

Programmable FM Scanning Receiver

with Direct Keyboard Entry System

VHF: 30-50/144-174 MHz UHF: 410-512 MHz



PRO-2008

**OWNER'S
MANUAL**

REALISTIC®

CUSTOM MANUFACTURED FOR RADIO SHACK  A DIVISION OF TANDY CORPORATION

Welcome to the exciting and action-packed world of Public Service Radio! Your Realistic computerized PRO-2008 Scanning Receiver combines deluxe scanner features with an advanced keyboard-controlled microprocessor – giving you the ultimate in monitoring convenience and versatility. Your PRO-2008 will allow you to listen to all the action going on in your community – police, fire, ambulances, ham-radio operators, emergency and transportation services.

With the PRO-2008, you have *direct* access to 18,160 frequencies spanning six action bands: VHF-Lo, 30 ~ 50 MHz; Ham, 144 ~ 148 MHz; VHF-Hi, 148 ~ 174 MHz; Ham/Gov't., 410 ~ 450 MHz; UHF-Lo, 450 ~ 470 MHz; and UHF-Hi ("T"), 470 ~ 512 MHz. You'll never need to buy crystals (saving you \$6 to \$10 per channel!). And you won't need a cumbersome programming codebook for converting frequencies to switch positions. You simply enter the desired frequencies through a calculator-type keyboard. A large display lets you know exactly which frequencies you're listening to at all times.

The PRO-2008's dual-conversion superhetrodyne receiver achieves its superior performance through the use of state-of-the-art solid state technology. The ultimate in reliability is achieved with a LSI microprocessor chip, a PLL (Phase-locked Loop), 2 CMOS ICs, plus six integrated circuits, 24 transistors, 40 diodes and a fluorescent display.

FEATURES INCLUDE:

- * Program and Scan functions controlled by a custom-designed, dedicated microprocessor – a computer on a chip!
- * Direct key entry with advanced keyboard functions.
- * Eight channel automatic scanning for VHF to UHF.
- * Large multi-purpose fluorescent display shows which channels and frequencies are being scanned, monitored or programmed, as well as the status of the channels.
- * Track-Tuning front end.
- * Channel lockout function, with built-in skipper circuit.
- * Two second scan delay function eliminates missed replies.
- * Crystal filter for 1st IF (10.7 MHz) plus ceramic filter for 2nd IF (455 kHz).
- * AC operation.
- * 9-volt battery backup holds memorized frequencies in the event of a power failure.

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RADIO SHACK LIMITED WARRANTY

This equipment is warranted against defects for 1 year from date of purchase. Within this period, we will repair it without charge for parts and labor. Simply **bring your sales slip** as proof of purchase date to any Radio Shack store. Warranty does not cover transportation costs. Nor does it cover equipment subjected to misuse or accidental damage.

This Warranty gives you specific legal rights and you may also have other rights which vary from state to state.

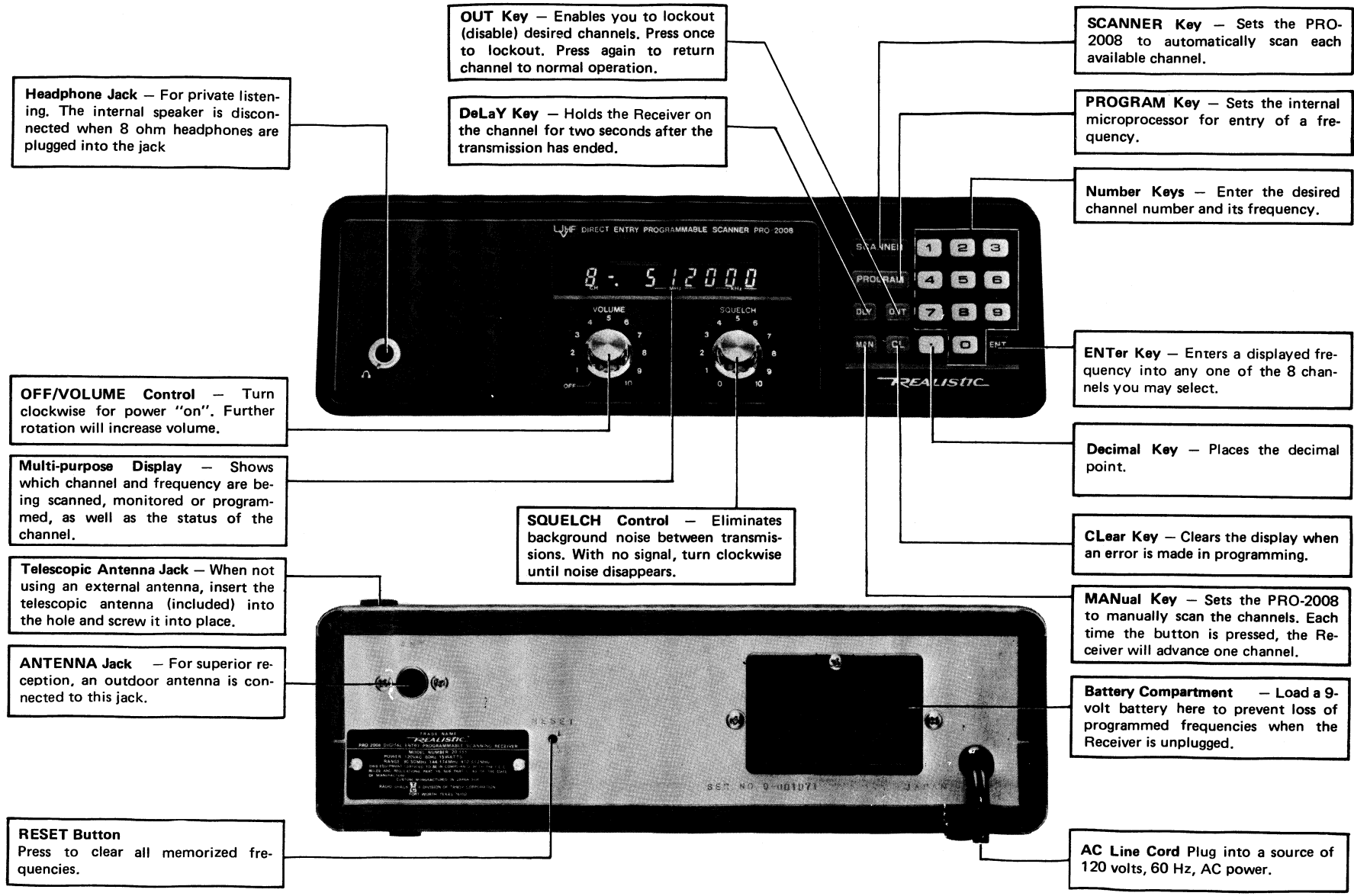
We Service What We Sell

For Your own protection, we urge you to record the Serial Number of this unit in the space provided. You'll find the Serial Number on the back panel of this unit.

Serial Number

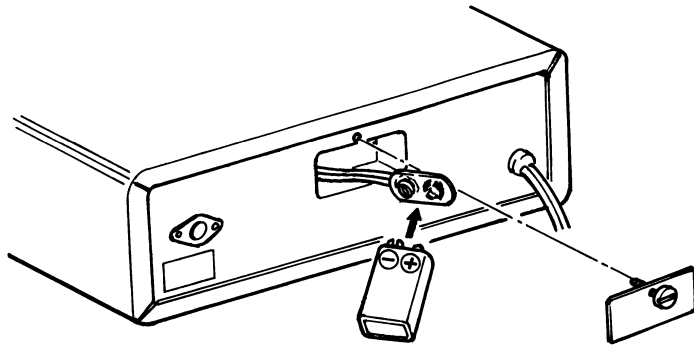
WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS RECEIVER TO RAIN OR MOISTURE.

A QUICK LOOK AT YOUR PRO-2008



PREPARATION FOR USE

Loosen the screw and remove the battery compartment cover; then snap in a 9-volt battery. (We recommend a Radio Shack long-life alkaline battery, 23-553 or equivalent.) Your PRO-2008 contains an electronic memory to preserve the 8 programmed scanner channels. The battery protects this memory during AC power failure, or when you have the set unplugged.



NOTE: To avoid loss of programmed memory, do not unplug AC power cable when replacing battery. Replace battery at least every six months.

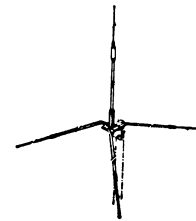
CAUTION: Never leave a weak or dead battery in your PRO-2008; even "leakproof" types can leak damaging chemicals. Battery life is about two months when AC power cable is off for a prolonged period.

Now you only need to do three things to be able to tune in on those exciting "monitor" frequencies:

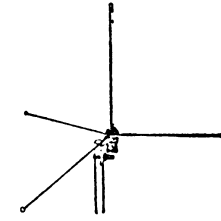
1. Connect to a source of power — 120 volts 60 Hz AC.
2. Connect the telescopic antenna provided (or an outdoor antenna to the antenna jack in the rear of the unit).
3. Program one or more frequencies into the Scanner channel(s). See **Getting Started**, Page 5.

INSTALLATION

In any communications receiver installation, the antenna is one of the most important parts of the set-up. Although the telescopic antenna we've included will be adequate for strong local signals, the best reception will result from a multi-band outdoor antenna. It should be mounted as high as possible since the VHF and UHF signals your Receiver picks up travel in a straight line. The higher your antenna, the better your reception. Your local Radio Shack can help you in the selection of antennas, cables and accessories. (They can also advise you on the most popular frequencies in your area.)



20-015



20-176

ACCESSORIES

A pair of headphones can be a very useful accessory. In areas where a high noise is present (in a factory, at the scene of a fire or accident, etc.), or when you want to listen privately, use headphones. Your Radio Shack store has a selection for your PRO-2008. Just plug them into the front panel headphone Jack.

OPERATION

After you've installed the 9-volt battery and connected an antenna, you're ready to start using your PRO-2008. We've divided these instructions into three parts: **Getting Started**, **Scanning**, and **Programming Notes**.

GETTING STARTED

Before operating the PRO-2008, let's take a look at the Multi-purpose Display.

- * **Channel Indicator digit** shows the number of the channel that is being scanned, monitored or programmed.
- * The status of the PRO-2008 is indicated by the **Status Descriptor Digit**.



— shows the channel is locked out (disabled).

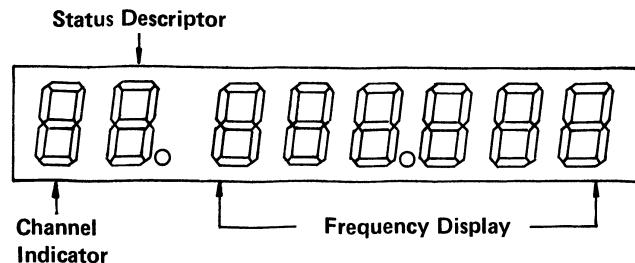


— shows the channel is under scan delay.



— shows the Receiver is in the PROGRAM mode.

- * **Frequency Display** shows the exact frequency being scanned, monitored or programmed.



Turn on your PRO-2008 by rotating **VOLUME** clockwise about 1/4 turn. (When first turned on, the Receiver automatically enters the scanning mode.)

Rotate **SQUELCH** fully counterclockwise. You should hear a rushing noise from the speaker. Slowly rotate **SQUELCH** clockwise until the noise just stops.

Entering a Frequency

To find which frequencies are active in your area, visit your local Radio Shack. They can fill you in on the most active (and interesting) channels in your area. Radio Shack also sells the **POLICE CALL RADIO DIRECTORY** for your section of the country which lists frequencies in use in your region.

In most sections of the country, the National Weather Service provides 24-hour-a-day weather forecasts (on 162.55, 162.40 or 162.475).

Let's use one of these as an example of programming:

1. Select the channel you wish to program. Press **MAN** to stop scanning and press desired numeral key (1 through 8) for the channel you wish to program.
2. Press **PROGRAM**. The memory for the channel you've selected is now ready to store a frequency.
3. Using the keyboard, enter the desired frequency (e.g. 162.55).

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4. Press **ENT**. The frequency is now stored in the memory. (You should be able to hear the weather broadcast. If you don't, try one of the other frequencies and repeat steps 2, 3, and 4.)
5. If you intend to program more channels, press **PROGRAM** again to advance the channel and repeat steps 3 and 4.
6. After you're done entering all the frequencies, press **SCANNER** to return the Receiver to the normal scanning mode.

SCANNING

Automatic Scanning: If you want your Receiver to continuously scan the frequencies programmed, adjust **SQUELCH**, then press **SCANNER**. The PRO-2008 will continuously scan each channel in sequence; and will lock onto a channel when a signal is received. The channel and frequency being received will be shown on the Display. (**B** will appear if the channel is under delay.)

Manual Scanning: If you want to listen to one channel only, press **MAN** and then the number key for the channel. Pressing **MAN** will also advance the Receiver one channel.

Squelch: To eliminate the background noise between transmissions, wait until the station stops transmitting and rotate the **SQUELCH** control until the noise stops. When set properly, the Receiver will appear “dead” until a signal is received.

IMPORTANT: In order for the PRO-2008 to scan the channels automatically, **SQUELCH** must be set as described above. Otherwise, the Receiver will “lock on” to the noise and not scan.

PROGRAMMING NOTES

Pressing **PROGRAM** puts the Receiver in the programming mode with the Status Descriptor shown in the figure on page 5.

When **PROGRAM** is pressed, the Display will show whatever frequency (if any) is stored in the channel the Receiver is set to. You can ignore these numbers, since they’ll disappear as soon as you start to enter a frequency.

If you make a mistake while entering a new frequency, press **CL**.

Use **PROGRAM** to advance to the next channel when entering new frequencies: pressing **MAN** takes the PRO-2008 out of the programming mode.

If you don’t have a back-up battery installed (or it is dead) and plug in the AC power cord, sometimes the internal computer circuits will become confused (technically, we say it “fails to initialize”). In such a case, you won’t be able to program frequencies and/or the display won’t light up with just a 0. If this happens, turn on Power and press **RESET** (on the back); this will initialize the circuits (and also will clear all information stored in memory).

VALID FREQUENCY

You can enter any frequency into the memory of your PRO-2008 that is within the six bands specified under Frequency Coverage (See **Specifications** page 11).

IMPORTANT: In the 30 – 50 and 144 – 174 MHz range the programmable frequencies are in 5 kHz steps.

In the 410 – 512 MHz range, programmable frequencies are in 12.5 kHz steps.

If you try to enter an “in-between” frequency the next lower valid frequency will automatically be entered.

If you attempt to enter a frequency which is outside of the six-band tuning range, Error will be displayed. Press **CL** and enter the correct frequency.

NOTE: When an error condition is displayed, the frequency previously stored in the channel is not erased.

In some areas, certain frequencies will cause the Receiver to “lock up”. (See **BIRDIES** page 9.)

CHANNEL LOCK OUT

Your PRO-2008 has a built-in skipper circuit which works in the scanning mode to skip over channels that have been locked out. (You’ll use this for stations that are “on” all the time, such as the National Weather Service.)

Any number of channels can be locked out. Press **MAN** to step the Receiver to the channel you want to lock out. Then press **OUT**. To release the lock out, press **MAN** again.

SCAN DELAY

The Receiver has a two-second Delay feature which virtually eliminates the chance of you missing replies. Delay holds the channel for two seconds after the end of a transmission. To use delay, press **MAN** to step to the channel for which you want the Delay mode. Press **DLY**. To remove Delay, press **DLY** again. Any or all channels can use Delay.

LIMITS OF OPERATIONAL FREQUENCIES

The six-band tuning range of your PRO-2008 is permanently stored in the Receiver’s integrated-circuit microprocessor. As such, it cannot be extended or altered in any way, even by a skilled electronics technician. So if you try to monitor or enter an out-of-band frequency—you’ll get the Error message every time! To listen in on CB, SW, lower Ham bands, etc., you’ll just have to get another receiver designed for that purpose (like our famous DX-302 tunable receiver).

GUIDE TO THE ACTION BANDS

Your community is alive with action—action which is constantly being reported on the air waves. Your PRO-2008 will automatically scan the air waves to bring you that action—your police force at work, a fire truck on a mission, Sheriff's department, State police, the National Weather Service, Ham Radio operators, highway and other emergency-type services, some industrial services, some transportation services (taxi, trucks, railroad), plus some Government services.

Lots of things are going on that most of us just are never aware of. But, with the right frequencies programmed into your PRO-2008, you can monitor such exciting signals. You'll have to do a little investigating in your community to find out what services are active and on what frequencies. You will find one of our books to be very interesting and helpful in this area:

REALISTIC GUIDE TO POLICE, FIRE AND AIRCRAFT RADIO.

What to listen for and where? That is a little difficult for a specific answer. Each area of the country can and will use different channels. All we can do is give you some general pointers and then let you take it from there.

Find out if there is a local club which monitors these frequencies. Often a local electronics repair shop that does work on the equipment can give you the channel frequencies used by local radio services. A volunteer police or fire employee can also be a good source of this information.

An interesting service is the Mobile Telephone. FCC has assigned this service channels in the range of 152.51 to 152.81 MHz at every 0.030 MHz (channels are 30 kHz apart). Also, 454.375 to 454.95 MHz with channels 25 kHz apart from 454.375 to 454.625 and then every 50 kHz up to 454.95.

As a general rule on VHF, most activity will be concentrated between 153.785 and 155.98 and then again from 158.73 to 159.46 MHz. Here you'll find local government, police, fire and most such emergency services. If you are near a railroad yard or major railroad tracks, look around 160.0 to 161.9 for them.

In some of the larger cities, there has been a move to the UHF bands for these emergency services. Here, most of the activity is in a spread of 453.025 – 453.95 and again at 456.025 – 459.95 MHz.

In the UHF band, the overall spread of 456.025 – 459.95 and again at 465.025 – 469.975 MHz is used by mobile units and control stations associated with base and repeater units which operate 5 MHz lower (that is, 451.025 – 454.95 and 460.025 – 464.975 MHz). This means that if you find an active channel inside one of these spreads, you can look 5 MHz lower (or higher as the case may be) to find the major base station/repeater for that radio service.

A handy book to have is the *POLICE CALL RADIO DIRECTORY* for your region. Stop by your local Radio Shack store and ask about it. It has complete listings, by frequency, of the various radio services in the bands covered by your PRO-2008. These Directories are updated every year, so get a current one.

ABBREVIATIONS

An abbreviation list is provided for your reference to TYPICAL BAND USAGE on the following pages.

Affiliate Radio System	MARS	Mobile Telephone	Mob. Tel.
Amateur	Ham	Motion Picture	Mot. P.
Automobile Emergency	Auto Emer.	Motor Carrier	Buses. Trucks
Broadcast Remote	BC. R.	National Parks	Nat. Pk.
Bureau of Reclamation	Bur. Recl.	Petroleum	Pet.
Civil Air Patrol	CAP	Police	P.D.
Department of Agriculture and Forestry	Agr. and For.	Power Utilities	Power
Fire Department	F.D.	Radio Paging	Page
Forest Products	For. Prod.	Railroad	R.R.
Forestry Conservation	Fors. Cons.	Red Cross	
Government	Govt.	Relay Press	Press
Highway Maintenance	Hwy.	State Police	St. P.D.
Indian Affairs		Special Emergency	Sp. Ind.
Land Transportation	Land Tr.	Taxicab Radio	Taxi
Local government	L. Govt.	Telephone Maintenance	Tel. Maint.
Manufactures	Mfg.	U.S. Coastal and Geodetic Survery	U.S.C.G.S.
Marine		U.S. Navy	USN
Military	MIL	U.S. Weather Bureau	U.S.W.B.

TYPICAL BAND USAGE

The following is an abbreviated listing of what's going on in the frequency ranges your PRO-2008 can receive—it'll help you decide which ranges you'd like to choose. For explanation of abbreviations used, see page 7.

30 ~ 50 MHz Band

(0.020 MHz or 20 KHz spacing)

30.01 ~ 30.56	Govt.
30.56 ~ 30.62	Sp. Ind.
30.66 ~ 31.24	Ind. (Pet., For. Cons., Bus., For. Prod.)
31.26 ~ 31.98	Sp. Ind., For. Cons.
32.00 ~ 33.00	Govt.
33.02 ~ 33.16	Hwy., Sp. Emer., Bus.
33.18 ~ 33.38	Pet.
33.42 ~ 33.98	F.D.
34.00 ~ 35.00	Govt.
35.02 ~ 35.18	Bus.
35.22 ~ 35.66	Mob. Tel. & Page
35.70 ~ 35.72	Bus.
35.74 ~ 35.98	Sp. Ind. & Bus.
36.00 ~ 37.00	Govt.
37.02 ~ 37.44	P.D. & L. Govt.
37.46 ~ 37.86	Power
37.90 ~ 37.98	Hwy. & Sp. Emer.
38.00 ~ 39.00	Govt.
39.02 ~ 39.98	P.D., L. Govt.
40.00 ~ 42.00	Govt.
42.02 ~ 42.94	St. P.D.
42.96 ~ 43.18	Sp. Ind. & Bus.
43.22 ~ 43.68	Mob. Tel. Page
43.70 ~ 44.60	Trucks, Bus.
44.62 ~ 45.06	St. P.D., For. Cons.
45.08 ~ 45.66	P.D.
45.68 ~ 46.04	P.D. Hwy., Sp. Emer.
46.06 ~ 46.50	F.D.
46.52 ~ 46.58	L. Govt.
46.60 ~ 47.00	Govt.
47.02 ~ 47.40	St. Hwy.
47.42	Red Cross
47.44 ~ 47.68	Sp. Ind., Sp. Emer.
47.70 ~ 48.54	Power
48.56 ~ 49.58	For. Prod., Pet.
49.60 ~ 50.00	Govt.

144 ~ 148 MHz 2 Meter Amateur (Ham) Band

148 ~ 174 MHz Band Mixed Spacing (15, 20, 25 kHz)

148.010 ~	MARS
148.15 ~	CAP
148.155 ~ 148.250	MIL
148.290 ~ 150.750	USN
150.815 ~ 150.995	Bus.
151.010 ~ 151.130	Hwy.
151.145 ~ 151.475	For. Cons.
151.505 ~ 151.595	Sp. Ind.
151.625 ~ 151.955	Bus.
151.985 ~ 152.240	Mob. Tel. (RCC)
152.270 ~ 152.450	Taxi
152.480 ~ 152.840	Mob. Tel. Page
152.870 ~ 153.020	Sp. Ind., Mot. P.
153.050 ~ 153.440	Pet., For. Prod.
153.470 ~ 153.710	Power
153.740 ~ 154.115	L. Govt.
154.130 ~ 154.445	F.D.
154.450 ~ 154.600	Sp. Ind., Pet., Bus.
154.655 ~ 155.145	P.D., L. Govt., St. P.D.
155.160 ~ 155.400	Sp. Emer., P.D.
155.415 ~ 156.030	P.D., L. Govt.
156.045 ~ 156.240	Hwy., P.D.
156.275 ~ 157.425	Marine
157.456 ~ 157.500	Auto Emer.
157.530 ~ 157.710	Taxi
157.740 ~ 158.100	Mob. Tel., Page
158.130 ~ 158.460	Power, For. Prod., Pet.
158.490 ~ 158.700	Mob. Tel. (RCC)
158.730 ~ 158.970	P.D., L. Govt.
158.985 ~ 159.210	P.D. Hwy.
159.225 ~ 159.465	For. Cons.
159.510 ~ 160.200	Trucks
160.215 ~ 161.565	R.R.
161.600 ~ 162.000	Marine
162.026 ~ 162.175	Bur. Recl.
162.400	U.S.W.B.
162.550 ~	U.S.W.B.

163.125 ~	Indian Affairs
163.175 ~	Bur. Recl.
163.275	U.S.W.B.
163.388 ~ 163.538	MIL
163.825 ~ 163.975	Govt.
164.025 ~ 164.075	U.S.C.G.S.
164.175 ~ 165.188	Bur. Recl., Nat. Pk., Govt., Agr. & For.
169.300	F.A.A.
169.450 ~ 169.725	Ind., Data
170.150	F.D., BC. R.
170.200 ~ 170.220	U.S.C.G.S.
170.225 ~ 170.325	Ind., Land Tr.
170.425 ~ 170.575	For. Cons.
170.975 ~ 171.250	Govt. Ind., Land Tr.
171.388 ~ 172.725	Bur. Recl., For. Cons., Ind., Dept. Ag. & For., Govt.
172.775	Nat. Pk.
173.025	U.S.W.B.
173.075	U.S.C.G.S.
173.204 ~	Mot. P., Pet., Bur. Recl. Press Relay.

430 ~ 450 MHz Amateur (Ham) Band

450 ~ 512 MHz Band (25 kHz Spacing)

450.050 ~ 450.950	BC. R.
451.000 ~ 451.150	Util.
451.175 ~ 451.750	For. Prod., Pet., Pwr., Tel. Maint
451.775 ~ 451.975	Spec. Ind.
452.000 ~ 452.500	Taxi, Mot. Carrier, R.R.
452.525 ~ 452.600	Auto Club
452.625 ~ 452.975	Motor Carr., R.R.
453.000 ~ 453.975	L. Govt., P.D., F.D.
454.000 ~ 454.975	Mob. Tel.
455.000 ~ 455.975	Remote Br.
456.000 ~ 458.975	P.D., F.D., Ind., Lan. Tr.
459.000 ~ 459.975	Domestic Public
460.000 ~ 460.625	P.D., F.D.
460.650 ~ 462.175	Bus.
462.200 ~ 462.450	Taxi
462.750 ~ 462.975	Bus.
463.000 ~ 463.175	Medical
463.200 ~ 464.975	Bus.
465.000 ~ 467.500	P.D., F.D., Ind., Land Tr.
467.750 ~ 467.925	Bus.
467.7375 ~ 469.975	Pub. Safety, Ind., Land Tr.

In some large metropolitan areas, 1 or 2 channels of the "TV Band" (470 MHz to 512 MHz) are used for special communications. Each station (channels 14 through 20) uses 6 MHz:

- 470 ~ 476 T.V. Channel 14
- 476 ~ 482 T.V. Channel 15
- 482 ~ 488 T.V. Channel 16
- 488 ~ 494 T.V. Channel 17
- 494 ~ 500 T.V. Channel 18
- 500 ~ 506 T.V. Channel 19
- 506 ~ 512 T.V. Channel 20

Where these frequencies are assigned for special communications, in lieu of a T.V. station, the 6 MHz segment is allocated as shown here for channel 14 (470 ~ 476 MHz).

470.0125 ~ 470.2875	..... Domestic Public, (Base, Mob.)
470.3125 ~ 471.1375	..... Public Safety
471.1625 ~ 471.2875	..... Reserve Pool A
471.3125 ~ 471.4125	..... Pwr., Tel. Maint.
471.4375 ~ 471.6375	..... Spec. Ind.
471.6625 ~ 471.7875	..... Reserve Pool B
471.8125 ~ 472.3375	..... Bus.
472.3625 ~ 472.4375	..... Taxi
472.4675 ~ 472.7875	..... R.R., Motor Carrier, Auto Emer.
472.8125 ~ 472.9875	..... Pet., For. Prod., Mfg.
473.0125 ~ 473.2875	..... Domestic Public
473.3125 ~ 474.1375	..... Public Safety
474.1625 ~ 474.2875	..... Reserve Pool A
474.3125 ~ 474.4125	..... Pwr., Tel. Maint.
474.4375 ~ 474.6375	..... Spec. Ind. (Mobile)
474.6625 ~ 474.7875	..... Reserve Pool B.
474.8125 ~ 475.3375	..... Bus.
475.3625 ~ 475.4375	..... Taxi
475.4625 ~ 475.7875	..... R.R., Motor Carrier, Auto Emer.
475.8125 ~ 475.9876	..... Pet., For. Prod., Mfg.

The same allocation pattern is repeated for each of the TV channels 14 thru 20. For example, if channel 17 is assigned for communications in your area, "Taxi" would be 490.3625 to 480.4375 and 493.3625 to 493.4375 (corresponding to 472.3625 to 472.4375 and 475.3625 to 475.4375 above). Note that in the example, we added three TV channels (18 MHz) to the channel 14 frequencies.

BIRDIES

Some frequencies may be difficult or impossible to receive. If you program-in one of these, the Scanner may lock up and you hear only noise. These "birdies" are the products of internally generated signals mixing with external signals like TV and FM broadcasts. Telescopic antennas are much more likely to pick up these undesirable signals—that is another good reason for getting an outdoor, base-station type antenna for home installations.

If the interference is not severe, you may be able to use **SQUELCH** to cut out such annoying birdies.

A few of the most common birdies to watch out for are listed below.

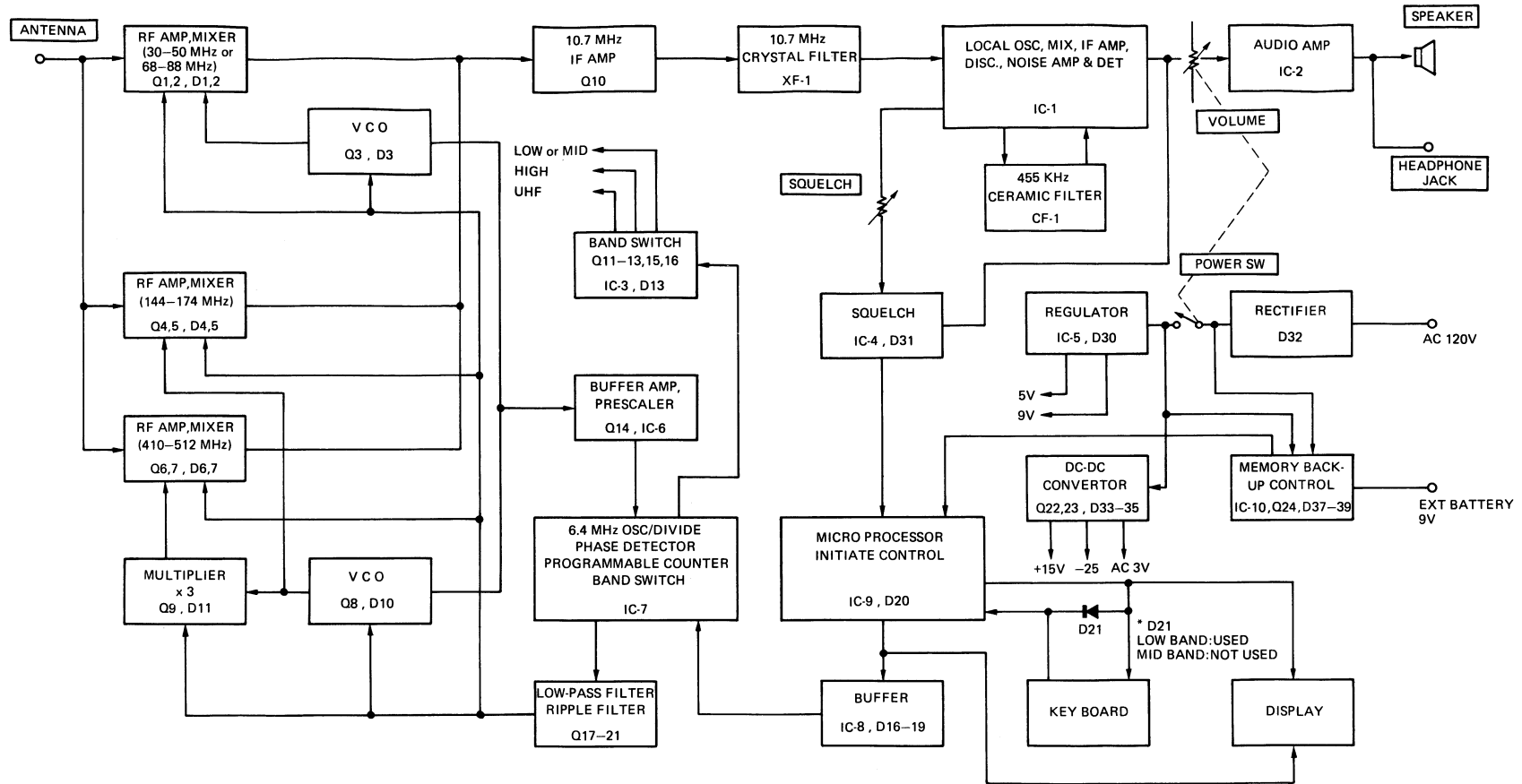
30.735 MHz	44.810 MHz
31.990	46.335
31.995	46.340
32.000	46.345
32.080	
38.395	153.290
38.400	166.405
40.975	
40.980	438.300
42.730	}
}	438.600
42.830	493.337
44.790	493.350
}	493.362

Even with the **SQUELCH** control set to maximum, scanning may stop on or around some of the frequencies listed above. If the spurious signal is strong enough (above 10µV in technical terms) you can listen to it, but the Receiver will not auto scan.

SPECIFICATIONS

SEMICONDUCTOR COMPONENT:	1 LSI Microprocessor system, 1 LSI PLL system, 2 C-MOS ICs, 6 ICs, 24 transistors and 40 diodes	SCANNING RATE:	10 channels/second
RECEIVING SYSTEM:	Superheterodyne with digital synthesizer to receive any of 18, 160 programmable frequencies.	DELAY TIME:	2 seconds
FREQUENCY COVERAGE:	VHF-Lo 30 – 50 MHz (in 5 kHz steps) Ham 144 – 148 MHz (in 5 kHz steps) VHF-Hi 148 – 174 MHz (in 5kHz steps) Ham/Gov't. 410 – 450 MHz (in 12.5 kHz steps) UHF-Lo 450 – 470 MHz (in 12.5 kHz steps) UHF-Hi ("T") 470 – 512 MHz (in 12.5 kHz steps)	MODULATION ACCEPTANCE:	±7 kHz
CHANNELS OF OPERATION:	Any eight channels in any band combinations.	I.F. FREQUENCY:	10.7 MHz and 455 kHz
SENSITIVITY (for 20 dB Signal-to-Noise ratio):	30 – 50 MHz 1.0μV 144 – 174 MHz 1.0μV 410 – 512 MHz 2.0μV	FILTER:	1 crystal filter, 1 ceramic filter
SPURIOUS REJECTION:	30 – 50 MHz 50 dB at 40 MHz 144 – 174 MHz 50 dB at 160 MHz 410 – 512 MHz Not specified.	SQUELCH SENSITIVITY:	Threshold Less than 1.0μV Tight (S+N/N) 30dB
SELECTIVITY:	±9 kHz, -6 dB ±17 kHz, -50 dB	ANTENNA IMPEDANCE:	50 ohms
		AUDIO POWER:	2 watts maximum
		BUILT-IN SPEAKER:	3" (7.7 cm)
		POWER REQUIREMENTS:	120 volts, 60 Hz, AC 15 wat maximum 9-volt battery for Memory back-up
		DIMENSIONS:	3-3/16" x 10-1/4" x 8-1/4" HWD (8 x 26 x 21 cm)
		WEIGHT:	5.33 lbs. (2.4 Kg)

BLOCK DIAGRAM



RADIO SHACK  **A DIVISION OF TANDY CORPORATION**

U.S.A.: FORT WORTH, TEXAS 76102
CANADA: BARRIE, ONTARIO L4M 4W5

TANDY CORPORATION

AUSTRALIA	BELGIUM	U. K.
280-316 VICTORIA ROAD RYDALMERE. N.S.W. 2116	PARC INDUSTRIEL DE NANINNE 5140 NANINNE	BILSTON ROAD WEDNESBURY, WEST MIDLANDS WS10 7JN