

tif 660D

**Digital
Capacitance Meter**

OWNERS MANUAL



• **General Description**

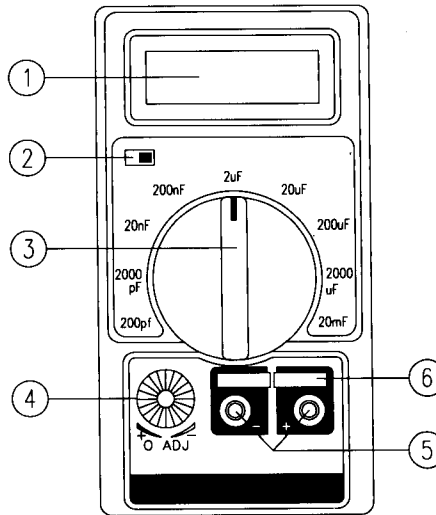
The 660D is a multi-range Capacitance Meter designed primarily to measure capacitor values up to 20,000 microfarads. Nine different ranges provide high resolution for precise measurements. In addition to capacitance measurements, the 660D will indicate open, shorted or leaking capacitors.

The 660D is ruggedly constructed of high impact ABS plastic and comes equipped with a convenient prop stand that allows the unit to sit in an upright, easy to use, position. The 660D is equipped with a half inch digital display that is easy to read and clearly visible in direct sunlight.

Description of Parts And Controls

- ① **LCD Display:** 3 1/2 digits with a maximum reading of 1999.
- ② **Power Switch:** For power "ON" and "OFF" selection.
- ③ **Range Selector Switch:** Nine range rotary switch for 200pF to 20mF range selection.
- ④ **Zero Adjustment Knob:** For low range tests, it will compensate for the difference in capacitance caused by circuit or test leads.
- ⑤ **Test Lead Socket:** Allows use of test leads when needed.
- ⑥ **Direct Plug-in Socket:** To plug capacitor directly into socket and eliminate the need to use test leads.

Location Of Parts And Controls



Operating Instructions

Before using your 660D please check the following:

- Make sure that the battery and fuse have been installed correctly.
- Verify that capacitors to be tested have been fully discharged.
- If checking a polarized capacitor, make certain the positive side goes to the RED socket or lead and the negative side to the BLACK socket or lead. If using the test leads, make sure they are connected to the meter before zeroing.
- Do not apply voltage to the test leads or input jacks

To operate:

- Set power switch to the **on** position.
- Set range switch to the desired range.
- Before measuring low capacitances, make sure the display reads zero by using the zero adjustment knob.
- Plug capacitor directly into sockets above input jacks or connect to the test leads for measurement.

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- Read the capacitor's value on the display.
- When measuring low value capacitors, plug them directly into sockets, for greater accuracy.
- If alternative test leads are used, first measure their capacitance and subtract result from the final capacitance reading.

Diagnosis of different readings:

- If the capacitor is shorted the display will show an overrange ("1____").
- If the capacitor is open the display will indicate "0".
- If the capacitor is leaking the display will fluctuate after an initial reading.

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Maintenance

WARNING:
TO PREVENT ELECTRICAL HAZARD OR SHOCK
TURN OFF CAPACITANCE METER AND DISCONNECT
TEST LEADS BEFORE REMOVING BACK COVER.
DO NOT ATTEMPT TO REPLACE THE FUSE WITH-
OUT USING THE SPECIFIED REPLACEMENT FUSE.
FAILURE TO DO SO MAY RESULT IN FIRE.

Battery Check And Replacement:

- When battery power is insufficient the 660D will indicate a low battery condition by displaying "BT".
- Disconnect the test leads and turn off the meter. Press down firmly on battery cover and slide in the direction indicated by arrows to open.
- Disconnect battery and replace with a standard 9 Volt battery. Replace battery cover before operating unit.
- If the 660D is not used on a regular basis it is best to remove the battery from the unit. Failure to do so may significantly shorten battery life.

Fuse Replacement:

- If the meter does not provide a reading on a known good capacitor then the fuse is blown and must be replaced.
- Disconnect the test leads and turn off the meter.
- Press down firmly on battery cover and slide in the direction indicated by arrows to open.
- Remove old fuse and replace with a 0.25A/250V 5X20mm fast blow type fuse. Do not attempt to use any other type of fuse.

WARNING:
FAILURE TO FOLLOW THESE REPLACEMENT
INSTRUCTIONS MAY RESULT IN HAZARDOUS
CONDITIONS AND WILL VOID THE WARRANTY.

**Limited Warranty and
Repair/Exchange Policy**

This Instrument is designed and produced to provide unlimited service. Should this unit be inoperative after the user has performed the recommended maintenance a no charge repair or replacement will be made to the original purchaser. This applies to all repairable units that have not been tampered with or damaged. The claim must be made within one year from the date of purchase. For repair of you instrument have your local Electrical or AC&R Wholesaler send the instrument to TIF Instruments. An additional 90 day warranty will cover the repaired or replaced unit.

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