

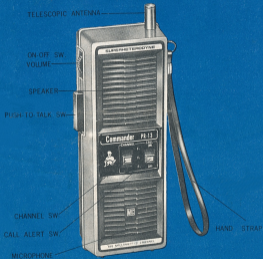
Commander

**CITIZENS BAND
SUPERHETERODYNE TRANSCEIVER**

**100-mW
9-TRANSISTOR
3-CHANNEL
WITH
CALL ALERT SIGNAL**

MODEL PR-13

OPERATING INSTRUCTION



Your Model PR-13 is a fine piece of two-way radio equipment. Like all equipment of this type, the operating range will vary considerably, depending upon terrain and weather conditions. In open field, the range is over one mile.

Model PR-13 is a completely transistorized and crystal controlled hand held transmitter and receiver. It is designed to operate in the 27 MHz Citizens Band and it is built to comply with FCC regulations.

NOTICE

Model PR-13 is equipped with channel 14 crystals and is designed to accept the additional crystals necessary for the second and the third channel operation. You can obtain these crystals at your distributor. When using the unit for the second (F-2) or the third (F-3) channel, be sure that the channel switch on the front panel is switched to the proper position.

FEATURES

- * 3-channel with channel 14 crystals installed, two other channel are open.
- * Extra-sensitivity superheterodyne receiver and high level push-pull modulator.

- * Separate speaker and mike for greater voice response and clarity.
- * Call alert signal for better communication.
- * Operates on a single 9-Volt battery.
- * 10-section telescopic antenna.

OPERATION

1. Open the back cover and snap in 9 Volt standard battery.
2. Extend the telescopic antenna to its full length.
3. Place the channel switch to the "F-1" position.
4. Turn the "On-Off/Volume" switch to the "On" position. Your transceiver is now ready to operate.
5. Press the "Push-to-Talk" switch for transmitting.
6. Release the "Push-to-Talk" switch for receiving.
7. How to receive CALL signal:
 - a) Move the CALL signal switch to the "OFF" position.
 - b) Adjust the volume control for a normal listening level.
 - c) When the signal is heard, begin the normal Push-to-Talk operation described above.

8. Transmitting a CALL signal

- Move the CALL signal switch to the "ON" position.
- Press the "PUSH-TO-TALK" switch momentarily and release. Repeat if necessary.
- When communications begin, move the CALL signal switch to "OFF" position and use normal Push-to-Talk operation described above.

NOTE: Once communications is established you must turn the CALL switch to the "OFF" position or the unit will not function properly.

SPECIFICATIONS

GENERAL

Circuitry	: 9 transistors, 2 diodes
Channels	: 3-channel, channel 14 (27.125 MHz) crystals installed. Two channels open.
Frequency Stability	: $\pm 0.005\%$
Controls	: On/Off/Volume, call alert, push-to-talk, channel selector.

Power Source: DC 9V battery

Speaker	: 2- $\frac{1}{2}$ " 8-ohm dynamic.
Microphone	: 2- $\frac{1}{2}$ " 8-ohm dynamic.
Antenna	: 10-section 44- $\frac{1}{2}$ " telescopic.
Unit Size	: 70(W) X 203(H) X 50(D) mm
Unit Weight	: 419gr.
Accessories included	: 9V battery, handstrap,

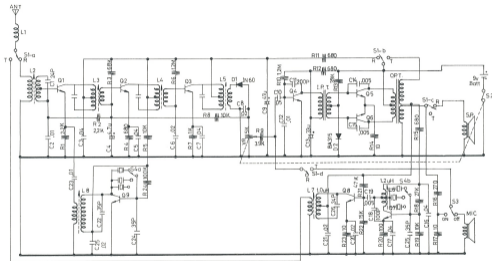
RECEIVER

Receiving System	: Crystal controlled superheterodyne with tune RF and AGC.
Intermediate Frequency	: 455KHz.
Sensitivity	: 25 db for 26 db (S+N)/N at 30% modulation.
Undistorted Output Power	: Minimum 100 mW over 8-ohm speaker.
Current Drain	: Less than 20 mA at no signal and less than 60 mA at maximum output.

TRANSMITTER

Modulation	: High level Class B push-pull.
RF Input Power	: 100 mW to final RF stage.
Current Drain	: Less than 60 MA at call alert and less than 25 mA at no modulation.

SCHEMATIC DIAGRAM



NOTE: All resistors value are indicated in ohm ($R \times 10^3$ $R \times 10^4$ ohm)

All capacitors value are indicated in μf ($P = 10^{-6}$ μf)

S1-6d Push-To-Talk Switch

S2 Power Switch

S3 Call Switch

S4-a-b Channel Switch

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