GEEKNEST All-Band Radio V5A

User Manual

Thank you for choosing GEEKNEST All-Band Radio V5A.

Due to the extensive range of features supported by the radio, we strongly recommend that you read this user manual from start to finish and try each function mentioned in the manual in sequence. Additionally, the radio includes a hidden Easter egg, with a surprise awaiting those who simultaneously short press buttons 1 and 3. Have fun!

This product includes two modes of digital/analog output. In different modes, It supports different functions:
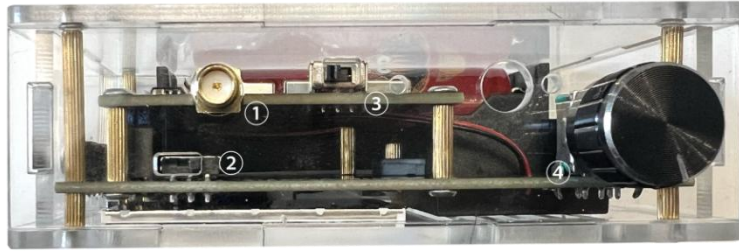
Digital Output Mode:
- ➢ Radio
- FM: 64MHz-108MHz
- AM: 520KHz-1710KHz
- AM SW: 3.5MHz-30MHz
- Aviation Band/Air Band: 118MHz-137MHz
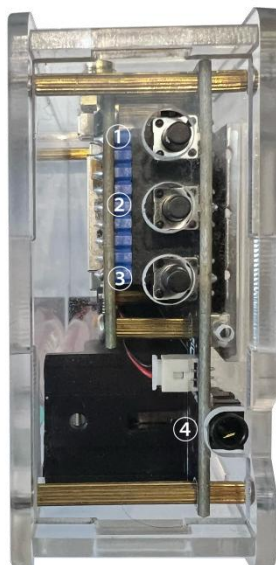- ➢ Bluetooth Speaker

Analog Output Mode:
- ➢ Radio
- FM: 64MHz-108MHz;
- AM: 520KHz-1710KHz;
- AM SW: 3.5MHz-30MHz;
- AM SSB: 3.5MHz-30MHz (BFO -2000 to +2000Hz);
- Aviation Band/Air Band: 118MHz-137MHz

*UHF Expansion: Support UHF band reception/transmission function through expansion board (please comply with local laws and regulations).

Basic Structure Diagram

① **Antenna Interface**: Please use SMA external screw internal needle interface antenna, impedance 50 ohms.

② **Digital/Analog Output Switch**: This radio supports two modes of digital and analog output.

③ **MW ferrite loop antenna switch**: Reserved for DIY purpose , you may choose a 180 μH-450 μH ferrite loop antenna for the MW interface of the radio board and select receiving signals through the antenna interface or using the ferrite loop antenna through this switch.

④ **Rotary Encode**r: see operation instructions for details.

① Button 1: see operation instructions for details.

② Button 2: see operation instructions for details.

③ Button 3: see operation instructions for details.

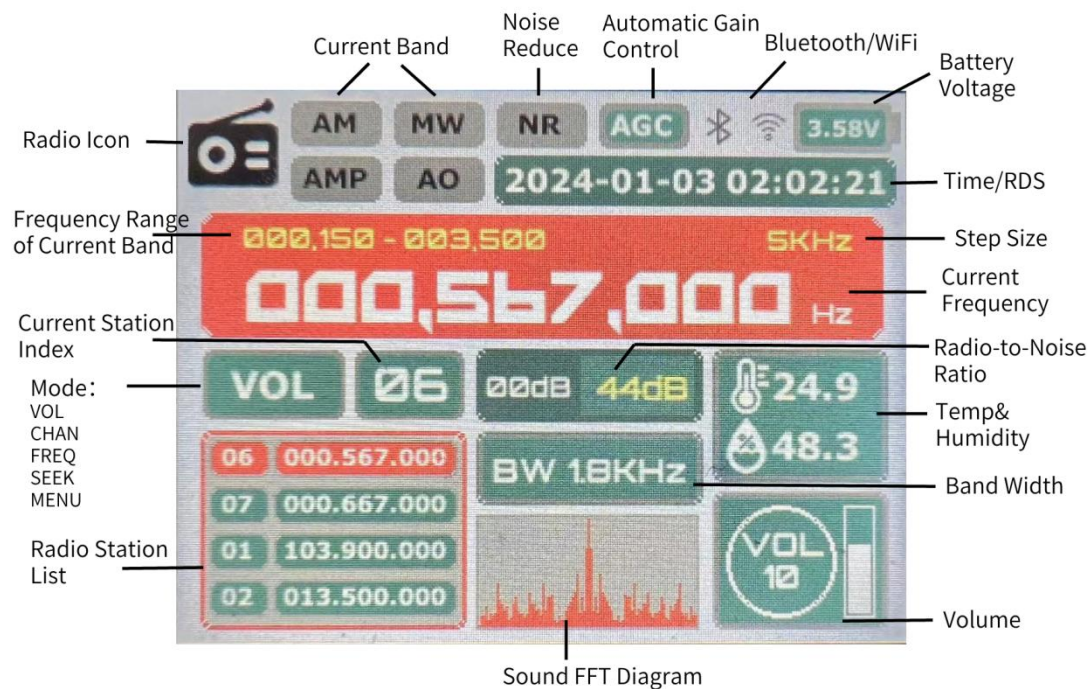④ 3.5mm Stereo Headphone Jack(Only support MONO output).

① **USB Type-C Interface**: Can be used for charging (please use charging devices produced by regular manufacturers for charging) and firmware upgrading.

• Other Operations: Battery Replacement.

① **Please use 18650 Li-ion battery** ;

Note! The left side (TYPE-C port side) on the back is the positive pole of the battery, and the right side (headphone jack and button side) is the negative pole of the battery. Do not reverse the battery, otherwise it may cause permanent damage to the radio!

Core Functions

Labels on the diagram:
- Current Band
- Noise Reduce
- Automatic Gain Control
- Bluetooth/WiFi
- Battery Voltage
- Radio Icon
- AM MW NR AGC ✳ 📶 3.58V
- AMP AO 2024-01-03 02:02:21
- Time/RDS
- Frequency Range of Current Band — 000.150 - 003.500
- Step Size — 5KHz
- 000.567.000 Hz
- Current Frequency
- Current Station Index
- Mode: VOL CHAN FREQ SEEK MENU
- VOL 06 00dB 44dB
- Radio-to-Noise Ratio
- 🌡24.9
- Temp& Humidity
- 💧48.3
- Radio Station List
  - 06 000.567.000
  - 07 000.667.000
  - 01 103.900.000
  - 02 013.500.000
- BW 1.8KHz
- Band Width
- VOL 10
- Volume
- Sound FFT Diagram

A) Power On/Off:

Press and hold the encoder downward (1.5 - 3s) to turn on or off the radio

B) Main Interface (VOL Mode):

After power on, it will automatically enter the main interface VOL mode.

C) Adjust Volume:

After power on, the radio will automatically play the first station you have stored or last channel you played. You can adjust the playback volume by rotating the encoder left and right.

D) Adjust screen brightness:

Press buttons 1+3 simultaneously, and rotate the encoder left and right to adjust the screen brightness.

E) Top Menu Configuration (MENU Mode):

In the main interface, short press button 1, or press the encoder downward three times, switch the main interface from VOL to MENU (menu) mode. At this time, the FM outer ring displays green, indicating the current menu is selected. Short press button 1 again, or press the encoder

downward, to switch the main interface back to VOL mode.

F) Adjust the Current Frequency Band:

In MENU mode, rotate the encoder left and right and then FM+VHF (current frequency band) menu is selected; short press button 2/3, you can switch the frequency band to AM\AIR and other bands.

G) Adjust Band Width

In MENU mode, when the FM+VHF (current frequency band) menu is selected, short press button 1 to switch bandwidth.

H) Turn On/Off Noise Reduction Mode:

In MENU mode, continue to rotate the encoder, NR (Noise Reduce) noise reduction menu is selected; short press button 2/3, you can choose to turn on or off the NR function. When the NR function is turned on, if the signal-to-noise ratio of the station is too high, it will automatically mute to reduce noise.

I) Turn On/Off Automatic Gain Control:

In MENU mode, continue to rotate the encoder, AGC automatic gain control switch is selected; short press button 2/3, you can choose to turn on or off the AGC function.

J) Turn On/Off Built-in Amplifier:

In MENU mode, continue to rotate the encoder, AMP built-in LNA amplifier switch is selected; short press button 2/3, you can choose to turn on or off the AMP function.

K) Switch Digital/Analog Output Mode:

In MENU mode, continue to rotate the encoder, Digital/Analog output mode menu is selected; short press button 2/3, you can choose AO (analog output), DO (digital output).

This operation needs to be completed together with the physical switch to complete the mode switching. When the physical switch is set to the left side and the output mode is set to -DO, the digital output mode is turned on; when the physical switch is set to the right side and the output mode is set to -AO, the analog output mode is turned on.

L) Change Stations:

Option 1:

In the main interface VOL mode, short press button 2/3, you can switch forward/backward in the station list to play the stored stations.

Option 2:

In the main interface VOL mode, short press the encoder downwards to switch from VOL mode to CHAN mode. In CHAN mode, rotate the encoder left and right to quickly select saved radio station. Then short press button 1 to confirm the selection, and the radio will automatically play the selected radio station.

M) Manual Station Search (FREQ Mode):

In the main interface VOL mode, press the encoder downward, VOL mode switches to FREQ mode. Rotate the encoder left and right to manually search for stations forward or backward according to the step length.

You can adjust the current frequency band first (see function 5 for details), and then enter the FREQ mode for station searching.

N) Adjust frequency adjust Step :

In manual station search FREQ mode, short press button 1 to switch the frequency adjust step.

O) Save Station:

In manual station search FREQ and automatic station search SEEK modes, after finding a new station, long press button 3 to save the newly found station to the station list. The station number will increase automatically.

P) Delete Stored Stations:

When the number of stored stations in the station list is greater than 5, stations can be deleted. In manual station search FREQ and automatic station search SEEK modes, short press button 2/3 to switch the stations to be deleted in the station list. After selecting the station, long press button 1 to delete the current station.

Q) Automatic Station Search (SEEK Mode):

In the main interface VOL mode, press the encoder downward, VOL mode switches to SEEK mode. Rotate the encoder left and right to manually search for stations forward or backward according to the step length. The step length adjustment needs to be done in FREQ mode (see function 12 for details).

In SEEK mode, after finding a new station, long press button 3 to save the newly found station to the station list. Short press button 2/3 to switch the stations to be deleted in the station list. After selecting the station, long press button 1 to delete the current station.

*This mode is not applicable in Air Band.

R) Turn On Bluetooth Speaker:

In the main interface VOL mode, double-click button 1 to open the Bluetooth speaker mode. After finding the radio (GNRadioPro) on the smart device and connecting it for pairing, you can play music from the smart device through the radio.

The playback volume needs to be adjusted on the smart device.

Double-click button 1 again, the radio will shut down and restart, and you can exit the Bluetooth mode.

S) Turn Off the Screen:

To save power, you can choose to double-click button 2 in VOL mode on the main interface to

turn off the screen. Click any button to release the screen from being off and turn it back on.