SPECIFICATIONS
Selectable Temperature Range:
–4° to 140°F (–20° to 60°C) or 64° to 95°F (18° to 35°C)

Display: 7-digit LCD— Time ½ "
          3-digit LCD— Temperature $^9/_{16}$"

Temperature Display Update: 5 seconds

FRONT PANEL REFERENCE BUTTONS
HOUR- Advances hour digit & advances temperature in temperature setting mode
MIN- Advances minute digit
⊙**/D.R.**- Hold down to set time-of-day <u>or</u> press to set programmed time settings to active/inactive
TEMP.S/CLOCK- Press to toggle the display between the TEMP SET temperature and the current temperature
✎ - (see "Outlet Override" section)
RESET- Clears all settings
G:OFF/O:ON- Outlet Indicator light
O:ON- Orange light indicates that power at the outlet module is on.
G:OFF- Green light indicates that power at the outlet module is off.
No light indicates that the outlet module is not receiving power from the wall outlet.

Fig .1

Display Module   **Outlet Module**

Fig .2

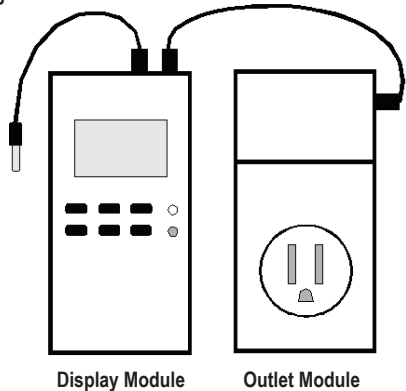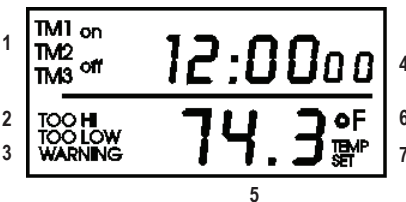## DESCRIPTION OF LCD PANEL
1. Time-of-Day controller settings
2. TOO HI- will appear when the temperature is 5° or more above the TEMP SET point
   TOO LO- will appear when the temperature is 5° or more below the TEMP SET point.
3. Low battery display
4. Time-of-day display hr/min/sec
5. Temperature display
6. Celsius/Fahrenheit indicator
7. Temperature setting mode indicator

Fig .3

1   2   3
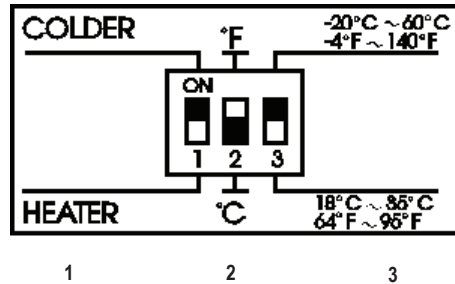
BACK PANEL REFERENCE
1. Colder (up)/ Heater (down)
2. F° (up)/ C° (down)
3. Temperature Range
     –20°C~60°C (up)   18°C-35°C (down)
     (–4°F-140°F)   (64°F-95°F)

DIP SWITCH SETTINGS
The dip switches are located in the lower right corner on the back of the display module. See Fig. 3 for illustrated schematic.
1. Switch #1 selects Colder or Heater setting.
   A. Colder (up) selection turns the outlet ON when the temperature <u>rises above</u> the TEMP SET point while in the temperature controlling mode. (At temperatures below the TEMP SET point the outlet is off.)
   B. Heater (down) selection turns outlet ON when the temperature <u>falls below</u> the TEMP SET point while in the temperature controlling mode. (At temperatures above the TEMP SET the outlet is off.)
2. Switch #2 selects °F or °C for the temperature display.
3. Switch #3 selects the temperature range (wide or narrow see "Specifications").

TEMPERATURE CONTROLLING- HEATER MODE
Plug the electronic apparatus to be controlled into the Outlet Module. Turn <u>on</u> the power switch of the electrical apparatus to be controlled. Plug the Outlet Module into a power outlet.
1. Set dip switch #1 to HEATER (down).
2. Set dip switches #2 and #3 to the desired position (see "Dip Switch Settings").
3. Press the **RESET** button. Wait 5 seconds for the clock and current temperature display to reappear.
4. Press the **TEMP.S/CLOCK** button, "TEMP SET" will appear in the lower right corner of the LCD display.

5. Press the **HOUR▲** button to advance the temperature setting to the desired temperature.
6. Press the **TEMP.S/CLOCK** button to return to the current temperature display.
7. In order to initiate the switching function, reduce the temperature at the probe to at least 2° below the TEMP SET point.
8. Press the ✎ button to trigger the outlet module on. (All subsequent ON/OFF operations will be automatic.)
9. Place probe in contact with the material to be measured.

The outlet will now automatically turn ON when the temperature <u>falls 2° below</u> the SET TEMP point and OFF when the temperature <u>rises above</u> the TEMP SET point.

TEMPERATURE CONTROLLER-COLDER MODE
Plug the electronic apparatus to be controlled into the Outlet Module. Turn <u>on</u> the power switch of the electrical apparatus to be controlled. Plug the Outlet Module into a power outlet.

1. Set dip switch #1 to COLDER (up).
2. Set dip switches #2 and #3 to the desired position (see "Dip Switch Settings").
3. Press the **RESET** button. Wait 5 seconds for the clock and current temperature display to reappear.
4. Press the **TEMP.S/CLOCK** button, "TEMP SET" will appear in the lower right corner of the LCD display.
5. Press the **HOUR▲** button to advance the temperature setting to the desired temperature.
6. Press the **TEMP. S/CLOCK** button to return to the current temperature display.
7. In order to initiate the switching function, raise the temperature at the probe to at least 2° above the TEMP SET point.
8. Press the ✎ button to trigger the outlet module on. (All subsequent ON/OFF operations will be automatic.)
9. Place probe in contact with the material to be measured.

The outlet will now automatically turn ON when the temperature <u>rises 2° above</u> the SET TEMP point and OFF when the temperature <u>falls below</u> the TEMP SET point.

TIME-OF-DAY CONTROLLING
1. Set dip switch #1 to "colder" (up) and switch #3 to -4°F~140°F (up).
2. Press the **RESET** button. Wait 5 seconds for clock and current temperature display to reappear.
3. Push the **TEMP.S/CLOCK** button, TEMP SET appears on the display.
4. Press the **HOUR ▲** button until the display reads 0.0°F (-18°C). (TEMP SET display defaults to 82° F. Each press of the **HOUR ▲** button advances the display. At 140° F it rolls over to –4° F.)
5. Press the **TEMP.S/CLOCK** button to return to the time-of-day display.
6. Set time-of-day (see "Time-of-Day Setting").
7. Press the **PROG** button "TM1/ON" will be displayed in upper left corner.
8. Enter the desired "ON" time by pressing the **HOUR ▲** and **MIN** buttons.
9. Press **PROG** to advance to "TM1/OFF" and enter the desired "OFF" time (as in step 8).

10. Repeat steps 7-9 to set "TM2" and "TM3" times as needed.
11. When all programmed times are entered press the **TEMP.S/CLOCK** button to return to current time and temperature display.
12. Plug the electronic apparatus to be controlled into the Outlet Module. Turn <u>on</u> the power switch of the electrical apparatus to be controlled. Plug the Outlet Module into a power outlet.

Note: In order for the Time-of-Day Controller to function properly, the temperature at the probe must not fall below 0.0°F (-18°C).

REVIEWING PROGRAMMED TIMES
Press the **PROG** button repeatedly to view all 6 programmed on/off times. Press the **TEMP.S/CLOCK** button to return to the time-of-day display.

ACTIVE/INACTIVE (STORING PROGRAMS)
Any programmed time(s) may be made inactive and stored in memory using these instructions. Press the **PROG** button until an unwanted time is displayed. Press the ⊙**/D.R** button, the display will show dashes and the Controller will not switch at that programmed time. To recall and activate the time, press the ⊙**/D.R** button again and the program time will be displayed and set active. This feature enables you to activate or deactivate any of the 6 on/off switchings that have been programmed into the Controller.

TIME-OF-DAY SETTING
1. Press and hold the ⊙**/D.R** button.
2. Press the **HOUR▲** button to advance the hour digit (time is displayed in 24 hour format).
3. Press the **MIN** button to advance minute digit.

OUTLET OVERRIDE (✎)
The Outlet Override button should only be used under the following conditions:
1. To activate TEMP SET. (See step 8 under Temperature Controlling- Heater/Colder)
                  -or-
2. If there is power to the outlet and you wish to turn the power off press the ✎ button. *Note: If the ✎ button is pressed under this condition the unit must be reset by pressing the **RESET** button.*

MOUNTING
The unit is supplied with a wall mount that slips into the back of the display module. It can be attached to any surface with screws. It can also be attached to any clean smooth surface by using the supplied adhesive backing. Determine the mounting position (metal prong facing up and out) and attach. Both the display module and outlet module should be placed in a location where they will not be exposed to liquids.

A suction cup, attached to the probe lead, allows the probe to be attached to any clean, smooth surface for optimal temperature readings.

PROBE

The probe and cable are both waterproof and may be completely immersed in liquid. Both the display module and outlet module should be placed in a location where they will not be exposed to liquids.

ALL OPERATIONAL DIFFICULTIES

If this controller 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

A faint display or no display are indicators that the battery must be replaced. Remove the battery cover. Remove the exhausted batteries and replace them with two (2) new "AAA" alkaline batteries. Replace the battery cover.

WARRANTY, SERVICE, OR RECALIBRATION

For warranty, service, or recalibration, contact:

TRACEABLE® PRODUCTS
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Traceable® Products is ISO 9001:2015 Quality-Certified by DNV and ISO/IEC 17025:2005 accredited as a Calibration Laboratory by A2LA.

TRACEABLE® TEMPERATURE CONTROLLER INSTRUCTIONS