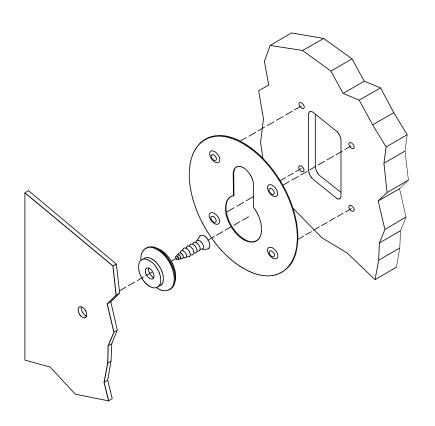


Removable Applied Panel Mounting System



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Safety Precautions

IMPORTANT!

Read this page before any work is performed on elevator equipment. The procedures contained in this manual are intended for the use of qualified elevator personnel. In the interest of your personal safety and the safety of others, do not attempt any procedure that you are not qualified to perform.

All procedures must be accomplished in accordance with the applicable rules in the latest edition of the National Electrical Code, the latest edition of ASME A17.1, and any governing local codes.

Terms in This Manual



CAUTION statements identify conditions that may result in damage to the equipment or other property if improper procedures are followed.



WARNING statements identify conditions that may result in personal injury if improper procedures are followed.

General Safety



Before applying power to the controller, check that all factory wire connections are tight on relays, contactors, fuse blocks, resistors, and terminals on cards and DIN rail terminals. Connections loosened during shipment may cause damage or intermittent operation.

Other specific warnings and cautions are found where applicable and do not appear in this summary. See the *Elevator Industry Field Employees' Safety Handbook* for electrical equipment safety information on installation and service.

Electrical Safety

All wiring must be in accordance with the National Electrical Code and be consistent with all state and local codes.

Use the Proper Fuse

To avoid fire hazards, use only a fuse of the correct type, voltage, and current rating. See the job specific drawings sheet (Power Supplies) for fusing information.

Electric shocks can cause personal injury or loss of life. Circuit breakers, switches, and fuses may not disconnect all power to the equipment. Always refer to the wiring diagrams. Whether the AC supply is grounded or not, high voltage will be present at many points.

Printed Circuit Cards

Printed circuit boards may be damaged if removed or installed in the circuit while applying power. Before installation and/or removing printed circuit boards, secure all power.

Always store and ship printed circuit cards in separate static bags.

Electrical Safety

(continued)

Mainline Disconnect

Unless otherwise directed, always Turn OFF, Lock, and Tag out the mainline disconnect to remove power from elevator equipment. Before proceeding, confirm that the equipment is de-energized with a volt meter. Refer to the *Vertical Express Employees' Safety and Accident Prevention Program Manual* for the required procedure.

Test Equipment Safety

Always refer to manufacturers' instruction book for proper test equipment operation and adjustments.

Megger or buzzer-type continuity testers can damage electronic components. Connection of devices such as voltmeters on certain low level analog circuits may degrade electronic system performance. Always use a voltmeter with a minimum impedance of 1M Ohm/Volt. A digital voltmeter is recommended.

When Power Is On

To avoid personal injury, do not touch exposed electrical connections or components while power is ON.

Mechanical Safety

See the *Elevator Industry Field Employees' Safety Handbook* for mechanical equipment safety information on installation and service.

Static Protection Guidelines

IMPORTANT!

Read this page before working with electronic circuit boards.

Elevator control systems use a number of electronic cards to control various functions of the elevator. These cards have components that are extremely sensitive to static electricity and are susceptible to damage by static discharge.

Immediate and long-term operation of an electronic-based system depends upon the proper handling and shipping of its cards. For this reason, the factory bases warranty decisions on the quidelines below.

Handling

- Cards shipped from the factory in separate static bags must remain in the bags until time for installation.
- Anti-static protection devices, such as wrist straps with ground wire, are required when handling circuit boards.
- Cards must not be placed on any surface without adequate static protection.
- Only handle circuit cards by their edges, and only after discharging personal static electricity to a grounding source. DO NOT touch the components or traces on the circuit card.
- Extra care must be taken when handling individual, discrete components such as EPROMS (which do not have circuit card traces and components for suppression).

Shipping

- Complete the included board discrepancy sheet.
- Any card returned to the factory must be packaged in a static bag designed for the card.
- Any card returned to the factory must be packaged in a shipping carton designed for the card.
- "Peanuts" and styrofoam are unacceptable packing materials.

Note: Refer to the Vertical Express Replacement Parts Catalog to order extra static bags and shipping cartons for each card.

Failure to adhere to the above guidelines will VOID the card warranty!

Arrival of Equipment

Receiving

Upon arrival of the equipment, inspect it for damage. Promptly report all visible damage to the carrier. All shipping damage claims must be filed with the carrier.

Storing

During storage in a warehouse or on the elevator job site, precautions should be taken to protect the equipment from dust, dirt, moisture, and temperature extremes.

Revision Change Bars

Each revised page included in this manual will have a vertical line (change bar) to the left of the text that has been added or changed. The example at the left of this paragraph shows the size and position of the revision change bar.

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Prepare for Installation

Confirm that the following material and equipment has been supplied by the factory:

- 1/2" or 7/8" thick laminated panels in the quantity required with 8 key slot plates attached to the back of each of the standard vertical panels.
- Masonite template (one for each panel size).
- Tapered aluminum spools (eight per standard vertical panel).
- #10 x 1" screws (ten per standard vertical panel).

Each tapered aluminum spool requires a screw for mounting. Two additional screws will be needed to secure the template in position on the wall for marking spool locations.

Recommended Tools And Hardware

- Small center punch
- Drill/Screw gun with assorted drive bits (battery operated preferred)
- Standard drill bits (5/32", 3/16")
- Hammer
- Rivet gun (optional, large enough to set 3/16" rivet, steel shell only)
- Caulk and caulk gun
- Measuring tape
- Marking chalk
- 3 or 4 foot level

Do not begin installation of the new removable panels until all of the walls are cleared of unwanted existing handrails and panels. Clean the walls to insure that dust and dirt do not interfere with installation.

Standard Design Requirements

- There should be a 2" space between each panels.
- There should be a 2 1/2" space from the end panel to the adjacent wall or front panel.
- The top of the applied panel should be 1 3/8" below the face side of the ceiling.
- The bottom of the panel should be 5 1/8" inches from the finished floor.
- The center line of the pad button should be located 3/8" above the panel.

Installation Procedure

- 1. Determine the location of each new panel using the templates provided. Mark each template to indicate that it is for a side and/or rear wall(s).
- 2. Locate and mark the top of each template.

Note: The top of the template can be identified by the spool locating holes that are closer to the top. See Figure 1.

- 3. Determine the quantity of panels that are to be installed on the side and/or rear walls.
- 4. Position the appropriate template exactly where the first panel will be installed.
- 5. Plumb the template with a level and/or measure to insure that the new panel's vertical edges are running parallel with existing vertical edges.

Notes:

- Check the location of the panel and it's relationship to the other panels on the wall both horizontally and vertically.
- Before securing the template to the wall, confirm that the template is located exactly where the applied panel should be.
- 6. Use two (2) #10 x 1" provided screws to secure the template to the wall.
- 7. Use the 2 holes located at the center of the template and drill two (2) 5/32" pilot holes. See Figure 1.

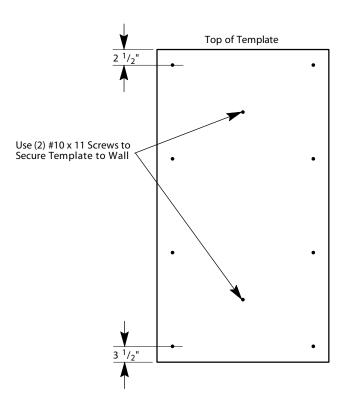


Figure 1 - Secure Template to the Wall

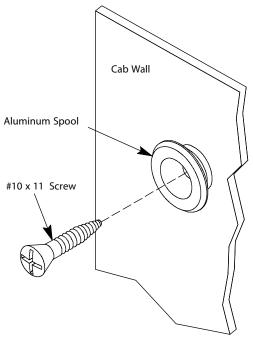
Installation Procedure

(continued)

- 8. With a center punch and hammer, mark the wall through the template. There should be 8 marks for each standard vertical panel location.
- 9. Use a 5/32" drill to drill a pilot hole for each mark.

Alternate method of fastening:

Use the phillips head screws or optional 3/16" rivets to attach the 8 tapered aluminum spools to the wall. The large diameter of the spool should be toward the inside of the cab. The screw head should be within the countersink of the tapered aluminum spool. See Figure 2.



NOTE: Alternate fastening to steel wall with $^{3}/_{16}$ " rivet, requires drilling $^{3}/_{16}$ " holes.

Figure 2 - Alternate Method of Fastening

10. Tighten each of the screws until the tapered spool is flush with the cab wall.



Do not overtighten or strip these screws. Stripping any one of the screws could result in a panel that will not be adequately attached.

- 11. Before the panel is hung, apply a small bead of regular caulk to the wall (this action will help with noise reduction or sound deadening.
- 12. Determine the top of the panel by rotating the panel until the small end of the key slot in the metal plate on the rear of the panel is pointing in the Up direction. See Figure 3 on page 10.
- 13. Hang the panel on the wall by sliding the panel over the spools until each spool fits into its key slot.

Installation Procedure *(continued)*

14. Pull the panel down to engage the tapered portion of the spool into the narrow portion of the key slot.

Note: A small angle attached to the cab wall can be incorporated at the bottom of the panel and a screw can be driven into the bottom edge.

15. Repeat the *Installation Procedure* for each of the removable applied panels.

Notes:

- Ensure that all of the panels are located at the same height and that they appear symmetrical with the other panels as well as with the other features of the cab.
- Once the panels are installed they cannot be moved without completely redoing the attachment procedure.

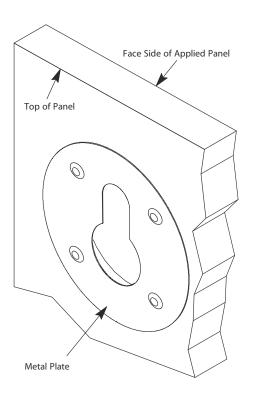


Figure 3 - Determine the Top of the Panel