

# SG TIMER 2

USER MANUAL



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## SMART SHOOTING STARTS NOW

You've chosen SG Timer 2. Our mission is to equip you with the most capable smart timer on the market—a professional tool designed to elevate your shooting performance through advanced features and data.

This manual is your shortcut to mastering the device. To make your setup even smoother, you can find all SG Timer 2 video instructions on our YouTube channel.

Simply scan this QR code for instant access to our full library of tutorials:



**Thank you for choosing Shooters Global.**

*– The SG Team*

## WHAT'S IN THE BOX



In the box with SG Timer you will find:

- U-Grip — a magnetic mount for the timer.

It clips onto your belt and holds your timer securely during your training. The new U-Grip for SG Timer 2 utilizes strong magnets and positioning hardware, resisting side impacts.



Additional mounting holes allow you to transfer the belt clip from U-Grip to the Timer itself, and attach it directly to the belt.

- USB-C cable for charging.

A full charge of the timer lasts for 100 hours of active operation, so you do not need to take a power bank or spare batteries with you.

- Lanyard.
- Quick start guide.
- SG Timer 2.

## BASIC ELEMENTS

Here are the basic elements of an SG Timer.



The screen located on the front has a resolution of 172 pixels per inch. Automatic backlight is controlled by the light sensor above the screen. The timer is equipped with an accelerometer, so the interface will adjust to timer orientation. You can turn it off in settings.

Below is a shot sensor.

On the left side you can see three buttons: up and down buttons for menu navigation and a middle button. The same button in the middle is

used to turn on the timer. To do this, you need to squeeze it and hold it for a few seconds.

The charging port for Type-C cable is right here along with the lanyard hook.

The buzzer is located on top of the timer. On the back side is the wireless charger. You can use any Qi charger.



The timer is equipped with magnets to attach to the U-Grip or to any metal surface.



Additional mounting holes allow you to transfer the belt clip from U-Grip to the Timer itself, and attach it directly to the belt. The body protects the timer from dust and water.

## CHARGING SG TIMER

To charge SG Timer or SG Timer 2, use the included cable. Connect it to any 5V USB output, like your laptop or phone charger.

SG Timer is also equipped with wireless Qi charging. You can use any Qi charger.



You will see an indication in the top right corner. If the timer is turned off, a charging indication will appear on the screen.

## BASIC NAVIGATION

To turn on the timer, press and hold the button in the middle. To turn it off, go to the main menu, select “power off” and press the middle button. Additionally the timer will turn off automatically after 30 minutes of standby.

The top and bottom buttons can be used to switch up and down to find the item you need. To switch between modes select the upper menu and click the middle button. Select the mode and click the middle button. Or press the “up” button on the main screen to scroll through the modes.



You can also switch between presets in “Free Shooting” by pressing the Down button.

Now let’s have a look at some basic functions of the timer.

### **Session start/stop**

First, choose the right mode in the upper menu: “Free Shooting”, “Shooting Drills” and “Dry Fire Drills” in the menu and begin shooting after the beep.

You can end the session by selecting the “Back” menu (pressing “Up” button).



During the session, you can immediately start another one by pressing “Start” once again.

Thus, you can start new sessions instantly with just one button. The results of all previous sessions will be available in the “History” tab or in the “Activity” tab in the Drills app.

## Results

After stopping the session, you will see the results. The last shot will be displayed in large numbers in the top part of the screen.

Indications on the left side are shot times, on the right — split time between the shots. The best split will be highlighted.



In the bottom are the first shot and the best split — always fixed in one place. You can scroll the results to view individual data for each shot. With several par times, you can scroll down, up and sideways. To select a set, press the middle button. If your timer is connected to your phone, the results will also be saved in the Drills app. If you train without the application, all the results will be uploaded to the app later, as soon as you connect the timer to the application.

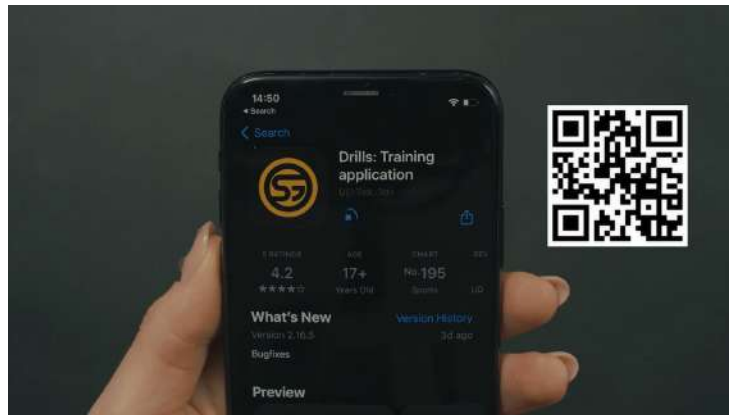


## History

Results of all sessions are stored in the “History” tab. To view detailed information, select the session and press “Details”.

## FIRST SETUP

This is how to set up your shot timer for the first use. Turn the timer on by pressing the middle button for 3 seconds. Download the Drills app on Apple App Store or Google Play market. You may search for “Drills” or scan this QR code.



Create an account in the app. The account will store all settings, presets, results, drills, and video content in the cloud, so it will be saved if you change the smartphone or the timer.



### Prepare Your Smartphone:

- Turn on Bluetooth on your smartphone
- Grant Location and Bluetooth permissions
- Open the Drills app

### Turn On the Timer and Enable Pairing Mode:



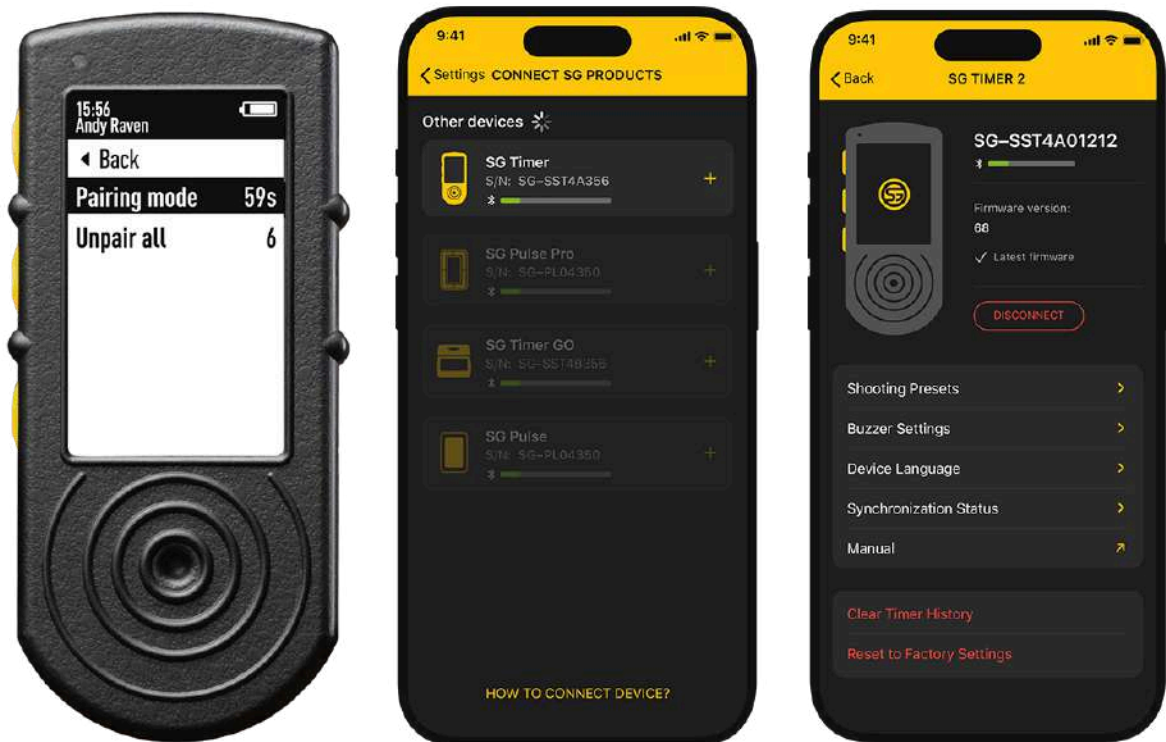
On the device, go to Settings → Bluetooth.  
Select Pairing mode to start the 60-second connection period.



In the Drills App, select your device from the list. Confirm the pairing request on both the app and the device screen.  
SG Timer successfully connected.

### Connecting to Another Smartphone:

If you need to connect the timer to another smartphone, enable Pairing mode on the device and repeat the pairing process.  
SG Timer can remember up to 8 smartphones.



The SG Timer, previously paired with smartphones, will automatically connect to them when the Drills App is opened (Pairing mode is not required).

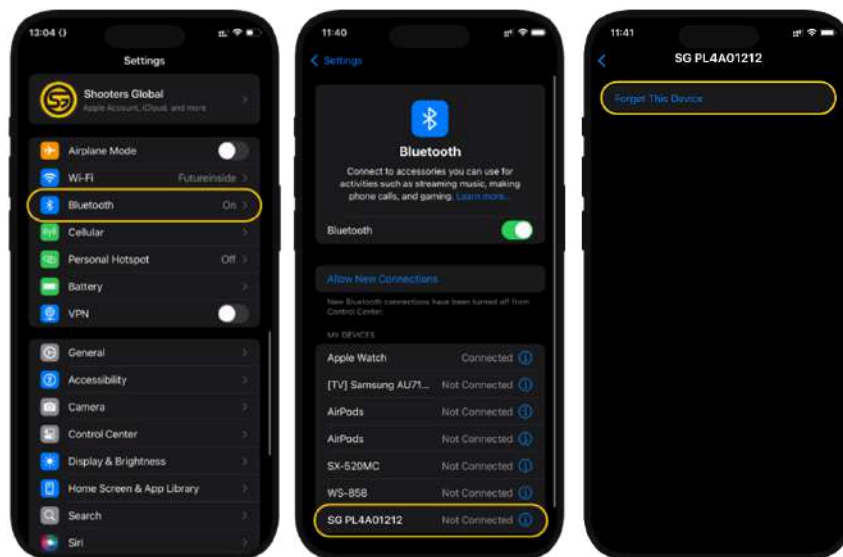
Connect with the new smartphone.

On SG Timer you can also see how many smartphones are currently paired with the device in the device menu.



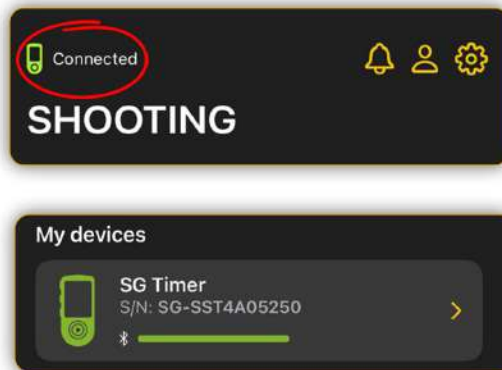
If you used the Unpair All option on the device or cannot connect:

1. Go to your smartphone's system Bluetooth settings;
2. Find the timer in the list of devices;
3. Select Forget This Device;
4. Enable Pairing Mode on the timer;
5. Try connecting again in the Drills app.

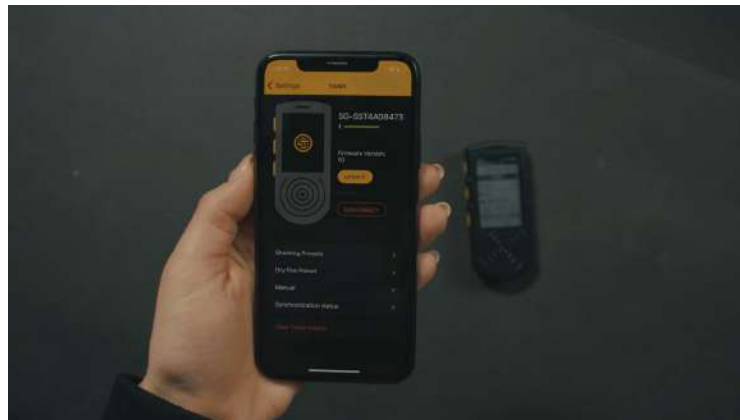


## Update timer firmware

Click on the timer icon in the top left corner. If the timer doesn't show up, ensure the timer is turned on, Bluetooth is active in both timer and phone settings, and the app has permission to access Bluetooth.



Tap on the timer menu in the app and tap “Update”. If the update is available, tap “Update” once again and follow the instructions on the screen. Don't disconnect the timer during the update.



Now, your timer is connected to your Drills app and ready for use!  
To turn off the timer, choose Power Off. Alternatively, it will automatically turn off after 30 minutes of standby.

## SYSTEM SETTINGS

Here we will tell you about the system settings of SG Timer / SG Timer 2: Bluetooth, Rotation, Timer and date, Language, History clear, Reset, and About.

### Bluetooth

The timer is equipped with Bluetooth to connect to the Drills app. The timer is also compatible with Practiscore 2, Practiscore Log, and IPSC ESS (Electronic Scoring System).

We recommend keeping Bluetooth enabled on your smartphone at all times for a seamless training experience with the app.

If you don't want the timer to be accessible by any devices to connect, turn the Bluetooth off in the timer settings.

### Rotation

SG Timers with U-Grip are equipped with an accelerometer, so the interface rotates upside down along with the timer. You can turn this feature off or set the interface position manually in "Settings" — "Rotation".



### **Time and date**

Time on the timer will be synced with the time on your smartphone after connecting to the Drills app.

You can set time and date manually on the timer in “Settings” — “Date/time”. Select “Date” or “Time”, press the Middle button, and adjust the parameter with Up and Down buttons and press the Middle button to confirm.



You can also change the time format in this menu. The available formats include American and European standards.

### **Language**

The timer currently supports English, French, Ukrainian, Spanish, German, Portuguese (Brazil), Italian and Polish languages.

### **History clear**

If you want to clear the history, navigate to “History clear” and confirm. This feature may be helpful if you want to start over from scratch or just resell the timer.

Otherwise, we don't recommend clearing the history.

Please note that history does not clear timer settings. If you want to clear the settings, you must also do a full reset of the timer.



### **Reset**

If you want to reset all settings, select “Reset” and confirm. However, the reset does not clear the timer history. This is done by the function described earlier.



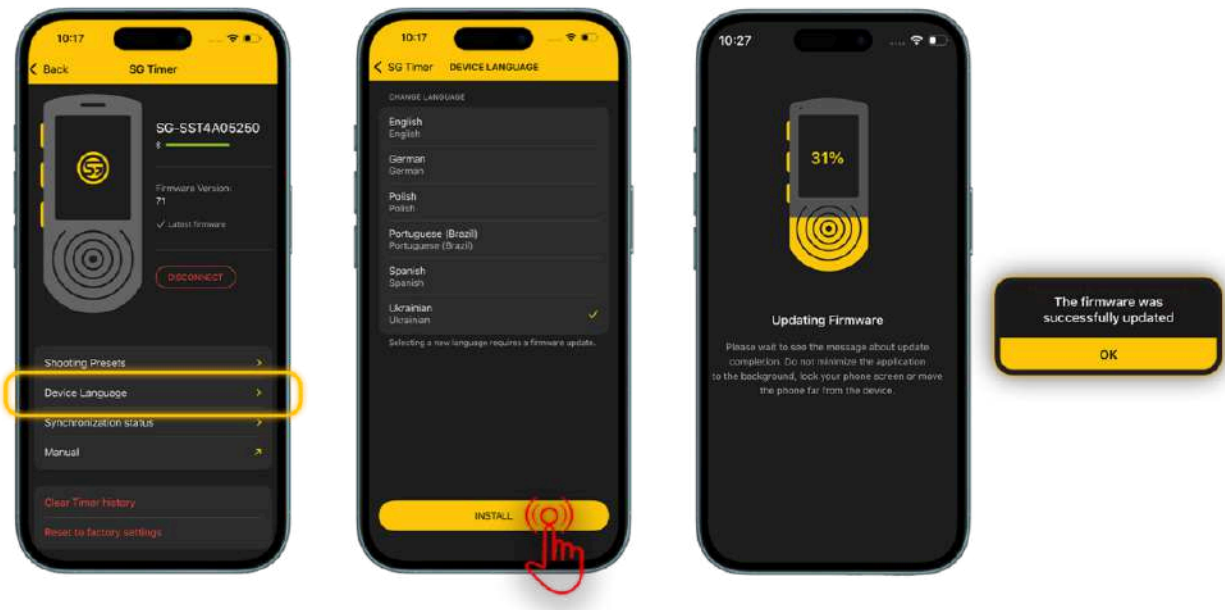
### **About**

In the “About” section you can see the device details, namely: regulatory labels, model, SW Version, API Version and serial number.

## CHANGING LANGUAGE

To change the language on your timer, please follow these steps:

- Connect your timer to the Drills App;
- Navigate to My Devices > SG Timer;
- Select the Device Language menu, choose your preferred language, and tap Install.
- Wait for the firmware update to complete on the timer.



The timer currently supports English, Spanish, Ukrainian, German, Portuguese (Brazil), Polish and Italian languages.

The Drills app also supports English, Spanish, Ukrainian, German, Portuguese (Brazil), Polish and Italian languages. You can choose your preferred app language independently of your system settings.

Simply go to Settings in the Drills app, select Language, and choose the one you need.

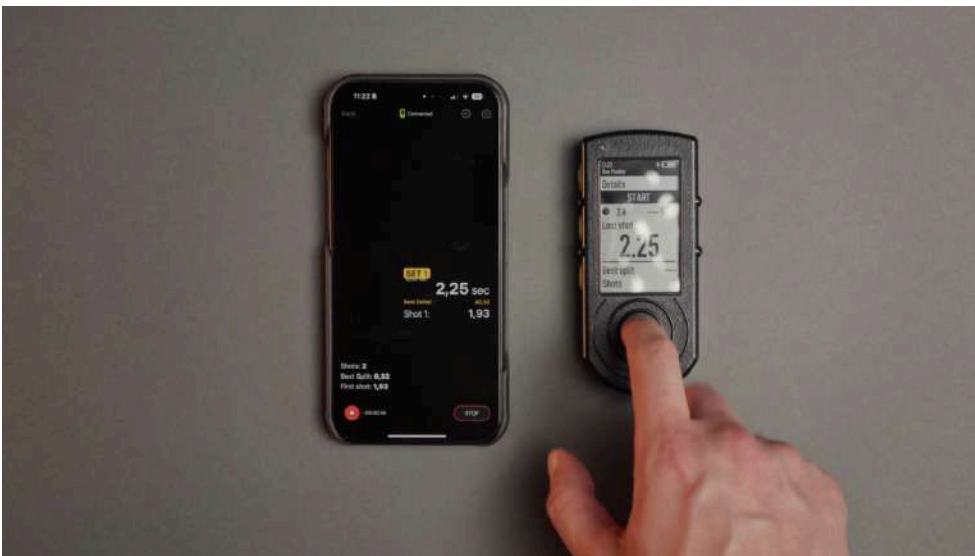
## FREE SHOOTING

Free Shooting is the most simple and quick way to start training with SG Timer, in case you don't need to track your performance in detail over a long period of time.



It allows you to set up simple par times, or just use the timer in a traditional way, where all you need is your shot times.

Your shooting history of shot times and splits will be saved to the timer or to the Drills app Activity, and you can also record video with shot overlay here.



On the main screen you will see the start button, preset menu, buzzer volume, sensor sensitivity, spy mode icon, delay before start, time limit, shot limit, pause between sets and number of sets.

You can modify all settings either on the timer, or in the Drills mobile app.



Settings are divided into 2 categories — sensor setup, where you can control everything related to sensor and buzzer. And programming settings, which control the program the timer will use when giving signals.



All settings are stored in presets. You can add up to 7 custom presets. They can be added, deleted and edited on the SG Timer or in the Drills app. Preset names can be changed only in the Drills app.



## Shooting with SG Timer / SG Timer 2

Select the “Free Shooting” mode. Then go to presets and a preset you want to use. You can modify the existing preset as well. Note that it will overwrite settings in the preset.

Press the “Start” button and begin shooting. To exit Shooting mode, press the upper button.

If you want to start another session immediately, press Start again without exiting Shooting mode.

When you exit the shooting mode, you will be presented with a shot list, which you can scroll through.

If you have multiple sets, they all will be displayed on one screen. Use Up and Down buttons to scroll through shots. To scroll through the sets, select the Set menu and press the middle button.



All Free Shooting sessions are also saved in History on the SG Timer.



## DRILLS - SHOOTING

Shooting Drills menu allows you to create custom shooting drills and monitor the progress of this specific drill over time via extended statistics and graphs in the Drills app.



On the home screen you will see:

- Selected Shooting drill;
- Selected Gun type;
- Buzzer volume;
- Sensor sensitivity;
- Echo filter.



Below is timer Programming settings (PAR time setup):

- Delay before start.
- Total time of the Drill including all sets and pause time intervals.
- Number of sets.
- Shots is the total number of rounds set in all sets.
- Number of targets.

### Creating a drill

You can create a drill on the SG Timer or in the Drills app.



To create a new Drill select “add more”.

The Drill will get a default name. To change in, use the Drills app. The name will change on the timer too.

⚠️ If you delete the Drill on the timer, it will be deleted in the timer but will stay in the app. If you delete the drill in the app, it will delete both in the app and in the timer. Any settings you change in the timer or the app will be updated both in the timer and the app, regardless of where you change them. Timer and Drills app have 2 way synchronization.

Select your Gun Type. Gun type is a combination of sensor settings like sensitivity, volume and echo filter.



Gun types can be created only in the Drills app. On SG Timer you can only modify existing ones. Note that it will overwrite settings in this gun type including in the Drills app. Choose the delay between instant, random or custom.



## PAR setup

PAR setup is the program the timer will follow.

It's basically the same sets, shots and time limits as in Free Shooting, but now you can program each set individually, allowing you to create complex shooting courses.

Before you could only set a shot and time limit, and program the timer to repeat this sequence. You now have the flexibility to program each individual string to your liking.

For example:

Set 1

Time limit - 5 sec

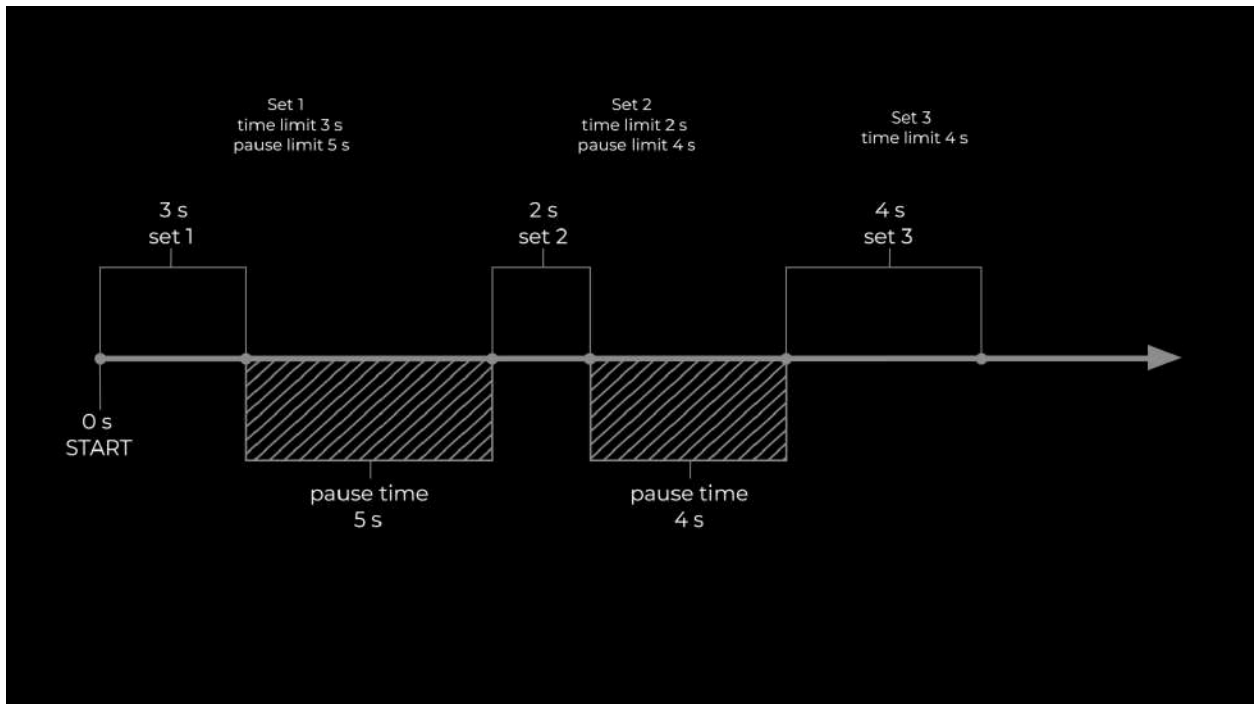
Shots limit - 6

Pause time - 10 sec

Set 2

Time limit - 3 sec

Shots limit - 4



The timer will give a start signal and count down 5 sec for you to shoot. If you make 6 shots under 5 sec, the timer will automatically give an end signal and start counting down 10 sec for you to reset (it will not capture shots). Then it will give a start signal again and count down 3 sec. After 3 sec it will give an end signal and finish the drill, assuming there are no more sets.

This will count as 1 shooting session.

For example if you set a 5 sec time limit and 6 shots and don't make all shots in time, the timer will give an end signal after 5 sec, but will continue to listen for shots for 2 more seconds for penalty shots. The set will not end until you fire all shots or wait for 2 seconds after the last shot.

If you haven't set the shot limit, the timer will continue capturing shots as long as you continue shooting.



Always set either a shot or time limit in all sets. Only the last set may be set to infinity, in this case you can stop the timer manually and it will end the Drill.

## Targets

Choose the targets you want to shoot. If you're planning to shoot one target multiple times, count it as one target.



⚠️ If you don't select the targets, the Drill will be incomplete and will not track your accuracy and hit factor in the app.

### Shooting and viewing results

After you finish shooting you will see the scoresheet screen where you can mark hits. If you don't see this screen, you must have not selected the targets when creating the drill.

Mark the corresponding hits with a middle button. To reset the number, press and hold the middle button.

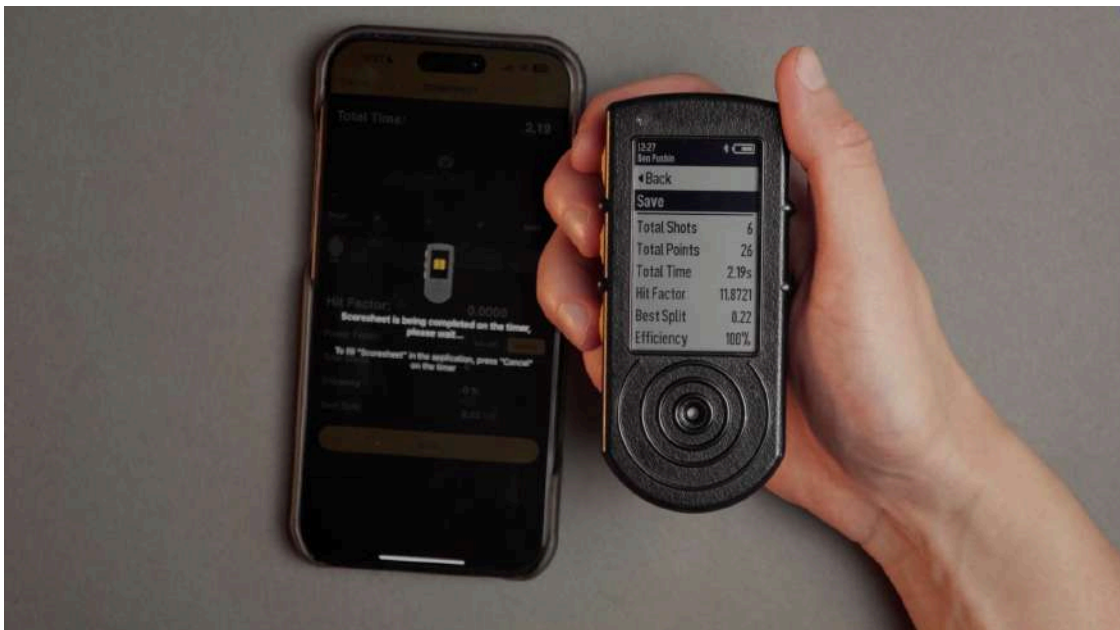
You can change the Power factor between Minor or Major, it will affect the way timer calculates Hit factor.



To review the shot list, select the bullets icon.



Scroll to “Summary” and select it, the timer will show comprehensive session results. Select “Save” to end the drill.



Your results will be saved in “History” and sent to the Drills app once you connect the timer to it.



⚠ It is not necessary to have the Timer always connected to the Drills app.

All your shooting history and changes you made to drills will appear in the Drills app once you connect them.

## DRILLS - DRY FIRE

Dry fire Drills menu allows you to create custom dry fire drills and monitor the progress of this specific drill over time via extended statistics and graphs in the Drills app thanks to Smart mode. Or train with regular PAR time signals in classic dry fire mode.

On the home screen you will see:

- Selected Dry fire drill;
- Selected Gun type;
- Buzzer volume;
- Sensor sensitivity;
- Waiting time.



Below is Dry fire mode - Classic or Smart;  
Timer Programming settings (PAR time setup);  
Delay before start;  
Total time - Sum of all time limit and pause intervals;  
Pause time - reset time between repetitions;  
Reps - number of repetitions the timer will make.

## Creating a drill

You can create a drill on the SG Timer or in the Drills app.



To create a new Drill select “Add more”.

The Drill will get a default name. To change in, use the Drills app. The name will change on the timer too.

**!** If you delete the Drill on the timer, it will be deleted in the timer but will stay in the app. If you delete the drill in the app, it will delete both in the app and in the timer. Any settings you change in the timer or the app will be updated both in the timer and the app, regardless of where you change them. Timer and Drills app have 2 way synchronization.

Select your Gun Type. Gun type is a combination of sensor settings like sensitivity, volume and echo filter.

Gun types can be created only in the Drills app. On SG Timer you can only modify existing ones. Note that it will overwrite settings in this gun type including in the Drills app.

Choose the delay between instant, random or custom.

## Classic vs Smart Mode and PAR

### Classic mode

In Classic mode the timer will just cycle in repetitive PAR mode without registering any sounds.

For example:

Time limit - 3 sec;

Pause time - 8 sec;

Delay - random;

Repetitions - 5.



The timer will give a start signal, count down 3 seconds and give an end signal when the time is up. Then it will count down 8 seconds to give the time to reset, and start counting down random delay interval (1-4 sec) to make the start signal unexpected for you. Then it will give a start signal again and repeat the sequence 4 more times.

⚠ In this case you will not record your actual dry fire time. You will need to rely on your own perception to decide whether you made it before the beep or not, which is not very reliable.

⚠ Sessions trained in classic mode will not appear in drill stats in the app, as there's nothing to track.



### Smart mode

In Smart mode, the timer will register the actual sound of a hammer fall, or any other short and distinct sound you want to capture in your training.

During practicing, the timer may pick up other unwanted sounds, like reload, slide, gear rattle, etc. To avoid this, use the “Waiting time” setting in “Sensor setup”. During the practice, after completing the final action (pulling the trigger), you need to wait the “Waiting time” period without making any noises until you hear the end signal.



For example:

Time limit - 3 sec

Pause time - 8 sec

Waiting time - 2 sec

Delay - random

Repetitions - 5

The timer will give a start signal and count down 3 seconds.

Lets say you pull the trigger at 4.3 sec.

It will not give you an end signal after 3 sec. It will give a confirmation signal only once the Waiting time interval passes after the last sound you made. In this case - at 4.3 sec, and it will show that you were 1.3 sec late.



To learn how Waiting time works, continue reading this manual.

After the timer gives you a confirmation signal, it will count down 8 seconds to give the time to reset, and start counting down random delay interval (1-4 sec) to make the start signal unexpected for you. Then it will give a start signal again and repeat the sequence 4 more times.

This allows you to see the actual time it took you to pull the trigger, reload, etc., instead of guessing whether you pulled the trigger before, during or after the end signal in Classic mode.

⚠ During Smart dry fire, it is recommended to keep the timer on the belt facing the weapon or on a table right under the weapon. You may need to test and adjust the sensitivity to your trigger. Try to look at the timer display when you pull the trigger to make sure the timer registers the sound.

⚠ You may change the mode during your training, but sessions made in classic mode will not appear in drill stats in the app, as there's nothing to track.

### **Waiting time**

“Waiting time” is a safe zone period. During dry fire there are many extraneous sounds like reload, slide or gear rattle, which may be perceived by the timer as a hammer fall. Since hammer fall is very similar to all those other sounds in terms of loudness and sound, it makes it impossible to distinguish electronically.

Therefore, the timer counts down the time from the last sound it registered, and if it doesn't register any more sounds during this period, it acknowledges this sound as a hammer fall and ends the set.

For example, let's take a reload drill. Waiting time is set to 1 second.

The mag drops at 0.5 sec — timer registers it, but does not acknowledge it as a finish yet, starts counting 1 second.

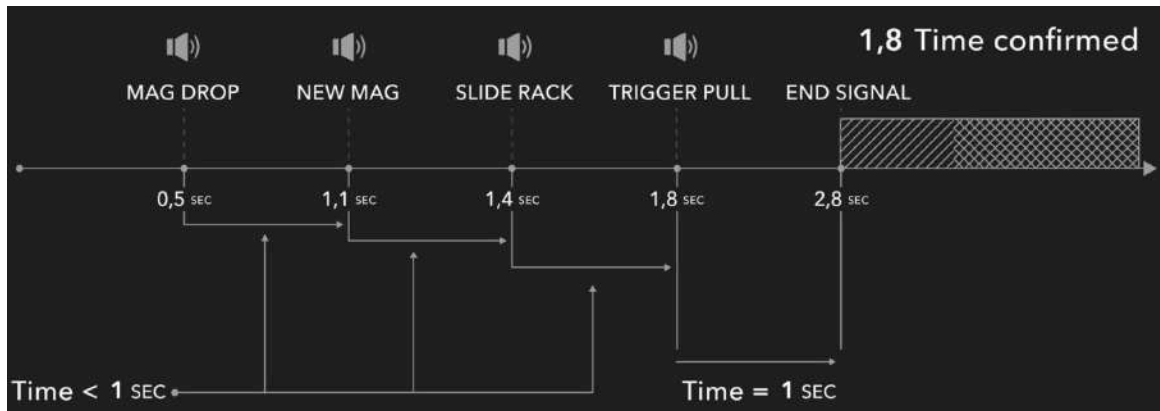
At 1.1 sec you insert a new mag. Timer registers the sound, but doesn't acknowledge it, because it's been less than 1 second from the last sound. It starts counting 1 second again.

1.4 sec — slide racking sound. Same as with the previous sound.

At 1.8 seconds you pull the trigger and freeze for 1 second after that. Timer registers this sound and starts counting 1 second. And since you didn't make any more sounds after the trigger pull it acknowledges this sound and gives an end signal.

This way you don't have a pile of unusable timecodes — only the actual time of execution.

You can also program the timer to your needs by adjusting the waiting time.



### Dry firing and viewing results

During Training in classic mode on the screen you will see:

- Set count;
- Session phase (time limit / pause time / delay);
- Time left in the current phase.



During Training in smart mode on the screen you will see:

- Set count
- Session phase. Mic icon means the time limit is active and the timer is registering sounds. Checkmark means pause time phase - you met the goal. Cross means pause time phase - you didn't meet the goal.
- Sounds captured.
- Time left in the current phase.
- Delta between the goal and the execution time.
- A big number in the center of the screen means the final time confirmed by the timer.




If you dry fired in classic mode, no results will be shown on the timer. The session will be saved in the activity on the timer, if you filmed a video of this session.

If you dry fired in smart mode, after the drill is finished you will see the screen with all your reps. Your execution time will be in the middle and on the right is the delta between your time limit and execution time.



For example if the time limit was 3 sec, and you pulled the trigger in 2.7, the timer will show -0.3.

Your results will be saved in “History” and sent to the Drills app once you connect the timer to it.

 It is not necessary to have the Timer always connected to the Drills app. All your history and changes you made to drills will appear in the Drills app once you connect them.

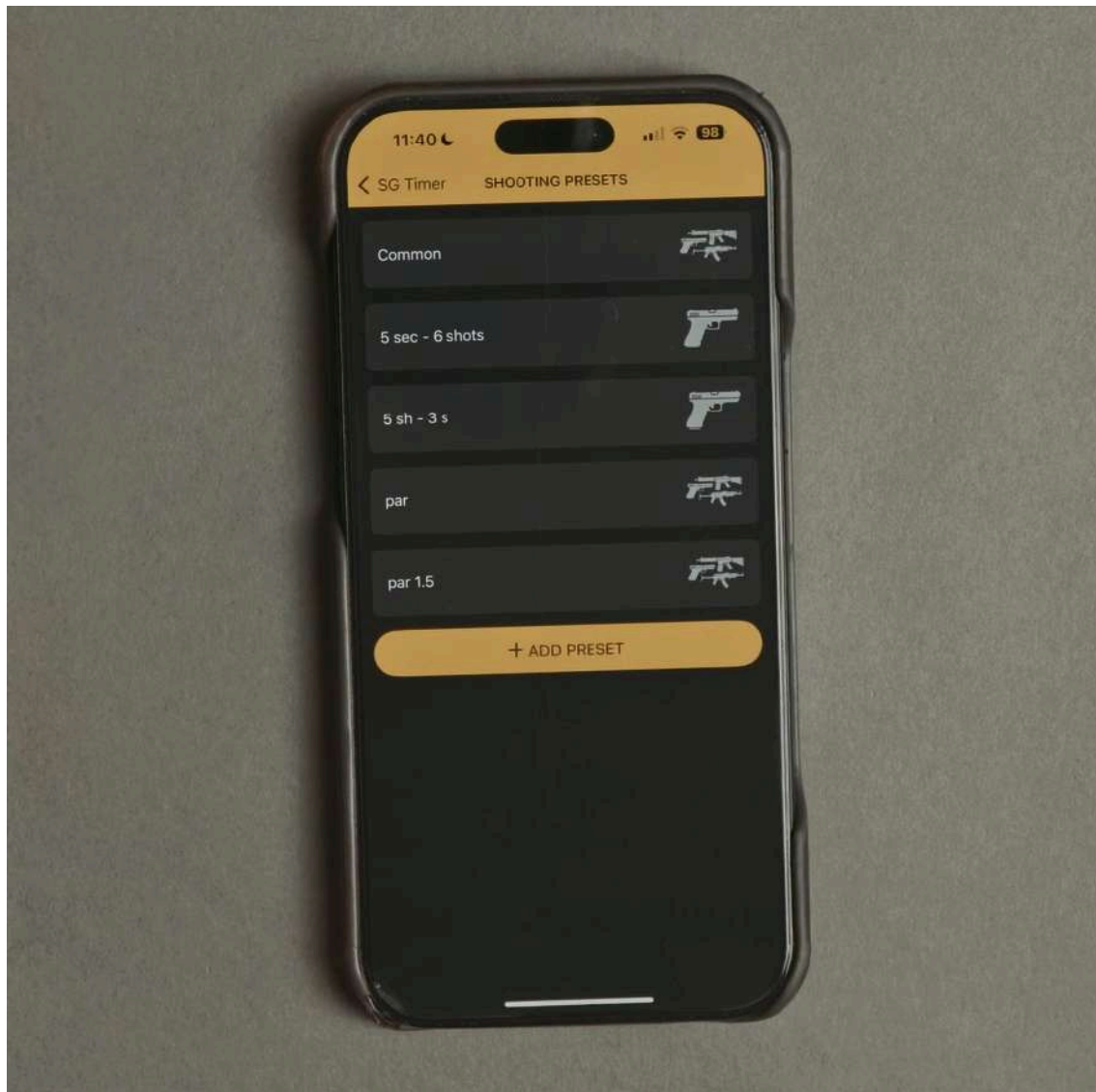
## PRESETS AND GUN TYPES

Both Gun types and Presets are sets of parameters you can save and quickly switch between.

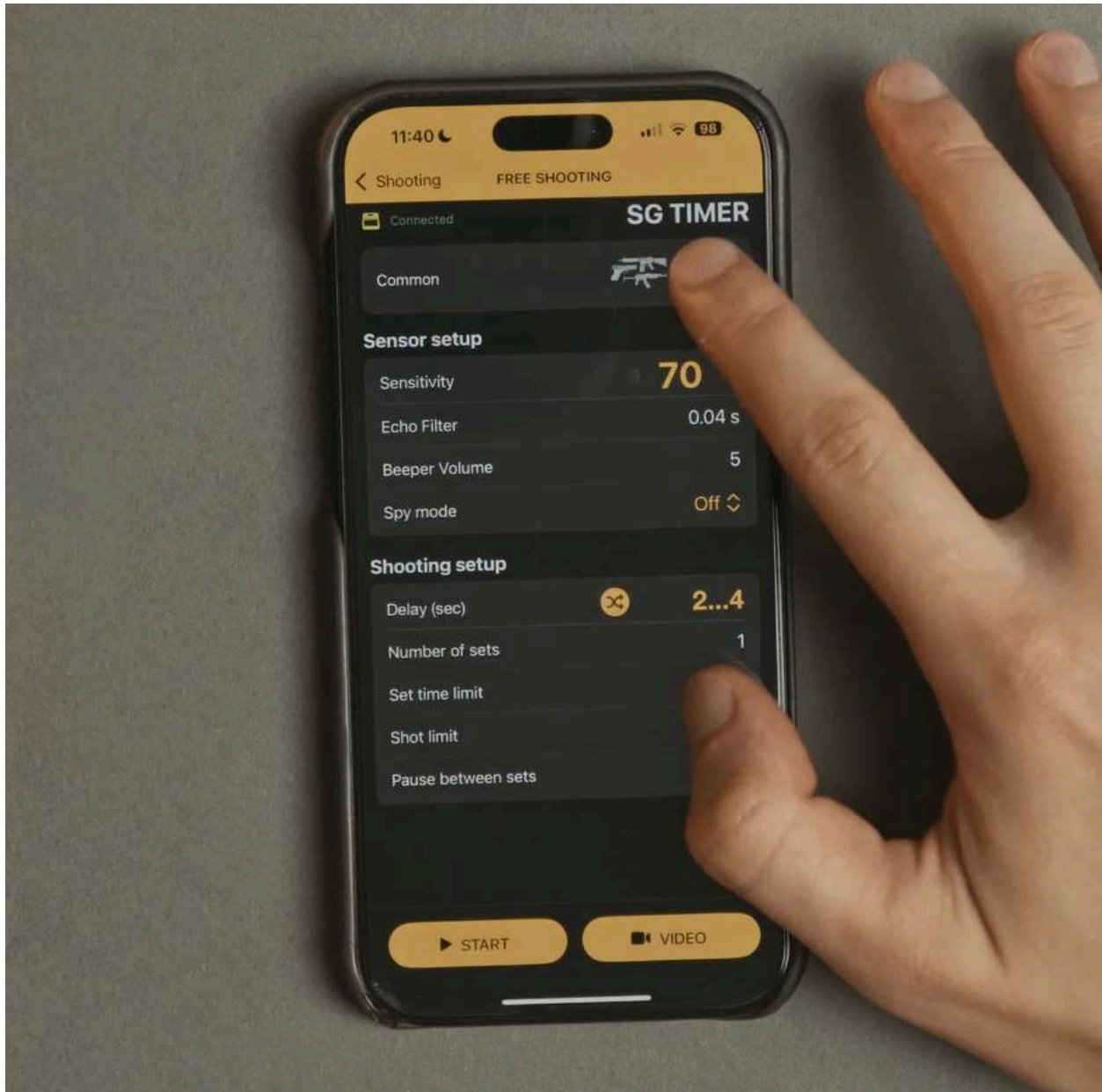
The difference between them is in the purpose they were designed for and number of parameters they store.

### Presets

Presets are used in Free shooting and Quick Stage modes.



They contain your sensor settings (such as sensitivity, Echo filter, volume and Spy mode) and programming settings (PAR), such as Delay, Number of sets, Set time limit, Shot limit and Pause between sets.



On SG Timer you can add new presets or change settings of existing ones.

To do that go to “Free Shooting” mode and select the preset. You cannot change the name of the preset on the timer.

In the Drills app you can add new presets, change settings and names of existing ones.

To access presets in the Drills app, go to the connected timer - Shooting Presets. Or go to Free Shooting and you will immediately see the settings of the selected on top preset.

All changes you make on the timer will appear on the app and vice versa. Timer and Drills app have 2 way synchronization.



No matter where you changed it - in the timer or the app, only the latest changes will be relevant.

## Sensitivity

Sensitivity defines how sensitive the shot sensor is. Decrease the sensitivity if the timer captures unwanted sounds. Increase it if the timer doesn't catch shots.

For example, if you are shooting in an indoor range next to other shooters, but don't want to capture their shots, decrease the sensitivity all the way to 1-5 points.

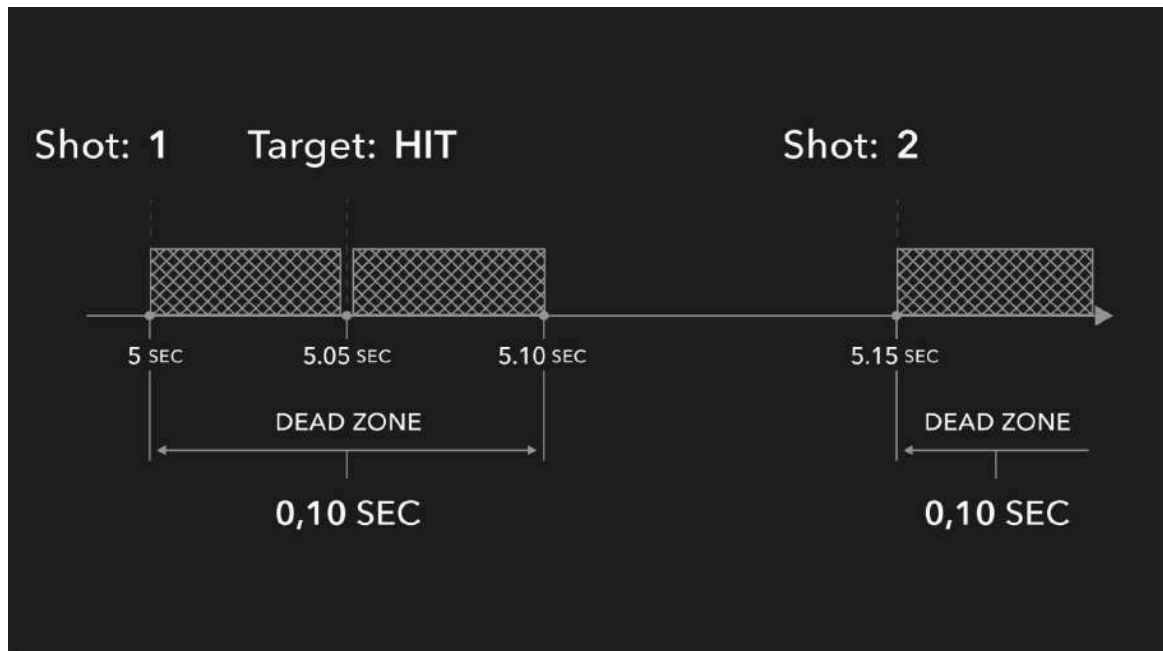


You will have to place the timer either on the belt facing your weapon, or in any other place as close to the weapon as possible, facing it with the sensor.

## Echo Filter

Echo Filter defines the dead zone interval. It is a time frame after the shot, during which the timer will not be registering any new sounds. This eliminates false recognition when shooting steel or in an indoor range with echo.

For instance, you are shooting steel. Echo filter is set up to 0.10 sec. First shot occurs at 5.00 seconds. The bullet hits the steel target at 5.05 sec. Then the second shot occurs at 5.15 seconds. Timer will ignore the sound of the bullet hitting the target, since the interval between these sounds (shot and bullet hit) is only 0.05 sec, which is less than 0.10 echo filter. But it will register the shot at 5.15 and will start counting echo filter interval again.



This setting can also be used to set up the timer in an unusual way. For example, by setting it to 0.4 sec, you can calculate the approximate rate of fire of an automatic weapon.

You can see your RPM on the timer screen while shooting.

## Volume

Volume sets the loudness of the beep. If you are using a smartwatch, it will also vibrate when starting.

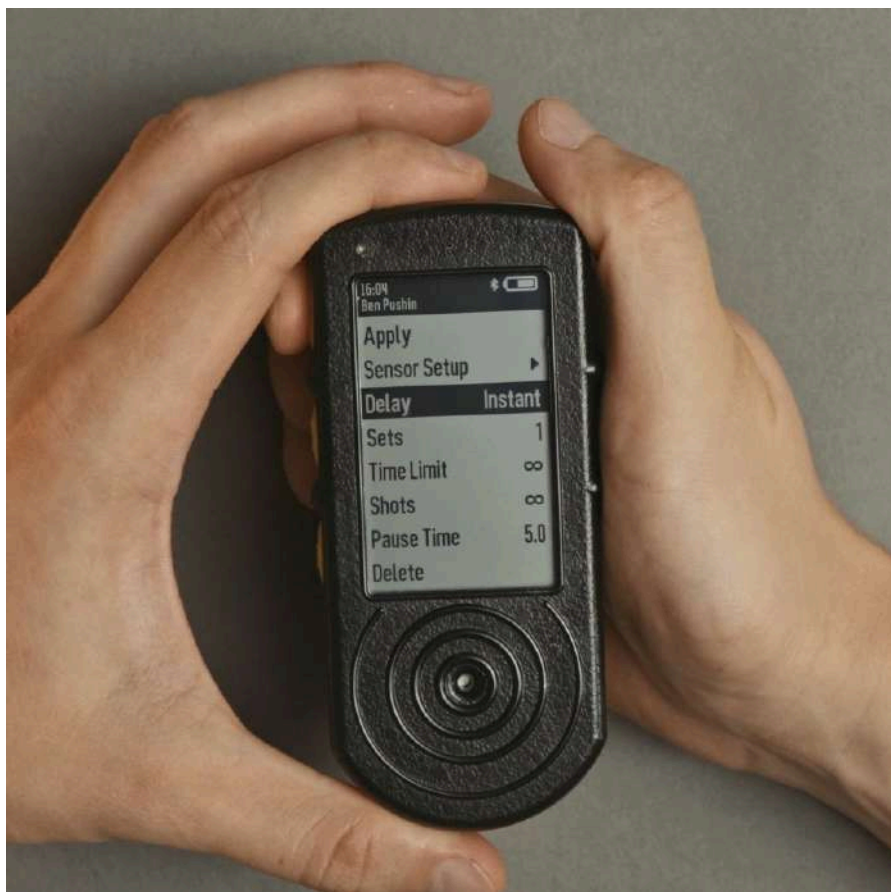
You can also transmit the sound to your Bluetooth ear protection.

## Spy mode

In “Spy mode” the timer will start the session once it hears another timer’s beep, thus syncing with it. The timer itself will not beep in this mode.

## Delay

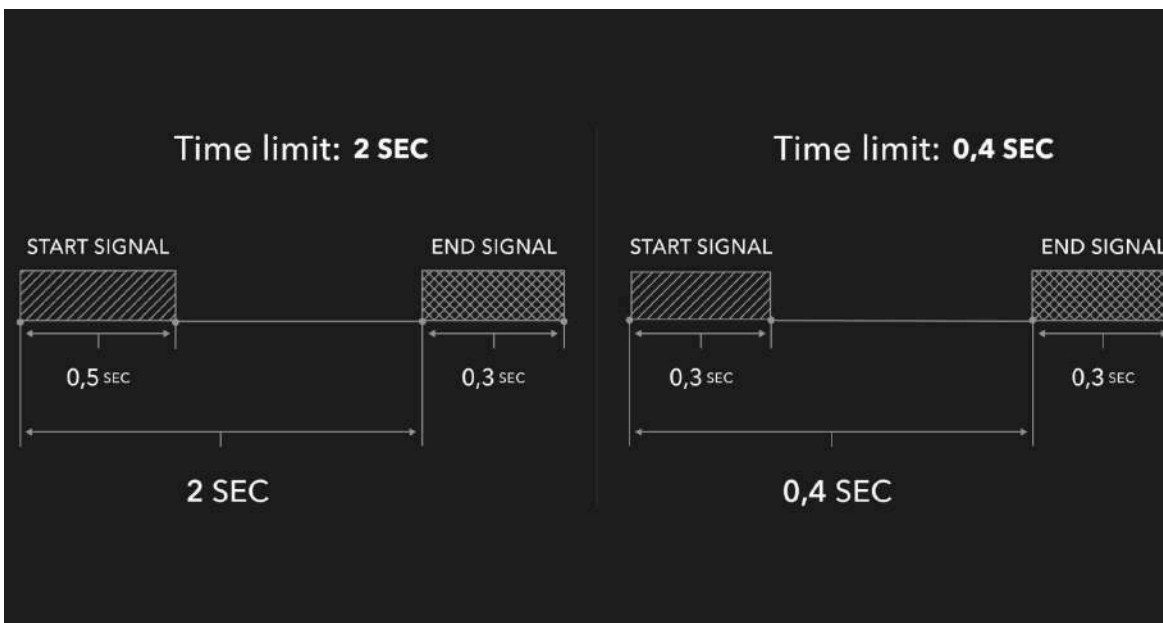
After the “Sensor setup” menu, we can see “Delay”. This parameter defines the delay between the press of a start button and the beep.



By default the delay is random (from 2 to 4 seconds). To make it instant, select the menu and press the “Up” button one time, the indication will change. To set a custom delay, keep pressing the “Up” button. To switch back to random - adjust this parameter with the “Down” button until you reach it.

### Time limit

Time limit is time allotted for a set. Once this time is over, the timer will give an end signal and finish the session, if the number of sets is 1, or start counting the pause time before the next set, if the number of sets is greater than 1.



The duration of the starting beep is 0.5 seconds. But it can depend on the “Time limit” setting.

The minimal time limit you can set up is 0.2 seconds, which is shorter than the beep duration.

The beep duration will decrease if you set the time limit to less than 0.6 seconds. With the 0.5 seconds limit, the beep duration will be 0.4 seconds; if 0.4 — the beep is 0.3.

## Shots

Shot limit means number of shots allowed within one set. After the timer registers all shots set up, the timer will give an end signal and finish the session, if the number of sets is 1, or start counting the pause time before the next set, if the number of sets is greater than 1.

Time limit and shot limit can be used simultaneously. Set will be over once either of the parameters is achieved first.



## Sets

Sets mean the number of PAR times in a session. If the number of sets is set to 1, the timer will end the session based on the “Time limit” and “Shot limit” settings.



If the number of sets is greater than 1, repetitive par mode gets activated. The timer will repeat sets for a set number of times with a pause between each set.

### Pause time

Time of pause between sets, if the number of sets is greater than 1.

## Gun types

Gun type is used in Shooting and Dry fire drills.

They are similar to presets, but they only contain sensor settings, without programming settings.

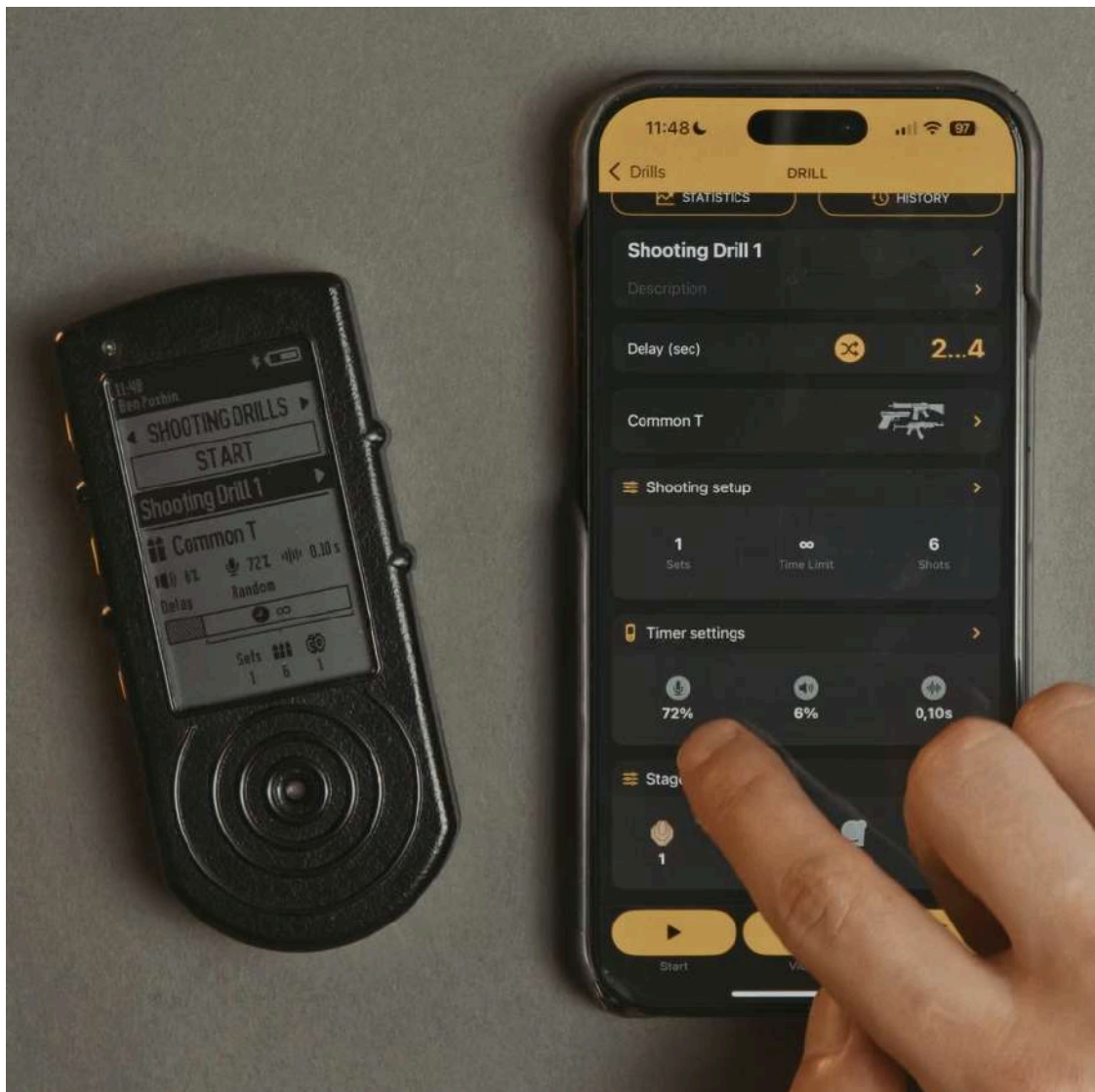


1 Gun type has 2 sets of settings - one for shooting and one for dry fire. It's recommended to setup your Gun types in the Drills app.

On SG Timer you can only change settings of already existing Gun types.

All changes you make on the timer will appear on the app and vice versa. Timer and Drills app have 2 way synchronization.

No matter where you changed it - in the timer or the app, only the latest changes will be relevant.



⚠ If you modify the settings of a Gun Type either in one of the drills on an SG Timer or in the Drills app - these changes will automatically apply to all other Drills where this Gun Type is selected.

### **Shooting gun type settings**

Shooting settings of a gun type on SG Timer are located in “Shooting drills - Selected drill - Selected gun type”

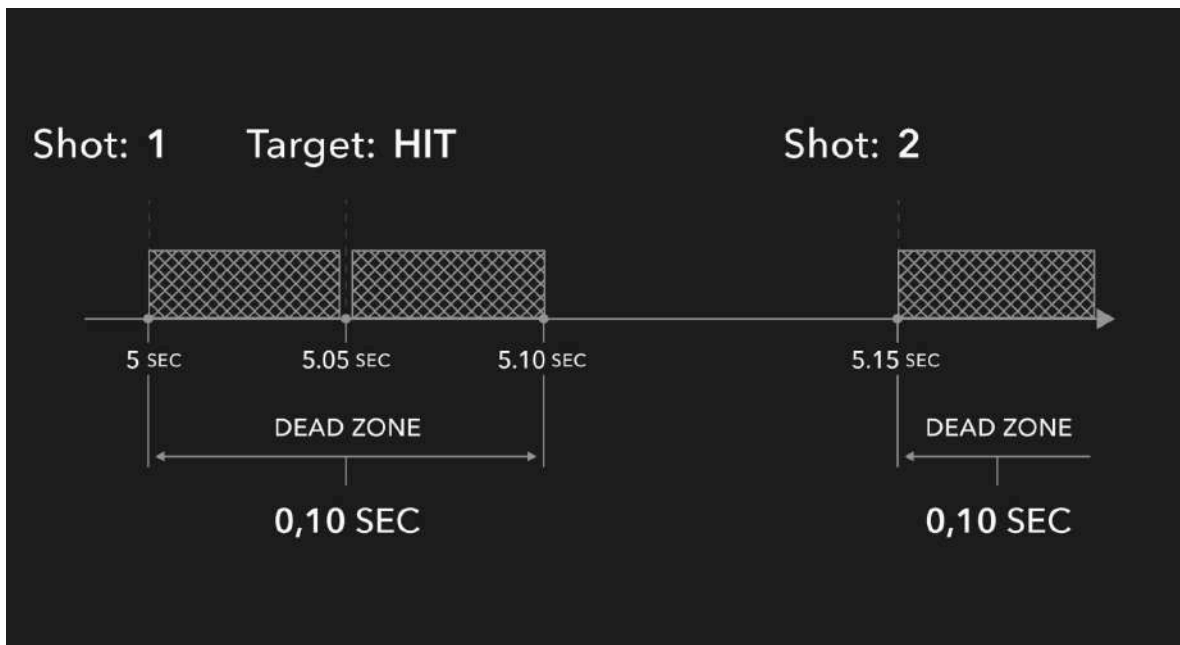
#### **Sensitivity**

Sensitivity defines how sensitive the shot sensor is. Decrease the sensitivity if the timer captures unwanted sounds. Increase it if the timer doesn't catch shots.

For example, if you are shooting in an indoor range next to other shooters, but don't want to capture their shots, decrease the sensitivity all the way to 1-5 points. You will have to place the timer either on the belt facing your weapon, or in any other place as close to the weapon as possible, facing it with the sensor.

#### **Echo Filter**

Echo Filter defines the dead zone interval. It is a time frame after the shot, during which the timer will not be registering any new sounds. This eliminates false recognition when shooting steel or in an indoor range with echo.



For instance, you are shooting steel. Echo filter is set up to 0.10 sec. First shot occurs at 5.00 seconds.

The bullet hits the steel target at 5.05 sec. Then the second shot occurs at 5.15 seconds. Timer will ignore the sound of the bullet hitting the target, since the interval between these sounds (shot and bullet hit) is only 0.05 sec, which is less than 0.10 echo filter. But it will register the shot at 5.15 and will start counting echo filter interval again.

### **Volume**

Volume sets the loudness of the beep. If you are using a smartwatch, it will also vibrate when starting.

### **Dry fire gun type settings**

Dry fire settings of a gun type on an SG Timer are located in “Dry fire drills - Selected drill - Selected gun type”.



### **Waiting time**

Waiting time is a safe zone period used in Smart mode of dry fire.

During dry fire there are many extraneous sounds like reload, slide or gear rattle, which may be perceived by the timer as a hammer fall.

Since hammer fall is very similar to all those other sounds in terms of loudness and sound, it makes it impossible to distinguish electronically.



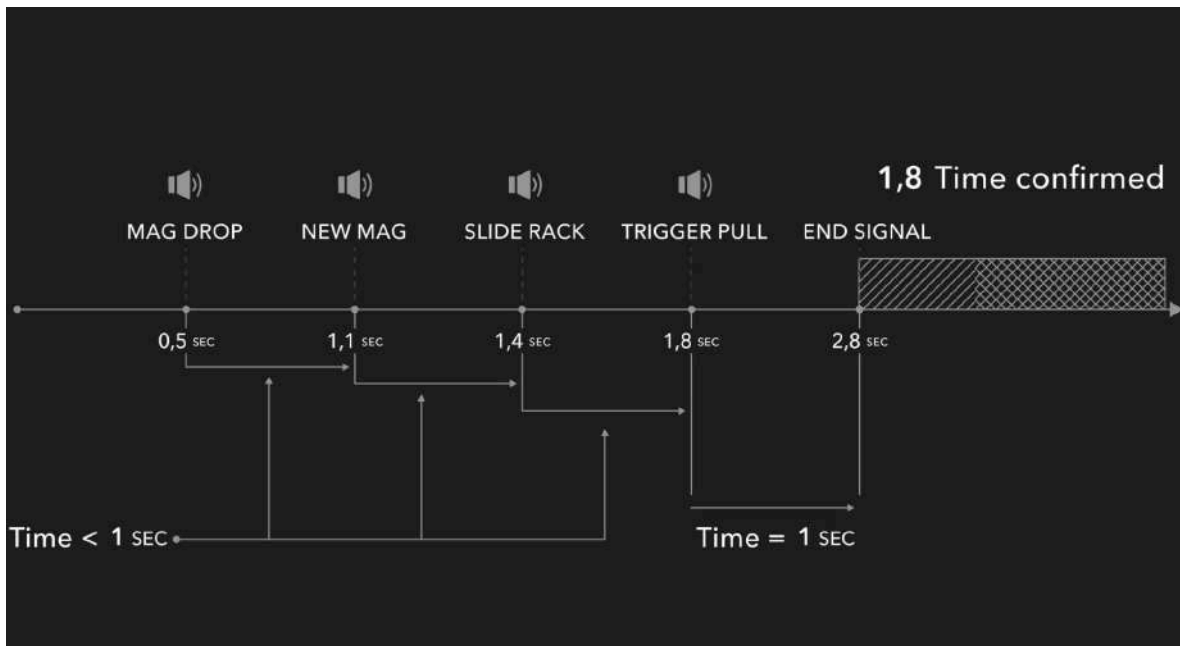
Therefore, the timer counts down the time from the last sound it registered, and if it doesn't register any more sounds during this period, it acknowledges this sound as a hammer fall and ends the set.

For example, let's take a reload drill. Waiting time is set to 1 second.

The mag drops at 0.5 sec — timer registers it, but does not acknowledge it as a finish yet, starts counting 1 second.

At 1.1 sec you insert a new mag. Timer registers the sound, but doesn't acknowledge it, because it's been less than 1 second from the last sound. It starts counting 1 second again.

1.4 sec — slide racking sound. Same as with the previous sound.



At 1.8 seconds you pull the trigger and freeze for 1 second after that.

Timer registers this sound and starts counting 1 second. And since you didn't make any more sounds after the trigger pull it acknowledges this sound and gives an end signal.

This way you don't have a pile of unusable timecodes — only the actual time of execution.

You can also program the timer to your needs by adjusting the waiting time.

### **Sensitivity**

Sensitivity defines how sensitive the shot sensor is. It is recommended to keep it at 100 in Dry fire mode.

### **Volume**

Volume sets the loudness of the beep. If you are using high noise canceling headphones, we recommend turning the volume to maximum. If you are using a smartwatch, it will also vibrate when starting.

## SPY MODE

Spy mode allows you to sync your SG timer with any other shot timer. When spy mode is enabled and you hit start, the timer will go into standby mode, waiting for the other timer's beep. Once it hears it, it will start the session automatically. As a result, you will have identical shot timing on both timers since they started the session at the same time.



To enable spy mode on SG Timer / SG Timer 2, turn on the timer and select “Free Shooting” mode. Next, go to the preset settings and select “Sensor setup”. Here, you will see spy mode; click it and choose a shot timer you want to spy on.

The list of timers available for spying currently includes:

- SG Timer;
- SG Timer 2;
- SG Timer GO;

- CED7000;
- Special Pie M1A2-F;
- PACT Club Timer 3;
- Pocket Pro;
- AMG Lab Commander;
- RangeTech.

You may notice there's different options for the same shot timer — this is because buzzers of some manufacturers degrade over time and change their tone. So if your timer doesn't pick up the timer you selected, try a different option. If it still doesn't work, please contact our support team.

Apply the settings and return to the main menu. You will see a “spy mode” icon indicating that you have entered Spy Mode.

Click Start when you are ready. The timer will start the session as soon as it hears the target timer beep.



## RO (RANGE OFFICER) MODE

Some of the shot timer's features can be distracting for range officers. So we decided to make the dedicated RO mode with a simplified interface.



To select the RO mode in SG Timer, go to the main menu. There you will see “Personal Mode” at the top of the list. Select and click it.

In RO mode the logic of sessions works a bit differently.

Unlike the regular mode, it has “Shootings”, rather than “Sessions”. You can think of them like individual shooters in a match. Here if you stop the timer, you have the option to continue the same shooting. The timer continues to count time after you stopped it, so if you continue, the shot times will be accurate, as if you never stopped it. This is helpful if the timer was stopped prematurely, and the shooter hasn't finished the stage yet.

To view the results you don't need to go to history, you can just scroll down and select a shooting for details.

The data recorded in RO mode will not be added to your personal history or to the activity in the Drills app.



On the main screen you will also see the sensitivity and echo filter, delay indicators. You can change them, as well as delay, time and shot limit, like in a personal mode.

Walkthrough feature allows you to set a simple timer for shooters to test the stage. You can switch to it in the main menu.

To change the time, scroll to it and select the menu and adjust it. You can do that even while the timer is running.

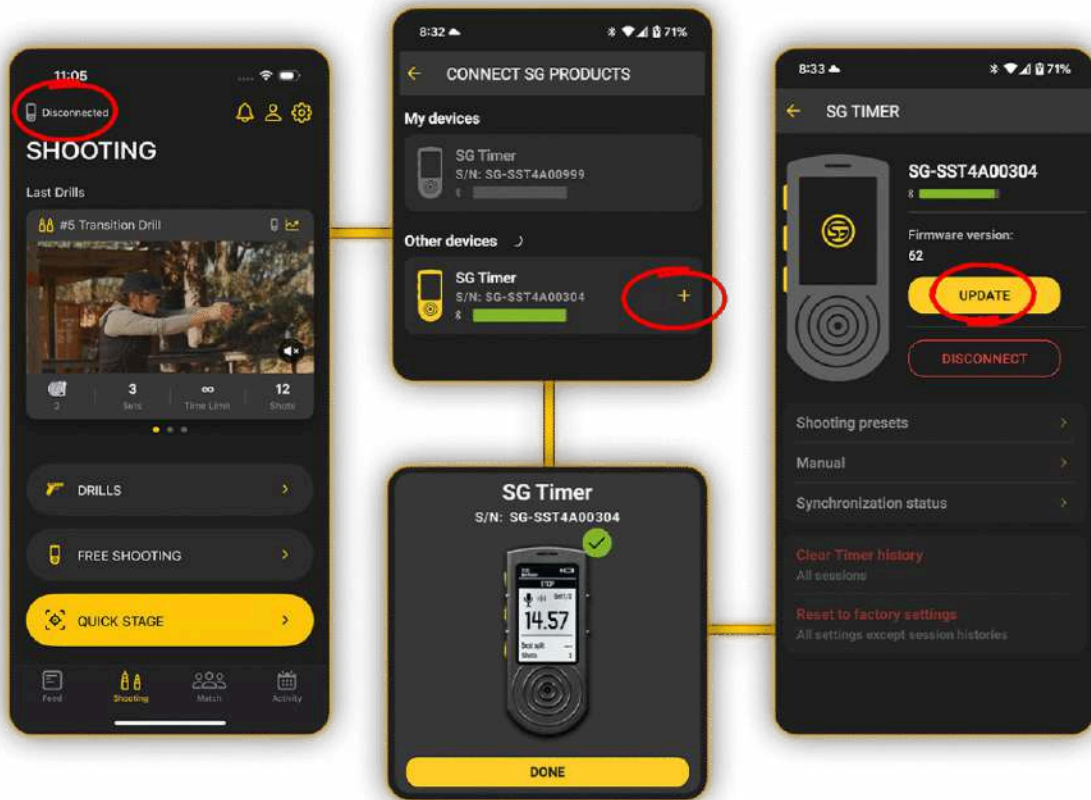
## INTEGRATION WITH PRACTISCORE 2

In this guide, you will learn how to connect SG Shot Timer to the PractiScore 2 app.

### Step 1: Update Your Shot Timer Firmware

First, make sure your timer's firmware is up to date. To check and update the firmware:

- Open the Drills App on your smartphone (update the app if needed).
- Connect your SG Timer to the app via Bluetooth.
- Go to the timer settings within the app.
- If a firmware update is available, follow the prompts to install it.



Note the last 5 digits of your timer's serial number — you will need this later to sync with PractiScore.

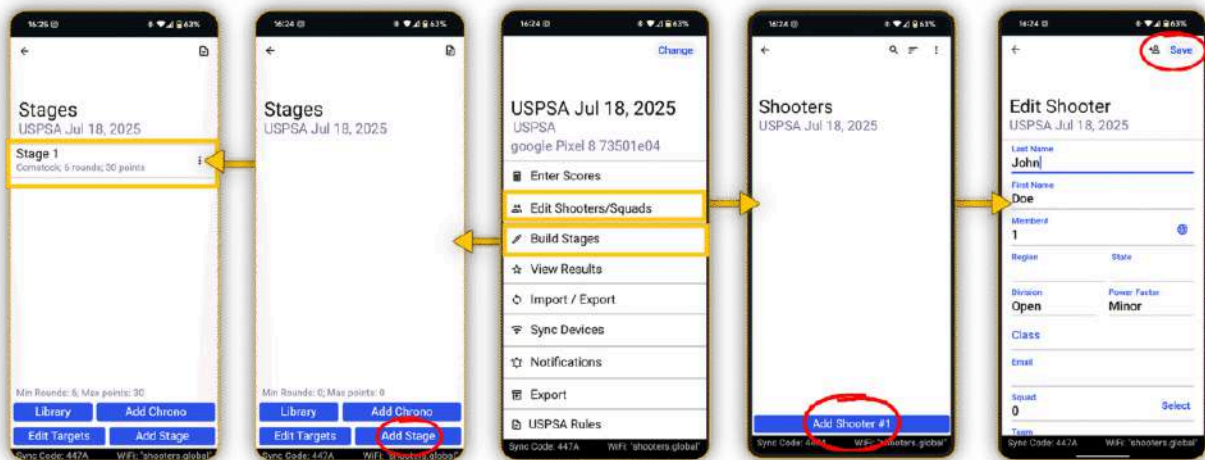
⚠ For SG Timer and SG Timer 2, you can also check the serial number manually on the timer itself: go to Settings → About, and find the serial number there.

## Step 2: Update Your PractiScore 2 App

To connect the Shot Timer to PractiScore 2, make sure you have the latest version of the PractiScore app installed on your device from the Google Play Store or Apple App Store.

## Step 3: Set Up Your Match in PractiScore 2

Open the PractiScore app. On the main screen, you will see the Match menu. To connect your timer, you must have at least one competitor and one stage added to the match.

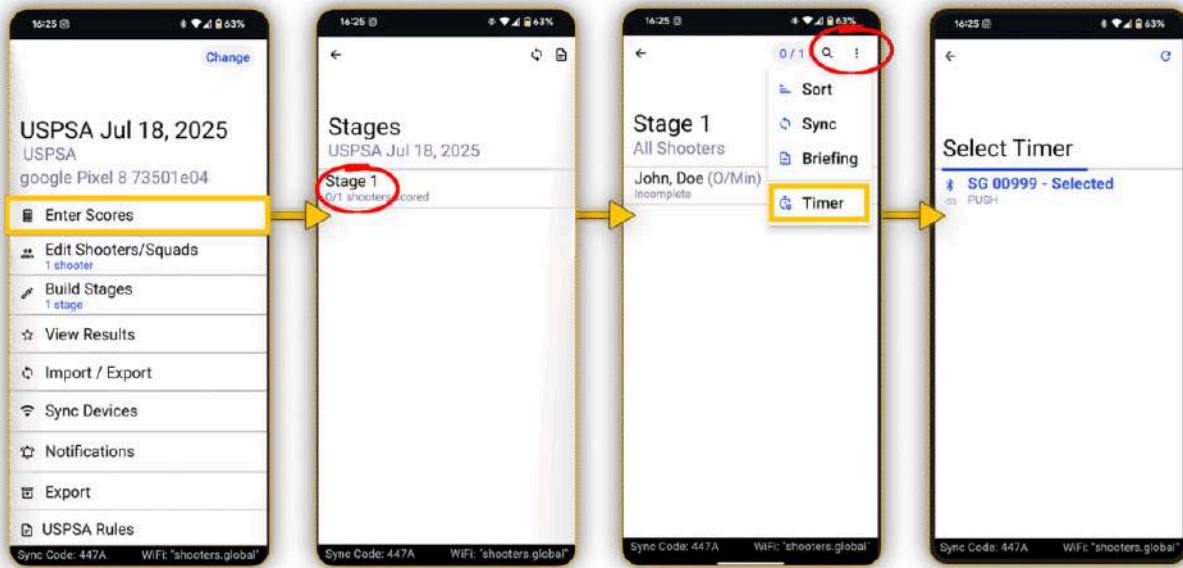



## Step 4: How to connect SG Shot Timer to PractiScore 2

After adding competitors and stages, go to the Enter Scores tab.

- Select your stage.
- Tap the three dots in the upper right corner.
- Tap Timer.

→ Select SG Timer from the list.




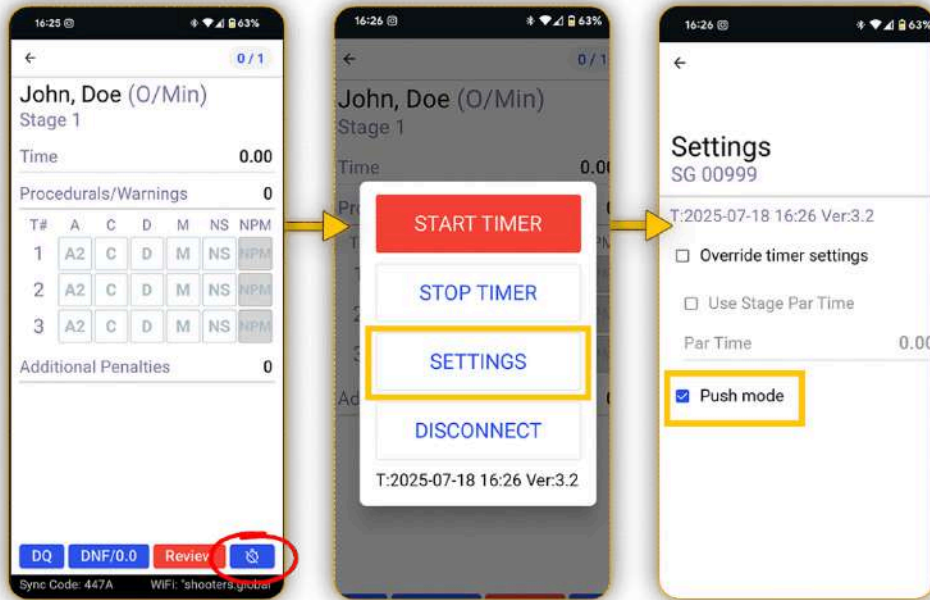
 If there are multiple timers nearby, use the serial number you noted earlier to identify and connect your timer.


### Step 5: Using Your Timer with PractiScore 2

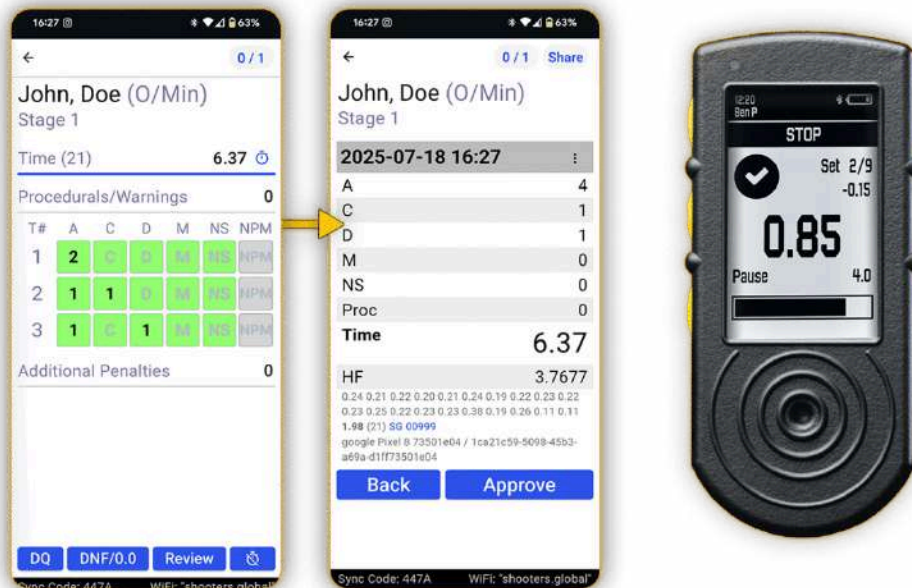
 When connected, the timer will switch to RO mode automatically.

If it doesn't, you need to switch to this mode manually.

 To enable real-time data push to the app, press and hold the timer icon in the lower right corner of the screen.



Tap Settings and check the box for Push Mode. This will send shot times live to PractiScore.  At the end of the shooting session, mark your results and tap Review to approve the stage.




That's it! Your SG Timer is now fully connected and ready to help you run matches smoothly with PractiScore 2.

## HISTORY

History is where all of your training sessions get saved. Including Free shooting, Shooting drills, Dry fire drills and Quick stages.



 Quick stage sessions are showing up as “Free shooting” in the timer's history tab. Full stats with score sheet, hit factor, etc. are available only in “Activity” in the Drills app.

You can switch between sessions by selecting the “Session” menu, or by just continuing to click the down button after you reach the “Details” menu.

To check all session details, select the “details” menu.



Free shooting sessions named accordingly. If you go into “Details”, you’ll see the list of all shot times on the left and a split between them on the right.

You can scroll through them using Up and Down buttons.

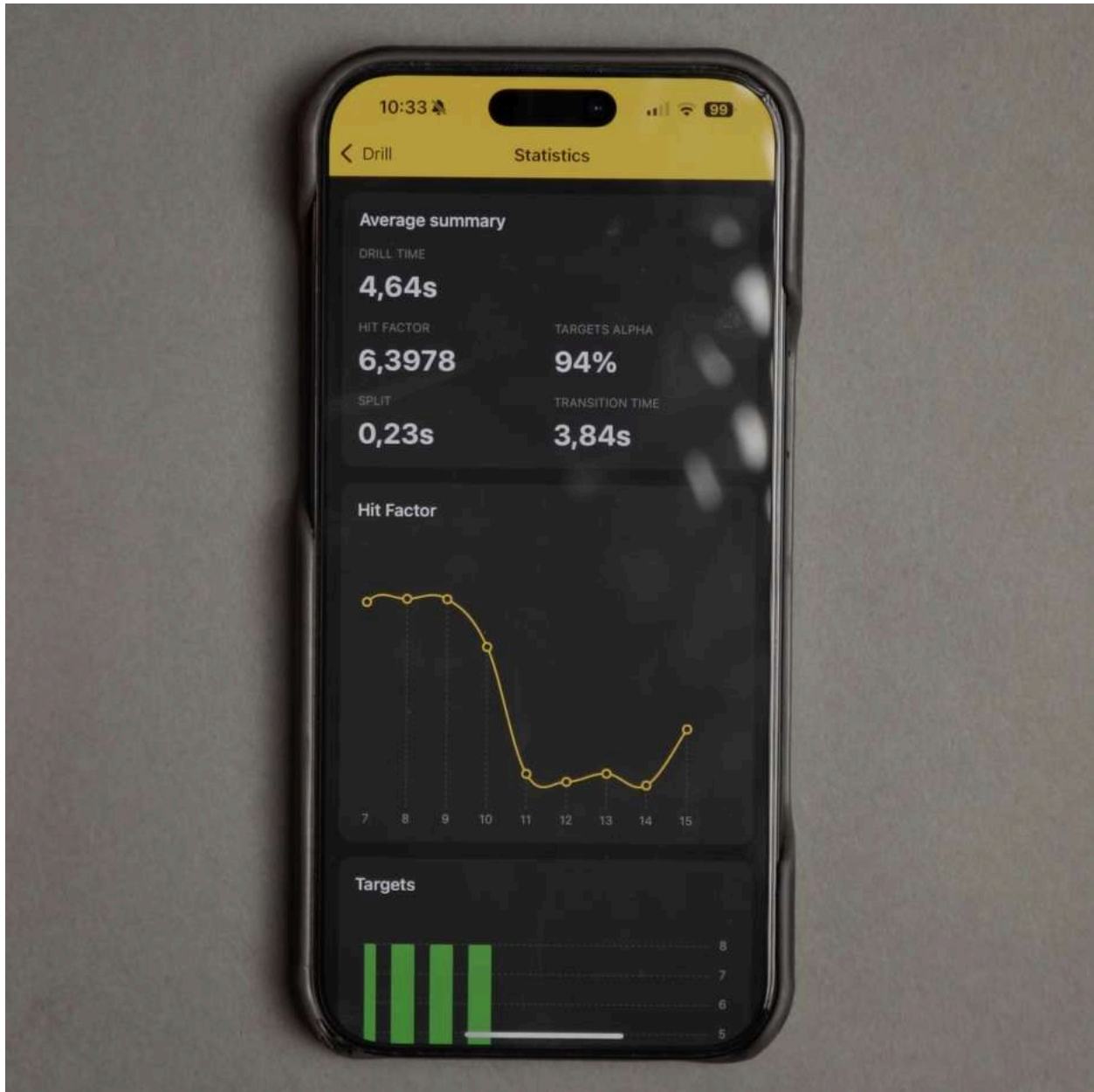


If there were multiple sets in the session, you will also see the “Set” row. Select it and press the middle button to scroll through the sets horizontally. This allows you to compare sets to one another on the same screen.



Shooting drills sessions are also named accordingly. If you go into “Details”, you’ll see the score sheet with the hits you marked. Under the “Shots” menu will be the list of shots, like in “Free shooting”.

Progress graphs are only available in the Drills app.



Dry fire drills are also here, but only the ones trained in Smart mode. There will be a screen with all your reps. Your execution time will be in the middle and on the right is the delta between your time limit and execution time.



For example if the time limit was 3 sec, and you pulled the trigger in 2.7, the timer will show -0.3.