

Installation of 5-Wide 7th Tray for AP6000XL, 112, 122, and 122A, B, & C

*Important Note: Please read all instructions thoroughly before continuing with installation of kit. If you are having problems installing the kit, please call **1-800-321-2311** and select **option 3 for Support**.*

WARNING: Prior to installation, turn the power off to the vending machine and unplug it from its power source

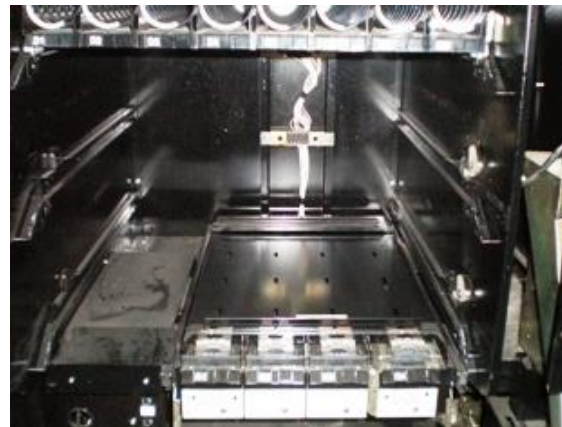
Tools Required
Phillips Screwdriver or Cordless Screwdriver
Pliers
Drill
1/8" Drill Bit
Flashlight
Electrical Tape

Rail Replacement Part Numbers	
Item	Part #
Standard Rail	VE8470D
Certs Rail	VE8470E
Coil Guide	VE8450L
Halls Rail	VE8450J

1. Remove the two trays located above the gum and mint tray (Figure 1).



Before



After

Figure 1

Remove the Factory Gum and Mint Tray

Figure 2A

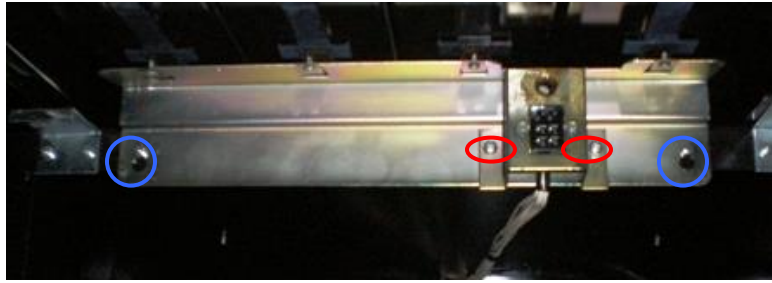


Figure 2B



For AP 6000XL, 112, 122 (No letter designation)– Figure 2A

2. To remove the factory gum and mint tray, first remove the bracket holding the factory wiring harness in place by removing the 2 screws holding it to the cabinet, leaving the harness to hang down (Figure 2A, Red Circle).
- 3a. Remove the bottom bracket by removing the screws circled in blue, and slide the tray out.

For AP 122A, 122B, 122C – Figure 2B

- 3b. Remove the bottom bracket by removing the screws circled in red. Slide the tray out.

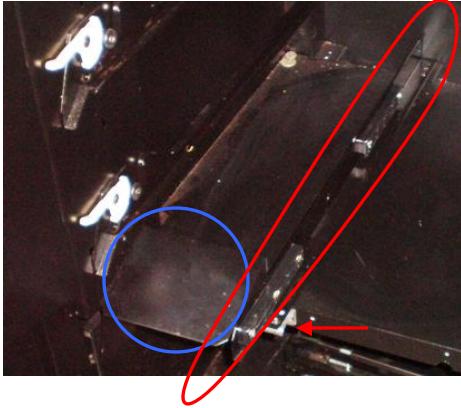


Figure 3A

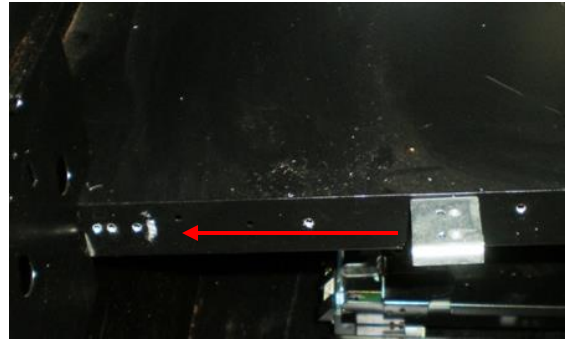


Figure 3B

For the AP112 & 122 see below. For AP6000XL Skip to Step 10.

4. Unscrew the existing rail from the left side of the machine and retain the screws for future use (Red Circle, Figure 3A).
5. Remove the block off plate to the left of the old rail; this may be discarded as it is not needed to complete the installation (Blue Circle, Figure 3A).
6. Remove the locking tab and retain tab and screws for possible future use (Red Arrow, Figure 3A)
7. Remove plastic slides from existing rail (Figure 3C) and attach to the new side rail (Figure 3D).
8. If the factory rail used the factory locking plate to hold it in place, then you must move it to its new location on the left side of the machine (Figure 3B).
9. Install new rail on the left side of the machine, using existing factory holes and screws retained in Step 4.

WARNING: On many of the machines the screws for the side rail are being installed into sheet metal. Extreme caution must be used not to over tighten these screws as the threads in the sheet metal can easily be stripped



Figure 3C



Figure 3D

For the AP6000XL

10. Remove the block off plate, if present, on the left side of the machine; this may be discarded as it is not needed to complete the installation (Figure 4A).
11. Unscrew the existing rail assembly from the left side of the machine by unscrewing the 4 screws (Red Circles, Figure 4B)
12. Remove the locking tab and discard it.
13. Remove plastic slides from existing rail assembly (Figure 4C) and attach to the new side rail (Figure 4D).

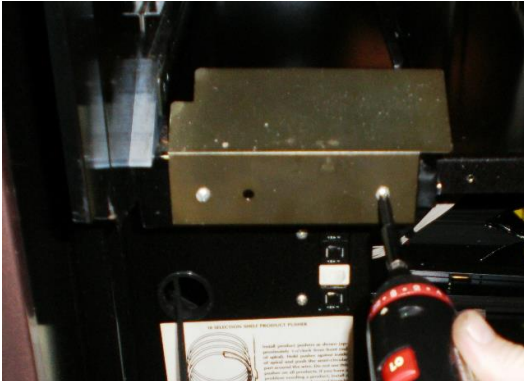


Figure 4A

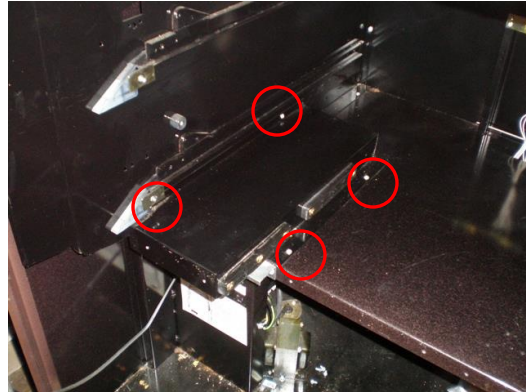


Figure 4B



Figure 4C



Figure 4D

14. The AP6000XL requires 2 shims, included in your kit, to help stabilize the new rail. Lay the new shims, as shown in Figure 5A (Red Circles).
15. Remove factory screws on the left side of the machine (Red Circles, Figure 5B)
16. Install new rail on the left side of the machine as shown in Figure 5C, using existing factory holes and screws retained in Step 15.

WARNING: Since you are reusing the existing holes and screws to mount the new side rail, EXTREME caution must be used not to over tighten these screws as the threads in the sheet metal can easily be stripped.



Figure 5A

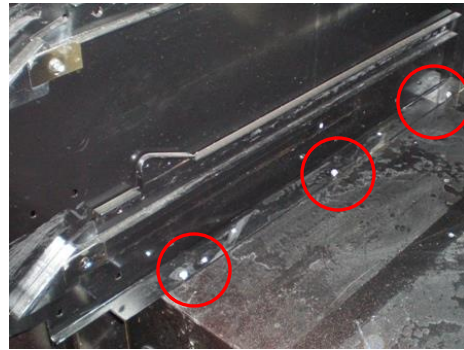


Figure 5B



Figure 5C

17. After installing the new side rail, you need to determine the type of bracket and connector used.
- a. If you have the 6-pin connector (Figure 6A), follow instructions on [page 7](#)
 - b. If you have the spade connector (Figure 6B), follow instructions on [page 12](#)
 - c. If you have the new mini-fit junior connector (Figure 6C), follow instructions on [page 14](#)

Figure 6A



Figure 6B

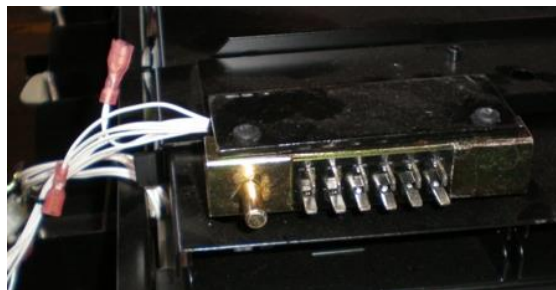


Figure 6C



For 6-Pin Connector:



Figure 7A



18. Loosen the screws on the motor that surround the bracket, and remove the bracket. Remove the motor wiring harness from the motors on old tray by pulling the connectors from the tabs (Figure 7A).
19. Remove the motor wiring harness from the factory bracket, but keep the 2 screws to use later on in the installation process (Figure 7B).

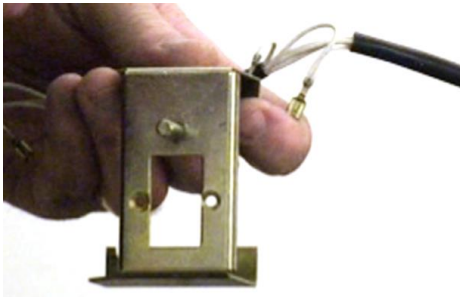


Figure 7B



20. Prior to installing the factory harness, it will be necessary to attach the jumper harness, supplied with the kit, to convert the factory 4 motor harness to a 5 motor harness.
21. Attach the end of the blue wire (labeled A, Figure 8A) to the open pin on the back of the factory wiring harness plug (Figure 8B).
22. Connect the end of the black wire (labeled B, Figure 8A) to the #4 motor common wire (Figure 8C). The common wire will be labeled with a “G” and will be the larger of the two terminals. Wrap with electric tape to cover the exposed section where the expansion harness connects to the factory harness. When completed the assembly will appear like in Figure 8C.

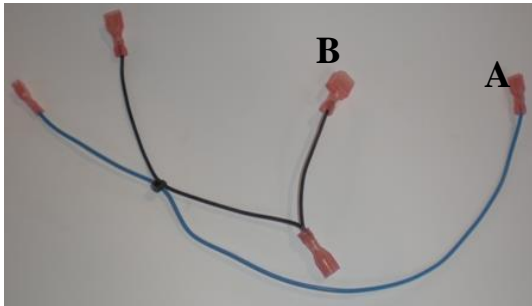


Figure 8A

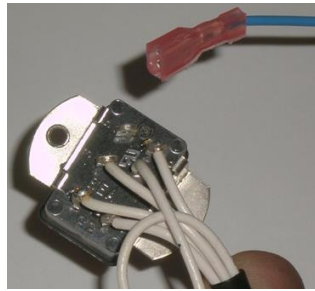


Figure 8B

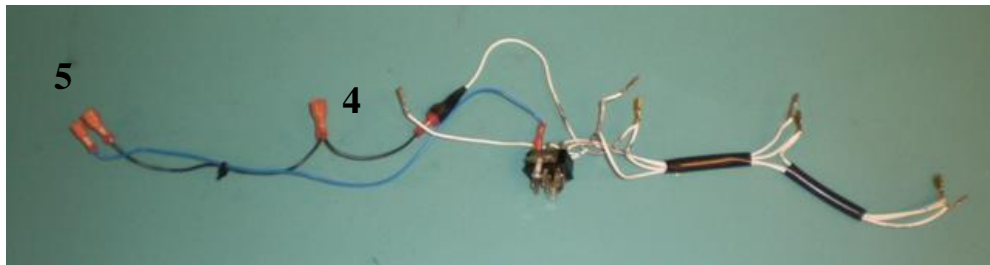
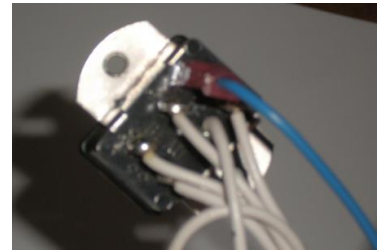


Figure 8C

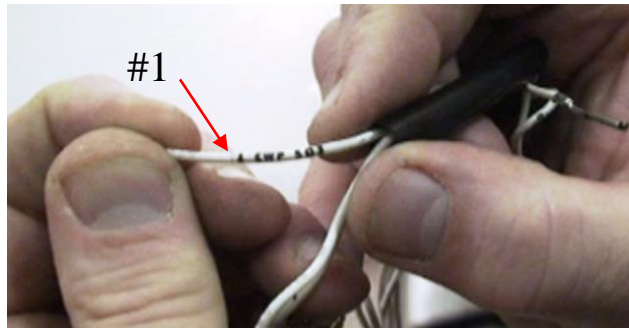


Figure 9A

23. Attach wire harness to the new gum and mint tray. Match the wiring for Motor 1 to the new Motor 1 on the gum and mint (Figure 9B, Red Circle). This wire has a silver connector and a number on it (Figure 9A). Continue connecting the wiring harness to each additional matching motor. Figure 8C, shows your new connections for motors 4 and 5.
24. Take the existing Factory Plug and connect it to the new bracket supplied with the tray kit. Use the 2, flat head, Philips machine screws saved from Step 19.
25. Ensure that the horizontal spades are facing the alignment pin as shown in Figure 9B.

Figure 9B

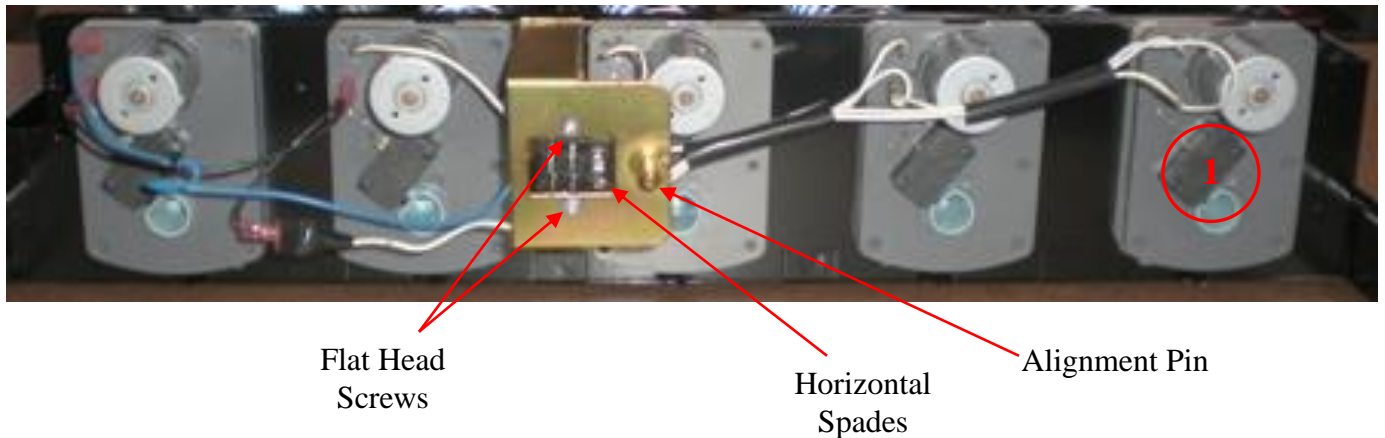




Figure 10A

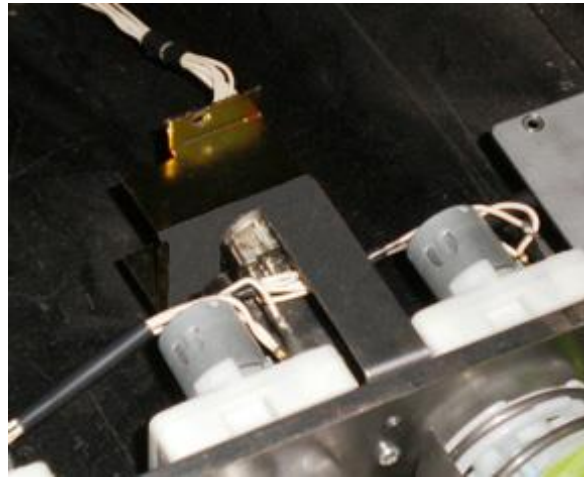


Figure 10B

26. Place the tray into the machine by locating the guide rails on the tray to the plastic guides in the machine. Slide the tray approximately 3 to 6 inches into the guides so that it is stable and will not fall out of the machine (Figure 10A). Make certain the plugs mate together with the locating pin and hole on the brackets (Figure 10B&C).



Figure 10C

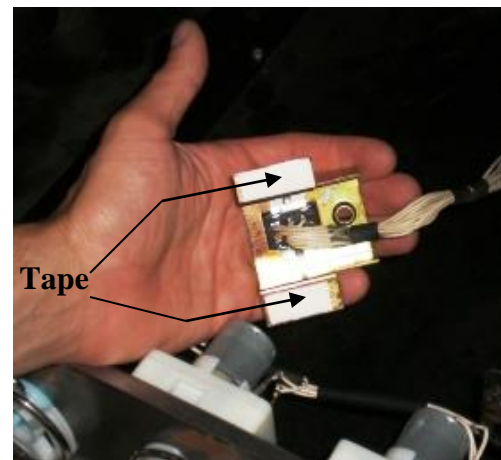


Figure 10D

27. Locate the double sided tape supplied with the tray kit. Peel **ONE SIDE** of the protective film from the two strips. Attach these to the mounting flange of bracket (removed in Step 2, circled in red) holding the factory wiring harness (Figure 10D).

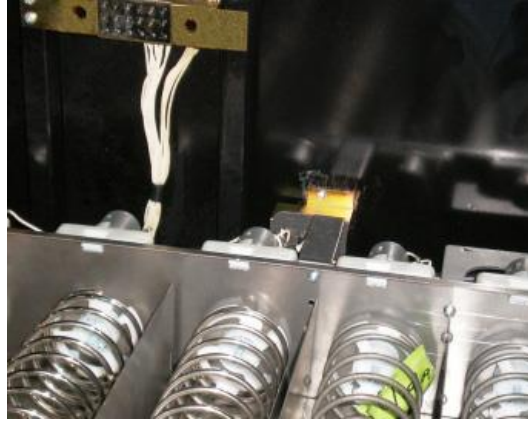


Figure 11A

28. Using the supplied alcohol pad, clean an area approximately 6" x 6" at the back of the machine aligned with the 2 connected plugs. Reconnect the two plugs and brackets.
29. Peel the remainder of the protective film from the double sided tape and carefully slide the tray into the machine. Be certain that the plugs stay connected and guide the wire to clear the tray and other componentry (Figure 11A).



Figure 11B

30. Firmly press the tray into position once it has stopped at the back of the machine and then completely remove the tray from the machine. The factory bracket (removed in Step 2, circled in red) is now re-located in the machine by the double sided tape.
31. While carefully holding the bracket, drill (1/8" size) through the existing holes in the bracket and the back of the machine. Use the supplied self tapping screws to carefully attach the bracket to the machine (Figure 11B). Slide the Gum and Mint tray into position.

NOTE: Ensure the bracket does not move during the drilling process. Any misalignment may prevent the Gum and Mint tray from functioning properly.

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For Spade Connector (From Page 6):

Figure 12A

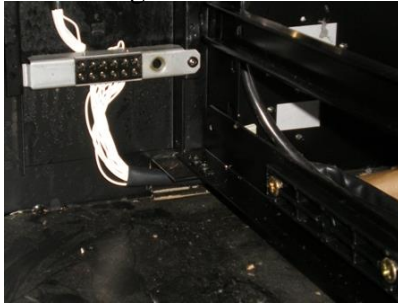
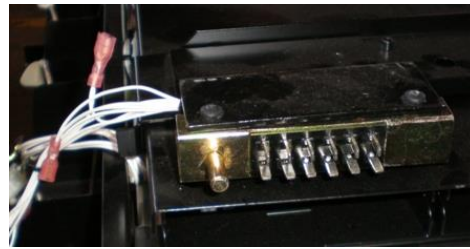


Figure 12B



32. Remove the 3 screws attaching the factory plug and bracket to the back of the old gum and mint tray. Save two of the screws as they will be used to secure the bracket to the new tray (Figure 12A&B).
33. Attach the end of the blue wire (labeled A, Figure 12C) to the “5” pin on the back of the factory wiring harness plug (Figure 12D). The “5” is marked on the black part above the pin on the factory wiring harness.
34. Connect the end of the black wire (labeled B, Figure 12C) to the #4 motor common wire (Figure 12E). The common wire will be labeled with a “G” and will be the larger of the two terminals. Wrap with electric tape to cover the exposed section where the expansion harness connects to the factory harness. When completed the assembly will appear like in Figure 12E.

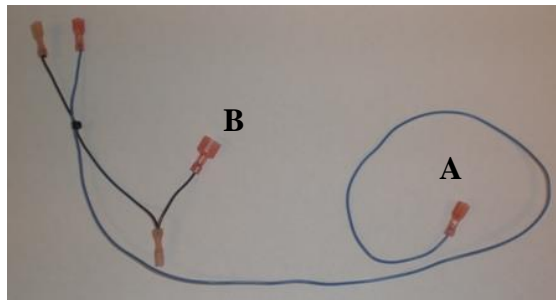


Figure 12C

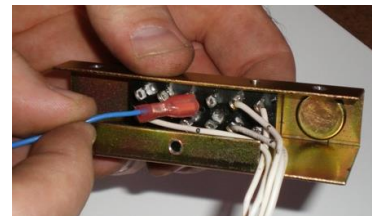


Figure 12D



Figure 12E

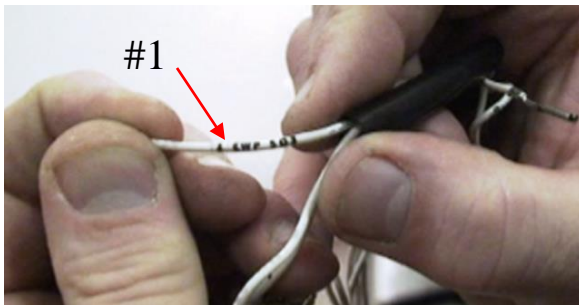


Figure 13A

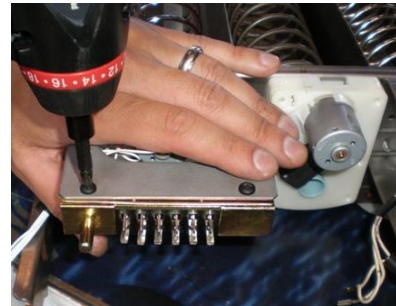


Figure 13B



Figure 13C

42. Attach wire harness to the new gum and mint tray. Match the wiring for Motor 1 to the new Motor 1 on the gum and mint (Red Circle, Figure 13C). This wire has a silver connector and a number on it (Figure 13A). Continue connecting the wiring harness to each additional matching motor. Figure 12E, shows your new connections for motors 4 and 5.
43. Take the existing factory plug and bracket, and connect it to the new bracket supplied with the tray kit. Use the 2, round head, Philips machine screws saved from Step 23 (Figure 13B).
44. Use supplied wire ties to clean up excess wires.
45. Slide the Gum and Mint tray into position.

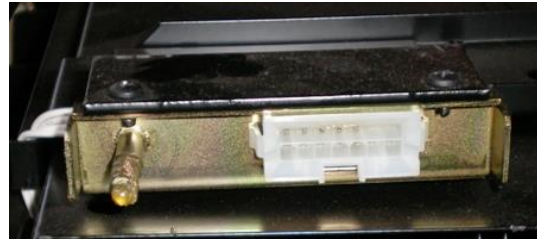
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For Mini-Fit Junior Connector (From Page 6):

Figure 14A



Figure 14B



39. Remove the 3 screws attaching the Factory Plug and bracket to the back of the old gum and mint tray. Save two of the screws as they will be used to secure the bracket to the new tray (Figure 14A&B).
40. Attach the end of the blue wire (labeled A, Figure 14C) to the back of the plug on the factory tray harness. The pin connector will be installed in the same row as the four motor leads, right above the single common wire. Notice the grooves in the actual plug and match the pin connector to them. Gently push the pin until it snaps into place (Figure 14D).
41. Connect the end of the black wire (labeled B, Figure 14C) to the #4 motor common wire (Figure 14E). The common wire will be labeled with a “G” and will be the larger of the two terminals. Wrap with electric tape to cover the exposed section where the expansion harness connects to the factory harness. When completed the assembly will appear like in Figure 14E.

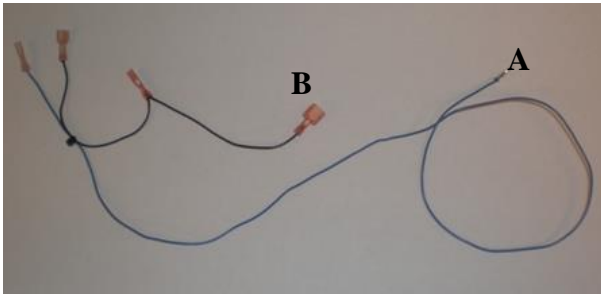


Figure 14C

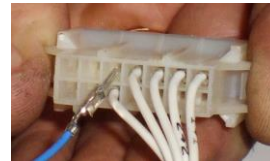


Figure 14D

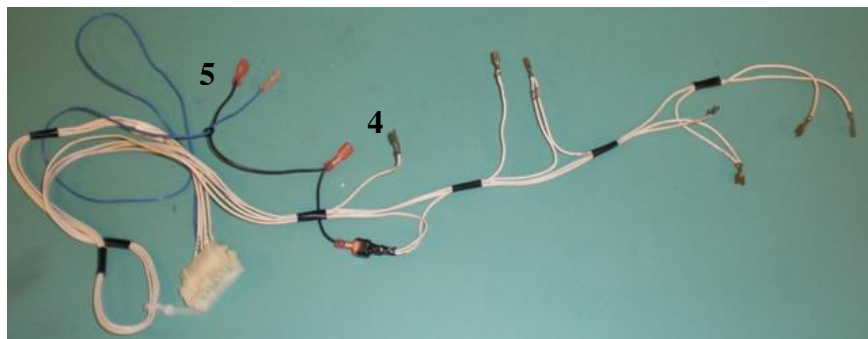
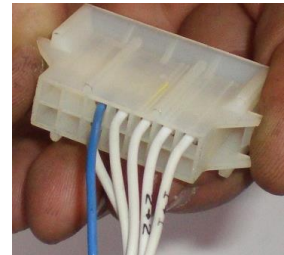


Figure 14E

42. Attach wire harness to the new gum and mint tray. Match the wiring for Motor 1 to the new Motor 1 on the gum and mint (Red Circle, Figure 15B). This wire has a silver connector and a number on it (Figure 15A). Continue connecting the wiring harness to each additional matching motor. Figure 14E, shows your new connections for motors 4 and 5.

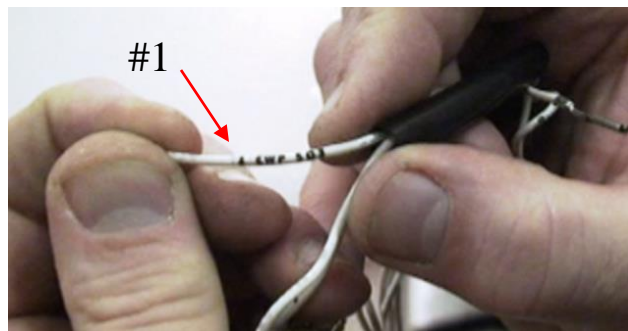


Figure 15A



Figure 15B

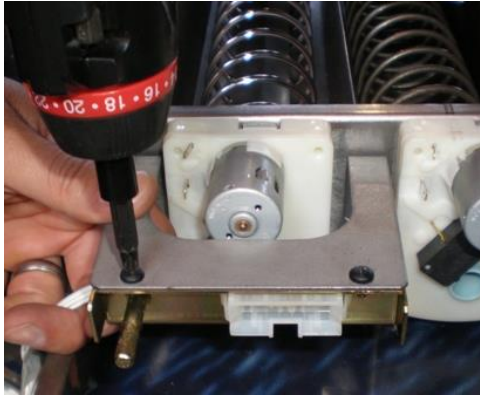


Figure 16A

43. Take the existing factory plug and bracket, and connect it to the new bracket supplied with the tray kit. Use the 2, round head, Philips machine screws saved from Step 39 (Figure 16A)

Note: If you have an AP122C, you may need to use the supplied harness bracket and screws to complete Step 43 (Figure 16B).



Figure 16B

44. Use supplied wire ties to clean up excess wires.
45. Slide the Gum and Mint tray into position.

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Adjusting Fit of Tray in Machine

46. Slide the Gum and Mint tray into position and close the machine door GENTLY and latch to keep it closed.
47. Look at the spacing between the drop bucket and the new gum tray (Figures 17A) to determine whether the gap is too large (and needs shims added) or is too tight (and needs shims removed). There are already shims installed and extras included with each kit.



Figure 17A



48. There are shims that can be adjusted to assure proper alignment of the **TRAY**. For the Mini-Fit and Spade connectors (Figure 17C) there are 2 sets of shims pre-installed. There are 2 shims on the 6-Pin connector pre-installed (Figure 17B). Both are located on the Tray Harness Bracket.

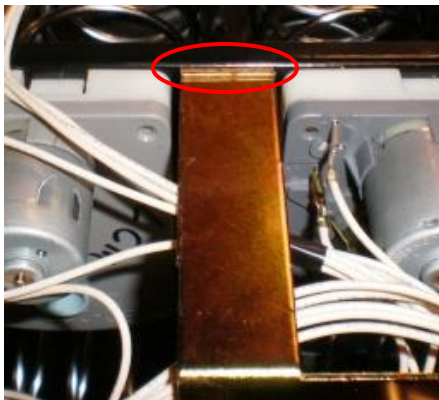


Figure 17B

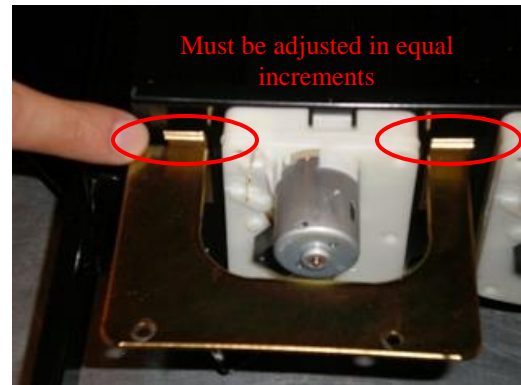


Figure 17C

To Adjust:

Pull the gum tray out and locate the screws holding the tray harness bracket. Use a Phillips screwdriver to loosen the screws (4 screws on the mini-fit & spade connector; 2 screws for the 6-pin connector).

To Lessen the Gap:

Take the provided shims and install them, 1 on each side for the mini-fit & spade connectors, or 1 for the 6-pin connector, between the back of the tray and the mounting bracket. Tighten the screws. Repeat again if necessary.

If the door fits too tight:

Shims will need to be removed. Remove 1 shim on each side for the mini-fit & spade connector, or 1 for the 6-pin connector. Tighten the screws. Repeat again if necessary.

Installing Price Sticker Labels and Product Pushers



Figure 18A

49. Open the vending machine and clean the dust off the inside wall of the drop bucket closest to you. The label is made to fit exactly inside of the vend bucket, so you can start applying it to either side of the vend bucket.



Figure 18B

50. Determine which of the two provided product labels you will need to attach to the machine.
51. Position the label as shown (Figure 18A).
52. Next, attach a price sticker next to each of the product numbers as shown (Figure 18B).

Installing Product Pushers:

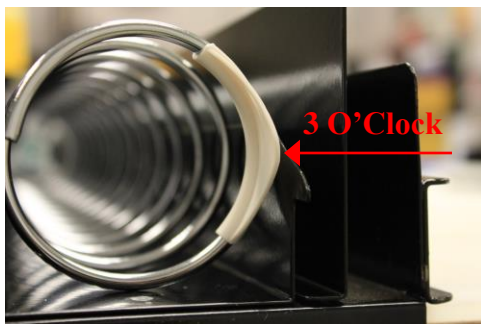


Figure 18C

Supplied with the 5-wide Gum & Mint tray are 5 black product pushers (VE444A), one will be a spare. Product pushers **MUST** be installed for every product except Certs, as shown in Figure 18C.

53. Place the product pusher so the tip is at 3 o'clock (Red Arrow, Figure 18C)

Note: A white product pusher was used for photo purposes only.

Completed Tray with and without product



Figure 19A



Figure 19B

Replace all other trays removed from the machine; test ALL slots of the new gum and mint tray; fill with product and the installation is complete.

Revised 12-5-11

TROUBLESHOOTING

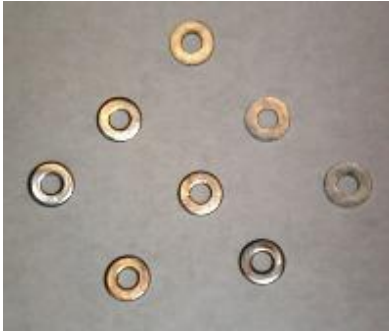


Figure 20A

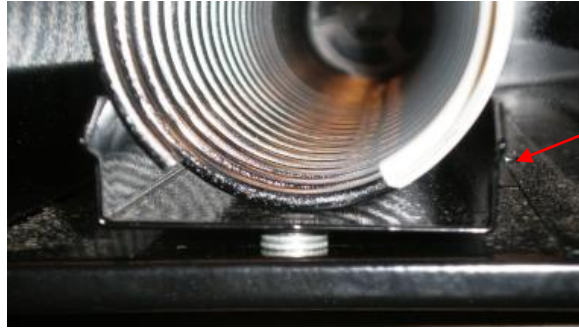


Figure 20B

Issue: The point of the vend rails hit the lip of the vend bucket.

The vend rails of the gum and mint tray are designed to “float” up and down on a pin. This will ensure proper alignment with the lip of the vend bucket. However, on occasions, due to a machines door, or cabinet, being out of square, the point of the vend rails may hit.

To correct:

54. Each kit comes with an assortment of flat washers that may be added to assure proper alignment of the **RAILS** (Figure 20A).
 - a. If the rails interfere with the lip of the vend bucket, **ADD** washers under the rail by placing them on the pin. Add washers until the gap between the bucket and the rail clear the lip of the vend bucket (Figure 20B).

Issue: Door will not close; closes hard; or has a large gap between the tray and vend bucket.

55. Repeat door gap section on **Page 17**.