14 MANUAL

TRU TALK

TK514
FRS BASE STATION
UHF TWO-WAY RADIO

Thank you for choosing Maxon!

For more information, contact:

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WARRANTY STATEMENT

The Consumer Products Division of Maxon America, Inc. (hereinafter referred to as "Maxon"), warrants that is Products and their included accessories will be free from defects in workmanship or materials under normal use for a period of one (1) year from date of purchase by the original end user, provided that buyer has complied with the requirements stated herein.

If the Product fails to function under normal use because of manufacturing defect(s) or workmanship during the one (1) year period following the date of purchase, it will be replace or repaired at Maxon's option at no charge when returned to the place of purchase. The defective unit must be accompanied by proof of the date of purchase in the form of a sales receipt.

Maxon's sole obligation hereunder shall be to repair or replace the product covered in this Warranty. Replacement, at Maxon's option, may include a similar or higher-featured product. Repair may include the replacement of parts or boards with functionally equivalent reconditioned or new parts or boards. Replace parts, accessories or boards are warranted of the balance of the original time period. All replaced parts, accessories or boards become the property of Maxon America, Inc.

Maxon shall have no obligation to make repairs or to cause replacement required which results from normal wear and tear or is necessitated in whole or in part by catastrophe, fault or negligence of the user, improper or unauthorized alterations, repairs the Product, incorrect wiring, use of the product in a manner for which it was not designed, or by causes external to the product. This warranty is void if the serial number is altered, defaced or removed.

The purchase shall provide for removal of the defective Product and installation of its replacement.

THE EXPRESS WARRANTIES CONTAINED HEREIN ARE IN LIEU OF ALL OTHER WARRANTIES, EITHER EXPRESSED OR IMPLIED OR STATUTORY, INCLUDING, WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABLILITY OR FITNESS FOR A PARTICULAR PURPOSE.

FOR ANY PRODUCT WHICH DOES NOT COMPLY WITH THE WARRANTY SPECIFIED, THE SOLE REMEDY WILL BE REPAIR OR REPLACEMENT. IN NO EVENT WILL MAXON AMERICA, INC. BE LIABLE TO THE BUYER OR ITS CUSTOMERS FOR ANY DAMAGES, INCLUDING ANY SPECIAL,INCIDENTAL, INDIRECT OR CONSEQUENTIAL DANAGES, OR THE LOSS OF PROFIT, REVENUE OR DATA ARISING OUT OF THE USE OF OR THE INABILITY TO USE THE PRODUCT.

This warranty is void for sales and deliveries outside of the U.S.A.

CONTENTS

IMPORTANT INFORMATION

To get the most out of your TK514 BASE Station, please READ THESE INSTRUCTIONS before attempting to use your new radio.

SAVE THSES INSTRUCTIONS –they contain important operation and safety information.

YOUR TK514 FRS BASE Station package contains the following:

- TK514 FRS BASE Station with Flexible Antenna (Retractable)
- AC Adaptor.
- User's Manual

WARRANTY SERVICE INSTRUCTIONS

1. Refer to the section titled "Using Your FRS BASE STATION" in this Owner's Manual for proper operation and adjustments.

2. If the problem cannot be corrected by reference to this Owner's manual, return the product with proof of purchase (a sales receipt) to the place of purchase, or call Maxon's Customer Service Department for assistance, toll-free: 1-800-821-7848, Ext. 499.

FOR YOUR RECORDS
Purchase Date:

Purchase From:

Serial Number:

**KEEP THIS INFORMATION
IN A SAFE PLACE**

TROUBLESHOOTING

CONDITION	SOLUTION
Dose not turn on	• Check batteries ensure that the batteries are installed properly. • The batteries may be weak Replace old batteries with four (4) new "AA" alkaline batteries or recharge for Ni-MH batteries. • Check Power supply that the voltage are correctly.
Reception is weak	• Push the up button to increase volume. • The receiving signal may be weak and out of range in this happens, push the MONITOR **"MON"** button.
Cannot change SubChannel	• To change Subchannel, push and hold the FUNC button shortly first until the Subchannel digit flashes on the LCD panel, Push the UP or DOWN channel buttons to Change Subchannel then push PTT button for save.
Range is limited	• Batteries may be weak. Replace with new batteries in the battery level indicator is low. • The maximum range will vary depending on terrain and environment. Open fields provide the maximum range, while building and other structures may limit the range significantly
Sound distortion Problems.	• If you transmitting, speak in a normal tone of voice, 2 inches away from the microphone. • If you are receiving, lower the volume control to a comfortable level

FCC INFORMATION

The FCC requires that you be advised of certain requirements involving the use of this device. 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 and Regulations. These rules are designed to provide reasonable protection against harmful interference in a residential environment. This equipment uses and can generate radio frequency energy. If not used in accordance with the instructions, it may cause interference to other radio communications. However, there is no guarantee that the interference will not occur in another device's reception (which can be determined by tuning the equipment off and on), The user is encouraged to correct the interference by one or more of the following measures:

• Reorient or relocate the receiving antenna
• Increase the separation between the radio and other devices.
• Consult the manufacture for technical assistance.

FCC WARNING: This equipment generates or uses radio frequency energy. Changes or modifications not expressly approved in writing may cause harmful interference and void the user's authority to operate this equipment.

WARNING! FCC RF EXPOSURE REQUIREMENTS

This Radio complies with the Federal Communications Commission (FCC) RF Exposure limits for General population/Uncontrolled exposure environment. In addition, it complies with the following Standards and Guidelines:

❑ FCC 96-326, Guidelines for Evaluating the Environmental Effects of Radio-Frequency Radiation.

❑ FCC OET Bulletin 65 Edition 97-01 (1997) Supplement C, Evaluating Compliance with FCC Guidelines for Human Exposure to
Radio Frequency Electromagnetic Fields.

❑ ANSI/IEEE C95.1-1992, IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency
Electromagnetic Fields, 3 kHz to 300 GHz.

❑ ANSI/IEEE C95.3-1992, IEEE Recommended Practice for the Measurement of Potentially Hazardous Electromagnetic Fields –
RF and Microwave.

- **When transmitting, keep the antenna at least 8 inches (20 cm) away from your head and body.**

- **The radio must be used with a maximum operating duty cycle not exceeding 50%, in typical Push-to-Talk configurations. DO NOT transmit for more than 50% of total radio use time (50% duty cycle). Transmitting more than 50% of the time can cause FCC RF exposure compliance requirements to be exceeded. The Radio is transmitting when "TX" icon is displayed on the LCD panel. You can cause the radio to transmit by pressing the P-T-T button or when the radio is set to the VOX mode.**

- **Unauthorized accessories, antennas, modifications, or attachments may damage the transmitter and may violate the FCC rules and regulations.**

INTRODUCTION

Family Radio Service (FRS) is the newest generation in personal two-way communications. No license is required for FRS radio operate – the radio provide communication on any of the 14 license-free UHF channels dedicated to such use.

The TK514 is a FRS BASE Station two-way radio that can be used up to about two miles These include normal BASE Station uses, with VOX optional Mode.

The TK514 is compatible with other two-way radios using the FRS frequency band (operating in the frequency range from 462.5625 MHz to 467.7125 MHz).

The TK514 is a 14-channels 38 CTCSS / WX / ALERT / MEM CHANNEL / MEMORY SCAN / SCAN CHANNEL / DUAL WATCH/ ROGER BEEP/ KEY STOCK TONE/ The TK514 FRS Base Station, featuring a multi-functional LCD panel (which indicates the current channel and various radio status icons). Other features also include electronic volume control and battery save circuitry.

The TK514 is compatible with weather Frequency Range Channel 1 (163.275) to channel 10 (161.775)

Please read this user's manual thoroughly to get the most out of your TK514 FRS BASE Station.

Note: The maximum transmission range will vary depending on terrain and environment. Range will be greater in open fields, while the range is shorter within and around buildings or large structures.

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SPECIFICATIONS

Channels Available	14 Channels / 38 CTCSS
Power Source	Battery "AA" x 4 NI or Alkaline
	AC Adaptor output 12 V DC.
	DC Power supply 12 V or Vehicle
Range	About 2 Miles
Size	50(H) X 175(W) X 170 (D)

FRS Channel Table

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

Weather Channel Table

Channel	Frequency (MHz)	Channel	Frequency (MHz)
0	163.275	5	162.450
1	162.550	6	162.500
2	162.400	7	162.525
3	162.475	8	161.650
4	162.425	9	161.775

Transmitter   **Receiver**
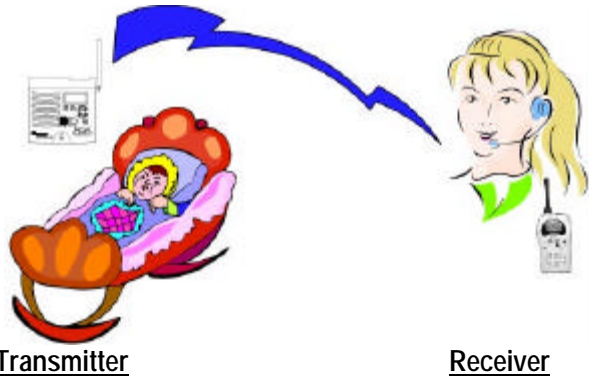
You can application Your TK514 FRS Base station like a Baby Monitor (You must have the other one FRS unit for Receiver).
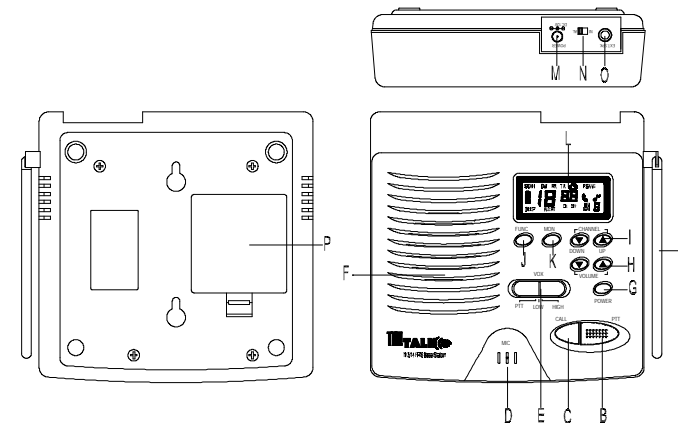
Transmitter

- Check to be sure the channel (frequency) is set to the same channel and subchannel as on the Receiver.
- Place The TK514 FRS Base station in the same room with your child. Point the microphone pick-up directly toward the crib or play area.
- Turn on the TK514 FRS Base station with turning the PTT/VOX switch to VOX HI or LOW (see page15 How can use VOX).

Receiver

- Check to be sure the channel and subchannel set to same as with the Transmitter.
- Place the Receiver where you can monitor it audibly, or wear the Receiver using the belt clip.

Note: Your TK514 FRS Base station has a range of up to 2 miles. This effective range can be shortened under some conditions.

A. Flexible Antenna

B. P-T-T (Push-To-Talk) Button – Transmits your voice messages.

C. Call Button – Announces your call to other radio users on the same channel.

D. Microphone – Allows transmitted voice messages to be heard.

E. PTT / VOX – Selection switch and for adjust the VOX sensitivity.

F. Speaker – Allows received voice messages to be heard.

G. Power Button – Used to turn the radio on and off.

**H. UP/ Down Button –** for Volume adjusts level.

I. UP/ Down Button – Channel selection button

J. Function Button – Allows radio status changes.

K. Monitor / Backlight button – Checks activity on your channel before transmitting the LCD panel.

L. LCD Panel – Provides current channel selection information and radio status icons.

M. Jack – D.C. Power jack 12 V.

N. NI / AL – Set it to **AL** to use alkaline batteries and Set **NI** to use rechargeable batteries.

O. Ext. SPK jack – external loudspeaker jack.

P. Battery compartment – Houses 4 "AA" sized alkaline, rechargeable Ni-Cad batteries,
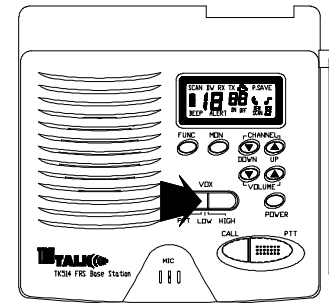
PTT / VOX – To Set the PTT / VOX sensitivity in the PTT position for manual push-to-talk transmissions or in the VOX mode for automatic voice-activated transmissions.
In the VOX transmitting mode, set the VOX sensitivity level by turning the slide switches to **LOW** for less sensitivity to sound Turning the slide switches to **HI** for great sensitivity. On the LOW setting, you must speak loudly to activate the transmitter. At the **HI** setting, speaking softly will activate it. Where you set the VOX sensitivity level will also be influenced by the noise level of your surroundings.

How to use VOX Mode – In the VOX mode, the sound of the user's voice will activate transmission. To prevent unintended transmission, the VOX sensitivity control must be set properly to reduce sensitivity to background noise. Watches the TX icon flashing as the VOX sensitivity control is adjust for background noise level. Reduce sensitivity by turn slide switch to LOW the TX icon goes out (standby). When the user speaks, The TX icon should flashes and go out when the user stops talking. A RX icon means the unit is receiving. Of course, the user cannot transmit until the RX icon goes out. When noise levels are too high for VOX operation, the user may have to switch from VOX to PTT (push-to-talk).
Note: If you have difficulty transmitting in a high-noise environment in VOX mode, just press the PTT button to transmit without turning the VOX control to the PTT position. PTT will override VOX mode to transmit.

Dual Watch Function – Dual Watch allows you to simultaneously monitor any two pre-selected Family Radio Service channels. Select first channel and CTCSS code, which you desired to Dual Watch (please see page 9). Press and release FUNC button until DW icon flashes. Press channel button up or down to select second channel. Press FUNC button again to set CTCSS. CTCSS channel will flash. Press channel button up or down to select CTCSS. Press PTT button. This will store the second channel and CTCSS and start Dual Watch. To terminate Dual Watch and go to Normal Mode, Press FUNC or PTT buttons.

- If a signal is detected, it will stay at that channel. If you want to stay at that channel Press and release PTT button.
- Until the end of RX signal 3 seconds later resume to scanning.

Talk Confirmation Tone Indicator – To temporarily eliminate the Talk confirmation Tone: Press FUNC button until ♪ flashing. Press channel up or down to turn On or Off. To set option:

- Press PTT button. This will immediately enter new setting;
- Press FUNC button. This will enter new setting and go to new function Mode;
- Wait 10 seconds. It will go to Operational Mode with new setting.

Tone setting – Press FUNC button until flashing **BEEP** icon. Press channel button up or down to turn ON or OFF. To set option:

- Press PTT button. This will immediately enter new setting;
- Press FUNC button. This will enter new setting and go to new Function mode;
- Wait 10 seconds. It will go to Operation Mode with new setting.

To discard your save reset to original manufactory – Press and hold the FUNC button with pressing the power button to turn ON.

LCD Display

a. Scan mode is activated
b. DW mode indicator
c. RX (Receive) indicator
d. TX (Transmit) indicator
e. Weather mode activated
f. Calling (Transmit) indicator
g. Power Save Mode is activated
h. Talk confirmation Tone is active
i. Memory Displayed
j. Memory Scan Mode is activated
k. ON/OFF indicate optional for Talk confirmation tone, Alert tone and Beep tone
l. Current subchannel selection
m. ALERT TONE is active
n. Current channel selection
o. BEEP TONE is active
p. Battery Power level
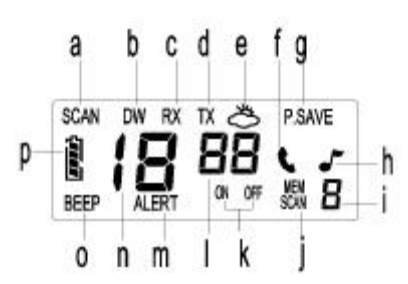
You can power your TK514 base station from any of these sources:
- internal batteries 4 "AA" alkaline or Ni-MH (not supplied)
- Household AC Power (using an optional adapter)
- Vehicle battery power (using an optional adapter)

Using the POWER Jack and NI/AL Switch
The Power jack lets you connect an external power source (such as your vehicle's battery) or an external AC adapter, to charge rechargeable batteries while they are in the TK514 Base Station. Before connecting anything to POWER, you must set NI/AL correctly.
- Set it to AL to use alkaline batteries.
- Set it to NI to use rechargeable batteries.
- Set it to AL or NI for use POWER Jack (without batteries).

Warning: Do not try to charge non-rechargeable batteries they might get very hot and they could explode.
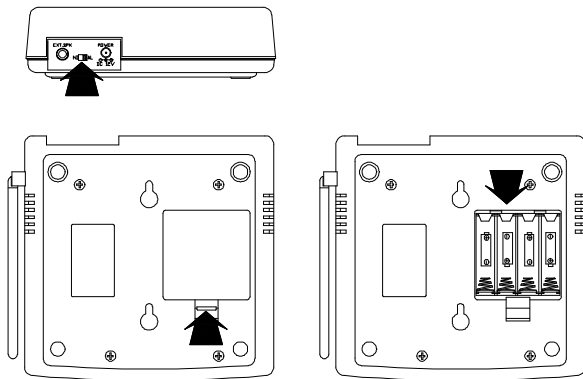
Scan Function – Press and release FUNC button until (SCAN) icon and Main channel flashes. Press channel button up or down and the unit will begin scanning the main channels. Unit will continue to scan all main channels and stop if an incoming transmission is detected. To scan subchannels: Press and release FUNC button and subchannel and SCAN icon will flash. Press and release channel button up or down and scanning begin and stop when an incoming transmission is detected.
(You can save your detection channel and subchannels by pressing the PTT button when your desired is stop then it will go to operation mode).
To exit the scan Mode and return to operation mode Press and release PTT button or Press and release FUNC button to next operation mode.
- If a signal is detected, it will stay at that channel. If you want to stay at that channel Press and release PTT button.
- Until the end of RX signal 3 seconds later resume to scanning.

Memory Scan Function – Memory scan conveniently allows you to access frequently used channel and subchannel combinations. Press and release FUNC button until MEM/SCAN icon flashes. Press channel up or down to begin the scan mode (If all the memory is empty when you press and release the channel up or down you will hear 3 error beep tone).
- If no signal is detected it will move on.
- During scan, will only scan the location that has been memory if the other location if empty the scanning will skip by immediately.
- If a signal is detected, it will stay at that location. If you want to stay at that location Press and release PTT button.
- Until the end of RX signal 3 seconds later resume to scanning.
- To leave Memory Scan, press and release the FUNC or PTT buttons at any time.

Programming Memory Locations – Your FRS Base Station has 10 memory (0~9) locations for storing your most frequently used channels. Press and release FUNC button until (MEM) icon and memory location flashes. Select memory location you wish to change by pressing channel up or down. Press and release FUNC button again. Main channel and (MEM) icon will flash. Select desired main channel you wish to store (1~14) by pressing channel button up or down and moves to subchannel selection by press and release the FUNC button again the subchannel begins flashing. The (MEM) icon will remain flashing. Select desire subchannel you wish to store (00~38) by pressing channel button up or down. After selecting your memory channel and Main/subchannels, for immediate entry press PTT button. Or After selecting you memory channel and Main/Sub channel, DO NOT press any buttons for 10 seconds and your unit will automatically return to operational mode. Or Press and release PTT button to return to operational mode original main channel. Or Press and release FUNC button to return to the process Memory location again for you wish to select the other memory channels and then press and release the Function button to next Mode (Scan).
*Note:*
· *Press and hold channel button up or down for channel advance*
· *If you push and hold the Func button, The LCD display will cycle through the difference functions.*

Memory Channel Recall/Talk – To recall a channel in memory: Press and release FUNC button until (MEM) icon and memory location flashes. Select desired memory location you wish to recall (0~9) by pushing channel button up or down. Press and hold PTT button and Talk. Your FRS Base station will stay on this recalled location until you exit out of memory function mode.
To exit the memory mode and return to operational mode: Press and release FUNC button and pressing the PTT button.
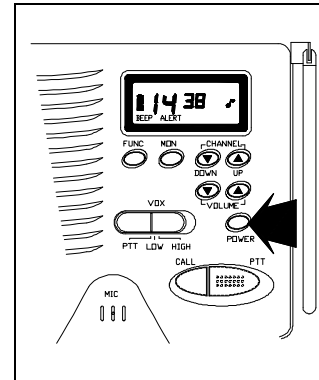
Turning the Base station ON - Press and hold the Power button for two seconds. An audio "tone" will indicate the unit is on, and the LCD will go on.

Turning the Base station OFF- Press and hold the power button again for two seconds. The audio "tone" will indicate and LCD will go dim to confirm the radio is off.

Adjusting the speaker Volume – With the radio on, press the UP (▲) Volume button for increase volume; The Down (▼) Volume button to decrease volume. The volume indicator icon (Number 1~8) will change according to your setting. Push and hold VOLUME button up or down for fast advance.

Channel Selection – Press and release the CHANNEL Button UP(▲) or DOWN (▼) , Push and hold CHANNEL UP or DOWN Buttons for fast channel advance.

Selecting a CTCSS Channel – Press and release FUNC button. Small number flash next to channel display on LCD. Select subchannel number by push and release CHANNEL Up or Down button or Press and hold Channel up or down for fast channel advance. When desired subchannel is displayed press and release PTT button. If key audio tone is on, an audible will confirm your selection. If no selection is made after 10 seconds, the radio will save the last change and return to operational mode.
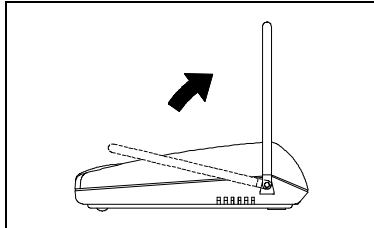
• For the best communications place antenna in full upright position before using your FRS Base station.

Receiving a Call – The FRS Base station is continuously in receiving (RX) mode when powered on. When you receive a call on the current channel, the RX indicator icon will flash.

Transmitting a Call – To replay to a received message, or initiate a new message, press and hold the PTT button. For the best results, Speak at a normal rate, in a normal tone-placing the radio microphone approximately 2 inches form your mouth. When you have finish your message, release the PTT button. The radio's TX indicator icon will appear while you are speaking to confirm that you are transmitting.

Sending a Call Tone – You can send an audible tone to alert another radio user that you are getting ready transmits, or to help you identify yourself. You can also use the call tone to signal the beginning and the end of transmission. Simply press and hold the Call button for approximately 1 second, then release. The call tone will be transmitted to others on your current channel.

Monitor / Backlight Button – You can use the monitor feature to listen for weak signals on the current channel or check for channel activity by pressing and holding the MON button for at least one second. When the signal you want to hear is consistently weak, you may place the radio in Monitor Mode without having to constantly hold the button. Press and hold the MON button for five seconds. You will hear an audible beep confirmation. To return to normal operation, momentarily press the MON button again or change channels. To backlight the LCD panel, press and release the MON button quickly. The light will illuminate until the Power is OFF. On standby mode if press any keys the backlight will approximately 10 seconds with each activation.

Power Save Mode – Your FRS Base station has a unique circuit designed to extend battery life. If there are no signal receipting and no transmissions within 10 seconds. The unit will automatically switch to battery save mode. **The P.SAVE** icon will blink flash.

Listening to Weather Channels – Press and release FUNC button until weather icon ☁ flashes. The last weather channel tuned will be displayed. Press channel buttons up or down to select the appropriate channels for you area. There are ten weather channels to choose from, (1~10). To exit weather reception, press the PTT button. The radio will go to last FRS channel and CTCSS subchannel standby or press the FUNC button the radio will go to next Function operation mode.

Weather Alert – A tone will be automatically activated when NOAA activates emergency weather notification. To turn Weather Alert on/off: Press FUNC button until Weather **Alert** / ☁ icons flashes. Pressing channel up or down will turn Alert On or Off. Once you've selected On or Off, press PTT button to confirm.