

RadioShack LOGO

PRO-2018

200 Channel Desktop Scanner

Owner's Manual

Please read before using this equipment

## The FCC Want You to Know

This equipment has been tested and found to comply with the limits for a scanning receiver pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

**Note:** Mobile use of this scanner is unlawful or requires a permit in some areas. Check the laws in your area.

**WARNING:** To reduce the risk of fire or shock hazard, do not expose this product to rain or moisture.

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## FEATURES

Your RadioShack 200-Channel VHF/AIR/UHF Desktop Scanner lets you in on all the action! This scanner gives you direct access to over 25,000 frequencies, including those used by police and fire departments, ambulance services, government agencies, air, and amateur radio services. You can select up to 200 channels to scan, and you can change your selection at any time.

The secret to your scanner's ability to scan so many frequencies is its built-in microprocessor. Your scanner also has these special features:

**One Touch Search Banks** – let you search preset frequencies in separate ham radio, police/fire/emergency, aircraft, weather, and marine banks, to make it easy to locate specific types of calls.

**Two-Second Scan Delay** – delays scanning for 2 seconds before moving to another channel, so you can hear more replies.

**Ten Channel-Storage Banks** – let you store up to 20 channels in each of 10 different banks, to group channels so you can more easily identify calls.

**Memory Backup** – keeps the channel frequencies stored in memory for about 1 hour during a power loss.

**HyperSearch TM and HyperScan TM** – let you set the scanner to search at up to 50 steps per

second and to scan at up to 25 channel per second, to help quickly find interesting transmissions.

**Duplicate Frequency Check** – automatically notifies you if you are about to store a frequency you have already stored, to help avoid wasting storage space.

**Tune** – lets you search for new and unlisted frequencies starting from a specified frequency.

**Priority Channel** – lets you program a frequency in the priority channel to be scanned every 2 seconds so you do not miss important calls.

**Weather Alert** – automatically sounds the alarm tone to advise of hazardous weather conditions when the scanner detects an alert signal on the local NOAA weather channel.

**Lock-Out Function** – lets you set your scanner to skip over specified channels or frequencies when scanning or searching.

**Liquid Crystal Display** – makes it easy to view and change programming information at any time.

**Display Backlight** – makes the scanner easy to read in low light situations.

**Supplied Telescoping Antenna** – lets the scanner receive strong local signals.

**External Antenna Terminal** – lets you connect an external antenna (not supplied) to the scanner.

Your scanner can receive these bands:

Frequency Range (MHz)	Type of Transmissions
29-54	10-Meter Ham Band, VHF Lo, 6-Meter Ham Band
108-136.9875	Aircraft
137-174	Military Land Mobile, 2-Meter Ham Band, VHF Hi
380-512 MHz	UHF Aircraft, FGovernment, 70-cm Ham Band, UHF Standard Band, UHF "T" Band

## SCANNING LEGALLY

Scanning is a fun and interesting hobby. You can hear police and fire departments, ambulance services, government agencies, private companies, amateur radio services, aircraft, and military operations. It is legal to listen to almost every transmission your scanner can receive. However, there are some electronic and wire communications that are illegal to intentionally intercept.

These include:

- telephone conversations (cellular, cordless, or other private means of telephone signal transmission)
- pager transmissions
- any scrambled or encrypted transmissions

According to the Federal Electronic Communications Privacy Act (ECPA), and amended, you could

be fined and possibly imprisoned for intentionally listening to, using, or disclosing the contents of such a transmission unless you have the consent of a party to the communication (unless such activity is otherwise illegal). These laws change from time to time and there might be state or local laws that also affect legal scanner usage.

## PREPARATION

### POWER SOURCES USING AC POWER

You can power the scanner using the supplied 12V, 300mA AC adapter.

**Cautions:**

! You must use a Class 2 power source that supplies 12V DC and delivers at least 300 mA. Its center tip must be set to positive and its plug must fit the scanner's DC 12V jack. The supplied adapter meets these specifications. Using an adapter that does not meet these specifications could damage the scanner or the adapter.

- Always connect the AC power to the scanner before you connect it to the scanner before you connect it to AC power. When you finish, disconnect the adapter from AC power before you disconnect it from the scanner.

**Warning:** To prevent electric shock, do not use the AC adapter's polarized plug with an extension cord, receptacle, or other outlet unless you can fully insert the blades to prevent blade exposure.

Follow these steps to power the scanner from a standard AC outlet.

1. Insert the AC adapter's barrel plug into the DC 12V jack on the back of the scanner.
2. Plug the adapter into a standard AC outlet.

### USING VEHICLE BATTERY POWER

You can power the scanner from a vehicle's 12V power source (such as cigarette-lighter socket) using a 12V, 300-mA DC cord and a size M Adaptaplug™ (neither supplied) Both are available at your local RadioShack store.

**Cautions:**

! You must use a power cord that can carry 12V DC and at least 300 mA. Its center tip must be

set to positive and its plug must fit the scanner's DC 12V jack. Using an cord that does not meet these specifications could damage the scanner or the cord.

- Always connect the DC cord to the scanner before you connect it to the power source. When you finish, disconnect the cord from the power source before you disconnect it from the scanner.

Follow these steps to power the scanner from a vehicle's cigarette-lighter socket.

1. Connect the adaptaplug connector to the DC cord so the tip reads positive (+).
2. Insert the DC cord's barrel plug into the DC 12V jack on the back of the scanner.
3. Plug the cord into the vehicle's cigarette-lighter socket.

**Notes:**

- If you use a 12V DC cord and your vehicle's engine is running, you might hear electrical noise on the scanner caused by the engine. This is normal.
- Mobile use of this scanner is unlawful or requires a permit in some areas. Check the laws in your area.

## **CONNECTING AN ANTENNA**

### **CONNECTING THE SUPPLIED ANTENNA**

You must install an antenna before you can operate the scanner.

The supplied telescoping antenna helps your scanner receive strong local signals. To install the antenna, thread it clockwise into the hole on top of the scanner.

The scanner's sensitivity depends on its location and the antenna's length. For the best reception of the transmissions you want to hear, adjust the antenna's length according to the chart below.

<b>Frequency</b>	<b>Antenna Length</b>
29-174 MHz	Extend fully
380-512 MHz	Extend 2 segments

### **CONNECTING AN OUTDOOR ANTENNA**

Instead of the supplied antenna, you can connect an outdoor base-station or mobile antenna (neither supplied) to your scanner. Your local RadioShack store sells a variety of antennas. Choose the one that best meets your needs.

When deciding on an outdoor antenna and its location, consider these points.

When deciding on an outdoor antenna and its location, consider these points:

- The antenna should be located as high as possible.
- The antenna and antenna cable should be as far as possible from sources of electrical noise (appliances, other radios, and so on).
- The antenna should be vertical for the best performance.

To connect an optional base-station or mobile antenna, first remove the supplied antenna from the scanner. Always use 50 Ohm coaxial cable, such as RG-58 or RG-8, to connect an outdoor antenna. For length over 50 feet, use RG-8 low-loss dielectric coaxial cable. If the antenna cable's connector does not have a BNC connector, you will also need a BNC adapter (not supplied, available at your local RadioShack store). Your local RadioShack store carries a wide variety of coaxial cable and connectors.

Once you choose an antenna, follow the mounting instructions supplied with the antenna. Then route the antenna's cable to the scanner and connect the cable to the **ANT** connector.

**Warning:** Use extreme caution when you installing or removing an outdoor 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.

**Caution:** Do not run the cable over sharp edges or moving parts that might damage it.

## CONNECTING AN EARPHONE/HEADPHONES

For private listening, you can plug an 1/8-inch (3.5 mm) mini-plug earphone or headphones (not supplied), available at your local RadioShack store, into the (headphone symbol)/PC jack on the rear of your scanner. This automatically disconnects the internal speaker.

### 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 the lowest setting before you begin listening. After you begin listening, adjust the volume to a comfortable level.

- 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.

### **Traffic Safety**

Do not wear an earphone or headphones while you drive a vehicle or ride a bicycle. This can create a traffic hazard and can be illegal in some areas. Even though some earphones and headphones let you hear some outside sounds when you listen at normal levels, they still can present a traffic hazard.

## **CONNECTING AN EXTENSION SPEAKER**

In a noisy area, an extension speaker (not supplied), available at your local RadioShack store, might provide more comfortable listening. Plug the speaker cable's 1/8-inch (3.5 mm) mini-plug into your scanner's (headphone symbol)/PC jack.

**Note:** You must use an amplified speaker with this scanner. Non-amplified speakers do not provide sufficient volume for comfortable listening.

## **ABOUT YOUR SCANNER**

Once you understand a few simple terms used in this manual and familiarize yourself with your scanner's features, you can put the scanner to work for you. You simply determine the type of communications you want to receive, then set the scanner to scan them.

A **frequency** is the receiving signal location (expressed in kHz or MHz). To find active frequencies, you can use the **search** function.

You can also search the **One Touch Search Bands**, which are preset groups of frequencies categorized by type of service.

When you find a frequency, you can store it into a programmable memory location called a **channel**, which is grouped with other channels in a **channel-storage bank**. You can then **scan** the channel-storage banks to see if there is activity on the frequencies stored there. Each time the scanner finds an active frequency, it stays on that channel until the transmission ends.

## **A LOOK AT THE KEYPAD**

Here is a brief overview of your scanner's keys and their functions.

- MAR** Lets you search the scanner's preprogrammed marine band.
- FD/PD** Lets you search the scanner's preprogrammed fire/police band.
- AIR** Lets you search the scanner's preprogrammed aircraft band.
- HAM** Lets you search the scanner's preprogrammed amateur radio band.
- WX** Lets you search the scanner's preprogrammed 7 weather channels.
- PRI/ALERT** Turns on and off the priority feature; turns the WX alert mode on and off.
- SCAN/MAN** Scans any preprogrammed channels or stops scanning and lets you directly enter a channel number.
- ^/v** Searches up or down for active frequencies or selects the direction when scanning channels.
- TUNE/CL** Lets you tune a frequency along with ^ or v or, clears an incorrect entry.
- L/O RVW/L/O** Reviews locked-out frequencies; lets you lock out selected channels or frequencies.
- PGM** Programs frequencies into channels.
- Number Keys** Each key has single-digit (0 to 9) and a range of numbers. Use the range of numbers above the key (21–40 for example) to select the channel in a channel-storage bank. See "Understanding Banks" on Page 9.
- DELAY /•** Programs a 2-second delay for the selected channel; enters a decimal point.
- ENT (enter)** Enters frequencies into channels.

## A LOOK AT THE DISPLAY

The display has indicators that show the scanner's current operating status. This quick look at the display will help you understand how your scanner operates.

- BANK** Appears with numbers (1–10) to indicate the scan bank. Bank numbers with a bar under them show which banks are turned on for scanning (see "Understanding Banks" on Page 9).
- MAR** Indicates that the scanner is searching the marine bank.
- WX** Indicates that the scanner is searching the weather channels.
- FD/PD** Indicates that the scanner is searching the fire/police bank.
- AIR** Indicates that the scanner is searching the aircraft bank.
- HAM** Indicates that the scanner is searching the amateur radio bank.
- ^/v** Indicates the search or scan direction.
- CH** Appears with digits (1–200) or **P** to show which channel the scanner is tuned to.
- B** Appears when the batteries are low.
- L/O (lockout)** Appears when you manually select a channel that was previously locked out during scanning or when you review a locked-out frequency.



**SRCH** Appears during service bank and direct frequency searches.

**SCAN** Appears when the scanner scans channels.

**MAN** Appears when you manually select a channel.

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

**PRI** Appears when the priority feature is turned on.

**DLY** Appears when you program a 2-second delay.

**b X -FULL** Appears when you try to enter a frequency during a search when all displayed banks channels are full.

**-dUPL-** Appears when you try to store a frequency that is already stored in another channel.

**DEFAULT** Appears when you remove all the lock-outs from the FD/PD, AIR, or HAM bank frequencies.

**D-Error** Appears when the scanner receives a data error during wired programming.

**End** Appears when the scanner has finished wired programming.

**Error** Appears when you make an entry error.

**FLo ALL-CL** Appears when you remove all the locked-out frequencies during a FD/PD, AIR, or HAM bank or tune.

**FLo-FULL** Appears when you try to lock out a frequency during a tune when 50 frequencies are already locked out.

**F L-out** Appears when you start a tune from a locked-out frequency.

**L-r** Appears when you review the locked-out frequencies.

**oFF tonE** Appears when you turn the key tone off.

**on tonE** Appears when you turn the key tone on.

**P** Appears when the scanner is tuned to the priority channel.

**StArt** Appears when the scanner starts wired programming.

**-t-** Appears during a direct frequency search.

**WirEd** Appears when you set the scanner to its wired programming mode to program frequencies into it.

## UNDERSTANDING BANKS

### Channel Storage Banks

A bank is a storage area for a group of channels. Channels are storage areas for frequencies. Whereas a channel can only contain one frequency, a bank can hold numerous channels.

To make it easier to identify and select the channels you want to listen to, your scanner divides the channels into 10 banks (1 to 10) of 20 channels each, a total of 200 channels. You can use each channel-storage bank to group frequencies, such as those used by the police department, fire

department, ambulance services, or aircraft (see “Guide to the Action Bands” on Page 24).

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

### One Touch Banks

The scanner is preprogrammed with the frequencies allocated by marine, fire/police, aircraft, ham radio, and weather services. This is handy for quickly finding active frequencies instead of searching through an entire band (see “Searching the One Touch Banks” on Page 14).

**Note:** The frequencies in the scanner's service banks are preset. You cannot change them.

#### Fire/Police

Group	Frequency Range (MHz)	Step (kHz)
1	33.420–33.980	20
	37.020–37.420	20
	39.020–39.980	20
	42.020–42.940	20
	44.620–45.860	40
	45.880	–
	45.900	–
	45.940–46.060	40
	46.080–46.500	20
2	153.770–154.130	60
	154.145–154.445	15
	154.650–154.950	15
	155.010–155.370	60
	155.415–155.700	15
	155.730–156.210	60
	158.730–159.210	60
	166.250	–
	170.150	–
3	453.0375–453.9625	12.5
	458.0375–458.9625	12.5
	460.0125–460.6375	12.5

465.0125–465.6375

12.5

**Air**

Frequency Range (MHz)	Step (kHz)
108.000–136.9875	12.5

**Amateur Radio**

Group	Frequency Range (MHz)	Step (kHz)
1	29.000–29.700	5
2	50.000–54.000	5
3	144.000–148.000	5
4	420.000–450.000	12.5

**Marine**

Channel	Frequency (MHz)
01	156.0500
02	156.2500
06	156.3000
07	156.3500
08	156.4000
09	156.4500
10	156.5000
11	156.5500
12	156.6000
13	156.6500
14	156.7000
15	156.7500
16	156.8000
17	156.8500
18	156.9000
19	156.9500
20	157.0000/161.6000
21	157.0500
22	157.1000
23	157.1500
24	157.2000/161.8000

25	157.2500/161.8500
26	157.3000/161.9000
27	157.3500/161.9500
28	157.4000/162.0000
63	156.1750
64	156.2250/160.8250
65	156.2750
66	156.3250
67	156.3750
68	156.4250
69	156.4750
70	156.5250
71	156.5750
72	156.6250
73	156.6750
74	156.7250
77	156.8750
78	156.9250
79	156.9750
80	157.0250
81	157.0750
82	157.1250
83	157.1750
84	157.2250/161.8250
85	157.2750/161.8750
86	157.3250/161.9250
87	157.3750/161.9750
88	157.4250

**Note:** Both frequencies (transmission and reception) are shown for marine channels used for duplex transmission.

## OPERATION

### TURNING ON THE SCANNER/SETTING VOLUME AND SQUELCH

1. Turn **SQUELCH** until the indicator points to **MIN** before you turn on the scanner.

2. Slide **POWER** to **ON** to turn on the scanner.
3. To turn **VOLUME** clockwise until you hear a hissing sound.
4. Turn **SQUELCH** clockwise, just until the hissing sound stops.

**Notes:**

- To listen to a weak or distant station, turn **SQUELCH** counterclockwise. If reception is poor, turn **SQUELCH** clockwise to cut out weak transmissions.
- If **SQUELCH** is adjusted so you always hear a hissing sound, the scanner will not scan or search properly.

5. To turn off the scanner when you finish, slide **POWER** to **OFF**.

## **STORING KNOWN FREQUENCIES INTO CHANNELS**

Good references for active frequencies are the RadioShack Police Call Guide including Fire and Emergency Services, Official Aeronautical Frequency Directory, and Maritime Frequency Directory. We update these directories every year, so be sure to get a current copy.

Follow these steps to store frequencies into channels.

1. Press **PGM**, then **PGM** appears. Enter the channel number (1–200) where you want to store a frequency, then press **PGM** again.
2. Use the number keys and **•** to enter the frequency (including the decimal point) you want to store.
3. Press **ENT** to store the frequency into the channel.

**Notes:**

- If you made a mistake in Step 2, **Error** appears and the scanner beeps three times when you press **ENT**. Simply start again from Step 2.
  - Your scanner automatically rounds the entered frequency down to the closest valid frequency. For example, if you 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–** then the frequency flashes. If you want to store the frequency anyway, press **ENT** again. Press **TUNE/CLEAR** to clear the frequency.
  - Press **DELAY** if you want the scanner to pause 2 seconds on this channel before it proceeds to the next channel after a transmission ends (see “Delay” on Page 20). The scanner also stores this setting in the channel.
4. To program the next channel in sequence, press **PGM** and repeat Steps 2 and 3.

## FINDING AND STORING ACTIVE FREQUENCIES

### Searching the One Touch Banks

Your scanner contains groups of preset frequencies called One Touch banks. Each one touch bank is associated with a specific activity (see “One Touch Banks” on Page 10). You can search for marine, fire/police, air, ham, and weather transmissions even if you do not know the specific frequencies that are used in your area. Then you can store the frequencies you found into the scanner's channels (except weather and marine banks).

#### Notes:

- You can use the scanner's delay feature while searching the banks, see “Delay” on Page 20.
- To listen to the marine bank, see “Listening to the Marine Bank” on Page 17.
- To listen to the weather bank, see “Listening to the Weather Band” on Page 18.

1. Press **FD/PD** or **AIR** or **HAM**. **FiRE POLICE** or **Air** or **HAM** appears. After about 2 seconds, the scanner starts search.

#### Notes:

- To reverse the search direction at any time, hold down **^** or **v** for about 1 second.
- To search up or down the band in small increments, repeatedly press **^** or **v**. (See “One Touch Search Banks” on Page 10 for frequency steps).
- To pause the search while receiving a signal, press **^** or **v**. To resume searching, hold down **^** or **v**.
- To quickly move up or down through the frequencies, hold down **^** or **v**. The scanner tunes through the frequencies until you release **^** or **v**.
- If necessary, you can select search groups using the number keys.

2. When the scanner finds an active frequency, it stops searching and displays the frequency's number. To store the displayed frequency in the lowest available banks channel, press **ENT** (see “Special Function” on Page 19). The channel and frequency flash twice, and the scanner displays channel number and frequency. Press **ENT** again to store the frequency, or press **TUNE/CLEAR** to cancel the operation.

#### Notes:

- If there is no empty channel at available bank, **b X -FULL** (X: bank number) appears after you press **ENT**. To store more frequencies, you must clear some channels. See “Clearing a Stored Channel” on Page 17. To continue searching after **b X -FULL** appears, hold down **^** or **v**.
- If you entered a frequency that is already stored in another channel, **-dUPL-** (duplicate) and the lowest-numbered channel containing the duplicate frequency flash for about 3 seconds. If you want

to store the frequency anyway, press **ENT** again. You can then delete the frequency later. See "Clearing a Stored Channel" on Page 17.

3. To search for another active frequency in the selected band, hold down **^** or **v** for about 1 second. To select a different band and search for another active frequency, repeat Steps 1–2.

## Using Tune

During a tune, the scanner tunes up or down, starting from a frequency you specify. Follow these steps to use tune.

**Note:** You can use the scanner's delay feature while using tune.

1. Press **SCAN/MAN**, until **MAN** appears.
2. Enter the desired channel number you want to use as a starting point for the tune. Then press **SCAN/MAN** again.
3. Press **TUNE/CLEAR** to start tune. **-t-** appears on the display.
4. Hold down **^** or **v** for about 1 second to tune up or down. The scanner displays **^** or **v** and start tune.

### Notes:

- To reverse the tune direction at any time, hold down **^** or **v** for about 1 second.
- To tune up or down the selected band in small increments (5 or 12.5 kHz steps), repeatedly press **^** or **v**.
- To pause the tune, press **^** or **v**. To resume tune, hold down **^** or **v**.
- To quickly move up or down through the frequencies, hold down **^** or **v**. The scanner tunes through the frequencies until you release **^** or **v**.

5. When the scanner finds an active frequency, it stops searching and displays the frequency's number. To store the displayed frequency in the lowest available banks channel, press **ENT**. The channel and frequency flash twice. and the scanner stores the displayed frequency. The scanner continues to search for frequencies. Press **ENT** again to store the frequency, or press **TUNE/CLEAR** to cancel the operation.

### Notes:

- If there is no empty channel at available bank, **b X -FULL** appears after you press **ENT**. To store more frequencies, you must clear some channels. See "Clearing a Stored Channel" on Page 17. To continue tune after **b X -FULL** appears, hold down **^** or **v**.

- If you entered a frequency that is already stored in another channel, **-dUPL-** (duplicate) and the lowest-numbered channel containing the duplicate frequency flash for about 3 seconds. If you want to store the frequency anyway, press **ENT** again. You can then delete the frequency later. See “Clearing a Stored Channel” on Page 17.

6. To tune for another active frequency, hold down **^** or **v** for about 1 second.

## SCANNING THE STORED CHANNELS

To set the scanner to continuously scan through all channels with stored frequencies, simply pressing **SCAN** until **SCAN** and **^** appear, then the scanner begins to rapidly scan until it finds an active frequency.

If the scanner finds an active frequency, it stops and displays that channel and frequency number, then it automatically begins scanning again when the transmission on that frequency ends.

### Notes:

- To reverse the scanning direction, press **^** or **v**.
- To set the scanner to remain on the current channel for 2 seconds after the transmission ends, see “Delay” on Page 20.
- To set the scanner to remain on the current channel, even after the transmission stops, press **SCAN/MAN** at any time during the transmission so **MAN** appears and **SCAN** disappears (see “Monitoring a Stored Channel”).
- To lock out channels so the scanner does not stop for a transmission on those channels, see “Locking Out Channels or Frequencies” on Page 20.

## TURNING CHANNEL-STORAGE BANKS OFF AND ON

Channel-storage banks (1–10) are on when they have a bar underneath them and off when no bar appears underneath them. To turn off a channel-storage bank, press the bank's number key during scanning. The bar under the bank's number disappears.

**Note:** The scanner does not scan any of the channels within the banks you have turned off.

To turn on a channel-storage bank (1–10) during scanning, press the bank's number key. A bar appears under the bank's number.

### 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.
- When you turn on a bank during scanning, the scanner moves to the selected bank and scan it. If no transmission is found, the scanner continues scanning to scan through all selected banks.

## MONITORING A STORED CHANNEL

You can continuously monitor a specific channel without scanning. This is useful if you hear an emergency transmission 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. Pressing **SCAN/MAN** until **MAN** appears.
2. Enter the channel number (1–200).
3. Press **SCAN/MAN** again.

## CLEARING A STORED CHANNEL

If you no longer want a frequency stored in a channel (and you do not want to replace that frequency with a different one), follow these steps to clear the stored frequency.

1. Pressing **SCAN/MAN** to stop scanning.
2. To select the desired channel number, use the number keys to enter that channel number (1–200).
3. Press **PGM**. **PGM** appears.
4. Press **0** then **ENT**. The frequency number changes to **000.0000** to indicate the channel is cleared.
5. To clear another channel, use the number keys to enter that channel number (1–200), then press **PGM** again. Or repeatedly press **PGM** until the desired channel number appears. Then repeat Step 4.

## LISTENING TO THE MARINE BANK

To listen to the marine bank, press **MAR**. **MRN** appears about 2 seconds, then you hear the marine channel 16.

To change the channel manually, press **^** or **v**.

To scan through the marine bank, hold down **^** or **v** for about 2 seconds. **MAN** disappears and **SRCH** appears. To change the scanning direction, press **^** or **v**.

To stop scanning the channels, hold down **^** or **v** for about 2 seconds.

You can select a marine channel directly. When the scanner stops scanning the marine bank, use the number keys to enter the two-digit channel number.

## LISTENING TO THE WEATHER BAND

To hear your local forecast and regional weather information, press **WX**. Your scanner begins to scan through the weather band.

Your scanner should stop within a few seconds on your local weather broadcast. If the broadcast is weak, you can press **WX** again to resume scanning.

Channel	Frequency (MHz)
1	162.400
2	162.425
3	162.450
4	162.475
5	162.500
6	162.525
7	162.550

## WX Alert

Your scanner's WX alert warns you of serious weather conditions by sounding an alarm if a National Weather Service broadcaster in your area broadcasts a weather alert tone.

To set the scanner so it sounds an alarm when a weather alert tone is broadcast, press **PRI/ALERT** while you are listening to the WX channel. **ALERT** appears.

If the scanner detects the weather alert, it sounds an alarm. The scanner sounds the alert for five minutes when it receives the weather alert signal. After five minutes the alert stops and the scanner beeps every ten seconds. Press any key to turn off the alarm. To cancel the weather alert operation, press **PRI/ALERT** again.

### Notes:

- WX alert is only for receiving a weather alert.
- When the scanner detects a 1050 Hz alert tone, WX alert activates and you hear a weather alert.

## WIRED PROGRAMMING

1. Turn off the scanner.
2. Connect the scanner to the PC using a PC cable.
3. While pressing **ENT** and **9**, turn on the scanner. **PGM** and **WirEd** appear. Then send the data from the PC. **StArt** and the data being received by the scanner appears in the order it is received.

### Notes:

- If the scanner receives no data from the PC for more than 20 seconds or if you press any key, wired programming stops.
- If the scanner did not receive a start bit from the PC, **StArt** does not appear.

4. When the scanner successfully receives all data, **End** and **FiniSh** appear. If the scanner received an error while receiving data, **End** and **d-Err** appear. If the scanner received a checksum error while receiving data, **C-Err** and a number shown next to **C-Err** indicates the packet number where the error occurred.

### Notes:

- If the scanner did not receive an end bit from the PC, **End** does not appear.
- Wired programming stops if the scanner receives an empty channel number.

## SPECIAL FEATURES

### SPECIAL FUNCTION

Each search band (FD/PD, AIR, and HAM) and tune has one or two corresponding channel banks. The following table shows the search bands and their corresponding channel banks.

Search Band	Channel Bank
Fire/Police	4, 5
Aircraft	6
Ham	7, 8
Tune	9, 10

While searching any search band (FD/PD, AIR, or HAM), when you find a transmission and if you want to program it into the corresponding channel bank, the scanner programs it into a channel in the corresponding channel bank by pressing **ENT** key.

If you want to scan the fire/police, air, or ham channels, press one touch search key (**FD/PD**, **AIR**, or

**HAM**) then press **SCAN/MAN** while **FIRE/POLICE**, **Air**, or **HAM** appears on the display. For example, you press **HAM** then press **SCAN/MAN**, the scanner scans only channel bank 7 and 8 and **HAM** appears on the display.

## 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 and the scanner continues to monitor that channel or frequency for 2 seconds after the transmission stops before resuming scanning, searching, or tuning.

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

- If the scanner is scanning and stops on an active channel, quickly press **DELAY** /• before it resumes scanning.
- If the desired channel is not selected, manually select the channel, then press **DELAY** /• .
- If the scanner is searching or tuning, press **DELAY** /• . **DLY** appears and the scanner automatically adds a 2-second delay to every transmission it stops on in that band.

To turn off the 2-second delay in a channel or for all frequency, press **DELAY** /• while the scanner is monitoring that channel or frequency. **DLY** disappears.

## LOCKING OUT CHANNELS OR FREQUENCIES

You can increase the effective scanning or search speed by locking out individual channels or frequencies that have a continuous transmission, such as a weather channel (see “National Weather Frequencies” on Page 24) or a birdie frequency (see “Birdie Frequencies” on Page 24).

### Locking Out Channels

To lock out a channel during scanning, press **L/O/L/O RVW** when the scanner stops on the channel.

To manually lock out a channel, select the channel then press **L/O/L/O RVW** until **L/O** appears.

To remove the lockout from a channel, manually select that channel again, then press **L/O/L/O RVW** until **L/O** disappears.

### Notes:

- Your scanner automatically locks out empty channels.
- You can still manually select locked-out channels.

## Locking Out Frequencies

To lock out a frequency during a one touch search or tune, press **L/O/L/O RVW** when the scanner stops on that frequency. The scanner locks out the frequency then continues searching. You can lock out frequencies in both tune and one touch bank searches.

**Note:** You can lock out as many as 50 frequencies during a search. If you try to lock out more, **FLo -FULL** appears (see “Reviewing Locked-Out Frequencies” and “Removing Lockouts From All Frequencies”).

## Reviewing Locked-Out Frequencies

To review the frequencies you locked out, hold down **L/O/L/O RVW** for about 2 seconds during a search, then repeatedly press **^** or **v**. The scanner beeps if there are no locked-out frequencies, or **L-r** appears and the scanner displays all locked out frequencies as you press **^** or **v**. When you reach the highest locked-out frequency, the scanner beeps twice and returns to the lowest locked-out frequency.

## Removing Lockouts Form All Frequencies in a One Touch Search Bank

### Notes:

- These steps do not clear any lockouts in the marine and weather bank.
- If you locked out frequencies which are within the range of any of the one touch search banks during tune, the scanner also removes those locked-out frequencies when you use these steps. For example, if you lockout 29.000 MHz during tune, the scanner removes it since 29.000 MHz is one of the frequencies in the ham radio service bank.

1. Hold down **L/O/L/O RVW** for about 2 seconds during a search or tune. **L-r** appears.
2. While holding down **TUNE/CLEAR**, press one touch search key that you want to clear the lockout. **dEFAULT** appears.
3. Press **ENT**. **L-r 000.000** appears. The scanner clears any lockouts from all frequencies in a one touch bank. Or, if you do not want to clear the lockouts, press **TUNE/CLEAR**.

## Removing Lockouts From All Frequencies

1. Hold down **L/O L/O RVW** for about 2 seconds during a search of tune. **L-r** appears.
2. While holding down **TUNE/CLEAR**, press **L/O L/O RVW**. **Flo ALL-CL** appears.
3. Press **ENT**. The scanner clears any lockouts from all frequencies (except in the marine bank). Or, if you do not want to clear the lockouts, press **TUNE/CLEAR**.

## USING PRIORITY

The priority feature lets you scan through channels and still not miss important or interesting calls on a frequency you select. You can program one frequency into the priority channel. As the scanner scans, if the priority feature is turned on, the scanner checks the priority channel for activity every 2 seconds.

1. Press **PGM**, then press **PRI/ALERT**. **PCH** and **000.0000** or the previously-stored frequency appear.
2. Enter the frequency you want to enter into the priority channel, then press **ENT**. The display flashes twice.

To turn on the priority feature, press **PRI/ALERT** during scanning or searching. **PRI** appears. The scanner checks the priority channel every 2 seconds and stays on the channel if there is activity. **PCH** and the frequency appear whenever the scanner is set to the priority channel.

To turn off the priority feature, press **PRI/ALERT**. **PRI** disappears.

**Note:** If you program a weather frequency into the priority channel and the scanner detects a WX alert tone on that frequency (see "WX Alert" on Page 18), the scanner sounds the alert tone and **ALERT** flashes. Press any key to turn off the alarm.

## TURNING THE KEY TONE ON AND OFF

The scanner is preset to sound a tone each time you press one of its keys. You can turn the key tone off or back on.

1. If the scanner is on, slide **POWER** to turn it **OFF**.
2. While you hold down **2** and **ENT**, turn on the scanner.
3. When **oFF tonE** or **on tonE** appear, release **2** and **ENT**.

## AVOIDING IMAGE FREQUENCIES

You might discover one of your regular stations on another frequency that is not listed. It might be what is known as an image frequency. For example, you might find a service that regularly uses a frequency of 453.275 also on 474.675 MHz.

To see if it is an image, do a little math.

Note the new frequency	474.675
Double the intermediate frequency of 10.7 MHz	(21.400)
and subtract it from the new frequency	-21.400

If the answer is the regular frequency 453.275  
then you have tuned to an image.

Occasionally, you might get interference on a weak or distant channel from a strong transmission 21.4 MHz above or below the tuned frequency. This is rare, and the image signal is usually cleared whenever there is a transmission on the actual frequency.

## 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 the scanner.

**Important:** If you have problems, first try to reset the scanner (see "Resetting the Scanner." If that does not work, you can initialize the scanner (see "Initializing the Scanner"); however, this clears all information stored in your scanner's memory.

### 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 opening on the rear of the scanner. Then gently press the reset button inside the opening.

**Note:** If the scanner still does not work properly, you might need to initialize the scanner (see "Initializing the Scanner").

### Initializing the Scanner

**Important:** This procedure clears all information you stored in the scanner's memory. 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. Hold down **TUNE/CLEAR**.
3. While holding down **TUNE/CLEAR**, insert a pointed object (such as a straightened paper clip) into the reset opening on the rear of the scanner, then gently press the reset button inside the opening. The display should turn off.
4. When the display turns on again, release **TUNE/CLEAR**.

**Note:** You must release the reset button before releasing **TUNE/CLEAR**; otherwise the memory might not clear.

## A GENERAL GUIDE TO SCANNING

Reception of the frequencies covered by your scanner is mainly “line-of-sight.” That means you usually cannot hear stations that are beyond the horizon.

### GUIDE TO FREQUENCIES

#### National Weather Frequencies

162.400 162.425 162.450 162.475

162.500 162.525 162.550

#### Birdie Frequencies

Every scanner has birdie frequencies. Birdies are signals created inside the scanner's receiver. These operating frequencies might interfere with transmissions 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. This scanner's birdie frequencies (in MHz) are:

Will add

To find the birdies in your individual 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 search 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.

### GUIDE TO THE ACTION BANDS

#### Typical Band Usage (MHz)

##### VHF Band

Low Range	29.00–50.00
6-Meter Amateur	50.00–54.00
Aircraft	108.00–136.00
U.S. Government	137.00–144.00
2-Meter Amateur	144.00–148.00



High Range	148.00–174.00
------------	---------------

**UHF Band**

Military Aircraft	380.00–384.00
U.S. Government	406.00–420.00
70-Centimeter Amateur	420.00–450.00
Low Range	450.00–470.00
FM-TV Audio Broadcast, Wide Band	470.00–512.00

**Primary Usage**

As a general rule, most of the radio activity is concentrated on the following frequencies:

**VHF Band**

Activities	Frequencies (MHz)
------------	-------------------

2-Meter Amateur Band	144.000–148.000
Government, Police, and Fire	153.785–155.980
Emergency Services	158.730–159.460
Railroad	160.000–161.900

**UHF Band**

Activities	Frequencies (MHz)
------------	-------------------

70-Centimeter Amateur Band	420.000–450.000
FM Repeaters	
Land-Mobile "Paired" Frequencies	450.000–470.000
Base Stations	451.025–454.950
Mobile Units	456.025–459.950
Repeater Units	460.025–464.975
Control Stations	465.025–469.975

**Note:** Remote control stations and mobile units operate at 5 MHz higher than their associated base stations and relay repeater units.

**BAND ALLOCATION**

To help decide which frequency ranges to scan, use the following listing of the typical services that use the frequencies your scanner receives. These frequencies are subject to change, and might vary from area to area. For a more complete listing, refer to the Police Call Radio Guide including Fire and Emergency Services, available at your local RadioShack store.

**Abbreviations Services**

AIR	Aircraft
BIFC	Boise (ID) Interagency Fire Cache
BUS	Business
CAP	Civil Air Patrol
CCA	Common Carrier
CSB	Conventional Systems
CTSB	Conventional/Trunked Systems
FIRE	Fire Department
HAM	Amateur (Ham) Radio
GOVT	Federal Government
GMR	General Mobile Radio
GTR	General Trunked
IND	Industrial Services (Manufacturing, Construction, Farming, Forest Products)
MAR	Military Amateur Radio
MARI	Maritime Limited Coast (Coast Guard, Marine Telephone, Shipboard Radio, Private Stations)
MARS	Military Affiliate Radio System
MED	Emergency/Medical Services
MIL	U.S. Military
MOV	Motion Picture/Video Industry
NEW	New Mobile Narrow
NEWS	Relay Press (Newspaper Reporters)
OIL	Oil/Petroleum Industry
POL	Police Department
PUB	Public Services (Public Safety, Local Government, Forestry Conservation)
PSB	Public Safety
PTR	Private Trunked
ROAD	Road & Highway Maintenance
RTV	Radio/TV Remote Broadcast Pickup
TAXI	Taxi Services
TELM	Telephone Maintenance
TOW	Tow Trucks

TRAN	Transportation Services (Trucks, Tow Trucks, Buses, Railroad, Other)
TSB	Trunked Systems
TVn	FM-TV Audio Broadcast
USXX	Government Classified
UTIL	Power & Water Utilities
WTHR	Weather

## HIGH FREQUENCY (HF) — (3 MHz–30 MHz)

## 10-Meter Amateur Band (28.0–29.7 MHz)

29.000–29.700 ..... HAM

## VERY HIGH FREQUENCY (VHF) — (30 MHz–300 MHz)

### VHF Low Band (29.7–50 MHz—in 5 kHz steps)

29.700–29.790	IND
29.900–30.550	GOVT, MIL
30.580–31.980	IND, PUB
32.000–32.990	GOVT, MIL
33.020–33.980	BUS, IND, PUB
34.010–34.990	GOVT, MIL
35.020–35.980	BUS, PUB, IND, TELM
36.000–36.230	GOVT, MIL
36.230–36.990	Oil Spill Cleanup, GOVT, MIL
37.020–37.980	PUB, IND
38.000–39.000	GOVT, MIL
39.020–39.980	PUB
40.000–42.000	GOVT, MIL, MARI
42.020–42.940	POL
42.960–43.180	IND
43.220–43.680	TELM, IND, PUB
43.700–44.600	TRAN
44.620–46.580	POL, PUB
46.600–46.990	GOVT
47.020–47.400	PUB
47.420	American Red Cross
47.440–49.580	IND, PUB
49.610–49.990	MIL

## 6-Meter Amateur Band (50–54 MHz)

50.00–54.00 ..... HAM

**Aircraft Band (108–136 MHz)**

108.000–121.490 . . . . . AIR  
 121.500 . . . . . AIR Emergency  
 121.510–136.000 . . . . . AIR

**U.S. Government Band (137–144 MHz)**

137.000–144.000 . . . . . GOVT, MIL

**2-Meter Amateur Band (144–148 MHz)**

144.000–148.000 . . . . . HAM

**VHF High Band (148–174 MHz)**

148.050–150.345 . . . . . CAP, MAR, MIL  
 150.775–150.790 . . . . . MED  
 150.815–150.980 . . . . . TOW, Oil Spill Cleanup  
 150.995–151.475 . . . . . ROAD, POL  
 151.490–151.955 . . . . . IND, BUS  
 151.985 . . . . . TELM  
 152.0075 . . . . . MED  
 152.270–152.480 . . . . . IND, TAXI, BUS  
 152.870–153.020 . . . . . IND, MOV  
 153.035–153.725 . . . . . IND, OIL, UTIL  
 153.740–154.445 . . . . . PUB, FIRE  
 154.490–154.570 . . . . . IND, BUS  
 154.585 . . . . . Oil Spill Cleanup  
 154.600–154.625 . . . . . BUS  
 154.655–156.240 . . . . . MED, ROAD, POL, PUB  
 156.255–157.425 . . . . . OIL, MARI  
 157.450 . . . . . MED  
 157.470–157.515 . . . . . TOW  
 157.530–157.725 . . . . . IND, TAXI  
 157.740 . . . . . BUS  
 158.130–158.460 . . . . . BUS, IND, OIL, TELM, UTIL  
 158.730–159.465 . . . . . POL, PUB, ROAD  
 159.480 . . . . . OIL  
 159.495–161.565 . . . . . TRAN  
 161.580–162.000 . . . . . OIL, MARI, RTV  
 162.0125–162.35 . . . . . GOVT, MIL, USXX  
 162.400–162.550 . . . . . WTHR  
 162.5625–162.6375 . . . . . GOVT, MIL, USXX

162.6625	MED
162.6875–163.225	GOVT, MIL, USXX
163.250	MED
163.275–166.225	GOVT, MIL, USXX
166.250	GOVT, RTV, FIRE
166.275–169.400	GOVT, BIFC
169.445–169.505	Wireless Mikes, GOVT
169.55–169.9875	GOVT, MIL, USXX
170.000–170.150	BIFC, GOVT, RTV, FIRE
170.175–170.225	GOVT
170.245–170.305	Wireless Mikes
170.350–170.400	GOVT, MIL
170.425–170.450	BIFC
170.475	PUB
170.4875–173.175	GOVT, PUB, Wireless Mikes
173.225–173.5375	MOV, NEWS, UTIL, MIL
173.5625–173.5875	MIL Medical/Crash Crews
173.60–173.9875	GOVT

## **ULTRA HIGH FREQUENCY (UHF) — (300 MHz–3 GHz)**

### **U. S. Government Band (406–420 MHz)**

406.125–419.975	GOVT, USXX
-----------------	------------

### **70-Centimeter Amateur Band (420–450 MHz)**

420.000–450.000	HAM
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### **Low Band (450–470 MHz)**

450.050–450.925	RTV
451.025–452.025	IND, OIL, TELM, UTIL
452.0375–453.00	IND, TAXI, TRAN TOW, NEWS
453.0125–454.000	PUB, OIL
455.050–455.925	RTV
457.525–457.600	BUS
458.025–458.175	MED
460.0125–460.6375	FIRE, POL, PUB
460.650–462.175	BUS
462.1875–462.450	BUS, IND
462.4625–462.525	IND, OIL, TELM, UTIL
462.550–462.925	GMR, BUS
462.9375–463.1875	MED

463.200–467.925 . . . . . BUS

**FM-TV Audio Broadcast, UHF Wide Band (470–512 MHz)  
(Channels 14 through 20 in 6 MHz steps)**

475.750 . . . . . Channel 14

481.750 . . . . . Channel 15

487.750 . . . . . Channel 16

493.750 . . . . . Channel 17

499.750 . . . . . Channel 18

505.750 . . . . . Channel 19

511.750 . . . . . Channel 20

**Note:** Some cities use the 470–512 MHz band for land/mobile service.

## FREQUENCY CONVERSION

The tuning location of a station can be expressed in frequency (kHz or MHz) or in wavelength (meters). The following information can help you make the necessary conversions.

1 MHz (million) = 1,000 kHz (thousand)

- To convert MHz to kHz, multiply the number of megahertz by 1,000:

$$30.62 \text{ (MHz)} \times 1000 = 30,620 \text{ kHz}$$

- To convert from kHz to MHz, divide the number of kilohertz by 1,000:

$$127,800 \text{ (kHz)} \div 1000 = 127.8 \text{ MHz}$$

- To convert MHz to meters, divide 300 by the number of megahertz:

$$300 \div 50 \text{ MHz} = 6 \text{ meters}$$

## 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 RadioShack store for assistance.

PROBLEM	POSSIBLE CAUSE	REMEDY
Scanner is totally inoperative.	The AC or DC adapter is not connected.	Be sure the adapter's barrel plug is properly connected to the <b>DC 12V</b> jack.

Poor or no reception	An antenna is not connected or is connected incorrectly.	Make sure an antenna is properly connected to the scanner.
	Programmed frequencies are the same as "birdie" frequencies.	Avoid programming frequencies listed under "Birdie Frequencies" on Page 24 or only listen to them manually.
Keypad does not work.	The scanner might need to be reset or initialized.	Turn the scanner off then on again, or reset/initialize the scanner (see "Resetting/Initializing the Scanner" on Page 23).
Scanner is on but will not scan.	SQUELCH is not correctly adjusted.	Adjust SQUELCH clockwise.
During scanning, 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" on Page 24, or only listen to them manually.

## CARE AND MAINTENANCE

Your RadioShack PRO-2018 200 Channel VHF/Air/UHF Desktop Scanner is an example of superior design and craftsmanship. The following suggestions will help you care for your scanner so you can enjoy it for years.

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

Use and store the scanner only in normal temperature environments. Temperature extremes can shorten the life of electronic devices and distort or melt plastic parts.

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

Handle the scanner gently and carefully. Dropping it can damage circuit boards and cases and can

cause the scanner to work improperly.

Wipe the scanner with a damp 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 its warranty and void your FCC authorization to operate it. If your scanner is not performing as it should, take it to your local RadioShack store for assistance.

## SPECIFICATIONS

### Frequency Coverage (MHz):

10 Meter Amateur Radio .....	29–30 (in 5 kHz steps)
VHF Lo .....	30–50 (in 5 kHz steps)
6 Meter Amateur Radio .....	50–54 (in 5 kHz steps)
Aircraft .....	108–136.9875 (in 12.5 kHz steps)
Government .....	137–144 (in 5 kHz steps)
2 Meter Amateur Radio .....	144–148 (in 5 kHz steps)
VHF Hi .....	148–174 (in 5 kHz steps)
Amateur Radio/Government .....	380–450 (in 12.5 kHz steps)
UHF Standard .....	450–470 (in 12.5 kHz steps)
UHF "T" .....	470–512 (in 12.5 kHz steps)

Channels of Operation ..... 200 channels

### Sensitivity (20 dB S/N):

29–54 MHz .....	0.5 $\mu$ V
108–136.9875 MHz .....	1.0 $\mu$ V
137–174 MHz .....	0.5 $\mu$ V
380–512 MHz .....	0.7 $\mu$ V
Spurious Rejection (FM @154 MHz) .....	50 dB

### Selectivity:

$\pm 10$ kHz .....	–6 dB
$\pm 18$ kHz .....	–50 dB
Search Speed .....	Up to 50 Steps/Sec
Scan Speed .....	Up to 25 Channels/Sec
Delay Time .....	2 Seconds

### IF Frequencies:

1st IF .....	10.7 MHz
--------------	----------



2nd IF .....	455 kHz
IF Interference Ratio (10.7 MHz) .....	70 dB at 150 MHz
Squelch Sensitivity:	
Threshold .....	Less than 0.5 $\mu$ V
Tight (FM) .....	(S + N)/N 25 dB
Tight (AM) .....	(S + N)/N 20 dB
Antenna Impedance .....	50 Ohms
Audio Output Power (10% THD) .....	0.8 W Nominal
Built-In Speaker .....	3 Inches (77 mm), 8 Ohms
Operating Temperature .....	32° to 110°F (0° to 43°C)
Power Requirements .....	120V AC, 60Hz, 8W
Current Drain (Squelched) .....	300 mA
Dimensions (HWD) .....	2 1/16 $\times$ 8 1/4 $\times$ 6 7/8 Inches (52 $\times$ 210 $\times$ 175 mm)
Weight (without antenna) .....	approx. 25 oz (700 g)
Supplied Accessories .....	Telescoping Antenna, AC Adapter

Specifications are typical; individual units might vary. Specifications are subject to change and improvement without notice.

**Limited One-Year Warranty**

**RadioShack**  
**A Division of Tandy Corporation**  
**Fort Worth, Texas 76102**  
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