



## NETMASTER NETWORK MANAGER WITH ENERGY MONITORING

### FOR RESIDENTIAL SOLUTIONS

#### TP-NM-R-EM-D FEATURES

- Fully compatible with FCU-503 and MZ-503 controllers
- Fully compatible with CCS-7 user interface
- Secure Remote Access App support
- BACnet MS/TP and Modbus RTU to BACnet/IP Routing
- Embedded HTML5 web server for setup
- Energy Monitoring interface

The TP-NM-R-EM-D NetMaster provides network management within residential control applications when used alongside Titan BACnet residential controllers and user interfaces.

The NetMaster handles all time scheduling for comfort control and water treatment routines, secure links for remote control applications, and communication links to 3rd party IP systems or BMS, creating a powerful residential solution for comfort control and energy monitoring solutions.

The TP-NM-R-EM-D supports all the functionality of the TP-NM-R-D and adds a second RS485 port to the platform dedicated for Modbus RTU or BACnet MS/TP metering devices and is supplied complete with the Energy Monitoring software module to provide a complete Smart Metering interface solution.

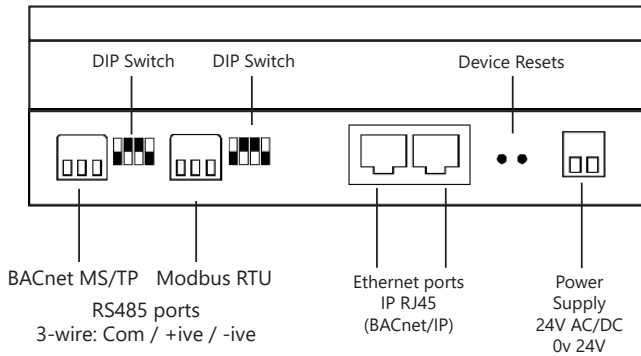
The NetMaster is simple to install and setup via the internal web server.

#### SPECIFICATION

Power Supply	24V AC/DC +/-10%
Power Consumption	0.5A @ 24VAC/DC
Connections	2 x RJ45 10/100 Mbps shielded Fast-Ethernet Port 2 x serial port EIA-485 BACnet MS/TP / Modbus RTU 1 x USB (OTG) used for production programming
LED Indication	RS485 Tx/Rx Power LED
Network Bias Resistors	560 Ohms (DIP Switch)
Termination Resistor	120 Ohms (DIP Switch)
Operating Temperature	5 – 40°C
Operating Humidity	20 – 80% RH Non-condensing
Operating System	Linux
IP Rating	IP20
Enclosure Plastic Rating	UL94-VO
Mounting	DIN Rail
Dimensions	159 (w) x 90 (h) x 58 (d) mm
Country of Origin	UK
Product Code	TP-NM-R-EM-D



## CONNECTIONS

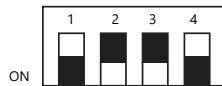


## DIP SWITCH SETTINGS

Each RS485 port has a dedicated 4-way DIP switch that is used to terminate and bias the network.



To Terminate the MSTP network with 120R resistor, switches 2&3 should be on (down)

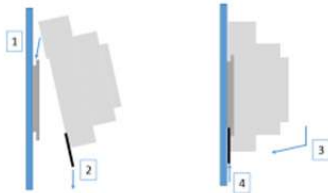


To apply Bias to the MSTP network, switches 1&4 should be on (down)

## MOUNTING & INSTALL

The NetMaster product must installed by a competent and suitably qualified person in a location/enclosure suitable to provide protection to the device and network from unauthorized access/tampering that could lead to reduced network security.

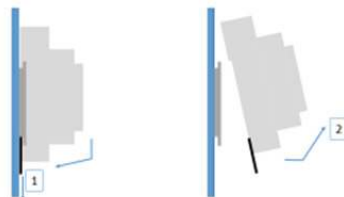
### Fixing to DIN rail



1. Fix top clips over DIN rail
2. Pull down bottom clips using screwdriver
3. Close controller towards DIN rail
4. Push up bottom clip to fix securely to DIN rail

*Must be mounted horizontally*

### Removing from DIN rail



1. Pull down bottom clip with screwdriver
2. Lift controller away from DIN rail

## COMMISSIONING

The setup screens are accessed through a web browser once the TP-NM-D is connected to the same local IP network. Enter the IP address (192.168.1.151 default) into the URL address bar within a web browser and when prompted enter the user name and password:

Default user name: admin

Default password: admin

At first login, you will be prompted to change the password. This is mandatory.

*Full commissioning details can be found in the manual - contact Titan Products for this.*

*For further install and setup information please contact [technical@titanproducts.com](mailto:technical@titanproducts.com)*