

**Norton**<sup>®</sup>

ASSA ABLOY

# 6900 Series Low Energy Power Operator



ASSA ABLOY, the global leader  
in door opening solutions

**INTRODUCTION**

Norton's 6900 Series is a "low energy" power door operator designed to automatically open and close doors with a lower energy opening force. Unlike high energy operators that require guide rails, safety mats and sensors, low energy operators only require signage.

The 6900 is easy to adjust, available for push- or pull-side mounting and offers obstruction detection during both opening and closing cycles. This operator is ideal for executive offices, retirement homes, educational and assisted living facilities, office/warehouse corridor doors, etc.



**TABLE OF CONTENTS**

**Overview, Functions ..... 3**

**Guide, Features, Electrical Data, Certifications ..... 4**

**How to Order..... 5**

**Standard Applications.....6-7**

**Drop Applications..... 8-9**

**Typical System Applications ..... 10-11**

**Architectural Specifications..... 12**

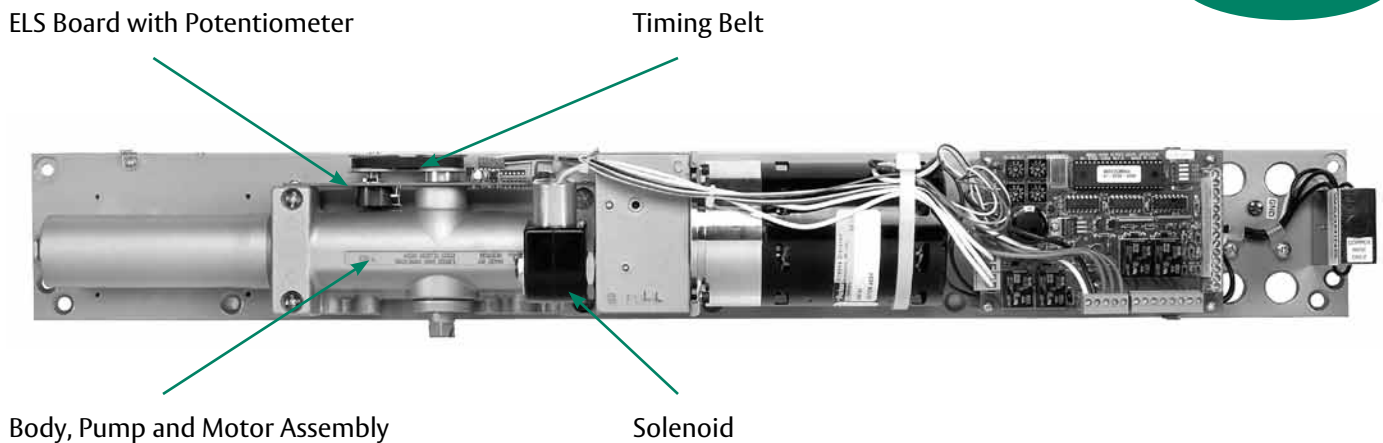
**Technical Details..... 13-14**

**Operational Signs ..... 15**

**Accessories ..... 15-16**

**Parts List ..... 17-18**

## OVERVIEW



## FUNCTIONS

The 6900 fully complies with ADA requirements and is ANSI/BHMA A156.19 certified. The unit functions using an A/C motor and hydraulic pump to activate a heavy-duty hydraulic door closer controlled by an Electronic Control Module (ECM) board. The 6900 is an excellent choice in a low energy power door operator with its:



- Ease of installation and setup
  - Simple instructions
  - Uses push-button settings for door open and door close positions
- Application versatility and ease of adjustment
  - Handed units
  - Push- or pull-side mounting
  - Interfaces with electric hardware and integrates with access control systems
- Operates as mechanical surface closer during close cycles or if power is turned off
  - Critical for fire-rated doors
  - Spring force provides the feel of a normal manual door closer
  - Door can be opened manually if desired
- Operation startup options
  - Wall switches
  - Motion sensor
  - Radio frequency device
  - Push and Go
- Hold Open options
  - 0-30 seconds (5 seconds minimum required for ADA and ANSI A156.19)
  - Choice of indefinite hold open features
- Obstruction Detection
  - Door closes if it hits an obstruction while opening
  - Door re-opens once if it hits an obstruction while closing
- Power Operator
  - When unit is activated door travels to open position
- Power Assist
  - When unit is activated, pump and motor allow door to be manually opened with a force less than 5 lbs.

**GUIDE**

Operator Type	Safety Equipment Required to be BHMA Compliant	Common Applications
Low Energy	Signage (included with unit)	<b>(Low to Moderate Traffic)</b> Executive Offices, ADA Dorm Rooms, ADA Hotels, Retirement Homes, Educational or Assisted Living Facilities, Office/Warehouse Corridor Doors, ADA Auxiliary Entrances, ADA Accessible Restrooms, Fire Doors
High Energy	Guide Rails, Safety Mats, Sensors & Signage	<b>(High Traffic)</b> Hospital Emergency Entrances & Operating Rooms, Airport Entrances, Large Office Building or Department Store Entrances


**FEATURES**

- Norton 7500 series door closer
  - Adjustable spring power
  - Backcheck valve
  - Backcheck position valve
  - Sweep valve
  - Latch valve
  - Speed control valve
  - Pressure adjustment valve
- Left or right hand
- Drop plate for low ceiling applications
- Push-side or pull-side applications
- Power Assist selector switch
- Push and Go selector switch
- Open/close obstruction detection
- Motor startup delay adjustment
- Vestibule function delay adjustment (For sequencing two or more units)
- Door hold open delay adjustment
- Single Pole Double Throw (SPDT) relay output
- SPDT relay output time adjustment
- SPDT alarm output
- Blow open function for smoke ventilation
- Indefinite hold open function
- Presence detector input
- 24 VDC @ .5A output
- Selector mode switch (3 position)
- OFF – Disables signal inputs except blow open. Unit still powered.
- ON – Activates signal inputs for normal use
- HOLD OPEN – Activates the unit to the hold open position indefinitely
- Dummy unit - includes the 7500 closer body, arm assembly, cover and backplate.

**ELECTRICAL DATA**

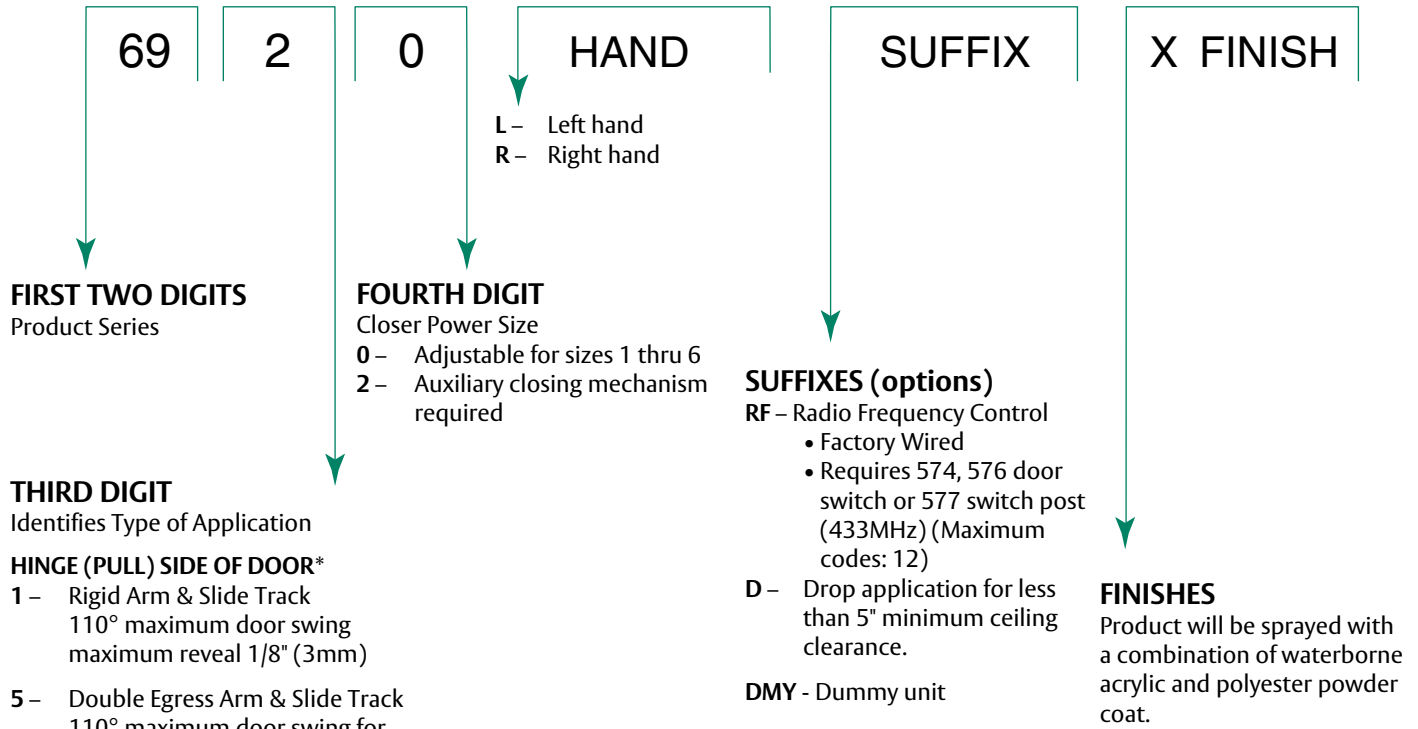
- Power input 120 VAC, 60 Hz (+10%, -15%)
- Current draw 1.5A
- Auxiliary output 24 VDC @ .5A
- SPDT relay output for controlling electric strikes or electric locks not to exceed 1 amp @ 30 VDC

**CERTIFICATIONS**

- Meets requirements for UL10C for positive pressure
- 2-year warranty (refer to current price list, terms and conditions)
- Americans with Disabilities Act (ADA)
- ANSI/BHMA A156.19 certified 
- UL Listing: Listed for use on fire and smoke barrier door assemblies when the 120VAC (60Hz) power input is supplied through the normally closed alarm contacts of a compatible U.L. listed alarm system or alarm panel.
- C-UL US listed for use on fire and smoke barrier doors
- California State Fire Marshal: 3550-944:109

HOW TO ORDER

Note: All transmitters (door switches or key fob) must be ordered separately.



**THIRD DIGIT**  
Identifies Type of Application

**HINGE (PULL) SIDE OF DOOR\***

- 1 – Rigid Arm & Slide Track  
110° maximum door swing  
maximum reveal 1/8" (3mm)
- 5 – Double Egress Arm & Slide Track  
110° maximum door swing for  
reveals 1/8" to 3" (3 to 76mm)  
(specify hand when ordering)

**STOP (PUSH) SIDE OF DOOR**

- 2 – Standard-Duty Double Lever Arm  
110° maximum door swing  
Reveals 2-3/4" to 6-7/8" (70 to 175mm)
- 3▲ – Standard-Duty Double Lever Arm  
180° maximum door swing  
Reveals 2-3/4" to 6-7/8" (70 to 175mm)
- 6♦ – Heavy-Duty Double Lever Arm  
110° maximum door swing  
Reveals 2-1/4" to 4-3/4" (57 to 121mm)
- 7 – Heavy-Duty Double Lever Arm  
110° maximum door swing  
Reveals 4-13/16" to 7-3/8" (122 to 187mm)

▲Models will be power operated to 110° but can be manually opened to 180°  
♦Reveals less than 2-1/4" (57mm) may be achieved by field cutting the adjusting rod

\*Consult Technical Support Department when door is hung on offset pivots

- SUFFIXES (options)**
- RF – Radio Frequency Control
    - Factory Wired
    - Requires 574, 576 door switch or 577 switch post (433MHz) (Maximum codes: 12)
  - D – Drop application for less than 5" minimum ceiling clearance.
  - DMY - Dummy unit

Description	Specify Norton Designation (BHMA)	Complements the following finishes	Old Designation
Aluminum	689	628, 625, 629, 630, 651	AL
Statuary Bronze	690	640, 613	STAT
Dull Bronze	691	612, 637, 639	DB
Black	693	315	315
Medium Amber	694	312	312
Gold	696	605, 606, 632, 633	GB
Prime Coat*	600	—	SRI

\*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: 6910 x RH x 600 x 689).

For application assistance, Norton offers complete services from specifying product to engineering a door system which includes riser and wiring diagrams. Consult Norton Technical Product Support for additional information.

**STANDARD APPLICATIONS**



Left hand shown

**6910/6950**

**HINGE (PULL) SIDE OF DOOR**

- Spring buffered stop assembly in slide track

**6910 RIGID ARM AND SLIDE TRACK**

- 85° to 110° templated door openings in 5° increments
- 1/8" (3mm) maximum frame reveal

**6950 DOUBLE EGRESS ARM AND SLIDE TRACK**

- From 1/8" to 3" (3 to 76mm) frame reveal
- Specify hand when ordering

An auxiliary stop is suggested where severe conditions exist.



Left hand shown

**6920/6930**

**STOP (PUSH) SIDE OF DOOR**

**STANDARD-DUTY DOUBLE LEVER ARM**

- Frame reveals 2-3/4" to 6-7/8" (70 to 175mm)
- An auxiliary door stop is required for these applications

Series	Door Opening
6920	Up to 110°
6930	From 110° to 180°



Left hand shown

**6960/6970**

**STOP (PUSH) SIDE OF DOOR**

**HEAVY-DUTY DOUBLE LEVER ARM**

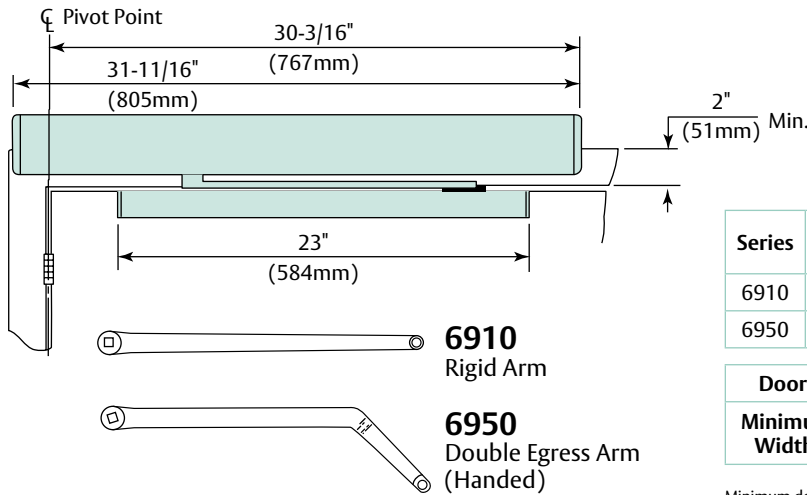
- Maximum frame reveals (see chart)
- 85° to 110° templated door openings in 5° increments
- Spring buffered stop in arm shoe assembly

Series	Reveal Range	
6960	2-1/4" to 4-3/4"*	(57 to 121mm)*
6970	4-13/16" to 7-3/8"	(122 to 187mm)

\* Reveals less than 2-1/4" (57mm) may be achieved by field cutting the adjusting rod

**NOTE: Contact factory if door weight exceeds 250 lbs.**

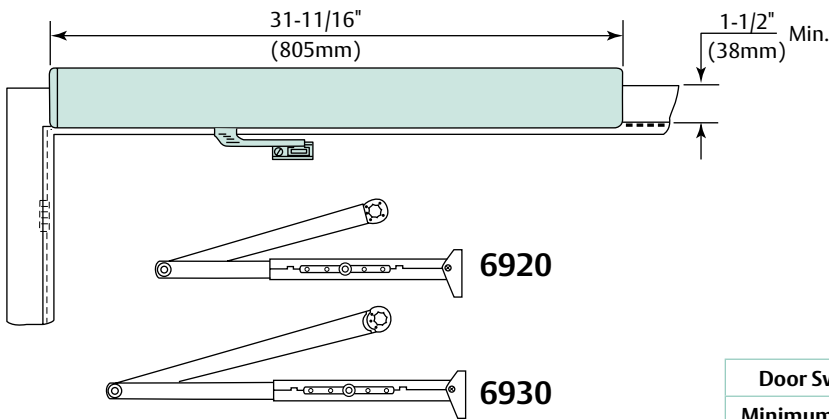
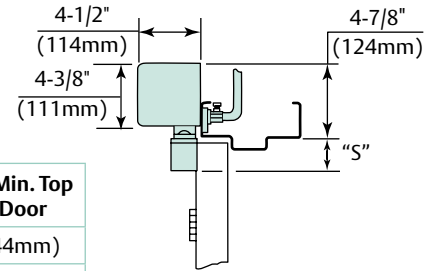
STANDARD APPLICATIONS



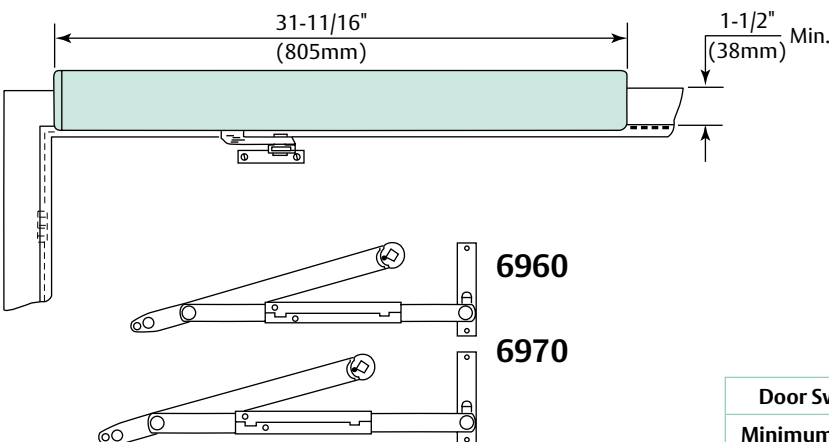
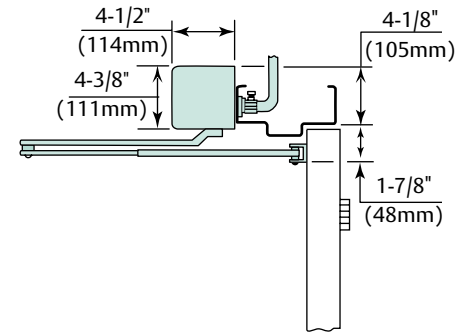
Series	Dim "S" Min. Top Rail of Door
6910	1-3/4" (44mm)
6950	2-3/8" (60mm)

Door Swing	85°	90°	95°	100°	105°	110°
Minimum Door Width (mm)	32" (813)	31" (787)	30" (762)	30" (762)	29" (737)	29" (737)

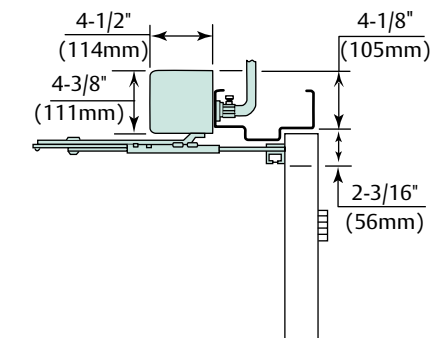
Minimum door width for all double egress applications is 29" (737mm).



Door Swing	90°	180°
Minimum Door Width (mm)	32" (813)	29" (737)



Door Swing	85°	90°	95°	100°	105°	110°
Minimum Door Width (mm)	34" (864)	33" (838)	33" (838)	32" (813)	32" (813)	31" (787)



**DROP APPLICATIONS**

**NOTE:** Drop application for less than 5" minimum ceiling clearance.



Left hand shown

**6920-D**  
**STOP (PUSH) SIDE OF DOOR – UP TO 110° DOOR OPENING**  
**STANDARD DUTY DOUBLE LEVER ARM**

- Frame reveals 2-3/4" to 6-7/8" (70 to 175mm)
- 110° maximum door opening. See 6930-D for openings to 180°
- Auxiliary door stop is required for this application
- Minimum door width is 33" (84cm)



Left hand shown

**6930-D**  
**STOP (PUSH) SIDE OF DOOR – OVER 110° TO 180° DOOR OPENING**  
**STANDARD DUTY DOUBLE LEVER ARM**

- Frame reveals 2-3/4" to 6-7/8" (70 to 175mm)
- Over 110° to 180°
- Auxiliary door stop is required for this application
- Minimum door width is 31" (79cm)



Left hand shown

**6960-D/6970-D**  
**STOP (PUSH) SIDE OF DOOR**  
**HEAVY-DUTY DOUBLE LEVER ARM**

- Maximum frame reveals (see chart)
- 85° to 110° templated door openings in 5° increments
- Spring buffered stop assembly in arm shoe

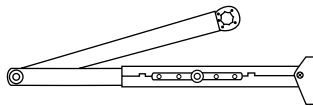
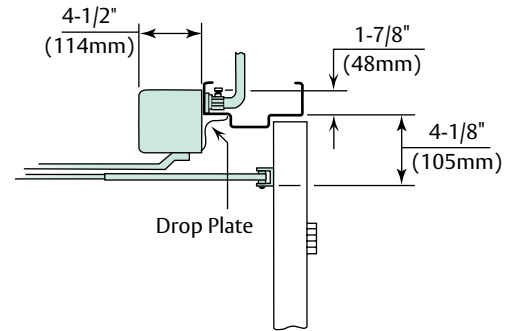
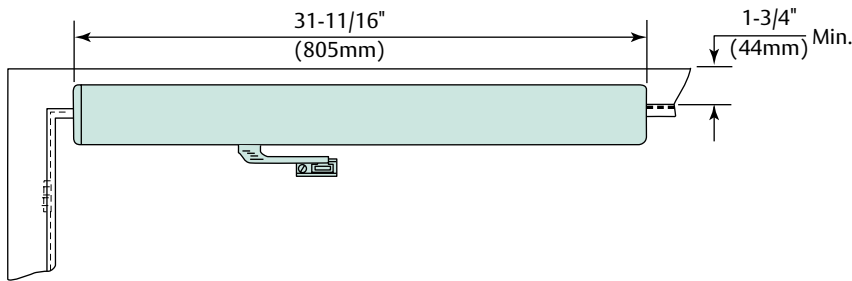
Series	Reveal Range	
6960D	2-1/4" to 4-3/4"*	(57 to 121mm)*
6970D	4-13/16" to 7-3/8"	(122 to 187mm)

\* Reveals less than 2-1/4" (57mm) may be achieved by field cutting the adjusting rod

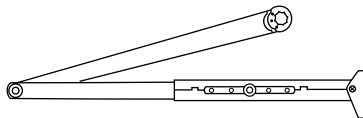
**NOTE:** Contact factory if door weight exceeds 250 lbs.



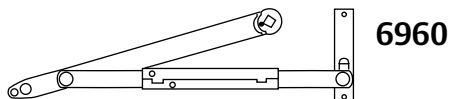
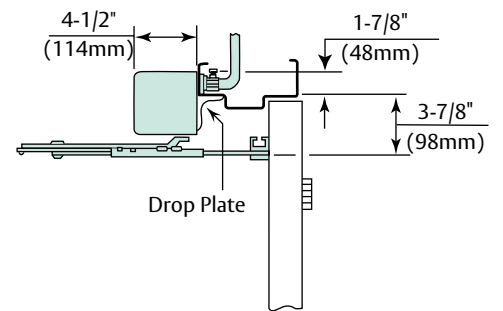
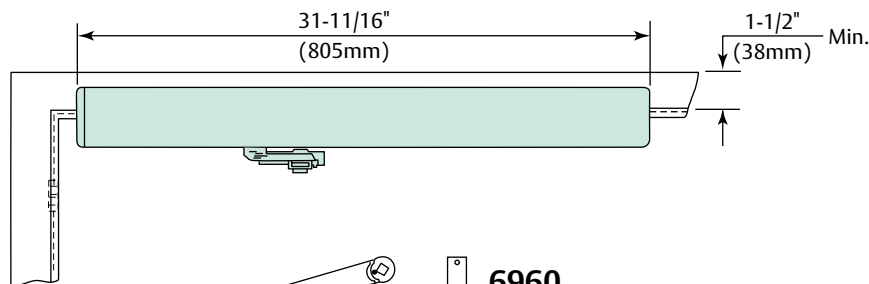
**DROP APPLICATIONS**



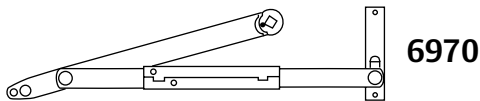
**6920**  
110° maximum door opening  
Minimum door width 33" (84cm)



**6930**  
Over 110° to 180° door opening  
Minimum door width 31" (79cm)



**6960**



**6970**

Door Swing	85°	90°	95°	100°	105°	110°
Minimum Door Width (mm)	36" (914)	35" (889)	34" (864)	34" (864)	33" (838)	33" (838)

TYPICAL SYSTEM APPLICATIONS

**6900 WITH MAGNETIC LOCK**

**Opening Description:** Fail Safe ADA Opening – Magnetic Lock & Door Operator

Application

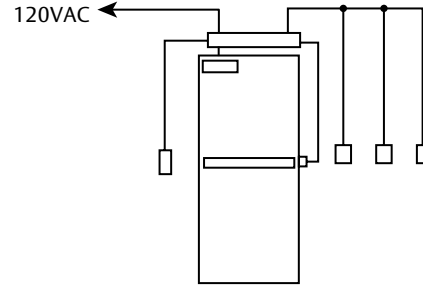
Non-Fire Rated Glass Door - Interior or Exterior Office or Main Entrance Openings

Operation

- Lock or unlock system by a key control switch at all times.
- Free ingress & egress using the door operator or manually when unlocked.
- Outside door switch will be inactive, denying ingress other than by card when locked.
- To exit, inside door switch will unlock magnetic lock and open the door or manually push bar to exit.
- Door operator acts as standard door closer when entering or exiting manually.

Material

Door Operator • Electromagnetic Lock • Electrified Pivot • Mechanical Touch Bar with Switch • 2 Door Switches • Maintained Key Switch • Card Reader



**6900 WITH ELECTRIC STRIKES**

**Opening Description:** Fail Secure ADA Opening – Double Electric Strike & Door Operators on Pair of Doors

Application

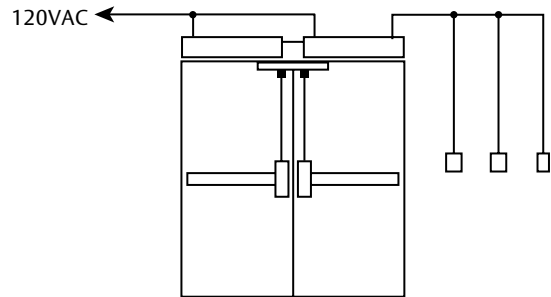
Interior, Non-Fire Rated Wood or Metal Doors – Corridor – Emergency Room Openings

Operation

- Doors are to be closed and latched at all times.
- Key switch activates and deactivates door switches to signal door operators.
- Active door switch will energize the electric strike and automatically open doors.
- Access manually from the push side only when door switches are inactive.
- Door operators will act as standard door closers when door switches are inactive.

Material

2 Door Operators • Double Electric Strike • 2 Surface Vertical Rod Exit Devices • 2 Door Switches • Maintained Key Switch



**6900 WITH VESTIBULE**

**Opening Description:** Vestibule – Two Single Doors & Operators

Application

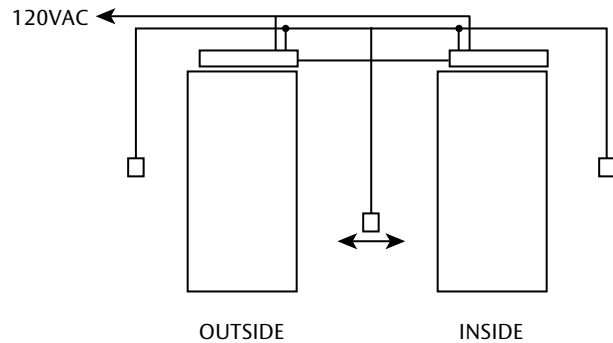
Interior or Exterior Non-Rated Glass, Wood or Metal Doors – Hospitals, College Dorms, Hotels and other Public Buildings

Operation

- Doors are closed but not latched at all times when not activated.
- 2 door switches outside of vestibule operate closest door first, then second door.
- 2 door switches inside vestibule operate closest door only.

Material

2 Door Operators • 4 Door Switches



**6900 WITH VESTIBULE (TWO PAIR)**

**Opening Description:** Vestibule – Two Pairs of Doors & Operators

Application

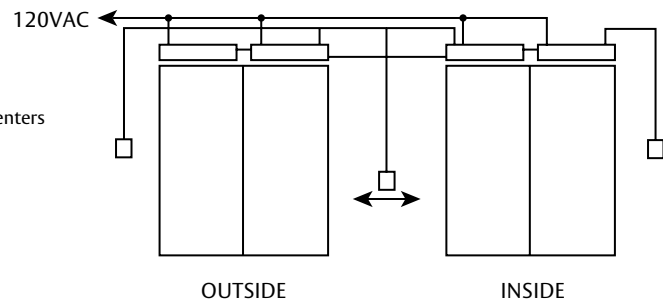
Exterior Non-Rated Glass Doors – Hospitals, College Dorms, Large Hotels, Convention Centers and other Public Buildings

Operation

- Doors are closed but not latched at all times when not activated.
- 2 door switches outside of vestibule operate closest door first then other door.
- 2 door switches inside vestibule operate closest door only.

Material

4 Door Operators • 3 Door Switches



**TYPICAL SYSTEM APPLICATIONS**

## 6900 WITH ACCESS CONTROL FOR ENTRY

**Opening Description:** Fail Secure ADA Opening – Electric Strike & Door Operator

**Application**

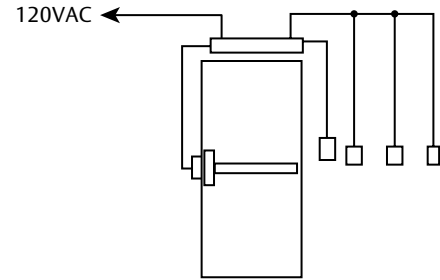
Rated or Non-Fire Rated Metal Door – Interior or Exterior Office, Main Entrance or Stairwell Openings

**Operation**

- Activate or deactivate system by a key control switch.
- When outside, door switch is inactive, ingress will be by card only.
- Inside door switch will unlock and open the door automatically.
- Push exit device bar to exit at all times.
- Door operator acts as standard door closer when entering or exiting manually.
- Recommend: Folger Adam® Electric Strikes.

**Material**

Door Operator • 2 Door Switches • Maintained Key Switch • Card Reader • Electric Strike



## 6900 WITH SMOKE VENTILATION

**Opening Description:** Fail Secure “Blow Open” Opening – Latch Retraction & Door Operators on Pair of Doors

**Application**

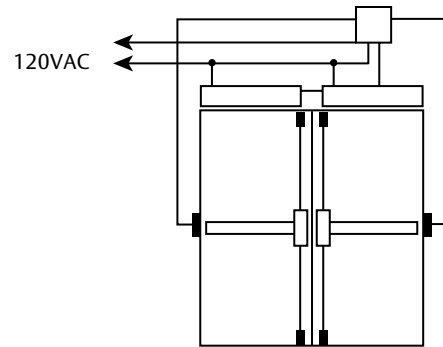
Exterior Metal Doors – Emergency Ventilation Type Openings

**Operation**

- Doors are to be closed and latched at all times.
- Fire Alarm system sends signal to activate door operators and latch retraction devices.
- Doors open when activated and stay open until loss of power or until fire alarm is reset.
- Door operators act as standard door closers during normal use.
- Recommend: Folger Adam® Electric Strikes.

**Material**

2 Door Operators • 2 SVR Latch Retraction Exit Devices • 1 Controller • 2 Electric Hinges



## 6900 WITH LATCH RETRACTION

**Opening Description:** Vestibule – Two Single Doors & Operators

**Application**

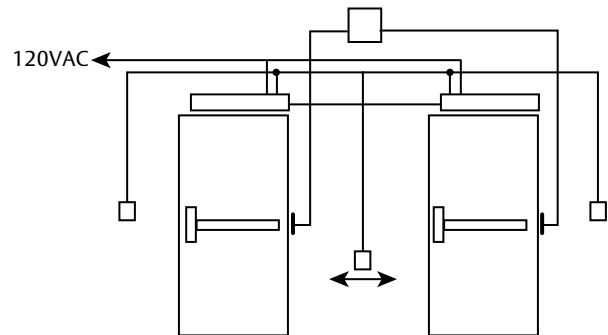
Interior or Exterior Rated & Non-Rated Glass, Wood or Metal Doors – Hospitals, College Dorms, Hotels and other Public Buildings

**Operation**

- Doors are closed and latched at all times.
- When activated, latch bolts are retracted and door(s) will automatically open.
- 2 door switches outside of vestibule operates closest door first then second door.
- 1 door switch inside vestibule operate closest door only.
- Recommend: Yale® or Corbin Russwin Exit Devices.
- Non-rated devices can be dogged for push/pull operation.

**Material**

2 Door Operators • 4 Door Switches • 1 - 781N Controller • 2 Electric Hinges • 2 Rim Latch • Retraction Exit Devices



## 6900 WITH MAGNETIC LOCKS (INTERLOCK)

**Opening Description:** Vestibule Interlock – Two Pairs of Doors & Operators

**Application**

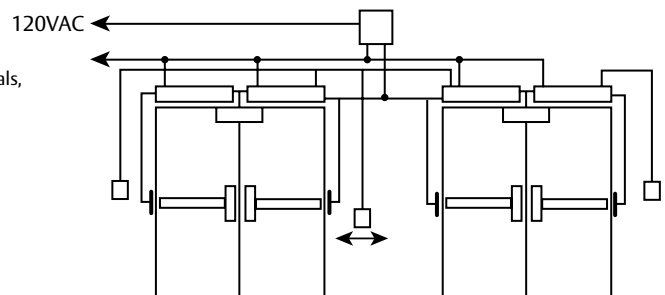
Interior or Exterior Rated & Non-Rated Glass, Wood or Metal Doors – ICU Rooms at Hospitals, Research Labs, Clean Rooms & other Environmentally Controlled Applications

**Operation**

- Doors are closed and secure by electromagnetic locks.
- Only one pair of doors may be open at a time before the opposite doors can open.
- When activated, magnetic locks unlock and door(s) will automatically open.
- Door switch outside of vestibule operates closest pair of doors.
- Either door switch in vestibule operates closest pair of doors when all doors are closed.
- Recommend: Folger Adam® or Securiton® Magnetic Locks.

**Material**

4 Door Operators • 3 Door Switches • 2 Double Electromagnetic Locks with Door Position Switch • 4 Electric Hinges • 4 Non-latching Touch Bars with Switch • 1 Power Supply



## General Specifications

Door Controls (interior)(exterior) swinging door(s) shall be of rack and pinion design contained within a precision cast aluminum housing. Door closing force shall be adjustable to ensure adequate closing control. Door closing speed shall be controlled by independent hydraulic adjustment valves in the sweep and latch range of the closing cycle. Door Operator shall provide conventional door closer opening and closing forces unless the power operator motor is activated. Door Operator opening force and speed shall be adjustable by independent hydraulic valving to ensure adequate opening control per accessibility codes. Door Operator shall have an adjustable hydraulic back-check valve to cushion the door speed if opened violently. Door Operator shall utilize two on-board push buttons to establish door closed and door open positions. [(Door Operator shall be AUTOMATICALLY ACTIVATED by either a slight push or pull in the direction of opening swing – Push and Go.) (Door Operator shall be SELECTIVELY ACTIVATED by external initiating device, i.e. wall switch, etc.) (Door Operator shall be both AUTOMATICALLY ACTIVATED and SELECTIVELY ACTIVATED.)] Unit shall have delay switches for motor activation, electric lock interfacing, and hold open time. Units shall have SPDT relay for interfacing latch retraction exit devices or similar products and have 24VDC @ .5A output for connection of electric strike, lock, radio frequency receiver, etc. Units shall have Vestibule sequencing input for operation of two or more units. Unit shall have smoke ventilation inputs to power open doors when activated by fire or smoke alarm. Unit shall have a three-position Selector Mode Switch that will permit the unit to be switched “ON” to monitor for function inputs, switched to “H/O” for indefinite hold open function or switched “OFF” which will disable function inputs allowing unit to be used as a manual door closer. Unit shall be U.L. Listed for automatic closing door. The Unit shall be adjustable to provide compliance with the requirements of the Americans With Disabilities Act (ADA). Unit shall be certified by BHMA to meet ANSI A117.1 and A156.19 requirements. Unit shall meet UL, cUL, UL10C and UL10B standards.

## Additional Specifications for Functions

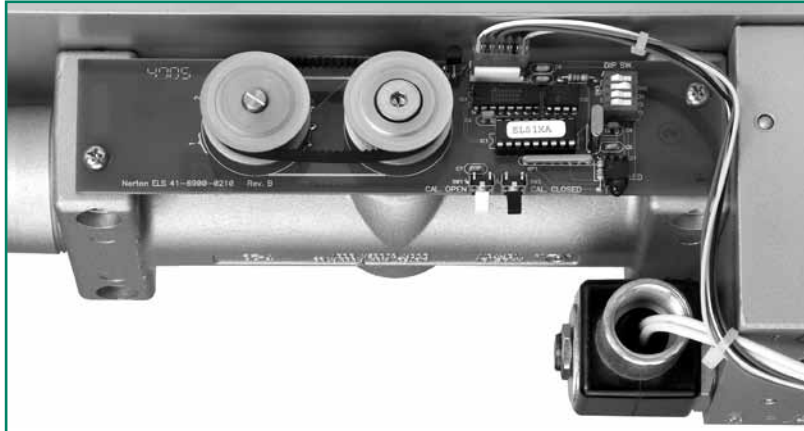
### For Power Operator Function:

When activated, the unit shall, by means of an integral motor and pump, power open the door at both a speed and force that are adjustable to accessibility codes. The door shall be powered from a door closed position to a full door open position and remain in momentary hold open for 5 seconds minimum (adjustable 0 to 30 seconds in 5 second increments). [(Unit shall power open door to full open position up to 110°.) (Unit shall be capable of opening door manually from 110° – 180°.)] Once unit reaches full hold open position, if reinitiated, unit’s momentary hold open time shall restart from the maximum set time. If unit is initiated during the closing cycle, unit shall revert to opening cycle beginning at that door position. Unit shall have a toggled hold open input that upon first initiation will power door to a maintained hold open position; a second initiation will allow door to close. Unit shall have obstruction detection on closing, which will reverse the closing door to the full open position then re-attempt to close door after momentary hold open time has elapsed. Obstruction detection on opening shall shut motor off, allowing door to close under spring force. These obstruction detection features shall be integral to unit. During closing cycle, the unit shall close door under full spring power not to exceed a closing force of 15 lbf.

### For Power Assist Function:

When activated, the unit shall, by means of an integral motor and pump, assist in opening the door by reducing the amount of force required to open door. The required opening force shall be adjustable to comply with A.D.A. Standards. The unit shall maintain its motorized assist cycle for \_\_ seconds (adjustable from 0 to 30 seconds in 5 second increments). During the motor assist cycle, the unit shall hold the door open at any position at which door is stopped up to full open position. If unit is initiated during the motor assist cycle, the units assist cycle time shall be reset to the maximum set time. Once motor assist has terminated, the unit shall close door under full spring power not to exceed a closing force of 15 lbf.

**TECHNICAL  
DETAILS**



**ELS – ELECTRONIC LIMIT SWITCH:**

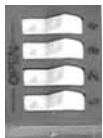
Used for open/closed door setting, push and go selection, obstruction timing and Power Operator/Power Assist Function.

- WHT Button – Used for Door Open setting
- BLK Button – Used for Door Closed setting

**Dip Switch Settings**

- 1 – Obstruction Detection Delay
- 2 – Obstruction Detection Delay
- 3 – Activation Mode (Push and Go)
- 4 – Power Assist/Power Operator Mode

See close-up on page 14



**SW1 DIP SWITCHES**

- 1 – P/A – Door Operator Function Switch – OFF position selects Operator Mode. ON position selects the Assist Mode.
- 2 – A/D – Alarm Delay Timer – OFF = 30 second delay. ON = 60 second delay. Used with terminal JP1-1
- 3 – Not used – OFF
- 4 – Not used – OFF



**TIMER ADJUSTMENTS**

- SW2 – Motor Delay – Delays motor startup to allow unlocking of electric hardware.
- SW3 – Solenoid Delay – sets the length of time that the relay will stay energized or de-energized. Used for JP4-3, 4 and 5 relay. Allows electric hardware to stay energized long enough for automatic door opening.
- SW4 – Vestibule Delay – Sets the length of time between receipt of the IN Vestibule signal and the motor startup.
- SW5 – Hold Open Delay/Assist Delay – Sets length of time door holds open at the fully open position for operator function. Sets length of time motor and pump assembly will operate to reduce opening force of door for assist function. When time elapses the door will operate as a standard door closer.

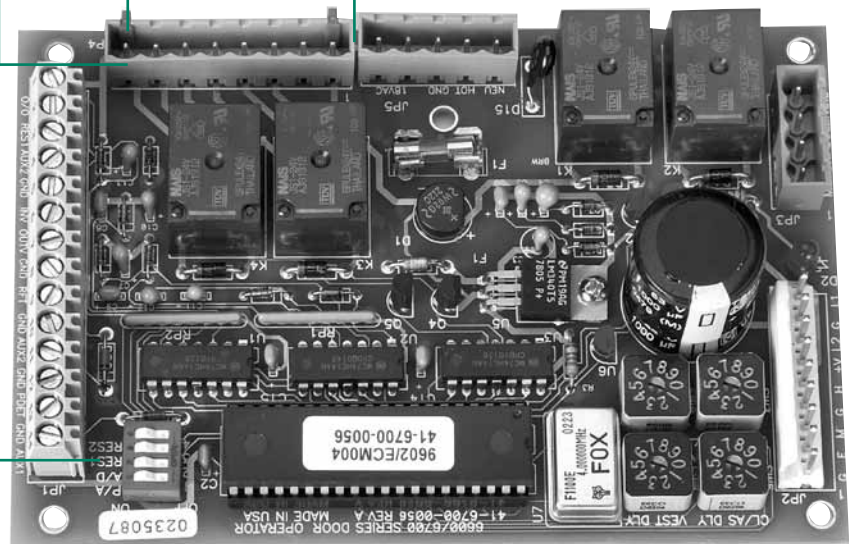
**TECHNICAL  
DETAILS**

**6900 CONTROL BOARD JP1 TERMINAL:  
(INPUT CONTROLS) – WALL SWITCHES,  
MOTIONS SENSORS, 2ND OPERATOR,  
ETC.**

- 1 – O/O – Override Open – Input for blow open or smoke ventilation application – Upon initiation of a closed signal from a fire/smoke alarm panel, the door will open and remain open until signal is terminated. Use with any JP1 ground.
- 2 – RES 1 – Not Used
- 3 – AUX2 – Auxiliary Two – This is one of two secondary initiating switch input contacts (JP1-10 is the other.) Use with any JP1 ground to initiate operation.
- 4 – GND – Ground
- 5 – INV – IN Vestibule – Used for vestibule function. This contact must be connected to the JP1-6 terminal from another unit to receive an initiating signal. Use this contact with any JP1 ground.
- 6 – OUTV – Out Vestibule – Used for vestibule function – This contact must be connected to terminal JP5 of another unit to send an initiating signal. Use this contact with any JP1 ground.
- 7 – GND – Ground
- 8 – RFT – Toggle (Maintained Hold Open) – This input can be used with any normally open switch. The first initiation of this contact will open door and hold it open. A second initiation of this contact will release and close the door. Use with any JP1 ground.
- 9 – GND – Ground
- 10 – AUX2 – Auxiliary Two – Same as JP1-3 above.
- 11 – GND – Ground
- 12 – PDET – Presence Detector – Permits wiring of a sensor to prevent a closed door from opening or a door that is fully open from closing. Use with any JP1 ground.
- 13 – GND – Ground
- 14 – AUX1 – Auxiliary One – Primary initiating switch contact. Initiates door power cycle. For vestibule function, the switch on the initiating side of door is connected to this terminal. Use with any JP1 ground.

**JP4 TERMINAL: (OUTPUT CONTROLS) –  
ELECTRIC STRIKES, LATCH RETRACTION  
EXIT DEVICES, MAG LOCKS, ETC.**

- 1 – GND – Ground
- 2 – + 24VDC
- 3 – NO1 – Relay Contact – Normally open relay dry contact that is switched when any auxiliary inputs are initiated. Switched contact can be maintained up to 12 seconds. Use with JP4-4 CO-1.
- 4 – CO1 – Relay Contact – Common relay contact for use with terminals JP4-3 and JP4-5.
- 5 – NC1 – Relay Contact – Normally closed relay contact that is switched when any auxiliary inputs are initiated. Switched contact can be maintained up to 12 seconds. Use with JP4-4 CO1.
- 6 – NO2 – Alarm Delay – Normally open dry relay contact that is switched when O/O Override Open input is initiated. Relay will stay switched for 30 or 60 seconds (selected by dip switch SW1-2 A/D).
- 7 – CO2 – Alarm Delay – Common contact for use with terminals JP4-6 and JP4-8.
- 8 – NC2 – Alarm Delay – Normally closed dry contact that is switched when O/O Override Open input is initiated. Relay will stay switched for 30 or 60 seconds (selected by dip switch SW1-2 A/D).



**OPERATIONAL SIGNS**

**#679 Operational Signs**

(kit contains 8 signs) Packed with 6900



#425 (1 per)



#426 (1 per)



#427 (2 per)



#430 (1 per)



#431 (1 per)



#428 (2 per)

**#682 Signage Kit**

(Packed with 576, 660, 672, 676 switches)



#432 (1 per switch)



#433 (1 per switch)

**#681 Signage Kit**

(Packed with 574, 661, 662, 675 switches)



#424 (1 per switch)



#429 (1 per switch)

**Sign Dimensions:**

Square: 6" x 6"

Round: 6-1/2" x 6-1/2"

**ACCESSORIES**

**Motion Sensor #663\***



- 4-3/4" x 3-3/16" x 2" projection
- Unidirectional
- Black cover
- SPDT relay
- Adjustable angle pattern
- 24 VDC input
- Must not be placed where motion of door can be sensed

\* Use of motion sensor must be approved by local authority having jurisdiction.

**Switch Post #577 & #578**



- 4" x 6" x 40" x 3/16" wall thickness
- 9 volt battery
- RF temperature range: -4° F to 122° F
- 689 (aluminum) or 690 (dark bronze) finishes; specify when ordering
- Standard formed plastic cap
- Surface mounted (above ground)
- **577** - radio frequency transmitter
- **578** - hard wired switch
- To order switch only - specify model #580

Note: For additional accessories consult factory.

**Miscellaneous Parts**



#6700PCB - Control Board



#6900ELS - Repair Kit



#668 Security Plate - Conceals the ON/OFF/HOLD OPEN switch to deter tampering. Packed standard with the operator.

**ACCESSORIES**

**Activating Door Switches**



660(D)



661(D)

- 4" x 4" face plate
- 4-1/2" x 4-1/2" SS back plate
- 15 amp @ 125 VAC
- Flush mounted – hard wired
- Fits single or 2 gang electrical box
- **660** – Stainless steel with black letters
- **661** – Blue powder coat with white letters



662



672(D)

- 1-11/16" x 4-1/2" face plate
- 1-11/16" x 4-1/2" back plate
- SPDT UL listed switch-mom.
- 15 amp @ 125 VAC
- Fits 1-3/4" frame
- **662** – Stainless steel with red button
- **672** – Stainless steel with black letters



574, 685(D)



575(D), 576

- 6-5/8" square (box); 8-1/8" square (trim)
- 6" round (push plate) - **691, 692, 693 & 694**
- 9 volt battery
- Temperature: -4° F to 122° F
- 15 amp @ 125VAC
- Flush or surface mounted<sup>^</sup>
- Stainless steel with blue letters
- **574, 576, 692** and **694** - radio frequency (433MHz). Used with RF1 option and 687KIT.
- **575, 685, 691** and **693** - hard wired\*

- \* Switches may also be installed with single or double gang electrical box using fasteners included.
- <sup>^</sup> Surface mounted switches project 2" from wall.



691(D), 692



693(D), 694

**Vestibule Switches**



675(D)

- 2 – 1-1/16" x 4-1/2" face plates
- 4-1/2" x 4-1/2" SS black plate
- 2 – SPDT UL listed switches-mom.
- 15 amp @ 125 VAC
- Fits 2-gang electrical box
- **675** – Blue powder coat with white letters
- **676** – Stainless steel with black letters



676(D)

**Touch Less Wall Switch**



697

- Single gang and double gang
- Doppler radar
- Sensor requires movement for activation
- Variable relay-hold time from 1 to 10 seconds
- Range of 2" to 24" – field adjustable
- 2-3/4" (Single); 4-1/2" (Double) W x 4-1/2" H

**All hard wired switches are Momentary Contact SPDT, UL Listed. Optional DPDT switches are available; suffix "D" to model number.**



**PARTS LIST**



**687KIT\*** – Radio Frequency Option  
 A Radio Frequency receiver (field installed) used to control the 6900 from a remote location. Wireless. Requires the 574, 576 or 577 (sold separately).

\* Maximum codes: 12

**Transmitters**

- 9 volt battery
- Temperature: -4° F to 122° F
- Used with RF option and 687KIT



**572 - Key Fob**

- 1-1/2" w x 2-3/16" h x 9/16" d
- Two channel



**581**

- 2-3/8" w x 4-3/16" h x 15/16" d
- Single channel

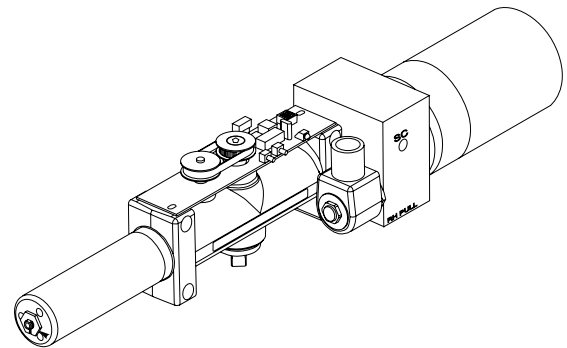


**582**

- 2-3/8" w x 4-3/16" h x 15-16" d
- Two channel

**Body Pump and Motor Assembly**

Model Number	Hand	Part Number
6910, 6950	Left	6910LAP-L
6920, 6930, 6960, 6970		6920LAP-L
6910, 6950	Right	6910LAP-R
6920, 6930, 6960, 6970		6920LAP-R



**Miscellaneous Parts**

Model Number	Description
6700M	Cover
6700DAP	Drop angle bracket
6600-F1	Fuse (PC Board) 1.5 Amps
6600-F2	Fuse (120V Input) 3 Amps

**Dummy Units**

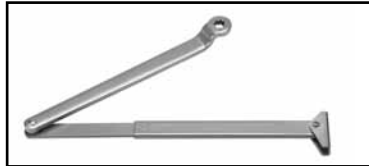
Model Number	Part Number
6910	6910DMY
6920	6920DMY
6930	6930DMY
6950	6950DMY
6960	6960DMY
6970	6970DMY

PARTS LIST

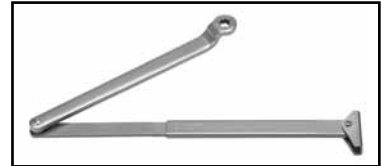
Arm and Track Assemblies



#6610-1 – Arm and Track Assembly  
#7210-1A – Arm Assembly  
#6610-1T – Track Assembly



#6620-1 – Arm Assembly  
#6620-1W – Main Arm & Rod  
#6620-12 – Adjusting Tube & Shoe



#6630-1 – Arm Assembly  
#6630-1W – Main Arm & Rod  
#6620-12 – Adjusting Tube & Shoe



Left hand shown

#6650-1L – Arm and Track Assembly (LH)  
#6650-1R – Arm and Track Assembly (RH)  
#7250-1L – Arm Assembly (LH)  
#7250-1R – Arm Assembly (RH)  
#6610-1T – Track Assembly



#6660-1 – Arm Assembly  
#6660-11 – Rod & Snubber Assembly



#6670-1 – Arm Assembly  
#6670-11 – Rod & Snubber Assembly



NOTES



**ASSA ABLOY**

**For a complete listing of products and  
applications please visit our web site.**  
[www.nortondoорcontrols.com](http://www.nortondoорcontrols.com)  
[www.assaabloy.ca](http://www.assaabloy.ca)

**Or contact us at:**

**Norton Door Controls**  
3000 Highway 74 East  
Monroe, NC 28112  
Tel: 1-877-974-2255  
Fax: 1-800-338-0965

**ASSA ABLOY Door Security Solutions Canada**  
160 Four Valley Drive  
Vaughan, Ontario, L4K 4T9 Canada  
Tel: 1-800-461-3007  
Fax: 1-905-738-2478

Norton® and PowerMatic® are registered trademarks of Yale Security Inc., an ASSA ABLOY Group company. Other products' brand names may be trademarks or registered trademarks of their respective owners and are mentioned for reference purposes only. These materials are protected under U.S. copyright laws. All contents current at time of publication. Copyright © 2002, 2012, Yale Security Inc., an ASSA ABLOY Group company. All rights reserved. Reproduction in whole or in part without the express written permission of Yale Security, Inc. is prohibited.

ASSA ABLOY is the global leader in door opening solutions, dedicated to satisfying end-user needs for security, safety and convenience.