
INSTALLATION, CALIBRATION AND OPERATING INSTRUCTIONS

The NRC 801 thermocouple gauge control is a compact, self-contained instrument, designed primarily for panel mounting. It is supplied with a 6 ft line cord and a 10 ft thermocouple gauge cable. The instrument is line voltage regulated, and a temperature sensitive element to compensate for temperature drift in thermocouple gauges is built into the thermocouple cable socket. The indicator dial, which covers the pressure range from 1 to 2000 microns (1 micron is 1/1000 of 1 mm of mercury, or 1/1000 of 1 torr), is calibrated for an NRC 531 thermocouple gauge in dry air. The mechanical zero adjust is located on the front of the instrument. The pressure calibration can be reached through a hole in the rear cover (Fig. 1a and 1d). The meter voltage (0 - 11 mv) is available at two solder terminals at the rear for operating remote indicators whose input resistance should be 200 ohms or more.

Installation

A panel cutout, as shown in Fig. 1a, is required for the installation of the NRC 801 thermocouple gauge control. The instrument is mounted from the front and fastened with three nuts supplied (Fig. 1b, 1c).

Calibration

1. Adjust the mechanical meter zero until the needle reads OFF.
2. Connect an NRC 531 thermocouple gauge to a vacuum system capable of maintaining a pressure of less than 1.0 micron.
3. Pump down the system to less than 1.0 micron.
4. Connect the thermocouple cable of the NRC 801 control to the NRC 531 thermocouple gauge.
5. Plug the line cord into a 115V 50/60 cycle outlet.
6. Turn calibration control in the rear of the instrument until the meter registers Zero microns.
7. Allow the system to stabilize for approximately 15 minutes, and readjust the zero if necessary.

NOTE: If so desired, the gauge can be calibrated against an NRC Alphasatron^(R) or a McLeod gauge.

Maintenance

Due to aging and/or contamination of the thermocouple gauge, recalibration may be necessary from time to time. The above procedure should then be followed. As the temperature compensation for the TC gauge is built into the TC cord socket, it is not advisable to cut the plug off the TC cord. If the cable is too long, it should be coiled.

Disassembly of Control

The NRC 801 should give years of trouble-free service, but if repairs are necessary, the following procedure of dismantling should be followed.

1. Unplug line cord.
2. Remove the two screws that hold the rear cover and terminals.
3. Remove the plastic cover.
4. Remove printed circuit card from meter.

NOTE: If, after assembly, the meter reads backwards, turn printed circuit card one-half turn.

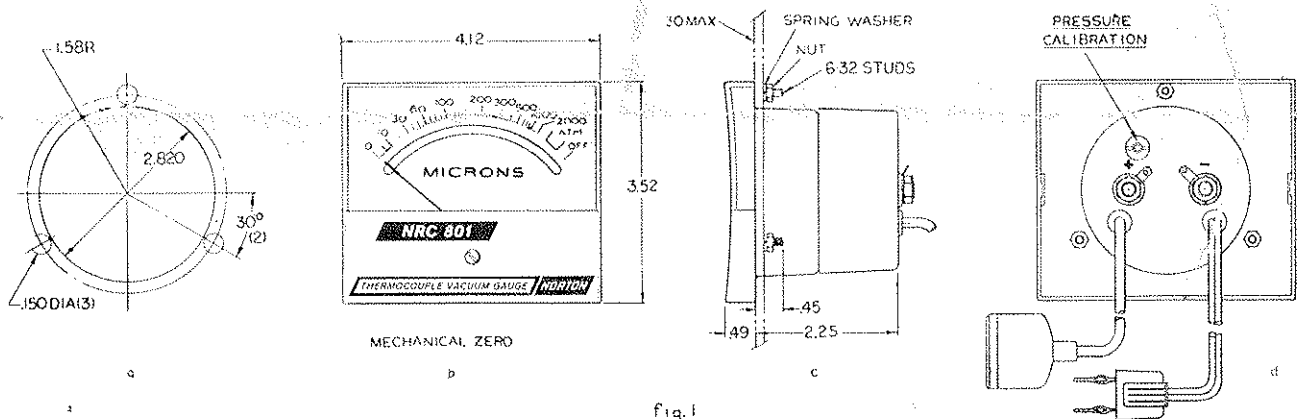


Fig. 1

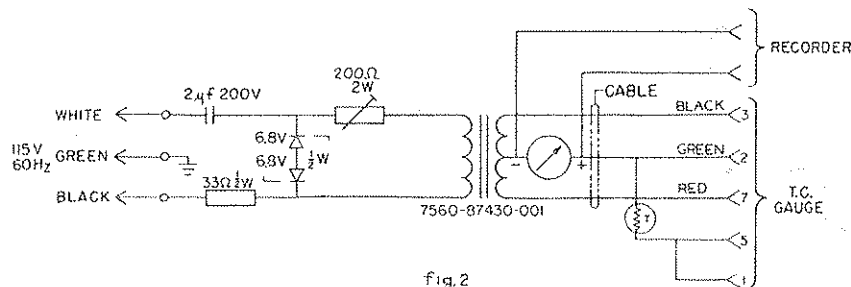


Fig. 2

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