# **MSC** Morningstar PC Meterbus Adapter Instructions

#### **Description:**

The PC Meterbus Adapter (model: MSC-1) converts the Morningstar MeterBus RJ-11 electrical interface to a standard RS-232 interface which allows communication between a PC and a Morningstar charge controller or inverter\*. The MSC is required for programming custom charging set-points and logging data using Morningstar's MSView PC software. The MSC is also required for serial communications with any 3<sup>rd</sup> party hardware that supports Modbus communication.

\* Controllers or inverters with a Meterbus port, but without a serial port or other communications port

#### PC or Wiring Diagram: 3<sup>rd</sup> party hardware Charge Controller or Inverter **COM Settinas:** 9600 BAUD 8 data bits 1 or 2 stop bits No parity No Hardware Flow Control $(\bigcirc)$ 00 88888 Ō Ο $\cap$ 0 **RJ-11** Cable **NETERBUS** (supplies power to MSC) Serial Cable MSC-1

## **Operation:**

The MSC is externally powered by the Morningstar charge controller or inverter via the RJ-11 connection. A status LED indicates power and communication status. LED indications are as follows:

Green LED – power is applied with correct polarity.

**Red/Orange LED flicker** – data is successfully being transmitted or received through the adapter.

### **Electrical Pin-outs:**





#### Notes:

- 1. POWER = V battery → Valid range: 8V 15.5Vdc
- 2. RJ-11 cable wiring is straight through (standard telephone cord)

- <u>Notes:</u> 1. RS-232 GND is NOT the same ground as RJ-11! The MSC is fully opto-isolated on all pins.
- 2. + power must be asserted on DTR/DSR and/or RTS/CTS pins
- 3. power must be asserted on RTS/CTS and/or RX pins
- 4. Pins 4 (DTR) and 6 (DSR) are internally connected
- 5. Pins 7 (RTS) and 8 (CTS) are internally connected

#### Modbus documentation including register locations, scaling, and definitions can be found on Morningstar's website at:

www.morningstarcorp.com support@morningstarcorp.com

