TASER 10 VR Controller User Manual

English
Model VR1000

IMPORTANT SAFETY INSTRUCTIONS
Read all warnings and instructions. Save these instructions. The most up-to-date warnings and instructions are available at www.axon.com

Version 0.06 August 04, 2023

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VIRTUAL REALITY (VR) HEALTH & SAFETY WARNINGS

This document presents important safety warnings, instructions and information intended to minimize hazards associated with the use of an Axon Enterprise, Inc. ("Axon") VR Headset and accessories. These instructions and warnings are to reduce the risk of any personal injury or property damage. **Read the entire document before using a VR headset**. The most current warnings are also available online at www.axon.com.

These warnings and instructions are effective **October 20, 2021**, and supersede all prior revisions. The most current warnings are also available online at www.axon.com.

1. **Read and obey.** Read, understand, and follow all current Axon system instructions, manuals, warnings, and relevant Axon training materials before using any Axon system. Failure to do so could increase the risk of serious injury, system malfunctions, or loss of data.
2. **Obey applicable laws, regulations, and agency guidance.** Use the Axon systems only in accordance with applicable federal, state, and local laws and other regulations or legal requirements.

This document uses a signal word panel to mark specific warnings:

WARNING
This signal word panel indicates a potentially hazardous situation which if not avoided could result in fire, electric shock, damage, system malfunctions, death, or personal injury.

CAUTION
This signal word panel indicates a potentially hazardous situation which if not avoided or heeded could result in minor or moderate injury.

Warnings may be followed by instructions and information to help avoid the hazard and improve safety.

WARNING! BEFORE USING YOUR VR SYSTEM
Always follow all current instructions, warnings, and VR training materials to minimize risks.

All Users should:

1 **Complete training first**. Read and follow all setup and operating instructions provided with the headset, including hardware and software recommendations. Risk of discomfort may increase if the recommended hardware and software are not used.

2 **Read and obey**. Read, understand, and follow all current instructions, warnings, and relevant VR training materials before using VR products. Failure to do so could increase the risk of injuries to the user or others.

3 **The Headset and software are not designed for pairing with any unauthorized devices, accessories, software, or content**. Use of unauthorized devices, accessories, software, or content may result in injuries to the user and others. Changing the headset's Kiosk to accept software not intended for use by Axon may cause performance issues or damage to your VR system not covered by your warranty.

4 **Headset Adjustment**. To reduce the risk of discomfort, follow the headset manufacturer's instructions for proper fit.

5 **Motion Sickness**. To reduce motion sickness, cease training and sit down to rest if you experience any symptoms.

6 **Ensure you are able to safely use the product.** Refer to the manufacturer's safety guidelines, included in the box and also available at axon.com/f3-safety. Some medical conditions may prevent you from fully experiencing VR in headset without health risks.

7 **Avoid prolonged use.** Prolonged use can have physical effects on your body. Take regular breaks. Never use for more than 60 minutes without taking a break. Be aware of the risks of repetitive stress injuries, photosensitive seizure, hearing loss, and even the physiological effects of experiencing VR can result in increased heart rate, respiration, spikes in blood pressure, panic attacks, vertigo, nausea, and other adverse effects.

8 **Stop using the product immediately if you experience any discomfort at all.** Remove your headset immediately. Do not worry about exiting the experience or powering down. Remove the unit from your head. Seek medical assistance anytime you feel it is necessary.

⚠ WARNING! POTENTIALLY EXPLOSIVE ENVIRONMENTS

Failure to follow these safety instructions could result in fire, electric shock, damage, system malfunctions, death, or personal injury.

Potentially explosive environments. Electric VR in a potentially explosive area could cause an explosion or fire, resulting in serious injury or even death. Areas with a potentially explosive atmosphere are often, but not always, marked clearly. Potential areas may include: fueling areas (such as gas stations); below deck on boats; fuel or chemical transfer or storage facilities; vehicles using liquefied petroleum gas (such as propane or butane); areas where the air contains chemicals or particles (such as grain, dust, or metal powders); and any other area where you would normally be advised to turn OFF your vehicle engine. Simulation devices used with the Axon VR system contain wireless transmission technology that transfers radio frequencies over the air as a form of VR transfer. Wireless transmission has been deemed a risk factor in igniting an explosive environment. Do not use the headset, controllers, simulation devices, or any other components of the Axon VR system in an explosive environment.

⚠ WARNING! HEALTH INFORMATION

Preexisting Medical Conditions. Ask your doctor before using the headset if you are pregnant, elderly, have any binocular vision anomaly, neurological disorder, or psychiatric disorder. Refer to your doctor if you suffer from a heart condition or other serious medical condition.

⚠ WARNING! FREEDOM OF MOVEMENT RISKS

Risks Associated with Freedom of Movement. Wearing the VR headset prevents you from seeing your immediate surroundings. Do not use VR products where there is not room for you to move around freely. Choose a training area free of objects and other people that may interfere with the simulation.

To prevent injuries, take the following precautions:

1. Sitting or standing, ensure you have a clear, open space to participate in VR.
2. Where you are in the room and how you are positioned when you power up the headset will determine your point of view. Put on and power up the headset only after you are standing or seated how you will be positioned for the VR experience.

⚠ WARNING! TRAINING ENVIRONMENT SAFETY

The headset must be set up and used in a safe environment. The VR headset produces/causes an immersive experience that can distract users and block their perception of their actual surroundings. The headset should only be used indoors.

Always ensure that users are aware of their surrounding before starting and while in use of the headset. You as a user are responsible for creating and maintaining a safe training space. VR headset should be used in a clear and safe area, including overhead. Serious injuries can occur from tripping or running into walls, furniture, objects, or people.

⚠ WARNING! AVOID CONTROLLER CONFUSION

Do not confuse real law enforcement tools and Controllers with simulated devices used in the Axon VR system. Keep firearms, live TASER cartridges, and other Controllers out of the training area.

⚠ WARNING! BATTERY AND CHARGING

Use the supplied charger for charging the headset. Only plug the headset into a proper wall charger.

Simulation devices used with the VR system are powered by batteries. Only use recommended batteries with these devices.

⚠ CAUTION! CONTROLLER, SENSORS, AND ACCESSORIES

The headset is provided with controllers that aid in in setting up the VR system. Take care to not drop the sensors or let them slip from your hand while in use.

Simulation devices used with the headset contain sensors. These sensors are not as rugged as the law enforcement tools and Controllers they simulate. Avoid dropping them or subjecting them to rough handling.

Simulation devices may require calibration or pairing with the headset. These cautions may apply to other accessories used with the VR system.

⚠ CAUTION! HEADSET TEMPERATURE

Do not expose the headset to extreme temperatures.

1 Avoid hot areas. Keep the headset away from radiators, stoves, amplifiers, and other heat sources.

2 If the headset appears to be overheating, discontinue use and contact the manufacturer.

3 Do not expose the headset to fire or smoking products.

4 Avoid using the headset after taking it from an area of one temperature extreme to another.

CAUTION! HEADSET DAMAGE
Do not expose the headset lenses to direct sunlight.

The headset manufacturer may change product specifications and safety procedures without notice.

CAUTION! DISASSEMBLY AND DISPOSAL
Do not disassemble. Refer to your agency's Guidance for proper handling and disposal.

INTRODUCTION

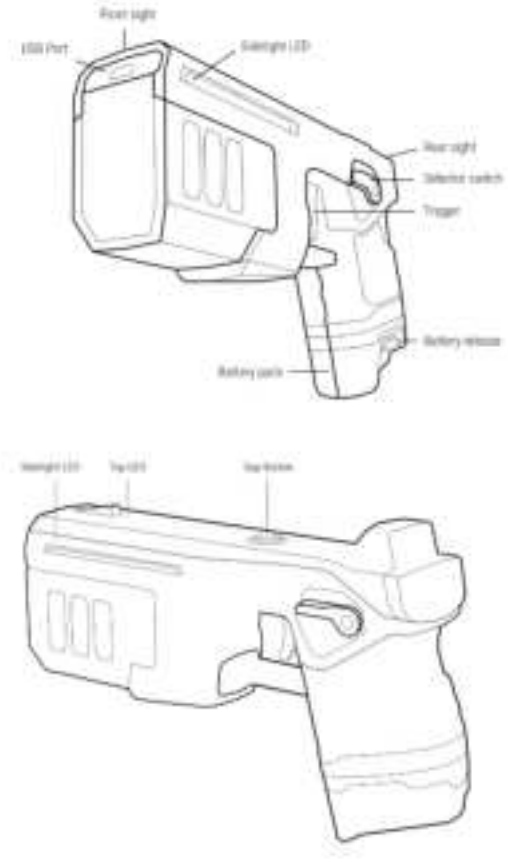
The TASER 10 VR Controller is a firmware updatable LED Controller used in conjunction with a VR Headset. Manufactured by Axon, Enterprise, Inc., the TASER 10 VR Controller is a dedicated training device designed to replicate the weight and feel of a traditional TASER 10 device.

Via a proprietary 2.4GHz protocol, advanced IR LED Constellation tracking technology provides accurate three-dimensional physiology of the peripheral for Inside-Out tracking of objects within a virtual reality environment and continuous device to Headset data exchange allows a user to interact in a virtual world with the device mimicking the standard functionality (such as arming, aiming, and deployment) of a duty weapon. This creates a true-to-life training experience, but removes the challenges associated with the TASER 10 being classified as a firearm.

Because it utilizes the same battery pack as a TASER 7 or duty TASER 10, the TASER 10 VR Controller has the ability to apply Agency Settings from *Axon Evidence*. Similar to a duty TASER device, when a battery is docked, Agency configurations and operation will be downloaded to memory within the battery and read by the VR Controller when powered ON.

TASER 10 VR CONTROLLER FEATURES

TASER 10 VR Controller Overview



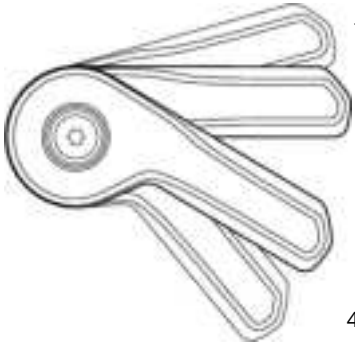
TASER 10 VR Controller Components

- Front/Rear Sights
- USB-C Connection
- Trigger
- Selector Switch
- Sidelight LED
- Top LED
- App/Power Button

Selector Switch

Previous TASER devices had a two position safety; ON (ARMED) and OFF (SAFE). The TASER 10 VR Controller is designed with a three-way Selector Switch used for different operating modes:

1) Tap up = Warning alert/re-energize deployed cartridges
2) ON (ARMED)
3) OFF (SAFE)



If the Selector Switch is in the ON (ARMED) position and the VR Controller has not been moved in 15 minutes, the Controller will turn OFF to avoid draining the battery. If this happens, move the Selector Switch to the OFF (SAFE) position and then to the ON (ARMED) position.

Do not block the Selector Switch on one side of the VR Controller while attempting to move it on the other side. This can break the Selector Switch and disable the VR Controller.

Keep the TASER 10 VR Controller in an Axon- approved, VR Controller specific holster when not in use.

App/Power Button

Pairing

When unpaired, the Top LED will be a solid **blue**.

Depress the App/Power button for three seconds to activate Pairing mode. When Pairing mode is activated, the Top LED will blink **blue**.

When the device has completed pairing, the Top LED will be a solid **green**. The device

will remain paired, even if the Selector Switch is placed in the OFF position.

Reset pairing by pressing and holding down the App/Power button. Release after approximately three seconds. Pairing mode will be re-activated and the Top LED will blink **blue**.

In-Headset Menu Access

The App/Power button allows access to a VR menu viewable while using a VR Headset.

- Quickly press and release the App/Power button 2x to load the in-Headset menu.
- Quickly press and release the App/Power button once to select/launch a menu item.

Powering Down

Power down the device by pressing and holding down the App/Power button for five seconds. Power control can also be communicated from the VR Headset to the Controller via removal of the Headset for greater than three minutes, powering down the Headset or putting the Headset to sleep.

Sidelight LEDs

LEDs on each side of the VR Controller indicate the current device, battery, and trigger status.

	State / Msg	COLOR	Pattern (hz, duty, duration)	Notes
[illegible]	T10 App Version	See Resistor Color Code Chart Below	[illegible] 100%, 3s, 1s each color	Sequence on Battery Insertion (bootloader)
[illegible]	Battery > 80%	GREEN	2.0hz, 50%, 0.8s	Sequence on device wake up (application mode)
[illegible]	50% ≤ Battery < 80%	YELLOW	2.0hz, 50%, 0.8s	Sequence on device wake up (application mode)
[illegible]	[illegible]	RED	2.0hz, 50%, 0.8s	Sequence will occur every 0.8s or every 10seconds when device awake (application mode)
[illegible]	5% ≥ Battery > 0%	RED	2.0hz, 50%, 0.8s	Sequence will occur every 0.8s or every 2 seconds when device awake (application mode)
[illegible]	Weapon Disarmed Armed Disarmed	WHITE	0.2hz, 3%, Perpetual	Heartbeat when disarmed
[illegible]	Weapon Armed	ORANGE	0.2hz, 3%, Perpetual	Heartbeat when Armed
[illegible]	Trigger Press - Armed	BLUE	0hz, 100%, perpetual	Solid Red when Trigger is held & Armed
[illegible]	Trigger Press - Disarmed	RED	0hz, 100%, perpetual	Solid Blue when Trigger is held & Disarmed

TASER 10 VR Controller Magazines

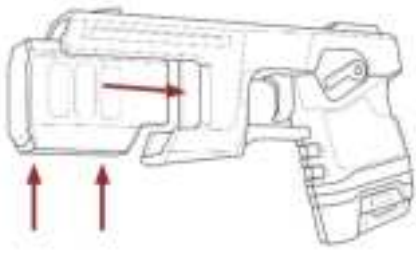
The TASER 10 VR Controller has a removable magazine.

NOTE: *TASER 10 VR Controller magazines are inert and may never be loaded with cartridges, or discharge probes.*

⚠ WARNING! VR CONTROLLER MAGAZINE USE

NEVER attempt to affix a live TASER 10 magazine (whether loaded or unloaded) to a TASER 10 VR Controller device!

To attach a TASER 10 VR Controller magazine:



1) Ensure the Selector Switch is in the OFF (SAFE) position.
2) Grip the magazine from the bottom and align the guides on the magazine with the rails on the device.
3) Slide the magazine approximately halfway toward the back of the device before pushing upward.
4) Push the magazine horizontally into the TASER 10 VR Controller.
5) Ensure the magazine is properly aligned with the rails in the magazine well.
6) Slide the magazine backward until you hear a click.
7) Move the Selector Switch to the ON (ARMED) position.
8) Move the Selector Switch to the OFF (SAFE) position.

Magazines are designed to prevent being loaded backward into the Controller. Nevertheless, ensure the magazine is oriented properly before attempting to insert it.

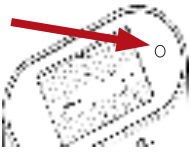
If the magazine does not latch to the Controller, remove the magazine and confirm the correct type of magazine is being used. Even if unable to attach a magazine, the TASER 10 VR Controller will still operate normally.

Battery Packs

Storage

The battery pack supplies power to the VR Controller via lithium cells and should be stored in their original packaging, including the desiccant bag. Do not store the battery pack in a manner where the gold contacts on the top of the battery pack may come in contact with metal objects. This may cause an electrical short between these contacts, draining the lithium VR cells and causing the pack itself to become dangerously hot.

Compatibility



The TASER 7, TASER 10 and TASER 10 VR Controllers may all use the same battery packs. Older battery packs built for the TASER 7 will work with TASER 10 VR Controllers, however newer battery packs built for the TASER 10 have a dimple in the top plastic. TASER 10 VR Controllers must be running firmware V0.6.2 or greater to use this new battery pack.

Removing the Battery

To remove the battery pack:

1) Move the Selector Switch to the OFF (SAFE) position.
2) Depress the battery pack release buttons on each side of the battery pack.
3) Remove the battery pack from the Controller.
4) Inspect the battery contacts.
5) Ensure they appear in working order and are free from dirt or other residue that may interrupt the battery connection to the VR Controller.

Inserting the Battery

When installing a battery:

1) Ensure it is fully inserted in the VR Controller.
2) Apply sufficient force to ensure the battery pack is fully seated.
3) When the battery pack seats properly, the release buttons should pop out from a recessed position with an audible click.
4) Pull on the bottom of the battery pack to confirm it is seated properly.

Charging the Battery

Rechargeable Battery Packs (Models TS1005, TS1013)

NOTE: *Battery capacity may vary depending on temperature and environment.*

When plugged into a Battery Dock, the rechargeable battery will begin charging and

any agency settings will be imported (*if configured*).

Wait until the battery pack is fully charged and its firmware fully updated before removing it and using it with the VR Controller.

(Refer to the *TASER Weapons Dock Quick Start Guide* or *TASER Weapons Dock Single-Bay Dataport Quick Start Guide* for more information.)

Charging Time

Normal Charging

Charging a TASER 10 VR Controller battery pack requires approximately 4–6 hours.

Capacity Check Charging

Every 90 days the Dock conducts a capacity check on a battery pack. In a capacity check, the Dock discharges the battery and then fully charges it. This process is intended to ensure the battery maintains its health throughout its approximately 5-year useful life. A capacity check can take 6–8 hours.

Mechanical Sights

The TASER 10 VR Controller does not have mechanical sights or alignment ability. It is designed to be used ONLY in a virtual reality environment.

Trigger

The TASER 10 VR Controller trigger is a momentary electrical switch. The trigger is operational only when the safety is in the ON (ARMED) position.

Holster Tracking

The TASER 10 VR Controller can track when it is holstered and unholstered in specific types of holsters. This feature works with BLACKHAWK, Safariland, S.O. Tech, and Bladetech holsters.

USB Connector

The USB-C connector is an alternative method for updating firmware and directly pairing the Controller to a VR Headset.

Do not use this function without specific instructions/directions from Axon Technical Support.

NOTE: *A TASER 10 VR Controller battery CANNOT be recharged via a USB-C connection.*

MAINTENANCE/TROUBLESHOOTING

Downloading Firmware Revisions

The TASER 10 VR Controller internal firmware provides functionality for all aspects of the VR Controller.

Firmware updates are automatically applied wirelessly to the VR Controller through the VR Headset. When in Headset, Users will be prompted to download the latest version, if an update is available.

Agency settings and configuration for functions and operation are applied via battery memory. Ensure batteries with the most updated firmware are always used with a TASER 10 VR Controller.

TASER 10 VR Controller Maintenance and Care

The TASER 10 VR Controller product is a sensitive piece of electronic equipment and should be handled with care. Avoid dropping a TASER 10 VR Controller. Do not use a TASER 10 VR Controller with a cracked handle.

Each agency should establish a maintenance and handling program that includes:

1) Checking the battery pack regularly. If using a rechargeable battery (TS1005 or TS1013), recharge it when the battery percentage drops below 30%.
2) Securing the TASER 10 VR Controller in a protective holster when the VR Controller is not in use.
3) Function testing the TASER 10 VR Controller regularly.
4) Updating the TASER 10 VR Controller's firmware when updated firmware is released.

See the troubleshooting guide at www.axon.com for additional maintenance instructions.

TASER 10 VR Controller & Water

CAUTION
Avoid immersing the TASER 10 VR Controller in any liquids. Avoid exposing the TASER 10 VR Controller to excessive moisture.

The TASER 10 VR Controller is not designed to be a weatherproof device. Do not immerse the VR Controller in water or any other liquid. If a VR Controller has been submerged in liquid or exposed to a significant amount of moisture, immediately remove the battery pack, remove the VR Controller from service, and contact Axon.

TECHNICAL SPECIFICATIONS

The TASER 10 VR Controller is a Virtual Reality Controller use only with virtual reality applications. No components can be used as a weapon or converted into a weapon. Buttons are used for communicating trigger action and for Bluetooth Low Energy (BLE) pairing to a compatible virtual reality Headset.

Mechanical Specifications

Parameter	Test Condition	Min	Type	Max	Unit
(L) Length			6 (152.4)		in (mm)
(H) Height			4 (101.6)		
(W) Width			2 (50.8)		
Weight			<1 (0.25)		lb (kg)
Trigger Pull Force		Electronic (Binary Non-Adjustable)			
Construction	Black/White Polymer – 3D Printed				
LEDs	**Top LED:** Single multi-color LED used for pairing status indications				
	Sidelight LEDs: Single LED on both side of body used to indicate battery status, trigger actions, and device status				
	Tracking LED: (8) Infrared LEDs placed on the Controller allow the (separate) Headset's camera to track the location of the Controller within 3D space.				
Comms	**Bluetooth -** 2.4 GHZ Proprietary Channel				
Power	**Type -** Separate Lithium Ion Battery (not included)				
	Battery Voltage - 4.2V				
	Operating Range – 32°F - 140°F (0°C - 60°C)				
	Battery Charging Method – Separate docking station				

Patent: www.axon.com/patents.

Important Notice

Actual measurements on particular products may vary as a result of many factors including items outside Axon's control. Product specifications may change without notice. The actual product may vary from picture, image, or graphic. Please refer to current Axon published product specifications for specified limits and test conditions. Read the manual and product literature.

For more information see current TASER device/product specification sheets, training materials, product manuals, and website (https://my.axon.com/s/axon-vr-training).

Axon Enterprise, Inc, reserves the right to change or modify this document without notice.

CUSTOMER SERVICE

Axon Customer Support

Guides and Troubleshooting are available by visiting my.axon.com/s/axon-vr-training or contact Customer Support at:

US & Canada: 800-978-2737

UK: +44 01327 709 666

AU: 1-800-512-069

NZ: 1-800-005-161

Visit www.axon.com/support for other international telephone numbers.

Product Returns

To return a TASER 10 VR Controller for service, please follow the procedures at www.axon.com.

COMPLIANCE

A TASER 10 VR Controller system transmission is in the frequency ranges of 2402 – 2480 MHz.
Changes or modifications to the equipment not expressly approved by the manufacturer could void the product warranty and the user's authority to operate the equipment.

FCC compliance statement:

Your wireless device is a radio transmitter and receiver. It is designed and manufactured not to exceed the emission limits for exposure to radio frequency (RF) energy set by the Federal Communications Commission (FCC) of the U.S. Government. These limits are part of comprehensive guidelines and establish permitted levels of RF energy for the general population. The guidelines are based on standards that were developed by independent scientific organizations through periodic and thorough evaluation of scientific studies. The standards include a substantial safety margin designed to assure the safety of all persons, regardless of age and health. Before a device model is available for sale to the public, it must be tested and certified to the FCC that it does not exceed the limit established by the government-adopted requirement for safe exposure. 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 a 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 Axon Technical Support for help.

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.

ISED Canada compliance statement:

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause

undesired operation of the device.

Cet appareil est conforme aux exigences des États-Unis en matière d'exposition aux ondes radioélectriques, de la FCC et d'ISED Canada. Il est conçu et fabriqué pour ne pas dépasser les limites d'émission imposées pour une exposition à l'énergie de radiofréquence (RF). Pour satisfaire aux exigences de conformité en matière d'exposition aux radiofréquences, les opérations portées sur le corps sont limitées aux pinces de ceinture, étuis ou accessoires similaires ne comportant aucun composant métallique dans l'assemblage et doivent ménager une distance minimale de xx mm entre l'appareil, son antenne, et le corps de l'utilisateur.

TASER 10

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Product functions and specifications may change without notice and the actual product may vary from the illustrations in this manual.

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