TM 11-6625-676-12

DEPARTMENT OF THE ARMY TECHNICAL MANUAL

ORGANIZATIONAL MAINTENANCE MANUAL

GENERATOR, VIDEO SIGNAL AN/AAM-26

This copy is a reprint which includes current pages from Changes 1.

H E A D Q U A R T E R S , D E P A R T M E N T O F T H E A R M Y
MARCH 1967

WARNING

Be careful when working on the 115-volt ac circuits. Serious injury or DEATH may result from contact with these circuits.

DON'T TAKE CHANCES!

TECHNICAL MANUAL
No. 11-6625-676-12

HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON, D.C., *29 March 1967*

Organizational Maintenance Manual

GENERATOR, VIDEO SIGNAL AN/AAM-26

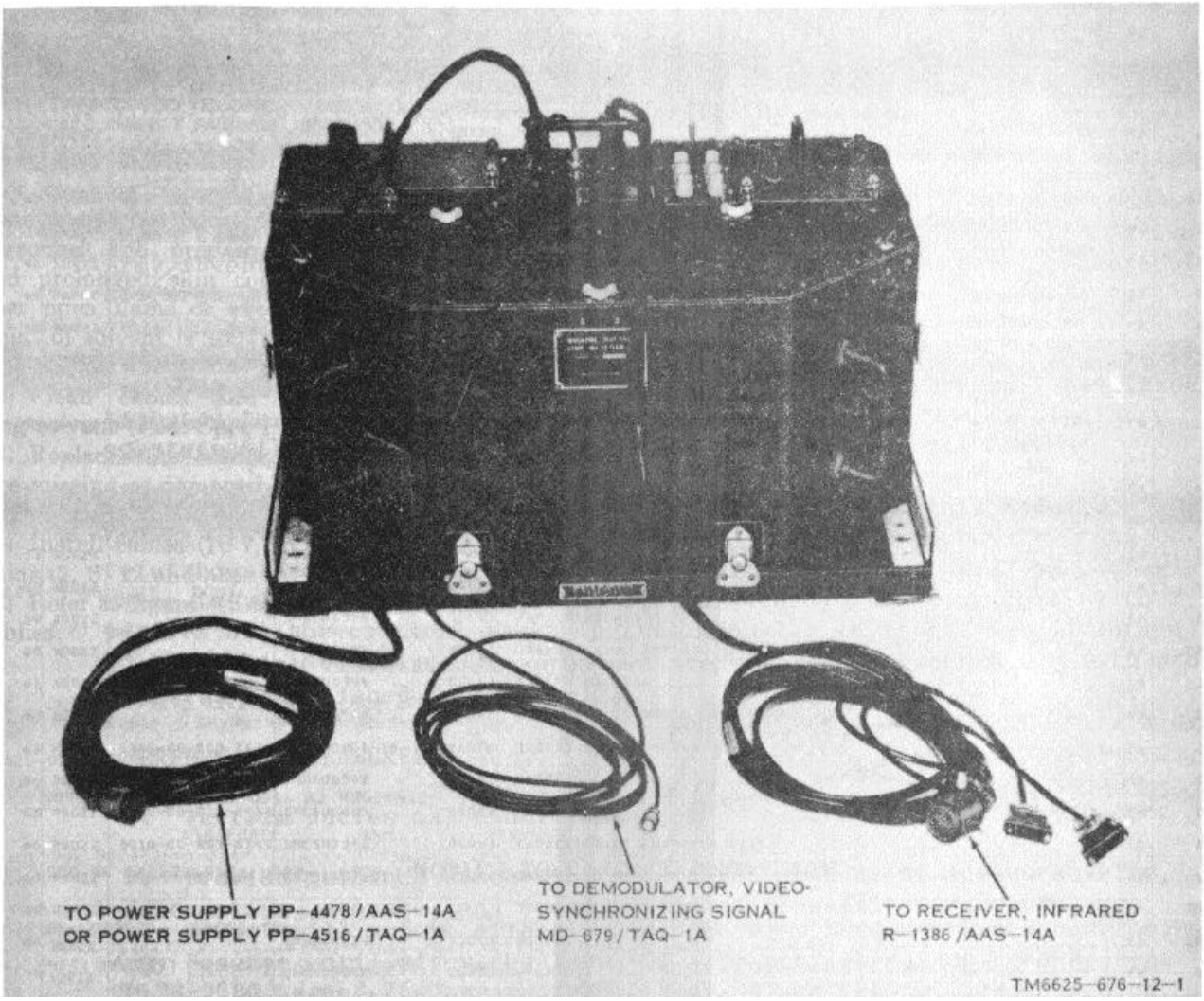


Figure 1-1. Generator, Video Signal AN/AAM-26, major components, setup for bench test application.

CHAPTER 1
INTRODUCTION

Section I. GENERAL

1-1. Scope
This manual describes Generator, Video Signal AN/AAM-26 (fig. 1-1) and covers its installation, operation, and organizational maintenance. It includes instructions for initial service, operation, cleaning and inspection of the equipment, and replacement of parts available to the organizational repairman.

1-2. Indexes of Publications
a. DA Pam 310-4. Refer to the latest issue of DA Pam 3104 to determine whether there are new editions, changes, or additional publications pertaining to the equipment.

b. DA Pam 310-7. Refer to DA Pam 310-7 to determine whether there are modification work orders (MWO's) pertaining to the equipment.

1-3. Forms and Records
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 DD Form 6 (Report of Packaging and Handling Deficiencies) as prescribed in AR 700-58/NAVSUP PUB 378/AFR 71-4/MCO P4030.29, and DSAR 4145.8.

c. Discrepancy in Shipment Report (DISREP) (SF 361). Fill out and forward Discrepancy in Shipment Report (DISREP) (SF 361) as prescribed in AR 5538/NAVSUPINST 4610.33/AFM 75-18/MCO P4610.19A, and DSAR 4500.15.

1-3.1. Reporting of Errors
Report of errors, omissions, and recommendations for improving this publication by the individual user is encouraged. Reports should be submitted on DA Form 2028, Recommended Changes to Publications and Blank Forms, and forwarded direct to Commander, US Army Electronics Command, ATTN: AMSEL-MA-SS, Fort Monmouth, NJ 07703.

Section II. DESCRIPTION AND DATA

1-4. Purpose and Use
a. Generator, Video Signal AN/AAM-26 is portable test equipment used primarily to test Surveillance Information Center AN/TAQ-1A (the ground portion) completely, or Detecting Set, Infrared AN/AAS14A (the airborne portion) except for the optical scanning system and the preamplifiers of Receiver, Infrared R-1386/AAS-14A.

b. The AN/AAM-26 provides channel A and channel B video signals, and synchronizing signals for Recorder Subassembly MX-7186/USA-23 of Recorder Group, Surveillance System AN/USA-23 required to test the items in a above. Recorder Subassembly MX-7186/USA-23 records a test film provided with the AAN/AAM-26. The functioning of either the ground or airborne portion of Surveillance System, Infrared AN/UAS-4A is checked by comparing the recorded film with the test film. The test film contains two types of video signals:

(1) Test patterns to check video circuits frequency response (resolution).

(2) Actual terrain information as photographed by an airborne camera during a surveillance mission.

c. A secondary purpose of the AN/AAM-26 is to train operators for the ground and airborne portions of the AN/UAS-4A by using the terrain information of b (2) above.

1-5. Technical Characteristics

Input power	+28 vdc, 35 watts; +22 vdc, 2 watts; and 115 vac, 400 cps, 20 watts.
Output signals	Video and synchronizing signals.
Frequency response	20 cps to 100 kc (minimum)
Film speeds	4.45 ipm, 20 ipm, 37.5 ipm, 62.5 ipm, and 100 ipm.
Film capacity	250 feet.

1-6. Items Comprising an Operable Equipment

FSN	QTY	Nomenclature, part No., mfr code	Fig No.	Dimensions (in.)			Weight (lb)
				Height	Depth	Width	
5850-945-9999		Generator, Video Signal AN/AAM-26 consisting of:	1-2				
5995-961-6778	1	Cable Assembly, Radio Frequency CG-409E/U (14 ft 2 in.) (1 W3)	1-2				1/2
5995-926-6322	1	Cable Assembly, Special Purpose, Electrical CX-1152:V/U (14 ft) (W1)	1-2				1-1/4
5995-9998248	1	Cable Assembly, Special Purpose, Electrical Branched CX-11524/ AAM-26 (13 ft) (1 W2)	1-2				1
5850-945-2659	1	Generator, Video Signal SG-686/AAM-26	1-2	11-1/4	7-3/4	22-1/2	31-1/2
5850-948-2794	1	Magazine, Test Film Strip MA-20/ AAM-26	1-2	11-3/8	9	23	34-1/2
5850-949-2134	1	Video Signal Generator Group OA-8034/AAM-26	1-2	12-3/8	17-1/8	24	81
5850-9301892	1	Mounting MT-3583/USA-23 **NOTE The part number is followed by the applicable 5-digit Federal supply code for Manufacturers FSCM) identified in SB 708-42 and used to identify manufacturer, distributor, Government agency, etc. or**	1-2	3-1/4	17-1/8	24	9-1/2

1-6.1. Running Spares

The following is a list of the running spares supplied with the Video Generator.

Quantity	*Description*
5	Fuse, cartridge; 250 v, 1 amp.
5	Fuse, cartridge; 250 v, 1 amp.
5	Fuse, cartridge; 250 v, 3/4 amps.
3	Fuse, cartridge; 32 v, 8 amps
1	Lamp, GL327
1	Lamp, CM8-718

1-6.2. Expendable Consumable Supplies and Material

The expendable consumable supplies and material are listed in table 1-1.

Table 1-1. Expendable Consumable Supplies and Material

The supplies and material listed in this table are required for operation of this equipment and are authorized to be requisitioned by SB 700-50. The FSN for the applicable unit of issue required can be found in appropriate supply catalogs. The FSCM is used as an element in item identification to designate manufacturer or distributor or Government agency, etc., and is identified in SB 7042

Item	*Description*	*Ref. No. and FSCM*	*FSC*
	Negative Test Film	81258-1 99592	6770

1-7. Common Names

Common name	*Nomenclature*
Calibration indicator	Indicator, Calibration IP-807/U.
Demodulator	Demodulator, Video-Synchronizing Signal MD-679/TAQ1A.
Infrared detecting set	Detecting Set, Infrared AN/AAS-14A.
Infrared receiver	Receiver, Infrared R-1386/AAS-14A

Common name	*Nomenclature*
Magazine	Magazine, Test Film Strip MA-20/AAM-26.
Main frame	Generator, Video Signal SG-686/AM-26.
Power cable	Cable Assembly, Special Purpose, Electrical CX-11523/U (14 ft)
Recorder body	Recorder Subassembly MX-7186/USA-23.
Recorder group	Recorder Group, Surveillance System AN/USA-238.
Shock mount	Mounting MT-3583/USA-23.
Signal cable	Cable Assembly, Special Purpose, Electrical, Branched CX-1 1524/AAM-26.
Surveillance information center	Surveillance Information Center AN/TAQ-A.
Switch panel	Panel, Switch Control SB-2649/AAS-14A.
Terrain display indicator	Indicator, Terrain Display IP-808/U.
Transit case	Case, Video Signal Generator CY-4942/AAM-26.
Video generator	Generator, Video Signal AN/AAM-26.
Video generator group	Video Signal Generator Group OA-8034/AAM-26.
Video signal cable	Cable Assembly, Radio Frequency CG-409E/U (14 ft 2 in.)

1-8. Description of Generator, Video Signal AN/AAM-26

The *video generator* (fig. 1-2) consists of the video generator group, power cable, signal cable, video signal cable, transit case, and a test film. The video generator group consists of the main frame and synchronizing magazine, and the shock mount. The video generator produces video signals that are supplied to the infrared receiver or the demodulator. Power for operation of the video generator group is obtained from Power Supply PP-4478/AAS-14A or Power Supply PP-4516/TAQ-1A. The individual components of the video generator are described below.

a. Generator, Video Signal SG-686/AAM-26 (fig. 1-3). The *main frame* consists of the following subassemblies: servoamplifier, scanner, video amplifier, and photomultiplier. All equipment operating controls and indicators are located on top of the main frame. Input power is applied through connector J1 (fig. 3-1). Video and synchronizing output signals are fed through connector J2 to the infrared receiver. Video is applied through connector J3 to the demodulator. Power and control circuits to the magazine are provided through connector J6.

b. Magazine, Test Filmstrip MA-201/AAM-26 (fig. 1-4). The *magazine* contains the film-transport and illuminator assemblies (fig. 3-3) and the film footage counter (fig. 3-4). The magazine is secured to the main frame and the shock mount by four turnlock fasteners. Power and control circuits are completed through connector J1.

c. Mounting MT-3583/USA-25 (fig. 1-5). The *shock mount* provides a common base for the main frame and the magazine, and contains the mounting platform and the shock isolators. The shock isolators minimize shock and vibration.

d. Cable Assembly, Special Purpose, Electrical CX-1152S/U (14 Ft Lg) (fig. 1-2). The *power cable* is connected between Power Supply PP-4478/AAS-14A or PP-4516/TAQ-1A and the main frame to supply the required power and synchronizing (sync) voltages to the video generator.

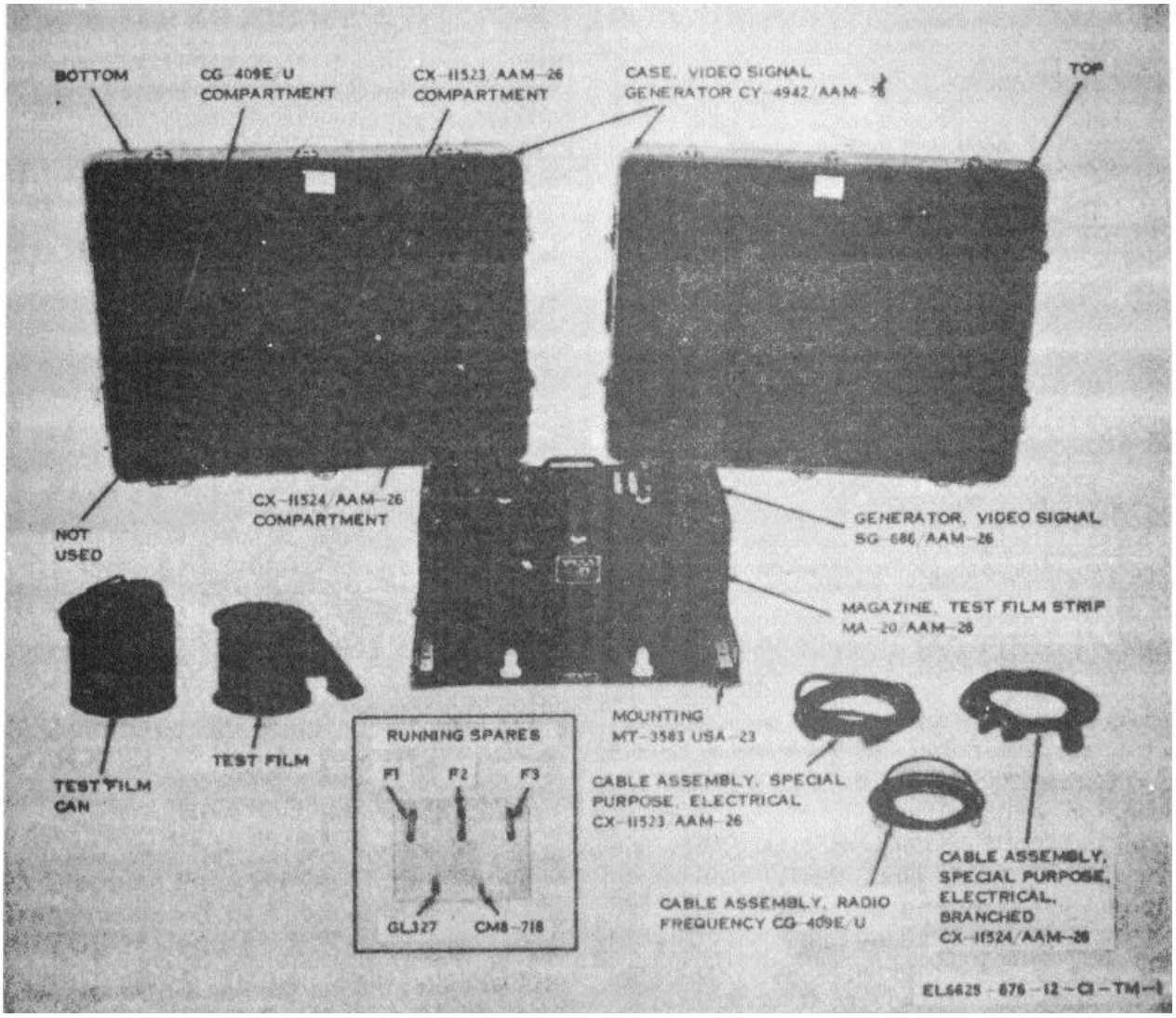


Figure 1-2. Generator, Video Signal AN/AAM-26, components (including running spares and test film).

e. Cable Assembly, Special Purpose, Electrical, Branched CX-11524/AAM-26 (fig. 1-2). The *signal cable* interconnects the infrared receiver and the main frame to provide the video signal input and synchronizing pulses to the infrared receiver.

f. Cable Assembly, Radio Frequency CG-409E/U (14 Ft 2 In. Lg) (fig. 1-2). The *video signal* cable is used to connect the video signal from the main frame to the demodulator.

g. Case, Video Signal Generator CY-4942/AAM-26 (fig. 1-2). The *transit case* consists of a top and a bottom shell which fit together to form a complete container. The two shells are held together with draw latches when the transit case is closed. The joint between the shells is made airtight and watertight by a rubber gasket. The bottom shell contains a screw-type relief valve (not shown) that can be opened to equalize the pressure between the inside of the transit case and the atmosphere. The transit case contains a resilient foam insert to hold the components in place and to cushion them against shock.

h. Test Film (fig. 1-2). The test film contains video information and resolution charts that are converted to video signals in the main frame. Data on the test film consists of a leader, seven identical 5-foot segments of video, seven 0.5-foot resolution charts, and 200 feet of continuous video. The test film is stored in the magazine.

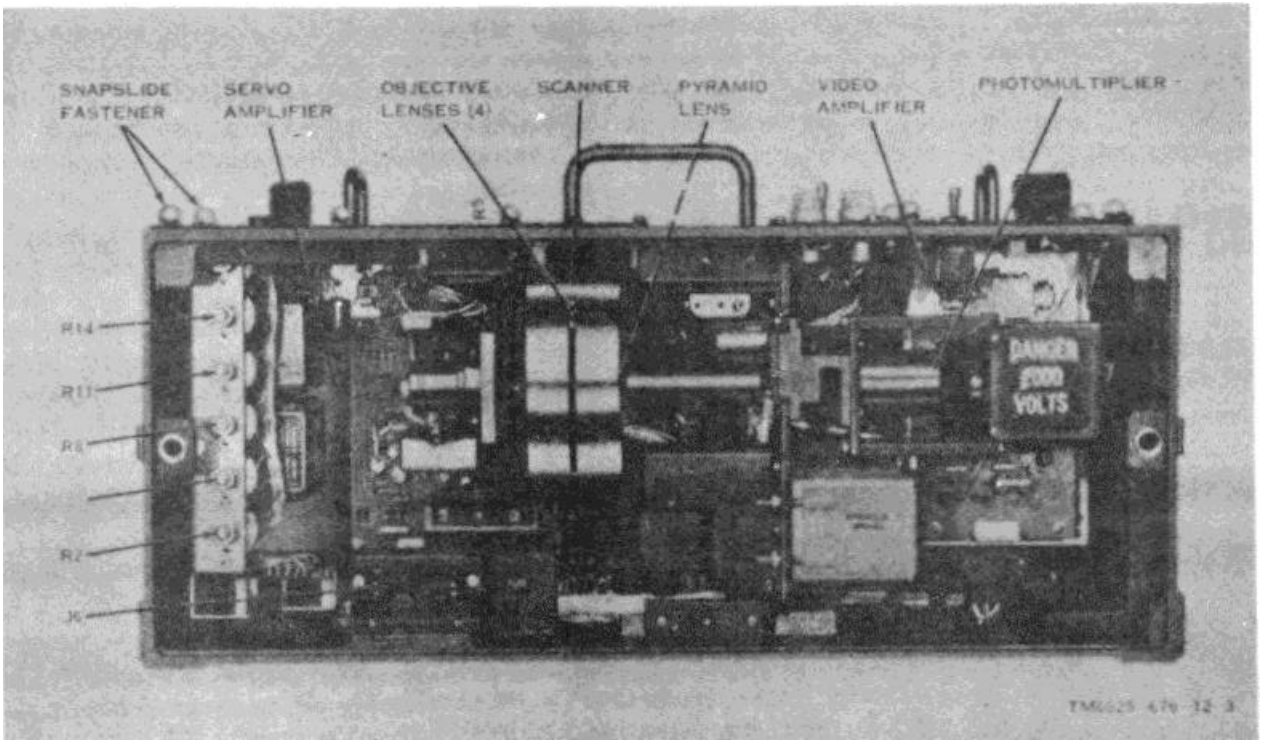


Figure 1-3. Generator, Video Signal SG-686/AAM-26, subassemblies.

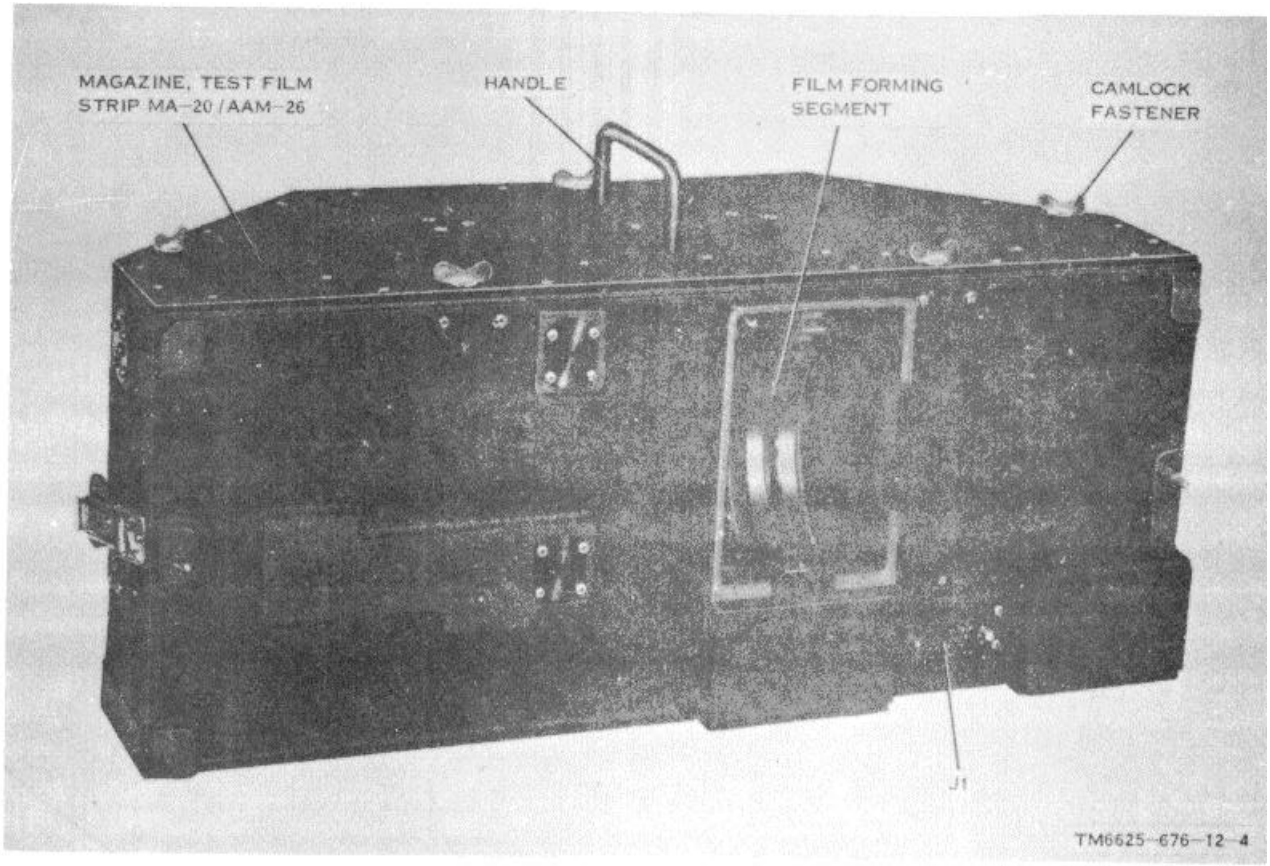


Figure 1-4. Magazine, Test Filmstrip MA-20/AAM-26.

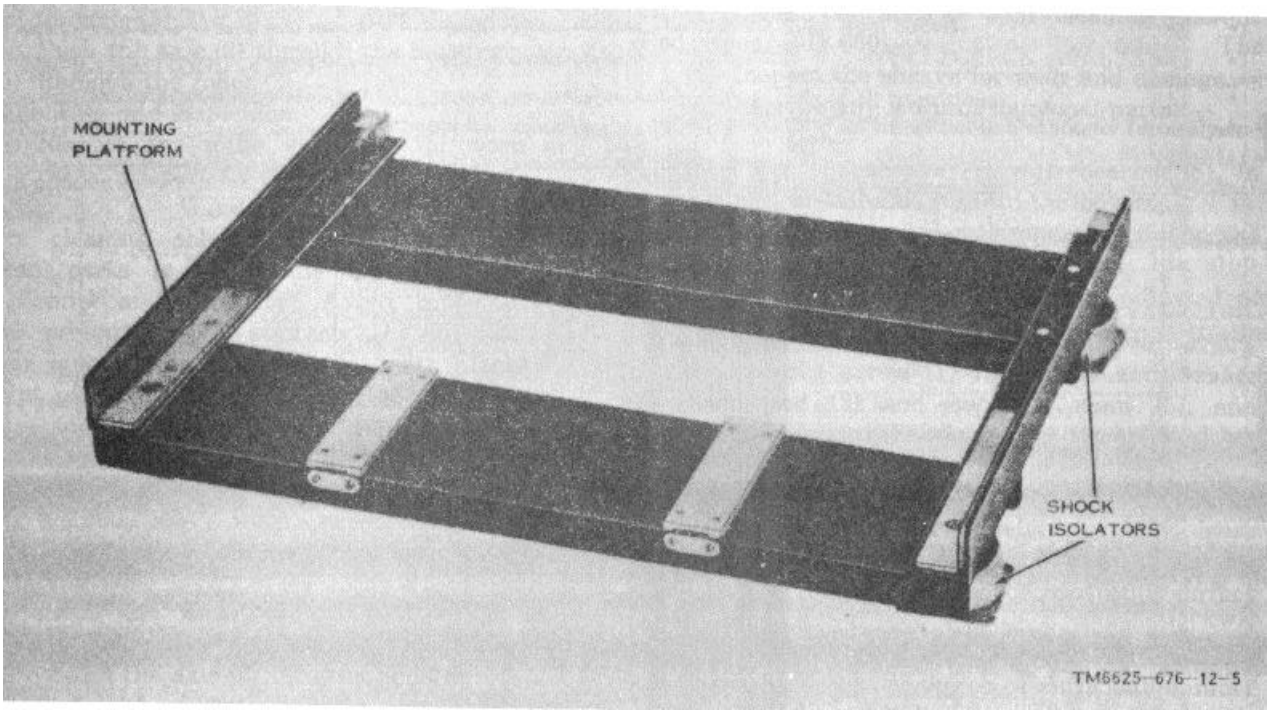


Figure 1-5. Mounting MT-3583/USA-23.

CHAPTER 2
INSTALLATION

2-1. Unpacking

a. Packaging Data. When packed for shipment, the components of the video generator are placed in the transit case and packed in a wooden box. Figure 2-1 shows the equipment packed for shipment. The outside dimensions of the wooden box are 53 by 35V by 26 inches, the volume is 28.5 cubic feet, and the weight is 156 pounds.

b. Removing Contents.

(1) Cut and fold back the metal strips (if applicable)

CAUTION

Do not attempt to pry off the top and side; prying may damage the equipment.

(2) Remove the nails from the top and one side of the wooden box with a nailpuller. Remove the top and one side.

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

(4) Remove the transit case from the wooden box.

2-2. Checking Unpacked Equipment

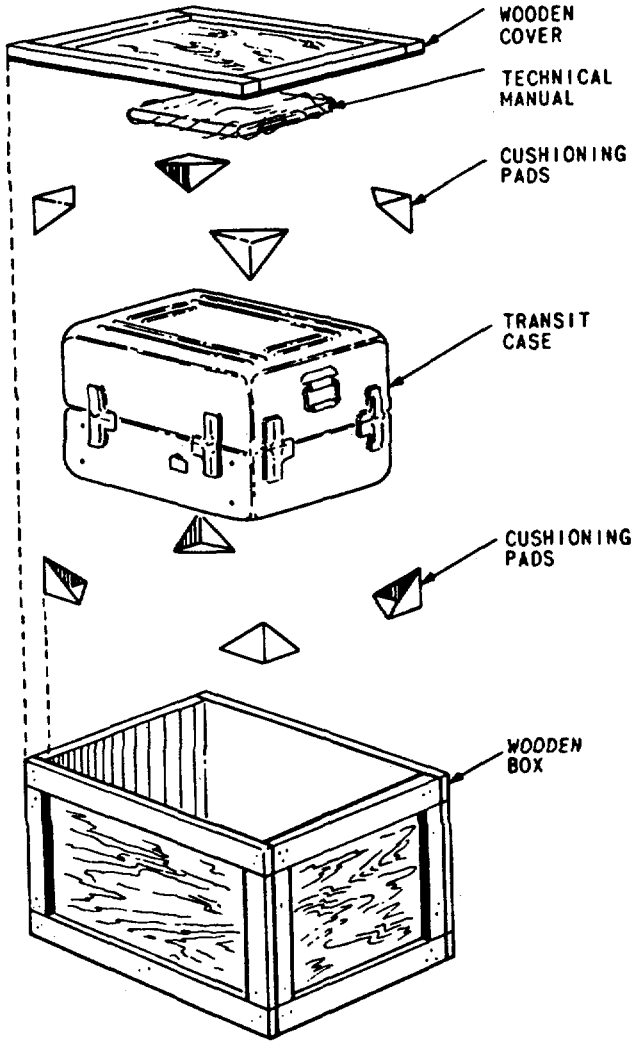
NOTE

Before opening the transit case, turn the pressure release valve fully counter-clockwise to equalize the case pressure with atmospheric pressure.

a. Inspect the equipment for damage incurred during shipment. If the equipment has been damaged, report the damage on DD Form 6.

b. See that the equipment is complete as listed on the packing slip. Report all discrepancies in accordance with TM 38-750. Shortage of a minor assembly or part that does not affect proper functioning of the equipment should not prevent use of the equipment.

c. If the equipment has been used or reconditioned, see whether it has been changed by a modification work order (MWO). If the equipment has been modified, the MWO number will appear on the front panel near the nomenclature plate. Check to see whether the MWO number (if any) and appropriate notations concerning the modifications have been entered in the equipment manual.



TM 6625-676-12-6

Figure 2-1. Typical shipping box.

NOTE

Current MWO's applicable to the equipment are listed in DA Pam 310-7.

2-3. Placement of Video Generator

a. The video generator should be placed in a room of adequate dimensions and with bench pace sufficient for a complete infrared detecting et to be mounted adjacent to the video generator. If the video generator is to be used for testing the surveillance information center, it may be carried to the location of the surveillance information center.

b. Temperature and humidity should be kept so that no moisture forms on the optical equipment. The room should be isolated from undue vibration and radiofrequency interference.

2-4. Installation of Video Generator

The main frame and magazine of the video generator group are attached to the shock mount and packed in a transit case.

a. Open the transit case (fig. 1-2) as follows:

(1) Place the transit case on a good work surface with the top shell up.

NOTE

Open the relief valve in the bottom shell of the transit case before releasing the draw latches. Use a screwdriver to turn the slotted screw fully counterclockwise.

(2) Release and completely disengage the draw latches.

(3) Lift off the top shell of the transit case to expose the equipment.

b. Remove the video generator group and cables from the bottom shell and place them on the work surface.

c. Check the fuses to be sure that the proper fuses are inserted in the fuse holders on top of the main frame (fig. 3-1), and observe that the fuses are not broken. The following chart lists the values and location of the fuses:

CAUTION

Use only fuses of the correct value when replacing fuses. The use of fuses of improper values can cause damage to the equipment from overloading.

Reference designation	Rating		Location (fig. 3-1)	
	Amps	Volts	Component	Circuit
F1.....	8	32	Main frame...	+28 vdc.
F2.....	1	250	Main frame...	115 vac, 400 cps
F3.....	0.75	250	Main frame...	+22 vdc.

2-5. Electrical Connections

a. When the video generator is used to test the infrared detecting set, connect the video generator group to Power Supply PP-4478/AAS-14A and Receiver, Infrared R-1386/AAS-14A as shown in figure 2-2. Connect the branched end of the signal cable as indicated in the following chart:

Label on branched end — *Connector on infrared receiver*

W2P2 ..... 2A1J6
W2P3 ..... 2A1J7
W2P4 ..... 2A1J3

b. When the video generator is used to test the surveillance information center, connect the AN/AAM-26 to Power Supply PP-4516/TAQ-1A and Demodulator, Video-Synchronizing Signal MD-679/TAQ-1A as shown in figure 2-3. Connect the video signal cable to EXT VIDEO connector A10J1 on the demodulator.

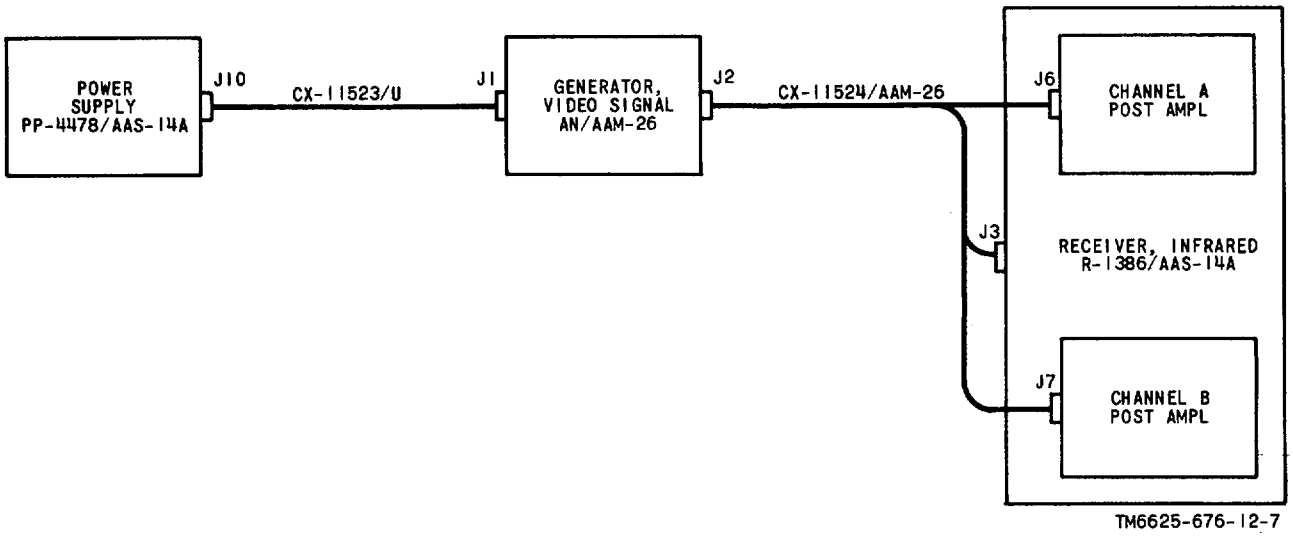


Figure 2-2. *uterconnecting diagram for infrared detecting set tests.*

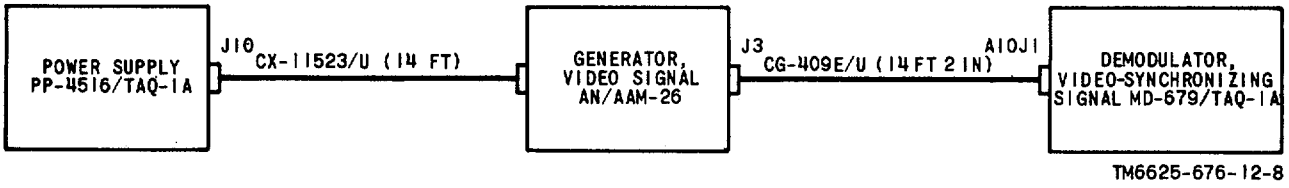


Figure 2-3. Interconnection diagram for surveillance information center tests.

CHAPTER 3

OPERATING INSTRUCTIONS

Section I. CONTROLS AND INDICATORS

3-1. General

This section contains information on the controls and indicators used by the operator of the video generator. All operator's controls and indicators for components of the video generator are listed in paragraph 3-2.

3-2. Video Generator Controls and Indicators

Control or indicator	Function
FILM SPEED switch (fig. 3-1).	Selects film speed as follows: *Position* — *Film speed (ipm)* OFF — 0 1 — 4.45 2 — 20.0 3 — 37.5 4 — 62.5 5 — 100.0
Time totalizing meter M1.	Indicates total time that power has been applied to video generator.
PWR switch	Applies or removes power to video generator.
PWR ON indicator	When lighted, indicates that power is applied.
FILM OUT indicator	When lighted, indicates that film supply is empty, film is too slack, or film is broken.
VIDEO INDICATOR	Indicates presence of video output, when indicator lamp varies in intensity.
ILLUMINATOR switch.	Applies or removes voltage to illuminator assembly.
VIDEO GAIN control	Adjusts amplitude of output video signals.
Film footage counter	Indicates amount of film used. (fig. 3-4).

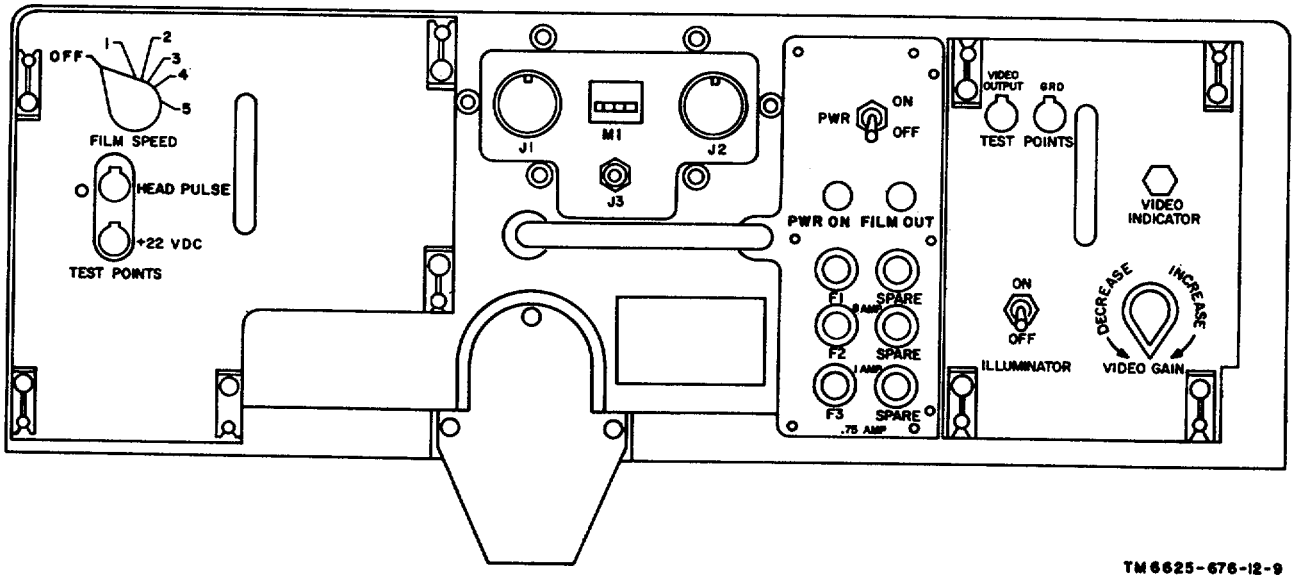


Figure 3-1. Generator, Video Signal SG-686/AAM-26, controls and indicators.

Section II. PRELIMINARY OPERATING PROCEDURES

3-3. General Operating Instructions

The film recording of a prerecorded test film is used to check the infrared detecting set (minus the optical scanning system and the preamplifiers of the infrared detector), or the surveillance information center. This test film is a signal source that contains 250 feet of test patterns and video information. The operating procedures for recording the test film by the infrared detecting set recorder body in conjunction with the video generator is contained in paragraphs 3-4 through 3-9; the operating procedures for recording the test film by the surveillance information center recorder body in conjunction with the video generator is contained in paragraphs 3-4 and 3-12 through 3-15. When recording with the infrared detecting set, perform the connection procedures of paragraph 2-5*a*; when recording with the surveillance information center, perform the connection procedures of paragraph 2-5*b*. Included as part of the operating procedures are troubleshooting charts for the infrared detecting set (para 3-11), and the surveillance information center (para 3-16) based on evaluation of the recorded film.

3-4. Film Loading Procedure

Figure 3-2 is an internal view of the magazine ready for loading. The white arrows on the inside of the magazine indicate the direction of film travel through the magazine. Figure 3-3 illustrates a magazine loaded with film. Load the magazine as follows:

a. Remove the magazine from the main frame and the shook mount by disengaging the turnlock fasteners (fig. 3-4), and set the magazine on a good working surface with the film-forming segment (fig. 1-4) to the back.

b. Turn the camlock fasteners (fig. 3-4) to the left and remove the top cover from the magazine.

c. Latch both torque motor control roller arms (fig. 3-2) in the open position; these roller arms will latch onto their respective locking shafts.

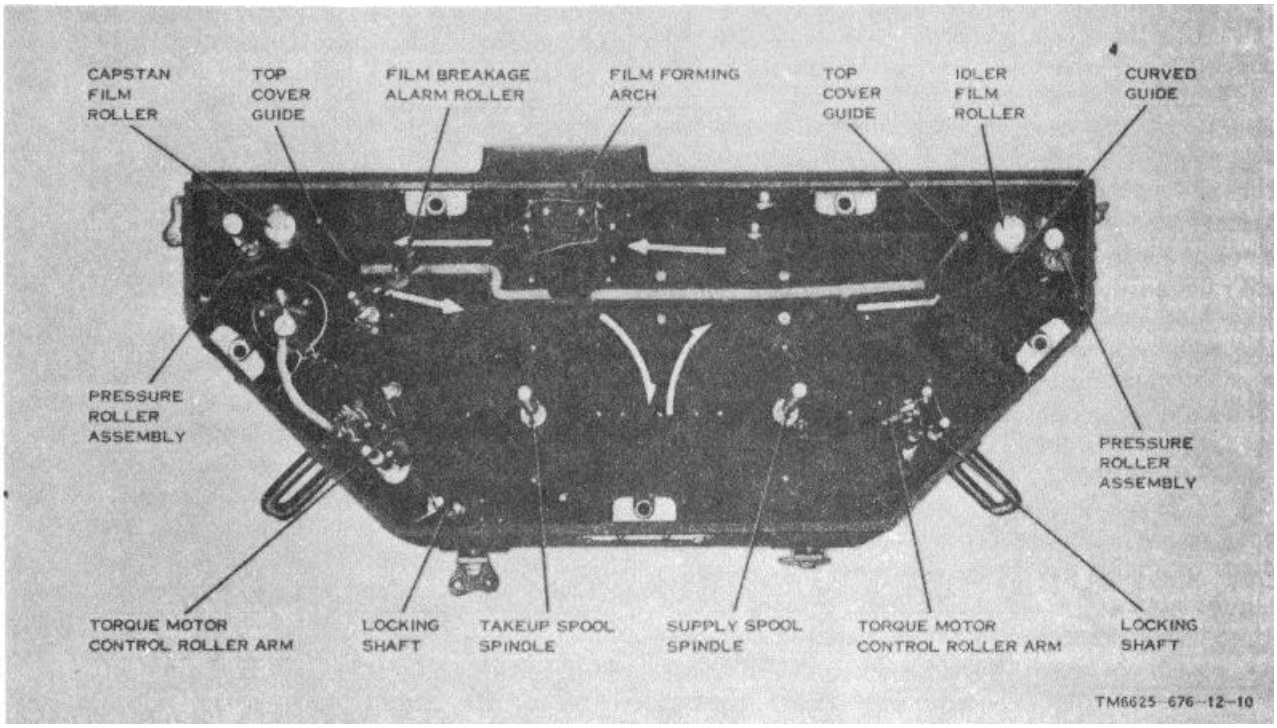


Figure 3-2. Magazine, ready for loading.

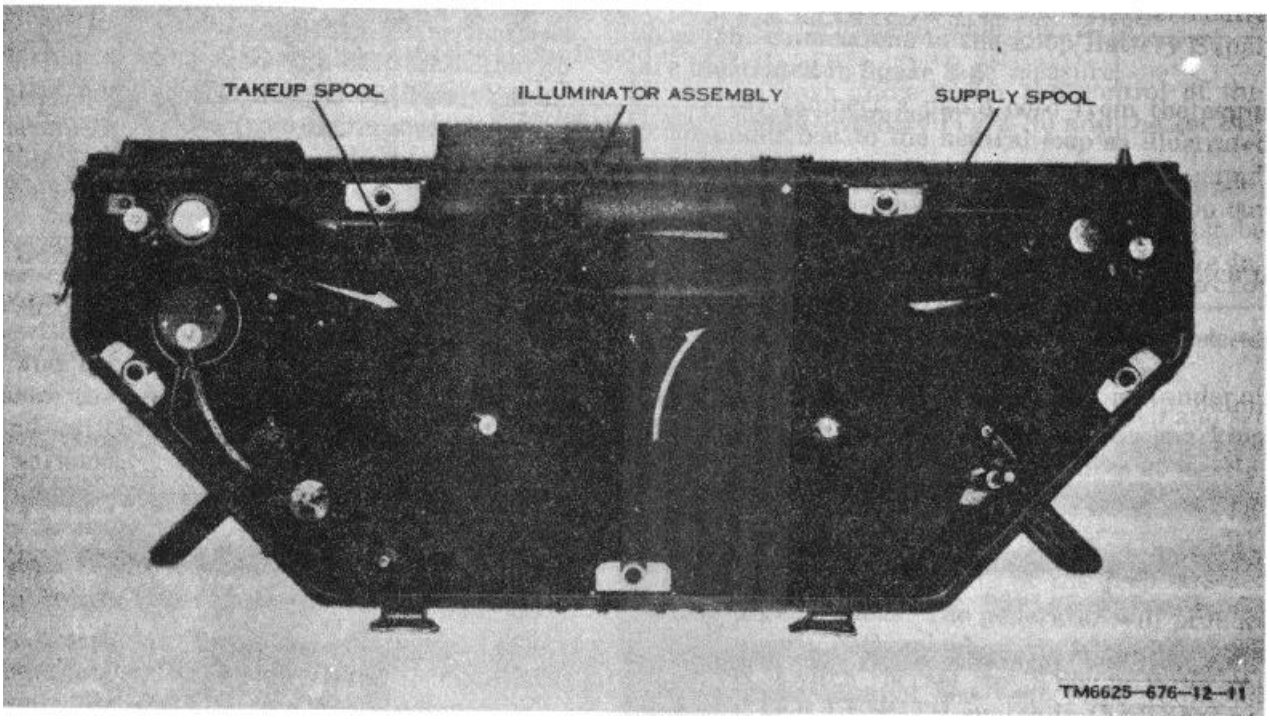


Figure 3-3. Magazine, loaded with test film.

Note. **The locking shafts will move up when the arm is in the open position. When the magazine cover is replaced, the locking shafts are pushed down and the torque motor control roller arms are released to rest on the test film on the takeup spool and supply spool (fig. 3-3).**

d. Swing both pressure roller assemblies (fig. 3-2) away from the idler and capstan film rollers. Pull up while swinging the pressure roller assemblies to lock the rollers in the open position.

e. Place the loaded supply spool (fig. 3-3) on the supply spool spindle (fig. 3-2) and advance the test film from the supply spool along the curved guide to the idler film roller. Make sure the test film winds in the direction of the arrows in the magazine.

f. Slide the test film around the idler film roller.

g. Move the test film across the magazine through the film-forming arch toward the capstan film roller.

Caution: **Securely hold the spindle on the capstan film roller to insure that it does not turn while performing the procedures in *h*, *i*, and *j* below.**

h. Slide the test film around the capstan film roller and insert it into the section where the film breakage alarm roller is located.

i. Move the film breakage alarm roller away from the film path and advance the test film to the takeup spool.

j. Install the takeup spool on the takeup spool spindle; insert the end of the test film in the slot in the takeup spool, and rotate the spool several times clockwise to make sure the film is securely attached.

k. Position the top cover of the magazine over both top cover guides (fig. 3-2) and lower the cover into place. The pressure roller assemblies will be released when the top cover is attached to the magazine. Also, the locking shafts will be pressed down to release the torque motor control roller arms when the top cover is in position.

l. Turn the camlock fasteners (fig. 3-4) to the right to secure the top cover to the magazine.

m. Reset the film footage counter on the magazine to 0000 by means of the thumb wheel.

n. Install the magazine on the shock mount and engage the turnlock fasteners to secure the magazine to the main frame and the shock mount.

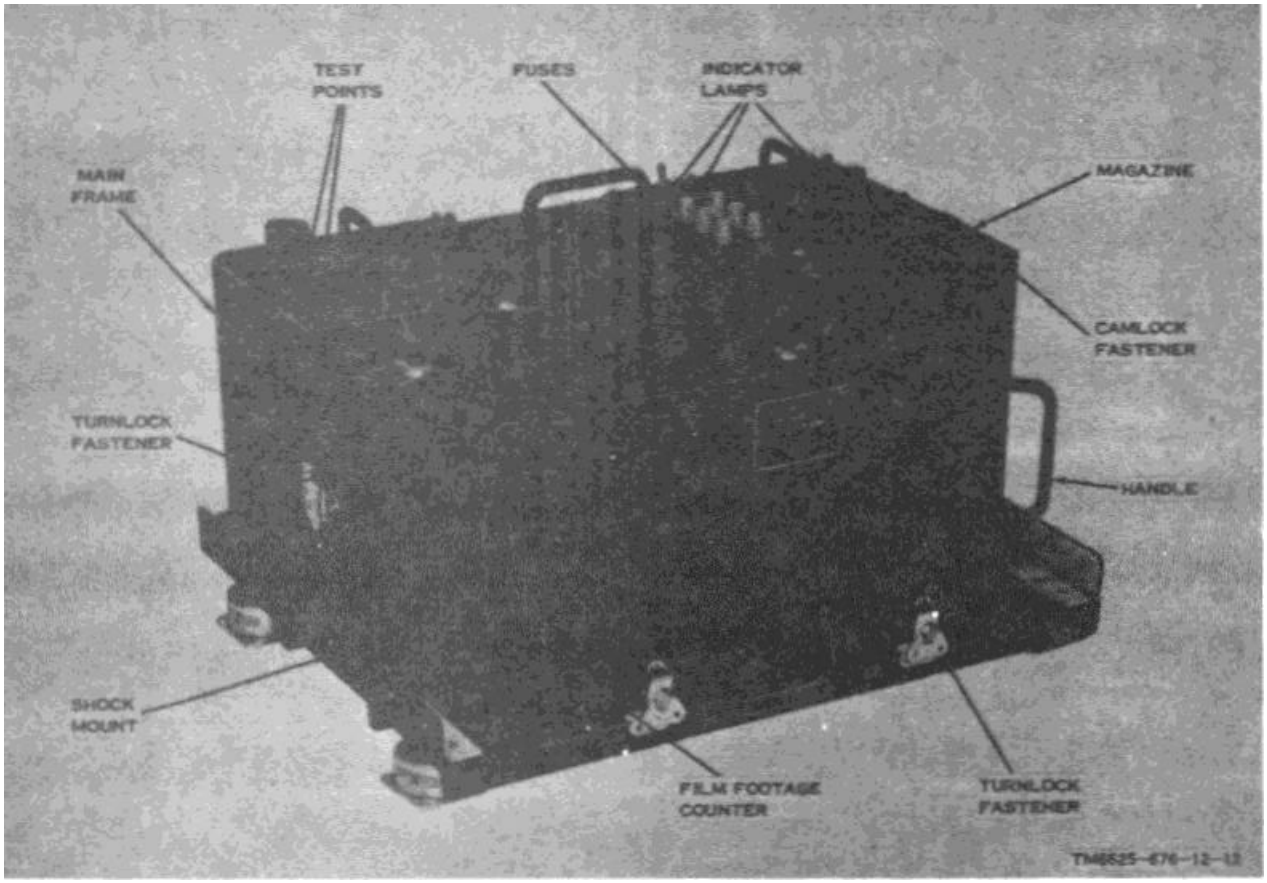


Figure 3-4. Main frame and magazine installed on shock mount.

Section III. OPERATION WITH INFRARED DETECTING SET

3-5. Preliminary Control Settings (AN/AAS-14A)

a. Infrared Detecting Set. Set the controls on the components of the infrared detecting set (TM 11-5850-218-12) as follows:

Control or switch	Position
Switch panel:	
MASTER POWER switch	OFF.
GYRO switch	CAGED.
XMTR switch	OFF.
TEST switch	Midposition.
REFRIGERATORS CHANNEL A switch.	OFF.
REFRIGERATORS CHANNEL B switch.	OFF.
PANEL ILLUMINATION control.	Midrange.
Control panel:	
FORMAT switch	A&B.
FILM DR PWR switch	OFF.
GRD V KNOTS X 10 control	One-half max. No.
ALTITUDE FT X 100 control	Twice min. No.
Terrain display indicators:	
LEVEL control	8.
CONTRAST control	8.
Calibration indicator:	
A and B P.A. GAIN switches	2.
A and B LEVEL controls	8.
A and B CONTRAST controls	8.

b. Video Generator. Set the controls on the main frame of the video generator (fig. 3-1) as follows:

Control or switch	Position
PWR switch	OFF.
ILLUMINATOR switch	OFF.
FILM SPEED switch	OFF.
VIDEO GAIN control	Midpoint.

3-6. Starting Procedure (AN/AAS-14A)

a. Prepare the infrared detecting set for recording on film (TM 11-5850-218-12).

b. Set the controls on the infrared detecting set and the video generator group to the preliminary control settings (para 3-5).

c. Set the MASTER POWER switch on the switch panel to ON; the MASTER POWER and GYRO CAGED indicator lamps should light.

d. Set the PWR switch (fig. 3-1) on the main frame to ON; the PWR ON lamp should light.

e. Check to see that a stable framing pulse appears on the calibration indicator (C, fig. 3-5), and that it is positioned on the leading edge of the channel A gate pedestal. Allow a 2-minute warm-up period before proceeding.

f. Set the ILLUMINATOR switch (fig. 3-1) to ON.

g. Set the FILM SPEED switch to 3 to advance the film while observing the calibration indicator; when video appears on the calibration indicator screen, set the FILM SPEED switch to OFF.

3-7. Operating Procedure (AN/AAS-14A)

a. Observe and record the indications of the film footage counter (fig. 3-4) on the magazine of the video generator group and SLATE NO. counter on the control panel of the infrared detecting set.

b. Set the FILM SPEED switch (fig. 3-1) on the main frame to 3; observe that the film footage counter (fig. 3-4) is advancing and that the FILM OUT indicator (fig. 3-1) is not lighted. Observe that the VIDEO INDICATOR varies in intensity, indicating the presence of the. Video output.

c. Adjust the VIDEO GAIN control on the main frame for maximum video presentation (without clipping of the video peaks) on the calibration indicator and set the contrast and level controls of the calibration indicator to 4.

d. Set the FILM DR PWR switch on the control panel to ON and reset the film footage counters on the magazines (both the infrared detecting set and the video generator group (fig. 3-4)) to 0000.

e. Observe the terrain display indicator; after 5 feet of continuous video, a resolution chart (fig. 3-6) appears on the terrain display indicator screen.

f. When the resolution chart disappears from the terrain display indicator screen, set the FILM DR PWR switch on the control panel to

OFF and then set the FILM SPEED switch (fig. 3-1) on the main frame to OFF.

g. Set the FORMAT switch on the control panel to A and allow 30 seconds for the recorder wheel in the recorder body to synchronize; the framing pulses on the calibration indicator should appear as shown in A, figure 3-5.

h. Repeat the procedures in *b* through *f* above.

i. Set the FORMAT switch on the control panel to B and allow 30 seconds for the recorder wheel to synchronize; the framing pulses on the calibration indicator should appear as shown in B, figure 3-5.

j. Repeat the procedures in *b* through *f* above.

k. Set the ALTITUDE FT X 100 control on the control panel to the maximum number; set the GRD KNOTS X 10 control on the control panel to 1.6 times the minimum switch number; set the FORMAT switch to the A&B position and allow 30 seconds for the recorder wheel to synchronize. The framing pulses on the calibration indicator should appear as shown in C, figure 3-5.

l. Set the FILM SPEED switch (fig. 3-1) on the main frame to 1; set the FILM DR PWR switch on the control panel to ON.

m. Observe the terrain display indicator; after 5 feet of continuous video, another resolution chart appears. When this chart disappears from the terrain display indicator screen, set the FILM DR PWR switch on the control panel to OFF and the FILM SPEED switch on the main frame to OFF.

n. Set the FORMAT switch on the control panel to A and allow 30 seconds for the recorder wheel to synchronize.

o. Set the FILM SPEED switch on the main frame to 1 and the FILM DR PWR switch on the control panel to ON.

p. Observe the terrain display indicator; after 5 feet of continuous video another resolution chart appears. When this chart disappears, set the FILM DR PWR switch on the control panel to OFF and then set the FILM SPEED switch on the main frame to OFF.

q. Set the FORMAT switch on the control panel to B and allow 30 seconds for the recorder wheel to synchronize.

r. Set the FILM SPEED switch on the main frame to 1; set the FILM DR PWR switch on the switch panel to ON.

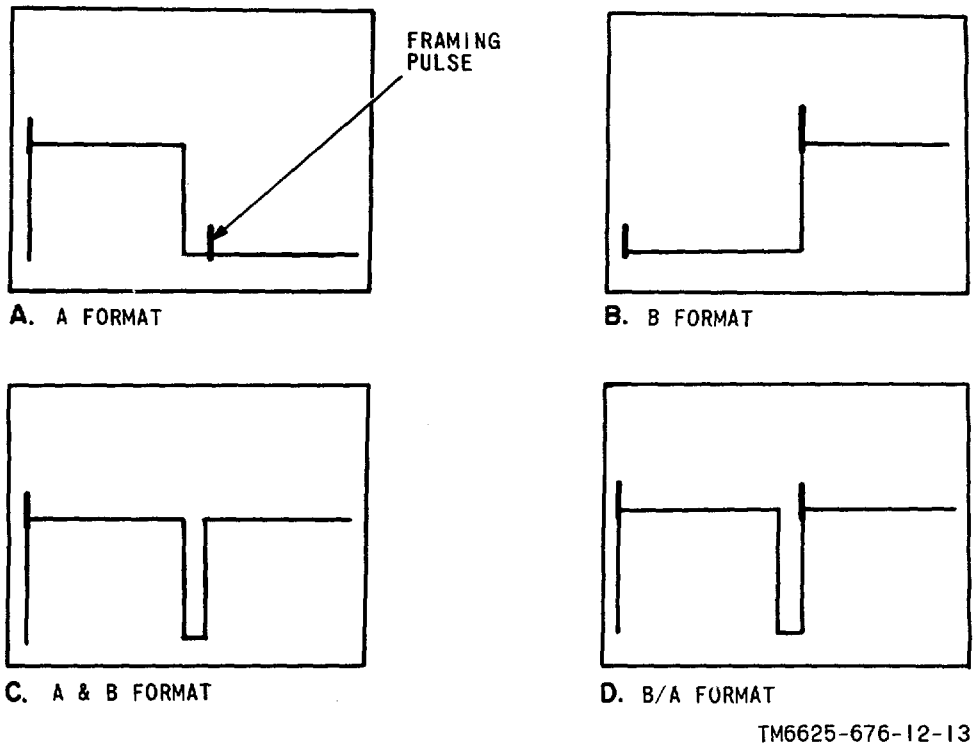


Figure 3-5. Framing pulses and calibration bar as displayed on calibration indicator.

s. Observe the terrain display indicator; after 5 feet of continuous video another resolution chart appears. When this chart disappears, set the FILM DR PWR switch on the control panel to OFF and then set the FILM SPEED switch on the main frame to OFF.

t. Set the ALTITUDE FT X 100 control on the control panel to the minimum calibrated setting; set the GRD KNOTS X 10 switch on the control panel to two-thirds the maximum switch number; set the FORMAT switch to A and allow 30 seconds for the recorder wheel to synchronize.

u. Set the FILM SPEED switch on the main frame to 5 and set the FILM DR PWR switch on the control panel to ON.

v. Observe the terrain display indicator; after 5 feet of continuous video, another resolution chart appears. When this chart disappears, set the FILM DR PWR switch on the control panel to OFF and then set the FILM SPEED switch on the main frame to OFF.

Note. The B/A format is not used when recording a film on the infrared detecting set. To use the B/A format for training purposes or for troubleshooting, the framing pulses on the calibration indicator should appear as shown in D, figure 3-5.

w. At this point, approximately 200 feet of continuous video is available for use with the infrared detecting set. This video may be used as a signal source for training purposes or for troubleshooting the infrared detecting set.

3-8. Stopping Procedure (AN/AAS-14A)

a. Set the ILLUMINATOR switch (fig. 3-1) on the main frame to OFF.

b. Set the PWR switch on the main frame to OFF.

c. Set the MASTER POWER switch on the switch panel of the infrared detecting set to OFF.

d. Rewind the test film (para 3-9).

e. Disconnect the cables.

f. If the equipment is not going to be used for an extended period of time, place the video generator group and cables in the bottom shell. Place the top shell on the bottom shell, fasten the draw latches, and tighten the relief valve.

3-9. Rewinding Test Film

If all the test film was used, rewind the film by following the procedure given in *a* below; if only the portion containing the resolution charts and test data (approximately 50 feet) was used, follow the procedure given in b below.

a. Rewinding All of Test Film.

(1) Perform the procedures given in paragraph 3-4 *a* through *d*.

(2) Remove the takeup and supply spools (fig. 3-3) from the magazine.

(3) Place the empty spool on the takeup spool spindle and the full spool on the supply spool spindle (fig. 3-2).

(4) Thread the test film through the magazine and advance the test film from the full spool along the curved guide to the idler film roller. Repeat the procedures given in paragraph 3-4 *f* through *l* and *n*.

(5) Set the MASTER POWER switch on the switch panel to ON.

(6) Set the PWR switch on the main frame (fig. 3-1) to ON; the PWR ON indicator should light.

(7) Set the FILM SPEED switch on the main frame to 5 and, after approximately 30 minutes, observe the FILM OUT indicator lamp. When the lamp lights, set the FILM SPEED switch to OFF.

(8) Set the PWR switch on the main frame to OFF.

(9) Set the MASTER POWER switch on the switch panel to OFF.

(10) Perform the procedures given in (1) through (3) above to place the test film on the supply spool spindle for storage.

(11) Perform the procedures given in paragraph 3-4 *k*, *l*, and *n*.

b. Rewinding Portion of Test Film.

(1) Perform the procedures given in paragraph 3-4 *a* through *d*.

***Caution*: Hold the spindle on the capstan film roller securely to insure that it does not turn while performing the following procedures.**

(2) Manually rotate the supply spool (fig. 3-3) counterclockwise until all the film is back on the spool.

(3) Perform the procedures given in paragraph 3-4 *k*, *l*, and *n*.

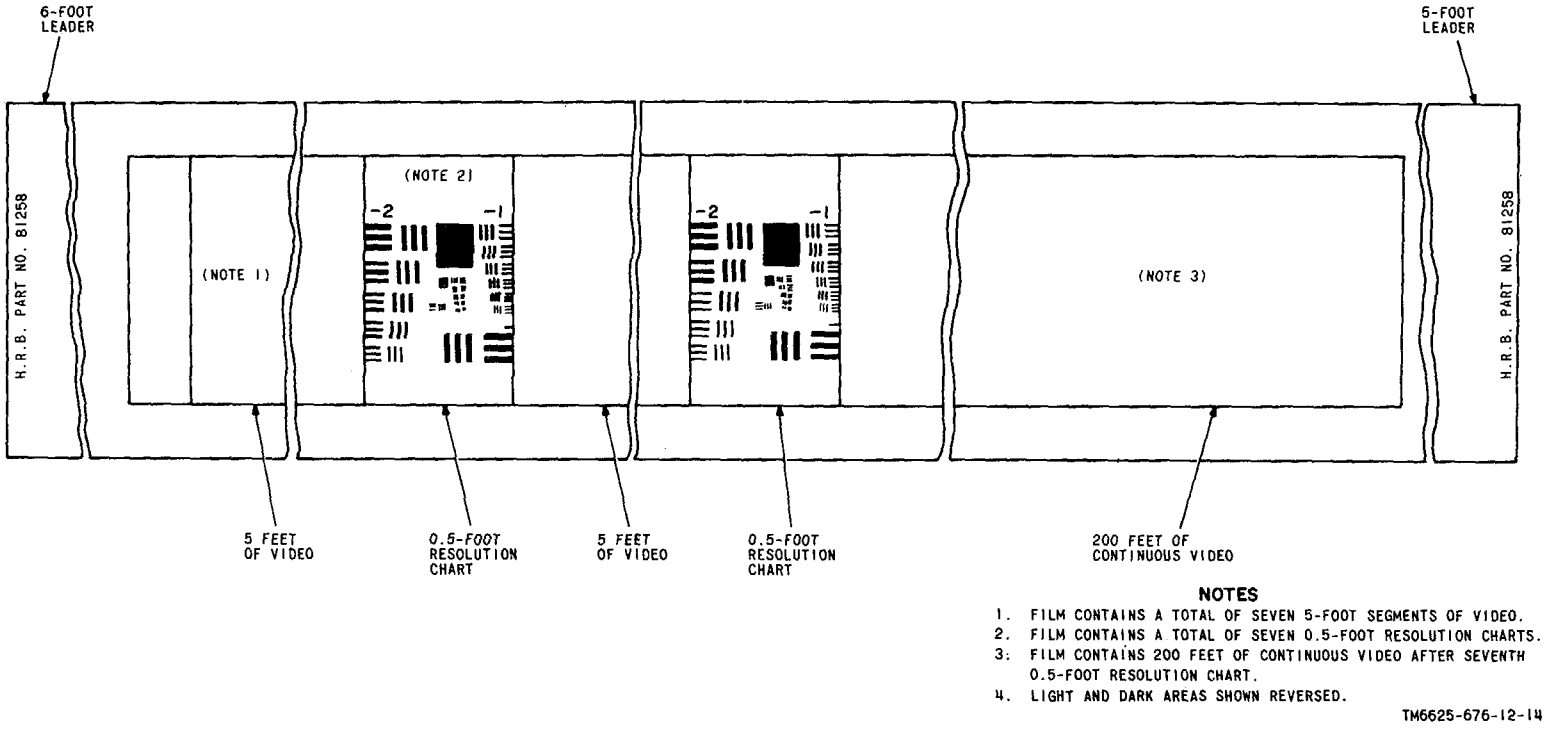


Figure 3-6. Test filmstrip.

3-10. Analyzing Test Results

a. The test film forms the basis for comparison between the operation of the infrared detecting set or the surveillance information center under test, and a normal system where the video circuits, recorder synchronization, and recording are concerned. After the recorded film has been removed from the magazine of the infrared detecting set or the surveillance information center and processed, it may be compared to the test film.

b. Certain malfunctions in the infrared detecting set or the surveillance information center will be apparent when viewing the test record film. These malfunctions may be most readily isolated to particular units of the equipment by following a procedure based on symptoms. The symptoms are given in paragraph 3-11 for the infrared detecting set and in paragraph 3-16 for the surveillance information center. To isolate trouble to a particular unit, proceed as follows:

(1) Compare the video test pattern on the recorded film against the same pattern on the test film.

(2) When the presentations obtained correspond to those listed in, the *Symptom* column, analyze the probable cause and follow the appropriate procedure in the *Corrective measures* column to clear the malfunction.

3-11. Symptom Troubleshooting Chart, Infrared Detecting Set

Note. For removal and installation instructions and troubleshooting procedure concerning individual units of the infrared detecting set, refer to the appropriate technical manual listed in appendix A.

Symptom	Probable cause	Corrective measures
1. No video on infrared detecting set film.	Defective test film or incorrect development of film.	Rerun test.
	Defective recorder body ----------	Replace defective recorder body.
	Defective interconnection cables or connectors	Check cables and connectors and repair as required.
2. No video on any one FORMAT setting. Normal video on remaining FORMAT positions. Slating information appears at all times.	Defective recorder body ----------	Replace recorder body.
3. Video and resolution record show poor contrast. Slating information contrast correct.	Improper LEVEL and/or CONTRAST control adjustment	Set CONTRAST and LEVEL controls to 6.
	Insufficient illumination level in video generator group due to burned-out lamp or lamps.	Refer to higher category of maintenance.
	Test film dirty or scratched----------	Inspect and replace if necessary.
4. Tearing of video in horizontal direction.	Recorder body lost synchronization------	Replace recorder body and rerun test. If trouble persists, refer to TM 11-5850-222-35.
	Defective synchronizing pulse from video generator group	Refer to higher category of maintenance.
5. Periodic horizontal movement of video appearing as ripple along film edge	Defective recorder body ----------	Replace recorder body and rerun test. If trouble persists, refer to TM 11-5850-222-35.
6. Resolution pattern appears degraded Video not sharp	Poor frequency response in video circuits of infrared detecting set	Refer to infrared receiver manual (TM 11-5850-224-35) and calibration indicator manual (TM 11-5850-222-35).
	Recorder body optics not properly focused	Refer to recorder group manual (TM 11-585-222-35) for corrective measures.

Symptom	Probable cause	Corrective action
7. Geometrical shapes appear squeezed or elongated. Timing marks have incorrect spacing.	Incorrect recorder magazine film speed.	Adjust recorder magazine film speed (TM 11-5850-222-35). Rerun test.
8. Geometrical shapes appear elongated or squeezed. Timing marks have correct spacing.	Video generator group film speed incorrect.	Adjust video generator group film speed (para 4-14). Rerun test.
9. Intermittent video on recorder magazine film. Sections of film blank Slating information normal	Defective recorder body ----------	Repair or replace defective recorder body (TM 11-5850-222-35) and rerun test.
	Intermittent failure in infrared detecting set video circuitry	Refer to appropriate manuals on infrared detecting set components (app. A).
10. Density falls off across width of film correctly	Recorder body optics not aligned corrective action.	Refer to TM 11-5850222-35 for
	One or more illuminator lamps in video generator group burned out.	Refer to higher category of maintenance

Section IV. OPERATION WITH SURVEILLANCE INFORMATION CENTER

3-12. Preliminary Control Settings (AN/TAQ-1A)

a. Surveillance Information Center. Set the controls on the components of the surveillance information center (TM 11-5895-386-12) as indicated in the following chart:

Control or switch	Position
Control panel:	
FILM DR	OFF.
VIDEO	TEST.
FORMAT	A&B.
GRD V KNOTS X 10	One-half max. No.
ALTITUDE FT X 100	Twice min. No.
Terrain display indicators:	
CONTRAST	8.
LEVEL	8.
Demodulator:	
TEST SIG SEL	EXTERNAL.
SAWTOOTH	OFF.

b. Video Generator. Set the controls on the main frame of the video generator (fig. 3-1) as follows:

Control or switch	Position
FILM SPEED	OFF.
ILLUMINATOR	OFF.
VIDEO GAIN	Midrange.
PWR	OFF.

3-13. Starting Procedure (AN/TAQ-1A)

a. Prepare the surveillance information center for recording of film (TM 11-5895-386-12).

b. Set the controls on the components of the surveillance information center and the video generator to the preliminary control settings (para 3-12).

c. Apply power to the components of the AN/TAQ-1A in accordance with paragraph 3-29 (Permission Checklist), TM 11-5895-386-12.

d. Set the PWR switch (fig. 3-1) on the main frame to ON; the PWR ON lamp should light.

e. A stable framing pulse should appear on the calibration indicator (C, fig. 3-5), and it should be positioned on the leading edge of the channel A gate pedestal. Allow a 2-minute warm-up period before proceeding.

f. Set the ILLUMINATOR switch (fig. 3-1) to ON.

g. Set the FILM SPEED switch to 3 to advance the film while observing the calibration indicator; when the video signal appears on the calibration indicator screen, set the FILM SPEED switch to OFF.

3-14. Operating Procedure (AN/TAQ-1A)

a. Observe and record the indications of the film footage counter (fig. 3-4) on the magazine of the video generator group and SLATE NO. counters on the control panel of the surveillance information center.

b. Set the FILM SPEED switch (fig. 3-1) on the main frame to 3; observe that the film footage counter (fig. 3-4) is advancing and that the FILM OUT indicator (fig. 3-1) is not lighted. Observe that the video indicator varies in intensity indicating the presence of the video output.

c. Adjust the VIDEO GAIN control on the main frame for optimum video presentation (clipping of extremely high peaks only) on the calibration indicator.

d. Set the FILM DR switch on the switch panel to ON.

e. Observe the terrain display indicator; after 5 feet of continuous video, a resolution chart (fig. 3-6) appears on the terrain display indicator screen.

f. When the resolution chart disappears from the terrain display indicator screen, set the FILM DR switch to OFF and set the FILM SPEED switch on the main frame to OFF.

g. Set the FORMAT switch on the control panel to A and allow 30 seconds for the recorder wheel in the recorder body to synchronize. The framing pulses on the calibration indicator should appear as shown in A, figure 3-5.

h. Repeat the procedure given in *b* through *f* above.

i. Set the FORMAT switch on the control panel to B and allow 30 seconds for the recorder wheel to synchronize; the framing pulses on the

calibration indicator should appear as shown in B, figure 3-5.

j. Repeat the procedures in b through f above.

k. Set the ALTITUDE FT X 100 switch on the control panel to the maximum number; set the GRD KNOTS X 10 control on the control panel to 1.6 times the minimum number; set the FORMAT switch to A&B and allow 30 seconds for the recorder wheel to synchronize. The framing pulses on the calibration indicator should appear as shown in C, figure 3-5.

l. Set the FILM SPEED switch (fig. 3-1) on the main frame to 1; set the FILM DR switch on the control panel to ON.

m. Observe the terrain display indicator; after 5 feet of continuous video, another resolution chart appears. When this chart disappears from the terrain display indicator screen, set the FILM DR switch on the control panel to OFF and the FILM SPEED switch on the main frame to OFF.

n. Set the FORMAT switch on the control panel to A and allow 30 seconds for the recorder wheel to synchronize.

o. Set the FILM SPEED switch on the main frame to 1; set the FILM DR switch on the control panel to ON.

p. Observe the terrain display indicator; after 5 feet of continuous video, another resolution chart appears. When this chart disappears, set the FILM DR switch on the control panel to OFF and then set the FILM SPEED switch on the main frame to OFF.

q. Set the FORMAT switch on the control panel to B and allow 30 seconds for the recorder wheel to synchronize.

r. Set the FILM SPEED switch on the main frame to 1; set the FILM DR switch on the switch panel to ON.

s. Observe the terrain display indicator; after 5 feet of continuous video, another resolution chart appears. When this chart disappears, set the FILM DR switch on the control panel to OFF and then set the FILM SPEED switch on the main frame to OFF.

t. Set the ALTITUDE FT X 100 control on the control panel to the minimum calibrated setting; set the GRD KNOTS X 10 switch on the control panel to two-thirds the maximum switch number; set the FORMAT switch to A and allow 30 seconds for the recorder wheel to synchronize.

u. Set the FILM SPEED switch on the main frame to 5 and set the FILM DR switch on the control panel to ON.

v. Observe the terrain display indicator; after 5 feet of continuous video, another resolution chart appears. When this chart disappears, set the FILM DR switch to OFF and then set the FILM SPEED switch on the main frame to OFF.

***Note*. The B/A format is not used when recording a film on the surveillance information center. To use the B/A format for troubleshooting or training purposes, the framing pulses on the calibration indicator should appear as shown in D, figure 3-5.**

w. At this point, approximately 200 feet of continuous video is available for use with the surveillance information center. This video may be used as a signal source for training purposes or for troubleshooting the surveillance information center.

3-15. Stopping Procedure (AN/TAQ-1A)

a. Set the ILLUMINATOR and PWR switches (fig. 3-1) on the main frame to OFF.

b. Remove power from the surveillance information center in accordance with the normal stopping procedure in TM 11-5895-386-12.

c. Rewind the test film by repeating the procedures in paragraph 3-9*a* (1) through (4).

d. Apply power to the components of the AN/TAQ-1A (TM 11-5895-386-12).

e. Repeat the procedures in paragraph 3-9a (6) through (8).

f. Repeat the procedure in b above

g. Disconnect the cables.

h. If the equipment is not going to be used for an extended period of time, place the video generator group and cables in the bottom shell. Place the top shell on the bottom shell, fasten the draw latches, and tighten the relief valve.

***Note*. Refer to paragraph 3-10 for instructions in analyzing the test results.**

3-16. Symptom Troubleshooting Chart, Surveillance Information Center

***Note*. For removal and installation instructions and troubleshooting procedures concerning individual units of the surveillance information center, refer to the appropriate technical manual listed in appendix A.**

Symptom	Probable cause	Corrective measures
1. No video on surveillance information center film.	Defective test film or incorrect development of film.	Rerun test.
	Defective recorder body	Replace defective recorder body.
	Defective interconnection cables or connectors.	Check cables and connectors and repair as required.
2. No video on any one FORMAT switch setting. Normal video on remaining FORMAT switch positions. Slating information appears at all times.	Defective recorder body	Replace recorder body.
3. Video and resolution record show poor contrast. Slating information contrast correct.	Improper LEVEL and/or CONTRAST control adjustment.	Set CONTRAST and LEVEL controls to 6.
	Insufficient illumination level in video generator group due to burned-out lamp or lamps.	Refer to higher category of maintenance.
	Test film dirty or scratched	Inspect and replace if necessary.
4. Tearing of video in horizontal direction.	Recorder body lost synchronization	Replace recorder body and rerun test. If trouble persists, refer to TM 11-5850-222-35.
	Defective synchronizing pulse from video generator group.	Refer to higher category of maintenance.
5. Periodic horizontal movement of video appearing as ripple along film edge.	Defective recorder body	Replace recorder body and rerun test. If trouble persists, refer to TM 11-5850-222-35.
6. Resolution pattern appears degraded. Video not sharp.	Poor frequency response in video circuits of surveillance information center.	Refer to infrared receiver manual (TM 11-5895-224-35) and calibration indicator manual (TM 11-5850222-35).
	Recorder body optics not properly focused.	Refer to recorder group manual (TM 11-5850-222-35) for corrective measures.
7. Geometrical shapes appear squeezed or elongated. Timing marks have incorrect spacing.	Incorrect recorder magazine film speed.	Adjust recorder magazine film speed (TM 11-5850-222-35). Rerun test.
8. Geometrical shapes appear elongated or squeezed. Timing marks have correct spacing.	Video generator group film speed incorrect.	Adjust video generator group film speed (para 4-14). Rerun test.
9. Intermittent video on recorder magazine film. Sections of film blank. Slating information normal.	Defective recorder body	Repair or replace defective recorder body (TM 11-5850-222-35) and rerun test.
	Intermittent failure in surveillance information center video circuitry.	Refer to appropriate manuals on surveillance information center components.
10. Density falls off across width of film	Recorder body optics not aligned correctly.	Refer to TM 11-5850-222-35 for corrective action.
	One or more illuminator lamps in video generator group burned out.	Refer to higher category of maintenance.

Section V. OPERATION UNDER UNUSUAL CONDITIONS

3-17. Operation in Arctic Regions

If equipment that has been stored in a low temperature region is to be used in a much warmer temperature, follow the procedure below before attempting to operate the equipment.

a. Transfer the video generator from the cold to the warm location, and allow it to remain in the transit case, covered with water repellent material, for approximately 6 hours.

b. After unpacking the equipment and before operating it, remove condensation. Clean the surfaces of the four objective lenses and pyramid scanner with an air syringe or a brush, then with lens tissue. If moisture has condensed on an inner-glass surface, allow the lens to remain at room temperature until it is clear.

3-18. Operation in Tropical and Desert Regions

When the equipment is used ill conditions of high temperature and humidity, such as desert and tropical regions, observe the following precautions:

a. Desert Regions. Before using the equipment, use a soft-bristled brush to remove sand or other foreign material from the surfaces of the equipment. Before using lens tissue, clean the surfaces of the four objective lenses and pyramid lens with a brush; lens tissue may scratch the lens surfaces if they have not been dusted previously. When the equipment is not in use, keep the equipment in the transit case.

b. Tropical Regions. In regions of high humidity, inspect the equipment daily for fungus, mold, mites, and metallic corrosion, and remove them immediately. Where it is possible, store the video generator group in an adequately ventilated cabinet, and place a desiccant inside the cabinet.

CHAPTER 4
MAINTENANCE INSTRUCTIONS

4-1. Scope of Maintenance

The operator performs organizational maintenance of the equipment. The maintenance duties assigned to the operator of the video generator are listed below together with a reference to the paragraphs covering the specific maintenance function.

a. Daily preventive maintenance checks and services (para 4-5).

b. Weekly preventive maintenance checks and services (para 4-6).

c. Monthly preventive maintenance checks and services (para 4-7).

d. Quarterly preventive maintenance checks and services (para 4-8).

e. Cleaning (para 4-9).

f. Touchup painting (para 4-10).

g. Troubleshooting (para 4-11 and 4-12).

h. Repairs and adjustments (para 4-13 and 4-14).

4-2. Tools and Equipment Required for Maintenance

Tools, materials, and test equipment required are listed below; no special tools are required.

a. Tools.

(1) Tool Kit, Operations Central TK-101/G.
(2) Air syringe (FSN 6710-356-6334).
(3) Camel's-hair brush (FSN 6710-356-6184).

b. Materials.

(1) Lubricating oil, general purpose (PL-Special) (FSN 9150-185-0629).
(2) Cleaning compound (FSN 7930-395-9542).
(3) Lens cleaner (FSN 6750-408-2090).
(4) Cotton-tipped swabs.
(5) Cleaning cloth.

c. Test Equipment.

(1) Multimeter AN/URM-105 (TM 11-6625-203-12).
(2) Stopwatch (FSN 6645-719-8670).

4-3. 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 4-5 through 4-9 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 (paras 4-5 through 4-8) outline functions to be performed at specific intervals. These checks and services are to maintain Army electronic equipment in a serviceable condition; that is, in good general (physical) condition and in good operating condition. To assist operators in maintaining serviceability, the charts indicate what to check, how to check, and the normal conditions; the Reference column lists the paragraph or manual that contains additional information. If the defect cannot be remedied by performing the corrective action indicated, higher category of 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.

4-4. Preventive Maintenance Checks and Services Periods

Preventive maintenance checks and services of the video generator are required on a daily, weekly, monthly, and quarterly basis.

a. Paragraph 4-5 specifies the checks and services that must be accomplished daily as under the following conditions:

(1) When the equipment is initially installed.

(2) When the equipment is reinstalled after removal for any reason.
(3) At least once each week if the equipment is maintained in standby condition.

b. Paragraphs 4-6 through 4-8 specify *additional* checks and services that must be performed on a weekly, monthly, and quarterly basis, respectively.

4-5. Daily Preventive Maintenance Checks and Services Chart

Sequence No.	Item to be inspected	Procedure	Reference
1	Completeness ---------	Check to see that the equipment is complete	App. B.
2	Exterior surfaces------	Clean the main frame, magazine, shock mount, and transit case.	Para 4-9*a*.
3	Optics ----------	Inspect the four objective lenses and the pyramid lens in the scanner (fig. 1-3) for dust or chipped surfaces.	Para 4-9*b*.
4	Lucite light source ----	Inspect the lucite light source in the film-forming segment of the magazine (fig. 1-4) for dust and film chips.	Para 4-9*c*.
5	Magazine interior -----	***Caution*: Do not turn the capstan film roller manually; damage to the capstan mechanism may result.** Remove the top cover from the magazine (fig. 3-2) and check the pressure roller assemblies, idler film roller, and capstan film roller. They must be smooth, without nicks, pimples, or scales. Rotate the pressure roller assemblies and idler film rollers manually; they should rotate freely. Check to make sure that the pressure roller assemblies and torque motor control arms lock in open position.	
6	Film spools----------	Check the takeup spool (fig. 3-3) and supply spool for dents and bent flanges. ***Warning:* Dangerous voltages are present in the video generator group when it is connected to the infrared detecting set or to the surveillance information center. Serious injury or DEATH may result if contact is made with these voltages. Make sure no power is applied to the video generator group when checking or cleaning connectors.**	
7	Connectors----------	Check connectors on equipment and cables for security of attachment, proper fit, and cleanliness.	Para 4-9a.
8	Operation----------	During normal operation of the equipment, check the following- a. Observe that the mechanical action of each knob and switch is smooth and free of external or internal binding. Tighten all loose knobs. b. Check the film footage counter (fig. 3-4) for normal operation. c. Inspect- indicators for damaged glass and burned-out lamps. d. During operation, be alert for any unusual performance or condition.	

4-6. Weekly Preventive Maintenance Checks and Services Chart

Sequence No.	Item to be inspected	Procedure	Reference
1	Transit case----------	a. Check latches on transit case for obvious damage. Latches should hold top and bottom shells securely. b. Check gasket for leaks and worn or loose edges. The gasket must be clean, flexible, and in good condition.	
2	Shock mount----------	Check to make sure that main frame is securely attached to shock mount. Tighten loose mounting bolts; replace missing hardware as required.	
3	Handles ----------	Inspect handles on main frame and magazine for looseness. If required, tighten handles.	
4	Cables and connectors	Check cables (fig. 1-2) and connectors for cracks and breaks. Replace cables that have cracks or broken connectors.	
5	Preservation ----------	Check all surfaces for evidence of fungus. Remove rust and corrosion and spot-paint bare spots.	Para 4-9.

4-7. Monthly Preventive Maintenance Checks and Services Chart

Sequence No.	Item to be inspected	Procedure	Reference
1	Cables----------	Inspect power cable and signal cables and wiring (fig. 1-1) for cuts or other damage. Repair cut insulation by covering cut with rubber tape and then with friction tape.	
2	Handles, latches, etc-	Inspect handles, latches, hinges, screws, and other hardware for looseness. Tighten or replace as required.	
3	Metal surfaces---------	Inspect exposed metal parts of equipment for rust and corrosion. Clean and touch up paint as required. **Note. If equipment is operated in tropical climate, dampen cloth with oil (PL-Special) and apply light film of oil to metal parts and surfaces.**	Para 4-10.
4	Fuses----------	Remove fuses F101, F102 and F103 (fig. 3-1) and make sure they are of the proper value.	Para 4-13.

4-8. Quarterly Preventive Maintenance Checks and Services Chart

Sequence No.	Item to be inspected	Procedure	Reference
1	Publications----------	a. Check to see that all pertinent publications are on hand, complete, and current. Requisition pertinent publications not on hand. b. Check DA Pam 310-4 to determine whether all changes pertinent to the equipment are on hand.	App. A and DA Pam 310-4.
2	Modifications----------	Check DA Pam 310-4 to determine whether new applicable MWO's have been published. All URGENT MWO's must be applied immediately. All NORMAL MWO's must be scheduled.	DA Pam 310-4 and TM 38-750.
3	Completeness ---------	Check to see that equipment is complete	App. B.
4	Preservation ----------	Inspect equipment for condition of paint. If surfaces bear only slight scratches, retouch these with paint. If surfaces bear many scratches, turn equipment in for higher category maintenance painting.	Para 4-10.
5	Film transport mechanism.	Leave cover off magazine while rewinding film and check operation of film transport mechanism. Film should travel smoothly through its entire course from supply spool to takeup spool.	Para 3-9.
6	Insert items----------	Inspect the seating of all insert subassemblies	Fig. 1-3.
7	Film speed ----------	Check for proper film speed on all positions of FILM SPEED switch.	Para 4-14.

4-9. Cleaning

a. Exterior Surfaces. Inspect the exteriors of the main frame, the magazine, the shock mount, and the transit case. The exterior surfaces should be clean and free of dust, dirt, grease, and fungus.

(1) 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.**

(2) Remove grease, fungus, and ground-in dirt from the case; use a cloth dampened (not wet) with the cleaning compound.

(3) Remove dust and dirt from plugs and jacks with a brush.

(4) Clean the control panels, indicators, and control knobs; use a soft clean cloth. If dirt is difficult to remove, dampen the cloth with water; mild soap may be used for more effective cleaning.

b. Optics. Inspect the four objective lenses and the pyramid lens on the scanner (fig. 1-3) for dust or chipped optics. Clean the optics as follows:

(1) Remove dust and lint with the soft camel's-hair brush or the air syringe.

(2) If additional cleaning is required, use a lens tissue. If necessary to remove stubborn dirt particles, moisten the tissue with lens cleaner and then polish the surface with a dry lens tissue.

c. Film-Forming Segment. The aperture in the film-forming segment should be free of dust and film chips.

(1) Remove dust and lint from the aperture with the soft camel's-hair brush or the air syringe.

(2) Use a cotton-tipped swab to remove any foreign particles that still remain.

4-10. Touchup Painting Instructions

Remove rust and corrosion from metal surfaces by lightly sanding them with fine sandpaper. Brush two thin coats of paint on the base metal to protect it from further corrosion. Refer to the applicable cleaning and refinishing practices specified in TM 9-213 and TB SIG 364.

4-11. General Troubleshooting Information

Troubleshooting of this equipment is based upon the operational check contained in the quarterly preventive maintenance checks and services chart. To troubleshoot the equipment, perform all functions starting with sequence number 5 in the quarterly preventive maintenance TM 11-6M2576-12 checks and services chart (para 4-8) and proceed through all sequence numbers until an abnormal condition or result is observed. Perform the checks and corrective measures indicated in the troubleshooting chart. If the corrective measures indicated do not result in correction of the trouble, higher category of maintenance is required.

4-12. Troubleshooting Chart

Item	Indication	Probable trouble	Procedure
1	PWR ON indicator lamp does not light; remainder of video generate or functions normally.	Defective indicator lamp----------	Replace lamp (para 4-13b)
2	FILM OUT indicator lamp does not light when all the test film is wound onto takeup spool.	Defective indicator lamp----------	Replace lamp (para 4-13b)
3	PWR ON indicator lamp lights; remainder of equipment does not function.	Defective fuse F3 ----------	Defective fuse (para 4-13a); if replaced fuse blows, higher category of repair is required.
4	Film does not advance through magazine; PWR ON indicator lamp lights.	Defective fuse F2 or F3----------	Replace fuse (para 4-13a); if replaced fuse blows higher category of repair is required.
5	Film is not advancing at correct rate of speed.	Film speed controls out of adjustment.	Adjust film speed (para 4-14)

4-13. Fuse and Indicator Lamp Removal and Replacement Procedure

The main frame is equipped with three fuses and two indicator lamps (figs. 3-1 and 3-4). See *a* below for procedures to replace the fuses, and *b* below for procedures to replace the indicator lamps.

a. Replacement of Fuses F1, 1R, and 1F (fig. 3-1).

Warning: **Make sure all power is removed from the video generator.**

(1) Rotate the fuse cap counterclockwise and remove it from the fuse holder.
(2) Withdraw the fuse cap that contains the defective fuse from the fuse holder; remove the defective fuse from the fuse cap and replace it with a new fuse of the same rating.
(3) Insert the fuse cap that contains the replacement fuse into the fuse holder; screw the fuse cap clockwise to secure it in the fuse holder.

b. Replacement of Indicator Lamps (fig. 3-4).

(1) Rotate the indicator lamp guard counterclockwise and remove it from the mounting plate.
(2) Pry the defective lamp to remove it from the lampholder. Insert a new lamp into the lampholder; press in on the lamp to secure the lamp in the lampholder.
(3) Position the indicator lamp guard on the mounting plate and turn it clockwise to secure it.

4-14. Adjustment of Film Speed

a. Load the magazine (para 3-4).
b. Connect the video generator group to the infrared detecting set (fig. 2-2).
c. Apply power to the equipment (para 3-6 *b* through *e*).
d. The following chart lists the film speed for each FILM SPEED control setting (fig. 3-1), the normal indication that should be obtained, and the potentiometer that is used to adjust the film speed for the particular FILM SPEED switch setting.

(1) FILM SPEED control setting	(2) Film speed (ipm)	(3) Normal indication	(4) Control-ling po-tentiom-eter
1 ---------	4.5	Film footage counter advances 0.5 foot in 80 seconds ±8.	R2
2 ---------	20.0	Film footage counter advances 0.5 foot in 18 seconds ±2.	R5
3 ---------	38.0	Film footage counter advances 1 foot in 19 seconds ±2.	R8
4 ---------	62.5	Film footage counter advances 2 feet in 23 seconds ±2.	R11
5 ---------	99.5	Film footage counter advances 4 feet in 29 seconds ±3.	R14

e. Use the stopwatch and check the film speed for each position of the FILM SPEED switch (fig. 3-1) as follows. The columns refer to the chart in d above.

(1) Set the FILM SPEED switch to the position given in column 1 of the chart.

(2) Observe the film footage counter (fig. 3-4) for an indication of film travel. The extreme right digit indicates film travel in tenths of a foot.

(3) Note the indication on the film footage counter and start the stopwatch. When the film has advanced the distance indicated in column 3, stop the stopwatch. The elapsed time indicated on the stopwatch should be equal to the time given in column 3 of the chart.

(4) Whenever the film speed for a particular FILM SPEED switch setting is not correct, adjust the potentiometer given in column 4 and recheck the film speed ((1) through (3) above). Turn the appropriate potentiometer clockwise to increase film speed or counterclockwise to decrease film speed.

CHAPTER 5

SHIPMENT, LIMITED STORAGE, AND DEMOLITION TO PREVENT ENEMY USE

Section I. SHIPMENT AND LIMITED STORAGE

5-1. Preparation of Video Generator for Shipment and Limited Storage

Prepare the video generator for shipment or limited storage as follows:

a. Disconnect the cables.

b. Place the video generator group and the cables in the bottom shell of the transit case (fig. 1-2).

c. Place the top shell on the bottom shell and fasten the draw latches.

d. Close the relief valve in the bottom shell of the transit case. Use a screwdriver and turn the slotted screw fully clockwise.

5-2. Repackaging for Shipment or Limited Storage

The exact procedure for repackaging depends on the material available and the conditions under which the equipment is to be shipped or stored. Adapt the procedures outlined below whenever circumstances permit. The information concerning the original packaging (para 2-1) will also be helpful.

a. Material Requirements. The following materials are required for repackaging the video generator. For stock numbers of materials, consult SB 38-100.

Material	Quantity
Waterproof paper	115 sq ft.
Waterproof tape	18 ft.
Corner cushioning pads	8.
Corrugated cardboard	100 sq ft.
Plywood, 3/4 in	50 sq ft.
Frame material, pine, 1 in. by 3 in	34.5 ft.
Metal straps	53 ft.

b. Packaging. Package the items of the video generator as outlined below (fig. 2-1).

(1) Prepare the equipment for shipment or storage (para 5-1).

(2) Fabricate a wooden box with inside dimensions that are 23Y inches high by 32 inches deep by 5034 inches wide.

(3) Lay three 30-inch by 48-inch corrugated cardboard pads on the inside bottom of the box.

(4) Center the transit case in the wooden box.

(5) Cushion the sides and top of the equipment with corrugated cardboard pads and corner pads.

(6) Package the technical manual within a close-fitting bag fabricated from waterproof wrapping paper. Seal the bag with waterproof tape, and place the bag on top of the equipment.

(7) Place two 18-inch square corrugated pads on top of the envelope that contains the technical manual.

(8) Place the cover on top of the box and nail it closed.

Section II. DEMOLITION OF MATERIEL TO PREVENT ENEMY USE

5-3. Authority for Demolition

The demolition procedures given in paragraph 5-4 will be used to prevent the enemy from using or salvaging this equipment. Demolition of the equipment will be accomplished only upon the order of the commander.

5-4. Methods of Destruction

Any or all of the methods of destruction given below may be used. The time available and the tactical situation will determine the method to be used when destruction of equipment is ordered. It is preferable to demolish completely some critical unit of the equipment than to partially destroy all of the units.

a. Smash. Use sledges, axes, hammers, crowbars, and any other heavy tools available to smash the video generator.

(1) Use the heaviest tool available to smash the meters, controls, and knobs.

(2) Remove the film magazine from the main frame. With a heavy hammer or bar, smash the exposed parts.

b. Cut. Use axes, hatchets, machetes, and similar tools to cut cabling, wiring, and cording. Use a heavy axe or machete to cut the power cables. Cut all cords and cables in several places. Slash the internal wiring of the main frame.

Warning: **Be extremely careful with explosives and incendiary devices. Use these items only when the need is urgent.**

c. Burn. Burn the technical manuals first. Remove the test film from the magazine and pour gasoline on the film; ignite the film. Burn the equipment; use gasoline, oil, flamethrowers, and similar tools. Use incendiary grenades to complete the destruction of unit interiors.

d. Explode. Use explosives to complete demolition or to cause maximum damage before burning or, when time does not permit, complete demolition by other means. Powder charges, fragmentation grenades, or incendiary grenades may be used.

e. Dispose. Bury or scatter destroyed parts or throw them into streams. This is particularly important if a number of parts have not been completely destroyed.

APPENDIX A

REFERENCES

Following is a list of references available to the operator and/or organizational repairman of the video generator:

DA Pam 310-4	Index of Technical Manuals, Technical Bulletins, Supply Manuals (Types 7, 8, and 9), Supply Bulletins, Lubrication Orders, and Modification Work Orders.
SB 38-100	Preservation, Packaging, and Packing Materials, Supplies, and Equipment Used by the Army.
TB SIG 364	Field Instructions for Painting and Preserving Electronics Command Equipment.
TM 9-213	Painting Instructions for Field Use.
(C) TM 11-5850-218-12	Organizational Maintenance Manual: Detecting Set, Infrared AN/AAS-14A and Transmitter Set, Radio AN/ART-41A (Airborne Components of Surveillance System, Infrared AN/UAS-4A) and Cable Assembly Sets, Electrical MX-7268/AAS-14A and MX-7270/UAS-4A (U).
(C) TM 11-5850-218-35	DS, GS, and Depot Maintenance Manual: Detecting Set, Infrared AN/AAS-14 and Transmitting Set, Radio AN/ART-41A (Airborne Components of Surveillance System, Infrared AN/UAS-4) and Cable Assembly Sets, Test MX-4078/AAS-14 and and MX-4078/ART-41 (U).
(C) TM 11-5850-222-35	DS, GS, Depot Maintenance Manual; Recorder Group, Surveillance System AN/USA-23; Indicator, Calibration IP-807/U; and Indicator, Terrain Display IP-808/U.
(C) TM 11-5850-224-35	DS, GS, and Depot Maintenance Manual: Receiver Group, Infrared OA-7827/AAS-14A; Preamplifier AM-4464/AAS-14A, Preamplifier AM-4467/AAS-14A, and Preamplifier AM-4468/AAS-14A; and Refrigerator, Cryogenic HD-723/AAS-14A (U).
(C) TM 11-5895-386-12	Organizational Maintenance Manual: Surveillance Information Center AN/TA-1A (Ground Component of Surveillance System, Infrared AN/UAS-4A) (U).
(C) TM 11-5895-386-35	DS, GS, and Depot Maintenance Manual: Surveillance Information Center AN/TAQ-1A (Ground Component of Surveillance System, Infrared AN/UAS-4A) (U).
TM 11-6625-203-12	Operator and Organizational Maintenance: Multimeter AN/URM-105, Including Multimeter ME-77/U.
TM 11-6625-675-12	Organizational Maintenance Manual: Simulator Set, System Indication AN/UAM-11.
TM 11-6625-676-25P	Organizational, DS, GS, and Depot Maintenance Repair Parts and Special Tool Lists: Generator, Video Signal AN/AAM-26.
TM 38-750	Army Equipment Record Procedures.

APPENDIX B
BASIC ISSUE ITEMS LIST (BIIL) AND ITEMS TROOP INSTALLED OR AUTHORIZED LIST (ITIAL)

Section I. INTRODUCTION

B-1. Scope
This appendix lists only basic issue items required by the crew/operator for installation, operation, and maintenance of Generator, Video Signal AN/AAM-26.

B2. General
This Basic Issue Items and Items Troop Installed or Authorized List is divided into the following sections:

a. Basic Issue Items List -Section II. A list, in alphabetical sequence, of items which are furnished with, and which must be turned in with the end item.

b. Items Troop Installed or Authorized List -Section III. Not applicable.

B-3. Explanation of Columns
The following provides an explanation of columns found in the tabular listings:

a. Illustration. This column is divided as follows:

(1) Figure Number. Indicates the figure number of the illustration in which the item is shown.

(2) Item Number. Not applicable.

b. Federal Stock Number. Indicates the Federal stock number assigned to the item and will be used for requisitioning purposes.

c. Part Number. Indicates the primary number used by the manufacturer (individual, company, firm, corporation, or Government activity), which controls the design and characteristics of the item by means of its engineering drawings, specifications standards, and inspection requirements, to identify an item or range of items.

d. Federal Supply Code for Manufacturer (FSCM). The FSCM is a 5-digit numeric code used to identify the manufacturer, distributor, or Government agency, etc., and is identified in SB 708-42.

e. Description. Indicates the Federal item name and a minimum description required to identify the item.

f. Unit of Measure (U/M). Indicates the standard of basic quantity of the listed item as used in performing the actual maintenance function. This measure is expressed by a two-character alphabetical abbreviation, (e.g., ea, in., pr, etc.) When the unit of measure differs from the unit of issue, the lowest unit of issue that will satisfy the required units of measure will be requisitioned.

g. Quantity Furnished with Equipment (Basic Issue Items Only). Indicates the quantity of the basic issue item furnished with the equipment.

Section II. BASIC ISSUE ITEMS LIST

(1) Illustration (A) Fig. No.	(1) Illustration (B) Item No.	(2) Federal Stock Number	(3) Part Number	(4) FSCM	(5) Description Usable On Code	(6) Unit of Meas.	(7) Qty Furn With Equip
1-2		5850-930-0157			CASE, VIDEO SIGNAL GENERATOR CY-4942 AAM-26	EA	1

(1) SOURCE CD	(1) MAINT. CD	(1) REC. CODE	BASIC ISSUE ITEMS LIST (2) FEDERAL STOCK NUMBER	MODEL 1 2 3 4 5 6	(3) DESCRIPTION	(4) UNIT OF ISSUE	(5) QTY INC IN UNIT PACK	(6) QTY INC IN UNIT	(7) QTY AUTH	(8) ILLUSTRATIONS (A) FIGURE NUMBER	(8) ILLUSTRATIONS (B) ITEM OR SYMBOL NUMBER
					AN/AAM-26 (continued)						
			5850-930-1892		MOUNTING MT-3583/USA-23	ea		1	1	1-2	1A1MP1
					NO ACCESSORIES, TOOLS, OR TEST EQUIPMENT ARE TO BE ISSUED WITH THIS EQUIPMENT						
					THE FOLLOWING ITEMS AND THEIR QUANTITIES ARE MOUNTED IN OR ON EQUIPMENT LISTED, FOR STORAGE PURPOSES						
			5995-951-6778		CABLE ASSEMBLY, RADIOFREQUENCY CG-409E/U (14 ft 2 in):1	ea				1-2	
			5995-926-6332		CABLE ASSEMBLY, SPECIAL PURPOSE ELECTRICAL CX-11523/U (14 ft): 1	ea				1-2	
			5995-999-8248		CABLE ASSEMBLY, SPECIAL PURPOSE, ELECTRICAL BRANCHED CX-11524/AAM-26: 1	ea				1-2	
			5920-850-6091		FUSE CARTRIDGE: 1	ea					
			5920-284-6804		FUSE CARTRIDGE: 1	ea					
			5920-926-2988		FUSE CARTRIDGE: 1	ea					
			5920-556-0144		FUSEHOLDER: 3	ea					

APPENDIX C
MAINTENANCE ALLOCATION

Section I. INTRODUCTION

C-1. General

This appendix provides a summary of the maintenance operations covered in the equipment literature for Generator, Video Signal AN/AAM-26. 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. Explanation of Format for Maintenance Allocation Chart

a. Group Number. Group numbers correspond to the reference designation prefix assigned in accordance with ASA Y32.16, Electrical and Electronics Reference Designations. They indicate the relation of listed items to the next higher assembly.

b. Component Assembly Nomenclature. This column lists the item names of component units, assemblies, subassemblies, and modules on which maintenance is authorized.

c. Maintenance Function. This column indicates the maintenance category at which performance of the specific maintenance function is authorized. Authorization to perform a function at any category also includes authorization to perform that function at higher categories. The codes used represent the various maintenance categories as follows:

Code	*Maintenance Category*
C	Operator/crew.
O	Organizational maintenance.
F	Direct support maintenance.
H	General support maintenance.
D	Depot maintenance.

d. Tools and Equipment. The numbers appearing in this column refer to specific tools and equipment which are identified by these numbers in section III.

e. Remarks. Self-explanatory.

C-3. Explanation of Format for Tool and Test Equipment Requirements

The columns in the tool and test equipment requirements chart are as follows:

a. Tools and Equipment. 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 for the maintenance function.

b. Maintenance Category. The codes in this column indicate the maintenance category normally allocated the facility.

c. Nomenclature. This column lists tools, test, and maintenance equipment required to perform the maintenance functions.

d. Federal Stock Number. This column lists the Federal stock number.

e. Tool Number. Not used.

Section II. Maintenance Allocation Chart

GROUP NUMBER	COMPONENT ASSEMBLY NOMENCLATURE	MAINTENANCE FUNCTIONS											TOOLS AND EQUIPMENT	REMARKS
		A INSPECT	B TEST	C SERVICE	D ADJUST	E ALIGN	F CALIBRATE	G INSTALL	H REPLACE	I REPAIR	J OVERHAUL	K REBUILD		
	GENERATOR, VIDEO SIGNAL AN/AAM-26	C												Visual inspection
			O										12	Continuity
			H										3 thru 9, 11	Operational tests; troubleshooting
				C										Clean
					H								1,2,5,7,9,11	Electrical, optical, mechanical
						H							2, 7, 9	Photomultiplier & optics
						D							Return to mfg	Generator wheel motor tachometer alignment
									C					Complete unit; requisition, using BIIL as authority
									H				9	Modules
										H			9,10	Replace piece parts; connector pins
											D		1 thru 11	
1W1	CABLE ASSEMBLIES	C												Visual
1W2			O										12	Continuity
1W3									C					Complete assy when requisitioned with BIIL as authority
										H			4,9,10	Replace connectors and cable. Connector pins
1A1	GENERATOR GROUP, VIDEO SIGNAL OA-8034/AAM-26	C												Visual inspection
			H										3, 5 thru 9	Operational test
				C										Clean
					H								215,7,9	Electrical; optical; mechanical
						D							9	Generator wheel motor tachometer
									O					Complete group; requisition using BIIL as authority
									H				9	Modules
										H			9,10	Replace piece parts, connector pins
											D		1 thru 11	

GROUP NUMBER	COMPONENT ASSEMBLY NOMENCLATURE	MAINTENANCE FUNCTIONS											TOOLS AND EQUIPMENT	REMARKS
		A INSPECT	B TEST	C SERVICE	D ADJUST	E ALIGN	F CALIBRATE	G INSTALL	H REPLACE	I REPAIR	J OVERHAUL	K REBUILD		
	AN/AAM-26 (continued)													
1A1A1	GENERATOR, VIDEO SIGNAL SG-686/AAM-26	C												Visual inspection
			H										3,5 thru 9	Operational test; frequency response of electronic control amplifier; troubleshooting
				C										Clean
					H								2,5,7,9	Electrical; optical
						D							9	Generator wheel motor-tachometer assembly
									O					Complete assembly; requisition using BIIL as authority
									H				9	Generator wheel motor-tachometer assembly; photomultiplier cell assembly
										H			9,10	Replace piece parts, connector pins
1A1A1A1	AMPLIFIER, ELECTRONIC CONTROL (HRB P/N 80553)		H										3,5,7,8,9	Measure frequency response; troubleshooting
					H								5,7,9	Install in SG-686/AAM-26 for adjustment
									H				9	Complete assembly
										H			9,10	Replace piece parts
1A1A1A1A1	SCANNER SPEED CONTROL (HRB P/N 80655)		H										3	Troubleshooting
					H								9	Complete assembly
									H				9	Replace piece parts
1A1A1A1A2	PHASE SHIFT PRINTED WIRING ASSEMBLY (HRB P/N 80694)		H										3,5,7,8,9	Install in amplifier, electronic control for testing
					H								5,7,9	Install in amplifier, electronic control for adjustment
									H				9	Complete assembly
										H			9,10	Replace piece parts

GROUP NUMBER	COMPONENT ASSEMBLY NOMENCLATURE	MAINTENANCE FUNCTIONS											TOOLS AND EQUIPMENT	REMARKS
		A INSPECT	B TEST	C SERVICE	D ADJUST	E ALIGN	F CALIBRATE	G INSTALL	H REPLACE	I REPAIR	J OVERHAUL	K REBUILD		
	AN/AAM-26 (continued)													
1A1A1A4	AMPLIFIER, VIDEO (HRB P/N 80590)		H										3,5,6,7,8,9	Install in SG-686/AAM-26 for operational test
									H				9,10	Complete assembly
										H			9	Replace piece parts
1A1A1A4A4	VIDEO AMPLIFIER (PRINTED WIRING ASSEMBLY) (HRB P/N 80658)		H										3,5,6,7,8,9	Install in video amplifier 1A1A1A4 for operational test
									H				9,10	Complete assembly
										H			9	Replace piece parts
1A1A1A4	GENERATOR WHEEL MOTOR-TACHOMETER (HRB P/N 80591)		H										2,3,7	Install in 7186/USA-23 for testing
					H								1,2,7,9	Install in MX-7186/USA-23 for focus objective lens. Adjust pickup heads
						D							9	Return to manufacturer
									H				9	Complete assembly
										H			9,10	Replace piece parts outside housing
1A1A1A3	PHOTOMULTIPLIER (HRB P/N 80622)		H										3,5,8,9	Operational test; troubleshooting
					H								7,9	Focus
										H			9,10	Replace piece parts, connector pins
	PHOTOMULTIPLIER CELL (HRB P/N 80697) (P/O PHOTOMULTIPLIER)		H										3,5,8,9	Install in photomultiplier 1A1A1A3 for testing
									H				9	Complete assembly
										H			9	Replace piece parts

GROUP NUMBER	COMPONENT ASSEMBLY NOMENCLATURE	MAINTENANCE FUNCTIONS											TOOLS AND EQUIPMENT	REMARKS
		A INSPECT	B TEST	C SERVICE	D ADJUST	E ALIGN	F CALIBRATE	G INSTALL	H REPLACE	I REPAIR	J OVERHAUL	K REBUILD		
	AN/AAM-26 (continued)													
1A1A2	MAGAZINE, TEST FILM STRIP MA-20/AAM-26	C												Visual inspection
			H										3,11	Operational test; requires SG-686/AAM-26 for testing. Measure film speed
				C										Clean
					H								2,9	Torque and clutch assembly
									C					Complete unit; requisition using BIIL as authority
									H				9	Components
										H			9,10	Replace piece parts, connector pins
											D		1 thru 11	
1A2A1 1A2A2	SPINDLE ASSEMBLY (HRB P/N 82981)		H											Operational test; requires complete MA-20/AAM-26 for testing
									H				9	Complete assembly
										H			9	Replace piece parts
	MOTOR, DC (HRB P/N 345-008) (P/O SPINDLE ASSEMBLY)								H				9	Complete motor
										H			9	Replace brushes
	CAM ASSEMBLY (HRB P/N 80669) (P/O MA-20/AAM-26)		H											Operational test; requires complete MA-20/AAM-26 for testing
									H				9	Complete assembly
										H			9	Replace piece parts
	CAM SUBASSEMBLY (HRB P/N 83283) (P/O CAM ASSEMBLY)								H				9	Complete assembly
										H			9	Replace piece parts
	SPINDLE-ROLLER (HRB P/N 83279) (P/O CAM ASSEMBLY)								H				9	Complete assembly,
										H			9	Replace piece parts

GROUP NUMBER	COMPONENT ASSEMBLY NOMENCLATURE	MAINTENANCE FUNCTIONS A INSPECT	B TEST	C SERVICE	D ADJUST	E ALIGN	F CALIBRATE	G INSTALL	H REPLACE	I REPAIR	J OVERHAUL	K REBUILD	TOOLS AND EQUIPMENT	REMARKS
	AN/AAM-26 (continued)													
1A1A2A3	CAM-SWITCH ASSEMBLY (HRB P/N 80234)		H											Operational test; requires complete MA-20/AAM-26 for testing
1A1A2A4									H				9	Complete assembly
										H			9	Replace piece parts
	CAPSTAN DRIVE ASSEMBLY (HRB P/N 83240) (P/O MA-20/AAM-26)		H											Operational test; requires complete MA-20/AAM-26 for testing
									H				9	Complete assembly
										H			9,10	Replace piece parts, connector pins
	FILM BREAK ALARM (HRB P/N 83343)								H				9	Complete alarm
										H			9	Replace piece parts
	ALARM FLAG ASSEMBLY (HRB P/N 80094)								H				9	Complete alarm
										H			9	Replace piece parts
	PLATE, ELECTRICAL ASSEMBLY (HRB P/N 80232) (P/O MA-20/AAM-26)		H										3	Troubleshooting, voltage readings
									H				9	Complete assembly
										H			9	Replace resistors
	ILLUMINATOR (HRB P/N 80681) (P/O MA-20/AAM-26)		H										4	Troubleshooting
									H				9	Complete illuminator
										H			9	Replace piece parts
	LAMP ASSEMBLY (HRB P/N 85436) (P/O ILLUMINATOR)		H										4	Troubleshooting
									H				9	Complete assembly
										H			9	Replace piece parts

SECTION III. TOOL AND TEST EQUIPMENT REQUIREMENTS

TOOLS AND EQUIPMENT	MAINTENANCE CATEGORY	NOMENCLATURE	FEDERAL STOCK NUMBER	TOOL NUMBER
		AN/AAM-26 (continued)		
1	H, D	FEELER GAGE	5210-221-1984	
2	H, D	MAINTENANCE KIT, ELECTRONIC EQUIPMENT MK-953/UAS-4A	5850-949-2133	
3	H, D	MULTIMETER ME-268/U	6625-646-9409	
4	H, D	MULTIMETER TS-352B/U	6625-242-5023	
5	H, D	OSCILLOSCOPE AN/USM-140A	6625-987-6603	
6	H, D	SIGNAL GENERATOR AN/URM-127	6625-783-5965	
7	H, D	SIMULATOR SET, SYSTEM INDICATOR AN/UAM-11	5895-949-5303	
8	H, D	TEST SET, TRANSISTOR TS-1836/U	6625-893-2628	
9	H, D	TOOL KIT, ELECTRONIC EQUIPMENT TK-100/G	5180-605-0079	
10	H, D	TOOL KIT, ELECTRONIC EQUIPMENT TK-191/UAS-4A	5180-930-1216	
11	H, D	WATCH, STOP	6645-719-8670	
12	O	TOOLS AND TEST EQUIPMENT NORMALLY ASSIGNED USER-REPAIRMAN FOR HIS ASSIGNED MISSION		

By Order of the Secretary of the Army:

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Chief of Staff.

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

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PREVIOUS EDITIONS ARE OBSOLETE.

P.S.—IF YOUR OUTFIT WANTS TO KNOW ABOUT YOUR RECOMMENDATION MAKE A CARBON COPY OF THIS AND GIVE IT TO YOUR HEADQUARTERS.

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