

**WARNING**

**DANGEROUS VOLTAGES EXIST IN THIS EQUIPMENT**

**Be careful when working on the 290-volt plate and screen supply circuits, or on the 115-volt ac line connections.**

**DON'T TAKE CHANCES!**

Change now in force: C 2

TM 11-6625-316-12  
\* C 2

TECHNICAL MANUAL  
Operator and Organizational Maintenance Manual  
TEST SETS, ELECTRON TUBE TV-2/U, TV-2A/U,  
TV-2B/U, AND TV-2C/U

TM 11-6625-316-12 } HEADQUARTERS,  
CHANGES No. 2 } DEPARTMENT OF THE ARMY  
WASHINGTON 25, D. C., 11 September 1963

TM 11-6625-316-12, 16 March 1961 (as changed by C 1, 18 Sep 1961), is changed as indicated so that the manual also applies to the following equipment:

<i>Nomenclature</i>	<i>Order No.</i>
Test Set, Electron Tube TV-2C/U	4376-PP-61

The title of the manual is changed as shown above.

Page 5, paragraph 1, (as changed by C 1, 18 Sep 1961).

Subparagraph *a*. Delete the first sentence and substitute: This manual describes Test Sets, Electron Tube TV-2/U, TV-2A/U, TV-2B/U, and TV-2C/U (fig. 1) and covers operation and the operator's and organizational maintenance. Subparagraph *b*, last line. After "TV-2B/U" add: and TV-2C/U.

Add paragraph 1.1 after paragraph 1.

### 1.1. Index of Publications

Refer to the latest issue of DA Pam 310-4 to determine whether there are new editions, changes, or additional publications pertaining to this equipment. DA Pam 310-4 is a current index of technical manuals, technical bulletins, supply bulletins, lubrication orders, and modification work orders that are available through publications supply channels. The index lists the individual parts (-10, -20, -35P, etc) and the latest changes to and revisions of each equipment publication.

Delete paragraph 2 and substitute:

## 2. Forms and Records

*a. Reports of Maintenance and Unsatisfactory Equipment.* Use equipment forms and records in accordance with instructions in TM 38-750.

\* This change supersedes C 1, 18 September 1961.

*b. Report of Damaged or Improper Shipment.* Fill out and forward DD Form 6 (Report of Damaged or Improper Shipment) as prescribed in AR 700-58 (Army), NAVSANDA Publication 378 (Navy), and AFR 71-4 (Air Force).

*c. Reporting of Equipment Manual Improvements.* The direct reporting by the individual user, of errors, omissions, and recommendations for improving this manual is authorized and encouraged. DA Form 2028 (Recommended changes to DA technical manual parts list or supply manual 7, 8, or 9), will be used for reporting these improvements. This form will be completed in triplicate, using pencil, pen, or typewriter. The original and one copy will be forwarded direct to: Commanding Officer, U. S. Army Electronics Materiel Support Agency, ATTN: SELMS-MP, Fort Monmouth, N. J. One information copy will be furnished to the individual's immediate supervisor (e.g., officer, noncommissioned officer, supervisor, etc).

Page 8, paragraph 7 (as changed by C 1, 18 Sep 1961). After the last sentence, add: Test Set, Electron Tube TV-2C/U is identical externally with Test Set, Electron Tube TV-2B/U.

Page 38. Delete paragraphs 32 and 33 and substitute:

### **32. Scope of Operator's Maintenance**

The maintenance duties assigned to the operator of Test Sets, Electron Tube TV-2(\*)/U are listed below together with a reference to the paragraphs covering the specific maintenance functions. The duties assigned do not require tools or test equipment other than those issued with the equipment.

- a. Daily preventive maintenance checks and services (par. 33.2).
- b. Weekly preventive maintenance checks and services (par. 33.3).
- c. Cleaning (par. 33.4).
- d. Visual inspection (par. 34).
- e. Operational check (par. 35).
- f. Removal and replacement of chassis (par. 36).
- g. Tube replacement (par. 37).
- h. Replacement of fuses and lamps (par. 39).

### **33. Operator's Preventive Maintenance**

Preventive maintenance is the systematic care, servicing, and inspection of equipment to prevent the occurrence of trouble, to reduce downtime, and to assure that the equipment is serviceable.

*a. Systematic Care.* The procedures given in paragraphs 33.2 through 33.4 cover routine systematic care and cleaning essential to proper upkeep and operation of the equipment.

b. *Preventive Maintenance Checks and Services.* The preventive maintenance checks and services charts (par. 33.2 and 33.3) outline functions to be performed at specific intervals. These checks and services are to maintain Army electronic equipment in a combat serviceable condition; that is, in good general (physical) condition and in good operating condition. To assist operators in maintaining combat serviceability, the chart indicates what to check, how to check, and what the normal conditions are. The *references* column lists the illustrations, paragraphs, or manuals that contain detailed repair or replacement procedures. If the defect cannot be remedied by the operator, higher echelon maintenance or repair is required. Records and reports of these checks and services must be made in accordance with the requirements set forth in TM 38-750.

Add paragraphs 33.1 through 33.4:

### 33.1. Preventive Maintenance Checks and Services Periods

Preventive maintenance checks and services of Test Sets, Electron Tube TV-2(\*)/U are required daily and weekly. Paragraphs 33.2 and 33.3 specify the items to be checked and serviced. In addition to the routine daily and weekly checks and services, the equipment should be rechecked and serviced immediately before going on a mission and as soon after completion of the mission as possible.

### 33.2 Daily Preventive Maintenance Checks and Services Chart

Sequence No.	Item	Procedure	References
1	Completeness .....	Check equipment for completeness and general condition.	Appx III.
2	Exterior surfaces .....	Clean exterior surfaces of the equipment.	Par. 33.4.
3	Glass .....	Inspect front-panel glass windows for damaged housing, broken glass, physical damage, dust, or moisture.	None.
4	Fuses .....	Check to determine that fuses are of the correct rating and are not defective.	Par. 39.
5	Meters .....	During operation (item 8), be alert for sticking meter movement.	None.
6	Lamps .....	During operation (item 8), observe that the lamps are not defective.	Par. 39.

Sequence No.	Item	Procedure	References
7	Knobs, switches, and controls.	During operation (item 8), observe that the mechanical action of each knob, switch, and control is smooth and free of external or internal binding.	None.
8	Operation .....	Operate the equipment in accordance with paragraph 35.	Par. 35.

### 33.3. Weekly Preventive Maintenance Checks and Services Chart

Sequence No.	Item	Procedure	References
1	Cables .....	Inspect external cables for cuts, cracked or gouged jackets, fraying, or kinks.	None.
2	Hardware .....	Inspect all exterior hardware for looseness and damage. The tube tester cover, carrying handle, hinges, and all screws must be tight and not damaged.	None.
3	Preservation .....	Inspect the equipment to determine that it is free of bare spots, rust, and corrosion. If these conditions exist, refer to higher echelon for repair.	None.

### 33.4. Cleaning

Inspect the exterior of Test Set, Electron Tube TV-2(\*)/U. The exterior surfaces should be clean, and free of dust, dirt, grease, and fungus.

a. Remove dust and loose dirt with a clean soft cloth.

**Warning:** Cleaning compound is flammable and its fumes are toxic. Provide adequate ventilation. Do not use near a flame.

b. Remove grease, fungus, and ground-in dirt from the case; use a cloth dampened (not wet) with Cleaning Compound (Federal Stock No. 7930-395-9542).

c. Remove dust or dirt from plugs and jacks with a brush.

**Caution.** Do not press on the meter faces (glass) when cleaning; the meter may become damaged.

d. Clean the front panel, meters, and control knobs; use a soft clean cloth. If dirt is difficult to remove, use mild soap and water.

Page 39. Delete figure 6.

Page 40. Delete figure 7.

Page 47. Delete paragraphs 40 through 42 and substitute:

#### **40. Scope of Organizational Maintenance**

The maintenance duties assigned to the organizational repairman of the tube tester are listed below together with a reference to the specific maintenance function. The duties assigned do not require tools and test equipment other than those issued with the equipment.

- a. Monthly preventive maintenance checks and services (par. 42.1).
- b. Rustproofing and painting (par. 42.2).
- c. Visual inspection (par. 43).
- d. Troubleshooting by using equipment performance checklist (par. 44).
- e. Replacing test adapters (par. 45).

#### **41. Preventive Maintenance**

a. Preventive maintenance is the systematic care, inspection, and servicing of equipment to maintain it in serviceable condition, prevent breakdowns, and assure maximum operational capability. Preventive maintenance is the responsibility of all echelons concerned with the equipment and includes the inspection, testing, and repair or replacement of parts that inspection and test indicate would probably fail before the next scheduled periodic service. Preventive maintenance checks and services of the tube tester at the second echelon level are made at monthly intervals unless otherwise directed by the commanding officer.

b. Maintenance forms and records to be used and maintained on this equipment are specified in TM 38-750.

#### **42. Monthly Maintenance**

Perform the maintenance functions indicated in the monthly preventive maintenance checks and services chart (par. 42.1) once each month. A month is defined as approximately 30 calendar days of 8-hour-per-day operation. If the equipment is operated 16 hours a day, the monthly preventive maintenance checks and services should be performed at 15-day intervals. Adjustment of the maintenance interval must be made to compensate for any unusual operating conditions. Equipment maintained in a standby (ready for immediate operation) condition must

have monthly preventive maintenance checks and services performed on it. Equipment in limited storage (requires service before operation) does not require monthly preventive maintenance.

Add paragraphs 42.1 and 42.2.

#### 42.1. Monthly Preventive Maintenance Checks and Services Chart

Sequence No.	Item	Procedure	References
1	Publications .....	Inspect manual for completeness and to see if it is in usable condition, without missing pages. Be sure that all Changes to the manual are on hand.	DA Pam 310-4.
2	Modification work orders.	Check to see that all URGENT MWO's have been applied and that all NORMAL MWO's have been scheduled.	DA Pam 310-4.
3	Completeness .....	Check equipment for completeness and general condition.	Appx III and TM 11-6625-316-20P.
4	Cleanliness .....	Clean the exterior surfaces of the equipment.	Par. 33.4.
5	Preservation .....	Inspect the equipment to determine that it is free of bare spots, rust, and corrosion.	Par. 42.2.
6	Glass .....	Inspect front-panel glass windows for damaged housing, broken glass, physical damage, dust, or moisture.	None.
7	Fuses .....	Check to determine that fuses are of the correct rating and are not defective.	Par. 39.
8	Cables .....	Inspect external and internal cables for cuts, cracked or gouged jackets, fraying, or kinks.	None.
9	Hardware .....	Inspect all exterior and interior hardware for looseness and damage. The tube tester cover, carrying handle, and all bolts and screws must be tight and not damaged.	None.

Sequence No.	Item	Procedure	References
10	Meters .....	During operation (item 13), be alert for sticking meter movement.	None.
11	Lamps .....	During operation (item 13), observe that the lamps are not defective.	Par. 39.
12	Knobs, switches, and controls.	During operation (item 13), observe that the mechanical action of each knob, switch, and control is smooth and free of external and internal binding.	None.
13	Operation .....	Operate the equipment in accordance with paragraph 44.	Par. 44.

#### 42.2. Touchup Painting Instructions

Clean rust and corrosion from metal surfaces by lightly sanding them with fine sandpaper. Brush two thin coats of paint on the bare metal to protect it from further corrosion. Refer to the applicable cleaning and refinishing practices specified in TM 9-213.

Page 58, appendix I. Add the following references.

DA Pam 310-4	Index of Technical Manuals, Technical Bulletins, Supply Bulletins, Lubrication Orders, and Modification Work Orders.
TM 9-213	Painting Instructions for Field Use.
TM 11-6625-316-20P	Organizational Maintenance Repair Parts and Special Tools List, Test Sets, Electron Tube TV-2/U, TV-2A/U, and TV-2B/U.
TM 38-750	The Army Equipment Record System and Procedures.

By Order of the Secretary of the Army:

EARLE G. WHEELER,  
General, United States Army,  
Chief of Staff.

Official:

J. C. LAMBERT,  
Major General, United States Army,  
The Adjutant General.

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OS Maj Comd (3)	(2 cy ea UNOINDC):
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Chicago Proc Dist (1)	

NG: State AG (3); units—same as Active Army except allowance is one copy to each unit.

USAR: None.

For explanation of abbreviations used, see AR 320-50.