



HYBRID-OTP

Quick Start & Profile Guide

Install. Learn safely. Prove the result. Then take it to the workshop.

Your first run uses supplied synthetic files. They are not ECU firmware and must never be flashed. They exist so you can learn the complete workflow without risking customer data.

INSTALL

LEARN

JOB

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GO REAL

What Hybrid-OTP does

Hybrid-OTP creates a new recipient-based binary. Inside the selected OTP regions it uses bytes from the donor; everywhere else it preserves the recipient exactly. It then reads the written output back and verifies every byte.

What it does not do

It does not calculate an ECU checksum, prove an address map, or declare a file flash-ready. Use your normal identification, compatibility, checksum and controlled flashing process.

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1. Install and find everything

Run the supplied Hybrid-OTP installer. It creates one complete application folder and a desktop shortcut. Open Hybrid-OTP from the shortcut and activate it with the one-time code supplied after purchase.

Your installed folder contains

Item	Purpose
Hybrid-OTP.exe	The application
Hybrid-OTP Quick Start Guide.pdf	This illustrated guide
Demo Files\EDC17CP24_DEMO_DONOR_FULL.bin	Synthetic donor full read
Demo Files\EDC17CP24_DEMO_RECIPIENT_FULL.bin	Synthetic recipient full read
Demo Files\README - DEMO FILES.txt	Demo warning and known ranges

Click HELP in Hybrid-OTP at any time to reopen this guide.

Keep your activation code private

The code is single-use. The first successful activation binds the licence to this installation. If the computer changes, use the supported licence-transfer process rather than sharing the code.

2. Create the reusable EDC17CP24 profile

This worked example uses the Boosted Brothers workshop-confirmed two-range map for the supplied 2 MB Bosch EDC17CP24 full-read layout.

The screenshot shows a software interface for creating ECU profiles. On the left, under 'ECU PROFILES', a list contains 'EDC17 (Generic)', 'PSA MD1CS003', and 'Bosch MD1CP009 (provisional)'. Below this list are buttons for 'New profile', 'Remove', and 'Restore built-ins'. On the right, the 'ECU / read-format profile name' field is set to 'Bosch EDC17CP24'. Below this, the 'TRANSFER REGIONS' section explains that the values are file positions. A table lists two regions: 'OTP block 1' from 0x10000 to 0x13FFF, and 'OTP block 2' from 0x14000 to 0x17FFF. At the bottom right, it states '2 regions' and '32,768 bytes total'. A large cyan button at the bottom center says 'SAVE + USE THIS PROFILE'. Other buttons include '+ Add another range', 'Remove selected', and 'Cancel'. A note at the bottom states: 'Addresses are raw file offsets. Hybrid-OTP validates the entry and output, but only you can confirm the ECU mapping. Profiles save automatically and stay on this computer.'

Region label	Start (hex)	End inclusive (hex)
OTP block 1	0x10000	0x13FFF
OTP block 2	0x14000	0x17FFF

The finished profile should show 2 regions and 32,768 bytes total. Save it once, then select it for later compatible CP24 jobs.

Enter the CP24 profile

1 Open the profile editor

Choose **NEW / EDIT PROFILE**, then choose **New profile**.

2 Name it

Enter **Bosch EDC17CP24**. This saved profile remains available for later CP24 jobs.

3 Enter both inclusive ranges

Add the two rows exactly as shown below. These are file positions, not byte values to search for.

Region label	Start (hex)	End inclusive (hex)	Bytes
OTP block 1	0x10000	0x13FFF	16,384
OTP block 2	0x14000	0x17FFF	16,384
Total			32,768

You may type **14000** or **0x14000**; both mean hexadecimal offset 0x14000. End addresses are inclusive.

4 Save it

Choose **SAVE + USE THIS PROFILE**. Hybrid-OTP validates that the ranges are complete, ordered and non-overlapping.

3. Run the safe demo job

The screenshot shows the Hybrid-OTP software interface with a dark theme. At the top, there's a header with the logo, title 'Hybrid-OTP', and a tagline 'Local processing. Clear evidence. Your files stay on this computer.' Navigation buttons for 'HELP', 'ABOUT', and 'LOCAL / OFFLINE' are on the right.

The main workflow consists of four steps:

- 01 OTP DONOR**: 'Identity source — bytes inside the selected regions are copied from here'. It features a file selection bar and a 'Browse' button.
- 02 RECIPIENT / BASE**: 'Target file — every byte outside the selected regions stays exactly as it is'. It also has a file selection bar and a 'Browse' button.
- 03 ECU PROFILE**: 'Choose a saved layout or create one with as many physical / virtual regions as required.' It includes a dropdown menu showing 'Bosch EDC17CP24', a 'NEW / EDIT PROFILE' button, and transfer region details: '2 transfer regions: OTP block 1 0x10000-0x13FFF • OTP block 2 0x14000-0x17FFF' and 'Total: 32,768 bytes • Boosted Brothers workshop-confirmed full-read map'.
- FILE PAIR CHECK**: 'Add both files and Hybrid-OTP will show the evidence it can read.' It contains a checkbox 'I have independently confirmed this profile against known-good data', a status 'CHECKSUM NOT CALCULATED • use your normal checksum workflow before flashing', and a final instruction 'Add both compatible raw/full reads, confirm the profile, then create a verified hybrid.'

A large 'START — CREATE + VERIFY TRANSFER' button is positioned at the bottom right of the workflow area.

The workbench deliberately keeps the order simple: donor, recipient, profile, confirmation, verified output.

Run the supplied files

1

Choose the donor

For **OTP DONOR**, browse to **Demo Files\EDC17CP24_DEMO_DONOR_FULL.bin**.

2

Choose the recipient

For **RECIPIENT / BASE**, browse to **Demo Files\EDC17CP24_DEMO_RECIPIENT_FULL.bin**.

3

Choose your saved profile

Select **Bosch EDC17CP24**. Confirm the summary shows two regions and 32,768 bytes.

4

Read the pair evidence

Both files are deliberately marked as synthetic EDC17CP24 training files. Hybrid-OTP checks sizes, paths, readable identity evidence and whether every selected region is inside the files.

5

Confirm and create

Tick the confirmation box, then choose **START - CREATE + VERIFY TRANSFER**. The originals are never overwritten.

4. Compare what changed

Open the donor, recipient and newly created hybrid in your normal hex editor. The hybrid filename includes **EDC17CP24_OTP_HYBRID** and a timestamp.

Expected result: the hybrid matches the donor only from 0x10000-0x13FFF and 0x14000-0x17FFF. Every byte outside those ranges matches the recipient.

File position	Hybrid must match	Why
Before 0x10000	Recipient	Outside transfer regions
0x10000-0x13FFF	Donor	OTP block 1
0x14000-0x17FFF	Donor	OTP block 2
After 0x17FFF	Recipient	Outside transfer regions

Why compare when Hybrid-OTP already verifies?

The software performs a byte-for-byte verification automatically. The first manual comparison teaches you exactly what the tool is doing, makes the profile concept tangible, and helps you recognise the expected result before real work.

A useful editor view

Show the same offset in all three files. Start at 0x0FFF0 to see the boundary into block 1, then at 0x13FF0 and 0x17FF0 to see each inclusive end boundary.

5. Read the evidence report

Beside the hybrid, Hybrid-OTP creates a text file ending **.otp-transfer-report.txt**. Open it in Notepad or your preferred editor.

The report records

CHECK	Date and time of creation
CHECK	Selected profile and every inclusive range
CHECK	Total transferred byte count
CHECK	Full paths of donor, recipient and output
CHECK	SHA-256 fingerprint for each file
CHECK	Confirmation that selected regions equal the donor
CHECK	Confirmation that all other bytes equal the recipient
CHECK	An explicit checksum / flash-readiness warning

PASS means the byte transfer is internally correct. It does not mean the selected ECU map is correct, the files are compatible, the checksum is corrected, or the output is safe to flash.

Keep the report with the job

Store the donor, recipient, hybrid and report together under your normal job reference. The hashes make it possible to identify the exact files used later.

6. Go to work for real

Once the demo makes sense, repeat the same controlled sequence with genuine compatible raw/full reads.

1

Identify both files

Confirm ECU family, processor/read format, file size and job provenance. Do not rely on filename alone.

2

Confirm the profile

Use a trusted built-in layout or a mapping you have independently confirmed for that exact read format. A familiar ECU name does not prove identical offsets.

3

Preserve originals

Work from copies and keep original reads immutable. Hybrid-OTP creates a new output and does not overwrite either input.

4

Review pair evidence

Treat warnings as a stop, not an inconvenience. Resolve size, identity or mapping doubt before continuing.

5

Create, compare and retain the report

Review the output with your normal tooling, calculate/correct checksums using your established workflow, and only then consider controlled programming.

Workshop rule: if you cannot explain why the two reads are compatible and why the selected ranges apply, stop. The tool verifies execution; the technician owns the mapping and flashing decision.

Editing profiles

Choose **NEW / EDIT PROFILE**. Built-in profiles can be edited as local overrides or removed from normal use; shipped profiles can be restored. Custom profiles are saved locally and can be edited or removed later.

Troubleshooting & licence help

Start stays disabled

Add two different files, select a profile whose final offset is inside both files, resolve pair warnings, and tick the confirmation box.

An address is rejected

Use hexadecimal file offsets such as **0x14000**. Addresses must be non-negative, each end must be at or after its start, and ranges must not overlap.

A selected donor range is all 00 or FF

Hybrid-OTP stops because the source may be filler or an incomplete read. Recheck the read method and source file; do not bypass the warning.

The output has no corrected checksum

Expected. Hybrid-OTP deliberately does not claim checksum correction. Use your normal checksum workflow and validate before programming.

I changed computer

Do not buy again or share activation codes. Request a supported computer transfer through Boosted Software; the old device entitlement is retired and a new one is issued.

What your licence includes

Unlimited file use with no daily caps or per-file credits, on one Windows computer, for the purchased licence term. Eligible updates, signed offline access within the stated check-in window, and owner-assisted computer transfer are included.

Need help? Send Boosted Brothers the exact warning text, your report file, and non-sensitive file-identification details. Never send customer files unless a separate secure transfer has been agreed.