
2. If the LED is stained with ink (darkened), while being careful not to damage the LED, clean it with a wet cotton swab or a wet cleaning stick.
3. Wipe off the moisture with a dry cotton swab or a dry cleaning stick.

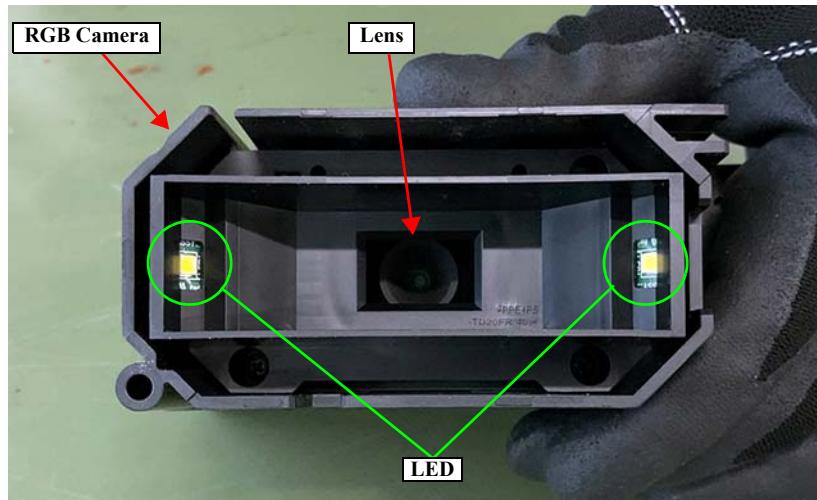


Figure 5-61.



CAUTION

- Do not use solvent other than water and alcohol since the packaging material of the LED may get eroded/swelled.
- Do not wipe the LED too hard or wipe the LED repeatedly. It may damage the LED and failure may occur.
- To prevent the lens of the RGB Camera from staining, be careful not to touch the lens when cleaning.

CLEANING SHUTTER

If the reading section of the Shutter is stained with ink, clean it with a cleaning stick and cleaning liquid.

1. Remove the Shutter. ([p487](#))
2. Impregnate a cleaning stick with cleaning liquid. Make sure to use a new cleaning stick and cleaning liquid.
3. Wipe off ink stained on the reading section (white section) of the shutter with the cleaning stick.

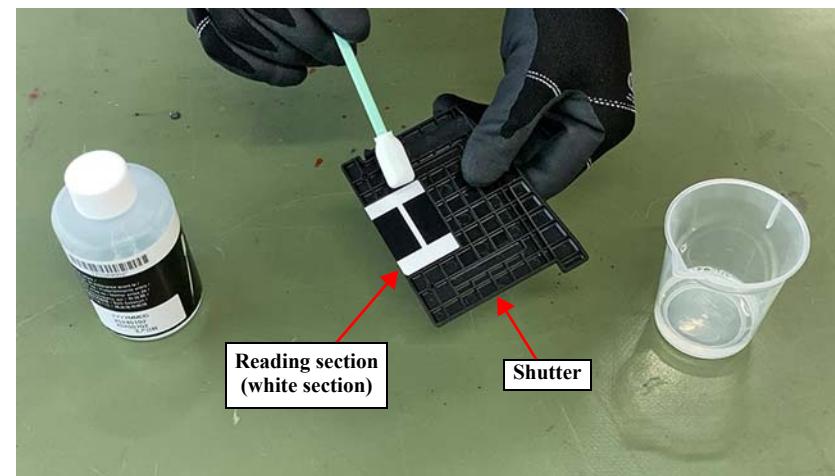


Figure 5-62.



CAUTION

- Do not impregnate cleaning liquid too much.
- Do not wipe too hard when cleaning.
- Do not peel off the reading section.

5.7 Lubrication

This section describes necessary lubrication to maintain the functions and performance of this printer. Make sure to properly lubricate the parts/units specified in this section as necessary when replacing or maintaining them.



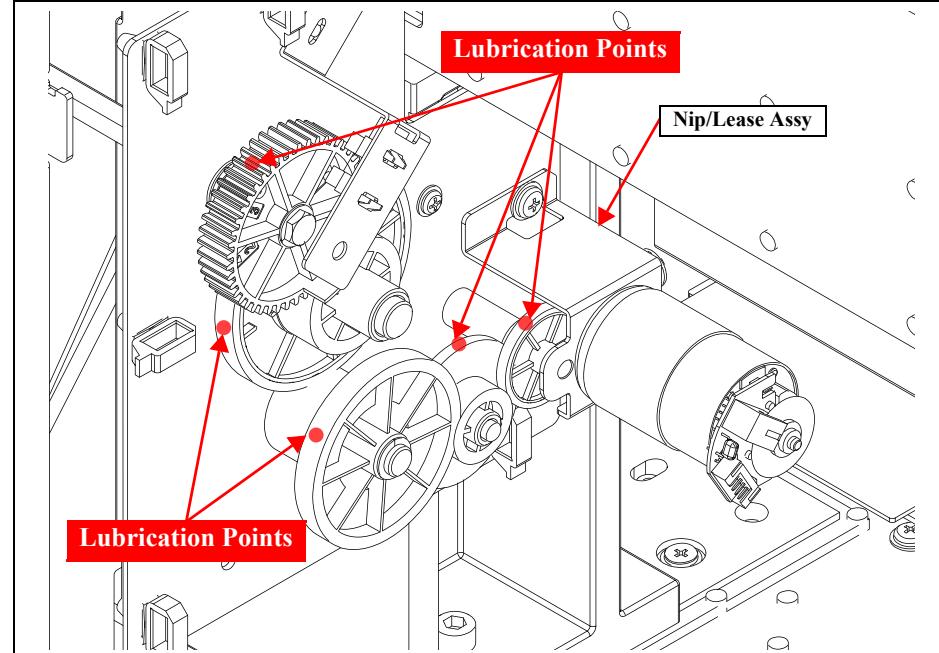
- Make sure to perform the lubrication following the specified lubrication points, lubricants, and amount. Otherwise, the printer may not operate normally.
- When lubricating the originally installed parts, first wipe off the old lubricant completely.

Table 5-2. Lubrication Points List

| No. | Corresponding Part | Name of Lubricant | Lubrication Tool | Reference |
|-----|--------------------|---|------------------|------------------------|
| 1 | Nip/Lease Assy | Parts name: G-26 Parts code: 1080614 | φ 2 mm injector | P. 667 |
| 2 | Panel Assy | Parts name: G-26 Parts code: 1080614 | φ 2 mm injector | P. 668 |
| 3 | LM Guide | Parts name: AFA Grease (THK) | Grease gun | P. 668 |

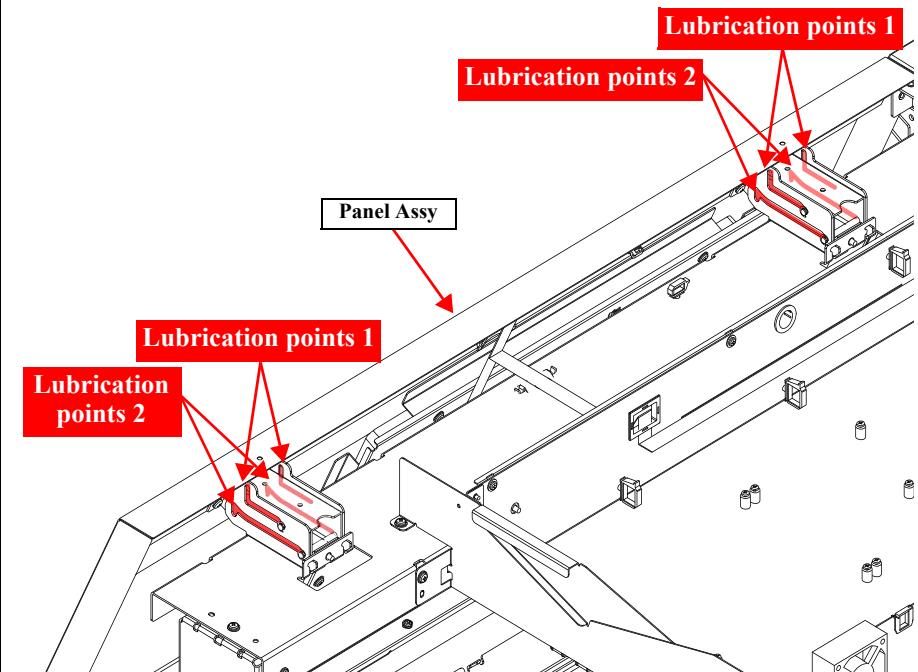
[Lubrication 1]

| | |
|------------------------|---|
| Pats name | Nip/Lease Assy |
| Lubricants (Part Code) | G-26 |
| Amount | φ 2 mm x 2 mm x 5 points |
| Lubrication Tool | φ 2 mm injector |
| Lubrication Manner | After lubricating, rotate the gears by one round. |
| Note | --- |



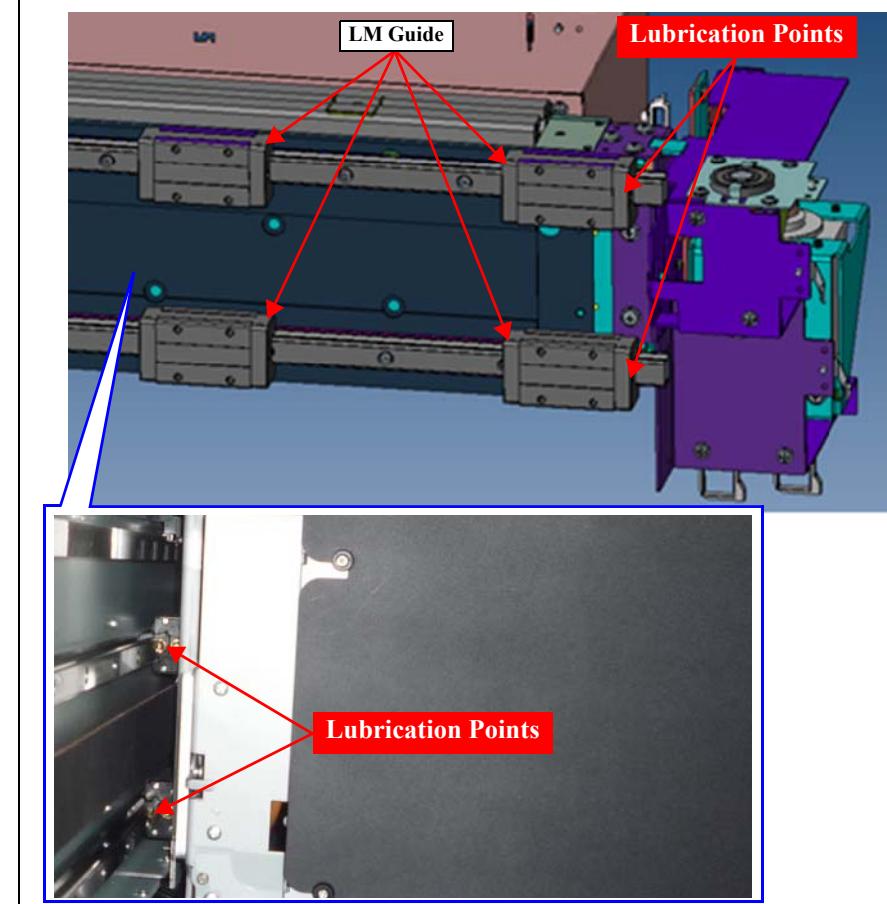
[Lubrication 2]

| | |
|------------------------|---|
| Pats name | Panel Assy |
| Lubricants (Part Code) | G-26 |
| Amount | 1. ϕ 2 mm x 20 mm x 4 points 2. ϕ 2 mm x 30 mm x 4 points |
| Lubrication Tool | ϕ 2 mm injector |
| Lubrication Manner | After lubricating, spread the grease on the entire groove with a brush. |
| Note | --- |



[Lubrication 3]

| | |
|------------------------|---|
| Pats name | LM Guide |
| Lubricants (Part Code) | AFA Grease (THK) |
| Amount | Appropriate amount |
| Lubrication Tool | Grease gun |
| Lubrication Manner | Touch the nozzle of the grease gun to the grease filler port and fill with grease until it overfill. Make sure to wipe off the overfilled grease. |
| Note | --- |



CHAPTER

6

APPENDIX

6.1 Block Wiring Diagram

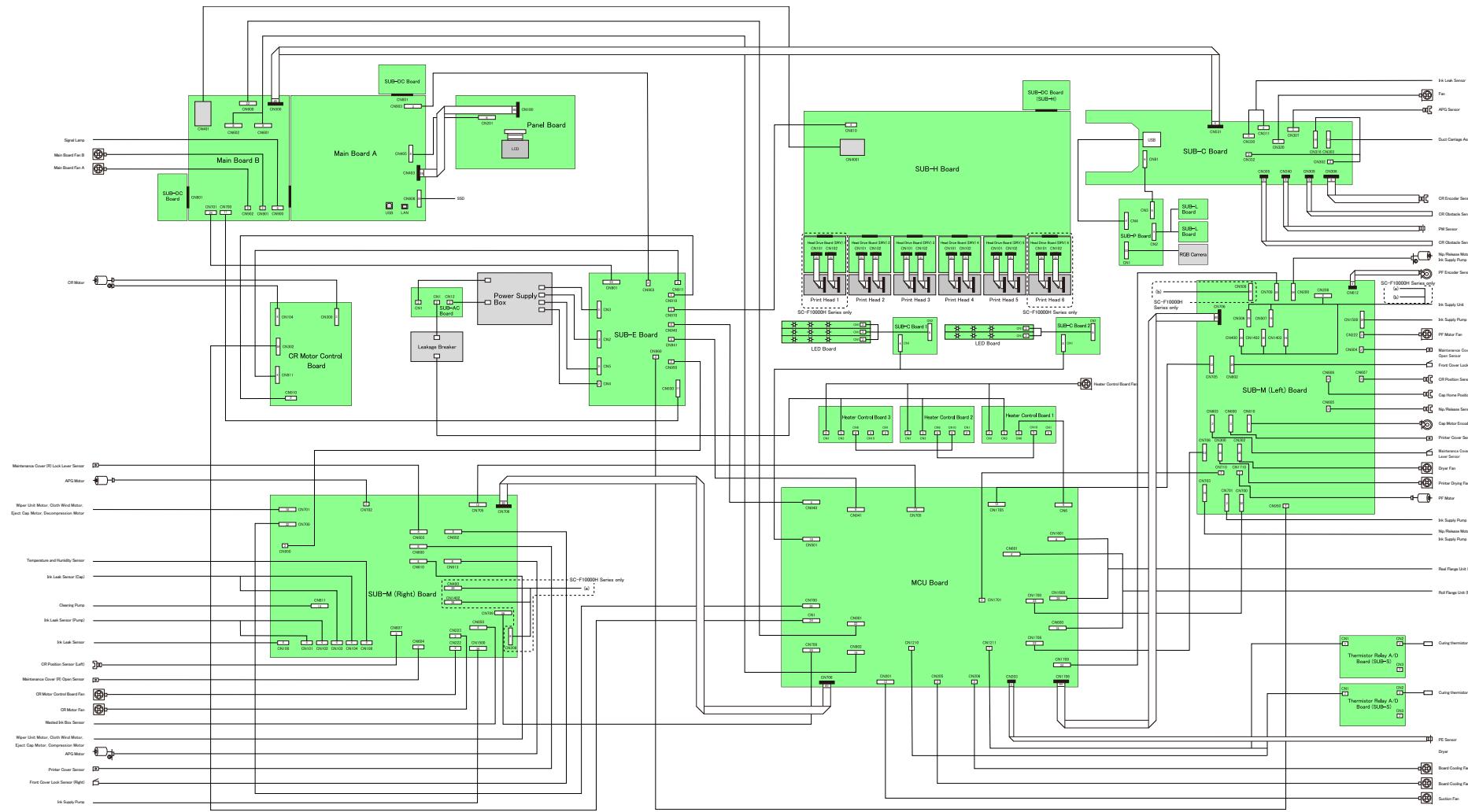


Figure 6-1.

6.2 Connection Diagram

Table 6-1. Connection Diagram List

| Parts | | Ref. (Ch3 sec.No.) |
|-----------------------------|---|---|
| Housing | Maintenance Cover (L) Open Sensor | P. 673 3.4.2.15 |
| | Maintenance Cover (L) Lock Lever Sensor | P. 673 3.4.2.16 |
| | Front Cover Lock Sensor (Left) | P. 673 3.4.2.26 |
| | Maintenance Cover (R) Open Sensor | P. 673 3.4.2.17 |
| | Maintenance Cover (R) Lock Lever Sensor | P. 673 3.4.2.18 |
| | Front Cover Lock Sensor (Right) | P. 673 3.4.2.27 |
| | Signal Lamp | P. 673 3.4.2.20 |
| Electric Circuit Components | Main Board B | P. 674 3.4.3.2 |
| | Main Board A | P. 675 3.4.3.3 |
| | CR Motor Control Board Fan | P. 684 3.4.3.12 |
| | LED Board | P. 683 3.4.3.17 |
| | Temperature and Humidity Sensor | P. 683 3.4.3.18 |
| | Power Supply Box Assy | P. 676 3.4.3.25 |
| | SUB-AC Board | P. 676 3.4.3.27 |
| | SUB-E Board | P. 677, P. 678 3.4.3.28 |
| | MCU Board | P. 679, P. 680, P. 681, P. 682 3.4.3.29 |
| | Printer Drying Fan | P. 683 3.4.3.30 |

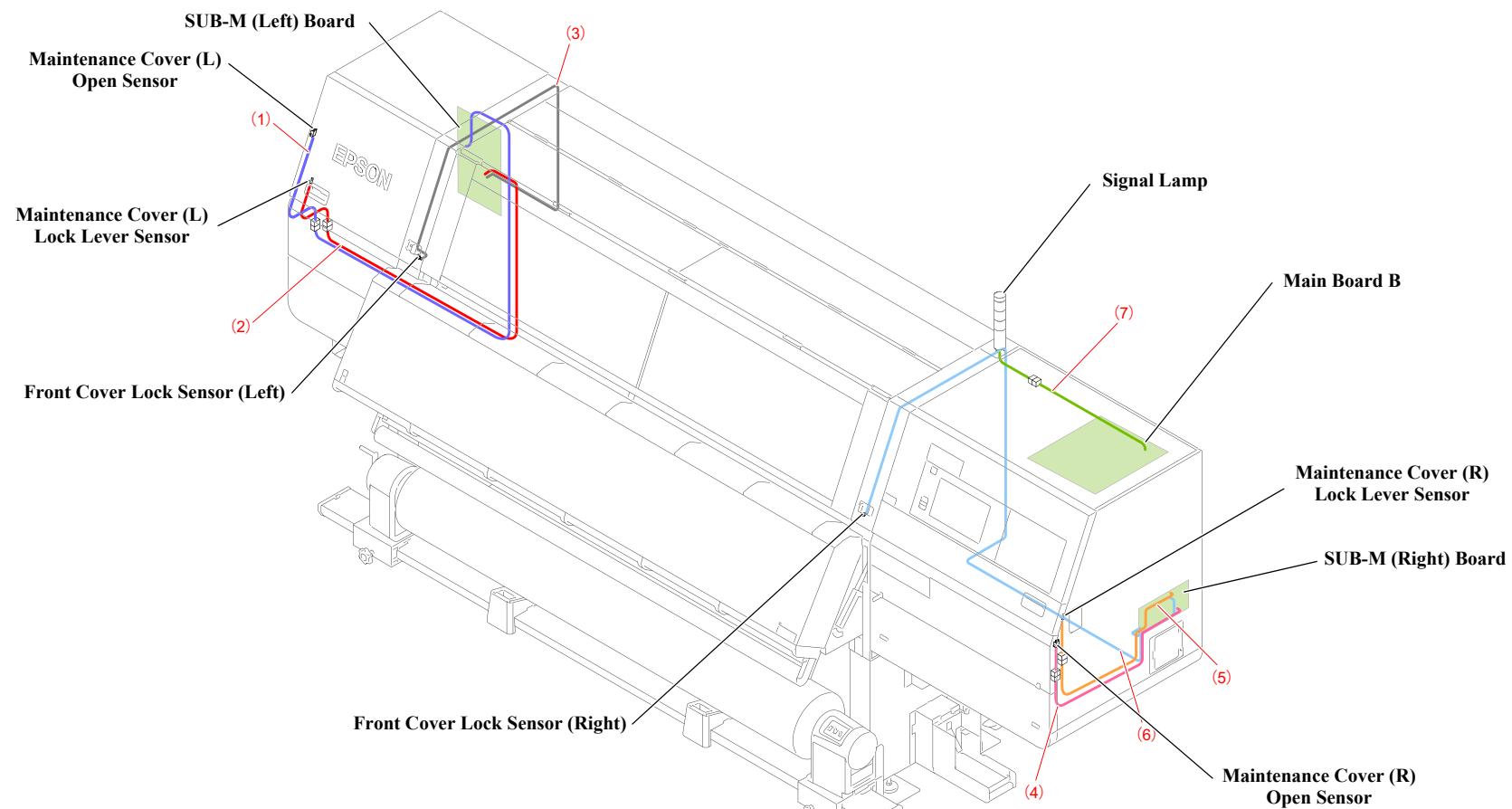
Table 6-1. Connection Diagram List

| Parts | Ref. (Ch3 sec.No.) |
|---|-----------------------|
| Carriage Mechanism/Ink System Mechanism | |
| Print Head | P. 684 3.4.4.1 |
| Anti-Drying Caps Drive Assembly | P. 685 3.4.4.4 |
| CR Position Sensor (Left) | P. 687 3.4.4.6 |
| CR Position Sensor (Right) | P. 687 3.4.4.7 |
| APG Sensor | P. 689 3.4.4.9 |
| Ink Leak Sensor (Cap) | P. 687 3.4.4.10 |
| Ink Leak Sensor (Pump) | P. 687 3.4.4.11 |
| Ink Supply Pump (SC-F10000 Series) | P. 686 3.4.4.12 |
| Ink Supply Pump (SC-F10000H Series) | P. 686 3.4.4.13 |
| Cleaning Pump | P. 688 3.4.4.15 |
| Wiper Unit Drive Assembly | P. 686 3.4.4.16 |
| Suction Cap Drive Unit | P. 685 3.4.4.4 |
| CR Encoder Sensor | P. 689 3.4.4.20 |
| RGB Camera | P. 689 3.4.4.21 |
| PW Sensor | P. 689 3.4.4.22 |
| CR Obstacle Sensor | P. 689 3.4.4.23 |
| Duct Carriage Assy | P. 689 3.4.4.24 |
| APG Motor | P. 687 3.4.4.28 |
| CR Motor | P. 684 3.4.4.31 |
| CR Motor Fan | P. 684 3.4.4.32 |
| Light Cable | P. 691 --- |
| Power Cable | P. 691 --- |
| CR FFC | P. 691 --- |

Table 6-1. Connection Diagram List

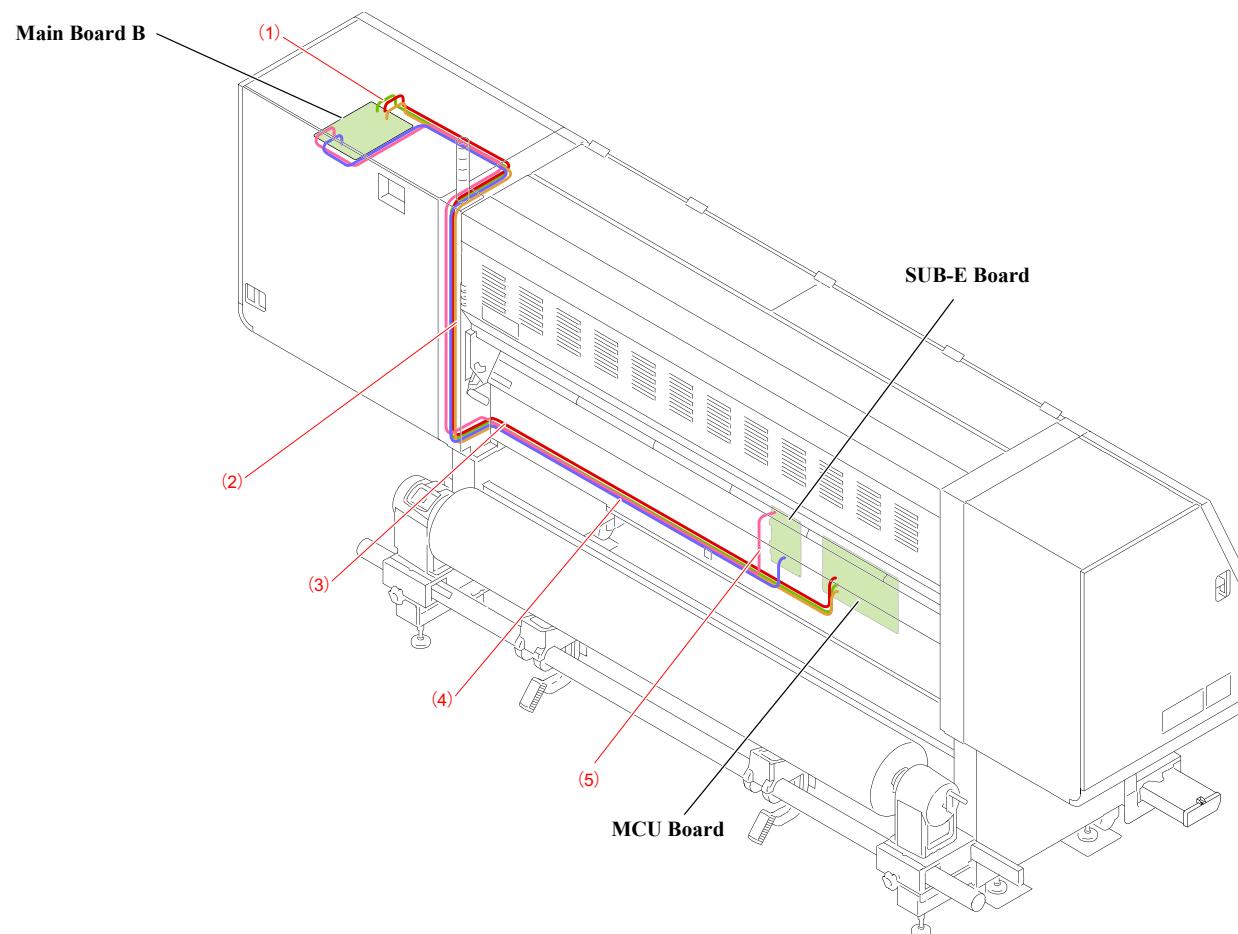
| Parts | | Ref. (Ch3 sec.No.) |
|----------------------|-------------------------------------|-----------------------|
| Paper Feed Mechanism | Nip/Release Motor | P. 692 3.4.5.1 |
| | Nip/Release Sensor | P. 692 3.4.5.2 |
| | PF Encoder Sensor | P. 692 3.4.5.5 |
| | PF Motor | P. 692 3.4.5.6 |
| | PF Motor Fan | P. 692 3.4.5.7 |
| | Suction Fan | P. 693 3.4.5.8 |
| | PE Sensor | P. 693 3.4.5.9 |
| Heater Mechanism | Hardening Fan | P. 694 3.4.7.1 |
| | Dryer | P. 694 3.4.7.2 |
| | After Heater | P. 694 3.4.7.4 |
| | Heater Control Board | P. 695 3.4.7.8 |
| | Heater Control Board Fan | P. 695 3.4.7.9 |
| Ink Supply Mechanism | Ink Supply Unit (SC-F10000 Series) | P. 696 |
| | Ink Supply Unit (SC-F10000H Series) | P. 697 3.4.8.1 |

Sensors



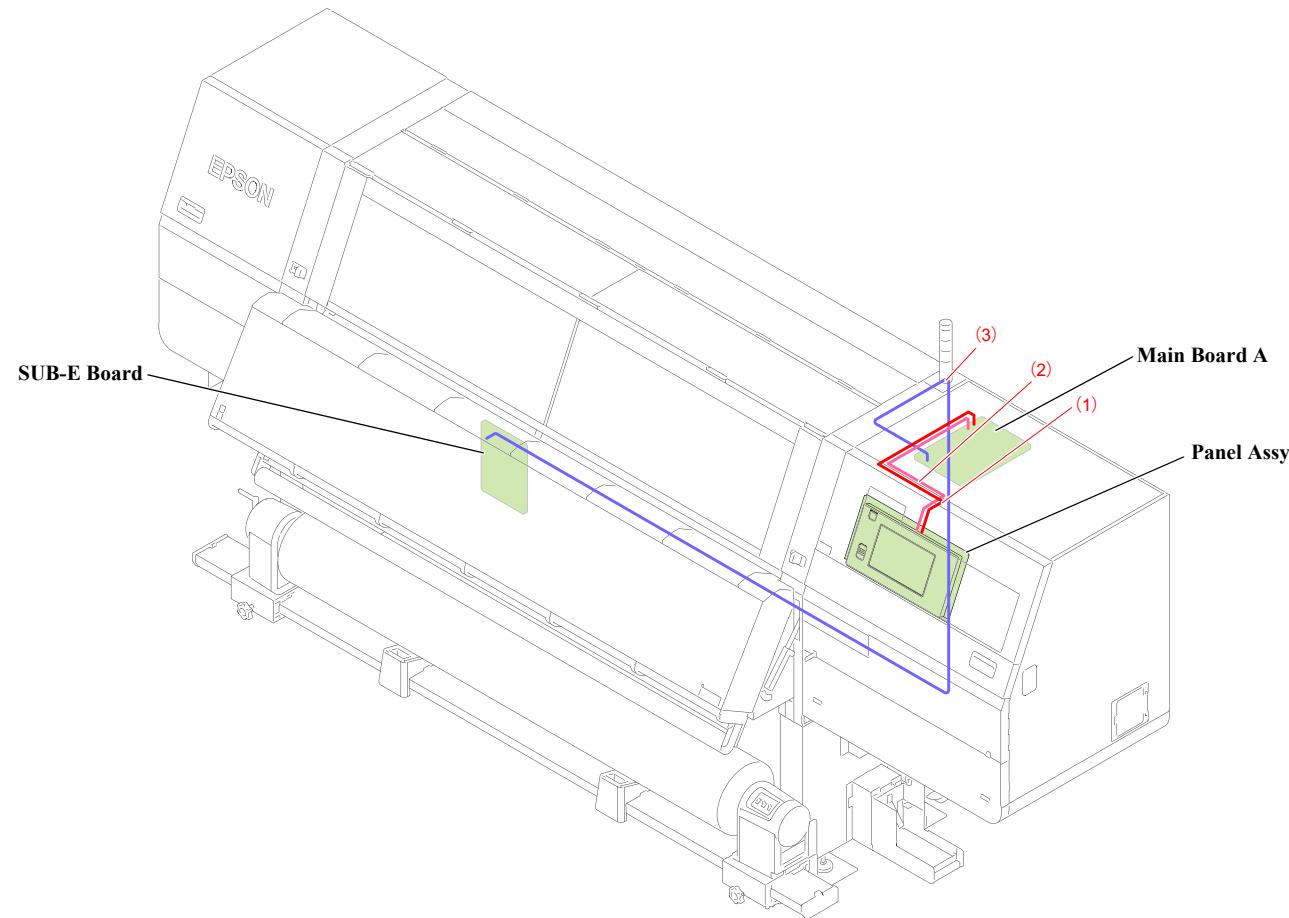
| Cable No. | Connection | | Cable No. | Connection | |
|-----------|---|---|-----------|---|---|
| 1 | Maintenance Cover (L) Open Sensor | Relay cable (SUB-M (Left) Board (CN604)) | 2 | Maintenance Cover (L) Lock Lever Sensor | Relay cable (SUB-M (Left) Board (CN603)) |
| 3 | Front Cover Lock Sensor (Left) | SUB-M (Left) Board (CN602) | 4 | Maintenance Cover (R) Open Sensor | Relay cable (SUB-M (Right) Board (CN604)) |
| 5 | Maintenance Cover (R) Lock Lever Sensor | Relay cable (SUB-M (Right) Board (CN603)) | 6 | Front Cover Lock Sensor (Right) | SUB-M (Right) Board (CN602) |
| 7 | Signal Lamp | Relay cable (Main Board B (CN900)) | | | |

Main Board B



| Cable No. | Connection | | Cable No. | Connection | |
|-----------|----------------------|---------------------|-----------|----------------------|---------------------|
| 1 | Main Board B (CN602) | MCU Board (CN902) | 2 | Main Board B (CN601) | MCU Board (CN902) |
| 3 | Main Board B (CN600) | MCU Board (CN901) | 4 | Main Board B (CN700) | SUB-E Board (CN900) |
| 5 | Main Board B (CN701) | SUB-E Board (CN901) | | | |

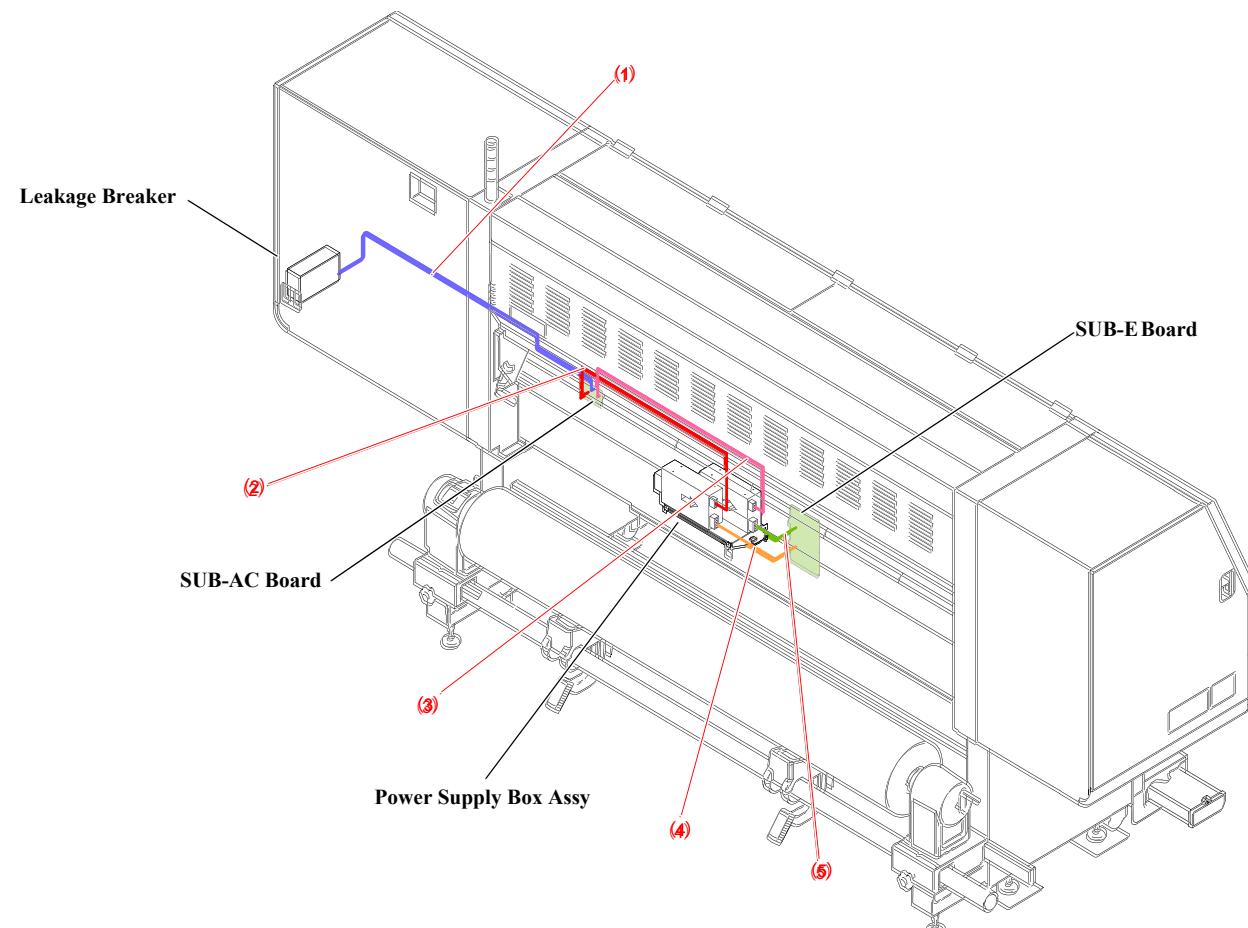
Main Board A



| Cable No.* | Connection | | Cable No.* | Connection | |
|------------|----------------------|---------------------|------------|----------------------|------------|
| 1 | Main Board A (CN403) | Panel Assy | 2 | Main Board A (CN405) | Panel Assy |
| 3 | Main Board A (CN903) | SUB-E Board (CN903) | | | |

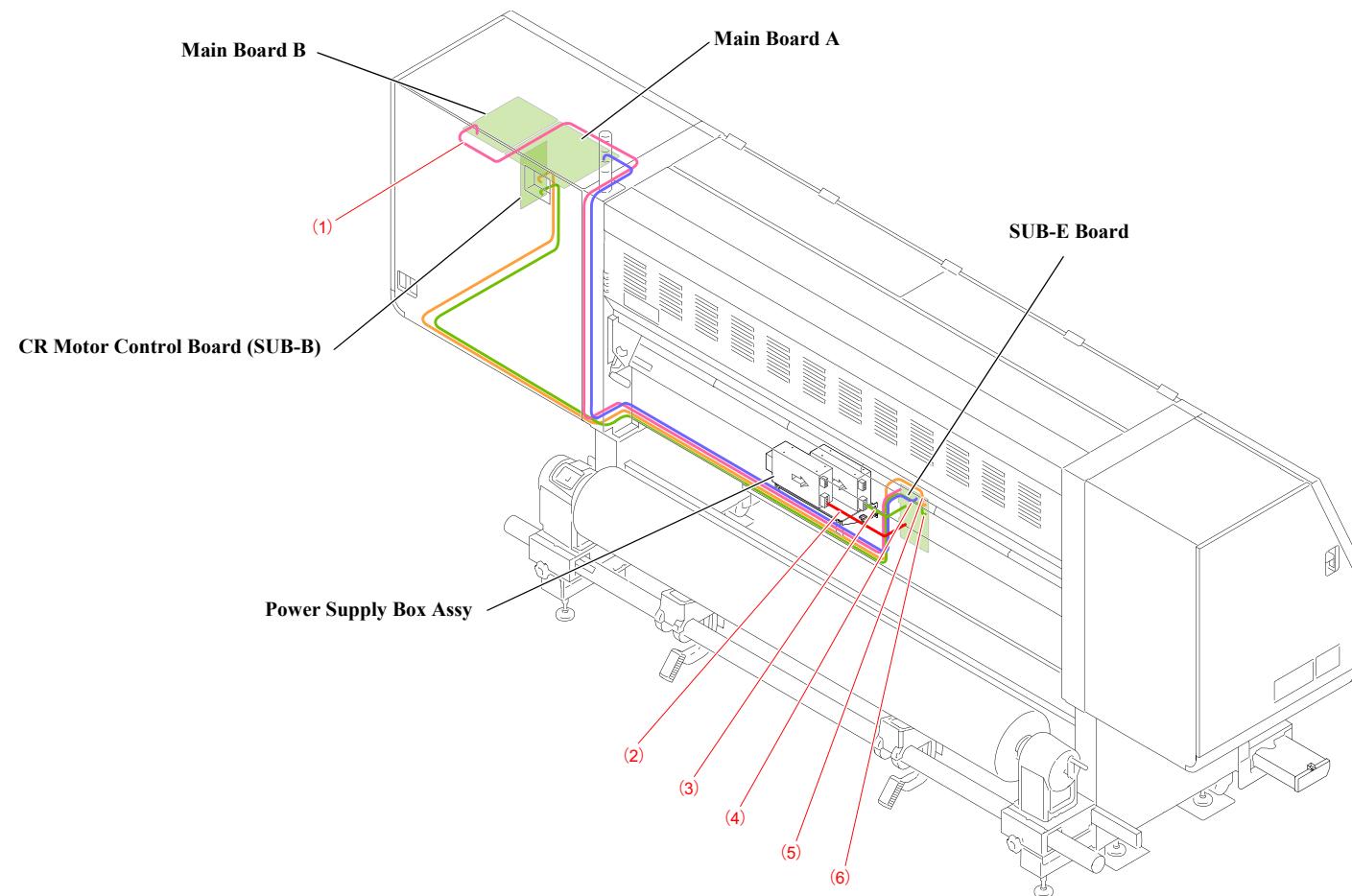
Note **: Underline: FFC

Power Supply Related Board



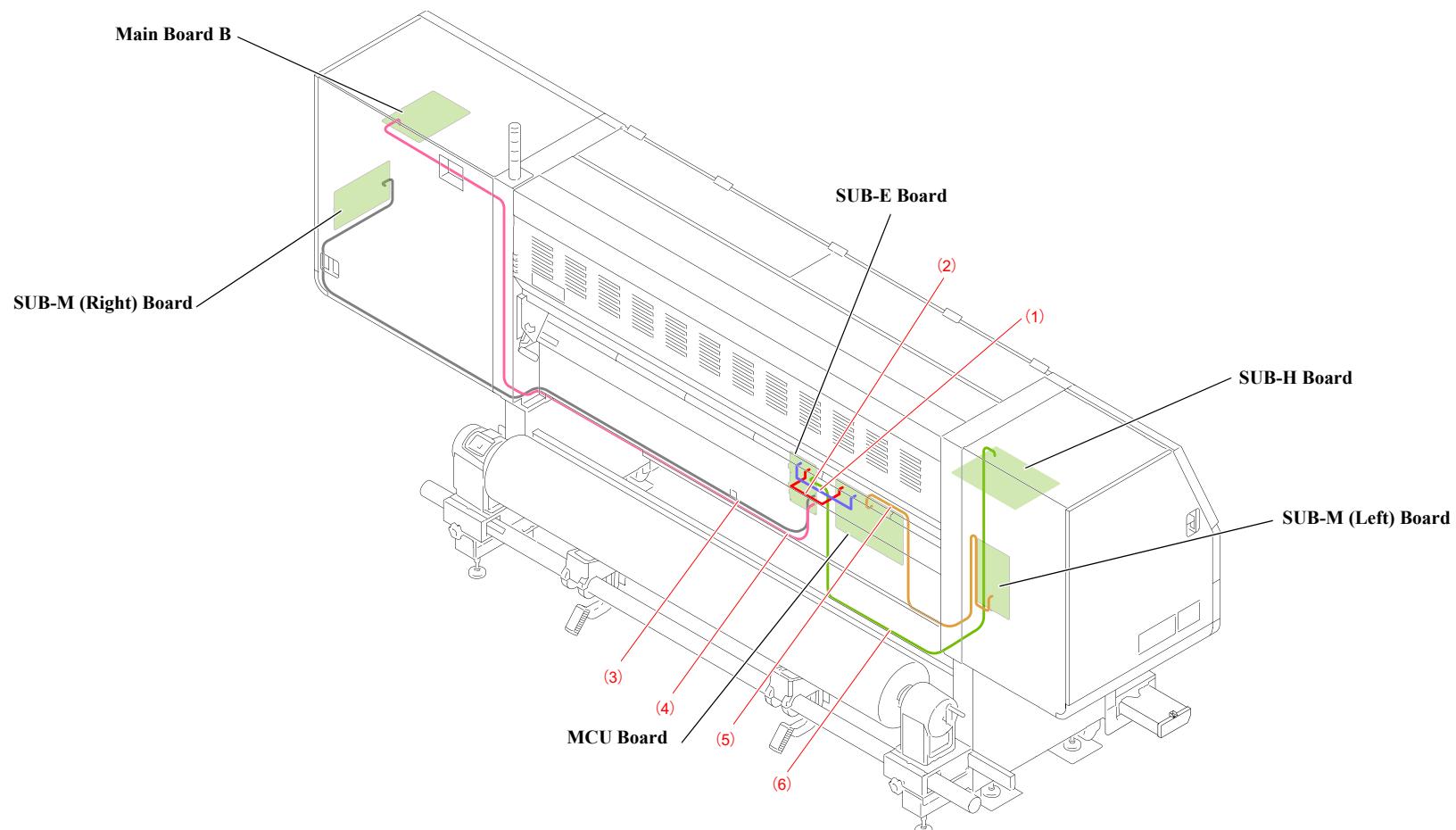
| Cable No. | Connection | | Cable No. | Connection | |
|-----------|--------------------------------------|--------------------------------------|-----------|--------------------------------------|--------------------------------------|
| 1 | SUB-AC Board (CN1) | Leakage Breaker | 2 | SUB-AC Board (CN11) | Power Supply Box Assy (42V terminal) |
| 3 | SUB-AC Board (CN12) | Power Supply Box Assy (24V terminal) | 4 | Power Supply Box Assy (42V terminal) | SUB-E Board (CN2) |
| 5 | Power Supply Box Assy (24V terminal) | SUB-E Board (CN4) | | | |

SUB-E Board (1)



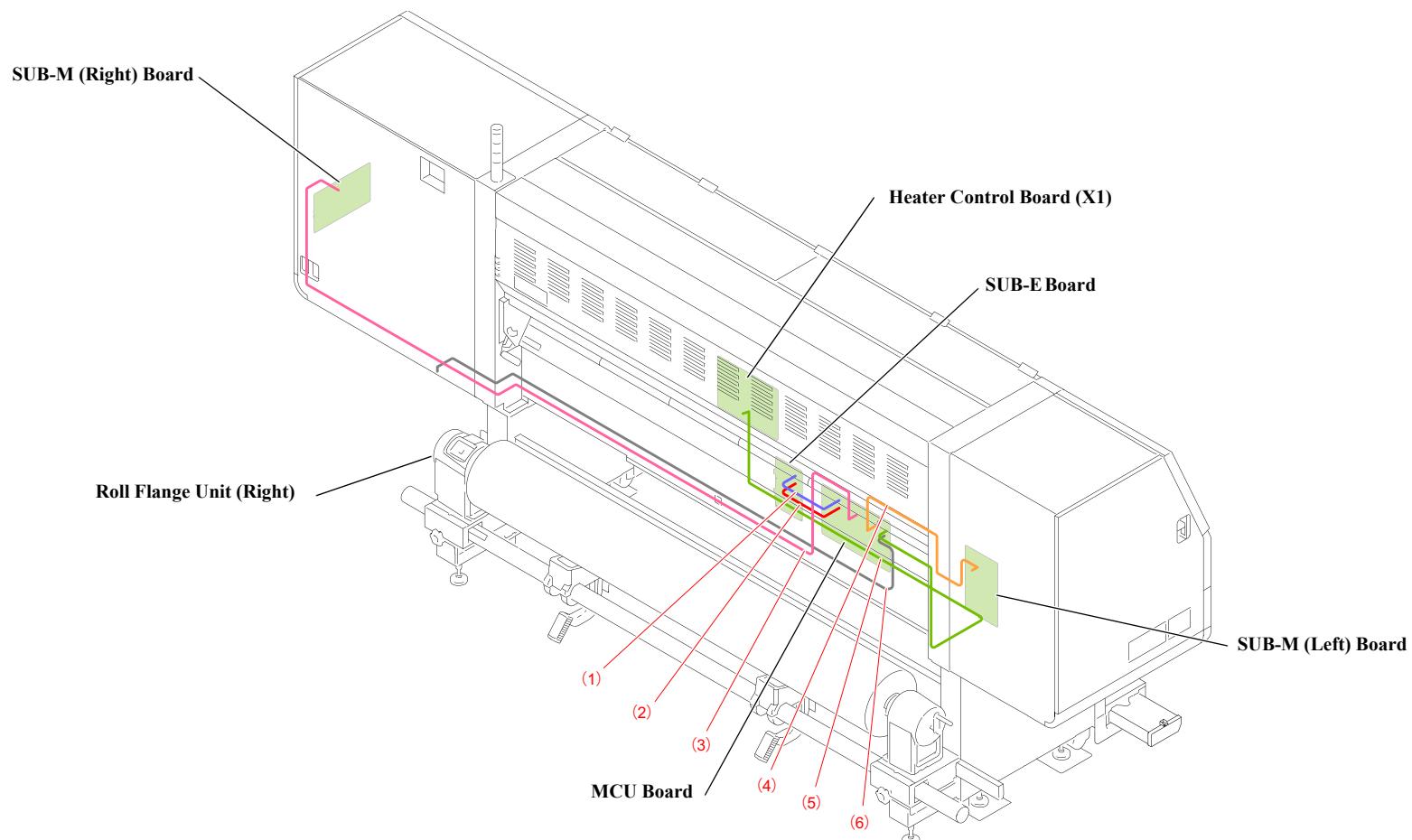
| Cable No. | Connection | | Cable No. | Connection | |
|-----------|---------------------|----------------------------------|-----------|---------------------|----------------------------------|
| 1 | SUB-E Board (CN901) | Main Board B (CN701) | 2 | SUB-E Board (CN3) | Power Supply Box Assy (42V blue) |
| 3 | SUB-E Board (CN5) | Power Supply Box Assy (24V blue) | 4 | SUB-E Board (CN903) | Main Board A (CN903) |
| 5 | SUB-E Board (CN911) | CR Motor Control Board (CN911) | 6 | SUB-E Board (CN910) | CR Motor Control Board (CN910) |

SUB-E Board (2)



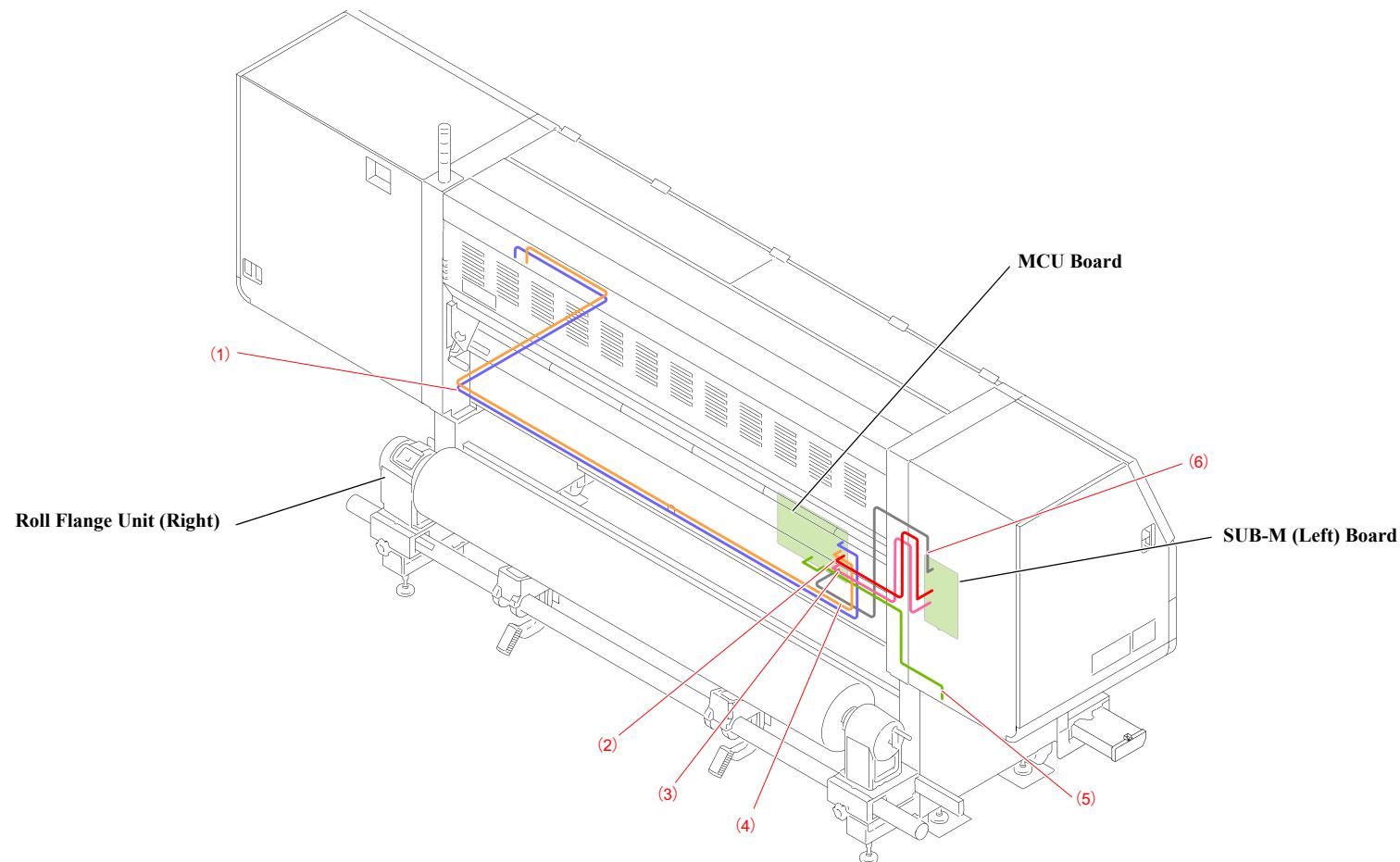
| Cable No. | Connection | | Cable No. | Connection | |
|-----------|---------------------|-----------------------------|-----------|---------------------|----------------------|
| 1 | SUB-E Board (CN941) | MCU Board (CN941) | 2 | SUB-E Board (CN940) | MCU Board (CN940) |
| 3 | SUB-E Board (CN950) | SUB-M (Right) Board (CN950) | 4 | SUB-E Board (CN930) | Main Board B (CN700) |
| 5 | SUB-E Board (CN960) | SUB-M (Left) Board (CN950) | 6 | SUB-E Board (CN970) | SUB-H Board (CN810) |

MCU Board (1)



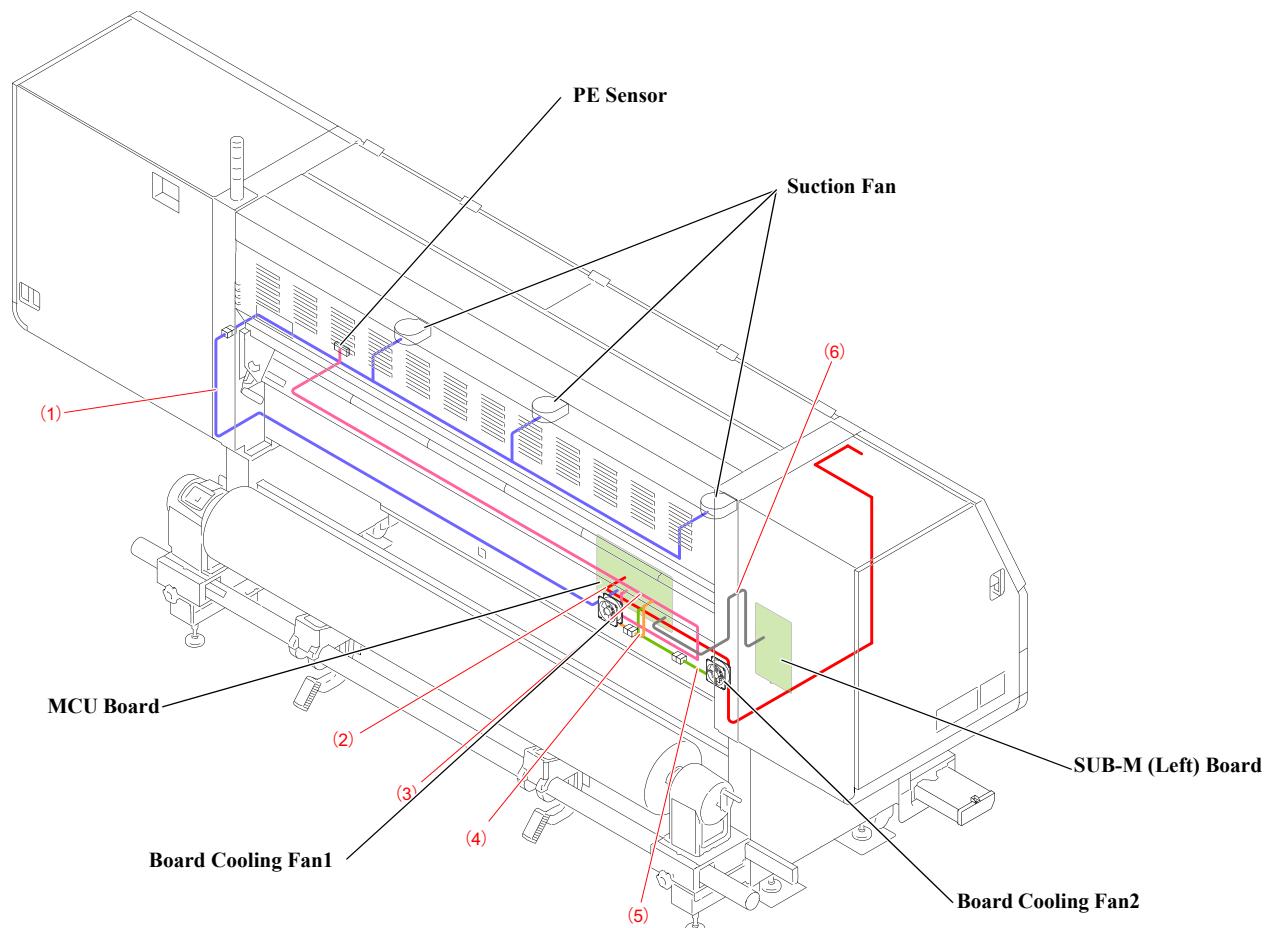
| Cable No. | Connection | | Cable No. | Connection | |
|-----------|-------------------|---------------------------------|-----------|--------------------|--|
| 1 | MCU Board (CN940) | SUB-E Board (CN940) | 2 | MCU Board (CN941) | SUB-E Board (CN941) |
| 3 | MCU Board (CN705) | SUB-M (Right) Board (CN705) | 4 | MCU Board (CN1705) | SUB-M (Left) Board (CN705) |
| 5 | MCU Board (CN6) | Heater Control Board (X1) (CN6) | 6 | MCU Board (CN601) | Relay cable (Roll Flange Unit (Right)) |

MCU Board (2)



| Cable No. | Connection | | Cable No. | Connection | |
|-----------|--------------------|--|-----------|--------------------|--|
| 1 | MCU Board (CN1601) | Relay cable (Reel Flange Unit (Right)) | 2 | MCU Board (CN1701) | SUB-M (Left) Board (CN710) |
| 3 | MCU Board (CN1700) | SUB-M (Left) Board (CN700) | 4 | MCU Board (CN1600) | Relay cable (Reel Flange Unit (Right)) |
| 5 | MCU Board (CN600) | Relay cable (Roll Flange Unit (Right)) | 6 | MCU Board (CN1709) | SUB-M (Left) Board (CN709) |

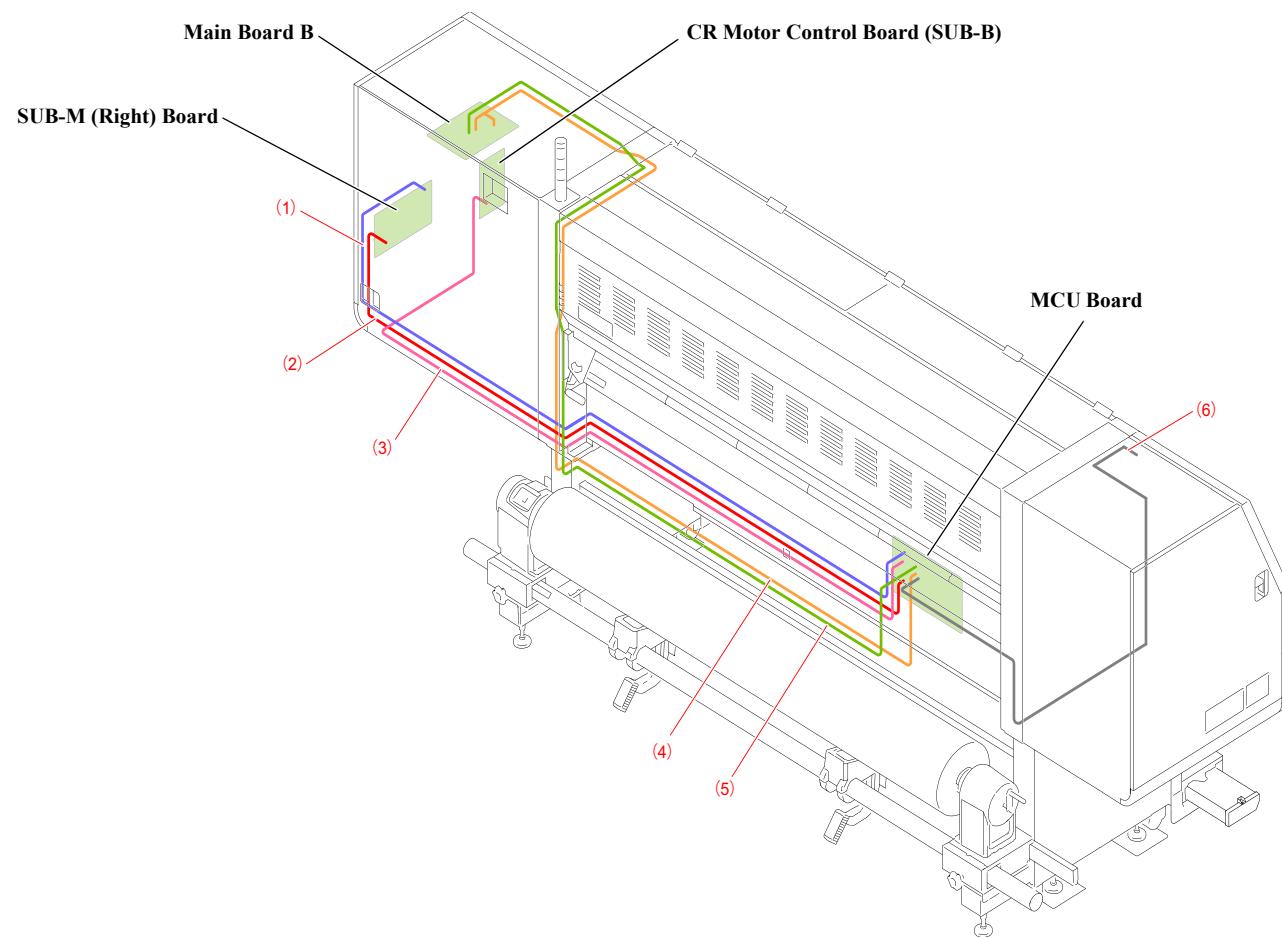
MCU Board (3)



| Cable No.* | Connection | | Cable No.* | Connection | |
|------------|--------------------|-----------------------------------|------------|--------------------|-----------------------------------|
| 1 | MCU Board (CN201) | Relay cable (Suction Fan) | 2 | MCU Board (CN1211) | Dryer (CN1) |
| 3 | MCU Board (CN1203) | PE Sensor | 4 | MCU Board (CN206) | Relay cable (Board Cooling Fan 1) |
| 5 | MCU Board (CN205) | Relay cable (Board Cooling Fan 2) | 6 | MCU Board (CN1708) | SUB-M (Left) Board(CN708) |

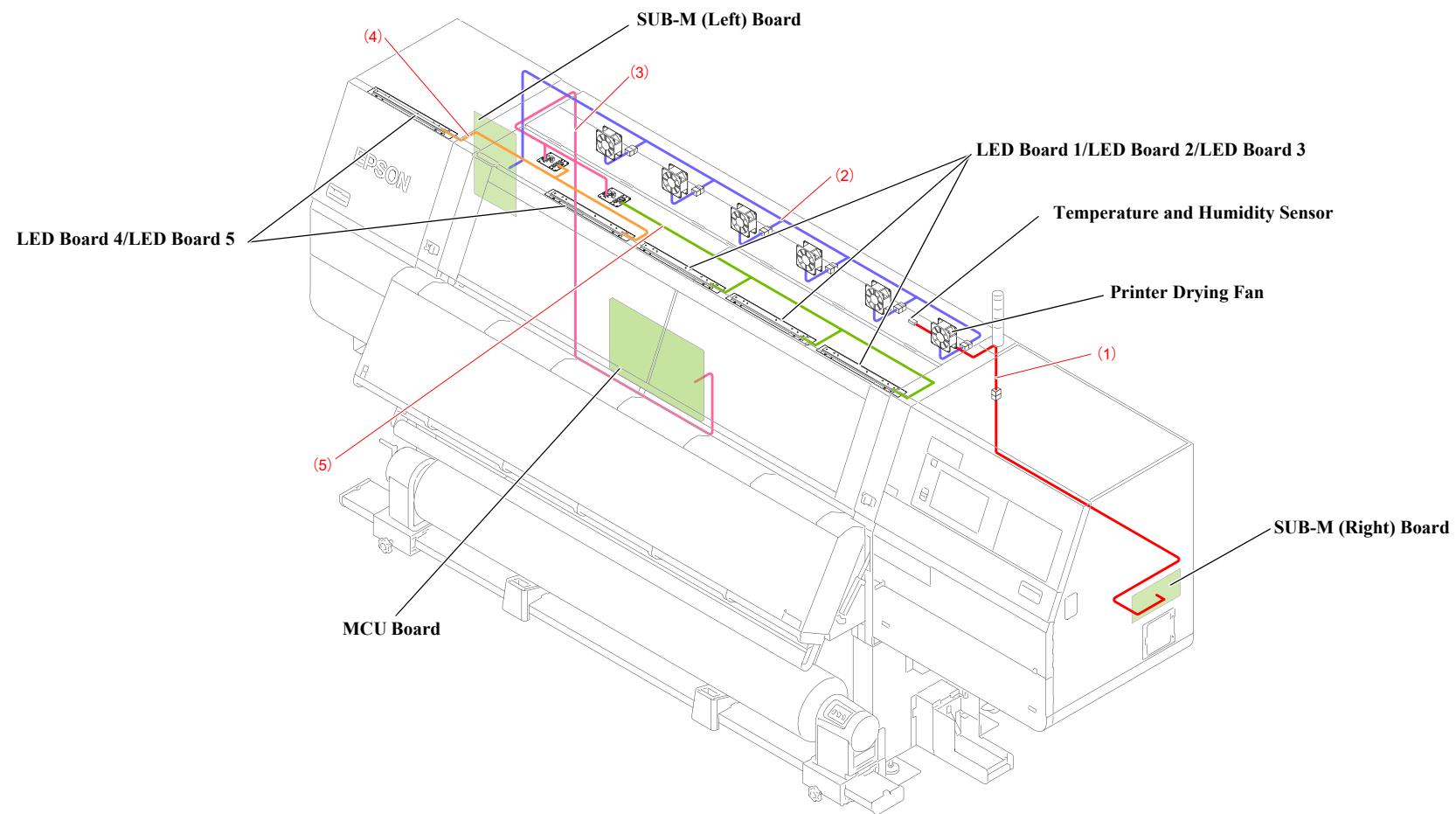
Note "/*": Underline: FFC

MCU Board (4)



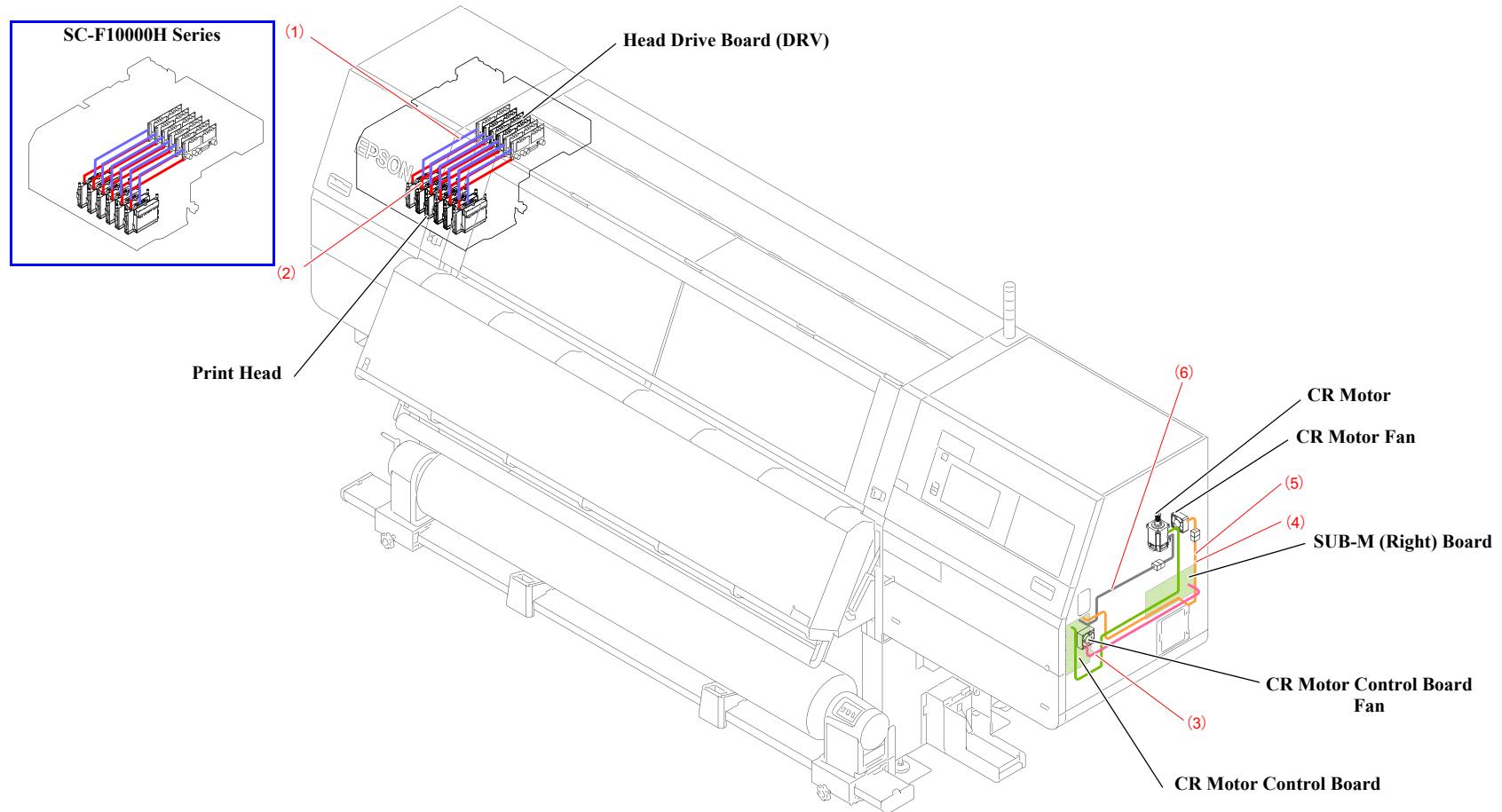
| Cable No. | Connection | | Cable No. | Connection | |
|-----------|-------------------|--------------------------------|-----------|--------------------|-----------------------------|
| 1 | MCU Board (CN700) | SUB-M (Right) Board (CN700) | 2 | MCU Board (CN709) | SUB-M (Right) Board (CN709) |
| 3 | MCU Board (CN1) | CR Motor Control Board (CN302) | 4 | MCU Board (CN902) | Main Board B (CN601/CN602) |
| 5 | MCU Board (CN901) | Main Board B (CN600) | 6 | MCU Board (CN1210) | Relay cable (Dryer) |

Temperature and Humidity Sensor/Printer Drying Fan/LED



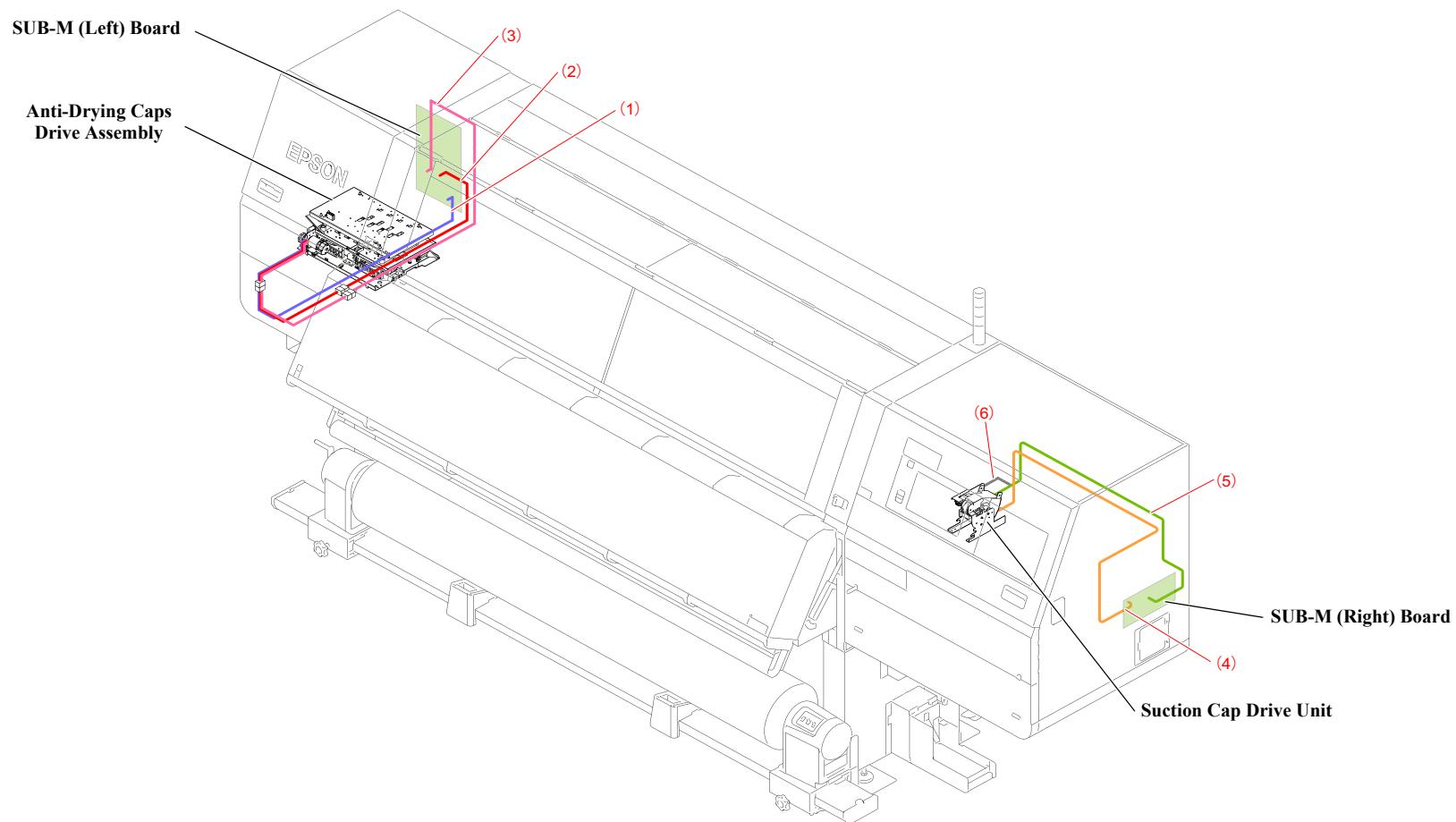
| Cable No. | Connection | | Cable No. | Connection | |
|-----------|---|---|-----------|---------------------|----------------------------|
| 1 | Temperature and Humidity Sensor | Relay cable (SUB-M (Right) Board (CN108)) | 2 | Printer Drying Fan | SUB-M (Left) Board (CN300) |
| 3 | LED Control Board 1/LED Control Board 2 | MCU Board (CN501) | 4 | LED Control Board 2 | LED Board 4/LED Board 5 |
| 5 | LED Control Board 1 | LED Board 1/LED Board 2/LED Board 3 | | | |

Carriage



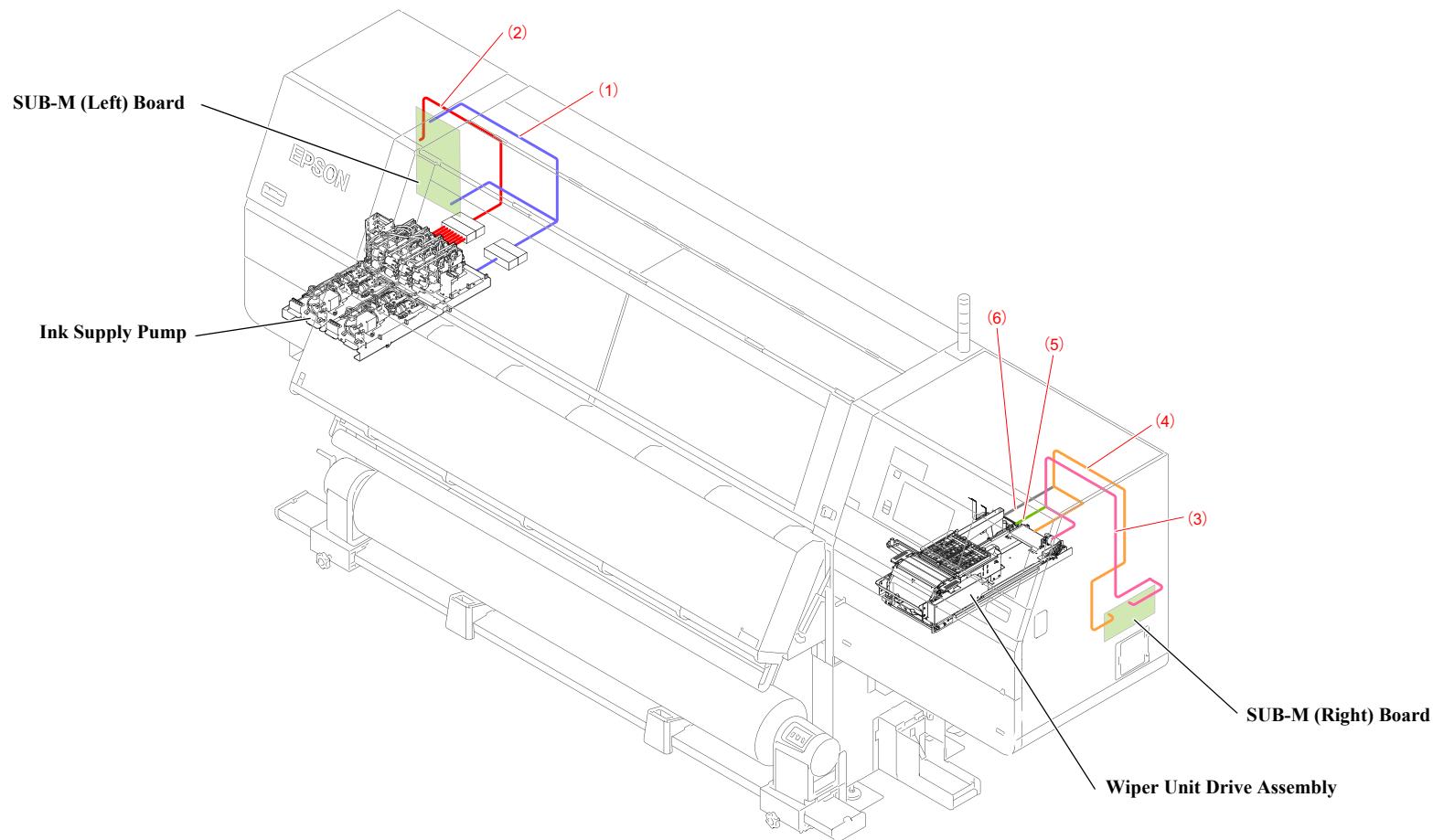
| Cable No. | Connection | | Cable No. | Connection | |
|-----------|---|---|-----------|---|---|
| 1 | Print Head <input type="checkbox"/> SC-F10000 Series: x4 <input type="checkbox"/> SC-F10000H Series: x6 | Head Drive Board (DRV) (CN102) <input type="checkbox"/> SC-F10000 Series: x4 <input type="checkbox"/> SC-F10000H Series: x6 | 2 | Print Head <input type="checkbox"/> SC-F10000 Series: x4 <input type="checkbox"/> SC-F10000H Series: x6 | Head Drive Board (DRV) (CN101) <input type="checkbox"/> SC-F10000 Series: x4 <input type="checkbox"/> SC-F10000H Series: x6 |
| 3 | CR Motor Control Board Fan | SUB-M (Right) Board (CN222) | 4 | CR Motor Fan | Relay cable (SUB-M (Right) Board (CN223)) |
| 5 | CR Motor | CR Motor Control Board (CN104) | 6 | CR Motor | CR Motor Control Board (CN300) |

Anti-Drying Caps Drive Assembly/Suction Cap Drive Unit



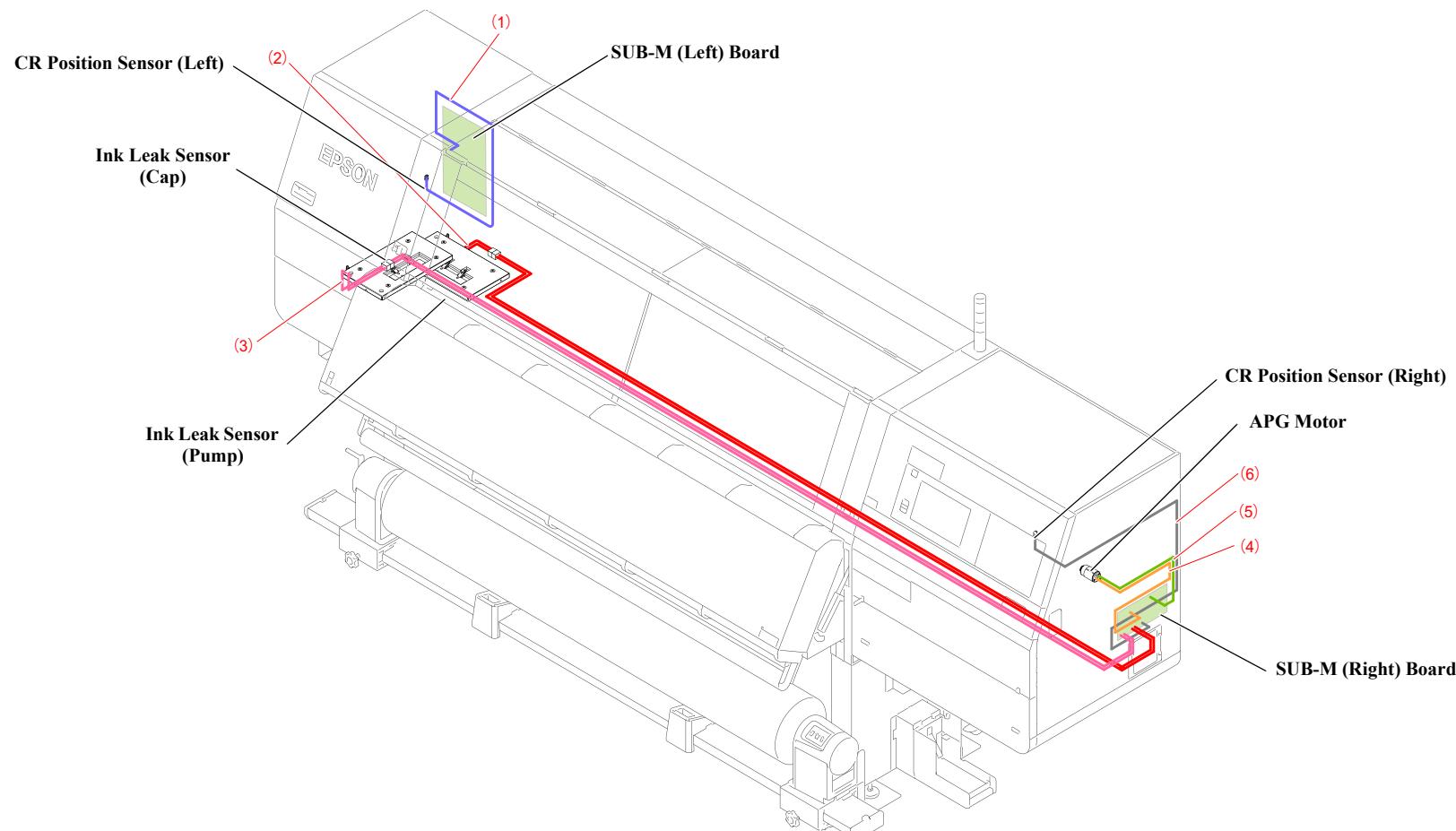
| Cable No. | Connection | | Cable No. | Connection | |
|-----------|---|---|-----------|---|---|
| 1 | Anti-Drying Caps Drive Assembly (Encoder sensor) | Relay cable (SUB-M (Left) Board (CN610)) | 2 | Anti-Drying Caps Drive Assembly (Motor) | Relay cable (SUB-M (Left) Board (CN701)) |
| 3 | Anti-Drying Caps Drive Assembly (Position sensor) | Relay cable (SUB-M (Left) Board (CN606)) | 4 | Suction Cap Drive Unit (Motor) | Relay cable (SUB-M (Right) Board (CN701)) |
| 5 | Suction Cap Drive Unit (Position sensor) | Relay cable (SUB-M (Right) Board (CN610)) | 6 | Suction Cap Drive Unit (Encoder sensor) | Relay cable (SUB-M (Right) Board (CN610)) |

Ink Supply Pump/ Wiper Unit Drive Assembly



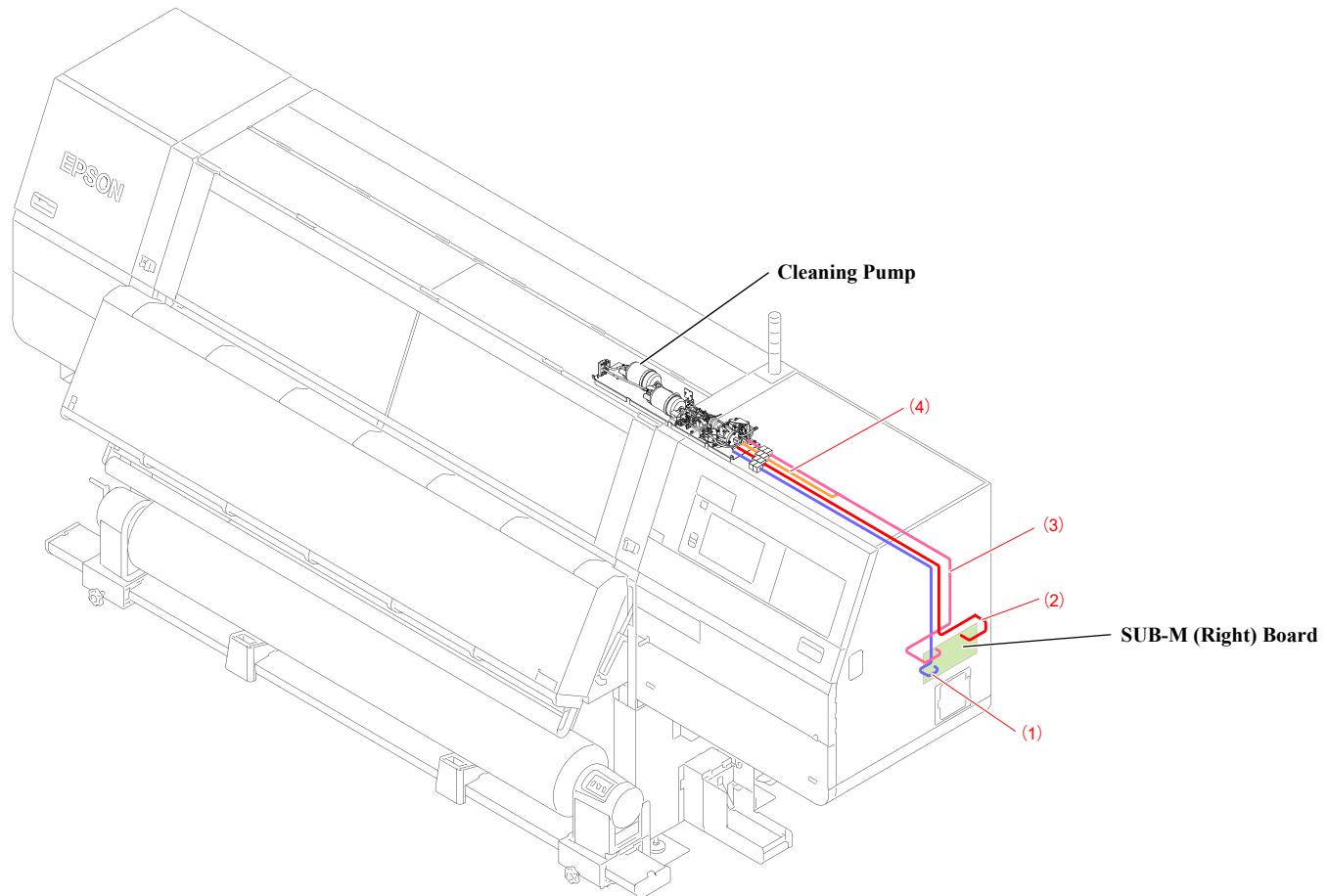
| Cable No. | Connection | | Cable No. | Connection | |
|-----------|---|--|-----------|--|--|
| 1 | Ink Supply Pump (Motor /Switching valve) | Relay cable (SUB-M (Left) Board (CN700/CN2001)) | 2 | Ink Supply Pump (Ink end sensor) | Relay cable (SUB-M (Left) Board (CN1500)) |
| 3 | Wiper Unit Drive Assembly (Wind encoder sensor) | SUB-M (Right) Board (CN610) | 4 | Wiper Unit Drive Assembly (Wind motor) | SUB-M (Right) Board (CN701) |
| 5 | Wiper Unit Drive Assembly (Wiper encoder sensor) | SUB-M (Right) Board (CN610) | 6 | Wiper Unit Drive Assembly (Wiper motor) | SUB-M (Right) Board (CN701) |

Carriage/Ink System



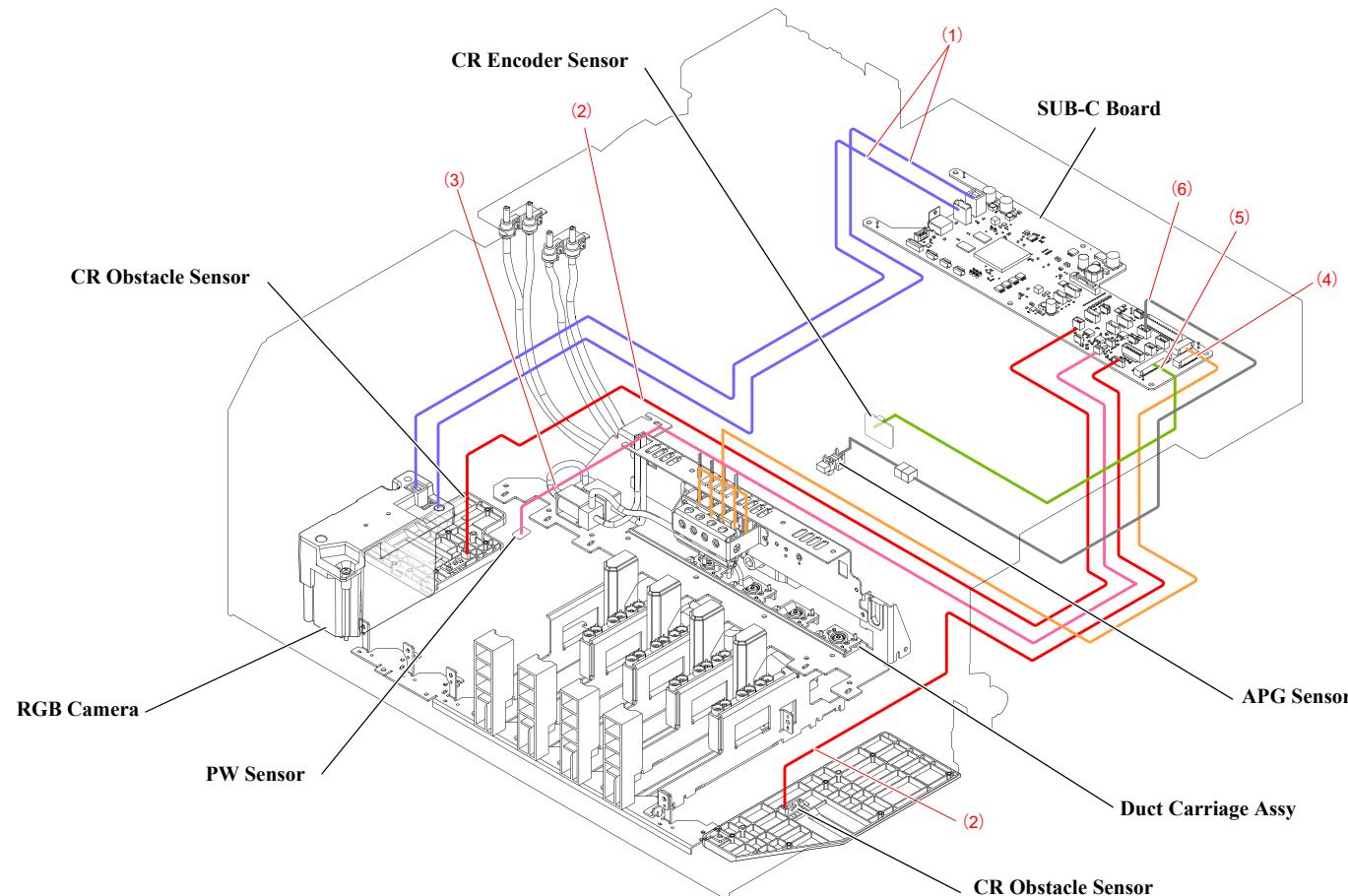
| Cable No. | Connection | | Cable No. | Connection | |
|-----------|---|-----------------------------------|-----------|---------------------------|-----------------------------------|
| 1 | CR Position Sensor (Right) | SUB-M (Left) Board (CN607) | 2 | Ink leak sensor (Pump) | SUB-M (Right) Board (CN101/CN102) |
| 3 | Ink leak sensor (Anti-Drying Caps Drive Assembly) | SUB-M (Right) Board (CN103/CN104) | 4 | APG Motor (Motor) | SUB-M (Right) Board (CN702) |
| 5 | APG Motor (Encoder sensor) | SUB-M (Right) Board (CN613) | 6 | CR Position Sensor (Left) | SUB-M (Right) Board (CN607) |

Cleaning Pump



| Cable No. | Connection | | Cable No. | Connection | |
|-----------|--|--|-----------|--|--|
| 1 | Cleaning Pump (Decompression adj. sensor/ Compression adj. sensor) | Relay cable (SUB-M (Right) Board (CN811)) | 2 | Cleaning Pump (Decompression encoder) | Relay cable (SUB-M (Right) Board (CN610)) |
| 3 | Cleaning Pump (Decompression motor) | Relay cable (SUB-M (Right) Board (CN701)) | 4 | Cleaning Pump (Compression motor) | Relay cable (SUB-M (Right) Board (CN701)) |

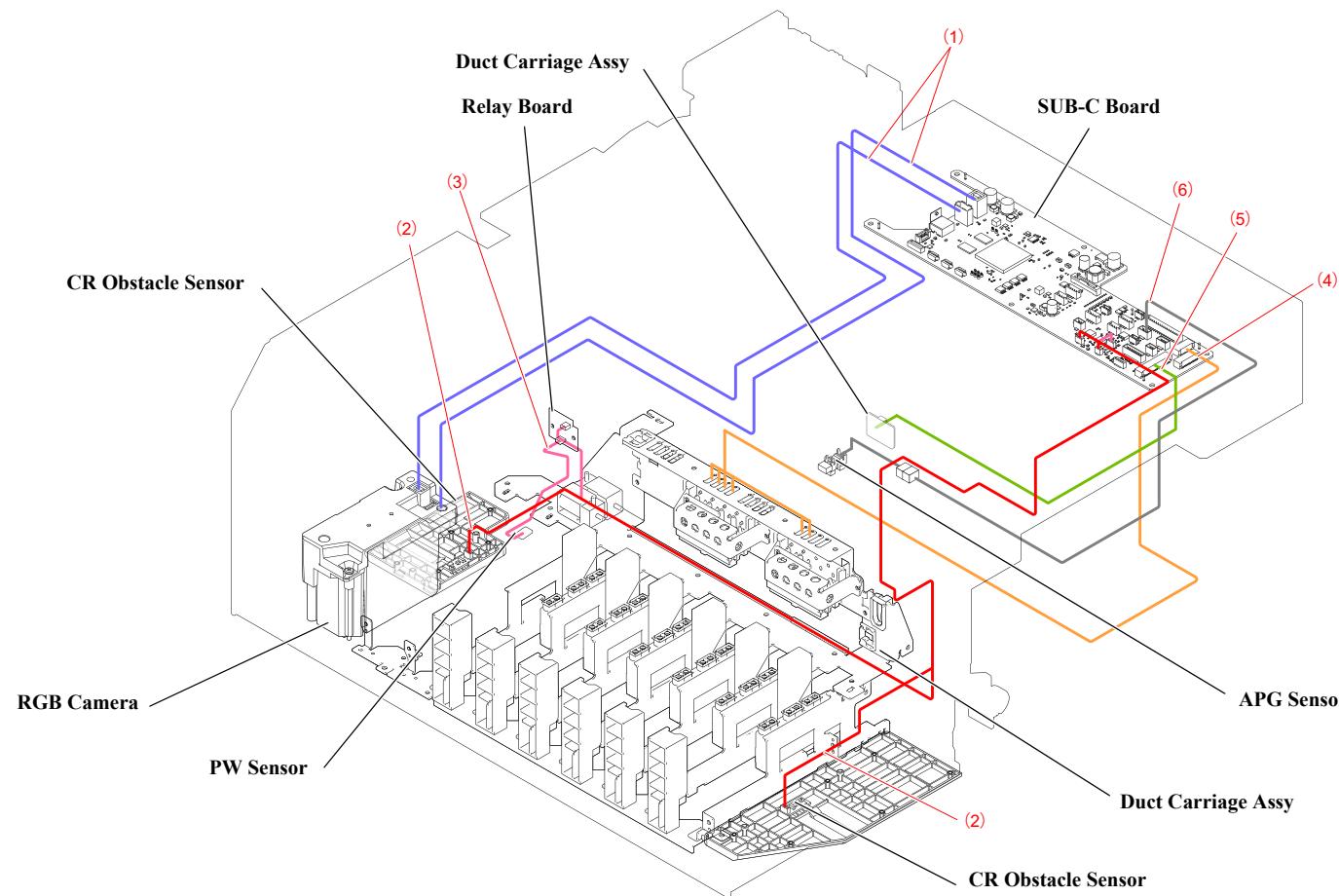
CR Unit (SC-F10000 Series)



| Cable No.* | Connection | | Cable No.* | Connection | |
|------------|-------------------|-------------------------|------------|--------------------|---------------------------------------|
| 1 | RGB Camera | SUB-C Board (CN80/CN81) | 2 | CR Obstacle Sensor | SUB-C Board (CN305/CN309) |
| <u>3</u> | PW Sensor | SUB-C Board (CN340) | 4 | Duct Carriage Assy | SUB-C Board (CN302/CN303/CN316/CN332) |
| <u>5</u> | CR Encoder Sensor | SUB-C Board (CN306) | 6 | APG Sensor | Relay cable (SUB-C Board (CN307)) |

Note "/*": Underline: FFC

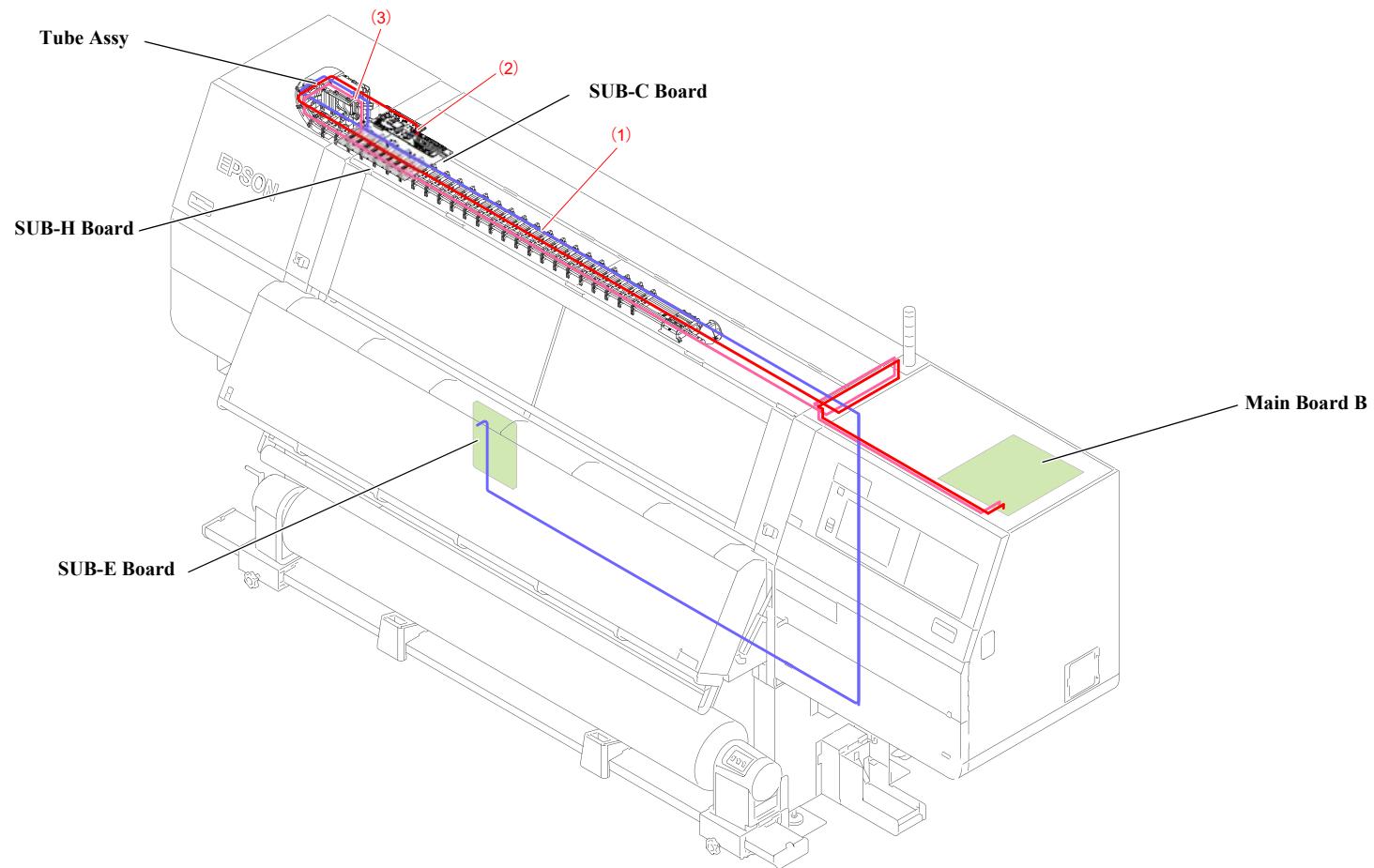
CR Unit (SC-F10000H Series)



| Cable No.* | Connection | | Cable No.* | Connection | |
|------------|-------------------|-------------------------|------------|--------------------|---------------------------------------|
| 1 | RGB Camera | SUB-C Board (CN80/CN81) | 2 | CR Obstacle Sensor | SUB-C Board (CN305/CN309) |
| 3 | PW Sensor | SUB-C Board (CN340) | 4 | Duct Carriage Assy | SUB-C Board (CN302/CN303/CN316/CN332) |
| 5 | CR Encoder Sensor | SUB-C Board (CN306) | 6 | APG Sensor | Relay cable (SUB-C Board (CN307)) |

Note "/*": Underline: FFC

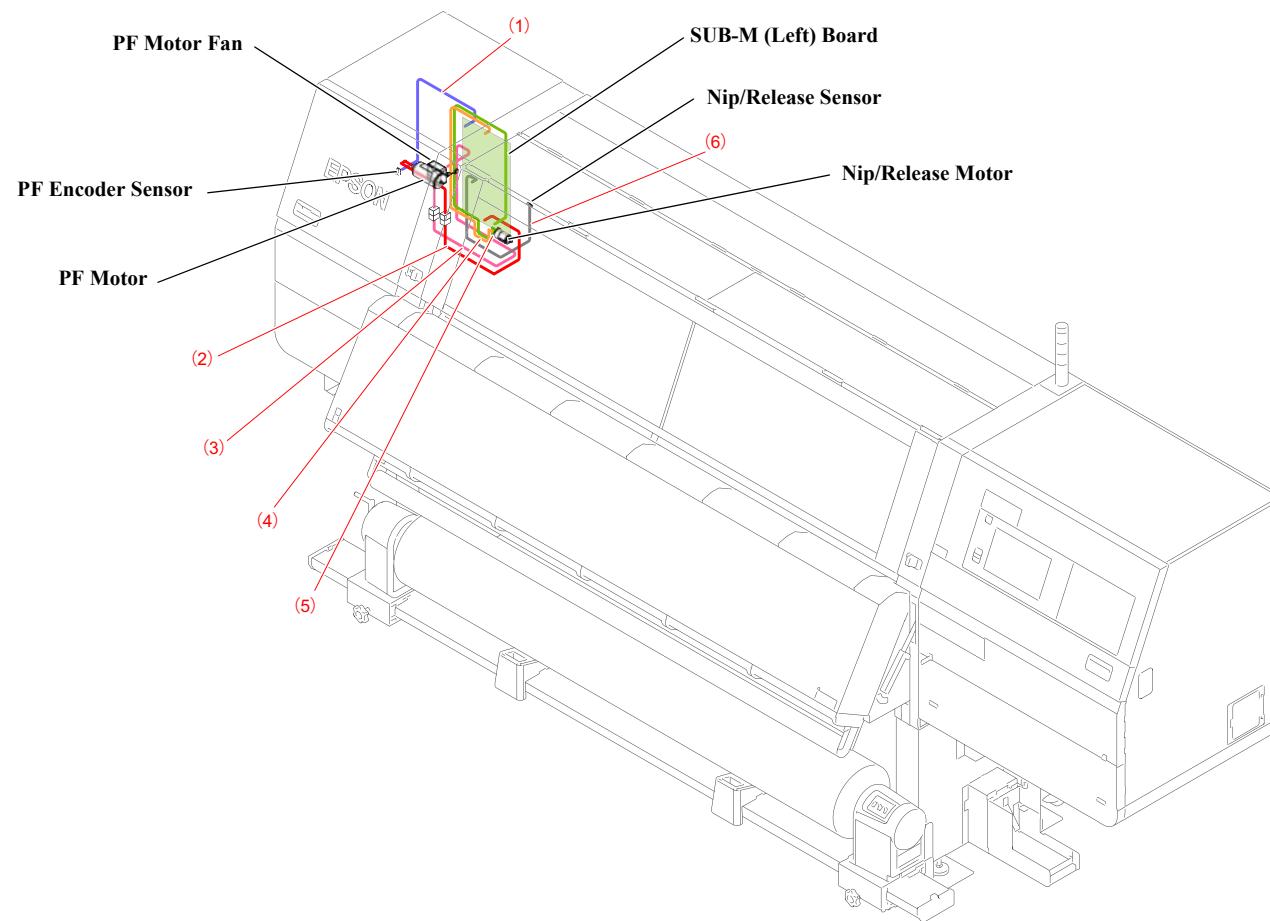
Tube Assy



| Cable No.* | Connection | | Cable No.* | Connection | |
|------------|------------------------------------|----------------------|------------|-------------------------------|---------------------|
| 1 | Power Cable (SUB-E Board (CN970)) | SUB-H Board (CN810) | 2 | CR FFC (Main Board B (CN500)) | SUB-C Board (CN531) |
| 3 | Light Cable (Main Board B (CN401)) | SUB-H Board (CN4001) | | | |

Note "*": Underline: FFC

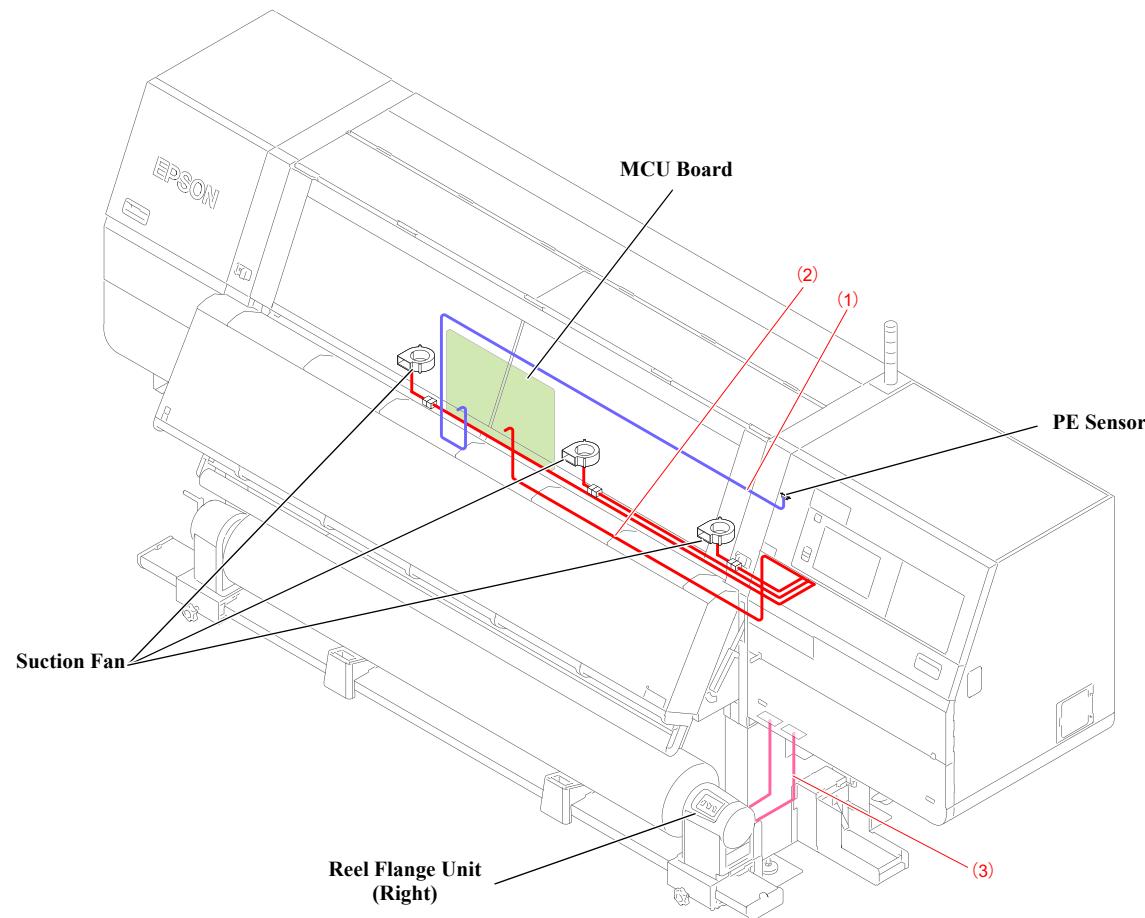
Paper Feed Mechanism (1)



| Cable No.* | Connection | | Cable No.* | Connection | |
|------------|---------------------------------------|----------------------------|------------|---------------------------|---|
| 1 | PF Encoder Sensor | SUB-M (Left) Board (CN612) | 2 | PF Motor | Relay cable (SUB-M (Left) Board (CN1710)) |
| 3 | PF Motor Fan | SUB-M (Left) Board (CN222) | 4 | Nip/Release Motor (Motor) | SUB-M (Left) Board (CN200) |
| 5 | Nip/Release Motor (Encoder sensor) | SUB-M (Left) Board (CN703) | 6 | Nip/Release Sensor | SUB-M (Left) Board (CN605) |

Note "*": Underline: FFC

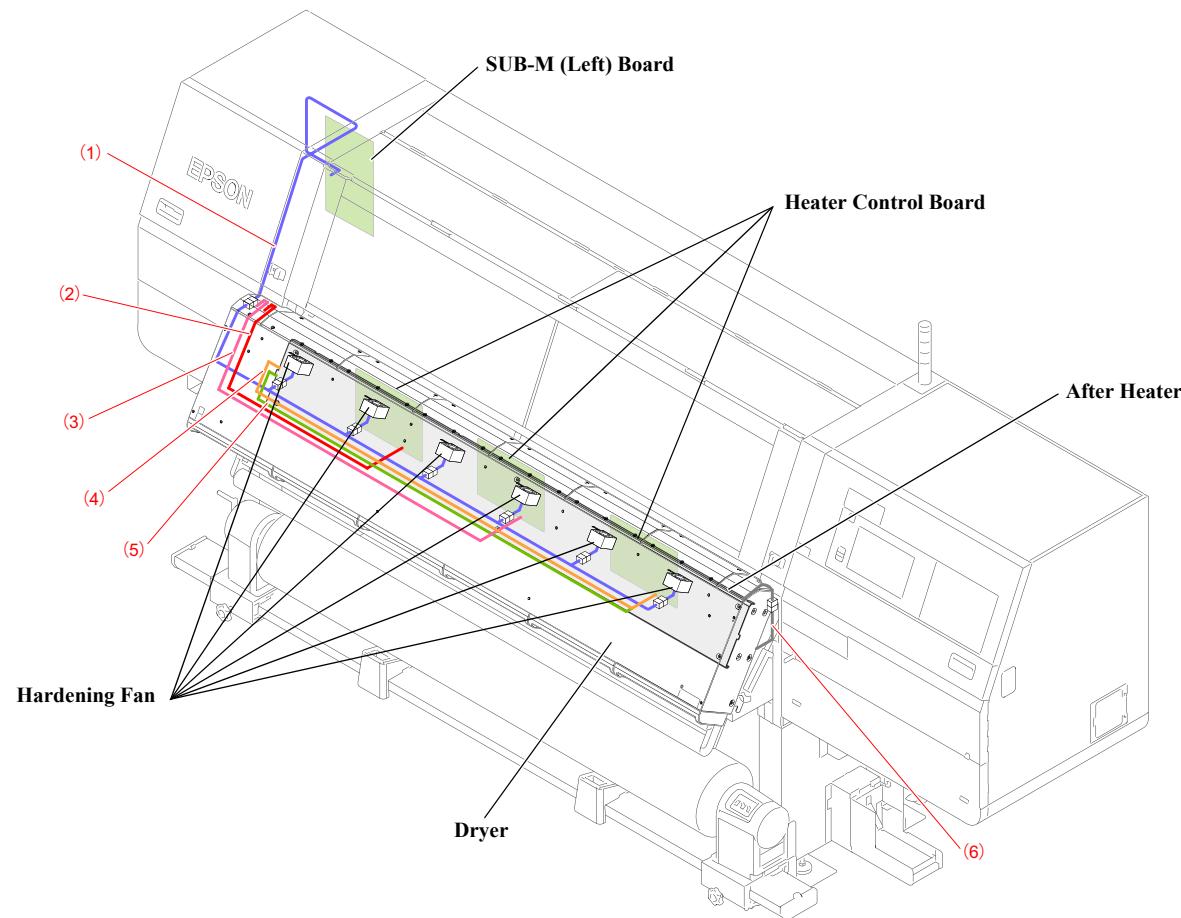
Paper Feed Mechanism (2)



| Cable No.* | Connection | | Cable No.* | Connection | |
|------------|--------------------------|--------------------|------------|-------------|---------------------------------|
| 1 | PE Sensor | MCU Board (CN1203) | 2 | Suction Fan | Relay cable (MCU Board (CN201)) |
| 3 | Reel Flange Unit (Right) | Relay connector x2 | | | |

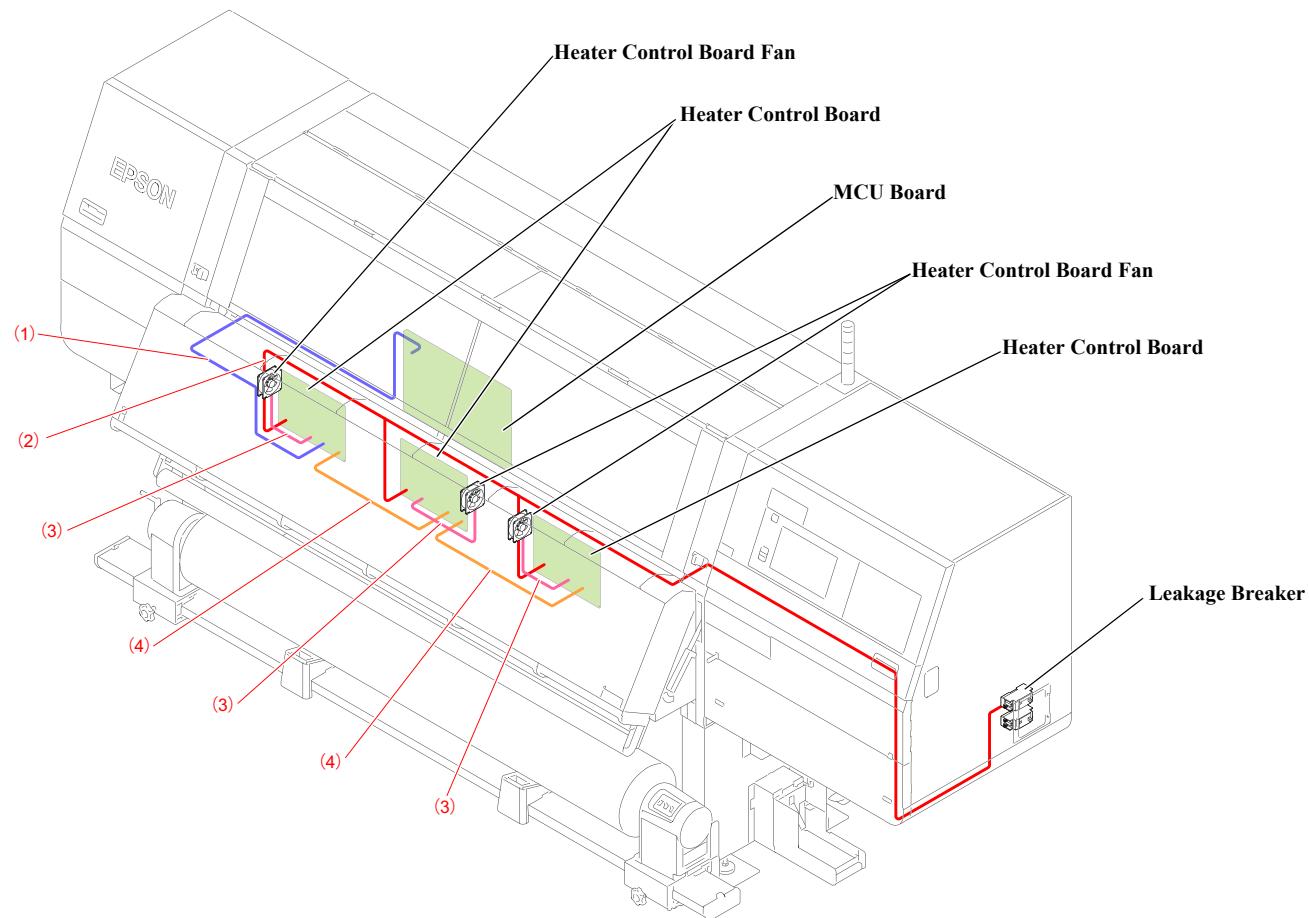
Note "/*": Underline: FFC

Dryer/After Heater



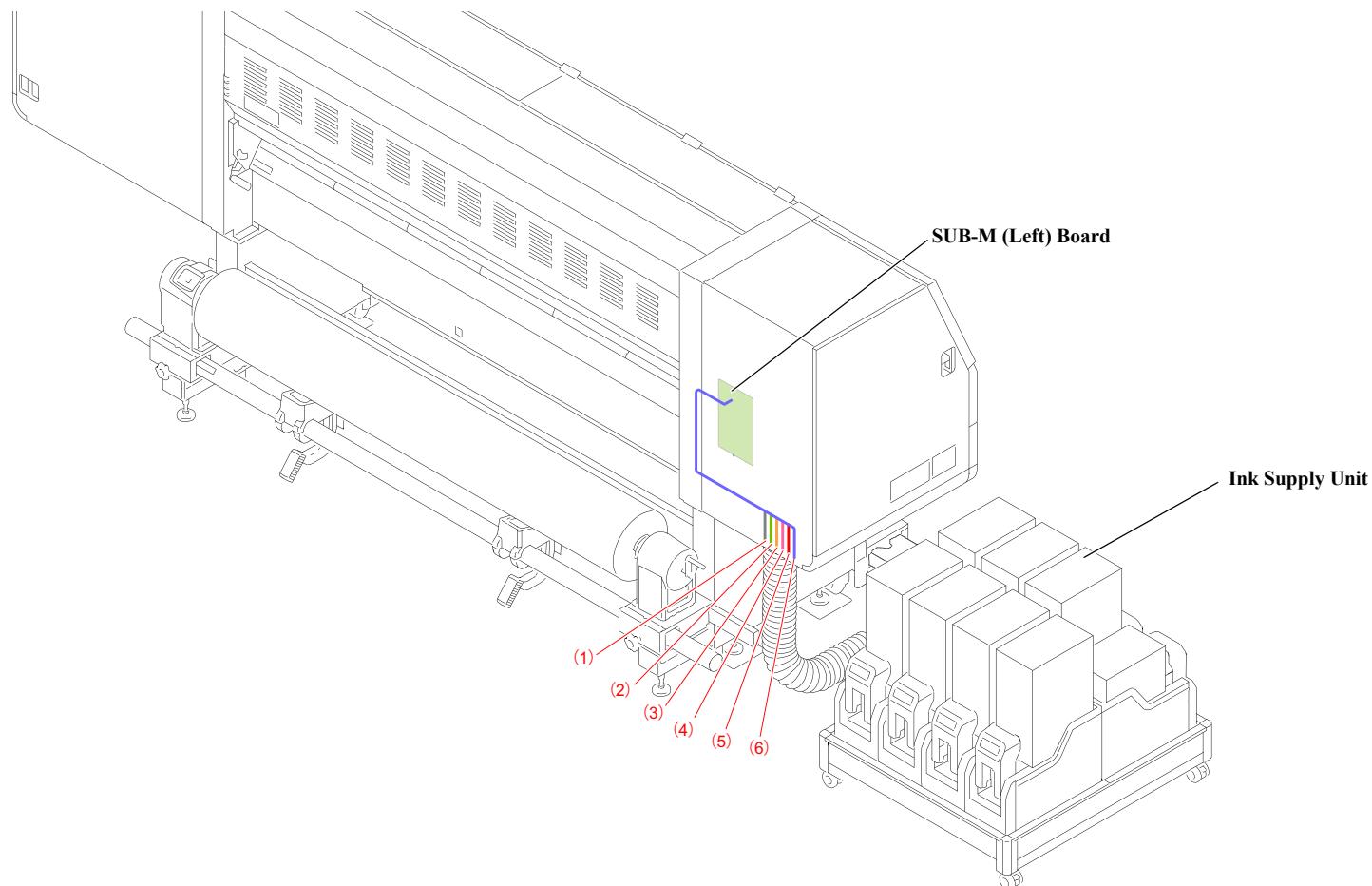
| Cable No. | Connection | | Cable No. | Connection | |
|-----------|---------------|---|-----------|--------------|---|
| 1 | Hardening Fan | Relay cable (SUB-M (Left) Board (CN302)) | 2 | Dryer | Relay cable (Heater Control Board (X1) (CN2)) |
| 3 | Dryer | Relay cable (Heater Control Board (X2) (CN2)) | 4 | After Heater | Relay cable (Heater Control Board (x3) (CN2)) |
| 5 | After Heater | Relay cable (Heater Control Board (x3) (CN2)) | 6 | Dryer | Relay cable (After Heater) |

Heater Related Board



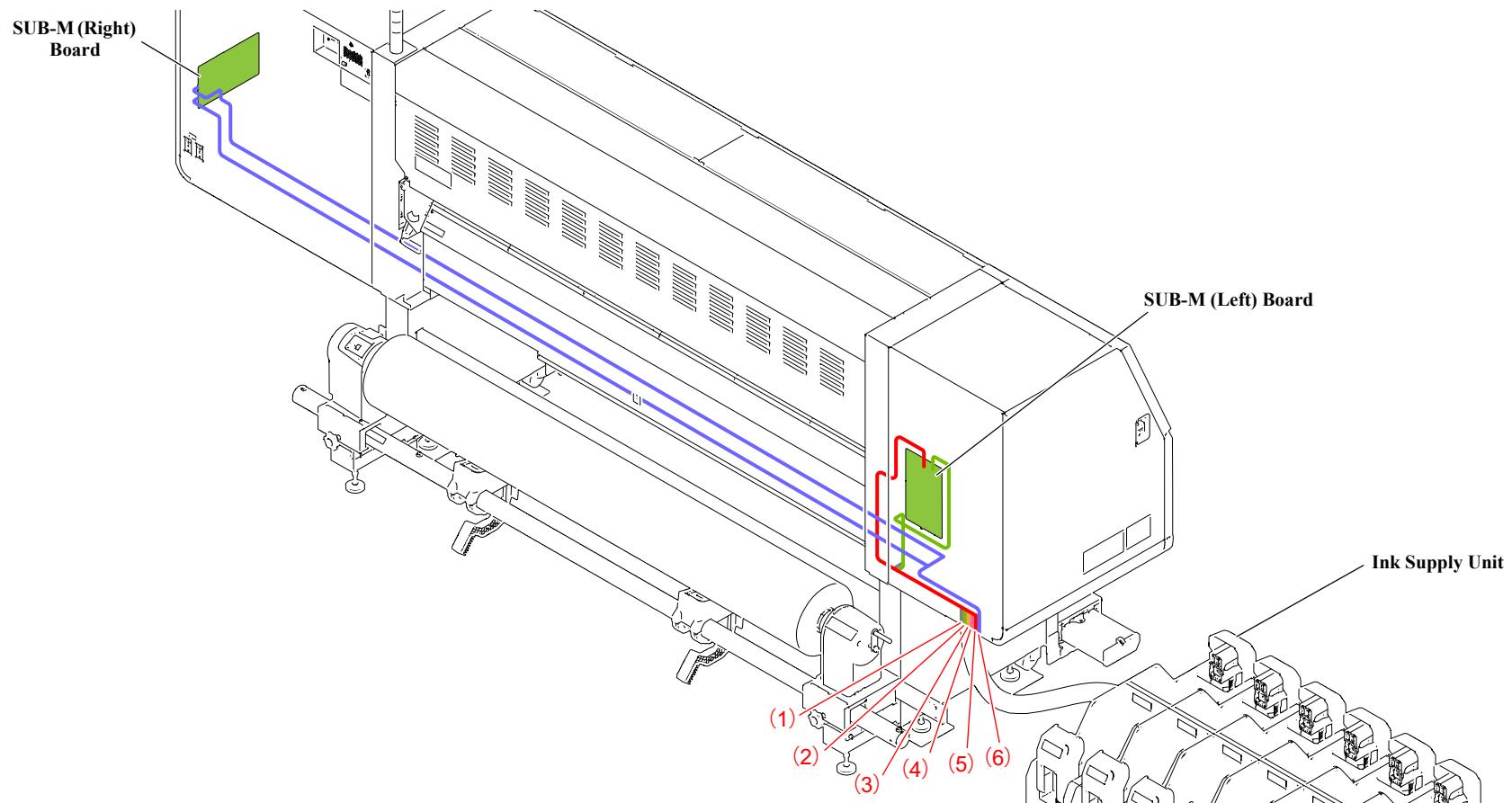
| Cable No. | Connection | | Cable No. | Connection | |
|-----------|--------------------------|---|-----------|---------------------------------|----------------------------|
| 1 | MCU Board (CN6) | Relay cable (Heater Control Board (X1) (CN1)) | 2 | Heater Control Board (X1) (CN2) | Leakage Breaker |
| 3 | Heater Control Board Fan | Relay cable (Heater Control Board (CN3)) | 4 | Heater Control Board (CN10) | Heater Control Board (CN6) |

Ink Supply Unit (SC-F10000 Series)



| Cable No. | Connection | | Cable No. | Connection | |
|-----------|---|--|-----------|---|--|
| 1 | Ink Supply Unit (Mount sensor) | Relay cable (SUB-M (Left) Board (CN400)) | 2 | Ink Supply Unit (Cartridge Check Lamp) | Relay cable (SUB-M (Left) Board (CN1402)) |
| 3 | Ink Supply Unit (Cartridge Check Lamp) | Relay cable (SUB-M (Left) Board (CN1403)) | 4 | Ink Supply Unit (Switch valve) | Relay cable (SUB-M (Left) Board (CN208)) |
| 5 | Ink Supply Unit (CSIC) | Relay cable (SUB-M (Left) Board (CN506)) | 6 | Ink Supply Unit (CSIC) | Relay cable (SUB-M (Left) Board (CN507)) |

Ink Supply Unit (SC-F10000H Series)

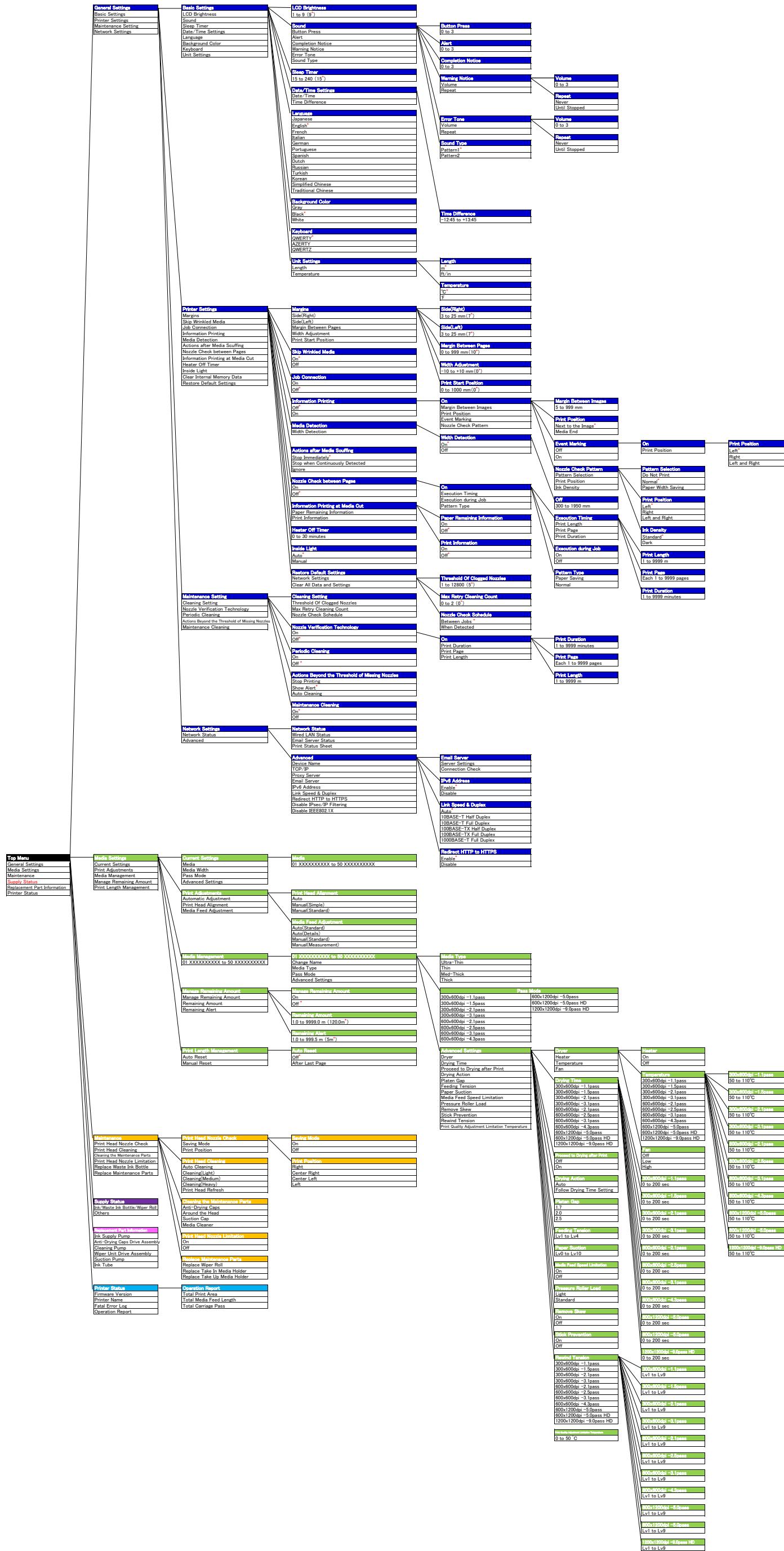


| Cable No. | Connection | | Cable No. | Connection | |
|-----------|--|---|-----------|--|--|
| 1 | Ink Supply Unit (Mount sensor/Cartridge Check Lamp/Switch valve?) | Relay cable (SUB-M (Left) Board (CN400/CN1402/CN208)) | 2 | Ink Supply Unit (Mount sensor/Cartridge Check Lamp/Switch valve?) | Relay cable (SUB-M (Left) Board (CN400/CN1403/CN208)) |
| 3 | Ink Supply Unit (CSIC) | Relay cable (SUB-M (Left) Board (CN506)) | 4 | Ink Supply Unit (CSIC) | Relay cable (SUB-M (Left) Board (CN507)) |
| 5 | Ink Supply Unit (CSIC) | Relay cable (SUB-M (Left) Board (CN508)) | 6 | Ink Supply Unit (Mount sensor/Cartridge Check Lamp/Switch valve?) | Relay cable (SUB-M (Right) Board (CN400/CN1402/CN208)) |

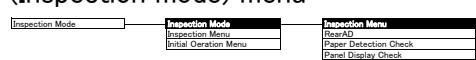
6.3 Panel Menu Map

User menu

*: Default value



Serviceman mode (Inspection mode) menu



6.4 Part names used in this manual

To make it easier to locate the target part from its part name, this manual uses the part names different from the ASP part names. The table below shows the conversion of the part names used in this manual and the corresponding ASP part names.

Table 6-2. Conversion Table

| Part name used in this manual | ASP part name | Ref. (Ch3 sec.No.) |
|---|-----------------------------|-----------------------|
| Maintenance Cover (Left/Middle) | N/A | 3.4.2.1 |
| Maintenance Cover (Left/Lower) | N/A | 3.4.2.2 |
| Left Top Cover | N/A | 3.4.2.3 |
| Left Rear Cover | N/A | 3.4.2.4 |
| Left Cover | COVER LEFT ASSY ESL,ASP | 3.4.2.5 |
| Rear Cover | N/A | 3.4.2.6 |
| Rear Inner Cover | N/A | 3.4.2.7 |
| Right Rear Cover | N/A | 3.4.2.8 |
| Rear Top Cover | N/A | 3.4.2.9 |
| Right Top Cover | N/A | 3.4.2.10 |
| Right Cover | COVER RIGHT ASSY ESL,ASP | 3.4.2.11 |
| Front Left Top Cover | N/A | 3.4.2.12 |
| Front Right Top Cover | N/A | 3.4.2.13 |
| Left Side Top Cover | N/A | 3.4.2.14 |
| Maintenance Cover (L) Open Sensor | MICRO DOOR SWITCH,D3DC-3 | 3.4.2.15 |
| Maintenance Cover (L) Lock Lever Sensor | LEAF SENSOR,P599 | 3.4.2.16 |
| Maintenance Cover (R) Open Sensor | MICRO DOOR SWITCH,D3DC-3 | 3.4.2.17 |
| Maintenance Cover (R) Lock Lever Sensor | LEAF SENSOR,P599 | 3.4.2.18 |

Table 6-2. Conversion Table

| Part name used in this manual | ASP part name | Ref. (Ch3 sec.No.) |
|-------------------------------|---------------------------------|-------------------------------|
| Housing | Damper | GAS SPRING,ASSY,ASP |
| | Signal Lamp | INDICATOR LIGHT, ASSY |
| | Right Side Top Cover | N/A |
| | Rear Right Side Frame | N/A |
| | Rear Lower Cover | N/A |
| | Caster | CASTER,HG-65GNB |
| | Adjuster | ADJUSTER,D-B12X120 |
| | Front Cover Lock Sensor (Left) | LEAF SENSOR,P599 |
| | Front Cover Lock Sensor (Right) | LEAF SENSOR,P599 |
| Electric Circuit Components | Lower the Main Board Frame | N/A |
| | Main Board B | BOARD ASSY.,MAIN |
| | Main Board A | BOARD ASSY.,MAIN |
| | SUB-DC Board (MAIN A) | BOARD ASSY.,SUB |
| | SUB-DC Board (MAIN B) | BOARD ASSY.,SUB |
| | SSD | SSD |
| | Main Board Fan A | FAN,COOLING,06025SS-24Q-AL-DE |
| | Main Board Fan B | FAN,COOLING,06025SS-24Q-AL-DE |
| | SUB-M (Left) Board | BOARD ASSY.,SUB |
| | SUB-M (Right) Board | BOARD ASSY.,SUB |
| | CR Motor Control Board (SUB-B) | BOARD ASSY.,SUB |
| | CR Motor Control Board Fan | FAN,COOLING,06025SS-24Q-AL-DE |
| | Leakage Breaker | LEAK BREAKER |
| | Panel Assy | PANEL LCD UNIT ESL ASP |
| | LED Control Board 1 | BOARD ASSY.,SUB |

Table 6-2. Conversion Table

| Part name used in this manual | ASP part name | Ref. (Ch3 sec.No.) |
|---------------------------------|--|--------------------------|
| LED Control Board 2 | BOARD ASSY.,SUB | 3.4.3.16 |
| LED Board | BOARD ASSY.,SUB | 3.4.3.17 |
| Temperature and Humidity Sensor | SENSOR,TEMPERATUR E,HUMIDITY,HSHCAA106F | 3.4.3.18 |
| Head Drive Board Frame | N/A | 3.4.3.19 |
| Head Drive Board (DRV) | BOARD ASSY.,DRV | 3.4.3.20 |
| Head FFC | <input type="checkbox"/> B TO B ASSY,ASP <input type="checkbox"/> HARNESS,HEAD F4 <input type="checkbox"/> HARNESS,HEAD S4 <input type="checkbox"/> HARNESS,HEAD F5 <input type="checkbox"/> HARNESS,HEAD S5 <input type="checkbox"/> HARNESS,HEAD F6 <input type="checkbox"/> HARNESS,HEAD S6 <input type="checkbox"/> HARNESS,HEAD F7 <input type="checkbox"/> HARNESS,HEAD S7 | 3.4.3.21 |
| Head Connector Board | <input type="checkbox"/> B TO B ASSY,ASP | |
| SUB-DC Board (SUB-H) | BOARD ASSY.,SUB | 3.4.3.22 |
| SUB-C Board | BOARD ASSY.,SUB | 3.4.3.23 |
| SUB-H Board | BOARD ASSY.,SUB | 3.4.3.24 |
| Power Supply Box Assy | <input type="checkbox"/> ACDCPOOWER SUPPLY +24V <input type="checkbox"/> ACDCPOOWER SUPPLY +42V | 3.4.3.25 |
| Board Cooling Fan 1/2 | FAN,COOLING,08025SS-24Q-AL-D5 | 3.4.3.26 |
| SUB-AC Board | N/A | 3.4.3.27 |
| SUB-E Board | BOARD ASSY.,SUB | 3.4.3.28 |
| MCU Board | BOARD ASSY.,MCU | 3.4.3.29 |
| Printer Drying Fan | FAN ASSY.,DRYING | 3.4.3.30 |
| Panel FFC | HARNESS, PNL, FFC | 3.4.3.31 |
| SUB-M (Left) Board Relay FFC | HARNESS, RELAY4, FULL FFC | 3.4.3.32 |

Table 6-2. Conversion Table

| Part name used in this manual | ASP part name | Ref. (Ch3 sec.No.) |
|-------------------------------|--|--|
| Electric Circuit Components | Electric Circuit Components Print Head Charging Unit Cap Anti-Drying Caps Drive Assembly CR Position Sensor (Left) CR Position Sensor (Right) CR Cover APG Sensor Ink Leak Sensor (Cap) Ink Leak Sensor (Pump) Ink Supply Pump (SC-F10000 Series) Ink Supply Pump (SC-F10000H Series) Ink Supply Sub Pump Assy Cleaning Pump Wiper Unit Drive Assembly Ink Leak Sensor (Cloth Wiper) Suction Pump Suction Cap Drive Unit | 3.4.3.33 3.4.4.1 3.4.4.3 3.4.4.4 3.4.4.5 3.4.4.6 3.4.4.7 3.4.4.8 3.4.4.9 3.4.4.10 3.4.4.11 3.4.4.12 3.4.4.13 3.4.4.14 3.4.4.15 3.4.4.16 3.4.4.17 3.4.4.18 3.4.4.19 |

Table 6-2. Conversion Table

| Part name used in this manual | ASP part name | Ref. (Ch3 sec.No.) |
|--|--------------------------------------|---------------------------------------|
| Carriage Mechanism/ Ink System Mechanism | CR Encoder Sensor | BOARD ASSY.,ENCODER,CR |
| | RGB Camera | RGB ASSY ESL,ASP |
| | PW Sensor | BOARD ASSY.,DETECTOR,PW;B |
| | CR Obstacle Sensor | □ PLATE ASSY.,COVER,CR,HO ME,ASSY,ASP |
| | | □ PLATE ASSY.,COVER,CR,FU LL,ASSY,ASP |
| | Duct Carriage Assy | ONCR ASSY.,4C,ESL,ASP |
| | Ink Leak Sensor (Duct Carriage Assy) | PHOTO INTERRUPTER |
| | Filter Unit | FILTER ASSY.,ESL,ASP |
| | Ink Leak Sensor (Filter Unit) | PHOTO INTERRUPTER |
| | APG Motor | MOTOR ASSY.,REWIND |
| | CR Scale | SCALE,CR |
| | Loosen the CR Belt | N/A |
| | CR Motor | MOTOR ASSY,CR |
| | CR Motor Fan | FAN,COOLING,06025SS-24Q-AL-DE |
| | CR Belt | BELT,CR |
| | Ink Tube (SC-F10000 Series) | SUPPLY TUBE ASSY, ASP |
| | Ink Tube (SC-F10000H Series) | SUPPLY TUBE ASSY, ASP |
| | Right Pulley Assy | SHAFT ASSY.,DRIVE,CR |
| | Left Pulley Assy | SHAFT ASSY.,DRIVEN,CR |

Table 6-2. Conversion Table

| Part name used in this manual | ASP part name | Ref. (Ch3 sec.No.) |
|--|-----------------------------|-------------------------------|
| Carriage Mechanism/ Ink System Mechanism | CR Obstacle Sensor FFC Assy | FFC,CPAD,SENSOR ASSY,ASP |
| | CR Encoder FFC | FFC,ENCODER,CR |
| | Tube Support Plate | GUIDE PLATE, TUBE; KIT, ASP |
| | Shutter | SHUTTER,CAMERA,CR |
| Paper Feed Mechanism | PF Scale | SCALE,PF,ASSY,ASP |
| | PF Encoder Sensor | BOARD ASSY.,ENCODER,PF |
| | PF Motor | MOTOR ASSY.,PF |
| | PF Motor Fan | FAN,COOLING,06025SS-24Q-AL-DE |
| | Nip/Release Motor | MOTOR ASSY.,WIPER |
| | Nip/Release Sensor | PHOTO INTERRUPTER |
| | Dust Catcher | CLOTH CATCHER ASSY ESL,ASP |
| | Suction Fan | FAN ASSY.,ABSORPTION |
| | PE Sensor | BOARD ASSY.,DETECTOR,PW;B |
| | PF Encoder Sensor FFC | FFC,ENCODER,PF |
| Roll Unit/Reel Unit | Roll Flange Unit (Left) | ROLL SLIDER LEFT ASSY ESL,ASP |
| | Roll Flange Unit (Right) | Option |
| | Reel Flange Unit (Left) | REEL SLIDER LEFT ASSY ESL,ASP |
| | Reel Flange Unit (Right) | Option |

Table 6-2. Conversion Table

| Part name used in this manual | ASP part name | Ref. (Ch3 sec.No.) |
|-------------------------------|--|---|
| Heater Mechanism | Hardening Fan | FAN ASSY.,KOH,6pcs set,A,ASP 3.4.7.1 |
| | Dryer | KOH HEATER ASSY ESL,ASP 3.4.7.2 |
| | Media Guide Bar | N/A 3.4.7.3 |
| | After Heater | PAPER GUIDE,AFTER HEATER,MIDDLE, ASSY,ASP 3.4.7.4 |
| | After Heater Unit | N/A 3.4.7.5 |
| | Thermistor Relay A/D Board (SUB-S) | BOARD ASSY.,SUB 3.4.7.6 |
| | Heater Control Board Plate | N/A 3.4.7.7 |
| Heater Mechanism | Heater Control Board | BOARD ASSY.,SUB 3.4.7.8 |
| | Heater Control Board Fan | FAN,COOLING,08025SS-24Q-AL-D5 3.4.7.9 |
| Ink Supply Mechanism | Ink Supply Unit | BIB ASSY 3.4.8.1 |
| | Ink Cartridge Holder | HOLDER,BIB 3.4.8.2 |
| | Ink Supply Tube Assy (SC-F10000 Series) | BIB TUBE ASSY, 3.4.8.3 |
| | Ink Supply Tube Assy (SC-F10000H Series) | BIB TUBE ASSY.,6C, 3.4.8.3 |
| | Cartridge Holder | HOLDER,LEVER,BIB 3.4.8.4 |
| | Cartridge Check Lamp | BOARD ASSY.,SUB 3.4.8.5 |
| | Cartridge Cover Open Sensor | LEAF SENSOR,P599 3.4.8.6 |
| | Connector Cover A/B/C | COVER,LEFT,JOINT,BIB;B / COVER,RIGHT,JOINT,BIB;B / COVER,FRONT,JOINT,BIB;B 3.4.8.7 |
| | CSIC | HOLDER,CONNECTOR, CSIC;B,ASSY,ASP 3.4.8.8 |
| | Ink Supply Needle | NEEDLE ASSY.,BIB,ESL,ASP 3.4.8.9 |
| | Caster | CASTER,P60HGS 3.4.8.10 |

6.5 Power-On Sequence (TBD**)**

6.6 Ink System Correlation Diagram

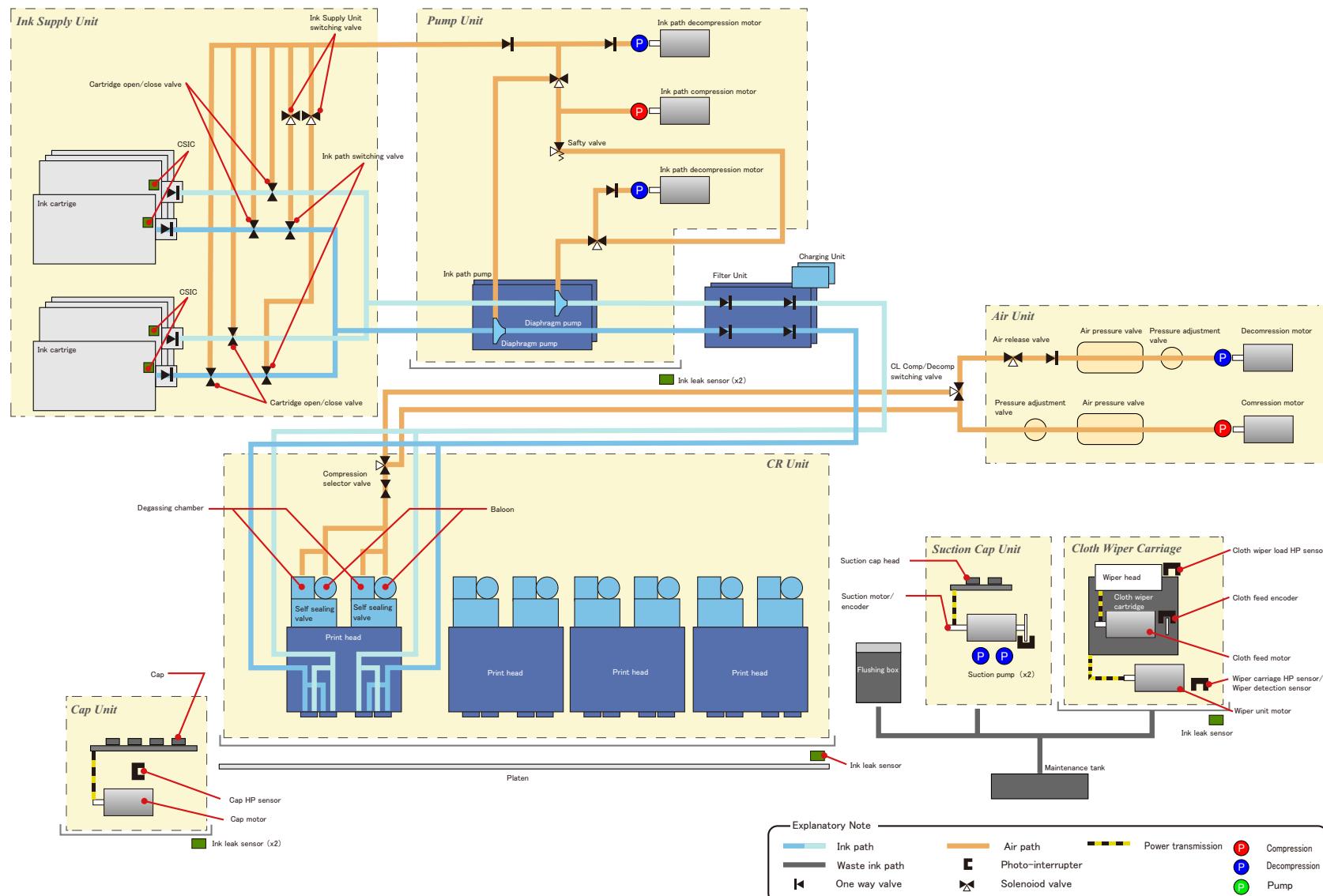
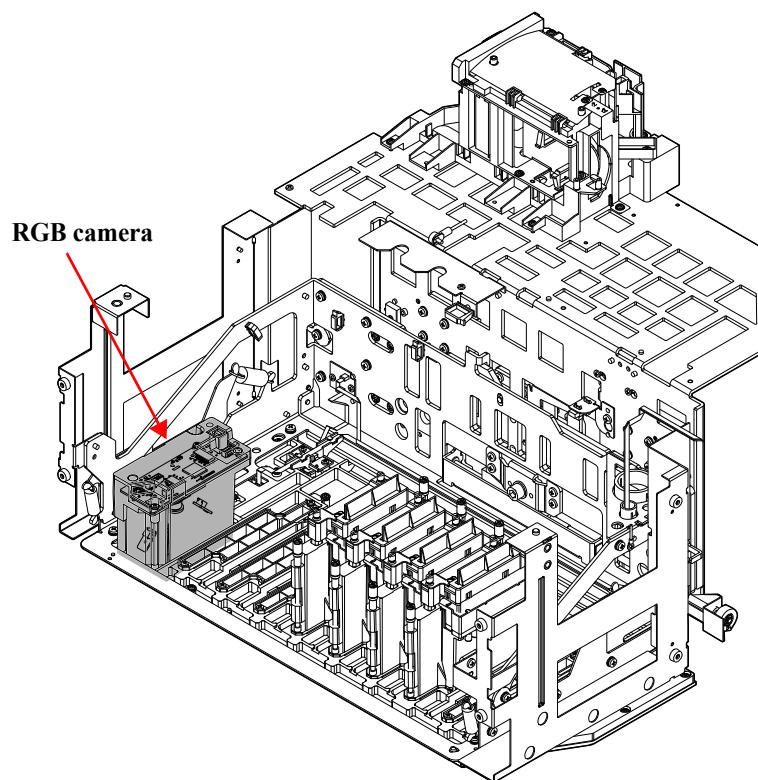


Figure 6-2.

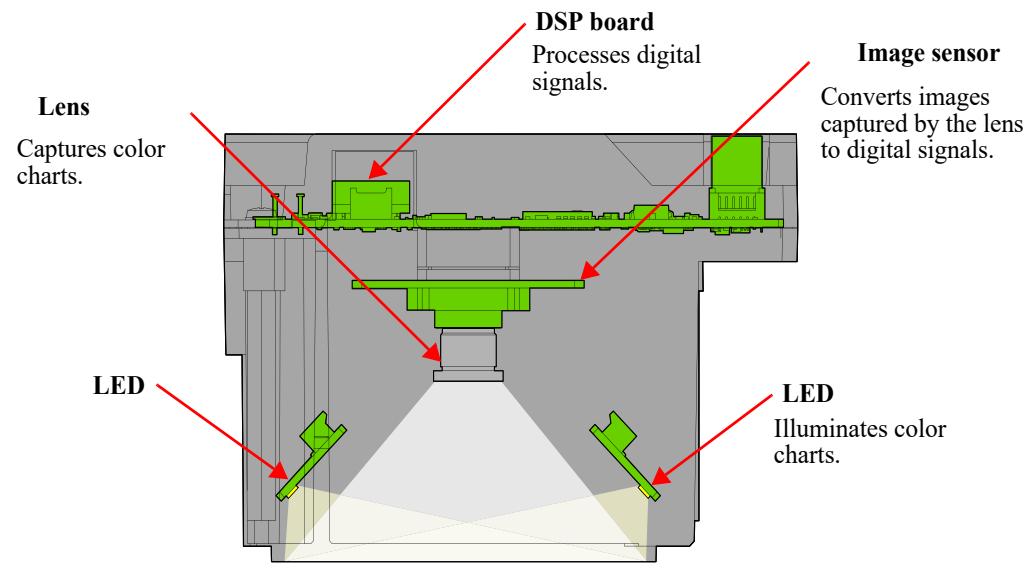
6.7 Mechanism Overview

6.7.1 RGB Camera

An RGB Camera is incorporated into the CR Unit.
It reads color charts during automatic adjustment.

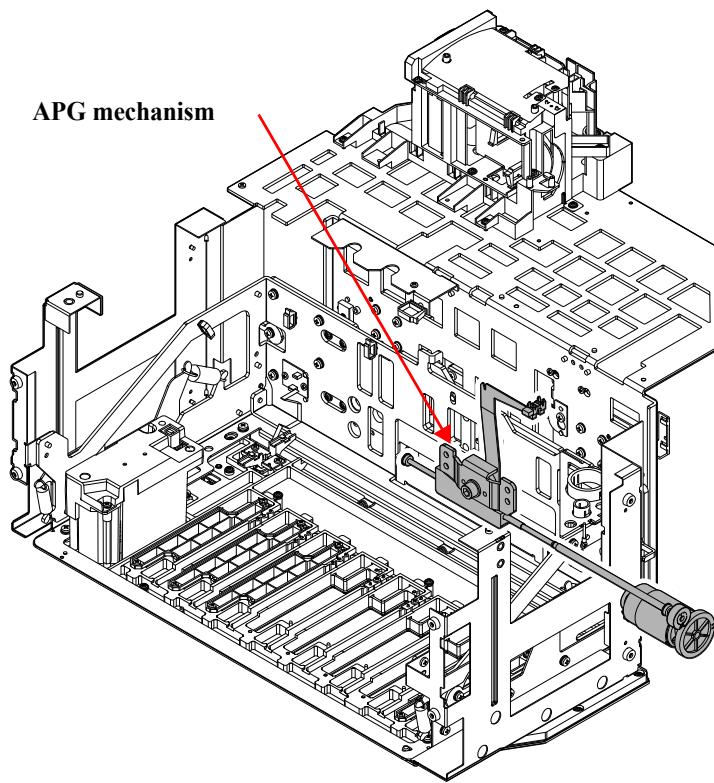


<RGB Camera internal mechanism>



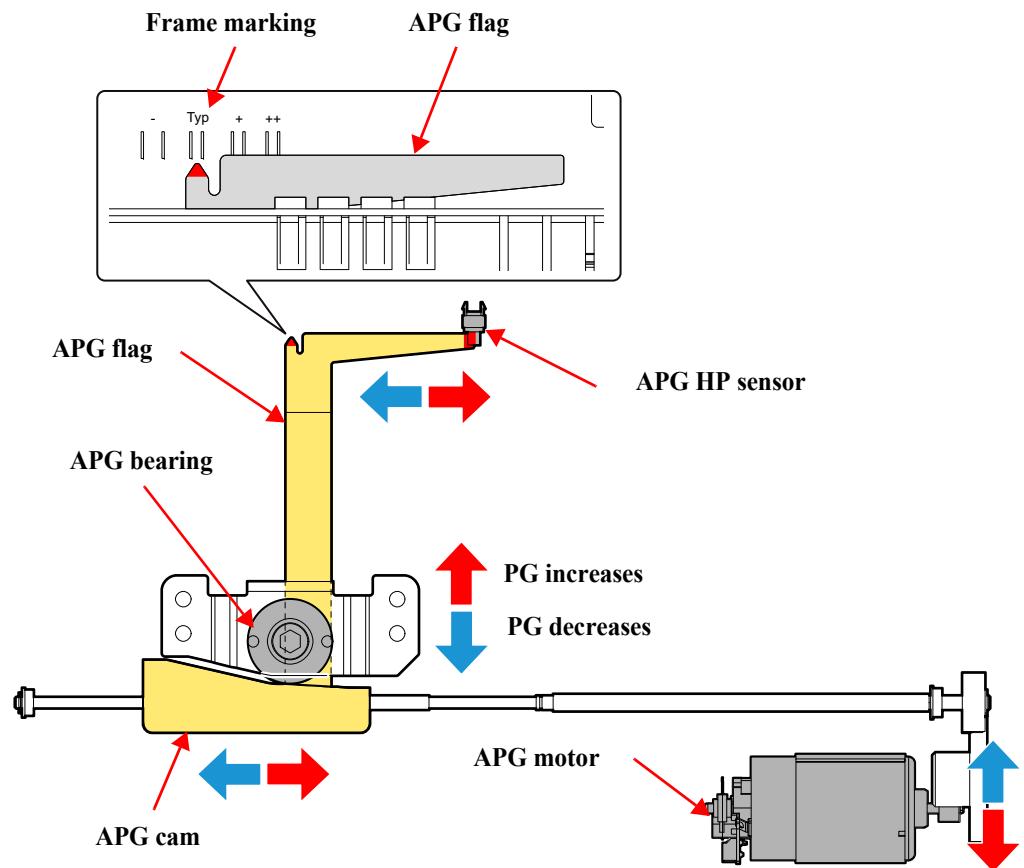
6.7.2 APG Mechanism

The printer incorporates an APG (Auto Platen Gap) mechanism. The specified platen gap is set automatically by the driving force of the APG Motor.



□ Mechanism Overview

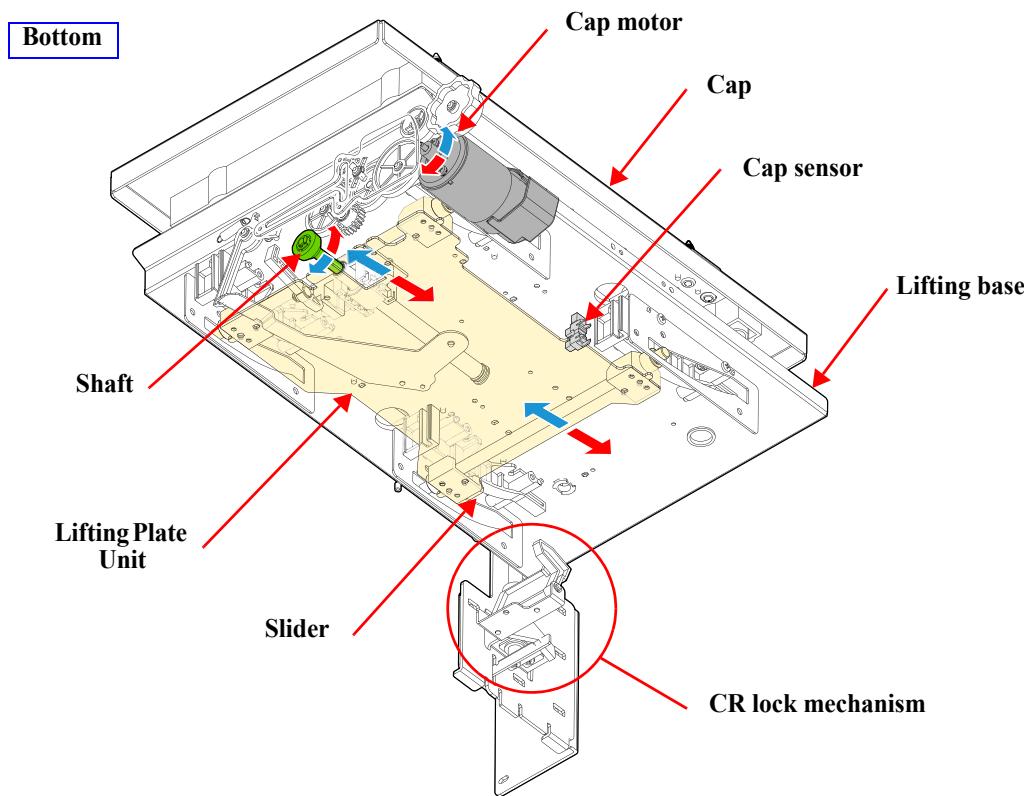
The APG Cam is moved left and right by the rotation of the APG Motor. The APG bearing rises and lowers in conjunction with the height of the APG Cam to change the platen gap. Furthermore, the APG flag moves in conjunction with the APG Cam, and the current platen gap can be determined from the APG flag position and frame marking. When the platen gap is ++, the APG flag will be shielding the APG HP Sensor.



6.7.3 Cap Mechanism

Capping Mechanism

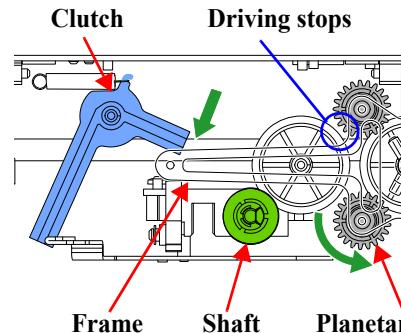
The driving of the cap motor rotates the shaft through gears. The Lifting Plate Unit is moved in the CR direction by the rotation of the shaft. When the Lifting Plate Unit moves, the lifting base and cap move up/down in conjunction with the height of the slider to perform the cap/uncap operation. The cap sensor detects the position of the lifting plate.



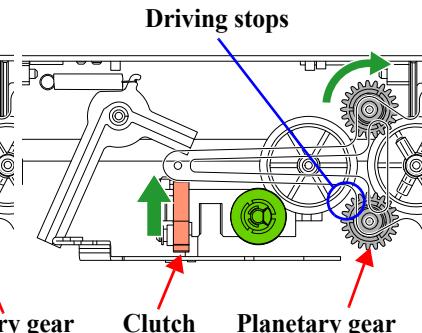
Clutch

The Anti-Drying Caps Drive Assembly incorporates 2 clutches. If the motor continues driving even though capping/uncapping is completed, a clutch contacts the frame to stop driving of the planetary gear in order to shut off driving to the shaft.

When capping



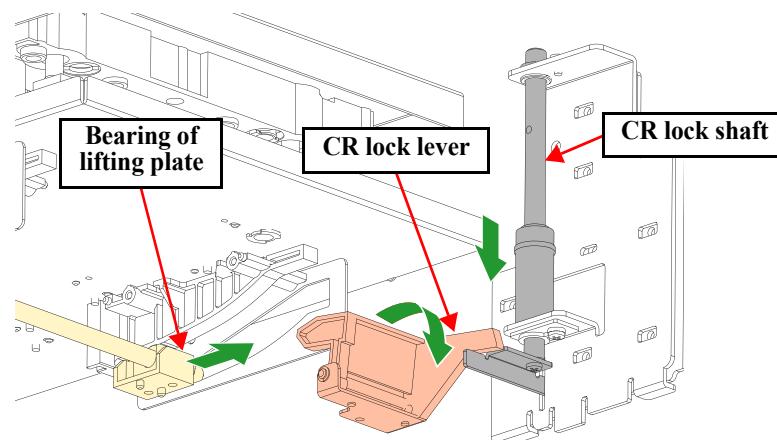
When uncapping



CR Lock

When the Lifting Plate Unit moves to the full side to perform uncapping, the bearing contacts the CR Lock Lever and the tip of the CR Lock Lever is pushed down.

When that happens, the CR Lock shaft lowers in conjunction with the movement of the CR Lock Lever to unlock the CR Lock.



6.7.4 Cloth Wiper Mechanism

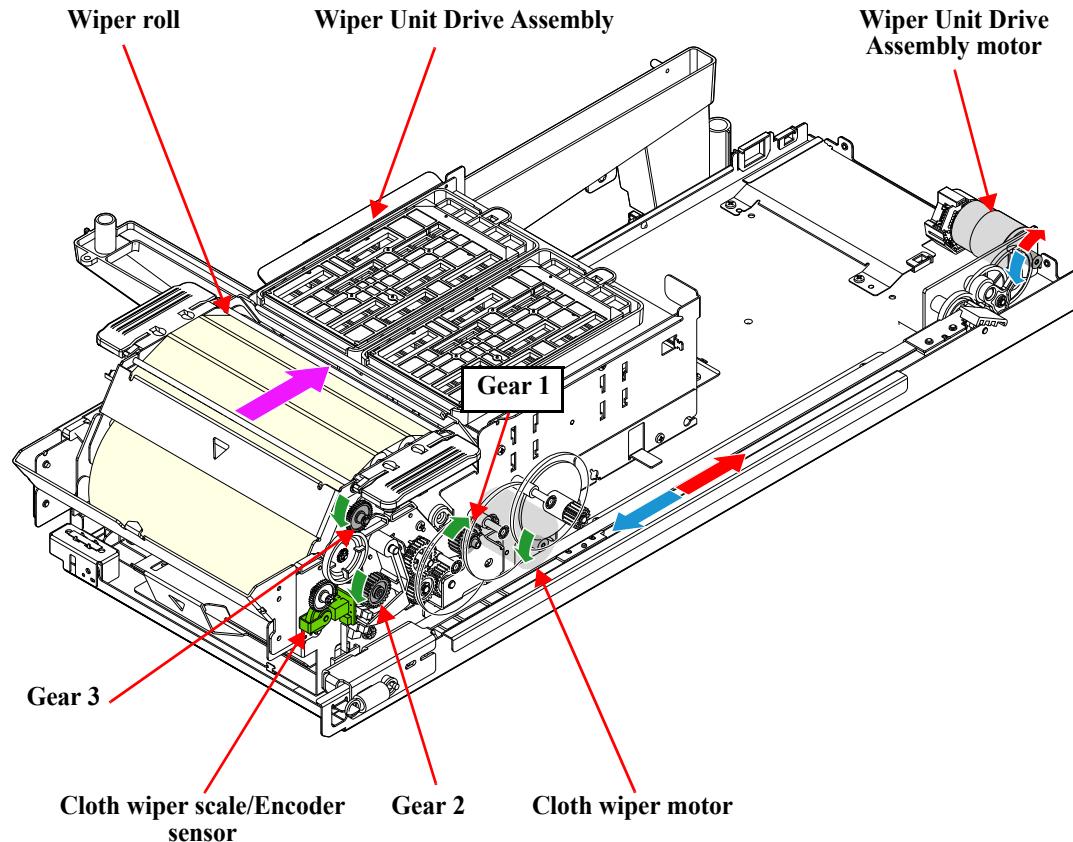
□ Wiping Mechanism

The Wiper Unit Drive Assembly is moved forward and backward by driving of the Wiper Unit Drive Assembly Motor, and the wiper roll on the Wiper Unit Drive Assembly wipes off the ink adhered to the nozzle surface of the Print Head.

When the wiper roll becomes dirty, the Cloth Wiper Motor is driven to wind up the dirty wiper roll. The driving force of the motor is transmitted to gear 1 of the Wiper Unit Drive Assembly through the gears and limiter to wind up the wiper roll in the direction of the arrow (magenta).

When the wiper roll is fed, gear 3 rotates, resulting in rotation of the Cloth Wiper Scale through the gears, and the Cloth Wiper Encoder Sensor reads the rotation amount on the scale.

If the encoder sensor does not rotate even when the motor is rotating, it is determined that the wiper roll has reached its end.

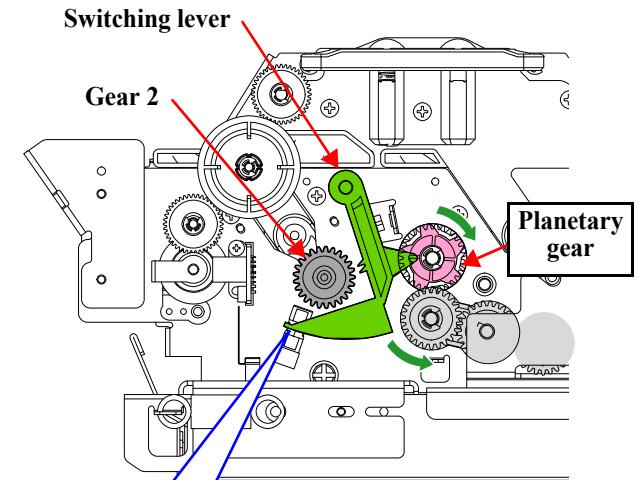


□ Lock Mechanism of Wiper Roll

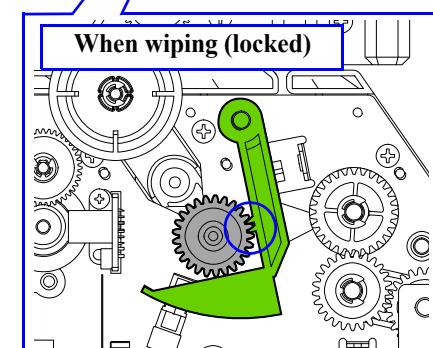
This mechanism locks the wiper roll so that the wiper roll does not move during wiping.

When the Cloth Wiper Motor rotates in the clockwise direction, the shaft of the switching lever moves the inside of the planetary gear to lock/unlock gear 2 of the Wiper Unit Drive Assembly.

When winding up the wiper roll (unlocked)



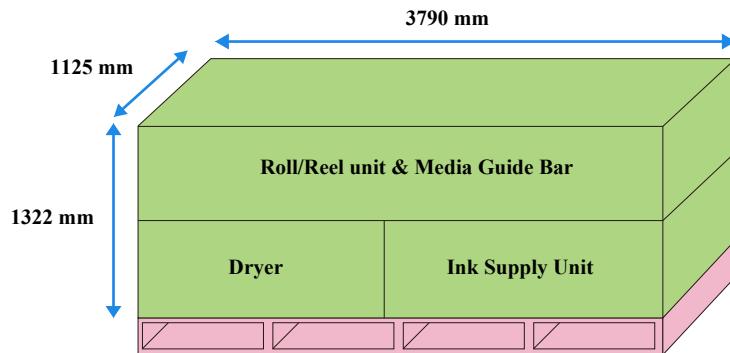
When wiping (locked)



6.8 Installation Assessment

| Item | Check | Description |
|------------------------------|--------------------------|---|
| Carrying-in, installation | <input type="checkbox"/> | Is there a sufficient parking space during unloading the printer from the carrier truck? Must be able to load the printer packed in a box. (See Figure 6-3 for the package size.) |
| | <input type="checkbox"/> | Is there a forklift? |
| | <input type="checkbox"/> | Is there a sufficient space for the printer when unloaded from the truck? Is there a sufficient space for the printer while reassembled? |
| | <input type="checkbox"/> | Are there any special requirements during carrying-in? (such as a crane is needed, etc.) |
| | <input type="checkbox"/> | Is the path to the installation site appropriate? (Width/height of the path, width/height of door openings, spaces for turning at L- or T- shaped corners) (See Figure 6-4 for sufficient width of passages.) |
| | <input type="checkbox"/> | If you use an elevator and such, does it meet the requirements such as the size and weight of the printer? (See Figure 6-6 for the size during carrying-in.) <input type="checkbox"/> Weight after reassembled: <ul style="list-style-type: none">• SC-F10000 Series: Approx. 683Kg• SC-F10000H Series: Approx. 689Kg |
| Installation site | <input type="checkbox"/> | Is there a sufficient installation space? (See Figure 6-5 for the installation space.) |
| | <input type="checkbox"/> | Is the site a level stable place which can support the weight of the printer? (See above for the weight.) |
| Environment | <input type="checkbox"/> | Temperature: 15-35 degrees C, humidity: 20-80% |
| | <input type="checkbox"/> | Not under direct sunlight |
| | <input type="checkbox"/> | No direct wind from an air conditioner or the like |
| | <input type="checkbox"/> | No heat sources nearby |
| Power supply | <input type="checkbox"/> | Current and power supply capacity sufficient? Are there enough power outlet sockets on the walls? (No power strips or multi plugs) <input type="checkbox"/> Number of power cords and total current consumption Number of power cords: 2, current consumption 16A |
| | <input type="checkbox"/> | Is grounding appropriate? The grounding cables of the power cords must be grounded surely. |

Roll/Reel unit & Media Guide Bar & Dryer & Ink Supply Unit



Printer

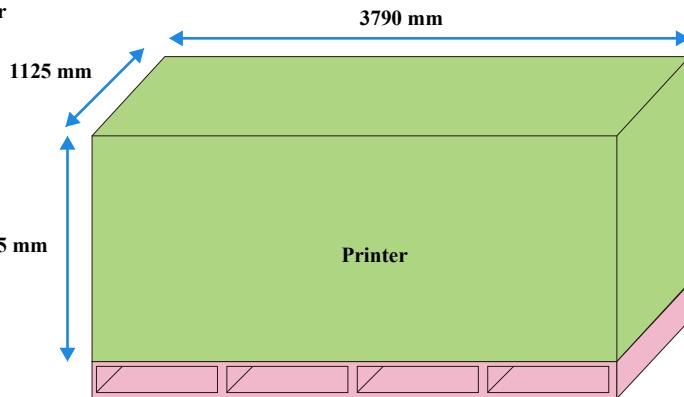
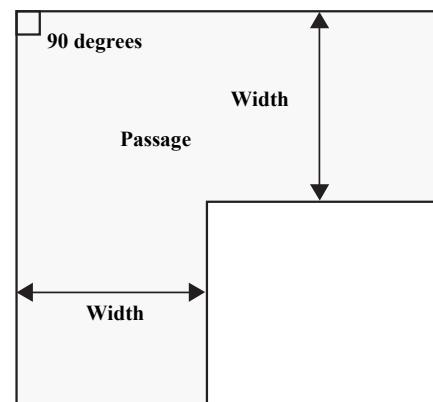
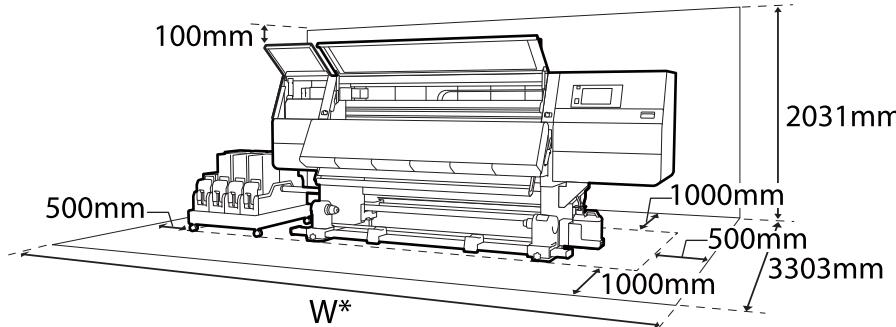


Figure 6-3. Printer packed in a box



| State of the printer | Size of printer | | Sufficient width of passages |
|---------------------------|-----------------|---------|------------------------------|
| | Width | Depth | |
| Packed | 3790 mm | 1125 mm | 2130 mm |
| When used | 3710 mm | 1350 mm | 2270 mm |
| With after heater removed | 3710 mm | 740 mm | 1830 mm |

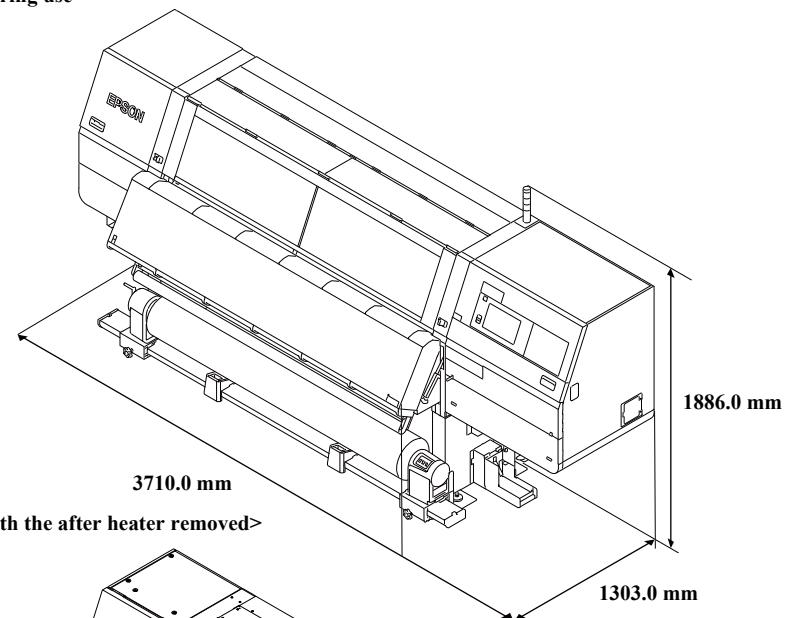
Figure 6-4. Sufficient width of passages



* SC-F10050H : 6008mm、SC-F10050 : 5607mm

Figure 6-5. Installation Room Requirement

<During use>



<With the after heater removed>

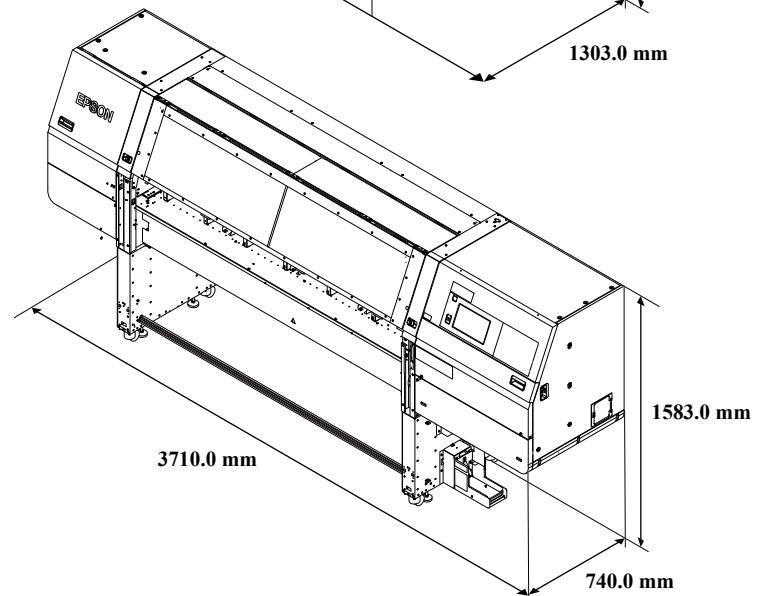


Figure 6-6. Size comparison

6.9 Exploded Diagram/Parts List

For the exploded diagrams and parts list, refer to Service Parts Information.