HAM RADIO · DIGITAL VOICE · IOS

MSEVEN M17

// Getting Started Guide — iPhone & iPad

Amateur License Required· Developer: Gregg Wonderly· Protocol: M17 Open Source

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INTRO WHAT IS THIS APP?

MSeven M17 is an iOS app that turns your iPhone or iPad into a digital voice radio, connecting you to the M17 reflector network over the internet — no physical radio hardware required.

M17 is a fully open-source digital voice and data protocol for amateur radio, using the **Codec 2** voice encoder. Think of it like D-STAR or DMR, but community-built with no proprietary licensing. Reflectors are internet servers that link users together, similar to how IRLP or AllStar works.

⚠ **License Required:** You must hold a valid Amateur Radio license to transmit. You can listen (monitor) without transmitting, but you must identify with your callsign to use PTT.

STEP 01 INSTALL THE APP

01

Find it on the App Store

Search for "*MSeven M17*" on the Apple App Store, or search for developer name "*Gregg Wonderly*". The app icon features the M17 logo.

02

Download & Install

Tap *Get* and authenticate with Face ID, Touch ID, or your Apple ID password. The app is free to download.

03

Grant Microphone Permission

When prompted, tap *Allow* to grant microphone access. This is required for transmitting. Without it you can still receive audio.

STEP 02 INITIAL CONFIGURATION

Before connecting to any reflector, you need to configure your callsign and basic settings. Look for a **Settings** or gear icon in the app.

SETTING	WHAT TO ENTER
Callsign	Your full FCC callsign in UPPERCASE (e.g., **W7XYZ**). This is your identity on the network — no registration needed, your callsign is your ID.
CAN (Channel Access Number)	Leave at **0** unless the reflector specifies otherwise. CAN 0 is the standard default.
Audio Input	Select your iPhone's built-in microphone, headset, or AirPods. The app includes built-in audio processing for clarity.
Audio Output	Speaker, headphones, or Bluetooth. CarPlay is also supported for in-vehicle use.

✓ **Tip:** The app supports spectrum equalization for both transmitted and received audio — you may want to experiment with audio settings if you find the received audio sounds thin or boomy.

STEP 03 CONNECTING TO A REFLECTOR

M17 reflectors are named with a prefix of **M17-** followed by up to 3 characters, and each reflector has lettered **modules** (A through Z) that act like separate rooms or channels.

01

Add a Reflector

Tap the + button or "Add Reflector" option. You'll enter a reflector name and module letter.

02

Enter the Reflector Address

Type the reflector name (e.g., **M17-M17**) and select a module (e.g., **C**). The app will look up the server address automatically using the M17 reflector directory.

03

Save It

Save the reflector to your list. You can save multiple reflectors and switch between them — including with the CarPlay prev/next track controls.

04

Tap Connect

Tap your saved reflector and then *Connect*. The app will link to the reflector over your internet connection (Wi-Fi or cellular).

GOOD STARTER REFLECTORS

`M17-M17 / C`

Main M17 community reflector. Friday nets at 17:00 UTC. Great for newcomers.

`M17-USA / A`

US-focused general activity reflector.

`M17-CAN / A`

Canadian activity reflector.

`M17-WW / A`

Worldwide general linking reflector.

✓ **Find more:** A full list of M17 reflectors worldwide is at **m17project.org** and the M17 Foundation Wiki.

STEP 04 TRANSMITTING (PTT)

01

Press and Hold PTT

The large PTT (Push-To-Talk) button puts you in transmit mode. Hold it while speaking, just like a radio.

02

Identify Yourself

Say your callsign at the start of each transmission — this is an FCC requirement. Example: "*W7XYZ monitoring*" or "*W7XYZ, good morning*".

03

Release PTT to Receive

Release the button to switch back to receive mode. The app shows you the callsign of whoever is currently transmitting.

04

Watch for [DOUBLE]

If you see a
[DOUBLE]
indicator, it means two stations transmitted simultaneously. The app will automatically un-key your PTT after 3 seconds to prevent a stuck transmit situation.

⚠ **Doubling:** If [DOUBLE] appears frequently on a busy reflector, wait for a pause before keying up — same courtesy as on a repeater.

STEP 05 KEY FEATURES TO KNOW

FEATURE	HOW IT WORKS
Station Map	The app displays a map showing the geographic location of active stations on the reflector. Tap a pin to see their callsign and details.
Active Callsign Display	The currently transmitting station's callsign is prominently shown on screen in real time.
Transient Station List	A scrollable log of recent stations that have transmitted on the connected reflector — useful for seeing who's been active.
Contact Logging	Log contacts with comments directly in the app. Add notes to remember conversations — handy for mobile operation.
Mute Button	Mutes received audio without disconnecting from the reflector. Useful in meetings or noisy environments.
CarPlay Support	Full CarPlay integration. Use your car's screen to connect, monitor, and PTT. Step through saved reflectors with prev/next track buttons; play/pause selects and connects.

FAQ COMMON QUESTIONS

DO I NEED A HOTSPOT OR RADIO HARDWARE?

No. MSeven M17 connects directly to M17 reflectors over your phone's internet connection. No MMDVM hotspot, Raspberry Pi, or physical radio is needed. Your iPhone *is* the transceiver.

CAN I USE IT ON CELLULAR DATA?

Yes. The app works on both Wi-Fi and cellular (LTE/5G). Audio quality may vary on weak cellular signals, but it generally works well on any reasonable connection.

WHAT'S THE AUDIO QUALITY LIKE COMPARED TO FT8/FT4?

M17 is a voice mode, not a data-exchange mode like FT8. It uses Codec 2 at 3200 bps — think of it as similar quality to DMR or D-STAR, quite intelligible and clear on a good connection, with the app's built-in equalization helping further.

CAN I MONITOR WITHOUT TRANSMITTING?

Yes. Connect to a reflector and simply don't press PTT. You can listen all you like. No license is required just to receive.

THE APP SHOWS A CRC ERROR OR "CHECKING CRC" MESSAGE. WHAT DO I DO?

Newer versions of the app include a fix for CRC calculation issues that caused error messages on certain hotspots. Make sure you are running the latest version from the App Store.

HOW DO I FIND ACTIVE M17 NETS AND SCHEDULES?

The main M17 community net runs on **M17-M17 module C** every Friday at 17:00 UTC — a great place to test your setup and meet other M17 operators. Check m17project.org and the M17 Foundation Discord for more net listings.

CAN I USE BLUETOOTH HEADSETS OR AIRPODS?

Yes. The app supports Bluetooth audio output. AirPods and other Bluetooth headsets should work through standard iOS audio routing. For CarPlay, the car's microphone and speakers are used.