

Validator Update Instructions for Rowe BC3500 \$1-\$20

Kit Overview:

The purpose of the kit is to replace the Rowe BA50 transport and stacker with a 120-volt Mars validator with a #8 mask. The kit and these instructions pertain to a Rowe BC3500; this is a front-loading changer with three hoppers. This kit is designed for dollar bill changers that are not used to make change for a coin.

The installation information is intended for experienced personnel familiar with the operation of these components. All the installation procedures must be reviewed and understood prior to installing the kit. The installation instructions are based upon a dollar bill changer that has not been modified from the original factory configuration. If the machine has been altered in any way, restore the machine to the original factory configuration prior to beginning the conversion.

Kit Components:

- Module in black plastic box; labeled BC1200/1400/3500
- Metal validator slide plate with slot and flange to mount #8 mask
- Jumper with a 15-position connector
- Four of 11/32 keps nuts

Additional Required Items Not Included with Kit:

- Working CPI/MEI/Mars validator – Model AE2481/AE2481, VN2581, AE2681, Talos T681
- Dollar bills to test the validator and verify operation of the kit
- Electrical tape

Tools Required:

- 11/32", 1/4", and 3/8" long handle nut drivers
- Pliers

Installation Procedures:

1. Unplug the power cord from the wall and open the door of the changer.
2. Remove the BA50 bill transport by unplugging the harness at the 15-position harness connector (3 x 5). A 12-inch harness will still be connected to the side of the BA50 transport
3. Connect the jumper supplied with the kit to the now open 15-position connector of the machines wiring harness.
4. Remove the bill box from the stacker assembly.
5. Remove the stacker assembly by unscrewing the two 1/4" screws at the top of the assembly. It may be necessary to hold the nuts under the assembly with a pair of pliers. [For changers with a dual stacker remove the two 1/4" screws that secure the stacker assembly base to the bill box bracket. The bill box bracket can remain in the changer] Disconnect the harness from the upper rear right hand side. Slide the stacker assembly forward out of the changer. Replace the upper two screws and nuts. The original stacker harness will not be connected to any component.
6. Set the dip switches on the 120-volt Mars validator per the label on the kit Module. If you are installing a Talos T681 validator, the setting required for the validator are the factory default so a out of the box new unit will work.
7. Unplug the 9-position harness at the Coin Acceptor Assembly.
8. Insert the 9-position harness from the new Module into the open connector. This kit is **not** designed for use in a changer that accepts coins. The 9-position female connector on the Coin Acceptor Assembly will remain open. If you need to accept coins, please contact us for a coin interface kit.
9. Remove the three hoppers from the Coin Dispenser Assembly 6-50275-10.

10. Unbolt the Coin Dispenser Assembly by removing both 3/8" bolts.
11. Pivot the assembly forward, it does not need to be removed. [If you are having trouble connecting the new harness you may wish to disconnect the harness from the Coin Dispenser Assemble so it can be removed.]
12. Feed the harness with the two 3 position connectors from the Module through the barrier wall toward the left wall of the changer. There is a large hole with an insulating ring toward the upper rear of the wall.
13. Unplug the main power harness from the connector at the far left of the Power Control Center Assembly (65042606).
14. Plug the 3-position male plug from the Module into the now open connector on the Power Control Center Assembly. Plug the machine harness into the female side of the harness.
15. Set the Coin Dispenser Assembly back into place and secure using both bolts. If the harness was disconnected be sure to reconnect the harness.
16. Replace the 3 hoppers.
17. Mount the validator onto the metal validator slide plate; the four 11-32 keps nuts are supplied with the validator. A 12-inch factory harness may be connected to the validator when it is removed from the box. Unplug this harness, as it is not used with the kit. If the validator's dip switches have not been set, set them now. The label on the Module lists the various settings – Talos default is correct.
18. Slide the validator plate assembly down the tracks that originally secured the BA50 transport. Attach the harness from the Module with the long black connector to the validator. Note the position of the two "keyed pins" when attaching the connector.
19. Secure the Module in a safe location. The recommended location is in the alarm canister clips located directly behind the coin acceptor assembly.
20. Remove either of the 2 wires from the coin return switch; red or black. Wrap the terminal in electrical tape.
21. Plug the changer back into the wall and turn the power switch to the ON position.
22. At this point the BILL CHANGER CONTROL COMPUTER is reprogrammed.

The 2 most popularly used programs are described below. The programming for the MC mode assumes 4 quarters will be dispensed for each dollar value inserted. If you are dispensing dollar coins divide the number of coins to be dispensed by 4. The below instructions can be used as a basis for substituting your own values if needed. The values you are programming may seem odd, however the validator now controls the denominations accepted. The MC mode is recommended if you are dispensing the same value coin in all 3 hoppers. The operation of the MC Mode is described on page 2-11 in the Rowe BC-3500 Bill & Coin Changer Field Service Manual and Parts Catalog; seventh edition. It is also described on page 2-12 in the Rowe BC-1200/1400 Bill & Coin Changer Field Service Manual and Parts Catalog; fifth edition.

Mc Mode - 4 Coins Per Dollar Value

- A. Slide the BILL CHANGER CONTROL COMPUTER forward so it is easy to view the blue display and access the programming buttons.
- B. Slide the mode switch upwards to the programming mode, the display will read TEMP COUNTERS.
- C. Depending upon the vintage of the BILL CHANGER CONTROL COMPUTER, the FUNCTION button may be labeled as FUNCTION or FUNCTION-ERROR RESET. These instructions refer to the button as FUNCTION.
- D. Press the FUNCTION button, the display will read PERM COUNTERS.
- E. Press the FUNCTION button, the display will read PROGRAMMING _ _ _ . If a security code was entered earlier enter the code now.
- F. Press the FUNCTION button, the display will read MC PAYOUT. It must be set to ON. Use either of the COUNT SWITCHES BUTTONS to set this option to ON.

- G. Press the FUNCTION button, the display will read HOP VAL; the value of coins for the left hopper will be flashing. Press the VALUE button until the display reads T1.
- H. Press the HOPPER button; the display will advance to the center hopper. Press the VALUE button until the display reads T1.
- I. Press the HOPPER button; the display will advance to the right hopper. Press the VALUE button until the display reads T1.
- J. Press the FUNCTION button, the display will read ACCEPT 1; this is set to NO. The NO and YES options are toggled using the COUNT SWITCHES.
- K. Press the VALUE button, the display will read ACCEPT 2; this is set to NO.
- L. Press the VALUE button, the display will read ACCEPT 5; this is set to YES.
- M. Press the VALUE button, the display will read ACCEPT 10; this is set to NO.
- N. Press the VALUE button, the display will read ACCEPT 20; this is set to NO.
- O. Press the VALUE button, the display will read ACCEPT 25; this setting must be set to YES.
- P. Press the VALUE button, the display will read ACCEPT 25A; this setting is set to NO.
- Q. Press the VALUE button, the display will read ACCEPT 50; this is set to YES.
- R. Press the FUNCTION button, the display will show 25 PAY ____ MC MC MC. Use the COUNT SWITCH BUTTONS to set the value to 4. Use the COUNT SWITCHES to change the value. This value determines the number of coins to be dispensed for a \$1 bill; twice the number of coins for a \$2 bill.
- S. Press the VALUE button, the display will show 50 PAY ____ MC MC MC. Use the COUNT SWITCHES BUTTONS to set the value to 20. Use the COUNT SWITCHES to change the value. This value determines the number of coins to be dispensed for a \$5 bill.
- T. At this point all the programming changes needed for the kit have been made, slide the function button down to the NORMAL OPERATING MODE. The display will indicate Storing New Data.
- U. The walking blue dash will begin scrolling. The two green arrows on the validator will begin blinking.

Non-Mc Mode

- A. Slide the BILL CHANGER CONTROL COMPUTER forward so it is easy to view the blue display and access the programming buttons.
- B. Slide the mode switch upwards to the programming mode, the display will read TEMP COUNTERS.
- C. Depending upon the vintage of the BILL CHANGER CONTROL COMPUTER, the FUNCTION button may be labeled as FUNCTION or FUNCTION-ERROR RESET. These instructions refer to the button as FUNCTION.
- D. Press the FUNCTION button, the display will read PERM COUNTERS.
- E. Press the FUNCTION button, the display will read PROGRAMMING _____. If a security code was entered earlier enter the code now.
- F. Press the FUNCTION button, the display will read MC PAYOUT. It must be set to OFF. Use either of the COUNT SWITCHES BUTTONS to set this option to OFF.
- G. Press the FUNCTION button, the display will read HOP VAL; the value of coins for the left hopper will be flashing. Press the VALUE button until the display reads T1.
- H. Press the HOPPER button; the display will advance to the center hopper. Press the VALUE button until the display reads T1.
- I. Press the HOPPER button; the display will advance to the right hopper. Press the VALUE button until the display reads T1.
- J. Press the FUNCTION button, the display will read ACCEPT 1; this is set to NO. The NO and YES options are toggled using the COUNT SWITCHES.
- K. Press the VALUE button, the display will read ACCEPT 2; this is set to NO.
- L. Press the VALUE button, the display will read ACCEPT 5; this is set to YES.
- M. Press the VALUE button, the display will read ACCEPT 10; this is set to NO.
- N. Press the VALUE button, the display will read ACCEPT 20; this is set to NO.
- O. Press the VALUE button, the display will read ACCEPT 25; this setting must be set to YES.
- P. Press the VALUE button, the display will read ACCEPT 25A; this setting is set to NO.

- Q. Press the VALUE button, the display will read ACCEPT 50; this is set to YES.
- R. Press the FUNCTION button, the display will show 25 PAY ____ ____ _____. Use the COUNT SWITCH BUTTONS to change the value for the left hopper to the number of coins to be dispensed when a \$1 bill is inserted. Press the HOPPER button to advance to the center hopper value. Use the COUNT SWITCHES to set the value to the number of coins to be dispensed when a \$1 bill is inserted. Press the HOPPER button to advance to the right hopper value. Use the COUNT SWITCHES to set the value to the number of coins to be dispensed when a \$1 bill is inserted. This value determines the number of coins to be dispensed for a \$1 bill; twice the number of coins for a \$2 bill.
- S. Press the VALUE button, the display will show 50 PAY ____ ____ _____. This value determines the number of coins to be dispensed for a \$5 bill. Use the COUNT SWITCHES BUTTONS to change the value for the left hopper to the number of coins to be dispensed when a \$5 bill is inserted. Press the HOPPER button to advance to the center hopper value. Use the COUNT SWITCHES to change set the value to the number of coins to be dispensed when a \$5 bill is inserted. Press the HOPPER button to advance to the right hopper value. Use the COUNT SWITCHES to change set the value to the number of coins to be dispensed when a \$5 bill is inserted. At this point all the programming changes needed for the kit have been made, slide the function button down to the NORMAL OPERATING MODE. The display will indicate Storing New Data.
- T. The walking blue dash will begin scrolling. The two green arrows on the validator will begin blinking.
- U. Insert several \$1.00 bills and then \$5.00 bills to confirm proper operation.
- V. You are finished.

Important Notes:

If you are technician and help with the kit, please open a single support ticket by emailing us at support@capitalvending.com. If the changer has been modified from factory stock and parts are required that are not on the Capital Vending website, let us know and we will do best to get you the part(s).

Take care to update the service records for this machine to reflect the work performed and components installed. There is no excuse for not maintaining proper records as there are likely only a few entries per year. Capital will assist technicians with our kits on a continual basis if service records are maintained.

If you need help with this kit, please contact us at support@capitalvending.com. When you contact us, include a detailed explanation of the issue and a copy of the machines service records as an attachment. Include the invoice number when the kit was purchased as this information is required so our technician has good information about your machine. Include pictures of a fitment issue if applicable.

In the event the issue is related to a component in the cabinet rather than the kit, then contact the manufacturer of the machine or local parts distributor as they will be able to help determine the part you need.

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Rowe BC 3500



Figure 1



Figure 2



Figure 3

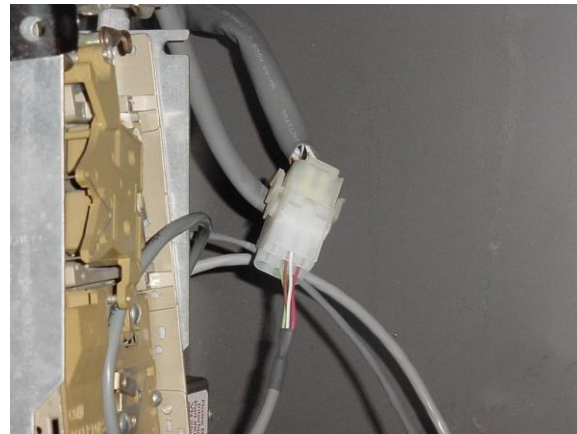


Figure 4



Figure 5



Figure 6