# DNET - DINGO ETHERNET GATEWAY Rev 2.2

The DNET Ethernet Gateway is designed for use with the Dingo series of solar charge controllers. It provides basic read-only access to the main parameters of the Dingo 2020N and Dingo 4040P products via both a Web Server interface (HTTP) and the Simple Network Management Protocol (SNMP)

Configuration

A configuration mode is provided to allow changes to the default settings. This mode is enabled by a short press (less than one second) of the **Configuration Button** within 10 seconds of applying power to the device. See Figure 1 below.
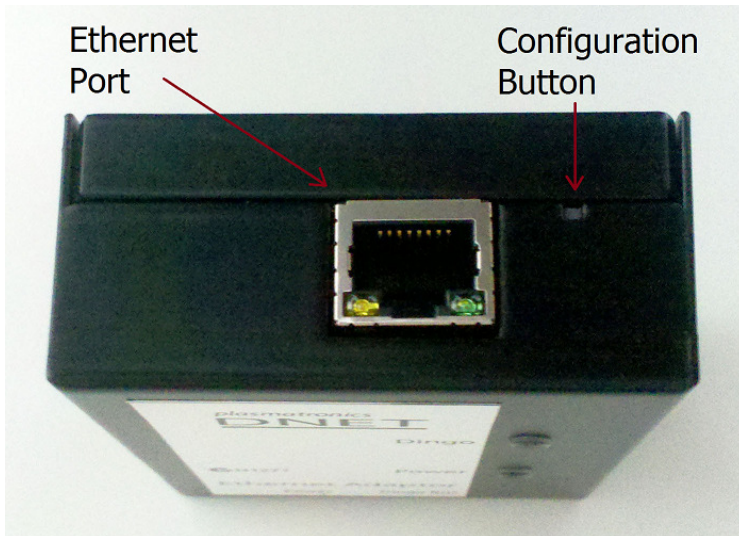
Figure 1 Ethernet Port and Configuration Button

The DNET may need to be configured to work with the host network. By default the device uses DHCP to acquire a network IP address, failing this it will revert to Link Local Addressing.

By connecting the DNET directly to a computer using the Ethernet port it is possible to access the configuration web page of the DNET. It may take up to a minute for the computer to establish network communications with the DNET. When Ethernet communications are established it will be possible to access the Web Server via:

http://169.254.100.100/config.html

After the parameters have been configured the update button on the web page should be clicked and then the DNET needs to be reset by removing the power. The DNET is then configured and ready for connection to the host network.

Web Server

The DNET can present the status of the attached Dingo device via web pages. These can be accessed by using the assigned IP address directly from a web browser

http://<IP Address> /status.html

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SNMP Agent

The DNET has an SNMP agent which can report the status of the attached Dingo device. The DNET supports SNMP v1 on the standard UDP port 10161. The MIB file for the agent's database can be found on the DNET's Web Server

http://<IP Address>/mib.html

Visual Indicators

The DNET has four LED's to indicate status information, two on the front panel and two on the RJ45 Ethernet connector.

Front Panel

The LED's on the front panel are used to indicate various states of the DNET. The table below summarises how the various states are represented.

State	Amber	Green
Power Up (Initial 10 seconds)	Off	On
Configuration Mode	System OK - Mostly On*	Communication - Mostly On*
Normal Mode	System OK - Mostly Off*	Communication - Mostly Off*

Note: * Flashes to indicate healthy system.

RJ45 Ethernet Connector

The amber indicator shows that there is a connection. The green indicator shows data activity on the link.

Ethernet Address

The Ethernet MAC address of the device can be found on the label on the side of the case.

Power Supply

The negative power supply to the DNET must be at the same system potential as the negative battery connection on the Dingo. The polarity of the connection is indicated on the device label and is made using the removable green screw terminal block.

Technical Specification

- Power Supply 10 V – 100 V

- Supply current varies with voltage but is approximately 20 mA at 12 V

- Temperature -20° C to 60° C ambient

- Field upgradeable

- Supports HTTP and SNMP protocols

- 10 Mbps Ethernet RJ45