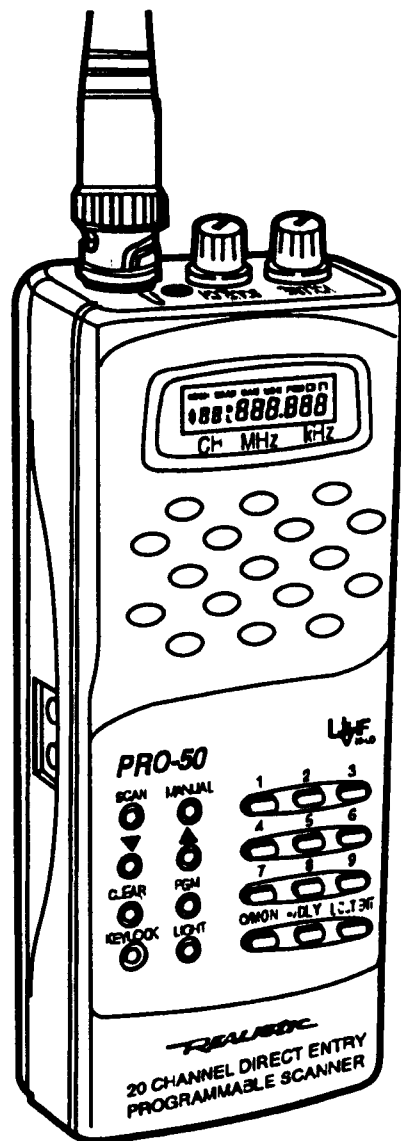


**Programmable Scanner**  
**Récepteur PRO-50 à balayage programmable**  
**Programmierbare scanner**  
**Programmierbarer Scanner**



**PRO-50**

**REALISTIC®★**

20-307 (available in Canada only)

# INTRODUCTION

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Your new Realistic PRO-50 Programmable Scanner lets you in on all the action! This scanner gives you direct access to multiple frequencies. You select up to twenty channels for your PRO-50 to scan through, and you can change your selection at any time.

The secret to your scanner's ability to scan so many frequencies is its custom-designed microprocessor—a tiny, built-in computer. The microprocessor also gives your scanner these special features:

**New Smaller Design** — makes the scanner more convenient and easier to use.

**Front Panel Keyboard** — lets you easily enter and change frequencies whenever you want.

**Memory Backup** — keeps the channel frequencies stored in your scanner's memory for up to 1 hour when you change the batteries or during a power failure if you are using an external power source.

**2-Second Scan Delay** — delays the scanning mode for two seconds before moving to another channel so you can hear more replies.

**Liquid Crystal Display** — shows the channel number, the frequency you have selected, and several other indicators (see "A Look at the Display").

**Lock-out Function** — keeps channels you select from being scanned.

**Monitor Memory** — temporarily saves a frequency you locate during a frequency search.

**Frequency Search** — scans the frequencies and stops when it finds an active frequency — great for locating activity in your area!

<p>The PRO-50 (20-307 available in Canada only) receives these bands:</p>	<p>The PRO-50 (20-9307, available in Europe/Australia only) receives these bands:</p>
<p>30–50 MHz (VHF Lo)  50–54 MHz (Ham Radio 6m)  137–144 MHz (Government)  144–148 MHz (Ham Radio 2m)  148–174 MHz (VHF Hi)  380–450 MHz (Ham Radio and Government)  450–470 MHz (UHF Lo)  470–512 MHz (UHF Hi)</p>	<p>68–88 MHz (VHF Lo)  137–144 MHz (VHF)  144–148 MHz (2m Ham Radio)  148–174 MHz (VHF Hi)  380–450 MHz (70cm Ham Radio and VHF Lo)  450–470 MHz (UHF Lo)  470–512 MHz (UHF Hi)</p>

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. InterTAN Inc. and its subsidiaries cannot be held responsible for the illegal use of scanners.

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Your scanner might cause radio or TV interference, even when it is operating properly. To determine whether your scanner is causing the interference, turn off your scanner. If the interference goes away, your scanner is causing the interference. Try to eliminate the interference by:

- Moving your scanner away from the receiver
- Contacting your local Radio Shack/Tandy store for help

If you cannot eliminate the interference, local regulations may require you to stop using your scanner.

For your important records, please record your scanner's serial number in the space provided. The serial number is located on the back of the scanner.

Serial Number: \_\_\_\_\_

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# PREPARATION

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## POWER SOURCES

You can power your scanner from any of three sources:

- Internal batteries
- Your vehicle's battery (using an optional DC adapter)
- Standard AC power (using an optional AC adapter)

For information on using power sources other than internal batteries, see "Using an Optional Adapter."

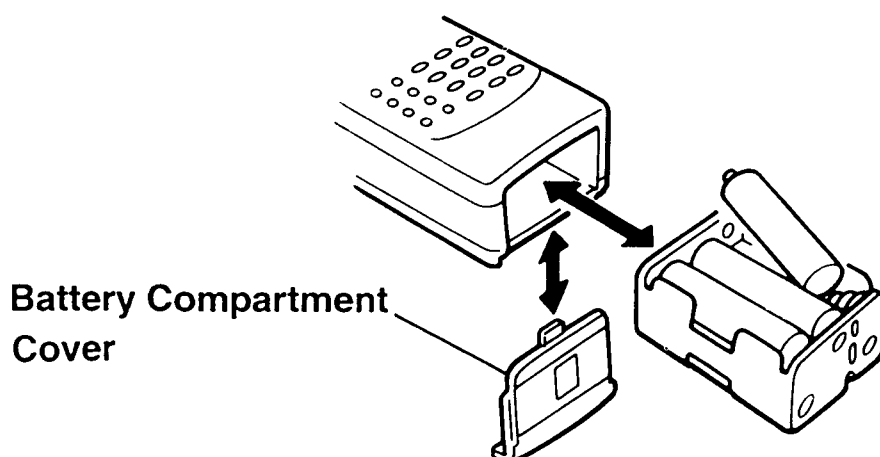
## Installing Batteries

You can operate your scanner from six AA batteries. For the longest battery life and optimum performance, we recommend alkaline batteries. Or, you can use rechargeable nickel-cadmium batteries.

**Caution:** The PRO-50 has a built-in charging circuit that lets you recharge nickel-cadmium batteries inside the battery compartment. However, you must not use this circuit when you have installed non-rechargeable batteries.

Be sure to read "Using an Optional Adapter" and "Charging Nickel-Cadmium Batteries."

Follow these steps to install the batteries.



1. Press down on the arrow and slide the cover in the direction of the arrow to remove the battery compartment cover.

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2. Remove the battery holder from the battery compartment and install six AA batteries, as indicated by the polarity symbols (+ and -) marked on the battery holder and inside the battery compartment.

3. Place the battery holder in the compartment.

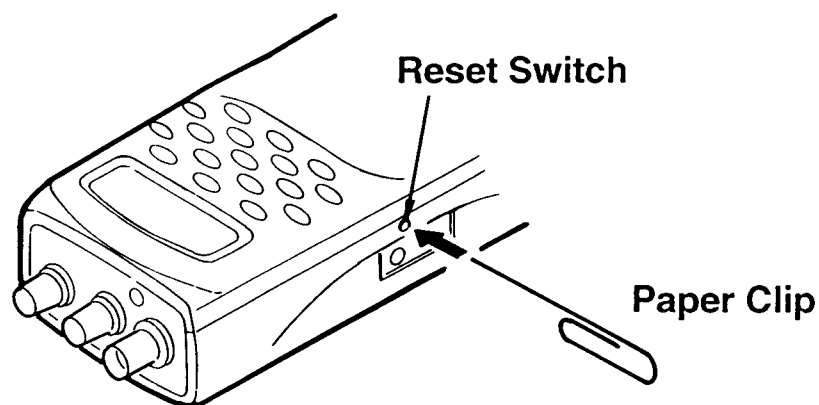
**Note:** The battery holder only fits one way in the compartment.

4. Replace the battery compartment cover.

**Note:** When **B** flashes, immediately replace all six batteries. Or, if you are using rechargeable nickel-cadmium batteries, recharge all six batteries.

## RESETTING/INITIALIZING THE SCANNER

If the scanner's display locks up or does not work properly after you install new batteries or after you connect an external power source, you might have to reset the scanner.



To reset the scanner:

1. Turn on the scanner.
2. Press the reset switch at the right of the **PWR** jack using a pointed object, such as a straightened paper clip. If this is not effective, initialize the scanner as directed below.



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**Caution:** Use this procedure only when you are sure the scanner is not working properly. This procedure clears all information you have programmed into the scanner.

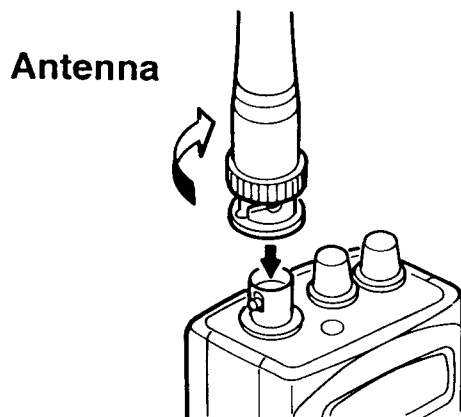
To initialize the scanner:

1. Turn on the scanner.
2. Press and hold **CLEAR** and then press the reset switch at the right of the **PWR** jack using a pointed object, such as a straightened paper clip. Release **CLEAR** after the display reappears.

## CONNECTING THE ANTENNA

Follow these steps to attach the flexible antenna to the **ANT** (antenna) jack on the top of the scanner.

1. Slip the slots in the antenna's connector over the protrusions on the jack.



2. Press down and rotate the base of the antenna until the antenna locks into place.

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## Connecting an Optional Antenna

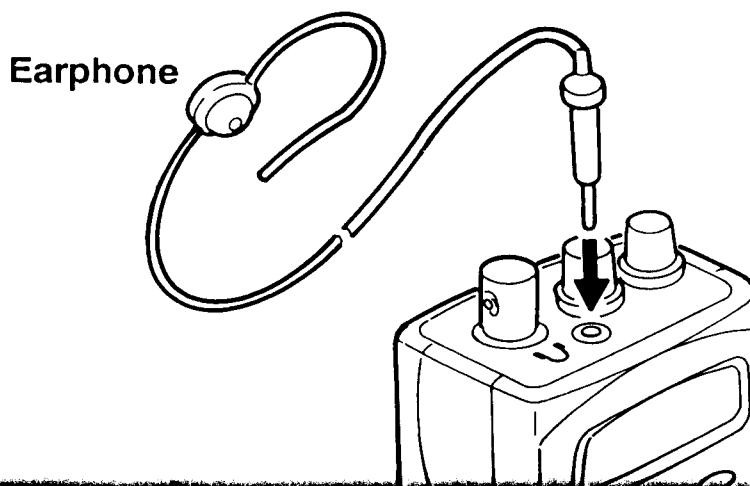
The antenna jack on your scanner makes it easy to use your scanner with a variety of antennas. You can remove the supplied antenna and attach a different one, such as an external mobile antenna, telescoping antenna, or outdoor base antenna.

Use coaxial cable to connect an outdoor antenna. Always use 52-ohm coaxial cable, such as RG-58 or RG-8. For lengths over 15 m (50 feet), use RG-8 low-loss coaxial cable. Radio Shack/Tandy stores sell the antenna connector adapters that let you use these antennas.

**Warning:** When installing or removing an outdoor antenna, use extreme caution. If the antenna starts to fall, let it go! It could contact overhead power lines. If the antenna touches the 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.

## CONNECTING AN EARPHONE

For private listening, plug an earphone into the earphone jack (📞) on the top of your scanner. This automatically disconnects the speaker. We recommend one of our earphone or mono headphones.



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## **Listening Safely**

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.
- Set the volume to its lowest level before you begin listening. After you put on the earphone, adjust the volume to a comfortable listening level.
- Do not increase the volume once you establish a comfortable listening level. Over time, your ears adapt to the volume level, so a volume level that does not cause discomfort might still damage your hearing.

## **Traffic Safety**

Do not wear an earphone or headphones while operating a motor vehicle or riding a bicycle. This can create a traffic hazard and is illegal in some areas.

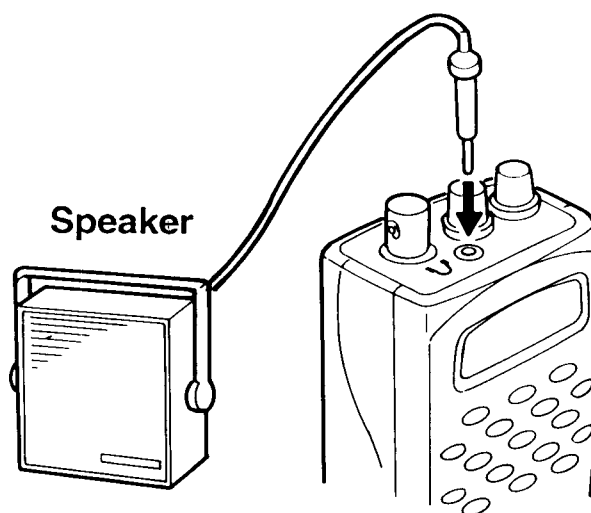
Even though some earphones or headphones are designed to let you hear some outside sounds when listening at normal volume levels, they still present a traffic hazard.

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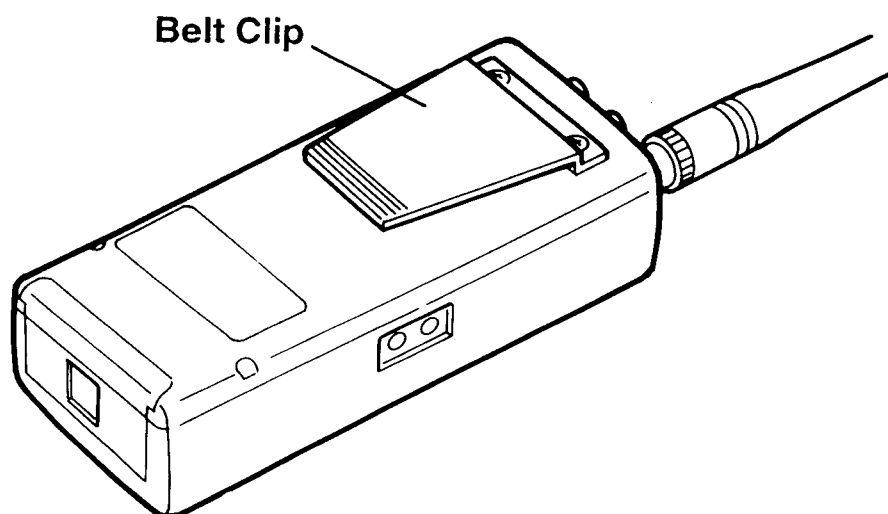
## CONNECTING AN EXTENSION SPEAKER

In a noisy area, an extension speaker (not supplied), positioned in the right place, might provide more comfortable listening. Plug the speaker cable's 3.5mm (1/8-inch) mini-plug into the scanner's earphone jack. You can also use an amplified speaker (not supplied).



## USING THE BELT CLIP

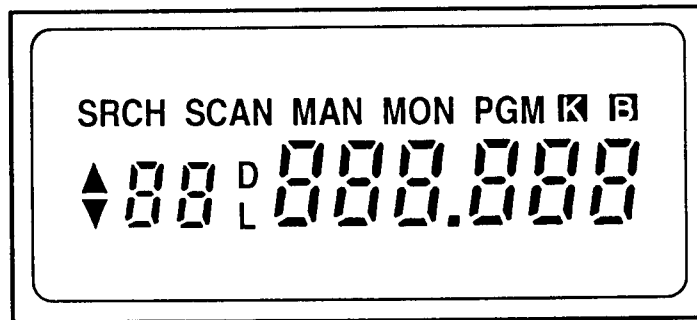
You can use the belt clip to make the scanner easier to use when you are on the go. Slide the belt clip over your belt or waistband.



# UNDERSTANDING YOUR SCANNER

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## A LOOK AT THE DISPLAY



The display has several indicators that show the scanner's current operating mode. A quick look at the display will help you understand how to operate your scanner.

**SRCH** – appears during a frequency search.

▲ and ▼ – indicate the search direction.

**SCAN** – appears when you scan channels.

**MAN** – appears when you manually select a channel.

**MON** – appears when you listen to a monitor memory.

**PGM** – appears when you program frequencies into the scanner's channels.

**K** – flashes when the keypad is locked.

**B** – flashes when the batteries need to be replaced or recharged.

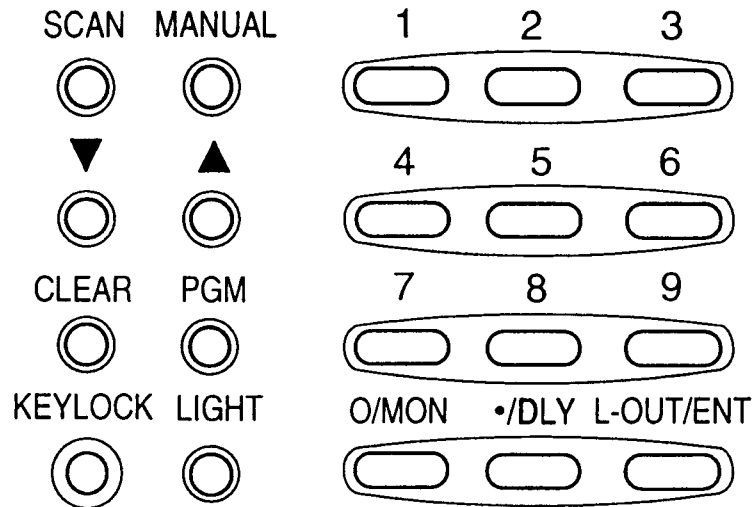
**D** – appears when you program a channel for a two-second delay before scanning or when you listen to a channel that has been programmed with the delay feature. See "Delay."

**L** – appears when you manually select a locked channel. See "Locking Out Channels."

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## A LOOK AT THE KEYBOARD



Your scanner's keys might seem confusing at first, but a quick glance at this page should help you understand each key's function.

**Number Keys** – enter a channel number or a frequency.

**SCAN** – scans through the programmed channels.

**MANUAL** – stops scanning and lets you directly enter a channel number.

▲ or ▼ – select the search direction. See “Searching for and Temporarily Storing Active Frequencies.”

**CLEAR** – clears an incorrect entry.

**PGM** – programs frequencies into channels.

**KEYLOCK** – disables the keypad to prevent accidental program changes. Does not lock out **SCAN**, **LIGHT**, and **MANUAL**.

**LIGHT** – turns on/off the display light.

**0/MON** – enters a zero or accesses the monitor memory.

**•/DLY** – inputs a decimal point when you set a frequency or programs a two-second delay for the selected channel.

**L-OUT/ENT** – turns the lockout function on/off for the selected channel, or enters frequencies into channels.

# OPERATION

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## SETTING VOLUME AND SQUELCH

1. Turn **VOLUME** clockwise and **SQUELCH** counterclockwise until you hear a hissing sound.
2. Adjust **VOLUME** to a comfortable level.
3. Slowly turn **SQUELCH** clockwise until the noise stops.

If the scanner picks up unwanted weak transmissions, rotate **SQUELCH** clockwise to decrease the scanner's sensitivity to these signals.

## USING THE KEYLOCK

Once you program your scanner, you can protect it from accidental program changes by turning on the keylock feature. In this mode, the only controls that operate are **SCAN**, **MANUAL**, **LIGHT**, **VOLUME** and **SQUELCH**.

To turn on the keylock, press **KEYLOCK** until **K** flashes on the display. To turn it off, press **KEYLOCK** so **K** disappears from the display.

## PROGRAMMING THE SCANNER

You can store up to 20 frequencies into your scanner's channels. Follow these steps to store frequencies.

1. Press **MANUAL**. Enter the channel number you want to program.
2. Press **PGM**. **PGM** appears on the display to indicate that the scanner is in the programming mode.
3. Enter a frequency.
4. Press **L-OUT/ENT** to store the frequency.

If you made a mistake in Step 3, **Error** appears on the display. Press **CLEAR** and repeat from Step 2.

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5. If you want the scanner to pause for 2 seconds after each transmission before it proceeds to the next channel, press **•/DLY** until **D** appears on the display. See “Delay.”
  6. Repeat Steps 1-5 to program more channels. Or, if you want to program the next channel in sequence, repeat Steps 2-5.

## **SEARCHING FOR AND TEMPORARILY STORING ACTIVE FREQUENCIES**

If you do not have a reference to frequencies in your area, search to find a transmission. See also “Guide to the Action Bands” in this manual.

1. Press **MANUAL** or **PGM**. Enter the frequency from which you want to start your search.

Or press **MANUAL**, a channel number, and **MANUAL** or **PGM** to select the channel from which you want to start your search.

2. Press **▲** or **▼** to search up or down from the displayed frequency.
3. When the scanner stops on a transmission, press **0/MON** to store the frequency in the monitor memory, or press **▲** or **▼** to continue the search.

**Note:** Press **•/DLY** to make the scanner pause 2 seconds after a transmission before it proceeds to the next frequency.

## **LISTENING TO THE MONITOR MEMORY**

You can listen to the monitor memory by pressing **MANUAL** and then **0/MON**.



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## **MOVING A FREQUENCY FROM THE MONITOR MEMORY TO A CHANNEL**

1. Press **MANUAL**. Enter the channel number into which you want to store the monitor frequency.
2. Press **PGM**.
3. Press **0/MON**. The channel indicator flashes.
4. Press **L-OUT/ENT**. The scanner stores the monitor frequency in the channel, and the channel indicator stops flashing.

## **SCANNING THE CHANNELS**

To begin scanning the channels in your scanner, press **SCAN**. The scanner scans through all non-locked channels. (See "Locking Out Channels.") Set **SQUELCH** so you do not hear the hissing sound between transmissions.

# SPECIAL FEATURES

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## DELAY

Many agencies use a two-way radio system that might have a pause of several seconds between a query and a reply. To program a delay to keep from missing a reply on a specific channel, select the channel and press **•/DLY** so **D** appears on the display. The scanner pauses for two seconds on a channel programmed with a delay.

## MANUALLY SELECTING A CHANNEL

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

To manually select a channel, press **MANUAL**. Enter the channel number and press **MANUAL** again. Or, if the scanner is scanning and stops at the desired channel, press **MANUAL** one time. Pressing **MANUAL** additional times causes your scanner to step through the channels.

## LOCKING OUT CHANNELS

You can increase the scanning speed by locking out channels that you have not yet programmed. Manually select the empty channel and press **L-OUT/ENT** so **L** appears on the display. This is also handy for locking out channels that have a continuous transmission, such as a weather channel. You can still manually select locked-out channels.

To remove the lock-out from a channel, manually select the channel and press **L-OUT/ENT** so **L** disappears from the display.

# GENERAL GUIDE TO SCANNING

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## BIRDIES

Birdies are frequencies your scanner uses when it operates. These operating frequencies might interfere with broadcasts on the same frequencies. If you program one of these frequencies, the scanner locks up and you hear only noise on that frequency.

If the interference is not severe, you might be able to rotate **SQUELCH** clockwise to cut out the birdie. The most common "birdies" to watch for are listed below.

Birdie Frequencies for 20-307:

30.735 MHz	143.430 MHz	384.000 MHz
31.410 MHz	153.600 MHz	422.400 MHz
38.400 MHz	157.165 MHz	435.200 MHz
51.200 MHz	162.200 MHz	448.000 MHz
140.800 MHz	166.400 MHz	512.000 MHz

Birdie Frequencies for 20-9307:

70.715 MHz	153.600 MHz	422.400 MHz
76.800 MHz	153.670 MHz	435.200 MHz
78.295 MHz	157.165 MHz	448.000 MHz
80.815 MHz	162.200 MHz	473.600 MHz
140.800 MHz	166.400 MHz	512.000 MHz
143.430 MHz	396.800 MHz	

## RECEPTION NOTES

Reception of the frequencies covered by your PRO-50 is mainly "line of sight." That means you usually won't be able to hear stations that are located beyond the horizon.

During the summer months, you might be able to hear stations in the 30–50 MHz range located several hundreds or even thousands of miles away. This is due to summer atmospheric conditions. This type of reception is unpredictable, but often very interesting!

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## **GUIDE TO CANADIAN ACTION BANDS (20-307, available in Canada Only)**

With the right frequencies programmed into your PRO-50, you can monitor exciting events. With a little investigation, you can find active frequencies in your community. We can give you some general pointers, and you can take it from there. Please use caution and common sense when you hear an emergency call. Never go to the scene of an emergency. It could be very dangerous.

Find out if there is a local club that monitors your community's frequencies. Perhaps a local electronics repair shop that works on equipment similar to your scanner can give you frequencies used by local radio services.

As a general rule on VHF, most activity is concentrated between 153.785 and 155.98 MHz and then again from 158.73 to 159.46 MHz. Here you find local government, police, fire, and most such emergency services. If you are near a railroad yard or major railroad tracks, look around 160.215 to 161.565 MHz for signals.

In many larger cities, there has been a move to the UHF bands for emergency service. Here, most of the activity is between 453.025 and 453.95 MHz and between 456.025 and 467.925 MHz.

In the UHF band, frequencies between 456.025 and 459.95 MHz and between 465.025 and 469.975 MHz are used by mobile units and control stations associated with base and repeater units that operate 5 MHz lower (that is, 451.025 to 454.95 MHz and 460.025 to 464.975 MHz). This means that if you find an active frequency inside one of these spreads, you can look 5 MHz lower (or higher) to find the base station/repeater for that service.

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One very useful service is the National Weather Service's continuous weather broadcast. These broadcasts contain weather forecasts and data for the area around the station, plus bulletins on any threatening weather conditions. These stations use seven frequencies – 162.400, 162.425, 162.450, 162.475, 162.500, 162.525, or 162.550 MHz. In most areas of the country, you can receive at least one of these frequencies.

Frequencies in different bands are accessible only at specific intervals. In the VHF-Lo, HAM, Government, and VHF-Hi bands, frequencies are available in 5 kHz steps. In all other bands, frequencies are available in 12.5 kHz steps. Your scanner rounds the entered frequency down to the nearest valid frequency. For example, if you try to enter 151.473, the scanner accepts this as 151.470 MHz.

## **IMAGES**

You might discover one of your regular stations on a frequency that is not listed. This could be what is known as an image. For example, if you suddenly find you hear the same broadcasts on 453.5750 as you hear on 474.9750, do a little math to see if it is an image. Take this unit's intermediate frequency of 10.7 MHz and double it. Then, subtract it from the new frequency. If the answer is the regular frequency, you have tuned to an image. Occasionally, you might get interference on a weak or distant channel from a strong broadcast 21.4 MHz ( $10.7 \text{ MHz} \times 2$ ) below or above the tuned frequency. This is rare, and the image signal is usually cleared whenever a broadcast on the actual frequency is in progress.

# USING AN OPTIONAL ADAPTER

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## IMPORTANT INFORMATION ABOUT THE EXTERNAL POWER JACKS

The scanner has two external power jacks—**PWR** and **CHG**. It is important that you understand the purpose of each jack before you connect any adapter to the scanner.

The **PWR** jack powers the scanner and disconnects the internal batteries. You can use this jack with an external power source (AC or DC adapter) regardless of the type of batteries you install.

The **CHG** jack supplies power to operate the scanner and also charges the internal batteries. Use the **CHG** jack only when you install rechargeable nickel-cadmium batteries.

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

## USING AN AC POWER SOURCE

You must use an adapter that supplies 9 volts DC power and delivers at least 300 milliamps. Its center tip must be set to negative, and it must have a plug that properly fits the scanner's **PWR** jack. Using an adapter that does not meet these specifications could damage the scanner or the adapter. Consult with your local Radio Shack/Tandy store for a suitable adapter.

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

When you finish using the AC adapter, disconnect it from the AC outlet first. Then disconnect it from the **PWR** jack.

**Note:** If you have installed rechargeable nickel-cadmium batteries in the scanner, you can connect the AC adapter to the **CHG** jack. This powers the scanner and recharges the batteries at the same time. See "Charging Nickel-Cadmium Batteries."

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## USING A DC ADAPTER

**Note:** Mobile use of a scanner may be unlawful or require a permit in some areas. Check the laws in your area.

You can power the scanner from your vehicle's cigarette lighter socket, provided the vehicle has a 12-volt, negative-ground electrical system. To do so, you need a DC Adapter.

You must use an adapter that supplies 9 volts DC power and delivers at least 300 milliamps. Its center tip must be set to negative, and it must have a plug that properly fits the scanner's **PWR** jack. Using an adapter that does not meet these specifications could damage the scanner or the adapter. Consult with your local Radio Shack/Tandy store for a suitable adapter.

Follow these steps to use a DC adapter.

1. Connect the adapter's barrel plug to the adapter's cable with the tip set to – (negative).
2. Set the adapter's voltage switch to 9V.
3. Insert the barrel plug into the scanner's **PWR** jack.
4. Plug the other end of the adapter into your vehicle's cigarette lighter socket.

When you finish using the DC adapter, disconnect it from the cigarette lighter first. Then disconnect it from the scanner.

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**Notes:**

- If you have installed rechargeable nickel-cadmium batteries in the scanner, you can connect the DC adapter to the **CHG** jack. This powers the scanner and recharges the batteries at the same time. See “Charging Nickel-Cadmium Batteries” and the warning there.
- If the scanner does not operate properly when you use a DC adapter, unplug the adapter from the lighter socket and clean the socket to remove ashes and other debris.

## **CHARGING NICKEL-CADMIUM BATTERIES**

The scanner has a built-in charging circuit that lets you recharge nickel-cadmium batteries while they are in the scanner. To recharge the batteries, simply connect an AC adapter or a DC adapter to the scanner's **CHG** jack.

**Warning:** Do not connect either adapter to the scanner's **CHG** jack if you have installed non-rechargeable batteries (standard, extra-life, or alkaline). Non-rechargeable batteries become hot and can even explode if you try to recharge them.

It takes about 10 to 18 hours to recharge batteries that are fully discharged. You can operate the scanner while recharging nickel-cadmium batteries, but the charging time is lengthened.

**Charging Tip:** Nickel-cadmium batteries last longer and deliver more power if you occasionally let them fully discharge. To do this, simply use the scanner until the low battery indicator appears on the display. Then fully charge the batteries.



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## **NI-CD Battery Disposal**

This product is capable of using rechargeable nickel cadmium batteries. At the end of the batteries' useful life, they must be recycled or disposed of properly. Contact the nearest hazardous waste management authority for information on recycling or disposal programs in your area. Some options that might be available are: municipal curbside collection, drop-off boxes at retailers, recycling collection centers, and mail-back programs.

# TROUBLESHOOTING

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If you have problems with your scanner, here are some suggestions which might help.

Problem	Solution
Scanner is totally inoperative.	Batteries are low or power is not connected.
No or poor reception.	The antenna is not correctly installed. Poor reception environment. Frequencies are not correctly programmed.
<b>Error</b> appears on the display.	Programming error — confirm procedure.
Keyboard does not work.	The keylock function is activated.
Keys do not work or display changes at random.	Reset the scanner. See "Resetting/Initializing the Scanner."
Scanner is on but will not scan.	The <b>SQUELCH</b> control is not correctly adjusted. Adjust the <b>SQUELCH</b> control clockwise.
In the scan mode, the scanner locks on frequencies that have an unclear transmission.	Adjust the squelch control clockwise.
Birdies	Avoid programming frequencies listed on Page 18, or only listen to them manually.

If none of the above suggestions help, take your scanner to your local Radio Shack/Tandy store for assistance.

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Modifying or tampering with your scanner's internal components can invalidate the scanner's warranty and might void the unit's legal certification to operate. If your scanner is not operating as it should, take it to your local Radio Shack/Tandy store for assistance.

# SPECIFICATIONS

Frequency Coverage 20-307 (available in Canada only):	Frequency Coverage 20-9307 (available in Europe/Australia only):
VHF-Lo 30–50 MHz (in 5 kHz steps) Ham 50–54 MHz (in 5 kHz steps) Government 137–144 MHz (in 5 kHz steps) Ham 144–148 MHz (in 5 kHz steps) VHF-Hi 148–174 MHz (in 5 kHz steps) Ham/Government 380–450 MHz (in 12.5 kHz steps) UHF-Lo 450–470 MHz (in 12.5 kHz steps) UHF-Hi 470–512 MHz (in 12.5 kHz steps)	VHF-Lo 68–88 MHz (in 5 kHz steps) VHF 137–144 MHz (in 5 kHz steps) 2m Ham 144–148 MHz (in 5 kHz steps) VHF-Hi 148–174 MHz (in 5 kHz steps) 70cm Ham/UHF-Lo 380–450 MHz (in 12.5 kHz steps) UHF-Lo 450–470 MHz (in 12.5 kHz steps) UHF-Hi 470–512 MHz (in 12.5 kHz steps)

Number of Operation Channels .....20 channels and  
1 monitor channel

Sensitivity (20 dB Signal-to-Noise Ratio):

30–54 (68–88) MHz..... 1  $\mu$ V  
 137–174 MHz ..... 1  $\mu$ V  
 380–512 MHz ..... 1  $\mu$ V

Spurious Rejection:

30–54 (68–88) MHz..... 50 dB at 40 (78) MHz  
 137–174 MHz ..... 50 dB at 154 MHz  
 380–512 MHz ..... Not specified

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Selectivity:  
±10 kHz ..... -6 dB  
±20 kHz ..... -50 dB

IF Interference Ratio:  
10.7 MHz ..... 70 dB at 154 MHz

Scanning Rate ..... 16 channels/sec.  
Search Rate ..... 16 steps/sec.  
Delay Time ..... 2 seconds  
IF Frequencies ..... 10.7 MHz and 455 kHz

Squelch Sensitivity:  
Threshold ..... 1.0 μV  
Tight ..... (S+N)/N 25 dB

Antenna Impedance ..... 50 ohms  
Audio Power (10% THD) ..... 200 mW  
Built-In Speaker ..... 36 m/m (1 3/8") 8 ohm, dynamic type  
Power Requirement ..... +9V DC, 6 AA batteries,  
or a suitable adapter  
(negative ground only)  
Current Drain (Squelched) ..... 65 mA  
Operating Temperature .... -10°C to +60°C (+14°F to +140°F)  
Storage Temperature ..... -20°C to +60°C (-4°F to +140°F)  
Dimensions ..... 160 x 60 x 44 mm (HWD)  
(6 5/16 x 2 3/8 x 1 3/4")  
Weight ..... Approx. 260 g (9.2 oz.)  
without antenna and batteries

# NOTES

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## **InterTAN WARRANTY**

InterTAN warrants that this product will be free from defects in materials and workmanship for a period of one (1) year from the date of purchase. Within this period, simply take the product and your proof of purchase to any InterTAN store or dealer and the product will be repaired without charge for parts and labour. InterTAN reserves the right to charge for transportation. Any product which has been subject to misuse or accidental damage is excluded from this warranty.

This warranty is only applicable to a product purchased through InterTAN's company owned stores and dealers and to a product that is presented for repair in a country where InterTAN offers the product for sale. While this warranty does not confer any legal rights other than those set out above, you may have additional statutory rights which will vary under the laws of the various countries, states, provinces and other governmental entities in which InterTAN operates.

***WE SERVICE WHAT WE SELL***

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Manufactured in China - Imported for/importé pour  
InterTAN Canada Ltd. Barrie, Canada, L4M 4W5  
InterTAN Australia Ltd. A.C.N. 002 511 944  
InterTAN U.K./Belgium/Holland/France  
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