RADIO SCANNERS

Acrobat Reader required to view some owner's manuals.

Previous Page

RadioShack PRO-2037 Programmable Scanner

Catalog # 20-461

Featured Documents:

Owners Manual(s)

Not Available.

Parts List

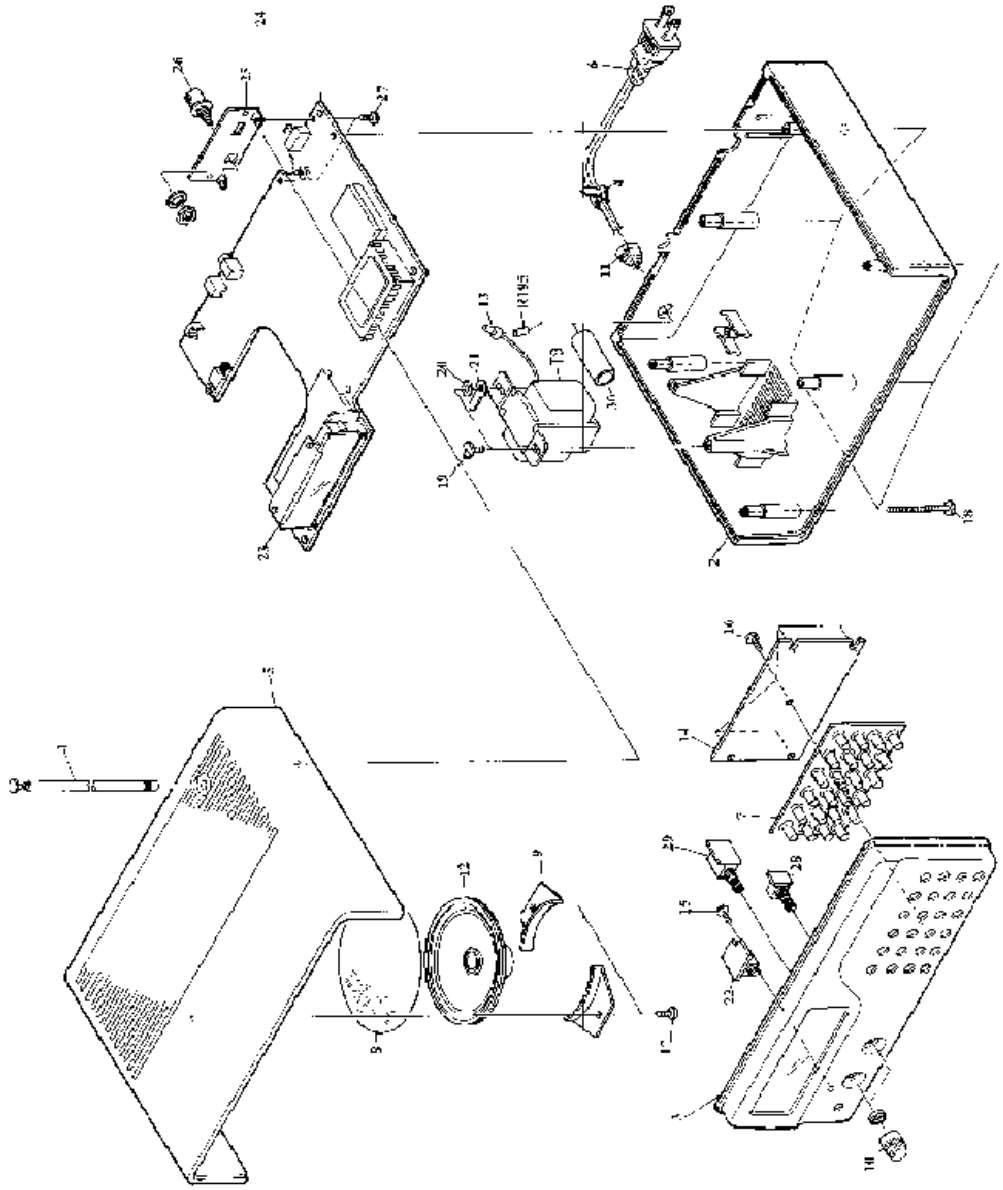
Detailed Parts List

Other Documents:

Main View
Guide to Scanning
Operation
Specifications
Features
Preparation
Understanding the Scanner
Troubleshooting
Care and Maintenance
FAQ: 200-0461 PRO-2037 Scanner

Previous Page

PRO-2037 PROGRAMMABLE SCANNER (200-0461) FAXBACK DOC # 11087



Privacy Policy

PRO-Series Direct Entry Programmable Scanners
General Guide To Scanning Faxback Doc. # 17653

Birdies

Birdies are frequencies your scanner uses when it operates. These operating frequencies might interfere with broadcasts on the same frequencies. If you program one of these frequencies, 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. The most common birdies to watch for are listed below.

Birdie Frequencies:

31.05 MHz	124.20 MHz
41.40 MHz	134.55 MHz
51.75 MHz	144.90 MHz
113.85 MHz	155.25 MHz

Reception Notes

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

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

A Guide To The Action Bands

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

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

A volunteer police department or fire department can also be a good source for this information.

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

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

In the UHF band, frequencies between 456.025 and 459.95 MHz and between 465.025 and 469.975 MHz are used by mobile units and control stations associated with base and repeater units that operate 5 MHz lower (that is, 451.025 to 454.950 and 460.025 to 464.975 MHz). This means that if you

find an active frequency inside one of these spreads, you can look 5 MHz lower (or higher) to find the base station/repeater for that service.

Typical Band Usage

The following is a brief listing of the typical services that use the bands you scanner can receive. This listing helps you decide which ranges you would like to scan.

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 available at you local RadioShack store.

Abbreviations:

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

ATTENTION: Your scanner may not be able to receive all frequencies and/or modes of reception that are contained within this document. For complete information of your scanner's capabilities, be sure to read your owner's manual completely.

Guide To Frequencies

National Weather Frequencies:

1) 161.650	5) 162.440	9) 162.525
2) 161.775	6) 162.450	10) 162.550
3) 162.400	7) 162.475	11) 163.275
4) 162.425	8) 162.500	

Ham Radio Frequencies

Ham operators often transmit emergency information when other communication methods break down. The following chart shows some of the

frequencies that Hams use.

Wavelength (Meters)	Frequency (MHz)
10-meter	28.000-29.700
6-meter	50.000-54.000
2-meter	144.000-148.000
70-cm	420.000-450.000

The following are the channels and frequencies of the Citizens Band:

1)	26.965	21)	27.215
2)	26.975	22)	27.225
3)	26.985	23)	27.255
4)	27.005	24)	27.235
5)	27.015	25)	27.245
6)	27.025	26)	27.265
7)	27.035	27)	27.275
8)	27.055	28)	27.285
9)	27.065	29)	27.295
10)	27.075	30)	27.305
11)	27.085	31)	27.315
12)	27.105	32)	27.325
13)	27.115	33)	27.335
14)	27.125	34)	27.345
15)	27.135	35)	27.355
16)	27.155	36)	27.365
17)	27.165	37)	27.375
18)	27.175	38)	27.385
19)	27.185	39)	27.395
20)	27.205	40)	27.405

Guide To The Action Bands

United States Broadcast Bands

In the United States, there are several broadcast bands. The standard AM and FM bands are probably the most well known. There are also four television audio broadcast bands-the lower three transmit on the VHF band and the fourth transmits on the UHF band.

Frequency Range	Allocation
54.0 - 72.0 MHz	VHF Television
76.0 - 88.0 MHz	VHF Television
88.0 - 108.0 MHz	Standard FM
174.0 - 216.0 MHz	VHF Television
470.0 - 805.75 MHz	UHF Television

International Broadcast Bands

Several short-wave bands are allocated for international broadcasting because of the nature of propagation of high frequencies. The bands are sometimes identified according to the approximate wavelength of the signals in meters. Your scanner may receive the 11-meter band, from 25.6 - 26.10 MHz.

Typical Band Usage

HF Band (3.0 - 30.0 MHz):

Mid Range:	25.00 - 28.63 MHz
10-Meter Amateur Band:	28.00 - 29.70 MHz
High Range:	29.70 - 29.90 MHz

VHF Band (30.00 - 300.0 MHz):

Low range: ..... 30.00 - 50.00 MHz
6-Meter Amateur: ..... 50.00 - 54.00 MHz
FM-TV Audio Broadcast, Wide Band: ..... 54.00 - 72.00 MHz
FM Radio Broadcast, Wide Band: ..... 88.00 - 108.00 MHz
Aircraft: ..... 108.00 - 136.00 MHz
U.S. Government: ..... 138.00 - 144.00 MHz
2-Meter Amateur: ..... 144.00 - 148.00 MHz
High Range: ..... 148.00 - 174.00 MHz
New Mobile Narrow Band: ..... 220.00 - 222.00 MHz
1.3-Meter Amateur: ..... 222.00 - 225.00 MHz
Military Aircraft: ..... 225.00 - 287.80 MHz

UHF Band (300.00 MHz - 3.0 GHz):

Military Aircraft: ..... 311.00 - 384.00 MHz
U.S. Government: ..... 406.00 - 470.00 MHz
0.6-Meter Amateur: ..... 420.00 - 450.00 MHz
Low Range: ..... 450.00 - 470.00 MHz
FM-TV Audio Broadcast, Wide Band: ..... 470.00 - 806.00 MHz
Conventional Systems: ..... 851.00 - 856.00 MHz
Conventional/Trunked Systems: ..... 856.00 - 861.00 MHz
Trunked Systems: ..... 861.00 - 866.00 MHz
Public Safety: ..... 866.00 - 869.00 MHz
Common Carrier: ..... 869.00 - 894.00 MHz
Private Trunked: ..... 935.00 - 940.00 MHz
General Trunked: ..... 940.00 - 941.00 MHz

Primary Usage:

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

VHF Band:

2-Meter Amateur Band: ..... 144.000 - 148.000 MHz
Government, police, and Fire: ..... 153.785 - 155.980 MHz
Emergency Services: ..... 158.730 - 159.460 MHz
Railroad: ..... 160.000 - 161.900 MHz

UHF Band:

.6 cm Amateur Band FM Repeaters: ..... 440.000 - 450.000 MHz
Land Mobile "Paired" Frequencies: ..... 450.000 - 470.000 MHz
Base Stations: ..... 451.025 - 454.950 MHz
Mobile Units: ..... 456.025 - 459.950 MHz
Repeater Units: ..... 460.025 - 464.975 MHz
Control Stations: ..... 465.025 - 469.975 MHz

NOTE: UHF remote control stations and mobile units typically operate at 5 MHz higher than their associated base and relay repeater units.

Specified Intervals

Frequencies in different bands are accessible only at specific intervals.

For Example:

VHF, HAM, and Government: ..... 5.0 kHz steps
All Others: ..... 12.5 kHz steps
Aircraft: ..... 25.0 kHz steps

Note: Your scanner rounds the entered frequency to the nearest valid frequency. For example, if you try to enter 151.473, the scanner might accept this as 151.470.

Band Allocation

To help you decide which frequency ranges to search, 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", as well as "Beyond Police Call", "Aeronautical Directory", "Nautical Directory" and "Now you're Talking" texts available at your local RadioShack store.

Abbreviations

AIR: ..... Aircraft
BIFC: ..... Boise (ID) Interagency Fire Cache
BUS: ..... Business
CAP: ..... Civil Air Patrol
CB: ..... Citizens Band
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
MARI: ..... Maritime Limited Coast
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
OIL: ..... Oil/Petroleum Industry
POL: ..... Police Department
PUB: ..... Public Services
PSB: ..... Public Safety
PTR: ..... Private Trunked
ROAD: ..... Road & Highway Maintenance
RTV: ..... Radio/TV Remote Broadcast Pickup
TAXI: ..... Taxi Services
TELBL: ..... Mobile Telephone
TELC: ..... Cordless Telephones
TELM: ..... Telephone Maintenance
TOW: ..... Tow Trucks
TRAN: ..... Transportation Services
TSB: ..... Trunked Systems
TVn: ..... FM-TV Audio Broadcast
USXX: ..... Government Classified
UTIL: ..... Power & Water Utilities
WTHR: ..... Weather

High Frequency (HF)-(3 - 30 MHz):
High Band - (25.00 - 27.36 MHz):

25.020 - 25.320: ..... IND
25.870 - 26.470: ..... RTV
26.62: ..... CAP
26.966 - 27.405: ..... CB
27.430 - 27.630: ..... BUS

10-Meter Amateur Band - (28.0 - 29.7 MHz):

28.000 - 29.700: ..... HAM

Very High Frequency (VHF) - (30 - 300 MHz):

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
36.250: ..... Oil spill clean up
36.270 - 36.990: ..... 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, TELC
47.020 - 47.400: ..... PUB
47.420: ..... American Red Cross
47.440 - 49.580: ..... IND, PUB
49.610 - 49.990: ..... MIL, TELC

6-METER Amateur Band (50-54 MHz):

50.00 - 54.00: ..... HAM

FM-TV Audio Broadcast, Wide Band (54-72 MHz):

59.750: TV2
65.750: TV3
71.750: TV4

Land Mobile Service Band (72-76 MHz):

FM-TV Audio Broadcast, Wide Band (76-88 MHz):

81.750: TV5
87.750: TV6

FM Radio Broadcast, Wide Band (88-108 MHz):

Aircraft Band (108-136 MHz):

108.000 - 121.490: ..... AIR
121.500: ..... AIR emergency
121.510 - 136.000: ..... AIR

U.S. GOVERNMENT BAND (138-144 MHz):

137.000 - 144.000: ..... GOVT, MIL

VHF-Hi BAND (148-174 MHz):

148.050 - 150.345: ..... CAP, MARS, MIL
150.775 - 150.790: ..... MED
150.815 - 150.965: ..... TOW
150.980: ..... Oil spill clean up
150.995 - 151.130: ..... ROAD
151.145 - 151.475: ..... POL
151.490 - 151.955: ..... IND, BUS
151.985: ..... TELM
152.030 - 152.240: ..... TELB
152.270 - 152.465: ..... IND, TAXI
152.480: ..... BUS
152.510 - 152.840: ..... TELB
152.870 - 153.020: ..... IND, MOV
153.035 - 153.175: ..... IND, OIL, UTIL

153.740 - 154.445: ..... PUB, FIRE
154.490 - 154.570: ..... IND, BUS
154.585: ..... Oil spill clean up
154.600 - 154.625: ..... BUS
154.665 - 156.240: ..... MED, ROAD, POL, PUB
165.255: ..... OIL
156.275 - 157.425: ..... MARI
157.450: ..... MED
157.470 - 157.515: ..... TOW
157.530 - 157.725: ..... IND, TAXI
157.740: ..... BUS
157.770 - 158.100: ..... TELB
158.130 - 158.460: ..... BUS, IND, OIL, TELM, UTIL
158.490 - 158.700: .. .. TELB
158.730 - 159.465: ..... POL, PUB, ROAD
159.480: ..... OIL
159.495 - 161.565: ..... TRAN
161.580: ..... OIL
161.600 - 162.000: ..... 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: ..... WIRELESS MIKES
169.500: ..... GOVT
169.505: ..... WIRELESS MIKES
169.55 - 169.9875: ..... GOVT, MIL, USXX
170.000: ..... BIFC
170.025 - 170.150: ..... 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 - 173.375: ..... MOV, NEWS, UTIL
173.3875 - 178.5375: ..... MIL
173.5625 - 173.5875: ..... MIL Medical/Crash Crews
173.60 - 173.9875: ..... GOVT

FM-TV Audio Broadcast, VHF Wide Band (174-216 MHz):

179.750: TV7
185.750: TV8
191.750: TV9
197.750: TV10
203.750: TV11
209.750: TV12
215.750: TV13

New Mobil Narrow Band (220-222 MHz):

220.000 - 222.000: ..... NEW

1.3-Meter Amateur Band (222-225 MHz):

222.000 - 225.000: ..... HAM

MILITARY AIRCRAFT BAND (237.9-287.8 MHz):

237.900: ..... Coast Guard Search & Rescue
239.800: ..... FAA Weather
241.000: ..... ARMY

243.000: ..... EMERGENCY
255.400: ..... FAA FLIGHT SERVICE
257.800: ..... CIVILIAN TOWERS
287.800: ..... Coast Guard Air/Sea Rescue

Ultra High Frequency (UHF)-(300 MHz-3 GHz)

Military Aircraft Band (319.1 - 383.9 MHz):

319.100: ..... FAA Traffic Control
321.000 - 336.600: ..... Air Force
342.500 - 344.600: ..... FAA Weather
346.400 - 364.200: ..... Air Force Traffic Control
381.800 - 383.900: ..... Coast Guard

U.S. Government Band (406-420 MHz):

406.125 - 419.975: ..... GOVT, USXX

70-cm Amateur Band (420-450 MHz):

420.000 - 450.000: ..... HAM

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 - 453.9875: ..... PUB
454.000: ..... OIL
454.025 - 454.975: ..... TELB
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 - 462.725: ..... GMR
462.750 - 462.925: ..... BUS
462.9375 - 463.1875: ..... MED
463.200 - 467.925: ..... BUS

FM-TV Audio Broadcast, UHF Wide Band (470-512 MHz):
(Channels 14-69 in 6 MHz steps):

475.750: ..... Channel 14
481.750: ..... Channel 15
487.750: ..... Channel 16
805.750: ..... Channel 69

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

Conventional Systems Band - Locally Assigned

851.0125 - 855.9875: ..... CSB

Conventional/Trunked Systems Band - Locally Assigned

856.0125 - 860.9875: ..... CTSB

Trunked Systems Band - Locally Assigned

861.0125 - 865.9875: ..... TSB

Public Safety Band - Locally Assigned

866.0125 - 868.9875: ..... PSB

Common Carrier

869.010 - 894.000: ..... CCA

Private Trunked

935.0125 - 939.9875: ..... PTR

General Trunked

940.0125 - 940.9875: ..... GTR

Frequency Conversion

The tuning 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 by 1,000:

9.62 MHz x 1000 = 9620 kHz

To convert from kHz to MHz, divide by 1,000

2780 kHz / 1000 = 2.780 MHz

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

300 / 7.1 MHz = 42.25 meters

A Note on Image Reception

Radios work by simple mathematics. For example, most tune to a frequency by mixing that frequency with another (local oscillator) frequency which is slightly different. This mixing process primarily gives us the two original frequencies, their sum, and their difference. Well, the radio's Intermediate Frequency (I.F.) filter normally passes either the sum or difference frequency, and this is then processed into the sound we hear. Because nothing is perfect, certain "harmonics" will also get through if they are strong enough. For example, if a radio's I.F. is 10.7 MHz, we might be able to tune to a frequency 21.4 MHz (2 x I.F.) above (or below, depending on the radio's design) a strong signal and hear it! This is more evident in a double-conversion radio than a triple-conversion radio, because the triple-conversion radio's 1st intermediate frequency is quite high. This causes the image to be so far off frequency that it is easy to effectively filter it out.

So remember that just because a radio doesn't receive something which another does is not necessarily an indication of a problem. The one radio may simply not be "tricked" into picking up an image! This rejection of undesired signals is one reason that a triple-conversion receiver costs more than a similar dual-conversion model.

You might be interested in finding more out about radio. One good location to start looking is your local public library. You might also wish to contact the A.R.R.L., as they are an excellent source of informative texts on the subject.

Contact:
Amateur Radio Relay League
225 Main St.,
Newington, CT 06111-1494
USA

(CD EB 2/22/00)

Privacy Policy

PRO-2037 Programmable Scanner
(200-0461) Operation Faxback Doc.# 31133

Changing the AM/FM Mode

We designed your scanner to automatically select the most common receive mode for each frequency range. The default settings are:

FREQUENCY (MHz)	RECEIVE MODE
30.000 - 54.000	FM
118.000 - 136.975	AM
137.000 - 174.000	FM
380.000 - 512.000	FM
806.000 - 960.000	FM

Although the preset mode is correct in most cases, some harm radio and military aircraft broadcasts do not receive in the default mode. When the scanner is not set to the correct receive mode, the broadcast might sound weak or distorted.

The scanner was designed to automatically select the most common receive mode for each frequency range. Although the preset mode is correct in most cases, some ham and military broadcasts do not receive in the default mode. When the scanner is not set to the correct receive mode, the broadcast might sound weak or distorted.

To change the mode press AM/FM. AM or FM blinks on the display when you override the default mode.

If you press AM/FM during a limit or direct search, the scanner no longer uses the default AM/FM mode for each frequency. The scanner keeps searching for frequencies in the selected mode and AM and FM blinks on the display. AM or FM blinks even if the mode of the frequency is the same as the default setting. To return to the default settings, press AM/FM while holding down CLEAR.

LIMIT SEARCH

Limit search lets you search for active frequency within the range you select, so you can choose which ones you want to store.

1. Press PROGRAM, then LIMIT. Lo appears on the display.

2. Using the number keys, enter the lower limit of the Frequency range.

3. Press ENTER, then LIMIT Hi appears on the display.

4. Using the number keys, enter the upper limit of the frequency range and press ENTER

5. Press the up arrow to search from the lower limit to the upper limit, or the down arrow to search from the upper limit to the lower limit.

6. When the scanner stops press MONITOR to store the freq. in a current monitor memory.

DIRECT SEARCH

When the scanner is stopped on a frequency, you can search up or down from the current displayed frequency to find more frequencies you want to store.

1. Press MANUAL or PROGRAM.

2. Use the number keys to enter the frequency you want to start the search from, or use the number keys to to enter the channel nunmber containing the starting frequency.

3. Press MANUAL or PROGRAM.

4. Press the up arrow to search up from the frequency or the down arrow to search down from the selected frequency.

5. When the scanner stops press MONITOR to store the frequency in a current monitor memory.

DELAY

Many agencies use a two-way radio system that might have a pause between a query and a reply. Your scanner's delay feature waits for 2 seconds after each transmission while scanning or searching.

To program a 2-second delay for any channel while scanning, manually select the channel and press DELAY until DELAY appears on the display. When your scanner stops on the channel, it waits for 2 seconds after each transmission before it resumes scanning.

To program a 2-second delay for any active frequency while searching,

press DELAY until DELAY appears on the display. When your scanner stops on a frequency, it waits for 2 seconds after each transmission before it resumes searching.

To turn off the programmed delay on any active channel, press DELAY while the channel is still active. DELAY disappears from the display.

LOCKING OUT A CHANNEL

You can scan channels faster by locking out those that have a continuous transmission, such as a weather channel.

To lock out a channel while scanning, press LOCK OUT when the scanner stops on the channel. To lock out a channel manually, manually select the channel and press LOCK OUT until LOCK-OUT appears on the display.

To remove the lockout from a channel, manually select the channel and press LOCK OUT so LOCK-OUT disappears from the display.

Notes:

You can still manually select locked-out channels.

You cannot lock out all channels.

PRIORITY

The priority feature lets you scan through the programmed channels and still not miss an important or interesting call on a specific channel. To program a stored channel as the priority channel, press PROGRAM, the desired channel number, and then PRIORITY.

Note:

You can only select one channel as the priority channel.

To turn on the priority feature, press PRIORITY appears on the display. The scanner checks the priority channel every 2 seconds, and stays on the channel if there is activity. P appears to the left of the display whenever the scanner is set to the priority channel.

To turn off the priority feature, press PRIORITY during scanning until PRIORITY disappears from the display.

USING THE ATT SWITCH

You can set ATT to 10 dB to reduce interference or noise caused by signals from a strong local broadcast, or to 0dB to increase the reception of weak signals.

Note:

With the switch set to 10 dB, your scanner might not receive weak signals.

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.

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

GUIDE TO FREQUENCIES

National Weather Frequencies

161.650 MHz	162.425 MHz	162.475 MHz	162.550 MHz
161.775 MHz	162.440 MHz	162.500 MHz	163.275 MHz
162.400 MHz	162.450 MHz	162.525 MHz	

Ham Radio Frequencies

Ham radio operators often broadcast emergency information when other means of communication break down.

The following chart shows the voice frequencies that you can monitor.

Wavelength (meters)	Voice (MHz)	
6-meter	50.100	54.000
2-meter	144.100	148.000
70-cm	420.000	450.000

BIRDIES

Birdies are frequencies your scanner uses when it operates. These operating frequencies might interfere with broadcasts on the same frequencies. If you program one of these frequencies, the scanner locks

up and you hear only noise on that frequency.

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

Birdie Frequencies:

32.100 MHz	150.150 MHz	429.050 MHz	810.150 MHz
32.250 MHz	155.500 MHz	434.400 MHz	820.650 MHz
42.975 MHz	166.200 MHz	450.450 MHz	915.400 MHz
44.085 MHz	171.250 MHz	479.100 MHz	944.050 MHz
48.185.MHz	171.550 MHz	489.290 MHz	949.400 MHz
52.400 MHz	400.400 MHz	504.125 MHz	

Note:

Depending on the temperature of some of the scanner's internal components, you might hear birdies on frequencies slightly above or below the frequencies listed here.

GUIDE TO THE ACTION BANDS

Typical Band Usage

VHF Band (30.00-300.0 MHz)	
Low Range	(30.00-50.00 MHz)
6-Meter Amateur	(50.00-54.00 MHz)
Aircraft	(108.00-136.00 MHz)
U.S. Government	(137.00-144.00 MHz)
2-Meter Amateur	(144.00-148.00 MHz)
High Range	(148.00-174.00 MHz)
UHF Band (300.00 MHz-3.0 GHz)	
Military Aircraft	(380.00-384.00 MHz)
U. S. Government	(406.00-450.00 MHz)
70-Centimeter Amateur	(420.00-450.00 MHz)
Low Range	(450.00-470.00 MHz)
FM-TV Audio Broadcast, Wide Band	(470-00-512.00 MHz)
Public Service	(806.00-823.98 MHz)
Conventional Systems	(851.00-856.00 MHz)
Conventional/Trunked Systems	(856.00-861.00 MHz)
Trunked Systems	(861.00-866.00 MHz)
Public Safety	(866.00-869.00 MHz)
High Range	(894.01-902.00 MHz)
33-Centimeter Amateur	(902.00-928.00 MHz)
Private Trunked	(935.00-940.00 MHz)
General Trunked	(940.00-941.00 MHz)
Fixed Services	(941.00-944.00 MHz)
Studio-to-Transmitter Broadcast Links	(944.00-952.00 MHz)
Private Fixed Services, Paging	(952.00-960.00 MHz)

Primary Usage

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

VHF Band

Activities	Frequencies
Government, Police, and Fire	153.785-155.980 MHz
Emergency Services	158.730-159.460 MHz
Railroad	160.000-161.900 MHz

UHF Band

Activities	Frequencies
Land-Mobile Paired Frequencies	450.000-470.000 MHz
Base Stations	451.025-454.950 MHz
Mobile Units	456.025-459.950 MHz
Relay Repeater Units	460.025-464.975 MHz
Remote Control Stations	465.025-469.975 MHz

Note:

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

Specified Intervals

Frequencies in different bands are accessible only at specific intervals. For example:

Band Type	Specified Interval
VHF, HAM, and Government	5.0 kHz steps
All Others	12.5 kHz steps
Aircraft	25.0 kHz steps

Note:

Your scanner automatically rounds the entered frequency down to the closest valid frequency. For example, if you try to enter a frequency of 151.473, your scanner accepts it as 151.470.

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 Radio Shack store.

Abbreviations

AIR.....Aircraft

BIFC.....Boise (ID) Interagency Fire Cache

BUS.....Business

CAP.....Civil Air Patrol

CB.....Citizens Band

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

PFSP.....Private Fixed Services/Paging

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

TELB.....Mobile Telephone
(Aircraft, Radio Common Carrier, Landline companies)

TELC.....Cordless Phones

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

Very High Frequency (VHF) - 30 MHz-300 MHz)
Low Band (29.7-50 MHz - in 5 kHz steps)

30.550.....GOVT. MIL

30.580-31.980.....IND. PUB

32.000-32-990.....GOVT MIL

33.020-33.980.....US, IND, PUB

34.010-34-990.....GOVT, MIL

35.020-35.980.....BUS, PUB, IND, TELM

35.000-36.230.....GOVT, MIL

36.250.....Oil Spill Clean up

36.270-36.990.....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, TELC

47.020-47.400.....PUB

47.420.....American Red Cross

47.440-49.580.....IND, PUB

49-610-49.990.....MIL, TELC

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 (138-144 MHz) 137.000-144.000.....GOVT, MIL

2-Meter Amateur Band (144-148 MHz) 144.000-148.000.....HAM

VHF-Hi BAND (148-174 MHz) 148.050-150.345.....CAP, MAR, MIL

150.775-150.790.....MED

150.815-150.965.....TOW

150.980.....Oil Spill Clean up

150.995-151.130.....ROAD

151.145-151.475.....POL

151.490-151.955.....IND, BUS

151.985.....TELM

152.0075.....MED

152.030-152.240.....TELB

152.270-152.465.....IND, TAXI

152.480.....BUS

152.510-152.840.....TELB

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 Clean up

154.600-154.625.....BUS

154.655-156.240.....MED, ROAD, POL, PUB

156.255.....OIL

156.275-157.425.....MARI

157.450.....MED

157.470-157.515.....TOW

157-530-157.725.....IND, TAXI

157.740.....BUS

157.770-158.100.....TELB

158.130-158.460.....BUS, IND, OIL, TELM, UTIL

158.490-158.700.....TELB

158.730-26.465.....POL, PUB, ROAD

159.480.....OIL

159.495-161.565.....TRAN

161.580.....OIL

161.600-162.000.....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.....Wireless Mikes

169.500.....GOVT

169.505.....Wireless Mikes

169.55-169.9875.....GOVT, MIL. USXX

170.000.....BIFC

170.025-170.150.....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

173.225-173.375.....MOV, NEWS, UTIL

173.3875-173.5375.....MIL

173.5625-173.5875.....MIL Medical/Crash Crews

173.60-173.9875.....GOVT

Ultra High Frequency (UHF)-300 MHz-3 GHz)

Military Aircraft Band (380-383.9 MHz) 381.800-383.900.....Coast Guard

U.S Government Band (406-450 MHz) 406.125-419.975.....GOVT, USXX

70-Centimeter Amateur Band (420-450 (MHz) 420.000-450.000.....HAM

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

453.0125-453.9875.....PUB

454.000.....OIL

454.025-454.975.....TELB

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

462.550-462.725.....GMR

462.750-462.925.....BUS

462.9375-463.1875.....MED

463.200-467.925.....BUS

FM-TV Audio Broadcast, UHF Wide Band (470-512 MHz)
(Channels 14 through 69 in 6 MHz steps)

475.750.....Channel 14

481.750.....Channel 15

487.750.....Channel 16

805.750.....Channel 69

Note:

Some cities use the 470-512 MHz band for land/mobile service.

Conventional Systems Band - Locally Assigned

851.0125-855.9875.....CSB

Conventional/Trunked Systems Band-Locally Assigned

856.0125-860.9875.....CTSB

Trunked Systems Band - Locally Assigned
861.0125-865.9875.....TSB

Public Safety Band-Locally Assigned
866.0125-868.9875.....PSB

33-Centimeter Amateur Band (902-928 MHz)
902.0000-928.0000.....HAM

Private Trunked
935.0125-939.9875.....PTR

General Trunked
940-0125-940.9875.....GTR

Fixed Services
941.0000-944.0000.....GOVT

Studio-to-Transmitter Broadcast Links
944.0000-952.0000 TVn

Private Fixed Services, Paging
952.0000-960.0000.....PFSP

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 by 1,000:

30.62 MHz x 1000 = 30,620 kHz

To convert from kHz to MHz, divide by 1,000.

127800kHz/1000=127.8MHz

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

300/171MHz= 1.75 meters

(br/km-02/05/1997)

PRO-2037 Programmable Scanner
(200-0461) Specifications Faxback Doc. # 34421

Frequency Coverage:.....30-54 Mhz (in 5 kHz steps)
118.0000 - 136.9750 MHz (in 25 kHz steps)
137.0000 - 174.0000 MHz (in 5 kHz steps)
380.0000 - 512.0000 MHz (in 12.5 kHz steps)
806.0000 - 823.9875 MHz (in 12.5 kHz steps)
849.0125 - 868.9875 MHz (in 12.5 kHz steps)
894.0125 - 960.0000 MHz (in 12.5 kHz steps)
Channels of Operation:..200 Channels in any band (20 channels x 10 banks)
plus 10 monitor memories
Sensitivity (FM - 20 dB (S+N)/N at 3 kHz deviation):
30 - 54 MHz:.....1 microV
118 - 136.975 MHz:.....1 microV
137 - 174 MHz:.....1 microV
380 - 512 MHz:.....1 microV
806 - 960 MHz:.....2 microV
(AM - 20 dB (S+N)/N at 60% modulation):
30 - 54 MHz:.....2 microV
118 - 136.975 MHz:.....2 microV
137 - 174 MHz:.....2 microV
380 - 512 MHz:.....2 microV
806 - 960 MHz:.....4 microV
Spurious Rejection: (FM at 154 MHz).....40 dB
Selectivity:
+/-10 kHz:.....-6 dB
+/-20 kHz:.....-50 dB
IF Interference Ratio:
257.5 MHz at 154 MHz:.....50 dB
21.4 MHz at 154 MHz:.....100 dB
Scanning Rate:.....25 channels/sec
Search Rate:.....50 steps/sec
Priority Sampling:.....2 seconds
Delay Time:.....2 seconds
IF Frequencies:.....257.5, 21.4, and 0.455 MHz
Squelch Sensitivity:
Threshold:.....Less than 1.0 microV
Tight (FM):.....(S+N)/N 25 dB
Tight (AM):.....(S+N)/N 20 dB
Antenna Impedance:.....50 Ohms
Audio Power (10% THD):.....1 W nominal
Built-in Speaker:.....3" (77 mm) 8 Ohm, dynamic type
Power Requirement:
AC:.....120 V, 60 Hz, 13 watts
DC:.....13.8 V, 8 watts
(DC adapter, not supplied - Cat. No. 270-1533)
Operating Temperature:.....+32 Degrees F to +109 Degrees F
(0 Degrees C to +43 Degrees C)
Dimensions:.....3 1/4" x 8 7/16"x 6 13/16" (HWD) (83 x 214 x 173 mm)
Weight (without antenna and batteries):.....Approx. 38.7 oz. (1.1 kg)

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

(IR-08/27/96)

PRO-2037 Programmable Scanner
(200-0461) Features Faxback Doc. # 37888

Your new Radio Shack PRO-2037 Programmable Scanner lets you in on all the action! This scanner gives you direct access to more than 31,000 frequencies that include police and fire departments, aircraft communications, amateur ratio, and ambulance and transportation 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 custom-designed microprocessor-a tiny, built-in computer.

Your scanner also has these special features:

Hyperscan	scans 25 channels per second and searches 50 frequencies per second.
Headphones Jack	lets you connect a pair of headphones or an external speaker.
Tripe Conversion Superheterodyne	eliminates any interference from IF (Intermediate Frequency) images, so you only hear the selected frequency.
Ten Channel-Storage Banks	let you store 20 channels in each of ten banks to group channels so calls are easier to identify.
Monitor Memories	let you temporarily save up to ten channels you locate during a frequency search.
Two-Second Channel Scan Delay	delays scanning for 2 seconds before moving to another channel so you can hear more replies.
Lock out Function	keeps selected channels from being scanned so you can skip over them.
Priority Channel	checks a channel you select every 2 seconds to keep you from missing important calls.
AM/FM Mode	automatically selects the most common reception type for the band you are scanning, and lets you override the selection.
Att Switch	reduces the scanner's sensitivity to strong local signals.
Memory Backup	keeps channel frequencies stored in memory for up to 1 hour during a power loss.
Liquid-Crystal Display	shows the selected channel and frequency.

Note:

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

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

Serial Number:_____

Your PRO-2037 covers the following bands:

30-50 MHz (VHF Lo)

50-54 MHz (6-Meter Ham Band)

118-136.975 MHz (Aircraft)

137-144 MHz (Government)

144-148 MHz (2-Meter Ham Band)

148-174 MHz (VHF Hi)

380-450 MHz (Ham Radio and Government)

450-470 MHz (UHF Lo)

470-512 MHz (UHF TV)

806-823.9875 MHz (UHF Hi)

849.0125-868.9875 MHz (UHF Hi)

894.0125-960 MHz (UHF Hi)

(br/km-02/05/1997)

PRO-2037 Programmable Scanner
(200-0461) Preparation Faxback Doc. # 37889

This scanner is primarily designed for use in the home as a base station. You can place it on a desk, shelf, or table.

Your scanner's front feet fold up or down. Adjust them to give you the best view of the display.

CONNECTING THE ANTENNA

To attach the supplied telescoping antenna, simply screw it clockwise into the hole on the scanner's top.

The scanner's sensitivity depends on the antenna's length and various environmental conditions. For the best reception of the transmissions you want to hear, adjust the antenna length.

Frequency	Antenna Length
30-174 MHz	extend fully
380-512 MHz	extend 2 segments
806-960 MHz	collapse fully (1 segment only)

Connecting an Optional Antenna

The telescoping antenna is adequate for strong local signals. But, for improved reception, you can connect a multi-band outdoor antenna (not supplied) to the scanner. Your local Radio Shack store sells a variety of antennas. Choose the one that best meets your needs.

When deciding on an outdoor base antenna and its location, consider the following:

The location of the antenna should be 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 antenna, always use 50-ohm coaxial cable, such as RG-58 or RG-8. For lengths over 50 feet, use RG-8 low-loss dielectric coaxial cable. If the coaxial cable's connector does not fit in the ANT jack, you might also need a PL-259-to-BNC antenna plug adapter, such as Cat. No. 278-120. Your local Radio Shack store carries a wide variety of coaxial antenna cable and connectors.

Caution:

Do not run the cable over sharp edges or moving objects.

Warning:

Use extreme caution when you install or remove 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.

CONNECTING POWER

You can power your scanner from either of these sources:

Standard AC power

Vehicle battery power (using an optional DC adapter)

The memory backup circuit begins to function a few minutes after you connect the scanner to AC or DC power. If a power failure occurs or if the power cord is disconnected, this circuit protects information in the scanner's memory for about 1 hour.

Connecting AC Power

Plug the scanner's AC power cord into a standard AC outlet.

Caution:

To prevent electric shock, the plug's blades are polarized and fit only one way. If the plug does not fit easily, turn it over and try again. Do not force the plug into the AC outlet.

Connecting DC Power

You can power your scanner from your vehicle's cigarette-lighter socket using a DC adapter (Radio Shack Cat. No. 270-1533).

Cautions:

The vehicle must have a 12-volt, negative ground electrical system.

You must use a DC adapter that supplies 12 volts and delivers at least 500 mA and its plug must correctly fit the DC 13.8 V jack on the back of the scanner. The recommended adapter meets these specifications. Using an adapter that does not meet these specifications could seriously damage the scanner or the adapter.

Insert the DC adapter's small barrel plug into the DC 13.8 V jack on the scanner's back. Then plug the other end of the DC adapter into your vehicle's cigarette-lighter socket.

RESETTING AND INITIALIZING THE SCANNER

If the scanner's display locks up or the scanner does not work properly later you connect power, you might have to reset the scanner's display or initialize the scanner.

Resetting the Scanner's Display

1. Turn off the scanner, then turn it on again.

2. Insert a pointed object, such as a straightened paper clip, into the RESET hole on the back of the scanner.

If the scanner still does not work properly, you might have to initialize the scanner.

Initializing the Scanner

Caution:

This procedure clears all information you programmed 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. Press and hold down CLEAR and insert a pointed object, such as a straightened paper clip, into the RESET hole on the back of the scanner.

3. Release RESET. When the display reappears, release CLEAR.

Note:

You must release RESET before releasing CLEAR in order to clear the memory.

CONNECTING HEADPHONES

For private listening, you can connect an optional pair of headphones with a 1/8-inch plug to the scanner. Use monaural headphones, such as Cat. No. 20-210.

Insert the headphones' plug into the HEADPHONE jack on the front of the scanner.

Note:

Plugging in headphones automatically disconnects the internal speaker.

Listening Safely

To protect your hearing, follow these guidelines when you use headphones.

Set the volume to its lowest setting before you begin listening. After you put on the headphones, adjust the volume to a comfortable listening level.

Do not listen at extremely high-volume levels. Extended high-volume listening can lead to permanent hearing loss.

Do not increase the volume once you establish a comfortable listening level. Over time, your ears adapt to the volume level, so a volume level that does not cause discomfort might still damage your hearing.

Traffic Safety

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

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

CONNECTING AN EXTERNAL SPEAKER

You can connect an optional external speaker with a 1/8-inch plug to the scanner. Use an 8-ohm external speaker capable of handling over 5 watts of power, such as Cat. No. 21-549.

Insert the speaker cable's plug into the EXT SPKR jack on the back of the scanner.

Note:

Plugging in an external speaker automatically disconnects the scanner's internal speaker.

(br/km-02/05/1997)

PRO-2037 Programmable Scanner
(200-0461) Understanding Your Scanner Faxback Doc. # 37890

A LOOK AT THE KEYBOARD

A quick glance at this section should help you understand each key's function.

Scan - scans through the programmed channels.

MANUAL - stops scanning to let you directly enter a channel number.

LOCK OUT - lets you lock out selected channels.

DELAY - programs a 2-second delay for the selected channel.

LIMIT - sets the frequency range you want to search.

Up and Down Arrow - search up or down from the currently displayed frequency.

MONITOR - accesses the 10 monitor memories.

AM/FM - switches the scanner to the AM or FM mode.

PRIORITY - sets and turns on and off the priority feature for a particular channel.

CLEAR - clears an incorrect entry.

PROGRAM - programs frequencies into channels.

Number Keys - each key has a single digit label and a range of numbers above it. Use the digits on the keys to enter the numbers for a channel or a frequency. Use the range of numbers above the key (61-80, for example) to select the channels in a channel-storage bank.

. - enters a decimal point when you enter a frequency.

ENTER - stores a frequency in a channel.

A LOOK AT THE DISPLAY

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

MANUAL - appears when you manually select a channel.

SCAN - appears when you scan channels.

SEARCH - appears during a limit search (-L- also appears) or a direct search (-d- also appears). Up or Down Arrow also appear to indicate the search direction.

PRIORITY - appears when you turn on the priority channel feature.

P - appears when the scanner is set to the priority channel.

MONITOR - appears when you listen to a monitor memory.

BANK - bars to the right of this indicator show which memory banks are turned on for scanning.

CH - appears with a number (1-200) to show which of the scanner's 200 channels it is tuned to.

FM or AM - shows whether the scanner is set to the FM or AM mode. If FM or AM flashes, you manually selected the mode.

DELAY - appears when the scanner stops at a channel you programmed for a 2-second delay.

PROGRAM - appears when you program frequencies into the scanner's channels.

LOCK-OUT - appears when you lock out a channel or manually select a locked-out channel.

UNDERSTANDING MEMORY

You can store frequencies into either a permanent memory location, called a channel, or a temporary memory location, called a monitor memory. You can store up to 200 channels and 10 monitor memories.

CHANNEL-STORAGE BANKS

To make it easier to identify and select the channels you listen to most often, channels are divided into 10 channel-storage bank to group frequencies, such as those used by the police department, fire department, ambulance services, or aircraft.

For example, there might be three or four police departments in your area, each using several different frequencies. Additionally, there might be other law enforcement agencies such as state police, county sheriffs, or SWAT teams that use their own frequencies. You could program all law enforcement frequencies starting with Channel 1 (the first channel in Bank 1), then program the fire department, paramedic, and other public safety frequencies starting with Channel 21 (the first channel in Bank 2).

MONITOR MEMORIES

The scanner also has 10 monitor memories. You can use these memories to temporarily store frequencies while you decide whether or not to save them in channels. This is handy for quickly storing an active frequency when

you search through an entire band.

Notes:

To store a frequency into a monitor memory, you must perform a limit or direct search.

You can select monitor memories manually, but you cannot scan them.

(br/km-02/05/1997)

PRO-2037 Programmable Scanner
(200-0461) Understanding Your Scanner Faxback Doc. # 37890

A LOOK AT THE KEYBOARD

A quick glance at this section should help you understand each key's function.

Scan - scans through the programmed channels.

MANUAL - stops scanning to let you directly enter a channel number.

LOCK OUT - lets you lock out selected channels.

DELAY - programs a 2-second delay for the selected channel.

LIMIT - sets the frequency range you want to search.

Up and Down Arrow - search up or down from the currently displayed frequency.

MONITOR - accesses the 10 monitor memories.

AM/FM - switches the scanner to the AM or FM mode.

PRIORITY - sets and turns on and off the priority feature for a particular channel.

CLEAR - clears an incorrect entry.

PROGRAM - programs frequencies into channels.

Number Keys - each key has a single digit label and a range of numbers above it. Use the digits on the keys to enter the numbers for a channel or a frequency. Use the range of numbers above the key (61-80, for example) to select the channels in a channel-storage bank.

. - enters a decimal point when you enter a frequency.

ENTER - stores a frequency in a channel.

A LOOK AT THE DISPLAY

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

MANUAL - appears when you manually select a channel.

SCAN - appears when you scan channels.

SEARCH - appears during a limit search (-L- also appears) or a direct search (-d- also appears). Up or Down Arrow also appear to indicate the search direction.

PRIORITY - appears when you turn on the priority channel feature.

P - appears when the scanner is set to the priority channel.

MONITOR - appears when you listen to a monitor memory.

BANK - bars to the right of this indicator show which memory banks are turned on for scanning.

CH - appears with a number (1-200) to show which of the scanner's 200 channels it is tuned to.

FM or AM - shows whether the scanner is set to the FM or AM mode. If FM or AM flashes, you manually selected the mode.

DELAY - appears when the scanner stops at a channel you programmed for a 2-second delay.

PROGRAM - appears when you program frequencies into the scanner's channels.

LOCK-OUT - appears when you lock out a channel or manually select a locked-out channel.

UNDERSTANDING MEMORY

You can store frequencies into either a permanent memory location, called a channel, or a temporary memory location, called a monitor memory. You can store up to 200 channels and 10 monitor memories.

CHANNEL-STORAGE BANKS

To make it easier to identify and select the channels you listen to most often, channels are divided into 10 channel-storage bank to group frequencies, such as those used by the police department, fire department, ambulance services, or aircraft.

For example, there might be three or four police departments in your area, each using several different frequencies. Additionally, there might be other law enforcement agencies such as state police, county sheriffs, or SWAT teams that use their own frequencies. You could program all law enforcement frequencies starting with Channel 1 (the first channel in Bank 1), then program the fire department, paramedic, and other public safety frequencies starting with Channel 21 (the first channel in Bank 2).

MONITOR MEMORIES

The scanner also has 10 monitor memories. You can use these memories to temporarily store frequencies while you decide whether or not to save them in channels. This is handy for quickly storing an active frequency when

you search through an entire band.

Notes:

To store a frequency into a monitor memory, you must perform a limit or direct search.

You can select monitor memories manually, but you cannot scan them.

(br/km-02/05/1997)

PRO-2037 Programmable Scanner
(200-0461) Troubleshooting Faxback Doc. # 37891

Your PRO-2037 Programmable Scanner should require very little maintenance. If you have problems, refer to this chart for possible solutions.

Problem	Probable Cause	Solution
Scanner is totally inoperative.	The AC plug is not properly connected.	Check to see that the scanner is plugged into a working AC outlet.
	The optional DC power adapter is not properly connected.	Check to be sure the adapter is fully inserted into the DC 13.8V jack.
Poor or no reception.	Improperly connected antenna.	Check to be sure the antenna is properly connected.
	Poor reception.	Move the scanner to a location with a better reception environment.
	Incorrectly programmed frequencies	Reprogram the frequencies correctly.
	Programmed frequencies	Avoid programming frequencies listed under "Birdies Frequencies" in "Operation," Faxback Doc. # 31133, or only listen to them manually.
Error appears on the display.	Programming error.	Reprogram the frequencies correctly.
Keys do not work or display changes at random.	Undetermined error.	Reset the scanner
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.	The SQUELCH control is not correctly adjusted.	Adjust the SQUELCH control clockwise.

If you cannot solve the problem, contact your local Radio Shack store for assistance.

(br/km-02/05/1997)

PRO-2037 Programmable Scanner
(200-0461) Care and Maintenance Faxback Doc. # 37892

Your Radio Shack PRO-2037 Programmable 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 can contain minerals that can corrode the electronic circuits.

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

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

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

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 your scanner's internal components can cause a malfunction and might invalidate the scanner's warranty and void your FCC authorization to operate it. If your scanner is not operating as it should, take it to your local Radio Shack store for assistance.

(br/km-02/05/1997)

product

Communications Index

Two-way Radio FAQ
Guide to Scanners
Guide to Racing Scanners
Guide to Trunking Scanners
Scanner FAQ
Guide to Shortwave Radio
Shortwave Radio FAQ

HELP & HOW-TO'S

- INDEX

200-0461 PRO-2037 200-Channel Programmable Scanner

Question: How do I program frequencies?

Answer: You can program the frequencies using the steps below:

1. Press **Manual**.
2. Enter the channel number you want to program.
3. Press **Program**.
4. Enter the frequency.
5. Press **Enter**.

Radio Communications FAQ Index

Question: I can't program 867.7870 - it programs as 867.7750 and 867.437 programs in as 867.425. Why?

Answer: These frequencies have a step rate of 12.5 KHz.

Radio Communications FAQ Index

Question: Is there additional information available on-line?

Answer: Additional information is available on our on-line support page for this product.

Radio Communications FAQ Index