dormakaba

ED900 Low Energy Swing Door Operators



ED900 Swing Door Operators

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dormakaba USA quality and environmental management systems in Reamstown, PA and Steeleville, IL are certified to ISO 9001:2015 and ISO 14001:2015.



ED900 Swing Door Operators

dormakaba's most advanced low-energy swing door power operator.

The ED900 is fully ADA compliant – helpful for children, the elderly, persons with disabilities, or those carrying or pushing objects. The operator is exceptionally quiet, safe, and easy to use. Doors open at precisely controlled speeds and forces, assuring safety for all users.

The ED900 features Contur design for a highly aesthetic look especially when used with the TS93 family of closers.

Technical Details
- Onboard power supply for access control devices: 1.5 A @ 24 VDC.
- Maximum door size: 48" (1219 mm) wide.
- Maximum door weight: 220 lb (100 kg).
- Operator weight: 26.58 lb (12 kg).
- Operating temperatures: 5° F to 122° F (–15° C to 50° C).
- Standard operator dimensions: 27" W × 2-3/4" H × 5-1/8" D (685 mm × 70 mm × 130 mm).
- Maximum opening angle: Powered—110°, Manual—180°.
- Non-handed.
- On-board cycle counter.
- 27" cover standard.
- One unit for push/pull track and top jamb applications.
- Axle extensions: 0, 5/16" (9 mm), 3/4" (20 mm), 1-3/16" (30 mm), and 2-3/8" (60 mm) — standard.

Certifications
- ANSI/BHMA 156.19 Power Assist and Low Energy Power Operated Doors.
- UL and CUL listed for fire door operators with automatic closers.
- ICC/ANSI A117.1 Accessible and Usable buildings and facilities.
- Underwriters Laboratories: ANSI/UL 325 Door, Drapery, Gate, Louver, and Window Operators and Systems.
- California State Fire Marshall (CSFM) approved.

Specifications
ED900 Series low energy operators with selectable low energy or power assist. Low energy function to cycle the door open as programmed. Power assist function for decreased opening force when manually operated. Operator to have a programmable push and go. All operators to have programmable sweep speed, latch speed, and backcheck cushioning. Operators to have the following programmable options for power open functions: delay time, opening time/ opening force, opening angle, and door width selector. Operators to have selectable jumper to accommodate push or pull side applications. Operators to have on/off strike delay when the ED900 must delay while a locking device releases. Push side (top jamb) and pull side (track) arms to be available. All operators will be hard wired. All operators to have selectable on/off obstacle detection on closing.

Optional Specifications
All operators to have remote switch wiring for tamper-resistance. Hold open function is deleted. On/off status can be controlled from a remote location. Specify RS. All operators to be powered with a power cord plugged into a 120 VAC receptacle. Specify PC.

Electrical Specifications
- Power requirements: 115 VAC +/– 10%, 50/60 Hz, 6.6 A max.
- Current: 6.6 A.
- Fuse: 3 Amp – type AGC – size 1/4" – 1-1/4".
- Branch circuit protection: 15 A min.
- Auxiliary power output 24 VDC (normally) filtered, unregulated 1.5 A max range 24 VDC +/– 10%.
- Form "C" relay contact for controlling fail-secure or fail-safe locking devices 50 VAC or DC at 1 A max. When incorporating the ED900 into a system with other electrical components, dormakaba's Technical Services Department offers assistance with point-to-point wiring diagrams. Please contact them with specific requirements.

Programmable Features
- Opening and closing speed.
- Hold open time: from 0–30 seconds.
- Backcheck & latching angles.
- Blow open/night bank hold open.
- Wall blanking on pull side.
- Safety sensor testing.
- Delayed opening for unlocking: From 0–4 seconds. Use with electromechanical access control peripherals such as electric strikes or exit devices with electric latch retraction.
- Closing force prior to unlocking: Works with the delayed unlocking feature and accommodates reduction of latch bolt locking force prior to releasing the electro-mechanical access control device.
- Opening and closing force.
- Latching action force: Power boost during latching cycle to overcome resistance for door seals, locking devices, or door/frame misalignment.
- Keep closed force: designed to keep the door in the closed position when unlocked.



- Latching action angle: For engaging the programmable latching action feature. Opening angle range 2°–5°.
- Push and go.
- Program switch type.
- Cycle counter.
- Opening angle.
- Door closer/ automatic function.
- Activation angle for Helping Force function and Helping Force function.
- Remote interface.
- Backcheck when door is opened manually.
- Astragal angles for double-leaf doors—Opening of the second door can be delayed up to 30° of when the first door is opened.
- Wind load control: Opening and closing cycles. Variable include door size and weight, hinging, alignment, wind loads, HVAC imbalance. Forces measured at each door must confirm with ANSI 156.19 to maintain ADA compliance.
- After hours access hold open times: From 0–30 seconds.
- Day/night (push/pull): Unlocking during business hours.
- Door position status: Monitors when door has reached fully open or fully closed position. Can communicate status to external monitoring device or console.
- Activation via safety sensor on push side.
- Thickness of door.
- Deactivation of operator depending on contact setting.
- Hinge clearance.
- Reset of service interval display.
- Level of factory settings.
- Deletion of error log.
- Internal program switch delayed activation.
- Unlock in "Automatic" mode.
- Function of status relay.

Activation (Trigger) Options
The ED900 Automatic Operator can utilize a Normally Open (N.O.) dry contact activation input to automatically open a door. See the Electronic Access Control Components brochure for other options.

ED900 & Motorized Latch Retraction Exit Devices
The ED900 Automatic Operator can be used in conjunction with the Motorized Latch Retraction (MLR) 9000 Series Exit Device. The onboard 1.5 A power supply of the ED900 can directly power and control one MLR device, providing seamless operation of an automatic latch retraction door without the need for an auxiliary power supply. See the 9000 Series Exit Device brochure for additional information.

ED900, Electric Strikes & Electromagnetic Locks
The ED900 Automatic Operator can be used in conjunction with Electric Strikes to provide Access Control to an opening. See Electronic Access Control Components in the Door Hardware section of our website for additional information.

Finishes

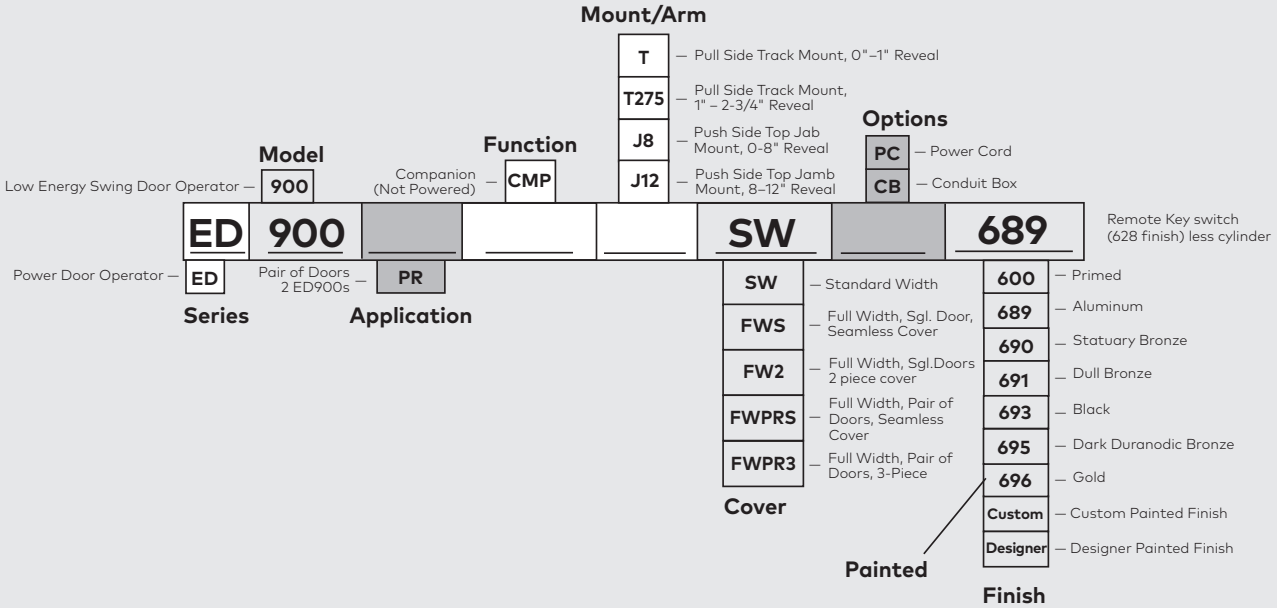
Standard Sprayed Finishes
- Aluminum: 689
- Bronze: 690 (Statuary), 691 (Dull), or 695 (Dark Duranodic)
- Gold: 696
- Black: 693

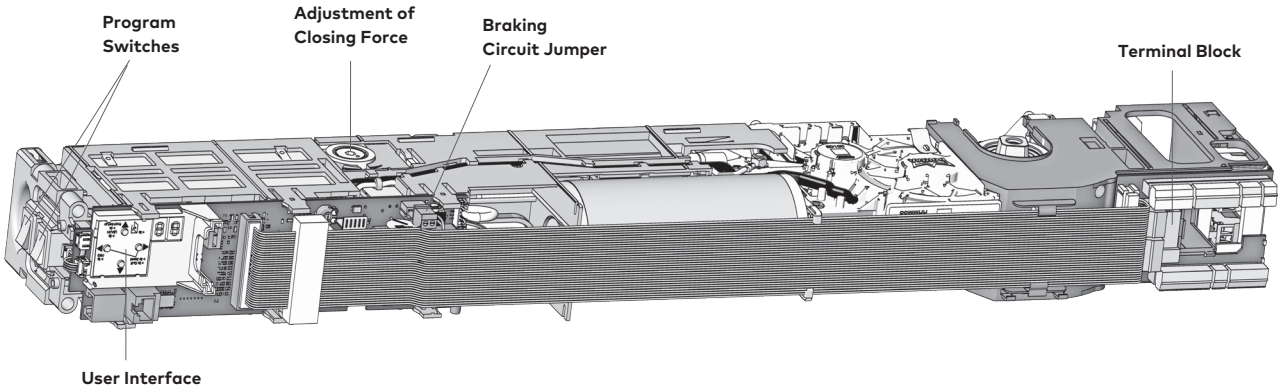
Optional Custom Color or Designer Color Finishes
Contact Customer Service.

Fire Door Applications
The ED900 is UL/CUL Listed for your installation on labeled fire doors.

Warranty
For details, refer to **Limited Warranty** on our website at go.dormakaba.com/Terms-DA.

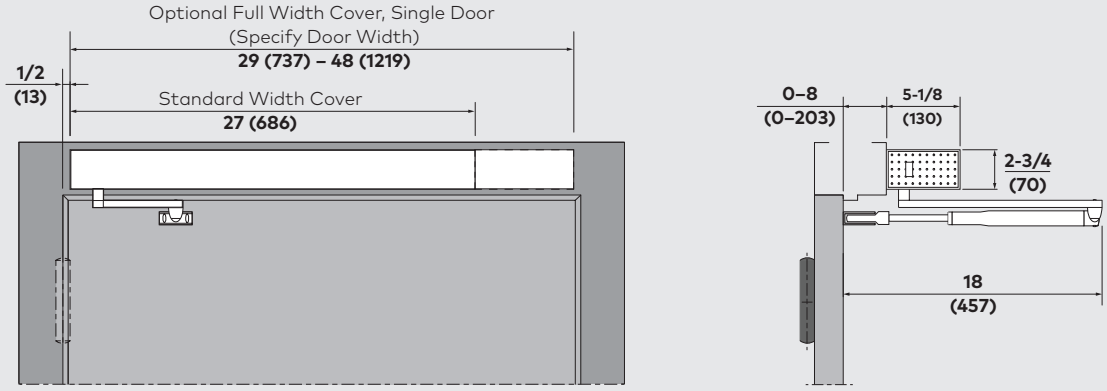
How to order ED900 Series





Top Jamb Installation — Single

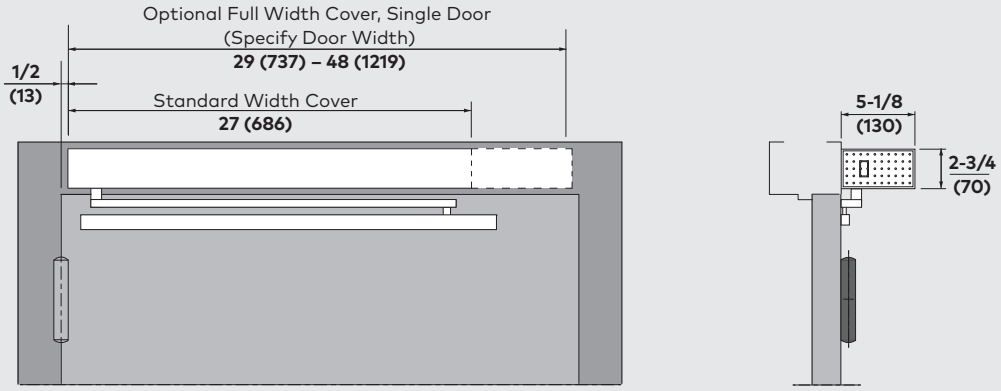
ED900 J8



NOTE: Refer to the included bumper/stop to limit door travel to a maximum 110° to prevent possible damage to the ED900 arm. Where this is not practical, the ED900 J × Drop Mount with a surface door stop is recommended.

Track Mount Installation — Single

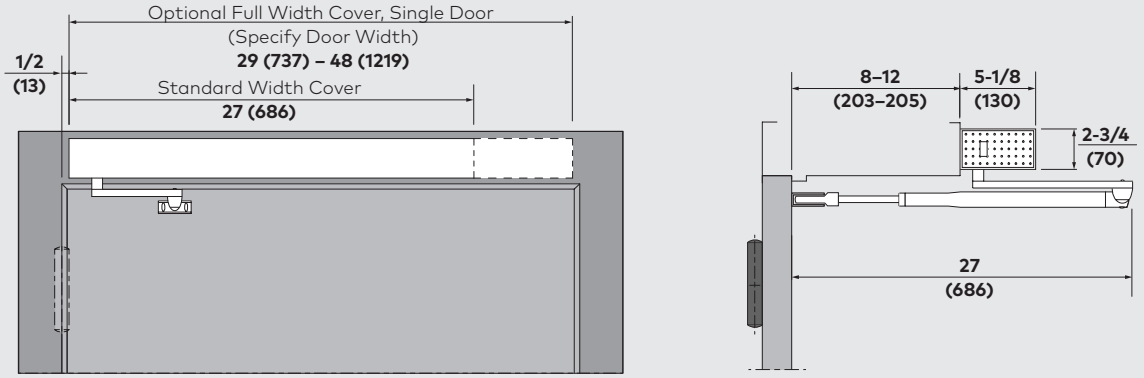
ED900 T



NOTE: Refer to the included bumper/stop to limit door travel to a maximum 110° to prevent possible damage to the ED900 arm. Where this is not practical, the ED900 J × Drop Mount with a surface door stop is recommended.

Top Jamb Deep Reveal Installation — Single

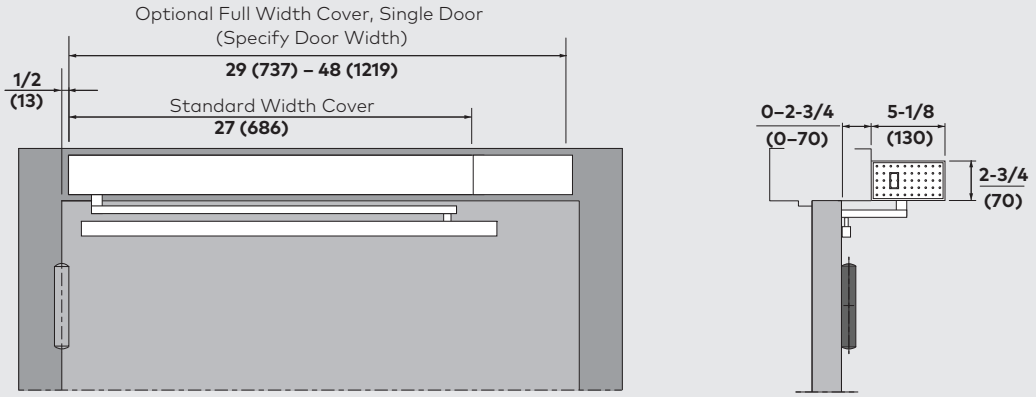
ED900 J12



NOTE: Refer to the included bumper/stop to limit door travel to a maximum 110° to prevent possible damage to the ED900 arm. Where this is not practical, the ED900 J × Drop Mount with a surface door stop is recommended.

Track Mount Deep Reveal Installation — Single

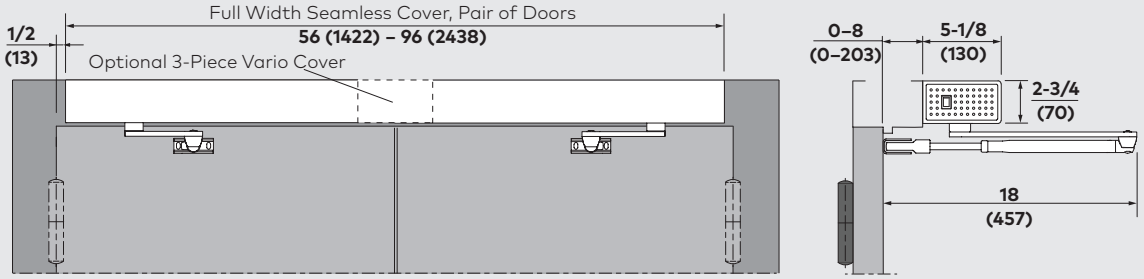
ED900 T275



NOTE: Refer to the included bumper/stop to limit door travel to a maximum 110° to prevent possible damage to the ED900 arm. Where this is not practical, the ED900 J × Drop Mount with a surface door stop is recommended.

Top Jamb Installation — Pair

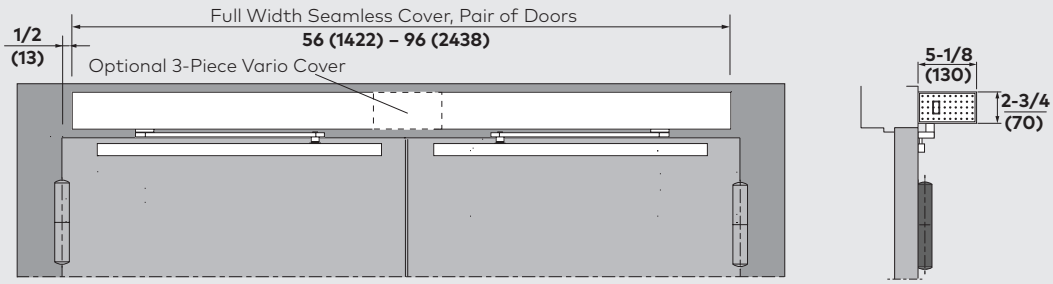
ED900 PR J8



NOTE: Refer to the included bumper/stop to limit door travel to a maximum 110° to prevent possible damage to the ED900 arm. Where this is not practical, the ED900 J × Drop Mount with a surface door stop is recommended.

Track Mount Installation — Pair

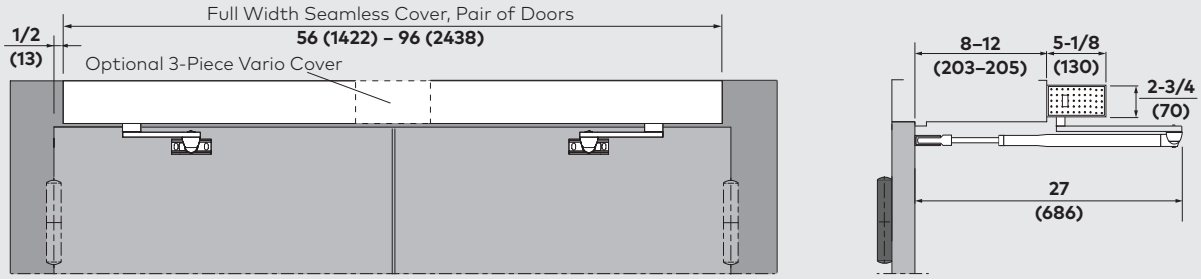
ED900 PR T



NOTE: Refer to the included bumper/stop to limit door travel to a maximum 110° to prevent possible damage to the ED900 arm. Where this is not practical, the ED900 J × Drop Mount with a surface door stop is recommended.

Top Jamb Deep Reveal Installation — Pair

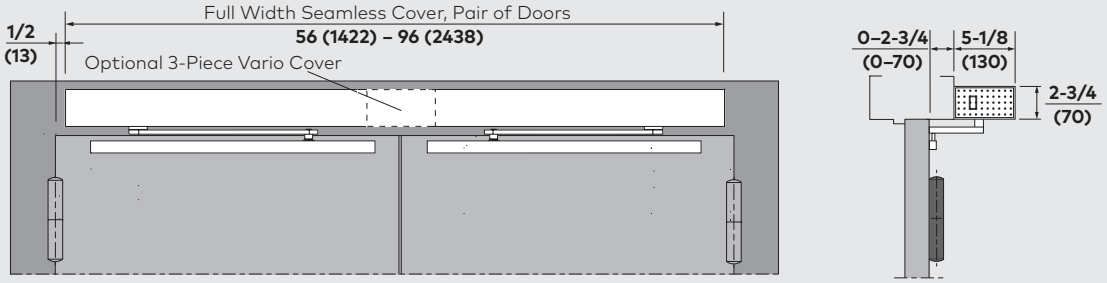
ED900 PR J12



NOTE: Refer to the included bumper/stop to limit door travel to a maximum 110° to prevent possible damage to the ED900 arm. Where this is not practical, the ED900 J × Drop Mount with a surface door stop is recommended.

Track Mount Deep Reveal Installation — Pair

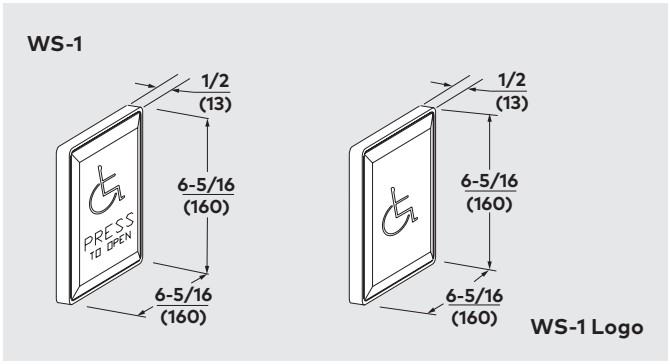
ED900 PR T275

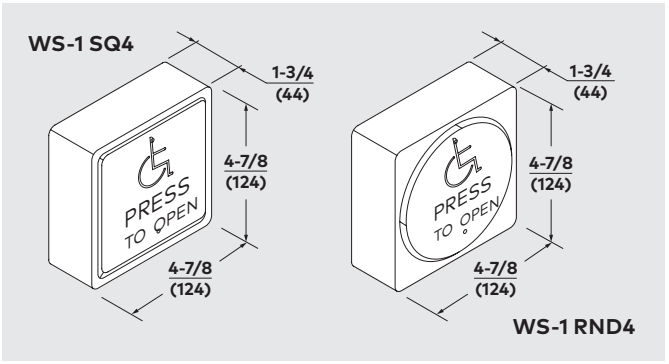


NOTE: Refer to the included bumper/stop to limit door travel to a maximum 110° to prevent possible damage to the ED900 arm. Where this is not practical, the ED900 J × Drop Mount with a surface door stop is recommended.

Accessories

Wall Switches





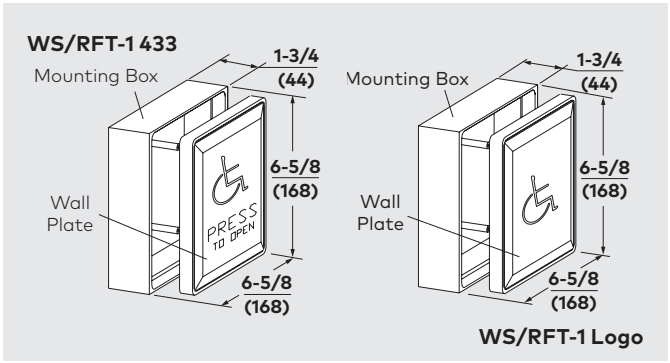
WS-1 — Tamper-resistant 6" × 6" wall plate with a normally open switch. Includes a heavy duty injection molded black ABS mounting box. Satin stainless steel wall plate with blue engraving. Wall plate displays the accessibility symbol and "PRESS TO OPEN." Fits a standard 4" × 4" electrical box. Must be hard wired. Flush design allows the optimum in weather resistance, in surface, or recessed applications.

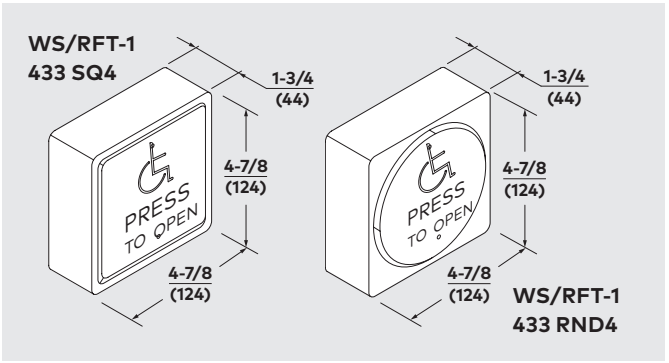
WS-1 LOGO — Same as the WS-1, except that the wall plate displays the accessibility symbol only.

WS-1 SQ4 — Tamper-resistant 4-1/2" × 4-1/2" wall plate with a normally open switch. Includes a heavy duty injection molded black ABS mounting box. Satin stainless steel wall plate with blue engraving. Wall plate displays the accessibility symbol and "PRESS TO OPEN." Fits a standard 4" × 4" electrical box. Must be hard wired. Flush design allows the optimum in weather resistance, in surface, or recessed applications.

WS-1 RND4 — Same as the WS-1 SQ4, except that the wall plate displays the accessibility symbol only.

Wireless Wall Switches





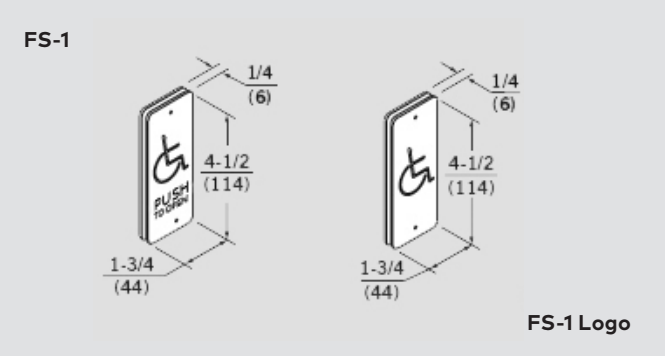
WS/RFT-1 433 — Tamper-resistant, 433 MHz, 6"× 6" wall plate with a normally open wireless switch. Includes a heavy duty injection molded black ABS mounting box with a radio frequency transmitter and 9 VDC battery. Must be used in conjunction with the RFR 433 receiver. Maximum range is 50ft. Satin stainless steel wall plate with blue engraving. Wall plate displays the accessibility symbol and "PRESS TO OPEN." Flush design allows the optimum in weatherresistance, in surface, or recessed applications. Ideal where conditions prohibit hard wiring.

WS/RFT-1 LOGO 433 — Same as WS/RFT-1 433, except that the wall plate displays the accessibility symbol only.

WS/RFT-1 433 SQ4 — Same as WS/RFT-1 433, except wall plate is 4-1/2" × 4-1/2" square.

WS/RFT-1 433 RND4 — Same as WS/RFT-1 433, except wall plate is 4-1/2" round.

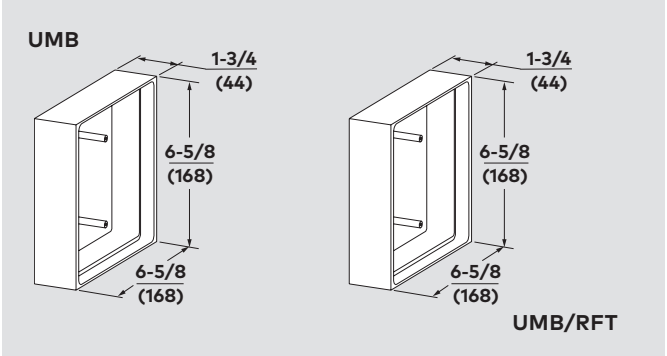
Frame Switches



FS-1 — 1-3/4" × 4-1/2" frame plate with a normally open switch. Satin stainless steel frame plate with blue engraving. Frame plate displays the accessibility symbol and "PRESS TO OPEN." Fits a minimum 1-3/4" × 4" frame section. Must be hard wired.

FS-1 LOGO — Same as FS-1, except that wall plate displays the accessibility symbol only.

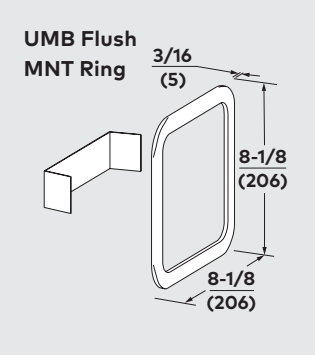
Mounting Boxes



UMB — Black ABS universal replacement mounting box for WS-1 type switches.

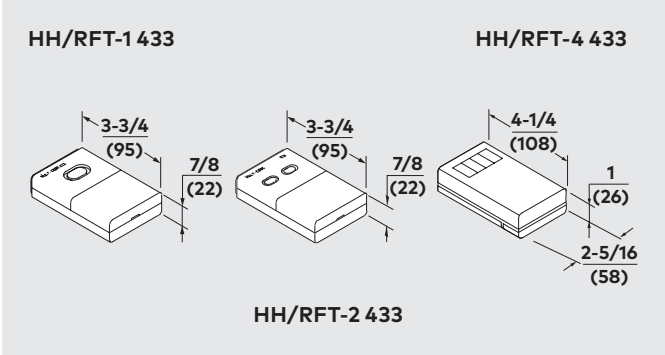
UMB/RFT — Black ABS universal replacement mounting box for WS/RFT-1 type switches.
Includes a radio

Flush Mount Ring



UMB Flush MNT Ring — Black ABS flush mount ring and metal mounting bracket. The ring is designed to cover the gap between the mounting box and the switch plate cutout in the wall for a nice clean look.

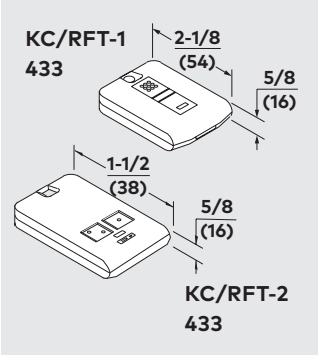
Hand Held Transmitters



HH/RFT-1 433 (Single Frequency), HH/RFT-2 433 (Dual Frequency), HH/RFT-4 433 (Quad Frequency) — Compact, portable, 433 MHz switches. Must be used with RFR 433 receiver. Maximum range is approximately 50 ft (depending on conditions). Powered by 9 VDC battery.

Well suited where multiple users must activate ED900 for accessibility, security, convenience, or where use of an exposed switch is not practical. Neutral case with grained finish. HH/RFT-2 and -4 433 require one RFR 433 per frequency.

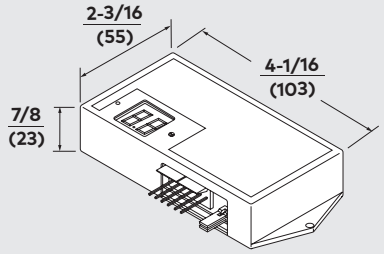
Key Chain Transmitters



KC/RFT-1 433 (Single Frequency), KC/RFT-2 433 (Dual Frequency) — Similar to HH/RFT-1 433 or HH/RFT-2 433, but more compact. Must be used with RFR 433 receiver. KC/RFT-2 433 requires one RFR 433 per frequency. The small size permits the use as a key chain or in cases where the hand held transmitter is too large. Powered by a watch battery.

Time Delay Module

TDM



TDM — Advanced time delay module, allowing the installer to use only one time delay for any automatic door operation, on electrically or magnetically locked doors. TDM is required for vestibule sequencing and simultaneous triggering of (2) ED900 operators.
Takes 1 to 4 inputs and converts them to sequential relay outputs.

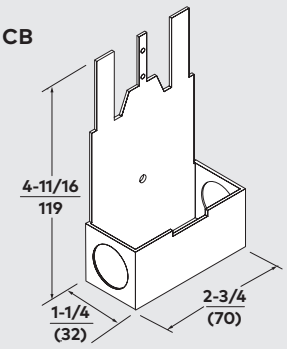
As a make/break relay, it eliminates mechanical binding of the locking mechanism on an automatic door. Make relay can be configured as a wet output to directly apply power to an electric locking device.

To sequence vestibule sets of doors, unit provides an initial relay output for the first door, a delay between outputs 1 and 2, and another output for the second door. Also provides a delay between outputs 2 and 1, allowing you to sequence your vestibule in both directions with only one TDM. Each delay adjustable from 0.0 to 99 seconds.

Power Requirements
12–24 V AC or DC +/– 10%, 50 or 60 Hz, 83 mA @ 24 VDC.

Conduit Box

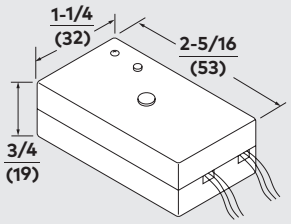
CB



CB — UL approved conduit box accessory to provide surface wiring of 120 VAC power to ED900.

Reciever

RFR 433



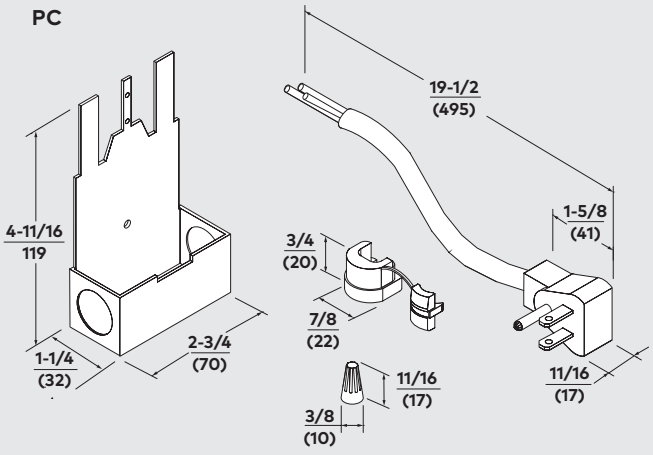
RFR 433 — Radio frequency receiver, 433 MHz. Required for use with all DORMA transmitter switches. Powered from the onboard power supply of the ED900. Ideal for applications with range and signal strength problems.

Maximum range typically 50 ft (conditions permitting).

Surface applies remotely. Operates on 12 or 24 Volts AC or DC. 16 mA nominal (50 mA max. when relay is triggered).

Wiring Kit

PC

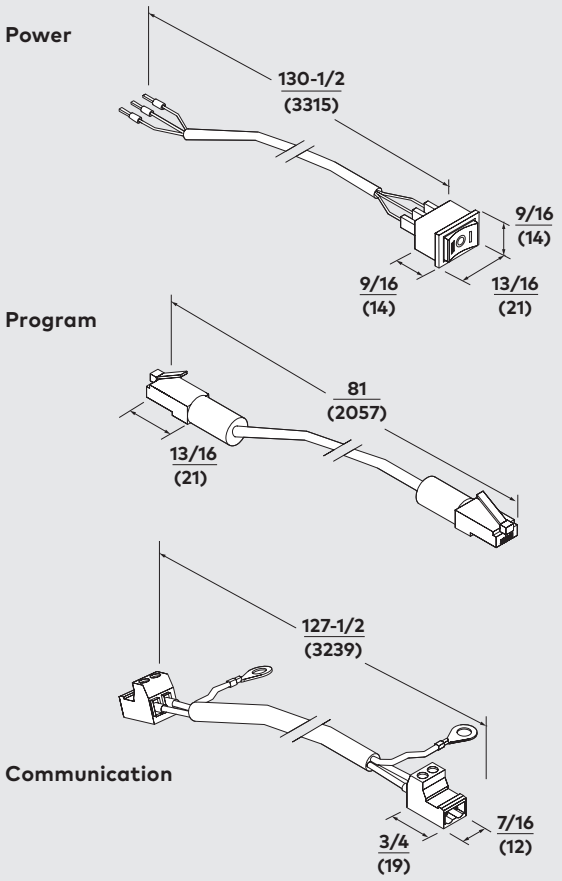


PC — Eliminates need for hard wiring. Permits ED900 to plug directly into 120 VAC/60 Hz receptacle. Cord measures 15" from end cap to center of plug.

Kit includes
- Power cord
- Wire nut
- Cord grip
- Conduit box

Full-Width Three Piece Cover Kit

PRCONKIT5560

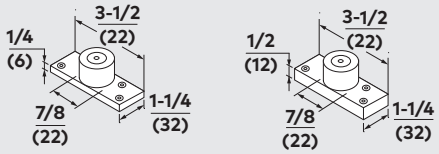


PRCONKIT5560
Allows installation and communication of two ED900s on a pair of doors.

Includes
- Communication cable to program coordination of the two operators.
- Power cable to link operators.
- New programming switch to enable proper commissioning.
- Backplate, middle cover, and seam covers.
- Kit can accommodate paired openings 86" to 110".

Bumper Stops

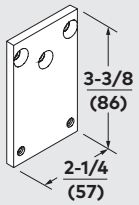
BSTP25



BSTP25 (1/4" thick base plate)/ BSTP50 (1/2" thick base plate) — Header mounted bumper stop provides protection for ED900J operator and door by limiting degree of opening when bumper stop is correctly located and installed.

Drop Plate

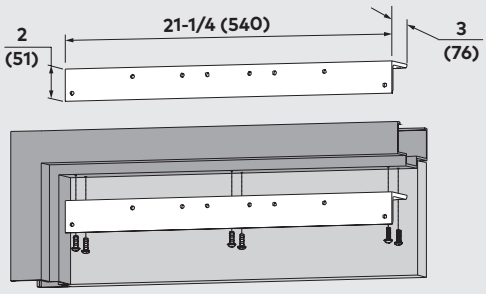
930



930 — For mounting arm shoe in top jamb drop application when top door rail is less than 4-5/8" (2" minimum required).

Angle Bracket

970



970 — For mounting ED900 J easily on deep reveal frame conditions or when frame face is less than 1-3/4". Frame must be properly reinforced to secure bracket. Requires 2-3/4" minimum soffit width.

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