

Adding TPDIN-Monitor-WEB2 to RemotePro® System

Application Summary:

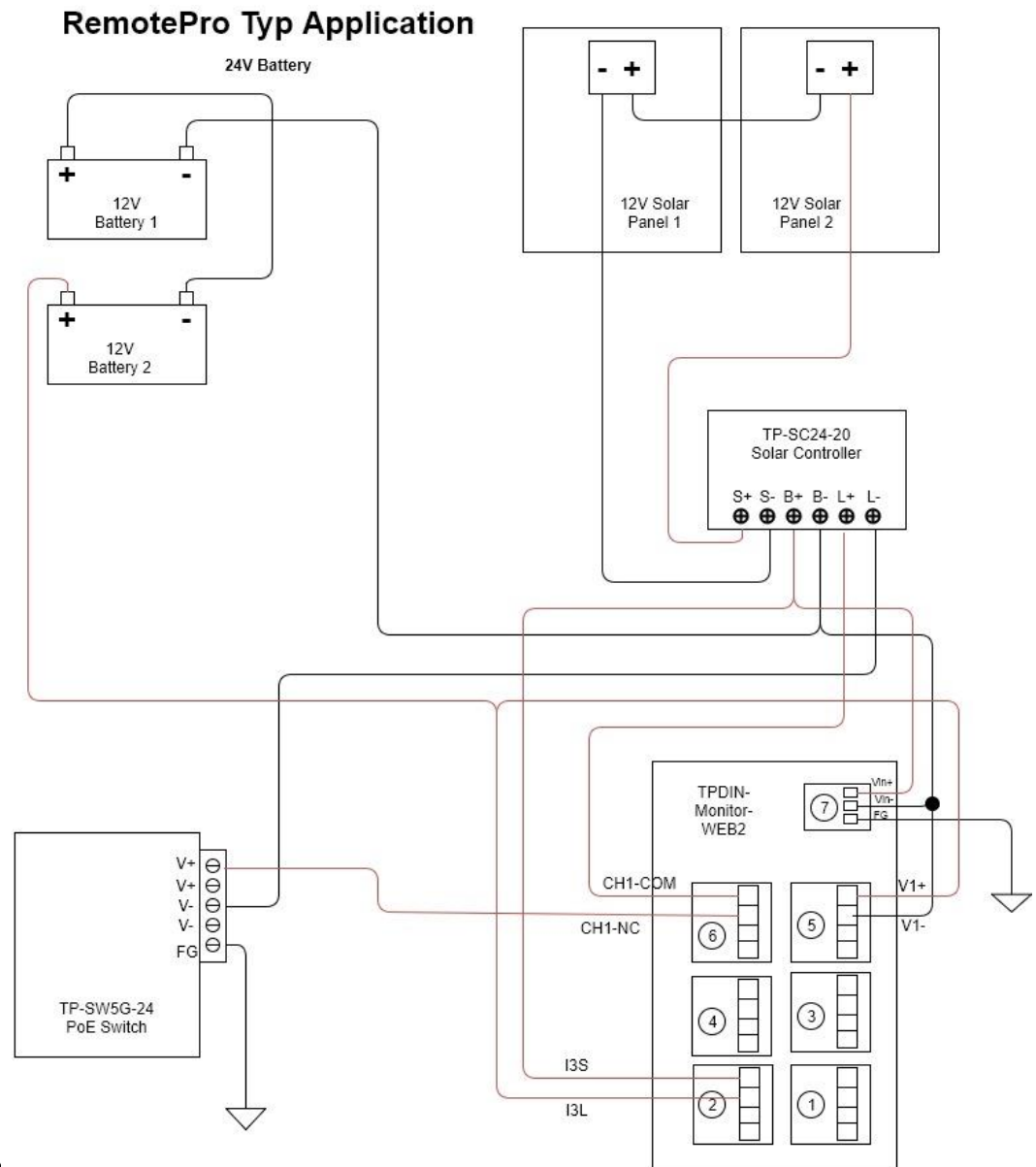
Customers with RemotePro® solar power units will want to add remote monitoring and control to their systems. This will allow them to remotely monitor the performance and condition of their remote power system without the need to travel to the site.

Solution:

Using the TPDIN-Monitor-WEB2 they can measure the battery voltage and see the charge rate of the battery bank. They can also monitor the temperature inside the enclosure. In addition they will be able to power cycle/reboot connected equipment automatically if it loses connectivity, which normally will fix connectivity issues.

Details:

We will show the simplest and most straightforward connection between the RemotePro™ System and the TPDIN-Monitor-WEB2. Since the TPDIN-Monitor-WEB2 is a highly flexible measuring and control system, exact application variants are endless.



PoE Switch ←

closed closed open open

Cycle Cycle Cycle Cycle

Disable Confirm

Battery Volt	0.0V
	0.0V
	0.0V
	0.0V

	0.0A
	0.0A
Battery Amp	0.0A
	0.0A

External Temp	73.4F
Internal Temp	75.5F

Log Memory Used: 36 %

Controller Time: 10/16/2017 10:40:04

Uptime: 0 days 00:04:54

Model: TPDIN-Monitor-WEB2-APART

Bootloader: 1.4

Version: 2.2.7 UNLICENSED

Input Labels on the Monitor Screen and then click Save Labels

Copyright © 2016 Tycon Systems. All Rights Reserved.

Set Ping Control to ping a critical IP (We used 192.168.1.20 in this example). If ping fails 5 times, the TPDIN2 will automatically power cycle Relay 1 which is connected to the PoE Switch.

Relay 1 Control: PoE Switch

Time Control: from 12:00 AM to 12:00 AM - else -

Temp Control: External Temp ▼ from 32 to 32 °F - else -

Voltage Control: Battery Volt ▼ from 0.0 to 0.0 Volts - else -

Current Control: ▼ from 0.0 to 0.0 Amps - else -

Ping Control: 192.168.1.20 if 5 fails cycle ▼ else -

Periodic Control: every 0 minutes for 0 minutes - else -

Relay 2 Control:

Time Control: from 12:00 AM to 02:00 AM close ▼ else open ▼

Temp Control: External Temp ▼ from 32 to 32 °F - else -

Setup email alerts on the Alerts Page. Set an alert when battery voltage reaches 22.5V so that you will be alerted before the solar controller turns off the load as part of its low voltage disconnect function. The TPDIN-Monitor-WEB2 supports SSL encrypted email servers such as GMAIL. You can also send a periodic alert, maybe every month, so you know the system is working.

Alert Type	min	max	Unit	Action
<input checked="" type="checkbox"/> Battery Volt	22.5	30.0	Volts	Save
<input type="checkbox"/>	0.0	0.0	Volts	Save
<input type="checkbox"/>	0.0	0.0	Volts	Save
<input type="checkbox"/>	0.0	0.0	Volts	Save
<input type="checkbox"/>	0.0	0.0	Amps	Save
<input type="checkbox"/>	0.0	0.0	Amps	Save
<input type="checkbox"/> Battery Amp	0.0	0.0	Amps	Save
<input type="checkbox"/>	0.0	0.0	Amps	Save
<input type="checkbox"/> External Temp	32	32	°F	Save
<input type="checkbox"/> Internal Temp	32	32	°F	Save
<input type="checkbox"/> Ping Alert	IP: 192.168.1.40		after 1 fails	Save
<input checked="" type="checkbox"/> Periodic	12:00 AM		every 30 days	Save

Conclusion:

By using the low cost TPDIN-Monitor-WEB2 as a remote monitor and control system an operator can remotely monitor his field equipment and minimize truck rolls. He can also get automatic alerts when something is wrong to allow him to take corrective action before the system goes down in order to prevent service shutdowns. The system will pay for itself if one incident is prevented by having advance information remotely.

The TPDIN-Monitor-WEB2 is a flexible tool which will allow monitoring of up to four voltages and four currents and control of up to four multipurpose relay switches.

Note: An internet connection is required to be able to send email alerts.

For more information visit <http://tyconsystems.com/index.php/products/tycon-power/tpdin-monitor-web/751-tpdin-monitor-web2>