

USER MANUAL



Electronic target system

App **Fastmark Sport** · version 4.2.0

Target firmware 2.1.0

Provided by your club · docs.fastmark-sport.com · 03/10/2026

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About this manual

Welcome to the user manual for the **Fastmark electronic target system**: the **Fastmark Sport** mobile app and the Fastmark acoustic targets it controls. Everywhere else in this manual the app is simply called *the app*.

Applies to: app version **4.2.0**, target firmware **2.1.0**.

What the system does

A Fastmark target detects the acoustic signature of each shot with a set of microphones and reports its precise impact time to the app over Bluetooth. The app computes the impact position, scores it against the selected target face, runs the shooting sequence (range commands, timers, target LED), and keeps every session, series and shot in your account — on your device first, synchronized to the cloud whenever a connection is available.

1. Getting started

1.1 What you need

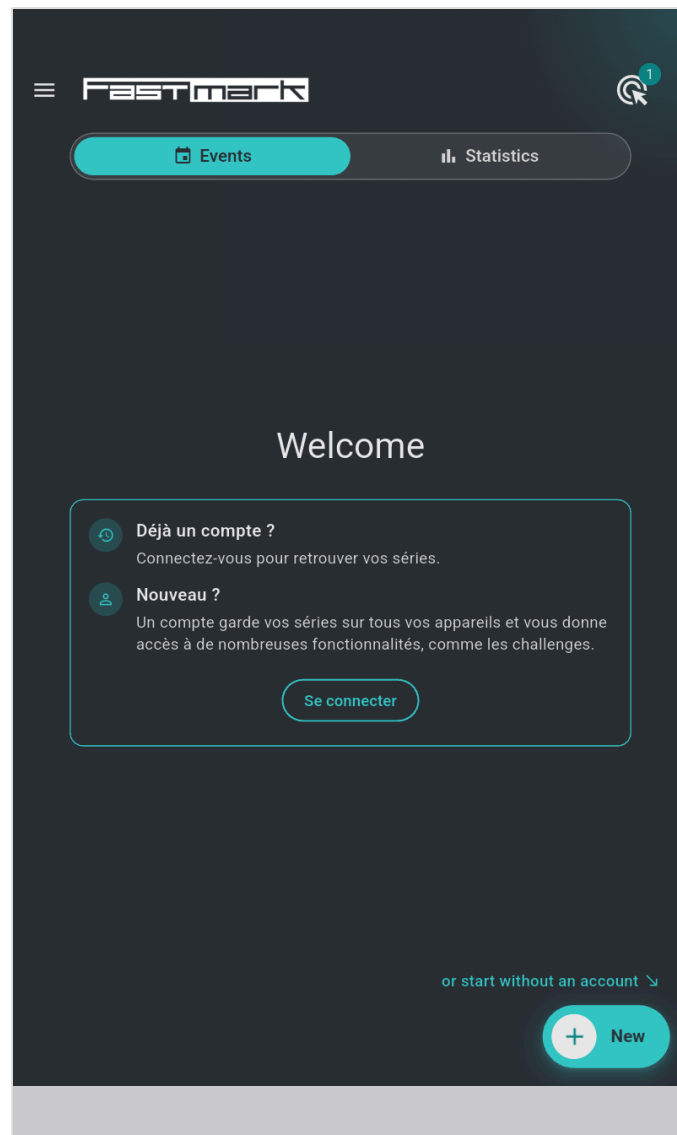
- A **Fastmark target** (see [chapter 2](#) for the models).
- A **phone or tablet** running Android or iOS, with **Bluetooth switched on**.
- An **internet connection for the very first launch** of the app. After that, the app works fully offline; internet is only needed again to sign in to an account and to synchronize your results.

1.2 Installing the app

Install **Fastmark Sport** from the Apple App Store or Google Play Store. It is free.

When the app is first opened, the operating system asks for permission to use Bluetooth (and, on Android, the nearby-devices/location permission that Bluetooth scanning requires). **Accept these requests** — without them the app cannot see any target.

1.3 First launch



The first launch needs an internet connection because the app creates its private device profile and downloads the official shooting templates; this takes a few seconds, then the home screen is ready. While it loads, the home screen is shown greyed out with a spinner. Later launches are faster and work offline.

Three situations can prevent the first launch from completing:

- **"Invalid version"** — your installed app is older than the minimum version the service accepts. The screen reads **"Obsolete version of the application, please update from the store"**: update the app from the store.
- **No internet on the very first launch** — the screen reads **"First initialisation of this application needs an internet connection"** and the app retries every 3 seconds until a connection is available. Connect to the internet and the startup completes by itself.
- **"Configuration has changed. Please close and restart the application."** — the service configuration was updated while the app was running. Close the app completely and open it again.

You do **not** need to create an account to use the app: it starts on a private device profile and everything in this manual up to chapter 4 works without signing in. Until you sign in, the home screen greets you with **"Welcome"** and a card that reads **"Already have an account?"** — *"Sign in to get your series back."* — and

"New here?" — *"An account keeps your series on all your devices and gives you access to many features, such as the challenges."* — with a **"Sign in"** button. At the bottom right, **"or start without an account"** points at the **"New"** button: tap it and shoot right away. Signing in adds synchronization across devices, sharing and the challenges — see [chapter 4](#).

Occasionally Fastmark publishes a service message: it opens as a panel titled **"Fastmark"** at startup, dismissed with **"Got it"**.

1.4 The home screen



From top to bottom:

- **App bar** — the **menu icon** on the left, the Fastmark marque, and on the right the **target button** (a target-shaped icon) with a counter badge showing how many targets the app currently sees. The badge is hidden and the icon greyed while no target is in sight. Tapping it lists the discovered targets (see [chapter 3](#)). When Bluetooth is off or its permission is missing, the button becomes a **Bluetooth-disabled icon** — tap it to fix the problem in place (§11.2).
- **Two tabs** — **"Events"** (calendar icon) listing your shooting days, and **"Statistics"** (chart icon) showing your progress per discipline ([chapter 8](#)).

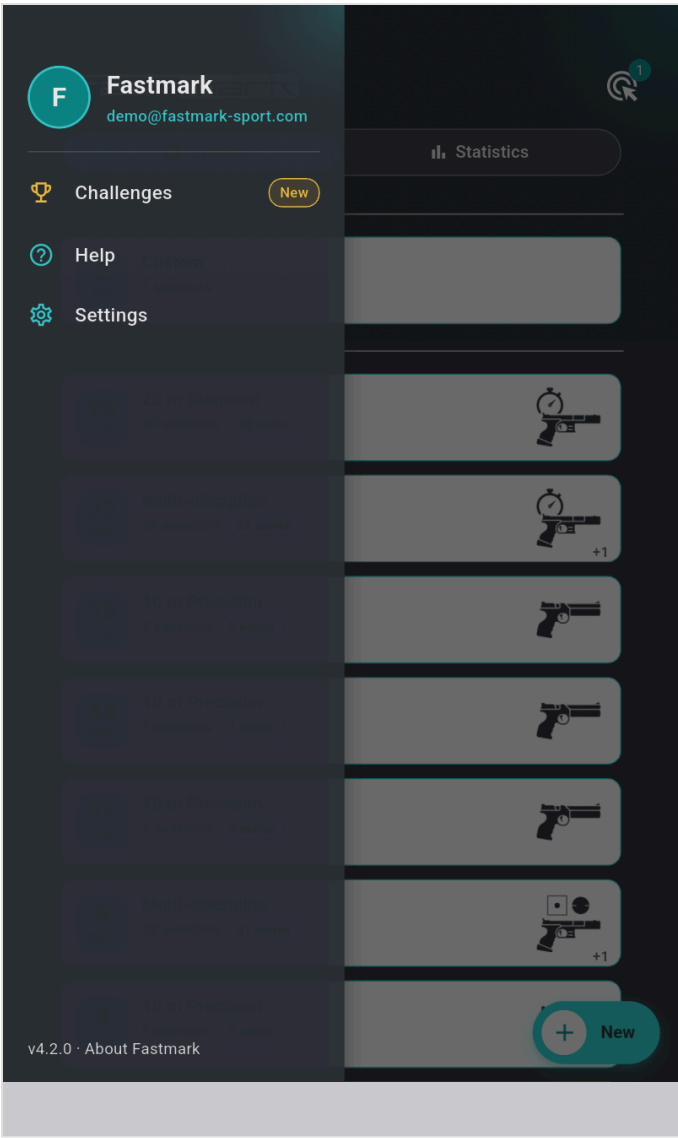
- **The events list** — newest first, grouped by month: a month heading for the current year (*OCTOBER*), month and year for earlier years (*SEPTEMBER 2025*). Each event is one tile:
 - a **calendar leaf** on the left with the day number over the weekday — today's leaf is filled dark;
 - the **title**: the event's name, or — when the event still carries its default date name — the discipline shot in it ("**Custom**" if it only holds custom sessions, "**Multi-discipline**" if several disciplines were shot);
 - a second line with the "**{}** sessions" count, followed by chips counting its official sessions: "**{}** match" / "**{}** matches" and "**{}** series";
 - on the right, the **pictogram** of the most-shot discipline, with a $+n$ mark when other disciplines were shot in the same event.

Events owned by another account appear with a **lavender tile** and a badge on the leaf: a **cup** for a challenge ([chapter 12](#)), a **person** for an event shared with you.

- **The "New" button** (bottom right, a + with the label "**New**") — creates a new session ([chapter 5](#)). When you are signed in but have no event yet, the empty list reads "**Start a new session with New**".

On a wide screen (tablet in landscape, 840 px or more) the menu is shown permanently as a left panel and the menu icon disappears.

1.5 The menu



The **menu** is the app's side panel: **swipe right from the left edge**, or tap the **menu icon** at the top left of the app bar. Tap anywhere outside the panel to close it. From top to bottom:

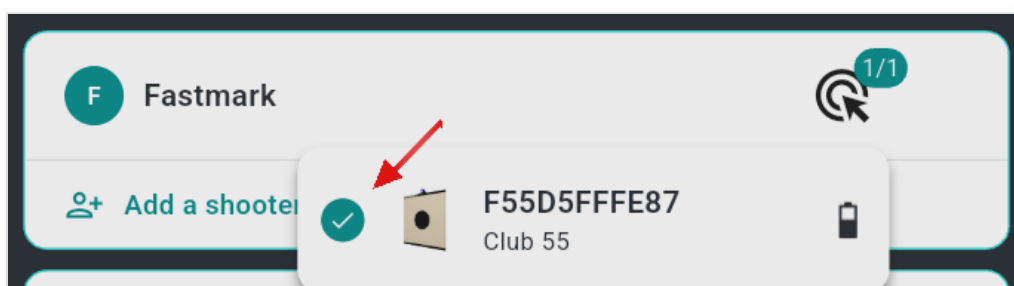
Entry	Opens
Your identity block — a disc with your initial, your user name, and under it your email address when signed in or "Not connected · Sign in" when not	The user page — account, sign-in, supervisor status (chapter 4)
"Challenges" (gold cup icon, with a "New" badge) — only shown while at least one challenge is open to you	The challenges page (chapter 12)
"Help"	The help page: a link to this manual and the guided target troubleshooting (§11.9)
"Settings"	The settings page (chapter 10)
"v4.2.0 · About Fastmark" (footer, with the installed version)	The app version and licence information

1.6 Your first session, step by step

1. **Power on the target** — press and hold its switch until the LED lights up (steady dim blue). Details in [chapter 2](#).
2. **Open the app**. Within a couple of seconds the target button's counter badge shows **1**.



3. Tap **"New"** to create a session. The **"Custom"** tab is selected by default — it is free practice with every parameter adjustable (*"Choose each setting freely"*).
4. In the shooters card, your row reads **"Choose 1 target"** in orange. Tap the **target badge** at its right and select your target in the list that opens. The badge turns **teal (1/1)** and the notice disappears.



5. Tap the **"Launch"** button (play arrow). The live shooting screen opens and the sequence starts ([chapter 6](#)).
6. Shoot. Each impact appears on the target face within a fraction of a second, with its score.
7. Tap the **"Stop"** button when you are done (or let the timer run out). Your series is saved automatically.

1.7 Where results live

Everything you shoot is stored on the device immediately and synchronized in the background. To review a past session: home screen → tap the event (shooting day) → tap the session → tap a series. Scores, impact positions, statistics and notes are all kept — see [chapter 7](#) and [chapter 8](#).

2. The target

2.1 Models

Model	Photo	Sensors	Power control	Connectivity
Fastmark Sport 55		5	Push switch	Bluetooth
Fastmark Club 55		6	Push switch	Bluetooth
Fastmark Sport 17		4	Target-medium switch (no push button)	Bluetooth

When a target is powered on and in range, the app detects it automatically and shows it in its target list with its name and photo.

2.2 Powering on

Sport 55 / Club 55: press the switch and **hold it briefly** until the LED lights up. A quick tap does nothing — the target checks that the switch is still held about a quarter of a second after the press, and silently goes back to sleep if it is not. It also refuses to start (again silently, no LED at all) if the battery is critically low or the electronics are too hot.

Sport 17: the target has no push button. It **switches on when the target medium is inserted** and switches off 8 seconds after the medium is removed.

When the target is on and ready its LED shows a **steady dim blue**, and it appears in the app's target list within a couple of seconds.

2.3 Powering off

- **Sport 55 / Club 55:** press and **hold the switch for 2 seconds**. The LED blinks **three times** and the target goes to sleep.
- **Sport 17:** remove the target medium; the target powers off **8 seconds** later (re-inserting the medium within those 8 seconds cancels the shutdown).

The target also powers itself off in four situations:

Automatic shutdown	Condition
Idle	30 minutes without a shot or a series start (see §2.6)
Battery critical	Battery too low to operate reliably
Overheat	Internal temperature reaches 80 °C
App-commanded	Reserved for future use

Every shutdown — manual or automatic — ends with the same **three LED blinks**. If a series is running on the app when the target powers off, the app is notified and releases the target cleanly (see §6.7).

2.4 LED signals

Every target has a main light showing its current status (table below). The Sport 55 and Club 55 additionally have a small LED on the switch itself, lit whenever the target is on.

What the LED shows	Meaning
Off	Target is powered off
Steady dim blue	On and ready — waiting for the app
Steady red	Shooting sequence: <i>get ready</i> — the waiting phase
Steady green	Shooting sequence: <i>fire</i> — the shooting phase
Three blinks	Powering off, or a firmware update just completed

The brightness ("LED intensity") and which phases light up are configured in the settings (chapter 10).

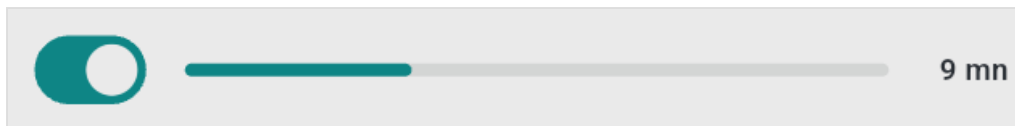
2.5 Battery and charging

The app shows a battery icon for every discovered target. The icon turns **red** at the lowest level; when the battery is critically low the target powers itself off.

A **charge indicator** sits on the target itself, next to the USB port: it lights **red while charging** and is off otherwise.

While charging, the battery icon rises to the "charging" symbol at full charge, and the target **stays awake regardless of the idle timer** — a target left on the charger does not auto-shutdown, so it is always ready.

2.6 Idle auto-shutdown



To preserve the battery, a target powers itself off after **30 minutes** with no activity. Any detected shot and any series start resets the 30-minute countdown, so the target never turns off mid-practice.

You can disable this on a per-target basis on every model: open the target's page in the app (§3.5) and turn the **"Auto shutdown"** switch off. A progress bar next to the switch shows how much of the idle countdown remains, with the remaining minutes displayed beside it. The setting is stored **in the target itself** and survives power cycles.

2.7 Naming your target

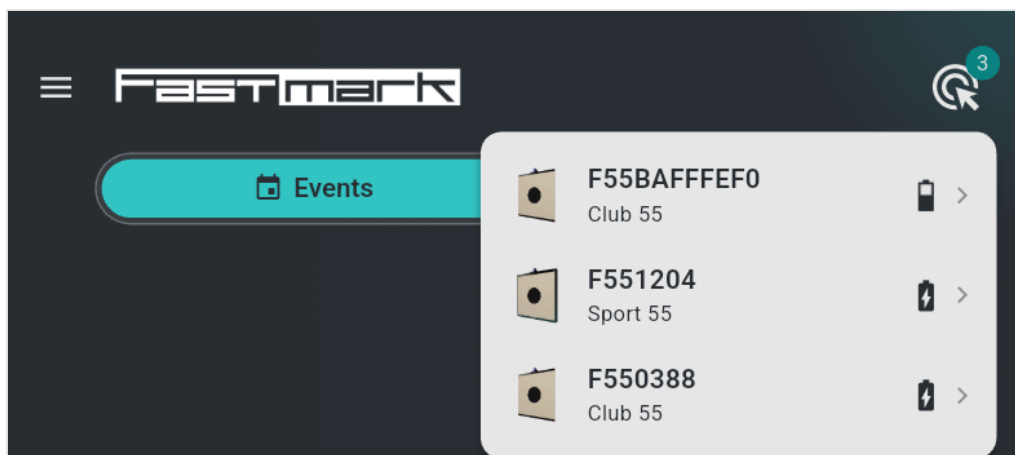
Each target has a name (11 characters maximum — an accented letter counts for two) shown in the app's target list — useful as soon as a club owns more than one. Rename it from the target's page in the app (§3.5); the name is stored in the target itself, so every device sees the same name.

3. Connecting targets

3.1 Discovery — how targets appear in the app

While the app is open in the foreground and Bluetooth is on, it scans continuously. Every powered-on Fastmark target in range appears automatically — no pairing, no setup. The **target button** in the app bar (target-shaped icon, present on almost every screen) carries a **counter badge** with the number of targets currently seen; tap it to open the target list. While no target is in sight the badge is hidden, the icon is greyed and the button does nothing.

3.2 The target list



Each row shows the target's photo, its name over its model ("**Sport 55**", "**Club 55**", "**Sport 17**"), then its status:

Element	Meaning
Chip " Other device "	Connected to another phone or tablet (§3.4)
Chip " Update "	The target needs a firmware update (§3.6)
Chip with a shooter's name	Assigned to that shooter in this app — teal when the shooter is you, blue for another shooter of your session
No chip	Free target
	A series is already running on the target (busy)
	The target carries a service notice (§3.5)
	Battery level — red when the target is close to powering off, a charging symbol while it charges

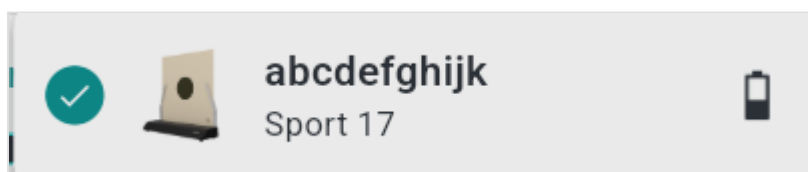
Tapping a row opens that target's page.

3.3 Assigning a target to a shooter

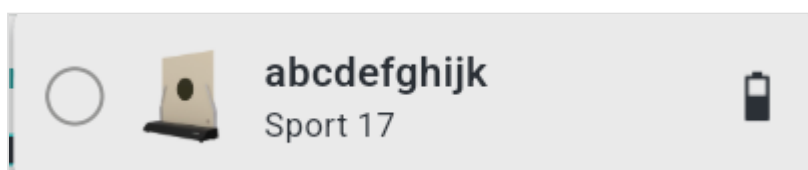
Sessions are played on targets by **assigning them to a shooter**. In the shooters card of the New-session page, each shooter's row carries a **target badge** at its right showing **assigned/required** (for example 0/1) — **orange** until the shooter has the required number of targets, **teal** when the count matches. While the count is wrong, a notice under the shooter's name says what to do: "**Choose {} target**" / "**Choose {} targets**", "**Remove {} target**" / "**Remove {} targets**" when too many are assigned, or "**No target detected**" when the app sees no target at all (the badge is then disabled).

Tap the badge to open the selection list — the target list of §3.2 with a **tick disc** in front of each row showing the target's assignment state:

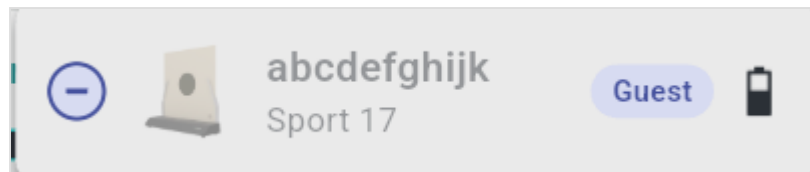
- **Teal disc with a tick** — assigned to this shooter. Tap to release it.



- **Empty ring** — free; tap to assign. The app connects to the target immediately and the disc turns teal.



- **Blue disc with a dash** — assigned to another shooter of this session.



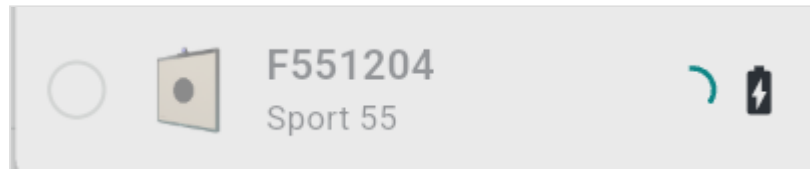
A target can only be selected if **all** of the following hold — otherwise its row is greyed out and does not respond:

1. It is **free** (no device connected to it) and **idle** (no series loaded on it).
2. Its **firmware matches the app** (§3.6) — a target whose firmware is older *or newer* than the version this app carries is visible but not selectable.
3. The required target count for this discipline has not been reached yet.
4. **One target per device**: without a supervisor subscription, only one target can be assigned across the whole app. Driving several targets at once requires supervisor access ([chapter 9](#)).

Removing a shooter from the session releases their target automatically.

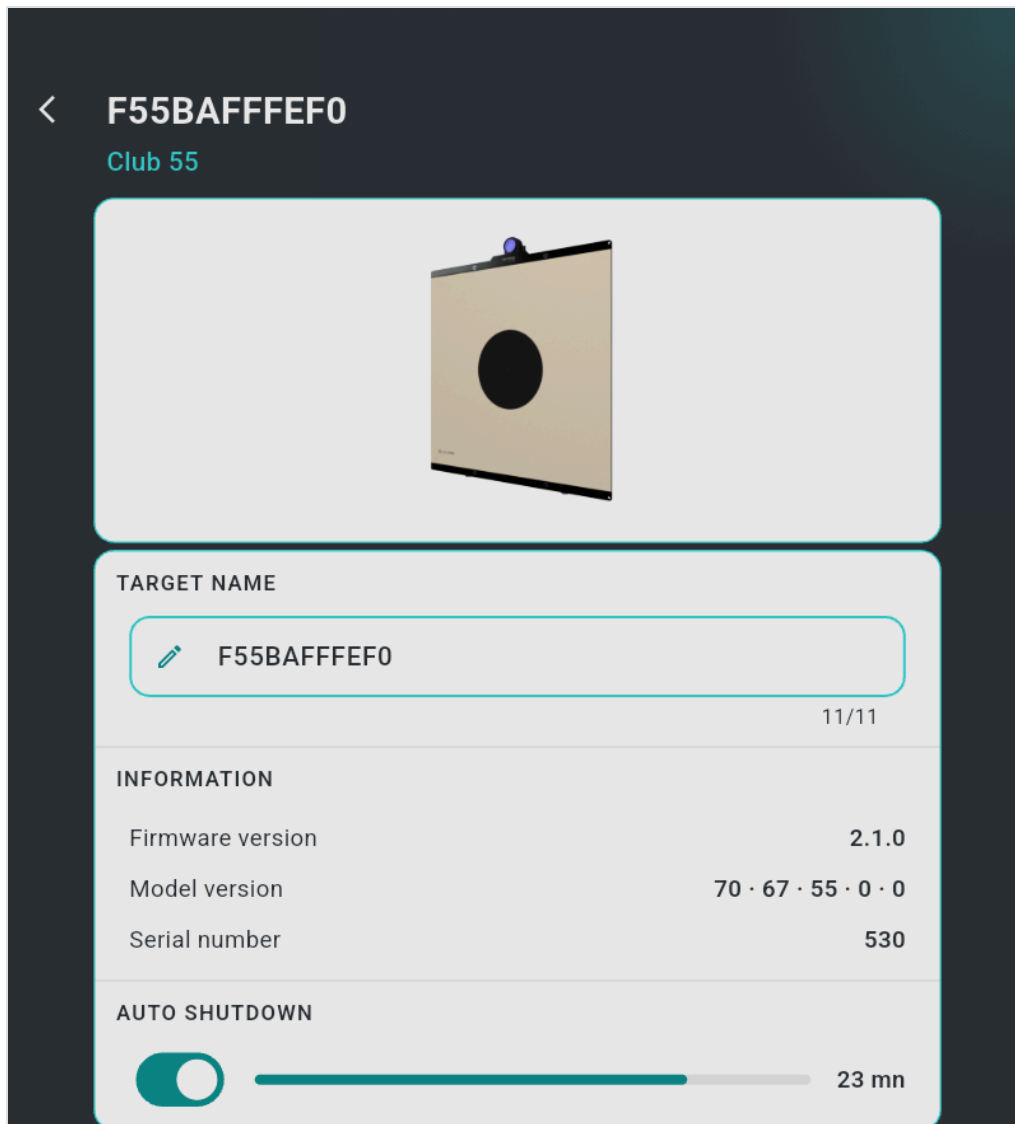
3.4 One connection at a time

A target accepts exactly **one** connected device. While one phone is connected, other phones still see the target in their list with the "**Other device**" chip but cannot select it. This is by design, to avoid another user disturbing the session start.



3.5 The target page

Open it by tapping the target's row in the target list. Its title bar shows the target's name and model; below, from top to bottom:



- **Photo card** — the product photo. When a shooter of this phone holds the target, a strip reads **"Connected · "** and, as long as no series is running, a **"Release target"** button releases the link so another device can take the target over.
- **Notices** — shown only when relevant, each with a warning icon:
 - a **service notice** published by Fastmark for this model or this specific unit (for example a maintenance advisory), shown verbatim — the warning triangle also shows on the target's list row;
 - **"requires firmware version X.Y.Z"** with the **"Firmware update"** button (§3.6);
 - **"Obsolete version of the application, please update from the store"** when the target's firmware is *newer* than this app (§3.6);
 - **"Connected to another device. Disconnect from the other device or restart the target to free it"** when another phone holds the target — the name field, the auto-shutdown switch and the update button are disabled until it is freed.
- **"Target name"** — a text field limited to **11 characters** (an accented letter counts for two; the counter reads `n/11`). The new name is sent to the target when you tap outside the field; leaving it empty keeps the previous name. The name is stored in the target, and a rename made from another phone shows up here as well.

- **"Information"** — **"Firmware version"** (in orange with a warning icon when it does not match the app's), **"Model version"** and **"Serial number"**.
- **"Auto shutdown"** — switch controlling the target's 30-minute idle shutdown, with a progress bar and the remaining minutes (§2.6).

The page closes by itself if the target disappears (powered off or out of range).

3.6 Firmware updates

Targets are kept up to date **through the app** — update files ship inside the app itself, so no separate download is needed.

When the app discovers a target whose firmware is older than required, it **opens that target's page automatically** and shows:

"requires firmware version X.Y.Z"

with a **"Firmware update"** button. Until the update is done the target is visible — its list row carries the **"Update"** chip — but **cannot be assigned to a shooter**: updating is not optional.

To update:

1. Make sure the target has a reasonable battery level (charge it if the icon is red).
2. Tap **"Firmware update"**. A progress dialog titled **"Firmware update"** shows the transfer percentage; keep the phone near the target and the app open.
3. On completion the dialog shows **"Data transmitted"** and closes after a few seconds; the target blinks three times and reboots itself with the new firmware.
4. The target briefly disappears from the target list, then reappears within a few seconds — now up to date and selectable.

If the transfer fails (**"Error"**), the target keeps its old firmware and keeps working as before; simply try again. See §11.5.

The opposite case — the app is too old: if a target reports *newer* firmware than the app knows, the target page shows **"Obsolete version of the application, please update from the store"** and the target cannot be selected. Update the app; the target is fine.

4. Account & synchronization

4.1 Your username

Open the menu and tap your identity block at its top (it reads "**Not connected · Sign in**" while signed out) to reach the "**User**" page. Your display name sits at its top, under a disc with your initial — it is also your shooter name on result cards and on the challenge leaderboards. While you still carry the default name, a gold "**Choose your name**" chip invites you to pick one.

Once signed in, tap the pencil next to the name to edit it in place (field "**Username**", caption "*Visible to other shooters and on leaderboards*"); the name is saved when you leave the field, and an empty field keeps the previous name. **Without an account the name cannot be edited** — it is set when you sign in.

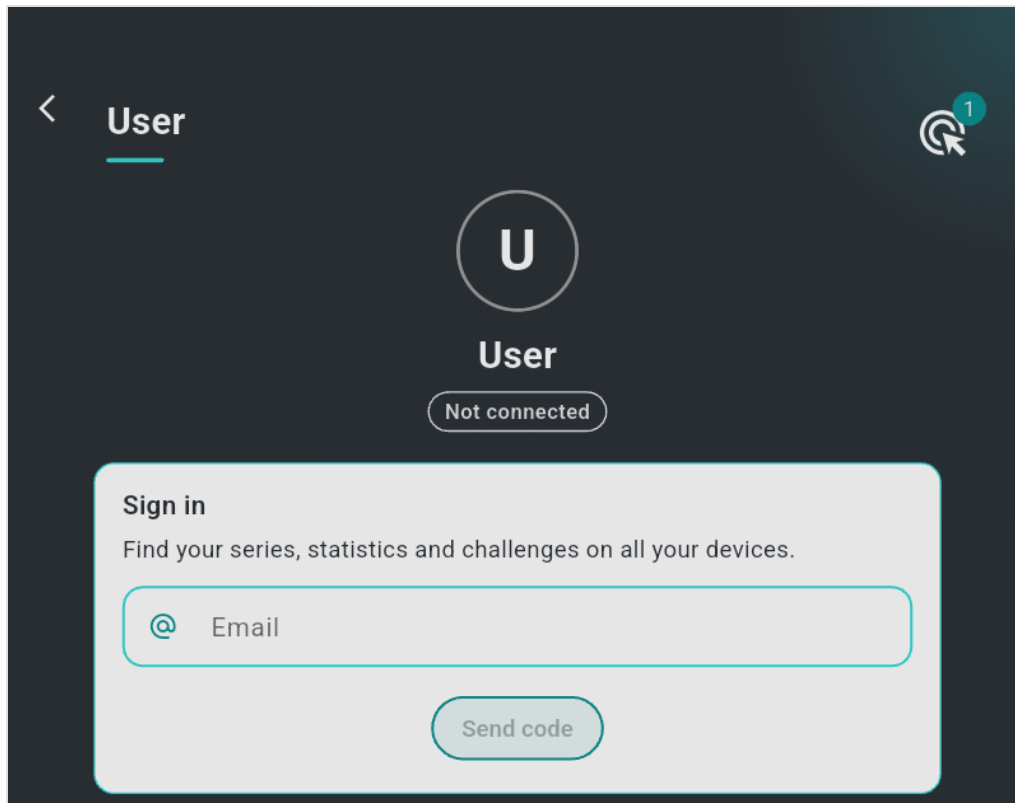
4.2 Using the app without an account

The app is fully usable without signing in. On first launch it creates a private **device profile**: sessions, series, shots and settings are recorded under that profile and synchronized to the cloud for safekeeping, but they are tied to this device installation.

You will want a **Fastmark account** when you need any of:

- the **same data on several devices** (phone + tablet, or a new phone);
- **watching a series live** from a second device (§4.5);
- **sharing** events with other account holders;
- the **challenges** (chapter 12) — the leaderboards carry your username, so they require an account;
- **supervisor mode** (chapter 9) — supervisor access is granted to an account, so it requires one.

4.3 Signing in



Signing in uses a one-time code by email — there is no password.

1. On the **User** page (§4.1), the **"Sign in"** card (*"Find your series, statistics and challenges on all your devices."*) holds an **"Email"** field: enter your address and tap **"Send code"** (requires internet — offline the button is disabled and the card reads **"Needs internet access, please disconnect from target network if needed"**).
2. The card now reads **"Enter the code sent to the email"**: check your inbox and type the **6-digit code** into the code boxes. The **"Resend code"** button re-sends it after a 60-second cooldown (it counts down as *"Resend code (59 s)"*).
3. The card shows **"Checking the code..."**, then **"Login success"** — or **"Wrong code"**, in which case type the code again.
4. On success a full-screen dialog — **"Downloading your data..."**, with a progress bar, its percentage and the line *"Your series and settings are coming to this device."* — covers the switch to the account's data. It cannot be dismissed and closes by itself when the download completes; the home screen then shows the account's history.

Signed-in accounts also get a **"Shooter select"** card on the User page with the **"Show my code"** button — the share code that lets another account add you as a shooter in their sessions (§9.3).

At the bottom of the page, **"Logout"** returns the app to the device profile (the same download dialog runs while the device profile's data is restored). Both buttons need internet.

4.4 Deleting your account

"**Delete account**" at the bottom of the User page (requires internet) deletes your account **immediately** — **there is no confirmation step** — and the app returns to the device profile; the button then reads "**Account deleted**". Signing in with the same email address later starts a fresh, empty account — the deleted account's data is not recoverable.

4.5 Several devices — master and viewers

When a series runs, exactly one device is in charge:

- The device that **starts** a series is its **master**: it drives the targets, receives the shots, computes the scores, and owns the stop/next/replay controls.
- Every other device signed in to the same account (or subscribed to the same event) shows the series **live, read-only**: shots and scores appear as they are synchronized. Viewer devices keep their back arrow and have no action button.

Automatic opening: when a series starts in a session you can see — started from another of your devices, or by the owner of an event you are subscribed to — the app jumps to the live series screen by itself. It does so **at most once per session**: if you close the live view, it does not re-open for the same session. (In passive mode this is filtered to a single target — see §9.6.)

4.6 Offline first — how synchronization behaves

- **Everything works offline**: creating sessions, shooting, scoring, editing, notes. All data is written to the device instantly.
- Whenever a connection is available, changes upload in the background and other devices receive them. No user action is ever needed; there is no sync button and no "unsaved" state.
- **Internet is required only for**: the very first launch, signing in and out, deleting the account, and receiving data from other devices.

4.7 Supervisor access on your account

Supervisor access — the right to drive several shooters and several targets from one device — is **granted by Fastmark on your account**, together with the list of your registered targets (Club 55 only). The "**Supervisor mode**" group on the User page shows the current status:

- "**Valid until** " while the access is active, or "**No active subscription**" without it;
- with access, an expandable "**Registered targets**: " list — one switch per registered target serial, used by passive mode (§9.6).

To obtain or extend supervisor access, contact Fastmark. Chapter 9 covers what it unlocks.

5. Creating a session

5.1 Events, sessions, series

The app organizes shooting in three levels:

- An **event** is a shooting day or a competition — a named folder of sessions.
- A **session** — a discipline with its rules, shooters and notes. A session contains one or more series.
- A **series** is one shooting sequence — the unit you actually fire ([chapter 6](#)).

5.2 Choosing the event

At the top of the New-session page, the **"Event"** field selects which event the session goes into:

- By default it is **today's date** (e.g. *July 25, 2026*) — everyday practice needs no naming and groups naturally by day.
- Tap the field: it clears and a list drops down — today's default event first, tagged **"default"**, then your own existing events with their date. Pick one, or type a new name — a new event is created with the session. Leaving the field empty falls back to today's default event.
- An event only comes into existence when its first session is created; typing a name and backing out leaves nothing behind. Conversely, an event whose last session is removed disappears from the home list.

Events **shared with you** by another account appear on your home screen as lavender tiles with a person badge (§1.4). You can open them and watch their sessions, but only the event's owner can add sessions to it.

5.3 The New-session page

Tap **"New"** on the home screen (or on an event page, where the event is then pre-filled — owner only). The page is titled **"New session"** and its title bar holds a sliding switch with three tabs; one line under it states what each tab creates:

Tab	Hint	What it creates
"Custom" (default)	<i>"Choose each setting freely"</i>	Free practice — one series, every parameter adjustable
"Series"	<i>"A series that follows the rules"</i>	One official series format, chosen from the built-in templates
"Match"	<i>"A full match, as in competition"</i>	A complete official match program (several series, in order)

Every tab has the same backbone, top to bottom: the **"Event"** field (§5.2), a **"Settings"** heading over the tab's settings card(s), the **shooters card**, and an **"Add a note"** link that opens a **"Notes"** field attached to the session.

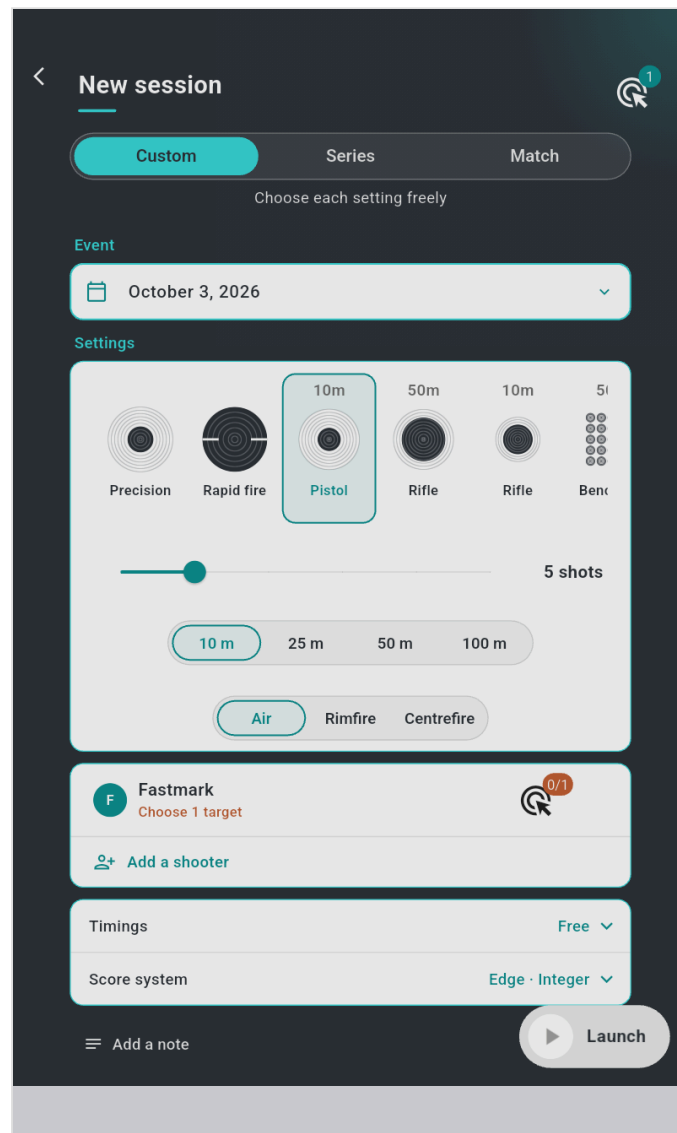
The **shooters card** lists one row per shooter — a disc with their initial, their name, and the target badge (§3.3) with its orange notice ("**Choose 1 target**", "**No target detected**") until the targets are right. Without a supervisor subscription the card contains exactly you; adding shooters is a supervisor feature (chapter 9). Long-pressing your row lets you play under another account's shooter (§9.3).

The "**Launch**" button (play arrow, bottom right) creates the session. It stays grey until every shooter has the required targets; tapping it too early shows "**Number of selected targets is incorrect**" and creates nothing. Once launched:

- a **single-series** session (Custom, and every Series-tab format) starts immediately — the live shooting screen opens;
- a **multi-series** session (matches) opens the **session page** (§5.6) where the series are played in order.

If the series cannot be started on the targets, a panel titled "**The series did not start**" ("*Series couldn't be launched on all targets*") offers "**Retry**" or "**Delete the session**" — nothing has been recorded either way (§6.7).

5.4 The Custom tab — every parameter



Custom settings are **remembered**: the tab always reopens exactly as you last left it, on all your devices.

The settings card holds, top to bottom:

- **The target face** — a row of face tiles (scroll it sideways). The distance a face is designed for is printed above its thumbnail:

Face	Notes
Precision	ISSF 25 m precision face. Optional " Reduced target (25 m free pistol) " checkbox under the row (half size)
Rapid fire	ISSF 25 m rapid-fire face. Optional " Reduced target (10 m shooting school) " checkbox
Pistol (10 m)	ISSF 10 m air-pistol face
Rifle (50 m)	ISSF 50 m rifle face
Rifle (10 m)	ISSF 10 m air-rifle face
Benchrest (50 m)	Grid of aiming points with side practice columns (§7.4)
Benchrest (recreational) (50 m)	Larger-grid variant of the Benchrest face

Changing the face clears the reduced-target option.

- **Shots** — a slider with six positions: **1, 5, 10, 15, 20 or 25** shots; the value reads "**{ } shots**" (default 5).
- **Distance** — "**10 m**" / "**25 m**" / "**50 m**" / "**100 m**" (default 25 m).
- **Caliber** — "**Air**", "**Rimfire**" or "**Centrefire**" (default Rimfire). The caliber sets the bullet diameter used for drawing the holes and for Edge scoring (§7.2), and tunes the target's detection sensitivity.

A second card, under the shooters, holds two folding rows — each shows its current value in teal and unfolds when tapped:

- **"Timings"** — value "**Free**", "**Series { } s**" or "**Per shot { } s**". Unfolded:
- **"Preparation time"** — an optional *load* phase before anything starts, 0 = none (– / + in 5 s steps; a long press moves by 50 s).
- **"Waiting time"** — an optional *attention* phase (red light) before shooting; in rapid fire it is the interval between exposures. 0 = none (1 s steps).
- **"Shooting time"** — the rhythm of the series: "**Series**" (one timed shooting phase, a *precision* series), "**Per shot**" (one exposure per shot, a *rapid-fire* series) or "**Free**" (no time limit at all: the series runs until every shooter has fired all shots). Picking a rhythm presets the timings — *Series*: 60 s preparation, 7 s waiting, 150 s series time; *Per shot*: 60 s, 7 s, 3 s per shot; *Free*: everything 0.
- **"Series time"** (Series rhythm, 5 s steps) or **"Valid time"** (Per shot rhythm, 1 s steps) — the length of the shooting phase, or of each exposure. §6.2 shows the resulting phases.
- **"Score system"** — value e.g. "**Edge · Integer**". Unfolded, two switches: "**Centre**" / "**Edge**" — Centre scores the exact geometric center of each hole, Edge scores like a paper-target gauge: the full width of the bullet hole counts, so a hole touching a ring gets that ring's value (default Edge); and "**Integer**" /

"**Decimal**" — Integer drops each shot's decimals, ISSF-style whole points (default); Decimal lets the tenths count, 0 – 10.9 per shot.

5.5 The Series and Match tabs — official formats

These tabs pick from the **built-in official templates**; instead of raw parameters you narrow down the format with a few selectors in the settings card:

1. **Distance** — "**10 m**" / "**25 m**" / "**50 m**".
2. **Discipline** — a row of tiles, each with its pictogram. The full list:

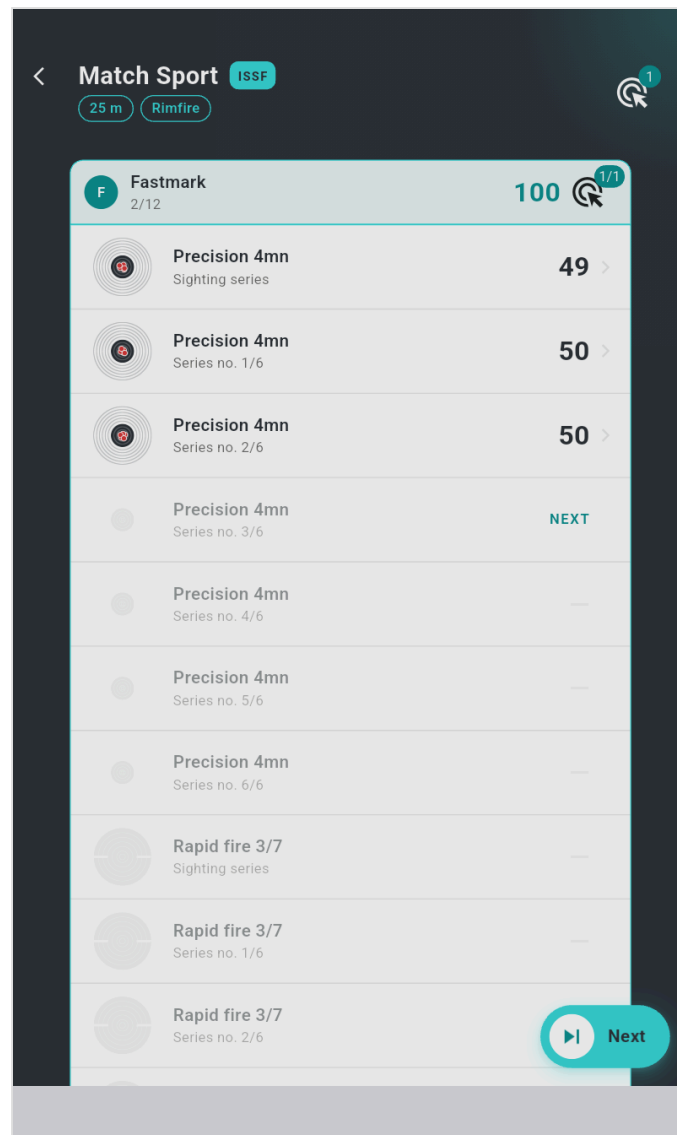
Distance	Series tab	Match tab
10 m	Precision, Standard	Precision, Standard
25 m	Sport, Standard, Rapid fire, TAR 831	Standard, Sport, Rapid fire, TAR 831
50 m	Rifle, Free pistol, TAR 820	Prone, 3 positions, Free pistol, TAR 820

3. **Timing** (Series tab, only where the discipline exists in several durations): 25 m Standard "**10s**" / "**20s**" / "**150s**", 25 m Sport "**3/7**" / "**4mn**", 25 m Rapid fire "**∞**" / "**4s**" / "**6s**" / "**8s**", TAR 831 "**10s**" / "**20s**", TAR 820 "**5mn**" / "**7mn**".
4. **Caliber** (only where the discipline allows several — 25 m Sport): "**Rimfire**" / "**Centrefire**".
5. **Stance** (Series tab, 50 m Rifle only): "**Prone**" / "**Kneeling**" / "**Standing**".

Under the shooters card, a **summary card** lists exactly what will be shot. Its head counts "**{}** **series**" and "**{}** **shots**"; then one row per group of identical series: the face thumbnail, the series title (e.g. *Precision 150s*, *Rapid fire 3/7*), a detail line with the stance, "**Sighting series**" where applicable, the shot count and "**Required targets: {}**" when more than one target is needed, and the group's count (**×2**, **×6** ...).

Match templates follow the current ISSF programs — including sighting series and, for 25 m sport, the precision and rapid stages in order. ISSF-compliant series also apply the official timing tolerances and enable the **malfunction procedure** (§7.9).

5.6 The session page (multi-series sessions)



The session page is mission control for a match. Its title bar carries the session title (e.g. *Match Standard*) with the organisation badge (**ISSF** or **TAR**) and chips for the distance, the caliber and **"Reduced"** where applicable.

- **One shooter:** a single card. Its head shows the shooter's initial and name, the count of scoring series completed (closed/total), the running total (\$7.5) and the target badge for the next series. The body lists the series in order — each row with the face thumbnail showing the shooter's hits, the title, a subtitle ("**Sighting series**", "**Series no. {}/{}"** or "**Malfunctions**" for a re-shoot), and its score once shot. The next series to play is marked **"NEXT"** in teal; later ones are dimmed with a dash. Tapping a shot series reopens its results.
- **Two or more shooters:** an **"Order by rank"** switch (on by default; off lists the shooters in session order) over one card per shooter, each headed by its rank disc (a crown for the leader), the name and the total, and holding a row of face thumbnails with the score, **"NEXT"** or a dash under each. Your own card is teal, the others blue. The session owner can open any shooter's series; a shooter can only open their own.
- The **"Next"** button (bottom right — session owner only, shown while an unshot series remains) starts the next series; it stays grey until that series' targets are assigned.
- The session **"Notes"** card at the bottom, editable in place.

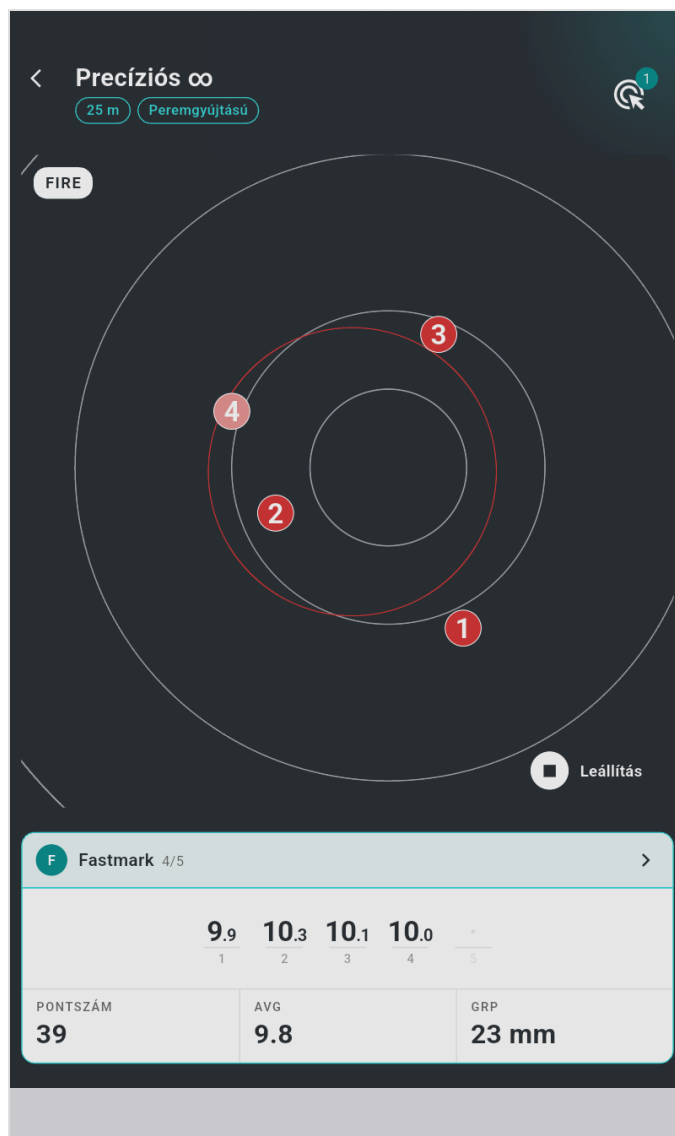
Series must be shot in order; after each series you return here (or let **"Auto next"** chain them automatically — §6.6).

5.7 Repeating and removing sessions

- **Repeat:** when a single-series session is finished, the action button on the series screen becomes **"Replay"** — one tap creates a fresh copy of the session and starts it immediately. The fastest way to chain identical practice series.
- **Remove:** on the event page, swipe a session card **from right to left** past the middle of the screen — a **"Delete"** label appears under it as you swipe. This removes the session **from your own account only** — your subscription to it is dropped, so it disappears from your lists and your statistics. For every other subscriber of a shared event the session remains intact, results included; nothing is destroyed. A message **"Session deleted"** with an **"Undo"** action stays for 4 seconds — tap it to get the session back. A session whose series is currently running, and a challenge attempt, cannot be swiped away. When an event's last session is removed, the event disappears from your home list (§5.2).

6. Running a series

6.1 The live shooting screen



- **Title bar** — the series format: *Precision* followed by its time (*1mn*, *5mn*, *150s*, or ∞ for unlimited), or *Rapid fire* followed by its exposure/interval seconds (*Rapid fire 3/7*), with the organisation badge (**ISSF**, **TAR**) for official formats. The subtitle line reads **"Sighting series"**, **"Series no. {}/{}"** within a match, or **"Malfunctions"** for a re-shoot series, followed by chips for the distance, the caliber and **"Reduced"** where applicable. The target button sits at the right (§3.1).
- **The target panel** — a white panel holding the target face; every shot appears on it as it lands (§6.4).
- **Phase display** (top left of the panel) — a ring draining with the seconds remaining in the current phase, next to a chip with the current range command in capitals: **"Load"**, **"Attention"**, **"Fire"** or **"Stop"**. The ring is hidden while more than 5 minutes remain and in unlimited phases; once the series is over the chip reads **"Finished"**.
- The **action button** (bottom right of the panel) — a labelled pill: **"Stop"**, **"Force stop"**, **"Next"**, **"Reshoot"** or **"Replay"** depending on state (§6.6).

- **The result card** of the shooter being displayed, with live scores (§7.5). With several shooters, the session owner also gets an **"Overview"** button ("{} shooters") above the card (§7.5).

In portrait the target panel sits above the result card; in landscape they are side by side.

While a series is running on this device:

- the screen **stays awake** — no need to touch it to keep it on;
- **leaving the page stops the series**: the back arrow (and the system back gesture) opens a **"Stop series"** confirmation — *"Leaving this page stops the series in progress. Do you confirm?"*. **"Stop series"** stops the series at once and leaves; **"Keep going"** keeps it running. If a target cannot be stopped, the page stays open with **"Some targets could not be stopped — retry"** — go back again to retry. (On a viewing device, and once the series is finished, the back arrow works normally.)

6.2 The phases of a series

A series is a fixed sequence of phases. Each phase sets the target's light, shows its command on screen, and (with the sound options on) plays a beep and a spoken command.

Precision series (a *Series time* or a free series):

Phase	Command	Target LED	Beep	Spoken
Preparation (optional)	"Load"	off by default (red if enabled)	—	"Load"
Waiting (optional)	"Attention"	red	low beep	"Attention"
Shooting	"Fire"	green	high beep	—
Closing (2 s)	"Stop"	red	low beep	"Stop"

The shooting phase accepts up to the series' shot count per shooter and lasts *Series time* — or, in a free series, until every shooter has fired all shots, at which point the series ends by itself.

Rapid-fire series (a *Valid time* is set): after the optional preparation, the attention/shooting pair repeats once per shot:

Phase (× shots)	Command	Target LED	Beep
Interval (<i>Waiting time</i>)	"Attention"	red	low beep
Exposure (<i>Valid time</i>)	"Fire"	green	high beep

In rapid fire the **first "Attention"** (before the first exposure) is spoken; the repeated "Attention" before each later exposure is marked by its beep only — it is not spoken, even with the spoken commands enabled.

...followed by the same 2-second closing phase. **Only the first shot of each exposure counts**; anything extra is recorded but not scored (§7.3).

ISSF-compliant series (from the official templates) additionally apply the ISSF timing tolerances: the green light stays on **0.1 s** beyond the nominal end of each shooting phase, and a shot fired within **0.2 s** after the

light turns red still counts — up to 0.3 s past the nominal time, exactly as on electronic ranges in competition.

6.3 Sounds and spoken commands

Three switches in [Settings](#) → [Sound](#) control the audio (all off by default):

- **"Play beeps"** — a **high beep** marks the start of every shooting phase, a **low beep** every attention and stop transition.
- **"Play commands"** — the range commands "Load", "Attention" and "Stop" are spoken (in the app's language — §10.1). The start of shooting is signalled by the high beep and the green light, not by voice — as on a real range.
- **"Play scores"** — each shot's score is announced as it lands.

Sounds play on the device showing the series.

6.4 Shots on the target face

- Each impact appears **within a fraction of a second**, numbered in shooting order. The most recent valid hit **pulses**. Zoomed in, holes are drawn at their true **bullet-diameter scale**; at lower zoom they are enlarged just enough to stay visible.
- Shots that do not count — fired outside a shooting phase, extra shots in an exposure, impacts in a practice column, or discarded readings — are drawn as **red crosses** and excluded from the score (§7.3).
- **Pinch** to zoom (up to 10×), drag to pan, **double-tap** to zoom in (4×) on a spot, double-tap again to fit. With **"Auto zoom"** on (the default), the view reframes on the shot group after each hit (up to 6×; on the Benchrest faces it snaps to the aiming point hit).
- When enabled in settings, the **mean-radius circle** and the **maximal-spread frame** are drawn over the group in red (§7.7).

6.5 Skipping the preparation time

During the preparation ("Load") phase, **tap the countdown ring** to skip ahead: the phase is cut down so that only your configured **"Preparation time"** remains — adjustable in [Settings](#) → [Session](#) (default 20 s). The tap does nothing if less than 5 seconds would be gained. Handy when the official format prescribes minutes of preparation you don't need in practice.

6.6 Ending a series — the action button

The labelled button at the bottom right of the target panel changes with the state of the series. It is shown only on the master device, to the session owner:

State	Button	Effect
Series running	"Stop"	Ends the series cleanly, without confirmation: the sequence jumps to its end, unfired shots become misses, targets are released
Sequence over, a target still closing	"Force stop" (with a spinner ring)	Force-stops targets that have not confirmed the end
Finished — only series of its session	"Replay"	Creates a fresh copy of the session and starts it in place
Finished — malfunctions declared	"Reshoot"	Creates and starts the malfunction re-shoot series (§7.9)
Finished — next series in the match	"Next"	Starts the next series of the session (grey until its targets are assigned)

With **"Auto next"** enabled (Settings → Interface), the next series of a match starts **3 seconds** after the current one closes — the button shows a progress ring while the timer runs; tap it to skip the wait.

When a series finishes, the back arrow no longer asks for confirmation: leave the screen to the session page or home, or dive into the result card ([chapter 7](#)).

6.7 Interruptions — what recovers by itself

The system is built to recover by itself: as long as a target stays powered, no shot it recorded is ever lost. In all of the following situations, there is nothing to repair:

If this happens	What to do
The connection drops (distance, interference)	Nothing — the app reconnects within seconds and catches up on any shots fired in the gap
The app is closed or the phone reboots mid-series	Just reopen the app — the series comes back live, with the shots fired in between
Bluetooth is switched off and back on	Nothing — the targets reconnect by themselves
A target switches off mid-series (switch, empty battery, overheating)	That target leaves the series at once (a target that falls silent is dropped after 15 s) and the others keep shooting; the series stops once no target is left
The series won't start	A panel titled "The series did not start" (<i>"Series couldn't be launched on all targets"</i>) offers "Retry" , and "Delete the session" when the session was just created (otherwise "Cancel" , which leaves the unstarted series open) — nothing has started, nothing is lost

If anything ever fails to recover along these lines, see [chapter 11](#).

7. Scoring & results

7.1 The score of a shot

Every scored shot is worth **0 to 10.9 points**. The target face's rings carry the classic values (10 at the center outward to the lowest ring); each ring is divided into ten decimal steps, so a deep central ten is a 10.9. Shot scores are always **displayed** with one decimal (9.7, 10.0 — a zero shows as 0); totals and averages drop the decimal when they are whole (97, 97.5). Whether the decimals *count* toward the total depends on the session's score system (§7.2).

The impact position is computed acoustically to millimeter precision and scored against the exact ISSF geometry of the selected face.

7.2 The score system

Chosen when creating the session (§5.4):

- **"Edge"** — gauge scoring, as on paper targets in competition: the **full width of the bullet hole** counts, so a hole whose edge touches a ring scores that ring. This is why the session's **caliber matters** — a larger bullet gauges higher. The default.
- **"Centre"** — only the **geometric center** of the hole counts. Caliber-independent.
- **"Integer"** — only the integer part of each shot counts toward the total (a 9.7 counts 9), like ISSF pistol events; the decimal remains displayed on the shot itself, and the average is the integer total divided by the shots. The default.
- **"Decimal"** — tenths count and add up, like ISSF air-rifle finals.

Official templates come with the correct combination preset.

On a **reduced face** (§5.4) everything scales with the reduction: the rings, the drawn bullet holes and the Edge gauge — so a reduced target scores exactly as its full-size original would at the shorter distance.

7.3 Valid shots, crosses, and misses

A shot **counts** when all of the following hold:

1. It was fired **inside a shooting phase** (green light) — including the ISSF tolerance after the phase on ISSF-compliant series (§6.2).
2. In rapid-fire, it is the **first** shot of its exposure.
3. The shooter has not already fired the series' full shot count.
4. The impact was **located reliably**: inside the target's measured area, with a clean acoustic solution. Degraded readings are discarded rather than scored wrong.

Shots that fail these rules are still recorded and drawn as **red crosses** on the face, unnumbered; in the hits list their number disc shows a dash — you see them, they just score nothing.

Misses: when a shooting phase ends with fewer valid shots than it allows, the missing shots are filled in automatically as **zero-point misses** — an undetected or unfired shot costs its points, as in competition.

During the shooting phase of a precision series you can also record one yourself with the **"Add miss"** button under the hits list (§7.6 — for example after a shot clean off the target); the button is offered while the series still has shots to fire.

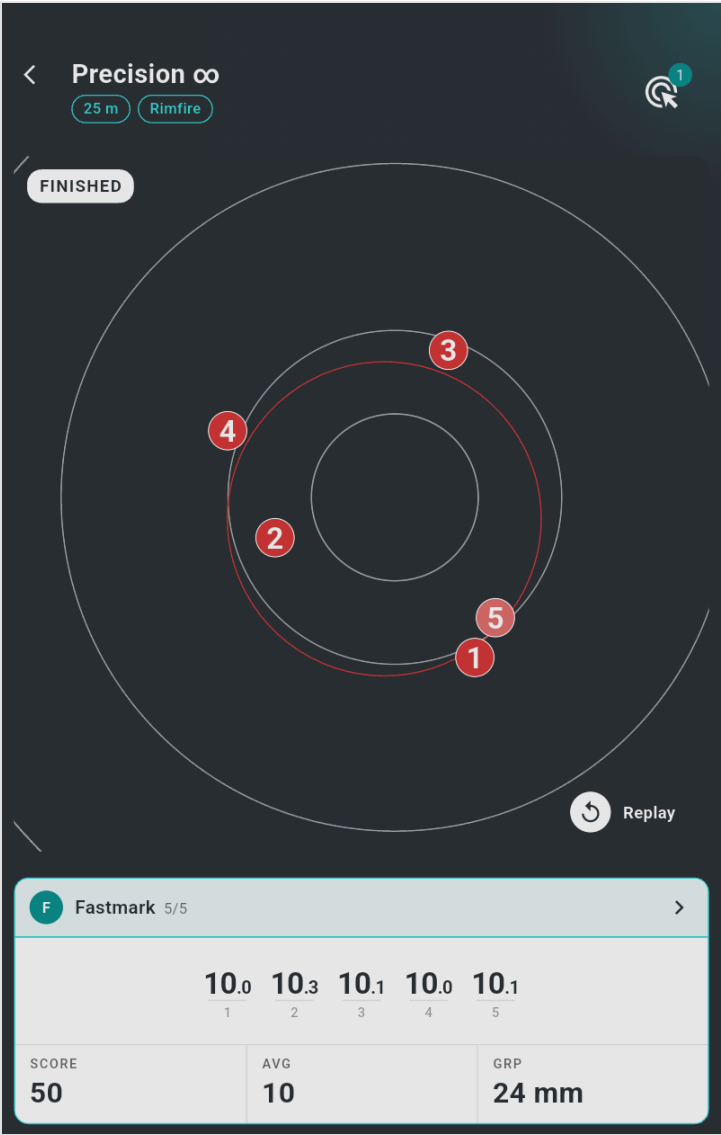
7.4 Practice zones and the X (Benchrest faces)

The two Benchrest faces carry side **practice columns** next to the scoring grid. Impacts there are drawn as crosses on the face, score nothing and are excluded from totals and statistics — use them for warm-up shots within a series. On these faces a shot scores from 3.0 to 10.9.

A Benchrest shot that reaches the central **X dot** of its aiming point (1 mm across) also counts an **X**: in Edge mode the hole only has to touch the dot, in Centre mode its center must fall within the dot. Totals on these faces are shown as **"46 ●3"** — the points, then the X count after a filled dot (omitted when there is no X). The X count breaks ties between shooters (§7.5) and gets its own chart in the statistics (§8.3).

7.5 Reading the results

The **result card** on the series screen shows one shooter:

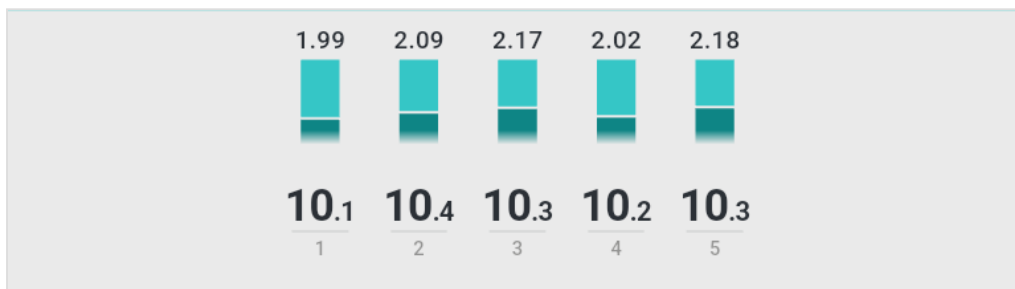


- the **head**: the shooter's initial and name with the shots fired over the shots planned (3/5); when a malfunction may be declared, a **hand** icon (§7.9); a **chevron** opens the hits list (§7.6);
- the **shot strip**: the individual shot scores side by side in shooting order, each over its shot number — a **.** stands for a shot not yet fired, and a hand-edited score is shown in **gold** (§7.8). The strip scrolls sideways and keeps the latest shot centred;
- the **figures**: "**SCORE**" (the running total, with the X count on Benchrest faces), "**AVG**" (the average per shot) and "**GRP**" (the group size — the mean radius in millimeters, §7.7).

Timing. In a timed precision series shorter than 30 seconds, a slim **series-time gauge** above the strip marks when each shot fell: one segment per shot, proportional to its split time, with the total time in seconds beside it. Once the series is over, the unused remainder of the bar is light if every shot came in time, orange otherwise:



In rapid fire, each shot carries its reaction time above its score (1.99 — in seconds from the start of its exposure) over a small column filled up to that time. The column shows only the second half of the exposure, where shots land, so the margin left reads at a glance (here a 3/7 series); it turns orange for a miss:



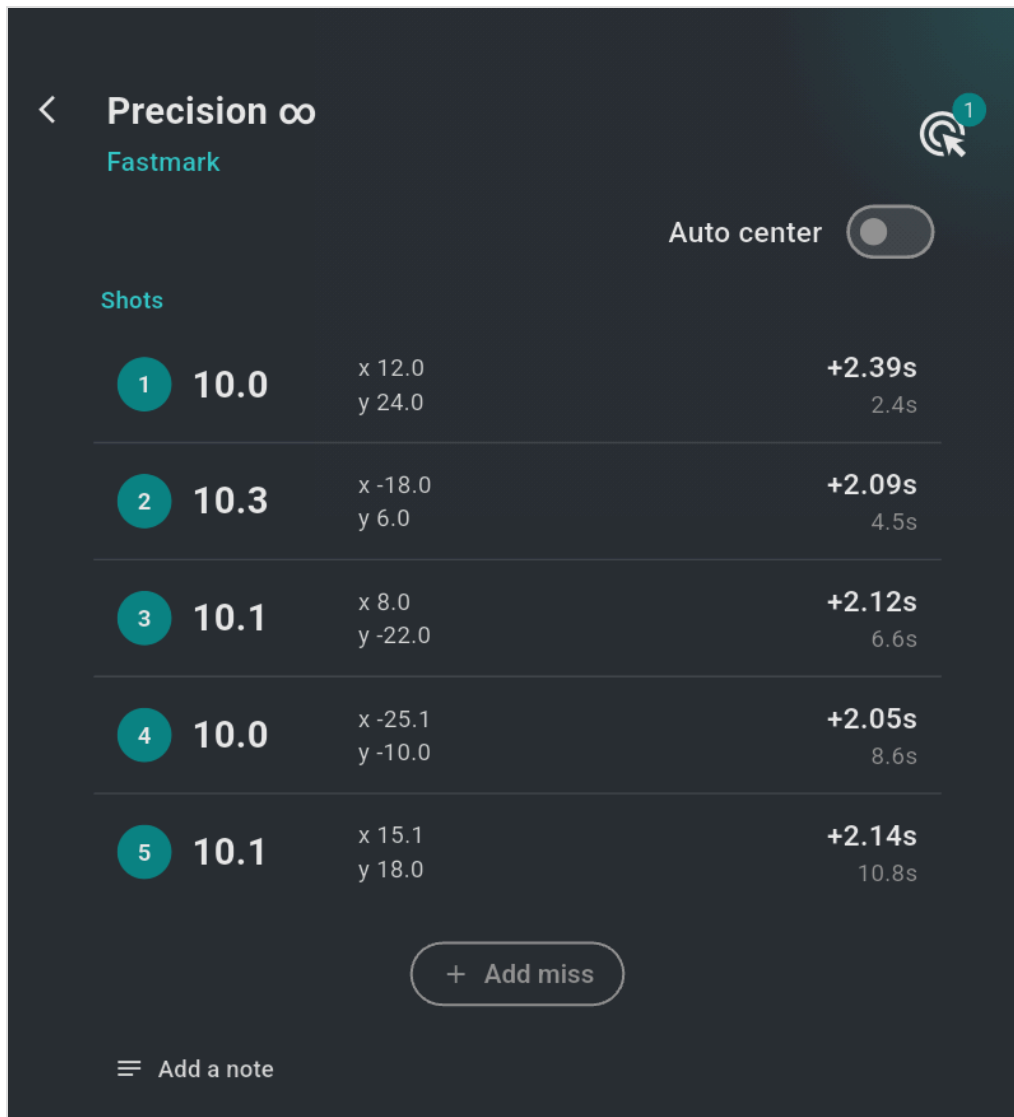
Several shooters — the overview. When a session has two or more shooters, the session owner's series screen offers an "**Overview**" button ("*{ shooters*") above the card. The overview shows the series progress (one dot per planned shot and the action button), an "**Order by rank**" switch, and a compact card per shooter: a rank disc (a **crown** for the leader), the name, the shots fired, the total, a thumbnail of the face with the shooter's hits and the shot strip. Cards reorder live as ranks change; equal totals share a rank, with the X count as the tie-breaker on Benchrest faces. Tap a card to come back to that shooter's full view.

Session totals (match sessions): each shooter's card on the session page shows the running total — the sum of all scored series, **excluding sighting series**, with malfunction re-shoots paired per the rules in §7.9.

Result cards and session cards carry the **team name**, which is normally the shooter's display name recorded when the session was created.

7.6 The hits list

Tap the chevron on a result card to open the **hits list** — every shot of the series in detail, one row per shot, under the series title and the shooter's name:



- Each row of the **"Shots"** list carries the shot's number in a disc (a dash for a shot that does not count), its **score**, the impact coordinates in millimeters (x / y from the center — or a **"Missing hit"** chip for a miss without position), the split time from the previous shot (+ 1.23s) over the time from series start (12.3s), and — in multi-target sessions — which target it hit.
- The **"Auto center"** switch in the title bar re-scores the whole series as if the group were centered on the ten: every shot's score is recomputed around the group's center. Use it to judge pure grouping while ignoring a sight-setting error; switch it off to return to the real scores.
- Below the list sit the **"Add miss"** button (§7.3) and the **"Add a note"** link, which opens the series **"Notes"** field.

The hits list is also where a score is corrected by hand (§7.8).

7.7 Group statistics

Computed live from the valid shots (two shots minimum):

Statistic	Meaning	Where
Mean radius (GRP)	Average distance of the shots from the group's center, in mm — the standard group-size measure	Result card; red circle on the face
Maximal spread	The distance between the two farthest shots	Red frame on the face
Average (AVG)	Total ÷ valid shots	Result card

The circle and frame overlays are toggled in [Settings](#) → [Indicators](#) and are not drawn on the Benchrest faces (grid targets have no single group).

7.8 Correcting a score by hand

Scores are computed, but the range officer has the last word. In the hits list (§7.6), **long-press a shot** to open the **"Update score"** dialog, captioned *"Shot 3 · computed 9.7"*:

- type the **"New value"** (decimals allowed, with a point or a comma) and confirm with **"OK"** — the shot now counts with that value. It is shown in **gold** on the result card, and the hits list shows the computed score struck through next to it;
- the **reset** icon in the field recomputes the score from the impact position, removing the mark.

Hand-edited scores enter totals and statistics like any other.

7.9 Malfunctions (ISSF procedure)

For ISSF-compliant series (official templates), the app implements the malfunction procedure:

1. After the series ends, tap the **hand icon** in the affected shooter's result card head. The **"Malfunction"** panel asks for the number of **"Valid shots before malfunction"** — set it with the – / + stepper and confirm with **"OK"**. (**"Cancel malfunction"** withdraws a declaration.)
2. The action button turns into **"Reshoot"**: tapping it creates a **"Malfunctions"** series — an identical series for the affected shooter(s), inserted right after the original — and starts it.
3. Scoring of the pair follows the discipline (ISSF rules 8.9.4.5 – 8.9.4.6), with N the series' shot count and the declared valid shots always kept: - **Sport events** — *completion*: the shots fired before the malfunction stand, and the first shots of the re-shoot supply the remainder up to N. - **Rapid-fire events** — *lowest per target*: each shot position is one target; for every position, the **lower** of the original and the re-shoot shot counts. - **Standard and all other events** — *pooled lowest*: the kept shots and all re-shoot shots are pooled and the N **lowest-scoring** count.

Whatever the rule, a malfunction can never gain points.

The session total handles all of this automatically. The re-shoot series is labelled **"Malfunctions"** everywhere it appears, only one re-shoot is possible per series, and its score cell shows the **correction** it contributes (a + value) rather than a stand-alone score — the original and the re-shoot lines add up to the combined result, never counted twice.

Your progress over weeks and months has a chapter of its own: [chapter 8, Statistics](#).

8. Statistics

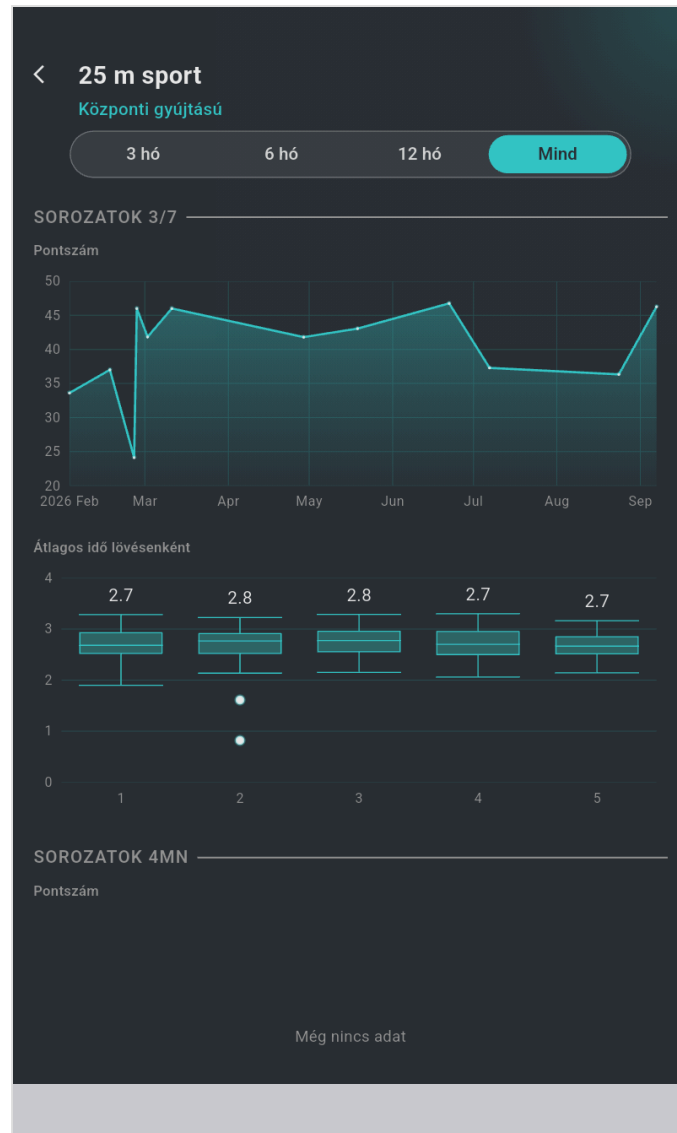
The "**Statistics**" tab of the home screen tracks your progress per discipline, computed from every completed session on your account.

8.1 Choosing a discipline



The tab shows one **tile per discipline variant** — a discipline shot at one distance, with one caliber and one stance. The tile carries the discipline's name and pictogram and, when you shoot several variants of the same discipline, a subtitle naming what differs (*25 m, Rimfire, Prone ...*). Tiles are sorted by distance, then discipline, the most-shot variant first. A variant gets its tile once it holds at least **two** qualifying series. Tap a tile to open its statistics page.

8.2 The discipline page



The page is titled with the discipline and its variant. A **period selector** at the top — **"3 mo"**, **"6 mo"**, **"12 mo"** or **"All"** (the default) — sets how far back every chart below reaches. To look at another variant of the same discipline, go back and tap its tile.

8.3 Score charts — your progress over time

The score charts plot your totals against the calendar, one point per outing — the slope of the line is your progress:

- **"Matches"** — shown when the discipline has match sessions: one line per shooter, one point per match (all series of the session summed; several matches the same day average into one point). A line needs results on at least **two** different days.
- **"Series {}"** — one card per series timing (e.g. *Series 150s*, *Series ∞*, *Series 3/7*), opening with the **"Score"** chart of the per-series total over time under the same rules, so a 150-second series is never compared with an unlimited one. Precision series that differ only by their waiting time share a card.
- **"X count"** — on Benchrest disciplines, the same chart for the number of X per match or per series (§7.4), under the **"Matches"** panel and in each series card.

A legend appears when the charts hold several shooters; tap a chart to read the exact values at a date.

8.4 The shot-timing box plot

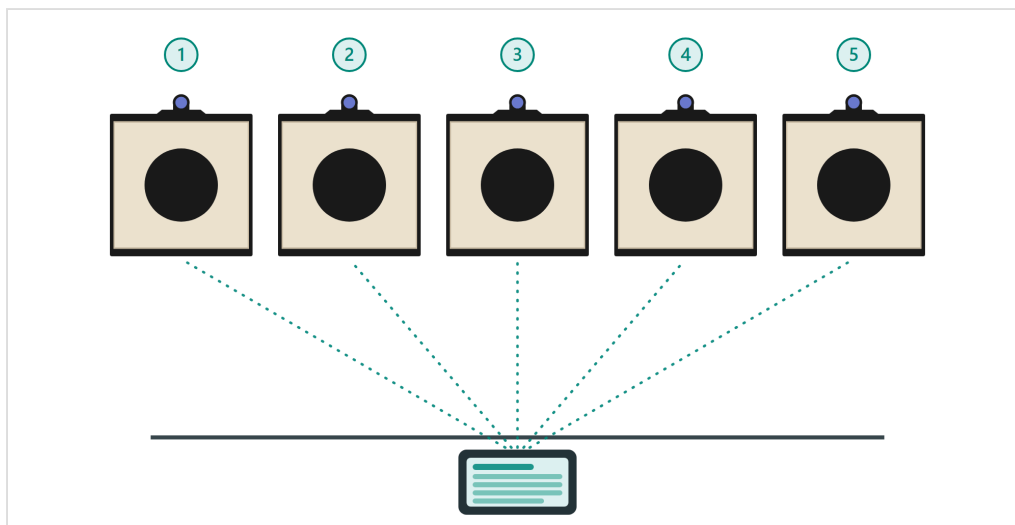
In each series card, "**Average time per shot**" shows *when* you shoot rather than how well. There is one box per shot position — first shot of the series, second shot, and so on — and each box summarizes all your recorded times for that position over the selected period: in rapid fire, the time from the start of the exposure to the shot; in precision, the split time since the previous shot. Unlimited (∞) series carry no timing.

Read a box like this: the line inside is your **median** time (printed above the box when a single shooter is charted), the box holds the middle half of your times, and the whiskers stretch to your fastest and slowest. A short box means a consistent rhythm; a tall first box, for example, means your first shot's timing varies a lot.

8.5 What counts

Only **completed** sessions of the Series and Match tabs enter the statistics (Custom sessions are free-form and excluded; challenge attempts count like any match), without their sighting series, and only valid scored shots — practice-zone and discarded shots are ignored; malfunction re-shoots are combined per §7.9, never counted twice. Removing a session from your list (§5.7) removes it from your statistics as well. Sections without enough data show "**No data yet**".

9. Supervisor mode



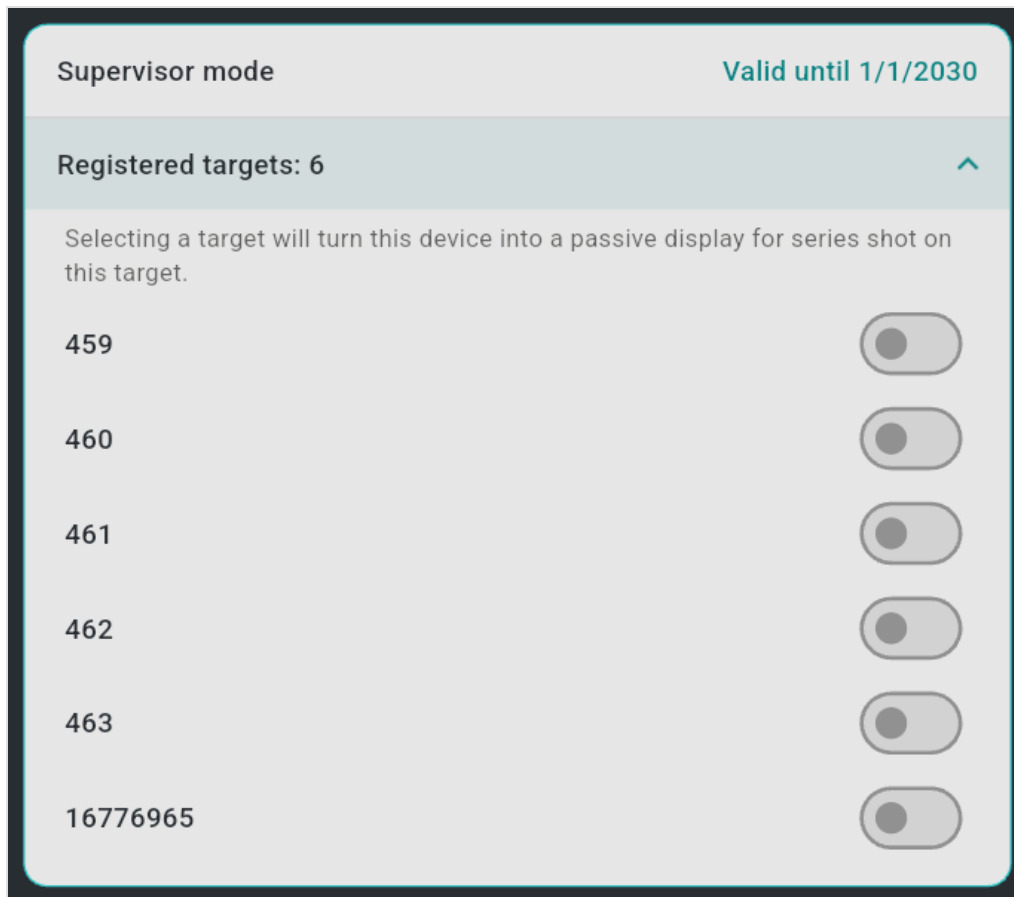
9.1 What supervisor mode lets you do

Supervisor mode lifts the app's one-shooter, one-target limit and turns one device into a range controller. Concretely, it is what you need to:

- **shoot the disciplines played on several targets at once** — ISSF 25 m rapid fire is shot on five targets, all driven by your device (§9.4);
- **run a training session or a group challenge** — one series launched once for several shooters, the whole line driven from the trainer's device, every score coming back to it live (§9.2);
- **show the results live on additional screens** around the range (§9.5).

However many targets are on the line, the app drives them as one: a single synchronized sequence, the range commands played once for everyone, and live per-shooter scoring. How many targets one device can drive depends on the device: most current phones and tablets handle at least five at once, recent models ten or more.

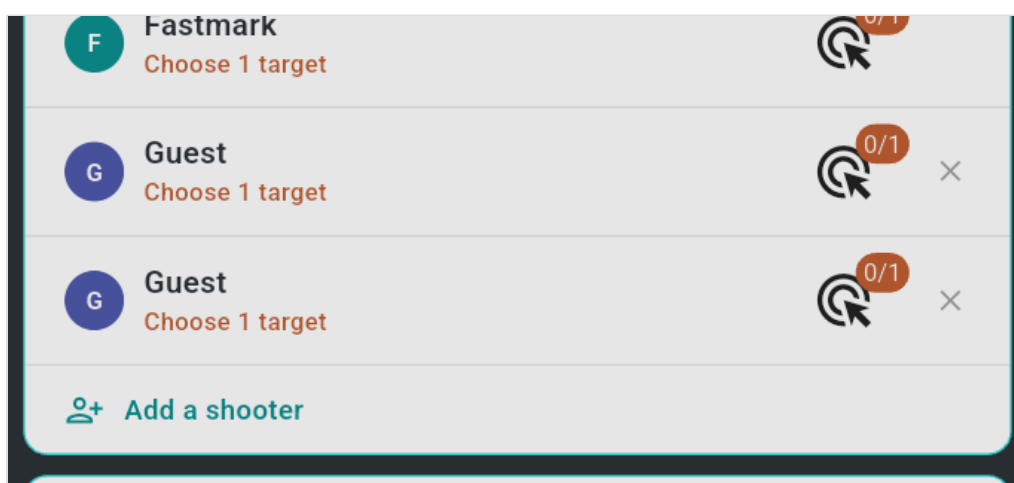
Supervisor mode is enabled by a **subscription on your Fastmark account** (§4.7): the account carries a supervisor validity date and the list of **registered targets** — the serial numbers of the targets you may drive simultaneously. Both are shown in the "**Supervisor mode**" group of the User page. (The first year of the subscription is included with the purchase of a pack of five Club 55 targets or more.) Without it, the app is limited to one shooter row and one target. Supervisor mode is reserved for the Club 55: only Club 55 targets can be registered.



9.2 Several shooters — trainings and challenges

A multi-shooter session serves the trainer as much as the challenge organizer: a trainer drives the session for their shooters and follows everyone's results on their own device; a challenge launches the same series once for the whole group and collects every score in one place. Either way, with supervisor access the **shooters card** on the New-session page gains the controls for it:

- an **"Add a shooter"** row at the bottom of the card adds a shooter — added shooters appear as **"Guest"** entries, each with their own target badge, result card and scores;
- a **x** at the right of every row but the first removes that shooter (their target is released automatically).



Assign one target to each shooter through their badge, exactly as in §3.3 — every target must be in your **registered targets** list, and each shooter's badge (assigned/required) must be teal before launch. With a whole line of targets to tell apart, give each target the name of its firing point (§3.5) — the assignment stays unambiguous.

During the series the app runs all targets on one synchronized clock: phases change together on every target (within a few milliseconds), and each shot is credited to the shooter whose target reported it. If one target fails or powers off mid-series, only that target is released — the rest of the line keeps shooting (§6.7).

Every shooter gets their own results everywhere: the series screen's **"Overview"** (§7.5) ranks them live, the session page shows a card and total per shooter, and each has their own hits list. Tap a shooter's card in the overview to follow that shooter alone.

To let someone play under their own account instead of as **"Guest"**, select their shooter (§9.3).

9.3 Selecting a shooter — playing under one's own account

A **"Guest"** keeps its results inside your session only. Select an existing **Fastmark account's shooter** instead, and the session is played under that person's identity: their name on the result cards, and every shot recorded in their own account's history and statistics. Any signed-in account can do this, supervisor or not:

1. **Long-press the shooter's row** in the shooters card to open the **"Select shooter"** panel. It lists your own shooter first, then every shooter already shared with you, most recently used first — tap one to select it.
2. To add someone new, the other person opens their User page and taps **"Show my code"** in the **"Shooter select"** card (§4.3). The app displays a **4-digit code** with a countdown — it is valid for **10 minutes**.
3. Type that code in the panel's **"Enter a share code"** boxes (this step needs internet). The shooter is added and selected; an expired or mistyped code shows **"Invalid or expired code"**.

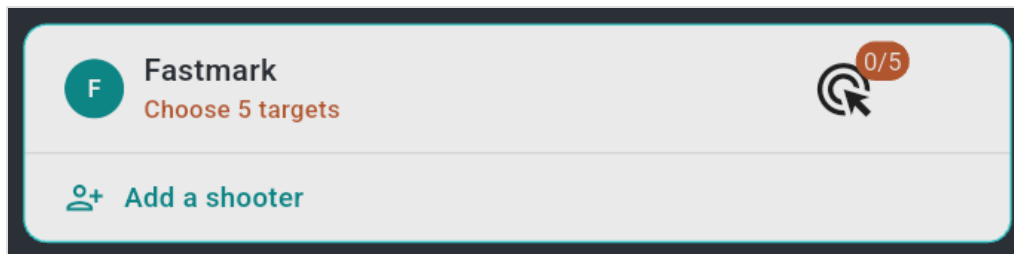
A code has to be exchanged only once: the shooter stays available in the panel afterwards, and the sharing works **both ways** — each of you can add the other.

Withdrawing the sharing: Settings → Others → **"Revoke"** removes your shooter from **all** accounts you shared it with, after the confirmation **"Revoke all sharing?"** — *"Remove your shooter from all accounts you shared it with?"* — the button then reads **"Access revoked"**. To share again, hand out a new code.

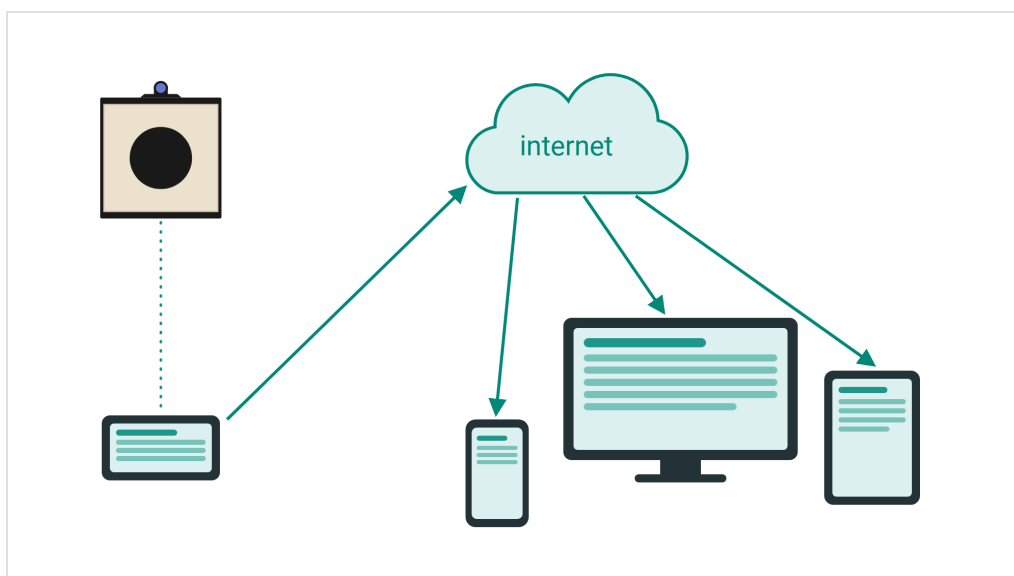
9.4 Several targets for one shooter

Some disciplines are played **simultaneously on several targets**; driving them all from one device is the other thing the supervisor subscription unlocks. The shooter's row states how many targets the discipline requires — **"Choose 5 targets"** — and the badge counts them; assign that many, exactly as in §9.2, and it turns teal.

Today's use case is **ISSF 25 m rapid fire**, shot on a bank of five targets: the badge reads 0/5 , and once all five are assigned the series drives the bank as one — the phases turn together, and every hit, whichever target caught it, lands on that shooter's single result card.



9.5 Live results on other screens — viewers

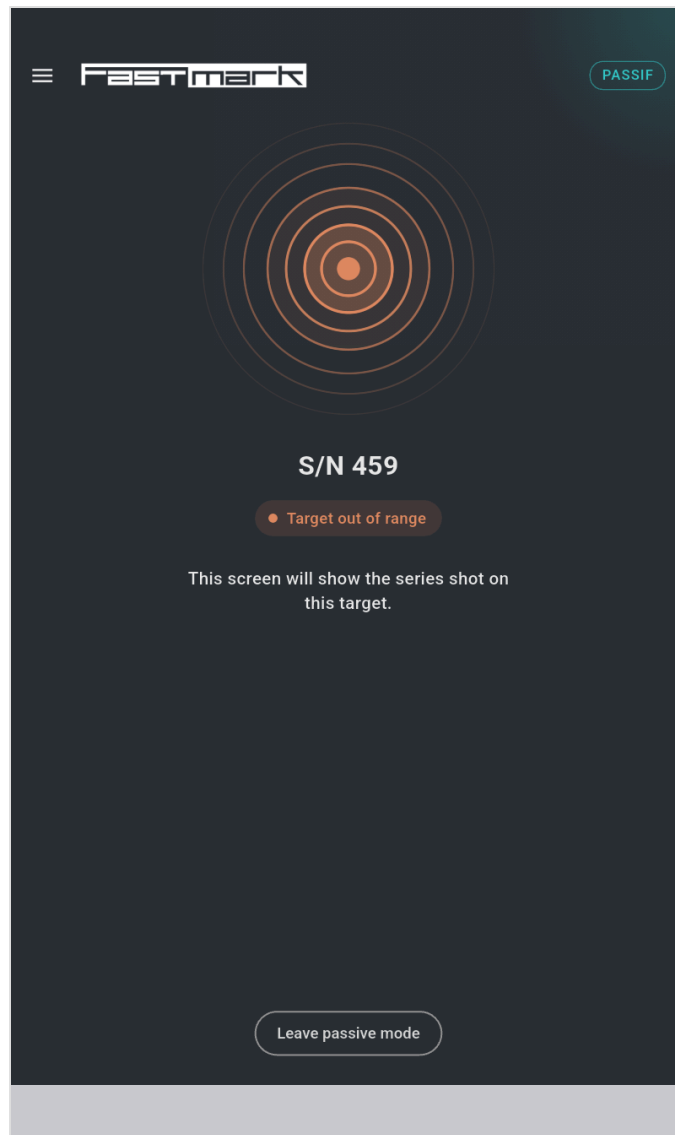


Everything the supervisor's device scores is synchronized through the cloud, so any other device signed in to the same account shows the running series live, read-only (§4.5) — shots and scores appear as they are fired. Every device involved needs an internet connection. For a large display visible to the whole range, install the app on a smart TV that runs Android apps, or mirror a phone or tablet onto the screen.

9.6 Passive mode — a device bolted to one firing point

Passive mode dedicates a viewer to a single target — typically a tablet permanently installed at one firing point of a supervised range, which must ignore everything happening on the other lanes.

- **Enable:** User page → **"Supervisor mode"** → expand **"Registered targets: "** → turn on the switch of the target this device belongs to. (One target only; the other switches disable. The list's own caption says it: *"Selecting a target will turn this device into a passive display for series shot on this target."*)
- **Effect:** the home screen is replaced by the passive display, tagged **"PASSIVE"** in its title bar: a large target drawing with the target's name, its model and serial number, a status chip — **"In range · good signal"**, **"In range · weak signal"** or **"Target out of range"** — and the line *"This screen will show the series shot on this target."* The device now ignores sessions pushed onto other targets: it auto-opens only series running **on its own target** (§4.5), showing the shooter firing on it, and it acts purely as a **spectator display** — a passive device never becomes the master and cannot start, drive or stop a series.
- **Disable:** tap **"Leave passive mode"** at the bottom of the display and confirm with **"Leave"** (*"This device will no longer open the series of target automatically and will show your events again. You can turn it back on from the user page."*), or turn the switch off on the User page. The normal home screen returns.



The setting is per-device and survives app restarts.

10. Settings reference

Open **menu** → "**Settings**". Every change applies **immediately** — there is no save button — and settings follow your identity: they synchronize across the devices you are signed in on.

10.1 Language

The first row of the page: a "**Language**" selector listing **English, Français, Deutsch, Español, Polski, Dansk, Italiano, Čeština, Suomi, Svenska, Nederlands, Magyar**. The change applies immediately to the whole interface, and the spoken commands and scores (§6.3) follow the selected language (provided the device has a matching text-to-speech voice installed).

10.2 Sound

Setting	Default	Effect
"Play scores"	Off	Announces each shot's score as it lands (§6.3)
"Play commands"	Off	Speaks the range commands "Load", "Attention", "Stop" at the phase changes
"Play beeps"	Off	High beep at the start of every shooting phase, low beep at attention/stop

The spoken commands use the device's text-to-speech voice; sounds play on the device showing the series.

10.3 Interface

Setting	Default	Effect
"Show chrono"	On	Reserved — has no effect in this version
"Show hit index"	On	Reserved — has no effect in this version; shot numbers are always drawn
"Auto zoom"	On	Reframes the target view on the shot group after each hit (§6.4)
"Auto next"	Off	"(Match) The next series starts after 3 seconds" — in a match, starts the next series 3 seconds after one closes (§6.6)

10.4 LED

Setting	Default	Effect
"LED intensity"	20 % (slider in 11 steps from 2 % to 100 %)	Brightness of the target's light during a series — raise it outdoors, lower it in a dim indoor range
"Show LED for:" "Preparation phase"	Off	Light the target red during the "Load" phase
"Show LED for:" "Waiting phase"	On	Red light during "Attention" and the closing "Stop" phase
"Show LED for:" "Shooting phase"	On	Green light during the shooting phases

Turning a phase's switch off leaves the target dark during that phase — some shooters prefer no light except the green fire signal. The colors themselves are fixed (red = don't fire, green = fire); see the LED table in §2.4.

10.5 Session

Setting	Default	Effect
"Preparation time"	20 s (5 – 30 s in 5 s steps)	<i>"Tapping the counter during the preparation phase (loading) shortens it to the duration selected here."</i> — the time left in the preparation phase after you tap the countdown ring (§6.5)

10.6 Indicators

Setting	Default	Effect
"Mean radius"	On	Draws the mean-radius circle over the shot group (§7.7)
"Maximal spread"	On	Draws the maximal-spread frame over the group

10.7 Others

Control	Effect
"Revoke" (signed-in only)	Withdraws your shooter from every account you shared it with via a share code (§9.3); asks for confirmation ("Revoke all sharing?"), then reads "Access revoked"

11. Troubleshooting

Organized by symptom. Values in this chapter (timings, thresholds) are the exact behaviors described in the earlier chapters. For a guided check of a target that misbehaves, the app's **Help** page walks you through the same list and can record a troubleshooting series for Fastmark support — see §11.9.

11.1 Range setup checklist

Check these before shooting

Detection rate and precision depend on how the target is set up. When shots go missing or the grouping degrades, run through this list:

- The target's **sensors must be clear** of anything that could obstruct them. Blow accumulated dust off with compressed air; if water has accumulated, let the target dry.
- **Consumables must not overlap and must not be too worn.** Replace them before their tears become too large — a tear is too large once a projectile can pass through it without striking the consumable.
- Leave **no obstacle within 50 cm behind the target.** That distance can sometimes be reduced depending on the obstacle's material and the caliber used.
- Keep the target **out of direct sun.** The speed of sound used to locate the impacts is derived from the air temperature, which the target measures on its own board and refines from every clean shot; a housing heated by the sun throws that estimate off, costing precision or detection rate. Shade the target, or let it cool.
- Keep a **clear line between the phone or tablet and the target**, and do not lay the device flat — incline it to avoid connection problems.
- Projectiles must **not be supersonic when they reach the target.** Some ammunition always is (.357 Magnum at 25 m); for others it depends on barrel length, ammunition type, shooting distance...

11.2 Discovery & connection

No target appears in the app (counter stays hidden)

1. Is the target on? Its LED must show the steady dim idle color. Hold the switch until the LED lights — a quick tap does nothing, and a target with a critically low battery refuses to start with no LED at all: put it on the charger (§2.2).
2. Remember the target powers itself off after **30 minutes** idle — it may simply have gone to sleep since you switched it on (§2.6).
3. Is the phone's **Bluetooth on**? When it is off, the target button in the app bar becomes a **Bluetooth-disabled icon**: tap it — the panel says "**Bluetooth is off**" and, on Android, offers "**Enable Bluetooth**" to turn it back on in place. The panel closes by itself once Bluetooth is usable.

4. Were the **Bluetooth permissions** granted to the app? If refused, the same disabled icon appears and its panel says "**Bluetooth permission is missing**": grant the permission in the phone's app settings, then return to the app — scanning resumes by itself, no restart needed.

The target is listed but cannot be selected (row greyed out)

- An "**Update**" chip on its row → its firmware must be updated first; the app opens its page for you (§3.6). If the page reads "**Obsolete version of the application...**" instead, it is the app that must be updated.
- An "**Other device**" chip → another device is connected to it; one connection at a time (§3.4).
- A **spinner** → a series is loaded on it ("busy"); wait for it to finish, or power-cycle the target if it is a leftover.
- You already have a target assigned → one target per device outside supervisor mode (§3.3).

A target vanishes and reappears in the list

Normal at the edge of radio range: a target is dropped once its signal has been silent for 15 s and returns as soon as it is heard again (~1–2 s). Move the device closer to the line if it happens indoors at short range — thick walls and bodies attenuate the signal.

11.3 During a series

The connection dropped mid-series / the app crashed / the phone rebooted

Nothing is lost. Reopen the app (or just wait, for a radio drop): the target is re-adopted within seconds and the series resumes live, including any shots fired during the gap — the target keeps the running series and the app rebuilds from it (§6.7). Do **not** power-cycle the target: that is the one thing that discards its running series.

A shot was fired but nothing appeared

- Was the phase green? A shot fired outside a shooting phase is still recorded, but it appears as a **cross** and scores nothing (§7.3).
- A shot clean off the target produces nothing — at the end of the phase it is filled in as a **zero-point miss** automatically, or add it yourself with "**Add miss**" (§7.3).
- If shots keep going missing, run the **target troubleshooting** from the Help page (§11.9).

A shot appears as a cross instead of a scored hit

Crosses are recorded-but-not-scored shots: fired outside the valid window, an extra shot in a rapid-fire exposure, a warm-up shot in a Benchrest practice column, or a reading too degraded to locate (§7.3). This is the intended behavior, not a fault.

Scores seem shifted from the point of aim

The impact positions are consistent but the group scores off-center? Check the target's exposure: a target in **direct sunlight** misreads the air temperature used for the acoustics — shade it and let it cool (§11.1). To evaluate pure grouping regardless of sight setting, use "**Auto center**" (§7.6).

"Number of selected targets is incorrect" when launching

A shooter's target badge is orange: they don't have the required number of targets assigned — the notice under their name says how many to choose. Fix the assignment (§3.3) and launch again.

"The series did not start"

A target failed to accept the start (usually radio interference, or it powered off at that moment). Check the target's LED and battery, then tap **"Retry"** — the series starts fresh; nothing was recorded (§6.7).

"Some targets could not be stopped — retry" when leaving a series

A target did not acknowledge the stop (radio drop at that moment). The series page stays open so nothing is left running unnoticed: check the target's LED, then go back again to retry the stop (§6.1).

No beeps or spoken commands

The three sound options are **off by default** — enable "Play beeps" / "Play commands" in Settings → Sound, and check the device's media volume (§10.2).

The target LED stays dark during the preparation phase

By design: the preparation-phase light ships disabled. Enable "Show LED for: Preparation phase" in Settings → LED if you want it (§10.4).

11.4 Target hardware

The target went off by itself

Three blinks then dark means a normal shutdown; the causes, in order of likelihood: the **30-minute idle timer** (§2.6 — disable it from the target's page, or note that any shot resets it), an **empty battery** (charge it — there is no low-battery warning before shutdown), or **overheating** at 80 °C (shade the target and let it cool).

The target won't switch on

Hold the switch longer — the press must still be held an instant after the LED would light. If there is still no LED at all, the battery is critically low (charge it) or the unit is too hot (let it cool). A Sport 17 switches on by **inserting the target medium**, not by a button (§2.2).

The target behaves oddly after a lot of experimenting

Factory-reset it: three brief presses of the switch, then the long power-off press. This restores the default name and auto-shutdown setting (§2.7).

11.5 Firmware updates

The update failed ("Error")

The target keeps its previous firmware and keeps working — nothing is damaged. Move the phone next to the target, check the target's battery, and run **"Firmware update"** again (§3.6).

After the update the target disappeared

Normal: the target blinks three times, reboots, and reappears in the list within a few seconds with the new firmware version on its page.

"Obsolete version of the application, please update from the store"

The target's firmware is newer than this app. Update the **app**; the target is fine.

11.6 Account & sync

My results don't show on my other device

- Both devices must be **signed in to the same account** — data recorded while signed out belongs to the device profile, not the account (§4.2).
- Sync needs an internet connection on both sides; changes upload in the background within moments of connectivity returning.

I signed in and my previous sessions disappeared

They are not lost: everything recorded before signing in stays with the device profile. Sign out to see it again (§4.2).

"Send code" is greyed out

Signing in needs internet — the card reads **"Needs internet access, please disconnect from target network if needed"**.

"Invalid version" at startup

This app version is below the service minimum. Update the app from the store; nothing else is possible on that screen (§1.3).

"Configuration has changed. Please close and restart the application."

Close the app completely and open it again (§1.3).

11.7 Multi-shooter / supervisor

I can't add shooters or a second target

Both need **supervisor access** on the account, and extra targets must be among the account's **registered targets** — check the User page (§4.7, chapter 9).

A device at the range keeps opening other lanes' series

Put it in **passive mode** for its own target (§9.6).

One shooter's target dropped during a supervised series

Only that target is released; the rest of the line continues. The dropped target reappears in the list within seconds; if its series was still running it is re-adopted automatically (§6.7).

11.8 If all else fails

- Power-cycle the target and restart the app — recorded results are never lost by a restart.
- Check both version numbers (app: the menu's footer; target: its page) against the versions this manual applies to.
- Run the guided **target troubleshooting** from the Help page (§11.9) — it checks the target for you and lets you send Fastmark a report with everything support needs.
- Contact Fastmark support with the app version, the target's serial number, and what you observed — the serial number is on the target's page (§3.5).

11.9 The Help page — guided target troubleshooting

Open **menu** → **"Help"**. The page opens with a link card, **"Open the user manual"**, which opens this manual in your language in the browser, and the **"Target troubleshooting"** procedure: six numbered steps — **"Bluetooth"**, **"Target"**, **"Checks"**, **"Detection"**, **"Setup"**, **"Troubleshooting series"** — started with the **"Start target troubleshooting"** button. Each step opens once the one above has passed; a passed step folds to one line with its outcome and a **"Change"** link to redo it, a failed step shows what to fix and a **"Retry"** button.

1. **Bluetooth** — checks **"Bluetooth is on"** and **"Bluetooth permission granted"**; folds to *"on · permission granted"*. Failing: **"Bluetooth is off. Turn it on to continue."** (with **"Enable Bluetooth"** on Android) or **"The app is missing Bluetooth permission. Grant it in your device settings, then retry."**
2. **Target** — *"Does the target you're troubleshooting appear here?"* lists every target in sight (name, model, **"S/N "**). Tap yours. If it is missing, tap **"No, it's not here"**: the page reads **"Please turn on the target"** — *"If the target won't turn on or charge, or if it's switched on right next to your device but still doesn't appear in the list, please contact us for product support."* Should the chosen target vanish later, the page asks you to pick it again.
3. **Checks** — four checks in order, each gating the next, folding to **"4 / 4"**:
 - **"Target signal is healthy"** — the target must have been heard within the last 4 seconds with a signal of at least -85 dBm. Failing: *"The target's signal looks weak. Make sure your device isn't lying flat on the table — that can improve the connection. If the signal stays weak, send us a report so we can investigate."* with a **"Send a report"** button: it sends the target's technical state (versions, battery, temperatures, link quality, acquisition settings — no personal data) to Fastmark and reads **"Report sent — thank you, we will investigate."**;
 - **"Target is available"** — failing: *"The target is connected to another device. Disconnect it there, then retry."*;
 - **"Target is not busy"** — failing: *"This target is still running a series even though it reports itself as free — the connection was likely dropped. Please switch the target off and on, then retry."*;
 - **"Target is connected"** — the app connects to the target itself. Failing: *"Couldn't connect to the target. Move closer, make sure it's powered on, and retry."*
4. **Detection** — *"Your target is detected and available. Do you have an issue with shot detection or shot location?"* **"No"** ends the procedure: **"Everything looks fine."** — *"Have another question about the app or anything else?"* — with an **"Open the forum"** button. **"Yes"** folds to *"issue reported"* and continues.
5. **Setup** — *"Does your setup respect this checklist?"* lists the five points of §11.1 (sensors clear, consumables, 50 cm clearance, no direct sun, subsonic projectiles). **"No"**: *"Adjust your setup so it matches the checklist, then use your target again. If the problem is still there with a correct setup, come back and start the troubleshooting."* **"Yes"** folds to *"matches the checklist"*.
6. **Troubleshooting series** — *"You can shoot a troubleshooting series to help us investigate"*: *"You fire 10 shots with no time limit, and the app records the raw acoustic signals for each one so the detection problem can be diagnosed and sent to support."* and *"Install the target as you would for normal shooting."* The button reads **"You need to connect to a user account"** while signed out (sign in first — §4.3), **"You need an internet connection"** while offline, and otherwise **"I'm ready to shoot"**:
 - the app creates a **"Troubleshooting"** session — 10 shots, no time limit — on the chosen target and starts it. The series screen shows no target face, only *"Fire 10 shots, then stop the series and go back to*

the Help page to finish." and the button **"I've finished — stop and go back"**, which stops the series without confirmation and returns to the Help page;

- back on the page: *"What would you like to do with this run?"* — *"Add a photo of the target taken with your phone, so we can compare your recorded series against the real impacts."* **"Add a photo"** opens the camera and attaches the photo (*"Your photo was added. We'll get back to you soon."*; *"Couldn't upload the photo. Please try again."* on failure); **"Send data"** sends the run as recorded. Either ends with **"Thank you"** — *"We received your troubleshooting series and will get back to you soon."* — and a **"Leave"** button. **"Cancel"** discards the run (*"Troubleshooting report was not sent."*, with **"Retry"**);
- if no shot was detected: *"No shot was detected during the series. Please retry."* with **"Retry"**, which starts a fresh run.

The troubleshooting session is kept for Fastmark support only: it does not appear in your events, nor in your statistics.

12. Challenges

Challenges are community competitions published by Fastmark: an official format to shoot, open for a period, with a public leaderboard per discipline. Anyone can browse them; playing needs an account and a username.

12.1 Finding the challenges

The menu's **"Challenges"** entry (gold cup icon, with a **"New"** badge) opens the challenges page. The entry is shown only while at least one challenge is open to you; when none is, it is absent from the menu — and so are the closed boards.

The page lists one card per challenge, those closing last first:

- the challenge's icon and **title**;
- **"Open until "** while it is open, **"Ended "** once closed — the date is the closing day; the exact closing moment is set by Fastmark;
- a gold line when you lead a board: **"You lead "** or **"You lead {} disciplines"**; once closed, **"Won by "** (with the winning score for a single-discipline challenge);
- an **"OPEN"** chip while the challenge is open — gold when you lead, teal otherwise.

A challenge with a single discipline opens straight on its leaderboard (§12.3); one with several opens on its overview (§12.2). With nothing published, the page reads **"No challenge at the moment. Come back soon!"**.

While you cannot take part yet, a gold banner at the top reads **"Log in and set a username to participate"** — tap it to reach the User page.

12.2 The challenge overview

The overview opens with the challenge's title and its **"Open until "** / **"Ended"** date, an introduction, and two facts:

- who may play — **"Open to everyone"**, or **"Restricted — invited shooters only"** (a restricted challenge is only listed for, and only ranks, the accounts Fastmark has invited; there is no code to join);
- the attempt rule — **"Unlimited attempts, best score counts"**, **"{} attempts, best score counts"** or **"One attempt only"**.

Below, one tile per discipline of the challenge, with its pictogram and name (and a variant subtitle — caliber, series time or stance — when the same discipline appears in several variants), and a three-seat mini board: the first two, then the third — or your own row, in teal, when you rank lower. The leader's row is gold. Tap a tile for its leaderboard.

12.3 The leaderboard

The leaderboard page is titled **" - Leaderboard"**. A podium shows the first three (gold, teal, grey) with their names and scores; under it, the full standings — one row per contestant with the rank, the username, the score and **"Attempts: {}"**. From the fourth rank down, your own row adds **"{} pts to the podium"**: the points

separating you from third place. Your row is edged in teal, the leader's in gold. Tapping a row opens that contestant's best session — read-only for anyone else's. An empty board reads **"No results yet — be the first to play!"**.

12.4 Taking part

Playing requires being **signed in** (chapter 4) with a **username of your own** — the default name is refused, because the username is what the leaderboard shows to everyone. Pressing play without them opens **"Participation requires an account"** — *"Log in and choose a username — it will appear on the public leaderboard."* — with an **"Open my account"** button that takes you to the User page.

While the challenge is open, the leaderboard page carries a **"Play"** button:

1. **"Play"** creates a new session from the challenge's official template, in a dedicated event bearing the challenge's name, and launches it exactly like a session of your own (§5.3): a single series starts at once on your target; a match opens its session page where the series are shot in order. The usual target requirements apply.
2. An attempt you leave unfinished is not ranked; the button then reads **"Continue"** and reopens it — you can also reach it from your home screen, where the challenge event appears as a lavender tile with a cup badge (§1.4). Its sessions cannot be swiped away.
3. When the attempt rule limits the attempts, the button is disabled once you have completed that many — only your **first** completed attempts count, even if a later one scores better.

Your entry is the **best total** of your counted attempts — all scoring series summed, sighting series excluded, malfunction re-shoots folded in as in any match (§7.9). Standings are sorted by total; equal totals share their position. Boards are computed from the data synchronized to your device, so they refresh when the page is opened and the device is online; the attempt itself needs no connection, like any session.

Challenge attempts are ordinary sessions of your account: they appear in your history under the challenge's event and count in your statistics (chapter 8).