

# MINCO Model TI108FX1B6C

## Handheld Digital Thermometer

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### Operating Instructions

#### DESCRIPTION:

The Minco TI108FX1B6C is a handheld digital thermometer designed for accurate temperature measurement in calibrating the heater assembly in a dry silver film processor.

The TI108FX1B6C is designed for Minco sensor model S19639 (or any sensor equivalent to model S11029). It is match calibrated to the sensor at 121.1°C (250°F) to provide the best accuracy over the range of 115 to 127°C (240 to 260°F). Sensors are not interchangeable. The meter must be recalibrated to a new sensor to maintain stated accuracy. Contact Minco for a copy of the calibration procedure.

#### OPERATION:

- 1) Install a 9 volt battery in the battery compartment.
- 2) Insert the sensor plug into the jack on top of the meter. Verify that the process numbers on the sensor and the thermometer match.
- 3) Move the power switch to the on position.
- 4) Select the appropriate scaling (Fahrenheit or Celsius). For maximum resolution and accuracy, use the °C scale.

**MINCO** PRODUCTS, INC.

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## TROUBLESHOOTING GUIDE

<u>Condition</u>	<u>Causes</u>	<u>Remedy</u>
Display shows “1” continuously in only the leftmost digit.	RTD is open.	Disconnect from meter, check the RTD continuity and connections. Replace the RTD if faulty.
	Over range temperature.	Switch to EF scale. Meter will read to 600°F, but system is accurate to 400°F.
Reading shows “-1” continuously in only the leftmost digit.	The RTD is shorted.	Disconnect from meter, ohm RTD continuity, and connections. Replace the RTD if faulty.
“LO BAT” or ▲ reading in upper left corner of LCD display.	Battery is worn out.	Replace battery.
LCD display shows nothing.	Dead or missing battery.	Replace battery.
Display shows very unlikely temperature.	Wrong scale setting.	Move switch on front panel to appropriate position (Fahrenheit or Celsius).
	Faulty RTD	Check the RTD. Replace if bad or incorrect.
Poor accuracy.	Wrong sensor.	Check for matching serial numbers on the sensor and thermometer.
	Damaged sensor.	Replace and recalibrate.
	Out of calibrated range.	See specification below.

## GENERAL SPECIFICATIONS

	<u>°C Range</u>	<u>°F Range</u>
Temperature Range:	0 to 199.9°C	32 to 400°F
Calibrated Range:	115 to 127°C	100 to 300°F
Resolution:	0.1°C	1°F
System Accuracy - Calibrated range:		
- Full range:	+/- 0.3°C	+/- 2°F
	+/- 1.5°C	+/- 4°F
Display:	3½ digit LCD (Liquid Crystal Display).	
Display Model:	Fahrenheit or Celsius	
Sensor Input:	293.8Ω at 250EF Nickel-iron (NiFe) RTD. (Must conform to model S11029 resistance temperature table.)	
Sensor Connection:	Two standard .75" spaced banana plugs.	
Power Supply:	9 volt alkaline battery (supplied).	
Ambient Temperature - Operating:	0 to 50EC (32 to 122EF)	
- Storage:	-20 to 65EC (-4 to 149EF)	
Dimensions:	5.75" x 3.6" x 1.32"	
Weight:	7.3 ounces (with battery)	

## WARRANTY INFORMATION:

Items returned within one year from the date of sale, transportation prepaid, which Minco Products, Inc. (the Seller) reasonably determines to be faulty by reason of defective materials or faulty workmanship will be replaced or repaired at the Seller's discretion, free of charge.

This remedy is to be the sole and exclusive remedy available to the buyer in the event of a breach by the seller. Items that show evidence of mishandling or misapplication may be returned by the seller at the customer's expense.

Furthermore, the seller is not to be held responsible for the consequential damages caused by its product except as required under Minnesota Statutes, Section 336.1-719 (3).

This warranty is expressly in lieu of any other expressed warranty or implied warranty of merchantability or fitness for a particular purpose, and of any other obligations or liability on the part of the seller or its employees or agents.

Annual recalibration of the match set of sensor and thermometer is recommended.

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Stock # 360-00074 3/14/01 dac