

**Multi-Input Charge Controller
with Pump Prioritization****Product Overview**

The Tegulator TE-CON-SYS-1 Multi-Input Charge Controller with Pump Prioritization regulates the output of 1 or more Devil Watt Thermoelectric Generator(s) to charge a lead acid battery bank, a USB device or run a 12 VDC device.

Designed with 3 Inputs, TEG1, TEG2 & TEG3/Solar. TEG1 & TEG2 prioritize all available power to the pump, however TEG3/Solar does not. Tegpro's solar panel is the only panel specified to operate with this system and will be available with our distributors.

Connect your compatible thermoelectric generators to the input of the charge controller, such as an air-cooled or water-cooled Devil Watt brand unit. Connect the output(s) of the charge controller to a 12 VDC lead-acid battery or to your USB device via the USB port on the top.

The TE-CON-SYS-1 is factory set to charge a battery bank at 14.4 V DC. (This can be set by request up to 28.8 VDC for 24 VDC systems.) The pump will turn on at 3 VDC, and the battery charging output will turn on and operate above 9 V DC. The controller can handle inputs up to 30 V DC. It also has reverse polarity protection to prevent your battery from discharging back into the thermoelectric generator.

You can run DC devices directly off the output. However, if the load is in excess of what the TEG is generating, it will automatically disconnect the load and send all available power to the pump.

The USB port provides power on-the-fly to charge USB devices at up to 3 Amps.

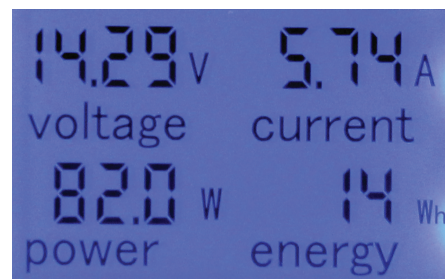
The TE-CON-SYS-1 displays voltage, current, power and watt hours logged. Simply press the reset button on the screen to reset the watt hours logged.



The TE-CON-SYS-1 Multi-Input Diversion Charge Controller



The TE-CON-SYS-1 has a USB charging port to charge on the fly.



The TE-CON-SYS-1 Diversion Charge Controller Screen

Typical Application

Connect the output of any Devil Watt wood stove thermoelectric generator to the input of the TE-CON-SYS-1. Connect the output of the TE-CON-SYS-1 to any 12 VDC lead acid battery and it will charge it to 14.4 VDC.

Wiring

Output is a 3 pin GX16 3 pin connector to connect the 12 VDC battery charging cable or USB/Automotive charging cable.

Specifications

Max Input Voltage	30 VDC
Max Input Current	10 Amps
<small>*Total for all inputs</small>	
Max Output Voltage	14.4 - 28.8 VDC
<small>*Factory set to 14.4 VDC</small>	
Max Batt. Output Current	10 Amps
Max Pump Power	24 Watts
Max Pump Voltage	12 VDC
Max USB Current	3 Amps

Compatible TEGs with Max Power

DW-ST-10W	10 Watts
DW-ST-15W	15 Watts
DW-ST-30W	30 Watts
DW-SM-30W	30 Watts
DW-SM-45W	45 Watts
DW-WC-50W	50 Watts
DW-WC-100W	100 Watts

Compatible TEGPRO Pumps

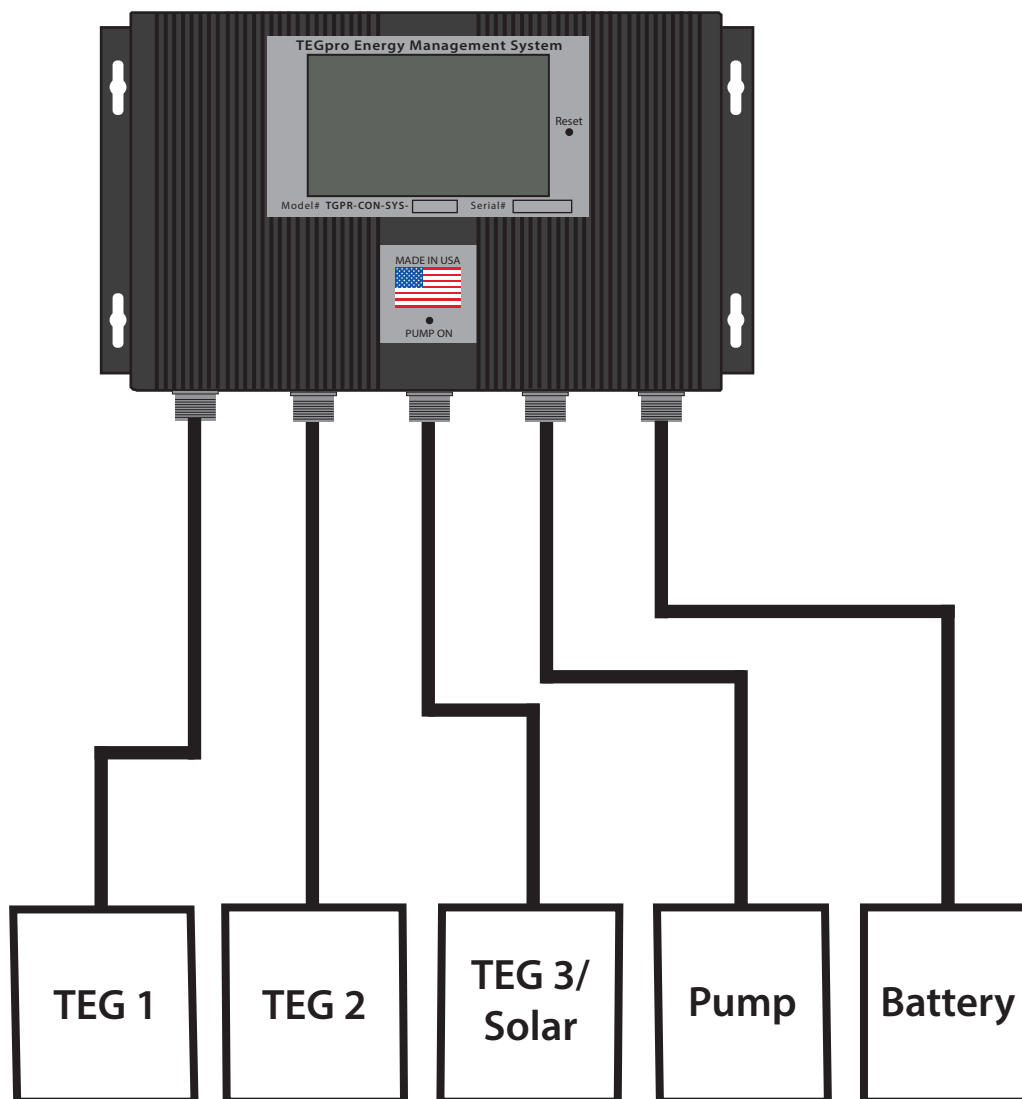
TGPR-PUMP-5W-12V	2.25 GPM	5 Watts	4.6 Feet Max Head
TGPR-PUMP-10W-12V	2.65 GPM	10 Watts	7.5 Feet Max Head
TGPR-PUMP-15W-12V	3 GPM	15 Watts	10 Feet Max Head

Patent Pending Design

This patent pending technology employs Cooling System Prioritization Technology. Unlike our competitors that rely on batteries to power their pumps, our state of the art system prioritizes all power to the active cooling system. The battery output will not turn on until the active cooling system is up to full power. As your stove cools, the battery output will again drop out and allow the pump to run until the output power generated can no longer support the load. * Note always ensure your Thermoelectric Generators produce enough power to run the pump to avoid damaging the system.

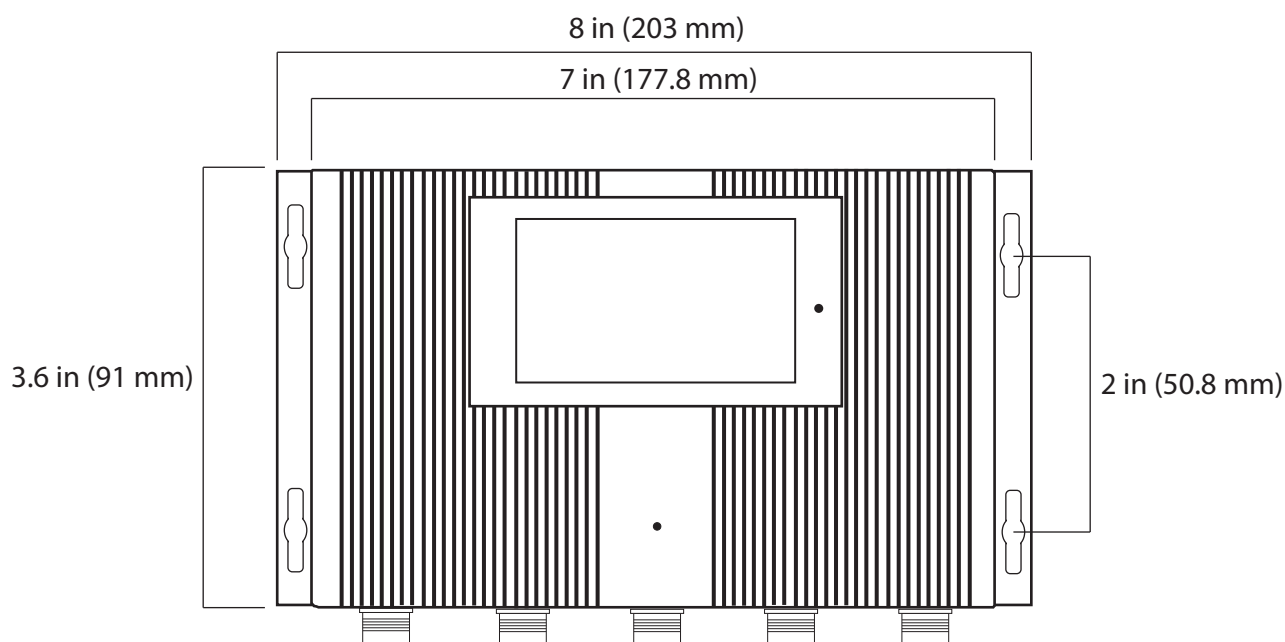
The pump controller lets you know there is power available to our super quiet pumps with it's green LED indicator.

Examples



Note that only inputs TEG 1 & TEG 2 will supply power to the pump. The TEG 3/Solar input will only send power to the USB charging & battery output ports. Some heat sources do not produce enough heat to power the pump. Ensure the pump is running shortly after the heat source is started so the water does not boil in the system as this can create a dangerous situation and damage the TEGs and other equipment.

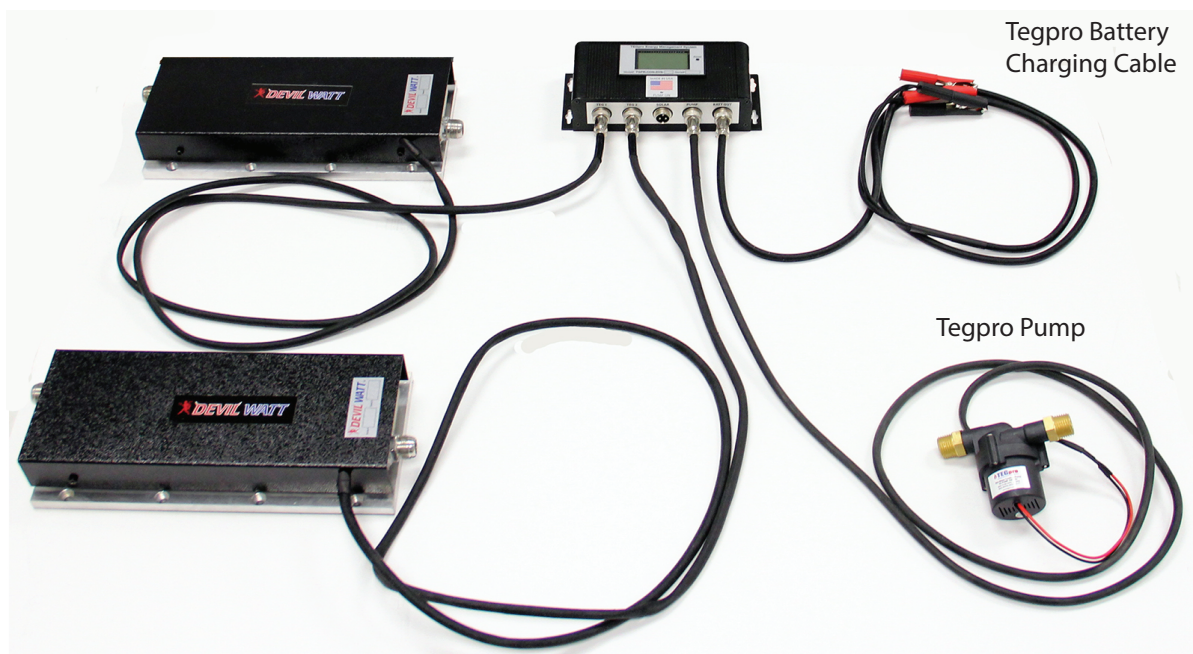
Dimensions



Examples



The TE-CON-SYS-1 used with 2 Devil Watt 45 Watt Generators



The TE-CON-SYS-1 with 2 Devil Watt 50 Watt Water Cooled Thermoelectric Generators