

# TB 11-5800-212-24

DEPARTMENT OF THE ARMY TECHNICAL BULLETIN

## PROCEDURE FOR DETERMINING SERVICEABILITY OF NIGHT VISION SIGHT INDIVIDUAL SERVED WEAPON AN/PVS-2 AND AN/PVS-2A; NIGHT VISION SIGHT, CREW SERVED WEAPONS AN/TVS-2, AN/TVS-2A AND AN/TVS-2B; NIGHT VISION SIGHTS, MINIATURIZED AN/PVS-3 AND AN/PVS-3A; and NIGHT VISION SIGHT, TRIPOD MOUNTED AN/TVS-4 AND AN/TVS-4A

Headquarters, Department of the Army, Washington, D.C.  
20 August 1973

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**1. Purpose.** This technical bulletin provides check procedures for Organizational, Direct Support and General Support maintenance personnel to determine the serviceability of night vision sights.

**2. Scope.** These procedures are applicable to the night vision sights in storage or in use listed in Table 1. Night vision sights in storage complete with shipping case and accessories are identified by the Federal Stock Number (FSN) listing on Table 1 Column 2. Night vision sights in use without the

shipping container are identified by the FSN listing on Table 1 Column 3.

**3. Reporting of Technical Bulletin Improvements.** The reporting of errors, omissions, and recommendations for improving this bulletin by the individual user is encouraged. Reports should be submitted on DA Form 2028 (Recommended Changes to Publications) and forwarded direct to Commander, USAECOM, ATTN: AMSEL-MA-SNV, Fort Monmouth, NJ 07703.

Table 1. Night Vision Sight Federal Stock Numbers

Night Vision Sight	FSN With Shipping Case and Accessories	FSN Without Shipping Case and Accessories	Applicable Technical Manual
AN/PVS-1	5855-087-2942	5855-688-9954	TM 11-1090-268-13
AN/PVS-2	5855-087-2947	5855-832-9223	TM 11-5855-203-13
AN/PVS-2A	5855-179-3708	5855-179-3709	TM 11-5855-203-13
AN/PVS-3	5855-832-9341	5855-167-7697	TM 11-5855-209-10
AN/PVS-3A	5855-156-4992	5855-156-4993	TM 11-5855-209-10
AN/TVS-2	5855-087-3144	5855-937-1662	TM 11-5855-202-13
AN/TVS-2A	5855-791-3358	5855-791-1653	TM 11-5855-202-13
AN/TVS-2B	5855-484-8638	5855-409-0915	TM 11-5855-202-13
AN/TVS-4	5855-906-0994	5855-053-3142	TM 11-5850-228-13
AN/TVS-4A	5855-760-3870	5855-053-3142	TM 11-5850-228-13

**4. Equipment Required.** *a. Table.* A work bench or table to hold the night vision sights to be checked.  
*b. Batteries.* One battery for each night vision

sight to be checked.

*c. Test Target.* Construct a cardboard test target. See Figure 1 for details and dimensions.

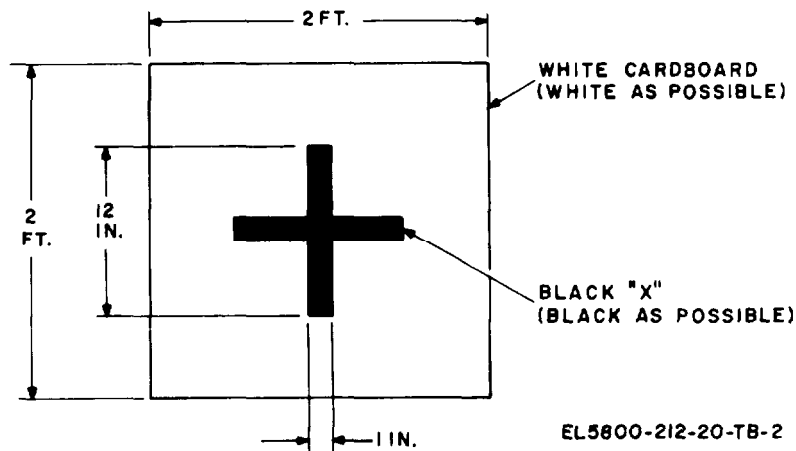


Figure 1. Test Target.

**5. Test Range** *a. Location* Select an open area as far away from artificial lighting (streetlights, floodlights, building lights, etc.) as possible. The test is to be performed at night using natural light (starlight or moonlight) only.

*b. Dimensions.* Refer to Figure 2. The test target may be nailed to a tree, post, or other support to provide a height above ground of approximately four feet.

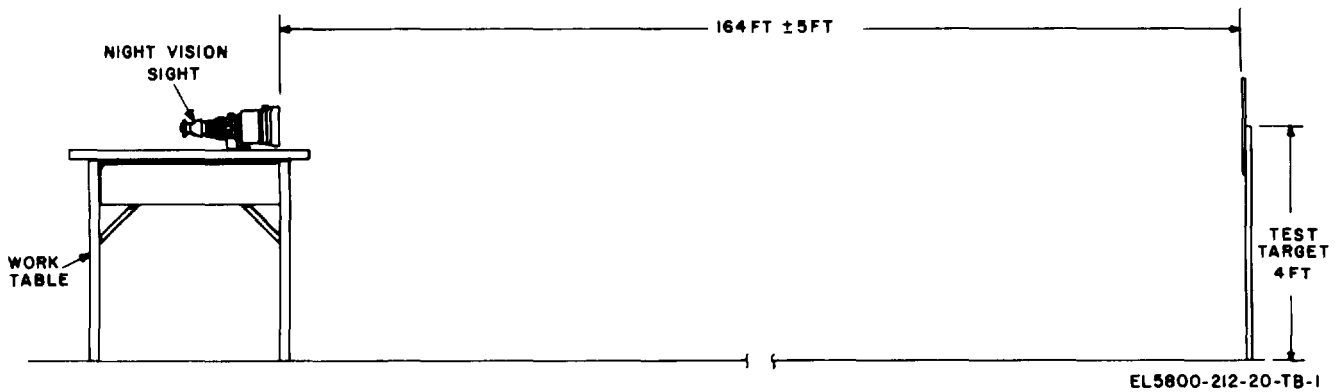


Figure 2. Test Range.

**6. Preliminary Procedure.** Before taking the night vision sights to the test range perform the Operators Daily Maintenance Checks and Services for each sight. Refer to the applicable technical manual (Table 1).

**7. Procedure.** Refer to applicable technical manual for battery installation, location of controls, and operation *a. Battery installation and warm up.*

- (1) Check that all sight power switches are in the off position.
- (2) Install battery and set power switch to the on position. Remove lens cap.
- (3) Place sights on the table, objective lens facing down, and allow a 15 minute warm-up time.

*b. Operational test.*

- (1) Select a night vision sight and point down

range toward the test target.

**NOTE**

All night vision sights except the AN/TVS-4 should be stabilized by resting or bracing on the work table. Use the small tripod provided with the AN/TVS-4.

(2) Adjust the eyepiece diopter ring for best reticle focus.

(3) Adjust the objective focus for best test target image.

(4) The night vision sight is operating ac-

ceptably if the test target image is clear enough to be recognized as a cross. If the cross cannot be made clear enough by repeated attempts at re-focusing the sight or if the image is too dim, flickering, flashing, varying in intensity or out of focus at all settings, corrective maintenance is required.

*c. Infinity Test.*

(1) Point the sight toward the sky and locate a group of stars. The stars will appear as circles with a hole in the middle.

(2) Adjust the objective lens focus until the stars become sharp pinpoints of light. If this cannot be achieved, corrective maintenance is required.

By Order of the Secretary of the Army:

CREIGHTON W. ABRAMS  
*General, United States Army*  
*Chief of Staff*

Official:

VERNE L. BOWERS  
*Major General, United States Army*  
*The Adjutant General*

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- |                    |                              |                          |
|--------------------|------------------------------|--------------------------|
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| COE (1)            | USAIS (2)                    | Sig FLDMS (3)            |
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| Svc Colleges (1)   | ATAD (10)                    |                          |

NG: Units-Same as active Army except allowance is one (1) copy each unit

USAR: None

For explanation of abbreviations used, see AR 310-50.

RECOMMENDED CHANGES TO EQUIPMENT TECHNICAL PUBLICATIONS



THEN...JOT DOWN THE DOPE ABOUT IT ON THIS FORM. CAREFULLY TEAR IT OUT, FOLD IT AND DROP IT IN THE MAIL.

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IN THIS SPACE, TELL WHAT IS WRONG AND WHAT SHOULD BE DONE ABOUT IT.

TEAR ALONG PERFORATED LINE

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# THE METRIC SYSTEM AND EQUIVALENTS

## NEAR MEASURE

1 Centimeter = 10 Millimeters = 0.01 Meters = 0.3937 Inches  
 1 Meter = 100 Centimeters = 1000 Millimeters = 39.37 Inches  
 1 Kilometer = 1000 Meters = 0.621 Miles

## WEIGHTS

1 Gram = 0.001 Kilograms = 1000 Milligrams = 0.035 Ounces  
 1 Kilogram = 1000 Grams = 2.2 lb.  
 1 Metric Ton = 1000 Kilograms = 1 Megagram = 1.1 Short Tons

## LIQUID MEASURE

1 Milliliter = 0.001 Liters = 0.0338 Fluid Ounces  
 1 Liter = 1000 Milliliters = 33.82 Fluid Ounces

## SQUARE MEASURE

1 Sq. Centimeter = 100 Sq. Millimeters = 0.155 Sq. Inches  
 1 Sq. Meter = 10,000 Sq. Centimeters = 10.76 Sq. Feet  
 1 Sq. Kilometer = 1,000,000 Sq. Meters = 0.386 Sq. Miles

## CUBIC MEASURE

1 Cu. Centimeter = 1000 Cu. Millimeters = 0.06 Cu. Inches  
 1 Cu. Meter = 1,000,000 Cu. Centimeters = 35.31 Cu. Feet

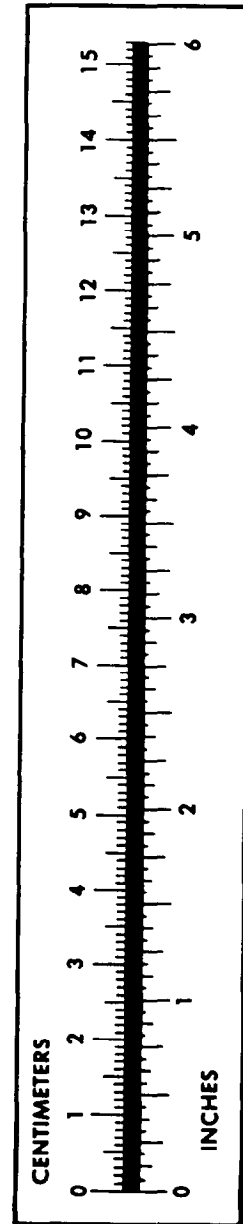
## TEMPERATURE

$5/9(^{\circ}\text{F} - 32) = ^{\circ}\text{C}$   
 212° Fahrenheit is equivalent to 100° Celsius  
 90° Fahrenheit is equivalent to 32.2° Celsius  
 32° Fahrenheit is equivalent to 0° Celsius  
 $9/5^{\circ}\text{C} + 32 = ^{\circ}\text{F}$

## APPROXIMATE CONVERSION FACTORS

TO CHANGE	TO	MULTIPLY BY
Inches	Centimeters	2.540
Feet	Meters	0.305
Yards	Meters	0.914
Miles	Kilometers	1.609
Square Inches	Square Centimeters	6.451
Square Feet	Square Meters	0.093
Square Yards	Square Meters	0.836
Square Miles	Square Kilometers	2.590
Acres	Square Hectometers	0.405
Cubic Feet	Cubic Meters	0.028
Cubic Yards	Cubic Meters	0.765
Fluid Ounces	Milliliters	29.573
its	Liters	0.473
arts	Liters	0.946
allons	Liters	3.785
Ounces	Grams	28.349
Pounds	Kilograms	0.454
Short Tons	Metric Tons	0.907
Pound-Feet	Newton-Meters	1.356
Pounds per Square Inch	Kilopascals	6.895
Miles per Gallon	Kilometers per Liter	0.425
Miles per Hour	Kilometers per Hour	1.609

TO CHANGE	TO	MULTIPLY BY
Centimeters	Inches	0.394
Meters	Feet	3.280
Meters	Yards	1.094
Kilometers	Miles	0.621
Square Centimeters	Square Inches	0.155
Square Meters	Square Feet	10.764
Square Meters	Square Yards	1.196
Square Kilometers	Square Miles	0.386
Square Hectometers	Acres	2.471
Cubic Meters	Cubic Feet	35.315
Cubic Meters	Cubic Yards	1.308
Milliliters	Fluid Ounces	0.034
Liters	Pints	2.113
Liters	Quarts	1.057
ers	Gallons	0.264
ms	Ounces	0.035
ograms	Pounds	2.205
Metric Tons	Short Tons	1.102
Newton-Meters	Pounds-Feet	0.738
Kilopascals	Pounds per Square Inch	0.145
ometers per Liter	Miles per Gallon	2.354
ometers per Hour	Miles per Hour	0.621



**PIN: 014258-000**