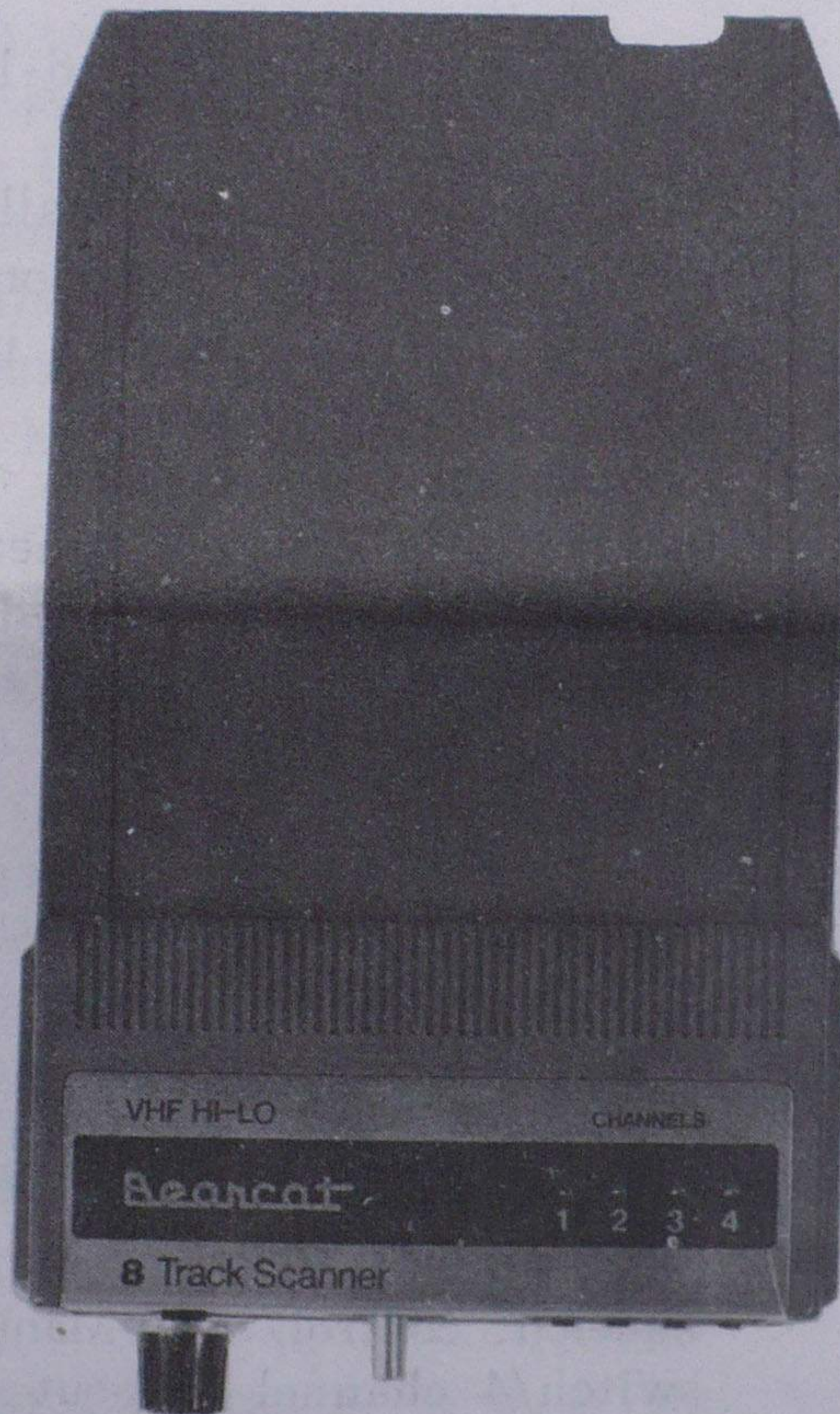


Bearcat[®]

8-TRACK PORTABLE SCANNING MONITOR

VHF HI/LO
MODEL NO. BC-E

OPERATING INSTRUCTIONS



Electra Company
Division of Masco Corp. of Indiana

300 East County Line Road
Cumberland, Indiana 46229

GENERAL DESCRIPTION

The BEARCAT MODEL BC-E is a 8-TRACK PORTABLE SCANNING MONITOR, two band VHF monitor receiver providing scanning of four frequencies in the most active part of the most commonly used frequencies. Low (30—50 MHz) and High (150—174 MHz) VHF Bands. It features : up to 4 plug-in crystals in any band combination ; automatic or manual scanning ; each of four channels can be by-passed ; solid state Light Emitting Diode channel indicators ; quieting squelch control ; antenna jack ; operation from standard 8-Track playback system, mobile or home ; high output audio from your mobile tape player or home 8-Track tape player.

SPECIFICATIONS

- Size :** 4-1/8"W × 1-5/16"H × 6-1/2"D
- Weight :** 9 ozs.
- Power Requirements :** The cartridge automatically connects to the power source in your car or home 8-Track tape player. No other battery is necessary.
- Audio Output :** From your tape player
- Antenna :** Convenient wire antenna
- Sensitivity :** 0.6 μ V for 20 dB noise quieting (nominal)
- Channels :** Up to 4 crystal controlled channels may be scanned automatically or selected individually or any combination.
- Frequency Range :** LOW band : 30—50 MHz
(total band spread 8 MHz)
HIGH band : 150—174 MHz
(total band spread 10 MHz)
- Scan Rate :** 7.5 channels/second (nominal)
- Crystals :** Miniature plug-in type A-135 for easy user installation
- Accessories Supplied :** Wire antenna for both bands.
- Panel Features :** Squelch control/Scan-Manual-channel select switch/4 channel lock-out switches/4 L.E.D. channel indicators/Antenna jack.

Certified under FCC Regulations, Part 15

For future reference write in the model and serial number here. You will find them on the back of the unit.

Model No. _____ **Serial No.** _____
Purchased from : _____ **Date :** _____

The BEARCAT MODEL BC-E has a double conversion superheterodyne circuit—10.8 MHz and 455 kHz. A monolithic crystal 1st IF filter and a ceramic 2nd IF filter produce exceptional adjacent channel and image rejection.

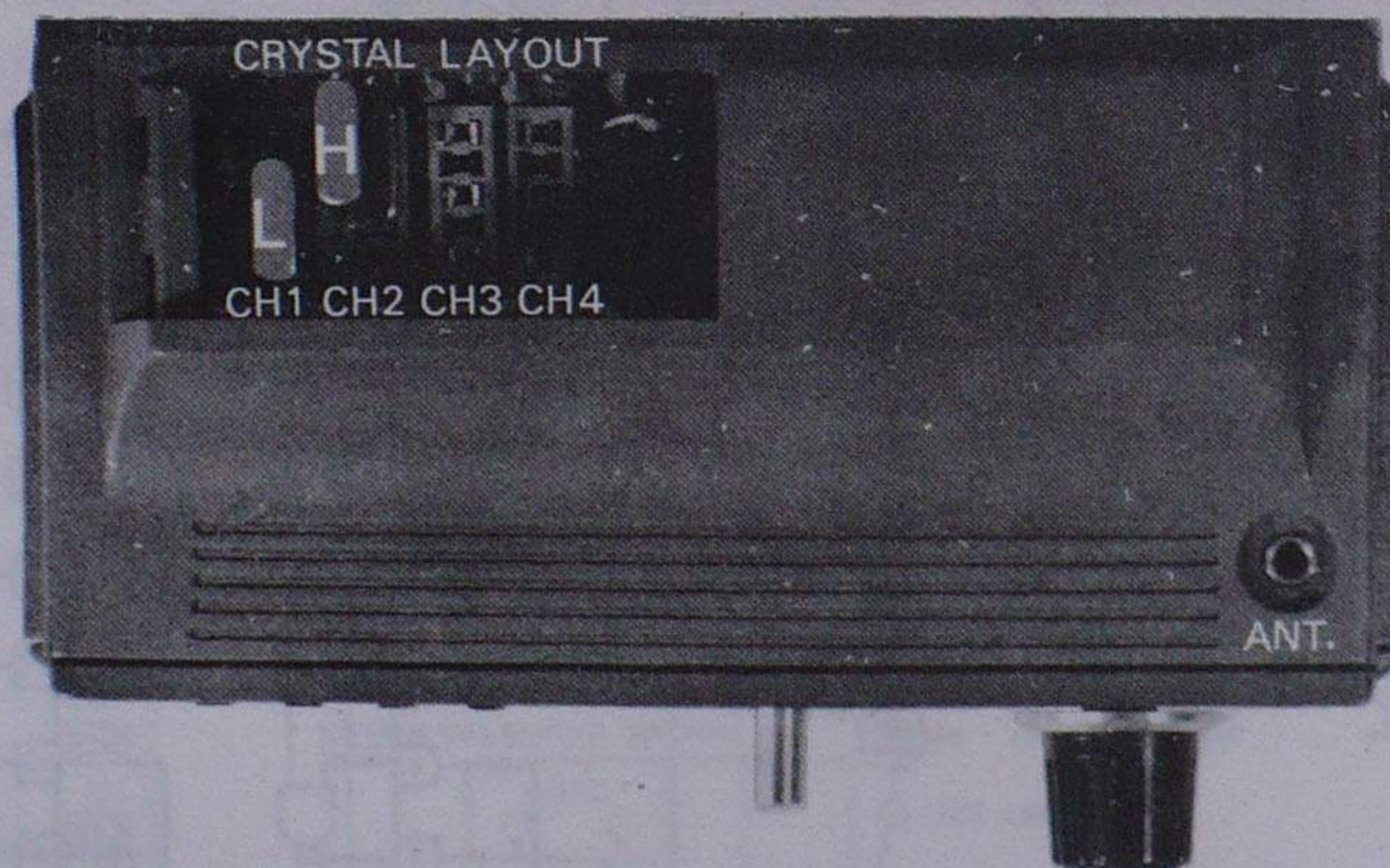
The circuitry is designed with the most advanced solid state devices to reduce size and power consumption and provide excellent performance.

PREPARATION FOR USE

CRYSTAL INSTALLATION

An access door is provided so that crystals can be inserted easily. To remove the Crystal Compartment Cover, press down and outward and slide the cover to the left. Crystal socket location is shown on the cabinet adjacent to the socket.

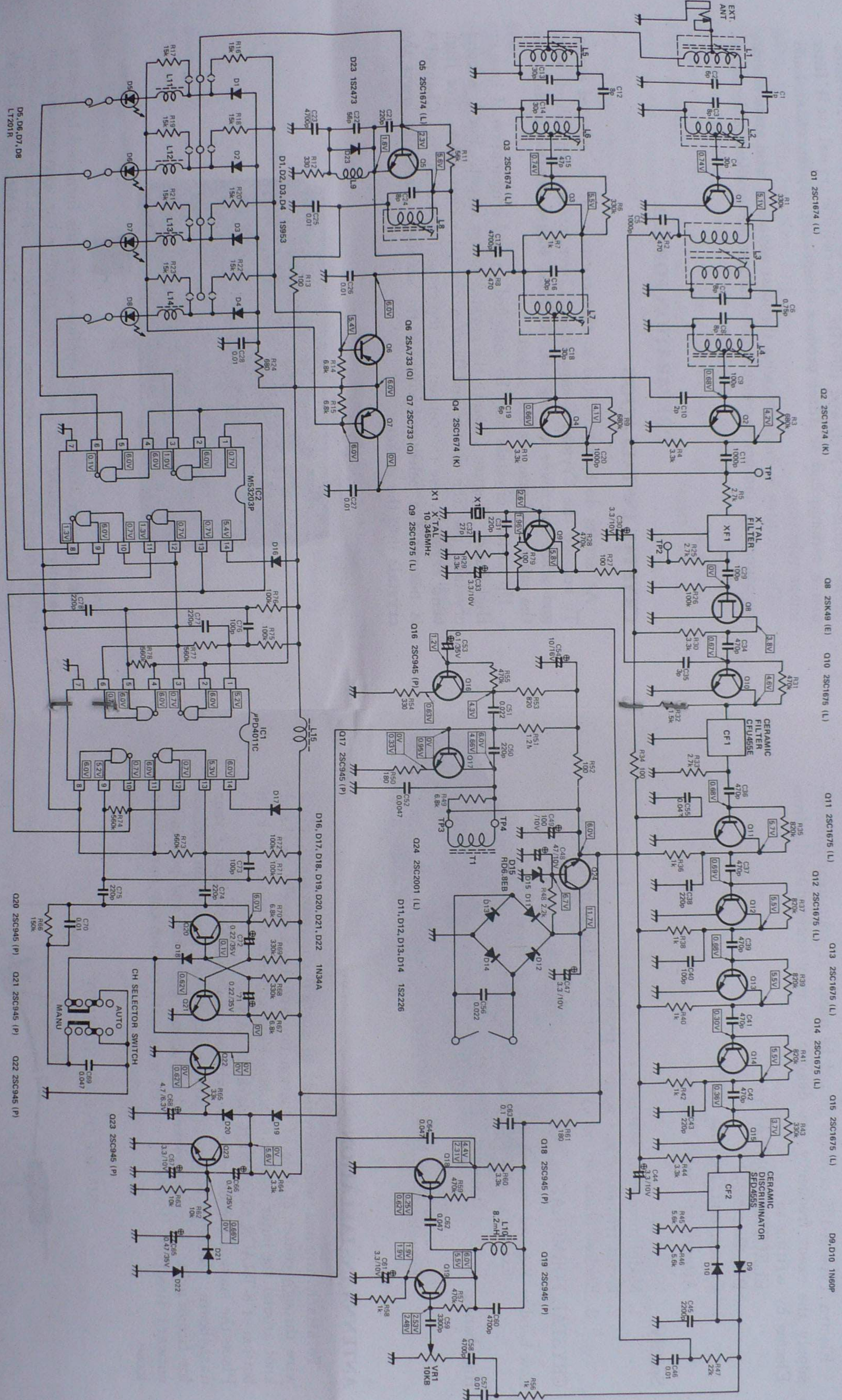
Up to four crystals may be installed in any combination of Low or High band. Figure 1 shows the crystal socket layout. For Low band crystals, use the center and bottom crystal socket holes. For High band crystals, use the center and top crystal socket holes. Channel 4 is nearest the Selector Switch of the scanner. Carefully insert the crystals into the sockets.



Rigid quality standards are applied to crystals furnished by Electra Company to assure full performance, therefore our warranty does not include correcting poor operation caused by crystals from other sources.

The Low band alignment spread is 36 MHz to 44 MHz, and the High band 152 MHz to 162 MHz. New frequencies may be added within these spreads; if they are outside, performance may be reduced or re-alignment may be required.

SCHEMATIC DIAGRAM



NOTES:

1. ALL RESISTOR VALUES IN "OHMS" UNLESS OTHERWISE NOTED. (K = 1000, M = 1000000)
2. ALL CAPACITOR VALUES IN "μF" UNLESS OTHERWISE NOTED. (P = μμF)
3. VOLTAGES SHOWN IN ARE WITH SQUELCH ON (UPPER BLOCK) AND OFF (LOWER BLOCK).
4. ALL VOLTAGES REFERENCED TO COMMON NEGATIVE GROUND USING A VTVM OR HIGH IMPEDANCE EQUIVALENT.

01 2SC1674 (L) 02 2SC1674 (K) 08 2SK49 (E) 010 2SC1675 (L) 011 2SC1675 (L) 012 2SC1675 (L) 013 2SC1675 (L) 014 2SC1675 (L) 015 2SC1675 (L) 018 2SC945 (P) 019 2SC945 (P) 09,010 1N80P
 03 2SC1674 (L) 04 2SC1674 (K) 09 2SC1675 (L) 016 2SC945 (P) 017 2SC945 (P) 020 2SC945 (P) 021 2SC945 (P) 022 2SC945 (P) 023 2SC945 (P)

CRYSTAL INSTALLATION—CONTINUED

Electra Type A-135 crystals should be used. If your dealer cannot supply the exact frequency you desire, you may order directly from Electra by writing to:

ELECTRA COMPANY
P.O. Box 29243
Cumberland, Indiana 46229
Attention: Sales Department

Specify:

1. Model number of scanner
2. Exact frequency you wish to receive
3. Enclose check or money order of \$5.00 for each crystal.

CRYSTAL FORMULAS

Low band: Received frequency + 10.80 MHz = crystal frequency
Example: 40.00 MHz + 10.80 MHz = 50.80000 MHz

High band: $\frac{\text{Received frequency} - 10.80 \text{ MHz}}{3} = \text{crystal frequency}$

Example: $\frac{155.01 \text{ MHz} - 10.80 \text{ MHz}}{3} = 48.07000 \text{ MHz}$

ANTENNA INSTALLATION

To attach antenna wire (provided) to suction cup (provided), place wire through center of hole of suction cup and tie a single overhand knot around the outer portion of hole. Plug antenna wire into jack on bottom of 8-TRACK SCANNER marked "ANT." Place the suction cup on your car window or a smooth surface of your dash board. Moisten bottom of suction cup before placing on surface for firmer grip. For easy removal of suction, grasp tab and pull in an outward direction. For home use let wire with suction cup hang down loose.

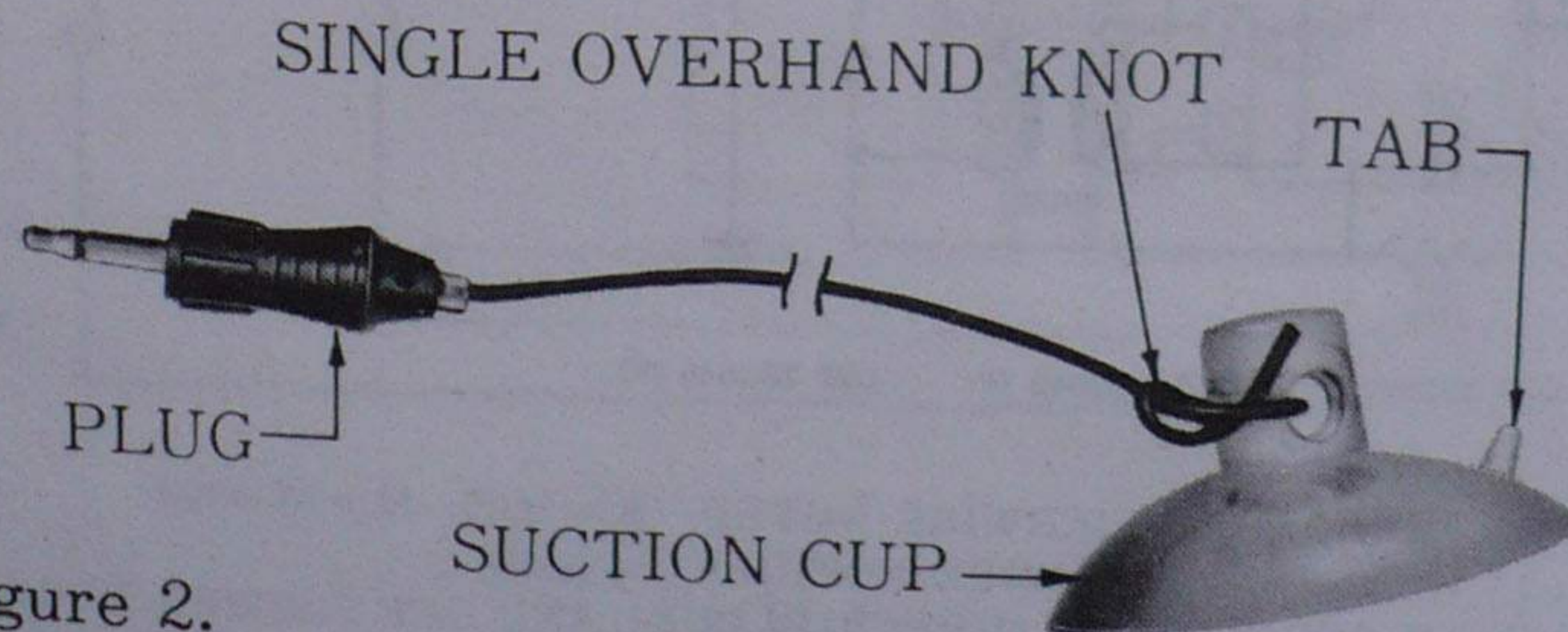


Figure 2.

8-TRACK SCANNER INSERTION

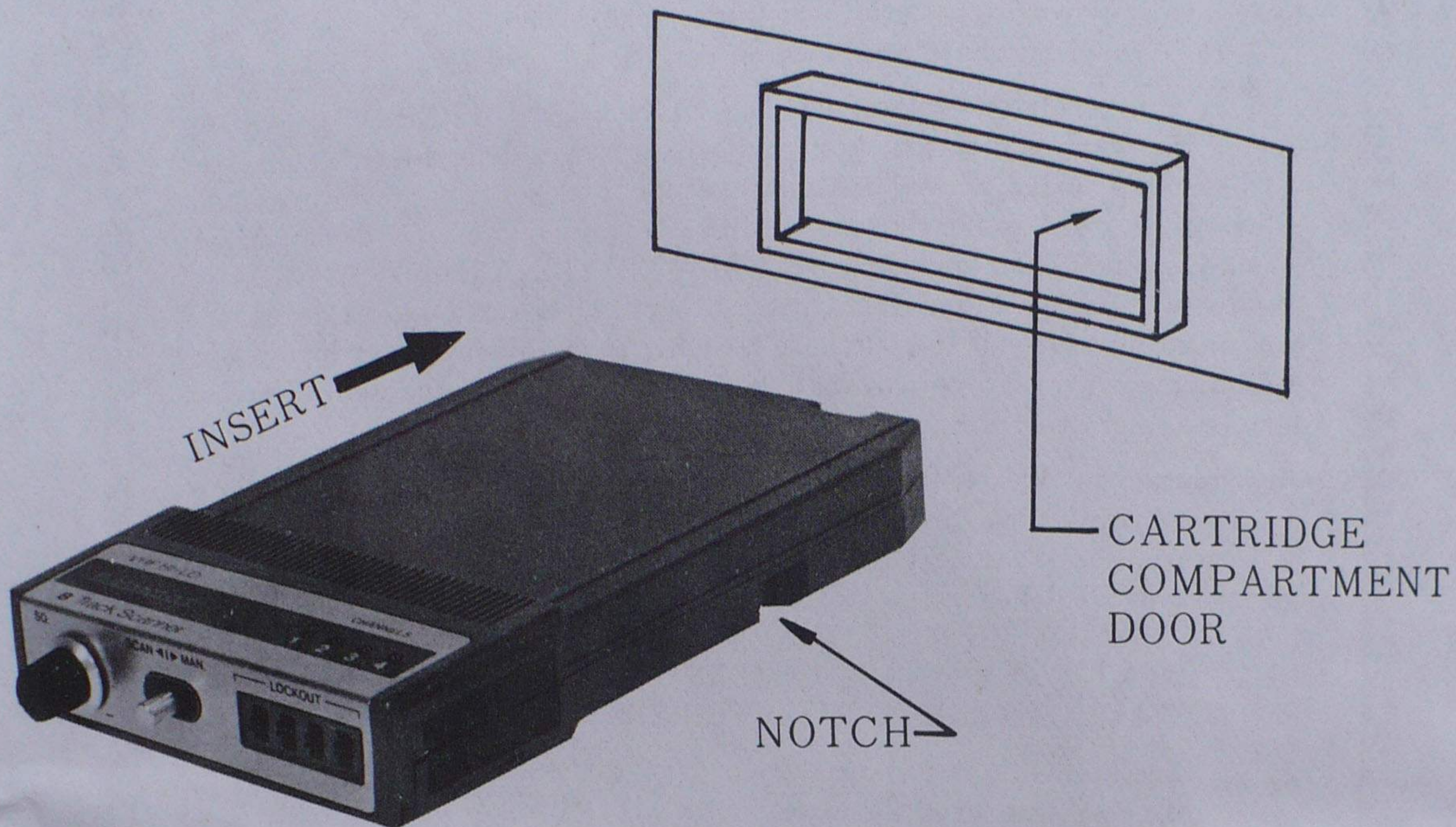


Figure 3.

Install the 8-TRACK SCANNER through the hinged cartridge door of your 8-Track Tape Player and push firmly into place.

IMPORTANT: Mobile use of scanners may be restricted in some areas. Check with your local authorities prior to mobile use.

OPERATION

1. With 8-TRACK SCANNER CARTRIDGE, crystals and an antenna properly installed, activate your 8-Track system to the playback mode of operation and adjust the volume to a desired level.
 2. Place the four channel switches in the up (ON) position.
 3. Set the SCAN/MAN SWITCH in center position.
 4. Push once SCAN/MAN SWITCH to "MAN" position to advance to next channel. Continue to step through all channels.
 5. Adjust the "SQUELCH" control clockwise until the rushing noise is heard. Then adjust the "SQUELCH" control counterclockwise until the rushing noise disappears.
NOTE: Adjust only when a station is not transmitting on the channel.
 6. The SCAN/MAN SWITCH may now be used to select and monitor any desired channel.
 7. To scan all channels automatically, return SCAN/MAN SWITCH to "SCAN" position. Any channel may be omitted as desired by moving the individual LOCKOUT SWITCH downward.
- CAUTION: Recommended that 8-TRACK SCANNER not be kept in car in extreme heat or cold, also remove when not in use.

AUTHORIZED BEARCAT SERVICE CENTERS

ELECTRA COMPANY

DIVISION OF MASCO CORPORATION OF INDIANA
300 EAST COUNTY LINE ROAD
CUMBERLAND, INDIANA 46229
(317)894-1440

CB REPAIR CENTERS, INCORPORATED

4321 NORTH UNITED PARKWAY
SCHILLER PARK, ILLINOIS 60176
(312)671-6100

TELEDYNE SERVICE COMPANY

6833 EAST ACCO STREET
LOS ANGELES, CALIFORNIA 90040
(213)726-4041

LIMITED WARRANTY

This Bearcat® receiver is warranted to the original consumer purchaser to be free from defects in material and workmanship for a period of one (1) year from the date of purchase as shown on purchaser's receipt.

Electra will repair or replace, AT ITS OPTION AND FREE OF CHARGE, during the warranty period, any part which proves defective in material or workmanship under normal installation, use, and service, provided the receiver is returned to our factory (address below) or to one of our authorized Service Centers (list enclosed), TRANSPORTATION CHARGES PREPAID. Receivers returned to our factory or authorized Service Center must be accompanied by a copy of the purchase receipt. In the absence of such purchase receipt, the warranty period shall be one (1) year from the date of manufacture as indicated by the serial number on your unit.

Any damage to this receiver as a result of misuse, abuse, neglect, accident, improper installation, destruction or alteration of the serial number, repair or alteration outside our factory or Service Center, or any use violative of instructions furnished by us WILL VOID THE WARRANTY. THIS WARRANTY IS LIMITED TO DEFECTIVE PARTS REPAIR AND/OR REPLACEMENT ONLY AND EXCLUDES ANY INCIDENTAL AND CONSEQUENTIAL DAMAGES CONNECTED THEREWITH.

Some states do not allow the exclusion of limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. In the event of a problem with warranty service or performance, you may be able to go to a small claims court, or a federal district court.

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