Pantheon

Next Generation Door Automation

Automatic Commercial Door Operators by Janus International

General Information

Pantheon is a low voltage DC commercial rolling door operator, manufactured exclusively for and distributed by Janus International. It is designed to fit neatly inside the torque tube of the rolling door, requiring no additional side room. Pantheon features the latest in electronic technology combined with innovative engineering and a patented design, and electronic limits can not be “lost” or “erased” in the event of a power failure or interruption. Pantheon is manufactured to exceed UL325 and CE requirements.

Pantheon is designed to suit a 12” drum wheel commercial series

The Pantheon commercial operator is comprised of two parts: a logic controller and a drive unit (with manual chain hoist and floor level manual release lever).

DRIVE UNIT AVAILABLE WITH SINGLE OR TWIN MOTOR TO SUIT DOOR SIZE

Drive Unit Features:

- Low voltage DC motors
- Internal planetary gearing mechanism
- Soft start—soft stop
- Electronic limits
- Floor level—cable operated manual release
- 18:1 reduction chain operation
- Requires no additional side room for fitment

Integrated Accessories

- Photo electric sensors (photo eyes)
- External radio receivers and transmitters
- Programmable 7 day timer device
- Warning siren/warning light
- Wall switch
- Key switch

Drive Unit Features

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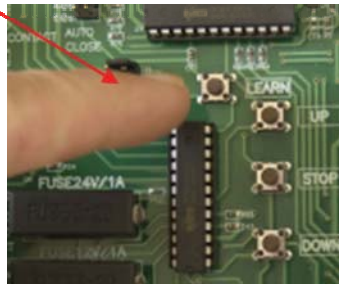
Low Voltage DC motors
- Thermal overload protection device to UL325
- Single or twin motor drive units to suit door needs
- Quiet, safe and efficient operation

Internal Planetary Gearing Mechanism
- Gear system that provides for great capacity to operate the rolling door
- Motor runs at optimum efficiency—gear system does the “work”
- Ensures smooth operation and promotes long operator service life—tested to 80,000 cycles

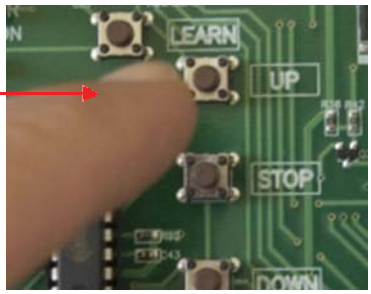
Soft Start—Soft Stop
- Software designed to reduce, or soften, the load exerted on the motor during the start of the operation and the stop
- Promotes greater operator service life and ensures smooth operation in both directions

Electronic Limits
- Unique electronic and mechanical design that enables the required opening and closing positions to be set electronically and retained despite any main power fluctuation or interruption
- Simple three step process—no cams, levers, screws or micro switches

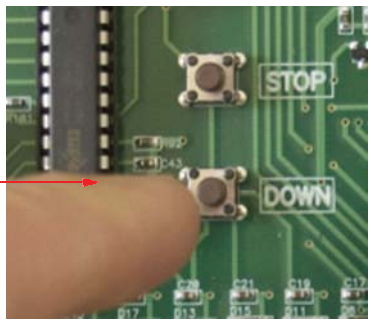
1. Press **Learn** to Commence



2. Press **Up**: Move door to required **open** position—press **learn** to confirm position and commence learning of closed position



3. Press **Down**: Move door to required **closed** position—press **learn** to confirm position and commence automatic check of both settings

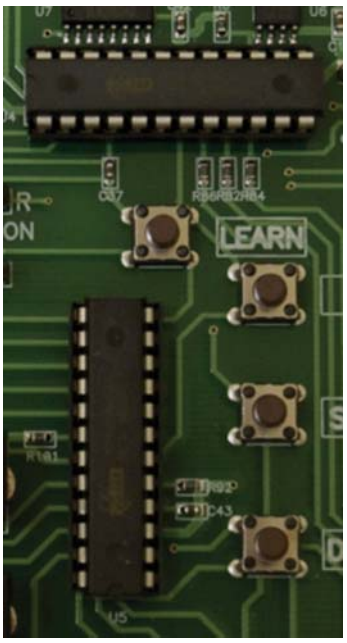


Floor Level—Cable Operated Manual Release
- No power = no lights!
- No need for a ladder
- Simple activation of the lever will enable the door to be operated manually
- Manual activation disconnects power to motor and is monitored on logic controller status indicator panel

18:1 Reduction Chain Operation
- Patented design
- Effortless operation of the rolling door in the manual condition
- Chain wheel can be located to accommodate structure involved

Logic Controller Features

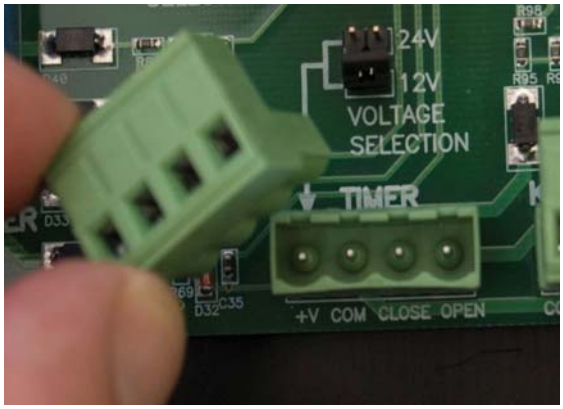
Twin CPU Processors



- Designed to offer increased operational capacity
- Computing power equivalent to early PCs
- 8 bit processors with 4K x 13 bit OTP ROM
- Processors designed with high speed low power CMOS technology

Plug in Style Terminal Connectors

- For the simple and reliable connection of all external accessories
- Clearly marked for identification
- Remove
- Connect the appropriate wires
- Replace

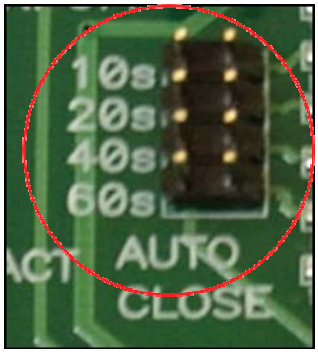


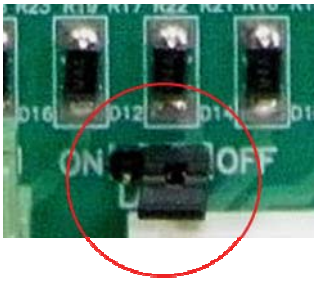
UP, DOWN, STOP Buttons and Status Indicator Panel

- Flush mounted buttons
- Illuminated LED status indicator panel

AUTO Close

- Selectable if required for auto closing of the door after a prescribed period of time
- In the event that the closing sequence is interrupted and the door returns to the fully open condition, the timer will reset automatically and commence the countdown process





Momentary or Constant Contact to Close

- Selectable to suit
- V3 boards onwards
- Enabling momentary contact will convert DOWN or closing button to single contact to operate as opposed to constant or hold to run operation

Logic Controller Features

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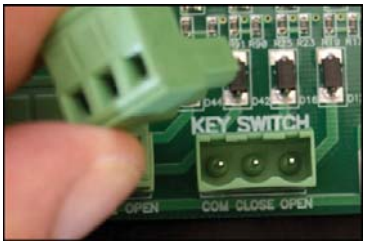
Diagnostic Fault System
- Designed to provide a series of audible “beep” sounds to indicate certain fault conditions
- Simple trouble shooting process intended to quickly identify and resolve fault conditions
- From…No “beep” = check the power is ON
- Right through to Three “beeps” = possible overload condition

Maximum Run Time
- Software will automatically limit the run time of the operator to 60 seconds
- Generally the operating time will be less than 30 seconds
- This feature is intended to prevent damage to the operator in the event of a mechanical problem with the door or in the unlikely event that the overload or sensitivity software has failed to detect a fault

Alarm
- Plug in terminal connection provides constant 12 V DC signal in the event that an attempted forced entry is detected by the operator
- Simple interface with external alarm device—consult alarm manufacturers for details

Key Switch—Connection
- Plug in terminal connection for simple wiring of external key switch device



Timer Device—Connection
- Plug in terminal connection for simple wiring of external timer device such as may be required to open or close the door automatically during 24 hour (7 day) period
- 12 or 24 V DC power available to suit device

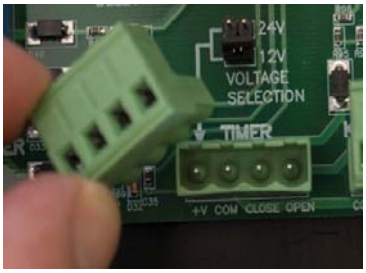
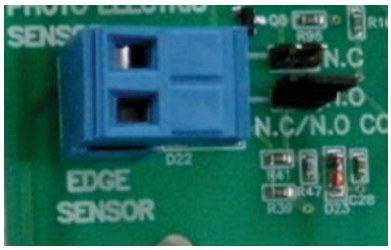


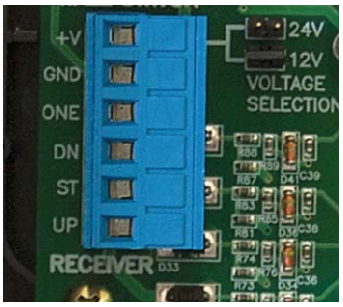
Photo Electric Sensor—Connection
- Plug in terminal connection for simple wiring of photo electric sensor—external entrapment protection device

Logic Controller Features

Edge Sensor Device—Connection

- Plug in terminal connection for simple wiring of two wire edge sensor—external entrapment device
- NC or NO contact selection





External Receive Device—Connection

- Plug in terminal connection for simple wiring of external receiver device
- 12 or 24 V DC power available to suit device

Electronic Sensitivity

- This feature allows for the characteristics of the door to be effectively learned by the logic controller
- A curtain size setting establishes the basic operating criteria
- Fine tuning can then be performed—for both opening and closing operations, and by careful adjustment to ensure that the operator can accommodate any variance

Auto Reversing

- An inherent safety feature that, when adjusted correctly in conjunction with the electronic sensitivity, will cause the operator to stop and reverse its downward closing motion if it encounters an obstruction
- In such an event the operator will detect the obstruction and reverse the direction of the closing door, returning it safely to the fully open position
- This feature **does not** replace the requirement for an external entrapment protection device, but is an added inherent safety feature

Handing Option

- This allows for the drive unit to be fitted to either the LH or the RH side of the door
- Although selectable, this must be specified at the time of ordering so that the door may be manufactured to accommodate the fully concealed fitment of the drive unit within the torque tube assembly of the door

Fuse Protection

- Replaceable “slow blow” type fuses are fitted where required to provide protection for the circuit board and where external accessories require DC power from the logic controller

Logic Controller Features

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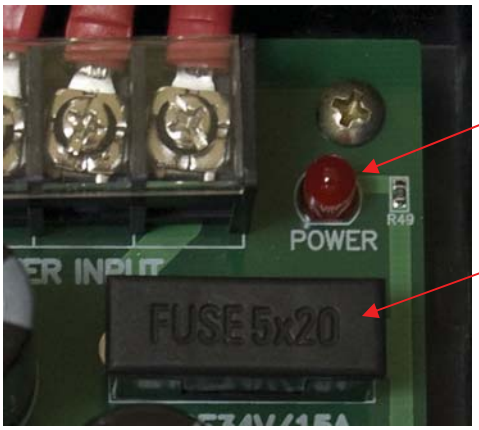
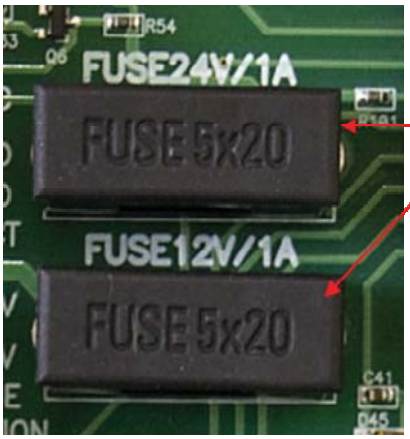


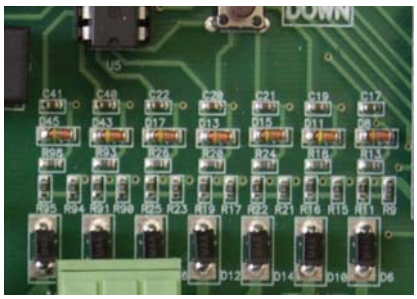
CIRCUIT BOARD POWER INDICATOR LED LIGHT AND PROTECTION FUSE



DC OUTPUT POWER PROTECTION FUSE FOR EXTERNAL ACCESSORIES

External Wiring Protection Array

- A specifically designed array of diodes and current limiting resistors intended to limit the effects of poor or incorrect site wiring to external devices
- In the unintentional event of incorrect wiring connections, the operator will not function



External Entrapment Protection—Monitoring

- Effective as of August, 2010, UL325 will deem that where an external entrapment device is connected as required, it shall be monitored by the software
- The logic controller will not permit the operator to function to close if the entrapment device is faulty unless the DOWN button is activated by constant contact

Toroidal Transformer

- Superior performance and consistent power supply
- More efficient than traditional “iron block” style
- Manufactured to exceed UL specifications

Main Power Fuse and Isolation Switch

- Designed to allow the qualified technician to switch the main power when making external connections to the circuit board
- Fuse protection for main supply 110V AC

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Features & Benefits

The new Pantheon electric door operator from Janus International is a unique new technology designed to make installation as easy as 1-2-3.

The Janus Pantheon Operator is a stronger and easier to install DC motor operator for today's door industry, featuring a simple floor level manual release system, soft start and soft stop operation. The electronic limits of the operator can be controlled in three easy steps:

Once in the learn mode -

- Press a "learn" button to move the door to the open position... then
- Press a "learn" button to move the door to the closed position
- Press the "learn" button a final time… and that's it!

There's no moving switches or adjusting cams to get the door to open and close to the required position. Setting the limits on the operator is easier than programming a cell phone, and user friendly for anyone to operate. In the event of a power failure – once the power comes back on the door does not have to be reprogrammed – the logic control retains the memory and will operate seamlessly.

Key Features and Benefits:

- Pantheon operators use low voltage DC motors, which are more quiet and efficient than standard AC motors.
- In the event that the door needs to be operated in the manual condition, the operator can be converted to manual operation with the simple movement of a lever. The door is then operated with minimal effort with a 18:1 chain reduction hoist.
- The operator is controlled by a logic control which offers a soft start – soft stop feature, ensuring that the motors are not subjected to undue stress during the starting and stopping sequence. The door will come to rest gently and smoothly, helping to prolong the motor life.
- The logic control has individually-controlled opening and closing force adjustments to compensate for small operational imbalances, which ensures that the door is operating at its optimal level.
- Connections of external devices are simple and easy to complete with removable plug sockets, which allow the wiring to be done away from the logic controller and then simply plugged into the required position.
- A specifically-designed receiver unit and radio transmitter can be connected if required to enable the operator to be controlled by remote control.
- Electronic limits can not be "lost" or "erased" in the event of a power failure or interruption.
- The logic controller has a front panel, which features a simple LED indicator that provides essential status information as well as UP, DOWN and STOP operation.
- The logic controller has been designed with software and features to ensure that it complies with the new UL325 standard, effective in 2010.
- Increased strength – the internal reduction gear system enables the motor to lift the door easily, which reduces stress and prolongs the motor's life.
- Easier to install – electronic limits help save the installer time and effort
- Floor level manual release – a simple cable device enables the door to easily be switched to manual operation from ground level.
- Warranty – operators come with a 1 year warranty against defects and workmanship.
- Also available in Mini (a single motor, 9 ½" version) and HD (a dual motor 12" version)

JANUS INTERNATIONAL

Pantheon operators are distributed by:

Janus International
134 Janus International Blvd.
Temple, GA 30179
770.562.2850
866.562.2580
770.562.2264 fax
www.janusintl.com

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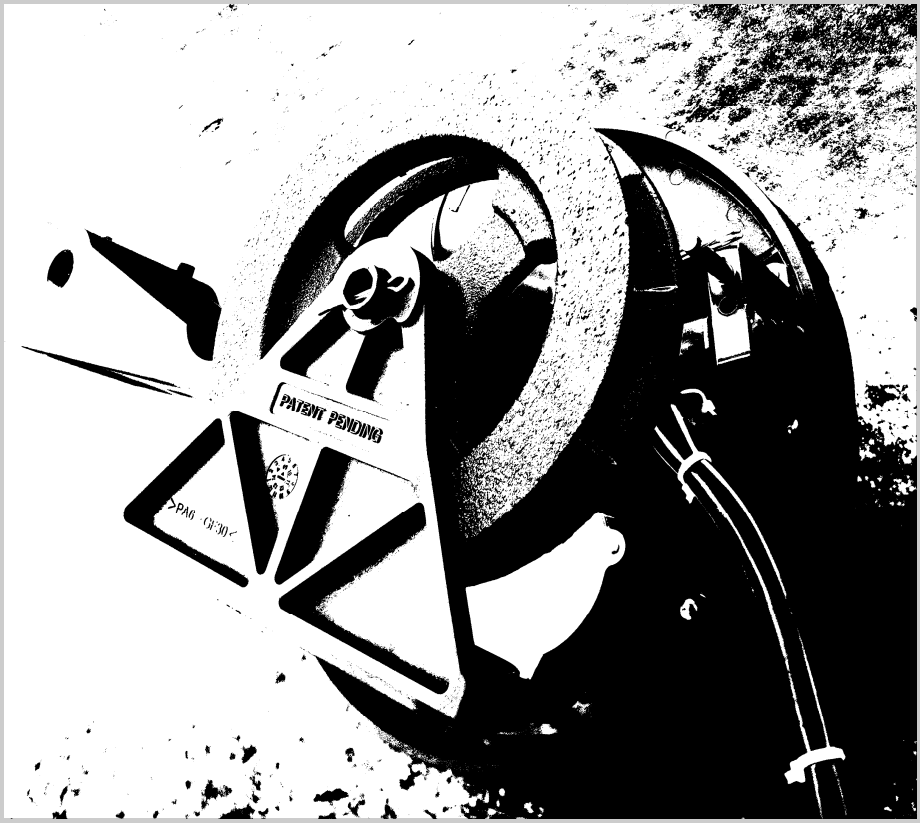
INSTALLATION INSTRUCTIONS
COMMERCIAL MODEL



www.janusintl.com

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IMPORTANT INSTALLATION SAFETY

THE FOLLOWING SAFETY INSTRUCTIONS RELATE TO THE INSTALLATION OF THE PANTHEON COMMERCIAL ROLLING DOOR OPERATOR

WARNING !! —TO REDUCE THE RISK OF DEATH OR SEVERE INJURY ALL OF THE FOLLOWING INSTRUCTIONS MUST BE READ, ACKNOWLEDGED AND ADHERED TO.

- **DO NOT** allow children or unauthorized persons in or about the work area when performing the installation or testing of the rolling door and operator.
- **DO NOT** attempt to install the rolling door unless you have read , understood and acknowledged the installation instructions provided for the commercial rolling door.
- **DO NOT** attempt to install or commission the Pantheon operator or any accessories unless you have read, understood and acknowledged the instructions provided.
- **ENSURE** that all electrical connections for mains power supply are made in accordance with local and NEC wiring codes.
- **ENSURE** that the commercial rolling door is installed with correct spring tension and side clearances—the commercial rolling door must operate in the manual condition without binding or sticking in the guides.
- **INSTALL** the logic controller in a suitable location—at a minimum of five (5) feet from the ground and maximum of three (3) feet from the edge of the opening and in clear sight of the surrounding areas.
- **OBSERVE** local and national safety codes—including but not limited to UL325—when connecting external accessories and any requirement for the installation of an external entrapment device.
- **REMOVE** or render inoperable any manually operated locks that may be fitted to the commercial rolling door.
- **REMOVE** the factory fitted “test plug” unless required for the purposes of supervised operation and testing during the installation process.
- **ALWAYS** complete the commissioning and handover check list and ensure that the client, site manager or authorized representative is fully instructed in the safe operation of the commercial rolling door and operator.
- **REFER** any technical problems or enquiries relating to the commercial rolling door or the operator to the manufacturer (Janus International).

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IMPORTANT SAFETY INSTRUCTIONS

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- **DO NOT** allow children to operate the control panel, wall switch or any remote control device connected to or designed to operate the rolling door.
- **DO NOT** attempt to operate the rolling door unless you have a clear and unobstructed view of the door and the surrounding area.
- **DO NOT** operate the rolling door if there are children or persons in the vicinity of the opening—wait until the area is clear before operating.
- **DO NOT** cross the path of a moving rolling door.
- **TEST** any safety features of the operator on a regular monthly basis and in the even that a fault is determined—discontinue use of the door and operator until such time as the problem is rectified by a qualified technician.
- **LOCAL AND STATE** safety regulations may require the connection of an external entrapment protection device when certain optional operational features of the operator are selected. These include the use of timer devices, auto close feature, momentary contact to close and the use of remote control transmitters.
- **PRIOR TO OPERATING** the door—ensure that you are familiar with the full operational characteristics of the rolling door and operator and understand the safety requirements.
- **DO NOT** attempt any repairs, modifications or adjustments to the door or operator—all such issues should be attended to by a suitably qualified technician.
- **IF POSSIBLE** only activate the manual release lever when the rolling door is in the closed position. Weak or broken springs may allow the door to fall rapidly. In all cases use caution when engaging the manual release.
- **IF ANY DOUBT** exists with any feature or function of the door or operator—consult the manufacturer, agent, distributor or authorized installation technician.
- **KEEP** these instructions in a safe and suitable location for reference and ensure that all personnel are advised accordingly .

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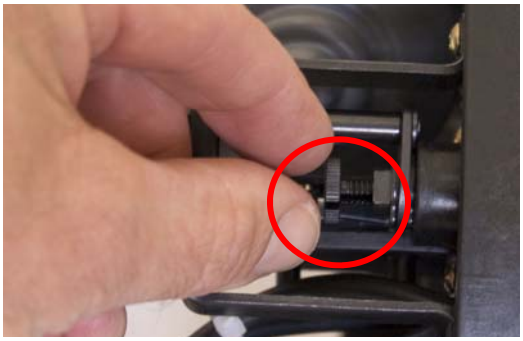
INSTALLATION INSTRUCTIONS

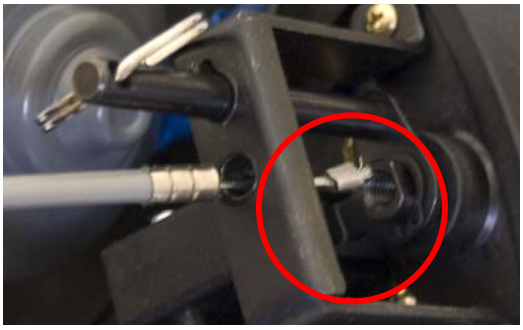
STEP 1.

"***Connecting the manual release cable to the drive unit***"

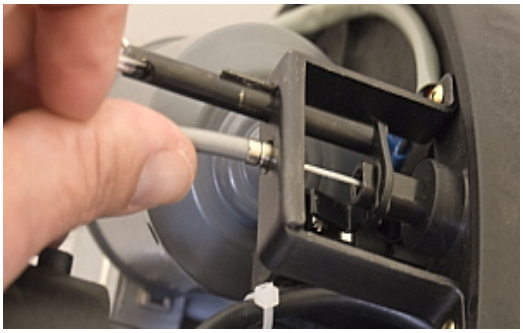
Remove the split nut



Uncoil the manual release cable and insert the free end of the cable into the threaded recess

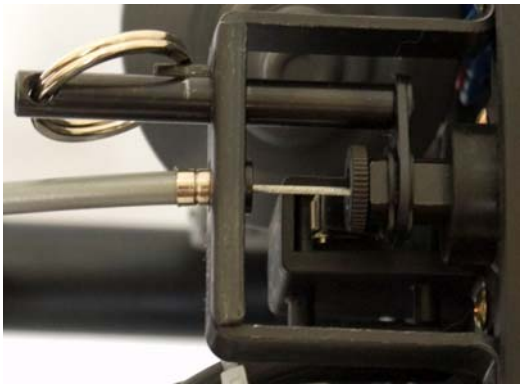


Withdraw (spring loaded) pin and twist to engage manual release



Fit split nut and tighten

Carefully coil cables together and secure with a cable tie or similar to prevent uncoiling or damage during the installation of the rolling door



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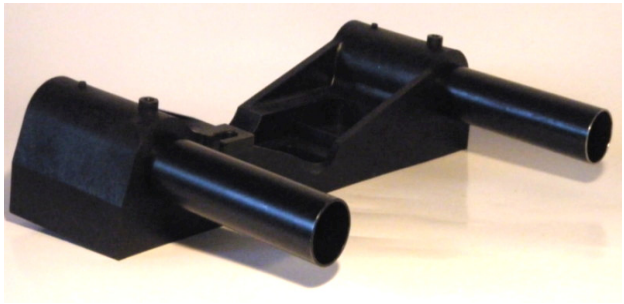
INSTALLATION INSTRUCTIONS

STEP 2.

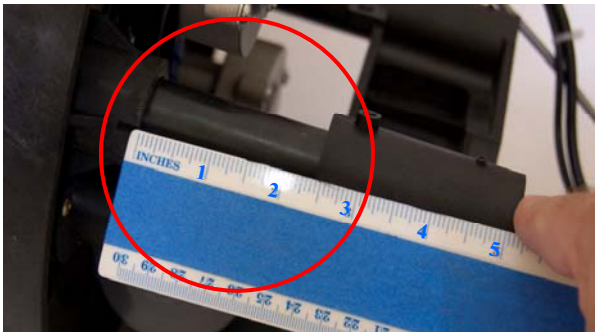
"Fitting the dual anchor bracket to the drive unit"



Insert the two steel tubes into the anchor bracket

Carefully insert the two tubes of the assembled bracket into the corresponding sections of the drive unit

Ensure that maximum penetration of the tubes into the drive unit is achieved.



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INSTALLATION INSTRUCTIONS

STEP 3.

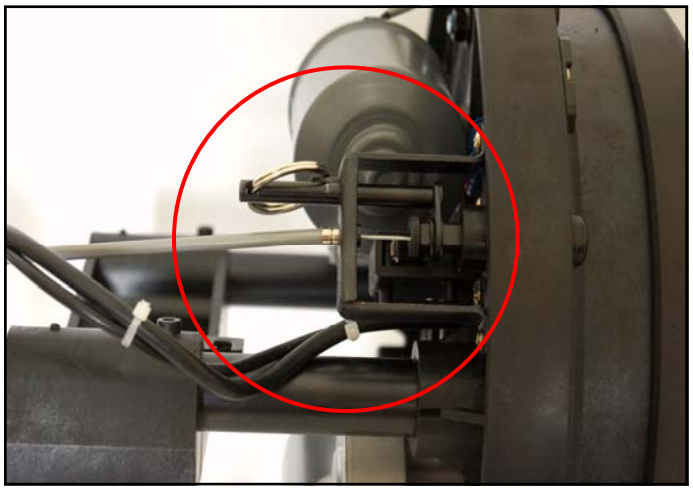
"Preparing for the installation of the rolling door"

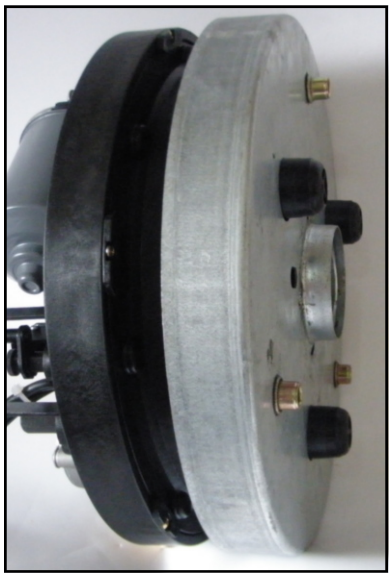
Withdraw the manual release pin— *twist and lock* in the manual condition to allow the drive unit to rotate freely

The drive unit is fitted inside the drum assembly of the rolling door

Carefully slide the drive unit along the axle of the rolling door on the appropriate end of the door—the steel drum wheel is recessed during the manufacture of the door to accommodate the fitment of the drive unit

Ensure that the spigots on the back of the drive unit are engaged with the corresponding holes in the steel drum wheel





PARTS AS SHOWN EXPOSED FOR PURPOSES OF HIGHLIGHTING THE FITMENT OF THE SPIGOTS THROUGH THE DRUM WHEEL

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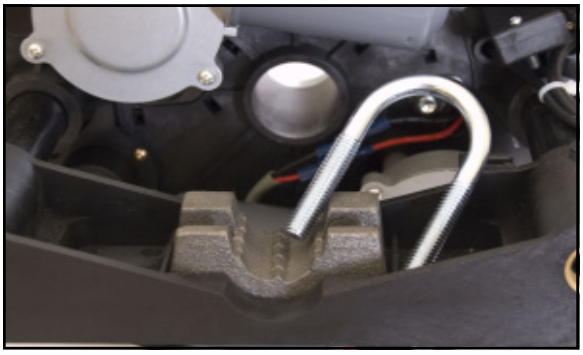
INSTALLATION INSTRUCTIONS

STEP 4.

"Proceeding with the installation of the rolling door"

Ensure the drive unit is correctly fitted inside the door drum assembly and fully engaged in the steel drum wheel



Install the rolling door to the door brackets as outlined in the Janus installation guide

Spring tension and curtain clearances should be maintained as per normal practice

A U-bolt & nuts are provided with a cast iron saddle to secure the axle of the door to the support bracket

NOTE OF CAUTION !
Take care to ensure that the cables from the drive unit are not damaged or permitted to bind on any part of the structure or the door during the installation

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INSTALLATION INSTRUCTIONS

STEP 5.

"Fitting the logic controller"

Carefully uncoil the cables from the drive unit and locate them such that they are protected from any mechanical damage

Locate a suitable position for the fitment of the logic controller ensuring adequate free cable length

The logic controller shall be installed on the same side of the opening as the drive unit

The logic controller shall be installed at a minimum of five (5) feet from the ground and a maximum of three (3) feet from the edge of the opening and with a clear view of the surrounding area

The front cover is secured with four captive screws

If required—carefully unplug the main control panel loom plug from the terminal

NOTE OF CAUTION !!
Connect the mains power in strict accordance with all local and NEC wiring codes

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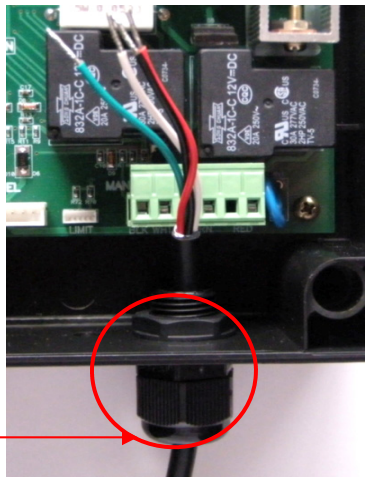
INSTALLATION INSTRUCTIONS

STEP 5.

"fitting the logic controller….(continued)"

Once the logic controller enclosure is secured to the structure—locate the **drive unit** cable and the **electronic limit** cable.

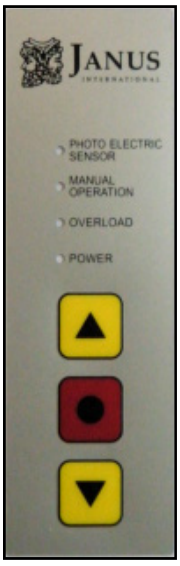
Fit the electronic limit cable plug through the hole provided at the bottom of the enclosure—use care to ensure **correct** fitment



Fit the cable gland & strain relief bushing to the *four wire* drive unit cable and fit the cable through the hole provided at the bottom of the enclosure—remove the plug in section of the terminal and connect the wires in accordance with the detail provided

Cable gland & strain relief bushing

As per factory issue—the logic controller is designed to operate with momentary contact to OPEN and constant contact to CLOSE



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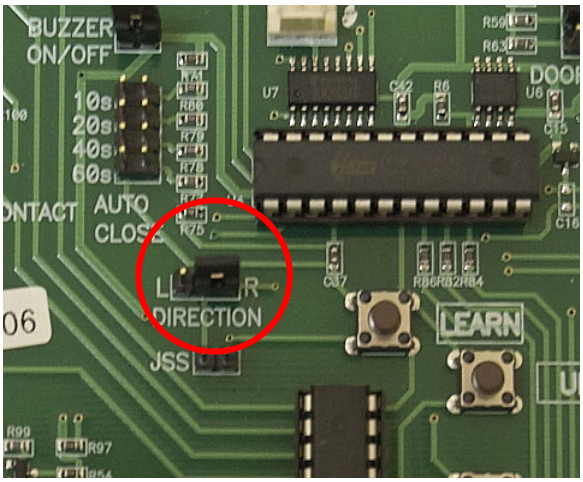
INSTALLATION INSTRUCTIONS

STEP 6.

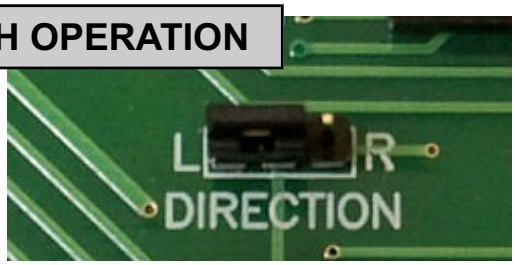
"Handing the operator to suit the installation — LH or RH side drive"



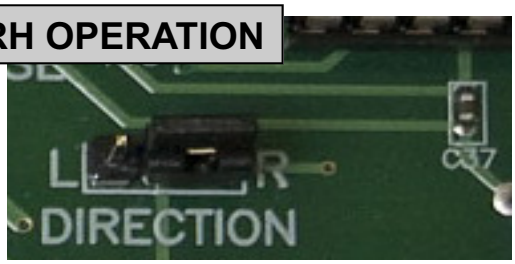
The Pantheon logic controller is designed to operate the drive unit when fitted to either LH (left hand) side or RH (right hand) side installations – as viewed from inside looking outward.

To correctly hand the logic controller to match the drive unit installation – move the DIRECTION jumper to the required position.

LH OPERATION



RH OPERATION



This handing feature <u>does not</u> apply to Pantheon "*mini* " - operators

All Pantheon "*mini* "operators will have the direction jumper removed and fitted to the JSS (Mini) position – as standard factory issue

NOTE OF CAUTION !!
ALWAYS SWITCH MAINS POWER **OFF** WHEN HANDING THE OPERATOR

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INSTALLATION INSTRUCTIONS

STEP 7.

“Setting the electronic limits”

Ensure the drive unit is engaged for normal “auto” operation and the power is ON.

1. Press and hold LEARN button until three BEEP sounds are heard
The logic controller will learn the OPEN position FIRST

2. Press and hold the UP button until the door moves to the required OPEN position

Small adjustments may be made by momentary pressing of the UP or DOWN button to move the door to the required position
Do not allow the bottom bar of the door to contact the head stops

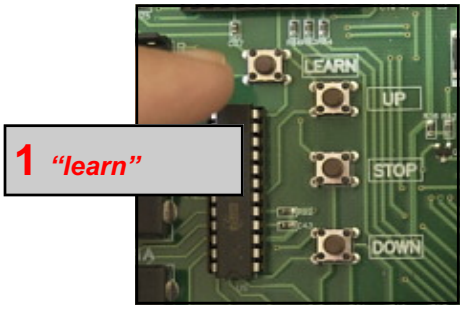
3. When the OPEN position is achieved – press the LEARN button once – two BEEP sounds will confirm the setting.

The logic controller is now ready to learn the CLOSED position.

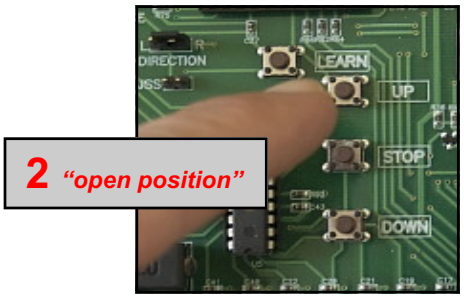
4. Press and hold the DOWN button until the door moves to the required CLOSED position

Small adjustments may be made by momentary pressing of the UP or DOWN button to move the door to the required position

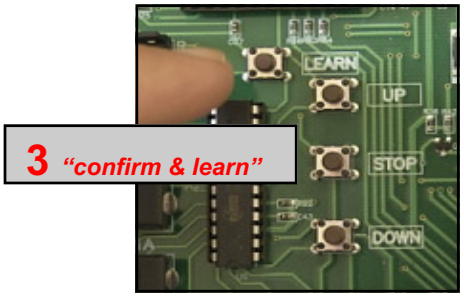
5. When the CLOSED position is achieved – press the LEARN button once – two BEEP sounds will confirm the CLOSED setting— the operator will perform an automatic check of both settings



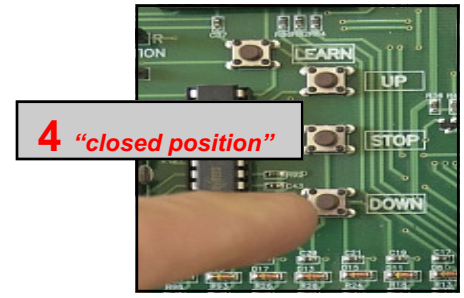
1 *“learn”*



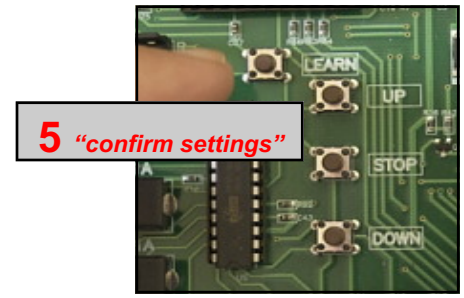
2 *“open position”*



3 *“confirm & learn”*



4 *“closed position”*



5 *“confirm settings”*

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INSTALLATION INSTRUCTIONS

STEP 8.

“Setting the sensitivity adjustment”

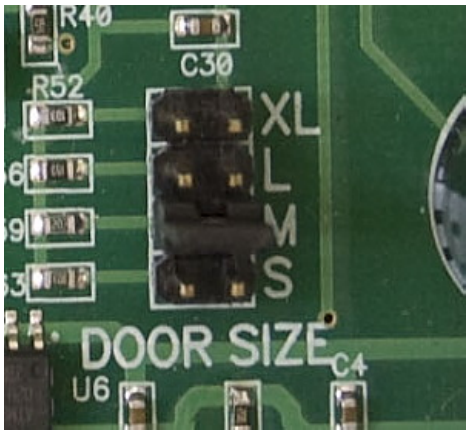
The Pantheon logic controller is designed to electronically detect and monitor the normal operation of the door.

This ensures that the operator shall automatically stop and reverse its closing motion or alternately stall its opening motion if an obstruction is detected.

To set the sensitivity adjustment—position the jumper at **S** and check that the door will operate without reversing or stalling.

If required move the jumper through the ranges **M**, **L** & **XL** until satisfactory operation is achieved.

Final adjustment of the sensitivity setting is performed by following the instructions as set out under the heading SENSITVITY ADJUSTMENT (step 9).



NOTE OF WARNING !!

IT IS ESSENTIAL THAT THIS FEATURE IS NOT RECOGNISED AS AN EXTERNAL ENTRAPMENT PROTECTION DEVICE AS MAY BE REQUIRED TO SATISFY NATIONAL SAFETY CODES INCLUDING, BUT NOT LIMITED TO UL325

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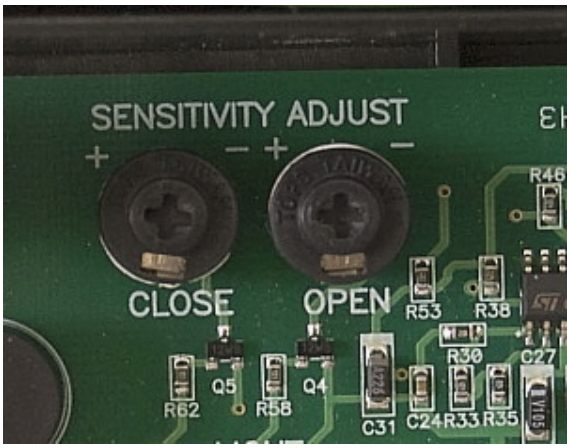
INSTALLATION INSTRUCTIONS

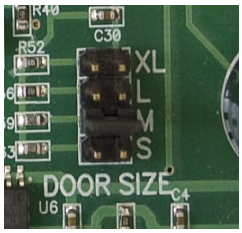
STEP 9.

“Adusting the sensitivity”



This feature allows for the logic controller to adjust for small operational imbalances and permit the door to operate as required in both directions in conjunction with the electronic sensitivity setting

Adjustments shall be made once the electronic sensitivity setting has been confirmed — refer to instructions under the heading —”Setting the sensitivity adjustment” . (previous page) step 8



Fine tuning is performed by careful rotation of the corresponding – open or close setting - as required.

To **increase** + the sensitivity of the operator - rotate the required (open or close) setting **ANTICLOCKWISE**

To **decrease** - the sensitivity of the operator – rotate the required (open or close) setting **CLOCKWISE**

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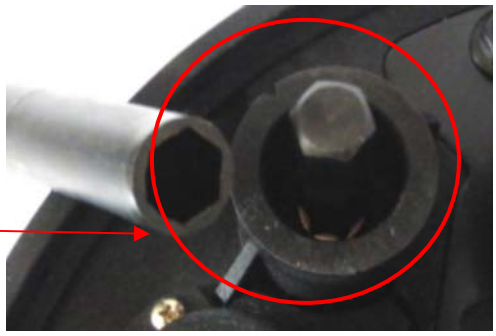
INSTALLATION INSTRUCTIONS

STEP 10.

"Fitting the manual chain hoist"

The manual chain hoist assembly may be fitted to either side of the anchor bracket as may be required to suit the installation

Insert the shaft into the anchor bracket section - rotate to engage the **mating hexagonal sections**
(NB. main parts removed for photographic clarity)



Secure the shaft in position ensuring that the screw does not prevent free rotation

Fit the cast chain wheel and nylon guide — retain with split pin— cut chain to length and fit to chain wheel

An exploded assembly drawing is contained in the accessory carton for reference

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INSTALLATION INSTRUCTIONS

STEP 11.

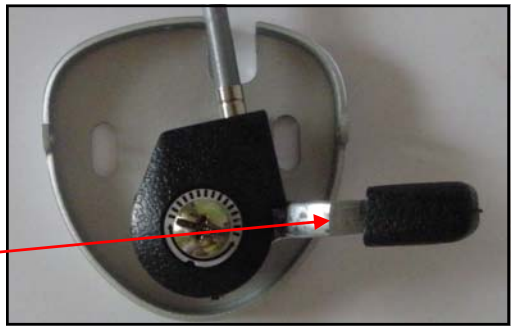
"Fitting the manual release "

Locate the manual release cable ensuring that smooth lever operation is maintained

Avoid tight bends and promote generous inner cable movement

Locate a suitable position for the lever device

Secure the lever mechanism to the structure with the lever moved toward the right to actuate - full *auto* operation



Re engage the manual release pin at the drive unit - ensure the drive unit is fully engaged by gently moving the curtain of the rolling door in either direction (*up or down*) until the pin is locked into position

Check that the lever is able to withdraw the manual release pin and re engage it as required

Adjust the lever tension screw if required to hold the manual release pin in the manual condition—fit cover

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INSTALLATION INSTRUCTIONS

STEP 12.

"Commissioning and handover of the door and operator"

Once all the steps in the installation process have been successfully followed and any external accessories have been correctly connected — the door, operator and any external accessories should be fully tested prior to handover and demonstration to the customer or authorized representative.

The handover process should include the exchange of any owners manuals, instruction manuals, warranty cards or documents, remote control transmitters together with a complete demonstration of the fully functioning door, operator and any external accessories.

Contact Information:
Janus International
134 Janus International Blvd.
Temple, GA 30179
770.562.2850
770.562.1991 fax
www.janusintl.com

Check List

Check spring tension of door in manual operation	☐
Check activation of manual release lever	☐
Check auto reverse function	☐
Check auto close — if selected	☐
Check timer device — if connected	☐
Check photo electric sensor function—if connected	☐
Check edge sensor function — if connected	☐
Check wall switch — if connected	☐
Check remote control transmitter operation — if connected	☐
Check all manual locks are inoperable	☐
Remove "test plug" at photo electric sensor terminal if fitted	☐
Demonstrate all functions to client and hand over any accessory items or documentation	☐