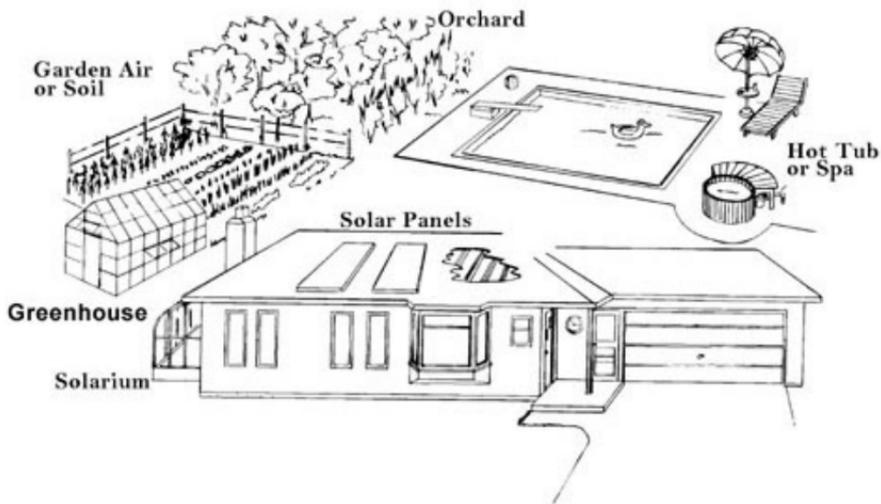


Owner's Manual

# Computemp 5

## Multiple use Digital Thermometer With 7 Day Memory

Congratulations. You are now the owner of one of the most remarkable and fascinating ways available to observe temperature changes. It is our sincere hope that you will find the Computemp a fun and fascinating instrument. The magic of micro-electronic technology makes your Computemp entertaining and useful.



Computemp can monitor up to nine Locations from one central unit with the Optional rotary switch accessory.

# SPECIFICATIONS

LINE POWER: (103-133V), 60Hz (200-240VAC 50/60 Hz opt.)  
ADAPTER OUTPUT: 700MA, 9 VAC  
POWER RATINGS: 7.35 VA (7.35W)  
BATTERY LIFE: 36 hours backup operation  
RANGE: -40° to + 175°F (-40°C to 80°C)  
ACCURACY:  $\pm$  1% over range  
REPEATABILITY: 1.5°F (1°C)  
TEMP. UPDATE RATE: 8 seconds  
TIME CONSTANT: 72 seconds (63% of 20°F/11°C)  
AUX PROBE LENGTH: 6 feet (1.8M)  
MAIN PROBE LENGTH: 30 feet (9M)  
ADAPTOR CORD LENGTH: 6 feet (1.8M)  
DISPLAY: 4 digit, 0.6" (15MM x 127MM x 64MM)  
CASE: White and gray ABS plastic  
PROBE HOLDER: Gummed, peeled back clip

## POSSIBLE USES FOR EXTRA SENSORS

Green House	Aquariums	Swimming Pools
Attic	Food Storage	Nursery Room
Solar	Refrigeration	Animal Confinement
Hot Water Pipes	Hot Tub	Soil

## ADD SEVERAL SENSORS TO YOUR COMPUTEMP WITH THE OPTIONAL ROTARY SWITCH MODULE

You may add up to 7 additional sensors to your Computemp which can monitor a variety of temperature readings in several locations. With this easy to install plug-in rotary switch module, you can adapt your Computemp to monitor temperatures of air, liquid, or mass. Possible applications for additional probes are listed above. No additional parts are needed, simply disconnect one of your sensor wires and plug the module in the main or aux. Port of your Computemp.

# FEATURES

**MAIN TEMPERATURE** 30 feet (9M) sensor is primarily intended for measuring ambient outdoor temperature, but other uses are limited only by imagination (other lengths available).

**AUX TEMPERATURE** Measures any temperature within 6 feet (1.8M) of the unit (other lengths available).

**TIME** Current time of day is displayed.

**TEMPERATURE MEMORY** Main temperature has a unique memory feature. It keeps track of daily high and low temperatures and time of occurrence for **each day** of the **previous week**.

**TEMPERATURE ALARM** Located on main sensor only, alarm emits a steady tone when your pre-selected temperature is reached.

**TIME ALARM** A brand new concept. A ten (10) second tone alerts you at the time you have selected, automatically stops and then continues at 5 minute intervals with shortened tones until you turn it off.

**DISPLAY SELECT** This feature is completely versatile. You can set the unit to be blank or to display any one or combination of the following: aux, temp, main temp, or time.

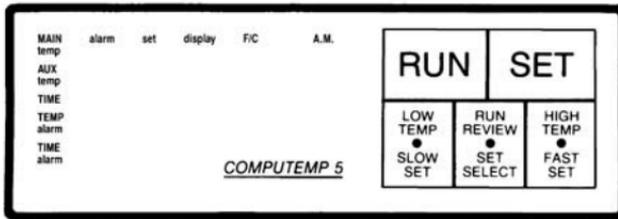
**CELSIUS OR FAHRENHEIT** Displays temperature readouts in Celsius or Fahrenheit, or both alternately.

**BATTERY BACKUP** Retains memory during power interruptions.

**REVIEW FEATURE** A convenient way to check time and temperature alarm settings.

**ALARM STATUS LIGHTS** Lets you know at a glance which alarms are on.

# OPERATING INSTRUCTIONS



If you have not already done so, plug in the Computemp, this is accompanied by a chirp. The unit is in the RUN MODE and is alternately displaying MAIN temperature, AUX temperature and TIME. The three small lights changing with the digital read-out indicate what is being displayed.

NOTE: For efficient operation, press the **center** of each command pad. On the top tier, press directly on the words **RUN** and **SET**. On the lower tier, press the dot on the center of each pad. Command pads can be pressed in any combination or sequence without harming unit. Unit will automatically return to RUN MODE if no pads are pressed for one minute.

Before setting your Computemp for the first time, clear the temperature memory by pressing **LOW/SLOW** and **HIGH/FAST** simultaneously.

## TO SET TIME OF DAY

Repeatedly press **SET** until SET light at the top of the display is on. Repeatedly press **SELECT** until TIME light is on. Use **FAST** or **SLOW** to set time of day. Return until to RUN MODE by pressing **RUN**.

## TO SET TIME ALARM

Repeatedly press **SET** until SET light at the top of the display is on. Repeatedly press **SELECT** until TIME ALARM light is on. Use **FAST** or **SLOW** to set desired alarm time. Return to RUN MODE by pressing **RUN**.

NOTE: for time of day and time alarm settings, be sure to observe AM light to insure correct settings.

## TO SET TEMP ALARM

Repeatedly press **SET** until SET light at the top of the display is on. Repeatedly press **SELECT** until TEMP ALARM light is on. Use **FAST** or **SLOW** to set desired alarm temperature. It is important to be aware of the fact that the temperature alarm sounds only when temperature equals your alarm setting. Return to RUN MODE by pressing **RUN**.

## TURNING ALARMS ON AND OFF

Repeatedly press **SET** until ALARM light at the top of the display is on. Then press **SELECT** to enable or disable the TEMP and TIME alarms. When the TEMP alarm and TIME alarm lights are off they will not sound. You can enable either or both of the alarms.

## SILENCING ALARMS

The TIME alarm may be reset (shut off) for 24 hours by pressing SELECT. The TEMP alarm may likewise be reset by pressing SELECT. TEMP alarm will not be reactivated until the measured temperature leaves and returns back to the alarm temperature setting. The alarms will not sound when the lights are off.

## SELECTING DISPLAY

Repeatedly press SET until DISPLAY light is on. Repeatedly press SELECT until desired display combination is selected. Choice is indicated by one or more of the MAIN temp, AUX temp, or TIME lights turned on. A blank display is indicated by all three lights off. Proceed to next setting function by pressing SET or return unit to RUN MODE by pressing RUN.

### POSSIBLE DISPLAYS ARE:

- MAIN temp, AUX temp, TIME
- AUX temp, TIME
- MAIN temp, TIME
- TIME ONLY
- AUX temp, MAIN
- AUX temp ONLY
- MAIN temp ONLY
- no display

## REVIEW

Pressing REVIEW will show all alarm settings, current time and temperatures.

## FAHRENHEIT AND OR CELSIUS DISPLAY

Repeatedly press SET until F/C light is on. Repeatedly press SELECT until your choice is displayed. F setting will display Fahrenheit temperature readout. C setting will display Celsius readout. A setting will alternately display Fahrenheit and Celsius readouts. Return unit to RUN MODE by pressing RUN.

## 7-DAY HIGH AND LOW TEMPERATURE MEMORY

NOTE: The unit must be in the RUN mode not SET mode. (If in doubt, press RUN). To recall the high temperature history, for example, press the HIGH button. The display will first show "H" indicating that the High recall has been activated. Next, it will display the high temp (since midnight) for today so far, then it will display the time of occurrence of that high.

Next, you will see "-1H", this indicates that the unit will next display the previous days high (day #-1). It will then show that days high temp followed by time of occurrence. Note: during the first 7 days of operation "\_\_\_\_" will be displayed for days that have not yet accumulated a HI/LOW history).

Next will be "-2H" for 2 days ago etc. Until it gets through -6 then the unit will automatically return to RUN.

The LOW recall may be pressed any time desired and the unit will start recalling those temps and times as above.

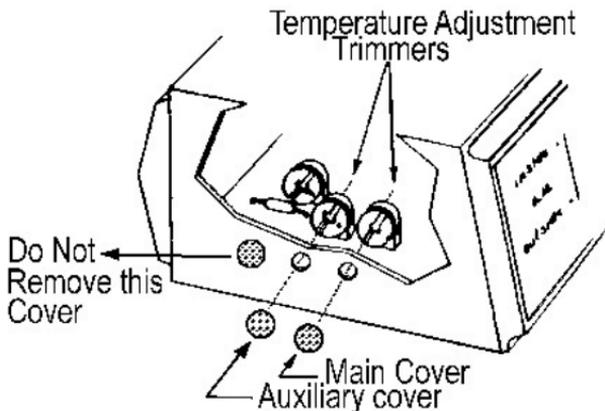
Pressing RUN anytime during memory recall will cancel that memory recall and return the unit to the RUN mode.

You may manually erase the current day's HI/LOW memory by pressing the HIGH and LOW buttons simultaneously.

## BATTERY INSTALLATION

Open the battery cover on rear of unit. Connect a fresh 9 volt battery to the snap terminals and close. (NOTE: Be sure to have battery poles properly aligned before attaching. Connecting backwards may cause damage to the unit). To prevent unneeded drain, the battery back-up is on, the display of the Computemp goes blank; however, the memory will be retained. Change the battery annually or after a power outage.

## UNIT CALIBRATION



If the unit is not recording the proper temperature, use the following procedures. **If the temperature is off by more than 10 degrees of actual** there is some other problem with your unit. **(Do not attempt to re-calibrate).**

The temperature adjustment trimmers are positioned behind the two front hole covers (Main & Auxiliary) on the left side of the unit (refer to diagram).

**HINT:** Remove both the Main and Auxiliary covers and shine a flashlight through the holes while looking through one hole to get an idea where the adjustment trimmer is located, this will be very helpful.

**NOTE: THE BACK TRIMMER IS FOR FACTORY USE ONLY, DO NOT ADJUST.**

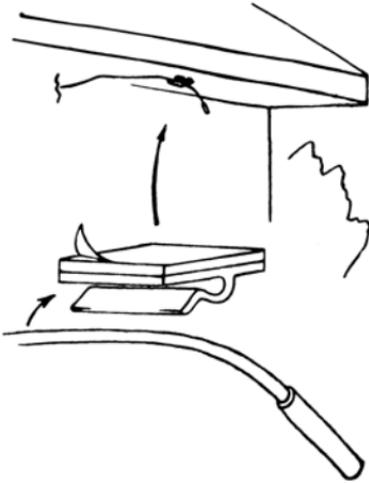
Set the unit so it displays only the temperature that you are going to calibrate.

Place the appropriate temperature probe by a known accurate thermometer and allow this displayed temperature to stabilize. **HINT:** You can use ice water that is constantly stirred for 32°F. Carefully insert a small to medium size jewelers type screwdriver approximately 1" into the appropriate hole. You will feel the screwdriver touch the trimmer. By gently rotating the screwdriver, it will fall into the slot on the trimmer.

**CAUTION:** Do not exert too much pressure with the screwdriver as you may damage the component. If this happens, the unit may have to be returned for repair.

Observe the displayed temperature and turn the trimmer very slightly until it reaches the desired temperature. There is approximately an 8 second delay for temperature update so be patient during this step. When finished, replace the hole covers.

## PROBE INSTALLATION



Run the main sensor through a window or any other convenient opening. The ideal location for the sensor is under the eave on the north side of the building.

If this is not possible, avoid locations that may be abnormally warm for any reason or where the sun can shine directly on the sensor. Either of these situations can cause erroneous readings. The better you plan the sensor location, the better your Computemp will perform. When you have chosen

the sensor location, mount the probe holder and snap the wire into the holder within a few inches of the sensor. You may staple the probe wire in place along the wall or eave, but take extreme care not to cut or pierce the wire.

## **LIMITED ONE YEAR WARRANTY**

C&S Electronics, Inc. warrants this product to be free from defects in workmanship and material under normal use and conditions for a period of one year from the date of original purchase. Should service be required by reason of any defect or malfunction during the warranty period, C&S Electronics, Inc. will repair or in its discretion replace any part(s) that prove to have such defects during the one (1) year period, provided that the defective unit is returned to our manufacturing facility. All parts are shipped F.O.B. C&S Electronics, Inc. factory.

This warranty is the exclusive express warranty for your product and is in lieu of all other warranties, it being understood that this warranty is the final expression of your warranty agreement with C&S Electronics, Inc. In no event shall any implied warranty exceed the one year period described above, including without limitation, implied warranties of merchantability and fitness for a particular purpose. In no event shall C&S Electronics, Inc. be liable for consequential damages resulting from breach of this warranty or any implied warranty.

Some states do not allow limitation on how long an implied warranty or the limitation or exclusion of incidental or consequential, so the above limitations and exclusions may not apply to you. This warranty covers defective part(s) only and directly related labor. You are responsible for all costs of diagnosis, shipping, service and handling of the defective unit. This warranty does not cover replacement of cabinets, knobs, or plastic face plates. Please provide proof of purchase, date and place of purchase. Upon receipt of your unit we will advise you, (if you request) by return mail the actual cost of repair. Allow three to four weeks for return delivery of your unit.

Specifically excluded from this warranty is damage resulting from acts of God, tampering, malicious mischief, misuse, vandalism, accidental damage, riots, wars, improper installation, units not installed in the USA, or neglect in the operation or maintenance of said equipment. Under no circumstances shall C&S Electronics, Inc. be consequently obligated to damages of any kind or description, losses or expenses in connection with or by reason of the use of, or failure of, or inability to use said equipment for any reason.

Welcome to the growing family of satisfied C&S Electronics, Inc. customers

C&S Electronics, Inc. has earned a reputation for quality and reliability. We would like to maintain this reputation with you.