Thank you for purchasing the Wouxun KG-XS30G mobile GMRS radio.

Your feedback makes our products better. Please share your thoughts.

feedback@buytwowayradios.com
www.buytwowayradios.com

Contents

Safety Information

The KG-XS30G is an electrical apparatus, as well as a generator of RF (Radio Frequency) energy, and you should exercise all safety precautions as are appropriate for this type of device. These safety tips apply to any device installed in a well-designed radio station.

- Explosive atmospheres (gases, dust, fumes, etc.). Turn OFF your mobile radio while taking on fuel or while parked in gasoline service stations. Do not carry spare fuel containers in the trunk of your vehicle if your mobile radio is mounted in the trunk area.

- Injury from radio frequency transmissions. Do not operate your mobile radio when somebody is either standing near to or touching the antenna, to avoid the possibility of radio frequency burns or related physical injury.

- Dynamite blasting caps. Operating the mobile radio within 150m (500 feet) of dynamite blasting caps may cause them to explode. Turn OFF your mobile radio when in areas where blasting is in progress, or where "TURN OFF TWO-WAY RADIO" signs have been posted. If you are transporting blasting caps in your vehicle, make sure they are carried in a closed metal box with a padded interior. Do not transmit while the caps are being placed into or removed from the container.

- Never allow unsupervised children to play in the vicinity of your mobile radio or antenna installation.
- Be certain to wrap any wire or cable splices thoroughly with insulating electrical tape, to prevent short circuits.
- Do not route cables or wires through door jambs or other locations where, through wear and tear, they may become frayed and shorted to ground or to each other.
- Do not stand in front of a directional antenna while you are transmitting into that antenna. Do not install a directional antenna in any location where humans or pets may be walking in the main directional lobe of the antenna's radiation pattern.
- In mobile installations, it is preferable to mount your antenna on top of the roof of the vehicle, if feasible, so as to utilize the car body as a counterpoise for the antenna and raise the radiation pattern as far away from passengers as possible.
- During vehicular operation when stopped (in a parking lot, for example), make it a practice to switch to Low power if there are people walking nearby.

Safety Information

⚠ Never wear dual-earmuff headphones while driving a vehicle.

⚠ Do not attempt to drive your vehicle while entering frequencies or accessing menu items using the DTMF microphone, front panel or the base unit. Pull over to the side of the road and put the vehicle in park before adjusting or programming the transceiver.

Notice

- These tips are important for safe operation of your KG-XS30G mobile radio and its accessories. If they do not function normally, please get in touch with your dealer immediately.
- If you use components or accessories not produced by the Wouxun Company, Wouxun will not guarantee the safety and usability of the transceiver.

Caution

Please read this manual before using, as it includes important instructions for the safe handling, use and operation of your radio.

FCC Compliance

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.

WARNING: MODIFICATION OF THIS DEVICE TO RECEIVE CELLULAR RADIOTELEPHONE SERVICE SIGNALS IS PROHIBITED UNDER FCC RULES AND US FEDERAL LAW.

Radio Operation and EME Exposure

Use only an antenna designed for use with this radio and its operating frequencies. Unauthorized modifications or attachments may damage the radio and violate FCC rules.

DO NOT hold the antenna while the radio is in use.

DO NOT attempt to use the radio with a damaged antenna or feed line.

FCC Licensing Information

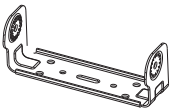
The Wouxun KG-XS30G is FCC Part 95E type accepted for use on the GMRS. The KG-XS30G operates on General Mobile Radio Service (GMRS) frequencies according to the Federal Communications Commission (FCC) Rules in the United States. As such, a GMRS license is required to transmit on these frequencies. To obtain an FCC license for the GMRS, please go to the FCC's web site and complete the online application or request FCC Form 605.

What's Included

Carefully unpack the contents of the box and be sure that you have the items in the list below. If any items are missing, please contact your dealer.

Mobile/Base Transceiver

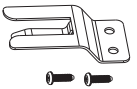
Hand Microphone



Mobile Mounting Bracket

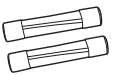
Mobile Power Cord

Screw Sets



Hand Microphone Hook

12V Adapter

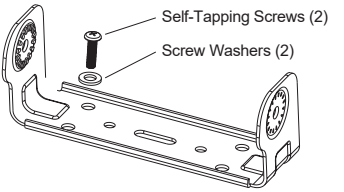


Fuse

User Manual

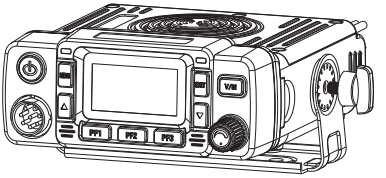
Transceiver Installation

Choose a safe place inside your vehicle to install the transceiver, considering a location that would not cause harm to passengers while the vehicle is in motion or in case of an accident or sudden braking. Install the transceiver in an area with good ventilation and away from direct exposure to the sun.

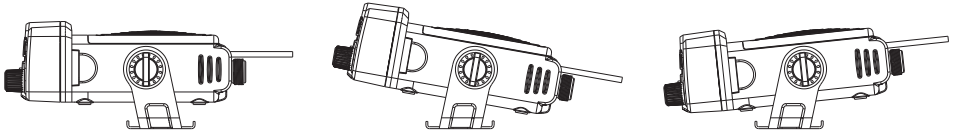


1. Use the supplied self-tapping screws to install the support bracket in the vehicle.

2. Set the transceiver in the bracket, then insert the supplied thumbscrews and tighten, ensuring that the thumbscrews are fastened tightly. This will ensure the support bracket and the transceiver do not become loose when the vehicle hits bumps or shakes.

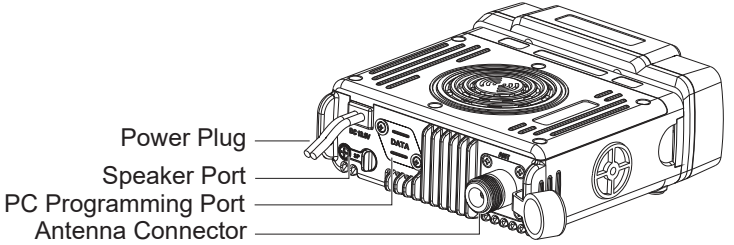


3. The thumbscrews can be loosened to adjust the radio to different angles and then retightened to hold the transceiver in place at that angle.



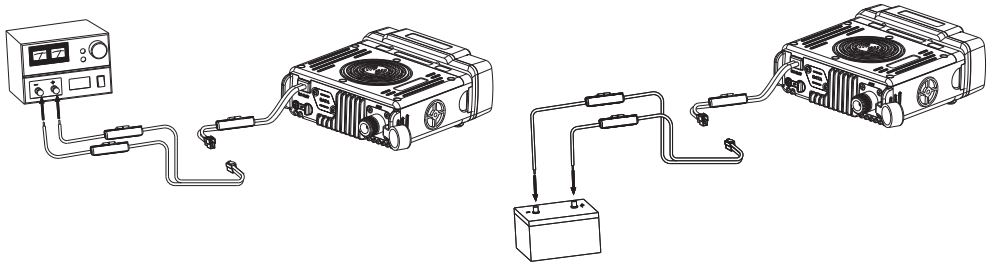
Rear Panel

The connections needed for the installation, programming and operation of the radio are located on the rear panel. Refer to pages 18-21 for information about them.



Connecting a Power Source

The power requirement of the transceiver ranges from 13.8V±15%. If the power source exceeds 16V, TX will be disabled but RX will operate as normal. If the power source falls below 9.5V, the transceiver will automatically shut off to prevent it from draining the battery and affecting the normal operation of the vehicle.



Important

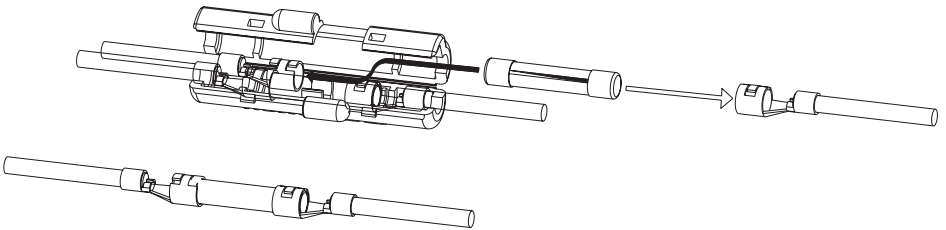
The transceiver's operating voltage is 13.8V±15% DC.

Replacing the Fuse

In the event that the transceiver blows a fuse, first determine the cause, then replace the fuse. If after installing the new fuse it blows again, disconnect the power source immediately and contact your authorized Wouxun dealer for assistance.

The specified fuse current is 15A. The specified power source current is 20A and above.

Refer to the following diagram for fuse installation. Be sure the fuse is properly seated and secured to the fuse clips.



Connecting an Antenna

Before using the transceiver, you must correctly connect a properly tuned and installed antenna. To get the best results, be sure the antenna is tuned for the frequencies that you intend to use, and the antenna's impedance is 50 ohms. **Using an incorrect or improperly installed antenna could harm the transceiver. Never attempt to transmit without an antenna connected!**

The transceiver is equipped with an SO-239 (UHF female) antenna connector. It will require an antenna cable with a PL-259 (UHF male) connector.

Optional Connections

12V Vehicle Power Adapter

The KG-XS30G includes a 12V vehicle power adapter for use as an alternative to the hardwire installation. **Note: The KG-XS30G typically draws less than 4.5 amps of power when in use on high power. Confirm that your vehicle's accessory port uses a minimum 10 amp fuse before attempting to use the 12V power adapter.**

External Speaker

The KG-XS30G is equipped with a 3.5mm external speaker jack on the back of the transceiver. It will accommodate a standard 8-ohm external speaker with a single pin 3.5mm mono audio plug. Stereo plugs will only produce audio from one speaker. Audio accessories with TRRS plugs are not recommended.

PC Programming Port

The KG-XS30G has an RJ45 data port on the rear panel of the unit for use with the optional Wouxun Mobile Radio USB Programming Cable (PCO-003). To access the data port, loosen the two screws and remove the protective cover. Refer to the illustration on page 17 for the exact location of the port.

Hand Microphone Installation

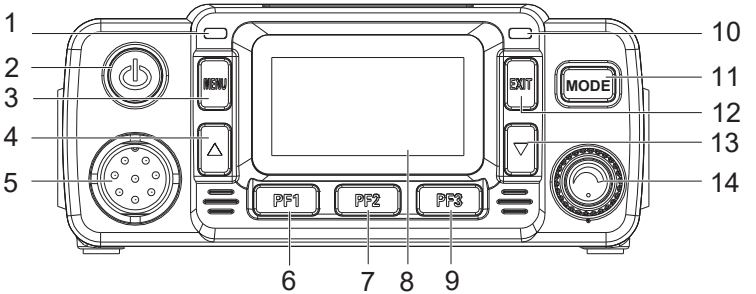
The hand speaker microphone port is located on the lower left side of the front panel. To connect the hand mic to the transceiver, plug the 8-pin connector into the port and tighten the screw ring all the way onto the connector. Do not overtighten.

Feature Summary

- 30 GMRS Channels
- 8 Built-In GMRS Repeater Channels
- Up to 20 Watts Output Power
- Tune Specific Frequencies Directly (Frequency Mode)
- High Visibility LCD Display
- 7 Selectable Backlight Colors
- Select Different Backlight Colors for TX/RX/Standby
- Bluetooth Audio
- High/Low Power Selectable
- Superheterodyne Receiver
- Up to 400 Custom Channels
- Selectable Backlit Hand Mic Keypad
- Favorite Channels
- Standard and Non-Std CTCSS/DCS
- Split CTCSS/DCS Tone Support
- CTCSS/DCS Tone Scan
- Channel Scan
- Priority Channel Scanning
- Display Channel Name, Number, or Frequency
- Incoming Caller ID Display
- Voltage Display
- Compander
- Descrambler
- Noise Reduction
- Frequency Counter

- DTMF Encode/Decode
- Group Call/All Call/Select Call
- DTMF Hand Microphone with Speaker, TX/RX Indicator and Volume Control
- Receive (RX) Frequency Range:
  400-479.995 MHz
- Transmit (TX) Frequency Range:
  462.550-462.725MHz (GMRS Channels 1-7 and 15-22)
  467.550-467.725MHz (GMRS Repeater Channels 23-30)
- 4 Configurable Function Keys
- FM Radio Mode
- External Speaker Support
- Multiple Speaker Output Settings
- Stopwatch Timer
- English Voice Guide
- Single Tone Pulse Frequency
- PC Programming Software Support

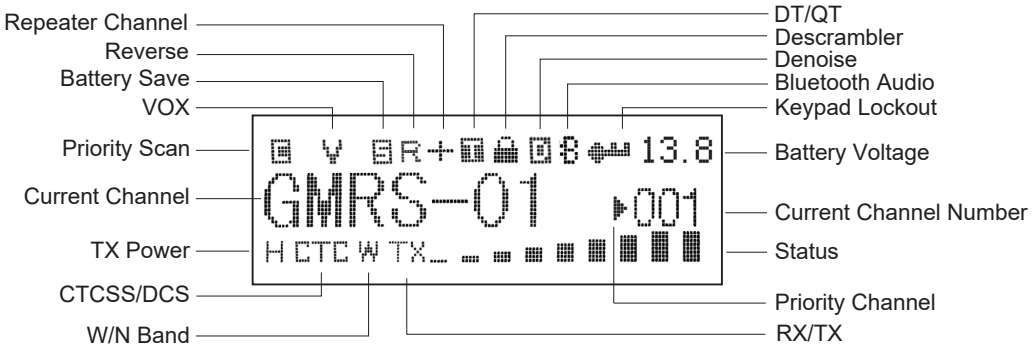
Front Panel Guide



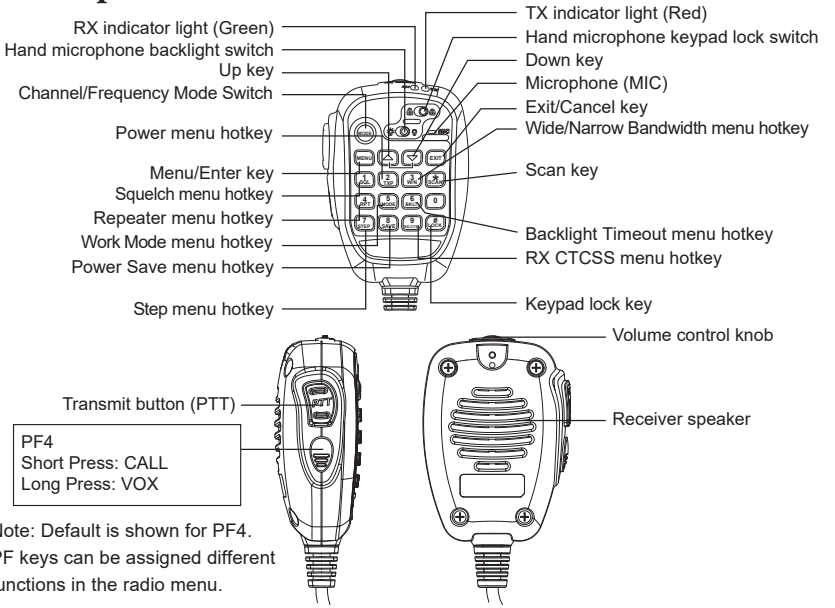
1. TX LED (Red)
2. On / Off Button
3. Menu / Enter Key
4. Up Key
5. Hand Microphone Port
6. PF1 Key
7. PF2 Key
8. LCD Display
9. PF3 Key
10. RX LED (Green)
11. Mode Key
12. Exit / Cancel Key
13. Down Key
14. Volume Knob

A full description of each front panel function key is located on Page 47.

LCD Guide


Repeater Channel
Reverse
Battery Save
VOX
Priority Scan
Current Channel
TX Power
CTCSS/DCS
W/N Band
DT/QT
Descrambler
Denoise
Bluetooth Audio
Keypad Lockout
Battery Voltage
Current Channel Number
Status
Priority Channel
RX/TX
V
R
13.8
GMRS-01
001
H
CTC
W
TX

Hand Microphone



Note: Default is shown for PF4.
PF keys can be assigned different functions in the radio menu.

Introducing GMRS and the KG-XS30G

The General Mobile Radio Service (GMRS) is a two way radio service that offers some powerful benefits. Users are allowed to transmit at high power, up to 50 watts, and use advanced equipment such as repeaters that enable you to transmit over large areas. The GMRS requires the user to purchase a license, and a single license covers the user and their extended family for 10 years.

The KG-XS30G was designed to allow you to take advantage of all that GMRS has to offer and more. Right out of the box this radio is configured to allow you to transmit on the 15 high powered GMRS simplex channels, as well as the 8 repeater channels. (Channels 8-14 are only authorized for very low output power on portable handheld radios and are not authorized for transmit on mobile radios by the FCC.) An FM radio is available at the touch of a button, as well.

Read this chapter to learn the basics of using your new KG-XS30G radio, such as selecting a channel, transmitting and receiving, scanning, using the programmable keys, and using frequency mode. Before continuing, be sure your radio is powered on and connected to an antenna!

Power On/Off

Press and hold the Power button for 2 seconds to power on the radio. To power off the radio, press and hold the power button until the radio shuts off.

Adjusting Volume

The volume adjust is located on the lower right side of the front panel and at the top of the hand mic. To adjust the volume, use the volume adjust when the radio is powered on. Turning the it clockwise increases the volume, counter-clockwise decreases it.

Your First Transmit

Selecting a Channel

When you power on your KG-XS30G for the first time, the display will likely show "GMRS-01" left of center with "001" on the right side. GMRS-01 is the name of the currently selected channel. 001 is the channel number. Press the [UP] / [DOWN] arrow keys located on the front panel or on the hand speaker microphone to navigate

through the list of channels.

As a licensed GMRS user you are allowed to use any of the channels. The channel you choose isn't as important as making sure it's the same channel the rest of your group is using. Be sure the channel you select is also supported by the equipment everyone else in your group is using.

Most rules for GMRS are the same for all channels, but there are a few differences, particularly concerning output power. The GMRS channels on the KG-XS30G consist of 4 groups, with the following differences:

- Transmitting on GMRS channels 1-7 is limited to 5 watts of output power. These channels can only transmit at Low power (5 watts) on the KG-XS30G.
- Transmitting on channels 8-14 is limited to a half watt of output power. The KG-XS30G is not capable of transmitting at this low power and the FCC does not allow transmitting on these channels using mobile radios (although you can listen).
- Transmitting on channels 15-22 is allowed at High power on the KG-XS30G. These channels are authorized for up to 50 watts of output power.

- Channels 23-30 receive on the same frequencies as channels 15-22, but transmit on a special offset frequency set aside for repeaters. See page 33 for more information about using the KG-XS30G with repeaters.

Transmitting and Receiving

With a channel selected, the radio is actively "listening" for an incoming signal on that channel. When a signal is detected, the transmission will be heard through the radio's speaker. Please note, the Squelch setting (page 52) determines how strong a signal needs to be in order to be detected.

To transmit, first be sure the channel is clear and then hold the hand microphone a few inches from your mouth. Hold down the PTT button on the side of the microphone while talking and release the PTT when finished.

Channel and Frequency Modes

The KG-XS30G supports tuning frequencies via two methods: channel and frequency modes. The [MODE] button switches between channel and frequency modes.

In channel mode, frequencies that have been saved can be selected from the channel list. This is the default mode and is the most convenient way to access commonly used frequencies. The KG-XS30G is pre-configured with 30 GMRS channels, but allows users to save custom channels as well (up to 400). In channel mode, pressing the [UP] or [DOWN] arrow key will tune to the next channel in the list.

Frequency mode (also referred to as VFO mode) allows you to tune directly to a specific frequency regardless of the frequency having been previously saved. In frequency mode, pressing the [UP] or [DOWN] arrow key will tune to a higher or lower frequency. The STEP menu option (page 55) allows you to adjust the step between each frequency. To enter a frequency directly, type the frequency using the keypad.

The KG-XS30G supports the following frequency bands:

KG-XS30G Frequency Band
400.000 - 480.000 MHz

The KG-XS30G only transmits on GMRS frequencies. All other available frequencies entered in Frequency mode or via the programming software are receive only.

Channels and Privacy Codes

The KG-XS30G supports 30 built-in GMRS channels and 155 privacy tones and codes. To successfully communicate between your stations or members of your group, all the connecting radios must be using the same channel and privacy (CTCSS or DCS) code.

The KG-XS30G supports both standard and non-standard CTCSS tones and DCS codes. These tones and codes can be enabled and configured in the [RX-CTCSS], [RX-DCS], [TX-CTCSS] and [TX-DCS] menu options (pp 55-56). Instructions for entering non-standard tones and codes can be found in the Advanced Operations section of this manual (page 80).

Reminder

The KG-XS30G will only transmit on GMRS frequencies authorized for 5 watts and higher. Band and frequency support for other frequencies is provided for listening only.

The KG-XS30G supports 400 customizable memory channels. Channels can be added, deleted or reordered via the PC programming software.

Using the Repeater Channels

The KG-XS30G is pre-configured with 8 GMRS repeater channels. The channels are named RPT-15 through RPT-22.

What is a Repeater?

In basic terms, a repeater is a device that is used to increase the range of two way radios. Repeaters will receive a transmission on one frequency and simultaneously rebroadcast that transmission on a different frequency. Repeaters are often set up in a fixed location and connected to an antenna that is mounted at a higher elevation to provide better range than is normally available with radio-to-radio (simplex) communications.

Locating a Repeater

Using GMRS repeaters can significantly increase the range of your radio, but just tuning to one of the repeater channels isn't necessarily going to work. You first have to be sure there is a repeater listening on that channel's frequency, and you have to be within range of that repeater.

Operation

The best resource for locating GMRS repeaters is the website www.myGMRS.com. This site has an extensive database of GMRS repeaters throughout the United States. It is important to keep in mind that a GMRS repeater is not necessarily intended for public use. They are owned by individuals and are sometimes intended for private use or require permission to use.

Before connecting to a GMRS repeater, be sure that you have permission or that the owner is fine with public use. The description on the myGMRS website usually indicates if permission is required and provides a way to get in touch with the owner.

KG-XS30G Repeater Channels

RPT-15 through RPT-22 have the same receive frequency as channels GMRS-15 through GMRS-22. However, the transmit frequency for these channels is assigned to a frequency specifically designated as a GMRS repeater input frequency. The chart on the next page lists the default frequencies for these channels.

Number	Channel	Receive Frequency	Transmit Frequency
023	RPT-15	462.5500	467.5500
024	RPT-16	462.5750	467.5750
025	RPT-17	462.6000	467.6000
026	RPT-18	462.6250	467.6250
027	RPT-19	462.6500	467.6500
028	RPT-20	462.6750	467.6750
029	RPT-21	462.7000	467.7000
030	RPT-22	462.7250	467.7250

Accessing a Repeater in Frequency Mode

The REPEATER menu option (page 53) allows you to transmit to a repeater while in Frequency Mode. If you are tuned to a GMRS receive frequency that is valid for repeater use and turn the REPEATER menu option ON, the radio will transmit to the repeater input frequency when PTT is pressed. The REPEATER menu option is ig-

nored when the radio is not tuned to one of the 8 GMRS repeater transmit frequencies.

Channel Scan

The [*SCAN] key controls the scan function. To activate Channel Scan, press and hold the [*SCAN] key for two seconds or until you hear "Scan Begin". The radio will scan each channel for activity, starting from the current channel.

Pressing the [UP] / [DOWN] keys while scanning will change the direction of the scan from low to high ([UP]) or high to low ([DOWN]). Press any other key to stop the scan. Refer to the SCANMODE menu item (page 58) for more information on the types of scans available.

The scan function can also be assigned to one of the four programmable function keys from the menu (pp. 73-76).

Priority Channel Scan

The KG-XS30G supports Priority Channel Scanning. With this feature a priority channel can be specified that is scanned much more frequently than other channels.

This helps prevent missing all or part of a transmission when you are primarily concerned with a single channel.

Priority Channel Scanning works by scanning your priority channel in between all other channels. For example, if your priority channel is 3 the radio would scan your channel list in the following order:

1 ▸ 3 ▸ 2 ▸ 3 ▸ 3 ▸ 3 ▸ 4 ▸ 3 ▸ 5 ▸ 3 ▸ ...

To set a priority channel, use the PRI-CH menu item (page 59). To activate the Priority Channel Scanning feature, use the PRI-SCAN menu item (page 59). Individual channels can be added or removed from the scan list using the SCAN-ADD menu option (page 59).

Scanning CTCSS / DCS Codes

The KG-XS30G is equipped with the ability to scan an incoming signal for a CTCSS or DCS tone and update the current channel's tone settings once the tone is identified.

To activate CTCSS / DCS scan, press the [MENU] key and go to the TONESCAN

menu item. Press [MENU] again to enter the menu item and the first tone or code on the list will display on the screen. Keep this menu item open to scan.

The scan will begin when a signal is received. The scan will stop when the signal ends and resume from where it left off the next time the signal is received, until it identifies the correct tone. Use the [UP]/[DOWN] arrow keys to scan in a different direction. See the TONESCAN menu item (page 60) for more information.

To save the identified tone to the currently selected channel or frequency, press the [MENU] key while the tone is displayed on the screen. The tone will be saved as the TX tone, RX tone, or both depending on the TONESAVE menu setting (page 60). When saving a tone, any existing tones will be overwritten.

Important

TONESCAN must be activated while a signal is being received on the channel.

Other Functions

Talk Around

The Talk Around function allows the radio to transmit and receive on the output frequency of a repeater, essentially letting you bypass or "talk around" the repeater. This feature is useful when the repeater is nearly out of range, is not operational, or if you are in range of other stations and would prefer to contact them via simplex. The Talk Around function can be assigned to one of the four programmable function keys from the menu (pp. 73-76).

Reverse Frequency

When Reverse Frequency is activated, the transmit and receive frequencies of the active channel are exchanged or reversed, allowing the radio to transmit on the receive frequency and receive on the transmit frequency. This feature is useful for checking if you are within simplex range of other units before activating Talk Around.

Press the [*SCAN] key on the active channel to activate or deactivate this feature.

When activated, an "R" icon will appear below the channel name, frequency or number. The Reverse Frequency function can also be assigned to one of the four programmable function keys from the menu (pp. 73-76). Available in Channel Modes only.

Monitor

The MONITOR function opens squelch on the current channel or frequency. This is useful when listening for weak transmissions. To use the MONITOR function, it must first be assigned to one of the four programmable function keys (pp. 73-76). It is assigned to a long press of the [PF1] key by default.

Display Backlight

The KG-XS30G allows you to activate the backlight for the display using a programmable key. When activated, the backlight will remain on for the duration of the time set in the BACKLIGHT menu option (page 54). It can be assigned to one of the four programmable function keys using the menu (pp. 73-76).

Favorite Channels

The KG-XS30G allows you to access specific channels marked as favorite channels. When assigned to a programmable key, pressing that key will change channels to the next highest channel marked as Favorite. Pressing the key again will go to the next favorite channel on the list. When the highest channel is reached, the radio will cycle back to the first favorite channel on the list. If no channels are marked as favorites, pressing the key will produce an error beep.

Channel 19 (travel channel) is a favorite channel by default.

The current channel can be activated or deactivated as a Favorite Channel by using the CH-FAV menu option (page 65).

The Favorite Channels function can be assigned to one of the four programmable function keys using the menu (pp. 73-76). It is assigned to a short press of the [PF2] key by default.

Transmit Power

This function sets the transmit power of a channel on the radio. The transmit power can be set for each individual channel. The KG-XS30G has two power options: Low (5W) and High (20W). Wattage is approximate. It is preset to 5 watts on channels 1-7 and cannot be changed. This function can be assigned to one of the four programmable function keys from the menu (pp. 73-76). It is assigned to a long press of the [PF3] key by default.

Key Lock

The buttons on the KG-XS30G can be locked to prevent them from being accidentally pressed. When the Key Lock is enabled, all buttons except the [EXIT], [#LOCK] and PTT keys will be disabled. The Key Lock can be configured to lock the PTT key with the other keys using the LOCKMODE menu item (page 71).

To activate the Key Lock, press and hold the [#LOCK] or [EXIT] key for two seconds. The key icon will appear at the top of the display. The buttons are now disabled.

To disable the Key Lock, press and hold the [#LOCK] or [EXIT] key for two seconds.

The key icon will disappear from the top of the display. The buttons should now be enabled.

FM Radio

The KG-XS30G features a commercial broadcast FM Radio. To access the FM Radio, it must first be assigned to one of the four programmable function keys from the menu (pp. 73-76). It is assigned to a short press of the [PF3] key by default. When active, the current FM radio frequency will appear in the center of the display. To find an active broadcast station, press [*SCAN] key to begin the FM Radio scanning function. Press any key to stop the scan.

To store an FM radio station in memory, locate the desired station, press [MENU], go to FM-RADIO and press [MENU] to activate the radio storage function. Press the [UP] and [DOWN] keys to choose MEMORY. Use the [UP] and [DOWN] keys to select a memory channel, then press [MENU] to confirm.

To recall a station, press [MENU] to activate the radio storage function. Press the [UP] and [DOWN] keys to choose RECALL. Use the [UP] and [DOWN] keys to select a

memory channel to recall, then press [MENU] to confirm.

Up to 20 FM radio stations can be stored on the radio using the [FM-RADIO] menu option (page 77).

Stopwatch Timer

The KG-XS30G has a built-in stopwatch timer. It can be enabled using the TIMER menu option (page 70). Once enabled, Press [#LOCK] on the radio to activate the timer. Press the [MENU] key to pause the timer. Press the [MENU] key again to resume. Press any other key to stop the timer. When stopped, press [#LOCK] to reset the timer and start again. When stopped, pressing any key other than [MENU] will deactivate the timer and return to standby mode.

When the timer is activated, it will appear on the display in place of the current channel information. The [UP] / [DOWN] arrow keys, programmable keys and [PTT] key will only stop the timer. If the radio receives a signal while the timer is active, it will stop and exit the timer. The menu is not accessible while the timer is active.

Frequency Counter

The KG-XS30G features a frequency counter. When activated, it can detect strong radio signals that are very close by, along with any CTCSS tone or DCS code that is being transmitted with them. Press [MENU] after the frequency detection to go to the CH-ADD option and add it as a channel.

The frequency counter feature can be activated by pressing the assigned function key after entering the menu. This function can be assigned to one of the four programmable function keys using the menu (pp. 73-76).

Note

For instant access to any menu option while in the menu, simply enter the number of the menu option into the keypad. This is a faster and more convenient method of locating a specific menu option than by using the [UP] and [DOWN] keys on the front panel of the radio or on keypad of the hand microphone.

Keypad Hotkeys

The keypad on the hand speaker microphone features hotkeys for faster access to the first nine menu options. When the radio is in MENU mode, press the desired hotkey to go directly to that option and press the [UP] / [DOWN] arrow keys to choose the desired setting. Press [MENU] to confirm, then press [EXIT] to save the setting and exit the menu.

Key	Hotkey	Function/Menu Item
1	SQL	Squelch menu function (page 52)
2	TXP	Output Power menu function (page 52)
3	W/N	Bandwidth menu function (page 53)
4	RPT	Repeater menu function (page 53)
5	MODE	Work Mode menu function (page 54)
6	BKLT	Activate Backlight (page 54)
7	STEP	Frequency Step menu function (page 55)

Key	Hotkey	Function/Menu Item
8	SAVE	Battery Saver menu function (page 55)
9	RX-CTS	Receive CTCSS Tone menu function (page 55)
0		

Function Keys

The KG-XS30G has function keys to perform specific operations on the radio, from accessing and navigating the menu to the control of various modes. There are 8 keys on the front panel and 7 on the keypad of the hand microphone. The charts below list the keys at each location and what they do.

Front Panel Function Keys

Key	Function
MENU	Enter menu, select options and save to the radio
EXIT	Exit the menu or cancel a function

Key	Function
MODE	Switches Channel and Frequency Modes (page 30)
UP	Goes to the next channel, frequency or menu item
DOWN	Goes to the previous channel, frequency or menu item
PF1	Programmable Function Key 1 (page 73)
PF2	Programmable Function Key 2 (page 74)
PF3	Programmable Function Key 3 (page 75)

Hand Microphone Function Keys

Key	Function
MODE	Switches Channel and Frequency modes (page 30)
MENU	Enter menu, select options and save to the radio
*SCAN	Short Press: Reverse Frequency (page 39) Long Press: Channel/Frequency Scan (page 36)

Key	Function
#LOCK	Press 2 seconds to lock/unlock keypad (page 42)
UP	Goes to the next channel, frequency or menu item
DOWN	Goes to the previous channel, frequency or menu item
EXIT	Exit the menu or cancel a function

Programmable Function Keys

The KG-XS30G has four programmable function keys. These are [PF1], [PF2], [PF3] and [PF4]. The [PF1], [PF2] and [PF3] keys are located on the front panel below the display. The [PF4] key is located on the left side of the hand microphone below the PTT key. Each key can perform two different functions, one activated with a short press and one with a long press. These functions can be assigned to the programmable buttons from the menu (pp 73-76). They can also be assigned via the programming software.

Default Key	Function	Description
	OFF	Disable the function key press
	BACKLIGHT	Activate backlight (page 40)
	BLUETOOTH	Activate Bluetooth function (page 77)
PF4 Short	CALL	Sends a call ID (page 69)
	CLR-STBY	Change standby backlight color (page 57)
	CLR-RX	Change receive backlight color (page 57)
	CLR-TX	Change transmit backlight color (page 57)
PF2 Long	DENOISE	Activate noise reduction function (page 72)
PF2 Short	FAVORITE	Favorite Channels (page 41)
PF3 Short	FM-RADIO	Activate FM Radio (page 43)
	FREQ-CNT	Activate Frequency Counter (page 45)
PF1 Long	MONITOR	Monitor channel (page 40)
	REVERSE	Activate reverse frequency (page 39)

Default Key	Function	Description
PF1 Short	SCAN	Scan function (page 36)
	TALK-A	Activate Talk Around (page 39)
PF3 Long	TX-POWER	Switch Low/High Power (page 42)
PF4 Long	VOX	Activate VOX (p 61)

[01: SQUELCH] Squelch

Function: The squelch function mutes the speaker when no signal is detected. Adjusting the squelch sensitivity allows you to control how strong of a signal is required in order to unmute the speaker. Selecting a lower number will allow weaker signals to be heard, higher numbers require a stronger signal. Selecting [0] will unmute the speaker at all times.

Options: 0-9

Default: 5

[02: TX-POWER] Output Power

Function: Sets the transmit power of the radio. The radio has two power options: Low and High. Low power is 5 watts. Note, the transmit power for GMRS channels 1-7 are restricted by the FCC to 5 watts and can be used on Low power only. The transmit power of channels 15-22 and RPT15-22 can be used on High power. The KG-XS30G will automatically adjust the power to the FCC limits.

Options: HIGH/LOW

Default: (Varies by channel)

[03: W/N] Bandwidth

Function: Sets the bandwidth for the current channel.
Options: WIDE/NARROW
Default: (Varies by channel)

[04: REPEATER] Repeater

Function: Sets the offset frequency for a repeater channel. When this option is activated the KG-XS30G will transmit to the repeater input frequency when the radio is tuned to a frequency that has a valid GMRS repeater offset. This option is only available in frequency mode and will be ignored on frequencies that do not have a GMRS repeater offset. The offset is fixed to 5.000 MHz.
Options: OFF/ON
Default: OFF

[05: WORK-MODE] Work Mode

Function: Changes the working mode of the radio. This is equivalent to pressing the [MODE] button on the keypad of the hand microphone.
Options: CH-NAME/FREQ/CH-NUM/CH-FREQ
Default: CH-NAME
CH-NAME: Channel Mode. Displays the channel name (Example: GMRS-01)
FREQ: Frequency Mode. Allows directly tuning any frequency in the wide receive range of the KG-XS30G. The radio transmits on GMRS frequencies only.
CH-NUM: Channel Mode. Displays the channel number (Example: CH-001)
CH-FREQ: Channel Mode. Displays the channel frequency (Example: 462.56250)

[06: BACKLIGHT] Backlight Timeout

Function: Sets the amount of time that the display is active before switching to standby. The timer can be set from 1-20 seconds in one second increments. It can also be set to turn off immediately or always remain on.
Options: OFF/ALWAYS ON/1-20S
Default: 10 Seconds

[07: STEP] Frequency Step

Function: Allows you to adjust the steps between frequencies. Available only in Frequency mode.
Options: 2.5K/5K/6.25K/8.33K/10K/12.5K/25K/50K/100K
Default: 12.5K

[08: BAT-SAVE] Battery Saver

Function: Activate the battery saver feature. When active, the radio will scan less frequently for signals, reducing power consumption.
Options: ON/OFF
Default: ON

[09: RX-CTCSS] Receive CTCSS Tone

Function: Sets the receiving CTCSS tone for the selected channel. Use the arrow keys to select your preferred code and then MENU to confirm.
Options: OFF/50 CTCSS Tones
Default: OFF

[10: RX-DCS] Receive DCS Code

Function: Sets the receiving DCS code for the selected channel. Use the arrow keys to select your preferred code and then MENU to confirm.
Options: OFF/105 DCS+ Codes/105 DCS- Codes
Default: OFF

[11: TX-CTCSS] Transmit CTCSS Tone

Function: Sets the transmitting CTCSS tone for the selected channel. Use the arrow keys to select your preferred code and then MENU to confirm.
Options: OFF/50 CTCSS Tones
Default: OFF

[12: TX-DCS] Transmit DCS Code

Function: Sets the transmitting DCS code for the selected channel. Use the arrow keys to select your preferred code and then MENU to confirm.
Options: OFF/105 DCS+ Codes/105 DCS- Codes
Default: OFF

[13: CLR-STDBY] Standby Backlight Color

Function: Selects one of seven customizable backlight colors when the backlight is activated while the radio is in standby.
Options: RED/BLUE/PURPLE/GREEN/YELLOW/CYAN/WHITE
Default: WHITE

[14: CLR-RX] Receive Backlight Color

Function: Selects one of seven customizable backlight colors when the backlight is activated while the radio receives a signal.
Options: RED/BLUE/PURPLE/GREEN/YELLOW/CYAN/WHITE
Default: BLUE

[15: CLR-TX] Transmit Backlight Color

Function: Selects one of seven customizable backlight colors when the backlight is activated while the radio transmits.
Options: RED/BLUE/PURPLE/GREEN/YELLOW/CYAN/WHITE
Default: RED

[16: SCANMODE] Scan Mode

Function: Scan mode settings. Note: Scan can be stopped by pressing any key on the radio.
Options: TO/CO/SE
Default: TO
TO: When a signal is detected, scanning stops. Scan will pause for 5 seconds and then resume. Pressing PTT will transmit on the currently selected channel.
CO: When a signal is detected, scanning stops and resumes 5 seconds after the signal is lost. Pressing PTT will transmit on the currently selected channel.
SE: When a signal is detected, scanning stops. Pressing PTT will transmit on the channel where the signal was detected.

[17: SCAN-QT] Tone Scanning Compatibility Check

Function: Determines if the incoming transmissions are filtered by CTCSS/DCS tones during scan mode.
Options: ON/OFF
Default: OFF

[18: SCAN-ADD] Scan Add / Delete

Function: Add or remove a channel to/from the list of channels to scan.
Options: ON/OFF
Default: ON

[19: PRI-SCAN] Priority Scan

Function: Activates scanning of the Priority Channel. During scan, the priority channel will be scanned more frequently. Read the "Channel Scan" section on page 36 to learn more.
Options: ON-STBY/ON-ALWAYS/OFF
Default: OFF

[20: PRI-CH] Priority Channel

Function: Selects the priority channel. This is used during scanning when the Priority Scan (menu option 19) feature is enabled. To select a priority channel, use the [UP] and [DOWN] keys to select a channel number.
Options: 400 channels

Default: CH-001

[21: TONESCAN] CTCSS/DCS Scanning

Function: Scans the incoming signal for CTCSS or DCS tones to identify or confirm the correct tone. This function must be activated while receiving a signal.
Options: 1. CTCSS/2. DCS
Default: None. Choose the function and press [MENU] to activate the scan.
Note: The scan will stop when the signal ends and resume from where it left off the next time the signal is received, until it identifies the correct tone. Use the [UP]/[DOWN] arrow keys to scan in a different direction.

[22: TONESAVE] CTCSS/DCS Tone Save Options

Function: This item determines how a CTCSS or DCS tone is saved to a channel after a CTCSS/DCS scan.
Options: RX/TX/ALL
Default: RX
RX: Saves the scanned tone to the RX-CTCSS/DCS setting
TX: Saves the scanned tone to the TX-CTCSS/DCS setting.

ALL: Saves the scanned tone to both.

[23: VOX] Voice Activated Transmit

Function: The VOX function allows you to transmit without pressing the PTT key. The VOX function will detect that you are speaking into the microphone and then automatically begin transmitting. VOX gain levels of 1-10 are provided to allow you to adjust the voice detection sensitivity.

Options: OFF/1-10 (level)

Default: OFF

[24: VOX-DLY] VOX Delay

Function: Sets the number of seconds to delay turning off transmit after the VOX function no longer detects audio.

Options: OFF/1-5 (seconds)

Default: 1S

[25: TOT] Transmit Overtime Timer

Function: When the transmission time exceeds the time set by the Transmit Overtime

Timer, the unit will emit an error prompt and stop transmitting.
Options: OFF/15-900 seconds (15 second increments)
Default: 60 seconds

[26: TOA] Transmit Overtime Alarm

Function: The Transmit Overtime Alarm warns when the Transmit Overtime Timer (TOT) is about to be exceeded. The red TX indicator LED (top of the radio) flashes to indicate an alarm. The alarm can be set to a maximum time limit of 10 seconds and indicates the amount of time prior to the Transmit Overtime Timer expiring that the warning will begin.
Options: OFF/1S-10S
Default: 5S

[27: ROGER] Roger Beep

Function: Enables an audible roger beep prompt during transmission.
Options: OFF/BOT/EOT/BOTH
Default: OFF
BOT: Sets the roger beep prompt at the beginning of transmission

EOT: Sets the roger beep at the end of transmission
BOTH: Sets the roger beep at the beginning and end of transmission

[28: BEEP] Button Beeps

Function: Enables an audio prompt to alert the operator of a key press, input or fault.
Selectable: ON/OFF
Default: ON

[29: VOICE] Voice Guide

Function: Enable or disable voice prompts.
Options: OFF/ON
Default: ON

[30: BUSYLOCK] Busy Channel Lockout

Function: Enabling Busy Channel Lockout prevents the transceiver from transmitting on a selected channel while another station or group is transmitting on it.
Options: ON/OFF
Default: OFF

[31: DESCRAMB] Descrambler

Function: Activating this function will descramble incoming signals that are scrambled using one of 8 supported protocols.
Options: OFF/SCRAM 1-8
Default: OFF

[32: CH-NAME] Channel Name

Function: Allows you to edit the name for the currently active channel. To edit a channel name, press [MENU] and choose the CH-NAME option. The name of the current channel will be in edit mode and the first character will flash to indicate it is currently being edited. Press the [UP] and [DOWN] keys to select the desired character, then press the [PF2] key to move to the next position. Press the [PF1] key to move back to the previous position. When you finish editing the name, press [MENU] to save. This option is only available in Channel Mode.
Options: 8 Characters
Default: None

[33: CH-FAV] Favorite Channel

Function: Select if the current channel should be marked as a favorite. Favorite channels can be activated quickly by using the FAVORITE function. This feature is assigned to the [PF2-SHORT] key by default. Channel 19 (travel channel) is the favorite channel by default.
Options: OFF/ON
Default: OFF

[34: CH-ADD] Add Memory Channel

Function: Adds a channel to the memory channel list. Refer to the section Adding and Removing Channels (page 82) for details.
Options: None
Default: Current channel

[35: CH-DELETE] Delete Memory Channel

Function: Deletes a channel from the memory channel list. Refer to the sub-section How to Delete a Channel (page 85) for details.

Options: None
Default: Current channel

[36: SP-MUTE] Speaker Mute

Function: Speaker Mute settings
Options: QT/QT+DTMF/QT*DTMF
Default: QT
QT: All signals on the same CTCSS tone/DCS code will activate the speaker
QT+DTMF: Only those signals which include both the same CTCSS/DCS and dual-tone multi-frequency (DTMF) signal as the radio will activate the speaker.
QT*DTMF: Only those signals which have either the same QT or DTMF codes as the radio will activate the speaker.

[37: SIDETONE] Sidetone Setting

Function: Activates the Caller ID and keypad sidetone during transmission.
Options: OFF/DTMF/ID/DTMF+ID
Default: DTMF
DTMF: Activates keypad sidetone

ID: Activates Caller ID sidetone
DTMF+ID: Activates both keypad and Caller ID sidetones

[38: ALERT] Tone Alert

Function: Activates the tone alert. Some relay systems used for single-tone pulse transmissions need a single-tone pulse signal to activate.
Options: 1750Hz/2100Hz/1000Hz/1450Hz
Default: 1750Hz
Special Reminder: When in transmit mode, you can send the single-tone pulse frequency you've selected by short pressing the [PF4] key on the side of the hand microphone.

[39: ID-EDIT] Edit Radio ID

Function: Sets the numeric radio ID that is sent during transmissions if the PTT-ID menu option is enabled. This ID must be a number and contain at least 3 digits and no more than 6 digits. The first digit cannot be 0. The default is 101.
Options: 0-9

Default: 101

[40: ID-DELAY] ID Delay

Function: Determines the amount of time in milliseconds to wait before sending the PTT-ID. This only applies to the ID that is sent at the beginning of the transmission. It is ignored when PTT-ID is set to EOT (end of transmission).

Options: 100~3000ms

Default: 300ms

[41: PTT-ID] Radio ID Setting

Function: Determines if the radio will send its Radio ID during transmit, and at what point it will be sent.

Options: OFF/BOT/EOT/BOTH

Default: OFF

BOT: Radio ID will be sent at the beginning of the transmission.

EOT: Radio ID will be sent at the end of the transmission.

BOTH: Radio ID will be sent at both the beginning and end of transmission.

[42: RING] Ring Time

Function: Sets the amount of time a ring alert is emitted after receiving a DTMF tone that matches the radio ID. This is used when the SP-MUTE setting is QT+DTMF or QT*DTMF.
Options: OFF/1S-10S (seconds)
Default: 5S

[43: CALL-CODE] Select Call ID

Function: Sets Selective Group Call tones. Selective Call tones are 3 to 6 digits. Call tones can be set up through the programming software.
Options: 1-20 Groups
Default: 1

[44: STARTUP] Power On Message

Function: Select the item displayed when the radio is powered on.
Options: MESSAGE/VOLTAGE
Default: MESSAGE

MESSAGE: Customized Message
VOLTAGE: Battery voltage

[45: ST-MSG] Custom Power On Message

Function: Allows you to customize the Power On Message. To edit the message, press [MENU] and choose the ST-MSG option. The current message will be in edit mode and the first character will flash to indicate it is currently being edited. Press the [UP] and [DOWN] keys to select the desired character, then press the [PF2] key to move to the next position. Press the [PF1] key to move back to the previous position. When you finish editing the message, press [MENU] to save.
Options: 8 Characters
Default: None

[46: TIMER] Stopwatch Timer

Function: Activates the timer feature. If ON, activate the timer by short pressing [#LOCK] in standby mode.
Options: ON/OFF

Default: OFF

[47: RPT-TONE] Squelch Tone

Function: Enables or disables the squelch tail sent to the receiving radio at the end of a transmission.
Options: OFF/ON
Default: ON

[48: AUTOLOCK] Auto Lock

Function: Automatically locks the keypad after a specified time. This can be set from 10 to 60 seconds, in 10 second increments.
Options: OFF/10-60S
Default: OFF
Note: To unlock the radio, hold the [#LOCK] or [EXIT] key for 2 seconds.

[49: LOCKMODE] Lock Mode

Function: Select which keys are disabled when the radio is locked.
Options: KEY/KEY+PTT

Default: KEY
KEY: Locks all keys on the front panel and keypad except [#LOCK], [EXIT] and [PTT] keys. The Power button is not locked.
KEY+PTT: Locks all keys except [#LOCK], [EXIT] and the Power button.
Note: To lock or unlock the radio, hold the [#LOCK] or [EXIT] key for 2 seconds.

[50: DENOISE] Noise Reduction

Function: Enables or disables the voice noise reduction feature. Denoise minimizes background noise and hiss for quiet reception when listening to an incoming signal.
Options: OFF/ON
Default: OFF

[51: COMPAND] Compander

Function: The compander minimizes noise. Useful when transmitting over long distances.
Options: ON/OFF
Default: OFF

[52: PF1-SHORT] Front Key PF1 Short Press Assignment

Function: Assigns a function to the [PF1] front panel key. A function is assigned to a short button press.

Options: OFF/BACKLIGHT/BLUETOOTH/CALL/CLR-STDBY/CLR-RX/CLR-TX/DENOISE/FAVORITE/FM-RADIO/FREQ-CNT/MONITOR/REVERSE/SCAN/TALK-A/TX-POWER/VOX

Default: SCAN

[53: PF1-LONG] Front Key PF1 Long Press Assignment

Function: Assigns a function to the [PF1] front panel key. A function is assigned to a long button press.

Options: OFF/BACKLIGHT/BLUETOOTH/CALL/CLR-STDBY/CLR-RX/CLR-TX/DENOISE/FAVORITE/FM-RADIO/FREQ-CNT/MONITOR/REVERSE/SCAN/TALK-A/TX-POWER/VOX

Default: MONITOR

[54: PF2-SHORT] Front Key PF2 Short Press Assignment

Function: Assigns a function to the [PF2] front panel key. A function is assigned to a short button press.

Options: OFF/BACKLIGHT/BLUETOOTH/CALL/CLR-STDBY/CLR-RX/CLR-TX/DENOISE/FAVORITE/FM-RADIO/FREQ-CNT/MONITOR/REVERSE/SCAN/TALK-A/TX-POWER/VOX

Default: FAVORITE

[55: PF2-LONG] Front Key PF2 Long Press Assignment

Function: Assigns a function to the [PF2] front panel key. A function is assigned to a long button press.

Options: OFF/BACKLIGHT/BLUETOOTH/CALL/CLR-STDBY/CLR-RX/CLR-TX/DENOISE/FAVORITE/FM-RADIO/FREQ-CNT/MONITOR/REVERSE/SCAN/TALK-A/TX-POWER/VOX

Default: DENOISE

[56: PF3-SHORT] Front Key PF3 Short Press Assignment

Function: Assigns a function to the [PF3] front panel key. A function is assigned to a short button press.

Options: OFF/BACKLIGHT/BLUETOOTH/CALL/CLR-STDBY/CLR-RX/CLR-TX/DENOISE/FAVORITE/FM-RADIO/FREQ-CNT/MONITOR/REVERSE/SCAN/TALK-A/TX-POWER/VOX

Default: FM-RADIO

[57: PF3-LONG] Front Key PF3 Long Press Assignment

Function: Assigns a function to the [PF3] front panel key. A function is assigned to a long button press.

Options: OFF/BACKLIGHT/BLUETOOTH/CALL/CLR-STDBY/CLR-RX/CLR-TX/DENOISE/FAVORITE/FM-RADIO/FREQ-CNT/MONITOR/REVERSE/SCAN/TALK-A/TX-POWER/VOX

Default: TX-POWER

[58: PF4-SHORT] Side Key PF4 Short Press Assignment

Function: Assigns a function to the [PF4] side key. A function is assigned to a short button press.

Options: OFF/BACKLIGHT/BLUETOOTH/CALL/CLR-STDBY/CLR-RX/CLR-TX/DENOISE/FAVORITE/FM-RADIO/FREQ-CNT/MONITOR/REVERSE/SCAN/TALK-A/TX-POWER/VOX

Default: CALL

[59: PF4-LONG] Side Key PF4 Long Press Assignment

Function: Assigns a function to the [PF4] side key. A function is assigned to a long button press.

Options: OFF/BACKLIGHT/BLUETOOTH/CALL/CLR-STDBY/CLR-RX/CLR-TX/DENOISE/FAVORITE/FM-RADIO/FREQ-CNT/MONITOR/REVERSE/SCAN/TALK-A/TX-POWER/VOX

Default: VOX

[60: VOLTAGE] Voltage

Function: Displays the current battery voltage.
Options: None
Default: None

[61: FM-RADIO] FM Radio

Function: Save and recall up to 20 FM radio stations to and from memory. Refer to page 43 for more about the FM radio. Accessible only in FM Radio Mode.
Options: RECALL/MEMORY
Default: RECALL

[62: BLUETOOTH] Bluetooth Audio

Function: Enables connectivity with Bluetooth devices such as wireless headsets and earpieces. Refer to page 90 for more information about pairing the radio with a Bluetooth device.
Options: ON/OFF
Default: OFF

[63: BT-MODE] Bluetooth Mode

Function: Selects how the Push-to-Talk (PTT) function operates when a Bluetooth device is connected to the radio. Refer to page 91 for more about using Bluetooth Mode.
Options: BT-PTT/RADIO-PTT
Default: BT-PTT
BT-PTT: All audio and PTT functions for transmit and receive are controlled by the Bluetooth device.The Push-to-Talk button on the hand microphone is disabled. The speakers on the hand microphone and the radio are muted.
RADIO-PTT: The PTT buttons on both the Bluetooth device and the hand microphone are enabled. The microphone on the hand microphone is disabled. The microphone and all receive audio is active only on the Bluetooth device.

[64: SPEAKER] Speaker Setting

Function: Selects which speaker emits audio.
Options: RADIO/MIC/BOTH
Default: BOTH

RADIO: Radio Speaker
MIC: Hand Microphone Speaker

[65: RESET] Factory Reset

Function: Resets the transceiver to factory defaults.
Options: VFO/ALL
Default: VFO
VFO: Resets function settings to factory defaults but retains channel parameters.
ALL: Resets all of the function settings and channel parameters to factory defaults.

Setting Non-Standard CTCSS or DCS

How to Set Non-Standard CTCSS

The KG-XS30G supports non-standard CTCSS codes in the range of 65.0-255.0Hz with a minimum spacing of 0.1Hz.

After selecting the CTCSS menu setting (RX-CTCSS or TX-CTCSS), enter the desired CTCSS code via the keypad on the hand microphone and then press [MENU] to confirm.

For example, to set the receiving CTCSS tone to 100.5Hz:

In standby, press [MENU] + [9], the screen will display: RX-CTCSS, press MENU, and input [1] + [0] + [0] + [5], then press [MENU] to confirm, and [EXIT] to return to standby.

How to Set Non-Standard DCS

The KG-XS30G supports non-standard DCS codes ranging from 000-766, except any

code with the digit 8 or 9. For example, 680 or 719 is not a legitimate non-standard DCS code.

After setting a non-standard DCS code, press the [LOCK] key to set it as a Positive or Negative code, or press the [SCAN] key to select OFF.

After selecting the DCS menu setting (RX-DCS or TX-DCS), enter the desired DCS code from the keypad on the hand microphone, press [LOCK] to select the Positive or Negative code, and then press MENU to confirm.

Example 1: Set the receive DCS as D105N

In standby, press [MENU] + [1] + [0] and the screen will display: RX-DCS. Press [MENU] and input [1] + [0] + [5], then press [LOCK] to select the Positive code. The screen will display D105N. Press [MENU] to confirm, and then press [EXIT] to return to standby.

Example 2: Set the receive DCS as D105I

In standby, press [MENU] + [1] + [0] and the screen will display: RX-DCS. Press

[MENU] and input [1] + [0] + [5], then press [LOCK] to select the Negative code. The screen will display D105I. Press [MENU] to confirm, and then press [EXIT] to return to standby.

Adding and Removing Channels

The KG-XS30G allows you to add and delete channels directly from the keypad of the hand microphone using the CH-ADD and CH-DELETE options in the menu. New channels can be created from scratch in Frequency mode or cloned from existing channels in Channel mode.

How to Clone an Existing Channel

When creating a new channel, it is often easier to start by cloning an existing channel. This is particularly true with GMRS repeater channels. To clone an existing channel:

1. Be sure that your radio is in Channel mode by using the WORK-MODE menu option (page 54).

2. Tune to the channel that you would like to clone.

3. Press [MENU] + [3] + [4] to enter the CH-ADD function.

4. Press the [UP] and [DOWN] keys to select an available channel number or type the number into the keypad, then press [MENU] to save it and return to standby mode. Channels that are unassigned or available to program will have the letter N next to the channel number.

Channel name and channel scan settings will not be cloned. To modify settings for the cloned channel, select the channel and then use the menu settings to select the options you wish to change.

How to Add a Channel in Frequency Mode

New channels can also be created from scratch, including "Receive-Only" channels. To create a new channel:

1. Be sure that your radio is in Frequency mode by using the WORK-MODE menu option (page 54).

2. Tune to the desired channel by entering the receive frequency.

3. Update any settings that you would like applied to the channel by updating the menu options.

4. Once the frequency is working as desired, save the new channel by pressing [MENU] + [3] + [4] to enter the CH-ADD function.

5. Press the [UP] and [DOWN] keys to select an available channel number or type the number into the keypad, then press [MENU] to save it and return to standby mode. Channels that are unassigned or available to program will have the letter N next to the channel number.

For example, to save a GMRS channel in Frequency mode with a 462.550 frequency and a 67.0 receive CTCSS tone:

1. While in Frequency mode, tune to the frequency 462.550 or type it into the radio from the keypad, press [MENU] + [9] to enter the Receive CTCSS setting, press [UP] / [DOWN] to select the 67.0 tone, and then press [MENU] to confirm.

2. Press [MENU] + [3] + [4] to enter the CH-ADD function, press the [UP] and [DOWN] keys to select an available channel, then press [MENU] to save it and return

to standby mode.

How to Delete a Channel

1. Select the CH-DELETE menu option (page 65) by pressing [MENU] + [3] + [5], and then press [MENU] to confirm.

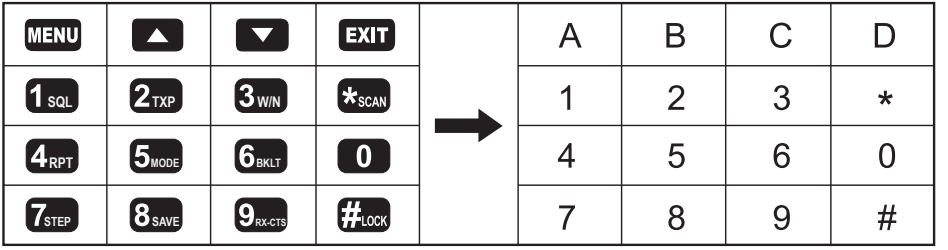
2. Press the [UP] and [DOWN] keys to select the desired channel number, then press [MENU] to delete it and return to standby mode.

DTMF Encoding

The KG-XS30G features dual-tone multi-frequency (DTMF) encoding. This enables the radio to perform a number of useful signaling operations.

Using the DTMF Keypad

The KG-XS30G has a full function DTMF keypad on the hand microphone. While pressing the [PTT] key to transmit, press the key on the keypad that corresponds to the DTMF tone that you wish to send. The number keypad on the radio corresponds to DTMF codes as follows:



Sending a Radio ID

The KG-XS30G is capable of automatically sending a radio ID number using DTMF functionality. When activated, the radio ID will be sent during a transmission. When the radio ID is transmitted, radios capable of displaying a radio ID will typically show the ID number on the display while receiving the transmission. A radio ID could be referred to as an ANI or a PTT ID.

The KG-XS30G has three menu options to configure the radio ID: PTT-ID (page 68), ID-EDIT (page 67), and ID-DELAY (page 68).

To set a radio ID, press [MENU] + [3] + [9]. The screen will display: ID-EDIT (page 67). Press [MENU], use the keypad to enter the Radio ID, then press [MENU] to confirm and [EXIT] to return to standby.

To transmit the radio ID, press [MENU] + [4] + [1]. The screen will display: PTT-ID (page 68). Press [MENU], choose whether to transmit the ID at the beginning of transmission (BOT), end of transmission (EOT), or both beginning and end (BOTH). Press [MENU] to confirm and [EXIT] to return to standby.

You can delay transmission of the radio ID for a specific time using the ID-DELAY menu option (page 68). This delay time can be set to one of 30 levels in 100ms increments.

Calling a specific radio using an ID

The KG-XS30G also supports the ability to call another radio directly, using its Radio ID. To enable this function, you must activate and configure all radios in your fleet to transmit the Radio ID (see Sending a Radio ID on page 87) and select either the QT+DTMF or QT*DTMF filter option in SP-MUTE (page 66).

To call a specific radio, you must know its radio ID. After pressing PTT and allowing your radio time to transmit its radio ID, use a PF key (see Transmitting DTMF Tones on page 89) to send the pre-programmed radio ID that you are calling or enter the radio ID manually using the keypad while holding PTT. Enter the # symbol after the ID when the ID is shorter than six digits.

Once a KG-XS30G receives a DTMF signal matching its radio ID, it will play a ring sound and then open the speaker to allow the incoming transmission to be heard. The

length of the ring sound can be set using the RING menu option or in the programming software.

Up to 20 Radio IDs can be assigned using the programming software.

Transmitting DTMF Tones

The KG-XS30G provides a way to send pre-configured Call Codes via a programmable function (PF) key. First, assign the PF key to the CALL option (pp. 73-76). The programming software allows the defining of up to 20 Call Codes.

Pressing the assigned CALL key will transmit the Call Code defined using the CALL-CODE menu item (page 69). There is no need to hold the PTT while pressing the CALL key.

Custom DTMF tones can be transmitted using the keypad while holding the PTT (see Using the DTMF Keypad on page 86).

Alert Tone (Single-Tone Pulse Frequency)

Some repeaters require a tone burst to be transmitted to signal the repeater to transmit. This is not often used in the United States and is more common in Europe.

The KG-XS30G supports this functionality. Use the ALERT menu option (page 67) to select the specific hertz of the tone that is needed (1750Hz is most common and is the default). To send the tone, press the [PF4] side key while transmitting.

Bluetooth Function

The KG-XS30G allows you to connect the radio to Bluetooth audio devices such as earpieces, headsets and speakers.

How to Connect a Bluetooth Device

To connect a device, press [MENU] + [6] + [2] to enter the BLUETOOTH menu option (page 77), press the [UP] and [DOWN] keys to select ON, then press [MENU] to save it and return to standby mode. The Bluetooth function will be active for approximately one minute while waiting for a device to pair.

If no Bluetooth device is detected or connected during this time, detection will end and the Bluetooth function will automatically turn off. To re-enable it, go back into the BLUETOOTH menu option and turn it back on.

When a Bluetooth device is connected to the radio, it will remain connected until the Bluetooth function is powered off. When the radio is powered off while a Bluetooth device is connected, it will automatically attempt to reconnect to the device the next time it is powered on. Allow 5-10 seconds for the radio to connect before attempting to use the Bluetooth device.

Using Bluetooth Mode

The KG-XS30G allows you to choose the method of operation with third party Bluetooth devices, such as earpieces and headsets. The BT-MODE menu option (page 78) determines which Push-to-Talk (PTT) button is assigned to function once a Bluetooth device is connected. In both settings, your voice is carried by the microphone on the Bluetooth device. The microphone on the hand microphone is disabled and the speakers on both the hand microphone and radio are disabled. The audio is heard only through the Bluetooth device.

A Bluetooth device must be connected before the BT-MODE setting has any effect. (See How to Connect a Bluetooth Device on page 90). If no device is connected, the radio continues to operate normally through the hand microphone and radio speaker, and the BT-MODE setting is ignored.

To select a Bluetooth Mode, press [MENU] + [6] + [3] to enter the BT-MODE menu option, press the [UP] and [DOWN] keys to choose BT-PTT or RADIO-PTT, then press [MENU] to save your selection and return to standby mode.

Choose BT-PTT for full Bluetooth operation. Press the PTT button on the Bluetooth device to transmit and listen through that device. The PTT button on the hand microphone is disabled, and the speakers on the hand microphone and the radio are muted.

Choose RADIO-PTT when you want to use the PTT on the hand microphone while still talking and listening through the Bluetooth device. The PTT buttons on both the Bluetooth device and the hand microphone will key the radio. However, your voice is still transmitted through the microphone of the Bluetooth device and all received audio is still heard through the Bluetooth device.

Important!

Some Bluetooth devices without a dedicated PTT function may be able to key the radio using the call/control button on the device. Depending on the design of such a device, the radio may remain keyed until the button is pressed again to release the PTT.

Troubleshooting

Before assuming your KG-XS30G is defective, please check the following list of possible problems and solutions. The RESET option provided in the menu can be used to restore factory standard settings and programming, and will often solve issues.

Problem	Solution
Receive indicator is on but no sound is heard	■ Check volume level. ■ Disable CTCSS/DCS or be sure setting matches incoming transmission. ■ Check squelch settings.
Keypad is unresponsive	■ Check if keypad has been locked. ■ Check if other keys are currently pressed.
Unwanted interference is being received	■ Enable CTCSS or DCS tone to filter out unwanted transmissions. ■ Use a different channel.
Voice pauses every 3 seconds	Check if the Priority Scan is active.

Problem	Solution
Cannot activate Scan	Check if the scan group channel or Scan Add function is turned on.
Cannot power on	■ Check that the radio is properly wired and grounded to the vehicle. ■ Check that the vehicle ignition switch is on.
Transceiver automatically turns off	Check if your power source is below 9.5 volts.

Specifications

Entire Radio	
Frequency Range	RX: 400-480 MHz (UHF) RX: 76-108 MHz (FM Radio) TX: GMRS Frequencies
Memory Channels	400
Work Mode	F2D / F3E
Work Temperature	-20°C~50°C / -4°F~122°F
Antenna Impedance	50Ω
Voltage	13.8VDC
Weight	22.39oz / 635g
Size	2.16 × 4.72 × 4.7 (in) / 55 × 120 × 119.5 (mm)

Receiver	*Wide Band*	*Narrow Band*
Adjacent Channel Selectivity	≤70dB	≤60dB
Modulation	16K F3E	11K F3E
Spurious Response	≤70dB	≤70dB
Audio Response	+1~3dB (0.3~3KHz)	+1~3dB (0.3~2.55KHz)
Audio Distortion	≤5%	
Sensitivity	0.25μV (12dB SINAD)	
Audio Power	Main Unit: 3W Hand Mic: 1W	

Transmitter	*Wide Band*	*Narrow Band*
Adjacent Channel Power	≤70dB	≤60dB
Spurious	≥60dB	≥60dB
Max Deviation	±5KHz	±2.5KHz
Audio Response	+1~3dB (0.3~3KHz)	+1~3dB (0.3~2.55KHz)
Frequency Stability	±2.5 ppm	
Audio Distortion	≤5%	
Output Power	5W/20W	

Standard CTCSS and DCS Tones

The following is a list of the standard CTCSS and DCS tones supported by the KG-XS30G. Many FRS or GMRS radios display a number instead of a specific tone. The number to the left of the tone matches what is used by most manufacturers.

CTCSS

1	67.0	11	94.8	21	131.8	31	171.3	41	203.5
2	69.3	12	97.4	22	136.5	32	173.8	42	206.5
3	71.9	13	100.0	23	141.3	33	177.3	43	210.7
4	74.4	14	103.5	24	146.2	34	179.9	44	218.1
5	77.0	15	107.2	25	151.4	35	183.5	45	225.7
6	79.7	16	110.9	26	156.7	36	186.2	46	229.1
7	82.5	17	114.8	27	159.8	37	189.9	47	233.6
8	85.4	18	118.8	28	162.2	38	192.8	48	241.8
9	88.5	19	123.0	29	165.5	39	196.6	49	250.3
10	91 5	20	127 3.	30	167.9	40	199.5	50	254.1

DCS codes ending in *N* are positive. Negative DCS codes end in *I*. The KG-XS30G includes 105 positive and 105 negative codes.

DCS

1	D023N	16	D074N	31	D165N	46	D261N	61	D356N	76	D462N	91	D627N
2	D025N	17	D114N	32	D172N	47	D263N	62	D364N	77	D464N	92	D631N
3	D026N	18	D115N	33	D174N	48	D265N	63	D365N	78	D465N	93	D632N
4	D031N	19	D116N	34	D205N	49	D266N	64	D371N	79	D466N	94	D645N
5	D032N	20	D122N	35	D212N	50	D271N	65	D411N	80	D503N	95	D654N
6	D036N	21	D125N	36	D223N	51	D274N	66	D412N	81	D506N	96	D662N
7	D043N	22	D131N	37	D225N	52	D306N	67	D413N	82	D516N	97	D664N
8	D047N	23	D132N	38	D226N	53	D311N	68	D423N	83	D523N	98	D703N
9	D051N	24	D134N	39	D243N	54	D315N	69	D431N	84	D526N	99	D712N
10	D053N	25	D143N	40	D244N	55	D325N	70	D432N	85	D532N	100	D723N
11	D054N	26	D145N	41	D245N	56	D331N	71	D445N	86	D546N	101	D731N
12	D065N	27	D152N	42	D246N	57	D332N	72	D446N	87	D565N	102	D732N
13	D071N	28	D155N	43	D251N	58	D343N	73	D452N	88	D606N	103	D734N
14	D072N	29	D156N	44	D252N	59	D346N	74	D454N	89	D612N	104	D743N
15	D073N	30	D162N	45	D255N	60	D351N	75	D455N	90	D624N	105	D754N

Default GMRS Channels and Frequencies

Simplex Channels

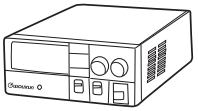
Ch.	Name	Frequency	Power
001	GMRS-01	462.5625	5W
002	GMRS-02	462.5875	5W
003	GMRS-03	462.6125	5W
004	GMRS-04	462.6375	5W
005	GMRS-05	462.6625	5W
006	GMRS-06	462.6875	5W
007	GMRS-07	462.7125	5W
008	GMRS-08	467.5625	RX Only
009	GMRS-09	467.5875	RX Only
010	GMRS-10	467.6125	RX Only
011	GMRS-11	467.6375	RX Only

Ch.	Name	Frequency	Power
012	GMRS-12	467.6625	RX Only
013	GMRS-13	467.6875	RX Only
014	GMRS-14	467.7125	RX Only
015	GMRS-15	462.5500	20W
016	GMRS-16	462.5750	20W
017	GMRS-17	462.6000	20W
018	GMRS-18	462.6250	20W
019	GMRS-19	462.6500	20W
020	GMRS-20	462.6750	20W
021	GMRS-21	462.7000	20W
022	GMRS-22	462.7250	20W

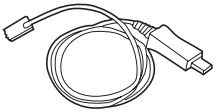
Repeater Channels

Ch.	Name	Receive Frequency	Transmit Frequency	Max Power
023	RPT-15	462.5500	467.5500	20 Watts
024	RPT-16	462.5750	467.5750	20 Watts
025	RPT-17	462.6000	467.6000	20 Watts
026	RPT-18	462.6250	467.6250	20 Watts
027	RPT-19	462.6500	467.6500	20 Watts
028	RPT-20	462.6750	467.6750	20 Watts
029	RPT-21	462.7000	467.7000	20 Watts
030	RPT-22	462.7250	467.7250	20 Watts

Optional Accessories



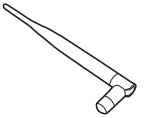
Switching Power Supply (30A)



USB Programming Cable

Mobile Speaker / Mic

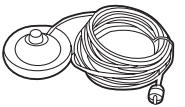
Omni-antenna



Omni-antenna

Directional-Antenna

Clamp Mount



Strong Magnetic Mount

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We warrant this product against defects in material and workmanship as follows:

Radio and its original primary components for a period of one (1) year from date of purchase.

Accessories (including battery, charger, belt clip, antenna, hand microphone, mobile mount, etc.) for a period of six (6) months from date of purchase.

This warranty is limited to the repair and replacement of the defective components and is not valid if the radio has been tampered with, misused, abused, used with unapproved accessories, subjected to unauthorized disassembly, unauthorized repair, replacement of unauthorized parts, unavoidable conditions, human destruction, water damage or environmental damage. This warranty is void if the serial number is defaced or altered.

If service, repair or replacement is required within the warranty period, such repair or replacement will be made free of charge by the dealer through whom the equipment was purchased. If the owner requires any service or repair from any dealer through whom the equipment was not purchased, the cost of repair must be made by the owner.

This warranty is valid for the original purchaser or owner of the product and is not

transferable.

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Note: Product features, specifications and warranty terms are subject to revision by the manufacturer without notice. We are not responsible for unintentional errors or omissions on product packaging.

Version: KG-XS30G-2606-V2