

ATLAS-222 (-ITPS) Replacement Procedure for RCU, BM-DMU, and the Main Software

1. Overview

This manual describes how to replace the software for RCU, BM-DMU, and the main unit (MCU1, MCU2, SCU1, and SCU2).

When replacing the main software, the write procedure for the main software "Industrial Machinery 05-00059_write procedure for main software.doc" is necessary, in addition to this procedure manual.

2. Compact Flash (CF) to be used and Storing File

For the stand alone machine, a CF of 32 MB or more is required. For the IITPS machine, a CF of 64 MB or more is required.

When replacing RCU or DMU Software, the Installer Program File (W0002F) must be stored in the CF, along with the file of each program.

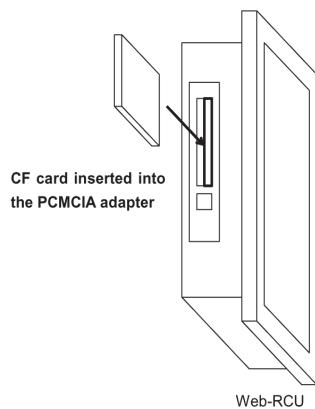
The folder for storing the program of RCU	RCU
The folder for storing the program of BM-DMU	BMDMU
The folder for storing the main unit program	BMFILE

3. Replacement Procedure for RCU and BM-DMU Software

3.1. Turning Off the Main Power

Turn off the main power before starting operation.

3.2. Inserting the Compact Flash into the slot of the ATLAS remote control



3.3. Turning On the Main Power

Turning on the main power starts the installation screen.



3.4. Installing the RCU software

Press the [RCU] key as shown above to install the software for RCU.

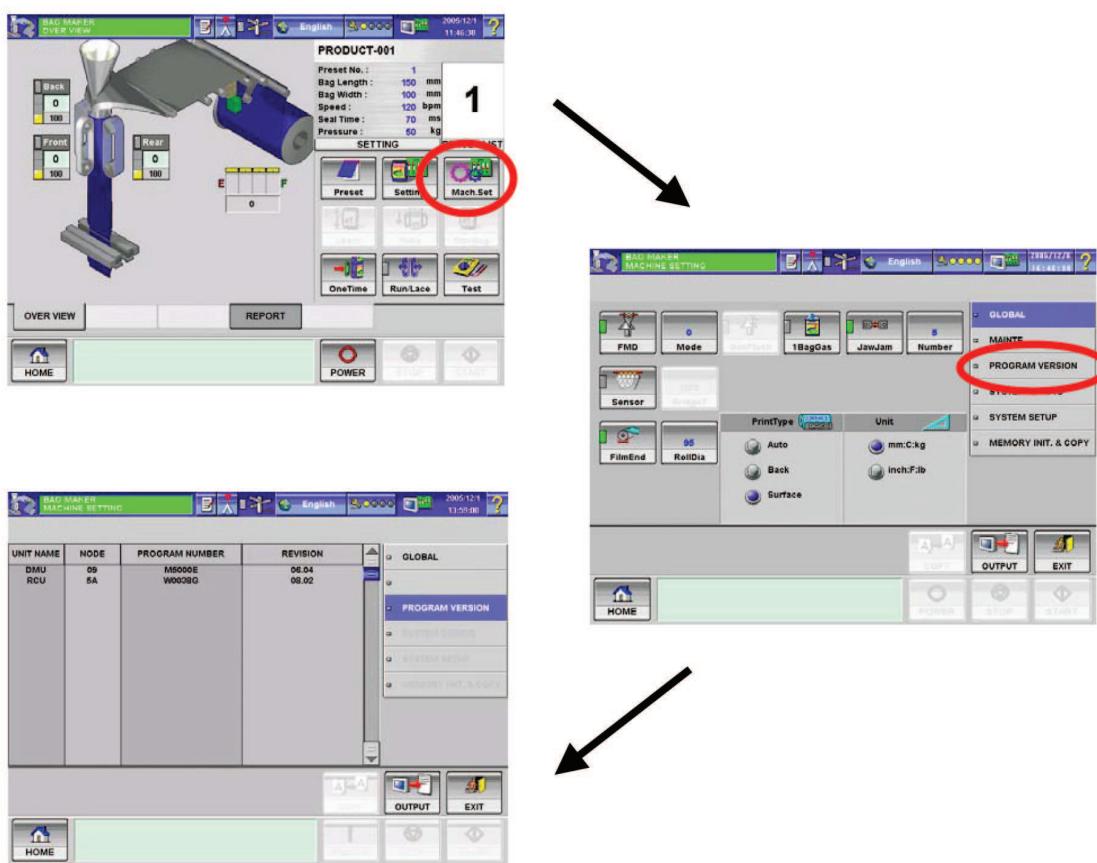
3.5. Installing the BM-DMU software

Press the [BM-DMU] key as shown above to install the software for BM-DMU.

3.6. Turning On the Power Again (Confirming the Program Number)

Remove the compact flash card from the slot and turn on the main power again.

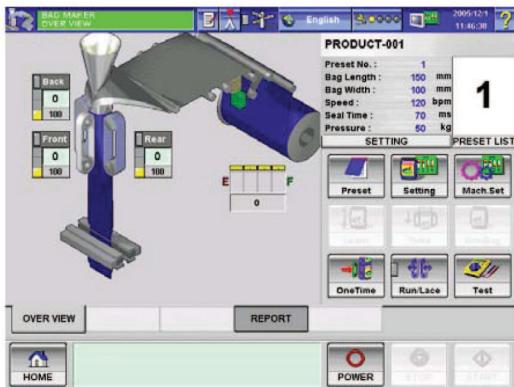
When the remote screen is displayed, press the [Mach Set] Key on the OverView screen.
Then press the [PROGRAM VERSION] key to confirm the program number.



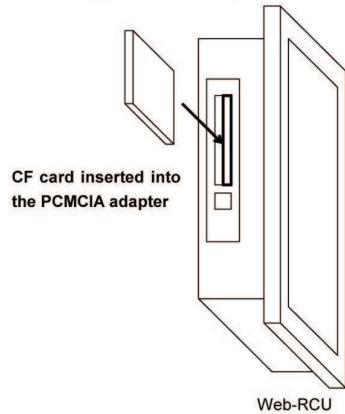
4. Replacement Procedure for the Main Software

4.1. Turning On the Main Power

Turning on the main power before starting operation to display the operation screen of the bag maker.



4.2. Inserting the Compact Flash into the slot of the ATLAS remote control

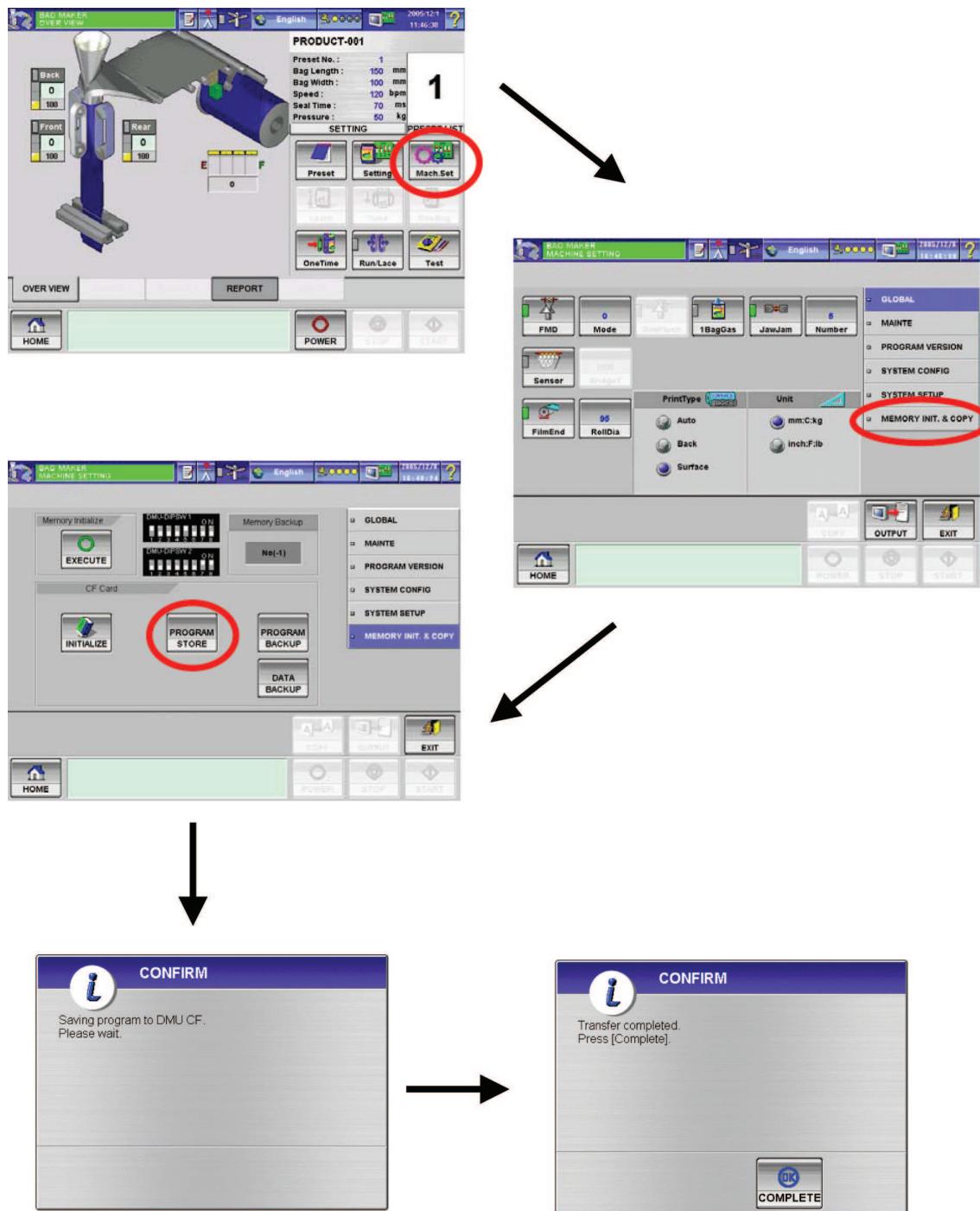


4.3. Copying the Main Software to the CF of DMU

Set the operation level to the Maintenance level.

Press the [Mach Set] key on the OverView screen and press the [MEMORY INIT & COPY] key on the next screen.

Then press the [PROGRAM STORE] key on the Memory Init & Copy screen.



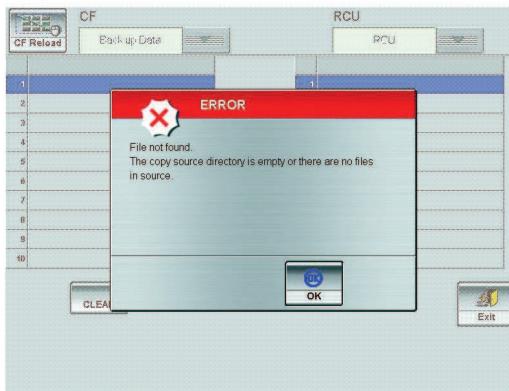
When transfer is completed, refer to the write procedure for the main software “Industrial Machinery 05-00059_write procedure for main software.doc” for main software writing.

5.1.4 Errors during Installation and Backup

5.1.4.1 Error Display Screen

During the installation or the backup process for the RCU software, the error messages as shown below may appear.

- When an error occurs during the installation or the backup process for the RCU software, press the  key to return to the previous screen and handle the error by referring to the "5.1.4.1 Error Display Screen".



Error during installation or
backup of RCU software

Table 5-1 Countermeasures for Error during Installation or Backup

Trouble	Cause	Countermeasure
Necessary screen buttons are not displayed at the installation or backup.	<ol style="list-style-type: none"> The "program.inf" and program name are not matched. The sum value of "program.inf" is incorrect. The program for the installation is not included in the installation card. 	Use the installation card including the correct programs.
The operation is paused after the following messages appear in the error dialog screen. - File not found. - The copy source directory is empty or there are no files in source.	<ol style="list-style-type: none"> There is no data to be correctly installed in the installation card. The backup process is performed for the RCU program while the program does not exist in the RCU. 	Use the installation card including the correct programs. The backup process cannot be performed without the existing program.
The operation is paused after the following messages appear in the error dialog screen. - Network connection error. - Can not connect to main board. - Reboot this Machine.	The Ethernet is not connected or improperly connected between the RCU and the main unit.	Pause the installation operation, and check if the machine starts up correctly. Without establishing the network, installation or backup of the main program cannot be performed.

Table 5-1 Countermeasures for Error during Installation or Backup (Continued)

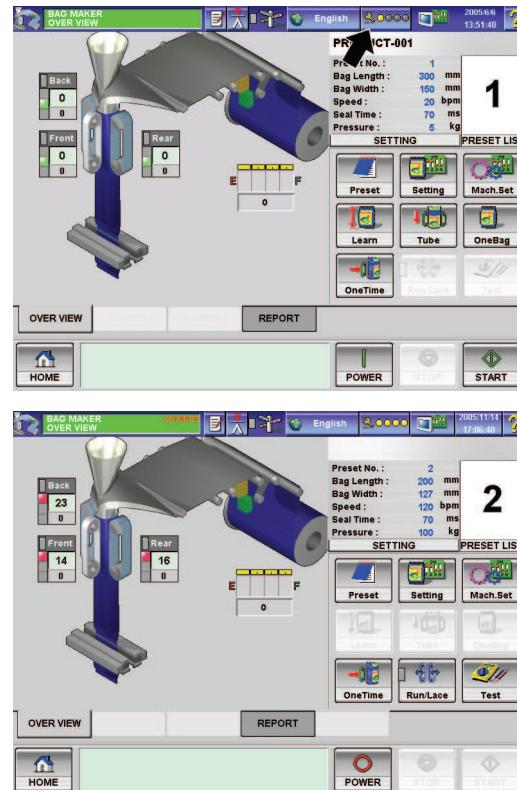
Trouble	Cause	Countermeasure
The operation is paused after the following messages appear in the error dialog screen. - Data send error! - Reboot this Machine.	"40 PCCard access error." Since the CF card does not exist on the main board, the error occurs during the installation and backup.	Insert the CF with the appropriate program to the main board.
	"*** download name check error." or "*** download version check error." or "*** download sum check error." The program name or sum value defined in the *** program does not match "program.inf". The program with an incorrect version may be tried to be installed.	Check the installation data.
The operation is paused after the following messages appear in the error dialog screen. - Data send error! - Reboot this Machine.	"*** start address error." or "***program download error." The contents in the *** program cannot be read. The installation data may be broken, or a different program type is operated.	Check the installation data.
	"73 *** DIPSW error." The DIP switch setting is incorrect.	Check the DIP switch on the *** board.
The error messages other than those above appear in the message box.	<ul style="list-style-type: none"> • Errors occur during the internal process. 	After rechecking the installation data and no error is found, inform the recorded error message to the manufacture.

5.1.5 Maintenance level

When switching the operation level to the Maintenance level, the password for the Maintenance level is required.

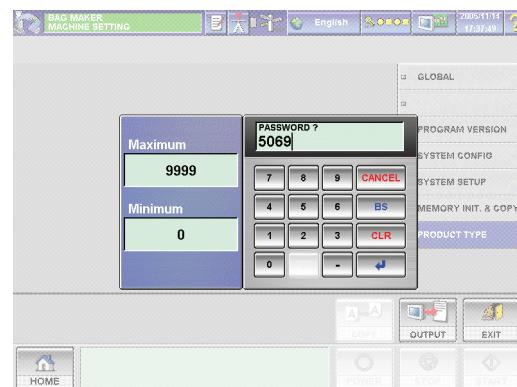
Follow the procedure to switch to the Maintenance level.

1. Press the operation level key  on a screen.
►The screen to select the operation level will appear.
2. Select the Maintenance level.
►The keyboard to enter the password will appear.
3. Enter the password for the Maintenance level.
►The Operation Standby screen for the Maintenance level will appear.
4. Press the  key.
►The MACHINE SETTING screen will appear.



5.1.5.1 SYSTEM CONFIG

1. Press the [SYSTEM CONFIG] index.
►The keyboard to enter the password will appear.



2. Enter the password "5055+(date×2)"= four figures.

►The SYSTEM CONFIG screen will appear.



5.1.5.2 MEMORY INIT. & COPY

1. Press the [MEMORY INIT. & COPY] index.

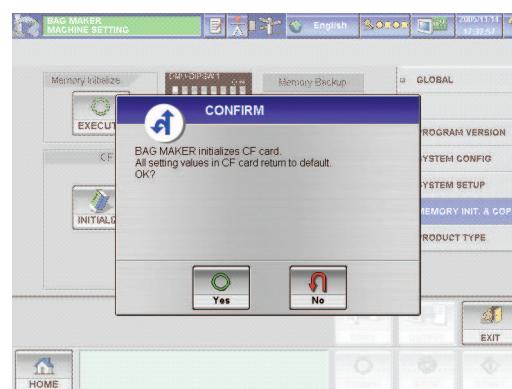
►The MEMORY INIT. & COPY screen will appear.



5.1.5.2.1 Card Initialization

1. Press the [INITIALIZE] key for CF card.

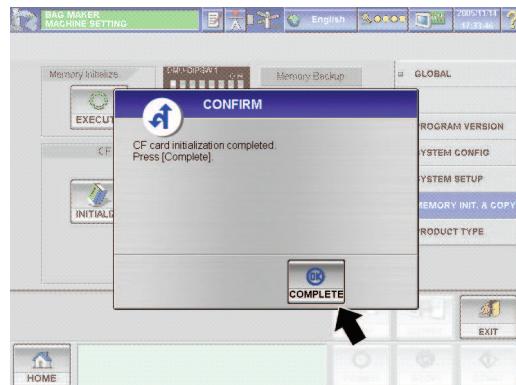
►The CONFIRM screen will appear.



2. Press the [Yes] key.

►The CONFIRM screen will appear.

3. Press [COMPLETE] key.

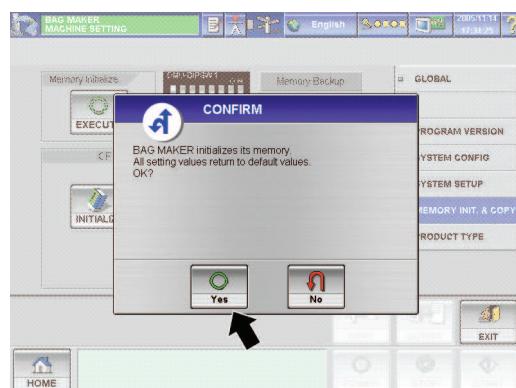


5.1.5.2.2 Memory Initialization

1. Press the [EXECUTE] key.

►The CONFIRM screen will appear.

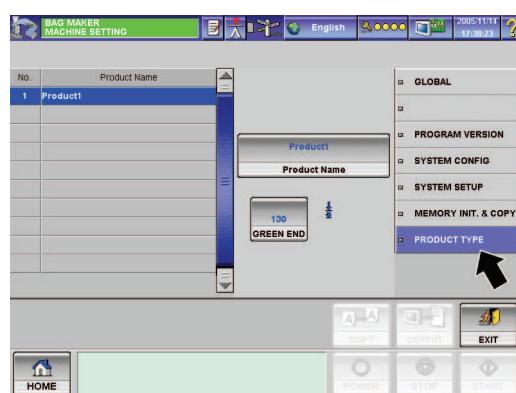
2. Press [Yes] key.



5.1.5.3 PRODUCT TYPE

1. Press the [PRODUCT TYPE] index.

►The PRODUCT TYPE screen will appear.



5.2 DMU Board and MCU/SCU Board Program Installation Procedure

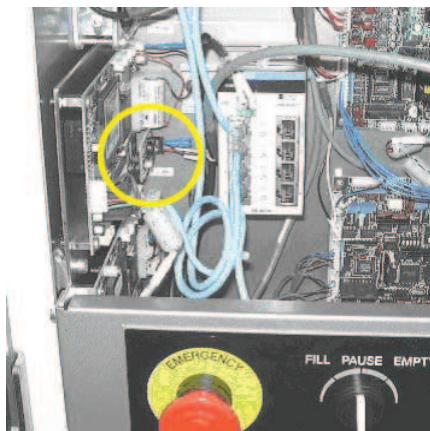
5.2.1 INTRODUCTION

This is a procedure of program installation for ATLAS-122 main body which has flash memory type micro processing unit (MITSUBISHI M16C).

Referential program and boards are as below.

Program	Board	Micro Processing Unit	Installation Connector
MCU1	P-5547*	IC20	XJ23
MCU2		IC23	XJ21
SCU1	P-5548*	IC19	XJ19
SCU2	P-5549*	IC10	XJ23

Mount communication board (P-5475*) to each installation connector and then connect the cable coming from BM-DMU board (P-5562-4, yellow circled in below) to the connector (J791) on this communication board.



⚠️ WARNING

- Do not connect the installation cable from BM-DMU board directly to installation connectors on each board without mounting the communication board (P-5475*).

When ATLAS-122 is dispatched from the victory, communication board (P-5475*) is mounted on the installation connector of SCU1 (XJ19 of P-5548*). Mount the communication board to a relevant installation connector for program to be installed.

Put back the communication board (P-5475*) to the original position (XJ19 of P-5548*) after program installation is completed.

5.2.2 Main Body Software Installation

If power supply is turned on with the corresponding harness wiring and dipswitch settings on each board, software writing starts automatically.

Software writing status is displayed with LED (H12-H15) on DMU board.

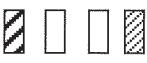
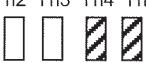
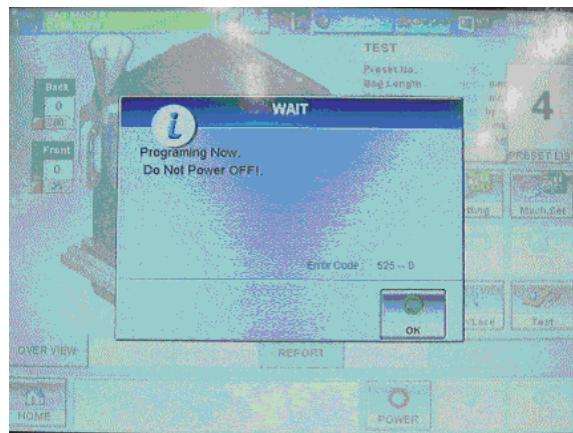
1. Downloading from DMU	2. Uploading from DMU	3. Complete writing DMU software
H12 H13 H14 H15  H12, H15: flashing alternatively (every second) H13, H14: light off DO NOT TURN OFF POWER	H12 H13 H14 H15  H14: light off H12,H13 and H15 : flashing alternatively (every second) DO NOT TURN OFF POWER	H12 H13 H14 H15  H12,H13,H14 and H15 : flashing alternatively (every second)
4. Connection established, but ID unmatched (Error code = 109)	5. Error when CF program is being read (Error code = 109)	6. Error when program is being downloaded (Error code = 109)
H12 H13 H14 H15  Unmatched CPU dipswitch or faulty board? H12: light on, H13: light off H14, H15: flashing (every second)	H12 H13 H14 H15  Needs to check CF program? H12: light on H13: light off H14,H15: flashing(every second)	H12 H13 H14 H15  Connection error of cable/board? H12: light off H13: light on H14,H15: flashina(every second)
7. Error when program is being uploaded or verified (Error code 109)		
H12 H13 H14 H15  Connection error of cable/board?		
H12,H13: light on H14,H15: flashing(every second)		

Fig. 5-1 Software writing status is displayed with LED (H12-H15) on DMU board.

When WEB-RCU boot up is made during DMU software writing procedure, the display showing software writing process is showed up.

Press OK button at the right bottom of the message in order to turn off alarm buzzer.

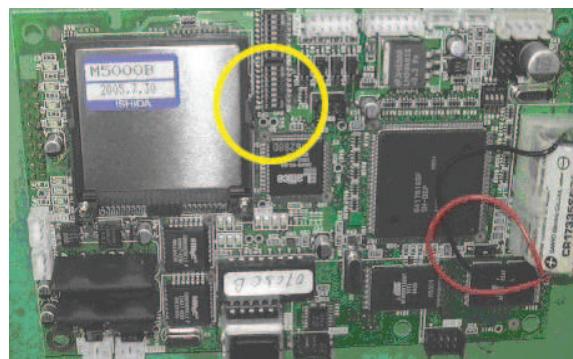
**⚠️ WARNING**

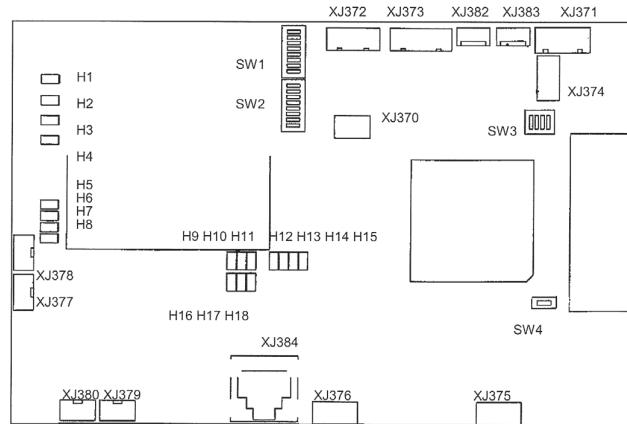
- **Do not turn OFF machine power supply when the screen above with error code 525 - 0) is displayed.**

When software writing completes, the following display appears.



5.2.3 Dip switch setting on DMU board





The dipswitch related to the main body software installation is SW2.

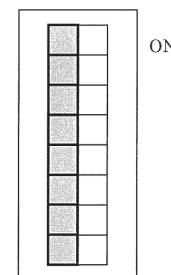
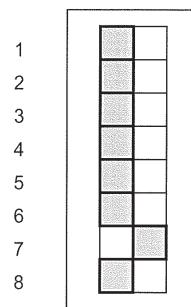
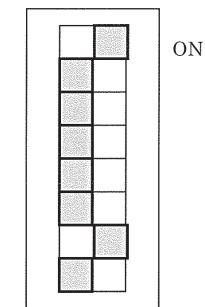


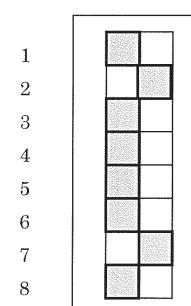
Fig. 5-2 On Ex-factory (Settings after software writing)



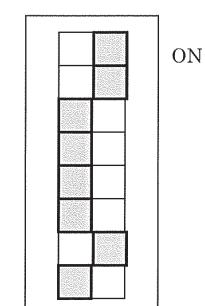
To write MCU1



To write MCU2



To write SCU1



To write SCU2

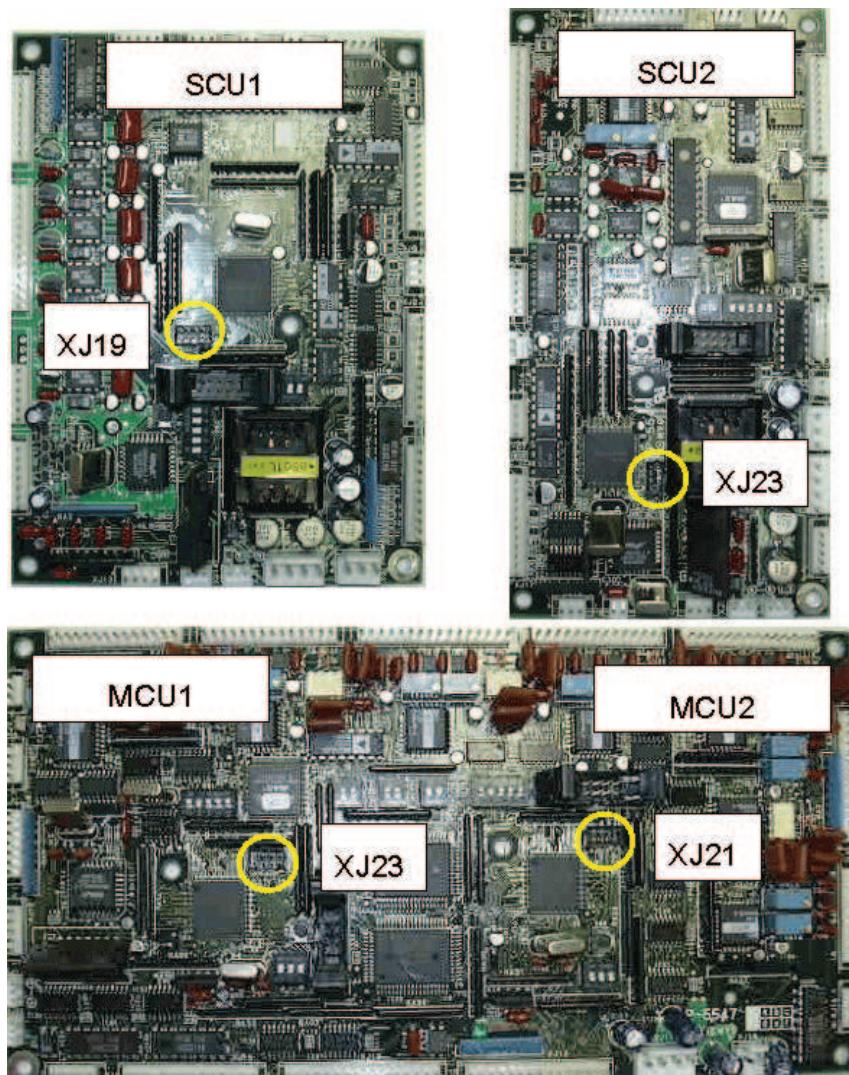
5.2.4 Setup for ATLAS



Fig. 5-3 Connection of communication board

5.2.4.1 Connection of communication board

After turning off power supply, connect the communication board with a cable (as in the photo above) to an installation connector for program to be installed.



5.2.4.2 Setting of dip switch

For program installation, setting change of dip switches is necessary. After turning off the machine power supply, set dip switches as in the next page.

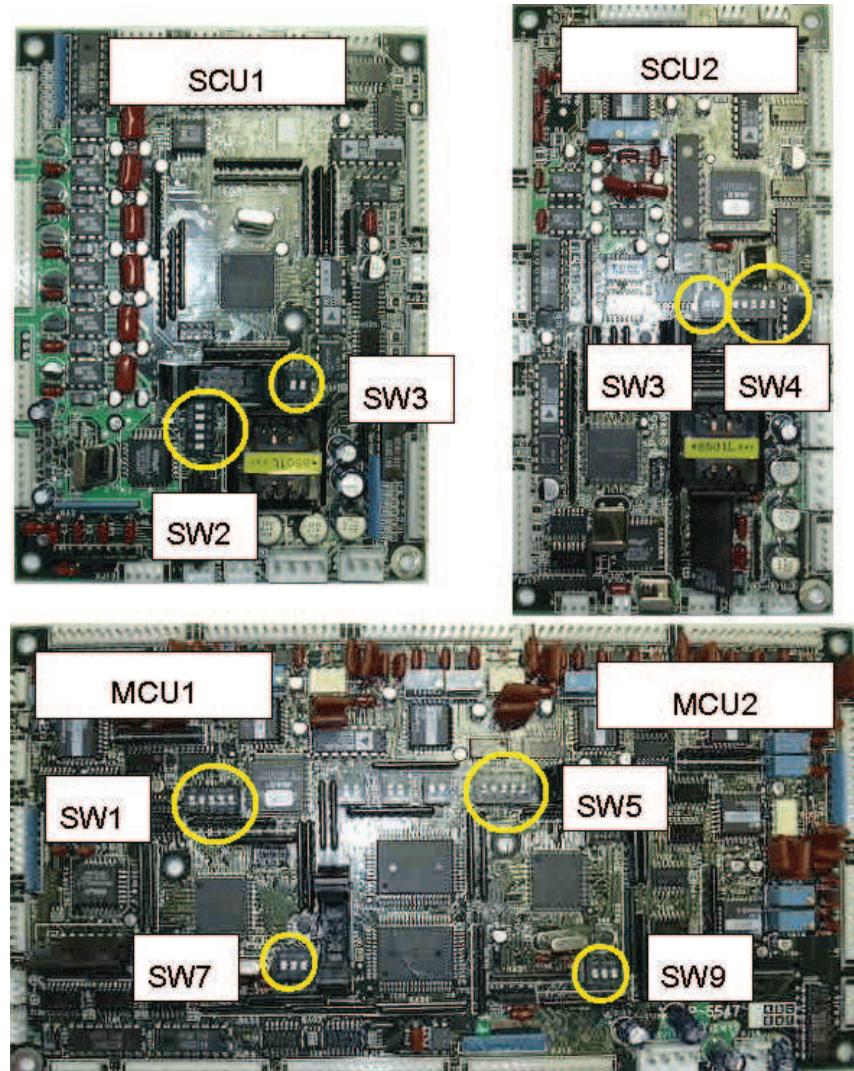


Table 5-2 Dip switch for MCU1 (P-5547*)

SW	On usual operation		On installation
SW1	<div style="border: 1px solid black; padding: 5px; text-align: center;"> ON 1 2 3 4 5 ON, OFF, ON, ON, ON </div>	→ ←	<div style="border: 1px solid black; padding: 5px; text-align: center;"> ON 1 2 3 4 5 OFF, ON, OFF, OFF, ON </div>

Table 5-2 Dip switch for MCU1 (P-5547*) (Continued)

SW	On usual operation		On installation
SW7	 ON OFF, OFF, OFF	→ ←	 ON ON, ON, OFF

Table 5-3 Dip switch for MCU2 (P-5547*)

SW	On usual operation		On installation
SW5	 ON ON, OFF, ON, ON, ON	→ ←	 ON OFF, ON, OFF, OFF, ON
SW9	 ON OFF, OFF, OFF	→ ←	 ON ON, ON, OFF

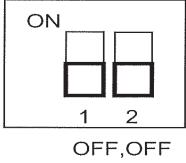
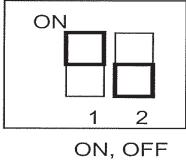
Table 5-4 Dip switch for SCU1 (P-5548*)

SW	On usual operation		On installation
SW2	 ON OFF, OFF, ON, ON, ON	→ ←	 ON ON, ON, OFF, OFF, ON
SW3	 ON OFF, OFF	→ ←	 ON ON, OFF

Table 5-5 Dip switch for SCU2 (P-5549*)

SW	On usual operation		On installation
SW4	 ON OFF, OFF, ON, ON, ON	→ ←	 ON ON, ON, OFF, OFF, ON

Table 5-5 Dip switch for SCU2 (P-5549*) (Continued)

SW	On usual operation		On installation
SW3		→	

Reset of dip switches

After software installation, reset the dip switches to the original status.