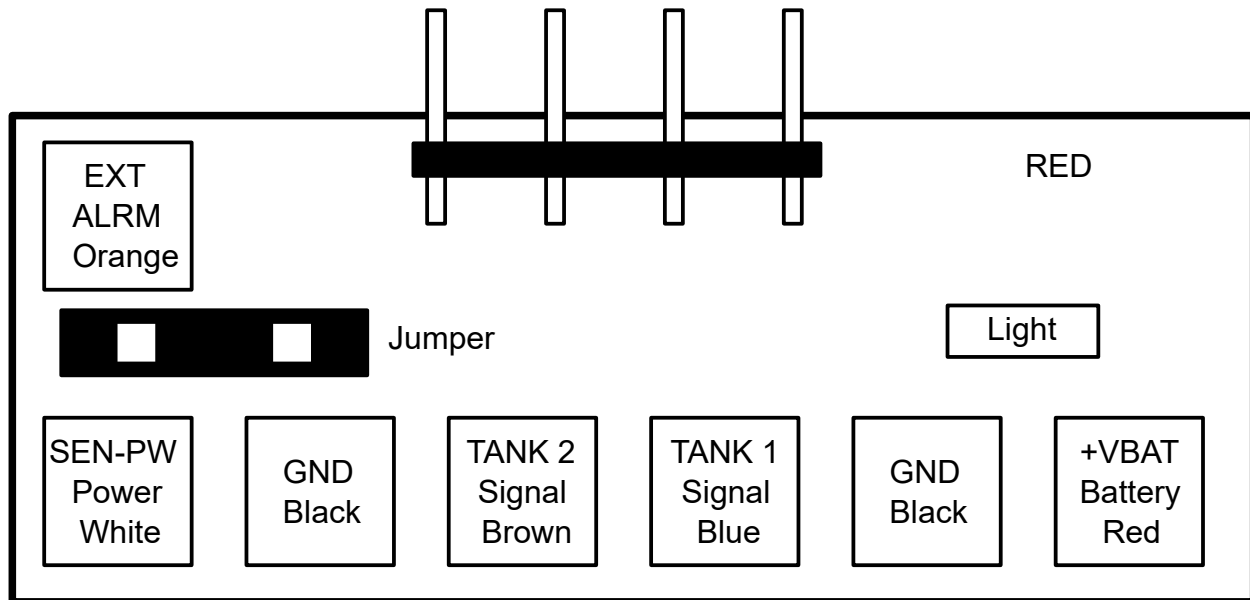


SCAD TM Break-out Board Instructions

These instructions are written for TM1 and TM2 monitors using SCAD internal or external sensors with an input power voltage of approximately 12 volt. For 24 volt systems or float sensors, contact SCAD. More information for troubleshooting can be found at www.scadtech.com/TMHelp

1. Turn power off and unplug the monitor from the wire harness.
2. Plug in the break-out board. Notice that the red wire on the harness is on the same side as the word "RED" on the break-out board.
3. Remove the jumper plug from the jumper pins.
4. Turn on the power to the harness. The blue light on the board should illuminate.
5. Follow the illustration and table below to check voltages.



| Check | Jumper | Negative Meter Probe | Positive Meter Probe | Expected Voltage | Fault |
|--------------------|--------|----------------------|----------------------------|----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Input power | Out | GND | +VBAT | Battery voltage (typically 12-14, write this down) | <ul style="list-style-type: none"> No LED light: No input voltage. Possible causes are blown or missing fuse, power not turned on, red and black wires reversed or open circuit. |
| Sensor power | Out | GND | SEN-PW | 0 | <ul style="list-style-type: none"> If near battery voltage, the power wire is shorted to the white wire |
| Sensor signal | Out | GND | TANK 1 TANK 2 (for TM2) | 0 | <ul style="list-style-type: none"> If near battery voltage, the power wire is shorted to the blue wire for tank 1 or brown wire for tank 2 |
| Input voltage drop | In | GND | +VBAT | Same as recorded battery voltage | <ul style="list-style-type: none"> If less than the recorded battery voltage, there is likely a poor connection on the power wires. |
| Sensor power | In | GND | SEN-PW | TM1: 9.5-11.5 TM2: 8-10 (sensor lights on) | <ul style="list-style-type: none"> If near 0, white wire is shorted to ground and the breakout board resistor will get HOT. Unplug breakout board. |
| Sensor signal | In | GND | TANK 1 TANK 2 (for TM2) | Empty: <1, else between 1 & 4 | <ul style="list-style-type: none"> If 0, copper foil fell off aluminum foil or bad connection on blue wire (brown wire TM2) If over 4, aluminum foil sensor tape shorted or internal probe internal sensor short |