



Quick Start

Insulation Tester & Multifunction Digital Multimeter

MODEL IM75-2



Quick Start (en)

Note: Please refer to the User Manual for complete safety and operational instructions: <https://support.flir.com>.

Additional language translations are available at the link above.

SAFETY STATEMENTS



WARNING

- Do not operate this device if you do not have the correct knowledge. Incorrect operation can cause damage, shock, injury or death to persons.
- Do not start a measurement before setting the function switch to the correct position. Failure to follow this warning can cause damage to the instrument and injury to persons.
- Do not change to the resistance function when measuring voltage.
- Do not use the device if the test leads or the device show signs of damage.
- Use extreme care when measuring voltages > 25 VAC RMS or 35 VDC.
- Do not perform diode, capacitance, or continuity tests before removing power from the circuit or device under test.
- Allow time for large capacitors to fully discharge before taking capacitance measurements.



This symbol, adjacent to another symbol or terminal, indicates that the user must refer to the manual for further information.



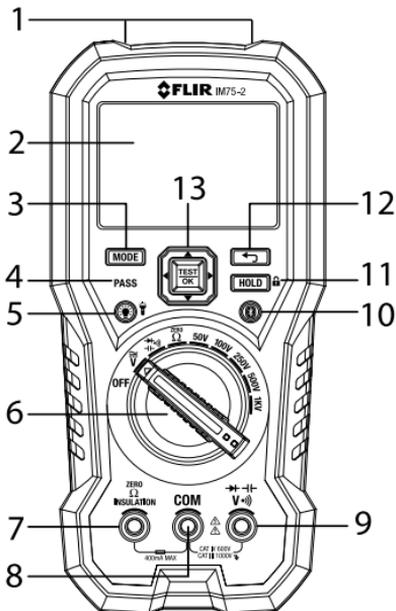
This symbol, adjacent to a terminal, indicates that, under normal use, hazardous voltages may be present.



Double insulation.

- This device complies with part 15 of the FCC Rules. See the User Manual for the full FCC Compliance text. This applies also to Industry Canada Compliance.
- Safety Category Rating: CAT IV 600 V, CAT III 1000 V

PRODUCT DESCRIPTION



1. Work Lights
2. LCD Display
3. *MODE* button
4. *PASS/FAIL* indicator (green/red) for Compare (COMP) and PI/DAR tests
5. Backlight button
6. Function switch
7. Positive (+) input terminal for Insulation/Earth Bond Resistance tests
8. *COM* negative (-) input terminal
9. Positive (+) input terminal for Voltage, Diode, Continuity, and Capacitance tests
10. Bluetooth button
11. *HOLD* and Lock button
12. Back (Return) button
13. Arrow keys and *TEST OK* button

Battery/fuse compartment, test lead holders, and tilt stand are located on back of meter.

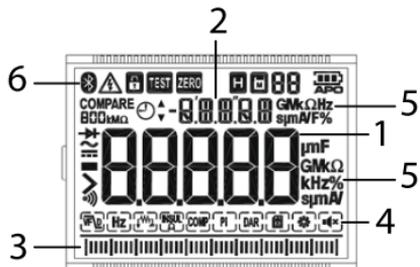
FUNCTION SWITCH

OFF	Meter is powered down
V	Measure Voltage
- -	Test capacitance (use <i>MODE</i> button to select)
→ 	Measure diode (use <i>MODE</i> button to select)
•))	Test continuity (use <i>MODE</i> button to select)
ZERO Ω	Earth Bond Resistance / <i>ZERO</i> (offset) function
50 V ~ 1K V	Insulation Resistance test voltages

FUNCTION BUTTONS

MODE	Change the operating mode (AC or DC, for example). Select Insulation Resistance values to compare for PASS/FAIL testing.
HOLD 	Short press to freeze/release displayed readings. In Insulation or Earth Bond resistance modes, long press for test-lock (continuous test) mode. In normal mode, long press to lock out the keypad.
	Arrows for navigation; <i>TEST-OK</i> button for making selections, starting Insulation Resistance tests, and enabling extended function modes.
	Exit a mode or return (back) from a menu.
 	Short press to enable/disable the display backlight. Long press to enable/disable the work light.
	Enable/disable Bluetooth communication.

DISPLAY DESCRIPTION



1. Main display digits
2. Secondary (smaller) display digits
3. Bar graph reading
4. Extended function icons
5. Units of measure
6. Alerts and Status icons

VOLTAGE MEASUREMENTS

1. Set the function switch to the **V** position.
2. Insert the black probe into the **COM** terminal and red probe into the **V** terminal.
3. Use the **MODE** button to select AC or DC.
4. Connect the probes in parallel to the part under test.
5. Read the voltage value on the display.

INSULATION RESISTANCE TESTS

1. Use the rotary switch to select the insulation test voltage.
2. Insert the black probe into the **COM** terminal and red probe into the **Insulation** terminal.
3. Select the **INSUL** icon (bottom row of LCD) to enable the Insulation Resistance function. These 'extended function' icons are explained later in this guide.
4. Connect the probes to the device under test.
5. During the Test, the insulation voltage will appear in the upper reading area. The resistance will be shown in the main reading area.
6. Press **TEST OK** to start test.
7. To lock the test for continuous testing, long press the **HOLD / Lock** button to engage, and then press **TEST OK** to test continuously.
8. The **TEST** icon will appear while voltage is present.
9. Press **TEST OK** to stop the test.

PI / DAR INSULATION TESTS

1. Reference the instructions for Insulation Resistance tests above.
2. Select **PI** (Polarization Index) or **DAR** (Dielectric Absorption Ratio) from the extended function icons on bottom row of LCD. These icons are explained later in this guide.
3. Press **TEST OK** to test.
4. Press **MODE** to show the test time. The clock icon and the elapsed timer will appear. **PI** is a ten-minute test and **DAR** is a one-minute test.
5. The test stops automatically and the result (ratio) appears. The PASS/FAIL LED will indicate in green for PASS or red for FAIL.

EARTH BOND RESISTANCE TESTS

1. Select the Earth Bond resistance switch position (**ZERO** Ω).
2. Insert the black probe into the **COM** terminal and red probe into the **ZERO**/ Ω terminal.
3. Enable the Earth Bond resistance extended function icon (bottom row of LCD, third from left). These icons are discussed later in this guide.
4. Short the ends of the probes and press the **MODE** button to zero the display.
5. Connect the probes to the device under test.
6. Press **TEST OK** to test.
7. To lock the test ON, long press the **HOLD / Lock** button and then press **TEST OK** to start.
8. Press **TEST OK** to stop the test.

CONTINUITY TESTS

1. Set the function switch to the Continuity symbol  position.
2. Insert the black probe into the **COM** terminal and red probe into the **Continuity** terminal.
3. Press **MODE** to select continuity.
4. Touch the tips of the probes across the circuit under test.
5. If the resistance is $30 \pm 5 \Omega$, or lower, the meter will beep.

DIODE TESTS

1. Set the function switch to the Diode symbol  position.
2. Press **MODE** to select the **Diode** function.
3. Insert the black probe into the **COM** terminal and the red probe into the **Diode** terminal.
4. Touch the tips of the probes across the device under test.
5. Reverse the polarity of the probes, by interchanging the probe test locations.

6. Touch the tips of the probe across the device.
7. If one reading displays a value between (+) 0.400 and 0.900 V and the other reading displays a value between (-) 0.400 and 0.900 V, then the component is normal.
8. If both readings display **OL**, the component is either open or shorted.

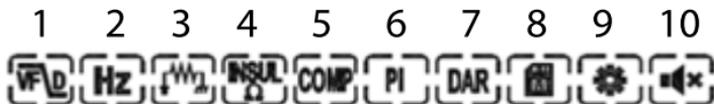
CAPACITANCE MEASUREMENTS

1. Set function switch to Capacitance symbol M position.
2. Press **MODE** to select Capacitance mode.
3. Insert the black probe into the **COM** terminal and the red probe into the **Capacitance** terminal.
4. Touch the tips of the probes across the part under test.
5. Read the capacitance value on the display.

EXTENDED FUNCTION ICONS

A variety of modes are available that provide extended functionality. Mode icons, related to the selected function, are displayed at the bottom of the LCD.

1. Use the left/right arrows to navigate to an icon. The currently selected icon will flash.
2. Press **TEST OK** to enable the selected (flashing) icon. The icon will appear framed.
3. Use the up/down arrows to step through the additional mode options (if any).
4. For icons 1 through 4 (diagram below), press **TEST OK** to disable the selected icon. For icons 5 through 10, use the Return (back) button.
5. Refer to the User Manual for complete details on these modes:



1	VFD (low pass filter)
2	Frequency measurements
3	Earth Bond Resistance
4	Insulation Resistance
5	Resistance Compare mode (Pass/Fail LED)
6	PI mode (Pass/Fail LED)

7	DAR mode (Pass/Fail LED)
8	Data Recording (99 memory locations)
9	Setup utility for APO, Backlight timer, Auto-Hold, Continuity threshold, and Factory default
10	Silent mode (beeper)

METERLINK DATA TRANSFER

Stream measurement data from the meter to iOS and Android devices using the METERLiNK® mobile app. Download the app from the Apple Store® or Google Play™ and follow the application on-screen prompts. See the User Manual for complete details.

LIMITED LIFETIME WARRANTY

This product is protected by FLIR's Limited Lifetime Warranty. Visit www.flir.com/testwarranty to read the Limited Lifetime Warranty document. Register your product at the website.

CUSTOMER SUPPORT

Customer Support Telephone List:

<https://support.flir.com/contact>

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Website

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