



X1 SERIES SINGLE-DOOR AND MULTI-DOOR ACCESS CONTROLLER COMPLIANCE GUIDE



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UL ACCESS CONTROL

Authority Having Jurisdiction

The access relay must be configured as fail-safe or fail-secure as determined by the local Authority Having Jurisdiction (AHJ).

Listed Panic Hardware

This door controller is not intended to be used in place of listed panic hardware.

X1 Location

For listed installations, the X1 must be installed within the protected area.

Power Supply

The power supply must be a listed commercial burglary/household fire, power limited, Class 2 with a compatible voltage range for the product. Do not connect to an outlet controlled by a switch.

All output circuits are Class 2 power limited.

The X1 can be powered by a 12 or 24 V DC or AC power supply or UL 294 listed POE switch.

POE power to be supplied by a UL 294 Listed, power limited, injector providing 44-57 VDC and 15.40 W for maximum output (POE).

POE power to be supplied by a UL 294 Listed, power limited, injector providing 50-57 VDC and 30.0 W for maximum output (POE+).

POE power to be supplied by a UL 294 Listed POE+ Midspan or Endspan providing 44-57 VDC and 30 W for maximum output.

Outside Wiring

This product is not intended for outside wiring as covered by Article 800 in the National Electrical Code, NFPA 70.

Category 5e Cabling

Category 5e cabling is minimum performance category recommended. The performance category utilized should match the transmission speed required at the installation site.

National Electrical Code

The equipment is intended to comply with the following sections of the National Electrical Code, ANSI/NFPA 725.121.

Conductor Gauge

The minimum conductor gauge permitted to connect between the PSE or power injector and the PD shall be 26 AWG (0.13 mm²) for patch cords; 24 AWG (0.21 mm²) for horizontal or riser cable.

Cat 5 568-B

Use Cat 5 568-B wiring for connections. See Figure 1.

Compliance with IEEE 802.3 (at or af) specifications was not verified as part of UL 294.

Output 1 & 2 Connection Length

Connections to output 1 and 2 must be less than 98.5 feet.

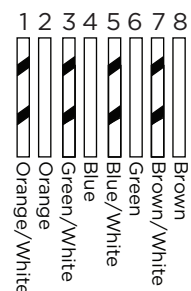


Figure 1: Cat 5 568-B Wiring

X1 DOOR CONTROLLER

Use 22-18 gauge wire for all field wiring connections.

Voltage range for +12 output is 9.53 - 13.53 VDC.

X1 firmware version 211 evaluated by Intertek.

Warning: Refer to your local state regulations before connecting to building power. Wiring methods shall be in accordance with NEC, NFPA72, ANSI, and with all Authority Having Jurisdiction.

Wire the Input Power

Connect the transformer wires or external power to terminals 1 and 2 on the Door Controller. Use no more than 70 ft. of 16 gauge or 40 ft. of 18 gauge wire between the transformer and the Door Controller.

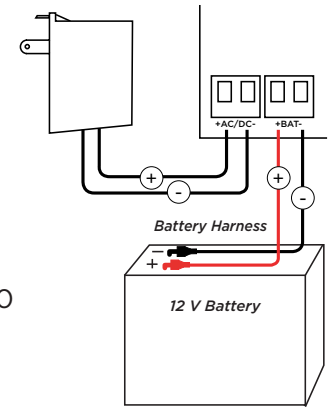
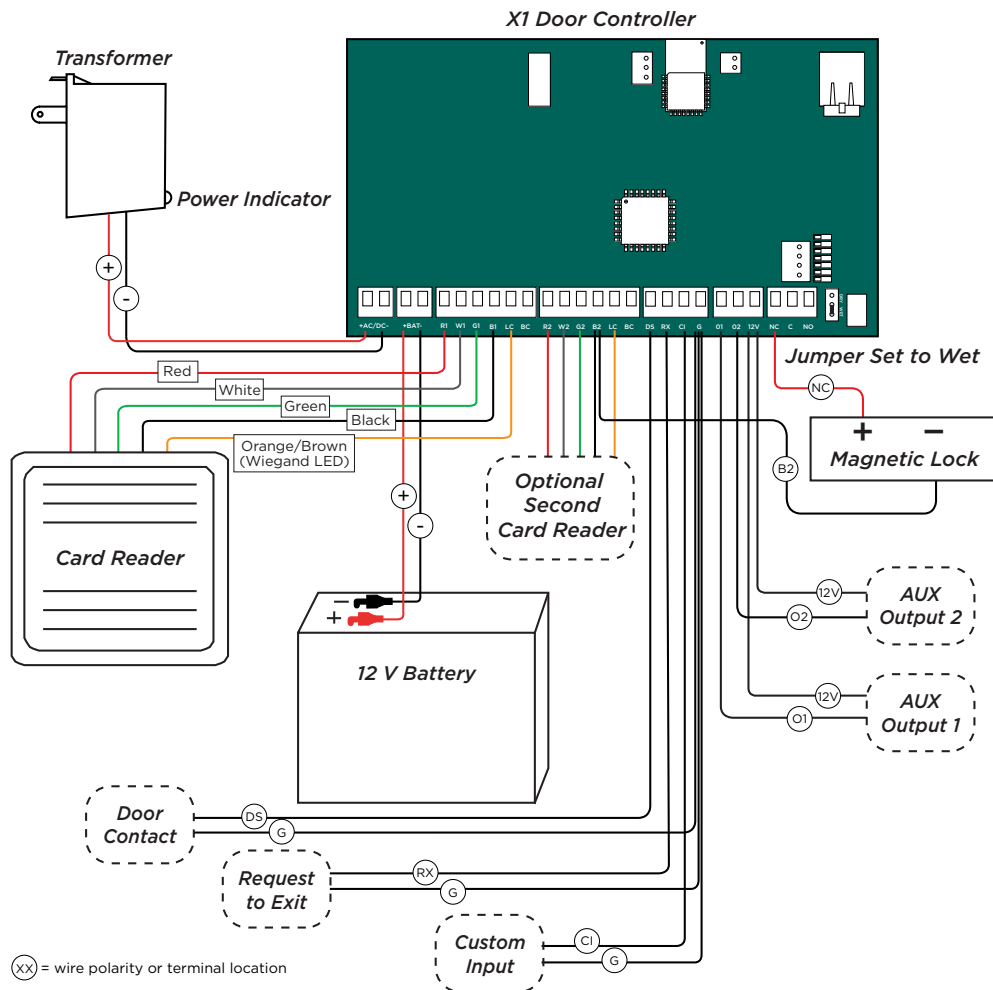
Wire the Battery

Connect the red battery lead to the battery positive terminal. Connect the black battery lead to the negative battery terminal. Observe polarity when connecting the battery.

The X1 was evaluated for 4 hours of standby power (level IV) using the UPG UB1290

Wiring Example

The diagram here shows the transformer and the battery wiring. It also shows a possible application with an electronic lock wired normally closed with wet contacts.



X1-8 DOOR CONTROLLER

Voltage range for +12 output is 9.53 - 13.53 VDC.

Ground the Door Controller

Be sure to secure the green wire lead to an earth ground. Connect to a cold water pipe, ground rod, or building ground when available. Connection to an electrical ground or conduit can also be used. Gas pipes or sprinkler pipes should not be used.

Wire AC Power

Connect an unswitched 120 V AC 60 Hz power source to the transformer. Knockouts are supplied for power input.

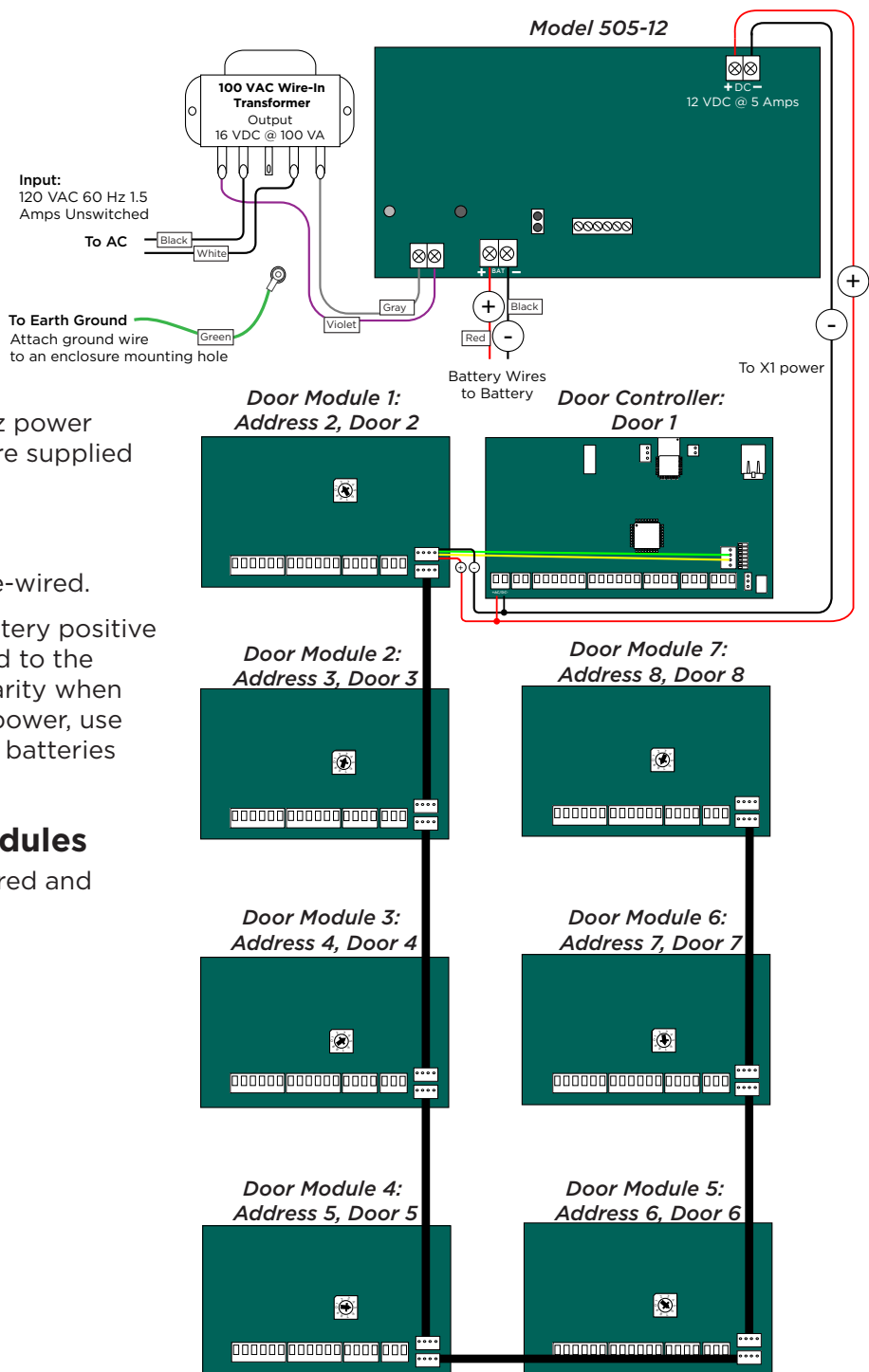
Wire the Battery

The battery leads for the X1-8 come pre-wired.

Connect the red battery lead to the battery positive terminal. Connect the black battery lead to the negative battery terminal. Observe polarity when connecting the battery. For additional power, use the [318 Battery Harness](#) with additional batteries wired in parallel.

Wire the XD Door Control Modules

The door control modules come pre-wired and addressed in the order shown here.



FCC INFORMATION

This device complies with Part 15 of the FCC Rules. 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.

The antenna used for this transmitter must be installed to provide a separation distance of at least 20 cm (7.874 in.) from all persons. It must not be located or operated in conjunction with any other antenna or transmitter.

Changes or modifications made by the user and not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.



Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

1. Reorient or relocate the receiving antenna.
2. Increase the separation between the equipment and receiver.
3. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
4. Consult the dealer or an experienced radio/TV technician for help.

INDUSTRY CANADA INFORMATION

This device complies with Industry Canada Licence-exempt RSS standards. Operation is subject to the following two conditions:

1. This device may not cause interference, and
2. this device must accept any interference, including interference that may cause undesired operation of the device.

This system has been evaluated for RF Exposure per RSS-102 and is in compliance with the limits specified by Health Canada Safety Code 6. The system must be installed at a minimum separation distance from the antenna to a general bystander of 7.87 inches (20 cm) to maintain compliance with the General Population limits.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

1. *l'appareil ne doit pas produire de brouillage, et*
2. *l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.*

L'exposition aux radiofréquences de ce système a été évaluée selon la norme RSS-102 et est jugée conforme aux limites établies par le Code de sécurité 6 de Santé Canada. Le système doit être installé à une distance minimale de 7.87 pouces (20 cm) séparant l'antenne d'une personne présente en conformité avec les limites permises d'exposition du grand public.

X1 & X1-8 DOOR CONTROLLER

Specifications

Power

X1

Input	12 V - 24 V AC/DC 2A
Battery	1.5 Ah (recommended), 9 Ah (max)
Power Output Max*	1.5 A; PoE 750 mA
O1, O2 Max	50 mA

X1-8

Input	12 V DC
Battery	2 x 9 Ah (recommended) 2 x 12 Ah (max)

Power Output Max**

505-12	5 A
X1	1.5 A
XD	750 mA
O1, O2 Max	50 mA

Communication Options

X1

Ethernet	10/100
Wi-Fi	2.4 GHz b/g/n
Cellular	263LTE-A-X1 (X1), 263LTE-V-X1 (X1)

X1-8

Ethernet	10/100
Wi-Fi	2.4 GHz b/g/n
Cellular	263LTE-A-Z1/381-2 (X1-8), 263LTE-V-Z1/381-2 (X1-8)

Mechanical

X1

Enclosure Dimensions	6.5" W x 8" H x 3" D 16.5 cm W x 20.3 cm H x 7.6 cm D
Weight	4 lbs

X1-8

Enclosure Dimensions	14.5" W x 32" H x 4" D (lid adds 0.5" on each side) 36.8 cm W x 81.3 cm H x 10.2 cm D (lid adds 1.3 cm on each side)
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Weight	34 lbs
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Environmental

Temperature	0 ° C to 49 ° C 32 ° F to 120 ° F
Humidity	5% to 85% RHNC



Compatibility

X1

263LTE-A-X1 (X1)	Cell Module
263LTE-V-X1 (X1)	Cell Module
X1-POE	PoE Module
X1PCB	PCB Replacement
X1-OUT-EXP	X1 Output Expansion Module

X1-8

263LTE-A-X1/381-2 (X1-8)	Cell Module for AT&T
263LTE-V-X1/381-2 (X1-8)	Cell Module for Verizon
X1-8PCB	X1-8 PCB Replacement
XDPCB	XD PCB Replacement
X1-OUT-EXP	X1 Output Expansion Module

Certifications

X1

ANSI/UL 294	Access Control System Units
Level I	Destructive Attack and Line Security
Level IV	Endurance and Standby Power

X1-8

ANSI/UL 294	Power Supplies for Access Control System Units
Level I	Destructive Attack and Line Security
Level IV	Endurance and Standby Power

Manufacturer's Limited Warranty

3 Year warranty against defects in materials and workmanship. Visit DMP.com for full details.

*Max Power output is a board's total available power for all attached equipment

**The 505-12 is factory-wired to supply power to all included modules. If door hardware exceeds 5 A an additional power supply will be required.



*Designed, engineered,
and manufactured in
Springfield, Missouri*

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