

**Single Channel FRS W/VOX and Headset**

**21-1840**

**FEATURES**

Your UHF FM transceiver is a FRS radio with QUIET and Headset that you can carry almost anywhere. It is perfect for sport activities as biking, fishing, climbing, hunting, etc.

Your transceiver has these features:

**Selective Channel and QUIET** ---- You can select one of the 14 FRS channels and one of 15 QUIET codes by using two arrays of 4-digit switches.

**PLL Controlled Circuitry** ---- provides accurate and stable channel selection.

**QUIET (Continuous Tone Control Squelch System)** ---- helps reduce interference from other systems in the area operating on the same frequency.

**Built-in Modulation Limiter Circuit** ---- automatically adjusts for a wide variety of voice levels to ensure an understandable transmission.

**Transmit /Battery Low Indicator** ---- lights when you transmit or shows the battery condition.

**Earphone and Microphone on Headset** ---- let you transmit or receive message by pressing or releasing Push-To-Talk button on the headset or use VOX option for hands-free operation.

**Flip Rubber Duck Antenna** ---- lets you have a better performance of communication.

**External Charger Jack** ---- lets you recharge your rechargeable batteries.

**Belt Clip** ---- lets you attach the transceiver to your belt or waistband.

We recommend you record your transceiver's serial number here. This number is on the transceiver's back panel.

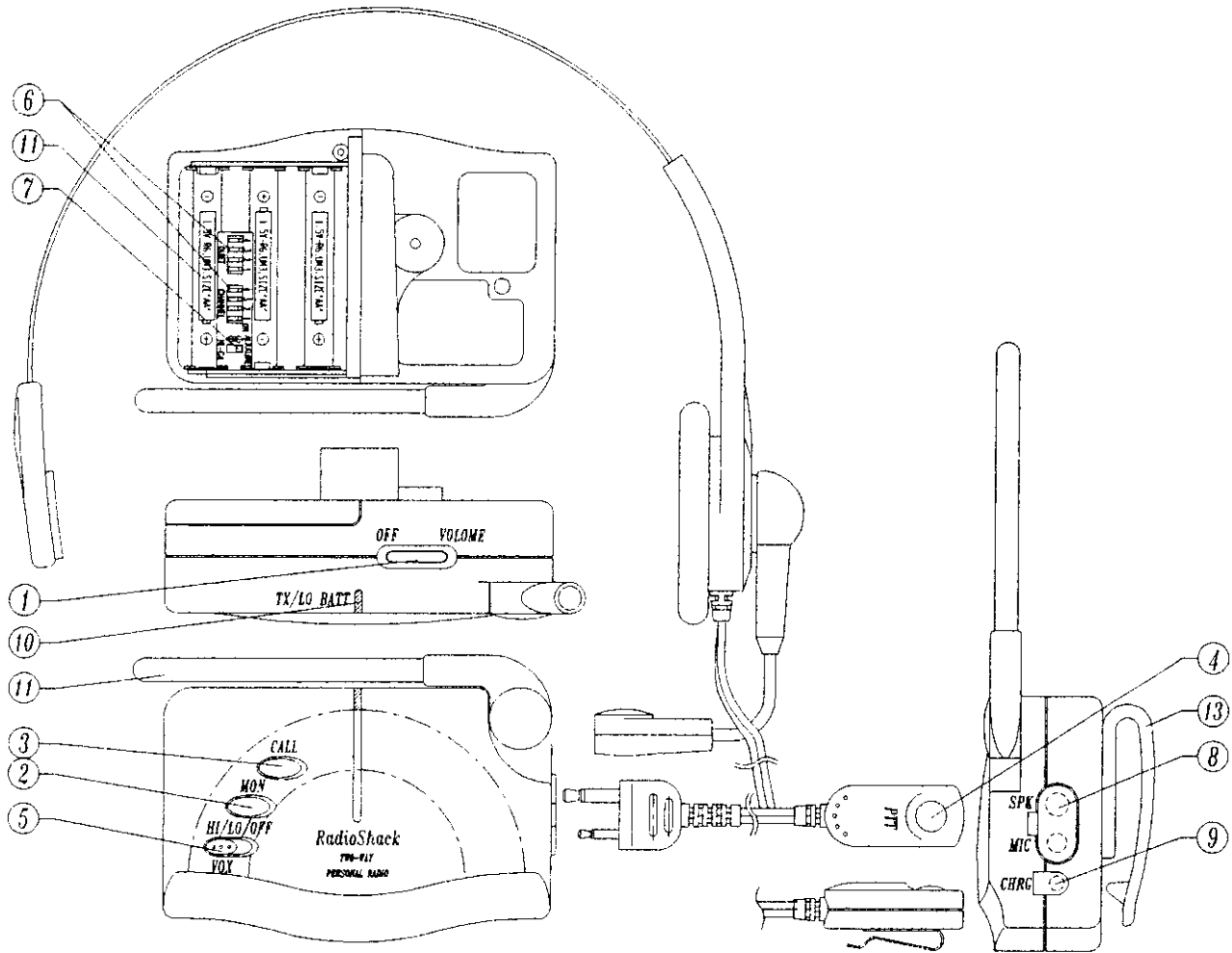
Serial Number \_\_\_\_\_

Your transceiver might cause TV or radio interference even when it is operating properly. To determine whether your transceiver is causing the interference, turn off your transceiver. If the

interference goes away, your transceiver is causing it. Try to eliminate the interference by:

- Moving your transceiver away from the receiver
- Contacting your local RadioShack store for help

## FUNCTION AND LOCATION OF THE CONTROLS



### 1. "ON/OFF" Volume Control

In "OFF" position, your transceiver is off. Turn this control rightwards to turn on the unit and adjusts the volume until you get a comfortable listening level.

### 2. MON Button

Press this button to momentarily bypass the automatic squelch. When initially setting the volume press this button will allow background noise to be heard.

### **3. CALL Button**

Press this button to cause the radio to transmit a ringer type tone to others on your channel.

### **4. PTT button on the headset**

Press this button to transmit.

### **5. VOX Switch**

Slide the switch to activate/deactivate **VOX** function. In **“OFF”** position, **VOX** function is deactivated. In **VOX** mode, there are two positions **“Lo”** and **“Hi”** to select. When there is too much background noise, it is better to select **“Lo”** position. When **VOX** function is activated, the unit transmitter will automatically be opened when the user speaks. It will continue to transmit until the user finishes. Then, the unit will go into the receive mode.

### **6. Two Arrays of 4-digit Dip Switches (inside the battery compartment)**

Let you select the channel from one of the 14 FRS channels and one of the 15 QUIET frequencies by using these two arrays of 4-digit switches.

### **7. Ni-Cd/Alkaline Switch (inside the battery compartment)**

When you use Ni-Cd batteries and begin to recharge your batteries, the switch on the battery compartment should be set to the position of Ni-Cd. Open the battery door, and you will find this switch as shown as following:



**Warning:** Do not put the switch to the position of Ni-Cd when Alkaline batteries are used. It may cause the radio to burst and cause personal injury when you recharge the batteries.

### **8. External Mic/Spk Jack**

Let you plug-in the headset and enables to use VOX option for hands-free operation.

### **9. Charger Jack**

You can recharge Ni-Cd batteries using an optional battery charger (not supplied). We recommend an adapter RadioShack Cat. No.273-1663 3 or 6VDC 700mA Plug Sizes: ” and select 6VDC when you use it. Plug the charger’s barrel plug into the CHRg jack on the side of the unit, then connect the charger to a standard AC outlet.

## 10. Transmit/Battery Low Indicator

The indicator lights red when the radio is in transmit mode or flashes slowly when it is in low battery condition.

## 11. Flip Rubber Duck Antenna

The unit has detents for three antenna positions for better reception.

## 12. Battery Compartment

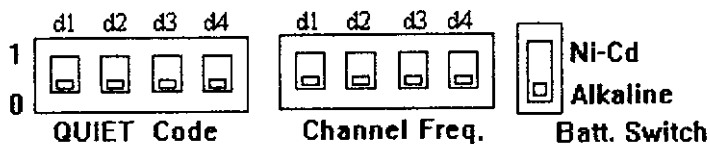
To open the battery compartment, press the grooved latch area and slide the cover toward the bottom of the radio. It accepts 3 "AA" size alkaline batteries or "AA" Ni-Cd batteries.

## 13. Belt Clip

To attach the belt clip, place it over the locking pin and align the screw hole. Tighten the screw.

## SETTING FOR CHANNEL FREQUENCIES AND QUIET CODES

Open the battery door and you will find two arrays of 4-digit dip switches and one battery switch inside. These switches are used to set the channel frequency, and QUIET code. (The battery switch refer to Ni-Cd/Alkaline switch on page 3.)



### ● Setting for 15 QUIET Codes

The first array of 4-digit DIP switches are used to set 15 QUIET codes. Please find below table for setting.

QUIET		
Code	Freq. Hz	Dip Switch Setting
	without QUIET	0000
18	123.0	0001
19	127.3	0010
20	131.8	0011
21	136.5	0100
22	141.3	0101
23	146.2	0110
24	151.4	0111

25	156.7	1000
26	162.2	1001
27	167.9	1010
28	173.8	1011
29	179.9	1100
30	186.2	1101
31	192.8	1110
32	203.5	1111

● **Setting for Channel Frequencies**

The second array of 4-digit DIP switches are used to set any one of the 14 channel frequencies. Please find below table for setting.

Dip Switch Setting	Channel	Frequency (MHz)
0000	FRS 1	462.5625
0001	FRS 1	462.5625
0010	FRS 2	462.5875
0011	FRS 3	462.6125
0100	FRS 4	462.6375
0101	FRS 5	462.6625
0110	FRS 6	462.6875
0111	FRS 7	462.7125
1000	FRS 8	467.5625
1001	FRS 9	467.5875
1010	FRS 10	467.6125
1011	FRS 11	467.6375
1100	FRS 12	467.6625
1101	FRS 13	467.6875
1110	FRS 14	467.7125
1111	FRS 14	467.7125

**OPERATION**

1. Check if the setting position of two arrays of 4-digit dip switches is correct.
2. Turn **VOLUME** rightwards to turn on the transceiver. Press the **MON** button and adjust to a comfortable listening level.
3. Transmit by pressing **PUSH TO TALK (PTT)** button on the headset or use **VOX** option for hands-free operation. The **TX/Lo Batt.** indicator lights red.
4. To receive a message, simply release **PUSH TO TALK (PTT)**. In **VOX** mode, the unit will

receive when the user finishes speaking.

5. To turn off the transceiver, turn **VOLUME** to the left until a click is heard.

**Note:** You can only communicate with another radio that is using the same channel and the same **QUIET** Code as your radio.

## **SPECIFICATION**

Frequency Range.....	462.5625MHz~467.7125 MHz
Channel.....	1 of 14
Power .....	4.5 V DC
RF Output Power.....	200mW ERP
Dimensions ( HWD ).....	60 x95 x 30mm
Weight (w/headset & w/o Batt.).....	Approx. 260g