



## General information

### Introduction

The MRC-11X is a UHF (Ultra High Frequency) tow way short range voice radio service with nominal RF power output variable up to 0.5Watts. It is developed and tested to stringent specifications for FRS (Family Radio Service) . Designed to operate from 462 to 467 MHz. It totals 14 channels with 25kHz channel step.

Advanced surface mount and microprocessor technologies are used to provide many additional functions and combine to make a very versatile and compact unit. It is used modulation by FM (Frequency Modulation) type, clear communication range of up to 5 miles. The digitally synthesized transceivers use a single crystal for frequency control and an EEPROM for the storage of frequencies and channel number and other software definable information. The set includes VOX (hands-free), Dual channels scan monitor and transmitter. The set also includes a AUX jack and two microphone and earphone jack for intercom. It is can connect on optional speaker and have re-charger batteries function.

The top panel of the MRC-11X hand held has 7 variable controls, these being two volume control key, a scan key, a mode key, a power on/off, a call key and a PTT (press to talk). The LCD (Liquid Crystal Display) displays receive mode, PTT mode, VOX, DW, low batteries, channel number, intercom, key lock and RF output power level.

### Feature summary

14 channels for FRS

Transmit power: <0.5 Watts

There are six distinct call tones to choose

Battery power low indication on LCD

Four level voice activation adjusts for VOX use even with background noise

Key lock on/off selectable

Six-level digital volume for speaker volume

Beep tone for press key and confirmation of transmit

VOX on/off selectable

Backlight LCD with 12 functions readout

Dual channel auto scan and transmit

Max 1.2 Minute per time for transmit for protect the unit

Save data ( last select before it is shut of

Can connect on optional speaker microphone and earphone

Can connect re-charger batteries

---

Page / Calling button

Scan channel

---

## Warnings

Do not open your radio to make any internal adjustments. Your radio is set up to transmit a regulated signal on one of 14 assigned frequencies. It is against the law to alter or adjust the settings inside the radio to exceed those limitations.

Any adjustments to your radio must be made by a qualified technician using the proper test equipment.

## To be safe

Never open your radio's case.

Never change or replace anything in your radio except the batteries.

Your radio might cause TV or radio interference even when it is operating properly. To determine whether your radio is causing the interference, turn it off. If the interference goes away, your radio is causing it. Try to eliminate the interference:

Moving your radio away from the receiver.

Calling your local COBY store for help

If you cannot eliminate the interference, the FCC requires that you stop using the radio.

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions:

This device may not cause harmful interference

This device must accept any interference received, including interference that may cause undesired operation. Modifying or tampering with the radio's internal components can cause a malfunction and invalidate its warranty and avoid your FCC authorization to operate it.

## Technical specifications

### General

Frequency range:	462.5625 to 467.7125 MHz
Number of channels:	14
Channel spacing	25kHz
Modulation	16F3 (FM)
Standby current :	< 30mA
CH14. (467.7125MHz) Tx/Rx VCO :	1.9 +/- 0.2V
Antenna impedance	50Ω
Operating temperature range:	-10□ to +55□
Operating Voltage range:	4.0VDC to 6.4VDC
Dimensions in mm (body only):	100(H) x 63(W) x 32(D)

---

### Transmitter

Effective radiated power at 6.0VDC :	Low:	0.4±0.1 Watts
Transmitting Current	(High level )	≤1.0 A

---

(Low level)  $\leq 0.45$  A

Maximum Deviation  $\pm 2.5$  kHz max.

Carrier freq. Stability  $\pm 500$  Hz

Audio distortion  $< 5$  %

Hum Noise 38 dB

Transmitting 1k deviation Sens.  $\leq 15$  mV

#### Receiver

Sensitivity for @ 12 dB sinad  $\leq -120$  dBm

Max. receiver current Consumption  $\leq 150$  mA

Max. audio output @ 10% THD  $\leq 250$  mW  
(@ audio 1 kHz, 1.5 kHz Dev.)

Max. s/n ratio @ -60 dBm RF input  $\geq 40$  dB

Signal displacement BW  $\pm 5$  KHz

1<sup>st</sup> IF rejection  $\geq 50$  dB

2<sup>nd</sup> IF rejection  $\geq 50$  dB

#### Channels List

CH No.	FREQ. (MHz)		CH No.	FREQ. (MHz)
1	462.5625		12	467.6625
2	462.5875		13	467.6875
3	462.6125		14	467.7125
4	462.6375			
5	462.6625			
6	462.6875			
7	462.7125			
8	467.5625			
9	467.5875			
10	467.6125			
11	467.6375			