

## SPECIFICATIONS

Integrated radio receiver for reception of time signal

Temperature Range: 23.0 to 122.0° F  
-5.0 to 50.0°C

## 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 batteries, the unit automatically activates its receiver.

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. The clock will attempt a signal reception for 10 minutes every 3 hours until it successfully receives the 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 am.

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.

Upon successful reception of the Atomic Clock signal, set the Time Zone to the desired setting (see the "Setting the Time Zone and DST Status" section).

## SETTING THE TIME ZONE AND DST STATUS

1. Press and hold the SET/WAVE for 3 seconds, the Daylight Saving (DST) status (On/OFF) and Time Zone will flash.
2. Press the + button to toggle through the four (4) user-selectable time zones:

P = Pacific Standard Time (when selected, "P" will appear to the left of the Signal Strength Indicator.)

M = Mountain Standard Time (when selected, "M" will appear to the left of the Signal Strength Indicator.)

C = Central Standard Time (when selected, "C" will appear to the left of the Signal Strength Indicator.)

E = Eastern Standard Time (when selected, "E" will appear to the left of the Signal Strength Indicator.)

## Daylight Saving Time

Each time the — button is pressed, Daylight Saving Time will be turned on/off.


With the desired Time Zone and DST setting selected, press the SET/WAVE button five (5) times to confirm the entry and exit from the setting mode.

## SELECTING °F/°C AND TIME FORMAT



1. Press and hold the SET/WAVE for 3 seconds, the Daylight Saving (DST) status (On/OFF) and Time Zone will flash.
2. Press the SET/WAVE button four (4) times, the time format (24Hr/12Hr) and temperature will flash on the display.
3. Each press of the — button will change the temperature display mode between °F and °C.
4. Each press of the + button will change the time format mode between AM/PM (12Hr) and 24 hour (24Hr).
5. With the desired temperature unit of measure and time format selected, press the SET/WAVE button to confirm the entry and exit the setting mode.

## SIGNAL STRENGTH INDICATOR

 Appearing under  Indicates completed signal reception and synchronization with the Atomic Clock.

 Flashing 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.*

 Not flashing and  not appearing indicates no signal has been received. *If this condition continues for more than 72 hours, the unit should be repositioned for better reception.*

Upon successful reception of the Atomic Clock signal, the unit will perform an automatic update every night at midnight and will make any time adjustments that might be necessary. If this update is not successful, the indicators will disappear and the unit will try to receive the signal again every hour for up to 4 hours. If signal reception is still unsuccessful, the clock will attempt a signal reception for 10 minutes every 3 hours until it successfully receives the signal from the atomic clock.

## MANUAL CLOCK SETTING

1. Press and hold the SET/WAVE for 3 seconds, the Daylight Saving (DST) status (On/OFF) and Time Zone will flash.
2. Press the SET/WAVE button, the year will flash on the display.
3. Set the desired year by pressing the + or — button. *Press and hold the button to change the display rapidly.*
4. With the desired year on the display, press the SET/WAVE button. The date will flash.


5. Set the desired date by pressing the **+** or **—** button. The date will cycle through the day number first and as the day number passes to the next month, the month will change. Press and hold the **+** or **—** button to change the date rapidly.
6. With the desired date on the display, press then SET/WAVE button. The time-of-day will flash.
7. Set the desired time-of-day by pressing the **+** or **—** button.
8. With the desired time-of-day on the display, press the SET/WAVE button. The 12/24 hour time format and temperature will flash.
9. Set the desired time format by pressing the **+** button.
10. Set the desired temperature display by pressing the **—** button.
11. With the desired time format and temperature unit on the display, press the SET/WAVE button to confirm the entry and exit the setting mode.

**NOTE:** Any manual changes made will be automatically overridden with the next completed signal reception from the Atomic Clock.

#### **MANUALLY INITIATING SIGNAL RECEPTION**

If the unit has been moved 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 SET/WAVE button  will begin flashing on the display, indicating that the unit is attempting to receive the signal from the Atomic Clock.

#### **RESET BUTTON**

This button is only used when the unit is operating in an unfavorable way or malfunctioning, most commonly caused by ESD (electrostatic discharge) or radio interference. To reset the unit, press and hold down the button for 2 seconds. All settings will return to default values. Pressing the RESET button has a similar effect as removing and re-installing the batteries.

#### **ALL OPERATIONAL DIFFICULTIES**

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

#### **BATTERY REPLACEMENT**

Erratic readings, faint readings, or no display are all indications that the batteries must be replaced. Remove battery cover. Remove exhausted batteries and replace with a two (2) new AA alkaline batteries. Replace battery cover. Upon initial installation of battery, unit automatically initiates signal reception.

# **TRACEABLE® JUMBO ATOMIC WALL CLOCK INSTRUCTIONS**