



DOR-O-MATIC™

INGERSOLL-RAND

ARCHITECTURAL HARDWARE

Series 96000 Slide Control Box

Control Box 96010-900

Transformer Box 96005-900

Installation Instructions

DOR - O - MATIC™

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INSTALLATION

1. Preparation: Refer to Series 96000 Slide Installation Manual #96000-984 for header preparation instructions.

2. Final Wire Connection:

Using the appropriate wiring diagrams, connect power (Figure 2) and accessories (Figure 3) as needed.

- A. Use a 115 volt, 60Hz, fused, 15 amp, 3-wire power supply.
- B. Secure all conductors and connections against physical damage.
- C. Route all wiring away from moving parts, sharp edges and heat sources.
- D. Use copper conductors only.

NOTE: Always disconnect main power to operator prior to servicing or cleaning.

3. Operational Check and Adjustments:

NOTE: Refer to the latest revision of ANSI/BHMA A156.10-1991 Standard for Power Operated Pedestrian Doors for all settings and adjustments.

Closing Speed:	1 foot per second or more
Auto Reverse Force:	30 pounds or less
Latch Position:	2 inches from closing or more
Hold Open:	4 seconds or more

A. Sizing:

Connect main power to the Transformer Box. After the first activation signal, the door should open and close one time, after which it is ready for normal operation. If the door does not size to full open position, first check for binds, then increase the sizing speed by rotating P6 CCW just enough to overcome the door weight, etc.

B. Opening Speed Adjustment:

1. Opening speed is adjusted by rotating P2 (CW=SLOWER, CCW=FASTER). It allows for proper adjustment of any normal weight and size door.
2. Cycle the door open and close several times and observe the opening speed. Select a setting that gives desired opening speed.
NOTE: It is recommended that the door be operated as slow as is practical for the traffic conditions.

C. Closing Speed Adjustment:

Continue to cycle the door open and close while making adjustments. Set the closing speed of the door by rotating P4 (CW=SLOWER, CCW=FASTER).

NOTE: Reset power to the control box after setting the opening speed and closing speed. This must be done before making any other adjustments.

D. Back Check Position:

Rotate SW2 to adjust the back check position (0=MINIMUM, F=MAXIMUM).

E. Back Check Speed Adjustment:

The back check speed is controlled by rotating P3 (CW=SLOWER, CCW=FASTER).

F. Latch Position:

Latch position is controlled by rotating SW1 (0=MINIMUM, F=MAXIMUM).

G. Latch Speed Adjustment:

The latch speed is controlled by rotating P5 (CW=SLOWER, CCW=FASTER).

H. Time Delay Adjustment:

Adjustment is made by rotating P1 (CW=LESS HOLD OPEN TIME, CCW=MORE HOLD OPEN TIME). The total adjustment range on the control box is 1 to 30 seconds of time delay.

I. Normal/Delayed Activation:

This function is selected with switch SW3. In the normal position, the door opens immediately upon reception of the activation signal. In the delayed position, when the door is fully closed, there is a 1 second delay between reception of the activation signal and the actual opening of the door. This delayed activation allows most electric or magnetic locks time to retract before the door opens.

J. Auto Reverse in Closing:

The amount of force required to reverse the door when closing is adjusted by rotating P7 (CW=MORE FORCE, CCW=LESS FORCE). The force cannot be greater than 30 lbs.

K. Auto Reverse in Opening:

The amount of force required to reverse the door when opening is adjusted by rotating P8 (CW=MORE FORCE, CCW=LESS FORCE).

L. Reset Power:

After setting all of the adjustments, reset power to the control box. Cycle the door to verify all of the settings are correct. If any settings need to be corrected, be sure to reset power again. Power must be reset after any adjustments are made.

4. Operational Walk-Through Test:

NOTE: It is assumed that during the installation process, any problems would have been found and corrected before this point. However, it is recommended that a complete walk-through test now be performed.

- A. Activate door operator. The door should open smoothly and silently to the back check point, where it should slow down rapidly and drift into the full open position without slamming.
- B. Remain standing in the activating area for a while, making sure that the door does not time out and close while being activated.
- C. If a door safety device is used, step into the door opening. Remain in the door opening making sure that the door does not close.
- D. Step out of the door opening. After both the activating area and door opening are clear, the door should time out at the pre-set time delay period. The door should then close quietly and smoothly to the latch point, where it rapidly slows down and drifts into the fully closed position without slamming.

5. Release of the System for Service:

- A. Remove all tools and installation equipment, and clean any debris from the vicinity of the door.
- B. Install all safety, traffic control, and instruction decals to the door as required. **THIS IS VERY IMPORTANT!** Failure to do this leaves the installer **LIABLE** for any accident that might occur. **THIS MUST BE DONE!**
- C. Verbally explain the proper operation of the door system to the owner or to the person in charge.

FEATURES

1. Easy Open: When the door is fully closed and is manually opened a few inches, the door will automatically open the rest of the way under normal opening speed.
2. Adjustable Automatic Reversing: If the door is stalled during the closing cycle, it will automatically stop and reverse fully. The door will then return to the point of obstruction and drop to slow speed, looking for the obstruction. The door will perform this cycle 5 times until the obstruction is

removed. After the fifth cycle, the door will stop. If the door is stalled during the opening cycle, it will automatically stop and reverse fully. The door will remain closed until the next activation signal, at which point it will open normally. Potentiometers on the control box adjust the force and should be adjusted in accordance with all applicable safety codes.

3. **Weatherwise:** The Weatherwise feature allows the customer to reduce the opening size. When the Weatherwise switch is set to "narrow", the door will be allowed to open to about 75% of the normal door opening.

Safety Beam Shut-Off: When the door is fully closed, the safety beam signal is disregarded so that it cannot be used to open the door. Once the door is activated, the safety beam signal is allowed to re-open the door if either safety beam is interrupted during the closing cycle.

5. **Morning Entry:** When morning entry is used with a 4-way switch, the door will activate regardless of the position of the switch.

DO'S AND DON'TS

1. **Do Not** try to use this operator on large, heavy doors without checking with the factory first.
2. **Do Not** connect any remote activating device to the door unless it is located within the "line of sight" of the door.
3. **Do Not** attempt to use a fuse larger than specified.
4. **Do Not** attempt to modify the factory wiring or connect any wiring into an existing electrical circuit or any other electrical device.
5. **Do** make certain that the operator is connected to a dedicated 115 volt circuit from the main circuit breaker panel.
6. **Do** make certain that the operator is properly grounded with a separate green wire.
7. **Do** make certain that all connections are proper and secure before turning the power on.
8. **Do** make certain that all wires are properly dressed and secured to prevent any interference.
9. **Do** make certain that all safety labels and instruction decals relating to door operation are properly applied to the door before leaving the job.
10. **Do** verbally instruct the owner or person in charge of the proper operation of the door.
11. **Do** disconnect main power to the operator prior to servicing or cleaning.
12. **Do** instruct the owner or person in charge of his responsibility of inspecting the door for the following:
 - A. Occasional damage
 - B. Developing problems
 - C. Minor preventative maintenance
 - D. Who and where to call for service when required

DIAGRAMS

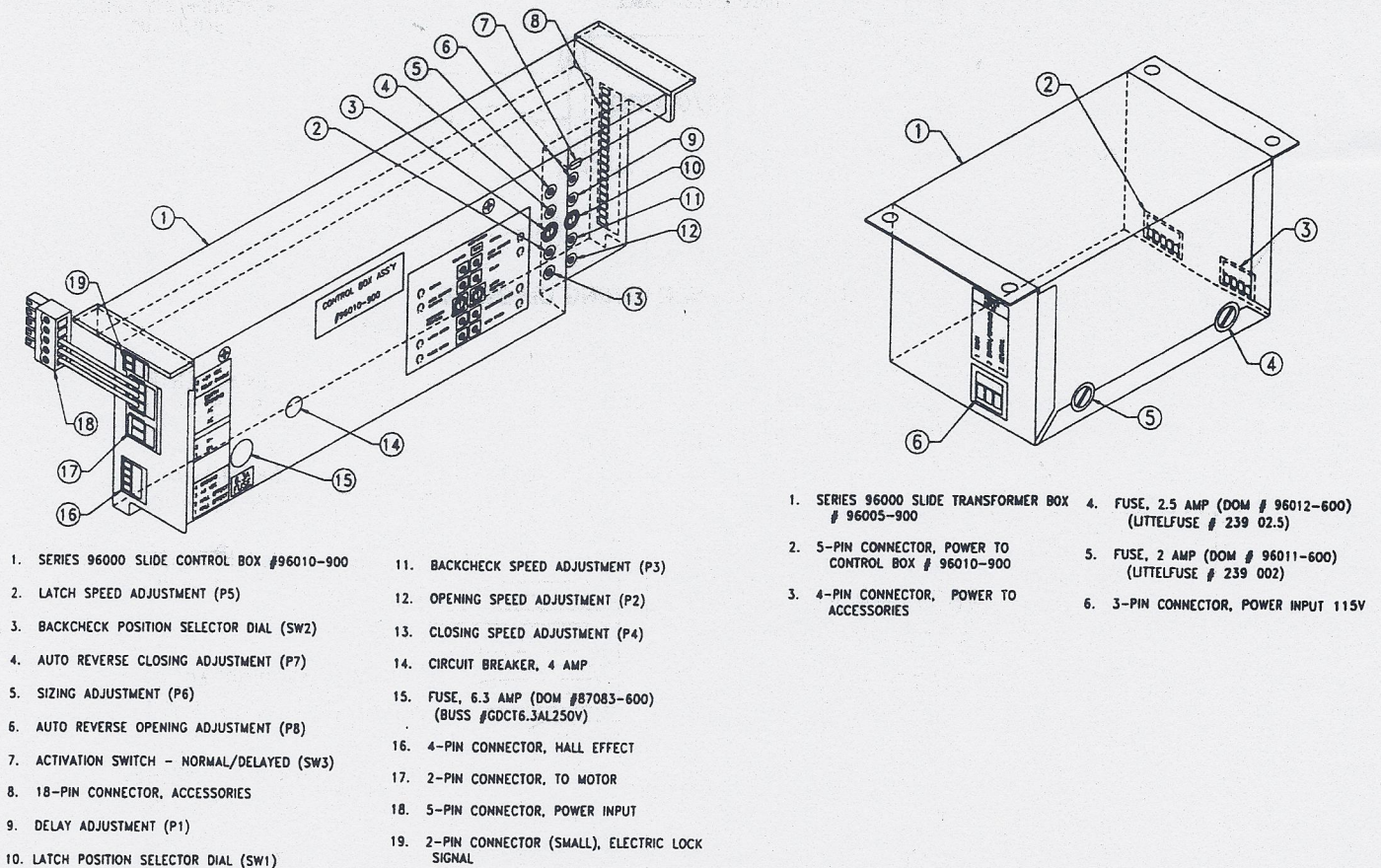


FIGURE 1: CONTROL BOX & TRANSFORMER BOX DETAILS

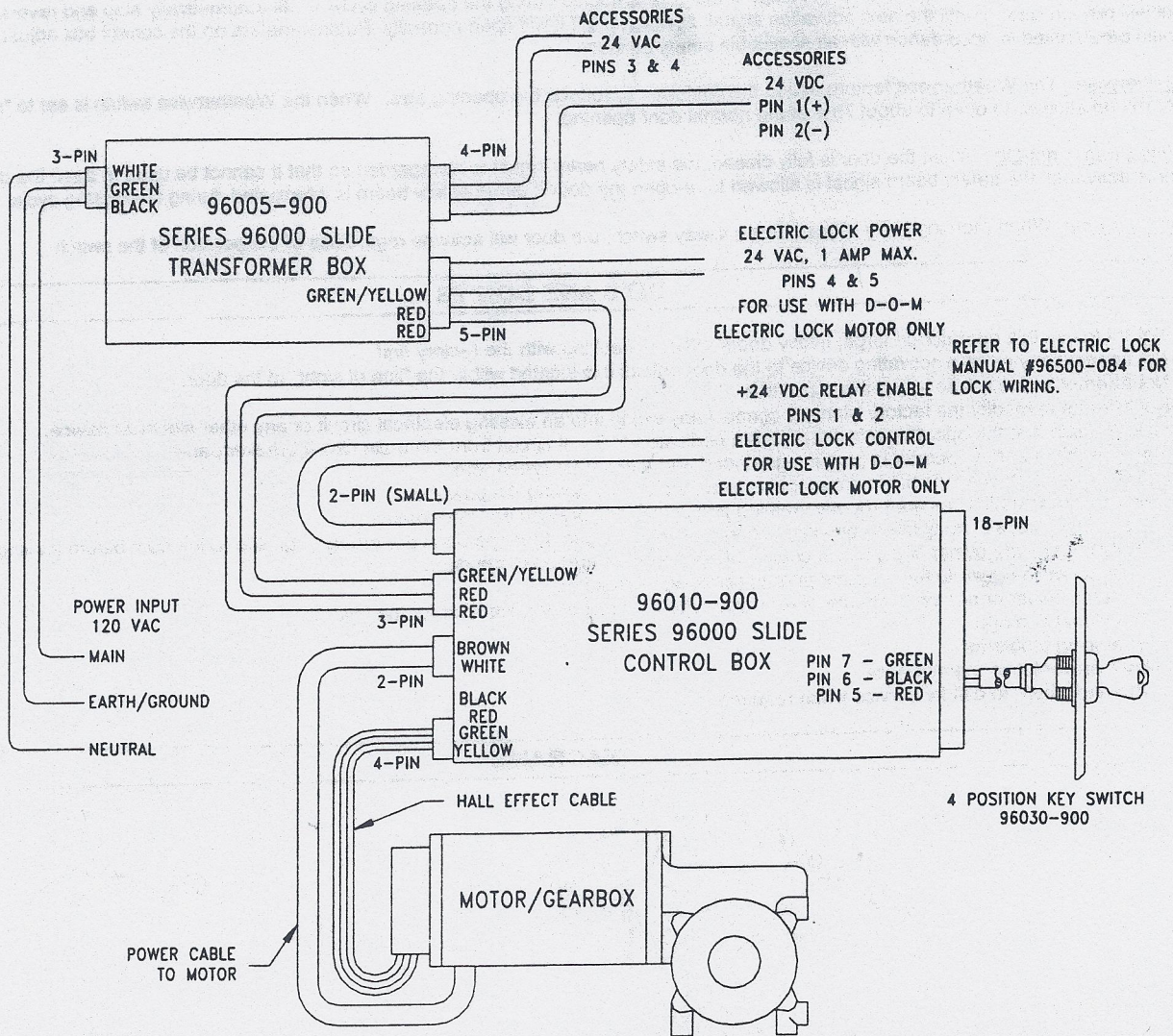


FIGURE 2: POWER WIRING DIAGRAM

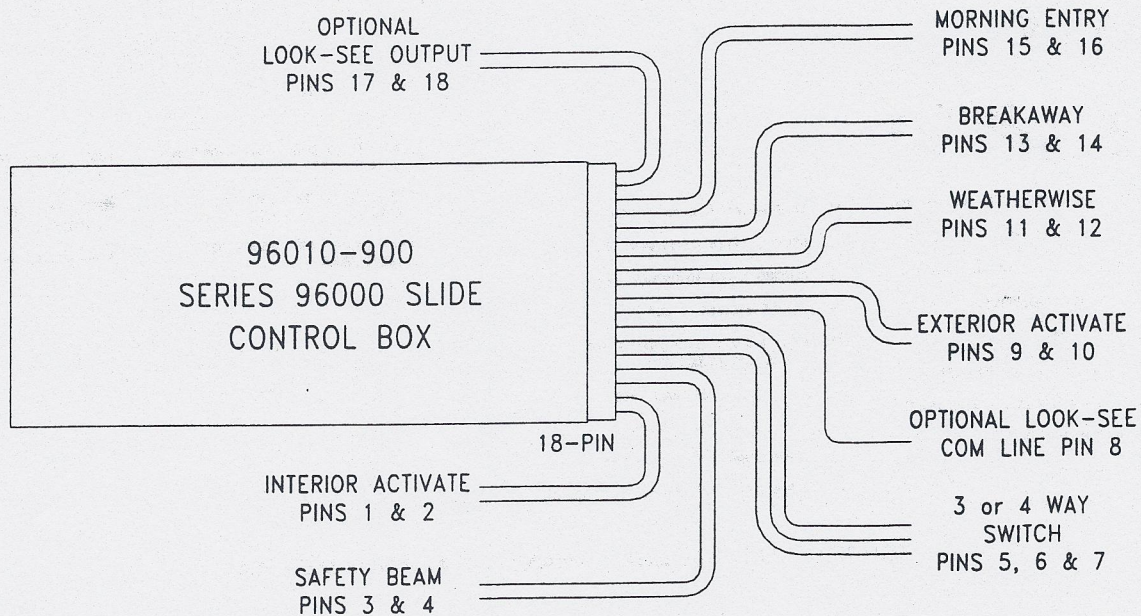


FIGURE 3: ACCESSORIES WIRING DIAGRAM

FAIL SAFE & FAIL SECURE ELECTRIC LOCKS

These Dor-O-Matic Electric Lock Systems are designed for use with a Dor-O-Matic Quantum-Slide operator and Dor-O-Matic four-position key switch 96030-900. Refer to the following chart for door and lock functions.

96500-900 Fail Safe Electric Lock		96550-900 Fail Secure Electric Lock	
Key Position	Operation	Key Position	Operation
Off	Door is locked. Inside activation and outside activation are both non-functional.	Off	Door is locked. Inside activation and outside activation are both non-functional.
1-Way	Inside Activation: Door is locked until activation, at which point door unlocks and opens. Outside Activation: Door is locked. Outside activation is non-functional.	1-Way	Inside Activation: Door is locked until activation, at which point door unlocks and opens. Outside Activation: Door is locked. Outside activation is non-functional.
2-Way	Door is unlocked. Both inside activation and outside activation are functional.	2-Way	Door is unlocked. Both inside activation and outside activation are functional.
Hold Open	Door is unlocked and held open indefinitely.	Hold Open	Door is unlocked and held open indefinitely.
No power to door	Door is unlocked	No power to door	Door is locked

Note: When morning entry is used with either of the above electric locks and a 4-position key switch, the door will activate regardless of the position of the key switch.

ELECTRIC LOCK WIRE DIAGRAM

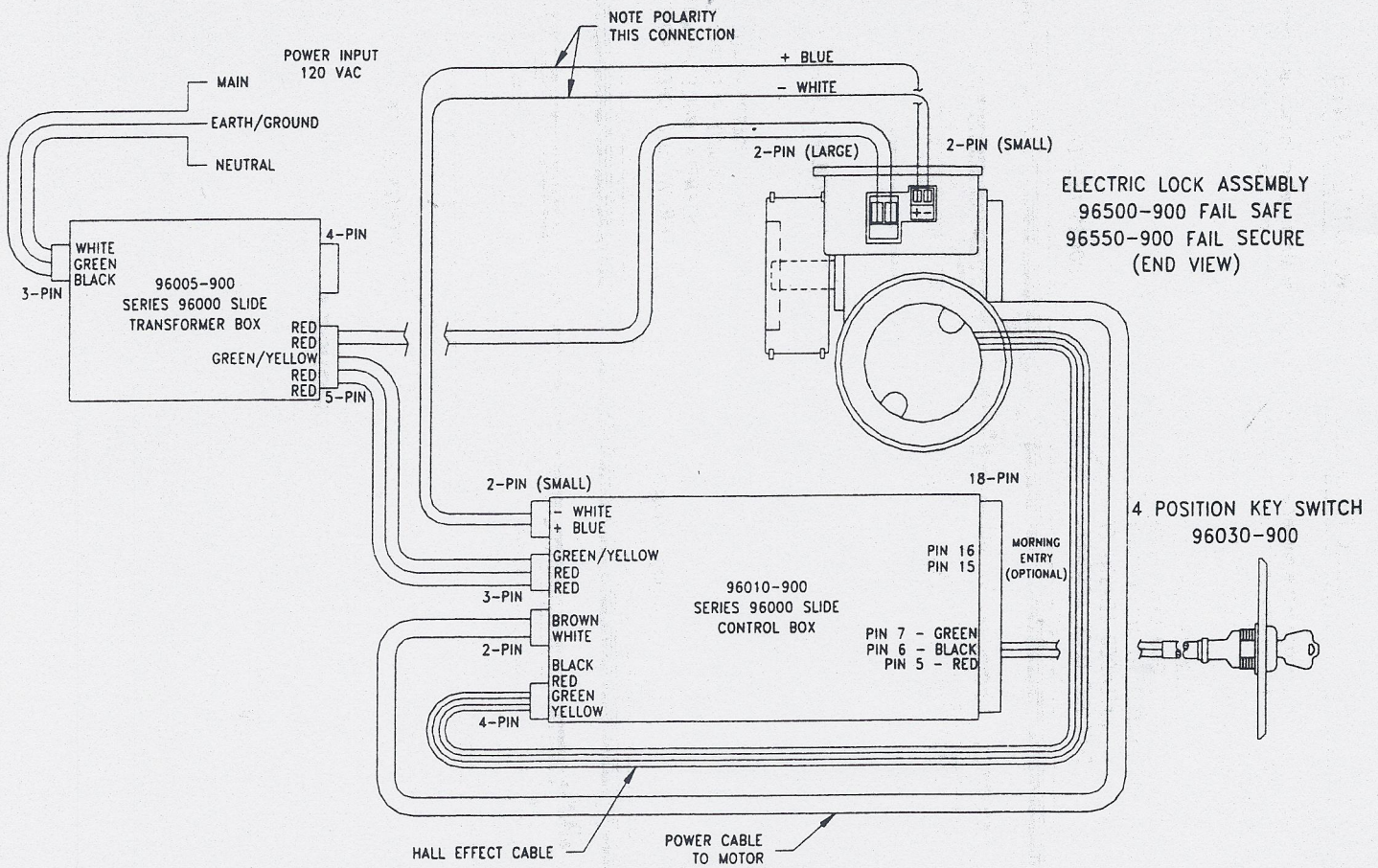


FIGURE 4

ELECTRIC LOCK CARRIER ADJUSTMENTS

On header lengths under 9 1/2 feet, it may be necessary to relocate the carrier assemblies to accommodate the electric lock assembly. Prior to operating the door, manually open the door to the full open position. Check to see that the carrier assembly does not contact the electric lock assembly. If there is interference, relocate the carrier assembly the necessary distance beyond the centerline of the header to prevent interference. Refer to Figure 5 below for details.

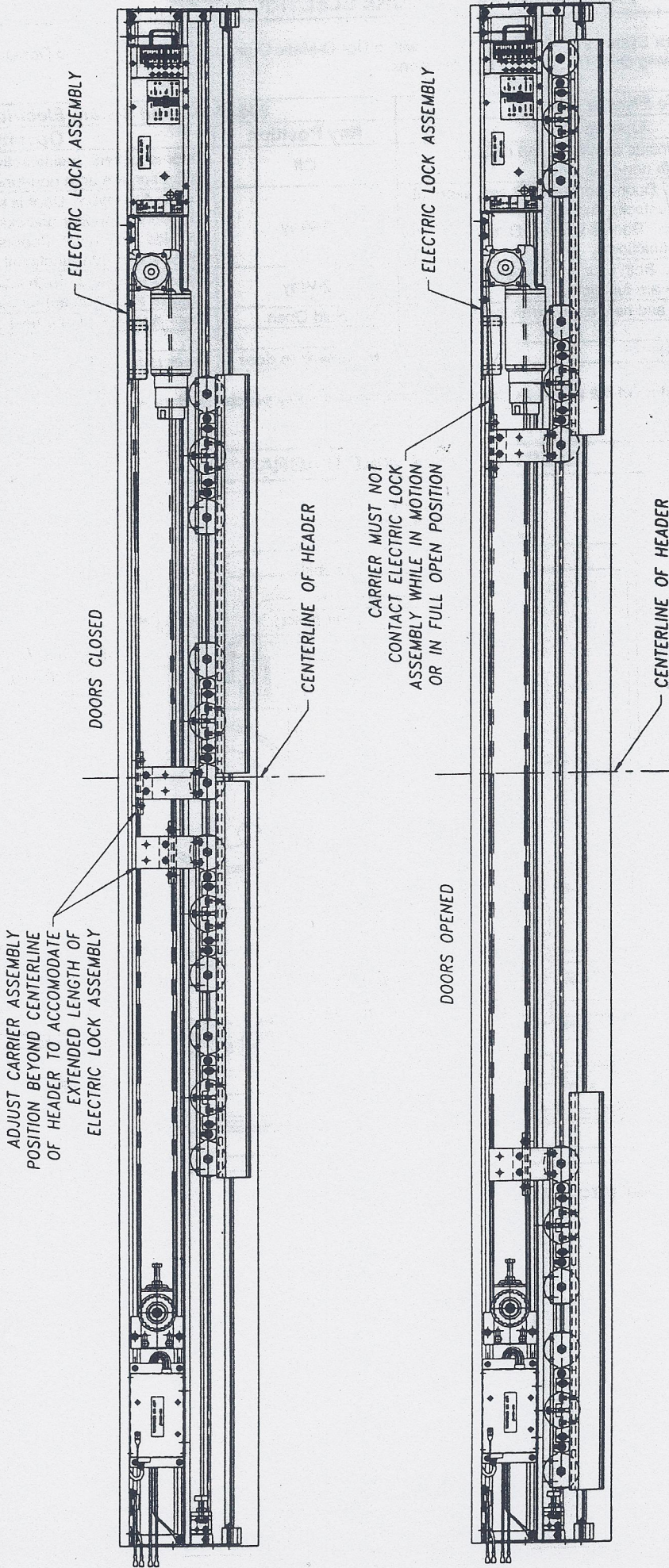


FIGURE 5