



## Installation Instructions

80-9344-0710-010 (7-01)

Combination Door Closer-Holder  
and Releasing Device WITHOUT  
Integral Smoke Detector

Power Track Series  
Support Unit – PT  
Slave Unit – PTS

## Models

Stop (Push) Side of  
Door Application

Support  
P400 PT

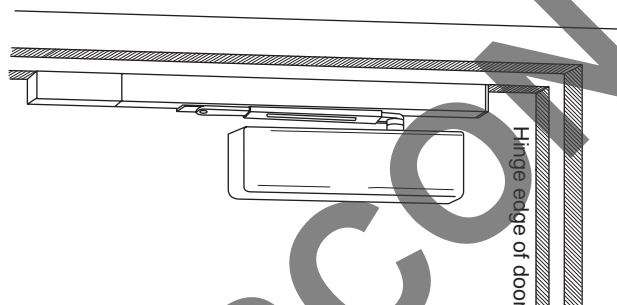
Slave  
P400 PTS

### CAUTION

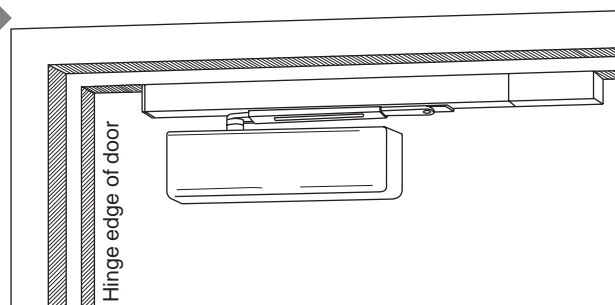
An incorrectly installed or improperly adjusted door closer can cause property damage or personal injury. These instructions should be followed to avoid the possibility of misapplication or misadjustment.

NOTE: For special applications a separate door and frame preparation template is packed with these instructions. Use this instruction sheet for installation sequence and closer adjustments only.

- Use of an auxiliary door stop is always recommended.

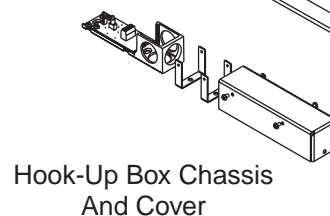
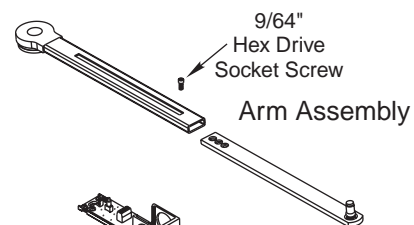
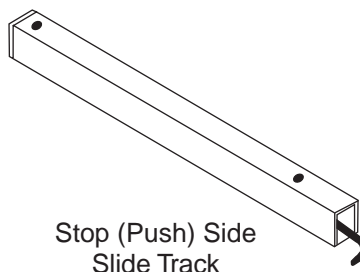
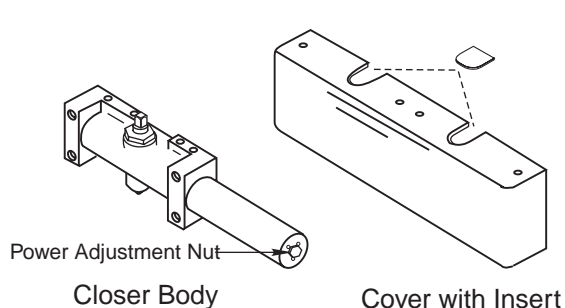


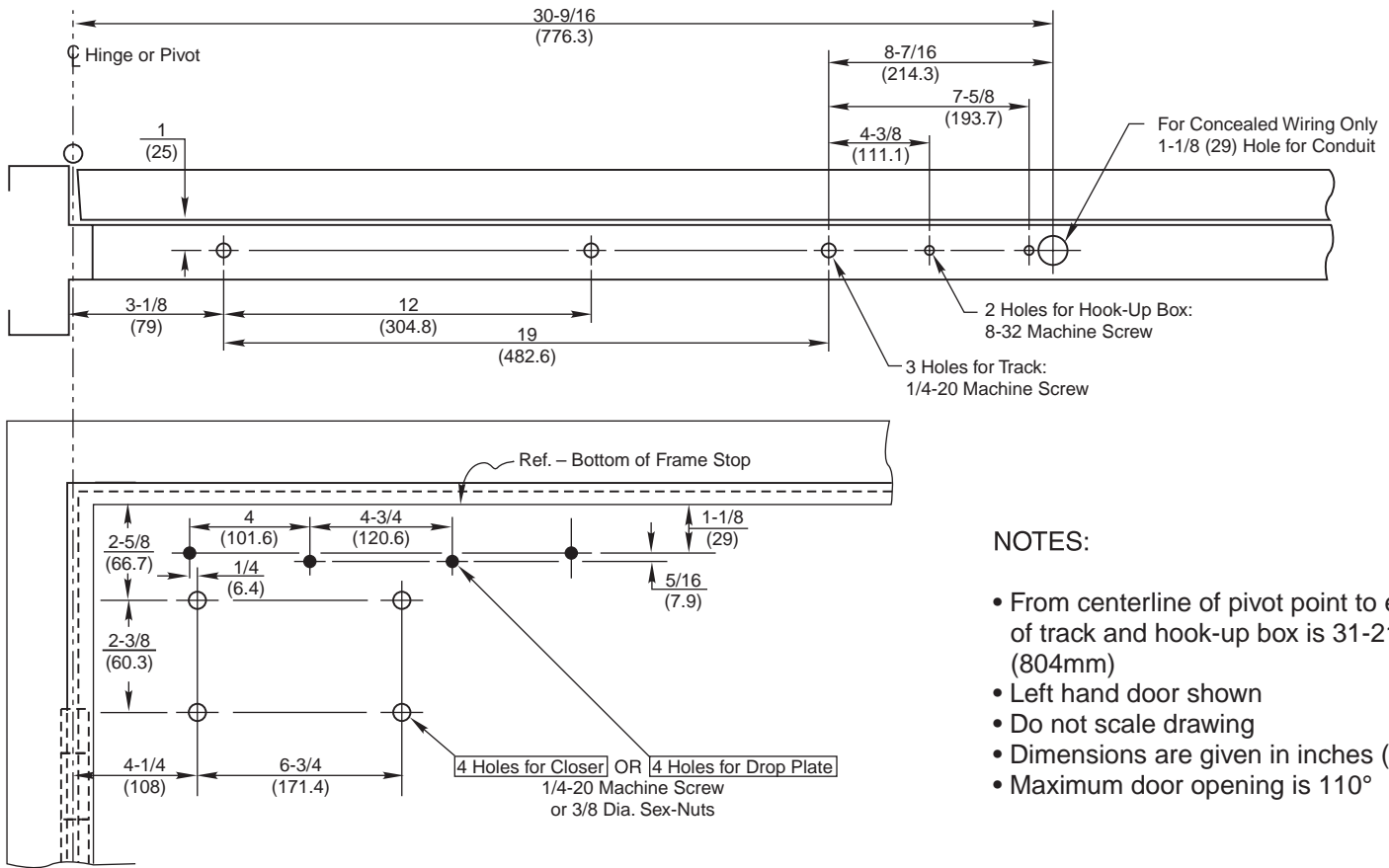
RH – Right Hand Door  
LHR – Left Hand Reverse



Left Hand Door – LH  
Right Hand Reverse – RHR

## Components:





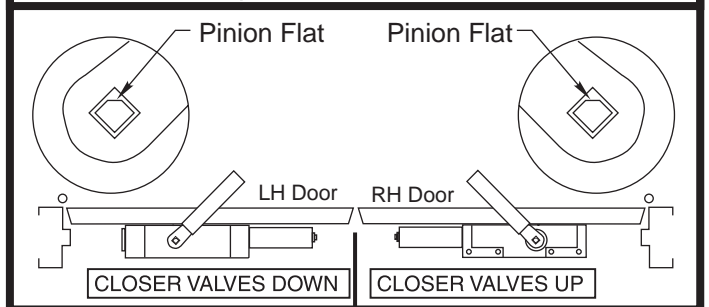
#### NOTES:

- From centerline of pivot point to end of track and hook-up box is 31-21/32 (804mm)
- Left hand door shown
- Do not scale drawing
- Dimensions are given in inches (mm)
- Maximum door opening is 110°

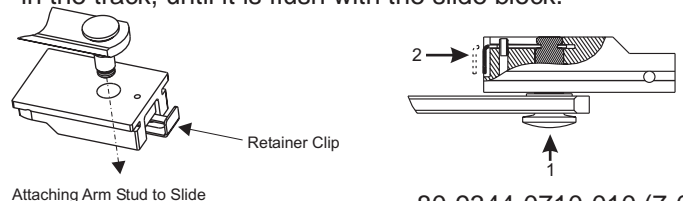
#### Preparation for Fasteners

Fasteners	Opening	Fastener Preparation
8-32 Machine Screw	Metal Frame	Drill: #29 [.136" (3.45mm) dia.] 8-32 UNC Tap
1/4-20 Machine Screw	Metal Door or Frame	Drill: #7 [.201" (5.10mm) dia.] 1/4"-20 UNC Tap
3/8 Dia. Sex Nut	Wood or Composite Door	3/8" [.375" (9.50mm) dia.] through

#### Arm Indexing



1. For Concealed Wire Applications Only:  
Locate and drill 1-1/8" (29mm) diameter hole in frame soffit for the conduit.
2. Locate mounting holes in door and frame using above template:  
Door – 4 holes for Closer or 488 Drop Plate  
Frame – 3 holes for Track. 2 holes for Hook-up Box
3. Prepare mounting holes for fasteners using "Preparation for Fasteners" chart above.
4. Fasten Track Assembly to frame with wires toward lock edge of frame and open side facing down.
5. Remove metal cover and straps from Hook-Up Box assembly.
6. Fasten Hook-up Box Straps and Chassis to frame with conduit hole openings away from hinge edge of frame.  
NOTES: Place Hook-Up Box straps between frame and chassis. Special conduit nut supplied to anchor 3/4" conduit fitting.
7. Mount CLOSER BODY (or Drop Plate and then Closer Body) to door with spring adjustment nut toward lock edge of door and closer valves:  
Facing DOWN for LEFT HAND door  
Facing UP for RIGHT HAND door
8. Adjust arm to shortest length and install 9/64" hex drive socket head screw from screw pack.
9. Place slide arm on pinion shaft using Arm Indexing instructions above.
10. Secure arm with arm washer and arm screw.
11. Insert arm stud into slide block in track assembly. Secure by pushing in on the retainer clip that extends from the slide block in the track, until it is flush with the slide block.



80-9344-0710-010 (7-01)

# MAKE ELECTRICAL CONNECTIONS

1. Select the proper wiring diagram from Page 4 and make input power connections to the hook-up box terminal strip. Note 14AWG maximum wire size for connections.
2. Connect solenoid to hook-up box:
  - A. 24V units are supplied with a "keyed" solenoid connector that plugs into a header on the hook-up box board.
  - B. 120V units are supplied with a 2 connector terminal strip on the hook-up box board for making the solenoid connection.

## DOOR CLOSER ADJUSTMENTS

### Arm Attachment to Track

Insert arm stud into slide block in track.

Secure by pushing in on the retainer clip that extends from the slide block, until it is flush with the slide block, see illustration on page 2 of these instructions.

### Hold Open Angle:

Place door in the Hold Open position. Remove 9/64" hex drive socket head screw from arm. Open door to desired angle and install hex-drive socket head screw into hole in adjusting rod that is aligned with the hole in the adjusting tube.

### Closing Power

Closing Power can be increased by 50%.

To increase power, see Figure 1, rotate "Spring Adjustment Nut" clockwise using a 11/16" wrench or socket. 15 full turns (360°) will provide maximum available power.

### Closing Cycle (hydraulic control)

See figure 2A.

Valve "L" controls door speed in Latch range.

Valve "S" controls door speed in Sweep range.

~~Use 1/8" hex-key furnished and adjust as shown in figure 3.~~

### Opening Cycle (hydraulic control)

See figure 2B.

Valve "B" cushions (slows) door opening in the backcheck range.

Note: Never close this valve completely or damage to closer may occur.

Valve "P" allows "backcheck" to begin later in the opening cycle.

~~Use 1/8" hex-key furnished and adjust as shown in figure 4.~~

### Installation of Cover:

Fasten cover to closer with two screws provided:

- Molded Cover fastened at the top of closer.
- Metal Cover fastened at each end of closer.

Using four screws provided, fasten metal hook-up box cover.

### Hold Open Power Adjustment:

If more hold open power is required, the power may be increased by turning the adjustment screw in the end of the track nearest the hinges. Use 9/64" hex wrench provided and rotate adjustment screw clockwise to increase holding power.

3. Turn the power to the unit "On".

4. Open door to the hold open point. The door should hold open.

5a. "PT" Units Only

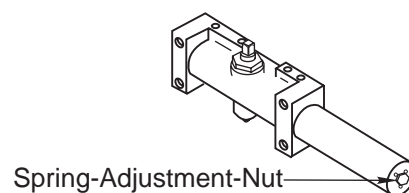
Depress "Test Switch" button on hook-up box board ... door should close.

5b. "PTS" Units Only

Depress "Test Switch" button on MASTER UNIT hook-up box board ... both master and slave door should close.

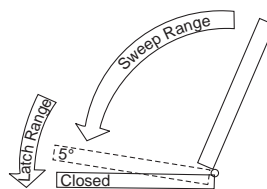
## Closing Power Control

Figure 1.



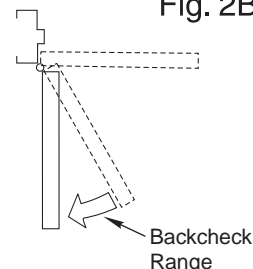
## Hydraulic Control

Fig. 2A



Closing Cycle

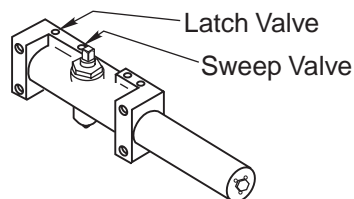
Fig. 2B



Opening Cycle

## Closing Speed

Figure 3.



## Backcheck

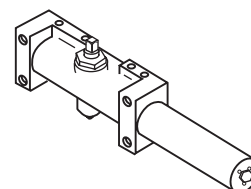
Figure 4.

Position Valve  
(Normally Closed)

Backcheck Valve\*

Increase

Open to relocate backcheck-start to a point farther in door-opening cycle.



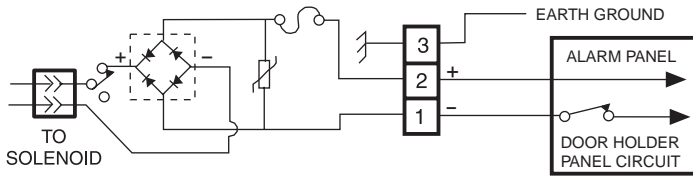
Decrease

\*NEVER close this valve completely.

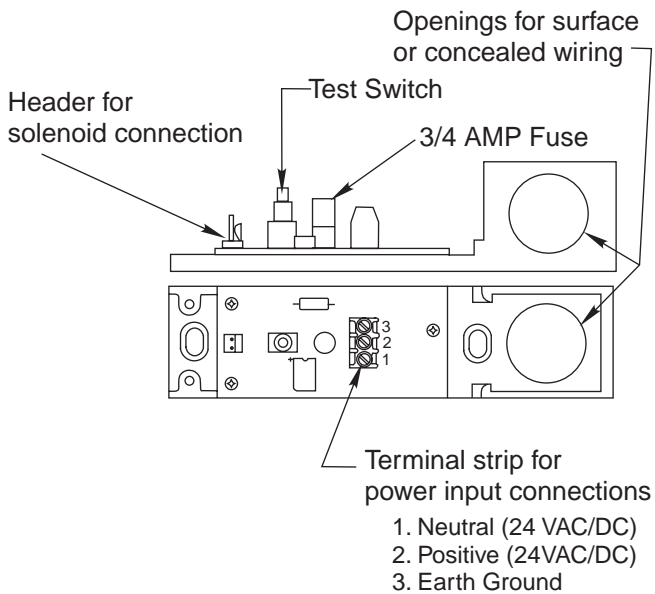
# "PT" WIRING INSTRUCTION 24VAC/DC or 120VAC

Input voltage supplied must match label rating on hook-up box.

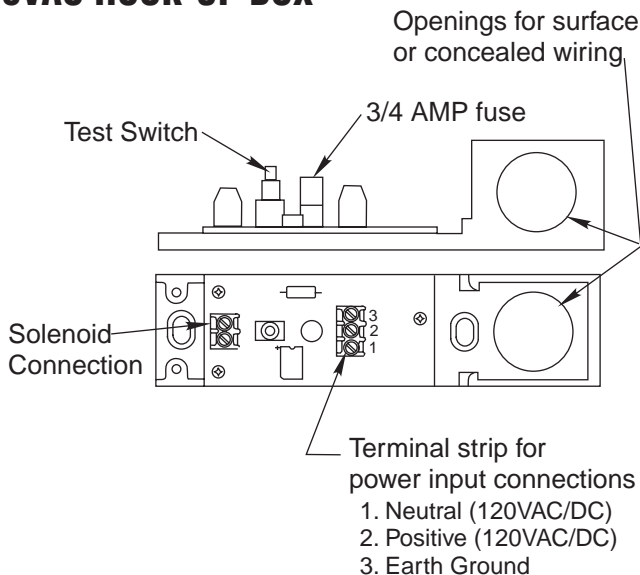
## TYPICAL WIRING DIAGRAM



## 24VAC/DC HOOK-UP BOX



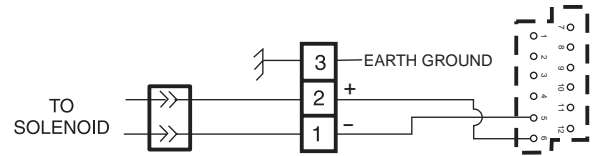
## 120VAC HOOK-UP BOX



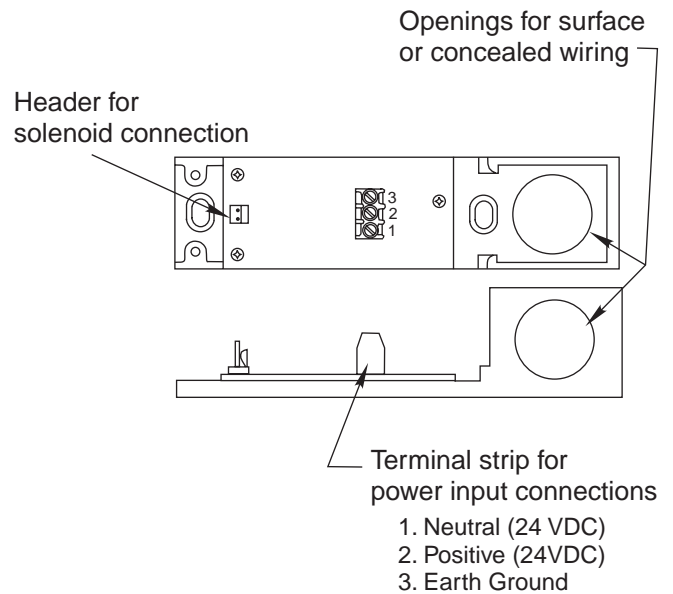
# "PTS" WIRING INSTRUCTION 24VDC ONLY

Typical wiring terminals 1 and 2 will connect to terminals 5 and 6 from "PTD" unit

## TYPICAL WIRING DIAGRAM



## HOOK-UP BOX



## SPECIFICATIONS:

	120VAC	24VAC	24VDC
Voltage	120VAC + 10%-15%	24VAC + 10%-15%	24VDC + 10% -15%
Current	.018 AMPS	.090 AMPS	.090 AMPS

NOTES: 1. Maximum wire size is 14AWG.  
2. All wiring and connections use standard wiring practice conforming with local wiring codes.