

GTA 23-01-009 24-Mar-2015

**Shoulder Launched Munitions
BDM Visual MODIFICATION Part#
224230-1**

SLM Engine Part # 187492-1
Software Version 1.08 01FEB 2008

SLM Common Engine

The SLM common engine is designed to support multiple SLM weapon types.

The SLM common engine will provide operational performance, and require operational procedures, simulating the actual BDM weapon characteristics.

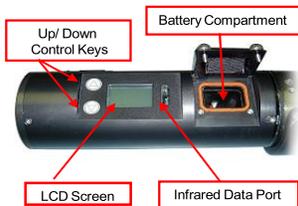
The SLM Common Engine



BDM Performance

- Maximum Effective Range 300 Meters
- Number of Rounds Default (2)
- Dryfire Capability
- M22 ATWESS Fire
- Emits a Backblast Area Kill Code

SLM Controls and Indicators



1. Remove transport safety pin, press and hold the tube release button. Extend the launch tube and rotate clockwise to lock.



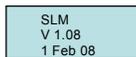
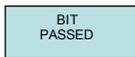
2. Using a flat screw driver, loosen the two battery compartment access door captive screws.
3. Flip open the battery access cover and remove the exhausted battery, then insert a fresh 9 vdc battery with the positive terminal towards the rear of the device and with the battery terminals down.
4. Close the battery door and then carefully start each screw, ensure the screws are not cross threaded. Tighten both captive screws until snug, ensuring the gasket is compressed.
5. Power ON the SLM to ensure proper operation. Power off the SLM.
6. Depress and hold the tube release button, rotate the launch tube counterclockwise, and insert the launch tube into the outer tube. Install the safety transport pin.



SLM Operation

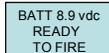
SLM Configuration and Display

The SLM will automatically Power UP when placed on your shoulder via a pressure switch located on the SLM Engine, or by pressing the Up or Down Arrow buttons. A Built In Test (BIT) will run, if successful a BIT Pass screen will display. If BIT fails the user must run a Manual BIT to see all failures.

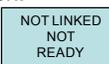


The SLM will attempt to link with the MILES IWS harness. This linking process ensures the player is active allowing the SLM to function.

If MILES linking occurs the following screen will display. The Battery voltage and the Rounds available screens will alternate.



If a MILES link did not occur then the following screen will be displayed and the SLM will not function:



If the ATWESS is not ARMED/LOADED the following screen will be displayed and the SLM will not function:

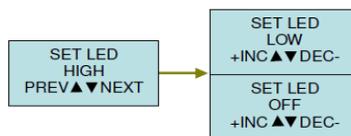


SLM Operator Settings

To navigate the SLM Menu press the ▲ or ▼ Keys.

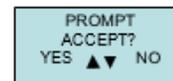
Set Visual Reference LEDs

To SET LED, access the SET LED Menu and then press and hold the Up or Down Arrow Buttons to enter the menu. Press and release either button to select HIGH, LOW, or OFF. Remain idle for 3 seconds and the Accept Prompt will display. Press the Up Arrow to accept the change, or the Down Arrow to decline. If NO is selected the setting will remain at previous setting.



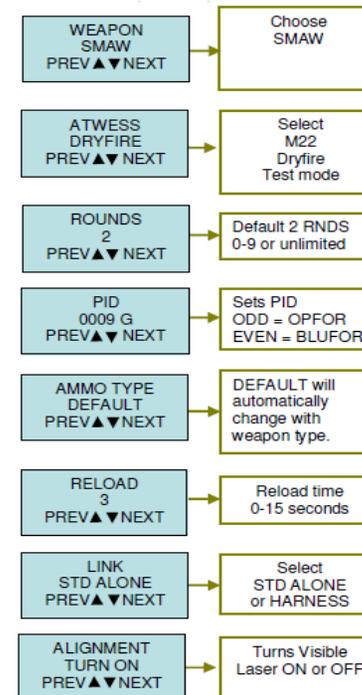
Set BACKLIGHT

To SET BACKLIGHT, access the SET BACKLIGHT menu and then press and hold either the Up or Down Arrow buttons to enter the menu. Scroll to the setting desired, ON or OFF. Remain idle for 3 seconds, an Accept Prompt will display. Press the Up Arrow to accept or the Down Arrow to decline. If NO is selected the display will remain at previous setting.



SLM Controller Settings

To navigate the SLM Menu press the ▲ or ▼ Keys. The menu options are only available in the Controller Mode.



Loading Procedures

1. Move ATWESS door lock lever to the open position. Open ATWESS door as far as it will go. This cocks the ATWESS Firing Pin.



2. Visually check to see if the firing pin is protruding. If unsure, use one hand to feel if firing pin has retracted to its full length.
3. If firing pin is protruding, or has not retracted to its full length, tag the ATWESS as unsafe, and return it to the point of issue.
4. Insert an ATWESS cartridge. Stand to the side of the rear of the launcher, face away from the target, and close the ATWESS door of the ATWESS.



5. Close the ATWESS door

WARNING: Once ATWESS safety shaft is pulled up SLM is on right shoulder, automatic linking occurs. **Ensure back blast area is clear**

Firing Procedures

1. Remove transport safety pin, press and hold the tube release button. Extend the launch tube and rotate clockwise to lock.



2. Inspect inner tube for cracks, dents, gouges, or holes.
3. Pull the ATWESS Safety Shaft located in the front of the rear bumper to the UP and locked position. Extend the shoulder stop.



4. Raise the launcher out and away from your body. Keep the launcher pointed towards target while pivoting your body 180 degrees to face the target, and place the launcher on your right shoulder.
5. Open the front and rear sight covers.
6. Slide the left army inside the shoulder sling until it is behind the bicep. Keeping the sling strap behind the bicep, grasp the launcher in the left hand, palm up.



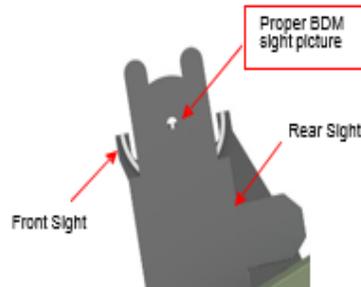
7. Check the back blast area to ensure it is clear of obstructions and personnel. Look over your left shoulder and right shoulder and yell "Back blast area clear" to the rear.
8. Open the firing mechanism cover, press the safety button, and press the trigger button.



9. The laser will fire. The LED will illuminate for 1/2 second as the laser fires. If you decide not to fire, push the ATWESS Safety Shaft down to the "SAFE" position. Then open ATWESS door and remove ATWESS cartridges.

BDM Sight Picture

To obtain a proper sight picture, position the Front Sight Post in the middle of the slot of the Rear Sight blade. Align the Front Sight aiming point with the Rear Sight blade for correct elevation. Once Target is sighted in aim for the center mass of target.



To obtain a proper sight picture, looking through the Rear peep Sight, locate the half semicircle on the Front Sight. Adjust the position of the BDM moving up / down / left / right, so that the Rear peep Sight aligns with the ghost ring. Center the front sight post on target. Aim the BDM at the center mass of target.

Misfire Procedures

In the event of an ATWESS misfire, perform the following steps:

1. Release the trigger button and safety button. Attempt to refire.
2. If the BDM VISMOD does not fire, announce "Misfire".
3. Wait 90 seconds before removing ATWESS cartridge.
4. Push the pull to arm shaft down to the "safe" position. Remove the ATWESS cartridge from the ATWESS.



5. Inspect the cartridge primer. If dented, treat the cartridge as a DUD. Report the DID to proper personnel for disposal.
6. If not dented, reload the ATWESS cartridge and repeat firing sequence. If ATWESS does not fire, report failure per local SOP and return to issue point.

Troubleshooting Procedures

Troubleshooting Procedures

1. **Inner tube does not extend.**
 - a. Ensure transport safety pin is removed.
 - b. Ensure tube release button is fully depressed.
 - c. Clean any debris preventing motion of the inner tube.
 - d. If this does not resolve the issue, contact maintenance.
2. **Inner tube does not collapse.**
 - a. Ensure tube release button is depressed completely.
 - b. Ensure inner tube is rotated completely counter clockwise to allow tube to collapse.
 - c. Remove any debris preventing motion of the inner tube.
 - d. If this does not resolve the issue, contact maintenance.

3. Inner tube does not lock.

- a. Attempt to lock the tube multiple times.
 - b. Collapse the BDM VISMOD, attempt to extend and lock the inner tube again.
 - c. If this does not resolve the issue, contact maintenance.
- 4. Front or rear sight doesn't extend.**
- a. Make sure the covers are slid completely open to allow sights to extend.
 - b. Clear any debris preventing motion of the sight and manually extend the sight.
 - c. Manually pull up on the sight to get it standing up.
 - (1) If the sight extends but does not stay raised, the spring may be broken. Contact maintenance.
 - d. If this does not resolve the issue, contact maintenance.

5. Common Engine not Powered On.

- a. Press the UP arrow on the Common Engine to power it on.
- b. If this does not resolve the issue, replace the battery, and press the UP arrow on the Common Engine to power it on.
- c. If this does not resolve the issue, contact maintenance.

6. SLM Common Engine is not in a "Ready to Fire" state.

- a. Ensure the shoulder paddle is depressed/engaged.
- b. Ensure the ATWESS safety shaft is locked.
- c. Ensure the ATWESS door is closed properly.
- d. Ensure the Common Engine does not report Not Linked. If Not Linked is reported on the Common Engine display, check the following:
 - (1) Ensure harness/vest is on, check batteries.
 - (2) Ensure the harness/vest is on properly i.e. right shoulder strap is over right shoulder and inductive loop is on top of the shoulder.
 - (3) Ensure the SLM BDM VISMOD is being placed on the right shoulder.
 - (4) Ensure Common Engine is in LINK MODE.
- e. Ensure the Common Engine has Rounds available.

- f. If this does not resolve the issue, contact maintenance.

7. LED doesn't flash

- a. Ensure Common Engine is in "Ready to Fire" state (see troubleshooting steps for SLM Common Engine is not in a "Ready to Fire" state).
- b. Ensure tubes are extended and in the locked and open position.
- c. Ensure Common Engine is not loose. This can be done by verifying the engine is completely installed with all four "install screws" to make sure the Common Engine's DB9 is connected to the BDM VISMOD
- d. If this does not resolve the issue, contact maintenance.

8. Common Engine does recognize a depressed shoulder paddle.

- a. Contact maintenance.

9. Safety button doesn't depress.

- a. Ensure the trigger cover is completely open and flush with outer tube.
- b. If this does not resolve the issue, contact maintenance.

10. Trigger button doesn't depress.

- a. Ensure the trigger cover is fully open and flush to the tube.
- b. Ensure the safety button is fully depressed.
- c. If this does not resolve the issue, contact maintenance.

11. Target doesn't recognize engagement.

- a. Refer to the SLM Common Engine is not "Ready to Fire" troubleshooting procedures.
- b. Clear any debris in the window aperture of the BDM VISMOD.
- c. Check alignment of the BDM VISMOD using the target sheet. The procedure on how to align the laser may be found in TM 9-6920-3692-10 Rev B section 3-3.3.12 Laser Alignment.
- d. If this does not resolve the issue, contact maintenance.

12. Common Engine doesn't turn off.

- a. Ensure shoulder paddle is not depressed.
- b. Remove battery and return to maintenance.