

Instructions, Coil Interconnect Cable Installation, Model FCBL-6



General

The FCBL-6 is designed to allow a customer to mate an in-house designed coil to the Lake Shore Model 480 fluxmeter, taking full advantage of the cable PROM programming capability. After the PROM is loaded with the necessary coil parameters, nothing more is required for future use of that coil, except attachment to and resetting (turning the unit off, then on) of the Model 480. The instructions below are for attachment to the coil and entering of data into the PROM.

Attachment to a Coil

The FCBL-6 has a 15-pin D connector on one end for direct attachment to the PROBE INPUT on the back panel of the Model 480 fluxmeter. Two tinned wires are provided for the coil connection. The coil leads may be soldered directly to these wires. If the coil has a banana receptacle on it, a screw-contact banana plug is supplied with the FCBL-6 for attachment.

If the polarity of the signal from the coil is known, the red wire should be attached to the lead supplying the positive voltage under normal usage. The green wire is at ground potential on the Model 480. If the polarity is not known, just make the connection, run a test, and reverse the lead attachment if a different polarity reading is desired.

CAUTION: The customer coil should be isolated from all line voltages (or voltages referenced to earth ground). *If not, damage to the Model 480 fluxmeter is almost a certainty.*

Programming the PROM

After the coil has been properly connected to the cable and the D connector attached to the Model 480, programming of the PROM can begin.

1. Press COIL SETUP on the front panel.
2. Enter the required parameters for the type of measurement to be made.
 - a. FLUX-TURNS: Enter Input Channel (10 k Ω or 100 k Ω) and Coil Resistance.
 - b. FLUX: Enter Input Channel, Coil Resistance, Number of Coil Turns.
 - c. FLUX DENSITY: Enter Input Channel, Coil resistance, Coil Area-Turns
 - d. MOMENT: Enter Input Channel, Coil Resistance, Helmholtz Constant.
 - e. POTENTIAL: Enter Input Channel, Coil Resistance, Coil Constant
3. Press and hold the COIL SELECT key until the display indicates SAVE COIL.
4. Use the arrow keys to select PROBE. Press ENTER.

The programming of the FCBL-6 PROM is complete.

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