GET GOING GUIDE

HFConverse **Fax**

HF fax with HFConverse

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Fax stations - mostly weather services - send charts and other images by fax on shortwave to a fixed timetable. HFConverse receives them from your radio's audio and draws each fax line by line as it comes in. It only listens: nothing is transmitted, and the modem is left exactly as it was, so Fax works with every modem.

> **Golden rule:** pick the station from **Favourites**, or type its frequency as the schedule gives it in **Station kHz** and press **Enter**. HFConverse sets the radio's dial 1.9 kHz below it, where the fax has to be. The radio must be on USB.

Before you start

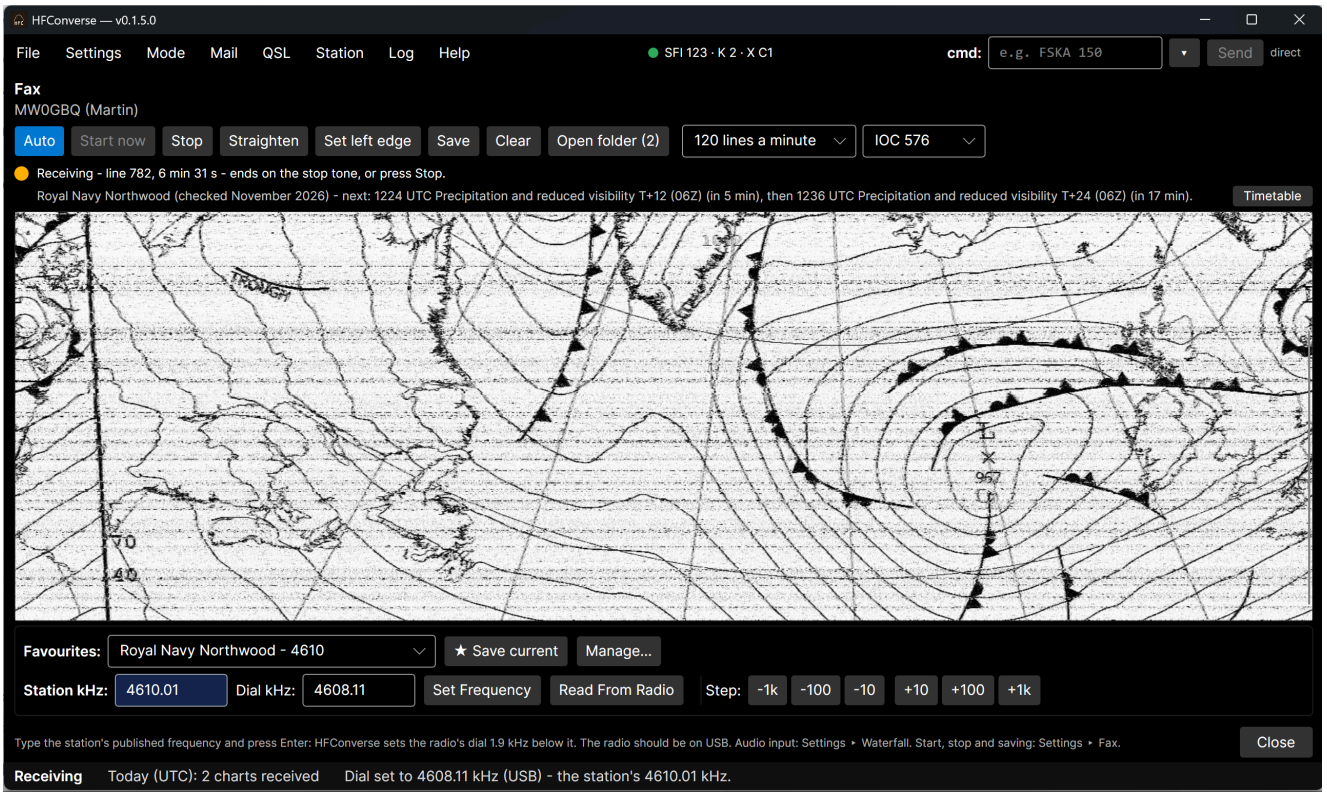
Get these right once and every mode just works.

1. **HFC is connected to the modem.** The Terminal shows the modem's `cmd:` prompt. The Mode menu only works while you're connected.
2. **Radio control works, if you have it.** Type a frequency and press **Set Frequency**: the radio should move. No CAT? Set the frequency on the radio by hand.
3. **The radio is in USB or USB-Data** (DIGU).
4. **Open the screen from the Mode menu: Mode ▸ Fax**.

For Fax also check:

- **HFConverse can hear the radio.** Fax uses the same audio input as the Waterfall: choose the radio's USB sound card in **Settings ▸ Audio** and press **Listen** - the level should move. The Fax screen says so if no input is chosen.
- **The receive filter is at least 2.4 kHz wide** - a normal SSB filter. A narrow data filter (500 Hz) cuts the fax off.
- **Noise reduction, auto-notch and noise blanker are off.** They eat the fax tones and smear the fax.
- **On the Air goes off.** Fax only listens, so opening the Fax screen takes you off the air. If you were on the air, you're back on as before when you leave it.

The screen



From top to bottom:

Part	What it is
Buttons	**Auto**, **Start now**, **Stop**, **Straighten**, **Set left edge**, **Save**, **Clear**, **Open viewer** (with how many faxes have come in since you last looked, e.g. *Open viewer (3)*; its tooltip lists the latest five), the lines-a-minute box (120) and the width box (IOC 576).
Lines above the fax	What's happening: *Waiting for a start tone*, *Receiving - line 312*, *saved as …*. Its lamp flashes **amber** while a fax comes in and turns **solid green** when it has finished. Below it, what the station sends next, and **Timetable**.
The fax	Drawn as it arrives. It scrolls with the newest line.
Radio box	**Favourites**, **★ Save current** and **Manage…**; then **Station kHz**, **Dial kHz**, **Set Frequency**, **Read From Radio** and the **Step** buttons.
Status bar	**Waiting** or **Receiving**, today's tally (*Today (UTC): 6 faxes received, 2 ended with no signal*) and radio messages.

Finding a station

1. Open **Favourites** and pick a station on one of its frequencies - the lower ones at night, the higher ones by day. A frequency with hours after it, e.g. *12750 (1400-2239 UTC)*, is only used then. Station kHz, the radio, and the speed and width boxes are set for you.
2. The line under the fax now says what the station sends next, e.g. *DWD Hamburg-Pinneberg (checked November 2026) - next: 1050 UTC Surface analysis North Atlantic, Europe (in 25 min)*. **Timetable** shows the whole day. All times are UTC.

3. Not in the list? Find its frequencies on its own web site or a current fax list, type one in **Station kHz** and press **Enter**. **Dial kHz** shows 1.9 kHz below it and the radio goes there. ★ **Save current** keeps it as a station of your own.
4. Between faxes you hear nothing or a steady tone; during a fax, a rasping sound with a beat twice a second.

Receiving a fax

1. Just wait. Each fax starts with a start tone (a buzz of a few seconds). HFConverse hears it and starts drawing.
2. The first half-minute or so is a set of lines that are nearly all one shade, with a short pulse of the other at their start. HFConverse uses them to find the fax's left edge and to straighten it, so the chart that follows comes out square.
3. The fax ends on its stop tone. HFConverse saves it as a PNG in the **Fax folder**, named with the station, the date and time it started and - when it started at one of the timetable's times - the chart, e.g. *HFC fax DWD Hamburg-Pinneberg 2026-11-17 1050 UTC Surface analysis North Atlantic, Europe.png*, and waits for the next one.
4. The next start tone starts the next fax by itself: the screen is cleared, and anything not yet saved is saved first - also a fax whose stop tone was lost in the noise.

Auto (lit) is what makes each fax start by itself - leave it on. Between faxes the station sends just a steady tone: leave the screen waiting; don't press **Start now**.

Tuned in after a fax had started? Press **Start now**: it draws from that moment. (If all it hears is that steady tone, it says so and keeps waiting.) It won't have the line-up lines, so use **Set left edge** once a bit of the chart shows.

If the fax comes out wrong

What you see	Do this
The fax leans to one side	Press **Straighten**, then click the top and then the bottom of a line that should go straight down (a chart border or a line of longitude). The whole fax is drawn again, straight.
The fax is split down the middle	Press **Set left edge**, then click where the left edge should be.
The fax is stretched or squashed	Check the lines-a-minute box: **120** for nearly all stations. A few faxes go at 60 or 90.
The fax is half as wide, or doubled	Check the width box: **IOC 576** for nearly all stations. The start tone normally sets it by itself.
Black and white swapped, or all grey	The radio is on LSB, or tuned well off. USB, and the station's frequency in **Station kHz**.

Esc gives up a Straighten or Set left edge. Changing either box, or straightening, redraws the whole fax - nothing is lost.

Fax favourites and timetables

Manage… opens the Fax favourites: the stations on the left, the chosen one's name, speed, width, frequencies and timetable on the right.

- **Add station** for one of your own - an EmComm net, say - with its frequency and, if it keeps to one, its timetable.
- Change anything on the right; it's kept when you pick another station, press **Save** or close the window.
- **Delete** removes a station. One supplied with HFConverse doesn't come back by itself.
- A few stations come with frequencies only, where no current timetable could be found.

Stations change their timetables now and then. **Settings ▸ Fax ▸ Update** fetches the latest: NOAA's US stations straight from NOAA, the rest from the HFConverse website. Each station shows when its timetable was last checked. Your own stations, and supplied ones you've changed, are left as they are - **Undo my changes** puts a supplied one back.

Auto switch and printing

Leave HFConverse to catch the faxes you want, even while you're on another screen.

1. In **Manage…**, tick **Capture** against the faxes you want in a station's timetable. **All like this** ticks every time with the same chart - every *Surface analysis*, say.
2. Tick **Settings ▸ Fax ▸ Switch to the Fax screen for faxes ticked Capture**.
3. Two minutes before each one a card appears in the top right corner: *Fax coming up … Switching to Fax in 0:59*, with **Switch now** and **Skip**. If nobody answers, 30 seconds before the switch it turns into a red card counting down: *Switching to Fax in 30 seconds*.
4. With no answer, HFConverse switches to Fax a minute before the fax, tunes the radio - the frequency you last picked for that station, if it's in use at that hour - and waits for the start tone.
5. When the fax has ended (or no start tone came within 5 minutes), it goes back to the screen, mode and frequency you were on. On the Air comes back as it was.

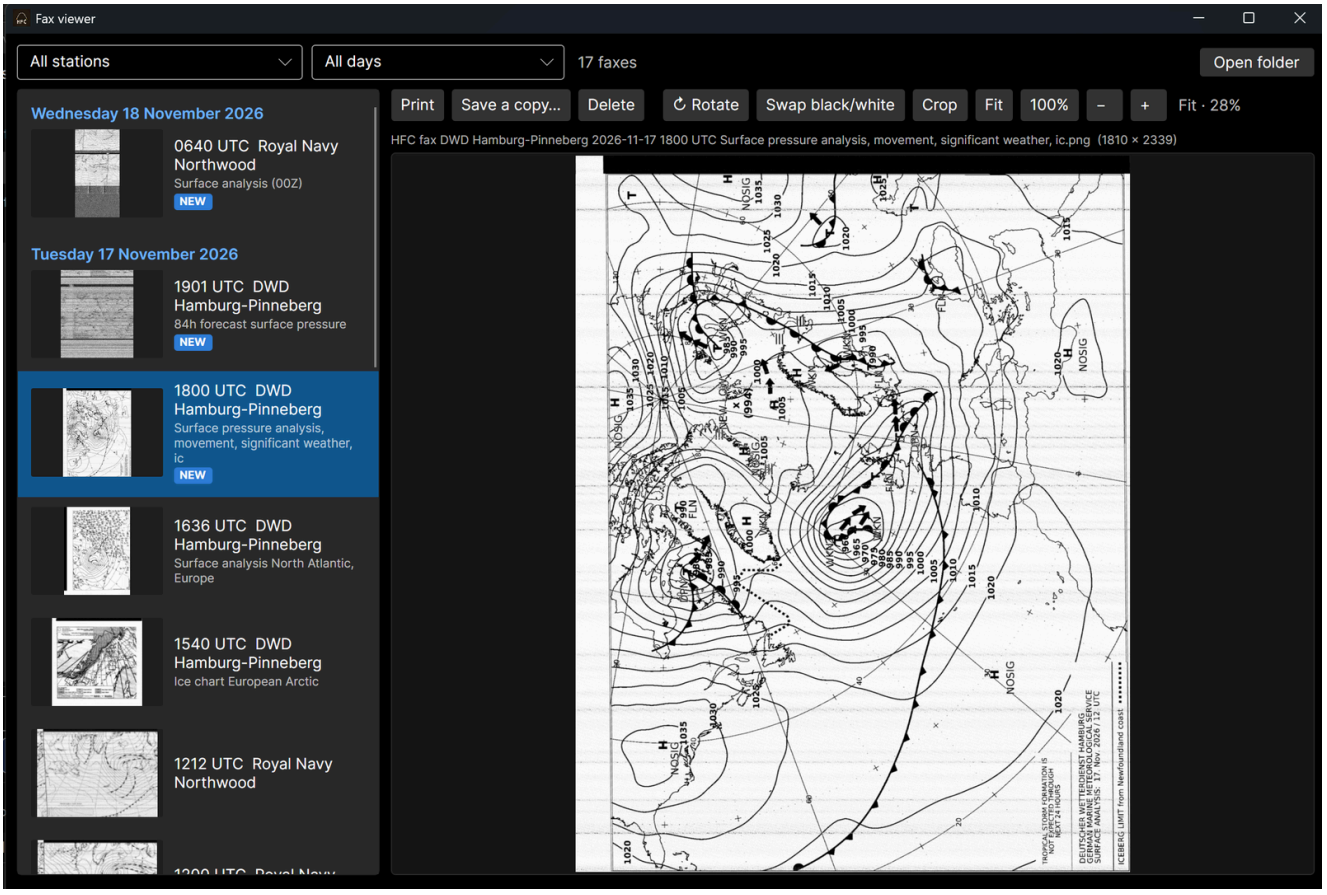
The rules:

- **Never during a link or while sending.** The card says so, and HFConverse switches if the link ends in time.
- **A mailbox answering callers:** the fax is skipped, so callers can still reach you - unless you tick **Switch even while a mailbox is answering callers**.
- **You used the Fax screen during the fax** (tuned, Stop, Clear): HFConverse stays on Fax.
- **Two ticked faxes overlap:** the first wins.
- **Already on Fax:** it just retunes, and never cuts into a fax that's coming in.

Print each fax when it's saved sends every saved fax to the printer chosen under it - **HFConverse printer** as delivered (the one in **Settings ▸ Printing**), or any other the computer has - one page, scaled to fit the paper in **Settings ▸ Printing**, no dialog. **Test print** checks it; **Refresh** looks for printers again. **Only faxes ticked Capture** prints just those.

The fax viewer

Open viewer shows the faxes you've received. It can stay open beside the Fax screen, and new faxes appear in it as they're saved.



1. On the left: the faxes, newest first under each day (UTC), with a small picture, the time, station and chart. **NEW** marks those since you last looked.
2. Click one to see it large. **Fit** shows it whole; **+**, **−** and **100%** (or Ctrl + mouse wheel) zoom; drag to move it about.
3. The boxes at the top show only one station's faxes, or one day's.

Button	What it does
Print	Prints it on the printer chosen in Settings ▸ Fax.
Save a copy…	Saves it somewhere else - to send it on, say.
Delete	Moves it to the Recycle Bin (Trash), where it can be got back. The Delete key does it too.
↻ Rotate	A quarter turn clockwise each press: once for a chart sent on its side, twice for one sent upside down, four times and it's back as it was.
Swap black/white	For a fax that came out as a negative. Press again to swap back.
Crop	Drag a box round the part you want, then **Save cropped**: it's saved as a new file beside the fax.
Open folder	Opens the Fax folder itself.

Settings ▸ Fax

Three ticks, all on as delivered:

- **Start a fax when its start tone is heard** - the same as **Auto** on the screen; untick to start only with **Start now**.
- **End the fax when its stop tone is heard** - untick to end only with **Stop**.
- **Save each fax when it ends** - untick to save only with **Save**.

And **Update**, for the stations' frequencies and timetables, and the auto switch and printing ticks (see above) - all off as delivered.

Quick reference

I want to…	Do this
Tune a station	Pick it from **Favourites**; or its frequency in **Station kHz**, then **Enter**
See what's on next	The line under the fax; **Timetable** for the whole day
Keep a frequency of my own	★ **Save current**, then name it in **Manage…**
Bring the timetables up to date	**Settings ▸ Fax ▸ Update**
Get a fax while I'm elsewhere	Tick **Capture** against it in **Manage…**, and **Settings ▸ Fax ▸ Switch to the Fax screen for faxes ticked Capture**
Print the faxes	**Settings ▸ Fax ▸ Print each fax when it's saved**
Receive the next fax	Nothing: it starts on its start tone
Catch a fax already going	**Start now**, then **Set left edge**
Straighten a leaning fax	**Straighten**, then click the top and bottom of a straight-down line
Keep a fax	Saved by itself; or **Save**
See saved faxes	**Open viewer** - the number on it is how many are new
End a fax now	**Stop**
Start again	**Clear**
Leave	**Close**, or another mode

When things go wrong

What you see	Try this
No audio input chosen	Choose the radio's sound card in **Settings ▸ Audio**, then come back.
… isn't connected and a **Retry** button	Switch the radio on (or plug it in), then press **Retry**.
Nothing starts, though you can hear a fax	You tuned in after the start tone: press **Start now**. Or is **Auto** off?
Start now gives only white lines	The station is between faxes (one steady tone). **Clear**, and let **Auto** start the next fax.
Only noise and speckle	Wrong frequency or time, or the band is closed: try another of the station's frequencies, or check the timetable.
A ticked fax wasn't switched to	Is **Switch to the Fax screen for faxes ticked Capture** on? Was a link up, or the mailbox answering? The card said why.
A fax didn't print	Is the printer chosen in Settings ▸ Fax on? Try **Test print**. The line above the fax says *not printed* and why.
Nothing at the time the timetable gives	The timetable may be out of date: **Settings ▸ Fax ▸ Update**, then check when the station was last checked (in **Manage…**).
Fax ended (no signal for 2 minutes)	The signal faded or was too weak to draw: the start tone was heard, the fax wasn't. Try another of the station's frequencies for its next fax. Anything that came in before the signal went is saved.
Dark streaks across the fax	Interference or fading - normal on HF. The rest of the chart is still there.
The radio doesn't move	Is CAT set up (Settings ▸ CAT Configuration)? Otherwise set the dial shown in **Dial kHz** by hand.

Issue history

Issue	Date	Changes
4	November 2026	Faxes print on HFConverse's printer and paper (Settings ▸ Printing) unless the Fax tab chooses another printer.
3	November 2026	The fax viewer.
2	November 2026	Fax favourites: weather fax stations from around the world with their timetables, what's on next, your own stations, and Update. Auto switch for ticked faxes, and printing.
1	November 2026	First issue.

More detail on every screen and setting is in the HFConverse User Manual. mw0gbq.hamserve.uk · HFConverse is not affiliated with SCS.