

Operation Manual

Version 11









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INSTALLATION OF THE SYSTEM

The following steps show the installation of the system.

The order of the steps is NOT important!

Antennas

Screw the antennas to each module.

Switch on

Switch on the stations (modules). Basically, the master (small pocket module), the start module (green) and the target module (red with light barrier) must be switched on. If split times (yellow modules with light barrier) are to be used, these must of course also be switched on. **The order** in which you switch on the modules is **not important**. See also INTERIMS.

Synchronize

After switching on, the clocks of the modules synchronise themselves immediately within a few seconds. You only have to check the synchronization.

See also STATUS – SETTINGS OVERVIEW.



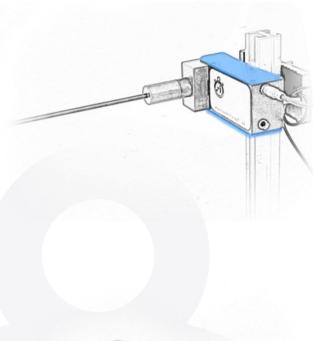
Startgate

Connect the startgate with the approx. 2m long cable to the green start module and attach the start gate to a peg.









Note:

The start gate is closed in the angled position and opens in the stretched position.

Light barriers

Set up the light barriers (red stop module and yellow split times) and align them with the reflector.

After switching on, the light barriers must have been in the focus of the reflector at least once. Then you can check whether the light barrier is correctly aligned with the reflector by checking the yellow LED and the beep.

Hint:

If you look over the light barrier from behind when aligning the light barriers, you will see the reddish light of the light barriers shimmering in the reflector.

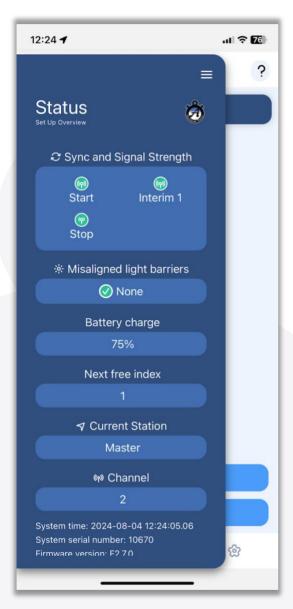
Then the light barrier is perfectly aligned and the yellow LED and the beep go out. ☺







STATUS - SETTINGS OVERVIEW



The overview of the settings will be displayed when clicking on the *three horizontal bars* (the "burger menu") in the upper left corner.

If you are directly connected to the "Master" device (the fourth box "Current Station" shows "Master"), the first box displays the status of the synchronization:

The station is not synchronized or is out of radio range.

The station is synchronized but does not have good radio reception, this may cause issues with the times.

The station is synchronized and has good radio reception.

The station is synchronized and has very good radio reception.

The intermediate time(s) are registered with the master but were not found during synchronization.

The second box shows you the light barriers that are no longer aligned with the reflector. If a light barrier is interrupted for more than 5 seconds, it appears with a red exclamation mark.







The synchronization of the stations takes place in the following order:

- 1. start
- 2. stop
- 3. #1 check-marked interim
- 4. #2 check-marked interim
- 5. etc.

See also INTERIMS.

If one station in the sequence is not activated or not reachable, the following stations will not be synchronized either.

Note: WARNING TONE

If either a light barrier is out of focus of the mirror or a station (module) is no longer (or not yet) synchronized, a warning tone will sound on all other modules! The warning tone is a constantly repeating double beep.

When the cause of the warning has been eliminated, the warning tone will stop automatically.

The box "Battery charge" shows the charge status of the battery of the respective station to which you are connected. With a fully charged battery, the runtime is at least 10 hours.

The box "Next free index" displays the number of the next runner. This number is given automatically by the system. After the records have been cleared in the settings, the number will be set back to "1". See also CLEAR RECORDS.

In case the number does not revert back to "1", there is at least one station from which the data has not been cleared successfully. In that case please verify that all stations are completely synchronized. Then clear the records one more time.

The box "Current station" shows which module the smartphone or tablet is currently connected to via WLAN.

In the "Channel" box you can see the number of the current radio channel to which your entire system is currently set.

See also CHANNEL SELECTION.

The line "System time" shows the current time of day with date. As soon as the master is connected to a smartphone or tablet for the first time, the master retrieves the time of day from the smartphone or tablet.

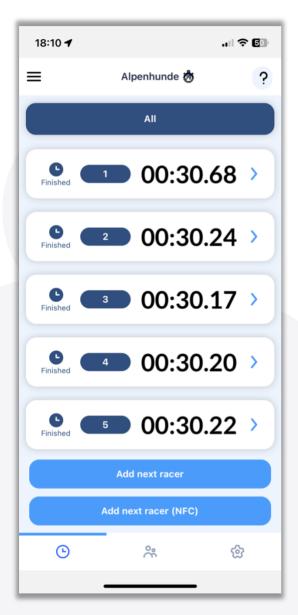
After the entire system has been synchronized, the master synchronizes all other modules with the system time.







TIMING AND LOGIN



This overview displays all timings.

You can see the upcoming runner(s) ("*Pending*"), the active and the stopped times ("*Finished*").

Four times can run at the same time.

You can also only display the times of one specific team. Just tap on "AII" and select a previously created team from the list.

See also TEAM ENTRY.

There are three ways to determine the starting order of the runners before the race:

- 1.) Tap on "Add next racer". Here you can select people from the team or manually enter a person without a team assignment. The next runner is then shown as "Pending" in the list.
- 2.) Tap on "Add next racer (NFC)" and scan the "Alpenhunde" NFC wristband or the "Alpenhunde" NFC chip with the internal NFC reader of your smartphone or tablet.
- 3.) Scan the wristband or the chip with the external "Alpenhunde" NFC reader.

 See also LOGIN with NFC.

To assign a runner at a later point in time, tap on the respective active or stopped time.

See also TIMING AND LOGIN - DETAILS OF THE RUN.







LOGIN with NFC



The next runner can register as "Pending" in the list using an "Alpenhunde" NFC wristband or an "Alpenhunde" NFC chip.

For this each runner needs a wristband or chip. The chip can either be hidden in your clothing or stuck to your ski.

To add yourself to the list as the next skier, all you have to do is hold your NFC wristband/chip up to the reader.

The reader can be the **internal NFC reader** of your smartphone or tablet, or the **external Alpenhunde NFC reader**.

When logging in via NFC, the short name on the chip is read and entered as the next runner in the "Pending" list.

The external Alpenhunde NFC reader emits **two beeps** when you log in. The first beep signals that the chip has been recognized and the second beep confirms that the chip has been read.

If the full name and the team are stored on the chip in addition to the short name, this data is created under the Teams tab.

See also TEAMS ENTRY.

In addition, the following data can be stored on the Alpenhunde NFC wristbands and chips:

- 1. note
- 2. ski
- 3. boot
- 4. binding
- 5. plate

You can write and read the wristbands and chips with your own app:

See also Alpenhunde NFC- App







Alpenhunde NFC- App



There is a special app for reading and writing the Alpenhunde wristbands and chips, the Alpenhunde NFC app:

For iOS:

https://apps.apple.com/pk/app/alpenhunde-nfc-chip For Android:

https://play.google.com/alpenhunde_nfc_chip

This app can either use the internal NFC reader of the smartphone or tablet, or you can connect the app to the external Alpenhunde NFC reader and the app can read and write to the wristbands.

To connect the external reader, simply switch on the reader and press the "Connect" button in the app. The reader is then connected and the app displays the status and battery charge of the reader.

To edit the data, you need to go to edit mode using the "Bearbeiten" button, where you can edit the fields and then save the data to the chip using the " Auf Chip speichern " button.

The wristband or chip is now ready for login at the start with the Alpenhunde app.

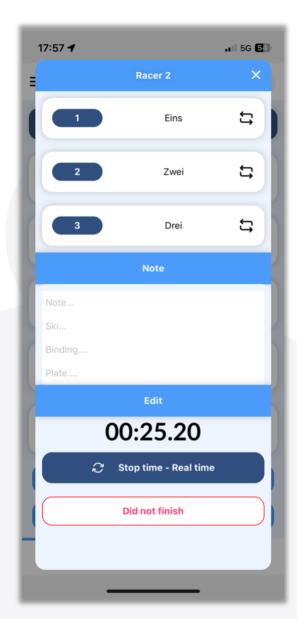




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TIMING - DETAILS OF THE RUN



This overview displays the details of each run.

To view the details of a time or to add notes to it, just tap on the respective time.

The time can be assigned to a runner before, during and after the run.

It can also be marked as "**DNF**" (Did Not Finish) at any time.

With "Stop time – Real time" you can correct a Stop time. See also STOP - TIME CHANGE.

The field "Note" is divided into five elements:

- "Note": Any general information about that specific timing (e.g. late at 3rd gate)
- "Ski, Binding, Plate, Boot": Information about the used material (e.g. Ski number 5, boot canting 3)

In the exported data list (.csv-file), each of these elements has its own assigned column and thus can be uniquely identified and analyzed.

See also RECORDS OVERVIEW.







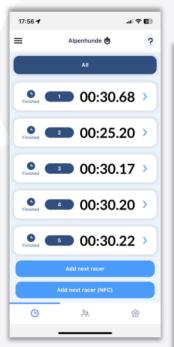
STOP - TIME CHANGE

You can **correct false triggers or incorrect times**, as you can simply specify whether a stop trigger is valid or not.

If a skier's time is falsified by a slider or another athlete, for example, you can swap the stop releases directly so that the skier's time is corrected.

This works as follows:

In this example, the time of start number "2" has been falsified.



If you now click on the second time, all details of this run will open.



With the "Stop time - Real time" button, you can

open several stop triggers that could be considered for this time.

If available, two further *possible stop triggers* are displayed before and after the current stop trigger. Some of these may already be stop releases from the previous

or following times. This can be recognized by the fact that the trigger has already been assigned a short name/number.



In this case, the first "possible trigger" (00:10.21) is already the release of runner 1. The fourth stop trigger has been assigned to runner number 3.

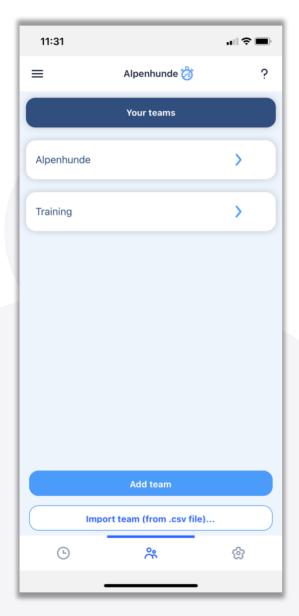
The third "possible trigger" is a still "free time stamp" (so far it does not count as a valid stop trigger of a finish time). It can therefore be assigned to the falsified time of the runner with the number 2 without accessing an already assigned stop trigger.







TFAMS FNTRY



This list displays your teams.

For each team member you can enter the *full name* (for a unique recognition) and a *short name*.

The short name can consist of up to 5 characters and is used for a quick allocation to the timings.

The short name can either be an abbreviation of the name or the **bib number of a race**.

The short name is saved with the times on the system. The full name, team and notes on the times are only saved in the app and are assigned via the abbreviation.

Tap on "Create team" to create a team.

Tap on an already created team to add, edit or delete team members.

Move an existing team or team member to the right to delete it





IMPORTING AND EXPORTING TEAMS

The button "Import team (.csv file)..." can be used to import athletes with short name, full name and team via a .csv file.

The .csv file can also be created using external software (e.g. Microsoft Excel).

This way, **start lists for a race can be imported into the app**. The coach at the start then only has **to select the corresponding starter**.

The **following formatting** must be observed:



<u>1st column</u> for the **short name** with column heading "Short Name".

<u>2nd column</u> for the **full name** with the column heading "Full Name".

<u>3rd column</u> for the **team** with the column heading "Team".

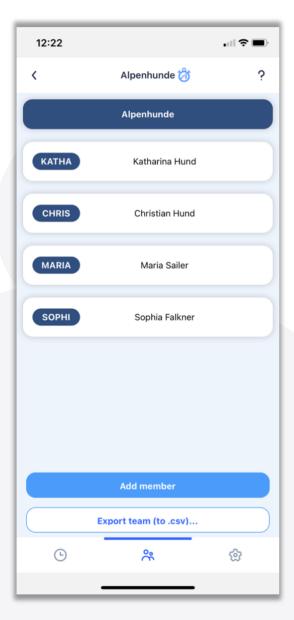
Blank lines are ignored during import. Likewise, impermissible short names (e.g. special characters or spaces) are **not imported**. A corresponding message appears.







If you have already created a team and you are in the athletes overview, you can export this team as a .csv file.



To do this, press the button "Export team (to .csv)...".

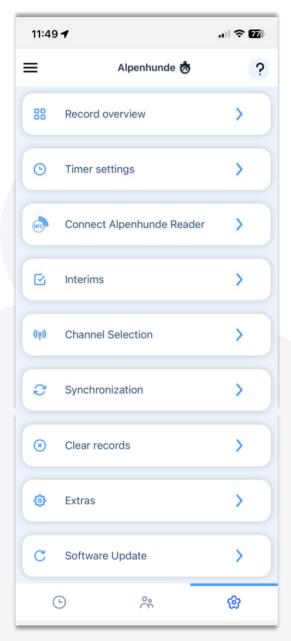
You can then **share** the corresponding .csv file directly with other people via **messenger services** or **save the file** on your smartphone or your cloud.







SETTINGS



On this page you can configure all settings for your timing measurement system.

If you are directly connected to the WLAN of the "Master" device, you can carry out all settings right here.

If you are connected to any other device, you can only only edit the "Timer settings" for that one specific device.

See also <u>TIMER SETTINGS.</u>

Under "Connect Alpenhunde Reader" you can connect the external Alpenhunde NFC Reader directly. See also ALPENHUNDE READER.

The "Interims" field is also only visible if you are directly connected to the master.

See also INTERIMS.

Under "Channel Selection" you can change the radio channel of the system. See also <u>SELECT CHANEL</u>

Under "Clear times" you can delete all previously stopped times.

This process cannot be undone.

Before deleting, check that all devices are connected and synchronized.

This ensures that the corresponding data is also removed from all devices.

After clearing the times, the entire timing system restarts.

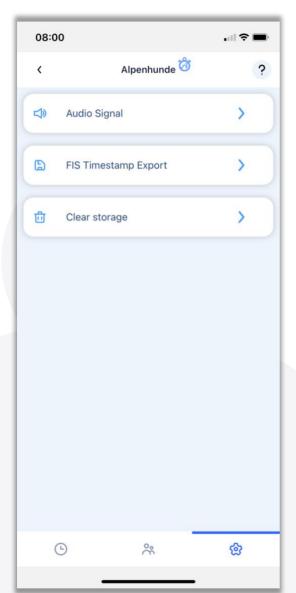
Therefore, check the status overview in the app again before using it again. See also <u>STATUS - OVERVIEW OF THE SETTINGS.</u>

You can update the system firmware under "Software update". See also <u>SOFTWARE UPDATE</u>.









Under "Extras" another menu opens.

With the function under the **button "Audio Signal"** you can activate or deactivate the beep of the respective module to which you are connected.

With the **button "FIS Timestamp Export"** you can download the encrypted file with the timestamps of all triggers of the corresponding module.

You can download the encrypted file from the website

https://decode.alpenhunde.de/

to decrypt it.

The time of day time stamps have the following format:

2021-11-11	13:51:03.9414	218	LOTTI
2021-11-11	13:51:00.2292	217	KATHA
2021-11-11	13:30:05.6096	215	KATHA
2021-11-11	13:30:02.2298	N/A	N/A
2021-11-11	13:30:02.1327	N/A	N/A
2021-11-11	13:30:00.4986	214	MICHI

If the time of the day timestamp was relevant for the timing, the index and the short name are also displayed.

You can also calculate the running time using the difference between the stop and start time stamps.

The **button "Clear storage"** has the same function as the button "Clear records" under the *SETTINGS*, but in addition all data such as the teams and other data are deleted from the cache.







RECORDS OVERVIEW



With this page you have a flexible overview of all recorded timings.

The button "Grouping" enables you to group the times by the number of the run or the name of the athletes.

The button "Columns" enables you to select the fields to be displayed in the list.

The list can be sorted by

- Start order (IDX)
- Name (abbreviation)
- End Time
- Interim (#1-6)

As a result, you can easily see at any time how the run times are developing. Simply tap on "Update" for the latest version.



The "Export" button (in the upper right corner) enables you to conveniently export all data as a CSV file (individual data entries are divided by semicolons) and open it with any CSV-compatible application.

The export file will adopt the current layout of the app.

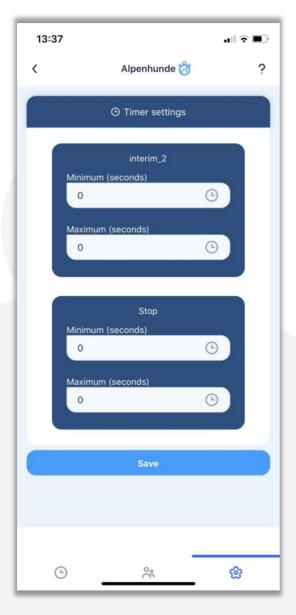
Should your smartphone be set to German, you will receive the file with a *comma* as a decimal separator of the timings. If your settings are in English, the output is given with a *dot* as a decimal separator.







TIMER SETTINGS



On this page you can delimit a time period during which the light barrier is active.

The time span is based on the seconds after the start time has been triggered.

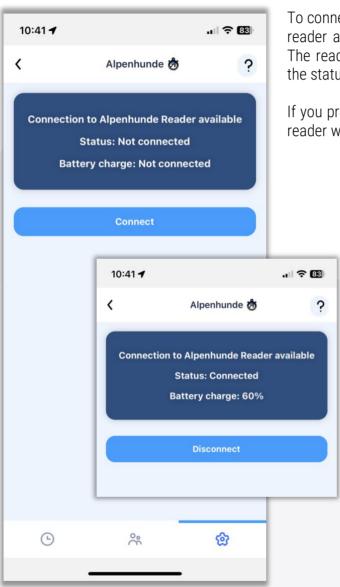
Runners who pass the light barrier before or after the delimited time period will **not influence** the other runtimes.

This setting is designed to avoid inaccurate triggering of the light barriers.





CONNECT TO Alpenhunde READER



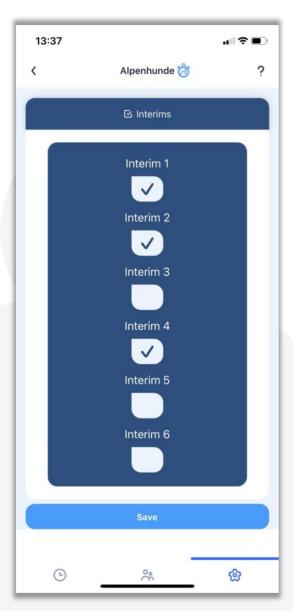
To connect the external reader, simply switch on the reader and press the "Connect" button in the app. The reader is now connected and the app displays the status and battery charge of the reader.

If you press the button again, the connection to the reader will be disconnected.





INTFRIMS



With this page you can manage your interim times.

Set a check mark at each interim time you want to employ.

The long-distance network of the timing system will configure itself accordingly and then synchronize the selected interim times.

The synchronization always begins at the interim time with the lowest number.

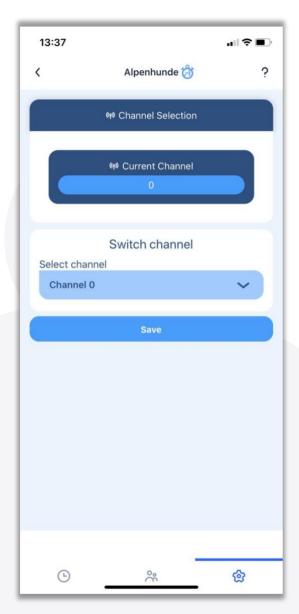
Next, it synchronizes the interim time with the second lowest number, etc.

If an interim time's number is selected, but cannot be found via radio transmission during synchronization, the **following interim times** with higher numbers will **not** be synchronized either.





CHANNEL SELECTION



On this page you can set the transmission channel for your timing system.

The channels make it possible to use multiple systems side by side at the same time without having the frequencies interfere with each other.

A channel change can be accomplished in 5 steps:

- 1. Turn on all devices and verify that all are connected and synchronized with your smartphone. You can recognize this by the "green check mark" that should be displayed for all devices in the status overview of the app.
- 2. Afterwards select the desired channel under "Switch Channel".
- 3. Tap on "Save" and wait for confirmation.
- 4. After a short moment the devices will appear again in the status overview with a "green check mark".
- 5. After changing the channel, the entire timing system restarts. Therefore, check the status overview in the app again before continuing to use it.

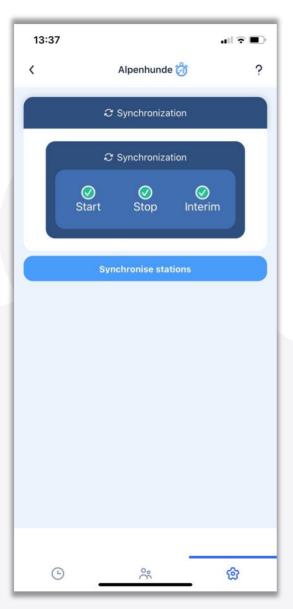
See also STATUS- SETTINGS OVERVIEW







SYNCHRONIZATION



On this page you can manually synchronize the clocks of all devices.

The synchronization may be necessary if the error message "Station X not synchronized" appears.

To perform the synchronization, simply tap on "Synchronize stations" and then wait a short moment while the devices synchronize automatically.

On the "Status" page you can follow the progress of the synchronization

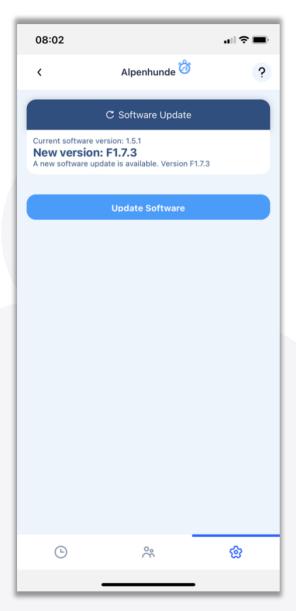
See also STATUS - SETTINGS OVERVIEW.







SOFTWARE UPDATE



With this page you can perform the firmware updates for the individual device stations.

To get the latest software, update your Alpenhunde App regularly via the AppStore or GooglePlay.

Once the latest software is available for the modules/ stations, a corresponding box will appear on this page. The update for a module (e.g. Start, Master, Interim, Stop) is performed **individually**. Therefore, it is necessary to connect your smartphone or tablet to the respective station individually via WLAN.

- To transfer and install the update, first check the WLAN connection to the respective device.
- Tap on "Update software".
- During the update, make sure that your smartphone is switched on and the app remains in the foreground.

The update may not be successful if the phone turns itself off, the screen saver turns on, or another phone, tablet, or computer connects to the respective device station during installation.

Note:

Therefore, please make sure that all other WLAN devices that had been connected to the network of the timing system before are either out of range or turned off.

Once this update is complete, you can connect your smartphone to the next device via WLAN.



