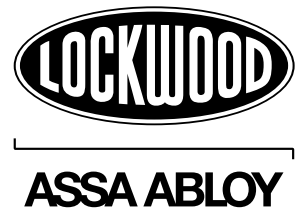


5831 Series

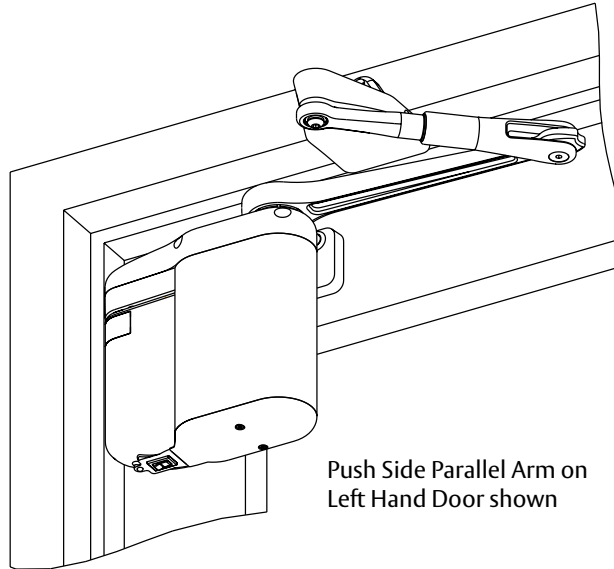
Installation and Operating Instructions



Door Size: 91cm - 122cm

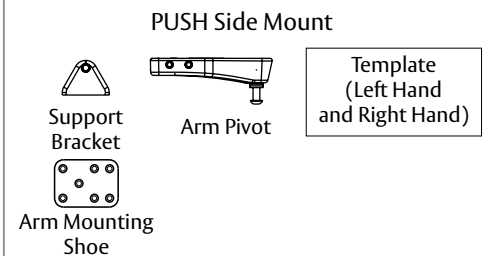
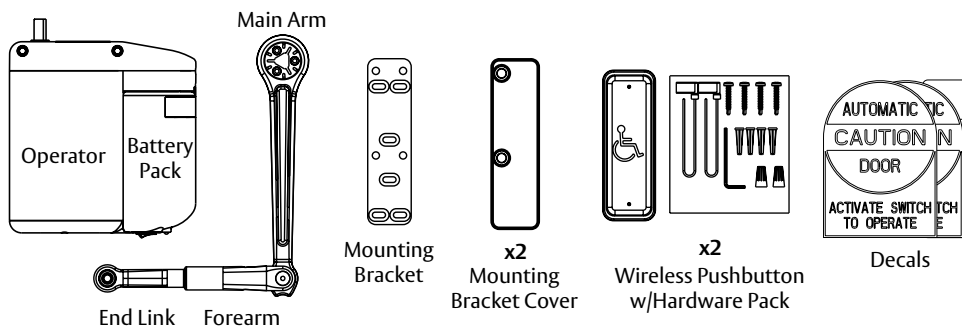
Max Door Weight: 113kg

FC  R-NZ

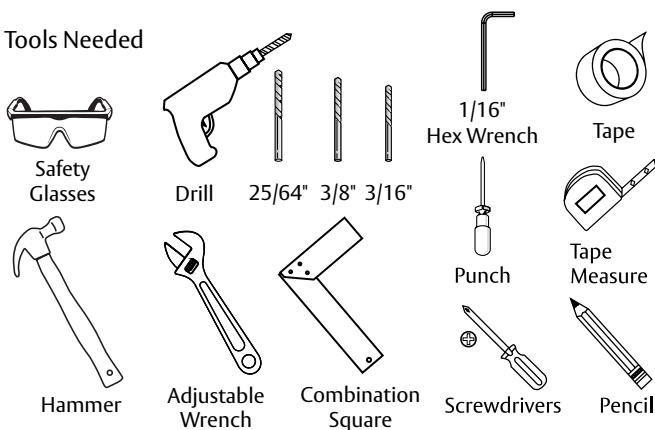


Push Side Parallel Arm on
Left Hand Door shown

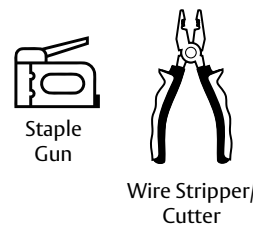
Components



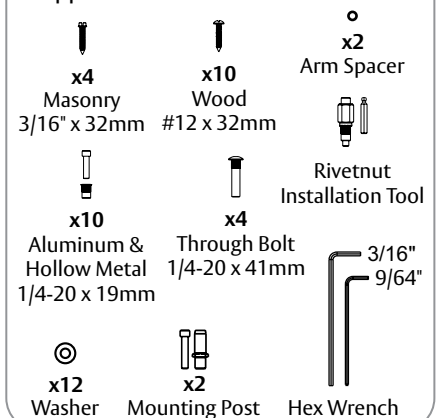
Tools Needed



Additional Tools Needed for Optional Power Supply



Supplied Fasteners and Tools



Contents

Product Safety Warnings	2
General Information.....	3
Power Specifications	3
Precautions	4
Australian Compliance Statement	4
Before You Begin	5
PUSH Side Operator and Arm Installation.....	6
PULL Side Operator and Arm Installation	11
Install Battery Pack	14
Adjust Door Spring Tension.....	14
Install Wireless RF Transmitter Pushbuttons.....	15
Install Plug-In Power Supply	16
Programming Operator	17
Linking Wireless Pushbuttons	17
Setting Descriptions.....	18
Customising Settings.....	19
After Installation	20
Troubleshooting	21



Product Safety Warnings

To reduce the risk of severe injury or death READ AND FOLLOW ALL INSTALLATION INSTRUCTIONS

Warning: This equipment is compliant with class A of EN 55032.
In a residential environment this equipment may cause radio interference.

Lithium Battery Safety Information

Risk of explosion and personal injury if device is installed into non compatible circuit. Do not open, mutilate, or expose to conducting materials (metal), moisture, liquid, fire or heat above 60 ° C (130° F), incinerate, or immerse in water or liquid of any kind. Do not short circuit. Doing so may cause batteries to leak or explode, resulting in personal injury.

Coin Battery Safety Information

- WARNING - KEEP BATTERIES OUT OF REACH OF CHILDREN
- If the battery is a lithium button/coin battery placing the battery in any part of the body or swallowing may lead to serious injury in as little as 2 hours or death. Including, but no limited to choking hazard, chemical burns, or potential perforation of the oesophagus (if swallowed).
- If the battery is a non-lithium button/coin battery placing the battery in any part of the body or swallowing may lead to serious injury.
- If you suspect your child has swallowed or inserted a button battery, seek medical attention immediately.
 - o **Australia:** Call the Poisons Information Centre immediately on **13 11 26** for 24/7 fast, expert advice.
If your child is having any difficulty breathing, contact **000**.
 - o **New Zealand:** Call the National Poisons Centre immediately on 0800 POISON (0800 764 766) for 24/7 fast, expert advice.
If your child is having any difficulty breathing, contact 111.
- Examine devices and make sure the battery compartment is correctly secured, e.g., that the screw or other mechanical fastener is tightened. Do not use if compartment is not secure.
- Dispose of used button batteries immediately and safely. Flat batteries can still be dangerous. As soon as you have finished using a button battery put sticky tape around both sides of the battery. This will make them less attractive to children and to avoid the low risk of them catching fire. Then dispose of them immediately in an outside bin, out of reach of children, or recycle safely.
- Tell others about the risk associated with button batteries and how to keep their children safe.

General Information

5831 Series is an extreme-duty, low-energy door opener designed for institutional high-traffic. It allows the door to open manually or by a RF transmitter pushbutton. As the door closes, the 5831 Series generates an electrical charge that restores power to the battery, eliminating the need for electrical power.

5831 Series should be installed on doors using our 80/25 guideline:

- Apply 5831 Series to a door that will be cycled manually a minimum of 80 times per day and cycled automatically approximately 25% or less per day.

Using this 80/25 guideline, the 5831 Series will self-generate all the power it needs to keep its field-replaceable on-board battery pack charged for up to 12 years or longer.

A fully charged battery pack can open a door up to 2,500 times in a row with little impact on overall usability even if there are periodic fluctuations from the 80/25 guideline. For example 30% automatic use for one day is not problematic, provided that level of automatic use is not sustained.

If the door is operated by wireless RF transmitter pushbutton more often than described in the 80/25 rule, the door-closing cycle will not supply enough power to charge the battery pack and permit remote operation. In this case, an optional plug-in 24VDC power supply is required. Simply plug the unit into a common 230VAC electrical outlet using a plug-in 24VDC power supply.

Operation Upon Loss of Power:

Standard installations require no external power and operation will not be affected during a power loss. Typically a maximum of 2,500 cycles can be obtained from a fully charged battery pack. Installations with a power supply will continue to function normally.

Operation Upon Obstruction:

If door meets an obstruction while opening, door will remain under power for one (1) second and then close under spring force. If door meets an obstruction while closing, door will maintain a closing force of 3.6 kg or less.

Power Specifications

Transmitter

- RF signal range of 10m from either side of door.
- One (1) 3-volt 280mAH lithium battery (P/N CR2032) provides transmitter power for approximately 250,000 activations.

Power Supply:

- 24VDC power supply converts incoming 230VAC power to voltage required by controller using a standard 230VAC grounded power outlet.
- Power Input: 24VDC voltage, current 500mA or more



ASSA ABLOY

5831 Series Installation and Operating Instructions

Precautions

- Improper installation or adjustment may result in personal injury or property damage. The operator must be completely installed and programmed or the door must be disabled prior to leaving the site. An incomplete installation or unprogrammed operator is a safety hazard. Follow all instructions carefully. **For questions call ASSA ABLOY Opening Solutions Customer Service.**
- 5831 Series is intended for INTERIOR USE ONLY.
- Do not install 5831 Series on balanced doors or doors with swing clear hinges.
- If unit will be wired to external power, do not connect source of power until instructed to do so.
- Battery should be switched “OFF” until operator and door arm installation are complete.
- An operating door creates pinch hazards. Be careful making operating adjustments while door is moving.
- Installation must comply with all local, state, and national electrical codes. Also, power supply wiring must be secured to prevent entrapment in moving parts.

Australian Compliance Statement

Australia & New Zealand (RCM & R-NZ) R-NZ

This product complies with all the applicable requirements of the Regulatory Compliance Mark (RCM) for Australia & New Zealand and Radio Spectrum Management (R-NZ) requirements for New Zealand.

This product complies with the Class A requirements of EN 55032: 2015 + AC: 2016 as per the RCM compliance scheme EMC standards list.

Warning: This equipment is compliant with Class A of EN 55032: 2015 + AC: 2016. In a residential environment, this equipment may cause radio interference.

This product complies with the AS/NZS 4268: 2017 per the ACMA (RCM for Australia) and additional requirements per the Radio Spectrum Management (RSM for New Zealand) Radiocommunications requirements.

RCM Radiation Exposure Statement

This system has been evaluated for RF exposure for Humans as referenced in the Australian Radiation Protection standard and has been evaluated to the ICNIRP (International Commission on Non-Ionizing Radiation Protection) limits. This product has been deemed to comply with the RF exposure limits under the general public limits.

Battery Safety Information

Risk of explosion and personal injury if device is installed into non compatible circuit. Do not open, mutilate, or expose to conducting materials (metal), moisture, liquid, fire or heat above 60 ° C (130° F), incinerate, or immerse in water or liquid of any kind. Do not short circuit. Doing so may cause batteries to leak or explode, resulting in personal injury.

You assume all risk associated with the suitability, installation and performance of this product and other third party components, hardware, software and services that you select.

Before You Begin

- All dimensions are given in metric (or inches). DO NOT scale drawings.
- When using a plug-in 24VDC power supply, make sure a 230VAC grounded power outlet is available in vicinity of door.
- Set up a protective barrier (caution/warning tape) to prevent unauthorized access to work area.
- If applicable, remove existing door closer.
- Make sure doors and frames are in good working order without sticking or binding.
- Make sure door has been secured to prevent unexpected opening or closing during installation.

Determine Door Handing and Mounting Type

Push Side Mount: ALWAYS install operator on inside (push-to-open) of door at hinge or pivot edge of top rail.

Pull Side Mount: ALWAYS install operator on outside (pull-to-open) of door.

1. Determine door handing. (Figure 1)
2. Determine if installation is push side mount or pull side mount. (Figure 2)
 - If push side, go to page 6.
 - If pull side, go to page 11.

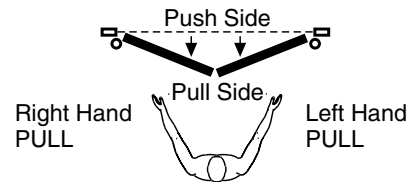


Figure 1

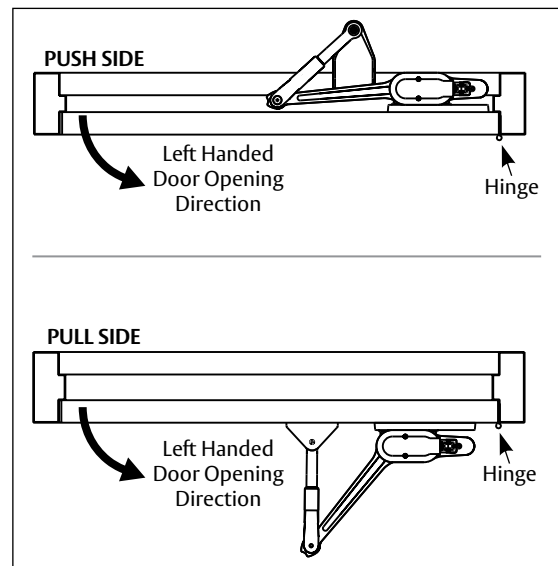


Figure 2

PUSH SIDE Operator and Arm Installation

Prepare Door and Frame

1. Select right hand or left hand template and become familiar with information. (Figure 3)

NOTE: Refer to “Determine Door Handing and Mounting Type” on page 5 to verify hand. A push side operator always mounts on push-to-open side of door at hinge.

2. Measure stop thickness and select fold line.
 - If stop is greater than 38mm, use upper fold line.
 - If stop is 38mm or less, use lower fold line.

3. Determine type of door hinge (butt, offset pivot, or center pivot) and align template at centerline of door hinge or pivot. (Figure 4)

NOTE: Ensure template is at hinge centerline NOT edge of door.

4. Measure stile and select mounting location.
 - Narrow stile: Use solid line mounting location.
 - Other or Wood: Use dotted line mounting location.



CAUTION: On an aluminum storefront door, operator mounting holes must **not** be drilled into top rail web, rail-to-stile tie rod(s), or rail-to-stile junction.

5. Tape template into position and mark a minimum of four (4) of the six (6) mounting hole locations with a center punch and hammer.



CAUTION: To ensure proper installation, at least four (4) fasteners that will not interfere with top rail web, rail-to-stile tie rod(s), or rail-to-stile junction must be used. For heavier doors, more fasteners are recommended.

6. With door closed, use a square to mark centerline of arm mounting shoe onto underside and face of frame header and door stop. (Figure 5) This line is shown on template.

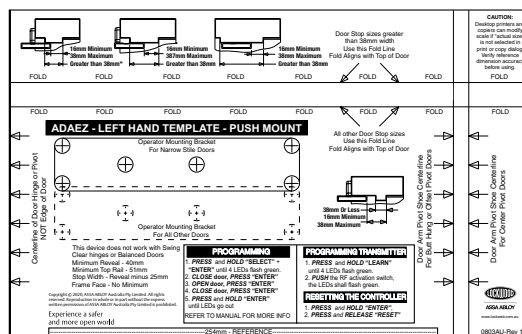


Figure 3

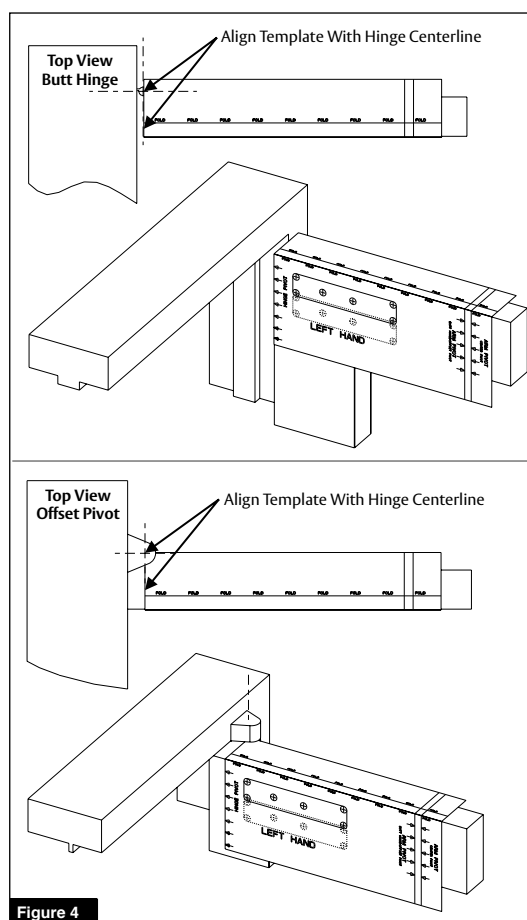


Figure 4

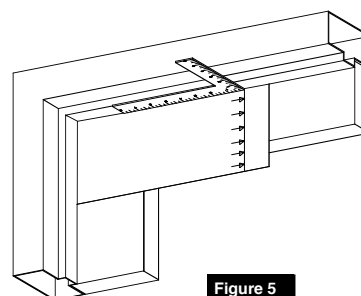


Figure 5

PUSH SIDE Operator and Arm Installation

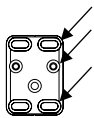
Install Arm Mounting Shoe and Support Bracket

1. Measure door stop to determine if arm mounting shoe will be installed to face of stop or face of rabbet. (Figure 6)
2. Determine frame location of triangular support bracket. (Figure 7)



CAUTION: In all cases, edge of shoe must be between 16mm and 38mm from face of door.

- In a typical installation, bracket will set flush against face of frame header.
- In a large reveal installation, bracket will mount to underside of frame header.
- In a flush mount installation, bracket is not used - ceiling covers face of frame. Shoe should then be installed on underside of frame header.



NOTE: If used, triangular support bracket face must be flush against face of frame header or frame rabbet. Depending on frame conditions, select one of three bracket locations on arm mounting shoe so that support bracket is mounted as securely as possible.

3. Aligning centerline of shoe with shoe centerline mark previously made from template, mark hole locations using a center punch and hammer. (Figure 8)
4. Install arm mounting shoe and support bracket.

If door frame is aluminum:

- a. Use a 25/64" bit to drill holes.
- b. Using provided rivnut installation tool, install 1/4-20 steel rivnuts.
- c. Install and tighten a minimum of three (3) 19mm socket head cap-screws to secure shoe and bracket to underside and face of frame header.

NOTE: When attempting to install rivnuts to underside of door frame it may be necessary to remove door stop.

If door frame is wood:

- a. Use a 5/32" bit to drill holes.
- b. Install and tighten a minimum of three (3) #14 x 32mm wood screws to secure shoe and bracket to underside and face of frame header.

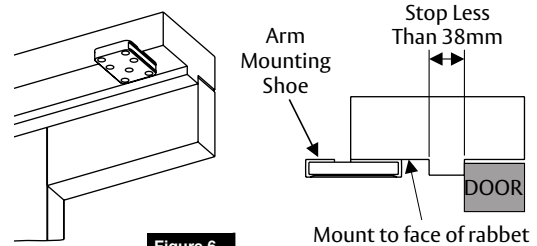
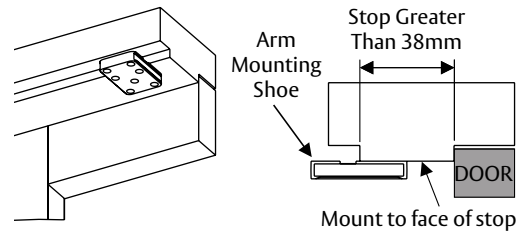


Figure 6

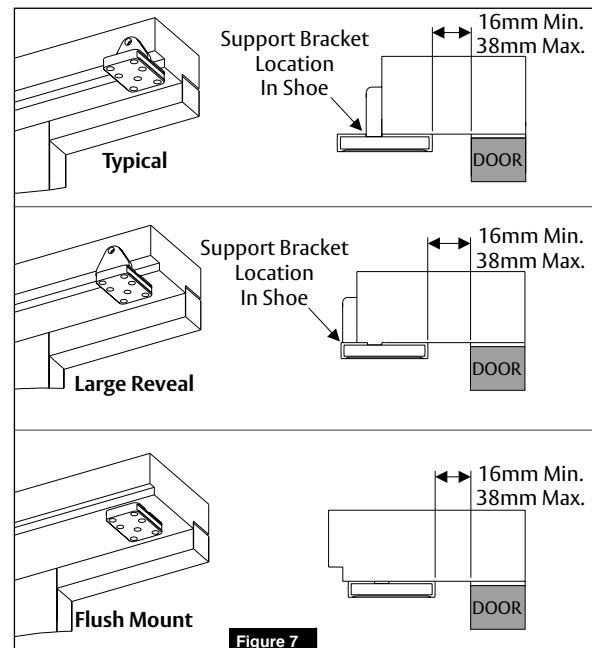


Figure 7

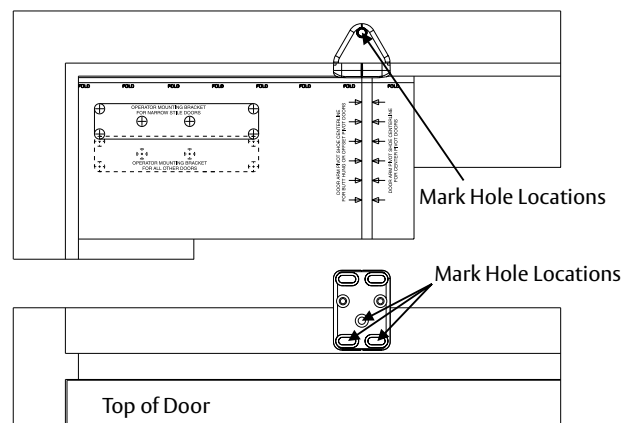
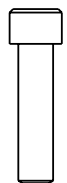


Figure 8



or



PUSH SIDE Operator and Arm Installation

Install Arm Pivot (Figure 9)

1. Slide arm pivot over arm shoe.
2. Make sure that dimension from face of door to centerline of door arm mounting hole is 162mm.
3. Tighten four (4) set screws to secure.

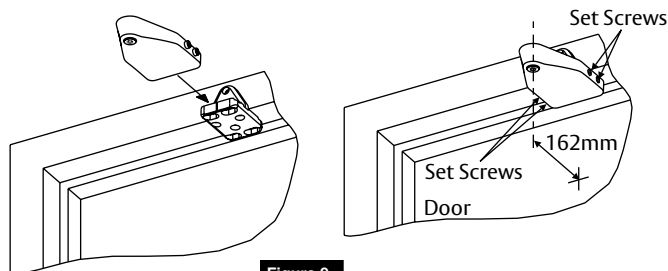


Figure 9

Install Operator Mounting Bracket

1. Install operator mounting bracket to door using locations marked in "Prepare Frame and Door" section on page 6. (Figure 10)

If door is aluminum:

- a. Use 25/64" bit to drill operator mounting bracket holes.
- b. Using provided rivnut installation tool, install bracket to door with minimum four (4) ¼-20 steel rivnuts. **DO NOT TIGHTEN**

If door is wood or hollow metal:

- a. Use 3/8" bit to drill operator mounting bracket holes.
- b. Using 3/16" hex wrench, install bracket to door with minimum four (4) ¼-20 socket head cap-screws and washers. **DO NOT TIGHTEN**

NOTE: For light duty or hollow core doors with insufficient top rail blocking, supplied through bolts or sex nut and bolts are required.

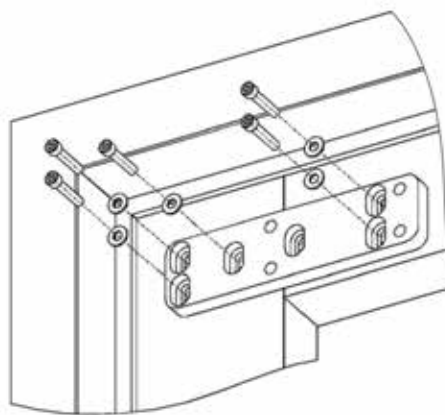


Figure 10

2. Adjust operator mounting bracket by sliding bracket in slot holes. (Figure 11)
 - If large stop, adjust bracket so there is 60mm space between top of bracket and top of door.
 - If standard mounting, adjust bracket so there is 45mm space between top of bracket and top of door.
 - If narrow stile, adjust bracket so there is 13mm space between top of bracket and top of door.
3. Tighten screws to secure operator mounting bracket in position.

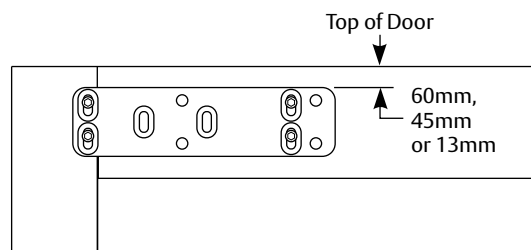
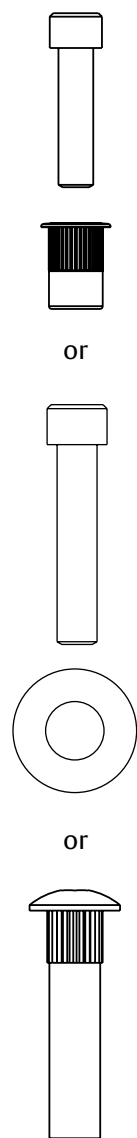
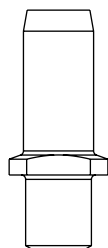


Figure 11



PUSH SIDE Operator and Arm Installation

Mount Operator to Bracket



1. Install operator mounting pins into bracket using a large adjustable wrench. (Figure 12)

- Narrow Stile Door: Use lower threaded holes in mounting bracket.
- Wide or Medium Stile Door: Use upper threaded holes in mounting bracket.

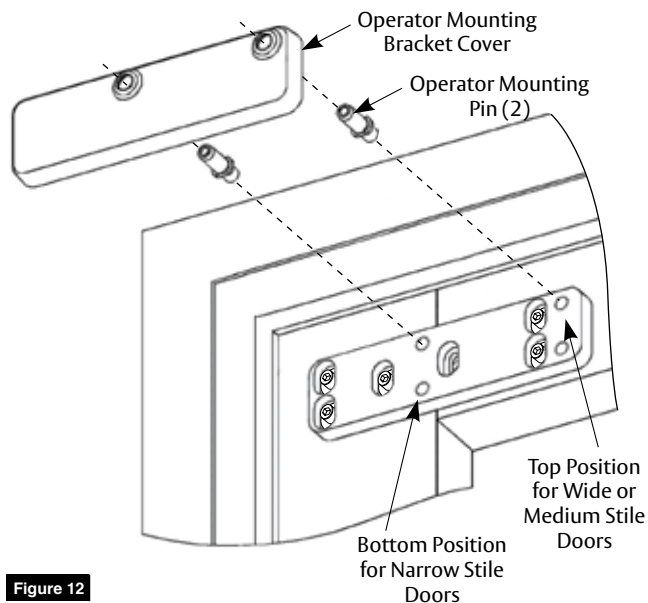


Figure 12

2. Install operator mounting bracket cover by placing it over pins. (Figure 12)

3. Remove bottom cover of operator. (Figure 13)

4. Remove battery pack from operator by sliding it off T channel. (Figure 13)

5. Insert two (2) ¼-20 x 38mm socket head cap-screws into operator. (Figure 13)

6. With battery pack side toward door hinges, slide operator onto operator mounting pins and tighten screws.

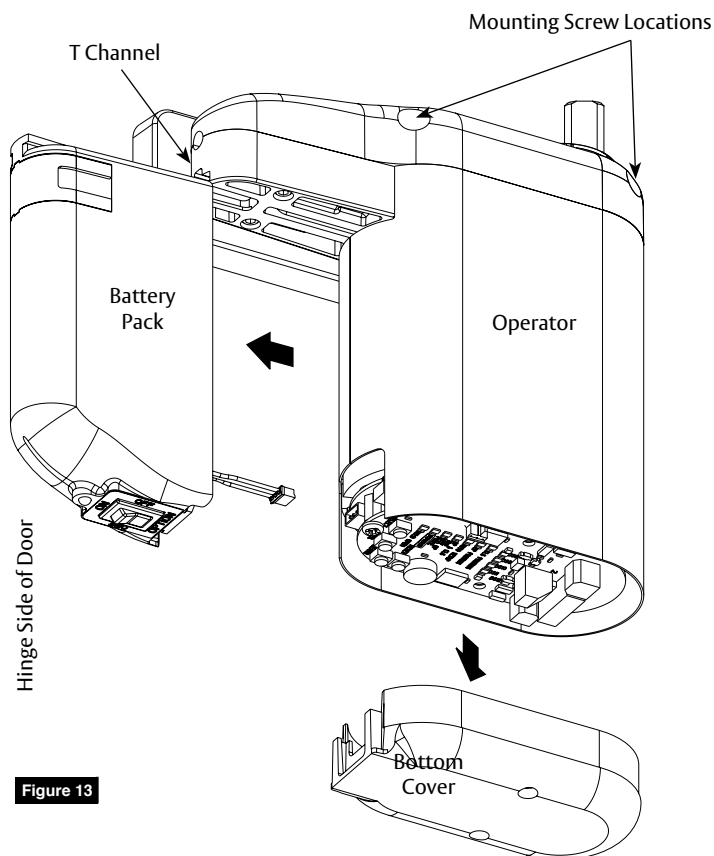


Figure 13

PUSH SIDE Operator and Arm Installation

Install Arm

WARNING: It is a safety hazard to install arm with battery pack connected.

1. With arm coupling bolts facing up and arm elbow against door, place larger end of arm onto pinion shaft. (Figure 14)
2. With arm elbow still touching face of door, tighten coupling bolts evenly (one quarter turn at a time in a circular pattern) until **fully tight** using 3/16" hex wrench. (Figure 14)

CAUTION: Bolts must be tightened evenly for arm to be installed properly to operator.

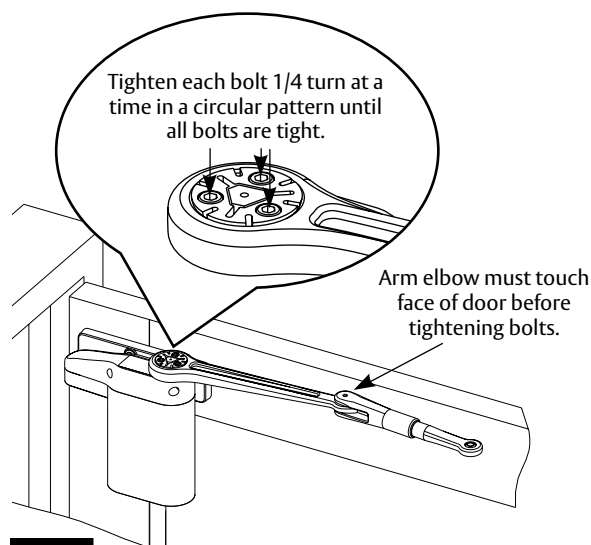


Figure 14

Preload Arm

1. Pull arm elbow 6mm away from face of door to add tension. (Figure 15)
2. While maintaining arm elbow position at 6mm, increase or decrease arm length by twisting end link to align end link hole with arm pivot hole. (Figure 15)

CAUTION: Excessive preload will reduce closing force of operator and may cause door to stick in open position or arm to reverse.

NOTE: Arm pivot can be adjusted if end link hole cannot be aligned with arm pivot hole by increasing or decreasing arm length.

- Loosen four (4) set screws securing arm pivot to arm pivot bracket.
- Slide arm pivot as necessary to align hole with end link hole.
- Tighten set screws.

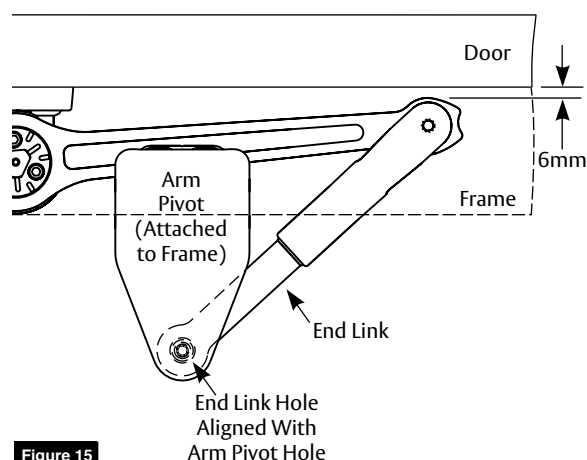


Figure 15

3. Using 3/16" hex wrench, attach end link to arm pivot with washer and 5/16 - 18 x 22mm button head cap screw. (Figure 16)

NOTE: If needed, an extra washer is supplied to prevent rubbing between top of arm and end link.

4. Cycle door several times, and ensure that door opens and closes smoothly.

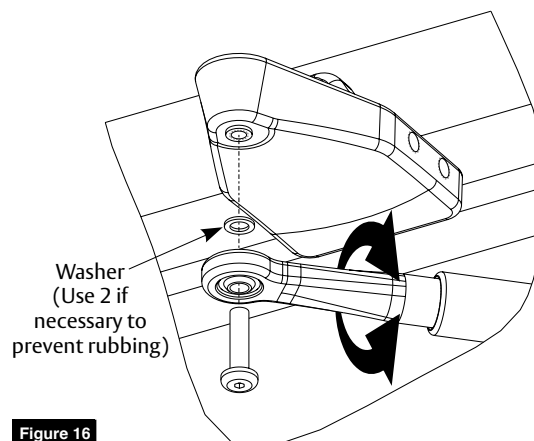


Figure 16



You've now installed the 5831 Series, PUSH SIDE Mount.
Go to "Install Battery Pack", page 14.

PULL SIDE Operator and Arm Installation

Prepare Door and Frame

1. Select right hand or left hand template and become familiar with information. (Figure 17)

NOTE: Refer to “Determine Door Handing and Mounting Type” on page 5 to verify hand. A pull side operator always mounts on pull-to-open side of door at hinge.

2. Determine type of door hinge (butt, offset pivot, or center pivot) and align template at centerline of door hinge or pivot. (Figure 18)

NOTE: Ensure template is at hinge centerline NOT edge of door.

3. Tape template into position and mark a minimum of four (4) of the six (6) mounting hole locations with a center punch and hammer.

CAUTION: On an aluminum storefront door, operator mounting holes must **not** be drilled into top rail web, rail-to-stile tie rod(s), or rail-to-stile junction.

CAUTION: To ensure proper installation, **at least** four (4) fasteners that will not interfere with top rail web, rail-to-stile tie rod(s), or rail-to-stile junction must be used. For heavier doors, more fasteners are recommended.

4. Mark centerline of arm mounting shoe onto frame header with a center punch and hammer.

Install Arm Pivot Bracket

1. Install arm pivot bracket onto frame header. (Figure 19)

If door frame is steel or aluminum:

- a. Use a 25/64" bit to drill holes.
- b. Using provided rivnut installation tool, install 1/4-20 steel rivnuts.
- c. Install and tighten a minimum of two (2) 19mm socket head cap screws with black oxide washers to secure arm pivot bracket to face of frame header.

If door frame is wood:

- a. Use a 5/32" bit to drill holes.
- b. Install and tighten a minimum of three (3) #14 x 32mm wood screws to secure arm pivot bracket to face of frame header.

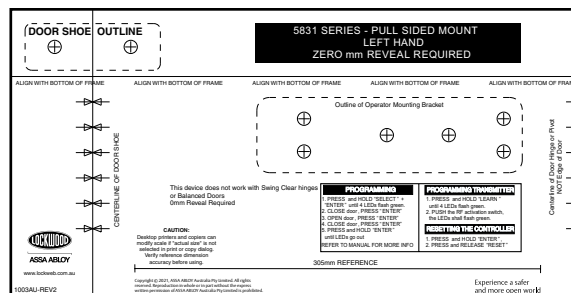


Figure 17

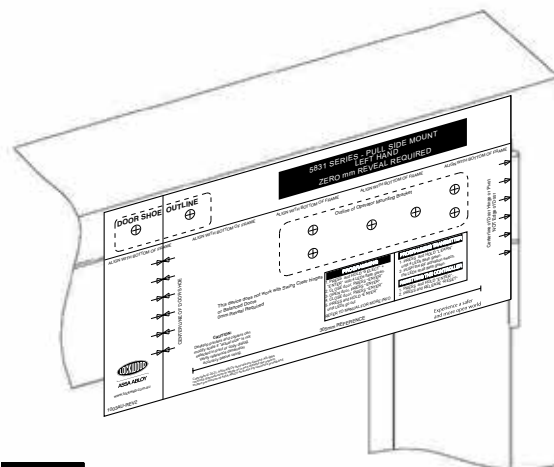


Figure 18



Figure 19



or



PULL SIDE Operator and Arm Installation

Install Operator Mounting Bracket and Cover

1. Install operator mounting bracket to door into holes marked in "Prepare Frame and Door" section on page 11. (Figure 20)

If door is aluminum:

- a. Use 25/64" bit to drill operator mounting bracket holes into locations previously marked on door.
- b. Using provided rivnut installation tool, install bracket to door with minimum four (4) ¼-20 steel rivnuts. **DO NOT TIGHTEN**

If door is wood or hollow metal:

- a. Use 3/8" bit to drill operator mounting bracket holes into locations previously marked on door.
- b. Using 3/16" hex wrench, install bracket to door with minimum four (4) ¼-20 socket head cap screws and washers.

DO NOT TIGHTEN

NOTE: For light duty or hollow core doors with insufficient top rail blocking, supplied through bolts or sex nut and bolts are required.

2. Using slot holes, position mounting bracket so there is 16mm between top of bracket and top of door then tighten screws to secure. (Figure 21)

Mount Operator to Bracket

1. Install operator mounting pins into top holes of bracket using a large adjustable wrench. (Figure 22)
2. Install operator mounting bracket cover by placing it over pins. (Figure 22)
3. Remove bottom cover of operator. (Figure 23)
4. Remove battery pack from operator by sliding it off T channel. (Figure 23)
5. Insert two (2) ¼-20 x 38mm socket head cap screws into operator. (Figure 23)
6. With battery pack side toward door hinges, slide operator onto operator mounting pins and tighten screws.

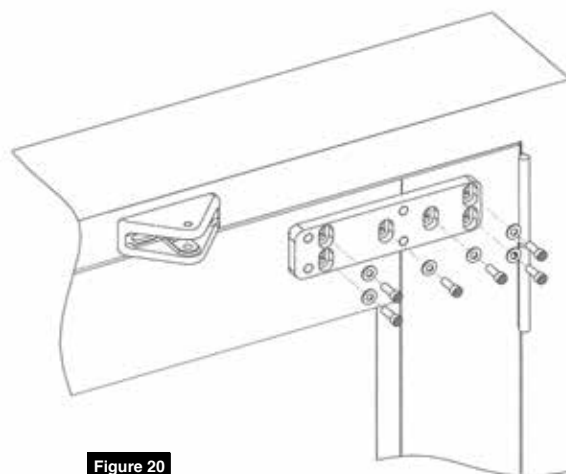


Figure 20

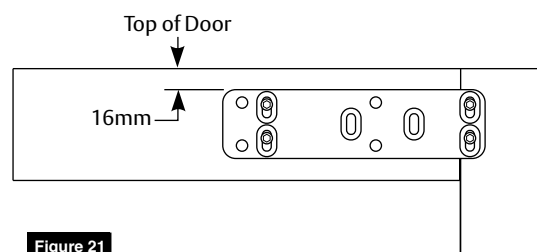


Figure 21

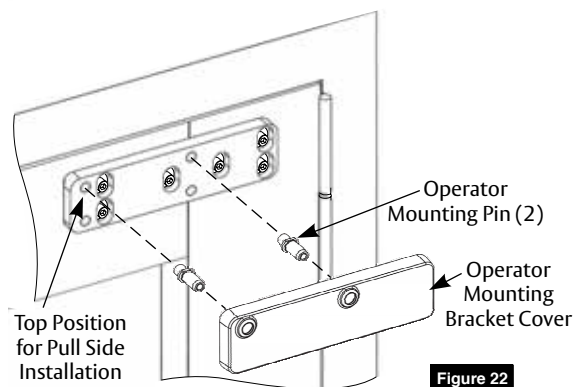


Figure 22

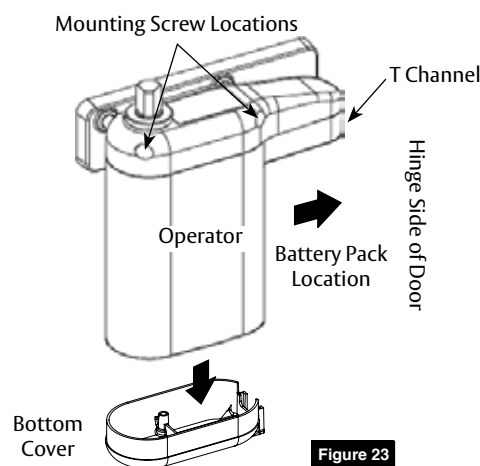


Figure 23

PULL SIDE Operator and Arm Installation

Install Arm

WARNING: It is a safety hazard to install arm with battery pack connected.

1. Install shaft extension onto pinion shaft and tighten set screw to secure. (Figure 24)
2. Adjust forearm length to 205mm by turning end link clockwise or counter clockwise. (Figure 25)

NOTE: Arm hole will be slightly short of the arm pivot bracket hole.

3. With arm coupling bolts facing up and end link hole aligned with arm pivot bracket hole, place larger end of arm onto pinion shaft. (Figure 26)
4. While maintaining arm position, tighten coupling bolts evenly (one quarter turn at a time in a circular pattern) until **fully tight** using 3/16" hex wrench. (Figure 26)

CAUTION: Bolts must be tightened evenly for arm to be installed properly to operator.

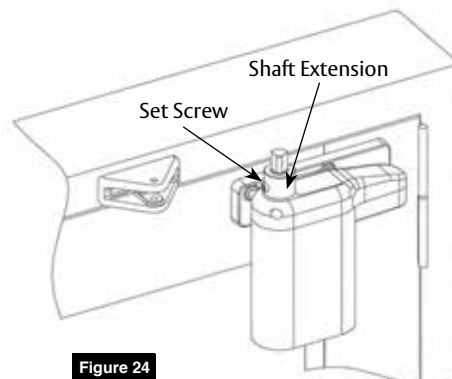


Figure 24

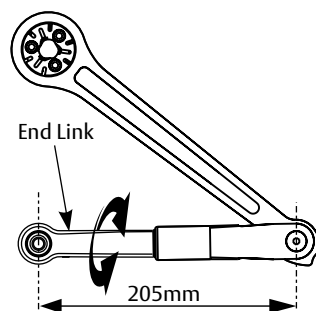
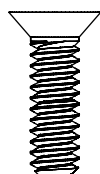


Figure 25



5. Push arm into arm pivot bracket to provide tension. Secure with 5/16 - 18 flat head scr (Figure 26)
6. Cycle door several times, and ensure that door opens and closes smoothly.

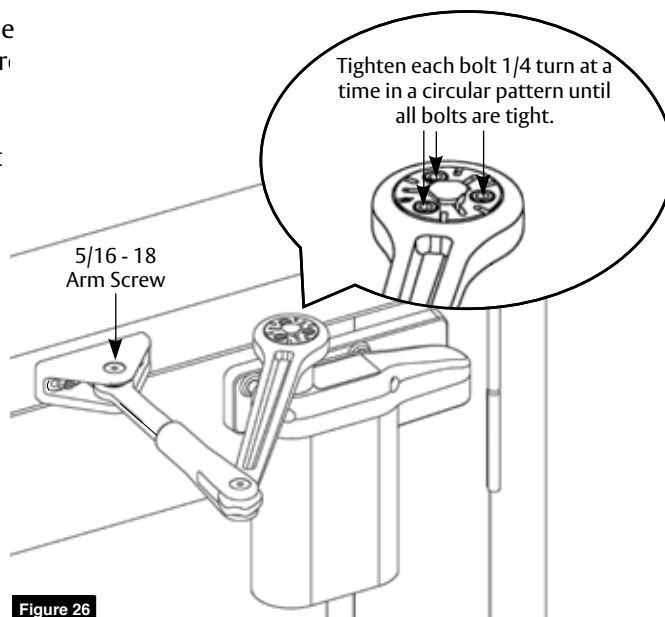


Figure 26

You've now installed the 5831 Series, PULL SIDE Mount.
Go to "Install Battery Pack", page 14.

Install Battery Pack

1. Make sure 3 Position switch on battery pack is in OFF position.
 2. Attach battery pack wiring connector to operator receptacle.
- Note:** Connector is keyed to prevent attaching incorrectly.
3. Using T channel, slide battery pack onto operator making sure wires are tucked into operator cavity and not pinched.
 4. Toggle 3 Position switch to ON position.

Check Battery Voltage

Press and hold 3 Position switch in "OPTION" position.

- Green LED = fully charged.
- Yellow LED = partially drained.
- Red LED = fully drained (operator will not function in automatic mode)

NOTE: Battery can be charged by using a battery charger, a Plug-In 24VDC power supply, or by allowing manual traffic to restore battery power.

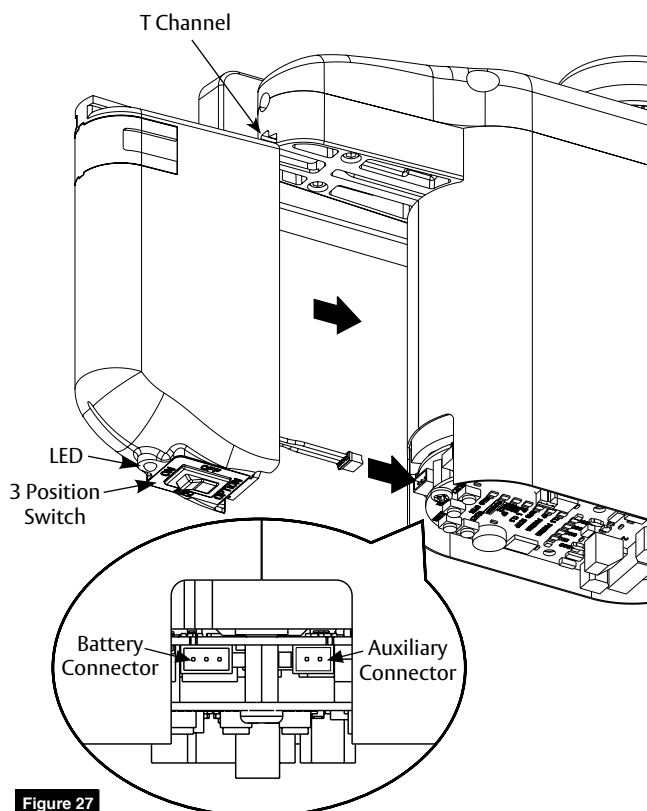


Figure 27

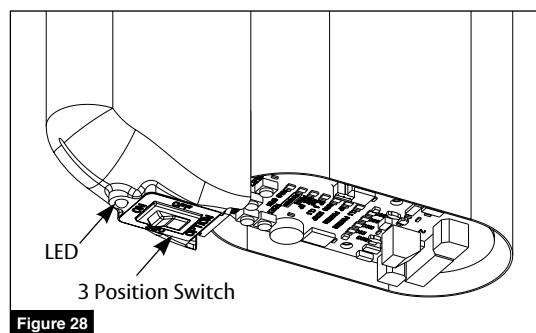


Figure 28

Adjust Door Spring Tension If Necessary

1. Manually open and close door several times to make sure door opens and closes smoothly.
2. If door feels too light, use 3/16" hex wrench to turn screw clockwise to increase spring tension.

If door feels too heavy, use 3/16" hex wrench to turn screw counter clockwise to decrease spring tension.

NOTE: Operator is shipped with spring tension set to one half of maximum spring tension.

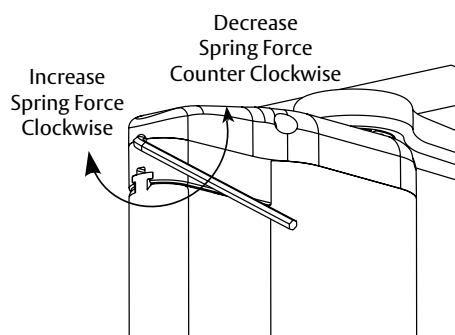


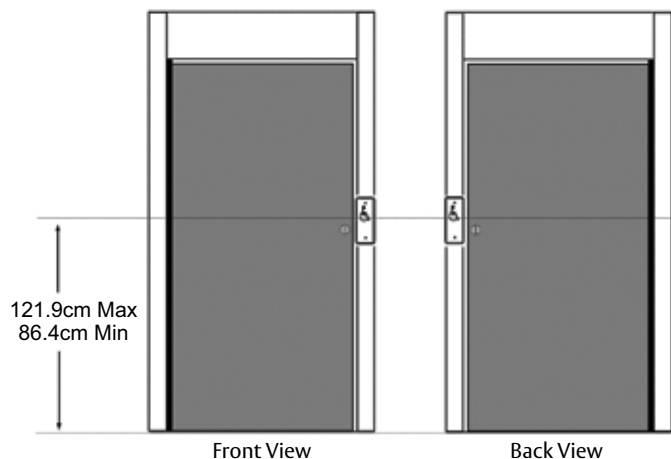
Figure 29

Install Wireless RF Transmitter Pushbuttons



Make sure pushbuttons (Figure 30):

- are located 30cm to 3.7m from door
- remain accessible from swing side when door is opened
- are not located in a position where user would be in path of moving door
- are mounted so that user is in full sight of door when activating pushbutton
- are mounted between 86.4cm minimum and 121.9cm maximum from floor



To be reviewed in accordance with AS1428.1

Figure 30

Reference conformance to requirements set out in AS1428.1 and other applicable building codes for additional information regarding accessibility requirements for door and area around door.

1. Remove face plate to access mounting screws. (Figure 31)
2. Using housing as a template, mark mounting hole locations.
3. Predrill holes into wall or door jamb if necessary.
4. Using a phillips head screwdriver, mount pushbutton housing to surface.
5. Replace face plate.

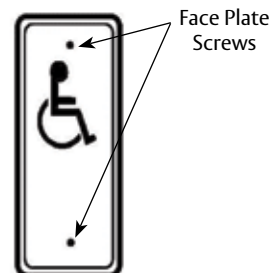


Figure 31

NOTE: Included battery provides approximately 250,000 activations. See “Power Specifications”, page 3. Remove face plate to replace battery.

Install Plug-In Power Supply (Optional)



USE 24VDC POWER SUPPLY ONLY

Optional plug-in power supply is **recommended** when automatic door opening feature will be used frequently.

Optional plug-in power supply is **required** when Power Close and/or Push and Go features are enabled.

1. Route power supply wiring to a 230VAC outlet. DO NOT plug power supply into outlet until all connections are made.
2. Route wires through end links. (Figure 32)
3. Mount one end link in area behind or next to battery pack. (Figure 32)

NOTE: Remove battery pack if necessary.

4. Mount other end link on door trim molding or next to door frame. (Figure 32)
5. Wire connector as shown. (Figure 33)
6. Remove receptacle cover from battery and plug connector into battery pack. (Figure 34)
7. Plug power supply into outlet.
8. Verify that LED indicator lights GREEN. (Figure 34)
9. Reinstall receptacle cover onto battery pack. (Figure 34)
10. Install covers onto end links. (Figure 34)

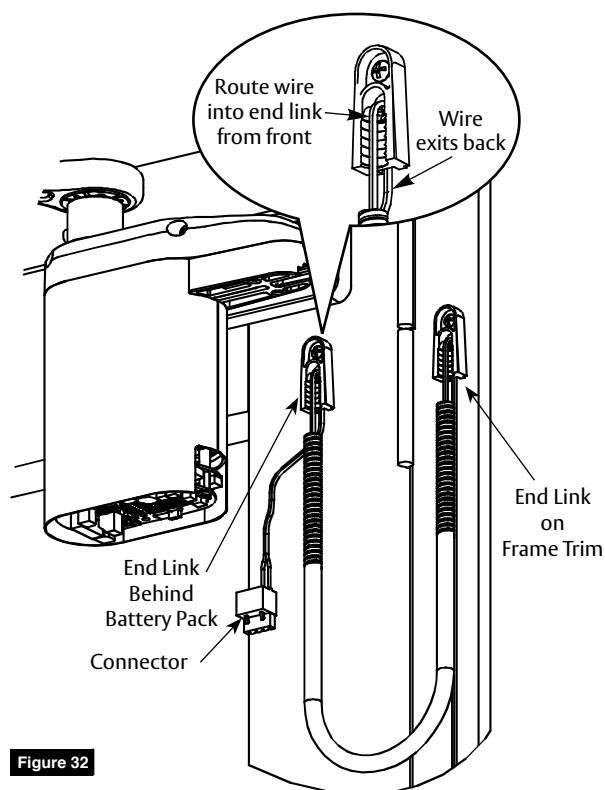


Figure 32

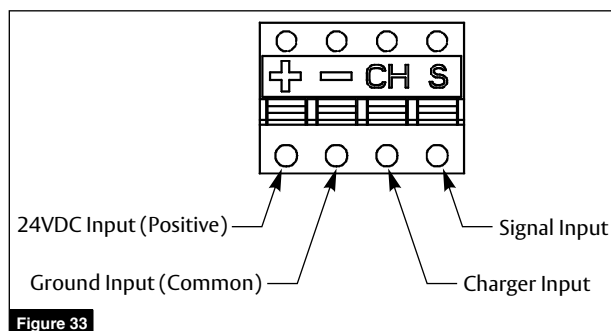


Figure 33

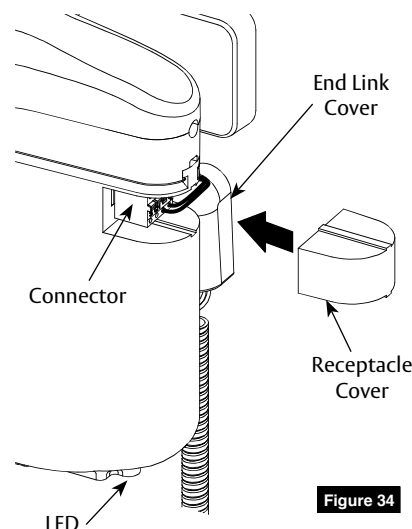


Figure 34

Programming Operator

1. Enter programming mode.
Press and hold both "SELECT" and "ENTER" buttons until LEDs 1 - 4 flash green.
 - Close Position LED will light red and remain lit.
2. Program Door Closed position.
With door in closed position, press and release "ENTER" button.
 - Close Position LED will flash green briefly.
 - Open Position LED will light red.
3. Program Door Open position.
Open door fully and press and release "ENTER" button. If ENTER button is not accessible with door in fully open position, press and release any activation button.
 - Open Position LED will flash green briefly.
 - Auto Setup LED will light red.
4. Perform Auto Setup.
Allow door to return to fully closed position and press and release "ENTER" button.
 - Door will rapidly open 30 to 45 degrees and then close.
 - Auto Setup LED will light green.
 - Operator will store settings and exit programming mode.

NOTE: Refer to "Customising Settings" beginning on page 19 to adjust settings or enable optional features.

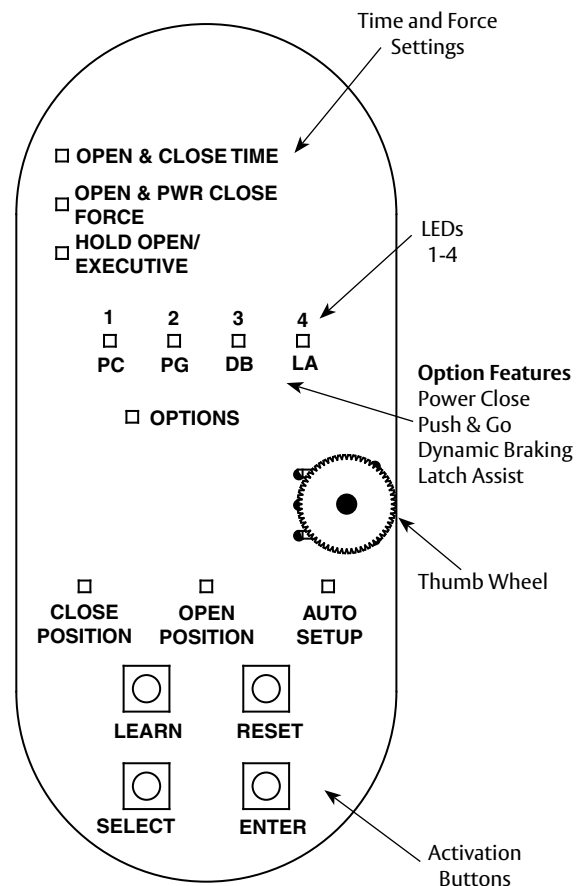


Figure 35

To reset controller:

- Press and hold "ENTER" button.
- While holding down "ENTER" button press and release "RESET" button.
- LEDs 1 - 4 will flash green briefly.

NOTE: Resetting controller does not reset RF transmitters.

Linking Wireless Pushbuttons

Only one transmitter can be linked at a time. Repeat procedure for up to twelve (12) 5831 Series transmitters. This linking method does not overwrite other RF controls previously programmed into memory.

To link:

1. Press and hold "LEARN" button on controller until LEDs 1 - 4 flash green.
2. Push wireless pushbutton.

- Close Position LED will flash green to indicate that operator accepted this wireless pushbutton.

3. Repeat as necessary for additional transmitters.

To remove ALL from memory:

1. While holding down "LEARN" button, press and release "RESET" button until LEDs 1 - 4 flash green.



ASSA ABLOY

5831 Series Installation and Operating Instructions

Setting Descriptions

Opening Time:

Following an activation signal, door moves from fully closed to open check or 80°, whichever occurs first, according to Table 1.

NOTE: Operator calculates time during Auto Setup.

Hold Open Time:

Hold open time is delay in open position before door starts to close. Hold Open is adjustable from 1 - 30 seconds. ANSI 156.19 requires a door to hold open for a minimum of 5 seconds (default from factory).

Closing Time:

Following Hold Open time, door moves from fully open to close check or 10°, whichever occurs first, according to Table 1.

NOTE: Operator calculates time during Auto Setup.

Close Check:

Close Check brings door to latch point without slamming door. It occurs in last 10° of closing and shall not be less than 1.5 seconds.

Closing Force:

Door shall not close with a force greater than 6.8 kg when measured at latch side of closing stile. Closing force is adjustable to 3.6 kg.

Open and Power Close Force:

Open and Power Close Force adjusts force operator will apply in open direction. If optional Power Close feature is turned on, Power Close Force will be adjustable using this setting. Operator shall be adjusted so that a stopped door will apply a force in opening direction of 6.8 kg or less. If optional Power Close feature is enabled, door shall be adjusted so that a stopped door will apply a force of less than 6.8 kg in closing direction.

Option Features:

- **Power Close:** Operator will apply a small amount of power if door did not close in expected close time to assist in closing door. Power Close will activate and turn off when door is fully closed or if door does not move after attempting to close for two (2) seconds.
- **Push and Go:** Operator will initiate an automatic open cycle when door is manually moved in open direction.
- **Dynamic Braking:** Operator will brake door if excessive door speed (4 times programmed Open Time) occurs. For example, from a wind load or an abusive open condition.
- **Latch Assist:** Operator will apply a force in close direction for 1/2 second when operator receives an activation signal to assist an electric strike in unlocking. When door closes, operator will apply a force in close direction to assist in latching door.

Executive Mode:

When Executive mode is activated, operator will open door when it receives an activation signal and door will remain open until a second activation signal is received.

NOTE: Power Close, Push and Go, Latch Assist, and Executive Mode must only be enabled when unit is powered using optional 24VDC power supply.

Table 1: Door Open and Close Time in Seconds

Door Weight (kg)	Door Width (mm)					
	915	960	1015	1060	1120	1220
23	3.0	3.0	3.0	3.0	3.0	3.0
34	3.0	3.0	3.0	3.0	3.0	3.1
45	3.0	3.0	3.0	3.2	3.3	3.6
68	3.3	3.5	3.7	3.9	4.1	4.4
90	3.8	4.0	4.3	4.5	4.7	5.1
115	4.3	4.5	4.8	5.0	5.2	5.7

Customising Settings (Optional)

Open/Close Time, Open and Power Close Force, and Hold Open Time are preset to comply with ANSI standards for low-energy operators but may be adjusted if approved by the Authority Having Jurisdiction (AHJ).



Before attempting any changes to these settings, make sure Auto Setup process has been successfully completed.

1. Enter programming mode.
Press and hold both "SELECT" and "ENTER" buttons until LEDs 1 - 4 flash green (approximately 3 seconds).
 - Open & Close Time LED will light
2. Press and release "SELECT" button to choose setting to be modified.

3. With desired LED lit, rotate thumb wheel to adjust setting. See Table 2.
4. Press and release "ENTER" button to store value.
5. Press and hold "ENTER" button for three (3) seconds to exit programming mode.

NOTE:

- LEDs will indicate minimum and maximum values as adjustments are made. Green indications are within ANSI standards. Red indications exceed ANSI standards.
- Pattern of LEDs 1-4 will indicate previously set value until thumb wheel is rotated.
- Verify adjustments using a stop watch and force gauge.

Table 2: Time and Force Settings

Set-tings	LED				OPEN FORCE					POWER CLOSE FORCE		
	1	2	3	4	Open/ Close Time	Hold Open Time	915mm Door Force	1060mm Door Force	1220mm Door Force	915mm Door Force	1060mm Door Force	1220mm Door Force
1	GRN	OFF	OFF	OFF	2.5	1	7	6	5	14	12	10
2	OFF	GRN	OFF	OFF	3.5	2	9	8	7	14	12	10
3	OFF	OFF	GRN	OFF	4	3	12	10	9	15	13	11
4	OFF	OFF	OFF	GRN	4.5	5	15	13	11	16	14	12
5	GRN	GRN	OFF	OFF	5	7	17	15	13	18	15	13
6	GRN	OFF	GRN	OFF	6	10	19	16	14	19	16	14
7	GRN	OFF	OFF	GRN	7	15	21	18	16	20	17	15
8	GRN	GRN	GRN	OFF	7.5	20	23	20	17	21	18	16
9	GRN	GRN	OFF	GRN	8	25	25	21	19	23	20	17
10	GRN	GRN	GRN	GRN	9	30	30	26	22	25	21	19
11	RED	RED	RED	RED	N/A	Exec- utive Mode	N/A	N/A	N/A	N/A	N/A	N/A

Customising Settings (Optional Features)



24VDC power supply must be used if Power Close, Push and Go, or Latch Assist features are enabled.

To enable or disable any feature (factory default = Off for all):

1. Enter programming mode.
Press and hold both “SELECT” and “ENTER” buttons until LEDs 1 - 4 flash green (approximately 3 seconds).
 - Open & Close Time LED will light
2. Press and release “SELECT” button until Options LED lights and LED above desired feature lights.
 - PC = Power Close
 - PG = Push & Go
 - DB = Dynamic Braking
 - LA = Latch Assist

NOTE: Green LED indicates feature is ON.
Red LED indicates feature is OFF.

3. Rotate thumb wheel to turn feature on or off.
4. Press and release “ENTER” button to store setting.
5. Press and hold “ENTER” button for three (3) seconds to exit programming mode.

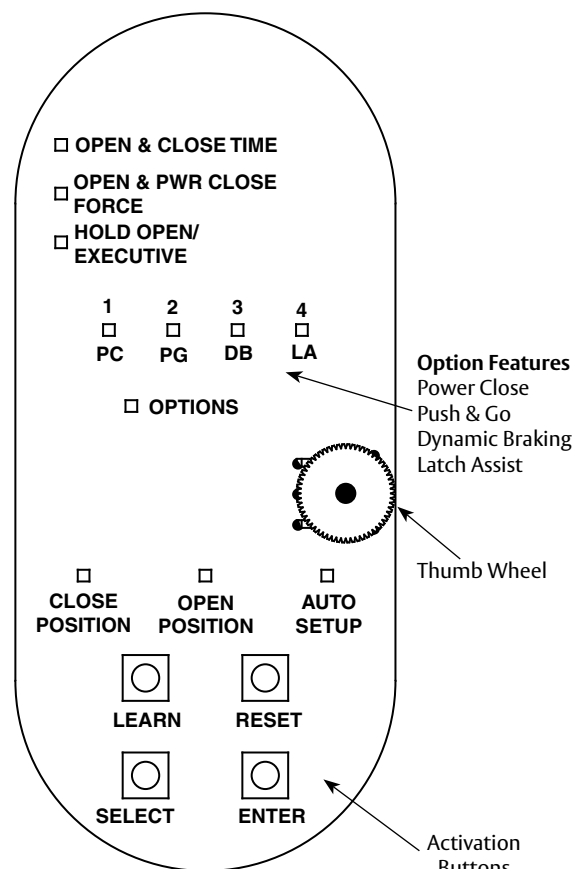


Figure 36

After Installation

1. Make sure all connections are secure.
2. Make sure all wires are secured and hidden where possible.
3. Make sure controller bottom cover is installed and secure.
4. Make sure door, door trim surfaces, and installation area are clean and free of debris.
5. Make sure that customer is instructed on how to operate product correctly and understands how to perform daily safety check.
6. Complete Work Order and report your actions to Building Superintendent.

Troubleshooting

Symptom	Recommended Remedy
Door Too Difficult To Open Manually	Refer to “Adjust Door Spring Tension”, page 14 and reduce door-open spring tension.
Arm Rubs	Refer to “Install Operator Mounting Bracket and Cover”, page 8 or page 12 and lower bracket. Ensure that operator is mounted parallel to face of door. If bottom of operator is further away from door than top, shim top of operator mounting bracket to compensate.
Arm Rotates On Pinion Shaft	Refer to “Install Arm”, page 10 or page 13. Ensure that door arm coupling screws are tightened evenly (one quarter turn at a time) until fully tight.
Door Does Not Open Automatically	<ul style="list-style-type: none"> • Ensure 3 Position switch on bottom of battery pack is in “ON” position. • Refer to “Install Battery Pack”, page 14 and ensure battery is properly connected to operator. • Refer to “Linking Wireless Pushbuttons”, page 17 and program RF pushbutton. • Refer to “Programming Operator”, page 17 and program operator. • To verify a low voltage battery condition perform the following: <ul style="list-style-type: none"> o Put and hold 3 Position switch in OPTION position. o Observe LED indicator on bottom of battery pack <ul style="list-style-type: none"> • If LED is GREEN, voltage is good (above 22.5VDC). • If LED is YELLOW, voltage is nominal (above 18.5VDC but below 22.5VDC) • If LED is RED, battery pack is exhausted (below 18.5VDC) and must be charged o Battery can be charged by using a battery charger or a plug in 24VDC power supply or by allowing manual traffic to restore battery power.
Door Stays Open Too Long	<ul style="list-style-type: none"> • Refer to “Programming Operator”, page 17 and Auto Setup operator. • Refer to “Customising Settings”, beginning on page 19 and adjust door Hold Open time.
Door Does Not Stay Open Long Enough	<ul style="list-style-type: none"> • Refer to “Programming Operator”, page 17 and Auto Setup operator. • Refer to “Customising Settings”, beginning on page 19 and adjust door Hold Open time.
Door Opens Too Fast	<ul style="list-style-type: none"> • Refer to “Programming Operator”, page 17 and Auto Setup operator. • Refer to “Customising Settings”, beginning on page 19 and adjust door Hold Open time.



ASSA ABLOY

5831 Series Installation and Operating Instructions

Troubleshooting

Symptom	Recommended Remedy
Door Opens Too Slow	<ul style="list-style-type: none"> Refer to “Programming Operator”, page 17 and Auto Setup operator. Refer to “Customising Settings”, beginning on page 19 and adjust door Hold Open time.
Door Closes Too Fast	<ul style="list-style-type: none"> Refer to “Programming Operator”, page 17 and Auto Setup operator. Refer to “Customising Settings”, beginning on page 19 and adjust door Hold Open time.
Door Closes Too Slow	<ul style="list-style-type: none"> Refer to “Programming Operator”, page 17 and Auto Setup operator. Refer to “Customising Settings”, beginning on page 19 and adjust door Close time.
Door Opening Force Too High	<ul style="list-style-type: none"> Refer to “Programming Operator”, page 17 and Auto Setup operator. Refer to “Customising Settings”, beginning on page 19 and adjust door Open Force.
Can't Remove Battery From Housing	<ul style="list-style-type: none"> Refer to Figure 13 or Figure 27 and note T-shaped channel at top of battery housing. Insert a small flat head screwdriver into slot above T-channel and gently pry battery from operator housing.
Can't Initialize RF Pushbuttons	<ul style="list-style-type: none"> Verify that CR2032 battery installed in RF transmitter is good by ensuring voltage is 2.8VDC or greater. Refer to “Linking Wireless Pushbuttons”, page 17 and erase all activation codes. Then: <ul style="list-style-type: none"> Follow instructions in “Linking Wireless Pushbuttons” to link pushbutton. Loosen screws on face plate to ensure that pushbutton is not stuck in closed position.
Door Stays Open at 90 Degrees	<ul style="list-style-type: none"> Arm has slipped on pinion shaft. <ul style="list-style-type: none"> Refer to “Install Arm”, page 10 or page 13 Loosen three (3) arm coupling screws. Ensure arm is touching face of door (PUSH SIDE). Tighten arm coupling screws evenly (one quarter turn at a time) until fully tight. Be sure screws are tightened securely. Arm end link washer has not been installed. (PUSH SIDE) <ul style="list-style-type: none"> Refer to Figure 16. Install supplied washer(s). Arm rubs. <ul style="list-style-type: none"> Refer to “Install Operator Mounting Bracket and Cover”, page 8 or page 12 and lower door operator using slotted mounting holes in mounting bracket.

Troubleshooting

Symptom	Recommended Remedy
Door Stays Open at 90 Degrees con't	<ul style="list-style-type: none"> • Ensure that operator is mounted parallel to face of door. • If bottom of operator is further away from door than top, shim top of operator mounting bracket to compensate. • Spring force set too low. <ul style="list-style-type: none"> • Refer to "Adjust Door Spring Tension", page 14. • Increase spring force – operators are shipped from factory at 1/2 of maximum spring tension. • Spring preload set too high. <ul style="list-style-type: none"> • Refer to "Install Arm", page 10 or page 13. • Remove arm. • Decrease preload by rotating arm end link counter clockwise. • Note: Making arm longer decreases preload. • Arm pivot bracket too close to door face. <ul style="list-style-type: none"> • Refer to "Install Arm Pivot", page 8. • Increase 162mm dimension shown to 165mm.
Door Stays Open at 90 Degrees Only When Power Operated	Refer to "Programming Operator", page 17 and Auto Set operator.
When Used Manually, Arm Reverses and Does Not Allow Door to Close	<ul style="list-style-type: none"> • Arm has slipped on pinion shaft. <ul style="list-style-type: none"> • Refer to "Install Arm", page 10 or page 13. • Loosen three (3) arm coupling screws. • Ensure arm is touching face of door. (PUSH SIDE) • Tighten arm coupling screws evenly (one quarter turn at a time) until fully tight. Be sure screws are tightened securely. • Refer to "Programming Operator", page 17 and Auto Set operator.
Door Will Not Fully Close	<ul style="list-style-type: none"> • Refer to "Adjust Door Spring Tension", page 14 and increase spring tension. Operator must only be installed on doors and frames in good working order; without sticking or binding during normal operation. • Arm has slipped on pinion shaft. <ul style="list-style-type: none"> • Refer to "Install Arm", page 10 or page 13. • Loosen three (3) arm coupling screws. • Ensure arm is touching face of door. (PUSH SIDE) • Tighten arm coupling screws evenly (one quarter turn at a time) until fully tight. Be sure screws are tightened securely. • If unit is powered with Plug-In power supply, refer to "Customising Settings", beginning on page 19 and turn on Power Close.

The ASSA ABLOY Group is the global leader in access solutions. Every day we help people feel safe, secure and experience a more open world.

