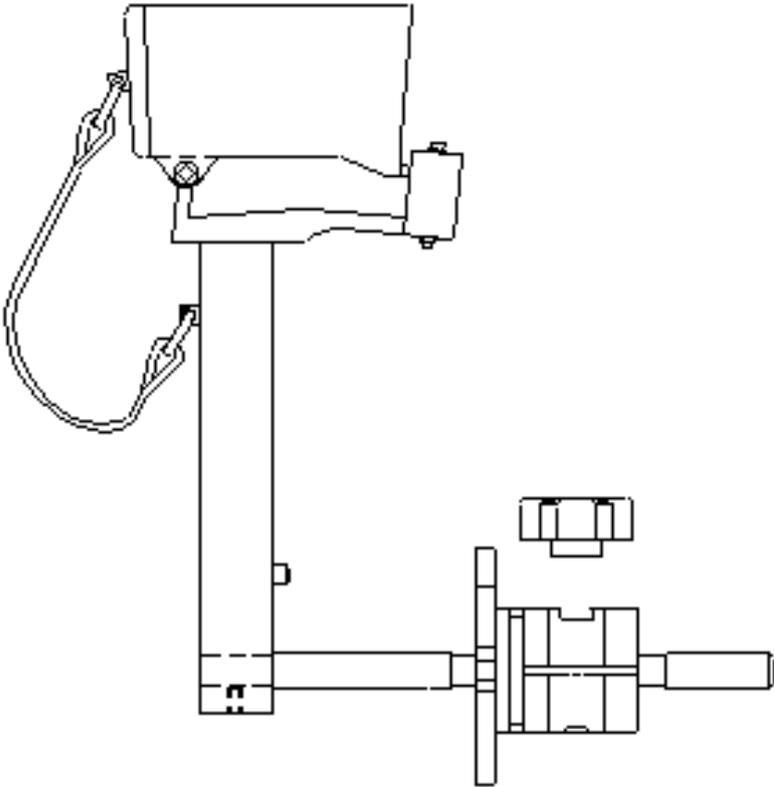


OPERATORS MANUAL

Instructions for Installing and Using Ring Sight Dry Zeroing Devices
Model No. DZD-M3M-01 and Model No. DZD-M2-01

NSN



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SUMMARY

1. This manual contains information to install and use Ring Sight Dry Zeroing Devices Model No's DZD-M3M-01 and DZD-M2-01 on M3M and M2 heavy machine guns respectively.
2. The Ring Sight Dry Zeroing Devices are for use with the Ring Sight LC-40-100-NVG-GSO on the M3M and the M2 .50" machine guns. Each gun has special post and clamp assemblies: the DZD's are not interchangeable.
3. The DZD's consist of a standard LC-31-85 solid glass reflex collimator sight with a removable cap added to the front preventing the view of the target scene.
4. The optic is fitted with a special graticule with a ring and cross hair. These can be used to assist in the zeroing and alignment check (see Para's 9-14). See figure 1 for Graticule layout.

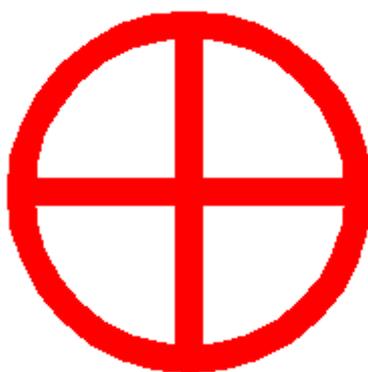


Fig 1 DZD Graticule Pattern 88

5. The sight is mounted on an alignment mechanism between the optic casing and the post interface. There are two self locking alignment screws on the sight which are turned with a spanner, one moves the sight horizontally, the other vertically. Its use is described in Para 16. The alignment screw heads on the DZD are painted red and are not to be moved.
6. The post interface fits onto a post which is special to the gun, so that the Ring Sight LC-40-100-NVG-GSO can see the graticule. There is also a clamp assembly (special to gun) which engages with the barrel to keep the DZD upright.
7. The post carries a spigot which is entered into the barrel to define the barrel axis at the muzzle.
8. The DZD-M3M and M2-01 with their assembly part numbers are illustrated at Fig 2

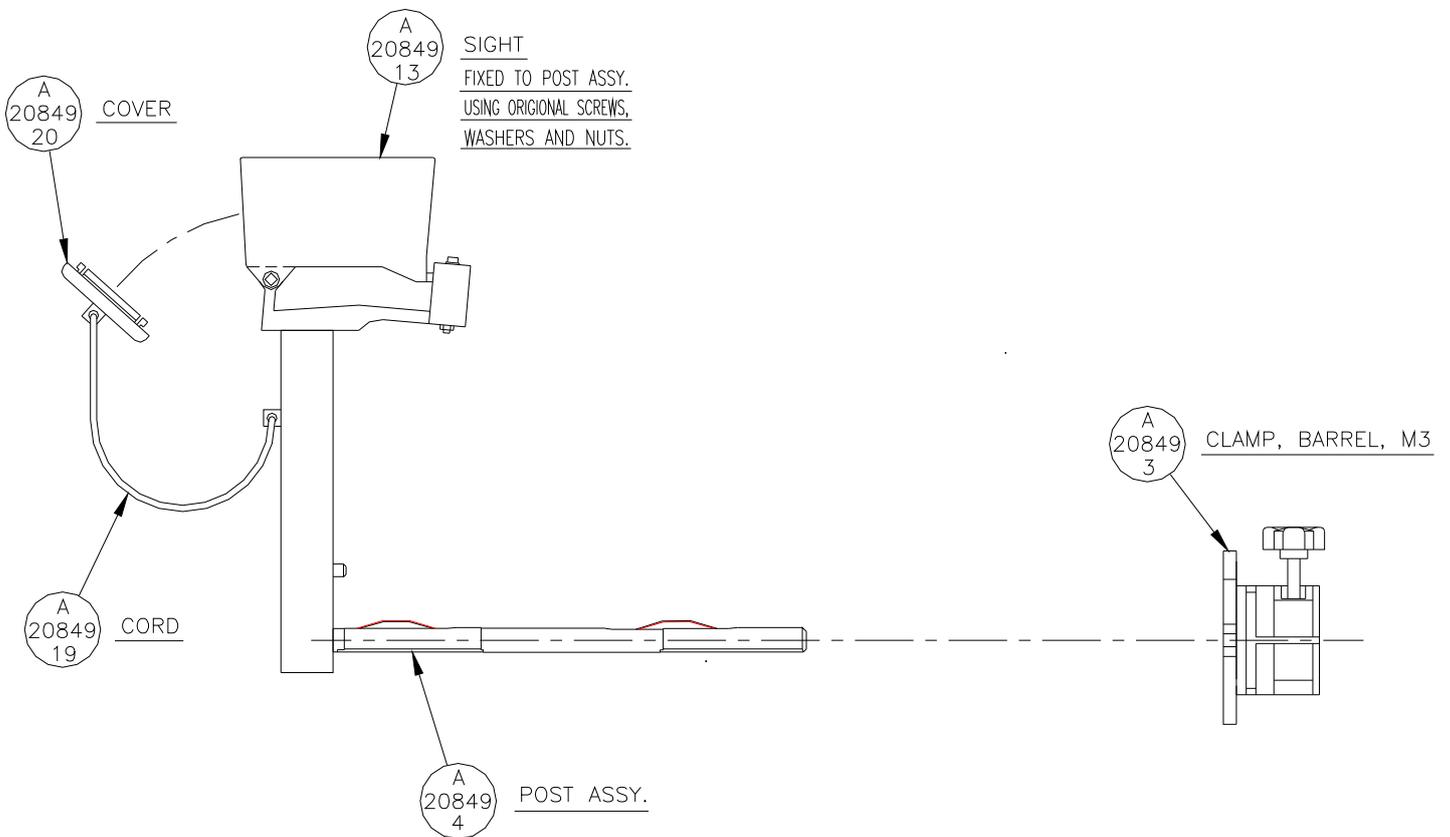


Fig 2 Parts list for DZD-M3M-01 & M2-01

	DZD-M3M-01	DZD-M2-01
Clamp Assembly	#A1284904	#A2084903
Post Assembly	#A2084906	#A2084905
Cap Assembly	#A2084908	#A2084908
Cord	#A2084921	#A2084921
Sight	# 30202	# 30202

ZEROING LC-40-100-NVG-GSO

9. Fit the Ring Sight to the gun ensuring that the dovetail is fully engaged and that the clamping screw is secure.
10. Fit the clamp assembly to the muzzle of the gun clamping it there with the captive screw so that the slots are at 9,12 and 3 o clock.
11. Fit the DZD vertically to the gun entering the spigot into the muzzle and engaging the pin on the post on the clamp assembly. If necessary fit the cap to the DZD aperture at the bottom.
13. Observe the DZD graticule Fig 1 through the ring sight with the eye central to the rear aperture and adjust the ring sight zeroing until the bore sight mark on the ring sight graticule (the small horizontal line above the central horizontal line) is in the circle, preferably near the centre. As the graticule is focussed at infinity, to get the alignment in the circle will be greater accuracy than the diameter of the ammunition.
14. For zeroing at night. Light the DZD graticule with a tritium light source, hand torch etc as available from the front. Switch on the night illumination on the ring sight and adjust to a suitable brightness. Proceed as before

CHECKING AND ADJUSTING DZD ALIGNMENT

Note:

Only to be done by an armourer.

15. When properly aligned, the sight line through the centre of the DZD graticule is parallel to the spigot axis.

16. To check DZD alignment, set up the gun so that a distant object can be seen (over 100 metres away) and fit the clamp assembly as before. Remove the cap and insert the spigot of the DZD in the barrel with the pin of the DZD arm engaged in one of the horizontal slots in the clamp assembly. Move the gun until the centre of the graticule of the DZD is aimed at the distant object. Keeping the gun still, rotate the DZD 180° until the pin of the DZD arm is engaged in the slot on the other side. Check that the centre of the graticule is still on the distant object. If it is not adjust the alignment screws and repeat the process until rotation does not alter alignment. When satisfied repaint the heads of the alignment screws red.

USER MAINTENANCE

17. The DZD optic only requires that the front and back glass surfaces are kept clean using water and a detergent.

18. The alignment screws should only be moved when a DZD alignment check is done. Alignment checks should be done weekly in action, before each range day in training and whenever a spigot, post or optic is changed.

19. The spigot should be kept greased.

CAUTION

Always remove the Dry Zeroing Device before loading the gun.

Never let the sun shine directly into the eyepiece of the Dry Zeroing Device, as the sunlight may burn out the reticle.