



Giesecke+Devrient

Troubleshooting Manual

BPS® C5



Original operating instructions

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Giesecke+Devrient

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Disclaimer

The specifications stated in this documentation do not represent guaranteed characteristics.

This documentation is based on the machine type BPS® C5, hardware release 3.5 and software release 4.2.

Subject to technical changes.



This product meets the safety requirements of the relevant EU directives and complies with the EN standards as listed in the EU Declaration of Conformity.



This product has been awarded the GS mark for "tested safety" by an independent test and certification body, after type-testing according to the German Product Safety Act (ProdSG, section 20 and section 21).

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Technical support

→ *Chapter A “Technical Support”, p. 283*

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1 About this Manual

1.1 Target Group of the Troubleshooting Procedures

The troubleshooting procedures are intended for the operator.

The troubleshooting procedures are intended for the service technician.

You may only perform the procedures if you have been trained and certified as service technician by G+D.

1.2 Document Conventions for Troubleshootings

The following formatting styles are used as standard to identify certain information during the interactive troubleshooting:

Conventions	Definition
 Start	The Start button is used to start the interactive troubleshooting.
 1. 2. (...)	This arrow indicates the action that you have to carry out in order to solve the problem. If the action comprises more than one step, the steps are numbered. Follow the steps in the specified order.
	This symbol indicates background information on the troubleshooting step.
	This symbol indicates a video tutorial.
	This symbol indicates an audio file.
Question/Answer box	Selecting the appropriate answer in this box takes you to the next troubleshooting step.





2 Safety

You must be familiar with the contents of the system operating instructions of the relevant product.

In particular with the related safety information.

2



3 Error E SIN 000

Error Code E SIN 000

Error message Singler Error

Error description The singler is not able to single the BNs.
The banknotes are not transported from the singler to the sensor.

Call Service [1] Call service.

Question	Answer	Go to
Problem solved? Yes		→ End
No		→ Troubleshooting Unsuccessful

Troubleshooting Unsuccessful
Call help desk and report defect.
Copy log files and share the log files with help desk.
For instructions, refer to the → *Copying Log Files to USB Stick* section of the → *Service Manual*.

End End



4 Error E SIN 001

Error Code	E SIN 001
Cause	<ul style="list-style-type: none">• Physical jam at singler• More load on singler motor due to excessive load on singler• Faulty PDMSIO, singler motor belt damaged/derail• Singler motor connector loose or damaged
Error description	Singler motor does not start or singler motor speed stays below expected target speed at singler ramp-up.
Clearing singler	<p>[1] 1. Clear physical jam at the singler if any. 2. Clear and clean the singler area.</p>

Question	Answer	Go to
Problem solved? Yes		→ End
No		→ [2]
No		→ Troubleshooting unsuccessful

Checking belts

4



Information

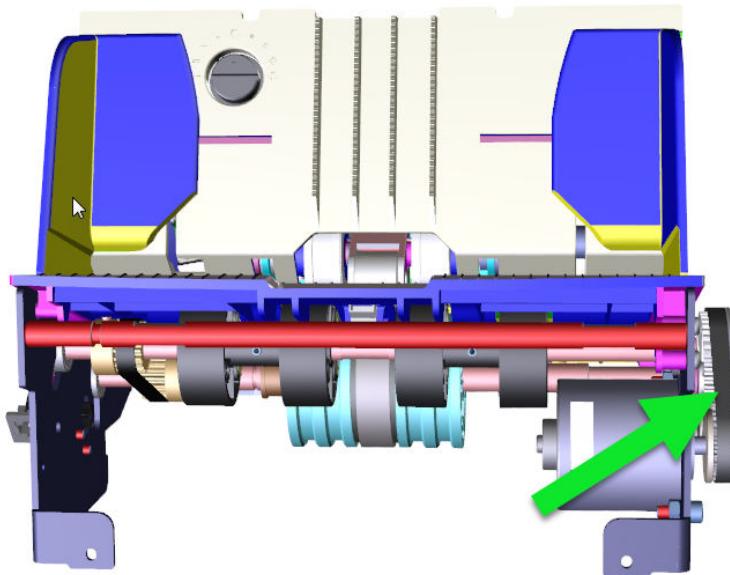


Figure 1: Singler Motor Belts

- [2] Check the toothed belts and gear for damage/derail. Replace if necessary.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [3]

Checking connectors

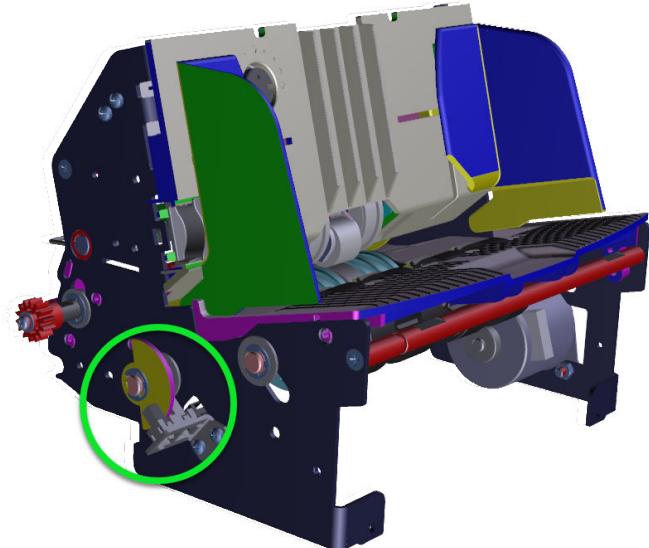
- [3] Check the connectors and harness. Replace if necessary.

Question	Answer	Go to
Problem Solved?	Yes	→ End
	No	→ [4]

Checking motor



Information



4

Figure 2: PDMSIO and CAM

- [4] Check the function of the singler motor and PDMSIO encoder along with the corresponding connectors and cables. Replace if necessary.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [5]

Replacing PCB Main

- [5] Replace the PCB Main board.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Troubleshooting unsuccessful

Troubleshooting unsuccessful

Call help desk.

End

End

4

5 Error E SIN 002

Error Code E SIN 002

Error description During processing, the singler stopped or the motor speed did not achieve the target speed.

Clearing singler

[1] Do the following:

1. Fan the banknotes and try again.
2. Check for a physical jam at the singler area and clear it if any.

Question	Answer	Go to
Problem solved? Yes		→ End
No		→ [2]
No		→ Troubleshooting unsuccessful

Checking spare parts

[2] Check the following spare parts in the singler area for wear and tear. Replace if necessary.

- Tooothed belt and toothed gears
- Bearing jams in singler shafts/hopper shaft

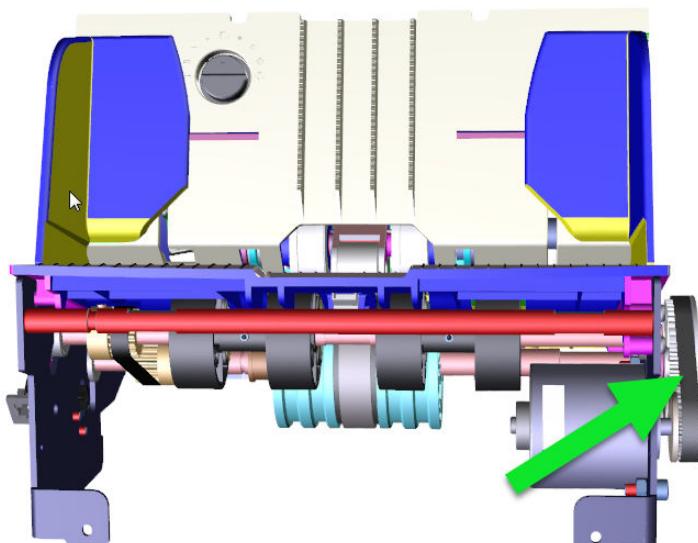


Figure 3: Belts in singler

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [3]

Checking connectors and harnesses

5



Information



Figure 4: Singler Motor Connector

- [3] Check the following connectors and harness in the singler area. Replace if necessary.
- Singler motor connectors and its harness
 - Also check the 24V from supply voltage.
This must be in the range.
 - Drive motor connectors and its harness

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [4]

Checking PCB Main

- [4] Check and replace the PCB Main board.

Question	Answer	Go to
Problem solved? Yes		→ End
	No	→ Troubleshooting unsuccessful

Troubleshooting unsuccessful

Call help desk.

End

End

6 E SIN 052

Error Code E SIN 052

Error description Asynchronous speed between singler motor and singler drum.

Error	Definition
E SIN 052	Singler drum is not rotating/no pulse in PD.

Restarting the machine

[1] Restart and try again.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Troubleshooting unsuccessful
	No	→ [2]

Checking electrical components

[2] Check the electrical components.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [3]

Checking PD

[3] Check the PD functioning/connector for loose connection/damage.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Troubleshooting unsuccessful

Troubleshooting unsuccessful

Call help desk.

End

End

7 E SIN 051

Error Code E SIN 051

Error message Drum Speed Error

Error description Asynchronous speed between singler motor and singler drum.

Restarting the machine

[1] Restart and try again.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Call Service
	No	→ [2]

Checking electrical components

[2] Do the following:

- Check if the encoder PD is faulty.
- Check the connector and cable harness.
- Check if the belt connecting motor and drum is broken/ removed or for wear/tear.
- Fix/Replace the above components, if necessary.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Troubleshooting unsuccessful

Call Service

Call service.

Troubleshooting unsuccessful

Call help desk.

Copy log files and share the log files with help desk.

End

End

8 Error E SIN 100

Error Code E SIN 100

Error description The singler is not able to single the BNs.

The BNs are not transported from the singler to the sensor.

Clearing singler

[1] Clear the singler area. Proceed as follows:

1. Check for a physical jam in the singler area and clear it if any.
2. Check for foreign objects in the transport. Remove if any.
3. Also try the following:
 - Fan the banknotes.
 - Clean the PDMS.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [2]
	No	→ Troubleshooting unsuccessful

Checking spare parts

[2] Check the following spare parts in the singler area for wear and tear. Replace if necessary.

- Friction element
- Hopper element
- Hoper belt, singler, hopper belt and toothed gear
- Singler, hopper interface synchronization

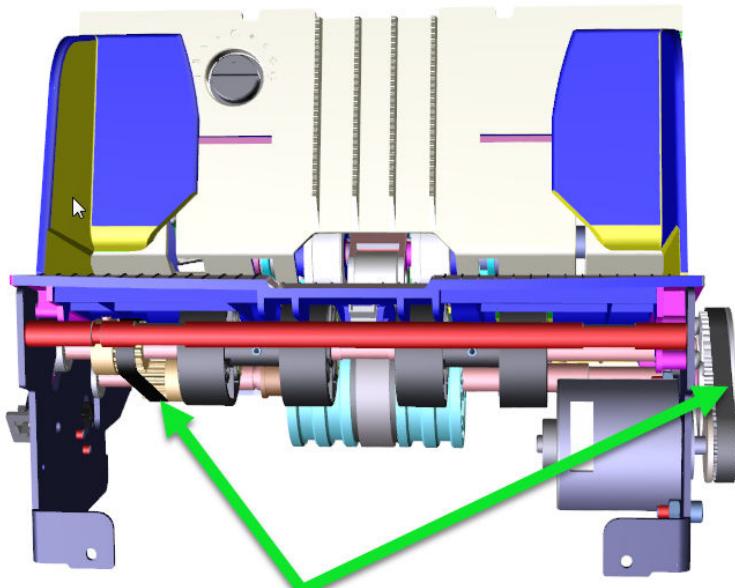
**Information**

Figure 5: Singler and hoper belt

Question	Answer	Go to
Problem solved? Yes		→ End
No		→ Troubleshooting unsuccessful

8

Troubleshooting unsuccessful

Call help desk.

End

End

9 Error E SIN 101

Error Code E SIN 101

Error description This error is caused if the singler has not been emptied before a system test is carried out.

While carrying out a system test, PD is blocked by banknote dust/a foreign particle.

Clearing and Cleaning

[1] Do the following:

1. Remove the BNs and clean the PDMS.
2. Confirm the error and try again.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Troubleshooting unsuccessful
	No	→ [2]

Checking PD

[2] Do the following:

1. Check and clean the PDMS.
2. Check for loose connections or damage on the cable harness. Replace if necessary.
3. Close the BPS C5 and confirm the error.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Troubleshooting unsuccessful

Troubleshooting unsuccessful

Call help desk.

End

End

10 Error E TRP 001

Error Code E TRP 001

Error description The transport motor does not reach the target speed on time.
The error appears after the self test before banknotes are processed.

Clearing singler

- [1] Do the following:
1. Open the machine and check for a physical jam in the transport. Clear the jam if any.
 2. Close the BPS C5 and confirm the error.

Question	Answer	Go to
Problem solved? Yes		→ End
No		→ Troubleshooting unsuccessful
No		→ [2]

Checking spare parts



Information

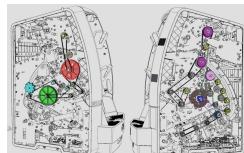


Figure 6: Transport L and R

10

- [2] Check the following spare parts for wear and tear in the following order and replace if necessary.
- Tooothed belt and toothed gears from main motor to sensor drive
 - Transport rollers and bearing in sensor modules
 - All transport rollers and bearings
 - Motor movement/motor bearing

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [3]

Checking electronic components

- [3] Check the following. Replace if necessary:
- Main motor connectors for loose connection and damage in harness
 - Incorrect motor voltage
 - Encoder assembly malfunction

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [4]

Checking PCB Main

- [4] Check the PCB Main by swapping it with the one of another machine. Replace, if it is faulty.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Troubleshooting unsuccessful

Troubleshooting unsuccessful

Call help desk.

End

End

11 Error E TRP 002

Error Code E TRP 002

Error description While processing, the motor speed reduces drastically.

Possible causes:

- Physical banknote jam in the transport
- Multiple feed of banknotes

Clearing singler

[1] Do the following:

1. Check for a physical jam in the transport area and clear it if any.
2. Clean the sensor.
3. Close the BPS C5 and confirm the error.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Troubleshooting unsuccessful
	No	→ [2]

Checking and setting singler



Information

Multi-feeding may affect the transport speed.

11

- [2] Check for multi-feeding and set the singler if necessary.



Information

Due to wear of the retarding rollers, the singler gap may be increased.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [3]

Checking spare parts



Information



Figure 7: Sensor and transport belts

- [3] Check the following spare parts in the singler area for wear and tear. Replace if necessary.
- Sensor and Transport belts/bearings
 - Motor bearings

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [4]

Checking electrical components



Information

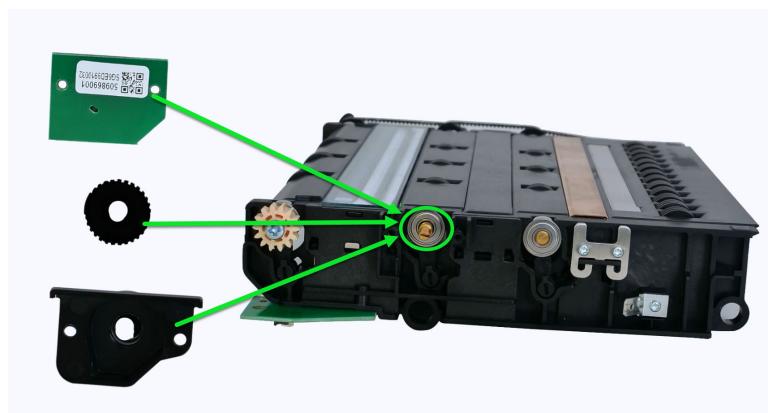


Figure 8: Encoder/MAP at upper sensor housing

- [4] Check the following, replace if necessary:
- Main motor connectors for loose connections and damage in harness
 - Incorrect motor voltage
 - Encoder assembly malfunction

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [5]

Checking PCB Main



Information

The PCB Main could be defect.

- [5] Check the PCB Main by swapping it with the one of another machine. If the problem shifted along with the PCB Main, replace the PCB Main.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Troubleshooting unsuccessful

Troubleshooting unsuccessful

Call help desk.

End

End

12 Error E TRP 007

Error Code E TRP 007

Error message Many Minimum Gap Objects

Error description This error may occur if banknotes with too many minimum gaps are fed.

Checking Singler Gap

[1] Do the following:

1. Fan the banknotes.
2. Reduce the singler gap.

For details, refer to the *Inserting Banknotes* section of the *User Manual*.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Call Service
	No	→ [2]

Checking Singler Adjustment

[2] Check the singler adjustments.

For instructions, refer to the *Singler Adjustment* section of the *Service Manual*.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Troubleshooting unsuccessful

Call Service Call service.

Troubleshooting unsuccessful Call help desk.

End End

13 Error E TRP 200

Error Code E TRP 200

Error description The trailing edge of the Banknote is delayed at PIS.

Possible causes:

- Physical banknote jam at PIS
- Multiple feed of banknotes

Clearing singler

[1] Do the following:

1. Remove all BNs from the singler and the stackers.
2. Check for physical jam at PIS and in the singler area and clear it if any.
3. Open and check for a physical jam in the transport and clear if any.
4. Clean the PIS sensor.
5. Close the BPS C5 and confirm the error.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Troubleshooting unsuccessful
	No	→ [2]

Checking and setting singler

[2] Check for multi-feeding and set the singler if necessary.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [3]

Checking spare parts



[3] Check the toothed belt and toothed gears of the intermediate rollers and sensor drives for wear. Replace if necessary.

Question	Answer	Go to
Problem solved? Yes		→ End
	No	→ Troubleshooting unsuccessful

**Troubleshooting
unsuccessful**

Call help desk.

End

End

14 Error E ST1 002, E ST2 002, E ST3 002, E ST4 002

Error Code E ST1 002, E ST2 002, E ST3 002, E ST4 002

Error description During processing, the leading edge of the BN arrived early at the reject/stacker1/stacker2/stacker3/stacker4 exit PD.

Error Codes	Definition
E ST1 002	BN jam – leading edge too early at stacker1.
E ST2 002	BN jam – leading edge too early at stacker2.
E ST3 002	BN jam – leading edge too early at stacker3.
E ST4 002	BN jam – leading edge too early at stacker4.

Cleaning

[1] Do the following:

1. Clean the corresponding exit PD.
2. Check for pieces of BNs, paper, rubber bands, or foreign particles in the transport area. Remove if any.
3. Check for any foreign particles that may cause a BN skew.
4. Check for any foreign particles that may disturb the PD/movement of the gates.
5. Close the BPS C5 and confirm the error.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Troubleshooting unsuccessful
	No	→ [2]

Checking electrical components

[2] Check the following:

- Check the corresponding exit PD.
- Are there any loose connections or damage? Correct if necessary.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [3]

Fixing skew



Information

The error may be caused by BN skews.

- [3] Do the following:
- Check the singler and adjust if necessary.
 - Check the transport roller pinch force. Replace if necessary.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Troubleshooting unsuccessful

Troubleshooting unsuccessful

Call help desk.

End

End

15 Error E GAT 000

Error Code E GAT 000

Error description Gate test failed during BN setup sequence.

Clearing and cleaning

[1] Do the following:

1. Check for a physical jam near the gates and clear it if any.
2. Check for pieces of banknotes, paper, rubber bands, or any foreign particles that may disturb the movement of the gates. Remove if any.
3. Repeat step 1 and step 2 for all the gates.
4. Clean the gate positioning PD.
5. Close the BPS C5 and confirm the error.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Call Service
	No	→ [2]

Checking Gate Assembly

[2] Check the gate assembly area in all the gates:

1. Perform **System Test**.

For procedure, refer to the → *Replacing Banknote Diverters in Input Module* of the → *Service Manual*.

2. Any loose connections or damage?

3. Check the gates and their solenoids. Replace if faulty.

For procedure, refer to the → *System Testing* of the → *Service Manual*.

4. Check the mechanical fitment of gate, solenoid, and PD flag. Fix it properly if necessary.

5. Check the connectors and cable harness. Fix/replace it properly if necessary.

6. Replace the main board.

For more information, refer to the → *Replacing the PCB Main* of the → *Service Manual*.

15

Question	Answer	Go to
Problem solved? Yes		→ End
No		→ Troubleshooting unsuccessful

Call Service Call service.**Troubleshooting unsuccessful** Call help desk.**End** End

16 Error E GAT 001

Error Code E GAT 001

Error description Gate test failed during BN setup sequence.

Clearing and cleaning

[1] Do the following:

1. Check for a physical jam near the gates and clear it if any.
2. Check for pieces of banknotes, paper, rubber bands, or any foreign particles that may disturb the movement of the gates. Remove if any.
3. Clean the gate positioning PD.
4. Close the BPS C5 and confirm the error.
5. Perform a Self test.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Troubleshooting unsuccessful
	No	→ [2]

Checking electrical components

[2]

Check the gate assembly area:

- Any loose connections or damage?
- Check the reject and stacker gates and their solenoids. Replace if faulty.
- Check the mechanical fitment of gate, solenoid, and PD flag. Fix it properly if necessary.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Troubleshooting unsuccessful

Troubleshooting unsuccessful

Call help desk.

End

End

16

17 Error E SEN 000

Error Code E SEN 000

Error message I2C Communication failure

Error description The BPS C5 has stopped because of the malfunction of any hardware components.

Error	Error Message
E SEN 000	Unspecified Software Error
E SEN 000	Unspecified Sensor Error
E SEN 000	Unspecified Hardware Error
E SEN 000	Unspecified Temperature Error

Retry Operation

[1] Do the following:

- Try the operation again.
- Export log files.

For more information, refer to the → *Copying Log Files to USB* of the → *User Manual*.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Call Service
	No	→ Troubleshooting Unsuccessful

Call Service

Call service.

Troubleshooting Unsuccessful

Call help desk.
Copy log files and share the log files with help desk.
Helpdesk should report the error to the relevant research and development teams.

End

End

18 Error E SEN 001, E SEN 051, E SEN 101, E SEN 151 E SEN 301, E SEN 401, E SEN 201

Error Code E SEN 001, E SEN 051, E SEN 101, E SEN 151, E SEN 301, E SEN 401, E SEN 201

Error description Last executed self-test failed.

Error	Definition
E SEN 001	Bottom PIS failed at self test.
E SEN 051	Top PIS failed at self test.
E SEN 301	MTS self test failed.
E SEN 401	UV self test failed.
E SEN 201	MAG self test failed.

Cleaning

[1] Do the following:

1. Remove any jams, confirm the error, and try again.
2. Clean the corresponding sensor with the recommended cleaning agent.

For MTS error, clean MTS rollers and sensor with recommended cleaning agent.

For more information, refer to the → *Cleaning* of the → *User Manual*.

3. Export log files.

For more information, refer to the → *Copying Log Files to USB* of the → *User Manual*.

4. Export raw data.

For more information, refer to the → *Exporting Raw Data* of the → *User Manual*.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Call Service
	No	→ [2]

Checking Sensor Components

- [2] Do the following:
1. Check the sensor connectors and flex cables from sensor to the back side board (BASB) and from BASB to DMAB.
Clean the flex cables and connectors. Replace the cables if necessary.
 2. Clean the upper sensor housing.
For more information, refer to the → *Cleaning* of the → *User Manual*.
 3. Replace BASB board.
For more information, refer to the → *Removing Back Side Board* of the → *Service Manual*.
 4. Replace the sensor/sensor pair.
For procedure, refer to the → *Service Manual*.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [3]

Replacing Main Board

- [3] Replace the Main board.
For more information, refer to the → *Replacing the PCB Main* section of the → *Service Manual*.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Troubleshooting unsuccessful
E SEN 301 MTS error persists.		→ [4]

Calibrate MTS sensor

- [4] Do the following:
1. Calibrate the MTS sensor.
 2. Perform the functional test again to check if the calibration was successful.

Question	Answer	Go to
Problem solved? Yes		→ End
No		→ Troubleshooting unsuccessful

Call Service Call service.

Troubleshooting unsuccessful For Level 3 Support only, proceed to → *Chapter 117 “Sensor Errors”, p. 261.*
Call help desk.
Perform sensor functional test if possible, collect nif file/logs and send to helpdesk for analysis.
For more information, refer to the → *Testing the Sensor (Functional Test)* section of the → *Service Manual*.

End End

Error E SEN 001, E SEN 051, E SEN 101, E SEN 151 E SEN
301, E SEN 401, E SEN 201



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19 Error E SEN 002, E SEN 052, E SEN 102, E SEN 152, E SEN 302, E SEN 402, E SEN 501, E SEN 202, E SEN 351

Error Code E SEN 002, E SEN 052, E SEN 102, E SEN 152, E SEN 302, E SEN 402, E SEN 501, E SEN 202, E SEN 351

Error description Sensor hardware incompatibility at start-up self-test.

Error	Definition
E SEN 002	Bottom PIS HW incompatibility at start-up self-test
E SEN 052	Top PIS HW incompatibility at start-up self-test
E SEN 302	MTS HW incompatibility at start-up self-test
E SEN 402	UV HW incompatibility at start-up self-test
E SEN 202	MAG HW incompatibility at start-up self-test
E SEN 501	CTT PCB Main HW incompatibility at start-up self-test
E SEN 351	BASB Main HW incompatibility at start-up self-test

Reboot the machine

[1] Reboot the machine and try again.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Call Service
	No	→ [2]

Updating Software

[2] Update the system software.

For details, refer to the → *Updating the Package* section of the → *Service Manual*.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [3]

Checking Sensor

- [3] Check the sensor and replace if necessary.
For E SEN 351, replace BASB.
For procedure, refer to the → *Service Manual*.

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Question	Answer	Go to
Problem solved? Yes		→ End
	No	→ Troubleshooting unsuccessful

Call Service

Call service.

**Troubleshooting
unsuccessful**

Call help desk.
Perform sensor functional test if possible, collect nif file/logs and send to helpdesk for analysis.
For more information, refer to the → *Testing the Sensor (Functional Test)* section of the → *Service Manual*.

End

End

20 Error E SEN 002, E SEN 052, E SEN 302, E SEN 402, E SEN 501, E SEN 202

Error Code E SEN 002, E SEN 052, E SEN 302, E SEN 402, E SEN 501, E SEN 202

Error description Sensor hardware incompatibility at start-up self-test.

Error	Definition
E SEN 002	Bottom PIS HW incompatibility at start-up self-test
E SEN 052	Top PIS HW incompatibility at start-up self-test
E SEN 302	MTS HW incompatibility at start-up self-test
E SEN 402	UV HW incompatibility at start-up self-test
E SEN 202	MAG HW incompatibility at start-up self-test
E SEN 501	CTT PCB Main HW incompatibility at start-up self-test

Troubleshooting unsuccessful

For Level 3 Support only, proceed to → *Chapter 117 “Sensor Errors”, p. 261.*
Call help desk.

End

End

Error E SEN 002, E SEN 052, E SEN 302, E SEN 402, E SEN
501, E SEN 202



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21 Error E SEN 003, E SEN 053, E SEN 103, E SEN 103, E SEN 303, E SEN 403, E SEN 502, E SEN 203, E SEN 352

Error Code E SEN 003, E SEN 053, E SEN 103, E SEN 153, E SEN 303, E SEN 403, E SEN 502, E SEN 203, E SEN 352

Error description Sensor EEPROM hardware is inaccessible at start-up self-test.

Error	Definition
E SEN 003	EEPROM PIS HW is inaccessible at start-up self-test.
E SEN 053	EEPROM Top PIS HW is inaccessible at start-up self-test.
E SEN 303	EEPROM MTS HW is inaccessible at start-up self-test.
E SEN 403	EEPROM UV HW is inaccessible at start-up self-test.
E SEN 203	EEPROM MAG HW is inaccessible at start-up self-test.
E SEN 502	EEPROM CTT PCB Main HW is inaccessible at start-up self-test.
E SEN 352	EEPROM BASB Main HW is inaccessible at start-up self-test.

Restarting the machine

[1] Restart the BPS C5 and try again.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Call Service
	No	→ [2]

Checking connectors

[2] Check the corresponding sensor connectors and harness for damage/loose connections.

Clean the flex cables. Replace, if necessary.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [3]

Checking Sensor

- [3] Do the following:
1. Replace BASB board.
For more information, refer to the → *Removing Back Side Board* of the → *Service Manual*.
 2. Check the sensor/sensor pair. Replace, if necessary.
For procedure, refer to the → *Service Manual*.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [4]

Replacing Main Board

- [4] Replace the Main board.
For more information, refer to the → *Replacing the PCB Main* section of the → *Service Manual*.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [5]

Replacing Sensor Processor

- [5] Replace the sensor processor.
For more information, refer to the → *Replacing the Processors* section of the → *Service Manual*.

Question	Answer	Go to
Problem solved? Yes		→ End
No		→ Troubleshooting unsuccessful

Call Service Call service.

Troubleshooting unsuccessful Call help desk.
Perform sensor functional test if possible, collect nif file/logs and send to helpdesk for analysis.
For more information, refer to the → *Testing the Sensor (Functional Test)* section of the → *Service Manual*.

End End

22 Error E SEN 011, E SEN 061, E SEN 111, E SEN 161, E SEN 210, E SEN 311, E SEN 408, E SEN 356

Error Code E SEN 011, E SEN 061, E SEN 111, E SEN 161, E SEN 210, E SEN 311, E SEN 408, E SEN 356

Error description The BPS C5 has stopped because of over use/environment, or malfunction of any hardware components.

Error	Definition
E SEN 011	Bottom PIS Critical Temperature
E SEN 061	Top PIS Critical Temperature
E SEN 210	MAG Critical Temperature
E SEN 311	MTS Critical Temperature
E SEN 408	UVPure1 Critical Temperature
E SEN 356	BASB Critical Temperature

Cooling the Machine

[1] Do the following:

1. Pause the operation to cool down the machine.
2. Switch off the machine using the front power button.
Allow the machine to cool down and restart.
3. Change the machine location as per the technical specification.

For details, refer to the → *Technical Data* section of the → *User Manual*.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Call Service
	No	→ [2]

Replacing Sensor

[2] Replace the sensor specified in the error message.
For E SEN 356, replace BASB.
For procedure, refer to the → *Service Manual*.

Question	Answer	Go to
Problem solved? Yes		→ End
No		→ Troubleshooting Unsuccessful

Call Service Call service.

Troubleshooting Unsuccessful Call help desk.
Copy log files and share the log files with help desk.
Helpdesk should report the error to the relevant research and development teams.

End End

23 Error E SEN 304, E SEN 503, E SEN 204, E SEN 353

Error Code E SEN 304, E SEN 503, E SEN 204, E SEN 353

Error description Software update failed/missing files.

Error	Definition
E SEN 304	MTS software update failed.
E SEN 503	CTT PCB Main software update failed.
E SEN 204	MAG software update failed.
E SEN 353	BASB software update failed.

Restarting [1] Restart the BPS C5 and try again.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Troubleshooting unsuccessful
	No	→ [2]

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Checking software [2] Check and update/reload the corresponding software.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [3]

Checking sensor [3] Check and replace the corresponding hardware main PCB/sensor if necessary.
For E SEN 353, replace BASB.

Question	Answer	Go to
Problem solved? Yes		→ End
No		→ Troubleshooting unsuccessful

**Troubleshooting
unsuccessful**

For Level 3 Support only, proceed to → *Chapter 117 “Sensor Errors”, p. 261.*
Call help desk.

End

End



Error E SEN 307, E SEN 404, E SEN 207, E SEN 005, E SEN 055, E SEN 105, E SEN 155, E SEN 308, E SEN 405, E SEN 208, E SEN 006, E SEN 056, E SEN 406, E SEN 310, E SEN 507, E SEN 209, E SEN 007, E SEN 057, E SEN 058, E SEN 008, E SEN 058, E SEN 653, E SEN 357

24 Error E SEN 307, E SEN 404, E SEN 207, E SEN 005, E SEN 055, E SEN 105, E SEN 155, E SEN 308, E SEN 405, E SEN 208, E SEN 006, E SEN 056, E SEN 406, E SEN 310, E SEN 507, E SEN 209, E SEN 007, E SEN 057, E SEN 008, E SEN 058, E SEN 653, E SEN 357

Error Code E SEN 307, E SEN 404, E SEN 207, E SEN 005, E SEN 055, E SEN 105, E SEN 155, E SEN 308, E SEN 405, E SEN 208, E SEN 006, E SEN 056, E SEN 406, E SEN 310, E SEN 507, E SEN 209, E SEN 007, E SEN 057, E SEN 008, E SEN 058, E SEN 653, E SEN 357

Error description No calibration/calibration related error/corrupted hardware error

Restarting the Machine

[1] Restart/reboot the BPS C5.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Call Service
	No	→ [2]

Installing Software

[2] Reload the machine software and try again.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [3]

Checking sensor cable

[3] Do the following:

1. Check the particular sensor cable for physical damage.
2. Reset the particular sensor cable by removing and re-fixing.

Error E SEN 307, E SEN 404, E SEN 207, E SEN 005, E SEN 055, E SEN 105, E SEN 155, E SEN 308, E SEN 405, E SEN 208, E SEN 006, E SEN 056, E SEN 406, E SEN 310, E SEN 507, E SEN 209, E SEN 007, E SEN 057, E SEN 008, E SEN 058, E SEN 653, E SEN 357



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Information

If it is an error on MTS sensor, try to calibrate.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [4]

Replacing sensor

[4] Replace the corresponding sensor and try again.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [5]

Replacing PCB Main Board

[5] Replace the PCB main board.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [6]

Replacing Sensor Processor

[6] Replace the sensor processor.

For more information, refer to the → *Replacing the Processors* section of the → *Service Manual*.

Question	Answer	Go to
Problem solved? Yes		→ End
	No	→ Troubleshooting unsuccessful

Call Service

Call service.



Error E SEN 307, E SEN 404, E SEN 207, E SEN 005, E SEN 055, E SEN 105, E SEN 155, E SEN 308, E SEN 405, E SEN 208, E SEN 006, E SEN 056, E SEN 406, E SEN 310, E SEN 507, E SEN 209, E SEN 007, E SEN 057, E SEN 008, E SEN 058, E SEN 653, E SEN 357

**Troubleshooting
unsuccessful**

For Level 3 Support only, proceed to → *Chapter 117 “Sensor Errors”, p. 261.*
Call help desk.

End

End

Error E SEN 307, E SEN 404, E SEN 207, E SEN 005, E SEN 055, E SEN 105, E SEN 155, E SEN 308, E SEN 405, E SEN 208, E SEN 006, E SEN 056, E SEN 406, E SEN 310, E SEN 507, E SEN 209, E SEN 007, E SEN 057, E SEN 008, E SEN 058, E SEN 653, E SEN 357



25 Error E SEN 504, E SEN 012, E SEN 062, E SEN 409, E SEN 305, E SEN 551, E SEN 205, E SEN 354

Error Code E SEN 504, E SEN 012, E SEN 062, E SEN 409, E SEN 305, E SEN 551, E SEN 205, E SEN 354

Error description Temperature of the sensor is not accessible/loose connection of corresponding sensor cables.

Restarting the machine

[1] Reboot the machine.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Call Service
	No	→ [2]

Software update

[2] Update/reinstall the software and try again.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [3]

Check hardware

[3] Check the corresponding sensor connectors and its cable harness for damage/loose connections. Fix/replace if necessary
→ "End", p. 60

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Troubleshooting unsuccessful
	No	→ [4]

Main PCB

[4] Check the main PCB by swapping it with the one of another machine. Replace if necessary.



Information

PIS1, PIS2 and UV pure have no in built temperature sensor. Instead it reads through main PCB temperature sensor.

Question	Answer	Go to
Problem solved? Yes		→ End
No		→ Troubleshooting unsuccessful

Call Service

Call service.

Troubleshooting unsuccessful

For Level 3 Support only, proceed to → *Chapter 117 “Sensor Errors”, p. 261.*
Call help desk.

End

End

26 Error E SEN 601

Error Code E SEN 601

Error message No Transport Clock

Error description The BPS C5 is not functioning because of malfunction in the hardware components.

Restarting Machine [1] Restart the machine using the power key, and try again.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Call Service
	No	→ [2]

Checking Toothed Belt

[2] Do the following:

- Check the machine transport toothed belts from motor to sensor assembly.

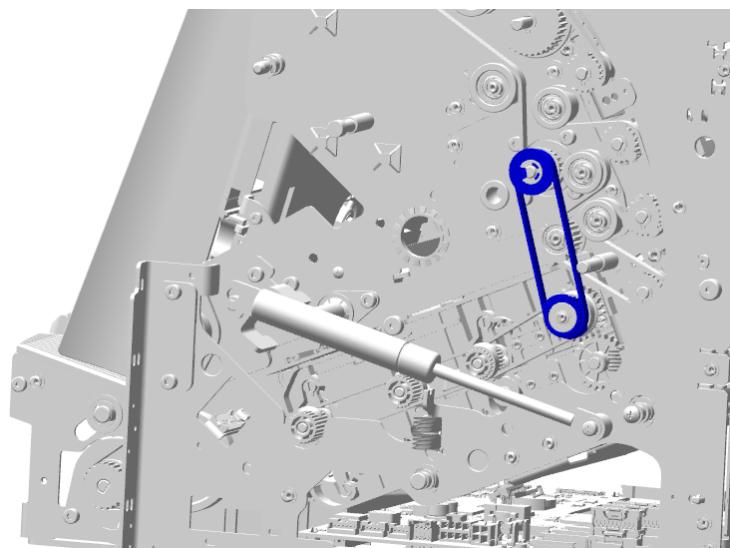


Figure 9: Motor to Sensor Toothed Belt

- Fix/replace, if necessary.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [3]

Checking Encoder Assembly

[3] Do the following:

1. Check the encoder cable.

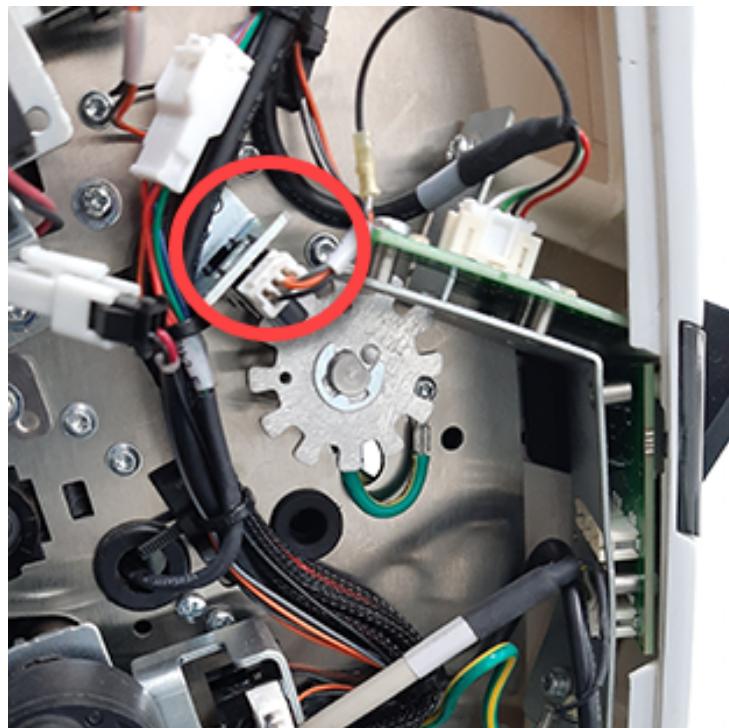


Figure 10: Encoder Cable

2. Check if the encoder is aligned properly and fitted tightly.

For details, refer to the → Aligning the Stacker Wheel and the Encoder section of the → Service Manual.

3. Clean the encoder assembly.
4. Replace the encoder assembly.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [4]

Replacing Main Board

[4] Replace the main board.

For more information, refer to the → *Replacing the PCB Main* section of the → *Service Manual*.

Question	Answer	Go to
Problem solved? Yes		→ End
No		→ Troubleshooting unsuccessful

Call Service

Call service.

Troubleshooting unsuccessful

Call help desk.

End

End

27 Error E SEN 606, E SEN 607, E SEN 612

Error Code E SEN 606, E SEN 607, E SEN 612

Error description The BPS C5 is not functioning because of malfunction in the hardware components.

Error	Error Message
E SEN 606	Volume Bus Interface Failure
E SEN 607	Real time Bus Interface Failure
E SEN 612	Updating Software

Restarting Machine

[1] Restart the machine using the power key, and try again.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Call Service
	No	→ [2]

Updating Software

[2] Update the system software.

For details, refer to the → *Updating the Software Package* section of the → *Service Manual*.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [3]

Replacing Sensor Processor

[3] Replace the sensor processor.

For more information, refer to the → *Replacing the Processors* section of the → *Service Manual*.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [4]

Replacing Main Board

- [4] Replace the main board.
For more information, refer to the → *Replacing the PCB Main* section of the → *Service Manual*.

Question	Answer	Go to
Problem solved? Yes		→ End
	No	→ Troubleshooting unsuccessful

Call Service

Call service.

Troubleshooting unsuccessful

Call help desk.

End

End

28 Error E SEN 608, E SEN 609

Error Code E SEN 608, E SEN 609

Error description The BPS C5 has stopped because of malfunction in the machine transport.

Error	Error Message
E SEN 608	Transport Clock Unstable
E SEN 609	Encoder Unstable

Restarting Machine

[1] Restart the machine using the power key, and try again.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Call Service
	No	→ [2]

Checking Machine Transport

[2] Do the following:

- Check the machine transport toothed belts from motor to sensor assembly.

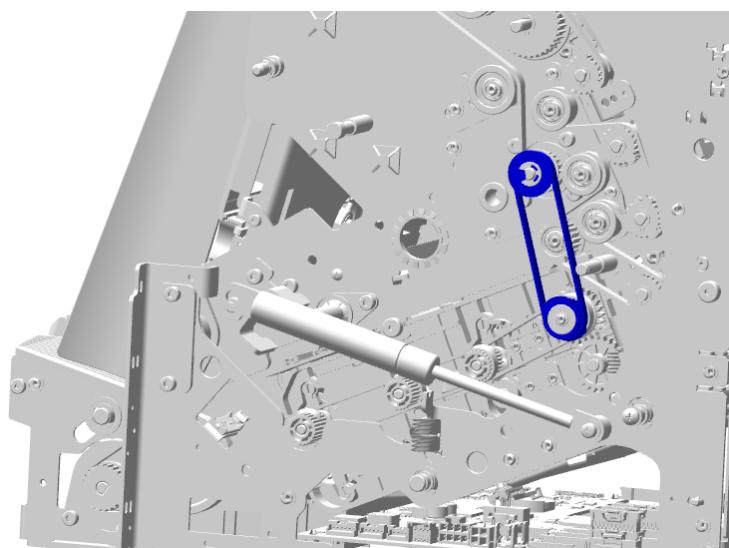


Figure 11: Motor to Sensor Toothed Belt

- Fix/replace, if necessary.

- Check the machine transport. Fix/replace components, if necessary.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [3]

Checking Encoder Assembly

[3] Do the following:

1. Check the encoder cable.

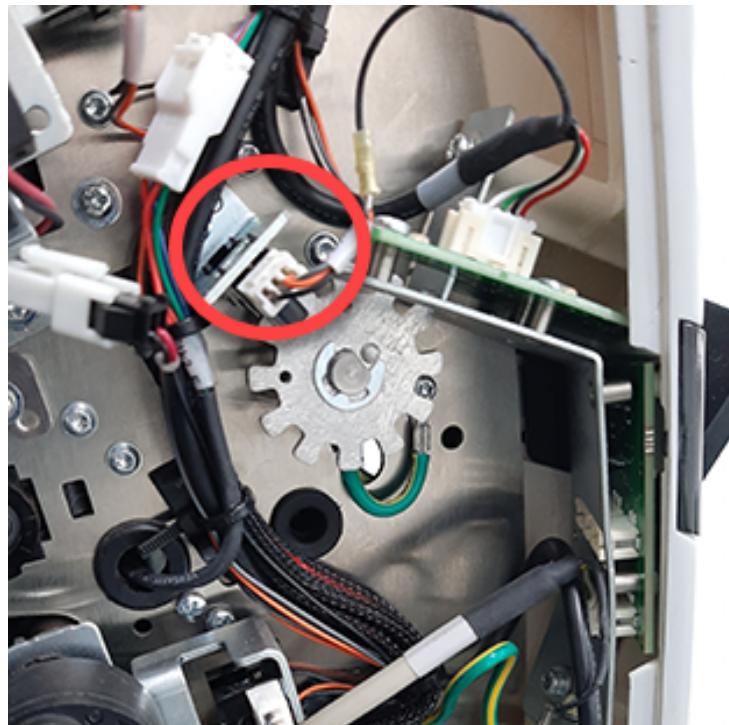


Figure 12: Encoder Cable

2. Check if the encoder is aligned properly and fitted tightly.
For details, refer to the → *Aligning the Stacker Wheel and the Encoder* section of the → *Service Manual*.
3. Clean the encoder assembly.
4. Replace the encoder assembly.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [4]

Replacing Main Board

[4] Replace the main board.

For more information, refer to the → *Replacing the PCB Main* section of the → *Service Manual*.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Troubleshooting unsuccessful

Call Service

Call service.

Troubleshooting unsuccessful

Call help desk.

End

End

29 Error E SEN 611

Error Code E SEN 611

Error message PCIe- link failure

Error description The BPS C5 is not functioning because of connection error in the sensor components.

Restarting Machine [1] Restart the machine using the power key, and try again.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Call Service
	No	→ [2]

Checking Sensor Processor Configuration

[2] Check the IP address configuration of the sensor processor

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [3]

Updating Software

[3] Update the system software.

For details, refer to the → *Updating the Software Package* section of the → *Service Manual*.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [4]

Replacing Sensor Processor

[4] Replace the sensor processor.

For more information, refer to the → *Replacing the Processors* section of the → *Service Manual*.

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Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [5]

Replacing Main Board

- [5] Replace the main board.
For more information, refer to the → *Replacing the PCB Main* section of the → *Service Manual*.

Question	Answer	Go to
Problem solved? Yes		→ End
	No	→ Troubleshooting unsuccessful

Call Service

Call service.

Troubleshooting unsuccessful

Call help desk.

End

End

30 Error E SEN 610

Error Code E SEN 610

Error message FileSystem Setup Failure

Error description The BPS C5 is not functioning because of malfunction in the sensor software components.

Restarting Machine [1] Restart the machine using the power key, and try again.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Call Service
	No	→ [2]

Updating Software

[2] Update the system software.

For details, refer to the → *Updating the Software Package* section of the → *Service Manual*.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [3]

Replacing Sensor Processor

[3] Replace the sensor processor.

For more information, refer to the → *Replacing the Processors* section of the → *Service Manual*.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Troubleshooting unsuccessful

Call Service

Call service.

**Troubleshooting
unsuccessful**

Call help desk.

30
End

End

31 Error E SEN 651, E SEN 652

Error Code E SEN 651, E SEN 652

Error description The BPS C5 is not functioning because of malfunction in the software components.

Error	Error Message
E SEN 651	Software Incompatible
E SEN 652	Software Error

Restarting Machine

[1] Do the following:

1. For error E SEN 651 only, select **Ok** to acknowledge the sensor errors.
2. Restart the machine using the power key, and try again.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Call Service
	No	→ [2]

Updating Software

[2] Update the system software.

For details, refer to the → *Updating the Software Package* section of the → *Service Manual*.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Troubleshooting unsuccessful

Call Service

Call service.

Troubleshooting unsuccessful

Call help desk.

End

End

32 Error E SEN 654

Error Code E SEN 654

Error message Invalid Configuration: NO_OPMODE_AVAILABLE

Error description The BPS C5 is not functioning because of malfunction in the configuration package.

Restarting Machine [1] Restart the machine using the power key, and try again.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [2]

Installing Configuration Package

[2] Install the valid configuration package.

For more information, refer to the → *Updating Configuration Package* of the → *User Manual*.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Call Service
	No	→ Troubleshooting unsuccessful

Call Service

Call service.

Troubleshooting unsuccessful

Call help desk.

Copy log files and share the log files with help desk.

For more information, refer to the → *Copying Log Files to USB* of the → *User Manual*.

End

End

33 Error E SEN 653, E SEN 655, E SEN 656, E SEN 657

Error Code E SEN 653, E SEN 655, E SEN 656, E SEN 657

Error description The BPS C5 is not functioning because of malfunction in the configuration package.

Error	Error Message
E SEN 653	Invalid Configuration: SNRCOLOR_CONFLICT
E SEN 655	Task Supervision Error (SW Error)
E SEN 656	Self Test failed
E SEN 657	Software Error

Restarting Machine

[1] Restart the machine using the power key, and try again.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [2]

Installing Configuration Package

[2] Do the following:

1. Install the base configuration package with only BLK adaptation.
2. For error E SEN 653 only, install a valid configuration package with the desired configuration.

For more information, refer to the → *Updating Configuration Package* of the → *User Manual*.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Call Service
	No	→ [3]

Updating Software

[3] Update the system software.

For details, refer to the → *Updating the Software Package* section of the → *Service Manual*.

Question	Answer	Go to
Problem solved? Yes		→ End
No		→ Troubleshooting unsuccessful

Call Service

Call service.

33**Troubleshooting unsuccessful**

Call help desk.

Copy log files and share the log files with help desk.

For more information, refer to the → *Copying Log Files to USB* of the → *User Manual*.

End

End

34 Error E SWU 001

Error Code E SWU 001

Error message Package Deployment Failed

Error description The installation of software components such as System Software, Languages, Configuration Package, SN SearchList failed because of error in the package file.

Retry Operation [1] Retry installation.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Call Service
	No	→ [2]

Installing Valid Package

[2] Download a valid package and try installation again.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Troubleshooting unsuccessful

Call Service Call service.

Troubleshooting unsuccessful

Call help desk.
Copy log files and share the log files with help desk.
For more information, refer to the → *Copying Log Files to USB* of the → *User Manual*.

End End

35 Error E SWU 002

Error Code	E SWU 002
Error message	Component Compatibility Check failed - Config Package/ Machine Type/MSP/Configuration/Min SEN SW Version/ Product ID (config package)/ Component Compatibility Check failed - SW Update/ Device ID/ Product ID/Sensor SW version/Sensor SOM version/ DMAB Board
Error description	The installation error for system software/configuration package components

Retry Operation

[1] Retry installation.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Call Service
	No	→ [2]

Installing Valid Package

[2] Do the following:

1. Export log files and send the log file to help desk.
For more information, refer to the → *Copying Log Files to USB* of the → *User Manual*.
2. Send version report to help desk.
Help desk will provide the relevant/correct package for installation.
3. Install the software/configuration package received from help desk.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Troubleshooting Unsuccessful

Call Service

Call service.

Troubleshooting Unsuccessful

Call help desk.

Help desk should perform the following actions based upon the type of error.

- **System Software Update Failure:** If problem occurs while software installation, find out the following details:
 - Device ID
 - Product ID
 - Sensor Software Version
 - Sensor Processor Version
 - Main Board Version
- **Component Package Update Failure:**
 - Verify the adaptation product ID
 - Verify the minimum sensor software version of each adaptation
 - Provide the adaptation, which supports installed sensor version. If the adaptation is not available, provide a compatible system software package.
- **MSP Installation Failure:** Update the latest available MSP using configurator tool, and install the configuration package

End

End

36 Error E SWU 003, E SWU 005

Error Code E SWU 003, E SWU 005

Error description The installation error for system software sensor components

Error Code	Error Message
E SWU 003	Sensor SW Update Failed
E SWU 005	Sensor SW Installation Failed

Retry Operation

[1] Retry installation.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Call Service
	No	→ [2]

Replacing Sensor Processor

[2] Replace the sensor processor.

For more information, refer to the → *Replacing the Processors* section of the → *Service Manual*.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [3]

Replacing Main Board

[3] Replace the Main board.

For more information, refer to the → *Replacing the PCB Main* section of the → *Service Manual*.

Question	Answer	Go to
Problem solved? Yes		→ End
No		→ Troubleshooting unsuccessful

Call Service Call service.

Troubleshooting unsuccessful Call help desk.

End End

37 Error E SWU 004

Error Code E SWU 004

Error message Sensor Compatibility Check Failed

Error description The installation error for system software sensor components

Retry Operation [1] Retry installation.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Call Service
	No	→ [2]

Updating the Software

[2] Update the system software.

For procedure, refer to → *Updating the Software Package* section of the → *Service Manual*.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [3]

Installing Compatible Software Package

[3] The SN SerachList conversion from XML to .bls may be incorrect according to the machine type. Do the following:
1. Ask help desk to share a compatible package again.
2. Install the package received from help desk.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Troubleshooting unsuccessful

Call Service

Call service.

**Troubleshooting
unsuccessful**

Call help desk.

End

End

38 Error E SWU 006, E SWU 015

Error Code E SWU 006, E SWU 015

Error description The BPS C5 is not functioning because of software installation error.

Error Code	Error Message
E SWU 006	MC SW Update Failed
E SWU 015	SDM Module Update Failed

Retry Operation [1] Retry installation.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Call Service
	No	→ [2]

Updating Software

[2] The system automatically rolls back to old version after the error is confirmed. Update the system software.
For details, refer to the → *Updating the Software Package* section of the → *Service Manual*.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [3]

Replacing Main Board

[3] Replace the Main board.
For more information, refer to the → *Replacing the PCB Main* section of the → *Service Manual*.

Question	Answer	Go to
Problem solved? Yes		→ End
No		→ Troubleshooting unsuccessful

Call Service Call service.

Troubleshooting unsuccessful Call help desk.

End End

39 Error E SWU 007

Error Code E SWU 007

Error message DP SW Installation Failed

Error description The BPS C5 is not functioning because of software installation error.

Recovery Procedure

[1] Follow recovery steps.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Call Service
	No	→ [2]

Updating the Software

[2] Update the system software.

For procedure, refer to → *Updating the Software Package* section of the → *Service Manual*.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [3]

Performing Fresh CAB Installation

[3] Install the fresh CAB software update.

For procedure, refer to → *Installing Fresh CAB Software Update* section of the → *Service Manual*.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [4]

Replacing the DP Processor

[4] Replace the DP processor.

For procedure, refer to → *Replacing the Processors* section of the → *Service Manual*.

Question	Answer	Go to
Problem solved? Yes		→ End
No		→ Troubleshooting unsuccessful

Call Service

Call service.

Troubleshooting unsuccessful

Call help desk.

End

End

40 Error E SWU 008

Error Code	E SWU 008
Error message	SW Rollback Failed
Error description	When software installation/ upgrade fails, there is a rollback process that gets automatically initiated. If that fails too, this error message is displayed

Updating the Software

- [1] Do the following:
1. Restart the machine.
 2. Update the system software.

For procedure, refer to → *Updating the Software Package* section of the → *Service Manual*.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [2]

Performing Fresh CAB Installation

- [2] Install the fresh CAB software update.
For procedure, refer to → *Installing Fresh CAB Software Update* section of the → *Service Manual*.
Check component by component, and replace relative component.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Troubleshooting unsuccessful

Troubleshooting unsuccessful

Call help desk.

End End

41 Error E SWU 010

Error Code E SWU 010

Error message Invalid Package

Error description The installation error for system software/configuration package components

Installing Compatible Configuration Package

[1] Do the following:

1. Create a compatible configuration package.
Do not make any manual changes while creating the configuration package.
2. Install the configuration package.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Call Service
	No	→ [2]

Updating Software

[2] Do the following:

1. Ask help desk to share a compatible software package.
2. Install the software package received from help desk.
For procedure, refer to → *Updating the Software Package* section of the → *Service Manual*.
3. Repeat the step Installing Compatible Configuration Package.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Troubleshooting unsuccessful

Call Service

Call service.

Troubleshooting unsuccessful

Call help desk.

End

End

42 Error E SWU 011

Error Code E SWU 011

Error message No package found in USB

Error description The installation error for system software/configuration/language package components because the package is not found in the installation folder.

Checking Folder Name in USB

[1] Do the following:

1. For configuration package installation, check if the USB stick with the configuration package, placed in the *Configuration* folder, is plugged to the BPS C5.

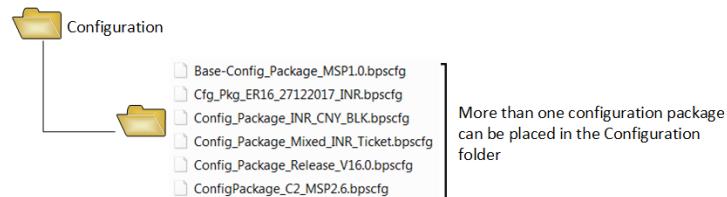


Figure 13: Configuration Package Folder Structure

2. For language package installation, check if the USB stick with the language package, placed in the *Languages* folder, is plugged to the BPS C5.

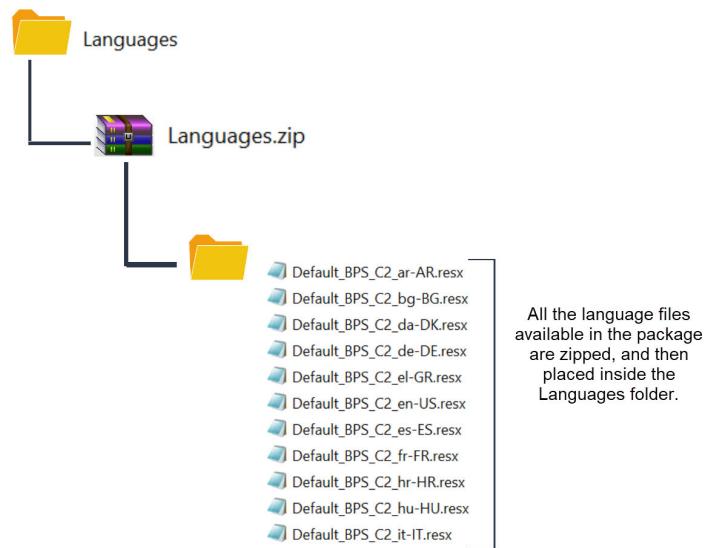


Figure 14: Language Package Folder Structure in the USB

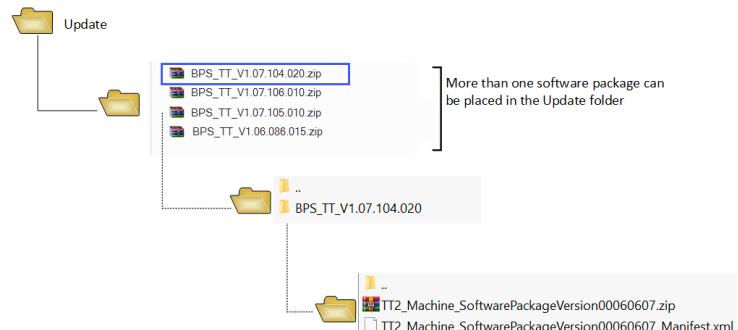
Check the correctness of the folder name and the correctness of the file extension as per the images above.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Call Service
	No	→ [2]

Updating Software**[2]**

Do the following:

1. Place a valid package inside the *Update* folder in USB.

**Figure 15: Software Installation Folder Structure**

2. Check the correctness of the folder name and the correctness of the file extension as per the image above.
3. Retry installation.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Troubleshooting unsuccessful

Call Service

Call service.

Troubleshooting unsuccessful

Call help desk.

End

End

43 Error E SWU 012

Error Code E SWU 012

Error message MSP Compatibility Check failed

Error description During software installation, if MSP of existing configuration package is not compatible, this error message is displayed.
If this error occurs, you can perform either of the following troubleshooting steps or both.

Installing Base Configuration Package

- [1] Install the compatible configuration package or base configuration package.
For more information, refer to the → *Updating Configuration Package* of the → *User Manual*.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [2]

Updating Software

- [2] Do the following:
- Update the system software.
For details, refer to the → *Updating the Software Package* section of the → *Service Manual*.
 - Install the compatible configuration package.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Troubleshooting unsuccessful

Troubleshooting unsuccessful

Call help desk.

End

End

44 Error E SWU 013

Error Code E SWU 013

Error message Op mode update failed

Error description Configuration package installation error with respect to operating mode creation.

Creating Configuration Package

[1] Do the following:

1. Create a new configuration package .
2. Install the new configuration package.

For more information, refer to the → *Updating Configuration Package* of the → *User Manual*.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Call Service
	No	→ [2]

Resolving Operating Mode Error

[2] Do the following:

1. Perform log analysis to find out the op mode which has error.
2. Create a new configuration package with the corrected op mode.
3. Install the new configuration package.

For more information, refer to the → *Updating Configuration Package* of the → *User Manual*.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Troubleshooting unsuccessful

Call Service

Call service.

**Troubleshooting
unsuccessful**

Call help desk.

44 End

End

45 Error E SWU 014

Error Code E SWU 014

Error message Invalid Package

Error description The software installation/ upgrade fails because of some error in the software package

Performing Fresh CAB Installation

[1] Install the fresh CAB software update.

For procedure, refer to → *Installing Fresh CAB Software Update* section of the → *Service Manual*.

Check component by component, and replace relative component.

Question	Answer	Go to
Problem solved? Yes		→ End
No		→ Troubleshooting unsuccessful

Troubleshooting unsuccessful Call help desk.

End End

46 Error E SWU 016

Error Code	E SWU 016
Error message	Stacker Sync. SW update failed
Error description	During software installation, the Stacker Control Board component failed

Updating Software

- [1] The system automatically rolls back to old version after the error is confirmed.
1. Ask help desk for package for valid software package.
 2. Update the system software with the package received from help desk.

For details, refer to the → *Updating the Software Package* section of the → *Service Manual*.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [2]

Replacing Stacker Controller Circuit Board

- [2] Replace the stacker controller circuit board.
For more information, refer to the → *Replacing Stacker Controller Circuit Board* section of the → *Service Manual*.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Troubleshooting unsuccessful

Troubleshooting unsuccessful

Call help desk.

End

End

47 Error E SWU 017

Error Code E SWU 017

Error message CheckTV Update Failed

Error description Failure in enabling CheckTV

Updating Software

- [1] The system automatically rolls back to old version after the error is confirmed.
1. Ask help desk for package for valid software package.
 2. Update the system software with the package received from help desk.

For details, refer to the → *Updating the Software Package* section of the → *Service Manual*.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [2]

Performing Fresh CAB Installation

- [2] Install the fresh CAB software update.
For procedure, refer to → *Installing Fresh CAB Software Update* section of the → *Service Manual*.
Check component by component, and replace relative component.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Troubleshooting unsuccessful

Troubleshooting unsuccessful

Call help desk.

End

End

48 Error E SWU 018

Error Code	E SWU 018
Error message	MC firmware update failed/Master- firmware SW update failed
Error description	Software installation error When this error occurs, the BPS C5 retries installation by default after automatically restarting.

Restarting Machine

- [1] Do the following:
1. Select **Ok** to do shut down.
 2. Restart the machine.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Call Service
	No	→ [2]

Replacing Main Board

- [2] Replace the Main board.
For more information, refer to the → *Replacing the PCB Main* section of the → *Service Manual*.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Troubleshooting unsuccessful

Call Service

Call service.

Troubleshooting unsuccessful

Call help desk.

End

End

49 Error E SWU 020

Error Code E SWU 020

Error message Slave- Application SW Update Failed

Error description Software installation error

Retry Software Update

- [1] When this error occurs, the BPS C5 shuts down, and starts installing again automatically. Reinstall the system software with a valid software package.
For details, refer to the → *Updating the Software Package* section of the → *Service Manual*.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [2]

49

Replacing Slave board

- [2] Replace the slave board.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Troubleshooting unsuccessful

Troubleshooting unsuccessful

Call help desk.

End

End

50 Error E FTP 001

Error Code E FTP 001

Error message FTP 1/FTP 2/FTP 3 Remote Host Inaccessible

Error description The reports could not be transferred via FTP because FTP target is not accessible..

Checking FTP Settings

[1] Do the following:

1. Check the FTP line connection.
2. Check if the FTP server is functioning.
3. Check if the FTP settings (address, username, password) are configured.
4. Check if the SFTP is enabled.

If the FTP server is not equipped with the secure feature, disable SFTP.

For more information, refer to the → *Changing Secure File Transfer Protocol (SFTP/FTP) Settings* of the → *User Manual*.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Call Service
	No	→ [2]

50

Checking LAN Port

[2] Do the following:

1. Check if the LAN cable is damaged. Replace/fix, if required.
2. Check the LAN port on the PCB main. Replace/fix, if required.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Troubleshooting Unsuccessful

Call Service

Call service.

**Troubleshooting
Unsuccessful**

Call help desk.

Copy log files and share the log files with help desk.

End

End

51 Error E FTP 003

Error Code E FTP 003

Error message FTP 1/FTP 2/FTP 3 Remote Host Invalid Path

Error description The reports could not be transferred via FTP because the FTP server is inaccessible.

Checking FTP Path [1] Do the following:

1. Check if the FTP path/folder is valid.
2. Check if the folder is unavailable/corrupted.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Call Service
	No	→ Troubleshooting Unsuccessful

Call Service Call service.

Troubleshooting Unsuccessful Call help desk.
Copy log files and share the log files with help desk.

End End

52 Error E FTP 002

Error Code E FTP 002

Error message FTP 1/FTP 2/FTP 3 Remote Host Access Denied

Error description The reports could not be transferred via FTP because the read/write permissions denied at FTP server.

Checking FTP Server Access

[1] Do the following:

1. Check if the configured folder has read/write access on the server.
2. Configure the read/write access, if required.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Call Service
	No	→ Troubleshooting Unsuccessful

Call Service

Call service.

Troubleshooting Unsuccessful

Call help desk.
Copy log files and share the log files with help desk.

End

End

53 Error E FTP 004

Error Code E FTP 004

Error message FTP 1/FTP 2/FTP 3/FTP 4 Remote Host Transmission Problem

Error description The reports could not be transferred via FTP because of network issues.

Checking Network Connection

[1] Do the following:

1. Check the network connection.
2. Change the LAN cable, if required.

Question	Answer	Go to
Problem solved? Yes		→ End
	No	→ Call Service
	No	→ Troubleshooting Unsuccessful

Call Service Call service.

Troubleshooting Unsuccessful Call help desk.
Copy log files and share the log files with help desk.

End End

54 Error E FTP 005

Error Code E FTP 005

Error message FTP Host Error

Error description The reports could not be transferred via FTP because of error in the FTP IP address.

Checking FTP IP

[1] Do the following:

1. Check if the FTP IP address is correct.
2. Check for IP address is accessible.
3. Set the correct IP address, if necessary.

For more information, refer to the → *Changing Secure File Transfer Protocol (SFTP/FTP) Settings* of the → *User Manual*.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Call Service
	No	→ Troubleshooting Unsuccessful

Call Service

Call service.

Troubleshooting Unsuccessful

Call help desk.
Copy log files and share the log files with help desk.

End

End

55 Error E ST1 001, E ST2 001, E ST3 001, E ST4 001

Error Code E ST1 001, E ST2 001, E ST3 001, E ST4 001

Error description BN/dust/pieces of paper at the stacker1/stacker2/stacker3/stacker4 detected by the corresponding exit PD before singling starts.

Error Codes	Definition
E ST1 001	Unexpected BN at stacker1 exit PD
E ST2 001	Unexpected BN at stacker2 exit PD
E ST3 001	Unexpected BN at stacker3 exit PD
E ST4 001	Unexpected BN at stacker4 exit PD

Cleaning

[1] Do the following:

1. Clean the corresponding exit PD.
2. Check for pieces of BNs, paper, rubber bands, or foreign particles in the transport area. Remove if any.
3. Check for any foreign particles that may disturb the PD/movement of the gates.
4. Check the gate and its solenoid functioning.
5. Close the BPS C5 and confirm the error.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Troubleshooting unsuccessful
	No	→ [2]

Checking electrical components

[2] Check the following:

- Check the corresponding exit PD and its prism.
- Check for any loose connections or damage in the cable harness.
- Check the gate and its solenoid connection.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Troubleshooting unsuccessful

**Troubleshooting
unsuccessful**

Call help desk.

End

End

56 Error E ST1 003, E ST2 003, E ST3 003, E ST4 003

Error Code E ST1 003, E ST2 003, E ST3 003, E ST4 003

Error description During processing, the trailing edge of the BN arrived early at the stacker1/stacker2/stacker3/stacker4 exit PD.

Error Code	Description
E ST1 003	BN jam – trailing edge too early at stacker1
E ST2 003	BN jam – trailing edge too early at stacker2
E ST3 003	BN jam – trailing edge too early at stacker3
E ST4 003	BN jam – trailing edge too early at stacker4

Cleaning

[1] Do the following:

1. Clean the corresponding exit PD.
2. Check for pieces of BNs, paper, rubber band, or foreign particles in the transport. Remove if any.
3. Check for any foreign particles that may cause a BN skew.
4. Close the BPS C5 and confirm the error.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Troubleshooting unsuccessful
	No	→ [2]

Checking electrical components

[2] Check the following:

- Check the corresponding exit PD.
- Are there any loose connections or damage?
- Check for gate malfunctioning.

Question	Answer	Go to
Problem solved?	Yes	→ End

Fixing skew



Information

These errors may be caused by a BN skew.

- [3] Check the following:
- Check the singler and adjust if necessary.
 - Check the transport roller pinch force. Replace if necessary.

→ “End”, p. 126

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Troubleshooting unsuccessful

Troubleshooting unsuccessful

Call help desk.

End

End

57 Error E ST1 004, E ST2 004, E ST3 004, E ST4 004

Error Code E ST1 004, E ST2 004, E ST3 004, E ST4 004

Error description During processing, the leading edge of the BN arrived late at the exit PD of the stacker 1/stacker 2/stacker 3/stacker 4.

Cleaning

[1] Do the following:

1. Check whether there is a physical jam in the transport area. Clear if any.
2. Clean the corresponding exit PD.
3. Remove any pieces of BNs, paper, rubber band, or other foreign objects.
4. Close the BPS C5 and confirm the error.

Question	Answer	Go to
Problem solved? Yes		→ End
No		→ Troubleshooting unsuccessful
No		→ [2]

Check Physical Jam



Information

Probable error cause: BN time out/delayed at stacker at exit PD.

- [2] Check whether there is a physical jam in the transport area. Clear if any.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [3]

Checking Stacker

57



Information

A gate malfunction can cause a redirection of the BNs to the next available stacker.

- [3] Check the gate-vane and solenoid of the corresponding stacker. Replace if necessary.

→ "End", p. 129

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [4]

Checking electrical components

- [4] Check the following:
- Check the corresponding exit PD.
 - Any loose connections or damage? Fix/repair if necessary.
 - Check mechanical fitments of corresponding exit PD, gate, and its solenoid. Fix or replace if necessary.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [5]

Fixing skew



Information

Probable error cause: BN skew

- [5] Check the following:
- Check the singler and adjust if necessary.
 - Check the transport roller pinch force. Replace if necessary.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [6]

Check toothed wheel and toothed belt

- [6] Check the following in the machine transport. fix/replace if necessary.
- Check the machine transport toothed belts, toothed wheels.
 - Check the encoder functioning.

Question	Answer	Go to
Problem solved? Yes		→ End
	No	→ Troubleshooting unsuccessful

Troubleshooting unsuccessful

Call help desk.

End

End

58 Error E ST1 005, E ST2 005, E ST3 005, E ST4 005

Error Code E ST1 005, E ST2 005, E ST3 005, E ST4 005

Error description During processing, the trailing edge of the BN arrived late at the exit PD of the stacker 1/stacker 2/stacker 3/stacker 4.

58

Error Code	Definition
E ST1 005	BN jam – trailing edge delayed/late at stacker1
E ST2 005	BN jam – trailing edge delayed/late at stacker2
E ST3 005	BN jam – trailing edge delayed/late at stacker3
E ST4 005	BN jam – trailing edge delayed/late at stacker4

Cleaning

[1] Do the following:

1. Check whether there is a physical jam in the transport area. Clear if any.
2. Clean the corresponding exit PD.
3. Remove any pieces of BNs, paper, rubber band, or other foreign objects.
4. Check for any foreign objects that may cause a BN skew.
5. Check for any foreign objects that may disturb the PD/movement of the gates.
6. Close the BPS C5 and confirm the error.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Troubleshooting unsuccessful
	No	→ [2]

Checking electrical components

[2] Check the following:

- Check the corresponding exit PD.
- Any loose connections or damage? Fix/repair if necessary.

- Check mechanical fitments of corresponding exit PD, gate, and its solenoid. Fix or replace if necessary.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [3]

58

Checking spare parts



Information

A lacking synchronization between the stacker wheels and the exit rollers may cause that BNs hit the stacker wheel petals.

[3] Do the following:

1. Check the parts in the transport near the gate for wear and tear.
2. Check the passive rollers.
3. Check the toothed wheels and the tooth belts.
4. Check the transport roller pinch force. Replace if necessary.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Troubleshooting unsuccessful

Troubleshooting unsuccessful

Call help desk.

End

End

59 Error E ST1 007, E ST1 011, E ST1 013, E ST1 014, E ST2 007, E ST2 011, E ST2 013, E ST2 014, E ST3 007, E ST3 011, E ST3 013, E ST3 014, E ST4 007, E ST4 011, E ST4 013, E ST4 014

Error Code E ST1 007, E ST1 011, E ST1 013, E ST1 014, E ST2 007, E ST2 011, E ST2 013, E ST2 014, E ST3 007, E ST3 011, E ST3 013, E ST3 014, E ST4 007, E ST4 011, E ST4 013, E ST4 014

Error message I2C Communication failure

Error description The BPS C5 has stopped because of the malfunction of any hardware components.

Error	Possible Cause
E ST1 007, E ST2 007, E ST3 007, E ST4 007	Invalid parameters
E ST1 011, E ST2 011, E ST3 011, E ST4 011	Start generation failure
E ST1 013, E ST2 013, E ST3 013, E ST4 013	Address send failure
E ST1 014, E ST2 014, E ST3 014, E ST4 014	Data send failure

Checking Configuration Package

[1] Do the following:

- Check if the configuration package version is compatible with the software version.

For more information, refer to the → *Viewing the Software Version Details* of the → *User Manual*.

- Install the compatible configuration package, if required.

For more information, refer to the → *Updating Configuration Package* of the → *User Manual*.



Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Call Service
	No	→ [2]

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Checking PCB Main

- [2] Do the following:
- Check the stacker display connectors to the main board.
 - Check the cable harness. Fix/replace if necessary.
 - Replace the stacker display assembly.
 - Replace the PCB Main.
- For more information, refer to the → *Replacing the PCB Main* of the → *Service Manual*.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Troubleshooting Unsuccessful

Call Service

Call service.

Troubleshooting Unsuccessful

Call help desk.
Copy log files and share the log files with help desk.

End

End

60 Error E ST1 300, E ST2 300, E ST3 300, E ST4 300

Error Code E ST1 300, E ST2 300, E ST3 300, E ST4 300

Error description Unexpected BN placed at the corresponding monitoring stacker1/stacker2/stacker3/stacker4.
Document/BN placed into an empty stacker from outside.

Possible causes:

- BN was not removed from previous deposit.
- Document is placed into an empty stacker from outside.
- A flying object/dust covers the monitoring PD while processing PD.

Error Code	Definition
E ST1 300	While processing, Unexpected BN/object is detected at stacker1 monitoring PD.
E ST2 300	While processing, Unexpected BN/object is detected at stacker2 monitoring PD.
E ST3 300	While processing, Unexpected BN/object is detected at stacker3 monitoring PD.
E ST4 300	While processing, Unexpected BN/object is detected at stacker4 monitoring PD.

Cleaning

[1] Do the following:

1. Clean the corresponding monitoring PD/prism assembly.
2. Check for pieces of BNs, paper, rubber band, or foreign particles and remove if any.
3. Close the BPS C5 and confirm the error.

Question	Answer	Go to
Problem solved? Yes		→ End
No		→ Troubleshooting unsuccessful
No		→ [2]

Checking electrical components**[2]** Do the following:

1. Check the corresponding monitoring PD connectors and its cable harness for damage/loose connections. Replace if necessary.
2. Check for scratches on the prisms. Replace if necessary.
3. Check the PD/prism alignment.
4. Close the BPS C5 and confirm the error.

Question	Answer	Go to
Problem solved? Yes		→ End
No		→ Troubleshooting unsuccessful

Troubleshooting unsuccessful

Call help desk.

End

End

61 Error E ST1 301, E ST2 301, E ST3 301, E ST4 301

Error Code E ST1 301, E ST2 301, E ST3 301, E ST4 301

Error description The error is caused when BNs are removed before the stacker is full.

Error Code	Definition
E ST1 301	BN is removed before stacker 1 full.
E ST2 301	BN is removed before stacker 2 full.
E ST3 301	BN is removed before stacker 3 full.
E ST4 301	BN is removed before stacker 4 full.

Performing Recovery Steps

[1] Try the following:

1. Empty all the stackers/reject/singler and try again.
2. Close the deposit and start a new deposit.

Question	Answer	Go to
Problem solved? Yes		→ End
	No	→ Call Service
	No	→ Troubleshooting unsuccessful

Call Service

Call Service.

Troubleshooting unsuccessful

Call help desk.

End

End

62 Error E PDT 000

Error Code E PDT 000

Error message PhotoDetector Error

Error description The BPS C5 has stopped because the PD calibration has failed.

Cleaning

[1] Do the following:

1. Clean the corresponding PD/prism assembly.
2. Check for pieces of BNs, paper, rubber band, or foreign particle and remove if any.
3. Close the BPS C5 and confirm the error.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Call Service
	No	→ Troubleshooting Unsuccessful

Call Service Call service.

Troubleshooting Unsuccessful Call help desk.
Copy log files and share the log files with help desk.

End End

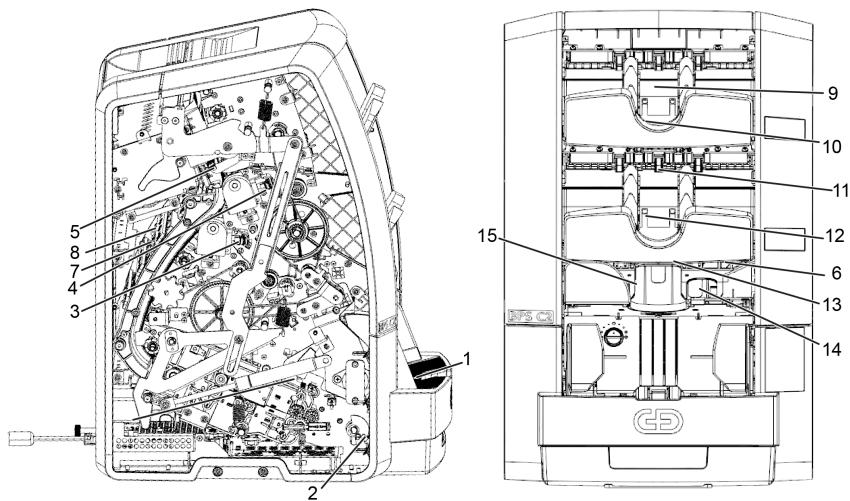
63 Error E PDT 001 ****

Error Code

E PDT 001 PDERJ_L, E PDT 001 PDERJ_R, E PDT 001 PDMRJ,
E PDT 001 PDE1, E PDT 001 PDE2, E PDT 001 PDM1, E PDT
001 PDM2, E PDT 001 PDTR1_L, E PDT 001 PDTR1_R

Error description

During the PD self test, the corresponding PD failed.



Cleaning

[1] Do the following:

1. Clean the corresponding PD/prism assembly.
2. Check for pieces of BNs, paper, rubber band, or foreign particle and remove if any.
3. Close the BPS C5 and confirm the error.

Question	Answer	Go to
Problem solved? Yes	→ End	
No	→ Troubleshooting unsuccessful	
No	→ [2]	

Checking electrical components



Information

After every service action, it is advised to do a system test.

- [2] Check the following:
1. Check the corresponding PD connectors and its cable harness for damage/loose connections. Fix/replace if necessary.
 2. Check for scratches on the prisms. Replace if necessary.
 3. Check the PD/prism alignment.
 4. Close the BPS C5 and confirm the error.

Question	Answer	Go to
Problem solved? Yes		→ End
No		→ Troubleshooting unsuccessful

Troubleshooting unsuccessful
Call help desk.

End End

64 Error E POW 001

Error Code E POW 001

Error description 5V failure/No power at PCB Main.

Restarting the machine

[1] Restart the BPS C5 and try again.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Troubleshooting unsuccessful
	No	→ [2]

Checking electrical components



Information

The 5V supply on the PCB Main is out of range +/- 10%.

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[2] Check the 24V power supply output to PCB Main. Replace the power supply if necessary.



Information

Remove the power supply connector (X42) from the PCB Main and check the 24V.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [3]

Check PCB Main

[3] Check the PCB Main by swapping it with the one of another machine. Replace if necessary.

Question	Answer	Go to
Problem solved? Yes		→ End
No		→ Troubleshooting unsuccessful

**Troubleshooting
unsuccessful**

Call help desk.

End

End

65 Error E USB 004

Error Code E USB 004

Error description The USB stick connected to the BPS C5 is not recognized/data transfer was interrupted.

Checking USB stick



Information

The error can occur if you removed a USB stick before the data transfer was completed or if there was an error during data transfer.

[1] Try the following:

- Remove the USB stick, confirm the error, and try again.
Do not remove the USB stick until you are prompted that the data transfer was successful.
- Try with another USB stick.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Troubleshooting unsuccessful
	No	→ [2]

Checking USB/PCB

Main

[2] Check and try the following:

1. Check the USB port on PCB Main, confirm its functioning by connecting a USB mouse on the same port.
2. Replace the PCB Main if necessary.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Troubleshooting unsuccessful

Troubleshooting unsuccessful

Call help desk.

End

End

66 Error E USB 003, E USB 001, E USB 002

Error Code E USB 003, E USB 001, E USB 002

Error description USB Stick connected to the BPS C5 is not recognized/not connected/insufficient space.

Error Code	Definition
E USB 003	Multiple USBs connected to the BPS C5
E USB 001	USB not connected to the BPS C5
E USB 002	Insufficient space in USB

Error diagnostics



Information

An external USB stick is used to transfer the log/reports/raw data from the BPS C5 and for upgrading/updating/configuring the BPS C5.

[1] Select your error code from the question box below.

Question	Answer	Go to
Which error code occurs?	E USB 003	→ [2]
	E USB 001	→ [3]
	E USB 002	→ [4]

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Checking number of USB connections



Information

The error can occur if more than one USB is connected to the BPS C5.

[2] Connect only one USB to the BPS C5 and try again.

Question	Answer	Go to
Problem solved? Yes		→ End
No		→ Troubleshooting unsuccessful
No		→ [5]

Checking USB connection



Information

The error can occur if the USB stick is not connected properly/not recognized by the BPS C5.

[3] Try the following:

1. Check the USB port on PCB Main, confirm its functioning by connecting a USB mouse on the same port.
2. Try with a different USB stick.

Question	Answer	Go to
Problem solved? Yes		→ End
No		→ Troubleshooting unsuccessful
No		→ [5]

66

Checking USB stick space



Information

The error can occur if there is insufficient space on the USB stick.

[4] Try the following:

1. Create some free space on the USB stick and try again.
2. Try with a different USB stick.

Question	Answer	Go to
Problem solved? Yes		→ End
	No	→ Troubleshooting unsuccessful
	No	→ [5]

PCB Main

- [5] Try the following:
1. Check the USB port on PCB Main, confirm its functioning by connecting a USB mouse on the same port.
 2. Check and replace the PCB Main if necessary.
→ “*Troubleshooting unsuccessful*”, p. 149

Question	Answer	Go to
Problem solved? Yes		→ End
	No	→ Troubleshooting unsuccessful

Troubleshooting unsuccessful

Call help desk.

End

End



67 Error E USB 005

Error Code E USB 005

Error message USB Target Inaccessible

Error description The USB stick connected to the BPS C5 can not access the target file path.

Checking USB stick

[1] Try the following:

1. Check if the USB is properly connected. Connect USB to machine, if not connected.
2. Connect the USB stick to the other USB ports.
3. Connect another USB 2.0 stick with storage more than/equal to 64 GB.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Call Service
	No	→ [2]

Checking USB/PCB Main

[2] Check and try the following:

1. Check the USB port on PCB Main, confirm its functioning by connecting a USB mouse on the same port.
2. Replace the PCB Main if necessary.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Troubleshooting unsuccessful

Call Service

Call Service.

Troubleshooting unsuccessful

Call help desk.

End

End

68 Error E USB 006, E USB 009

Error Code	E USB 006, E USB 009
Error message	USB Target Access Denied/USB Access Denied
Error description	The user is unauthorized to save file in USB Target/No read and write access to the USB folder
Checking USB stick	[1] Try the following: 1. Provide read and write access to the USB folder. 2. Connect the USB stick to the other USB ports. 3. Connect another USB with sufficient space.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Call Service
	No	→ [2]

Checking USB/PCB Main

[2]	Check and try the following:
	1. Check the USB port on PCB Main, confirm its functioning by connecting a USB mouse on the same port.
	2. Replace the PCB Main if necessary.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Troubleshooting unsuccessful

Call Service Call Service.

Troubleshooting unsuccessful Call help desk.

End End

69 Error E USB 008

Error Code E USB 008

Error message USB Target Transmission Error

Error description This error occurs if there is some error in saving/sending the file to the USB Device

- Checking USB stick**
- [1] Try the following:
1. Make sure that the USB stick is connected until the data transfer is successful .
 2. Connect the USB stick to the other USB ports.
 3. Connect another USB with sufficient space.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Call Service
	No	→ [2]

Checking USB/PCB Main

- [2] Check and try the following:
1. Check the USB port on PCB Main, confirm its functioning by connecting a USB mouse on the same port.
 2. Replace the PCB Main if necessary.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Troubleshooting unsuccessful

Call Service

Call Service.

Troubleshooting unsuccessful

Call help desk.

End

End

70 Error E MCO 001

Error Code E MCO 001

Error description BPS C5 is open/not properly closed.

Opening/closing [1] Do the following:

1. Open and close the BPS C5 firmly.
2. Confirm the error.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Troubleshooting unsuccessful
	No	→ [2]

Checking electrical components

[2] Do the following:

1. Check and clean the photo detector (PDMCH_OPN).
2. Check the PD connector and cable for any loose connections or damage. Replace if necessary.
3. Check the physical functionality of the latch.
4. Close the BPS C5 and confirm the error.



Figure 16: PDMCH_OPN

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Troubleshooting unsuccessful

Troubleshooting unsuccessful

Call help desk.

End

End

71 Error E COM 100, E COM 101, E COM 102, E COM 103, E COM 104, E COM 105

Error Code E COM 100, E COM 101, E COM 102, E COM 103, E COM 104, E COM 105

Error description During BN processing, the internal software failed to account the BN data.

Error	Definition
E COM 100	Missing BN data.
E COM 101	Incorrect BN data.
E COM 102	Excess BN data received.
E COM 103	Duplicate BN data received.
E COM 104	Internal LAN communication issue.
E COM 105	Internal CAN communication issue.

Cleaning [1] Follow the recovery steps on the machine and confirm the error.

Question	Answer	Go to
Problem solved? Yes		→ End
No		→ Troubleshooting unsuccessful
No		→ [2]

Updating software [2] Update the software.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [3]

Checking Sensor Processor

[3] Replace and check the sensor processor.

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Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [4]

Checking PCB Main

[4] Replace and check the PCB Main.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Troubleshooting unsuccessful

**Troubleshooting
unsuccessful**

Call help desk.

End

End

72 Error E COM 106, E COM 107

Error Code	E COM 106, E COM 107
Error message	Internal Communication Error
Symptom	The BPS C5
Error description	During BN processing, the internal software failed to account the BN data.

Error	Definition
E COM 106	The BPS C5 is not functioning because of malfunction in the MC module.
E COM 107	The BPS C5 is not functioning because of Communication failure between DP and Sensor.

Retry Operations [1] Follow the recovery steps on the machine and confirm the error.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [2]

Restart Machine [2] Restart the BPS C5.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Call Service
	No	→ [3]

Updating software [3] Update the software.

Question	Answer	Go to
Problem solved? Yes		→ End
No		→ Troubleshooting Unsuccessful

Call Service Call service.

**Troubleshooting
Unsuccessful** Call help desk.
Copy log files and share the log files with help desk.

End End

73 Error E COM 108

Error Code	E COM 108
Error message	Internal Communication Error - 8
Symptom	The BPS C5
Error description	During BN processing, the internal software failed to account the banknote data.

Installing Configuration Package

- [1] Install the compatible configuration package.
For details, refer to the → *Installing Configuration Package* section of the → *User Manual*.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Call Service
	No	→ [2]

Updating Software

- [2] Update the system software.
For details, refer to the → *Updating the Package* section of the → *Service Manual*.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Troubleshooting Unsuccessful

Call Service

Call service.

Troubleshooting Unsuccessful

Call help desk.
Copy log files and share the log files with help desk.

End

End

74 Error E FWU 000, E FWU 001

Error Code E FWU 000, E FWU 001

Error description The BPS C5 is not functioning because of some error in the internal software.

Error	Error Message
E FWU 000	Firmware Error
E FWU 001	Firmware Update Error

Call Service [1] Call Service

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [2]

Replacing Main Board

[2] Replace the PCB main board.

For instructions, refer to the *Replacing the PCB Main* section of the *Service Manual*.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Troubleshooting Unsuccessful

Troubleshooting Unsuccessful

Call help desk.

End End

75 Error EINI 000

Error Code EINI 000

Error message System Initialization Error

Error description The BPS C5 is not functioning because of malfunction in the software components.

Recovery Procedure

[1] Do the following:

- Follow the recovery steps on the machine and confirm the error.
- Restart the machine.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Call Service
	No	→ [2]

Installing Fresh CAB Software

[2] Do the following:

- Install the fresh CAB software update.
For procedure, refer to → *Installing Fresh CAB Software Update* section of the → *Service Manual*.
- Update the system software.
For procedure, refer to → *Updating the Software Package* section of the → *Service Manual*.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [3]

Replacing DP Processor

[3] Replace the DP processor.

For procedure, refer to → *Replacing the Processors* section of the → *Service Manual*.

Question	Answer	Go to
Problem solved? Yes		→ End
No		→ Troubleshooting unsuccessful

Call Service Call service.

Troubleshooting unsuccessful Call help desk.

End End

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76 Error E INI 001

Error Code E INI 001

Error message MC SW Launch Fail

Error description The BPS C5 is not functioning because of malfunction in the software components.

Recovery Procedure

[1] Follow the recovery steps on the machine and confirm the error.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Call Service
	No	→ [2]

Updating Software

[2] Update the system software.

For details, refer to the → *Updating the Package* section of the → *Service Manual*.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [3]

Replacing Main Board

[3] Replace the Main board.

For more information, refer to the → *Replacing the PCB Main* section of the → *Service Manual*.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Troubleshooting unsuccessful

Call Service

Call service.

**Troubleshooting
unsuccessful**

Call help desk.

End

End

77 Error E INI 002

Error Code E INI 002

Error message Compatibility Check Fail SDM/Sensor/ Stacker Control Board/DP/OS

Error description The BPS C5 is not functioning because of malfunction in the software components such as SDM/Sensor/ Stacker Control Board/DP/OS.

Recovery Procedure

[1] Follow the recovery steps on the machine and confirm the error.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Call Service
	No	→ [2]

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Updating Software

[2] Update the system software.

For details, refer to the → *Updating the Package* section of the → *Service Manual*.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Troubleshooting unsuccessful

Call Service

Call service.

Troubleshooting unsuccessful

Call help desk.
Relevant hardware should be replaced.

End

End

78 Error E INI 003

Error Code E INI 003

Error message Sensor-DP Communication Fail

Error description The BPS C5 is not functioning because of malfunction in the software components.

Recovery Procedure

- [1] Follow the recovery steps on the machine and confirm the error.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Call Service
	No	→ [2]

Updating Software

- [2] Update the system software.

For details, refer to the → *Updating the Package* section of the → *Service Manual*.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [3]

Replacing Main Board

- [3] Replace the Main board.

For more information, refer to the → *Replacing the PCB Main* section of the → *Service Manual*.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Troubleshooting unsuccessful

Call Service

Call service.

**Troubleshooting
unsuccessful**

Call help desk.

End

End

79 Error E INI 004

Error Code E INI 004

Error message Sensor Initialize Failed

Error description The BPS C5 is not functioning because of malfunction in the software components.

Recovery Procedure

[1] Follow the recovery steps on the machine and confirm the error.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Call Service
	No	→ [2]

Updating Software

[2] Update the system software.

For details, refer to the → *Updating the Package* section of the → *Service Manual*.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [3]

Replacing Main Board

[3] Replace the Main board.

For more information, refer to the → *Replacing the PCB Main* section of the → *Service Manual*.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [4]

Replacing Sensor Processor

[4] Replace the sensor processor.

For more information, refer to the → *Replacing the Processors* section of the → *Service Manual*.

Question	Answer	Go to
Problem solved? Yes		→ End
No		→ Troubleshooting unsuccessful

Call Service

Call service.

Troubleshooting unsuccessful

Call help desk.

End

End

80 Error E INI 006

Error Code E INI 006

Error message Sensor Self-test Fail

Error description The BPS C5 is not processing banknotes because of malfunction in the software components.

Cleaning

[1] Do the following:

- Perform banknote processing to verify which sensor component has failed.
- Follow the recovery steps on the machine and confirm the error.
- Clean relevant sensor using micro fiber cloth and cleaning liquid.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Call Service
	No	→ [2]

Replacing Sensors

[2] Do the following:

- Check the relevant sensor cables.
- Perform MTS Calibration.

For details, refer to the → *Calibrating the Sensor - MTS (Mechanical Thickness Sensor)* section of the → *Service Manual*.

- Replace the sensor.

For details, refer to the → *Calibrating the Sensor - MTS (Mechanical Thickness Sensor)* section of the → *Service Manual*.

- Perform sensor function test.

For details, refer to the → *Testing the Sensor (Functional Test)* section of the → *Service Manual*.

Update the system software.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [3]

Replacing Main Board

- [3] Replace the Main board.
For more information, refer to the → *Replacing the PCB Main* section of the → *Service Manual*.

Question	Answer	Go to
Problem solved? Yes		→ End
	No	→ Troubleshooting unsuccessful

Call Service

Call service.

Troubleshooting unsuccessful

Call help desk.

End

End

81 Error E INI 007

Error Code	E INI 007		
Error message	MC DP Communication Fail Applicable (internal and MC/SDM)		
Error description	The BPS C5 is not functioning because of malfunction in the software components.		
Retry Operation	[1] Follow the recovery steps on the machine and confirm the error.		
Question	Answer	Go to	
Problem solved?	Yes	→ End	
	No	→ Call Service	
	No	→ [2]	

Checking Electrical Components	[2] Do the following:	
	1. Check and reset CAN connection of SDMs.	
	2. Check the rotary switch of the SDM.	
	3. Check the stacker controller board.	
	4. Fix/replace the above components, if necessary	
Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [3]

Updating Software	[3] Update the system software. For details, refer to the → <i>Updating the Software Package</i> section of the → <i>Service Manual</i> .
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Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [4]

Replacing Main Board

- [4] Replace the Main board.
For more information, refer to the → *Replacing the PCB Main* section of the → *Service Manual*.

Question	Answer	Go to
Problem solved? Yes		→ End
	No	→ Troubleshooting unsuccessful

Call Service

Call service.

Troubleshooting unsuccessful

Call help desk.

End

End

82 Error EINI 008, EINI 009

Error Code EINI 008, EINI 009

Error description The BPS C5 is not functioning.

Error	Definition
EINI 008	Master- firmware SW compatibility check failed
EINI 009	Slave- Application SW compatibility check failed

Recovery Procedure

[1] Follow the recovery steps on the machine and confirm the error.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Call Service
	No	→ [2]

Updating software

[2] Update the software.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [3]

Replacing PCB Main Board

[3] Replace the PCB main board.

Question	Answer	Go to
Problem solved? Yes		→ End
No		→ Troubleshooting unsuccessful

Call Service Call service.

Troubleshooting unsuccessful Call help desk.

End End

83 Error E MOD 001, E MOD 002, E MOD 003

Error Code E MOD 001, E MOD 002, E MOD 003

Error description During BN processing, the internal software failed to account the BN data.

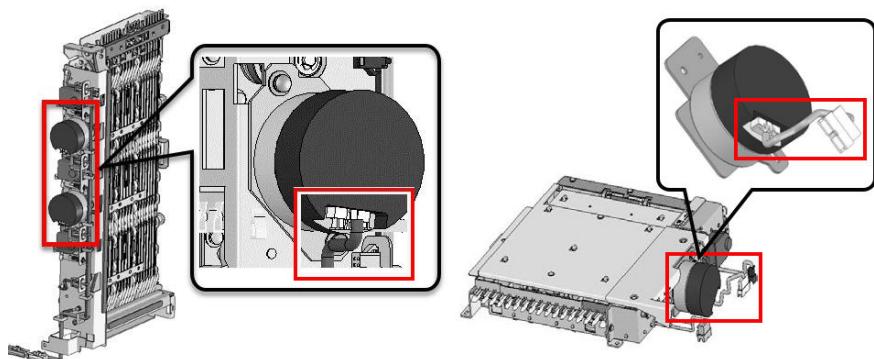
Error	Definition
E MOD 001	Module # "Start Error" Main Motor 1/ "Speed Down Error" Main Motor 1/ "Speed Over Error" Main Motor 1
E MOD 002	Module # "Start Error" Main Motor 1/ "Speed Down Error" Main Motor 1/ "Speed Over Error" Main Motor 1
E MOD 003	Module # "Start Error" Main Motor 1/ "Speed Down Error" Main Motor 1/ "Speed Over Error" Main Motor 1

Restart Machine

[1] Restart the machine.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Call Service
	No	→ [2]

Checking Motor Connection



[2] Check the motor connection.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [3]

Checking Motor Cable

[3] Check the motor cable for damage.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [4]

Replacing CPU Board

[4] Replace the stacker CPU Board.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Troubleshooting Unsuccessful

Call Service

Call service.

Troubleshooting Unsuccessful

Call help desk.
Copy log files and share the log files with help desk.

End

End

84 Error E MOD 011, E MOD 012, E MOD 013, E MOD 014

Error Code	E MOD 011, E MOD 012, E MOD 013, E MOD 014
Error message	Stacker <number> Wheel Blocked
Symptom	The BPS C5
Error description	The BN processing is stopped because of the malfunction of any hardware components.

Error	Error Message	Definition
E MOD 011	Stacker 1 Wheel Blocked	
E MOD 012	Stacker 2 Wheel Blocked	
E MOD 013	Stacker 3 Wheel Blocked	
E MOD 014	Stacker 4 Wheel Blocked	The banknote processing is stopped because of any of the following reasons: <ul style="list-style-type: none">● Firmware prompt move Rotary Solenoid● Firmware errors● Mechanical assembly for gate is not proper● Solenoid of gates is faulty

Clear Banknote Jam [1] Check if there are any jammed banknotes.
Clear the jammed banknotes or foreign material , if any.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Call Service
	No	→ [2]

Replace CPU Board [2] Replace the stacker CPU Board.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [3]

Replace Solenoid

[3] Replace the solenoid.

Question	Answer	Go to
Problem solved? Yes		→ End
No		→ Troubleshooting Unsuccessful

Call Service

Call service.

**Troubleshooting
Unsuccessful**

Call help desk.
Copy log files and share the log files with help desk.

End

End

85 Error E MOD 021, E MOD 022, E MOD 023, E MOD 024

Error Code E MOD 021, E MOD 022, E MOD 023, E MOD 024

Error message Stacker <number> Wheel Blocked

Error description The BN processing is stopped because of the malfunction of any hardware components.

Error	Error Message	Definition
E MOD 21	Stacker 1 Wheel Blocked	The banknote processing is stopped because of any of the following reasons: <ul style="list-style-type: none">• The rotation of wheel not detected by the Encoder PD• Locking mechanical rotation• Faulty position of PD by dust• Faulty Stacker wheel motor
E MOD 22	Stacker 2 Wheel Blocked	
E MOD 23	Stacker 3 Wheel Blocked	
E MOD 24	Stacker 4 Wheel Blocked	

Clear Banknote Jam

[1] Check if there are any jammed banknotes.
Clear the jammed banknotes, if any.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [2]

Restart Machine

[2] Restart the BPS C5.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Call Service
	No	→ [3]

Replacing Stacker Assembly

- [3] Replace the stacker assembly in which the error has occurred.
For example, if the error message *E MOD 21 Stacker 1 Wheel Blocked*, replace the stacker 1 assembly of the SDM.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [4]

Checking Encoder PD

- [4] Replace the stacker assembly in which the error has occurred.
For example, if the error message *E MOD 21 Stacker 1 Wheel Blocked*, replace the stacker 1 assembly of the SDM.



Information

Before reassembling stacker assembly, clean the assemblies.
Ensure that the Encoder PD is properly cleaned

Question	Answer	Go to
Problem solved? Yes		→ End
	No	→ Troubleshooting Unsuccessful

Call Service

Call service.

**Troubleshooting
Unsuccessful**

Call help desk.
Copy log files and share the log files with help desk.

End**End**

86 Error E MOD 031, E MOD 032, E MOD 033, E MOD 034

Error Code E MOD 031, E MOD 032, E MOD 033, E MOD 034

Error message Module <number> Pusher blocked Stacker <number>

Error description The BN processing is stopped because of the malfunction of any hardware components.

Error	Error Message	Definition
E MOD 031	Module # Pusher blocked Stacker 1	The banknote processing is stopped because of any of the following reasons: <ul style="list-style-type: none">• PD did not detect the target position of pusher.• Locking mechanical movement• Faulty positioning of PD by dust.
E MOD 032	Module # Pusher blocked Stacker 2	
E MOD 033	Module # Pusher blocked Stacker 3	
E MOD 034	Module # Pusher blocked Stacker 4	

Clear Banknote Pusher Area

- [1] Check if there is any obstacle in the banknote pusher area.
Clear the obstacles, if any.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [2]

Restart Machine

- [2] Restart the machine.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Call Service
	No	→ [3]

Replace/Swap Stacker Module

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- [3] Do the following:
1. Remove the stacker module.
 2. Clean the stacker module sub-assemblies.
Ensure that the encoder PD is cleaned properly.
 3. Check if the encoder PD and motor cable is damaged.
 4. Check if the stacker assembly gear rack is damaged
 5. Install the new stacker assembly.
- Alternatively, swap the stacker modules.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [4]

Replace CPU Board

- [4] Replace the stacker CPU Board.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [5]

Replace Banknote Stacker Motor

- [5] Replace the pusher motor.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Troubleshooting Unsuccessful

Call Service

Call service.

Troubleshooting Unsuccessful

Call help desk.
Copy log files and share the log files with help desk.

End

End

87 Error E MOD 041, E MOD 042

Error Code E MOD 041, E MOD 042

Error message Module <number> I2C Communication Error

Error description The BN processing is stopped because of the malfunction of any hardware components.

87

Error	Error Message	Definition
E MOD 041	Module 1 I2C Communication Error	The banknote processing is stopped because of any of the following reasons: <ul style="list-style-type: none">• Malfunction in the stacker LED count display PCB of the specified SDM• Malfunction in the main PCB to the stacker count display PCB cable of the specified SDM
E MOD 042	Module 2 I2C Communication Error	

Recovery Procedure

[1] Follow the recovery steps on the machine and confirm the error.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Call Service
	No	→ [2]

Replace Stackter LED cable

[2] Exchange the stackter count display assembly with other modules.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [3]

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Exchange Stacker Count Display Assembly

[3] Exchange the stacker count display assembly with other modules.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [4]

Replace CPU Board

[4] Replace the stacker CPU Board.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Troubleshooting Unsuccessful

Call Service

Call service.

Troubleshooting Unsuccessful

Call help desk.
Copy log files and share the log files with help desk.

End

End

88 Error E MOD 051

Error Code	E MOD 051
Error message	Module <#> Unexpected banknotes at <#####> (### is PD location)
Error description	The BPS C5 is not functioning because of the malfunction of any hardware components.

Cleaning

[1] Do the following:

1. Clear the jammed banknotes by following the recovery steps, if any.
2. Clean the dust on photodetector and prism in the location specified in the error message.
3. Clean the dust on the transport path.
Remove banknotes at PD location, if any.

For procedure, refer to the *Cleaning* section of the → *User Manual*.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Call Service
	No	→ [2]

Checking Mechanical Components

[2] Do the following:

1. Check the gate movements and cables.
2. Check the gate functions at the location specified in the error message.
3. Check the gap between the drive and drive roller.
4. Check the singler health.

For procedure, refer to the *Testing the BPS C5 Transport and Singler Health* section of the → *Service Manual*.

5. Check the damage/slippage on drive and driven roller, toothed belts , toothed wheels.
6. Fix/replace the above components, if necessary

Question	Answer	Go to
Problem solved? Yes		→ End
	No	→ Troubleshooting Unsuccessful

Call Service

Call service.

**Troubleshooting
Unsuccessful**

Call help desk.

End

End

89 Error E MOD 052

Error Code E MOD 052

Error message Module # Calibration failed ##### (### is PD location)

Error description The BPS C5 is not functioning because of the malfunction of any hardware components.

- Cleaning**
- [1] Clean the dust on photodetector and prism in the location specified in the error message.
For procedure, refer to the *Cleaning* section of the → *User Manual*.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Call Service
	No	→ [2]

Checking Electrical Components

- [2] Check the photodetectors and cables at the location specified in the error message. Fix/replace, if necessary

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [3]

Replacing CPU Board

- [3] Replace the stacker CPU Board.
For procedure, refer to the → *Replacing SDM CPU Board* of the → *Service Manual*.

Question	Answer	Go to
Problem solved? Yes		→ End
	No	→ Troubleshooting Unsuccessful

Call Service	Call service.
Troubleshooting Unsuccessful	Call help desk.
End	End

90 Error E MOD 053, E MOD 054

Error Code E MOD 053, E MOD 054

Error description The BN processing is stopped because of the malfunction of any hardware components.

Error	Error Message	Definition
E MOD 053	E MOD 053: Module {opt2} Photo light detected by the PD even when the emitter sensor is turned OFF at {variable}.	The banknote processing is stopped because of any of the following reasons: <ul style="list-style-type: none">• Machine is open and exposed to ambient light.• Photodetector is defective.
E MOD 054	E MOD 054: Module {opt2} Photo light detected by the PD irrespective of the state of the emitter sensor (OFF\ON) at {variable}.	

Change Machine Location

[1] Do the following:

1. Check if the lighting of the installation room as per the specifications.
2. Install the BPS C5 in the area where the lighting specifications are met.

For lighting specifications, refer to the *Lighting* section of the → *Site and Facility Requirements*.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Call Service
	No	→ [2]

Replace Photodetectors

[2] Replace the photodetectors in the location specified in the error message.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [3]

Replace CPU Board

[3] Replace the stacker CPU Board.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Troubleshooting Unsuccessful

90**Call Service**

Call service.

**Troubleshooting
Unsuccessful**

Call help desk.
Copy log files and share the log files with help desk.

End

End

91 Error E MOD 055

Error Code E MOD 055

Error message Module <#> Front Door open/ Module <#> Upper cover open

Error description The BPS C5 has stopped because of the malfunction of any SDM components.

Close SDM Doors

[1] Do the following:

- Check if the SDM doors are closed properly.
- Close the BPS C5 properly and confirm the error.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Call Service
	No	→ [2]

Check Drive Roller

[2] Do the following:

- Check if the SDM doors and covers are aligned/assembled correctly.
- Check the photodetector cables and connections.
- Replace the hinge/damper, if broken.
- Replace the respective SDM door, if broken.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [3]

Replacing CPU Board

[3] Replace the stacker CPU Board.

For procedure, refer to the → *Replacing SDM CPU Board* of the → *Service Manual*.

Question	Answer	Go to
Problem solved? Yes		→ End
No		→ Troubleshooting Unsuccessful

Call Service Call service.

**Troubleshooting
Unsuccessful** Call help desk.
Copy log files and share the log files with help desk.

End End

92 Error E MOD 056, E MOD 057, E MOD 058

Error Code E MOD 056, E MOD 057, E MOD 058

Error description The BPS C5 has stopped because of the malfunction of any hardware components.

Error	Error Message	Definition
E MOD 056	E MOD 056: Module {opt2} Trailing edge late at {MC.SDM.Table.ReasonText.{opt1}}. at locations 2T01/2T02 2T03/2T04 3T01/3T02 3T03/3T04 3T05/3T06 3T07/3T08 3T09 3T10 3T11 3T12	The BPS C5 has stopped because of any of the following reasons: <ul style="list-style-type: none">● Banknote Jam● Defective photodetector
E MOD 057	E MOD 057: Module {opt2} Leading edge too late at {MC.SDM.Table.ReasonText.{opt1}} at the upper unit locations of 2T01/02 2T01/02-2T03/04 2T03/04-3T01/02 3T01/02-3T03/04 3T03/04-3T05/06 3T05/06-3T07/08 3T01/02-3T09 3T03/04-3T10 3T05/06-3T11 3T07/08-3T12	The BPS C5 has stopped because of any of the following reasons: <ul style="list-style-type: none">● Banknote present between two photodetectorsClosed feed or skewed banknotes● Mechanical problem
E MOD 058	E MOD 058: Module {opt2} Leading edge early at {MC.SDM.Table.ReasonText.{opt1}} at the upper unit locations of 2T01/02	The BPS C5 has stopped because of any of the following reasons: <ul style="list-style-type: none">● Banknotes left in the transport path● Banknote Jam

Error	Error Message	Definition
	2T01/02-2T03/04 2T03/04-3T01/02 3T01/02-3T03/04 3T03/04-3T05/06 3T05/06-3T07/08 3T01/02-3T09 3T03/04-3T10 3T05/06-3T11 3T07/08-3T12	<ul style="list-style-type: none"> Defective photodetectors

Close Machine

- [1] Do the following:
- Check if the SDM doors are closed properly.
 - Close the BPS C5 properly and confirm the error.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Call Service
	No	→ [2]

92

Cleaning

- [2] Do the following
- Check whether there is a physical jam in the transport area. Clear if any.
 - Clean the corresponding exit PD.
 - Remove any pieces of BNs, paper, rubber band, or other foreign objects.
 - Close the BPS C5 and confirm the error.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [3]

Checking Drive Roller

- [3] Check if the drive roller in the location specified in the error message.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [4]

Checking Toothed Wheel and Toothed Belt

- [4] Check the following in the machine transport in the location specified in the error message. Fix/replace if necessary
- Check the machine transport toothed belts.
 - Check the machine transport toothed belts.

Question	Answer	Go to
Problem solved? Yes		→ End
	No	→ Troubleshooting Unsuccessful

Call Service

Call service.

92

Troubleshooting Unsuccessful

Call help desk.
Copy log files and share the log files with help desk.

End

End

93 Error E MOD 059

Error Code	E MOD 059
Error message	Module # Unexpected Banknote at ##### Upper Unit of 2T01/02 2T01/02-2T03/04 2T03/04-3T01/02 3T01/02-3T03/04 3T03/04-3T05/06 3T05/06-3T07/08 3T01/02-3T09 3T03/04-3T10 3T05/06-3T11 3T07/08-3T12
Error description	The BPS C5 has stopped because of the malfunction of any hardware components.
Closing Machine	[1] Do the following: <ol style="list-style-type: none">1. Check if the SDM doors are closed properly.2. Close the BPS C5 properly and confirm the error.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Call Service
	No	→ [2]

Cleaning	[2] Do the following: <ol style="list-style-type: none">1. Check for obstacles blocking the PD location specified in the error message. Clear the obstacles, if any.2. Clean the PD.3. Close the BPS C5 and confirm the error.	93
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Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [3]

Replacing Stacker Components	[3] Do the following: <ol style="list-style-type: none">1. Check the stacker gate. Fix/replace, if necessary.2. Check the solenoid switch. Fix/replace, if necessary.
-------------------------------------	--

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [4]

Replacing Photodetectors

[4] Replace the photodetectors at the location specified in error message.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Troubleshooting Unsuccessful

Call Service

Call service.

Troubleshooting Unsuccessful

Call help desk.
Copy log files and share the log files with help desk.

End

End

94 Error E MOD 208

Error Code E MOD 208

Error message Module <Number> Fail Safe Error

Error description The BPS C5 has stopped because banknotes has been transported to the fail-safe module.

Closing Machine

[1] Do the following:

1. Perform fail safe jam recovery as per the recovery steps mentioned in the error message.
2. Check if the machine is closed properly.
3. Close the BPS C5 properly and confirm the error.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Call Service
	No	→ [2]

Checking Mechanical Components

[2] Do the following:

1. Check the gap between the drive and drive rollers in transport path.
2. Check the singler health.

Banknotes can be transported to the fail-safe module if the banknote skew is higher.

For procedure, refer to the → *Testing the BPS C5 Transport and Singler Health* of the → *Service Manual*.

3. Check the gap between the IM and the ICM.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Troubleshooting Unsuccessful

Call Service

Call service.

**Troubleshooting
Unsuccessful**

Call help desk.

Copy log files and share the log files with help desk.

End

End

95 Error E MOD 302

Error Code	E MOD 302
Error message	Module <Number> Unexpected Banknote Placed at Stacker <Number>/ Module <Number> Unexpected Banknote Removed at Stacker <Number>
Error description	The BPS C5 has stopped because of the malfunction of any operational error.

- Cleaning**
- [1] Do the following:
1. Retry operation by following the operating instructions.
For operating instructions, refer to the → *User Manual*.
 2. Check for obstacles blocking the PD location specified in the error message. Clear the obstacles, if any.
 3. Clean the PD.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Call Service
	No	→ [2]

Replacing Photodetectors	[2] Replace the photodetectors at the location specified in error message.	95
Call Service	Call service.	
Troubleshooting Unsuccessful	Call help desk. Copy log files and share the log files with help desk.	
End	End	

96 Error E PDE 1001

Error Code E PDE 1001

Error message Unexpected Banknote

Error description The BPS C5 has stopped because of the malfunction of any hardware components.

Removing Bank-note Jam

[1] Remove the physical banknote jam.

The jam error message displaying the location of the jam appears in the screen. Follow the jam recovery instructions appearing on the screen.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [2]

Cleaning

[2] Do the following:

1. Check whether there is a physical jam in the transport area. Clear if any.
2. Clean the corresponding exit PD.
3. Remove any pieces of BNs, paper, rubber band, or other foreign objects.
4. Close the BPS C5 and confirm the error.

For more information, refer to the → *Banknote Jam* of the → *User Manual*.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Call Service
	No	→ [3]

Checking Electrical Components

- [3] Do the following:
- Check the banknote diverters in the input module.
For procedure, refer to the → *Replacing Banknote Diverters in Input Module* of the → *Service Manual*.
 - Perform **System Test**.
For procedure, refer to the → *System Testing* of the → *Service Manual*.
 - Replace the defective PDs, if any.
 - Check the connectors and harness. Fix/replace if necessary.

Question	Answer	Go to
Problem solved? Yes		→ End
No		→ Troubleshooting Unsuccessful

Call Service

Call service.

Troubleshooting Unsuccessful

Call help desk.
Copy log files and share the log files with help desk.

End

End

97 Error E PDE 1002, E PDE 1003

Error Code E PDE 1002, E PDE 1003

Error description The BPS C5 has stopped because of the malfunction of any hardware components.

Error	Error Message	Definition
E PDE 1002	Leading Edge Early During processing, the leading edge of the BN arrived late at the exit PD of the stacker.	This error is caused by any of the following reasons: <ul style="list-style-type: none">● Dust on PD● Foreign material in transport path skewing the banknotes● Defective PD● Connector and harness problem of PD● Polymer banknotes with transparent windows
E PDE 1003	Trailing Edge Early During processing, the trailing edge of the BN arrived early at the exit PD of the stacker.	

Remove Banknote Jam

[1] Remove the physical banknote jam.

The jam error message displaying the location of the jam appears in the screen. Follow the jam recovery instructions appearing on the screen.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [2]

Cleaning

[2] Do the following:

- Check whether there is a physical jam in the transport area. Clear if any.
- Clean the corresponding exit PD.
- Remove any pieces of BNs, paper, rubber band, or other foreign objects.
- Close the BPS C5 and confirm the error.

For more information, refer to the → *Banknote Jam* of the
→ *User Manual*.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Call Service
	No	→ [3]

Checking the Transport and Singler Health

- [3] Do the following:
- Check the singler health in **Service Mode**.
For procedure, refer to the → *Testing the BPS C5 Transport and Singler Health* of the → *Service Manual*.
 - Check the toothed belt, wheel and drive roller for any wear and tear.
Fix/replace if necessary.
 - Check the sensor transport rollers wear and tear or malfunction

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [4]

Checking Sensor Transport Rollers

- [4] Check the sensor transport rollers wear and tear or malfunction. Fix/replace if necessary.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [5]

Checking Electrical Components

[5] Do the following:

- Perform **System Test**.

For procedure, refer to the → *System Testing* of the → *Service Manual*.

- Replace the defective PDs, if any.

- Check the connectors and harness. Fix/replace if necessary.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [6]

Configuring Virtual PD

[6] Configure the virtual PD for polymer banknotes with transparent windows.

For procedure, refer to the → *Configuring the Virtual Photo Detectors* of the → *Service Manual*.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Troubleshooting Unsuccessful

Call Service

Call service.

Troubleshooting Unsuccessful

Call help desk.

Copy log files and share the log files with help desk.

End

End

98 Error E PDE 1004

Error Code E PDE 1004

Error message Leading Edge Early

Error description The BPS C5 has stopped because of the malfunction of any hardware components.

Remove Banknote Jam

[1] Remove the physical banknote jam.

The jam error message displaying the location of the jam appears in the screen. Follow the jam recovery instructions appearing on the screen.

For more information, refer to the → *Banknote Jam* of the → *User Manual*.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [2]

Cleaning

[2] Do the following:

- Check whether there is a physical jam in the transport area. Clear if any.
- Clean the corresponding exit PD.
- Remove any pieces of BNs, paper, rubber band, or other foreign objects.
- Close the BPS C5 and confirm the error.

For more information, refer to the → *Banknote Jam* of the → *User Manual*.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Call Service
	No	→ [3]

Checking Banknote Transport Components

- [3] Do the following:
1. Check the transport rollers for pinch force or gap.
Clear, if any.
 2. Check the toothed belt, wheel and drive roller for any wear and tear.
Fix/replace if necessary.
 3. Check if the springs and pinch roller on the guide roller are functioning properly. Fix/replace, if necessary
 4. Check the sensor transport rollers wear and tear for malfunction. Fix/replace, if necessary
 5. Perform **System Test**.
For procedure, refer to the → *System Testing* of the → *Service Manual*.
 6. Replace the defective PDs, if any.
 7. Check the connectors and harness. Fix/replace if necessary.

Question	Answer	Go to
Problem solved? Yes		→ End
No		→ Troubleshooting Unsuccessful

Call Service

Call service.

Troubleshooting Unsuccessful

Call help desk.
Copy log files and share the log files with help desk.

End

End

99 Error E PDE 1005

Error Code E PDE 1005

Error message Trailing Edge Late

Error description The BPS C5 has stopped because of the malfunction of any hardware components.

Remove Banknote Jam

[1] Remove the physical banknote jam.

The jam error message displaying the location of the jam appears in the screen. Follow the jam recovery instructions appearing on the screen.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [2]

Cleaning

[2] Do the following:

- Check whether there is a physical jam in the transport area. Clear if any.
- Clean the corresponding exit PD.
- Remove any pieces of BNs, paper, rubber band, or other foreign objects.
- Close the BPS C5 and confirm the error.

For more information, refer to the → *Banknote Jam* of the → *User Manual*.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Call Service
	No	→ [3]

Checking Banknote Transport Components

- [3] Do the following:
1. Check the transport rollers for pinch force or gap. Clear, if any.
 2. Check the toothed belt, wheel and drive roller for any wear and tear. Fix/replace if necessary.
 3. Check if the springs and pinch roller on the guide roller are functioning properly. Fix/replace, if necessary
 4. Check the sensor transport rollers wear and tear for malfunction. Fix/replace, if necessary
 5. Perform **System Test**.
For procedure, refer to the → *System Testing* of the → *Service Manual*.
 6. Replace the defective PDs, if any.
 7. Check the connectors and harness. Fix/replace if necessary.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [4]

Checking the Transport and Singler Health

- [4] Check the singler health in **Service Mode**.
For procedure, refer to the → *Testing the BPS C5 Transport and Singler Health* of the → *Service Manual*.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [5]

Checking Stacker

- [5] Check the stacker fins for damage or misalignment. Fix/replace if necessary.

Question	Answer	Go to
Problem solved? Yes		→ End
No		→ Troubleshooting Unsuccessful

Call Service Call service.

**Troubleshooting
Unsuccessful** Call help desk.
Copy log files and share the log files with help desk.

End End

99

100 Error E SYS 001

Error Code	E SYS 001	100												
Error message	Sensor Busy/Not Responding/Sensor Self Test In Progress													
Error description	Sensor self-test error													
Cleaning	<p>[1] Do the following:</p> <ol style="list-style-type: none">1. Restart the machine.2. Select OK to confirm the error. After the error is confirmed, a sensor error message may appear on the screen.3. Clean the relative sensor, if mentioned in the error message.													
Checking sensor cable	<p>[2] Do the following:</p> <ol style="list-style-type: none">1. Check the particular sensor cable for physical damage.2. Reset the particular sensor cable by removing and re-fixing.	<table><thead><tr><th>Question</th><th>Answer</th><th>Go to</th></tr></thead><tbody><tr><td>Problem solved?</td><td>Yes</td><td>→ End</td></tr><tr><td></td><td>No</td><td>→ Call Service</td></tr><tr><td></td><td>No</td><td>→ [2]</td></tr></tbody></table>	Question	Answer	Go to	Problem solved?	Yes	→ End		No	→ Call Service		No	→ [2]
Question	Answer	Go to												
Problem solved?	Yes	→ End												
	No	→ Call Service												
	No	→ [2]												
Replacing sensor	<p>[3] Replace the corresponding sensor and try again. → “End”, p. 57</p>													

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [4]

Replacing Sensor Processor

[4] Replace the sensor processor.

For more information, refer to the → *Replacing the Processors* section of the → *Service Manual*.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [5]

Replacing Main Board

[5] Replace the Main board.

For more information, refer to the → *Replacing the PCB Main* section of the → *Service Manual*.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Troubleshooting Unsuccessful

Call Service

Call service.

Troubleshooting Unsuccessful

Call help desk.

End

End

101 Error E SYS 109, E SYS 110

Error Code	E SYS 109, E SYS 110
Error message	Reports Count Limit Reached/Reporting Engine Error
Error description	Error in generating/transferring reports
Recovery Procedure	[1] Follow the recovery steps mentioned in the error message.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Call Service
	No	→ Troubleshooting Unsuccessful

Call Service Call service.

Troubleshooting Unsuccessful Call help desk.

End End

101

102 Error E SYS 019

Error Code	E SYS 019
Error message	Invalid Machine Configuration
Error description	This error occurs if there is a mismatch between the number of connected SDMs and the number mentioned in the configuration package.

Installing Configuration Package

- [1] Do the following:
1. Install the configuration package with correct number of SDMs.
For more information, refer to the → *Updating Configuration Package* of the → *User Manual*.
 2. Check the SDM connections.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Call Service
	No	→ [2]

Checking SDMs

- [2] Check the following:
1. If any of the SDMs are faulty.
 2. If SDMs configured in the configuration package and SDMs connected/available are same.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Troubleshooting unsuccessful

Call Service

Call service.

Troubleshooting unsuccessful

Call help desk.

End

End

102

103 Error E SYS 020

Error Code E SYS 020

Error message Invalid Searchlist file

Error description The **SN SearchList** feature is not working because the input *SN SearchList* file is erroneous.

Installing SN SearchList File

- [1] Do the following:
1. Install a valid *SN SearchList* file.
 2. Retry operation

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Call Service
	No	→ [2]

Creating SN SearchList File

- [2] Do the following:
1. Create a valid *SN SearchList* file.
 2. Install the newly created *SN SearchList* file.
 3. Retry operation.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Troubleshooting unsuccessful

Call Service Call service.

Troubleshooting unsuccessful Call help desk.

End End

103

103

104 Error E SYS 100, E SYS 103

Error Code	E SYS 100, E SYS 103
Error message	DP Data Transfer Failure, Application SW Internal Error
Error description	The banknote processing has stopped because of malfunction of any software/hardware components.

Restarting the Machine

[1] Restart the machine and try again.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Call Service
	No	→ [2]

Updating the Software

[2] Update the system software.

For procedure, refer to → *Updating the Software Package* section of the → *Service Manual*.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [3]

Performing Fresh CAB Installation

[3] Install the fresh CAB software update.

For procedure, refer to → *Installing Fresh CAB Software Update* section of the → *Service Manual*.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [4]

Replacing the DP Processor

- [4] Replace the DP processor.
For procedure, refer to → *Replacing the Processors* section of the → *Service Manual*.

Question	Answer	Go to
Problem solved? Yes		→ End
No		→ Troubleshooting Unsuccessful

Call Service

Call service.

Troubleshooting Unsuccessful

Call help desk.
Copy log files and share the log files with help desk.
Helpdesk should report the error to the relevant research and development teams.

End

End

105 Error E SYS 106, E SYS 200, E SYS 201

Error Code E SYS 106, E SYS 200, E SYS 201

Error message

Error description Internal error

Error	Definition
E SYS 106	Internal error log
E SYS 200	Internal error log
E SYS 201	Internal error XML

Machine instructions

[1] Follow the error handling instruction that is displayed on the BPS C5 GUI.

Question	Answer	Go to
Problem solved? Yes	→ End	
No	→ Troubleshooting unsuccessful	
No	→ [2]	

Updating software

[2] Update the software and try again.

Question	Answer	Go to
Problem solved? Yes	→ End	
No	→ Troubleshooting unsuccessful	

Troubleshooting unsuccessful

Call help desk.

End

End

106 Error E SYS 101

Error Code E SYS 101

Error message Sensor Data Transfer Failure

Error description The banknote processing has stopped because of malfunction of any software components.

Restarting the Machine

[1] Restart the machine and try again.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Call Service
	No	→ [2]

Updating Software

[2] Update the system software.

For procedure, refer to → *Updating the Software Package* section of the → *Service Manual*.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [3]

Performing Fresh CAB Installation

[3] Install the fresh CAB software update.

For procedure, refer to → *Installing Fresh CAB Software Update* section of the → *Service Manual*.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [4]

Replacing Sensor Processor

[4] Replace the sensor processor.

For more information, refer to the → *Replacing the Processors* section of the → *Service Manual*.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [5]

Replacing Main Board

[5] Replace the Main board.

For more information, refer to the → *Replacing the PCB Main* section of the → *Service Manual*.

Question	Answer	Go to
Problem solved? Yes		→ End
	No	→ Troubleshooting Unsuccessful

106

Call Service

Call service.

Troubleshooting Unsuccessful

Call help desk.

End

End

107 Error E SYS 102

Error Code E SYS 102

Error message Sensor Data Transfer Failure

Error description The banknote processing has stopped because of malfunction of any software components.

Recovery Procedure

[1] Follow the recovery steps mentioned in the error message.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Call Service
	No	→ [2]

Updating Software

[2] Update the system software.

For procedure, refer to → *Updating the Software Package* section of the → *Service Manual*.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [3]

Replacing Sensor Processor

[3] Replace the sensor processor.

For more information, refer to the → *Replacing the Processors* section of the → *Service Manual*.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [4]

Replacing Main Board

- [4] Replace the Main board.
For more information, refer to the → *Replacing the PCB Main* section of the → *Service Manual*.

Question	Answer	Go to
Problem solved? Yes		→ End
No		→ Troubleshooting Unsuccessful

Call Service

Call service.

**Troubleshooting
Unsuccessful**

Call help desk.

End

End

108 Error E SYS 104, E SYS 105

Error Code E SYS 104, E SYS 105

Error message Application SW Internal Error

Error description The banknote processing has stopped because of malfunction of any software components.

Recovery Procedure

[1] Follow the recovery steps mentioned in the error message.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Call Service
	No	→ [2]

Updating Software

[2] Update the system software.

For procedure, refer to → *Updating the Software Package* section of the → *Service Manual*.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [3]

Replacing Sensor Processor

[3] Replace the sensor processor.

For more information, refer to the → *Replacing the Processors* section of the → *Service Manual*.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Troubleshooting Unsuccessful

Call Service

Call service.

**Troubleshooting
Unsuccessful**

Call help desk.

End

End

109 Error E SYS 202

Error Code E SYS 202

Error message Space Allocation Error in Sensor

Restarting Machine

[1] Restart the machine using the power key.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [2]

Installing Configuration Package

[2] Install the base configuration package with only BLK adaptation.

For more information, refer to the → *Updating Configuration Package* of the → *User Manual*.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Call Service
	No	→ [3]

Updating Software

[3] Update the system software.

For details, refer to the → *Updating the Software Package* section of the → *Service Manual*.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [4]

Replacing Sensor Processor

[4] Replace the sensor processor.

For more information, refer to the → *Replacing the Processors* section of the → *Service Manual*.

Question	Answer	Go to
Problem solved? Yes		→ End
No		→ Troubleshooting unsuccessful

Call Service

Call service.

Troubleshooting unsuccessful

Call help desk.
Copy log files and share the log files with help desk.
For more information, refer to the → *Copying Log Files to USB* of the → *User Manual*.

End

End

110 Error E SYS 300

Error Code E SYS 300

Error message Check TV Startup Failed

Error description Error in CheckTV connection

Restarting Machine [1] Restart the machine.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Call Service
	No	→ [2]

Updating Software [2] Update the system software.

For details, refer to the → *Updating the Software Package* section of the → *Service Manual*.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Troubleshooting unsuccessful

Call Service Call service.

Troubleshooting unsuccessful Call help desk.

End End

110

111 Error E SYS 301

Error Code E SYS 301

Error message Banknote Processing Interrupted

Recovery Procedure

[1] Do the following:

1. Select **Ok** to recover the deposit running at last power failure.
2. Select **Cancel** to cancel the deposit.

For details, refer to the *Restarting the machine After Power Failure* section of the *User Manual*.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Call Service
	No	→ Troubleshooting unsuccessful

Call Service Call service.

Troubleshooting unsuccessful Call help desk.

End End

112 Error E SYS 302

Error Code	E SYS 302
Error message	External Display not connected
Error description	The external display device is not working.
Checking the External Display Device	<p>[1] Do the following:</p> <ol style="list-style-type: none">1. Disconnect the external display device cable and reconnect.2. Connect the external display device cable to another USB port.3. Change external display n (if available) and try again.4. Disable the GUI setting if the external display is not connected. <p>For details, refer to the <i>External Display Settings</i> section of the <i>User Manual</i>.</p>

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Call Service
	No	→ [2]

Replacing External Display Device

[2] Replace the external display device.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ Troubleshooting unsuccessful

Call Service

Call service.

Troubleshooting unsuccessful

Call help desk.

End

End

112

113 No reaction/response after placing the banknote on singler

Symptom No reaction/response in BPS C5 after placing the banknote into the singler

Error description After starting the operation mode and placing the banknote into the singler, the machine will not start.

Check PDMS [1] Clean the PDMS.

Question	Answer	Go to
Problem Solved? Yes		→ End
No		→ Troubleshooting unsuccessful
No		→ [2]

Check PDMS cable



[2] Check the PDMS connector and photo detector PDMS for any physical damage.
Check the PDMS by swapping it with the one of another machine. Replace if necessary.

113



Information

Note that checking the PDMS via a mobile phone camera will not work in this error scenario, as the light beam is off in case of an active error. Therefore, you can only check the PDMS by swapping it.



Figure 17: PDMS Light Beam via a Mobile Phone Camera

Question	Answer	Go to
Problem solved? Yes		→ End
No		→ Troubleshooting unsuccessful

End

Troubleshooting unsuccessful

Call help desk.

114 Configuration Provider Load Configuration failed

Error message

Error while loading Configuration Package.
Configuration Provider load configuration failed

Error description

This error occurs while trying to open an exported configuration package from the machine to the BPS Eco-Configurator.

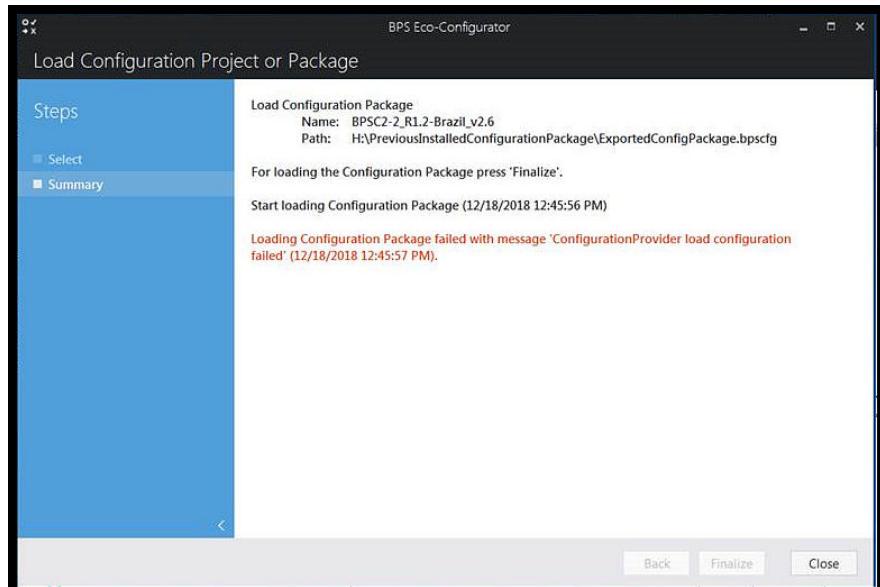


Figure 18: Error while uploading the exported configuration

Error reason is due to the selection of threshold group as 'Default'.

Change the threshold group

- [1] Using the previous exported package changes the threshold group from Default to UserChanged and deploy.

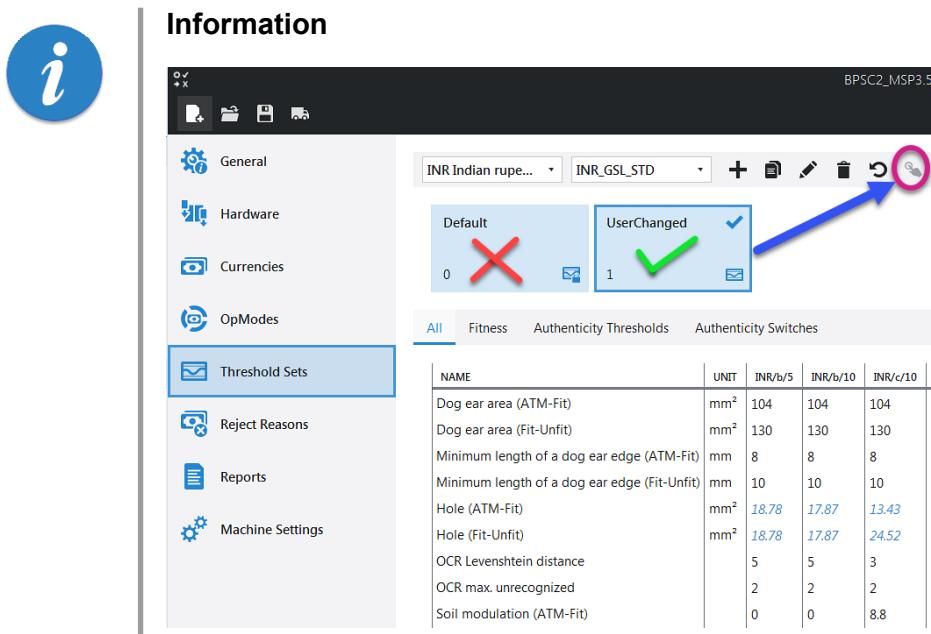


Figure 19: Selecting to 'userchanged'.

Question	Answer	Go to
Problem solved? Yes	→ End	
No	→ Troubleshooting unsuccessful	

End**Troubleshooting unsuccessful**

Call help desk.

115 Screen Dark/Grains/Lines

Symptom Screen Dark, Grains, Lines

Error description After switching on the power, the machine screen is dark with grains or lines.

Check display and its cable

115



Information

If possible, swap the display unit with the one of another working machine to identify whether the failure is caused by the display unit or by the machine.

- [1] Check and fix the display/ connector for any loose connection or physical damage. Replace if necessary.

Question	Answer	Go to
Problem Solved?	Yes	→ End
	No	→ [2]

Check PCB Main

- [2] Check the DP/Sensor processor for loose connection. Try to reset the processor board by removing and reinstalling the processors.

Question	Answer	Go to
Problem Solved?	Yes	→ End
	No	→ [3]

Swap DP processor

- [3] Check the DP processor by swapping it with the one of another machine. Replace if necessary.

Question	Answer	Go to
Problem Solved?	Yes	→ End
	No	→ [4]

115

Swap PCB Main

- [4] Check the PCB Main by swapping it with the one of another machine. Replace if necessary.

Question	Answer	Go to
Problem Solved?	Yes	→ End
	No	→ Troubleshooting unsuccessful

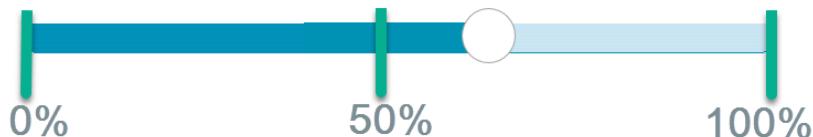
End**Troubleshooting unsuccessful**

Call help desk.

116 Machine Hung While Booting

Symptom Machine start-up hung while booting

Error description



116

Progress bar in %	Description
0–30%	Problem with DP
70–80%	Problem with sensor
90–100%	Problem with MC

Reboot the machine

[1] Restart the machine and try again.

Question	Answer	Go to
Problem Solved? Yes		→ End
	No	→ Troubleshooting unsuccessful
	No	→ [2]

Locate the progress bar

[2] Observe and locate the progress bar.

Question	Answer	Go to
At which position does the progress bar stop?	Progress bar stops between 0–30%.	→ [3]
	Progress bar stops between 70–80%.	→ [4]
	Progress bar stops between 90–100%	→ [5]

116

Check DP

- [3] Check the DP processor for any loose connection. Reset the DP processor by removing and reinstalling/swapping it with a working machine. Replace if necessary.

Question	Answer	Go to
Problem Solved? Yes		→ End
No		→ Troubleshooting unsuccessful

Check sensor

- [4] Check the sensor processor for any loose connection. Reset the sensor processor by removing and reinstalling/swapping it with a working machine. Replace if necessary,

Question	Answer	Go to
Problem Solved? Yes		→ End
No		→ Troubleshooting unsuccessful

Machine control

- [5] Check the PCB Main for any loose connections. If possible swap the PCB Main with the one of a working machine and replace if necessary.

Question	Answer	Go to
Problem Solved? Yes		→ End
No		→ Troubleshooting unsuccessful



End

**Troubleshooting
unsuccessful**

Call help desk.

116



116

117 Sensor Errors

Symptom	The machine shows a sensor error message and the backside sensor status LED is in RED and stable.
Error description	<p>When a sensor error appears after a proper booting screen and the sensor status LED is in RED and stable, do the following:</p> <ol style="list-style-type: none">1. Click on INFO on display.2. Select any operation mode.3. Place a BN onto the singler. <p>Then a detailed error list will appear, providing a detailed description about that particular problem/error.</p>

Various service actions

- [1] Try the following with the relevant sensor.
1. Clean the sensor.
 2. Check the sensor cables damage/loose connection.
 3. Calibrate MTS in case of an MTS error.
 4. Check the sensor by swapping it with the one of another machine. Replace if necessary.
 5. Check the PCB Main by swapping it with the one of another machine. Replace if necessary.
 6. Check the sensor processor by swapping it with the one of another machine. Replace if necessary.

Question	Answer	Go to
Problem solved? Yes		→ End
No		→ Troubleshooting unsuccessful

End

Troubleshooting unsuccessful

Call help desk.

117

118 Front power button goes off after switching on but machine does not boot

Symptom Front power button goes off after switching on but machine does not boot.

Error description After the machine is switched on from the main switch, the front hot-key power button blinks. No reaction after pressing the blinking power hot key
This could happen after a service action on the machine.

Remove the connectors

[1] Remove and reconnect all connectors on the PCB main. Then, try to reboot the machine.

Question	Answer	Go to
Problem solved?	Yes	→ End
	No	→ [3]

Reset Processor

[2] Reset the processors by removing and fixing back the processors.

Question	Answer	Go to
Problem Solved?	Yes	→ End
	No	→ Troubleshooting unsuccessful

Check component connectors

[3] Find the faulty/loose connection on a particular cable. Connect the cables one by one and try to boot the machine.
This will help to find the root cause.
Connect the cable properly/replace if damaged.



Information

If the machine booted and is giving a sensor self-test error, check the particular cable for loose connections and reset the particular sensor cable if required.

Question	Answer	Go to
Problem Solved?	Yes	→ End
	No	→ [2]

End

118

Troubleshooting unsuccessful

Call help desk.

119 Raw Data Capturing

Error Code

Error message

Invalid Settings

Enter valid IRT settings.

IRT Timeout Occurred

IRT Connection Break

Refer to procedure

[1] Refer to the link below including the video tutorial. Follow the steps and use the same IP given in the video tutorial.

Question	Answer	Go to
Problem solved? Yes		→ End
No		→ Troubleshooting unsuccessful

End

Troubleshooting
unsuccessful

Call help desk.

119

119

120 Deleting Reports from BPS C5

Requirements

- BPS C5 switched off
- Keyboard connected to BPS C5
- USB stick connected to the BPS C5



NOTICE

Deletion of reports can not be undone

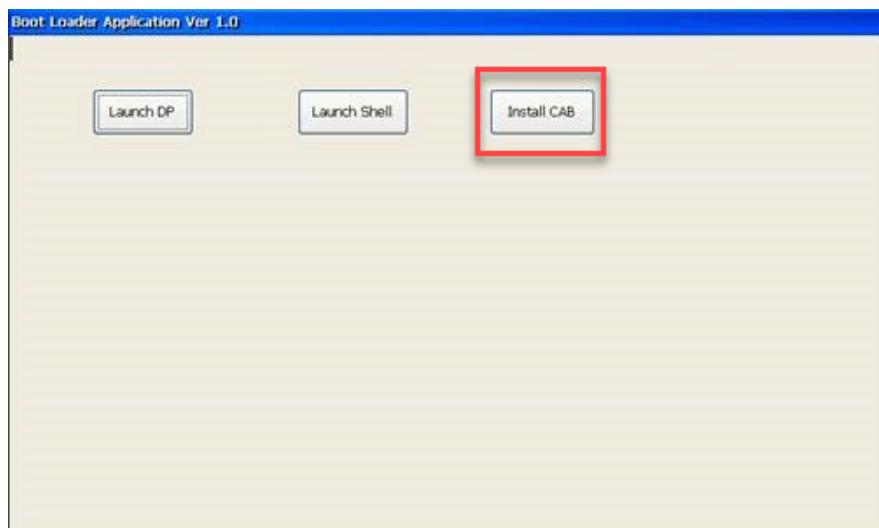
All reports will be permanently deleted.

Only delete reports if you no longer need them.

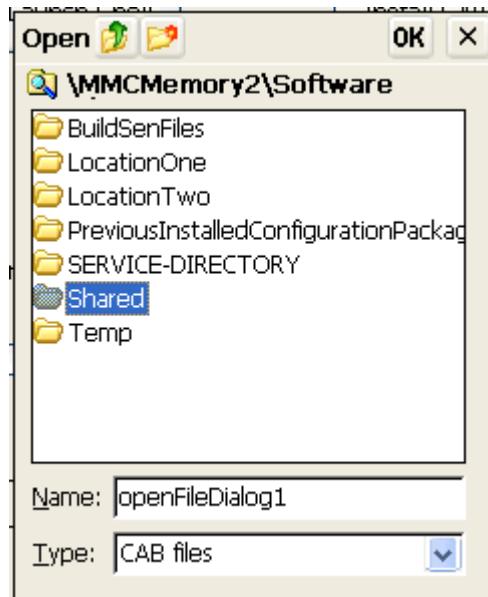
Do not delete reports unless absolutely necessary.

Procedure

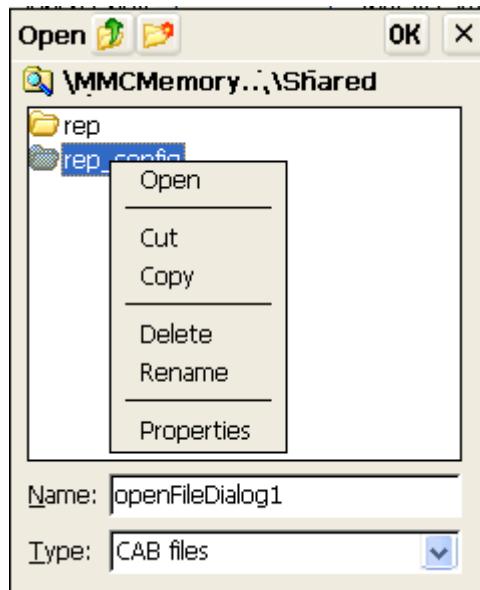
- [1] Switch on the BPS C5.
BPS C5
- [2] Interrupt the boot-up procedure by pressing the **Enter** after the start.



- [3] Select **Install CAB**.
- [4] Select **Browse**.



[5] Select **MMCMemory2 > Software > Shared**.



[6] 5. Delete the *rep* and *rep_config* folder.

[7] Restart the BPS C5 using power switch.

Result

⇒ All the reports are permanent deleted from the BPS C5 .

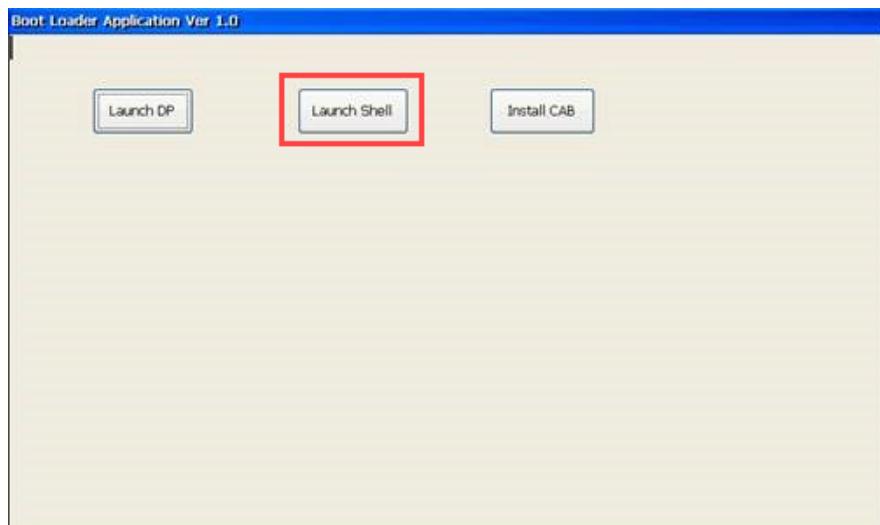
121 Copying Database from BPS C5

Requirements

- BPS C5 switched off
- Keyboard connected to BPS C5
- USB stick connected to the BPS C5

Procedure

- [1] Switch on the BPS C5.
BPS C5
- [2] Interrupt the boot-up procedure by pressing the **Enter** after the start.



121

- [3] Select **Launch Shell**.



- [4] Select **Command > Command Prompt**.

- [5] Type in `Cd mmcmemory2/Software/Shared` and press **Enter**.

```
<Setting key="ActiveLocation" value="\MMCMemory2\Software\LocationOne" />
```

- [6] Type shared.xml and press **Enter**.
Note down the value in blue box. It can be either LocationOne or LocationTwo. In the above image, it is LocationOne.
- [7] Type in `Cd ..` and press **Enter**.
- [8] Type in `Cd LocationOne\application\gd.tabletop.mainapp` and press **Enter**.
- [9] Type in `copy ttedb.db3 "\hard disk"` and press **Enter**.

Result ⇒ The database is copied to connected USB stick.

122 Exporting Logs from Boot Loader

Requirements

- BPS C5 switched on
- External USB keyboard is connected to the BPS C5
- USB stick connected to the BPS C5



Important!

Ensure that only one USB stick is connected to the BPS C5.

Procedure

- [1] Restart the BPS C5 using the power switch.
- [2] Interrupt the boot-up procedure by pressing the **Enter** key.
⇒ The Boot Loader window appear

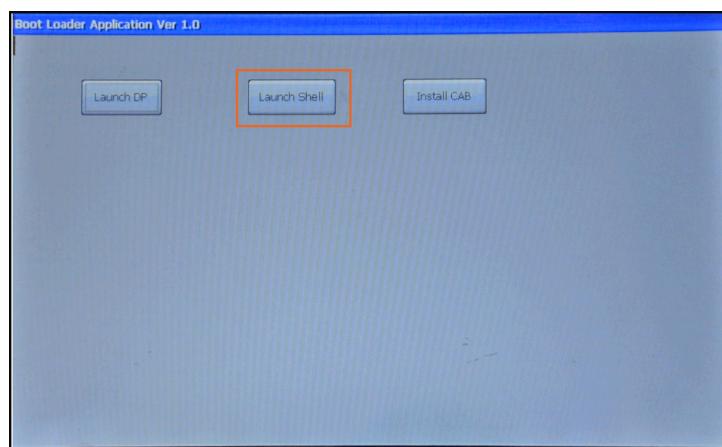


Figure 20: Boot Loader Window

122

- [3] Select **Launch Shell**.



- [4] Select **Command > Command Prompt**.



- [5] Type `CD Windows` in the command prompt.
 - [6] Type `copy logs` and press **enter**.
- Result ⇒ The logs are copied to a folder *Logservice* in the connected USB.

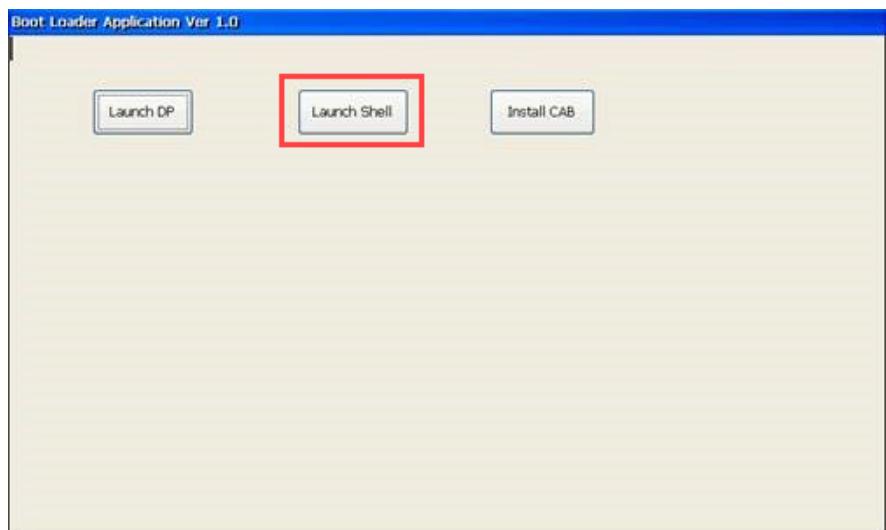
123 Resetting Machine Serial Number and Password

Requirements

- BPS C5 switched on
- Keyboard connected to BPS C5
- USB drive with operating system (OS) inserted in to the BPS C5

Procedure

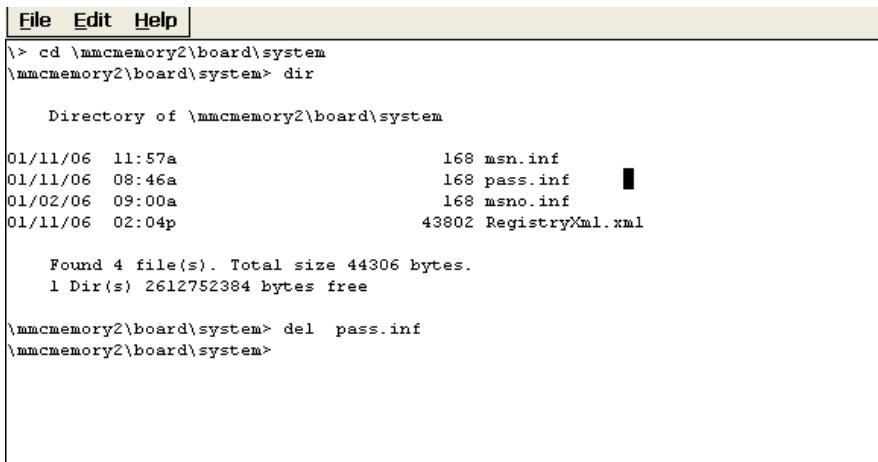
- [1] Interrupt the boot-up procedure by pressing the **Enter** after the start.



- [2] Select **Launch Shell**.



- [3] Select **Command > Command Prompt**.



```

File Edit Help
> cd \mmcmemory2\board\system
\mmcmemory2\board\system> dir

Directory of \mmcmemory2\board\system

01/11/06 11:57a           168 msn.inf
01/11/06 08:46a           168 pass.inf
01/02/06 09:00a           168 msno.inf
01/11/06 02:04p          43802 RegistryXml.xml

Found 4 file(s). Total size 44306 bytes.
1 Dir(s) 2612752384 bytes free

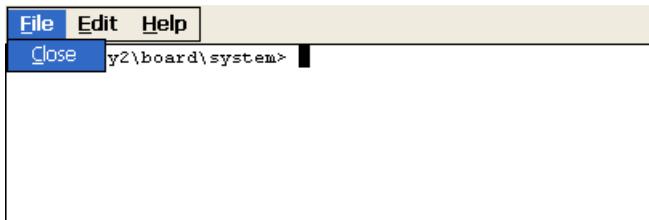
\mmcmemory2\board\system> del pass.inf
\mmcmemory2\board\system>

```

[4] Delete the *pass.inf*.

To delete:

1. Type `cd \mmcmemory2\board\system` and press **Enter**.
2. Type `dir` and press **Enter**.
3. Type `del pass.inf`

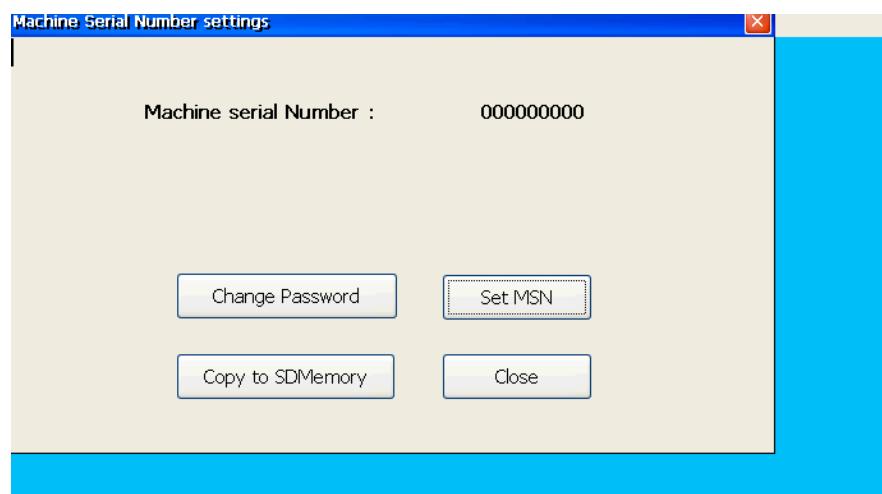


[5] Close the command prompt.

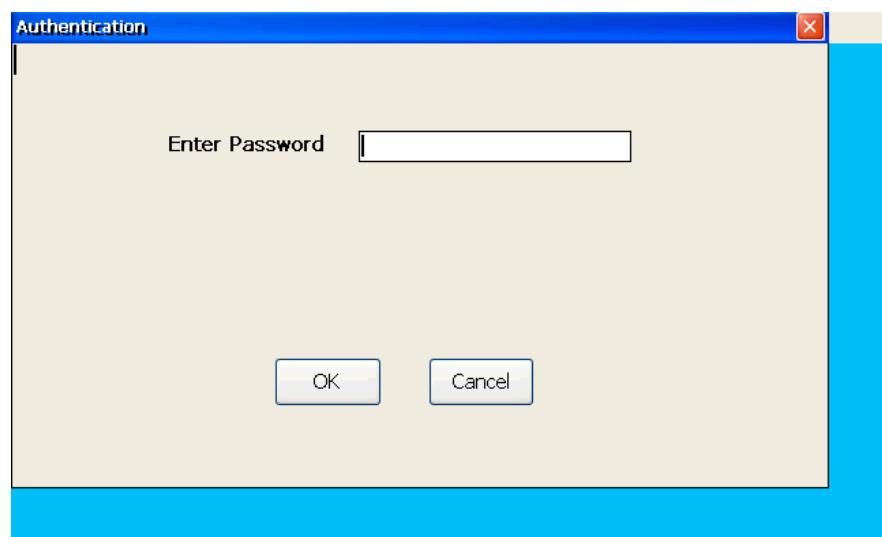
To close, select **File > Close**.



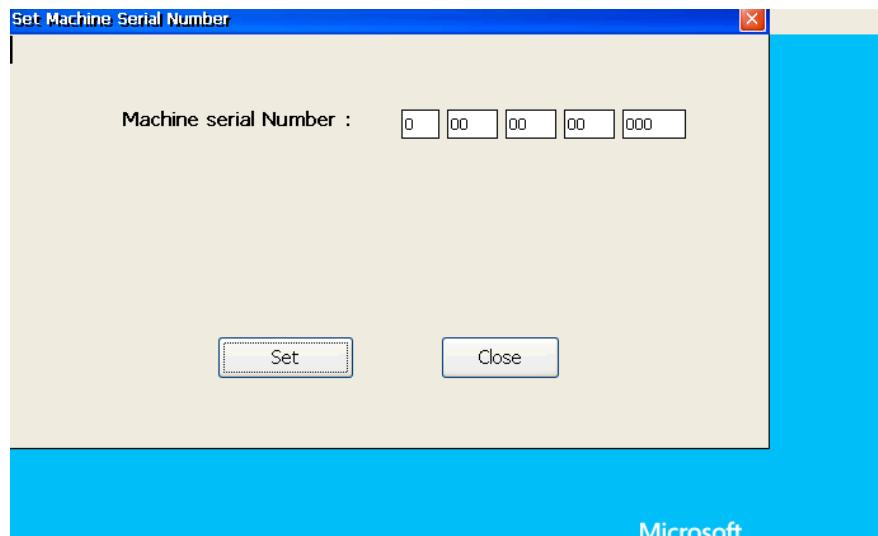
[6] Select **Command > MSNCryptoApp.**



[7] Select Set MSN.



[8] Enter the new password and select OK.



- [9] Enter the machine serial number and select **Set**.
⇒ The machine serial number is set successfully.

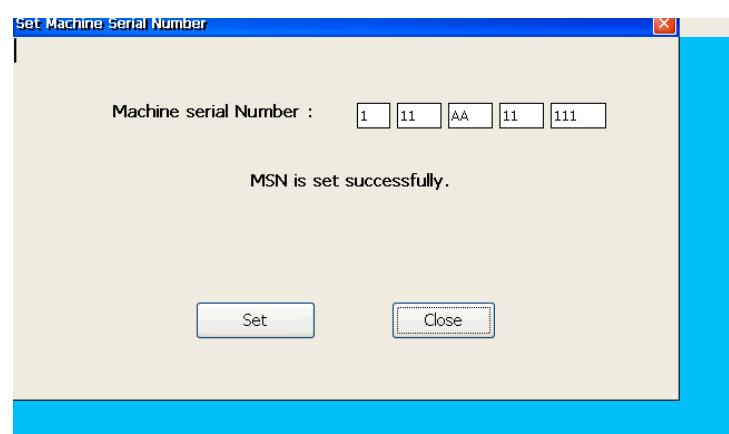


Figure 21: Setting Machine Serial Number

- [10] Select **Close**
⇒ The password is changed and machine serial number is updated.

123

Result

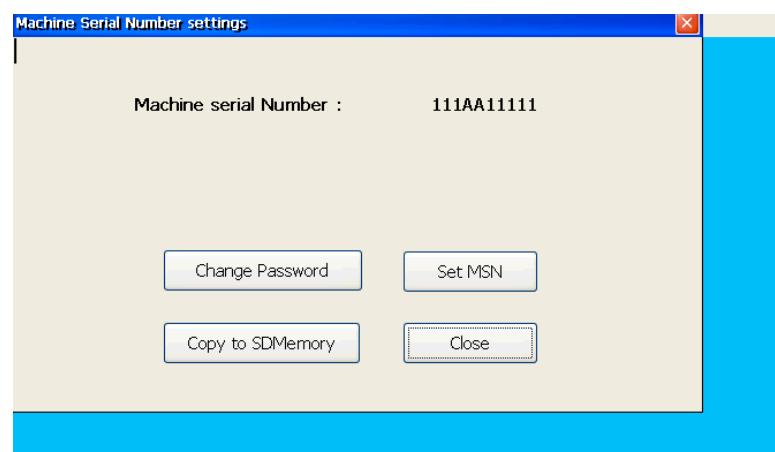


Figure 22: Updated Machine Serial Number

Close the **Machine Serial Number Settings** window.

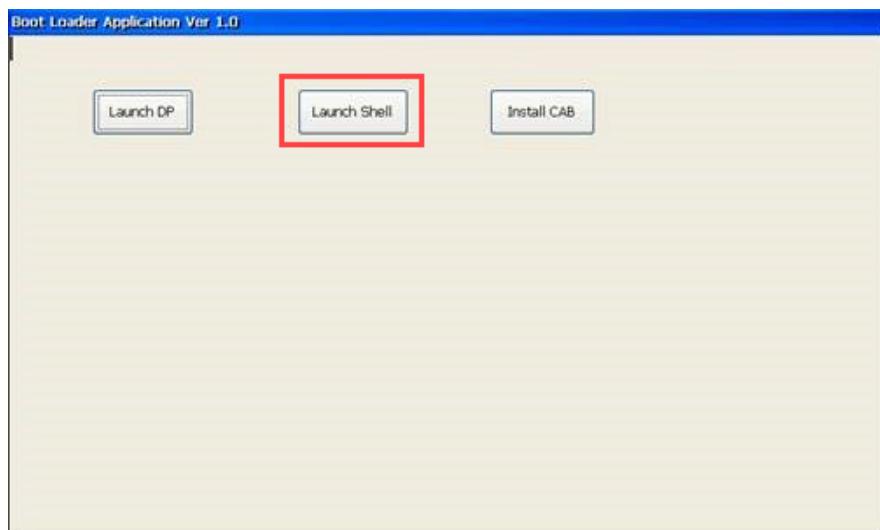
124 Upgrading Operating Systems

Requirements

- BPS C5 switched on
- Keyboard connected to BPS C5
- USB drive with operating system (OS) inserted in to the BPS C5

Procedure

- [1] Interrupt the boot-up procedure by pressing the **Enter** after the start.



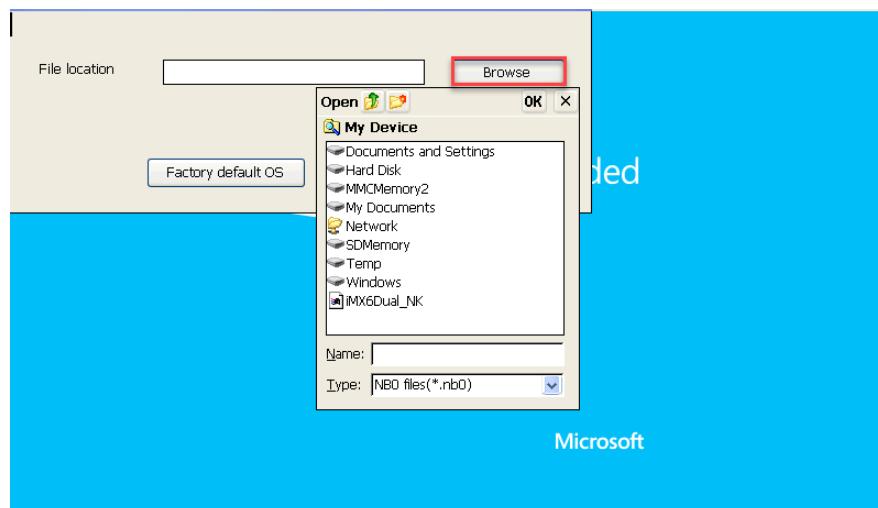
- [2] Select **Launch Shell**.



- [3] Select **Command**.



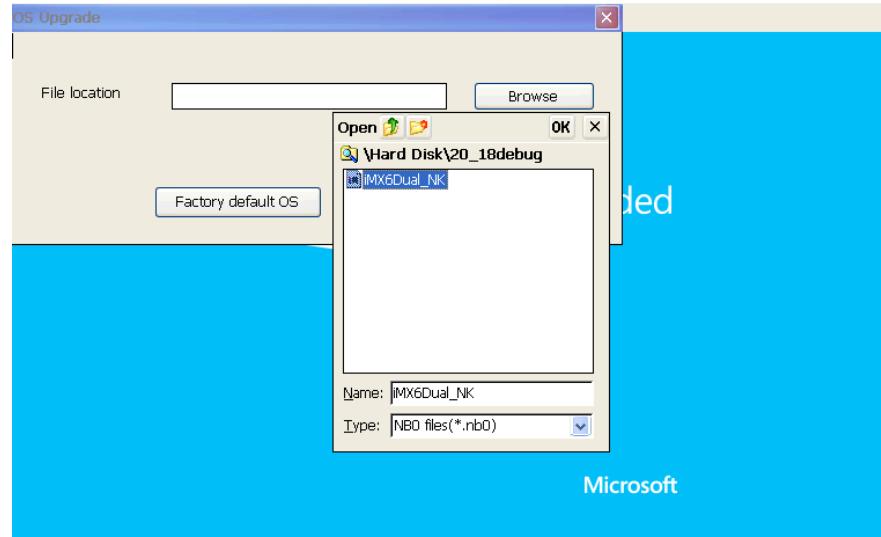
[4] Select the **OS Upgrade** menu.



[5] Select **Browse**. If only one pen drive is inserted in device, u will find “Hard Disk” folder, Click on it and Browse up to OS Image Path

[6] Select the *Hard Disk* folder.

The *Hard Disk* is available only if the USB drive with the OS image path is connected to the BPS C5 .



[7] Browse to the image file.

For example, in the above image, the OS image is stored in the *20_18Debug* folder.

Select the OS Image name *iMXDual_NK*, if the BPS C5 consists of dual core processor.

⇒ The OS upgrade process starts. The progress of the OS upgrade is displayed on the screen.

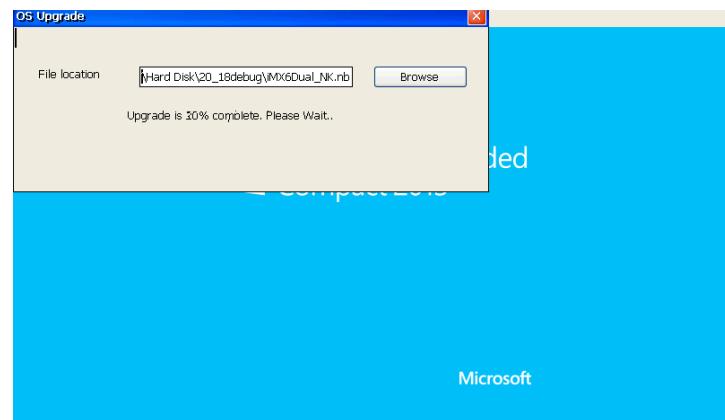


Figure 23: OS Upgrade Progress

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Important!

DO NOT switch off the BPS C5 during OS upgrade.

In case you switch off the BPS C5 during OS upgrade, the machine will not boot up.

Result

⇒ The DP OS is upgraded.

After the OS is upgraded, the BPS C5 performs soft reboot. Restart the BPS C5 using the power switch, after the soft reboot.

The DP OS upgrade process is now complete.





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Hong Kong

A

A

Glossary

B

BN banknote

E

EN European standard

EU European Union (since December 1, 2009)

G

GS tested safety (Geprüfte Sicherheit)
certification

GUI graphical user interface

H

HW hardware

mechanical and electrical equipment of a system

I

IM input module

P

PD photo detector

S

SDM standard delivery module

U

USB universal serial bus

V

V volt (physical unit of electrical potential)

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Material: 537319001

TROUBLESHOOTING

BPS C5

MANUAL

English 01/2020

Batch: NEW

Origin: India



Qty.: 1 PC.

