



G+D
Currency Technology

User Manual

BPS® C2



Original operating
instructions

Art.-No. 522287051
Issue 10/2020

Note

The information, knowledge, and graphic material contained in this documentation are the sole property of Giesecke+Devrient Currency Technology GmbH and may not be reproduced or otherwise distributed without the prior written consent of Giesecke+Devrient Currency Technology GmbH.

Giesecke+Devrient Currency Technology GmbH reserves the right to enforce all rights in this connection, especially in the event that patents are granted. Provision of the documentation does not establish grounds for any claim to a license or right of use.

Trademarks

BPS® is a registered trademark of Giesecke+Devrient Currency Technology GmbH.

Product names, company names, and descriptions in this manual may be trademarks or registered trademarks of other companies. Such terms in this manual are used for explanatory purposes only and no infringement on rights is intended.

WINDOWS® is a registered trademark of Microsoft Corporation.

Disclaimer

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

This documentation is based on the machine type BPS® C2-4, hardware release 2.4 and software release 4.2. The document is also valid for BPS C2-2, hardware release 1.5 and 2.4, and BPS C2-3 hardware release 2.4.

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).

Manufacturer

Giesecke+Devrient Currency Technology GmbH
Prinzregentenstraße 159
D-81677 Munich, Germany
Tel. +49 (0) 89 4119-0
Fax +49 (0) 89 4119-1535
<http://www.gi-de.com>

Technical support

→ *Chapter E "Technical Support", p. 221*

Printed for

Giesecke+Devrient Currency Technology GmbH
© 2020

Item number

522287051

Issue date

10/2020

Changes

Issue Overview

10/2020

Version	Change
1	Serial production
2	<p>Version for product release 2.1</p> <p>New features /changes in software release 3.0</p> <ul style="list-style-type: none"> ● Serial number storage ● Multi deposit operating mode ● Fast deposit operating mode ● Remote desktop (RDP) ● Reject count display
3	<p>New features /changes in software release 4.0.1</p> <ul style="list-style-type: none"> ● Report Configuration ● Power Failure Handling ● External Display ● External USB ● Reject Overrun ● Check TV
4	<p>New features /changes in software release 4.0.2</p> <ul style="list-style-type: none"> ● Dynamic Denomination Sorting ● External Interfaces Menu
4	<p>New features /changes in software release 4.1</p> <ul style="list-style-type: none"> ● Configurable HotKey ● Grand Total ● Serial Number (SN) SearchList ● Singler Start/Pause ● Enabling/Disabling Security/Authenticity Feature ● Operating Mode Configuration ● Banknote Display

5

New features /changes in software release 4.2

- CheckTV Settings
- MTS spacer
- Language Package folder structure for installation
- External Interface support:
 - Numeron VMS
 - Cummins CISS+ST_VAS

- → *Section 5.4 “Installing and Connecting”, p. 32*

Added MTS spacer information.

- → *Section 7.10 “Language Package”, p. 78*

Language package folder structure changed

- → *Section 7.14 “CheckTV Settings”, p. 81*

New Chapter

- → *Section 11.3 “Changing Secure File Transfer Protocol (SFTP/FTP) Settings”, p. 136*

Recommended Server settings

- → *Section 11.24 “Registering/Unregistering CheckTV”, p. 160*

New chapter

- → *Section 11.31 “Changing Printer Encoding Value”, p. 168*

New chapter

Table of Contents

Legal Notice	III
Changes	V
1 About This Manual	1
1.1 Overview of All Manuals for the BPS C2 System Operating Instructions.....	1
1.2 Target Group of this Manual.....	2
1.3 Content and Structure of this Manual.....	2
1.4 Conventions Used in this Manual.....	3
1.4.1 General Document Conventions.....	3
1.4.2 Document Conventions for Procedures (Instructions).....	5
1.4.3 Figures Used.....	6
2 Safety.....	7
2.1 Safety Information Symbols.....	7
2.2 Symbols Used to Identify Specific Hazards.....	8
2.3 Safety Information.....	8
2.3.1 Proper Use.....	8
2.3.2 Prohibition of Unauthorized Modifications or Changes	9
2.3.3 Circumstances Under Which the Product May Not Be Operated	9
2.3.4 Safety Information to Protect Personnel	9
2.3.5 Safety Information on LED Radiation	10
2.3.5.1 Ticket Reader Lighting.....	10
2.3.6 Information on Special Dangers for the Operator.....	11
3 General Information on Product BPS C2.....	13
3.1 Overview of BPS C2.....	13
3.2 Key Pad.....	14
4 BPS C2 Site and Facility Requirements.....	17
4.1 System Data.....	17
4.1.1 Dimensions and Weights.....	17
4.1.2 Type Label.....	18
4.1.3 Electrical Connection and Power Supply.....	18
4.1.4 System Waste Heat.....	19
4.1.5 Noise Level Values.....	20
4.1.6 Physical Effects (Generated Vibrations).....	21
4.1.7 Electromagnetic Compatibility.....	21
4.2 Installation Room.....	21
4.2.1 Room Climate.....	21
4.2.2 Lighting.....	22

4.2.3	Connections.....	22
4.2.4	Installation Area.....	23
4.2.5	Traffic Area.....	24
4.2.6	Electrostatic Discharge	25
4.2.7	Magnetic Fields.....	25
4.2.8	Local Area Network (LAN)	26
5	Installation.....	27
5.1	Transport.....	27
5.1.1	Transport Outside of Buildings.....	27
5.1.2	Transport Inside Buildings.....	28
5.2	Unpacking BPS C2.....	30
5.3	Unpacking Older Versions of BPS C2-2 (Hardware Version 1.5).....	31
5.4	Installing and Connecting.....	32
6	User Interface.....	37
6.1	Graphical User Interface (GUI) Design.....	39
6.2	Operator.....	39
6.2.1	Operating Mode Selection Screen.....	40
6.2.2	Operator Menu.....	41
6.3	Banknote Processing Results Screen.....	44
6.3.1	Summary View.....	44
6.3.2	Reject/Unfit View.....	46
6.3.3	Stacker View.....	47
6.3.4	Detail View.....	48
6.4	Supervisor.....	49
6.4.1	System Settings Menu.....	52
6.4.2	Installation Menu.....	56
6.5	Service.....	57
7	General Operating Information.....	59
7.1	Important Terms.....	59
7.2	Banknotes, Tickets and Other Transport Objects.....	59
7.3	Operating Modes.....	60
7.3.1	Sorting Operating Modes.....	60
7.3.2	Dynamic Denomination Sorting.....	63
7.3.3	Fitness Check Operating Modes.....	64
7.3.4	Payout Modes.....	67
7.3.5	Count Mode.....	68
7.3.6	Deposit Operating Modes.....	69
7.3.7	Multi Deposit Operating Mode	70
7.3.8	Fast Deposit (FDP) Operating Mode	71
7.4	Favorite Operating Modes	71

7.5	Delivery Stacker Capacity.....	72
7.6	Logs, Traces, Raw Data, and Self Test Levels.....	72
7.7	Printing/Sending/Copying Report.....	74
7.8	Video Surveillance Interface (VSI).....	76
7.9	Configuration Package.....	77
7.10	Language Package.....	78
7.11	Serial Number Storage.....	79
7.12	External Display Settings.....	80
7.13	Serial Number (SN) Search List.....	80
7.14	CheckTV Settings.....	81
7.15	Machine Status Information.....	82
8	Starting BPS C2.....	85
8.1	Switching BPS C2 On and Off.....	85
8.2	Logging in.....	86
8.2.1	Logging in as Operator.....	86
8.2.2	Logging in as Supervisor.....	87
8.3	Changing GUI Language.....	88
9	Operation.....	91
9.1	Selecting Currency.....	91
9.2	Setting Processing Speed.....	92
9.3	Changing Delivery Stacker Capacity.....	93
9.4	Preparing Banknotes.....	93
9.5	Inserting Banknotes.....	97
9.6	Counting Banknotes/Tickets.....	99
9.7	Sorting Banknotes in Batch Mode.....	99
9.8	Processing Banknotes with Deposit.....	100
9.9	Processing Banknotes in Multi Deposit.....	102
9.10	Processing Banknotes in Fast Deposit Mode (FDP).....	105
9.11	Performing Online Reconciliation in Deposit Mode.....	109
9.12	Processing Banknotes in Payout Mode.....	110
9.13	Pausing/Starting Singler.....	111
9.14	Viewing Operating Mode Configuration.....	113
9.15	Exporting Raw Data.....	114
9.16	Manually Printing/ Sending Reports.....	115
9.17	Printing Reports Using HotKey.....	116
9.18	Reprinting/Re-sending Reports.....	116
9.19	Copying Reports to USB Stick.....	117
9.20	Copying Log Files to USB Stick.....	118
9.21	Viewing the Software Version Details.....	119
9.22	Adjusting Screen Brightness.....	119

9.23	Enabling/Disabling Favorite Operating Mode Name View.....	120
9.24	Searching Banknote Data.....	121
9.25	Configuring the Reports.....	122
9.26	Enabling/Disabling the External USB Display.....	124
9.27	Enabling/Disabling Grand Total	125
9.28	Viewing Grand Total.....	126
9.29	Logging Out from Operator Mode.....	127
10	Banknote Processing with Cash Management System (CMS).....	129
10.1	Connecting BPS C2 to Cash Management System.....	129
10.2	Processing Banknotes.....	130
10.3	External Interfaces Menu.....	130
11	System Administration.....	133
11.1	Setting Date and Time.....	133
11.2	Setting Machine ID.....	135
11.3	Changing Secure File Transfer Protocol (SFTP/FTP) Settings.....	136
11.4	Setting Machine IP Address.....	139
11.5	Changing Simple Network Time Protocol (SNTP) Settings	140
11.6	Activating Video Surveillance Interface Switch.....	141
11.7	Configuring Video Surveillance Interface.....	142
11.8	Enabling/Disabling Automatic Installation Switch.....	143
11.9	Enabling Three Inch Printer.....	144
11.10	Activating Remote Desktop (RDP) Switch	145
11.11	Enabling/Disabling Reject Count View.....	147
11.12	Viewing Operation Details.....	149
11.13	Changing the Fitness Threshold.....	149
11.14	Updating Configuration Package.....	151
11.15	Updating Language Package.....	152
11.16	Setting Favorite Operating Mode.....	153
11.17	Exporting Configuration Package.....	155
11.18	Setting the Self Test Level.....	155
11.19	Setting the Trace Level.....	156
11.20	Enabling Serial Number Storage Switch.....	157
11.21	Deleting Banknote Data.....	158
11.22	Enabling Reject Overrun.....	158
11.23	Enabling/Disabling the Reject Counterfeit Indicator.....	159
11.24	Registering/Unregistering CheckTV.....	160
11.25	Enabling the Serial Number Storage Switch.....	162
11.26	Changing the External Display Device Settings.....	162
11.27	Connecting BPS C2 to External Interface.....	163
11.28	Configuring the HotKeys	164

11.29	Installing the Serial Number (SN) Search List	166
11.30	Displaying Processed Banknote Image.....	167
11.31	Changing Printer Encoding Value.....	168
12	Opening and Closing BPS C2.....	171
12.1	Opening BPS C2.....	171
12.2	Opening Older Versions of BPS C2-2 (Hardware Version 1.5).....	173
12.3	Opening Reject Module.....	174
12.4	Closing BPS C2	174
13	System Malfunctions.....	177
13.1	Resolving Banknote Jam.....	178
13.2	Restarting the BPS C2 After Power Failure.....	178
13.2.1	Performing Reconciliation in Single Deposit After Power Failure.....	179
13.2.2	Performing Reconciliation in Multi-Deposit /Fast Deposit After Power Failure.....	180
13.3	Correcting Banknote Singling Malfunction.....	180
13.4	Reducing High Reject Rate.....	181
13.5	Resolving Banknote Processing Malfunction.....	181
13.6	Getting Additional Information.....	182
14	Cleaning.....	185
14.1	Cleaning Display Module.....	188
14.2	Cleaning Dust Tray.....	188
15	Disposal	191
Appendix	193
A	Technical Data.....	193
B	Description of Reports.....	195
B.1	Printed Reports.....	195
B.2	XML Reports.....	200
B.3	Reports.....	201
C	Description of the Criteria for Fitness Sorting.....	213
D	Symbols Used.....	217
E	Technical Support.....	221
Glossary	225
Table of Figures	229
Index	231

1 About This Manual

This chapter contains the following information:

- Overview of all manuals in the BPS C2 operating instructions
- Target group of this manual
- Content and structure of this manual
- A description of the conventions used in this manual

1.1 Overview of All Manuals for the BPS C2 System Operating Instructions

Quick Start Guide

This manual forms part of the System Operating Instructions. The following manuals form part of the System Operating Instructions:

These quick instructions are intended for all users of the product. They describe the first steps without using text so that the user can operate the product. The quick instructions are supplied with the product.

Safety Information

The safety information is intended for all users of the product. It describes all the necessary safety measures for hazard-free use of the product. The safety information is supplied with the product.

User Manual

The user manual is intended for all users of the product and can contain the following information:

- Requirements for the installation site as well as for the transport and secure operation of the product
- Technical data for the product
- Installing and connecting the product
- Operating the product and straightforward cleaning and maintenance work that is not performed by Service
- Installing and using the software applications

Service Manual

The Service Manual describes maintenance work carried out on the product by field engineers.

The maintenance work includes:

- The replacement of parts for repairs (corrective measures) including the necessary adjustment work
- Installing and using the software application for Service

You will only receive a service manual after you or your staff have received training from G+D to become a field engineer.

Troubleshooting Manual

The Troubleshooting Manual offers an interactive troubleshooting including links to detailed procedures and video tutorials.

Spare Parts Catalog

The Troubleshooting Manual is only available as part of the electronic documentation library EB Suite. The contents of the Troubleshooting Manual depend on your access rights.

Please use the electronic spare parts catalog for Banknote Processing Systems on CD/DVD to order spare parts.

1.2 Target Group of this Manual

The manual is intended for the operator.

1.3 Content and Structure of this Manual

This manual contains the following:

- The → "Safety" chapter contains important safety information.
- In the → "General Information on the Product BPS C2" chapter, you will find an overview of the product..
- The → "BPS C2 Site and Facility Requirements" chapter contains the technical data for the product and describes the requirements that must be met at the installation site to safely operate the product.
- The → "Installation" chapter contains information on the transport, installation, and commissioning of the product.
- The → "Operation" chapter contains the following information:
 - Important terms
 - Operating controls
 - Control unit and user interface
 - Default settings
 - Banknote processing operating procedures
 - System settings
 - System faults
 - Cleaning
- The → "Disposal" chapter provides you with all the information required for disposal.
- The → Appendix contains useful additional information. Examples:
 - Technical data
 - Description of reports
 - Description of the criteria for fitness sorting
 - Information on the SD card
 - Symbols used
 - Contact addresses

- A list of abbreviations and glossary of terms
- Table of figures
- Index

1.4 Conventions Used in this Manual

1.4.1 General Document Conventions

The following formatting styles are used as standard to identify certain information:

Conventions	Definition
<u>This text is important.</u>	Underlined text indicates important information.
Mechanical operating control	Names of mechanical operating controls like keys or switches are written in bold. Example: Press Start on the device.
GUI Text	Objects in the graphical user interface (GUI), e. g. a button, are in bold. Example: Click OK .
Menu option > Menu option	Menu names are in bold. Angle brackets indicate navigation through menus. Example: Select File > Print from the menu.
'User input'	User inputs are in single quotes. Example: Enter port = '8080' .
<Placeholder>	Placeholders for display text or user input are in angle brackets. Example: Enter <Password>.
[Key]	Keys on the keyboard are in square brackets. Example: Press [Alt] + [p] to print the file.
<i>File or path</i>	File names or paths are in italics. Example: Open <i>readme.txt</i> .

Conventions	Definition
Command	Commands are in Courier font. Example: Open an input window and enter ping.
Code	Codes are in courier font.
"Title"	Titles of reports, logs, modes, windows, etc. are in quotation marks. Example: The "xy" window appears.
→ "Manual title"	References to other manuals are in italics. The manual title is also in quotation marks. Example: → "Service Manual"
→ Chapter "Chapter heading"	References to other chapters/sections are in italics. The title of the chapter/section is also in quotation marks. For example, → "Jam Recovery" chapter
Homepage Giesecke +Devrient	References to a website address are in italics.
1. list entry 2. list entry	In numbered lists, make sure you follow the sequence of list entries.
• list entry • list entry	In unnumbered lists, the sequence of list entries is not important.
a) list entry b) list entry	In alphabetical lists, the list entries give alternatives.
	This symbol identifies important information.
*	* indicates optional components. Inquire if the option is available on your machine.

Conventions	Definition
[1]	Numbers in square brackets indicate individual operational steps. You must carry out these steps in the sequence indicated.
⇒	An arrow as shown after a step indicates the result of that step.

1.4.2 Document Conventions for Procedures (Instructions)

This section explains how procedures (instructions) are set out.
Follow procedures step by step in the specified order.

Requirements for the Procedure

- Requirement 1
- Requirement 2



DANGER

Safety information before the procedure

Applies to the whole procedure

Observe the measures to prevent risks at each step.

Procedure

- [1] Perform this step.



- [2] Perform this step. Note the image above.

⇒ Result of this step



Figure 1: Image of a Result

Secondary Steps

- [3] To perform this step:

- [3-1] Perform this secondary step.

Prompts to Skip or Repeat Steps

[3-2] Perform this secondary step.

[4] Prompt, e.g. has the error been rectified?

No: → **[5]**

Yes: → **[6]**

[5] Only carry out this step if you answered the above prompt with No.

Continue with: → **[7]**

[6] Only carry out this step if you answered the above prompt with Yes.

Continue with: → **[7]**

[7] Perform this step.

Alternative Steps

[8] Select the appropriate alternative:

For variant A: → **[8a]**

For variant B: → **[8b]**

[8a] **Variant A**

[8a-1] Perform this step for variant A.

[8a-2] Perform this step for variant A.

[8b] **Variant B**

[8b-1] Perform this step for variant B.

Result

⇒ Result of the procedure

1.4.3 Figures Used

The screenshots used are examples and may differ from what is actually shown on the display.

2 Safety

Before you work with our product, you must have previously read and understood the system operating instructions and especially the safety instructions they contain. You may only then operate and maintain our product if you are trained and authorized to do so. Remain conscious of safety as you work.

2

This chapter contains the following information:

- Overview of the general symbols for safety information
- Overview of the symbols identifying specific hazards
- Safety instructions for BPS C2

2.1 Safety Information Symbols



DANGER

The symbol together with the signal word DANGER indicates an immediate danger to life or health.

Ignoring this warning results in death or serious injury.

The safety information tells you about the type and source of the danger, the consequences if it is not observed, and the measures to take to prevent the danger.



WARNING

The symbol together with the signal word WARNING indicates a possible danger to life or health.

Ignoring this warning may result in death or serious injury.

The safety information tells you about the type and source of the danger, the consequences if it is not observed, and the measures to take to prevent the danger.



CAUTION

The symbol together with the signal word CAUTION indicates a possible danger to health.

Ignoring this warning may result in minor injury.

The safety information tells you about the type and source of the danger, the consequences if it is not observed, and the measures to take to prevent the danger.

**NOTICE**

This symbol, with the signal word **NOTICE**, is used to identify warning information.

Ignoring this information may result in damage to parts of the product or jeopardize data consistency.

The safety information tells you about the type and source of the risk, the consequences if it is not observed, and the measures to take to prevent the risk.

2.2 Symbols Used to Identify Specific Hazards

Safety information with symbols for specific dangers tells you about the type and source for the risk, the consequences if it is not observed, and the measures to take to prevent the risk.



Risk of crushing

This symbol indicates a danger from crushing by moving parts.



Risk of electric shock

This symbol indicates a danger of electric shock.



Risk of LED radiation

This symbol indicates a danger from LED radiation.



Risk of burns

This symbol indicates a danger from burns from hot parts.



Risk of tripping

This symbol indicates a risk of tripping.

2.3 Safety Information

2.3.1 Proper Use

Our product has been constructed using the latest technology and is safe for operation. For your safety, you must use it appropriately and properly.

Proper Use

You must comply with the necessary safety measures for hazard-free use of the product. Failure to follow these instructions can put lives at risk or can damage the product.

Always take notice of the safety warnings, even if you are an experienced user with good system knowledge.

Improper Use

A banknote processing system may only be used to check banknotes for denomination, authenticity, and condition, to count and to sort them.

The processing of tickets is permitted.

Improper use, for example, the singling of hard objects such as coins, paper clips and staples, is not permitted and will result in the invalidation of the warranty.

2.3.2 Prohibition of Unauthorized Modifications or Changes

For safety reasons, no changes may be made to the product without informing and receiving written approval from the manufacturer.

Any unauthorized structural changes or additions invalidate the EU Declaration of Conformity for the product.

Any unauthorized structural changes or additions invalidate the GS mark approval for the product.

Only genuine spare parts may be used for repair.

2.3.3 Circumstances Under Which the Product May Not Be Operated

The product may not be operated if the defined ambient and operating conditions are not fulfilled.

Depending on the product, you can find this data in the "Site and Facility Requirements" manual of the system operating instructions or in the "Site and Facility Requirements" or "Technical Data" section of the user manual.

If the product is not in an operational state for technical or other reasons, you must secure the product against being used.

2.3.4 Safety Information to Protect Personnel

Be sure to comply with national accident prevention regulations.

When using the product, ensure the following:

- Avoid wearing loose-fitting or open clothing.
- Remove ties, rings, watches, and jewelry before beginning work.
- Protect long hair with a scarf or hair net.

Refrain from any methods of operation that may compromise the operational safety of the product. Proceed in accordance with the safety information specified in the System Operating Instructions.

Ensure that unauthorized personnel are kept away from the product.

Check the product for any externally identifiable damage and faults at least once a day. Immediately report any safety-related changes (including in the operating behavior) to the internal department responsible.

Only operate the product when it is in perfect working condition.

Do not remove any safety devices. Do not disable any safety devices. This can put lives at risk or can damage the product.

2.3.5 Safety Information on LED Radiation

This section contains safety information on optional components or external equipment containing LED radiation sources.

These components or devices are classified under IEC 62471 as LED devices.

The risk groups mentioned are valid for the disassembled components.



WARNING

LED radiation

Danger of damage to the eyes

The ban on unauthorized alterations or changes applies universally to the mechanical, optical, and electronic parts of these components.

Improper usage can be hazardous due to dangerous LED radiation.

Opening the product does not increase the LED risk group or the risk to the operator.

2.3.5.1 Ticket Reader Lighting

Risk Group 1

The lighting on the optional ticket reader is classified as a risk group 1 LED product (low risk) in accordance with IEC 62471.



CAUTION

Intensive light source

Risk Group 1 (low risk) in accordance with IEC 62471.

Do not look into the beam from the light unit directly or with optical instruments.

2.3.6 Information on Special Dangers for the Operator

During operation of the product, observe the following information:

Electrical Voltage/Current

Work on live electrical parts and assemblies carries the risk of electric shocks. Only carry out this work if you are authorized to do so.

2

Ergonomics

Stand or sit in a comfortable manner. Arrange your workstation so that you can work ergonomically.

- Set your chair to the optimum position.
- Adjust the height of the work surface if possible.
- Set the screen to the optimum position if possible.

Non-Specified Materials

Dangers may arise from the use of non-specified materials such as cleaning material, sprays, lubricants, etc. If you use these materials, follow the manufacturer's safety instructions.

High Temperatures

Do not touch any parts that have warnings in the system operating instructions alerting you to high temperatures. These can cause severe burns.

Risk of Crushing

- When closing flaps, doors, transport sections, etc., be careful that your hands or fingers are not crushed between the closing edges. Use the operating equipment provided.
- When starting the singler, make sure that your hand is not in the singler area.

Dust

Never use compressed air to clean the product. Breathing in dust can lead to health problems. Dust in the air can also damage the bearings and electronic parts. No claims can be made under the warranty for parts that are damaged in this way. Always vacuum up any dust with a suitable vacuum device, which is fitted with a micro-filter.

3 General Information on Product BPS C2

The BPS C2 is a system for processing banknotes, which offers a variety of functions and application possibilities. Depending on the configuration, the BPS C2 can be used to read the serial number of banknotes, count and sort banknotes and check their authenticity, denomination, value, and fitness. The banknotes are placed unbundled in the singler. After singling, they are checked and evaluated by the sensors. Based on the sensor results, the banknotes are sorted either to the delivery stacker or the reject stacker.

The BPS C2 is available in three variants:

- BPS C2-2
- BPS C2-3
- BPS C2-4

The system is controlled via the operating unit.

This manual describes all the available options. The availability of these options depends on the configuration of the BPS C2.



Important!

The technical data for external devices supplied by G+D is not included in this documentation.

Important Notice for
the USA/Canada

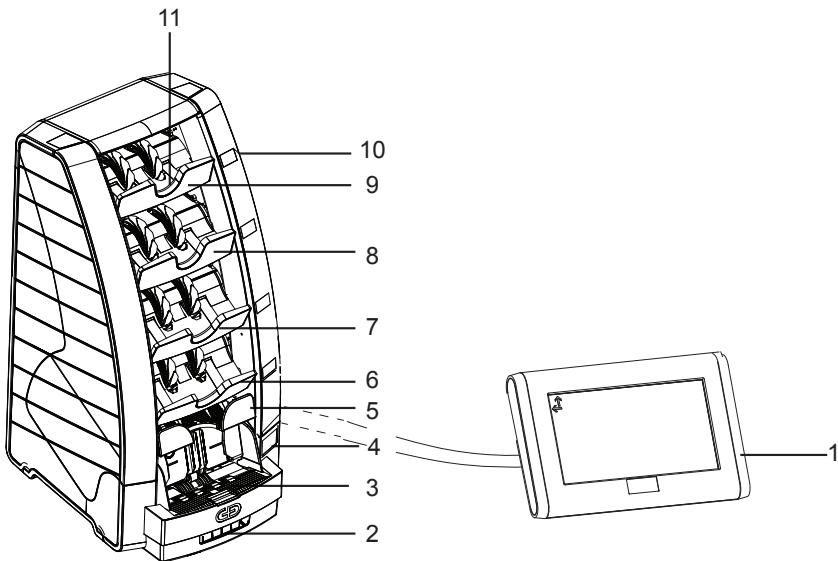
The serial number reading options are not available in the USA/Canada.

3.1 Overview of BPS C2

The BPS C2 product family has three variants:

- BPS C2-4: Four delivery stackers
- BPS C2-3: Three delivery stackers
- BPS C2-2: Two delivery stackers

All the other operating controls are similar in all the three variants.

**Figure 2: Operating Controls**

- 1 Display Module (GUI)
- 2 Dust Tray
- 3 Singler
- 4 Key Pad
- 5 Reject Stacker
- 6 Delivery Stacker 1
- 7 Delivery Stacker 2
- 8 Delivery Stacker 3
- 9 Delivery Stacker 4
- 10 Delivery Stacker count display
- 11 Stacker LED

3.2 Key Pad

The BPS C2 keypad consists of:

- Power Button
- HotKeys

The hotkeys provide quick access to following functions:

- Count Mode
→ *Section 7.3.5 “Count Mode”, p. 68*
- Grand Total
- Strap mode
→ *Section 7.5 “Delivery Stacker Capacity”, p. 72*
- Software version view
→ *Section 9.21 “Viewing the Software Version Details”, p. 119*
- Reports:

- Stacker Content Report
- Deposit Balance Report
- Daily Balance Report
- *Section 7.7 “Printing/Sending/Copying Report”, p. 74*
- None



Figure 3: Key Pad

Key	Description
	Power button
	HotKey 1 → <i>Section 9.6 “Counting Banknotes/Tickets”, p. 99</i>
	HotKey 2 → <i>Section 9.17 “Printing Reports Using HotKey”, p. 116</i>
	HotKey 3 → <i>Section 9.3 “Changing Delivery Stacker Capacity”, p. 93</i>



Important!

It is required to login to perform hotkey function.

The HotKey functions can be configured using the **Configure HotKeys** option in the **Supervisor** menu.

→ *Section 11.28 “Configuring the HotKeys”, p. 164*



Important!

One function can not be configured to more than one HotKey.

4 BPS C2 Site and Facility Requirements

This chapter contains the technical data for the product and describes the requirements that must be met at the installation site to safely operate the product.

4.1 System Data

The product BPS C2 has the following system data.

4.1.1 Dimensions and Weights

The BPS C2 has the following dimensions and weights.

	Depth [mm]	Width [mm]	Height [mm]	Weight [kg]
BPS C2-2 with LCD	390	330	510	27
BPS C2-3 with LCD	430	330	620	32
BPS C2-4 with LCD	430	330	740	36

Table 1: Dimensions and Weights

The packaging has the following dimensions and weights.

	Depth [mm]	Width [mm]	Height [mm]	Weight [kg]
BPS C2-2 Packaging (including machine and accessories)	544	439	695	33
BPS C2-3 Packaging (including machine and accessories)	516	409	790	38
BPS C2-4 Packaging (including	516	409	910	38.2

	Depth [mm]	Width [mm]	Height [mm]	Weight [kg]
machine and accessories)				

Table 2: Dimensions and Weights with Packaging

4.1.2 Type Label

The BPS C2 product has the following type label:

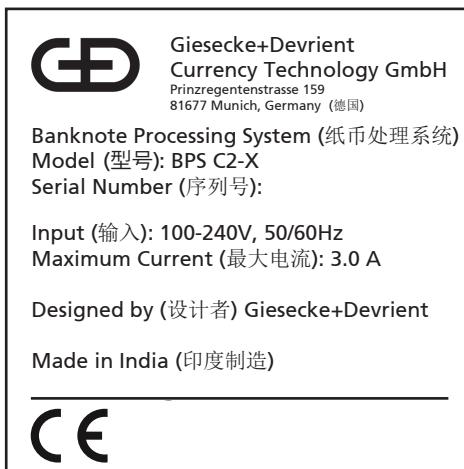


Figure 4: Type Label

The type label is located at the rear of the BPS C2.

4.1.3 Electrical Connection and Power Supply

The customer must provide a 3-wire system including neutral conductor and protective earth conductor for the connection (e.g. TN-S network, TT network), and the socket for connecting.

The shockproof socket is used for the connection to the power supply. The BPS C2 is fitted with an inlet connector (IEC 60320-1). A country-specific connection cable for single-phase 230 V alternating current is supplied.

Use a separate socket or correspondingly dimensioned and approved supply units for each machine.

The power connection and the connection lines must comply with the guidelines set by the responsible power supply company.

The following tables show the values for the connection data.
 There are two ranges for the frequency:

Frequency (Hz)
50/60 ± 10% Hz

Table 3: Mains Frequency

The following table shows the values for the supply voltage:

Supply Voltage (V) Range
100 - 240 V Voltage Tolerance: -10% -- +6%

Table 4: Supply Voltage Ranges

The following table shows the values for the fuse protection:

Fuse Rating (A)
3.15 A; Time lag, slow blow

Table 5: Fuse Protection

The following table shows the values for the maximum current consumption:

Maximum Current Consumption (A)
1.2 A

Table 6: Maximum Current Consumption

The following table shows the values for the electrical power consumption.

Maximum Power Consumption (W)
125 W

Table 7: Electrical Power Consumption

4.1.4 System Waste Heat

The electricity consumed by the system is almost entirely converted into heat. The waste heat generated by the system therefore corresponds to the values given for the power consumption.

Built-in fans cool the product down. The fans draw air into the base section of the machine and release the exhaust air into the installation room through the rear panel.

The following table shows the values for system waste heat:

	Values
System waste heat	Max. 125 W

Table 8: System waste heat

The system waste value does not include heat dissipated by accessories, printer, or bar-code reader.

4

4.1.5 Noise Level Values

The following table shows the noise level values measured according to EN ISO 3744:2010.

Operational Mode	Sound Pressure Level (L_pA)-dB(A)*
Fast Mode (1050 BN/min)	72
Slow Mode (720 BN/min)	68
Measured sound pressure level (L_pA) at sitting position operator for the BPS C2: idle 36 dB(A), slow mode processing 75 dB(A), fast mode processing 79 dB(A) *Average Sound pressure (L_pA) at position of a sitting operator under mixed operation. *The sound pressure value mentioned in the table is for the highest variant in the family, the noise generated by Lower hybrid models shall not exceed these limits. *The following uncertainties of measurement are taken into account: <ul style="list-style-type: none"> ● Uncertainties of the measuring method ● Uncertainties inherent in the statistical spread ● Changes in the BPS C2 variants However, all the variants of the BPS C2 always have the same noise values (with deviation of ± 2 db(A)).	

Table 9: Noise Level Values

Mixed operation is defined as 80% idle/20% processing, resulting in throughput of approximately 100.000 BN per shift of 8 hours.

4.1.6 Physical Effects (Generated Vibrations)

The shock and vibration values are negligible.

4.1.7 Electromagnetic Compatibility

The BPS C2 has been checked according to the requirements of Directive 2014/30/EU issued by the Council of the European Union for electromagnetic compatibility (EMC). For proof, see the EU Declaration of Conformity.



CAUTION

This is a class A information technology equipment (ITE).
 This equipment may cause radio interference in residential areas.
 Take appropriate measures to correct any interference problems.

4

The following standards were used:

EN 55032: 2015 +AC:2016	Product standard for multimedia equipment - emission requirements (see also EMC-Test reports)
EN 55024: 2010 +A1:2015	Product standard for information technology equipment - interference immunity factor properties - limit values and testing procedures

Table 10: Standards Applied for Electromagnetic Compatibility

4.2 Installation Room

The BPS C2 product is designed for installation in buildings.

The temperature and humidity of the surrounding air influence the operation.

4.2.1 Room Climate

The following environmental conditions are relevant for proper operation:

- Room climate in installation room
- Moisture content of the banknotes to be processed

Room Climate in Installation Room

The installation room must meet the following requirements:

Climate in the installation room	Values
Ambient temperature	+15 °C – +35 °C

Moisture Content of the Banknotes to be Processed

Climate in the installation room	Values
Relative humidity (below the dew point not permissible)	30% – 80% r.h.

Table 11: Values for the Room Climate

For machines with an integrated camera (ticket reader*) or external M-feature detectors, the applicable temperature range is +15 °C - +30 °C.

Storage of banknotes	Values
Relative humidity	35% – ca. 65% r.h.
Moisture content of the banknotes	4.5 g/kg at 20 °C (water/kg of banknotes)
The storage conditions before processing have a significant influence on the moisture content of the banknotes. The climatic conditions of the installation or banknote processing room only have a slight influence.	

Table 12: Values for the Banknote Humidity and Storage Conditions

Deviations from the above-mentioned values can lead to reduced banknote throughputs. In particular, a lower moisture content of the banknotes can lead to electrostatic effects.

The room climate must also meet the requirements listed when the machine is not in operation, e.g. overnight, on weekends, and on public holidays.

4.2.2 Lighting

In general, the national specifications for lighting for office workstations must be fulfilled.

You must observe the following points:

- The lighting must be glare-free.
- The same level of brightness must be present throughout the installation room. This is particularly important during servicing and maintenance work.
- Avoid direct sunlight.

4.2.3 Connections

Take a note of the following information concerning the connections in the installation room:

Electrical Connections	The socket for the power connection must always be installed near to the banknote processing system and easily accessible.
	Use a separate socket or correspondingly dimensioned and approved supply unit for each machine.
	Additional sockets must be installed on site to connect additional external equipment.
	The BPS C2 has the following electrical connections:
	<ul style="list-style-type: none"> ● Four USB ports to connect the following external equipments: <ul style="list-style-type: none"> – Printer – Mouse – Keyboard – Barcode reader ● GUI display port ● Ethernet (LAN) interface <p>Ensure that you use only shielded LAN cable.</p> ● USB 2.0 A for four USB ports <p>Use the USB storage size of maximum 32 GB capacity</p> ● USB 2.0 B for host and connect to PC ● Power socket
	At least one additional socket must be installed no further than 3 m from the banknote processing system for service requirements.
	This socket must also be easily accessible.
Network Connections	You can connect the BPS C2, → <i>Section 4.2.8 “Local Area Network (LAN) ”, p. 26</i> . An Ethernet network connection must be fitted near to the banknote processing system for this.

4.2.4 Installation Area

The following minimum installation area is recommended for installation.

	Table size (l x w)
BPS C2	1200 mm x 800 mm

Table 13: Dimensions of the Installation Areas

**Important!**

If external devices are installed, the amount of space required increases.

You must ensure sufficient space for the delivery and removal of the banknotes as well as providing a storage space for the transport containers.

The table must be designed to carry the weight of the machine and any accessories or additional loads.

4**4.2.5 Traffic Area**

The BPS C2 product can be set up as a sitting or standing workstation.

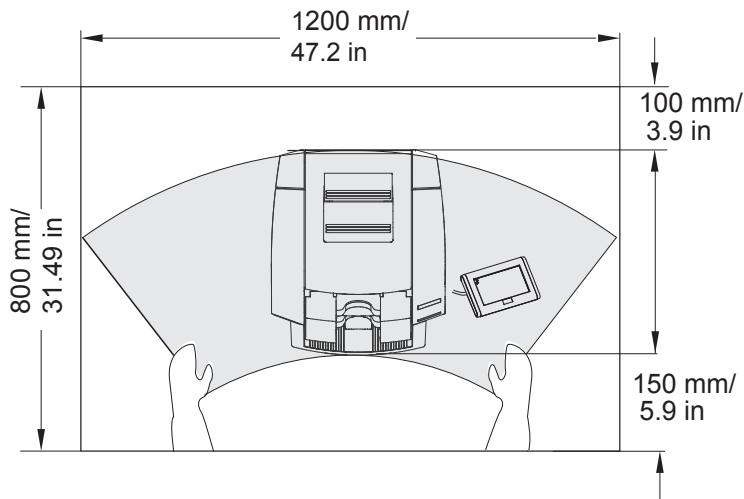


Figure 5: Workstation design

The marked area indicates the recommended operating area for a machine depending on body size and work organization.

You must organize appropriate operating areas for external equipment.

You must ensure that the traffic areas meet national regulations for accessibility to the banknote processing system as well as for the delivery and removal of the banknotes.

**WARNING**

Poor posture

Poor posture over long periods of time can cause long-term health problems (for example, back problems).

Arrange the workstation to meet your needs.

4.2.6 Electrostatic Discharge

The floor coverings in the installation rooms must be anti-static to avoid electrostatic discharge (ESD).

The resistance to earth must be less than or equal to $100\text{ M}\Omega$ (resistance to earth measured according to DIN EN 1081, procedure B, or resistance to earth measured according to DIN EN 61340-4-1).

For further information, please refer to the national regulations. National building and fire protection ordinances must be followed.

For a resistance to earth of more than $100\text{ M}\Omega$, additional measures are recommended for activities, which exceed the operating limits. These measures prevent temporary malfunctions and/or damages due to electrostatic discharge of the operators or service personnel.

Depending on the requirements in the installation rooms (measured resistance to earth, minimum humidity, etc.), additional measures for touching and/or handling electric components (e.g., replacing a component or connecting a cable) may be necessary to ensure availability. These measures can, for example, comprise special training sessions, special precautionary measures or increased supply of spare parts and can therefore increase maintenance costs.

4

4.2.7 Magnetic Fields

The product BPS C2 must not be exposed to strong magnetic fields, because external magnetic fields will influence the measuring accuracy of the magnetic sensor.



NOTICE

Monitors, high-voltage cables, or high-voltage transformers can cause strong magnetic fields.

Operating the highly sensitive sensors of the product near strong magnetic or electromagnetic fields can cause disruptions of the system processes.

Do not install the product near strong magnetic fields.



NOTICE

Mobile end devices generate magnetic fields when they are switched on.

The product may malfunction during operation.

Maintain a minimum distance of two meters to the product.

4.2.8 Local Area Network (LAN)

You can link several banknote processing systems together at one installation site via a Local Area Network (LAN; Ethernet 10BASE-T with STP cable; 10, 100, 1000MBit/s). Optional EDP system components can also be connected via the LAN.

The layout of a LAN reflects the local conditions of the installation site, such as:

- Distances between the individual EDP system components,
- spatial separations,
- LAN technology used.

The physical location of the LAN line must take into account all of the planned EDP system components at the installation site. If you do not position all of the banknote processing systems that are to be installed close together in one room, you must design the LAN infrastructure you provide to be state-of-the-art.

The banknote processing systems are equipped by default with an RJ-45 port. On a separate Hub, you can connect EDP components with lengths of up to 100 m each.

The use of additional EDP networks/other network technology is possible after notifying and coordinating with G+D.

5 Installation

The following must be observed during the installation.

5.1 Transport

Please take note of the following information during transport.

Make sure that the unloading area at the installation site is dry and protected from the elements.

Make sure that the BPS C2 product is lying vertically during transport.

Please take note of the following safety information during transport.



WARNING

Incorrectly transporting heavy equipment

Danger of personal injury, damage to property and to a loss of warranty

When transporting the machine, follow the legal regulations on transporting heavy equipment.

- Use appropriate lifting and transport equipment.
- Use personal protective equipment.
 - Safety shoes
 - Gloves
 - Protective goggles



DANGER

Danger of electric shock

Danger of death or serious injury from electric shock

Always unplug the machine by pulling on the plug and never by pulling on the cable.



NOTICE

Existing plug connections

Risk of damage to the machine during transportation.

Unplug all plug connections.

5.1.1 Transport Outside of Buildings

When transporting the product BPS C2 outside of buildings you must transport it in the original packaging or equivalent.

5.1.2 Transport Inside Buildings

You can transport the BPS C2 inside buildings without packaging.

The BPS C2 weighs 27 kg, which is more than the maximum permissible weight to be carried by one person. Two persons must carry it.

This procedure shows how to transport the BPS C2 inside buildings

Requirements

- Two persons to carry the BPS C2
- BPS C2



WARNING

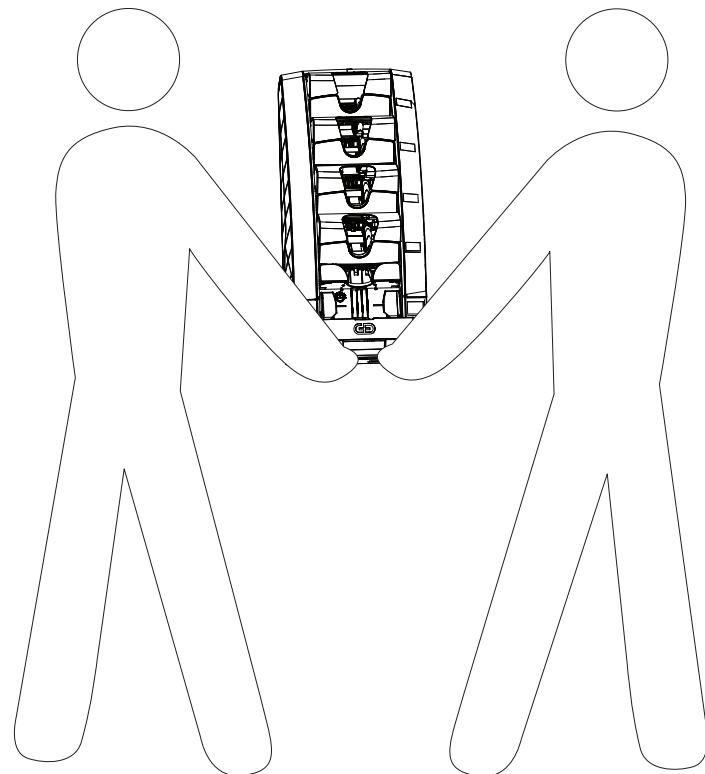
Incorrectly transporting heavy equipment

Danger of personal injury, damage to property and to a loss of warranty

When transporting the machine, follow the legal regulations on transporting heavy equipment.

- Use appropriate lifting and transport equipment.
- Use personal protective equipment.
 - Safety shoes
 - Gloves
 - Protective goggles

Procedure



5

- [1]** Grasp the handles with one hand and support the BPS C2 with the other hand to carry it.
Result ⇒ The BPS C2 is transported inside the building.

5.2 Unpacking BPS C2

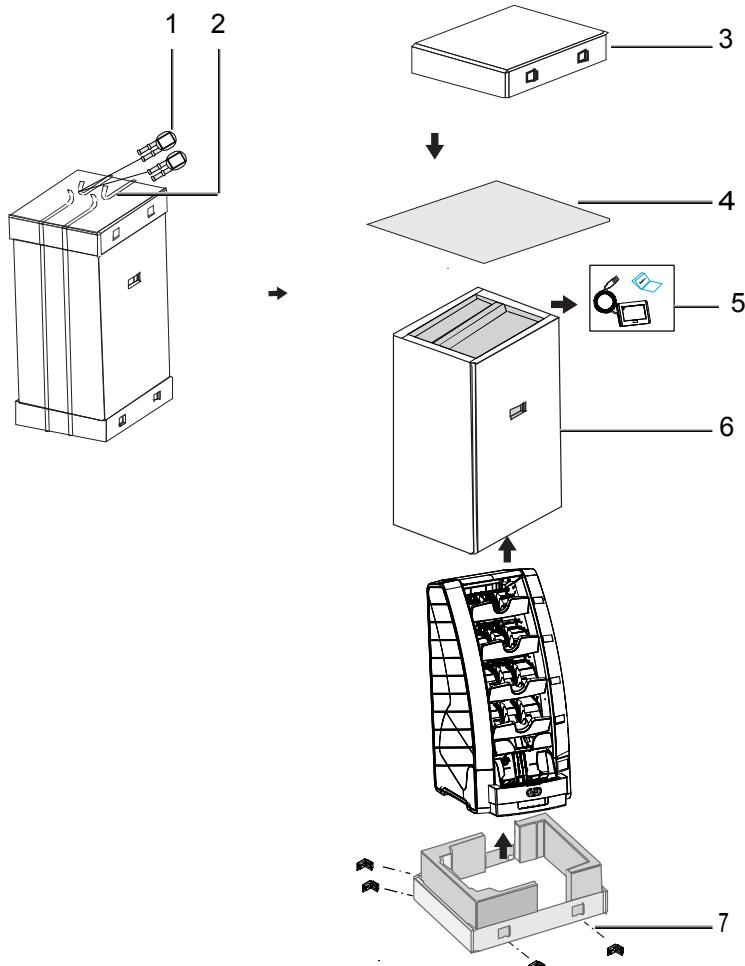


Figure 6: Unpacking

- 1 Buckle clamp
- 2 Strip
- 3 Top carton cover
- 4 Foam cover
- 5 Display unit
- 6 Carton box
- 7 Bottom foam insert
- 8 Transport Locks
- 9 Bottom carton cover

Procedure

- [1] Check the packaging to see that it is undamaged. If you notice any damage, contact your retailer.
- [2] Open the buckle clamps (1) and untie the strip (2)
- [3] Open the top carton cover (3).
- [4] Open the foam cover (4).
- [5] Remove the display unit (5) from the top foam insert.

- [6] Lift the carton box (6).
 - [7] Remove the transport locks (8).
 - [8] Remove the bottom foam insert (7).
Place the machine on a flat, sufficiently load-bearing surface.
- Result ⇒ The machine is unpacked.
Retain the packaging for possible future transport.

5.3 Unpacking Older Versions of BPS C2-2 (Hardware Version 1.5)

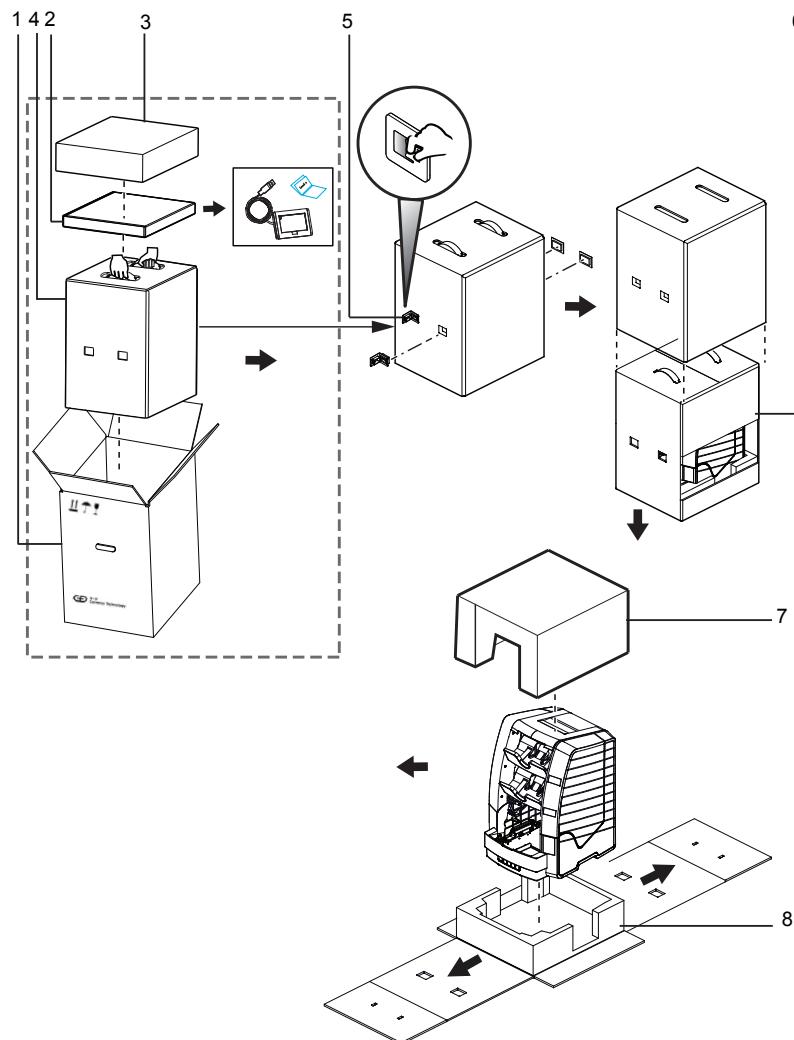


Figure 7: Unpacking

- 1 Outer cardboard box
- 2 Accessories unit box
- 3 Foam insert
- 4 Machine unit box
- 5 Transport locks

- 6 Inner cardboard box
- 7 Inner foam insert (top)
- 8 Inner foam insert (bottom)

Procedure

- [1] Check the packaging to see that it is undamaged. If you notice any damage, contact your retailer.
 - [2] Carefully cut the adhesive tape on the outer cardboard box and open it.
 - [3] Remove the top foam insert (2).
 - [4] Remove the accessories unit box (3).
 - [5] Grasp the handles on the top of the machine unit box (4), lift it, and place it on a flat, sufficiently load bearing surface.
 - [6] Remove the transport locks (5).
 - [7] Carefully lift the machine unit box (4).
 - ⇒ The inner cardboard cover(6) flips open.
 - [8] Remove the top (7) and bottom foam (8). Place the machine on a flat, sufficiently load-bearing surface.
- Result
- ⇒ The machine is unpacked.
Retain the packaging for possible future transport.

5

5.4 Installing and Connecting

Requirement

- The BPS C2 is unpacked.
→ *Section 5.3 “Unpacking Older Versions of BPS C2-2 (Hardware Version 1.5)”, p. 31*
- The BPS C2 is placed on a suitable, sufficiently stable surface.
→ *Section 4.2.4 “Installation Area”, p. 23*

Items Supplied

- The BPS C2 machine
- Display
- Customer documentation (Quick Start Guide, Safety information)

External devices such as printers or barcode readers are optional and must be ordered separately.

You will find the connections on the rear of the machine.

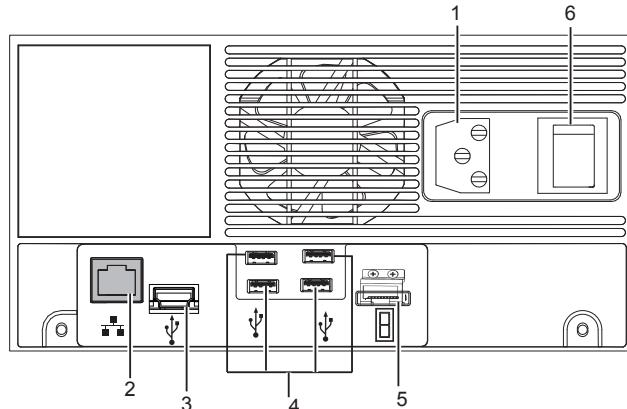


Figure 8: Connections

1 Connection for power supply

2 LAN Interface

3 Mini-B USB Interface for external PC

The serial interface is used for connecting the BPS C2 to a CMS.

4 USB 2.0 A Interface for Printer/Mouse/Barcode Reader/Keyboard

5 GUI USB 2.0 B Display/ host PC Connector

6 Power Switch

Requirements

- The BPS C2 and all cable connections are easily accessible.
- The BPS C2 is easy to open.



DANGER

Danger of electric shock

Damaged cables or plugs can cause electric shock, short circuits, fire, etc. This may result in death or serious injury.

- Ensure that plugs or cables are not crushed or placed under extreme weight.
- Ensure that the cables are routed safely.
- Ensure that the cables do not hang out.



CAUTION

Cables are routed along the floor.

Danger of tripping

Make sure that all cables are routed safely.

**NOTICE**

Skewed installation of the machine/device

Risk of impaired function

1. Make sure the machine/device is on a horizontal table top.
2. Make sure that no objects, such as pens or screwdrivers, are located underneath the machine/device.

Mains Cable

- [1] Connect the power cable to the power supply connection (1).

LAN Cable

- [2] Connect the LAN cable to the LAN interface (2).

LCD Display

- [3] Connect the LCD display to the GUI display connector (5).

Mouse/Keyboard/ Printer/USB/Barcode (Optional)

- [4] Connect the mouse/keyboard/printer/USB/barcode to the USB interface(4).

Result

- ⇒ The BPS C2 is now ready for your use.

**Important!**

Before powering on the BPS C2 for the first time, make sure you remove the MTS Spacer from the machine, and dispose it carefully.

To remove the MTS spacer:

1. Open the BPS C2.

→ *Chapter 12 “Opening and Closing BPS C2”, p. 171*

2. Remove the MTS spacer.

Make sure you dispose the spacer carefully.

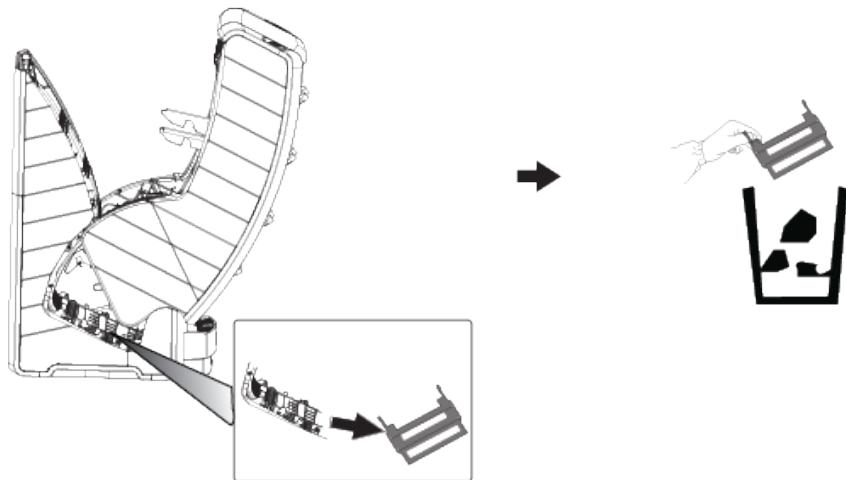


Figure 9: MTS Spacer Flyer Disposal

3. Close the BPS C2.

→ *Section 12.4 “Closing BPS C2”, p. 174*

6 User Interface

The BPS C2 has three user types:

- Operator:
 - Performs banknote processing and related operations.
 - Select currency
 - Process banknotes
 - Print/export reports
 - Dump service logs
 - View software version
 - Export raw data
 - Adjust screen brightness
- Supervisor:
 - Performs various system administration operations.
 - View operation details
 - Print/export reports
 - View software version
 - Update software (configuration package and language only)
 - Change system settings
 - Set fitness threshold
- Service:
 - Performs the service-related tasks.

For more information on the various service-related tasks, see
→ *BPS C2 Service Manual*.

When you start the BPS C2, the login screen is launched.



Figure 10: Main Screen

- 1 Operator
To log in as an operator.
- 2 Supervisor
To log in as a supervisor.
- 3 Service
To log in as service engineer.
- 4 Language
To set the language.
→ *Section 8.3 “Changing GUI Language”, p. 88*

An overview of all the symbols can be found in the Appendix.

→ *Chapter D “Symbols Used”, p. 217*

6.1 Graphical User Interface (GUI) Design

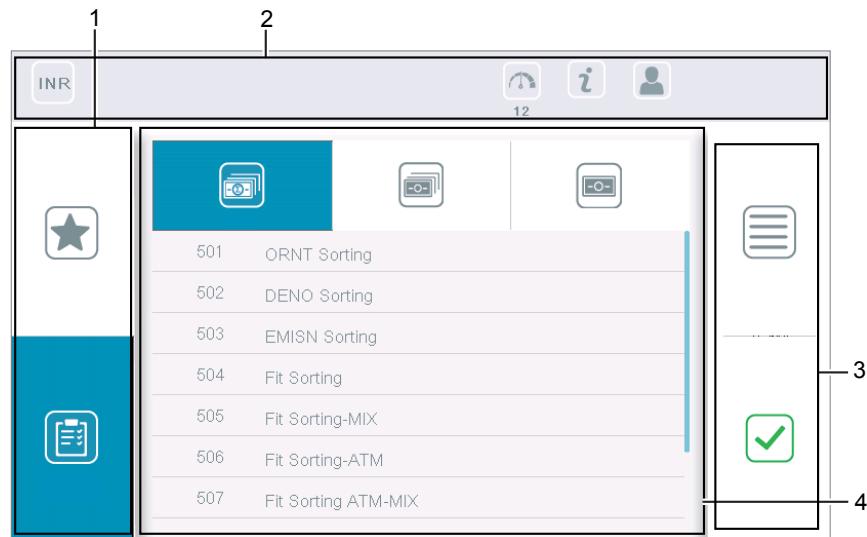


Figure 11: GUI Design

6

The BPS C2 GUI is structured into four areas as shown in the above image.

- 1 - View bar
- 2 - Header
- 3 - Action bar
- 4 - Menu/Content

6.2 Operator

The operator has access to various banknote processing option. Once you select the operator user, you are prompted to enter your operator ID.

The operator ID is an optional field. You can use the ID assigned to you. If you do not have an ID, you can select  and proceed.

→ *Section 8.2.1 “Logging in as Operator”, p. 86*

The following banknote processing operating modes are available:

- Orientation sorting
- Denomination sorting
- Fitness sorting
- Emission sorting
- Deposit processing
- Payout processing
- Count Mode

There are 21 default operating modes. Each operating mode has a numeric code. You can select an operating mode from the  or



→ *Section 7.3 “Operating Modes”, p. 60*

6.2.1 Operating Mode Selection Screen



Figure 12: Operating Mode Screen

1 Currency

Displays the selected currency.

Use the currency button to change the currency.

→ *Section 7.2 “Banknotes, Tickets and Other Transport Objects”, p. 59*

2 Favorite OP Mode

Displays the favorite operation modes.

→ *Section 7.4 “Favorite Operating Modes”, p. 71*

3 List

Lists the selected operating modes.

a) All OP Mode List: Selects all operating modes.

b) Multi-Denomination List: Selects the multi-denomination operating modes.

c) Single Denomination List: Selects the single denomination operating modes.

4 Processing Speed

Displays the processing speed at which the banknotes are processed.

You can also change the banknote processing speed by selecting the processing speed button.

There are two banknote processing speeds:

- High speed

At a high speed, up to 17.5 banknotes are processed per second.

- Low speed

At a low speed, up to 12 banknotes are processed per second.

→ *Section 9.2 “Setting Processing Speed”, p. 92*

5 Info

The info button is enabled when there is a startup error. When enabled, this button changes its color to red.

Use this button to view the startup errors, if any.

→ *Section 7.15 “Machine Status Information”, p. 82*

6 User

Displays the current user mode (e.g. operator).

7 Menu

Use the menu button to navigate to the menu items.

8 OK

6.2.2 Operator Menu

In the operator menu, there are two screens with the following menu options. You can navigate from one screen to another by swiping.

The following menu options are available for the operators:

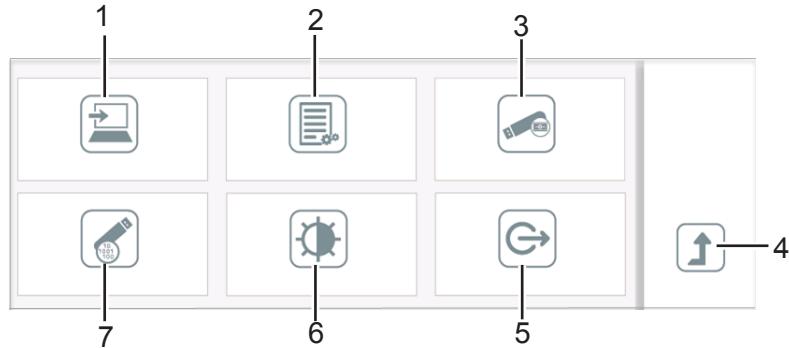


Figure 13: Operator Menu Screen 1

- 1 Software version
Displays software version.
→ *Section 9.21 “Viewing the Software Version Details”, p. 119*
- 2 Reporting
→ *Section 7.7 “Printing/Sending/Copying Report”, p. 74*
- 3 Exporting logs
→ *Section 9.20 “Copying Log Files to USB Stick”, p. 118*
- 4 Back
Use the back button to navigate to the previous screen.
- 5 Logout
Use the logout menu option to logout from the operator mode.
→ *Section 9.29 “Logging Out from Operator Mode”, p. 127*
- 6 Brightness
Adjusts the display screen brightness.
→ *Section 9.22 “Adjusting Screen Brightness”, p. 119*
- 7 Export Raw data
→ *Section 7.6 “Logs, Traces, Raw Data, and Self Test Levels”, p. 72*
→ *Section 9.15 “Exporting Raw Data”, p. 114*

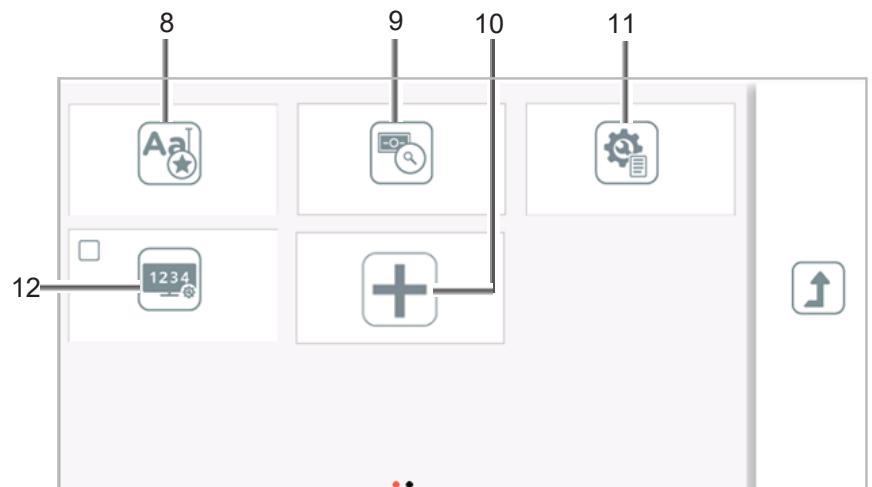


Figure 14: Operator Menu Screen 2

8 Enable Op Mode Name/Number

→ *Section 9.23 “Enabling/Disabling Favorite Operating Mode Name View”, p. 120*

→ *Section 7.4 “Favorite Operating Modes ”, p. 71*

9 Serial Number Search

→ *Section 7.11 “Serial Number Storage”, p. 79*

→ *Section 9.24 “Searching Banknote Data”, p. 121*

10 Grand Total

The **Grand Total** option allows you to view the consolidated accounting data of all processed banknotes that are processed starting from the time it is enabled till the time it is disabled.. The accounting data is accumulated in the duration in which the grand total is enabled. It is possible to enable/disable the grand total by using the configured Hotkey.

Once the grand total is disabled, grand total print report/grand total XML report, whichever is configured from the BPS Eco-Configurator is generated.

Grand Total function is applicable to all operating modes and currencies.

→ *Section 9.28 “Viewing Grand Total”, p. 126*

→ *Section 9.27 “Enabling/Disabling Grand Total ”, p. 125*

11 Report Configuration

The **Report Configuration** menu in the Operator menu provides the option the of enabling/disabling the configured reports and setting their trigger and target.

→ *Section 9.25 “Configuring the Reports”, p. 122*

12 External Display

→ *Section 7.12 “External Display Settings”, p. 80*

6.3 Banknote Processing Results Screen

The following result lists are available during banknote processing in the operator mode:

- Summary

Displays value, quantity, and the difference for different processing steps.

→ *Section 6.3.1 “Summary View”, p. 44*

- Reject/Unfit

Displays value, quantity and details of the rejected banknotes for different processing steps.

→ *Section 6.3.2 “Reject/Unfit View”, p. 46*

- Stacker

Displays value and quantity of banknotes in each stacker for different processing steps.

→ *Section 6.3.3 “Stacker View”, p. 47*

- Detail

Displays denomination wise quantity, value and total count for different processing steps.

→ *Section 6.3.4 “Detail View”, p. 48*

6

6.3.1 Summary View

The **Summary** displays the value and quantity of banknotes for different banknote processing operations. The **Summary** has different view for different accounting units:

Batch Processing

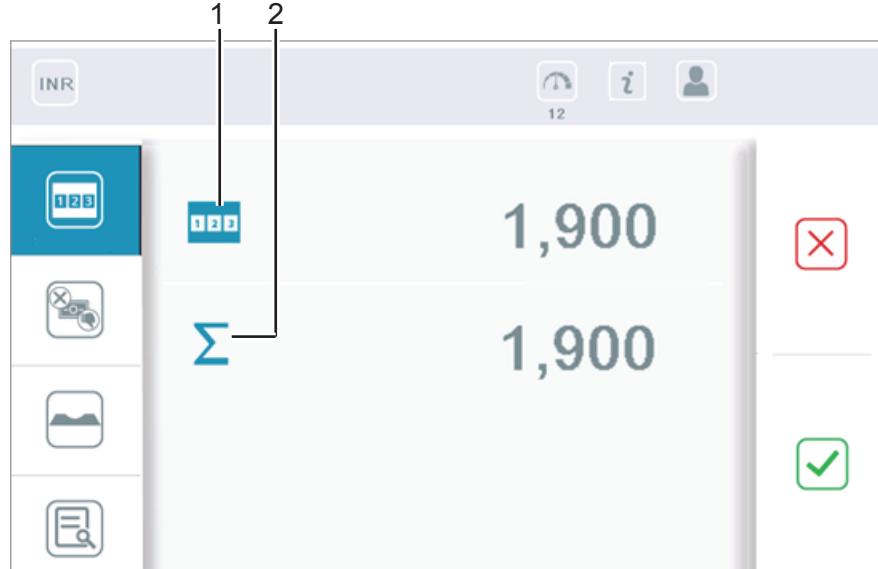


Figure 15: Summary View for Batch Processing

1 Processed banknote count

2 Value

Deposit Processing

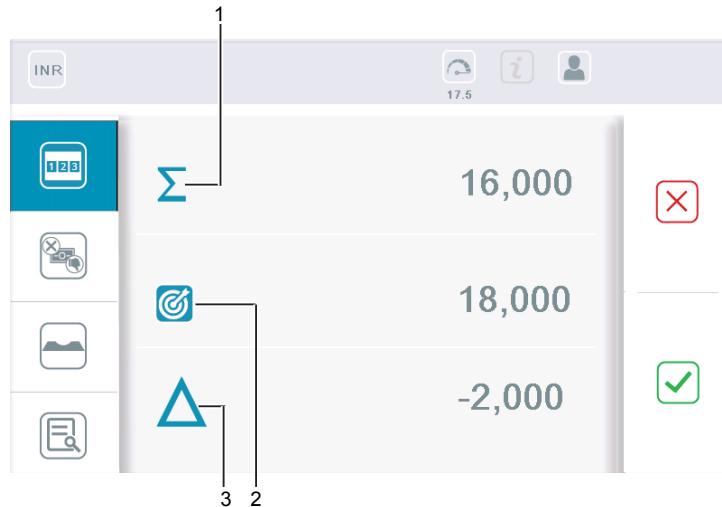


Figure 16: Summary for Deposit Processing

- 1 Processed banknote value
- 2 Declared amount
- 3 Difference between declared amount and actual processed value

Payout processing

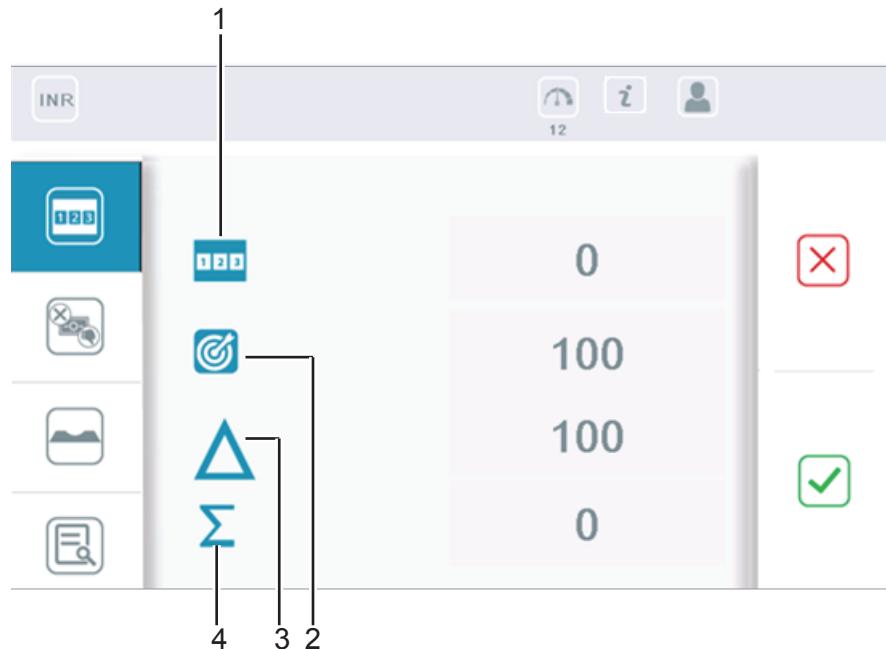


Figure 17: Summary for Payout Processing

- 1 Processed banknote count
- 2 Declared amount
- 3 Difference between declared amount and actual processed value
- 4 Total value

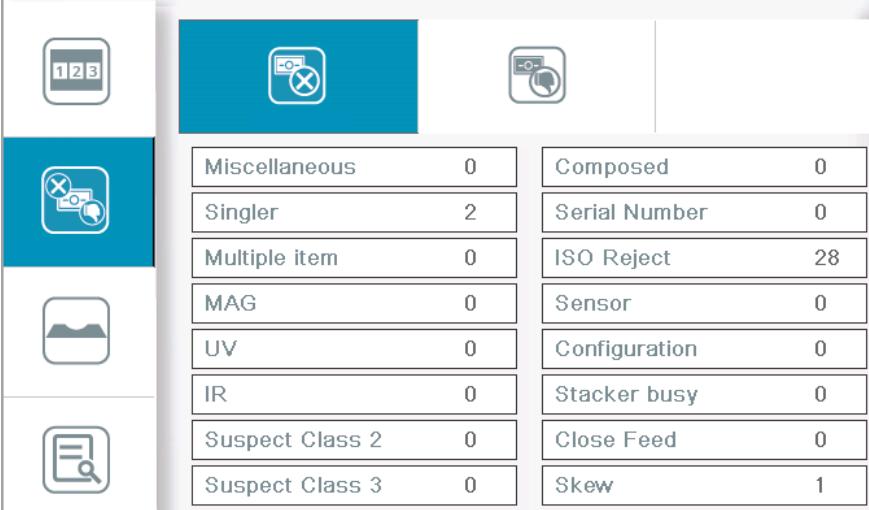
6.3.2 Reject/Unfit View

The **Reject/Unfit** displays quantity and reject reasons of the rejected banknotes for different processing steps in two categories:

- Reject reasons
- Unfit reasons (only for the fitness related operating modes)

Reject Tab

In the **Reject/Unfit** view, the rejected banknotes are sorted on the basis of their reject reason.



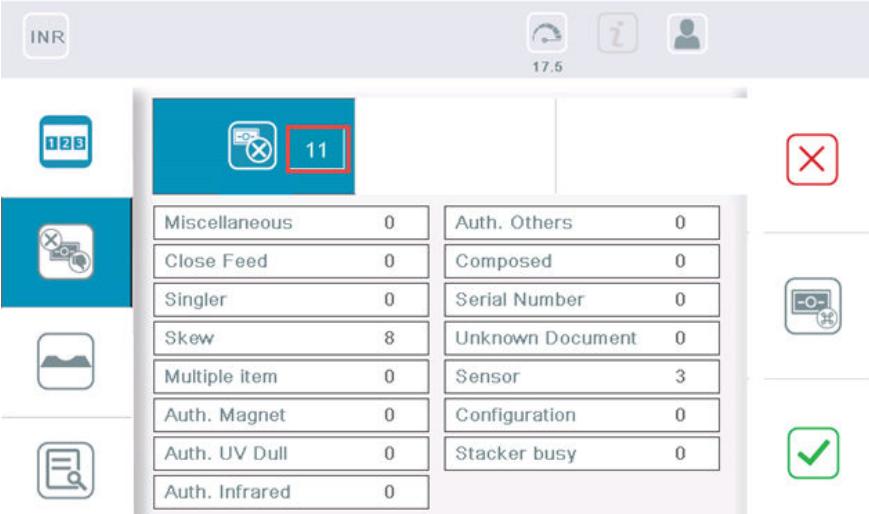
	Miscellaneous 0	Composed 0
	Singler 2	Serial Number 0
	Multiple item 0	ISO Reject 28
	MAG 0	Sensor 0
	UV 0	Configuration 0
	IR 0	Stacker busy 0
	Suspect Class 2 0	Close Feed 0
	Suspect Class 3 0	Skew 1

Figure 18: Reject View

Reject Count

When the reject count switch is enabled, the number of rejected banknotes is displayed in the banknote processing results.

→ Section 11.11 “Enabling/Disabling Reject Count View”, p. 147



	17.5			
		11		
	Miscellaneous 0	Auth. Others 0		
	Close Feed 0	Composed 0		
	Singler 0	Serial Number 0		
	Skew 8	Unknown Document 0		
	Multiple item 0	Sensor 3		
	Auth. Magnet 0	Configuration 0		
	Auth. UV Dull 0	Stacker busy 0		
	Auth. Infrared 0			

Figure 19: Reject Count View

Unfit Tab

In **Unfit** view, the banknotes are sorted to various unfit category. The **Unfit** tab is visible only for the fitness operating modes.

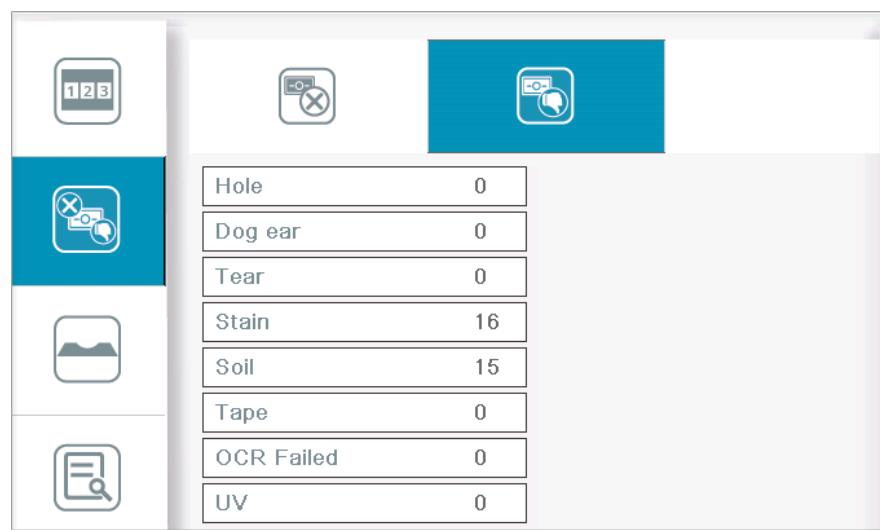


Figure 20: Unfit View

Counterfeit Indicator

When the BPS C2 detects counterfeit or suspect banknotes, the counterfeit indicator  appears on **Reject/Unfit** tab.

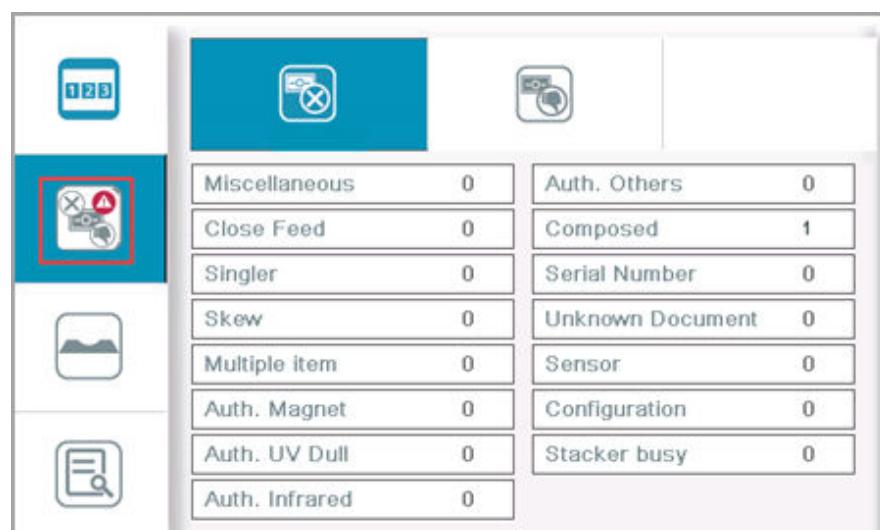
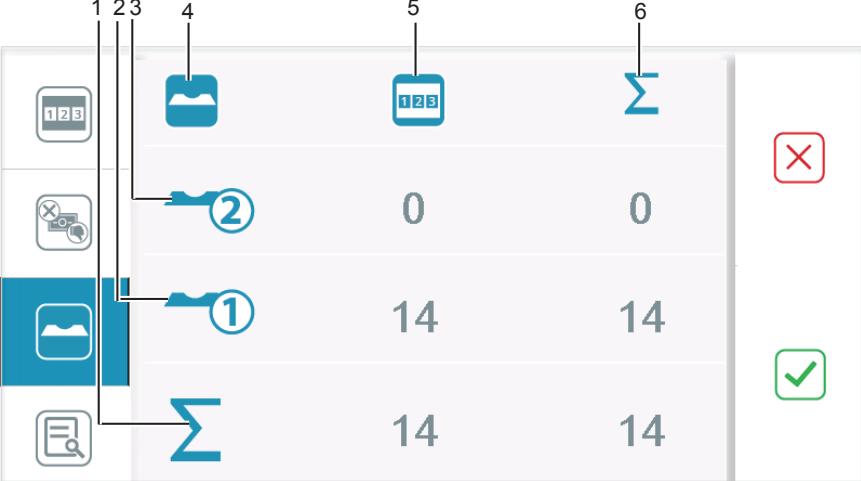


Figure 21: Counterfeit Indicator View

The suspect/counterfeit banknotes are sorted to the reject stacker. The counterfeit indicator will disappear when the reject stacker is empty and the next banknote is singled.

6.3.3 Stacker View

Displays value and quantity of banknotes in each stacker for different processing steps.



1	2	3	4	5	6
	2			0	0
	1			14	14
				14	14

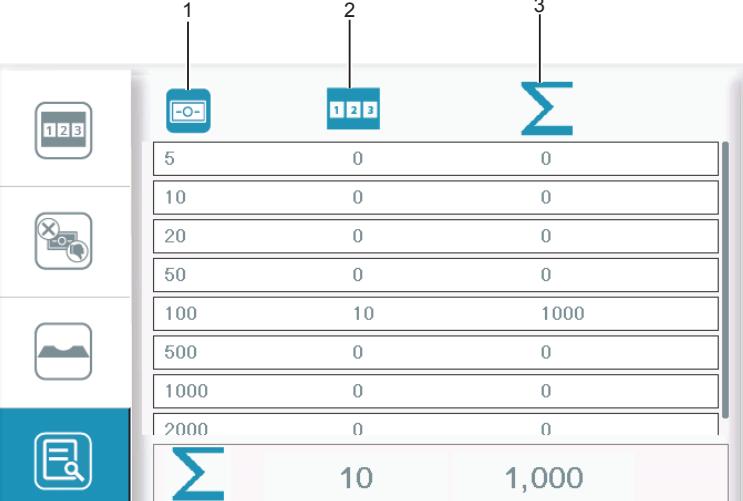
Figure 22: Stacker View

- 1 Count of banknotes in each stacker
- 2 Stacker 1
- 3 Stacker 2
- 4 Stacker identification number
- 5 Current stacker banknote count
- 6 Accumulated stacker banknote count for the deposit

6

6.3.4 Detail View

The **Details** view displays denomination wise quantity of banknotes for different processing steps.



1	2	3
5	0	0
10	0	0
20	0	0
50	0	0
100	10	1000
500	0	0
1000	0	0
2000	0	0
	10	1,000

Figure 23: Detail view

- 1 Denomination
- 2 Count
- 3 Total value

6.4 Supervisor

The supervisor menu provides various system administration options.

In the supervisor menu, there are two screens with the following menu options. You can scroll from one screen to another by swiping.

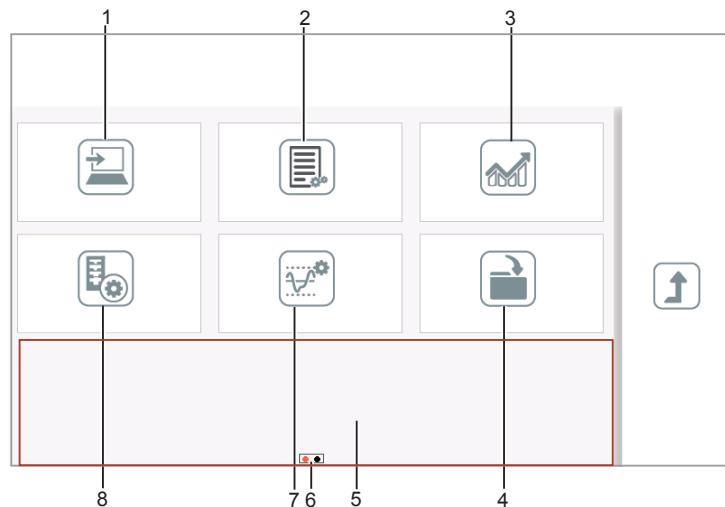


Figure 24: Supervisor Menu Screen 1

- 1 Software Versions
Displays the software version.
→ *Section 9.21 “Viewing the Software Version Details”, p. 119*
- 2 Reporting
→ *Section 7.7 “Printing/Sending/Copying Report”, p. 74*
- 3 Operation Details
Displays system health information.
→ *Section 11.12 “Viewing Operation Details”, p. 149*
- 4 Installation
→ *Section 6.4.2 “Installation Menu”, p. 56*
- 5 Swipe area
Scroll/Tap in this area to swipe to the next screen for more menu items as shown in the following figure.
- 6 Screen Indicator
Indicates the screen when scrolling from one screen to another. The red dot indicates the current screen status.

7 Fitness Threshold Settings

Use the fitness threshold settings menu option to set the sorting thresholds for fitness sorting.

→ *Chapter C “Description of the Criteria for Fitness Sorting”, p. 213*

The set values apply to all operating modes. Depending on the adaptation, you may change the sorting threshold for every denomination that is based on emission and every property/quality of the banknotes.

→ *Section 11.13 “Changing the Fitness Threshold”, p. 149*

8 System Settings

Use the system settings option to set various system settings.

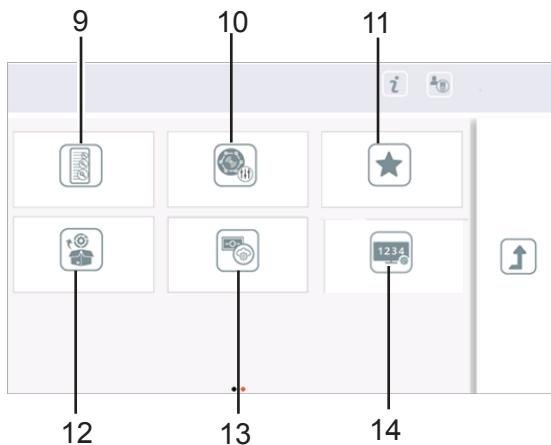


Figure 25: Supervisor Menu Screen 2

9 Trace Level

→ *Section 7.6 “Logs, Traces, Raw Data, and Self Test Levels”, p. 72*

→ *Section 11.19 “Setting the Trace Level”, p. 156*

10 Self-Test Level

→ *Section 7.6 “Logs, Traces, Raw Data, and Self Test Levels”, p. 72*

→ *Section 11.18 “Setting the Self Test Level”, p. 155*

11 Favorites

→ *Section 7.4 “Favorite Operating Modes”, p. 71*

→ *Section 11.16 “Setting Favorite Operating Mode”, p. 153*

12 Export Config Package

→ *Section 7.9 “Configuration Package”, p. 77*

→ *Section 11.17 “Exporting Configuration Package”, p. 155*

13 Serial Number Storage Settings

→ *Section 7.11 “Serial Number Storage”, p. 79*

→ *Section 11.20 “Enabling Serial Number Storage Switch”, p. 157*

14 External USB

→ *Section 7.12 “External Display Settings”, p. 80*

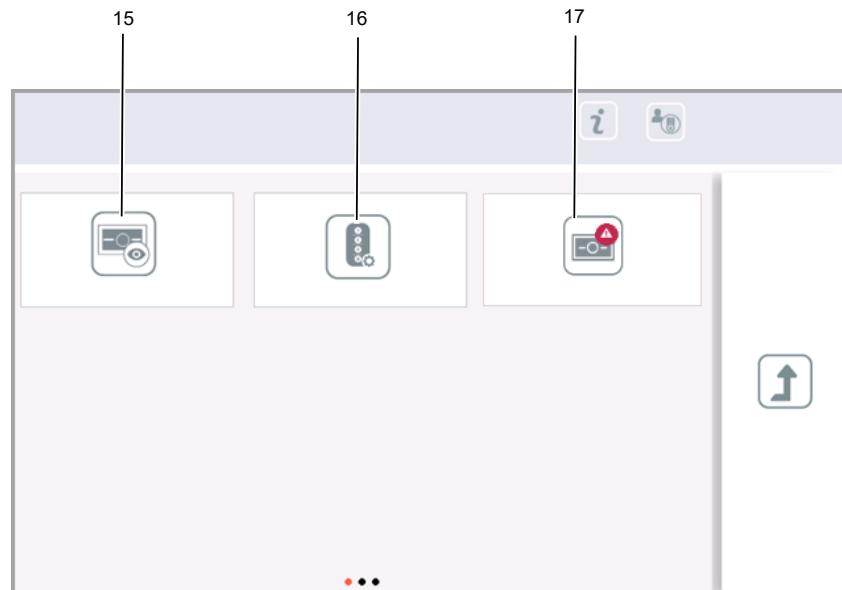


Figure 26: Supervisor Menu Screen 3

15 Banknote Display

The **BN Display** menu allows you to view the image last five processed banknotes/tickets/header cards along the quality parameter, for example, fit, unfit, reject.

→ *Section 11.30 “Displaying Processed Banknote Image”, p. 167*

16 Configure Hotkeys

→ *Section 3.2 “Key Pad”, p. 14*

→ *Section 11.28 “Configuring the HotKeys”, p. 164*

17 Serial Number SearchList

→ *Section 7.13 “Serial Number (SN) Search List”, p. 80*

→ *Section 11.29 “Installing the Serial Number (SN) Search List”, p. 166*

6.4.1 System Settings Menu

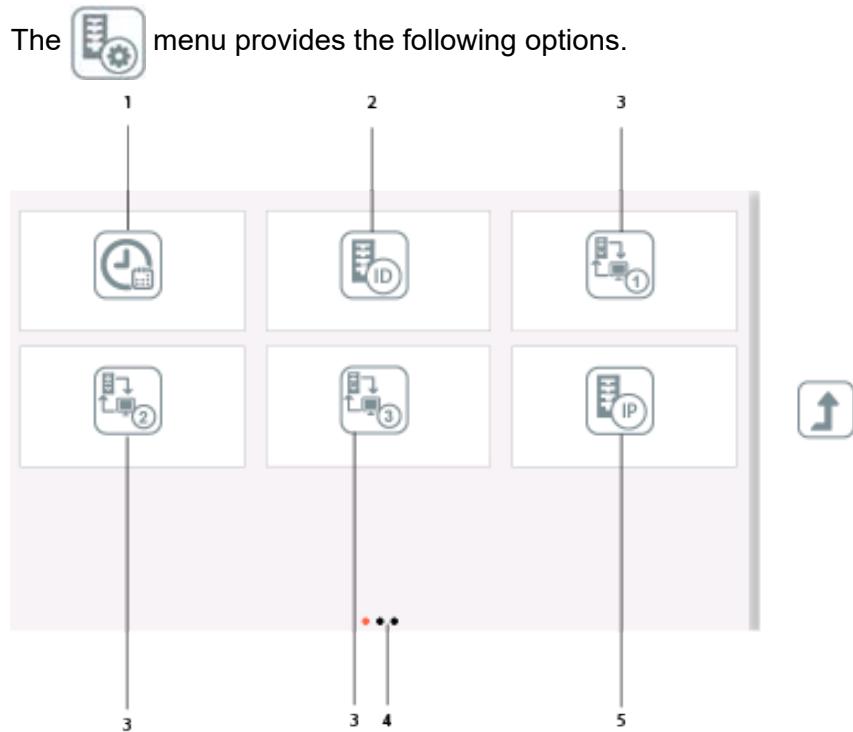


Figure 27: System Settings Menu Screen 1

1 Date/Time

Sets date/time/time-zone of the BPS C2.

→ *Section 11.1 “Setting Date and Time”, p. 133*

2 Machine ID

You can set a machine ID for each machine. It appears in all the reports and in the name of the files transferred via the data interface.

The machine ID is independent of the serial number that the manufacturer provided.

→ *Section 11.2 “Setting Machine ID”, p. 135*

3 (S)FTP 1/(S)FTP 2/(s) FTP 3

You can transfer the reports from the BPS C2 to a server using the file transfer protocol (FTP).

Secured file transfer protocol (SFTP) is a secured way of transferring the file from machine to SFTP server

To transmit reports over file transfer protocol/secured file transfer protocol, you must set the (S)FTP IP address in the BPS C2.

The BPS C2 allows you to configure up to three (S)FTP servers for data transmission.

→ *Section 11.3 “Changing Secure File Transfer Protocol (SFTP/FTP) Settings”, p. 136*

4 Swipe area

Scroll/Tap in this area to swipe to the next screen for more menu items as shown in the following figure.

5 Machine IP

The IP address of BPS C2 is set by default to 192.168.2.1. The subnet mask is set to 255.255.255.0.

You can change this IP address, the subnet mask and the gateway IP address directly at the BPS C2. Alternatively, you can assign the network settings for the BPS C2 dynamically through the DHCP protocol.

If using user management, you must connect the BPS C2 to a BPS gateway. The BPS gateway transfers user management data to all the BPS C2 on site. This BPS gateway should not be confused with the gateway IP address that you configure for the machine.

→ *Section 11.4 “Setting Machine IP Address”, p. 139*

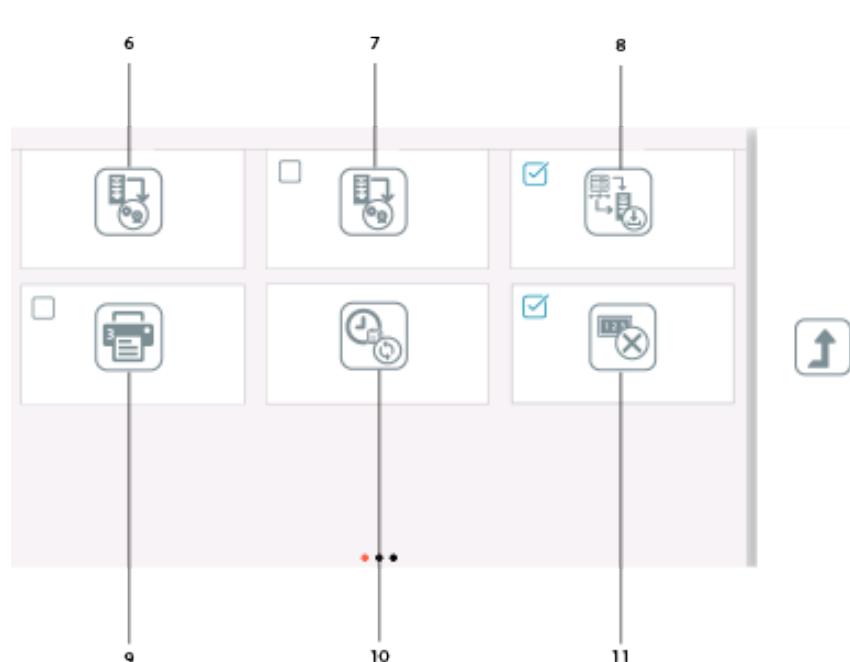


Figure 28: System Settings Menu Screen 2

6 VSI Settings

Configures the video surveillance interface server.

→ *Section 7.8 “Video Surveillance Interface (VSI)”, p. 76*

→ *Section 11.7 “Configuring Video Surveillance Interface”, p. 142*

7 VSI

Activates/deactivates the video surveillance interface.

→ *Section 7.8 “Video Surveillance Interface (VSI)”, p. 76*

→ *Section 11.6 “Activating Video Surveillance Interface Switch”, p. 141*

8 Auto Install

The **Auto Install** switch is used to activate/deactivate automatic installation/upgrade of the following software packages on the BPS C2.

When the **Auto Install** switch is enabled, the BPS C2 automatically installs the software package, without user intervention, on the first non-erroneous shutdown after receiving the package. The BPS C2 must be connected to network via LAN.

→ *Section 11.8 “Enabling/Disabling Automatic Installation Switch”, p. 143*

9 3" Printer

Toggles between three inch and two inch print width.

→ *Section 7.7 “Printing/Sending/Copying Report”, p. 74*

→ *Section 11.9 “Enabling Three Inch Printer”, p. 144*

10 SNTP

You can synchronize the BPS C2 date and time with the video surveillance system via SNTP. When the BPS C2 is started, time synchronisation between server and the BPS C2 is performed if the SNTP is connected.

The connection status is displayed on the  screen.

The SNTP is enabled by default.

→ *Section 11.5 “Changing Simple Network Time Protocol (SNTP) Settings”, p. 140*

Use the **Date/Time** menu to set the time-zone.

→ *Section 11.1 “Setting Date and Time”, p. 133*

11 Reject Count

→ *Section 6.3.2 “Reject/Unfit View”, p. 46*

→ *Section 11.11 “Enabling/Disabling Reject Count View”, p. 147*

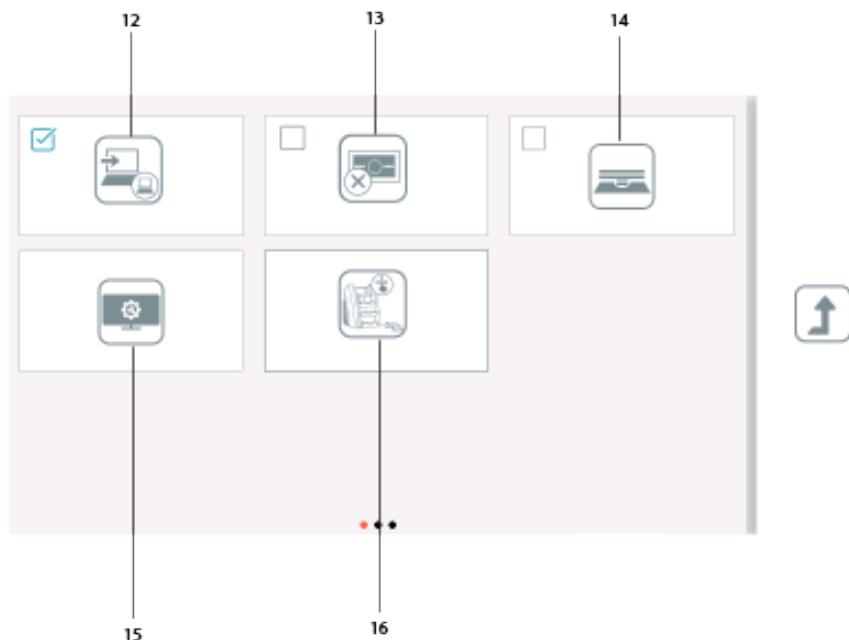


Figure 29: System Settings Menu Screen 3

6

12 Remote Desktop (RDP)

The remote desktop switch is used to access the BPS C2 user interface from a remote operating PC. The PC and the BPS C2 must be on the same network. Machine IP address of the BPS C2 is used to start the RDP connection.

→ *Section 11.10 “Activating Remote Desktop (RDP) Switch”, p. 145*

13 Counterfeit Indicator

→ *Section 6.3.2 “Reject/Unfit View”, p. 46*

14 Reject Overrun

During banknote processing, the banknote transport stops automatically when the delivery stacker is full. The BPS C2 directs a maximum of three banknotes that are assigned to this stacker into the reject compartment.

If the reject overrun feature is enabled, the BPS C2 sends the banknotes to the reject compartment if the respective delivery stacker is full. The banknote processing stops when the reject stacker is full.

The banknote processing resumes after the reject stacker and at least one delivery stacker are empty.

If tandem reject stacker is configured in your configuration package, then the banknote processing stops only when both the reject stackers are full. The banknote processing resumes only when any one of the reject compartments is empty.

→ *Section 11.22 “Enabling Reject Overrun”, p. 158*

15 CheckTV

The CheckTV application extracts the content of XML deposit report and sends it to the connected serial device via USB to serial connection. The CheckTV switch allows you to enable/disable the CheckTV application.

→ *Section 11.24 “Registering/Unregistering CheckTV”, p. 160*

16 External Interface

→ *Section 10.3 “External Interfaces Menu”, p. 130*

6.4.2 Installation Menu

Use the **Installation** menu item to update the configuration package or language software.

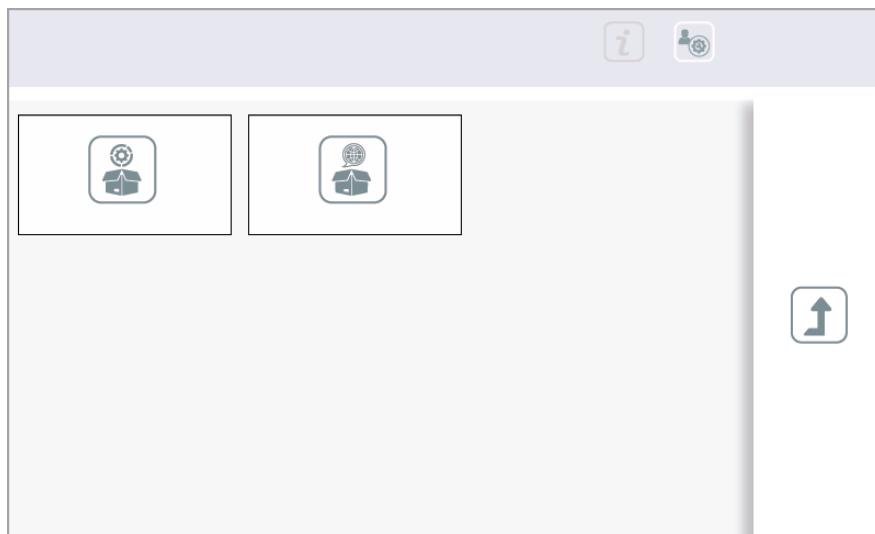


Figure 30: Installation Menu

The **Software** menu provides the following options:

- Configuration package ()
 → *Section 7.9 “Configuration Package”, p. 77*
 → *Section 11.14 “Updating Configuration Package”, p. 151*
- Languages package ()
 → *Section 7.10 “Language Package”, p. 78*
 → *Section 11.15 “Updating Language Package”, p. 152*

Software update can be performed in either of the following ways:

- Automatically
- Manually
 → *Section 11.14 “Updating Configuration Package”, p. 151*

→ *Section 11.15 “Updating Language Package”, p. 152*

6.5 Service

The service mode provides service related menu options.

→ *BPS C2 Service Manual*

7 General Operating Information

7.1 Important Terms

	The most important terms for working with the machine are explained below.
Batch	<ul style="list-style-type: none">• The value of banknotes is not known;• accounting based on counted banknotes;
Deposit	<ul style="list-style-type: none">• Value of banknotes is given;• accounting against target value of deposit;
Difference	For the accounting units "Deposit" and "Input Package", the machine counts against a given banknote value or a given number of banknotes. In the case of a shortfall, the machine outputs an error message.
Emission	Emissions (issue) are different issues of the same denomination.
Manual Inspection	If the machine repeatedly sends rejects to the reject stacker, you must inspect these banknotes manually.
Rerun	You can have rejects reprocessed automatically. For a rerun you remove the rejects from the reject stacker and place these banknotes in the singler again.
Rejects	Rejects are banknotes or objects that the machine cannot sort automatically or which it cannot positively identify. The machine sends rejects to the reject stacker.

7.2 Banknotes, Tickets and Other Transport Objects

Banknotes	You can select different currencies depending on the factory settings. The currently selected currency is visible at the top left of the screen.
Ticket Reading Options	The BPS C2 can process banknotes and tickets mixed together. Tickets have abbreviation DOC instead of the currency abbreviation. Selecting tickets for banknote processing is similar to the process of selecting currencies. You can process banknotes and tickets mixed together by selecting the MIX currency. The BPS C2 allows one currency and one ticket to be processed together. The BPS C2 records the processing data for the tickets and banknotes in reports. On completion of each accounting unit, the BPS C2 sends a report with a list of all Ticket IDs assigned to the accounting unit.

	You can process tickets in single or mixed operating mode.
	<ul style="list-style-type: none"> ● Single mode: Process only tickets by selecting the DOC adaptation. ● Mixed mode: Process any one currency and one ticket by selecting the MIX adaptation.
BLK Currency	<p>If you select the BLK currency, the Count Mode will be activated. You can count objects in order to check the number of banknotes/tickets/transport objects. You can count objects in order to check the number of banknotes/ tickets.</p> <p>→ <i>Section 9.1 “Selecting Currency”, p. 91</i></p>

7.3 Operating Modes

The banknote processing procedure in the different operation modes differs depending on:

- Denomination: one or multiple
- Sorting operations
- Currency
- Orientation of the banknotes (one or several)
- Assignment of the sorting classes to the delivery stackers
- Stacker allocation (simple/tandem)
- Serial feeding of banknotes
- Continuous feeding of banknotes
- Banknote processing with header cards
- Accounting Units



Important!

Regardless of adaptation, various operating modes with multiple sorting combinations are available.

7.3.1 Sorting Operating Modes

You can sort banknotes in different sorting modes. The BPS C2 counts, verifies and sorts the banknotes to the delivery stackers as per the results. The total count and value of the sorted banknotes is displayed on the screen as result. The count of the banknotes in each stacker is also displayed on the respective Delivery Stacker Count Display.

You can select the sorting mode in one of the following ways:

- Select OP mode from  tab

- Select OP mode from  tab

The BPS C2 provides the default batch sorting operating modes as per the first reference document. The sorting modes are also known as Quick modes:

- Orientation Sorting :

Sorts banknotes separately according to their orientation for a single denomination. The banknotes have the following four orientation:

- Front upright
- Front upside down
- Back upright
- Back upside down

OP mode 501 is a batch accounting unit.

- Orientation Sorting - Tandem

Sorts banknotes as tandem per reference denomination and orientation

OP mode 517 is a batch accounting unit.

- Denomination Sorting:

Sorts banknotes according to denomination.

The denomination that the sensor recognizes first acts as the first reference for sorting. The denomination that the sensor recognizes next acts as the second reference. Similarly, the next two recognized denominations act as third and fourth reference respectively.

OP mode 502 is a batch accounting unit.

- Denomination Sorting - Tandem:

Sort banknotes as tandem per reference denomination

OP mode 516 is a batch accounting unit.

- Emission Sorting:

Sorts a denomination according to emission (series).

The banknote whose denomination and series is recognized first by the sensor then acts as the reference for sorting.

The next three recognized series of the banknotes of the denomination recognized first act as reference 2, reference 3, and reference 4 respectively.

OP mode 503 is a batch accounting unit.

→ *Section 7.3 “Operating Modes”, p. 60*

- Face Sorting - Single Denomination

Sort banknotes separately according to the face or reverse.

The denomination that the sensor recognizes first acts as the first reference for sorting.

The banknote whose face or reverse is identified first by the sensor acts as the reference for sorting. The orientation of the banknote (upright or upside down) does not matter. The BPS C2 sorts banknotes that do not match the reference and suspect banknotes to the reject stacker.

OP mode 514 is a batch accounting unit.

- Face Sorting - Mixed Denomination

Sorts banknotes for all denominations per face or reverse.

The denomination that the sensor recognizes first acts as the first reference for sorting. The denomination that the sensor recognizes next acts as the second reference. Similarly, the next two recognized denominations act as third and fourth reference respectively.

OP mode 515 is a batch accounting unit.

Delivery Stacker Banknote Face	Reject Stacker Banknote back
 Figure 31: Orientation 1	 Figure 32: Orientation 3
 Figure 33: Orientation 2	 Figure 34: Orientation 4

Name	Stacker 1	Stacker 2	Stacker 3	Stacker 4	Reject
ORNT Sorting	The first detected denomination along with orientation	The first detected denomination along with second detected orientation	The first detected denomination along with third detected orientation	The first detected denomination along with fourth detected orientation	<ul style="list-style-type: none"> ● Rejects ● Counterfeits ● Other denominations
DENO Sorting	The first detected denomination	The second detected denomination	The third detected denomination	The fourth detected denomination	<ul style="list-style-type: none"> ● Rejects

Name	Stacker 1	Stacker 2	Stacker 3	Stacker 4	Reject
					<ul style="list-style-type: none"> ● Counterfeits ● Other denominations
EMISN Sorting	The first detected denomination emission	Same denomination with second detected emissions	Same denomination with third detected emissions	Same denomination with fourth detected emissions	<ul style="list-style-type: none"> ● Rejects ● Counterfeits ● Other denominations
FACE Sorting	The first detected denomination along with first detected face of this denomination are sorted to stacker 1	Same as stacker 1	Stacker1 & 2 are tandem (as Stacke 1) Stacker 3 & 4 are tandem (As Stacke 2)	Same as stacker 3	<ul style="list-style-type: none"> ● Rejects ● Counterfeits ● Other denominations
FACE Sorting-MIX	The first detected denomination along with first detected face of this denomination are sorted to stacker 1	Same as stacker 1	Stacker1 & 2 are tandem (as Stacke 1) Stacker 3 & 4 are tandem (As Stacke 2)	Same as stacker 3	<ul style="list-style-type: none"> ● Rejects ● Counterfeits

Table 14: Stacker Assignment for Sorting Operating Modes

→ Section 9.7 “Sorting Banknotes in Batch Mode”, p. 99

7.3.2 Dynamic Denomination Sorting

Dynamic Denomination Sorting allows you to perform continuous denomination sorting for a single currency for single/multi deposits. The stacker assignment for dynamic denomination sorting is similar to denomination sorting. The only difference is whenever an empty stacker is available, the subsequent detected denomination

acts as a new reference for that respective stacker. The banknotes of the new reference denomination are sorted to that stacker. After the stacker has been emptied, the sorting (reference stacker assignment) is automatically reset. As a result the banknote processing continues until the singler is empty or the reject stacker is full.

→ *Section 9.8 "Processing Banknotes with Deposit", p. 100*

The following operating modes support dynamic denomination:

- Deposit Mode- Dynamic Stacking (**601**)
→ *Section 7.3.6 "Deposit Operating Modes", p. 69*
- Multi- Deposit Mode-Dynamic Stacking (**602**)
→ *Section 9.9 "Processing Banknotes in Multi Deposit", p. 102*



Important!

The reject overrun settings do not have any impact on Dynamic Denomination Sorting. The reject overrun is enabled by default. Changing the settings does not impact the banknote processing.

→ *Section 6.4.1 "System Settings Menu", p. 52*

7.3.3 Fitness Check Operating Modes

The following default operating modes available in the BPS C2 sorts the banknotes based on their fitness criteria:

- **Fitness Sorting for Single Denomination:**
In this operating mode, the banknotes are sorted according to the fitness criterion for single denomination.
The BPS C2 takes the first detected banknote denomination as a reference for sorting.
OP mode 504 is a batch accounting unit.
- **Fit Sorting - Tandem**
Sorts fit banknotes as tandem per reference denomination
OP mode 518 is a batch accounting unit.
- **Fit Sorting - Tandem**
Sorts fitbanknotes as tandem per reference denomination
OP mode 519 is a batch accounting unit.
- **ORNT/FIT Sorting - Tandem**
Sort fit & unfit banknotes per reference denomination and orientation
OP mode 520 is a batch accounting unit.
- **Fitness Sorting for Mixed Denomination:**
In this operating mode, the banknotes are sorted according to the fitness criterion for mixed denomination.

OP mode 505 is a batch accounting unit.

- ATM Fitness Sorting for Single Denomination:

In this operating mode, the banknotes are sorted according to the ATM fitness criterion for single denomination.

The BPS C2 takes the first detected denomination as a reference for the sorting.

The ATM fit banknotes of the first detected denomination act as the first reference.

The fit and the unfit banknotes of the first detected denomination act as the second reference.

OP mode 506 is a batch accounting unit.

- ATM Fitness Sorting for Mixed Denomination:

In this operating mode, the banknotes are sorted according to the ATM fitness criterion for mixed denomination.

The BPS C2 sorts the ATM fit banknotes of the first detected denominations as the first reference.

The fit and unfit banknotes of the same denomination act as the first reference.

OP mode 507 is a batch accounting unit.

→ *Section 9.7 “Sorting Banknotes in Batch Mode”, p. 99*

- ATM Fitness Sorting for Mixed Denomination:

In this operating mode, the banknotes are sorted according to the ATM fitness criterion for mixed denomination.

The BPS C2 sorts the ATM fit banknotes of the first detected denominations act as the first reference.

The fit and unfit banknotes of the same denomination act as the first reference.

OP mode 507 is a batch accounting unit.

→ *Section 9.7 “Sorting Banknotes in Batch Mode”, p. 99*

Name	Stacker 1	Stacker 2	Stacker 3	Stacker 4	Reject
Fit Sorting	ATM fit banknotes of first detected denomination	Fit banknotes of first detected denomination	Unfit banknotes of first detected denomination	As configured in the configuration package	<ul style="list-style-type: none"> ● Rejects ● Counterfeits ● Other denominations

7

Name	Stacker 1	Stacker 2	Stacker 3	Stacker 4	Reject
Fit Sorting - MIX	ATM fit banknotes of all denomination	Fit banknotes of all denominations	Unfit banknotes of all denominations	As configured in the configuration package	<ul style="list-style-type: none"> • Rejects • Counterfeits
Fit Sorting ATM	Fit banknotes of the first detected denomination	Fit and unfit banknotes of first detected denomination	As configured in the configuration package	As configured in the configuration package	<ul style="list-style-type: none"> • Rejects • Counterfeits • Other denominations
Fit Sorting ATM - MIX	Duplicate to 505	Fit and unfit banknotes notes for all denominations	As configured in the configuration package	As configured in the configuration package	<ul style="list-style-type: none"> • Rejects • Counterfeits
FitSortSingle-DenoFit-QuickTandem	The first detected denomination along with Fit/ATM fitness of the same denomination	Once Stacker 1 is full, banknotes are sorted to Stacker 2	Once Stacker 2 is full, banknotes are sorted to Stacker 3	Once Stacker 3 is full, banknotes are sorted to Stacker 4	<ul style="list-style-type: none"> • Rejects • Counterfeits • Other denominations • Unfit
FitSortSingle-DenoOriFit-QuickTandem	The first detected denomination along with first detected orientation and fitness of the same denomination	Once Stacker 1 is full, banknotes are sorted to Stacker 2	Once Stacker 2 is full, banknotes are sorted to Stacker 3	Once Stacker 3 is full, banknotes are sorted to Stacker 4	<ul style="list-style-type: none"> • Rejects • Counterfeits • Other denominations • Unfit Reject, Counterfeit, all other denominations, unfits and orientations

Name	Stacker 1	Stacker 2	Stacker 3	Stacker 4	Reject
FitSortSingle-DenoOriFit-Quick	First detected denomination along with first detected orientation and ATM fitness	First detected denomination along with first detected orientation and FIT fitness	Once Stacker 2 is full, banknotes are sorted to Stacker 3	First detected denomination along with first detected orientation and UNFIT fitness	<ul style="list-style-type: none"> ● Rejects ● Counterfeits ● Other denominations ● Unfit Reject, Counterfeit , all other deno , unfits and orientations

Table 15: Stacker Assignment for Fitness Check Operating Modes

The banknote processing for fitness check operating modes is similar to other sorting process.

7.3.4 Payout Modes

You can use payout mode to prepare pay-outs for customer with a target value specified. It is mandatory to enter the payout count as an input.

The BPS C2 will stop once the payout count is reached. The BPS C2 counts and sorts the banknotes of the first detected denomination in tandem mode until the payout count value is reached.

You can validate the deposit and then empty the singler and both the delivery stackers.

The banknotes of all the other denominations and the rejected banknotes, which includes mechanical rejects and authenticity failure, go to the reject stacker.

OP mode 508 is a payout accounting unit.

→ *Section 9.12 “Processing Banknotes in Payout Mode”, p. 110*

Name	Stacker 1	Stacker 2	Stacker 3	Stacker 4	Reject
Payout Mode	First detected denomination	Stacker 2 is used in stacker group mode	Stacker 3 is used in stacker group mode	Stacker 4 is used in stacker group mode	<ul style="list-style-type: none"> ● Rejects ● Counterfeits

Name	Stacker 1	Stacker 2	Stacker 3	Stacker 4	Reject
					<ul style="list-style-type: none"> ● Other denominations ● Extra banknotes of the same denomination on the transport path

Table 16: Stacker Assignment for Fitness Check Operating Modes

7.3.5 Count Mode

You can count objects in order to check the number of banknotes/tickets in count mode. If you select the **BLK** currency, the **Count Mode** is activated. Alternatively, the  HotKey is used to process banknotes in the count mode.

The BPS C2 does not check the objects for authenticity, currency, denomination, or orientation.

The currency does not affect the counting process. The **BLK** currency will be selected by default. The banknote whose size and thickness is recognized first by the sensor (if not rejected) acts as the reference for sorting. The banknotes are sorted in tandem mode. There is a size tolerance of (+/-) 2% and thickness tolerance of (+/-) 40%. The banknotes that do not match the reference, including tolerance, are rejected .

→ *Section 9.6 “Counting Banknotes/Tickets”, p. 99*

Name	Stacker 1	Stacker 2	Stacker 3	Stacker 4	Reject
Count	Documents of the same size and thickness as first detected	Once Stacker 1 is full, the documents are sorted to Stacker 2.	Once Stacker 2 is full, the documents are sorted to Stacker 3	Once Stacker 3 is full, the documents are sorted to Stacker 4.	Documents with varying size and thickness apart from the first detected will go in reject pocket

Table 17: Stacker Assignment for Fitness Check Operating Modes

**Important!**

Regardless of adaptation, various operating modes with multiple sorting combinations are available.

7.3.6 Deposit Operating Modes

The following default operating modes available in the BPS C2 performs deposits of the banknotes

- **Deposit Mode for Single Denomination:**

In this operating mode, the banknotes are processed in deposit mode for single denomination without any fitness detection. The banknotes of the single denomination are processed in tandem mode.

You can enter the deposit parameters. It is mandatory to enter the amount of deposit. All the authentic banknotes of the selected denomination goes to delivery stacker in tandem mode.

An optional online reconciliation is also available for the deposit. The rejected banknotes include other denomination, mechanical rejects, and authenticity failures.

OP mode **509** is a deposit accounting unit.

→ *Section 9.8 “Processing Banknotes with Deposit”, p. 100*

- **Deposit Mode for Mixed Denomination:**

In this operating mode, the banknotes are processed in deposit mode for mixed denomination without any fitness detection. The banknotes of multiple denomination are processed in tandem mode.

You can enter the deposit parameters. It is mandatory to enter the amount of deposit. All the authentic banknotes are sorted to the delivery stackers in tandem mode.

An optional online reconciliation is also available for the deposit. The rejected banknotes include mechanical rejects and authenticity failure.

OP mode **510** is a deposit accounting unit.

Online reconciliation is performed at the end of deposit.

- **Dynamic Denomination Deposit Mode**

In this operating mode, after closing the deposit, all the stackers are emptied and respective assigned denomination reference gets reset.

OP mode **601** is a deposit accounting unit.

→ *Section 7.3.2 “Dynamic Denomination Sorting”, p. 63*

Name	Stacker 1	Stacker 2	Stacker 3	Stacker 4	Reject
Deposit	All authentic banknotes of the selected denomination	All authentic banknotes, once Stacker 1 is full	All authentic banknotes, once Stacker 2 is full	All authentic banknotes, once Stacker 3 is full	<ul style="list-style-type: none"> • Rejects • Counterfeits • Other denominations
Deposit - MIX	All authentic banknotes	All authentic banknotes, once Stacker 1 is full	All authentic banknotes, once Stacker 2 is full	All authentic banknotes, once Stacker 3 is full	<ul style="list-style-type: none"> • Rejects • Counterfeits

Table 18: Stacker Assignment for Fitness Check Operating Modes

7.3.7 Multi Deposit Operating Mode

The multi deposit accounting unit allows you to perform multiple deposit within one operating mode without emptying the delivery stackers.

The banknotes of multiple denominations are processed in tandem mode. You can enter the deposit parameters. It is mandatory to enter the amount of deposit. All the authentic banknotes go to delivery stackers in tandem mode. An optional online reconciliation is also available for the deposit. The rejected banknotes, which includes mechanical rejects and authenticity failure, are sorted to the reject stacker.

Use the multiple deposit operating mode for preparing packets.

Multi Deposit with Dynamic Stacking

The operating mode **602** is used to process multi deposit with dynamic stacking.

In this operating mode, the stackers are not emptied after one deposit in the multi deposit is closed. The stacker assignment persists for the next deposit until the stacker is emptied for the next multi deposit.

→ *Section 7.3.2 "Dynamic Denomination Sorting", p. 63*



Important!

Reports are automatically printed, if set to do so in the configuration package.

→ *Section 9.9 "Processing Banknotes in Multi Deposit", p. 102*

7.3.8 Fast Deposit (FDP) Operating Mode

The FDP accounting unit is used for high speed accounting deposits without interruptions.

In FDP, you can enter the end of the next deposit while the BPS C2 is processing a deposit. The deposit id is a mandatory field.

For example, while processing deposit 1, you can enter the details of deposit 2 either by entering the values or by scanning the barcode, in case you are using safebags. :



Important!

Reports are automatically printed, if set to do so in the configuration package.

→ *Section 9.10 “Processing Banknotes in Fast Deposit Mode (FDP)”, p. 105*

7.4 Favorite Operating Modes

The operating mode selection screen displays the list of favorite operating modes.

Favorite Operating Mode Selection

You can add the frequently used operating modes to **Favorites** list. In the **Supervisor** menu, the **Favorites** menu displays the list of the favorite operating mode along with the respective identity numbers (ID) in the ascending order of operating mode IDs. You can select and set up to nine operating modes as favorite.

You can also set/change the favorite operating mode ID in the **Favorites** menu.

→ *Section 9.23 “Enabling/Disabling Favorite Operating Mode Name View”, p. 120*

Favorite Operating Mode Name/Number Switch

You can toggle between operating mode name and operating mode number view in the  tab in operating mode selection screen.

Use the **Opmode Name/Opmode Number** switch in the **Operator** menu to toggle between operating mode name view and operating mode number view.

Switch Icon	Name	Function
	Enable switch	Operating mode name view is enabled.
	Disable switch	Operating mode number view is enabled.

→ Section 9.23 “Enabling/Disabling Favorite Operating Mode Name View”, p. 120

7.5 Delivery Stacker Capacity

Use the  HotKey to change the delivery stacker capacity or the strap size. The maximum capacity of any delivery stacker is 250 banknotes. If strap size is successfully set to a non-zero value, the same limit is applied to all delivery stackers.

When you set the strap size to a non-zero value, the  icon appears on the  tab as well as on the  tab to indicate that **Strap Size** mode is active. If the strap size is set to "0" or "" (blank), the default delivery stacker capacity as per the configuration package is applied on each stacker.

→ Section 9.3 “Changing Delivery Stacker Capacity”, p. 93

7

7.6 Logs, Traces, Raw Data, and Self Test Levels

Logs

You can create troubleshooting traces and logs, and transfer the logs to a USB stick. The log contains the troubleshooting data of the current software status.

→ Section 9.20 “Copying Log Files to USB Stick”, p. 118

There is also an option of creating log files from the error message.

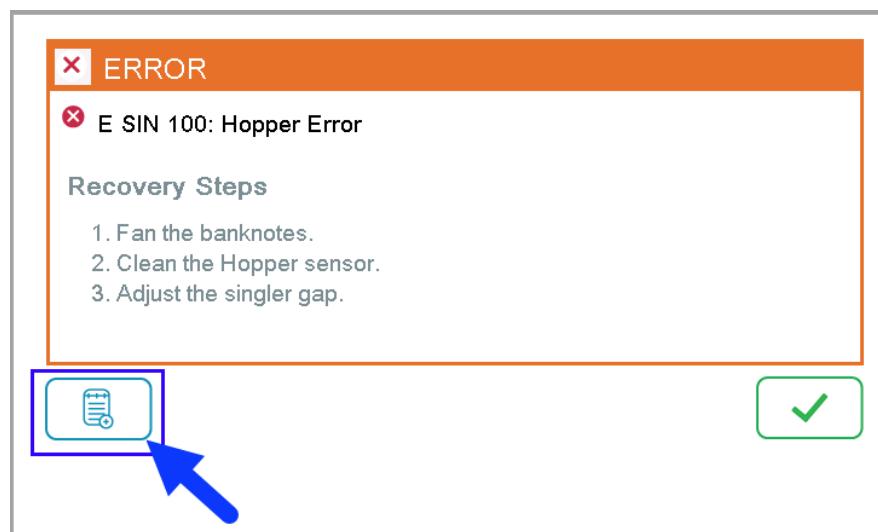


Figure 35: Logs Button in Error Messages

If you select the  button, the log files are created.

Raw Data	<p>The Export Raw Data menu is used to capture banknote raw data (<i>.nif</i>) file for:</p> <ul style="list-style-type: none">● MTS Calibration● Sensor Function Test <p>You can capture raw data for maximum 100 processed banknotes in one singling cycle from start to end.</p> <p>→ <i>Section 9.15 “Exporting Raw Data”, p. 114</i></p>
Traces	<p>The Trace Level menu option is used to set the level of details to be included in the log files for the DP (data processing) software.</p> <p>The default trace level setting is ERROR. The trace level can be changed as required depending upon the issue that will be analyzed. However, the changes will be valid only till the BPS C2 is shutdown. The trace level changes to the default value on restart.</p> <p>There are three levels:</p> <ul style="list-style-type: none">● ERROR● INFO● DEBUG <p>The trace logs are used for debugging the DP software.</p> <p>→ <i>Section 11.19 “Setting the Trace Level”, p. 156</i></p>
Sensor Self-Test Levels	<p>The Sensor Self-Test menu option is used to set the severity level of the dump logs for the sensor software. These logs are used to debug any sensor software-related errors.</p> <p>There are four levels:</p> <ul style="list-style-type: none">● Level 0● Level 1● Level 2● Default <p>The default self-test level is Default. The self-test level can be changed as required depending upon the severity of the issue that is being analyzed.</p> <p>→ <i>Section 11.18 “Setting the Self Test Level”, p. 155</i></p>

7.7 Printing/Sending/Copying Report

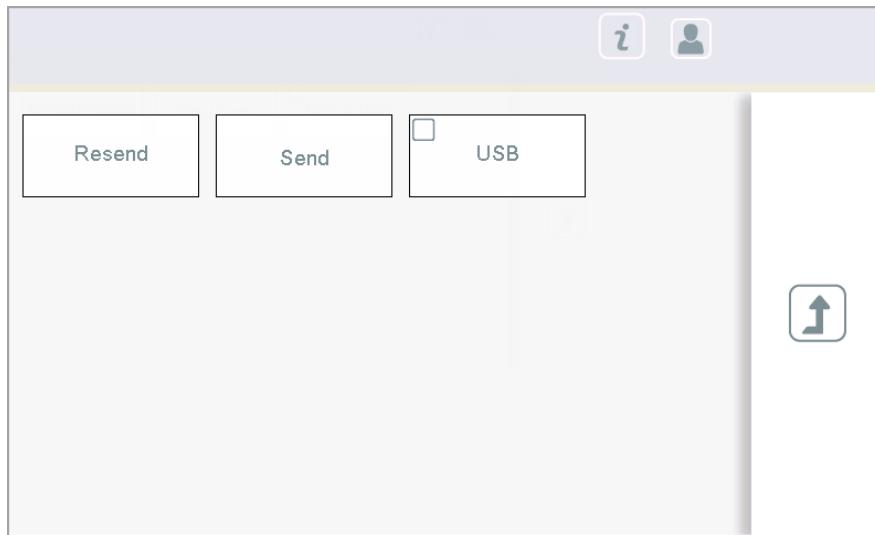


Figure 36: Reporting Menu

The **Reporting** menu, available in all the logins, provides the following options:

- Print/Send: The **Print Reports** menu option provides the list of reports, which are triggered by a user request. User trigger is available on the following reports:
 - Daily Balance Report
 - Operator Report
 - Reject Report
 - Service Report
 - Version Report
 - Machine Balance Report
 - Deposit Balance Report

These reports are displayed in **Reporting** menu as configured in the configuration package. You can print the reports manually.

→ *Section 9.16 “Manually Printing/ Sending Reports”, p. 115*

- Reprint/Resend: The **Reprint Reports** menu option provides the list of reports, which have been already printed/sent to any target or missed in printing/sending due to the unavailability of target or any other reason. You can print/send the reports again from here.

→ *Section 9.18 “Reprinting/Re-sending Reports”, p. 116*

- Copy to USB: The **USB** menu option allows you to copy any report to the USB stick. Use this option if you have not configured the USB target for reports, and you need a report in USB. A copy of the reports are copied in the *USB* folder of the USB drive.

→ *Section 9.19 “Copying Reports to USB Stick”, p. 117*

The list of available reports in the above menu options depends upon the configuration settings.

Reports can be printed/sent manually using:

- **Reporting** menu
- HotKey 

The list of printable reports for a particular user depends upon the configuration settings. Applicable for following print reports either Deposit balance can be triggered or daily balance

Based on the configured package, either of the following reports can be printed using  :

- Deposit balance report (priority 1)
- Daily balance report (priority 2)

The daily balance report has priority two, which means if both deposit balance report and daily balance report are configured with user request trigger, only the deposit balance report will be printed. If not deposit balance report is not configured, then only the daily balance report (if configured) will be printed. If none of the reports are configured, the following error message will appear when  is pressed:

The report is not configured

→ *Section 9.17 “Printing Reports Using HotKey”, p. 116*

Print Width

The **3"** Printer switch, available in the **Supervisor** login inside the **System Settings** menu, is used to toggle between printing on a two inch or a three inch printer.

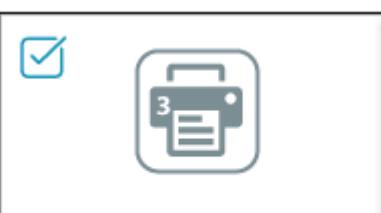
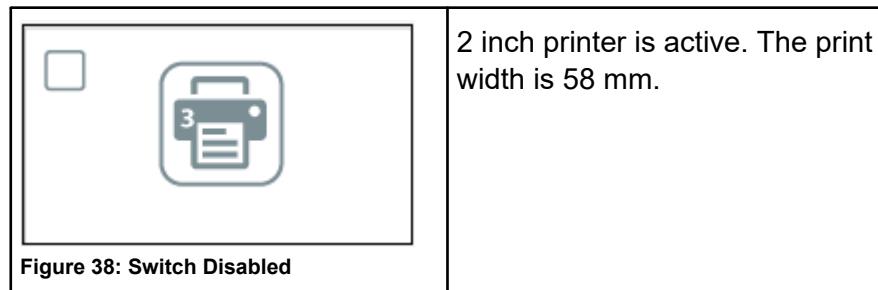
Switch State	Description
	3 inch printer is active. The print width is 80 mm.

Figure 37: Switch Enabled



The default print width is two inch.

→ *Section 11.9 "Enabling Three Inch Printer", p. 144*

7.8 Video Surveillance Interface (VSI)

The VSI supports the synchronization between the BPS C2 and the video surveillance system of the installation site. To monitor the processing of banknotes on the BPS C2, the associated accounting data can be linked to the external video surveillance system. The video surveillance interface (VSI) must be configured accordingly.

The synchronization between the BPS C2 and the video surveillance is possible with respect to:

- Time
- Accounting information provided by the BPS C2 (e.g. Machine ID, customer ID, deposit ID, Start-End Time)

You can enable/disable the VSI using **VSI** switch. By default, the VSI is disabled.

When the VSI is enabled and configured, the connection is established between the external video surveillance system and the BPS C2. The BPS C2 sends the *Start Deposit* report to the video surveillance system every time an accounting unit is opened. The VSI checks the connection and sends the *Keep Alive* report at a regular interval with the connection status.

The BPS C2 sends an *End* report to the video surveillance system every time an accounting unit is closed.

The interaction between the CMS, VSI and the BPS C2 is illustrated below (IP addresses used here are examples).

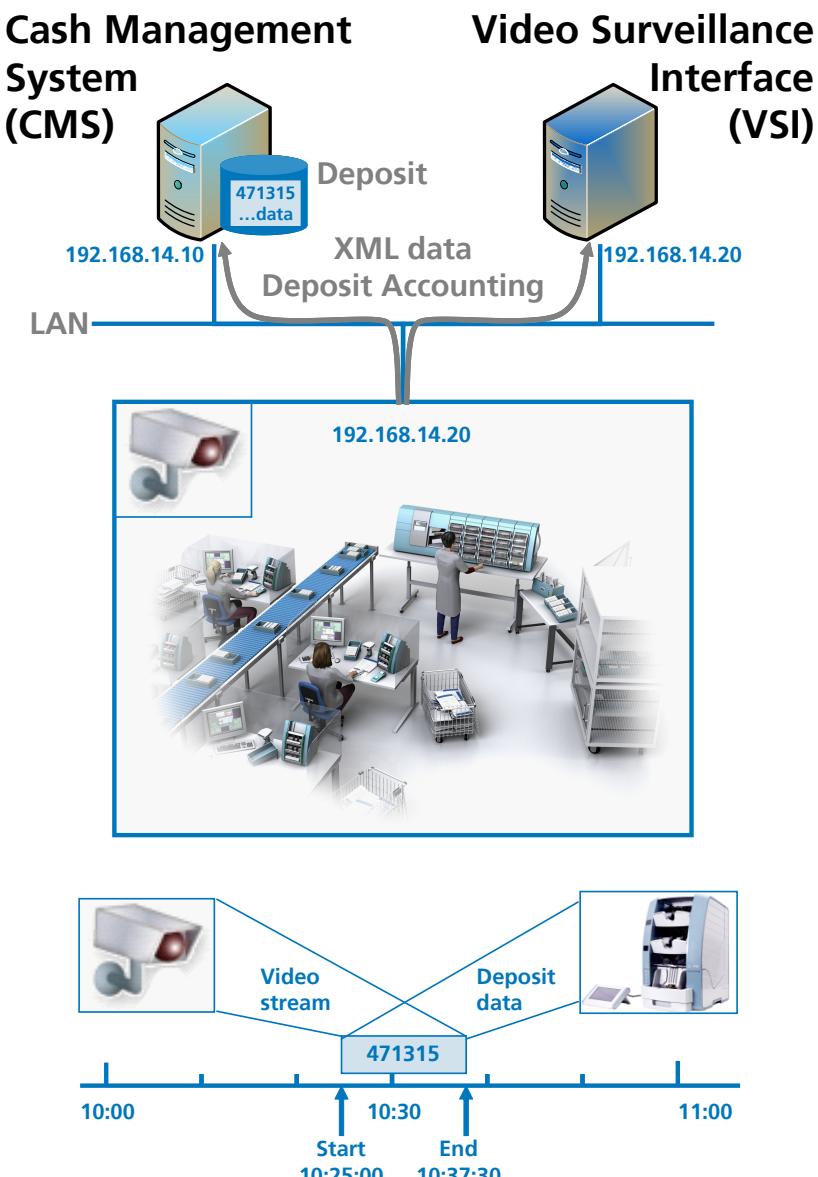


Figure 39: Overview of Video Surveillance

→ *Section 11.6 “Activating Video Surveillance Interface Switch”, p. 141*

→ *Section 11.7 “Configuring Video Surveillance Interface”, p. 142*

7.9 Configuration Package

You can configure the BPS C2 in different ways as per requirement by installing/updating configuration package. The standard configuration package contains several default configurations.

The configuration packages are created/customized using the BPS Eco Configurator tool (→ *BPS Eco Configurator Software Manual*).

The following features can be customized in a configuration package:

- Adding currency
- Grouping/customizing reject reasons
- Creating OP modes
- Customize/set reports targets/triggers

→ *Section 11.14 “Updating Configuration Package”, p. 151*

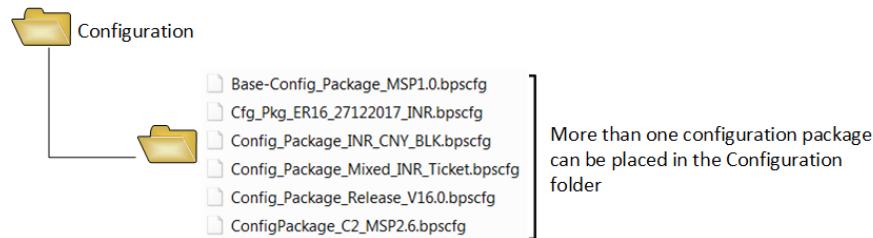


Figure 40: Configuration Package Folder Structure in the USB

You can export the configuration package installed in the BPS C2 to a USB stick. The configuration package is exported with the modifications in the favorite operating modes list and changes in threshold settings.

Use the **Export Config Package** menu if you want to implement the same modifications in threshold\switch settings and favorite operating mode list in more than one BPS C2 machines. You can make the change the settings in one BPS C2, and export the configuration package in a USB stick. The exported configuration package can be installed in other BPS C2 machines.

→ *Section 11.17 “Exporting Configuration Package”, p. 155*

→ *Section 11.14 “Updating Configuration Package”, p. 151*

7.10 Language Package

You can update the language package to install new languages or an updated version of the language package software.

The new version of the language package replaces the existing version.

→ *Section 11.15 “Updating Language Package”, p. 152*

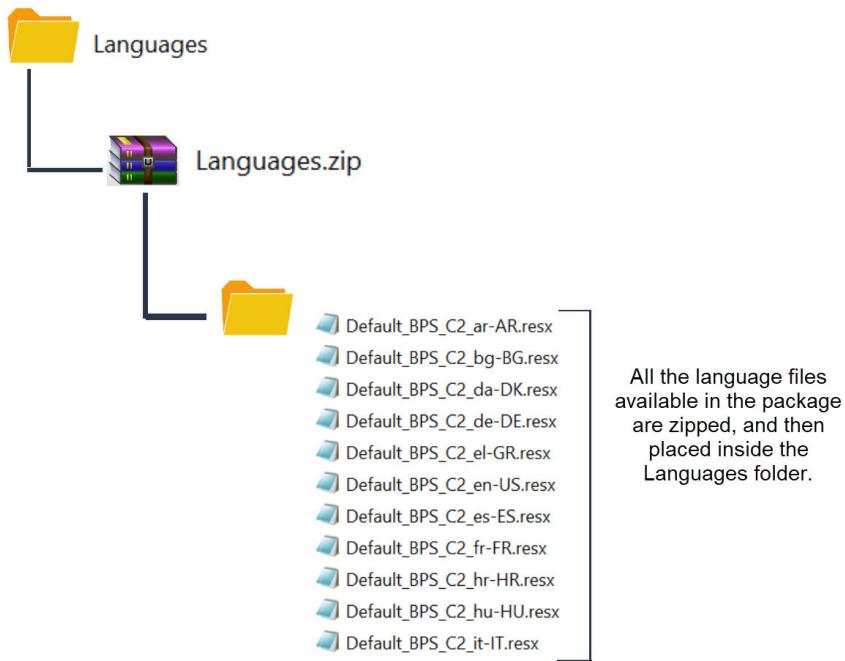


Figure 41: Language Package Folder Structure in the USB

7

7.11 Serial Number Storage

The BPS C2 stores the processed banknote data based on the serial number. When the serial number storage is enabled, the BPS C2 stores the banknote data of the last processed one million banknotes. In the **Supervisor** menu, there is switch to enable/ disable the serial number storage.

When the switch is disabled , the BPS C2 does not store the banknote details. However, you can still view the banknote details based on the serial number.

→ *Section 11.20 “Enabling Serial Number Storage Switch”, p. 157*

The BPS C2 stores following details of the banknotes:

- Banknote serial number
- Currency
- Denomination
- Emission

By default, the serial number storage switch is disabled. However, once the switch is enabled, the serial number storage remains enabled even after software update. The serial number storage remains enabled, until you select disable.

Important Notice for
the USA/Canada

You can perform the following operations based on the banknote serial number:

- Search the banknote data
 - *Section 9.24 “Searching Banknote Data”, p. 121*
- Delete the banknote data
 - *Section 11.21 “Deleting Banknote Data”, p. 158*

The serial number reading options are not available in the USA/Canada.

7.12 External Display Settings

The BPS C2 supports connection to external display devices, in addition the BPS C2 touch screen display.

The external display device can be connected to the USB ports provided at the rear of the BPS C2.

→ *Section 5.4 “Installing and Connecting”, p. 32*

For the single currency operating modes, the external USB displays following information:

- Count - Total number of processed banknote
- Currency name with total amount of the deposit

You can enable/disable the external USB display connection using the **External Display** switch available in the **Operator** menu.

→ *Section 9.26 “Enabling/Disabling the External USB Display”, p. 124*

The third line on the external USB display can be configured with any of the following information:

- Date and time
- Reject count
- None

You can select desired information in **External USB** menu in **Supervisor** menu.

If you select **None**, then no information is displayed in the third line. **None** is selected by default.

→ *Section 11.26 “Changing the External Display Device Settings”, p. 162*

7.13 Serial Number (SN) Search List

The **SN Search** list a list of specific serial numbers and range of serial numbers, which can be processed according to the category

specified in the list. The list is created as an *.xml* file. Then the *.xml* file is uploaded to a CiTech tool on the PC as an input. The CiTech tool generates the *.b/s* file as an output.

The *.b/s* SN SearchList file is installed in the BPS C2.

The banknotes with the serial number listed in the SN Search List are rejected with reject reason **R_searchList** during banknote processing.

→ *Section 11.29 “Installing the Serial Number (SN) Search List”, p. 166*

→ *Section 6.4 “Supervisor”, p. 49*



Important!

The SN SearchList menu option is available only if the adaptation supports serial number search.

7.14 CheckTV Settings

The CheckTV application allows you to extract all the configured XML Reports and Print Reports as per your selection. Here are the scenarios:

- XML Report checkbox is selected – the BPS C2 copies only the configured XML deposit reports, and sends the report to the connected serial device via USB to serial connection.
- Print Report checkbox is selected – the BPS C2 copies only the configured print reports (including the ones at the Triggers and Reprint section), and sends the report to the connected serial device via USB to serial connection.
- Both XML Report & Print Report check boxes are selected – the BPS C2 copies the configured XML deposit reports as well as the configured print reports (including the ones at the Triggers and Reprint section), and sends the report to the connected serial device via USB to serial connection.



Important!

By default both the XML Report and the Print Report check boxes are disabled.

Depending upon the number of reports extracted, you can modify the styles by changing the Printer Encoding Value.

You can perform the following operations from the CheckTV menu:

- Register/Unregister the CheckTV Serial Cable
→ *Section 11.24 “Registering/Unregistering CheckTV”, p. 160*
- Change the Printer Encoding Value

→ Section 11.31 “*Changing Printer Encoding Value*”, p. 168

7.15 Machine Status Information

The machine status icon appears in header of the screen to indicate the BPS C2 status.

Info Icon State	BPS C2 Status
	Startup error
	Startup warning
	Machine information inaccessible
	Machine information accessible with no errors/warnings

You can use the  button to view various system information, such as:

- Status

The **Status** tab displays the status of the peripheral devices connected to the BPS C2, and server connections.

- Green: The green status indicates the device/server is connected.
- Red: The red status indicates that the device/server is disconnected.

- Startup errors

The **Startup Errors** tab displays the list of startup errors, if any. There are two types of startup errors:

- Recoverable errors - The recoverable errors are fixed by just selecting the clear. When you select clear, the banknotes are processed as desired.
- Non-recoverable - The non-recoverable errors must be fixed in the BPS C2. After fixing the error, the BPS C2 must be restarted before banknote processing.

- Settings

The **Settings** tab display the trace level settings and sensor self test settings information.

→ *Section 11.18 “Setting the Self Test Level”, p. 155*

A disabled  button indicates that there are no start-up error messages.

→ *Section 13.6 “Getting Additional Information”, p. 182*

8 Starting BPS C2

8.1 Switching BPS C2 On and Off

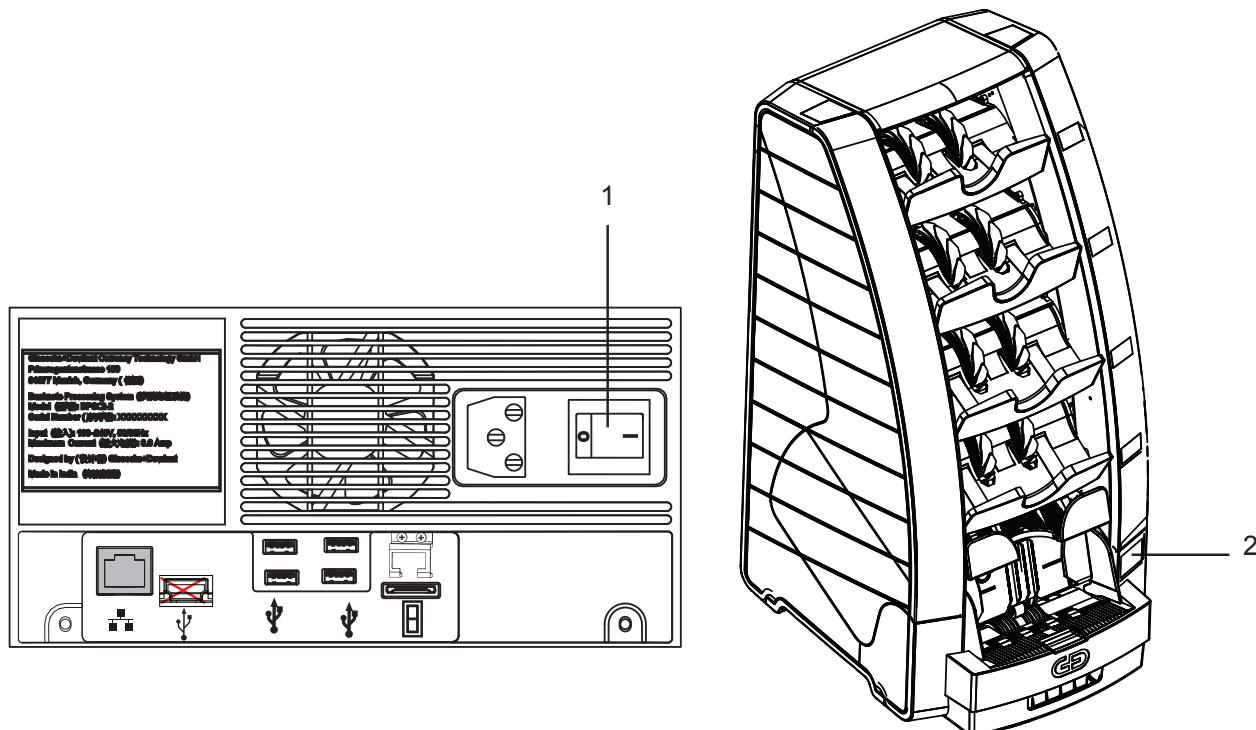


Figure 42: Power Switch

- 1 Power Switch
- 2 Power Soft Key

Requirements

- The BPS C2 is connected to the power supply.
→ *Section 5.4 "Installing and Connecting", p. 32*

Switching On

[1] Switch on the power (1).

[2] Press  (2).

Result

⇒ After the BPS C2 starts, the login screen is displayed.

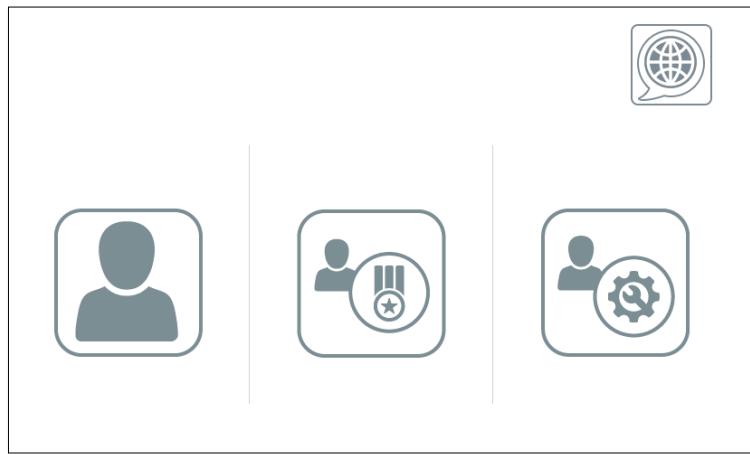


Figure 43: Login Screen

Switching Off



Important!

All unsaved results will be deleted when the BPS C2 is switched off.

[1]

Press the  (2).

⇒ The power soft key starts blinking.

[2]

Switch off the power (1).

Result

⇒ The BPS C2 is switched off.

8

8.2 Logging in

Operator

You can log in as an operator with your operator ID. However, the operator ID is an optional field.

If you have an operator ID, you can enter your ID through an initial login window. The operator ID appears in the various operation reports.

Supervisor

To carry out system administration tasks, you must be logged in as a supervisor. If an operator is logged in, then first close all deposits and log off as an operator.

There is only one supervisor PIN set up in the default configuration.

8.2.1 Logging in as Operator

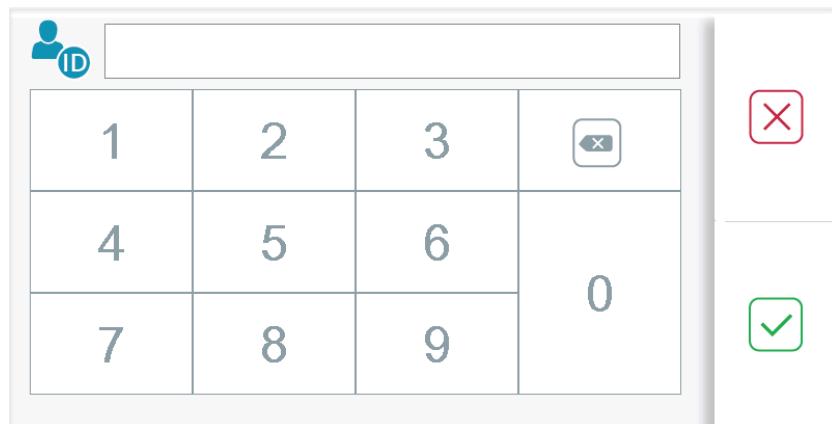
Requirements

- The BPS C2 switched on

→ *Section 8.1 “Switching BPS C2 On and Off”, p. 85*

Procedure

- [1] In the main screen, select .



- [2] Enter your operator ID.

In case, you do not have an operator ID, leave the entry field blank.

- [3] Select .

Result

⇒ You have successfully logged in as an operator.

8

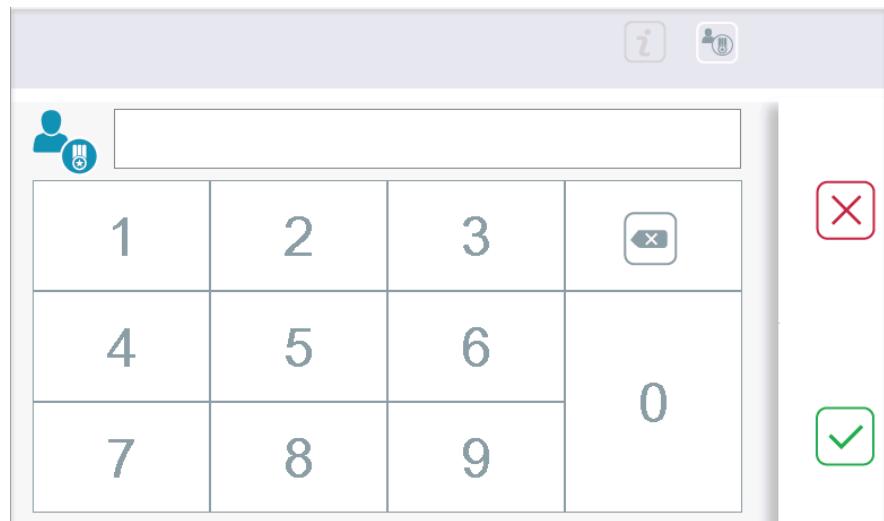
8.2.2 Logging in as Supervisor

Requirements

- The BPS C2 switched on
→ *Section 8.1 "Switching BPS C2 On and Off", p. 85*

Procedure

- [1] In the main screen, select .



[2] Enter the Supervisor PIN.

[3] Select .

Result

⇒ You have successfully logged in as a supervisor.

8

8.3 Changing GUI Language

Requirements

- The BPS C2 is switched on
→ *Section 8.1 “Switching BPS C2 On and Off”, p. 85*

Procedure

[1] In the main screen, select .



[2] Select the desired language.

[3] Select 

Result ⇒ The language is changed.

9 Operation

This chapter contains information on how to operate the machine.
Please note the following:



NOTICE

Ensure that no metal objects (for example, staples) and/or liquids find their way into the machine/device.

Risk of damaged machine/device

If metal objects and/or liquids get into the machine/device:

1. Switch off the machine/device.
2. Disconnect the machine/device from the power supply.
3. Have the machine/device checked by qualified personnel before continuing work.

9.1 Selecting Currency

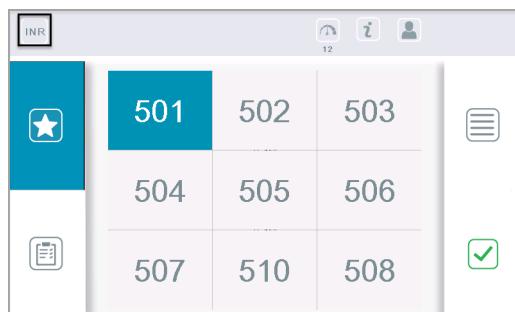
→ *Section 6.2.1 “Operating Mode Selection Screen”, p. 40*
→ *Section 7.2 “Banknotes, Tickets and Other Transport Objects”, p. 59*

Requirements

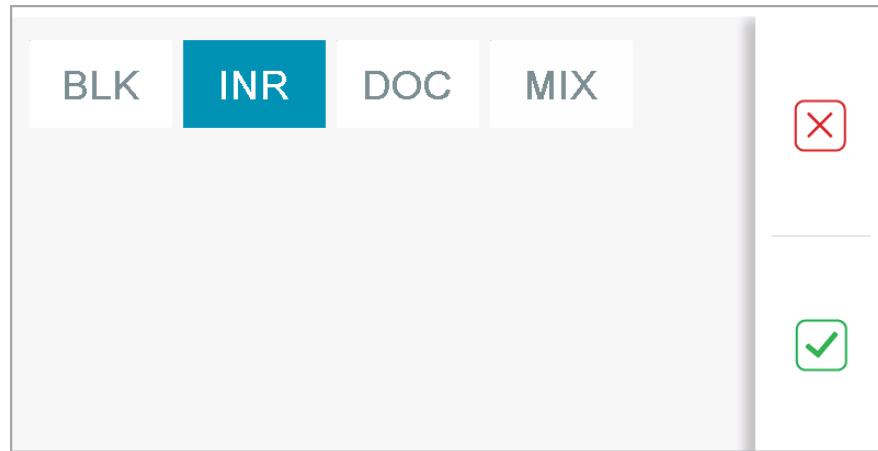
-  login

→ *Section 8.2.1 “Logging in as Operator”, p. 86*

Procedure



- [1] Select the currency button.



[2] Select the desired currency.

[3] Select .

Result

⇒ The desired currency is selected for processing.

9.2 Setting Processing Speed

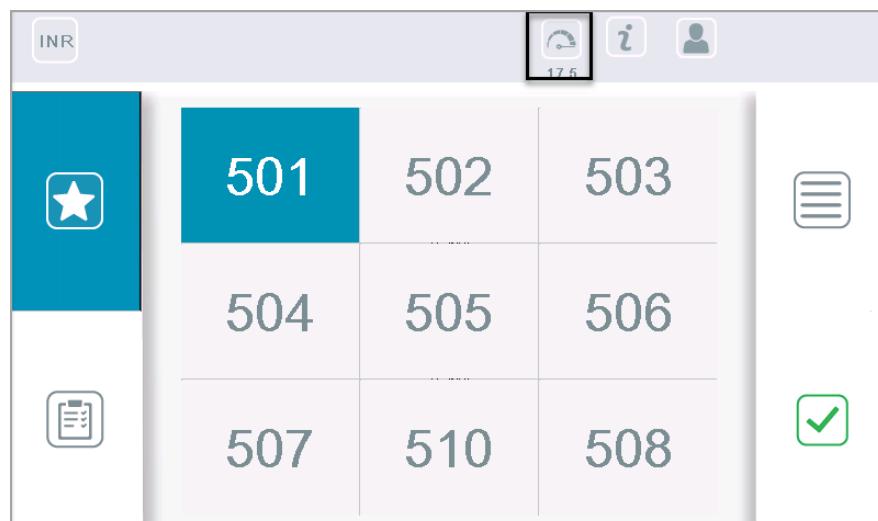
→ Section 6.2.1 “Operating Mode Selection Screen”, p. 40

Requirements

-  login

→ Section 8.2.1 “Logging in as Operator”, p. 86

Procedure



[1] Select  /  to switch between the processing speed

12/17.5.

Result



The selected speed is displayed next to



9.3 Changing Delivery Stacker Capacity

→ *Section 7.5 “Delivery Stacker Capacity”, p. 72*

Requirements

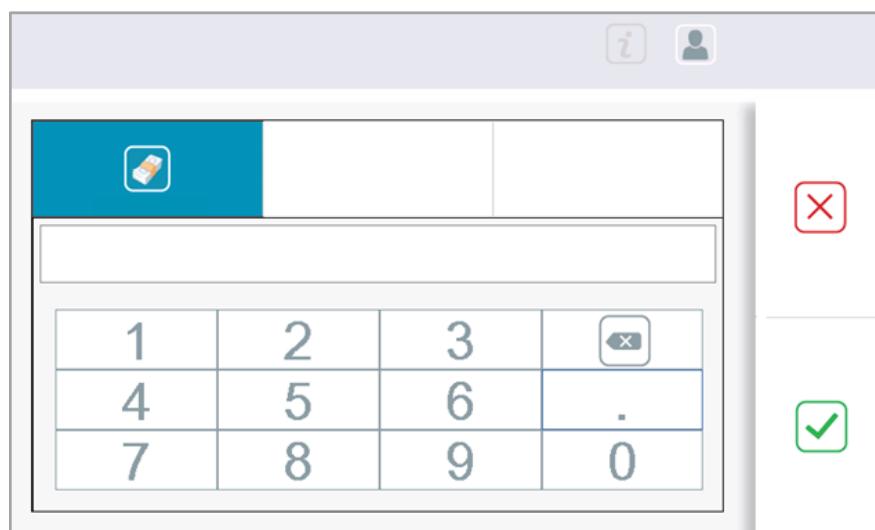
- login

→ *Section 8.2.1 “Logging in as Operator”, p. 86*

- Operating mode selection screen active

Procedure

- [1] Press the function key.



- [2] Enter the non-zero strap size.

The maximum value is 250. The keypad does not accept any value greater than 250.

To change the strap size to default, enter zero.

- [3] Select .

Result



The strap size is changed. The icon appears in the operating mode selection screen.

9

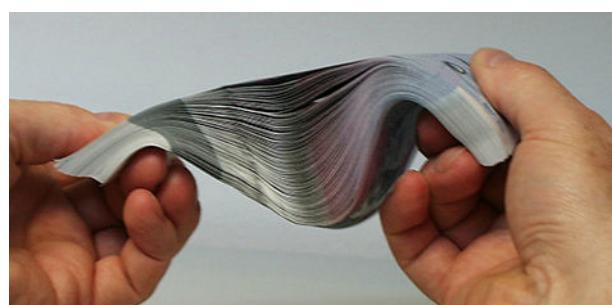
9.4 Preparing Banknotes

- [1] If necessary, remove the straps.

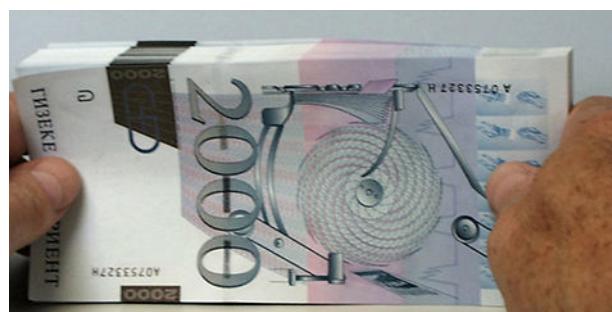
- [2] Proceed according to internal regulations.



- [3] Fan the banknotes up.



- [4] Fan the banknotes down.



- [5] Straighten the banknote stack.
[6] Make sure that the edges are flush.
[7] Smooth the banknotes and remove dog-ears.

**Important!**

Proper banknote preparation improves the banknote processing and increases the throughput.

**NOTICE**

Objects such as clips, paperclips, or rubber bands

Risk of damaged machine/device

Make sure that there are no objects on the banknotes.

Only place banknotes in the singler.

Only place banknotes and tickets in the singler during ticket operation.

- [8] Before inserting the banknotes in the singler, sort out banknotes with the following characteristics:

- Extreme damage
- Heavy soiling
- Folded/kinked banknotes
- Very creased banknotes
- Folded banknotes



9

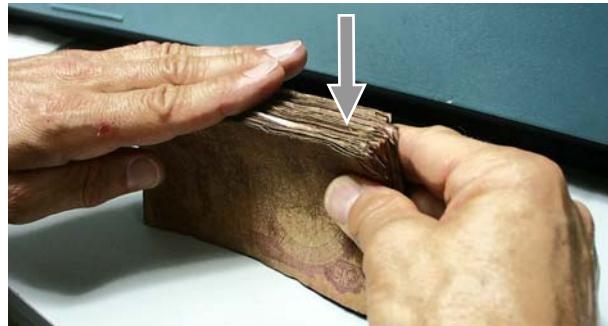
Figure 44: Poor quality banknote

- [9] Place these banknotes to one side for manual inspection.

- [10] Before placing the banknotes in the singler, make sure that the banknotes are not arched downward along their length.

Particularly poor quality banknotes

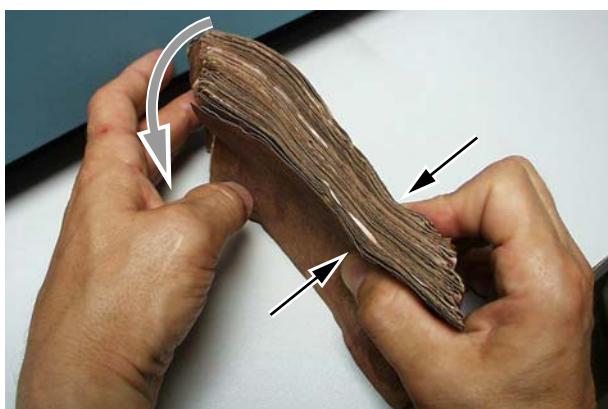
The following procedure is recommended in addition:



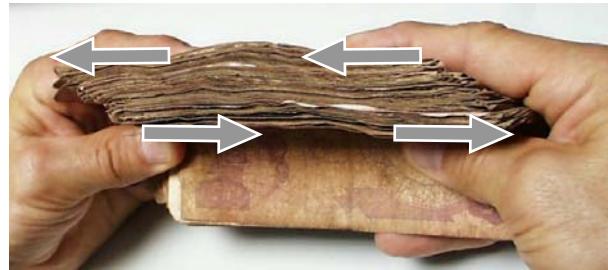
[11] Straighten the BN lengthwise.



[12] Fan the right side of the BN package.



[13] Fan the left side of the BN package.



[14] Shift the BN sideways.

[15] Bend the BN in the middle.



[16] Smooth any bent leading edges and dog-ears.

9.5 Inserting Banknotes

Requirements

- Packet of banknotes



CAUTION

Danger of crushing from moving parts

Moving parts can injure hands and fingers.

Make sure that you do not put your fingers in the immediate vicinity of the singler gap when inserting banknotes or when remedying a fault in the singler.

9

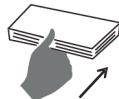
Procedure



Figure 45: Inserting Banknotes

[1] Insert a stack of banknotes into the singler.

Maintain at least 20 mm of gap from the upper edge of the singler compartment to the topmost surface of the stacked banknotes.



- [2] Push the fanned banknote package into the singler area as far as possible until it touches the butting surface.

Adjusting the Feeder Plates

The banknote size may vary based on the currency/denomination. You are required to adjust the feeder plates according to the length to avoid skew/tilt of the banknotes.

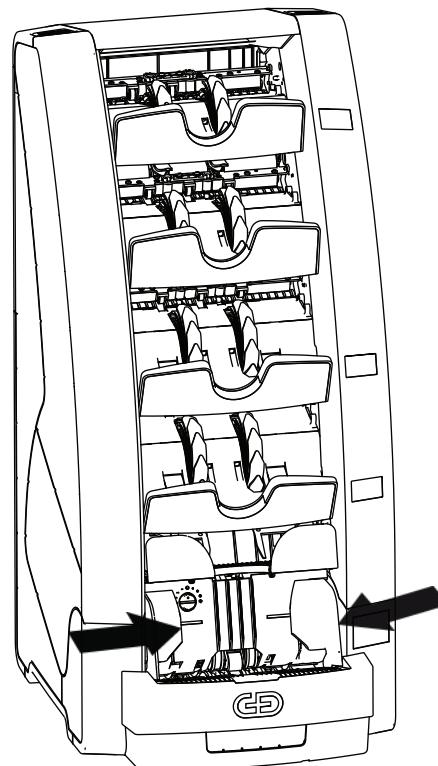


Figure 46: Adjusting Feeder Plate

- [3] Adjust the feeder plate by pushing the feeder plates apart/together.
Adjust the feeder plate according to the size of the banknote as shown in the above figure.

Result

- ⇒ Depending on the operating mode selected, the singling starts automatically.

9.6 Counting Banknotes/Tickets

- *Section 7.3 “Operating Modes”, p. 60*
- *Section 6.2.1 “Operating Mode Selection Screen”, p. 40*

Requirements

-  login
→ *Section 8.2.1 “Logging in as Operator”, p. 86*
- Packet of banknotes/tickets

Procedure

- [1] Press the  HotKey.
You can alternatively select **BLK** to activate the **Count Mode**.
 - [2] Insert banknotes into the singler.
⇒ The BPS C2 counts the objects. The count of the objects appears on the screen as result.
 - [3] Select 
⇒ The **Reject** view displays the reject reasons. The BPS C2 rejects objects for the mechanical reasons only.
 - [4] Select 
⇒ The **Stackers** view displays the count of objects in each delivery stacker.
 - [5] Re-run the rejects.
 - [6] Empty the stackers.
- Result
- ⇒ The banknotes/tickets counting is complete and closed. The report is automatically printed/sent via FTP/copied to USB if the BPS C2-2 is configured to automatic print/send/copy.

9

9.7 Sorting Banknotes in Batch Mode

- *Section 7.3 “Operating Modes”, p. 60*
- *Section 6.2.1 “Operating Mode Selection Screen”, p. 40*

Requirements

-  login
→ *Section 8.2.1 “Logging in as Operator”, p. 86*
- A packet of banknotes

Procedure

- [1] Select the desired OP mode.
 - [2] Insert banknotes into the singler.
⇒ The machine sorts the banknotes. The count and the value of the banknotes appear on the screen as result.
 - .
 - The banknotes count in each stacker appears in the respective Stacker Count Display.
 - [3] Re-run the rejects.
 - [4] Empty the stackers.
- Result
- ⇒ The banknote processing is complete and closed.
The report is automatically printed/sent via FTP/copied to USB if the BPS C2 is configured to automatic print/send/copy.

9.8 Processing Banknotes with Deposit

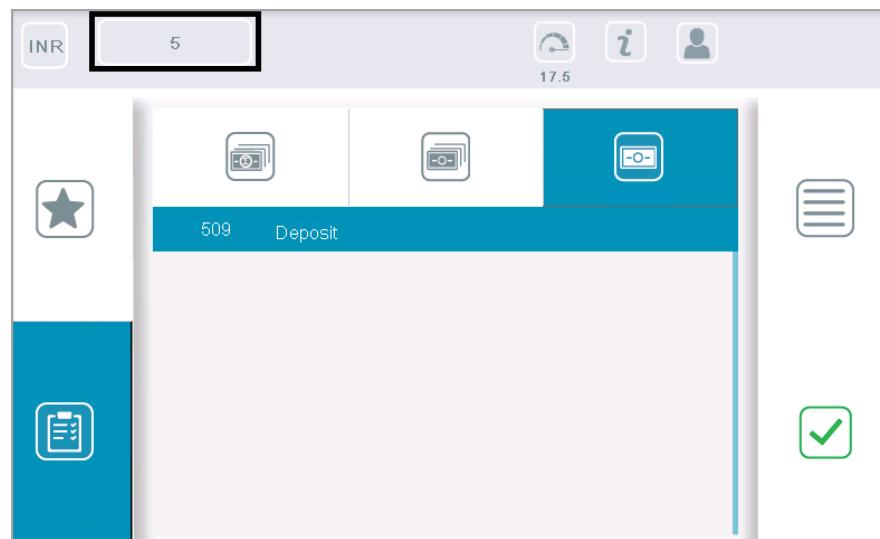
- 9
- *Section 7.3 “Operating Modes”, p. 60*
 - *Section 6.2.1 “Operating Mode Selection Screen”, p. 40*

Requirements

-  login
→ *Section 8.2.1 “Logging in as Operator”, p. 86*
- Packet of banknotes

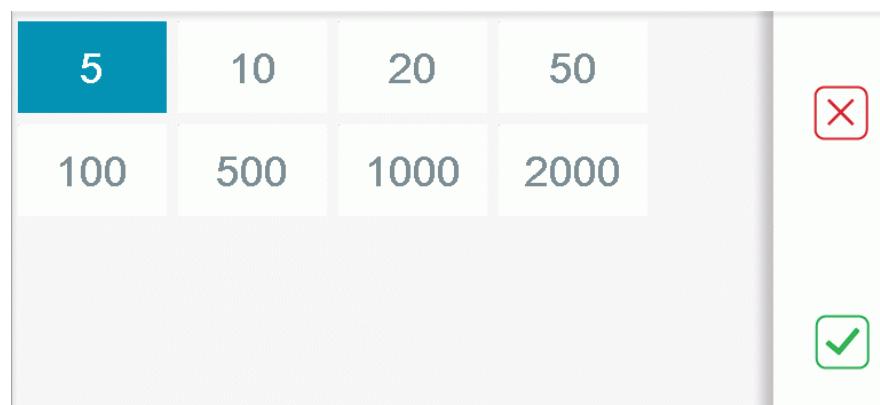
Procedure

- [1] Single denomination deposit: select the **509** OP mode.



[1-1] Select the denomination button shown in the above image.

⇒ The denomination screen is launched.



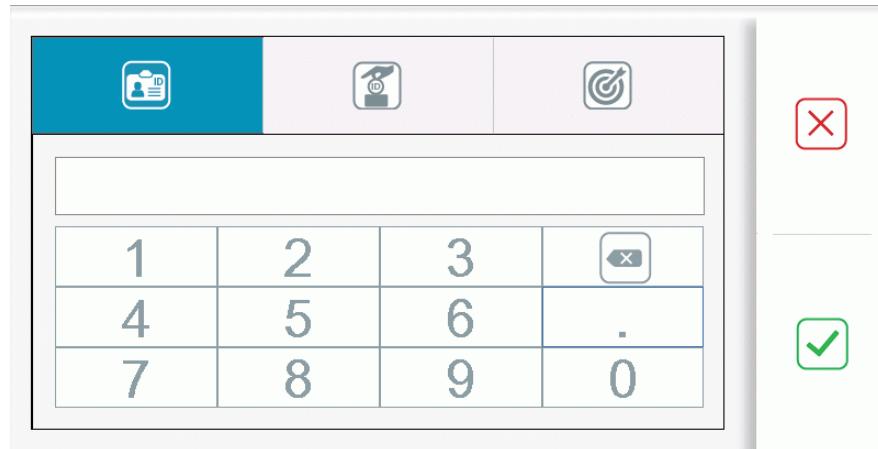
[1-2] Select the desired denomination.

[1-3] Select 

[1-4] Proceed to → [3].

[2] Multiple denomination deposit: select the **510 OP mode**.

[3] Select 



- [4]** Enter the deposit data.
- Customer number: Enter the customer identification number.
 - Deposit ID: Enter the deposit identification number.
 - Amount: Enter the declared amount. **Amount** is a mandatory field.
- [5]** Select .
- [6]** Insert the banknotes into the singler.
 ⇒ The BPS C2 counts the banknotes and displays the result.
 At the end of the deposit, you can manually enter the amount of rejected banknotes to perform an online reconciliation.
 → *Section 9.11 “Performing Online Reconciliation in Deposit Mode”, p. 109*
- [7]** Remove the banknotes from the delivery and reject stackers to close the deposit.
- Result**
 ⇒ The deposit is complete and closed.
 The quantity, total of banknotes and the difference is displayed in the result.
 The deposit report is automatically printed/sent via FTP/copied to USB if the BPS C2 is configured to automatic print/send/copy.

9.9 Processing Banknotes in Multi Deposit

→ *Section 7.3.7 “Multi Deposit Operating Mode”, p. 70*

Requirements

-  login
→ *Section 8.2.1 "Logging in as Operator", p. 86*
- Operating mode selection screen active
- Packet of banknotes

Procedure


NOTICE

Banknotes from different accounting units (for example, deposits) mixed in the singler

Correct accounting is not possible.

Never place banknotes from different accounting units into the singler at the same time.

- [1] Select the **Multi Deposit** operating mode.

First deposit


CAUTION

Laser radiation

The use of controls, settings, or procedures other than the described here may result in hazardous laser radiation.

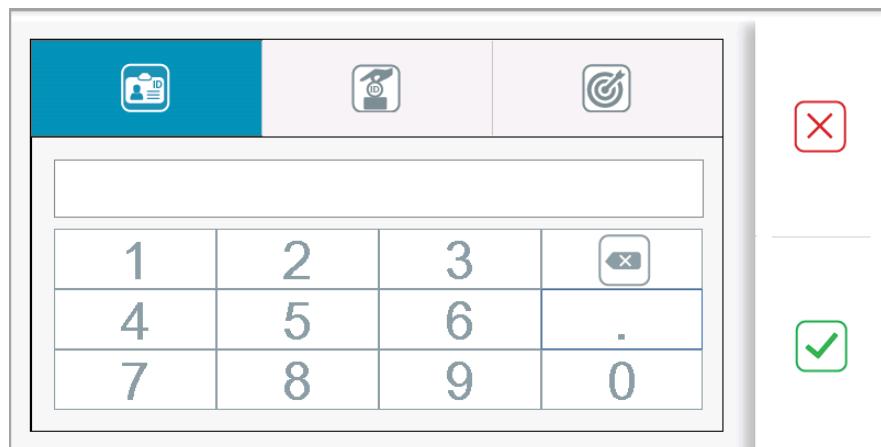
Customers should never attempt to perform maintenance on the laser scanner themselves.

Never look into the laser beam, even if you think that the scanner is not active.

Never open the scanner to look inside the device. If you do this, you may expose yourself to a dangerous laser beam.

The use of optical devices with this laser equipment increases the risk of visual impairment.

9



The screenshot shows the operating mode selection screen. At the top, there are three icons: a user icon for 'login', a gear icon for 'Operating mode', and a target icon for 'Singler'. Below these are two buttons: a red 'X' button on the right and a green checkmark button on the bottom right. The main area is a 3x4 grid for entering deposit data. The numbers 1 through 9 are in the first three columns, and a decimal point '.' is in the fourth column. The cell containing '0' has a small 'x' icon in its top right corner. The cell containing '1' has a blue 'selected' background.

- [2] Enter the deposit data.

Enter the following values:

- Customer ID - Enter the customer identification number.
- Deposit ID - Enter the deposit identification number.
- Amount - Enter the declared amount. **Amount** is a mandatory field.

[3] Select .

[4] Insert the banknotes in to the singler.
 ⇒ The BPS C2 counts the banknotes and displays the result.
 → *Section 6.3 "Banknote Processing Results Screen", p. 44*

The BPS C2 sends the rejects from the current deposit to the reject stacker. If required, rerun the rejects.



Important!

The BPS C2 accounts the current deposit as soon as the singler and the reject compartment are empty and you have entered a new deposit ID.

Before starting the next deposit



NOTICE

Banknotes from different accounting units (e. g. deposits) placed in the singler together

Correct accounting is not possible.

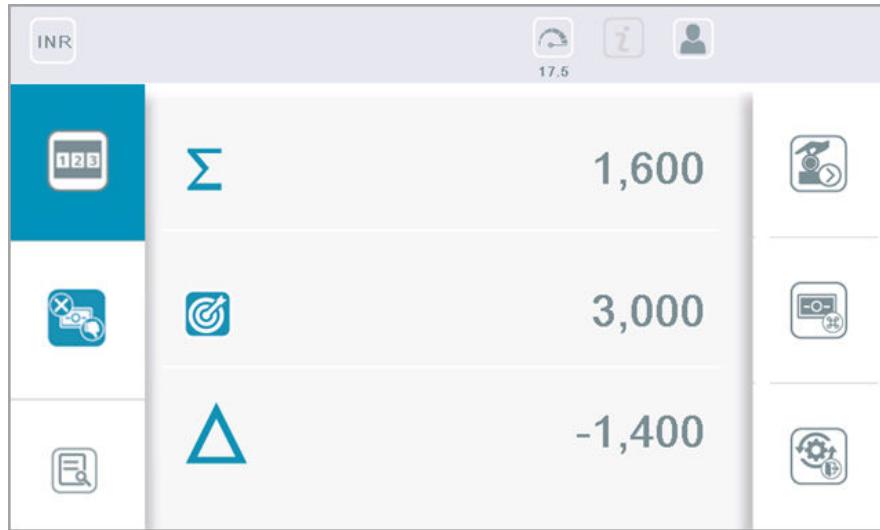
Only place the banknotes from the next deposit into the singler once all the banknotes from the first deposit have been singled and "Next deposit" is displayed on the operating unit.

If you have manually interrupted processing of the current deposit with the **Start/Stop** key, proceed as follows:

1. Start the singler.
2. Read in the next deposit number.

[5] Remove the rejects from the reject stacker.
 Place the rejected banknotes for the deposit separately.

Next deposit



- [6] Select .
- [7] Enter the deposit data.
→ "First deposit", p. 103
- [8] Insert the banknotes for the next deposit in the singler compartment.



Important!

If the reject compartment is not empty, the BPS C2 displays an error message. You cannot start the next deposit.

- [9] Empty the reject stacker.
⇒ The BPS C2 accounts the deposit as soon as the singler and the reject compartment are empty.
To continue banknote processing, repeat step 6 - 10.

To exit, select .

At the end of the deposit, you can manually enter the amount of rejected banknotes to perform an online reconciliation. You can enter the amount of rejected banknotes manually.

→ *Section 9.11 "Performing Online Reconciliation in Deposit Mode", p. 109*

9.10 Processing Banknotes in Fast Deposit Mode (FDP)

→ *Section 7.3.8 "Fast Deposit (FDP) Operating Mode", p. 71*

Requirements

-  login
→ *Section 7.3.8 “Fast Deposit (FDP) Operating Mode”, p. 71*
- Operating mode selection screen active
- Packet of banknotes/safebag

Procedure

- [1] Select the FDP operating mode.

First deposit

**CAUTION**

Laser radiation

The use of controls, settings, or procedures other than the described here may result in hazardous laser radiation.

Customers should never attempt to perform maintenance on the laser scanner themselves.

Never look into the laser beam, even if you think that the scanner is not active.

Never open the scanner to look inside the device. If you do this, you may expose yourself to a dangerous laser beam.

The use of optical devices with this laser equipment increases the risk of visual impairment.

9

1	2	3	<input type="button" value="x"/>
4	5	6	.
7	8	9	0

- [2] Enter the deposit data.

If you are using safebags, scan the barcode

Enter the following values:

- Customer ID - Enter the customer identification number.

- Deposit ID - Enter the deposit identification number.

**Important!**

Deposit ID is a mandatory field.

[3]

Select

[4]

Insert the banknotes in to the singler.

While the banknotes are being processed, you can select



and enter data for the next deposit.

⇒ The BPS C2 counts the banknotes and displays the result.

→ *Section 6.3 “Banknote Processing Results Screen”, p. 44*

The BPS C2 sends the rejects from the current deposit to the reject stacker. If required, rerun the rejects.

**Important!**

If you have already scanned a new deposit number but want to carry out a rerun for the current deposit, you can delete the number in the **Deposit ID** field.

**Important!**

The BPS C2 accounts the current deposit as soon as the singler and the reject compartment are empty and you have entered a new deposit ID.

Online reconciliation is not available in FDP Mode.

Before starting the next deposit



NOTICE

Banknotes from different accounting units (e. g. deposits) placed in the singler together

Correct accounting is not possible.

Only place the banknotes from the next deposit into the singler once all the banknotes from the first deposit have been singled and "Next deposit" is displayed on the operating unit.

If you have manually interrupted processing of the current deposit with the **Start/Stop** key, proceed as follows:

1. Start the singler.
2. Read in the next deposit number.

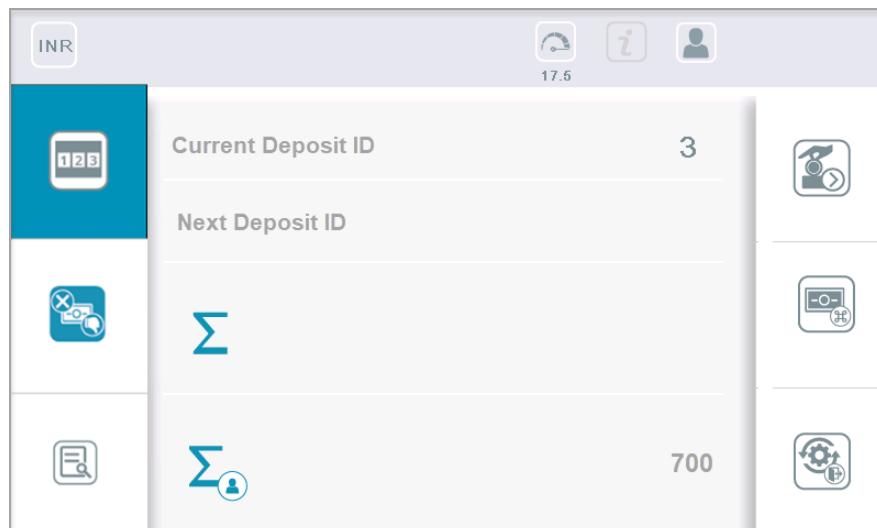
[5] Remove the rejects from the reject stacker.

Place the rejected banknotes for the deposit separately.

Next deposit

[6]

Select



[7]

Select

[8]

Enter the deposit data.

→ "First deposit", p. 106

⇒ The deposit ID is copied to the Current deposit ID. field as soon as the singler and reject compartment are empty.

As soon as the singler and the reject compartment are empty, the first deposit is accounted and the next deposit opened. The deposit no. from the "Next deposit

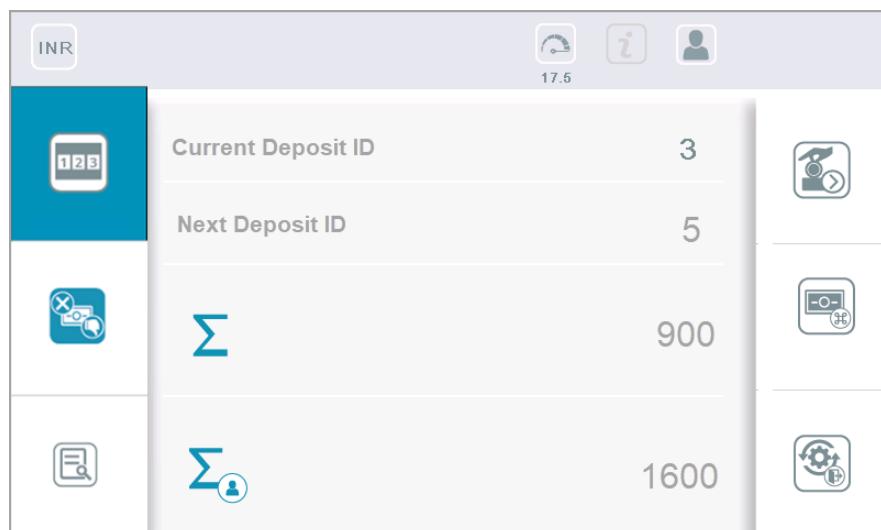
no." field is now displayed in the "Current deposit no." field.

- [9] Insert the banknotes for the next deposit in the singler compartment.



Important!

If the reject compartment is not empty, the BPS C2 displays an error message. You cannot start the next deposit.



- [10] Empty the reject stacker.

⇒ The BPS C2 accounts the deposit as soon as the singler and the reject compartment are empty.

To continue banknote processing, repeat step 6 - 10.

To exit, select .

9

9.11 Performing Online Reconciliation in Deposit Mode

Requirements

-  login
→ *Section 8.2.1 “Logging in as Operator”, p. 86*
- Complete a deposit in either single denomination mode or mixed denomination mode.
→ *Section 9.8 “Processing Banknotes with Deposit”, p. 100*

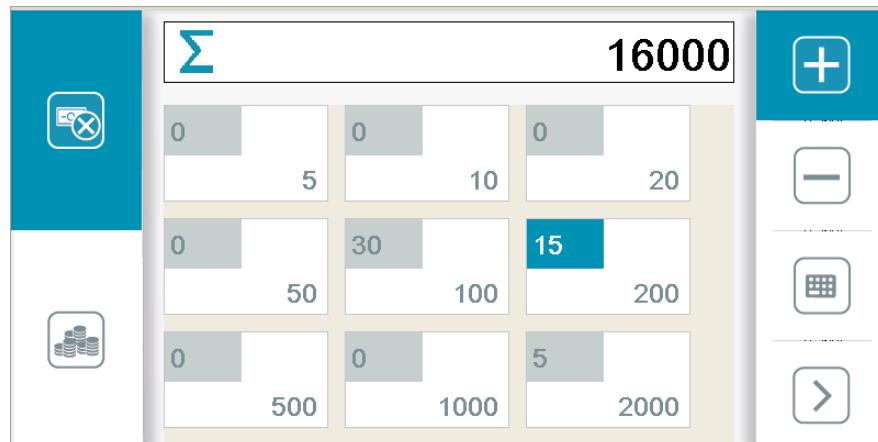
Procedure

- [1] Remove the banknotes from the delivery and reject stackers.
Manually count the rejected banknotes.

[2]

Select 

⇒ The reconciliation screen appears:



[3]

Enter the count of rejected banknotes for each denomination.

For example, if there are 50 rejected banknotes; out of which there are:

- 30 banknotes of denomination 100
- 5 banknotes of denomination 2000
- 15 banknotes of denomination 200

You can enter these values as shown in the figure above using  /  / .

[4]

For deposits with coins, select the  tab.

[4-1]

Enter the count of the coins.

[5]

Select .

Result

⇒

The deposit is complete and closed.

The quantity, total of banknotes and the difference is displayed in the result.

9.12 Processing Banknotes in Payout Mode

→ Section 7.3 “Operating Modes”, p. 60

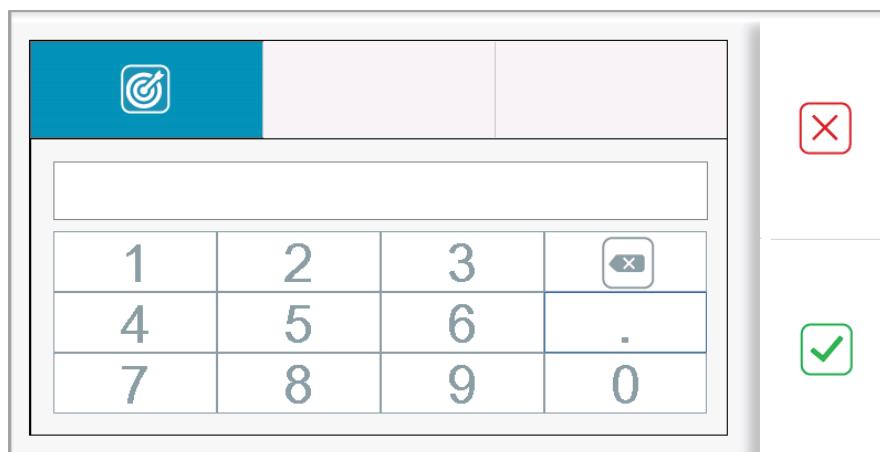
→ Section 6.2.1 “Operating Mode Selection Screen”, p. 40

Requirements

-  login
→ *Section 8.2.1 “Logging in as Operator”, p. 86*
- Packet of banknotes

Procedure

- [1] Select the OP mode **508** and select 
→ *Section 7.3 “Operating Modes”, p. 60*



- [2] Enter the target count (mandatory) and select 
- [3] Insert the banknotes into the singler.
⇒ The machine stops when the target count is reached.
The quantity and total of banknotes appears in the result.
- [4] Remove all the banknotes from the stackers and the singler.
⇒ The deposit is complete and closed.
The deposit report is automatically printed/sent via FTP/copied to USB if the BPS C2 is configured to automatic print/send/copy.

9

Result

- ⇒ The deposit is complete and closed.
The deposit report is automatically printed/sent via FTP/copied to USB if the BPS C2 is configured to automatic print/send/copy.

9.13 Pausing/Starting Singler

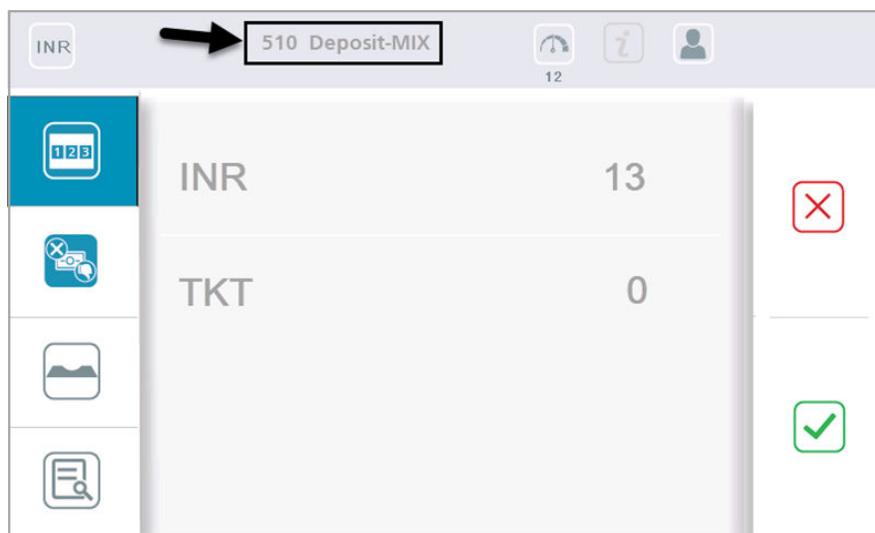
During banknote processing, the singler can be paused by selecting the header of the **Summary** screen.

When the singler pauses, the banknote processing stops after stacking the banknotes already present in transport path to the respective stackers.

Requirements

-  login
- Banknote processing in progress
- **Summary** screen active

Procedure



[1] Select the **Summary** screen header.

⇒ The singler stops. The singler pause icon appears in the header.

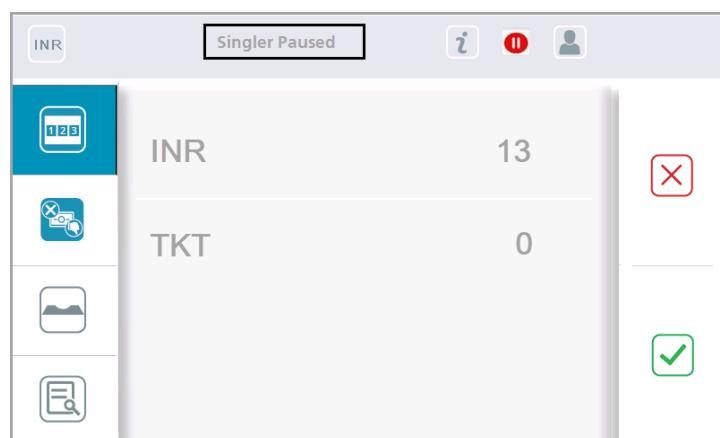


Figure 47: Singler Paused

To resume singling, select the Header again.

Alternatively, singling can be resumed by removing the banknotes from the singler and placing them back into the singler.

9.14 Viewing Operating Mode Configuration

The BPS C2 allows you to view the operating mode configuration information such as stacker assignment.

Requirements

-  login
→ *Section 8.2.1 "Logging in as Operator", p. 86*
- Operating mode selected
- No banknotes present in the singler

Procedure

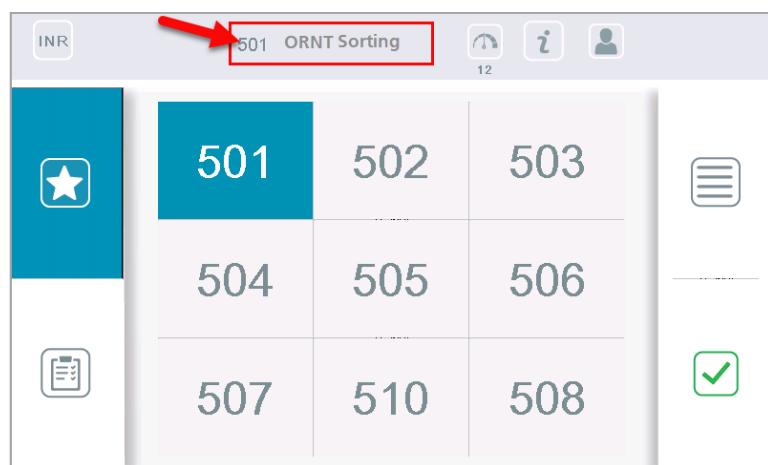


Figure 48: Operating Mode Selection Screen

- [1] Select the operating mode name in the header.

⇒ The **Opemode Configuration** screen appears.

The left panel consists of the stacker buttons. The right panel display the respective stacker assignment details.

- [2] Select the stacker you wish to view.

For example, in the above image reject stacker is selected.

⇒ Based on the type of the operating mode, the information of the stacker content is displayed.

There are two types of operating mode:

- Quick Operating Modes

In the quick operating modes, such as sorting operating modes, the denominations are assigned to stackers dynamically in the order the sensor detects them. Such denominations are called virtual denominations. For the quick operating mode, the virtual denomination (VD) that belongs to the selected

stacker is displayed in the quality and orientation order.

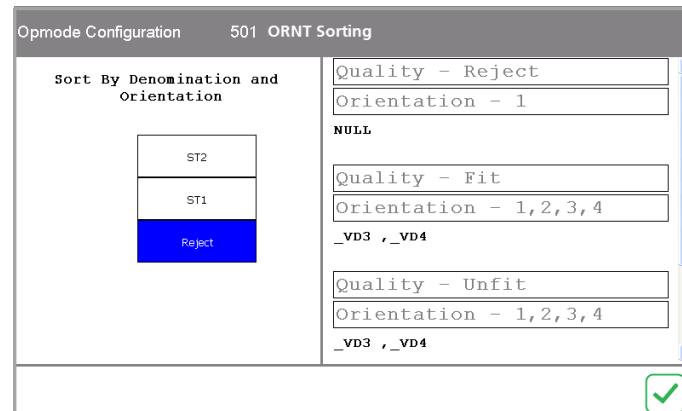


Figure 49: Operating Mode Configuration Screen for Quick Operating Modes

- Non-quick Operating Modes

For the non-quick operating modes, such as deposit mode, the information of denomination and emission of all adaptations that belongs to the selected stacker is displayed in the quality and orientation order.

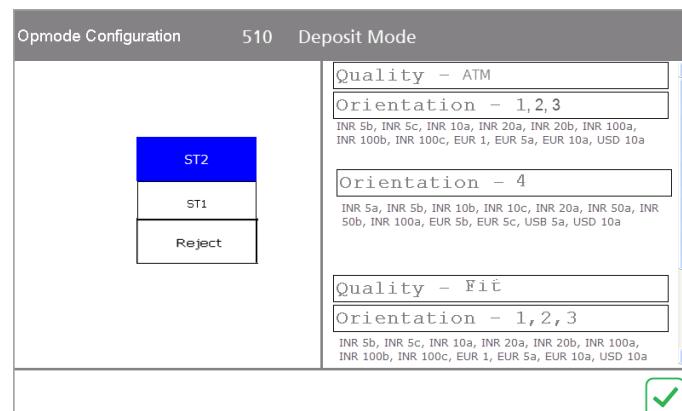


Figure 50: Operating Mode Configuration Screen for Non-Quick operating Modes

- [3] Select  to go back to the operating mode selection screen.

9.15 Exporting Raw Data

The **Export Raw Data** menu is used to capture banknote raw data (.nif) file for:

- MTS Calibration Media
- Sensor Function Test Media

You can capture raw data for maximum 100 processed banknotes in one singling cycle from start to end.

This procedure shows how to export raw data to a USB stick.

→ *Section 7.6 “Logs, Traces, Raw Data, and Self Test Levels”, p. 72*

Requirements

- USB stick plugged into the BPS C2
→ *Section 5.4 “Installing and Connecting”, p. 32*
- Process banknotes as desired

Procedure

- [1] Log in.
→ *Section 8.2.1 “Logging in as Operator”, p. 86*
- [2] Select 
- [3] Select 
⇒ You will receive the success message.
- [4] Select 

Result

⇒ Raw data is exported to the USB stick.

9

9.16 Manually Printing/ Sending Reports

→ *Section 7.7 “Printing/Sending/Copying Report”, p. 74*

Requirements

- Printer connected
→ *Section 5.4 “Installing and Connecting”, p. 32*
- FTP address configured
→ *Section 11.3 “Changing Secure File Transfer Protocol (SFTP/FTP) Settings”, p. 136*

Procedure

- [1] Log in.
→ *Section 8.2.1 “Logging in as Operator”, p. 86*
→ *Section 8.2.2 “Logging in as Supervisor”, p. 87*
- [2] Operator: select  to navigate to the menu items.
- [3] Select 

- [4] Select **Send**.
- [5] Select the desired report.
- [6] Select .
- Result ⇒ The report is printed/sent.

9.17 Printing Reports Using HotKey

→ Section 7.7 “Printing/Sending/Copying Report”, p. 74

- Requirements
-  /  login
 - Section 8.2.1 “Logging in as Operator”, p. 86
 - Section 8.2.2 “Logging in as Supervisor”, p. 87
 - Printer connected
 - Section 5.4 “Installing and Connecting”, p. 32
- Procedure
- [1] Press .
- ⇒ The report printing is initiated. The following information will appear in the screen:
Print command has initiated..
- Result ⇒ The report is printed.

9

9.18 Reprinting/Re-sending Reports

→ Section 7.7 “Printing/Sending/Copying Report”, p. 74

- Requirements
- Printer is connected.
 - Section 5.4 “Installing and Connecting”, p. 32
 - FTP is configured.
 - Section 11.3 “Changing Secure File Transfer Protocol (SFTP/FTP) Settings”, p. 136
- Procedure
- [1] Log in.
- Section 8.2.1 “Logging in as Operator”, p. 86
- Section 8.2.2 “Logging in as Supervisor”, p. 87

- [2] Operator: select  to navigate to menu items.
- [3] Select 
- [4] Select **Resend**.
- [5] Select the desired report.
- [6] Select 
- Result \Rightarrow The report is reprinted/resent.

9.19 Copying Reports to USB Stick

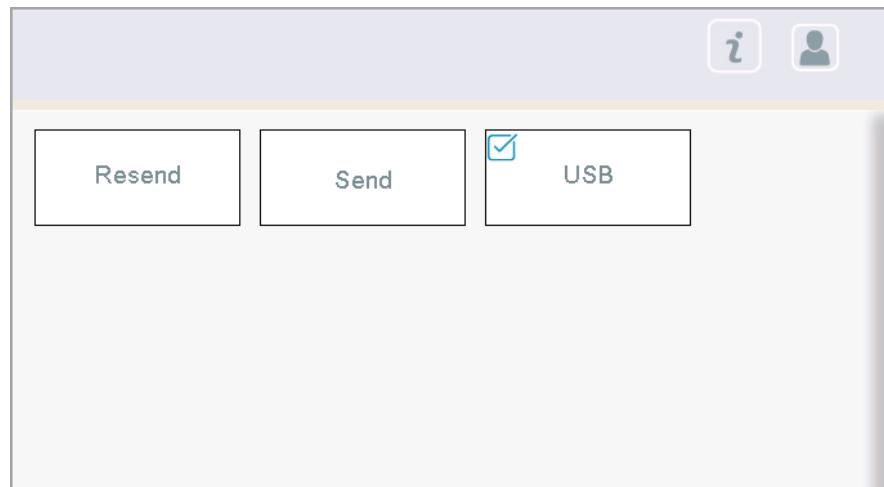
→ *Section 7.7 “Printing/Sending/Copying Report”, p. 74*

Requirements

- The USB stick is plugged into the BPS C2.
→ *Section 5.4 “Installing and Connecting”, p. 32*

Procedure

- [1] Log in.
→ *Section 8.2.1 “Logging in as Operator”, p. 86*
→ *Section 8.2.2 “Logging in as Supervisor”, p. 87*
- [2] Operator only: select  to navigate to menu items.
- [3] Select 
- [4] Check the **USB** check box.



[5] Select .

Result ⇒ You have successfully enabled the Copy to USB function.
A copy of the configured report is copied to the USB stick.

9.20 Copying Log Files to USB Stick

→ *Section 7.6 “Logs, Traces, Raw Data, and Self Test Levels”, p. 72*

Requirements

- USB stick plugged to the BPS C2

→ *Section 5.4 “Installing and Connecting”, p. 32*

Procedure

[1] Log in.

→ *Section 8.2.1 “Logging in as Operator”, p. 86*

[2] Select .

[3] Select .

⇒ Following message is displayed:

Logs extraction successful

[4] Select .

Result ⇒ The troubleshooting traces and logs are created, and transferred to a USB stick

9.21 Viewing the Software Version Details

Requirements

-  /  login

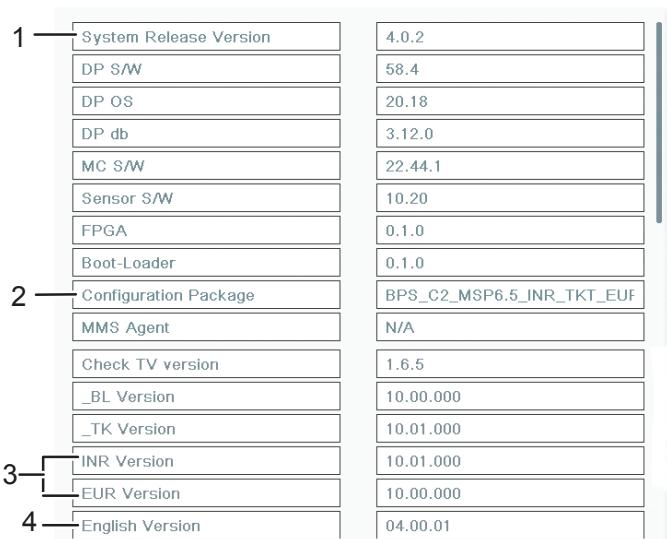
→ Section 8.2.1 “Logging in as Operator”, p. 86
 → Section 8.2.2 “Logging in as Supervisor”, p. 87

Procedure

- [1] Operator: select  and select .

Result

⇒ The software version details are displayed.



The table displays software version details across four categories: System Release Version, Configuration Package, Currency package version, and Language package version. A scroll bar is visible on the right side of the table, and a 'Back' button is located in the top right corner of the display area.

1 —	System Release Version	4.0.2
	DP S/W	58.4
	DP OS	20.18
	DP db	3.12.0
	MC S/W	22.44.1
	Sensor S/W	10.20
	FPGA	0.1.0
	Boot-Loader	0.1.0
2 —	Configuration Package	BPS_C2_MSP6.5_INR_TKT_EUF
	MMS Agent	N/A
	Check TV version	1.6.5
	_BL Version	10.00.000
	_TK Version	10.01.000
3 —	INR Version	10.01.000
	EUR Version	10.00.000
4 —	English Version	04.00.01

Figure 51: Software Version Details

- 1 System software version
- 2 Configuration package version
- 3 Currency package version
- 4 Language package version

Use the scroll bar to view the version information of rest of the currencies.

9.22 Adjusting Screen Brightness

→ Section 6.2.2 “Operator Menu”, p. 41

Requirements

-  login

→ Section 8.2.1 “Logging in as Operator”, p. 86

Procedure

- [1] Select .

- [2] Select 
- [3] Adjust the brightness.
- Select  to decrease brightness.
- Select  to increase brightness.
- [4] Select 
- Result ⇒ The screen brightness is adjusted.

9.23 Enabling/Disabling Favorite Operating Mode Name View

→ Section 6.2.2 “Operator Menu”, p. 41

Requirements

-  login

→ Section 8.2.1 “Logging in as Operator”, p. 86

Procedure

- 9
- [1] Select .
- [2] Swipe to screen 2.
- [3] Select .
- ⇒ The operating mode number switch is enabled. Select  to switch to operating mode number view.
- Result ⇒ The operating mode name view is enabled in the  tab.

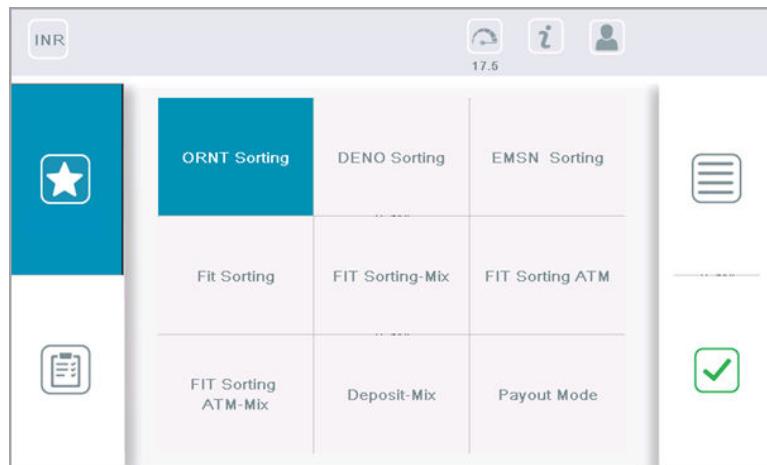


Figure 52: Operating Mode Name View

9.24 Searching Banknote Data

Important Notice for
the USA/Canada

→ Section 7.11 “Serial Number Storage”, p. 79

The serial number reading options are not available in the USA/Canada.

Requirements

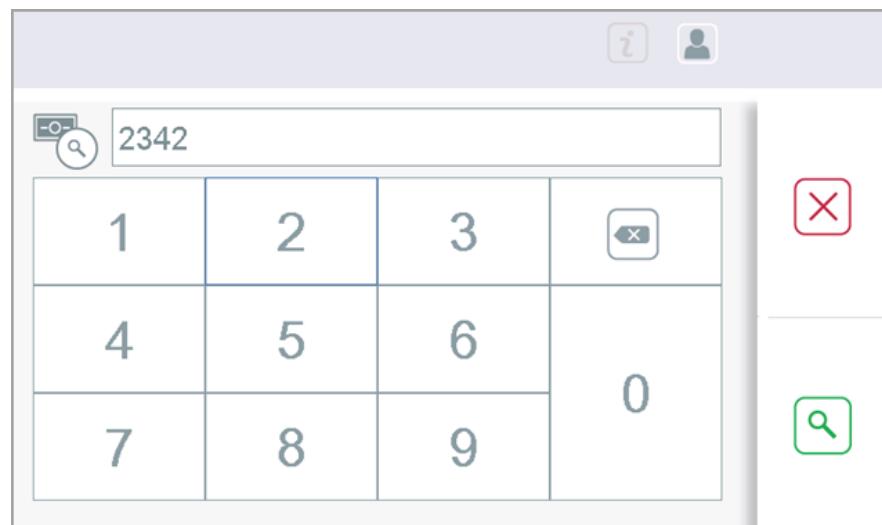
-  login

→ Section 8.2.1 “Logging in as Operator”, p. 86

Procedure

[1] Navigate to screen 2.

[2] Select .

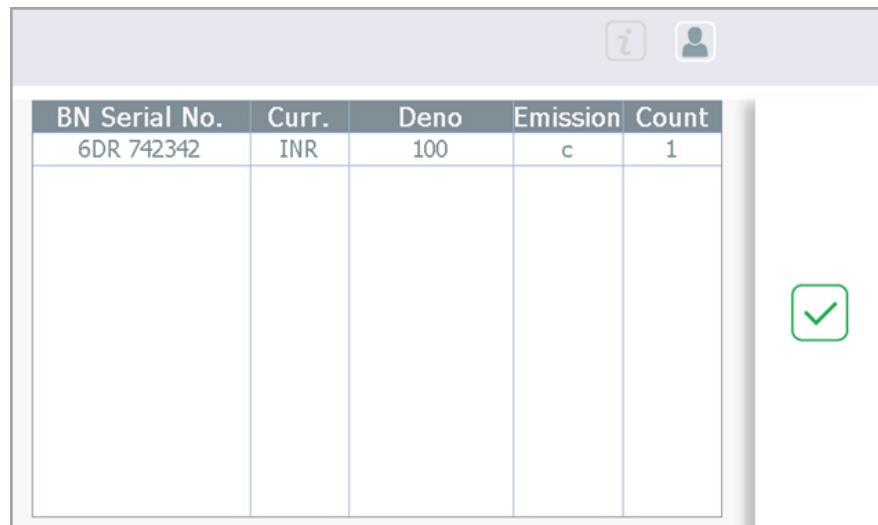


[3] Enter the last four digit of the banknote serial number.

⇒ The BPS C2 displays the data of all the banknotes matching the last four digit of the serial number.

The following information is displayed

- Banknote serial number
- Currency
- Denomination
- Emission
- Number of times the banknote has been processed



BN Serial No.	Curr.	Deno	Emission	Count
6DR 742342	INR	100	c	1

[4] Select .

Result

⇒ The banknote data of the searched serial number is displayed.

9

9.25 Configuring the Reports

→ *Section 6.2.2 “Operator Menu”, p. 41*

Requirements

-  login

→ *Section 8.2.1 “Logging in as Operator”, p. 86*



Important!

You can not add any new target/trigger, which are not configured in configuration package .

Procedure

[1] Select .

Scroll to screen 2 of the operator menu.

[2] Select 

⇒ The Report Configuration screen lists all the reports configured in the configuration package.

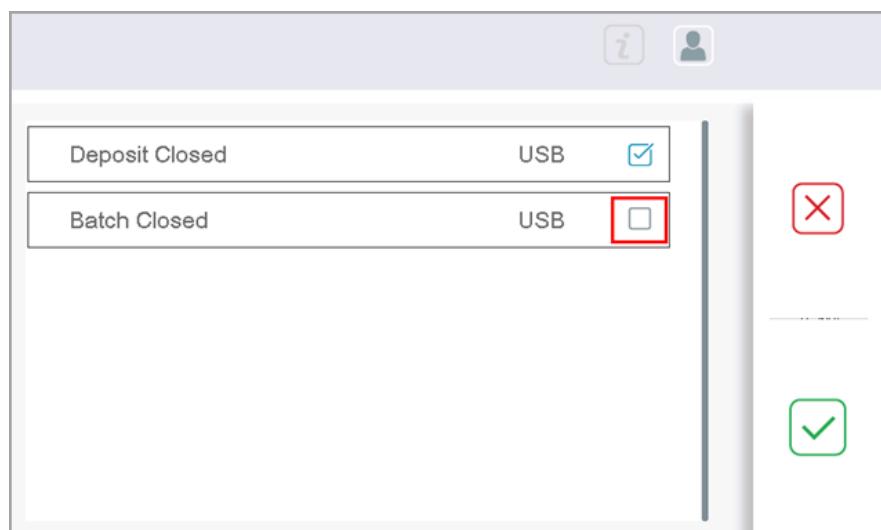


[3] Select the report you wish to configure.

For example, in the above image, XML Deposit Report_1030 is selected.

[4] Select 

⇒ The XML Deposit Report_1030 screen appears with the list of all the trigger/target as configured in the configuration package.



[5] Check the trigger/target you desire to enable.

To disable a trigger/target, uncheck the corresponding check box.

In the above example, the deposit closed trigger with USB target is enabled for XML Deposit Report_1030. The batch closed trigger is disabled.

To disable a report, uncheck all the available trigger/target check boxes.

- [6] Select .

Result

⇒ The reports with corresponding trigger/target are enabled/disabled.

When you install a new configuration package, all the previous report configuration are disabled.

9.26 Enabling/Disabling the External USB Display

- Section 7.12 “External Display Settings”, p. 80
- Section 6.2.2 “Operator Menu”, p. 41

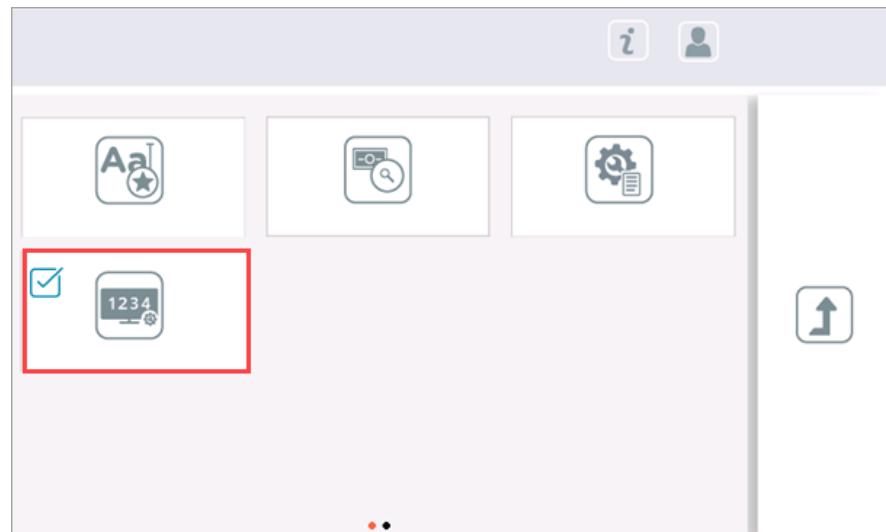
Requirements

-  login
 - Section 8.2.2 “Logging in as Supervisor”, p. 87
- External USB Display device connected to the BPS C2.
 - Section 5.4 “Installing and Connecting”, p. 32

9

Procedure

- [1] In the operating mode selection screen, select .
- [2] Navigate to screen 2.



- [3] Check the  check box to enable the external display device.

Result

- ⇒ The banknote processing information is displayed in the external USB device.
 Uncheck the check box to disable the external display device.

9.27 Enabling/Disabling Grand Total

9

- *Section 6.2.2 “Operator Menu”, p. 41*
- *Section 9.28 “Viewing Grand Total”, p. 126*

Requirements

- Grand Total configured to a **HotKey**
 → *Section 11.28 “Configuring the HotKeys”, p. 164*
-  login
 → *Section 8.2.1 “Logging in as Operator”, p. 86*
- The operating mode selection screen active.

Procedure

- [1] Press the configured **HotKey**.

Result

- ⇒ The  icon appears in the operating mode selection screen.

+ ★	501	502	503	
	504	505	506	
	507	510	508	<input checked="" type="checkbox"/>

Figure 53: Grand Total Enabled

The  icon also appears **Summary** screen.

123 +	Σ	600	<input checked="" type="checkbox"/>
		2,000	<input checked="" type="checkbox"/>
		-1,400	<input checked="" type="checkbox"/>
			

Figure 54: Grand Total Enabled in Summary Screen

To disable **Grand Total**, press the configured **HotKey** again

9.28 Viewing Grand Total

→ *Section 6.2.2 “Operator Menu”, p. 41*

Requirements

- Grand Total enabled
→ *Section 9.27 “Enabling/Disabling Grand Total ”, p. 125*
-  login
→ *Section 8.2.1 “Logging in as Operator”, p. 86*
- The operating mode selection screen active.

Procedure

- [1] In the operating mode selection screen, select .
- [2] Swipe to screen 2.
- [3] Select .

Result

⇒ The **Grand Total** of all processed currencies, after the Grand Total is enabled, is displayed:

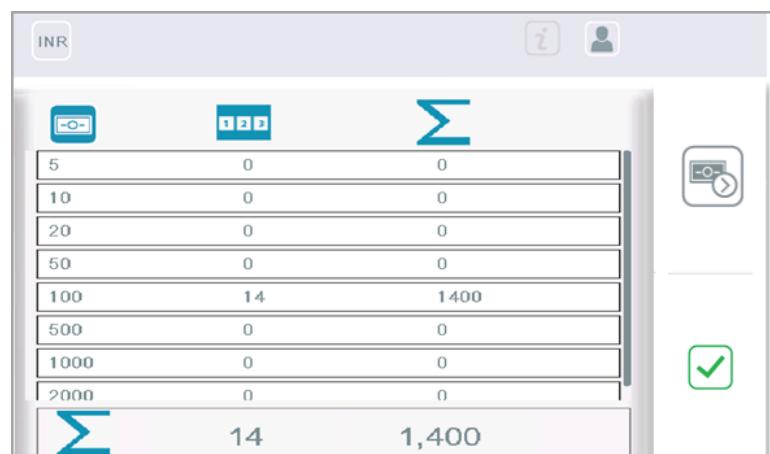


Figure 55: Grand Total View Screen

To view the details of another currency, select .

To exit, select .

9

9.29 Logging Out from Operator Mode

Requirements

-  login

Procedure

- [1] Select .
- [2] Select .

Result

⇒ The main screen is launched.

10 Banknote Processing with Cash Management System (CMS)

This feature is used when you are connecting the BPS C2 to any CMS. The BPS C2 is connected to the PC, in which the CMS is installed, using serial communication over USB.

To process banknotes with a cash management system (CMS):

- The serial interface for a CMS must be configured
- A CMS, which supports this interface, must be connected to the serial interface

10.1 Connecting BPS C2 to Cash Management System

Requirements

- PC with the CMS software installed
- USB 2.0 Type A to Mini-B
- The BPS C2 switched on
→ *Section 8.1 “Switching BPS C2 On and Off”, p. 85*
-  login
→ *Section 8.2.1 “Logging in as Operator”, p. 86*
- The operating mode selection screen active on the BPS C2

Procedure

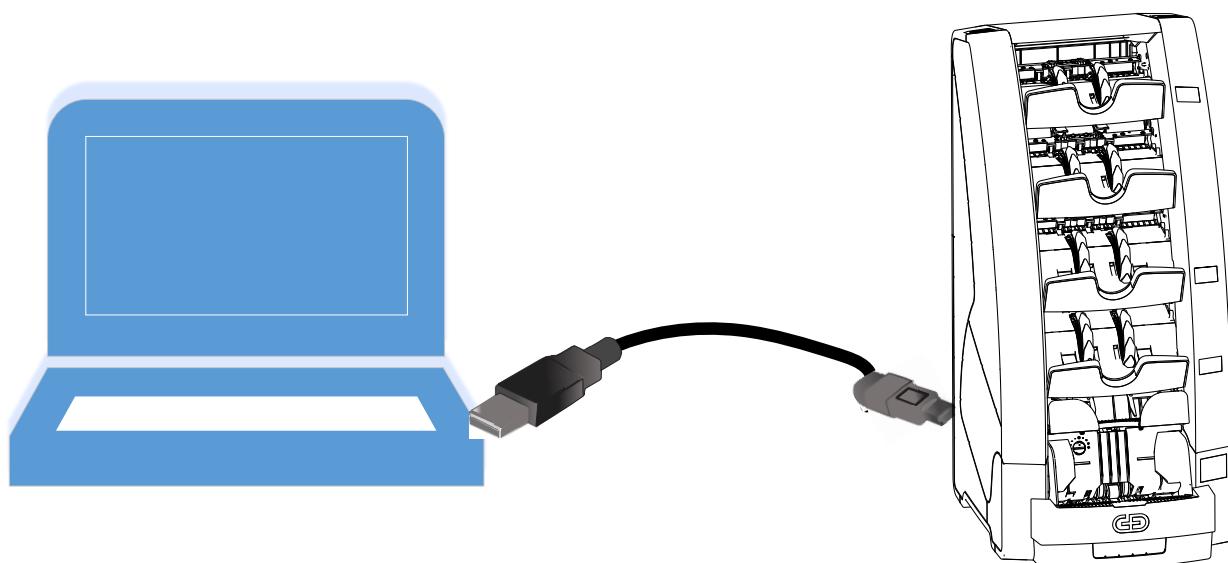
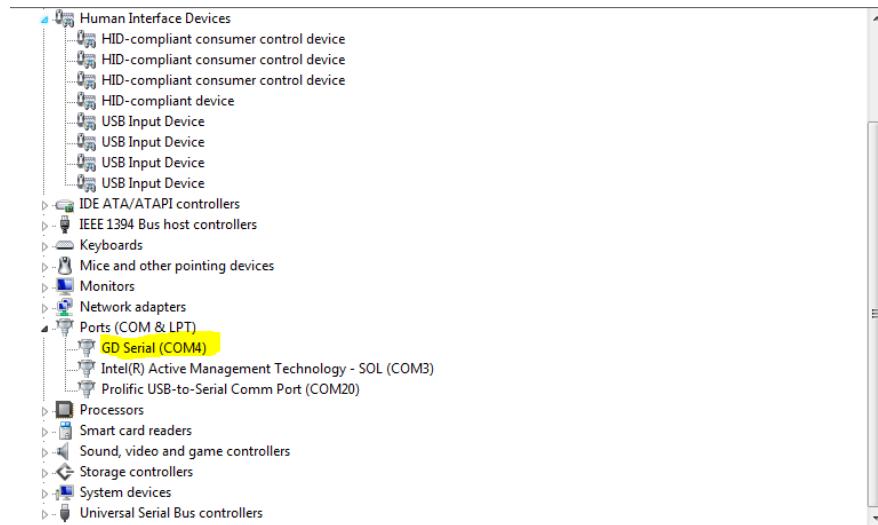


Figure 56: Connection Between the PC and the BPS C2

- [1] Connect the PC to the BPS C2.
- [2] In the PC, open the **Device Manager**.



- [3] Check the COM port to which the BPS C2 is connected.
- [4] In the CMS, set the baud rate to 9600 and stop bit to One.
Refer to your CMS manual for instructions.

Result

- ⇒ The BPS C2 is connected to the CMS. Once the connection is established, the BPS C2 user interface freezes.
The user interface will be active in the CMS.

10.2 Processing Banknotes

To process banknotes, insert the banknotes in to the BPS C2 singler and use the CMS user interface. The banknotes are processed and accounted according to the corresponding operating mode behavior.

→ *Section 7.3 “Operating Modes”, p. 60*

10

10.3 External Interfaces Menu

The **External Interfaces** menu in the BPS C2 allows you to select the active interface from the available CMS interfaces.

The following CMS interfaces BPS C2 are available:

- Numeron Interface
 - Supports the following unit operating modes with BPS Casino Connect SW:
 - Single deposit operating modes
 - Mixed deposit operating modes
 - Ticket reading adaptations
- Numeron VMS Interface

- Supports the following unit operating modes with VMS SW:
- Single deposit operating modes
 - Mixed deposit operating modes
 - Ticket reading adaptations
- Cummins (CISS+ST)
Supports the following accounting unit operating modes:
 - Batch
 - Deposit

After the deposit is closed on BPS, accounting information transmits from BPS to CMS/VMS/VAS in following format:
e.g., a20e100 (i.e. 20 banknotes of \$1's and 100 banknotes of \$20's)-
where "a" is the denomination (e.g. USD a=\$1, b=\$2, c=\$5, d=\$10, e=\$20, f=\$50, g=\$100)
"20" is the number of pieces of that denomination.
 - Cummins CISS+ST_VAS
Supports the following accounting unit operating modes with Loomis proprietary SW:
 - Batch
 - Single Deposit
 - Multi Deposit
 - FDP
 - Header Card
 - Payout

After the deposit is closed on BPS, accounting information transmits from BPS to CMS/VMS/VAS in following format:
e.g., a20e100 (i.e. 20 banknotes of \$1's and 100 banknotes of \$20's)-
where "a" is the denomination (e.g. USD a=\$1, b=\$2, c=\$5, d=\$10, e=\$20, f=\$50, g=\$100)
"20" is the number of pieces of that denomination.
 - Cummins (CRM)
Supports the following accounting unit operating modes
 - Batch
 - Deposit
 - Fast Deposit (FDP)
 - Multi-Deposit
 - Payout
 - Header Card (HDP)

After the deposit is closed on the BPS C2, accounting information transmits from the BPS C2 to the CMS/VMS in the same format as CISS+ST interface.

- Cummins (Ticket Processing)

Supports the following accounting unit operating modes: Provided the OpMode contains Tickets as one of the adaptation

- Mixed Currency Deposit
- Mixed Currency Fast Deposit (FDP)
- Mixed Currency Multi-Deposit
- Payout
- Mixed Header Card (HDP)

After banknotes processing is closed, only the accounting information related to tickets are transmitted to the external interface.

The Numeron VMS interface is selected by default.

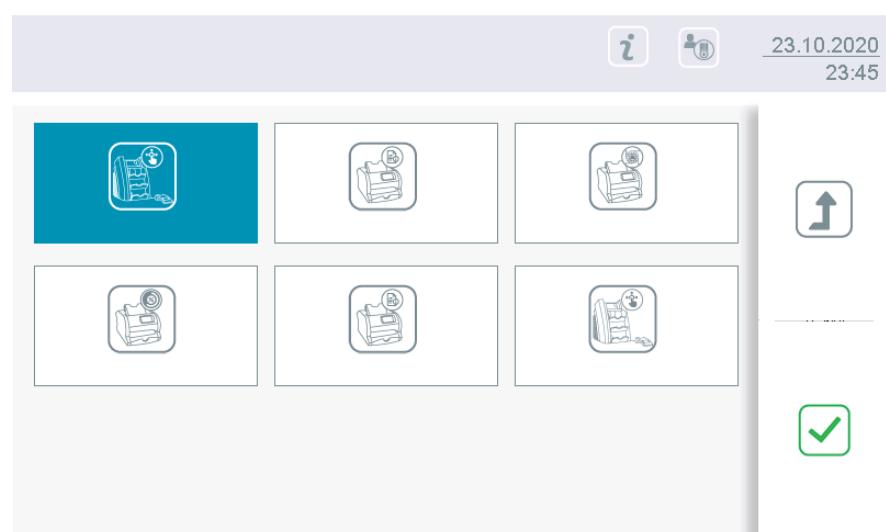


Figure 57: External Interfaces Menu

For additional details refer to the → *BPS CMS (Master-Slave Application)_R4.2 document*.

11 System Administration

To carry out system administration tasks, you must be logged in as a supervisor. If an operator is logged on, then first close all deposits and log off as an operator.

There is only one supervisor ID set up in the default configuration.
 → *Section 8.2.2 “Logging in as Supervisor”, p. 87*

11.1 Setting Date and Time

→ *Section 6.4.1 “System Settings Menu”, p. 52*

Requirements

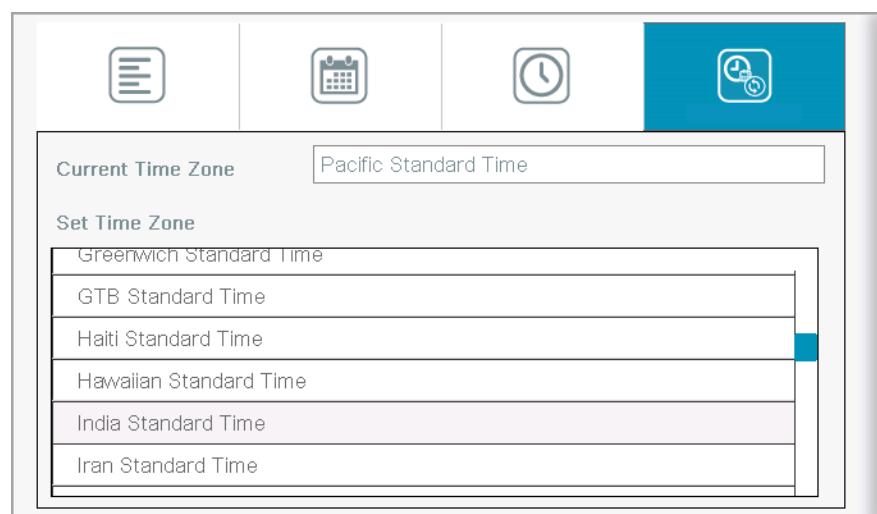
-  login

→ *Section 8.2.2 “Logging in as Supervisor”, p. 87*

Procedure



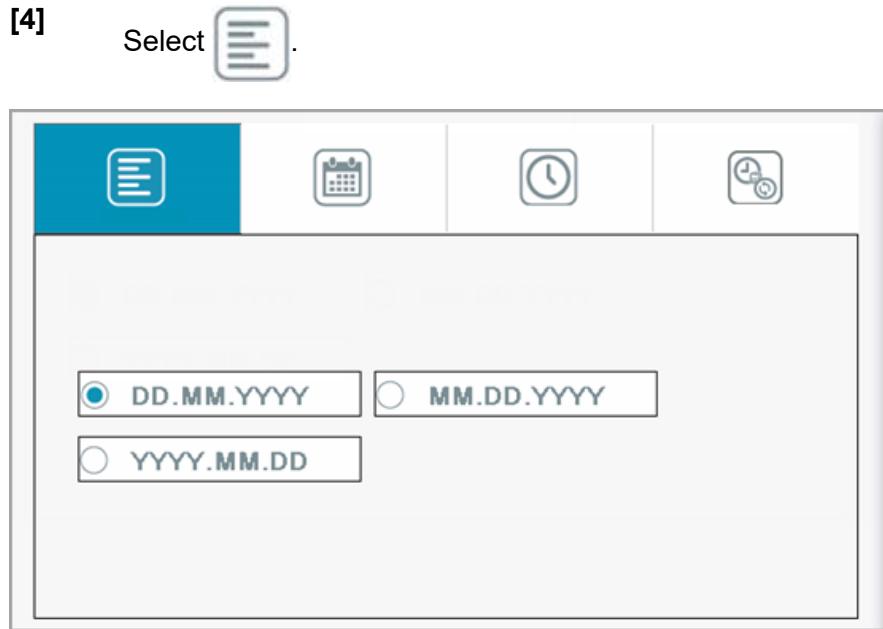
Changing the Time Zone



- [3] Scroll and select the desired time zone.

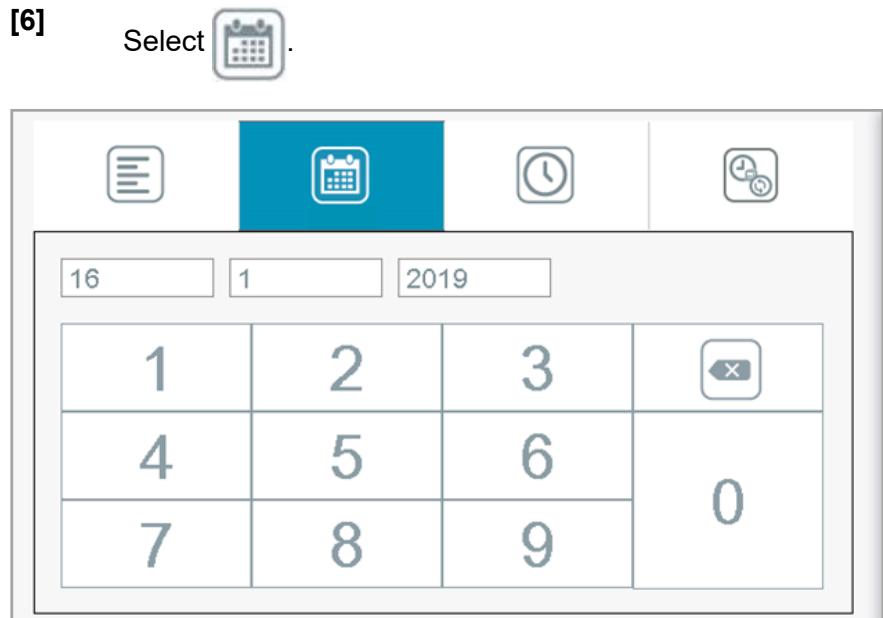
⇒ The time zone is set successfully. For example, in the above image, the time zone is changed from Pacific Standard Time to Indian Standard Time.

Changing the Date Format



[5] Select the desired date format.

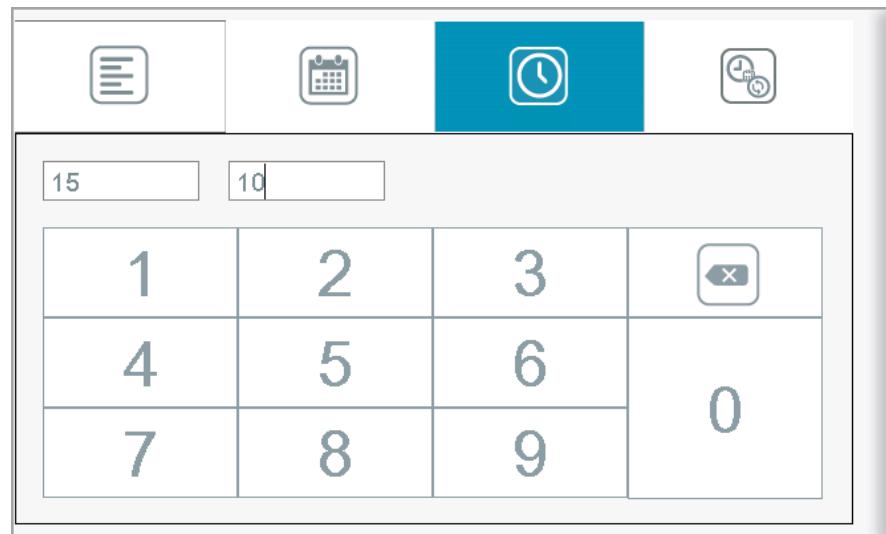
Changing the Date



[7] Enter the current date.

Changing the Time





[9] Enter the current time.

[10] Select .

Result

⇒ The updated date and time appears on the header (status bar) of the screen.

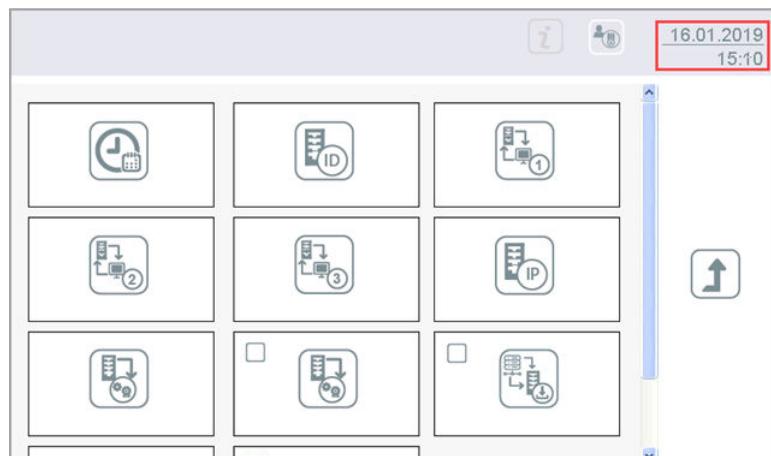


Figure 58: Updated Date/Time

11.2 Setting Machine ID

→ *Section 6.4.1 “System Settings Menu”, p. 52*

Requirements

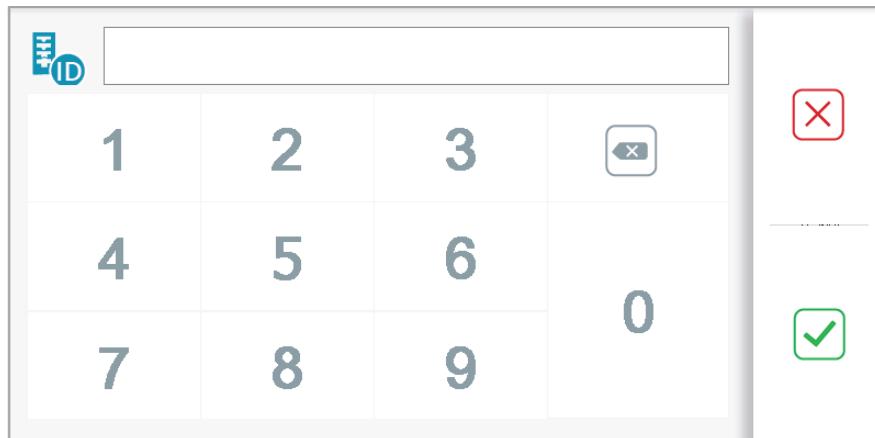
-  login

→ *Section 8.2.2 “Logging in as Supervisor”, p. 87*

Procedure

[1] Select .

[2] Select .



[3] Enter the new machine ID.

**Important!**

It is recommended not to use the same machine ID more than once.

[4] Select .

Result

⇒ The machine ID is set.

11.3 Changing Secure File Transfer Protocol (SFTP/FTP) Settings

→ *Section 6.4.1 “System Settings Menu”, p. 52*

Requirements

-  login
→ *Section 8.2.2 “Logging in as Supervisor”, p. 87*
- Correct network settings from the network administration.
- Correct Server settings

Here are the recommended settings for Filezilla Server and IIS Server:

– Filezilla Server

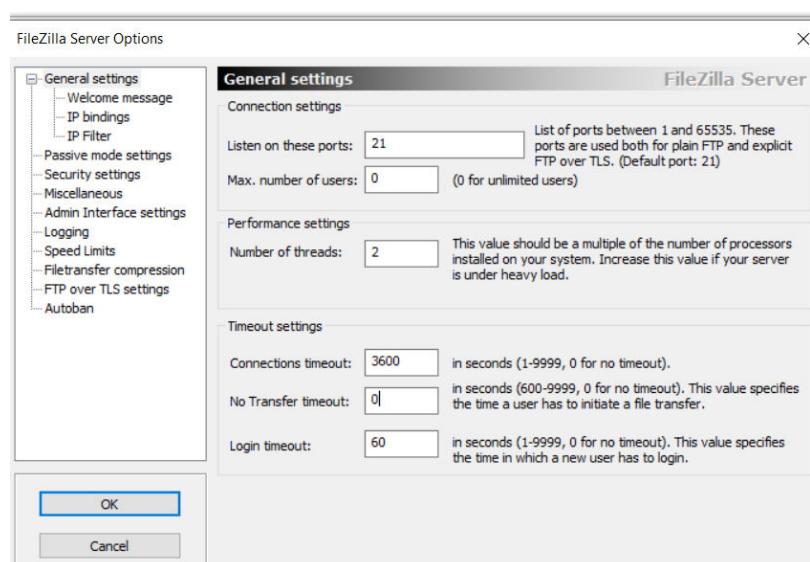


Figure 59: Filezilla Server Settings

– IIS Server

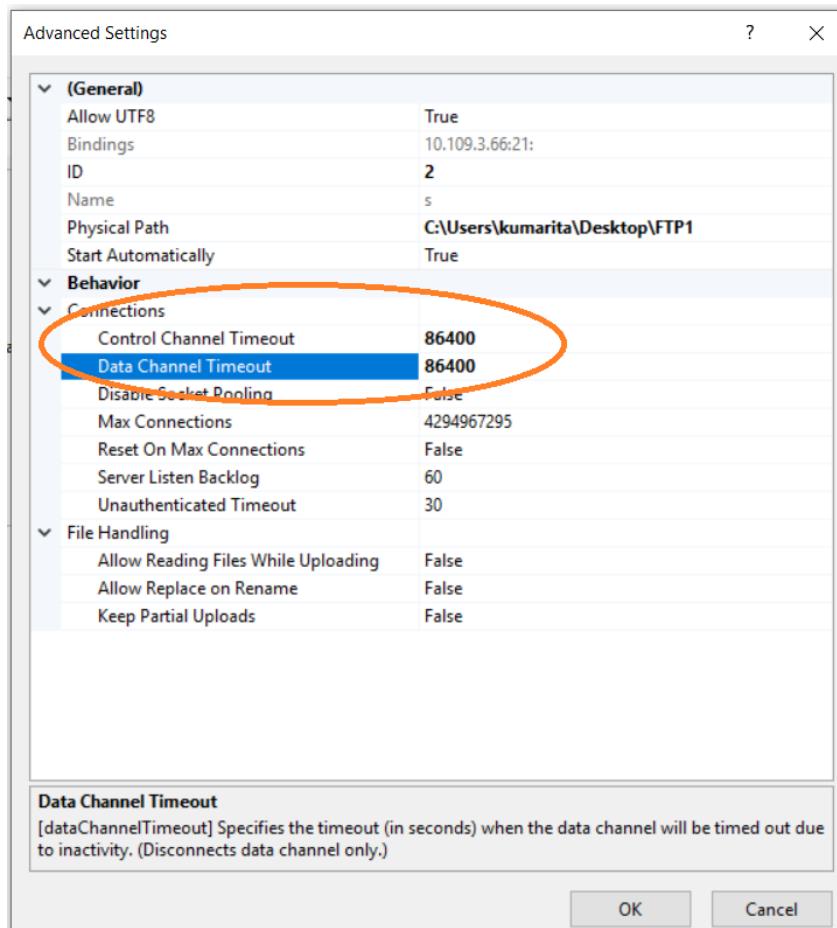


Figure 60: IIS Server Settings

Procedure

11

- [1] Select 
- [2] Select the (S) FTP server by selecting  /  / 



[3] Enter the IP address.

Enter the following values:

- **IP Address**
- **Directory**
- **Port**
- **Username**
- **Password**



Important!

Do Not use 192.168.1.1 and 192.168.1.2 as your IP address for FTP settings. These IP addresses are reserved for internal machine communication. Using the same may create conflict in server connections.

[4] (Optional) To enable the secure file transfer, select the **SFTP** checkbox.

[5] Select .

Result

⇒ The (S)FTP IP address is set.

11

11.4 Setting Machine IP Address

→ *Section 6.4.1 “System Settings Menu”, p. 52*

Requirements

-  login

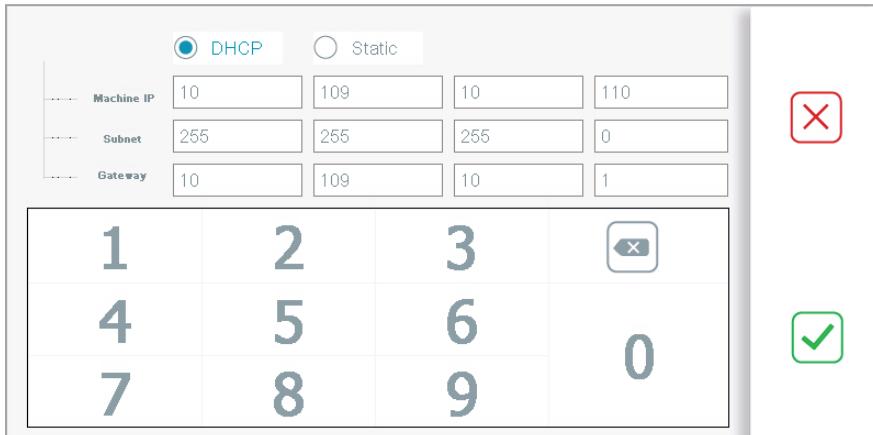
→ *Section 8.2.2 “Logging in as Supervisor”, p. 87*

- The correct network settings from the network administration.

Procedure

- [1] Select 
- [2] Select 

Static IP Address



<input checked="" type="radio"/> DHCP	<input type="radio"/> Static
Machine IP	10.109.10.110
Subnet	255.255.255.0
Gateway	10.109.10.1

1	2	3	
4	5	6	0
7	8	9	

- [3a] Select **Static**.

Enter the following values:

- **IP Address**
- **Subnet**
- **Gateway**

DHCP IP Address

The following alternative to dynamic IP configuration requires an available and correctly configured DHCP server. Contact your network administrator for further information.

- [3b] For dynamic IP configuration over DHCP, select **DHCP** and enter the values.

⇒ The IP settings are automatically assigned when the machine is next started up.

- [4] Select .

- [5] Restart the machine for the changes to take effect.

Result

⇒ The machine IP address is changed.

11.5 Changing Simple Network Time Protocol (SNTP) Settings

→ Section 6.4.1 “System Settings Menu”, p. 52

Requirements



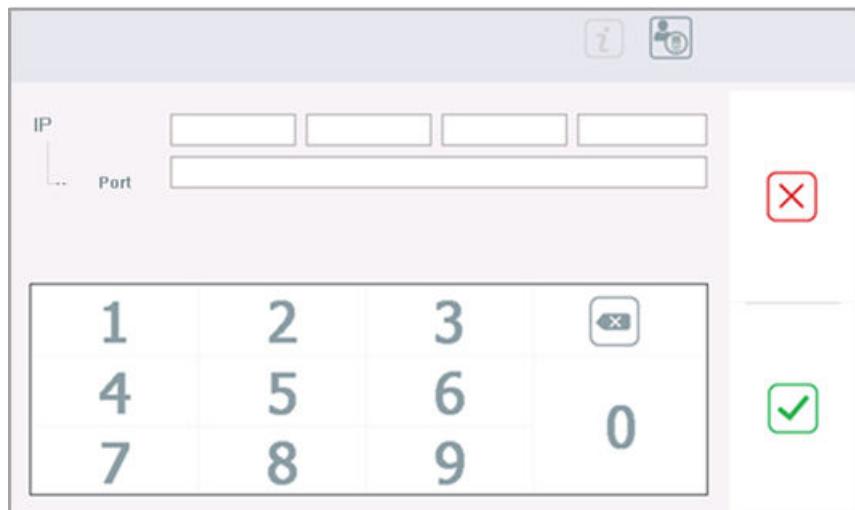
→ *Section 8.2.2 “Logging in as Supervisor”, p. 87*

- The correct network settings from the network administrator

Procedure



[2] Navigate to screen 2.



[4] Enter the SNTP address.

Enter the following values:

- IP
- Port



Result

⇒ The SNTP IP is set.

11

11.6 Activating Video Surveillance Interface Switch

→ *Section 6.4.1 “System Settings Menu”, p. 52*

→ *Section 7.8 “Video Surveillance Interface (VSI)”, p. 76*

Requirements

-  login
 - *Section 8.2.2 “Logging in as Supervisor”, p. 87*
- Correct network settings from the network administrator

Procedure

- [1] Select .
- [2] Navigate to screen 2.
- [3] Check the  check box.
 - ⇒ The VSI switch is activated.

11.7 Configuring Video Surveillance Interface

→ *Section 7.8 “Video Surveillance Interface (VSI)”, p. 76*

Requirements

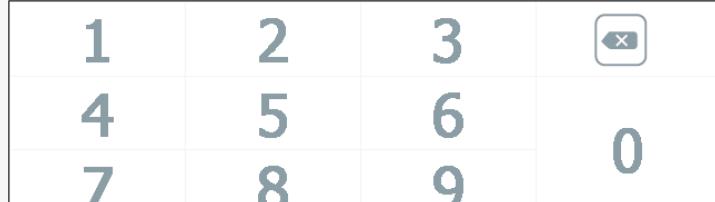
-  login
 - *Section 8.2.2 “Logging in as Supervisor”, p. 87*
- Correct network settings from the network administrator

Procedure

- [1]  login
- [2] Navigate to screen 2.
- [3] Select 
 - ⇒ The VSI configuration input fields will then appear on the screen.


Important!

The information you now need may be obtained from the VSI server administrator.

IP	10	108	5	38
Directory	ftp			
Port	54621			
Username	test			
Password <input type="password"/> 				

11

[4] IP

Enter the IP address for the VSI server.

[5] Directory

Displays the active directory of the VSI.

The default directory is FTP.

[6] Port

Enter the VSI port.

[7] Username

Enter the FTP user name.

[8] Password

Enter the FTP password.

[9]

Select .

⇒ All changes become effective after the BPS C2 is restarted.

11.8 Enabling/Disabling Automatic Installation Switch

→ Section 6.4.1 “System Settings Menu”, p. 52

Requirements

-  login
 - *Section 8.2.2 “Logging in as Supervisor”, p. 87*
- The BPS C2 connected to LAN
 - *Section 5.4 “Installing and Connecting”, p. 32*

**Important!**

Separate installation packages are provided to demonstrate or use this feature on demand.

Procedure

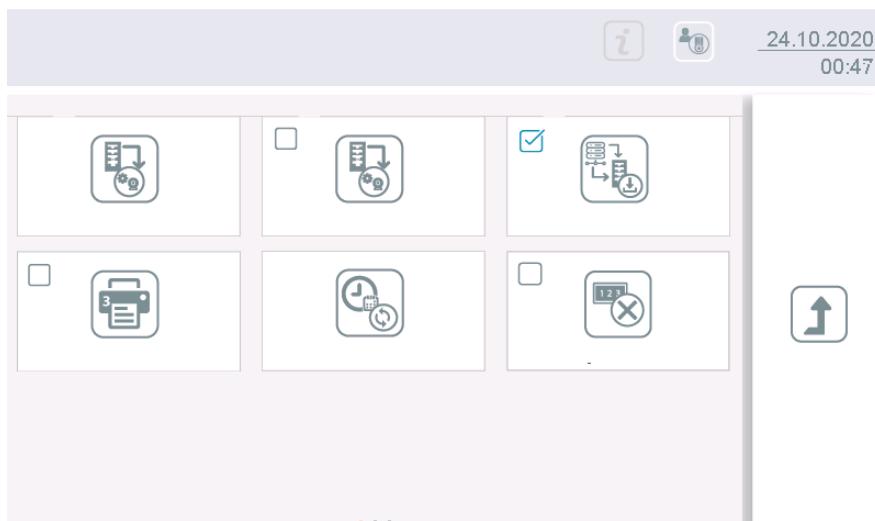
[1]



→ *Section 6.4 “Supervisor”, p. 49*

[2]

Navigate to screen 2.



[3]

Check the  check box to enable automatic installation.

Uncheck the check box to disable automatic installation.

Result

⇒ The automatic installation switch is enabled/disabled.

11.9 Enabling Three Inch Printer

→ *Section 6.4.1 “System Settings Menu”, p. 52*

→ *Section 7.7 “Printing/Sending/Copying Report”, p. 74*

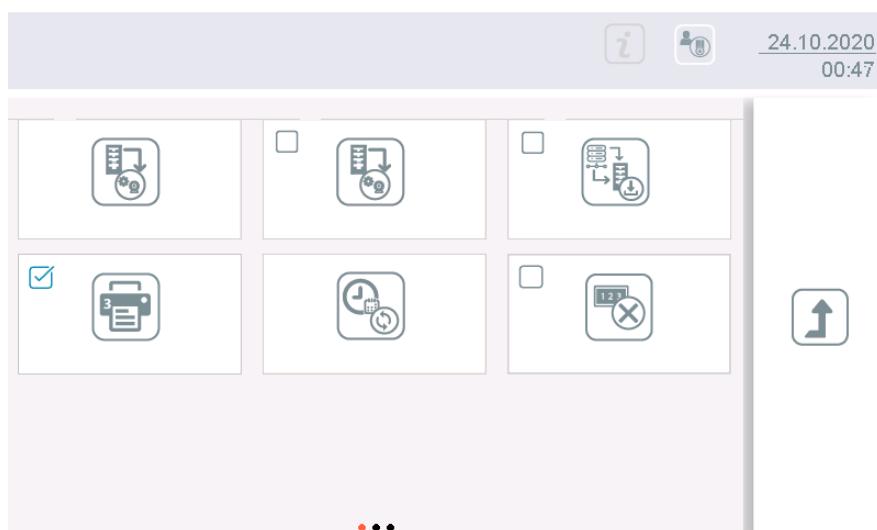
Requirements

- 
- *Section 8.2.1 “Logging in as Operator”, p. 86*
- Printer Connected
- *Section 5.4 “Installing and Connecting”, p. 32*

Procedure

[1] Select 

[2] Navigate to screen 2.



[3] Check the  check box.

Result

⇒ The three inch printer is enabled.

To switch to two inch printer, uncheck the  checkbox.

11

11.10 Activating Remote Desktop (RDP) Switch

→ *Section 6.4.1 “System Settings Menu”, p. 52*

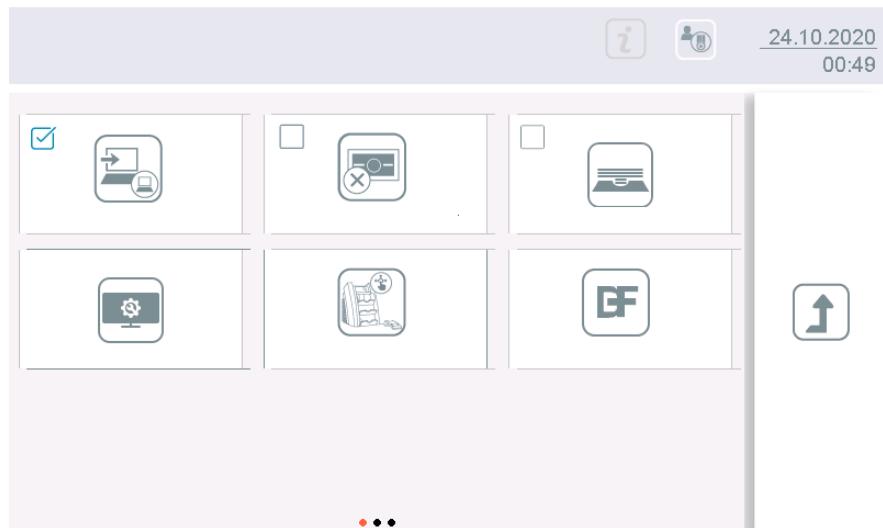
Requirements

- The PC_RemoteDesktop.exe available on the PC
- The BPS C2 connected to LAN
- The PC connected to LAN
- The BPS C2 and PC are on the same network
- Supervisor login in the BPS C2

Procedure

[1] In the BPS C2, select **Supervisor> System Settings**.

- [2] Navigate to screen 3.



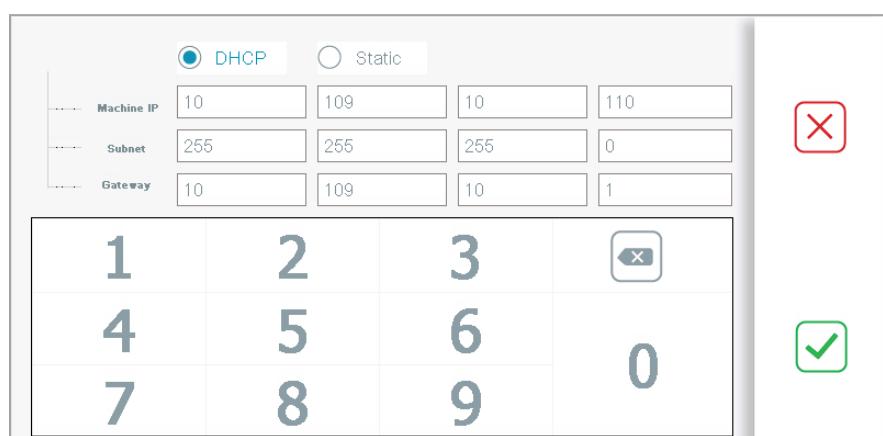
- [3] Check the RDP switch.

The following message is displayed:

RDP is enabled.

- [4] Select .

Note the DHCP IP Address. Use the same IP address in the remote desktop application on the PC.

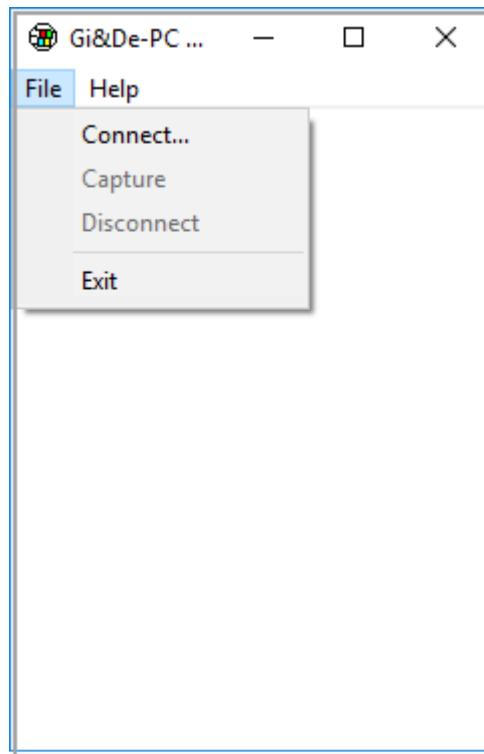


<input checked="" type="radio"/> DHCP	<input type="radio"/> Static			
Machine IP	10	109	10	110
Subnet	255	255	255	0
Gateway	10	109	10	1

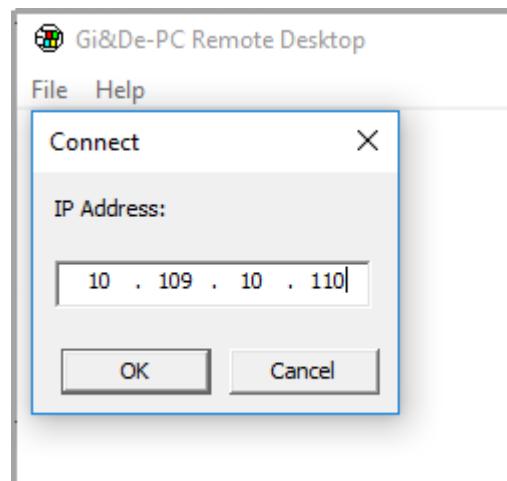
1	2	3	
4	5	6	
7	8	9	0

- [5] In the PC, start the PC_RemoteDesktop.exe application





- [6] Select **File > Connect**.
- [7] Enter the BPS C2 machine IP address.
⇒ The BPS BPS C2 is connected to the PC.



Result ⇒ You can access the BPS C2 from the connected PC.

Figure 61: RDP Connect Screen

11.11 Enabling/Disabling Reject Count View

- *Section 6.4.1 “System Settings Menu”, p. 52*
- *Section 6.3.2 “Reject/Unfit View”, p. 46*

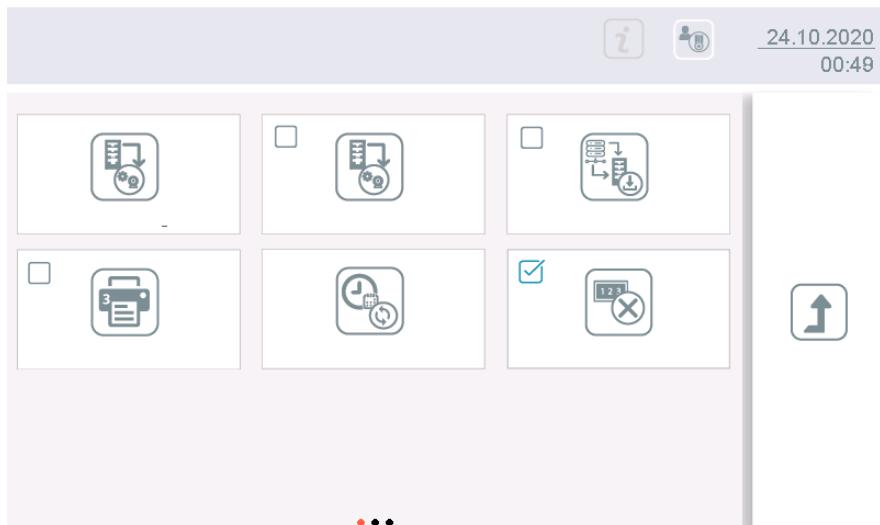
Requirements

-  login
→ *Section 8.2.2 "Logging in as Supervisor", p. 87*

Procedure

- [1] Select 
→ *Section 6.4 "Supervisor", p. 49*

- [2] Navigate to screen 2.

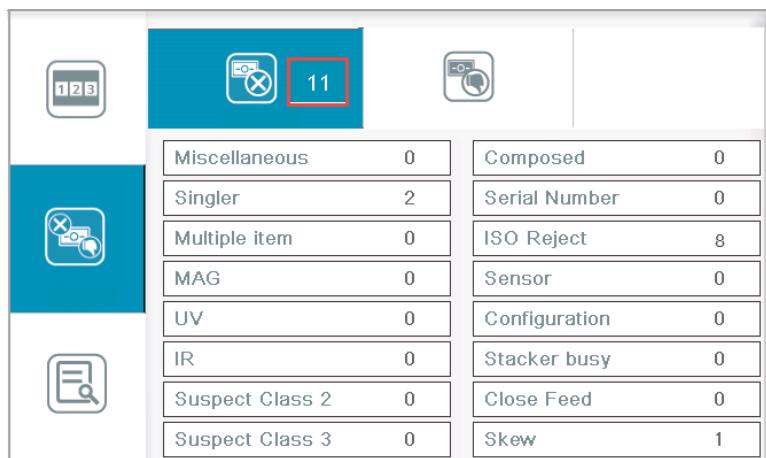


- [3] Check the  check box to enable the reject count display.
Uncheck the check box to disable the reject count display.

Result

- ⇒ The number of rejected banknote appears in the **Reject/Unfit** tab of banknote processing result screen.

11



Miscellaneous	0	Composed	0
Singler	2	Serial Number	0
Multiple item	0	ISO Reject	8
MAG	0	Sensor	0
UV	0	Configuration	0
IR	0	Stacker busy	0
Suspect Class 2	0	Close Feed	0
Suspect Class 3	0	Skew	1

Figure 62: Reject Count View

11.12 Viewing Operation Details

→ Section 6.4 “Supervisor”, p. 49

Requirements

-  login

→ Section 8.2.2 “Logging in as Supervisor”, p. 87

Procedure

- [1] Select 

Result

⇒ The following screen displays the operation details.



Details	Cumulative	Resettable
Date/Time	17.10.2017 15:56	09.04.2018 12:00
General Info		
System ID	MachinelD	
Serial Number	17ST41021	
Global Counters		
BN Counter	1581626	
Power On Time	1117:17:50	
Transport On Time	124:02:40	
Singler On Time	221:13:56	
Missed Feed Ratio	4.52%	0.00%

Figure 63: Operation Details Screen

Figure 64: Operation Details Screen

Scroll down the screen for more operation details.

11.13 Changing the Fitness Threshold

11

→ Section 6.4 “Supervisor”, p. 49

Requirements

-  login

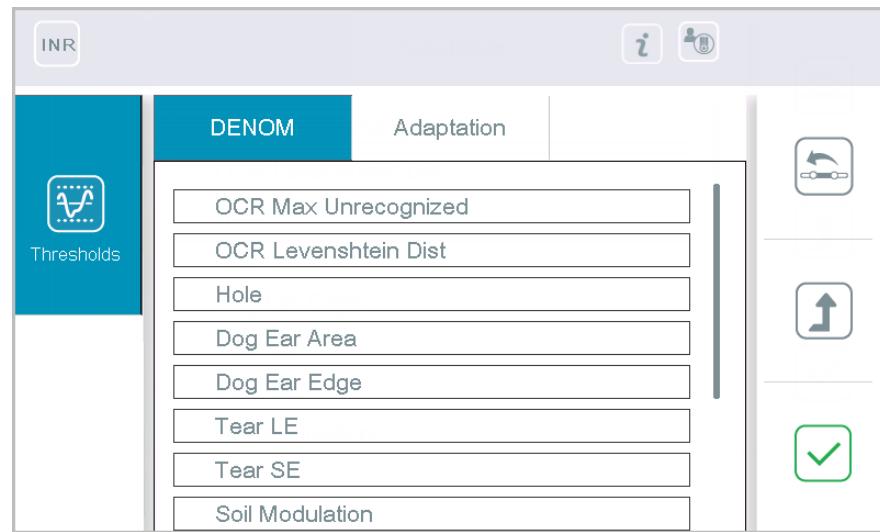
→ Section 8.2.2 “Logging in as Supervisor”, p. 87

- The desired currency is selected.

→ Section 9.1 “Selecting Currency”, p. 91

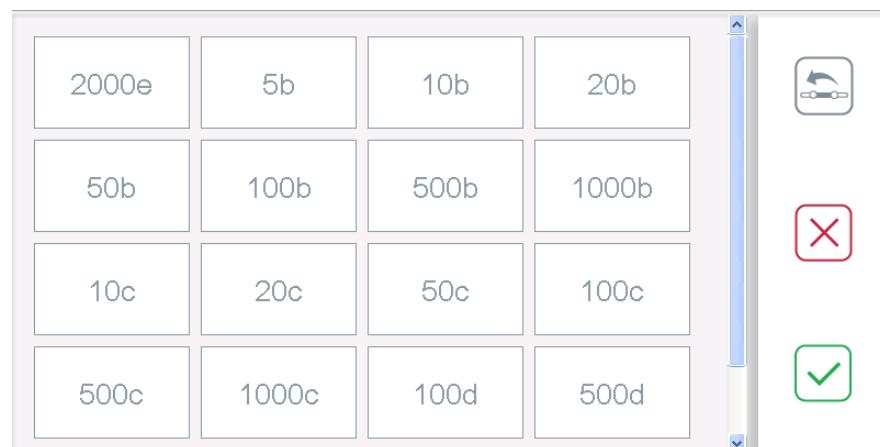
Procedure

- [1] Select 



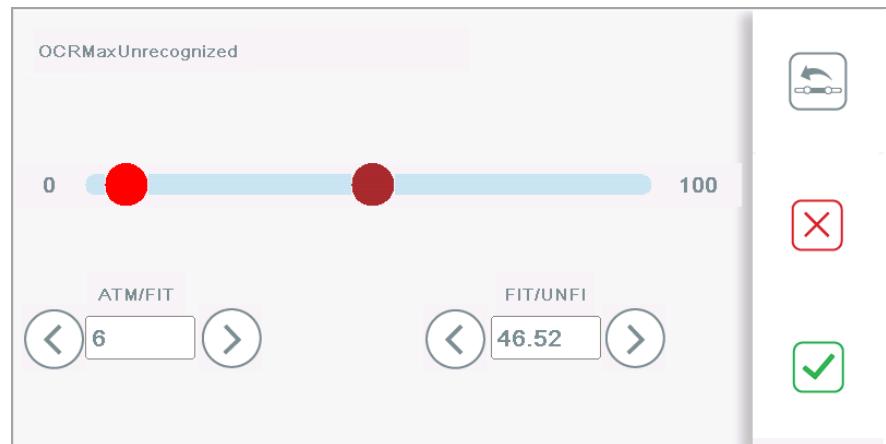
- [2] In the **Deno Wide** tab, select the mechanical sorting threshold that you wish to change.
To reset the threshold across all denomination/emission for all the mechanical threshold value, select .

- [3] Select .



- [4] Select the desired denomination/emission.
The numeric value stands for the denomination and the character stands for emission.
To reset the selected mechanical threshold value for all denomination/emission, select .

- [5] Select .



[6] Change the threshold value using  / .

You can also move the  button to the desired value.

To reset the selected threshold value for the selected denomination/emission, select .

[7] Select .

[8] Select .

Result  The fitness threshold is set.

11.14 Updating Configuration Package

→ *Section 7.9 “Configuration Package”, p. 77*

→ *Section 6.4.2 “Installation Menu”, p. 56*

11

Requirements

-  login
→ *Section 8.2.2 “Logging in as Supervisor”, p. 87*
-
- The USB stick with the configuration package, placed in the *Configuration* folder, is plugged to the BPS C2
→ *Section 5.4 “Installing and Connecting”, p. 32*

**Important!**

When you update the configuration package, the existing data, OP modes, and reports are deleted.

Procedure

- [1] Select
 - [2] Select
 - [3] Select the desired installation file and version.
 - [4] Select
- ⇒ You will receive a warning.
Warning Statistical data, OPmodes and reports will be deleted for the deleted adaptation. 1. Press Ok to continue. 2. Press Cancel to stop installation.

- [5] Select
- The BPS C2 automatically reboot after the installation is complete. The following message is displayed:
Config Package Updated Successfully.

Result

- ⇒ The installation is complete. The BPS C2 saves a copy of the configuration package, which can be exported to a USB stick.
→ *Section 11.17 “Exporting Configuration Package”, p. 155*

11

11.15 Updating Language Package

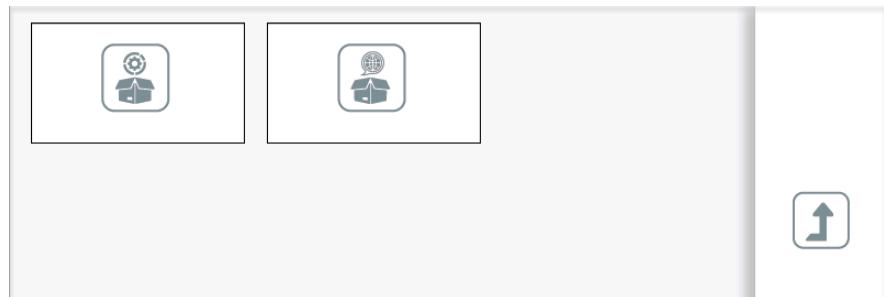
- *Section 7.10 “Language Package”, p. 78*
→ *Section 6.4.2 “Installation Menu”, p. 56*

Requirements

- login
- *Section 8.2.2 “Logging in as Supervisor”, p. 87*
- The USB stick with the language package, placed in the *languages* folder, is plugged to the BPS C2
- *Section 5.4 “Installing and Connecting”, p. 32*

Procedure

[1] Select 



[2] Select 

[3] Select the desired language package.

[4] Select 

Result

⇒ After installation, you will receive the following message:
_ Installation Status: Successful

11.16 Setting Favorite Operating Mode

→ *Section 7.4 “Favorite Operating Modes”, p. 71*

→ *Section 6.4 “Supervisor”, p. 49*

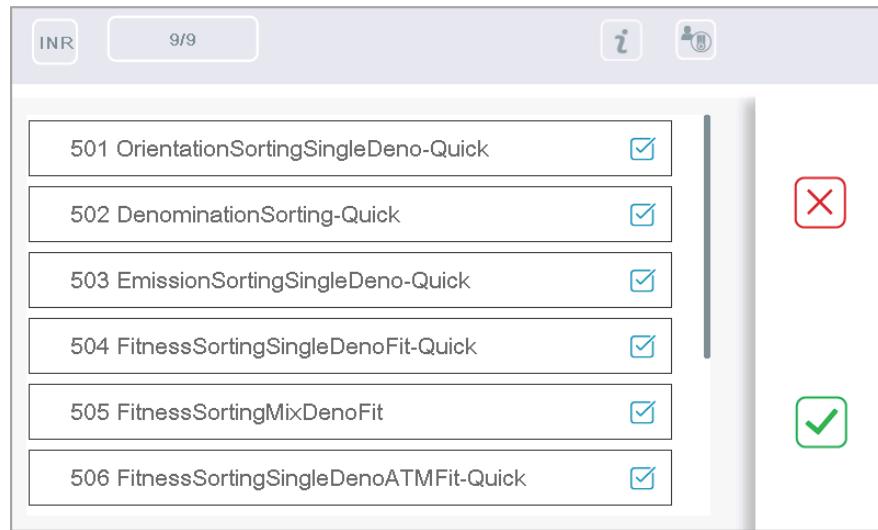
Requirements

•  login

→ *Section 8.2.2 “Logging in as Supervisor”, p. 87*

Procedure

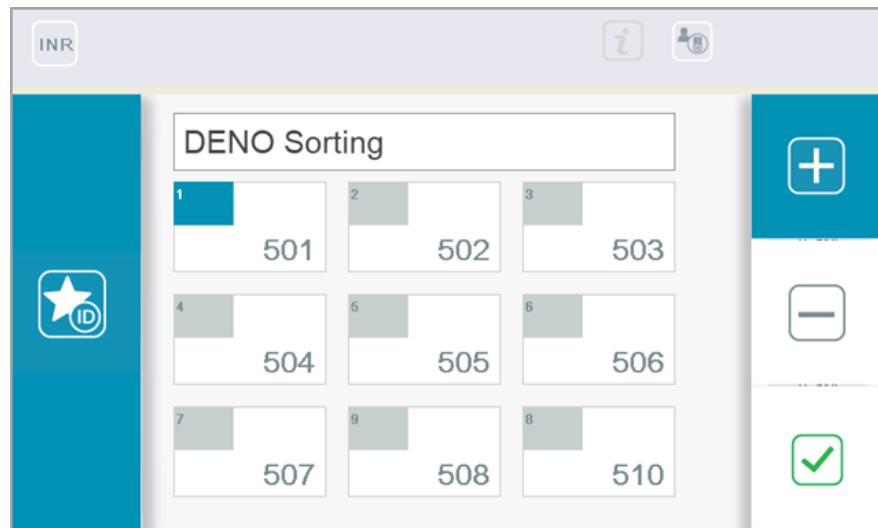
[1] Select 



- [2] Check the operating modes you want to set as favorite.
You can set up to nine operating modes as favorite. Use the scroll bar for more operating modes.

Setting the Favorite Operating Mode Identity Number (ID)

[3] Select .



- [4] Select the operating mode ID.
Use  /  to select the ID.
Note that two operating mode can not have same ID.
⇒ The operating mode appears in the **Favorite** list in Operator menu.

11.17 Exporting Configuration Package

→ *Section 7.9 “Configuration Package”, p. 77*

→ *Section 6.4 “Supervisor”, p. 49*

Requirements

-  login
 - *Section 8.2.2 “Logging in as Supervisor”, p. 87*
- A valid configuration package installed in the BPS C2
 - *Section 11.14 “Updating Configuration Package”, p. 151*
- USB stick plugged to the BPS C2
 - *Section 5.4 “Installing and Connecting”, p. 32*

Procedure

- [1] Select 

Result

- ⇒ The installed configuration package is exported to the connected USB stick. The following message is displayed:
Export Config Package Successful
You can install the configuration package in other BPS C2 machines.

11.18 Setting the Self Test Level

→ *Section 7.6 “Logs, Traces, Raw Data, and Self Test Levels”, p. 72*

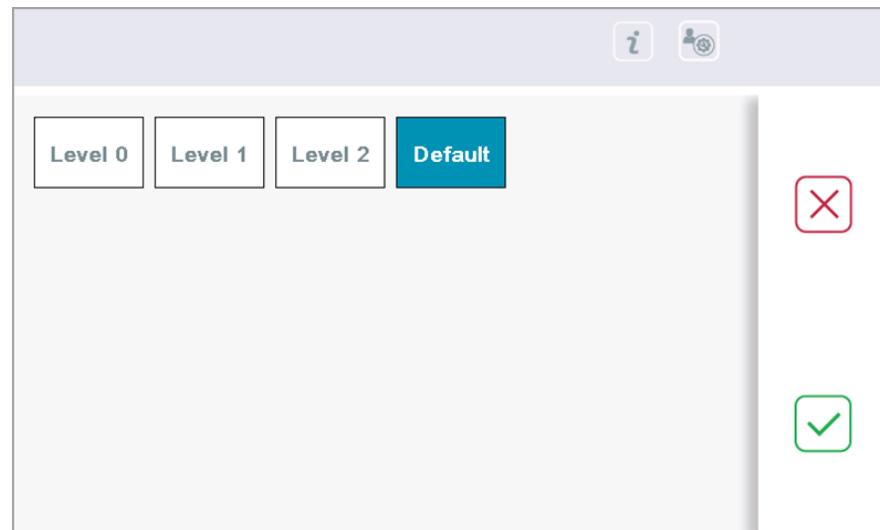
→ *Section 6.4 “Supervisor”, p. 49*

Requirements

-  login
 - *Section 8.2.2 “Logging in as Supervisor”, p. 87*

Procedure

- [1] Select 



[2] Select the desired test level as desired.

[3] Select .

Result

⇒ The self-test level has been set.

11.19 Setting the Trace Level

→ *Section 7.6 “Logs, Traces, Raw Data, and Self Test Levels”, p. 72*

→ *Section 6.4 “Supervisor”, p. 49*

Requirements

-  login

→ *Section 8.2.2 “Logging in as Supervisor”, p. 87*

11

Procedure

[1] Select .



- [2] Select the level as desired.
- [3] Select .
- Result ⇒ The trace level setting is updated.

11.20 Enabling Serial Number Storage Switch

Important Notice for
the USA/Canada

→ *Section 7.11 “Serial Number Storage”, p. 79*

The serial number reading options are not available in the USA/
Canada.

Requirements

-  login
→ *Chapter 8 “Starting BPS C2”, p. 85*

Result

[1] Navigate to screen 2.

[2] Select .

[3] Select the  check box.

⇒ The serial number storage switch is enabled. The data of
the processed banknotes are saved in BPS C2.

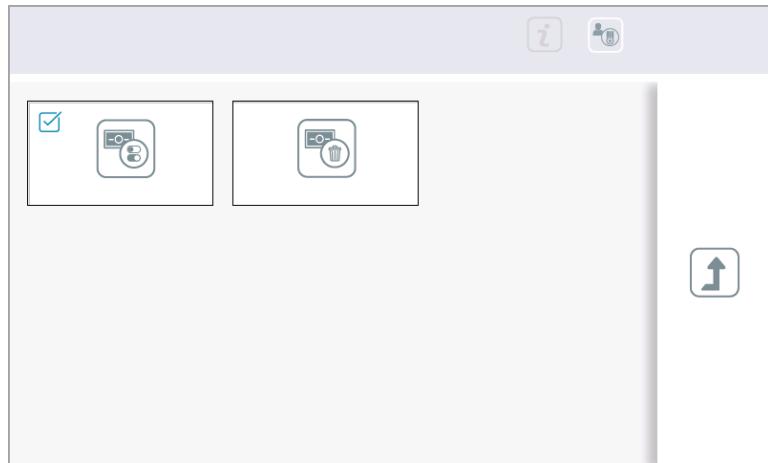


Figure 65: Serial Number Storage Menu

11.21 Deleting Banknote Data

Important Notice for
the USA/Canada

→ Section 7.11 “Serial Number Storage”, p. 79

The serial number reading options are not available in the USA/
Canada.

Requirements

-  login
→ Chapter 8 “Starting BPS C2”, p. 85

[1] Navigate to screen 2.

[2] Select .

[3] Select .

⇒ The following message is displayed:

**Are you sure you want to delete the records of BN
serial numbers?**

[4] Select  to confirm deletion.

Result

⇒ All the banknote data stored in the BPS C2 is deleted .

11.22 Enabling Reject Overrun

→ Section 6.4.1 “System Settings Menu”, p. 52

Requirements

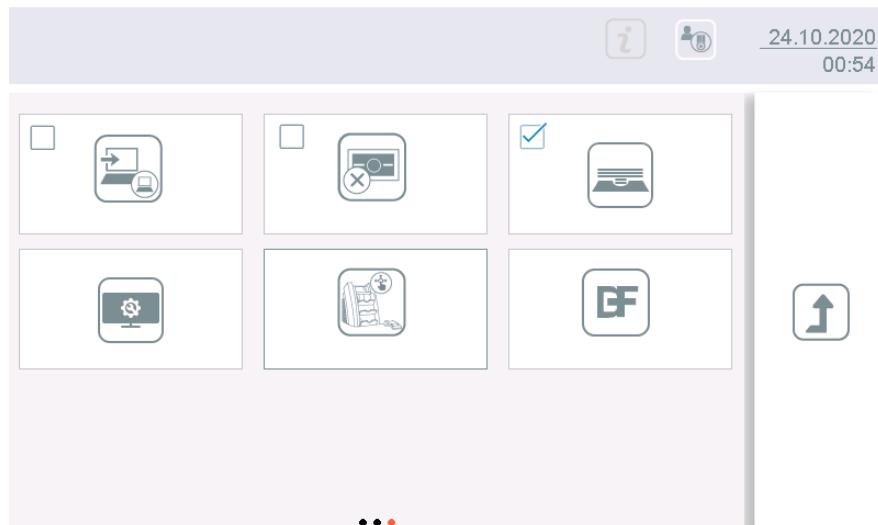
-  login

→ Section 8.2.2 “Logging in as Supervisor”, p. 87

Procedure

[1] Select .

[2] Navigate to screen 3.



[3] Check the  check box to enable reject overrun.

Uncheck the check box to disable reject overrun.

Result

⇒ The reject overrun switch is enabled.

11.23 Enabling/Disabling the Reject Counterfeit Indicator

→ *Section 6.3.2 “Reject/Unfit View”, p. 46*

Requirements

-  login

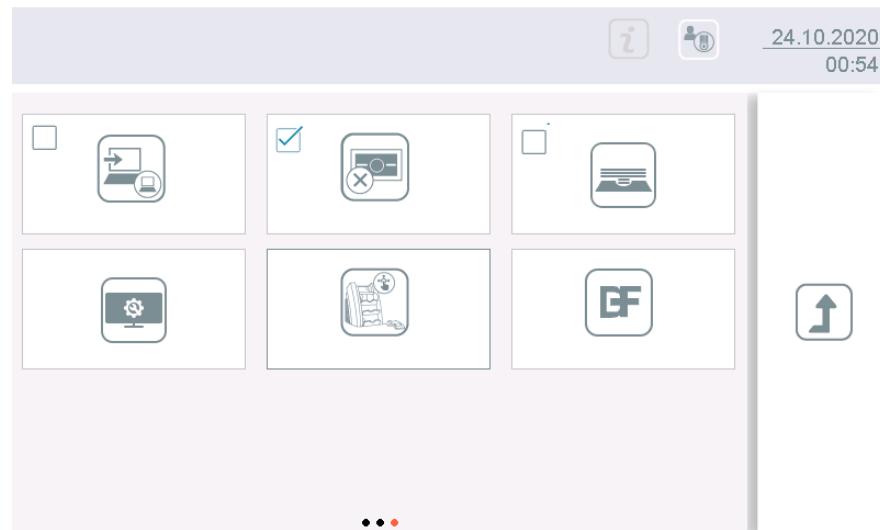
→ *Section 8.2.2 “Logging in as Supervisor”, p. 87*

Procedure

[1] Select .

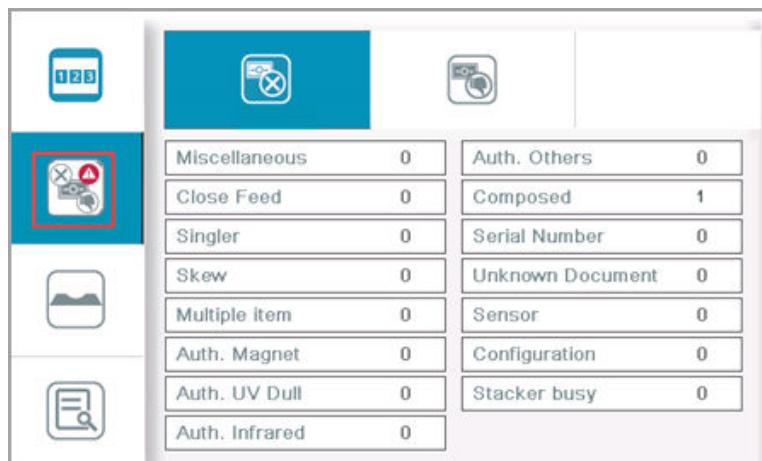
→ *Section 6.4 “Supervisor”, p. 49*

[2] Navigate to screen 3.



- [3] Check the  check box to enable the counterfeit indicator display.
Uncheck the check box to disable the counterfeit indicator display.

Result ⇒ When the BPS C2 detects counterfeit or suspect banknotes, the counterfeit indicator appears on **Reject/Unfittab**.



Miscellaneous	0	Auth. Others	0
Close Feed	0	Composed	1
Singler	0	Serial Number	0
Skew	0	Unknown Document	0
Multiple item	0	Sensor	0
Auth. Magnet	0	Configuration	0
Auth. UV Dull	0	Stacker busy	0
Auth. Infrared	0		

Figure 66: Counterfeit Indicator View

The counterfeit indicator disappears when the reject stacker is empty and the next banknote is singled.

11.24 Registering/Unregistering CheckTV

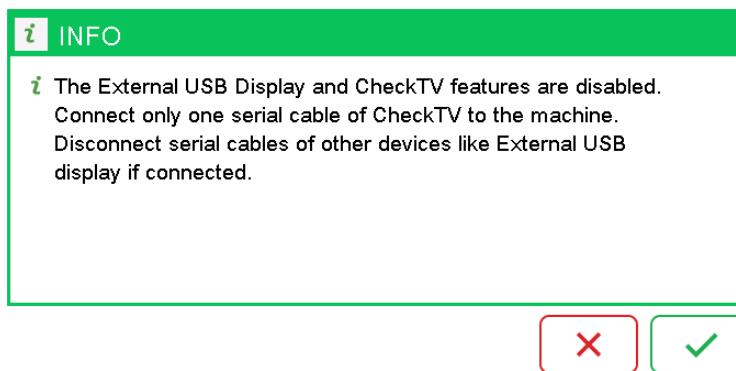
- Section 6.4.1 “System Settings Menu”, p. 52
- Section 6.3.2 “Reject/Unfit View”, p. 46

Requirements

-  login
→ *Section 8.2.2 “Logging in as Supervisor”, p. 87*
- CheckTV Serial cable connected to BPS C2

Procedure

- [1] Select 
→ *Section 6.4 “Supervisor”, p. 49*
 - [2] Navigate to Screen 3.
 - [3] Select 
 - [4] Select 
- ⇒ The following **INFO** screen pops up.
- The External USB Display and CheckTV features are disabled. Connect only one serial cable of CheckTV to the machine. Disconnect serial cables of other devices like External USB display if connected.**



11

- [5] Select 
 - [6] To unregister the CheckTV Serial Cable, select .
- ⇒ The **CheckTV** Serial Cable is now registered.
- The **INFO** screen displays:

	CheckTV serial cable is unregistered successfully.
Result	⇒ CheckTV Serial Cable is now unregistered. The CheckTV is now registered/unregistered.

11.25 Enabling the Serial Number Storage Switch

Important Notice for the USA/Canada

→ Section 7.11 “Serial Number Storage”, p. 79

The serial number reading options are not available in the USA/Canada.

Requirements

-  login
→ Chapter 8 “Starting BPS C2”, p. 85

[1] Navigate to screen 2.

[2] Select .

[3] Select the  check box.

Result

⇒ The serial number storage switch is enabled. The data of the processed banknotes are saved in BPS C2.

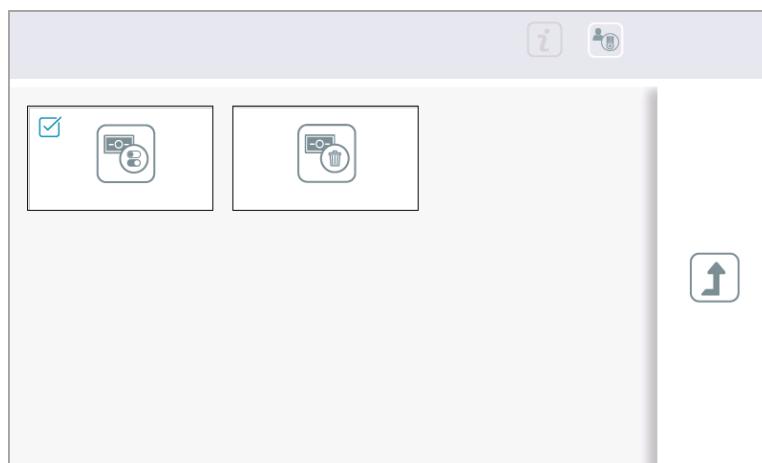


Figure 67: Serial Number Storage Menu

11.26 Changing the External Display Device Settings

→ Section 6.4.1 “System Settings Menu”, p. 52

→ Section 6.3.2 “Reject/Unfit View”, p. 46

Requirements

-  login
→ *Section 8.2.2 “Logging in as Supervisor”, p. 87*
- External USB Display device enabled
→ *Section 9.26 “Enabling/Disabling the External USB Display”, p. 124*

Procedure

[1] Scroll to the screen 2 of the **Supervisor** menu.

→ *Section 6.4 “Supervisor”, p. 49*

[2]

Select 



[3] Select the desired information to be displayed in the external USB device.

[4]

Select 

Result

⇒ The selected information is displayed in the third line of the connected external display device.

The date/time format is displayed according to the date/time format settings of the BPS C2.

→ *Section 11.1 “Setting Date and Time”, p. 133*

11

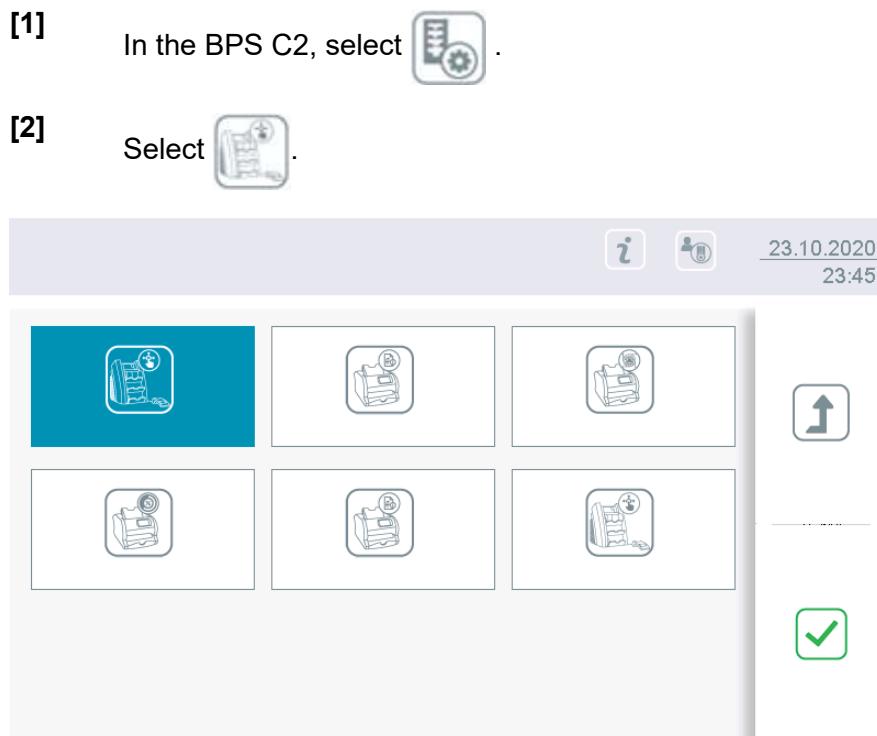
11.27 Connecting BPS C2 to External Interface

→ *Section 6.4.1 “System Settings Menu”, p. 52*

Requirements

- The CMS connected to BPS C2
→ *Section 10.1 “Connecting BPS C2 to Cash Management System”, p. 129*
- Supervisor login in the BPS C2
→ *Section 8.2.2 “Logging in as Supervisor”, p. 87*

Procedure



- *Section 10.3 “External Interfaces Menu”, p. 130*
 ⇒ The BPS C2 to the external interface.

11

11.28 Configuring the HotKeys

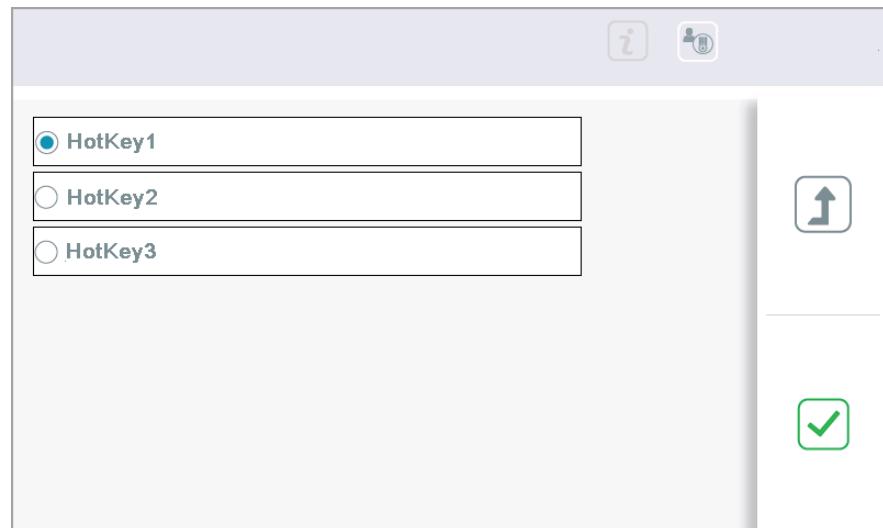
- *Section 3.2 “Key Pad”, p. 14*
 → *Section 6.4 “Supervisor”, p. 49*

Requirements

-  login
→ *Section 8.2.1 “Logging in as Operator”, p. 86*

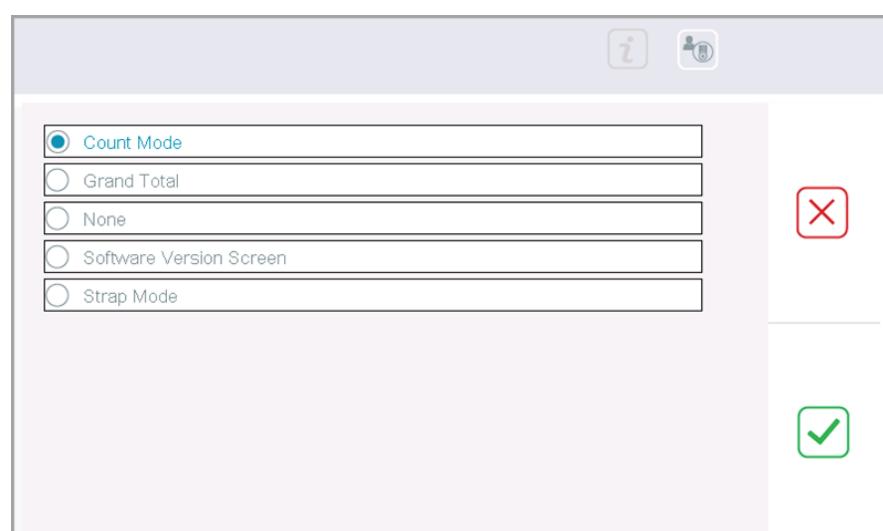
Procedure





[2] Select the **Hotkey** you wish to configure.

[3] Select .



11

[4] Select the desired function.

[5] Select .

Result

⇒ The **Hotkey** is configured.

For example, in the above images the **HotKey 1** is configured to **Count Mode**.

**Important!**

One function can not be configured to more than one HotKey. For example, if the **Count Mode** function is already configured to **Hotkey 2**, then the following message will be displayed:

The feature {0} is already configured with HotKey {1}. A feature cannot be configured to more than one HotKey.

11.29 Installing the Serial Number (SN) Search List

→ *Section 6.4 “Supervisor”, p. 49*

→ *Section 7.13 “Serial Number (SN) Search List”, p. 80*

Requirements

-  login
- USB stick with the folder structure *SN SearchList > *.bls* plugged to the BPS C2
- Following switches should be enabled in the BPS C2:
 - Thr_sw_OCRIgnorefailure
 - Thr_sw_ComposedSNR
 - Thr_sw_SNSearch

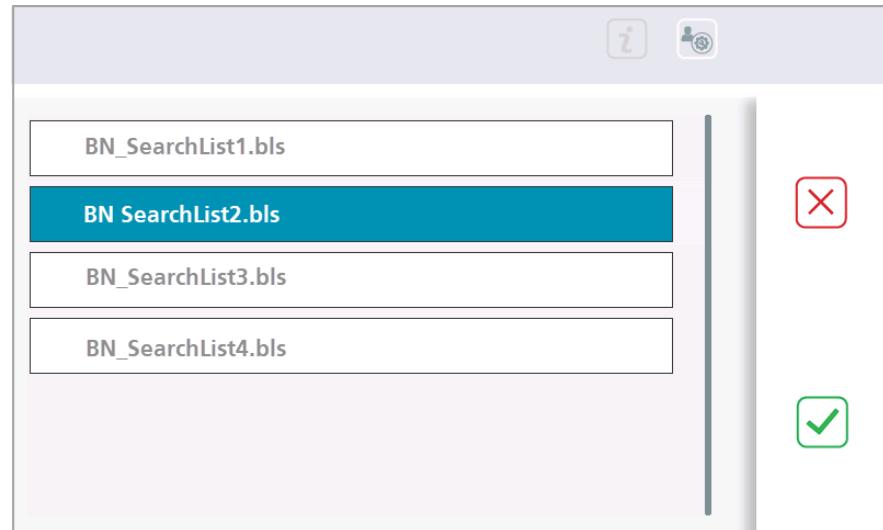
**Important!**

The SN SearchList menu option is available only if the adaptation supports serial number search.

Procedure

[1] Swipe to screen 3.

[2] Select .



[3] Select the desired SN SearchList, for example *BN_SearchList2.bls*.

[4] Select .

Result

⇒ The SN SearchList is installed in the BPS C2.

11.30 Displaying Processed Banknote Image

→ *Section 6.4 “Supervisor”, p. 49*

Requirements

-  login

→ *Section 8.2.2 “Logging in as Supervisor”, p. 87*

Procedure

[1] Swipe to screen 3.

[2] Select .

⇒ The banknote image along with the sorting is displayed.

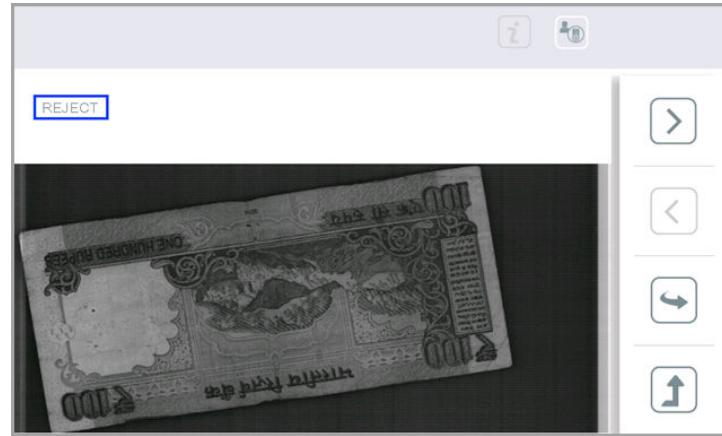


Figure 68: Banknote Image Display

To flip the banknote image, select 

To view the image of the next banknote, select 

11.31 Changing Printer Encoding Value

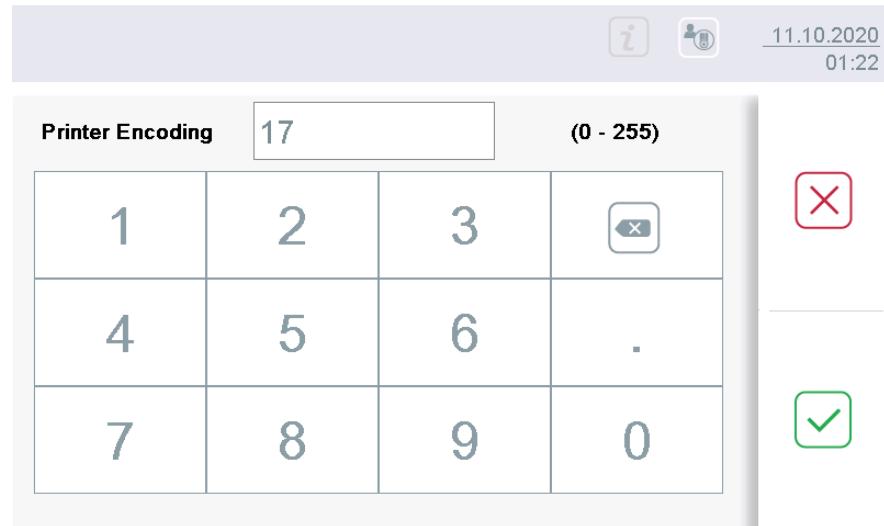
Requirements

-  login
 - Section 8.2.2 “Logging in as Supervisor”, p. 87
- The BPS C2 connected to LAN
 - Section 5.4 “Installing and Connecting”, p. 32

Procedure

11

- [1] Select 
 - Section 6.4 “Supervisor”, p. 49
- [2] Navigate to Screen 3.
- [3] Select 
- [4] Select 



[5] Type in your desired Printer Encoding value.

Changes to the encoding value will be retained over Shutdown, Language update, Config update, Backups, as well as Software updates.

**Important!**

The value must be a numerical integer, and within the range of (0 - 255).

[6] Select

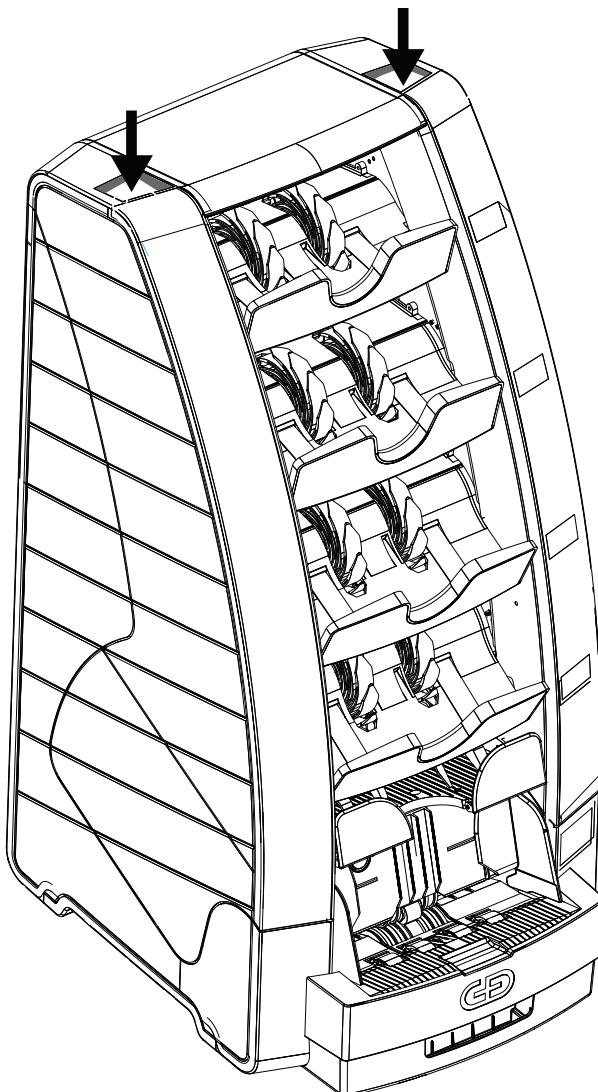
Result

⇒ The Printer Encoding Value is now changed.

12 Opening and Closing BPS C2

For cleaning or in case of malfunctions, you need to open the BPS C2.

12.1 Opening BPS C2



12

- [1] Press the **RHS Button** and the **LHS Button** simultaneously.

Result ⇒ The BPS C2 is open.

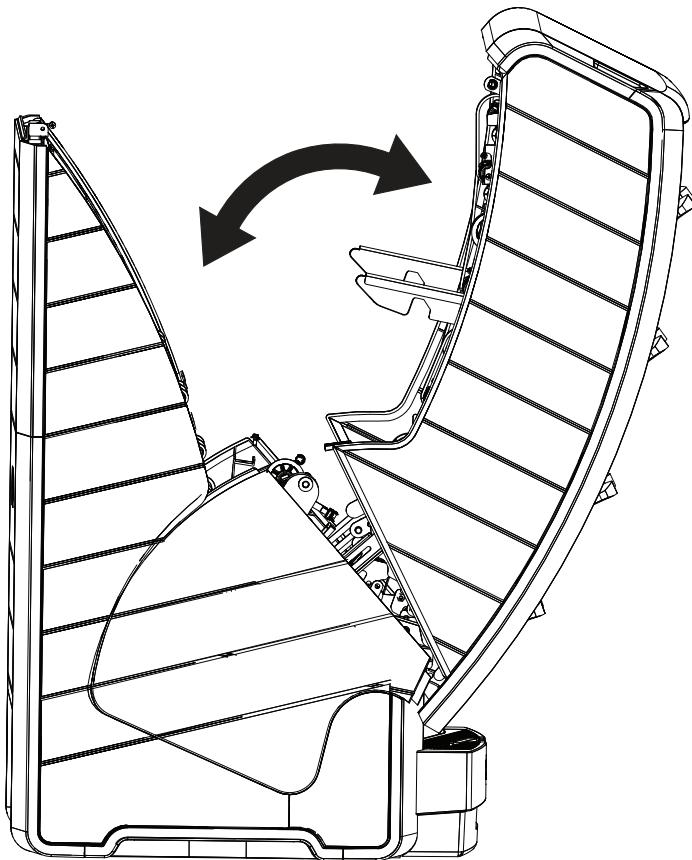
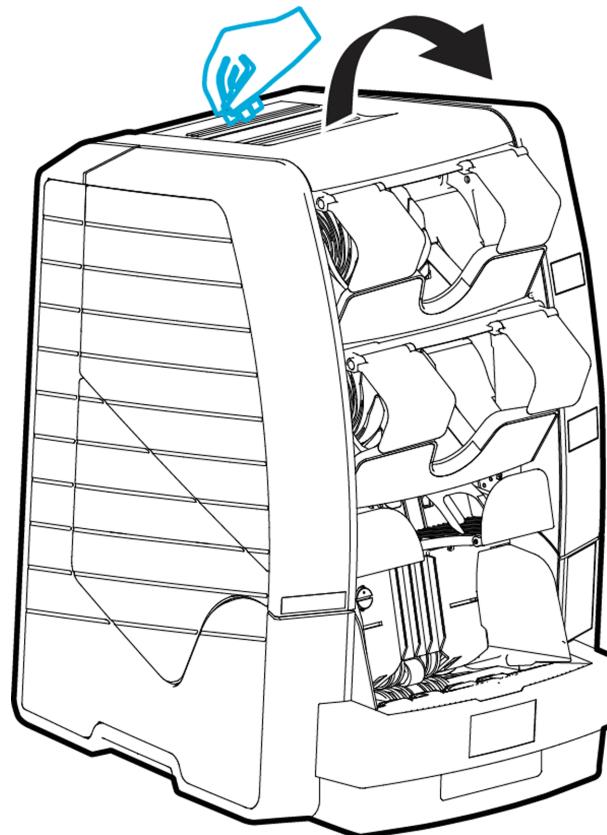


Figure 69: BPS C2 Opened

12.2 Opening Older Versions of BPS C2-2 (Hardware Version 1.5)

Procedure



- [1] Pull up the latch handle and pull the front module forward.
Result ⇒ The BPS C2 is open.

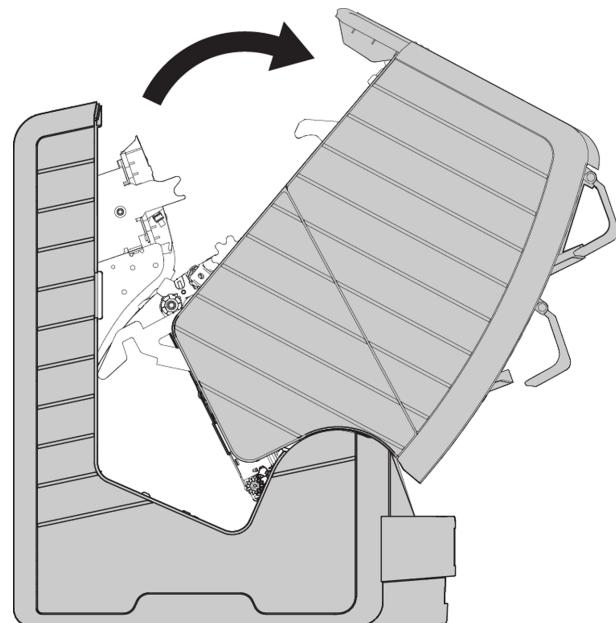


Figure 70: BPS C2 Opened

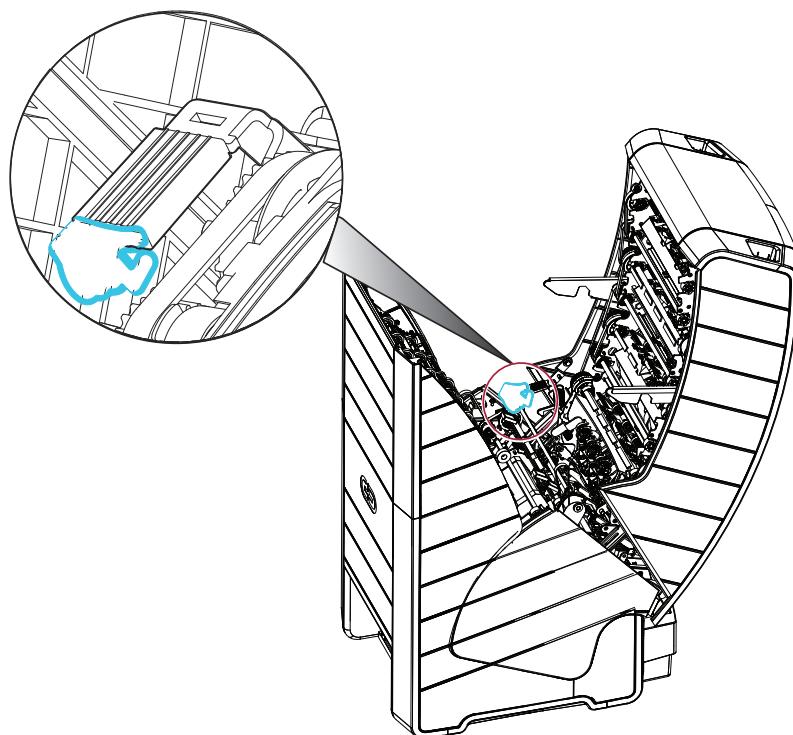
12

12.3 Opening Reject Module

Requirements

- The BPS C2 is opened.
 → *Section 12.2 “Opening Older Versions of BPS C2-2 (Hardware Version 1.5)”, p. 173*

Procedure



- [1] Pull the latch lever upwards.

Result

- ⇒ The reject module is open.

12.4 Closing BPS C2

Requirements

- The BPS C2 opened
 → *Section 12.2 “Opening Older Versions of BPS C2-2 (Hardware Version 1.5)”, p. 173*



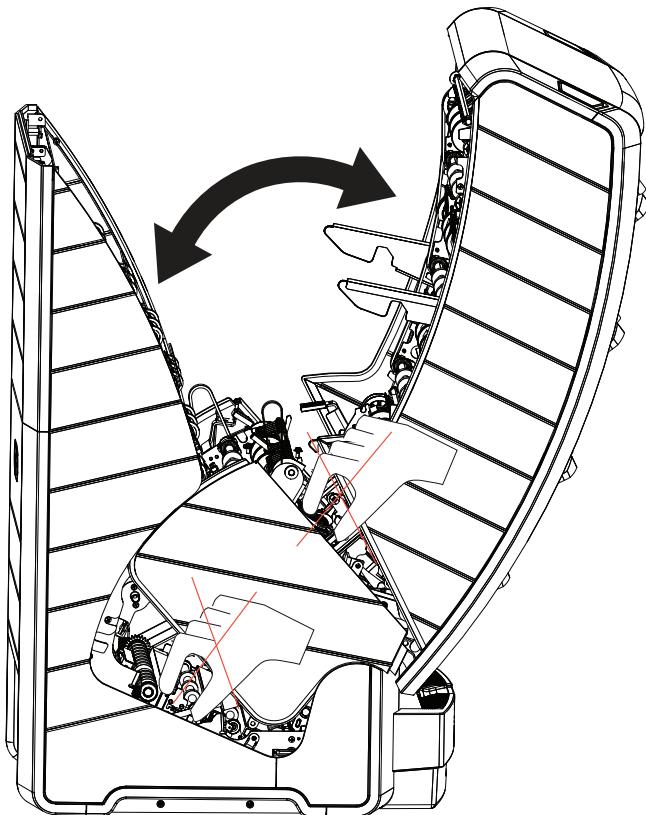
CAUTION

Danger of crushing when closing the machine

Danger of trapped fingers

When closing, be careful not to crush your fingers.

Procedure



[1] Push the front module back.

**Important!**

Ensure that the front module engages properly not until you hear the latch click sound.

Result

⇒ The BPS C2 is closed when you hear a click sound.

13 System Malfunctions

Should a fault occur during banknote processing, an error message will be shown on the screen along with the recover steps.



Important!

If the fault persists, contact your service partner or local service organization.

Accounting in the Event of a Failure

All counted banknotes, which have been removed from the delivery stacker, are already accounted for the current deposit. In the event of a jam, only the banknotes located in the singler and in the delivery stackers of the BPS C2 must be processed again.

Banknote Jam

If a banknote jam occurs, all banknotes which are still in the machine (including the banknotes in the delivery stackers that have not been accounted yet) must be removed and reprocessed after the jam is resolved.

→ *Section 13.1 “Resolving Banknote Jam”, p. 178*

Power Failure

The BPS C2 monitors the power supply from the start until the end of banknote processing, including printing the report.

For completed deposits, no accounting data is lost even in the event of a power failure.

However, during banknote processing if there is a power failure or if the program is not shut down correctly, the accounting data will be lost. There is a possibility that some banknotes are stuck in the transport section leading to a banknote jam.

You must restart the deposit after recovering the power failure.

→ *Section 13.2 “Restarting the BPS C2 After Power Failure”, p. 178*

Banknote Singling Malfunction

If no banknotes are pulled into the transport after banknotes have been placed into the singler, singling will be stopped.

→ *Section 13.3 “Correcting Banknote Singling Malfunction”, p. 180*

Banknote Processing Malfunction

If a malfunction occurs during banknote processing, singling is interrupted. The stacker LED starts blinking.

If banknotes have already been sent to the deliver stackers, but have not yet been accounted, the corresponding stacker LED will blink as well.

The following procedure describes how to recover banknote processing malfunction.

→ *Section 13.5 “Resolving Banknote Processing Malfunction”, p. 181*

High Reject Rate

An unexpected high number of rejects can be caused by the banknotes themselves or by the sensor.

→ *Section 13.4 “Reducing High Reject Rate”, p. 181*

13.1 Resolving Banknote Jam

Procedure

- [1] Remove all the banknotes from the delivery stackers and the singler.
- [2] Open the front module and the reject module of the machine.
 → *Section 12.2 “Opening Older Versions of BPS C2-2 (Hardware Version 1.5)”, p. 173*
- [3] Remove all the banknotes from the transport sections.
- [4] Close the machine.
 → *Section 12.4 “Closing BPS C2 ”, p. 174*
 The front module and reject module must be properly locked into place.
- [5] Insert any banknotes removed from the transport section and the delivery stackers back into the singler.

Result

- ⇒ The banknote jam is resolved. The deposit/batch can now be further processed.

13.2 Restarting the BPS C2 After Power Failure

The BPS C2 provides mechanism to recover from power failure during bankote processing with no loss of data.

For completed deposits, no accounting data is lost even in the event of a power failure.

The deposits, which are in progress at the time of the power failure, are closed. The BPS C2 generates the Stacker Count report, which is an XML report for the USB target. You can reconcile the deposit using the Stacker Count report after restarting BPS C2. The deposit balance report is then generated with the final accounting.

If the USB stick is not connected during the power failure, the BPS C2 stores the Stacker Count report. You can access the report from the **Resend** menu. After restarting the BPS C2, connect an USB stick and resend the Stacker Count report.

→ *Section 9.18 “Reprinting/Re-sending Reports”, p. 116*

- Single Deposit : - The banknotes in the stackers and transport path are not considered as accounted at the time of power failure.

The BPS C2 closes the previously running deposit. All the banknotes that has been removed/taken out from the BPS C2 before power failure has been accounted.

All the banknotes that are still present in the BPS C2 (stackers/transport sections) must be re-processed.

→ *Section 13.2.1 “Performing Reconciliation in Single Deposit After Power Failure”, p. 179*

- Multiple Deposit and Fast Deposit: - The BPS C2 closes the previously running deposit. Use the Stacker count report for reconciling the deposit.
→ *Section 13.2.2 “Performing Reconciliation in Multi-Deposit / Fast Deposit After Power Failure”, p. 180*
- Header Card Deposit: - The BPS C2 closes the previously running deposit. Use the Stacker count report for reconciling the deposit.

However, during banknote processing if there is a power failure or if the program is not shut down correctly, the accounting data is lost. There is a possibility that some banknotes are stuck in the transport section leading to a banknote jam.

The following message appears after the BPS C2 is restarted

Power fail recovery in progress... 1. Empty the stackers and transport paths (IM and SDMs), and put the banknotes aside. Deposits closed; report triggered 2. Segregate the accounted and unaccounted banknotes using the Stacker Count Report.

The reports that are not printed/sent at the time of the power failure are available for reprint/resend after restart.



WARNING

Unexpected starting of the machine/device

Danger of injury

1. Before starting any work, switch off the machine/device.
2. Disconnect the machine from the power supply.
3. Secure the machine/device against being switched back on.

You must restart the deposit after recovering the power failure.

13.2.1 Performing Reconciliation in Single Deposit After Power Failure

Procedure

- [1] Remove all the banknotes from the stackers and the singler.
- [2] Open the machine.
→ *Section 12.2 “Opening Older Versions of BPS C2-2 (Hardware Version 1.5)”, p. 173*
- [3] Remove all the banknotes from the transport sections.

- [4] Close the machine.
→ *Section 12.4 "Closing BPS C2", p. 174*
- [5] Restart the deposit.
Reprocess all the banknotes present in the stackers and the transport sections.
- [6] Verify the deposit using the deposit balance report.

13.2.2 Performing Reconciliation in Multi-Deposit /Fast Deposit After Power Failure

Procedure

- [1] Count the banknotes in the stacker as per the Stacker Count report .
- [2] Remove the extra banknotes from the stacker.
Extra banknotes are the unaccounted banknotes as per the Stacker Count report.
- [3] Remove all the banknotes from the transport sections.
⇒ All the banknotes that are now present in the BPS C2 as per stacker count report is accounted.
- [4] Remove all the accounted banknotes.
The accounted banknotes form the last deposit.
- [5] Reprocess the unaccounted banknotes.
Unaccounted banknotes include the extra banknotes in the stacker and the banknotes removed from the transport sections.
- [6] Verify the deposit using the deposit balance report.

13.3 Correcting Banknote Singling Malfunction

Procedure

- [1] Remove the banknotes from the singler.
- [2] Prepare the banknotes for processing again.
- [3] Place the banknotes back into the singler.

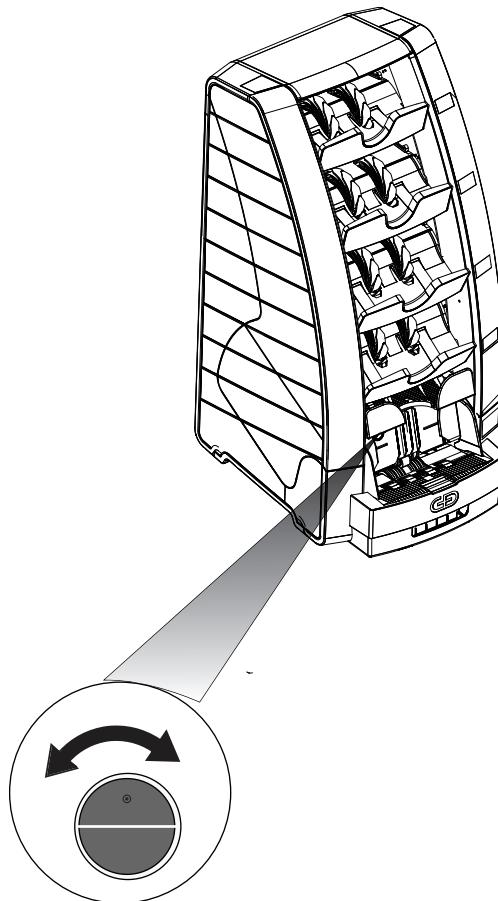
Result

- ⇒ Singling should start again automatically.
If this type of malfunction occurs frequently, the singler settings must be adjusted for the banknotes to be processed.
→ *Section 13.4 "Reducing High Reject Rate", p. 181*

13.4 Reducing High Reject Rate

Procedure

- [1] Check the reject reasons in the result.
- [2] Make sure that the banknotes are always prepared according to the instructions in the manual.



- [3] Move the adjustment lever:
 To "+" if the banknote quality is good
 To "-" if the banknote quality is poor

Result

- ⇒ Even just moving the adjustment lever one notch in the right direction can reduce the reject rate.

13

13.5 Resolving Banknote Processing Malfunction

Procedure

- [1] Remove the banknotes from all stackers.
- [2] Remove jammed banknotes from the transport system.
 → *Section 13.1 “Resolving Banknote Jam”, p. 178*

- Result [3] Place the banknotes to be processed back into the singler.
 ⇒ Singing should start again automatically.

13.6 Getting Additional Information

→ *Section 7.15 “Machine Status Information”, p. 82*

- Requirements
- The BPS C2 is switched on
 → *Section 8.1 “Switching BPS C2 On and Off”, p. 85*
 -  enabled

Procedure

- [1] Select .

⇒ The status of the peripheral devices connected to the BPS C2 are displayed.

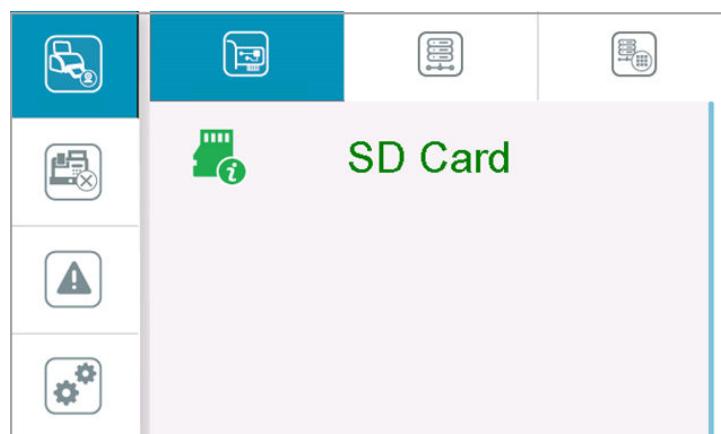


Figure 71: Peripheral Devices Status

- [2] Select .

⇒ The status of the various server connections are displayed.



Figure 72: Server Status

[3] Select 

⇒ The list of start-up errors is displayed.

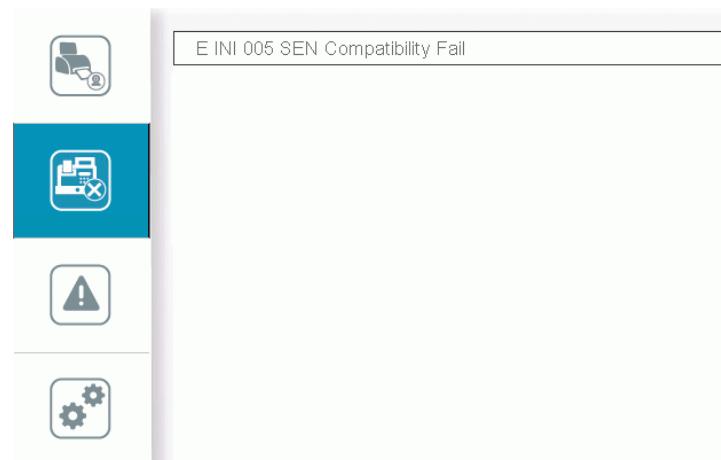


Figure 73: Startup Error Screen

[4] Select 

⇒ The trace level and sensor self test settings information are displayed.

Settings Name	Status
Trace Level	ERROR
Sensor Self-Test Level	Default

Figure 74: Settings Information

14 Cleaning

To keep the machine in perfect condition and operating correctly, you must clean the machine at regular intervals.

Take note of the following recommendations depending on the banknote quality and application:

- Clean once a day
- Clean when looking soiled

Always switch off the machine before cleaning it.

The dust tray is at the bottom of the machine.



Important!

Do not remove the dust tray when the banknote processing is in progress



DANGER

Danger of electric shock

Danger of death or serious injury from electric shock

1. Before starting any work, switch off the machine/device.
2. Disconnect the machine from the power supply.
3. Secure the machine/device against being switched back on.

Note also the following safety warnings.



DANGER

Danger of electric shock

Danger of death or serious injury from electric shock

Only field engineers are permitted to remove panel sections screwed in place on the machine/device.



WARNING

Do not perform any maintenance and service work.

There is a danger of serious injury.

Have maintenance and service work carried out by specially trained maintenance personnel and field engineers.



CAUTION

Danger from raised dust

Inhaling dust can be hazardous to your health.

Dust in the air can also damage bearings and electronic parts.

Use a vacuum cleaner with a micro-filter.

Never use compressed air for cleaning purposes.

**NOTICE**

Incorrect cleaning materials

Risk of damage to the machine/device

Do not use cleaning material with a corrosive or scouring effect.

**NOTICE**

Contaminated cleaning cloth

Risk of damage to the measurement window

Always use a new cleaning cloth. Grit contamination from previous cleaning may damage the measurement window.

Use each cleaning cloth once only.

**Important!**

Ensure that no fluid leaks into the inside of the machine.

Cleaning Aids

Use the following tools for cleaning:

- Commercially available cleaning solutions
- Clean, lint-free cloths (for cleaning and drying)
- Cleaning set MTS (Art.-No. 518493001) for heavy soiling
- Commercially available vacuum device with micro filter

To clean the machine, proceed as follows:

Procedure

- [1] Switch off the machine.

→ *Section 8.1 "Switching BPS C2 On and Off", p. 85*

**DANGER**

Danger of electric shock

Danger of death or serious injury from electric shock

Always unplug the machine by pulling on the plug and never by pulling on the cable.

- [2] Unplug the mains plug from the power socket.

- [3] Check the machine for damage.

**Important!**

If safety-relevant damage is visible (damaged or broken network cables or plugs, sharp-edged parts) contact your service partner or local service organization.

- [4] Thoroughly wring out the moistened cleaning cloth.

Cleaning Machine

- [5] Clean the housing with circular movements.

[6] Remove the cleaning fluid with a clean, damp cloth.

[7] Dry the housing with a clean, dry cloth.

Cleaning the Transport Section

[8] Open both transport sections.

→ *Section 12.1 “Opening BPS C2”, p. 171*

[9] Remove the dust using a cleaning cloth.

[10] If the soiling is heavy, vacuum the banknote transport paths, singler area, and measurement windows. Do not blow conductive particles into the machine.

[11] Clean the singler area with a clean, damp cloth.

[12] Dry the singler area with a clean, dry cloth.



Important!

Use cleaning set MTS to remove heavy soiling.

[13] Thoroughly wring out the moistened cleaning cloth.

[14] Clean the transport sections, rollers, and measurement window.

[15] Dry the transport section, rollers, and measurement window using a dry, lint-free cloth.

Cleaning the Sensor Area

[16] Clean both the sensor measurement windows (glass plates PIS1, PIS2, UV radiation) using the cleaning set.

[17] Clean the MTS roller if you observe dust accumulation.



Important!

Ensure that all parts are dry and without residues.

[18] Close the machine.

→ *Section 12.4 “Closing BPS C2”, p. 174*

Result

⇒ The machine is cleaned.



Important!

With single-shift operation and normal operating conditions clean the machine once a day, or more frequently if needed.

14.1 Cleaning Display Module

This procedure shows how to clean the touchscreen display module.

Requirements

- Commercially available mild cleaning solutions
- Clean, lint-free clothes (for cleaning)



NOTICE

Incorrect cleaning materials

Risk of damage to the machine/device

Do not use cleaning material with a corrosive or scouring effect.

Procedure

- [1] Switch off the BPS C2.
- [2] If the touchscreen is soiled, first clean it with a clean, lint-free cloth.
- [3] Apply a mild cleaning solution to a clean, lint-free cloth and carefully remove fingerprints and other residue.



Important!

Never apply sprays or cleaning fluids directly to the touchscreen.

Result

⇒ The display module is cleaned.

14.2 Cleaning Dust Tray

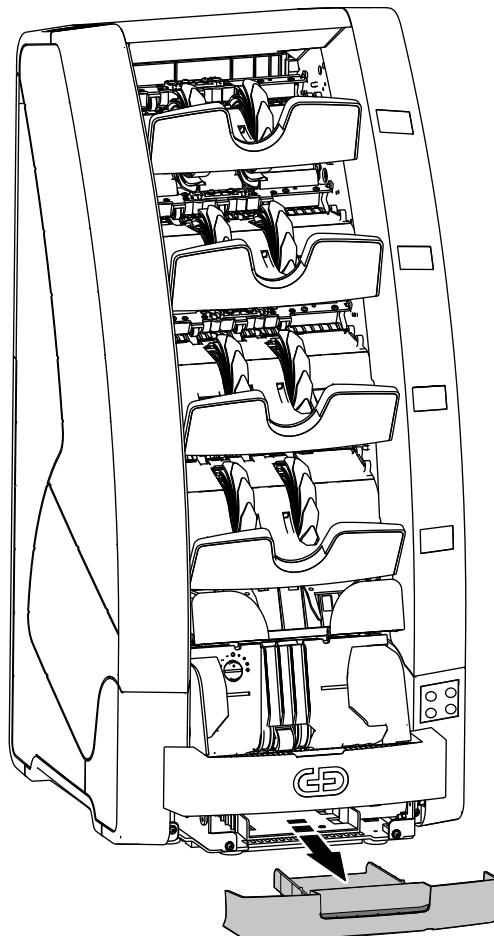
The dust tray, located at the bottom of the BPS C2, is a receptacle that collects all the dust from the machine.

You must clean the dust tray at regular intervals.

Requirements

- The BPS C2 is switched off.
→ *Section 8.1 “Switching BPS C2 On and Off”, p. 85*

Procedure



- [1] Remove the dust tray.
- [2] Empty the tray if it is full of dust.
- [3] Remove the dust using a clean cloth.
- [4] Reattach the dust tray.

Result

⇒ The dust tray is cleaned.

15 Disposal

15

Dispose the transport packaging and the product after the discontinuation of use according to the local legal requirements.

A Technical Data

The following table lists the technical data:

	Values
Maximum transport speed	<p>1,050 BNs/min for counting, authenticity detection, fitness sorting, serial number reading</p> <p>You can also set two different speed levels:</p> <ul style="list-style-type: none"> • High (1050 BNs/min) • Low (720 BNs/min)
Deposit capacity (singler)	up to 500 BNs depending on the banknote quality
Stacker capacity	up to 250 BN
Banknote formats handled	<p>Length: 100 - 181 mm</p> <p>Width: 60 - 85 mm</p> <p>Thickness: Approx 50 - 130 micro meter</p>
Number of adaptations	Up to 10 adaptations
Display	<p>7" LCD display for GUI</p> <p>3-digit, 7-segment LED display for standard stacker</p>
Power supply connection	<p>Fully molded mains lead plug to IEC Socket C14</p> <p>Rated: 100/240 V</p>
Frequency	50/60 Hz
Electrical power consumption	125 W
Fuse protection	3.15 A
Dimensions	<ul style="list-style-type: none"> • BPS C2-2: 390 x 330 x 510 mm (depth x width x height) • BPS C2-3: 430 x 330 x 620 mm (depth x width x height) • BPS C2-4: 430 x 330 x 740 mm (depth x width x height)

	Values
Weight	<ul style="list-style-type: none">● BPS C2-2: 27 kg● BPS C2-3: 32 kg● BPS C2-4: 36 kg
Transport system	Friction roller
External devices (optional)	<ul style="list-style-type: none">● Printer● Barcode reader● Mouse● Keyboard
Sensors	PIS sensor MTS sensor MAG sensor UV sensor

Table 19: Technical Data

B Description of Reports

The following types of report exist:

- XML reports
- Printed reports
- PBoC/FSN report

There are several ways to generate the reports:

- Automatic sending – sends XML/FSN reports to a server and USB, and print reports to printer and USB
- Manual sending – sends XML reports to a server and USB, and print reports to printer and USB on user request

Prerequisite:

- Existing connection to a FTP server configured on the BPS C2
- Printer connected to the BPS C2
- USB stick plugged in to the BPS C2



Important!

The type of reports available on your BPS C2 depends upon the configuration package.

B.1 Printed Reports

Reports are typically structured as follows.

B

TICKET REPORT			
MACHINE ID			1
MACHINE SN	217ST41019		2
PRINT TIME	02.08.2019 10.34.18		
BEGIN	02.08.2019 10.32.38		
END	02.08.2019 10.34.12		
OPERATOR ID			
OPERATOR MODE		INR and TKT SDP	3
DEPOSIT ID			
CUSTOMER ID	545		
CURRENCY	INR		
QUAL	DENOM	NUM#	AMOUNT
ATM	INR_20	1	20.00
		1	20.00
FIT	INR_20	2	40.00
		1	40.00
UNFIT	INR_20	81	1620.00
		1	1620.00
REJECTS		0	0.00
COIN			0.00
TOTAL		1	1680.00

Figure 75: Print Report Structure

- 1 Report Title
- 2 Report Header
- 3 Report
- 4 Report Body

Report Header

<u>CUSTOMER REPORT</u>			
MACHINE ID			
MACHINE SN			217ST41019
PRINT TIME			06.08.2019 17.12.13
BEGIN			06.08.2019 10.17.38
END			06.08.2019 16.54.28
OPERATOR ID			
OPERATOR MODE			DepositMode-MixDeno
CUSTOMER ID			545
CURRENCY			INR
QUAL	DENOM	NUM#	AMOUNT
ACC	INR_20	1	20.00
		1	20.00

Figure 76: Report Header Sample

The following values appear in the report header:

Report title		
Print Time		<Time>
Machine ID:		Details of model type
Machine SN:		Device serial number

Report Summary

TICKET REPORT			
MACHINE ID			
MACHINE SN			217ST41019
PRINT TIME			02.08.2019 10.34.18
BEGIN			02.08.2019 10.32.38
END			02.08.2019 10.34.12
OPERATOR ID			
OPERATOR MODE			INR and TKT SDP
DEPOSIT ID			
CUSTOMER ID			545
CURRENCY			INR
QUAL	DENOM	NUM#	AMOUNT
ATM	INR_20	1	20.00
		1	20.00
FIT	INR_20	2	40.00
		1	40.00
UNFIT	INR_20	81	1620.00
		1	1620.00

Figure 77: Report Summary

The following values appear in the report header, depending on the report type:

- | | |
|-------------|------------------------------------------------------------------------------------|
| Customer ID | On the "Deposit" report, the customer number appears here. |
| Deposit ID | On the "Deposit" report, the deposit number appears here. |
| Begin | On the "Daily Report" report for all days, the date of the first day appears here. |
| End | On the "Daily Report" report for all days, the date of the last day appears here. |
| Currency | Details of the selected currency |

Operator ID	The operator number appears here.
Operating mode	The name of the operating mode appears here.

<u>DAILY REPORT</u>	
MACHINE ID	
MACHINE SN	217ST41019
PRINT TIME	06.08.2019 17.12.13
FIRST DEPOSIT TIME	06.08.2019 10.17.38
LAST DEPOSIT TIME	06.08.2019 16.54.28

Figure 78: Report Summary for Daily Result Report

The following data also appear under the report summary, depending on the type of the report:

Deposit Time	On the "Daily Result" report for one day, the time of the first and the last deposits appear here.
--------------	----------------------------------------------------------------------------------------------------

Report Body

MACHINE ID			
MACHINE SN			217ST41019
PRINT TIME			06.08.2019 17.12.13
BEGIN			06.08.2019 10.17.38
END			06.08.2019 16.54.28
OPERATOR ID			
OPERATOR MODE			DepositMode-MixDeno
CUSTOMER ID			545
CURRENCY			INR
QUAL	DENOM	NUM#	AMOUNT
ACC	INR_20	1	20.00
		1	20.00
REJECTS			0
COIN			0.00
TOTAL			1
			20.00

Figure 79: Report Body Sample

The following data appear under the report body depending on the type of the report:

Quality	Details of the fitness mode: <ul style="list-style-type: none"> ● ATM ● FIT ● UNFIT ● ACC ● Rejects*
Denomination	Denomination of the processed banknotes appear here.
Number	The quantity of the processed banknotes per denomination/quality
Value	The value of the processed banknotes per denomination/quality
Coin	The quantity and value of the manually entered coins
Total	The total value of the processed banknotes.

* - Reject quality consists of the banknotes that are sorted to the **Reject** stacker and later on reconciled by the operator within the deposit. All numbers and values of rejected banknotes are only defined in a manual process by the operator.

B.2 XML Reports

If a FTP server is activated, the BPS C2 send the data as an .xml file to the configured servers.

→ *BPS C2/C5 User Manual*

The following reports can be sent as .xml files to a server:

- XML deposit report
- Video surveillance Interface reports
 - VSI Open Deposit
 - VSI Close Deposit
 - VSI Keep Alive
- Service report
- SN List Report

- XML ticket report

B.3 Reports

The following table lists all available reports.

Type of Report	Trigger	Report Content
Deposit report	<ul style="list-style-type: none"> ● User Request ● Batch Closed ● Deposit Closed ● Payout Closed ● Mixed Deposit Closed 	<p>The deposit report consists of the accounting of the deposit with date, accounting period, sorting criteria (if set), expected value, information on non-recognized bank-note, for each issue.</p> <p>The report content depends on the processing steps performed.</p> <p><u>Format:</u> Print</p> <p><u>Target</u></p> <ul style="list-style-type: none"> ● USB ● PRT ● FTP 1 ● FTP 2 ● FTP 3
Customer report	<ul style="list-style-type: none"> ● Customer Closed 	<p>The customer report consists of the statistics about the accumulated processing data for the BPS C2 for all deposits under one customer id.</p> <p><u>Format:</u> Print</p> <p><u>Target</u></p> <ul style="list-style-type: none"> ● USB ● PRT ● FTP 1 ● FTP 2 ● FTP 3
Operator report	<ul style="list-style-type: none"> ● User Request 	Operator report consists of the accumulated processing data for the last registered user:

*The serial number reading options are not available in the USA/ Canada.

** For CNY Only

Type of Report	Trigger	Report Content
	<ul style="list-style-type: none"> ● Operator Closed 	<p>operator ID, number and value of the bank-note processed (total and per denomination) and information about sorting for every banknote processed.</p> <p><u>Format:</u> Print</p> <p><u>Target</u></p> <ul style="list-style-type: none"> ● USB ● PRT ● FTP 1 ● FTP 2 ● FTP 3
Machine report	<ul style="list-style-type: none"> ● User Request 	<p>The machine report consists of the statistics about the accumulated processing data from the time the BPS C2 is manufactured.</p> <p><u>Format:</u> Print</p> <p><u>Target</u></p> <ul style="list-style-type: none"> ● USB ● PRT ● FTP 1 ● FTP 2 ● FTP 3
XML deposit report	<ul style="list-style-type: none"> ● Deposit Closed ● Batch Closed ● Payout Closed ● Mixed Deposit Closed 	<p>There are two different report types:</p> <ul style="list-style-type: none"> ● Deposit report: XML – report is based on the print deposit report and uses the same variables and values. ● Deposit report: XML_2 – XML deposit report including the "Quality" variable there is the "Accepted" value for processing without fitness mode.

*The serial number reading options are not available in the USA/ Canada.

** For CNY Only

Type of Report	Trigger	Report Content
		<p><u>Format:</u></p> <ul style="list-style-type: none"> ● XML ● XML_2 <p><u>Target</u></p> <ul style="list-style-type: none"> ● USB ● FTP 1 ● FTP 2 ● FTP 3
Daily Balance report	<ul style="list-style-type: none"> ● User Request ● Day Changed 	<p>Report for daily result consists of the machine ID, generation time, start time of first deposit, end time of last deposit, reject rate, reject reasons, coin value, value of cashless deposit, deposit data (sorting criteria of quality, currency, denomination, number, value, rejects, destroyed banknote*), total deposit and sum, name of currency.</p> <p><u>Format:</u></p> <ul style="list-style-type: none"> ● Print ● XML <p><u>Target</u></p> <ul style="list-style-type: none"> ● USB ● PRT ● FTP 1 ● FTP 2 ● FTP 3
Sorting statistics report (ECB)	<ul style="list-style-type: none"> ● User Request ● Half Year Changed 	<p>Sort statistics report includes information about the accumulated processing data for the BPS C2 on a half yearly basis.</p> <p><u>Format:</u> Print</p>

*The serial number reading options are not available in the USA/ Canada.

** For CNY Only

Type of Report	Trigger	Report Content
		<p><u>Target</u></p> <ul style="list-style-type: none"> ● USB ● PRT ● FTP 1 ● FTP 2 ● FTP 3
Ticket Report	<ul style="list-style-type: none"> ● Deposit Closed ● Batch Closed ● Payout Closed ● Mixed Deposit Closed ● Size Trigger 	<p>Ticket report consists of ticket IDs, date and time, accounting period, ticket number, deposit data, rejections, denomination, banknote series, value and number of banknotes, quality sorting criteria.</p> <p><u>Format:</u> XML</p> <p><u>Target</u></p> <ul style="list-style-type: none"> ● USB ● FTP 1 ● FTP 2 ● FTP 3
Reject Report	<ul style="list-style-type: none"> ● User Request 	<p>The reject report consists of the overview of the reject reasons that occurred during the banknote processing.</p> <p>The reject report can be accessed by only.</p> <p><u>Format:</u> Print</p> <p><u>Target</u></p> <ul style="list-style-type: none"> ● USB ● PRT ● FTP 1 ● FTP 2 ● FTP 3

*The serial number reading options are not available in the USA/ Canada.

** For CNY Only

Type of Report	Trigger	Report Content
VSI Open Deposit Report	<ul style="list-style-type: none"> ● Deposit Opened 	<p>If video surveillance is enabled, the BPS C2 sends the data to a VSI server as .xml files.</p> <p>→ <i>Section 11.6 “Activating Video Surveillance Interface Switch”, p. 141</i></p> <p>This report is automatically sent at the start of the deposit and contains video surveillance report, machine ID, customer ID, deposit ID, declared amount, start time.</p> <p>The VSI Open Deposit report is system accessible.</p> <p><u>Format:</u> XML</p> <p><u>Target</u></p> <ul style="list-style-type: none"> ● VSI
VSI Close Deposit Report	<ul style="list-style-type: none"> ● Deposit Closed ● Batch Closed ● Payout Closed 	<p>If video surveillance is enabled, the BPS C2 sends the data to a VSI server as .xml files.</p> <p>→ <i>Section 11.6 “Activating Video Surveillance Interface Switch”, p. 141</i></p> <p>This report is automatically sent at the end of the deposit and contains video surveillance report, machine ID, customer ID, deposit ID, declared amount, start/end time, deposit data (currency, denomination, number of banknotes, etc).</p> <p>The VSI Close Deposit report is system accessible.</p> <p><u>Format:</u> XML</p> <p><u>Target</u></p> <ul style="list-style-type: none"> ● VSI
VSI Keep Alive Report	<ul style="list-style-type: none"> ● Watchdog Trigger 	<p>If video surveillance is enabled, the BPS C2 sends the data to a VSI server as .xml files.</p>

*The serial number reading options are not available in the USA/ Canada.

** For CNY Only

Type of Report	Trigger	Report Content
		<p>→ <i>Section 11.6 "Activating Video Surveillance Interface Switch", p. 141</i></p> <p>If the BPS C2 is connected to the server, but does not send any data, this report confirms availability every five minutes. The report consists of connection status during video surveillance, serial number, data and time, machine status.</p> <p>The VSI Keep Alive report is system accessible.</p> <p><u>Format:</u> XML</p> <p><u>Target</u></p> <ul style="list-style-type: none"> ● VSI
SN List*	<ul style="list-style-type: none"> ● Deposit Closed ● Batch Closed ● Payout Closed ● Size Trigger 	<p>The Serial Number (SN) report contains the list of serial numbers of the processed banknote as recognized by OCR.</p> <p>The report consists of the following information:</p> <ul style="list-style-type: none"> ● Deposit Information Deposit information, e.g, deposit ID, deposit start/end time, etc. ● Machine information Information on the machine, e.g, machine ID, serial number, etc ● Operating mode information Includes operating mode name, operator id. ● Denomination wise banknote serial number details: <ul style="list-style-type: none"> – Denomination/Emission – Serial number length – Quality

*The serial number reading options are not available in the USA/ Canada.

** For CNY Only

Type of Report	Trigger	Report Content
		<p><u>Format:</u></p> <ul style="list-style-type: none"> ● XML with image in a .zip file ● XML without image <p><u>Target</u></p> <ul style="list-style-type: none"> ● USB ● FTP 1 ● FTP 2 ● FTP 3
Jam Report	<ul style="list-style-type: none"> ● User Request 	<p>The jam report contains the data of all the jam errors, which are reported in the BPS C2 from last generated of report. The report includes the error title of the jam errors reported in the BPS C2 along with the respective number of occurrences.</p> <p><u>Format:</u> Print</p> <p><u>Target</u></p> <ul style="list-style-type: none"> ● USB ● Print ● FTP 1 ● FTP 2 ● FTP 3
Monthly Report	<ul style="list-style-type: none"> ● User Request ● Month Changed 	<p>Monthly report consists of all successful deposits information. The monthly report contain:</p> <p>Machine Serial Number : Serial number given by the manufacturer</p> <p>Print time : Report generation time</p> <p>First deposit start time : Start Date and time of the first deposit</p> <p>Last deposit start time : Start Date and time of the last deposit</p>

*The serial number reading options are not available in the USA/ Canada.

** For CNY Only

Type of Report	Trigger	Report Content
		<p><u>Format:</u> Print</p> <p><u>Target</u></p> <ul style="list-style-type: none"> ● USB ● Print ● FTP 1 ● FTP 2 ● FTP 3
Stacker Content Report	<ul style="list-style-type: none"> ● User Request ● Month Changed 	<p>The stacker content report is generated on user request or whenever an operating mode is closed . Whenever you leave an operating mode, the stacker content report is generated with the details of all the banknotes present in the filled stacker at that precise moment.</p> <ul style="list-style-type: none"> ● The stacker content reports contains: ● Stacker content header ● Machine ID ● Report start (date and time) ● Machine ID ● Operator ID ● Customer Number ● Operating mode ● Stacker label ● Number of Banknotes ● Currency ● Denomination ● Orientation ● Fitness <p>The Stacker Content Report can also be generated using the function button 1, if configured.</p> <p><u>Format:</u> Print</p>

*The serial number reading options are not available in the USA/ Canada.

** For CNY Only

Type of Report	Trigger	Report Content
		<p><u>Target</u></p> <p><u>Target</u></p> <ul style="list-style-type: none"> ● USB ● Print ● FTP 1 ● FTP 2 ● FTP 3
Stacker Count Report	<ul style="list-style-type: none"> ● Power Failure 	<p>The Stacker Count report contains the content of only non empty stackers in the BPS C2. In an event of power failure during deposit, the Stacker Count report is used to reconcile the deposit after restarting the BPS C2. The Stacker Count report contains the content of only non empty stackers in the BPS C2.</p> <p>If the USB stick is connected, the Stacker Count report is transferred to the USB before the shutdown of the BPS C2.</p> <p>If the USB stick is not connected during the power failure, the BPS C2 stores the Stacker Count report. You can access the report from the Resend menu. After restarting the BPS C2, connect an USB stick and resend the Stacker Count report.</p> <p>The report consists of the following information:</p> <ul style="list-style-type: none"> ● Machine information Information on the BPS C2, e.g, machine ID, serial number, etc. ● Stacker information Includes stacker number and the count of the banknotes in the stacker. <p><u>Format: XML</u></p>

*The serial number reading options are not available in the USA/ Canada.
 ** For CNY Only

Type of Report	Trigger	Report Content
		<u>Target</u> <ul style="list-style-type: none"> ● USB
Ticket print report	<ul style="list-style-type: none"> ● Mixed Deposit Closed ● Size Trigger 	<p>Ticket report consists of ticket IDs, date and time, accounting period, ticket number, deposit data, rejections, denomination, banknote series, value and number of banknotes, quality sorting criteria.</p> <p><u>Format:</u> Print</p> <p><u>Target</u></p> <ul style="list-style-type: none"> ● USB ● Print ● FTP 1 ● FTP 2 ● FTP 3
PBoC**	<ul style="list-style-type: none"> ● Deposit Closed ● Batch Closed ● Payout Closed 	<p>This reports contains the details of serial number of CNY (Chinese Yuan) currency.</p> <p>The report contains all the reject reason.</p> <p>The PBoC report can be accessed by only.</p> <p><u>Format:</u> Binary</p> <p><u>Target</u></p> <ul style="list-style-type: none"> ● USB ● FTP 1 ● FTP 2 ● FTP 3
Version report	<ul style="list-style-type: none"> ● User Request 	<p>Version report contains the version information of various components.</p> <ul style="list-style-type: none"> ● Software ● Sensor ● Adaptation
<p>*The serial number reading options are not available in the USA/ Canada.</p> <p>** For CNY Only</p>		

Type of Report	Trigger	Report Content
		<ul style="list-style-type: none"> ● Languages <p>The version report can be accessed by only.</p> <p><u>Format:</u> Print</p> <p><u>Target</u></p> <ul style="list-style-type: none"> ● USB ● PRT ● FTP 1 ● FTP 2 ● FTP 3
Grand Total Report	<ul style="list-style-type: none"> ● User Request ● Grand Total Closed 	<p>The grand total report consists of the accumulated deposit accounting data for all currencies during the period in which the Grand Total is enabled.</p> <p><u>Format:</u></p> <ul style="list-style-type: none"> ● Print ● XML <p><u>Target</u></p> <ul style="list-style-type: none"> ● USB ● PRT ● FTP 1 ● FTP 2 ● FTP 3
Threshold Report	<ul style="list-style-type: none"> ● User Request ● Threshold Changed 	<p>The threshold report consists of the information of active thresholds /switches settings that are enabled in the adaptation.</p> <p>The threshold changed trigger is initiated whenever there is a change of threshold.</p> <p>→ <i>Section 11.13 “Changing the Fitness Threshold”, p. 149</i></p>

*The serial number reading options are not available in the USA/ Canada.

** For CNY Only

Type of Report	Trigger	Report Content
		<p><u>Format:</u></p> <ul style="list-style-type: none">● XML <p><u>Target</u></p> <ul style="list-style-type: none">● USB● FTP 1● FTP 2● FTP 3
*The serial number reading options are not available in the USA/ Canada. ** For CNY Only		

C Description of the Criteria for Fitness Sorting

You can select the sorting criteria for fitness sorting with the fitness threshold settings menu option, see → *Section 11.13 “Changing the Fitness Threshold”, p. 149.*

You can select the following criteria for every currency, banknote denomination and sorting quality:

- Dog ear
- Hole
- Tear
- Stains
- Adhesive Tape
- Soiling

You can select a value from 0 – 10 for every criterion. See below for a description of what the machine checks for every criterion and the fundamental significance of the values.

Dog Ear

The machine checks in defined areas of the banknote at the four corners whether dog ears are present.



Figure 80: Areas of Banknote Checked for Dog Ears

The dog ear in the defined area may be greater or smaller in size depending on the value set.

The values have the following significance:

- | | |
|----|-------------------------------------------------|
| 0 | The size of the dog ear is immaterial. |
| 10 | There must be no dog ears in the defined areas. |

As regards the values in-between, the greater the value, the smaller the dog ear must be.

Hole

The machine checks in a defined area whether a hole is present.



Figure 81: Area of Banknote Checked for Holes

The hole in the defined area may be greater or smaller depending on the value set.

The values have the following significance:

- | | |
|----|--------------------------------------------|
| 0 | The size of the hole is immaterial. |
| 10 | There must be no hole in the defined area. |

As regards the values in-between, the greater the value, the smaller the hole must be.

Tear

The machine checks in defined areas whether tears are present.



Figure 82: Areas of Banknote Checked for Tears

The tear in the defined areas may be greater or smaller depending on the value set.

The values have the following significance:

- | | |
|----|--------------------------------------------|
| 0 | The size of the tear is immaterial. |
| 10 | There must be no tear in the defined area. |

As regards the values in-between, the greater the value, the smaller the tear must be.

Stains

Stains cause additional dark areas on banknotes. The machine compares the image of the banknote in a defined area with a stored image of a freshly printed banknote.

Adhesive Tape

As regards the values, the greater the value, the more closely the image of the banknote must match the stored image of a freshly printed banknote.

Adhesive tape increases the thickness of a banknote. The machine checks the thickness of the banknote in defined areas.

Soiling

As regards the values, the greater the value, the smaller the thicker areas must be.

Soiling makes the image of the banknote look darker. The machine compares the image of the banknote in a defined area with a stored image of a freshly printed banknote.

As regards the values, the greater the value, the more closely the image of the banknote must match the stored image of a freshly printed banknote.

C

C

D Symbols Used

This chapter contains an overview of all the icons which appear on the user interface on the screen.

Symbol	Name	Symbol	Name
	Language		Skew
	Operator		Health
	Supervisor		Singler
	Service		Switches
	PIN		Software Package
	Cancel		Sensor Self-Test
	Ok		Trace Level
	Menu		System Test Fail
	Favorites		System Test status
	List		Status Pass
	Processing speed		Raw Data Capture
	INFO		IRT Settings

Symbol	Name	Symbol	Name
	Software Version		System Test
	Reporting		Install MTS Cal
	Export Logs		Service OpMode
	Export Raw Data		Coins
	Brightness		Logout
	Next		Summary
	Stackers		Reject/Unfit
	Details		Denomination
	Delta		Time
	Virtual Keyboard		Thresholds
	System Settings		Startup Errors
	Installation		Single Denomination OP Mode
	Reset		Print
	Operation Details		Minus

Symbol	Name	Symbol	Name
	Multi Denomination OP mode		Machine IP
	Machine ID		Language Package
	INFO		Plus
	Next		(S)FTP1
	(S)FTP2		(S)FTP3
	SNTP		Date/TimeFormat
	Strap Size active		Auto Install
	Counterfeit Rejects		3" Printer
	Server Status		Function Button 1
	Startup Errors		Function Button 2
	Peripherals		Function Button 3
	VSI Settings		Opemode Name
	Opemode Number		Time Zone
	SD Card		Settings

D

Symbol	Name	Symbol	Name
	Export Config Package		Configuration Package
	Customer ID		Deposit ID
	Amount		Strap Size
	CheckTV		External Interfaces
	External Display		Flip image
	Grand Total		Banknote Display
	Banknote Data Storage		Configurable Hot Key
	Connect		Reject Count
	Reject Counterfeit		Reject Overrun
	Report Configuration		SD Restore
	Serial Number Storage		Serial Number Search List
	Serial Number Delete		Serial Number Search

E Technical Support

Germany	Giesecke+Devrient Currency Technology GmbH Prinzregentenstraße 159 81677 Munich Germany Phone: +49 89 4119 3737 E-mail: CSS.HelpDesk@gi-de.com
United Kingdom	G+D Currency Technology GB Ltd. Unit 7 Torc MK Chippenham Drive Milton Keynes, MK10 0BZ United Kingdom GDGB Helpdesk Phone: +44 (0)1908 926184 E-mail: gdgb.helpdesk@gi-de.com
Spain	Giesecke & Devrient Currency Technology Iberia, S.L. Calle Verano 15 Pol. Ind. Las Monjas E-28850 Torrejón de Ardoz (Madrid) Spain Phone: +34 91 627 0000 Phone: +34 91 627 7200
Russia	Giesecke & Devrient - LOMO, ZAO Torfjanaja doroga, 8 197374 Sankt Petersburg Russia Phone: +7 812 324 1862
Turkey	Giesecke+Devrient Currency Technology Istanbul Ticaret ve Servis Ltd.Sti. Yenibosna Merkez Mahallesi, 29 Ekim Caddesi, İstanbul Vizyon Park Plazaları No:7, 3.Blok, Kat:8, No:84 34196 Çobançeşme-Bahçelievler / İSTANBUL / TÜRKİYE Phone: +90 212 347 2827 E-mail: destek@gi-de.com
USA	Giesecke+Devrient Currency Technology America, Inc. 45925 Horseshoe Drive Dulles, V.A. 20166 USA

E

	Phone: +1 888 292 4324
Canada	Giesecke & Devrient America, Inc. 3700 Steeles Ave West, Suite 202 Vaughan, ON, L4L 8K8 Canada
	Phone: +1-866-333-6693
Mexico	Giesecke y Devrient Currency Technology de México, S.A. de C.V. Av. Santa Rosa No. 11 Col. La Joya Ixtacala Piso 1, Edificio Administrativo B CP-54160 Tlalnepantla de Baz, Estado de México Mexico
	Phone: +52 55 5039 9944
Brazil	Giesecke+Devrient Currency Technology Brasil Serv. e Com. de Soluções Tecnológicas Ltda. Rua Surubim, 577 - 8° andar - Cidade Monções - São Paulo - SP - CEP: 04571-050 Brazil
	Phone: +55 11 5105 6182
United Arab Emirates	Giesecke+Devrient Currency Technology FZE Phase 6 # Light Industrial Unit D3, D4-D5, D6, C3 Dubai Silicon Oasis P.O. Box 341274, Dubai, United Arab Emirates
	Phone: +971 4 601 7250
	Fax: +971 4 299 6849
	Hotline: helpdesk_gdfze@gi-de.com
South Africa	Giesecke & Devrient Southern Africa (Pty.) Ltd. Block E - Crownwood Office Park 100 Northern Parkway Road 2001 Ormonde, Johannesburg South Africa
	Phone: +27 11 3094 900 (from abroad)
	Phone: +27 0860000 gdsa (4372) (local toll free number)
	E-mail: helpdesk-gdsaf@gi-de.com
India	Giesecke & Devrient India Pvt. Ltd. Plot No. 02, EHTP, Sector 34 Gurugram – 122 001, Haryana India
	Service hotline:

China

Phone: +91 1800 1021 206
E-mail: bnservice.gdindia@gi-de.com
Technical hotline:
Phone: +91 1800 4193 150
E-mail: hotlinesupport.gdindia@gi-de.com
Shenzhen Giesecke+Devrient Currency Automation Co., Ltd.
4/F, IC Design and Application Industry Zone
1089 Chaguang Rd. Shenzhen 518055
People's Republic of China
Phone: +86 800 830 7667 (local toll free number)
E-mail: custhotline@cn1.gi-de.com
Phone: +86 755 2650 7841 (from abroad)
E-mail: techhotline@cn1.gi-de.com
Giesecke & Devrient Asia Pacific Ltd.
2901 Hysan Place
500 Hennessy Road, Causeway Bay
Hong Kong
Phone: +852 3766 7300
E-mail: gdap.hotline@gi-de.com

Hong Kong

E

E

Glossary

A

A ampere (physical unit of current)

B

BN banknote

C

CD compact disk

digital storage medium

CMS cash management system

software for recording, executing and optimizing
cash and payment flows

D

DIN German institute for standardization

DVD digital versatile disk

digital storage medium

E

EDP electronic data processing

EMC electromagnetic compatibility

capability of electronic components working
proper in an electronic environment

EN European standard

EU European Union (since December 1, 2009)

F

FDP fast deposit processing

fast processing of deposit with predefined values

fit sorting criterion; banknotes with authenticity and
quality features (e.g. clean enough, authenticity
determinable, sufficient stiffness) to be returned
to circulation

FTP file transfer protocol

G

GS	tested safety (Geprüfte Sicherheit) certification
GUI	graphical user interface

H

Hub	hub in telecommunications - a device connecting physical nodes on the network with one another
Hz	hertz (physical unit of frequency)

I

IEC	International Electrotechnical Commission
-----	-------------------------------------------

L

LAN	local area network computer network limited to a company or campus site
LED	light-emitting diode

P

PC	personal computer
----	-------------------

S

SNTP	simple network time protocol standard protocol for synchronizing clocks in computer systems
------	------------------------------------------------------------------------------------------------

T

TN-S network	terra neutralum separatum network; way of realizing a low-voltage network for electrical power supply in electrical engineering
TT network	terre terre network; a way of realizing a low-voltage network for electrical power supply in electrical engineering, with separate PE conductor.

U

unfit sorting criterion; banknotes that are unfit for circulation as a result of damage, wear, soilage, discoloration, or mutilations. The value of the banknote is known.

USB universal serial bus

UV radiation ultraviolet radiation
electromagnetic radiation in the range between 100 nm and 400 nm

V

V volt (physical unit of electrical potential)

VSI video surveillance interface

W

W watt (physical unit of power)

Table of Figures

Figure 1	Image of a Result	5
Figure 2	Operating Controls	14
Figure 3	Key Pad	15
Figure 4	Type Label	18
Figure 5	Workstation design	24
Figure 6	Unpacking	30
Figure 7	Unpacking	31
Figure 8	Connections	33
Figure 9	MTS Spacer Flyer Disposal	35
Figure 10	Main Screen	38
Figure 11	GUI Design	39
Figure 12	Operating Mode Screen	40
Figure 13	Operator Menu Screen 1	42
Figure 14	Operator Menu Screen 2	43
Figure 15	Summary View for Batch Processing	44
Figure 16	Summary for Deposit Processing	45
Figure 17	Summary for Payout Processing	45
Figure 18	Reject View	46
Figure 19	Reject Count View	46
Figure 20	Unfit View	47
Figure 21	Counterfeit Indicator View	47
Figure 22	Stacker View	48
Figure 23	Detail view	48
Figure 24	Supervisor Menu Screen 1	49
Figure 25	Supervisor Menu Screen 2	50
Figure 26	Supervisor Menu Screen 3	51
Figure 27	System Settings Menu Screen 1	52
Figure 28	System Settings Menu Screen 2	53
Figure 29	System Settings Menu Screen 3	55
Figure 30	Installation Menu	56
Figure 31	Orientation 1	62
Figure 32	Orientation 3	62
Figure 33	Orientation 2	62
Figure 34	Orientation 4	62
Figure 35	Logs Button in Error Messages	72
Figure 36	Reporting Menu	74
Figure 37	Switch Enabled	75
Figure 38	Switch Disabled	76
Figure 39	Overview of Video Surveillance	77
Figure 40	Configuration Package Folder Structure in the USB	78
Figure 41	Language Package Folder Structure in the USB	79
Figure 42	Power Switch	85
Figure 43	Login Screen	86
Figure 44	Poor quality banknote	95
Figure 45	Inserting Banknotes	97
Figure 46	Adjusting Feeder Plate	98
Figure 47	Singler Paused	112
Figure 48	Operating Mode Selection Screen	113

Figure 49	Operating Mode Configuration Screen for Quick Operating Modes	114
Figure 50	Operating Mode Configuration Screen for Non- Quick operating Modes ..	114
Figure 51	Software Version Details	119
Figure 52	Operating Mode Name View	121
Figure 53	Grand Total Enabled	126
Figure 54	Grand Total Enabled in Summary Screen	126
Figure 55	Grand Total View Screen	127
Figure 56	Connection Between the PC and the BPS C2	129
Figure 57	External Interfaces Menu	132
Figure 58	Updated Date/Time	135
Figure 59	Filezilla Server Settings	137
Figure 60	IIS Server Settings	138
Figure 61	RDP Connect Screen	147
Figure 62	Reject Count View	148
Figure 63	Operation Details Screen	149
Figure 64	Operation Details Screen	149
Figure 65	Serial Number Storage Menu	158
Figure 66	Counterfeit Indicator View	160
Figure 67	Serial Number Storage Menu	162
Figure 68	Banknote Image Display	168
Figure 69	BPS C2 Opened	172
Figure 70	BPS C2 Opened	173
Figure 71	Peripheral Devices Status	182
Figure 72	Server Status	183
Figure 73	Startup Error Screen	183
Figure 74	Settings Information	184
Figure 75	Print Report Structure	196
Figure 76	Report Header Sample	197
Figure 77	Report Summary	198
Figure 78	Report Summary for Daily Result Report	199
Figure 79	Report Body Sample	199
Figure 80	Areas of Banknote Checked for Dog Ears	213
Figure 81	Area of Banknote Checked for Holes	214
Figure 82	Areas of Banknote Checked for Tears	214

Index

A

accounting
 fast deposit 104, 107
adjusting screen brightness 119
ambient temperature in the installation room 21

B

banknote processing
 deposit for single denomination 100
 inserting banknotes 97
 malfunction 177, 181
 payout mode 110
 printing reports 74, 115
 processing speed 92
 re-sending reports 116
 reprinting reports 116
 results 44, 46
 selecting currency 59, 91
 sending reports via FTP 74, 115
 sorting 99
banknote processing malfunction 177, 181
banknote singling malfunction 177, 180
banknotes
 inserting 97, 98
 poor quality 96
 preparing 94
 separating out 95
 sorting 99
batch 59
batch processing 99

C

cash management system 129
cleaning 185
 aids 186
 cleaning agents 186
 machine 186
 Safety Information 185
 transport section 187
cleaning agents 186
cleaning machine 186

closing the machine 174
CMS 129
commissioning
 requirements 9
configuration package 56
configuration package
 updating 151
configuring video surveillance 76, 141, 142
connecting 32
 barcode 34
 keyboard 34
 LAN cable 34
 mains cable 34
 mouse 34
 printer 34
 USB 34
connecting:LCD display 34
conventions 3
copy to USB 117
count mode 99
counting banknotes 99
currency
 selecting 59, 91

D

date 133
delivery stacker 72
delivery stacker capacity 93
deposit 59
 reconciliation 109
 single denomination 100
detail 48
DHCP IP address 140
difference 59
dimensions 17
disable op mode name 120
display module
 cleaning 188
disposal 191
 packing 191
document conventions 3
dust tray
 cleaning 188
dynamic denomination sorting 63

E

electrical connection 18
 electrical connections 22
 electromagenetic compatibility 21
 electromagnetic compatibility 21
 electrostatics 25
 emission 59
 enable op mode name 120
 error information
info button 82, 182
 error message 177
 export raw data 72
 external interfaces
Cummins 163
 external interface 163
Numeron 163

F

fast deposit
accounting 104, 107
incorrect accounting 104, 108
 favorite op mode 71, 120
 favorite operating mode 71
 fitness threshold 149
 FTP IP Address 136

G

general document conventions 3
 grand total
viewing 126
 grand total
enabling 125
 grand total 43, 125, 126
 GUI design 39
 GUI language
changing 88

H

hotkeys 14
configuration 164
 humidity in the installation room 21
 humidity in the storage room 22

I

improper use 9
 installation 27
 installation room 21
 installing 32

J

jam 177
jam recovery 177, 178

K

keypad
hotkeys 14

L

LAN 26
 language package 56
 language package
update 152
 LED
radiation 10
risk group 1 10
safety information 10
 lighting 22
 Local Area Network 26
 logs 118

M

machine
closing 174
malfunctions 177
opening: 173
 machine ID 135
 machine configuration: configuring video surveillance 76, 141, 142
 machine IP address
DHCP IP address 140
static IP address 140
 machine IP address 139
 magnetic fields 25
 manual inspection 59
 manual printing 115
 manual sending 115
 menu

operator 41
supervisor 49
mobile telephones 25
moisture content of the banknotes 22
multi deposit 70
multi deposit-dynamic stacking 70

N

network connections 22
noise 20
noise level values 20

O

online reconciliation 109
opening the machine
 hardware version 1.5 173
operating controls 13
operating mode
 display favorites 153
operating mode screen 40
operation
 notes 91
operation mode
 results 44, 46
operation mode
 results 44
operation details 149
operator
 logging on 86
 logging out 127
operator screen 40
overview of the BPS C2 13

P

photobiological safety 10
power button 14
power failure 177–180
power supply 18
printed reports 195
 report body 199
 report header 197
 report summary 198
printing reports 115
printing reports 74
processing speed 92
product liability 9

proper use 8
protect personnel 9

Q

quick instructions 1
Quick Start Guide 1

R

raw data export 114
re-sending reports 116
reconciliation 109
reject
 high reject rate 177, 181
reject module
 opening 174
reject module: opening the reject path 174
rejects 59
report
 sending via FTP 74, 115
reports 195
 automatic report printout 201
 automatic report printout time 201
 contents 201
 copy to USB 117
 printed reports 195
 printing 74, 115
 re-sending 116
 re-sending via FTP 116
 XML 200
reprinting reports 116
rerun 59
resistance to earth 25
result 44, 46
 detail view 48
 reject view 46
 stacker view 47
 unfit view 46
room climate 21
 ambient temperature 21
 humidity in the installation room 21
 humidity in the storage room 22
installation room 21
 moisture content of the banknotes 22
 storage of banknotes 22

S

safety 7
 safety information 1, 8, 9
dust 11
electrical voltage/current 11
ergonomics 11
high temperatures 11
LED radiation 10
non-specified materials 11
operator 11
risk of crushing 11
 safety information for cleaning 185
 safety information for transport 27
 safety information symbols 7
 searchlist 80
installation 166
 self test level 155
 sending reports via FTP 74, 115
 serial number search 121
 Service Manual 1
 service mode 9, 57
symbol 9
 setting processing speed 92
 SFTP IP Address 136
 shortfall 59
 singler start/stop 111
 site and facility requirements 17
 SNTP IP address
setting 140
 software version
viewing 119
 software update 56
configuration package 77, 151
language package 78, 152
 software version 119
 sorting criteria
adhesive tape 215
description of criteria 213
dog ear 213
hole 213
soiling 215
stains 214
tear 214
 space requirements 23
 spare parts catalog 2
 stacker 47
 static IP address 140
 strap size 72, 93
 strap size

setting 93
 structure of the manual 2
 supervisor
logging in 87
 supervisor mode
systems settings 52
 supervisor mode 133
changing the fitness threshold 149
 supervisor mode
setting data and time 133
setting FTP IP address 136
setting SFTP IP address 136
setting the machine id 135
setting the machine IP address 139
 switch off 85
 switch on 85
 symbol
service mode 9
 symbols 217
 symbols used to identify specific hazards 8
 system administrator 133
 system data 17
 system operating instructions 1
 system setting
machine IP address 139
 system setting
machine ID 135
 system settings 52
date and time 133
FTP IP Address 136
SFTP IP Address 136
 system waste heat 19, 20

T

table size 23
 target group 2
 technical
dimensions and weights 17
 technical data
noise level values 20
 technical data 17, 193
adaptations 193
banknote formats 193
deposit capacity 193
display 193
electrical connections and power supply 18

electromagnetic compatibility 21
magnetic fields 25
sensors 194
shock 21
stacker capacity 193
system waste heat 20
transport speed 193
transport system 194
vibrations 21
time 133
trace level
 setting 73, 156
traffic area 24
transport 27
 outside of buildings 27
 safety information 27
transport inside building 28
transport section
 clean 187
Troubleshooting Manual 1

hardware version 1.5 31
user
 operator 39
user interface 37
user manual 1
user mode
 service 57
user types 86

V

vsi 76, 141, 142
 activating 76, 141, 142

W

warranty 9
waste heat 19
weights 17
workstation design 24

U

unpacking 30, 31

X

XML Reports 200



Art.-Nr.: 
Ident-No.: **522287051**

User Manual

BPS C2 English 10/2020

61542

Charge:



QTY:



Stck: