

Comparator

Binary Comparator and Transfer Tool · BinRazor

What it does

When you already have a working tuning solution but for a different software number, you normally have to transfer the difference between files by hand — slow and error-prone. Comparator does it in seconds: it finds the difference between two files and writes it into a third. You just drag the files into their fields and the tool handles the rest.

The three input fields

ORI	Original file — the clean, factory-stock base.
MOD	Modified file — the same base with tuning applied (EGR off, DPF off, etc.).
DES	Destination file — read from the target car. Structurally similar to ORI, but no ready solution exists for it yet. This is the file you want to modify.

Basic workflow

1. Drag ORI, MOD and DES onto their fields (or click a field to browse).
2. Processing starts automatically once all three files are loaded.
3. Comparator compares ORI and MOD byte by byte, then writes every difference into a copy of DES.
4. The result is saved next to DES with a “ + MOD ” suffix in the file name.

How the comparison works

The tool walks through ORI and MOD position by position. Wherever a byte differs, it takes the MOD value and places it at the same position in the DES copy. It then verifies the result: it checks whether the changed area was identical in ORI and DES. If it was, the transfer is clean. If it was not, the structures do not fully match and the tool warns you.

A practical example

Suppose you have three files: a stock original, a tuned version of that original (with the EGR valve switched off), and a third file you just read from a car that has no ready solution. The third file looks structurally similar to your original. You load the stock file as ORI, the tuned file as MOD, and the car's file as DES. Comparator finds what the tuning changed (ORI → MOD) and writes those same changes into a copy of your DES file. The result — “ DES + MOD ” — is your destination file with the tuning applied.

Output files and what they mean

Depending on how well the files match, Comparator may create one or more files. Read them as follows:

+ MOD	The clean transfer result. When this is the ONLY file created, the transfer is reliable and you can use it with confidence.
+ ORI_Mismatch	Created when the transferred area differs between ORI and DES. It contains the ORI values for that area. Its presence means the files may not be a correct match — review your file selection before using anything.
+ MOD_Offset	Created when you accept the offset transfer. The file structures were shifted, so the tool re-aligned them before transferring. Verify the result carefully.
+ ORI_Offset	Created when even the offset transfer still shows differences. A strong sign the wrong files were chosen — do not flash this without thorough checking.

Offset transfer (Signature Patching)

Sometimes two files contain the same data but at shifted positions (different padding, a moved block, a different layout). A direct byte-for-byte transfer would land in the wrong place. When Comparator detects this mismatch, it offers an offset transfer: it takes a 16-byte signature starting at the first difference in ORI, searches for that exact signature inside DES, and once found, calculates the shift. It then applies the transfer at the corrected position. You will be asked “Do you want to attempt transferring with an Offset?” — choose Yes to try it.

Golden rule. Use the result with full confidence only when a single “ + MOD ” file is produced. The moment extra files (Mismatch or Offset) appear, treat the transfer as unverified — most often it means the source files were not a proper match for the destination.

Common mistakes to avoid

- Using files from different ECU types or software families — structures won't align.
- Flashing a “ + ORI_Offset ” or “ + ORI_Mismatch ” file without manual verification.
- Mixing up ORI and MOD — the difference would be transferred in reverse.
- Assuming a successful transfer guarantees a running car — always validate the result.

Quick answers

Where are the output files saved?

In the same folder as the DES file, with a suffix added to the name.

Does it modify my original files?

No. ORI, MOD and DES are never changed — only new copies are written.

What file size is supported?

Comparison runs over the length of the smallest of the three files.

This tool assists experienced users who already have a base of tuning solutions. It does not guarantee a working result when file structures differ. Always verify the output before writing it to a control unit. Full responsibility for use rests with the user.