

# Technical Bulletin

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Release Date: January 3, 1997 Revision Date: January 12, 1998

**SUBJECT: SOLENOID DOOR KIT FOR DIXIE-NARCO VENDERS**

**MODELS AFFECTED:** All Wide and T-Model Pre-Series 90 Single Price Venders Serialized 0001-2392CE to 0001-3162AO.  
 All Wide and T-Model Series 90 Single Price Venders Serialized 0001-3162AO & higher.  
 All Wide and T-Model Electronic Venders Serialized 0001-3203DO & higher.

**REASON:** To provide a way to open the port door when vending a light weight product.

**WARNING!** If the fuse fails, disconnect the stack plug, correct the cause, then replace the fuse. For continued protection replace only with a type 5x20 mm fuse rated 250V, 4/10 Amp Slow Blow (DN# 804,800,770.01). **NEVER USE A FUSE WITH A HIGHER RATING.**

**FOR SINGLE PRICE VENDERS ORDER:**

491,010,980.14 Kit, Door Solenoid Operates with all columns.  
 Kit Contains:

Qty.	Part Number	Description
1	491,014,200.13	Control Box Assy.
1	491,015,300.13	Solenoid Plate Assy.
13	900,301,840.01	8-18x½ Pan Head Screw
1	491,010,880.23	Solenoid Door Cover
9	901,901,060.01	5.5" Wire Tie
1	900,902,330.01	2-Way Mount Tie
2	900,902,320.01	¼ P-Clamp

**FOR ELECTRONIC VENDERS ORDER:**

491,010,980.14 Kit, Door Solenoid (Reference kit contents above.)  
 491,010,960.04 Electronic Harness Kit Required in addition to Door Solenoid Kit for electronic venders; operates with maximum of four columns.  
 491,010,970.04 Additional Column Used with Electronic Harness Kit; one Harness Kit required to actuate each additional column.

## Installation Instructions for Single Price Venders

1. Unplug the vender.
2. Install the pre-assembled parts, on the refrigerated side of the Inner Door, as shown in figure 1 on page 4.
  - A) Place the Solenoid Plate Assembly on the Inner Door. Position it to the left of the Retainer Frame, 1¼" down from the top edge of the Retainer Frame.
  - B) Secure the Solenoid Plate Assembly with five #8x½ screws. Be careful not to over-tighten the screws.
  - C) Place the 2-way Tie Mount onto the lower right corner of the Inner Door.
  - D) Secure the Solenoid Power Harness to the Inner Door in three places, using two P-Clamps and a Wire Tie . See page 4 for mounting locations. It is critical that the harness comes out vertical from the mount, as shown. This will prevent the harness from drooping and getting caught between the Inner Door and the Mullion.
3. Install the Control Box Assembly and harnesses.
  - A) Place the Control Box Assembly in the refrigerated compartment. It should be placed flush against the left Stack Support, approximately 2" off the inner tank bottom. See figure 2 on page 4.
  - B) Secure the box with three #8x½ screws.
  - C) Remove the right Mullion Cover.
  - D) Remove the Plug Cover from the bottom of the main door (not shown).
  - E) Route the Solenoid Power Harness under the Delivery Chute and down through the right mullion slot to the wire connectors that were under the plug cover. Note: The Solenoid Harness has black and white wires.
  - F) Unplug the two-pin connector that provides power to the lighting system.
  - G) Insert the 2-pin plug from the power harness in the 2-pin socket to the lights.
  - H) Insert the 2-pin socket from the power harness in the 2-pin plug to the lights.
  - I) Route the Relay Power Harness under the Delivery Chute and down through the right mullion slot. Tie wrap both harnesses to the existing harness below the Mullion. Continue to route the Relay Power Harness through the cut-out behind the Plug Cover on the door and up to the Vend Counter. Disconnect the 2-pin plug on the counter and plug the Relay Power Harness in. The harness has a jumper on it to allow the counter to be re-connected.  
(Note: The jumper may be missing on initial harnesses.)
4. Reinstall the Mullion Cover and apply permagum to prevent air leaks around the harnessing in the mullion slot area.
5. Reinstall the Plug Cover on the main door.
6. Install the Solenoid Cover using three #8x½ screws. When installed properly, the cover should not interfere with the operation of the Solenoid. See figure 1 on page 4.
7. Verify the alignment of the Door Arm and the Discharge Door. When the Solenoid is not energized, the Discharge Door must rest flush with the Discharge Frame. If the door is held open by the rod, bend the rod slightly backwards away from the door until the door closes properly.
8. Ensure all harnesses are neatly dressed to prevent the harness from drooping and getting caught between the Inner Door and the Mullion.
9. Plug in the vender and test for proper operation. The solenoid should actuate and open the Discharge Door when credit is established. The door will close approximately six seconds after credit is canceled.

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## Installation Instructions for Electronic Venders

1. Unplug the vender.
2. Install the pre-assembled parts, on the refrigerated side of the Inner Door, as shown in figure 1 on page 4.
  - A) Place the Solenoid Plate Assembly on the Inner Door. Position it to the left of the Retainer Frame, 1¼" down from the top edge of the Retainer Frame.
  - B) Secure the Solenoid Plate Assembly with five #8x½ screws. Be careful not to over-tighten the screws.
  - C) Place the 2-way Tie Mount on the lower right corner of the Inner Door.
  - D) Secure the Solenoid Power Harness to the Inner Door in three places, using two P-Clamps and a Wire Tie . See page 4 for mounting locations. It is critical that the harness comes out vertical from the mount, as shown. This will prevent the harness from drooping and getting caught between the Inner Door and the Mullion.
3. Modify the Control Box Assembly. The Relay must be disconnected and the Electronic Harness Kit must be installed.  
(Reference the wiring diagram on page 5.)
  - A) Orient the Control Box Assembly so that all wire connections are visible.
  - B) Disconnect the two jumpers between the Solid State Timer and the Relay. Discard the jumpers.
  - C) Disconnect the Relay Power Harness and discard. (Note: The Relay is not used in electronic venders, but it may be left in place for convenience.)

4. Place the long end of the Timer, Switch Harness with the female terminals onto terminals 6 and 7 of the Solid State Timer. The polarity of the terminals is not important.
5. Install the Control Box Assembly and harnesses.
  - A) Place the Control Box Assembly into the refrigerated compartment. It should be placed on the left side between the Stack Support and the Breaker Strip, approximately 2" off the inner tank bottom. See figure 2 on page 4.
  - B) Secure the box with three #8x½ screws.
  - C) Remove the bottom screw from the left stack support. Use that screw to secure the ground wire from the Control Box to the Stack Support.
  - D) Remove the right Mullion Cover.
  - E) Remove the Plug Cover from the bottom of the main door (not shown).
  - F) Route the Solenoid Power Harness under the Delivery Chute and down through the right mullion slot to the wire connectors that were under the Plug Cover.
  - G) Unplug the two-pin connector that provides power to the lighting system.
  - H) Insert the 2-pin plug from the power harness in the 2-pin socket to the lights.
  - I) Insert the 2-pin socket from the power harness in the 2-pin plug to the lights.
  - J) Tie wrap the harness to the existing harness below the Mullion.
6. Install the Timer, Switch Harness on the Vend Motors.
  - A) Remove the Motor Cover.
  - B) Determine the columns to be used to vend the light product.
  - C) Remove the two screws that secure the Vend Motor Switches from the selected columns.
  - D) Install the Timer, Switch Harness on the existing Vend Motor Switches using the longer screws supplied with the kit. This will result in a double switch with the Vend Motor Switch closest to the motor. (Note: The Timer, Switch Harness is configured for operation of two columns. Up to 2 more columns can be added by connecting the additional switches supplied with the kit to the Timer, Switch Harness. If additional columns are required, the appropriate quantity of Additional Column Harness Kits must be ordered.)
  - E) Route the Timer, Switch Harness along with the existing Cabinet Harness. Tie wrap the harnesses together so that the harnesses do not interfere with any moving parts. Insure that the harnesses are not pinched when reinstalling the Motor Cover.
  - F) Reinstall the Motor Cover.
7. Reinstall the Mullion Cover and apply permagum to prevent air leaks around the harnessing in the mullion slot area.
8. Reinstall the Plug Cover on the main door.
9. Install the Solenoid Cover using three #8x½ screws. When installed properly, the cover should not interfere with the operation of the solenoid. See figure 1.
10. Verify the alignment of the Door Arm and the Discharge Door. When the Solenoid is not energized, the Discharge Door must rest flush with the Discharge Frame. If the door is held open by the rod, bend the rod slightly backwards away from the door until the door closes properly.
11. Ensure all harnesses are neatly dressed to prevent the harness from drooping and getting caught between the Inner Door and the Mullion.
12. Plug in the vender and test for proper operation. The Solenoid should actuate and open the Discharge Door when the Vend Motor starts and will close approximately six seconds after the motor stops.

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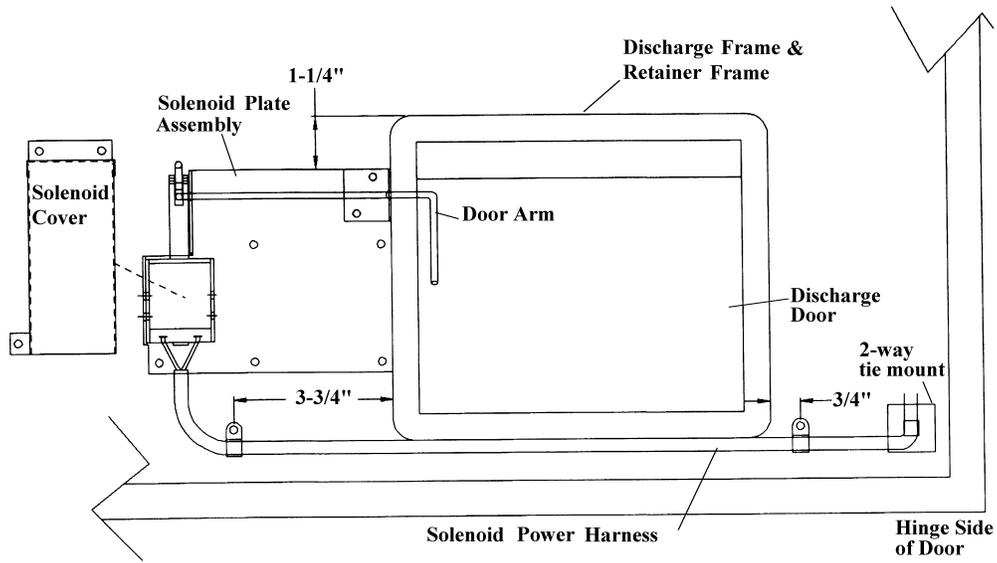


Figure 1  
Refrigerated Side of Inner Door

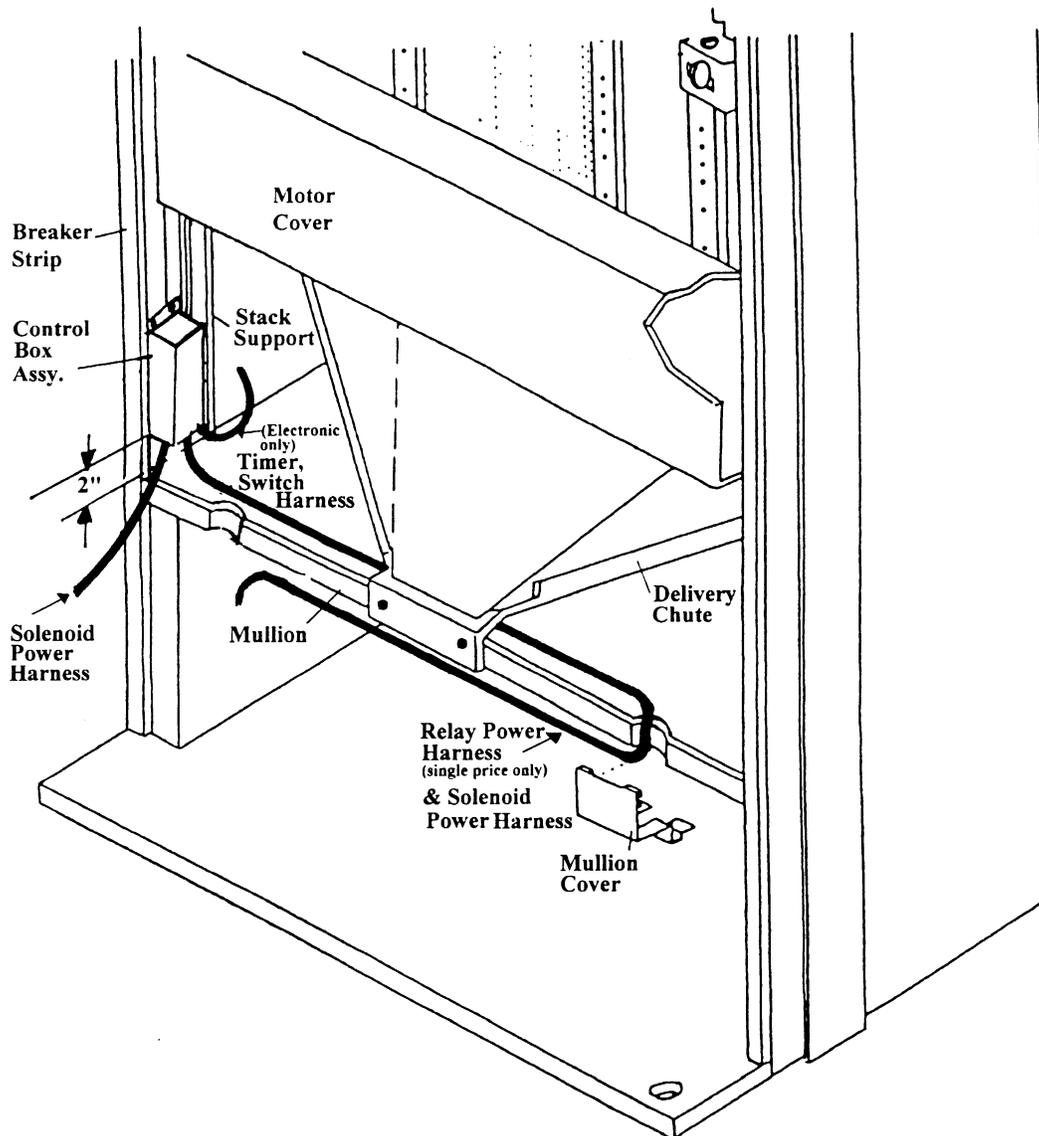


Figure 2

