

# MSC

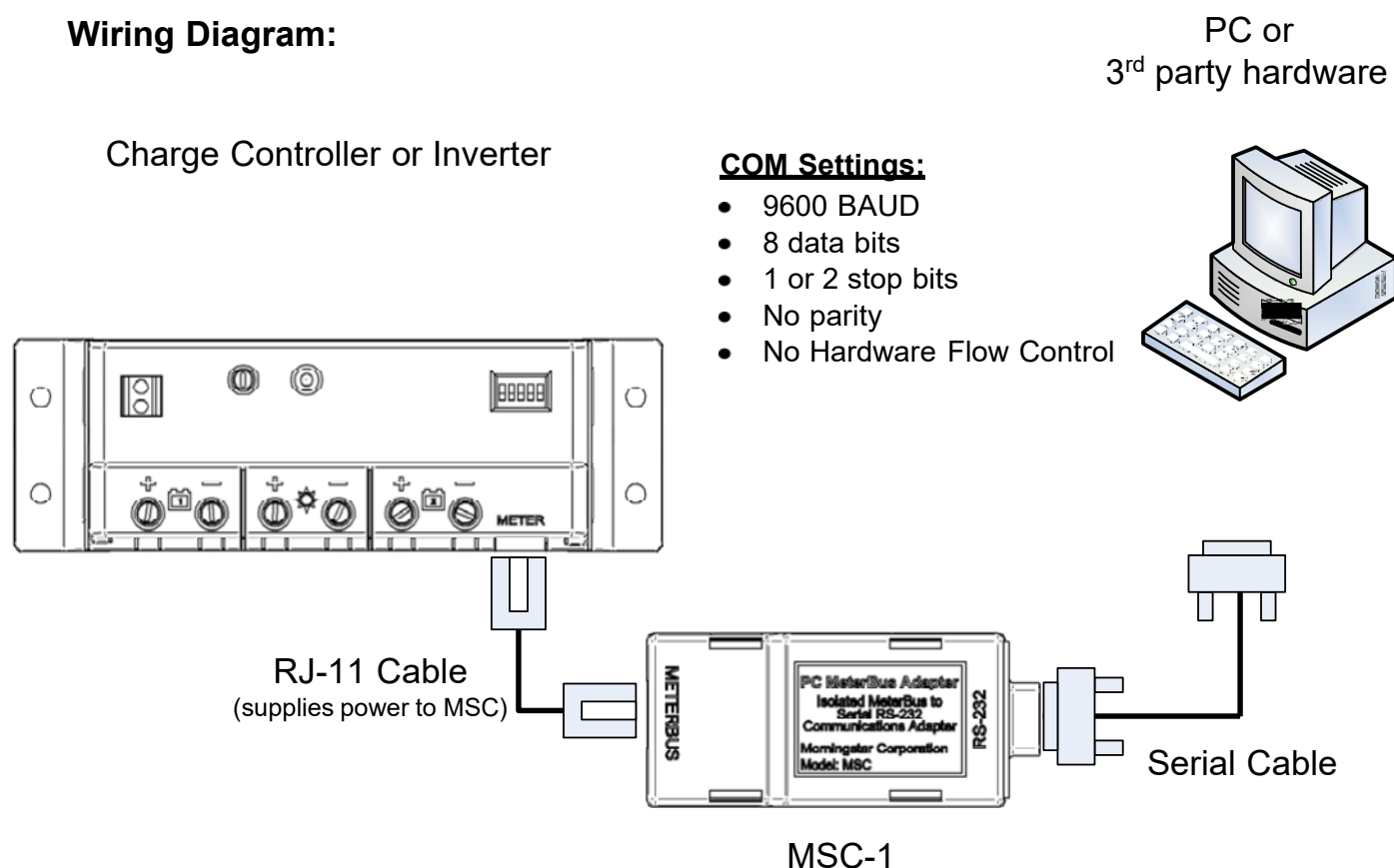
## Morningstar PC Meterbus Adapter Instructions

### 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*

### Wiring Diagram:



### Operation:

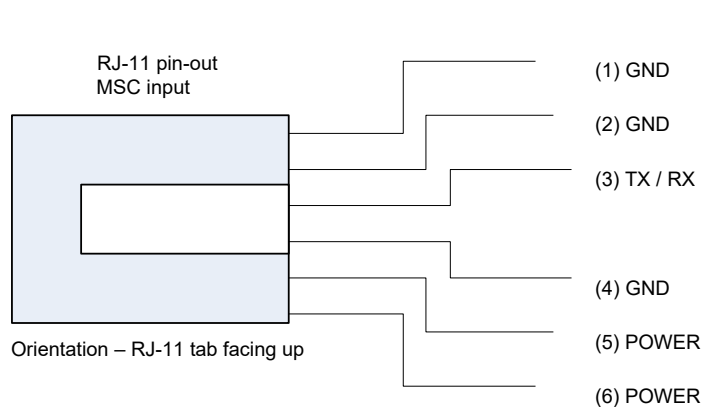
The MSC is externally powered by the Morningstar charge controller or inverter via the RJ-11 connection. A status LED indicates power and communication status. LED indications are as follows:

**Green LED** – power is applied with correct polarity.

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

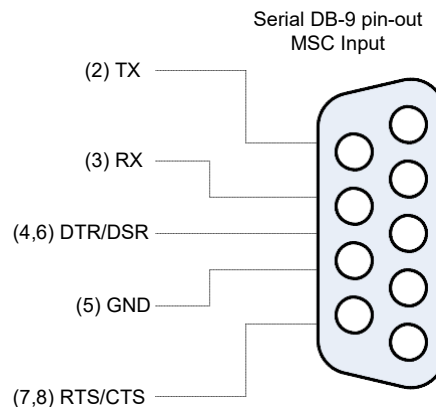
(electrical pin-out diagrams on back)

## Electrical Pin-outs:



### Notes:

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



### Notes:

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](http://www.morningstarcorp.com)

[support@morningstarcorp.com](mailto:support@morningstarcorp.com)

