

**Norton®**

**ASSA ABLOY**

# 5700 Series LEO® Power Operators



Complies with A.D.A. Accessibility Guidelines



ASSA ABLOY, the global leader  
in door opening solutions

**INTRODUCTION**

Norton’s 5700 Series is the latest generation of power door operators. Low energy door operators were once considered a necessity only for those with physical challenges. Today, due to the population’s busy lifestyles, the convenience of “hands-free” door opening is more popular than ever. The patented design of LEO® is based on ease and simplicity. LEO installs in minutes rather than hours and consists of three basic components: inverter, motor and Norton’s 1601 closer body.



What separates LEO from other operators is its ability to function as a standard door closer. When the door is opened manually, there is little resistance and the drive train and motor are not engaged. The 1601 closer, not the motor, controls the closing cycle. Since the door closer does not back-drive the motor during the closing cycle, there is no loss of closer efficiency. In the event of a power outage, the door can be manually opened and will close via the door closer’s spring force.

LEO is listed with UL and ANSI/BHMA A156.19 and meets the requirements of ADA and ANSI/BHMA 156.4. LEO is ideal for doctors’ offices, retirement facilities, schools, churches, and any location where noise is a major concern and special features are not a requirement. LEO can be activated via wall switch, radio frequency device or motion sensor, and is available for push or pull side applications. Based on its dual functionality, ease of use and quiet operation, LEO offers the customer a unique choice!

**PATENT**

- Patents: 5,881,497, 7,316,096 and 7,484,333

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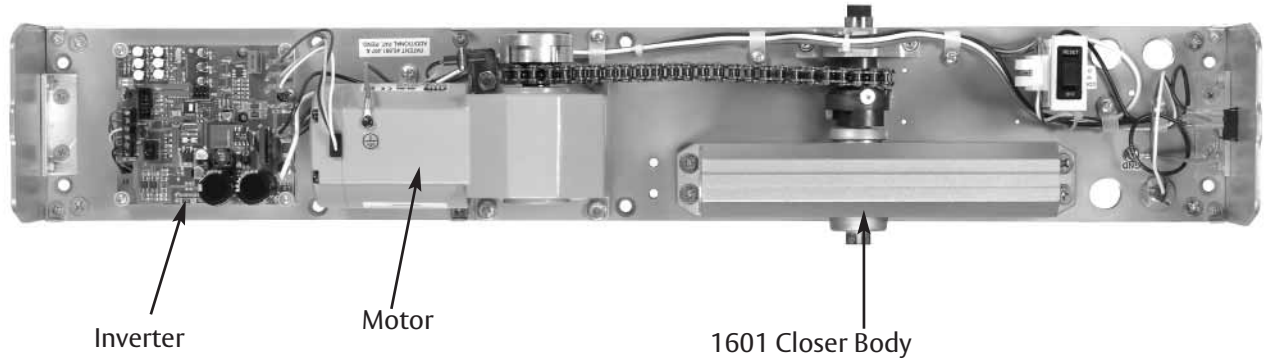
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OVERVIEW



FEATURES AND FUNCTIONS

- Ease of installation and setup
  - ❑ Simple instructions
- Application versatility and ease of adjustment
  - ❑ Push or pull side mounting units available
- Operates as mechanical surface closer during close cycles, when door is opened manually or if power is turned off
  - ❑ Quiet operation
  - ❑ Spring force provides the feel of a normal manual door closer
  - ❑ Door can be opened manually if desired
- Norton® 1601/1601BF series door closer
  - ❑ Adjustable Spring Power
- Backcheck Valve
- Sweep Valve & Latch Valve
- Non-Handed
- Unit Activation Options
  - ❑ Wall switches
  - ❑ Motion sensor
  - ❑ Radio frequency device
- End-User On/Off Switch
- Hold Open options
  - ❑ 0-30 seconds (5 seconds minimum required for ADA and ANSI/BHMA A156.19)
- Obstruction Detection
  - ❑ Motor stops if door is obstructed during an opening
  - ❑ Door closes under manual spring force (not to exceed 15lbf)
- "Push and Close"
  - ❑ Allows the operator to skip the hold open time when it is not necessary or required
  - ❑ Adjustable door sensitivity
- Overload Safety Shut-Off
  - ❑ After two minutes of receiving a door activation signal, the inverter will time out and close the door
  - ❑ Prevents motor/inverter damage
- Motor Start Delay for Locking Hardware
  - ❑ 0-5 second delay to allow locking hardware to release first

ELECTRICAL DATA

- Power Input; 120 VAC, 60Hz or 220VAC, 60Hz
- Current Draw: .6A or .3A
- Relay Output: DPDT
  - ❑ Normally Open/Normally Closed (jumper)
  - ❑ For electric strike function

CERTIFICATIONS

- C-UL US listed for use on fire and smoke barrier doors
- 2-year warranty (refer to current Norton® price book for terms & conditions)
- Meets requirements for Americans with Disabilities Act (ADA)
- ANSI/BHMA A156.19 certified
- Meets ANSI/BHMA A156.4 requirements



STANDARD APPLICATIONS

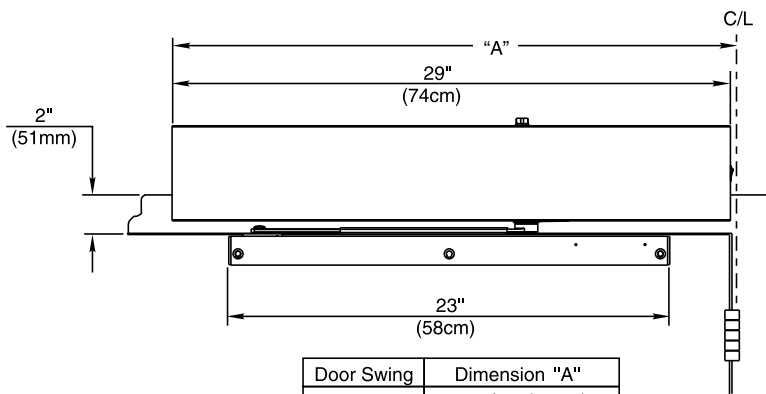


**5710**  
HINGE (PULL) SIDE OF DOOR

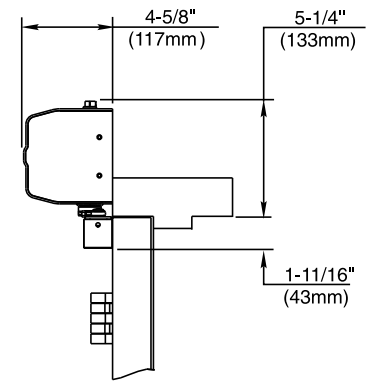
- Adjustable Stop
- 180° swing (trim permitting)

Minimum Door width  
Single Door - 29" (74cm)  
Double Door - 30" (76cm)

An auxiliary stop is suggested where severe conditions exist.



Door Swing	Dimension "A"
110	29-13/16" (76cm)
180	27-9/16" (70cm)



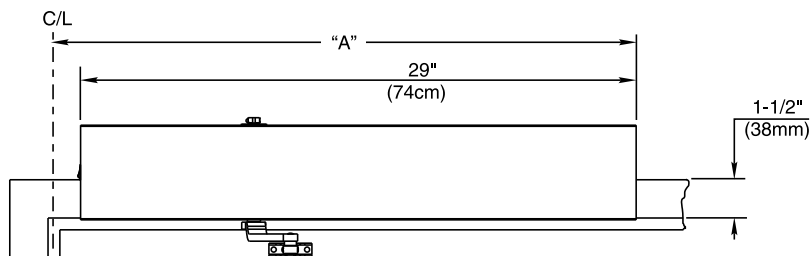
**NOTE:** Contact factory for use on doors exceeding 250 lbs.



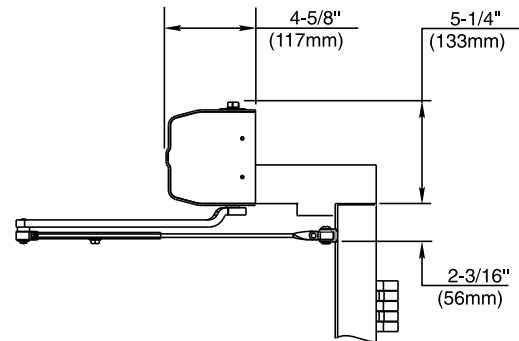
**5730**  
STOP (PUSH) SIDE OF DOOR

STANDARD DUTY DOUBLE LEVER ARM

- Frame reveals 2-5/8" to 6-3/4" (67-171mm)
- An auxiliary door stop is required for these applications.
- 170° swing (trim permitting)

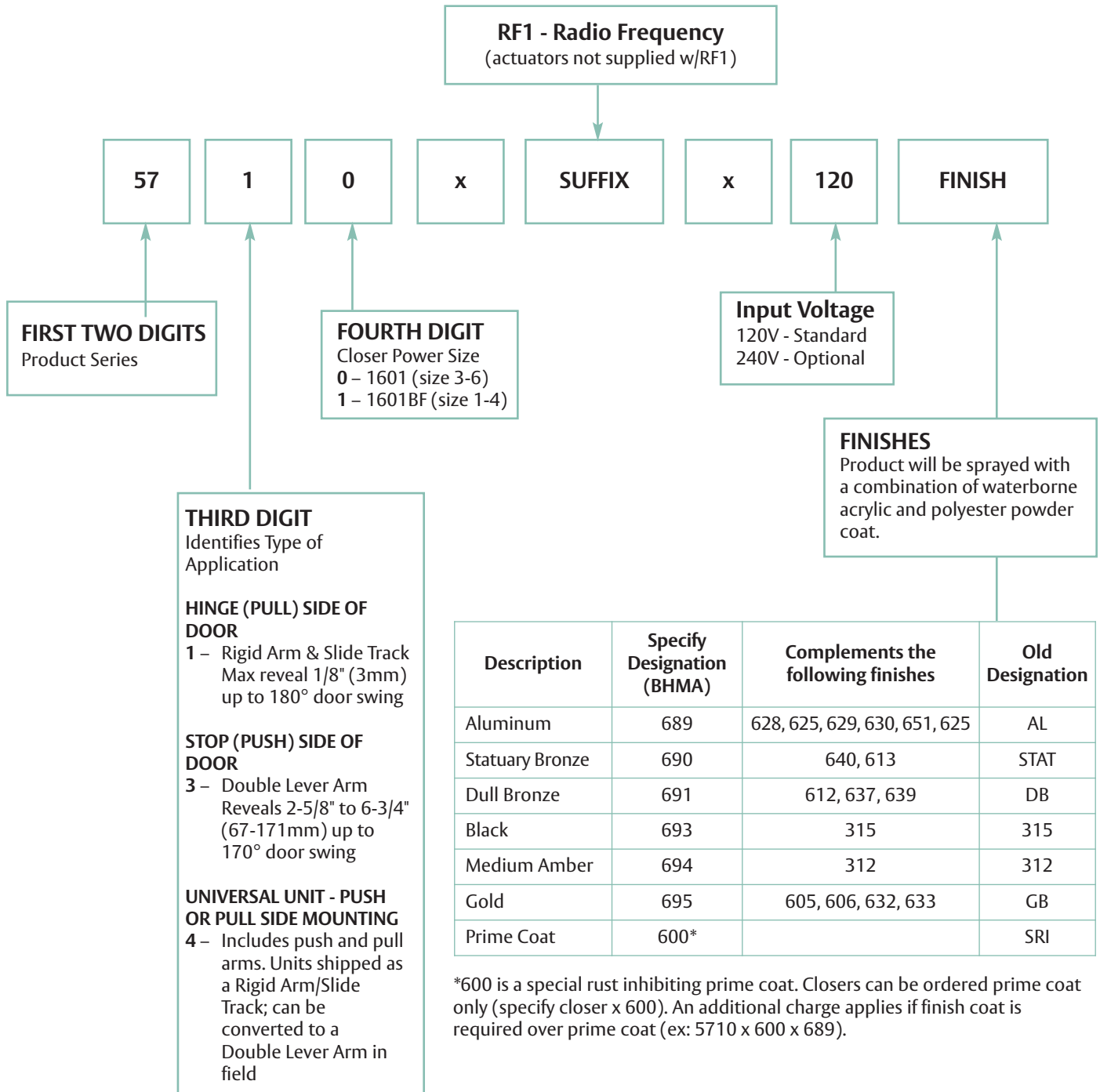


Door Swing	Dimension "A"
110	30-1/16" (76cm)
170	27-9/16" (70cm)



**NOTE:** Contact factory for use on doors exceeding 250 lbs.

HOW TO ORDER



**Note:** Door switches and sensors are not included with the 5700 Series Door Operators. These items must be ordered separately.

**SIGNAGE**

Supplied Standard



#428 (2 per operator)



#429 (1 per switch)



#433 (1 per switch)

**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



- Used with RF1 and 571KIT

**Key FOB 572**



**574, 685 575, 576**

- 6-5/8" square (box); 8-1/8" square (trim)
- 9 volt battery
- Temperature: -4° F to 122° F
- 15 amp @ 125VAC
- Flush or surface^ mounted
- Stainless steel with blue letters
- 574 and 576 - radio frequency (433MHz)
- Used with RF1 option and 571KIT
- 575 and 685 - hard wired\*

\* Switches may also be installed with single or double gang electrical box using fasteners included.  
 ^ When surface mounted, switches project 2" from wall.



- 581**
- 2-3/8"w x 4-3/16"h x 15/16"d
  - Single channel



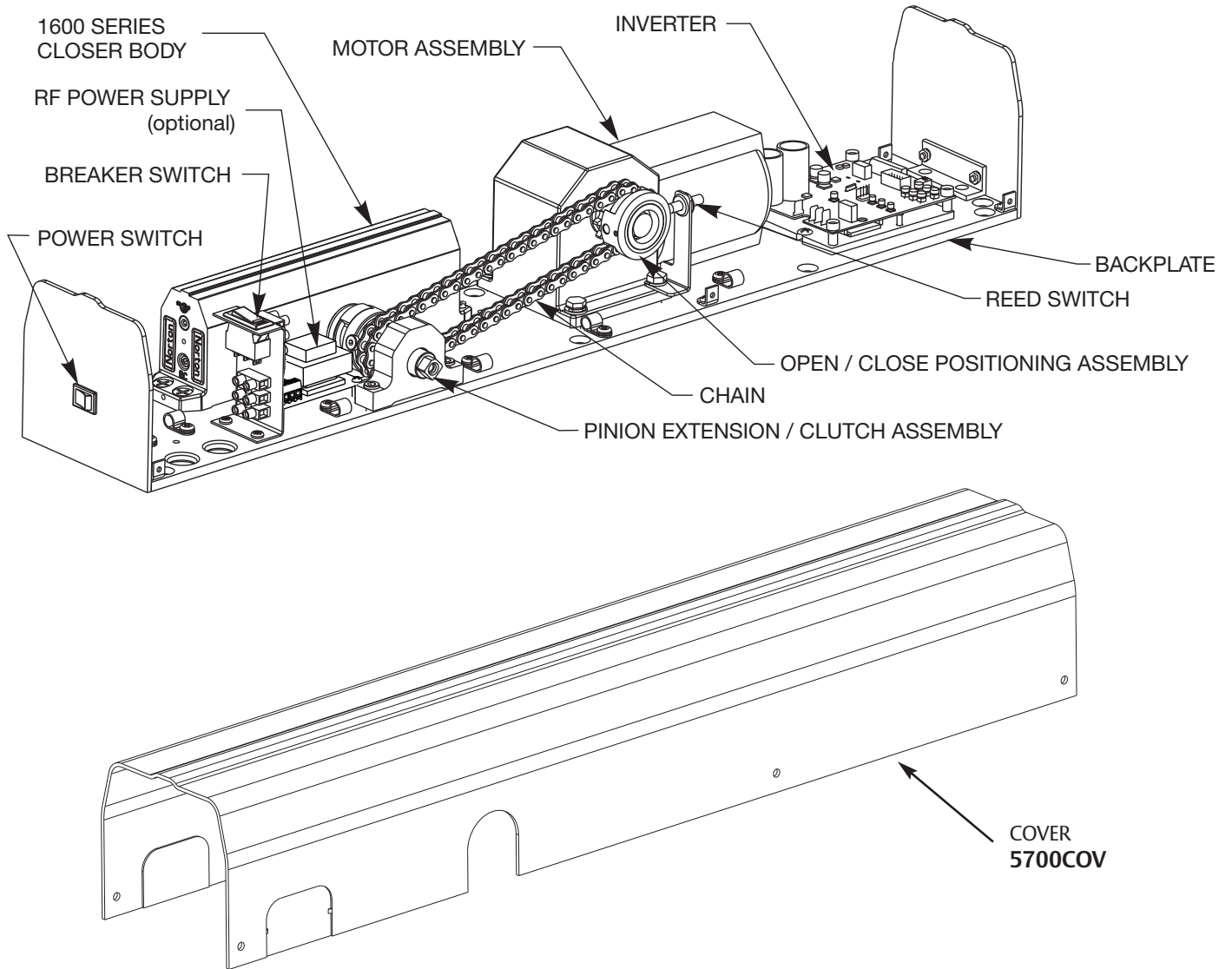
- 582**
- 2-3/8"w x 4-3/16"h x 15-16"d
  - Two channel



**Radio Frequency Receiver 571KIT**

- Radio Frequency Receiver (433 MHz)
- 24 VDC power supply
- Activation switches not included.
- Order 572, 581, 582, 574 or 576 separately.

**PARTS LIST**



**Arm and Track Assemblies**



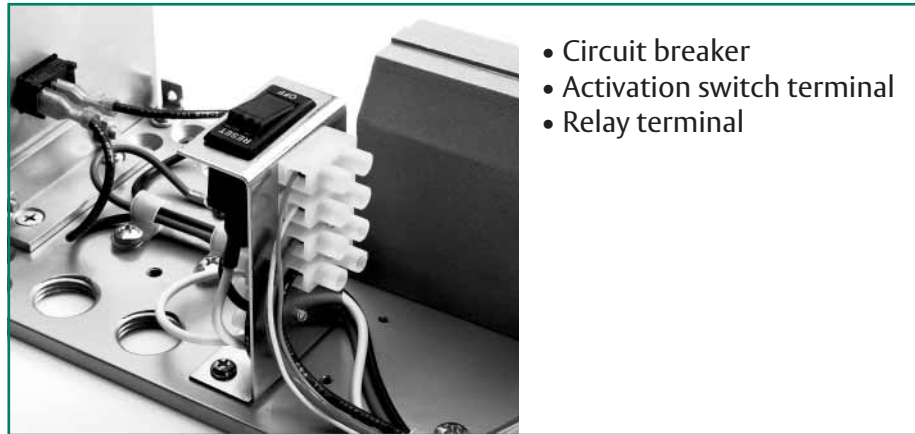
#5710-1 - Arm and Track Assembly  
 #7701ST-1A - Arm Assembly  
 #7200-1T - Track Assembly



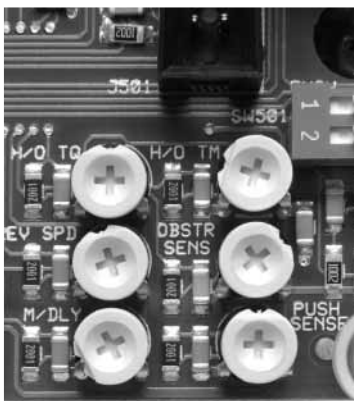
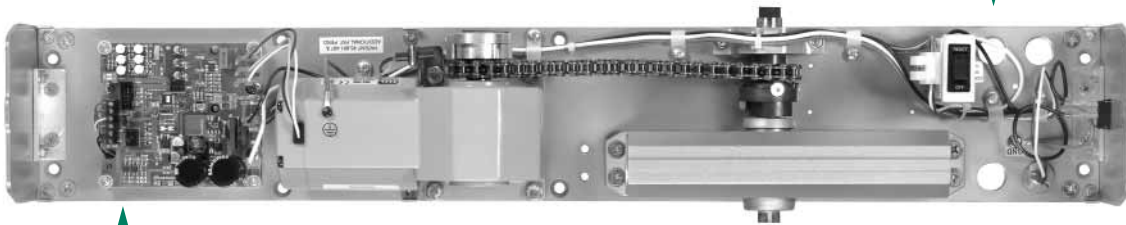
#7701-1A - Arm Assembly  
 #7701-1W - Main Arm & Rod  
 #7701-11A - Adjusting Tube & Shoe



TECHNICAL  
DETAILS



- Circuit breaker
- Activation switch terminal
- Relay terminal



POT	DESCRIPTION
H/O TQ	Motor Torque at Hold Open Position
REV SPD	Motor Reversing Speed
M/DLY	Motor Delay on Opening
H/O TM	Hold Open Time (5 - 30 Seconds)
OBSTR SENS	Obstruction Detection on Open
PUSH SENSE	Push Recognition Sensitivity



### 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 forces unless the power operator motor is activated. Door Operator shall provide conventional door closing forces at all times except in the event of power outage during powered door open cycle. Door Operator opening force and speed shall be adjustable by independent electronic adjustment to ensure adequate opening control per accessibility codes. Door Operator shall have an adjustable hydraulic backcheck valve to cushion the door speed if door is opened violently. Door Operator shall have a manual adjustment to locate both full open and full closed door positions. Maximum door open shall be adjustable and capable to a maximum 180° conditions permitting. [(Door Operator shall be AUTOMATICALLY ACTIVATED, i.e., motion sensor.) (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.)] Door operator shall have adjustable hold open time capability in range from 5 to 30 seconds. Door operator shall have input line rating of 120VAC, .6A or 240VAC, .3A. Units shall have relay contact for interfacing products having a contact rating of 30VDC at 1A or 125VAC at .5A. Unit shall have an external On/Off Switch to defeat powered opening when desired. Unit shall have an internal circuit breaker switch to interrupt input power for servicing. Unit shall be U.L. Listed for automatic closing door. Unit shall be in compliance with the requirements of the Americans With Disabilities Act (ADA), ANSI standards A117.1 and A156.19. Unit shall meet C-UL US.

### Additional Detailed Specifications:

When activated, the unit shall, by means of an integral motor and chain drive, power open the door at both a speed and force that are adjustable to meet 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 \_\_\_\_seconds (adjustable 0 to 30 seconds) [(Unit shall power open door to full open position up to 180° (5710); 170° (5730), conditions permitting.) (Unit shall be capable of allowing the door to be opened manually from 0 to 180°, conditions permitting.)] Once unit reaches full hold open position, if reinitiated, unit's momentary hold open time shall restart from the initially set hold open time. If unit is initiated during the closing cycle, unit shall revert to opening cycle beginning at that door position. Obstruction detection on open shall neutralize and reverse motor action reverting motor to closed position thus allowing door to close under closer spring force only. This obstruction detection feature shall be integral to unit. During closing cycle, the unit shall close door under spring power not to exceed a closing force of 15 lbf.



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5700 Series - LEO®

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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:

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