7700 SERIES
POWER TRACK®
Electromechanical Closer-Holder
INTRODUCTION

The Norton Power Track® Closer-Holders combine the functions of a single point electromechanical door holder with the proven reliability of a 7700 Series Door Closer. The track assembly contains an arm slide and solenoid operated hold open mechanism and is available with or without an integral smoke detector. The closer is mounted on the door. The Power Track and hook-up box are mounted to the frame face for pull side installations or the frame soffit for push side installations.

The Power Track is an aluminum extrusion which incorporates a solenoid actuated cam that locks the arm slide in the track at a selected point. The degree of door hold open is selected by adjustment of the telescoping arm. When there is power to the unit, the door will hold open at the selected hold open point. Any power interruption will release the arm slide and the door will close. The door can be released manually at any time.

FUNCTIONS

Master Unit
- Unit comprised of integral smoke detector and solenoid hold open mechanism in the slide track, a hook-up box and door closer.
- Can be used to control a single door or a pair of doors in conjunction with a 24VDC Support Unit.
- Suffix “PTDO” to model number.

Support Unit
- Unit is comprised of a solenoid hold open mechanism in the slide track, hook-up box and a door closer.
- Units can be installed on a single door or a pair of doors when controlled by compatible UL listed detection equipment such as area ceiling detectors, pull stations, and remote alarm panels.
- A 24VDC Support Unit can also serve as a slave unit when used on the inactive leaf of a pair of doors. The active leaf of the pair of doors must be controlled by a Master Unit.
- Suffix “PTO” to model number.

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HOW TO ORDER

P
PREFIX

7705
DOOR CLOSER

PTDO
SUFFIXES

X
VOLTAGE

X
FINISH

PTDO – Master Unit with Integral
Smoke Detector

PTO – Support Unit (used with
area/ceiling detectors)

DE – Deep Reveal Arm for Double
Egress Frames (specify hand).
Reveals 1/8” – 3” (3-76mm).
Hinge (pull) side units only.

None – Unit mounted on pull
(hinge) side of door.
Maximum reveal 1/8”
(3mm)
For greater reveals up to
3” (76mm) suffix “DE” to
model number

P – Unit mounted on push
(stop) side of door

FINISHES

Sprayed Finishes

<table>
<thead>
<tr>
<th>Description</th>
<th>Specify Designation</th>
<th>Complements the following finishes</th>
<th>Old Designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum</td>
<td>689</td>
<td>628, 625, 629, 630, 651, 652</td>
<td>AL</td>
</tr>
<tr>
<td>Statuary Bronze</td>
<td>690</td>
<td>640, 613, 695</td>
<td>STAT</td>
</tr>
<tr>
<td>Dull Bronze</td>
<td>691</td>
<td>612, 637, 639</td>
<td>DB</td>
</tr>
<tr>
<td>Black</td>
<td>693</td>
<td>315</td>
<td>315</td>
</tr>
<tr>
<td>Medium Amber</td>
<td>694</td>
<td>312</td>
<td>312</td>
</tr>
<tr>
<td>Gold</td>
<td>696</td>
<td>605, 606, 632, 633</td>
<td>GB</td>
</tr>
<tr>
<td>Prime Coat*</td>
<td>600</td>
<td></td>
<td>SRI</td>
</tr>
</tbody>
</table>

*600 is a special rust inhibiting prime coat. Closers can be ordered prime coat only (specify closer x 600). An additional charge applies if finish coat is required over prime coat (ex: 7705PTO x 600 x 689).

Finishes other than those listed above may be available on special order. Sample chips will be required.

COMPLIANCE STANDARDS

• ANSI/BHMA A156.15 certified
• UL / cUL listed for use on fire rated doors
• UL10C listed for positive pressure fire test
• This product is manufactured in an ISO 9001 facility

Select Single-Point Hold Open:
The Power Track® has one template position. The single-point hold open position is selected by adjusting the telescoping arm with a hex drive set screw. Hold open range is 85° thru 110° in approximately 3° increments.

Non-Handed:
Units are non-handed except when ordered with “DE” Double Egress arms.

Choice of Push or Pull Side Installation:
No prefix indicates pull side application. Prefix “P” for push side installation.

Choice of Supply Voltage:
Available in 24VAC/DC or 120VAC, 60Hz. voltages. Power to these devices must be within a range of (+) 10% (-) 15% of the stated voltage.

Fail Safe:
In the event of a power outage, the Power Track solenoid will be de-energized and the closer/holder will then operate as a normal door closer.

Wiring Option:
Both pull and push side applications will accommodate either concealed or surface wiring. The hook-up box will accept 3/4” (19mm) conduit. Each Power Track is supplied with a thin-walled conduit nut to attach the conduit clamp. The hook-up box base is prepared for surface wiring. State and local building codes will dictate the type of wiring.

Spring Cushioned Dead Stop:
A spring-loaded buffer block at the point of hold open prevents over travel of the arm slide and provides a cushioned dead stop. Use of an additional wall or floor stop is always recommended.

Photoelectric Sensing
Detector employs a photoelectric chamber to substantially reduce the probability of false alarms.

Fire/Smoke Control Circuit
Interprets the alarm signal from the detector and provides switching contacts to interrupt power to the hold open solenoid and divert it to activate optional audio/visual alarms.

Alarm (Relay) Contacts
Normally open in standby condition (energized, non-alarm state). These contacts close during an alarm condition (smoke detected) and switch power from the solenoid to an optional local alarm.

Trouble (Relay) Contacts
Normally closed in standby condition, these supervisory contacts monitor the continuity of power within the detector circuit. Any power interruption within the detector circuit will open these contacts. They can then be used to simultaneously indicate a trouble condition to the alarm panel on a separate trouble circuit.

Quick Disconnect Modules
Each component, solenoid coil, detector and control feature quick disconnect wiring for easy servicing and replacement.

Locked-In Alarm
When a unit alarms, it must be manually reset. This can be accomplished by remote control from the alarm console or by the reset button in the smoke detector. Reset button is accessible through the center louver in the underside of the track. Reset by rotating LED chamber using small flat blade screwdriver.

Indicator Lights
Normal Mode: A red LED flashes once every eight (8) seconds.
Clean Mode: A red LED flashes once every second.
Alarm Mode: A red LED illuminates continuously.
ORDERING VOLTAGES

<table>
<thead>
<tr>
<th>Type of Unit</th>
<th>Model</th>
<th># of Power Input Lines</th>
<th>Choices of Voltage Input</th>
<th>Can be used with</th>
</tr>
</thead>
<tbody>
<tr>
<td>Master</td>
<td>PTDO-24</td>
<td>1</td>
<td>24 VAC/DC</td>
<td>24V Support Model PTO</td>
</tr>
<tr>
<td></td>
<td>PTDO-120</td>
<td></td>
<td>120 VAC, 60 Hz</td>
<td></td>
</tr>
<tr>
<td>Support</td>
<td>PTO-24</td>
<td>1</td>
<td>24 VAC/DC</td>
<td>Area Smoke Detection System</td>
</tr>
<tr>
<td></td>
<td>PTO-120</td>
<td></td>
<td>120 VAC, 60Hz</td>
<td></td>
</tr>
</tbody>
</table>

Operating voltage for the control of fire/smoke doors are specified by the architect, electrical engineer and alarm system engineer and/or contractor. Consulting with these sources will verify which operating voltage should be ordered.

"PTDO" Master Units
- Two components require electrical power:
  - Integral smoke detector requires 24VDC input power.
  - Hold open solenoid requires 24VDC input.
- Hook-up box receives primary voltage input and distributes it to the smoke detector and hold open solenoid(s).
- Available with two voltage options:
  - PTDO-24 suffix –
    - Accepts 24VAC or 24VDC power input.
    - A rectifier in the hook-up box will rectify alternating current to direct current for operation of both the smoke detector and hold open solenoid(s).
  - PTDO-120 suffix –
    - Accepts 120VAC power input.
    - A 120VAC to 24VAC transformer in the hook-up box steps the input voltage down to 24VAC. It is then rectified to 24VDC for operation of both the smoke detector and the 24VDC hold open solenoid(s).

"PTO" Support Units
- Hold open solenoid requires electrical power.
- Solenoid controlled by smoke detection equipment (ceiling detectors) or remote alarm panels.
- Available for operation on 24VAC/DC or 120VAC, 60Hz.
- Hold open solenoid operates on direct current.
- Contains built-in rectifier that converts alternating current to direct current.
7705 POWER TRACK®

PULL (HINGE) SIDE MOUNTING

Model # | Description
--- | ---
7705PTDO | Master Unit Controlled by Integral Smoke Detector
7705PTO | Support Unit Controlled by Remote Detection Equipment

TECHNICAL DETAILS

Minimum Top Rail

<table>
<thead>
<tr>
<th>Without Drop Plate</th>
<th>With 7786 Drop Plate</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-1/2&quot; (89mm)</td>
<td>1-7/8&quot; (48mm)</td>
</tr>
</tbody>
</table>

2-1/8" (54mm) minimum ceiling clearance required for Power Track.

DOOR SIZE

<table>
<thead>
<tr>
<th>Door(s) Opening Inches (cm)</th>
<th>Model Number &amp; Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max.*</td>
<td>Min.**</td>
</tr>
<tr>
<td>Single Door</td>
<td></td>
</tr>
<tr>
<td>48&quot; [122]</td>
<td>36' [91]</td>
</tr>
<tr>
<td>48&quot; [122]</td>
<td>32' [81]</td>
</tr>
<tr>
<td>Pairs of Doors</td>
<td></td>
</tr>
<tr>
<td>96&quot; [244]</td>
<td>68' [173]</td>
</tr>
<tr>
<td>96&quot; [244]</td>
<td>64' [163]</td>
</tr>
</tbody>
</table>

* Maximum door size for door closer power.
** Minimum door opening for standard installation. Consult factory for door openings narrower than those shown. Consult factory if door weight exceeds 250 lbs.

Double Egress Doors: With reveals greater than 1/8" (3mm), a special handed arm for the pull (hinge) side Power Track is available. Accommodates reveals to 3" (76mm). Suffix "DE" to model number, specify hand.
P7705 POWER TRACK®

Model # | Description
--- | ---
P7705PTDO | Master Unit Controlled by Integral Smoke Detector
P7705PTO | Support Unit Controlled by Remote Detection Equipment

NOTE: Interference with other hardware such as vertical rod exit devices, magnetic locks, and door coordinators, etc., must be considered when selecting this product.

TECHNICAL DETAILS

**Push (Stop) Side Mounting**

P7705PTO Shown

**Minimum Top Rail**

<table>
<thead>
<tr>
<th>Without Drop Plate</th>
<th>With 7788 Drop Plate</th>
</tr>
</thead>
<tbody>
<tr>
<td>6' (152mm)</td>
<td>2-3/4' (70mm)</td>
</tr>
</tbody>
</table>

1-1/2' (38mm) minimum frame soffit required for Power Track.

**DOOR SIZE**

<table>
<thead>
<tr>
<th>Door(s) Opening Inches (cm)</th>
<th>Model Number &amp; Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max.*</td>
<td>Min.**</td>
</tr>
<tr>
<td>Single Door</td>
<td></td>
</tr>
<tr>
<td>48' (122)</td>
<td>36' (91)</td>
</tr>
<tr>
<td>48' (122)</td>
<td>33' (84)</td>
</tr>
<tr>
<td>Pairs of Doors</td>
<td></td>
</tr>
<tr>
<td>96' (244)</td>
<td>68' (173)</td>
</tr>
<tr>
<td>96' (244)</td>
<td>64' (163)</td>
</tr>
</tbody>
</table>

* Maximum door size for door closer power.
** Minimum door opening for standard installation. Consult factory for door openings narrower than those shown.
Consult factory if door weight exceeds 250 lbs.
SUGGESTED SPECIFICATIONS

Closers for ______ doors shall be electromechanical closer-holder. Hold open to be achieved by electric solenoid locking of closer arm slide in its track. Track, arm, slide (and) solenoid (and integral smoke detector) to be contained in a single aluminum extrusion 1-1/2" (38mm) high, 1-1/2" (38mm) deep.

Closer shall be door mounted. Track and hold open mechanism shall be surface mounted to the frame face for application on the pull side of the door and frame soffit mounted for application on the push side of the door. Single point hold open shall be selective through a range of 85° to 110°. Hold open point to be achieved by adjustment of a telescoping closer arm.

Closer shall be hydraulic with full rack and pinion enclosed in a cast aluminum alloy shell. Hydraulic fluid shall be non-gumming and non-freezing. Closer shall have two non-critical valves to independently regulate sweep speed and latch speed. It shall have an adjustable backcheck cushioning valve and an adjustable backcheck positioning valve. All valves shall be adjustable with a hex-key. Closer shall have spring power adjustment to permit 50% increase in closing power. Closer to be enclosed in a molded full cover.

(Master units to have an integral smoke detector with photoelectric chamber. Master units integral smoke detector shall have latching alarm and reset switch.) (Support units to be controlled by U.L. Listed Smoke Detection Equipment.) Units to be fail safe and close the door during an interruption to the electrical power. The hold open solenoid coil shall have a maximum amperage draw of .090 Amps at 24 volts (.018 Amps at 120 volts). Unit shall have a switch to permit testing of the releasing device function without alarming the system.

All wiring connections shall be made without the need of wire nuts or soldering. Master unit(s) shall require a (24VAC/DC) (120VAC, 60Hz) power input. Support unit(s) shall require a (24VAC/DC) (120, 60Hz) power input. Supplier to coordinate electrical requirements with electrical and alarm system engineers. Wiring (and conduit) by others. Electromechanical Closer-Holder to be Norton® Power Track® [P]7700[PTO][PTDO]].

*Number of Input Lines (pairs) required to supply Operating Voltage. This does not include signal or control lines (pairs) to Alarm Panels.
## TRACK ASSEMBLIES

<table>
<thead>
<tr>
<th>Description</th>
<th>Voltage</th>
<th>Part Number^</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Hinge Side</td>
</tr>
<tr>
<td>Master or Support</td>
<td>24V</td>
<td>PTO24</td>
</tr>
</tbody>
</table>

Master and Support Unit Track Assemblies include track, slider assembly and solenoid block assembly. Hook-up box not included.

![Diagram of track assembly components]

### Hook-Up Box Cover Kit^  

<table>
<thead>
<tr>
<th>Description</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Master</td>
<td>PTDOHBCOV</td>
</tr>
<tr>
<td>Support</td>
<td>PTOHBCOV</td>
</tr>
</tbody>
</table>

### Hook-Up Boards^  

<table>
<thead>
<tr>
<th>Description</th>
<th>Voltage</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Master or Support</td>
<td>24V</td>
<td>PTOPCB24</td>
</tr>
<tr>
<td></td>
<td>120V</td>
<td>PTOPCB120</td>
</tr>
</tbody>
</table>

^ Not compatible with products manufactured prior to March 2009.
Standard Arm Assembly
7701ST-1A\textsuperscript{1,2}

Double Egress Arm Assembly
7701PT-DE-1R\textsuperscript{1,2} – (Right Hand)
7701PT-DE-1L\textsuperscript{1,2} – (Left Hand)

\textsuperscript{1} Includes arm length adjusting screw #7700-ALAS
\textsuperscript{2} Includes arm tube & adjusting rod assembly

NOTE: Mounting hardware included with all parts orders.
## 7700 Series
### Power Track®

#### Parts

<table>
<thead>
<tr>
<th>Description</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fuse[^]</td>
<td>PTO125V</td>
</tr>
<tr>
<td>Smoke Detector Board[^][*]</td>
<td>MPDOSD24</td>
</tr>
<tr>
<td>Solenoid Block Assembly (24V)</td>
<td>PT24SOL</td>
</tr>
<tr>
<td>Push Side Hook-Up Box Plug Button</td>
<td>P7700PB</td>
</tr>
</tbody>
</table>

[^] Not compatible with products manufactured prior to March 2009

[*] Same as Norton® 7200 Electromechanical Smoke Detector

#### Hook-Up Boxes[^]

<table>
<thead>
<tr>
<th>Description</th>
<th>Voltage</th>
<th>Hook-Up Boxes[^]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Master Unit</td>
<td>24V</td>
<td>PTDOHB24 PPTDOHB24</td>
</tr>
<tr>
<td></td>
<td>120V</td>
<td>PTDOHB120 PPTDOHB120</td>
</tr>
<tr>
<td>Support</td>
<td>24V</td>
<td>PTOHB24 PPTOHB24</td>
</tr>
<tr>
<td></td>
<td>120V</td>
<td>PTOHB120 PPTOHB120</td>
</tr>
</tbody>
</table>

[^] For identification purposes only - box is only supplied with cover