

ORIGINAL

BILLCON

D-202, D-204

MIXED CURRENCY COUNTER

Operation Manual

Billcon Co., Ltd.

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BILLCON MIXED CURRENCY COUNTER D-202 • D-204 OPERATION MANUAL

Summary With Mixed Currency Counters D-202 and D-204, mixed batches of paper currency containing all three denominations are counted with the total amount of money and total number of notes simultaneously displayed. If the specific denomination mode is selected, only those notes of paper currency with the selected denomination are counted. If notes of paper currency with other denominations are mixed in with the selected denomination, these notes are sorted. The mixed currency counters have a variety of functions, including general counts and preset counts.

1. Specifications

Item	Specifications
Items Counted	Three Denominations of National Currency (¥ 10,000, ¥ 5,000, ¥ 1000), Other Notes
Counting Speed	600 Notes Per Minute (Standard Circulation Notes)
Counting Modes	1. Mixed Denomination Count 2. Selected Denomination Count 3. Other Count (Foreign Currency, etc.)
Preset Modes	Continuous, 10-Note Batch Count, 100-Note Batch Count, Add Display (There is no preset mode for mixed denomination counts.)
Count Display	1. Total Number of Notes (Four Columns) 2. Total Amount of Money (Five Columns: ¥ 1000 Units)
Add Display	Can Be Activated
Error Detection / Display	Doubles, Chained Skew, Half Notes (Horizontal or Vertical), Partial Notes, Jamming, Miscounts in Selected Denomination Counts, Unidentified Notes
External Interface	D-202: RS232C and Centronix (For Printer) D-204: RS422 and Centronix (For Printer)
Hopper Capacity	Approx. 350 Notes
Stacker Capacity	Approx. 350 Notes
External Dimensions	Width 340 mm x Depth 335 mm x Height 250 mm
Net Weight	Approx. 12 kg
Power Consumption	AC 100 V ± 10%, 50 or 60 Hz Approx. 65 W

2. Component Names and Functions

FIG-1

[clockwise from top]

Hopper
Hopper Guide
Right Control Panel
Left Control Panel
Stacker
Power Switch
Gap-Adjusting Dial

FIG-2

Back Panel

FIG-3

Middle Control Panel

Total Amount of Money Display			
1,000,000	100,000	10,000	1,000
Count Mode			
▲ Mixed	▲ 10,000	▲ 5,000	▲ 1,000
Display Content			
▼ Total	▼ 10,000	▼ 5,000	▼ 1,000

Total Number of Notes Display
Number of Notes

Left Control Panel

Preset Display Lights
Continuous 100 10
Preset
Add
Clear Preset
Continue

Right Control Panel

Count Mode
Items Displayed
Start Stop

Item	Specifications
Power Switch	When the switch is pressed, the power is turned ON. When the switch is pressed once again, the power is turned OFF. When the power is ON, the switch is lit up.
Total Amount Display	The total amount of money is displayed on a five column LED (¥1,000 units).
Total Notes Display	The total number of notes is displayed on a four column LED.
Add Switch	When an integrated display of the total amount of money and the total number of notes is required, the switch is pressed ON. When the switch is ON, the switch is lit up.
Preset Clear Switch	When the switch is pressed, the total amount display and total notes display both read zero. The displays cannot be cleared if notes of paper currency are left in the stacker. This is the printer start switch when a printer is connected to the device.
Preset Switch	When a batch count is required, this switch is pressed and the preset number is selected. (A preset count cannot be selected for "continuous" when the device is in mixed currency mode.)
Preset Display	The preset number lights up when the preset switch is pressed. The display flashes "continuous", "100", and "10" in sequential order each time the switch is pressed.
Continuous Switch and Display	When a count is suspended because of an alarm, the display indicates the type of alarm. Pressing the switch after the cause of the alarm has been addressed continues the count. (See Page 8, Section 5.)
Count Mode Switch and Display	<p>The display flashes "mixed", "¥ 10000", "¥ 5000", "¥ 1000" and "blank" in sequential order each time the switch is pressed. These displays mean the following.</p> <p><u>Mixed Count</u>: The count mode display reads "mixed." A mixed batch of paper currency containing the three denominations is counted.</p> <p><u>Selected Count</u>: The count mode display reads "¥ 10000", "¥ 5000", or "¥ 1000." A single denomination is selected. The notes of paper currency with the selected denomination are counted and the notes of paper currency with the other denominations are detected.</p> <p><u>Other Count</u>: Notes of paper currency other than the three denominations of national currency are counted (e.g. foreign currency). The total number of notes display is used. The total amount of money display is not used.</p>

Item	Specifications
Display Content Switch and Display Light	This is used in count mode "mixed" and, after the count, to display the total amount of money and the total number of notes for the various denominations. Moves in sequential order through "total", "¥ 10000", "¥ 5000", and "¥ 1000". The display lamps are lit up in the corresponding positions. When the display is left in a certain position for an extended period of time, the display content switch automatically reverts to "total."
Stop Switch	This switch is used to stop a count in process. When this switch is ON, the stop switch light to the left of the start switch is lit up.
Start Switch and Display Light	When a count is suspended because of an alarm, the display indicates the type of alarm. Pressing the switch after the cause of the alarm has been addressed continues the count. (See Page 8, Section 5.)
Hopper	The notes of paper currency to be counted are placed in the hopper and guides to the left and right of the notes of paper currency are set to the width of the notes. A detector determines whether any notes of paper currency remain in this component.
Hopper Guides	The guides are set to the width of the notes of paper currency.
Gap Adjusting Dial	The thickness of the notes of paper currency to be counted is set based on the quality of the paper. The dial adjusts the space between drums. Arrows indicate the dial setting for ordinary notes of paper currency. When notes thicker than ordinary notes of paper currency are to be counted the dial is moved to a thicker setting.
Back Panel	The back panel is opened when notes of paper currency become jammed inside the device or when the device is to be cleaned or checked.
Middle Panel	This panel is equipped with display lights used to display totals, count modes, and denominations.
Stacker	Notes of paper currency that have been counted and sorted are placed here. Blades and a receiving plate are used to collect the notes of paper currency.
Left Control Panel	This panel contains the add switch and display light, the preset clear switch and display light, and the preset switch and display light.
Right Control Panel	This panel contains the count mode switch, the display contents switch, the stop switch, the start switch, and display lights.

3. How to Use the Machine

Notes of paper currency are counted using the following procedure.

<u>Step</u>	<u>Details</u>
(1) Power Connection	The power cord is plugged into an outlet behind the machine. When the machine is being used for the first time, make sure the guides protecting the rubber roller are free. Consult the attached instructions when setting the guides.
(2) Adjust the Gap	Set the red mark on the gap-adjusting dial to the position corresponding to the appropriate arrow.
(3) Power Switch ON	An "8" appears in all of the columns in the total amount display and total number of notes display. After a few seconds, zeroes appear in these columns. At this point, the motor runs for a moment. If any notes of paper currency remain in the machine, these will be discharged. After the power has been switched ON, the mode is set using the appropriate switches. The count mode selected is "mixed", the display content is "total", and the preset is "continuous."
(4) Count Mode Selected	The count mode switch is used to select the desired count mode: "mixed denomination," "specific denomination", or "note count". (Immediately after the power is turned ON, the device is in "mixed denomination" mode.) When the mode is switched after a count, the count details are cleared. The device will not operate after the mode is switched if notes of paper currency from a previous count remain in the stacker.
(5) Preset Selected	"Continuous," "100" or "10" is selected using the preset switch.
(6) "Add" Selected	The add switch is turned ON when the values for the number of notes and the amount of money are to be integrated. When the add switch is turned ON, the count displays are added together without being cleared, even when counted notes of paper currency have been removed from the stacker. When the preset clear switch is pressed, the count values are cleared. The count values cannot be cleared if any of the counted notes of paper currency remain in the stacker.
(7) Count	The notes of paper currency are placed in the hopper. The count begins automatically. When the count is to be started using the start switch after the notes of paper currency have been placed in the hopper, the stop is pressed first. The start switch is then pressed afterwards.

4. Counts Using the Various Count Modes

The count mode is selected based on the following specifications.

	Mixed Denomination	Specific Denomination	Note Count
Counted Items	Batches of mixed denomination national currency (¥ 10,000, ¥ 5,000, ¥ 1,000)	One denomination of national currency (¥ 10,000, ¥ 5,000 or ¥ 1,000)	Notes other than the denominations of national currency (e.g. notes of foreign currency)
Count Mode Selection	Mixed	¥ 10,000, ¥ 5,000 or ¥ 1,000	All of the count mode display lights are OFF.
Total Amount Display	Total amount from the batch of mixed denomination currency	Total amount from the selected denomination of currency	Not displayed
Total Notes Display	Total number of notes from the batch of mixed denomination currency	Total number of notes from the selected denomination of currency	Total number of notes
Total Amount and Total Notes Display Using Display Content Switch	The total amount of money and the number of notes for the various denominations of currency are displayed. The total amount of money and the number of notes for various denominations can be selected and displayed using the switches.	NA	NA
Preset Number Selection	The "continuous" total cannot be preset.	Select "continuous," "100" or "10"	Select "continuous," "100" or "10"
Count Operation and Total When Preset	Counts all of the notes of paper currency in the hopper. When the notes of paper currency are removed from the stacker, the numbers in the display revert to zero to start the next count. However, when the add switch is ON, the totals are added without the displays reverting to zero.	When the preset number is achieved, a buzzer sounds and the count is automatically suspended. When the notes of paper currency are removed from the stacker, the numbers in the display revert to zero to start the next count. However, when the add switch is ON, the totals are added without the displays reverting to zero.	Same as left

5. Alarm Causes and Procedures

When an alarm goes off during a count, the count is automatically suspended.

When the alarm is an "A Alarm", the count is suspended and the displays flash. When the alarm is a "B Alarm", a buzzer sounds and the displays flash. The following procedures are performed when one of these two types of alarm goes off.

5-1 A Alarm

When an "A Alarm" goes off, the "start" light flashes and a recount is performed.

Cause	State	Alarm Display	Procedure
Jam	Notes of paper currency are lodged in the machine.	Flashing Displays *	<ul style="list-style-type: none"> The back panel is removed and the apron is lowered (FIG-2). The notes of paper currency in the machine are removed and placed in the hopper. (Only when jammed) The counted notes of paper currency in the stacker are placed in the hopper. When the start switch is pressed, the displays return to zero and a recount is performed. (When the add switch is ON in the batch count mode, the displays return to the previous numbers and the add function is performed.)
Chained Skew	There is no spacing between multiple notes of paper currency.	Flashing Displays *	Same as above.
Doubles	There is overlapping between multiple notes of paper currency.	Flashing Displays *	Same as above.

5-2 B Alarm

When an "B Alarm" goes off, the "continue" light flashes, a buzzer sounds, and the count can be continued.

Cause	State	Alarm Display	Procedure
Half Notes	Notes of paper currency severed horizontally or laterally are detected.	Flashing Displays and Buzzer *	The notes of paper currency causing the problem are removed from the stacker (to be processed at the end of the process). When the "continue" button is pressed, the count is continued. The count resumes from the totals on the display before the interruption.
Unidentified	Notes of paper currency cannot be identified.	Flashing Displays and Buzzer *	Same as above.
Specific Denomination	A note of paper currency from an unspecified denomination is detected.	Flashing Displays and Buzzer *	Same as above.

* The flashing displays are the total amount display and the total number of notes display.

6. Warnings

6-1 Damaged Notes of Paper Currency

The following notes of paper currency will cause an alarm to go off and may cause a count to stall: excessively wrinkled notes, notes with bent corners, notes with cut corners, notes with holes, notes with tape attached, and excessively dirty or stained notes.

6-2 Frequent Chained Skew Errors

If the gap-adjusting dial is not set correctly, the device will not operate properly.

If the dial is set to the first or second "thin" settings, the machine will operate properly.

6-3 Frequent Double Errors

If the gap-adjusting dial is not set correctly, the device will not operate properly and multiple notes of paper currency will be processed simultaneously. If the dial is set to a "thinner" setting, the machine will operate properly. Also, excessively dirty notes of paper currency will be detected as a "double." These notes should be removed.

6-4 Machine Placement

Placement of the machine in an excessively bright location (e.g. in direct sunlight) should be avoided.

6-5 Cleaning the Lights and Sensors

An alarm will go off if the sensors become dusty. Clean the sensors once a day. Gently clean the lights and sensors with a soft brush or dry cloth.

The lights and sensors should be cleaned in the following locations. Open the back panel and lower the guide plate. The lights are located on this guide plate. (See FIG-2.) The sensors are located above the guide plate opposite the lights.

6-6 Cleaning the Rollers

The surfaces of the rollers become covered with oil and printing ink when used over an extended period of time. Because this contamination can lead to the miscount or misidentification of notes of paper currency, the surfaces of the rollers should be cleaned once every two months using a cloth containing a small amount of alcohol. (Paint thinner and benzene should not be used to clean the rollers.)