



M4-ASM-V3

OPERATION/MAINTENANCE MANUAL

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CAUTIONS AND WARNINGS

Read, understand, and follow all warnings, training materials, and safety instructions for the M4-ASM-V3.

WARNING: the M4-ASM-V3 is for training purposes only.

The repair/maintenance procedures described below are to be performed by trained personnel. For installation procedures, please refer to M4-ASM-V3 installation manual. Any procedures not covered in either the installation or the repair/maintenance user manuals are considered Factory Maintenance & Repair and it is required that the item be sent to VirTra for repair.

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I. MAGAZINE COMPONENTS

A. MAGAZINE ASSEMBLY

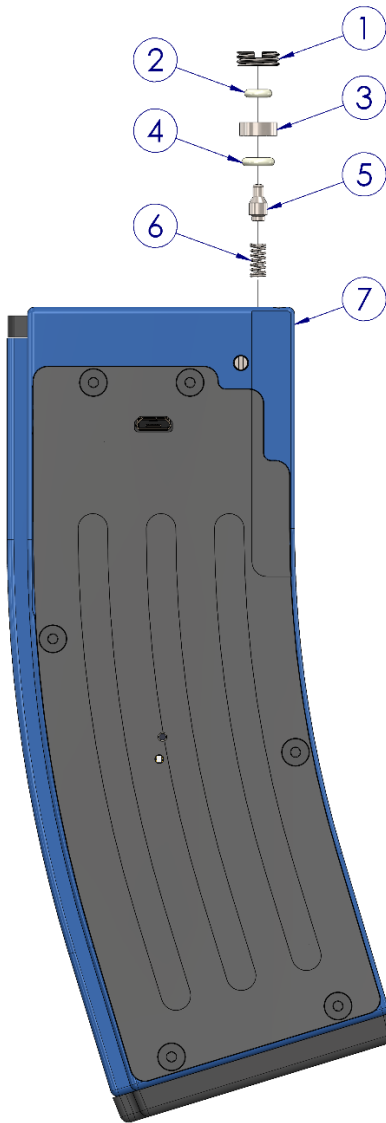


Figure 1, Double Seal Assembly

ITEM NO.	DESCRIPTION
1	Double Seal Cap
2	Top O-Ring, 005
3	Double Seal Spacer
4	Bottom O-ring, 007
5	Double Seal Valve
6	Compression spring
7	Magazine Body

Table 1: Double Seal Components

II. INSPECTION/MAINTENANCE GUIDELINES

A. GENERAL CARE

It is recommended that specific (non-duty) firearms and/or firing pins be dedicated for use with the CO2 recoil kits.

All magazines should be depressurized at the end of the day to increase the lifespan of VirTra products. To depressurize a VirTra magazine, first insert the depressurization tool until all CO2 has been expelled. Allow magazine to rest for at least 30 seconds, then insert the tool again to be sure all CO2 has been exhausted.

CO2 recoil kits are capable of expending at least 2 full magazines in less than 60 seconds. Doing so will reduce the temperature of the weapon and cause a reduction in number of shots. If this is experienced, wait a few minutes between magazines.

B. GENERAL USE

The CO2 magazine is refillable via the VirTra CO2 Refill Station and the Table Clamp Refill Nozzle. For the refill station, simply place the CO2 magazine into the corresponding guide block and insert into the station. For the table clamp nozzle, simply push the magazine onto the nozzle until the magazine is full.

C. CONNECTING TO VOS

- Reference “ADVANCED SKILLS MAGAZINE CONNECTION” document to connect magazine to VOS.

D. INSTALL AND OPERATION

- Ensure that the V-M4-RK is correctly installed in the firearm, refer to the V-M4-RK INSTALLATION MANUAL for further information.
- Pull the charging handle fully to the rear then release to cock the rifle’s hammer.
- Rotate the rifle’s selector lever to the “Safe” position.
- Fill the Magazine using the VirTra CO2 Refill Station or Table Clamp Refill Nozzle.
- Insert the M4-ASM-V3 into the magazine well of the firearm just like a real magazine as shown in Figure 2.



Figure 2, Load M4-ASM-V3 into firearm.

- Ensure the magazine fully seats and locks into place.
- The full weapons system is now ready to use in your VirTra Simulator.

III. TROUBLESHOOTING

A. MAGAZINE LEAKS

New magazines may leak at the double seal top cap the first few times they are filled up. If this should happen, apply one drop of lubricant on the double seal, insert the magazine into a compatible weapon that contains a VirTra recoil kit. Fire the weapon in a safe direction a few times and remove the magazine from the weapon. If this leak persists, repeating this process of test firing the weapon may help eliminate the leaking. This can be repeated 2 to 3 times.

If the magazine continues to leak, the seals may need to be lubricated using the following procedures.

- **Warning:** Fully depressurize the magazine before proceeding. Refer to 'General Care' for depressurization procedures.
- Remove the double seal cap (Figure 1, #1) using a thick blade screwdriver.
- Use a small pick or screwdriver to remove the 005 O-ring (Figure 1, #2) and double seal spacer (Figure 1, #3). Inspect the O-ring and replace if any damage/wear is present.
- Use a small pick or screwdriver to remove the 007 O-ring (Figure 1, #4). Inspect the O-ring and replace if any damage/wear is present.
- Invert the magazine and allow the double seal valve (Figure 1, #5) and compression spring (Figure 1, #6) to drop free. Inspect the spring and replace if any damage/wear is present.
- To reinstall Double Seal components:
 - Place compression spring (Figure 1, #6) onto the double seal valve (Figure 1, #5) and install in the cylinder of the Magazine Body (Figure 1, #7).
 - Apply a drop of approved lubricant to the 007 O-ring (Figure 1, #4) and place into the cylinder.
 - Apply a drop of approved lubricant to the 005 O-ring (Figure 1, #2), fit into the cup of the double seal spacer (Figure 1, #3) as shown in Figure 3, then place into the magazine with O-ring facing up.

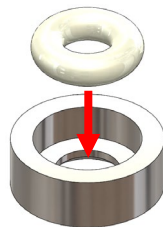


Figure 3, Fit O-ring into cup of Double Seal Spacer

- Apply Loctite onto the double seal cap and install using a thick blade screwdriver. Note: Do not overtighten.

If the leak coming from the double seal of the magazine will not stop after going through the above procedures, or if the leak is coming from a different area such as the bottom of the magazine, fully depressurize the magazine and contact the VirTra Service Department for further assistance.

B. JAMMING FEATURE ISSUES

- Low battery will cause the jamming lever not to function, first ensure that the battery is fully charged. If the jamming features of the magazine fail to operate as intended try manually activating the lever in the corresponding menu in VOS. If the magazine still does not activate the lever, contact VirTra Service Department for guidance.

C. CONNECTIVITY ISSUES

- If the M4-ASM-V3 green LED light is on, and Magazine does not show up in VOS first try resetting the magazine by pressing the reset button with a small tool through the hole in the front cover as shown in Figure 4.

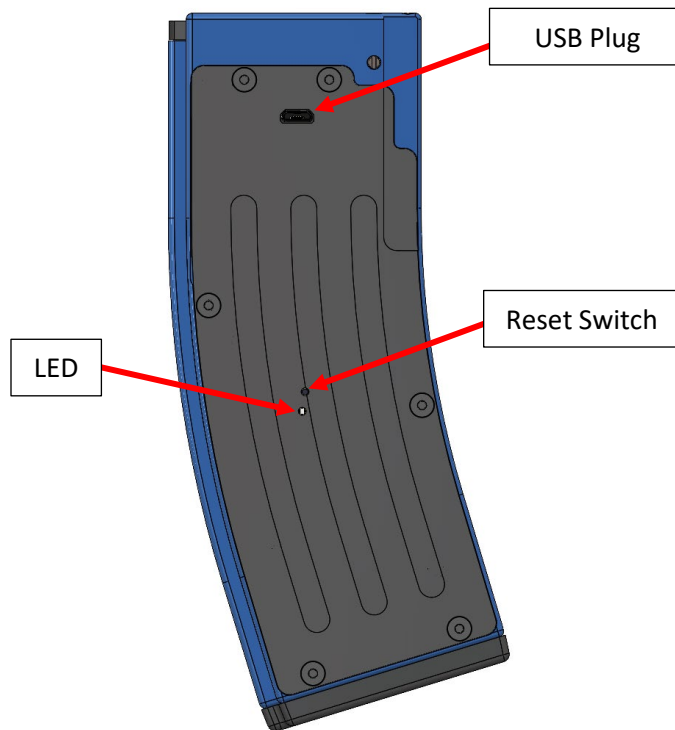


Figure 4, Location of Reset Switch, USB Plug, and LED.

- If issue persists, make sure the magazine is fully charged and try reconnecting again.

If issue is still not resolved, contact VirTra Service Department.

D. SHOT REGISTRATION

Problems with shot registration can be resolved by the following:

- Ensure that all of the lights are off in the training room while using the simulator. Also make sure that no light from any other source shines on the screens.
- Verify the magazine is fully charged by charging the magazine using the supplied charger.
- For more comprehensive diagnostic instructions, for calibration and zeroing refer to the "VOS Manual". It can be found in the VirTra User Manuals folder on the Instructor Station.
- If shots are still not registering on the screen contact VirTra Service Department.

E. WARNING LIGHTS

- Blue, Solid ----- Device is Charging
- Green, Solid ----- Device is on
- Red, Flashing ----- Low Battery
- Red/Green Flashing* --- Internal Issue

*If the LED is flashing between Red and Green, this means there is an internal issue with the magazine's electronics. Try resetting the Magazine as described in Section III, C; if issue persists contact VirTra Service Department.

IV. CONTACT VIRTRA

For any questions or additional help with any part of this manual, please contact VirTra via the information below.

VirTra Service Department

VirTra

295 E Corporate Place
Chandler, AZ 85225 USA

Office: (480) 508-5977
Email: service@virtra.com

