TM 11-6625-2479-12

TECHNICAL MANUAL

OPERATOR'S AND ORGANIZATIONAL MAINTENANCE MANUAL (INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST)

TEST SET, SIGNAL DATA CONVERTER AN/AYM-8

(NSN 6625-00-137-2289)

This copy is a reprint which includes current pages from Change 1. Title was changed by Change 1.

HEADQUARTERS, DEPARTMENT OF THE ARMY

APRIL 1973

WARNING NOTICES

WARNING

Low voltages hazardous to Life exist in Test Set, Signal Data Converter AN/AYM-8when it is connected to external primary power sources. The following voltages exist at the connectors and junctions specified:

1A3J1/'2W8P1	115 Vac, 28 Vdc
1A3J4.....	26 Vac

WARNING

DANGEROUS VOLTAGES EXIST IN TEST SET, SIGNAL DATA CONVSERTER AN/AYM-8. Be careful when working around connectors, high-voltage test points, and high voltage circuits of equipment when equipment is energized. Keep protective caps on all connectors when not in use.

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HEADQUARTERS
DEPARTMENT OF THE ARMY

Washington, D.C., 20 April 1973

OPERATOR'S AND ORGANIZATIONAL MAINTENANCE MANUAL (INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST) TEST SET, SIGNAL DATA CONVERTER AN/AYM-8 (FSN 6625-137-2289)

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CHAPTER 1
INTRODUCTION

Section I. GENERAL

1-1. Scope.

This manual describes Test Set, Signal Data Converter AN/AYM-8 (fig. 1-1) and covers its operation and(organizational maintenance. It includes instructions for performing preventive and periodic maintenance 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 .310-4 to determine whether there are new editions, changes, or additional publications pertaining to the equipment.

b. DA Pam 310-7. Refer to DA Pain 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 (Packaging Improvement Report) as prescribed in AR 70058/NAVSUPINST 4030.29/AFR 71-13/IMCO P4030.29A, and DLAR 4145.8.

c. Discrepancy in Shipment Report (DISREP) (SF 361). Fill out and forward Discrepancy in Shipment Report (DISREP) (SF 61) as prescribed in AR 55-38/NAV4610.33B/AFR 75-18/MCO P4610.19C and DLAR 4500.15.

1-3.1. Reporting of Errors

The reporting 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 directly to Commander, US Army Communications and Electronics Material Readiness Command, ATTN: DRSEIL-ME-MQ, Fort -Monmouth, NJ 07703.

1-3.2. Reporting Equipment Improvement Recommendations (EIR)

EIR's will be prepared using SF 368, Quality Deficiency Report. Instructions for preparing EIR's are provided in TM 38-750, The Army Maintenance Management System. EIR's should be mailed directly to Commander, US Army Communications and Electronics Material Readiness Command, ATTN: DRSEL-ME-MQ, Fort Monmouth, NJ 07703. Apply will be furnished directly to you.

1-4. Administrative Storage

Refer to paragraph 5-1 for administrative storage of the equipment.

Section II. DESCRIPTION AND DATA

1-5. Purpose and Use

a. Purpose. Test Set, Signal Data Converter AN/AYMI-8 (test set) provides operating voltages, simulate(digital data signals, and appropriate loads for testing and trouble-shooting Signal Data Converter CV-2647.(SDC), a unit of Airborne Data Annotation System AN;AYA-10 (ADAS).

b. Use. The test set is used for bench testing the SDC. The test set simulates normal inputs, as listed in table 1-1 and monitors outputs from the SDC.

(1) The test set can be used in a bench test of the SDC (luring which the SDC remains connected to the other units of the ADAS. In this mode of testing the operator can determine whether or not the SDC meets its system performance standards.

(2) The test set can also be use(l to bench test the SDC as an independent unit; that is, while it is removed from the rest of the ADAS. This mode of testing allows the operator to troubleshoot faulty operation to a circuit or circuit card(s) within the SDC.

(3) For all functional bench tests, the purpose of the test set is to supply power and signal stimuli to the SDC and to monitor it responses. The signals sent to the SDC simulate those the SDC normally receive when interfaced with the a-

vionics systems in the aircraft. The purpose of the SDC to the signal stimuli are displayed on a cathode ray tube and are available for measurements at 75 test points, including the BNC, X, Y, AND Z connectors, on the test set. A Go/No-Go indicator lamp is also provided on the test set for system self test.

1-6. Technical Characteristics

The technical characteristics of Test Set, Signal Data Converter AN/AYM-8 are presented in table 1-1.

1-7. Items Comprising Test Set, Signal Data Converter AN/AYM-8

The components and dimensions of Test Set, Signal Data Converter AN/AYM-8 are listed in table 1-2.

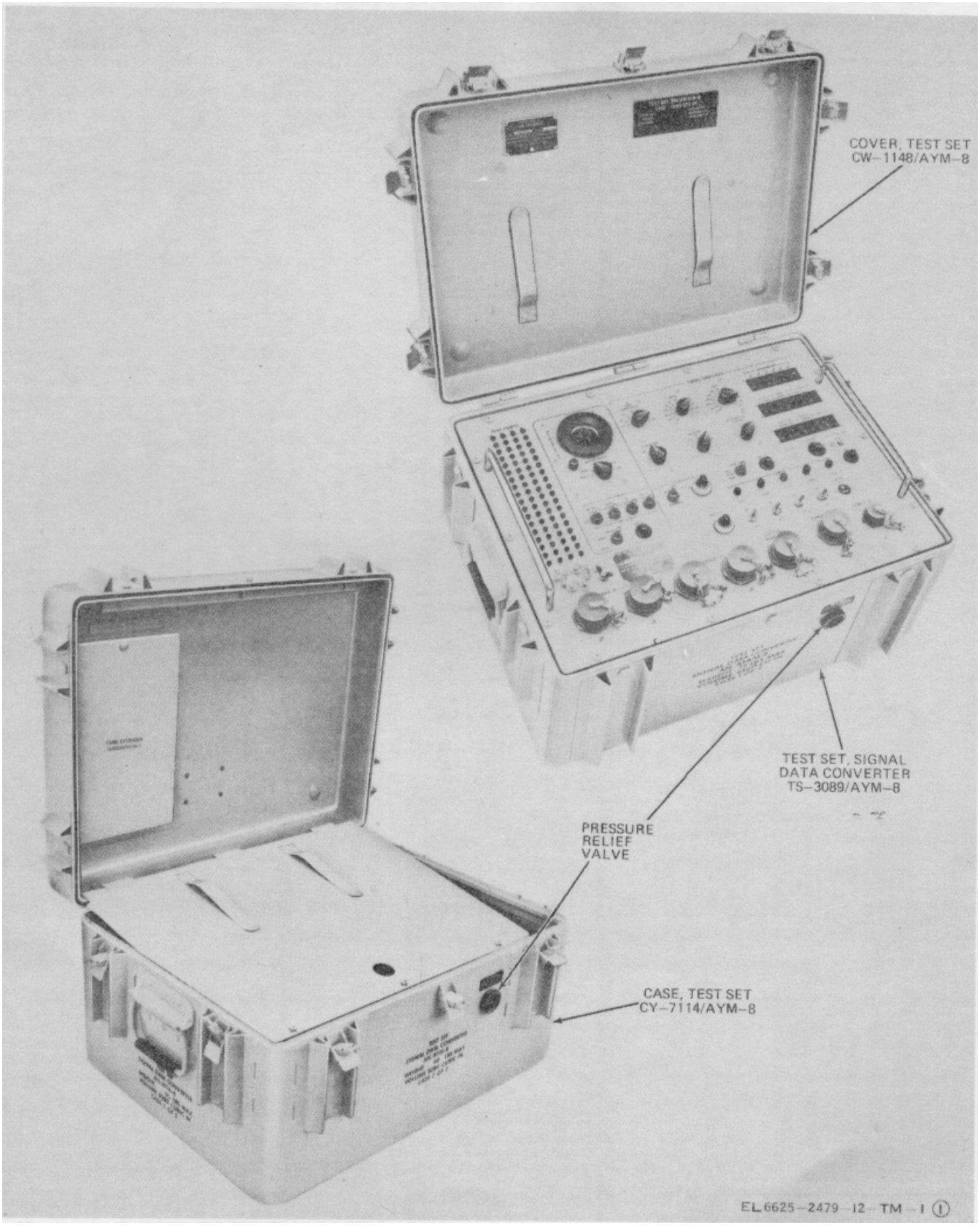

Figure 1-1 (1). Test Set, Signal Data Converter AN/AYM-8 (PART 1 OF 2)

Figure 1-1 (2). Test Set, Signal Data Converter AN/AYM-8 (PART 2 OF 2)

Table 1-1. Technical Characteristics

Parameter/.Signal	*Characteristics*
Operating temperature range	-4 to ± 120°F
Operating altitude range	Up to 10,000 feet (3.048 Kilometers)
Operating humidity range	Up to 98% relative humidity
Storage conditions:	-65° to +155°F
Temperature	Up to 50,000 feet (15.24
Altitude	Kilometers)
Humidity	Up to 98 % relative humidity
Primary power requirements:	
AC	115 ±-11.5 Vac, 400 ±20 Hz, at 150 ma max.
DC	+27.5 ±2.0 Vdc, at 6.5 amperes max.
Input signals:	
Data request command	Three-bit parallel words on three lines (seven words (serially)
Unique section/line timing gates	Positive logic low, level (zero Vdc) pulses, in sequence, on 16 lines, one line at a time.
Time set	Positive logic low level (zero Vdc) pulse which resets time of day data.
Barometric altitude reference	+6.2 ±0.3 volts dc
Auto/Man Vg/H	+0.6 to +100.6 volts dc (variable)
Horizontal deflection drive (staircases)	Consists of 19 steps or 20 levels (both negative and
(-) falling,	positive staircase) of 1.1
(+) rising	volts dc each at 500 volts dc reference level.
Vertical deflection drive (staircases)	Consists of 31 steps or 32 levels (both negative and
(-) falling,	positive staircase) of 1.1
(+) rising	volts dc each at 500 volts de reference level.
Unblanking signals	0 to +80 volts dc pulses. Unbiasing CRT (display) at specific intervals in accordance with system timing.
NAVI-	
Go/no-go enable	High level, 5 volt logic, is go (lamp off). Low level, 0 volt logic, is no-go (lamp on).
Output signals:	
Day data	Two-digit decimal number programmed by DAY thumbwheel switches.
Month data	Two-digit decimal number
pulse	
	programmed by MONTH thumbwheel switches.
Year data	Two-digit decimal number programmed by YEAR thumbwheel switches.
Taking unit and sortie data	Four-digit decimal number for sortie and six-(digit decimal number for taking unit programmed by SORTIE and TAKING UNIT thumbwheel switches.

Parameter/Signal	*Characteristics*
Output signals-Continued	
KA-76 focal length data	Two-place data from four line excess-three BCD thumbwheel stitches. Programmed by FOCAL LENGTH switches (units and tens).
Time of day	Two-place data (repeated hours, minutes, and sec-seconds) four line excess-three BCD thumbwheel stitches. Programmed by TIME switch (units and tens).
Time set control	Low level (zero VDC) positive logic generated in response to depression of TIME SET switch.
Exposure data	One-place data from three lines on BCD thumbwheel switch. Programmed by EXPOSURE switch. Exposure setting up to 7.
	Same exposure number used for both KA-60 and KA-76 cameras
Pitch data (synchro analog)	0-11.8 volts, 400 Hz.
Roll data	0-11 8 volts, 400 Hz
Barometric altitude analog	Zero to 6.2 ±0.3 Vdc, variable through BARO ALT control when test set is interfaced with ADAS.
Data ready gate	+ 5 ±0.5 Vdc pulse, 12 microseconds wide, produced for each change in data request command word.
Navigation data	Up to 24-bit parallel data word on 24 lines in excess-three BCD code Programmed by thumhwvheel
	GATION DATA switches. (7 words transmitted serially.)
KA60-1 or KA60-2 data demands:	
a. Single pulse	*a.* + ±05 Vdc pulse, 600 microseconds wide.
b. Continuous display	*b.* Pulses as above, in
	train with prf of 10 to 12 Hz.
SLAR data demand:	
a. Single pulse	*a.* -27 ±4 Vdc pulse, of width equal to length of time PULSE switch is depressed, and released.
b. Continuous display	*b.* -27 ±4 Ü pulse, 40 + 15 milliseconds islde, in pulse train with prf of 14 ±5 Hz.

Table 1-1. Technical Characteristics-Continued

Parameter/.Signal	*Characteristics*	*Parameter/Signal*	*Characteristics*
Output signals-Continued	Output signals Continued		
IR data demand:		SLAR range delay	Zero or +28 Ü, seven lines; discrete +28 Vdc
a. Single pulse	a. +27 ±4Vdc pulse of width equal to length of time PULSE switch is depressed, and released.		on one line at a time as selected by SLAR RANGE DELAY switch.
b. Continuous display	b. +27 ±4 Vdc pulses, 40 ± 15 milliseconds wide, in pulse train with prf of 14 ±5Hz.	SLAR range	Zero or +28 Vdc, three lines, discrete -28 Vdc on one line at a time as selected by SLAR RANGE switch.
KA-76 data demand:			
a. Single pulse	a. +27 ±4 Vdc pulse, 20 ±10 milliseconds wide,	K-76 angular position	Ground or +28 Vdc on four lines, consisting of three +28 Vdc signals and one ground or four +28 Vdc signals. Programmed by KA-76 ANGULAR POSITION switch.
b. Continuous display	b. +27 ±4 Vdc pulses, 20 ± 10 milliseconds wide, in pulse train with prf of 14±5 Hz.		
KA60-1 and KA60-2 cycling rate:			
a. External	a. ±0.6 to -+ 100.6 Vdc (variable) (Auto/ man Vg/h input)	IR filter	Ground or +28 Vdc, on five lines, consisting of one ground signal and four +28 Vdc signals. programmed by IR FILTER switch.
b. Internal	b. Zero to 100 Vdc, variable through CYCLING RATE control.		

Table 1-2. Components of ANAYM-8 (fig. 1-1)

FSN	Item	QTY (ea)	Height (in.)	Depth (in.)	Width (in.)	Unit weight (lb.)
6625-495-0657	Test Set, Signal Data Converter TS-3089/ AYM-8	1	10.50	18.50	25.00	75
6625-242-3784	Cover, Test Set CW-1148/AYM-8	1	2.50	18.50	25.00	
6625-242-3785	Case, Test Set CY-7114/AYM-8	1	13.12	17.25	22.87	90
6625-233-9198	Extender, Circuit Card MX-8966/AYM	1	5/8	9	5 3/8	9 oz
6625-432-2382	Cable Assembly. Radio Frequency CG-3679/ AYM-8 (2W7). (W (2W12)	3		8 ft (lg)		
6625-451-0440	Cable Assembly, Power, Electrical CX-12714/ AYM-8 (2W1)	1		15 ft (lg)		
5995-451-1180	Cable Assembly. Special Purpose, Electrical CX-12715/AYM-8 (2W2)	1		5 ft (lg)		
6625-186-6142	Cable Assembly, Special Purpose, Electrical Branched CX-12716/AYM-R (2W3)	1		5 ft (lg)		
6625-191-2140	Cable Assembly, Special Purpose, Electrical, 7/ Branched CX-12717 AYM-8 (2W4)	1		6 ft (lg)		
5995-449-9333	Cable Assembly, Special Purpose, Electrical CX-12718/AYM-8 (2W5)	1		5 ft (lg)		
6625-186-6151	Cable Assembly, Special Purpose. Electrical, Branched CX-12719/AYM-8 (2W6)	1		12 ft (lg)		
5995-451-4953	Cable Assembly, Special Purpose, Electrical, Branched CX-12721/AYM-8 (2W9)	1		4 ft (lg)		
6625-432-2384	Cable Assembly, Special Purpose, Electrical, Branched CX-12722/AYM-8 (2W10)	1		4 ft (lg)		
5995-449-5344	Cable Assembly, Power, Electrical Branched CX-12724/AYM-8 (2W8)	1		6 ft (lg)		

1-8. Description

The AN AYM-8 is contained within two rugged hand carrying cases. Both cases have manually activated air pressure equilization valves. All operating controls, indicators, and connectors are located on the front panel assembly of the TS-3089/AYM)-8 (SDC test set); a removeable cover provides access to the front panel. The CX7114/AYM-8 (accessory case) houses all required system interconnect and power cables and an extender board for maintenance of the SDC test set.

CHAPTER 2

SERVICE UPON RECEIPT OF EQUIPMENT

2-1. Packing and Unpacking

a. Packing Data. When packed for shipment, each of the two cases making up the AN/AYM-8 is cushioned in rubberized horse hair, and packed in a separate wooden box. A typical shipping box and its contents is shown in figure 2-1. The exterior dimensions of both boxes are provided in table 2-1.

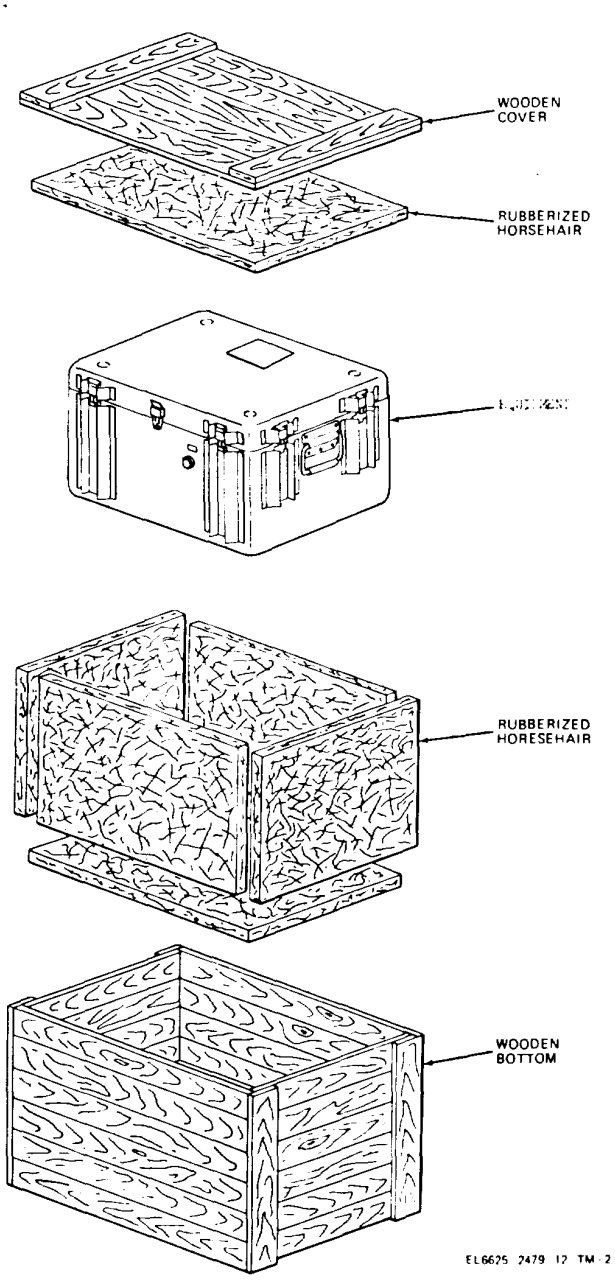

Figure 2-1. Typical packaging.

WARNING

The SDC test set weighs 75 lbs; the accessory case weighs 90 lbs. To avoid injury use two men to lift each case.

Table 2-1. Packaging Data

Box contents	*Dimensions (in.)*	*Volume (cu ft.)*	*Unit Weigh (lb.)*
SDC test set	30x23.5x13	5.30	90
Accessory case	28x22x15	5.34	105

b. Unpacking Instructions. Unpack either the SDC test set or the accessory case in the same manner. Pry off the wooden cover and remove the rubberized horse hair. Next, pry the sides of the wooded case off, one at a time. Remove the rubberized horsehair side pieces to expose the handles on the SDC test set or the accessory case. Lift and carry the cases using the handles on each side of either case.

2-2. Checking Unpacked Equipment

a. inspect the equipment for damage that may have occurred during shipment. If the equipment has been damaged, fill out and forward DD Form 6 (para 1-3*b).*

b. Check to see that the equipment is complete as listed on the packing slip. If the packing slip is not available, check the equipment against the items listed in table 1-2. Report all discrepancies in accordance with TM 38-750.

c. Check to see whether equipment has been modified. If the equipment has been modified, the MWO number will appear on the front panel, near the nomenclature plate. Check also to see whether all MWO's current at the time the equipment is placed in use have been applied.

NOTE

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

d. Check the latest issue of DA Pam 310-4 (never more than one year old) and its latest changes (never more than six months old) to see whether you have the latest editions of all applicable maintenance literature. (Equipment issued by depots may have been in stock for some time and may contain superseded manuals.)

CHAPTER 3
OPERATION

Section I. OPERATOR'S CONTROLS AND INDICATORS

3-1. Introduction

This section illustrates and describes the function of controls, indicators, and connectors of Test Set, Signal Data Converter TS-3089/AYM-8.

3-2. Operator's Controls, Indicators, Connectors, and Test Points

Table 3-1 and 3-2 identify and describe the function of controls, indicators and connectors of Test Set, Signal Data Converter TS-3089/AYM-8. Figure 3-1 illustrates and locates the control, indicators, and test points on the set.

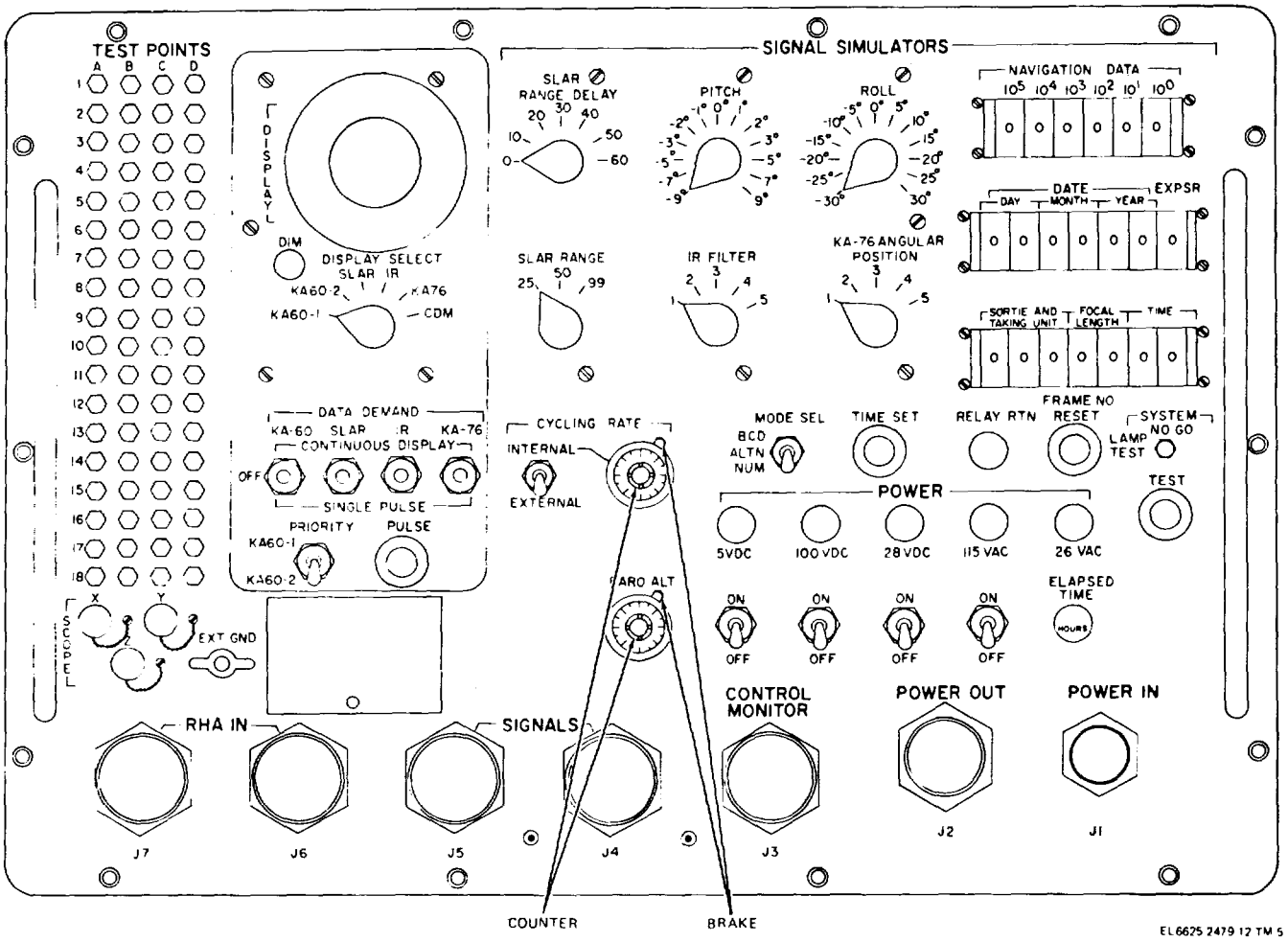

Figure 3-1. SDC test set, controls, indicators, connectors, and test points. and test points.

Table 3-1. Test Set Controls and Indicators (fig. 3-1)

Control or Indicator	*Function*
NAVIGATION DATA switches (6 thumbwheel switches)	Sets in six navigation data numbers.
DAY switches (2 thumb wheel switches)	Sets in number of day of month.
MONTH switches (2 thumb-wheel switches)	Sets in number of month of year.
YEAR switches (2 thumb-wheel switches)	Sets in number of year.
EXPSR switch (1 thumb-wheel switch	Sets in camera exposure data.
SORTIE AND TAKING UNIT switches (3 thumbwheel switches)	Sets in sortie number and taking unit number.
FOCAL LENGTH switches (2 thumbxheel switches)	Sets in KA-76 focal length.
TIME switches (2 thumb-wheel switches)	Set in time of day.
SLAR RANGE DELAY switches (7 position rotary switch)	Selects simulated SLAR range in kilometers as indicated by switch position.
PITCH switch (16-position, 3-pole rotary switch of which 13 positions are used)	Selects simulated aircraft pitch attitudes as indicated by switch position.
ROLL switch (16-position, 3-pole rotary switch of which 13 positions are used).	Selects simulated aircraft roll attitudes as indicated by switch position.
SLAR RANGE switch (3-position rotary switch)	Selects simulated SLAR range data in kilometers as indicated by switch position.
IR FILTER switch (5-position, 2-pole rotary switch)	Selects one of five simulated IR system filters.
KA-76 ANGULAR POSITION switch (5-position rotary switch)	Selects simulated KA-76 mera angular position attitude as follows: SW Pos — Function 1 — 30 degrees right 2 — 15 degrees right 3 — 0 degrees (vertical) 4 — 15 degrees left 5 — 30 degrees left
CYCLING RATE switch (2-position toggle switch)	Selects internal or external Vg/H cycling rate as follows: SW PO — Function INTERNAL — Selects simulated Vg/H of 0 to 100 through CYCLING RATE potentiometer.
EXTERNAL	Selects external Vg/H input.
CYCLING RATE potentiometer	Provides simulated internal Vg/H of O to 100 Vdc. brake locks control when set.
MODE SEL switch (3-position toggle switch)	Selects CRT display as follows *SW POS* — *Function* BCD — Selects BCD format. ALTN — Selects alternating BCDand numeric format. NUML — Selects numeric format.
TIME SET switch (pushbutton switch)	Sets time programmed by TIME thumbwheel switches into SDC and initiates time count.
RELAY RTN indicator	When lighted, provides check of An/AYA-10 power control circuit.
FRAME NO. RESET switch (pushbutton switch)	Resets frame No. counter to 0000, and checks SYSTEM NO GO lamp.
SYSTEMI NO GO indicator	Indicates go/no-go status of self test.
TEST switch (pushbutton switch)	Initiates go/no-go self test.
BARO ALT potentiometer	Provides simulated barometric altitude with range of 0 to 10,000 ft. Brake locks control when set.
ELAPSED TIME meter	Indicates accumulated test set operating time in hours.
5 VDC POWER circuit breaker	Protects and activates + 5 Vdc power supply.
100VDC POWER circuit breaker	Protects and activates 100 Vdc power supply.
28 VDC POWER circuit breaker	Protects and applies +28 Vdc power to SDC test set and equipment under test.
115 VAC POWER circuit breaker	Protects and applies 115 Vac power to SDC test set and equipment under test.
115 VAC POWER indicator lamp	Lights to indicate that 115 volts ac, 400 Hz has been applied
26 VAC POWER indicator lamp	Lights to indicate that 26 volts ac is available
100 VDC POWER Indicator	Lights to indicate that 100 is operational
28 VDC POWER indicator lamp	Lights to indicate that 28 volts dc power has been applied.

Control or Indicator	*Function*	*Control or Indicator*	*Function*
5 VDC POWER indicator lamp	Lights to indicate that 5 volts dc power supply is operational.	DATA, DEMAND switches (KA-60, SLAB, IR, and KA-76).	Selects systems for which simulated data will be displayed on CRT in either CONTINOUS DISPLAY or SINGLE PULSE mode detere-mined by selected switch position. In OFF position, no data is displayed.
DIM control	Adjusts brightness of display on CRT.		
DISPLAY SELECT switch (6-position rotary switch)	Selects data to be displayed on CRT as indicated by switch position.		
DISPLAY cathode ray tube (CRT) for	Displays BCD and numeric data from SDC as determined by setting of MODE SEL switch.	PRIORITY switch (2-position toggle switch)	Selects simulated data KA60-1 or KA60-2 determinated by setting of switch.
PULSE switch (pushbutton switch)	Enables single pulse to be observed on DISPLAY monitor when DISPLAY SELECT and DATA DEMAND switches are set to appropriate positions.	EXT GND terminal	Provides means for connection of external ground.

Table 3-2. Test Set Connectors (fig. 3-1)

Connector	*Function*	*Connector*	*Function*
X SCOPE	Provides horizontal deflection POWER IN J1 input connection to external oscilloscope.	Connects ac and dc input power to test set.	
Y SCOPE	Provides vertical deflection input connection to external oscilloscope.	POWER OUT J2, CONTROL MONITOR J3, SIGNALS J4 and J5, and RHA IN J6 and J7.	Provides power and signal connections between' SDC test set and equipment under test.
Z SCOPE	Provides unblanking signal input connection to external oscilloscope.		

Section II. OPERATION UNDER USUAL CONDITIONS

3-3. Preparation for Use

a. Place the SDC test set on a work bench or other suitable area where accessibility to 115 volts ac, 400 HZ and 28 volts dc power sources is convenient.

b. Press and hold the core of the pressure relief valve on the SDC test set (fig: 1-1 (1) to allow the internal pressure to equalize with the external atmospheric pressure (approximately 30 seconds).

c. Release the latches securing the cover and remove the cover from the case.

d. Place the SDC test set in an upright position.

e. Place the accessory case in a convenient location.

f. Press and hold the core of the pressure relief valve on the accessory case (fig. 1-1(0) to allow the internal pressure to equilize with the external atmospheric pressure (approximately 30 seconds).

g. Release the latches securing the cover of the accessory case. Separate the cover from the accessory case if desired.

h. Release the straps securing the cable assemblies in the accessory case.

3-4. Preliminary Starting Procedure (fig. 3-1)

With the SDC test set prepared for use as described in paragraph 3-3, set the front panel controls and switches to the following positions:

Control or switch	*Position*
115 VAC POWER switch	OFF
28 VDC POWER switch	OFF
100 VDC POWER switch	OFF
5 VDC POWER switch	OFF
DISPLAY SELECT switch	KA60-1
DIM control	Midrange
DATA DEMAND switches	OFF
PRIORITY switch	KA60-1
SLAR RANGE switch	25

Control or switch	*Position*
SLAR RANGE DELAY switch	0
PITCH switch	0 degrees
ROLL switch	0 degrees
IR FILTER switch	1
KA-76 ANGULAR POSITION switch	1
CYCLING RATE switch	INTERNAL
CYCLING RATE control	Fully counter-clockwise (0.0)
NAVIGATION DATA switches	111111
DATE-DAY switches	11
DATE-MONTH switches	11
DATE-YEAR switches	11
EXPSR switch	4
SORTIE AND TAKING UNIT switches	111
FOCAL LENGTH switches	11
TIME switches	11
MODE SEL switch	NUM
BARO ALT control	midrange (5.0)

3-5. Electrical Power Connections (fig. 3-2)

CAUTION

Before making any power cable connections to the test set insure that all power circuit breakers on the SDC test set are OFF.

a. Remove cable 2W8 from the accessory case.

b. Connect connector 2W8P1 of cable 2W8 to POWER IN connector J1 on the test set.

c. Connect and secure terminations 2W8E1 (negative) and 2W8E2 (positive) to the external + 28 Vdc power supply.

d. Plug connector 2W8P2 into the external 115 Vac, 400 Hz, single phase power outlet.

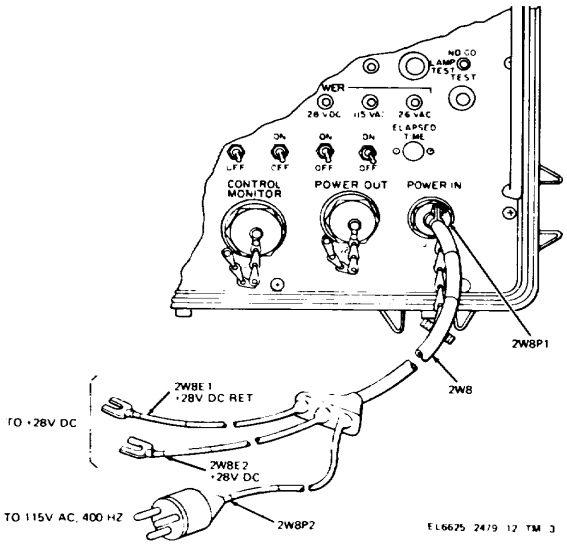

Figure 3-2. Electrical power connections.

3-6. Operating Procedure (fig. 3-1)

The following instructions provide for energizing the test set and performing a preoperational check of the equipment.

a. Set the 115 VAC POWER circuit breaker to ON. Note that the 115 VAC POWER and 26 VAC POWER indicator lamps light and that the ELAPSED TIME meter starts to run by observing the extreme right digit wheel of the ELAPSED TIME meter.

b. Set the 28 VDC POWER circuit breaker to ON. Note that the 28 VDC POWER indicator lamp lights.

c. Set the 100 VDC POWER circuit breaker to ON. Note that the 100 VDC POWER indicator lamp lights.

d. Set 5 VDC POWER circuit breaker to ON. Note that the 5VDC POWER indicator lamp lights.

e. Press the FRAME NO RESET switch and note that the SYSTEM NO GO indicator lamp lights.

3-7. Stopping Procedures (fig. 3-1)

To stop test set, proceed as follows:

a. Set the .5 VDC POWER circuit breaker to the OFF position and check that the 5 VDC indicator lamp goes out.

b. Set the 100 VDC POWER circuit breaker to the OFF position and check that the 100 VDC indicator lamp goes out.

c. Set the 28 VDC POWER circuit breaker to the OFF position and check that the 28 VDC indicator lamp goes out.

d. Set the 115 Vac POWER circuit breaker to the OFF position and check that the 115 VAC and 26 VAC indicator lamps go out.

NOTE

The procedures in e through k; below should only be performed when requirements for further use of the equipment are not known and it is desired to secure all components.

e. Disconnect connector 2W8rP2 of cal)le 2W8 from the external 115 Vac, -400 Hz, single phase power outlet.

f. Disconnect terminations 2W'8E1 and 2W'8E2 of cable 2W8 from the external +28 Vdc power supply.

g. Disconnect connector 21W8P1 of cable from POWER IN J1 connector on the test set.

h. Replace all connector end caps on their respective connectors.

i. Stow and secure all cable assemblies in the accessory case.

j. Replace and secure the cover on the SDC test set case.

k. Replace and secure the accessory case cover.

CHAPTER 4
ORGANIZATIONAL MAINTENANCE

4-1. Scope of Maintenance

Organizational maintenance duties for Test Set, Signal Data Converter AN/AYM-8 are listed below, together with a reference to the paragraph covering the specific maintenance function. The tools, test equipment and materials required are listed in paragraph 4-2.

a. Daily preventive maintenance checks and services (table 4-1).

b. Cleaning (para 4-5).

c. Weekly preventive maintenance checks and services (table 4-2).

d. Monthly preventive maintenance checks and services (table 4-3).

e. Quarterly preventive maintenance checks and services (table 4-4).

f. Touchup painting (para 4-6).

g. Troubleshooting (para 4-7).

h. Lamp removal and replacement procedures (para 4-8a).

i. Switch knob removal and replacement procedures (para 4-8b and c).

4-2. Tools, Test Equipment and Materials Required for Maintenance

The following items are required to perform organizational maintenance.

a. Tool Kit, Electronic Equipment TK-105/G.

b. Multimeter TS-352B/U.

c. Cleaning compound (FSN 7930-395-9542).

d. Cleaning cloth.

e. Camels hair brush (FSN 7920-282-9242).

f. Fine sandpaper (FSN 5350-235-0124).

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 insure that the equipment is serviceable.

a. Systematic Care.. The procedures given in tables 4-1 through 4-4 cover routine systematic care and cleaning essential to proper upkeep and operation of the equipment.

b. Preventive Maintenance Checks and Services. The preventive maintenance checks and services charts outline functions to be performed at specific intervals. These checks and services are to maintain the equipment in a serviceable condition; that is, in good physical condition and in good operating condition. To assist in maintaining serviceability, the charts indicate what to check, how to check, and the normal condition; the Reference column lists paragraphs that contain additional information. If the defect cannot be remedied by the organizational repairman, higher category maintenance 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 AN/AYM-8 are required daily, weekly, monthly, and quarterly.

a. Table 4-1 specifies the checks and services that must be accomplished daily and 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. Table 4-2 specifies checks and services that must be performed weekly.

c. Table 4-3 specifies the checks and services that must be performed monthly. A month is defined as approximately 30 calendar days of 8hours-per-day operation. If the equipment is used more often or under adverse conditions, the monthly preventive maintenance checks and services should be performed at 20or 15-day intervals. Adjustment of the maintenance interval must be made to compensate for any unusual operating conditions. Equipment maintained in a standby (ready for immediate operation) must have monthly preventive maintenance checks and services performed on it. Equipment in limited storage (requires service before operation) does not require monthly preventive maintenance.

d. Table 4-4 specifies checks and services that must be performed on a quarterly basis.

Table 4-1. Daily Preventive Maintenance Checks and Services

Sequence Number	*Item*	*Procedure*	*Reference*
WARNING: Dangerous voltages are used in this equipment. Death may result if contact is made with them. Make sure that no power is applied checking or cleaning connectors.			
1	Exterior surfaces	Clean exterior surfaces, including test set panel assembly.	Para 4-5
2	Controls and indicators	During operation of equipment observe that each control or indicator functions properly. Mechanical action at each knob, dial and switch should be smooth and free of external or internal binding. Tighten loose controls as required.	None
3	Operations	When operating equipment (chapter 3), be alert for any unusual performance or condition.	None

4-5. Cleaning

Inspect the exterior surfaces of the test set. The surfaces should be free of moisture, dirt, grease, and fungus. To clean the exterior surfaces of the test set, use cleaning compound FSN 7930-395-9542, and proceed as follows:

Warning

Prolong breathing of cleaning compound is dangerous; provide adequate ventilation. Cleaning compound is flammable; do not use near an open flame.

a. Use a clean, dry, lint-free cloth to remove moisture and loose dirt.

b. Use a clean, lint-free cloth dampened (not wet) with cleaning compound to remove grease, fungus, and ground-in dirt from the case.

c. Use a camels hair brush (FSN 7920-282-9242) to remove dirt from connectors; use a clean dry, lint-free cloth to remove moisture.

d. Use a clean, dry, lint-free cloth to clean the face of the CRT magnifying lens. If dirt is difficult to remove, dampen the cloth with water; mild soap may be used for more effective cleaning.

Table 4-2. Weekly Preventive Maintenance Checks and Services

Sequence Number	*Item*	*Procedure*	*Paragraph Reference*
1	Cables	Inspect cable assemblies for signs of mechanical damage, such as chafed, cracked or frayed insulation. Refer damaged cables to higher category of maintenance for repair.	None
2	Connectors	Inspect connectors for bent, broken, or missing pins and check that all connectors are properly secured.	None

Table 4-3. Monthly Preventive Maintenance Checks and Services

Sequence Number	*Item*	*Procedure*	*Paragraph Reference*
1	Cable assemblies and accessories	Inspect cable assemblies for cut, abraded, or otherwise damaged insulation; bent, broken or missing connector pins; cracked or otherwise damaged connector insulation; cracked or deformed connector shells; and missing connector protective caps. Inspect accessories for damage. Refer damaged cables to higher category of maintenance.	None
2	Connectors	Inspect for bent, broken or missing pins and check that all connectors are properly secured	None

Table 4-3. Monthly Preventive Maintenance Checks and Services-Continued

Sequence Number	*Item*	*Procedure*	*Reference*
3	Lens caps	Check that lens caps are not cracked or broken.	Para 4-8*a*
4	Switch knobs	Check that switch knobs are not cracked or broken. Tighten loose setscrews.	Para 4-8b and c
5	ELAPSED TIME meter	Check that cover glass is not cracked or broken.	None
6	Extender board	Check for cracks, broken connector or broken solder connections. Refer to higher category of maintenance for repair.	None
7	Test set	Prepare test set for use (para 3-3), perform preliminary starting procedure (para 3-4), and make power connections (para 3-5).	None
8	115VAC and 26VAC POWER indicator lamps	Set 115VAC circuit breaker to ON position. a. Observe that 115 VAC POWER indicator lamp lights. b. Observe that 26 VAC POWER indicator lamp lights.	 a. Table 4-5 Item No. 2 b. Table 4-5 Item No. 3
9	100VDC POWER indicator lamp	Set 100VDC circuit breaker to ON position and observe that 100VDC POWER indicator lamp lights.	Table 4-5 Item No. 4
10	28VDC POWER indicator lamp	Set 28VDC circuit breaker to ON position and observe that 28VDC POWER indicator lamp lights.	Table 4-5 Item No. 5
11	5VDC POWER indicator lamp	Set 5VDC circuit breaker to ON position and observe that SVDC POWER indicator lamp lights.	Table 4-5 Item No. 6
12	SYSTEM NO GO indicator lamp	Press FRAME NO RESET switch and observe that SYSTEM NO GO indicator lamp lights.	Table 4-5 Item No. 7
13	ELAPSED TIME indicator	With 115VAC circuit breaker set to ON, observe that ELAPSED TIME indicator runs by observing extreme right wheel of meter.	None
14	None	Perform stopping procedure (para 3-7).	None

Table 4-4. Quarterly Preventive Maintenance Checks and Services.

Sequence Number	*Item*	*Procedure*	*Paragraph Reference*
1	Publications	Check to see that all pertinent publications are current, complete and serviceable. Requisition pertinent publications not on hand.	DA Pam 310-4 and App A
2	Modifications	Determine whether new MWO's have been published, URGENT MWO's must be applied. All NORMAL MWO's must be scheduled (TM 38-750).	DA Pam 310-7
3	Completeness	Check to see that equipment is complete.	Para 1-7*a*
4	Paint	Inspect equipment for condition of paint.	Para 4-6

4-6. Touchup Painting Instructions

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

4.7. Troubleshooting

The troubleshooting chart, table 4-5, provides corrective procedures for trouble symptoms observed while performing the operational checks of table 4-3 and also observed during normal operation. The troubleshooting chart presents typical trouble symptoms, discusses the probable cause, and directs a course of corrective action to follow that will remedy the trouble. Replacement procedures for defective components are referenced under corrective action. In general, failure or malfunction not covered in the troubleshooting chart, should be directed to general support maintenance.

Table4-5. Troubleshooting Chart

Item No.	*Symptom*	*Probable trouble*	*Corrective Action*
1	With all circuit breakers set to ON, al l POWER indicator lamps do not light.	Defective power cable 2W8	Replace power cable 2W8.
2	115VAC POWER indicator lamp does not light.	a. 115 VAC circuit breaker is off	a. Set 1 15VAC circuit breaker to ON position.
		b. 115VAC POWER Indicator lamp is defective	b. Replace indicator lamp (para 4-8a)
3	26VAC POWER indicator lamp does not light.	26VAC POWER indicator lamp is defective.	Replace indicator lamp (para 4-8a)
4	100VDC POWER indicator lamp does not light.	a. 100VDC circuit breaker is off	a. Set OOVDC circuit breaker to ON position.
		b. 100VDC POWER indicator lamp is defective	b. Replace indicator lamp (para 4-8a).
5	28VDC POWER indicator lamp does not light.	a. 28VDC circuit breaker Is off	a. 28VDC circuit breaker to ON position.
		b. 28VDC POWER indicator lamp is defective	b. Replace indicator lamp (para 4-8a).
6	5VDC POWER indicator lamp does not light.	a. 5VDC circuit breaker is off	a. Set SVDC circuit breaker to ON position.
		b. 5VDC POWER indicator lamp is defective.	b. Replace indicator lamp (para 4-8a).
7	SYSTEM NO GO indicator lamp does not light when FRAMF NO RESET switch Is depressed.	SYSTEM NO GO indicator lamp is defective	Replace indicator lamp (para 4-8a).

4-8. Removal and Replacement

a. Removal and Replacement of Lens Caps 1A3MP4 through 1A3MP10 and lamps 1A3DS1 through 1A3DS7 (fig. 4-1 ®).

(1) *Removal.*

(a) Unscrew the lens cap counterclockwise until free.

(b) Grasp the lamp base at its rim and pull the lamp from the lens cap.

(2) *Replacement.*

(a) Insert a new lamp by pressing it into the lens cap.

(b) Screw the lens cap into the lampholder, clockwise, until secured.

b. Removal and Replacement of Turns-Counting Dials 1A3A9 and 1A3A10 (fig. 4-1 (2).

(1) *Removal.*

(a) Loosen the setscrews in the knob of the dial assembly.

(b) Grasp the outer ring of the dial assembly and remove the dial assembly from the potentiometer shaft.

(2) *Replacement.*

(a) Turn the potentiometer shaft fully counterclockwise.

(b) Set the dial to a reading of 0.0 and engage the brake leveler.

(c) Replace the dial assembly on the shaft.

(d) Tighten the knob setscrews to secure the dial assembly to the potentiometer shaft. Ensure that the potentiometer shaft and the dial assembly do not move while tightening the setscrews.

c. Removal and Replacement of Knob 1A3MAP24 Through 1A3MP31 (fig. 4-1 (3).

(1) *Removal.*

(a) Loosen the setscrews in the knob.

(b) Grasp the knob and pull it from the shaft.

(2) *Replacement.*

(a) Slip the knob over the shaft and orient the knob as shown in figure 4-1 ® .

(b) Tighten the setscrews to secure the knob to the shaft.

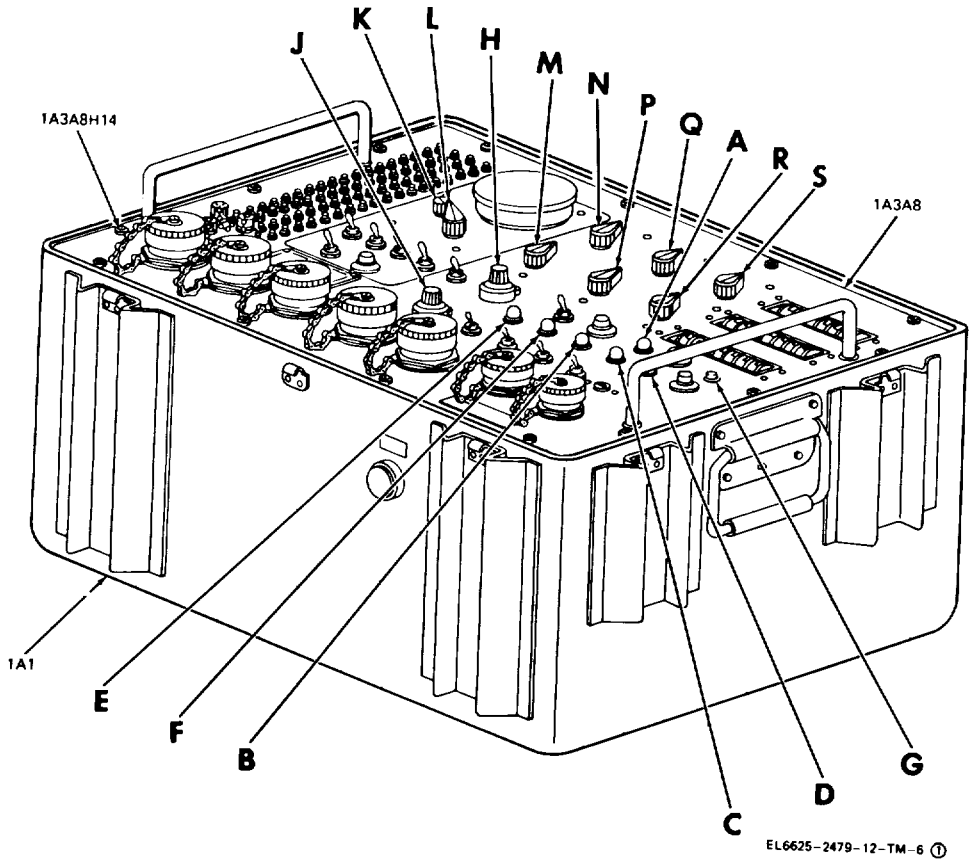

Figure 4-1 (1). SDC test set, location of parts (part 1 of 3).

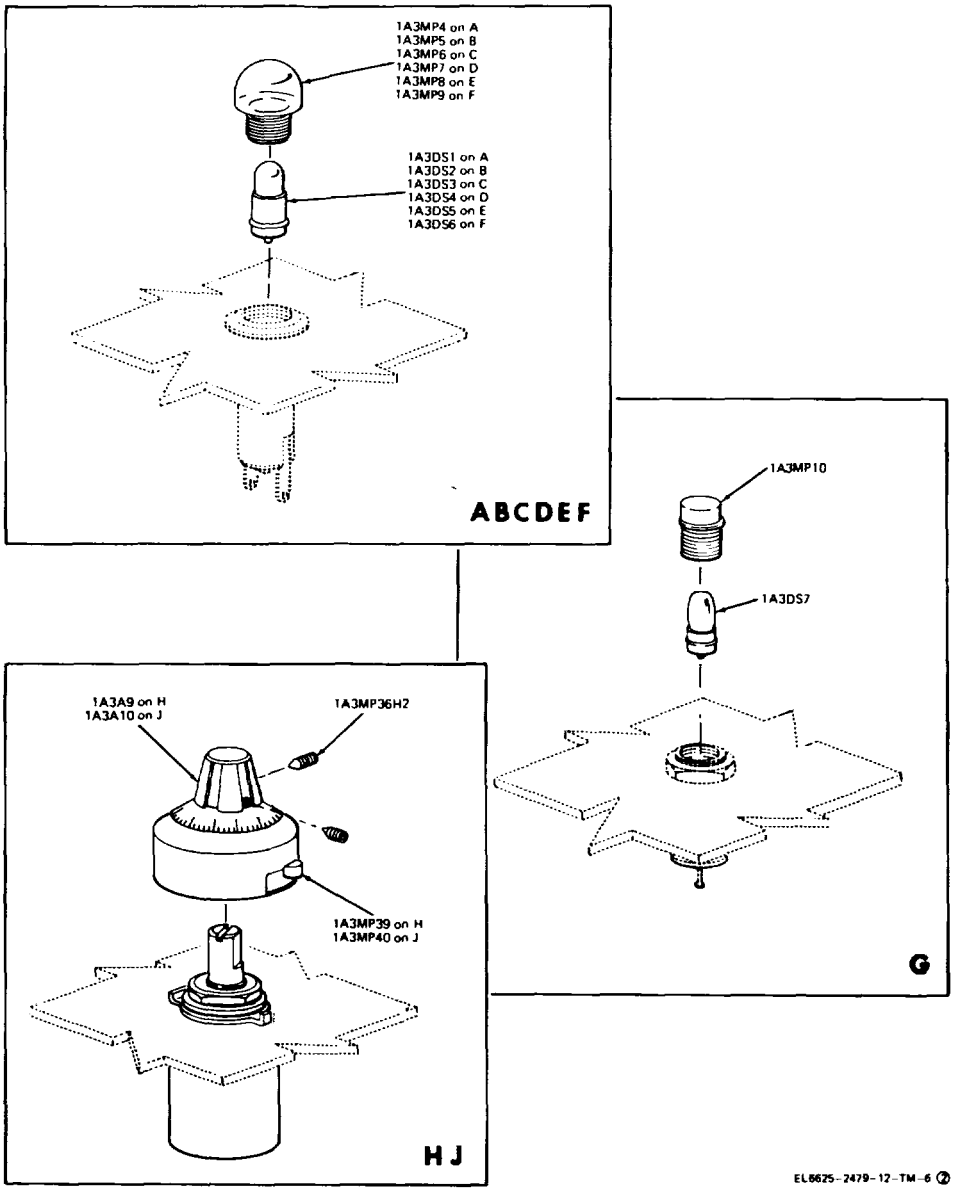

Figure 4-1 (2). SDC test set, location of parts (part 2 of 3).

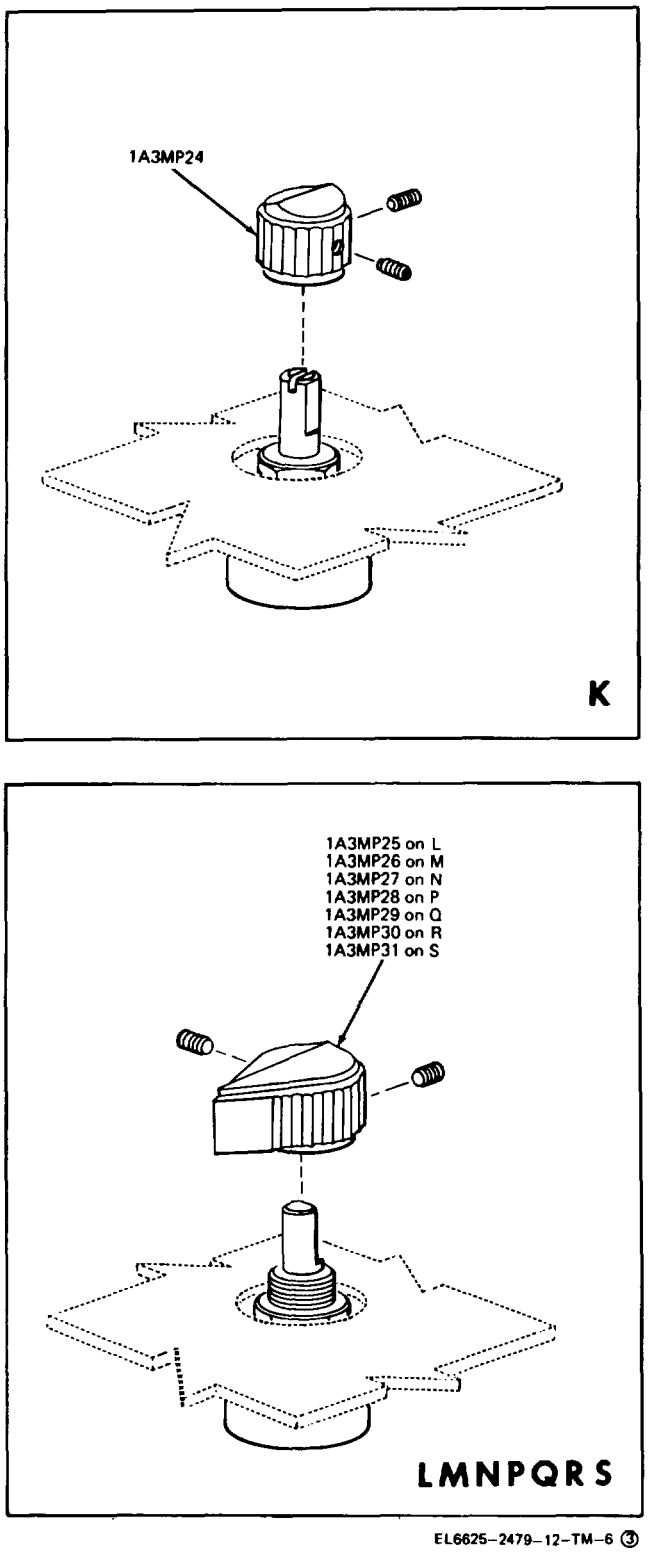

Figure 4-1 (3). SDC test set, location of parts (part 3 of 3).

CHAPTER 5
SHIPMENT, LIMITED STORAGE, AND DEMOLITION

Section I. DISASSEMBLY AND REPACKING

5-1. Disassembly

To disassemble and prepare the AN/AYM-8 for repackaging, follow the procedures given in paragraph 3-70.

5-2. Repackaging

Repackaging of equipment for shipment or limited storage normally will be performed at packaging facility or by a repackaging team. Should emergency packaging be required select the materials from those listed in SB 38-100, Preservation, Packaging and Packing Materials, Supplies and Equipment Used by the Army. Package the equipment in accordance with the original packaging (para 2-1) sofar as possible, with the available materials.

Section II. DEMOLITION TO PREVENT ENEMY USE

5-3. Authority for Demolition

Demolition of the equipment will be accomplished only upon order of the commander. Use the destruction procedures outlined in paragraph 5-4 to prevent further use of the equipment.

5-4. Methods of Destruction.

Any or all of the following methods of destruction may be used. The time available will determine the order and methods of destruction. Also, the tactical situation will determine how the destruction will be carried out.

a. Smash. Smash the test set; use sledges, axes, hammers, crowbars, and any other heavy tools available.

b. Cut. Cut the interconnecting cables and equipment internal cable harnesses; use axes, handaxes, machetes, or similar tools.

c. **Burn.** Burn as much of the equipment as is flammable; use gasoline, oil, flamethrowers, and similar flammables. Burn the technical manuals first. Pour gasoline on the cut cables and internal wiring and ignite it. Use a flamethrower to burn spare parts or pour gasoline on the spare parts and ignite them.

WARNING

Be extremely careful with explosive and incendiary devices. Use these items only when the need is urgent.

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

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

5-5. Priorities for Destruction

When lack of time prevents complete destruction of equipment, destroy essential parts in the following order:

1. Test set.
2. Associated documents.
3. Interconnecting cables.

5-6. Spare Parts.

Destroy all spare parts. Priority will be given for the destruction of component parts of a major item necessary to render that item inoperable.

5-7. Reporting

Report equipment destruction through command channels.

APPENDIX A
REFERENCES

The following publications contain information applicable to the organizational maintenance of the test set:

AR 700-58	Report of Damaged or Improper Shipment (Army)
DA Pam 3104	Military Publications: Index of Technical Manuals, Technical Bulletins, Supply Manuals (types 7,8, and 9), Supply Bulletins, and Lubrication Orders.
DA Pam 310-7	U.S. Army Equipment Index of Modification Work Orders
SB 38-100	Preservation Packaging, Packing and Marking Materials, Supplies and Equipment Used by the Army
TM 9-213	Painting Instructions for Field Use
TM 11-5850-242-34	Direct and General Support Maintenance Manual for Airborne Data Annotation System AN/AYA-10
TM 11-6625-366-15	Organizational, DS, GS, and Depot Maintenance Manual Multimeter TS-352B/U
TM 38-750	The Army Maintenance Management Systems (TAMMS)
TM 740-90-1	Administrative Storage of Equipment

APPENDIX B
MAINTENANCE ALLOCATION

Section I. INTRODUCTION

B-1. General

This appendix provides a summary of the maintenance operations for Test Set, Signal Data Converter AN/AYM-8. 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.

B-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 (decontaminate), to preserve, to drain, to paint, o' to replenish fuel, lubricants, hydraulic fluids, or compressed air supplies.

d. Adjust. To 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 bring 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 equipments used in precision measurement. Consists of comparisons 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 or system.

h. Replace. The act of substituting a serviceable like type part, subassembly, or module (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, remachininig, or resurfacing) to restore serviceability to an item by correcting specific damage, fault, malfunction, or failure in a part, subassembly, module (component or assembly), end item, or system.

j. Overhaul. That maintenance effort (service action) necessary to restore an item to a completely serviceable operational condition as prescribe by maintenance standards (i.e., DMW) 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 unseviceable 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 equipments/components.

B-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 "work time" 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, appropriate "work time" figures will be shown for each category. The number of task-hours specified by the "'work time"

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 operating 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 are as 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.

f. Column 6, Remarks. Column 6 contains an alphabetic code which leads to the remark in section IV, Remarks, which is pertinent to the item opposite the particular code.

B-4. Tool and Test Equipment Requirements (Sec III).

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.

B-5. Remarks (Sec IV)

a. Reference Code. This code refers to the appropriate item in section II, column 6.

b. Remarks. This column provides the required explanatory information necessary to clarify items appearing in section II.

SECTION II. MAINTENANCE ALLOCATION CHART FOR TEST SET, SIGNAL DATA CONVERTER AN/AYM-8

(1) GROUP NUMBER	(2) COMPONENT ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE CATEGORY C	O	F	H	D	(5) TOOLS AND EQUIPMENT	(6) REMARKS
00	TEST SET, SIGNAL DATA CONVERTER AN/AYM-8	Inspect		0.1					A
		Test		0.1					B
		Adjust				0.2		8,9	
		Calibrate				0.5			C
		Replace		0.1					
		Repair		0.3				20	D
		Overhaul					3.0	1 thru 19	
01	TEST SET, SINGAL DATA CONVERTER TS-3089/AY-8	Inspect		0.1					A
		Test		0.1					B
		Test				0.3		1 thru 9	
		Adjust				0.2		8,9	
		Replace		0.1					
		Repair		0.3				20	D
		Repair				1.0		1 thru 9	
0101	CAST ASSEMBLY	Replace				0.2			
		Repair				1.0		8,9	
0102	COVER, TEST SET CW-1148/AYM-8	Replace				0.1			
		Repair				1.0		8,9	
0103	PANEL ASSEMBLY 1A3	Test				0.5		1 thru 9	
		Adjust				0.2		8,9	
		Replace				0.3		8,9	
		Repair				1.0		1 tbru 9	
010301	BASKET ASSEMBLY 1A3A6	Replace				0.4		8,9	
		Repair				0.5		8,9	
010302	MONITOR ASSEMBLY 1A3A5	Test				0.5		1 thru 9	
		Replace				0.3		8,9	
		Repair				0.8		1 thru 9	
01030201	MONITOR BOX ASSEMBLY 1A3A5A3	Replace				0.4		8,9	
		Repair				0.4		8,9	
01030202	TUBE HOUSING ASSEMBLY 1A3AA4	Replace				0.3		8,9	
		Repair				0.4		8,9	
01030203	COMPONENT BOARD ASSEMBLY 1A3A5A3	Replace				0.4		8,9	
		Repair				1.0		2,3,8,9	
01030204	COMPONENT BOARD ASSEMBLY 1A3A5A2	Replace				0.4		8,9	
		Repair				1.0		2,3,8,9	
010303	POWER SUPPLY 1A3A1	Replace				0.4		8,9	
		Repair				1.0		2,3,8,9	
010304	BEZEL ASSEMBLY 1A3A7	Replace				0.3		8,9	
		Repair				0.3		8,9	
010305	COMPONENT BOARD 1A3A4	Replace				0.4		8,9	
		Repair				0.8		2,3,8,9	
010306	BOARD ASSEMBLY, SIMULATOR 1A3A3	Replace				0.4		8,9	
		Repair					1.5	2,3,8,9	
010307	DISPLAY AND DATA DEMAND BOARD ASSEMBLY 1A3AZ	Replace				0.4		8,9	
		Repair					1.5	2,3,8,9	
02	CASE TEST SET CY-7114/AYM-8	Inspect							A
		Replace		0.1					
		Repair				1.0		8,9	
0201	EXTENDER CIRCUIT BOARD MX-8966/AYM	Test				0.3		2,8,9	
		Replace			0.1				
		Repair				0.4		8,9	

SECTION II. MAINTENANCE ALLOCATION CHART FOR TEST SET, SIGNAL DATA CONVERTER AN/AYM-8

(1) GROUP NUMBER	(2) COMPONENT ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE CATEGORY C	O	F	H	D	(5) TOOLS AND EQUIPMENT	(6) REMARKS
0202	CABLE ASSEMBLY GROUP INCLUDES;	Replace		0.1					
		Repair				1.0		2 8 thru 19	E
	CABLE ASSEMBLY, POWER ELECTRICAL CX-12714/AYM-8 2W1 CABLE ASSEMBLY, SPECIAL PURPOSE ELECTRICAL CX-12715/AYM-8 2W2 CABLE ASSEMBLY, SPECIAL PURPOSE ELECTRICAL, BRANCHED CX-12716/ AYM-8 2W3 CABLE ASSEMBLY, SPECIAL PURPOSE ELECTRICAL, BRANCHED CX-12717/ AYM-8 2W9 CABLE ASSEMBLY, SPECIAL PURPOSE ELECTRICAL CX-12718/AYM-9 2W5 CABLE ASSEMBLY, SPECIAL PURPOSE ELECTRICAL, BRANCHED CX-12719/ AYM-8 2W6 CABLE ASSEMBLY, RADIO FREQUENCY CG-3679/AYM-8 2W7 CABLE ASSEMBLY, POWER ELECTRICAL, BRANCHED CX-12724/AYM-8 2W8 CABLE ASSEMBLY, SPECIAL PURPOSE ELECTRICAL CX-12721/AYM-8 2W9 CABLE ASSEMBLY, SPECIAL PURPOSE ELECTRICAL CX-12772/AYM-8 2W10								
020211	CABLE ASSEMBLY RADIO FREQUENCY CG-3679/AYM-8 2W11	Replace		0.1					
		Repair				0.1		2 8 thru 15	E
020212	CABLE ASSEMBLY, RADIO FREQUENCY CG-3679/AYM-8 2W12	Replace		0.1					
		Repair				1.0		2 8 thru 15	E
0203	CASE BASE ASSEMBLY	Replace				0.2		8,9	
		Repair				1.0		8,9	
0204	CASE COVER ASSEMBLY	Replace				0.1		8,9	
		Repair				1.0		8,9	

SECTION III. TOOL AND TEST EQUIPMENT REQUIREMENTS FOR TEST SET, SIGNAL DATA CONVERTER AN/AYM-8

TOOL OR TEST EQUIPMENT REF CODE	MAINTENANCE CATEGORY	NOMENCLATURE	NATIONAL/NATO STOCK NUMBER	TOOL NUMBER
1	H, D	OSILLOSCOPE AN/USM-281C	6625-00-106-9622	
2	H, D	MULTIMETER TS-352R/U	6625-00-553-0142	
3	H, D	DIFFERENTIAL VOLTMETER ME-202/U	6625-00-709-0288	
4	H, D	PULSE GENERATOR (HP 214A)	6625-00-662-7452	
5	H, D	TEST SET, CONTROL MONITOR -RECORDING HEAD AN/AYM-9	6625-00-150-1882	
6	H, D	RESISTOR (RCR32G391JR)	5505-00-126-6713	
7	H, D	RATIO TRANSFORMER TF-515/U	6625-00-087-5433	
8	H, D	TOOL KIT, ELECTRONIC EQUIPMENT TK-105/G	5180-00-610-8177	
9	H, D	TOOL KIT, ELECTRONIC EQUIPMENT TK-100/G	5180-00-605-0079	
10	H, D	WIRE STRIPPER	5110-00-268-4224	
11	D	CONTACT POSITIONER	5120-00-075-2545	
12	D	CONTACT POSITIONER	5120-00-075-2546	
13	D	CONTACT POSITIONER		
14	D	CONTACT POSITIONER		
15	D	CONTACT POSITIONER		
16	D	CRIMP TOOL		
17	D	INSERTER	5120-00-113-3529	
18	D	EXTACTOR		
19	D	CRIMP TOOL	5120-00-686-2816	
20	0	TOOL KIT, ELECTRONIC EQUIPMENT TK-101/G	5180-00-064-5578	

SECTION IV. REMARKS

REFERENCE CODE	REMARKS
A	VISUAL
B	BUILT-IN TEST EQUIPMENT
C	SEE TB 43-180 FOR CALIBRATION REQUIREMENTS.
D	BY REPLACING LAMPS, KNOBS, CABLE ASSEMBLIES, ETC.
E	EXCEPT FOR PEPAIRS CALLING FOR SPECIAL CRIMPING TOOLS ONLY AVAILABLE AT DEPOT.

APPENDIX C
ORGANIZATIONAL MAINTENANCE REPAIR PARTS AND SPECIAL TOOLS LIST

Section I. INTRODUCTION

C-1. Scope

This appendix lists the repair parts required for the performance of organizational maintenance of the AN/AYM-8.

NOTE

No special tools, test or support equipment is required.

C-2. General

This Repair Parts List is divided into the following sections:

a. Repair Parts--Section II. A list of repair parts authorized for the performance of maintenance at the organizational level.

b. Index - Federal Stock Number and Reference Number Cross - Reference to Figure and Item Number - Section III. A list of Federal stock numbers in ascending numerical sequence followed by a list of reference numbers in ascending alphanumeric sequence, cross-referenced to the illustration figure number and reference designation.

C-3. Explanation of Columns

The following provides an explanation of columns in the tabular lists:

a. Source, Maintenance, and Recoverability Codes (SMR), Column 1:

(1) Source code indicates the selection status and source for the listed item. Source codes are::

Code	*Explanation*
P	Repair parts which are stocked in or supplied from the GSA/DSA, or Army supply system, and authorized for use at indicated maintenance categories.
P2	Repair parts which are procured and stocked for insurance purposes because the combat or military essentially of the end item dictates that a minimum quantity be available in the supply system.
P9	Assigned to items which are NSA design controlled: unique repair parts, special tools, test, measuring and diagnostic equipment, which are stocked and sup- plied by the Army COMSEC logistic system, and which are not subject to the provisions of AR 380-41.
P10	Assigned to items which are NSA design controlled: special tools, test, measuring and diagnostic equipment for COMSEC support, which are accountable under the provisions of AR 380-41, and which are stocked and supplied by the Army COMSEC logistic system.
M	Repair parts which are not procured or stocked, but are to be manufactured at indicated maintenance levels.
A	Assemblies which are not procured or stocked as such, but are made up of two or more units. Such component units carry individual stock numbers and descriptions, are procured and stocked separately and can be assembled to form the required assembly at indicated maintenance categories.
X	Parts and assemblies which are not pro- cured or stocked and the mortality of which normally is below that of the applicable end item or component. The failure of such part or assembly should result in retirement of the end item from the supply system.
X1	Repair parts which are not procured or stocked. The requirement for such items will be filled by use of the next higher assembly or component.
X2	Repair parts which are not stocked. The indicated maintenance category requiring such repair parts will attempt to obtain same through cannibalization. Where such repair parts are not obtainable through cannibalization, requirements will be requisitioned, with accompanying justification, through normal supply channels.
G	Major assemblies that are procured with PEMA funds for initial issue only as exchange assemblies at DSU and GSU level. These assemblies will not be stocked above DS and GS level or returned to depot supply level.

(2) Maintenance code indicates the lowest category of maintenance authorized to install the listed item. The maintenance level code is:

Code	*Explanation*
O	..... Organizational maintenance

(3) Recoverability code indicates whether unserviceable items should be returned for recovery or salvage. Items not coded are expendable. Recoverability codes are:

Code	*Explanation*
R	Repair parts and assemblies that are economically reparable at DSU and GSU activities and normally are furnished by supply on an exchange basis.
S	Repair parts and assemblies which are economically reparable at DSU and GSU activities and which normally are furnished by supply on an exchange basis. When items are determined by a GSU to be uneconomically reparable, they will be evacuated to a depot for evaluation and analysis before final disposition.
T	High dollar value recoverable repair parts which are subject to special handling and are issued on an exchange basis. Such repair parts normally are repaired or overhauled at depot maintenance activities.
U	Repair parts specifically selected for salvaged by reclamation units because of precious metal content, critical materials, or high dollar value reusable casings or0 castings.

b. Federal Stock Number, Column 2.. This column indicates the Federal stock number assigned to the item and will be used for requisitioning purposes.

c. Description, Column 3. This column indicates the Federal item name and any additional description of the item required. A part number or other reference number is followed by the applicable five-digit Federal supply code for manufacturers in parentheses.

d. Unit of Measurement, Column 4. A two-character alphabetic abbreviation indicating the amount or quantity of the item upon which the allowances are based, e.g., ft, ea, pr**-,** etc.

e. Quality Incorporated in Unit, Column 5. This column indicates the quantity of the item used in AN, /AYMI-8.

f. 15-Day Organizational Maintenance Allowances.

(1) The repair parts indicated by an asterisk in the allowance column represent those authorized for use at the organizational category, and will be requisitioned on an "as required" basis until stockage is based on demand in accordance with AR 710-2.

(2) Major Army Commanders are authorized to approve reduction in the range of support items authorized for use in units within their commands. Recommendations for increase in range of items authorized for use will be for- warded to Commander, US Army Electronics Command, ATTN: AMSEL-MA-S, Fort Monmouth, NJ 07703. Any changes approved will be reflected in a revision to the RPSTL.

g. Illustrations, Column 7. This column is divided as follows:

(1) *Figure-number, column 7a.* Indicates the figure number of the illustration in which the item is shown.

(2) *Item number or reference designation, column 7b.* Indicates the reference designation used to identify the item in the illustration.

C-4. Location of Repair Parts

a. This appendix contains a cross-reference index (sec III) to be used to locate a repair part when either the Federal stock number, reference number (manufacturer's part number), or reference designation is known. The index is in ascending FSN sequence, followed by a list of reference numbers in ascending alphanumeric sequence, cross-referenced to the illustration figure number and reference designation.

b. When neither the FSN, reference number, nor reference designation is known, identify the part in the illustration; or scrutinize column 3 of the repair parts list (sect II) until the part is located.

C-5. Federal Supply Code for Manufacturers

Code	*Manufacturer*
80294	Bourns Inc
81349	Military Specifications
96906	Military Standards

SECTION II. REPAIR PARTS FOR ORGANIZATIONAL MAINTENANCE

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REF NUMBER & MFR CODE	USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 15-DAY ORGANIZATIONAL MAINTENANCE ALW (a) 1-5	(b) 6-20	(c) 21-50	(d) 51-100	(7) ILLUS-TRATION (a) FIG. NO.	(b) ITEM NO. OR REF. DESGINATION
	6625-137-2289	TEST SET, SIGNAL DATA CONVERTER AN/AYM-8 (This item is non-expendable)		EA	1					1-1	
G- O- S	6625-495-0657	TEST SET, SIGNAL DATA CONVERT TS-3089/AYM-8		EA	1					1-(1)	1
A- O- R	6625-242-3784	COVER TEST SET CW-1148/AYM-8		EA	1					1-(1)	1A2
P- O--		LENS, INDICATOR LIGHT L27CN2 (81349)		EA	1	*	*	*	*	4-1(1)	1A3P4
P- O--		LENS, INDICATOR LIGHT L27RN2 (81349)		EA	3	*	*	*	*	4-1(1)	1A3MP5,1A3MP6, 1A31P7
P- O--		LENS, INDICATOR LIGHT L28RN2 (81349)		EA	2	*	*	*	*	4-1(2)	1A3MP8,1A3MP9
P O--	6240-752-2581	LAMP, INCANDESCENT MS24515-6851 (96906)		EA	1	*	*	*	*	4-1(2)	1A3DS7
P O-	-6240-155-7836	LAMP, INCANDESCENT MS25237-37 (96906)		EA	3	*	*	*	*	4-1(2)	1A3DS1,1A3DS2, 1A3DS3, 1A3DS4
P O--	6240-723-3378	LAMP, **NEON** MS25252C9A (96906)		EA	2	*	*	*	*	4-1(2)	1A3DS3, 1A3DS6
P- O--	5355-850-9799	KNOB MS91528-ON1B (96906)		EA	1	*	*	*	*	4-1(3)	1A3MP24
P-O--	5355-556-0145	KNOB MS91528-lK2B (96906)		EA	7	*	*	*	*	4-(3)	1/A3MP25 thru 1A3MP31
P-O--	5355-775-4287	DIAL, ELECTRICAL, IRNS COUNTING H492-37 (80254)		EA	2	*	*	*	*	4-1(2)	1A3A9, 1A3A1O
C-O-	S6625-242-3785	CASE, TEST SET CY-71n4/AYM-8		EA	**1**					**1-1**	2
P- O- R	6625-432-2382	CABLE ASSY, RADIO FREQUENCY CG-3679/AYM-8		EA	3	*	*	*	*	1-1(2)	2W7, 2Wl, 2W12
P- O- R	6625-233-9198	EXTENDER, CIRCUIT CARD MX-8966/AYM		**EA**	1	*	*	*	*	1-1(2)	2A3
P- O- R	6625-451-0440	CABLE ASSY, POWER, ELECT CX-12714/AYM-8		EA	1	*	*	*	*	1-1(2)	2W1
P- O- R	5995-451-1180	CABLE ASSY, SPECIAL PURPOSE, ELECT CX-12715/AYM-8		EA	1	*	*	*	*	1-1(2)	2W2
P- O- R	6625-186-6142	CABLE ASSY, SPECIAL PURPOSE, ELECT, BRANHED CX-12716/AYM-8		EA	1	*	*	*	*	1-1(2)	2W3
P- O- R	6625-191-2104	CABLE ASSY, SPECIAL PURPOSE, ELECT, BRANCHED CX-12717/AYM-8		EA	1	*	*	*	*	1-1(2)	2W4
P- O- R	5995-449-9333	CABLE ASSY, SPECIAL PURPOSE, ELECT CX-12718/AYM-8		EA	1	*	*	*	*	**1-1(2)**	2W5
P- O- R	6625-186-6151	CABLE ASSY, SPECIAL PURPOSE, ELECT, BRANOHED CX-12719/AYM-8		EA	1	*	*	*	*	**1-1(2)**	2W6
P- O- R	5995-449-5344	CABLE ASSY, SPECIAL PURPOSE, ELECT, BRANCHED CX-12724/AYM-8		EA	1	*	*	*	*	**1-1(2)**	**2W8**
P- O- R	5995-451-4953	CABLE ASSY, SPECIAL PURPOSE, ELECT CX-12721/AYM-8		EA	1	*	*	*	*	1-1(2)	2W9
P- O- R	6625-432-2384	CABLE ASSY, SPECIAL PURPOSE, ELECT CX-12722/AYM-8		EA	1	*	*	*	*	1-1(2)	2W10

SECTION III. INDEX-FEDERAL STOCK NUMBER AND REFERENCE NUMBER CROSS REFERENCE TO FIGURE AND ITEM NUMBER

FEDERAL STOCK NUMBER	FIGURE NUMBER	ITEM NUMBER OR REF. DESIGNATION	FEDERAL STOCK NUMBER	FIGURE NUMBER	ITEM NUMBER OR REF. DESIGNATION
5355-556-0145	4-1(3)	1A3MP25			
5355-556-0145	4-1(3)	1A3MP31			
5355-775-4287	4-1(2)	1A3A9			
5355-775-4287	4-1(2)	1A3A10			
5355-850-9799	4-1(3)	1A3MP24			
5995-449-9344	1-1(2)	2W8			
5995-451-1180	1-1(2)	2W2			
5995-451-4953	1-1(2)	2W9			
6240-155-7836	4-1(2)	1A3DS1			
6240-155-7836	4-1(2)	1A3DS2			
6240-155-7836	4-1(2)	1A3DS4			
6240-723-3378	4-1(2)	1A3DS3			
6240-723-3378	4-1(2)	1A3DS6			
6240-752-2581	4-1(2)	1A3DS7			
6625-137-2289	1-1				
6625-186-6142	1-1(2)	2W3			
6625-186-6151	1-1(2)	2W6			
6625-191-2104	1-1(2)	2W4			
6625-233-9198	1-1(2)	2A3			
6625-242-3785	1-1(1)	2			
6625-432-2382	1-1	2W7			
6625-432-2382	1-1(2)	2W12			
6625-432-2382	1-1(2)	2W11			
6625-436-2384	1-1(2)	2W10			
6625-451-0440	1-1(2)	2W1			
6625-495-0657	1-1(1)	1			

REFERENCE No.	MFG CODE	FIG NO.	ITEM NO.
L27CN2	81349	4-1(2)	1A3MP4
L27RN2	81349	4-1(2)	1A3MP5
L27RN2	81349	4-1(2)	1A3MP7
L28RN2	81349	4-1(2)	1A3MP8
L28RN2	81349	4-1(2)	1A3MP9

GLOSSARY

Abbreviation	*Definition*
ADAS	Airborne Data Annotation System AN/AYA-10
Alt	Altitude
Baro alt	Barometric altitude
BCD	Binary coded decimal
CDM	Control display monitor
CRT	Cathode ray tube
INS	Inertial Navigation Set AN/ASN-86
IR	Infrared Detecting Set AN/AAS-24
KA60-1	Forward Still Picture Camera KA-60C
KA6-2	Aft Still Picture Camera KA-60C
KA-76	Still Picture Camera KA-76A
RHA	Recording Head Assembly
SDC	Signal Data Converter CV-2647/AYA-10
SLAR	Radar Surveillance Set AN/APS-94D
Vg/H	Ratio of aircraft ground velocity to altitude

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