Hewes Time and Weather Instruments Radio Controlled Multi-Battery Clock Instructions

Things to Know

Thank you for purchasing a Hewes Time and Weather Instruments (HTAWI) radio controlled clock. Here are some things you should know about how your clock operates:

- The analog quartz movement in your clock is designed to search for, receive, and set itself to the WWVB 60kHz time-synchronization radio signal from the U.S. atomic clock in Colorado.
- If your clock does not set itself, this is probably because of insufficient WWVB signal strength reaching the clock. The reason may be the location of the clock, electronic interference, or weather. If your building is constructed with a lot of steel or of thick and dense masonry, the time signal may not be able to reach the clock. This is also true if the clock is near computers or other electrical equipment that can generate interference, or if the weather is poor. The WWVB radio signal does not propagate as well during the day. That's the nature of the signal, not the clock. Radio controlled clocks are designed to catch the signal when they can (generally after midnight), calibrate themselves, and then run quite accurately for days until they can catch another signal. When you first power up your clock, it may not set itself until the early morning hours. That's normal. By dawn, weather permitting, it should be correct. Under less than ideal conditions, this may take a few days. For the same reason, Daylight Saving Time changes may not occur the first night if location and weather are not favorable.
- Your clock's movement has a central processing unit (CPU) with memory. If you set the clock manually, the clock runs on what is called "memory time" until it receives and synchronizes to the WWVB time signal.
- If your clock is running and has not found the time signal, you may see the clock stop once in a while. This indicates that the clock is searching for the signal. If the clock cannot find the time signal, it fast-forwards after the search by the amount of time it spent searching. This means that if you have set the clock manually, it fast-forwards to the correct (memory) time.
- The most cost effective operation is typically achieved by using high quality AA alkaline batteries (not included). If the clock is to be located where battery changing is difficult or results in high labor costs, or temperatures below freezing are expected, it may be beneficial to use AA Lithium batteries for added life expectancy and superior cold weather performance. Please do not mix battery types in the same clock.

Basic Clock Setting Procedure

Perform the following procedure to set (or reset) your clock so that it receives the WWVB time signal. To maximize the clock's reception capability, it's best to place the clock in a window facing Colorado overnight (when AM radio reception is best). After the clock receives the time signal, you can hang it in its regular location.

To set the clock:

1. Set the time zone switch for your continental U.S. time zone (P, M, C, or E).

2. If your location observes Daylight Saving Time, set the DST switch to ON to enable automatic DST changes. If not, set the DST switch to OFF to disable the automatic changes. If you prefer, you can do this later, after the clock receives the WWVB time signal.

3. You may power the HTAWI Multi-Battery clock with one to five AA (1.5V) batteries (not included). Any number may be used in any battery holder, but they must be distributed evenly between the left and right holders for the clock to hang correctly. If an odd number of batteries are to be used, one should be inserted into the movement. Additional batteries should be evenly installed in the left and right holder. Insert the batteries with polarity correct. It's easiest to insert the positive end of the battery first and then push down at the negative end. The clock fast-forwards to the 12:00 position and stops. This fast-forwarding can take up to about 5 minutes 45 seconds. The hands then remain at 12:00 while the clock searches for the WWVB time signal for up to about 10 minutes.

- If the clock receives the WWVB signal, it fast-forwards past 12:00 to the correct time and begins radio-controlled timekeeping.
- If the clock does not receive the WWVB signal, it begins running from the 12:00 position. (This is when you can use the manual setting procedure below if desired.) The clock then conducts periodic searches for the WWVB signal until the signal is received. If the clock cannot receive the time signal after a few days, we recommend finding a different location for the clock and repeating the basic setting procedure or forcing a time signal search.

Manual Clock Setting Procedure

Manual setting may be used if the clock is in a location that prevents reception of the WWVB time signal. After you manually set the clock, the clock will still search for the WWVB signal periodically and set itself to radio controlled time if and when the signal is received. Please be aware that manual clock setting is not intended for permanently setting the clock to a time other than the correct time for the time zone selected.

After the clock searches for and fails to receive the WWVB signal and begins running from the 12:00 position, this is when you can manually set the time.

To manually set the clock:

1. Press and hold either of the two M SET buttons for at least 3 seconds. (The larger M SET button below the battery compartment is the easier of the two to use.) The second hand stops, and the hour and minute hands advance.

2. Hold the M SET button depressed for fast-forwarding until the hour and minute hands get close to the current time. Then release the button and then press it momentarily to advance the time in 1-minute increments to the current time. Be sure that your momentary button presses are within 8 seconds of one another or the clock will exit the manual setting mode automatically.

3. Approximately 8 seconds after your last press of the M SET button, the clock starts running again but stops after 1 minute and begins searching for the WWVB time signal.

- If the clock receives the WWVB signal within about 10 minutes, it fast-forwards past 12:00 to the correct time and begins radio-controlled timekeeping.
- If the clock does not receive the WWVB signal, the clock advances to the proper manually set time (memory time) and begins running again. The clock then conducts periodic searches for the WWVB signal until the signal is received. If the clock cannot receive the time signal after a few days, we recommend finding a different location for the clock and repeating the basic setting procedure or forcing a time signal search.

Forcing a WWVB Time Signal Search

To manually force a WWVB time signal search:

1. While the clock is running, press and hold either of the two RCV buttons for at least 3 seconds. The clock stops and immediately begins searching for the WWVB time signal.

- If the clock receives the WWVB signal, it fast-forwards past 12:00 to the correct time and begins radio-controlled timekeeping.
- If the clock does not receive the WWVB signal, it advances by the amount of time it spent searching and begins running. While running, it conducts periodic searches for the WWVB signal.

Limited One-Year Warranty

Hewes Time and Weather Instruments, Inc., warrants that this product will be free of defects in materials and workmanship for a period of one year from the date of original purchase. This warranty covers only the original purchaser of the product. If the product proves to be defective, we will repair or replace it at our option. Before sending the product back to us, please e-mail us (info@htawi.com) or call us (1-630-596-0297) for a return authorization. This warranty does not cover damage incurred in shipment or failure caused by tampering, carelessness, or misuse.

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