

# CCRadio<sup>plus</sup>

## INSTRUCTION MANUAL



**PLEASE READ ALL THE INSTRUCTIONS COMPLETELY BEFORE USE.**

**WARNING: TO PREVENT FIRE OR ELECTRIC SHOCK HAZARD, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE.**



THE LIGHTNING FLASH AND ARROWHEAD WITHIN THE TRIANGLE IS A WARNING SIGN ALERTING YOU OF "DANGEROUS VOLTAGE" INSIDE THE RADIO.

### CAUTION

**RISK OF ELECTRIC SHOCK DO NOT OPEN**

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE THE RADIO BACK. NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



THE EXCLAMATION POINT WITHIN THE TRIANGLE IS A WARNING SIGN ALERTING YOU OF IMPORTANT INSTRUCTIONS ACCOMPANYING THIS RADIO.

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## **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 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) Unplug the receiver from the AC power outlet before cleaning. Use only a damp cloth for cleaning the exterior of the receiver.
- 6) 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 does 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 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 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) Do not charge alkaline batteries. See instructions on page 20.

## INTRODUCTION

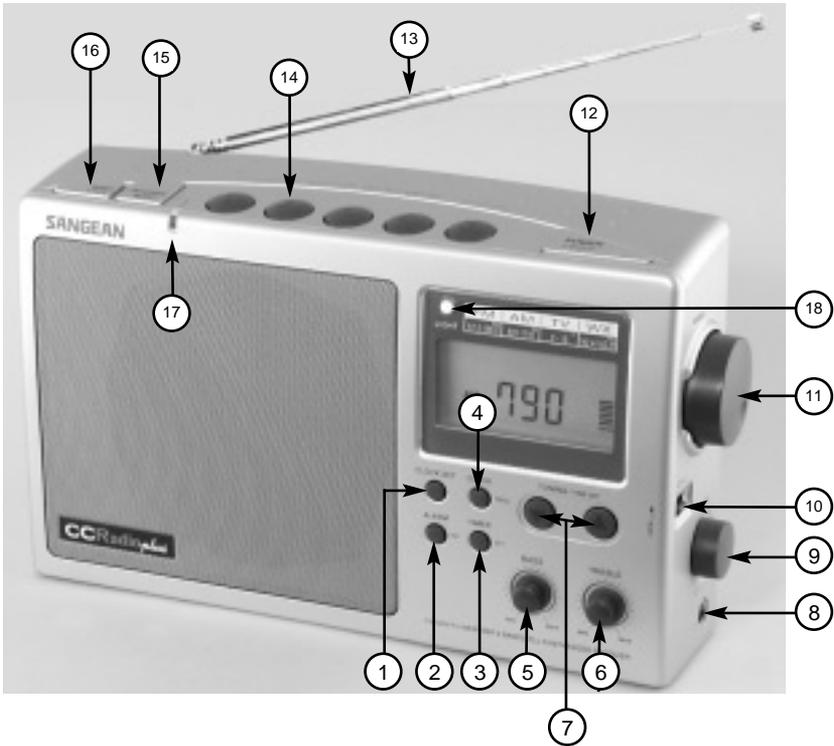
Thank you for purchasing the high performance digital CCRadio *plus*. The CCRadio *plus* incorporates the highest quality parts and superior engineering to produce the most sensitive AM receiver available. It also covers FM Stereo, Weather, and TV audio channels 2-13. The special Weather Alert System may sound an alarm if a signal is broadcast from National Oceanic and Atmospheric Administration (NOAA) in the United States. Canada also has a similar system.



## UNPACKING

The box should contain the CCRadio *plus*, the power cord and this manual. If anything is missing or damaged, please contact your dealer immediately. We recommend you keep the box in the unlikely event your radio will need servicing.

# BUTTON IDENTIFICATION



## BUTTON IDENTIFICATION

- |                               |                             |
|-------------------------------|-----------------------------|
| 1) Clock Set                  | 10) Lock Switch             |
| 2) Alarm/Set                  | 11) Tuning Knob             |
| 3) Timer/Set                  | 12) Power/Sleep Timer       |
| 4) Display Clock or Frequency | 13) Telescopic Antenna      |
| 5) Bass Control               | 14) Memory (1-5)            |
| 6) Treble Control             | 15) Weather Alert (3 Modes) |
| 7) Tuning/Time Set (Up/Down)  | 16) Band/AUXILIARY          |
| 8) Headphone Jack             | 17) Weather Alert Light     |
| 9) Volume Control             | 18) Display Light           |

Note: When you see a “•” next to a word describing a button on the radio, it means you must hold the button down to activate the function. The appropriate symbol will then show on the display along with a beep. To deactivate the function hold it until it beeps again and the symbol disappears from the display.

## GETTING STARTED

### POWERING YOUR RADIO

Before powering your radio be sure to read the Safety Instructions on pages 4 and 5.

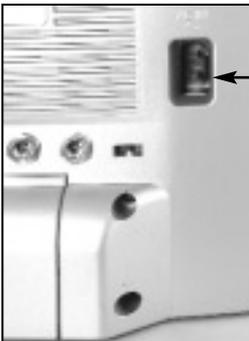


The CCRadio *plus* will run on (4) “D” size NiCad or alkaline batteries or on 120V AC house current using the included power cord. Batteries are optional. The batteries are necessary to keep the time clock and memories if the power cord is removed from the radio for more than three minutes.

### AC OPERATION

Before you plug the AC cord into the radio be sure the AC voltage is 120Volts/60Hz. If you have batteries in the radio and you use the AC power cord, the batteries will automatically be disconnected.

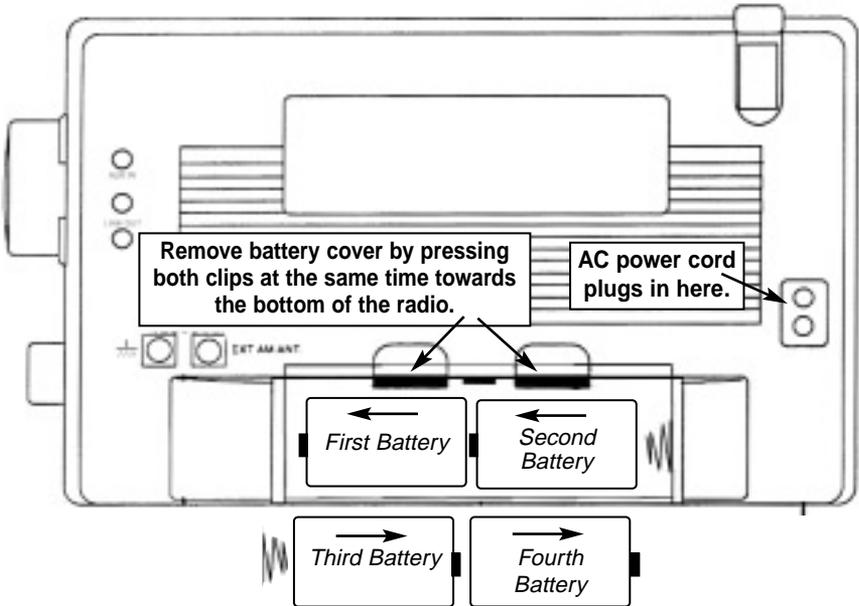
NOTE: If you remove the power cord without turning the radio OFF, the radio will automatically revert to the batteries.



Insert the plug on the end of the supplied power cord into the AC power jack on the back of the radio.

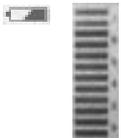
# INSTALLING THE BATTERIES

- 1) Position the radio face down on a soft surface to protect it.
- 2) Remove the battery compartment cover.
- 3) Insert the (4) "D" cell batteries into the compartment as indicated in the drawing below. Be sure the negative (-) end is against the spring. Refer to the drawing below to insure correct installation of your batteries.
- 4) Replace the battery cover. You are now ready to operate your radio.



# BATTERY REPLACEMENT

The battery indicator will display the battery level for approximately seven seconds after the radio is switched off. After removing dead batteries for replacement, you have approximately three minutes to replace the batteries before your clock and memory information will be lost (if the radio is not plugged in).



This symbol means the batteries are full.

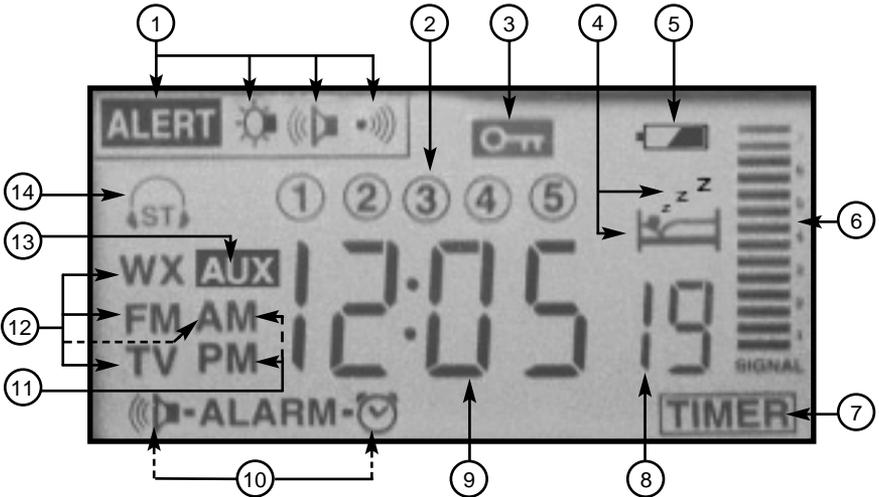


This symbol means batteries are dead.



This flashing symbol means the batteries need replacing.

## DISPLAY PANEL



- |  |                            |
|--|----------------------------|
| 1) Weather Alert Modes                                     | 8) Clock Seconds           |
| 2) Memory Location (1 - 5)                                 | 9) Frequency/Clock Display |
| 3) Key Lock On/Off   | 10) Alarm Status and Type  |
| 4) Sleep Timer/Snooze Status                               | 11) AM/PM Indicator        |
| 5) Battery Symbol  | 12) Indicates Band In Use  |
| 6) Battery Power Level Indicator and Signal Strength Meter | 13) AUX IN Indicator       |
| 7) Timer Active Indicator                                  | 14) Stereo Reception       |

## SETTING THE CLOCK

**Please read this entire section carefully before you start.** Set the time with the **radio off**. You will need to go through the steps listed below without stopping for more than 15 seconds at any given time or you will have to start over. (Refer to page 7 for Button Identification.)

- 1) Press the Clock Set Button. The hour digit will flash.
- 2) Using the Up/Down Tuning Button, select the appropriate hour digit and AM or PM.
- 3) Press the Clock Set Button again to select the minutes digits, the minutes digits will flash. Use the Up/Down Buttons to adjust the minutes to the appropriate time.
- 4) You **must** press the Clock Set Button again to complete the time setting. This also sets the seconds to "00".



## SETTING THE ALARM

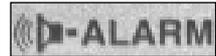
There are two different alarm modes on the CCRadio *plus*. You can choose to wake up to the radio or to a tone. You can set the alarm with the radio on or off.

### To set the type of alarm:



Press and hold the Alarm Button until you hear a beep and see one of these symbols flashing on the display.

To wake with the radio: While *Alarm* is flashing on the display, press the Clock Set Button until you see the symbol shown right. When the alarm goes off the radio will play the last station selected at the same volume level last set.



To wake with a multi level tone: While *Alarm* is flashing, press the Clock Set Button until you see the symbol shown right.



**To shut off the alarm function:** Press and hold the Alarm Button until you hear a short beep and both symbols disappear.

### To set the time for the alarm to go off:

- 1) Press and hold the Alarm Button, the hour digit and *Alarm* symbol will flash.
- 2) Using the Up/Down Tuning Button, select the appropriate hour.
- 3) Press the Alarm Button again. Use the Up/Down Tuning Buttons to adjust the minute to the appropriate time.
- 4) Press the Alarm Button again to complete the alarm setting.



## NOTES ON THE ALARM

You can also set the alarm time immediately after selecting the radio or buzzer alarm as described on page 11.

**To stop the alarm from going off every day, press and hold the Alarm Button until *ALARM* disappears from the display.**



Once the alarm is set, it will automatically go off the next day at the same time. Use the Power Button to shut off the alarm until the next day.

If the radio alarm is selected, tune the radio to your favorite station and set the volume before turning your radio off for the day. When the alarm activates the radio will play the last station listened to.

The tone alarm is called HWS or Humane Wake (if that is possible) System. The alarm tone beep will increase in volume every 15 seconds for one minute followed by one minute of silence before repeating the cycle.

The alarm system will sound for one hour unless turned off by pressing the Power Button.

## SNOOZE FEATURE



When the buzzer alarm is sounding, if you press any button except the Power Button the alarm will temporarily stop for five minutes. The little Zs and *Alarm* symbol will flash on the display while the radio is in snooze mode. To shut off the alarm and snooze feature press the Power Button.

## SLEEP TIMER FEATURE

Your CCRadio *plus* is equipped with a Sleep Timer that enables the radio to continue playing for up to 120 minutes after activation, then shuts the radio off. Selectable times are 120, 90, 60, 30 and 15 minutes.

Press and hold the Power / Sleep Button until the pictogram of a person in bed and the numbers 120 are displayed.



Holding the Power / Sleep Button down will reduce the time in steps, showing times of 120, 90, 60, 30, and 15 minutes. If you miss the time you want, simply continue holding the button until the desired time shows on the display. Release the button. Now the pictogram of the person in bed will appear on the display. The radio will then shut off after the set amount of time. To deactivate the Sleep Timer, simply shut the radio off using the Power Button.

# RADIO OPERATION

The CCRadio *plus* features four bands: AM / FM / TV Audio 2-13 and Weather.

## MANUAL TUNING

- 1) Press the Power Button to turn on the radio.
- 2) Select the band by pressing the Band Button.
- 3) A single press of the Up or Down Tuning Buttons will change the frequency up or down for AM and FM bands, and channel up or down for Weather and TV bands.



Each press of tuning Up and Down buttons will change the frequency by 10 KHz in AM mode and 100 KHz in FM mode.

## SCAN TUNING

Same as above except press and hold the Tuning Up or Down Button for more than .5 second. The radio will scan and stop automatically when it finds an active station. The Scan Tuning will not work on the weather band. It may also stop scanning on strong interference or noise. Press and hold again to resume.



## ROTARY TUNING

Rotating the tuning knob will change AM/FM by frequency and the weather/TV bands by channel.

## MEMORY TUNING

Five stations may be stored into memory in each of the four bands.



- 1) Tune to the station or channel you want to memorize.
- 2) Press and Hold the desired Memory Button for two seconds or until you hear a beep. The station or channel is then memorized.

The display will show the memory number.

To recall the memorized station, select the correct band and press and release the Memory Button. The radio will instantly tune to the station stored in memory. If the button is held down, the station you are tuned to will now be stored in that memory position.

## WEATHER ALERT SYSTEM

The WEATHER ALERT modes on the CCRadio *plus* can alert you to special weather related emergencies. During an emergency or weather related hazard, NOAA issues an emergency tone that will set off an audible and/or visual alarm on the radio.

**NOTE: Hazard warnings are not available in all areas.**

There are seven standard NOAA weather channels used in the US and Canada. This radio receives broadcasts up to 50 miles from transmitting stations.

- 1) To listen to the standard NOAA weather channels, turn the radio on, press the Band button until *WX* shows on the display. The telescopic whip antenna may need to be fully extended and in the “up” position to receive a station clearly.
- 2) The channel number of the weather station is shown on the display. Pressing the Tuning Up or Down Buttons will toggle you through the seven programmed channels. There should be one or more weather service stations broadcasting in your local area. You will hear a report that is updated usually once or more per day for your area. If there is a severe weather or weather related emergency, NOAA will update the weather broadcast more frequently. If there is a weather emergency, the NOAA will issue an alert tone.

After locating and tuning in your weather station the radio can now be placed into WEATHER ALERT mode. The WEATHER ALERT mode enables you to listen to your favorite AM or FM station or turn the radio off, and still receive an alert signal warning you of a special emergency. There are three active WEATHER ALERT modes on the CCRadio *plus*.

**NOTE:**

- 1) When activated, the WEATHER ALERT consumes power even when the radio is turned off.
- 2) **Be aware that if you are not using AC power the WEATHER ALERT will completely drain your batteries. If your batteries are dead and AC power is off, the WX Alert Alarm will not work**

## SETTING THE WEATHER ALERT

- 1) To place the radio in WEATHER ALERT mode, press and hold the Weather Alert Button for two seconds: You will hear a short beep and see this symbol, shown on page 15 (top right), on the display.

This is WEATHER ALERT mode with flashing light only (no Alarm). If NOAA issues a weather related emergency, the radio will automatically alert you with a small flashing light near the top of the radio. The Alert light continues to flash until any button is pushed.



- 2) To access the second mode, (WEATHER ALERT with NOAA Audio). Press and hold the WEATHER ALERT Button again for two seconds until you hear a long beep. The symbol, shown at right, will be displayed in this mode. In this mode, if the NOAA alert tone is issued, the red light flashes and the radio switches to Weather Audio automatically. To cancel the WEATHER ALERT, press the Band Button on the radio.



- 3) To access the third mode, (WEATHER ALERT with flashing light and siren). Press and hold the WEATHER ALERT Button again for two seconds until you hear a double beep. The symbol, shown at right, will appear and the light near the top radio comes on continuously. In this mode, if the NOAA alert tone is issued, the red light on the top of the radio flashes and a siren turns on for up to 1 minute. In this mode, when the siren is active, pressing any button on the radio instantly turns the radio to the Weather Audio and cancels the siren.



**SPECIAL NOTE:** If you have the headphones plugged in and a weather alert is issued, the audio to the headphones will be cut-off and the siren will sound through the radio's speaker.

## TURNING OFF THE WEATHER ALERT

Press the WEATHER ALERT Button again for two seconds: The alarm goes off and is inactive. The *ALERT* symbol will disappear from the display.



In any of the active WEATHER ALERT modes, the weather receiver stays on and listens for an emergency tone issued from NOAA in case of emergency.

You may get a periodic test tone from the NOAA that will cause an unexpected alarm on your CCRadio *plus*. This tone is only a test and will happen periodically, usually every Wednesday at noon, or whenever the agency decides to test their emergency alert system. Simply pressing any button on the receiver will shut the alert tone off. After an alert has been issued, the WEATHER ALERT light and/or siren will stay on for one minute or until you turn it off by pressing any button.

# 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. If you want to turn off the display light, press the Light button. Refer to page 7 for button identification.



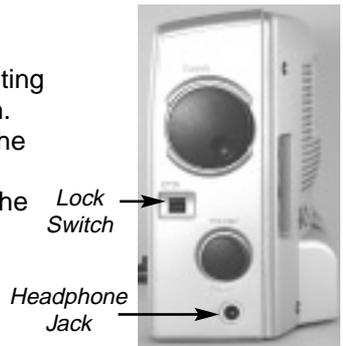
## DISPLAY LIGHT ON BATTERIES

When batteries are used the display light can be turned on by pressing the light button. The display light automatically goes off two 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.



Right Side View

# 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 receives FM in stereo through the headphones.

# RESET BUTTON

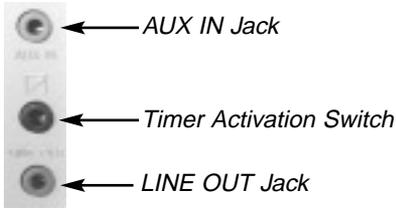
Once in awhile glitches may occur on any portable digital radio. This can be caused by static electricity, unusual key strokes or a power disruption. If this happens, use the end of a paper clip or ball point pen and push it into the hole briefly to reset the radio. **You will lose the clock time, and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



Bottom View of CCRadio plus

## 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 .



### RECORDING ACCESSORY

#### VersaCorder

Designed to work with the CCRadio *plus*. Record up to 4 hours on one side of a cassette. (See page 23 for details.)



### AUX IN JACK

The green jack, labeled AUX IN is used to connect an external audio source such as a CD Player or recorder, so you can listen through your CCRadio *plus*' speaker. To do this, you will need the appropriate patchcord. (Refer to page 23 for patchcord specifications).

**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 *plus* may result.

- 1) Plug your patchcord 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 *plus*.
- 3) With the power on, press and hold the Band/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 *plus*.
- 5) To turn the AUX off, press the Band/AUX Button again and the AUX will disappear from the display.

**NOTE:** Volume can be controlled from the CCRadio *plus*.

### LINE OUT JACK

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

**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 patchcord into the LINE OUT jack on the CCRadio *plus*.
- 2) Plug the other end of the patchcord 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 *plus* 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 for specific instructions.

## SETTING THE TIMER

**Please read this entire page carefully before you start. You will need to go through the 3 steps listed below without stopping. If you stop for more than 15 seconds, you will need to 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 13 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 double beep and 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.

### 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, TV 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

To stop the timer from going off every day press and hold the Timer/Set Button until you hear a short beep 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 with the programmed OFF TIME.

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

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

## INSTRUCTIONS FOR THE LIGHT & SOLAR OPTIONS



The optional **Solar & Light Kit** (shown left) can be ordered separately. Kit includes:

- 4 Watt Solar Panel
- 4 Heavy Duty ‘D’ NiCad Batteries
- 6V DC Charging Adapter (not shown)
- White LED lamp

**Item #CPP ..... \$119.95**

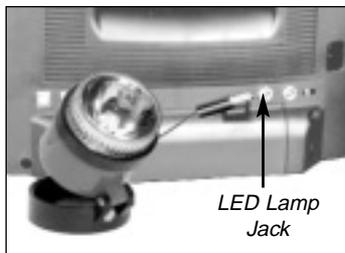


You may use alkaline batteries for operation of the CCRadio *plus* and the Light, but **never charge alkaline batteries with the 6V DC charging adapter or solar panel.**



To use the CCRadio *plus* with the Light only: Plug the light into the jack labeled “LED Lamp”. The light will come on when plugged in, as long as the radio has power.

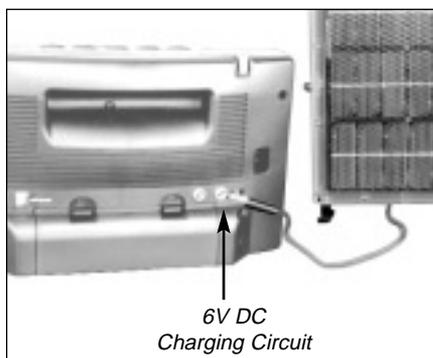
The white LED bulb is very energy efficient, lasts for thousands of hours and is virtually unbreakable. The cord on the



light will extend up to 12'. Just pull on the connector and unreel it to the desired length. The black base of the light opens up to reveal a handle that is used to reel the cord back in. The base is also a magnet, so you can mount it to any metal surface like a refrigerator or a car.

## OPTIONAL NiCAD BATTERY CHARGING SYSTEM

 **WARNING:**   
**NEVER  
CHARGE  
ALKALINE  
BATTERIES WITH  
6V DC CHARGING ADAPTER  
OR  
SOLAR PANEL**



Please note: All NiCad batteries come slightly charged. First, charge the (4) 'D' NiCad batteries. You can do this in the CCRadio *plus* via the 6V Adapter or with the 4 Watt Solar Panel. To install the batteries please refer to page 9.

**Please read the NiCad Information on page 21 to ensure you get the best service from your NiCad batteries.**

To charge the batteries via the adapter, plug the 6V Adapter into the jack labeled "6V DC Charging Circuit" on the back of the CCRadio *plus*. Once the batteries are charged you may use the radio. To use the light, plug it into the jack labeled "LED Lamp".

To charge the batteries via the Solar Panel, plug the panel into the jack labeled "6V DC Charging Circuit". The NiCads will charge via the Solar Panel every time it is in full or partial sunlight. The Solar Panel can be mounted outside. There is a voltage blocking device in the radio that prevents loss of a charge when the Panel is not in the sun. Generally, the Solar Panel puts out equal power required to run the radio. If you charge the batteries for eight hours in the full sun you may get nearly eight hours of play time. The CCRadio *plus* can be operated while the batteries are being charged. **The Solar Panel will run the radio in full sunlight without the NiCad batteries installed.**

## Run Times And Charge Times For NiCad Batteries

CCRadio *plus* with heavy duty NiCad batteries ..... Approx. 48 Hrs.

Approx. time to charge NiCad batteries with AC Adapter ..... 27 Hrs.

Approx. time to charge NiCad batteries with Solar Panel ..... 67 Hrs.

Times are approximate. Please read previous page for more radio/light operational tips.

NiCad batteries are a great financial and ecological investment if you know how to use them.

- New NiCad batteries require a few charging and discharging cycles to come up to full power. First, charge the batteries. Next, allow them to drain by running them in the CCRadio *plus* until it shuts off and no sound is heard. Then recharge the batteries fully. This procedure should be repeated two more times if you want to get the full output of your NiCads as soon as possible.

- Do not overcharge NiCad batteries. Excessive charging heat can reduce their life span. It is difficult to overcharge the NiCad batteries with the Solar Panel because the current is low. If you use the 6 volt adapter to charge the batteries, it should be disconnected after about 27 hours.

- NiCads slowly lose their charge even without use. It is best to charge them up for an hour or so once a month if you are keeping them for emergency use. Uncharged NiCads can be stored indefinitely, but will need to be reconditioned before use.

- NiCads can develop a “memory”. If they are constantly drained only half way and then recharged, they will lose some of their capacity. It is best to fully discharge NiCads a few times a year so the batteries will retain their full capacity.

- For optimum results, check your batteries with a battery tester twice a year. Be sure batteries that are low are charged separately until they equalize with batteries of a naturally higher charge.

- It is best to charge NiCad batteries slowly. You can substantially reduce the life span of a NiCad battery by consistently charging at a high rate in a commercial charger. The charge rates for both the AC Adapter and Solar Panel are relatively low.

The Solar Panel can remain attached to the CCRadio *plus*, as long as NiCad batteries are installed. This will create an automatic charging cycle whenever the radio is not in use. For best battery performance, however, be sure to fully drain and recharge your NiCads about twice per year.



## SPECIFICATIONS

### 6V DC CHARGING JACK

2.1 mm ID tipped negative. 6 - 9V DC @ 400mA input for directly charging NiCad batteries. Can also power your radio and charge NiCad batteries using a 4 Watt Solar Panel. Do not charge alkaline batteries.

**Item #6CA ..... \$10.95** 6V Charging Adapter

**Item #S04 ..... \$59.95** Sangean 4 Watt Solar Panel

### LED LAMP JACK

4 Volt output for use with external LED lamp.

**Item #CWL ..... \$19.95**

### LINE 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.

### PATCHCORDS

Can be purchased directly from C. Crane Company Inc. at 1-800-522-8863 or you can obtain a comparable patchcord from your local electronics store.

3 x 1/8" Stereo Patchcord, 40" L.

**Item #VPC .....\$14.95**

### VERSACORDER

Dual speed tape recorder. Designed to work with CCRadio *plus*. Record up to 4 hours on one side of a cassette tape. Can be purchased directly from C. Crane Company Inc. at 1-800-522-8863 or on the web at [ccrane.com](http://ccrane.com).

**Item #VC .....\$99.95**

# RADIO NOISE TROUBLESHOOTING

## AM RADIO NOISE PROBLEMS AND POSSIBLE SOLUTIONS

**Annoying buzzes are many times transmitted through an AM radio. Here is a check-off list of the most likely causes:**

- Dimmer switch.
- Fluorescent light.
- “Touch lamp” type light fixture (even when turned off).
- Automatic on and off night lights.
- Outdoor yard lights which come on automatically.
- Electronic bug and pest controllers.
- A light bulb that is about to burn out.
- A faulty electrical switch of any kind.
- A nearby television set.
- A store that has a fluorescent light or a public recreation room that has fluorescent lights located near you.
- Blinking bulbs of all kinds such as Christmas tree lights.
- If you live in an apartment a neighbor’s dimmer switch could be the culprit.
- Scanners of all types.
- Dirty insulators on a nearby power pole allowing arcing.
- Electric blanket.
- Smoke detectors that run from AC current (battery operated is OK).

**It is best to eliminate the interference at its source. Here’s a list of possible solutions:**

- The most obvious is to turn off the offending device.
- Try a battery operated radio to see if the interference is coming in from the AC 120 Volt line, through the air, or both.
- Turn off the circuit breakers to see if the noise stops. If it does, then you know it is something in your house. Turn off one circuit at a time to isolate where the noise is coming from.
- Use a battery operated radio as a direction finder. Turn the radio until the loudest noise is heard — the front and back of the radio will point to the noise origin.
- Carry a radio around the neighborhood and see if you can find the origin of the noise. Ask other neighbors if they have the same problem.
- If a power pole is suspected, call the utility company and they will check the area and possibly wash the insulators. Dirty power pole insulators are sometimes a cause of difficult-to-find radio interference.
- If you have a hum in your receiver from AC line noise sometimes grounding the radio can reduce the hum greatly. Finding a good earth ground may be difficult.

## AM TUNING & LISTENING TIPS

Most portable radios including the CCRadio *plus* 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.



Top View CCRadio *plus*

The CCRadio *plus* has two external antenna terminals for AM. If your reception is better outside, try this quick and easy antenna: Use 50' of insulated wire attached to one terminal and a ground to the other terminal. Try running the wire inside around a window or along a baseboard. An antenna of more than 50' will improve reception, but

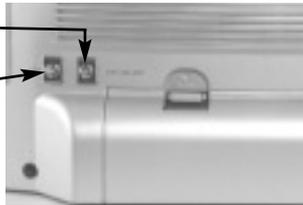
**SAFETY DIRECTIONS AND PRECAUTIONS FROM YOUR ANTENNA SUPPLIER SHOULD BE FOLLOWED TO PREVENT INJURY FROM LIGHTNING OR ANY ACCIDENT.**



*External Antenna Terminal for AM*

*Ground Terminal*

Left Side Rear View



The CCRadio *plus* 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 direct 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 164, Mannsville, NY 13661-0164. They maintain a website at: <http://www.nrcdxas.org>



Model: CCRadio *plus*

FCC ID: BYG 003

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.**