

# DT15A/DT20A

## Instruction Manual



### INTRODUCTION

#### Forward

Congratulations on your purchase of this thermometer by UEI! This instrument is a portable, battery operated temperature-measuring device. It uses thermistor probes to provide fast, accurate measurements with excellent resolution.

#### Materials Supplied

This package contains:

- The DT15A or DT20A temperature tester
- An impact resistant rubber boot
- ATT55A thermistor probe (two probes included with DT20A)
- Installed batteries
- This instruction manual

### SAFETY

#### Practicing Safety

This instrument is designed for professionals who know the hazards associated with their trade. While the opportunity to injure yourself as a direct result of operating this instrument is nearly non-existent, the equipment you are servicing, as well as the environment you're

working in, can be hazardous. These are a few common safety practices for those working around temperature critical environments:

- Follow the manufacturer's maintenance procedures when servicing equipment
- Place ONLY thermistor probes in the jacks
- Be sure the probe you are using can withstand the temperature extreme it may be exposed to in your service task
- Properly maintain your thermometer and calibrate it regularly

### CONTROLS AND INDICATORS

#### Key:

1. Power Switch - Powers instrument on and off
2. Min/Max – Displays the captured minimum and maximum values for all parameters.
3. Back Light Switch - Powers back light on and off

4. Hold Switch - Freezes screen data
5. °F/°C Mode Select Switch - Toggles display data from degrees Celsius to degrees Fahrenheit.
6. T1-T2 Switch (DT20A only) - Toggles screen information between T, T2, and T1-T2.
7. Thermistor Ports – 1/8" mini jack plugs for the thermistor probes used; T1 on the left T2 on the right for DT20A
8. LCD Display – Display screen of function and data information
9. Second Display (DT20A only) – Display of T2 or T1-T2 data

### OPERATING INSTRUCTIONS

#### Functional Description

The meter will momentarily flash all LCD segments on the display when it is first turned on, emit four quick beeps then it will go blank for approximately 3 seconds before starting operation. The instrument will only provide information with probes plugged in.

The DT15A has a single screen of information to view the temperature in °F or °C, recorded minimum or maximum, or held value.

The DT20A has a split screen to view both T1 and T2, or T1-T2 and your choice of either T1 or T2. The choices for format are the same as with the DT15A. Numerous viewing combinations are available to ensure you get the information you need.

- Min/Max function starts when the meter is powered on, and continues to capture values while operating with probes connected
- Temperature readings are easily toggled between Fahrenheit and Celsius
- The back light illuminates the LCD for viewing in low light areas
- The HOLD button will freeze the display data and suspend the Min/Max function
- The display will begin to blink when battery voltage is low. Note: If no probes are plugged in, three dashes will appear in the temperature data screens. This will also be recorded as a Max until the power is switched off then back on. This instrument operates and updates silently.

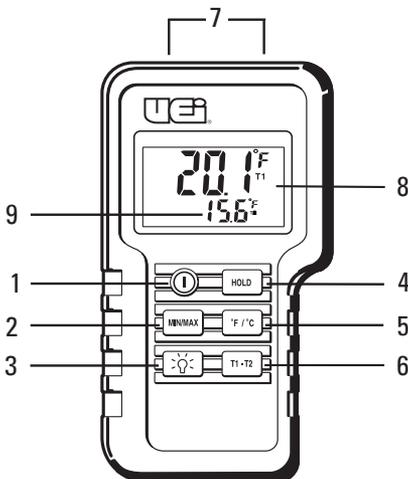
#### Auto Power Off

This instrument will shut off automatically in approximately 60 minutes. For recording or operating over longer periods of time you can defeat the auto power off function by holding down the hold button while turning the unit on. The unit will start with one solid beep to indicate that auto power off function is not activated.

#### Mode Options

When the instrument is initially turned on, the Primary screen displays T1 and the Secondary screen displays T2 (DT20A). The following table lists the modes of operation that can be invoked by pressing the buttons indicated. The table assumes your instrument has been powered on with temperature probe(s) installed:

— Continued on reverse —



### DT15A/DT20A Controls

DT20A shown. DT15A does not have dual display or T1-T2 button.  
DT15A/DT20A MAN 9/01

<b>Button On/Off</b>	<b>Response/Display</b> Turns instrument on (Default setting) and off. Three beeps emitted at power up.
<b>MIN/MAX</b>	Press once and the display indicates MIN. You are now able to change scales to display minimum in degrees F or C, and on the DT20A you are able to cycle through T1-T2 options. Press a second time to display MAX – You have the same display Press again to return to real time readings.
<b>Back Light</b>	Press momentarily to activate or turn off the backlight.
<b>Hold</b>	Press momentarily to hold all readings. This also stops the recording of Min/Max values. Hold down while turning unit on to disable auto power off. Confirmed with one solid tone.
<b>°F / °C</b>	Press momentarily and the unit toggles between Fahrenheit (the default) and Celsius temperatures. The current mode is indicated on the right side of the LCD.
<b>T1/T2</b>	<b>(DT20A Only)</b> Press momentarily to display T1-T2 on the lower display with T1 on the upper display. Press again to display T1-T2 on the lower display with T2 on the upper display. Pressing a third time will return the display to T1 on the upper display and T2 on the lower display.

<b>If I See This Malfunction</b>	<b>I Should Check For</b>	<b>Then Take This Corrective Action</b>
Instrument does not turn on	Battery voltage	Replace low batteries
	Time Delay	Allow 5 seconds after power-on for data to show up on screen
Dashes appear in data screen	Battery Polarity	Ensure batteries are installed as shown in battery compartment
	Probes	Insert missing Probes
Dashes appear during review of maximum recorded value	Open Probe	Check for intermittent or momentarily removed temperature probe
Minimum or Maximum value not captured	Hold function activated	Hold function suspends capture of MIN/MAX values
Instrument turns off during recording	Auto power off defeat	Follow procedures outlined in Operating Instructions

## SPECIFICATIONS

### Replacement Parts

Batteries: Three Standard AAA (NEDA 24A, IEC LR03)

Alkaline recommended

Temperature Probes: ATT55A thermistor probe immersion style

### Optional Accessories

Probes: ATT56A Air probe

ATT57A Surface probe

AC319 Soft Carrying Case

### Operating Conditions

32 to 122 °F (0 to 50 °C) at 0 to 85 % relative humidity (non-condensing)

## WARRANTY AND SERVICE

### DT15A/DT20A Warranty

Your thermometer is warranted to be free from defects in material and workmanship for a period of three years from the date of purchase. If, within this warranty period, your thermometer should become inoperative from such defects, the instrument will be repaired or replaced at UEI's option. This warranty does not cover batteries, misuse, abuse, alteration, tampering, neglect, or improper maintenance, or damage resulting from leaking batteries. Proof of purchase is required for warranty repairs.

### Service Information

Service covered under warranty will be provided at no charge. Instruments out of warranty will be repaired, (when repairable) for a service charge. Return the unit postage paid and insured to:

UEI Service Department

8030 SW Nimbus • Beaverton, Oregon 97008

To receive a free catalog containing our full line of test and measurement products, call (503) 644-8723. Visit our full-feature web site at ueitest.com.

### GENERAL SPECIFICATIONS

Range	Resolution	Accuracy
-50 to -20 °F / °C	1°	± 1% ± 1.5 °F / °C
-19.9 to 199.9 °F / °C	0.1°	
200 to 571 °F	1°	
200 to 300 °C	1°	

Specifications are for operating temperatures between 64 and 77 °F (18 to 25 °C). Specifications valid for 1 year after calibration.

<b>H x W x D</b>	5.5" x 3" x 1.25"
<b>Weight</b>	.44 lbs.
<b>Thermistor</b>	100k

## MAINTENANCE

### Cleaning

Use a damp cloth and mild soap to clean the case of your thermometer. Do not use harsh detergents or abrasives as these may mar the finish or damage your unit's case with an adverse chemical reaction.

Do not allow moisture to directly contact the temperature probe jacks, or enter the instrument's housing. Remove the instrument from its boot to ensure moisture is not trapped during cleaning.

### Replacing the battery

Replace your (3) AAA alkaline batteries when:

- The display begins to blink on and off
- The instrument will not power on
- Use of the back-light causes the display to blink

Even if the batteries were recently replaced, check their voltage level if you get no response from your instrument. Remove batteries from instruments that you do not plan to use for a month or more. Do not leave batteries in instruments that may be exposed to temperature extremes.

### Dispose of batteries in accordance with local land use regulations.

To replace the batteries:

1. Remove the temperature probes from the top of the instrument
2. Remove the rubber boot, by sliding the instrument out toward the top faceplate cut-out
3. Lay the instrument facedown on a clean, flat surface.
4. Remove the battery cover by sliding it straight down.
5. Remove and replace the batteries, observing indicated polarity.

### Calibration

To ensure your instrument is performing at its peak, send it to the UEI factory or a qualified instrument calibration facility for annual calibration.

## TROUBLESHOOTING

This instrument contains no user serviceable parts beyond those listed in this table. In the event your instrument is physically damaged or does not function properly after taking the listed action, please return the instrument to UEI following the warranty and service instructions.