

TitanX

Laser Training Pistol User Manual

(Models 700, 701, 702)



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Have any questions? We'd love to hear from you!

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Links within the document:

Red - other sections of this manual (*works in Adobe App*)

Blue - links to specific MantisX URL

Product Overview

Congratulations on joining the thousands of shooting sports enthusiasts now training with MantisX Systems.

TitanX Features

- Integrated MantisX sensor with analytics
- Realistic resetting trigger with pre-travel take up and break
- Two weighted magazines and magazine detection sensor
- Adjustable laser
- Optic-Ready (*optic not included*)
- USB-C charging cable
- Includes the MantisX Pistol/Rifle app
- Compatible with Mantis Laser Academy, Mantis Raven and many other laser training systems



While connected to the MantisX Pistol/Rifle app, the TitanX generates real-time data based on the movement of the gun and analyzes this movement data to generate feedback after the full press of the trigger. The MantisX Pistol/Rifle app muzzle trace data from the movement provides feedback that can be used to improve shooting skills.

Check out the available TitanX models on mantisx.com for more information.

The feedback includes analysis of the movement of the firearm before, during, and after the complete trigger press. The app assumes the firearm sights are accurately zeroed and correct sight picture and sight alignment are being used when calculating your point of aim. The sensor calculates a new point of aim with each shot, which allows the user to use any target.

There are no specific targets or lighting conditions required for MantisX sensors. The MantisX Pistol/Rifle app offers exclusive features that are only available with the TitanX.

The integrated MantisX sensor in the TitanX connects to the [MantisX Pistol/Rifle app](#) on your smart device ([Android](#), [iOS](#), or [Kindle](#)) through Bluetooth. See the [MantisX User Manual](#) for complete details on the MantisX Pistol/Rifle app and app training features.

While TitanX does work with the Mantis Laser Academy app, full access to the Laser Academy app is not included. For laser impact tracking on a target, consider a Laser Academy Kit or purchase full access to the Laser Academy app [in the app store](#).

If you would like to use both the MantisX and Laser Academy apps at the same time while training with the TitanX, the two apps may be used together, but typically require two mobile devices. Most devices can run only one app at a time, however, there are some devices with a split-screen function which allow both apps on a single device to run side-by-side at the same time.

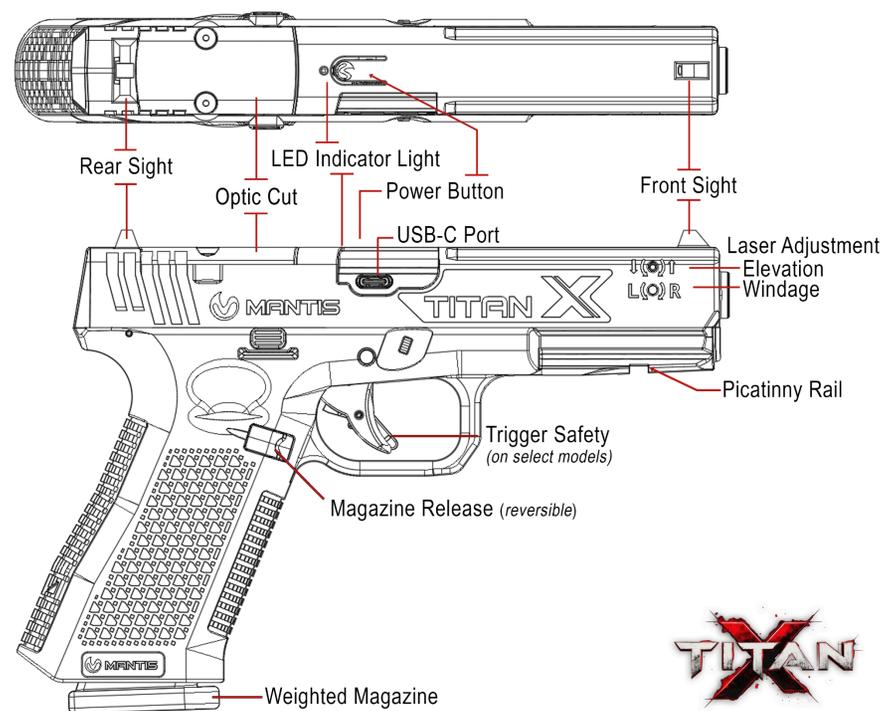
Firearm Safety

Firearm safety is the responsibility of every individual with a firearm. Keep in mind that every accidental discharge is a negligent discharge in which at least one of the standard safety rules was not followed. Always follow all of the firearm safety rules when you are training.

NEVER train with the TitanX without first clearing the training space of all real firearms. The TitanX is an inert training tool. However, it closely resembles a real firearm, making it easy to mistakenly grab a live weapon after setting down the TitanX. Therefore, it is crucial to ALWAYS ensure the training area is completely clear of all real firearms before using the TitanX.

Before starting each dry fire training session, set up the training space for maximum safety by following these rules:

- **ALWAYS treat the firearm as if it is loaded.** You must check your firearm to confirm that there is no ammunition in or around the training area, including the firearm and the magazines. Remove all ammunition from the training area.
- **ALWAYS keep your finger off the trigger** until the conscious decision to fire has been made. Do not insert your finger into the trigger guard and make contact with the trigger unless you are ready to fire.
- **ALWAYS keep the muzzle pointed in a safe direction.** Always be conscious of the direction the firearm is pointed, even if there is no ammunition in the firearm and you are the only one in the room. Do not point at any body parts (feet or hands). Remember bullets can travel through walls.
- **ALWAYS be aware of your target and beyond**, including the space behind the target as well as between the target and shooter. This applies to both dry-fire and live-fire training.



TitanX Specifications (Models 700, 701, 702)

Battery Type	Rechargeable Lithium Polymer 600mAh, 2.2W
Laser Class	Class IIIA, Class 3R per IEC 60825-1 Edition 3.0 2014-05-15
Laser Type	Diode
Maximum Output	5mW
Wavelength	650 nm (red)
Laser Adjustment	1.5 mm Allen Hex Key
Optic Footprint	RMR / RMS / RMSc
Optic Screw Thread	M3x0.5 thread (max length 4 mm below optic)

Charging the Battery

The TitanX uses a rechargeable internal battery. Use the included USB-C charging cable and allow the unit to charge fully before first use. A full charge typically takes 2–5 hours.

When the sensor is connected to the app, the current battery percentage is displayed at the bottom of the SETTINGS screen.

Use a dedicated USB charging block to charge the sensor. **Apple charging blocks are not recommended** for use with MantisX sensors. A computer USB port may be used as an alternative charging source.

Charging time may vary depending on the power output of the charging source. If the device is not used for extended periods, recharge the battery every 2–3 months to help maintain battery health.

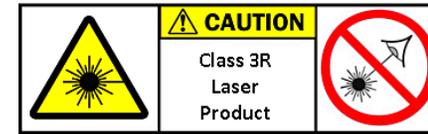
Power Button and Laser Modes

The Power Button, located on top of the slide near the center, controls power, Bluetooth pairing, and laser modes.

The TitanX laser defaults to Laser on Trigger Press mode which enables the laser flash when the trigger is pressed. The Laser Constant On mode is used for [Laser Adjustment](#).

Power On and Pairing

- Press once to power on the sensor and enter pairing mode.
 - Green LED will flash for 30 seconds to indicate pairing mode is on.
 - Open the MantisX Pistol/Rifle app and tap the Connect button.
- Solid blue LED: Sensor is connected to the app.



Diode Laser

Max. output power: 4.95 milliwatts
 Wavelength: 400-700 nanometers (visible light)
 Min. divergence: 0.5 milliradian
 Output: Continuous (CW)
 Laser hazard classification: Class 3R, "Caution"

Laser Constant On Mode

- While the LED is solid blue (connected) or flashing green (pairing):
- Press the Power Button once to enable Laser Constant On mode.
- Press the Power Button again to exit Laser Constant On Mode for Laser on Trigger Press mode.

Power Off

- Press and hold the Power Button for 5 seconds to power off the sensor.

LED Indicators (Normal Operation)

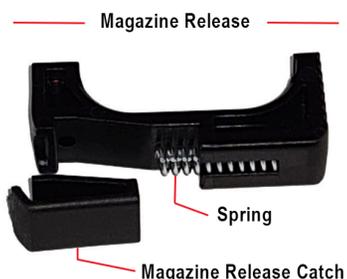
- Flashing green: Pairing
- Solid blue: Connected
- Solid red: Low battery
- Steady flashing red: Pairing with low battery

LED Indicators (While Charging)

- Solid orange: Charging
- Solid red: Charging with low battery
- Slow flashing green: Fully charged



Reversing the Magazine Release



The TitanX magazine release can easily be switched from right handed to left handed. The magazine release button and the magazine release catch are easy to move from one side to the other side of the grip. The tools needed are a small screwdriver or fine point such as a pick or tweezers and the included 1.5 mm hex key. [Video Instruction link](#)

1. Press the magazine release and remove the magazine. The magwell needs to be empty.
2. Press the magazine release button all the way in to see it protrude on the opposite side of the grip.



3. Rotate the gun so the back side is up to give access to the pinhole on the magazine release.



4. Insert the hex key into the small pin hole on the back side of the magazine release to depress the release catch. Keep the hex key fully inserted for the next step.

5. Notice the small space at the top or bottom of the magazine release catch. Use a small screwdriver or object with a fine point and insert into the space to push the magazine



release catch out enough that you are able to remove the catch. The magazine release catch needs forward and outward pressure to be pushed up and out. Remove the magazine release catch.



6. Hold over a table surface, the small spring can fall out when the magazine catch is removed. Keeping pressure on the magazine release, remove the hex key and then pull the magazine release and spring from the grip frame.



7. Rotate the magazine release around to the other side of the grip. The spring side of the magazine release should be oriented forward toward the front of the grip.

8. The gun may need to be held at an angle so the spring doesn't fall out. Press the release in all the way. A finger inside the bottom of the magwell can help hold and guide the mag release through the opposite side of the grip.

9. Orient the catch so that the semicircle tab aligns with the corresponding recess in the magazine release as shown.



10. Press the magazine release catch back in place until it clicks. An audible click is heard when the magazine release is fully inserted.
11. Press the magazine release button to ensure it moves freely and test for proper function with a magazine.

Laser Adjustment

The TitanX has fixed sights. The laser was sighted-in during the production process and should not need adjustment when practicing at a target distance of approximately 15 feet.

Common Sight Picture holds with proper sight alignment



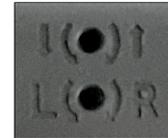
The laser can be adjusted for other target distances or to correct alignment by following these instructions:

1. Hold the gun on a solid surface to remove human error and the natural arc of movement.
2. Press the power button on the top of the slide twice to enable Laser Constant On mode for laser adjustment.
3. Align the sights: The front sight blade should be vertically level (equal height) and horizontally centered between the rear sight posts (equal light on either side of the front sight post). Proper sight alignment is required. Focus should be on the front sight blade.



4. Adjust laser: Insert the 1.5 mm hex key into the adjustment hole located on the right side of the muzzle. Turn slowly watching the laser point of impact while keeping sights aligned. Move the laser in the direction that the point of impact needs to move.
5. After the laser is completely set, press the power button again to disable the Laser Constant On mode.

Elevation - up or down
Windage - right or left



Turn clockwise to move the laser up or right



Turn counterclockwise to move the laser down or left

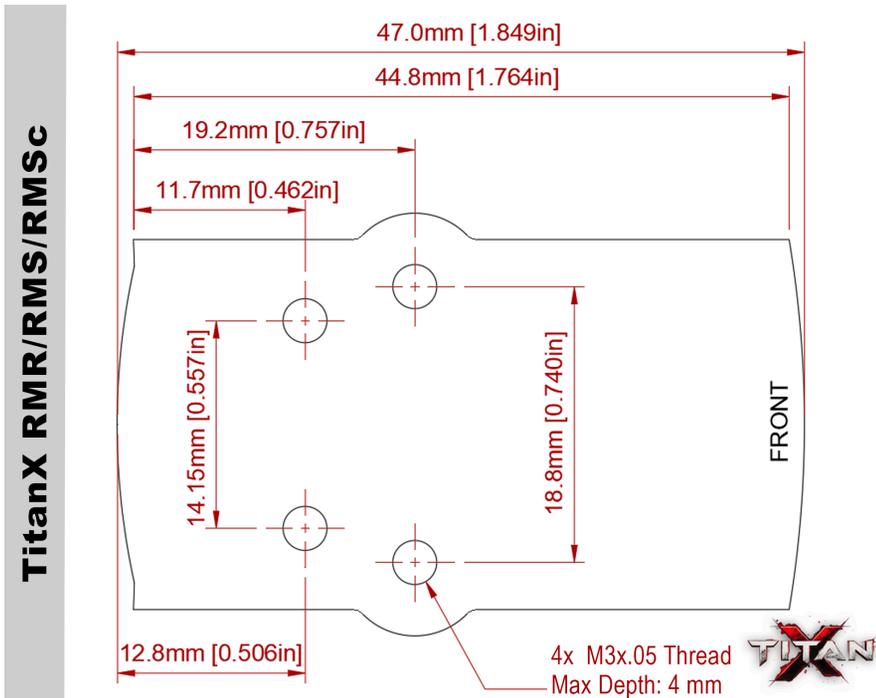


These pictures illustrate improper sight alignment. Compare the position of the front sight blade with the pictures in the left column that illustrate proper positioning of the front sight blade in relation to the rear sight.

Note: If movement during the trigger press occurs, then the laser may appear as a dash instead of a dot on the target. The dash may be corrected through practicing proper trigger control.

Optic Installation

TitanX is RMR, RMS, and RMSc Optics-Ready. Please review the optic footprint when choosing an optic for the TitanX. Verify that the optic will fit within the cutout measurements and that the optic has the correct RMR/RMS/RMSc footprint. Note that the TitanX does not have recoil lugs to increase optic compatibility, because there is no recoil with the TitanX.

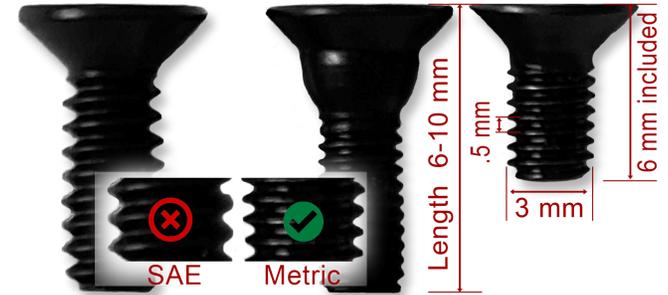


Adapter plates and shims will work with the TitanX as long as they will fit within the illustrated optic cut dimensions.

The TitanX uses screws with a M3x0.5 thread and a maximum depth of 4 mm into the TitanX. Optic screws vary in shape and size. Screws

should not extend past the 4 mm into the slide to prevent damage to the TitanX.

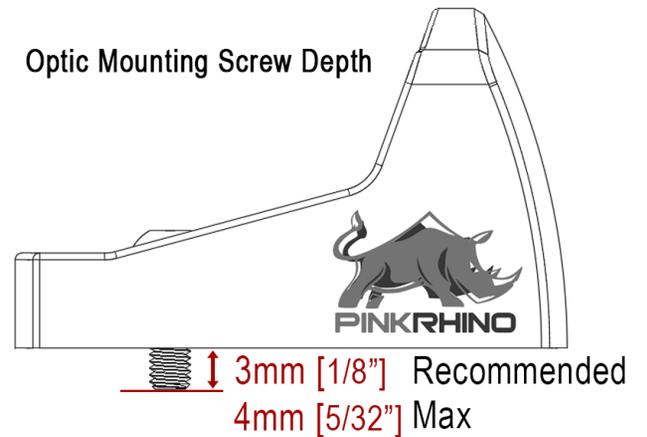
M3x.5x10mm are common optic screws that should work for most optics. The cover plate has 6 mm screws pre-installed, but are not optic mounting screws.



Enlarged to illustrate difference between SAE and Metric threads.

The optic screws do not need to be torqued to an exact spec since there is no recoil to work them loose, should be tightened to no more than 0.4 Nm,

Threadlocker is also not needed.



See the instruction manual that came with the optic for installation instructions on your specific optic. When installing or zeroing your optic, do not force optic adjustments in either direction to prevent damage to the optic or the threads.

We have compiled a list of popular [RMR/RMS/RMSc optics](#) that are compatible with the TitanX.

MantisX Pistol/Rifle App

The TitanX connects to the MantisX Pistol/Rifle app to view the training data from the integrated MantisX sensor. Download this app to your device from Google Play, Apple Store or Amazon app store: <https://mantisx.com/pages/app>

Minimum System Requirements

- Android: v 7.0*
- Apple v 13.0
- Kindle Fire 7

The MantisX family of apps are not available for computer operating systems.



Bluetooth 4.1 or greater with a Bluetooth Low Energy profile is required. Bluetooth must be enabled and permission given to the app to connect to the MantisX sensor. When the app is installed, the app will prompt for the permission.

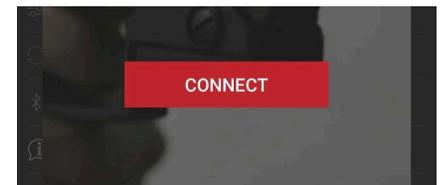
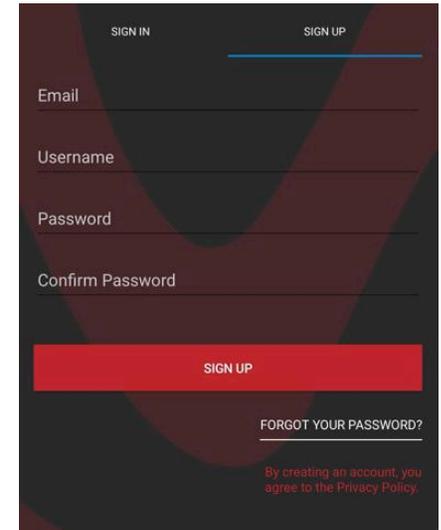
* Android OS versions 7-11 require location enabled and permission granted to connect to the app. *MantisX does not collect or store any location information.*

Connecting to the App

The integrated MantisX sensor can be connected to the MantisX Pistol/Rifle app for movement data feedback. To connect the TitanX to the app:

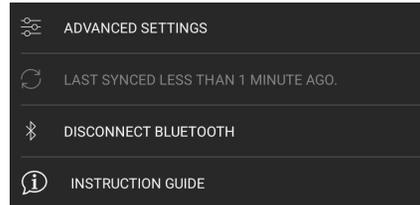
1. Verify Bluetooth is enabled. MantisX may not appear in the available Bluetooth devices list (*Android only*). When the app has Bluetooth permission and the sensor is turned on, the MantisX app will search for the MantisX sensor during the connection prompt.

2. Open the MantisX Pistol/Rifle app.
3. Sign In to your Mantis account or Sign Up to create a Mantis account that can be used with all Mantis apps. (*The Sign In screen may be skipped, but the app features are limited without a training profile*).
4. Review the Firearm Safety section of the manual.
5. Press the power button tab, on the top of the slide to turn on the integrated MantisX sensor; the green LED light will start flashing when the sensor is in pairing mode.
6. Place the TitanX on a steady surface to allow the app to calibrate. The sensor may calibrate automatically during the connection process or may prompt calibration at the beginning of a training drill.
7. In the Mantis app, press the red Connect button, near the center of the screen while the LED on the TitanX is flashing. The flashing LED will become a solid blue light when a connection has been established. After the sensor is connected, then check your settings before starting a training session.



Alternate connection options:

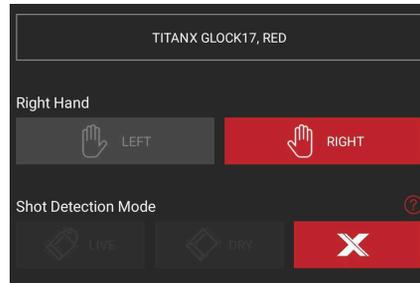
- A. Open the Settings screen of the MantisX app, scroll down, and then select the Connect/Disconnect Bluetooth near the bottom of the screen. This button prompts the app to search for the sensor.
- B. Starting a drill will prompt the red Connect button, if a sensor is not already connected.



Settings

The correct training settings need to be selected before each training session. There is a red question mark, on the right side of the Settings screen, to help identify the correct settings needed for the sensor/firearm setup being used.

The app automatically recognizes the TitanX sensor when connected to the app. Verify the correct TitanX settings are selected as illustrated (select left/right hand as applicable) to ensure the app functions correctly. When switching sensors, double-check this setting for the correct gun type and correct shot detection mode are selected.



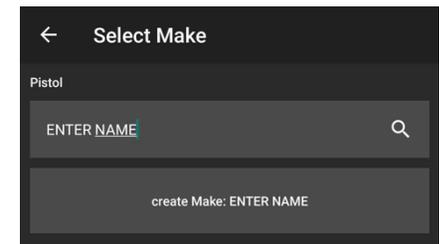
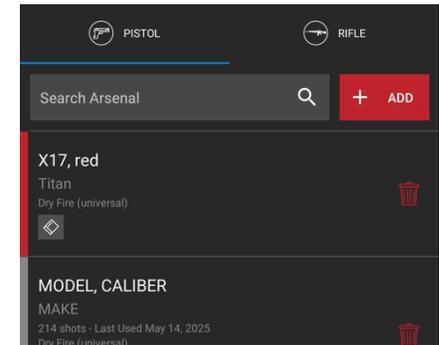
Arsenal

The Arsenal allows you to label, track and filter your sessions by the firearm used. Selecting a gun in the arsenal does not impact shot detection. Add a Firearm for the arsenal list by tapping the “+ Add” button and selecting the Make (Titan) and model that matches the training pistol.

Firearms previously selected or entered will be shown at the top of the list.

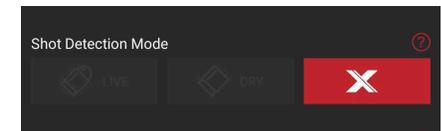
If the make and model of the firearm is not listed, then tap the “+ Add” button. The app allows you to create your own when you enter the make, model, and caliber of your firearm. Type the make and model name as you want to see it displayed in your arsenal list. Select the caliber or laser color for custom entry.

To remove a make/model from the selected list, simply tap the trashcan icon on the right side of the Arsenal screen.



Shot Detection Mode

Shot Detection Mode determines the algorithm that is used to read the movements and determine when a shot occurs. The app will automatically select the correct mode for training with the TitanX. The additional Shot Detection

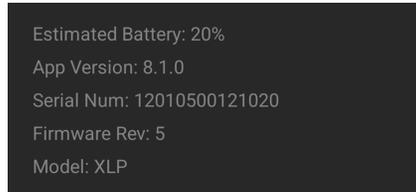


Mode settings used with the other MantisX sensors, and the  buttons are not available with the TitanX.

Sensor Information

The sensor and app information can be found at the bottom of the Settings tab. Sensor details (serial and model information) are shown when the sensor is connected to the app. This system information is

helpful when contacting Customer Support for troubleshooting. If you experience issues, then check out the [troubleshooting](#) section of the manual. The current available app version will be stated on the Play Store. Compare the version number on the Play Store to the version number listed to see if the latest version is installed.



Customized Drill Settings

Each drill description screen has a configurable drill settings button which enables you to customize drills for your training needs. These settings only change that specific drill. Access these settings after a drill is opened from the Drill menu, then tap DRILL on the next screen and adjust the various configuration settings available for that drill. The drill-specific customized settings:

- **Buzzer Delay** - After the start button is pressed, the amount of delayed time before the drill begins.
- **Shot Count** - Limits the number of shots the drill allows. The drill will end when the shot count is reached.
- **Repeat** - Number of times the drill is repeated.
- **Passing Score** - Minimum score for a shot for pass/fail analysis. Shots under the threshold will still be counted, but will show in red on the Charts screen.
- **Ready Position** - The muzzle orientation in relation to the target. The drill will prompt for Ready position and will not begin until the selected position is recognized. Mount Orientation and Location settings need to be set correctly to ensure that ready positions are recognized.
 - Other [No Beep] - Start at your own discretion, no beep
 - Other [Beep] - Start on the beep
 - On Target - Point the firearm at the target

- Holster - Start with a firearm holstered
- [Retention](#) - Strong-hand only, wrist close to body with a cant at least 10 degrees away from your body
- Low Ready - Firearm angled downward at least 35 degrees
- High Ready - firearm angled upward at least 35 degrees
- **Par Time** - Sets a specified amount of time to complete the shots. The drill will begin at the beginning of the buzzer sound. It will end when the par time is reached. The buzzer duration is .3 seconds.
- **Magazine** - Set the digital capacity for each magazine. See the next page for more details on this setting.
- **Score Floor** - Allows or ignores negative shot scores (not available in all drills)
- **Hostage Rescue** - Sets 85% to pass, 4.0 par time with a holster ready position (not available in all drills)

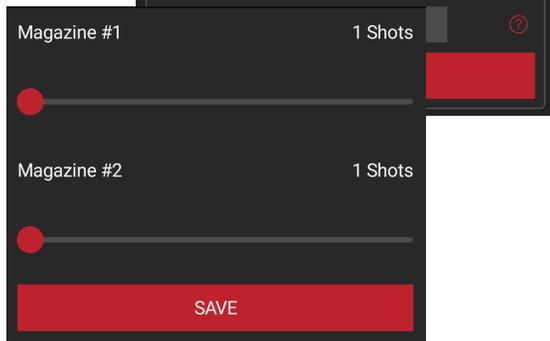
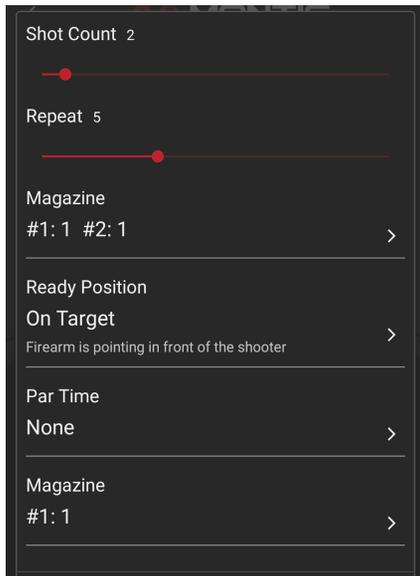
Tap RESET to clear the settings and restore back to their default.

Magazine Capacity

The TitanX has a drill setting to select magazine capacity on select drills. This setting is digital only as there are no live rounds in dry fire practice. Select the number of shots for each magazine. The app will prompt for a reload when the shot count for magazine #1 has reached the set capacity, not any time the physical magazine is exchanged. When prompted a reload must be done for the app to continue counting shots.

Adjust the total Shot Count as needed, so the Shot Count is not less than the magazine round count. Make sure your settings are correct, drills may not act as expected if the settings do not match the course of fire. When setting magazine capacities ensure the Shot Count correlates or use No Limit.

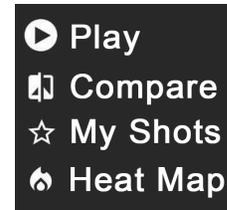
Some drills will illustrate the reload time split in brackets. The total time for the shot [the time from removal and to a second mag inserted]. This bracketed time also indicates which shot had a reload.



Action	Score	Time
Shot #1	82.1	0.00
Shot #2	90.9	2.51 [1.02]
Shot #3	83.9	3.30 [1.02]
Shot #4	69.0	2.47 [0.99]
Shot #5	75.5	2.74 [1.08]

Trace View Settings

When a session is completed, icon buttons will be on the bottom left of the Trace View screen. The **Play** button animates the selected shot. This will automatically happen if the next selected shot transitions from the current shot.

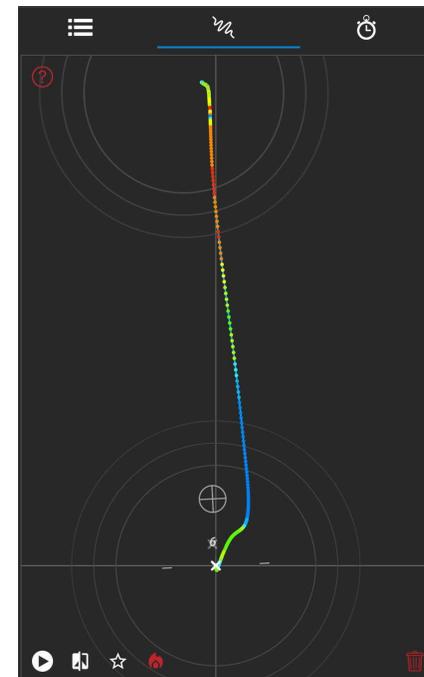


The **Compare** button allows the selection of a previously recorded and marked session to be viewed side by side with the current selected session. Tap the Star to add a session for comparison with other sessions. The Compare feature is not available on all drills. This feature is great to review sessions and see where improvements have occurred and what still needs improvement.

The **Heat Map** changes the trace colors to illustrate the movement velocity according to the color gradient scale with red as rapid acceleration, green is a constant speed and blue is slowing down.



The heat trace is a valuable training tool to review the consistency of your movement velocity. If the movement from target to target or ready position to target are jerky and rushed, then the heat trace will illustrate that issue. If the movement is slowing down too much and creating drag, then the heat trace will show that and much more.



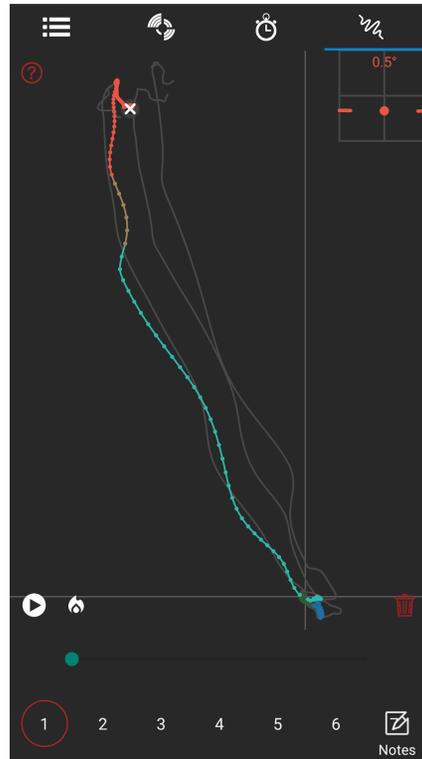
TitanX Drills

In addition to the standard drills found in the [Mantis Pistol/Rifle Manual](#), the TitanX has exclusive drills for training with multiple targets and dynamic shooting. Get creative with your training. Your drills are unlimited, except for the need to stay within Bluetooth distance of your smart device. Review the TitanX drill settings for each drill. Press DRILL to customize the settings.

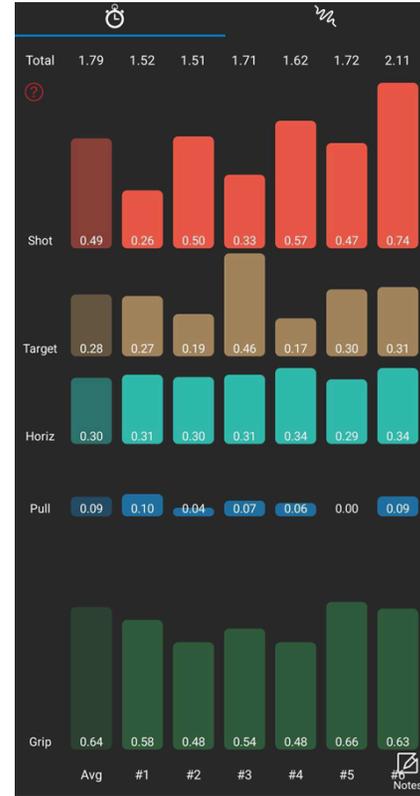
Holster Draw Analysis

Goal: Improve speed and accuracy from the holster.
Instructions: Begin with the firearm in the holster. Each time the buzzer goes off, draw and present the firearm and fire one shot. Re-holster the firearm and prepare for the next buzzer.

- Shot (Orange):** Time from being on-target to when the shot breaks target
- Target (Brown):** The time it takes to get on target, after getting the gun horizontally.
- Horizontal (Aqua):** Time from the pull to when the gun is drawn and rotated to horizontal alignment.
- Pull (Blue):** The time it takes to pull the firearm out of the holster.
- Grip (Green):** Time from the start beep to when your hand grips the gun. If your hand is on the gun, then zeros will be seen.



The Timer bar graph breaks down the holster draw into key phases to identify inconsistent or slow phases. Tap on a cell in the graph to view



the firearm then fire at least one shot. Re-holster and prepare for the next set.

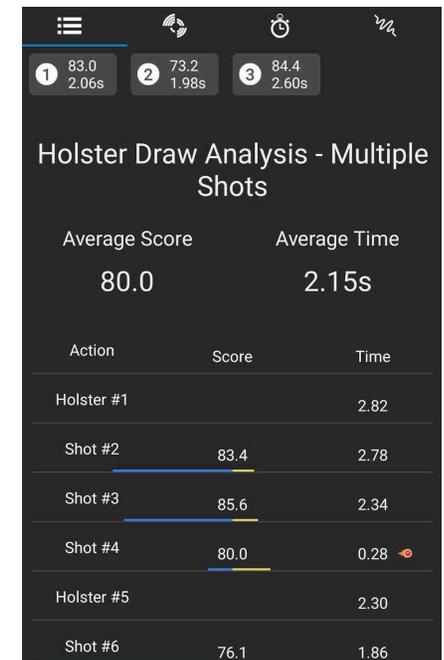
The set Total Time will be listed at the top of the Summary screen. Tap on the buttons at the top of the screen to view the draw time and shot score for each set.

Swipe or tap the Trace View screen to review the trace movements. The first shot will

a detailed trace of that specific draw stroke. The colors on the bar graph will coordinate with the colors on the trace. The graph may not display times as expected, if the phase was not detected.

Holster Draw Analysis - Multiple Shots

Goal: Develop a smooth, efficient holster draw stroke with follow-up shots while focusing on the five key phases to identify inconsistencies at each phase.
Instructions: Begin with the firearm in the holster. Each time the buzzer goes off, draw and present



illustrate the trace view of the holster draw stroke. The follow-up shots will illustrate the shot muzzle trace using the calculated point of aim for each shot taken. The numbers at the bottom of the Trace View screen will coordinate with the numbers on the Summary. For example #1, 5 and 8 would illustrate the draw stroke trace, while #2, 3,4, 6, 7, and 9 illustrate muzzle movement trace. The gray lines on the holster trace allows draw stroke comparison with the other draws during that session.



The Holster Draw Analysis drills have a playback slider at the bottom of the screen to give more control over the playback speed.

Dynamic Training

Goal: Control your speed, not too fast and not too slow - avoid over-travel and under-travel. Then increase speed while maintaining a good score.

Instructions: Dynamics is the Open Training drill for target transition drills. Shoot multiple targets (minimum 2) focusing on straight transitions, minimal overtravel, and eliminate delays. Silhouettes are suggested, however any target may be used. The Trace View will illustrate the movement between targets. This drill is also great for training multiple targets in multiple rooms. (*just need to stay within Bluetooth range of your smart device with the app connected*).

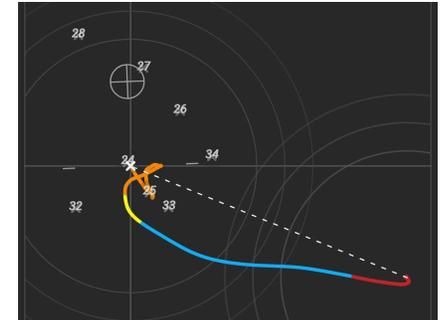
Dynamic drills will illustrate and play the movement from target to target. Additional hits will be marked by the coordinating shot number as seen in the picture. The dotted line illustrates the most efficient path from the previous hit to the current shot - the shortest and fastest time between any two points is a straight line.

Default drill settings: Starting Position - Other [Beep]
Shot Count -No Limit
Repeat - 1
Magazines - None

v2025-12-29

The Efficiency score is an average of the Delay, Over-Travel and Transition scores.

Previous Target (Red): Drag movement off the previous target
Transition (Blue): Straightness of the path between targets
Over-Travel (Yellow): Continued movement beyond the target.
Delay (Orange): Time spent on target beyond the drill setting.



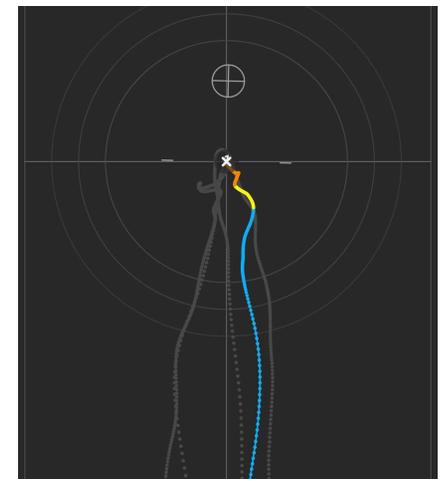
There are four tabs at the top of the Summary to break down the average time by phase. The fastest and slowest scores and splits will change according to the Efficiency, Transition, Over-Travel or Delay is selected. The color will coordinate throughout all of the screens for dynamic drills.

	EFFICIENCY	TRANSITION	OVER TRAVEL	DELAY
	Score	Time		
	82.3	0.95		
Action	Score	Time		
#1	-	4.38		
#2	82.5	1.27		
#3	95.1 🏆	0.93 🕒		
#4	69.2 🕒	1.65 🕒		

Ready Up

Goal: Focusing on sight alignment and accuracy, then increasing speed while maintaining a good score.

Instructions: 1 target; 1 shot total
From the starting position (low ready is the default position), present on target and take one shot to center as soon as sights are on target and aligned, then back to ready position. This drill transitions from a non-threatening



ready position to a position where it can be used defensively or offensively at a moment's notice. The Ready Up drill can be used with many variations to improve your firearm presentation consistencies.

Default drill settings:

Starting Position - Low Ready
 Shot Count - 1
 Repeat - 10
 Magazines - None

1R1 One-Reload-One

Goal: Improve the mechanics of the reload. Increase speed while maintaining a good score.

Instructions: 1 target; 2 shots total

Select starting position and present on target and take one shot to center as soon as sights are on target and aligned, drop mag, reload and take another shot.

Default drill settings: Starting Position - On Target
 Shot Count - 2
 Repeat - 5
 Magazines - #1:1

Bill Drill

Goal: Develop a fast smooth draw and stop the threat with six well placed shots to the center hit zone within 3.5 seconds (Expert 2.0 seconds).

Instructions: 1 target; 6 shots total

This defensive drill builds the skills for six fast shots to the A zone of the target. The standard distance is seven yards. Perfect the drawstroke with accurate shots, because in a defensive scenario every millisecond matters.

Default drill settings: Starting Position - Holstered
 Shot Count - 6
 Repeat - none
 Magazines - #1:1

Transitions

Tap on Transitions to expand the Dynamic Drill menu. The following drills have pre-set drill configurations that may be adjusted to fit a variety of training needs.

The default shot count needs to be hit to complete the drills, otherwise your options are limitless. While silhouette and plate targets are recommended, any target may be used.

Get creative in your training by running the Box Drill counterclockwise instead clockwise or increase the target distances in the Pyramid Drill. The illustrations on the drill introductions indicate target setup and default settings. Adjusting the Drill settings will change the illustration for some drills.



El Presidente Drill

Goal: Increase speed while maintaining a good score.

Instructions: 3 targets; 12 shots total

Target order #1, #2, #3, RELOAD, #3, #2, #1

Standardized test of skill - Targets should be of equal height and in a line approximately one yard apart. Begin with your back toward the targets, while standing in a surrendered position then at the prompt turn, draw and engage with two shots at each target, reload and then shoot two more shots at each target in the reverse order.

Default drill settings: Starting Position - Holster
 Repeat - 1

Failure to Stop Drill

Goal: Stop the threat by transitioning between two key hit zones and maintaining a good sight picture. Increase speed while maintaining a good score.

Instructions: 1,2 or 3 silhouette target; 3, 6 or 9 shots total

This defensive drill is sometimes called the Mozambique Drill. The default settings are one target and three shots, however changing the shot count also changes the target count. Select the starting position and round count; at the prompt take two chest shots, then one head shot at each target. The standard Failure to Stop drill has one target at seven yards, but this drill can be practiced with a variety target variations.

Default drill settings: Starting Position - Other [Beep]
Shot Count - 3 (6 or 9 optional)
Repeat - 1
Magazines - None

Box Drill

Goal: Stop the threat by transitioning between two key hit zones and maintaining a good sight picture. Increase speed while maintaining a good score.

Instructions: 2 silhouette targets; 6 shots total

Left: 2 chest shots
Right: 2 chest shots
Right: 1 head shot
Left: 1 head shot

This defensive drill is a variation of the Mozambique Drill. The default settings are two targets and three shots on each target. Select the starting position; at the prompt take two chest shots on the left target, then right target, then one head shot on the right target then the left target. The standard Box drill has targets of equal height at seven yards and the hits make a box shape.

Default drill settings: Starting Position - Other [Beep]
Repeat - 1
Magazines - none

V Drill

Goal: Increase speed while maintaining a good score.

Instructions: 5 targets; 18 shots total

Center: 2 shots
Left: 2 shots
Center: 2 shots
Right: 2 shots
Center: 2 shots
Far Left: 2 shots
Center: 2 shots
Far Right: 2 shots
Center: 2 shots

Place targets in a V shape. The center target is closest and the other targets are in a flanked formation at least one yard apart. Make this V drill interesting by changing the order that the targets are hit or by running a variation similar to the 1-5 drill by changing the round count to each target. The drill ends when the eighteen shots are completed.

Default drill settings: Starting Position - Other [Beep]
Repeat - 1
Magazines - none

Pyramid Drill

Goal: Increase speed while maintaining a good score.

Instructions: 4 targets; 10 shots total

Left: 2 shots
Bottom Center: 2 shots
Right: 2 shots
Top Center: 2 shots
Left: 2 shots

Place targets in a pyramid formation. Choose starting position and then shoot two shots at each target in a clockwise transition.

Default drill settings: Starting Position - Other [Beep]
Repeat - 1
Magazines - none

1-5 Drill

Goal: Increase speed while maintaining a good score.

Instructions: 3 targets; 15 shots total

Left: 1 shot

Center: 2 shots

Right: 3 shots

Center: 4 shots

Left: 5 shots

Place the three targets in a line, shoot a different round count on each target from left to right and then back to the left target.

Default drill settings: Starting Position - Other [Beep]
Repeat - 1
Magazines - none

Triple Threat

Goal: Stop the threat by transitioning between two key hit zones and maintaining a good sight picture. Increase speed while maintaining a good score.

Instructions: 3 targets; 15 shots total

Center: 3 chest shots, 1 pelvis shot, 1 head shot

Left: 3 chest shots, 1 pelvis shot, 1 head shot

Right: 3 chest shots, 1 pelvis shot, 1 head shot

Place three targets in a row, five yards away. Shoot five shots to each target beginning with the center target.

Default drill settings: Starting Position - Other [Beep]
Repeat - 1
Magazines - none

Plates

Six Plate

Goal: Increase speed while maintaining a good score.

Instructions: 6 plate targets; 6 shots total

Standard plate drills have eight inch round plate targets in a row, shoot one shot at a plate and then move on to the next plate. Plate sized targets or a plate rack may be used for this drill.

Default drill settings: Starting Position - Other [Beep]
Repeat - 1
Magazines - none

Three Plate

Goal: Increase speed while maintaining a good score.

Instructions: 3 plate targets; 3 shots total

Standard plate drills have eight inch round plate targets in a row, shoot one shot at a plate and then move on to the next plate. This drill emphasizes rapid target acquisition.

Default drill settings: Starting Position - Other [Beep]
Repeat - 1
Magazines - none

Plate Alternating

Goal: Increase speed while maintaining a good score.

Instructions: 6 plate targets, 6 shots total

Standard plate drills have eight inch round plate targets in a row, shoot one shot at a plate and then move on to the next plate. This drill emphasizes rapid target acquisition. Start with the outside plates and shoot one shot at each plate alternating from left and right working your way to the center.

Default drill settings: Starting Position - Other [Beep]
Repeat - 1
Magazines - none

Plate Transition

Goal: Increase speed while maintaining a good score.

Instructions: 2 plate targets and 1 silhouette target; 5 shots total
Standard plate drills have eight inch round plate targets in a row, shoot one shot at a plate and then transition over to the silhouette target. Starting with the left plate, shoot once at the left plate then transition to the right plate for one shot, then transition to the silhouette for three shots.

Default drill settings: Starting Position - Other [Beep]
Repeat - 1
Magazines - none

Plate Transition Variation

Goal: Increase speed while maintaining a good score.

Instructions: 6 plate targets and 1 silhouette target; 18 shots total
Starting on the left plate, shoot plate once then transition to the silhouette target with two shots, then transition back to the next plate. Work your way across all six plates with the silhouette target transition after each plate.

Default drill settings: Starting Position - Other [Beep]
Repeat - 1
Magazines - none

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Courses

Introduction Course

The Introduction Course is designed to take you through the basics of how to use the system and operate some of the screens. This optional course can be completed for either pistol or rifle. This is a very basic course that builds familiarization with the sensor and the app.

Marksmanship Courses

Marksmanship courses are designed to hone your fundamental pistol marksmanship abilities. These courses are a great place to start because they are designed to perfect your precision by encouraging you to go above and beyond your normal. The Marksmanship Course challenges are listed out in the [MantisX Pistol/Rifle App User Manual](#).



Combat Courses

The Combat courses utilize many of the skills refined in the Marksmanship courses and increase the pressure by adding a timed component. Build combat skills like reloads, holster draws, one-handed shooting and decision drills. Simulate shooting while injured or dragging battle buddy with Primary/Support Hand only drills. Training to engage your brain and not just the trigger is an important skill developed with Decision Drills. Master the operation of your firearm for when it is needed the most, in the fight. Combat Course challenges are listed out in the [MantisX Pistol/Rifle App User Manual](#).



Note: The Advanced Combat and Elite Combat courses require the Holster Draw Analysis Drill only on the X10 and TitanX systems.

Concealed Carry Courses

The CCW courses build on the Combat Course skills with a focus of first shot accuracy and speed. The Hostage Rescue and Decision Drills add the aim small, miss small skills needed for rapid, deliberate and disciplined defensive force training. Primary Hand/Support Hand drills are necessary in real world training when only one hand is available for defensive response. The CCW courses enhance the preparedness for defensive situations. The CCW Course challenges are listed out in the [MantisX Pistol/Rifle App User Manual](#).



Troubleshooting

Support Phone: (630) 551-8171
Support Email: support@mantisx.com

Below are some of the most common troubleshooting steps for the TitanX. When contacting customer support, please include all of the completed troubleshooting steps along with the description of the unit behavior when troubleshooting.

Connection Issues

Won't Connect - If the sensor is not connecting to the app, please do the following troubleshooting steps:

1. Verify Bluetooth is enabled on your phone/tablet. If Bluetooth is already enabled, disable and re-enable it.
 - Go to your phone Settings and verify Bluetooth is enabled. If not enabled, toggle to enable Bluetooth.
 - In device settings, verify that the Mantis app has Bluetooth permissions granted (iOS only).
2. Confirm the MantisX Pistol/Rifle app has Bluetooth enabled in your device app settings:
3. Verify Location is on, and that the app has Precise Location permissions granted (Android 7-11 only).
4. Confirm the Mantis app is the MantisX Pistol/Rifle app.
5. Verify the TitanX is fully charged (see [Charging the Battery](#)).
6. Reset the MantisX sensor:

While watching the LED indicator light next to the power button on the slide, press and hold the power button until the light turns off and flashes purple, then release the power button.

7. Reboot the phone/tablet, then try connecting the sensor to the MantisX Pistol/Rifle app.
8. In the MantisX Pistol/Rifle app, go to the Settings screen, then scroll down and tap CONNECT BLUETOOTH, then connect the MantisX sensor from the options.

If you have followed the previous steps and are still unable to connect the sensor to the app, do the following:

1. SYNC your training history using the SYNC button located at the bottom of the Settings screen in the MantisX app. If you do not have a Mantis User Profile, then you will lose your data on your device with the following steps. SYNC is recommended.
2. Sign out of the MantisX Pistol/Rifle app (Settings > Sign Out) and uninstall the MantisX Pistol/Rifle app.
3. Power off the device for at least 10 seconds to clear the app cache and then reinstall MantisX Pistol/Rifle app and give permissions (see [Connecting to the App](#)).
4. Verify Location is enabled on your phone/tablet (*Android 7-11*). If Location is already enabled, disable and re-enable then check permissions.
 - Android: Settings > Apps > MantisX > Permissions > Location.
 - iOS/Apple: Settings > Privacy & Security > Location Services.
5. Open the app and connect to the sensor.

The previous steps resolve most connection issues. However, sometimes a third party device may interfere with Bluetooth connection. Complete the following steps if the previous troubleshooting steps did not resolve your connection issue.

1. Confirm no other Bluetooth devices are connected to the phone/tablet and causing interference (hearing aids, speakers, earphones, etc.).

Note: Hearing aids may not be listed under the operating system's Bluetooth management interface. In some cases, the connection and controls for hearing aids are found under the Accessibility controls in the operating system settings.

2. Check for, and apply, all stable and non-beta OS updates that may be available for your phone/tablet.
3. Clear the device Bluetooth cache, then restart the device
Note: Clearing the Bluetooth Cache erases all paired Bluetooth connections.
4. Try to connect the app to the sensor. If still unable to connect, try connecting the sensor to a different phone/tablet.
5. If there are still issues, contact the Mantis Support Team and report all the completed troubleshooting steps. Tap the Report Issue button on the Settings screen to send an email to the Support Team. The Report Issue button will send the Sensor Information along with your report to speed up the troubleshooting process.



- Connection is frozen** - if the sensor is frozen on and won't disconnect or turn off. Allow the battery to fully drain. Do a Hard Reset - While watching the power light, press and hold the power button until it turns off and flashes purple, then release the button.

Laser Troubleshooting

- Laser doesn't shut off** - check that the laser setting is not in the constant on mode by pressing the power button.
- Laser only with Constant On** - (1) Do a Hard Reset (2) Plug the sensor in for a minute (3) Press button - try again (4) Verify if there are any other sensor issues (5) Send video to support to illustrate the issue.
- Loses its zero** or moves similar to a loose laser - send a video to [customer support](#) along with the details.
- Laser is no longer a small dot**
 - Run through the laser alignment steps, slowly. The laser may have been over adjusted.
 - Send a photo to [customer support](#) along with the description.
- No laser flash** - check that your TitanX model has a visible laser. IR lasers are not visible with the natural eye:
 - Use your device's camera to check for the light of the laser on a surface near the laser dot and the device's camera (IR lasers can be tested for visibility).
 - Check if changing the laser constant on/trigger press function makes the laser visible by pressing the power button a few times, switching the laser function.
 - Ensure the battery is fully charged

Shot Detection Issues

Shot detection issues happen when shots are not accurately recorded with the press of the trigger, or multiple shots are recorded with a single trigger press. To troubleshoot shot detection issues, please make sure that the sensor is connected and then go to the app Settings and check:

- Too Fast** - Some drills aren't designed for fast movement, slow down to check if the drill you are using is designed for smooth movements. Drills like Open Training or Shot Timer are better suited for faster drills and customizable for your training needs.
- Shot taken prematurely** - Drills like the Holster Draw Analysis are designed to take the shot after the holster draw and not during the draw stroke movement. Slow down and try a complete presentation from the holster before pressing the trigger.
- Shot Detection Mode** - verify the app recognized the TitanX and the correct Shot Detection Mode was selected when connected.
- Reinstall the app** - SYNC your training data to your profile > uninstall the app > power off the device for at least 10 seconds > reinstall the app > sign back in and check if a fresh app install resolves the shot detection issues.

Shot Detection Troubleshooter

The TitanX shot detection mode is automatically selected to the mode needed for the TitanX. However, if shot detection issues continue after trying the above steps, the Shot Detection Troubleshooter may help identify the issue. The sensor must be connected to the app in order to troubleshoot. The app will walk you through screens to validate the shot detection settings that are active for the app.

Follow the instructions for ten shots. Each shot must be taken in a set window of time. After the ten shots are recorded, you will be prompted to send a report to our development team. This report will allow our developers to see how the sensor and app are interacting.

Select Standard Drills or Holster Draw Analysis to ensure the correct troubleshooting is selected.

Holster Recognition

Holstered position not recognized in all drills

The app does not recognize all holstered positions. The sensor is considered holstered if the sensor is within a 40 degree cone. Holsters that cause the firearm to sit at more extreme angles can have difficulty with the app seeing the sensor as "holstered" position.

- Verify Tracking** - If your settings and mode are correct, then verify the movement is registering correctly on the Live View screen. Open and start any drill > go to Live View screen > move the gun up, down, left and right to verify the trace tracks movement accurately.
- Zero Cant** - Open and start any drill > go to Live View screen > select Adjust Cant (red words near the bottom of the screen) > verify the sensor is on a flat and level surface, then tap ZERO. See the Audio Feedback section of the [MantisX Pistol/Rifle User Manual](#).
- Uninstall/Reinstall the app**. Shut the device off for at least 10 seconds before restarting, to clear the app cache.
- Report issue** (bottom of Settings screen) to the support team with a picture/video of your holstered gun setup.

Charging Issues

If the sensor is not charging or powering on (blinking LED when the power button is initially pressed), do the following:

- Verify the unit is receiving adequate charge** - try a different charging block and cable to charge the sensor, preferably a non-Apple-branded charging block. A computer USB port can also be used. Also try a new outlet.
- Sensor reset** - Plug in the USB charger, and while charging - While watching the power light, press and hold the power button until it turns off and flashes purple, then release the power button.
- Adequate charge** - Allow the sensor to charge for at least 6 hours.

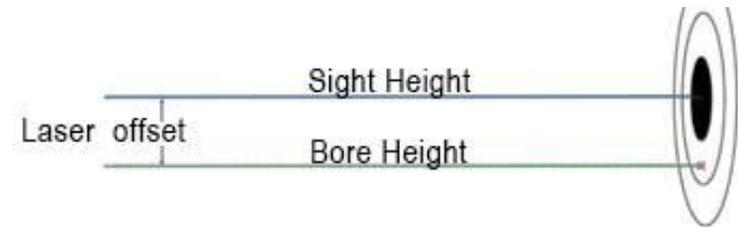
Troubles with inserting the charging cable into the TitanX:

- Charging port misaligned** - If the port is mis-aligned and the casing covers the access hole, send a picture that illustrates the issue to support@mantisx.com.

Laser Adjustment

- Constant laser** - Verify that the Laser Constant On Mode is enabled by pressing the power button.
- Loses zero** or moves similar to a loose laser - send a video that illustrates the issue to support@mantisx.com along with the details that explain the issue.
- Will Not Zero to an Optic** - Due to sight height over bore, a laser cannot be mechanically zeroed to match an optic's point of aim at all distances. Sight height over bore is the physical vertical offset between the firearm's bore axis and the aiming system (optic reticle, reflex sight, etc.).

Because the optic sits above the bore, the bullet's trajectory originates below the point of aim. At close distances, this offset causes bullet impact to appear lower than the optic's reticle, even when the laser is properly aligned. This is a normal geometric limitation and does not indicate a malfunction of the laser or optic



- Elevation does not adjust** - The elevation adjustment screw is recessed deeper than the windage screw and may be harder to engage. Apply firm, steady pressure with the hex key while keeping it centered in the elevation access hole. Gently wiggle the hex key until it fully seats in the screw head and resistance is felt, then make the adjustment.
[Video Instruction Link](#)
- No visible laser output** - Verify that the laser model is equipped with a visible laser. Infrared (IR) lasers are not visible to the naked eye. To confirm IR laser operation, view the laser output using a digital camera (such as a phone camera) while aiming at a nearby surface. The camera sensor may detect the IR emission even though it is not visible directly.
 - Check if changing the laser Constant On/Trigger Press function makes the laser visible.
 - Verify that the battery has enough charge for laser function.

Courses

Course Progress has disappeared - don't see the course progression or the course status is not correct:

- Verify Profile** - Check that the correct user profile is active and signed in on the Settings screen. If you have multiple emails, or user profiles, make sure that you are signed in correctly.
- SYNC Profile** - Scroll down to the bottom of the Settings screen and tap the SYNC option. Sign out and sign back into your account.
- Check Online Profile** - login to your profile at train.mantisx.com to view the completed courses under Awards.
- Send support an email** - send a picture that illustrates the issue to support@mantisx.com along with your user profile ID and profile email address.

Warranty and Returns

Mantis Tech is committed to meeting your training needs. [Customer support](#) is available by phone, email, or chat during business hours for assistance with any MantisX training system. We offer a solid warranty—see our [Warranty Terms](#) for details and a [45-day return policy](#) to ensure your satisfaction. These links and more may be found at the bottom of the mantisx.com website, in the footer.

Please email support@mantisx.com for assistance.