

Owner's manual

(Preliminary)

Congratulations on your preliminary purchase of the **KESSEL'S FRS 14 Channels Two Way Family Radio**. For best results and to ensure that you are able to employ the features and functions of your radio to their fullest, carefully read this manual and keep it on hand for future reference.

Precautions:

Never try to take your radio apart; avoid strong impact and sudden temperature changes. The radio unit may cause interference with other radios or television reception, keep it away from such appliances when in use.

KESSEL's **FRS 14 Channels Two Way Family Radios** operate on Family Radio Service (FRS) designated frequencies. This is a license-free, short range, two-way radio service was specifically designed for personal and recreational use.

Batteries: Requires 3 AA batteries to operate.

(Optional): The radio is also equipped with **DC 4.5V** power jack located on the right side of the unit. (See **Figure 1**)

*for external charger only.
power switch off
turns.*

To Install:

1. Follow the arrow direction on the back of the battery compartment door, firmly slide the door out. (See **Figure 6**)
2. Insert 3 AA batteries as the polarities showed inside the compartment.
3. Slide the battery compartment door back to the original position, and **lock** the door with the **safety lock** located at the bottom. (See **Figure 3**)
4. When the battery power is **low**, the **battery icon** () will be partially or totally unfilled. Replace with new batteries as soon as possible for optimal performance.

Note: Do not mix new and used batteries together. While you are not using the radio, turn off the unit to help extend battery life.

Power Saving Mode:

The unit will be automatically switched to a **power saving mode** to save power when the unit is not transmitting, receiving or monitoring after a short period of time. When this mode is on, you will see "**PS**" flashing on the display. Once you start transmitting, receiving or monitoring again, it will go back to the normal mode and "**PS**" will disappear on the display. During the **power saving mode**, the unit can still receive message.

Belt Clip:

The radio is also equipped with a belt clip. To attach it, simply slide the clip into the slot (See **Figure 1**)

How to Use:

Turn On the Radio:

1. Turn the volume knob clockwise. You will hear a short beep, ready to use.
2. Turn the volume knob counterclockwise to turn off the radio.(See **Figure 4**)
3. When you turn on the radio, you will see all the available icons showing on the display for a short period of time, and the radio will be set to the pervious used channel.

Note: Do not press any button when you turn on the radio!

Function Key:

“FUNC”, “Up” & “Down” keys:

Use the “FUNC” button to select channels, CTCSS codes or to lock the unit. While you press the “FUNC” button once, a “F” shows on the display, then use “Up” or “Down” arrow button to change to a desire CTCSS codes. Press “FUNC” one more time to escape from this function, the “F” disappears. While the “F” is not shown, “Up” or “Down” arrow button is used to change channels.

To lock the unit on a certain channel:

Press “FUNC” button until you see a “F” shown on the display, then press “SCAN” button once to activate the lock function (the “” lock icon will stay on when the unit is in this mode). To unlock it, simply press “FUNC” once and “SCAN” button. This is always a good practice to lock your unit to prevent any accidental channel changed.

“Up”, “Down” arrow button: Use to change channels or “CTCSS ” codes.

“SCAN” button:

Press once, the radio will start to scan through all the channels until it finds an occupied channel. It will keep scanning the next occupied channel until you press the “SCAN” button again to stop the scanning process.

“” music icon: You will hear a short beep everytime you press any of the front plate buttons.

“” Receiving icon: This icon shows when it is receiving.

“” **Transmitting icon:** This icon shows when it is transmitting.

Note: When you press “FUNC” button, you will see a “F” appears on the display. It will disappear when you press one more time.

Monitor and Set the Channel:

1. Fourteen different channels are available to be chosen from the radio.
2. While holding the “MON” button, you can monitor the availability of each channel and also lets you hear the volume level so that you can adjust the volume.(See **Figure 5**)
3. When the channel is used by the other users, you can switch to the other available channels simply by pressing “Up” or “Down” arrow button located on the front of the radio. (See **Figure 2**)
4. In order to communicate with same group of radios, both of the **channel number** and **CTCSS** code on each radio must be matched with other radios.
5. Make use of the “SCAN” button to know which channels are occupied, so that you can choose any other unoccupied channel to use.

Caution: Since radio channels can be monitored, this will not make your conversation private.

To Communicate:

1. Holding down the “MON” button and turning the volume knob to adjust the volume level of the radio.
2. Checking the channel availability, see section “**Monitor and Set the Channel**”.
3. Pressing the “CALL” button to notify the other parties for conversation.(See **Figure 2**)

Send a Message:

1. Hold down the “PTT” button while you are talking, the transmitting icon will stay on. To maximize clarity, hold the radio 1 to 2 inches from mouth.
2. When finish talking, releasing “PTT” button.

Time-out Timer:

The Time-out Timer feature helps extend battery life. The radio will emit a warning tone if the “PTT” button is pressed for 60 continuous seconds and will stop transmitting.

Receive a Message:

- Simply listen to the radio.
- While receiving, the receiving icon will be displayed.

Optional: There are two additional jacks located on the top of the unit for external earphone(ø3.5mm) and microphone(ø2.5mm) use. When using any audio accessories with your radio, we recommend to turn the volume level down before you place the accessories on your head or in your ear.(See **Figure 4**)

Hands-Free Capability:

The radio is also equipped with **Voice Activated Transmission (VOX)** which is allowed users to activate the transmission by voice. Users are required to use a special headset (not included) in order to activate this feature.

To Use VOX:

- 1.) Turn on the radio.
- 2.) Press “FUNC” and “CALL” button
- 3.) “UO” will be shown on the display for about 2 seconds, then displays channel number and “VOX” icon
- 4.) Remove the rubber jack cover located at the top of the radio, then plug-in the headset jacks according to the description on the radio.
- 5.) Adjust the volume to comfortable level (See “**To Communicate**”).
- 6.) To transmit, simply speak to the microphone; To receive, stop talking.

Note: Lower the volume before placing the headphone to ear.

To Reset to Push-To-Talk mode:

- 1) To reset the radio, simply **UNPLUG** the headset.
- 2) You will see “UO” flashing, then display channel number
- 3) To transmit or receive, see “**To Communicate**”, “**Send a Message**” and “**Receive a Message**”

Troubleshooting:

Problem	Solution
No Power	Check battery condition and contacts
Message Not Transmitted	1. Make sure the “PTT” button is fully pressed while talking 2. Check Power
Message Not Received	1. Make sure the “PTT” button is not pressed while receiving 2. Check the channel and CTCSS setting 3. Check Power 4. Check Volume
Hearing Other Conversation or Noise	Change to other channels or CTCSS
Limited Talk Range	Steel/Concrete structures, heavy foliage and use in buildings and in vehicle will decrease range, check for clear line of

	sight to improve transmission
Cannot change Channel	Check if the unit is on "LOCK" mode
Heavy Static or Interference	1. Radios too close. Radios must be at least 5 feet apart, increase your distance. 2. Radio too far apart. Obstacles interfere with transmission. Talk range is up to 2 miles in clear, unobstructed conditions.

Care and Safety:

To clean the radio, wipe with a soft cloth dampened with water. Don't use cleaners or solvents on the radio, they can harm the body and leak inside, causing permanent damage. Battery contacts may be wiped with a dry, lint-free cloth. If the radio gets wet, turn it off and remove batteries immediately. Dry battery compartment with a soft cloth to minimize potential water damage. Leave the battery compartment cover off until completely dry.

When transmitting with a portable radio, hold radio in a vertical position with its microphone 1 to 2 inches (2.5 to 5.0 cm) away from your mouth. Keep antenna at least 1 inch from your head and body. If you wear a portable radio on your body, ensure that the antenna is at least one inch (2.5 cm) from your body when transmitting.

Electromagnetic interference:

Nearly your electronic device is susceptible to electromagnetic interference (EMI) if inadequately shielded or designed.

Turn your radio **OFF** in any facilities where posted notices instruct you to do so. Hospitals or health care facilities may be using equipment that is sensible to external RF energy.

Turn your radio off when on board aircraft when instructed to do so. Any use of the radio must be in accordance with airline regulation or crew instructions.

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 for 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 the 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.**

Notice: Specifications subject to change without notice.

