



QUICK START

Solar Irradiance Meter

MODEL PV78



Introduction

The PV78 measures light irradiance (intensity) and temperature on solar photovoltaic panels. It also measures panel inclination (tilt) and compass heading. This Quick Start is intended only as a brief introduction to the PV78. Refer to the User Manual for complete instructions.

Battery Power

The meter is powered by one 9 V battery, located in the rear compartment, secured by one screw. On first use, remove the protective safety strip from the battery compartment.

Irradiance and Temperature

1. Press \odot to switch ON/OFF.
2. Place meter, face up, on panel surface.
3. Press $\text{LOG} \left[\begin{array}{|c|} \hline *1 \\ \hline \end{array} \right]$, and view Irradiance reading on the upper digits, and Temperature on the lower digits. The temperature sensor is located on the back (top) of the meter, ensure contact to the panel surface.
4. Press $^{\circ}\text{C}/^{\circ}\text{F}$ to change temperature units.



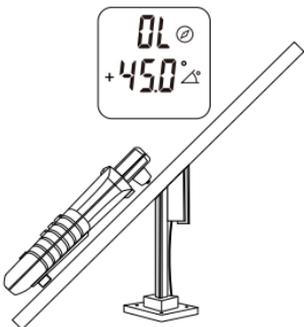
External Temperature Probe

1. Press  to switch ON/OFF.
2. Connect the supplied probe to the PV78 (top).
3. Use the suction cup to attach probe to the panel. Ensure that the probe touches the panel.
4. View temperature reading on the lower digits.



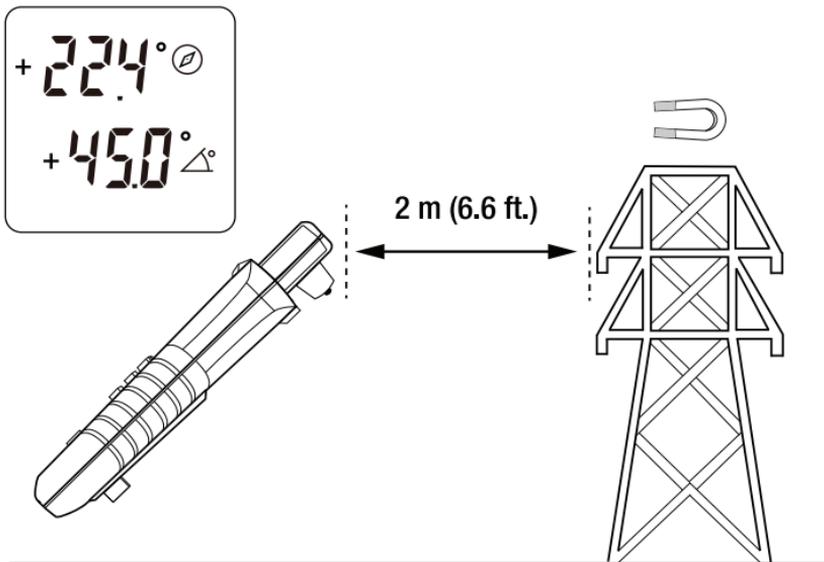
Inclination Angle

1. Press  to switch ON/OFF.
2. Place meter, face up, on panel surface.
3. Press  and view the tilt reading on the lower digits.
4. To calibrate: Place meter, face up, on a level surface, press , and then press **ZERO**.



Compass Heading

1. Press  to switch ON/OFF.
2. Place the meter at an inclination $> 20^\circ$, away from the panel and other metallic objects.
3. Press  and view the direction on the upper digits.
4. To calibrate the compass, refer to the User Manual, available from the support site.



Data Logger

Start and Stop Recording

1. Long press **LOG** to start recording irradiance and temperature readings (one reading per minute).
2. The **LOG** icon will appear. All buttons, except **LOG**, are inoperable while logging.
3. Short press **LOG** to stop recording. Logging automatically stops after 6 hours (360 readings).
4. Share the log file with a mobile device, as explained next.
5. To record again, repeat these steps (overwriting existing log file).

Sharing Data Log Files

NOTE: Files can only be shared from the irradiance/temperature mode (not from the compass mode).

1. Download and open the METERLiNK® app on mobile device.
2. Long press . The icon  will flash on the display.
3. When the app recognizes the PV78, it will show readings.
4. Long press  to share the log file. The icon  will flash.
5. The progress (1 ~ 100%) will be indicated on the display.
6. When complete, the meter will show **100%**, and exit the transmit mode.
7. Long press  to end communication.
8. If the process fails, **ERR** will display.

Safety

- Read, understand, and follow all safety and operating instructions before use.
- Do not use this meter if it appears damaged or is operating abnormally.
- To avoid voiding the warranty, use this meter only as recommended.



 Do not dispose of used batteries or rechargeable batteries in household waste.

Specifications

General Specifications

Power supply	9 V alkaline battery
Battery life	25 hours with Bluetooth and Data Logger OFF
Automatic Power OFF	After approximately 30 minutes of inactivity
Operating temperature	Meter: 14 to 122°F (-10 to 50°C) Probe: -22 to 212°F (-30 to 100°C)
Storage temperature	-4 to 140°F (-20 to 60°C)
Humidity	< 80 % RH
Dimensions	9.5 x 2.6 x 1.5 in. (240.5 x 67 x 38 mm)
Weight	10.6 oz. (300 g)

Measurement Ranges

Irradiance	50 to 1400 W/m ²
Temperature	14 to 122°F (-10 to 50°C)
Inclination angle	-90° to +90°
Compass	0 to 360°

Connectivity and Data Logger

Bluetooth range	32.8 ft. (10 m)
Data log interval	1 reading per minute (360 readings, max.)

Customer Support

Customer Support Telephone List	https://support.flir.com/contact
Repair, Calibration, and Technical Support	https://support.flir.com

Warranty

This product is protected by FLIR's Limited 3-Year Warranty. Visit www.flir.com/testwarranty to read the warranty document.



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Website

<http://www.flir.com>

Customer support

<http://support.flir.com>

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Publ. No.: NAS100247
Release: AC
Commit: 102885
Head: 102893
Language: en-US
Modified: 2025-03-07
Formatted: 2025-03-07

