MODEL MRC-11 FUNCTIONS

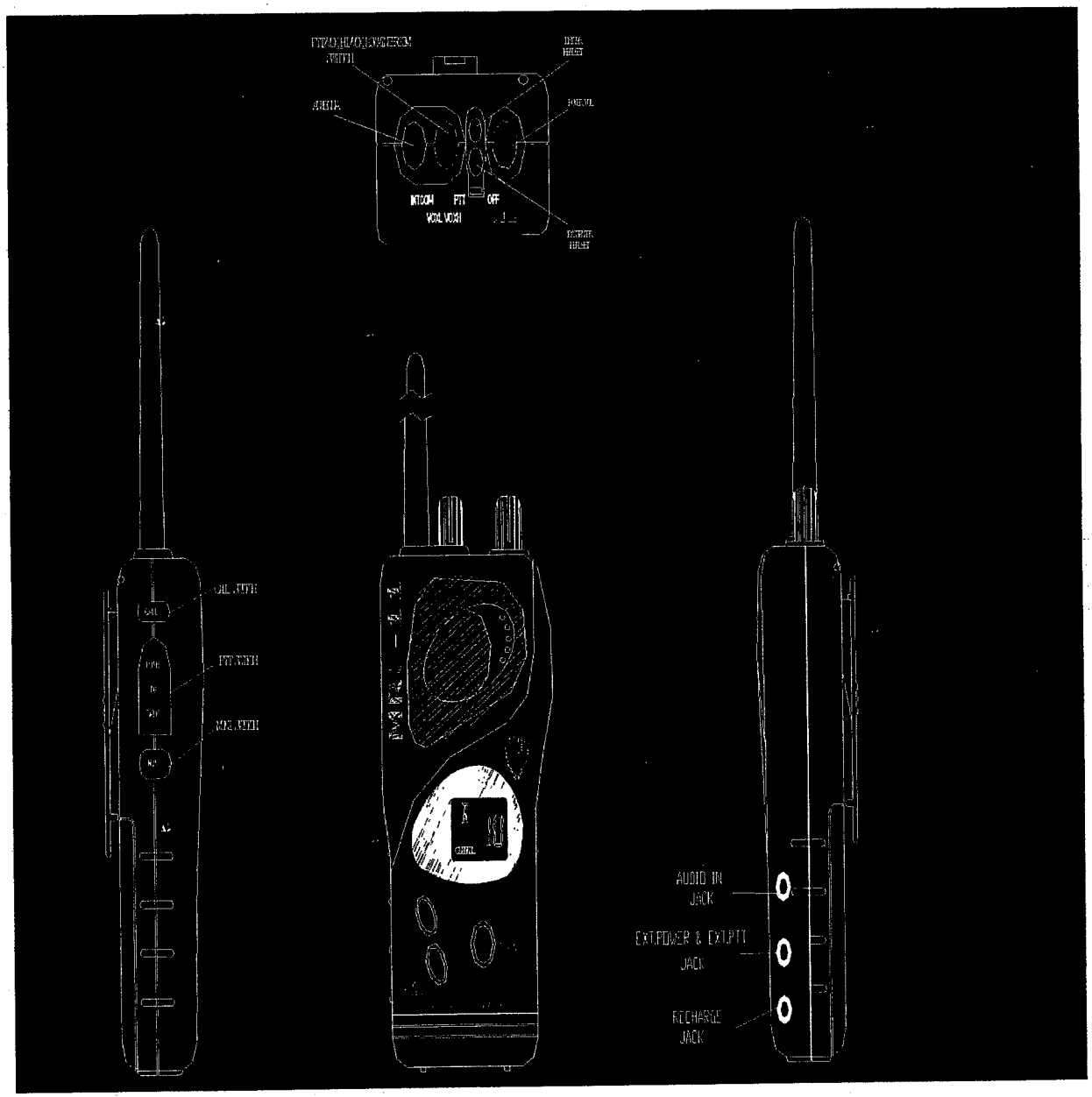
MRC-11 is the new FRS (family radio service) for your fingertips. The system incorporates all 14 channels with 38 different privacy codes to provide the private communication. It can provide range up to 2 miles Also it can offer VOX_HI/VOX_LOW/INTERCOM system modes, driver and passenger headsets, ext. Audio input.

The details functions include:

- 14 channels TX/RX communication
- LCD display channel number and other system flags
- KEYPAD control system's work modes and functions
- 38 different privacy CTCSS codes for TX/RX
- Busy channel scan
- VOX_HI/VOX_LOW/INTERCOM modes
- Ext. driver headset & Ext. passenger headset
- Ext. PTT and Ext. Power jack
- System autosquelch,auto save system power
- Ext. Audio input (AUX)

TIPS FOR GETTING FORM MRC-11

Due to the band of operation (462-467 Mhz), the MRC-11 provides communications that are virtually free of atmospheric interference that is common on lower frequency bands. Along with this and an antenna system that is very efficient as compared to other Unlicensed radio bands, communications range is surprisingly good. Many times the limits to maximum possible range are environmental factors such as blockage caused by trees, buildings, hills or other obstructions. If you find communication is not possible, many times this can been overcome by moving only a few feet to a new location. Range is greatly reduced while operating in a vehicle or metal building. Battery condition also affects range. The MRC-11 operates on rechargeable ni-cad batteries or alkaline batteries. For daily usage the rechargeable batteries provide the most economical operation. If recharging is not feasible alkaline batteries provide long life and it increased operating range due to the higher available voltage. While this unit has been design for raggedness it is a precision piece of electronic equipment that should not be expose to water or handled carelessly. Normal care should result in years of troublefree operation. Do not leave batteriess installed over a long period of time as leakage may occur which can destroy the radio. always save your receipt as it is required for warranty consideration.



NOTE: The antenna is permanently attached to the radio. Do not attempt to remove.

Do not connect this unit to over 5 volts.

Do not use a cigarette lighter adapter.

1. Power "ON/OFF" & volume control

In "OFF" position, the MRC-11 is off. Turn this control clockwise to switch on the unit. Turn the knob clockwise a little more to set the audio level until you get a comfortable sound level. Pressing the "MON" button will allow background noise to be heard.

2. RESET the unit

When pressing PTT key and turn on the power switch, the system's parameters will be setup their factory default value.

3. PTT/VOX_LOW/VOX_HI/INTERCOM Mode Switch

This switch controls the system mode.

In PTT mode (PTT position), you must press PTT to transmit and release PTT to receive.

In VOX_HI mode (V_H position), when you speak above a threshold level (The threshold level is lower), the unit will transmit. Pressing the PTT switch also causes the unit to transmit. When receiving signal, the VOX will not be active.

In VOX_LOW mode (V_L position), when you speak above a high threshold level, the unit will transmit. Pressing the PTT switch also causes the unit to transmit. When receiving signal, the VOX will not be active.

In INTERCOM mode (INT position), the driver headset and passenger headset must been inserted in their socket, the driver and passenger can communicate with each other. In this position, however; the unit would not transmit and would head a little sound from other bike.

In PTT/VOX_LOW/VOX_HI modes, when the passenger headset and the driver headset are inserted in its socket, the unit would have added INTERCOM function.

4. AUX. (audio input jack)

A type player or CD player can be connected to the AUX. Stereo jack, both passenger and driver can hear music and others.

5. Driver headset and passenger headset

The unit enables the driver headset and passenger headset to be inserted into their jack to replace the unit's microphone and speaker. The driver and passenger can intercom directly.

6. Ext. Power and Ext. PTT Jack

An external power source of +5 VDC , can be used instead of the battery pack. It is switched by the contact on the ring side of the jack. The tip of the jack is used for an external PTT switch ad the sleeve is ground. Please remove the batteries before using external power source.

7. Charge Jack

Connect the charger to this jack. You can recharge the battery. This unit operates at 6 volts

maximum. Do not connect to vehicle electrical system or any source higher than 6 volts severe damage will result. Do not charge the device for over 12 hours. Please use the adaptor specifically for this device.

8. "MON" Button

Pressing the "MON" button will allow background noise to be heard, and the automatic squelch will be activated. You can adjust the volume for a normal listening level.

9. "PTT" button

When pressing the "PTT" button and talking to microphone, the unit will transmit your voice. Releasing the "PTT" button, the unit will be ready to receive signals.

10. Setting Channels and Subcodes

Both the transmitter and receiving units must be on the same channel and subcode. Select desired channel by pressing and releasing "UP" and "DOWN" keys.

i) Current channel is shown on the LCD

ii) Press "MODE" button to select "CHANNEL". Use "UP" and "DOWN" keys to set new channel

iii) Press " MODE" button repeatedly to select "QUIET". Adjust the mode by "UP" and "DOWN" keys. The adjustment will go rapidly, if you keep pressing "UP" or "DOWN" key.

11. Cancellation of Subcode

Set "QUIET" into "00" position. Setting of subcode will be cancelled.

12. Busy Channel Scan

Press "MODE" key, the channel number will flash on the LCD. Press "UP" key and the device will scan the channel number in ascending numerical order. Press "DOWN" key and the device will scan the channel number in descending numerical order. If there is message in a particular channel, a sign "RX" will appear on the LCD for about 3 seconds. If the channel and the ID code of that message are in accord with the setting of this device, this device would transmit message and device will stop in that channel for 5 seconds. During scanning, channels set by "UP" and "Down" will be skipped. A maximum of 5 channels can be set in this way. If the device is

switched off, the setting will not be restored. It is advised that the lock function should be released when scanning. Otherwise, after scanning, the device will stop in the channel in which scanning has started.

13. Call

Simply press "Call" button to call the other party. You can hear a ring. A "TX" signal wil be shown on the LCD screen at the same time. Call duration is limited to 5 seconds automatically so as to avoid disturbing others.

14.Communication

When the unit is ready, it will receive signals and messages from the communicators automatically. "RX" signal will be shown on the LCD. After your partner have finished talking, you can hear a "DO" sound which indicates the reception is finished. To reply, simply press "PTT" button. After hearing a "DO" sound, you can start your conversation. A "TX" signal will be shown on the LCD instead.

15. Lock Function

Lock allows you to disable the radio settings so they cannot be changed accidentally. To activate the lock function, push "MODE button for 2 seconds. After "  " displays on the LCD, you can lock "UP" and "DOWN". Now the quite code and ring volume cannot be modulated. To release, push "MODE" for another 2 seconds. The "  " will disappear.

MRC-11 TECHNICAL SPECIFICATIONS

General:

- Frequency range: 462.5625 – 467.7125 MHz
- Channels: 14
- Modulation type: FM
- Antenna impedance: 50Ohm
- Loudspeaker: 8Ohm 0.25W
- Microphone: Condenser type
- Power supply: 3 Ni-cads

- Low battery display: 3.3-3.6VDC

Receiver:

- Intermediate frequency 1st 21.6 Mhz
- Intermediate frequency 2nd 0.455 Mhz
- Sensitivity at 12 dB Sinad: 0.4uV
- Selectivity: 50 dB
- Audio output power: 200mW (at 10 % distortion)
- Audio distortion at 1 Khz deviated 1 m V RF input: Less than 3%
- Audio frequency response: 300-3000 Hz

Transmitter:

- Frequency tolerance: ±2PPM
- Harmonic suppression: more than 50dB
- Modulation: FM +/- 2.5Khx
- Mike sensitivity 3Kz deviation: 3 mV
- VOX_H: -53dB
- VOX_L: -49dB

Channel	Frequency (Mhz)	Channel	Frequency (Mhz)	Channel	Frequency (Mhz)
1	462.5625	6	462.6875	11	467.6375
2	462.5875	7	462.7125	12	467.6625
3	462.6125	8	467.5625	13	467.6875
4	462.6375	9	467.5875	14	467.7125
5	462.6625	10	467.6125		

Frequency of 38 sub-codes

00	0Hz	10	94.8Hz	20	131.8Hz	30	186.2Hz
01	67.0Hz	11	97.4Hz	21	136.5Hz	31	192.8Hz
02	71.9Hz	12	100.0Hz	22	141.3Hz	32	203.5Hz

03	74.4Hz	13	103.0Hz	23	146.2Hz	33	210.7Hz
04	77.0Hz	14	107.0Hz	24	151.4Hz	34	218.10Hz
05	79.7Hz	15	110.9Hz	25	156.7Hz	35	225.7Hz
06	82.5Hz	16	114.8Hz	26	162.2Hz	36	233.60Hz
07	85.4Hz	17	118.8Hz	27	167.9Hz	37	241.8Hz
08	88.5Hz	18	123.0Hz	28	173.8Hz	38	250.3Hz
09	91.5Hz	19	127.3Hz	29	179.9Hz		

Warning: Adjustment to this unit or replacement of any transmitter component (crystal, semiconductor, etc.) to this unit that could result in a violation of the rules.

NOTE: This equipment has been tested and found to comply with the limits of a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is needed.
- Consult the dealer or an experienced radio/TV technician for help

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

SAFETY INFORMATION

Your wireless hand-held portable transceiver contains a low power transmitter. When the Push-to-Talk (PTT) button is pushed it sends out radio frequency (RF) signals. In August 1996, the Federal Communications Commissions (FCC) adopted RF exposure guidelines with safety levels for hand-held wireless devices.

IMPORTANT: To maintain compliance with the FCC's RF exposure guidelines hold the transmitter and antenna at least 1 inch (2.5 centimeters) from your face and speak in a normal voice, with the antenna pointed up and away from the face. If you wear the handset on your body while using the headset accessory, use only the supplied belt clip for this product and when transmitting, take it out of the belt to ensure that the antenna is at least 1 inch (2.5 centimeters) from your body.

Use only the supplied antenna. Unauthorized antennas, modifications, or attachments could damage the transmitter and may violate FCC regulations.