Rifle VR Controller User Guide

Model: VRM4R

Contents

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IMPORTANT SAFETY INSTRUCTIONS: Read all warnings and instructions, including the Health and safety warnings on page 1 . Save these instructions. The most up-to-date warnings and instructions are available at www.axon.com.

Introduction

The Rifle VR Controller (VRM4R) is a firmware-updatable LED controller used in conjunction with a virtual reality (VR) headset. Manufactured by Axon Enterprise, Inc., this VR Controller is a dedicated training device that replicates a typical field use rifle.

The Rifle VR Controller (VRM4R) is built using specialized components from multiple manufacturers:

- **Rifle housing**: Manufactured by GBLS, a company that specializes in producing non-functional training rifles for simulation and instructional use.
- **HTC tracker**: Manufactured by HTC, the tracker wirelessly connects to the headset to track motion, identify the controller, and communicate with the Axon bridge.
- **Axon bridge**: Manufactured by Axon Enterprise, Inc., the bridge provides wireless communication between the tracker and VR headset.

Using a proprietary 2.4 GHz protocol, advanced IR LED Constellation tracking technology provides accurate three-dimensional physiology of the VR Controller for inside-out tracking of objects within a virtual reality environment. It provides continuous VR Controller-to-headset data exchange, letting you interact in a virtual world with the device mimicking the standard actions of drawing and firing a field weapon. This creates a true-to-life training experience without the use of live weapons and ammunition.

Health and safety warnings

This Rifle VR Controller (VRM4R) is only for use in virtual reality (VR) training environments. It will neither accept nor fire live ammunition like a duty weapon.

The most current safety and health warnings are available in a PDF located on our Legal page at https://axon-2.cdn.prismic.io/axon-2/5bac101c-6f81-4c02-b737-b1be5eac6fce_Axon+VR+Warnings.pdf.

The safety and health warnings are to reduce the risk of any personal injury or property damage. **Read this manual and that document fully before using a VR headset.**

Safety instructions

Regardless of experience level, all users are strongly encouraged to read the entire user guide carefully before operating the Rifle VR Controller (VRM4R).

Precautions

Warning

Improperly handling the Rifle VR Controller (VRM4R) may result in or cause injury or damage to property. For training effectiveness, always handle the VR Controller as if it were a real firearm.

Warning

The VR Controller is a battery-powered training device. Using an incompatible or damaged battery may cause product failure or battery fire.

Read and understand the entire user manual before removing the VR Controller from its package. Your safety and the safety of others depend on following these instructions for proper handling and operation.

Basic safety rules

The Rifle VR Controller (VRM4R) was designed to visually resemble a service rifle but is a **non-functional training controller** designed exclusively for virtual-reality-based training.

With a steel block in the barrel and a chamber that cannot build pressure, the VR Controller has been designed to ensure no projectile can ever be fired from the barrel. **The VR Controller cannot accept live ammunition, blank rounds, or any other projectile, and cannot be modified as a weapon.**

Following standard firearm-handling protocols reinforces proper handling habits and helps prevent equipment damage or unsafe behavior.

- Always treat the Rifle VR Controller (VRM4R) as if it were a real firearm during all training activities.

- Always treat the VR Controller as if it were loaded.
  - Never take anyone else's word that the VR Controller is unloaded.
  - Always visually inspect the chamber and magazine yourself, even if you saw someone else perform a safety check.
  - Always remove the magazine, set the safety selector lever to Safe, and lock the action to the rear before setting the VR Controller down or handing it to someone.
  - Do not insert the magazine into the VR Controller until you are ready to fire.
- Always keep the VR Controller pointed in a safe direction.
  - Pay close attention to the direction of your muzzle whenever carrying or handling the VR Controller.
  - Always unload the VR Controller before navigating obstacles or rough terrain.
- Always keep your finger off the trigger until your sights are on the target and you're ready to fire.
  - Keep your finger resting outside the trigger guard until you're ready to fire.
- Never leave the VR Controller unattended or unsecured.
  - Anyone, including a child, could mishandle the VR Controller and cause damage or injury.
  - Teach all users and observers to respect firearms and follow firearm safety rules.
  - Always supervise trainees and follow instructor guidance.
- You are ultimately responsible for the Rifle VR Controller (VRM4R).

Warning

If you pull the trigger—intentionally or unintentionally—the VR Controller will simulate firing. Strict adherence to safety rules helps prevent accidental activation or property damage.

Warning

The VR Controller can simulate firing once the battery is connected, even if a magazine is not installed. Always follow safety instructions to minimize risk of damage or injury.

Warning

Charge the battery only while it is installed in the VR Controller using the provided USB-C cable. Use a compatible power adapter that provides at least 7.5W of output. Using non-approved chargers or charging methods may damage the battery, cause overheating, or create a fire hazard.

Always inspect the battery and charging equipment before use. If any component appears damaged, stop use and contact your Axon Representative.

Equipment cautions

- Always be sure the chamber, barrel area, and bolt assembly are clean and clear of obstructions.
- Keep your VR Controller clean and lightly lubricated to help ensure it will function properly and safely.
- Always use batteries that are clean, dry, in good condition, and recommended by Axon.

Firing cautions

- Never consume alcohol or take drugs when handling the VR Controller.
  - Consult a qualified doctor if you are taking medication to ensure you are fit to train safely.
- Always wear personal protective equipment (PPE).
  - PPE includes, but not limited to, hearing protection.
  - Failure to use proper ear protection can cause permanent hearing damage.
  - Failure to use protective shooting glasses can cause eye injury or blindness from debris or fragments.
  - Encourage all trainees and observers to wear PPE.
- Always keep the VR Controller's safety selector lever set to Safe until your sights are on target and you're ready to fire.
- Always be aware of the ejection port's direction.
  - If the ejection port is obstructed, the VR Controller may malfunction.
  - Never place your fingers in the ejection port, as they may be injured when the bolt moves forward.

- Never place your finger inside the trigger guard until your sights are on the target and you're ready to fire.
  - Keep your trigger finger on the receiver, below the magazine button, until you're ready to fire.
  - If uncertain about your target or surroundings, **do not** fire.
- Never operate the VR Controller if you suspect water has entered it.
  - The VR Controller operates on electricity and may malfunction if exposed to moisture.
  - Clean and dry the VR Controller immediately if it becomes wet.
- Never act carelessly when handling or near the VR Controller.
  - Careless handling can result in equipment damage or injury.
- Never follow another trainee when the VR Controller is loaded and ready to fire.
  - Keep the safety selector lever set to **Safe** until ready to fire.
  - Always maintain muzzle control and awareness of others nearby.

Malfunction cautions

If you experience a failure to fire:

1. Always keep the VR Controller pointed in a safe direction.
2. Wait 15 seconds.
   a. If a malfunction occurs (indicated by the gear spinning freely), electrical power will cut off automatically within 15 seconds.
   b. You can also pull the charging handle to cut power immediately.
   c. After the power goes out:
      i. Remove the magazine.
      ii. Cycle the bolt to verify it advances into position.
      iii. Separate the upper and lower receivers and check for trapped foreign material.
         1. If debris is found, remove the bolt and clean it.
         2. If the malfunction persists after cleaning, stop use and contact Axon Support.
         3. If the VR Controller operates normally after cleaning, continue training.

Note

If you reload the VR Controller but it doesn't fire, check the fuse in the wire at the back of the stock tube. Replace the fuse if blown, or contact Axon Support for assistance.

Note

Check the operating parts for abnormal wear or deformation. If foreign material is trapped, the VR Controller may not operate properly. Stop operation and arrange for service if damage is found.

Note

If the VR Controller cycles slowly, it is likely that the bolt needs to be greased or lubricated. See Maintenance.

Cleaning and storage cautions

- Always make sure that the action of your VR Controller is free of any obstructions before cleaning or storing it.
- Turn the power switch for the VR Controller (on the buttstock) to the **Off** position before cleaning.
- Follow cleaning and lubrication steps described in Maintenance.
- Store the VR Controller in a cool, dry environment, away from direct sunlight, moisture, or excessive heat.
- Always store the VR Controller with the safety selector lever set to Safe.
- Keep the VR Controller out of reach of unauthorized users or trainees not actively engaged in training.

VR Controller abuse cautions

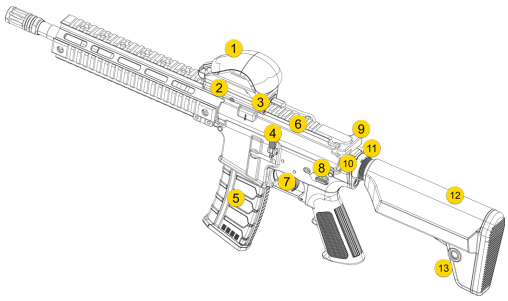
- Never abuse or mistreat your VR Controller.
- Keep, carry, and use the VR Controller carefully.
- Use the VR Controller only for Axon-approved training activities.
- Do not alter, modify, or retrofit any part of the VR Controller.

Note

The VR Controller cannot be modified or converted in any way to fire live ammunition. Any attempt to do so is technically infeasible, voids all warranties, and may violate federal law.

Controller features

Overview



1. HTC tracker (see the "HTC tracker features" section)
2. Axon bridge
3. Bolt carrier group
4. Magazine release button
5. Magazine
6. Bolt catch
7. Trigger
8. Selector switch
9. Charging handle
10. Forward assist
11. Buffer tube
12. Buttstock
13. On/Off switch

HTC tracker features

1. Status LEDs
2. Power button
3. App button

The HTC tracker is mounted on the top of the controller. It wirelessly connects to the headset to track motion, identify the controller, and communicate with the Axon bridge.

Safety features

The Rifle VR Controller (VRM4R) includes safety mechanisms that replicate those of a standard M4-style rifle. These features promote safe handling habits during training while maintaining realistic weapon behavior.

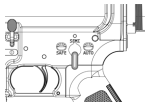
Safety selector lever

The safety selector lever is located on both sides of the lower receiver and has three positions:

Safe
Blocks the trigger mechanism to prevent the hammer from releasing

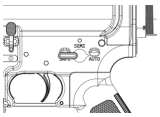
Semi

Fires one shot each time the trigger is pulled.



Auto

Fires continuously until the trigger is released or the magazine is empty.



Bolt-locking safety features

The Rifle VR Controller (VRM4R) can only fire when the bolt is fully secured in the barrel extension.

The bolt carrier and operating gear are designed to prevent the mechanism from cycling if the bolt is not locked into position. When the bolt moves forward and locks into the barrel extension, a gear inside the lower receiver engages to allow normal cycling of the bolt.

Caution

Do not operate the VR Controller if foreign objects are lodged inside the receiver or around the bolt. Debris or improper use can cause damage to internal components and reduce performance.

Operation

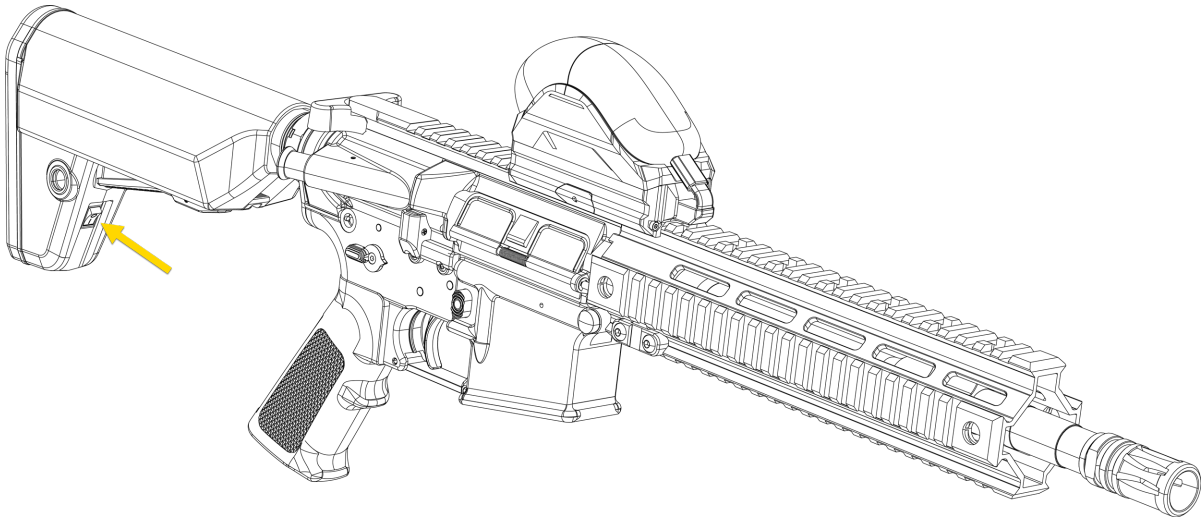
The VR Controller simulates standard rifle handling procedures, including loading and firing the Rifle VR Controller (VRM4R).

The following sections describe how to operate the VR Controller safely and effectively during VR training.

Power on/off VR Controller

The VR Controller is powered by a removable 3-cell lithium battery located in the buttstock. Make sure the battery is charged before powering on the controller.

1. Charge the VR Controller's battery using the included USB-C cable that plugs into the port on the underside of the buttstock.
2. Locate the **power switch** on the angled side of the **buttstock**.



3. Press the **power switch** to the **On** position. This automatically powers the Axon bridge and HTC tracker.
4. To turn the VR Controller off, press the **power switch** to the **Off** position.

Use the smart magazine

The VR Controller comes with two smart magazines that have user-selectable round count.

Each smart magazine includes a rechargeable battery and can be charged using the included USB-C cable.

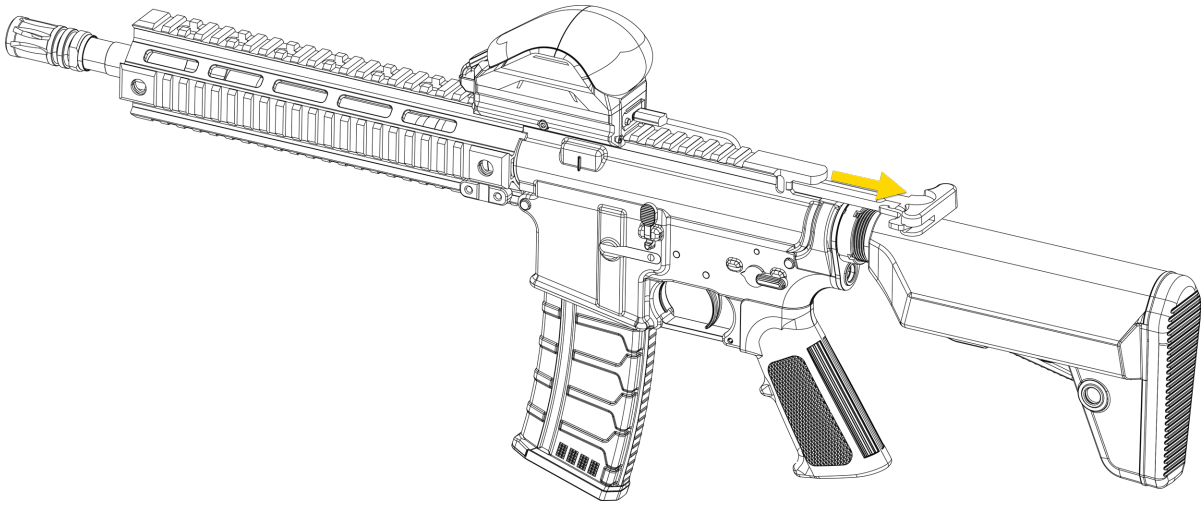
> **Note**
>
> The VR Controller will fire unlimited rounds if the smart magazine is turned off or not inserted into the rifle.

1. Slide the **dust cover** on the bottom of the smart magazine off and charge it using the included USB-C cable.
2. Turn on the smart magazine by sliding the **lower black switch** to the **right** (when the white button is on top). The screen on the bottom of the magazine will illuminate when powered on.
3. Set the **round count** by pressing the **white button** until your desired round count is shown on the screen. Available options include: **5**, **10**, **15**, **20**, **25**, **28**, **30**, or **Random**.

4. The **middle switch** on the bottom of the magazine toggles the **memory function** on or off. When enabled, the selected round count is retained upon removing the magazine from the rifle.

Load the VR Controller

1. While pulling back on the **charging handle**, press the bottom part of the **bolt catch** to hold the bolt and carrier to the rear.



2. Return the **charging handle** fully forward until it locks in place.
3. Insert the **magazine** back into the well until it clicks into place.
4. Pull lightly downward to make sure the magazine is secure.
5. Keeping fingers away from the **ejection port** and **muzzle** pointed in a safe direction, press the top part of the **bolt catch** to release the bolt and allow it to move forward, simulating chambering.

Note

The VR Controller simulates bolt movement and chambering for realism; it cannot discharge projectiles or accept live ammunition.

Fire VR Controller

Warning

Always keep the VR Controller pointed in a safe direction.

Warning

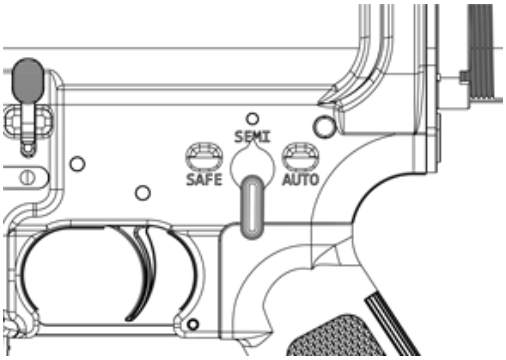
Keep the **safety selector lever** set to **Safe** until you are ready to fire the VR Controller.

Warning

If you notice a difference in sound or recoil while firing, stop use immediately. Dust or debris may cause operational issues. Pull the charging handle to the rear, remove the magazine, and inspect the bolt and chamber for obstructions. Remove foreign materials before resuming use.

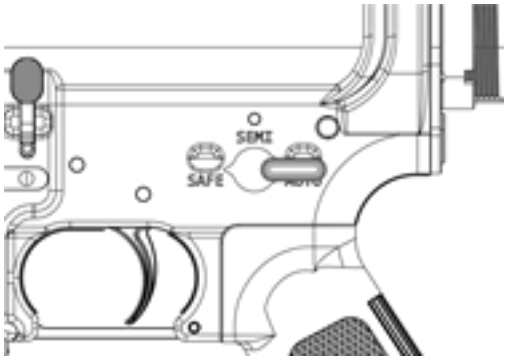
Before firing, practice your stance, sight picture, and breathing for steady aim with the Rifle VR Controller (VRM4R)**unloaded**.

1. Load the VR Controller as described in the section above.
2. Place one hand on the **handguard** and the other on the **grip**, resting your index finger outside of the trigger guard.
3. Raise the VR Controller and pull the **buttstock** firmly into your shoulder. Adjust the buttstock for proper shoulder placement.
4. Aim by aligning the target with the front and rear sights.
5. Set the **safety selector lever** to **Semi**.



6. While maintaining a steady aim, place your index finger on the **trigger** and squeeze straight back until the trigger releases the hammer. Avoid jerking the trigger to maintain accuracy.
7. To fire additional simulated rounds, release the trigger and squeeze it again for each shot until training is completed or the magazine is empty.

8. After training:
   a. Remove your finger from the **trigger**.
   b. Set the **safety selector lever** to **Safe**.



   c. If the magazine is empty, the bolt locks to the rear. The VR Controller can then be reloaded or inspected to verify that the chamber is clear.

Warning

The VR Controller automatically resets and is ready to fire after each simulated shot until the magazine is empty.

Warning

This VR Controller can also be fired without a magazine in place.

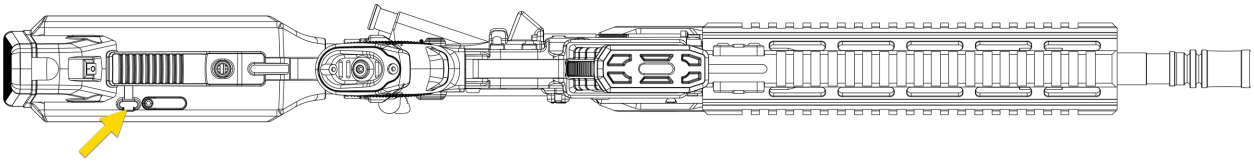
Charging information

Warning

Charge the battery only while it is installed in the VR Controller using the provided USB-C cable. Use a compatible power adapter that provides at least 7.5W of output. Using non-approved chargers or charging methods may damage the battery, cause overheating, or create a fire hazard.

Always inspect the battery and charging equipment before use. If any component appears damaged, stop use and contact your Axon Representative.

The VR Controller's charging port is located on the underside of the stock. Charge with any powered USB-c cable.



There is a button and four LEDs next to the USB-C port.

The first LED shows charging status:

- **Red**: Charging
- **Green**: Fully charged
- **Flashing red and green**: Charging error

Press the button to check the battery's state of charge:

- **One white LED**: Approximately **33%** charged
- **Two white LEDs**: Approximately **66%** charged
- **Three white LEDs**: Fully charged

Components

The Rifle VR Controller (VRM4R) is a non-functional controller designed exclusively for virtual-reality-based training. **It cannot discharge projectiles, accept live ammunition, or be modified to function as a weapon.**

This section describes the primary components of the VR Controller and describes their physical locations and functions for training and maintenance reference.

For detailed information on cleaning, lubrication, and care, refer to Maintenance .

Bolt carrier group

- **Location**: Inside the upper receiver.
- **Purpose**: Contains the bolt and carrier and moves when the charging handle is pulled, simulating the cycling motion of a rifle.
- **Care**: Keep the assembly clean and lightly lubricated. Do not attempt to disassemble or modify the bolt carrier group.

Sear assembly

- **Location**: Within the lower receiver.
- **Purpose**: Controls the simulated trigger release and bolt cycling in coordination with the gearbox.
- **Care**: Do not adjust or remove the sear assembly. If the controller malfunctions, contact your Axon representative or authorized service provider.

Charging handle

- **Location**: At the top rear of the upper receiver.
- **Purpose**: Retracts the bolt carrier group when pulled and releases it to move forward, simulating chambering.
- **Care**: Keep the charging handle track free of dust or debris. Pull straight to the rear to avoid bending or internal damage.

Power and battery

Warning

Charge the battery only while it is installed in the VR Controller using the provided USB-C cable. Use a compatible power adapter that provides at least 7.5W of output. Using non-approved chargers or charging methods may damage the battery, cause overheating, or create a fire hazard.

Always inspect the battery and charging equipment before use. If any component appears damaged, stop use and contact your Axon Representative.

The power system supplies electricity to the VR Controller. It includes the internal fuse and the battery compartment.

Battery compartment

- **Location**: Inside the buttstock.
- **Purpose**: Houses the removable 3-cell lithium battery that powers the VR rifle body.
- **Care**: Access by removing the stock pad and battery cover. Make sure battery cables are neatly routed and not pinched when closing the cover. For removal and installation, see the section "Battery installation and replacement" in Troubleshooting.

Fuse location

- **Location**: Behind the battery compartment inside the buttstock.
- **Purpose**: Protects the controller’s electrical circuits from short circuits or overloads.
- **Care**: Inspect the fuse if the controller loses power or fails to cycle. Replace only with a fuse of the same type and rating. For replacement instructions, see the section "Power failure" in Troubleshooting.

External controls

External controls are the physical interaction points a trainee uses to operate the VR Controller during training. These include the forward assist, magazine release, and handguard.

Forward assist

- **Location**: On the right rear side of the upper receiver, behind the ejection port.
- **Purpose**: Allows the user to simulate manually closing the bolt during malfunction or reload training.
- **Care**: Press the forward assist gently to move the bolt carrier group forward. Do not strike or force it. Keep the ejection port area clean.

Magazine release

- **Location**: On the right side of the lower receiver.
- **Purpose**: Releases the magazine from the magazine well for reloading during training.
- **Care**: Keep the magazine release area free of dirt or obstructions. Do not insert foreign objects into the magazine well.

Handguard

- **Location**: Around the forward section of the VR Controller, covering the barrel area.
- **Purpose**: Provides a protective grip surface and includes mounting points for a sling.
- **Care**: Do not remove or modify the handguard. Clean the exterior and ventilation holes with compressed air or a soft brush to remove dust or debris.

Pair VR Controller with headset

VR Controllers

Axon offers VR Controllers to use with the headset.

Warning

Do not use a real TASER 7, TASER 10, or handgun in the Axon VR training. Only use the VR Controllers.

Use your hands as controllers

Use your hand as the controller in some areas in Axon VR, like the headset library.

- To make a selection, pinch
- To scroll up or down, pinch and move up or down

If you are wearing long sleeves and don't see your hand as a controller, roll up your sleeve. If you still can't use your hand as a controller, use a HTC wand to go to **Settings** > **Inputs**, and select **Hand tracking**.

Pairing LED states

When you turn on your VR Controller, a pairing LED appears on top of the device. For details on the location of the pairing LED, see the "Overview" section in the user guide for your specific VR Controller model.

The pairing LED color indicates the current pairing mode:

State/Message	Pairing LED Color
Pairing	Blue, flashing
Paired	Green
Connecting or pairing lost	Blue
Updating firmware (do not turn off)	Blue and red, flashing

Approaches to pairing VR Controllers

There are different approaches to pairing VR Controllers:

- Pair a VR Controller for the first time (see Pair new VR Controllers on page 26)
- Remove and replace an existing VR Controller (see Pair a different VR Controller on page 27)

Note

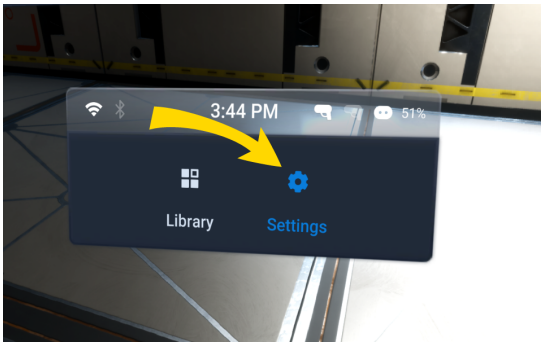
When using the latest headset firmware, only one Handgun VR Controller and one TASER can be paired to the headset at a time. This means that both the TASER 7 and TASER 10 VR Controllers cannot be paired to the headset. If you have a TASER 7 paired then pair a TASER 10, the TASER 7 will automatically unpair.

Pair new VR Controllers

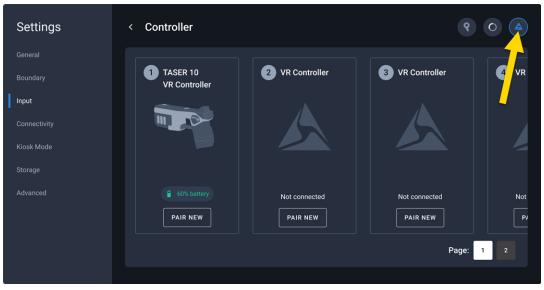
To pair a VR Controller for the first time:

1. Turn on your headset by pressing the **Power** button for five to seven seconds.

2. Put on the headset.
3. Accept the boundary messages.
4. In the headset library, use your hand to pinch to select **Settings**.



5. Select **Inputs**.
6. Select **Controllers**.
7. Select the **Axon** icon if it's not already selected. If the third icon is already selected, see step 8.



a. Before you can pair a Handgun VR Controller or TASER VR Controller, you need to unpair any paired controllers. Select **Continue**.

b. The headset will automatically activate passthrough mode, allowing you to see your real surroundings. Resume the process from step 9.

8. If the **VR Controller** icon is already selected, select **Pair**.
   - The headset will automatically activate passthrough mode, allowing you to see your real surroundings. Resume the process from step 9.

9. Turn on your VR Controller.
10. Press the button on the top until the pairing LED blinks blue.
11. After pairing completes, the pairing LED will turn solid green and a message confirms the pairing was successful.
12. After the message closes, the inputs screen now shows the paired VR Controller.
13. Select **Library** to exit the pairing screen.

Pair a different VR Controller

Replacing VR Controllers is useful in these scenarios:

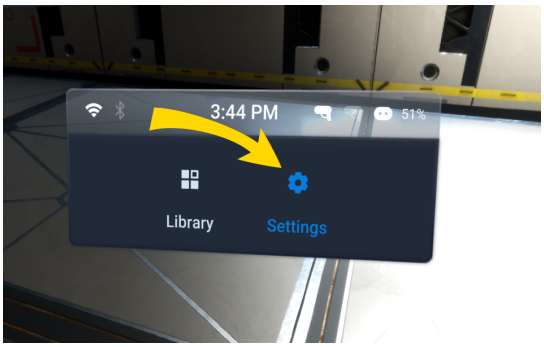
- You want to replace one VR Controller with another.
- You want to replace a VR Controller that is low on batteries with a fully charged VR Controller.

To replace a VR Controller:

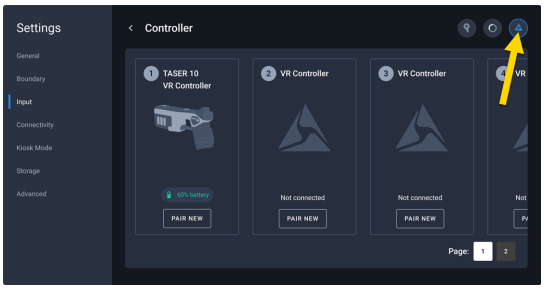
1. Turn on your headset by pressing the power button for five to seven seconds.

2. Put on the headset.
3. Accept the boundary messages.

4. In the headset library, use your hand to pinch to select **Settings**.



5. Select **Inputs**.
6. Select **Controllers**.
7. Select the **Axon** icon if it's not already selected.



8. Select **Pair New** under the VR Controller you want to replace.
9. The headset will activate passthrough mode, allowing you to see your real surroundings.
10. Turn on your VR Controller.
11. Press the button on the top until the pairing LED blinks blue ▮▮▮▮▮.
12. After pairing completes, the pairing LED will turn solid green ▬ and a message confirms the pairing was successful.
13. After the message closes, the inputs screen now shows the paired VR Controller.
14. Select **Library** to exit the pairing screen.

Pairing troubleshooting

Controller is paired and turned off or out of range

Headsets remember paired VR Controllers for quicker access to your virtual reality experiences. If you have already paired a controller but don't see it, turn on the controller. The VR Controller will automatically pair.

VR Controller previously paired but now unable to connect to headset

If your VR Controller was previously paired to the headset and is now unable to connect to the headset, try turning off and turning back on the headset. This may resolve an issue with the Bluetooth®.

If that doesn't work, try the following:

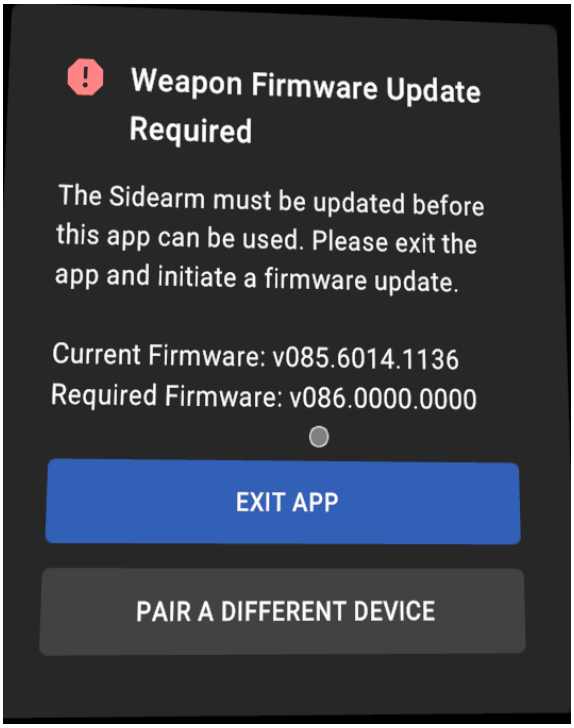
1. Go to **Settings** > **Inputs** > **Controllers**.
2. Select the **HTC wand VR controller** icon.
3. Select **Continue** in the dialog box to unpair your current VR Controllers.
4. Select the **TASER VR Controller** icon.
5. Select **Continue** in the dialog box to unpair your current VR Controllers.
6. Try re-pairing the TASER VR Controllers again.

Paired controller has a firmware update available

If you see a firmware update available after pairing your controller, see Update controller firmware.

Update firmware for VR Controllers

It's important to keep VR Controllers up to date with the latest firmware to help make sure optimal performance. Furthermore, some apps require the latest firmware.



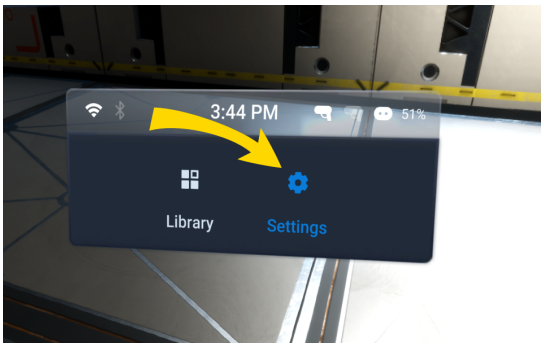
Before updating the firmware, you must first pair a controller. For more information on pairing, see Pair controller with headset.

To update firmware for a VR Controller:

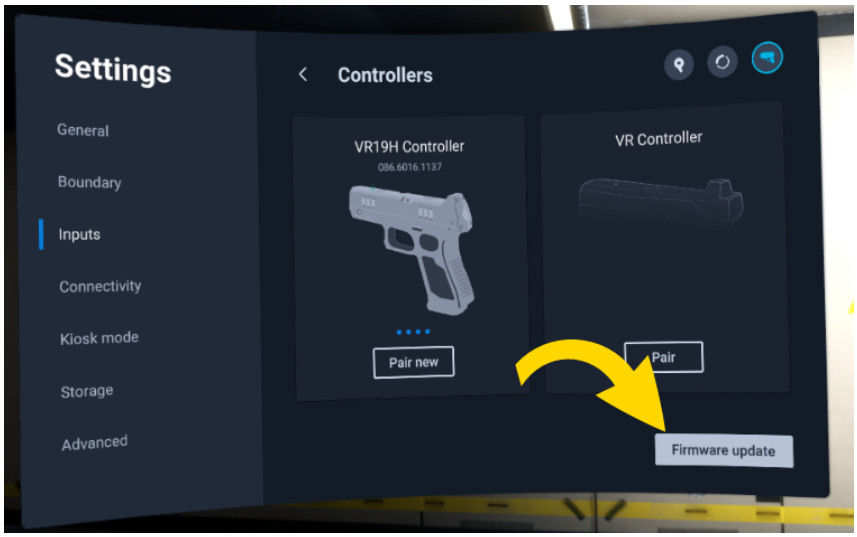
1. Turn on your headset by pressing the **Power** button for about five seconds.

2. Put on the headset.
3. Accept the boundary messages.

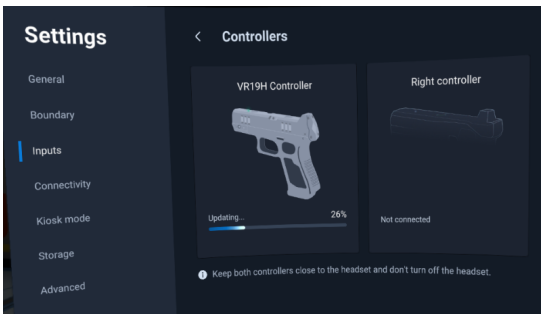
4. In the headset library, use your hand to pinch to select **Settings**.



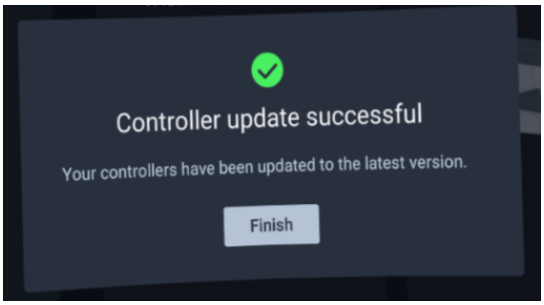
5. Select **Inputs**.
6. Select **Controllers**.
7. Ensure the controllers you want to update firmware for are paired. For more information on pairing, see Pair controller with headset.
8. Turn on the controllers you want to update firmware for.
9. Select **Firmware Update**. If this button doesn't display, the firmware for your controller is up-to-date.



10. The firmware updates.



11. A success pop-up notification displays when the firmware update completes.



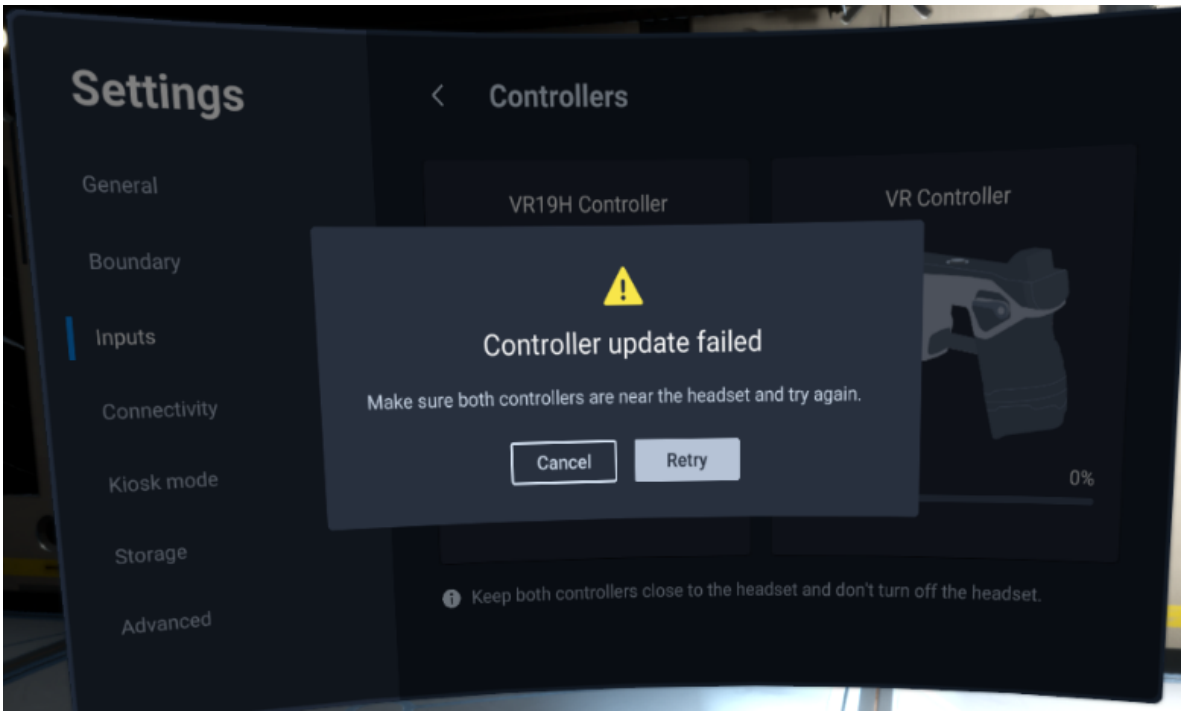
Note

Keep your VR Controller near your headset and ensure the headset stays on until the firmware update completes.

Firmware troubleshooting

Firmware update was unsuccessful

If the firmware update was unsuccessful, a failed pop-up notification displays.



If this occurs, try the following:

1. Reset your controller.
   - For the Rifle VR Controller (VRM4R), press the power switch on the buttstock to the **On** position.
2. Retry the firmware steps listed above.

Maintenance

When to clean

Clean the Rifle VR Controller (VRM4R) regularly to maintain reliability and help extend its service life. How often you should clean your VR Controller depends on usage and environmental conditions.

- **After each session**: Perform light cleaning and inspection as described in After training maintenance below.
- **Periodic deep cleaning**: Perform a more detailed inspection and lubrication as described in Maintenance below after approximately every 1,000 rounds.
- **Environmental exposure**: Clean your VR Controller more frequently (as often as once a week) when operating in harsh conditions such as high humidity, coastal environments, or dusty and sandy locations.
- **Storage preparation**: Clean and dry all surfaces before storing the VR Controller.

Cleaning materials

Use only the approved materials, tools, and protective equipment listed below when cleaning or maintaining the Rifle VR Controller (V4M4R). Using unapproved products or harsh tools can damage the finish, corrode metal components, or reduce performance.

Personal protective equipment:

- Chemical-resistant gloves
- Mask
- Eye protection (safety glasses or goggles)

Materials and tools:

- Flannel patch or soft, lint-free cloth
- Nylon bristle all-purpose cleaning brush or toothbrush
- Compressed air
- High-quality firearm cleaning solution
- High-quality lubricant (like molybdenum grease)

Do not use:

- Wire brushes or abrasive tools
- Excessive amounts of solution or lubricant

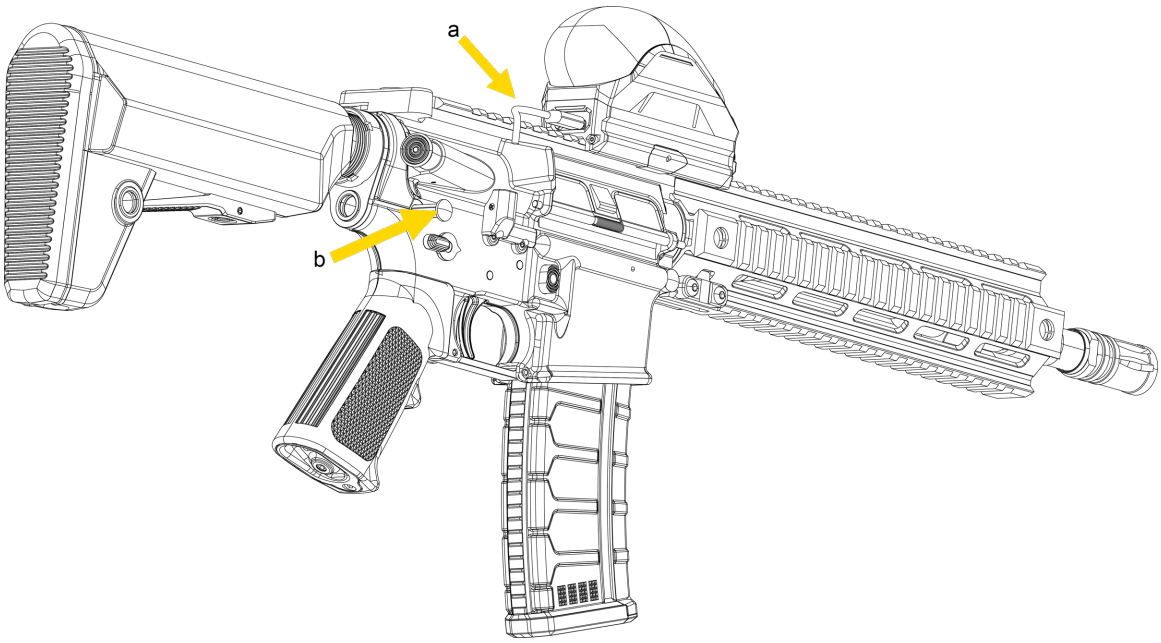
Cleaning and maintenance

Note

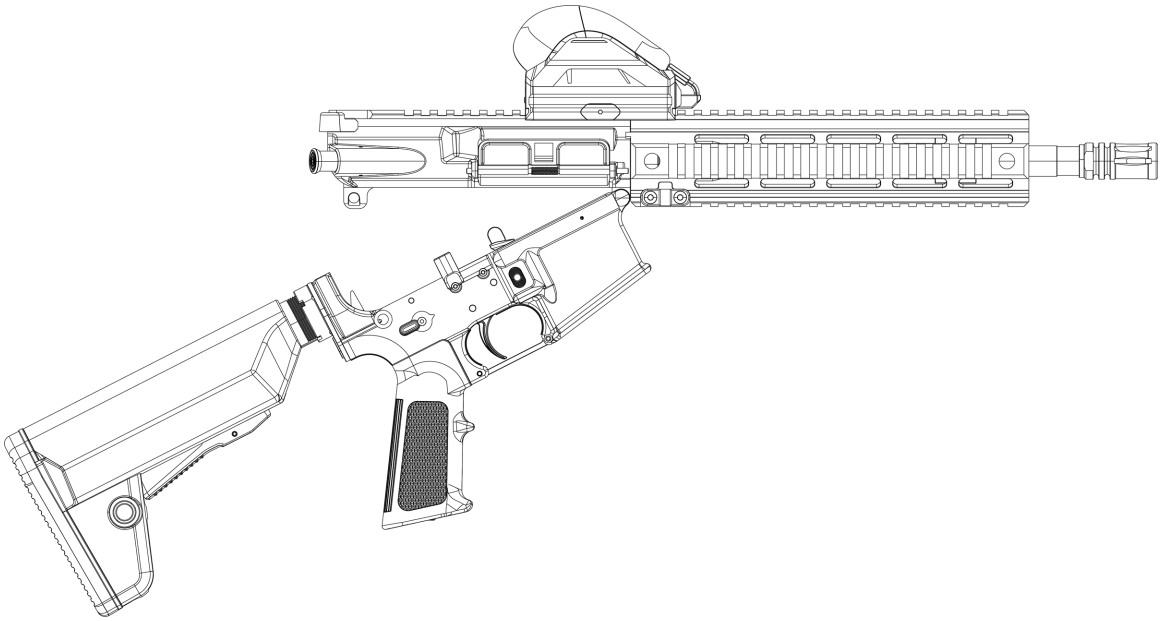
To prevent loss of small components during preparation and cleaning, lay them out in an orderly fashion. Make sure all small components and parts are reinstalled properly after cleaning.

Follow these steps before beginning any maintenance or cleaning procedure:

1. Read and understand all safety instructions before cleaning and handling the VR Controller.
2. Turn the power switch for the VR Controller (on the buttstock) to the **Off** position.
3. Open the VR Controller:
   a. Unplug the micro-USB cable between the VR Controller and the Axon Bridge.
   b. Press in the **rear takedown pin** from the left side of the lower receiver, then pull it out from the right side of the receiver until it stops.

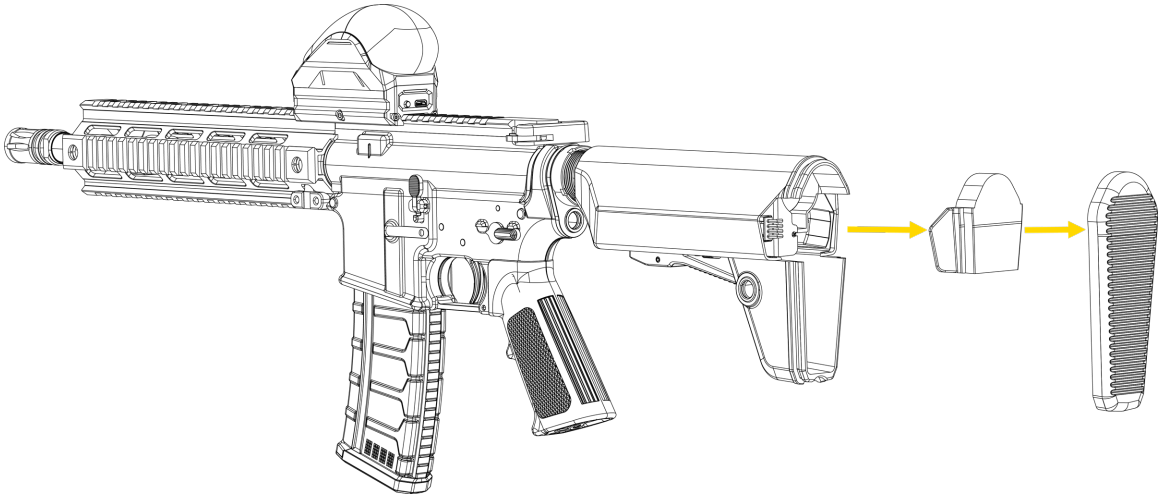


c. Pivot the **lower receiver** by pressing down and away from the **upper receiver**.



d. If needed, completely separate the upper receiver from the lower receiver by pressing the **front takedown pin** from the left side and pulling it out on the right side of the receiver until it comes to a stop.

4. Pull the **charging handle** to the rear, which will remove the bolt carrier group from the upper receiver.
5. Remove the **charging handle** by pulling it backwards to the keyway and then down and out of the upper receiver.
6. Remove the buttstock (if equipped):
   a. Remove the **pad** and **battery cover** from the rear of the buttstock.



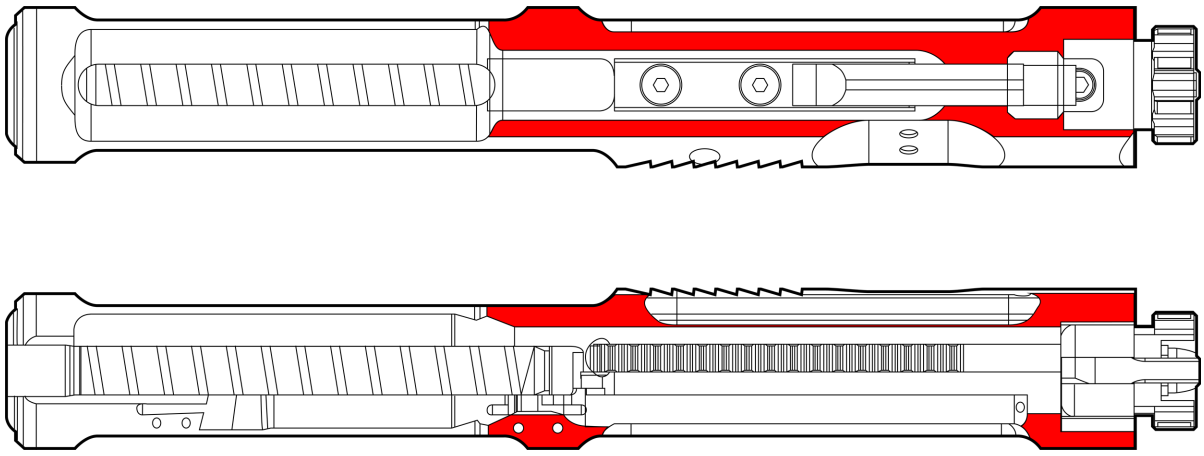
   b. Disconnect the **battery connector** and **circuit connector**.
7. Lay out all removed components in order to prevent loss of small parts.

8. Check components for excessive wear, corrosion, or damage. Do not operate the VR Controller until any issues have been repaired or replaced.
9. Proceed with the procedures in the maintenance sections below using the approved materials listed in Cleaning materials.

After training maintenance

Follow these steps after each training session to maintain the Rifle VR Controller (VRM4R).

1. Prepare the VR Controller for cleaning by following the steps in Maintenance.
2. Point the controller in a safe direction and fire one shot to release the piston inside the bolt.
3. Open and inspect the gearbox and bolt carrier group. Check for:
   a. Foreign material inside the gearbox.
   b. Proper bolt grease condition.
   c. Abnormal wear of each gear.
4. Periodically (about every 1,000 rounds), apply high-quality gun grease to the bolt as shown in the image below.



5. Reassemble the VR Controller.
6. Inspect the VR Controller to make sure all surfaces are clean and dry.
7. Store the VR Controller.

Firmware updates

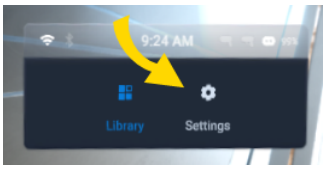
The Handgun VR Controller (VRMPH) internal firmware provides functionality for all aspects of the VR Controller.

Available firmware updates are applied wirelessly to the VR Controller through the VR headset after a prompt and approval from the user. The controller will be unavailable until the Pairing LED is no longer flashing blue and red, indicating the update is complete.

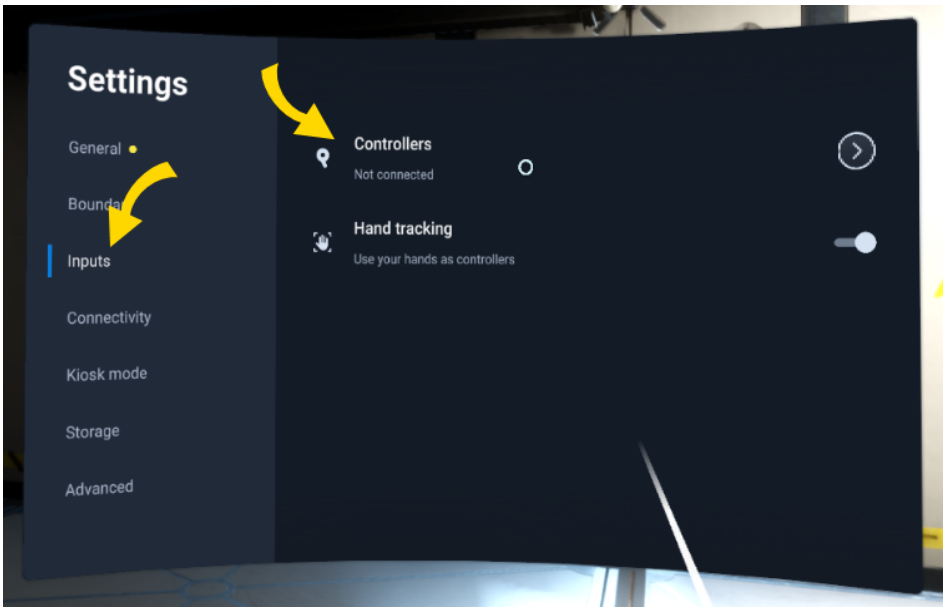
Check firmware manually

After you've paired a Handgun VR Controller (VRMPH) to the headset, you can use the headset to check its firmware manually:

1. From the library, select **Settings**.



2. Select **Inputs**, then **Controllers**.



3. Firmware version is visible under the title of your controller.
4. If a firmware update is available, select **Firmware update** and keep the headset and VR Controller powered on.

Care

The VR Controller is a sensitive piece of electronic equipment and should be handled with care. Avoid dropping the VR Controller and cease use if it becomes cracked.

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

1. Store the VR Controller in its box or safely on a rack when not in use.
2. Update the VR Controller's firmware when it is available.

Controller and water

Caution

Do not immerse the VR Controller in any liquids. Avoid exposing the VR Controller to excessive moisture.

The VR Controller is not 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 controller from service, and contact Axon.

Technical specifications

The VR Controller can only be used with virtual reality applications. No components can be used as a weapon or converted into a weapon. Buttons are used for powering on and off, communicating trigger action, and short-range wireless pairing to a compatible virtual reality headset.

Physical specifications

Parameter	Result
Depth	28.59 in. (726.27 mm)
Width	2.68 in. (68.11 mm)
Height	11.22 in. (285.04 mm)
Weight	**With magazine**: 7.282 lbs (3303 g) **Without magazine**: 6.853 lbs (3108 g)
Trigger type	Mechanical trigger (binary non-adjustable)
Safety type	Mechanical lever (binary non-adjustable)
Construction	White polymer, metal
LEDs	**Pairing LED**: Single LED behind the front sight for pairing status indications **Status LED**: Single LED at the front left near the Reset button for battery status and trigger actions **Tracking LED**: Eight Infrared LEDs on the controller allow the separate headset's camera to track the location of the controller within 3D space
Comms	2.4 GHz proprietary Bluetooth channel
Power type	**HTC tracker**: Integrated single cell lithium battery pack **Magazine**: Two removable single cell lithium batteries **VR rifle body**: Removable 3-cell lithium battery
Battery voltage	3.7 V nominal per cell
Operating range	32–104 ºF (0–40 ºC) Humidity: 70%
Battery charging method	USB-C on buttstock, max 800 mA

Actual measurements on products may vary due to items outside Axon's control. Product specifications may change without notice. The actual product may vary from picture, image, or graphic. Refer to current Axon published product specifications for specified limits and test conditions. Read the manual and all product literature.

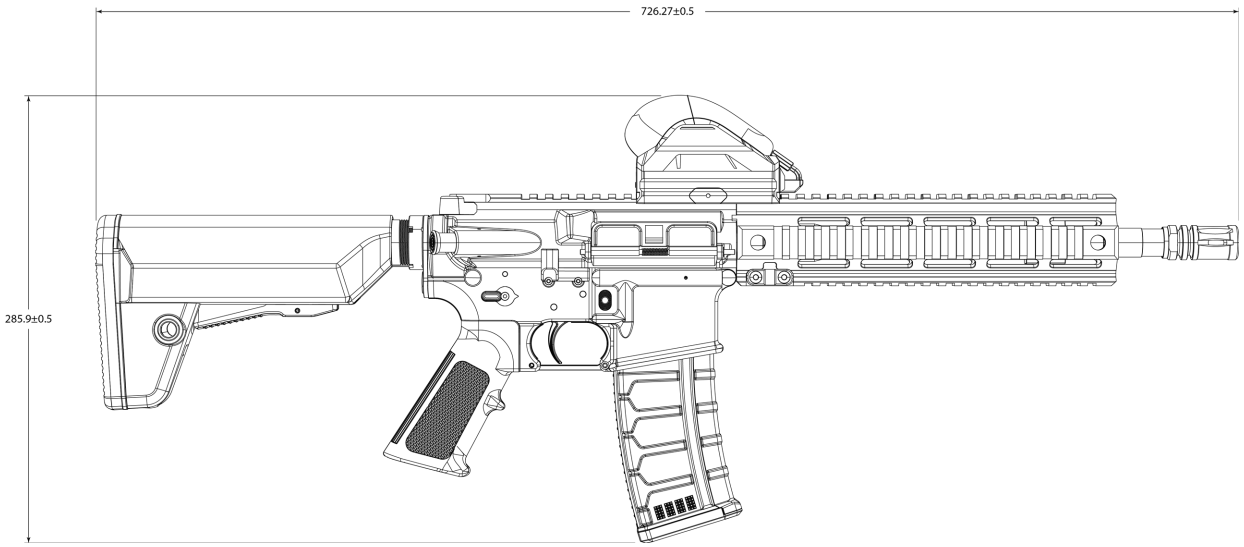
For more information, see current Rifle VR Controller (VRM4R) device/product training materials, product manuals, and website at www.axon.com. Axon Enterprise, Inc. reserves the right to change or modify this document without notice.

Bluetooth Low Energy (BLE) specs

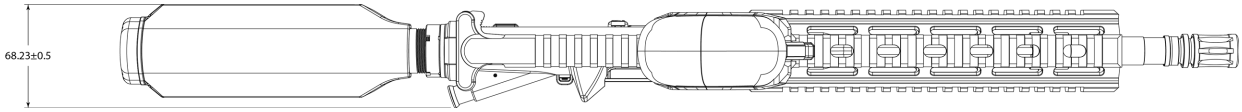
Parameter	Result
Frequency range	2402-2480 MHz
Modulation type	GFSK
Channel BW	2 MHz
Data rate	1 Mbps
Maximum average conducted power (FCC/ISED)	7 dBm
Maximum average conducted power (EU)	3.5 dBm

Distance to body (in mm)

In use, finger on trigger



In use, finger resting against side



FAQ

Why is the status LED of my Rifle VR Controller (VRM4R) blinking red?

When updating the firmware of your Rifle VR Controller (VRM4R), the status LED will flash red and blue  until the update completes. However, if the LED is blinking only red , it indicates a critical error. In this case, you should return the Rifle VR Controller (VRM4R) to Axon.

How do I return my Rifle VR Controller (VRM4R)?

See the How do I create a return (RMA)? article.

Troubleshooting

Refer to these troubleshooting tips if the Rifle VR Controller (VRM4R) is not working as expected.

If problems persist, contact your Axon Representative or start the RMA process.

General recommendations

- Always power off the VR Controller when not in use by turning the switch to the **Off** position on the buttstock.
- Perform regular cleaning and maintenance on the VR Controller as stated in Maintenance.
- Store the VR Controller in a clean, dry environment to prevent corrosion or battery discharge.

Troubleshooting during use

If a malfunction occurs while operating the Rifle VR Controller (VRM4R), try these steps to help diagnose the issue:

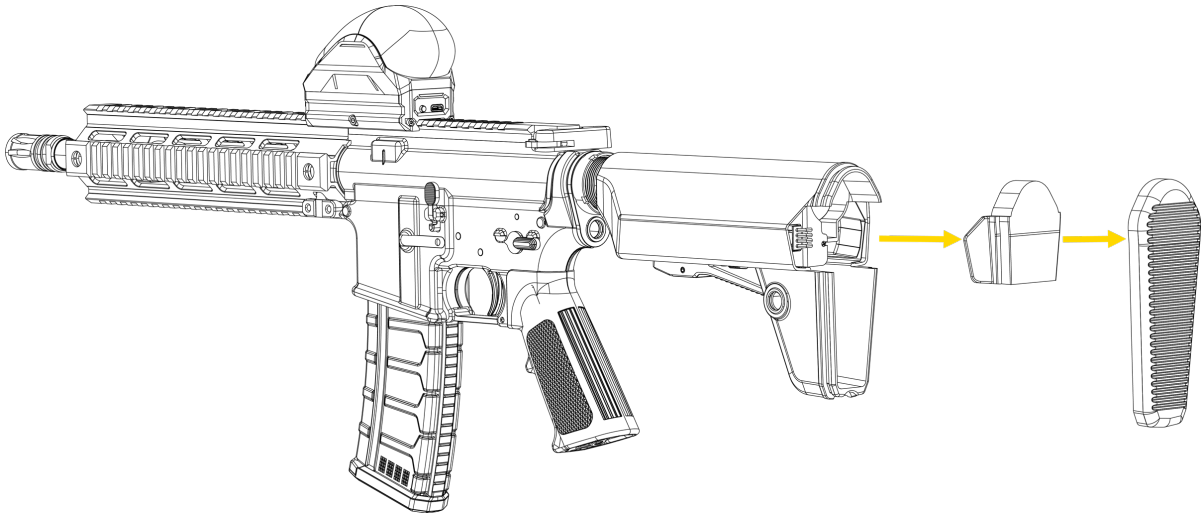
1. **Reset the bolt mechanism**. Pull the **charging handle** four to five times to reset the bolt mechanism.
2. **Check the battery**. Make sure the battery is charged and properly connected.
3. **Inspect internal components**.
   a. Open the receivers and inspect the **bolt carrier group** for proper lubrication. If the bolt appears dry, lightly apply high-quality gun grease or oil.
   b. Check for dust and debris inside the gearbox. Remove them with a nylon brush or compressed are, as needed.

If the issue continues, stop use and proceed to the applicable troubleshooting section below.

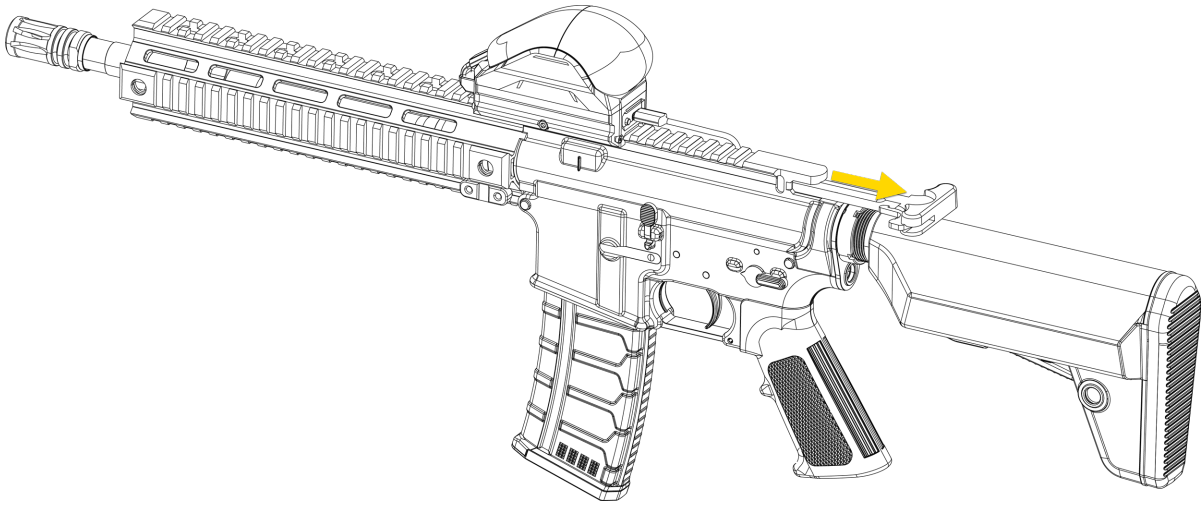
Power failure

1. Turn the power switch for the VR Controller (on the buttstock) to the **Off** position before beginning troubleshooting.

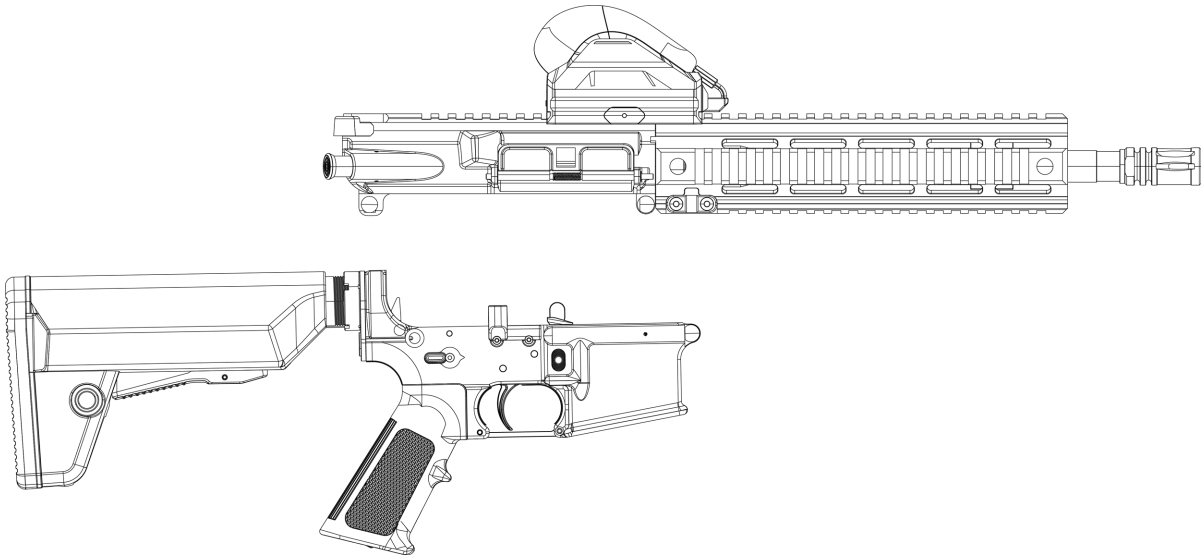
2. Remove the **pad** and **battery cover** from the rear of the buttstock.



3. Remove the **battery**.
4. Inspect the **fuse** for damage and discoloration.
   a. If the fuse is blown, **do not** reconnect power and proceed to step 5.
   b. If the fuse appears intact but the VR Controller still does not power on, contact your Axon representative.
5. Check for and remove any dust or debris in the bolt operating section or gearbox.
6. Once the area is clear of foreign material, replace the fuse with one of the spare fuses included in your Axon VR Controller package.
7. Pull the **charging handle** to the rear and release it four to five times to verify smooth bolt movement and make sure there is no resistance.



8. Separate the **upper** and **lower receivers**.



9. Reattach the **battery**.
10. Replace the **battery cover** and **pad**.
11. Set the **Safety selector lever** to **Semi** and fire one shot to verify that the gearbox rotates smoothly.
    a. If the VR Controller operates normally, reassemble the receivers and resume use.
    b. If the VR Controller doesn't operate, stop use and contact your Axon representative.

Battery installation and replacement

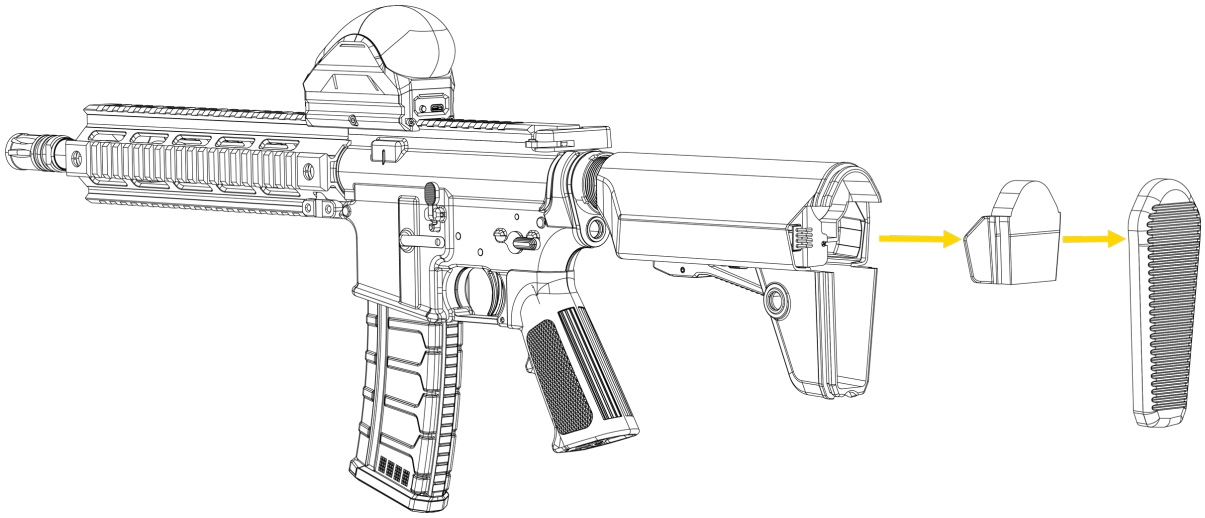
Warning

Fire hazard warning: Use of unapproved batteries may result in overheating, combustion, or explosion. Store and charge batteries in fireproof containers.

The Rifle VR Controller (VRM4R) uses a rechargeable battery housed in the buttstock. To remove and replace the battery:

1. Turn the power switch for the VR Controller (on the buttstock) to the **Off** position before beginning troubleshooting.
2. Pull the **stock pad** straight back from the end of the buttstock to remove it.

3. Remove the **pad** and **battery cover**.

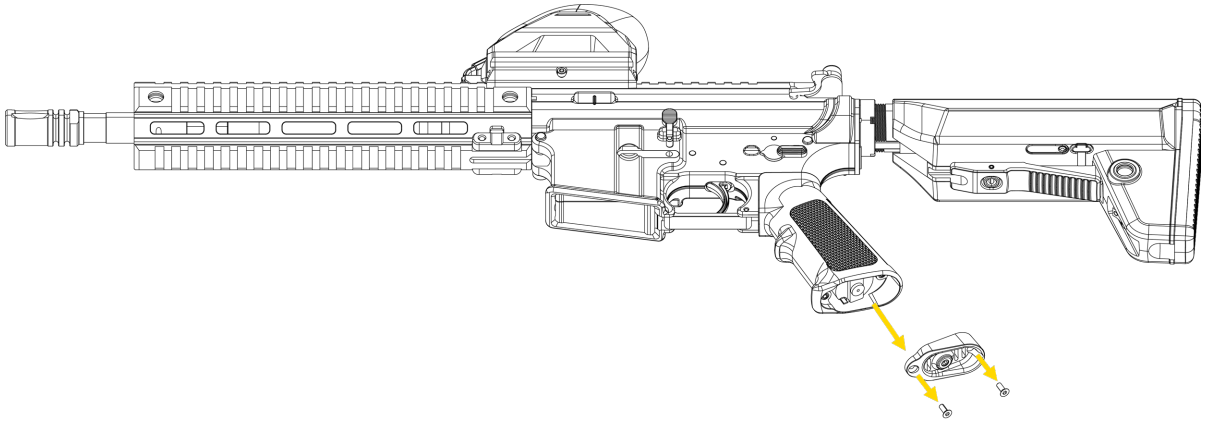


4. Remove the battery.
5. Install the new battery.
6. Reattach the **battery cover** and **pad**.
7. Turn on the power switch to the **On** position and confirm that the status LEDs on the HTC tracker light up.

Motor wire connector check

If the VR Controller does not power on or the bolt fails to cycle after replacing the fuse or battery, check the motor wiring connectors. These wires can come loose from recoil.

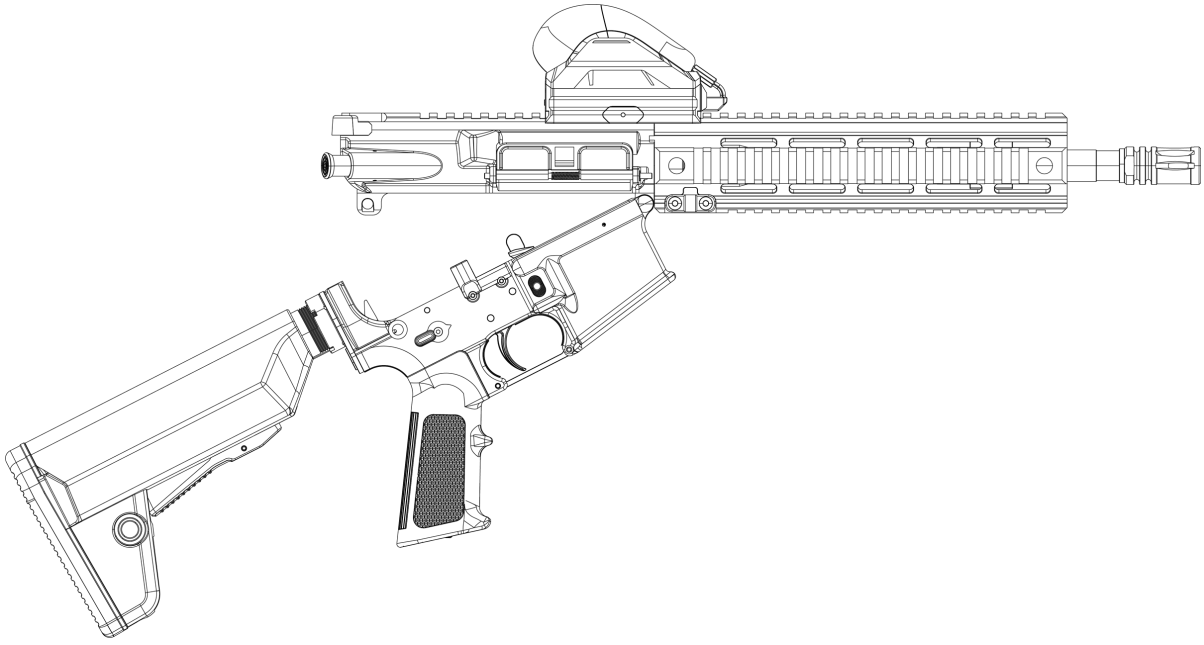
1. Turn the power switch for the VR Controller (on the buttstock) to the **Off** position before beginning troubleshooting.
2. Use a screwdriver to remove the two screws that secure the **grip** and remove the cover.



3. Check if the connectors between the motor and wires are firmly attached.
   a. Check that no wires are pinched or frayed.
   b. If a connector it not pinched or frayed and is loose, reattach it.
4. Reinstall the cover.
5. Use a screwdriver to reattach the screws to the **grip**.

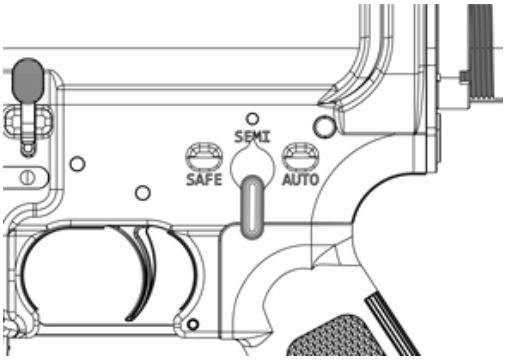
Bolt stops midway due to debris

1. Turn the power switch for the VR Controller (on the buttstock) to the **Off** position before beginning troubleshooting.
2. Pull the **charging handle** to the rear and release it four to five times to allow the bolt to return to its original position.
3. Separate the upper and lower receivers.



4. Remove the **bolt carrier group** and clean any dust or debris from the bolt and chamber.
5. Turn the power switch for the VR Controller (on the buttstock) to the **On** position.

6. Set the **Safety selector lever** to **Semi** and fire one shot to check the gearbox rotation.



   a. If the VR Controller operates normally, reassemble the receivers and resume use.
   b. If the VR Controller doesn't operate, stop use and contact your Axon representative.

Customer Service

Axon customer support

Find additional guides and troubleshooting at my.axon.com/s/axon-vr-training or contact customer support at:

- US and 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 Rifle VR Controller (VRM4R) for service, follow the procedures at www.axon.com.

Compliance

A Rifle VR Controller (VRM4R) 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.

Le présent appareil est conforme aux CNR d’Industrie Canada applicables aux appareils radio exempts de licence. L’exploitation est autorisée aux deux conditions suivantes : (1) l’appareil ne doit pas produire de brouillage, et (2) l’utilisateur de l’appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d’en compromettre le fonctionnement.

RF exposure

The equipment complies with FCC/ISED radiation exposure limits set forth for an uncontrolled environment. The metal is assembled and has a minimum distance of 127.383 mm between the device, the antennas, and the user's body.

L'équipement est conforme aux limites d'exposition aux rayonnements FCC/ISED établies pour un environnement non contrôlé. Le métal est assemblé et présente une distance minimale de 127.383 mm entre l'appareil, les antennes, et le corps de l'utilisateur.

FCC responsible party
Name: Axon Enterprise, Inc.
Address: 17800 N 85th St, Scottsdale Arizona 85255, USA
Telephone number: 1-800-978-2737
www.axon.com