



VRRN-1002-H1 & VRRN-1502-H1 QUICK START GUIDE

**PLEASE NOTE THIS IS A QUICK REFERENCE GUIDE FOR SETUP AND INSTALLATION.
PLEASE SEE USER MANUAL FOR FULL SAFETY INFORMATION AND INSTRUCTIONS.**

SAFETY TIPS

- Carefully unpack the UPS. Report any shipping damage immediately.
- Before installation, confirm that the voltage and current requirements of the load(s) are compatible with the system output.
- Confirm that the line voltage and current is compatible with the system input requirements.
- The system should be installed on a dedicated power circuit.
- Use proper lifting techniques when moving the system.
- The UPS has more than one live circuit. It is fed from AC as well as battery power. Power may be present at the output(s) even if the system is disconnected from line power.
- When installing a system in a cabinet, ensure that the environment meets the system specifications.

**FOR SUPPORT QUESTIONS CONTACT
310-689-2328 x 103**

1. Installation Components

VRRN-1002-H1 / VRRN-1502-H1



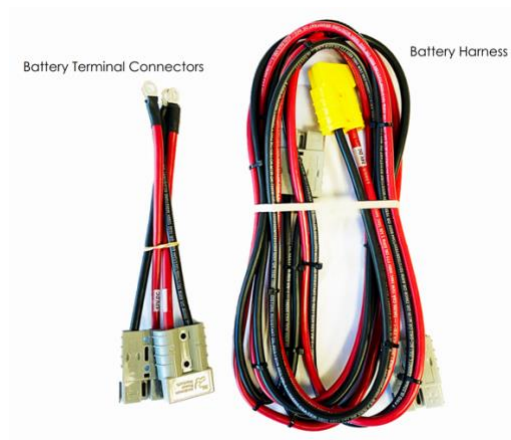
Power Transfer Switch (PTS) VSRC-3000-01



External Batteries (2 x 12VDC = 24VDC) or (4 x 12VDC = 48VDC)

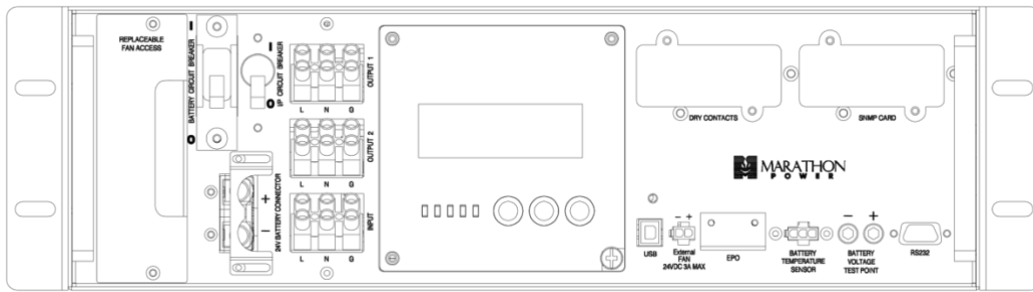


Battery Harness Kit

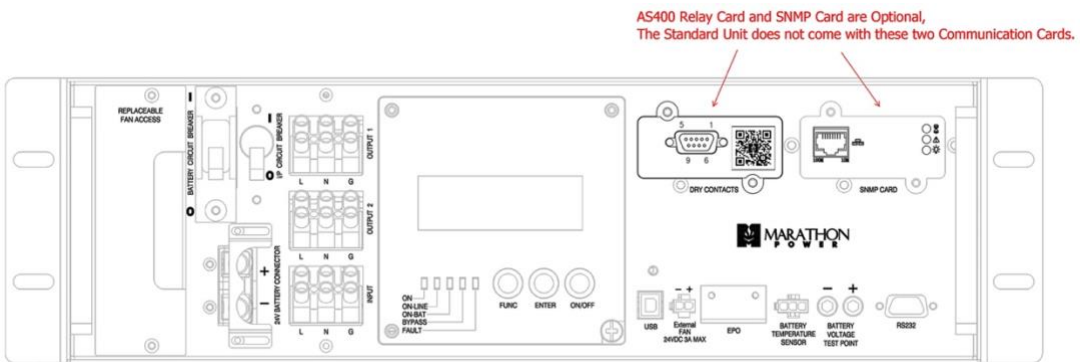


2. Front Panel View and Connections

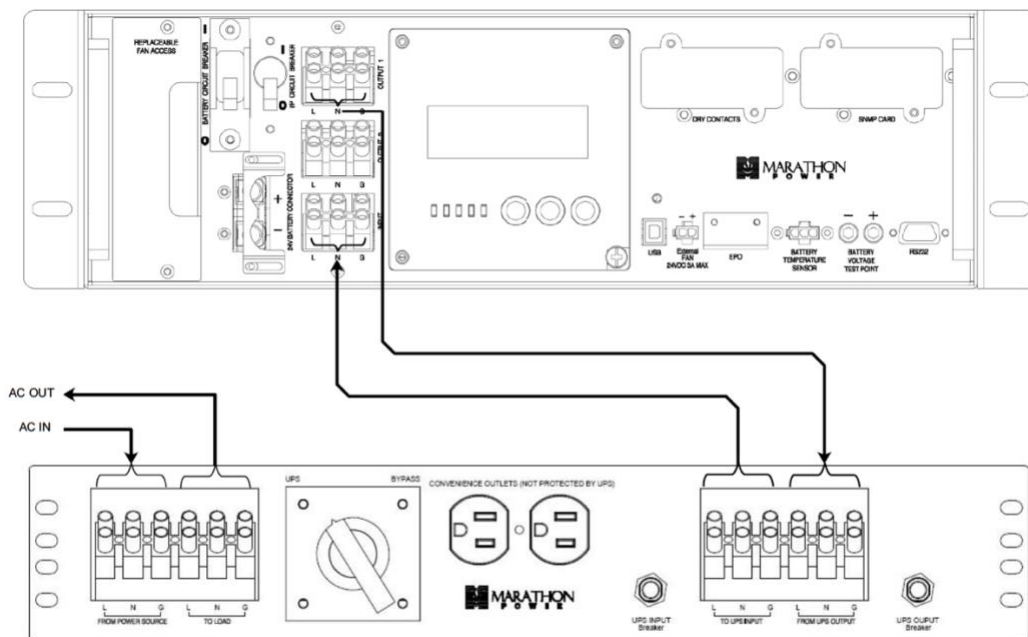
Front Panel



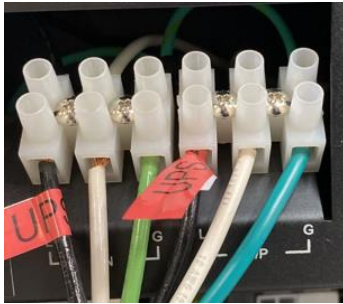
Front Panel with optional AS400 Relay Card and SNMP Card



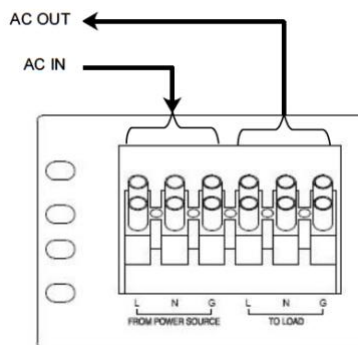
3. System Wiring Diagram with PTS



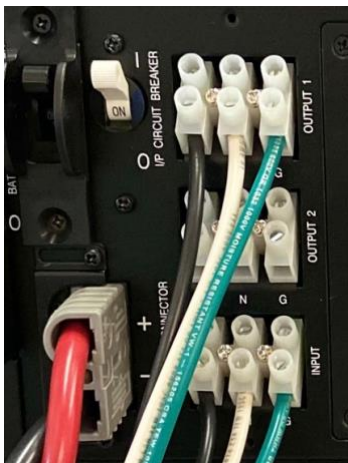
4. Connecting the Input and Output Power



AC INPUT / OUTPUT TERMINAL

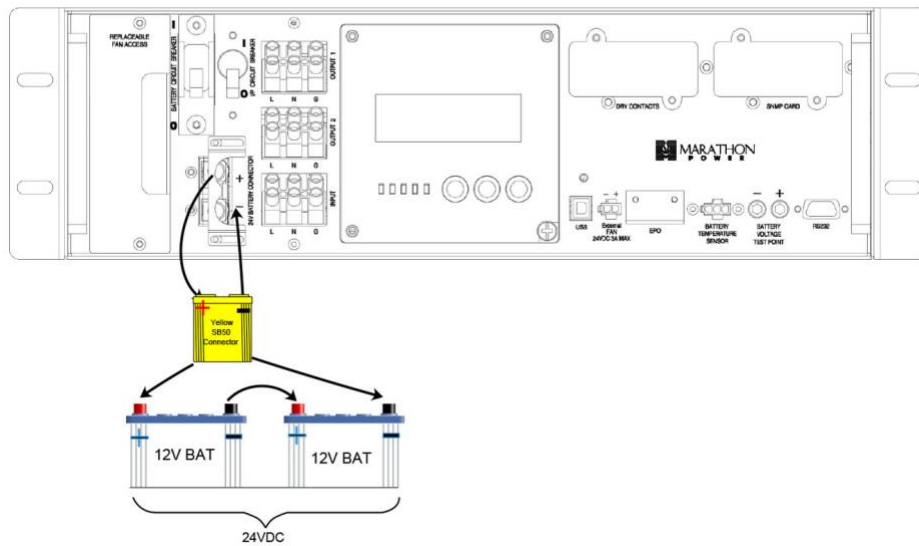


1. Open the upstream breaker feeding utility power to the signal cabinet.
2. Disconnect the HOT wire (Black) connected between utility and traffic cabinet.
3. Connect a **#10 AWG** black wire from the utility source to the **VAC IN** terminal on PTS. Run **#10 AWG** wires from the neutral and ground bus bars of traffic cabinet to PTS neutral & ground terminal blocks. Torque the PTS terminal block to a maximum of 10.0 lb-in (1.1 Mm).
4. Connect a **#10 AWG** black wire from the **VAC OUT** at the PTS to the signal cabinet. Torque the PTS terminal block to a maximum of 10.0 lb-in (1.1 Mm).
5. Connect a **#10 AWG** for interconnections between UPS (IN L, N, G and OUT L, N, G) and PTS (to UPS Input L, N, G and to UPS Output L, N, G).

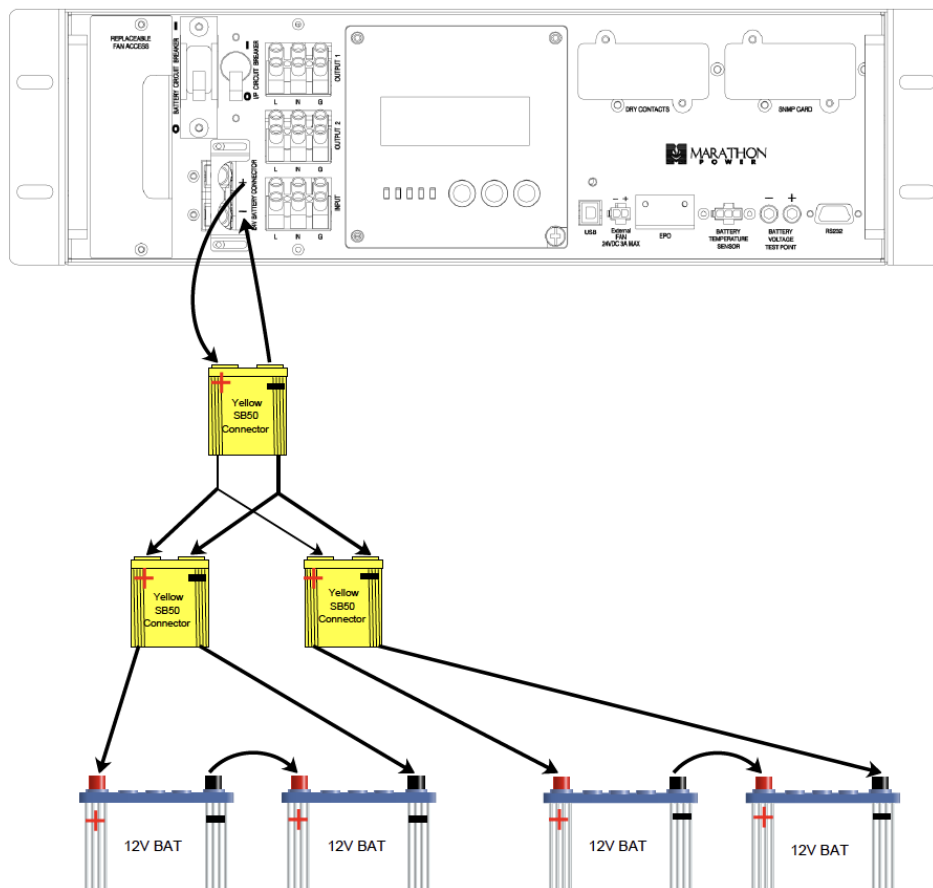


5. Connecting the Batteries

Battery Wiring Diagram with One String



Battery Wiring Diagram with Two Strings (Parallel)



6. Install and Connect the Temperature Probe

NOTE: Batteries do not like heat; the Temperature Probe gives feedback to control the cooling system. You **MUST** plug the Battery Temperature Sensor connector into the UPS for the UPS to operate.

IMPORTANT: Because it is easy to overlook, an unconnected Temperature Probe is the main reason that the red Alarm LED comes ON when power is applied.

1. Attach the Temperature Probe to the battery that you expect will be exposed to the most heat—for example, the battery next to the wall of the cabinet where you expect to have the most exposure to the sun.

NOTE: Connect the ring lug connector of the Temperature Probe to the battery terminal.

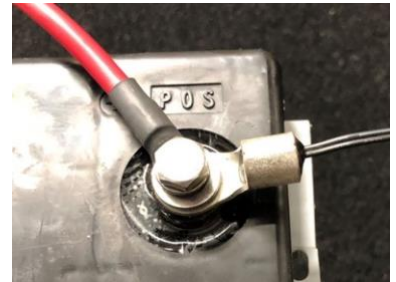
2. Connect the supplied 10-foot extension cable to the Temperature Probe and route it to the UPS.

7. Starting the UPS

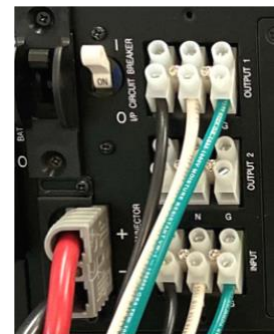
1. Verify that the AC Input & Output and the Battery Circuit Breaker on the UPS are Off.
2. Place the Manual Bypass Switch in the UPS position.
3. Turn ON the upstream Utility Input Circuit Breaker.
4. Verify the load has power.
5. Turn ON the AC Input & Output Circuit Breaker.
6. Turn ON the Battery Circuit Breaker.
7. LCD display shows STANDBY.
8. In 30 seconds, The LCD display changes to "ON-LINE".
9. The Green Output LED is Lit indicating Input power to be within acceptable frequency and voltage ranges and the output is powered from Utility.



BATTERY TEMPERATURE SENSOR



BATTERY TEMPERATURE PROBE



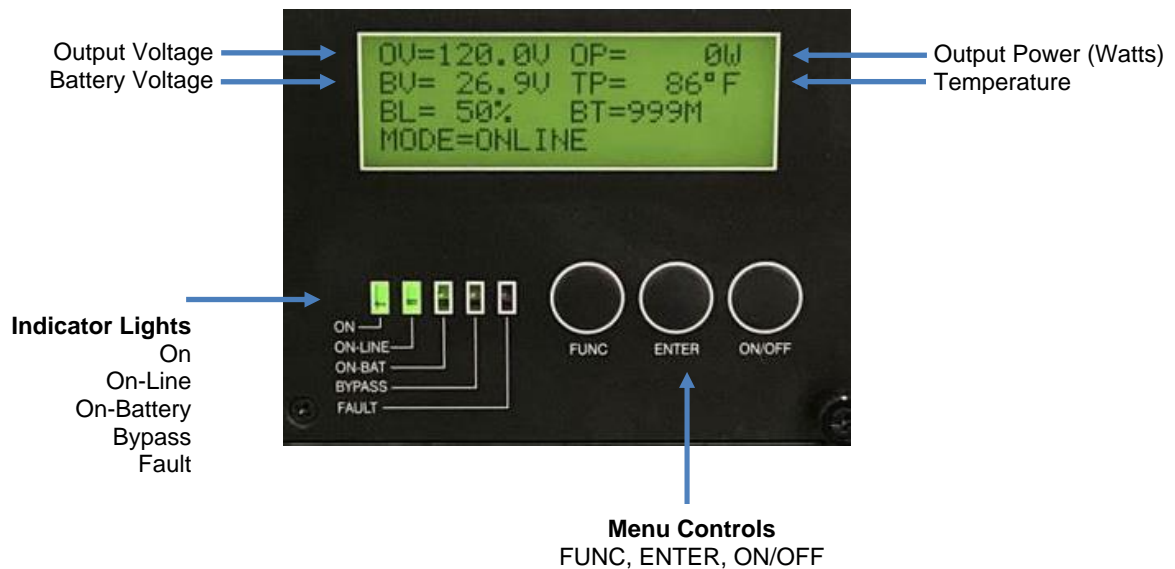
AC INPUT & OUTPUT



BATTERY CIRCUIT BREAKER

8. LCD Home Screen Operation

Operation of the UPS is indicated on the front panel with five LED indicators, three buttons and an LCD display.



9. Emergency Shut Down

1. Turn OFF the battery circuit breaker.
2. Unplug the AC INPUT cord and turn off the Utility Line power circuit breaker.
3. Turn OFF the AC input & output circuit breaker.

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