

ED100 low energy/power operated pedestrian operator

Description

The ED100 is dormakaba's most versatile operator—functioning as either a low energy operator or a power operated pedestrian unit, the ED100 operator is ideal for ADA-compliant entrance applications.

The ED 100 is field adjustable to work as a "knowing act" low energy operator, or a power operated pedestrian "full energy" unit with required additional equipment. With a multitude of adjustable features, you have the flexibility to fine tune the operator to meet opening requirements.

The ED100 is a high adjustable, smartly engineered operator system at home in a variety of door systems, meeting the stringent requirements of ANSI 156.10, ANSI 156.19, UL325 and UL 10B.

Operator Types and Configurations

- 4" × 6" Narrow Header
 - Surface applied
 - Overhead concealed
- 2-3/4" × 5-1/8" Fine Cover
 - Surface applied



ED100 technical specifications

Configuration	
Header dimensions (H x D x L)	4" x 6" x length as required (Narrow) 2-3/4" x 5-1/8" x length as required (Fine)
Operator weight	26.5 lb
Internal power supply available for accessories	24 volts DC ± 5% 1.5 Amps
Maximum door opening angle	110° (door stop recommended)
Maximum wire size	16 AWG for incoming power 18 AWG for all other connections
Maximum door weight* Based on prevailing conditions at the opening.	600 lb at maximum door width of 48"
Door width	Minimum by operator type 28" for surface applied 36" for overhead Maximum 48"
Axle extensions	13/16" (20 mm) 1-3/16" (30 mm) 2-3/8" (60 mm)
Reveal depth for pull arm with track	1-3/16" (30 mm)
Max. reveal depth for pull arm with CPD lever & track	2-1/4"
Reveal depth for standard push arm	0 to 9-3/4"
Reveal depth for deep push arm	8" minimum to 19-3/4"
Required operating conditions	
Ambient temperature	5°F – 122°F
Power supply	115 volts AC ± 10%, 50/60 Hz Maximum 3.3 Amps, (SELV)
Branch circuit protection (provided by others)	Maximum 15 Amps, dedicated branch circuit
Protection class	NEMA 1
Power wiring:black, white, bare copper (ground)	12 AWG
Operating noise	Maximum 50 db(A)

Inputs			
Activation inputs	X4*	Interior, exterior	Normally open contact
Safety sensors	X5	Swing, approach sides, normally closed contact	
Night/bank (intercom system)	X10 57, 57a	8 to 24 volts DC/volts AC + 5%	
Night/bank (key switch)	X1 35, 3	d2 parameter	Configure for Normally Open or Normally Closed
Deactivation of drive function	X6 4, 4a	d1 parameter	Configure for Normally Open or Normally Closed

Outputs			
Door status	X7 97, 98, 99	Sr parameter	Door closed Common Door open Normally Open Door closed, locked Normally Closed

Operating specifications		
Automatic closing torque, lbf-ft ³	Minimum 14.8 lb f	Maximum F.E. ¹ 110.6 lb f L.E. 49 lb f
Manual closing torque, lbf-ft ³	Minimum 9.6 lb f	Maximum 27.3 lb f
Maximum opening speed, degrees per second ²	F.E. ¹ 50 %/s L.E. 27 %/s	
Maximum closing speed, degrees per second ²	F.E. ¹ 50 %/s L.E. 27 %/s	

Door closer modes	
Automatic mode	Designed for automatic access following pulse generation by a motion detector or pushbutton.
Manual mode	Designed for doors primarily accessed manually.
Power assist	Available only in door closer mode (hd=1), manual opening. Drive support is automatically adjusted to operator size.

Integrated functions		
Hold open time		
Automatic opening	dd parameter	0 to 30 seconds
Night/bank	dn parameter	0 to 30 seconds
Manual opening	do parameter	0 to 30 seconds
Door blocking behavior	hd parameter	Automatic, manual door modes
Electric strike delayed opening for locking mechanism	Ud parameter	0 to 4 seconds
Locking device feedback	X3 43, 3	Motor lock
Wind load control, maximum	Fo, Fc parameters	33.7 lb f 150 N
Voltage independent braking circuit		Adjustable with potentiometer
LED status indicators Service manual	Green Red Yellow	24 Vdc power Error codes Service interval
Program & Exit Only switches		Auto, Close, Open, Exit Only; Off, On
User interface		4-button keypad, 2-digit display
Slot for DORMA upgrade cards		Extension of range of functions
TMP, temperature management program Service manual		Overload protection
IDC, initial drive control		Driving phase optimization
Cycle counter	CC parameter	0 to 1,000,000
Power assist function	hA, hF, hS parameters	Drive support for manual opening door
Push & go function	PG parameter	Auto opening of door at 4° open

NOTES

¹ Full energy/ low energy

- F.E.: ED100 configured for full energy
- L.E.: ED100 configured for low energy

² Speeds automatically limited depending on door weight, set during learn cycle.

³ In push version of slide channel with track installation type, forces are reduced by approximately 33%.

Standards of compliance

The ED100 operator is set to low energy (A156.19) conformance from the factory.

Upon installation, the ED100 can be configured to meet ANSI/BHMA A156.19, U.S. Standard for Power Assist and Low Energy Power Operated Doors, or ANSI/BHMA A156.10, U.S. Standard for Power Operated Pedestrian Doors (*additional equipment required).

Low energy power operated door

A door with a power mechanism that opens the door upon receipt of a knowing act activating signal, does not generate more kinetic energy than specified in ANSI A156.19, and includes provisions to reduce the chance of user injury or entrapment. In an A156.19 application, this is achieved utilizing the following design factors:

- Reduced dynamic door panel contact forces
- Reduced static door panel contact forces
- Time delays
- Low opening and closing speeds
- Force limitations
- Signage

Power operated pedestrian door (Full Power or Full Energy)

A door with a power mechanism that opens the door upon receipt of a signal from an activating device or sensor, does not generate more kinetic energy than specified in ANSI A156.10, and includes provisions to reduce the chance of user injury or entrapment. In an A156.10 application, this is achieved utilizing specific variants of the following design factors based on the type of door opening and traffic pattern:

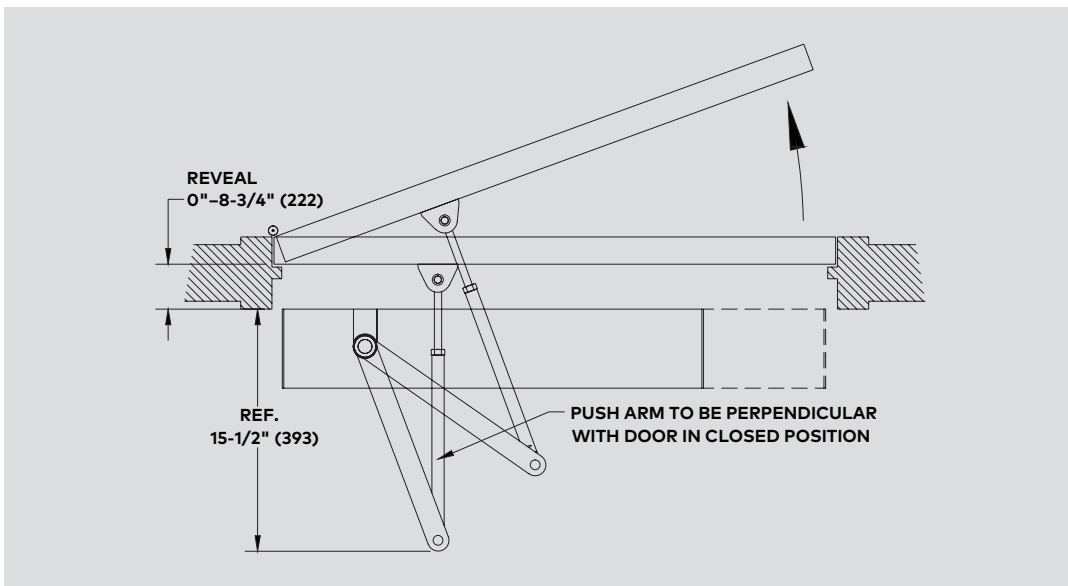
- Guide rails
- Activation sensors
- Presence sensors
- Control Mats
- Safety Zones
- Time Delays
- Closing speed
- Closing Force
- Signage

ED100 Fine Cover surface applied

Plan view

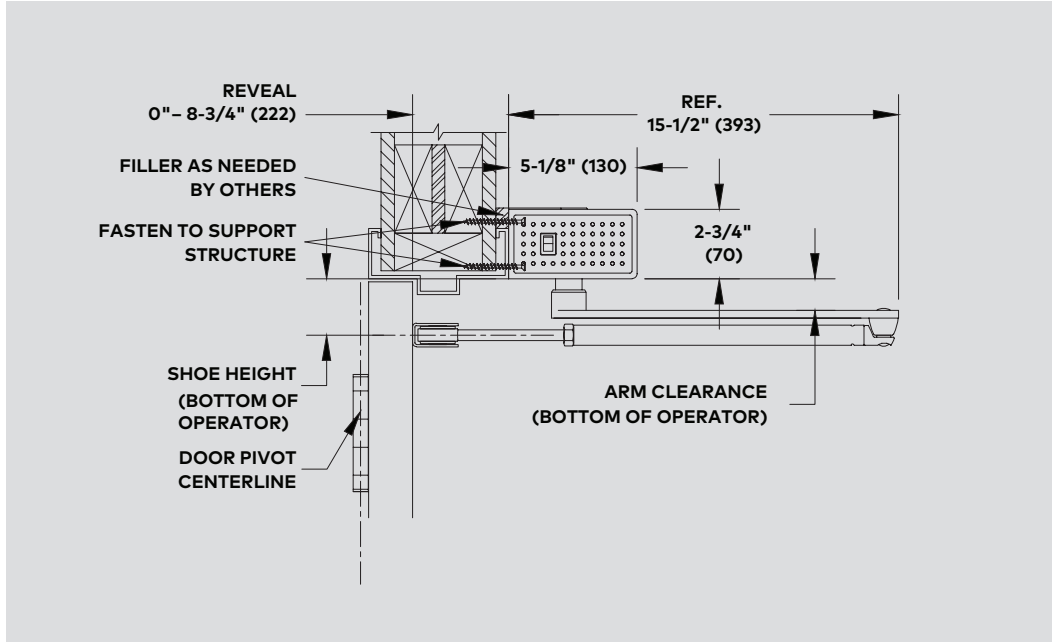
Single push operator

Left hand door shown (right hand opposite)

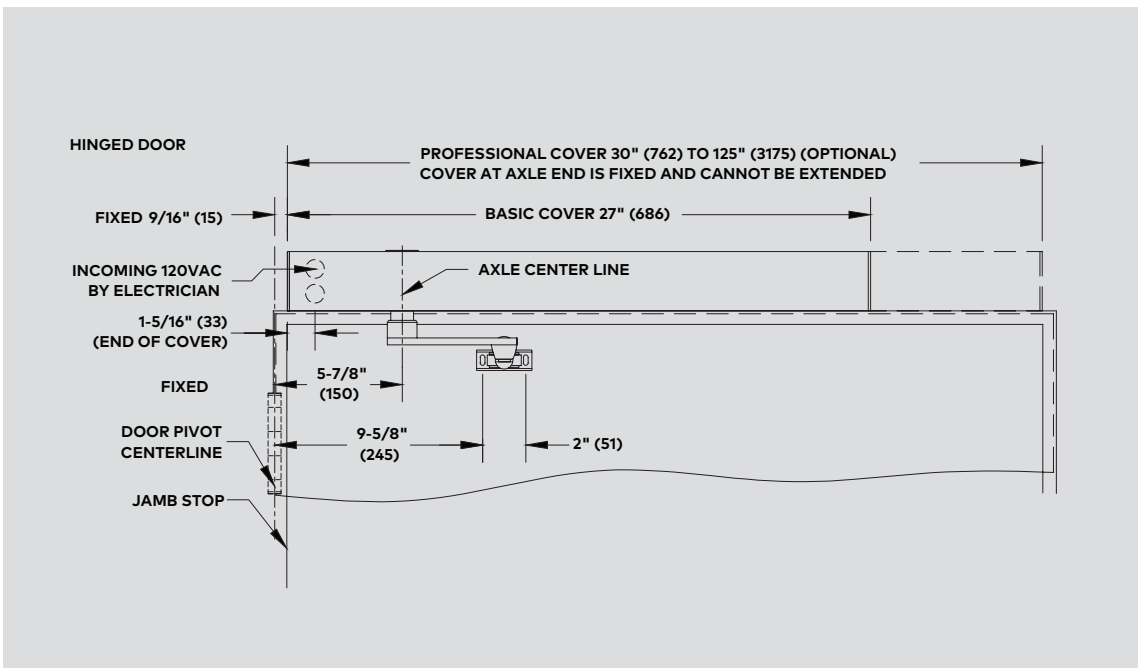


ED100 Fine Cover surface applied

Section view
Push operator
Left hand door shown (right hand opposite)



Elevation view
Single Push operator
Left hand door shown (right hand opposite)

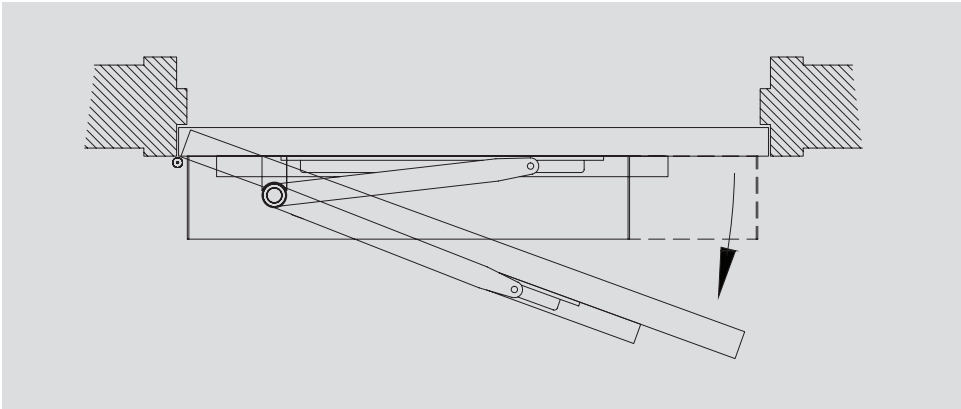


ED100 Fine Cover surface applied

Plan view

Single pull operator

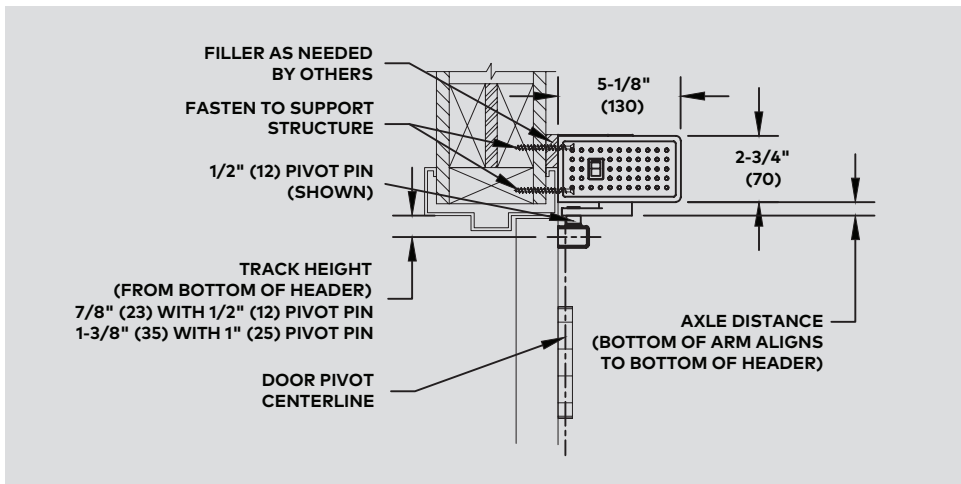
Right hand door shown (left hand opposite)



Section view

Pull operator

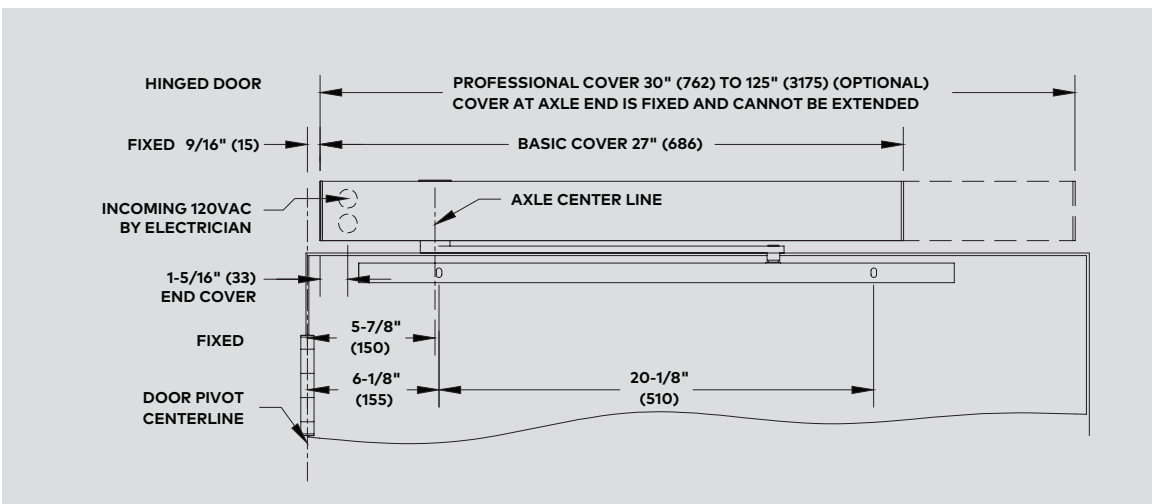
Right hand door shown (left hand opposite)



Elevation view

Single pull operator

Right hand door shown (left hand opposite)

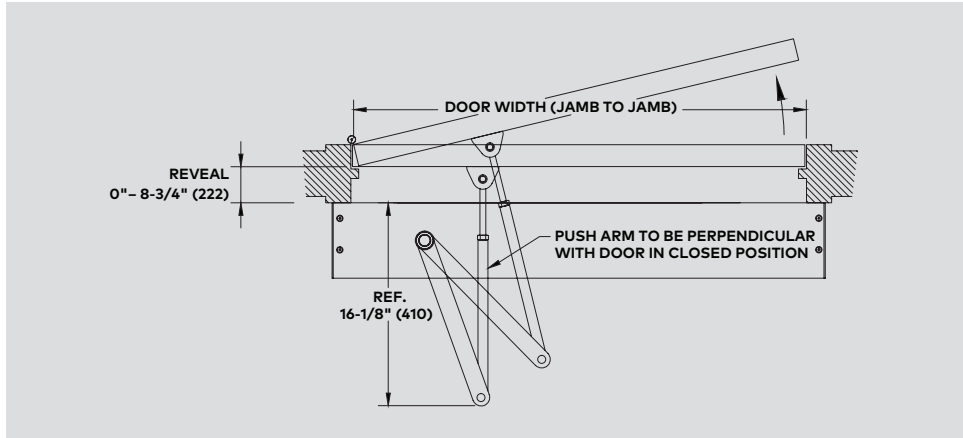


ED100 4 x 6 Narrow Header surface applied

Plan view

4x6 Narrow Header single push operator

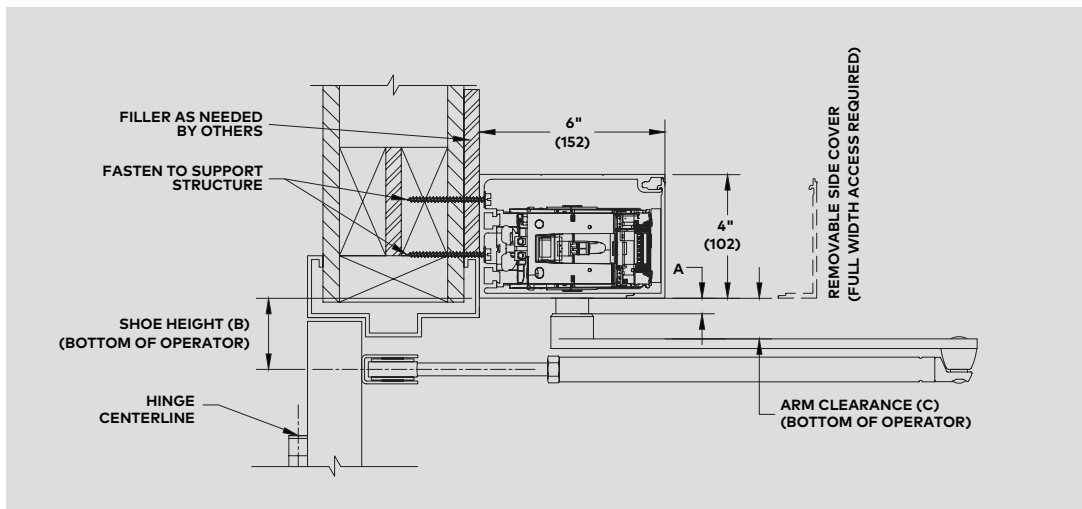
Left hand door shown (right hand opposite)



Section view

4x6 Narrow Header push operator

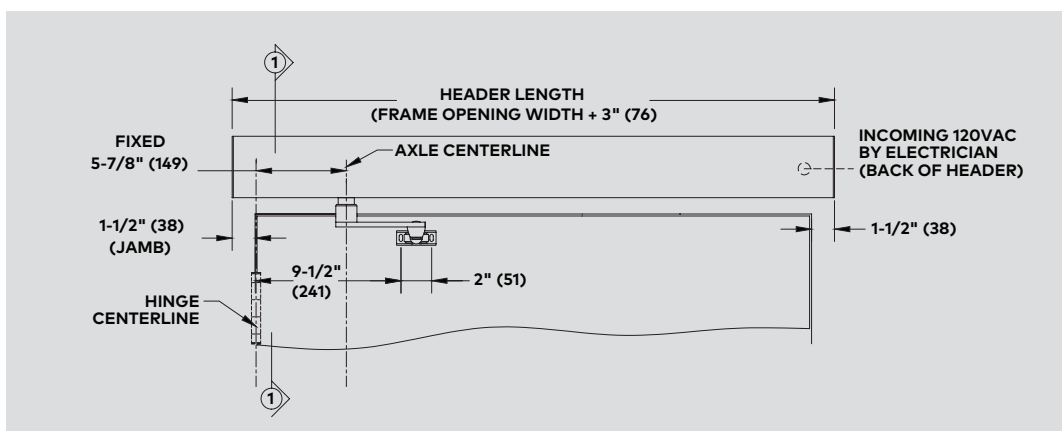
Left hand door shown (right hand opposite)



Elevation view

4x6 Narrow Header single push operator

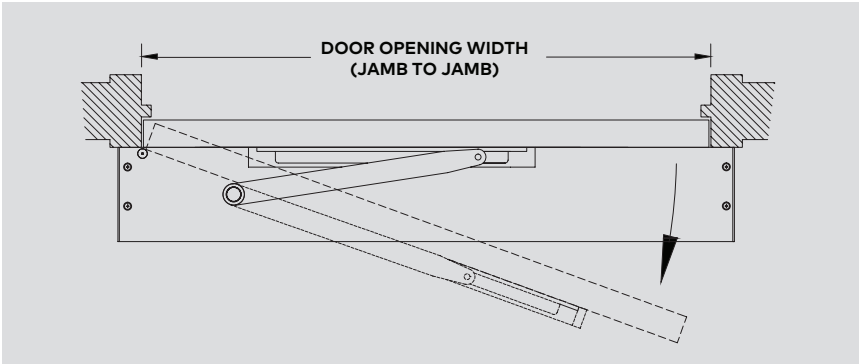
Left hand door shown (right hand opposite)



ED100 4 x 6 Narrow Header surface applied

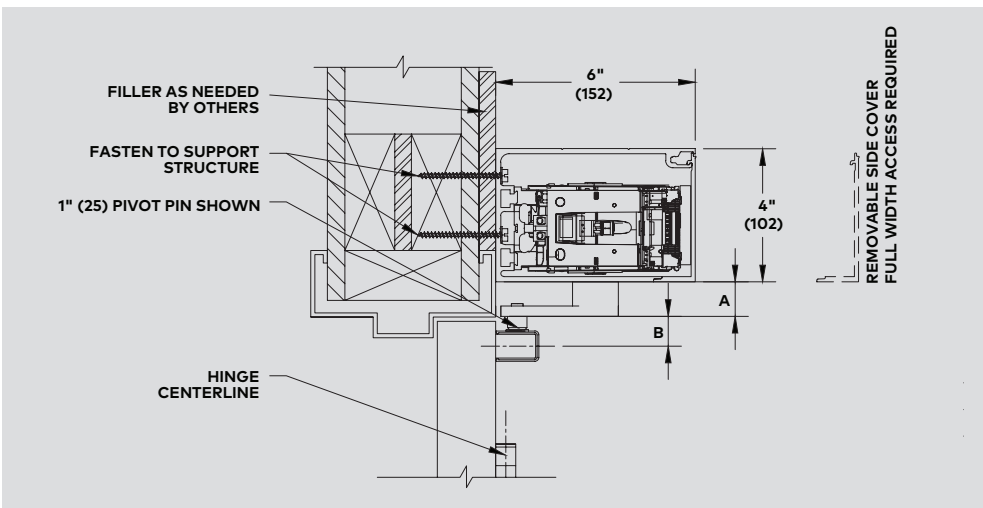
Plan view

4x6 Narrow Header single pull operator
Right hand door shown (left hand opposite)



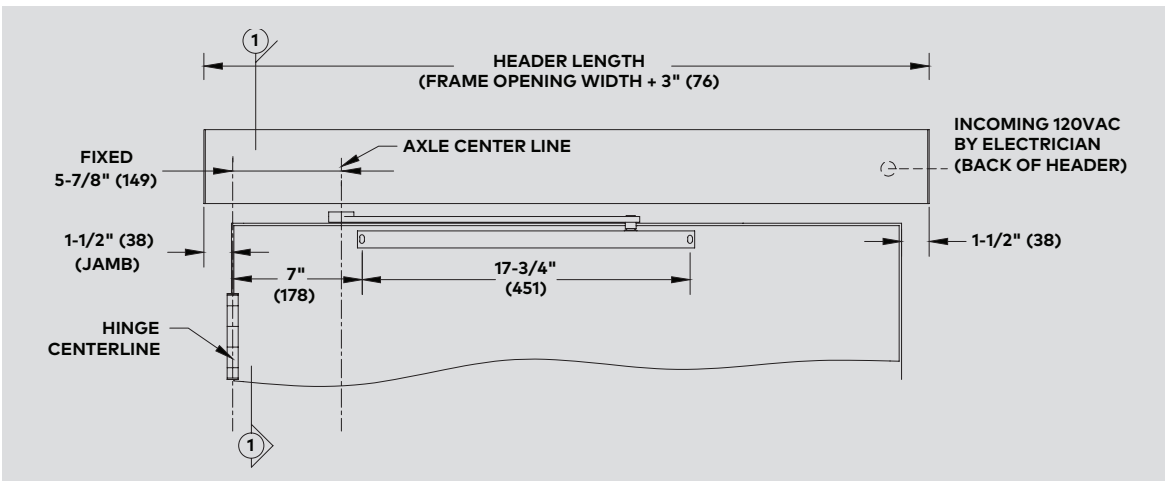
Section view

4x6 Narrow Header pull operator
Right hand door shown (left hand opposite)



Elevation view

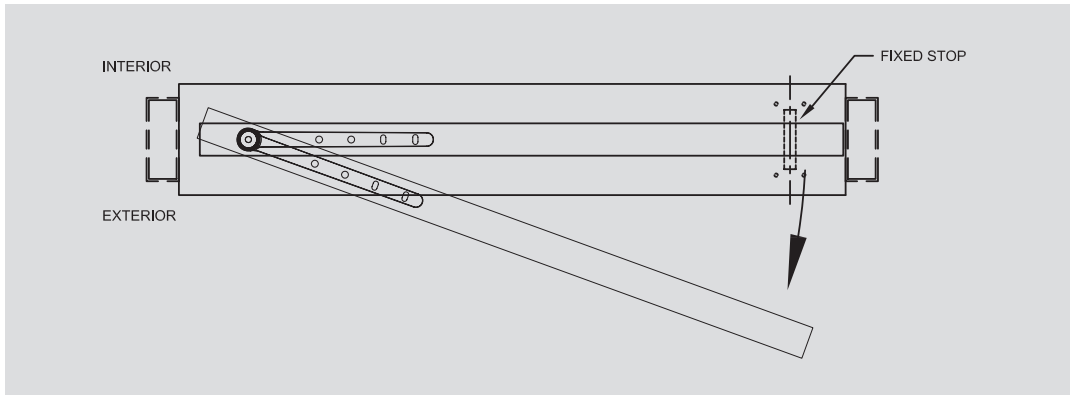
4x6 Narrow Header single pull operator
Right hand door shown (left hand opposite)



ED100 Overhead concealed

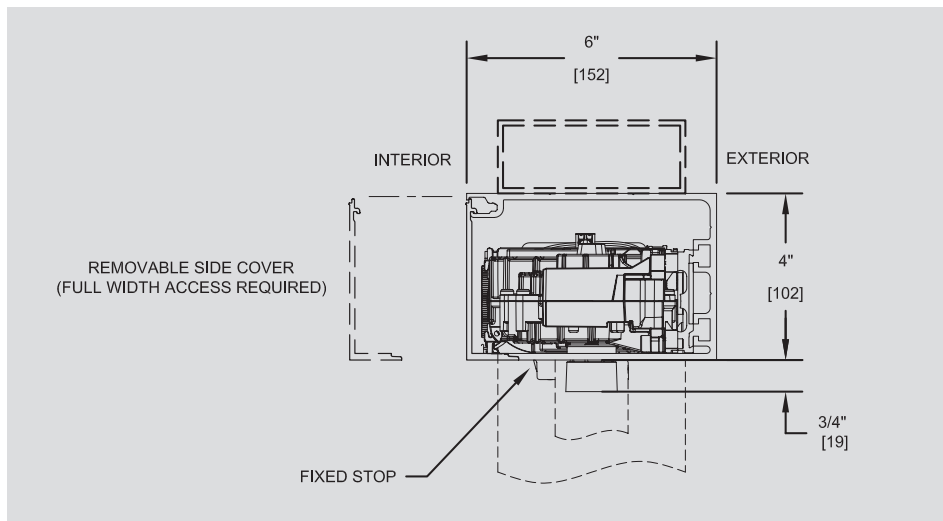
Plan view

Overhead concealed single operator center hung
 Right hand door shown (left hand opposite)



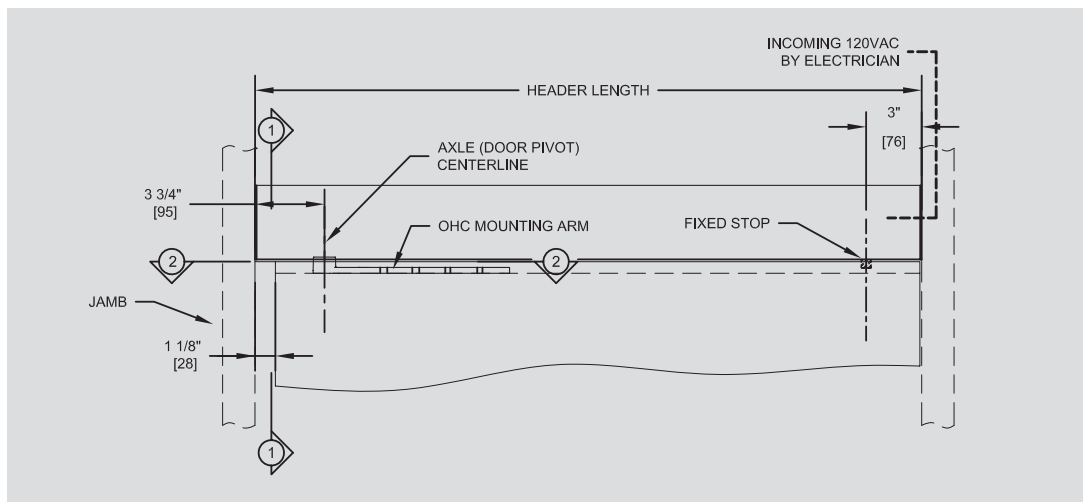
Section view

Overhead concealed pull operator center hung



Elevation view

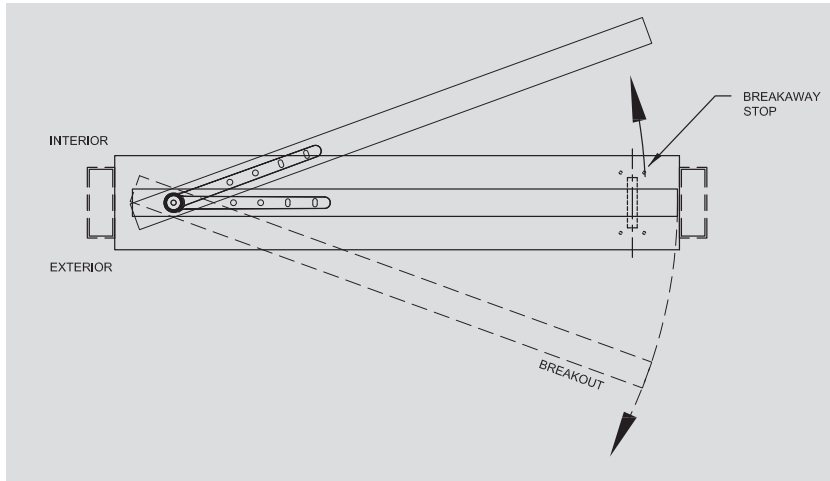
Overhead concealed operator center hung
 Right hand door shown (left hand opposite)



ED100 Overhead concealed

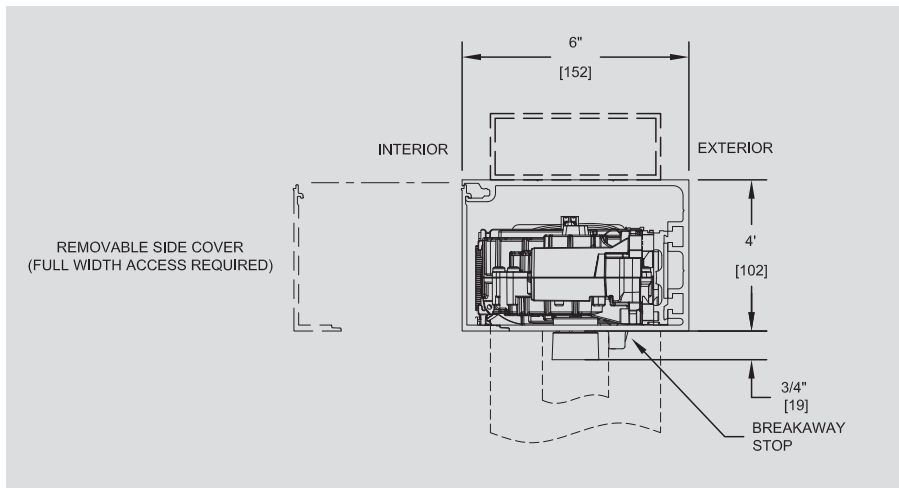
Plan view

Overhead concealed single operator center hung
Left hand door shown (right hand opposite)



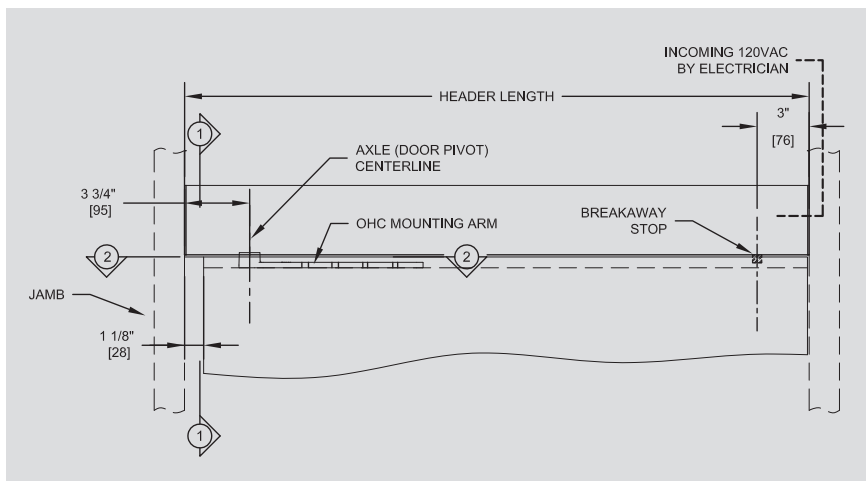
Section view

Overhead concealed pull operator center hung



Elevation view

Overhead concealed single operator center hung
Left hand door shown (right hand opposite)



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