**Currency counters** 



# 40 NEO / 40U NEO PRO 40 SERIES



PRO INTELLECT TECHNOLOGY corp. provides a series of economic class counters PRO 40, CASH LINE equipment. Counters PRO 40 and PRO 40U are designed for counting small volumes of various foreign currencies including EURO and USD. One of the distinctive features is the small size of the counter and simple operation including the main counting functions: counting, batching, summing up, optical density and UV light verification test. These devices are ideal for small businesses, offices, auditing departments, cash desks and even at home. Please read the manual carefully before operation.

## Main functions and distinctive features

• This device is designed for counting, batching, summing, and verifying the authenticity of various currencies, including EURO, USD.

- Counting speed, banknote/min 800
- UV detection 3 levels
- · Optical density and double (stuck) banknotes 3 levels
- Summation mode

1

2

- Preset batch mode 100, 50, 25, 20, 10
- Sound indications
- 3-digit count display
- 3-digit batch display

## Specification

Counting anod	000 handen ata a luain
• Counting speed	
Stacker capacity	100 banknotes
• Hopper capacity	100 banknotes
Default capacity	
Range of spacified counting	
• Power consumption	
• Power supply:	220V/50Hz (For U.S 110V/60Hz)
• Net weight	4.3kg (9.5lbs)
Gross weight	5.0kg (11.0lbs)
Overall dimensions	m (8 9/10"(L) x 11 2/5"(W) x 5 ½"(H))

## Appearance



- 1. Control panel
- 2. Cover

3

- 3. Hopper
- 4. Stacker
- 5. Carrying handle
- 6. Power cord
- 7. Power switch
- 8. External display port
- 9. External display

## 4

# Control panel operation

1. Main count display- depicts counting results

#### 2. Batch mode display – indicates the follow information:

- -a number of banknotes chosen in this mode
- -a message error code

#### 3. ADD indicator ADD indicator lights up during summation mode

#### 4. UV indicator

UV indicator lights up during UV detection mode

#### 5. "UV" button

Switch "ON/OFF" UV detection (by default indicator in Fig. 2-4 is ON)

**6. "ADD" button** ON/OFF sum up mode, (indicator in Fig. 2-3 lights up). Pressing the button a second time switches OFF the mode.

7. "START" button The button starts: -counting

-continues counting and clears error messages on display 2

-clears counting result on the main display 1

-stores changes to the counter settings

#### 8. "BTH" button

Mode switch button (100, 50, 25, 20, 10, reset):

Press "**BTH**" several times depending on the necessary amount of banknotes, when necessary to change the desired total by a smaller amount, use button "+1"-adds 1 package of counting. Chosen number of banknotes will be indicated on display in the mode.



Figure 2

# 5

## Safety precautions and maintenance rules.

Read this manual before operation

The manual should be available to operator

• The device should be installed on an even horizontal surface, away from water and dangerous objects

• Don't place the device in an area where it can be affected by direct sunlight, directional artificial light, strong vibration, or dust

- Do not operate the device with wet hands
- Do not expose to water (or other liquid)
- · Avoid foreign objects
- · Avoid dropping the device
- During operation:

When finished be sure there are no banknotes in the hopper or transport system

• Clean the device regularly and service the device as needed at a licensed service center

• Do not disassemble, repair or attempt to update the counter on your own. This can result in damage to the device or injury to the operator. Contact a licensed service center in case of failure

• Do not turn on the counter if the power cord is damaged

• If the device was exposed to cold for an extensive period of time, it is necessary to keep it at the room temperature for no less than 4 hours

**Remember**! The producer is in no way responsible for damage to the device or injury to the operator in the event of incorrect operation /care of the device.

# Counterfeit detection (for PRO 40U model)

#### **UV** detection

6

7

The UV detector is designed for various currencies and all banknote types. The counter automatically tests the banknotes' UV-fluorescence level. If the level is incorrect, the device stops counting and "**EU**" error is displayed. Suspicious banknotes will always be placed on top of the output stack. Such banknote should be verified for authenticity. Remember that original banknotes accidentally exposed to hostile environment can also have an incorrect UV-level.

Press "**UV**" button to switch on the mode. The indicator will light up. The UV detector functions in any counting operation mode.

Counter operation

#### 7.1. Preparation

- · Connect the power cord to the device
- Turn power switch (Fig. 1-7) ON

If an error message is shown on the batch mode display as listed in Table 8, contact service center.

Counter starts

• When self test mode is finished, the display will read "0" and the counter is ready for operation

Optical density detection is switched on as default.

#### 7.2. Counting procedure

**ATTENTION**! To avoid errors in counting, sort banknotes and put aside the following: with folded edges, well-worn or "washed", dirty, torn.

The PRO 40 series operates differently than similar models. When banknotes are passed through the device, they are drawn from the top of the stack, not from the bottom. Special attention should be paid to the correct stacking of the banknotes before attempting any operations.

Banknotes should be placed in the hopper in a neat stack with the first bill facing up.

Banknotes should be placed into the hopper perpendicular to the tray (see Figure 3). The notes should then be leaned back flat against the tray. Banknotes will be loaded into the device automatically (see Figure 4).

Wrong banknote position can cause errors, banknotes being ejected from the device, crumpling or jamming.

-Place banknotes in the hopper

-The counter will count banknotes automatically

-The result will be indicated on the display

-Repeat up to Table 7.2., when necessary

-When counting is finished clear count display results by "START" or "CLR" button

-If an error message occurs, see Table 8



Figure 3

Figure 4

#### 7.3. Batch operation mode

(Counting mode for a specified number of banknotes)

-Press " $\ensuremath{\text{BTH}}$  " button on control panel as many times as necessary until the display reads the desired batch size

-Use additional button "+1" to set an exact number

-Repeat from the beginning of Table 7.2.

-Remove banknotes from the stacker

-Add banknotes if necessary

-Press "BTH" button several times to exit batch mode

-If an error occurs during counting, see Table 8

-Repeat from the beginning of Table 7.3.

### 7.4. Summation mode

-Press "ADD" button and the indicator will light up

-Repeat operations up to Table 7.2.

-When there are no more banknotes in the hopper, remove banknotes from the stacker

-Put a new stack of banknotes into the hopper

-Repeat from the beginning, when necessary

-The display will show the total result of counted banknotes

-When counting has finished, reset the displayed results by pressing "START" button

-Press "ADD" button to exit summation mode

-If an error occurs during counting, see Table 8

-Repeat sum up operation up to Table 7.4., when necessary

# Function settings and troubleshooting

#### 8.1. Changing the UV detection sensitivity level (PRO 40U).

Press and hold "**UV**" button for 4 seconds. The display 2 will show Uu[X] sign, where X – is level of UV detector sensitivity:

- 1 minimum sensitivity
- 2 average sensitivity (recommended)
- 3 high sensitivity

8

After each pressing of UV button, sensitivity level changes to 1 value. Press "**START**" button in order to enter new value and exit the mode for changing the sensitivity level.

#### 8.2. Changing the optical density sensitivity (banknote transparency)

Press and hold "**ADD**" button for 4 seconds. Display 2 will indicate Ed [X] sign, where X - is a number indicating optical density level:

- 1 minimum
- 2 average (recommended)
- 3 high sensitivity level

After each pressing of **ADD** button sensitivity level changes by 1 value.

Press "**START**" button to enter a new figure in the data store and exit sensitivity level change mode.

Attention! New settings are stored for future use.

Remember! Wrong settings can cause failures and frequent error messages.

#### 8.3 Error codes

Code	Reason	Solution
Eh	<ol> <li>Passing of halved or torn banknote</li> <li>Failure of left or right sensors of the counter</li> </ol>	<ol> <li>1. 1Remove banknotes from the stacker, leave aside suspicious banknote (placed on the top), repeat counting procedure</li> <li>2. Contact appropriate service centre.</li> </ol>
Ec	Chain note detected	Remove banknotes from the stacker and repeat counting procedure
Ed	Double notes detected, notes are stuck together	Remove the banknotes from the stacker and press <b>START</b> button to continue counting procedure
EU	Suspected note detected by UV	Remove the suspicious banknote (placed on the top) and press START button to continue counting procedure. Use additional verification methods for suspicious banknote

Press START button to clear the display results from an error message and continue counting. In case of system errors contact the appropriate service centre.

#### System errors. Service.

Code	Reason	Solution
E-1	Left sensor is either blocked or failed.	Switch off and then switch on the power, clean the sensor or contact the service center
E-2	Right sensor is either blocked or failed.	Switch off and then switch on the power, clean the sensor or contact the service center
E-3	Tachometer sensor is either dirty or failed.	Contact service centre.
E-4	UV sensor is either blocked or failed.	Switch off and then switch on the power, clean the sensor or contact the service center
E-5	Sensor in the hopper is blocked by the banknotes or is dirty.	Remove banknotes from the hopper, clean or replace the sensor.
E-6	Sensor in the stacker is blocked by the banknotes or is dirty.	Remove banknotes from the stacker, clean or replace the sensor.

In order to provide the best functioning of the device, it is necessary to comply with the following simple requirements:

Switch off the device, when not in use

Use protective cover, when not in use

Clean the hopper and stacker with a clean dry cloth. Sensors can cause errors when dirty.

It is recommended to carry out preventive measures, including partial disassembling of the counter each 30 days by an engineer in the service center.

# Limited warranty

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.



© PRO INTELLECT TECHNOLOGY / www.pro-intell.com