

# GENOAK Wouxun KG-805G Quick Reference

Version 1.8 | 3/9/2022

This Quick Reference summarizes the use of the Wouxun KG-805G GMRS radio (“Wouxun”) programmed for the GENOAK (GMRS Emergency Network – Oakland) network. Refer to the GENOAK Wouxun KG-805G User’s Guide below for more radio details, and visit: [www.genoak.org/](http://www.genoak.org/).

## What is GENOAK?

GENOAK is a community emergency 2-way radio communications network for Oakland and nearby areas, utilizing GMRS (General Mobile Radio Service) radios.

## Why would I use GENOAK?

During and after an emergency the GENOAK radio network can allow individuals and communities to connect with each other to report on threats and incidents, provide status updates, share resources, mobilize volunteers, coordinate needed assistance and locate others, among other tasks.

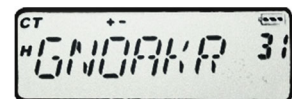
## When would I use GENOAK?

The GENOAK network is meant to be used mainly during and after an emergency. It can also be used at other times for practice check-ins, during exercises and for other preparedness activities.

## How do I use GENOAK?

You may listen and talk over the GENOAK emergency network by using the channel labeled **GENOAKR 31** (Channel 31) on the Wouxun. To do so, follow these steps:

- Turn on the radio with the top right knob. Turn the top middle knob to set the channel to **GENOAKR 31**. The display should look like this ==>
- To talk, press and hold the large Push-to-Talk (PTT) button on the left side. Wait a moment and then identify yourself with your GMRS call sign. Note that only one person can talk at a time so please allow others the opportunity to transmit their message without interruption.
- When finished talking, wait a moment and then release the PTT button to listen.



## What else do I need to know?

- **You must have an FCC GMRS license and call sign to talk on the GENOAK network.** Refer to <http://www.genoak.org/communications/> for instructions to obtain your FCC license/call sign.
- Say your GMRS call sign when you first start talking, and about every 15 minutes thereafter.
- Please only use the GENOAK network for emergency or preparedness related communications.
- If the network is being managed by a Net Control operator, follow their instructions.
- Remember that **many** others may be listening to your conversation – please use discretion with what you say and never provide any sensitive or confidential information over the network.

# GENOAK Wouxun KG-805G User's Guide

Version 1.8 | 3/9/2022

This guide provides detailed information on the use of the Wouxun KG-805G radio ("Wouxun") recommended by the GENOAK (GMRS Emergency Network – Oakland) program: [www.genoak.org/](http://www.genoak.org/)

The Wouxun is a GMRS (General Mobile Radio Service) 2-way radio ("walkie-talkie"). GENOAK is a community emergency radio network operated by the Oakland Firesafe Council's Oakland Community Preparedness & Response (OCP&R) program: [www.oaklandcpandr.org/](http://www.oaklandcpandr.org/)

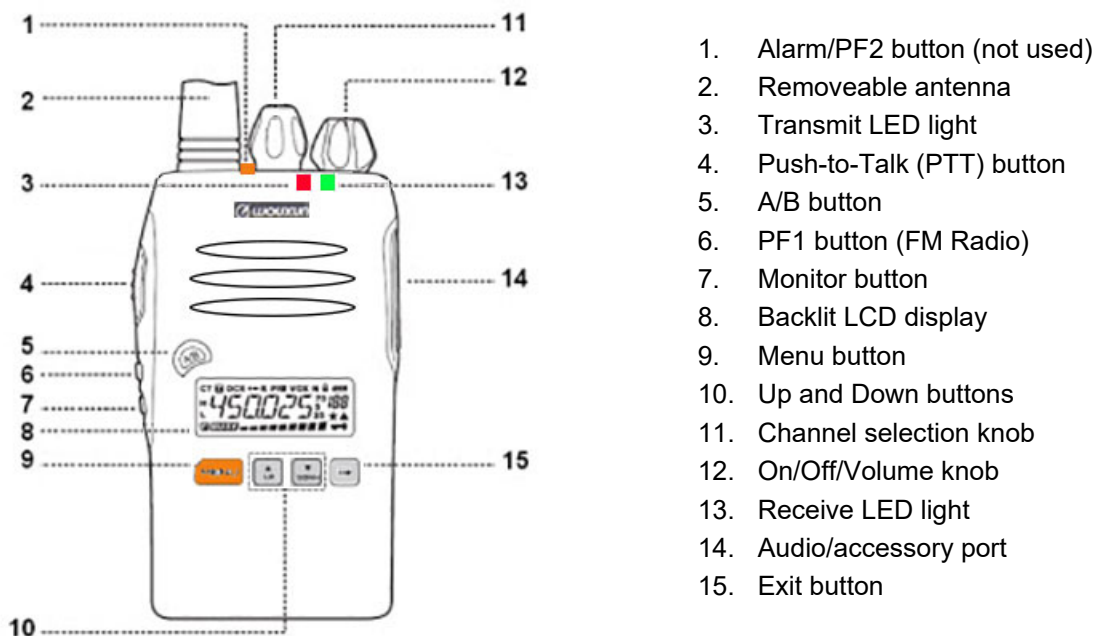
GENOAK utilizes a GMRS repeater that provides the ability for 2-way GMRS radios such as the Wouxun to communicate over greater distances and around obstacles such as terrain, foliage and infrastructure that may otherwise hinder signals. For more info, visit: [www.genoak.org/repeater/](http://www.genoak.org/repeater/)

**Note that a GMRS license and call sign from the FCC are required to talk on the GENOAK network.** Immediate family members may share one license and call sign. For more information on obtaining your GMRS license and call sign, visit: [www.genoak.org/communications/](http://www.genoak.org/communications/)

## Radio Functions and Buttons

Throughout this Guide the described radio functions and buttons reference the diagram below. Note that the default radio configuration in this Guide is for a Wouxun KG-805G radio programmed by GENOAK. If GENOAK did not program your radio, then your configuration settings may be different.

**Be sure that the Antenna [2] is firmly attached before using the radio**



## Turning the Radio On/Off and adjusting the Volume

To turn on the radio, turn the On/Off/Volume knob [12] clockwise (looking from the top). The LCD display [8] will briefly show the battery voltage while the speaker “double-beeps” twice. The battery ranges from ~8.2V when full to ~6.1V when empty, depending on its size and other factors.

The current channel name (e.g. **GNOAKR**) and number (e.g. **31**, on the right side) are displayed.

To increase the speaker volume turn the knob further clockwise. To test the volume setting, press the Monitor button [7]. To turn off the radio, turn the knob [12] counter-clockwise past the “click.”

The backlight will come on whenever a button is pressed or a knob is turned.

## Selecting a Channel

To select a channel, turn the center Channel knob [11] in either direction to move up or down through the list of channels, or press an Up or Down button [10]. To move quicker through the list hold an Up or Down button down. The GENOAK emergency network channel is **GNOAKR 31** (Channel 31).

## Transmitting

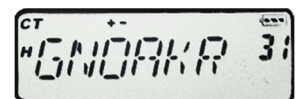
To transmit (talk) on the selected channel, first check that no one else is talking. Then press and hold the Push-To-Talk (PTT) button [4], wait a moment, and then speak. Hold the radio about 6 inches from your mouth and talk at a normal volume. When finished speaking, wait a moment before releasing the PTT button. Pause between transmissions to allow others to join the conversation.

**You should begin every transmission by stating your GMRS call sign, and repeat your call sign every 15 minutes or so during a long conversation.**

## When and How to Use the Radio in an Emergency

The GENOAK network is designed to enable communications between individuals and communities. During or after an emergency, the radio can be used to connect with other community group(s) nearby or further away to report on incidents, provide status updates, share resources, mobilize volunteers and coordinate needed assistance, among many other tasks. It can also be used to connect separated family members. For additional uses, visit: [www.genoak.org/use/](http://www.genoak.org/use/)

**During or after an emergency you should turn the radio on and select the GENOAK repeater channel **GNOAKR 31**.** Listen for any “traffic.” If you don’t hear anything, you can **state your GMRS call sign** and ask if anyone else is listening. If so, you can share information as appropriate. Only one person can talk at a time so if someone is already talking, please wait for a break in the conversation to jump in.



At some point, as more radio operators join in, there needs to be some control over who is transmitting. Otherwise, everyone may be trying to talk at the same time. This is called a Directed Net and the person directing the conversations is called the Net Control Operator. For more information on a Directed Net, visit: [www.genoak.org/communications/](http://www.genoak.org/communications/)

You can also monitor (listen to) the other local Bay Area repeater channels listed below; for example, Oakland’s emergency RACES Amateur/Ham network on channel **RACESR 38**. You can also use the radio to talk directly with others on a community FRS channel as noted below.

## Channels

The Federal Communications Commission (FCC) defines 22 standard FRS/GMRS channels, plus 8 channels for GMRS repeaters. The first 30 channels on the Wouxun follow this standard and are named **GMRS01 – GMRS22** and **RPTR15 – RPTR 22** respectively. These are stored in the radio as shown in the channel list below, which also notes the radio frequency for each channel.

GENOAK programs additional repeater channels **31 – 39** as noted below. These are set to the correct access codes that make it possible to transmit and receive through each repeater.

Num	Frequency	Name	Num	Frequency	Name	Num	Frequency	Name
1	462.562500	GMRS01	14	467.712500	GMRS14	27	462.650000	RPTR19
2	462.587500	GMRS02	15	462.550000	GMRS15	28	462.675000	RPTR20
3	462.612500	GMRS03	16	462.575000	GMRS16	29	462.700000	RPTR21
4	462.637500	GMRS04	17	462.600000	GMRS17	30	462.725000	RPTR22
5	462.662500	GMRS05	18	462.625000	GMRS18	31	462.600000	GNOAKR
6	462.687500	GMRS06	19	462.650000	GMRS19	32	462.625000	GNOAKS
7	462.712500	GMRS07	20	462.675000	GMRS20	33	462.725000	BCRTNR
8	467.562500	GMRS08	21	462.700000	GMRS21	34	462.725000	BCRTNB
9	467.587500	GMRS09	22	462.725000	GMRS22	35	462.675000	MORAGR
10	467.612500	GMRS10	23	462.550000	RPTR15	36	462.700000	ORINDR
11	467.637500	GMRS11	24	462.575000	RPTR16	37	462.725000	LAFAYR
12	467.662500	GMRS12	25	462.600000	RPTR17	38	462.650000	GRZPKR
13	467.687500	GMRS13	26	462.625000	RPTR18	39	442.400000	RACESR

The added repeater channels **31 – 39** on the Wouxun are as follows:

- GNOAKR 31** – GENOAK emergency network repeater that covers Oakland, Piedmont, Alameda, Berkeley and other nearby cities
- GNOAKS 32** – GENOAK “simplex” channel (standard GMRS Channel 18); this channel can be used for radio-to-radio communications if the repeater is not working
- BCRTNR 33** – Berkeley’s BeCERTAINN GMRS emergency network repeater covers Berkeley, Emeryville, Albany, Richmond and other nearby cities including Oakland ([www.becertainn.org/](http://www.becertainn.org/))
- BCRTNB 34** – Berkeley’s BeCERTAINN backup GMRS emergency network repeater
- MORAGR 35** – Moraga’s GMRS repeater (LaMorinda CERT)
- ORINDR 36** – Orinda’s GMRS repeater (LaMorinda CERT)
- LAFAYR 37** – Lafayette’s GMRS repeater (LaMorinda CERT)
- GRZPKR 38** – Grizzly Peak (Oakland) GMRS repeater, can be used for both emergency and general communications

**RACESR 39** – Oakland’s RACES (Radio Amateur Civil Emergency Service) repeater; this is an official Amateur/Ham radio network that may be activated in an emergency. Note that this is a monitor-only channel on the Wouxun and you cannot transmit on it.

There are other GMRS repeaters in the area (San Francisco, Richmond, etc.) that can be added at any time. For a list of other GMRS repeaters, visit: [www.mygmrs.com/](http://www.mygmrs.com/)

## Other Radio Features

To turn on the FM radio, press the PF1 button [6]. To change to the next higher station press the A/B button [5] or use the Channel knob [11]. If there is traffic on the current channel then the radio will automatically switch back to that channel. To turn the FM radio off, press PF1 button [6] again.

To scan through the list of channels, press and hold the A/B button [5] for 2 seconds. If there is “traffic” on any channel, the scan will stop to monitor that channel, then will continue scanning. To stop scanning, press the A/B button [5] again.

The Menu button [9] and Exit button [15] are used to make changes to the radio configuration or stored channels. Refer to the Owner’s Manual or contact GENOAK for more information.

## Family Radio Service Use

FRS (Family Radio Service) channels 01 – 22 are the same as GMRS channels GMRS01 – GMRS22 (GMRS allows for more transmit power on some of these channels).

Therefore, if your community uses FRS radios to communicate among individuals, you can use the Wouxun KG-805G radio on the same community channel number to talk with them.

If your community uses FRS “Privacy Codes” (“Interference Eliminator Codes” or PL/CTCSS tones) then you will have to program the Wouxun using the Menu [9] function to the corresponding tone for your community channel – contact GENOAK if you need assistance.

**Note that an FRS radio can listen to (but not talk on) GENOAK on Channel 17 (462.600 MHz).**

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You are encouraged to check-in to the GENOAK repeater channel **GNOAKR 31** on the first Tuesday of the month at 7:00pm Pacific. This is a Directed Net and you can observe how it works and practice checking in and talking with others. Occasionally a simulated emergency exercise may take place during the check-in net. For more information, visit: [www.genoak.org/check-in/](http://www.genoak.org/check-in/)

Please limit use of the GENOAK network to check-ins, preparedness-related activities, sanctioned events and actual emergencies. Please do not share the repeater codes without permission. Note that any conversation on a radio channel may be heard by many people. Thank you.



# 2-Way Radio Communication Protocols

## General Radio Communication Guidelines (“Golden Rules”)

1. Clarity: Your voice should be clear. Speak a little slower than normal. Speak in a normal tone, do not shout.
2. Simplicity: Keep your message simple enough for intended listeners to understand.
3. Brevity: Be concise and to the point.
4. Security: Do not transmit sensitive or confidential information on a radio. Remember, channels/frequencies are shared and anyone may be listening to your transmission!

## Think Before Speaking

- ⇒ Determine in advance what you are going say and who it is meant for.
- ⇒ Avoid long and complicated sentences. If your message is long, divide it into separate, shorter messages. Note that long messages may be cut-off by the repeater or radio timing-out. Remember to pause between transmissions to give others a chance to join the conversation.

## Initiating a Call on the Radio

1. First, listen to ensure the channel is clear for you to transmit.
2. Press the PTT (Push-To-Talk) button and wait a moment.\*
3. Say recipient's call sign or tactical ID followed by *"this is"* and your call sign or tactical ID.
4. Once the recipient replies, convey your message.
5. When finished speaking, wait a moment before releasing the PTT button.\*

\* Steps 2. and 5. are important for **every** transmission because if one starts speaking too quickly after pressing the PTT button, or one releases the PTT button too quickly at the end of the message, the message can be cut off and not understood and then may have to be repeated. This occurs due to the natural delay of the radio signal being sent and received. Waiting a second or two will prevent this.

## Example Radio Conversation

You: *"Whiskey Foxtrot Oscar Golf 1 2 3, this is Whiskey Oscar Alpha Kilo 9 8 7"*  
(WFOG123 is their call sign, WOAK987 is your call sign) \*

Recipient: *"WOAK987, this is WFOG123, go ahead"* (or you can abbreviate the call sign as in *"987, this is 123, go ahead"*)

You: Say your message

Recipient: Respond to the message

You: *"Whiskey Oscar Alpha Kilo 9 8 7, out (or clear)"*

Recipient: *"Whiskey Foxtrot Oscar Golf 1 2 3, out (or clear)"*

\* You aren't required to use phonetics (Whiskey, Foxtrot...), but it is good radio protocol when first announcing your call sign so that others can understand the letters. <https://bit.ly/31OAUeD>

## Emergency Messages

If you have an emergency message and need to interrupt a conversation taking place:

- ⇒ Listen for a pause in the conversation.
- ⇒ Press the PTT button, wait a moment and say “*Break*” or “*Emergency traffic*” followed by your call sign.
- ⇒ Wait to be acknowledged and then transmit your emergency message.

## Radio Terminology

While it is advisable not to use abbreviations or codes (e.g. “10-4”) when using the radio, there are some common radio terms that are generally used and understood, including:

Term	Meaning
Affirmative	Yes (avoid "Yup" or "Yeah" as they can be difficult to understand)
Negative	No (avoid “Nope” or “Nah” as they can be difficult to understand)
Come In	Please acknowledge that you hear me
Copy	I understand (avoid “Roger” or “10-4”)
Traffic/Message	Transmissions (communications) sent over the radio, i.e. “ <i>I have traffic</i> ”
Go Ahead/Come Now	I am ready to receive your message
Stand-by/Wait	Hold on, I acknowledge you but I am unable to respond immediately
Say Again/Come Again	Re-transmit (repeat) your message
Over	My transmission is finished, over to you *
Monitoring/Listening	My conversation is finished but I will be monitoring the channel
Out/Clear	My conversation is finished and I am leaving the channel **
Break/Emergency	I am interrupting communications or have an emergency message
Repeat	To repeat something, i.e. “ <i>I require 3, repeat 3, people to help me</i> ”
Radio Check	Can you hear me and what is my signal strength?
Loud and Clear/S1 – S9	Response to "Radio Check", S1 (weak/unclear) to S9 (strong/clear)

\* many radios and repeaters provide an audible click or beep tone when the PTT button is released after a transmission, and therefore “Over” may not need to be said each time.

\*\* While “Over and Out” is sometimes said, it can be confusing. That phrase means “Over to you” for more conversation, but at the same time “My conversation is finished and I am leaving.” It’s best to use “Over” (if necessary) and then “Out” or “Clear” separately when leaving the channel or turning off the radio.

GENOAK: [www.genoak.org](http://www.genoak.org)

OCP&R: [www.oaklandcpandr.org](http://www.oaklandcpandr.org) | Oakland Firesafe Council: [www.oaklandfiresafecouncil.org/](http://www.oaklandfiresafecouncil.org/)  
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