



Zodiac Max

INSTALLATION MANUAL

October 2015

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Introduction

The Zodiac Max Fingerprint Verification Reader offers an added layer of security for up to 4,000 users. Users are enrolled at central PC using Zodiac Max enrollment software and a Zodiac Max Enrollment Reader. Zodiac fingerprint readers are compatible with 26-bit and Cansec 37-bit Wiegand formats. Because Zodiac readers cannot withstand extreme weather or temperatures, appropriate use of Zodiac accessories (enclosure and/or heater kit) is highly recommended to prevent damage to the reader. Damage due to weather elements or extreme temperatures is not covered under warranty by Cansec Systems Ltd.

NOTE: Tech Support will only be provided where product installation guidelines have been followed.

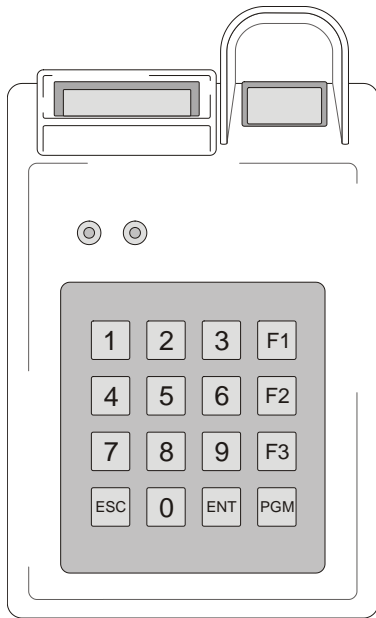
Specifications

Power Requirements:	12 VDC, 300 mA
Wiegand Cable:	22 AWG, 6 conductors, stranded, overall shield, Maximum 152 m (500 ft) to controller
Communications Cable:	22 AWG, twisted pair, stranded, shielded, Maximum 609 m (2000 ft) total length
Reader Output:	26-bit or Cansec 37-bit Wiegand
Operating Temperature:	0°C to 70°C (32 °F to 158°F) <i>heater required for temperatures below 0°C</i>
Size:	87 mm (w) x 144 mm (h) x 38 mm (d) [3.4 in (w) x 5.7 in (h) x 1.5 (d)]
Weight:	397 g (14 oz)
Housing:	High impact ABS
Mounting:	Single-gang electrical box
Sensor:	Manufacturer: Nitgen; Type: Optical
Verification:	<1.5 Seconds (after template is read)
LED Indicators:	Bi-colour standard (red, green) 1 x Authentication Indicator (left) 1 x Externally Controlled Indicator (right)
Audio Tone:	Internal Beeper
LCD Module:	8 characters x 2 lines; transfective display; backlight (yellow-green)
Keypad:	4 x 4; tactile feedback

*Specifications subject to change without notice

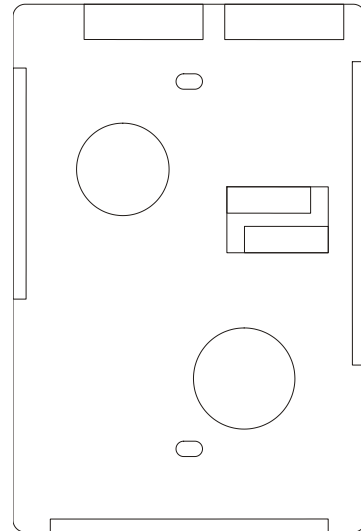
Overview

ZODIAC MAX FINGERPRINT READER



MOUNTING PLATE

Fits standard single-gang electrical box

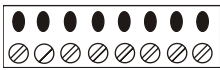




LED/BEEPER CONTROL:

The left LED is internally controlled by the Zodiac Max. It changes from **RED** to **GREEN** and then back to **RED** when the reader authenticates a user.

The right LED is externally controlled. It changes from **RED** to **GREEN** when the LED line is pulled low.

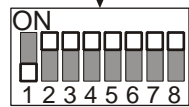
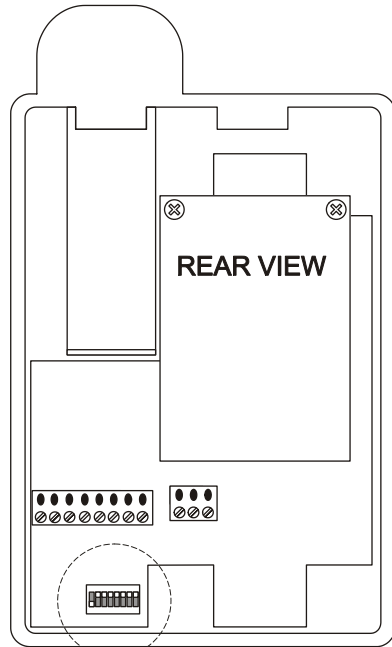
The BEEPER line is used to activate the unit's internal beeper. The beeper will sound when the line is pulled LOW.

<p>8-PIN CONNECTOR</p> <ul style="list-style-type: none"> - For wiring to a Wiegand controller 	
<p>3-PIN CONNECTOR</p> <ul style="list-style-type: none"> - For wiring RS-485 communications 	
<p>FINISHING SCREW</p> <ul style="list-style-type: none"> - Insert from bottom of reader after mounting on mounting plate 	

Reader Address Settings

Each reader must have a unique address when multiple readers are wired on the same communications line (examples: COM1, COM9, etc.). Up to thirty one (31) readers can be on the same communication line. Set the address of each reader from 1 to 31 with the DIP switch as per the table below.

NOTE: Switches 6, 7 and 8 are reserved for factory testing. Do not change.



DIPSWITCH

ADDRESS "1" IS SHOWN

ADDRESS	SW-1	SW-2	SW-3	SW-4	SW-5
1	OFF	ON	ON	ON	ON
2	ON	OFF	ON	ON	ON
3	OFF	OFF	ON	ON	ON
4	ON	ON	OFF	ON	ON
5	OFF	ON	OFF	ON	ON
6	ON	OFF	OFF	ON	ON
7	OFF	OFF	OFF	ON	ON
8	ON	ON	ON	OFF	ON
9	OFF	ON	ON	OFF	ON
10	ON	OFF	ON	OFF	ON
11	OFF	OFF	ON	OFF	ON
12	ON	ON	OFF	OFF	ON
13	OFF	ON	OFF	OFF	ON
14	ON	OFF	OFF	OFF	ON
15	OFF	OFF	OFF	OFF	ON
16	ON	ON	ON	ON	OFF
17	OFF	ON	ON	ON	OFF
18	ON	OFF	ON	ON	OFF
19	OFF	OFF	ON	ON	OFF
20	ON	ON	OFF	ON	OFF
21	OFF	ON	OFF	ON	OFF
22	ON	OFF	OFF	ON	OFF
23	OFF	OFF	OFF	ON	OFF
24	ON	ON	ON	OFF	OFF
25	OFF	ON	ON	OFF	OFF
26	ON	OFF	ON	OFF	OFF
27	OFF	OFF	ON	OFF	OFF
28	ON	ON	OFF	OFF	OFF
29	OFF	ON	OFF	OFF	OFF
30	ON	OFF	OFF	OFF	OFF
31	OFF	OFF	OFF	OFF	OFF

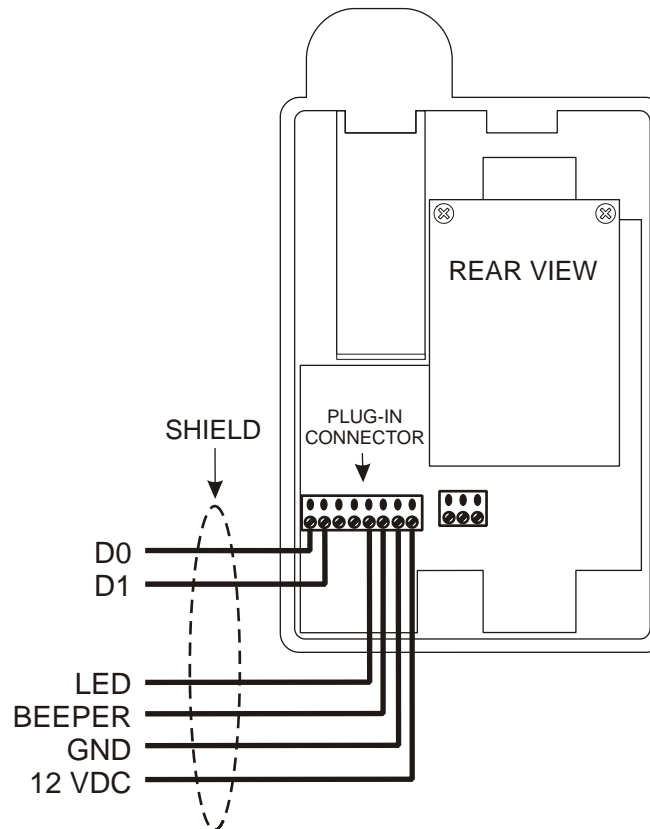
Wiring to a Wiegand Controller

CABLE SPECIFICATIONS:

- 6 conductor
- 22 AWG
- Stranded wire
- Overall shield
- 500 ft. (152 m) max. length

POWER REQUIREMENTS:

- 12 VDC, 300 mA



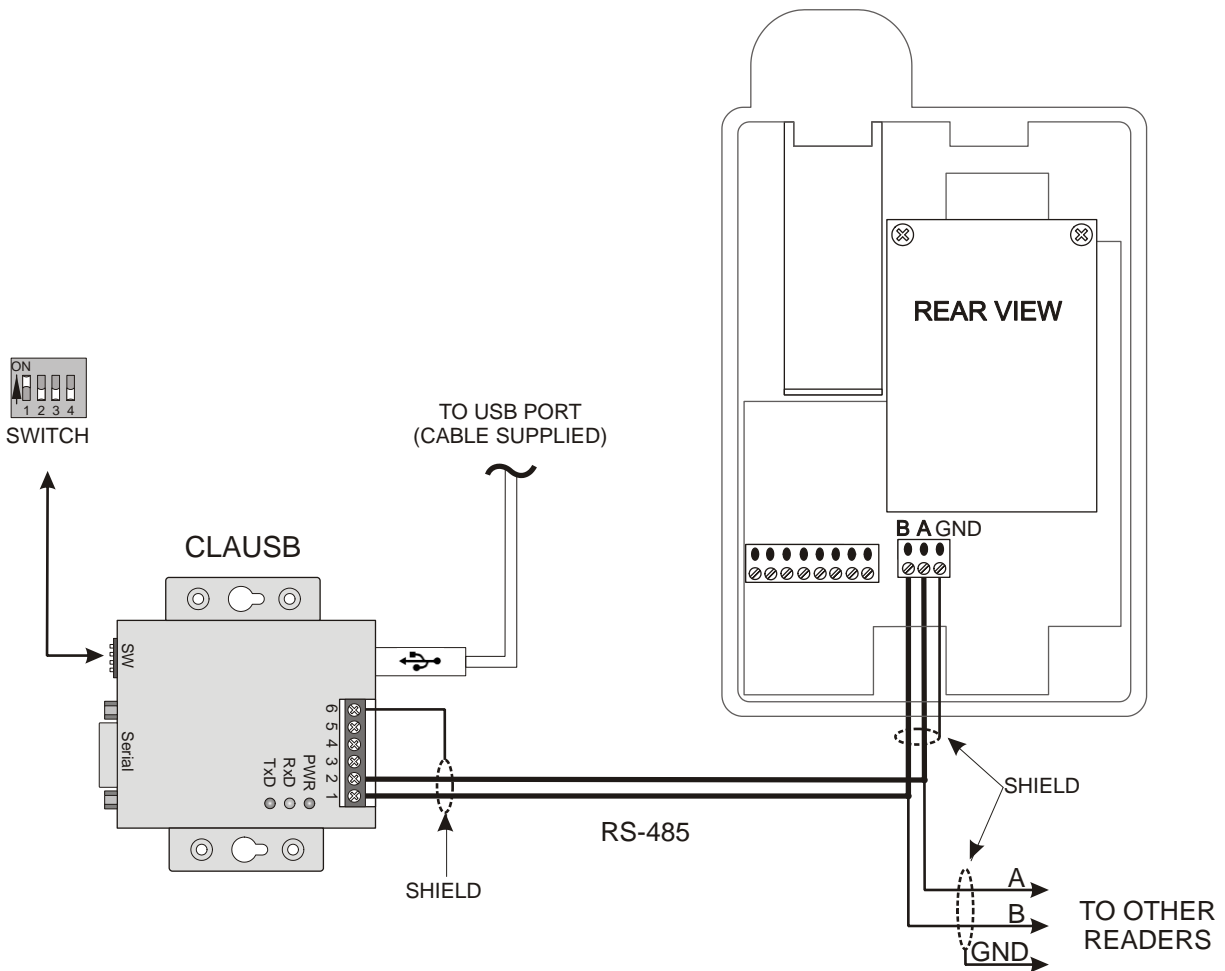
Communication Wiring



CABLE SPECIFICATIONS:

- 22 AWG
- Twisted pair
- Stranded wire
- Shielded
- 2000 ft. (609 m) max. total length

NOTE: Each reader must have a unique address.

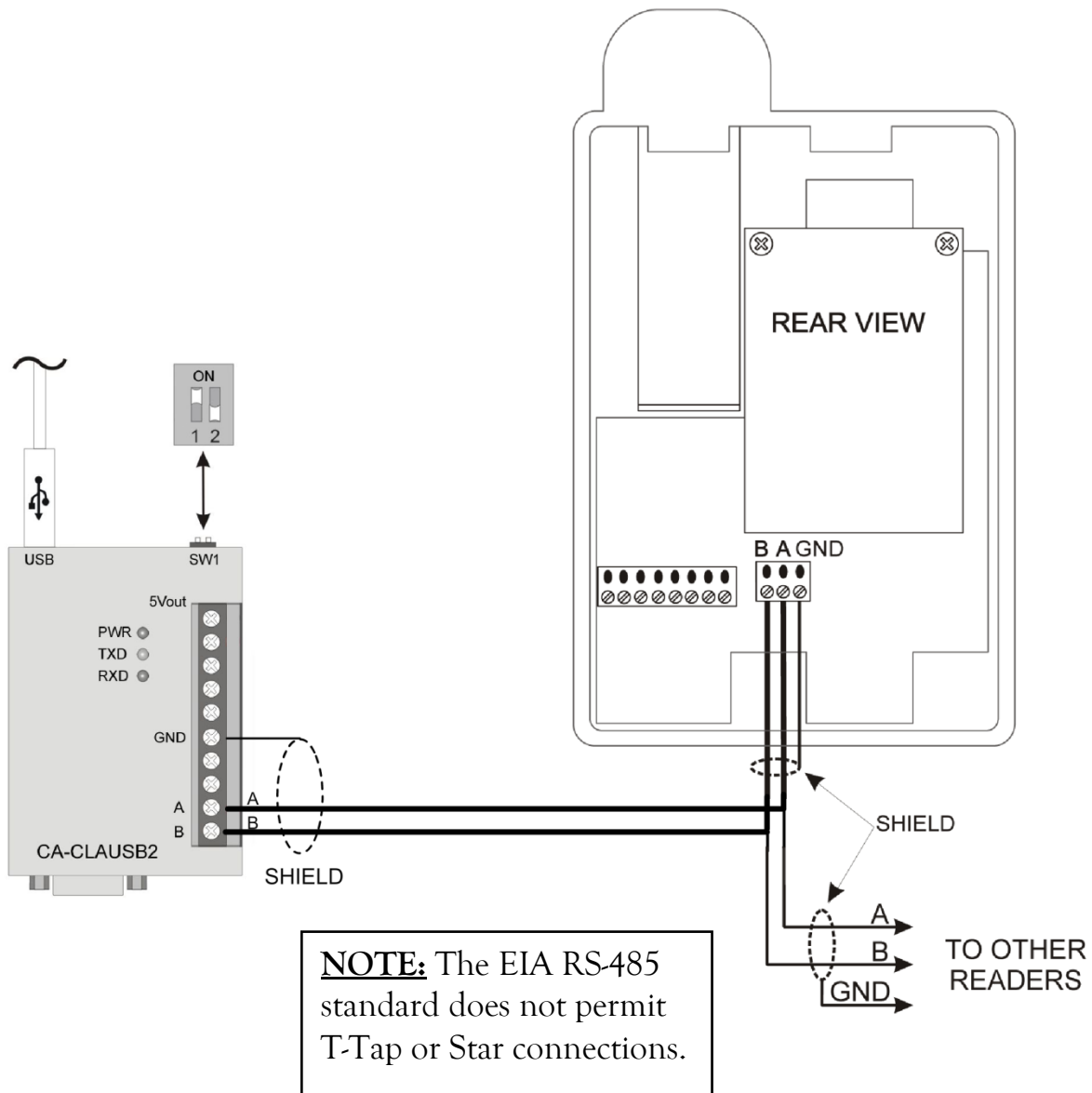


NOTE: The EIA RS-485 standard does not permit T-Tap or Star connections.

CABLE SPECIFICATIONS:

- 22 AWG
- Twisted pair
- Stranded wire
- Shielded
- 2000 ft. (609 m) max. total length

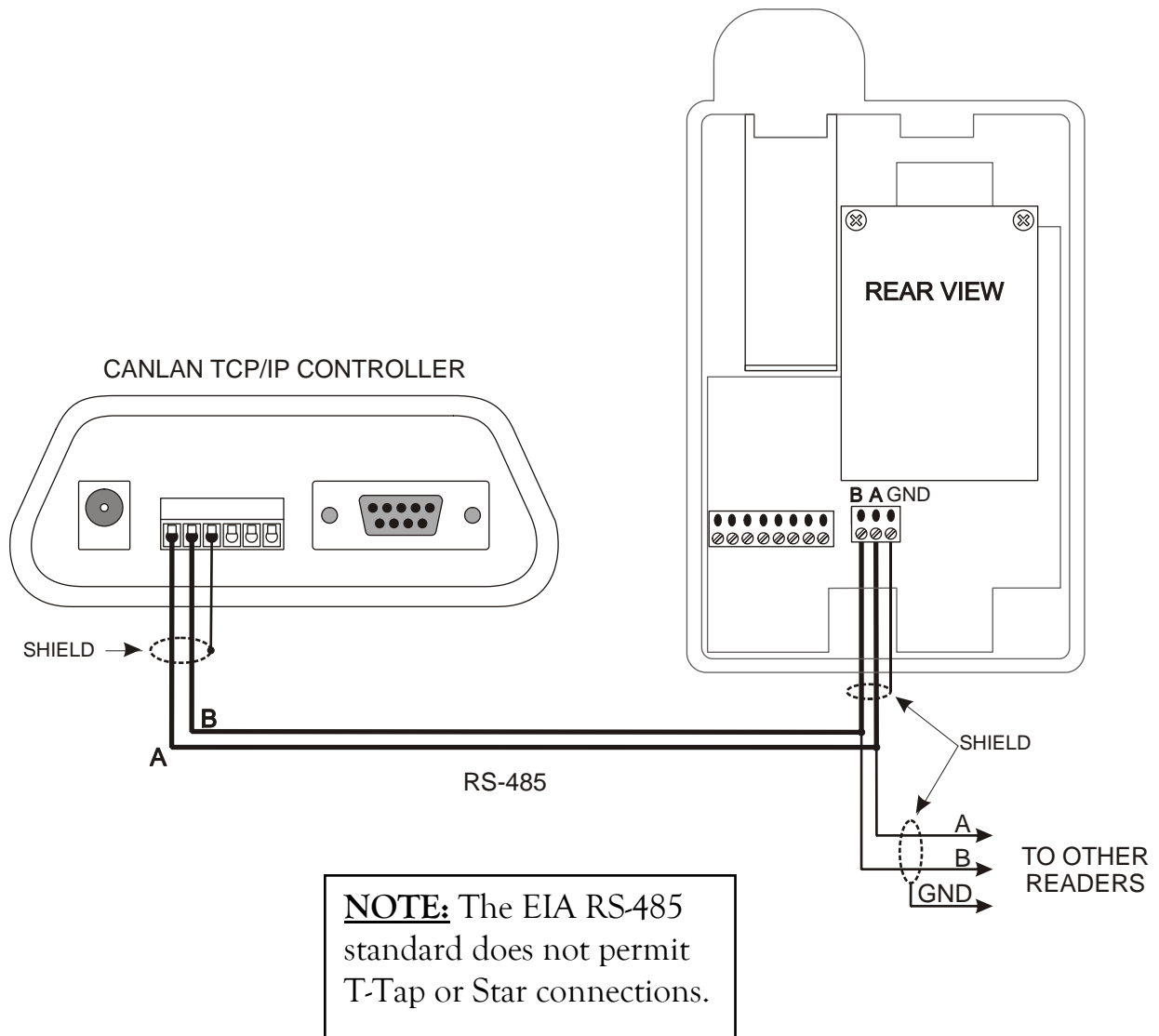
NOTE: Each reader must have a unique address.



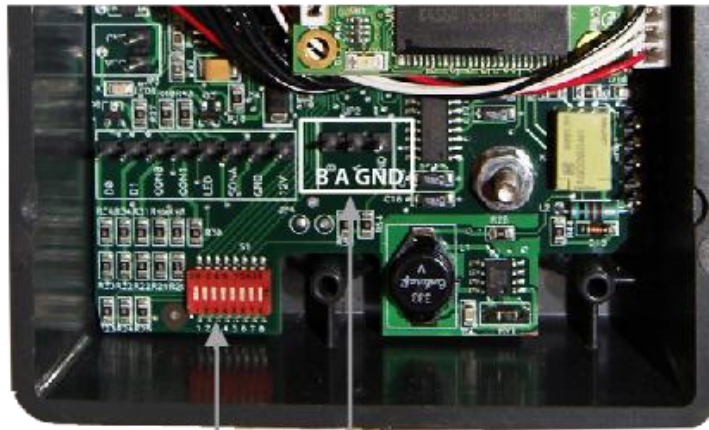
CABLE SPECIFICATION:

- 22 AWG
- Twisted pair
- Stranded wire
- Shielded
- 2000 ft. (609 m) max. total length

NOTE: Each reader must have a unique address.



Zodiac Max Reader #1



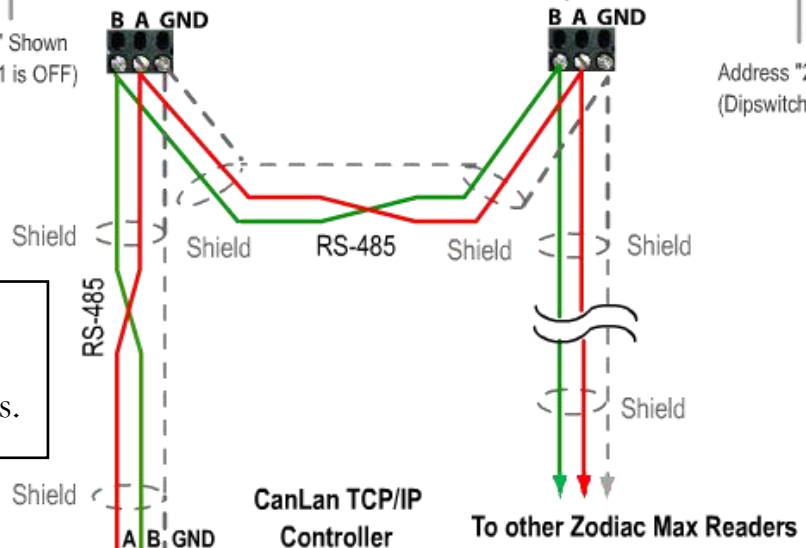
Zodiac Max Reader #2



Address "1" Shown
(Dipswitch 1 is OFF)

Address "2" Shown
(Dipswitch 2 is OFF)

NOTE: The EIA RS-485 standard does not permit T-Tap or Star connections.



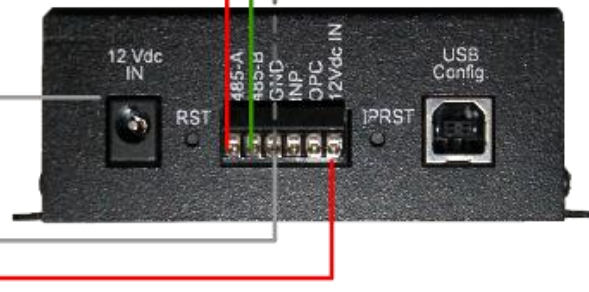
Option 1:

+12 VDC
AC-DC Adaptor

OR

Option 2:

GND
+12 VDC



AIR-485

CABLE SPECIFICATION:

- 22 AWG
- Twisted pair
- Stranded wire
- Shielded
- 2000 ft. (609 m) max. total length

NOTE: The EIA RS-485 standard does not permit T-Tap or Star connections.

NOTE: Each reader must have a unique address.

