

SECTION 2:

INSTALLATION

INTRODUCTION

NOTE:

For both safety and security reasons, Rowe® strongly recommends that the Bill Changer be securely anchored to a wall or sturdy countertop. Please follow the mounting instructions provided in this manual.

This section provides instructions for installing the Century Series Bill Changers. To prevent theft, or the possibility of damage or injury should the Bill Changer fall, Rowe® strongly recommends that the Bill Changer be securely anchored to a wall or a sturdy countertop¹. The instructions that follow provide directions for a secure installation.

Before you begin any installation, be sure that a power source is available and that the changer can be mounted level. Choose a location that is easily accessible to customers, with enough room to open the Bill Changer door for convenient service.

Be sure that you read and understand the warnings and instructions in *Power Connection*, page 2-6, before making any electrical connections to the Bill Changer.

BILL CHANGER MOUNTING & SPECIFICATIONS

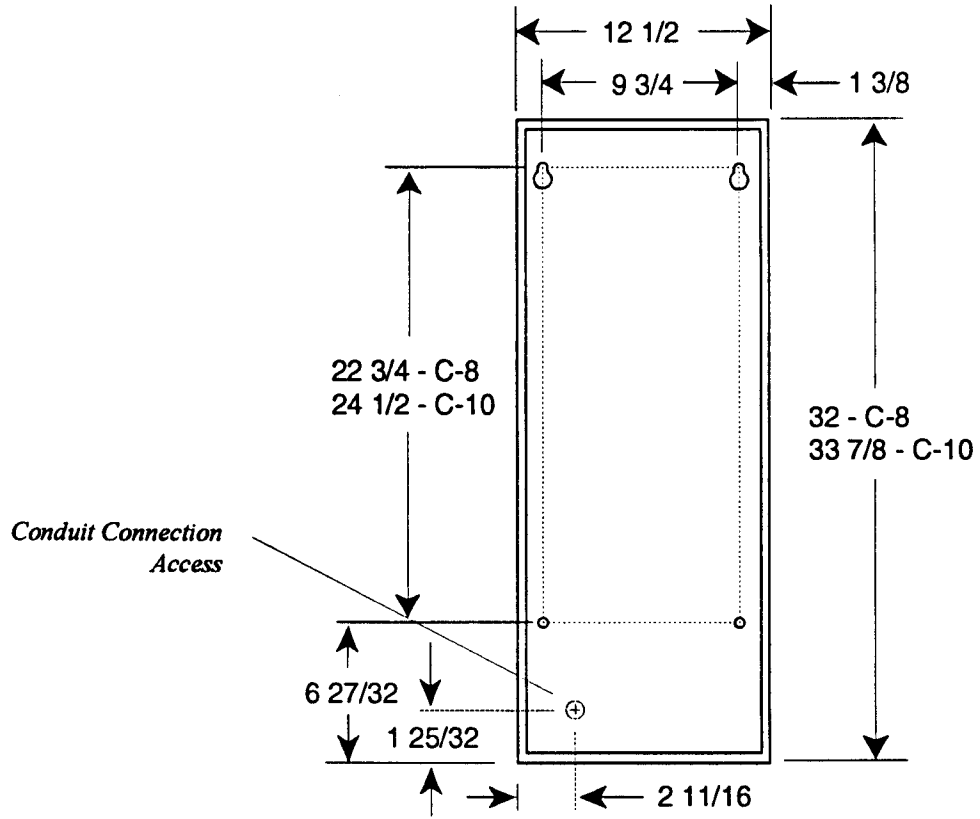
Figure 2-1 illustrates the Bill Changer mounting requirements and specifications, and provides dimensions for drilling.

To mount the Bill Changer, use four 3/8" minimum diameter lag screws (with flat washers) that are long enough to penetrate the counter or supporting surface of the wall at least 2 inches. For wood frame mounting, screw directly into the wall studs. For mounting to concrete or masonry walls, use lag screws with lead anchors.

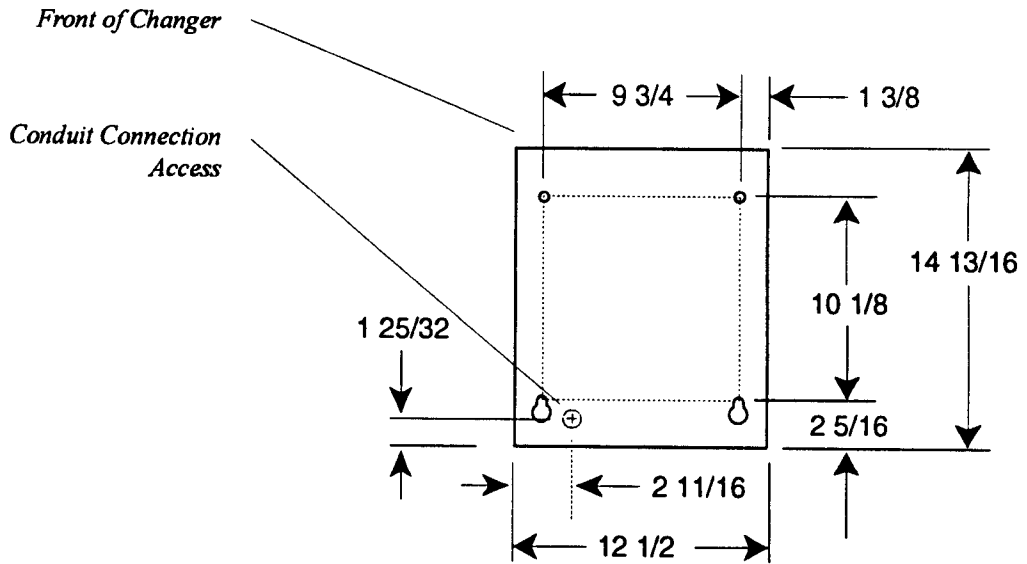
If the mounting surface is not even, you may need to add spacer washers between the mounting surface and the Bill Changer until the Bill Changer is level.

¹ Rowe® also offers two different mounting bases as options. See the Accessory Kits section for details.

Figure 2-1
C-8/10 Mounting
Diagrams

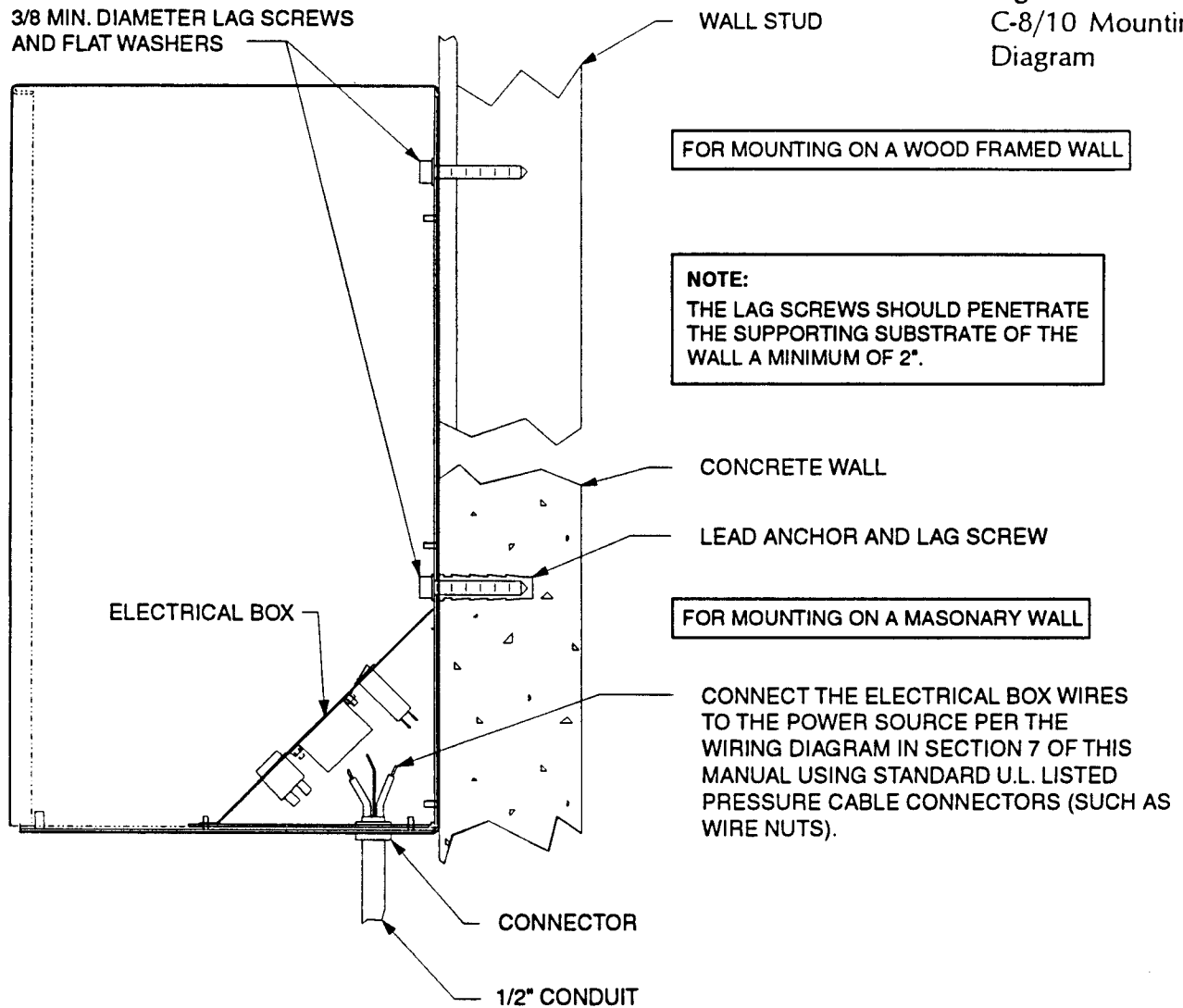


FRONT VIEW
Wall Mounting Dimensions



BOTTOM VIEW
Table or Countertop Mounting Dimensions

Figure 2-2
C-8/10 Mounting
Diagram



WARNING:

BE SURE THAT YOU READ AND UNDERSTAND THE WARNINGS AND INSTRUCTIONS IN THIS SECTION OF THE MANUAL BEFORE MAKING ANY ELECTRICAL CONNECTIONS.

THE CONDUIT CAN BE INSTALLED THROUGH THE BOTTOM OR THROUGH THE BACK BY REVERSING THE ELECTRICAL PLATES. THE POSITION OF THE POWER CORD CAN BE CHANGED IN THE SAME MANNER.

C-8/10 POWER REQUIREMENTS: 120 VAC (MIN. 105 VAC), 60 Hz, 4 Amps.
SHIPPING WEIGHT: 134/140 lbs. (220 or 240 VAC, 50 HZ optional), 2 Amps.

POWER CONNECTION

Always obey local codes and ordinances when making Power connection.

LINE CORD

On 120 VAC models, the Bill Changer power cord can be plugged into any standard three-hole 120 VAC outlet. Do not connect your Bill Changer using a two-pronged grounding adaptor. For 220V/240 VAC operation, install an appropriate connecting plug for your location, follow local safety codes and regulations, and make an earth connection to the case if allowed. To avoid possible voltage spikes that might effect the Bill Changer, do not operate any other high-wattage equipment on the same circuit with the Bill Changer.

The line cord comes factory installed through the back of the changer. Some installations require that the position of the cord be changed to run through the bottom of the changer. This can be done by removing the screws that hold the electrical box in place and reversing the electrical plates underneath (*Figure 2-2*).

CAUTION:

To avoid the hazard of serious electrical shock and/or damage to the Bill Changer, direct wiring to the Bill Changer should only be attempted by a person familiar with proper electrical wiring procedures.

CONDUIT

If the changer is rigidly mounted to a wall, U.L. requirements specify that a direct power connection be made to the changer through a rigid, 1/2 inch conduit.

If a conduit is required for your installation, remove the nuts that hold the electrical box in place, and disconnect the standard line cord and strain relief. The conduit connector will run through the 7/8" diameter round hole in the electrical plate. Position the electrical plates so that the conduit will run either out the bottom or the back of the changer — whichever suits your installation — while blocking off the unused hole.

To install the conduit, cut the connectors of the line cord leaving three inches of wire on each connector. Connect these electrical box wires to the power source per the wiring diagram in Section 7 of this manual using standard U.L. listed pressure cable connectors (such as wire nuts).

CAUTION:

To avoid serious electrical shock, disconnect power at the source before making any electrical connections.

Bill Acceptor Installation and Setup

If you purchased your Century Changer without a Rowe Bill Acceptor Installed, you will need to install the Bill Acceptor into the Changer. Align the Bill Acceptor that you have chosen over the four mounting studs on the door, and secure using the four Keys Hex head nuts provided with the changer.

Harness connections must then be made between the Bill Acceptor and the Changer Control Computer. The following harnesses are provided:

Harness Part Number	Bill Acceptor(s)
45108203 - Data 45108204 - Power	Mars® VN2501, LE3801, AL4L1 Coinco® BA30SA, BA50SA
45108205	CashCode® CSR-Series, CSB-Series
45108207	AstroSystems® VS2C Series

The Bill Acceptor must be set up to communicate in the Serial Interface mode. The DIP switch settings shown below **must** be used; other switches may be set as desired.

Model	Switch Settings
Mars®	AL4: Bank 1 - 1, 3, 4, 5 ON, Remainder OFF Bank 2 - All OFF GL4C: Bank 1 - 3, 4, 5 ON, Remainder OFF Bank 2 - All OFF LE3801: Bank 1 - 8 OFF VN2501: Bank 1 - 1 thru 6 ON, 7 and 8 OFF
Coinco®	BA30S, BA50S: 3 thru 8 ON
CashCode®	Switch 1 - 8 OFF
AstroSystems®	VS2C: DIP 1 - 8 ON, Remainder OFF DIP 2 - 7 ON, Remainder OFF

For reference purposes, the Rowe CBA-4 requires the use P/N 45108201 Harness and the RBA-7 requires a P/N 45108208 Harness. Refer to the respective Interface Instructions manual and set the acceptors for the Serial Interface with Handshaking mode of operation.

SECTION 3:

LOADING & AUDITING

INTRODUCTION

This section provides instructions for loading and unloading the Century Series coin hoppers.

LOADING THE BILL CHANGER

NOTE:

The hoppers may be loaded with coins or tokens within the diameters specified – but different coin types may not be mixed in the same hopper.

Refer to Section 4: PROGRAMMING to change the default coin payout.

Loading the hopper is easiest when the coins are delivered via a coin bag. Hopper capacities vary depending on the machine model, hopper type, and coin/token size. Tables 3-1 and 3-2 give approximate capacities.

C8 Hopper Capacities

Hopper Type	Dimes 17.9mm	Nickels 21.21mm	Quarters 24.25mm	.984" Tokens 25mm	SBA \$1/ Canadian \$1 26.5mm	Canadian \$2 (1.10") 27.95mm	1.125" Tokens 28.57mm
65094907 (Small Coin)	5000	2400	2100	N/A	N/A	N/A	N/A
65094908 (Large Coin)	N/A	N/A	1850	1600	1400	1200	1000

Table 3-1

C10 Hopper Capacities

Hopper Type	Dimes 17.9mm	Nickels 21.21mm	Quarters 24.25mm	.984" Tokens 25.0mm	SBA \$1/ Canadian \$1 26.5mm	Canadian \$2 (1.10") 27.95mm	1.125" Tokens 28.57mm
65092903 (Small Coin)	8000	4000	3400	N/A	N/A	N/A	N/A
65092904 (Large Coin)	N/A	N/A	3200	3000	2200	2100	1800

Table 3-2

LOADING THE HOPPERS

Refer to Figure 3-1 and load the hopper as follows:

1. Open front door and pull the hopper(s) out against the bail rod.
2. Twist the top of a full coin bag one full turn. Grasp the twisted top with one hand and hold the bottom of the bag with the other. Invert the bag and insert the top into the mouth of the hopper.
3. Slowly release the twist as the bag empties. Avoid spilling coins into the changer. When the bag is almost empty, grasp it at the bottom and shake it to dislodge coins tucked in the folds of the bag.
4. Repeat Steps 2 and 3 with the second hopper.

Figure 3-1.
Hopper Loading

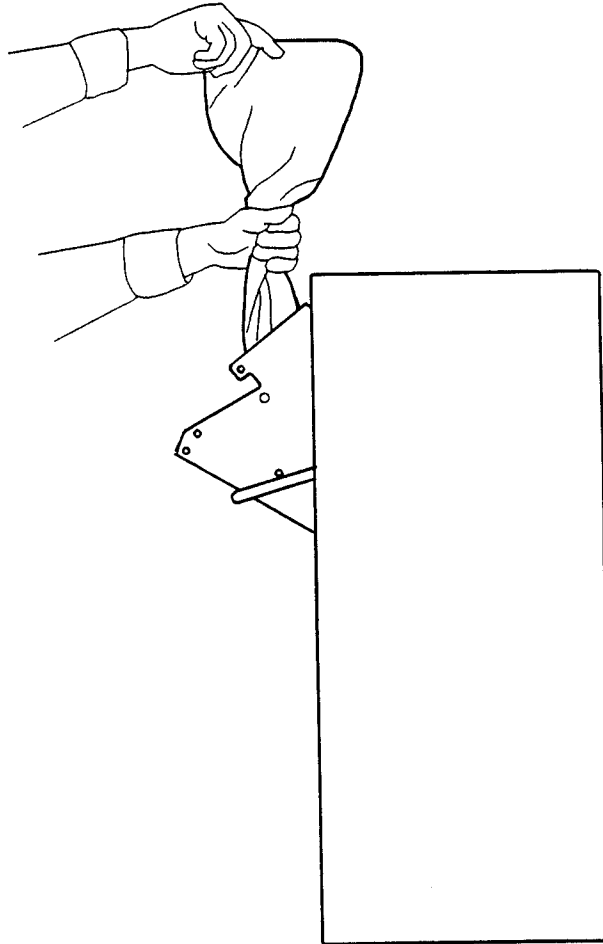
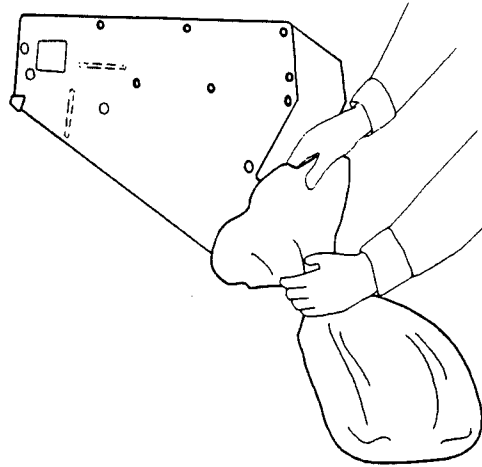


Figure 3-2
Emptying the
Hopper



UNLOADING THE HOPPERS

1. Open the door.
2. Lift the right side of the bail rod upward until it disengages from the cabinet.
3. Pull the right side of the rod out of the hole and remove the rod completely from the cabinet.
4. Carefully pivot the hopper outward until a coin bag can be installed over the top of the hopper. Hold the bag tightly and slowly tip the hopper down until it contacts the rap rod. *Figure 3-2.*
5. Move the hopper up and down on its pivots a few times to completely dislodge all of the coins in the hopper.
6. Repeat Steps 4 and 5 with the second hopper.

Auditing

There are three pieces of information needed in order to thoroughly audit your bill changer. The amount of cash removed from the bill box (and coin box if you have a coin acceptor) should match the difference in money counter readings. Also, the difference between the number of coins (or tokens) initially loaded in the hopper and the remaining number should match the total cash removed multiplied by the number of coins or token paid per unit of cash input. An example follows:

Initially

Accepts: \$1, \$5, \$10 and 25¢

Payout: Tokens (.984") (1 for 25¢, 4 for \$1, 24 for \$5, 50 for \$10)

Initial Hopper Load: 6,000 coins (3,000 each hopper)

Initial Counter Reading: 047233

At Service Interval

Intake Check:

Removed:	40 x .25 = \$ 10
	154 x \$1 = \$154
	105 x \$5 = \$525
	38 x \$10 = \$380
	Total Intake = \$1069

Counter Reading: 048302

Counter Difference 48302 - 47233 = 1069 ✓

Coin Count Check:

Hopper Contents: 924 Tokens (Remaining in both hoppers)

Should have dispensed:	40 x 1 = 40
	154 x 4 = 616
	105 x 24 = 2520
	38 x 50 = 1900
	Total = 5076

Actual dispensed:	6000 (initial)
	- 924 (remaining)
	5076 ✓