## SPECIFICATIONS

Integrated radio receiver for reception of time signal
Signal Reception: Every 4 hours
Temperature Range: $\quad 32.0$ to $158.0^{\circ} \mathrm{F}$
0.0 to $50.0^{\circ} \mathrm{C}$

## QUICK REFERENCE

SET Toggles between displaying ambient temperature in ${ }^{\circ} \mathrm{F}$ and ${ }^{\circ} \mathrm{C}$. Used to manually set the clock.
ALARM Displays the time-of-day alarm time. Used to set the time-of-day alarm.
ZONE Used to select the proper time zone. Used to turn Daylight Saving Time on/off.
$+\quad$ Used for manual setting of clock and time-of-day alarm. Activates manual signal reception.

- Used for manual setting of clock and time-of-day alarm.

Activates/Deactivates the time-of-day alarm and snooze alarm.
SNOOZE/
LIGHT Activates the display backlight. Activates the snooze function when used to silence the time-of-day snooze alarm.
OPERATION
The unit contains a pre-tuned internal radio receiver that receives a 60 kHz frequency signal generated by the U.S. Atomic Clock. The U.S. Atomic Clock is located in Boulder Colorado and is operated by NIST (National Institute of Standards and Technology).
Upon installation of the battery, the time zone will flash on the display. Press the
ZONE button to select the desired time zone:
PST = Pacific Standard Time
m S T = Mountain Standard Time
[ ST = Central Standard Time
EST = Eastern Standard Time
Once a time zone has been selected, the unit automatically activates its receiver. Upon successful reception of the signal from the Atomic Clock, it then attempts to receive the signal every four (4) hours and make any necessary changes to the display.
The unit may not receive a signal immediately. It may take as long as 72 hours to receive a complete signal from the Atomic Clock. While the unit is attempting to receive a complete signal for the first time, the clock may be set manually (see the "Manual Clock Setting" section). Best reception often occurs between midnight and 4 a.m.

The successful reception of the Atomic Clock signal is dependent upon the positioning and location of the unit. Insufficient signal strength or external electrical interference may prevent the unit from receiving a complete signal. The main causes for poor reception are heavily reinforced concrete and steel structures and/or placement of the unit close to video or PC monitors. There are certain areas of the Eastern United States where urban interference or signals from the United Kingdom's Atomic Clock may distort or interfere with the signal from the U.S. Atomic Clock.

## SELECTING TEMPERATURE UNIT OF MEASURE

While the time-of-day is on the display, each press of the SET button toggles the temperature display from ${ }^{\circ} \mathrm{F}$ and ${ }^{\circ} \mathrm{C}$.

## SIGNAL STRENGTH INDICATOR



Indicates completed signal reception and synchronization with the Atomic Clock.
(8)

Indicates that the unit is attempting to receive the signal from the Atomic Clock. If this condition continues for more than 72 hours, the unit should be repositioned for better reception.
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Indicates no signal has been received. If this condition continues for more than 72 hours, the unit should be repositioned for better reception.

## SELECTING THE TIME ZONE

Press the ZONE button to toggle through the four (4) user-selectable time zones:
PST = Pacific Standard Time (when selected, "P" will appear to the left of the Signal Strength Indicator.)
m S T = Mountain Standard Time (when selected, "M" will appear to the left of the Signal Strength Indicator.)
[ ST = Central Standard Time (when selected, "C" will appear to the left of the Signal Strength Indicator.)
E ST = Eastern Standard Time (when selected, "E" will appear to the left of the Signal Strength Indicator.)

## Daylight Saving Time

Each time the ZONE button is pressed and held for 3 seconds, Daylight Saving Time will be turned on/off. Upon successful reception of a time signal from the atomic clock, if Daylight Saving Time is on, "DST" will appear to the left of the Signal Strength Indicator.

## MANUAL CLOCK SETTING

1. Press and hold the SET button for five (5) seconds. The year digits will flash. While setting, if no button is pressed, after 10 seconds, the unit will return to the time-of-day display.
2. Set the desired year by pressing the + or - button.

Press and hold the button to change the display rapidly.
3. With the desired year on the display, press the SET button. The month digits will flash.
4. Set the desired month by pressing the + or - button.
5. With the desired month on the display, press the SET button. The day number will flash.
6. Set the desired day number by pressing the + or - button.
7. With the desired day number on the display, press the SET button. The 12/24 hour time format option will flash.
8. Set the desired time format by pressing the + or $-\quad$ button.
9. With the desired time format on the display, press the SET button. The hours will flash.
10. Set the desired hours by pressing the + or - button.
11. With the desired hours on the display, press the SET button. The minutes will flash.
12. Set the desired minutes by pressing the + or - button.
13. With the desired minutes on the display, press the SET button. The unit will exit the clock setting mode and the changes will take effect.
NOTE: Any manual changes made will be automatically overridden with the next completed signal reception from the Atomic Clock.

## SETTING TIME-OF-DAY ALARM

1. Press and hold the ALARM button for four (4) seconds. The alarm time will be displayed with the hours flashing. 8 L on the display indicates that the alarm time is being displayed.
While setting, if no button is pressed, after 10 seconds, the unit will return to the time-of-day display.
2. Set the desired hour by pressing the + or - button.

Press and hold the button to change the display rapidly.
3. With the desired hour on the display, press the ALARM button. The minutes digits will flash.
4. Set the desired minutes by pressing the + or - button.
5. With the desired minutes on the display, press the ALARM button. The unit will return to the time-of-day display.
To view the time-of-day alarm that has been set, press and release the ALARM button. The time-of-day alarm time will display for 5 seconds. 8 L appearing on the display indicates that the alarm time is being displayed.

## TIME-OF-DAY ALARM MODES

## The unit has 3 time-of-day alarm modes:

Alarm. The time-of-day alarm will sound and pressing any button will silence the alarm for the next 24 hour period. In this mode, the snooze feature is not available.

Zz Snooze Alarm. The time-of-day alarm will sound and may be "snoozed".
OFF No time-of-day alarm will sound (no indicators appear on the display)

To enable or disable the time-of-day alarm, press the - button. Each press of the button toggles between the 3 alarm modes.

SILENCING THE TIME-OF-DAY ALARM
When the time-of-day alarm sounds, it will gradually increase in volume and intensity. If the alarm is not silenced manually, it will sound for one minute, silence automatically and will sound again the following day.

The alarm may be silenced manually in the following ways:
When in alarm mode (indicated by appearing on the display), pressing any button will silence the alarm. The alarm will sound again the following day.

When in the snooze alarm mode (indicated by $Z Z \Leftrightarrow$ appearing on the display), pressing the SNOOZE button will activate the snooze feature, (ZZ $\Leftrightarrow$ flashing indicates that the snooze feature has been activated). The alarm will sound again after eight (8) minutes. The snooze feature may be used as many times as desired. To discontinue the snooze feature, press any button (other than SNOOZE) to silence the alarm. The alarm will sound again the following day.

DISPLAY BACKLIGHT
To view the display in dim or dark conditions, press the SNOOZE button to activate the display backlight.

## MANUALLY INITIATING SIGNAL RECEPTION

If you have moved the unit from a location where it was receiving a strong complete signal, it is recommended that you manually initial signal reception to insure that the unit will receive a complete signal in its new location.

To manually initiate signal reception:
Press and release the + button until appears on the display, indicating that the unit is attempting to receive the signal from the Atomic Clock.

## ALL OPERATIONAL DIFFICULTIES

If this unit does not function properly for any reason, 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

Erratic readings, faint readings, or no display are all indications that the battery must be replaced. Remove the battery cover. Remove the exhausted battery and replace with a new AA alkaline battery. Replace the battery cover. Upon initial installation of the battery, the unit automatically initiates signal reception. (See the "Operation" section for more details.)

Warranty, Service, or Recalibration
For warranty, service, or recalibration, contact:
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