

## M2A1 Machine Gun, Caliber .50

The first fielding of the M2A1 .50 caliber fixed headspace and timing machine gun was in August of 2011. To date, over 10,500 M2A1s have been fielded. During this time, PM Soldier Weapons and TACOM continue to receive reports from the field regarding the improper installation of the M2A1 barrel into the barrel extension. Since November 2011, there have been 27 M2A1 Malfunction, Accident, Incident Reports (MAIRs). Of the 27 MAIRs received, 20 were attributed to Soldiers improperly installing the M2A1 barrels. In a recent incident, not only was the weapon damaged but a Soldier was injured as well.

Failure to properly install the M2A1 barrel into the barrel extension will cause the weapon to malfunction and damage the barrel assembly by shearing the barrel alignment guide pin off of the barrel. Once the barrel alignment guide pin is sheared off, the barrel is non-repairable and the unit must then buy a replacement barrel for a cost of \$1,741 per barrel. The costs associated with replacing the damaged barrels so far have been approximately \$30,000 to date.

When installing the barrel into the M2A1 receiver, barrel installation procedures must be followed in accordance with TM 9-1005-347-10 (WP 0023 00-3 and WP 0023 00-4). Failure to adhere to the steps in sequence will result in weapon malfunction, damage to the barrel assembly, and/or the M2A1 receiver.

### Barrel Installation:

Picture 1: M2A1 barrel is NOT properly rotated into place; barrel alignment guide pin is NOT in the J-slot (located on the barrel support).



Picture 1

Picture 2: M2A1 barrel is properly rotated into place; barrel alignment guide pin is in the J-slot (located on the barrel support).



Picture 2

Picture 3: Barrel alignment guide pin and barrel handle are at the 12 o'clock position and are NOT properly positioned.



Picture 3

Picture 4: Barrel alignment guide pin and barrel handle are at the 10 o'clock position and ARE properly positioned (gunner's perspective).



Picture 4

Weapon Damage:

Picture 5: M2A1 barrel alignment guide pin is sheared off due to improper barrel installation.



Picture 5

Picture 6: The cracked M2A1 receiver is the result of pressure from an unsupported ammunition cartridge due to improper barrel installation.



Picture 6

In other publications, TACOM released a notification to properly install the M2A1 barrel in Maintenance Action Message (MA 12-036) in April 2012 followed by a PS Magazine article (PS 720-43) in November 2012.