USER'S MANUAL

Illustrated operator guide • Desktop & Mobile



DIGI HAM LINK connects operators through supported digital-voice networks.

Edition 2.0 | 15 October 2026 | Beta documentation

Official project: digihamlink.com • Radio application: radio.digihamlink.com

How to use this manual

This illustrated guide is for DIGI HAM LINK operators using a web browser, installed web app, laptop, desktop, or Android device. The screenshots supplied for this edition show real application states, including the Radio dashboard, BrandMeister talkgroups, System Fusion reflectors, Logbook and Grid Tracker.

> Version accuracy — DIGI HAM LINK is actively being developed. Some administrator controls and bridge capabilities may behave differently by account, deployment, or release. A screenshot can show a selected or receiving network without proving that transmitted audio has been heard by a remote operator.

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Important operating distinctions

- Your DIGI HAM LINK login is separate from any BrandMeister network credentials.
- An AllStarLink node is not the same thing as the browser audio call to that node.
- A visible callsign or network activity indicator does not, by itself, establish end-to-end audio quality.
- The local Master Logbook / Grid Tracker may use device-specific data, whereas a server-backed QSO panel can display a separate dataset.

01 Getting started and signing in

Before you begin

- An enabled DIGI HAM LINK operator account and stable Internet connection.
- A current browser (Chrome, Edge, Firefox, or another browser supported by your deployment).
- Speakers or headphones; a headset is strongly recommended to avoid acoustic feedback.
- Microphone access if you will transmit, plus any network-specific credentials for the network you choose.

First sign-in

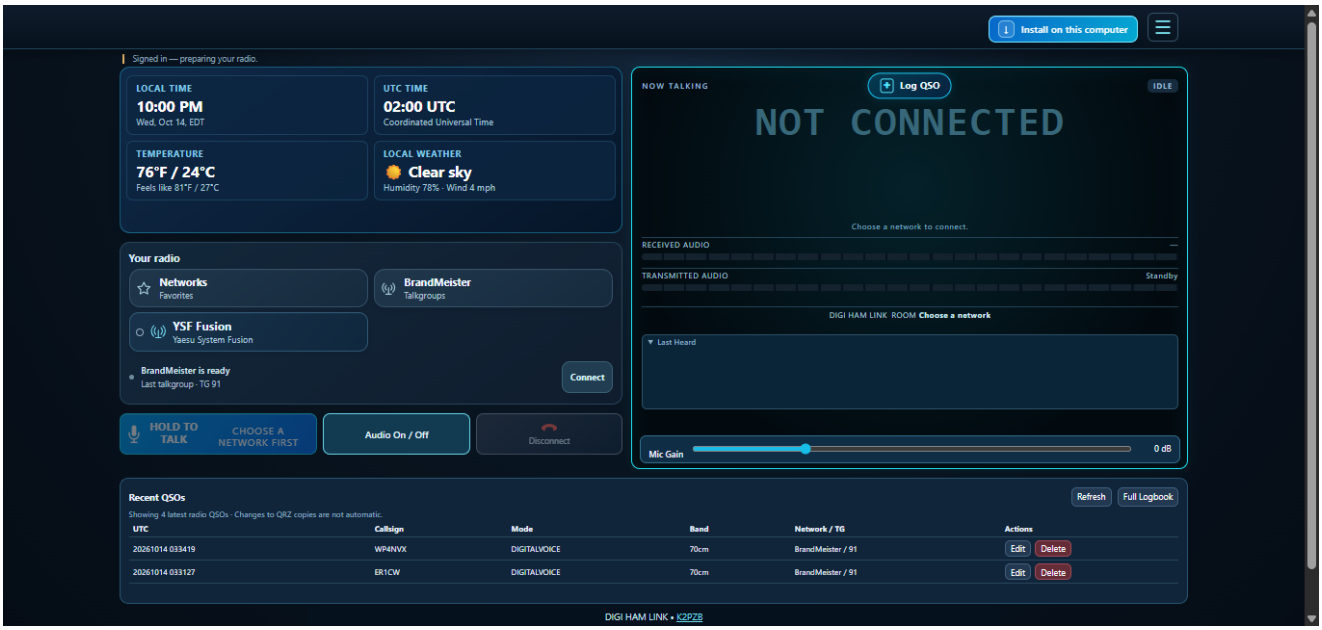
1. Open https://radio.digihamlink.com/.

2. Sign in with your DIGI HAM LINK credentials.

3. Wait until the Radio dashboard and account controls appear. The status message "Signed in — preparing your radio" may appear during SIP registration and is not proof that every API is ready.

4. Choose the radio network you want to use. The application should not begin transmission simply because you signed in.

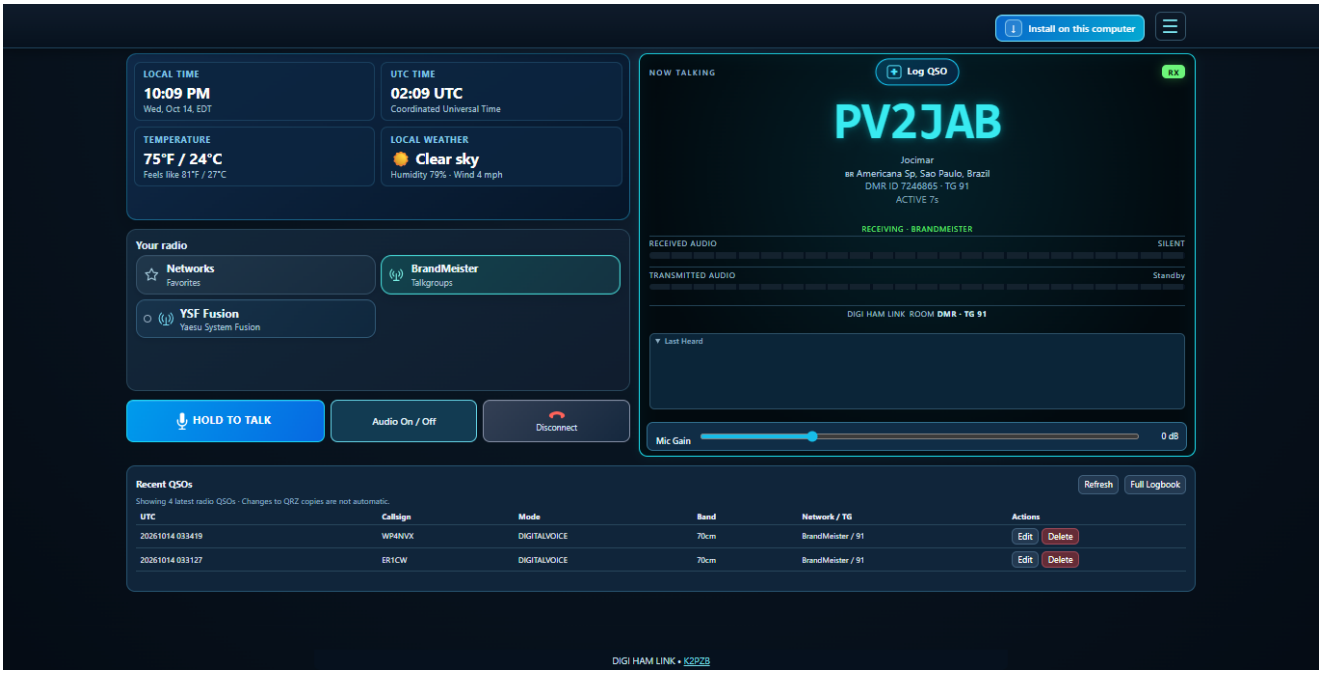
5. Grant microphone access when requested if you intend to talk.



Radio dashboard before a network is selected: NOT CONNECTED, network selection cards, Hold to Talk unavailable.

DMR setup — BrandMeister personal access requires the appropriate DMR ID, unused ESSID, hotspot security password, and compatible master configuration. AllStarLink and personal YSF do not ordinarily require a BrandMeister DMR ID.

02 Understanding the Radio dashboard



Example: BrandMeister reception on TG 91 with station identity, RX indicator, meters and Quick Log QSO.

Element	Purpose
NOW TALKING	Displays the most recently observed current speaker, station details and selected network.
RX / STANDBY / IDLE	Shows a receive or connection activity state; interpret together with actual audio.
RECEIVED / TRANSMITTED AUDIO	Displays audio levels and/or network activity as supported.
Networks / BrandMeister / YSF Fusion	Choose a supported destination or network workflow.
HOLD TO TALK	Press and hold when transmit-ready, then release.
Audio On / Off	Manage local audio playback; do not mistake it for a network disconnect.
Disconnect	Ends the active browser network session.
Mic Gain	Adjusts outgoing microphone gain; start conservatively.
Last Heard / Log QSO	View detected stations and initiate a contact log.

03 Microphone, audio and Hold to Talk

Safe PTT procedure

1. Select a network and connect to a destination.
2. Wait for the network to report a connected/ready state; confirm your audio path has joined.
3. Listen first. Check for other users speaking; avoid transmitting over an ongoing QSO.
4. Press and hold HOLD TO TALK and identify with your callsign.
5. Release the button when you finish. Confirm that transmit status returns to standby.
6. Disconnect after completing the session.

Microphone troubleshooting

- If the button is disabled, verify the active network and audio readiness. A valid sign-in alone is not sufficient.
- If the button activates but nobody hears you, verify microphone permission, input selection, mute state and the network's transmit authorization.
- A successful HTTP PTT request is not conclusive proof that the remote reflector or radio received usable speech.
- If the level meter is consistently low, increase Mic Gain gently; excessive gain can cause distortion.
- Use headphones when possible; echo and feedback from speakers can be transmitted into a network.

Transmission safety — PTT should automatically release if you stop holding it; transmission timeouts and backend authorization remain mandatory. Do not override them to solve a frontend display problem.

What does STANDBY mean?

STANDBY generally indicates that no current speaker has been detected at the interface. It does not guarantee a reflector has live participants, that remote audio is flowing, or that PTT was accepted. In a working connection, verify connected status and audio separately.

04 BrandMeister DMR — overview



BrandMeister DMR network identification.

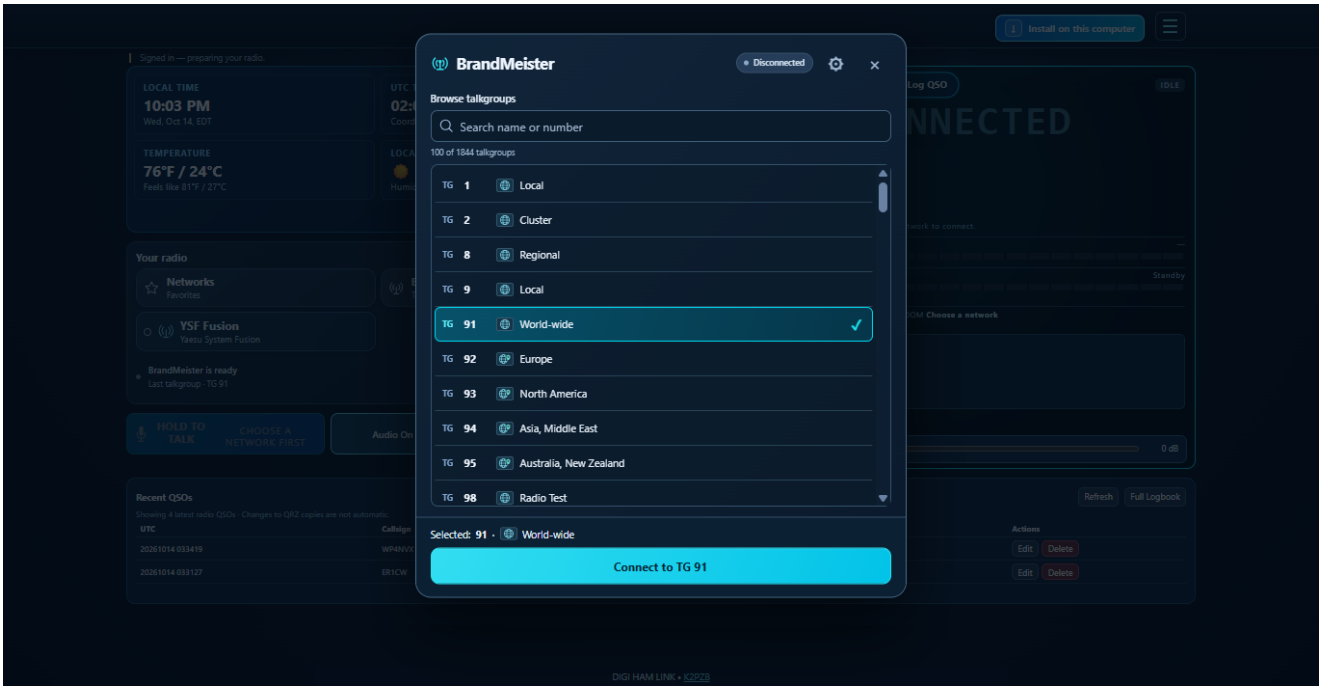
BrandMeister gives compatible digital-voice operators access to talkgroups. DIGI HAM LINK offers personal DMR access through a talkgroup selector; its browser controls must be used with the operator's valid BrandMeister identity and authorized settings.

Account requirements

- An approved DMR ID associated with your callsign.
- A personal hotspot ESSID not conflicting with an existing active device.
- The BrandMeister Hotspot Security password configured in your account profile.
- A selected master server; connection stability and availability can vary by server or talkgroup.

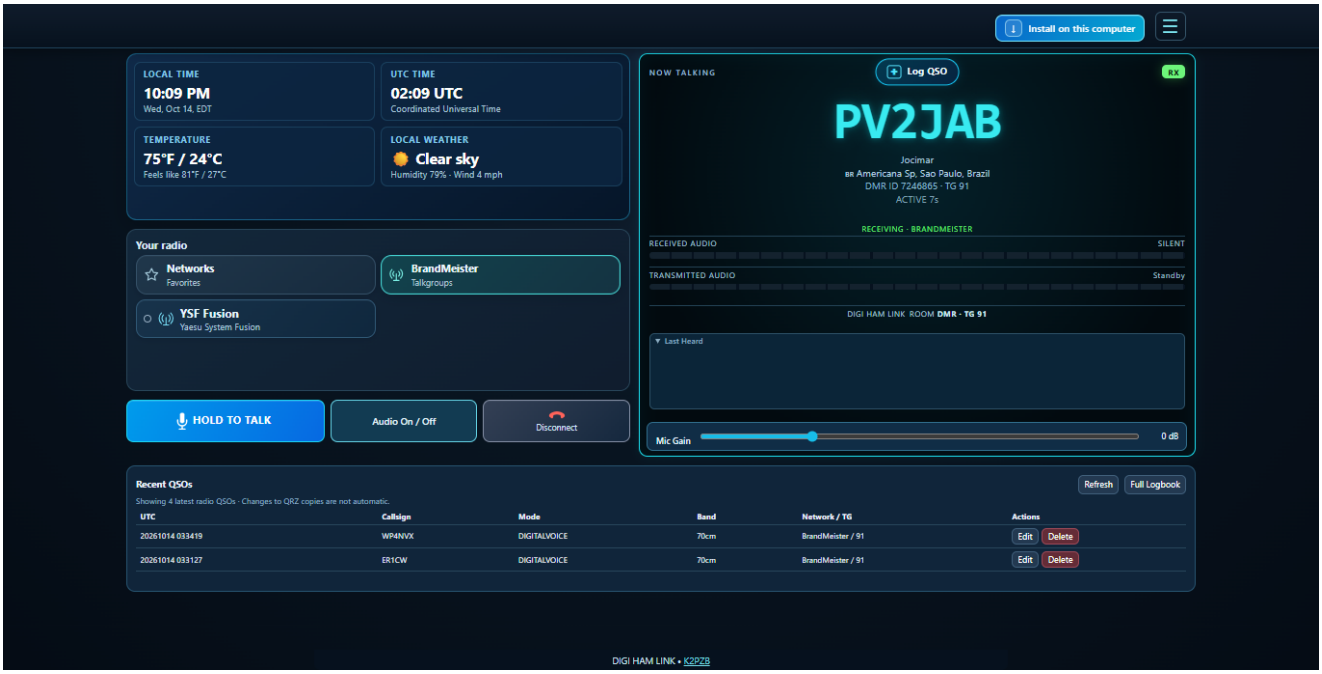
Selecting a talkgroup

1. On the Radio dashboard, select BrandMeister.
2. In the talkgroup dialog, enter a name or number into Search, or scroll the list.
3. Select the desired talkgroup, for example TG 91 — World-wide.
4. Press Connect to TG 91 (or the corresponding button for your selection).
5. Wait for the connected state and local audio. Listen before transmitting.



BrandMeister talkgroup selection: search, TG list, selected talkgroup, and Connect button.

04 BrandMeister DMR — operating a QSO



Connected example with received callsign, country, DMR ID, TG 91 and RX status.

While connected

- NOW TALKING can display a received DMR callsign, name, location, numeric DMR ID and talkgroup. Treat these as network metadata rather than independently verified identity.
- The green RX indicator means the application has detected receive activity.
- Hold to Talk should be used only after the selected session and microphone path are ready.
- If one speaker is heard but later speakers are silent, log the talkgroup, master server, time and observed handover behavior. Some talkgroups may still expose handover problems.
- To leave, release PTT, stop transmitting and select Disconnect.

Privacy and credentials — Never include Hotspot Security passwords in screenshots or public support reports. DIGI HAM LINK account credentials and BrandMeister credentials serve different purposes.

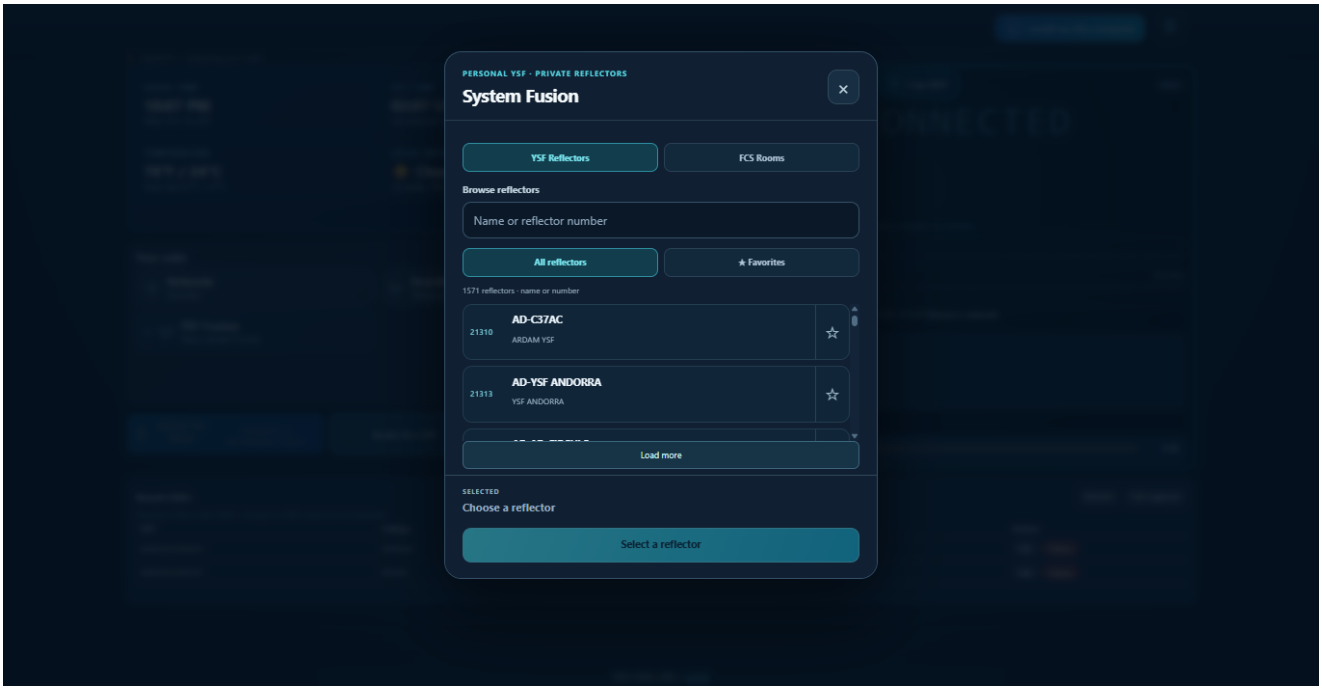
05 System Fusion / YSF reflectors

Yaesu System Fusion identification.

The personal YSF interface provides reflector selection and an individual session for an authenticated operator. In the tested deployment, a regular enabled account could connect without supplying a BrandMeister DMR ID. Reflector content and network availability remain outside DIGI HAM LINK's control.

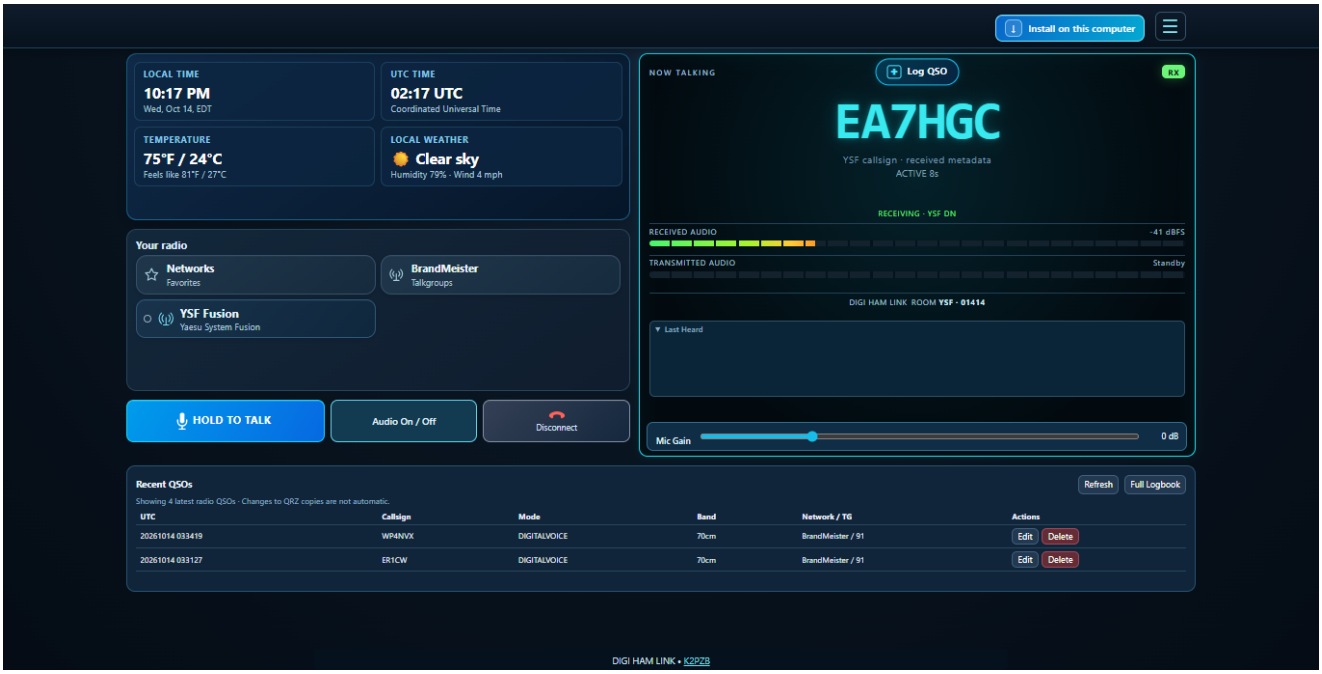
Selecting a YSF reflector

1. Choose YSF Fusion on the Radio dashboard.
2. In the System Fusion dialog, use the YSF Reflectors tab.
3. Browse all reflectors, search by name or number, or choose Favorites.
4. Select a reflector, then use the selection/connect button.
5. Wait for the connection to complete and verify the YSF badge, room number, and audio readiness.



System Fusion selector, including reflector search, Favorites and FCS Rooms tab.

05 YSF — receiving and transmitting



Example YSF receive activity: EA7HGC, YSF DN, received-audio meter, and reflector room label.

Operating tips

- The top of NOW TALKING may display a received YSF callsign. This is packet metadata and should not be treated as proof of the speaker's identity.
- Some YSF stations transmit narrow digital voice (DN); not every wider voice/data format is supported by every bridge.
- If RX is shown but you hear nothing, first verify the browser speaker is unmuted and that a receive meter is active.
- Do not send PTT until the personal YSF session reports both network and browser-audio readiness.
- Disconnect deliberately when finished; selecting another network may end the previous personal session.

FCS status — The FCS Rooms tab can appear in the interface, but the current project baseline retains FCS as an owner-only pilot rather than a general multiuser capability. Availability depends on deployment.

06 AllStarLink nodes — for operators and administrators



AllStarLink 3 / ASL3 identification.

AllStarLink connects participating voice nodes over IP. DIGI HAM LINK can search the node directory and, for an authorized node owner/administrator, request links from the assigned local node to remote nodes.

Search a node

1. Open Nodes from the application navigation.

2. Enter a numeric node ID or search by callsign, node ID or location.

3. Select a valid active-directory result. Online/reporting means listed; it does not guarantee the node accepts your connection.

4. For an authorized destination, choose Listen or Two-way as appropriate.

Single destination versus multiple links

- Single destination checked: connecting a new remote node requests disconnection of other remote nodes first.
- Single destination unchecked: the node may be able to maintain multiple remote links simultaneously, subject to backend authorization and the voice path's safety rules.
- Multiple simultaneous connections can bridge audio among remote participants; get any required permissions and avoid feedback or unintended cross-network loops.
- The operator's browser audio connection and the AllStar server's remote link list are separate. Remote links can persist after the browser disconnects.

Current known issue — 15 Oct 2026 — A reviewed build still showed disabled Listen and Two-way buttons on the Nodes page even after a frontend administrator-link patch. The cause was not conclusively resolved at manual publication. Administrators should verify that their account and server API are ready; do not assume the node is linked merely because the directory found it.

07 EchoLink, network switching and bridge caution

EchoLink

Some deployments expose an EchoLink page with station search and the list of connections attached to an assigned AllStar node. EchoLink callsign and station availability depend on EchoLink registration and local bridge configuration. Do not assume every regular user can configure the EchoLink gateway.

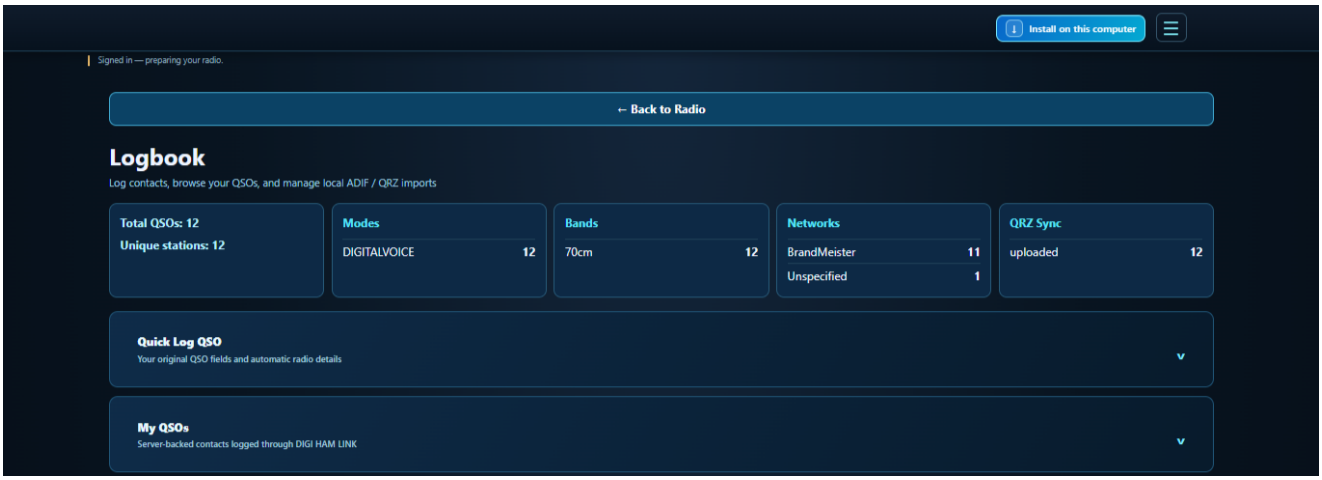
Switching networks

1. Release Hold to Talk and let any transmission finish.
2. Use Disconnect in the active network.
3. Wait until the previous audio/network session is no longer transmitting.
4. Choose BrandMeister, YSF Fusion, or an assigned-node path and connect again.
5. Check NOW TALKING, audio status and PTT readiness before operating.

Avoid unintended audio bridges

- Connecting a second AllStarLink remote node to a local hub may join remote audio paths.
- Do not bridge a DMR talkgroup or YSF reflector into other systems unless the gateways and network policies authorize it.
- The app’s personal DMR and YSF modes are independent sessions; a network chooser does not imply safe automatic cross-mode bridging.
- An administrator should monitor active connections and release unused links.

08 QSO logging — overview



Logbook overview: totals, stations, modes, bands, networks and QRZ synchronization status.

The Logbook area provides a view of logged contacts and tools for adding or managing QSO data. Screenshot examples show summary cards for Total QSOs, Unique Stations, Modes, Bands, Networks and QRZ Sync, plus Quick Log QSO and My QSOs panels.

Log a contact from the radio

1. When a station is visible under NOW TALKING, select Log QSO if available.
2. Review any prefilled callsign, timestamp, network, band, mode and location data.
3. Correct information that cannot be inferred accurately from digital-voice metadata.
4. Save the QSO and check the recent QSO list or My QSOs.

Quick Log QSO

- Use Quick Log QSO for manual entry when station data was not automatically detected.
- Check UTC dates and times.
- Confirm the actual contact medium before assigning a band/mode or claiming an RF QSO.
- Avoid creating duplicate contacts when retrying synchronization.

08 ADIF, local Master Logbook and QRZ

The project contains two related but distinct storage workflows. The earlier Master Logbook was designed to keep an imported ADIF file on the user's own device. Separately, the current screenshot labels My QSOs as "Server-backed contacts logged through DIGI HAM LINK." These should not be assumed to be the same database.

Import and export considerations

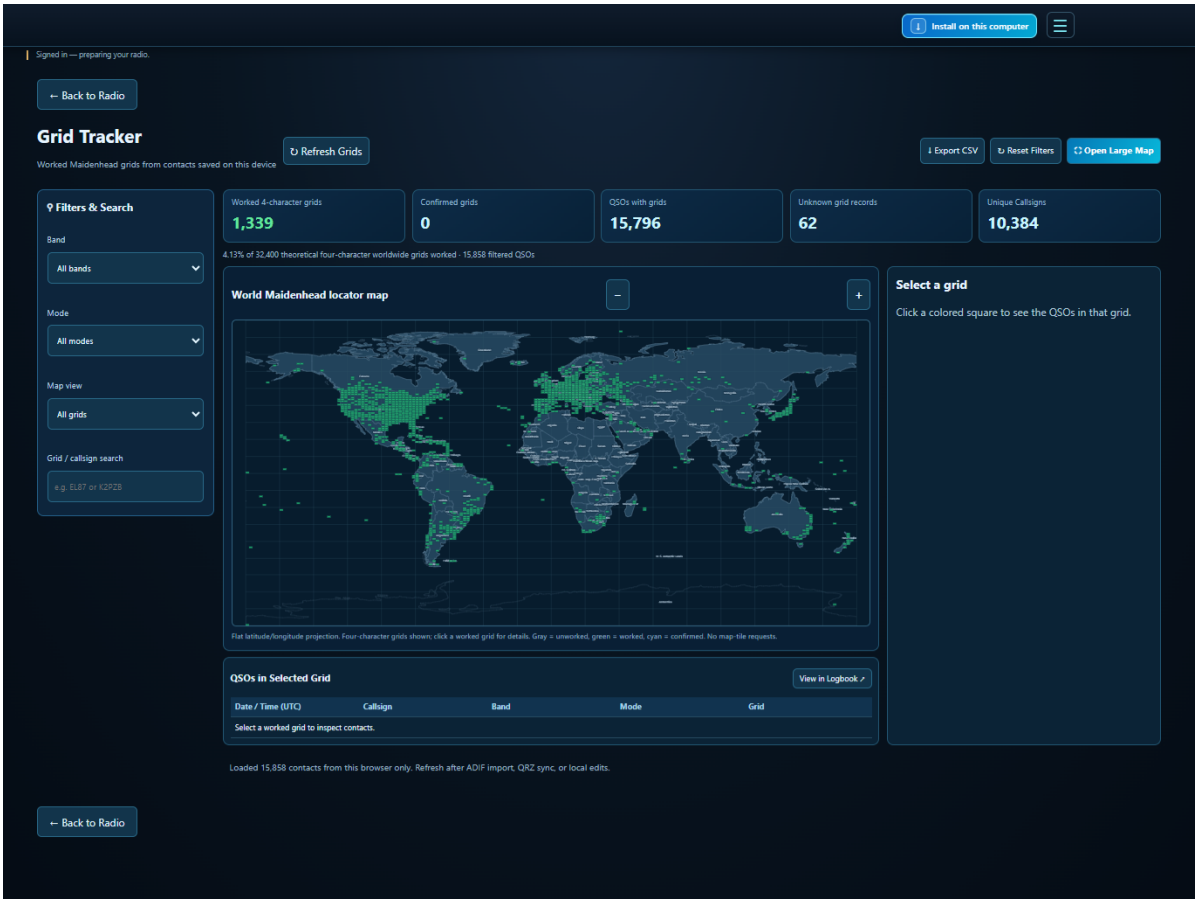
- For an ADIF import, use the Import / Manage function supplied by your installed Logbook interface and choose the local .adi or .adif file.
- Keep an unchanged backup of the original ADIF file before importing or merging records.
- After an import, inspect counts, sample contacts, duplicates and Maidenhead grids.
- Use QRZ synchronization only with authorized QRZ credentials and the relevant API entitlement.
- If QRZ Sync shows "uploaded," that reports a synchronization status, not a guarantee that every selected record is valid or confirmed.
- Reopen Grid Tracker or choose Refresh Grids after adding new local contacts.

Where does ADIF live? — The Master Logbook preference is device-local storage; server-backed DIGI HAM LINK QSO records are a separate capability visible in the newer Logbook. Which records are stored on a given device versus the service depends on the exact action and application version.

What a good record contains

Field	Recommended check
CALL	Full station callsign as exchanged.
QSO_DATE / TIME_ON	UTC start time of the contact.
MODE / SUBMODE	Actual mode and subtype supported by the contact.
BAND / FREQ	Actual RF band and frequency, if applicable.
GRIDSQUARE	Correct Maidenhead locator, when available.
COMMENT / NETWORK	Optional note such as BrandMeister TG / YSF reflector.

09 Grid Tracker — worked grids and contacts



Grid Tracker shows filters, worked/confirmed-grid metrics, Maidenhead map and selected-grid QSO details.

Available controls

- Filter by band, mode and map view.
- Search for a callsign or Maidenhead locator such as EL87.
- Click a colored square to inspect the QSOs recorded in that grid.
- Use Open Large Map for an expanded view.
- Export CSV or reset the active filters when needed.
- Select Refresh Grids after importing ADIF or editing local contacts.

09 Grid Tracker — large map



Large-map mode with worked grids, confirmed grids and unworked squares legend.

Reading the map

- Green: worked grid square.
- Cyan: confirmed grid square.
- Grey: unworked reference square.
- The world grid is an informational locator display, not live tracking of the transmitting station.
- The illustrated implementation uses a flat latitude/longitude projection; map shape and area are distorted near high latitudes.

Local dataset — The example screenshot explicitly reports contacts loaded "from this browser only." A second phone or computer may show different grid totals until its local data has been imported or synchronized as intended.

10 DIGI HAM LINK on mobile



Mobile example: branded header, responsive NOW TALKING, Mic Gain, dashboard cards and controls.

On a mobile browser, panels stack vertically and some navigation appears beneath the hamburger menu. Use the same network and PTT procedures as desktop, but expect a different layout.

10 Installing and operating on mobile

Install the web app

1. Visit https://radio.digihamlink.com/ in a supported browser.

2. Use Install on this computer when offered, or the mobile browser's Add to Home Screen / Install App feature.

3. Open the installed app icon and sign in.

4. Allow microphone permission if prompted for authorized transmission.

5. Connect to a single network and confirm audible reception.

Mobile precautions

- Use a headset or other reliable audio output to prevent feedback.
- Do not expect every browser to keep microphone audio active while the screen is locked.
- Avoid pressing a transmit control while walking or driving when you cannot operate safely.
- After changing Wi-Fi/cellular networks, confirm your old session disconnected or recovered correctly.
- If the phone hides controls behind the software keyboard, dismiss the keyboard before pressing Hold to Talk.

11 Accounts, settings and administration

Your profile

- Review your registered callsign, name and email in Profile.
- Maintain your own network-specific DMR settings separately from your DIGI HAM LINK account password.
- If an account is disabled or banned, network access should be withheld by the backend.
- Some capabilities are owner-only, administrator-only or tied to assigned-node authorization.

What administrators may do

- Manage authorized account records and roles, subject to local deployment policy.
- Review and manage AllStar remote links on owned or assigned nodes.
- Inspect connected nodes, server activity and connection history if these controls are exposed.
- Use caution before changing bridge or multiple-node configurations that can affect other users.
- Do not share admin passwords, API secrets, SIP credentials or Hotspot Security passwords.

Beta-version behavior

The current application has recently changed YSF permissions and the AllStarLink administrator-link frontend. A successfully installed patch does not always prove that the backend route, API readiness or node link has actually succeeded. Confirm observed state before declaring an operational capability.

12 Troubleshooting — symptom to action

Symptom	First steps
Status: "Signed in — preparing your radio"	Check whether registration settles; if controls stay disabled, server API readiness/account role may still be incomplete.
YSF shows STANDBY; PTT disabled	Confirm network=connected and browser audio=ready. Refresh after an update.
DMR connected but no new speakers	Verify talkgroup/master, active speaker handover and reconnect carefully.
AllStar search works; Listen / Two-way disabled	Search/directory can work independently of link authorization. Check admin readiness and assigned-node permissions.
HTTP 200 for PTT, but no voice	HTTP success does not prove accepted TX or remote audio. Check backend response and worker transmitting state.
Receive meter moves but no sound	Check Audio On/Off, browser playback permission, headset/speaker and operating-system volume.
Grid Tracker differs across devices	Check local ADIF dataset and Refresh Grids.
QRZ upload not showing	Check external authorization, API entitlement, duplicates and sync status.

Useful details for support

- Account role (not password), callsign and the selected network.
- UTC time and destination node / talkgroup / reflector.
- Browser, operating system and whether desktop or mobile.
- Observed state: connected, audio ready, RX, PTT enabled, transmit indicator.
- Exact on-screen error and which action triggered it.

12 Safe recovery sequence

1. Release PTT and wait until the application is not transmitting.
2. If another session is active, disconnect that session deliberately.
3. Return to the Radio dashboard and verify which network is selected.
4. If the browser shows inconsistent controls after a software update, refresh its cached frontend (desktop hard refresh; mobile reload/restart installed web app).
5. Sign out and back in if identity/permission information appears stale.
6. Reconnect to one known-good destination and verify audio readiness.
7. If it still fails, collect one sanitized diagnostic report and include the UTC time.

> Avoid repeated retries — Rapidly pressing Connect or PTT many times can complicate diagnostics and leave uncertain connection state. Prefer one controlled test and a clear observed result.

Escalation for administrators

An administrator may need to inspect the authenticated API, SIP registration, Asterisk channel and node-link state, and the appropriate personal-network worker. These checks should be read-only until the failed layer is identified. Do not restart Asterisk or alter the working BrandMeister / YSF worker as a first response to a disabled frontend button.

13 Operating practices and quick reference

Before transmitting

- Confirm your callsign, destination and authorization.
- Listen for an existing conversation or net control instructions.
- Choose an appropriate transmission interval and identify clearly.
- Maintain suitable microphone gain and avoid speaking into a feedback loop.
- Disconnect unused remote node links, particularly when multiple nodes are bridged.

Quick-reference procedures

Task	Sequence
Connect to DMR	BrandMeister → Search/select TG → Connect → Wait ready → Listen → PTT.
Connect to YSF	YSF Fusion → Search/select reflector → Connect → Verify audio → Listen → PTT.
Look up AllStar node	Nodes → Search node/callsign → Inspect directory result.
Link an AllStar node (admin)	Verify assigned-node authorization → Single destination choice → Listen or Two-way → Confirm server link list.
Log QSO	Log QSO / Quick Log → Review contact details → Save.
Inspect worked grids	Grid Tracker → Refresh Grids → Filter/search → Select square.
End a session	Release PTT → Disconnect → Verify no active transmit.

14 Glossary and feature status

- ADIF — Amateur Data Interchange Format used to exchange log records.
- AllStarLink — Node-based amateur radio linking network built around Asterisk.
- BrandMeister — Digital Mobile Radio network with talkgroups and hotspot/master identities.
- DMR ID / ESSID — Operator digital-radio ID and secondary hotspot identifier.
- FCS — System Fusion room network; current multiuser access is not a completed general feature here.
- Grid square — Maidenhead locator that expresses geographic location.
- PTT — Push to Talk; press/hold to begin authorized transmission.
- SIP — Session Initiation Protocol used in browser-to-voice infrastructure.
- TG — Talkgroup; a DMR group destination.
- YSF / DN — Yaesu System Fusion; Digital Narrow voice on supported connections.

Features shown vs. not guaranteed

Illustrated in this manual: web Radio page, BrandMeister talkgroup dialog and received station detail, YSF reflector selection and received station detail, Logbook, Grid Tracker, mobile layout. Deployment-dependent or unresolved: full admin AllStar node-link activation, independent multiuser FCS, external QRZ entitlements, and end-to-end transmission into a particular remote reflector or node.

Support and updates

Website: https://www.digihamlink.com
Radio application: https://radio.digihamlink.com
When requesting help, provide the application version, operating system, UTC time, destination and sanitized error details. Never publish SIP passwords, API keys, account passwords or BrandMeister Hotspot Security passwords.

DIGI HAM LINK — Connect • Talk • Explore • Log