

User manual

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Money detector

English

PRO-250S / PRO-250E / PRO-250R

# PRO-250 SERIES

[www.pro-intell.com](http://www.pro-intell.com)





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PRO Intellect Technology Corporation offers the PRO-250 Cash Line series of automatic counterfeit currency detectors. This series is designed for verifying banknotes efficiently and accurately. The PRO-250S supports authentication of United States dollars. The PRO-250E supports authentication of euros.

The PRO-250 series of currency detectors use an automatic and complex series of tests to analyze the authenticity of the supported banknotes to guarantee accurate results without requiring the operator to have a special knowledge of the currency's anti-counterfeiting measures. These counters allow the operator to quickly (less than one second) process a banknote for authenticity, as well as for the total number and the face value of scanned banknotes.

The PRO-250 series is designed for use in accounting departments, sales offices, banks, currency exchanges and other organizations that have a large flow of banknotes and require careful authentication. These user-friendly devices can also be used in supermarkets and other retail outlets.

The information presented in this manual will help the operator easily and quickly learn the functions and proper operations of the device. It is important to read this manual prior to operation of the device.

### Distinctive Features

- infrared detection to check the location of infrared marks
- spectral ink analysis
- magnetic detection for checking magnetic marks and ink
- optical density detection for checking the banknote's size and face value
- display for the amount of scanned banknotes and their face value
- 16 x 2 digit display with backlight and transmitting light
- sound, light, and operating code indicator
- forward and reverse banknote filing mode
- self-cleaning magnetic sensors (surface cleaning)
- AC / DC adaptor for use in an automobile

## 1 Specification

- Banknote verification speed ..... 1 banknote/sec
- Voltage ..... 12V
- Consumed power .....800mA
- Power supply .....110-220V / 50-60Hz
- Operating temperature. ....+10~+40°C (+50~+104°F)
- Overall dimensions .....210x125x100mm (8 ¼ (L) x 4 9/10(W) x 3 9/10(H))
- Weight .....1.4kg (3.1lb)



**Figure 1**

- 1 – Banknote input tray
- 2 - "MODE" button. Enters / Exits the settings adjustment mode.
- 3 - "CLR" button. Resets the displayed results by pressing and holding for 2 seconds.
- 4 – Status indicator. A green light indicates that the device is functioning properly. A red light indicates that there was an error during the testing procedure
- 5 – Counting display
- 6 – Banknote output tray. When in the "FORWARD" banknote filing mode, scanned banknotes will be deposited in the output tray. When in the "BACKWARD" banknote filing mode, the banknotes will be returned to the front of the device and no output tray is needed.
- 7 - Power switch
- 8 - "DENOM" button. This button is used to view the total value of scanned banknotes according to their face value. Pressing this button will show the results for each value of the currency scanned. For example, "EURO 100 QTY: 5" indicates five 100 euro banknotes were scanned. Pressing the button again will show the total number of banknotes scanned for the next face value of that currency. Press and hold the "CLR" button to reset the results. Press the "MODE" button to exit.
- 9 – Upper access cover. If a banknote jam occurs, open this cover to remove banknotes.
- 10 – Detection guide. This only applies to USD.

1. Connect the attached AC adapter to the detector and plug into the electrical network 110-220V 50-60Hz.
2. Turn on the power, as in Fig. 1-7. Detector enters into self testing mode and on the display appears "SELF TEST". When "PLEASE WAIT" is shown on the display, wait for several seconds. After the detector completes the self testing process, it is ready for operation. The display will show as follows (Fig. 2):

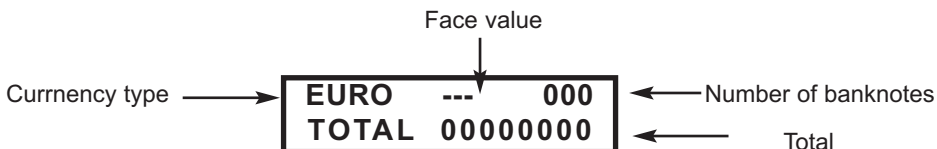


Figure 2

3. If necessary, select the filing banknote mode.

In the forward filing mode, after checking the banknote, it will be placed on the banknote output tray (Fig. 1-6). A suspicious banknote will not be deposited in the output tray, but will be returned to the input tray. In the "BACKWARD" mode, the banknote will always be returned to the input tray after the authentication process. To select the "FORWARD" or "BACKWARD" mode, press "MODE" and then press the "CLR" button once or twice to choose the necessary mode. See Fig. 3 and Fig. 4.

**DIR: FORWARD**

Figure 3

**DIR: BACKWARD**

Figure 4

Press the "MODE" button again to confirm the selected mode.

4. Place one banknote on the banknote input tray (Fig.5) as indicated by the arrow and press the banknote firmly against the right side of the tray.

Remember, this device is designed to authenticate one currency only.

The device will detect the face value of an authentic banknote and adds it to the total amount. The green status indicator is lit. (Fig. 1-4)

If the red status indicator lights up and an error code is displayed (see Table 5 for error codes) the banknote should be considered suspicious and inauthentic.

Attention! If the banknote isn't placed right on the input tray, then the banknote won't be recognized as a real banknote and will result in an error code. If an error occurs, please check the orientation of the banknote as shown in Fig. 5 and repeat the procedure.

After counting, clear the display by pressing button "CLR" and turn off the power. If a banknote is jammed inside of the detector, open the upper access cover (Fig. 9) and remove the banknote.

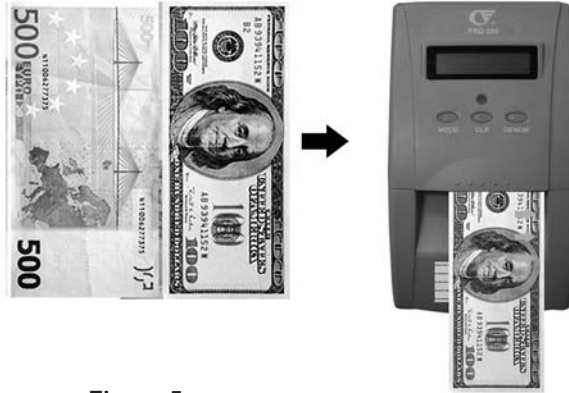


Figure 5

## 4

## Safety precautions

1. The device should be installed on even horizontal surface, away from water and dangerous objects.
2. Do not place the device in an area where it can be affected by direct sunlight, directional artificial light, strong vibration, or dust.
3. Only use the adapter kit that is included with the device.
4. If the device was exposed to cold for an extensive period of time, it is necessary to keep it at the room temperature for not less than 3 hours.
5. If the device is not in use for an extended period of time, turn it off.

Attention! Errors can occur when testing authentic wrinkled, dirty, washed, torn, taped, or faded banknotes. Additionally, banknotes that have been exposed to harsh environments including laundry detergent or bleach may result in errors during authentication.

Attention! If updated versions of banknotes are released into circulation, the detector may return an error while checking these banknotes. It is necessary to install a new version of the detector's software to ensure proper detection of newly released banknotes. During the warranty period, the new software will be installed at any licensed service center for free.

Code	Reason	Solution
NOT RECOGNIZED F-C	Error with magnetic mark's position	<ol style="list-style-type: none"> <li>1. Check the banknote's position on the input tray, see Fig. 5</li> <li>2. Check the banknote again. If the error code appears again, then this banknote can not be verified as authentic.</li> </ol>
NOT RECOGNIZED F-I	Error with infrared mark's position	
NOT RECOGNIZED F-S	Error with the banknote's identification image	
NOT RECOGNIZED F-F	Error with the paper's quality	
NOT RECOGNIZED F-L	Error with the banknote's size	
NOT RECOGNIZED F-P	Error with the banknote's color printing quality	

PASS ERROR	The start sensor can not recognize the banknote	There is no banknote present or a banknote is jammed in the device.
START SENSOR FAULT	Start sensor is blocked	Remove the banknote or clean the start sensor
ENTER DEBUG	Enter the service mode	Switch off and then switch on the power
DOWNLOADING	Enter ROM installation mode.	Switch off and then switch on the power
SELF TEST F05/F06	Button test/driving mechanism error	Contact service centre
NOT READY	The upper access cover is opened	Close the upper access cover (Fig.1-9)
NO BANKNOTE	No banknote for viewing in "DENOM" mode	Cancel the action by pressing "MODE" button

Manufacturer guarantees proper functioning of the device during the warranty period since the date of sale under condition of compliance with maintenance and storage procedures described in this manual. After unpacking the device please keep the package and technical description. Warranties are canceled in the event that the device was not transported in the original packaging or maintenance procedures were violated. Manufacturer is not responsible for device malfunction as a result of improper maintenance, storage and transportation including mechanical failures.

In case of the device failure during the warranty period, the customer has the right to have it repaired in our service center for free. The service center accepts equipment for cleaning due to dust and mud, however cleaning equipment from dust and mud is not included in the warranty and is charged separately.

Warranty service does not include any training for equipment maintenance or other use of the device (connection, testing, customizing, preventive works etc.) which the customer can complete on their own by referencing the attached manual.

Producer is entitled to introduce updated software, not described in the current manual.

Warranty service is not available in the following cases:

- Absence of a warranty card, an incorrectly filed warranty card, or other invalid card
- If operation or maintenance rules mentioned in the manual were violated
- If there is mechanical damage to the equipment
- If there are foreign objects or liquid inside of the device

The present warranty does not apply to lamps, batteries, belts, network adaptors, power units, safety fuses, brushes, parts of the body of the product or any other parts which have a naturally limited period of service including failures caused by power supply failures. Replaced defective parts are to be considered the property of the producer. The owner delivers faulty equipment to the service center at their own expense.



