



DA-7X2 Firmware Update Guide

Main firmware V1.05d2 • CPS V1.05d • Standard and NXDN

Choose one firmware path: Standard is recommended for DMR and analog use. Choose NXDN only when you intentionally use NXDN on this radio. Use one folder for the entire update and never combine its files with the other variant.

What you need

- A Windows PC and a known-good BTECH programming cable.
- The BTECH CPS V1.05d installer supplied in this package.
- Exactly one complete V1.05d2 triplet from either 04_FIRMWARE_STANDARD_RECOMMENDED or 05_FIRMWARE_NXDN.
- A fully charged radio battery and uninterrupted USB connection.
- A verified codeplug backup plus a record of important Optional Setting values.

RF safety: Before connecting the radio, turn off GPS, APRS beaconing, and any automatic transmit function. Keep the antenna or a suitable load attached if the radio could transmit.

Part 1 - Back up the radio

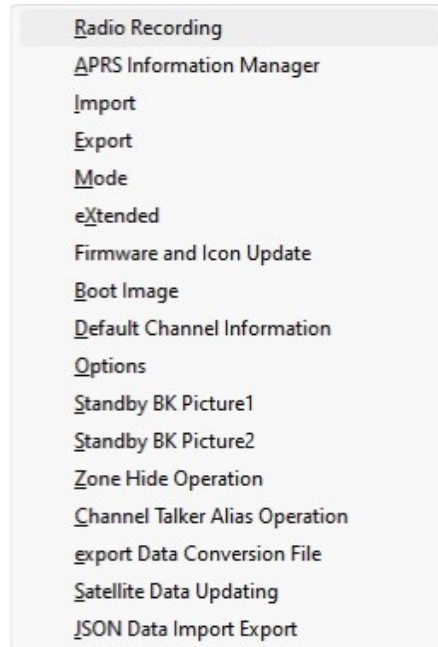
1. Use the currently working BTECH CPS to read the radio before installing CPS V1.05d.
2. Save the codeplug under a new model-and-date filename.
3. Export the Digital Contact List separately if you use a large contact database.
4. Record the current MCU, icon, NR, baseband, and Bluetooth versions from Device Info.
5. Close and reopen the saved backup. Copy it to a second device or trusted cloud location before continuing.

Part 2 - Select Standard or NXDN

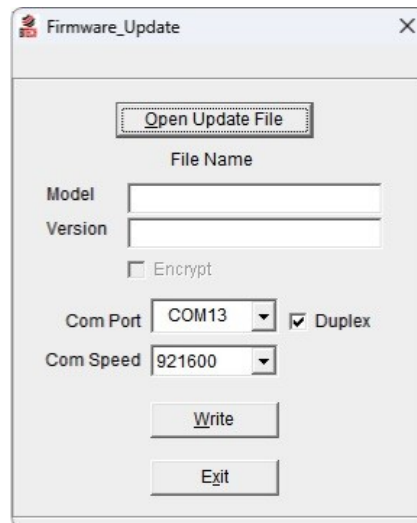
Your radio configuration	Use this folder	Do not use
DMR and analog; NXDN is not intentionally configured	04_FIRMWARE_STANDARD_RECOMMENDED	The NXDN folder
NXDN is intentionally configured for this radio	05_FIRMWARE_NXDN	The Standard folder

If you are unsure: Use Standard unless you deliberately programmed and use NXDN. Both folders contain identically named members, so always select the .spi from the folder you chose.

Part 3 - Enter update mode and write firmware



In CPS V1.05d, open Tool and choose Firmware and Icon Update.



Open the .spi in the folder chosen in Part 2, select the radio COM port, set 921600, enable Duplex, and then choose Write.

1. After verifying the backup, install CPS V1.05d and open Tool > Firmware and Icon Update.
2. Turn the radio off and connect the programming cable.
3. Hold PTT + Alarm/PF3 while turning the radio on. Release the keys when the red LED begins blinking.
4. Keep the matching .spi, .CDI, and .CDD members together. Do not rename, move, or mix individual triplet members.
5. Select only the .spi member inside the Standard or NXDN folder chosen in Part 2.
6. Choose the radio COM port, set the speed to 921600, select Duplex, and start the write.
7. Do not disconnect USB, remove the battery, close CPS, or allow the PC to sleep during the update.
8. Wait for the update to finish and the radio to return to its normal display. Then close the updater and turn the radio off.

Main firmware only: This procedure does not update the icon, NR board, baseband, or Bluetooth firmware. Use the NR guide only when the NR version is not V112, the value is null, or BTECH Support directs you to it.

Part 4 - Reset after the firmware update

1. Turn the radio off.
2. Hold PTT + PF1 while turning the radio on.
3. When the radio asks whether to initialize, press the green Menu key to confirm. Do not interrupt the reset.
4. After restart, set the time zone, date, and time.
5. Open the saved DA-7X2 codeplug in CPS V1.05d, write it to the radio, and power-cycle once more.

Part 5 - Verify the result

Check	Expected result
Device Info	Main firmware reports V1.05d2
Chosen variant	The radio behavior matches the Standard or NXDN path intentionally selected
Codeplug	Channels, zones, contacts, scan lists, and Optional Setting values are present
Transmit / receive	Authorized local analog and digital tests succeed at low power
Scan and APRS	Only the features you intentionally enabled are active
Bluetooth / NR	Optional hardware operates only if installed and configured

Need help?: Stop if the radio is not recognized, the red LED does not blink in update mode, a write fails, or Device Info does not report V1.05d2. Record the message, selected folder, filenames, and component versions, then contact BTECH Support before trying another update.