

Installation Instructions for Connection to TMP100

Maretron TR3K TMP100/DCM100 Ring/Under Bolt Temperature Probe

Instructions

Please follow these instructions to connect the TR3K to the NMEA 2000[®] network via a Maretron TMP100 Temperature Module. The wiring diagram appears in Figure 1 below. The diagram shows a connection to channel #2, but connections to other channels are similar. Please note that the TR3K may be connected only to channels #2, #3, #4, and #5. It may not be connected to channels #0 and #1.

1. Place a bolt through the 5/16" (7.94mm) hole in the TR3K and secure it to the object whose temperature is being measured.
2. The TR3K cable is 10 ft. (3.05m) long, and contains one red and one black wire. The cable may be extended with the understanding that the TR3K uses a 3K Ω nominal thermistor, and that the resistance of the extension cable will introduce an error which is largest at higher temperatures. Connect the black wire to the appropriate Tx- terminal on the TMP100 as shown in Figure 1 below.
3. Connect the red wire to the appropriate Tx+ terminal on the TMP100 as shown in Figure 1 below.
4. Use a DSM250 (firmware 1.3.8 or greater) or other Maretron display product capable of configuring the TMP100 to configure the "Channel #x Source" to the type of temperature you are measuring.
5. Use a DSM250 (firmware 1.3.8 or greater) or other Maretron display product capable of configuring the TMP100 to set the Configure the "Channel #x Instance" to a number that is unique across the network for the source you have selected. In other words, if you are measuring Freezer Temperature, there may be only one channel on the network that measures Freezer Temperature that has an instance number of 0. Number further Freezer Temperature channels as instance #1, #2, and so on.
6. If desired, use DSM250 (firmware 1.3.8 or greater) or other Maretron display product capable of configuring the TMP100 to configure the "Channel #x Label" to a text string that allows you to identify the particular temperature that is being measured by this probe. For example, if you have two freezers, you may wish to label one of them "Port Freezer" and the other "Starboard Freezer".
7. Using a Maretron DSM250 or Maretron N2KView, show the temperature with the source and instance you have selected and verify that you see a valid temperature on the display.

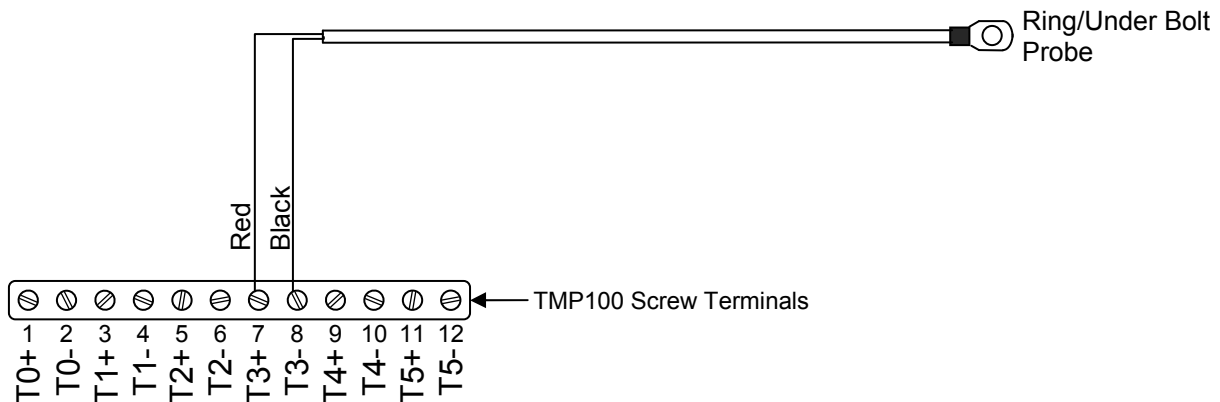


Figure 1 – Wiring Diagram

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Installation Instructions for Connection to DCM100

Maretron TR3K TMP100/DCM100 Ring/Under Bolt Temperature Probe

Instructions

Please follow these instructions to connect the TR3K to the NMEA 2000[®] network via a Maretron DCM100 DC Monitor. The wiring diagram appears in Figure 1 below.

1. Place a bolt through the 5/16" (7.94mm) hole in the TR3K and secure it to the battery case whose temperature is being measured.
2. The TR3K cable is 10 ft. (3.05m) long, and contains one black and one red wire. The cable may be extended with the understanding that the TR3K uses a 3K Ω nominal thermistor, and that the resistance of the extension cable will introduce an error which is largest at higher temperatures. Connect the red wire to the TA terminal on the TMP100 as shown in Figure 1 below.
3. Connect the black wire to the TB terminal on the DCM100 as shown in Figure 1 below.
4. Use a DSM250 (firmware 1.3.5 or greater) or other Maretron display product capable of configuring the DCM100 to configure the "Battery Temperature" parameter to the value of "Sensor".
5. Using a Maretron DSM250 or Maretron N2KView, show the battery temperature with the instance you have selected and verify that you see a valid temperature on the display.

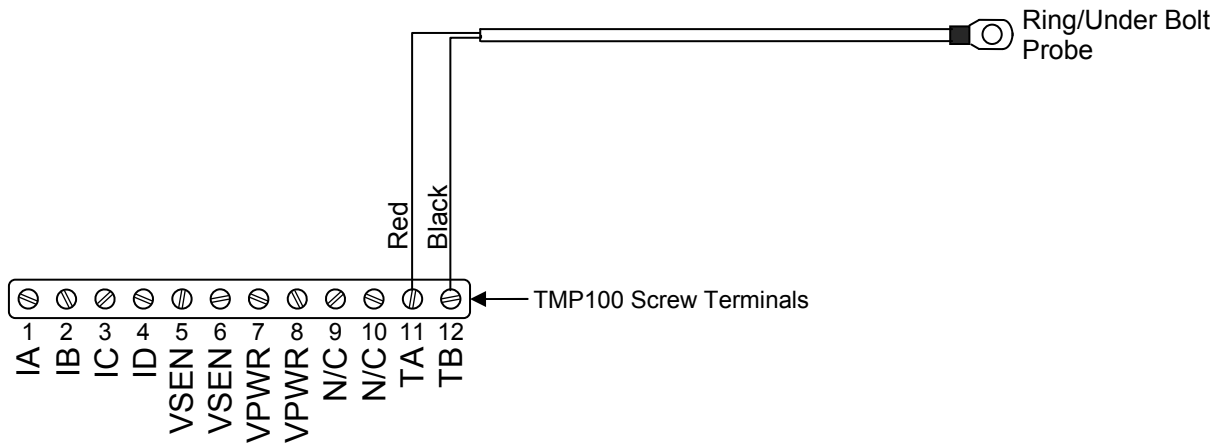


Figure 2 – Wiring Diagram

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