5W 15 Channel 2-Way GMRS Radio

Your RadioShack 5W Compact GMRS Handheld Transceiver is a portable, two-way, General Mobile Radio Service (GMRS) transceiver that you can carry almost anywhere. It meets commercial-grade standards for clear and reliable communication. The transceiver has fifteen operation channels — seven GMRS channels, one emergency channel, seven interstitial channels, and ten weather channels with alert.

38 Quiet-Tone CTCSS (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 range of voice levels to ensure an effective transmission.

High/Low Power — saves power by choosing a suitable transmitting power for different ranges.

Flexible Antenna with BNC Connector — provides excellent reception and is easy to attach and remove, so you can use an external antenna to extend the range and performance.

Splash Proof (JIS Level 4) — offers water resistance.

FCC INFORMATION

FCC License Required

Warning: There is a penalty for any unlicensed operation of a GMRS radio.

The Federal Communications Commission (FCC) requires you to have a GMRS license before you operate this transceiver. To obtain a license, you must be at least 18 years of age, and cannot be a representative of a foreign government.

You must complete FCC Forms 605 and 159 (Fee Remittance Advice) and return them with the applicable fees and Payment/Fee Type Code (PAZR) to the FCC. To obtain the necessary forms, contact the FCC at:

Federal Communications Commission
Wireless Bureau Applications
P.O. Box 358130
Pittsburgh, PA 15251-5130
1-888-CALLFCC (1-888-225-5322)

To obtain instructions on filing form 605 electronically, go to *http://www.fcc.gov.wtb/uls*.

This radio is intended for communications from base-to-mobile or mobile-to-mobile stations. Base-to-base communication is not permitted.

When you receive your license from the FCC, you are assigned a call sign. You must give your call sign at the end of every communication exchange or once every 15 minutes during a continuous communication.

We recommend you record the radio's serial number and your call sign in the space provided, and keep this manual and a copy of your GMRS license with your important records. The serial number is on the transceiver's back panel.

Serial Number _____

Call Sign _____

The Personal Radio Steering Group (PRSG) is the national user-advocacy organization for the GMRS. The PRSG provides assistance with licensing and other information about the GMRS, including how to contact and communicate with other GMRS licensees.

Personal Radio Steering Group
P.O. Box 2851
Ann Arbor, MI. 48106
www.provide.net/~prsg/

SAFETY TRAINING INFORMATION

Your RadioShack radio generates RF electromagnetic energy during transmit mode. This radio is designed for and classified as "*Occupational Use Only*", meaning it must be used only during the course of employment by individuals aware of the hazards, and the ways to minimize such hazards. This radio is *NOT* intended for use by the "General Population" in an uncontrolled environment.

This radio has been tested and complies with the FCC RF exposure limits for "Occupational Use Only." In addition, your RadioShack radio complies with the following Standards and Guidelines with regard to RF energy and electromagnetic energy levels and evaluation of such levels for exposure to humans:

- FCC OET Bulletin 65 Edition 01-01 Supplement C, Evaluating Compliance with FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields.
- American National Standards Institute (ANSI) (C95.1—1992), IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz.
- American National Standards Institute (C95.3—1999), IEEE Recommended Practice for the Measurements of Potentially Hazardous Electromagnetic Fields — RF and Microwave.

To ensure that your exposure to RF electromagnetic energy is within the FCC allowable limits for occupational use, always adhere to the following guidelines:

DO NOT operate the radio without a proper antenna attached, as this may damage the radio and may also cause you to exceed FCC RF exposure limits. A proper antenna is the antenna supplied with the radio by the manufacturer or an antenna specifically

authorized by the manufacturer for use with this radio.

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*** appears on the LCD.

ALWAYS keep the antenna at least 1cm ($^1/_2$ inch) away from the body when transmitting and only use the belt-clip supplied with your radio when attaching the radio to your belt, etc., to ensure FCC RF exposure compliance requirements are not exceeded. To provide the recipients of your transmission the best sound quality, hold the antenna at least 2.5 cm (1 inch) from your mouth.

USE ONLY RadioShack authorized accessories (speaker/microphones, handstraps, etc.) with your radio. Use of unauthorized accessories can cause the FCC RF exposure compliance requirements to be exceeded.

The information listed above provides the user with the information needed to make him or her aware of RF exposure, and what to do to assure that this radio operates within the FCC RF exposure limits of the radio.

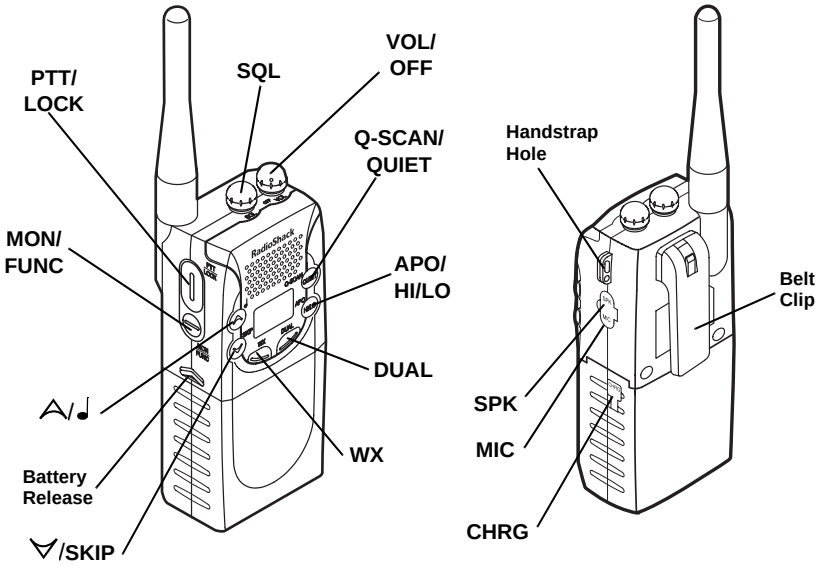
ELECTROMAGNETIC INTERFERENCE/COMPATIBILITY

During transmissions, your RadioShack radio generates RF energy that can possibly cause interference with other devices or systems. To avoid such interference, turn off the radio in areas where signs are posted to do so. **DO NOT operate the transmitter in areas sensitive to electromagnetic radiation, such as hospitals, aircraft, and blasting sites.**

IMPORTANT CAUTIONS:

- NEVER hold the transceiver so that the antenna is very close to, or touching exposed parts of the body while transmitting. The transceiver will perform best if the microphone is 2.5–5 cm (1 to 2 inches) away from the mouth and the transceiver is vertical.
- If you wear the radio on your body, ensure that the antenna is at least 1 centimeter ($^1/_2$ inch) from your body when transmitting.
- DO NOT push the PTT when not actually desiring to transmit.

❒ A Quick Look at Your Radio



❒ Preparation

CHARGING THE BATTERY PACK

Your transceiver comes with a 8.4V, 1300mAH NiMH battery pack for power. Before you use the battery pack for the first time, you must use the supplied battery charger to charge it for about 14–16 hours. Once it is fully charged, the battery pack provides power to your transceiver for about 11 hours when you set the transmission power to low, and about 5 hours when you set the power to high.

You cannot use the transceiver while you charge the battery pack.

Caution: The supplied battery charger was designed specifically for your transceiver. Use only the supplied battery charger.

1. If necessary, turn **OFF/VOL** to **OFF.**
2. Pull out the rubber **CHRG** cover on the side of the transceiver and insert the charger's barrel plug into the jack. Then plug the other

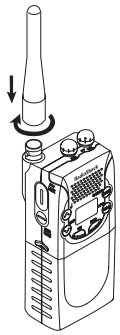
end of the charger into a standard AC outlet.

When ▬ appears, recharge the battery pack.

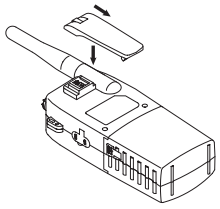
To detach the battery pack, push up the arrow key on the side of the transceiver, then slide the battery pack away from the arrow key.

CONNECTING THE ANTENNA

Align the slots around the antenna's connector with the tabs on the antenna jack. Press the antenna down over the jack and turn the antenna's base clockwise until it locks into place.



USING THE BELT CLIP



The supplied belt clip lets you easily attach the transceiver to your belt.

To attach the belt clip, slide the belt clip down onto the plastic tab.

To detach the belt clip, lift up the tab and slide off the clip.

Using an External Speaker/ Microphone

An external speaker/microphone lets you use the transceiver while it is clipped to your belt, without lifting it to your mouth to transmit. Lift up the rubber cover on the **MIC** and **SPK** jacks. Connect an optional speaker/ microphone with a $^{3}/_{32}$ inch mini-plug and a $^{1}/_{8}$ inch plug to the **MIC** and **SPK** jacks on the side of the transceiver. This automatically disconnects the transceiver's built-in speaker and microphone.

CONNECTING AN EARPHONE/EXTERNAL SPEAKER

To listen privately (or to hear more clearly in a noisy area such as a warehouse) you can connect an earphone or an external speaker. Lift the rubber cover off the **MIC** and **SPK** jacks on the side of the transceiver, then plug an optional earphone or external speaker with a $^{1}/_{8}$ inch plug into the **SPK** jack. This automatically disconnects the built-in speaker.

Listening Safely

To protect your hearing, follow these guidelines when you use an earphone.

- Set the volume to the lowest setting before you begin listening. After you begin listening, adjust the volume to a comfortable level.

- Do not listen at extremely high volume levels. Extended high volume listening can lead to permanent hearing loss.
- Once you set the volume, do not increase it. Over time, your ears adapt to the volume level, so a volume level that does not cause discomfort might still damage your hearing.

Traffic Safety

Do not use an earphone with your transceiver when operating a motor vehicle or riding a bicycle in or near traffic. Doing so can create a traffic hazard and could be illegal in some areas.

Even though some earphones let you hear some outside sounds when listening at normal volume levels, they can still present a traffic hazard.

USING AN OPTIONAL HANDSTRAP

You can attach an optional handstrap (not supplied) to the transceiver. Snap the clip onto the hole at the side of the transceiver. Or, slide the hand strap's small loop under the hole at the side of the transceiver. Then pull the strap's large loop through the small loop.

❒ *Operation*

Rotate **OFF/VOL** to turn the transceiver on and off and adjust the volume.

Hold down ▲/♩ to scan up through the channels, or ▼**/SKIP** to scan down through the channels.

Set **QUIET/Q-SCAN** to the desired code to provide greater communication flexibility. See "Using Quiet Codes" on Page 7.

If you did not set the transceiver to use a quiet code, wait until there is no signal on the channel. Then turn **SQL** clockwise until the background noise between signals stops.

To transmit, hold down **LOCK/PTT**. Then hold the transceiver about 3 inches from your mouth and speak slowly in a normal voice. ***TX*** appears. Release **LOCK/PTT** when you finish your transmission.

To receive, release **LOCK/PTT**. ***BUSY*** appears when a call is received.

Hold down **MON/FUNC** to hear everything on a channel, even weak transmissions. ***FUNC*** appears. Release **MON/FUNC** to turn squelch back on.

The display's backlight lights for 5 seconds when you press any key except **LOCK/PTT**. If you want to turn on the backlight without changing the

transceiver's setting (except in Dual Watch mode), press **MON/FUNC**.

SELECTING AN OPERATION CHANNEL

Your transceiver has fifteen operation channels.

To manually select a channel, press ▲/♩ or ▼/**SKIP**. The selected channel number appears.

To scan through the channels, hold down ▲/♩ or ▼/**SKIP** until *SCAN* appears. The transceiver automatically scans through the channels and pauses on each active channel. Press ▲/♩ or ▼/**SKIP** to change direction. Press any key other than ▲/♩ or ▼/**SKIP** to stop scanning.

To skip a channel to be scanned, press ▲/♩ or ▼/**SKIP** to select the desired channel. Hold down **MON/FUNC** then press ▼/**SKIP**. ☒ appears.

To resume scanning the skipped channel, select the skipped channel, hold down **MON/FUNC** then press ▼/**SKIP**. ☒ disappears.

Operation Channel Frequency

Channel #	Channel	Frequency (MHz)
0	Emergency	462.6750
1	Interstitial 1	462.5625
2	Interstitial 2	462.5875
3	Interstitial 3	462.6125
4	Interstitial 4	462.6375
5	Interstitial 5	462.6625
6	Interstitial 6	462.6875
7	Interstitial 7	462.7125
8	GMRS 1	462.5500
9	GMRS 2	462.5750
10	GMRS 3	462.6000
11	GMRS 4	462.6250
12	GMRS 5	462.6500
13	GMRS 6	462.7000
14	GMRS 7	462.7250

USING QUIET CODES

Quiet codes help eliminate interference between different users on the same frequency, letting you talk and listen to people who are using other transceivers set to the same frequency and quiet code. This is like having a channel within a channel, giving you greater communication flexibility. When you set a quiet code (there are 38 to choose from), the transceiver transmits a tone with your transmission, letting you communicate with anyone who has a transceiver set to the same frequency and code. The tone is too low for you to hear, but other transceivers can detect it.

If Quiet Code is turned on and set to the same tone on the receiving transceiver, it only receives those transmissions that include the tone. If two different groups operate transceivers in the same area on the same frequency, they do not hear each

other's broadcasts if they both use a different quiet code.

Press **QUIET/Q-SCAN** to turn Quiet Code on or off. *QUIET* appears when the feature is on.

Setting a Quiet Code

Hold down **QUIET/Q-SCAN** until *QUIET* and the quiet code flashes.

Repeatedly press ∧/♩ or ∨/**SKIP** to select the desired code. (See the "Quiet Codes" chart.)

Press **QUIET/Q-SCAN** to store the code.

Note: We recommend that you select a quiet code in the 7–30 range. If you select a code below or above that range, hold down **LOCK/PTT**, then wait briefly before you start talking.

Using Quiet Code Scan

Press **QUIET/Q-SCAN** to turn on Quiet Code. *QUIET* and the quiet code appear. Hold down **MON/FUNC** then press **QUIET/Q-SCAN**. *SCAN* appears. When matching with an appropriate quiet code, the transceiver stops scanning and *QUIET* flashes. The transceiver goes on scanning after the signal disappears. Press any key other than **QUIET/Q-SCAN** to stop scanning. The transceiver stays on the quiet code just scanned.

Note: If you press **QUIET/Q-SCAN** to stop scanning, the transceiver stays on the preset quiet code.

Quiet Codes

Code	Frequency (Hz)	Code	Frequency (Hz)
1	67.0	20	131.8
2	71.9	21	136.5
3	74.4	22	141.3
4	77.0	23	146.2
5	79.7	24	151.4
6	82.5	25	156.7
7	85.4	26	162.2
8	88.5	27	167.9
9	91.5	28	173.8
10	94.8	29	179.9
11	97.4	30	186.2
12	100.0	31	192.8
13	103.5	32	203.5
14	107.2	33	210.7
15	110.9	34	218.1
16	114.8	35	225.7
17	118.8	36	233.6
18	123.0	37	241.8
19	127.3	38	250.3

USING THE WEATHER RADIO

Press **WX** to turn the weather radio on or off. *WX* appears when the weather radio is on.

Press ∧/♩ or ∨/**SKIP** to manually select the weather channel.

To scan through the weather channels, hold down ∧/♩ or ∨/**SKIP** until *SCAN*

appears. The transceiver pauses on each active channel. Press ▲/♩ or ▼/**SKIP** to change the scan direction. Press any key other than ▲/♩ or ▼/**SKIP** to stop scanning.

Press **QUIET/Q-SCAN** to set the weather radio to mute. 🔇 appears. The transceiver alerts you when it detects a weather emergency broadcast, so you do not have to continuously listen to the weather broadcasts. When the weather alert signal is received, ***ALT*** appears and the alert tone sounds. Press **QUIET/Q-SCAN** again to return the weather radio to standby.

Notes:

- When the weather radio is muted and a second weather alert is detected, the radio does not beep, but ***ALT*** appears and the weather broadcast resumes.
- When the weather radio is on, squelch is automatically turned on and **SQL** does not adjust the squelch.

Weather Channel Frequency

Channel	Frequency (MHz)
1	162.400
2	162.425
3	162.450
4	162.475
5	162.500
6	162.525
7	162.550
8	161.650
9	161.775
10	163.275

USING DUAL WATCH

You can set the transceiver to monitor the DW (Dual Watch) channel and one operation channel, or one operation channel and one weather channel.

To set the DW channel:

Press ▲/♩ or ▼/**SKIP** to select the desired channel, then hold down **DUAL** until ***DUAL*** appears.

Notes:

- The default DW channel is channel 0 (emergency channel).
- You cannot set a weather channel as the DW channel.

To monitor the DW channel and one operation channel:

1. Press ∧/♩ or ∨/**SKIP** to select a second channel.

2. Press **DUAL**. *DUAL* appears. The transceiver checks the two channels alternately, and their numbers alternately appear. When a signal is received on either channel, the transceiver stops on the active channel until the signal disappears. After a few seconds of inactivity, dual watch mode resumes.

3. Press any key to stop dual watch.

To monitor one operation channel and one weather channel:

1. Press ∧/♩ or ∨/**SKIP** to select an operation channel.

2. Press **WX** to turn on the weather radio. *WX* appears.

3. Press ∧/♩ or ∨/**SKIP** to select a weather channel.

4. Press **DUAL**. *DUAL* appears. The transceiver checks the two channels alternately, and their numbers alternately appear.

   When a weather alert signal is received, the transceiver exits dual watch mode to receive the broadcast.

   Note: To return to dual watch, press **DUAL**.

   When a signal is received on the operation channel, the transceiver stops on the active channel until the signal disappears. After a few seconds of inactivity, dual watch mode resumes.

5. Press any key to stop dual watch.

SETTING THE KEY TONE

Hold down **MON/FUNC** then press ∧/♩ to set the key tone beep to on or off. ♪ appears when the key tone is on.

Note: The key tone does not beep when you press **LOCK/PTT** or **MON/FUNC**, even if the key tone is on.

USING APO/HI/LO

Press **APO/HI/LO** to set the transmitting power to high for long distance transmissions, or low for short distance transmissions. *HI* or *LO* appears.

Note: You cannot set the transmitting power when the weather radio is on.

When Auto Power Off is on, the transceiver automatically turns off when it is idle for 2 hours. Press any key to turn the transceiver back on. To turn the Auto Power Off function on or off, hold down **MON/FUNC** then press **APO/HI/LO**. *AP ON* or *AP OF* appears briefly.

USING KEY LOCK

You can lock the ∧/♩, ∨/**SKIP**, **WX**, **DUAL**, **APO/HI/LO**, and **QUIET/Q-SCAN**

keys on the transceiver. Hold down **MON/FUNC** then press **LOCK/PTT** to lock or unlock these keys. When these keys are locked, *LOCK* appears. If the key tone is on, an error tone sounds when you press any of the keys.

SETTING THE COURTESY TONE

While turning on the transceiver, hold down **LOCK/PTT** to turn the courtesy tone on or off. When you turn on the courtesy tone, a tone sounds and *C-TONE* appears. When you end the transmission, the party you are communicating with hears the courtesy tone.

RESETTING THE TRANSCEIVER

If the transceiver stops operating properly, reset the transceiver by holding down **QUIET/Q-SCAN** while turning on the transceiver. All the set channels will be cleared. The current channel and the DW channel will be channel 0, Quiet Code will be off, and the key tone and courtesy tone will be on.

CARE

Keep the transceiver dry; if it gets wet, wipe it dry immediately. Use and store the transceiver only in normal temperature environments. Handle the transceiver carefully; do not drop it. Keep the transceiver away from dust and dirt, and wipe it with a damp cloth occasionally to keep it looking new.

Modifying or tampering with the transceiver's internal components can cause malfunction and invalidate its warranty. If your transceiver is not performing as it should, take it to your local RadioShack store for assistance.

❒ *Specifications*

Operation Channels	GMRS: 7 Interstitial: 7 Emergency: 1
Weather Channels	10
Power Source	8.4V, 1300mAH Ni-MH Battery Pack 12V, 200mA AC/DC Charger
Sensitivity at 12dB SINAD	0.5uV
Adjacent Channel Rejection	45dB
Audio Distortion	7%
Output Power	1W/5W @ 8.4V DC

Harmonic Emissions ..... 55dB (High)
48dB (Low)

Dimensions
(HWD) ..... $5^{5}/_{16} \times 2^{5}/_{16} \times 1^{3}/_{8}$ inch
$(135 \times 58 \times 35$ mm)

Weight ..... 13.1 oz (372 g)

Specifications are typical; individual unit might vary. Specifications are subject to change and improvement without notice.

Limited One-Year Warranty

This product is warranted by RadioShack against manufacturing defects in material and workmanship under normal use for one (1) year from the date of purchase from RadioShack company-owned stores and authorized RadioShack franchisees and dealers. EXCEPT AS PROVIDED HEREIN, RadioShack MAKES NO EXPRESS WARRANTIES AND ANY IMPLIED WARRANTIES, INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED IN DURATION TO THE DURATION OF THE WRITTEN LIMITED WARRANTIES CONTAINED HEREIN. EXCEPT AS PROVIDED HEREIN, RadioShack SHALL HAVE NO LIABILITY OR RESPONSIBILITY TO CUSTOMER OR ANY OTHER PERSON OR ENTITY WITH RESPECT TO ANY LIABILITY, LOSS OR DAMAGE CAUSED DIRECTLY OR INDIRECTLY BY USE OR PERFORMANCE OF THE PRODUCT OR ARISING OUT OF ANY BREACH OF THIS WARRANTY, INCLUDING, BUT NOT LIMITED TO, ANY DAMAGES RESULTING FROM INCONVENIENCE, LOSS OF TIME, DATA, PROPERTY, REVENUE, OR PROFIT OR ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, EVEN IF RadioShack HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

Some states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you.

In the event of a product defect during the warranty period, take the product and the RadioShack sales receipt as proof of purchase date to any RadioShack store. RadioShack will, at its option, unless otherwise provided by law: (a) correct the defect by product repair without charge for parts and labor; (b) replace the product with one of the same or similar design; or (c) refund the purchase price. All replaced parts and products, and products on which a refund is made, become the property of RadioShack. New or reconditioned parts and products may be used in the performance of warranty service. Repaired or replaced parts and products are warranted for the remainder of the original warranty period. You will be charged for repair or replacement of the product made after the expiration of the warranty period.

This warranty does not cover: (a) damage or failure caused by or attributable to acts of God, abuse, accident, misuse, improper or abnormal usage, failure to follow instructions, improper installation or maintenance, alteration, lightning or other incidence of excess voltage or current; (b) any repairs other than those provided by a RadioShack Authorized Service Facility; (c) consumables such as fuses or batteries; (d) cosmetic damage; (e) transportation, shipping or insurance costs; or (f) costs of product removal, installation, set-up service adjustment or reinstallation.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

RadioShack Customer Relations, 200 Taylor Street, 6th Floor, Fort Worth, TX 76102

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RadioShack Corporation
Fort Worth, Texas 76102

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