

PSR-216

200-Channel Portable Scanner

OWNER'S MANUAL



INTRODUCTION

Your new PSR-216 Programmable Scanner lets you in on all the action! This scanner gives you direct access to over 35,000 frequencies. You can store frequencies in your scanner's 200 channels, and you can change your selections at any time.

It incorporates a custom-designed microprocessor — a tiny, built-in computer which gives your scanner these special features:

Ten Preprogrammed Search Bands – let you search for transmissions within preset frequency ranges, so you can find interesting frequencies more quickly.

Ten Channel-Storage Banks – lets you group your stored frequencies so you can easily identify calls.

Duplicate Frequency Check – automatically warns you if you try to store a frequency you've already stored, to help you use the scanner's memory more efficiently.

Liquid Crystal Display – shows the selected channel and frequency.

Two Second Scan Delay – helps prevent the loss of replies on a channel while you are scanning.

Memory Backup – keeps the channel frequencies stored in your scanner's memory for up to 1 hour without the battery.

Lockout Function – makes your scanner skip over specified channels.

Priority Channel – helps keep you from missing important calls on the selected priority channel.

Monitor Memories – let you save up to 20 channels located during a frequency search.

Flexible Antenna with BNC Connector – provides excellent reception. The BNC connector makes it easy to attach and remove the antenna or a variety of optional antennas.

Your PSR-216 covers the following bands:

68–88 MHz

108–174 MHz

380–512 MHz

806–960 MHz

Use of scanners must conform to the requirements of the law of the country where they are utilized. Always check that your intended use is legally permitted.

Avoid using your scanner in close proximity to a Radio or TV receiver to prevent unwanted interference.

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PREPARATION

POWER SOURCES

You can power your scanner from any of four sources:

- Internal batteries (not supplied) with the provided battery holder
- A rechargeable scanner battery pack (not supplied)
- Standard AC power (using an optional AC adapter)
- Vehicle battery power (using an optional DC cigarette-lighter adapter)

You can power your scanner from six AA batteries. For the longest operation and best performance, we recommend alkaline batteries. You can also power the scanner using a rechargeable scanner battery pack or rechargeable nickel-cadmium batteries, and recharge it as you use the scanner.

Caution: Do not mix old and new batteries, different types of batteries (standard, alkaline, or rechargeable), or rechargeable batteries of different capacities.

Notes:

- The **POWER** jack lets you connect an external AC or DC adapter to operate the scanner. Connecting an adapter to **POWER** disconnects the internal batteries. You can use the **POWER** jack with either non-rechargeable or rechargeable nickel-cadmium batteries installed.
- The **CHARGE** jack lets you connect an external AC or DC adapter to operate the scanner. The internal batteries remain connected when you connect an adapter to **CHARGE**, and get recharged when you connect a charger.

Warning: Never use the **CHARGE** jack with non-rechargeable batteries! If you try to recharge non-rechargeable batteries, they could get very hot and explode.

Battery Install

1. Press down on the battery compartment cover on the bottom of the scanner and slide the cover in the direction of the arrow to remove it.
2. Slide the battery holder out of the battery compartment.
3. If you are installing individual batteries, insert six AA batteries in the battery holder as indicated by the polarity

symbols (+ and –) marked on the battery holder.

- Slide the battery holder or battery pack into the compartment.

Caution: The battery holder or battery pack fits only one way inside the battery compartment. Do not force it.

- Replace the cover.

When battery power is low, **BATT** flashes and the scanner beeps about every 3 seconds. Immediately replace all six non-rechargeable batteries or recharge the rechargeable batteries or battery pack.

Caution: Always dispose of old batteries promptly and properly. Do not bury or burn them.

Using Standard AC Power

To power the scanner from AC power, you need an AC adapter.

Cautions:

- You must use an AC adapter that supplies 9 volts and delivers at least 300 milliamps. Its center tip must be set to negative, and its barrel plug must correctly fit the scanner's **POWER/CHARGE** jack. The recommended adapter meets these specifications. Using an adapter that does not meet these specifications could damage the scanner or the adapter.
- When you finish using the AC adapter, disconnect it from the AC outlet first. Then disconnect it from the scanner.

Plug the adapter's barrel plug into the scanner's **POWER** jack. Then plug the adapter's power module into a standard AC outlet.

Using Vehicle Battery Power

To power the scanner from your vehicle's cigarette-lighter socket, you need a DC adapter.

Cautions:

- You must use a DC adapter that supplies 9 volts and delivers at least 300 milliamps. Its center tip must be set to negative, and its plug must correctly fit the scanner's **POWER/CHARGE** jack. The recommended adapter meets these specifications. Using an adapter that does not meet these specifications could damage the scanner or the adapter.

- To protect your vehicle's electrical system, always plug the adapter into the scanner before you plug it into your vehicle's cigarette-lighter socket. Always unplug the adapter from the vehicle's cigarette-lighter socket before you unplug it from the scanner.

Plug the adapter's barrel plug into the scanner's **POWER** jack. Then plug the adapter's power module into your vehicle's cigarette-lighter socket.

Charging a Rechargeable Battery Pack/ Rechargeable Batteries

Your scanner has a built-in charging circuit that lets you charge a rechargeable battery pack or rechargeable nickel-cadmium batteries while it is in the scanner. To charge it, simply connect an AC or DC adapter to the scanner's **CHARGE** jack.

It takes about 14–16 hours to recharge a battery pack (or nickel-cadmium rechargeable batteries) that is fully discharged. You can operate the scanner while recharging the battery pack (rechargeable batteries), but charging takes longer.

Note: A rechargeable battery pack (rechargeable batteries) lasts longer if you let it fully discharge once a month. To do this, simply use the scanner until **BATT** flashes and the scanner beeps about every 3 seconds. Then fully charge it.

CONNECTING THE ANTENNA

Follow these steps to attach the supplied flexible antenna to your scanner.

1. Align the slots around the scanner's connector with the tabs on the **ANT** jack.
2. Press the antenna down over the jack and turn the antenna's base clockwise until it locks into place.

Connecting an Optional Antenna

The **ANT** jack on the top of the scanner makes it easy to use the scanner with a variety of antennas. Instead of the supplied antenna, you can attach a different one, such as an external mobile antenna or outdoor base station antenna.

Follow the installation instructions supplied with the antenna, route the antenna cable to the scanner, then connect it to the **ANT** jack.

Warning: Use extreme caution when installing or removing an outdoor base station antenna. If the antenna starts to fall, let it go! It could contact overhead power lines, if the antenna touches a power line, contact with the antenna, mast, cable or guy wires can cause electrocution and death! Call the power company to remove the antenna. Do not attempt to do so yourself.

USING THE BELT CLIP

You can use the belt clip for hands-free carrying when you are on the go. Simply slide the belt clip over your belt or waistband.

CONNECTING AN EARPHONE/ HEADPHONES

For private listening, you can plug an earphone or mono headphones with a 3.5 mm plug into the **PHONE** jack on top of your scanner. This disconnects the internal speaker.

Caution: To protect your hearing, follow these guidelines when you use an earphone or headphones:

- Do not listen at extremely high volume levels. Extended high-volume listening can lead to permanent hearing loss.
- Once you set the volume, do not increase it. Over time, your ears adapt to the volume level, so a volume level that does not cause discomfort might still damage your hearing.

Warning: Do not use an earphone or headphones with your scanner when operating a motor vehicle or riding a bicycle, in or near traffic. Doing so can create a traffic hazard and could be illegal in some areas.

CONNECTING AN EXTENSION SPEAKER

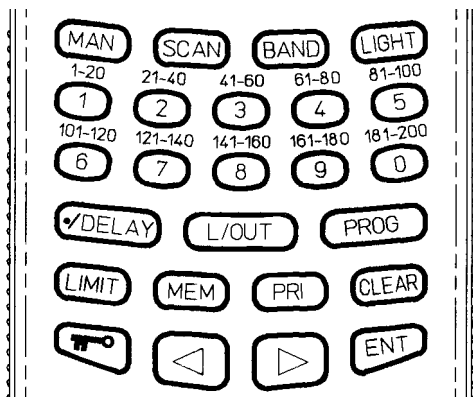
In a noisy area, an amplified speaker might provide more comfortable listening.

Plug the speaker cable's 3.5 mm plug into your scanner's **PHONE** jack.

YOUR SCANNER

A LOOK AT THE KEYPAD

Your scanner's keys might seem confusing at first but this information should help you understand each key's function.



MAN – stops scanning to let you directly enter a channel number.

SCAN – scans through the programmed channels.

BAND – selects a preprogrammed search band.

LIGHT – turns on/off the displays backlight.

Number Keys – use these keys to enter the numbers for a channel or frequency. The range of numbers above the key (21-40 for example) indicate the channels that make up a channel-storage bank.

✓/DELAY – programs a two-second delay while scanning or searching, or enters a decimal point.

L/OUT – turns the channel lock on or off.

PROG – lets you program frequencies into channels.

LIMIT – enters the limit search mode; allows you to set the search range.

MEM – accesses the monitor memory or store the frequency to the monitor memory.

PRI – turns the priority function on and off.

CLEAR – clears an incorrect entry or helps initialize the scanner.

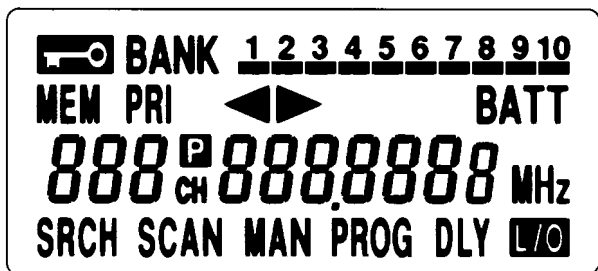
 - turns Keylock feature on or off.


< > - selects a scan or search direction.

ENT - stores a frequency into channels.

THE DISPLAY

The display lets you know what your unit is doing. The following is a list of display messages you will encounter and what they mean.



 - appears when the keylock is turned on.

BANK - appears with numbers (1-10). Numbers with a bar under them show which channel-storage banks are turned on for scanning.

MEM - appears when you listen to a frequency stored in monitor memory.

PRI - appears when the priority feature is on.

< > - appear to indicate the scan or search direction.

BATT - appears when the batteries are low.

P - appears when you listen to the priority channel.

000 CH - indicates the channel number.

000.0000 MHz - digits that precede this indicator show which of the 35,000 possible frequencies you have tuned the scanner to.

SRCH - appears during frequency search.

SCAN - appears when you scan through the channels.

MAN - appears when you manually select a channel.

PROG - appears when you program a frequency into a channel.

DLY - appears when the scanner tunes to the delay feature.

L/O – appears when you listen to a channel that is locked out of the scan mode.

Display Message

Error – appears when you make an entry error.

-dUPL- – (duplicate) appears when you try to store a frequency that is already stored in another channel.

-L- – appears during a limit search.

Lo – appears when you program a lower limit frequency range.

Hi – appears when you program a higher limit frequency range.

-d- – appears during a direct search.

bX (X: 1 to 0, search band number) – appears during a band search.

ALL Ch0000 – appears when you clear all stored channels.

Ch-FULL – appears when you try to enter a frequency into a channel during a search when all channels are full.

L-o Ch0000 – appears when you clear all locked-out channels.

Lo ALL-CL – appears when you remove all lockouts from channels.

P-SA – appears when the scanner turns on the power save feature.

rE. St – appear when press **CLEAR** to stop limit search or band search. In this condition press > to start up search from the bottom band edge and press < to start down search from the top band edge.

UNDERSTANDING BANK/BANDS/MONITOR MEMORY

Channel Storage banks

To make it easier to identify and select the channels you want to listen to, channels are divided into 10 banks of 20 channels each. Use each channel-storage bank to group frequencies, such as those used by the fire department, ambulance services, or aircraft.

For example, the fire department might use four frequencies, one for each side of town. You could program the fire frequencies starting with Channel 1 (the first channel in bank 1) and program the aircraft frequencies starting with channel 21 (the first channel in bank 2).

Search Bands

Your scanner can tune over 35,000 different frequencies. Many of these frequencies are grouped within permanent memory locations called search bands.

Band	Displayed Search Range	Freq. Coverage (MHz)
1	68–78	68.000 to 78.000
2	78–88	78.000 to 88.000
3	108–137	108.000 to 136.9875
4	137–144	137.000 to 143.995
5	144–146	144.000 to 146.000
6	146–174	146.005 to 174.000
7	380–450	380.000 to 450.000
8	450–512	450.000 to 512.000
9	806–880	806.000 to 880.000
0	880–960	880.000 to 960.000

You can search these bands to quickly find active frequencies you might want to store into the scanner's channels.

Note: The frequencies in the scanner's search bands are preset. You cannot change them.

Monitor Memory

The scanner also has a monitor memory that you can use to temporarily store a frequency while you decide whether to save it into a channel. This is handy for quickly storing an active frequency when you are searching through an entire band using direct search.

OPERATION

TURNING ON THE SCANNER/SETTING VOLUME AND SQUELCH

1. Turn the **SQUELCH** knob fully counterclockwise.
2. Turn the **VOLUME** knob clockwise until it clicks and you hear a hissing sound.
3. Turn the **SQUELCH** knob clockwise until the hissing sound stops.

Notes:

- If the scanner picks up unwanted, partial, or very weak transmissions, turn **SQUELCH** clockwise to decrease the scanner's sensitivity to these signals. If you want to listen to a weak or distant station, turn **SQUELCH** counterclockwise.
- If **SQUELCH** is adjusted so you always hear a hissing sound, the scanner does not scan properly.
- If you have not stored frequencies into any channels, the scanner does not scan.

PROGRAMMING FREQUENCIES

Your scanner is capable of storing up to 200 frequencies.

You can program the frequencies randomly or match channel numbers with car numbers, TV and radio call numbers, etc.

To program frequencies:

1. Press **PROG**. **PROG** appears.
2. To select the channel where you want to store the frequency, use the number keys to enter the channel number, then press **PROG**.
3. Using the number keys and **•/DELAY**, enter the frequency you want to store into that channel.
4. Press **ENT** to store the frequency.

Notes:

- If you entered an invalid frequency in Step 3, the scanner beeps and displays the channel number and **Error**. Simply repeat Steps 3 and 4.

- Your scanner automatically rounds the entered frequency down to the closest valid frequency. For example, if you try to enter a frequency of 151.473, your scanner accepts it as 151.470
 - If you entered a frequency that is already stored in another channel, the scanner beeps three times and displays the lowest channel number where the frequency is already stored, and **-dUPL-** briefly flashes about three seconds. If you want to store the frequency anyway, press **ENT** again.
5. Repeat Steps 2-4 to store more frequencies into channels.

SCANNING STORED CHANNELS

To begin scanning channels or to start scanning again after monitoring a specific channel, press **SCAN**. The scanner scans through all channels (except those you have locked out) in the active banks.

To change the scanning direction, press **<** or **>**.

Adjust the **SQUELCH** knob to resume scan if the scanner stays on a frequency after the transmission has ended.

Turning Channel-Storage Banks Off and On

To turn off banks while scanning, press the bank's number key until the bar under the bank's number disappears. The scanner does not scan any of the channels within the banks you have turned off.

Notes:

- You cannot turn off all banks. There must be at least one active bank.
- You can manually select any channel in a bank, even if the bank is turned off.

To turn on banks while scanning, press the bank's number key until a bar appears under the bank's number.

SEARCHING

Notes:

- Press and hold < or > about a second to start search.
- Press and release < or > to move the next frequency.
- To quickly move upward or downward through the range of frequencies, press and hold down > or <. The scanner tunes through the frequencies until you release > or <.
- Press **MEM** during search to store a frequency in a monitor memory.
- Press **ENT** while search stops, to store a frequency in the lowest available channel. Then the scanner continue the search.
- When the scanner shows **Ch-FULL** if you press **ENT**, there is no empty channels. If you want to enter more frequencies, you must clear some channels.
- You can use the scanner's delay feature by pressing •/**DELAY** while search.

Limit Search

In a Limit Search, you choose the range within which the scanner will find frequencies.

1. Press **PROG** and then **LIMIT**. **Lo** appears on the display.
2. Key in the lowest frequency in the search range and press **ENT**.
3. Press **LIMIT**. **Hi** appears on the display.
4. Key in the highest frequency in the search range and then press **ENT**.
5. Choose the direction you want to search in (< or >) and press and hold about a second the appropriate button. **-L-** and **SRCH** will appear in the display.

Note: When the scanner has exhausted the search range, it will begin again.

Band Search

Follow these steps to search for and store active frequencies using band search.

1. Press **BAND**. The last selected band number (**b** followed by a number, such as **b2**) and the associated frequency search range appear on the display.
2. To select a different band, within 2 seconds, enter the desired band number or repeatedly press **BAND** until the desired band number appears on the display. After about 2 seconds, **SRCH**, **>** appears, and the scanner begins searching rapidly upward in that band (from lowest to highest frequency) for an active frequency.
Note: To select a different band after the scanner begins searching the current band, simply repeat this step.
3. When the scanner finds an active frequency, it stops searching and displays that frequency's number. To continue the search, press and hold **>** or **<** about a second.

Direct Search

During a direct search, the scanner searches upward or downward, starting from a frequency you specify. Follow these steps to use direct search.

1. Press **MAN** or **PROG**, then enter the frequency you want to use as a starting point for the search.
Note: To start from a frequency already stored in one of your scanner's channels, press **MAN** or **PROG**, enter the desired channel number, then press **MAN** or **PROG** again.
2. Press and hold **>** or **<** for about a second to search upward or downward. **-d-**, **SRCH** and **>** or **<** appear on the display.
3. When the scanner finds an active frequency, it stops searching and displays that frequency's number. To continue the search, press and hold **>** or **<** about a second.

MONITORING ONE CHANNEL

You can continuously monitor a specific channel without scanning. This is useful if you hear an emergency broadcast on a channel and do not want to miss any details — even though there might be periods of silence — or if you simply want to monitor that channel.

Follow these steps to manually select a channel.

1. Press **MAN**.
2. Enter the channel number.
3. Press **MAN** again.

DELETING A FREQUENCY FROM A CHANNEL

1. Press **PROG**.
2. Use the number keys to enter the channel number containing the frequency you want to delete.
3. Press **PROG**.
4. Press **0**.
5. Press **ENT**.

The frequency is now deleted. To delete other frequencies in the same way, use Steps 2-5.

DELETING ALL CHANNEL FREQUENCIES

1. Press **PROG**.
2. Press and hold **CLEAR**, then press **0**. *ALL Ch0000* appears in the display.
3. Press **ENT** to clear all frequencies from all channels. If you do not clear all channels, press **CLEAR** to do so.

DELETING ALL LOCKED OUT CHANNEL FREQUENCIES

1. Press **PROG**.
2. Press and hold **CLEAR**, then press **L/OUT**. *L-o Ch0000* appears in the display.
3. Press **ENT** to clear all locked-out channels. If you do not clear all locked-out channels, press **CLEAR** to do so.

MONITOR MEMORY

Once you have temporarily stored a frequency in a monitor memory, you need to decide whether or not you want to store it permanently in a channel.

Note: Remember that monitor memories are not scannable.

To Listen to a Frequency in Monitor Memory

Since you cannot scan monitor memories, you must manually select the frequency you want to hear.

1. Press **MAN**. *MAN* appears on the display.
2. Press **MEM**.

3. Press the number key of the monitor memory location you want to hear (1-20).
4. Press **MEM** again.

STORE THE FREQUENCY IN MONITOR MEMORY

When the scanner stops on an active frequency while search, and you want to temporarily save it, press the **MEM** button to store it in the monitor memory with the flashing indicator beneath it.

If you do not want to save the active frequency, press either < or > to continue the search.

Store the Monitor Memory Frequency in a Permanent Channel

1. Press **PROG**. **PROG** appears on the display.
2. Enter the channel number where you want to store the monitor frequency, then press **PROG**.
3. Press **MEM**. **MEM** flashes. Use the number key to enter the monitor memory's number (1-20), then press **MEM**.
4. Press **ENT**. The scanner stores the frequency in the selected channel.
5. To move another monitor memory frequency to the next channel, press **PROG** and repeat Steps 3 and 4.

SPECIAL FEATURES

LOCKING OUT

You can scan existing channels faster by locking out channels that have a continuous transmission.

To lock out a channel while scanning, press **L/OUT** when the scanner stops on the channel. To lock out a channel manually, manually select the channel and press **L/OUT** until **L/O** appears on the display.




To remove the lockout from a channel, manually select the channel and press **L/OUT** until **L/O** disappears from the display.



Note: You can still manually select locked-out channels.

To remove all lockout from a channels as follows:

1. Press **MAN**.
2. Press and hold **CLEAR** then press **L/OUT**. **Lo ALL-CL** appears on the display.
3. Press **ENT** to clear all lock out. If you do not clear lock-out, press **CLEAR**.

USING KEYLOCK

After programming your scanner, you can eliminate accidental program and/or functional changes by locking the keypad. To turn the keylock on, press and hold  for approximately 3 seconds, or until the scanner beeps three times and  appears in the display. The only usable keys while this function is active are , **MAN**, **SCAN**, **LIGHT**, **SQUELCH** and **VOLUME**.

To turn the keylock function off, press and hold  for approximately 3 seconds until the scanner beeps three times and  disappears in the display.

USING DELAY

Many agencies use a two-way radio system that has a period of several seconds between a query and a reply. To avoid missing a reply, you can program a 2-second delay into any channel or frequency. When your scanner stops on a channel or frequency with a programmed delay, **DLY** appears on the display and the scanner continues to monitor that frequency for 2 seconds after the transmission stops before resuming scanning.

You can program a 2-second delay in these ways:

- If the scanner is scanning and stops on an active channel, quickly press **•/DELAY** before it continues scanning again.
- If the desired channel is not selected, manually select the channel, then press **•/DELAY**.
- If the scanner is in the search mode, press **•/DELAY** while the scanner is searching. **DLY** appears on the display and the scanner automatically adds a 2-second delay to every transmission it stops on.

To turn off the 2-second delay, press **•/DELAY** while the scanner is monitoring the channel or frequency. **DLY** disappears from the display.

TURNING THE KEY TONE ON AND OFF

Each time you press any of the scanner's keys, the scanner sounds a tone.

Follow these steps to turn the scanner's key tone on or off.

1. If the scanner is on, turn **VOLUME** counterclockwise until it clicks to turn it off.
2. While you press and hold down **2** and **ENT**, turn on the scanner.
3. After a second, release **2** and **ENT**.

BATTERY-SAVING FEATURE

Your scanner has been equipped with a battery-saving circuit. This feature sends the unit into a standby mode, which uses only 30 percent of the available power, if no signal is detected within a 5 second time interval, **P-SA** (power save) appears in the display.

The scanner will continue to operate in the standby mode until it receives a signal or you press a button.

GENERAL GUIDE TO SCANNING

BIRDIE FREQUENCIES

Every scanner has birdie frequencies. Birdies are signals created inside the scanner's receiver. These operating frequencies might interfere with broadcasts on the same frequencies. If you program one of these frequencies, you hear only noise on that frequency. If the interference is not severe, you might be able to turn **SQUELCH** clockwise to cut out the birdie.

The birdie frequencies on this unit to watch for are:

72.170	80.300	85.775	136.5125
144.550	150.150	152.575	160.605
168.635	385.450	392.925	393.725
401.7625	409.050	415.1875	425.1250
429.050	431.225	441.200	466.050
489.150	497.875	505.900	809.900
811.5625	819.600	825.9375	827.6375
836.700	814.975	843.7125	851.750
859.7875	867.250	891.925	899.9625
908.000	915.4375	924.075	930.1875
940.150	944.050	947.550	956.2125

To find the birdies in your scanner, begin by disconnecting the antenna and moving it away from the scanner. Make sure that no other nearby radio or TV sets are turned on near the scanner. Use the search function and scan every frequency range from its lowest frequency to the highest. Occasionally, the searching will stop as if it had found a signal, often without any sound. That is a birdie. Make a list of all the birdies in your scanner for future reference.

SPECIFIED INTERVALS

Frequencies in different bands are accessible only at specific intervals. For example:

Frequency Ranges	Specified Interval
68-88, 137-144 and 146-174 MHz	5.0 kHz steps
108-136.9875, 144-146, 380-512 and 806-960 MHz	12.5 kHz steps

TROUBLESHOOTING

If your scanner is not working as it should, these suggestions might help you eliminate the problem. If the scanner still does not operate properly, take it to your local store for assistance.

Problem	Possible Causes	Remedies
The scanner does not work at all.	The AC or DC adapter is not properly connected.	Be sure the adapter is plugged into a working AC outlet or cigarette-lighter socket into the scanner's POWER jack.
	The internal batteries/battery pack needs to be recharged, or the non-rechargeable batteries are dead.	Charge the rechargeable batteries or battery pack, or replace non-rechargeable batteries with fresh batteries.
Poor or no reception.	Improperly connected antenna.	Be sure the antenna is properly connected.
	Programmed frequencies are the same as birdie frequencies.	Avoid programming frequencies listed under "Birdie Frequencies" on Page 20.
Scanner is on, but does not scan.	SQUELCH is not correctly adjusted.	Adjust SQUELCH clockwise (see "Turning On the Scanner/Setting Volume and Squelch").
In the scan mode, the scanner locks on frequencies that have an unclear transmission.	Programmed frequencies are the same as birdie frequencies.	Avoid programming frequencies listed under "Birdie Frequencies" or only listen to them manually.

RESETTING/INITIALIZING THE SCANNER

If the scanner's display locks up or does not work properly after you connect a power source, you might need to reset or initialize it.

Important: If you have problems, first try to reset the scanner. If that does not work, you can initialize the scanner, however, initializing clears all frequencies you stored in the scanner's memory and initializes the scanner to its default settings.

Resetting the Scanner

1. Turn off the scanner, then turn it on again.
2. Insert a pointed object, such as a straightened paper clip, into the reset hole on the side of the scanner. Then gently press and release the reset button inside the opening. The display goes blank, then information reappears.

Initializing the Scanner

Important: This procedure clears all frequencies you stored in the scanner's memory and initializes the scanner to its default settings. Initialize the scanner only when you are sure the scanner is not working properly.

1. Turn off the scanner, then turn it on again.
2. While holding down **CLEAR**, insert a pointed object, such as a straightened paper clip, into the reset hole on the side of the scanner. Then gently press and release the reset button inside the opening. The display goes blank, then information reappears.

Note: You must release the reset button before you release **CLEAR**. Otherwise, the memory might not clear.

3. When the display reappears, release **CLEAR**.

CARE AND MAINTENANCE

- This unit is to be kept dry at all times. Should the unit become wet, dry immediately with a soft cloth. Electronic circuits may corrode should they come in contact with liquids containing minerals.
- Do not drop the unit. Circuit boards may be damaged and cause the scanner to malfunction if it is dropped.
- Store unit at normal temperatures. Avoid sudden temperature changes. Excessive hot or cold temperatures may damage or disfigure plastic parts and/or shorten the life of electronic devices.
- To prevent premature wear and tear on parts, keep the unit clean and free of dust and dirt.
- Do not use harsh chemicals, solvents or strong detergents to clean the unit.
- Do not attempt to alter or modify the internal component's of the unit.

SPECIFICATIONS

Frequency Coverage

- 68–88 MHz (in 5 kHz steps) (FM)
- 108–136.9875 MHz (in 12.5 kHz steps) (AM)
- 137–143.995 MHz (in 5 kHz steps) (FM)
- 144–146 MHz (in 12.5 kHz steps) (FM)
- 146.005–174 MHz (in 5 kHz steps) (FM)
- 380–512 MHz (in 12.5 kHz steps) (FM)
- 806–960 MHz (in 12.5 kHz steps) (FM)

Operational Channels

200 channels plus
20 monitor memories

Sensitivity: FM: (S+N)/N 20 dB, Dev.: 3kHz at 1kHz

AM: (S+N)/N 20 dB, Mod.: 60% at 1 kHz

68–88 MHz	1 μ V
108–136.975 MHz	2 μ V
137–174 MHz	1 μ V
380–512 MHz	1 μ V
806–960 MHz	2 μ V

Spurious Rejection (FM at 154 MHz)

40 dB

Selectivity

± 10 kHz	–6 dB
± 18 kHz	–50 dB

IF Interference Ration

257.5 MHz at 154 MHz	50 dB
21.4 MHz at 154 MHz	100 dB

Scanning Rate

25 channels/sec

Search Rate

50 steps/sec

Delay Time

2 sec

IF Frequencies

257.5 MHz, 21.4 MHz, and 455 kHz

Squelch Sensitivity	
Threshold	less than 1.0 μ V
Tight (FM)	(S+N)/N 25 dB
Tight (AM)	(S+N)/N 20 dB
Antenna Impedance	50 ohms
Audio Power	240 mWatts nominal (10%THD)
Built-in Speaker	36 mm, 8-ohm, dynamic type
Power Req.	+9V DC, 6 AA batteries or a suitable adapter (negative ground only)
Current Drain (Squelched)	70 mA
OP Temp.	-10°C to +60°C
Dimensions	150 x 63 x 45 mm (HWD)
Weight	approx. 260 g without antenna

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