AC-215x-B Series

2-Reader Networked
Access Control Panel

Hardware Installation Manual and User Guide

<u>Models</u>:
AC-215-Bx
AC-215-DIN
AC-215IP-Bx
AC-215IP-DIN

ROSSLARE
SECURITY PRODUCTS

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Notice and Disclaimer

This manual's sole purpose is to assist installers and/or users in the safe and efficient installation and usage of the system and/or product, and/or software described herein.

BEFORE ATTEMPTING TO INSTALL AND/OR USE THE SYSTEM, THE INSTALLER AND THE USER MUST READ THIS MANUAL AND BECOME FAMILIAR WITH ALL SAFETY REQUIREMENTS AND OPERATING PROCEDURES.

- The system must not be used for purposes other than those for which it was designed.
- The use of the software associated with the system and/or product, if applicable, is subject to the terms of the license provided as part of the purchase documents.
- ROSSLARE exclusive warranty and liability is limited to the warranty and liability statement provided in an appendix at the end of this document.
- This manual describes the maximum configuration of the system with the maximum number of functions, including future options. Therefore, not all functions described in this manual may be available in the specific system and/or product configuration you purchased.
- Incorrect operation or installation, or failure of the user to effectively maintain the system, relieves the manufacturer (and seller) from all or any responsibility for consequent noncompliance, damage, or injury.
- The text, images and graphics contained in the manual are for the purpose of illustration and reference only.
- All data contained herein subject to change without prior notice.
- In no event shall manufacturer be liable for any special, direct, indirect, incidental, consequential, exemplary or punitive damages (including, without limitation, any and all damages from business interruption, loss of profits or revenue, cost of capital or loss of use of any property or capital or injury).
- All wiring diagrams are intended for reference only, the photograph or graphic of the PCB(s) are intended for clearer illustration and understanding of the product and may differ from the actual PCB(s).

1. Introduction

> 🖉 In this manual, unless otherwise stated, "AC-215x-B" refers to both the regular
> **Note** AC-215-B and the AC-215IP-B moels

The AC-215x-B series of access control panels are networked access controllers, employing the latest technology to meet the requirements of the market.

Table 1 summarizes the AC-215x-B models and their respective descriptions.

Table 1: Description of AC-215x-B Panels

Model Name	Description
AC-215-BA	Installed in ME-1015 with Type I plug power cable, RS-485 connection
AC-215-BB	Installed in ME-1015 with Type G plug power cable, RS-485 connection
AC-215-BE	Installed in ME-1015 with Type F plug power cable, RS-485 connection
AC-215-BU	Installed in ME-1015 with Type B plug power cable, RS-485 connection
AC-215-DIN	PCBA only with wall /DIN rail mounting base, RS-485 connection
AC-215IP-BA	Installed in ME-1015 with Type I plug power cable, TCP/IP connection
AC-215IP-BB	Installed in ME-1015 with Type G plug power cable, TCP/IP connection
AC-215IP-BE	Installed in ME-1015 with Type F plug power cable, TCP/IP connection
AC-215IP-BU	Installed in ME-1015 with Type B plug power cable, TCP/IP connection
AC-215IP-DIN	PCBA only with wall /DIN rail mounting base, TCP/IP connection

> 🖉 The IP models also includes onboard support for communications across a
> **Note** TCP/IP network.

When used in combination with Rosslare's AxTraxNG™ software system, the AC-215x gives you full control over access to your premises. The system can control both single and double door entrances and up to two doors. AC-215x supports up to 30,000 users and uses flash memory to enable easy firmware upgrades. For more information on the AxTraxNG system, refer to the *AxTraxNG™ Software Installation and User Manual*.

The AC-215x comes either as a PCBA "DIN" module that can be wall or DIN rail mountable, or pre-assembled within the ME-1015 power management enclosure. The ME-1015 contains a universal switch mode power supply that

accepts inputs from 90 ~ 265 VAC (50 ~ 60 Hz) and outputs 60 watts, a power management board that provides two independently fused 12 VDC, 2 Amp power outputs – one for the controller and readers, and one for locks. The ME-1015 power management enclosure also includes an alert sounder, a lead acid battery charger for a lead acid battery of up 12 V and 7 Ah, and an intelligent light bar that provides enclosure lighting, an enclosure tamper sensor, and a power status LED indicator.

Figure 1 shows the general layout of the AC-215x panel.

Figure 1: AC-215x Panel
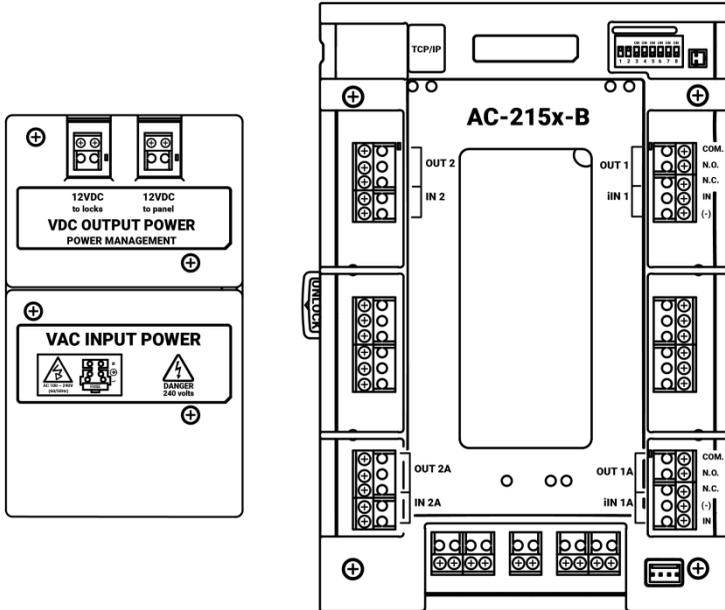
1.1   AxTraxNG

The AxTraxNG software system is designed to set up, manage, and supervise all aspects of an access control panel network.

Table 2 presents the AxTraxNG software capabilities:

Table 2: AxTraxNG Capabilities

Users capacity	30,000
Unauthorized Users	30,000
Access groups	30,000
Number of panels in system	1,023
Number of doors in system	4,092

> These options are software and firmware dependent, and may change in later releases or revisions.
> Note

1.1.1 Client-Server Structure

AxTraxNG operates through a dedicated AxTrax server computer, which communicates with the access control panels and can serve an unlimited number of network clients.

The server also runs the system's SQL database, which contains settings and definitions for access control across the entire facility. Clients can define new employees and control access permissions. The system includes tools for database backup, input and export of previous configurations and automatic backing-up on a periodic basis.

1.1.2 Configurable Links

The system's configurable links model makes it possible to trigger any chosen output automatically or report a configurable alarm, based on a selected input. This allows easy integration with related access systems such as intruder alarms, CCTV systems and elevator controls.

AxTraxNG can also define a selected set of operations (defined in configurable links) when a panel registers a specified user or group of users. This can be useful, for example, in elevator control systems. The system can assign users with counters, allowing a limited number of entries to each panel.

2. Technical Specifications

2.1 AC-215x-DIN

Electrical Characteristics

Operating Voltage	12 VDC, 1.5 A from a regulated power supply	
Maximum Input Current	AC-215	Standby: 80 mA Maximum: 325 mA
	AC-215IP	Standby: 120 mA Maximum: 370 mA
General Inputs	• 4 supervised high impedance inputs • Maximum voltage: 5 VDC	
Relay Outputs	4 Form C 5 Amp relay outputs	
Reader Ports	• 2 reader ports • Communication: Wiegand (D0, D1) or Clock & Data (C, D) • Output voltage to reader: 12 VDC • Max. current to reader: 245 mA • LED control output and Tamper Input	
Visual Indicators	11 LEDs for outputs and communication status	
Audio	Sounder output for use with compatible speakers provide chime, bell and siren signals	
Battery Standby Time	3 hours with a 12 V, 7 Ah lead acid battery	

Communication Characteristics

RS-485 / RS-232	• RS-485 or optional RS-232 • RS-485 connection by terminal block or MD-14U connector • RS-232 connection by terminal block
RS-232	Terminal Block
RS-485	Molex and Terminal Block
TCP/IP	On-board RJ-45 connector (functional on AC-215IP models only)
Selectable Communication Speed	9600, 19200, 57600, 115200 bps

Environmental Characteristics

Operating Temperature Range	0°C to 49°C (32°F to 120°F)
Operating Humidity Range	0 to 85% (non-condensing)

Dimensions

Height x Width x Depth	193 x 136.5 x 39 mm (7.6 x 5.4 x 1.5 in.)

Weight	0.36 kg (12.7 oz)

2.2   AC-215x Installed in ME-1015

Electrical Characteristics – Switch Mode Power Supply

Operating Voltage	90 ~ 265 VAC, 50 ~ 60 Hz from mains power
Maximum Input Current	1.5 A
Output Power	15 VDC, 4 A (60 Watts) to the power management board

Electrical Characteristics – Power Management Board (PM-10)

Input Power	15 VDC, 4 A to the power management board
Output Power	Two PTC fused outputs, each provides 13.8 VDC, 2 A One output for controller and readers One output for locks
Battery Charger	13.8 VDC, 300 mA for 12VDC, 7Ah Lead Acid Battery
Speaker	0.5 Watt, 8 Ohm
Light Bar	0.3 Watt for LED light

Environmental Characteristics

Operating Temperature Range	0°C to 49°C (32°F to 120°F)
Operating Humidity Range	0 to 85% (non-condensing)

Dimensions

Height x Width x Depth	365 x 264 x 97 mm (14.4 x 10.4 x 3.8 in.)
Weight	3.4 kg (7.5 lb)

3.   AC-215x Panel Setup

Each AC-215x panel controls one or two doors. The panels connect together in a network and are controlled by a central server computer, running the AxTraxNG software system.

Figure 2 shows an example setup for a network of AC-215x access control panels.

Figure 2: Sample AC-215x Configuration
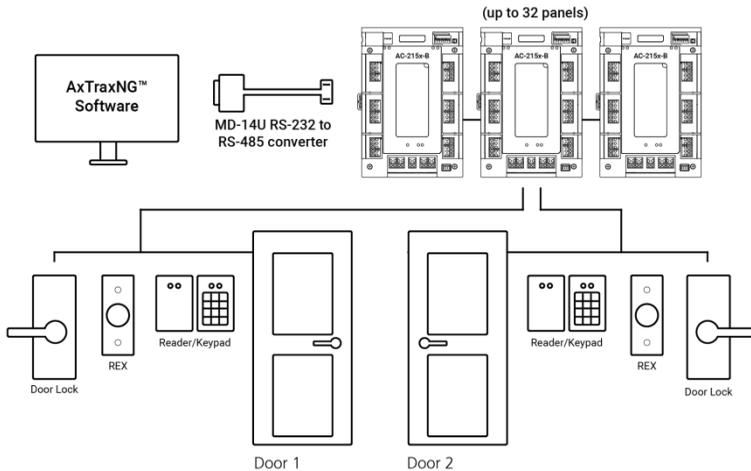
> ✏️ **Note** The use of bushings is required for any conductors leaving the enclosure through the provided openings.

3.1   Inputs Wiring – Non-Supervised Inputs

Figure 3 presents a detailed view of the non-supervised inputs and their connection options.

Figure 3: Inputs Wiring – Non-supervised Inputs
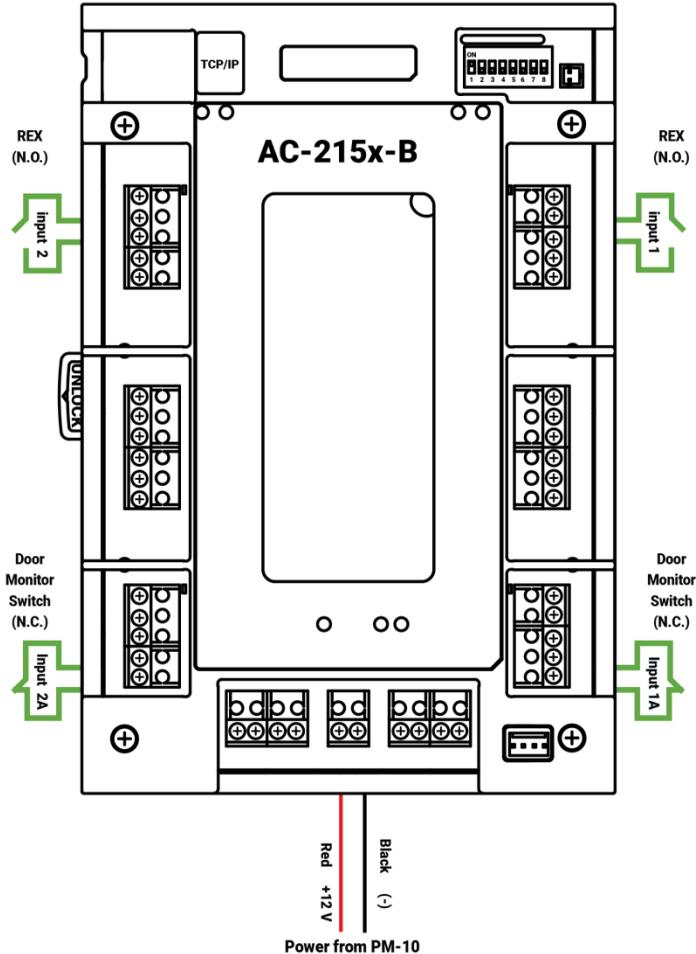
3.2   Inputs Wiring – Supervised Inputs

When wiring the AC-215x for supervised inputs, resistors should be placed on the input switch and not on the terminal block.

For further details, see Chapter 4.

3.3   Outputs Wiring

Figure 4 and Figure 5 illustrate wiring for two main types of 12 VDC electrical release mechanisms. Other electrical devices can be switched using the voltage free relay contacts.

Figure 4: Door Lock – Failed Close
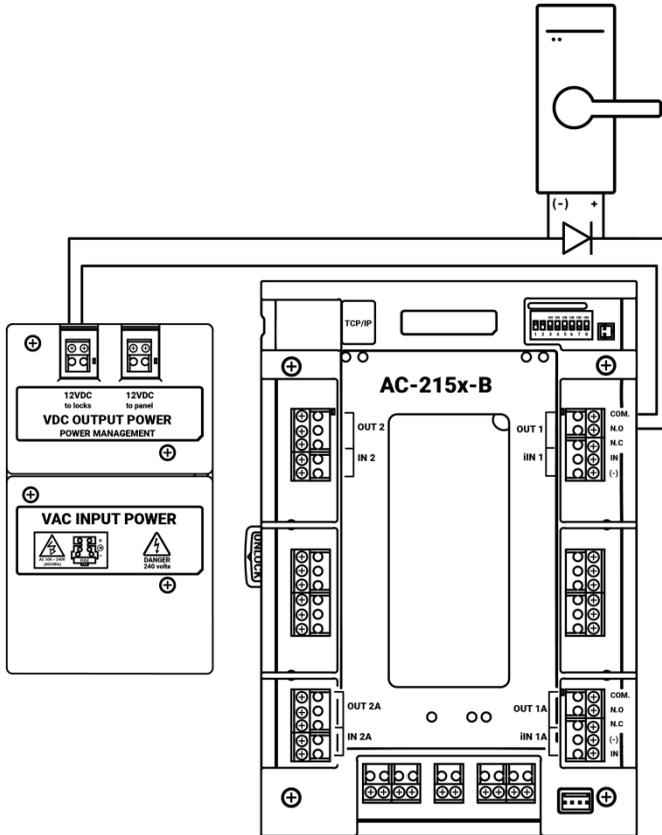
Figure 5: Door Lock – Failed Open
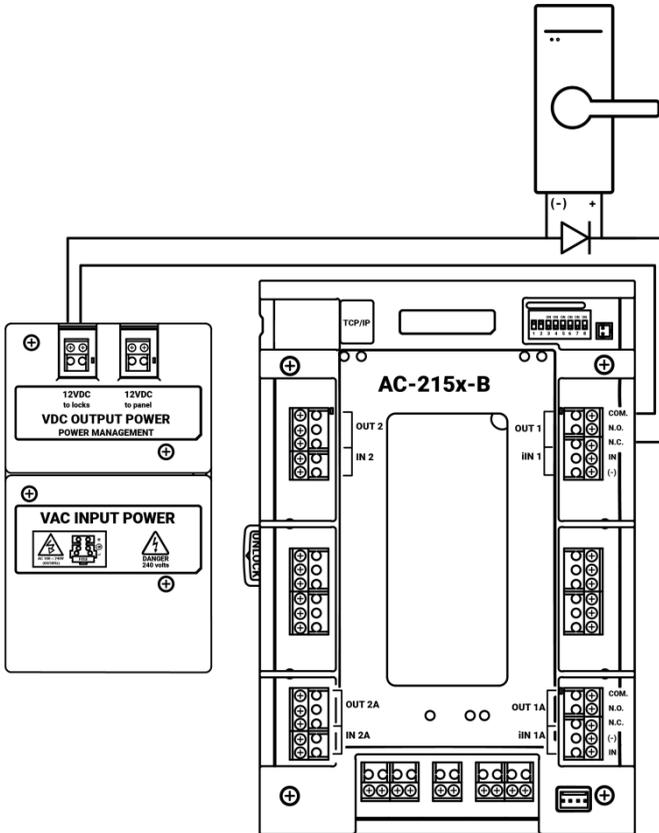
3.4   Power Supply

Figure 6 illustrates wiring between the PM-10 power management board and the AC-215x-B. Make sure the connection polarity is correct, (+) to (+) and (-) to (-). Connect the power to the input power terminals of the control panel. It is recommended to add a 12 VDC lead acid backup battery (requires the ME-1015 Power Management Enclosure) to have uninterrupted operation in case main power supply fails. A 12 V, 7 AH battery provides 3 hours of backup operation.

Figure 6: Wiring Between PM-10 and AC-215x-B
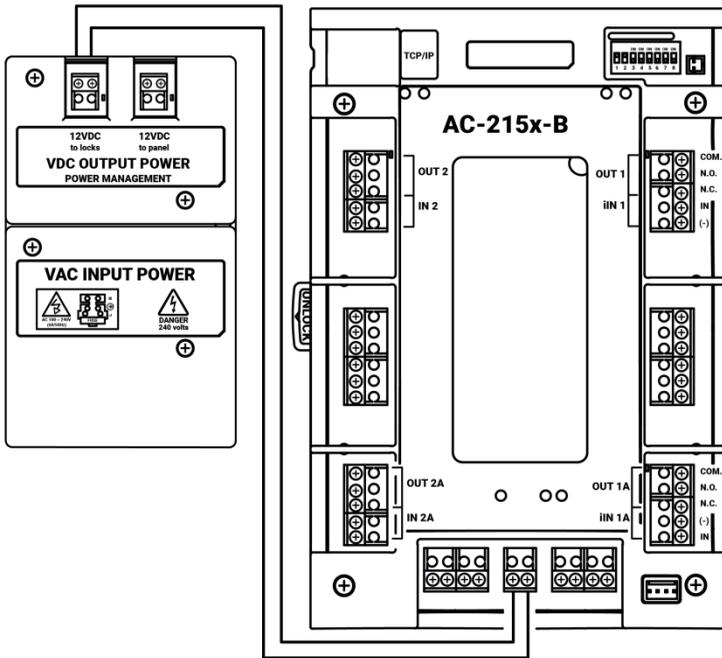
3.5 AC-215x-B Wiring Communications

Figure 7 presents a detailed view of the access control panel with all it wiring communications.

Figure 7: AC-215x-B Wiring Communications
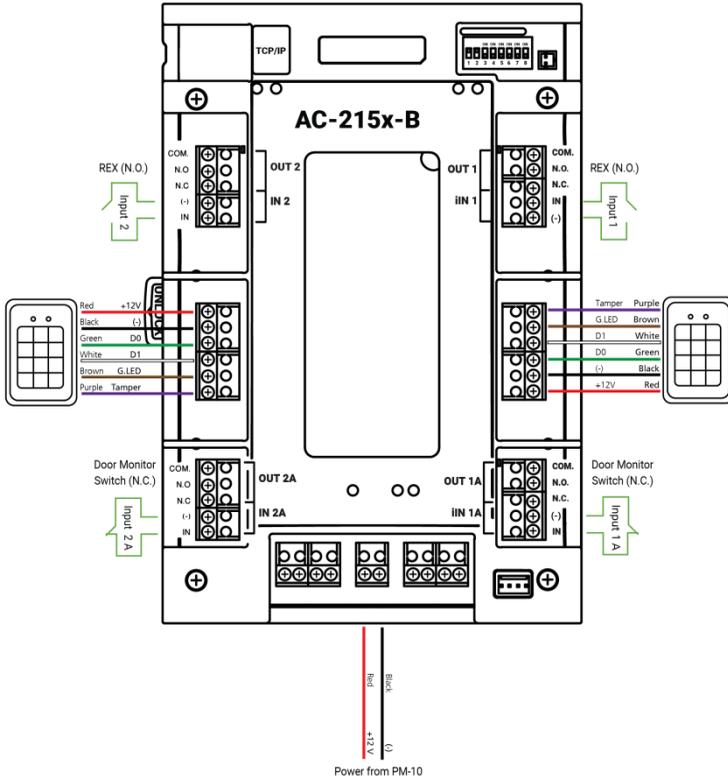
3.6   Reader

Readers are supplied with a limited cable length. When extending the wire, make sure to match the conductors to the correct terminals on the AC-215x panel (Figure 8).

Refer to the reader specifications for the maximum cable length (typically 150 m with an 18 AWG cable).

Figure 8: Reader Wiring
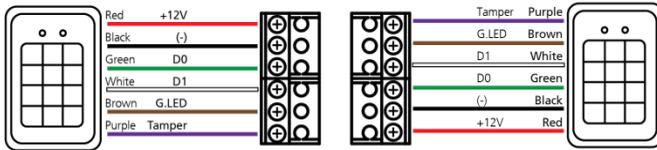
4.   Input and Output Connections

This chapter describes the AC-215x access control panel's input and output connections.

4.1   Input Types

There are four input types – Normally Open, Normally Closed, Normally Open Supervised 1 or 2 resistors, and Normally Closed Supervised 1 or 2 resistors.

Inputs IN1, IN1A, IN2 and IN2A may be configured individually as either supervised or non-supervised inputs. Configure each input separately via the AxTraxNG system.

Non-supervised inputs have two states:

- Normal State
- Abnormal State

Supervised inputs have three states:

- Normal State
- Abnormal State
- Trouble State

The Trouble state is caused by either tampering with the input circuit or by faulty hardware installation. Once configured as supervised input, add a resistor of 2.2 kΩ, of 8.2kΩ or both on the input circuit. See the figures in the following subsections.

4.1.1   Normally Open Input Connection

Normally Open Input has 2 states:

- Switch Open – Normal State:

  Loop resistance = Infinite (open circuit).
- Switch Closed – Abnormal State:

  Loop resistance = 0 (short circuit)

Figure 9: Normally Open Input Connection
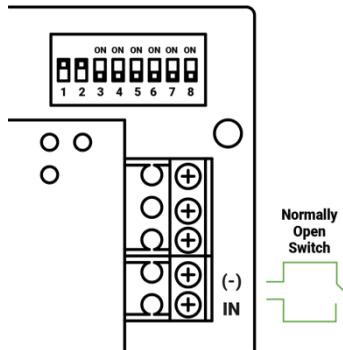
4.1.2   Normally Closed Input Connection

Normally Closed Input has two states:

- Switch Closed – Normal State:

  Loop resistance = 0 (short circuit).
- Switch Open – Abnormal State:

  Loop resistance = Infinite (open circuit).

Figure 10: Normally Closed Input Connection
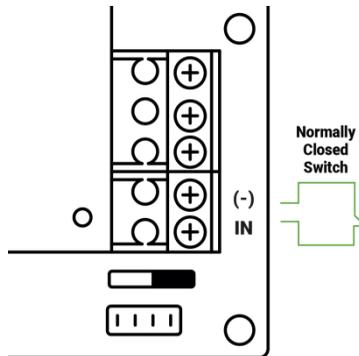
4.1.3 Normally Open Supervised Single Resistor Input Connection

Connect an 8.2 kΩ resistor in parallel to the input switch contacts.

Normally Open Supervised Input has 3 states:

- Switch Open – Normal State:
  Loop resistance = 8.2 kΩ
- Switch Closed – Abnormal State:
  Loop resistance = 0 (short circuit).
- Open circuit across input terminals – Trouble State:
  Loop resistance = Infinite (open circuit).

Figure 11: Normally Open Supervised Input (Single Resistor) Connection
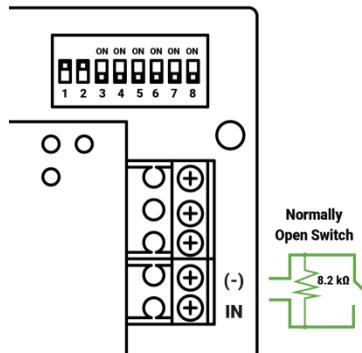
4.1.4 Normally Open Supervised Double Resistor Input Connection

Connect a 2.2 kΩ resistor in series to the input switch contacts.

Connect an 8.2 kΩ resistor parallel to the input switch contacts.

Normally Open Supervised Input has 3 states:

- Switch Open – Normal State:
  Loop resistance = 10.4 kΩ
- Switch Closed – Abnormal State:
  Loop resistance = 2.2 kΩ
- Open circuit (infinite loop resistance) or short circuit (0 resistance) across input terminals – Trouble State.

Figure 12: Normally Open Supervised Input (Double Resistor) Connection
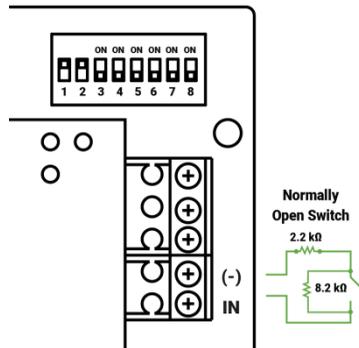
4.1.5   Normally Closed Supervised Single Resistor Input Connection

Connect a 2.2 kΩ resistor in series to the input switch contacts.

Normally Closed Supervised Input has 3 states:

▪   Switch Closed – Normal State:

   Loop resistance = 2.2 kΩ

▪   Switch Open – Abnormal State:

   Loop resistance = Infinite (open circuit)

▪   Short circuit across input terminals – Trouble State:

   Loop resistance = 0 (short circuit)

Figure 13: Normally Closed Supervised Input (Single Resistor) Connection
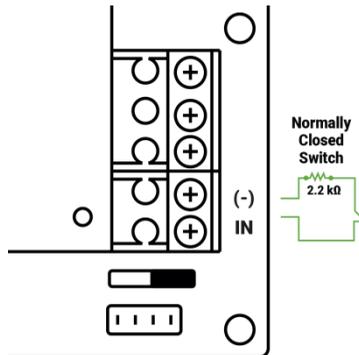
4.1.6   Normally Closed Supervised Double Resistor Input Connection

Connect a 2.2 kΩ resistor in series to the input switch contacts.

Connect an 8.2 kΩ resistor parallel to the input switch contacts.

Normally Closed Supervised Input has 3 states:

- Switch Closed – Normal State:

  Loop resistance = 2.2 kΩ

- Switch Open – Abnormal State:

  Loop resistance = 10.4 kΩ

- Open circuit (Infinite loop resistance) or short circuit (0 resistance) across input terminals – Trouble State

Figure 14: Normally Closed Supervised Input (Double Resistor) Connection
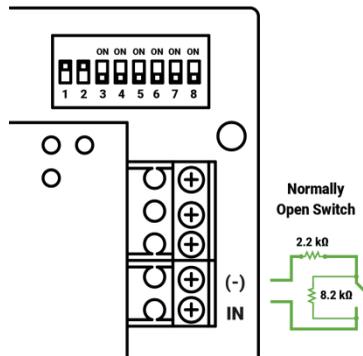
4.2   Inputs Description

4.2.1   Request-to-Exit Button (REX) Input

Use the REX input to open a door directly. Typically, the REX input is connected to a Normally Open push button that is located inside the premises. The push button is generally located in an easy-to-access position and opens a door without reading a proximity card or PIN code.

Single door controller:	Door 1 – IN1
Double door controller:	Door 1 – IN 1
	Door 2 – IN 2

4.2.2   Door Monitor Input

The Door Monitor input typically connects to a Normally Closed door sensing micro-switch for door status monitoring. Using Door Monitor enables many advanced options such as door forced alarm, door held open warnings, interlocking doors and more. The following should be defined:

Single door controller:	Door 1 – IN1A
Double door controller:	Door 1 – IN1A
	Door 2 – IN2A

4.2.3   General Purpose Inputs

These are free inputs that can be used for various functions. The following should be defined:

Single door controller:	Door 1 – IN2
	Door 1 – INA
Double door controller:	No general purpose inputs available

General purpose inputs are suitable for most uses. For example, they might be used to detect tampering, to activate alarm sensors or for monitoring power supply failure.

4.3   Outputs

Rosslare Security recommends the use of suppression diodes for all outputs that activate an inductive load.

There are two types of door locking devices:

- Fail open (fail secure)
- Fail close (fail safe)

The following should be defined:

Single door controller:	Door 1 – OUT 1
Double door controller:	Door 1 – OUT 1
	Door 2 – OUT 2

The output can sink current from any power supply (see Section 3.4).

4.4   Card Readers and Keypads

Each access control panel can be connected to a maximum of two readers. There are three available types of reader:

▪ Card readers

▪ Keypads

▪ Dual keypad card readers

A keypad is required for any reader mode that requires PIN code entries, such as "Card or PIN", "PIN Only" or "Card and PIN (Secured mode)".

When connecting a reader, the following should be defined:

Single door controller:	Door 1 – Reader 1 IN/OUT
	Door 1 – Reader 2 OUT/ IN
Double door controller:	Door 1 – Reader 1 IN/OUT
	Door 2 – Reader 2 IN/OUT

Use the AxTraxNG software to set the readers for IN or OUT use and to set the data transmission format for each reader.

The reader's tamper output connects to the access control panel's Reader-Tamper input. If the reader is interfered with, an alarm can be generated.

The panel's Reader G.LED output activates the reader's green LED input when operating in "Card and PIN" secure mode. While this mode is in force, users must enter a PIN on the keypad immediately after entering the card.

The controller activates the LED control for 2 seconds when an access granted event occurs.

5.   AC-215x Hardware Settings

5.1   DIP Switch Configuration

The DIP switches in the access control panel determine the baud rates for serial communication, control panel type, and the device address, as summarized in Table 3.

Table 3: DIP Switches and Their Functions

DIP Switch	Function
1	The panel's communication baud rate
2	
3	The panel type defines the number of readers for each door – one or two readers per door. This also affects the number of doors controlled by the panel.
4	
5	
6	The access control panel's RS-485 network address
7	
8	

> Note: Power down the access control panel before changing the DIP switch settings. After changes have been made, restart the panel. The new settings are automatically defined after power up.

In general, the up position is ON and the down position is OFF as demonstrated in Figure 15.

Figure 15: DIP Switches

1 2 3 4 5 6 7 8
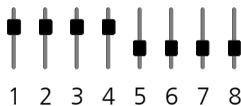
5.2   Access Control Panel Baud Rate

The access control panel serial port baud rate, set in DIP switches one and two, defines the communication speed for connecting with a PC in a network connection. The default baud rate is set to 9600 bits per second.

Table 4 lists Switch 1 and 2 status and baud rate:

Table 4: Switch Baud Rates

Switch 1	Switch 2	Baud Rate
OFF	OFF	9600
OFF	ON	19200
ON	OFF	115200
ON	ON	57600

> **Note** The access control panel baud rate must be identical to the AxTrax Network configuration of baud rate.

5.3   Access Control Panel Type

The access control panel type is defined using the third DIP switch. There are two panel types – a panel with one reader per each door or a panel with two readers per each door. This DIP switch setting influences the number of doors in the panel.

The default access control panel setting is for two readers per each door.

- **OFF** – Defines using two readers for each door. Panel controls one door.
- **ON** – Defines using one reader for each door. Panel controls two doors.

Select the appropriate DIP switch setting to operate the panel as either a single door, a double door, or four doors (see Section 5.3).

Access control panels configured as either single door or double door controllers have two readers, IN or OUT.

Table 5 summarizes the possible hardware settings.

Table 5: Possible Hardware Settings

Single Door

Outputs	Door Lock output	(OUT 1)
	General purpose output	(OUT 1A)
	General purpose output	(OUT 2)
	General purpose output	(OUT 2A)
Inputs	Request to exit	(IN 1)
	Door monitor input	(IN 1A)
	General purpose input	(IN 2)
	General purpose input	(IN 2A)
Readers	Reader1	Door Entry or Exit
	Reader2	Door Exit or Entry

Double Door

Outputs	Door1 Lock output	(OUT 1)
	General purpose output	(OUT 1A)
	Door2 Lock output	(OUT 2)
	General purpose output	(OUT 2A)
Inputs	Door1 Request to exit	(IN 1)
	Door1 monitor input	(IN 1A)
	Door2 Request to exit	(IN 2)
	Door2 monitor input	(IN 2A)
Readers	Reader1	(Door1 IN/OUT)
	Reader2	(Door2 IN/OUT)

5.4   Access Control Panel Addressing

The last five DIP switches are used to set the binary code of the access control panel internal network address. The default access control panel address is "1".

> **Note**
>
> For successful communications, the DIP switch must match the address set in the AxTraxNG software.

Table 6 displays the 32 address settings available:

Table 6: Available Panel Addresses

Address	Switch 4	Switch 5	Switch 6	Switch 7	Switch 8
1	OFF	OFF	OFF	OFF	OFF
2	OFF	OFF	OFF	OFF	ON
3	OFF	OFF	OFF	ON	OFF
4	OFF	OFF	OFF	ON	ON
5	OFF	OFF	ON	OFF	OFF
6	OFF	OFF	ON	OFF	ON
7	OFF	OFF	ON	ON	OFF
8	OFF	OFF	ON	ON	ON
9	OFF	ON	OFF	OFF	OFF
10	OFF	ON	OFF	OFF	ON
11	OFF	ON	OFF	ON	OFF
12	OFF	ON	OFF	ON	ON
13	OFF	ON	ON	OFF	OFF
14	OFF	ON	ON	OFF	ON
15	OFF	ON	ON	ON	OFF
16	OFF	ON	ON	ON	ON
17	ON	OFF	OFF	OFF	OFF

Address	Switch 4	Switch 5	Switch 6	Switch 7	Switch 8
18	ON	OFF	OFF	OFF	ON
19	ON	OFF	OFF	ON	OFF
20	ON	OFF	OFF	ON	ON
21	ON	OFF	ON	OFF	OFF
22	ON	OFF	ON	OFF	ON
23	ON	OFF	ON	ON	OFF
24	ON	OFF	ON	ON	ON
25	ON	ON	OFF	OFF	OFF
26	ON	ON	OFF	OFF	ON
27	ON	ON	OFF	ON	OFF
28	ON	ON	OFF	ON	ON
29	ON	ON	ON	OFF	OFF
30	ON	ON	ON	OFF	ON
31	ON	ON	ON	ON	OFF
32	ON	ON	ON	ON	ON

6.   Communications

Communication lines are used to upload and download information between the access control panel and the AxTraxNG software. When the access control panel and the computer are communicating, the system's two LEDs flash accordingly.

▪   The RX LED flashes when the controller receives data
▪   The TX LED flashes when the controller transmits data

	The access control panel address is defined in the AxTraxNG software.
Note	It is important that the DIP switch and the software are set to the same address.

There are three connection modes:

▪   Serial Network (RS-232 or RS-485)
▪   Modem Network
▪   TCP/IP Network

6.1   Serial Network Connection

The computer serial port controlling the access control panel is set from within the AxTraxNG software. The default bitrate is 9600 bps for direct connection to the computer.

When using an RS-232 connector, only one access control panel can be linked to each communication port on the computer. Use an RS-485 connection if you wish to connect additional panels to the primary control panel already connected to the COM port.

	The J1 switch must be in the correct position to select the RS-232 communication.
Note	

6.1.1   RS-232 Connection to the Computer

Set the J1 switch/jumper to the RS-232 position.

The RS-232 connection can only connect a single access control panel to the computer (Figure 16).

Figure 16: RS-232 Panel Connection to PC
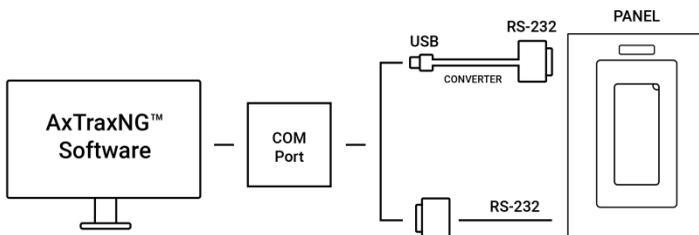
The distance between the computer and the access control panel must be no more than 150 feet (50 meters).

If the baud rate is increased to 57600 or beyond, the distance must be no more than 30 feet (10 meters).

Table 7: RS-232 Connection

Access Control Panel	DB9 Connector	DB25 Connector
GND	Pin 5	Pin 7
Tx	Pin 2	Pin 3
Rx	Pin 3	Pin 2

6.1.2   RS-485 Connection to the Computer

Set the J1 switch/jumper to the RS-485 position.

Using the RS-485, up to 32 access control panels can be linked together and connected to a single communication port on the computer (Figure 17).

Figure 17: RS-485 Panel Connection to PC
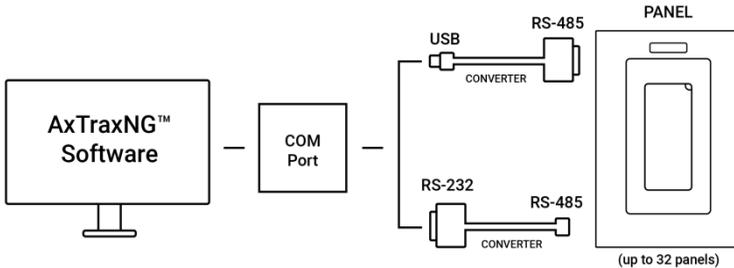
Use the RS-485 interface for situations where there are multiple controllers connected. The serial port used to control the access control panel is assigned within the AxTraxNG software.

The AC-215x-B supports the 2-wire RS-485 interface, which can significantly increase the distance between the server and the last panel. To use the RS-485 interface, the panels must be connected in a daisy-chain formation with an MD-14U RS-485 to RS-232 adapter (Section 6.1.3).

> **Note**: The recommended cable type to be used is STP cat5 (shielded twisted pair category 5). We recommend using a 20-24-AWG cable.

6.1.3 Daisy Chaining

You can connect up to 32 panels to a single serial line using a daisy-chain formation, which is done by drop-down RS-485 wiring (Figure 18).

Figure 18: Daisy Chaining
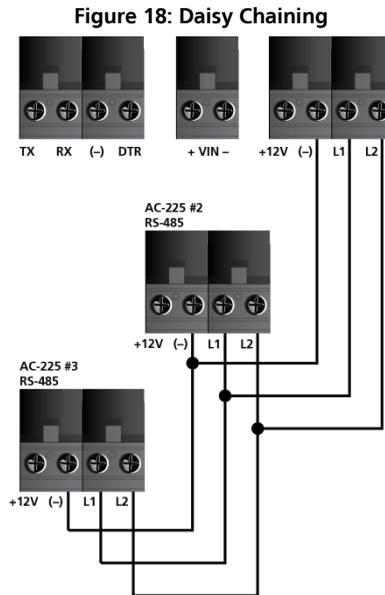
This can increase the maximum distance from the PC to the last panel in the chain to 4,000 ft (1,219.2 m).

The first panel is connected directly to the server using an MD-14U converter, while the second panel connects to the first panel. Additional panels are connected in the same way, one after another. The server identifies each panel on the RS-485 network by its address.

At each end of the data line, both where the panel connects to the computer and on the last panel in the network, a termination resistor of 100–120 Ω may be required. Apply the resistor across the L1 and L2 connections.

|	
Note	These termination resistors are especially important in long cable runs.

6.2 TCP/IP Network Connection

> ✎ This section applies to the AC-215IP models only.
> Note

The computer running the AxTraxNG software can communicate with the access control panels via a TCP/IP network. The connection settings are controlled within the AxTraxNG software.

The AC-215IP panels connect to the TCP/IP network (LAN or WAN) directly, using an onboard network module. For each AC-215IP panel connected on a TCP/IP port, up to 31 subnetworked panels can be connected via an RS-485 bus, which means that one IP port can support up to 32 AC-215x-B panels (Figure 19).

Figure 19: Connecting Multiple Access Control Panels to AC-215IP
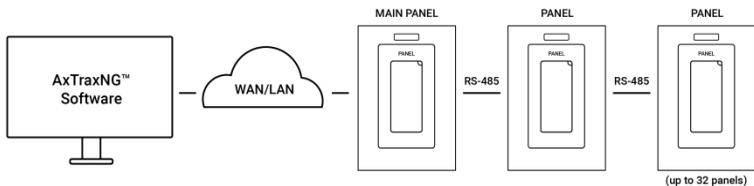
To connect to a TCP/IP network using AC-215 non-IP models, add Rosslare's MD-N32 TCP/IP to RS-232 gateway converter.

> ✎ For more information on operating an MD-N32, refer to the *MD-N32 User*
> Note *Manual*.

6.2.1 LAN and WAN Requirements

The devices can be connected to a TCP/IP network using any valid network address.

Use a TCP/IP connection when a LAN network already exists. Figure 20 illustrates the connection of a single AC-215x-B to a computer via a LAN network.

Figure 20: Connecting a Single Control Panel with MD-N32

Communications
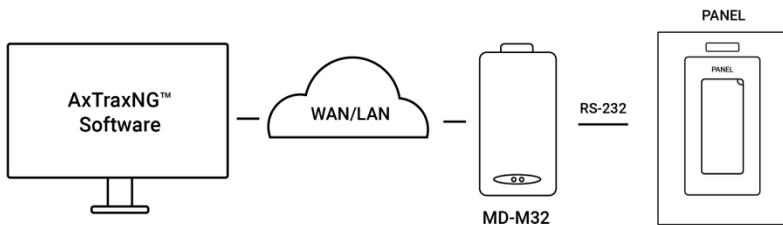
The maximum distance from the Ethernet port of the panel to the LAN/WAN connection is 100 m (330 ft).

When the TCP/IP connection is implemented over a WAN, it becomes possible to connect through the Internet. This makes it possible to control multiple access control panels worldwide, all from a single computer.

Before connecting a panel by TCP/IP connection for the first time, the AxTraxNG software must configure the device. Settings then remain stored in non-volatile memory on the device (see the AxTraxNG Software Manual).

When using an MD-N32, for a single panel, either an RS-232 cable or Rosslare's MD-14U RS-485 to RS-232 converter can be used.

To connect an MD-N32 to more than one panel (up to 32 panels), Rosslare's MD-14U RS-485 to RS-232 converter must be used. Connect the MD-14U between the RS-485 access control panel network and the MD-N32 converter (Figure 21).

Figure 21: Connecting Multiple Access Control Panels with MD-N32
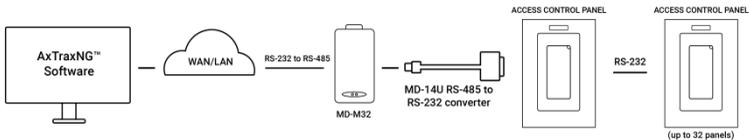
A.   Declaration of Conformity

FCC ID = GCD-AC215x xxxx

- This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
    - This device may not cause harmful interference.
    - This device must accept any interference received, including interference that may cause undesired operation.
- Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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:

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

B.   Radio Equipment Directive (RED)

Under our sole responsibility that the following labeled AC-215-Bx, AC-215-DIN, AC-215IP-Bx, and AC-215IP-DIN are tested to conform to the EU Radio Equipment Directive – RED 2014/53/EU – in electrical and electronic equipment.

C.   RoHS Directive

Under our sole responsibility that the following labeled AC-215-Bx, AC-215-DIN, AC-215IP-Bx, and AC-215IP-DIN are tested to conform to the Restriction of Hazardous Substances (RoHS) directive – 2011/65/EU – in electrical and electronic equipment

D.   Limited Warranty

The full ROSSLARE Limited Warranty Statement is available in the Quick Links section on the ROSSLARE website at www.rosslaresecurity.com.

Rosslare considers any use of this product as agreement to the Warranty Terms even if you do not review them.

Asia Pacific, Middle East, Africa

Rosslare Enterprises Ltd.
Kowloon Bay, Hong Kong
Tel: +852-2795-5630
Fax: +852-2795-1508
support.apac@rosslaresecurity.com

United States and Canada

Rosslare Security Products, Inc.
Southlake, TX, USA
Toll Free: +1-866-632-1101
Local: +1-817-305-0006
Fax: +1-817-305-0069
support.na@rosslaresecurity.com

Europe

Rosslare Israel Ltd.
22 Ha'Melacha St., P.O.B. 11407
Rosh HaAyin, Israel
Tel: +972-3-938-6838
Fax: +972-3-938-6830
support.eu@rosslaresecurity.com

Latin America

Rosslare Latin America
Buenos Aires, Argentina
Tel: +54-11-4001-3104
support.la@rosslaresecurity.com

China

Rosslare Electronics (Shenzhen) Ltd.
Shenzhen, China
Tel: +86-755-8610-6842
Fax: +86-755-8610-6101
support.cn@rosslaresecurity.com

India

Rosslare Electronics India Pvt Ltd.
Tel/Fax: +91-20-40147830
Mobile: +91-9975768824
sales.in@rosslaresecurity.com

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