

Radio Operation

DISPLAY LIGHT

Display Light on AC Power


When the radio is plugged into AC power, the display light will always be on unless you turn it off. The special green LED bulbs last about 100,000 hours and use very little electrical energy. The display light has three light levels. If you want to change the light level or turn off the display light, press and release the Light button until you reach the desired level. Refer to page 5 for button identification.

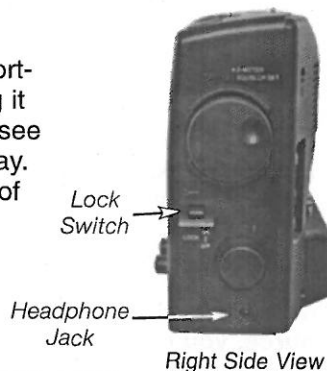


Display Light on Batteries

When batteries are used, the display light can be turned on by pressing the light button. The display light automatically goes off 2 minutes after the last time you press any button.

LOCK SWITCH

The Lock switch can be used when transporting the radio to prevent accidentally turning it on. When the switch is pushed up you will see the Lock symbol  appear on the display. It can also be used to disable all functions of the radio when it is turned on. **Push the switch down to release the lock for normal operation.**



HEADPHONE JACK

You can use a stereo or mono headphone with a 3.5 mm plug. When you insert the headphone plug, the speaker is disconnected. This radio delivers FM in stereo through the headphones.


RESET BUTTON

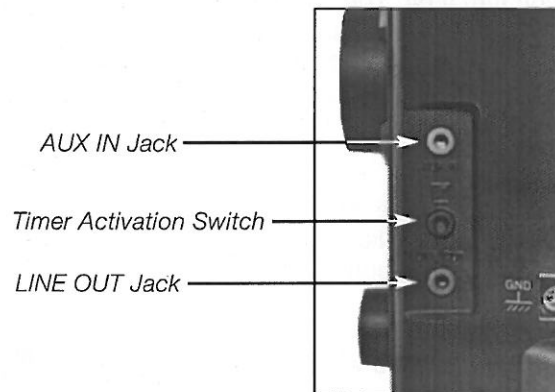
Once in a while glitches may occur on any portable digital radio. This can be caused by static electricity, unusual key strokes or a power disruption. If this happens, use the end of a paper clip or ball point pen and push it into the hole to reset the radio. **You will lose the clock time and all the stations stored in memory when the radio is reset.**



Radio Operation

AUDIO & RECORDING JACKS

The jacks on the back left side of the radio are for audio input (AUX IN), audio output (LINE OUT) and a timer activation switch .



AUX IN Jack

The green jack, labeled AUX IN, is used to connect an external audio source such as a CD Player or tablet, so you can listen through your CCRadio 3's speaker. To do this, you will need an appropriate patch cord (1/8" stereo).

Warning: If a "LINE OUT" is not available on your external audio source, you can use the headphone jack. However, the volume must be kept low or damage to the CCRadio 3 may result.

- 1) Plug your patch cord into the LINE OUT or Headphone Jack of your external audio source.
- 2) Plug the other end into the AUX IN jack on the CCRadio 3.
- 3) With the power on, press and hold the **AM-FM/AUX** button until you hear a short beep and *AUX* appears on the display.
- 4) Turn on your external audio source to hear the audio played through the CCRadio 3.
- 5) To turn the AUX off, press the **AM-FM/AUX** button again and the *AUX* will disappear from the display.

NOTE: Volume can be controlled from the CCRadio 3.

Radio Operation


LINE OUT Jack

The red jack, labeled LINE OUT, is used to output the audio from the CCRadio 3 to another device such as a recorder your home stereo, or some other unit. To do this, you will need an 1/8" stereo patch cord.

Note: The LINE OUT jack differs from a headphone jack because the volume level of a headphone jack varies depending on the volume of the radio. The LINE OUT jack has a set line level so the volume is consistent no matter what the position of the volume knob.

- 1) Plug your patch cord into the LINE OUT jack on the CCRadio 3.
- 2) Plug the other end of the patch cord into the LINE IN or AUDIO IN of the device you want to send the audio to and you will hear the radio through the other source. You can still listen to the CCRadio 3 while using the LINE OUT jack.

Timer Activation Switch

The black jack labeled with this symbol  is for use with a recorder that has a timer activated switch. You would use this switch if you wanted to do a timed recording. It is used in conjunction with the LINE OUT jack. See your recorder's instructions to determine if this function will work with your recorder.

SETTING THE TIMER

Please read this entire section carefully before you start. You must go through the 3 steps listed below without stopping. If you stop for more than 15 seconds, press and hold the Timer Button until you hear a single beep. Then start at step one again.

Before you begin, program the stations that you will want to record into memory. Refer to page 11 for instructions on programming memory presets. **The timer has an ON TIME and an OFF TIME. You must set both in order for the timer to work correctly.**

STEP 1: To SET THE ON TIME

- 1) Press and hold the Timer/Set Button until you hear a beep and see the word *ON*, the hour digit and *TIMER* flash on the display.
- 2) Use the Tuning Up/Down Buttons to set the hour, verifying that the time is set correctly for AM or PM as shown on the display.
- 3) Press the Timer/Set Button again so the minutes and the word *ON* and *TIMER* flash on the display.
- 4) Use the Tuning Up/Down Buttons to set the minutes.

Radio Operation

STEP 2: TO SET THE OFF TIME

- 1) Press the Timer/Set Button again until the word *OFF*, the hour digit and *TIMER* flash on the display.
- 2) Use the Tuning Up/Down Buttons to set the hour. Again, verify that the time is set correctly for AM or PM.
- 3) Press the Timer/Set Button again so the word *OFF* and *TIMER* and the minutes, flash on the display.
- 4) Use the Tuning Up/Down Buttons to set the minutes.

STEP 3: TO SET THE FREQUENCY

- 1) Press the Timer/Set Button again to select your desired frequency. The word *TIMER* and the memory preset will flash on the display. Using the Band Button, select the appropriate band [AM, FM, Ham (VHF) or WX]. Press the memory button 1-5 that corresponds with your desired station.
- 2) **You must Press the Timer/Set Button again to complete the setup.**

The timer will go ON and OFF at the same time and same station every day until you turn the timer off or reprogram it.

To Turn Off The Timer

If *TIMER* is showing on the display then the Timer is set. Press and hold the Timer/Set Button until you hear a short beep and the word *TIMER* disappears from the display.

NOTES ON THE TIMER

The timer can be used to play your favorite program every day.

To stop the timer from going off every day press and hold the Timer/Set Button until you hear a short beep and the word *TIMER* disappears.

Once the timer is programmed, you may use your radio as normal. If you are using the radio during a "timed" operation, the radio will automatically switch to the programmed station, and turn off at the programmed OFF time.

The word *TIMER* flashes while the radio is playing in Timer Mode.

Specifications

FREQUENCY COVERAGE

FM Band: 87.5 - 108 MHz Stereo
AM Band: 520 - 1710 kHz
Ham (VHF): 144 - 148 MHz

WEATHER BAND

| | |
|------------------------|------------------------|
| Channel 1: 162.400 MHz | Channel 5: 162.500 MHz |
| Channel 2: 162.425 MHz | Channel 6: 162.525 MHz |
| Channel 3: 162.450 MHz | Channel 7: 162.550 MHz |
| Channel 4: 162.475 MHz | |

ROTARY TUNING KNOB RESOLUTION

AM - 1 kHz Ham (VHF) - 5 kHz
FM - 50 kHz WX - 1 Channel

POWER SOURCE

AC 120 Volts 60Hz
Batteries: (4) "D" size

POWER CONSUMPTION

AC Power: 8 Watts
Battery Power: 40-50 mA DC

AUDIO

10% THD at output power @ 1.8 Watt AC typical
@ 0.9 Watt Battery
Speaker: 5", 4 Ohm, 6 Watts

ANTENNA

FM, Ham (VHF) and Weather Band: Telescopic whip antenna
AM Band: 1) Built-in Ferrite Bar - 7/16" dia x 8" long (200 mm)

DIMENSIONS

11" W x 6-1/2" H x 4" D (at the base)

WEIGHT

Approximately 3.8 pounds without batteries

Specifications

AUX IN JACK

300 - 1000mV RMS (line level) input from external audio source. **Do not overload.**

LINE OUT JACK

300 - 1000mV RMS (line output)

TIMER ACTIVATION SWITCH

Low impedance, transistor driven switch. Used for operation of external recording devices.

Note: Specifications are subject to change without notice.

Accessories

Check with your dealer for the following accessories:

AM ANTENNAS



Terk AM Antenna

Improves AM reception. Can be used with or without included wires. (Inductive antenna).

Item #TR1



Twin Coil Ferrite® AM Antenna Signal Booster

Ideal for improving most AM radio reception.

Item #TWIN

CARRY CASE



CCRadio 2 And CCRadio 3 Carry Case

Custom made in the USA to fit and protect the CCRadio-2, 2E and 3, while providing a sturdy carry handle. There is also a pouch in the back to stow the power cord and possibly a SoftSpeaker Pillow Speaker or some CC Buds Pro Earphones. Also, this carry case will not interfere with the operation of the radio.

Item #CA3

Troubleshooting Guide

The CCRadio3 will not turn on and none of the buttons work:

The Lock Switch, located on the right side of the radio between the tuning and the volume knobs, is in the up position. Push the switch down to release the lock and resume normal operation of the radio. (Please see Lock Switch on page 17.)

The CCRadio3 comes on by itself or changes to a different station while I'm listening:

The Timer has been set. The word TIMER will appear in the display if the Timer is set. To cancel the Timer setting, press and hold the Timer/Set button until you hear a short beep and the word TIMER disappears from the display.

My radio shuts off after a few seconds or shows the letter "E" in the display:

Low batteries can cause this situation. Replace them with a new set of batteries. If the radio is operating on the power cord, check for solid connections at the wall outlet and the back of the radio. Also make sure there is power at the wall outlet.

Stations won't hold in memory:

The memory button settings are being overwritten. When recalling a station from memory, if you hold the memory button down too long it will program the current station over your previously stored station. To recall a station that has been stored in memory, always press and release the button quickly. To program a new station into memory, tune to the desired station and then press and hold the memory button for two seconds until you hear a beep. Also, please see the section on Memory Tuning on page 11.

The AM reception is poor inside of my building:

Many building materials have adverse effects on AM band listening. Brick, concrete, stucco, and aluminum siding all have a tendency to absorb or reflect the AM signal. Spanish tiles or metal roofs are also culprits. To test your AM reception, put batteries in your radio and take it outside of the building, especially at night. If your reception is notably stronger outside than inside the building, an external AM antenna may be necessary to bring the signal into the building. See the AM Tuning and Listening Tips section on page 27 for a quick and easy antenna.

Troubleshooting Guide

Poor reception on FM, Ham (VHF), or Weather band:

The CCRadio 3 uses its telescopic, or "whip" antenna for FM, Ham (VHF), and the weather bands. To improve reception of these bands, fully extend the telescopic antenna. Reception of FM and weather broadcasts is normally improved with the antenna extended straight up. Note: The antenna must be fully extended to allow it to rotate. You can also try a piece of any type of insulated wire about 36" long. Remove about 1" of the insulation from one end of the wire. Wrap the bare wire around the telescopic antenna or use an alligator clip. Try various orientations of the wire and different heights of the telescopic antenna to obtain the strongest signal.

Battery Power Level Indicator doesn't show full charge when using rechargeable batteries:

Rechargeable batteries will never show a full charge on your radio's display. The CCRadio 3 is calibrated to read the charge of your Alkaline batteries, which is 1.5 volts at full charge. Rechargeable batteries, however, are fully charged at just 1.25 volts, and so your radio will show a partial charge even if the rechargeable batteries have been fully charged.

Drop in volume when tuning in an AM station:

1. While playing an AM station, press and hold the Clock/ Freq. button on the front of the radio for approximately 5 seconds or until the Weather Alert light comes on.
2. Briefly press the Clock/ Freq. button again. The Weather Alert light will begin to flash. While the light is flashing the display will show 1710, then 1600, 1500, and on down to 520 in 100 kHz increments. When it stops flashing the Auto tracking Alignment has been completed. Do not press any buttons until the light stops flashing.
3. After the alignment has been completed reset the radio by pressing the reset switch on the bottom of the radio. **NOTE: You will lose the clock time and all the stations stored in memory when the radio is reset.**
4. This completes the Antenna Alignment Procedure.

Radio Noise Troubleshooting

AM RADIO NOISE PROBLEMS AND POSSIBLE SOLUTIONS

If you hear an annoying buzz when listening to AM radio, it's most likely radio noise. Here are some of the usual culprits:

- Dimmer switch (even in an adjacent room).
- Lights: Fluorescent light, "touch lamp" type fixtures, automatic night lights, motion-activated outdoor lights, dying bulbs, blinking bulbs.
- Nearby television, computers, cell phones, tablets, wireless chargers or C-Pap machines.
- Electronic bug and pest controllers.
- Faulty electrical switch.
- Radio scanners.
- Dirty insulators on a nearby power pole.
- Electric blanket.
- Smoke detectors that run from an AC current (battery operated units are OK).

Now what can you do about it?

- Turn off the circuit breakers to see if the noise stops, and if the source comes from inside your house. Turn off one circuit at a time to isolate the source of the noise.
- Using a battery-operated radio, check if the interference comes from the AC 120V line, through the air, or both. To locate the direction of the noise, turn the radio until you hear the loudest noise. The front and the back of the radio will point to the noise origin.
- If the noise comes from outside, carry the radio around the neighborhood to check for the origin of the noise. Ask your neighbors if they hear the same noise.
- If you suspect a power pole, call the utility company. Dirty power pole insulators are sometimes a cause of hard-to-find radio interference.
- Sometimes grounding can greatly reduce the hum from AC line noise. Unfortunately, most radios do not have a ground connection. Finding a good earth ground may also be difficult.

For more detailed information, please visit www.ccrane.com/radionoise

AM Tuning & Listening Tips

Most portable radios including the CCRadio 3 have an internal AM antenna. Best performance is achieved when the radio is swiveled on its base for maximum signal pickup from the transmitting tower. This same technique can be used to help nullify unwanted signals or radio noise. Experimentation is the best way to see how it works for you.

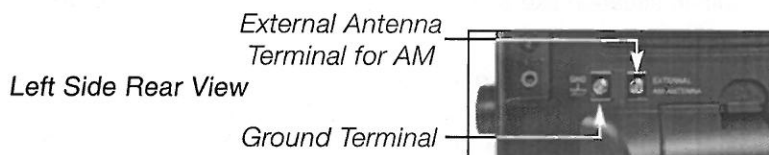
The CCRadio 3 automatically fine tunes the Twin Coil Ferrite® AM antenna for a few seconds after a station is changed in AM mode. The “signal” icon will flash during this time.

Top View CCRadio 3



The CCRadio 3 has an external antenna terminal for AM. If your reception is better outside, try this quick antenna: Use 50' of insulated wire attached to the AM antenna terminal. Also try a ground wire attached to the ground terminal. Go to: ccrane.com/radionoise for more information about a good grounding method. Rerun the antenna wire inside around a window or along a baseboard, or if possible, the wire should be mounted outside at least 3 feet away from the face of a metal building or it may not work. Where an outdoor antenna is not possible, try an inductive AM antenna. The antenna can be placed on a windowsill or close to the radio to provide a better signal.

⚠ SAFETY DIRECTIONS AND PRECAUTIONS FROM YOUR ANTENNA SUPPLIER SHOULD BE FOLLOWED TO PREVENT INJURY FROM LIGHTNING OR ANY ACCIDENT with all antennas.



The CCRadio 3 is made for distant or weak AM signal listening. Daytime reception is limited to about 300 miles maximum because you can only receive the signal directly from the transmitter site. You may receive AM stations thousands of miles away at dawn, dusk and at night, depending on the time of year and atmospheric conditions. The ionosphere is a layer of ions above the earth. At night it slows and congeals into a giant mirror and can reflect radio waves back to the earth, allowing you to receive signals much farther away than during the day.

Distant listening is called DXing. One club that is devoted to DXing is National Radio Club at: PO Box 473251, Aurora, CO 80047-3251. They maintain a website at: <http://www.nationalradioclub.org>


Safety Instructions

READ BEFORE OPERATING EQUIPMENT SAVE THESE INSTRUCTIONS

- 1) Read and understand all safety and operating instructions before the radio is operated.
- 2) Retain Instructions: The safety and operating instructions should be retained for future reference.
- 3) Heed Warnings: All warnings on the appliance and in the operating instructions should be followed.
- 4) Water and Moisture: The appliance should not be used near water. Do not use near a bathtub, washbowl, laundry tub, kitchen sink, wet basement, swimming pool, etc.
- 5) Cleaning: Unplug the receiver from the AC power outlet before cleaning. Use only a dry cloth for cleaning the exterior of the receiver.
- 6) Placement: Do not place the radio on an unstable cart, stand, bracket or table. The radio may fall, causing serious personal injury and damage to the receiver.
- 7) Ventilation: This radio should be situated so that its location or position do not interfere with its proper ventilation. For example, the radio should not be used on a bed, sofa, rug or other soft surfaces that may block the ventilation openings. It should not be placed in a built-in situation like a cabinet that may reduce air flow through the ventilation openings.
- 8) Heat: Never put the radio in direct sunlight in an unventilated area or behind glass like a car's interior. The appliance should be away from heat sources such as radiators, heat registers, stoves, or other appliances that produce heat.
- 9) Power Cords: The power cord should be positioned so it is not walked on, pinched, or have items placed on top of it. Pay particular attention to cords at plugs, convenience receptacles, and the point where they exit from the unit. Unplug the power cord by gripping the power plug, not the cord. Operate the radio using only the correct type of power source indicated. If you are not sure of the type of power supply to your home, consult your dealer or local power company.
- 10) Do not overload wall outlets or extension cords. This can result in a risk of fire or electrical shock. Never insert objects of any kind into the receiver through openings. The objects may touch dangerous voltage

Safety Instructions

points or short out parts. This could cause a fire or electrical shock.

- 11) If the radio is left unattended and unused for long periods of time, unplug it from the wall outlet. This will prevent damage caused by lightning or power line surges.
- 12) If the radio is left unattended and unused for long periods of time, remove the batteries. The batteries may leak and damage furniture or your radio.
- 13) Do not attempt to service the receiver yourself. Removing the cover may expose you to dangerous voltage, and will void the warranty. Refer all servicing to authorized service personnel.
- 14) The receiver is equipped with a polarized type plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug still fails to fit, contact an electrician to replace the obsolete outlet. Do not defeat the safety purpose of this plug.
- 15) The appliance should be serviced by qualified service personnel when:
 - A. The power supply cord or the plug has been damaged, or
 - B. Objects have fallen or liquid has been spilled into the radio, or
 - C. The radio has been exposed to rain, or
 - D. The radio does not appear to operate normally or exhibits a marked change in performance, or
 - E. The radio has been dropped or the enclosure damaged.
- 16) The user should not attempt to service the appliance beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel. This symbol is to alert you to important operation or servicing instructions that may appear in the owner's manual. 
- 17) Antenna installations can be dangerous because many times it involves the use of a ladder and a possible fall. The antenna can be struck by lightning, which can be fatal. We recommend a licensed and insured installation by a qualified person.
- 18) Long-term exposure to loud sounds may cause hearing damage. It is best to avoid high volume levels when using headphones or earbuds, especially for extended periods.

PERSONAL STATION LOG

| City | Station Call Letters | Frequency | Date | Time |
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Please feel free to copy this page.

About C. Crane

C. Crane's radio division began soon after Bob and Sue Crane moved from the San Francisco Bay Area to the beautiful and remote Redwood Country of far Northern California. As they settled into Fortuna, nestled in the heart of the Redwoods, Bob tried to tune in his favorite Bay-Area radio stations, and was shocked. There were only a few radio stations available until nighttime arrived and that's when the AM dial came alive. Around that time, Bob spent many hours during the day at a drafting table and found that he missed listening to KGO, San Francisco so much while he was working that his drafting and designs were slowing down.

After about a year of searching, the Cranes found a simple antenna for AM that gave them fantastic AM reception — even through the trees — and they knew they had to get the word out. So, they decided to expand their company to market this wonderful antenna. They advertised the antenna on the radio, and after a few learning experiences, the C. Crane radio division was up and running.

That was over 30 years ago. Bob, Sue and Grandma Faye were the first phone operators. Their customers quickly taught them what they wanted in the way of products and services, and with their input, Bob and Sue grew C. Crane into a family-based business guided by strong ethics.

Since selling their first AM antenna, C. Crane has become a premier electronics company. We have developed several radios to serve radio listeners that prefer information, talk radio and audio tuned for voice clarity. After several near 7.0 earthquakes, in 1992 we added radio and light products that would become essentials during an emergency event anywhere in the country.

Thanks for choosing C. Crane. The items included in the C. Crane Catalog are always either the best of their class or the best for the money. All of C. Crane's products must pass extensive testing to maintain high quality standards.

And as for the mysterious letter "C" in C. Crane, well, Bob and Sue's middle names both begin with the letter "C", thus the name C. Crane.

FCC INFORMATION

The Federal Communication Commission Radio Frequency Interference Statement includes the following paragraph:

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 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 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.

Model: CCRadio 3

FCC ID: BYG-CCR3

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 UNDESIRE OPERATION.

Notice: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

1. This Transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.
2. This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body.