

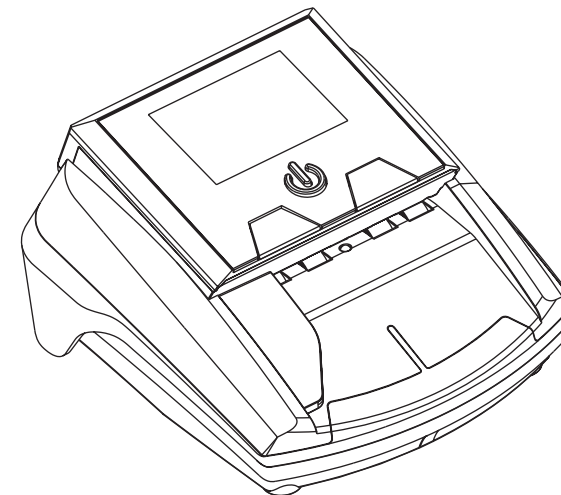


Multi-Currency Automatic Detector

(LCD DISPLAY)

USER MANUAL

CRD12A



Carnation Enterprises

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USER MANUAL

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1. Safety

To avoid damage to the machine and/or personal injury, read the following carefully before the first use!

	<ul style="list-style-type: none"> ❖ Keep the unit away from volatile gases or flammable materials. ❖ If the unit is stored in a cold place for a long period of time, please take the unit to a room temperature environment and wait at least two hours before use. ❖ Please be careful to avoid any foreign objects, such as coins or staples, falling into the unit, as it may cause internal damage.
	<ul style="list-style-type: none"> ❖ Do not disconnect the unit with wet hands (electric shock hazard). ❖ Before moving the unit, please disconnect the power cord. Damage to power cord may result in a fire and/or electric shock. ❖ Connect the unit with supplied type of AC/DC adapter only.
	<ul style="list-style-type: none"> ❖ Store the battery (purchased separately) in a clean, dry, and ventilated environment, with the temperature of -5~35°C. Keep it away from fire, heat and corrosive materials. ❖ If the battery is not in use for a long period of time, please take it out from the unit. Recharge every 6 months. ❖ It takes 15 hours to fully charge the battery.

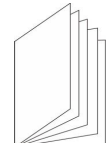
2. Introduction

Thank you for choosing the Carnation CRD12A multi-currency automatic detector. This machine represents the latest development in Carnation technology. In order to make the best use of this unit and its counterfeit detecting capabilities, please read the manual carefully, and familiarize yourself with the operating procedures.

2.1 Unpacking



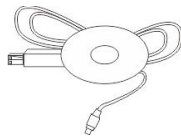
Bill detector



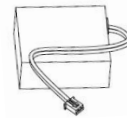
User manual



AC/DC power adapter

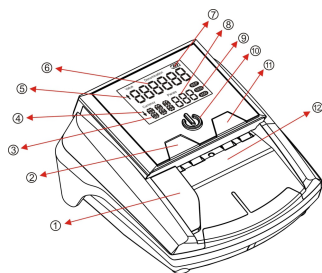


USB software upgrade cable (optional)

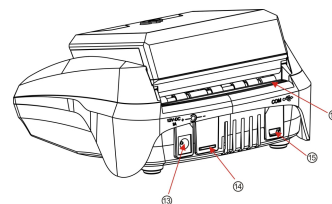


Rechargeable battery (optional)

2.2 Exterior



1. Removable Width Adjustment Piece
2. REP/DIR button
3. Currency Software Symbol



9. REP/DEN/ADD Mode
10. Power ON/OFF-ADD/DEN button
11. CLR-CUR button

- | | |
|--|-------------------------------|
| 4. Front Eject Indicator | 12. Bill Acceptor/Ejector |
| 5. Rear Eject Indicator | 13. AC/DC Power jack |
| 6. Value of scanned bills | 14. Mini-SD slot |
| 7. Battery Status Indicator (Optional Battery) | 15. USB Software Upgrade port |
| 8. Number of scanned bills | 16. Bill Ejector |

3. Operating

3.1 ON/OFF

Plug the power cord into the AC power jack and plug the AC adaptor into any standard AC110 volt outlet. Press and hold the ON/OFF button for 2 seconds.

The ON/OFF button indicator will turn on, and CRD12A will go through a calibration cycle.

The unit will display software version (figure 1), "Value of Bills Counted" and "Number of Bills Counted" (figure 2). CRD12A will then set the default currency (USD).

To turn off the unit, press and hold the ON/OFF button for 2 seconds.

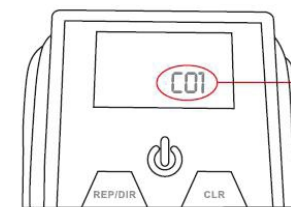


Figure 1

Software version

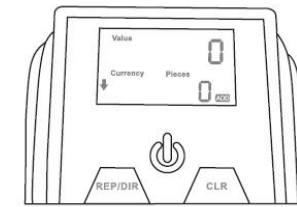


Figure 2

3.2 Eject Direction Selection

Press and hold the "REP/DIR" button for 2 seconds to select eject direction of the bills. The arrow symbol indicator for direction will display on the left lower part of the LCD.

- ↓ Front eject indicator - genuine bills will eject from the front.
- ↑ Rear eject indicator - genuine bills will eject from the back.

⚠ Counterfeit bills will always eject from the front.

3.3 Currency Selection

The unit can automatically recognize three currencies. Standard software includes USD (USd), Euro (EUR) and Mexican Peso (PES). Please inquire about the availability of software for other currencies/regions.

3.4 How to feed bills

For USD, please attach the removable width adjustment piece (Figure 3).

For Euro and Mexican Peso, no width adjustment is necessary. Insert the bills along the right edge of the detector (Figure 4, 5).

User can insert the banknote in all 4 directions (Figure 6).



Figure 3



Figure 4



Figure 5



Figure 6

3.5 Bill Detection

DEN mode – detects single bills. Every time a new bill is inserted, the previous bill's info is lost.

ADD mode – detects and adds up the total value of a series of bills. Generates a report of the number and value of bills scanned in a sequence.

Press ADD/DEN button to select ADD or DEN mode.

If the bills pass detection, the denomination of each bill (DEN), or the total number and value of the scanned bills (ADD mode) will be displayed.

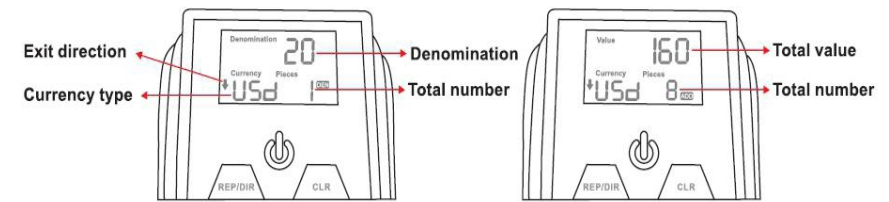


Figure 7

Figure 8

When the total number of bills reaches 999+1, or total value reaches 999999+1, the detector will reset to 0.

If the bill fails, a flashing red light will go on, and the bill will be ejected from the front of the detector. An error code will be displayed on LCD. Different error codes correspond to different detection fail. Refer to chapter "Troubleshooting" on page 8 for details.

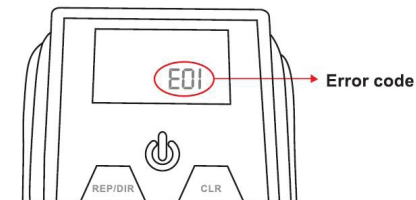


Figure 9

3.6 Report (ADD mode only)

Upon scanning the bills, press "REP/DIR" button to see the report (only works in ADD mode). By repeatedly pressing the "REP/DIR" button, the LCD will display the number and total value of bills scanned in each denomination, from lowest to highest. After all scanned denominations have been displayed, the LCD will revert to the initial display, showing total value and total number of bills scanned in that batch.

The detector will automatically exit the report function when a new bill is fed into it. To reset the report, press and hold "CLR" button for 2 seconds or turn off the unit.

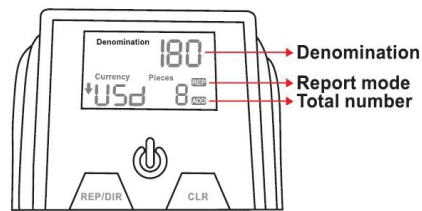


Figure 10

3.7 Standby Mode

After 5 minutes of being idle, the unit will go into standby mode: LCD display will turn off, and only the blue indicator light will stay on. Feed a bill or press any button to activate the unit.

If operated with rechargeable battery (sold separately), the unit will turn off after 15 minutes in standby mode.

3.8 Battery (optional)

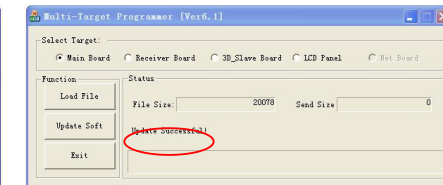
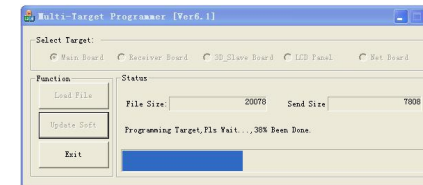
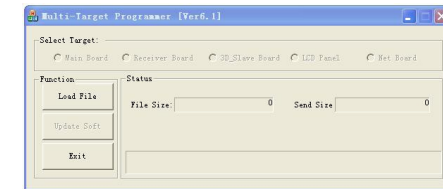
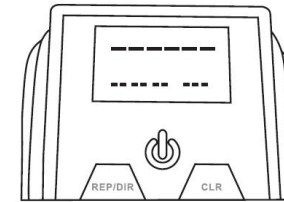
If the rechargeable battery is used, the battery status symbol indicator will be displayed at the upper right corner of the LCD display.


When plugged into AC/DC power outlet, the battery will recharge automatically. The battery symbol will flash to indicate charging.

4. Software Update

In order to update the software, please follow the instructions below:

- 1 Turn off the unit and disconnect the power adaptor.
- 2 Use update cable (not included), to connect the unit to the PC.
- 3 Connect the unit to AC/DC power adapter, and plug it in.
- 4 Press and hold both "ON/OFF" and "CLR" buttons simultaneously for 2 seconds.
- 5 LCD will display "-----" "-----". Repeat Step 1 to Step 4 if "-----" "-----" is not displayed.
- 6 Run the downloaded application software on the PC.
- 7 Click the 'Load File' button and select the provided xxx. UPL file;
- 8 Click the 'Update Soft' to confirm.
- 9 When update is complete, restart the unit. The new software has now been installed.



-  The unit must be connected to AC/DC power during software update.
- Software update may also be done via mini SD card (not included). Please contact your dealer for further details.

5. Maintenance and Troubleshooting

5.1 Maintenance

For optimal performance please follow these instructions:

1. Keep the unit on a solid flat surface. Don't place the unit on a shaky or vibrating surface.
2. If the unit is not in use for a long period of time, please keep it powered off and unplugged.
3. Keep the unit away from strong sunlight or magnetic field, as it may cause failure.
4. Gently clean the sensors and rubber belts with a small, soft brush or a dry, soft lint-free cloth regularly (at least once a month).
5. Only authorized technician may open/service the unit. Unauthorized repair/service will render any remaining warranty void, and may cause malfunction and/or injury.

5.2 Troubleshooting

5.2.1 Calibration Error Codes and Solutions

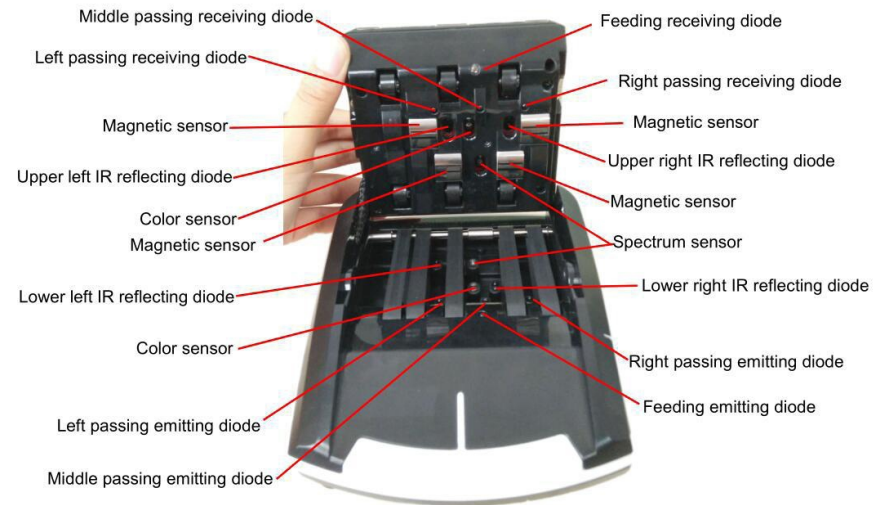
The unit will perform a calibration test when turned on. Most of the following error messages are caused by a sensor blocked by bills or dust. Remove the bills, or use a brush/ piece of soft cloth to clean

the dust off the sensor, and restart the unit.

Error Code	Cause	Solution
P01	Left pass-through sensor error	Clean dust off sensor/Replace sensor
P02	Middle pass-through sensor error	Clean dust off sensor/Replace sensor
P03	Right pass-through sensor error	Clean dust off sensor/Replace sensor
P04	Upper left IR sensor error	Clean dust off sensor/Replace sensor
P05	Upper right IR sensor error	Clean dust off sensor/Replace sensor
P06	Lower left IR sensor error	Clean dust off sensor/Replace sensor
P07	Lower right IR sensor error	Clean dust off sensor/Replace sensor
P12	Feeding sensor error	Clean dust off sensor/Replace sensor
P13	Magnetic sensor A error	Clean dust off sensor/Replace sensor
P14	Magnetic sensor B error	Clean dust off sensor/Replace sensor
P15	Magnetic sensor C error	Clean dust off sensor/Replace sensor
P16	Magnetic sensor D error	Clean dust off sensor/Replace sensor
P18	Rotate speed sensor error	Clean dust off sensor/Replace sensor

5.2.2 Detection Error Codes and Results

Error Code	Cause
E01	Length of bill fail
E02/ E03	Magnetic feature fail
E04/ E05	IR feature fail
E06	Thickness of bill fail
E07	Slanted Bill. Take out the bill, and put it into the bill acceptor again, straight
E08	Bill hologram fail
E09/E10/E11/E12	Bill paper quality fail
E20	Bill jam. Remove the bill from the bill pathway, and re-insert
E22	Can't detect denomination. Check if the banknote is the right currency
E24	UV feature failure



6. Specifications

Dimensions:	5.5"X7.1"X3.4" (14cmX18cmX8.5cm)
Power supply:	100V~240V AC/12V DC adapter (included)
Temperature:	32°F ~104°F (0°C~40°C)
Storage temperature:	-4°F ~149°F (-20°C~65°C)
Battery (Optional, not included):	rechargeable lithium battery 10.8V/600mAH
Power consumption:	<10W
Speed:	<0.5s/bill
Net Weight:	1.44lb(650g)

⚠ In case of a technical problem that can't be solved by operator, please contact the manufacturer.