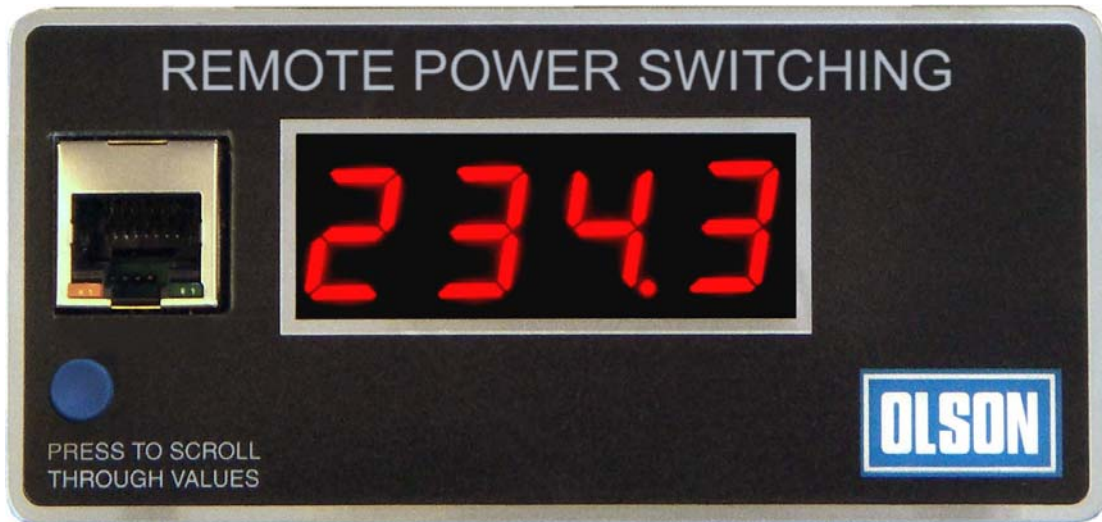


Olson Electronics Remote Power Switching PDU

Operation Guide



Switching Key Features

- Each socket can be remotely controlled, ON/OFF/CYCLE
- With the cycle command, outputs are automatically powered down for 10 seconds, and then powered back on. This means that even networking equipment controlling the PDU can be reset remotely.
- Overall rating 32A with the output rating of the switching relay is 16A (though the socket may not be rated at this level).
- At power on, each socket can return to the previous state i.e. the output state is retained when switched off.
- At power on, each socket can be individually programmed to have a delayed (sequential) start, within the range 0 secs to 25.5 secs.

Monitoring Key Features

- Amps: 00.00 to 32.00A True RMS (rated short period to 40A)
- Volts: 200.0 to 250.0V True RMS
- Watts: 0000 to 9999W
- KWh: 000000.0 to 999999.9 KWh (approx 15 years @ full 32A load before roll-over)
- Power Factor: .00 to .99 (Cos)
- Temperature 00.0 to 95.0 °C (internal to the PDU only)

Technical Specification

- Supply Voltage 200 - 250VAC 50/60Hz
- Maximum Overall Rating 32A continuous, individual outputs 16A continuous
- Accuracy Better than 1%
- 4 digit 14mm high LED local display
- RJ45 10baseT Ethernet connectivity
- SNMP support for all socket outputs, display values and configuration parameters
- IP Address Configurable, static and dynamic via DHCP client
- Each unit can be given a 'real world name' for easy identification

Operation Guide

- The Remote Power Monitoring PDU can be configured by any network enabled PC with a web browser.
- No CD or programs are required to configure the PDU.
- The unit comes with a default IP address of 192.168.0.30 and DHCP turned OFF.
- You can connect the PDU to an existing network via a standard RJ45 patch panel if connecting via a switch or hub.
- Alternatively you can connect directly to a PC with a cross over RJ45 patch panel.
- The setup is slightly different depending if a DHCP server is available.

PDU Connected to a DHCP Server

- Connect the unit to the mains and to the network
- Next turn DHCP ON from the local push button switch and display as follows:
 - Repeatedly press the push button switch until the display shows IP and then release. See below for full details of "Operation of the Local Display"
 - After a 2 second delay it should display the current IP address.
 - When it is displaying the current IP address, press and hold the push button switch until SET is displayed.
 - Release the switch and it should display ON i.e. DHCP ON
 - If it displays OFF then you have just turned DHCP OFF! In this case repeat the above procedure, DHCP is toggled ON/OFF by this procedure.
- Once DHCP is enabled it can take up to a minute to find the DHCP server and get it's address.
- If no DHCP server is found then the default IP address continues to be used.

PDU Connected Directly to a PC with Crossover Cable.

- The PC will need to have a static IP address on the same subnet as the PDU eg if the PDU has its factory IP address 192.168.0.30 then the PC will need an IP address in the 192.168.0.xxx range.

Displaying the Units IP Address

- The PDU IP address can be found either by the local LED display or via the DHCP server diagnostics/log if a DHCP server is being used.
- To display the IP address locally, repeatedly press the push button switch to scroll through the various parameters until 'IP' is displayed.
- The IP address should be displayed after 2 seconds after you release the switch. It will repeatedly scroll through the 4 IP address octets. See the 'Local Display' section for full details of operating the local display.

Connecting to the PDU with a Web Browser

NOTE. You may have to either configure or temporarily disable any firewall present to allow the web browser to connect to the PDU.

- Once the units IP address is known, you can connect via any popular web browser. Put `http://xxx.xxx.xxx.xxx` in the url address bar where `xxx.xxx.xxx.xxx` is the PDU IP address.
- In all the examples the IP address has been set to 10.1.0.8
- The unit has been tested with all popular web browsers running under Windows™, *nix and Apple OS including Internet Explorer 4.0 upwards, Firefox 1.0 upwards (and other Gecko based browsers), Opera 4.0 upwards, Safari 1.0 upwards, Galeon 1.0 upwards and Konqueror 2.0 upwards. It should work with all other standards compliant Web Browsers.
- If the web browser does not display a page you can ping the unit to check for network connectivity.
- If the PDU is not correctly connected then check the network settings, firewall settings etc.
- It may help to ping a known working IP address of say a server, router or other network device.

The Remote Web Interface

Olson Remote Power Monitor Measurements - Windows Internet Explorer

http://192.168.0.30/

Olson Remote Power Monitor Measurements

Remote Power Monitor & Switch

Location	Olson
AMPS	00.02 A
VOLTS	238.6 V
POWER	0009 W
ENERGY	0000000.0 kWh
POWER FACTOR	0.99
TEMPERATURE	34 °C

Setup Outputs Auto Update

Olson Electronics Ltd.
Olson House
490 Honeypot Lane
Stanmore
Middx HA7 1JY

email support@olson.co.uk
Tel +44 (0)20 8905 7273
Fax +44 (0)20 8952 1232

QIM
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REGISTERED FIRM

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Done Internet 100%

“Home” Page of the PDU

- The Home Page of the PDU displays a “snapshot” of the various power parameters and is not automatically updated.
- To get the various power parameters continuously updated click on the “Auto Update On” icon. The page will then automatically refresh every 10 seconds.
- This update time is user adjustable and can be set from the “Setup” page.

The Socket Switching Page

- Each socket outlet can be controlled from the 'Output Settings' page
- The outputs can be set to ON **1** or OFF **0** via the drop down selection in the Settings when the submit button is pressed. This can be used to power up or down a socket at any time.
- The Pwr (power) On State determines what happens when the unit is powered up. It can be set to ON **1** or OFF **0** or PREVIOUS **P** via the drop down selection. It option only becomes active once the submit button is pressed. It is envisaged that it would normally be set to previous unless there was some operational reason why equipment always had to be on or off at power up.
- The Pwr (power) On Timer setting allows each socket to be individually programmed to have a delayed (sequential) start, within the range 0 x 100mS (immediate on) to 255 x 100mS (25.5 secs). Note 100mS = 0.1 seconds
- All outputs can also be cycled On -> Off (for 10 seconds) -> On via the relevant cycle icon. There is no need to use the submit button, the action is immediate.
- Care must be taken to ensure that the recycle icon is not pressed when adjusting the power on timer (sequential).

The screenshot shows the 'Output Settings' page for the Olson Remote Power Monitor & Switch. The page is displayed in a Windows Internet Explorer browser window. The URL is http://192.168.0.30/outputs.htm?P__OA1=1&P__OA2=1&P__OA3=1&P__OA4=1&P__OA5=1&P__OA6=1&P__OP1=P&P__I. The page features the Olson logo and the title 'Remote Power Monitor & Switch'. Below the title is the 'Output Settings' section, which contains a table for configuring 12 outputs. The table has columns for Output (1-12) and rows for Setting, Current State, Pwr. On State, Pwr. On Timer x100 mSec, and Pulse Output Off. A 'Submit' button is located at the bottom right of the table. Below the table is a 'Measurements Page' link.

OUTPUT	1	2	3	4	5	6
Setting	1	1	1	1	1	1
Current State	1	1	1	1	1	1
Pwr. On State	P	P	P	P	P	P
Pwr. On Timer x100 mSec	000	010	020	030	040	050
Pulse Output Off						
OUTPUT	7	8	9	10	11	12
Setting	1	1	1	1	1	1
Current State	1	1	1	1	1	1
Pwr. On State	P	P	P	P	P	P
Pwr. On Timer x100 mSec	060	070	080	090	100	110
Pulse Output Off						

Submit

Measurements Page

Output Setting Page

The "Setup" Page

- The "Setup" page is accessed from the Setup icon on the home page.
- It is password protected – with factory default username and password both being **olson**
- From the setup page various parameters can be adjusted
- As we have a policy of continuously updating our products, you may receive a unit with a higher firmware revision number.

Remote Power Monitor - Config - Windows Internet Explorer

http://192.168.0.30/server_config.htm

File Edit View Favorites Tools Help

Remote Power Monitor - Config

OLSON Remote Power Monitor & Switch

Server Configuration

Module Type Olson 9017-V01 PDU
Firmware Revision 1.02
Ethernet Address 000D06180657

Unit Name/Location Olson Submit
Default IP Address 192.168.0.30 Submit
Current IP Address 192.168.0.30
HTTP Port Number 00080 Submit
DHCP Enabled ON Submit
ICMP IP Set Enabled Y Submit
HTTP Username olson Submit
HTTP Password olson Submit
Web Page Upload Password olson Submit
Firmware Upload Password olson Submit
SNMP Read Community public Submit
SNMP Write Community olson Submit
SNMP Enable N Submit
Info Page Refresh Rate 010 Submit

Measurements Page

Olson Electronics Ltd.
Olson House
490 Honeypot Lane
Stanmore
Middx HA7 1JY

email support@olson.co.uk
Tel +44 (0)20 8905 7273
Fax +44 (0)20 8952 1232

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PDU Configuration Page

SNMP

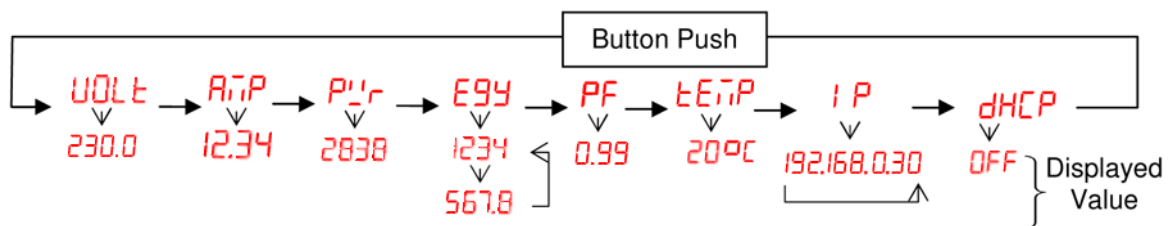
- The PDU can be used with most SNMP management and monitoring programs.
- To assist in setting up SNMP programs there is a MIB file on our website.
- SNMP traps are not yet implemented. It is hoped these will shortly be incorporated into a firmware update.

Firmware Updates

- When firmware updates are available they will be posted on our website together with instructions on how to perform the update.
- The firmware update is performed via the network and so can be done remotely.
- At present the update utility software only runs on Microsoft Windows PC's

Operation of the Local Display

- When booting it will illuminate the decimal points, right to left, while carrying out a self-diagnostic check.
- It will then display 'Olson Electronics' while continuing it's self-diagnostic check and energising the sockets.
- It will then display the firmware version number for 2 seconds
- It will then display the last parameter it was displaying when powered down.
- You can scroll through the different parameters by the push button switch.
- Below is the order of displayed parameters.
- Pressing the switch immediately displays the header/description. The actual value is displayed after a 2 second delay from releasing the push button.



- You can toggle DHCP ON and OFF from the local push button switch
 - Repeatedly press the push button switch until the display shows IP and then release.
 - After a 2 second delay it should display the current IP address.
 - When it is displaying the current IP address, press and hold the push button switch until SET is displayed.
 - Release the switch and it should display ON or OFF
- You can force all socket outputs ON from the local display
 - Repeatedly press the push button switch until the display shows VOLT and then release.
 - After a 2 second delay it should display the current voltage.
 - When it is displaying the current voltage, press and hold the push button switch until the SOCKETS ON message is displayed.
 -

Resetting the KWh Counter

- The KWh value is stored in E²PROM memory and will be retained for up to 100 years with the unit powered down.
- It is not possible for the user to reset the KWh meter. It can only be reset by returning it to the factory.