



EN ENGLISH



A22

Web-Based IP 2-Door Hybrid Controller

For more information, please call 855-931-3334
or visit www.devancocanada.com

The installer's choice

ATRIUM A22
2-Door Controller

**Thank you for buying our products and for
the confidence you placed in CDVI.**

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ATRIUM A22

2-Door Controller

1] PRODUCT PRESENTATION

The A22 is ATRIUM's powerful Web-Based IP hybrid module. The flexibility of the A22 module allows it to be set either as a 2-door controller or expander (2 in 1). The A22 includes an embedded web server that combines performance and simplicity enabling you to manage Users/Cards, lock or unlock doors, view system events and display controller information from any place in the world! Industry-unique and effortless card enrollment mode minimizes system start up and simplifies your life. A pre-assembled universal power supply is included with every A22 making this unit an industry leader in efficiency and simplicity.

- **Control 2 doors / 2 readers**
- **Embedded Web Server**
- **Pre-assembled universal power supply (120V / 240V)**
- **On-board Ethernet Port with AES 256-bit encryption**
- **Auto-detect hardware modules (No DIP Switches)**
- **Quick and easy card enrollment procedure**
- **6 Multi-purpose inputs (12 using zone doubling)**
- **Totally fuseless system**
- **Up to 10,000 users**
- **Up to 10,000 cards**
- **Up to 25,000 Event Buffer**
- **Up to 100 holidays**
- **Up to 1000 Access Levels**
- **Up to 250 Schedules each supporting up to 100 time periods (dd, hh:mm) and recurrence**
- **Full calendar with leap year support (yyyy-mm-dd)**
- **Time zone definition (full D.S.T. support)**
- **10 Areas per controller**
- **Ultra fast firmware update (less than 10 seconds)**
- **FREE Management Software**
- **Wiegand & ABA Track II magnetic stripe compatible**
- **Maintenance-friendly snap on terminal connectors**
- **Comprehensive LED status indicators**



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2] NOTES AND RECOMMENDATIONS

FCC & IC COMPLIANCE

This device complies with Part 15 of the FCC rules Class A. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received including interference that may cause undesired operation. This class A digital apparatus meets all requirements of the Canadian Interference Causing Equipment Regulations. The ATRIUM A22 is also compliant with EN55022:1998, amendment 1:1995, Class A.

UL COMPLIANCE

To comply with UL listings, the following requirements must be met:

- Use of UL listed readers (Wiegand: 26-bit, 30-bit and 40-bit; mag stripe: up to 32 digits)
- Use of a UL recognized tamper switch on every housing cabinet for the A22
- Use only UL listed cables
- Use only UL listed adaptors

Note: All circuits are power limited.

UL 294 COMPLIANCE NOTICE

- Use only UL listed power supply
- Connect CDVI LED status indicator, part number 7020-0001-0000, to the DC Input gray terminals of the A22.

Note: Backup battery provides operation of up to 12 hours but has been tested for 4 hours per Section 33 of UL 294, fifth edition.



The system's location and wiring methods shall be in accordance with the National Electrical Code, ANSI/NFPA 70.

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RECOMMENDED WIRING

Equipment	Wire Type	Size	Maximum Length
Card reader and Wiegand keypad	4 to 8 conductors, stranded, shielded (foil), drain conductor. For example: Alpha 5196, 5198, 5386, 5388, Belden 9553	22AWG (0.64mm) to 18AWG (1.02mm)	150m (500ft.)
Zone input	2 conductors, copper 22AWG (0.64mm)	22AWG (0.64mm)	600m (2000ft.)
Door strike	2 conductors, solid copper 18AWG (1.02mm)	18AWG (1.02mm)	150m (500ft.)
Power Supply	3 conductors, solid copper 18AWG (1.02mm)	14AWG (1.63mm)*	8m (25ft.)
Ethernet	CAT 5/5e	-	100m (300ft)
RS485 bus, Star or Daisy Chain (no BIAS/EOL required)	CAT 5/5e or 4 pairs	24AWG (0.51mm)	1220m (4000ft.)
	4 conductors, copper	26AWG (0.40mm) to 18AWG (1.02 mm)	

* The Minimum Size Equipment Conductors for the AC mains required are 14 AWG if made of Copper or 12 AWG if made of Aluminium or Copper-Clad Aluminium. Do not use any switch-controlled outlets to power the system.

SPECIFICATIONS

System Resources	
Doors	2 (expandable to 10 doors)
Cards and users	Up to 10,000 cards and users
Schedules	Up to 250 Schedules each supporting up to 100 time periods (dd, hh:mm)
Buffered Events	Up to 25,000 events
Holidays	Up to 100 holidays (yyyy-mm-dd, hh:mm)
Access Levels	Up to 1000 access levels
Operating Temperature	-20°C to +70°C (-4°F to +158°F)
Humidity	0% to 85% (non condensing)
System Autonomy	Full Distributed Architecture (100% Off-line Operation)
Firmware	Online Upgradeable
PCB Dimensions	19.9cm (7.83") x 12.38 cm (4.875")
Cabinet Dimensions	29 cm (11.4") high, 28 cm (11") wide, 8 cm (3.15") deep

Inputs	
Readers	2 x Wiegand Readers with Multiple Protocol Support (Wiegand 26-bit, 30-bit & 44-bit), Magnetic Stripe ABA Track 2
Keypads	2 x Wiegand Keypad with Multiple Protocol Support (Wiegand 8-bit & 26-bit)
Multi-Purpose Inputs	6 zone inputs (up to 12 using ZONE DOUBLER) with optional individual WIRE CUT & WIRE SHORT supervision.
Box Tamper	Normally Closed (N.C.) contact

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Communication

LOCAL BUS	RS485 @ 57600Baud supporting star and/or daisy chain topologies up to 4000ft (1220 meters)
ETHERNET	10/100 Base-T, Auto Sensing, 100m(300ft)

Power Supply

AC Power	120-240Vac
Frequency	50Hz/60Hz
Output	24Vdc, 2.5A
AC Terminal Fuse	250Vac, 2.5 A, Time Lag, Slow Blow, Operating Temperature: -55°C to +125°C
Power Loss Indicator	Yes (DC IN)



Do Not Connect to a Receptacle Controlled by a Switch.
Other 24Vac, 75VA 50/60Hz UL/ULC certified transformer can be use.

On-Board Protection (All fuseless, auto-resume)

VLK	12Vdc @ 750mA
AUX	12Vdc @ 1A
Battery	Against reversal, short, current limited/monitored

Power output specifications

Battery Backup

Battery Capacity	12Vdc 7Ah rechargeable acid/lead or gel cell backup battery (UL/ULC: YUASA #NP7-12 recommended, Europe: CDVI B7AH recommended). Ensure proper polarity.
Charging Current	250mA (default), 320mA, 500mA, or 1A. Refer to the ATRIUM user interface instruction manual for more information on how to modify the battery charging current.
Low Battery @	11.8Vdc
Low Battery Restore @	12.2Vdc
Low Battery Cut-Off @	10.5Vdc

Power Outputs (+12Vdc)

Lock Output 1	Maximum Current 750mA each
Lock Output 2	
Reader 1	Maximum Current 1000mA
Reader 2	
Zone Inputs	
LOCAL BUS	

Outputs

LK1, LK2, RLY1, RLY2	Form C Relay, 5A @ 250Vac, 7A @ 125Vac, 7A @ 30Vdc
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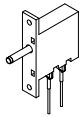
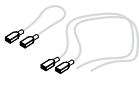
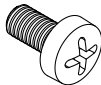
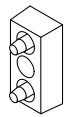
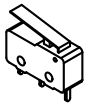
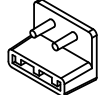

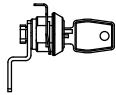
2-Door Controller

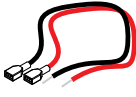



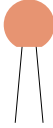

3] PACKAGE CONTENTS

This chapter details how to install and setup the ATRIUM A22 .

The A22 contains:

- One A22 module in its cabinet with connection diagram label
- AC power cord
- Metal Box kit (See below)
- Installation kit (See below)

							
Wall Switch and a white wire (115mm)	3 wires for tamper switch (2 x 360mm and 1 x 165mm)	Bolts and Nuts	Wall Switch Spacer	Door Switch and 2 white wires (350mm)	Door Switch Support	Metal box screw for door enclosure	Metal box lock and key
1	3	2 each	1	1	1	4	1

					
Red and black wires, for backup battery (400mm)	1K Resistor	2.2K Resistor	Diode 1N4007 for DC door strikes or maglocks	Varistor for AC door strikes or maglocks	Fastener (PCB Holder)
1 pair	22	10	2	2	7

If any item is missing, please notify your distributor immediately.

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LOCATION AND MOUNTING

The cabinet is designed to be installed indoors, in a safe and secure location. Suggested locations include electrical rooms, communication equipment rooms, closets or in the ceiling. To save time, wiring and facilitate testing, install the cabinets at an equal distance between its controlled doors. Normal temperature and humidity levels should be maintained.



Please note that other approved cabinets with approved tamper switch on the front cover and rear surface can be used.

Cabinet Dimensions:

29 cm (11.4") high, 28 cm (11") wide, 8 cm (3.15") deep

The Cabinet Can Accommodate:

One 12Vdc @ 4.5AH or 7AH, gel cell type batteries and wiring connections (15cm (6") high, 6cm (2.5") wide, 9 cm (3.54") deep)

Battery Model	Voltage	Capacity	Length	Width	Height
YUASA #NP7-12	12 Volt	7 Ah	151mm (5.94")	65mm (2.56")	97.5mm (3.84")
YUASA #NP4-12	12 Volt	4.5 Ah	90mm(3.54")	70mm (2.76")	106mm (4.17")

Multiple Conduit Knock-outs:

Two 19.05mm (0.75") on each side and one 12.7mm (0.5") on top

Minimum Clearance For Cabinet:

- 25cm (10") clear space around all sides
- 38cm (15") clear space in front of cabinet

Minimum Clearance From Electrical Interference:

- 2.4m (8ft.) from high voltage equipment or wiring and from electrical equipment likely to generate interference
- 1.2m (4ft.) from telephone equipment or lines and 8m (25ft.) from transmitting equipment



The system's location and wiring methods shall be in accordance with the National Electrical Code, ANSI/NFPA 70.

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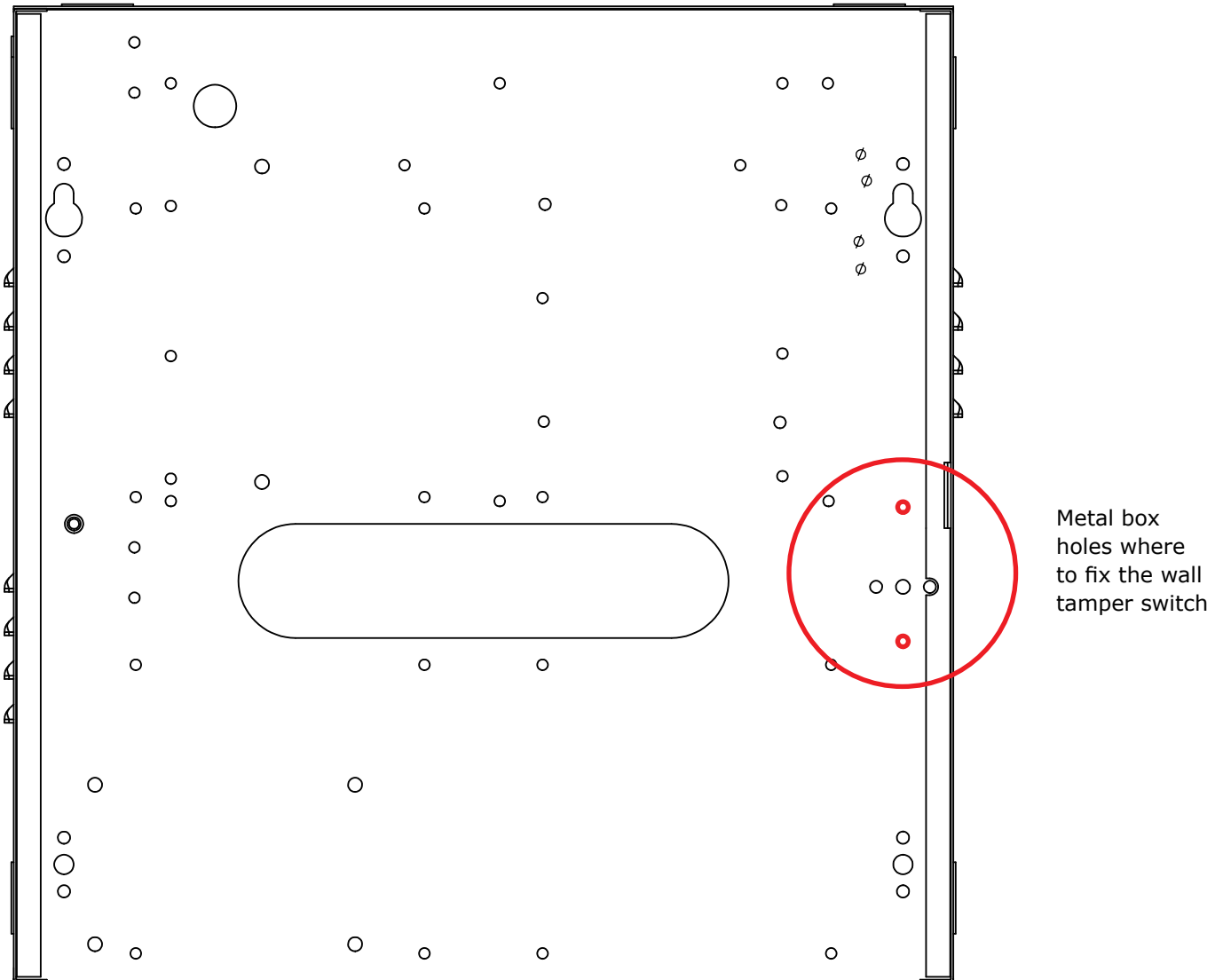
2-Door Controller

4] MOUNTING INSTRUCTIONS

The box needs to be prepared before fixing it to its location.

INSTALLING THE TAMPER SWITCHES

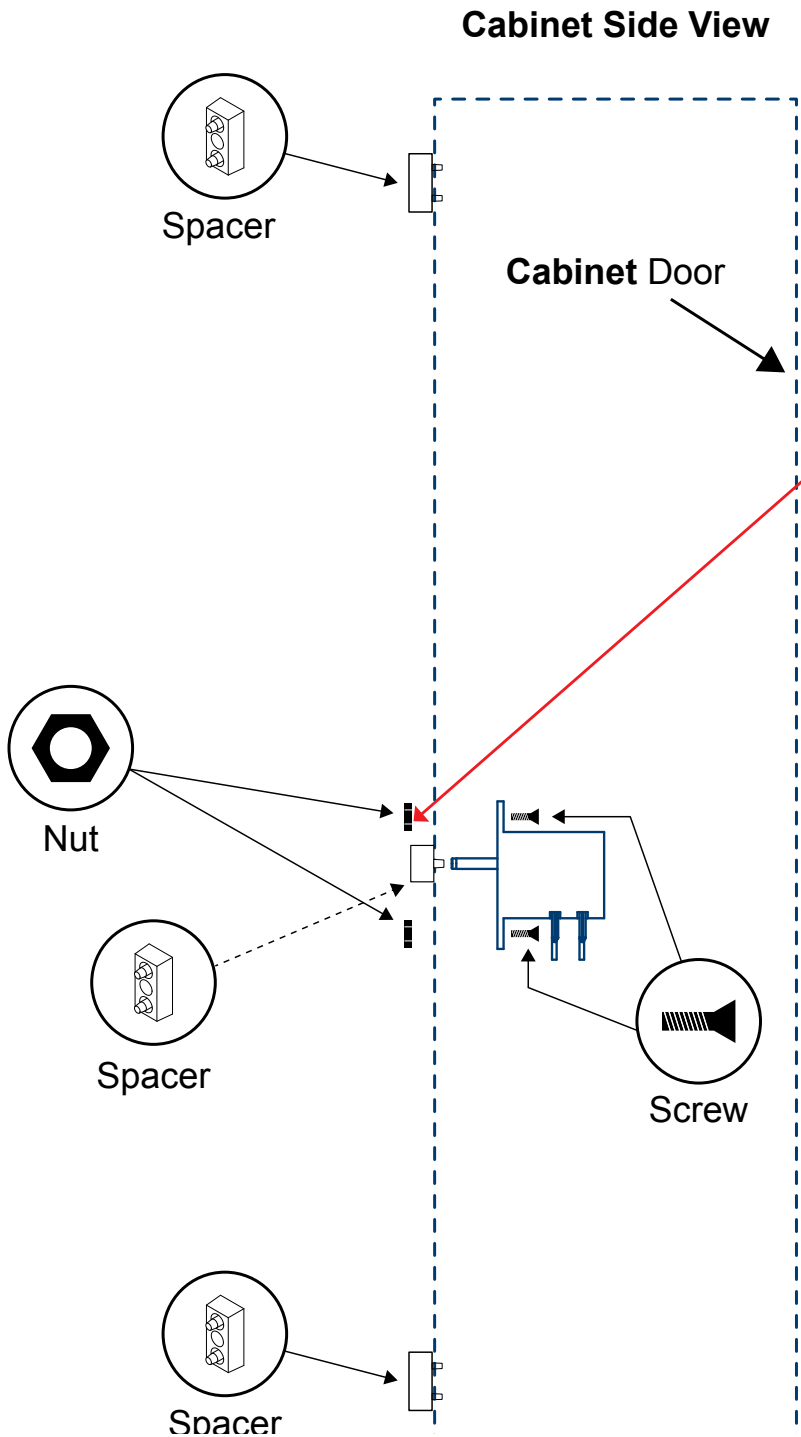
Installing tamper switches allows the A22 to detect when the cabinet door is opened and/or when the cabinet is removed from the wall. If needed install the tamper switch(es) as follows:



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2-Door Controller

Install the wall tamper switch using the supplied bolts and nuts as shown in the following picture.



Install the tamper switch plastic spacer on the back at bottom left side of the box as show in the following picture.



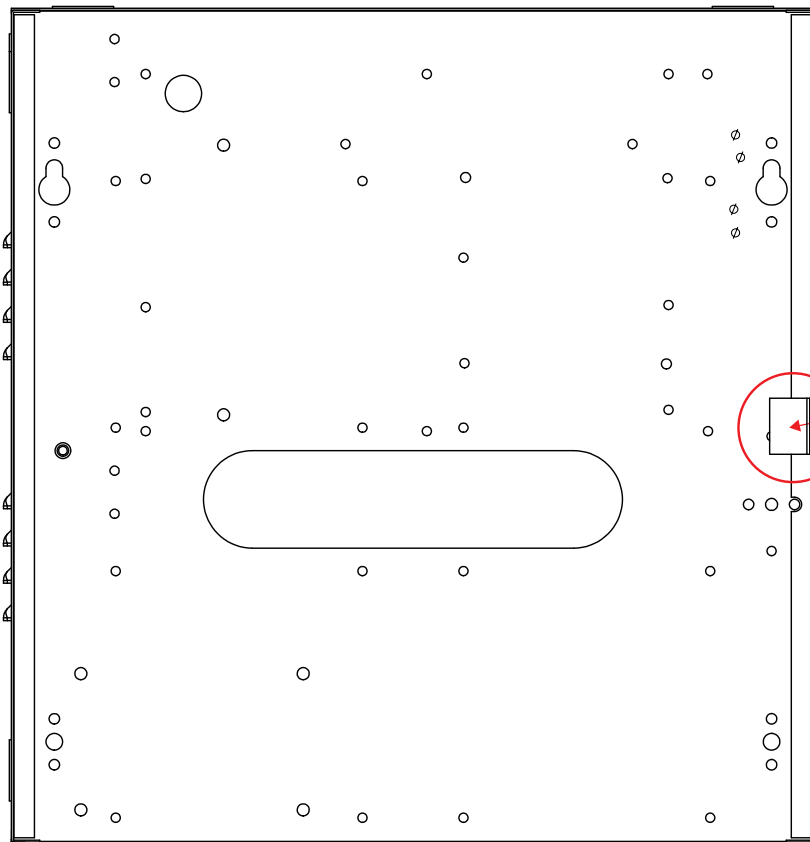
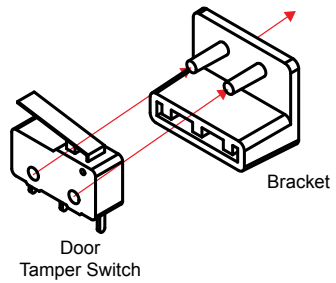
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Install the door tamper switch by aligning the switch holes to the pre-installed plastic bracket pins. Press firmly to secure the tamper switch in position, then fix the bracket to its mounting flange.

Refer to page 16 for wiring diagram.

Fix the tamper switch to the bracket then mount the bracket on the mounting flange



Door Tamper Switch Mounting Flange



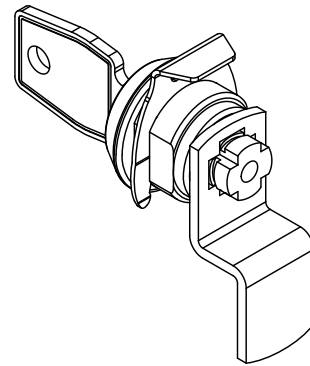
ATRIUM A22

2-Door Controller

INSTALLING THE BOX LOCK

Installing the box lock allows to secure the box from unauthorized access. Installation procedure:

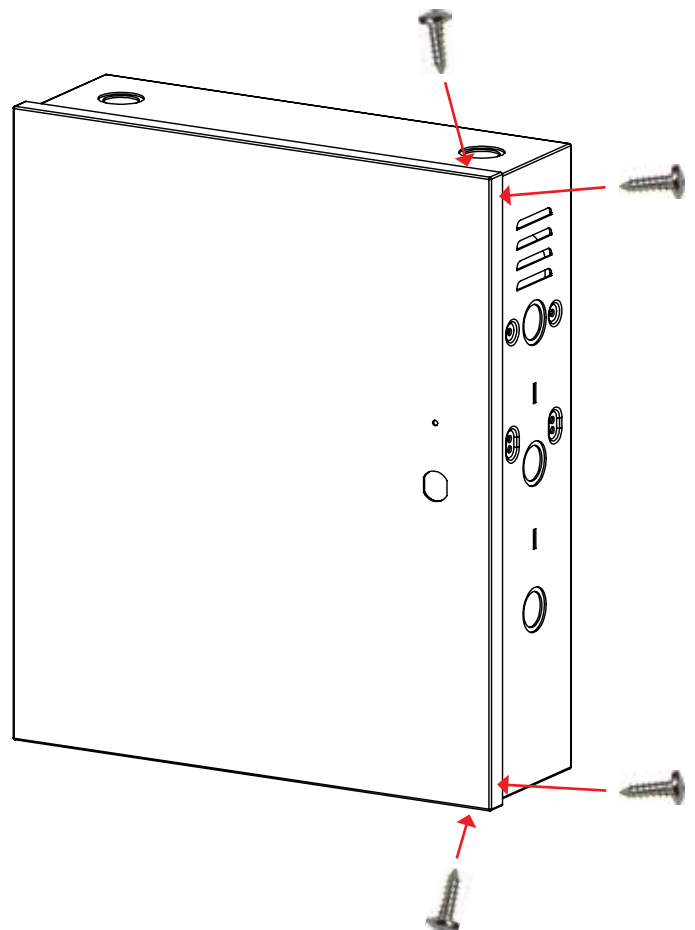
1. Remove the box door knock-out.
2. Insert the lock in the hole.
3. Slide the "U" metal part into the lock groove to secure the lock in place.



Alternatively or complementary to the box lock, the box may be secured by fixing the cover to its base using screws.

However this should be done only once the installation is completed.

1. Use the 4 screws supplied to secure the box cover to its base as shown in the following picture.



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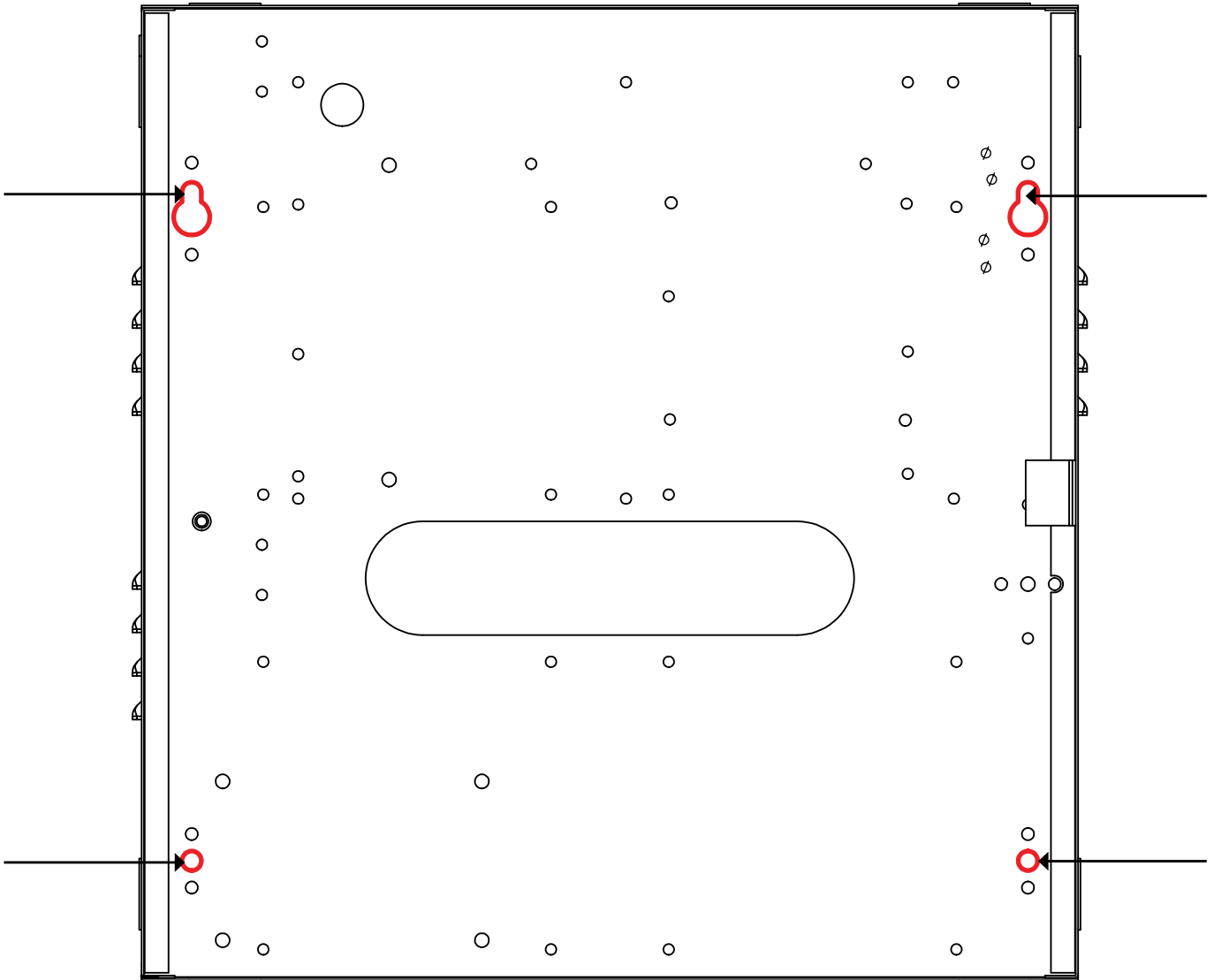
2-Door Controller

FIXING THE BOX TO ITS LOCATION

Install the box to its location using 4 screws (not supplied) as shown in the following picture.



If the wall tamper switch is used, make sure that the tamper switch arm moves freely and is completely pushed in when the enclosure is installed on the wall.

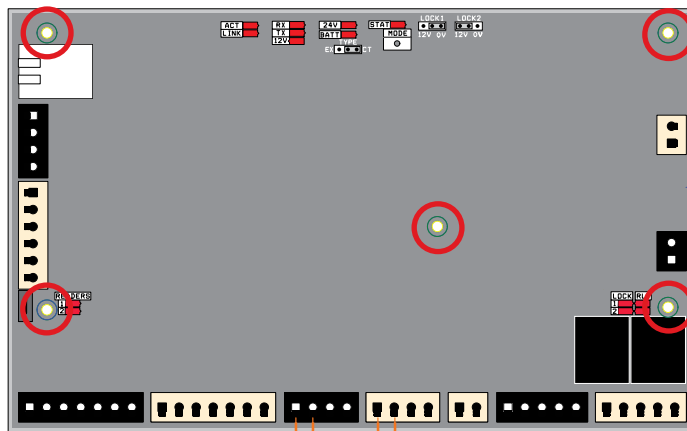
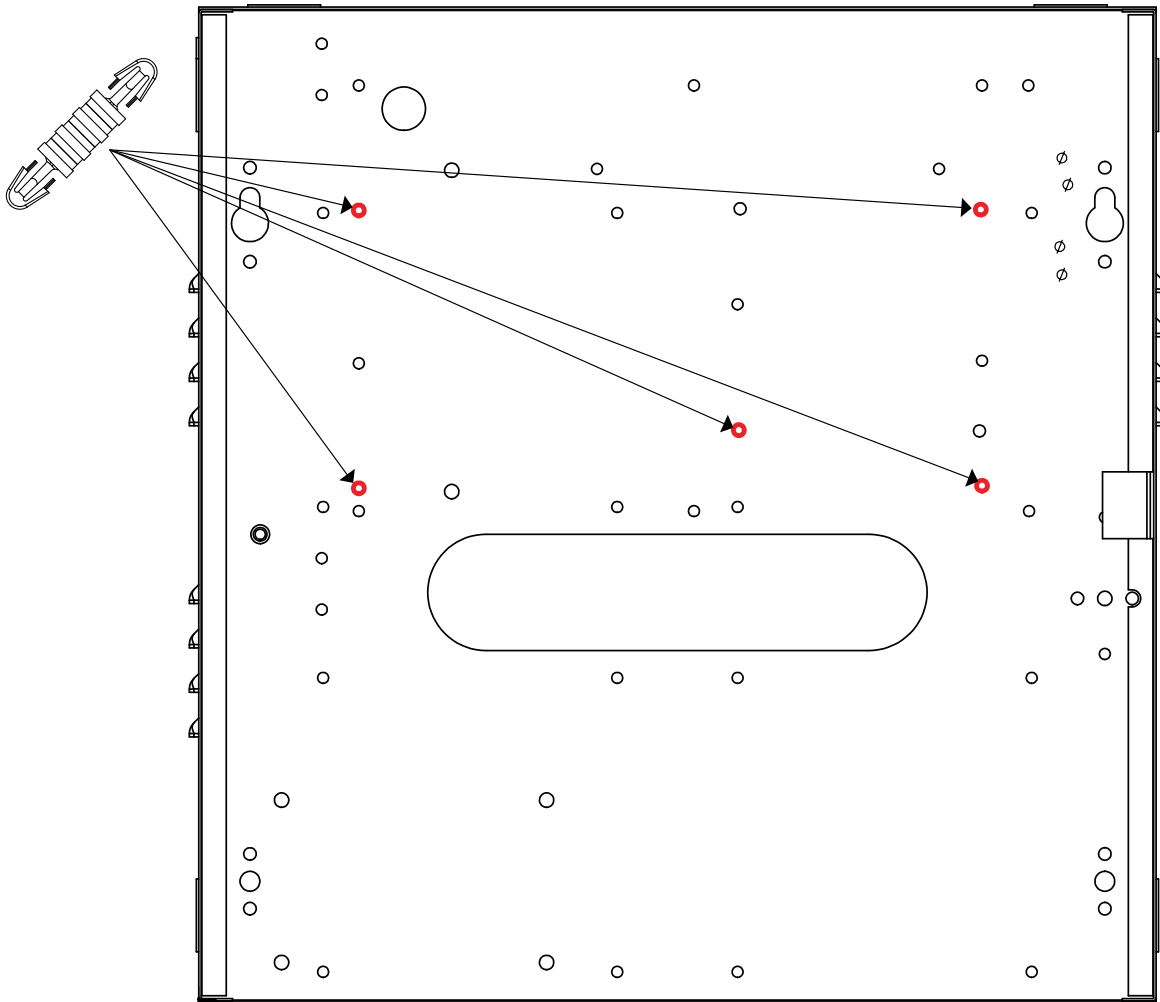


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INSTALLING THE A22 PC BOARD

Install the 5 fasteners (PCB holder) supplied respectively to the box holes identified in red in the following picture. Install the A22 PCB by aligning the fasteners with the corresponding PCB holes and pressing firmly to secure the PCB in place.



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5] WIRING DIAGRAM

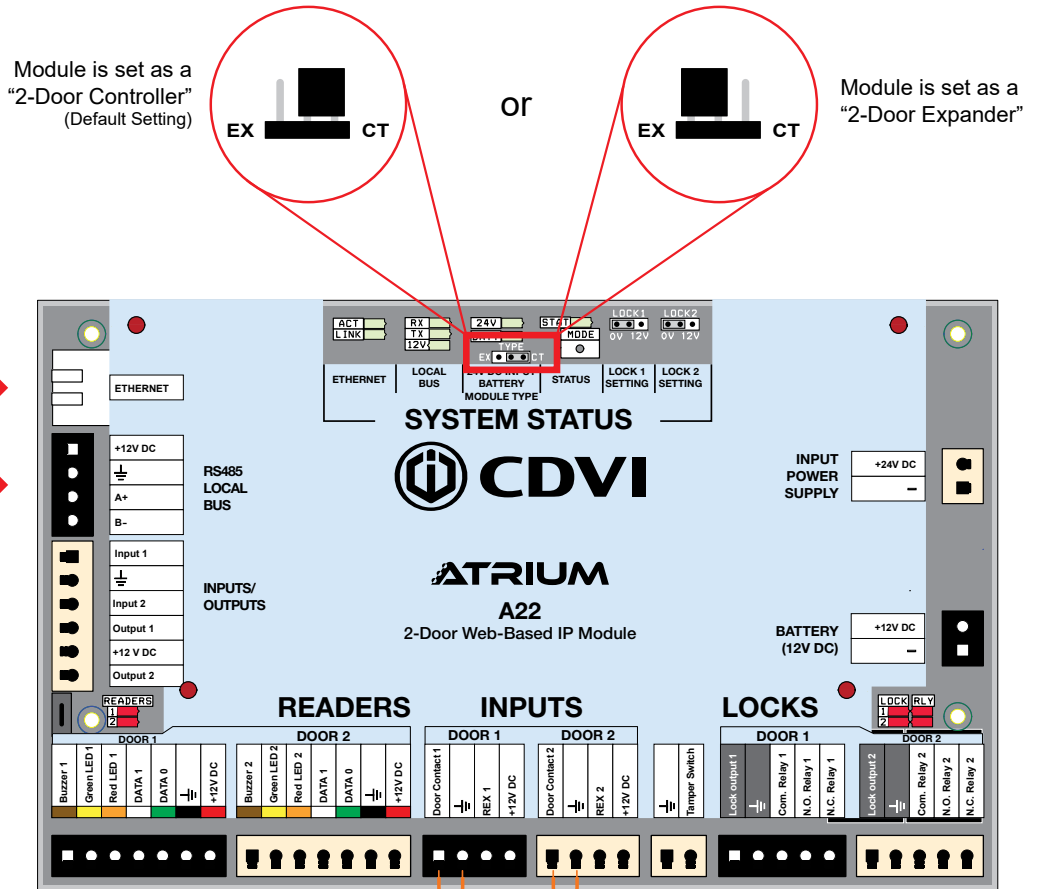
MODULE TYPE CONFIGURATION (CONTROLLER OR EXPANDER)

The flexibility of the A22 module allows it to be set either as a 2-door controller or 2-door expander. Simply adjust the "TYPE" jumper to the required position (see the diagram below).

By default, each A22 is set as a 2-door controller.

- One A22 set as a controller can manage (be connected to) up to four A22 modules set as expanders for a total of 10 doors.
- To communicate with an A22 set as a controller, use the RJ45 Ethernet connection.
- Communication between an A22 controller and A22 expansion modules is achieved using the RS485 Local Bus.

Module Type Jumper Setting (Controller or Expander)



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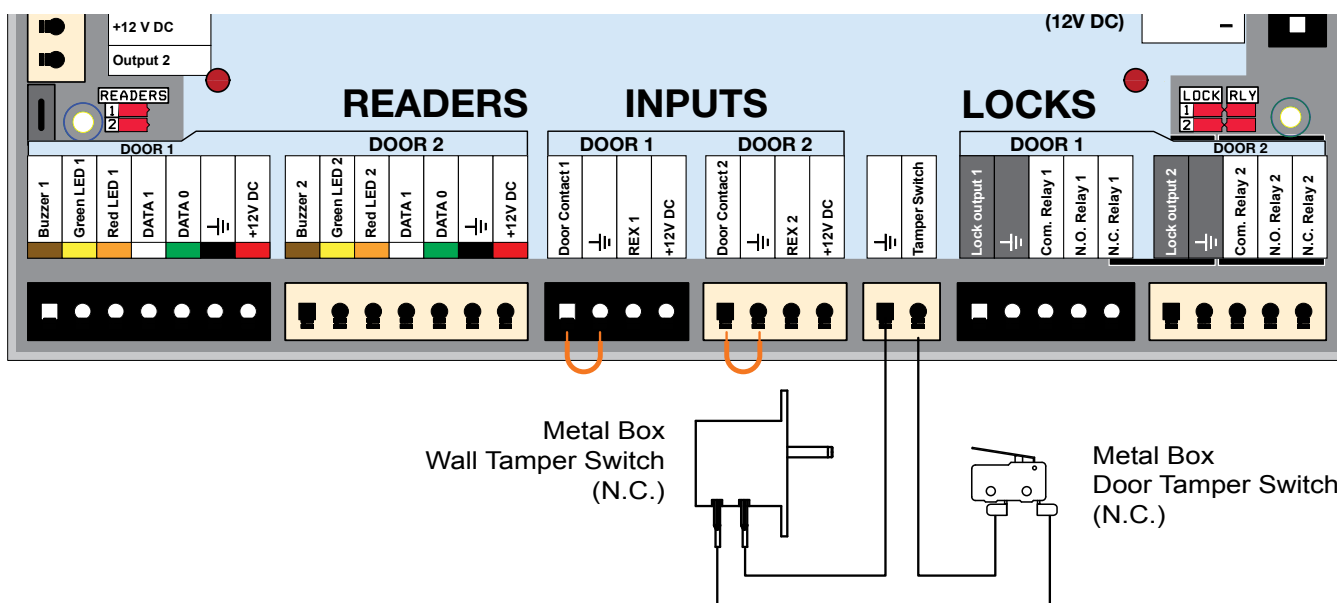
2-Door Controller

BOX TAMPER SWITCHES

Connecting the tamper switches allows the A22 to detect when the cabinet door is opened and/or when the cabinet is removed from the wall. To install the tamper switches, see "Installing the Tamper Switches".

To use both switches:

1. Connect one end of the supplied wire to the door tamper switch terminal and the other end to the wall tamper switch terminal.
2. Connect the other terminal of the door tamper switch to the "TMP" terminals using the supplied wire.
3. Connect the other terminal of the wall tamper switch to the "GND" terminals using the supplied wire.



To use only one switch:

1. Connect one terminal of the tamper switch to the "TMP" terminals using the supplied wire.
2. Connect the other terminal of the same tamper switch to the "GND" terminals using the supplied wire.



If you do not use the tamper switch, connect a wire between the "TMP" and "GND" terminals.

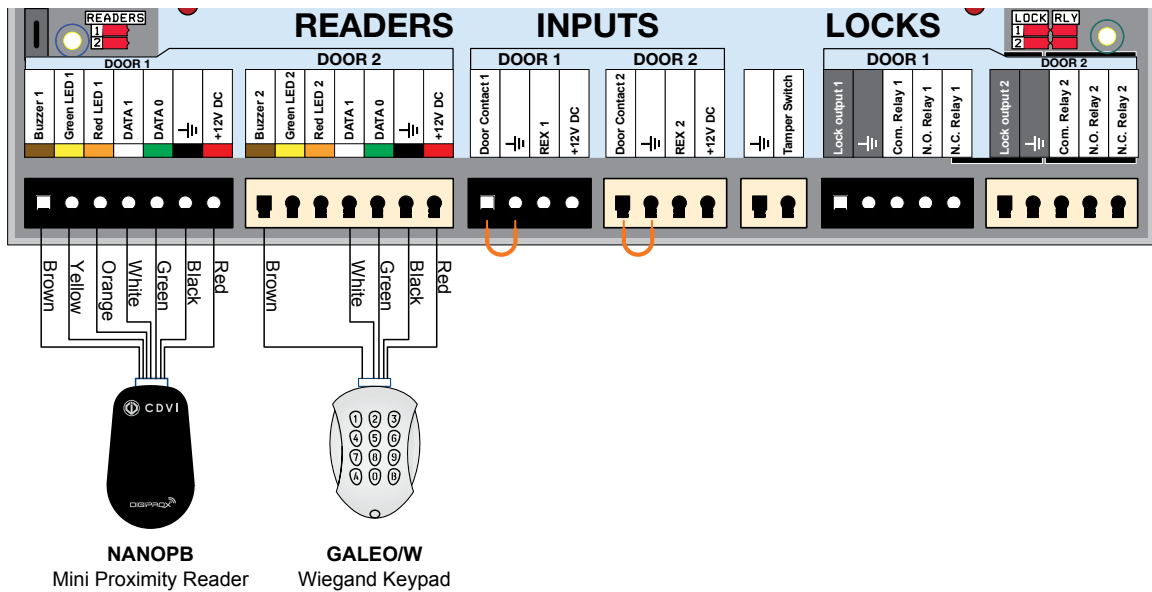
ATRIUM A22

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READERS AND KEYPADS

The A22 allows automatic format detection and decoding of the connected reader/keypad. When installing a keypad with a Wiegand output, the keypad’s “D0” and “D1” wires should be connected to the same terminals as the reader (the reader or keypad LED and buzzer outputs must be open collector).

The ATRIUM system is configured by default for the NANO, STAR and SOLAR reader models which display a bright blue backlight in standby mode. A list of other CDVI readers and keypads is shown below. Other popular wiegand readers and keypads are also supported. Contact us to confirm compatibility. Most readers and keypads have built-in buzzers and LEDs. These should be connected to module’s programmable outputs (B1, G1, R1 for READER 1 and B2, G2, R2 for READER 2). These are open collector outputs capable of sinking 100mA. Please note that the B, G and R outputs are programmed for a 7-wire reader by default. Typically, a blue/red/green indicator on the reader will inform the card user that access has been granted (changes from blue to green), access has been denied (changes from blue to flashing red), door is locked (from blue to brief red) or door is unlocked by a schedule (changes from blue to brief green). Typically, the reader buzzer or an external sounding device will inform the card user that the door has been left open after a valid access or the door has been forced open. The functions of all these outputs are programmable through the ATRIUM software.



See chapter 2 “Recommended Wiring” for more information on wiring type, size, and maximum length.

Compatible readers and keypads:

- NANOPW (White) and NANOPB (Black)
 - STARPW (White) and STARPB (Black)
 - SOLARPW (White) and SOLARPB (Black)
 - DGLP FN WLC26
 - DGLP WLC26
 - DGLI F WLC26
 - DGLI WLC26
 - DGLP60WLC
 - KCPROXWLC (Reader & Keypad)
 - DGLM (Magstripe)
- And most popular Wiegand readers & keypad



For an up-to-date list of which keypads and readers are supported, refer to the ATRIUM Software Manual



Please note that the A22 provides 12Vdc output. Connecting a device (keypad or reader) requiring a different voltage may damage the reader or keypad and invalidate the A22 warranty.

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INPUTS

The A22 can monitor the state of up to 6 devices (12 using zone doubling) such as magnetic contacts, motion detectors, temperature sensors, or other devices. The following are examples of the type of inputs that can be monitored:

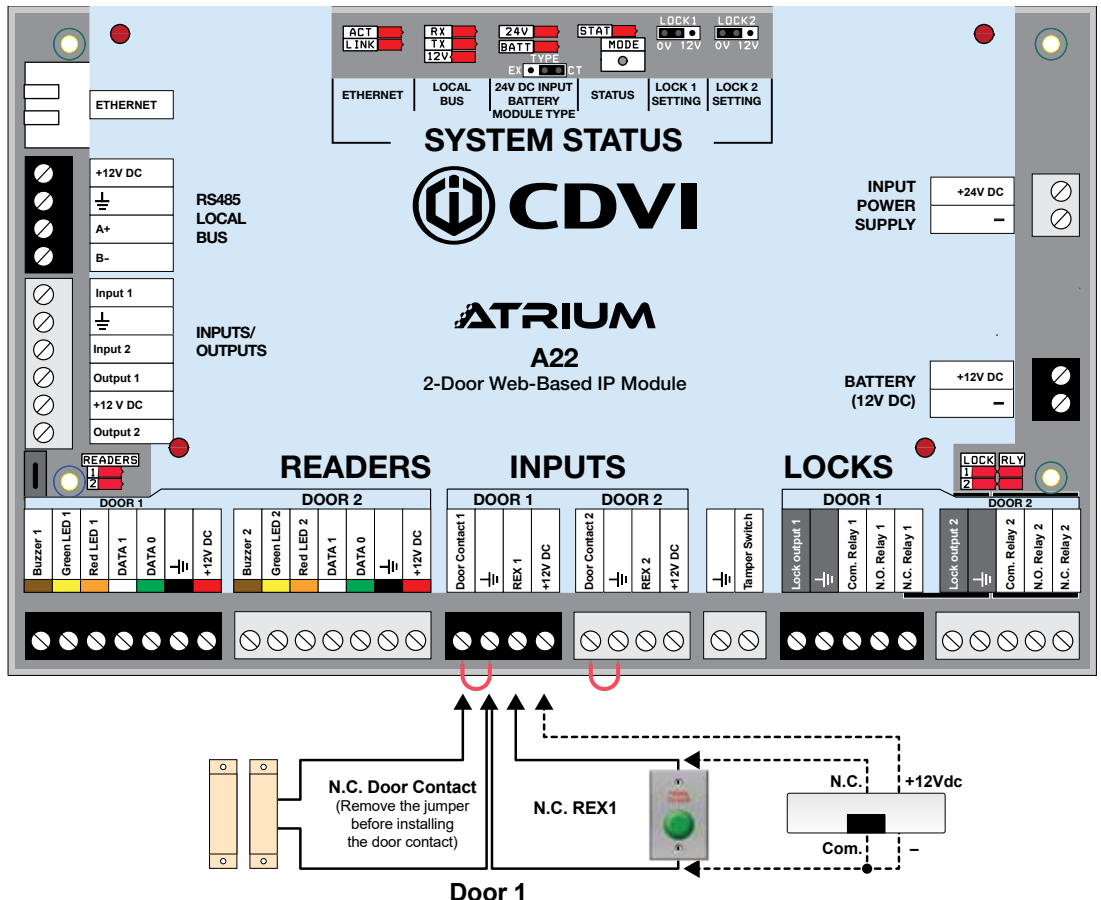
Magnetic Door Contact:

Permits supervision of door "status" (opened, closed, opened too long, forced open). Inputs "Door Contact 1" and "Door Contact 2" are assigned by default as the door contact for Door 1 and Door 2 respectively. When using the default system settings, you can easily swap terminals to troubleshoot the installation.

Request to Exit (REX):

The device used can be a push button, vertical-view motion detector or floor mat sensor. The door can then be programmed to unlock on a REX detection. When a magnetic door contact is installed, the system can differentiate between a door forced open and an authorized exit. Inputs "REX 1" and "REX 2" are assigned by default for Door 1 and Door 2 REX inputs respectively.

Two Extra Inputs
(4 using zone doubling) →



See "Recommended Wiring" section for more information on wiring type, size, and maximum length.

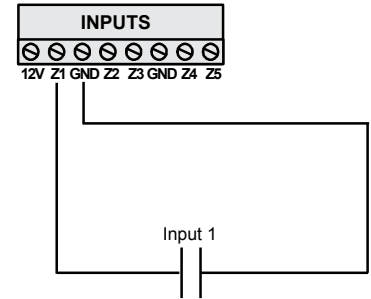
ATRIUM A22

2-Door Controller

Input Connection Methods

Single without EOL and without TAMPER Supervision (Limit of 1 Detection Device on the Input)

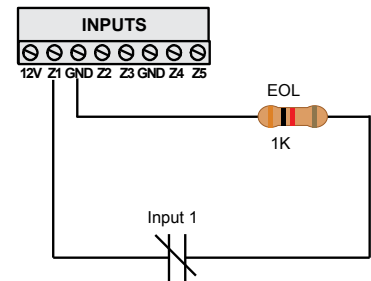
When using this method, only one device can be connected to the input. The input must be connected using only one Contact (NO or NC: programmable per INPUT in Software) as described in the following figure. This setup will not support WIRE CUT or WIRE SHORT supervision, but will generate an alarm condition when the state of the input is breached.



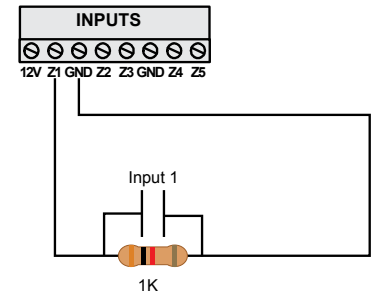
WIRE SHORT supervision: NO
WIRE CUT supervision: NO

Single with WIRE SHORT Supervision (Limit of 1 Detection Device on the Input)

When using this method, only one device can be connected to the input. The input must be connected using only one Contact (NO or NC: programmable per INPUT in Software) as described in the following figure. This setup will not support WIRE CUT supervision but offers WIRE SHORT supervision and will generate an alarm condition when the state of the input is breached.

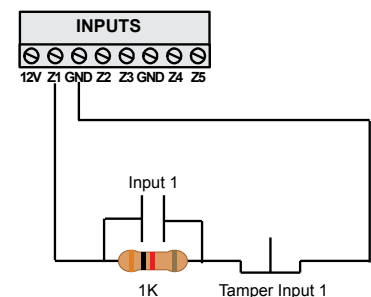


WIRE SHORT supervision: YES (Detected as INPUT SHORT)
WIRE CUT supervision: NO



Single with WIRE CUT Supervision (Limit of 1 Detection Device on the Input)

When using this method, only one device can be connected to the input. The input must be connected using only one Contact (NO or NC: programmable per INPUT in Software) as described in the following figure. This setup will support WIRE CUT supervision but will not offer WIRE SHORT supervision and will generate an alarm condition when the state of the input is breached.



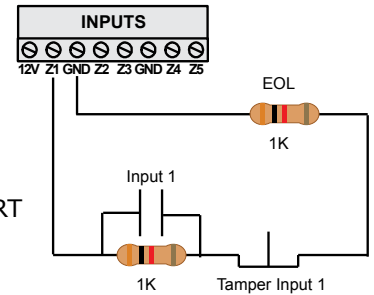
WIRE SHORT supervision: NO
WIRE CUT supervision: YES (Detected as INPUT CUT)

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Single with WIRE SHORT and WIRE CUT Supervision (Limit of 1 Detection Device on the Input)

When using this method, only one device can be connected to the input. The input must be connected using only one Contact (NO or NC: programmable per INPUT in Software) as described in the following figure. This setup will support both WIRE CUT and WIRE SHORT supervision and will generate an alarm condition when the state of the input is breached.

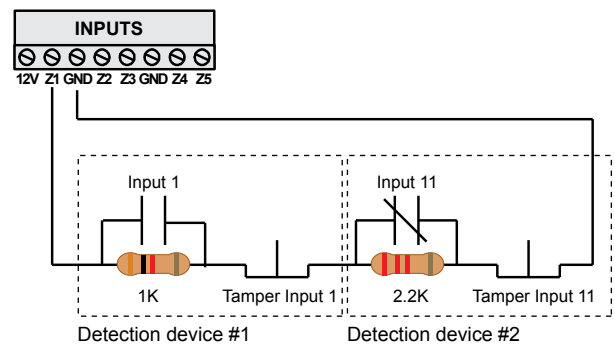


WIRE SHORT supervision: YES (Detected as INPUT SHORT)

WIRE CUT supervision: YES (Detected as INPUT CUT)

Doubled with WIRE CUT Supervision (2 Detection Device on the Input)

When using this method, two device can be connected to the input. The input must be connected using two Contacts (NO or NC: programmable per INPUT in Software) as described in the following figure. This setup will support WIRE CUT supervision but not WIRE SHORT supervision and will generate an alarm condition when the state of one of the input is breached.

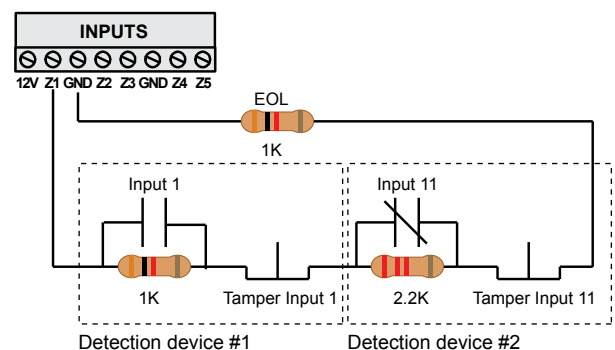


WIRE SHORT supervision: NO

WIRE CUT supervision: YES (Detected as INPUTS CUT)

Doubled with WIRE SHORT and WIRE CUT Supervision (2 Detection Device on the Input)

When using this method, two device can be connected to the input. The input must be connected using two Contacts (NO or NC: programmable per INPUT in Software) as described in the following figure. This setup will support WIRE CUT and WIRE SHORT supervision and will generate an alarm condition when the state of one of the input is breached.



WIRE SHORT supervision: YES
(Detected as INPUTS SHORT)

WIRE CUT supervision: YES
(Detected as INPUTS CUT)

ATRIUM A22

2-Door Controller

DOOR LOCK DEVICES

Each controller has two lock outputs. The LOCK OUTPUT can be configured to provide power (750mA @ 12Vdc), see "Jumper Settings" on this page, the LOCK OUTPUT is protected by a fuseless protection algorithm and will shutdown if the current exceeds 750mA @ 12Vdc. When a different voltage or more current is required, we recommend to use the RELAY OUTPUT configuration (see "Wiring Diagram of Locking Device", page 22).

- If you have one door with a reader on each side of the door, you can use either lock output.
- You can program the lock outputs to function in "fail-safe" (remove power to unlock a door) or "fail-secure" mode (power required to unlock a door).
- When using electromagnetic door locks or similar devices ensure that the current specifications are not exceeded.



Always consult the regulatory agency in your area for existing regulations regarding doors designated as emergency exits.

Jumper Settings

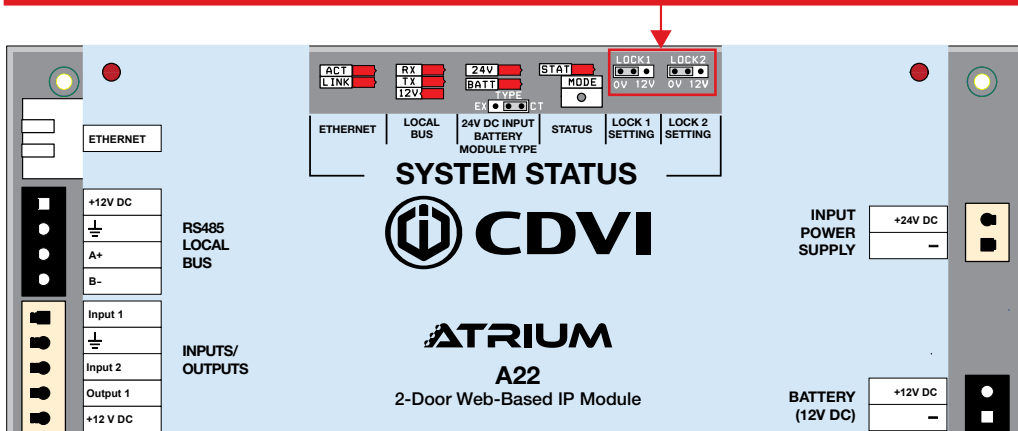
The jumpers LOCK1 and LOCK2 must be set according to the door devices used (see "Wiring Diagram of Locking Device", page 22).

If the lock (or electromagnetic) requires 24Vdc, you may program", page 22. The same applies if the Locking Device requires an alternating current supply (Vac).

Lock Output Jumper Settings

There are two jumpers, one for each lock output, LK1 and LK2. Each output provides 750mA at 12VDC

<p>Jumper Side View</p> <p>0V 12V</p>	<p>Default setting: The lock output will be at 0Vdc in normal state and toggles to 12Vdc during the unlock time. (De-energize lock output)</p>	<p>or</p>	<p>The lock output will be at 12Vdc in normal state and toggles to 0Vdc during the unlock time. This is the typical setting for electromagnetic door lock. (Energize lock output)</p>	<p>Jumper Side View</p> <p>0V 12V</p>
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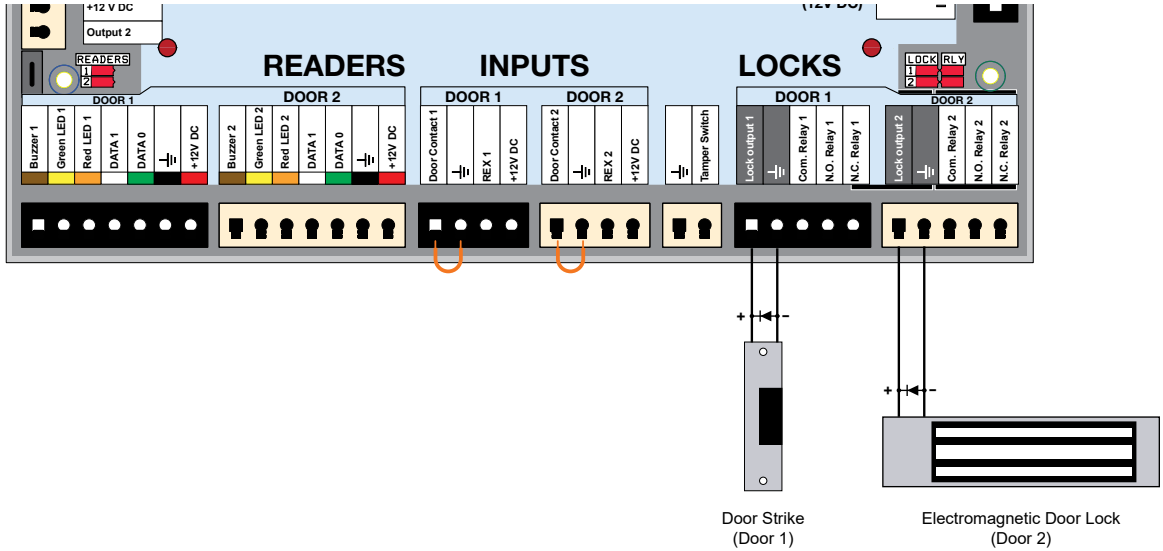


ATRIUM A22

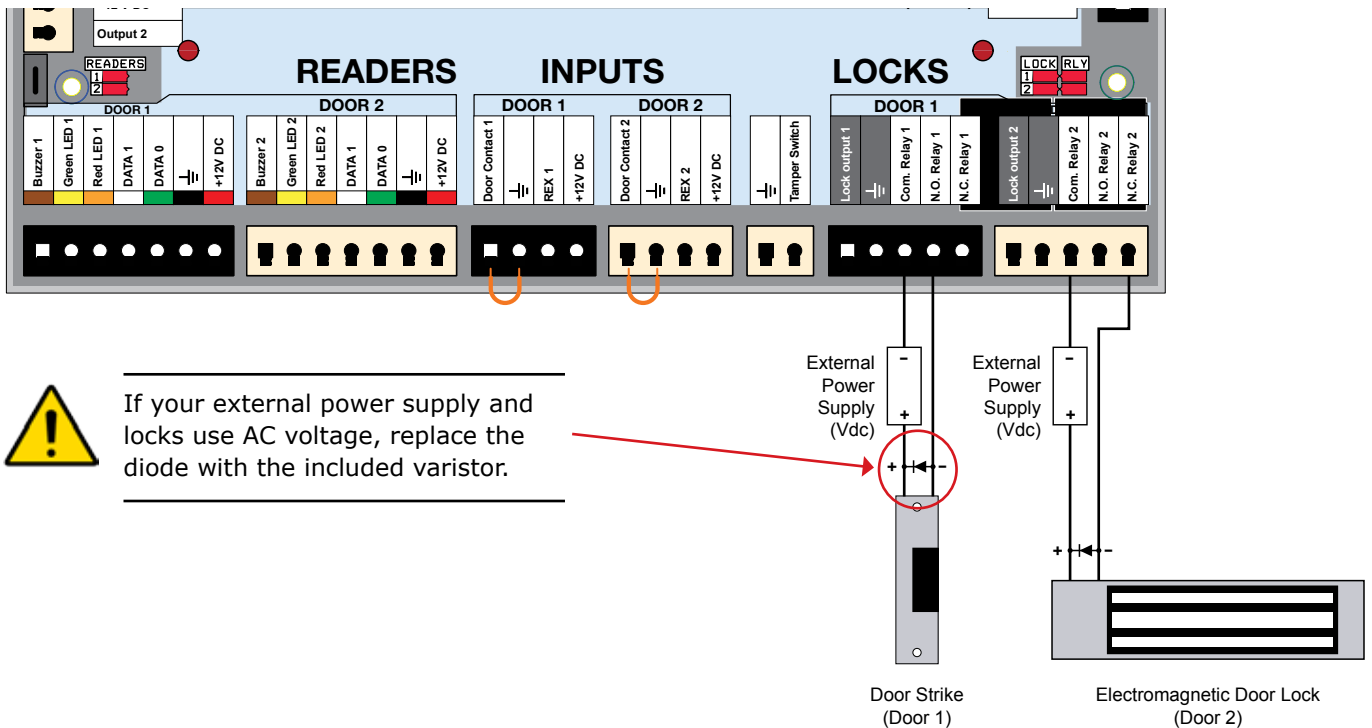
2-Door Controller

Lock Device Wiring Diagram

Using On-Board Power Supply



Using External Power Supply



See "Recommended Wiring" section for more information on wiring type, size, and maximum length.

ATRIUM A22 2-Door Controller

POWER SUPPLY



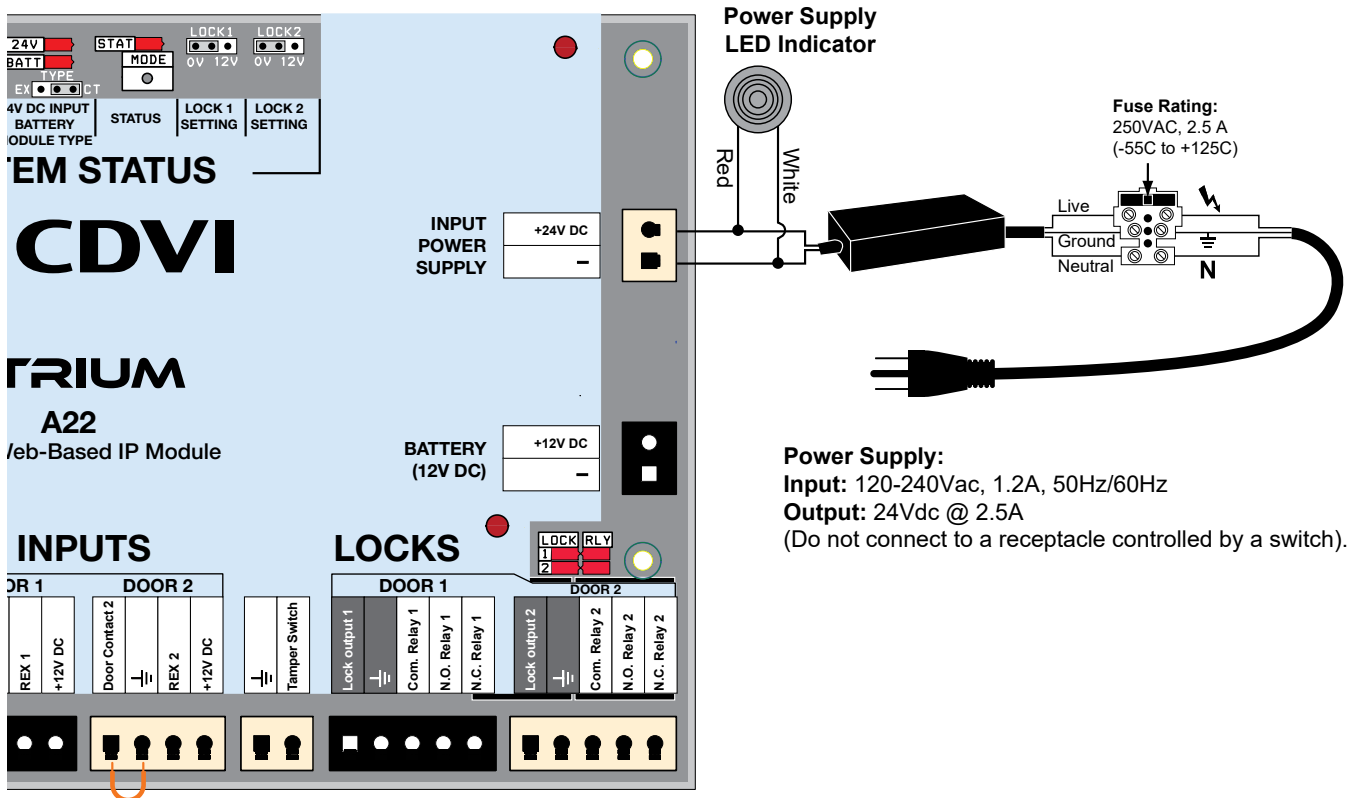
Do not power up the A22 until all connections are completed.

The module operates from any 120/240 Vac sources using the supplied AC/DC power supply and provides fully monitored power solutions using:

- Smart Battery Deep discharge prevention with automatic electronic cut-off.
- Programmable & Adaptive battery charging algorithm (250mA (default), 320mA, 500mA, or 1A).
- Intelligent battery monitoring & charging algorithms allowing optimum performance using standard lead acid or gel cell type batteries.
- Real Time Monitoring algorithm for 'Battery Low/Disconnect/Reversal' and 'Insufficient Main Power'.

AC Source

The AC to DC power supply is pre-installed in the A22 box but needs to be connected to the PCB. Simply plug the two pin terminal to the input power supply.



See "Recommended Wiring" section for more information on wiring type, size, and maximum length.

ATRIUM A22

2-Door Controller



The Minimum Size Equipment Conductors for the AC mains required are 14 AWG if made of Copper or 12 AWG if made of Aluminium or Copper-Clad Aluminium. Do not use any switch-controlled outlets to power the system. The system is to be connected to a 15A receptacle or circuit.



For PERMANENTLY CONNECTED EQUIPMENT, a readily accessible disconnect device shall be incorporated external to the equipment.



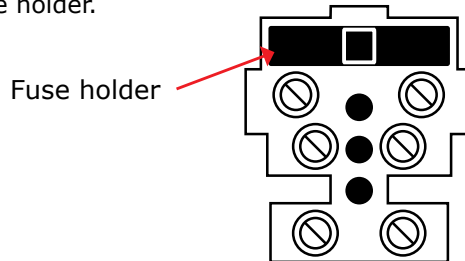
For PLUGGABLE EQUIPMENT, the socket-outlet shall be installed near the equipment and shall be easily accessible.

AC Terminal Fuse



The following steps are only presented in case you need to replace the AC terminal fuse.

1. Disconnect the AC power cord from the power source or for permanent installation, turn off the power breaker¹.
2. Open the AC compartment at the top left to access the fuse holder.
3. Pull out the fuse holder.
4. Replace the fuse using the same fuse type:
 250VAC, 2.5 A, Time Lag, Slow Blow,
 Operating Temperature: -55°C to +125°C.



Permitted replacements:

- a) Littelfuse P/N 021802.5MXP
- b) Schurter P/N 0034.3121
- c) Various (means any type, from any manufacturer that complies with the "Technical Data and securement means" and meets the "Mark of conformity" can be used).

5. Replace the fuse holder in its location.
6. Close the AC compartment.
7. Connect the AC power cord to the power source or for permanent installation, turn on the power breaker¹.



¹. For permanent installation, this step must be done by a qualified person in accordance with your local safety regulations.

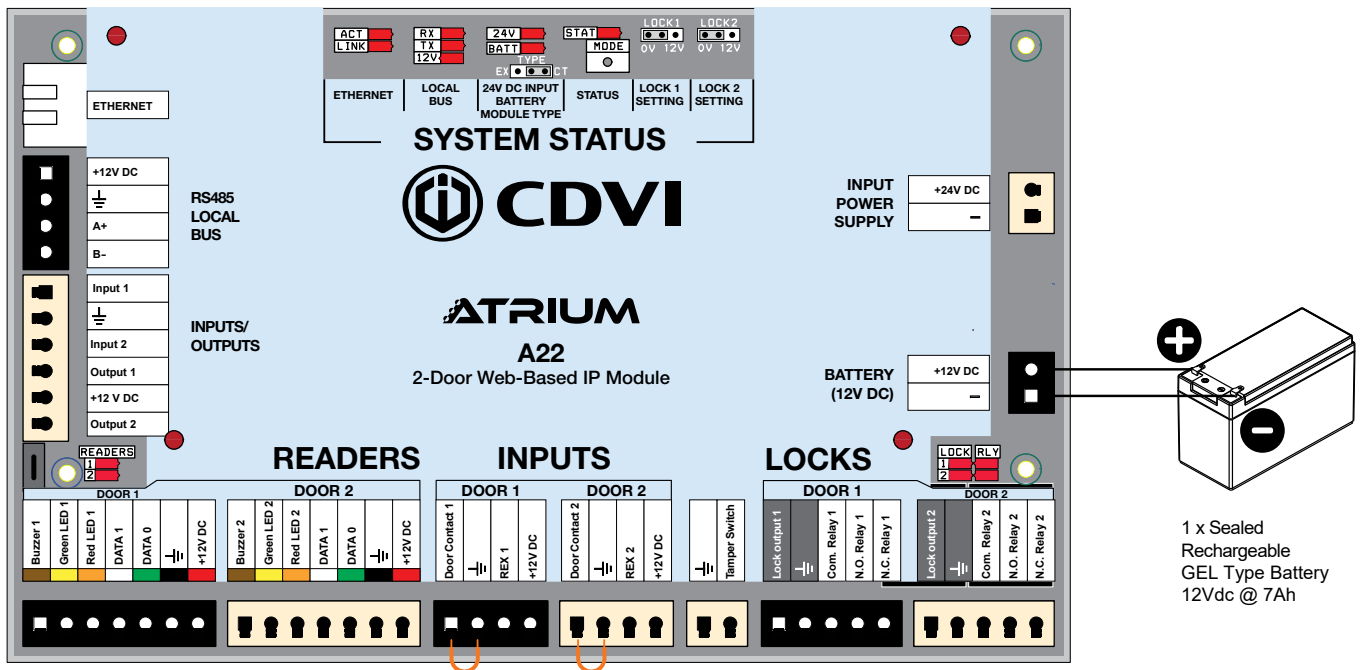
ATRIUM A22

2-Door Controller

BATTERY BACKUP

The A22 cannot be started on battery power only. Battery backup time varies with each system. Typical backup time is between 2 and 20 hours using standard equipment and settings.

Wire a 12Vdc (either 4.5Ah or 7Ah) gel type battery and then connect it to the BATT "+" and "-" terminals with the battery leads supplied.



1 x Sealed Rechargeable GEL Type Battery 12Vdc @ 7Ah



Always make a power down / power up of the A22 module after changing a dead battery. This will reset the battery charging circuit.



12Vdc 7Ah rechargeable acid/lead or gel cell backup battery (UL/ULC: YUASA #NP7-12 recommended, Europe: CDVI B7AH recommended). Ensure proper polarity. Various (means any type, from any manufacturer that complies with the "Technical Data and securement means" and meets the "Mark of conformity" can be used).



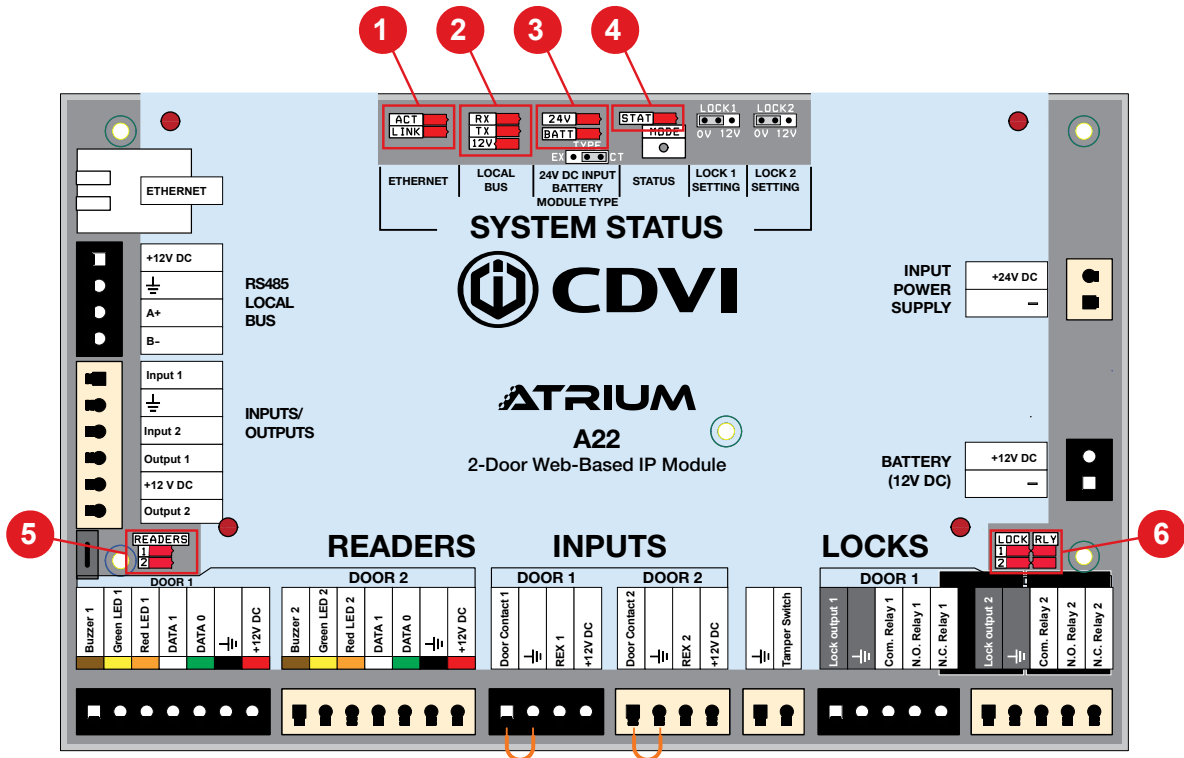
The battery charge current can be set to either 250mA (default), 320mA, 500mA, or 1A. Refer to the ATRIUM user interface instruction manual for more information on how to modify the battery charging current.

ATRIUM A22

2-Door Controller

LED INDICATORS

The ATRIUM A22 has several status LEDs that are very useful to diagnose problems when using or installing the ATRIUM system. Refer to the following picture to locate the LEDs on the ATRIUM A22. All LEDs are explained in the following pages.



1	ETHERNET	ACT	Green LED flashing: Data transmitted/received.		
		LNK	Green LED: Ethernet network detected.		
2	LOCAL BUS	RX	Green LED flashing: Data received on local bus.		
		TX	Green LED flashing: Data transmitted on local bus.		
		12V	Green LED: 12V on local bus.		
3	24Vdc Input / Battery	24V	DC IN Green LED: A22 is powered properly. Red LED: No primary power.		
		BATT	BATT Green LED: Primary power present and battery charging.		
			Off LED: Primary power present and battery full.		
			Red LED: No battery or battery not properly connected. Red LED flashing: Battery power is below 11.8Vdc.		
4	STATUS	STAT	Flash once per second: Firmware is operating normally. Flash rapidly: Firmware is upgrading. Blink once per 3 seconds: Card enrollment mode.		
		5	READERS	#1	Green LED flashing: Data received from Reader #1.
				#2	Green LED flashing: Data received from Reader #2.
6	LOCK & RELAY	LOCK 1	Green LED: Door 1 Lock Relay is active/triggered.		
		LOCK 2	Green LED: Door 2 Lock Relay is active/triggered.		
		RLY1	Green LED: Auxiliary Relay 1 is active/triggered.		
		RLY2	Green LED: Auxiliary Relay 2 is active/triggered.		

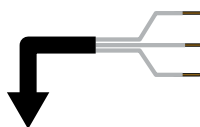
ATRIUM A22 2-Door Controller

ETHERNET NETWORK CONNECTION & RS485 BUS

The ATRIUM A22 provides a 10/100Mbps Ethernet port to allow direct connection from a local PC or interconnect to an existing LAN/WAN. Connect the Ethernet 10/100 Mbps port of the ATRIUM A22 to a LAN or WAN network using an UTP cable (maximum 100m (300ft)). Connect expansion modules on a 3 conductor RS485 communication loop in daisy chain or star configuration up to 1220m (4000 ft) from the ATRIUM controller.

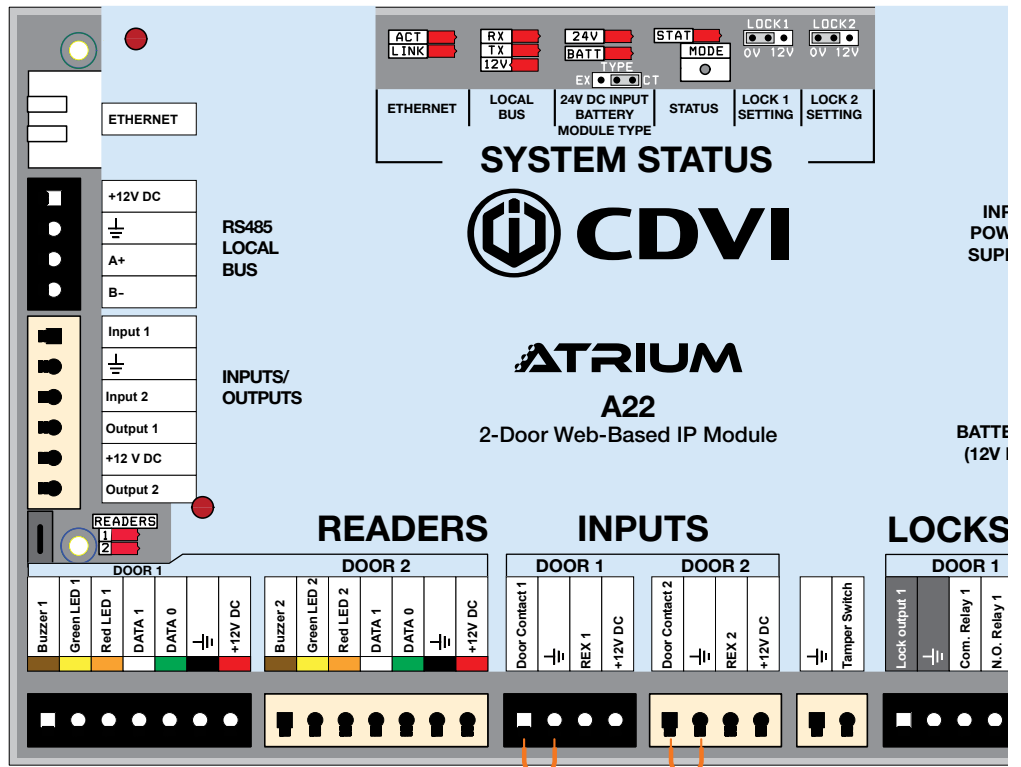
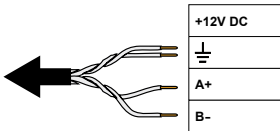


Ethernet @ 10/100 Mbps
Maximum 100m (300ft.)



Furthest ATRIUM module can be up to 1220m (4000ft) from the A22.

In noisy environments use twisted pair wiring as shown below:



ATRIUM A22

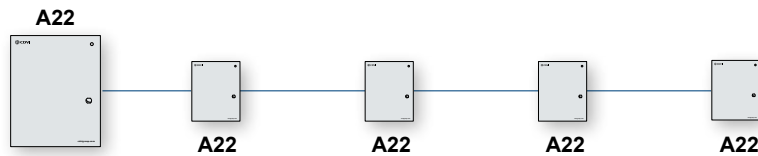
2-Door Controller

EXPANDER MODULES TO THE CONTROLLER

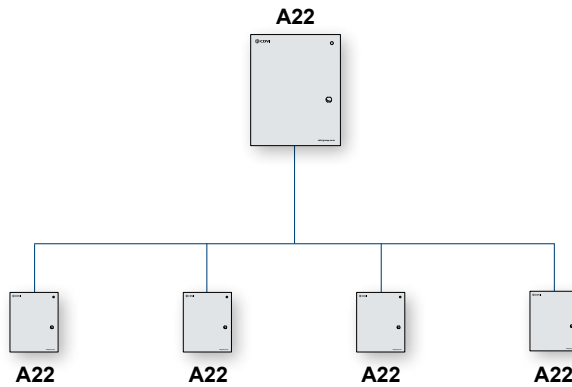
The A22 has a RS485 LOCAL BUS terminal allowing the connection with the ATRIUM expander module. The RS485 LOCAL BUS communication is up to 1220 m (4000 ft) maximum distance. One A22 can support up to four A22 expansion modules. Refer to "Module type configuration (controller or expander)" on page 15 to set an A22 as an expander.

Connect the expander modules using these topologies:

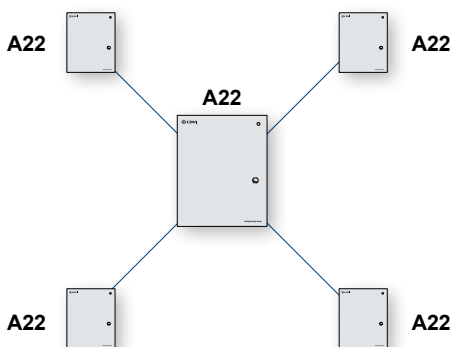
DAISY CHAIN



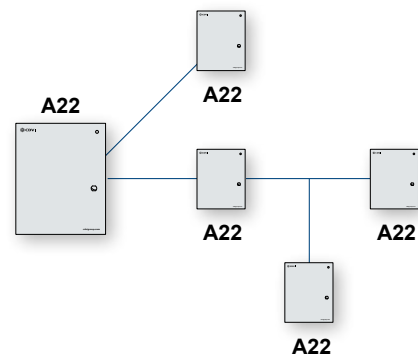
BUS



STAR



MIXED DAISY CHAIN/BUS/STAR



ATRIUM A22

2-Door Controller

6] PROGRAMMING

The stand-alone card enrollment allows you to add or delete user cards without the need of a PC.

CARD ENROLLMENT PROCEDURE (ADD OR DELETE CARDS WITHOUT A COMPUTER).

1. Present the MASTER card to a reader.
The door will unlock, keep it open.
(The door must be equipped with a door contact)
2. Within 5 seconds, present the PROGRAMMING card to the reader.
Reader LEDs will begin flashing in sequence
(2 Red flashes + 2 Green).
Enrollment mode is active.
3. Present cards, one by one, to the reader.



Master Card



Programming card

NEW cards will be ADDED.

Green LED will flash and a quick beep will be emitted.

Each new card will create a user and attribute the card to the user

EXISTING cards will be DELETED.

Red LED will flash and a long beep will be emitted.

4. Present the PROGRAMMING card again to stop enrollment mode.
The flashing sequence (2 Red flashes + 2 Green) will stop.



The card enrollment learning mode ends when no new card is presented for 5 minutes.

For other card enrollment methods, refer to the "ATRIUM Software" user guide.

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7] Warranty - Terms & Conditions

The "5 Year Warranty" is offered by CDVI exclusively for CDVI products featuring the logo "5 Year Warranty", and supplied by authorized CDVI dealers participating in the offer. You can obtain the address of the local authorized dealer participating in the offer by contacting CDVI or a local CDVI subsidiary. The "5 Year Warranty" is only applicable to hidden defects detected during the lifetime of the product, as defined by the CDVI Group (5 years or 200 000 operations - whichever of the two expires first).

The "5 Year Warranty" conditions shall not modify the sales conditions between CDVI and its customers.

DURATION OF THE OFFER:

- This offer is valid from July 1st 2010; CDVI reserves the right to terminate this offer without prior notice.
- However, any product already registered up to the date of withdrawal of the offer will remain eligible for the "5 Year Warranty".
- The warranty applies only to the available products mentioned in the above statement.

CONDITIONS :

- Hidden defects are guaranteed for an unlimited shelf life (period of time before use).
- To be eligible for the "5 Year Warranty", the product must be registered at CDVI within one month of its delivery to the end user, by completing in and returning back the "warranty" form by fax, email or post to the local CDVI subsidiary. This information may also be registered on line at www.cdvigroup.com.
- Only the issue of the "5 Year Warranty" certificate by CDVI can confirm product registration; CDVI may not be held responsible in the event of loss or non-presentation of the form.
- The "5 Year Warranty" only applies to products installed by a skilled and experienced personal with the necessary trade qualifications to install according to the highest standards, respecting the standards, instructions and guidelines defined by CDVI and according to the maximum recommended specifications.
- To enable CDVI to determine whether a product is eligible to claim for the "5 Year Warranty", after prior issue of a return of materials authorization number (RMA) by CDVI, the customer must return the product and all of its accessories in the original packaging with a copy of its invoice. The transport fees shall be paid by the customer and the package must be returned to CDVI or to a CDVI authorized repair centre.
- Eligibility for the "5 Year Warranty" cover must be confirmed by CDVI.
- The "5 Year Warranty" only covers the replacement or repair of the parts acknowledged as faulty by CDVI.
- CDVI reserves the right to respect its obligation by replacing the product or the parts acknowledged as faulty by a standard part replacement or by a product or new parts, or by an updated or improved version of the product with identical or similar functionalities.
- In respect of the applicable law, CDVI cannot be held responsible for material or immaterial damages caused to goods or to third parties and as a direct or indirect result of the installation, utilization, product faults or poor functioning of a device.
- The "5 Year Warranty" is non-assignable and non-transferrable; only the person who registered the aforementioned warranty may benefit from the warranty.
- The "5 Year Warranty" is limited to the eligible product and is strictly limited to the conditions in effect on the date of purchase by the customer.

ATRIUM A22
2-Door Controller

NOT COVERED BY THE "5 YEAR WARRANTY":

- Any product which has undergone even the slightest modification or change;
- Any product which has been installed and/or used with any auxiliary device not supplied by CDVI;
- Any product which has been used for demonstrations or display;
- Any product or its elements considered as "consumables" such as fuses, lights and batteries for example;
- Failure or malfunctioning as a result of an accident, poor storage conditions, unsuitable assembly, bad utilization or handling, poor maintenance, unsuitable repair or intervention.
- Any call-out and installation fees (for assembly and dismantling) as well as transport costs (to and from the repair centre) and maintenance fees.

THE INSTALLER'S RESPONSIBILITIES:

When registering the 5 Year Warranty on line, the installer is responsible for the information supplied. In case of errors, the 5 Year Warranty will not be applicable.

NOTES:

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HOW TO ORDER REPAIR PARTS

DEVANCO CANADA

19192 HAY ROAD, UNIT Q
SUMMERSTOWN, ON K0C 2E0

TOLL FREE: 855-931-3334
www.devancocanada.com

**WHEN ORDERING REPAIR PARTS
PLEASE SUPPLY THE FOLLOWING INFORMATION:**

- ✓ PART NUMBER
- ✓ DESCRIPTION
- ✓ MODEL NUMBER