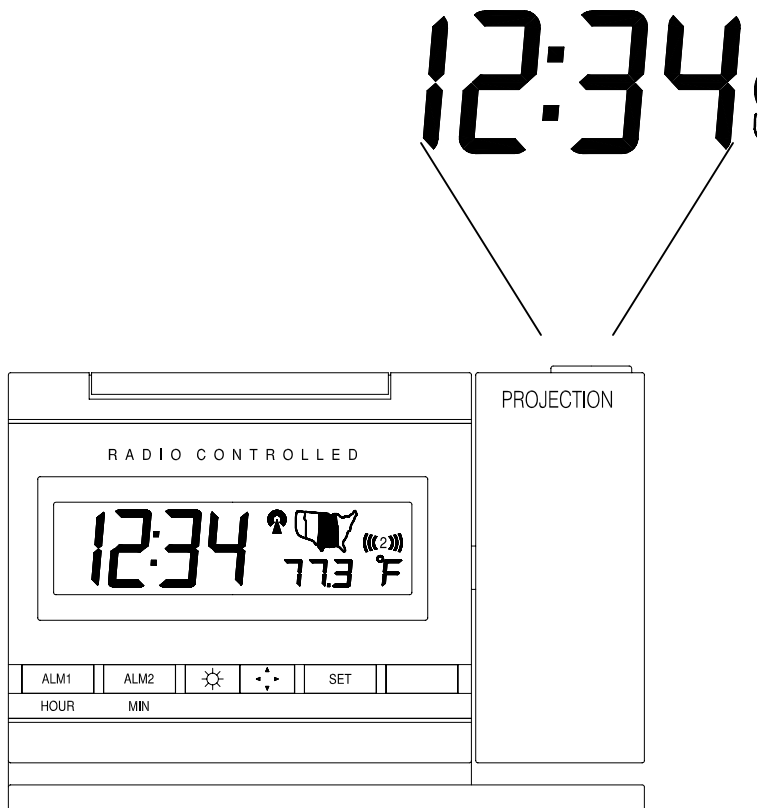


WT-5720

Radio Controlled Projection Alarm

Instruction Manual



LA CROSSE
TECHNOLOGY *tools and technology
for home and office*

TABLE OF CONTENTS

Topic	Page
Inventory of Contents/ Additional Equipment	3
About WWVB	3
Quick Set-Up Guide	4
Detailed Set-Up Guide	
Battery Installation	5
<i>Program Mode</i>	
Programming Sequence	6
Function Buttons	6
Time Zone Setting	6-7
DST (Daylight Saving Time) Setting	7
Adjustable Snooze	7-8
Time Setting	8
Date Setting	8
12/24-Hour Setting	9
Selecting °F or °C	9
Features & Operations	
Features	10
Radio-Controlled Time	10
Projection	11
LCD light	11
Indoor Temperature	11
Time Alarm	12
Changing Display Mode (viewing seconds)	13
Maintenance & Care	14
Troubleshooting	15
Specifications	16
Warranty and Contact Information	17-18

INVENTORY OF CONTENTS

- 1) WT-5720 projection alarm
- 2) AC adapter/transformer
- 3) Instruction manual and warranty card.

ADDITIONAL EQUIPMENT (not included)

- 1) Two fresh 1.5V AA batteries (optional for projection alarm)

ABOUT WWVB (Radio Controlled Time)

The NIST (National Institute of Standards and Technology—Time and Frequency Division) WWVB radio station is located in Ft. Collins, Colorado, and transmits the exact time signal continuously throughout the United States at 60 kHz. The signal can be received up to 2,000 miles away through the internal antenna in the projection alarm. However, due to the nature of the Earth's Ionosphere, reception is very limited during daylight hours. The projection alarm will search for a signal every night when reception is best. The WWVB radio station derives its signal from the NIST Atomic clock in Boulder, Colorado. A team of atomic physicists is continually measuring every second, of every day, to an accuracy of ten billionths of a second per day. These physicists have created an international standard, measuring a second as 9,192,631,770 vibrations of a Cesium-133 atom in a vacuum. For more information about WWVB please see the NIST website at <http://www.boulder.nist.gov/timefreq/stations/wwvb.htm>

QUICK SET-UP GUIDE

- 1) Insert two AA batteries into the projection alarm and/or plug into wall.

Note: Do not press any buttons until the WWVB time signal is received or reception errors may occur.

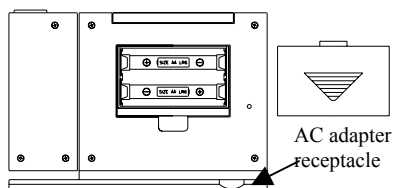
- 2) Wait 10 minutes for WWVB reception.
- 3) If there is no WWVB reception manually set the time and date (instructions in the Program Mode).
- 4) Program the settings.
- 5) Mount the WT-5720 in a suitable location, where WWVB signal can be received.
- 6) The projector will activate and remain on if the alarm clock is plugged in. If only batteries are used, the projector will only be activated when a button is pressed.
- 7) See the “Features” section III for instructions on projection direction, etc.

DETAILED SET-UP GUIDE

I. BATTERY INSTALLATION

A. Projection Alarm

1. Remove the battery cover.
2. Observe the correct polarity, and install 2 AA batteries.
3. In addition or instead of inserting batteries, the AC adapter can be used. Simply plug the adapter into the receptacle on the underneath of the alarm clock and then plug in adapter.
4. Replace the battery cover.
5. The projector will activate and remain on if the alarm clock is plugged in. If only batteries are used, the projector will only be activated when a button is pressed. The projection is a red light, not harmful under normal usage, although care should be taken to not look directly into the light.



Note: After the batteries have been installed a tone will sound, and the LCD (Liquid Crystal Display) will activate. The indoor temperature and the U.S. map will be displayed and the time will appear as “-:--”. The WWVB search is automatically initiated, and a tower icon appears and flashes with the time colon (no tower icon will appear if the WWVB is too weak to be detected, and the time display will remain on “-:--”). While the WWVB search is being conducted various numbers will appear in the time display. After 10 minutes, the projection alarm will either display the WWVB time, or discontinue the search if the time is not found. If the search is cancelled “-:--” will remain in the time LCD. The projection alarm will conduct a WWVB search every hour until the first signal is found. Once the WWVB time is found, a search is automatically conducted nightly at midnight. If the signal is found at midnight, the tower icon will appear. If not, another search will take place every hour (until 6:00 am) until the signal is received successfully. If no signal is found during this period, the tower icon will not appear and the clock will search again at 12:00 am the next night.

II. PROGRAM MODE

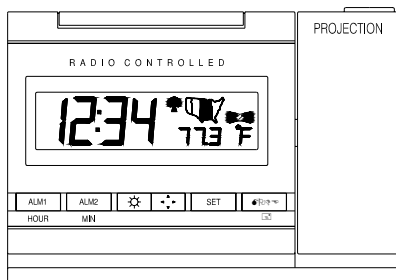
To enter the Program Mode, hold down the “SET” button for 1 second, until the time zone (“-5” default) flashes in the lower right. The program mode guide is laid out in a manner that allows you to program each function separately, or you can follow the instructions entirely to program the projection alarm. Complete programming is usually done for the initial set-up, and will require you to skip to step 4 of programming sections “D” through “H”. Press and release the “SNOOZE” button at any time to exit the program mode, or wait approximately 15 seconds for the projection alarm to automatically return to normal operation.

A. Programming Sequence

1. Time Zone Setting
2. Daylight Saving Time ON/OFF
3. Adjustable Snooze
4. Hour Setting
5. Minute Setting
6. Year Setting
7. Month Setting
8. Date Setting
9. Day Setting
10. 12/24-hour Mode

B. Function Buttons

There are 6 function buttons located on the front of the projection alarm and one on the top. The function buttons are labeled: “ALM1/HOUR”, “ALM2/MIN”, light intensity icon, light direction icon, “SET”, “MODE/+”, and “SNOOZE” (the top bar).



C. Time Zone Setting

1. Hold down the “SET” button for 1 second.
2. The default (factory set) time zone (“-5”) will flash in the Date LCD.
3. Press and release the “+” button to select the appropriate time zone.
4. There are 13 time zones to choose from, based relative to the international time standard of GMT (“Greenwich Mean Time”).

- From -5h to -8h a US map with the highlighted time zone will also be displayed to the right of the time display.

-4h	Atlantic Time
-5h	Eastern Time (default setting)
-6h	Central Time
-7h	Mountain Time
-8h	Pacific Time
-9h	Alaskan Time
-10h	Hawaiian Time
-11h, -12h	Next two time zones West of HAW
0h	Greenwich Mean Time
-1h, -2h, -3h	Three time zones West of GMT

- Press and release the “SET” button to confirm the time zone setting and to advance to DST (Daylight saving time) setting.

D. DST (Daylight Saving Time) Setting

Note: The DST default is “On”, meaning that the WWVB will automatically change the time according to Daylight Saving Time in the spring and fall. For areas that do not recognize DST changes (Arizona and parts of Indiana) turn the DST “OFF”.

- Hold down the “SET” button for 1 second.
- The selected time zone will flash.
- Press and release the “SET” button once more until “On” flashes in the lower right and “DST” flashes in the upper right.
- Press and release the “+” button to turn the DST off, as will be indicated by the display of “OFF” in the time LCD.
- Press and release the “SET” button to confirm the DST setting and to advance to select the length of the snooze.

E. Adjustable Snooze Time

Note: The snooze length can be adjusted from 1 minute to 59 minutes. This duration refers to the length of time the alarm will be disabled when the “SNOOZE” bar is pressed. If set to “0”, activating the snooze will turn off the alarm for 24 hours.

- Hold down the “SET” button for 1 second.
- The selected time zone will flash.
- Press and release the “SET” button 2 times until “Sno” appears in the lower right and duration (“:10” default) flashes in the time LCD.
- Press and release the “+” button to advance the snooze time from 0 (off) to 59 minutes.

5. Press and release the “SET” button to confirm the snooze setting and to advance to manually set the time.

F. Time Setting

Note: *When the WWVB signal is found, that time will over-ride the manually set time.*

1. Hold down the “SET” button for 1 second.
2. The selected time zone will flash).
3. Press and release the “SET” button 3 times until the hour flashes in the time LCD.
4. Press and release the “+” button to select the hour.

Note: *when setting the hour, “PM” will appear to the left of the hour display, if it is AM nothing will be displayed.*

5. Press and release the “SET” button to confirm the hour setting and to shift to select the minutes.
6. Press and release the “+” button to select the minutes.
7. Press and release the “SET” button to confirm the time setting and to advance to manually set the date.

G. Date Setting

Note: *When the WWVB signal is found, that date will over-ride the manually set date.*

1. Hold down the “SET” button for 1 second.
2. The selected time zone will flash
3. Press and release the “SET” button 5 times until the year flashes in the date LCD.
4. Press and release the “+” button to select the year.
5. Press and release the “SET” button to confirm the year and to set the month.
6. The month will flash.
7. Press and release the “+” button to select the appropriate month.
8. Press and release the “SET” button to confirm the month and to set the date.
9. The date will flash.
10. Press and release the “+” button to select the appropriate date.
11. Press and release the “SET” button to confirm the date and to set the weekday.
12. The weekday will flash.
13. Press and release the “+” button to select the appropriate weekday.
14. Press and release the “SET” button to confirm the calendar settings and to advance to select either 12 or 24-hour time display.

H. 12/24-Hour Setting

***Note:** Setting to the 24-hour mode (also known as Military Time) will also change the temperature to display in °C instead of °F.*

1. Hold down the “SET” button for 1 second.
2. The selected time zone will flash.
3. Press and release the “SET” button 9 times until the “12” hour time display flashes in the time LCD.
4. Press and release the “+” button to toggle between 12 and 24 hour time.
5. Press and release the “SET” button to confirm the 12/24-hour time display and to return to normal operation.

I. Selecting °F or °C

The temperature is displayed in °F or °C, depending on the time format (12 or 24 hour mode). When in 12-hour format the temperature will be in °F. When in 24-hour mode the temperature will be in °C.

FEATURES & OPERATIONS

A. Features

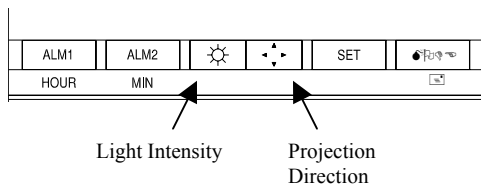
1. Radio-controlled time and date
2. Projection of time
3. LCD light
4. Six modes of date/seconds/temperature display
5. Indoor temperature
6. Remote temperature
7. Dual alarms
8. Adjustable snooze

B. Radio-Controlled Time and Date

1. The projection alarm will automatically search for the time signal upon initial set-up and every night.
2. When the signal is being received, there will be a “tower” icon flashing to the right of the time display.
3. When the time signal has been received successfully, the tower icon will remain steady until midnight.
4. The NIST (National Institute of Standards and Technology—Time and Frequency Division) WWVB radio station is located in Ft. Collins, Colorado, and transmits the exact time signal continuously throughout the United States at 60 kHz. The signal can be received up to 2,000 miles away through the internal antenna in the Projection alarm.
5. Due to the nature of the Earth’s Ionosphere reception is very limited during daylight hours. The projection alarm will search for a signal every night when reception is best.
6. The WWVB radio station receives the time data from the NIST Atomic clock in Boulder, Colorado. A team of atomic physicists is continually measuring every second, of every day, to an accuracy of ten billionths of a second per day. These physicists have created an international standard, measuring a second as 9,192,631,770 vibrations of a Cesium-133 atom in a vacuum.
7. For more detail, visit <http://www.boulder.nist.gov/timefreq.htm>. To listen to the NIST time, call (303) 499-7111. This number will connect you to an automated time, announced at the top of the minute in “Coordinated Universal Time”, which is also known as Greenwich Mean Time (GMT). This time does not follow Daylight Saving Time changes. After the top of the minute, a tone will sound for every second.
8. It is possible that your projection alarm may not be exactly on the second due to the variance in the quartz. However, the clock will adjust the quartz timing over the course of several days to be very accurate; under 0.10 seconds per day.

C. Projection of Time

1. When plugged into an AC outlet, the projection alarm can continuously project the time.
2. When operating on batteries alone the projection alarm will only project when a button is pressed.
3. The projection will auto-focus for display from three to six feet away. A dark surrounding will be necessary to clearly see the projection.
4. The direction of the display can be rotated 360° in 90° increments by pressing the directional button. There is no display on the LCD that signifies the direction.
5. The projector case can be rotated 180° to further help orient the projected display.
6. The intensity of the projection can be adjusted to three different settings as well as turned “off” by pressing the light Intensity button. When turned off, the projection will only come on when a button is pressed. The intensity cannot be set for the projected display when set to “off”.
7. When only batteries are used, the intensity setting is set to “off” with no other options.



D. LCD Light

1. The projection alarm has an LCD light designed for night viewing. This will light up for 2 seconds whenever a button is pressed.
2. The LCD light cannot be turned on constantly; this would drain the batteries and burn out the light.

E. Indoor Temperature

1. The projection alarm measures indoor temperature with an internal sensor.
2. This temperature is displayed in °F or °C, depending on the time format (12 or 24 hour mode). When in 12-hour format the temperature will be in °F. When in 24-hour mode the temperature will be in °C.
3. The indoor temperature will take time to adjust to the surrounding temperature as the sensor is inside the case.

F. Time Alarm

The projection alarm has two separate alarms for time, “ALM1” and “ALM2”. The alarms have a different sound; ALM1 increases in volume after 25 seconds, and again after 50 seconds. ALM2 is a constant volume. The total duration is 96 seconds for each alarm.

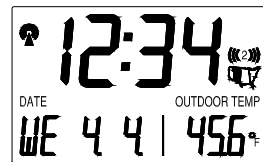
1. Setting the Alarm

- Press and hold “ALM1” or “ALM2” for two seconds until the alarm time is flashing.
- Press and release “ALM1/HOUR” to advance the hour.
- Press and release “ALM2/MIN” to advance the minute.
- The time will display “PM” if set to PM, and nothing if set to AM.
- “(((1)))” or “(((2)))” will be displayed to the right of the time when the alarm is activated.
- The projection alarm will revert to normal operation when no buttons are pressed for 15 seconds.
- The alarm is now set and activated.

2. Activating/Deactivating the Alarm

- After entering the alarm setting mode the alarm is activated (either ALM1 or ALM2).
- To toggle between activating and deactivating the alarm, press either the “ALM1” or “ALM2” briefly.
- “(((1)))” or “(((2)))” will be displayed to the right of the time display when the alarm is activated.
- When the snooze bar is pressed, the display will scroll through the Alarm 1 and Alarm 2 times in the lower right.

Alarm 2 activated



3. Turning Alarm Off (While Sounding)

- While either alarm is sounding press and release the “SNOOZE” bar to disable the alarm for the set duration (Section II. D.).
- If the duration is set to “0” the alarm will be disabled for 24 hours.
- After the “SNOOZE” bar is pressed the lower left will display the time remaining on the snooze.
- The “SNOOZE” bar may be pressed at any time to restart the snooze duration.
- To disable the alarm for 24 hours press any button other than “SNOOZE” or projection keys.

G. Changing the Display Mode (Day, Seconds, and Temperature)

There are six possible display modes to view the day, seconds, and temperature. To change the display (starting at the default of day, date, year):

1. Press and release the “*MODE/+*” button.
2. The display should now show *month, day, year*.
3. Press and release the “*MODE/+*” button again.
4. The display will now show *seconds*.
5. Press and release the “*MODE/+*” button again.
6. The display will now show *alarm1 time*.
7. Press and release the “*MODE/+*” button again.
8. The display will now show *alarm2 time*.
9. Press and release the “*MODE/+*” button again.
10. The display will now show *indoor temperature*.
11. Press and release the “*MODE/+*” button again.
12. The display will now show *day, month, date*.

II. MAINTENANCE & CARE

1. Extreme temperatures, vibrations, and shock should be avoided to prevent damage to the units.
2. Clean displays and units with a soft, damp cloth. Do not use solvents or scouring agents—they may mark and damage the displays and casings.
3. Do not submerge in water.
4. Immediately remove all low powered batteries to avoid leakage and damage.
5. Replace with new batteries only, and of recommended size.
6. Opening the casings invalidates the warranty. Do not try to repair the units. Contact La Crosse Technology for Repairs.

TROUBLESHOOTING

Problem:	The Projection is faint
Solution:	1) Change intensity setting 2) Use AC adapter 3) Darken surroundings 4) Use fresh batteries (if AC is not used)
Problem:	The LCD is faint.
Solution:	Replace the batteries.
Problem:	No reception of WWVB signal.
Solution:	1) It may help reception to face the front of the projection alarm in the general direction of Ft. Collins, Colorado. 2) Wait overnight for signal. 3) Be sure the projection alarm is at least 6 feet from any electrical devices, i.e. TV sets, computers, or other radio controlled clocks. 4) Remove batteries for five minutes, reinsert and leave the unit alone overnight without pressing buttons. 5) If problems persist contact La Crosse Technology.
Problem:	Hour is incorrect (minute and date are correct).
Solution:	Be sure correct time zone and daylight saving time are selected.

Note: For any questions not answered, contact La Crosse Technology with the contact information found at the end of this instructional manual.

SPECIFICATIONS FOR WT-5720

Temperature:	
Measuring range:	32°F to 122°F with 0.2°F resolution (indoor) (0°C to 50°C with 0.1°C resolution)
Checking intervals:	Every 10 seconds indoor
Power source:	
AC Adapter (included)	Input: 120VAC/60Hz Output: DC 6V/100MA
Battery type:	Station: 2 x AA, 1.5V (Alkaline) (optional)
Battery life:	Approximately 12 months, depending on projection and light use
Dimensions (L x W x H):	5.25"W x 3.75"H x 1.25"L

WARRANTY INFORMATION

La Crosse Technology provides a 1-year warranty on this projection alarm. Contact La Crosse Technology immediately upon discovery of any defects covered by this warranty.

Before sending the projection alarm in for repairs, contact La Crosse Technology. The projection alarm will be repaired or replaced with the same or similar model.

This warranty does not cover any defects resulting from improper use, unauthorized repairs, faulty batteries, or the projection alarms inability to receive a signal due to any source of interference.

LA CROSSE TECHNOLOGY WILL NOT ASSUME LIABILITY FOR INCIDENTAL, CONSEQUENTIAL, PUNITIVE, OR OTHER SIMILAR DAMAGES ASSOCIATED WITH THE OPERATION OR MALFUNCTION OF THIS PROJECTION ALARM. THIS PRODUCT IS NOT TO BE USED FOR MEDICAL PURPOSES OR FOR PUBLIC INFORMATION. THIS PRODUCT IS NOT A TOY. KEEP OUT OF CHILDRENS' REACH.

This warranty gives you specific legal rights. You may also have other rights specific to your State. Some States do not allow the exclusion of consequential or incidental damages; therefore the above exclusion of limitation may not apply to you.

For warranty work, technical support, or information contact:

La Crosse Technology
190 Main Street
La Crescent, MN 55947
Phone: 507.895.7095
Fax: 507.895.8000

e-mail
support@lacrossetechnology.com
(warranty work)
sales@lacrossetechnology.com
(information on other products)

Website
www.lacrossetechnology.com

FCC ID: OMO-01RX (Receiver)

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 INTERFERENCE RECEIVED, INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRE OPERATION.**