

5831 Series Low Energy Operator



We take the worry out of
protecting what's valuable to you.
Lockwood: *no worries*[®]

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ASSA ABLOY

www.lockweb.com.au

5831 Series Low Energy Operator

As one of the world's only regenerative power door operators, The Lockwood 5831 Series is a heavy duty, low energy door operator designed for moderate to heavy use traffic. An on-board lithium battery eliminates the need for electrical power. Available in wireless and plug-in versions and able to fit in the tightest of spaces, the 5831 Series is simple to install and use.

A simplified solution in automating an existing door in varying applications.

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5831 Series Low Energy Operator

SAFETY MESSAGE:

The 5831 Series Swing Door Operator, like any powered appliance, has the potential to cause serious harm and injury.

It's important that the product is installed in accordance with the supplied instructions and where needed, any power connection be carried out by a qualified electrician.

Correct programming of the unit is necessary to ensure pedestrian safety.

ASSA ABLOY Opening Solutions recommends the use of finger protection guards where appropriate.



- 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 not 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.

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How it works

How does the 5831 Series work without electrical power?

The 5831 Series is a heavy duty, low energy door opener designed for moderate to high traffic manual opening applications that occasionally require powered operation. A regenerative drive system charges an onboard battery pack eliminating the need for electrical power.

When considering the 5831 Series Low Energy Operator, it's recommended to use the 80/25 guideline - 80 manual cycles or more per day and is used 25% or less automatically.

When applied using the 80/25 guideline, the operator will self generate all the power it needs to keep its field replaceable, onboard battery pack charged.

A fully charged battery has the capability to open a door up to 2000 times in a row, generously allowing for periodic fluctuations from 80/25 guidelines with little impact on the product's overall usability. Example: 30% automatic use for one day is not a problem, as long as that level of automatic use is not sustained.

The 5831 Series Low Energy Operator can be used outside of the 80/25 parameters. Simply plug the unit into a common 240V AC electrical outlet using our 1015T/24V Hardwire Kit option. The Hardwire Kit is a low voltage plug in transformer and can be added to existing installed field units.



Push Side Mounting without electrical power



Push Side Mounting with 1015T/24V Hardwire Kit



Pull Side Mounting without electrical power



Pull Side Mounting with 1015T/24V Hardwire Kit

Note: ASSA ABLOY Opening Solutions recommends that any unusable, discharged batteries are disposed of in the correct way through a specialist battery recycling service or Local Government Authority. Please DO NOT dispose of through regular recycling or waste facilities.

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5831 Low Energy Operator - Push Side

- No electrical power required.
- Moderate to high traffic, manual opening applications that occasionally require automatic operation.
- Regenerative Drive System charges an onboard battery pack.
- The 5831 Series excels in applications where the traffic pattern allows for 80 door cycles per day, 25% of which are automatic and 75% of which are manual. It requires no electrical connection, no permit, no inspection, no wiring, and no low voltage license.
- Installed similar to a manual door closer in less than an hour.
- A scalable solution in either Regenerative or Powered modes.
- Integrates into existing Access Controlled environments.



Features

- Regenerative drive or continuous duty operation
- 5° door opening
- Push Side mounting - standard
- Push-and-Go (ADA1015T/24V Kit must be connected)
- Power Close (ADA1015T/24V Kit must be connected)
- Latch Assist
- Executive Mode Feature
- Radio Frequency stainless steel push buttons
- Integral RF receiver
- Shock absorbing arm
- 24VDC input port
- ADA1015T/24V hardware kit (Optional and to be ordered separately)
- Built-in ON/OFF Switch
- Auxiliary activation input port
- Maximum door width - 1200mm
- Maximum door weight - 110Kg
- Patented Auto-Tune feature ensures safety
- 2 year limited warranty

5831 Series Low Energy Operator

Functions

- Adjustable Hold Open
 - Amount of time a door will stay in the full open position after an activation
- Dynamic Braking
 - Braking or slowing of the door if excessive door speed occurs resulting from a wind load or an abusive open condition
- Emergency Interface Relay*
 - Door closes and ignores any activation input until signal is discontinued
- Executive Mode Feature
 - When door receives activation signal it opens and remains open until either a second signal is received or door is manually moved in closing direction
- Latch Assist
 - At closed position, after an activation, the door is pulled in
 - After the door has closed, the door is pulled in to assist with latch release/engagement
- Obstruction Detection
 - Open - door closes if it hits an obstruction while opening
 - Close (Stop on Stall) - door will stop once it hits an obstruction and will rest against the obstruction until obstruction is removed
- On/Off Switch
 - Disables operator activation
- Open Delay*
 - Delays operator opening for locking hardware
- Outside Push Button Disable*
 - When contact is closed, outside push button is disabled
- Power Close
 - Additional force to assist door closing between 90° and 70° and 10° and 0°
- Push & Go
 - As the door is manually opened, the operator “senses” movement and opens door to the full-open position
- Single Relay Output*
 - Closes to indicate a valid activation

*Only available with Wireless Interface Module (WIM)

Touchless solutions

Complete your touchless environment with a simple door opening upgrade, designed for both ease of access and optimal hygiene control.

The 5831 Series offers a simple solution for upgrading a variety of doors to operate hands-free.

Wave-to-Open switches paired with the 5831 Series Low Energy Operator allow building occupants to easily move through a space without transference of germs or

leaving messy fingerprints behind. The highly sensitive programming of the Wave-to-Open Switch picks-up hand gestures within 100mm, ensuring it triggers operation only when intended.

From bathrooms and entrances to all sorts of openings throughout schools, universities, health care hubs, and offices, these touch-less door opening solutions provide a healthy means for meeting DDA requirements.



5831 Series Low Energy Operator

5831 Selection Guide

Swing Door Operators are suitable for varying building types and applications and are used in environments to provide automated access into a building or room. Whether to achieve DDA Compliance or to effectively control pedestrian traffic, they are designed to provide optimum convenience for the user.

Swing Door Operators are available in two types depending on energy requirements:

- Low Energy Operators
- Full Energy Operators

- Selection of the right operator will depend on a few determining factors including, but not limited to:-
 - Building Type
 - Usage/Traffic
 - Compliance to standards

The following can be used as a guide to help determine the correct Swing Door Operator product to select.

If in any doubt, it is recommended to forward through the enquiry to ASSA ABLOY Entrance Systems.

Low Energy vs Full Energy Operators



LOW ENERGY OPERATOR

Doors equipped with low energy operators can be opened manually or through the use of a actuation device (ie: push button, wall switch, or hands free device).

In accordance with the DDA (Disability Discrimination Act), low energy door operators can provide greater accessibility for openings used by mobility-challenged individuals.



HIGH ENERGY OPERATOR

High energy door operators are designed to operate quickly and continuously for optimal convenience. They are normally activated via motion sensors when approached by pedestrians.

You will most often find them at entrances to supermarkets, hospitals and shopping centres. They include provisions such as safety sensors, to reduce the potential for personal injury or entrapment.

5831 Series Low Energy Operator

Low Energy vs Full Energy Operators: Which is right for my project?

The 5831 Series is designed, built and tested in a state-of-the-art facility in Monroe, North Carolina, USA. The information below is designed to help you determine if a low energy operator is right for your application.

They can be found in entrances to public buildings, including schools, libraries, museums, offices and government buildings.

Here are criteria to help you answer the question: Is my project better suited to low or high energy door operators?

PROJECT TYPE	Is this an entirely new project or a retrofit project for which you must use an existing door system?	NEW		New construction projects may specify high or low energy door operators or a combination of both, depending on the intended use. In retrofit projects, installing high energy operators is possible, though costly, because it requires removal of the entire door frame for add following; and a structural beam above the door for support. Low energy operators can be installed on any existing door system.
		RETROFIT		
INTENDED USE	Are openings required to be accessible by mobility challenged individuals? (Usage expectations and relevant compliance standards will determine this.)	YES		Modern, low energy door operators enable smooth and quiet door operation, much like an ordinary door. They can be used manually the majority of the time and used automatically on occasion by mobility-challenged individuals.
		NO		Low energy operators provide access to mobility-challenged individuals without requiring them to push or pull open the door in front of their path of travel.
TRAFFIC VOLUME & FLOW	What is the expected traffic flow and volume of usage?	HIGH		Low energy operators are often suitable for high and low traffic areas. Some models are designed with a regenerative power system, which, during manual operation, charges an onboard battery pack used during automatic operation.
		LOW		This feature eliminates the need to run electrical wire to the unit. High energy operators are designed to operate quickly and continuously for convenience (for example, in supermarkets and hospital emergency rooms).
COST OF OWNERSHIP	What is the overall cost of ownership, including installation cost, lifetime energy costs and maintenance costs?	HIGH		High energy door operators are often packaged for sale with an annual maintenance agreement to ensure the doors continue to operate safely. In addition, installation costs for high energy operators have been estimated to be twice that of low energy operators.
		LOW		Some low energy operators have been designed to be installed and serviced by existing facility maintenance staff, consume minimal electrical power each year, and require no formal maintenance agreements.
ACCESS CONTROL / SECURITY	Is it necessary to control who has access to particular areas? In other words, is access control required?	YES		When necessary, low energy operators can be integrated with electric locking devices for complete access control.
		NO		

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When determining which model door operator is best suited for your project, it is also helpful to consider:

The expected design life of the project.

Is it a public school for which the design will remain fairly constant over many decades and, therefore, requires a heavy-duty opener?

Or is it a fast food restaurant that updates its décor every few years, in which case, doors are replaced frequently to support design changes.



Codes & Safety Requirements

	LOW ENERGY OPERATORS	HIGH ENERGY OPERATORS
Building Standard	AS5007-2007 Powered Doors for Pedestrian Access and Egress. (Has the ability to meet the requirement)	AS5007-2007 Powered Doors for Pedestrian Access and Egress.
Speed of Operation	Must operate slowly and with minimal force upon impact or resistance. <ul style="list-style-type: none"> • Must take at least 5 seconds to fully open a door. • Must hold door open for minimum of 5 seconds. • Must take at least 5 seconds to close door. These requirements increase as the weight and size of the door increases.	Designed to operate quickly and continuously.
Safety Device Requirement	Does not require safety devices. A properly adjusted low energy door operator will stop, stall, or reverse when an obstruction is encountered during operation.	AS5007-2007 Includes requirements for monitoring of presence sensors and safety control mats.

5831 Series Low Energy Operator

Wireless Interface Module (ADA1028W)

System Description:

The Wireless Interface Module allows the 5831 Series door operator to interface to 5800 wired or wireless push buttons, wireless remote, an electric lock, fire panel, access control, and an outside push button disable contact.

Mounting:

The WIM (108mm x 146mm) is designed to fit inside a power supply cabinet.

Inputs:

- Power input: 24VDC
- Hardwire push buttons input: separate INSIDE and an OUTSIDE activation input
- Wireless push button input: separate INSIDE and an OUTSIDE RF activation input
- Operator connection cable: Plug in 5831 Series swing door cable connector interface
- Lock power: Dry contact SPDT to power an electric lock
- Outside push button disable: privacy feature

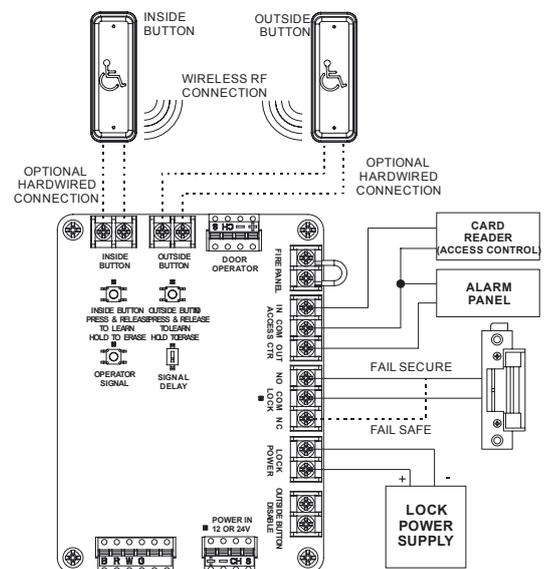
Outputs:

- Wireless Output: RF signal to activate door opener
- Output Contacts: SPDT dry contact output for AUX signal
- Lock Contacts: SPDT dry contact output for LOCK
- Access Control Contacts: indicates valid Unlock signal
- Signal Delay Timer: 1.5 second lock release delay
- Emergency Interface Relay (EIR): disables signal inputs

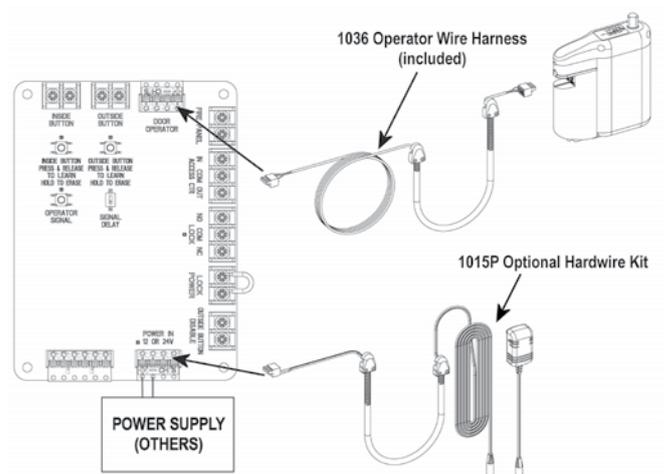


Technical Information: wiring diagrams

Electric Strike with RF or Wired Push Buttons and Card Reader (or other Access Control)



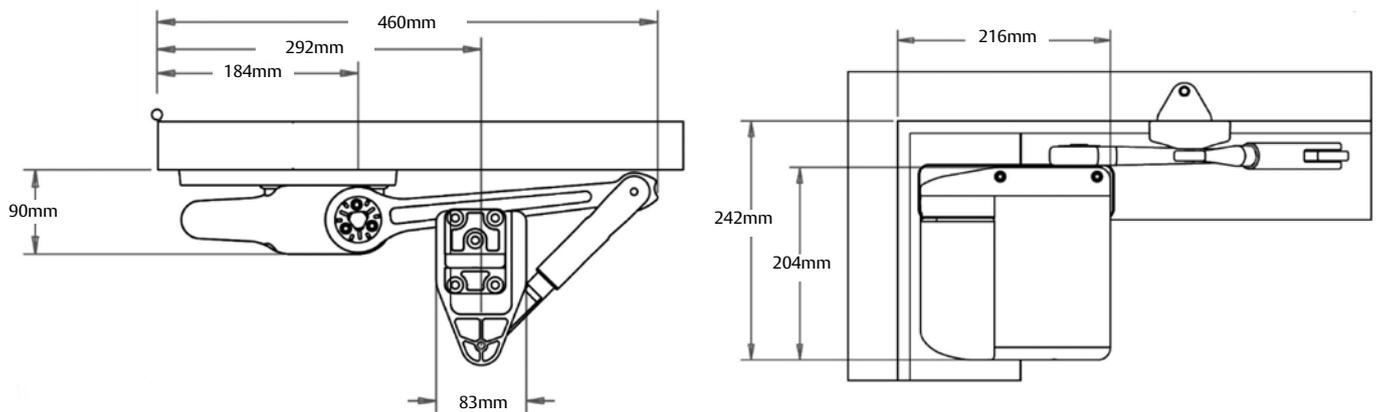
Wiring the WIM and Operator



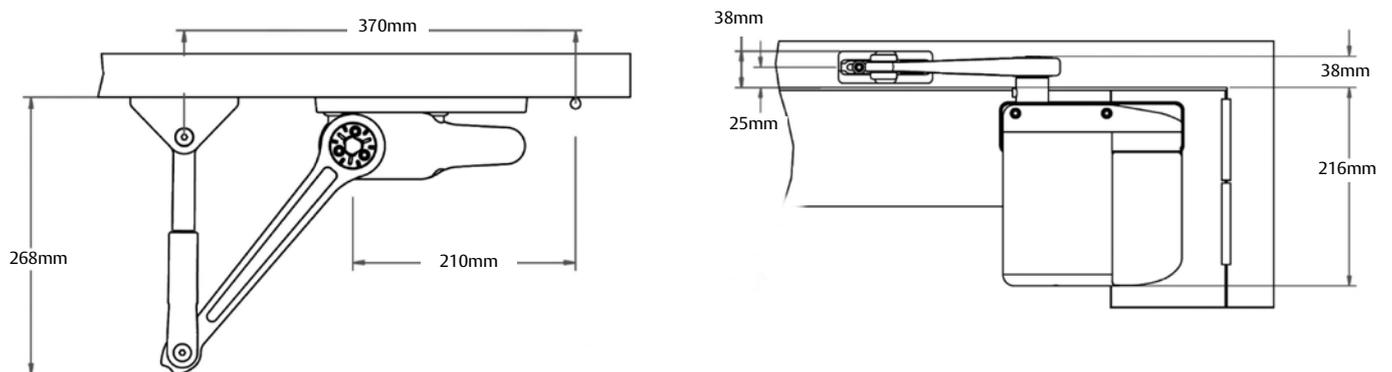
5831 Series Low Energy Operator

Product dimensions

Push Side



Pull Side



All dimensions are approximate.

5831 Series Low Energy Operator

Accessories



ADA1015T/24V
(direct replc. of former 1015)
transformer, armored dr cord,
end links 50' of low voltage
cable, power port cnt.



ADA1006
Operator Mounting Bracket
with covers



ADA1001
Door Arm Assembly



ADA1010P
(direct replacement of
former 1010L/R) Operator
Body for. Battery not
included.



ADA1009
Mounting Hardware
Includes rivetnut installation
toolkit



ADA1021
Kit to Convert to a PULL
Side Mount



ADA1007P
(direct replc. of former
1007) battery assembly –
new part has on/off switch,
LED indicator, power port



ADA1028W
Wireless Interface Module



ADA1002
Operator Cover – Black



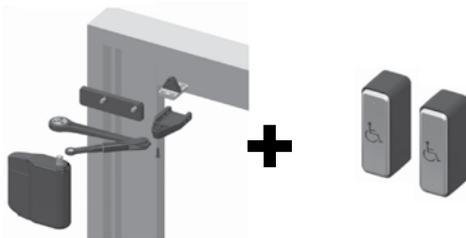
ADA700
Wave-to-Open Switch
Single gang and double gang
packaged together without
RF transmitter

Dimensions:
75mm W x 120mm H (single);
115mm W x 115mm H (double)
(may require ADA1015T/24V)

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Kits

5831AUxNPB Push Side



Narrow Style Push Buttons With Wireless (RF) Transmitters

Operator

Push Side Mounting Parallel Arm

5831AUxNPB Push Side with ADA1015T/24V Hardwire Kit



**1015P Hardwire Kit:
24VDC**

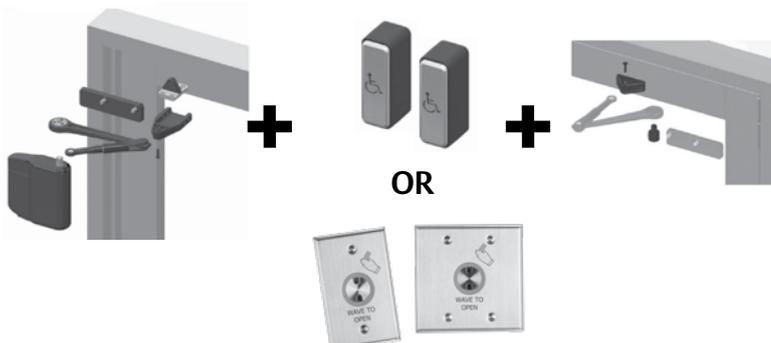
Transformer

Compliance to AS1428.1

Where used in applications specifically intended to meet the requirements of AS1428.1, it is recommended that these steps are followed:

- 1) A constant power supply must be used (1015T/24V Hardwire Kit)
- 2) The operator shall be adjusted to remain fully open for not less than 5s and to a maximum of 30s. In situations where this is not ascertainable, the Executive Mode should be enabled.
- 3) Positioning of the Push Buttons or WTO Switches is in accordance with the standard.

5831AUXNPB with ADA1021 Pull Side Conversion Kit



5831 Series Low Energy Operator

How to order

5831 Series

Application	Products to order	Description
Regenerative - Stand Alone	5831AUXNPB	Operator Push Side Arm Assembly 2 x Wireless Narrow Push Buttons
	5831AUXNPB	Operator Push Side Arm Assembly 2 x Wireless Narrow Push Buttons
Contiuous Powered	ADA1015T/24V	24V Hardwire Kit
	5831AUXNPB	Operator Push Side Arm Assembly 2 x Wireless Narrow Push Buttons
Integrated	ADA1015T/24V	24V Hardwire Kit
	ADA1028W	Wireless Interface Module
	5831AUXNPB	Operator Push Side Arm Assembly 2 x Wireless Narrow Push Buttons
Touchless Environments	ADA700 (Qty 2)	Wave to Open Switch
	ADA1015T/24V	24V Hardwire Kit



ASSA ABLOY

Lockwood is the leading brand in the Australian locking industry. With an established reputation for high quality products, this iconic brand provides a wide range of locking solutions to residential housing, commercial, semi-commercial, building and industrial application markets. Lockwood is supported by an extensive distribution and after-sales support network. Our customers include retailers, architects, trade and industrial personnel, locksmiths and security dealers.

The ASSA ABLOY Group is the global leader in access solutions. Every day, we help billions of people experience a more open world.

ASSA ABLOY Opening Solutions leads the development within door openings and products for access solutions in homes, businesses and institutions. Our offering includes doors, door and window hardware, locks, access control and service.

25YEAR

**MECHANICAL
WARRANTY**

The Lockwood 25 Year Mechanical Warranty

Our belief that we manufacture the finest premium products available in today's market place is backed by the Lockwood 25 Year Mechanical Warranty, ensuring that Lockwood continues to keep Australians safe by delivering security and peace of mind.

For warranty terms and conditions, please visit www.lockweb.com.au or call **1300WARRANTY**

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