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# OWNERS MANUAL

PACE SIDETALK 1000M  
SSB/AM TRANSCEIVER  
27 MHz CITIZENS RADIO SERVICE



**PATHCOM INC.**

PACE TWO-WAY RADIO PRODUCTS  
2409 S. Frampton Ave., Harbor City., California 90710



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24049 S. Frampton Ave., Harbor City, California 90710

**LIMITED WARRANTY  
APPLICABLE TO CITIZENS BAND, SCANNING MONITORS,  
& AM BUSINESS RADIO PRODUCTS**

PATHCOM, INC., PACE TWO-WAY RADIO PRODUCTS, warrants each new Citizens Band, Scanning Monitors, & AM Business Radio product to be free from defects in material and workmanship, and if it is found to be defective within 90 days from date of user purchase, the factory will either, at its discretion, repair or replace it, provided the unit is delivered by the owner to the factory intact for examination with shipping charges prepaid and provided that such examination discloses, in the factory's judgment, that it is defective under warranty. This warranty does not apply if the unit has been subjected to physical abuse, improper installation or unauthorized modifications. This warranty does not apply to carrying cases, covers, or other dress parts. To place warranty in effect, the unit must be warranty registered with the factory within 10 days from the date of purchase.

**LIMITED 2-YEAR FACTORY SERVICE PROGRAM  
APPLICABLE TO CITIZENS BAND, SCANNING MONITORS,  
& AM BUSINESS RADIO PRODUCTS**

Also available is a continuing service program applying to transceivers and scanning monitors which extends protection after the 90-day warranty period for two years after the date of purchase. If requiring service under this program, the unit must be returned to the factory, shipping charges prepaid, for check-out and service. There is a \$14.95 inspection and handling charge per return. Labor and replacement parts are free. Service performed under this program is warranted for 90 days. When \$14.95 is submitted with the unit, the factory will pay for the return shipping charges.



## CONGRATULATIONS!

You have now joined the proud family of PACE communications equipment owners.

Your PACE SIDETALK 1000M SSB/AM Transceiver embodies the latest in high frequency transceiver design techniques. The PACE SIDETALK is designed to operate on either AM (Amplitude Modulation), Upper Single Sideband (USB), or Lower Single Sideband (LSB). Twenty-three channel operation is made possible with 10 crystals in a highly stable synthesizing circuit.

The following extra features are built into every PACE SIDETALK 1000M Transceiver.

- \* Full range RF GAIN control and a full netting CLARIFIER provide maximum performance.
- \* PACE's exclusive limiting circuitry in AM and noise blanking provision in SSB means quieter and more sensitive performance on receive.
- \* A precision meter accurately measures incoming signal strength in "S" units, plus outgoing power in a relative reading and center scale.
- \* Receives and transmits on 69 channels; 23 AM and 46 SSB.
- \* Public address facility, with front panel control and separate speaker jack.

This owners manual has been provided to give you all the necessary information for installation and operation of your SIDETALK 1000M SSB/AM Transceiver. Please take a few minutes to read it before operating your PACE SIDETALK Transceiver.

### SOME WORDS ON SINGLE SIDEBAND

AM has been the standard method of Citizens Band reception and transmission for many years and most of the existing transceivers being used today are AM. Technically, AM is Double Sideband (DSB) with full carrier. In this method of operation, a carrier modulated or interrupted by voice on both sides of the carrier frequency is transmitted.

SSB is relatively new in Citizens Band communications but has been highly effective in commercial, amateur and military usage for many years. It is a superior means of wireless communications allowing transmissions of greater distances with a minimum amount of interference and noise.

There are two types of single sideband transmissions, USB and LSB. These might be described as half signals and due to the narrow bandwidth required, will travel over greater distances at lower power than ordinary AM signals.

In the actual transmission of either USB or LSB, the carrier is removed. All of the modulation for a transmission is concentrated in either the upper or lower sideband. In the receiver, the carrier is reconstructed and the intelligence or modulated voice is then detected, amplified and converted into an audible sound heard at the speaker.

The PACE SIDETALK 1000M is designed to be completely compatible including single sideband (upper or lower), double sideband, or conventional AM and is equipped with separate transmitter circuitry to provide high level AM transmissions and true SSB transmissions. The receiver section is also capable of receiving AM SSB. The mode of operation for both receiver and transmitter sections is programmed by means of the mode selector switch.

## TECHNICAL SPECIFICATIONS

### GENERAL:

Channels . . . . .	23 (AM, USB & LSB)
Operating Voltage . . . . .	12 V DC $\pm$ ground
Frequency Range . . . . .	26.965 to 27.255 MHz
Microphone . . . . .	Low impedance, Dynamic
Speaker . . . . .	3" - 8 $\Omega$
Antenna Impedance . . . . .	50 $\Omega$
Size . . . . .	7-1/2" X 2-1/4" X 10"
Weight . . . . .	10 pounds (with accessories)

### RECEIVER:

Sensitivity . . . . .	1 $\mu$ V for 10 dB $\frac{s+n}{n}$ (AM)
	0.5 $\mu$ V for 10 dB $\frac{s+n}{n}$ (SSB)
Selectivity . . . . .	$\pm$ 2.1 kHz @ -6 dB
	$\pm$ 10 kHz @ -40 dB
Clarifier . . . . .	$\pm$ 500 Hz
Squelch Range . . . . .	1-500 $\mu$ V
Audio Output . . . . .	3 W

### TRANSMITTER:

Compliance . . . . .	Type Number 42417, Part 95
Power Output . . . . .	4 W (AM)
	12 W P.E.P. (SSB)
Harmonic Suppression . . . . .	50 dB minimum
Carrier Suppression . . . . .	40 dB minimum (SSB)
Unwanted Sideband Suppression . . . . .	40 dB minimum (SSB)
AM Modulation . . . . .	High Level Class B
SSB Generation . . . . .	Balanced Modulator/Crystal Lattice Filter

## RECEIVING INSPECTION

The Model SIDETALK1000M is fully assembled and operationally checked prior to shipment from the factory. All units are individually packaged in accordance with standard practices for electronic equipment. Every precaution is taken to insure that each transceiver leaving the factory is complete and ready for installation. However, it is recommended that each unit be inspected upon receipt for in-transit damage.

Inspect the shipping container for evidence of in-transit damage (such as being dropped, crushed, or punctured) before opening the container. If damage is evident, contact the carrier and the manufacturer immediately specifying the nature and extent of the damage. Open the shipping container and remove the contents only if there is no apparent shipping damage. Check the items removed from the container to verify the contents. If a packing shortage is evident, contact your dealer immediately.

The following items are contained in the package:

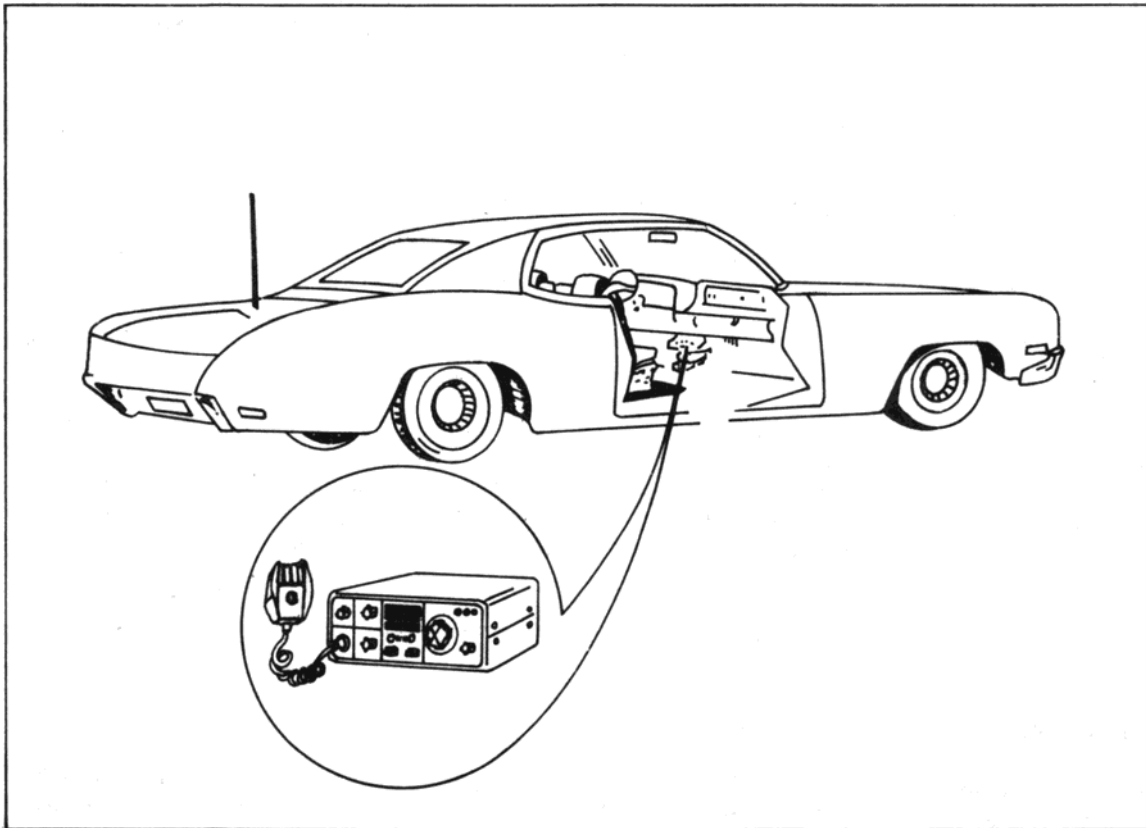
1. The transceiver unit on its mounting bracket with power cables attached.
2. Microphone.
3. Microphone hanger bracket with mounting screws.
4. Owners Manual.

## MOUNTING SUGGESTIONS

The Model SIDETALK 1000M can be mounted in any position without affecting its performance. The desired method and location of mounting should be determined before attempting the installation.

When selecting the mounting position, keep the following in mind:

1. The controls must be convenient and visible.
2. The location should not interfere with the driver's or operator's normal functions.
3. The transceiver should not be mounted in the way of heater ducts, air-conditioning outlets, or direct blast air inlets.
4. The transceiver should be protected from rain and spray.



TYPICAL MOBILE INSTALLATION

## INSTALLATION

To those readily familiar with transistorized CB radio equipment, there is a tendency to install and operate the equipment without reading the details in the manual instructions. To avoid disappointment and improper performance, a thorough study of this manual is recommended. In particular, the following precautionary notes should be strictly observed.

DO NOT attempt to connect the power cord to a primary power source with the power switch on. Determine system polarity before connection. The SIDETALK 1000M is wired for positive or negative ground.

DO NOT connect the antenna with the power on.

DO NOT key the transmitter without an antenna connected.

DO NOT replace the fuse with any other type (3 AG-2-1/2 ampere).

DO NOT attempt alignment of the transmitter to the antenna. Loss of modulation power and inefficient operation possibly resulting in transistor burnout will occur unless the factory prescribed tuning procedure is followed. Maximum efficiency of an installation will result when the antenna has a VSWR of less than 1.5:1. The antenna should be tuned, trimmed, or replaced, if necessary, to achieve this.

### ANTENNA INSTALLATION

No other single part of the system can be as significant a factor in complete success or total failure of performance as the antenna installation. It is advisable not to experiment, but rather to use performance proven antennas. Many new "miracle" antennas appear on the market from time to time, but most of them disappear after a short period. Bumper mounts are inadvisable because of their extreme directivity. Consult your dealer for the correct type and installation.

For runs of over 20 feet, use RG-8/U antenna transmission line. RG-58/U may be used for 20 feet or less. Connect the antenna to the coaxial cable connector located on the rear panel.

The length of the cable from the antenna to the radio is, contrary to popular belief, not important. What is important is that the antenna have low VSWR. If a shortened type of antenna is used, it is mandatory that the VSWR be checked. A PACE P5403A VSWR bridge or similar instrument can be used. If the VSWR is greater than 1.5:1, the antenna must be adjusted in accordance with the manufacturer's instructions. If the antenna is a 1/4 wave nonadjustable type, the cable connections and the ground to vehicle at the antenna mount should be checked.

Do not attempt VSWR checks if the vehicle is parked closer than 35 feet from a large fence, metal building, etc.

### POWER CONNECTIONS

The transceiver is designed to operate from a nominal 12 volt DC source. This unit may be installed in vehicles which have either positive or negative ground. Since all passenger vehicles and most trucks use 12 volt negative ground systems, the power line is filtered for best noise limiting under negative ground installations, with the fuse in the red (+) line.

### NOTE

When installing in 12 volt positive ground systems, the red lead is still connected to the positive terminal and the black lead to the negative terminal. This means your grounded lead is fused, which will still give you the same over-current protection.

The transceiver will operate over the nominal input voltage range of 10-16 volts continuous operation. Performance varies according to voltage levels, so care should be made in insuring that a 12.5 voltage level is maintained, which is the designed voltage level of this unit for maximum proper performance.

Connect the power cord to a well regulated source, such as an ammeter terminal, ignition accessory terminal, or cigarette lighter. "Tapping off" of dome or convenience light wires is not recommended as these circuits are usually wired very lightly and some power loss would be encountered. Always install the black wire between the radio chassis and vehicle chassis or system ground to reduce noise pickup.

## **EXTERNAL SPEAKER CONNECTION**

The EXT SPKR jack functions in the CB position and can be used to operate an external speaker for receiving purposes. Any suitable speaker of 3 to 8 ohms is satisfactory. The PACE P5514 has been especially designed to overcome vehicle and engine noise in this type of application, and is also weather-resistant. Its acoustic output is much greater than that of normal internal speakers.

### **NOTE**

The P5514 comes equipped with a phone plug on the end. An adapter must be used for the miniature phone jack on the transceiver.

## **PUBLIC ADDRESS (PA) SPEAKER CONNECTION**

A trumpet or horn speaker of 3 to 8 ohms impedance is desirable for this purpose. Connect the speaker to a suitable length of cable using a miniature "phone" plug at the radio end. The phone plug is inserted in the PA jack.

## **BASE STATION INSTALLATION**

Although the PACE SIDETALK 1000M Transceiver is designed for mobile operation, it will work equally well as a base station when connected to a suitable base station power supply.

When the PACE SIDETALK is used as a base station, any Citizens Band beam, dipole, ground plane or vertical antenna may be used. A ground plane type antenna will provide good coverage, and since it is essentially non-directional, it is ideal in base station to mobile operation. From base station to base station or point-to-point operation a directional beam will give greater distance even under adverse conditions. The range of the transceiver also depends on the height of the antenna so whenever possible, select the highest location within the limits of your communication authorities. Generally, a maximum of 26 feet of coax lead-in cable should be used due to line losses, however, a desirable antenna location may justify the loss developed by longer cable lengths.

## **OPERATING REQUIREMENTS**

The PACE SIDETALK 1000M SSB/AM Transceiver is designed to comply with necessary requirements to operate in the Class D Citizens Radio Service in the 27 MHz band. The user is required to be cognizant of, and comply with, Part 95 of the FCC Rules and Regulations which defines operation of this service.

Anyone may operate a duly licensed transmitter, but the licensee is responsible for violations or infractions of the regulations. PACE Division, Pathcom Inc., cannot be held responsible for improper technical adjustments where any unauthorized person has performed any adjustment or used any other than PACE authorized crystals, components, etc. Transmitter adjustments, repairs, and replacement of critical components (crystals, transistors, etc.) which could cause a violation of the FCC Rules and Regulations may only be made by, or under direct supervision of, a person holding a valid commercial first- or second-class Radio Operator License.

## **LICENSING REGULATIONS**

A valid station license and call letters are necessary before operation is permissible. The station license is obtained by submitting a properly and fully completed Station License Application. After receipt of the license, the user must attach a Form 452-C Transmitter Identification Card to the transmitter.

## **USE OF CHANNELS**

In accordance with FCC regulations, Channel 9 has been established for use during an emergency situation. Volunteer teams of monitors are standing by to provide assistance. Other general communications should be conducted on Channels 10 through 15 and Channel 23 when speaking between units of different license. The transceiver also contains a blank selector position between Channels 22 and 23. The position is NOT for Citizens Band use and is internally defeated.

## OPERATING INSTRUCTIONS

Once the appropriate antenna, speaker, microphone, and power connections have been made, the unit is ready for operation.

### RECEIVER OPERATION

Set the front panel switch (7) to the CB position. Turn the VOLUME/ON-OFF control (4) to turn the power on. With the VOLUME control at about its mid-position and the SQUELCH control (2) fully counterclockwise, noise and/or signals should be heard. The RX LAMP (1) should be lit.

The SQUELCH control should be slowly rotated clockwise to silence background noise or weak or undesirable signals. Set the VOLUME control to a comfortable listening level. In SSB modes, turn the NOISE BLANKER (8) on to cut out excessive noise.

Set the RF GAIN control (3) to its maximum clockwise position. Leave it in this position for normal reception. When excessively strong signals are received, reduce the setting for an indication of about 8 or 9 on the "S" METER (14). If reduced too much, the sensitivity will drop. Off-frequency transmission can be clarified by adjustment of the CLARIFIER control (6).

### PUBLIC ADDRESS (PA) OPERATION

With the PA speaker connected, set the PA/CB switch (7) to the PA position. This will silence the receiver and the PA system is now ready for use.

Press and hold down the Push-to-Talk (P-T-T) switch on the microphone. Hold the microphone two to three inches from your mouth and speak clearly in a normal tone of voice. If more audio power is desired, advance the VOLUME control (4) clockwise.

To return to the receive mode, release the P-T-T switch and set the PA/CB switch (7) back to CB.

### TRANSMITTER OPERATION

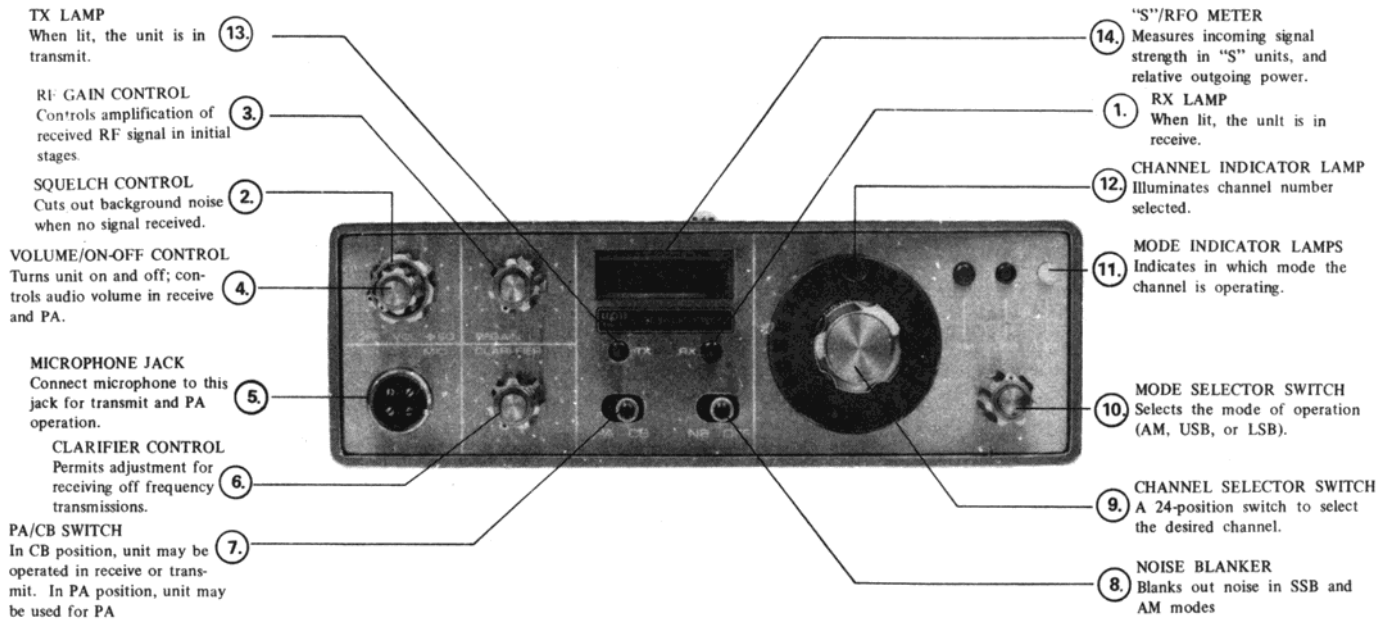
Before transmitting, the desired communication channel should be monitored to avoid interruption of communication in process.

Make sure the PA/CB switch (7) is in the CB position, then press and hold down the P-T-T switch on the microphone. The TX LAMP (13) will light, which indicates that the transceiver is in the transmit mode.

Hold the microphone two to three inches from your mouth and speak clearly in a normal tone of voice and speed.

To receive, release the P-T-T switch.





## MAINTENANCE

No maintenance is required on the PACE SIDETALK 1000M other than to give it the care and treatment accorded any quality electronic equipment. The interior can be cleaned occasionally with a low pressure air hose or vacuum cleaner. To remove excessive dirt on the interior, clean carefully with a soft brush and alcohol and then dry thoroughly before operating.

In the event difficulty occurs, a qualified serviceman with proper instrumentation and service procedures should be engaged. An authorized PACE dealer or the factory can perform any service work.

## NOISE SUPPRESSION

When installed in a vehicle whose ignition system proves to be unusually noisy, local measures can be taken on the vehicle to reduce such noise. Consult your PACE dealer to determine the most economical method of suppressing the ignition noise. Usually simple suppression of spark plugs may suffice. However, more difficult cases may require special techniques. Sometimes generator and voltage regulator "hash" may be troublesome. Special capacitors, complete kits, and line filters are available depending upon requirements.

For additional information, write for PACE Noise-Suppression Booklet.

## PARTS LIST

Reference Number	Description	Part Number
<b>CAPACITORS*</b>		
C135, 335, 345 . . . . .	Mylar, 0.1 $\mu$ F . . . . .	IP 22-0047
C136, 227, 310, 311, 321, 323 thru 328, 340 thru 343, 346, 353 thru 356, 511, 609 . . . . .	Mylar, 0.04 $\mu$ F . . . . .	IP 22-0018
C141, 414 . . . . .	Variable, 10 pF . . . . .	IP 22-0045
C142 . . . . .	Electrolytic, 22 $\mu$ F/16 V . . . . .	IP 22-0042
C241 thru 246 . . . . .	Variable, 30 pF . . . . .	IP 22-0021
C247 thru 250 . . . . .	Variable, 40 pF . . . . .	IP 22-0046
C312, 318, 334, 338, 347, 350, 351, 352, 501, 502, 503, 604 . . . . .	Electrolytic, 1 $\mu$ F/50 V . . . . .	IP 22-0001
C348, 608 . . . . .	Electrolytic, 10 $\mu$ F/16 V . . . . .	IP 22-0004
C357, 507, 606, 607, 612, 613 . . . . .	Electrolytic, 0.22 $\mu$ F . . . . .	IP 22-0044
C415 . . . . .	Variable, 20 pF . . . . .	IP 22-0020
C506, 513, 517, 605 . . . . .	Electrolytic, 47 $\mu$ F/16 V . . . . .	IP 22-0006
C508, 509 . . . . .	Mylar, 0.02 $\mu$ F . . . . .	IP 22-0017
C510 . . . . .	Mylar, 0.005 $\mu$ F . . . . .	IP 22-0048
C514, 521, 522, 703, 704, 705 . . . . .	Electrolytic, 220 $\mu$ F/16 V . . . . .	IP 22-0009
C516, 520 . . . . .	Mylar, 0.047 $\mu$ F . . . . .	IP 22-0033
C519 . . . . .	Electrolytic, 470 $\mu$ F/16 V . . . . .	IP 22-0010
C610, 611 . . . . .	Electrolytic, 4.7 $\mu$ F/16 V . . . . .	IP 22-0003
C702 . . . . .	Electrolytic, 2200 $\mu$ F/16 V . . . . .	IP 22-0043
<b>RESISTORS*</b>		
R102 . . . . .	150 Ohm 1 W . . . . .	IP 23-0010
R103 . . . . .	200 Ohm 2 W . . . . .	IP 23-0011
R104 . . . . .	5.6 Ohm 1/2 W . . . . .	IP 23-0017
R105 . . . . .	100 Ohm 2 W . . . . .	IP 23-0012
R111 . . . . .	2.2 Ohm 1/2 W . . . . .	IP 23-0018
R129 . . . . .	Potentiometer, Trimmer, 100 k Ohm . . . . .	IP 24-0002
R130 . . . . .	Potentiometer, Trimmer, 10 k Ohm . . . . .	IP 24-0003
R218 . . . . .	100 Ohm 1 W . . . . .	IP 23-0013
R228 . . . . .	Potentiometer, Trimmer, 100 k Ohm . . . . .	IP 24-0013
R229 . . . . .	Potentiometer, Clarifier, 10 k Ohm-B . . . . .	IP 24-0001
R361 . . . . .	Potentiometer, Trimmer, 5 k Ohm . . . . .	IP 24-0035
R362 . . . . .	Potentiometer, RF Gain, 5 k Ohm-A . . . . .	IP 24-0036
R363 . . . . .	Potentiometer, Trimmer, 10 k Ohm . . . . .	IP 24-0005
R364, 520 . . . . .	Potentiometer, Trimmer, 50 k Ohm . . . . .	IP 24-0015
R414 . . . . .	Potentiometer, Trimmer, 500 Ohm . . . . .	IP 24-0023
R518 . . . . .	.5 Ohm 1 W . . . . .	IP 23-0014
R519, 521 . . . . .	Potentiometer, Concentric, VOLUME/SQUELCH w/Switch . . . . .	IP 24-0017
R616 . . . . .	Potentiometer, Trimmer, 1 k Ohm . . . . .	IP 24-0007
R701, 702 . . . . .	56 Ohm 1 W . . . . .	IP 23-0015
R703 . . . . .	33 Ohm 1 W . . . . .	IP 23-0016

## PARTS LIST (cont'd)

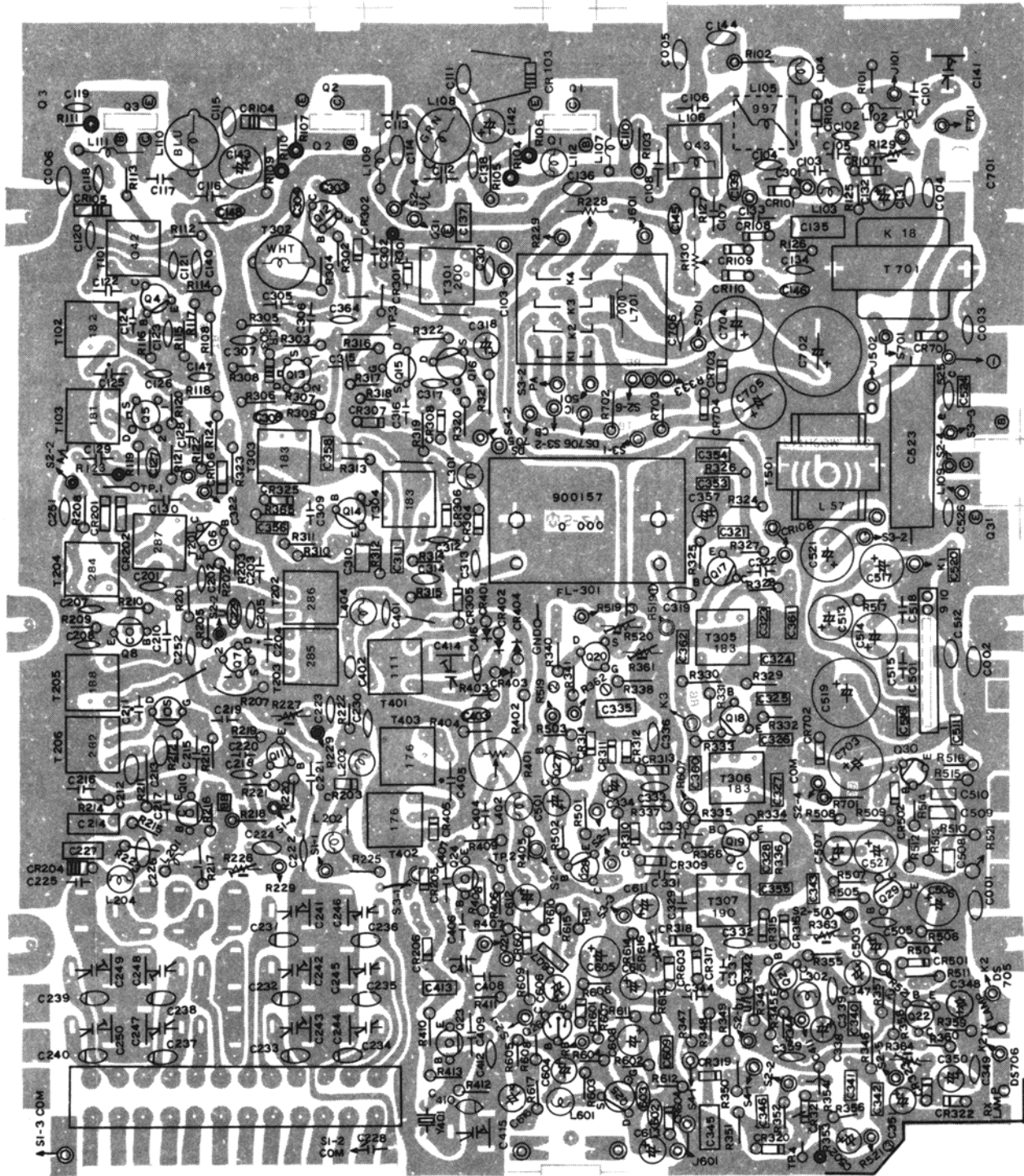
Reference Number	Description	Part Number
<b>INDUCTORS, CHOKES, AND TRANSFORMERS</b>		
L101, 109, 111 . . . . .	Choke, RF, .65 $\mu$ H . . . . .	IP 21-0071
L102, 107 . . . . .	Choke, RF, .22 $\mu$ H . . . . .	IP 21-0098
L103, 104, 302, 401 . . . . .	Choke, RF, 150 $\mu$ H . . . . .	IP 21-0074
L105 . . . . .	Coil, RF, C997N . . . . .	IP 21-0206
L106 . . . . .	Coil, RF, C043N . . . . .	IP 21-0095
L108 . . . . .	Coil, RF, C996N . . . . .	IP 21-0205
L110 . . . . .	Coil, RF, C979N . . . . .	IP 21-0180
L112 . . . . .	Choke, RF, 1.2 $\mu$ H . . . . .	IP 21-0179
L201 . . . . .	Choke, RF, 5.5 $\mu$ H . . . . .	IP 21-0101
L202 . . . . .	Choke, RF, 8.2 $\mu$ H . . . . .	IP 21-0180
L203, 204, 301 . . . . .	Choke, RF, 470 $\mu$ H . . . . .	IP 21-0195
L402 . . . . .	Choke, RF, 22 $\mu$ H . . . . .	IP 21-0072
T101 . . . . .	Transformer, RF, C042D . . . . .	IP 21-0093
T102 . . . . .	Transformer, RF, C182Z . . . . .	IP 21-0084
T103 . . . . .	Transformer, RF, C181Z . . . . .	IP 21-0083
T201 . . . . .	Transformer, RF, Z287A . . . . .	IP 21-0207
T202 . . . . .	Transformer, RF, Z286K . . . . .	IP 21-0208
T203 . . . . .	Transformer, RF, Z285I . . . . .	IP 21-0209
T204 . . . . .	Transformer, RF, Z284A . . . . .	IP 21-0210
T205 . . . . .	Transformer, RF, Z188A . . . . .	IP 21-0087
T206 . . . . .	Transformer, RF, Z282I . . . . .	IP 21-0211
T301 . . . . .	Transformer, RF, C200Z . . . . .	IP 21-0091
T302 . . . . .	Transformer, RF, C993N . . . . .	IP 21-0212
T303 thru 306 . . . . .	Transformer, IF, S-183A . . . . .	IP 21-0085
T307 . . . . .	Transformer, IF, S-190A . . . . .	IP 21-0089
T401 . . . . .	Transformer, IF, S-111D . . . . .	IP 21-0092
T402, 403 . . . . .	Transformer, RF, Z176I . . . . .	IP 21-0078
T501, 502 . . . . .	Transformer, AF, L-57 . . . . .	IP 21-0186
T701 . . . . .	Choke, AF, K-18 . . . . .	IP 21-0112
<b>DIODES, INTEGRATED CIRCUITS, AND TRANSISTORS</b>		
CR101, 102 . . . . .	Diode, 10D-4 . . . . .	IP 20-0022
CR103, 104, 105 . . . . .	Diode, 1S990S . . . . .	IP 20-0018
CR106, 201, 202, 205, 206, 306, 310, 311, 312, 314, 319, 320, 321, 405, 602 . . . . .	Diode, WG-713 . . . . .	IP 20-0145
CR107 thru 110, 307, 308, 309, 313, 315 thru 318, 322, 323, 501, 601, 603 . . . . .	Diode, 1N60 . . . . .	IP 20-0060
CR203 . . . . .	Diode, ITT 310 . . . . .	IP 20-0151
CR204, 303 . . . . .	Diode, 1S1007 . . . . .	IP 20-0020
CR301, 302 . . . . .	Diode, 1S2472 . . . . .	IP 20-0021
CR304, 305, 401 thru 404 . . . . .	Diode, 1N60P . . . . .	IP 20-0016
CR502, 701 . . . . .	Diode, 1N4004 . . . . .	IP 20-0025
CR702, 703, 704 . . . . .	Diode, BZ090 . . . . .	IP 20-0019
IC501 . . . . .	Integrated Circuit, TA7205P . . . . .	IP 20-0161

## PARTS LIST (cont'd)

Reference Number	Description	Part Number
Q1 . . . . .	Transistor, 2SC1307 . . . . .	IP 20-0154
Q2 . . . . .	Transistor, 2SC306 (1) . . . . .	IP 20-0155
Q3 . . . . .	Transistor, 2SC1449 (1) . . . . .	IP 20-0156
Q4, 6, 8, 10, 11, 14, 17, 18, 19, 21, 23, 24 . . . . .	Transistor, 2SC710C . . . . .	IP 20-0002
Q5, 7, 13 . . . . .	Transistor, 3SK45B . . . . .	IP 20-0157
Q9, 20 . . . . .	Transistor, 2SK19GR . . . . .	IP 20-0012
Q12 . . . . .	Transistor, 2SC710B . . . . .	IP 20-0001
Q15, 16, 25 . . . . .	Transistor, 2SK30 . . . . .	IP 20-0078
	Transistor, 2SK40 (Alternate) . . . . .	IP 20-0162
Q22, 27, 29, 30 . . . . .	Transistor, 2SC372Y . . . . .	IP 20-0006
Q26 . . . . .	Transistor, 2SD187Y . . . . .	IP 20-0160
Q28 . . . . .	Transistor, 2SA495Y . . . . .	IP 20-0159
<b>MISCELLANEOUS</b>		
DS701 thru 707 . . . . .	Lamps, Indicator . . . . .	IP 28-0009
FL301 . . . . .	Filter, FX07800 Crystal . . . . .	IP 31-0047
J101 . . . . .	Jack, Antenna . . . . .	IP 26-0013
J501, 502 . . . . .	Jack, Earphone . . . . .	IP 26-0005
J601 . . . . .	Jack, Microphone . . . . .	IP 26-0014
K1-4, L701 . . . . .	Relay, 12 V DC . . . . .	IP 32-0005
M1 . . . . .	Meter, S/RF . . . . .	IP 27-0007
S1 . . . . .	Switch, Channel Selector . . . . .	IP 25-0037
S2 . . . . .	Switch, Mode . . . . .	IP 25-0038
S3 . . . . .	Switch, PA/CB . . . . .	IP 25-0034
S4 . . . . .	Switch, NB ON-OFF . . . . .	IP 25-0036
YH1 . . . . .	Holder (12-Crystal) . . . . .	IP 34-0004
Y201 . . . . .	Crystal, 11.740 MHz . . . . .	IP 31-0058
Y202 . . . . .	Crystal, 11.790 MHz . . . . .	IP 31-0059
Y203 . . . . .	Crystal, 11.840 MHz . . . . .	IP 31-0060
Y204 . . . . .	Crystal, 11.890 MHz . . . . .	IP 31-0061
Y205 . . . . .	Crystal, 11.940 MHz . . . . .	IP 31-0062
Y206 . . . . .	Crystal, 11.990 MHz . . . . .	IP 31-0063
Y207 . . . . .	Crystal, 7.4225 MHz . . . . .	IP 31-0064
Y208 . . . . .	Crystal, 7.4325 MHz . . . . .	IP 31-0065
Y209 . . . . .	Crystal, 7.4425 MHz . . . . .	IP 31-0066
Y210 . . . . .	Crystal, 7.4625 MHz . . . . .	IP 31-0067
Y410 . . . . .	Crystal, 7.8025 MHz . . . . .	IP 31-0068
	Knob (Mode, Clarifier, RF Gain) . . . . .	IP 30-0094
	Knob, Inner (VOLUME) . . . . .	IP 30-0092
	Knob, Outer (SQUELCH) . . . . .	IP 30-0093
	Dial, Channel . . . . .	IP 30-0122
	Cover, Upper . . . . .	IP 30-0120
	Cover, Lower . . . . .	IP 30-0121
	Bracket, Mobile Mount . . . . .	IP 30-0117
	Lens, Red TX . . . . .	IP 30-0123
	Lens, Green RX . . . . .	IP 30-0124
	Lens, Blue AM . . . . .	IP 30-0125
	Lens, Amber USB . . . . .	IP 30-0126
	Lens, White LSB . . . . .	IP 30-0127
	Microphone w/Cord and Plug . . . . .	IP 29-0016
	Speaker, 2 W 8 Ohm . . . . .	IP 29-0017
	Bezel . . . . .	IP 30-0119
	Panel, Front . . . . .	IP 30-0128

\* Order unlisted parts by description and reference number.

# PARTS LOCATOR







### CITIZENS RADIO SERVICE

CLASS D FCC Part 95  
(5 Watt Input Limitation)

Ch.	Freq.	Limitation
1	26.965	Calling own station
2	26.975	"
3	26.985	"
4	27.005	"
5	27.015	"
6	27.025	"
7	27.035	"
8	27.055	"
9	27.065	Emergency Calling
10	27.075	any station
11	27.085	"
12	27.105	"
13	27.115	"
14	27.125	"
15	27.135	"
16	27.155	Calling own station
17	27.165	"
18	27.175	"
19	27.185	"
20	27.205	"
21	27.215	"
22	27.225	"
23	27.255	any station (shared)

This radio service requires a license obtained by filling FCC Form 505.



**(P)**

**PACE**

**TWO-WAY RADIO PRODUCTS  
by PATHCOM INC.**

L2023-575

PACE COMMUNICATIONS  
DIVISION OF PATHCOM INC.  
24049 S. FRAMPTON AVENUE  
HARBOR CITY, CALIF. 90710

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