



CHANEY 50308A1 Radio Controlled Atomic Clock Instruction Manual

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CHANEY 50308A1 Radio Controlled Atomic Clock

product

Thank You for purchasing this CHANEY® product. Please read this manual in its entirety bto fully enjoy the benefits and features of this product. Please keep this manual for future reference.

About our Radio Controlled Atomic Clock

A clock is considered radio controlled if it receives a signal from the most accurate clock in North America, the

Atomic Clock of the National Institute of Standards and Technologies in Colorado. This clock transmits the time codes via the radio station WWVB. The signal is transmitted in a very low frequency (60,000 Hz). The Chaney clock you have purchased includes a built-in receiver which picks up the signal from the WWVB station. For the best possible reception, place the main unit with the back side facing Colorado. NOTE: Due to solar radiation in the atmosphere, a radio controlled clock signal is weaker during the day. Most synchronization with the WWVB atomic clock signal happens at night when there is less interference.

Clock Setup

1. SET MINUTE AND HOUR HANDS TO THE NEAREST HOUR

Set the clock to the nearest hour (If it is 2:45, set the clock to 3:00. If it is 3:20, set the clock to 3:00). The clock can be set in either direction, but the last 15 minutes of adjustment to the minute hand should be done in a clockwise direction. This will minimize gear play.

2. PRESS RED BUTTON TO IDENTIFY HAND POSITION

Insert one "AA" Alkaline battery and wait a couple of seconds (about 3-5 seconds). Then quickly press the red button 4 to 5 times. This tells the microprocessor that the minute hand is at the 12 and turns on the receiver.

3. SETUP IS NOW COMPLETE

After the above setting process has been completed, the clock will begin to seek out the time signal broadcasted. Once the time signal has been received by the clock the minute hand will advance (8 times speed] or slow (1/5 speed] down as necessary, until the clock sets itself to the correct time.

NOTE: After the setting process has been completed, the clock should start to beep. The beeping will automatically stop in 20 to 30 seconds. Pressing the red button again will activate the beeper for another 20 to 30 seconds.

TO BY-PASS DAYLIGHT SAVING TIME CHANGES

People living in areas of the country that do not observe Daylight Saving Time changes, can by-pass (stop) the clock's automatic Daylight Saving Time adjustments. PRESS the red button and HOLD it down while inserting the battery. After the battery is in, RELEASE the red button and set the clock as normal.

FINDING A GOOD LOCATION

The clock movement has a very specialized AM radio receiver that is tuned to receive the coordinated universal time signal that is broadcast from WWVB (60KHz) in Fort Collins Colorado. The WWVB signal is a relatively weak AM signal and its reception is effected by weather conditions, electrical interference, solar conditions and the position of the clocks antenna. Although the clock can work in most locations, the number of times that it corrects itself to the coordinated universal time signal may depend on its location. This reception is especially important for the automatic adjustments for Daylight Saving Time, which should occur between 2:05AM and 2:15 AM Eastern Time on the appropriate days, but may be delayed until a valid signal is received.

To find areas or walls with better reception

The movement has an audible beeper, which can be activated by pressing the red button AFTER the clock has been set, but BEFORE the clock has synchronized with the Atomic Time. Each time the red button is pressed (during this time) it will activate the beeper for about 30 seconds. The beeper sound represents the actual signal being received. A good signal has one beep precisely every second and sounds similar to a heart monitor with a slightly irregular heartbeat.

After pressing the red button, you will hear one of the following

1. **No Beeping or constant beeping**

There is either a very strong constant interference or no signal is being received.

2. **Static or Erratic Sound**

There is interference that is equal to or greater than the WWVB signal.

3. **On-Off pulse every second**

A good signal has been found. After you have activated the beeper, slowly move the unit around to various locations (move the unit as if you were moving in slow motion – this allows the electronics time to respond to the changes in reception).

Best locations are normally found

1. When the back of the clock is aimed directly toward Fort Collins, Colorado
2. Where metal objects or metal screens are not close to the clock or in a line between Fort Collins, Colorado and the clock.

Many electronic appliances such as computers, TV's, florescent lights, microwaves, power lines, etc. can interfere with the clock's reception. To minimize the effect of electronic appliance interference, do not place the clock within 3 feet of any such device or other wiring.

HANGING YOUR WALL CLOCK

To ensure an accurate thermometer reading, choose a location that is not in direct sunlight. When using outdoors, we recommend that you hang in a protected location. Make sure to utilize the hanger molded into the backside of your clock. Use a securely anchored screw, nail or hook to support the weight of your clock. Make certain that the screw/nail head is large enough to prevent the clock from slipping off in the event that it is jarred or bumped.

MANUAL CLOCK SETUP

1. Set the clock time to your local time by turning the gray set wheel to correctly position the clock minute and hour hands.
2. Insert one "AA" Alkaline battery and do NOT press the red button during the next 15 minutes.
3. The clock is now set.

Note: The clock may be adjusted before or after inserting the battery. If using the "MANUAL.:'" set up procedure, it is important to understand that the clock electronics will assume that the clock was set to the correct time or to the user's "desired" time. The clock will use the radio signal to precisely maintain the time that you set and will automatically adjust for Daylight Saving Time. In other words, if the clock is set "on time" then it will always be "on time". If the clock is set five minutes fast, then it will always be five minutes fast (even after Daylight Saving Time changes).

TROUBLESHOOTING

Reception of Radio Controlled Atomic signal

Reception conditions will change with the weather conditions, seasons, time of day and solar activity. If you do not find a good reception area the first time you try to locate one, try again a little later. As a general rule the best reception is at night, just before/after sunrise and just before/after sunset. In areas and times of extremely poor reception, it may take a few days before a signal is received. It should also be noted that on rare occasions the WWVB transmitter is turned off for repair or maintenance.

When using the clock outdoors

Low temperatures can affect the battery performance and hinder the discharge of enough current to properly power the clock motor. To eliminate this concern, we recommend the use of a Lithium Low Temperature battery.

LIMITED ONE YEAR WARRANTY

Chaney Instrument Company warrants that all products it manufactures to be of good material and workmanship and to be free of defects if properly installed and operated for a period of one year from date of purchase. REMEDY FOR BREACH OF THIS WARRANTY IS EXPRESSLY LIMITED TO REPAIR OR REPLACEMENT OF DEFECTIVE ITEMS. Any product which, under normal use and service, is proven to breach the warranty contained herein within ONE YEAR from date of sale will, upon examination by Chaney, and at its sole option, be repaired or replaced by Chaney. In all cases, transportation costs and charges for returned goods shall be paid for by the purchaser. Chaney hereby disclaims all responsibility for such transportation costs and charges. This warranty will not be breached, and Chaney will give no credit for products it manufactures which shall have received normal wear and tear, been damaged, tampered, abused, improperly installed, damaged in shipping, or repaired or altered by others than authorized representatives of Chaney.

THE ABOVE-DESCRIBED WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, AND ALL OTHER WARRANTIES ARE HEREBY DISCLAIMED, INCLUDING WITHOUT LIMITATION THE IMPLIED WARRANTY OF MERCHANTABILITY AND THE IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE. CHANEY EXPRESSLY DISCLAIMS ALL LIABILITY FOR SPECIAL, CONSEQUENTIAL OR INCIDENTAL DAMAGES, WHETHER ARISING IN TORT OR BY CONTRACT FROM ANY BREACH OF THIS WARRANT. SOME STATES DO NOT ALLOW THE EXCLUSIONS OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU. CHANEY FURTHER DISCLAIMS ALL LIABILITY FROM PERSONAL INJURY RELATING TO ITS PRODUCTS TO THE EXTENT PERMITTED BY LAW. BY ACCEPTANCE OF ANY OF CHANEY'S EQUIPMENT OR PRODUCTS, THE PURCHASER ASSUMES ALL LIABILITY FOR THE CONSEQUENCES ARISING FROM THEIR USE OR MISUSE. NO PERSON, FIRM OR CORPORATION IS AUTHORIZED TO ASSUME FOR CHANEY ANY OTHER LIABILITY IN CONNECTION WITH THE SALE OF ITS PRODUCTS. FURTHERMORE, NO PERSON, FIRM OR CORPORATION IS AUTHORIZED TO MODIFY OR WAIVE THE TERMS OF THIS PARAGRAPH, AND THE PRECEDING PARAGRAPH, UNLESS DONE IN WRITING AND SIGNED BY A DULY AUTHORIZED AGENT OF CHANEY. THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.

For in-warranty repair, please contact:

Customer Care Department

Chaney Instrument Company
965 Wells Street
Lake Geneva, WI 53147

Chaney Customer Care

877-221-1252
Mon-Fri 8:00 a.m. to 4:30 p.m. CST
www.chaneyinstrument.com

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions:

1. This device may NOT cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

WARNING: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device,

pursuant to Part 15 of the FCC rules.

These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

NOTE: The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user authority to operate the equipment.


Please DO NOT return product to the retail store.

For technical assistance and product return information, please call

Customer Care: 877-221-1252 Mon. – Fri. 8:00 A.M. to 4:30 P.M. (CST) www.chaneyinstrument.com



Documents / Resources

	CHANEY 50308A1 Radio Controlled Atomic Clock [pdf] Instruction Manual 50308A1, Radio Controlled Atomic Clock
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References

- [AcuRite Weather Monitoring | #1 Weather Station Brand in North America](#)