#### SPECIFICATIONS

 Temperature Range: -50 to 1999°F / -50 to 1230°C

 Resolution:
 0.1° or 1°

 Accuracy:
 ±(0.75% + 1°C)

 Sampling time:
 1 second

 Data output:
 RS-232 interface

### QUICK REFERENCE

On Turns unit on.

Off Turns unit off. Data Hold "Freezes" the display at the current reading. Memory Record

Activates the Record mode enabling minimum and maximum readings to be recorded.

Memory Recall Displays the stored minimum and maximum temperature readings while in Record mode.

- **°F/°C** Switches display between °F and °C.
- Function Permits viewing temperature channel readings or differential temperature reading.
- **1.0°/0.1°** Switches between 1° and 0.1° resolution (0.1° available from -50.0 to 199.9).

#### TEMPERATURE MEASUREMENT Single Probe measurement

1. Press the ON button to power unit.

- 2. Select °F or °C by pressing the °F/°C button.
- Select 0.1° or 1.0° resolution by pressing the 1°/0.1° button.

## DISPLAY MESSAGES

"LBT" indicates that the battery is low and needs replacement (see "Battery Replacement" section)

"---" indicates the reading is outside the range of the unit.

#### ALL OPERATIONAL DIFFICULTIES

If this thermometer does not function properly for any reason, please replace the battery with a new, high-quality battery (see "Battery Replacement" section). Low battery power can occasionally cause any number of "apparent" operational difficulties. Replacing the battery with a new fresh battery will solve most difficulties.

#### BATTERY REPLACEMENT

An erratic display, faint display, no display, or "LBT" appearing on the display are all indicators that the battery needs replacement. Remove the battery cover. Remove the exhausted battery and replace it with a new 9-volt alkaline battery. Replace the battery cover.

### ACCESSORIES

**Cat. No. 4136 Data Acquisition System Accessory** Powerful and easy to use computer data capture/data logging program works with Traceable® Instruments with computer output. Records interval readings from 1 to 10,000 seconds; displays minimum/maximum readings; and utilizes an alarm mode that permits the user to be notified visually, audibly, and by email when an alarm is  Insert temperature probe into T1 socket. It may be necessary to press the FUNCTION button until "T1" is displayed, indicating the unit is sampling from the probe in the T1 socket.

Note: The cable and connectors are keyed, do NOT insert connector incorrectly and force it.

# Dual probe and differential measurement

- 1. Press the ON button to power unit.
- 2. Select °F or °C by pressing the °F/°C button.
- 3. Select 0.1° or 1.0° resolution by pressing the 1°/0.1° button.
- 4. Insert temperature probe into T1 socket and another temperature probe into T2 socket.

Note: The cables and connectors are keyed, do NOT insert the cables incorrectly and force them.

 Press the FUNCTION button to alternate between viewing temperature readings from probe T1, probe T2, and the differential temperature. The FUNCTION button alternates between the following settings:

When "T1" is displayed, the upper display indicates temperature reading from T1 probe. The T2 probe temperature reading appears on lower display.

When "T2" is displayed, the upper display indicates temperature reading from T2 probe. The T1 probe temperature reading appears on lower display.

triggered. Data is stored to a file that can be printed in

capability allows the captured data to be monitored on a

any report or spreadsheet format. Networking server/client

remote workstation and/or by email. It is designed to work

with Windows® 98/Me/NT/2000/XP/Vista. Includes a CD,

that plugs into the instrument and computer. Accessory

Captures and stores up to 8000 bytes (over 1000 read-

to 99 hours. Stored readings may be downloaded to

any PC and viewed. Can be read as-is or imported to

Supplied complete with serial cable, software (Windows®),

and batteries. For use with Traceable® meters featuring

spreadsheets, databases, and statistical programs.

Cat. No. 4008 Surface Probe Stainless-steel with

Cat. No. 4014 Stainless Steel Probe Stainless-steel

with handle, triple purpose (liquids, air/gas, and semi-

Cat. No. 4028 Beaded Probe Fast-Response, beaded

probe. Teflon cable can withstand temperatures of -40 to

handle. Temperature range is -73 to 760°C.

solids). Temperature range is -50 to 700°C.

250°C continuous or 300°C short-term use.

ings). Readings may be taken at intervals from 1 second

a 6-foot cable (supplied USB and serial connections)

extension cables expand cable length to 300 feet.

Cat. No. 4325 Data Logger

computer output.

When "T1 - T2" is displayed, the upper display indicates differential temperature of T1 and T2 probes. The T1 probe temperature reading appears on lower display.

### DATA HOLD FUNCTION

 To "freeze" the display at the current temperature reading(s), press the DATA HOLD button ("D.H" will appear along the top of the display).

**Note:** While in the Hold mode, pressing the °C/°F, FUNCTION, 1°/0.1°, MEMORY RECORD, or MEMORY RECALL button will have no affect and will not change the "frozen" display.

Push the DATA HOLD button a second time to return to normal temperature sampling ("D.H will no longer appear on the display).

## MEMORY RECORD

Press MEMORY RECORD button to activate the Record mode. Once the Record mode, the unit will begin recording minimum and maximum temperature readings achieved for the probe indicated on the main display ("T1" or "T2") ("REC" will appear along the bottom of the display).

**Note:** The Automatic Shutoff feature is disabled while in Record mode so that long-term monitoring may be performed.

### MEMORY RECALL

- While in the Record mode, press the MEMORY RECALL button to recall the minimum and maximum temperature recordings for the probe appearing on the upper display ("T1" or "T2").
- The maximum temperature recording appears on the first press of the MEMORY RECALL button ("Max") and the minimum temperature recording appears on the second press ("Min"). A third press of the MEMORY RECALL button returns the display to the current temperature reading.
- 3. Exit the Record mode by pressing the MEMORY RECORD button.

**Warning:** The minimum and maximum temperature recordings are automatically cleared once the Record mode has been exited.

## AUTOMATIC SHUTOFF

After 10 minutes, if no button has been pressed, the unit will automatically shut off to preserve battery life. The automatic shutoff can be overridden by entering the Record mode (see "Memory Record" section).

## COMPUTER OUTPUT

The meter features an RS-232 output which allows data to be exported to a computer or data logger in real-time via the accessory data acquisition software. (See the "Accessories" section.)

## Cat. No. 4138 Easy-Use Adaptor 115 VAC

**Cat. No. 8039 Low-Temperature Probe** Stainless-steel with handle; triple purpose (liquids, air/gas, and semi-solids). Temperature range is -240 to 220°C.

Cat. No. 8613 High-Temperature Probe Ten-foot-long 0.19" diameter braided metal wire cable with smooth tip measures -73 to 982°C continuous, 1093°C short-term.

#### **WARRANTY, SERVICE, OR RECALIBRATION** For warranty, service, or recalibration, contact:

#### CONTROL COMPANY 4455 Rex Road Friendswood, Texas 77546 USA Ph. 281 482-1714 • Fax 281 482-9448 E-mail sales@control3.com • www.control3.com

Control Company is ISO 9001 Quality-Certified by DNV and ISO 17025 accredited as a Calibration Laboratory by A2LA.

Control Company Cat. No. 4137
Traceable® is a registered trademark of Control Company.
 2009 C Control Company. 92-4137-00 Rev. 2 05212009

TRACEABLE® DUAL-CHANNEL THERMOMETER WITH COMPUTER OUTPUT INSTRUCTIONS