

Power Display Installation Guide

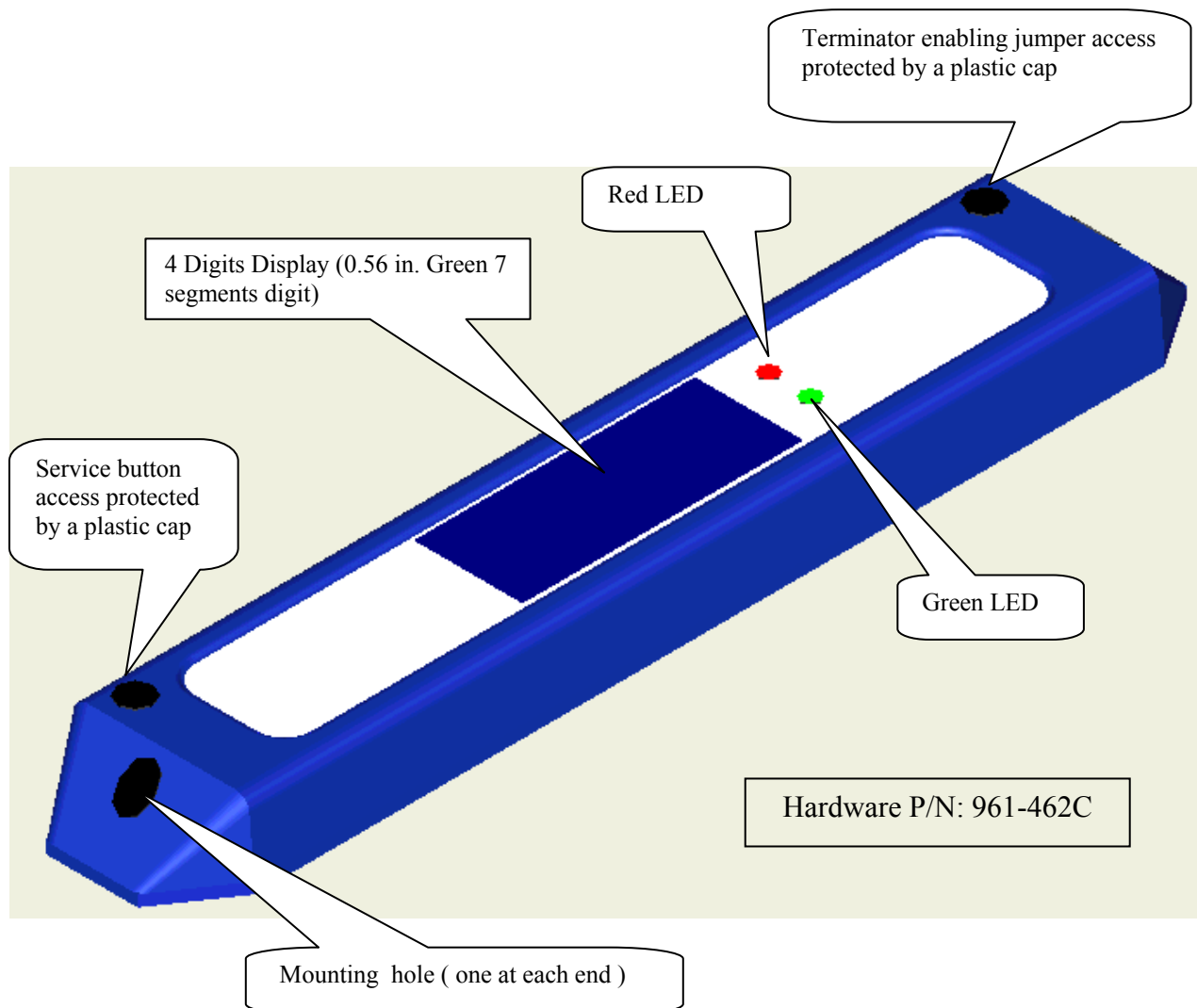
Revision 1.1, Sept 1st, 2009, MTA V5.2

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General

Power Display node is a LonWorks display unit that can be used to convert format and display Power (kW), Power Factor and string (with limited character set) on a four digits 7 segments display. There are also two LEDs that can be used for other contextual display.

The face plate of the display must be manually labeled to indicate the units (PF, kW) and special meaning of the LEDs according to the vocation of the display module.





Installing the Power Display node

Physical installation

There is two mounting hole, one at each end, to fix the module to the targeted equipment.

There are four wires and a shield coming out of the backside of the module :

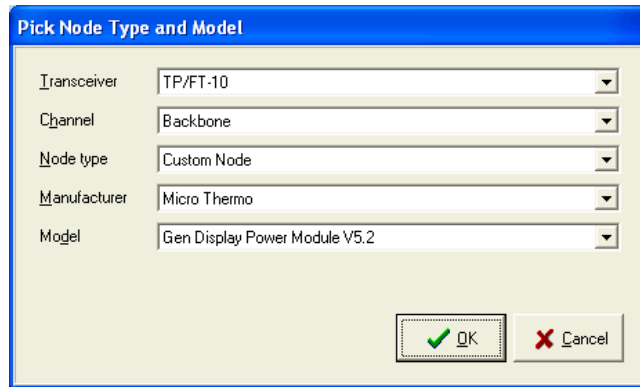
Green and White (no polarity) are for the DATA to be connected to the FTT-10A network.

Red and Black (no polarity) are for the 24 Vac power to be connected to the 24 Vac power distribution that normally powered the other nodes on the network. If a 32VacCT is used, take only the 16 Vac available between one 32Vac line and the center tap. Connect the shield to earth or chassis ground.

MT Alliance installation

In MT Alliance select the view where you want the node to be dropped in any subsystem.

Pick and place a **node** and fill the form as below:



To install the MT-Display module on a LonWorks FTT-10A network, you can enter the 12 digit Neuron Id that you can find on a label on the back of the module or press the service button as requested during the standard installation procedure with MT-Alliance.

The service button is at the left end side of the display under a protective plastic cap.

Please use a non conducting rod to press the service button.

Make the network variable connection using the tool in the Network Menu.

To uninstall the node remove power, press and hold the service button for about 5 seconds after powering the module again.

When wink command is sended to the module it will display strange character scrolling on the digits for about 1 minute.

Using the Power Display node

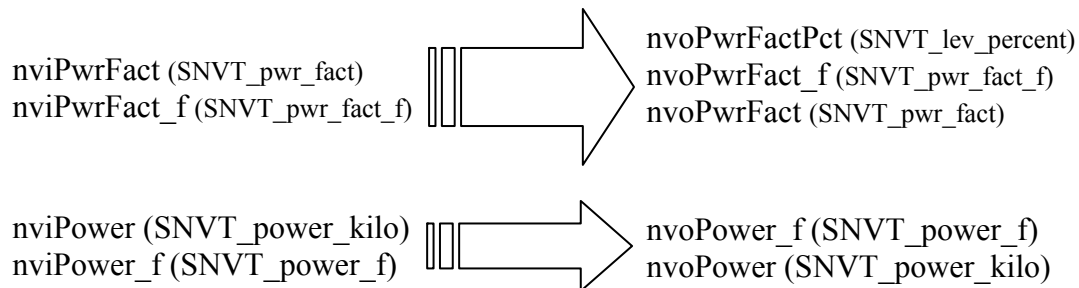
The Power Display program have :

- 5 inputs SNVTs used as information sources for the display. When an update occur on any one of those SNVTs the informations will be displayed on the 7 segments digits. If information is out of range the symbol OL will blink on the display.

| | |
|--------------------------------|--|
| nviPwrFact (SNVT_pwr_fact) | -1.0 .. 1.0 (0.00005) |
| nviPwrFact_f (SNVT_pwr_fact_f) | -1.0 .. 1.0 |
| nviPower (SNVT_power_kilo) | 0 .. 6,553.5 kW (0.1 kW) |
| nviPower_f (SNVT_power_f) | -1E38 .. 1E38 watts |
| nvi_string (SNVT_str_ascii) | (possible characters on a 7 segments digit) |

So the simplest way to use the display is to bind the nvi corresponding to the type of information you want to monitor to an output SNVT of the right type on energy source node.

- 5 outputs SNVTs converting format of input information. When an update occur on input SNVTs Power input or Power Factor, the value received is redistributed on the corresponding outputs SNVTs with the right format. So those outputs SNVTs can be binded to other node with the compatible format.



- two input SNVTs to control the state of the green and red LEDs.

nvi_GreenLed (SNVT_switch)

nvi_RedLed (SNVT_switch)

LED ON =>.state = 1 and .value > 0; LED OFF => .state = 0 or .value = 0;

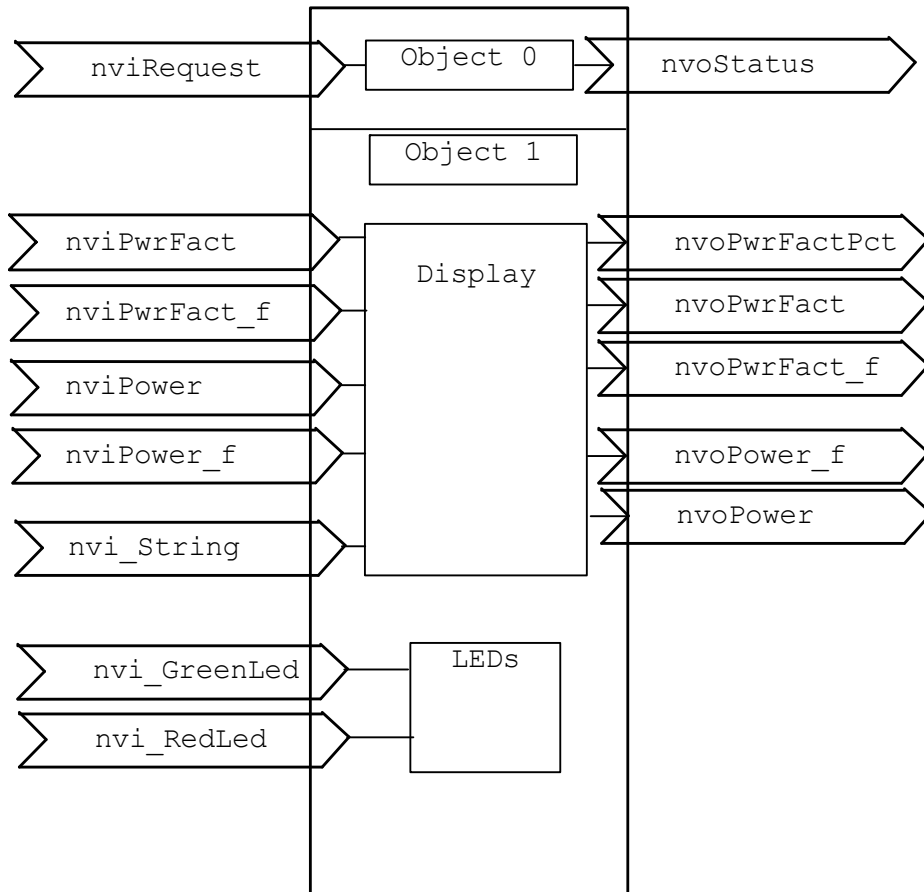
- one input and one output for mandatory object 0 SNVT.

nviRequest (SNVT_obj_request)

nvoStatus (SNVT_obj_status)

support only invalid Id and invalid request report.

Functional Profile





Revisions History

| REV | Description | Revised by | Date |
|-----|--|------------|-------------|
| 1.0 | Document Creation | SC | 8-Jul-08 |
| 1.1 | Revision for MTA Version 5.2 and added revisions history | JFB | 01-Sep-09 |
| 1.2 | Cover page and formatting | ER | 13-Apr-2015 |
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