Case Display Installation Guide
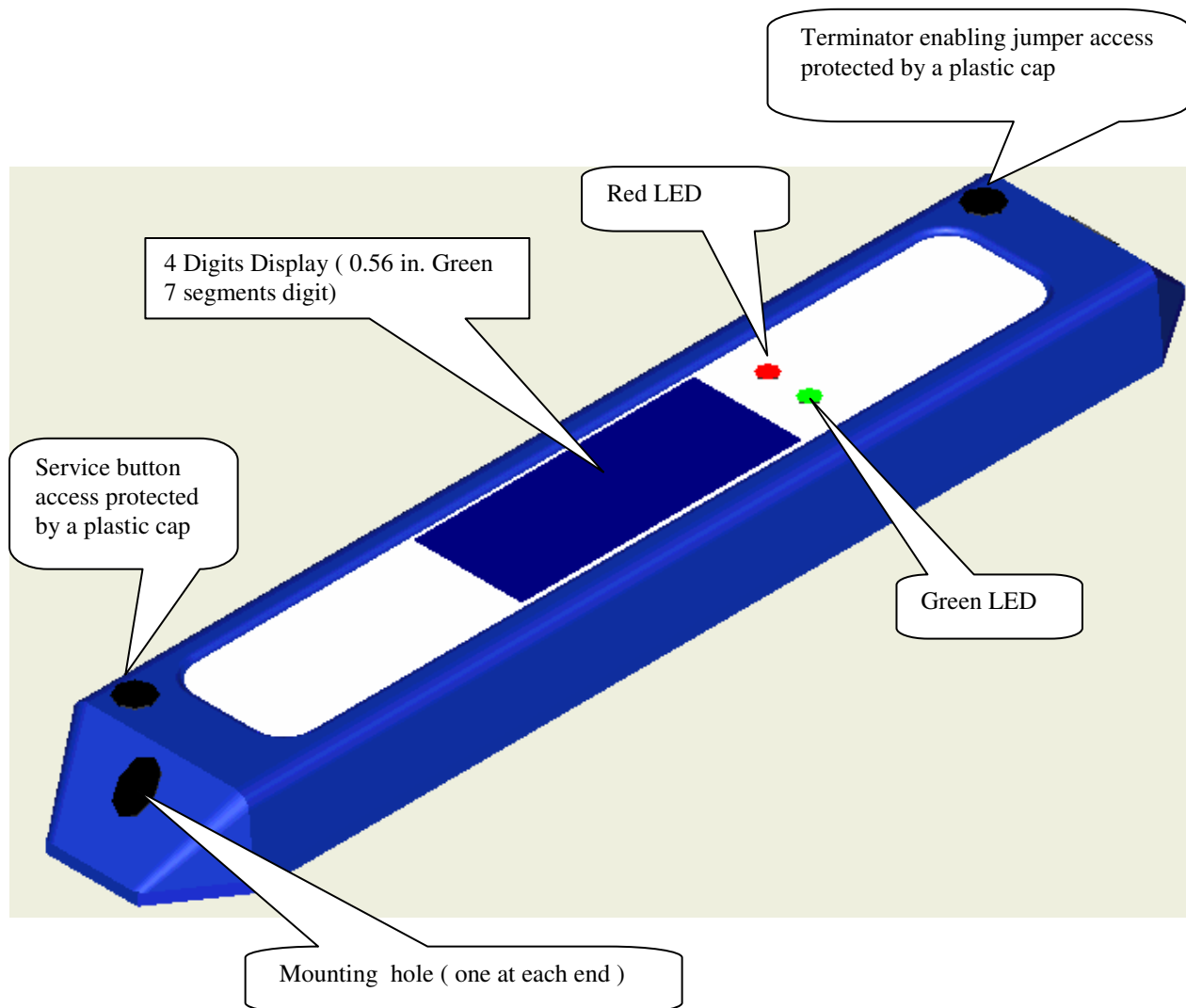**Revision 2, January 17, 2003 P/N: 961-462C**

General

MT-Display_FTT module is a LonWorks display unit that can be used to display temperature, pressure, relative humidity (or other percent value source) 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 manualy labeled to indicate the units (F, C, psig, ...) and special meaning of the LEDs according to the vocation of the display module.

Terminator enabling jumper access protected by a plastic cap

Red LED

4 Digits Display (0.56 in. Green 7 segments digit)

Service button access protected by a plastic cap

Green LED

Mounting hole (one at each end)

Installing the MT-Display_FTT node

Physical

There is two mounting hole, one at each end, to fix the module to the targeted equipment. See the installation drawing for the position of the holes

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. A 18AWG twisted pair is recommended for the data. The usual wiring guidelines for FTT nodes should be respected. The Case Display has a built-in terminator that may be activated by installing the jumper. To access the jumper, remove the round cap on the right-hand side of the display. Make sure that there is not already a terminator elsewhere on the 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. Allow 2VA per display. Connect the shield if any to earth or chassis ground.

Logical

To install a MT-Display_FTT module on a LonWorks FTT-10A network, you can use the Neuron Id if it is known 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.

To unconfigure 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 MT-Display_FTT node

The MT-Display_FTT program have :

- *4 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 display will present OL on last two digits.

  nvi_temp (SNVT_temp_p)   (–99.8 F to 327.6 F) or (–99.9 C to 327.7 C)

  nvi_press (SNVT_press)   (–475 psi to 475.2 psi) or (–999 kPa to 3276 kPa)

  nvi_percent (SNVT_lev_percent)   (–99.9 % to 100 %)

  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 from a monitoring node and that's all.

- one input SNVT to configure the display. It is possible to change the units settings by sending appropriate command number as listed below. The mode is stored in eeprom to keep the mode settings even after a power up cycle.

  nvi_command (SNVT_count)

Command number	Mode select	Default
1	FARENHEIT	FARENHEIT
2	CELSIUS	
3	PSI	PSI
4	KPA	

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

  nvi_GreenLed (SNVT_lev_disc)

  nvi_RedLed (SNVT_lev_disc)

      LED ON => ST_ON, ST_HIGH, ST_MED, ST_LOW

      LED OFF => ST_OFF

- *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

nviRequest	Object 0	nvoStatus

Object 1

nvi_temp	Display
nvi_press	
nvi_percent	
nvi_string	

nvi_command

nvi_GreenLed	LEDs
nvi_RedLed	