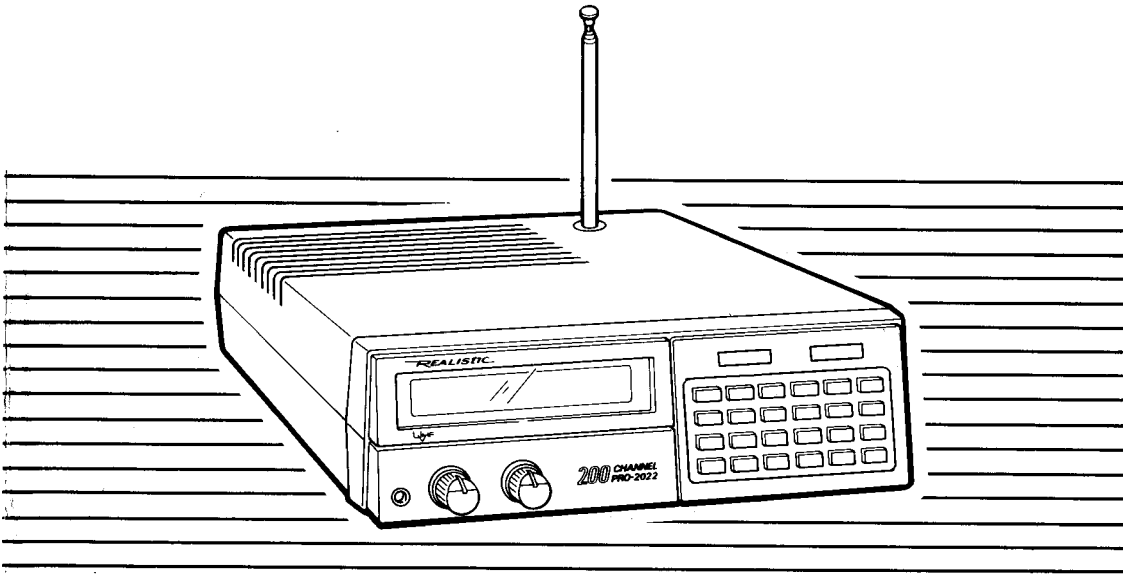
# OWNER'S MANUAL

# PRO-2022

## Desk-Top Programmable Scanner
## Scanner Programmable
## Programmeerbare Zoekontvanger

Please read before using this equipment




20-9127

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REALISTIC®*

# INTRODUCTION

Your new Realistic® PRO-2022 Desk-Top Programmable Scanner lets you in on all the action! The PRO-2022 gives you direct access to over 32,000 frequencies in ten exciting radio bands that include the police department, fire department, ambulance, aircraft, ham radio, and transportation services. You can select up to 200 channels for your scanner to scan and change your channel selection at any time.

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

**Liquid Crystal Display**—shows the channel and frequency you have selected plus several other indicators.

**Two-Second Scan Delay**—helps to prevent the loss of replies on a channel while you are scanning.

**Memory Backup**—keeps the channel frequencies stored in your scanner's memory if a power failure occurs.

**Lock-Out Function**—lets the scanner skip over a specified channel or group of channels.

**Ten Channel-Storage Banks**—allow you to group your stored frequencies so that calls are easier to identify.

**Priority Channel**—helps keep you from missing important calls on a preselected channel.

**Direct Frequency Search**—gives you direct access to every available frequency so that you can find interesting broadcasts.

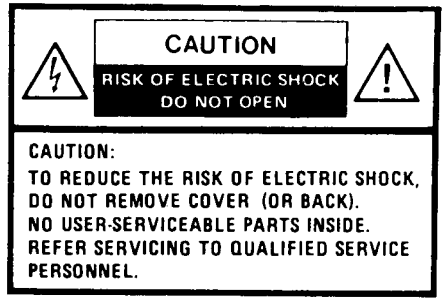
**Monitor Memories**—allow you to store up to ten additional channels your scanner locates during a frequency search.

Your scanner covers all of these bands:

- 68-88 MHz (VHF Lo)
- 108-136 MHz (Aircraft)
- 136.005-144 MHz (VHF Hi)
- 144-148 MHz (Ham Radio 2 Meter)
- 148-174 MHz (VHF Hi)
- 380-450 MHz (UHF Lo)
- 450-470 MHz (UHF Lo)
- 470-512 MHz (UHF Hi)
- 806-960 MHz (UHF Hi)

For your permanent records, please record your scanner's serial number in the space below. You can find the serial number on the back panel.

Serial Number:_____




The lightning flash with the arrowhead within the triangle is to alert the user to dangerous voltage inside this scanner that can cause electrical shock. Do not open the enclosure.

The exclamation point within the triangle is to alert the user to important operating and maintenance instructions inside this owner's manual.

**WARNING: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT OPEN THE BACK COVER. THERE ARE NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.**

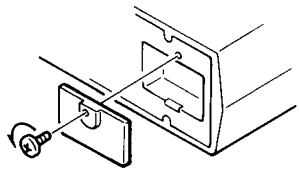
**WARNING: TO PREVENT FIRE OR SHOCK, DO NOT EXPOSE THIS SCANNER TO RAIN OR MOISTURE.**

## CONTENTS

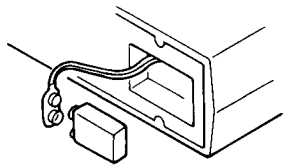
## INSTALLING THE BATTERY

Your scanner uses a 9-volt battery for memory backup. For the longest operation and best performance of your scanner, we recommend an alkaline battery (Tandy Cat. No. 23-553). When household AC power or automobile DC power is off for a prolonged period of time, your battery's power is gradually drained. For the best results, replace the battery every six months.

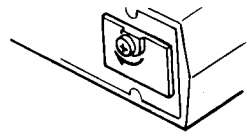
Your scanner beeps and **BATT** flashes on the display when the battery is weak, *dead*, or not installed. When this happens, replace or install the battery immediately.



1. Loosen the battery compartment's screw and remove the cover.



2. Insert a new 9-volt battery.



3. Replace the battery compartment cover.

**Caution:** Your scanner can keep channels stored in its memory for a few minutes even with the AC cord unplugged and the 9-volt battery disconnected. Even so, to prevent the loss of memory information, do not unplug the scanner when you replace or install the battery.

In addition, never leave a weak or *dead* battery in your scanner. Even "leak proof" batteries can leak damaging chemicals.

## POWER SOURCES

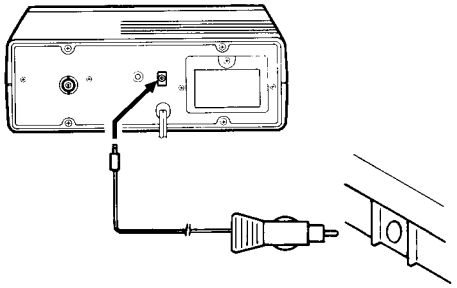
You can power your scanner from the following sources:

- A standard AC outlet
- Your vehicle's battery (using an optional DC power cable)

### Connecting to AC Power

Connect the scanner's AC power cord to a standard AC outlet.

## Connecting to Vehicle Battery Power

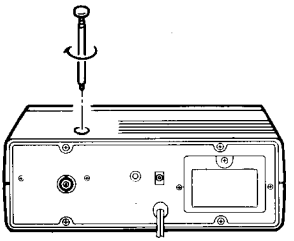


You can power your scanner from your vehicle's cigarette lighter socket, provided the vehicle has a 12-volt, negative-ground system. To use DC power, you need a DC power cable.

Connect the DC power cable's small barrel plug into the DC 13.8V jack on the scanner's back panel. Then, plug the other end of the DC power cable into your vehicle's cigarette lighter socket.

**Note:** Mobile use of scanners might be unlawful or require a special permit in certain areas. Check with your local authorities for current regulations.

## CONNECTING THE ANTENNA



With your scanner, we provided a telescoping antenna capable of receiving strong local signals. To install it, simply screw it into the hole on the top of the scanner.

Antenna length controls the sensitivity of the scanner. Refer to the table below to adjust the length of the antenna to its corresponding frequencies.

| | |
|---|---|
| 68-174 MHz | extend fully |
| 380-512 MHz | extend 3 segments |
| 806-960 MHz | collapse fully (one segment only) |

To achieve better reception, attach a multiband outdoor antenna to your scanner. Tandy stores sell a complete line of multiband outdoor antennas for your specific needs.

**To install an outdoor antenna:**

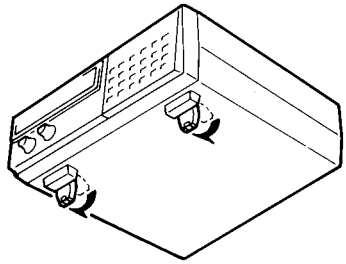
1. Select the highest possible location for the antenna.
2. Mount the antenna, using the instructions that come with the antenna and its mounting hardware.
3. Connect the antenna to the scanner, using 50-ohm coaxial cable (RG 58 or RG 8). For lengths over 15m (50 feet), we recommend that you use RG 8 low-loss, coaxial cable.

You can increase your multiband antenna's effectiveness by connecting a multiband antenna amplifier to the antenna.

You can find the appropriate amplifier at your local Tandy store.

**WARNING: When installing or removing an outdoor antenna, use extreme caution. If the antenna starts to fall, let it go! It could contact power lines. Touching the antenna, mast, cable, or guy wires when the antenna contacts a power line could cause electrocution! Call the power company to remove the antenna. Do not attempt to remove it yourself.**

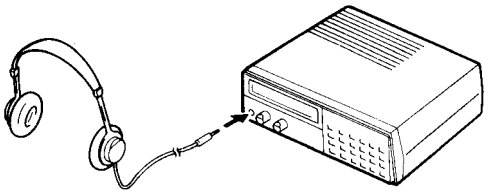
## USING THE FOLDING FEET



Your scanner's front feet are the folding type. Use them to elevate the front of your scanner for easier viewing of the keyboard and display.

## CONNECTING HEADPHONES

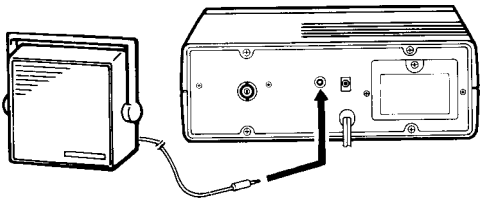
You can connect headphones to your scanner to listen privately or in a noisy environment. We recommend a mono headset, available at your local Tandy store.



1. Turn the volume control fully counterclockwise.
2. Plug the headphones into the headphone jack on the front of your scanner and put on the headphones.
3. Set the volume control to a comfortable listening level.

You automatically disconnect the internal speaker when you plug in the headphones.

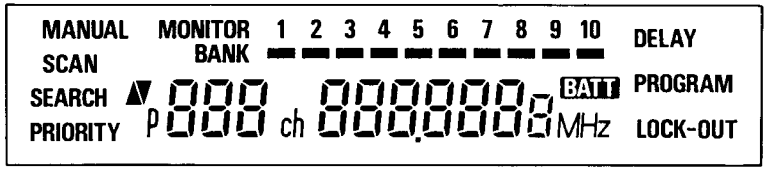
## CONNECTING AN EXTENSION SPEAKER



For noisy environments, you can also use an extension speaker, available at all Tandy stores, to provide more comfortable listening. Plug the speaker cable's 3.5mm (1/8-inch) mini-plug into the EXT SPKR jack located on the back of your scanner.

# UNDERSTANDING YOUR SCANNER

## A LOOK AT THE DISPLAY




The display has several abbreviated indicators that show the scanner's current operating mode.

The above illustration shows your scanner's display with all of the indicators lighted. The following is a brief explanation of the indicators.

**BANK**—bars to the right of this indicator show which memory banks are on in the scan mode. See "Understanding Channel-Storage Banks and Search Banks."

**ch**—digits preceding this indicator show the current channel.

**MHz**—digits preceding this indicator show which frequency you tuned the current channel to.

Numbers **1-10**—represent the ten memory banks and the ten monitor memories.

**SCAN**—appears when the scanner is in the scan mode.

**DELAY**—appears when the scanner is on a channel that you have programmed with the delay feature. See "Using the Delay Feature."

**LOCK-OUT**—appears when you lock a channel out of the scan mode. See "Locking Out Channels."

**MANUAL**—appears when the scanner is in the manual channel-selection mode.

**MONITOR**—appears when the scanner is in the monitor mode. See "Moving a Frequency from a Monitor Memory to a Channel."

**PRIORITY**—appears when you turn on the priority channel feature. See "Using the Priority Feature."

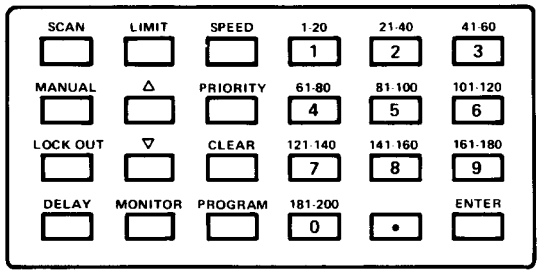
**PROGRAM**—appears when the scanner is ready for you to program. See "Programming the Scanner."

**BATT**—flashes when you need to install or replace the battery.

**P**—appears when you tune to a priority channel.

**SEARCH**—appears along with **-L-** during a limit search or **-d-** during a direct frequency search. The scanner also displays ▲ or ▼ to show the direction of the search. See "Searching for Active Frequencies."

## A LOOK AT THE KEYBOARD




The keys on your scanner might be confusing at first, but a quick glance at this page should help you understand each key's function.

**Number Keys**—each key has a single-digit label and a range of numbers printed above it. The single digits refer to the number of a channel or frequency entered. The range of numbers (21-40, for example) shows the channels that make up a memory bank. See "Understanding Channel-Storage Banks and Search Banks."

**SCAN**—allows your scanner to scan through the channels you programmed.

**MANUAL**—stops the scanning and allows you to directly enter a channel number.

**CLEAR**—clears an incorrect entry.

**LOCK-OUT**—turns on the lock-out function. See "Locking Out Channels."

**DELAY**—turns the delay feature on or off for the current channel. See "Using the Delay Feature."

**SPEED**—changes the scanning and search speed.

**MONITOR**—accesses the monitor memories. See "Moving a Frequency from a Monitor Memory to a Channel."

**PRIORITY**—selects the priority channel.

**PROGRAM**—programs frequencies into channels.

**ENTER**—enters the frequency when you program channels.

**LIMIT**, ▲, and ▼—search for active frequencies within a specified range. See "Searching for Active Frequencies."

## UNDERSTANDING CHANNEL-STORAGE BANKS AND SEARCH BANKS

Your scanner can store up to 210 frequencies. You store each frequency in either a permanent memory, called a *channel*, or a temporary memory, called a *monitor memory*. The scanner has 200 available channels and 10 monitor memories.

To make it easier to identify and select the channels you want to listen to, the 200 available channels are divided into 10 groups, each of which contains 20 channels. These channels are represented by labels located above the single-digit number keys on your keyboard. Each group of channels is called a *bank*.

Perhaps the best way to explain the use of memory banks is through a practical example.

Suppose you want to monitor four different agencies: the police department, fire department, ambulance service, and airport. As a rule, each agency has several different frequencies they use for different purposes.

For example, the police department might have four frequencies—one for each part of town. To make it easier to quickly determine which agency you are listening to, you could program the police department frequencies starting with Channel 1 (Bank 1).

Then, start the fire department frequencies with Channel 21 (Bank 2), the ambulance service on Channel 41 (Bank 3), and the airport frequencies on Channel 61 (Bank 4).

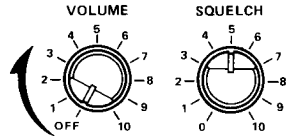
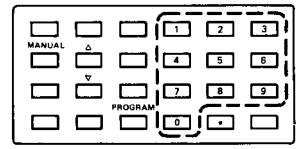
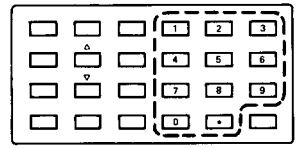
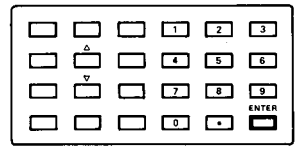
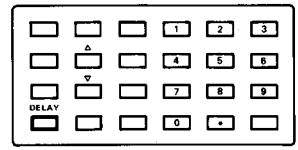
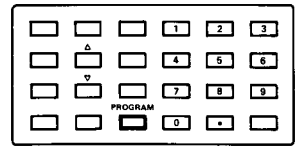
Now, when you want to listen to only fire department calls, it is simple to turn off Banks 1, and 3 through 10 so that you only scan Bank 2. You can also use this feature to group the channels by city or region. See "Programming the Scanner."

Your scanner also has ten monitor memories. Use these to quickly store frequencies. Then, if you decide to, you can move the frequencies to permanent channels later. See "Searching for Active Frequencies" and "Moving a Frequency from a Monitor Memory to a Channel."

When you are in the monitor memory mode, the ten numbers at the top of the display represent the ten monitor memories. The number with the bar under it shows the current monitor memory.

## PROGRAMMING THE SCANNER

Refer to "Searching for Active Frequencies" in this manual.

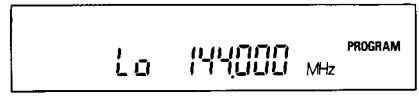
| | | |
|---|---|---|
| 1. | Turn the VOLUME control clockwise to turn on the scanner. |   |
| 2. | Press [MANUAL], enter the channel number you want to program, and then press [PROGRAM]. **PROGRAM** appears on the display and shows that your scanner is in the programming mode. |   |
| 3. | Enter a frequency. |  |
| 4. | Press [ENTER] to store the frequency. If you made a mistake in Step 3, **Error** appears on the display and three beeps sound. Proceed again from Step 3. |   |
| 5. | If you want your scanner to pause after each transmission before scanning to the next channel, press [DELAY] until **DELAY** appears on the display. See "Using the Delay Feature." |   |
| 6. | To program more channels, repeat Steps 2-4. If you want to program the next channel in sequence, simply press [PROGRAM] and repeat Steps 3-4. |   |

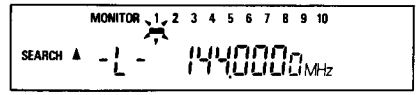
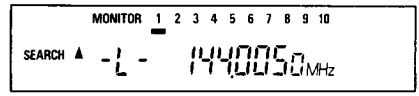
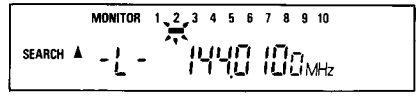
## SEARCHING FOR ACTIVE FREQUENCIES

Use the following two procedures to search for a transmission. These procedures are helpful if you do not have a reference to frequencies in your area. Also see "Guide to the Action Bands."

### Limited Frequency Search

The limited frequency search procedure allows you to search within a specific range of frequencies. Your scanner displays **-L-** during a limited frequency search.

| | | |
|---|---|---|
| 1. | Press [PROGRAM]. |  |
| 2. | Press [LIMIT]. |  |
| 3. | Enter the lower limit of the frequency range. |  |
| 4. | Press [ENTER], and then press [LIMIT]. |  |
| 5. | Enter the upper limit of the frequency range. |  |

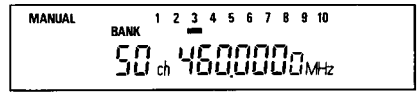
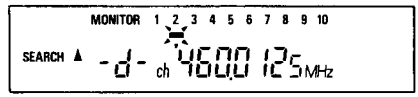
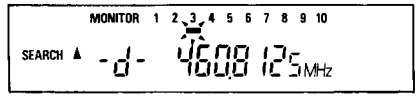
| | | |
|---|---|---|
| 6. | Press [ENTER]. |   |
| 7. | Press [▼] to search from the upper limit down to the lower limit. Or, press [▲] to search upward starting from the lower limit. |   |
| 8. | When the scanner stops on a transmission, press [MONITOR] to store the frequency in the current monitor memory. The bar under the memory number stops flashing. |   |
| 9. | To continue the search, press [▼] or [▲]. |   |

**Notes:**

- Press [SPEED] to speed up or slow down the search.
- Press [DELAY] until **DELAY** appears, to make the scanner pause 2 seconds after a transmission before proceeding to the next frequency. See "Using the Delay Feature."

## Direct Frequency Search

When you are in the program or manual listening mode, you can search up or down from the current frequency. Your scanner shows **-d-** on the display during a direct frequency search.

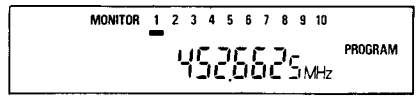
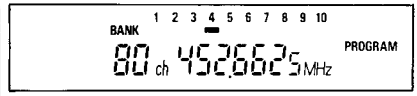
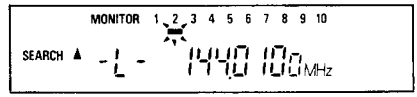
| | | |
|---|---|---|
| 1. | Select a programmed channel by pressing [MANUAL], the channel number, and then either [MANUAL] or [PROGRAM]. |  |
| 2. | Press [▲] to search through higher frequencies or [▼] to search through lower frequencies. |  |
| 3. | When the scanner stops on a frequency, you can store it in a monitor memory by pressing [MONITOR]. The bar under the memory number stops flashing. |  |
| 4. | To continue the search, press [▲] or [▼]. |  |

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

In the monitor mode, the bar under the memory number shows the current monitor memory. To listen to monitor memories, press [MANUAL], and then press [MONITOR] to put the scanner in the monitor mode.

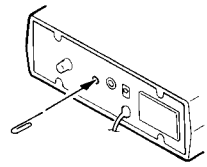
Press the number of the monitor memory you want to listen to, or press [MONITOR] to advance to the next adjacent monitor memory.

To move a frequency from a monitor memory to a channel:

| | | |
|---|---|---|
| 1. | Press [MANUAL], the channel number, and then [PROGRAM]. |  |
| 2. | Press [MONITOR]. Then, press the monitor memory number you want to move. |  |
| 3. | Press [ENTER]. The frequency is stored in the specified channel. |  |
| 4. | If you want to return to a limited frequency search after this procedure, press [LIMIT], followed by either [▲] or [▼] . |  |

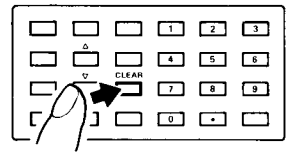
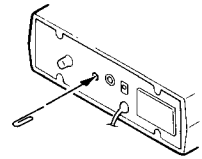
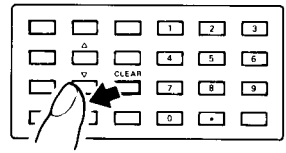
## USING THE RESET BUTTON

The scanner's display might lock up the first time you plug in and turn on your scanner or if the battery is removed for an extended period of time. If the display locks up, use a pointed object, such as a paper clip, to press and release the recessed RESET button (on the back panel) while the power is on.



## CLEARING THE SCANNER'S MEMORIES

To clear all the memories, be sure the scanner is on and do the following:

| | | |
|---|---|---|
| 1. | Press and hold [CLEAR]. |   |
| 2. | Using a pointed object, press the RESET button. |  |
| 3. | After confirming that the display goes blank, release [CLEAR]. |   |

## SETTING THE VOLUME AND SQUELCH

Use the SQUELCH control to decrease the scanner's sensitivity to weak signals. This allows the scanner to receive only the strongest transmissions.

1. Turn the SQUELCH and VOLUME controls fully counterclockwise.
2. Turn the VOLUME control clockwise until you hear a hissing sound.
3. Slowly turn the SQUELCH control clockwise until the hissing stops.

## SCANNING THE CHANNELS

To begin scanning the channels, press [SCAN]. Your scanner scans through all the channels (except the ones you have locked out) that are contained in the activated banks. Be sure to read the following sections to get the full benefit from the special features of your scanner.

## USING THE DELAY FEATURE

Many agencies use a two-way radio system that might have a period of two or more seconds between a query and a reply. To keep from missing a reply, program a delay on the channels you identify as operating this way.

To program a delay, select the channel and press [DELAY] so that **DELAY** appears on the display. Now when your scanner scans through channels, it pauses for two seconds after the completion of each transmission on that channel before it resumes scanning.

Some radio systems that operate at 800 MHz and above use a special "trunked" system. In this system, the transmitter selects an available frequency each time the operator keys the radio. Therefore, it is possible for the query to be on one frequency and the reply on another. To increase the possibility of hearing the full reply, the scanner begins scanning immediately when the first transmission ends.

For immediate scanning, select the channel and be sure that **DELAY** is not on the display. If **DELAY** appears on the display, press [DELAY] to turn it off for that channel.

## SETTING THE SCANNING SPEED

Your scanner has two different scanning speeds—4 channels per second and 8 channels per second. To switch between the two scanning speeds, press [SPEED] during scanning.

## LOCKING OUT CHANNELS

You can make your scanner scan more efficiently by locking out channels that you have not programmed. Manually select the channel and press [LOCK OUT] so that **LOCK-OUT** 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 for listening.

To disable the lock-out function, manually select the channel and press [LOCK OUT] so that **LOCK-OUT** disappears from the display.

**Note:** You can lock out all but one channel in each bank.

## TURNING THE BANKS ON AND OFF

To turn banks on and off, you must be in the scan mode.

Press [SCAN].

To turn on a bank, press the number key that corresponds to that bank until the bank indicator (a small bar) appears under the bank number.

The scanner scans all the channels within that bank (except the ones that you have locked out).

To turn off a bank, press the number key that corresponds to that bank until the bank indicator disappears from under the bank number.

The scanner does not scan any of the channels within that bank, though you can still manually select any channel in that bank.

**Note**: You can turn all but one bank off.

## USING THE PRIORITY FEATURE

To program a priority channel, press [PROGRAM], the desired channel number, and then [PRIORITY].

The priority indicator **P** appears on the display to show that you set the scanner to the priority channel. The scanner now checks the priority channel every two seconds, and stays on the channel if there is any activity.

You can only program one channel as the priority channel. When you program a new channel as the priority channel, you clear the previous channel you chose.

**Note:** Channel 1 is automatically designated as the priority channel the first time you turn on your scanner.

## MANUALLY SELECTING A CHANNEL

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

To select a channel to monitor, press [MANUAL], enter the channel number, and then press [MANUAL] again. Or, if your scanner is scanning and has stopped at the desired channel, simply press [MANUAL] one time. Pressing [MANUAL] additional times causes your scanner to step through the channels one at a time.

# 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 turn the SQUELCH control clockwise to cut out the birdie. The most common birdies to watch for are listed below.

### Birdie Frequencies

70.400 MHz
76.800 MHz
108.800 MHz
112.700 MHz
115.200 MHz
118.300 MHz
119.300 MHz
121.600 MHz
128.000 MHz
134.400 MHz
140.800 MHz
154.740 MHz
158.750 MHz
162.770 MHz
512.000 MHz

## RECEPTION NOTES

Reception of the frequencies covered by your scanner is mainly "line of sight." That means you usually cannot hear stations at your listening location that extend beyond the horizon.

During the summer months, you might be able to hear stations in the 68-88 MHz range located several hundred or even thousands of miles away. This is because of summer atmospheric conditions. This type of reception is unpredictable but often very interesting!

## GUIDE TO THE ACTION BANDS

With a little investigation, you can find the active frequencies in your community to monitor exciting events. We can give you some general pointers on finding these frequencies 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 channel frequencies used by local radio services. A volunteer police department or fire department employee can also be a good source for this information.

In the UHF band, mobile and control units associated with base and repeater units operate between the frequencies of 456.025 and 459.95 and again between 465.025 and 469.975. The repeater units operate 5 MHz lower than the base units (that is, 451.025-454.95 and 460.025-464.975 MHz). This means that if you find an active frequency inside one of these spreads, you can look 5 MHz lower (or higher, as the case may be) to find that radio service.

A system called *trunked* radio allows the use of the 800 MHz band for many services. See "Using the Delay Feature."

Frequencies in different bands are accessible only at specific intervals. However, the frequencies that you can store into your scanner's memory are in 5, 12.5, or 25 kHz steps. Your scanner automatically rounds the entered frequency down to the nearest valid frequency. For example, if you try to enter a frequency of 151.473, your scanner accepts it as 151.470.

# TROUBLESHOOTING

## BEFORE YOU CALL FOR HELP

A 9-volt battery helps keep you from losing the frequencies stored in the scanner's memory when AC or DC power is interrupted. We recommend the alkaline type (Tandy Cat. No. 23-553).

For the best performance, you should replace the battery every 6 months.

## IF YOU HAVE PROBLEMS...

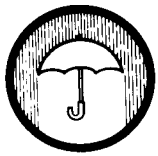
Here are some suggestions which might help.

| PROBLEM | POSSIBLE CAUSE | REMEDY |
|---|---|---|
| Scanner is totally inoperative. | No power. | Check to see that you plugged the scanner into a working AC outlet or DC power source. |
| Scanner is on but will not scan. | The SQUELCH control is not correctly adjusted. | Adjust the SQUELCH control clockwise. |
| In the scan mode, the scanner locks on frequencies that have an unclear transmission. | "Birdies" | Avoid programming frequencies listed on Page 20, or only listen to them manually. |
| The keys are inoperative or the LCD display is random. | The CPU is locked up. | Using a paper clip, press the RESET button on the scanner's back panel. |

If none of these suggested remedies solves the problem, return your scanner to your local Tandy store for assistance.

# CARE AND MAINTENANCE

Your Realistic PRO-2022 desk-top programmable scanner is an example of superior design and craftmanship. The following suggestions will help you care for the PRO-2022 so that you can enjoy it for years.



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

Use only fresh batteries of the recommended size and type. Always remove old or weak batteries. They can leak chemicals that destroy electronic circuits.

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

Use and store the scanner only in normal temperature environments. Extreme temperatures can shorten the life of electronic devices, damage batteries, and destort or melt plastic parts.

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

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

Modifying or tampering with the scanner's internal components can cause a malfunction and might invalidate the scanner's warranty. If your scanner is not operating as it should, take it to your local Tandy store for assistance.

# SPECIFICATIONS

**Frequency Coverage:**

| | |
|---|---|
| VHF-Lo | 68-88 MHz (in 5 kHz steps) |
| Aircraft | 108-136 MHz (in 25 kHz steps) |
| VHF-Hi | 136.005-144 MHz (in 5 kHz steps) |
| Ham | 144-148 MHz (in 5 kHz steps) |
| VHF-Hi | 148-174 MHz (in 5 kHz steps) |
| 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) |
| UHF-Hi | 806-960 MHz (in 12.5 kHz steps) |
| Channels of Operation | Any 200 channels in any band combinations (20 channels x 10 banks) and 10 monitor channels |

**Sensitivity:** (20dB S/N with 60% modulation)

| | |
|---|---|
| 68-88 MHz | 0.5 $\mu$V |
| 108-136 MHz | 2.0 $\mu$V |
| 136.005-174 MHz | 1.0 $\mu$V |
| 380-512 MHz | 1.0 $\mu$V |
| 806-960 MHz | 2.0 $\mu$V |

**Spurious Rejection:**

| | |
|---|---|
| 68-88 MHz | 50 dB at 78 MHz |
| 108-136 MHz | 50 dB at 124 MHz |
| 136.005-174 MHz | 50 dB at 154 MHz |
| 380-512 MHz | Not Specified |
| 806-960 MHz | Not Specified |

**Selectivity:**

| | |
|---|---|
| ± 9 kHz | –6 dB |
| ± 15 kHz | –50 dB |

**IF Rejection:**

| | |
|---|---|
| 10.7 MHz | 70 dB at 154 MHz |

**Scanning Rate:**

| | |
|---|---|
| Fast | 8 Channels/Sec. |
| Slow | 4 Channels/Sec. |

**Search:**

| | |
|---|---|
| Fast | 16 Steps/Sec. |
| Slow | 8 Steps/Sec. |
| Priority Sampling | 2 Seconds |
| Delay Time | 2 Seconds |
| Modulation Acceptance | ± 8 kHz |
| IF Frequencies | 10.7 MHz and 455 kHz |
| Filters | 1 Crystal Filter, 1 Ceramic Filter |

**Squelch Sensitivity:**

| | |
|---|---|
| Threshold | Less than 1.0μV |

**Tight:**

| | |
|---|---|
| VHF Lo, Hi, UHF | (S + N)/N 25 dB |
| Aircraft | (S + N)/N 20 dB |
| Antenna Impedence | 50 Ohms |
| Audio Power | 1.2 W Maximum |
| Built-In Speaker | 3" (77 mm) 8 Ohm, Dynamic Type |
| Power Requirement | AC 220-240 Volts, 50 Hz, 15 Watts or DC 13.8 Volts, 8 Watts |
| Dimensions | 2 7/8" x 8 5/8" x 8 1/4" HWD (75 mm x 220 mm x 210 mm) |
| Weight | 3 Lbs. 10 Oz. (1650 g) |

# NOTES

# NOTES

## INTERTAN WARRANTY

INTERTAN warrants that this product will be free from defects for a period of **one (1) year** from the date of its purchase from any of INTERTAN's company owned stores and authorized dealers. Within this period, the product will be repaired without charge for parts and labour. There may be a slight charge for transportation. **Simply bring in your proof of purchase** to any of INTERTAN's stores or dealers. Any product which has been subjected to misuse or accidental damage is excluded from this warranty.

Except as stated above, INTERTAN makes no promises or warranties either expressed or implied including warranties of merchandability or that the product is fit for any particular purpose.

This warranty is only applicable to products purchased through INTERTAN's company owned stores and dealers that operate in the country where the products are offered for sale. The warranty gives you specific legal rights and you may have other rights which will vary under the laws of the various countries, states, provinces, etc., in which INTERTAN operates.

***WE SERVICE WHAT WE SELL!***

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| **AUSTRALIA** | INTERTAN AUSTRALIA LIMITED (INC. IN N.S.W.)<br>91 KURRAJONG AVE., MT. DRUITT, 2770 |
| **BELGIUM** | RUE DES PIEDS D'ALOUETTE 39, 5140 NANINNE |
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