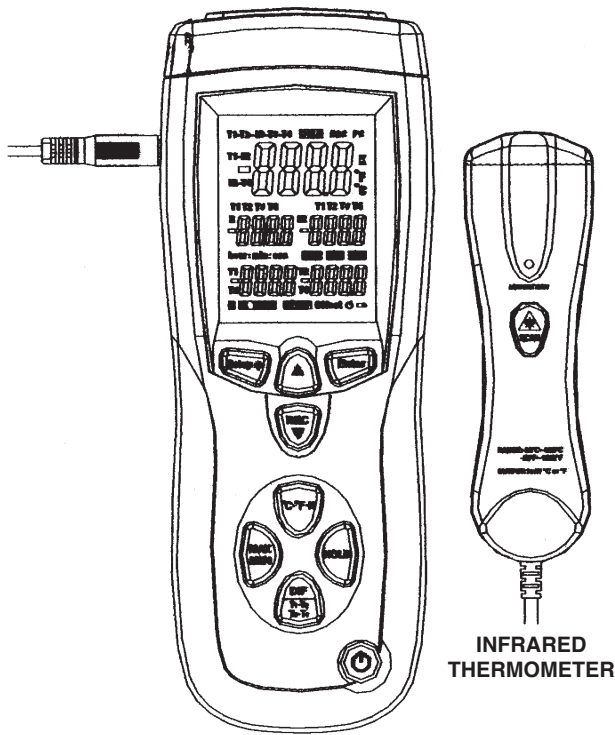




Professional 4-channel Thermocouple Thermometer plus Infrared Thermometer

TIF3340

AN SPX BRAND



BUTTONS



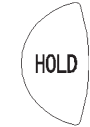
= Power ON or OFF.



= Steps through maximum (MAX), minimum (MIN), and average (AVG) readings. To exit MAX / MIN / AVG mode, press this button for three (3) seconds.



= Switch between Celsius (°C), Fahrenheit (°F), and Kelvin (K) temperature units.



= Freeze and unfreeze display readings.



= Displays T1, T2, IR, T1-T2, T1-IR, and T2-IR (differential temperature measurement) in the primary, secondary, and tertiary displays. Press button for two seconds to show T3, T4, IR, T3-T4, IR-T3, and IR-T4. Press button for two more seconds to exit.



= Press once to turn on backlight; press again to turn off backlight. Hold for three (3) seconds to access or exit Setup menu.



= Scrolls to the setup option you want to change; press again to increase the displayed setting.



= Press once to record; press again to stop recording. In Setup menu, scroll to the setup option you want to change; press again to decrease the displayed setting.






= Press once to enter a setup option; press again to store the displayed setting in memory.

FEATURES

- Large backlit display shows any combination of T1, T2, IR, T3, T4, T1-T2, T1-IR, T2-IR, T3-T4, IR-T3, and IR-T4, plus MAX, MIN, and AVG.
- Relative time clock on MAX, MIN, and AVG provides a time reference for major events.
- Electronic offset function allows compensation for thermocouple errors.
- Readout in °F, °C, or Kelvin (K).
- Auto shutdown.

OPERATING INSTRUCTIONS

Displaying Temperatures

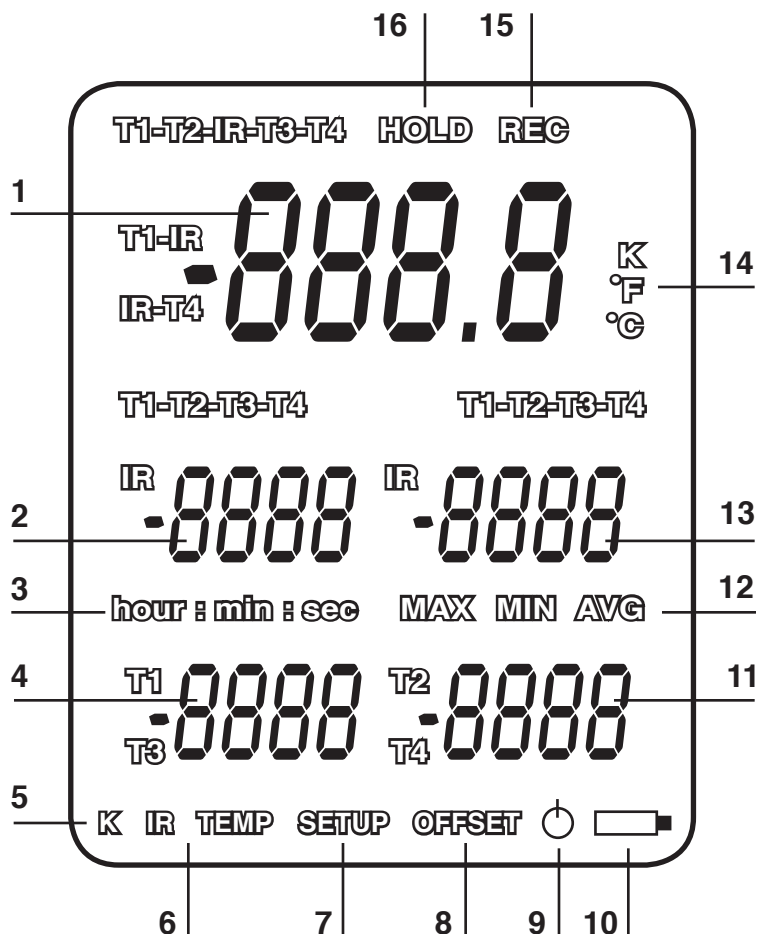
1. Plug a thermocouple(s) into the T1, T2, T3, or T4 input connector located at the top of the thermometer.
2. Turn the thermometer ON by pressing .
3. Press  to select the preferred temperature scale (Celsius, Fahrenheit, or Kelvin).
4. Hold or attach the thermocouple(s) to the location requiring a temperature measurement. The temperature reading appears in the primary display.
5. Press  to toggle the T1, T2, T3, T1-T2, T1-T3, and T2-T3 readings to show in the primary or secondary displays.

Notes:

- “- - - -” is displayed when a thermocouple is defective or not connected.
- OL (overload) is displayed when the temperature being measured is outside the thermometer’s range.





Display Elements

1. Primary display: T1, T2, IR, T3, T4, T1-T2, T1-IR, T2-IR, T3-T4, IR-T3, or IR-T4 reading.
2. Tertiary display: The elapsed time or IR temperature reading.
3. MIN:SEC or HOUR:MIN display.
4. Fourth display: T1 or T3 reading.
5. Thermocouple type.
6. IR temperature.
7. Displays while Setup menu is activated.
8. Setup menu; offset of T1, T2, IR, T3, T4.
9. Auto power OFF.
10. Low power.
11. Fifth display: T2 or T4 reading.
12. MAX, MIN, AVG display.
13. Secondary display: T1, T2, T3, or T4 reading.
14. Unit of temperature.
15. Displays while recording data.
16. Displays while freezing data.





OPERATING INSTRUCTIONS contd.

Holding Displayed Readings

1. Press  to freeze the displayed readings. The display shows HOLD.
2. Press  to toggle the T1, T2, IR, T1-T2, T1-IR, and T2-IR readings in the primary, secondary, or tertiary display.
3. Press  for two seconds to toggle the T3, T4, IR, T3-T4, IR-T3, and IR-T4 readings in the primary, secondary, or tertiary display.
4. Press  for two seconds again to return to the original display.
5. Press **HOLD** to turn off the HOLD option.

Viewing MIN, MAX, and AVG Readings


1. Press  to step through maximum (MAX), minimum (MIN), or average (AVG) readings. The display shows elapsed time since entering MAX / MIN / AVG mode, or the time at which the minimum or maximum occurred.
2. Press  for three (3) seconds to exit.

Recording Data

1. When the meter is turned ON, the number of events that may be recorded is shown on the secondary display.




Note: If the maximum number of events have been recorded, the meter displays FULL. Refer to the Setup Menu: Erase the Memory procedure to clear the events.


2. Press  to record an event. Press the button again to stop recording.

Using the Infrared (IR) Thermometer

 **CAUTION:** To prevent personal injury, do not stare into the laser beam. This is a Class 2 laser product.

1. Plug the output of the IR thermometer into the IR input on the side of the TIF3340. IR TEMP appears on the display.
2. Aim the IR light at the location to measure.
3. Press . The temperature appears in the tertiary display.






Shutting OFF the TIF3340

1. Press  and hold the button while the secondary display counts down from three to zero. The thermometer shuts off after the display reaches zero.

NOTE: If the sleep timer (SLP) is enabled, the thermometer automatically shuts down after twenty (20) minutes of inactivity.

SETUP MENU

CHANGING SETUP OPTIONS



1. Press  for three (3) seconds to enter Setup Menu. SETUP appears at the bottom of the display.
2. Press  or  to scroll to the desired setup option.
3. Press **ENTER** to change this setting.
4. Press  or  until desired setting displays.
5. Press **ENTER** to store new setting in memory.
6. Press **SETUP** for three (3) seconds to exit Setup Menu.

NOTE: Setup is disabled in MAX MIN AVG mode.

Option	Menu Item	Settings
Offset	T1, T2, IR, T3, T4	T1, T2, IR, T3, or T4 offset
Sample Rate	rAt	Recording sample rate
Time Setting	tiE	Show / set the time
Clear	CLR	Clear memory of events
Sleep Mode	SLP	ON or OFF

Using Offset to Adjust for Probe Errors

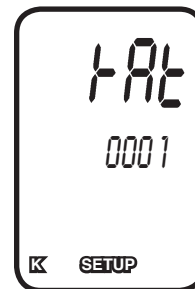
The offset option can adjust thermometer readings to compensate for the errors of a specific thermocouple and IR temperature. The adjustment range allowed is: $\pm 9.0^{\circ}\text{F}$ or $\pm 5.0^{\circ}\text{C}$.




1. While in Setup Menu, plug the thermocouple into the input connector.
2. Place the thermocouple in a known, stable temperature environment (such as an ice dry well calibrator). Allow the readings to stabilize.
3. Press **ENTER** to store new setting in memory.
4. Press  or  until the primary reading matches the calibration temperature.

Note: The primary display shows the temperature plus the offset, and the secondary display shows the offset. Individual offsets can be stored for T1, T2, IR, T3, or T4.

Set the Sample Rate of Temperature Data Recording

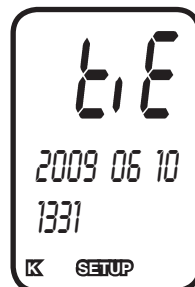
The default sample rate is one second, which is displayed on the secondary display as 0001 (minute—second).






1. While in Setup Menu, press  to select which reading (minute—second) to adjust.
2. Press  or  until desired setting displays.
3. Press **ENTER** to store the new setting in memory.

Set the Time

The secondary display shows year, month, and day. The tertiary display shows hour and minute. June 10, 2009, 1:31 PM is displayed in the graphic.







1. While in Setup Menu, press  to select which reading to adjust: year—month—day—hour—minute.
2. Press  or  until desired setting displays.
3. Press **ENTER** to store the new setting in memory.

Erase the Memory

The number of events stored is shown on the secondary display. This procedure outlines how to clear the memory.




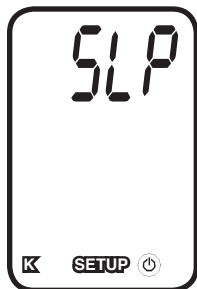
1. While in Setup Menu, press  or  until CLR is displayed.
2. Press **ENTER**.
3. Press  or  until YES is displayed.
4. Press **ENTER** to clear the memory.





SETUP MENU contd.


SLEEP MODE

When in sleep mode, the meter automatically shuts down after 20 minutes if no buttons have been pressed during that time.

 is displayed if sleep mode is enabled.







1. While in Setup Menu, press  or  until SLP is displayed.
2. Press **ENTER** until ON or OFF is displayed.
3. Press  or  until desired setting is displayed.
4. Press **ENTER** to store the setting in memory.

Note: If sleep mode is not enabled, the meter does not automatically shut OFF, and  will not show on the display.

MAINTENANCE

REPLACING THE BATTERY

The thermometer must be OFF when changing the battery.

1. 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 . Using 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 harness.
5. Connect the new 9-volt battery to the harness, and place it into the battery cavity.
6. Install the battery cover by placing 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. 

SPECIFICATIONS

General		Temperature Accuracy	
Battery	9V	T1, T2, T3, T4 Above -148°F (-100°C)	± [0.15% rdg + 1.8°F (1°C)]
Operating Temperature	32°F to 122°F (0°C to 50°C) Noncondensing	T1, T2, T3, T4 Below -148°F (-100°C)	± [0.5% rdg + 3.6°F (2°C)]
Storage Temperature	14°F to 122°F -10°C to 50°C	T1-T2, T3-T4	± [0.5% rdg + 1.8°F (1°C)]
Temperature Range		IR	
K-type Thermocouples	-328°F to 2501°F -200°C to 1372°C	IR above 14°F (-10°C)	± [2.0% rdg + 3.6°F (2°C)]
IR Temperature	-22°F to 1022°F -30°C to 550°C	IR below 14°F (-10°C)	± 9°F (5°C)
Display Resolution		T1-IR & T2-IR	
	0.1(°C·°F·K)<1000 1(°C·°F·K)>1000	IR above 14°F (-10°C)	± [2.0% rdg + 5.4°F (3°C)]
		IR below 14°F (-10°C)	± 11°F (6°C)
		T3-IR & T4-IR	
		IR above 14°F (-10°C)	± [2.0% rdg + 5.4°F (3°C)]
		IR below 14°F (-10°C)	± 11°F (6°C)

WARRANTY

This product has been produced to provide unlimited service. Should it become inoperable 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 damaged or tampered with. The claim must be made within **One Year** of the date of purchase.

SPX

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