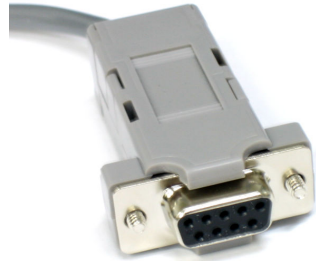


PakTrakr ES1

Serial Interface

Installation Guide



- 1) Disconnect the 3-pin (right) plug from the back of the PakTrakr Display. This will remove power from the Display.
- 2) If a current sensor is attached to the PakTrakr Display, remove its 4-pin plug (left side) from the back of the Display as well.
- 3) Connect the 4-pin plug on the ES1 cable to the 4-pin (left-most) connector on the back of the PakTrakr Display.
- 4) If a current sensor is to be used, connect its 4-pin plug to the 4-pin connector on the back (cable) end of the ES1.
- 5) Re-connect the 3-pin cable to the 3-pin (right-most) connector on the back of the PakTrakr
- 6) Connect the PC's 9-pin male plug in to the ES1's 9-pin female connector.
- 7) Use a terminal program (such as HyperTerminal) on the PC to begin monitoring and/or capturing data from the PakTrakr. Once captured, the CSV text file may be easily imported into a spreadsheet such as Excel for analysis. See the Quick Reference section for information about the data format.

PakTrakr ES1

Quick Reference

Serial Format:

Baud Rate: 19200
Data Bits: 8
Parity: None
Stop Bits: 1
Flow Control: None

Frequency: 1 packet per second
Format: CSV (comma separated values)

Packet Data

Each Remote sends its own packet of data, starting with a "B" character, as follows:

B,*b1v, b2v, ... b8v*,**H**,*b1h, b2h, ... b8h*,**E**,*e1, e2, e3, e4, e5, e6, e7*,**P**,*pack, SOC, temp, series*

where *b1v* = battery 1 voltage x 10 (e.g. 125 = 12.5V) (only batteries detected included)

b1h = reserved data

e1 = Low water likely (each bit represents a battery: batt 1=lsb, batt 8=msb)

e2 = Pack Imbalance (bits represent batteries needing individual charge)

e3 = Failing battery

e4 = Maintenance required

e5 = Damaged battery

e6 = Overcharging

e7 = Excessive discharge

pack = Pack Voltage x 10 (e.g. 775 = 77.5V)

SOC = Pack State of Charge (0-100%)

temp = Remote temperature in degrees F

series = 1 if pack is connected in series, 0 if pack is connected in parallel

If there are multiple Remotes attached, each will append its packet to the previous Remote's, creating a single long packet, where data from each Remote begins with a "B" character.

After the Remote(s) data, the PakTrakr Display appends a time-stamp, amps reading (if a current sensor is attached), and a carriage return/line feed to the end of the packet, as follows:

T,*second, hour, minute, day, amps(x10)*, CR LF

Dimensions: 1.5" x 2.0" x 0.6" (not including cables)

Weight: 0.5 ozs

Warranty: One year from date of purchase.

For more information or technical support, please visit our web site at

www.paktrakr.com.