

DEPARTMENT OF THE ARMY TECHNICAL BULLETIN

**RANGE FINDERS:
PURGING AND CHARGING**

*References: SM 9-4931-J40
TM 9-1240-245-5
TM 9-1240-258-34
TM 9-023
TM 9-6045*

Headquarters, Department of the Army, Washington, D.C.
15 July 1965

1. Purpose. This bulletin provides instructions to units for the purging and charging of all range finders mounted in tanks, both in active use and in storage. This procedure prevents moisture in the instrument which would damage internal parts.

2. Scope. a. The range finder will be purged and charged at least once every 90 days, or after it has been opened. In addition, if there is evidence, real or symptomatic, of broken sealing, it is necessary to reseal, purge, and recharge the instrument.

b. Range finders in dehumidified storage, whether mounted in tanks or stored separately, will be purged and charged on a cyclic one year basis. This will also apply to range finders in Condition Reservation Code 6 (CRC-6) vehicles in dehumidified storage.

3. Reporting of Bulletin Improvements. The direct reporting by the individual user, of errors, omissions, and recommendations for improving this bulletin is authorized and encouraged. DA Form 2028 (Recommended Changes to DA Publication) will be used for reporting these improvements. This form will be completed using pencil, pen, or typewriter and forwarded direct to Commanding Officer, Frankford Arsenal, ATTN: AMSWE-SMF-3100, Philadelphia, Pa, 19137. One information copy will be provided to the individual's immediate superior.

4. Procedure.

Note. Refer to SM 9-4-4931-J40, Tool St Depot Maintenance, Supplementary Tools, Fixture and Equipment (FSN 4931-796-7588), for pertinent tools and equipment required for performance of this procedure.

a. Obtain a cylinder of nitrogen, technical 6830-264-9086.

Note. Make certain that cylinder contain nitrogen.

b. Remove threaded protective cover from valve outlet of nitrogen cylinder and open valve momentarily to rid valve and valve seat of any foreign matter.

c. Check adapter, nitrogen filling 4931-508-5453 for cleanliness and proper seating of gasket.

d. Thread adapter to cylinder valve and tighten with a wrench.

e. Thread regulator, helium pressure 4931-508-5795 to adapter and secure with a wrench.

f. If necessary, remove hose adapter from low pressure port of regulator assembly, to connect hose assembly, rubber 4981-561-0713 to same port and secure with a wrench.

g. Turn pressure regulator valve counterclockwise to the extreme closed position.

h. Open nitrogen cylinder valve slowly until the cylinder pressure is registered on the high pressure gage.

Note. If the registered pressure is 100 psi or less, use a new cylinder.

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i. Turn pressure regulator valve handle clockwise slowly until approximately 5 psi is registered on the low pressure gage. Check open end of hose assembly for free flow of nitrogen for approximately M minute. Close pressure regulator valve.

j. Remove caps from both right and left hand valves of range finder.

k. Using valve repair tool, remove inside valve from one valve of the range finder.

l. Attach threaded coupling of hose assembly to other valve of the range finder.

m. Open the pressure regulator valve until 5 psi are registered on the low pressure gage Allow this pressure to flush through the range finder for 20 to 30 minutes. Reduce regulator pressure to 1 psi.

n. Replace the inside valve in the valve of the range finder and close pressure regulator valve completely.

o. Remove threaded coupling of hose assembly from range finder valve and replace both valve caps on range finder.

5. End Housings. End housings will be purged and charged on a cyclic one year basis, in the same manner as stated in paragraph 4 for range finders, except that the flushing time is reduced to 5 minutes. However, the end housings must be inspected every 90 days for visible evidence of moisture, at the same time, that the range finder is purged and charged.

By Order of the Secretary of the Army:

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NG: None.

USAR: Same as Active Army except allowance is one copy to each unit. For explanation of abbreviations used, see AR320-600.

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