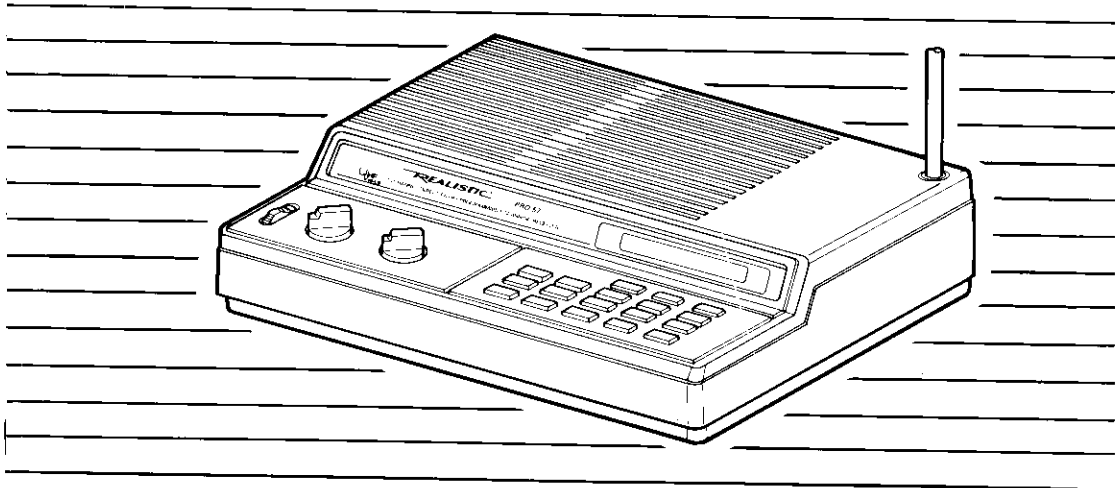


OWNER'S MANUAL

PRO-57 Programmable Scanner

Please read before using this equipment



Cat. No. 20-126

*Trademarks of Tandy Corporation

REALISTIC®*

INTRODUCTION

Your new Realistic® PRO-57 Programmable Scanner lets you in on all the action! The PRO-57 gives you direct access to over 22,000 frequencies in eight action packed radio bands including police, fire, ambulance, ham radio, and transportation services. You select up to ten channels for your PRO-57 to scan through, and you can change your selection at any time. So, get ready for a lot of excitement.

The secret of the PRO-57 is a custom-designed microprocessor (a computer-on-a-chip) that allows you to instantly select any frequency without having to change any crystals. The microprocessor also gives your scanner special functions, such as:

Liquid Crystal Display—shows the channel number and the frequency you have selected, as well as several other special indications.

2-Second Scan Delay—helps to prevent your losing replies on a channel while scanning.

Memory Backup for Channel Entries—keeps the channel frequencies for up to one hour if the PRO-57 is unplugged or if power fails.

Lockout Function—lets the PRO-57 skip over a specified channel(s).

The PRO-57 covers all these bands:

- 30–50 MHz (VHF Lo)
- 50 –54 MHz (ham radio 6m)
- 138–144 MHz
- 144–148 MHz (ham radio 2m)
- 148–174 MHz (VHF Hi)
- 380–450 MHz (ham radio)
- 450–470 MHz (UHF Lo)
- 470–512 MHz (UHF Hi)

For your protection, please record your scanner's serial number in the box below. The serial number is located on the back of the unit.

Serial Number: _____

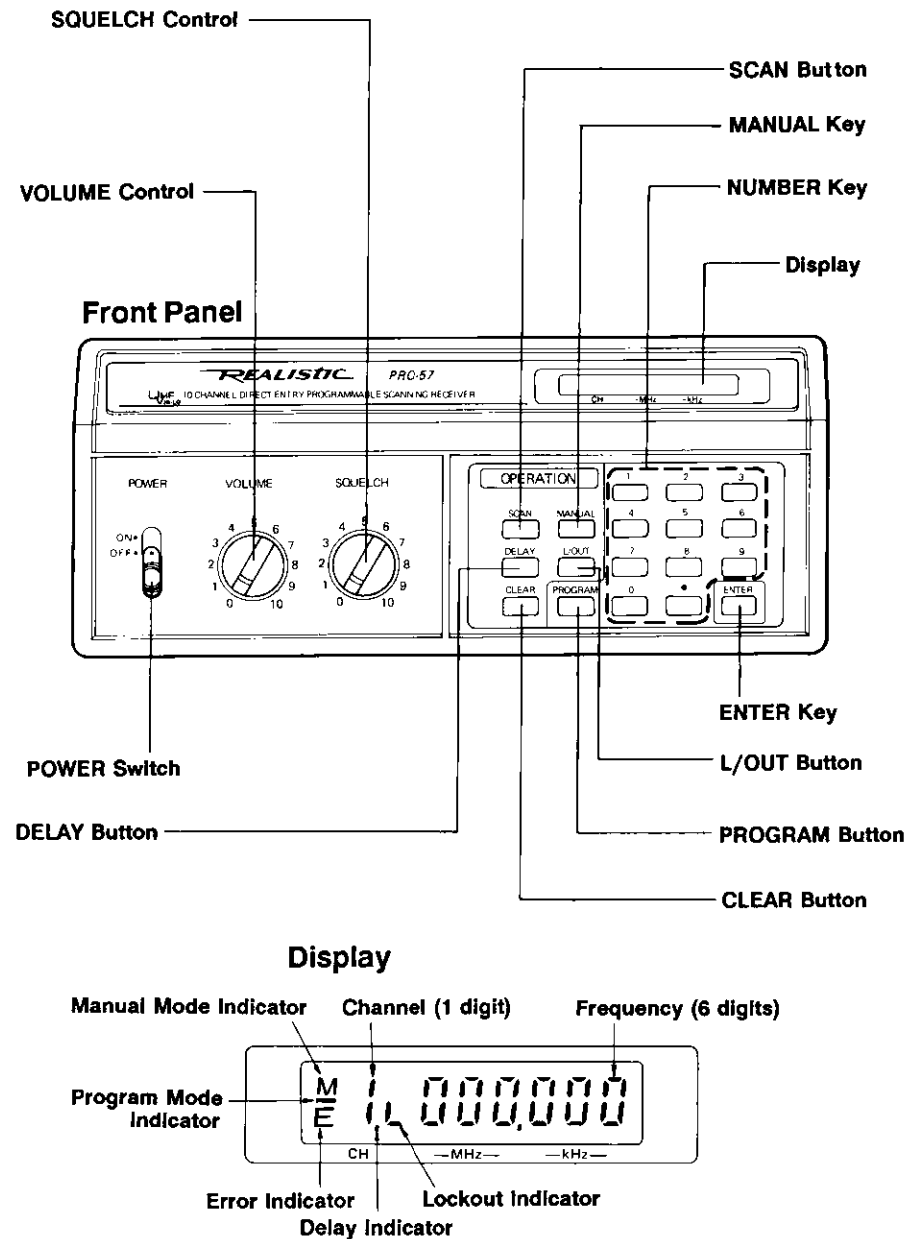
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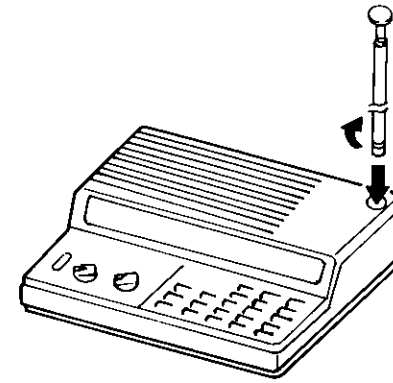
A QUICK LOOK AT YOUR SCANNER



PREPARATION

CONNECTING THE ANTENNA

A telescoping antenna is provided with your scanner. This antenna is adequate for strong local signals. To install it, simply screw it into the hole in the top of the case.

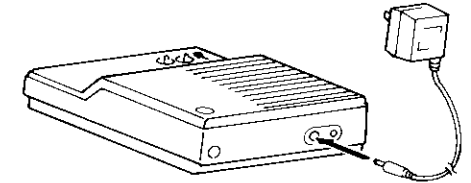


WARNING WARNING WARNING

When installing or removing a base station 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 THE POWER

1. Plug the provided AC adapter's plug into the PRO-57's power jack.
2. Plug the adapter power module into a standard AC outlet.

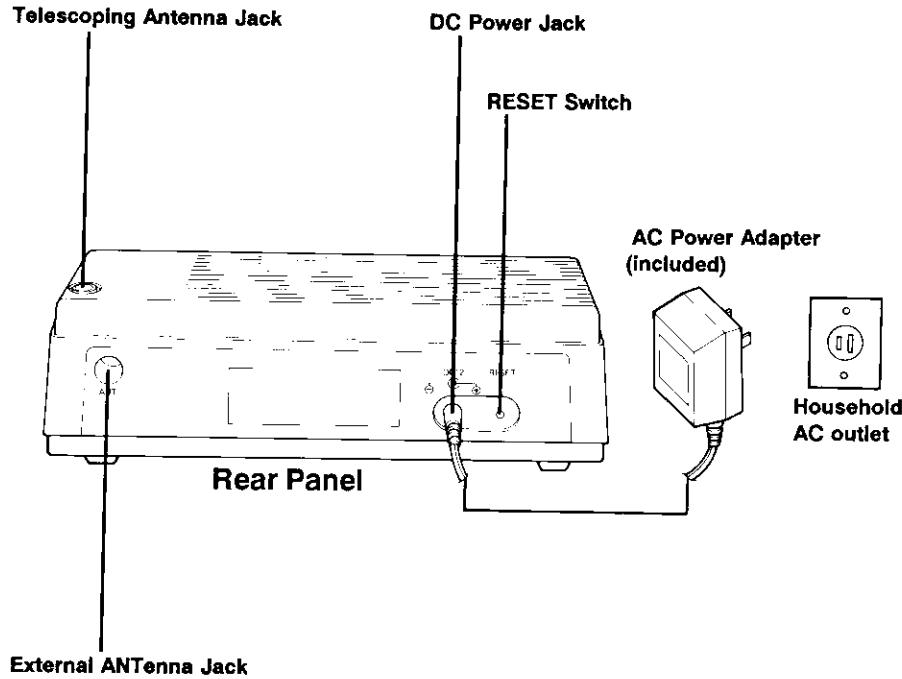


Your scanner gets best reception results when you attach a multi-band outdoor antenna to it. Radio Shack sells a complete line of outdoor scanner antennas. To install an outdoor antenna:

1. Select a location for the outdoor antenna that places it as high as possible.
2. Following the instructions that came with the antenna and its mounting hardware, mount the antenna.
3. Connect the antenna to the scanner using coaxial cable. Always use 50 ohm coaxial cable. For lengths over 50 feet, use RG8 low-loss, dielectric coaxial cable.

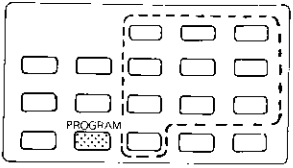
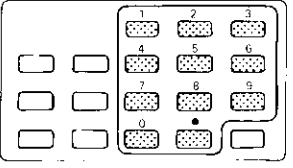
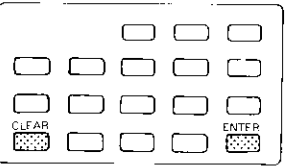
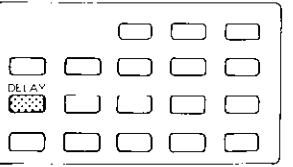
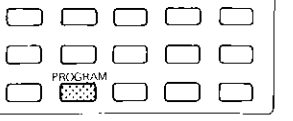
The memory backup circuit becomes functional after a few minutes. In the event of power failure, or if the power cord is disconnected, the circuit holds memory for approximately one hour.

Caution: Use only your PRO-57's AC Adapter. Using a different adapter can damage your PRO-57 and could present a safety hazard.



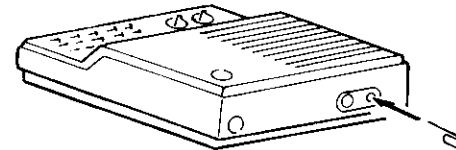
OPERATION

PROGRAMMING THE PRO-57

1	<p>Select a Channel by pressing [PROGRAM].</p> <p>Repeatedly press [PROGRAM] until the channel you wish to program is displayed. The "—" to the left of the channel number indicates the PRO-57 is ready to have a frequency programmed.</p>	
2	<p>Enter a Frequency.</p> <p>Enter a frequency that is active in your area. Also, refer to "A General Guide to Scanning" in this manual.</p>	
3	<p>Press [ENTER].</p> <p>This stores the frequency you entered in Step 2. If you made a mistake in Step 2, the display shows "E" to the left of the channel number. Be sure the frequency you entered is in one of the bands your PRO-57 receives, then press [CLEAR] and proceed again from Step 2.</p>	
4	<p>Press [DELAY].</p> <p>If you want the PRO-57 to pause slightly after each transmission before scanning to the next channel, press [DELAY] so that the dot after the channel number turns on. If you do not want the PRO-57 to pause, press [DELAY] again to turn off the dot.</p>	
5	<p>Press [PROGRAM] to program the next channel.</p> <p>Repeat Steps 2-4 to store additional frequencies (up to 10).</p>	

USING THE RESET SWITCH

The scanner's display might lock up the first time you connect power to it, or if power fails for more than one hour. If this occurs, use a pointed object, like a paper clip, to press the reset switch on the back panel while the power is on. This procedure clears any information you have programmed into the scanner. Use this procedure only when you are sure the unit is not working properly.



SCANNING THE CHANNELS

Once you have stored frequencies into the channels, the PRO-57 can scan through these channels, searching for a transmission. Just press [SCAN]. The PRO-57 quickly scans all of the channels until it tunes a channel that has activity. When the activity stops, the PRO-57 resumes scanning.

Note: If the SQUELCH control is set too low, so that the hissing sound between transmissions is continuously heard, the PRO-57 does not scan.

LOCKING OUT A CHANNEL

If there is a channel you do not wish to monitor, such as a continuously transmitted weather channel, press [MANUAL], the channel number, and then [L/OUT]. The PRO-57 now skips this channel when it is scanning. You can still select this channel manually. (See "Manually Selecting a Channel".)

To disable the lockout function, select the channel and press [L/OUT] a second time.

SETTING THE VOLUME AND SQUELCH

Rotate the VOLUME control clockwise and the SQUELCH control counter-clockwise until you hear a hissing sound. Then, slowly rotate the SQUELCH control clockwise until the noise stops. Leave the VOLUME control set to a comfortable level.

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

MANUALLY SELECTING A CHANNEL

If you want to listen to a single channel without scanning, press [MANUAL], then press the channel number you wish to listen to. The PRO-57 displays an "M" to indicate the manual mode.

A GENERAL GUIDE TO SCANNING

BIRDIES

Birdies are the products of internally generated signals that make some frequencies difficult or impossible to receive. 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 rotate SQUELCH clockwise to cut out the birdie. The most common "birdies" to watch for are listed below.

Birdies Frequencies

Low Band	143.430 MHz
30.730 MHz	143.440 MHz
30.740 MHz	153.595 MHz
32.080 MHz	153.605 MHz
32.105 MHz	153.675 MHz
38.390 MHz	153.685 MHz
38.410 MHz	163.920 MHz
40.975 MHz	163.935 MHz
40.990 MHz	166.395 MHz
44.795 MHz	166.405 MHz
44.805 MHz	
	UHF Band
51.195 MHz	384.000 MHz
51.235 MHz	396.800 MHz
Hi Band	409.600 MHz
140.795 MHz	422.400 MHz
140.805 MHz	435.200 MHz

RECEPTION NOTES

Reception on the frequencies covered by your PRO-57 is mainly "line of sight." That means you usually cannot hear stations at your listening location that are located beyond the horizon.

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

One very useful service is the National Weather Service's continuous weather broadcasts. These broadcasts contain weather forecasts and data for the area around the station, plus bulletins on any threatening weather conditions. These stations use three frequencies—162.40, 162.475, or 162.55 MHz. In most areas of the country, you can receive one of these frequencies.

TROUBLESHOOTING

BEFORE YOU CALL FOR HELP

If you have problems...

We hope you don't—but here are some suggestions.

Unit does not function.

- Check to see that the unit is plugged into a working AC outlet.

No reception/poor reception.

- Antenna is not correctly installed—check connector.
- Environment is not suitable for scanner—relocate unit and try again.
- Frequencies are not properly programmed—check and re-program.

"E" appears on the display.

- Programming error—check frequency and try again.

Frequency not accepted.

- If no error is displayed, you have entered a frequency between the steps. The PRO-57 rounds the frequency down to the next allowed step.

If none of these suggested remedies solves the problem, take your scanner to your nearby Radio Shack for assistance.

CARE AND MAINTENANCE

Your PRO-57 is an example of superior design and craftsmanship. The following suggestions will help you care for the PRO-57 so that you can enjoy it for years.



Keep the PRO-57 dry. If it does get wet, wipe it dry immediately. Liquids can contain minerals that can corrode the electronic circuits.



Handle the PRO-57 gently and carefully. Dropping it can damage circuit boards and cases and can cause the product to work improperly.



Use and store the PRO-57 only in normal temperature environments. High temperatures can shorten the life of electronic devices and distort or melt plastic parts.



Keep the PRO-57 away from dust and dirt, which can cause premature wear of parts.



Wipe the PRO-57 with a dampened cloth occasionally to keep it looking new. Do not use harsh chemicals, cleaning solvents, or strong detergents to clean the PRO-57.

Modifying or tampering with the PRO-57's internal components can cause a malfunction and might invalidate the PRO-57's warranty. If your PRO-57 is not performing as it should, take it to your local Radio Shack store. Our personnel can assist you and arrange for service if needed.

SPECIFICATIONS

FREQUENCY COVERAGE

VHF-Lo

30 - 50 MHz (in 5 kHz steps)

Ham

50 - 54 MHz (in 5 kHz steps)

138 - 144 MHz (in 5 kHz steps)

144 - 148 MHz (in 5 kHz steps)

VHF-Hi

148 - 174 MHz (in 5 kHz steps)

Ham

380 - 450 MHz (in 12.5 kHz steps)

UHF-Lo

450 - 470 MHz (in 12.5 kHz steps)

UHF-Hi("TV")

470 - 512 MHz (in 12.5 kHz steps)

CHANNELS OF OPERATION

Any 10 channels.

SENSITIVITY

20 dB S/N at 3 kHz Deviation:

30 - 54 MHz 1.0 μ V

138 - 174 MHz 1.0 μ V

380 - 512 MHz 1.0 μ V

SPURIOUS REJECTION

30 - 54 MHz 50 dB at 40 MHz

138 - 174 MHz 50 dB at 154 MHz

380 - 512 MHz Not specified.

SELECTIVITY

\pm 10 kHz, -6 dB

\pm 20 kHz, -50 dB

IF REJECTION

10.7 MHz 50 dB at 154 MHz

SCANNING RATE

8 channels/sec.

DELAY TIME

2 seconds

MODULATION ACCEPTANCE

\pm 8 kHz

IF FREQUENCIES

10.7 MHz and 455 kHz

FILTERS:

1 crystal filter, 1 ceramic filter

SQUELCH SENSITIVITY

Threshold Less than 1.0 μ V

Tight (S + N)/N 25 dB

ANTENNA IMPEDANCE

50 ohms

AUDIO POWER

1.0 W maximum

POWER REQUIREMENTS

AC 120 Volts 60 Hz, 8 watts

DIMENSIONS

52 mm 2" x 200 mm 7-7/8" x

175 mm 7" HWD

WEIGHT

650g 24 oz

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4,092,594
4,123,715
4,245,348

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