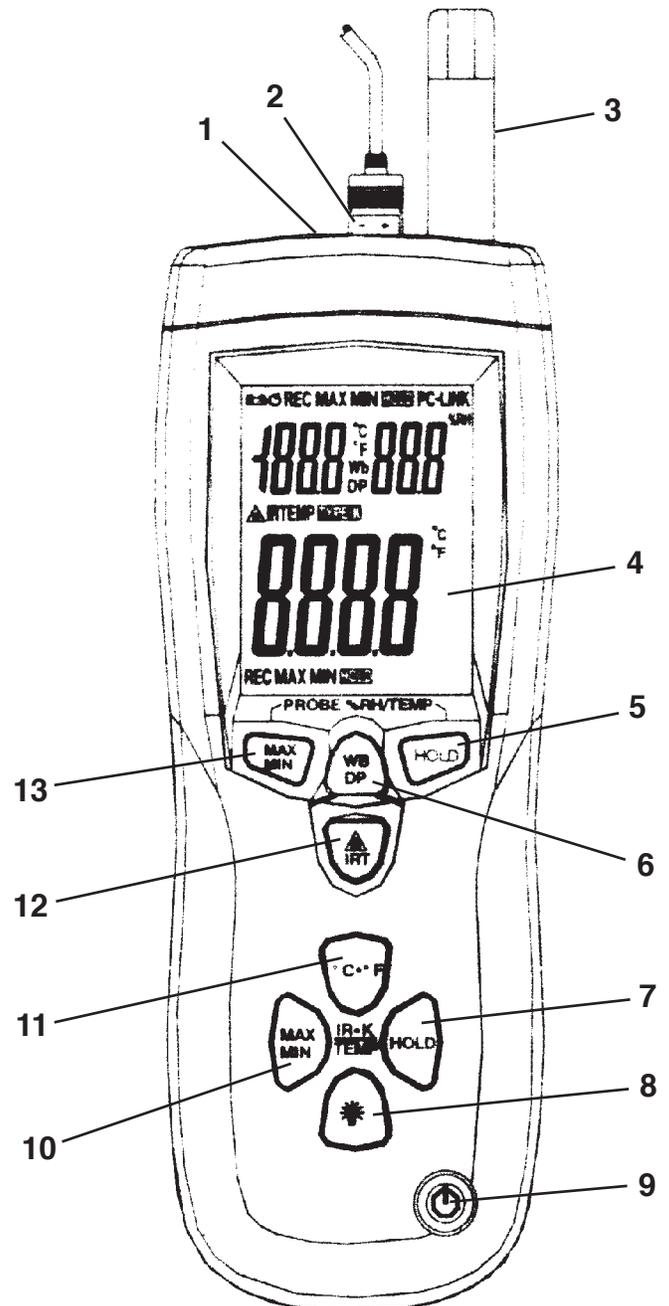# TIF3110

Psychrometer with IR Thermometer

FEATURES

- Three instruments-in-one:
  - Psychrometer function measures ambient temperature and humidity, dew point, and wet bulb.
  - IR thermometer measures surface temperature without contact.
  - Input for any style of K-type thermocouple.
- Large, backlit LCD display allows the user to view the IR or thermocouple input, %RH, and ambient temp, Wb, or DP simultaneously.
- Red laser indicator included with IR function.
- Auto-range selection.
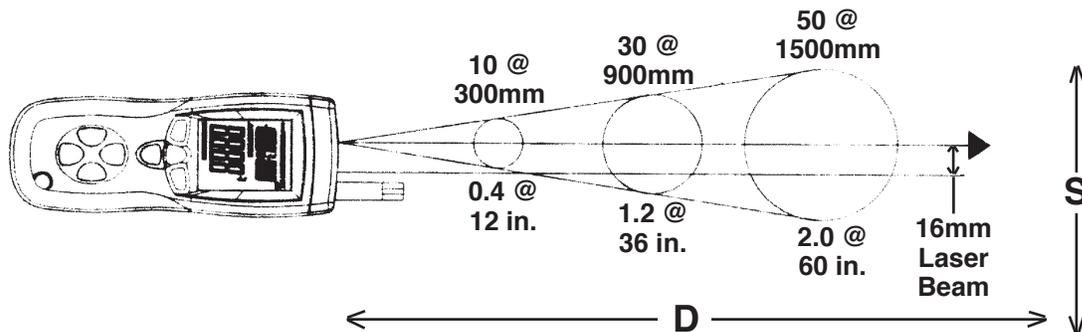- Low battery indicator.
- Auto shutdown.

FUNCTIONS

1. Laser pointer for IR function.
2. Input jack for K-type thermocouple.
3. Temperature and humidity sensor.
4. LCD display.
5. Hold button for temp and humidity function.
6. Select from air temp, wet bulb, or dew point readings.
7. Hold button for IR or thermocouple input.
8. LCD backlight.
9. Power ON/OFF.
10. MAX/MIN selection for IR or thermocouple input.
11. Select between °C and °F.
12. IR measurement trigger.
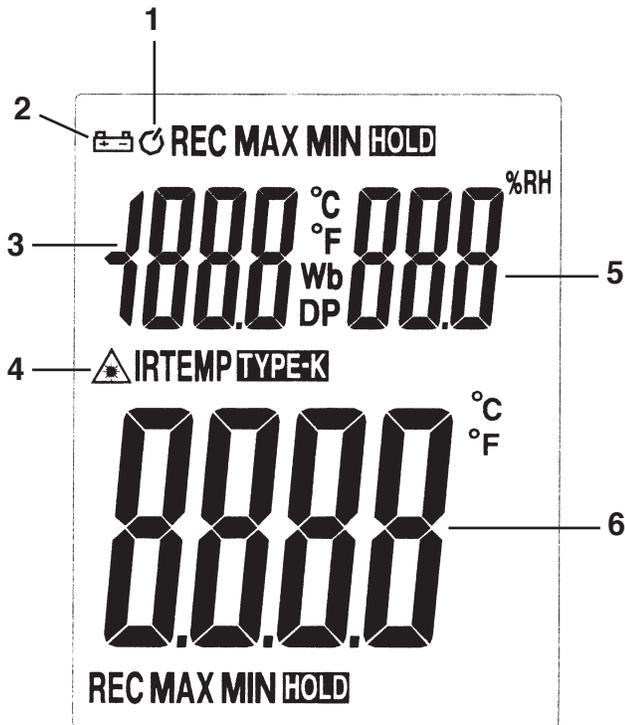13. MAX/MIN selection for temp and humidity.

SPECIFICATIONS

FUNCTION	RANGE	RESOLUTION	ACCURACY
Type K Temperature	-148—2501°F (-100—1372°C)	0.1°F/°C	± (1% ±1°C)
Infrared Temperature	-58—-4°F (-50—-20°C)	0.1°F/°C	±9.0°F (5.0°C)
	-4—932°F (-20—500°C)	0.1°F/°C	±2% reading or ±4°F (2°C)
Air Temperature	-4—140°F (-20—60°C)	0.01°F/C	±2.0°F (1.0°C)
Humidity	10%—90%	0.1%RH	±2%
	others	0.1%RH	±3%
Wet Bulb	-6.88—140°F (-21.6—60°C)	0.1°F/°C	
Dew Point	-90.4—140°F (-68—60°C)	0.1°F/°C	

DISTANCE (D) TO SPOT SIZE (S)

As the distance (D) from the object increases, the spot size (S) of the area measured by the unit becomes larger. The relationship between distance and spot size is listed on the diagram above. The focal point is 914mm (36"). The spot sizes indicate 90% encircled energy.

UNDERSTANDING THE DISPLAY

1. Auto Power Shutdown indicator.
2. Low Battery indicator.
3. Ambient air temperature value.
4. IR / Thermocouple temperature indicator.
5. Ambient humidity.
6. IR / Thermocouple temperature value.

OPERATIONS

MAX, MIN, and RECORD FUNCTIONS

1. Press the **MAX/MIN** button to begin capturing the Maximum and Minimum values. The REC icon will appear in the upper left corner of the display.

2. Press the **MAX/MIN** button to review the maximum and minimum recorded readings.

3. Press and hold the **MAX/MIN** button until the display returns to standard operation and exits the MAX/MIN function. The REC icon on the upper left corner of the display will disappear.

WET BULB and DEW POINT

1. Press the **WB/DP** button to select the operation mode from air temperature: either wet bulb or dew point.

TEMP, WET BULB, DEW POINT, and %RH HOLD

1. Press the **HOLD** button to freeze air humidity and temperature reading in the upper half of the display. The HOLD icon will appear in the upper right corner of the display.

2. Press the **HOLD** button again to return to normal operation and HOLD icon will disappear.

INFRARED THERMOMETER

⚠ **CAUTION: To prevent personal injury, do not stare into the laser beam. (Class 2 laser product.)**

1. Press the **IRT** button to measure the surface temperature with the IR function. The laser pointer will be activated when measurement is being taken.

2. Release the **IRT** button and the IR temp will be held on the display for ten seconds; then the display will default back to the thermocouple input reading (if connected).

UNITS OF TEMPERATURE

1. Press the **°C °F** button to select between Celsius or Fahrenheit temperature unit.

OPERATIONS (CONT'D)

MAX MIN — IR TEMP. or TYPE K MAX, MIN, and RECORD FUNCTIONS

1. Press the **MAX/MIN** button to begin capturing the Maximum and Minimum values. The REC icon will appear in the upper left corner of the display.

2. Press the **MAX/MIN** button to review the maximum and minimum recorded readings.

3. Press and hold the **MAX/MIN** button until the display returns to standard operation and exits the MAX/MIN function. The REC icon in the upper left corner of the display will disappear.

HOLD — IR or TYPE K HOLD

1. Press the **HOLD** button to freeze IR or type k temp. reading in the upper half of the display. The HOLD icon will appear in the lower right corner of the display.

2. Press the **HOLD** button again to return to normal operation and HOLD icon will disappear.

POWER ON/OFF and AUTO SHUTDOWN

1. Press the power ON/OFF button to turn the meter ON or OFF.

2. **Auto Shutdown:** The meter will automatically turn off after fifteen minutes if no keys are pressed during this time.

3. **Disable Auto Shutdown:** To disable auto shutdown function, press and hold the IRT button as you turn the meter ON. The display will show "disAP0"; then release the IRT button.

4. **Low Battery:** If the battery indicator appears in the upper left corner of the display the unit's battery is low. Follow the directions in the Maintenance section to replace the battery.

MAINTENANCE

REPLACING THE BATTERY

1. The thermometer must be OFF when changing the battery. Press ⏻ to power OFF the thermometer.

2. On the back side of the thermometer, locate the ⏚ symbol.

3. While holding the thermometer, place your thumb on the ⏚. With gentle pressure push downward and pull backward; the battery cover will begin to open. Use your other hand to grasp the cover and pull downward. Lift the cover up and off.

4. Lift out the 9-volt battery and disconnect it from the connector.

5. Connect a new 9-volt battery and place it into the battery cavity.

6. Replace the battery cover by setting it over the battery and pushing upward until it snaps into place.

7. Dispose of the old battery according to local, state, and federal regulations.

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