



BS-50

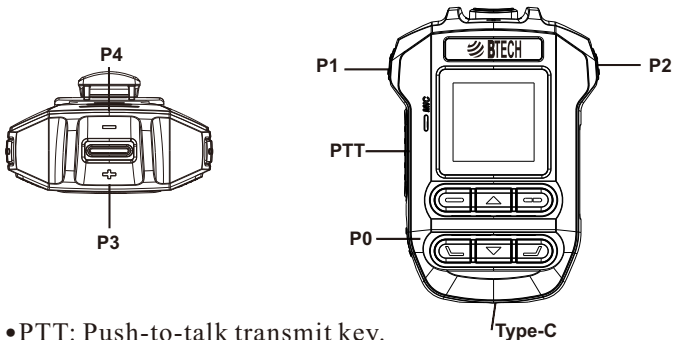
User Manual

Compatible Radios: BTECH UV-PRO, GMRS-PRO,
UV-50PRO, GMRS-50PRO.

1. Product overview

The BS-50 is a 2.4 GHz wireless speaker microphone designed to pair with supported BTECH radios. When paired, it provides push-to-talk (PTT), speaker audio, and programmable shortcut keys. Typical working range is under 10 meters (33 feet), depending on environment and obstructions.

2. Controls and connectors



- PTT: Push-to-talk transmit key.
- P0: Power, pairing, and call control key.
- P1/P2: Volume and shortcut keys.
- P3/P4: Channel control / media control keys.
- USB Type-C port: Charging and power input.
Use a 5V / 1A rated charger.

3. Default key functions

The keys are pre-configured as follows (unless reprogrammed in the app):

P0 key

- Short press: Announces the current channel by voice prompt.
- Press and hold (~3 seconds): Power ON / OFF.
- Double-click: Enter pairing mode.

P1 key

- Short press: Volume down.
- Press and hold: Switch between A/B band (main channel) on supported radios.
- Double-click: Mute / unmute (standby).

P2 key

- Short press: Volume up.
- Press and hold: Toggle Talk Around (simplex/repeater) on supported radios.
- Press P1 + P2 together: Send 1750 Hz burst tone (T-CALL).

P3 / P4 keys

- Short press: Channel up / down.
- Press and hold: Scroll channels continuously.
- Double-click (while playing music): Previous track / Next track.

4. Answering phone calls (when paired to a smartphone)

If the BS-50 is connected to your phone via Bluetooth and you receive an incoming call:

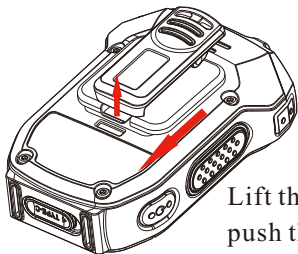
- **Answer:** Short-press **P0**
- **Hang up:** Short-press **P0** (during the call) or **double-click** to reject

Note: This product is not optimized for phone call audio quality. For best results, answer and talk using your phone directly.

5. LED indicator meanings

State	LED behavior
Not connected	Red flashes slowly
Low battery	Flashes quickly and sounds an alert tone
Pairing mode	Red and green alternate
Paired successfully	Green double flash
Disconnected	Red double flash
Muted	Green “breathing” light
Radio TX (transmit)	Red solid
Radio RX (receive)	Green solid
Charging	Red solid
Fully charged	Green solid (some versions may show blue/green when full)

6. Belt clip removal



Lift the clip latch (buckle) and slide/push the belt clip down to remove it.

7. Power ON/OFF and auto power-off

- **Power ON:** With the microphone off, press and hold **P0** for about 3 seconds until you hear the startup tone.
- **Power OFF:** While powered on, press and hold **P0** for about 3 seconds until the unit shuts down.
- **Auto power-off:** If the connection is lost, the microphone will automatically shut down after about 3 minutes to save power.

8. Programmable buttons

The P1, P2, P3, and P4 keys can be reassigned to different shortcut functions using the companion app. Some functions can conflict, so test your setup after changes.

Available shortcut functions (typical)

- Disable (no function)
- Alarm / Alarm & Mute
- Mute switch
- Send location (single APRS position report)
- Toggle scan
- Toggle dual channel watch (single / double watch)
- Main channel switch (A/B)
- Toggle Talk Around (simplex/repeater)
- Toggle radio TX enable (restrict/allow transmission)
- Transmit power switch
- Radio switch (enable/disable)
- Toggle monitor
- Toggle VOX
- Toggle KISS
- Previous/Next channel
- Previous/Next group
- Volume – / Volume +
- T-CALL (1750 Hz burst)
- Pairing

After changing key assignments, you may need to disconnect and reconnect the microphone to the radio for the new settings to take effect.

9. App setup (key customization)

Android

- 1) Open the GMRS PROGRAMMER or UV PROGRAMMER App and go to “Bind Device”. Select PTT / Speaker Microphone.
- 2) Power on the BS-50 (hold P0), then double-click P0 to enter pairing mode.
- 3) In the device list, select “BS-50” (it may appear with a different internal name depending on firmware). Wait for “Connected”.
- 4) Open the settings menu for the microphone and customize button functions.

iOS

- 1) Open the GMRS PROGRAMMER or UV PROGRAMMER App.
- 2) Power on the BS-50 (hold P0), then double-click P0 to enter pairing mode.
- 3) Select the microphone from the device list to connect.
- 4) Open the microphone settings to customize button functions.

If a newer firmware version is available, you will receive a push notification when the BS-50 connects to the app. Simply follow the steps to update the firmware.

10. Pairing

Method 1: Automatic pairing with the radio

- 1) Put the microphone into pairing mode: double-click P0 (while powered on).
- 2) Put the radio into pairing mode using the radio's pairing command/button (while powered on).
- 3) During pairing, the LEDs on both devices typically alternate red/green.
- 4) When paired, the microphone will beep. If the radio has a display, a headset icon may appear to confirm the connection.

Method 2: Pairing through the radio app (Connection Management)

- 1) In the app for your connected radio, open Connection Management.
- 2) Put the microphone into pairing mode (double-click P0).
- 3) Scan for the microphone in the device list, select it, and wait for the status to show Connected.

Method 3: Pairing with a smartphone (Bluetooth speaker + network intercom use)

- 1) Power on the microphone (hold P0), then quickly double-click P0 to enter pairing mode (red/green alternating + beep).

- 2) On your phone, open Bluetooth settings and search for the device name.
- 3) Select the device to pair/connect. Tip: wait until the headset icon appears next to the device name before tapping Connect on some phones.

When paired to a phone: double-click the $\pm$ channel keys to skip tracks while music is playing. In the App, you can select a network channel and use PTT to talk.

11. Operation notes

11.1 Mobile radio power control (mobile units only)

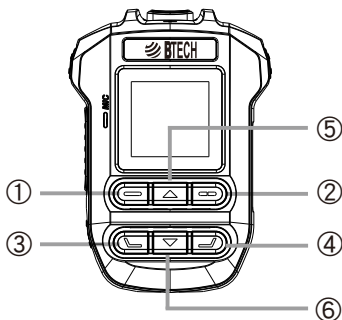
When paired with a supported mobile radio, the microphone may show a power menu with an ON/OFF status. Toggling this status can power the mobile radio off or reboot it.

Important: if you power the radio off this way, the microphone may remain connected and will not auto-shut down—turn the microphone off manually to prevent battery drain.

11.2 Standby display pages

In standby, briefly press the Page/Back key to cycle through the available display pages. From any page, press the same key again to return to the main screen.

11.3 Keypad functions (front keys)



- ① Menu/Confirm  : Confirms selections and inputs.
- ② Page/Back  : In standby, toggles display pages; in menus, returns to the previous screen.
- ③ Channel Select/Edit (short press)  : Opens channel select menu or allows editing.
- ④ Return/Home  : In menus, return to standby.
Long press: lock/unlock keypad.
- ⑤ Up key  : Switch to Next channel.
- ⑥ Down key  : Switch to Previous channel.

11.4 Text input editing

When editing text (channel name, signaling messages, SMS), the keys typically work as:

-  Confirm input
-  Delete character
-  Toggle character entry/display mode

-  Exit
-  Move/cycle characters up
-  Move/cycle characters down

11.5 Electronic compass calibration

If the compass shows a calibration prompt icon, external magnetic interference may be affecting the sensor.

- If “=” appears: open the Compass menu, place the device flat (screen up), then press OK to calibrate.
- If “∞” appears: open the Compass menu and follow the prompt to move the unit in an infinity (∞) pattern. Hold it straight out and trace 1–8 full “∞” motions in about 2 seconds.

Keep away from magnets, electronics, and metal structures during calibration. If the icons only appear briefly near a magnet and disappear when you move away, calibration may not be necessary.

11.6 GPS/BDS positioning

GPS/BDS positioning requires satellite reception (at least 3 satellites). If positioning fails, move to an open area away from buildings.

Accuracy and reception can degrade indoors, near large structures, under bridges, in dense trees, in tunnels, or near strong reflective glass or magnetic fields.

After purchase or after long periods of inactivity, allow several minutes for satellite acquisition.

- **Screen:** during satellite positioning, keep the screen on for devices that require it.
- **Antenna orientation:** mount the holder so the internal GPS/BDS antenna faces upward; avoid metal obstructions or tilting inside a case.
- **Mount location:** keep the holder away from motors and power lines.
- **Do not use strong magnetic mounts or modify mounts:** magnets can disturb the internal e-compass and cause heading errors.

12. Precautions

- **Wireless range** is typically under 10 meters (Approx 30 ft); operating outside this range may cause abnormal transmit/receive behavior or loss of connection between BS-50 and radio.
- After power-on, the microphone will attempt to reconnect to the last paired radio. If it cannot reconnect, it will power off automatically after about 3 minutes to save battery.
- If the low-battery alarm sounds, recharge promptly. Continued use may trigger low-voltage protection and shut down the unit.
- Charge via USB-C with a 5V / 1A rated adapter.

13. Specifications

Model: BS-50 Wireless Speaker Microphone

Wireless band: 2.4–2.485 GHz (ISM)

Effective distance: < 10 meters

Battery: Built-in 1200 mAh lithium battery

Battery voltage: 3.7 V

Charging input: 5 V / 1 A recommended

Weight: 133 g

Size: 98.5 (L) × 69.5 (W) × 30 (D) mm

FCC Caution

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.

The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction.