

WAYTEC

# AVERA PC software

## User manual – version 3.3

*ZR preparation · GPS recces · Normalisation · Averages · Firmware update*

**AVERA** v3.3  
ZR Preparation · Device Transfer · Firmware

Software language: EN | ZR No.: 3 | COM Port: COM5 | **Disconnect** | ? Help

**AVERA connected on COM5**

Preparation of recos and averages possible without device.

Reco points

**48**

Rallye\_2026\_recos.csv

Reco distance

**6,250 km**

Average changes

**4**

**ZR Files**

**GPS Recos**  
Combined file containing distances and GPS coordinates of adjustment points (CST files are recognised automatically).

Open combined file

Save combined file

Save all ZRs

Several ZRs at once: Ctrl+click several files, the ZR number is read from their names (Rallye\_ZR01.csv...). « All ZRs »: one file per ZR in the event folder.

Show on map

Clear all ZRs

**Manual Recos**  
File containing only adjustment distances, without GPS coordinates.

Open distances only

**ZR 3 points** ? Help

Recos

Averages

Firmware

Visualization and editing of reconnaissance points.

Add point

Modify

Delete

Move Up

Move Down

Shift

Clean hairpins

| Point | Distance | Latitude   | Longitude | Type |
|-------|----------|------------|-----------|------|
| 8     | 1,109 km | 42.5792261 | 2.6578490 | AUTO |
| 9     | 1,249 km | 42.5799618 | 2.6592343 | AUTO |
| 10    | 1,386 km | 42.5803064 | 2.6608388 | AUTO |
| 11    | 1,525 km | 42.5811533 | 2.6620849 | AUTO |
| 12    | 1,662 km | 42.5820012 | 2.6632963 | AUTO |
| 13    | 1,798 km | 42.5831987 | 2.6636252 | AUTO |
| 14    | 1,840 km | 42.5835428 | 2.6638354 | CP   |
| 15    | 1,938 km | 42.5841726 | 2.6646708 | AUTO |
| 16    | 2,080 km | 42.5849946 | 2.6659955 | AUTO |
| 17    | 2,217 km | 42.5852419 | 2.6676330 | AUTO |
| 18    | 2,355 km | 42.5857804 | 2.6691496 | AUTO |
| 19    | 2,496 km | 42.5860199 | 2.6708388 | AUTO |

**AVERA Transfer**

**GPS Recos**  

Send combined file

Read combined file from AVERA

**Manual Recos**  

Send distances only

**AVERA Reset**  
These actions use normal AVERA mode. They require the top Connect button.  

Reset GPS points

**AVERA texts**  
Once on each new AVERA and after an update that changes the texts. The language is chosen in the AVERA menu.  

Load texts (languages)

For AVERAs running firmware **v4.0.0 or later** (400 GPS points per ZR).

waytec.fr

# Contents

|                                                          |           |
|----------------------------------------------------------|-----------|
| <b>1. Overview</b>                                       | <b>4</b>  |
| <b>2. Installation and start-up</b>                      | <b>4</b>  |
| 2.1 Installing the software                              | 4         |
| 2.2 Starting the software                                | 5         |
| 2.3 Software language                                    | 5         |
| 2.4 Numbers                                              | 5         |
| 2.5 Built-in help                                        | 5         |
| <b>3. The main screen</b>                                | <b>6</b>  |
| <b>4. Connecting the AVERA</b>                           | <b>7</b>  |
| 4.1 Procedure                                            | 7         |
| 4.2 Screen texts to load                                 | 7         |
| 4.3 Which COM port?                                      | 8         |
| 4.4 If the connection fails                              | 8         |
| <b>5. The points table (Recos tab)</b>                   | <b>8</b>  |
| 5.1 Point types                                          | 8         |
| 5.2 The finish                                           | 8         |
| 5.3 Points without coordinates                           | 9         |
| 5.4 Selecting one or more points                         | 9         |
| 5.5 Hairpin points (in fluo)                             | 9         |
| <b>6. Reading the points from the AVERA</b>              | <b>10</b> |
| <b>7. Opening and saving files</b>                       | <b>11</b> |
| 7.1 Opening a combined file                              | 11        |
| 7.2 Saving a combined file                               | 11        |
| 7.3 Distances only (manual recces)                       | 12        |
| 7.4 Clearing all the ZRs                                 | 12        |
| <b>8. Adding, modifying, deleting and moving a point</b> | <b>12</b> |
| 8.1 Adding a point                                       | 12        |
| 8.2 Modifying a point                                    | 12        |
| 8.3 Deleting, moving up, moving down                     | 12        |
| <b>9. Normalising a section on a PK</b>                  | <b>13</b> |
| 9.1 Procedure                                            | 14        |
| 9.2 What the software does                               | 14        |
| 9.3 Good to know                                         | 14        |
| <b>10. Shifting points</b>                               | <b>15</b> |
| <b>11. Undo (Ctrl+Z)</b>                                 | <b>15</b> |
| <b>12. The map</b>                                       | <b>16</b> |
| <b>13. Sending the points to the AVERA</b>               | <b>17</b> |
| 13.1 Send combined file (GPS recces)                     | 17        |

|                                                                   |           |
|-------------------------------------------------------------------|-----------|
| 13.2 Send distances only (manual recces)                          | 18        |
| <b>14. The average schedule (Averages tab)</b>                    | <b>18</b> |
| 14.1 The table                                                    | 18        |
| 14.2 Opening an averages file                                     | 19        |
| 14.3 Sending the averages to the AVERA                            | 19        |
| 14.4 Reset AVERA averages                                         | 19        |
| <b>15. The AVERA screen texts</b>                                 | <b>19</b> |
| <b>16. Resetting the GPS points</b>                               | <b>20</b> |
| <b>17. Firmware update (Firmware tab)</b>                         | <b>20</b> |
| 17.1 Procedure                                                    | 21        |
| 17.2 GPS module and GPS probe                                     | 22        |
| <b>18. Recommended methods</b>                                    | <b>22</b> |
| 18.1 Recce, then normalisation at home                            | 22        |
| 18.2 Loading your team-mates' AVERAs                              | 22        |
| 18.3 Using points from another device                             | 22        |
| 18.4 The AVERA's recal comes too early or too late on one stretch | 22        |
| 18.5 Upgrading an AVERA to version 4                              | 23        |
| <b>19. File formats</b>                                           | <b>23</b> |
| 19.1 Combined file (GPS recces): .csv                             | 23        |
| 19.2 Distances only                                               | 23        |
| 19.3 Averages: .csv or .txt                                       | 23        |
| <b>20. Messages and troubleshooting</b>                           | <b>24</b> |

# 1. Overview

The AVERA PC software prepares, and exchanges with the AVERA, everything that is programmed in advance:

- the **GPS recal points** of each ZR ("recces"): reading from the AVERA, checking, correcting, normalising, cleaning hairpins, map, saving to a file and sending to one or more AVERAs (your team-mates' ones, for example);
- the **average schedule** of each ZR;
- the AVERA **screen texts** (French, English, Italian, Spanish);
- the AVERA **firmware update**.

All the work on files (opening, correcting, normalising, shifting, saving) is done **without an AVERA connected**. The AVERA is only needed for transfers.

## Compatibility

This software (v3.3) only works with AVERAs running firmware **v4.0.0 or later** (400 GPS points per ZR; v4.1.0: time sheet). An older AVERA (255 points) must be updated first (chapter [Firmware update](#)). The old PC software does not work with a version 4 AVERA.

After the update, the recces already stored in the AVERA can no longer be read: they must be redone, or sent again from a file saved on the PC.

## What's new in versions 3.2 and 3.3

- **Built-in help:** *Getting started* at start-up, **? Help** buttons (2.5).
- **All the ZRs at once:** **Save all ZRs** (one file per ZR in the event folder), opening several files at a time, **Clear all ZRs** (chapter 7).
- **Hairpin points** highlighted in fluo in the table and on the map, and **Clean hairpins** button (5.5).
- "Connected" is only shown if the AVERA has really answered, and the messages tell you what to do when it does not answer (chapter 4).
- When quitting, the software warns you if some ZRs have not been saved (2.2).

## What's new in version 3.0

- Up to **400 GPS points per ZR** (60 ZRs).
- **Point types** AUTO, CP, PK, CH read from and sent to the AVERA; finish and start shown.
- **Normalisation** of a section on the true distance of a PK, directly in the table.
- **Shift** a group of points by -10 to +10 m.
- **Undo** (Ctrl+Z) the last 20 changes to the table.
- **Reset of the GPS points** with a single button (about 40 s).
- **AVERA texts** in 4 languages, loaded by the software.
- Software in **6 languages** (FR, EN, ES, IT, NL, CA), messages included.

# 2. Installation and start-up

## 2.1 Installing the software

- 1 Run **setup\_AVERA\_3.3.exe**, supplied by WAYTEC, and follow the steps. No administrator rights are needed: the software is installed for the current Windows user. If Windows shows "Windows protected your PC", click

"More info", then "Run anyway".

- 2 The software needs Microsoft .NET Framework 4.8, which is present on up-to-date Windows 10 and on Windows 11. If it is missing, setup stops and opens the Microsoft download page: install it, then run setup again.
- 3 It also uses Microsoft Edge WebView2. If it is missing, setup downloads and installs it automatically (Internet connection needed). Without Internet, setup warns you and continues: the software window will stay empty ("Erreur initialisation WebView2") until you run setup again once connected.
- 4 Setup creates the **AVERA 3.3** shortcut and, in the Start menu, both manuals in the setup language, plus the folder with all the manuals (6 languages). A version 3.0, 3.1 or 3.2 already installed is replaced in the same place, shortcuts included. If version 2.0 is installed on this PC, it is not changed: it remains usable with older AVERA units.

## 2.2 Starting the software

### USB cable and COM port

The AVERA cable can be connected before or after starting the software: as soon as it is connected, its port appears in the **COM Port** list and is selected automatically.

At start-up, the software is empty: each ZR contains a single point at 0,000 km, without coordinates. Open a file or read the AVERA to fill the ZRs. At the first start-up, the *Getting started* help window opens (2.5).

### Nothing is saved automatically

The software keeps nothing when it is closed: save your ZRs before quitting (chapter [Files](#): **Save all ZRs** saves them all at once). If some ZRs were changed or read from the AVERA without being saved, it tells you when quitting and asks "Quit anyway?": answer No so that you can save them.

## 2.3 Software language

At the top right, the **Software language** list offers FR, EN, ES, IT, NL (BE) and CA. The whole window changes language immediately, messages included. The chosen language is remembered for the next start-up; at the very first start-up, the software takes the Windows language if it is one of the six, and English otherwise.

The software language does not change the language of the AVERA screen: that is chosen in the AVERA menu (line **language** ).

## 2.4 Numbers

The software displays and reads distances with a decimal comma ( 6,250 km ), whatever the Windows setting. In the entry windows, both the comma and the point are accepted ( 3,000 or 3.000 ).

## 2.5 Built-in help

The **? Help** button at the top right opens *Getting started*: plugging in and connecting the AVERA, and what you need to know during a transfer. The **? Help** button next to the title of each tab opens the help for that tab (*GPS points*, *Averages*, *Firmware*). In the help window, the tabs at the top switch between the parts, and a list changes the software language.

The *Getting started* help opens by itself at every start-up, until you tick *Do not show at startup*.

### 3. The main screen

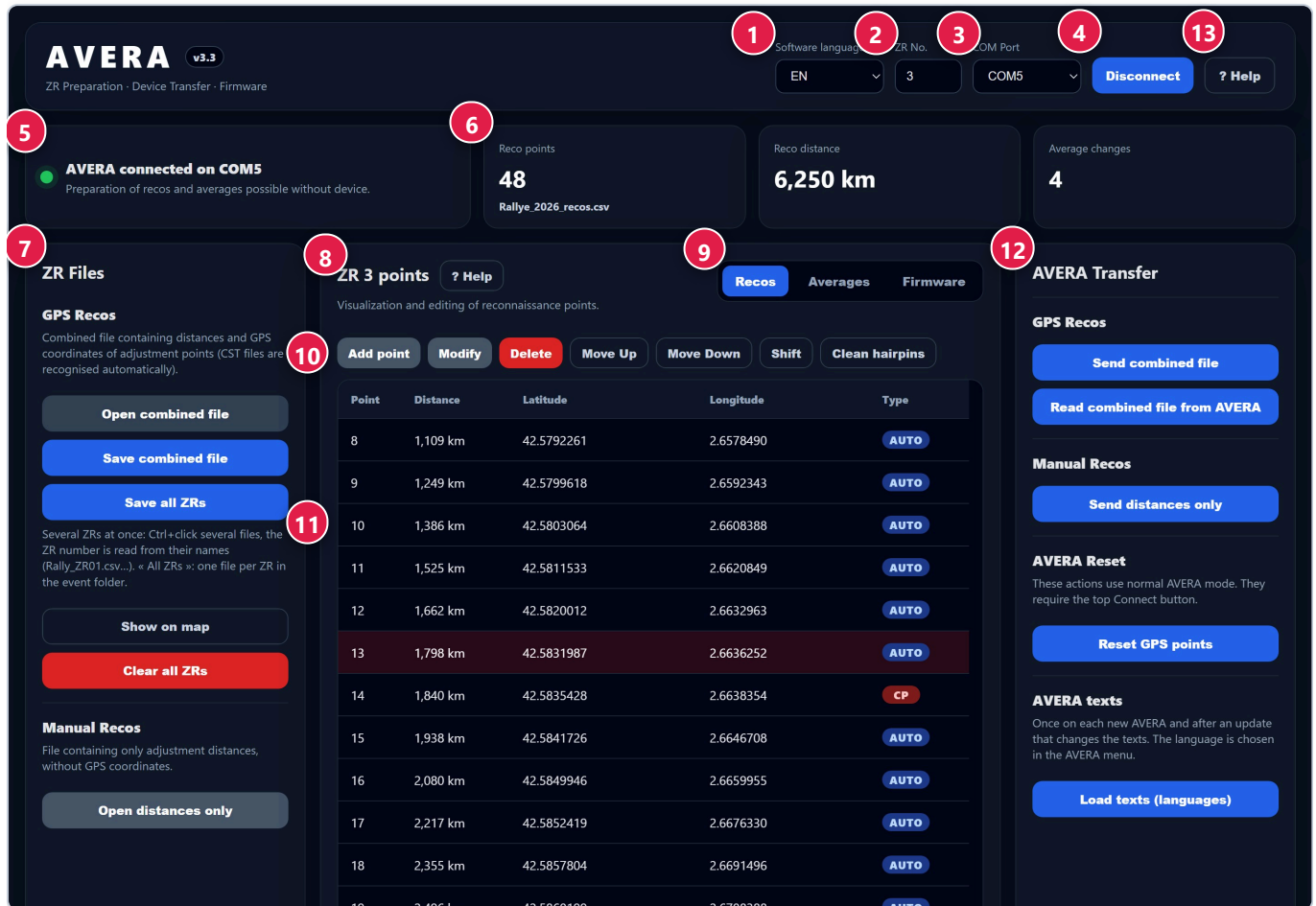


Figure 1 – The main screen, Recos tab, AVERA connected.

| No. | Item                 | Purpose                                                                                                             |
|-----|----------------------|---------------------------------------------------------------------------------------------------------------------|
| 1   | Software language    | Language of the window and of the messages.                                                                         |
| 2   | ZR No.               | ZR shown in the table (1 to 60). The arrows or the keyboard change the ZR.                                          |
| 3   | COM Port             | Serial port of the AVERA (USB cable).                                                                               |
| 4   | Connect / Disconnect | Establishes the link with the AVERA for transfers.                                                                  |
| 5   | Link status          | Red dot: not connected. Green dot: the AVERA has answered, with the port used.                                      |
| 6   | Counters             | Number of points of the displayed ZR, name of the open file, distance of the last point, number of average changes. |
| 7   | Files                | Open and save files on the PC, one ZR or all the ZRs at once, and clear all the ZRs (no AVERA needed).              |
| 8   | Title                | "ZR n points": reminds you which ZR is displayed. The <b>? Help</b> button next to it opens the help for the tab.   |
| 9   | Tabs                 | <b>Recos</b> (GPS points), <b>Averages</b> , <b>Firmware</b> .                                                      |
| 10  | Toolbar              | Add point, Modify, Delete, Move Up, Move Down, Shift, Clean hairpins, Undo.                                         |
| 11  | Table                | Points of the ZR: number, distance, latitude, longitude, type.                                                      |

| No. | Item           | Purpose                                                                                       |
|-----|----------------|-----------------------------------------------------------------------------------------------|
| 12  | AVERA Transfer | Send, read, reset, load the texts. These buttons are only active once the AVERA is connected. |
| 13  | ? Help         | <i>Getting started</i> : plugging in, connecting, transferring (2.5).                         |

The left-hand and right-hand panels change with the selected tab: files and transfers for the recces, for the average schedule, or for the firmware update.

## 4. Connecting the AVERA

Transfers (read, send, reset, load the texts, send the averages) require the AVERA to be in **PC mode**. The AVERA goes into PC mode by itself when it is switched on with the PC cable connected.

### 4.1 Procedure

- 1 With the AVERA switched off, connect the **GPS module** to the AVERA (it is needed for GPS recces and for resetting the points).
- 2 Connect the USB cable to the PC and to the AVERA, then start the software.
- 3 Choose the AVERA's **COM Port** (see 4.3).
- 4 Switch the AVERA on:
  - **AVERA with USB-C socket** (only the most recent boards): press the **On/Off** key (the USB cable alone does not switch the AVERA on);
  - **AVERA with jack cable** (older boards): push the jack into the AVERA; the cable powers it and switches it on directly in PC mode.
- 5 The AVERA shows **AVERA PLUGGED**, then **GPS module found**.
- 6 **Within 20 seconds** of switching on, click **once only** on **Connect**. The AVERA shows **AVERA LINKED**; in the software, the dot turns green ("AVERA connected on COMx") and the transfer buttons become active. After 20 s, the AVERA starts normally, without PC mode: the software shows "The AVERA does not answer." and stays disconnected; switch the AVERA on again and click Connect again within 20 s.
- 7 Start the operation you want.

#### Only one operation per switch-on

After each operation (reading, sending, reset, texts, averages), the AVERA leaves PC mode. To do another one:

1. click **Disconnect** in the software;
2. switch the AVERA off and on again (cable still connected): it shows **AVERA PLUGGED** again;
3. click **Connect** within 20 s.

The software still shows "connected" after an operation: this does not mean that the AVERA is still waiting. Without this restart, the next operation fails after a few seconds ("communication timeout").

### 4.2 Screen texts to load

If the AVERA screen texts are missing or of another version (which is normal just after a firmware update), the software detects this on connection and asks: "The AVERA screen texts are missing or do not match its program... Load them now?". Answer **Yes**: loading takes a few seconds. This is the operation for this switch-on: then switch the AVERA on again to continue.

## 4.3 Which COM port?

When you connect the AVERA cable, its port appears in the list and is selected automatically. The list only shows the names (COM3, COM4...): if in doubt, when there are several ports, open Windows **Device Manager**, section "Ports (COM & LPT)": the AVERA with USB-C socket appears as "Silicon Labs CP210x USB to UART Bridge (COMx)"; unplug and replug the cable to see which port appears. Note this number: it usually stays the same on that PC.

## 4.4 If the connection fails

Message *"The AVERA does not answer."*: the AVERA did not answer within 5 seconds; the software stays disconnected.

- Check that the AVERA does show **AVERA PLUGGED** (otherwise it is not in PC mode, or the 20 s had passed: switch it on again with the cable connected and click straight away).
- Check the COM port.

Message *"Unable to open port .... it may be in use by another program."*: another program (old AVERA software, serial terminal...) has already opened this port. Close it, or choose the right port.

### AVERA connected to a USB charger

Only on recent boards with USB-C socket: an AVERA switched on while its USB-C socket is connected to a USB charger (cigarette-lighter socket...) thinks it is connected to a PC. It shows **AVERA PLUGGED** for 20 s, then starts normally.

# 5. The points table (Recos tab)

The table shows the recal points of the ZR selected at the top (**ZR No.**). Each row is a point: number, distance in km (the one the AVERA will show when passing the point), latitude and longitude in decimal degrees, type.

## 5.1 Point types

| Type         | Meaning                                                                                                            | Taken on the AVERA with                                             |
|--------------|--------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|
| <b>AUTO</b>  | Automatic point, taken at every "interval" (40 m minimum), or manual point in competitor mode.                     | The automatic interval or <b>Page/GPS</b> (competitor mode, manual) |
| <b>CP</b>    | Passage control.                                                                                                   | <b>SPE</b> in orga mode                                             |
| <b>PK</b>    | Kilometre point: road-book landmark whose distance is known. Used as an anchor for <a href="#">normalisation</a> . | <b>Page/GPS</b> in orga mode                                        |
| <b>CH</b>    | Time control.                                                                                                      | <b>Offset</b> in orga mode                                          |
| <b>Start</b> | ZR start, for the map only (green flag). <b>Never sent to the AVERA</b> : the start is not used for recal.         | Added by hand in the software, or read from another device's file   |

The AVERA recals in the same way on all types. The type helps you find your way in the table and on the map, and the PK is used for normalisation. It is sent to the AVERA with the distance: so your team-mates also receive the CPs, PKs and CHs.

## 5.2 The finish

The **last point of the ZR** is the finish. It keeps its type (usually a PK taken at the official ZR length), it is sent to the AVERA like the others, and the software adds the **Finish** label in the table and a red flag on the map.

ZR 3 points ? Help

Recos

Averages

Firmware

Visualization and editing of reconnaissance points.

Add point

Modify

Delete

Move Up

Move Down

Shift

Clean hairpins

| Point | Distance | Latitude   | Longitude | Type                            |
|-------|----------|------------|-----------|---------------------------------|
| 37    | 4,735 km | 42.5722641 | 2.6813359 | AUTO                            |
| 38    | 4,871 km | 42.5718776 | 2.6829096 | AUTO                            |
| 39    | 5,008 km | 42.5721977 | 2.6845233 | AUTO                            |
| 40    | 5,145 km | 42.5720838 | 2.6861873 | AUTO                            |
| 41    | 5,287 km | 42.5725794 | 2.6877834 | AUTO                            |
| 42    | 5,426 km | 42.5734156 | 2.6890426 | AUTO                            |
| 43    | 5,565 km | 42.5743767 | 2.6901250 | AUTO                            |
| 44    | 5,705 km | 42.5748499 | 2.6917074 | AUTO                            |
| 45    | 5,845 km | 42.5758671 | 2.6927117 | AUTO                            |
| 46    | 5,983 km | 42.5769165 | 2.6936078 | AUTO                            |
| 47    | 6,126 km | 42.5779569 | 2.6946312 | AUTO                            |
| 48    | 6,250 km | 42.5784266 | 2.6960028 | <div>PK</div> <div>Finish</div> |

Figure 2 – The last point (PK at 6,250 km) is shown as the finish.

## 5.3 Points without coordinates

A point can have only a distance (latitude and longitude empty, shown as “—”). The software keeps it and sends it to the AVERA, but the GPS module skips it: it goes straight to the next point. This is useful to keep a road-book landmark in the list without distorting the recal. These points are not drawn on the map.

## 5.4 Selecting one or more points

- **Click** on a row: the point is selected (dark red row).
- **Double-click**: opens the point's edit window directly.
- **Click on the first point, then Shift+click on the last one**: several consecutive points are selected (pink rows), for [Shift](#).
- **Del** key on the keyboard: deletes the selected point (after confirmation).

## 5.5 Hairpin points (in fluo)

Where the road makes a U-turn (a hairpin or a series of hairpin bends), it comes back very close to the earlier points. The GPS module only watches the next point: if this point is a few metres from a place the car passes just before, on the other side of the bend, the GPS may take it too early, and the AVERA may recal by 50 m or more.

The software finds these points by itself and **highlights them in fluo** in the table (fluo halo on the map): a point is flagged if it is less than 35 m as the crow flies from an earlier point while the road makes a detour between the two, and there is no point left between them to act as a lock (the module must pass that point before it looks at the next one).

| Point | Distance | Latitude   | Longitude | Type |
|-------|----------|------------|-----------|------|
| 1     | 0,100 km | 42.5773051 | 2.6600000 | AUTO |
| 2     | 0,175 km | 42.5779788 | 2.6600000 | AUTO |
| 3     | 0,250 km | 42.5786525 | 2.6600000 | AUTO |
| 4     | 0,325 km | 42.5793263 | 2.6600000 | AUTO |
| 5     | 0,400 km | 42.5800000 | 2.6600000 | AUTO |
| 6     | 0,475 km | 42.5800862 | 2.6602684 | AUTO |
| 7     | 0,550 km | 42.5794125 | 2.6602684 | AUTO |
| 8     | 0,625 km | 42.5787388 | 2.6602684 | AUTO |
| 9     | 0,700 km | 42.5780650 | 2.6602684 | AUTO |
| 10    | 0,775 km | 42.5773913 | 2.6602684 | AUTO |

Figure 3 – Point 6, just after the U-turn, is only 24 m from point 5: it is highlighted in fluo.

The **Clean hairpins** button (toolbar) removes these points from the displayed ZR, after confirmation. It removes as few as possible, usually only one per hairpin, and a second click finds nothing more ("No hairpin point in this ZR."). **Undo (Ctrl+Z)** puts them back.

- The **PKs, CPs, CHs and the finish** are never removed: if they are at risk, they stay highlighted in **orange**; be careful at that spot in the rally.
- Clean each ZR that has hairpin bends, then save it and send it to the AVERA.

## 6. Reading the points from the AVERA

The **Read combined file from AVERA** button brings the GPS points of the AVERA's **60 ZRs** into the software: distances and types (stored in the AVERA) and coordinates (stored in the GPS module).

- 1 Connect the AVERA, with the **GPS module plugged in** (chapter [Connecting](#)).
- 2 Click **Read combined file from AVERA**. The AVERA shows **SENDING DATA...**; the progress bar advances ZR by ZR, then point by point.
- 3 At the end: message "Reading completed". Choose the ZR with **ZR No.** to see its points.

### Reading replaces everything

The software's 60 ZRs are replaced by those of the AVERA. Save your current changes first.

- Duration: about 40 ms per point (about 1 min for 1500 points).
- The Start point does not exist in the AVERA: it is not read back.
- The averages are not read (the AVERA cannot send them back).
- During a transfer, the window no longer responds to clicks and may seem frozen: wait until the end without touching anything, without closing the software or switching off the AVERA (a reminder is shown below the progress bar).

## 7. Opening and saving files

### One file = one ZR

Point files and averages files contain **only one ZR**. A file opened on its own goes into the ZR shown at the top ( **ZR No.** ), and **Save combined file** writes only that ZR: so choose the ZR **first**. Put the ZR number in the file name ( `Rallye2026_ZR03.csv` ): the software uses it to open several files at once (7.1), and **Save all ZRs** names its files this way (7.2).

### 7.1 Opening a combined file

- 1 Choose the ZR ( **ZR No.** ).
- 2 Click **Open combined file** and choose the file ( `.csv` , or old `.txt` ).
- 3 The ZR's points are replaced by those of the file; the file name is shown below the number of points.

**Several ZRs at once:** in the file selection window, choose several files with Ctrl+click (Ctrl+A for the whole folder). Each file goes into the ZR whose number is in its name, "ZR" followed by the number: `Rallye_ZR01.csv` , `zr 6 gara.csv` , `ZR12_normalisee.csv` . The software first shows the list ("Each file goes into the ZR whose number is in its name... Continue?"). Files without a ZR number in their name, or whose ZR is already taken by another file, are left aside: open them one by one.

The points file of another device can also be opened with this button: try loading it; if it is not recognised, contact WAYTEC.

An AVERA ZR holds **400 points at most**. If the file contains more:

- **file from an AVERA or from this software:** the table shows them all (up to 510), but only the first 400 will be sent to the AVERA; a message warns you. If the last points matter, delete AUTO points before sending;
- **file from another device:** the software sorts them by itself on opening. It keeps all the road-book landmarks and spreads the automatic points evenly over the remaining places, to reach 400; a message tells you so.

### 7.2 Saving a combined file

Choose the ZR, then **Save combined file**: give a name, and the file is written in `.csv` format (points, coordinates, types, Start included). No confirmation message appears when everything has gone well.

**All the ZRs at once:** **Save all ZRs**. Choose the event folder, or create one (not the root of the drive). Each ZR that has points is saved there under the folder name followed by the ZR number: folder `Rallye 2026` → `Rallye 2026_ZR01.csv` , `Rallye 2026_ZR02.csv` ... (same format as a combined file). If files of this event are already in the folder, the software asks before replacing them; at the end, it tells you how many ZRs were saved. To reopen everything: **Open combined file** , then Ctrl+A in the folder (7.1).

## 7.3 Distances only (manual recces)

A “manual recce” is a list of distances without coordinates, used by the **recal remote control** (the crew confirm each point themselves as they pass it) or to prepare a ZR before having the coordinates. Choose the ZR, then **Open distances only**: each line of the file becomes a point without GPS. 400 lines at most.

File format: chapter [File formats](#).

## 7.4 Clearing all the ZRs

**Clear all ZRs** erases the points of the 60 ZRs **in the software only** (not in the AVERA, and not the averages), as at start-up. The software asks for confirmation and reminds you which ZRs are not saved in a file. Do this before opening the files of another event: otherwise, the ZRs missing from the new files would keep the points of the old event, and these points would be sent to the AVERA.

# 8. Adding, modifying, deleting and moving a point

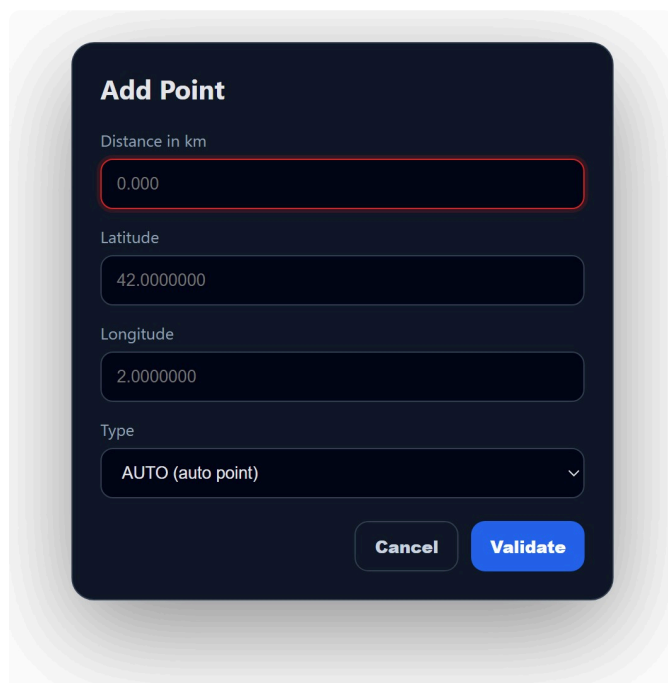


Figure 4 – Adding a point.

Checks made when you validate: the distance is required and cannot be negative; latitude and longitude go together (both or neither), between –90 and 90 for latitude, between –180 and 180 for longitude.

## 8.2 Modifying a point

Select the point, then **Modify** (or double-click on the row). The window shows its values; correct them and validate. The type is kept as long as you do not change it. If the point is a **PK** and you change its distance, the *Normalize the previous section on this true distance* box appears: see the next chapter.

## 8.3 Deleting, moving up, moving down

- **Delete** (or the Del key): deletes the selected point, after confirmation. The following numbers move up by one.
- **Move Up** / **Move Down**: swaps the point with its neighbour. The distances do not change: only use these buttons to put points that are in the wrong order back in order.

## 8.1 Adding a point

- 1 Click the point **after which** the new point is to go (with nothing selected, it is added at the end).
- 2 Click **Add point**.
- 3 Enter the **distance in km** (for example 2,450).
- 4 Enter the latitude and longitude in decimal degrees ( 42.5857724 ), or leave both empty for a point without GPS.
- 5 Choose the type, then **Validate**.

### Order of the points

The AVERA goes through the points in the order of the table. The distances must therefore always increase from one row to the next.

Each change to the table is taken into account by the software immediately (there is no "apply" button); it only goes to the AVERA when you send, and into a file when you save.

## 9. Normalising a section on a PK

During a recce, the AVERA's trip never agrees exactly with the organiser's road-book (calibration, line driven, wheelspin...). **Normalising** means rescaling the point distances to the road-book, using the landmarks whose true distance is known: the **PKs**.

The software does this at home, after the recce, on the PKs taken in **orga mode** (see the AVERA manual, chapter GPS recal). It is the same formula as the one the AVERA uses in competitor mode.

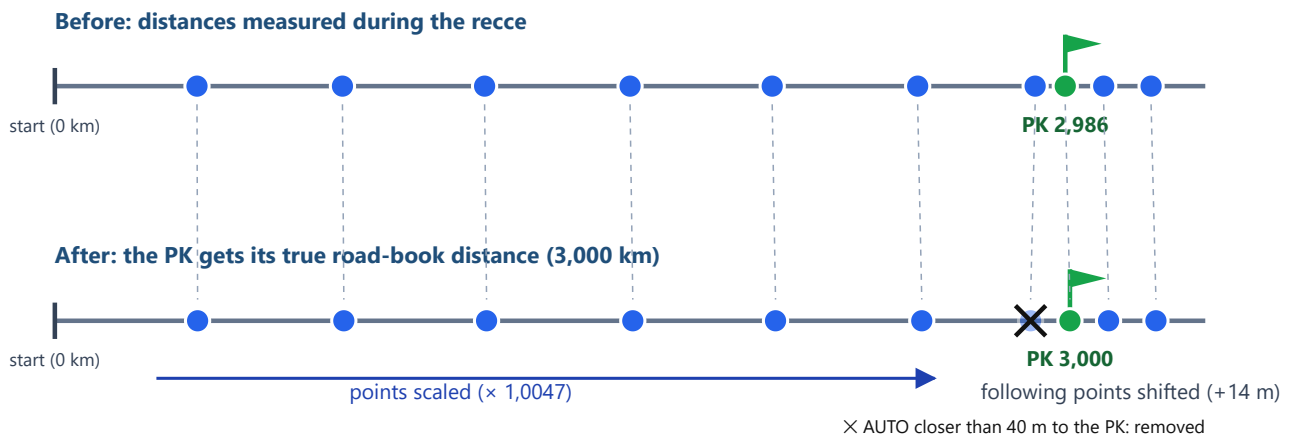
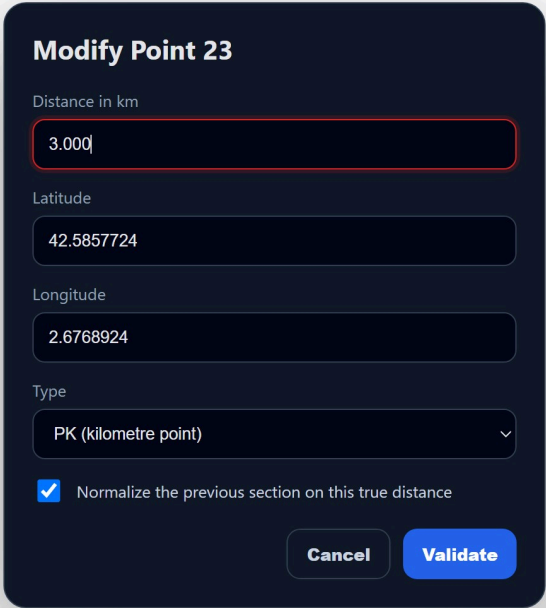


Figure 5 – Normalisation on a PK: the PK measured at 2,986 km receives its true distance, 3,000 km.

## 9.1 Procedure

- 1 Display the ZR and find the **first PK** (counting from the start) whose measured distance differs from the road-book.
- 2 Double-click this PK (or select it, then **Modify**).
- 3 In *Distance in km*, type the **true road-book distance** (here 3.000 instead of 2,986).
- 4 Leave the *Normalize the previous section on this true distance* box ticked.
- 5 **Validate**. A message sums up what was done.
- 6 Move on to the next PK, and so on, **in order, from the start to the finish**.



**Modify Point 23**

Distance in km  
3.000

Latitude  
42.5857724

Longitude  
2.6768924

Type  
PK (kilometre point)

☒ Normalize the previous section on this true distance

Cancel Validate

Figure 6 – True distance of the PK and the “Normalize” box.

## 9.2 What the software does

- **Normalised section:** from the previous anchor (the previous PK, or the ZR start at 0 km if there is none) up to the modified PK. Each point of this section is rescaled:  
$$\text{new distance} = \text{anchor} + (\text{distance} - \text{anchor}) \times (\text{true PK distance} - \text{anchor}) / (\text{measured PK distance} - \text{anchor})$$
- **Following points:** all shifted by the same correction (true distance – measured distance of the PK), so that they stay consistent until their own PK is normalised.
- **AUTO points less than 40 m from the PK** (before or after): deleted, because they are too close to be useful. CPs, PKs, CHs, the start and the finish are never deleted.
- The **GPS coordinates do not change**: only the distance figures change.

Example message: “Section normalized (factor 1,0047): 21 point(s) recalculated, 25 following point(s) shifted by 14 m, 1 AUTO point(s) too close to the PK removed.”

## 9.3 Good to know

- The box only appears for an existing point of type **PK** (when modifying), and normalisation only takes place if the distance has really changed.
- The true distance must be greater than that of the previous PK (or than 0): otherwise the software refuses (“Normalization impossible”).
- To correct only the figure of a PK without touching the other points, untick the box.
- Made a mistake? **Undo (Ctrl+Z)** returns exactly to the previous state (chapter [Undo](#)).
- Do not forget to **save** the file and then **send** the ZR to the AVERAs.

### What about the finish?

The last point (finish) is usually a PK: it is normalised like the others. Normalise it last.

## 10. Shifting points

"Shift" adds a few metres (from -10 to +10 m) to the distances of a group of points. This is useful, for example, when during the rally the AVERA always recals a little too early or too late on part of a ZR: you move these points forward or back without redoing the recce.

- 1 Click the **first** point to shift.
- 2 **Shift+click** on the **last** one: the points in between are selected.
- 3 Click **Shift**. The window shows the selected points ("Points 9 to 14 (6 points)").
- 4 Type the number of metres to add: a whole number from -10 to +10 (not 0). Positive = the point is placed further on.
- 5 **Validate** (or the Enter key).

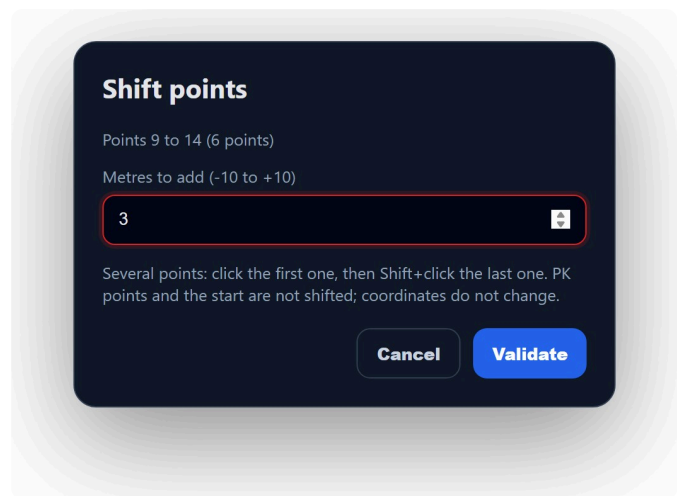


Figure 7 – Shifting points 9 to 14 by +3 m.

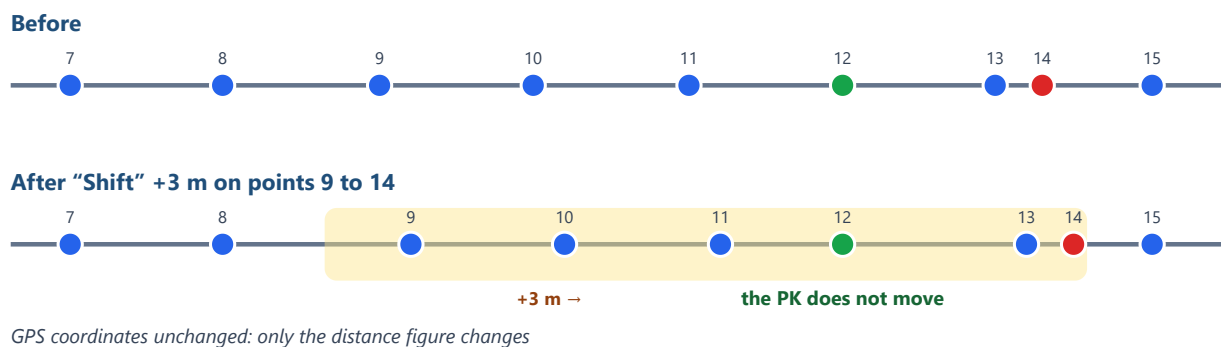


Figure 8 – The PKs stay at their road-book distance (shift drawn larger than in reality).

- The **PKs** and the **Start** are not shifted (their distances are the road-book ones). The message tells you how many PKs were left in place.
- The **GPS coordinates do not change**: the AVERA recals at the same place, to a shifted distance.
- Refused if a distance would become negative, or if a point would move before the previous one (or after the next one): reduce the shift or the selection.
- Only one point selected (single click): only that point is shifted.

## 11. Undo (Ctrl+Z)

After a change to the table, the orange **Undo (Ctrl+Z)** button appears. Each click (or Ctrl+Z on the keyboard) undoes **one** change, going back up to the **last 20**: modify, add, delete, move up, move down, normalise, shift, clean hairpins.

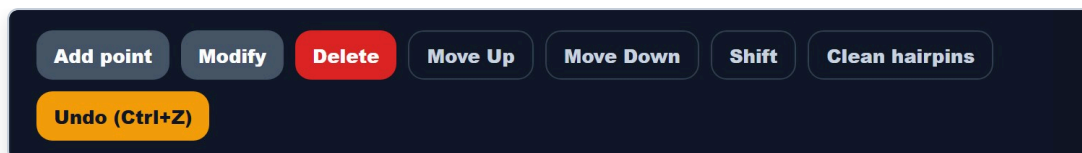


Figure 9 – The Undo button appears after a change.

- The history is cleared when you change ZR or open or read a file.
- Ctrl+Z has no effect while you are typing in a field or when a window is open.
- The averages table has no Undo.

## 12. The map

**Show on map** plots the points of the displayed ZR on a map, covering the whole window. It lets you check a recce at a glance: badly placed point, gap, point off the road.

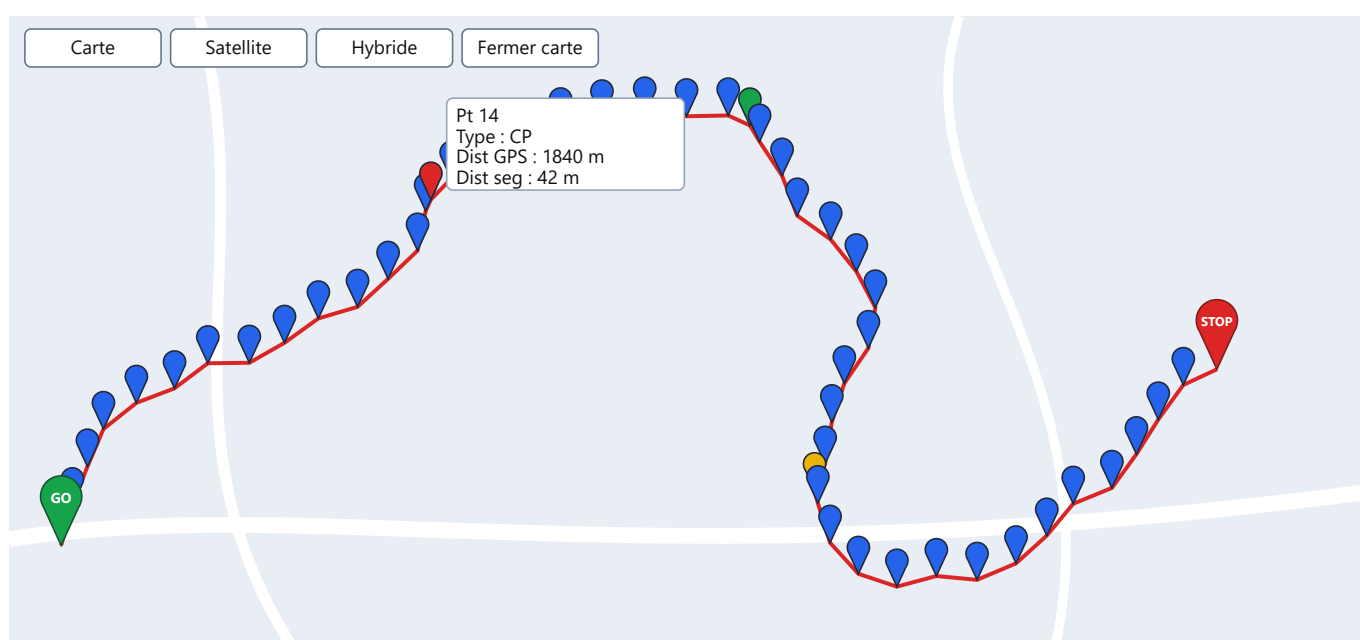


Figure 10 – Illustration of the map: pins coloured by type, start "GO", finish "STOP", tooltip of a point.

| On the map                         | Meaning                                                                                                |
|------------------------------------|--------------------------------------------------------------------------------------------------------|
| Blue / red / green / yellow pin    | AUTO / CP / PK / CH point.                                                                             |
| Large green "GO" marker            | Start.                                                                                                 |
| Large red "STOP" marker            | Last point of the ZR (finish).                                                                         |
| Red lines                          | Straight lines from one point to the next (not the exact course of the road).                          |
| Tooltip                            | Point number, type, distance (Dist GPS) and straight-line distance from the previous point (Dist seg). |
| Fluo (or orange) halo around a pin | Hairpin point (chapter <a href="#">5.5</a> ); its tooltip also says so.                                |

- Buttons at the top: **Carte** (map), **Satellite**, **Hybride** (hybrid) for the background map, and **Fermer carte** (close map). Mouse wheel to zoom, drag with the left button to move the map.

- Clicking a point selects it in the table.
- Points without coordinates are not drawn. If no point has coordinates, a message tells you so.
- The background maps come from the Internet: without a connection, only the points and lines are shown.

## 13. Sending the points to the AVERA

### Sending rewrites all 60 ZRs

"Send combined file" replaces **all the ZRs** in the AVERA (and all the coordinates in the GPS module) with what the software has in memory. A ZR that you have neither read nor opened is sent with a single empty point.

To change only one ZR: **read** the AVERA first (chapter [Reading](#)), modify the ZR, then send. To load a new AVERA or a team-mate's: open each file into its ZR (or read your own AVERA), then send.

### 13.1 Send combined file (GPS recces)

- 1 Prepare in the software all the ZRs you are going to use (reading an AVERA, or one file per ZR); the others will be sent empty.
- 2 Connect the AVERA **with its GPS module plugged in**.
- 3 Click **Send combined file**. The AVERA shows **RECEIVING DATA...** (distances), then **coordinates** at the bottom of the screen; the module's green LED lights up while writing.
- 4 The progress bar shows "Combined file transmission finished" (no message window). The AVERA leaves PC mode and restarts normally.

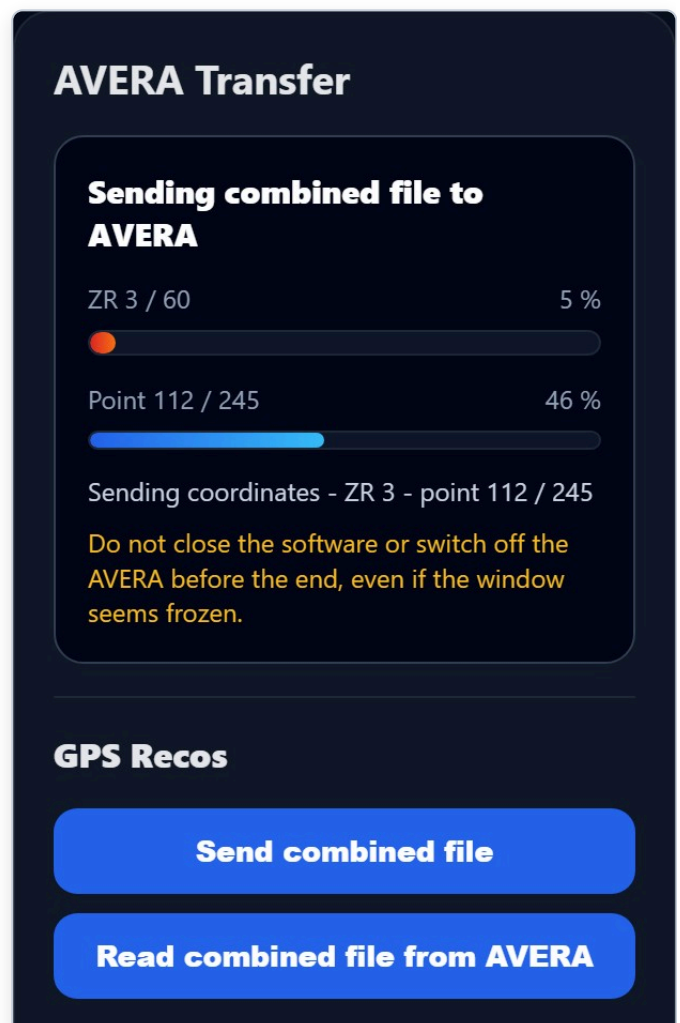


Figure 11 – Progress bar: current ZR and current point.

- Each point is sent with its distance, its **type** (AUTO, CP, PK, CH) and its coordinates. The **Start** is never sent.
- At most **400 points per ZR**: beyond that, only the first 400 are sent (a message warns you).
- A point without coordinates is sent as "no GPS": the module skips it in the rally.
- Duration: about 80 ms per point, plus about fifteen seconds (about 1 min 30 s for 1000 points; half an hour for 60 full ZRs).

- **GPS module unplugged:** the distances are written but not the coordinates, and the software ends with a "timeout". Plug the module back in and send again.

To check, switch the AVERA on again, connect it and do [Read combined file from AVERA](#).

## 13.2 Send distances only (manual recces)

[Send distances only](#) sends the distances of the 60 ZRs **without coordinates and without type** (all points become AUTO). The GPS module is not used and its coordinates do not change. Use it only for ZRs driven with the **recal remote control**, without automatic GPS recal: otherwise distances and coordinates no longer match. End: message "Transmission completed". About 50 ms per point.

A ZR with more than 400 points stops the sending ("too many points"): reduce it, switch the AVERA on again and start again.

# 14. The average schedule (Averages tab)

The [Averages](#) tab prepares the average changes of each ZR and sends them to the AVERA, instead of typing them on the AVERA keypad (menu line [prog averages](#)).

**AVERA v3.3**  
Average Schedule - Device Transfer

Software language: EN | ZR No.: 3 | COM Port: COM5 | [Disconnect](#) | [? Help](#)

**AVERA connected on COM5**  
Preparation of recos and averages possible without device.

Reco points: **48**  
Rallye 2026\_recos.csv

Reco distance: **6,250 km**

Average changes: **4**

**Averages File**  
Average Schedule  
File containing change distances and averages to maintain.  
[Open averages file](#)

**Average Programming** [? Help](#)  
Visualization and editing of the average schedule.

Recos **Averages** Firmware

[Add change](#) [Modify](#) [Delete](#) [Move Up](#) [Move Down](#)

| Change | Distance | Average    |
|--------|----------|------------|
| 1      | 2,400 km | 49,00 km/h |
| 2      | 3,750 km | 46,50 km/h |
| 3      | 5,100 km | 48,00 km/h |
| 4      | 6,600 km | 44,00 km/h |

**AVERA Transfer**  
Average Schedule  
[Send averages to AVERA](#)  
[Reset AVERA averages](#)

Figure 12 – The Averages tab: one row per average change.

## 14.1 The table

Each row gives a **distance** (km, from the ZR start) and an **average** (km/h). The average of a row applies **up to** the distance of that row; the next row then takes over. Example: 2,400 km – 49,00 km/h then 3,750 km – 46,50 km/h = 49 km/h from the start to 2,400 km, then 46,5 km/h up to 3,750 km. For the last row, enter a distance slightly longer than the ZR length, otherwise the pacer stops too early.

- **Add change** : inserts a row after the selected row (or at the end).
- **Modify** (or double-click): corrects the distance and the average.
- **Delete**, **Move Up**, **Move Down** : as for the points.
- 70 changes at most per ZR. The averages table has no "Undo".

Figure 13 – Modifying an average change.

## 14.2 Opening an averages file

Choose the ZR, then **Open averages file** ( `.csv` or `.txt`, one ZR per file, format in chapter [Formats](#)). The software cannot **save** the averages or **read** them from the AVERA: keep your averages files, prepared with a spreadsheet or a text editor.

## 14.3 Sending the averages to the AVERA

- 1 Load the ZRs **starting from ZR 1, without skipping any**: the software sends ZRs 1 to N, N being the last ZR loaded or modified. If a ZR is missing in the middle, it tells you.
- 2 Connect the AVERA, then **Send averages to AVERA**. The AVERA shows `RECEIVING avg/dist` then `averages`. About 9 s per ZR.
- 3 The bar shows "Sending averages finished", and a message reminds you: the AVERA then shows `SAVING...`; it stores the data and erases the old lines, which can take **up to 5 minutes**. **Do not switch it off**: it restarts by itself at the end.

### ZR offset

Sending the averages resets the **ZR offset** of each ZR sent to 0. If a ZR has an offset, enter it afterwards on the AVERA (menu line `prog averages`).

## 14.4 Reset AVERA averages

**Reset AVERA averages** resets the averages of the 60 ZRs to a single line, **10 km at 30 km/h**, in the software and in the AVERA (after confirmation). About 25 s of transfer, then about 4 min 30 s of `SAVING...` on the AVERA, which then restarts by itself.

# 15. The AVERA screen texts

Since version 4.0.0, the texts displayed by the AVERA (menus, messages) are stored in its memory in **4 languages**: French, English, Italian and Spanish. They come with the PC software (no file to choose).

**When should you load them?** Once on each new AVERA, and after a firmware update that changes the texts. Signs: at start-up, the AVERA shows `TEXTES ABSENTS` for 2 s and its menus show `T000`, `T001` ...; or the software offers to load them on connection (chapter [4.2](#)).

- 1 Connect the AVERA.
- 2 Click **Load texts (languages)**. The AVERA shows `RECEPTION TEXTES` then `TEXTES OK`; a few seconds are enough.

3 The progress bar shows "Texts loaded: 94 texts, 4 languages...".

4 Choose the language on the AVERA: menu, line `language`.

If the AVERA shows `MAUVAISE VERSION`, the PC software does not match the AVERA firmware: install the software version supplied with that firmware.

## 16. Resetting the GPS points

---

**Reset GPS points** erases all the GPS points at once: the distances in the AVERA and the coordinates in the GPS module. All ZRs go back to 0 points.

1 Connect the AVERA **with its GPS module plugged in**.

2 Click the button, then confirm.

3 The AVERA shows `ERASING...`; the module's green LED flashes quickly. Allow about **40 seconds**.

4 The AVERA shows `POINTS ERASED` and the bar shows "GPS points reset finished".

- The software's memory is cleared too (60 ZRs with 0 points): do the reset **before** opening the files to send. The averages are not affected.
- If the AVERA shows `GPS MODULE MUTE`: its distances are erased but not the module's coordinates. Check the module connection and try again.
- Not needed before a "Send combined file", which rewrites everything anyway. Useful after upgrading to version 4, or to wipe an AVERA clean.

## 17. Firmware update (Firmware tab)

---

The firmware is the AVERA's program. WAYTEC supplies it as an encrypted `.cry` file. The update is done over the same USB cable, without opening the AVERA.

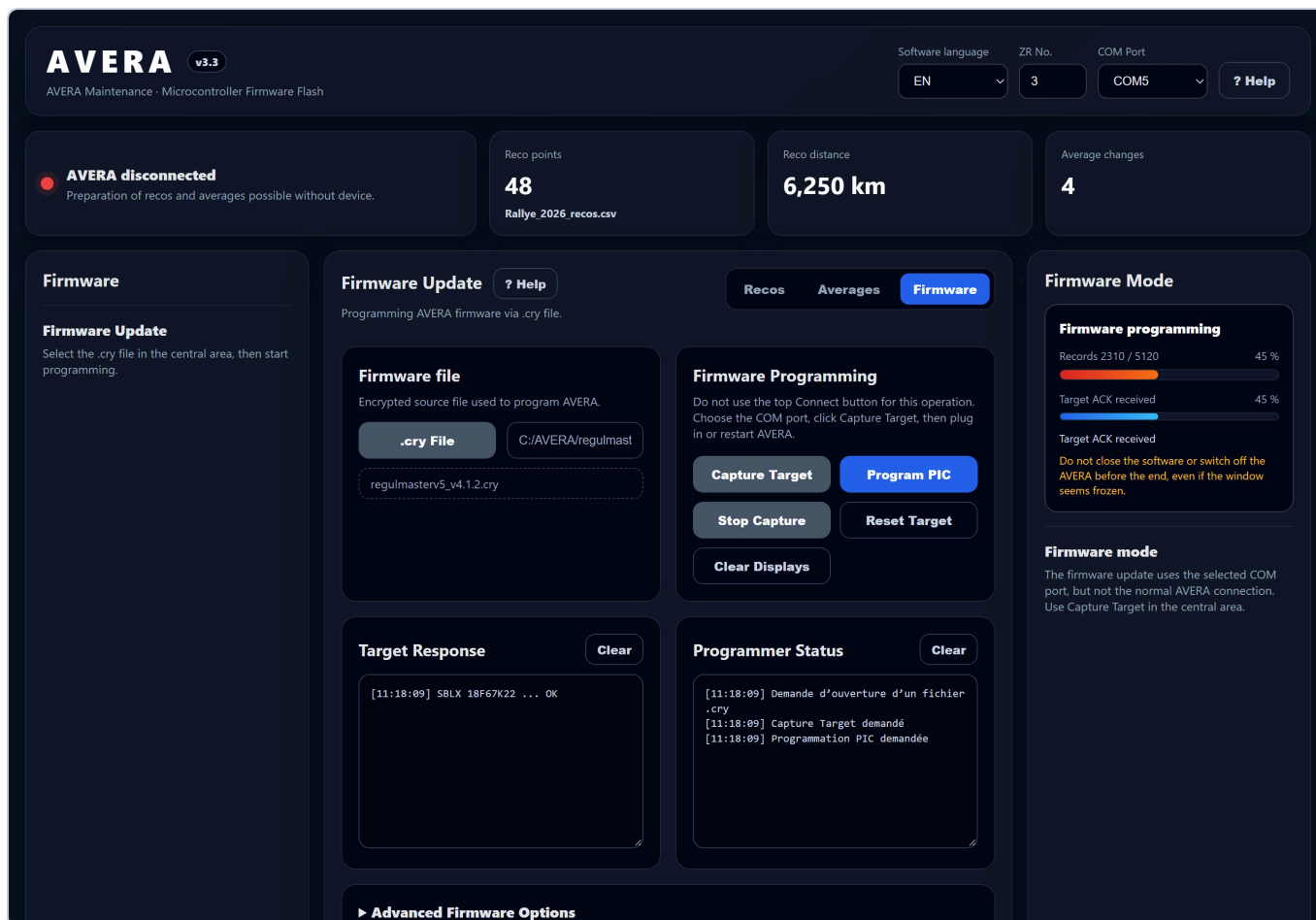


Figure 14 – The Firmware tab during programming.

### Before you start

- **Do not click Connect:** the update uses the COM port selected at the top, but not the normal connection.
- Going from a 3.x version to version 4 makes the recos already stored in the AVERA unreadable: **save them first** (read them with your old PC software) if you want to keep them.
- The GPS module and the recal remote control must be at version 4.0.0 (with an AVERA 4.0.0 or later). The GPS module and the GPS probe are updated through this tab, like the AVERA (17.2). The recal remote control and the pilot display have no loader program: they are updated by WAYTEC.

## 17.1 Procedure

- 1 **AVERA switched off**, USB cable connected to the PC and to the AVERA (for an AVERA with jack cable: cable connected to the PC only, jack **not yet** pushed in). Start the software and choose the **COM Port**.
- 2 **Firmware** tab, **.cry File** button: choose the supplied file. Its name is displayed.
- 3 Click **Capture Target**. The "Programmer Status" log shows that capture has started and asks you to connect or restart the AVERA. The software screen switches to "AVERA disconnected": this is normal.
- 4 **Switch the AVERA on** (**On/Off** key, or push the jack in). The AVERA only listens to the PC for a few seconds after power-up: that is why capture must already be running.
- 5 The log shows "Target capturée" (target captured), then "Tu peux maintenant lancer Program PIC" (you can now start Program PIC). If nothing appears: **Stop Capture**, switch the AVERA off, check the port, and start again from step 3.
- 6 Click **Program PIC** and confirm. The "Records n / total" bar advances. **Do not unplug anything and do not touch any button** during programming (about one minute).

- 7 End: "Firmware chargé sans erreur détectée" (firmware loaded, no error detected).
- 8 Switch the AVERA off and on again, click **Connect** (no need to restart the software: it frees the update port by itself) and accept the offer to load the texts (chapter [Texts](#)).
- 9 After upgrading to version 4: switch the AVERA on again, connect it, do the [Reset GPS points](#), then send your reces (chapter [Sending](#)) and your averages again.
  - Error reported by the AVERA: "Erreur firmware : status 0x..." (firmware error); with no answer, the software makes 10 attempts and then gives up ("timeout programmation firmware", firmware programming timeout). In both cases, repeat the whole procedure: the AVERA's small start-up program is never erased, so the update can always be done again.
  - The collapsed **Advanced Firmware Options** section and the **Reset Target** and **Clear Displays** buttons are not used for a normal update (Clear Displays only clears the logs).

## 17.2 GPS module and GPS probe

The GPS module and the GPS probe are updated in the same way, with the `.cry` file supplied by WAYTEC for each one: follow steps 1 to 7 above, updating that device instead of the AVERA (switched off at the start, then switched on at step 4).

# 18. Recommended methods

---

## 18.1 Recce, then normalisation at home

- 1 On the AVERA, do the recce in **orga mode** (AVERA manual, chapter GPS recal): automatic AUTO points, and a **PK** (**Page/GPS** key, without typing a distance) at each road-book landmark whose distance is known, including the finish.
- 2 At home: AVERA switched on with the cable connected, **Connect**, **Read combined file from AVERA**.
- 3 For each ZR: check the map, then [normalise](#) the PKs in order by typing the road-book distances. Delete any stray points if needed. In ZRs with hairpin bends, click **Clean hairpins** (5.5).
- 4 **Save all ZRs** (backup: one file per ZR in the event folder, 7.2).
- 5 Switch the AVERA on again, **Connect**, **Send combined file**.

## 18.2 Loading your team-mates' AVERAs

- 1 Fill the software: read your AVERA, or **Clear all ZRs** and then open all the event's files at once (7.1).
- 2 Connect the team-mate's AVERA **with its GPS module**, switch it on, **Connect**, **Send combined file**.
- 3 Repeat for each AVERA (Disconnect, change AVERA, Connect, Send). The CP, PK and CH types are sent too.

## 18.3 Using points from another device

- 1 Choose the ZR, **Open combined file**, choose the other device's file. If it is not recognised, contact WAYTEC.
- 2 Check the Start, the PKs and the map; normalise if needed.
- 3 Save in AVERA format, then send (with the other ZRs).

## 18.4 The AVERA's recal comes too early or too late on one stretch

After the rally or a test run, identify the stretch concerned and the error observed (for example, recal 3 m too early). Select the points of that stretch, [Shift](#) them by +3 m, save, send again. For the same error over the whole ZR and all ZRs, set **corr. dist.** on the AVERA's Offset page instead.

## 18.5 Upgrading an AVERA to version 4

- 1 With the old PC software, read and save the AVERA's recces if you want to keep them.
- 2 Install this software, then [update the firmware](#) of the AVERA and of the GPS module (17.2); have the recal remote control updated by WAYTEC.
- 3 Load the texts, reset the GPS points, then reopen your files (all at once if their names contain the ZR number, 7.1) and send them (old `.txt` files can still be read).
- 4 Send the averages again, or retype them on the AVERA.

## 19. File formats

All the files are plain text files, one ZR per file, **without a header line** (a line of column titles causes "Failed."). They can be prepared with a spreadsheet (save as CSV) or a text editor.

### 19.1 Combined file (GPS recces): `.csv`

One line per point, **comma** separator, so a **decimal point** is required. Columns, in this order:

| 1                           | 2                          | 3              | 4                                |
|-----------------------------|----------------------------|----------------|----------------------------------|
| longitude (decimal degrees) | latitude (decimal degrees) | distance in km | type: AUTO, CP, PK, CH or DEPART |

```
2.6543210,42.1234560,0.000,DEPART
2.6549000,42.1238000,0.350,AUTO
0.0000000,0.0000000,0.800,CP
2.6600000,42.1300000,1.250,PK
```

- Watch the order: the **longitude comes before the latitude**.
- `0.0000000,0.0000000` = point without coordinates.
- Type missing (old 3-column format) or unknown: AUTO. `ARRIVEE` is read as PK, `START` as Start.
- Old `.txt` files in the same format can also be opened.

### 19.2 Distances only

One distance in **km** per line (decimal comma or point), no empty lines, 400 lines at most.

```
0.350
0,800
1.250
```

### 19.3 Averages: `.csv` or `.txt`

One line per change: **distance in km**, separator, **average in km/h**. Separator `;` or `/` (decimal comma or point accepted) or `,` (decimal point required). Any further columns are ignored. 70 lines at most.

```
5,000;45,00
8.000;49.50
13.000/30.00
```

## 20. Messages and troubleshooting

| Message or symptom                                                             | Cause and solution                                                                                                                                                                                                                 |
|--------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| The AVERA's COM port is not in the list.                                       | Unplug and replug the USB cable, or try another USB socket on the PC. Check in Device Manager that the port appears (chapter <a href="#">4.3</a> ).                                                                                |
| "AVERA disconnected" when clicking a transfer button.                          | Click Connect first (chapter <a href="#">4</a> ).                                                                                                                                                                                  |
| "The AVERA does not answer." when clicking Connect                             | The AVERA is not in PC mode (it must show AVERA PLUGGED), the 20 s had passed, or the port is wrong. Switch the AVERA off and on again with the cable connected, then click Connect within 20 s; otherwise, check the port.        |
| "Unable to open port ..."                                                      | Another program is using this port: close it, or choose the right port (chapter <a href="#">4.3</a> ).                                                                                                                             |
| "Failed: communication timeout..."                                             | The AVERA has already done an operation since it was switched on, or it no longer answers. Disconnect, switch the AVERA off and on again, Connect, try again. For GPS reces and the reset: check that the GPS module is connected. |
| "Unexpected answer from the AVERA"                                             | Connect was clicked twice, or the AVERA is not at version 4 (4.0.0 or later). Switch the AVERA on again and click Connect only once.                                                                                               |
| "ZR n: invalid number of points"                                               | When reading: the AVERA or its module is not at version 4, or its points date from an old version. Reset the GPS points.                                                                                                           |
| "Only the first 400 points will be sent"                                       | A ZR has more than 400 points: reduce it (delete AUTO points) if the last points matter.                                                                                                                                           |
| "Normalization impossible..."                                                  | The true distance of the PK must be greater than that of the previous PK (or than 0).                                                                                                                                              |
| "Not possible: with this shift, point a would come before point b"             | The shift would change the order of the points: reduce the shift or the selection.                                                                                                                                                 |
| "The AVERA averages protocol requires sending continuously from ZR 1..."       | Also load the previous averages ZRs, or use "Reset AVERA averages".                                                                                                                                                                |
| "The AVERA distances are erased, but the GPS module did not answer..."         | The GPS module was not connected during the reset: connect it and try again.                                                                                                                                                       |
| "No point of this ZR has GPS coordinates"                                      | The map cannot draw anything: open a file with coordinates or read the AVERA.                                                                                                                                                      |
| "Failed." when opening a file                                                  | Header line, empty line in the middle (distances only) or non-numeric value: correct the file (chapter <a href="#">19</a> ).                                                                                                       |
| Empty window, "Erreur initialisation WebView2" (WebView2 initialisation error) | Install Microsoft Edge WebView2 Runtime (chapter <a href="#">2.1</a> ).                                                                                                                                                            |
| AVERA screen showing "T000", "T001"... or "TEXTES ABSENTS"                     | Load the texts (chapter <a href="#">15</a> ).                                                                                                                                                                                      |
| The AVERA stays on "AVERA PLUGGED" at start-up, without a PC.                  | It is connected to a USB charger or a PC cable: unplug the USB and switch it on again.                                                                                                                                             |
| After a firmware update, Connect fails.                                        | Switch the AVERA on again, then Connect. If it still does not work, close and restart the software.                                                                                                                                |

| Message or symptom                                                                                                    | Cause and solution                                                                                                                                                         |
|-----------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| When quitting: "The points of these ZRs were changed or read from the AVERA, but not saved to a file... Quit anyway?" | Answer No, then save them ( <b>Save all ZRs</b> , chapter <a href="#">7.2</a> ).                                                                                           |
| A send that goes wrong, to be reported to WAYTEC                                                                      | The software records how each send goes in a log: press Windows + R, type %LOCALAPPDATA%\AVERA , press Enter, and attach the file AVERA_journal_envoi.txt to your message. |

WAYTEC – waytec.fr