

Conduct Transmitter Tests

1. Verify operability of a MWLD torso harness. Hold three detectors together in hand for use in transmitter tests.

2. 25mm MAIN GUN Test:

A. Verify MAIN GUN TRANSMITTER is set in AWESS mode, MASTER and TURRET POWER ON, Ammo select is HE HI, ARM-SAFE-RESET SWITCH is set to ARM, push LOW AMMO OVRD button.

B. While holding MWLD in front of MAIN GUN TRANSMITTER laser tube, fire MAIN GUN. Verify Kill tone on MWLD and verify FLASHWESS.

3. COAX Test:

A. Verify correct mounting of M21 BFA on M240 MG, load BLANK ammo into M240 MG, Ammo select is 7.62mm, MASTER and TURRET POWER is on, ARM-SAFE-RESET SWITCH is set to ARM.

B. STANDING on LEFT SIDE of MAIN GUN, WEARING EARPLUGS and FACING AWAY from M240 MG muzzle, hold MWLD in front of COAX laser tube. When the M240 MG is fired, verify KILL tone on MWLD.

4. TOW TRANSMITTER Test:

A. Erect TOW LAUNCHER, verify TOW MSRs have serviceable batteries and are set to DRY FIRE, MASTER and TURRET POWER ON, TURRET DRIVE POWER OFF, MISSILE SELECT set to MISSILE 1, ARM-SAFE-RESET SWITCH set to ARM position.

B. While holding MWLD in front of TOW transmitter, fire TOW missile.

C. Verify that NOT READY light on CONSOLE is illuminated, allow for 12 second missile track time, verify KILL tone from MWLD.

D. Repeat test using MISSILE SELECT set to MISSILE 2.

E. Set TOW MSRs to ATWESS, insert ATWESS in each MSR, test for both MSRs to check that MSRs fire in ATWESS mode.

NOTE. MILES Turret and gunnery procedures replicate normal procedures. All weapons systems must be fully serviceable.

Alignment of MILES Transmitters to ISU (Boresighting)

NOTE: Alignment requires precision. The same precision needed in boresighting the actual weapons. Gunner and vehicle commander must cross-check each other from transmitter sight to ISU. Where possible, align transmitters and ISU at target range of 2000 meters. Vehicle TOW and 25mm weapons must be boresighted to ISU before aligning the MILES transmitters.

1. Align 25mm/COAX TRANSMITTER to ISU.

A. Verify MASTER and TURRET POWER ON, *TURRET DRIVE POWER OFF*, lay 25mm ISU reticle, with ammunition selected, on target 2000 meters distance *USE MANUAL CONTROLS*.

B. Loosen ADJUSTMENT LOCK on transmitter. Use silver wheel to bring target into elevation adjustment, and hand pivot the transmitter to bring traverse into adjustment. Tighten the ADJUSTMENT LOCK and re-check that target is exactly in alignment.

C. Gunner and vehicle commander trade places and confirm alignment.

2. Align TOW TRANSMITTER to ISU.

A. With TOW LAUNCHER raised, verify MASTER AND TURRET POWER ON, and *TURRET DRIVE POWER OFF. USE MANUAL CONTROLS* to lay ISU TOW reticle on target at 2000 meters or greater distance using HIGH MAGNIFICATION.

B. Loosen ADJUSTMENT LOCK on transmitter. Use silver wheel to bring target into elevation adjustment, and hand pivot the transmitter to bring traverse into adjustment. Tighten the ADJUSTMENT LOCK and re check that target is exactly in alignment.

C. When the target and the ISU are aligned in both traverse and elevation, gunner and vehicle commander switch places and verify target and ISU alignment.

NO TE: The TOW weapons system requires precision. A one MIL error in sight alignment will result in a three meter shift in the impact point of the TOW at 3KM. The MILES boresight must be reconfirmed as frequently as the actual weapons system. [Refer to BFV Turret Manual Be Precise!!

BRADLEY FIGHTING VEHICLE MILES POCKET REFERENCE GUIDE

Installation Check

1. Ensure that all cable connections are correct and secure, and that all excess cabling has been secured with VELCRO ties.
2. Ensure that all cabling passes underneath the #7 belt before routing inside the Plenum Chamber.
3. Ensure proper placement of the # 7 belt, 1st detector on grenade box, 2nd detector has wedge block, and electronics box secured beneath bolt on armor using long VELCRO tie straps secured to antenna matching unit.
4. Ensure cables are properly routed by **MANUALLY** elevating 25mm gun and observing cable both inside and out for clearance and binding. **DO NOT ALLOW CABLES TO BE PINCHED OR STRETCHED.**

Troubleshooting Tips

1. Verify that all cable connections are tight and all installed batteries are serviceable. Check all cables and detector belts for broken, pinched or worn areas.
2. Use self-test to isolate fault. Determine ALL possible causes.
3. Refer to TECHNICAL MANUALS for specific troubleshooting procedures. Use ELECTRONICS TEST SET to isolate fault. Replace parts by direct exchange as required.
4. Always tag (DA 2402) faulty equipment before turn-in. Whenever possible, **IDENTIFY SPECIFIC FAULT** on tag.

Conduct System Test

1. Turn vehicle MASTER and TURRET power ON.
2. Ensure that serviceable batteries are installed in both the CONSOLE BATTERY BOX and in TOW MISSILE SIMULATOR ROUNDS (MSR).
3. Turn selector switch on CONTROL CONSOLE TO SELF-TEST position, verify PRESS TO READ reads "00".
4. Using controller green key in CONTROL CONSOLE, turn key to CONTROLLER (reset) position, then turn key back and remove.
5. Rotate CONSOLE SELECTOR SWITCH to HIT/KILL position and return, verify PRESS TO READ reads "88".
6. Use CONSOLE SELECTOR SWITCH to verify display readings:
 - A. MISSILE position, DISPLAY should read "12".
 - B. MAIN GUN position, DISPLAY should read "15".
 - C. COAX position, DISPLAY should read "45".
7. Using weapon orange key, insert in CONSOLE, turn to WEAPON position, then remove key. Verify each of the following for self-test:
 - A. NOT READY light on CONSOLE is illuminated.
 - B. HIT/KILL position DISPLAY reads "99".
 - C. Continuous (Kill) tone sounds in vehicle intercom.
 - D. CVKI LIGHT is flashing continuously.
8. If both steps 6 and 7 are verified, reset CONSOLE using steps 4 and 5 and re-check using step 6.
9. Use CONTROLLER GUN set in NEAR MISS position to shoot each detector on both DETECTOR BELTS. Verify that each detector causes CVKI LIGHT to flash 2-3 times, and also causes intercom to sound intermittent (HIT/NEAR MISS) tone "beeps". Not more than one detector on each DETECTOR BELT may be faulty.