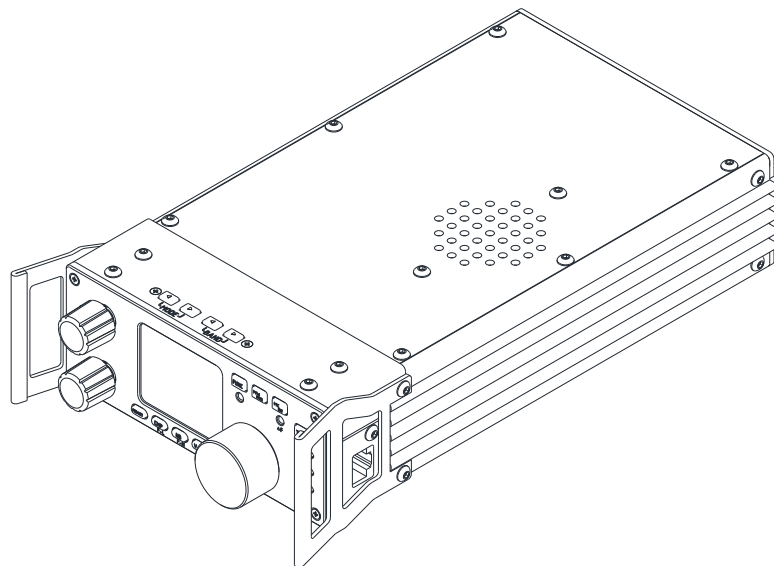




- SDR portable HF Transceiver

G90

Operation Manual



V1.00.0

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Important reminder:

Before operating the equipment please study this instruction manual carefully, and retain it for future reference.

特点

- **SDR portable HF Transceiver**
- built-in auto antenna tuner
- Spectrum image and Waterfall image display
- The display unit and the case can be separated.
- High-performance front-end ESC preselector.

Safety considerations:



Do not use equipment during an electrical storm.



Do not expose the unit to moisture.



Use this device responsibly and observe all local laws and regulations.



Caution! High RF voltage at antenna connector.

Packing List

	Qty
① G90 case.....	1
② Power cable.....	1
③ Data cable.....	1
④ Comm cable.....	1
⑤ Service card.....	1
⑥ Certificate.....	1

一、 parameter

1.1 basic parameter

Receive frequency range: 0.5MHz~29.999999MHz

Transmit frequency range: 1.8~2.0MHz
3.5~4.0MHz
7.0~7.3MHz
10.1~10.15MHz
14.0~14.35MHz
18.068~18.168MHz
21.0~21.45MHz
24.89~24.99MHz
28.0~29.7MHz

Operating mode: SSB/CW/AM

Receive sensitivity: 0.25uV @12dB Sinad (PRE:ON)

Adjacent channel suppression: 60dB

Select: SSB 2.4kHz
CW 300Hz

Dynamic Range: 90dB

Frequency stability: ± 2 ppm (after power on 30 min)

Operating voltage range: 11~16V DC

Standby current: 750mA @ Max

Transmitting voltage: 8A @ Max

RF output: 20W

Carrier suppression: ≥ 40 dB

Spurious suppression: ≥ 50 dB

Sideband suppression: ≥ 55 dB

Audio output power: 0.5W@ 4 Ω

Temperature range: 0 $^{\circ}$ C~55 $^{\circ}$ C

Case size: 120*45*210 mm (non include protrusions; display system and body combination status)

Case quality: about 1.85kg

1.2 ATU parameter

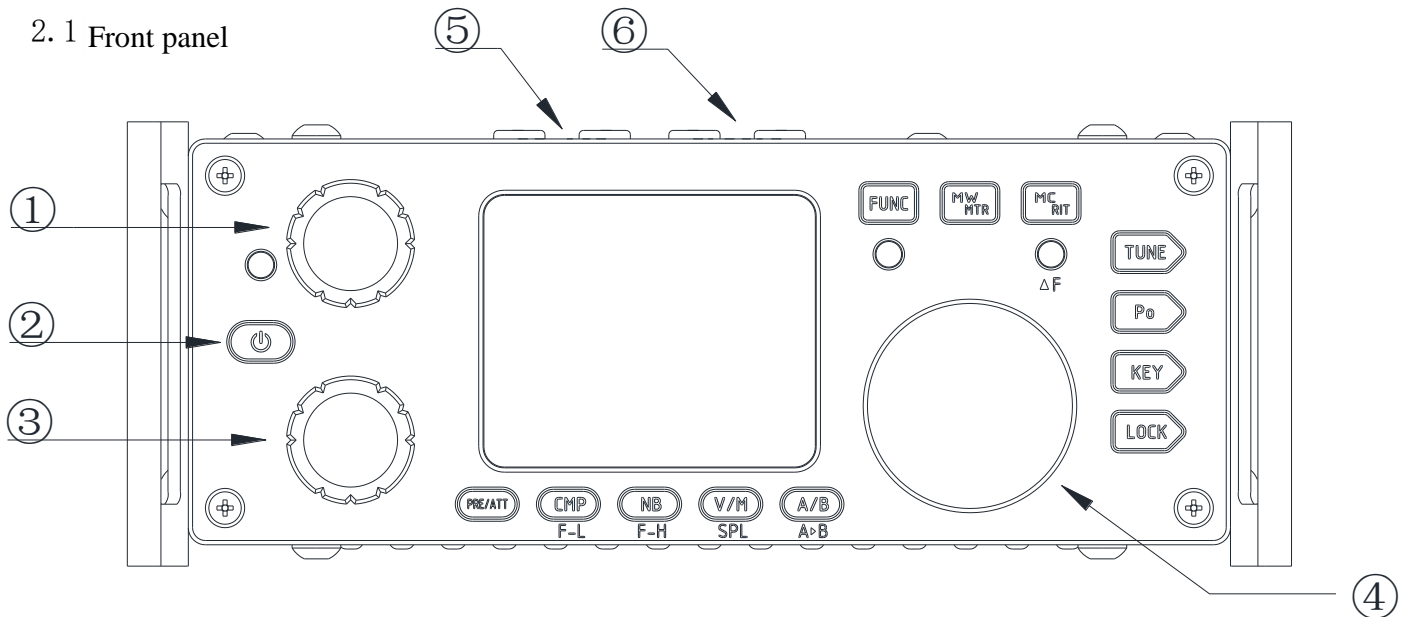
Initial tuning time: ≤ 10 s

Reentry tuning time: ≤ 50 ms

Tuned impedance range: 15 Ω ~250 Ω

二 Device Description

2.1 Front panel



① Volume/headphone knob

② Power

Press and hold this button for 2 seconds to power on.
Press and hold this button for 2 seconds to power off.

③ Automatic knob

Default: 100kHz position step knob
Short press: custom function

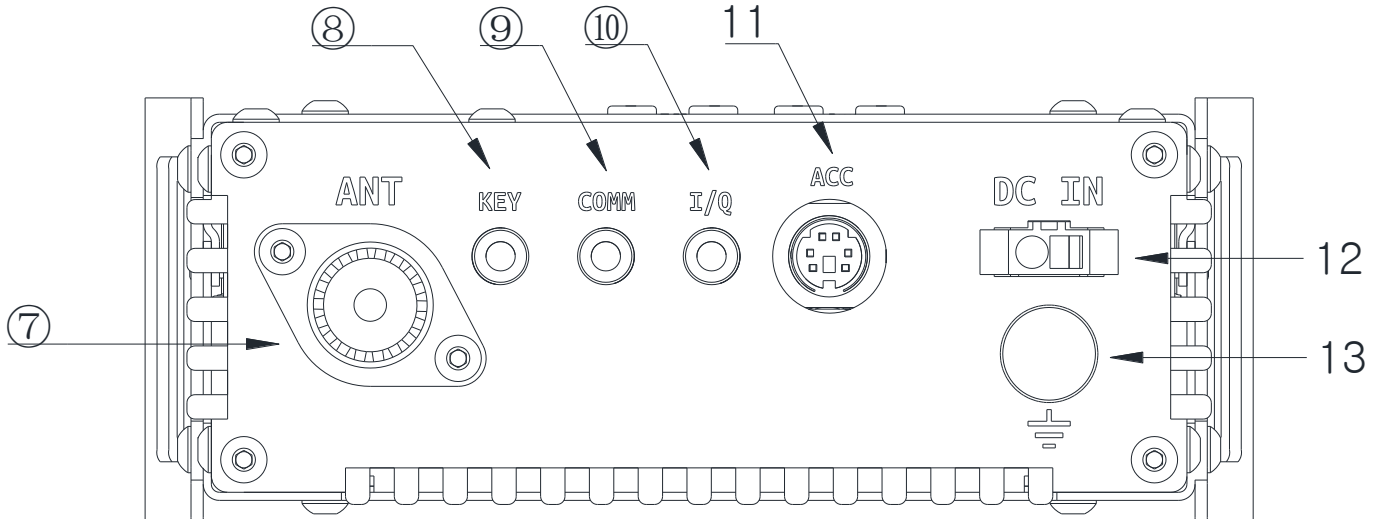
④ Large knob

Frequency stepping, setting parameter.

⑤ Mode switch button

⑥ Band switching button

2.2 Tail interface description



⑦ **ANT**
Antenna interface, Type : SL16-K.

⑧ **KEY**
CW key socket.

⑨ **COMM**
Communication port

⑩ **I/Q**
Signal output

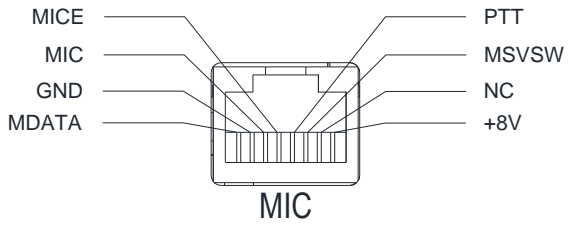
⑪ **ACC**
Data connection port

⑫ **DC interface**
External DC power interface

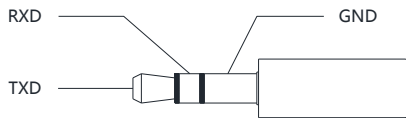
⑬ **Ground**

Interface description:

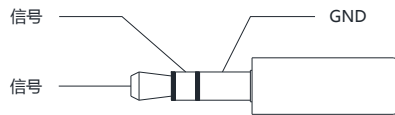
1、MIC interface



2、COMM port

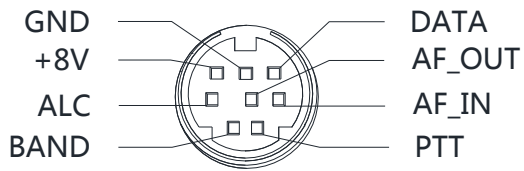


3、headset

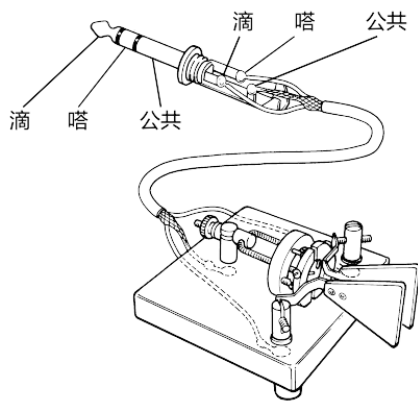


Note: 信号 (signal)

4、ACC



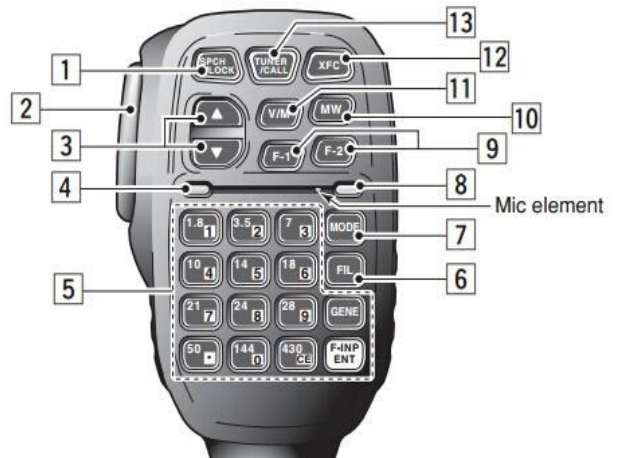
5、CW key welding diagram



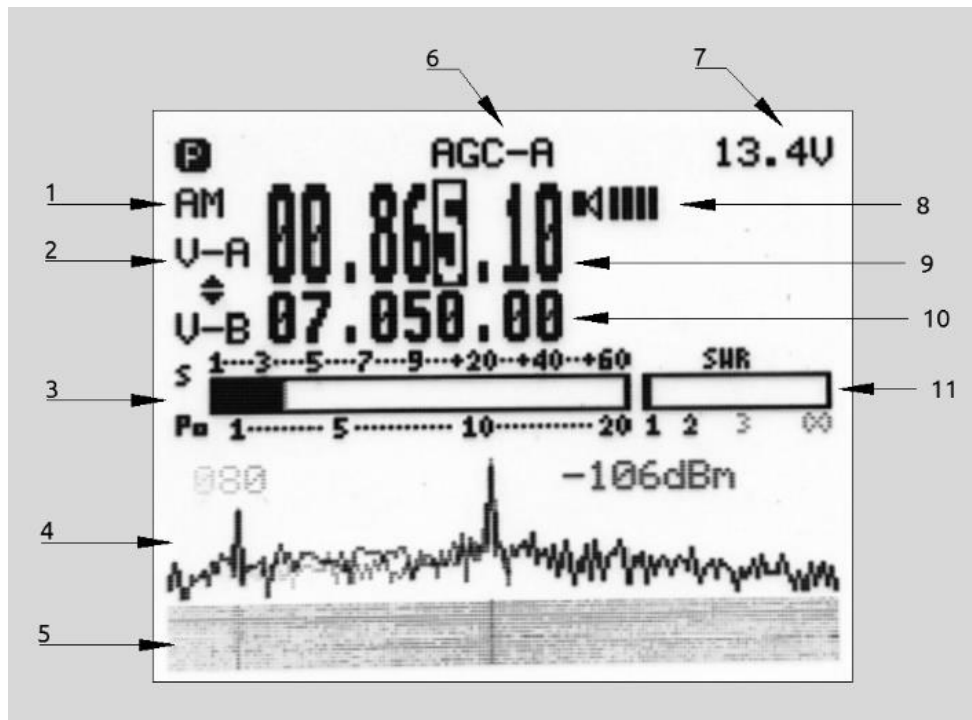
Note: 滴 (di) 嗒 (da) 公共 (common)

手咪按键说明

- | | |
|-----------------------------|--|
| 1、 LOCK button | Locking button |
| 2、 PTT button | Transmitting ctrl button |
| 3、 up/down | Frequency “+” or “-” |
| 4、 Transmission display LED | MIC operate pilot lamp |
| 5、 number key | |
| 6、 FIL | FIL selection |
| 7、 MODE | Operation mode selection |
| 8、 function pilot lamp | No |
| 9、 function Key | F1/F2 Custom settings |
| 10、 MW | Memory operate |
| 11、 V/M | frequency/channe switch |
| 12、 XFC | <i>Temporarily no function</i> |
| 13、 TUNER 按键 | 长按启动机内自动天调进行调谐 Press and hold this key makes tuner work. |



2.3 LCD Indication



- 1、 当前工作模式 Mode
- 2、 当前 VFO 选择 VFO
- 3、 S 表/功率表 S meter
- 4、 频谱图显示 frequency spectrum
- 5、 瀑布图显示 Spectrum Falls
- 6、 AGC 状态显示 AGC
- 7、 当前外部输入直流电压值 wattage
- 8、 音量指示 volume
- 9、 当前工作频率 frequency
- 10、 另一 VFO 频率 VFO frequency
- 11、 发射驻波指示 VSWR when TX