

# **HT APP**

**OPERATION MANUAL**

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## DOWNLOAD THE APP

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1. For Android users, please go to Google play  to search for HT  to download the APP.
- 2, For IOS users, please go to Appstore  to search for BS HT  to download the APP .

### Radio Connect With The APP

#### 2.1 Method 1: Automatic Pairing

- 1, Open the installed APP.
- 2, Turn on the radio, then double-click the pairing button. At this point, the radio panel's indicator lights will alternate between red and green, indicating that the radio has entered pairing mode.
- 3, When the message **\*"Detected new device \*\*\*, do you want to link now?"\*** appears, click [Yes].
- 4, The APP will begin connecting to the radio.
- 5, A Bluetooth authorization dialog box will pop up (see Figure 1). Click [Pair] to confirm, Once connected successfully, the device will be ready for use.

## RADIO CONNECT WITH APP

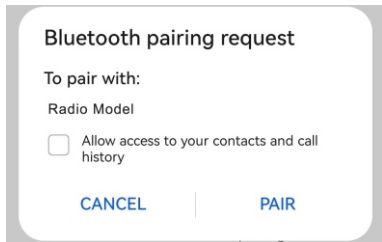


Figure 1

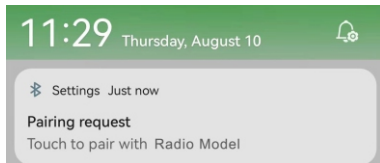


Figure 2

### Troubleshooting (No Pairing Prompt?)

#### If the [Allow] prompt does not appear:

Swipe down from the top of your phone screen to open the notification bar (see Figure 2).

Locate the pending Bluetooth pairing request and manually select [Allow].

2, Open the app, enter the homepage, click ☰ to open the main menu, click to



switch between the device interface and main menu. Swipe left to collapse the menu.

## **3.Synchronization Settings Guide**

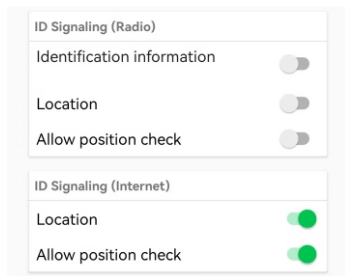
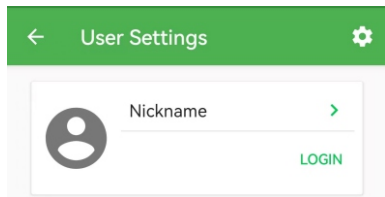
When this app is connected to your radio, certain settings (e.g., APRS, username, etc.) will be synchronized by default. If you wish to retain the original settings on your radio, follow these steps:

1. After connecting the radio, a prompt asking "**Synchronize settings?**" will appear. Select "**No**" to avoid overwriting the existing configurations. (If you have multiple devices of the same model, selecting "No" is recommended.)
2. To enable synchronization later: Go to the "Signaling Settings" menu and toggle the "Sync Signaling Settings" option to "Yes"—this will apply the app's settings to your radio.

### **3.1 Sync Settings - Yes**

If you select "Sync", the user settings from the app will automatically update the corresponding signaling settings on all radios connected to this app.

### 3.1.1 User Settings Instructions



**User Registration:** Click on the avatar to register. Enter the registration page to modify user information, signaling settings, and change the avatar.

**Nickname:** Please enter your name, alias, or legal callsign (supports Chinese, English, and numbers). This nickname will be displayed during communication to help others identify you.

**ID Signaling:** This system uses a self-developed BSS signaling system (enabled by default when APRS is off) to automatically send your identity information after a call ends.

- **Radio section:** Applicable to RF Radios.
- **Internet section:** Applicable to network or internet.
- **Identification:** When enabled, others can receive your device ID information

(e.g., callsign or nickname).

- **Location Sharing:** When enabled, others can view your real-time location.
- **Allow Position Check:** When enabled, others can obtain your location without confirmation (recommended only for trusted contacts).

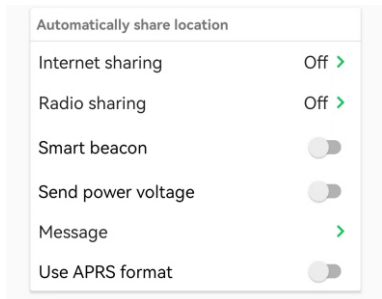
**Note:**

After enabling the ID Signaling function, each of your transmissions will include a signaling tone at the end. The receiving party will hear a notification sound and see your ID information.

If you prefer to keep communications concise, you can disable this feature in the settings. However, others will not be able to identify you.

Please enable or disable this function in Signaling Settings based on your actual needs.

### 3.1.2 Automatic Location Sharing Function Description



#### 1. Automatic Location Sharing

- **Network Location Sharing:** When enabled, your device will periodically send your location to **all active network channels** you are in (this function runs in the background and does not appear in the message list—enable with caution).
- **Radio Location Sharing:** When enabled, your device will periodically send your

location to the specified radio channel (switch to the Signaling Settings menu to configure the sharing channel when in sync mode).

#### Important Notes:

- When using the APRS protocol, the system will automatically switch to APRS location sharing mode (requires enabling APRS first).
- **Interval Setting:** It is recommended to set a reasonable interval (e.g., 1-5 minutes) to avoid frequent transmissions that may cause channel congestion and disrupt normal communication.

## 2. Additional Optional Features

- **Transmit Battery Voltage:** When enabled, others can view your device's battery status (e.g., mobile phone or walkie-talkie battery level).
- **Attached Message Field:** Allows you to include custom text (e.g., status notes) that will be sent along with your location data.
- **Smart Beaconsing:** When enabled, it automatically extends the sharing interval set in [Radio Location Sharing]. Maximum interval: 30 minutes , Minimum interval: Matches the [Auto-Sharing Interval] setting.

### Smart Beaconsing Trigger Conditions

(**Any** of the following will trigger a location update):

- Heading change exceeds 30°
- Speed change exceeds 30 km/h for 120 seconds
- Time since last update exceeds 30 minutes

(**And** must also exceed the [Auto-Sharing Interval] setting.)

### Transmission Formats:

#### BSS Format:

- Only uses the BSS protocol for radio communication.

- Does not pass through internet gateways.
- Cannot be decoded by APRS radio receivers.
- Best for non-callsign users or small groups sharing locations privately.

### APRS Format:

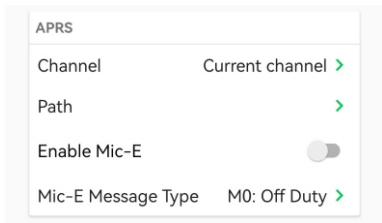
- For registered APRS users, data follows APRS protocol.
- Can be sent/received via gateways (internet) or radio broadcast, depending on user settings.

### 3.1.3 Signaling Settings

**Channel Selection:** Select the channel for APRS data transmission.

**Path Settings:** (APRS Forwarding Path)

- **WIDE1-1,WIDE2-1:** First attempts local relay once (WIDE1-1). If no response, switches to wide-area relay once (WIDE2-1).
- **WIDE1-1,WIDE2-2:** First attempts local relay once (WIDE1-1). If no response, switches to wide-area relay twice (WIDE2-1).
- **ARISS,SGATE,WIDE2-1:** Primarily used for satellite APRS communication, especially during International Space Station (ISS) passes.



**MIC-E Encoding:**A compressed format in APRS used to encode GPS coordinates, status info, and short messages into standard radio data packets.

**Mic-E Message Types:**Operation mode identifiers that represent the status of mobile devices. Typically appear in the status field or end of the info field in APRS packets to indicate the device's current operational state.

**To enable APRS functionality when the device is in sync mode,** first configure the location sharing interval and enable APRS format in the radio sharing settings under User Management. Then enter your callsign and verification code on the APRS page, and finally select the data transmission channel in the signaling settings to complete the configuration.

### 3.2 Sync Settings - Yes

If "Do Not Sync" is selected, the user settings on the APP and the signaling settings on the walkie-talkie will not be linked. The APP's user settings will only apply to network functions. (When using multiple devices of the same type, it is recommended to select "No" to prevent all devices from being synchronized with identical settings.)

#### Synchronous signaling settings

Use software settings to override device settings when a device is connected to this software. Your user ID will be saved to your device and other users can see your avatar on the map.



APRS	
Path	>
Enable Mic-E	<input type="checkbox"/>
Mic-E Message Type	M0: Off Duty >
Icon	/\$/  >
Call sign	_____ - Not set

Data mode	<input type="checkbox"/>
Channel	Current channel >
Automatically share location	Off >
Smart beacon	<input type="checkbox"/>
Send power voltage	<input type="checkbox"/>
Message	>
Format	BSS >

User information	
Identification information	>
ID Signaling	
Identification information	<input type="checkbox"/>
Location	<input type="checkbox"/>
Allow position check	<input type="checkbox"/>

**Please refer to the previous instructions to configure the corresponding parameters. These settings will interact with the walkie-talkie and be saved in real-time.**

## 4, APRS/BSS Digipeater Instructions

(Requires smartphone support, cannot operate independently on radios)

- **TTL (Time To Live):** Sets the maximum number of hops/forwarding attempts for data packets. Packets exceeding this limit will be automatically discarded. Recommended value: 2
- **Maximum Forwarding Times:** When acting as a relay, only forwards packets where, Current forward times < Set value, Recommended value: 2

BSS/APRS Digipeater	
Time to live	0 >
Maximum forwarding times	0 >

### **Important Note:**

If both settings are set to 0, the APRS Digipeater function will not activate. To enable relay functionality, configure both TTL and forwarding times properly.

## 5. APRS Gateway

Facilitates data exchange between radio frequency (RF) and the internet (APRS-IS).

**Server region** :Select the geographic region of the APRS server.

### **Transmission Modes**

#### **Radio → Internet (RF → APRS-IS)**

**Enabled:** The app forwards APRS signals received via radio to the internet (APRS-IS).

**Disabled:** Radio data remains local-only and is not uploaded online.

#### **Internet → Radio (APRS-IS → RF)**

**Enabled:** The app broadcasts APRS data from the internet via radio.

**Disabled:** Radio users only receive local signals and cannot access internet-sourced data.

IGate Service	<input type="checkbox"/>
Server	Asia
Radio to Internet	<input type="checkbox"/>
Internet to Radio	<input type="checkbox"/>
Receive messages via Internet	<input type="checkbox"/>
Receiving range	30 mi >

Note: When gateway is enabled, We'll send your location to the server when you log in, even if location sharing is not turned on

**Receive Messages via Internet:** Controls whether the APP displays and logs APRS messages from the internet (e.g., private messages, bulletins).

**Enabled:** Receive text messages/bulletins from global users (e.g., event notices, emergency alerts).

**Disabled:** Only radio-received messages are displayed. Note: Data can still be sent to the internet (requires "Radio → Internet" function to be active).

**Display Range:** Sets the maximum range (e.g., 50km, 100km) for displaying APRS targets on the map.

**Too large a range:** Slower map loading and APP lag due to excessive data.

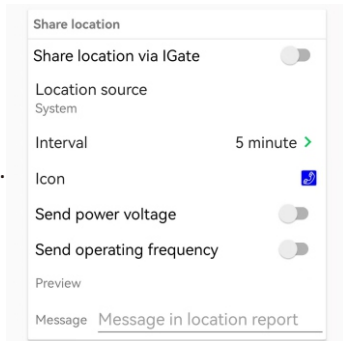
**Too small a range:** May miss nearby critical stations (e.g., repeaters, weather stations).

## Automatic Location Sharing

This feature periodically transmits your position to the internet, allowing others (e.g. teammates, family) to track your location.

**Share via IGate:** When enabled, your mobile device will share its location using the IGate protocol over the internet.

**Position Source:** Select your preferred coordinate provider (GPS, network, etc.).



**Update Interval:** Configure how frequently your location is shared.

Interval Guidelines:

**Too long:** Teammates may lose track of your real-time position.

**Too short:** May congest network/radio resources and disrupt other users' communications.

**Icon Selection:** Choose an icon to represent your device type on the map.

**Optional Device Status Information:** Allow others to view your device status:

**Transmit Battery Voltage:** When enabled, others can see your device's power level (e.g., "Low battery" may indicate need for assistance).





**Transmit Operating Frequency:** When enabled, others can view your current radio frequency (useful for coordination).

**Custom Attached Message:** Add a personalized note (e.g., "Heading to base camp") that will be displayed alongside your location.

## **SSID Identification Guide**

- 0 Home Station / Internet Gateway (Home)
- 1 Digital Repeater / Fill-in Repeater / Weather Station
- 2 UHF Digital Repeater
- 3 Standalone VHF Digital Repeater
- 4 HF-to-VHF Gateway
- 5 Internet Gateway (Non-Home)
- 6 Satellite Operations
- 7 Handheld Portable
- 8 Marine (Boats, Ships)
- 9 Vehicle Mobile
- 10 Internet-Only Operations
- 11 APRS Touch-Tone / Balloons
- 12 Temporary Portable Units
- 14 Truck Mobile (Large Vehicles)
- 15 HF Operations

## DEVICE SETTINGS

1, After successful connection, the device name will be displayed. Tap the  icon to customize the device name   Radio Model  for management purposes, or directly tap the device name to access its function settings interface.



Connected to device



Disconnected from device



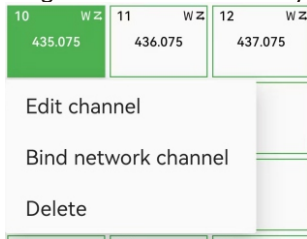
Phone Speaker ON (Walkie-talkie and phone audio play simultaneously)



Phone Speaker OFF (Walkie-talkie audio only - phone muted)

## 2, Radio Channel Configuration

To edit a channel, press and hold the desired channel, select "Edit Channel," modify the parameters in the pop-up window, then tap "Save" in the upper right corner to confirm your changes.



**Transmit Disable:** Blocks radio transmissions (useful for network-only operation to conserve power).

**Busy Channel Lock (BCL):** Automatically prevents transmissions when the channel is occupied (avoids interrupting ongoing communications or causing interference).

**Mute Function:** When enabled, all voice communications on the current channel will be silenced (particularly useful when configuring this channel for APRS data transmission, eliminating the need to hear disruptive data signal noise).

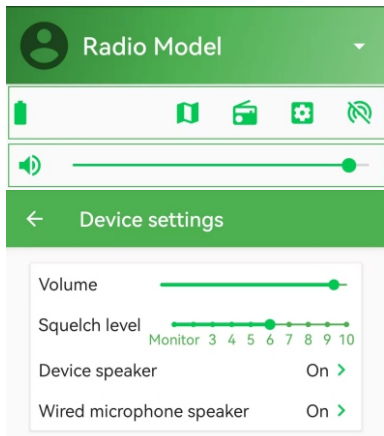
**Talk Around :** When enabled, repeater frequencies with offset will use the receive frequency and receive CTCSS/DCS for both reception and transmission.

**Scan Allowed:** When activated, this channel will be included in the scan list when initiating a scan.

**Pre-Emphasis/De-Emphasis** Enables pre-emphasis during transmission and de-emphasis during reception to improve voice signal-to-noise ratio. All radio communications will utilize this processing.

**Scan :** When scanning is enabled, the radio will begin scanning through all channels marked as [Scan Allowed].

## 6. Device Settings



### Switch Group

- **Group:** Groups stored in the APP
- **Switch Device Group:** Groups stored in the radio
- **Import Device Channels:** Import current information to the radio



Open The FM Radio Interface



Open Radio Settings Interface



Disconnect from Device

**Device Speaker** (If connected to a mobile radio unit, this refers to the external speaker of the main unit)

### Speaker Status Description:

- **Auto Mode** - The speaker will automatically mute when connected to a wireless microphone or wireless headset, and automatically unmute when the wireless device is disconnected.
- **On** - Turn on the speaker.
- **Off** - Turn off the speaker.

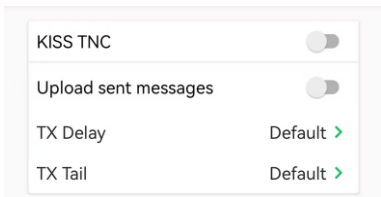
## 6.1 General Settings

**KISS TNC:** Enable KISS TNC mode to directly connect via Bluetooth to computers or terminal devices for data communication such as APRS and Packet Radio.

**Upload Transmitted Messages:** Messages are echoed back to the software during transmission (commonly used with OviMap).

**Transmit delay:** Waiting time before packet transmission begins (unit: 10ms), ensuring proper synchronization of receiving devices.

**Transmit tail:** Duration of sustained signal after packet ends (unit: 10ms), preventing data loss due to premature radio switching.



When using third-party software to connect to this device, please ensure the KISS TNC switch is turned on and properly configured before exiting the APP. This will guarantee successful connection between the third-party software and the device.

## VOX Settings

### VOX (Voice Operated Transmission):

Automatically triggers radio transmission (PTT) by detecting microphone audio input, eliminating manual PTT button operation.

**VOX Sensitivity:** Sets the minimum audio level required to activate VOX.

**Level 1:** Highest threshold (least sensitive, requires loud audio).

**Level 8:** Lowest threshold (most sensitive, responds to quiet sounds).

**VOX Delay:** The extended transmission time (in milliseconds/seconds) maintained after audio stops before releasing PTT.

Enable VOX	<input type="checkbox"/>
VOX Level	1 >
VOX Delay	0.5S >

Tx time limit	60 seconds >
Tx hold time	Off >
PTT Follow	<input type="checkbox"/>
Tail elimination	<input checked="" type="checkbox"/>
Digital mute	<input type="checkbox"/>
Signaling preamble	<input type="checkbox"/>
Audio relay	<input type="checkbox"/>

**Time-Out Timer (TOT):** Limits maximum transmission duration.

**Transmission Hold Time:** Delay time after releasing PTT before ending transmission (used for repeater links).

**PTT Follow :** Allows the device to transmit on the currently received frequency (A/B band) if PTT is pressed within 3 seconds after signal ends.

## **Transmission Rules:**

**Main Band Reception:** PTT transmits on main band.

**Sub Band Reception:** PTT automatically switches to sub band.

**Note:** When disabled, PTT only transmits on main band.

**Squelch Tail Elimination:**When enabled, automatically cuts off post-transmission noise.

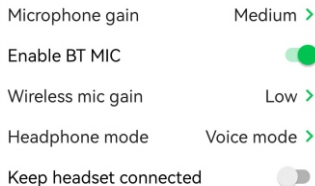
**Note:** Incompatibility between brands may render this ineffective due to protocol differences.

**Digital Mute:**The radio automatically mutes when detecting digital signals. (Note: This does not mute all digital transmissions immediately, as it requires signal identification. For complete silence, set the channel to mute. During SSTV reception/transmission, disable digital mute to hear audio, or enable it to maintain silence.)

**Preamble:**Adds a leading code before transmission to ensure the receiving end captures complete signaling tones.

**Audio Relay :**When enabled, received audio (recorded for up to 30 seconds) will be re-transmitted after playback.

**Warning:** Do not activate this on repeater frequencies to avoid disrupting repeater operations.



**Microphone Gain:** Adjusts the input gain level for wired microphones.

**Enable BT Microphone:** Activates the wireless microphone functionality.

**Wireless Microphone Gain:** Adjusts the input gain level for wireless microphones.

**Headset Mode:** Configures the connection method for car phone systems (Voice Mode/Phone Mode).

**Keep Headset Connected:** Selects between continuous or triggered headset connection.

**When "Keep Connected" is enabled:** The headset remains constantly connected to the radio and cannot receive audio from other devices.

**When disabled (for multi-device connectivity):**

- The radio will quickly connect to the headset upon receiving signals.
- If the headset is occupied by another device (e.g., music, phone calls, navigation), it will prioritize radio signals when received.
- The headset can only receive audio from other devices when idle.
- Note: The quick mute function will not work when using a wireless microphone in this mode.

Lock channel data	<input type="checkbox"/>
Tone	<input checked="" type="checkbox"/>
Power saving mode	<input type="checkbox"/>
Auto Power On	<input checked="" type="checkbox"/>
Automatic shut-down	Off >
Enter pairing mode at power on	<input type="checkbox"/>

**Channel Data Lock:**When enabled, all radio and VFO-related settings become unavailable (including Freq Sync Rapid Scan, frequency scanning, and VFO mode).

**Tone:**Turn on/off operation prompt tones for device panel controls.

**Power Saving Mode:**When activated, the display and indicator lights will turn off after

60 seconds of inactivity (press any key to wake).

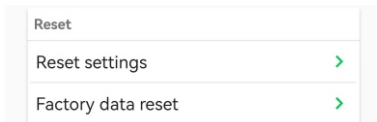
**Auto Power-On:**When enabled, the device automatically powers on when electricity is supplied (no manual power-on required after each power connection).

**Auto Power-Off:**The radio will automatically shut down if no transmission occurs within the selected time period. To restart, press the power button or reconnect the power supply.

**Enter Pairing Mode At Power On:**The radio enters pairing mode immediately upon powering on.

**Reset Settings:**Click "Confirm" to reset all radio function settings to factory defaults.


**Factory Data Reset:** Click "Confirm" to restore all radio settings and channel information to factory state.



**Recommendation:** Before using this function, save important channel/group data via the Share feature for later re-import to the APP. When uninstalling/reinstalling the APP, use the Share feature to preserve channel/zone configurations.

(Note: These reset options provide complete system restoration while the Share feature safeguards critical configurations.)

## 6.2 Connection Management

This page manages all connected devices. Enable scanning to set this device to pairing mode. Tap  to remove a connected device.

**For unauthorized Bluetooth peripherals that cannot pair using standard methods:**

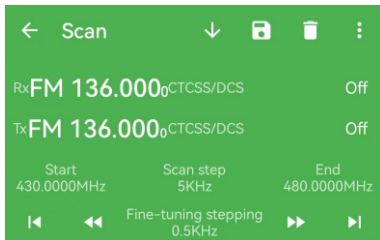
- Click Scan on this page.
- Put the Bluetooth peripheral into pairing mode.
- Select and bind the device from the scanned list to complete pairing.

(Note: This allows pairing with non-standard Bluetooth accessories.)



## 6.3 Frequency Scanning

This page scans active frequencies.




**Start Frequency:** Enter the beginning frequency

**Scan Step:** Select scanning step interval

**End Frequency:** Enter the ending frequency

**Scan Controls:**

Press to  start downward scanning

Press to  start upward scanning

Press  or  to pause scanning

**Fine-Tuning:**

Adjust scan results with  or  for precise tuning

**Frequency Synchronization:**

Press  to sync receive frequency to transmit frequency

**Channel Storage:**

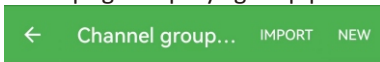
Press  to save the current frequency to the active channel

**Scan Mode Selection:** 

**Auto-Scan Mode:** If Enable, Records detected signals and continues scanning  
If disabled, it will stop scanning and monitor the current signal when one is present.

## 6.4 Group Management

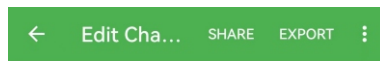
This page displays group presets stored in the APP.



Channel group 1



Channel group 3



Title

### CHANNEL MANAGER

1 FM 435.075



2 tes



3 FM 431.075





**Sync :** Press  to synchronize frequencies to corresponding walkie-talkie groups.

### Import Options:

- 1. Import Device Channels:** Saves current device frequencies to APP/local storage
- 2. Import Spreadsheet:** Imports edited frequency tables to APP/device.

### Group Editing Instructions:

- 1, Access Group Edit:** Tap any group in the diagram to enter group editing mode.
- 2, Frequency Management:** Press  to select frequencies stored in the APP, Press  to clear all frequencies in the current channel.

### Export/Share Functions:

**Export:** Generates a CSV file of the current group's channel list

**Share:** Creates a shareable code containing the group configuration, Recipients can paste this code in the HT APP to automatically add the group to their group list.

## 6.5 Programmable Keys

The programmable keys vary by device model. Please configure the corresponding keys according to your device's user manual. If this menu option is unavailable, the device's keys are not customizable.

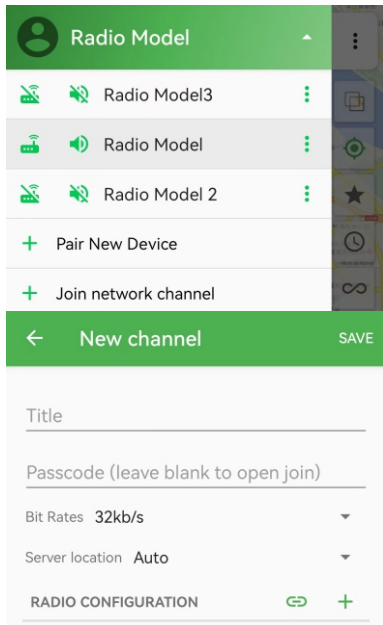
For specific function definitions and explanations, please refer to your walkie-talkie's instruction manual.

(Note: Key programmability depends on the device hardware capabilities and firmware version.)




← Programmable buttons	
P1 Press down	Disable >
Short Single	Volume - >
Double Click	Mute switch >
Long Press	Dual CH main channel switch >

## 7. Network Channel




After successful registration:

### Join Network Channel:

- Select "Join Existing Channel";
- Click  and enter keywords to search for available network channels;
- Choose a channel to join.

### Create New Network Channel:

- Alternatively, click  "Create New Network Channel" to set up a custom channel.

### 7.1 Create Network Channel:

Channel Configuration:

- **Title:** Enter the network channel name;
- **Password:** Set an access password (optional);
- **Bitrates:** Higher values improve voice quality but require better network conditions;
- **Server Location:** Select the nearest geographic server;

## Remote Radio Control (Optional):

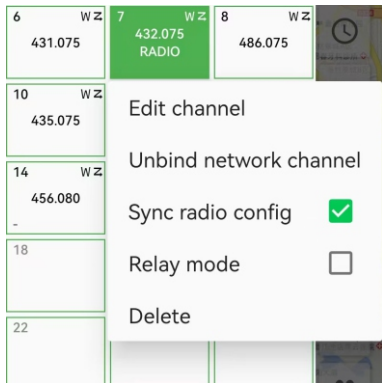
Configure the required frequency parameters for remote radio operation;

### Finalize:

Click Save to complete channel creation.

## 7.2 Bind Network Channel to Analog Channel

This function allows you to link an existing network channel to a physical analog radio channel, enabling hybrid RF/IP communication.



### Binding a Network Channel to an Analog Channel

- 1, Long-press the target analog channel.
- 2, Select "Bind Network Channel" from the pop-up menu.
- 3, Choose the desired network channel to bind.
  - *Once bound, all communications on the network channel will be handled by the radio.*

### Unbinding a Network Channel

- 1, Long-press the bound analog channel.
- 2, Select "Unbind Network Channel" from the pop-up menu.

## Advanced Settings

### Sync Radio Configuration:

- If enabled, frequency changes made by the network channel admin will automatically update this analog channel. (Use with caution.)

### Relay Mode (Repeater Bridge):

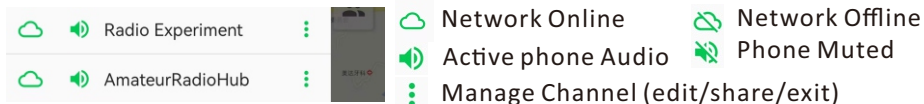
- When enabled, radio signals on this channel will be forwarded to the bound network channel, and vice versa.

(Requires admin permissions. Contact the network channel creator for authorization.)

## 7.3 Network Channel Management

All joined network channels are displayed in a list under the left-side Device list menu.

To manage channels, click  to switch to the Device List Menu.



*When the APP is running, all activated online network channels maintain real-time connections. In this state, received voice messages support cross-channel real-time playback.*

**Recommended Settings:** *To reduce interference, it is advised to mute or set infrequently used network channels to offline status.*

## 7.4 Remote Link Management

This system allows the primary account to create network channels and centrally manage frequency settings. Secondary accounts can join and automatically synchronize frequency updates.

### Configuration Steps

**1, Account Setup:** Register two system accounts: Primary and Secondary.

#### 2, Primary Account Actions

- Log in to the primary account.
- Create a new network channel.
- Configure channel parameters:
  - Receive/transmit frequencies
  - Other relevant settings (CTCSS, power, etc.).

#### 3, Secondary Account Actions (Android-only)

- Log in to the secondary account.
- Join the network channel created by the primary account.
- Request "Admin" permissions.
- Connect the radio and bind the network channel to an analog channel, enabling the two selection : Sync Radio Config & Relay Mode.

### Frequency Synchronization

Once configured: Any frequency changes made by the primary account will automatically update on the secondary account's bound channel.


## 8. Automatic Satellite Tracking

This feature enables hands-free satellite tracking via the app, eliminating manual frequency adjustments. Once connected, your radio automatically adapts to the satellite's frequency in real time for stable communication.

TX Freq	TX CTCSS/DCS
RX Freq	RX CTCSS/DCS

Connect Show track Unfollow Edit

### Setup Instructions

- 1, Connect your radio to the app;
- 2, Switch to Map View, tap the search bar , and enter the target satellite name (e.g., "ISS" or \*"SO-50"\*);
- 3, Click the satellite on the map;
- 4, Tap "Connect" — the system will: Calculate the satellite's orbit. and Continuously adjust your radio's frequency as the satellite moves.

### During Tracking

Frequency updates automatically to maintain optimal signal.  
No user intervention required (full Doppler shift compensation).

## 8.1 Satellite Data Management

When the satellite you need to track is not in the default list, follow these steps to add custom satellite data:

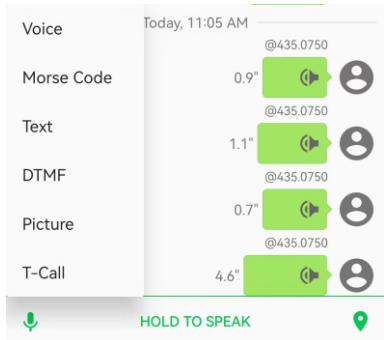
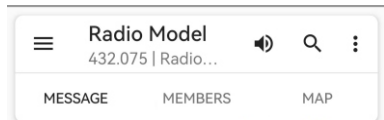
### Add a New Satellite

- 1, Go to the Amateur Radio Satellite Menu;
- 2, Click the "+ Add Satellite" button;
- 3, Enter the satellite details:
  - Name (e.g., "DIY-SAT-1")
  - NORAD ID (if applicable)
  - Uplink/Downlink Frequencies
  - Orbital Parameters (TLE data)
- 4, Save Settings.

### 8.2 Edit Existing Satellite

- 1, Open the Amateur Radio Satellite List;
- 2, Tap the satellite you wish to modify;
- 3, Adjust parameters (e.g., frequencies, TLE data);
- 4, Save Changes.


## 9. Other Function




### 1, Voice Message Processing

- Received voice messages are automatically saved as recorded files.
- Tap the keyboard menu to open the function menu and select operations.

### 2, Voice Communication Mode

- Long-press the "Hold to Talk" button to switch to voice communication mode.
- To monitor audio on your phone, ensure  is set to "ON" (enables simultaneous playback through both phone and radio speakers).

### 3, Search Function

- Press  to activate the search bar and query chat history by frequency or channel name.

### 4. Voice Message Analysis

- Long-press a voice message to parse its content (e.g., extract text, analyze signal metrics).



Parse/analyze the audio file



Decode DTMF tones from the audio file



Decode Morse code from the audio file



Export the audio recording as an OPUS-encoded file.



Configure advanced options, delete items, or select all entries

## 5. Image Transmission & Reception

When receiving image data, the system enters image reception mode, waiting for synchronized decoding before displaying the complete picture. Reception duration depends on the sender's selected format and resolution. Long-press images to share, forward, or delete.

## 6. Image Sending

Access the image sending interface to select photos from camera or album, adjust the transmission area, and choose image quality mode (higher clarity requires longer transmission time). Refer to related articles for supported image formats.


## 7. Communication Logs

All sent and received messages are recorded for review. To enable this feature, activate the "Save Voice Records" option in the APP settings and select the desired retention period. For large message volumes, use the search function and enter keywords to filter results.


## 8. Contacts

All valid received usernames are recorded chronologically. Use the <Nearby Users> function to actively search for additional contacts.

### 1. Calling a Contact

- Tap a contact to access individual options.
- Click the Call Icon  to send a call alert.
- The recipient's radio and mobile device will ring simultaneously (if online).

### 2. Requesting Location

- Click the Location Icon  to send a position request.
- If the recipient has enabled "Allow Location Checks":
  - The system automatically verifies channel availability.
  - Sends current location once the channel is clear.

### 3. Viewing Activity Traces

- Check a contact's movement history on the map.
- Filter traces by selected time ranges.

## 9. Position Reporting Map:

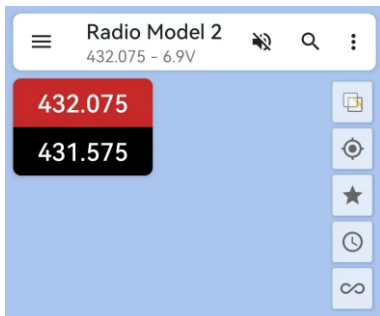
- **APRS-registered users:**

Data sent/received complies with APRS protocol and will be automatically transmitted/received via gateways or simultaneously broadcast via radio based on user configurations.


- **Non-APRS-registered users:**


Data does not comply with APRS protocol and will only be transmitted/received via radio using the BSS protocol.

- Not routed through internet gateways
- Not decodable by APRS radio receiving equipment





## 10. Map View

**User Search:** On the map interface, click the search bar  , enter the name of the user you want to search for. If the user exists, click their avatar on the map, and the view will automatically center and follow them.


**Map Modes**  : Map, Satellite Imagery, Terrain, Space Station, Amateur Radio Satellite.

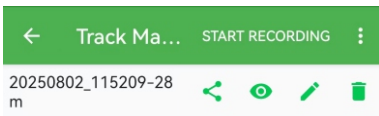
**Positioning**  : Click to automatically return to your current real-time location.

**Follow Mode**  : When enabled, only users marked as "Followed" are displayed on the map.

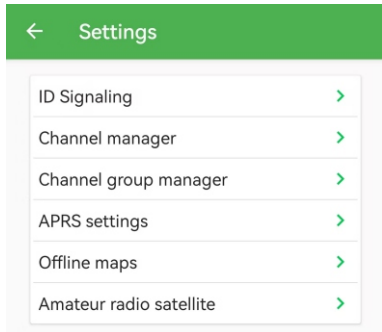
**Display Timeframe**  : Shows icons of other users on the map based on signals received within the set time period.

### User Operation Functions:


- A. Send Message – Send messages (supporting Chinese, English, numbers, and symbols) to the specified user.
- B. Navigation – After entering route navigation, the APP will display all installed navigation software for user selection.
- C. Follow/Unfollow – Enable or disable follow status for the selected user.
- D. Track Management  – Supports importing tracks from multiple third-party map apps and adding custom markers.






## APP SETTINGS



### 10.1 Channel Management


The APP includes preset frequencies. When editing channels, you can quickly select  from existing channel frequencies.

- Click  to create a new channel frequency.
- Click  to search stored frequencies.
- Click  to import/export frequencies.

### 10.2 Group Management

The APP stores group lists. if need sync to

your radio:

- 1, Ensure the radio is connected.
- 2, Click to  sync to the corresponding radio zone.

### 10.3 Offline Maps

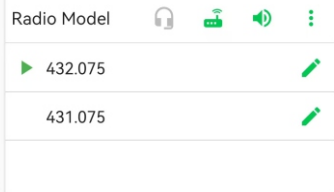
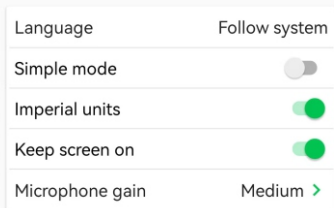
The APP's built-in map system includes Google Terrain. Users can download offline map packages as needed. In offline mode:

- Switching map modes will load and display all downloaded offline maps.
- During route navigation, the APP will display all installed navigation apps for user selection.

## 10.4 Amateur Radio Satellites

- Supports adding custom satellites.
- Deletion is only allowed for user-added satellites (system default satellites cannot be deleted).

## 10.5 System Settings



Bonding radio and network channel



**Language:** Follows the system language setting of the mobile device.

**Simple Mode:** When enabled, only the currently used channel is displayed on the radio's channel interface (as shown in the left figure). To restore the normal display, disable Simple Mode.

**Imperial Units:** When enabled, all units are converted to the imperial system (e.g., miles, feet).

**Keep Screen On:** Prevents the phone screen from turning off while the APP is active for convenient operation.

**Microphone Gain:** Adjusts the microphone sensitivity of the mobile device.

**Note:** Affects transmissions via the phone's microphone for both network channels and analog channels.

## 10.6 Floating Window

This feature enables the radio status to be displayed as an overlay on top of other applications while maintaining stable background operation, facilitating cross-application multitasking.



## 10.7 Voice Recording

This feature allows users to customize the retention duration of voice recordings based on individual needs, enabling efficient management of device storage space.

## 10.8 PTT Key Management

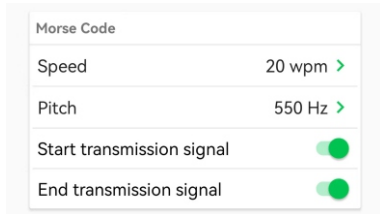
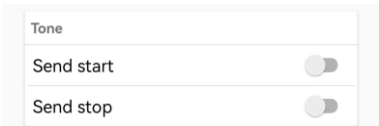
**PTT Key Configuration:** Supports customizing physical/virtual smartphone keys as PTT function keys for one-touch communication.

**PTT Management (Android Custom Devices):** Designed for Android devices with hardware PTT buttons, enabling functional configuration for instant walkie-talkie activation.

**PTT Lock:** Facilitates hands-free operation by toggling continuous transmission with a single press (no hold required). Press again to end transmission.

## 10.9 Audible Tones

This feature enables users to customize start/end tones for PTT operations within the APP, enhancing operational feedback and user experience.



## 10.10 Morse Code

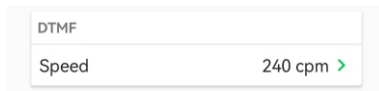
This feature allows users to customize Morse code transmission parameters, including Speed & Pitch .

**Start transmission:** Auto-applies prefix identifier

**End transmission:** Auto-appends suffix identifier

## 10.11 DTMF

Enables precise adjustment of DTMF(Dual-Tone Multi-Frequency) parameters



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