Quick Start Guide

Model: CTS-1000

SHOT TRACKER™

Table of Contents

What's Included

- ShotTracker Unit
- T-Wrench
- 4 Rechargeable Batteries
- Battery Charger

What Else You Will Need

- Smart Phone
- Download ClayTracker Pro Application

For Support or Assistance contact Support@TakeAimTech.com or visit us at www.TakeAimTech.com

Storage

Removing - Take hold of the unit at the barrel clamp and gently pull the unit away from the case.

Storing - Place the unit into the case, bottom side first and gently push the unit down into the case.

Battery Installation

Using your thumb, push the battery door lock to the left to release the door. Open the door to access the battery compartment.

ShotTracker uses two standard CR123 Lithium batteries. For ease of use, rechargeable Lithium-ion CR123 batteries can also be used. Four rechargeable lithium–ion batteries should give you eight hours of run time at the shooting range.

To remove the batteries, use the pull tab.

Place the batteries into the compartment; noting the polarity orientation of both + terminals must be pointing upward.

Close the battery door and use your thumb to press and slide the latch to the right to lock the door closed.

Operation
First Time Setup
Out of the case, the ShotTracker needs three items completed to be ready to analyze your shot. Until these items are completed, the ShotTracker's LED will flash magenta. The three items are:

1. A completed profile in the Profiles section.
2. A completed boresight for that profile.
3. An active Session in the Let's Shoot section.

Once these criteria are met, the ShotTracker is operational and the LED will function as detailed below.

To turn the ShotTracker on - briefly press ⏻ until Red LED flashes

LED Indicator Light
Red Blinking – Unit booting
Steady Green – Unit ON and Ready for Shot
Fast Green Blink – Processing shot data
Blue Blink – ClayTracker App connected via Wi-Fi
Steady Magenta – Idle mode; shotgun is either in loading position or pointing down/up. Once gun has returned to a ready position, Ready for Shot (steady green) mode will be active.
Slow Red Blink – Low batteries. Replace with a fresh set of batteries.

To turn the ShotTracker off- briefly press ⏻ until Red LED flashes.
To perform a hard reboot of the ShotTracker – press and hold the button for 10 seconds.

Downloading ClayTracker™ Pro Application
The ClayTracker™ Application can be downloaded to your smartphone/iPad/tablet from

In the Apple App Store or the Android Play Store, search for ClayTracker Pro (see icon below). Download and install the free app.

The app allows you to configure the ShotTracker settings, create profiles, and view the shot analysis.

Connecting to the Wi-Fi

The ShotTracker has built-in Wi-Fi. You do not need any other source of Wi-Fi.
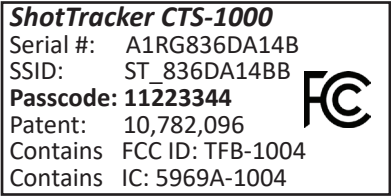
Step 1 – Turning on ShotTracker
Turn on ShotTracker by pressing the button ⏻ until the LED flashes Red.

Step 2 – Smartphone Settings Configuration
Open Settings on your smartphone/iPad/tablet and go to Wi-Fi section.

Step 3 – WiFi SSID & Passcode
Open the ShotTracker battery door and look on the label (see sample to the right) to find the ShotTracker's SSID and Passcode. In the Wi-Fi Settings, select the ShotTracker's SSID and enter the Passcode.

ShotTracker CTS-1000
Serial #:   A1RG836DA14B
SSID: ST_836DA14BB
Passcode: 11223344
Patent: 10,782,096
Contains   FCC ID: TFB-1004
Contains   IC: 5969A-1004

Launching & Using ClayTracker

Once the Wi-Fi connection is established, open the ClayTracker Pro app. When the app is successfully connected to the ShotTracker, the BLUE LED on the ShotTracker will blink every couple of seconds to indicate that the app and the unit are connected.

The first time an app connects to a new ShotTracker you will be prompted to answer several questions. Answer "Ok", "Yes" & "Yes".
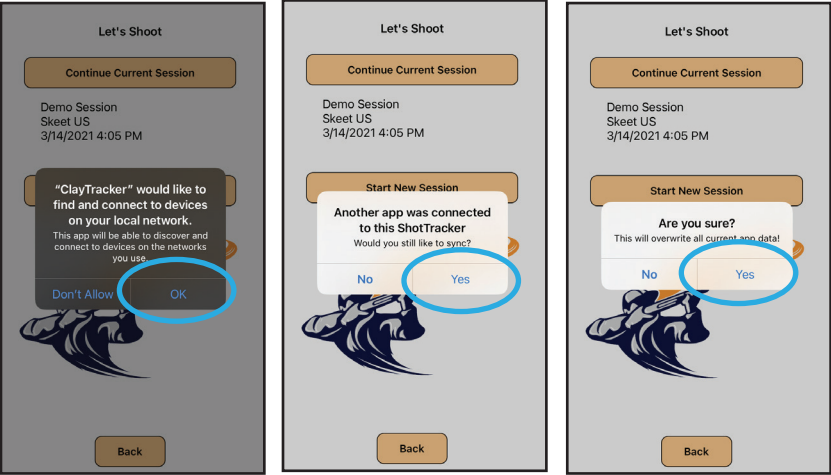
Main Menu Screen

The Main Menu provides access to key features.

Let's Shoot – Selecting this button lets you start a new shooting session or continue the previous session.

History – Selecting this button lets you view and review all the previous shooting sessions stored on the ShotTracker unit.

Profiles – Selecting this button lets you set up a shooting profile for your shotgun and boresight the ShotTracker to your shotgun.

ShotTracker – Selecting this button lets you set the Trigger Detection Threshold for the ShotTracker so that each shot is detected. You can also get other ShotTracker information including battery status.
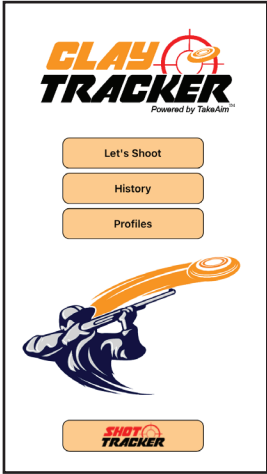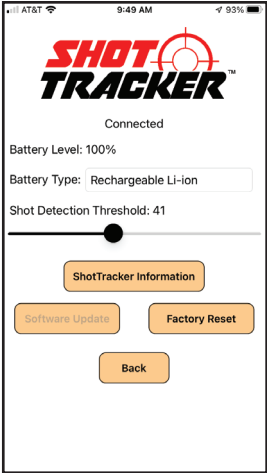
ShotTracker Setup

Press the ShotTracker button and go to the ShotTracker settings page. When the ClayTracker app is connected to the ShotTracker, the word "Connected" will appear at the top of the page.

The Battery Level gauge shows relative battery capacity. You should change to a fresh set of batteries once the level drops below 25%. The Battery Type should be set for the battery type you are using for the Battery Level to be accurate. The ShotTracker uses Lithium or Lithium-ion rechargeable batteries.

The ShotTracker allows the user to set the threshold sensitivity for detecting that a shot was fired. Initially set the threshold to 50. This will work for most shooters. If you experience the ShotTracker not detecting a shot, move the detection threshold lower in small increments until the shot is detected. If the ShotTracker detects a shot when the shotgun was not fired or multiple shots when only one was fired, raise the detection threshold in small increments until proper shot detection occurs.

CAUTION: Always make sure the shotgun is unloaded before mounting / dismounting the ShotTracker

Mounting ShotTracker

Step 1 – Loosen Screw

Remove the ShotTracker from the storage case. Use the Allen wrench to loosen the three silver mounting screw to open up the clamps on the barrel mount.

Step 2 – Place ShotTracker on Shotgun

Insure the protective rubber pads are properly attached to the barrel mount and slide the mount onto your shotgun's barrel. Place the ShotTracker as far back on the barrel as you like. Just be sure to leave enough space to activate the ON/OFF button.

Step 3 - Alignment

Align the unit vertically so that the camera lens is directly below the gun barrel. Once the unit is placed at the desired position on the barrel, snug up the middle screw using the Allen wrench. Be careful to maintain a vertical alignment where the ShotTracker's camera is directly below the barrel.

Step 4 – Securely Tighten Screws

With the unit is properly aligned, fully tighten all three screws. Do Not Over-Tighten.

Setting Up Profiles

Go to the Profiles page and select Add Profile.
Then enter the required information:

Profile Name: Give your profile a name.

Shooter Name: Enter the name of the shooter.

Shotgun Type: Select shotgun type from menu.

Choke: Select shotgun choke from menu.

Ammo: Text field to enter ammo description.

Pellet Size: Select pellet sized from menu.

Oz. Load: Select load ounce from menu.

Pellet Type: Select Lead or Steel.

Muzzle Velocity: Enter muzzle velocity in fps.

Clay Type: Select clay type (default is Standard)

Point of Impact: Select the POI (default 50/50 @ 40)

Range to POI: Input the range in yards to your POI.

For an Over/Under shotgun you will need to enter the information for both barrels. To select which barrel fires first, tap the circle to the right of the text - Upper Barrel.

Press Back when done editing

Boresighting

Before you take your first shot, you will need to boresight the ShotTracker to your shotgun. To boresight the unit, you need to be in a position to stabilize your shotgun and aim at an object that is 10 to 20 yards away.

Step 1-
Getting Ready to Boresight

Turn on the ShotTracker and make sure the ClayTracker app is connected. Go to the Profiles Page, select the Profile for your shotgun. Then select Set Boresight.
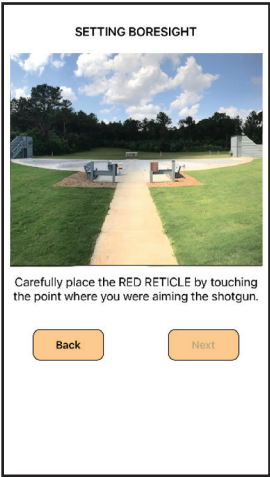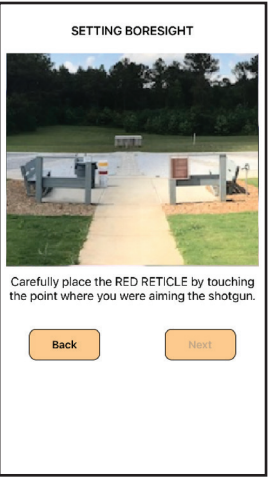
Step 2 - Boresighting

When you are ready to boresight, press the Begin Boresight button and immediately stabilize your shotgun while aiming at your boresight target and wait for the Beep (5 second timer).
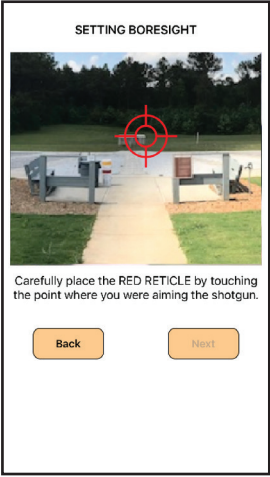
Zoom in on the boresight target and place your finger on the aim point. This will place a red reticle on the aim point. Adjust as needed to get the reticle on the right spot. Then press Next.

SETTING BORESIGHT

Carefully place the RED RETICLE by touching the point where you were aiming the shotgun.

Back   Next

Boresight aim point is the upper right corner of the trap house.

SETTING BORESIGHT

Carefully place the RED RETICLE by touching the point where you were aiming the shotgun.

Back   Next

Using your fingers, zoom in on the upper right corner of the trap house.

SETTING BORESIGHT

Carefully place the RED RETICLE by touching the point where you were aiming the shotgun.

Back   Next

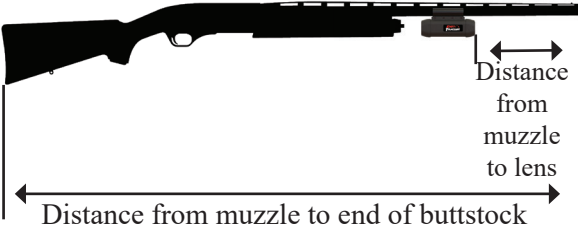Use your finger to place the red reticle on your boresight aim point.

Step 3 – ShotTracker Placement

To complete the Boresight process, you need to measure three distances.

1. Measure the distance from the boresight aim point to the muzzle of the shotgun (yards) and enter this value.

2. Measure the distance from the muzzle to the lens of the ShotTracker (inches) and enter this value.

3. Finally, measure the distance from the muzzle to the end of the buttstock (inches) and enter this value.

Once you have entered the three numbers, press Save to return to the Profile page.

Press Back to return to the Profiles page and Back again to return to the Home page.

SETTING BORESIGHT

Enter the distance from where you were boresighting the shotgun to the point that you were aiming.

Distance to aiming point: 25 Yards
ShotTracker Distance from muzzle to Lens: 8 Inches
Total Length of Shotgun from End of Stock to End of Barrel: 47 Inches

Back   Save

Distance from muzzle to lens

Distance from muzzle to end of buttstock
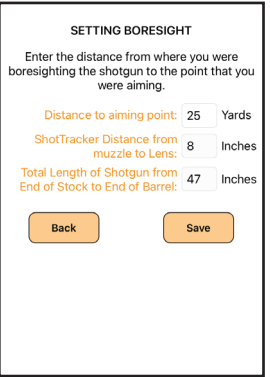
Let's Shoot

Now you are ready to begin your ShotTracker shooting session.

Starting a Session

From the Home page select Let's Shoot.

On the Let's Shoot page, press Start New Session. In the text box, enter where you are shooting today and select which discipline you are shooting. When you are done, select the Profile button for the profile you are using. Press the Continue button.

Then raise your shotgun to the shooting position, wait for the Steady On green LED. Now you are ready to shoot.
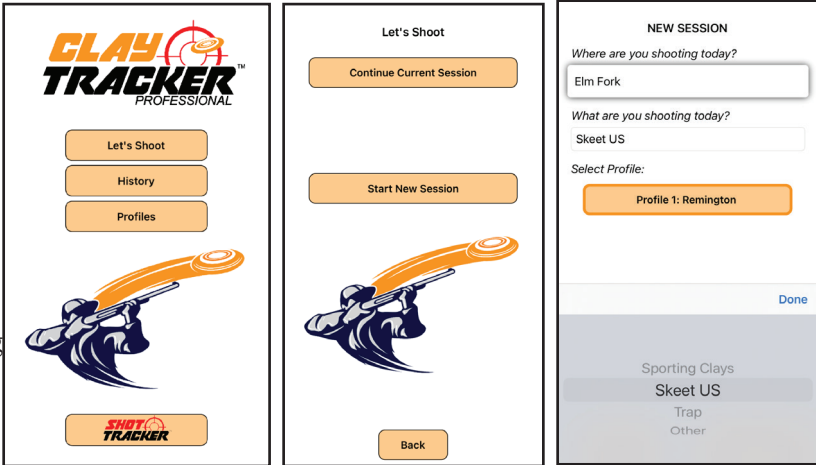
Shot Results

After each shot, you will be presented with Shot Results including:

Audible feedback on your shot.

Graphical presentation of your shot

Result: Where was the center of your shot pattern

Clay Flight Path: Crossing Left To Right

Clay Crossing Speed: 42 MPH

Probabilty of Break: High

Pressing the Shot Details icon shows you additional information including Shot Order, Range to Clay, and detailed aimpoint correction.

Shot Detected, Clay Not Found – If the ShotTracker cannot find a clay target in the camera images or is unable to determine shot results, the statement "Shot Detected, No Clay Found" will be displayed and that audio played.

The green LED flashes while the shot is being analyzed. Once the LED goes to steady green, you are ready for your next shot.
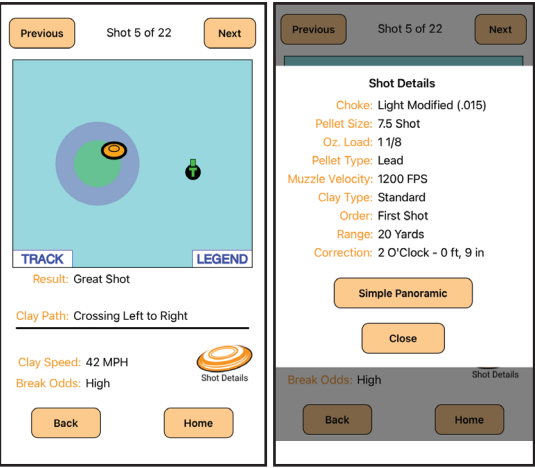
Additional Features and Functionality

- The ShotTracker supports shooting doubles. While analyzing a shot, ShotTracker continues to collect data anticipating a second shot. If a second shot is detected within 10 seconds of the first shot, those results will be presented after the results of the first shot.
- The ShotTracker will continue to collect data and analyze shots even if the ClayTracker application gets disconnected or turned off. The next time the ClayTracker application connects to the ShotTracker all of the shot data will be transferred to the application and available on the History page.
- The ShotTracker provides panoramic imagery of the flight path of the clay overlaid with a reticle representing the shotgun's boresight aimpoint. This is accessed by pressing the Simple Panoramic button on the Shot Details popup.
- The ShotTracker provides a tracking analysis that shows how stable the shooter was when tracking the clay in the last 0.2 seconds before the trigger pull. This is accessed by pressing the TRACK icon on the graph.
- To conserve the battery, turn the ShotTracker off when you are done shooting or taking a break.

Troubleshooting / FAQs

I am getting 2nd shot detected when I only shot once.
The "Shot Detection Threshold" may be set too low. Inside the ClayTracker application, from the Home page go to the "ShotTracker" page. If the detection threshold is low (between 0 and 20), raise the detection threshold by 10. NOTE: you must be connected to the ShotTracker for this change to take effect. If this does not correct the problem, raise the threshold some more until the false 2nd shot detections stop.

I fire my shotgun and no shot is detected (No flashing green LED).
The "Shot Detection Threshold" may be set too high. Inside the ClayTracker application, from the Home page, go to the "ShotTracker" page. If the detection threshold is high (higher than 60), lower the detection threshold by 10. NOTE: you must be connected to the ShotTracker for this change to take effect.   If this does not correct the problem, lower the threshold some more until the shot is detected.

I have a blinking magenta LED.
The ShotTracker has not been configured. Complete a Shooter Profile with a boresight and start a new session.

Precautions

Read all of the gun manufacturer's safety information and safety instructions before handling the gun, installing the ShotTracker, or using the ShotTracker on a gun. Read and apply all of the instructions before using the ShotTracker to avoid injury.
WARNING: Failure to follow these safety instructions could result in fire, electric shock, or other injury or damage.

ShotTracker Warranty and Return Policy

NEVER attempt to repair or modify the ShotTracker yourself. Disassembling a ShotTracker will cause damage that is NOT covered under the warranty. The ShotTracker does not contain any user replaceable parts, except the batteries.
Take Aim Technologies Development LLC ("Manufacturer") warrants to the original end user ("Purchaser") that for the 1 year ("Warranty Period"), the ShotTracker and accessories ("Product") will be free from defects in materials and workmanship when properly installed and used for its intended purpose and in its intended operating environment.
This warranty does NOT apply to any Product that has been either:
(a) Disassembled e.g front lens or mechanical housing, (b) Altered, repaired or modified or (c) Damaged or destroyed by accidents or similar events or by any intentional, reckless or negligent acts or omissions of any party. In the event of a defect, return the Product to the Manufacturer, but only after instructed to do so by Manufacturer.

FCC Statement

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: 1) this device may not cause harmful interference, and 2) this device must accept any interference received, including interference that may cause undesired operation. Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
*   Reorient or relocate the receiving antenna.
*   Increase the separation between the equipment and receiver.
*   Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
*   Consult the dealer or an experienced radio/TV technician for help. Changes or modifications not expressly
            approved by the party responsible for compliance could void the user's authority to operate the equipment.

FCC Radiation Exposure Statement: This device complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Industry Canada: This Class B device meets all requirements of the Canadian Interference Causing Equipment Regulations. Cet appareil numerique de la classe B respecte toutes les exigences du Reglement sur le materiel brouleur du Canada.

RoHS: ShotTracker products comply with the European Union's R0HS directive 2002/95/EC and similar regulations that may be adopted by other countries for European Sales.

Contains   FCC ID: TFB-1004
Contains   IC: 5969A-1004

Take Aim ™ Technologies