

RS-485 Card Reader

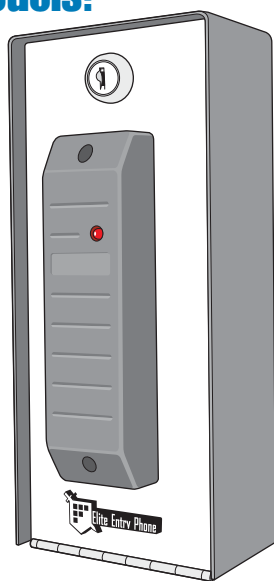
for Icon26, LC and VF Dial Code systems

Rev 1.0

Please read this entire manual before installation.

- RS-485 Card Reader is not a stand alone device. It must be connected to an Elite Entry Phone system for operation.
- RS-485 Card Reader has its own independent strike relay. No relay activation takes place on main telephone entry system.
- Elite has provided surge suppressor modules to protect the card reader against lightning damage.

Models:



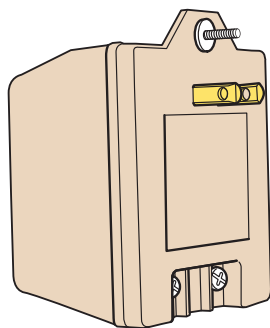
ECR-485B
Metal Box



ECR-485W
Wide Profile

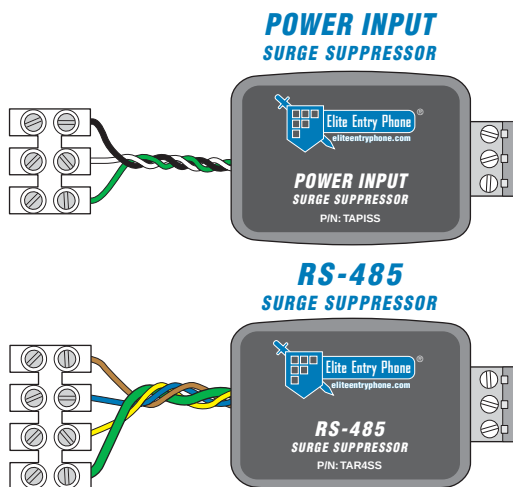


ECR-485T
Thin Profile

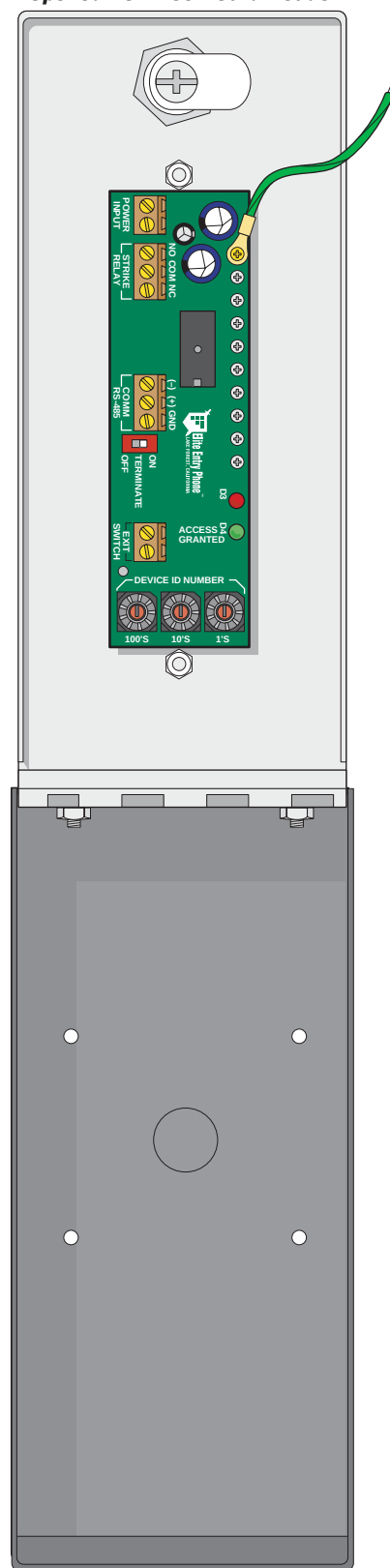


TRANSFORMER
12 VAC, 20 VA

Do not share card reader's transformer with any other devices.

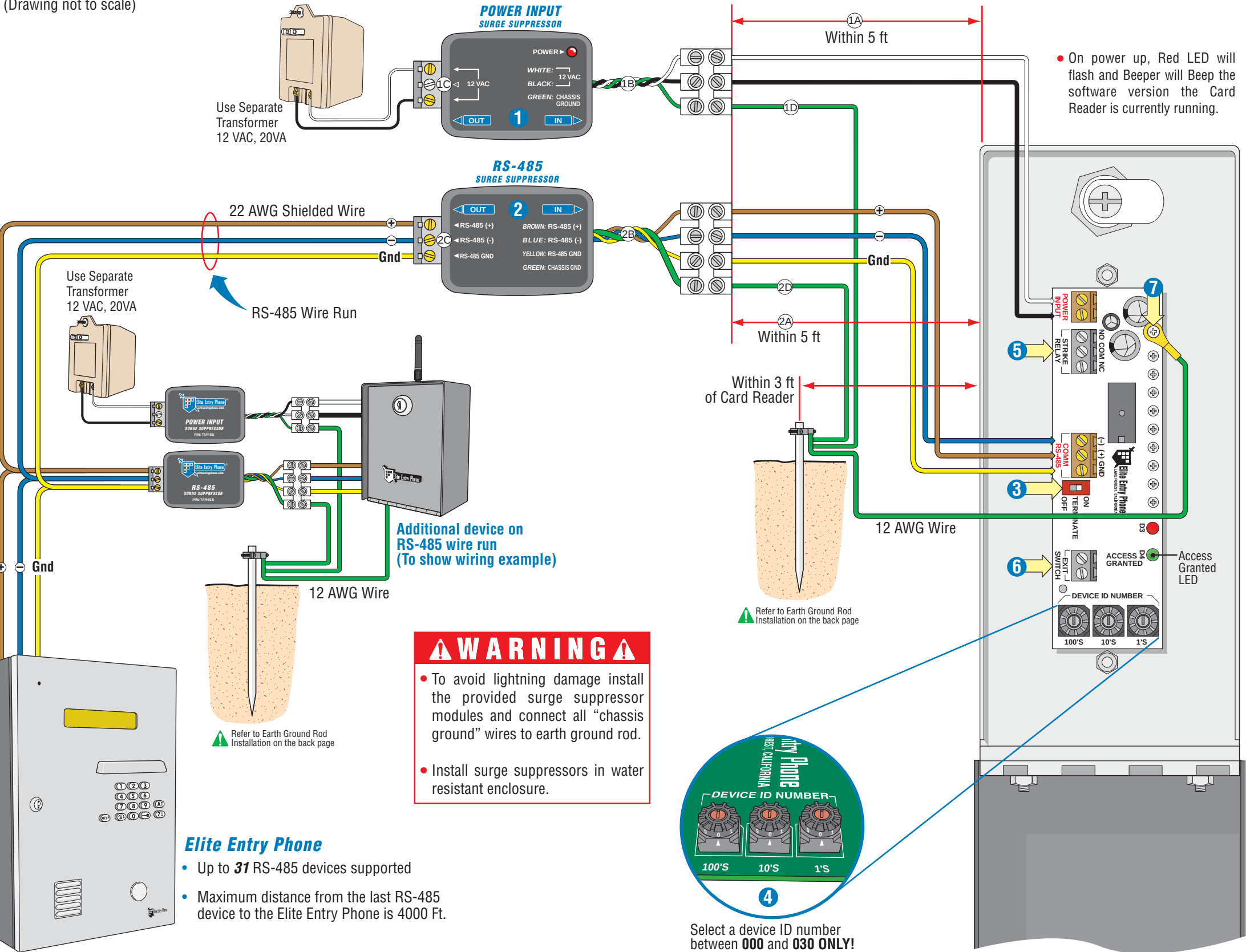


Opened ECR-485B Card Reader



RS-485 Card Reader Wiring and Operating Instructions

(Drawing not to scale)



WIRING INSTRUCTIONS

- 1 POWER INPUT PORT CONNECTION**
 - 1A** Install power input surge suppressor module within 5 ft of card reader.
 - 1B** Connect the **IN** side black and white wire terminals of the power input surge suppressor module to the power input of the card reader. (Polarity does not matter)
 - 1C** Connect the **OUT** side 12 VAC terminals of the power input surge suppressor module to the transformer output. (Polarity does not matter)
Note: Center terminal is not used.
Use a separate transformer. Maximum distance from transformer to card reader should not exceed 300 feet, using 18 gauge wire.
 - 1D** Connect the green "Chassis Ground" of the power input surge suppressor module to the earth ground rod.
- 2 RS-485 COMMUNICATION PORT CONNECTION**
 - 2A** Install RS-485 surge suppressor module within 5 ft of card reader. (Use 22 AWG twisted pair shielded wire)
 - 2B** Connect the **IN** side of the RS-485 surge suppressor module to the RS-485 port of the card reader. (22 AWG wire)
RS-485 (+) ↔ RS-485 (+)
RS-485 (-) ↔ RS-485 (-)
RS-485 (Gnd) ↔ RS-485 (Gnd)
 - 2C** Connect the **OUT** side of the RS-485 surge suppressor module to the **OUT** side of the next RS-485 surge suppressor module in the wire run. (Use 22 AWG twisted pair shielded wire)
RS-485 (+) ↔ RS-485 (+)
RS-485 (-) ↔ RS-485 (-)
RS-485 (Gnd) ↔ RS-485 (Gnd)
 - 2D** Connect the green "Chassis Ground" of the RS-485 surge suppressor module to the earth ground rod.
- 3** Turn "ON" Terminator Switch ONLY for last slave device installed on RS-485 wire run.
- 4** Set **Unique Device ID Number** between 000 and 030 and then power up the device. The device MUST be unplugged (**powered down**) to change ID number.
- 5** The Strike Relay can be used to control a gate operator, magnetic lock or a solenoid. The **Strike Time** for this relay is programmable using the phone entry system's "Gate Strike Time" setting.
- 6** (Optional) Connect the two exit switch wires to the exit switch input on the card reader. (Polarity does not matter)
Note: When exit switch is engaged, strike relay is activated for 5 seconds.
- 7 Important!** Ground the card reader using the provided "chassis ground" 12 AWG wire.

OPERATING INSTRUCTIONS

Place proximity card within an inch of card reader and unit will beep to acknowledge card presence.

Card Reader Response:

Valid card response: External LED turns Green and a continuous beep during strike relay activation.

Invalid card response: External LED remains red and 3 short beeps.



Earth Ground Rod Installation for all RS-485 devices

Rev 1.0

Proper grounding gives an electrical charge, like an electrical static discharge or a near lightning strike, a path from which to dissipate its energy safely into the earth.

Without this path, the intense energy generated by lightning could be directed towards the Elite Entry Phone equipment. Although nothing can absorb the tremendous power of a direct lightning strike, proper grounding can protect the equipment in most cases.

The type and length of earth ground rods vary by region. Contact the building inspector's office in the municipality where you plan to install the unit for correct grounding materials and installation procedures.

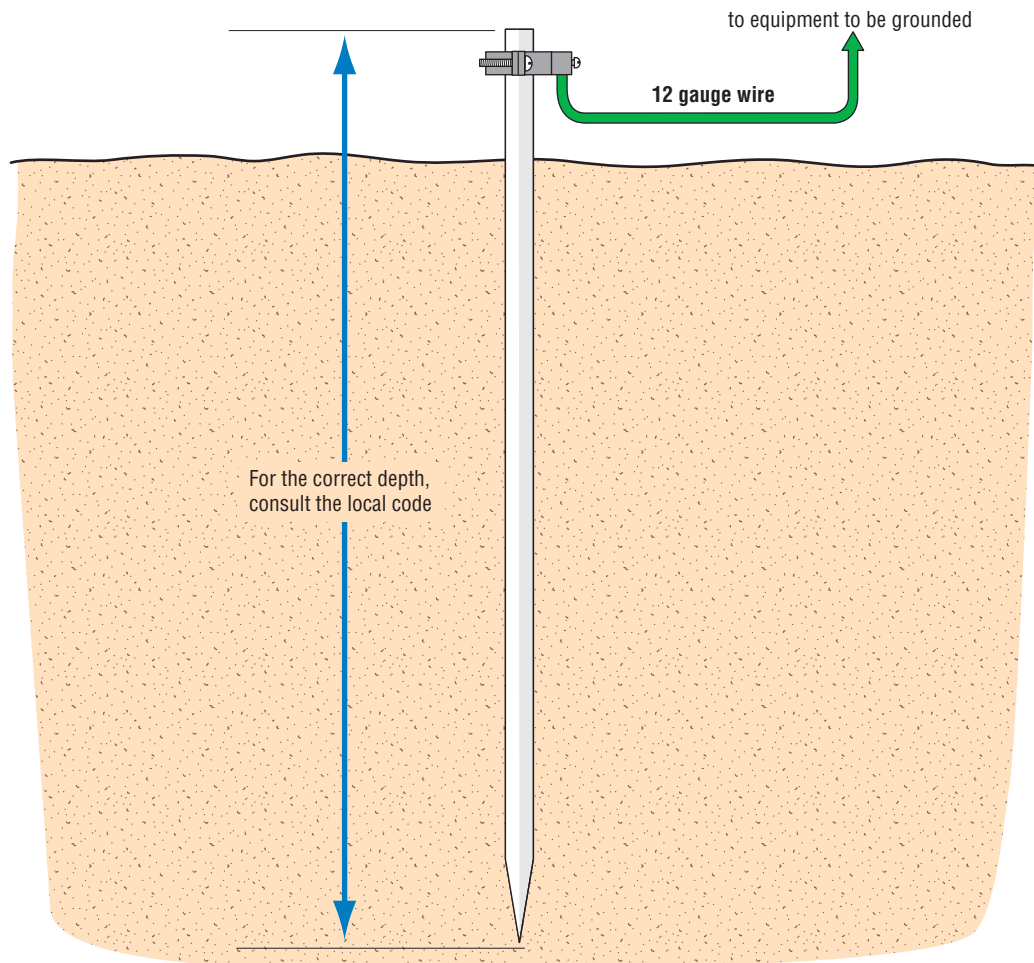
**Before digging, contact local underground utility locating companies.
Avoid damaging gas, power, or other underground utility lines.**

The earth ground rod must be located within 3 feet from the Elite Entry Phone equipment. Use the proper type earth ground rod for your local area

The ground wire must be a single, whole piece of wire. Never splice two wires for the ground wire. If you should cut the ground wire too short, break it, or destroy its integrity, replace it with a single wire length.



The earth ground rod must be located within 3 feet from the equipment being grounded.



Warning:

Elite Entry Phone is not responsible for improper installation or failure to comply with all necessary local building codes.

