

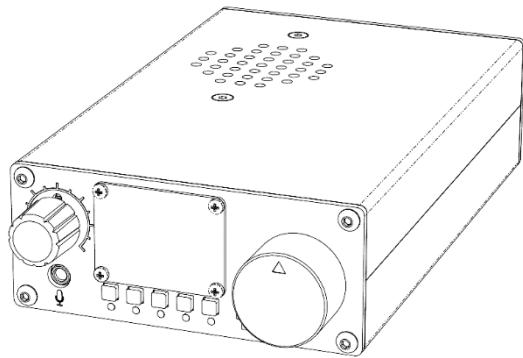
XIEGU

G-CORE

HF Four Band Portable SDR Transceiver

G1M

Operation Manual



V2.0- beta ver

The new generation G1M (SDR version) is a 5W portable QRP model with SDR structure. Its core is based on 16bit-CODEC sampling and has excellent performance. The newly added AM broadcast reception capability allows you to listen to news broadcasts from around the world; the 800Hz narrowband CW digital filter makes transmission easier and clearer.

As an entry-level SDR portable, G1M (SDR version) will provide you with as many new technology experiences as possible.

Basic Features:

High performance SDR core circuit design

New spectrum display function

Added AM broadcast receiving mode

Added CW Trainer function (supports full insertion)

Adaptive speech noise reduction

HF continuous reception

Support for amateur data communication

Support computer online control

In order to better experience the Rig, please read this manual carefully before use to fully understand the operation of G1M.

面板按键

1 Power switch / volume

- Rotate the switch to turn the device on or off;
- After turning the power on, turn the switch knob to increase or decrease the volume of the device.

2 MIC interface

External mic interface

3 Multi-function button

Menu functions for the screen;

4 LOCK Lock button

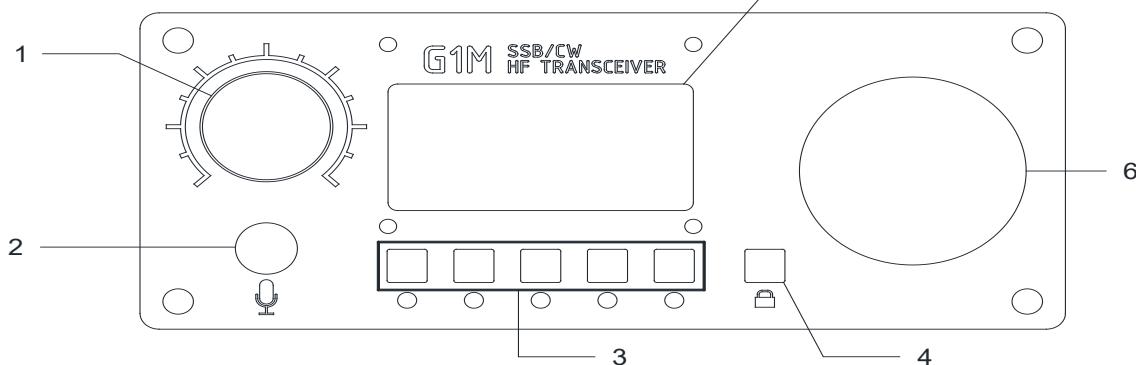
- Light press this button to switch the current menu page;
- Hold press the button for 2s to lock the button operation.

5 Display screen

OLED Display screen

6 Frequency knob

- Rotate this knob to change the current frequency value;
- Light press this knob to turn the current function menu.



7 Antenna interface

BNC model, impedance 50Ω.

8 ACC interface

Output band voltage signal and PTT signal. See below.

9 COMM interface

PC Communication interface / firmware upgrade interface

10 KEY interface

This interface is a 3.5mm stereo jack (3-pin) for connecting manual or automatic telegraph keys.

11 SPK External speaker interface

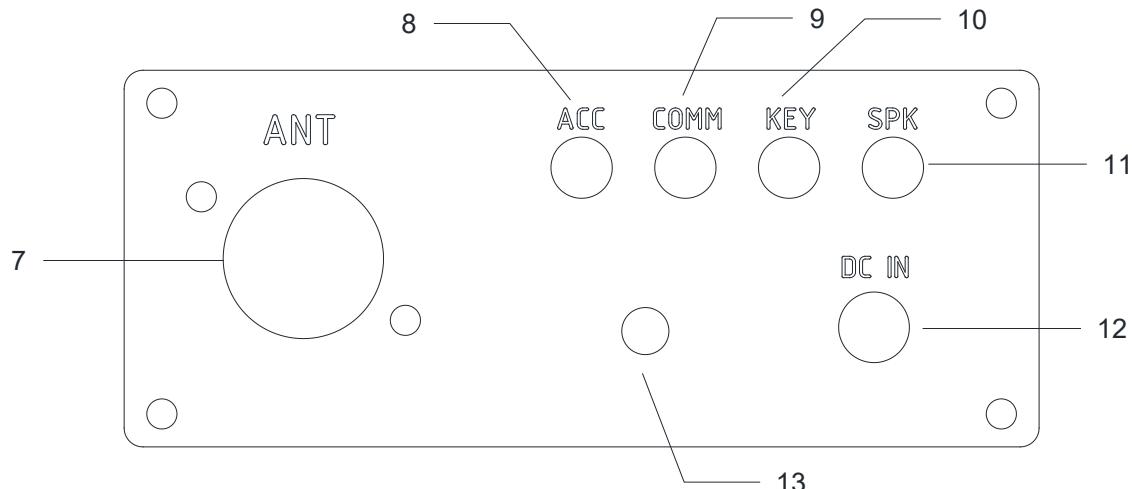
This interface is a 3.5mm stereo jack (3 cord) for connecting external passive speakers. The interface definition is as follows.

12 DC IN external DC power interface

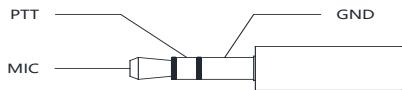
This interface is a 5.5*2.5mm DC power socket.

13 Grounding screw nut

Ground connection for equipment.

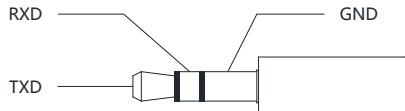


1、MIC

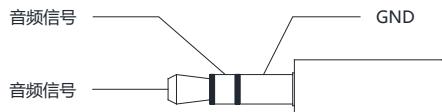


Note: The MIC pin has a bias voltage and cannot be shorted.

2、COMM

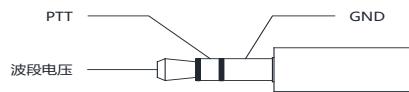


3、SPK

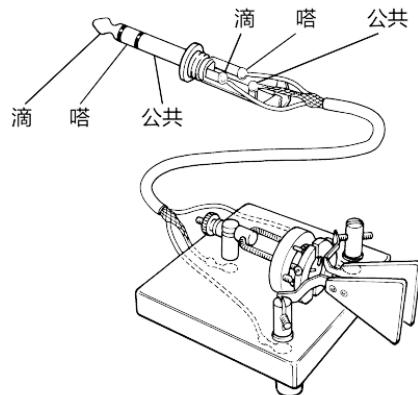


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4、ACC



5、Telegraph key lead connection method:

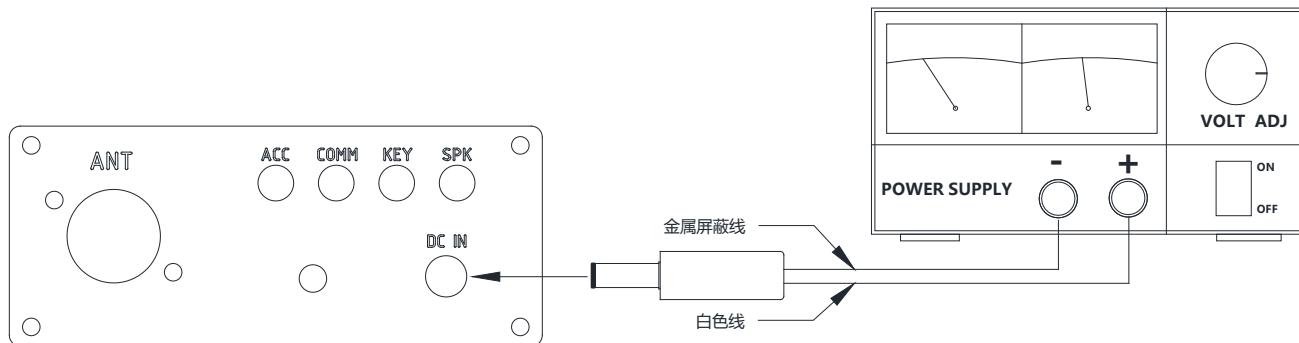


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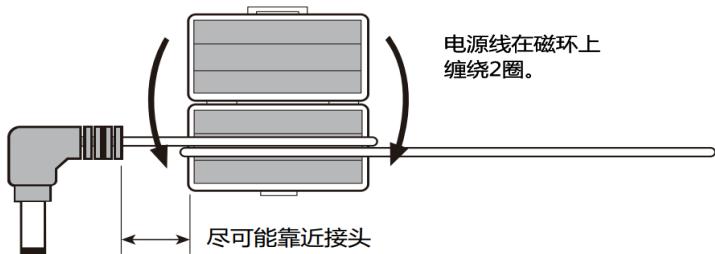
The G1M can use a 13.8V external DC power supply. The DC power supply has a current load capacity of at least 3A. The supplied power cord can be used to connect radio and DC power.

When connecting the DC power supply, please carefully connect according to the following figure to avoid the polarity of the power supply being reversed.

The white core wire is connected to the positive pole of the power supply, and the metal shielded wire is connected to the negative pole of the power supply.



When the G1M uses an external power supply, in order to prevent external interference from entering the radio through the power line, and radio frequency interference in the radio radiates outward through the power line, an EMC magnetic ring can be placed on the power line. Install the magnetic ring as close as possible to the side of the power plug.

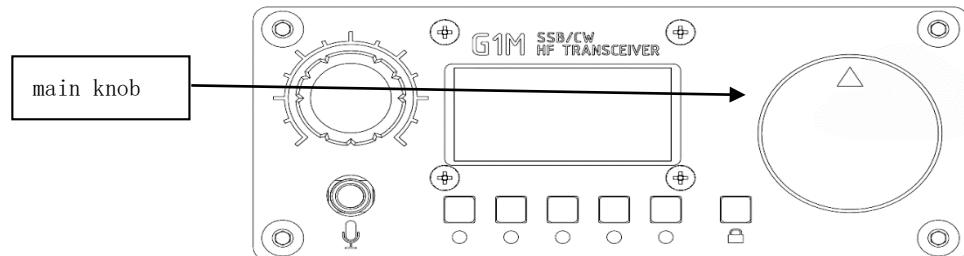


- When using an external power supply, carefully check the polarity of the power cord to prevent the polarity from being reversed.
- The limited warranty of this radio does not include damage caused by an external power connection error, or damage caused by abnormal power supply voltage..

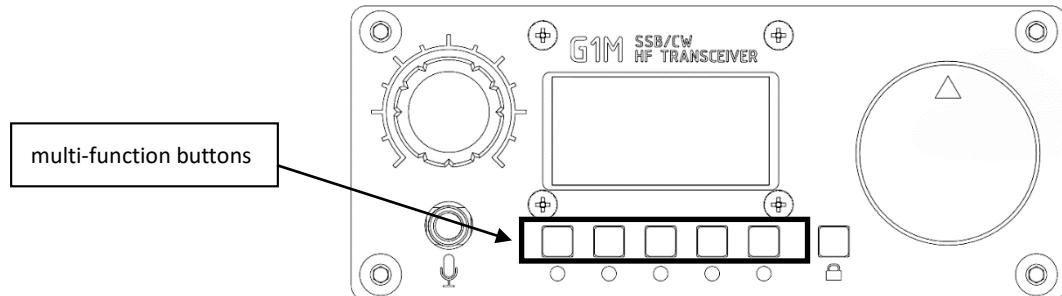
The G1M uses the multi-function menu mode for various functions to be used or turned off. All functions are distributed in different menu pages, and each menu has 5 function options.

The operation is as follows:

Light press the main knob to switch the four-page menu in turn.



The five multi-function buttons at the bottom of the screen correspond to the displayed function menu.



Light press the "lock" button to switch the menu page.

Hold press the "lock" button to lock the button operation

Menu page	Button mode	Features				
1		MD	B-	B+	TS	A/B
	Light press	Mode switching	Band subtraction	Band increase	Step bit selection	VFO switching
	Hold press	Preamplifier switch	Channel storage	Clear channel	Step back 1 bit	Frequency/channel mode switching
2		KS	KM	IMB	QSK	CSN
	Light press	Automatic key rate setting	Auto key mode setting	Iambic A/B select	QSK switch	Boot call setting
	Hold press	/	CW Sidetone rate setting	Code ratio setting	QSK time setting	/
3		SCL	DIS	SPL	BP	/
	Light press	Spectrum SCALE setting	Display mode selection	Different frequency setting	System tone switch	/
	Hold press	/	/	/	/	/

The G1M uses an OLED display screen that displays all status information for the convenience of the user. The visual effect in outdoor sunlight is also very good.



NOTE: 收发状态: Transmission status; 工作模式: Operating mode; 工作频率显示区: Working frequency display area; 工作状态显示区: Work status display area; 频谱 /菜单区: Spectrum / menu area

Connection to a computer

The G1M can be connected to a computer and controlled with the associated software.

Connection cable method:

1. Install the driver for the data cable on the PC side.
2. Plug the data cable into the COMM port and connect the G1M to the computer.
3. Run the corresponding computer software.

◆ *When using software such as HRD, G1M must be in VFO mode, cannot be in channel mode, otherwise it will not be able to connect.*

Computer control instruction

G1M uses the standard CIV instruction set. You can use the standard instructions of this instruction set to remotely control the transceiver. You can also configure the control instructions of other software to control the G1M.

Band voltage data

G1M's ACC port provides band data for four bands. The band data can control the peripheral device to automatically switch the band or share the band information with other devices.

Band	Voltage	Band	Voltage	Band	Voltage	Band	Voltage
3.5MHz	460mV	7MHz	920mV	14MHz	1380mV	21MHz	1840mV

- In the other frequency bands except the above four amateur bands, the band voltage is uniformly outputted at a high level, 5V.

Parameters

Receiving frequency: 0.5~30MHz (Continuous)

Transmitting frequency: 3.5~4.0MHz

7.0~7.3MHz

14.0~14.35MHz

21.0~21.45MHz

Operating mode: SSB/CW/AM(AM Used only to receive broadcasts)

Receiving sensitivity: 0.45uV @12dB SINAD

Transmit power: 5W @13.8V DC

Spurious suppression: ≥45dB

Frequency stability: ±1.5ppm (30 minutes after turning on the power)

Audio output power: 0.5W

Operating Voltage: 12~15V DC

stand-by current: 0.5A @Max

Transmitting current: 2.5A @Max

Case size:: 97*40*155 (mm)

Standard packing items

- G1M: 1 PCS
- mic: 1 pcs
- POWER CABLE: 1pcs
- User manual: 1pcs
- Certificate: 1pcs
- Warranty Card: 1pcs

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V2.0
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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.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.