

# Instructions for 5235A Conversion Kit for Rowe BC 12 to a Mars Validator with Slider Bracket

**READ INSTRUCTIONS COMPLETELY BEFORE BEGINNING INSTALLATION**  
**TURN OFF POWER AND UNPLUG THE BILL CHANGER**  
**BEFORE BEGINNING INSTALLATION**

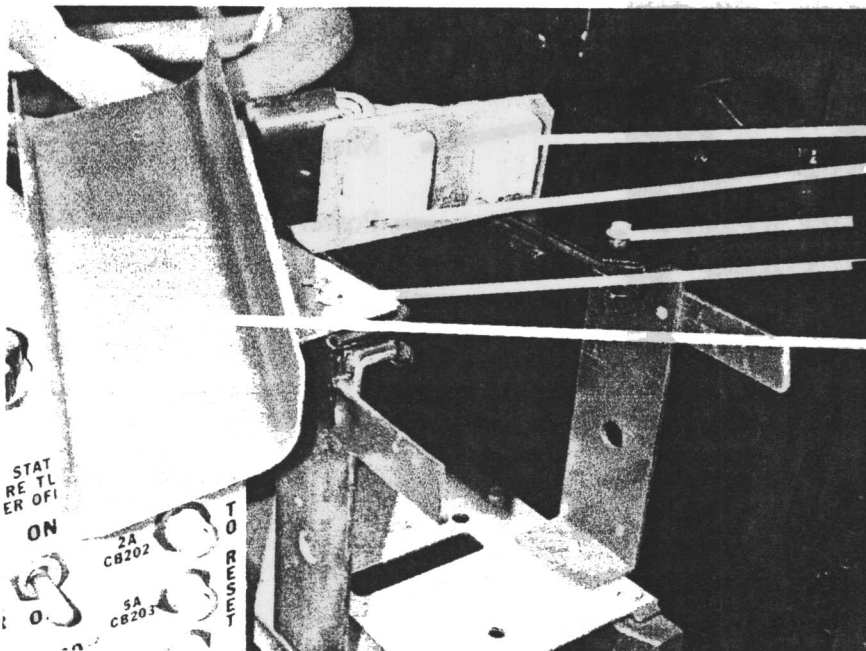
**REQUIRES MARS AE2611U7E with 700 Stacker (300, 500 Stacker optional) for BC-12**

## Step 1 Inside The Bill Changer

- A. Lift and Remove Hoppers.
- B. Unplug the bill transport plugs (Figure 1).
- C. Remove the bill transport by sliding along the rails and unlatching the catches.
- D. Unscrew the 4 screws holding the stacker assembly (2 at the top of the stacker assembly, 2 at the bottom). Remove the stacker assembly by sliding out along the rails and unplugging the 8 pin plug from the rear.

**NOTE: If you have a dual stacker, remove the adapter harness. You will be using a new harness included with the kit later in the installation.**

- E. Remove the coin chute.



**Figure 1**

Bill Transport  
Plugs

Screws to hold  
stacker assembly

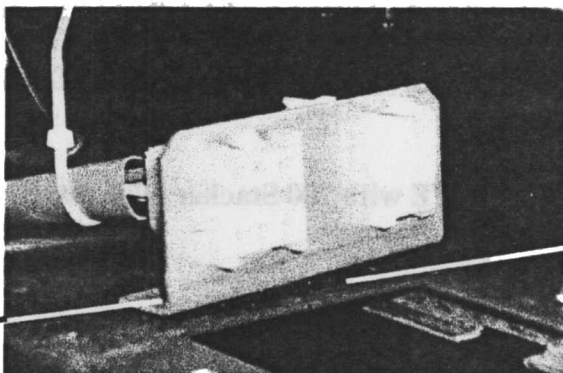
Coin Chute

- F. Unscrew the bracket holding the bill transport plugs and reattach using the 2" piece of velcro included with the kit (Figure 2).

**Figure 2**

Close up view of bill transport plugs

Screw here and one on right side replaced by velcro



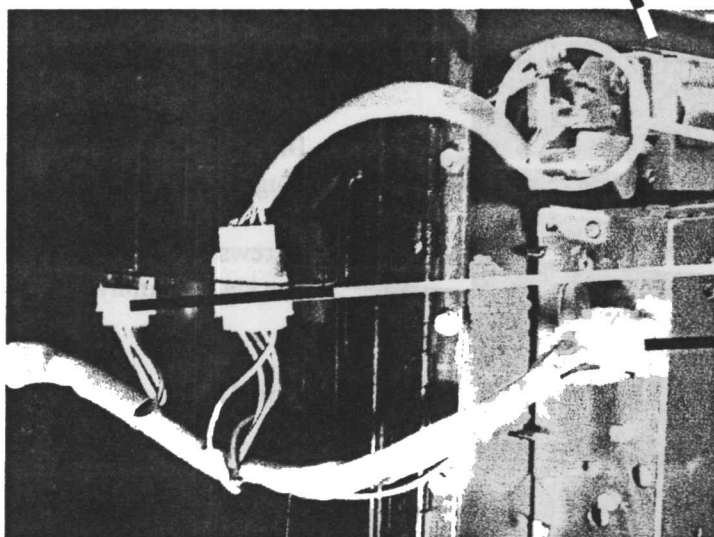
velcro

- G. Disconnect the coin acceptor plug and the power plug to the control box (See figure 3).
- H. Disconnect the 2 wires attached to the microswitch on the door that controls the money return handle. Tape ends of wire separately and tie these off using electrical tape.
- NOTE: Failure to disconnect these wires could result in the customer losing his money.**

**Figure 3**

Right hand, inside wall of bill changer

Door



Microswitch

Power Plug to Control Box

Coin Acceptor Plug

## STEP 2 Installing 5189 Control Board Harness

- A. Slide the control board of the machine out and unplug the harness currently going into the P2 position on the control board (Figure 4) .
- B. Plug the 11 pin connector of the 5189 harness into the open P2 position on the control board (Figure 5).
- C. Plug the original harness going into P2 into the 5189 connector now in P2 (Figure 6). The other end of the 5189 Harness will plug into the matching connector on the 5220 Main Box Assembly installed in Step 4 on Page 6.

Figure 4 Control Board slid out for installment of 5189 Harness into P2 position

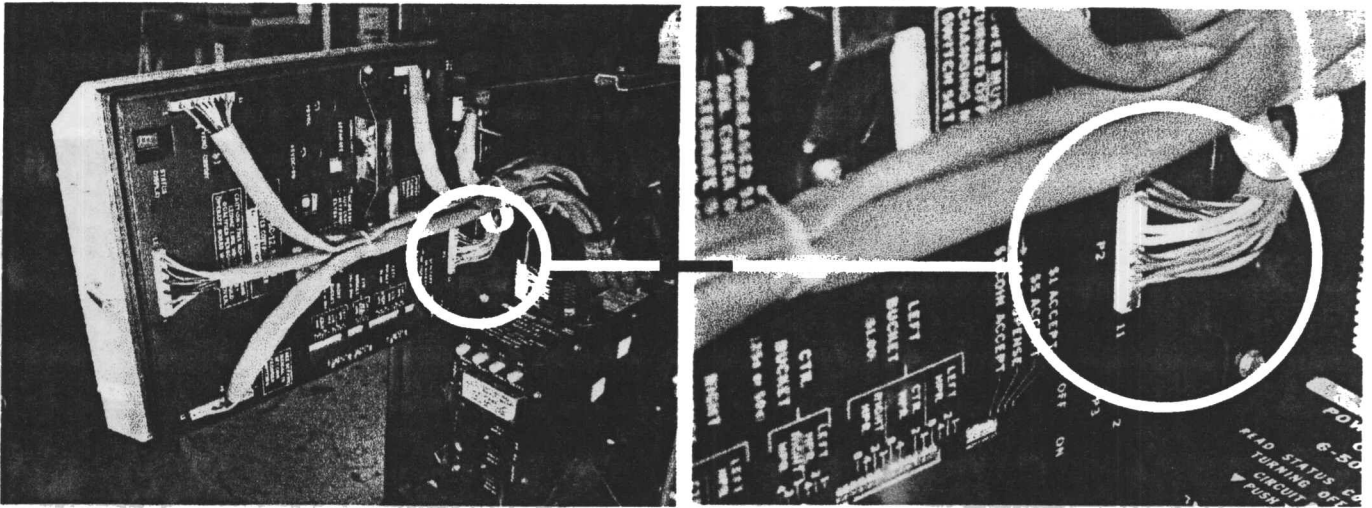


Figure 5 Shows 5189 Harness plugged into P2

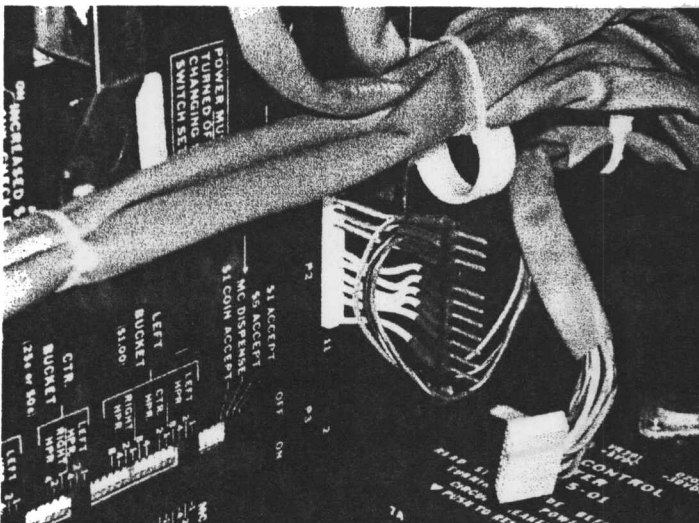
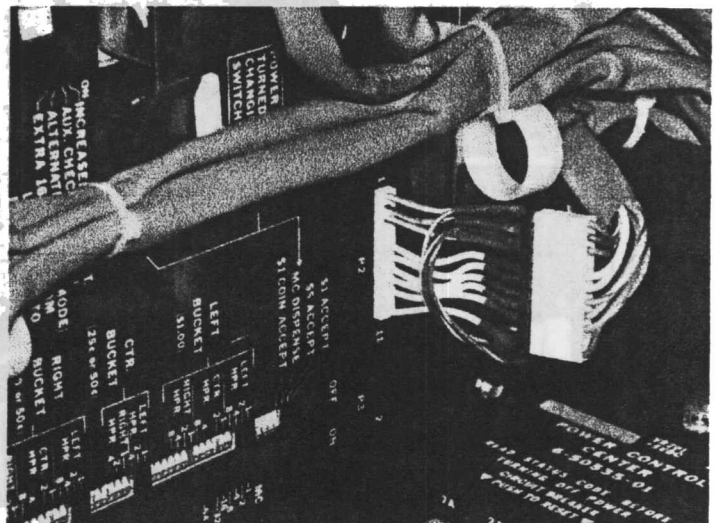


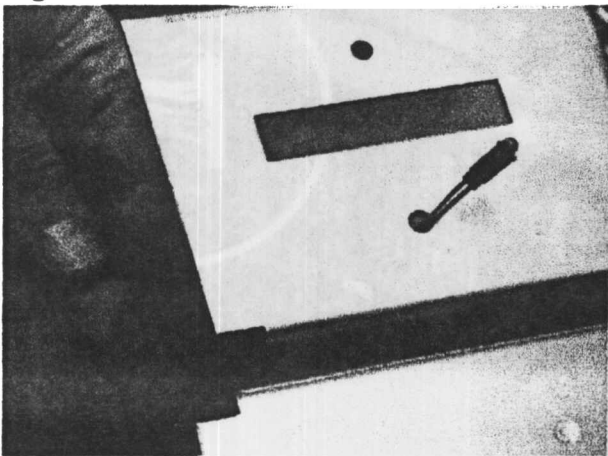
Figure 6 Plugging original harness into 5189 Harness



### Step 3 Install Mars Validator

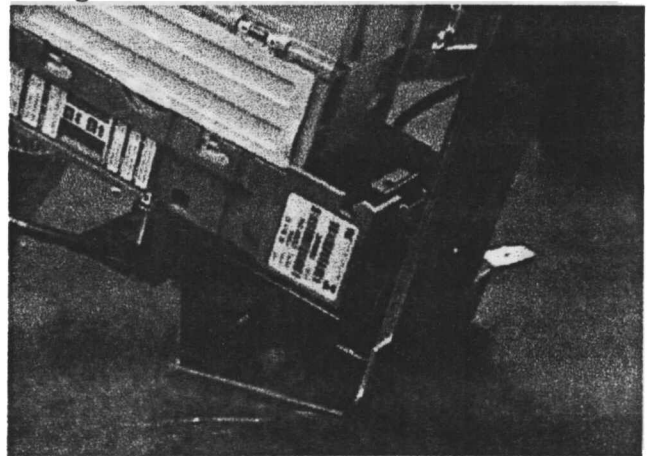
- A. Set the following switches of the Mars validator to the ON position: 1, 2, 3, 8.
- B. Unplug the indicator light attached to the 5220 Main Box Assembly and insert into the hole located below the acceptor slot for the bill acceptor (for the purpose of this kit, you may ignore the hole above the bill acceptor slot-it will get covered by the label) See Figure 7. Use the clip with the kit to hold light in place.
- C. Attach the two adhesive backed clips to the underside of the slider bracket. The will be used to direct wires away from the validator later in the installation.
- D. Mount the Mars validator upside down to the slider bracket included with the kit (Figure 8). This bracket simply slides on the tracks where the stacker was located before being removed in Step 1E (Figure 9).

Figure 7



Inserting indicator light into slider bracket

Figure 8



Mounting validator to the slider bracket

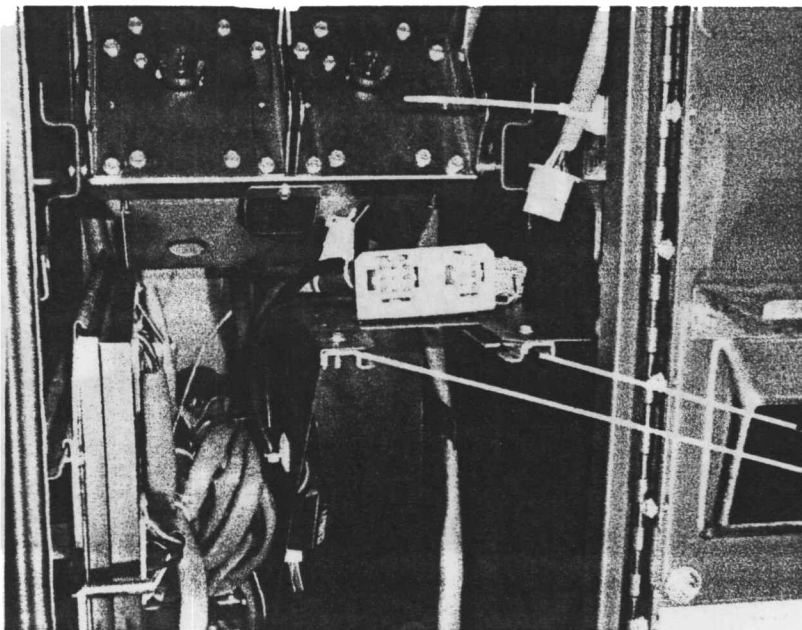
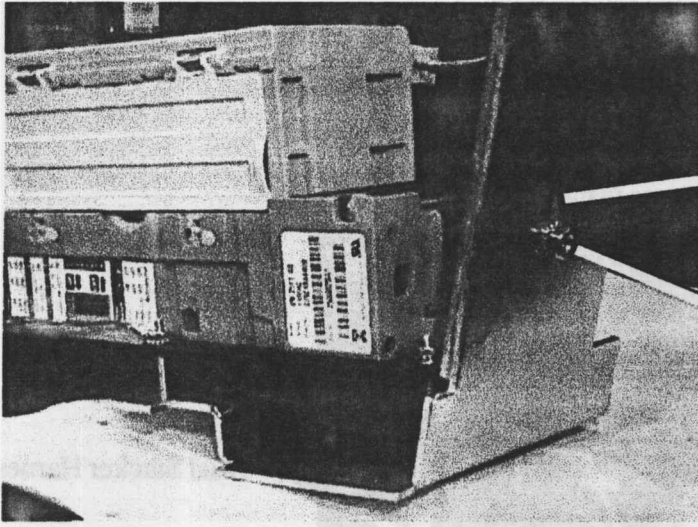


Figure 9

Slider bracket for validator will fit into these tracks (rails)

- E. The slider bracket included with the kit is adjustable using the slot located on the top of the bracket. Insert the carriage bolt included so that it is coming up from underneath the bracket and attach the hex nut to hold it in place(Figure 10). Then insert the bracket in the bill changer and close the door (Figure 11). Make adjustments as necessary to the carriage bolt/hex nut so that the door closes but is snug against the door (See Figure 12). Tighten the hex nut when satisfied.
- F. Affix the label to the front of the slider bracket.
- G. Put the slider bracket/validator assembly to the side.



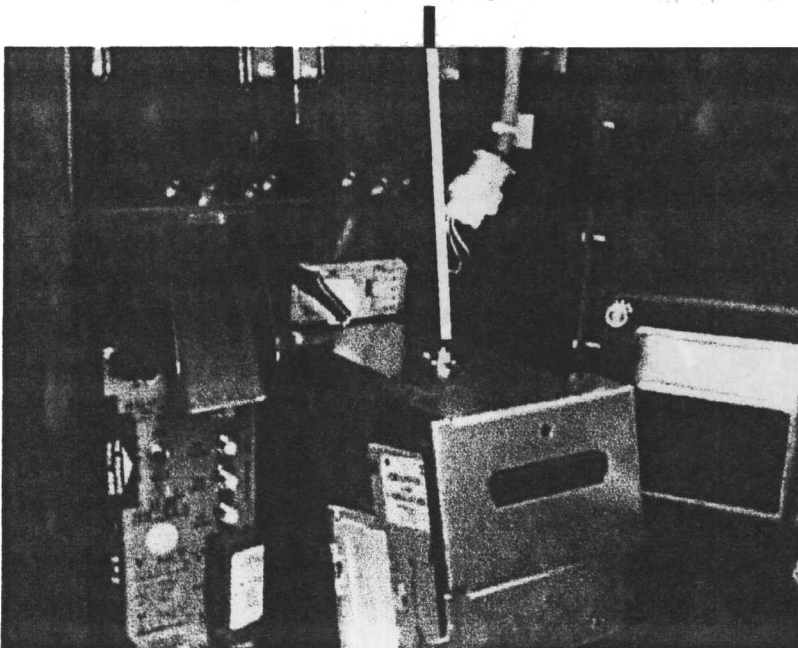
**Figure 10**

Adjusting Slot

Carriage Bolt is inserted underneath the bracket and hand tightened to the hex nut and lock washer included with the kit.

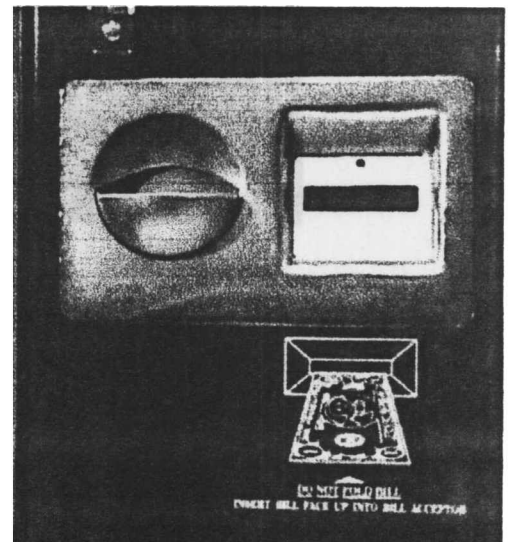
**Figure 11**

Hex nut and carriage bolt act as a stop against the metal holding the transport plugs



**Figure 12**

View of bill changer with door closed and slider bracket snug up against the door.



**Step 4-1 Install the Power Harness (5186)**

**For BC-12 Single Stacker (For DUAL Stacker skip to Step 4-2)**

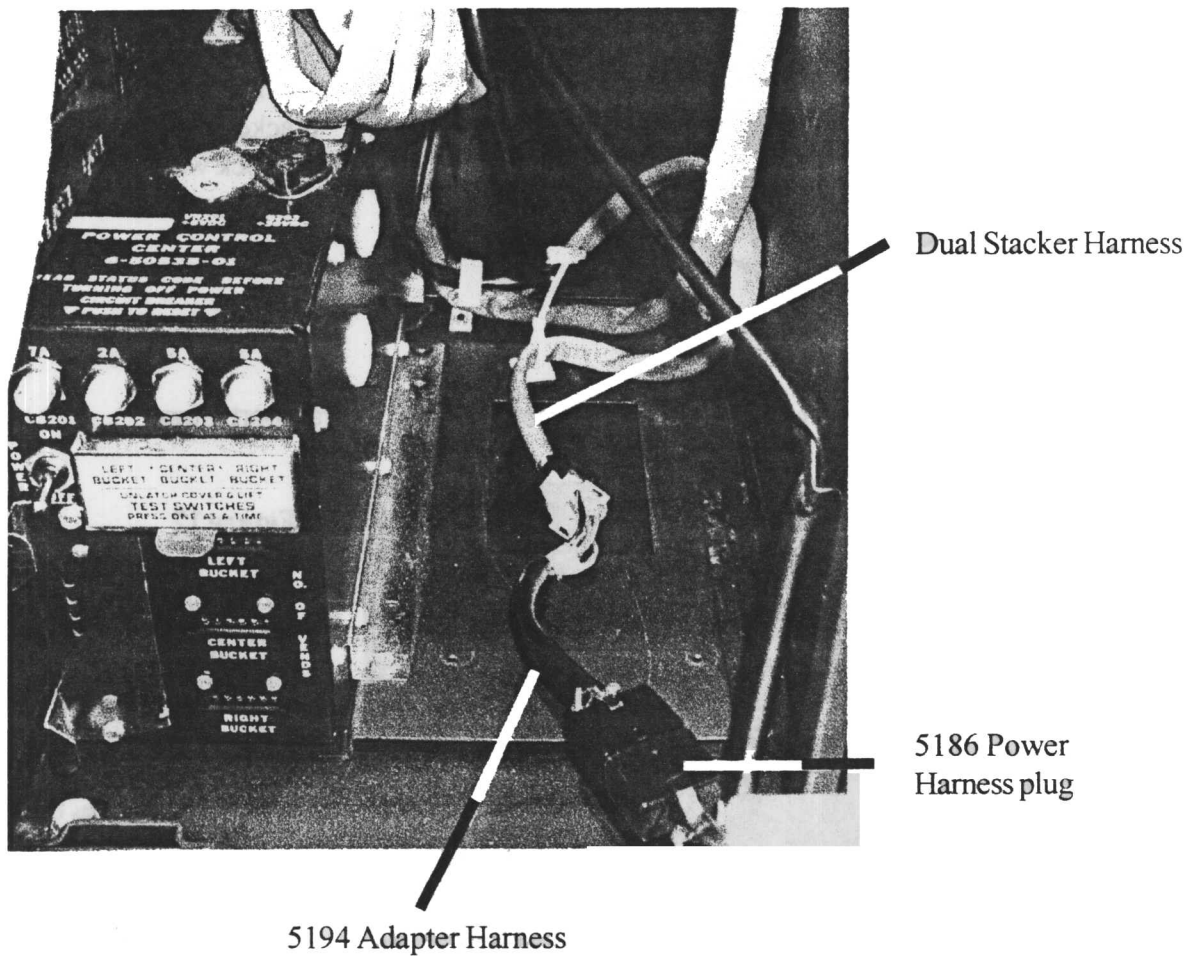
- A. Plug the 8 pin connector from the 5186 110V power harness included with the kit into the stacker plug. The other end plugs into the Mars Validator. **Skip STEP 4- 2 and go to STEP 5, Page 7.**

**Step 4-2 Install the Power harness ( 5186)**

**FOR BC-12 Dual Stacker**

- A. Attach one end of the 8 pin female jones plug of the adapter harness included with the kit into the 8 pin male connector of the 5186 power harness.
- B. Plug the other end of the adapter harness into the stacker plug.
- C. The other end of the 5186 power harness now plugs into the Mars Bill Acceptor.

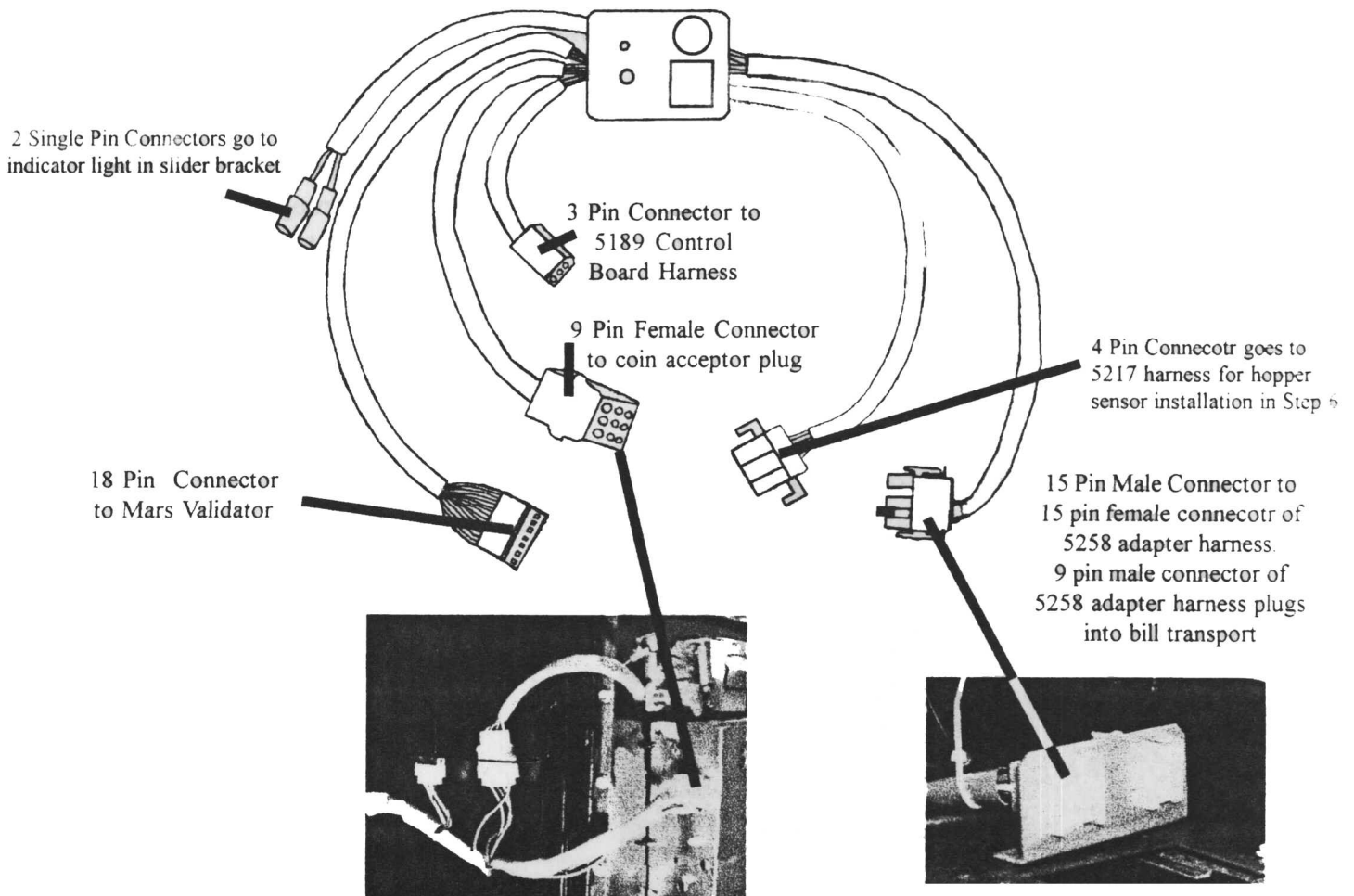
**Figure 13 5194 Adapter Harness installed**



## Step 5 Main Box Assembly (5252) Installation-Figure 14

- A. Unplug the 9 pin harness from the coin mechanism and plug the **female** 9 pin connector from the main box assembly into the appropriate 9 pin male connector.
- B. Attach the 15 pin female end of the 5258 adapter harness to the 15 pin male plug of the 5252 Main Box Assembly. Attach the 9 pin male end of the 5258 adapter harness to the 9 pin female bill transport plug as shown below.
- C. Plug the 18 pin connector from the main box assembly into the side of the Mars validator.
- D. Plug the 3 pin connector into the matching end of the 5193 Harness.
- E. Plug the two wires single pin wires from the indicator light into the matching red and black single pin wires from the 5252 Main Box Assembly (red to red - black to black).
- F. Plug the open end of the 5186 Harness from Step 4B into the Mars validator. Run the wires from the validator back through the clips installed on the underside of the slider bracket.

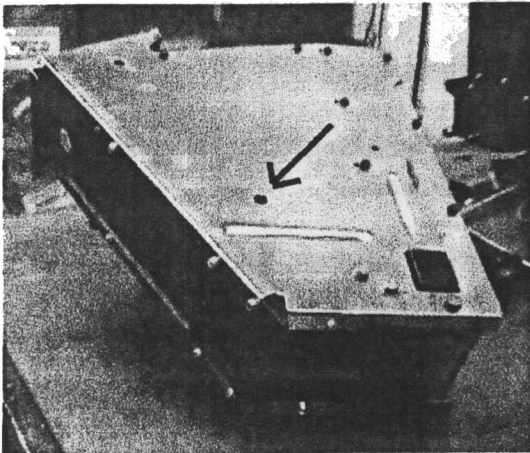
**Figure 14 5252 Main Box and Harness Assembly**



## Step 6 Hopper Sensor Installation

- A. Take one of the empty hoppers and lay down flat on its left side so that the right side of the hopper is facing up. See Figure 15.
- B. Locate one of the adhesive backed squares included with the kit. Peel the back off and place over the hole located near the bottom of the hopper side so that the hole in the square is centered over the hole of the hopper side. Press down firmly so that the square sticks to side of hopper. See Figure 16.

Figure 15



The arrow is pointing to the hole where the hopper sensor will be attached.

Figure 16

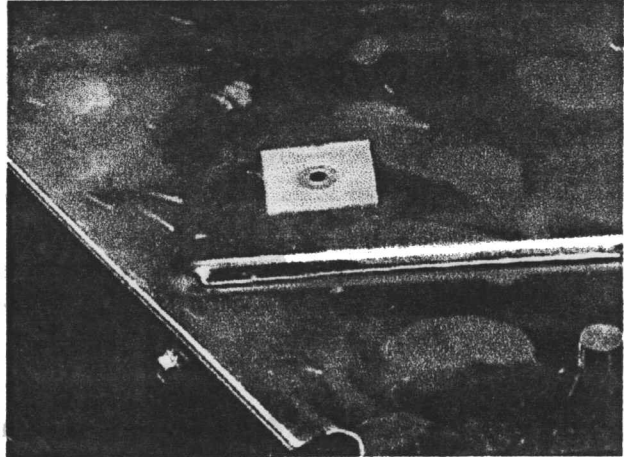
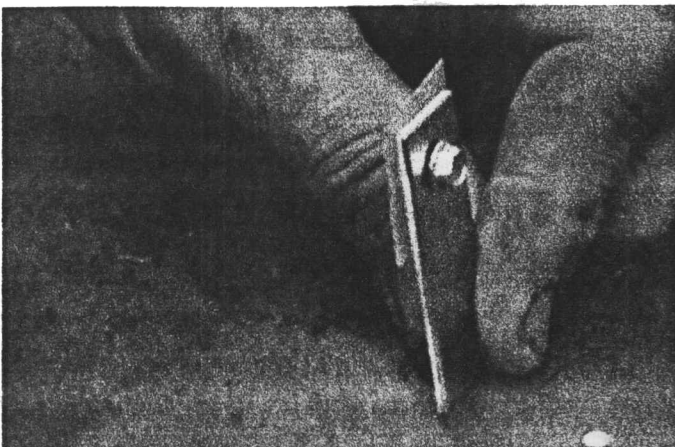


Photo shows placement of adhesive backed square with its hole centered over the hole located on the side of the hopper.

- C. Locate another the of the adhesive backed squares, a washer, and one of the #8 screws included with the kit. Put the screw through the hole of the washer first and then through the square.  
**NOTE: For HIGH capacity hoppers, use the metal tab with double sided tape instead of the washer. This allows the sensor to go further down into the hopper (Figure 17).**

Figure 17 For HIGH capacity hoppers



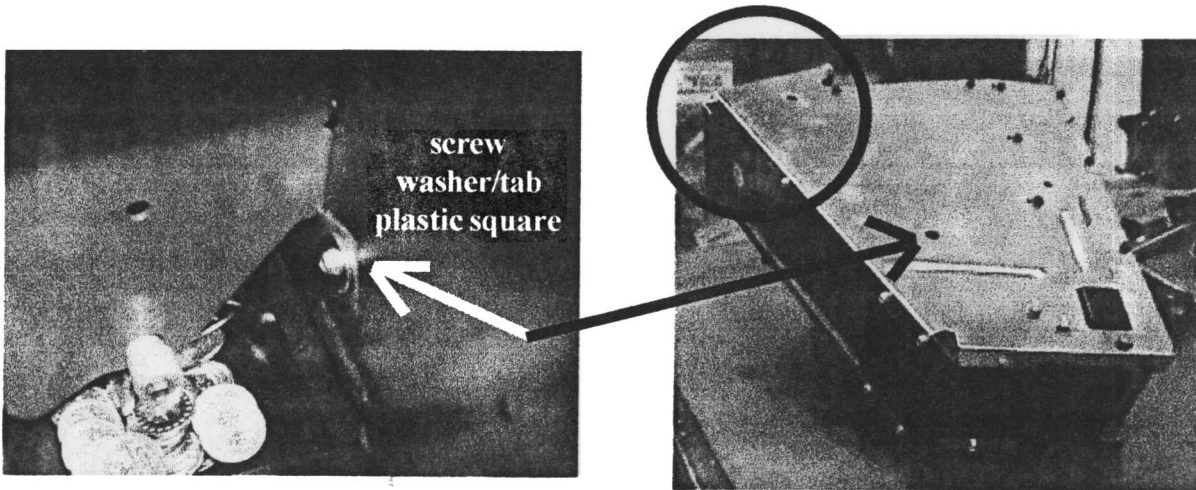
Metal tab with screw shown going through the tab and the adhesive backed square before being placed inside the hopper .

For REGULAR hoppers, the washer goes in place of the metla tab shown here.



- D. Peel off the backing from the square. Take this assembly and reach down into the hopper and place the screw through the side of the hopper and the square affixed to the side of the hopper in Step 6B (Figure 18). The head of the screw is inside the hopper.

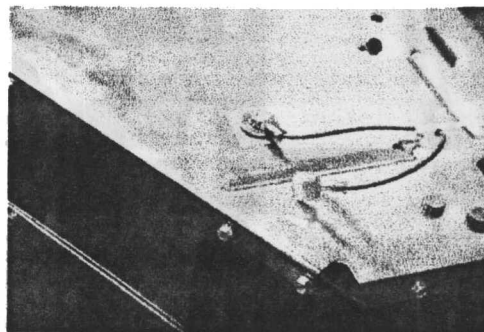
**Figure 18 View looking into hopper from top opening**



View looking into the hopper from the top opening in the right hand photo. Shows the washer in place to act as a sensor when the coins are low.

- E. From the outside of the hopper, place a washer over the screw, then the ring terminal end of the 5217B wire and finally tighten down with the keps nut included with the kit. See Figure 19.

**Figure 19**

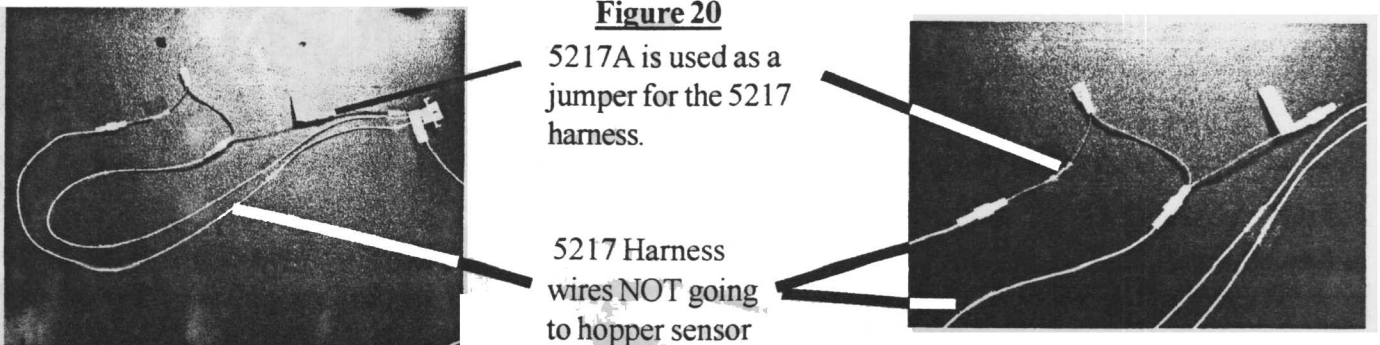


Outside view of hopper with sensor wire in place.

- F. One of the connectors from a white wire on the 5217 harness will attach to the 5217B wire just installed. The other two white wires from the 5217 harness are jumped out using the 5217A harness (Figure 20). The other end of the 5217 harness will connect to the Main Box Assembly (Page 7).

**NOTE: It is not required to hook up hopper sensors to both hoppers. An extra 5217B lead wire and the other necessary components are included if you so desire.**

**Figure 20**

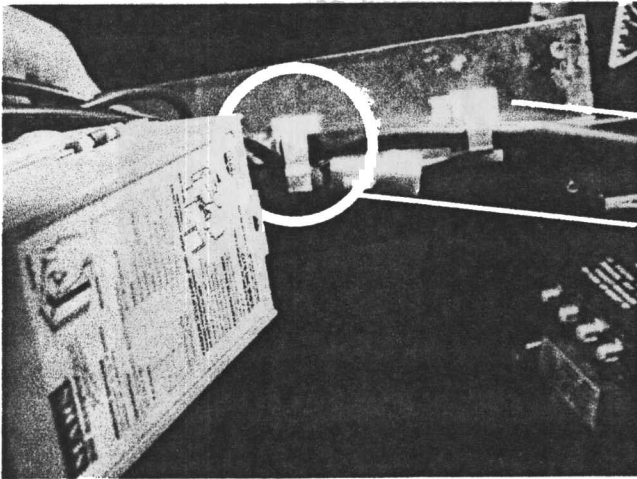


5217A is used as a jumper for the 5217 harness.

5217 Harness wires NOT going to hopper sensor

**Step 7 Dress the Harnesses**

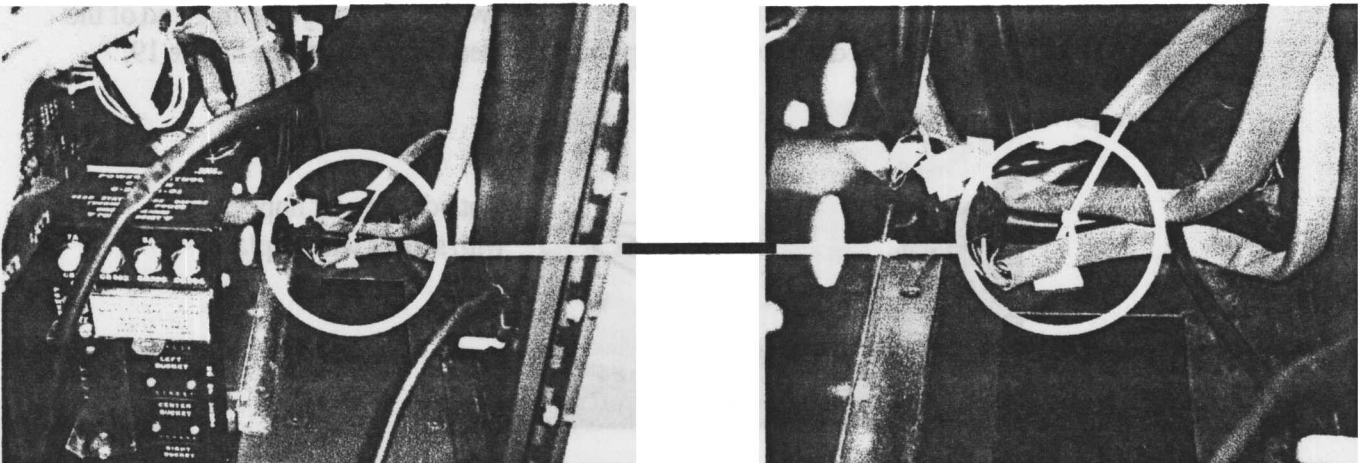
- A. Attach the 2 of the clips included to the underside the slider bracket and run the two harnesses from the validator into the clips (Figure 21).
- B. Use the enclosed cable ties, cable tie holders and clips to dress wires out of the way(Figures 22, 23).



**Figure 21**

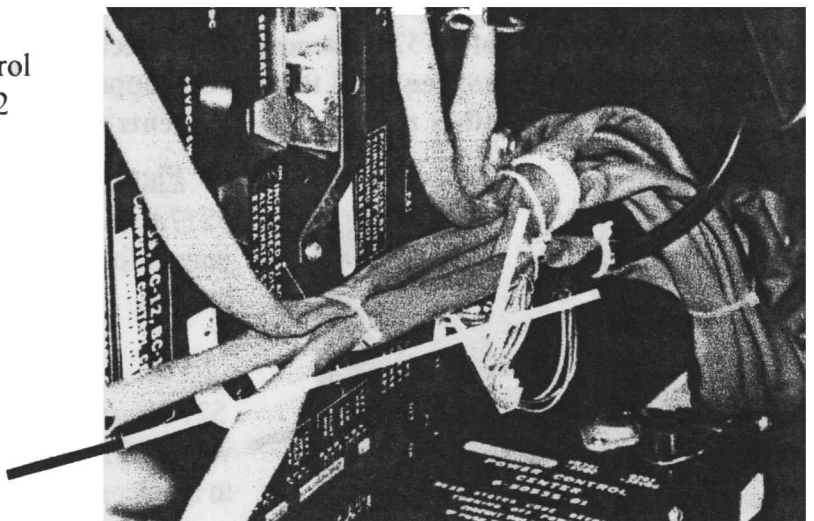
4652 Clips attached to underneath of slider bracket and harnesses running through the clips to avoid them getting in the way of the stacker.

**Figure 22** Cable Tie and holder in place in back of bill changer cabinet.



**Figure 23** Cable ties in place for 5189 Control Board Harness installed in Step 2

5189 Harness with cable ties in place

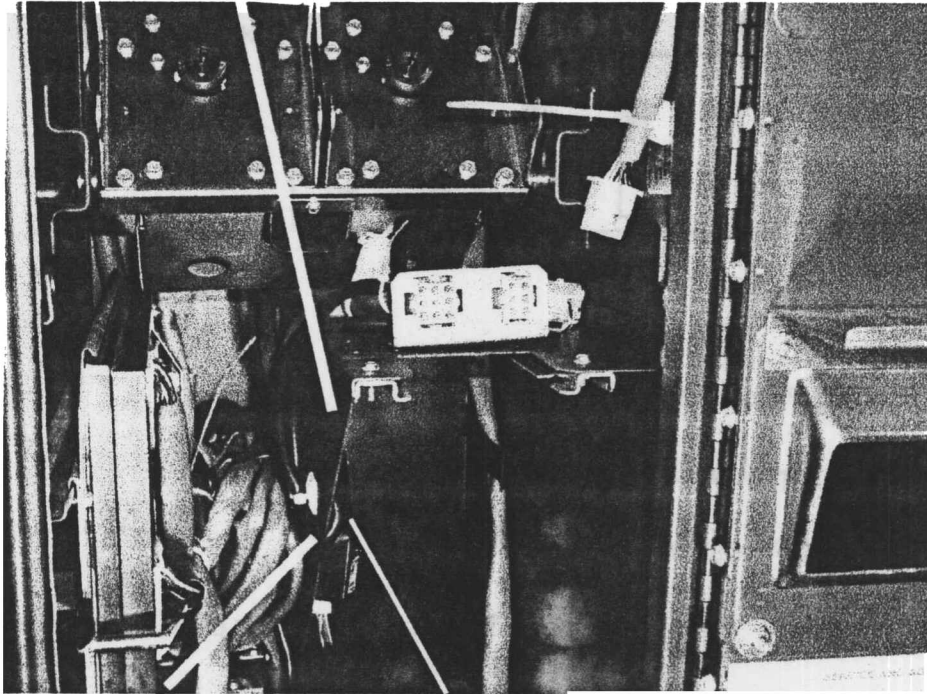


## Figure 16 MOUNTING THE 5252 MAIN BOX ASSEMBLY

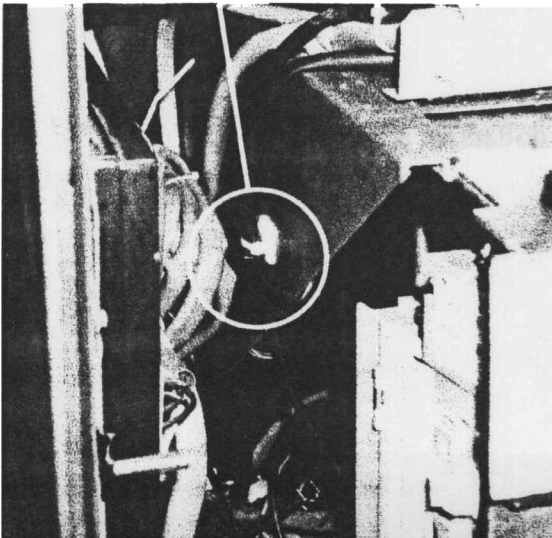
Mount 5252 Main Box to the right side of divider wall of bill changer using clips. Use cable tie and holder to run wire along the left side of the divider wall (Figure 24).

Figure 24

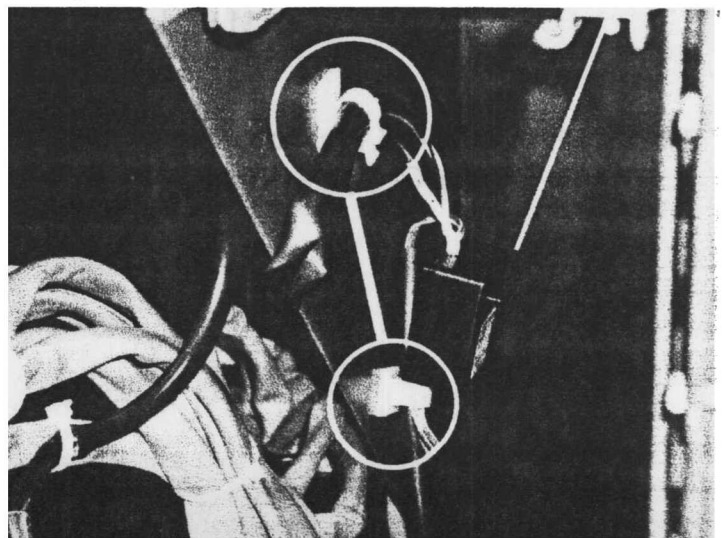
Divider Wall



Left Side of Divider Wall



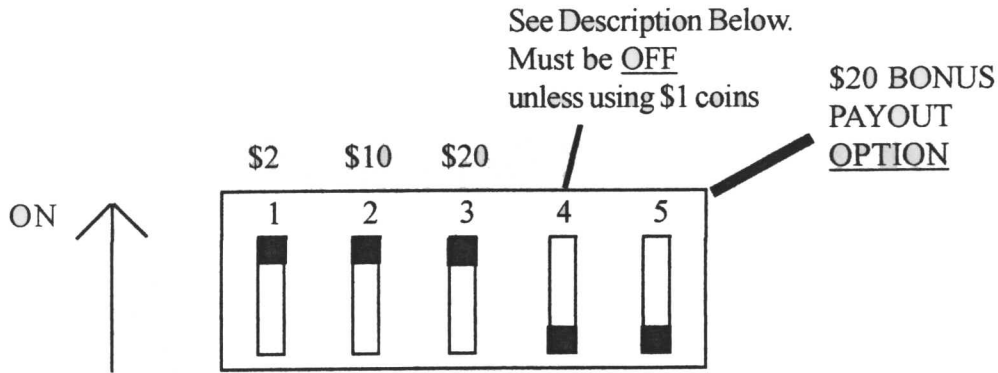
Right Side of Divider Wall



5252 Main Box

### Step 9 Settings for Dip Switch on 5252 Main Box Assembly and Control Board

The 5252 Main Box Assembly has a series of 5 Dip Switches. The \$1 and \$5 payouts are always ON. The other four switches are for the following:



SWITCH 1: Turns \$2 Payout OFF and ON

SWITCH 2: Turns \$10 payout OFF and ON

SWITCH 3: Turns \$20 Payout OFF and ON

SWITCH 4: When OFF: \$10 is paid in two-\$5 payouts and \$20 is paid in four-\$5 payouts  
The 25 cent bucket = 25 cents

**NOTE: SWITCH 4 can only be ON in a BC-11/12/20/25/35 when used with \$1 coins. Otherwise, SWITCH 4 must be OFF**

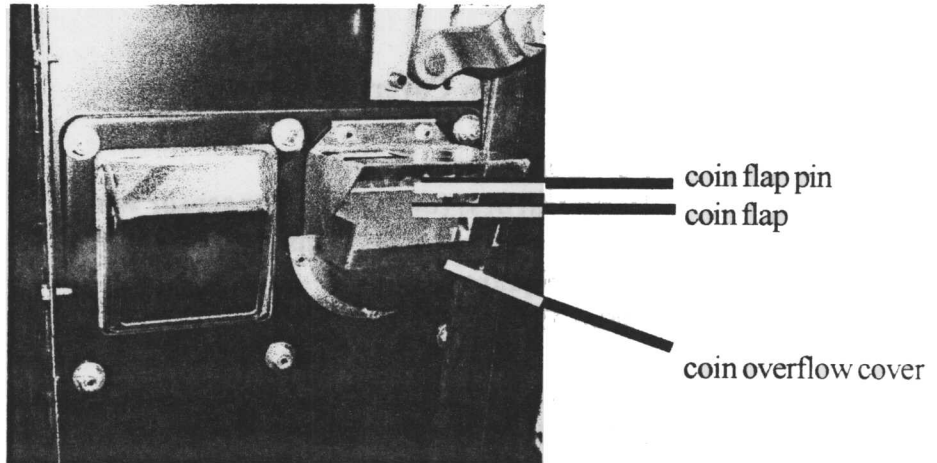
When ON: \$10 is paid in one-\$10 payout and \$20 is paid in two-\$10 payouts  
The 25 cent bucket = \$1 and  
The \$1 Bucket = \$10

SWITCH 5: When ON, pays out an extra \$1 for \$20 (i.e. \$21 dollars for a \$20 bill)  
When OFF, pays out \$20 for a \$20 bill.

**Step 8 Install the coin flap and coin return cup cover (prevent overflow of coins)**

- A. Remove the existing coin flap by straightening and removing pin. Place new cover on pin and return to the door (Figure 25).
- B. Remove the two nuts holding the existing coin cup in place and attach the coin cup cover using those hex nuts to the existing coin cup. Make sure the coin chute lines up with the cover.

**Figure 25**  
View of door with  
coin overflow cover  
in place.



**Step 11 Put coin chute and hoppers back in place**

- A. Put hopper back in place.
- B. Reinstall the coin chute removed in Step 1.

**Step 12 Test vend the unit**

**Parts included with kit:**

<b>Part Number</b>	<b>Description</b>	<b>Qty.</b>
5252	Main Box Assembly w/indicator light	1
5186	Power Harness-110V	1
5189	Control Board Harness	1
5194	Dual Stacker Harness	1
5258	Adapter Harness	1
5184	Slider Bracket	1
5225	Label-Insert Bill Here	1
5213	Coin Flap	1
5214	Coin Overflow Cover	1
5217	Low Coin Sensor Harness	1
5217A	Daisy Harness (unused hopper sensor wires)	1
5217B	Lead Wire for Hopper Sensor	2
5223	Plastic Square with Hole	4
5224	Metal Tab with double sided tape	2
5222	Label-\$1, \$5, \$10, \$20	1
5222A	Label-\$1, \$5, \$10	1
5227	Label-ATTENTION	1
<b>Hardware:</b>		
4601	Cable Tie-5 1/2"	6
4650	Tie Mount	6
4652	Clip with adhesive	6
7207	Keps nut-8-32	4
7344	Carriage Bolt-1/2"	1
7260	Hex Nut-1/4-20	1
7261	Lockwasher-1/4-20	1
7343	Screw-8-32	2
7207	Keps Nut-8-32	2
MIS815	WASHER	4
MIS 492	Velcro-Hook	2"
MIS 493	Velcro-Loop	2"