

FX Pocket Chronograph

Specifications

Size: 72x70x42mm (2.75" x 2.75" x 1.7")

Weight: 133g (5 oz)

Interface: Bluetooth

Smart App: iOS & Android

App name: FX Radar

Measurement Tech: Doppler Radar

Velocity Range: < 335m/s (1099fps)

Power Source: 3x AAA Batteries

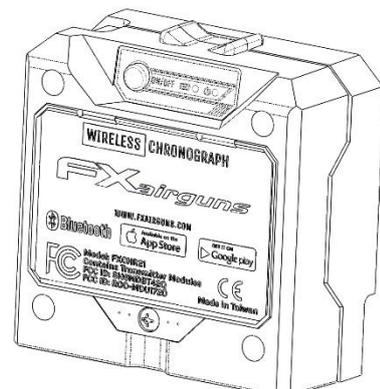
Mount: V-shaped mount (not in the picture) that allows you to mount the chrono to the barrel.

Quick Start

1. OVERVIEW

The power button for the chronograph is located on the backside of the device. Next to the power button, you will find two LED lights. The red LED indicates that the batteries should be changed soon, and the green LED indicates that the chronograph is turned on.

To turn on the chronograph, tap the power button. To turn it off, press and hold the power button. The chronograph will automatically shut down after a period of inactivity to save power.

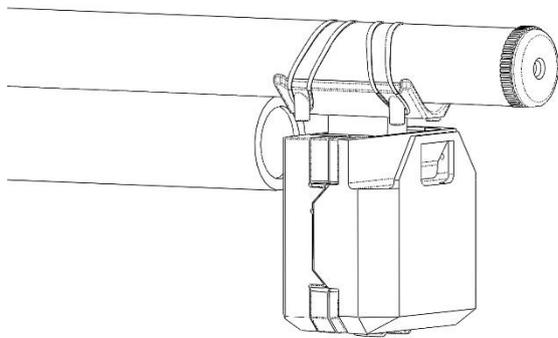


2. BATTERY

Open the battery cover using a screwdriver and insert 3 AAA batteries. Recommended battery type is **Energizer Ultimate Lithium**. Be careful not to overtighten the screw when closing the battery cover.

The plastic is strong enough that the screw can be tightened many times without stripping the threads.

3. ATTACHING THE CHRONOGRAPH TO THE BARREL



Use elastic bands to attach the chronograph to the barrel.

The optimal placement is a few inches behind the muzzle (a good starting point is between 2-10 inches).

Moving the chronograph further away from the muzzle can sometimes improve its

performance, even though it may seem counterintuitive. The performance of the chronograph improves when it is positioned further away from the muzzle because this reduces the cosine error, which can affect the accuracy of the readings. Cosine error is a type of error that can arise when measuring the velocity of projectiles with radar technology, and it is caused by the angle at which the radar beam hits the projectile. By positioning the chronograph further away from the muzzle, you can reduce the cosine error and improve the accuracy of the readings.

It is important to avoid placing the radar away from the barrel on a table or other surface. This can increase the angle between the chronograph and the projectile's trajectory, which can lead to inaccurate readings. Instead, try to position the chronograph as close to the barrel as possible to reduce the angle and improve the accuracy of the readings.

If you are using a **chronograph mount** (sold separately), try to position it as close to the barrel as possible.



It is important not to place other devices, such as other velocity chronographs, in front of the radar when using the chronograph. This can interfere with the accuracy of the readings.

4. Download the FX Radar App from Google Play Store or Apple App Store.

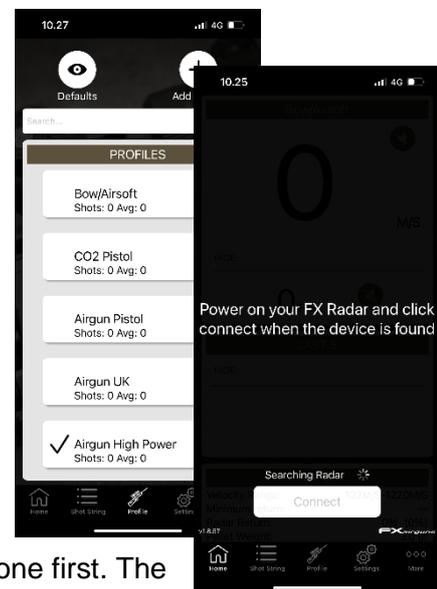
- a. Before launching the app, ensure that your phone's Bluetooth is turned on. **Do not use pairing in the phone's Bluetooth settings!** The app will manage the pairing with devices.
- b. Launch the app and follow the quick start guide.

The FX Radar App does not require access to your location, but it may be necessary to have location services enabled on your device in order to use it. This is because Bluetooth Low Energy (BLE) technology, which is commonly used in modern smart devices, may require location services to be enabled in order to function properly. BLE is often used for location-based services, such as indoor positioning or beacon technology, and therefore the device needs to be able to determine its location in order to communicate with nearby BLE devices and provide the appropriate location-based services.

- c. **Select a default profile** that best fits your needs or to create a new one, click "Add Profile". The most important thing when using the chronograph is to select a profile with a velocity range that matches your airgun. Velocity range can be changed in settings when custom profile is selected. If you're not sure which setting to choose, try selecting Airgun High Power. This is a good starting point for most users.
- d. **Turn on the chronograph and click the connect button** on the app when it flashes.

When you are connecting to a new device, the app will prompt you to pair with it. Click OK to proceed. If you want to pair with a new device, you do not have to unpair the old one first. The app will manage everything for you.

- e. You are now **ready** to shoot.
- f. **It is important not to place other devices, such as other velocity chronographs, in front of the radar when using the chronograph.** This can interfere with the accuracy of the readings.



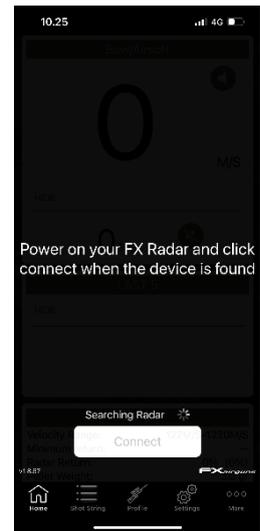
FX Radar App

Android v1.6.112 or newer, iOS v1.8.67 or newer

HOME PAGE

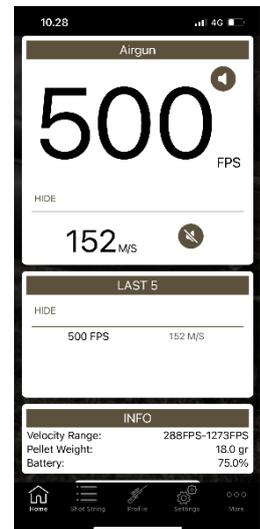
1. When the chronograph is not connected, the home menu will be black and will show a message indicating that it is waiting for a connection. Once you tap the "Connect" button, the display will switch to the "Connected" view. This view is divided into three parts.

In rare cases, the app may not be able to find the chronograph. If this happens, try closing the app completely and restarting it. This should fix the problem.



2. The **top section** of the "Connected" view shows the velocity in two different units, with a speaker icon next to each unit to indicate whether the primary or secondary unit is currently selected for voice output. You can turn the voice output on and off by clicking the speaker icon.

The top and middle sections of the "Connected" view can be minimized by clicking the "HIDE" button. This will collapse the sections, allowing you to see more of the bottom section. To expand the sections again, click the "EXPEND" button.

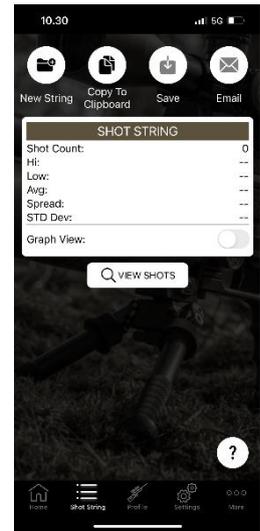


3. The **middle section** of the view displays the velocities of the five most recent shots.
4. The **bottom section** shows the chronograph's battery level and current settings i.e. velocity range.

The **"Disconnect"** button is located below the bottom section of the "Connected" view (it is not visible in the screenshot). When you are finished using the chronograph, you can disconnect the app by clicking this button. The app will also automatically disconnect if the chronograph is turned off.

SHOT STRING PAGE

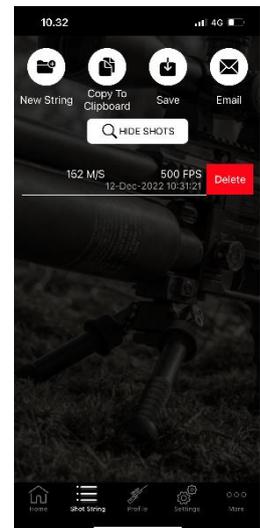
1. The "Shot String" menu shows a summary of all shots in the current string.



2. At the top of the view, there are options to start a new string, copy the current string to the clipboard, save the string, and email the string.

Saved strings can be accessed in the "More" menu.

3. To view a detailed list of all shots in the string, click "View Shots". If the "Graph View" switch is enabled, the shots will be displayed in a graphical format.
4. To delete individual shots on the "View Shots" view, swipe left on them.



PROFILE PAGE

1. **To select a profile**, go to the profile menu and click on the desired profile. You can edit the name of the profile in the settings menu unless it is a default profile. If you set a name for the pellet in the settings menu, this information will be displayed after the profile name. It is recommended to have a separate profile for each type of pellet that you use.

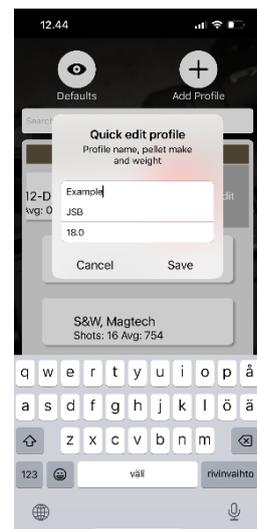
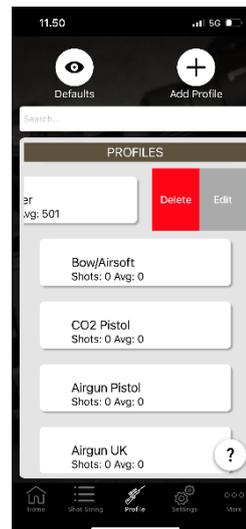
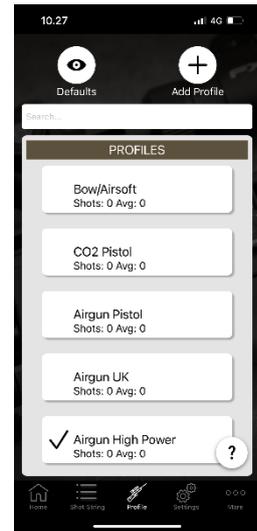
If you change the profile while you are still connected to the chronograph, the device will be disconnected and you will need to reconnect on the home view. This is because the app is designed to work with a specific profile, and changing the profile will require disconnecting and reconnecting to ensure that the correct settings are used.

2. To quickly find a profile when the list is long, use the **search bar** in the profile menu. This will allow you to search for the profile by name.

3. **To delete custom profiles**, swipe left on the profile in the profile menu and click "Delete". **To quickly edit** the profile and pellet name or pellet weight, click "Edit".

To make a copy of a profile, swipe right.

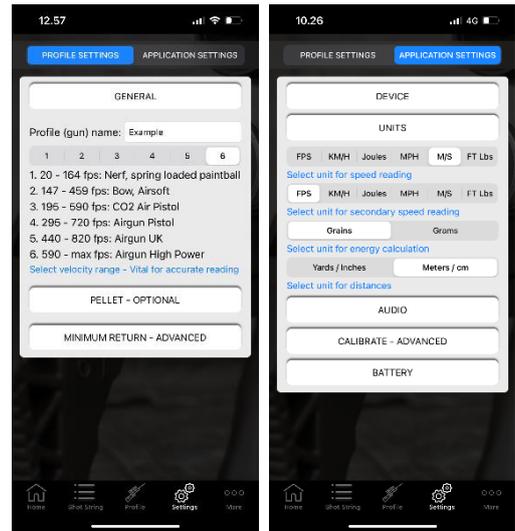
This can be useful if you want to create a new profile with similar settings to an existing profile, but with some changes.



SETTINGS PAGE

1. The settings menu has a segmented control at the top of the view that allows you to switch between "**Profile Settings**" and "**Application Settings**". The "Application Settings" section contains settings that are applied to all profiles, such as the units of measurement. The "Profile Settings" section contains settings that are specific to the currently selected profile, such as the velocity range.

The **profile name** is located in the "General" section of the settings. You can open the "General" settings section by clicking the "GENERAL" button.

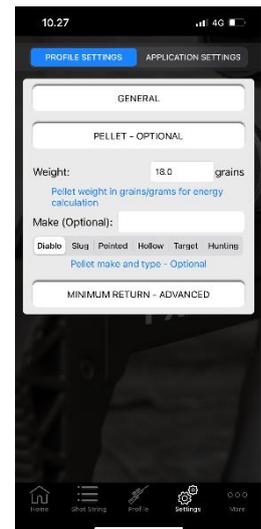


Below the profile name, you will find the **velocity range setting**. It is important to choose a range that best matches your airgun. This will ensure that the chronograph provides accurate readings.

2. The "Pellet" section of the settings is optional. If you choose to enter the make of the pellet, this information will be displayed next to the profile name in the profile list. It is recommended to have a separate profile for each type of pellet that you use.

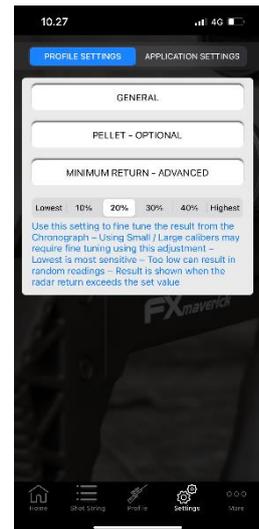
The weight of the pellet is important for accurate energy calculations. Be sure to enter the correct weight for the pellet you are using.

The unit of measurement for pellet weight can be changed from grains to grams in the "Application Settings" section of the settings. This setting applies to all profiles and will affect the unit of measurement used for pellet weight in all profiles.

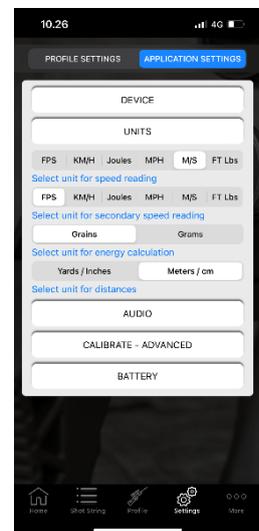


3. The "Minimum Return" setting in the "Advanced" section of the settings is rarely needed. In some cases, the sensitivity of the chronograph may need to be adjusted. If a shot is not being registered, you can try lowering the minimum return value to make the chronograph more sensitive. If the chronograph is reading random values, you can try increasing the minimum return value.

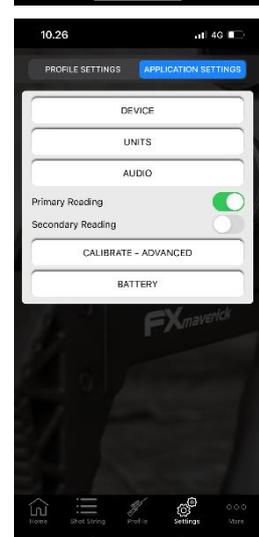
Before making adjustments to the settings, try repositioning the chronograph first. Sometimes moving the chronograph further away from the muzzle can improve its performance, even though it may seem counterintuitive. If repositioning the chronograph does not help, then you can consider making adjustments to the settings.



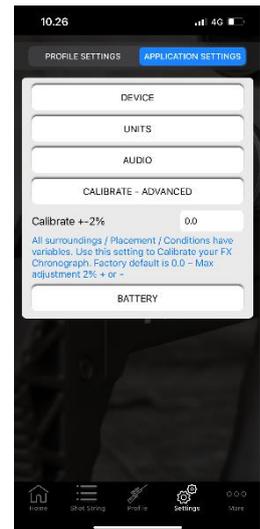
1. In the "Units" section of the settings, you can select the measurement unit for the primary and secondary readings. The weight unit can be set to either grains or grams, and this is used for energy calculations. The distance unit can be set to either yards or meters. These settings apply to all profiles and affect the units of measurement used in all profiles.



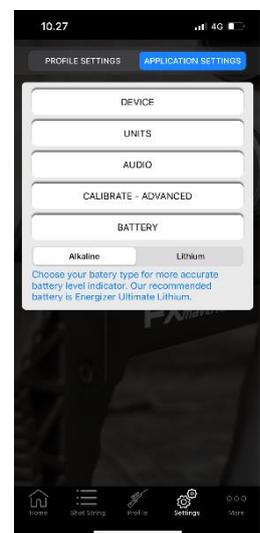
2. In the "Audio" settings, you can enable voice output for the primary and secondary readings. This will cause the app to speak the readings out loud, allowing you to hear them without having to look at the screen. To activate voice output for the primary or secondary readings, simply toggle the switch next to the corresponding reading.



3. In the "Calibrate" settings, you can increase or decrease the readings by a certain percentage. This can be useful when you want to match the readings from the chronograph with those from another velocity chronograph. Please note that this does not mean that the unit requires manual calibration. The percentage adjustment is simply a way to fine-tune the readings to match those from another chronograph, if desired.



4. In the "Battery" settings, you can choose between two types of batteries to make the battery level indicator work correctly. This is because the voltage level of lithium batteries is much higher than that of alkaline batteries, and the app needs to know which type of batteries you are using in order to display the correct battery level.

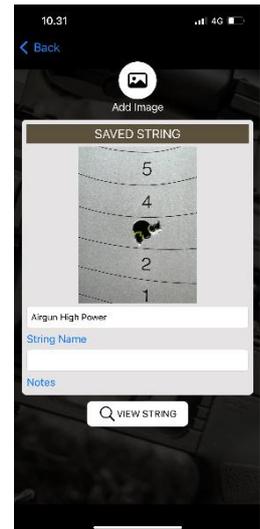


MORE PAGE

1. The "More" menu contains links to the support page, manuals, and quick start guides. To access your saved shot strings, click on "Saved Strings" in the "More" menu. This will open a list of all the saved shot strings, where you can view, copy, email, or delete them as needed.
2. The saved shot strings are grouped by month and year in the "Saved Strings" view. To delete a string, swipe left on it as you would in any other table inside the app.

To open a shot string, simply click on the row. This will open a view where you can edit the shot string name and notes, as well as add an image. Clicking on "Add Image" will allow you to add an image of the shot group, for example.

Clicking on "View String" will take you to the next view, where you can see a detailed list of all the shots in the string. From this view, you can also enable the "Graph View" to see the shots in a graphical format. You can also delete individual shots by swiping left on them.



3. The "View String" page has the same options as the "Shot String" page, with one exception. The "View String" page includes a "Copy To Profile" button, which allows you to copy the shots in the saved string to the currently active profile. This will overwrite any existing shots in the active profile.

Other than this, the "View String" page has the same options as the "Shot String" page, including the ability to copy the string to the clipboard, email the string, and view the shots in detail. You can also enable the "Graph View" to see the shots in a graphical format, and delete individual shots by swiping left on them.

