

INSTRUCTIONS FOR SETTING THE MIDNITE CLASSIC FOR HYDRO

Below are the changes you need to make for the Classic to operate in Hydro Mode.

Turn the hydro off when making changes, as the open circuit voltage of the hydro can damage your equipment. The settings will allow the charger to stay on while regulation is performed by the auxiliary switch on your Classic.

1. We suggest you set the time and date, otherwise it will be constantly reminding you to do it. To do this, push the Menu button and then enter the Time/Date Menu.
2. Enter the Charge Menu and then the Volt Screen. Set the EQ, Absorb, Bulk, and Float to 5 Volts above the regulation voltage you want. Press the Enter button after you make the changes.
3. Still in the Charge Menu, go to End Amps screen. Leave at 0 or 1% of your battery capacity. Then Right to Rebulk and set that to 0.5V Volts below the actual Float Voltage for 12V, 1V for 24V, and 2V for 48V.
4. Go back to Main Menu by pressing the Menu button and enter the Tweaks Menu. Press the top right hand button under More. Check that the AF is off and the GF is off. Press Enter, if you change anything. Press the top right button under More until you see Insomnia. Turn Insomnia on and press Enter again.
5. Go back on the Menu screen and enter the Mode Function. Right Arrow to Solar and then up Arrow to Hydro. Enter the Hydro Setup. There are two options. The first being Twiddledither. This program will try and track the hydro but will constantly move up and down. On that screen, you can set the Minimum Voltage of the hydro and the Percentage of Sweep. Minimum Voltage should be about 10V below the hydro voltage and the Percentage Sweep 1%. The other option below Twiddledither is Upick. We prefer this program, where you set the MPPT Voltage yourself. Right Arrow to MPP and set it to the voltage you would like the hydro to run. The highest power is usually at about half the open circuit voltage of the hydro. You can find this by measuring the voltage of the hydro before you hook it to the system. Press Enter. When working on the Mode, it will often turn the controller off. Go back on the Menu screen to the beginning of the Mode Menu and make sure Mode is on. Once the hydro is running in Upick, you can raise or lower its voltage by pressing the small buttons on the top left and right of the panel.
6. Return to Main Menu and enter the AUX settings. There are two small jumpers to the left of the AUX connecting block. Move the jumpers to the left position. Go to AUX 2. Enter Diversion and then Waste not High. Press the small button below Setup and set the Volts to -5. Press Enter. Press the Status button to return to the Output Menu.
7. Connect the small screws marked Positive and Negative on the solid state relay to the Plus and Minus on AUX 2.
8. Before running the hydro, check that the AUX relay is working properly. To make it come on, go to the Charge Menu, currently set 5V above the diversion you would like, and lower the Bulk setting till the relay light comes on. Return to 5V above required setting.
Call, if you have problems.