



DA-7X2 V1.05 Troubleshooting and Recovery

Safe checks for CPS connection, update failures, reset, scan, audio, and NR recovery

Stop before improvising: Use only files from this BTECH DA-7X2 package. If a recovery step does not produce the expected screen, power off and contact BTECH Support.

Before troubleshooting

- Charge the battery fully and use a stable Windows PC that will not sleep during an update.
- Disable GPS, APRS beaoning, and other automatic transmit functions before connecting the radio for an update.
- Preserve the last known-good codeplug and do not overwrite it while testing.
- Record the radio model, MCU, icon, NR, baseband, and Bluetooth versions shown in Device Info.
- Photograph or write down every error message before restarting the radio or CPS.

Quick symptom guide

Symptom	First safe action	Next section
No COM port in CPS	Reconnect with the radio on and check Windows Device Manager	CPS cannot see the radio
Read or write stops	Leave power connected until the program clearly reports failure	Read/write failure
CPS shows SetComDataBy5ToneError	Check Analog > 5ToneSetting > Self ID	5-Tone Self ID error
VFO or feature menus are missing	Continue in the DA-7X2 Initial Setup Guide	Initial setup
Radio is blank after update	Verify battery seating and try the documented main-firmware update mode	Firmware recovery
Programming is gone	Complete the required reset, then restore the saved codeplug	Reset and restore
NR/APRS version is null	Continue in the NR Board Update and Recovery Guide's confirmed-null-data route	NR/APRS recovery
Scan misses channels	Confirm Channel mode, list assignment, and channel membership	Scan problems
Hotspot misses first PTT	Set the hotspot DMR TXHang value to 10	MMDVM advisory

CPS cannot see the radio

1. Turn the radio on normally, connect the BTECH programming cable directly to the PC, and wait for Windows to finish device detection.
2. Open Windows Device Manager and expand Ports (COM & LPT). Disconnect and reconnect the cable to identify the COM port that appears.
3. In CPS, choose Set > Set COM or the COM-port selector and select that exact port.
4. If no port appears on 64-bit Windows, install the fallback driver in 07_USB_DRIVERS_FALLBACK, restart Windows, and test again. For other systems, contact BTECH Support.
5. Close other CPS instances, terminal programs, updater tools, or device utilities that could already be using the port.
6. Try another direct USB port. Avoid an unpowered hub for firmware operations.

Cable check: The DA-7X2 uses its model-compatible programming cable. A cable that fits mechanically is not automatically wired or supported for this radio.

VFO or installed feature menus are missing

This is commonly a display/setup condition rather than a failed feature. Continue in the DA-7X2 Initial Setup Guide to read the radio, select Amateur Work Mode, enable the installed functions in Tool > Options, write, and verify the read-back.

Read or codeplug write failure

1. Confirm the radio is powered on normally, not in firmware, icon, NR, Bluetooth, or baseband update mode.
2. Confirm the selected COM port still matches Device Manager after reconnecting the cable.
3. Read the radio before writing. If a read succeeds, save that result under a new recovery filename.
4. If the write fails, do not initialize the radio. Close CPS, power-cycle the radio, reopen the matching BTECH CPS, and perform one controlled retry with the known-good cable and codeplug.
5. If the same point fails again, stop. Preserve the codeplug, screenshot, CPS version, COM port, and failure percentage for BTECH Support.

SetComDataBy5ToneError

What this message means: This exact message can appear when the codeplug's 5-Tone Self ID is blank. It is a codeplug-data error and does not mean the firmware update failed.

1. Keep the untouched original codeplug backup. Open a separate working copy in the matching BTECH DA-7X2 CPS.
2. Go to Analog > 5ToneSetting and check Self ID.
3. If Self ID is blank, enter 12345.
4. Save the corrected codeplug under a new filename, then write that copy to the radio again.
5. After a successful write, power-cycle the radio and read it back once to confirm the programming was accepted.
6. If Self ID is already populated or the error remains, stop and send BTECH Support the codeplug plus a screenshot of the 5ToneSetting page.

Do not reflash for this message: Do not reflash the firmware or initialize the radio to correct SetComDataBy5ToneError.

Main firmware update or recovery

STOP - choose one row only: Use only the mode named by the DA-7X2 V1.05 Firmware Update Guide, the DA-7X2 NR Board Update and Recovery Guide, or BTECH Support. Do not try these key combinations as alternatives. If the expected screen does not appear, power off without writing.

Group / purpose	Power-on keys	Continue in
Routine update - main firmware	PTT + PF3/Alarm	DA-7X2 V1.05 Firmware Update Guide
Radio initialization - after main firmware	PTT + PF1	DA-7X2 V1.05 Firmware Update Guide
NR recovery - normal NR update	PF3 + PF2	DA-7X2 NR Board Update and Recovery Guide
NR recovery - null NR/APRS data	PF1 + PF3	DA-7X2 NR Board Update and Recovery Guide

Use the dedicated procedure: This guide identifies the safe route only. Continue in the named guide and use the exact Standard or NXDN folder already selected. Do not write a payload from this decision table alone.

Reset and restore after V1.05

1. Power the radio off.
2. Hold PTT + PF1 while powering on.
3. When the radio asks whether to initialize, press the green Menu key to confirm.
4. Do not interrupt the reset. After restart, set the time zone, date, and time.
5. Open the matching BTECH CPS, read the initialized radio once, then write the validated V1.05 working copy of the saved codeplug.
6. Verify channels, zones, contacts, scan lists, Optional Settings, radio IDs, APRS/GPS, keys, and component versions before transmitting.

NR/APRS version is null or normal NR mode is unavailable

1. Confirm that Device Info reports null NR/APRS data or that BTECH Support assigned this route.
2. Continue in the DA-7X2 NR Board Update and Recovery Guide and use its PF1 + PF3 procedure.
3. If the expected forced-update indication does not appear, power off without writing.
4. After the dedicated procedure, check Device Info. If the version remains null or the radio cannot start, stop and contact BTECH Support.

Scan problems

Observed behavior	Check
Scan will not start	Use Channel mode; conventional scan lists are not active in VFO mode
Expected channel is skipped	Confirm the channel belongs to the list and is not removed by Nuisance Delete
Only one group scans	Read back the codeplug and confirm every linked group remained assigned
Priority traffic is missed	Confirm Priority Channel 1/2 and Look Back Time A/B in the active list
PTT uses the wrong channel	Review Priority Channel Select and Revert Channel
PTT stops after about one second	Confirm Device Info reports V1.05d2. If it still occurs, stop and contact BTECH Support

Audio, Digital Monitor, and repeater checks

- For analog silence, verify frequency, bandwidth, CTCSS/DCS, squelch mode, and the five-level analog squelch setting.
- For unwanted DMR traffic, turn Digital Monitor off or restrict its color-code, ID, and time-slot settings.
- For missed DMR traffic, verify RX/TX frequency, color code, slot, contact, RX group, and Digital Monitor settings.
- For live Cross-Band Repeater tests, place one UHF channel on one displayed band and one VHF channel on the other, keep both main and sub channels enabled, and turn Digital Monitor Off. For a DMR source, color code and talkgroup must match; the incoming time slot may be TS 1 or TS 2. NXDN is not available for DA-7X2 cross-band operation.
- For Store-and-Forward, confirm recording is enabled and allow the incoming analog FM or DMR message to end before expecting retransmission. For DMR, frequency, color code, and talkgroup must match; either incoming time slot can be repeated, so do not use Simp Repeater Slot as an input-slot filter.

MMDVM hotspot misses the first PTT attempts

Hotspot configuration advisory: Open the hotspot's MMDVMHost DMR settings and set TXHang to 10. Menu names vary by hotspot image; consult that image's documentation if needed.

What to send BTECH Support

Send these items through the official BTECH Support channel. Do not post your serial number or codeplug publicly.

- Exact product label and serial number
- MCU, icon, NR, baseband, and Bluetooth versions from Device Info
- CPS version, Windows version, and selected COM port
- Codeplug filename and whether it was read before or after the update
- Exact error text, photograph, failure percentage, and the last successful step
- Whether the failure repeats after one controlled retry

Official support: Visit baofengtech.com/support/ or email support@baofengtech.com.