GENERAL INFORMATION

This bill validator is designed to fit into the standard bill acceptor opening provided by vending machine manufacturers. It mounts on either the existing four mounting studs located in the vending machine or on the mounting bracket provided in various mounting kits.

The VNR Recycler stores and provides $1 or $5 bills as change and accepts $1, $2, $5, $10 and $20 for transactions. Recycling bills reduces coin usage and expands vending to higher value bills.

Features of the VN2700R include:
- $1, $2, $5, $10 and $20 bill acceptance
- Four Direction bill acceptance
- Re-programmable Flash Memory (Flashport™)
- Coupon configuration
- Enhanced Security
- Easy access to the bill path, even when mounted
- Diagnostic display (see back of unit)
- Multi-Drop Bus (MDB) vending Interface (24V)
- Supports free vend and value coupons
- Choice of many Bezel styles
- Lighted Bezel (on some models)
- VNR Recycler (returns bills for change)

INTERFACE

The VN2700R Bill Acceptor operates via a MDB interface: The following harness is provided to support this interface:

250070096P - 24 VAC Multi-Drop Bus Interface (MDB)

Note: This harness fits onto the male connectors located on the left side of the Bill Acceptor and is designed to connect to the machine controller's and coin changer's Bill Acceptor interface harness.

For further information on either interface harnesses or mounting kits, please contact your supplier or MEI Approved Service Center.

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INSTALLATION INSTRUCTIONS

1. Set Bill Acceptor option switches.

Note: When you receive the product, all switches are off. This will automatically enable the options as follows:

- Accept $1 and $5 dollar bills.
- Four way accept.
- High Security accept.

Important Note: Placing any switch ON will override the above options, and the Bill Acceptor will operate according to the switch settings label!

NOTE: The unit may be configured with the attached coupon rather than using the option switches. For coupon configuration, turn all option switches OFF and proceed to Coupon Configuration instructions on page 5.

<table>
<thead>
<tr>
<th>SWITCH DESCRIPTION</th>
<th>Description</th>
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<tbody>
<tr>
<td>1,2</td>
<td>Combination of these two switches selects number of enabled bill directions.</td>
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<tr>
<td>3</td>
<td>Position allows either acceptance or security to be maximized.</td>
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<tr>
<td>4-8</td>
<td>Individual switches enable or disable corresponding bill denomination.</td>
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1a. Recycler Factory Default Settings
When the VN2700R is received from the factory, the following option settings are by default:

- Recycled Bill (rb) = $1 (1)
- Interface (IF) = Level 3 (L3)
- Capacity (CA) = 25 notes (25)
- Par Level (PL) = 12 notes (12)
- High Visibility Bezel (Hb) = 'Rainbow' mode (bLEnd - scrolling)

Please refer to Section 10 for instructions regarding changing the recycler option settings.

2. Remove power from the entire machine.
3. Install the VN2700R onto the Bill Acceptor mounting studs and through the mounting hole of the machine. Secure using the appropriate hardware.

Note: Several alternate Bezels are available for different vending machine applications. For further information regarding available Bezels, please contact your supplier, MEI Approved Service Center or MEI Help Desk.
4. Connect the VN2700R
Locate the main MDB connector from the vending machine. Connect to the mating connector of the VN2700R. There is an additional cable coming from the VNR which connects to the coin changer. Please note: The coin changer MUST connect directly into the VN2700R. Any other MDB devices must NEVER be connected between the coin changer and the VN2700R.

5. Apply power to the machine.
Observe that the MODE / SELECT display on the back of the VN2700R is ON.

During power up, the display shows the VNR Recycler software version and then the VN2700R Bill Validator software version. The display then changes to show the number of bills in the VNR Recycler.

By default in normal operation, the display always shows the number of bills currently held in the Recycler store available for use as change. If the recycler has lost count of the number of bills for whatever reason, then a double dash will be displayed. The recycler will recalculate and display the number momentarily.
6. MODE / SELECT Switches

The MODE switch will cycle between the different set-up modes. The available modes are Load Recycler, Unload Recycler, Coupon Mode and Setup Mode.

When the MODE switch is pressed and held for 2 seconds, the unit will stop displaying the bill count and will display the current mode. The text will flash. Each press of the MODE switch will toggle to the next mode. If a mode is selected and the user takes no further action for 30 seconds, the bill count display mode will be automatically selected.

When a mode is displayed, pressing the SELECT button will enter that mode.

7. Load Recycler Mode

If the Load Recycler mode is selected, the display will stop flashing and alternate with the current bill count. The user may then insert bills of the type being recycled. Validation will be performed on the inserted bills. Unrecognized bills will be rejected and ‘Un’ displayed for 5 seconds or until the user inserts another bill. Bills of the wrong type will be rejected with a ‘tP’ error message displayed for 5 seconds or until the user inserts another bill. If the recycler is full, then ‘F’ will be displayed and bill input is inhibited. If there is no activity from the user for 30 seconds or the mode button is pressed, the Load Recycler mode will be exited.

17. Installing VNR Recycler onto VN2700 Bill Acceptor.

1. Remove power from vending machine.
2. Disconnect/remove upper wire harness. Pull MDB harness out from side of acceptor. Disconnect from machine.
3. Separate lower wire harnesses. To separate, press LED harness lever to release snap, and pull connectors apart.
4. Remove LED Cartridge. To remove the LED Cartridge, push upward on the metal bar located on the back of the LED Housing and pull out.
5. Insert VNR Recycler. To insert the VNR Recycler, push unit into LED location allowing yellow latches to snap engage into chassis.
6. Connect lower wire harnesses. Insert VN Recycler harness connector into unit connector allowing lever to snap close.
7. Install upper wire harness. Press ‘FRONT’ connector into side of acceptor, being careful to align slot and keys to pins.
8. Connect upper wire harness to machine and coin changer.
9. Apply power to the machine.
10. Calibrate the Recycler. Before use, the unit must be calibrated. The rear display will flash ‘Cl’ and any bezel lights will rapidly flash. To calibrate the unit insert the supplied calibration paper. It will be drawn into the Recycler and then ejected in a series of steps. After calibration, the rear display will display ‘0’ showing the Recycler is currently empty. NOTE: Insert ONLY the supplied Calibration paper. If you insert a note or coupon, the calibration process will not be successful.
11. Go to Section 5, page 3 and continue.

18. Trouble shooting VN2700R

Unit Dead (won't power up)

1. Harness(es) may be loose, not properly connected, or bent pins.
2. Check source voltage to ensure that power is being supplied to the bill acceptor.

Error Codes

If an error occurs, the display will alternately flash ‘Er’ followed by an error code and then the number of bills in the recycler. When multiple errors occur, the display will cycle through each error in turn.

Note: For further information on trouble shooting and error codes for the VN2700R, please contact your MEI Authorized Service Center, the MEI Tech Support line, or the VN2700R Operation and Service Guide.
13. Open Access Cover
Push up yellow release latch and pull back on Access Cover. This will open like a clamshell. Finger Disc is revealed (A).

14. Removing Recycled Bills
1. Powered - The push button (mode) will slowly move the rotor forward for unloading recycled bills.

15. Close Access Cover and Install VNR Recycler
To insert the VNR Recycler, push unit into LED location allowing yellow latches to snap engage into chassis.
Recycler will now reset itself (power up) counting the loaded bills. This operation is required for the Recycler to function and may take as long as a minute, depending on number of loaded bills. Fewer bills - longer reset.

16. Cleaning
The VN2700R series will not need cleaning as often as magnetic sensing Bill Acceptors. If cleaning is required, use a soft cloth moistened with mild, non-abrasive detergent.
To clean the bill validator bill path remove both the VNR Recycler and Magazine for full bill path access.
The VNR Recycler does not require cleaning and could be damaged by aggressive cleaning.

8. Unload Recycler Mode
If the Unload Recycler mode is selected, the display will alternate number of bills and UL. Each further short press of the select button will move one bill from the recycler to the cassette. If there is no activity from the user for 30 seconds or the mode button is pressed, the Unload Recycler mode will exit. If the recycler is empty, then pressing the select button will have no effect.
If the select button is pressed for more than 2 seconds, the recycler will continuously move bills from the recycler to the cassette until a pre-determined, programmable number is reached. This number can be set using the Par Level option in Setup Mode, section 10, page 6. To unload to zero, the above method must be used to stack one note at a time.

9. Coupon Mode
9a. Configuration Coupon Input Mode (All option switches set to OFF, see page 2)
If the Coupon Input mode is selected, the recycler will wait 30 seconds for the user to input a configuration coupon. If no coupon is input, the system will exit configuration mode and re-display the bill count.
If a configuration coupon is fed into the recycler, the system will attempt to decode the coupon and then return it. The display will momentarily show CF.
If the configuration is successful, then the front LEDs will flash 10 times. If the configuration process is not successful, the LEDs will flash a number corresponding to the section of the configuration coupon that is either not completed or completed incorrectly. Also, if the coupon is damaged or not the correct size, it will not configure correctly.

9b. Free Vend and Value Coupon programming.
If the Coupon Input mode is selected, the recycler will wait 30 seconds for the user to insert either a Free Vend coupon, a $1 Value coupon or a $5 Value coupon. Depending on the current status of the coupon mode, the inserted coupon will either be accepted (display momentarily shows En for enabled) or rejected (display momentarily shows Di for disabled). If the coupon was accepted, then it is now enabled for use. If it was rejected, it is disabled. This mode toggles between enabling and disabling coupons. NOTE: Value coupons are treated by the vending machine as cash. Change, including notes and coins, will be dispensed after a transaction.
9. Configuration Coupon Input Mode (continued)

Carefully remove the coupon from this Installation Guide. Copies are usable if made on a standard, carbon-based, non-color copier, AND if cut to match the size of the attached coupon. (Coupon is located on page 11.)

Fill out the coupon using a #2 or HB pencil. Fill in one block for each line. Do not mark the back of the coupon.

Section 1 - Bill Direction  Enable one or two-way (face-up) or four-way acceptance (all directions).

Section 2 - Bill Denomination Fill in one block for each denomination. Select High Accept for maximum bill acceptance. Select High Security for a higher level of discrimination. Select OFF to reject bills of that denomination.

Section 3 - High Visibility Bezel (HVB) options. (only impacts units with HV Bezels) Select DENOM for a blend of all colors with denomination LEDs on. Or select your primary color - Red, Green, or Blue. Select DENOM for units without the HVB option.

Section 4 - Bezel lights flash/ON.

10. Setup Mode

If the Setup Mode is selected, the recycler will cycle between different options. The available options are Recycled Bill, Interface, Capacity, Par Level, High Visibility Bezel, and Profile. The mode switch selects between the different options. Press and hold Select to save the displayed value. Pressing and holding the Mode Button will return to the Setup Option menu.

The Recycled Bill can be set to the value of the bill to be recycled. MEI recommends $1 or $5 notes for recycling in Vending applications.

The Interface can be set to:

dE - Demo Mode - This will allow unit to store, return and stack notes with power only.
Au - To be defined (do not use)
L2 - Level 2 MDB (use this when accepting $20 notes)
L3 - Level 3 MDB (this is the default mode from the factory)

The Capacity defines the number of bills held by the Recycler in operation. Excess bills get stacked into the Magazine. The Capacity can be set to between 0 and 30.

The Par Level can be set to a value between 0 and 30. It defines the number of bills left in the Recycler when in unload mode and the Select Button is pressed and held. The Recycler will add bills up to the capacity setting during normal operation. This setting should be set to something below the Capacity level.

High Visibility Bezel (HVB) Options allows the operator to chose a primary color on the HVB or blend colors when the HVB is fitted.

Profile mode allows the operator to calibrate the bill acceptor or the recycler film. It is recommended that operators do not enter this mode unless proper training has been received and calibration paper is available.

11. Check operation

• Insert a recycled bill ($1 or $5) and observe that it is accepted, and stored in the VNR Recycler.
• Load the recycler with recycled bills to the Par Level or full setting.
• Insert a high denomination bill ($5, $10 or $20) and verify that proper credit has been established.
• Vend a selection with the largest enabled bill and confirm correct change given.

TO ACCESS BILL PATH

Remove both VNR Recycler and magazine for full bill path access.

12. Remove VNR Recycler

To remove the VNR Recycler, pull yellow latch lever releasing latches and pull out Recycler.