TECHNICAL MANUAL

OPERATOR'S AND ORGANIZATIONAL MAINTENANCE MANUAL

STROBOSCOPES TS-805B/U (NSN 6625-00-752-7992) TS-805C/U (NSN 6625-00-752-7992), AND TS-805D/U (NSN 6625-00-196-2858)

HEADQUARTERS, DEPARTMENT OF THE ARMY
AUGUST 1976

WARNING

Be careful when working on the 115-volt ac line connections. Serious injury or death may result from contact with these terminals.

DON'T TAKE CHANCES!

CHANGE

No. 1

HEADQUARTERS
DEPARTMENT OF THE ARMY
Washington, DC, 8 December 1983

OPERATOR'S AND ORGANIZATIONAL MAINTENANCE MANUAL STROBOSCOPES TS-805B/U (NSN 6625-00-752-7992), TS-805C/U (NSN 6625-00-752-7992), TS-805D/U (NSN 6625-00-196-2858), AND TS-805E/U (NSN 6625-01-155-4538)

TM 11-6625-396-12, 13 August 1976, is changed as follows:

1. New or changed material is indicated by a vertical bar in the margin.

2. Added or revised illustrations are indicated by a vertical bar adjacent to the illustration number.

3. Remove and insert pages as indicated below.

Remove pages	*insert pages*
i and ii	i and ii
None	iii
1-1and 1-2	1-1and 1-2
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DISTRIBUTION:

To be distributed in accordance with DA Form 12-36B, Operator Maintenance requirements for TS-805B-D/U.

TECHNICAL MANUAL

No. 11-6625-396-12

HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON, DC, 13 August 1976

OPERATOR'S AND ORGANIZATIONAL MAINTENANCE MANUAL STROBOSCOPES TS-805B/U (NSN 6625-00-752-7992), TS-805C/U (NSN 6625-00-752-7992), TS-805D/U (NSN 6625-00-196-2858), AND TS-805E/U (NSN 6625-01-155-4538)

REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS

You can help improve this manual. If you find any mistakes or if you know of a way to improve the procedures, please let us know. Mail your letter, DA Form 2028 (Recommended Changes to Publications and Clank Forms), or DA Form 2028-2 located in the back of this manual direct to: Commander, US Army Communications-Electronics Command and Fort Monmouth, ATTN: DRSEL-ME-MP, Fort Monmouth, New Jersey 07703.
In either case, a reply will be furnished direct to you.

*This manual supersedes TM 11-6625-396-12, 11 July 1961, including all changes.

LIST OF ILLUSTRATIONS

LIST OF TABLES

Figure 1-1. Stroboscope TS-805B/U.

CHAPTER 1

INTRODUCTION

Section I. GENERAL

1-1. Scope

a. This technical manual describes Stroboscopes TS-805B/U, TS-805C/U, TS805D/U, and TS-805E/U and covers their installation, operation, and organizational maintenance.

b. Throughout this manual, the word stroboscope refers to all models of the equipment.

c. Appendix A contains references and appendix C contains the maintenance allocation chart.

1--2. Consolidated Index of Army Publications and Blank Forms.

Refer to the latest issue of DA Pam 310-1 to determine whether there are new additions, changes, or additional publications pertaining to the instrument.

1-3. Maintenance Forms, Records, and Reports

a. Reports of Maintenance and Unsatisfactory Equipment. Maintenance forms, records, and reports which are to be used by maintenance personnel at all maintenance levels are listed in and prescribed by TM 38-750.

b. Report of Packaging and Handling Deficiencies. Fill out and forward SF 364 (Report of Discrepancy (ROD)) as prescribed in AR 735-11-2/DLAR 4140.55/NAVMATINST 4355.73A/AFR 400-54/MCO 4430.3F.

c. Discrepancy in Shipment Report (DISREP) (SF 361). Fill out and forward Discrepancy in Shipment Report (DISREP) (SF 361) as prescribed in AR 55-38 NAVSUPINST 4610.33C/AFR 75-18/MCO P4610.19D/DLAR 4500.15.

1-4. Administrative Storage

Administrative Storage of equipment issued to and used by Army activities shall be in accordance with TM 740-90-1.

1–5. Destruction of Army Electronics Materiel

Destruction of Army electronics materiel to prevent enemy use shall be under direction of the commander and in accordance with TM 750-244-2.

Section II. DESCRIPTION AND DATA

1– 6. Purpose and Use

The stroboscope is a portable electronic tachometer which provides rapid and accurate means of directly measuring the speed of rotating or oscillating equipment without mechanical contact with the device being measured. Stroboscope TS-805B/U will directly measure speeds between 60 and 15,000 revolutions per minute (x-pm). Stroboscope TS-805C/U will directly measure speeds between 60 and 15,000 rpm. Stroboscope TS-805D/U measures speeds between 600 and 15,000 rpm. Stroboscope TS-805E/U measures speeds between 100 and 25,000 ppm. Each instrument, by indirect methods, has the capability of measuring speeds as high as 50,000 rpm.

1–7. Differences Between Models

Stroboscope TS-805B/U, TS-805C/U, TS-805D/U, and TS-805E/U are similar in purpose and operational features. Differences in tube complement and operating controls are listed below:

Item	*TS-805B/U*	*TS-805C/U*	*TS-805D/U*	*TS-805E/U*
Electron tube complement	6SN7GTA/GTB, 6X4 12AU7, and S55B2 (flash tube).	6X5GT/G, 6N7GT/G , and ID21/SN4 (flash tube).	6X4, 12AU7, and 631P1 (flash tube).	2UP/3.0 (flash tube).
Color of flash	White.	White.	Red.	White.
Front panel controls	u. Power switching accomplished with function switch. *b*. Six-position function switch designated STROBOSCOPE EXT. PULSE.	a. Separate POWER ON toggle switch. *b*. Five-position function switch designated STROBOSCOPE CONTACTOR	a, Power switching accomplished with function switch. *b*. Six-position function switch designated STROBOSCOPE EXT. PULSE.	a. Separate POWER ON toggle switch. *b*. Six-position function switch designated RANGE/FPM.

Item	*TS-805B/U*	*TS-805C/U*	*TS-805D/U*	*TS-805E/U*
Front panel controls (cont.)	c. LOW ADJUST and HIGH ADJUST screwdriver controls located at center section of panel.	*c.* 900 ADJUST and 3600 ADJUST screwdriver controls located at bottom section of panel.	*c.* LOW ADJUST and HIGH ADJUST screwdriver controls located at center section of panel.	c, FINE and COARSE RATE control located on front panel,
Rear panel controls	a. SLOW-DIRECT toggle switch, decreases flashing speed range to one-tenth of value indicated on dial scale.	*a.* SLO-DIR slide switch, decreases flashing speed range to one-tenth of value indicated on dial scale.	*a.* Has no SLO-DIR switch.	*a. No* rear panel controls,
	b. Receptacle for connection to external contactor or commutator is designated INPUT.	*b.* Receptacle for connection to external contactor or commutator is desig nated CONTACTOR.	*b.* Receptacle for connection to external contactor or commutator is designated EXT. PULSE.	
	c. Receptacle for connection to external light source is designated OUTPUT.	*c.* Receptacle connection to external light source is designated AUX. LIGHT.	c. Receptacle connection to external light source is designated AUX. LIGHT.	

1 – 8. Tabulated Data

Number of tubes:
- TS-805B/U . . . . . .4.
- TS-805C/U . . . . . .3.
- TS-805D/U . . . . . .3.
- TS-805E/U . . . . . l.

Speed range
- TS-805B/U . . . . . 60 to 15,000 rpm.
- TS-805C/U . . . . . .60 to 15,000 rpm.
- TS-805D/U . . . . . 600 to 15,000 rpm.
- TS-805E/U . . . . . 100 to 25,000 rpm.

Accuracy
- TS-805B/U . . . . . Within ±l% at 60 to 15,000rpm (direct speed range).
- TS-805C/U . . . . . Within ±l% at 600 to14,000 rpm (direct speed range). Within 5% at 60 to 1,440 rpm (slow speed range).
- TS-805D/U . . . . . .Within±l%at600 to 14,400 rpm (direct speed range).
- TS-805E/U . . . . . Within ±l% at 100 to25,000 rpm (direct speed range).

Line-voltage input . . . . . .115 to 120 volts ac, 60 Hz.
Power consumption . . . . . .35 watts.

1 – 9. Items Comprising an Operable Equipment

Each model of the equipment is composed of only one item, as listed below. One copy of TM 11-6625-396-12 is packed with each equipment.

NSN	*Item*	*Quantity*	*Dimensions (in.) Height*	*Depth*	*Width*	*Weight (lb)*
6225-00-752-7992	TS-805B/U	1	9-3/4	7	9	8.75
6625-00-752-7992	TS-805C/U	1	9-3/4	6-1/2	9-1/4	8.5
6625-00-196-2858	TS-805D/U	1	9-3/4	6-1/2	9-1/4	8.5
6625-01-155-4638	TS-805E/U	1	7-1/8	11-5/8	6-1/4	7.0

1–10. Description of Stroboscope

(fig. 1-2, l-3, and 1-4)

The unit is housed in a rugged metal case and is provided with a carrying handle. An illuminated window escutcheon is used to view the indicated speed in rpm. Operating controls are on the front and rear panels. The reed and flasher tube are located within the lens on one side. The unit contains provisions for operation with auxiliary equipment.

1–11. Additional Operational Features

Provision is made for the use of accessory items to extend the operational capabilities of the equipment as given below, The accessory items, however, are not available.

a. Contactor for Stroboscope TS-805B/U and TS-805C/U Only. A contactor or commutator (coupling device) connected between the INPUT receptacle on Stroboscope TS-805B/U and the CONTACTOR receptacle on Stroboscope TS-805C/U and a rotating element are used to flash the stroboscope in exact synchronization with the rotating element. The front panel EXT. PULSE LOW and EXT. PULSE HIGH switch positions on Stroboscope TS-805B/U and CONTACTOR LOW and CONTACTOR HIGH switch positions on Stroboscope TS-805C/U are used only when a contactor is connected to the stroboscope.

b. ExternaI Pulse Source for Stroboscope TS-805D/U Only. An external pulse source, such as a contactor or commutator (coupling device) may be connected between the EXT. PULSE receptacle (at the rear of the stroboscope) and the rotating element under measurement. This coupling device may be used to flash the stroboscope in exact synchronization with the rotating element. The front panel EXT. PULSE LOW and EXT. PULSE HIGH switch positions are used only when a coupling device is connected to the stroboscope.

c. *External Lamp.* An external light source (self-contained lamp and power supply) may be connected to the OUTPUT jack on Stroboscope TS-805B/U or the AUX LIGHT jack on Stroboscope TS-805C/U and TS-805D/U to provide a greater amount of light at low rotating speeds.

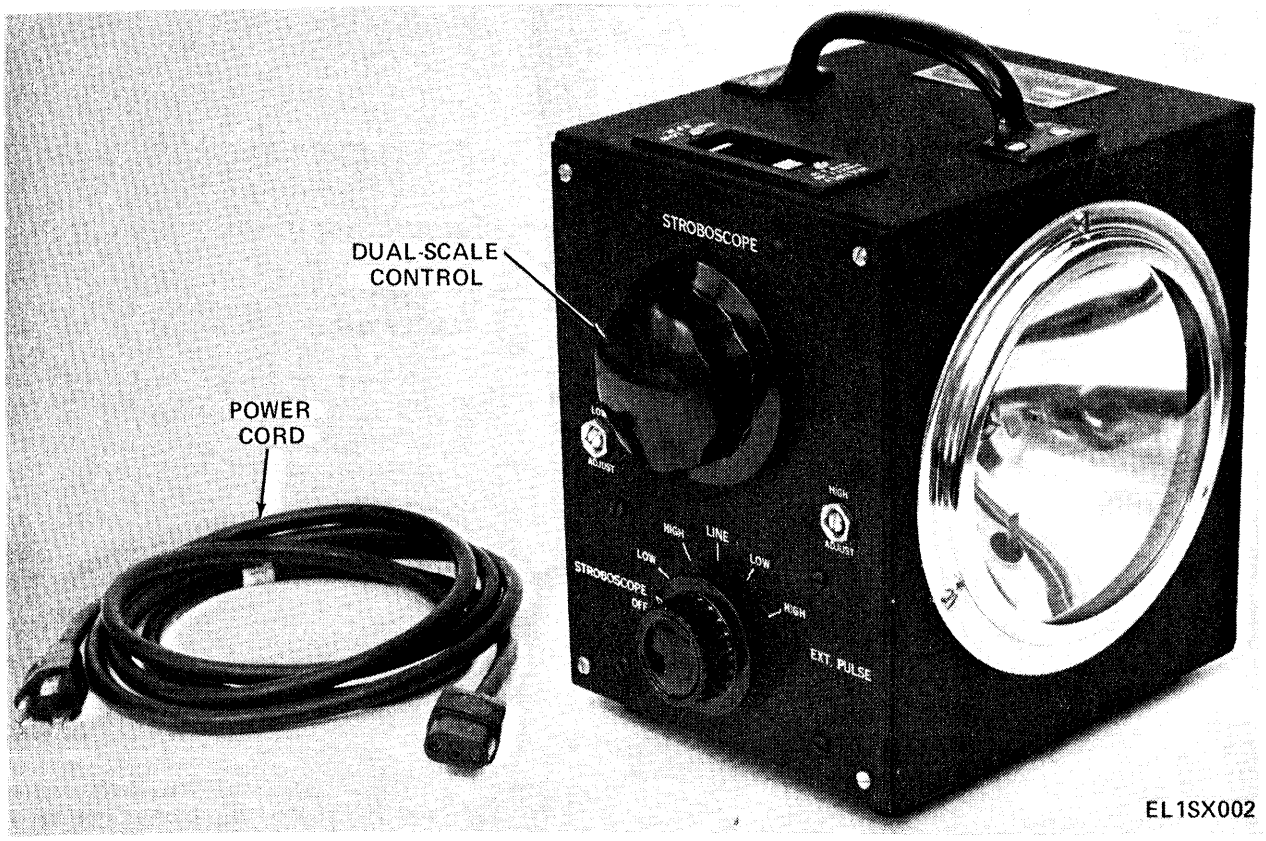

Figure 1-2, Stroboscope TS-805B/U, front view.

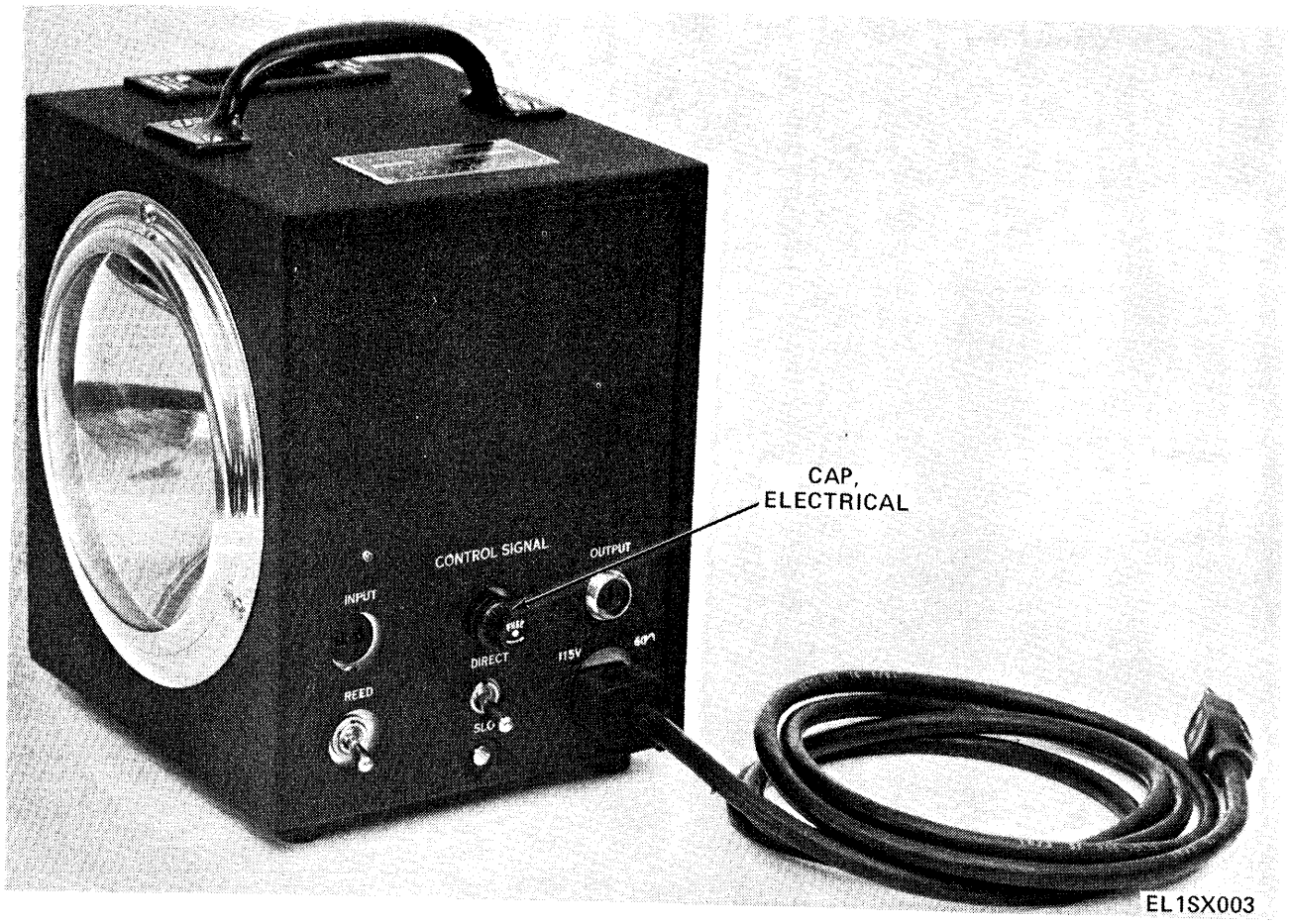

Figure 1-3. Stroboscope TS-805B/U, rear view,

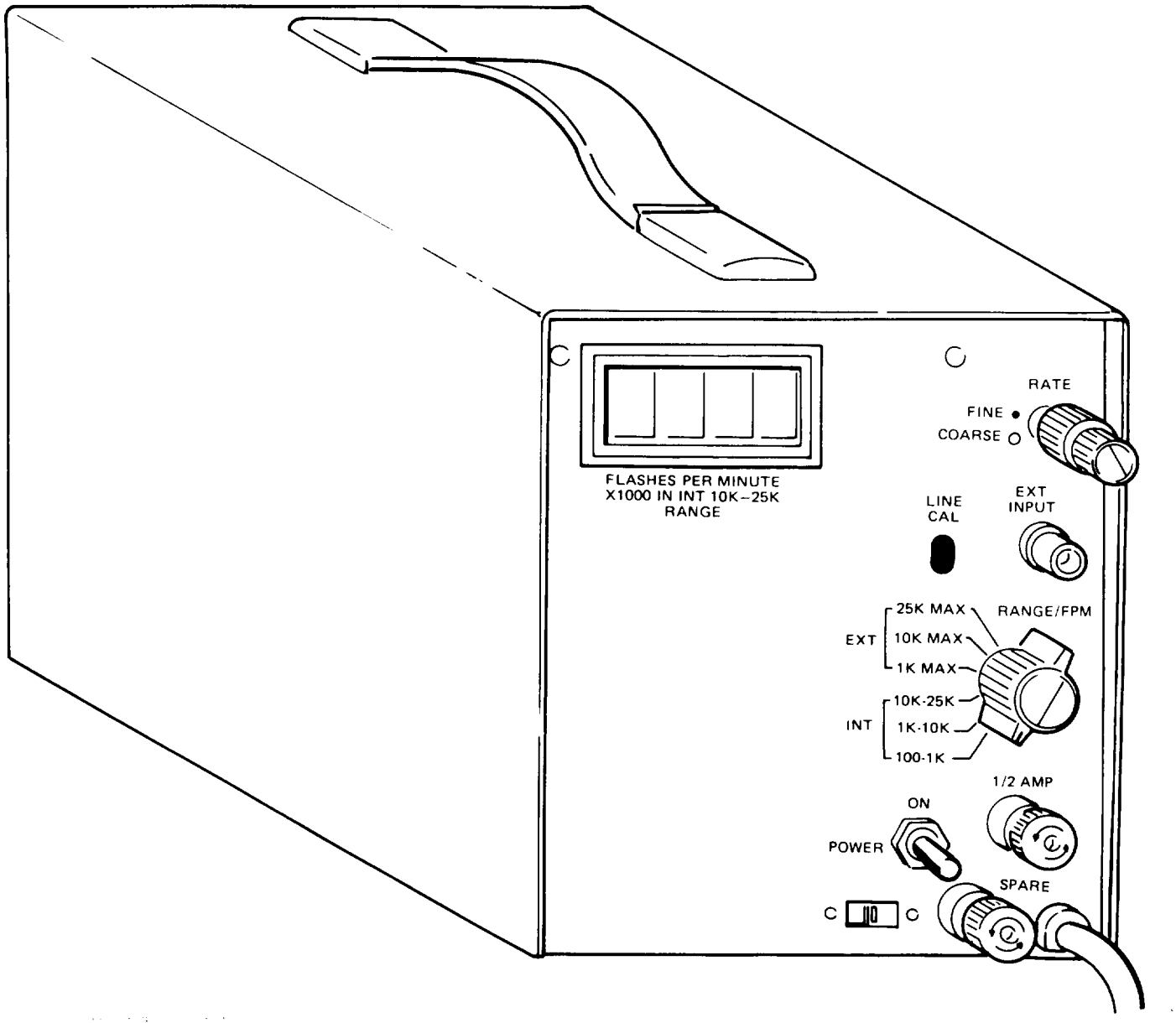

Figure 1-4. Stroboscope TS-805E/U

CHAPTER 2

SERVICE UPON RECEIPT AND INSTALLATION

2-1. Unpacking

a. Packaging Data. When packed for shipment, the stroboscope is placed in a carton and packed in a cardboard box. A typical shipping box and its contents are shown in figure 2-1. The shipping box is 11 by 10½ inches. The volume is 0.534 cubic feet and the shipping weight is approximately 10 pounds.

b. Removing Contents.

(1) Cut the waterproof tape and open the outer corrugated carton.

(2) Remove the envelope that contains the technical manuals.

(3) Remove the inner carton that is wrapped in the moisture-waterproof barrier.

(4) Open the inner corrugated carton and remove the running spares box.

(5) Remove the equipment from the inner corrugated carton.

2-2. Checking Unpacked Equipment

a. Inspect the equipment for damage incurred during shipment. If the equipment has been damaged, report the damage on DD Form 6 (para 1-3b).

b. Check the equipment against the items comprising an operable equipment (para 1-9) and the packing slip to see if the shipment is complete. Report all discrepancies in accordance with the instructions of TM 38-750. The equipment should be placed in service even though a minor assembly or part that does not affect proper functioning is missing.

c. Check to see whether the equipment has been modified. (Equipment which has been modified will have the MWO number on the front panel, near the nomenclature plate). Check also to see whether all currently available MWO's have been applied, (Current MWO'S applicable to the equipment are listed in DA Pam 310-7.)

d. The stroboscope is shipped with all tubes and fuses in place.

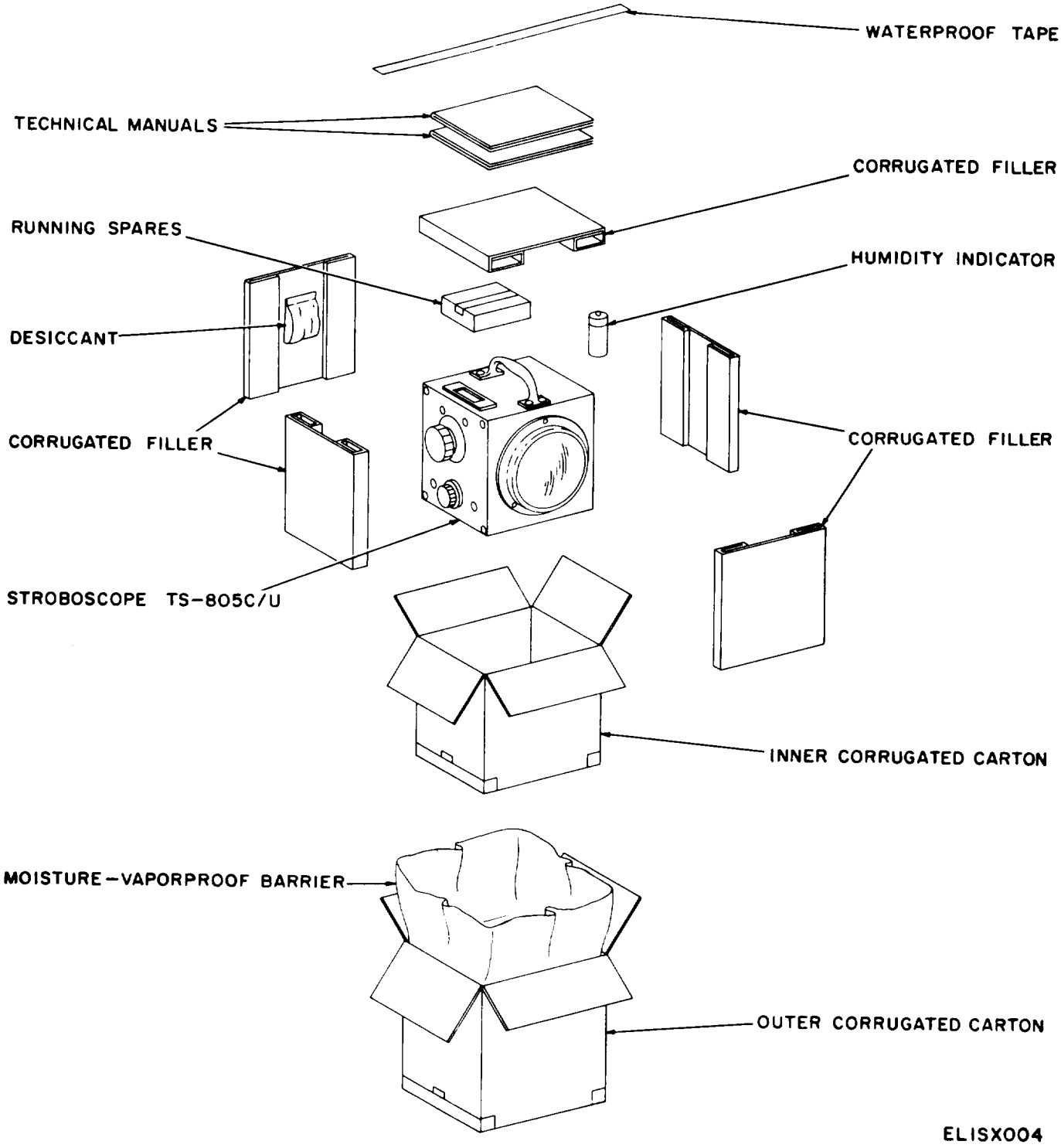

Figure 2-1. Typical packaging

CHAPTER 3

OPERATING INSTRUCTIONS

Section I. OPERATOR CONTROLS, INDICATORS, AND CONNECTORS

3-1. General

This section describes the function of each control, indicator, and connector of the stroboscope. Haphazard operation and improper setting of controls can result in poor operation and possible damage to the equipment, Become familiar with the function of each control before operating the equipment.

3-2. Damage From Improper Settings

The flasher tube should not be used continuously at higher speeds (5,000 rpm). The flasher tube life will decrease if the stroboscope is operated unnecessarily at high speeds (STROBOSCOPE HIGH switch position).

3-3. Operator's Controls (fig. 3-1,3-2, or 3-3)

Control, indicator, or connector	
POWER ON (TS-805C/U only)(2-position toggle switch)	Turns equipment power on and off (down).
STROBOSCOPE EXT. PULSE (TS-805B/U and TS-805D/U only) (6-position rotary switch) STROBOSCOPE CONTACTOR (TS-805B/U only) (5-position rotary switch) (function switch)	selects flashing speed range and mode of operation to be used.
	Switch position — *Speed range* OFF (TS-805B/U and TS-805D/U only) — None STROBOSCOPE LOW — 60-360 and 600-3,600 rpm STROBOSCOPE HIGH — 250-1,440 and 2,500-14,400 rpm LINE — 3,600 rpm CONTACTOR HIGH (TS-805C/U) or EXT. PULSE LOW (TS-805B/U and TS-805D/U. — 60-3,600 rpm CONTACTOR HIGH (TS-805C/U) or EXT. PULSE HIGH (TS-805-B/U and TS-805D/U). — 2,500-14,400rpm
	NOTE Refer to paragraph 1-10 for contactor use,
Reed REED (TS-805B/U and TS-805D/U) (2-position toggle switch) REED (TS-805C/U) (2-position slide switch)	Provides images for calibration purposes. Turns reed on and off
SLOW-DIRECT (TS-805B/U only) (2-position toggle switch) SLO-DIR (TS-805C/U only) (2-Position slide switch)	Decreases flashing speed range to one-tenth of value indicated on the HIGH LOW R.P.M. dial scale TS-805B/U and HI-LO RPM dial scale (TS-805C/U).
	Switch position — *Speed range* SLOW or SLO — 60-360 and 250-1,440 rpm. DIRECT or DIR — 600-3,600 and 2,500-14,400 rpm.
HIGH-LOW R.P.M. (TS-805B/U and TS-805D/U) or HI-LO RPM (TS-805C/U)dial scale (calibrated in two vertical columns)	Allows direct reading of the speed (in rpm) of rotating element under measurement, as follows: HIGH scale (left side of drum, farthest from front panel); calibrated

Control, indicator, or connector	Function
	from 25 through 145, (Multiply dial setting by factor of 100). LOW scale (right side of drum, closest to front panel): calibrated from 6 through 37. (Multiply dial setting by factor of 100.) **NOTE** For accuracy of measurements, use only the 25 through 144 markings on HIGH scale; use only the 6 through 36 markings on LOW scale.
Dial scale control (rotary dial)	Sets the HIGH-LOW R.P.M. (TS-805B/U and TS-805D/U)or HI-LO RPM (TS-805C/U) dial scale to the required rpm.
LOW ADJUST (TS-805B/U and TS-805D/U) or 900 ADJUST (TS-805C/U) (screwdriver adjustment)	Provides stroboscope adjustment at low speed measurement range.
HIGH ADJUST (TS-805B/U and TS-805D/U or 3600 ADJUST (TS-805C/U) (screwdriver adjustment)	Provides stroboscope adjustment at high speed measurement range,
INPUT (TS-805B/U), CONTACTOR (TS-805C/U), or EXT. PULSE (TS-805D/U) (electrical receptacle)	Provides connection for contactor.
OUTPUT (TS-805B/U) or AUX LIGHT (TS-805C/U and TS-805D/U)	Provides connection for external light source,

Section II. OPERATION UNDER USUAL CONDITIONS

3-4. Preliminary Starting Procedure (fig. 3-1,3-2, or 3-3)

To start the equipment, perform *a* through *m* below.

NOTE

If an abnormal indication is obtained during the starting procedure, refer to paragraph 4-6 for corrective measures.

a. On TS-805B/U, connect the power cable to the 115V 60- receptacle at the rear of the stroboscope and then connect the power cable to a power source of 115-120 volts ac, 60 HZ. On TS-805C/U and TS-805D/U, connect the power cable to a power source of 115-120 volts ac, 60 HZ.

b. On TS-805B/U and TS-805D/U, set the function switch to STROBOSCOPE HIGH. On TS-805C/U, set the POWER ON switch to ON. Dial scale lamp lights. Allow all models 5 minutes for equipment warmup.

c. Set the REED switch to on.

d. On TS-805B/U, set the SLOW-DIRECT switch to DIRECT. On TS-805C/U, set the SLO-DIR switch to DIR.

e. Set the function switih to STROBOSCOPE LOW.

f. Adjust the dial scale control for a reading of 3,6000 rpm ('LOW SCALE 36 X 100) on the HIGH-LOW R.P.M. dial scale.

g. Adjust the HIGH ADJUST control (on TS-805B/U and TS-805D/U) or the 3600 ADJUST control (on TS-805C/U) with a screwdriver until a single stationary reed image is observed.

h. Adjust the dial scale control for a reading of 1,800 rpm (LOW scale 18 X 100) on the HIGH-LOW R.P.M. dial scale.

i. Adjust the LOW ADJUST control (on TS-805B/U and TS-805D/U) or the 900 ADJUST control (on TS-805C/U) until a single stationary reed image is observed.

j. Adjust the dial scale control for a reading of 900 rpm (LOW scale 9 X 100) on the HIGH-LOW R.P.M. dial scale.

k. Slightly readjust the LOW ADJUST control (on TS-805B/U and TS-805D/U) or 900 ADJUST control (on TS-805C/U) until a stationary reed image is observed.

l. Repeat the procedures given in *a* through *k* above until the reed image appears stationary at each HIGH-LOW R.P.M. dial scale position.

m. Set the REED switch to the OFF position (all models).

3-5. Operating Procedures for Measurement of Unknown Speed (fig. 3-1, 3-2, or 3-3)

Start the equipment as instructed in paragraph 3-4 and perform the following procedure to measure an unknown speed:

CAUTION

Do not continuously operate the stroboscope at speeds greater than 5,000 rpm.

a. Set the function switch to STROBOSCOPE HIGH to measure speeds that appear to be above 3,600 rpm, or at STROBOSCOPE LOW to measure speeds that appear to be below 3,600 rpm.

b. Direct the stroboscope light at the rotary device.

c. Start at the high end and adjust the dial scale control toward its low end until the rotating element appears stationary.

NOTE

The correct speed of the rotating device is the highest dial scale reading that produces a single stationary image. Where the rotating device is uniform or symmetrical a single white chalk or crayon mark should be placed

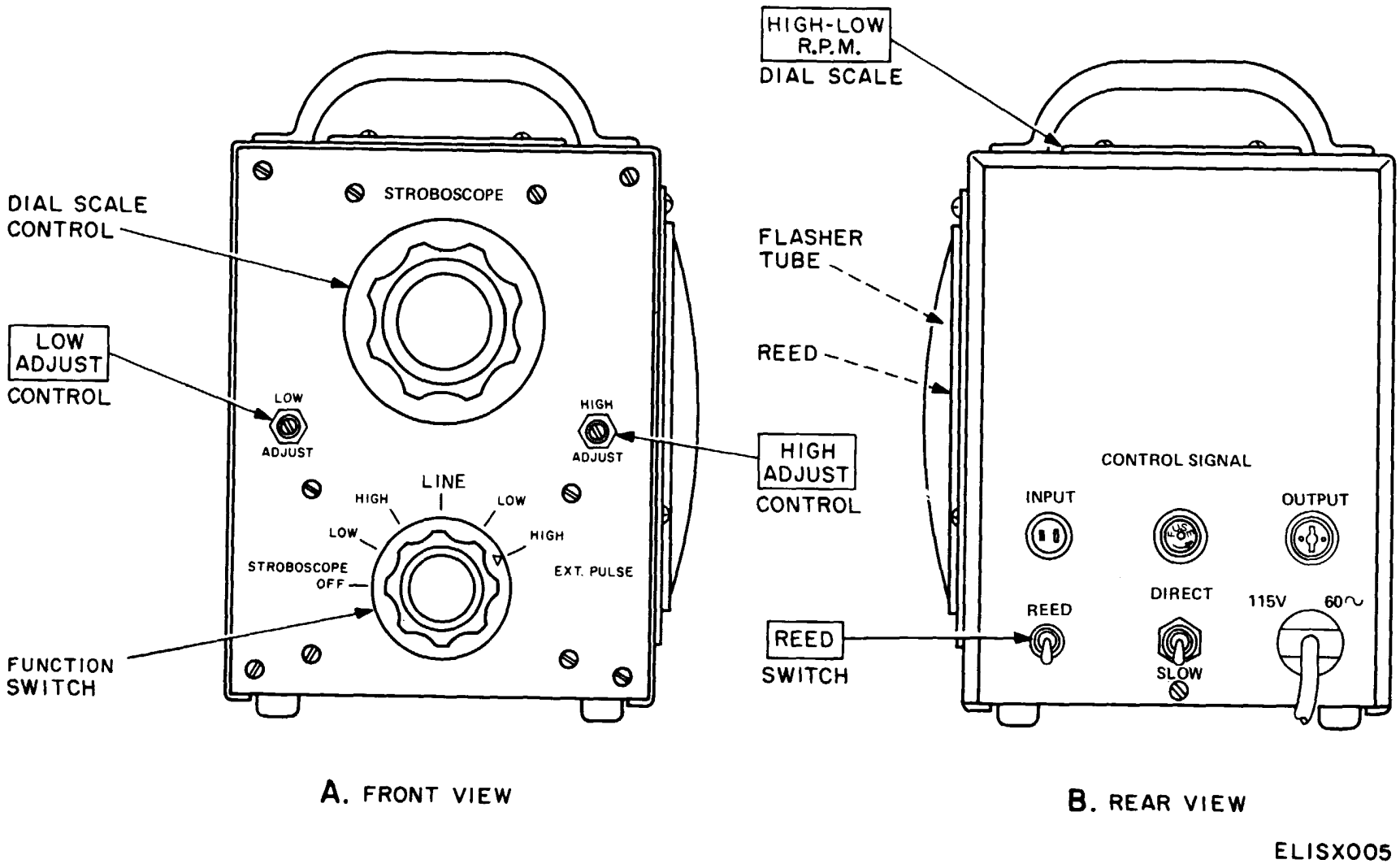

Figure 3-1. Stroboscope TS-805B/U operating controls, indicators, and connectors.

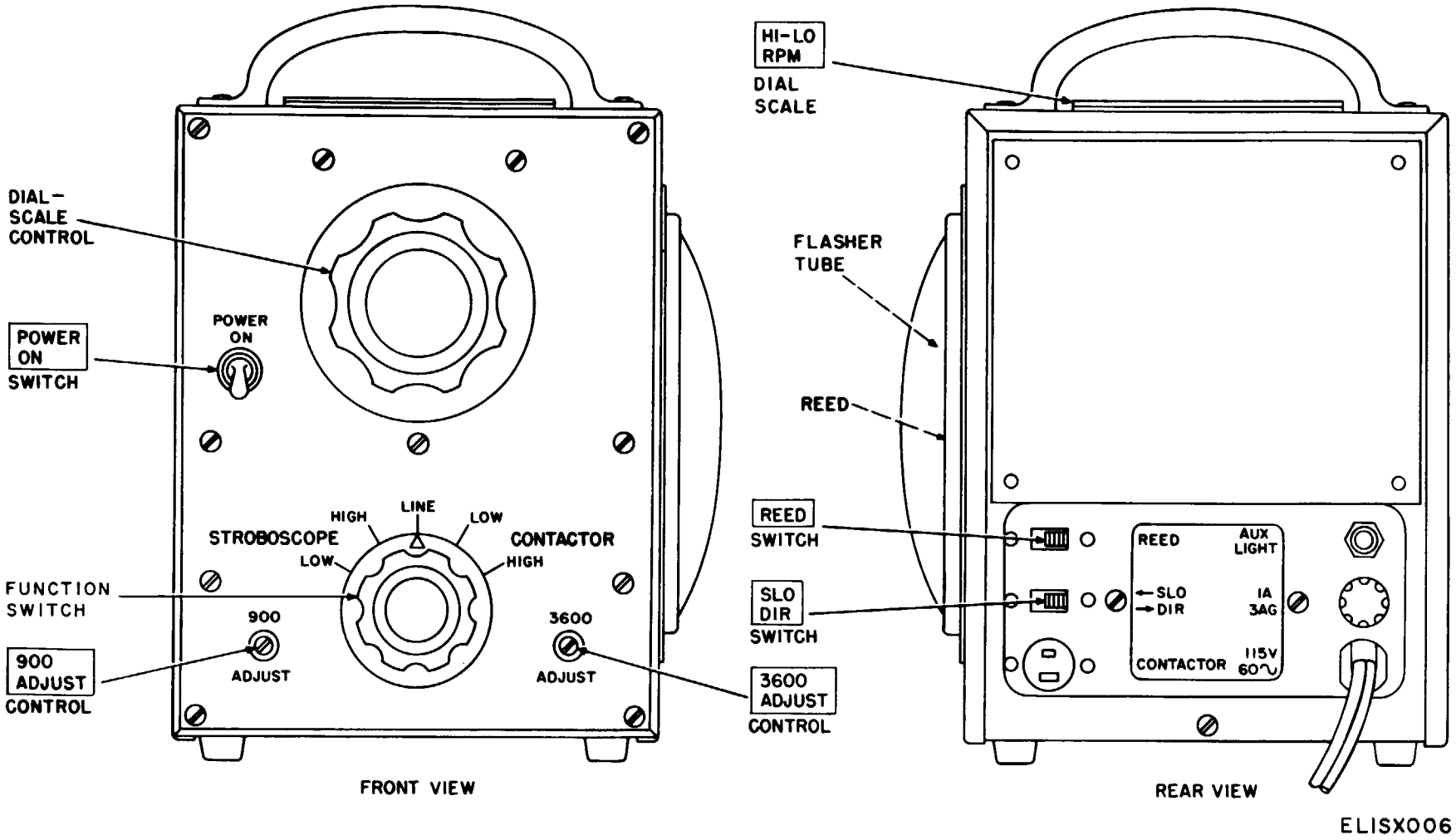

Figure 3-2. Stroboscope TS-805C/U operating controls, indicators, and connectors.

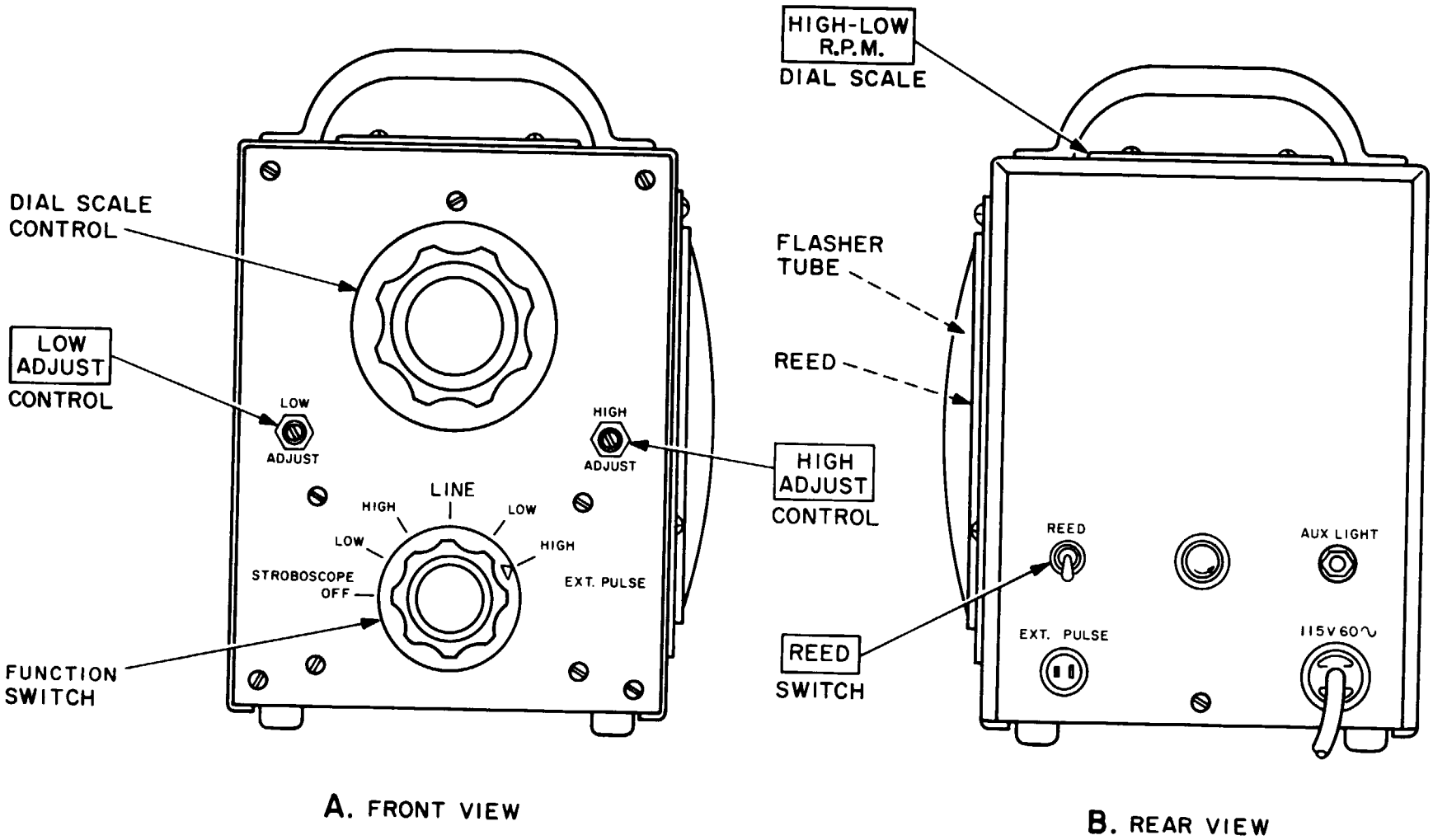

Figure 3-3. Stroboscope TS-805D/U operating controls, indicators, and connectors.

on the device to aid in determining when the image is stationary.

d. Read the speed of the rotary device from the dial scale.

3-6. Operating Procedures for Low Speed Measurement (TS-805B/U and TS-805C/U Only)

(fig. 3-1 or 3-2)

Start the equipment as instructed in paragraph 3-4 and perform the following procedure for measuring speeds in the 60-360 rpm range:

a. Set the function switch to STROBOSCOPE LOW.

b. Set the SLOW-DIRECT switch (on TS-805B/U) or SLO-DIR switch (on TS-805C/U) to SLOW or SLO.

c. Direct the stroboscope light at the rotating device.

d. Start at the high end and adjust the dial scale control down towards its low end until the rotating element appears to be stationary.

e. Divide the HIGH-LOW R.P.M. dial scale reading (LOW scale R.P.M. X 100) by 10 to obtain the correct speed measurement.

3-7. Operating Procedures for High Speed Measurement

(fig. 3-1,3-2,or 3-3)

Start the equipment as instructed in paragraph 3-4 and proceed as follows for measuring speeds above 14,000 rpm:

a. Set the function switch to STROBOSCOPE HIGH.

b. Direct the stroboscope light at the rotating device.

c. Start at the high end and adjust the dial scale control down towards its low end until the rotating element appears to be stationary.

d. Record the speed from the dial scale and designate it X.

e. Readjust the dial scale control to the next lower dial scale marking that produces a stationary image.

f. Record this lower speed reading from the dial scale and designate it Y.

g. Calculate the speed of the rotating element as follows:

$$RPM = \frac{XY}{X-Y}$$

Where X is the highest dial scale reading *(d* above) and Y is the next lower dial scale reading *(f* above).

h. For example, if the highest reading (obtained in *d* above) was 7,500 rpm and the next lower reading (obtained in *f* above) was 5,000 rpm, then:

$$Rpm = \frac{7{,}500 \times 5{,}000}{7{,}500 - 5{,}000} = \frac{37{,}500{,}000}{2{,}500} = 15{,}000$$

3-8. Shutdown Procedure

(fig. 3-1, 3-2, or 3-3)

a. To return the stroboscope to a standby position, rotate the HIGH-LOW R.P.M. dial scale to its lowest reading, and set the function switch to STROBOSCOPE LOW.

b. To turn off the stroboscope: on the TS-805B/U and TS-805D/U, set the function switch to OFF; on the TS-805C/U, set the POWER ON switch to off.

Section III. OPERATION UNDER UNUSUAL Conditions

3-9. General

The operation of the stroboscope may be difficult in regions where extreme cold, heat, humidity, or other moisture and sand conditions prevail. 'Paragraphs 3-10, 3-11, and 3-12 provide procedures that minimize the effect of these unusual climatic conditions.

3-10. Operation in Arctic Climates

Subzero temperatures and climatic conditions associated with cold weather affect the efficient operation of the equipment. Instructions and precautions for operation under such adverse conditions are as follows:

a. Keep the equipment warm and dry.

b. When equipment that has been exposed to the cold is brought into a warm room, moisture will gather on the equipment; this may cause a change in operating characteristics. When the equipment reaches room temperature, dry it thoroughly. Wipe the exterior surfaces with a soft cloth. Dry the internal surfaces using a fan or warm air blower.

3-11. Operation in Tropical Climates

When operated in tropical climates, high relative humidity causes condensation on the equipment whenever the temperature of the equipment becomes lower than that of the surrounding air. To minimize this condition, provide as good ventilation as possible. Dry equipment thoroughly before operating it.

3-12. Operation in Desert Climates

a. The main problem that arises with equipment operation in desert areas is the large amount of sand, dust, or dirt that enters the equipment.

b. Be careful to keep the equipment as free from sand, dirt, or dust as possible. Make frequent preventive maintenance checks. This equipment does not need lubrication and should be kept free from oil and grease. Excessive amounts of dust, sand, or dirt that come into contact with oil and grease result in grit, which will damage the equipment.

CHAPTER 4

ORGANIZATIONAL MAINTENANCE INSTRUCTIONS

Section I. GENERAL

4-1. Scope of Organizational Maintenance

Organizational maintenance is limited to procedures that can be accomplished without removing the stroboscope from its case. These procedures include exterior visual inspection, simple operational tests, replacement of defective or faulty knobs, replacement of blown fuses, cleaning and spot painting the case exterior, and in the case of the TS-805B/U replacement of a defective power cord.

4-2. Tools, Equipment, and Materials Required

a. Tools Required. Allen wrenches: #6 (1/16 inch), #8 (5/64 inch).

b. Material. Trichloroethane.

WARNING

The fumes of trichloroethane are toxic. Provide thorough ventilation whenever used. DO NOT use near open flame. Trichloroethane is not flammable, but exposure of the fumes to an open flame or hot metal surfaces converts the fumes to highly toxic dangerous gases.

4-3. Lubrication

No lubrication is required on the stroboscope.

Section II. PREVENTIVE MAINTENANCE CHECKS AND SERVICES

4-4. General

To insure that the stroboscope is always ready for operation, it must be inspected systematically so that defects may be discovered and corrected before they result in serious damage or failure. The necessary preventive maintenance checks and services to be performed are listed and described in paragraphs 4-5 and 4-6. The item numbers indicate the sequence of, and minimum, inspection required. Defects discovered during operation of the unit will be noted for future correction to be made as soon as operation has ceased. Stop operation immediately if a deficiency is noted during operation which would damage the equipment. Record all deficiencies together with the corrective action taken in accordance with the requirements set forth in TM 38-750. Instructions for performing the required checks are identified as periodic checks in the maintenance manual.

4-5. Operator\Crew Preventive Maintenance Checks and Services

Perform the checks and services as described in table 4-1.

4-6. Organizational Preventive Maintenance Checks and Services

Perform the checks and services as described in table 4-2.

Table 4-1. Operator/Crew Preventive Maintenance Checks and Services

D–Daily
Time Required: 0.2

W–Weekly
Time Required: 0.35

Internal and sequence No. D	W	ITEM TO BE INSPECTED PROCEDURE	Work tune (MM)
1		EXPOSED TIMES Clean exposed surfaces of case and control panel (para 4-9).	0.1
		CONTROLS Check to see that mechanical action of each knob, switch, and control is smooth and free of binding and no excessive looseness is apparent (para 4-11).	0.1
	1	POWER CORD Inspect cord for chafed, cracked, or frayed insulation. Replace cord that is stripped or worn excessively.	
	2	HARDWARE Inspect all exterior hardware for looseness and damage. All screws must be tight and not damaged.	
	3	METAL SURFACES Inspect exposed metal surfaces for rust and corrosion. Clean and touch up paint as required (para 4-9).	
	4	OPERATION Perform operating procedures given in paragraphs 3-4 through 3-8.	0.2

Table 4-2. Organizational Preventive Maintenance Checks and Services

Q-Quarterly
Total Man-Hours Required: 0.5

Sequence number	Item to be inspected procedure	Worktime MM
1	PUBLICATIONS See that all publications are complete, serviceable, and current (DA Pam 310-4).	0.5
2	MODIFICATIONS Check DA Pam 310-7 to determine if new applicable MWO'S have been published. All URGENT MWO'S must be applied immediately, All NORMAL MWO'S must be scheduled (TM 38-750 and DA Pam 310-7).	

Q-Quarterly
Total Man-Hours Required: 0.5

Sequence number	Item to be inspected procedure	Worktime M/H
3	SPARE PARTS Check all spare parts (operator/crew and organizational) for general condition and method of storage. No overstock should be evident and all shortages must be on valid requisitions.	

Section III. TROUBLESHOOTING

4-7. General

Troubleshooting this equipment is based on sympton which is observed during starting procedure (para *3-4b).* If the corrective measure listed does not correct the trouble, higher category of maintenance is required.

4-8. Organizational Troubleshooting

Table 4-3. provides organizational troubleshooting procedures.

Table 4-3. Organizational troubleshooting.

Item No.	*Malfunction*	*Probable Cause*	*Corrective Action*
	Dial scale lamp does not light.	a. Defective fuse.	a. Replace fuse. If trouble still exists higher category of maintenance is required.
		b. Defective power cable.	*b.* Replace defective power cable (TS-805BU only). If trouble still exists, higher category of maintenance is required.

Section IV. MAINTENANCE OF STROBOSCOPE

4-9. Cleaning, painting, and Preservation

Inspect the exterior surfaces of the stroboscope. The exterior surfaces should be clean and free of dust, dirt, grease, and fungus.

a. Remove dust with a clean, soft cloth.

WARNING

The fumes of trichloroethane are toxic. Provide thorough ventilation whenever used. Trichloroethane is not flammable but exposure of the fumes to an open flame of hot metal surfaces forms highly toxic, dangerous gases.

b. Remove grease, fungus, and ground-in dirt from exterior case surfaces; use a cloth dampened (not wet) with trichloroethane,

c. Remove dust or dirt from plugs and jacks.

CAUTION

Do not press on the window or dial face when cleaning; the window or face may become damaged. Do not clean plastic with alcohol or other solvents; the plastic may become clouded, or dissolved. Clean front and rear panels carefully, or markings maybe erased.

4-10. Fuse Replacement

(fig. 1 -3)

a. Twist the fuse cap (cap, electrical) counterclockwise to unlock.

b. Remove the fuse cap.

c. Pull the defective fuse out and replace it with a new one (1 ampere, 250 volts, type 3AG).

d. Press the fuse cap in and twist clockwise to lock.

4-11. Replacement of Knobs

a. Two knobs are replaceable on the stroboscope, these are the dial scale knob and the function switch knob. The knobs are secured to their shafts by recessed setscrews. Two setscrews are used to secure each knob.

b. To replace faulty, cracked, or broken knobs, unscrew each setscrew enough to remove the knob from its shaft, Place the new knob on the shaft, align it properly, and tighten the two setscrews.

4-12. Organizational Testing Procedures

After performance of organizational maintenance or repair, the stroboscope should be tested using the procedures listed in table 4-4.

Table 4-4. Organizational Testing Procedures

Step No.	Controlsetting	Procedure	Normal indication
1	TS-805C/U POWER ON: ON Function: STROBOSCOPE LOW REED switch: ON		Dial lamp lights. Flasher tubes flash steadily.
	TS-805B/U or TS-805D/U Function: STROBOSCOPE LOW REED switch: ON		Reed vibrates.
2	Same as 1 above	Rotate dial scale control from high rpm to low rpm.	Flasher rate changes with dial rotation.
3	Same as 1 above; except function switch: STROBOSCOPE HIGH	Rotate dial scale control slow from high rpm to low rpm.	Flasher rate changes with dial rotation but at a higher rate than in step 2 above.
4	Same as 1 above, except function switch: LINE	Rotate dial scale control.	Flasher rate steady and not effected by dial scale control. Reed is synchronized with flasher rate and appears steady.
5	Same as 1 above	On TX-805C/U, set function switch to CONTACTOR LOW then HIGH. On TX-805B/U or TS-805D/U set function switch to EXT. PULSE LOW then HIGH.	Flasher tube does not flash in either position.
	NOTE The following step is for the TS-805B/U and TS-805C/U only,		
6	Same as 1 above, except function switch: STROBOSCOPE HIGH Dial scale control: Midrange.	Alternately switch the SLO-DIR switch (TS-805C/U) or SLOW-DIRECT switch (TS -805B/U) to each position.	Flashing rate changes from fast to slow (approximately 1 to 10 ratio) as switch is repositioned.
7		Turn off power.	

CHAPTER 5

OPERATING INSTRUCTIONS FOR STROBOSCOPE TS-805E/U

Section I. OPERATOR CONTROLS, INDICATORS, AND CONNECTORS

5–1. General

This section describes the function of each control, indicator, and connector of the stroboscope. Haphazard operation and improper setting of controls can result in poor operation and possible damage to the equipment. Become familiar with the function of each control before operating the equipment.

5–2. Damage From Improper Settings

The flasher tube should not be used at higher speeds than those specified on each of the external/input ranges. The flasher tube life will decrease if the stroboscope is operated unnecessarily at high speeds.

5–3. Operator's Controls
(fig. 5-1)

Control, indicator, or connector	*Function*
POWER ON switch	Turns equipment power on and off (down)
RATE control	Adjust flash rate when internal mode COARSE adjust – Adjust flash rate within range set by RANGE/ FPM switch FINE adjust – Provides tine adjustment of rate
RANGE/FPM switch	Sets speed ranges and selects either internal (INT) oscillator or external (EXT) input *EXT – 25K max fpm 10K max fpm 1K max fpm INT – 10K-25K fpm 1K-10K fpm 100-1 K fpm
EXT INPUT connector	Provides connection for external input from contactor or pulse
LINE CAL indicator	Indicates when flash frequency is close to power line frequency
115/230 V select switch	Selects ac voltage range
1/2 AMP fuse	Circuit protection
Flashes per minute indicator	Indicates flashes per minute

* In EXT position the flashes per minute indicator will be blank, no reading can be obtained.

Section II. OPERATION UNDER USUAL CONDITIONS

5–4. Preliminary Starting Procedure
(fig. 5-1)

a, Check that the 115/230 volt selector switch is in the correct position for the line voltage that the instrument is to be operated on.

b. Connect the power cable to the ac power source.

c. Set RANGE/FPM switch to lNT 100-1K position.

d. Set POWER ON switch to ON position.

5–5. Operating Procedure for Measurement of Unknown Speed
(fig. 5-1)

Start the equipment as instructed in paragraph 5-4 and perform the following procedure.

CAUTION

Do not continuously operate the stroboscope at speeds greater than 5000 ppm.

a. Set the RANGE/FPM switch to INT 10K-25K.

b. Direct the stroboscope light at the rotary device.

c. Start at the high end of the speed range and using the COARSE and FINE RATE control adjust downward until the rotating device appears stationary. If rotating device appears stationary in the INT 10K-25K position, multiply number appearing in flashes per minute indicator by 1000. lf rotating device does not appear stationary in the INT 10K-25K position, utilize other settings of the RANGE/ FPM INT switch until rotating device appears stationary.

NOTE

The correct speed of the rotating device is the highest dial scale reading that produces a single stationary image. Where the rotating device is uniform or symmetrical a single white chalk or crayon mark should be placed on the device to aid in determining when the image is stationary.

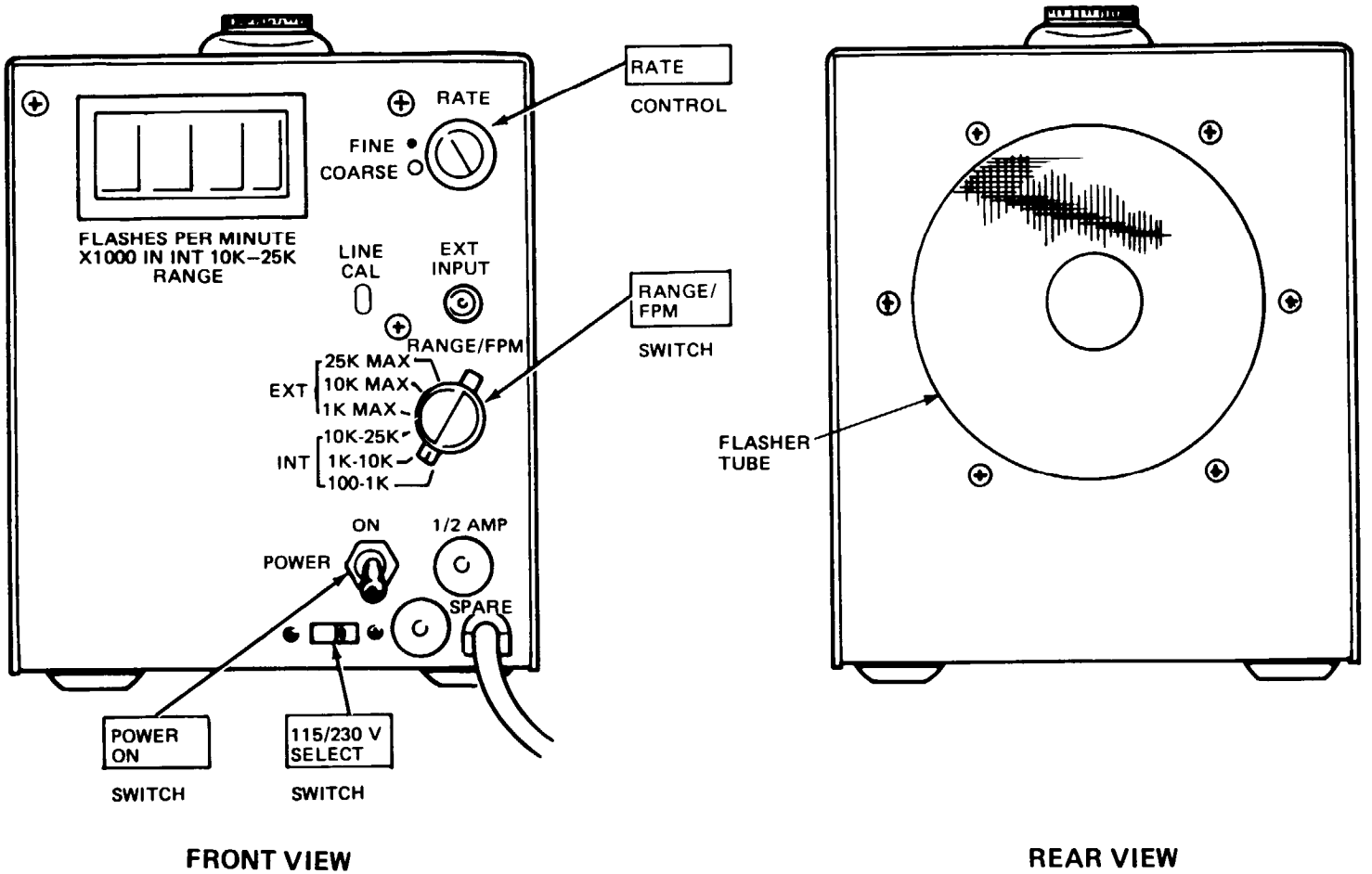

Figure 5-1. Stroboscope TS-805E/U operating controls, indicators, and connectors.

d. Read the speed of the rotating device from the flashes per minute indicator.

5–6. Operating Procedures for Low Speed Measurements
(fig. 5-1)

Start equipment as instructed in paragraph 5-4 and perform the following procedure for measuring speeds in the 100-1 K range.

a. Set RANGE/FPM switch to INT 100-1 K position.
b. Direct strobe light at rotating device.
c. Start at the high end and adjust downward using the COARSE and FINE RATE controls until the rotating device appears stationary.
d. Read the speed of the rotating device from the flashes per minute indicator.

5–7. Operating Procedures for Medium Speed Measurements
(fig. 5-1)

Start equipment as instructed in paragraph 5-4 and perform the following procedure for measuring speeds in the 1K-10K range.

a. Set RANGE/FPM switch to INT 1K- 10K position.
b. Direct strobe light at rotating device.
c. Start at the high end and ajust downward using the COARSE and FINE RATE controls until the rotating device appears stationary.
d. Read the speed of the rotating device from the flashes per minute indicator.

5-8. Operating Procedures for High Speed Measurements
(fig. 5-1)

Start the equipment as instructed in paragraph 5-4 and perform the following procedure for measuring speeds in the 10K-25K range.

a. Set RANGE/FPM switch to INT 10K-25K range.
b. Direct strobe light at rotating device.
c. Start at the high end and adjust downward using the COARSE and FINE RATE controls until the rotating device appears stationary.
d. Read the speed of the rotating device from the flashes per minute indicator **X** 1000 to obtain speed of rotating device.

5-9. Shutdown Procedure
(fig. 5-1)

a. To return the stroboscope to a standby position set the RANGE/FPM switch to INT 100-1 K position.
b. Set POWER ON switch to off position (down).
c. Disconnect stroboscope from power source.

Section III. OPERATION UNDER UNUSUAL CONDITIONS

5–10. General

The operation of the stroboscope may be difficult in regions where extreme cold, heat, humidity, or other moisture and sand conditions prevail. Paragraphs 5-11, 5-12, and 5-13 provide procedures that minimize the effect of these unusual climatic conditions.

5–11. Operation in Arctic Climates

Subzero temperatures and climatic conditions associated with cold weather affect the efficient operation of the equipment. Instructions and precautions for operation under such adverse conditions are as follows :

a. Keep the equipment warm and dry.
b. When equipment that has been exposed to the cold is brought into a warm room, moisture will gather on the equipment; this may cause a change in operating characteristics. When the equipment reaches room temperature, dry it thoroughly. Wipe the exterior surfaces with a soft cloth. Dry the internal surfaces using a fan or warm air blower.

5–12. Operation in Tropical Climates

When operated in tropical climates, high relative humidity causes condensation on the equipment whenever the temperature of the equipment becomes lower than that of the surrounding air. To minimize this condition, provide as good ventilation as possible. Dry equipment thoroughly before operating it.

5-13. Operation in Desert Climates

a. The main problem that arises with equipment operation in desert areas is the large amount of sand, dust, or dirt that enters the equipment.
b. Be careful to keep the equipment as free from sand, dirt, or dust as possible. Make frequent preventive maintenance checks. This equipment does not need lubrication and should be kept free from oil and grease. Excessive amounts of dust, sand, or dirt that come into contact with oil and grease result in grit, which will damage the equipment.

CHAPTER 6

ORGANIZATIONAL MAINTENANCE INSTRUCTIONS STROBOSCOPE TS-805E/U

Section I. GENERAL

6-1. Scope of Organizational Maintenance

Organizational maintenance is limited to procedures that can be accomplished without removing the stroboscope from its case. These Procedures include exterior visual inspection, simple operational tests, replacement of defective of faulty knobs, replacement of blown fuses, cleaning and spot painting the case exterior.

6-2. Tools, Equipment, and Materials Required

a. Tools Required. Phillips head screwdriver No. 1.

b. Material. Trichlorotrifluoroethane.

WARNING

Adequate ventilation should be provided while using TRICHLOROTRIFLUOROETHANE. Prolonged breathing of vapor should be avoided. The solvent should not be used near heat or open flame; the products of decom - position are toxic and irritating. Since TRICHLOROTRIFLUOROETHANE dissolves natural oils. prolonged contact with the skin should be avoided. When necessary, use gloves that the solvent will not penetrate. If the solvent is taken internally, contact a physician immediately.

6–3. Lubrication

No lubrication is required on the stroboscope.

Section II. PREVENTIVE MAINTENANCE CHECKS AND SERVICES

6-4. General

To insure that the stroboscope is always ready for operation, it must be inspected systematically so that defects may be discovered and corrected before they result in serious damage or failure. The necessary preventive maintenance checks and services to be performed are listed and described in paragraphs 6-5 and 6-6. The item numbers indicate the sequence of, and D W minimum, inspection required. Defects discovered during operation of the unit will be noted for future correction to be made as soon as operation has ceased. Stop operation immediately if a deficiency is noted during operation which would damage the equipment. Record all deficiencies together with the corrective action taken in accordance with the requirements set forth in TM 38-750. Instructions for performing the required checks are identified as periodic checks in the maintenance manual.

6-5. Operator/Crew Preventive Maintenance Checks and Services

Perform the checks and services as described in table 6-1.

6-6. Organizational Preventive Maintenance Checks and Services

Perform the checks and services as described in table 6-2.

Table 6.1. Operator/Crew Preventive Maintenance Checks and Services

D–Daily Time Required: 0.2 W –Weekly Time Required: 0.35

Internal and sequence No,	ITEM TO BE INSPECTED PROCEDURE	Work time (M/H)
1	EXPOSED TIMES Clean exposed surfaces of case and control panel (para 6-9).	0.1
	CONTROLS Check to see that mechanical action of each knob, switch, and control is smooth and free of binding and no excessive looseness is apparent (para 6-11).	0.1
1	POWER CORD Inspect cord for chafed, cracked, or frayed insulation. Replace cord that is stripped or worn excessively.	
2	HARDWARE Inspect all exterior hardware for looseness and damage. AU screws must be tight and not damaged.	
3	METAL SURFACES Inspect exposed metal surfaces for rust and corrosion. Clean and touchup paint as required (para 6-9).	
4	OPERATION Perform operating procedures given in paragraphs 5-4 through 5-9.	0.2

Table 6-2. Organizational Preventive Maintenance Checks and Services

Q-Quarterly
Total Man-Hours Required: 0.5

Sequence number	Item to be inspected procedure	Worktime M/H
1	PUBLICATIONS See that all publications are complete, serviceable, and current (DA Pam 310-1).	0.5
2	MODIFICATIONS Check DA Pam 310-1 to determine if new applicable MWO'S have been published. All URGENT MWO'S must be applied immediately. All NORMAL MWO'S must be scheduled (TM 38-750 and DA Pam 310-1).	
3	SPARE PARTS Check all spare parts (operator/crew and organizational) for general condition and method of storage. No overstock should be evident and all shortages must be on valid requisitions.	

Section III. TROUBLESHOOTING

6–7. General

Troubleshooting this equipment is based on symptom which is observed during starting procedure (para 5-4). If corrective measure listed does not correct the trouble, higher category of maintenance is required.

6–8. Organizational Troubleshooting

Table 6-3 provides organizational troubleshooting procedures.

Table 6-3. *Organizational troubleshooting*

Item No.	Malfunction	Probable Cause	Corrective Action
	Flashes per minute indicater does not light.	Defective fuse.	Replace fuse. If trouble still exists higher category of maintenance is required.

Section IV. MAINTENANCE OF STROBOSCOPE

6–9. Cleaning, Painting, and Preservation

Inspect the exterior surfaces of the stroboscope. The exterior surfaces should be clean and free of dust, dirt, grease, and fungus.

a. Remove dust with a clean, soft cloth.

WARNING

Adequate ventilation should be provided while using TRICHLOROTRIFLUOROETHANE. Prolonged breathing of vapor should be avoided. The solvent should not be used near heat or open flame; the products of decomposition are toxic and irritating. Since TRICHLOROTRIFLUOROETHANE dissolves natural oils, prolonged contact with the skin should be avoided. When necessary, use gloves that the solvent will not penetrate. If the solvent is taken internally, contact a physician immediately.

b. Remove grease, fungus, and ground-in dirt from exterior case surfaces; use a cloth dampened (not wet) with trichlorotrifluoroethane.

c. Remove dust or dirt from plugs and jacks.

CAUTION

Do not press on the window when cleaning; the window or face may become damaged. Do not clean plastic with alcohol or other solvents; the plastic may become clouded, or dissolved. Clean front and rear panels carefully, or markings may be erased.

6–10. Fuse Replacement

(fig. 5-1)

a. Twist the fuse cap (cap, electrical) counterclockwise to unlock,

b. Remove the fuse cap.

c. Pull the defective fuse out and replace it with a new one (1/2 ampere, 250 volts, type 3AG).

d. Press the fuse cap in and twist clockwise to lock.

6–11. Replacement of Knobs

a. Two knobs are replaceable on the stroboscope, these are the RATE control knob and the RANGE/FPM switch knob. The knobs are secured to their shafts by recessed setscrews. Two setscrews are used to secure each knob.

b, To replace faulty, cracked, or broken knobs, unscrew each setscrew enough to remove the knob from its shaft. Place the new knob on the shaft, aline it properly, and tighten the two setscrews,

6–12. Organizational Testing Procedures

After performance of organizational maintenance or repair, the stroboscope should be tested using the procedures listed in table 6-4.

Table 6-4. Organizational Testing Procedure

Step	Control Setting	Procedure	Normal Indication
1	POWER ON: On		Flashes per minute indicator lights
	RANGE/FPM: 1NT 100-lK		Flash tube flashes steadily
2	Same as 1 above	Rotate RATE control from high to low	Flash rate changes with knob rotation
3	Same as 1 above except RANGE/FPM:INT 1K-10K	Rotate RATE control from high to low	Flash rate changes with knob rotation but at a faster rate than step 2
4	Same as 1 above except RANGE/FPM: INT 10K-25K	Rotate RATE control from high to low	Flash rate change but at a faster rate than step 3
5		Turn off power	

APPENDIX A

REFERENCES

DA Pam 310-1	Consolidated Index of Army Publications and Blank Forms
TB 43-0118	Field Instructions for Painting and Preserving Electronics Command Equipment Including Camouflage Pattern Painting of Electrical Equipment Shelters
TB 38-750	The Army Maintenance Management System
TM 740-90-1	Administrative Storage Equipment
TM 750-244-2	Procedure for Destruction of Electronics Materiel to Prevent Enemy Use (Electronics Command)

APPENDIX C

MAINTENANCE ALLOCATION

Section 1. INTRODUCTION

C-1. General

This appendix provides a summary of the maintenance operations for stroboscope TS-805B/U, TS-805C/U, and TS-805D/U. It authorizes categories of maintenance for specific maintenance functions on repairable items and components and the tools and equipment required to perform each function. This appendix may be used as an aid in planning maintenance operations.

C-2. Maintenance Function

Maintenance functions will be limited to and defined as follows:

a. Inspect. To determine the serviceability of an item by comparing its physical, mechanical, and/or electrical characteristics with established standards through examination.

b. Test. To verify serviceability and to detect incipient failure by measuring the mechanical or electrical characteristics of an item and comparing those characteristics with prescribed standards.

c. *Service.* Operations required periodically to keep an item in proper operating condition, i.e., to clean, preserve, drain, paint, or to replenish fuel/lubricant./hydraulic fluids or compressed air supplies.

d. Adjust. Maintain within prescribed limits by bringing into proper or exact position, or by setting the operating characteristics to the specified parameters.

e. Align. To adjust specified variable elements of an item to about optimum or desired performance.

f. Calibrate. To determine and cause corrections to be made or to be adjusted on instruments or test measuring and diagnostic equipment used in precision measurement. Consists of the comparison of two instruments, one of which is a certified standard of known accuracy, to detect and adjust any discrepancy in the accuracy of the instrument being compared.

g. Install. The act of emplacing, seating, or fixing into position an item, part, module (component or assembly) in a manner to allow the proper functioning of the equipment/ system.

h. Replace. The act of substituting a serviceable like-type part, subassembly, model (component or assembly) for an unserviceable counterpart.

i. Repair. The application of maintenance services (inspect, test, service, adjust, align, calibrate, replace) or other maintenance actions (welding, grinding, riveting, straightening, facing, remachining, or resurfacing) to restore serviceability to an item by correcting specific damage, fault, malfunction, or failure in a part, subassembly, module/component/assembly, end item or system. This function does not include the trial and error replacement of running spare type items such as fuses, lamps, or electron tubes.

j. Overhaul. That periodic maintenance effort (service/action) necessary to restore an item to a completely serviceable/opera tional condition as prescribed by maintenance standards (e.g., DMWR) in appropriate technical publications. Overhaul is normally the highest degree of maintenance performed by the Army. Overhaul does not normally return an item to like-new condition.

k. Rebuild. Consists of those services/actions necessary for the restoration of unserviceable equipment to a like-new condition in accordance with original manufacturing standards. Rebuild is the highest degree of material maintenance applied to Army equipment. The rebuild operation includes the act of returning to zero those age measurements (hours, miles, etc.) considered in classifying Army equipment/components.

C-3. Column Entries

a. Column 1, Group Number. Column 1 lists group numbers, the purpose of which is to identify components, assemblies, subassemblies and modules with the next higher assembly.

b. Column 2, Component/Assembly. Column 2 contains the noun names of components, assemblies, subassemblies, and modules for which maintenance is authorized.

c. *Column 3, Maintenance Functions.* Column 3 lists the functions to be performed on the item listed in column 2. When items are listed without maintenance functions, it is solely for purpose of having the group numbers in the MAC and RPSTL coincide.

d. Column 4, Maintenance Category. Column 4 specifies, by the listing of a "worktime" figure in the appropriate subcolumn(s), the lowest level of maintenance authorized to perform the function listed in column 3. This figure represents the active time required to perform that maintenance function at the indicated category of maintenance. If the number or complexity of the tasks within the listed maintenance function vary at different maintenance categories, ap-

propriate "worktime" figures will be shown for each category. The number of man-hours specified by the "worktime" figure represents the average time required to restore an item (assembly, subassembly, component, module, end item or system) to a serviceable condition under typical field operation conditions. This time includes preparation time, troubleshooting time and quality assurance/quality control time in addition to the time required to perform the specific tasks identified for the maintenance functions authorized in the maintenance allocation chart. Subcolumns of column 4 areas follows:

C — Operator/Crew
O — Organizational
F — Direct Support
H — General Support
D — Depot

e. Column 5, Tools and Equipment, Column 5 specifies by code, those common tool sets (not individual tools) and special tools, test, and support equipment required to perform the designated function.

C-4. Tool and Test Equipment Requirements (Table 1)

a. Tool or Test Equipment Reference Code. The numbers in this column coincide with the numbers used in the tools and equipment column of the MAC. The numbers indicate the applicable tool or test equipment for the maintenance functions.

b. Maintenance Category. The codes in this column indicate the maintenance category allocated the tool or test equipment.

c. *Nomenclature,* This column lists the noun name and nomenclature of the tools and test equipment required to perform the maintenance functions.

d. National/NATO Stock Number. This column lists the National NATO stock number of the specific *tool or test equipment.*

e. Tool Number. This column lists the manufacturer's part number of the tool followed by the Federal Supply Code for manufacturers (5-digit) in parentheses.

SECTION II MAINTENANCE ALLOCATION CHART FOR

STROBOSCOPES TS-805B/U, TS-805C/U AND TS/805D/U

(1) GROUP NUMBER	(2) COMPONENT ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE (CATEGORY C	O	F	H	D	(5) TOOLS AND EQUIPMENT
00	STROBOSCOPES TS-805B/U, TS-805C/U AND TS-805D/U	Inspect[1]		0.2				
		Test[2]		0.3				
		Test				0.5		1,2,3,4,5
		Service[3]		0.2				8
		Repair[3]		0.2				8
		Repair				1.0		
		Overhaul					2.0	1,2,3,4,5,7
01	CHASSIS AND FRONT PANEL ASSY	Test				0.5		1,2,3,4,6
		Repair				2.0		1,2,3,4,6,7
		Repair					2.0	1,2,3,4,5,7
0101	BOARD ASSY, RESISTOR	Test				0.5		2,3
		Repair				0.5		7
0102	BOARD ASSY, RESISTOR	Test				0.5		2,3
		Repair				0.5		7
0103	CHASSIS ASSY	Test				0.5		1,2,3,4,6
		Repair				0.5		7
0104	PANEL ASSY, FRONT	Test				0.5		2,3
		Repair				0.5		7
02	CASE	Replace[4]		0.1				
		Repair				0.5		7

(1) Visual inspection of exterior of unit.
(2) Simple operational checks.
(3) Replace knobs, fuse, and power cable assy.
(4) TS-805B/U only.

TABLE 1. TOOL AND TEST EQUIPMENT REQUIREMENTS FOR

STROBOSCOPES TS-805B/U, TS-805C/U, AND TS-805D/U

TOOL OR TEST EQUIPMENT REF CODE	MAINTENANCE CATEGORY	NOMENCLATURE	NATIONAL/NATO STOCK NUMBER	TOOL NUMBER
1	H,D	COUNTER, ELECTRONIC, DIGITAL READOUT AN/USM-207A	6625-00-044-3228	
2	H,D	MULTIMETER AN/USM-223	6625-00-999-7465	
3	H,D	MULTIMETER ME-26D/U	6625-00-913-9781	
4	H,D	TACHOMETER, ELECTRONIC TS-806/U	6625-00-551-0710	
5	H,D	TEST SET, ELECTRON TUBE TV-2/U	6625-00-669-0263	
6	H	TEST SET, ELECTRON TUBE TV-7D/U	6625-00-820-0064	
7	H,D	TOOL KIT TK-100/G	180-00-605-0079	
8	0	TOOL AND TEST EQUIPMENT NORMALLY AVAILABLE TO THE ORGANIZATIONAL REPAIR BECAUSE OF HIS ASSIGNED MISSION.		

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RECOMMENDED CHANGES TO EQUIPMENT TECHNICAL MANUALS

SOMETHING WRONG WITH THIS MANUAL?

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

FROM: (YOUR UNIT'S COMPLETE ADDRESS)
Commander
Stateside Army Depot
ATTN: AMSTA-US
Stateside, N.J. 07703

DATE 10 July 1975

PUBLICATION NUMBER	DATE	TITLE
TM 11-5840-340-12	23 Jan 74	Radar Set AN/PPC-76

BE EXACT. . .PIN-POINT WHERE IT IS

PAGE NO.	PARAGRAPH	FIGURE NO.	TABLE NO.	IN THIS SPACE TELL WHAT IS WRONG AND WHAT SHOULD BE DONE ABOUT IT:
2-25	2-28			Recommend that the installation antenna alignment procedure be changed throughout to specify a 2° IFF antenna lag rather than 1°. REASON: Experience has shown that with only a 1° lag, the antenna servo system is too sensitive to wind gusting in excess of 25 knots, and has a tendency to rapidly accelerate and decelerate as it hunts, causing strain to the drive train. Hunting is minimized by adjusting the lag to 2° without degradation of operation.
3-10	3-3		3-1	Item 5, Function column. Change "2 db" to "3db." REASON: The adjustment procedure for the TRANS POWER FAULT indicator calls for a 3 db (500 watts) adjustment to light the TRANS POWER FAULT indicator.
5-6	5-8			Add new step f.1 to read, "Replace cover plate removed in step e.1, above." REASON: To replace the cover plate.
		F03		Zone C 3. On J1-2, change "+24 VDC to "+5 VDC." REASON: This is the output line of the 5 VDC power supply. + 24 VDC is the input voltage.

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SSG I. M. DeSpiritof 999-1776

SIGN HERE: SSG I. M. DeSpiritof

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Chief of Staff

Official:

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ARNG & USAR: None.
For explanation of abbreviations used, see AR 310-50.

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