

John Q

80-Channel AM/FM Mobile



Owner's Manual

PRESIDENT™

Engineered to be the very best.

GENERAL INFORMATION

DESCRIPTION

Your JOHN Q is a compact, all-transisterized 80-channel Citizens Band Transceiver designed for mobile operation either positive or negative ground. A DC power cord and a mounting bracket are included with your JOHN Q.

Your JOHN Q transmits and receives with PLL(Phase Locked Loop) controlled accuracy and reliability on all 80 channels, featuring dual conversion, low noise RF stage, S/Rf meter, adjustable squelch, external speaker jack, and provision for paging or public address system.

SPECIFICATIONS

GENERAL

Channels	: 80
Frequency Range	: 26.965—27.855 MHz
Frequency Control	: PLL Synthesized
Antenna Impedance	: 50 ohm
Power Input	: 13.8V DC
Accessories	: DC Power Cord, Micro- phone, Microphone Hanger, Mounting Bracket
Size (WxDxH)	: 7-1/4" x 8-3/4" x 2-1/5"
Weight	: 4.6 pounds

TRANSMITTER

Output Power	: 4 watts
Emission Type	: 6A3
Hum and Noise	: Better than -50 dB
Frequency Tolerance	: 0.002%
Modulation	
Percentage (Peak)	: 100%
Spurious Rejection	: Better than -70 dB

RECEIVER

Sensitivity at 10 dB S+N/N	: 0.5 μ V
Sensitivity at 500 mW audio output	: 0.5 μ V
Squelch Threshold	: 0.5 μ V
Squelch Tight	: 1000 μ V
Signal Meter S-9	: 100 μ V
Audio Output Power (Max)	: 5 watts
Audio Output Power (10% Dist.)	: 4 watts
Selectivity @ 6 dB down	: 7 kHz
Adjacent Channel Rejection	: -60 dB
Image Rejection	: -70 dB
Speaker Impedance	: 16 ohm

PA SYSTEM

Power Output (MAX) into external speaker	: 4 watts
External Speaker for PA	: 8 ohms, 4 watts

INSTALLATION

LOCATION

Plan the location of the transceiver and microphone bracket before starting the installation. Select a location that is convenient for operation and does not interfere with the driver or passenger in the vehicle. In automobiles, the transceiver is usually mounted to the dash panel with microphone bracket beside it.

MOUNTING AND CONNECTION

This radio is supplied with a universal mounting bracket. The transceiver is held in the bracket by two bolts supplied, permitting adjustment to the most convenient angle.

The bracket must be mounted with the machine screw and nuts supplied.

The mounting must be mechanically strong and also provide a good electrical connection to the chassis of the vehicle. Process as follows to mount the transceiver.

1. After you determine the most convenient location in your vehicle, hold the radio with mounting bracket in the exact location desired. If nothing will interfere with mounting it in the desired position, remove the mounting bracket bolts. Before drilling the holes, make sure nothing will be damaged by the drill.
2. Connect the antenna cable plug to the standard receptacle on the rear panel.
3. Connect the DC power input wire (red) on the CB to +12V DC. In most automobiles +12V DC is usually obtained from the accessory contact on the ignition switch (See NOTE). This prevents the set being left on accidentally when the driver leaves the car and also permits operating the radio without the engine running. Locate the accessory contact on most ignition switches by tracing the power wire from the broadcast receiver in the car.
4. Connect the black wire to -12V DC. This usually the chassis of the car. Any convenient location with good electrical contact (remove paint) may be used.

NOTE

GROUND INFORMATION

This radio may be installed and used in any 12V DC negative or positive ground system vehicle. Most cars or small trucks use a negative ground system while some older cars and some newer large trucks may use a positive ground system.

NEGATIVE GROUND SYSTEM; THE NEGATIVE BATTERY TERMINAL IS CONNECTED TO THE VEHICLE FRAME. CONNECT THE RED POWER CORD FROM THE RADIO TO THE POSITIVE OR (+) BATTERY TERMINAL OR OTHER CONVENIENT POINT, AND CONNECT THE BLACK POWER CORD TO THE CHASSIS OR VEHICLE FRAME OR (-) BATTERY TERMINAL.

POSITIVE GROUND SYSTEM; THE POSITIVE BATTERY TERMINAL IS CONNECTED TO THE VEHICLE FRAME. CONNECT THE BLACK POWER

CORD FROM THE RADIO TO THE NEGATIVE OR (-) BATTERY TERMINAL OR OTHER CONVENIENT POINT, AND CONNECT THE RED POWER CORD TO THE CHASSIS OR VEHICLE FRAME OR (+) BATTERY TERMINAL.

5. Mount the microphone bracket on the right side of the unit or near the unit, using two screws supplied. When mounting in an automobile, place the bracket under the dash. So, the microphone is readily accessible.

ANTENNA

This radio is factory-adjusted to give optimum performance using a 50-ohm antenna specifically designed for CB equipment. No attempt should be made to tune the transmitter to the antenna. Instead, the antenna should be adjusted to present the lowest possible SWR (standing wave ratio). A very low SWR means that the antenna is operating at maximum efficiency and will also mean that it is adjusted to 50 ohms. For short antenna runs, use RG-58/U or RG-8U. Over 60 feet, use RG-8U only.

NOTE: When installing the antenna, be sure to recheck all fittings and connectors for proper assembly to avoid shorts or open circuits. SWR meter is not included with this model, SWR meter can be obtained from most SEARS retail and catalogue stores.

BASE STATION OPERATION

To operate the transceiver from your home or office, using the regular house current as the power source, you will require a separate power supply capable of supplying two (2) amps at a 13.8 volt DC output same as a fully charged car battery with a nominal input voltage of 120 volts AC, 50/60 Hz. Simply connect the red(+) and black(-) leads of the transceiver to the corresponding DC terminals of the AC power supply.

NOTE: Do not attempt to operate this transceiver by connecting directly to 120V AC. When AC power supply is used with the transceiver for base station operation, any Citizens Band beam, dipole, ground plane or vertical antenna may be used. A ground plane vertical antenna will provide the most uniform horizontal coverage.

PREVENTIVE MAINTENANCE

As six to twelve month intervals, the following system checks should be made:

1. Check Standing Wave Ratio (SWR).
2. Inspect all electrical connections to ensure that they are tight.
3. Inspect antenna coaxial cable for wear or breaks on shielding.
4. Inspect all screws and other mounting hardware for tightness.

OPERATING PROCEDURE

OPERATING PROCEDURE TO RECEIVE

1. Be sure that the power source, antenna and microphone are connected to the proper connectors before going to the next steps.
2. Turn the unit ON by rotating the Volume Control clockwise, PA/CB switch in "CB" position.
3. Set the Channel Selector Switch to the desired channel.
4. Set the R.F. Gain Control to the maximum clockwise position for maximum sensitivity and accurate "S" meter indication.
5. Set the Volume Control to a comfortable listening level.
6. Listen to the background noise from the speaker. Turn the Squelch Control slowly clockwise until the noise JUST disappears (no signal should be present). Leave the control at this setting. The SQUELCH is now properly adjusted. The receiver will remain quiet until a signal is actually received. Do not advance the control too far, or some of the weaker signals will not be heard.

OPERATING PROCEDURE TO TRANSMIT

1. Select the desired channel.

CAUTION

Be sure the antenna is properly connected to the transceiver before transmitting. Transmitting without an antenna or with a poorly matched antenna (high SWR; over 2) can cause damage to the transmitter.

2. If the channel is clear, depress the push-to-talk switch on the microphone and speak in a normal voice.

OPERATING PROCEDURE FOR PUBLIC ADDRESS

1. Connect a remote speaker to the jack provided on the rear panel.
2. Place the PA/CB Switch in the PA position.

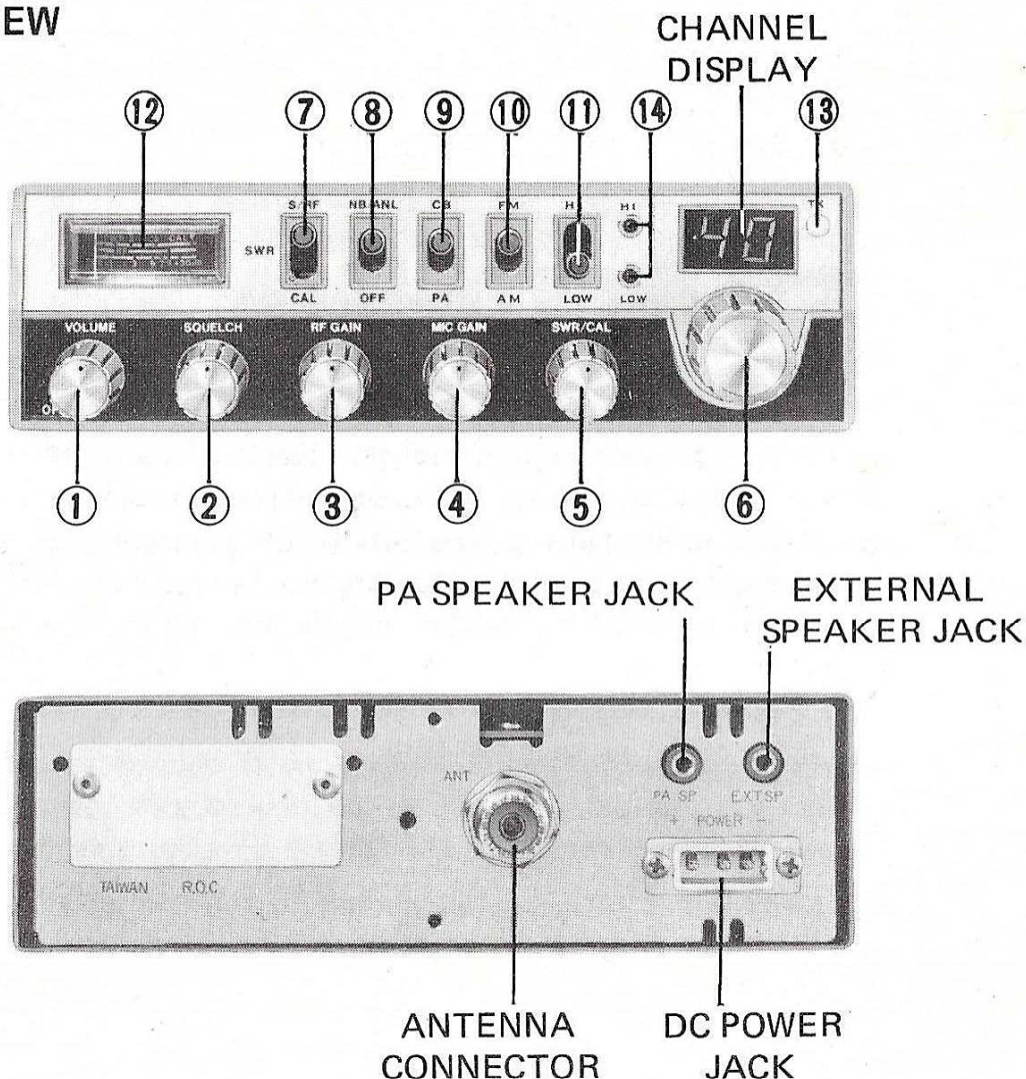
NOTE: When the Volume control is rotated clockwise, activity on the CB channel will be heard through the PA speaker.

3. Depress the push-to-talk switch on the microphone and speak in a normal voice.
4. Adjust the volume of the PA speaker using the Volume control on the front panel.

OPERATING INSTRUCTIONS

Refer to controls, indicators and connectors as illustrated below:

FRONT VIEW



FRONT PANEL

1. OFF/ON/VOLUME:

Turn clockwise to apply power to the unit and to set the desired listening level.

2. SQUELCH:

This control is used to cut off or eliminate receiver background noise in the absence of an incoming signal. For clearest sound it is desirable that the control be adjusted only to the point where the receiver background noise is eliminated. Turn clockwise until the receiver noise disappears. Any signal to be received must now be slightly stronger than the average received noise. Further clockwise rotation will increase the threshold level which a signal must overcome in order to be heard. Only strong signals will be heard at the maximum clockwise setting.

3. RF GAIN:

Adjust as required for amount of signal desired. Signal is reduced by turning the control in a counterclockwise direction.

4. MIC GAIN:

This control is used to adjust as required microphone input sensitivity for optimum amount of modulation in transmit.

5. SWR CAL CONTROL:

Used to calibrate the meter for SWR (standing wave ratio) measurements. Simply switch to "CAL", press the PTT switch on the microphone and calibrate the meter.

6. CHANNEL SELECTOR SWITCH:

This switch selects any one of the eighty Citizens Band channels desired. The selected channel is shown by large LEDs in the channel window.

7. S-RF/CAL/SWR SWITCH:

When in the S-RF position, the meter swings proportionally to the strength of the received signal. When transmitting, the meter indicates relative RF output power.

When in the "CAL" position, the SWR meter can be calibrated by adjusting the "SWR CAL" control to the "CAL" mark on the meter face.

When in the "SWR" position, the standing wave ratio is measured.

8. NB/ANL-OFF SWITCH:

When the switch is placed in the NB + ANL position, the RF noise blanker also is activated. The RF noise blanker is very effective for repetitive impulse noise such as ignition interference.

9. PA/CB SWITCH:

The PA function should not be used unless an external speaker is connected (Refer to public address instructions.) In the CB position, the PA function is disabled and the unit will transmit and receive normally.

10. AM/FM SWITCH:

This switch is used to select AM or FM.

11. HI/LOW SWITCH:

This switch is used to select FREQUENCY. If you select LOW, the radio works from 26.965 to 27.405 MHz. If you select HI, the radio works from 27.415 to 27.855 MHz.

12. S/RF PWR METER:

Shows relative transmitter RF output power and input signal strength when receiving. The meter is illuminated when power is on.

13. TRANSMIT INDICATOR:

The transmit LED indicator is located next to the channel selector switch. When in transmit the LED will be red.

14. HI-LOW INDICATOR:

When the HI switch is in HI indicator comes on, and the switch is set in LOW, LOW indicator comes on.

15. PRESS-TO-TALK MICROPHONE:

The receiver and transmitter are controlled by the press-to-talk switch on the microphone. Press the switch to activate the transmitter; release the switch to receive. When transmitting, hold the microphone two inches from the mouth and speak clearly in a normal voice. The microphone provided with your radio is a detachable low impedance dynamic type.

REAR PANEL

1. PUBLIC ADDRESS:

An external 8-ohm 4.0 watt speaker may be connected to the PA Speaker Jack when this unit is used as a public address system. The speaker should be directed away from the microphone to prevent acoustic feed-back. Physical separation or isolation of the microphone and speaker must be employed when operating the PA at high output levels.

2. EXTERNAL SPEAKER:

The External Speaker Jack is used for remote receiver monitoring. The external speaker should have 8-ohm impedance and be rated to handle at least 4.0 watts. When the external speaker is plugged in, the internal speaker is automatically disconnected.

3. ANTENNA CONNECTOR:

This female connector permits connection of the transmission Line cable from The antenna (male connector) to the transceiver.

4. POWER:

This Jack permits connection of the D.C. power to the transceiver. A power cord with polarized plug is supplied with the radio. The polarized plug ensures that the power will always be connected properly.

CHANNEL INFORMATION

This radio has been designed for operation in the 11 meter Citizen Band Radio Service. It uses a frequency synthesizing circuit with Phase Locked Loop (PLL) techniques to provide crystal controlled transmit and receive operation on all 80 channels. Provided Hi/Low band switch will enable you to operate on High band and Low band each 40 channels as show below.

LOW BAND		HIGH BAND	
Channel	Channel Frequency in MHz	Channel	Channel Frequency in MHz
1	26.965	1	27.415
2	26.975	2	27.425
3	26.985	3	27.435
4	27.005	4	27.455
5	27.015	5	27.465
6	27.025	6	28.475
7	27.035	7	27.485
8	27.055	8	27.505
9	27.065	9	27.515
10	27.075	10	27.525
11	27.085	11	27.535
12	27.105	12	27.555
13	27.115	13	27.565
14	27.125	14	27.575
15	27.135	15	27.585
16	27.155	16	27.605
17	27.165	17	27.615
18	27.175	18	27.625
19	27.185	19	27.635
20	27.205	20	27.655
21	27.215	21	27.665
22	27.225	22	27.675
23	27.255	23	27.705
24	27.235	24	27.685
25	27.245	25	27.695
26	27.265	26	27.715
27	27.275	27	27.725
28	27.285	28	27.735
29	27.295	29	27.745
30	27.305	30	27.755
31	27.315	31	27.765
32	27.325	32	27.775
33	27.335	33	27.785
34	27.345	34	27.795
35	27.355	35	27.805
36	27.365	36	27.815
37	27.375	37	27.825
38	27.385	38	27.835
39	27.395	39	27.845
40	27.405	40	27.855