

1. Using a multimeter find and mark two taps on the rectifier that deliver between 12 and 18VAC. These will power the Hero 2 and the Solid State Relay w/Bypass (SSR)
2. Power down AC to the rectifier.
3. Mount Hero 2 monitor on structure (lag bolts included, other mounting supplied by installer).
4. Insert 3/4" cable hub into rectifier.
5. Cut conduit to desired length.
6. Feed all wires through the conduit into the rectifier.
7. The **DC** SSR kit consists of a 60A Crydom DC Solid State Relay (PN D1D60) mounted, with 2 mechanical bypass relays, on a 4"x4" aluminum plate. A 4"x4" blue thermal pad is included with this kit. The SSR and Bypass relays have the current protection wiring installed and require installation of the control wires. A protective diode has been installed across the switching terminals of the SSR to prevent damage from reverse polarity spikes from the pipe during interruptions.

or

The **AC** SSR kit consists of a 50A Crydom AC Solid State Relay (PN D2450PG) mounted, with 2 mechanical bypass relays, on a 4"x4" aluminum plate. A 4"x4" blue thermal pad is included with this kit. The SSR and Bypass relays have the current protection wiring installed and require installation of the control wires. The protective diode is not used with the AC SSR

8. If the kit includes an AC SSR, remove one of the shorting bars on either the coarse or fine taps
9. Remove the mounting plate with the SSR, Bypass and current protection wires from the package. Locate the two female Faston connections on the wiring of the Bypass Relays that are open and connect the male Faston connectors from the Black Jacketed wires (from the SSR Controller) to these points. **Take extra care to make sure the wires are connected exactly as shown in the diagram on the bottom of Page 4 (Red to Red/Black to Black)**
10. Remove the clear protective coating from one side of the blue 4"x4" thermal pad and attach to the bottom of the 4"x4" plate. Remove the clear protective coating from the from the other side of the thermal pad, now attached to the bottom of the mounting plate.
11. Locate the mounting plate inside the Rectifier (make sure that the relays/wiring does not interfere with any portion of the rectifier). Mounting the plate may require removal of the rectifier from the housing to accomplish. Use the included self-tapping screws to mount the plate to the rectifier, thermal pad side against the rectifier housing. The SSR/Bypass relays are not orientation dependent for their operation.
12. Connect the wires from the Grey Jacketed pair (from the SSR Controller) to the SSR in position #3 (Red wire) and position #4 (Black wire). There are fork connectors on these wires to facilitate connection.
13. Return the rectifier to the housing (if necessary) and make the current protection (blue wires) connections to the rectifier/pipe. Make sure to follow the labels on the wires.
14. On DC SSRs, remove the electrical cable from the rectifier negative output. Connect blue Current Protection wire, labelled **Rectifier**, to the negative output of the rectifier. Attach the blue Current Protection wire, labelled **Pipe**, to the electrical cable previously

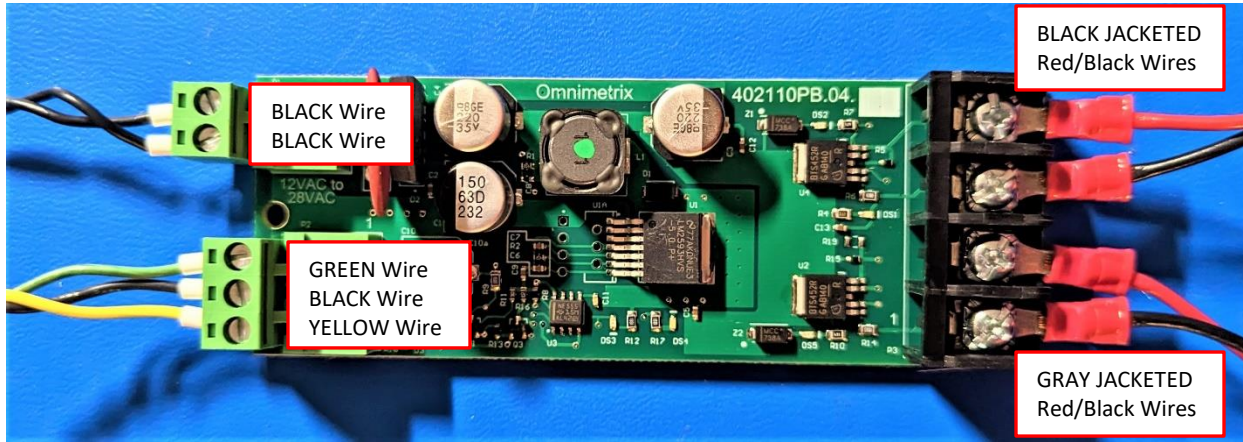
connected to the negative output. Polarity must be maintained with these wires. These are connected in place of any other interruption relay.

or

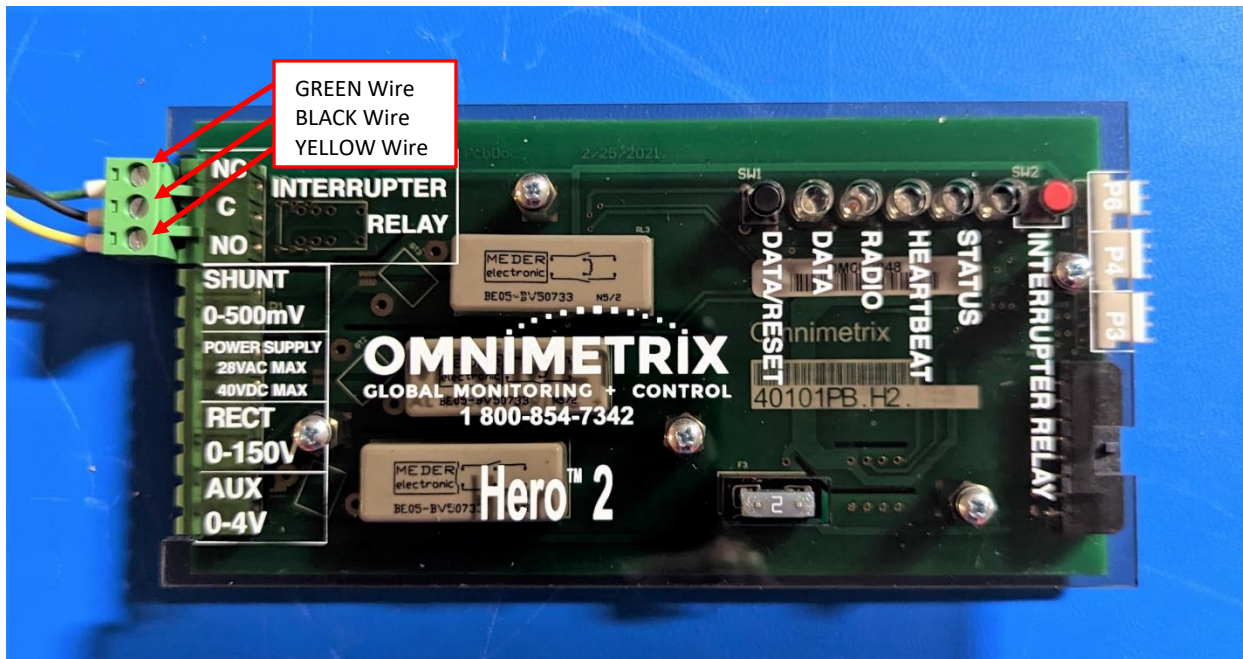
On **AC** SSRs, connect the blue Current Protection wires to the previously removed shorting bar positions on the coarse or fine taps. Polarity is not important with these wires.

15. Connect the Red/Black paired power wires to the appropriate taps that supply between 12 and 18VAC (polarity is not important)
16. Connect Grey jacketed wires, using ring terminals, to the DC output (polarity is not important)
17. If using the AUX channel to read P-to-S voltage, you **must** wire to the structure side of the Interrupter (in the case where a DC SSR is used) with the Grey jacketed wire pair. The AC SSR can be wired as normal to the output of the rectifier. A jumper wire will need to be inserted (on the phoenix connector at the Interface board) between the terminal used for the "Structure" wire and one of the AUX channel inputs. The reference cell wire will be inserted into the remaining AUX channel input on the phoenix connector.
18. Connect Black jacketed wires, using Faston or fork connectors, to the Shunt terminals (polarity is not important)
19. Power up the rectifier and the Rectifier Monitor. The green LED on the Bypass Control Board should go on. The red LED should come on for about a minute and then go off.
20. On Interface board, if all LEDs are blinking, then an overvoltage situation exist and must be corrected.
21. If all LEDs are not blinking, connect the battery leads (polarity is important, red wire to red connector + black to black).
22. The Hero 2 will go through its startup process. Once the unit is online, the Blue Heartbeat light will be flashing once per second and the Status, Radio & Data LEDs will all be solid.
23. If the green Status light is blinking after startup has finished and the blue heartbeat light is flashing, check for the following faults: 1) The battery is disconnected; 2) the GPS antenna cannot make connection with the GPS satellites; or 3) the main power is out. Correct these faults before proceeding. (Note the GPS connection could take as long as 3 minutes to connect)
24. To test the installation, issue an Interrupt Now command to the Rectifier Monitor or press and hold the Red Interrupter Relay button, for ten seconds, on the Interface Module. When the Blue Heartbeat light goes solid, release the button and wait until the unit starts its interruption cycle. The cycle should be 3 seconds off, 7 seconds on. Verify the CP current is being interrupted correctly. After confirming proper operation, press the Red Interrupter Relay button on the Interface Module, for at least ten seconds, until interruption stops
25. If the unit fails to come online call OmniMetrix Tech Support, 770-209-0012 ext. 2, for further support.
26. Go to the OmniMetrix website, <https://webdata.omnimetrix.net/omxphp/omxLogin.php>, to name the unit, set scale factors and to set up messaging.

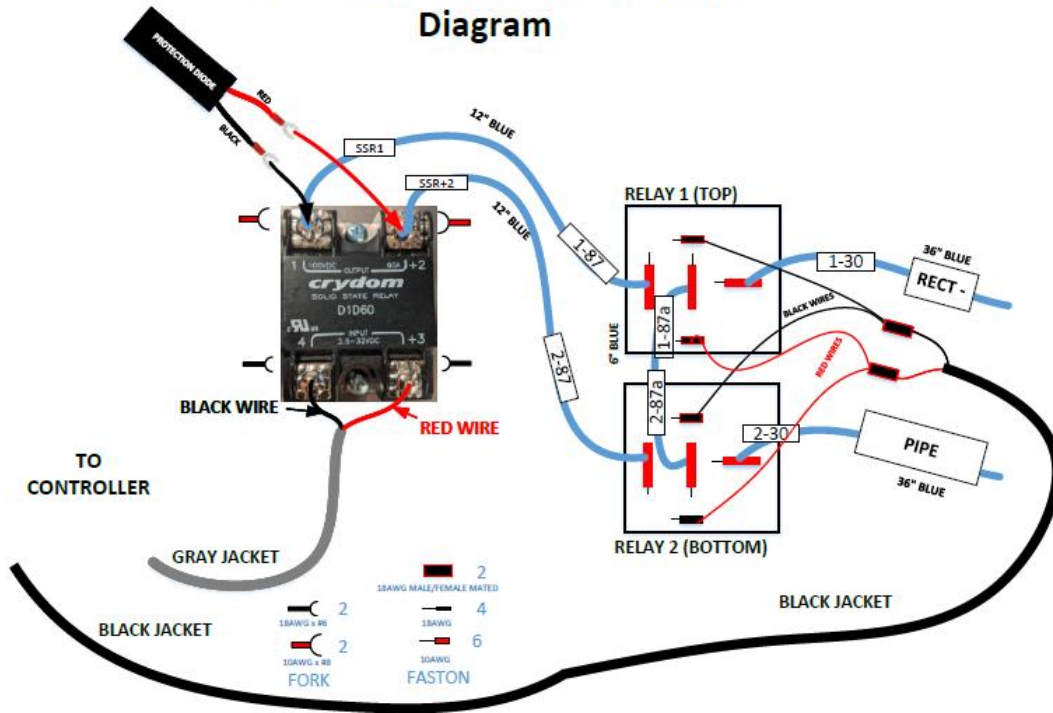
SSR Bypass Controller Connection Diagram:



SSR Bypass Controller to Interface Module Connection Diagram:



60A DC SSR Bypass Relay Wiring Diagram



50A AC SSR Bypass Relay Wiring Diagram

