
TECHNICAL MANUAL

OPERATOR'S, ORGANIZATIONAL, DIRECT SUPPORT
AND GENERAL SUPPORT MAINTENANCE MANUAL
FOR

TEST PANEL FOR INDICATOR,
RADIO MAGNETIC COMPASS
ID-998/ASSN (ID-998/ASSN TEST PANEL)

HEADQUARTERS, DEPARTMENT OF THE ARMY

AUGUST 1978

OPERATOR'S, ORGANIZATIONAL, DIRECT SUPPORT, AND GENERAL SUPPORT
MAINTENANCE MANUAL FOR
TEST PANEL FOR INDICATOR, RADIO MAGNETIC COMPASS
ID-998/ASSN (ID-998/ASSN TEST PANEL)

REPORTING OF ERRORS

You can improve this manual by recommending improvements using DA Form 2028-2 located in the back of the manual. Simply tear out the self-addressed form, fill it out as shown on the sample, fold it where shown, and drop in the mail.

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CHAPTER 1

INTRODUCTION

Section I. GENERAL

1-1. Scope

This manual describes the Test Panel for Indicator, Radio Magnetic Compass ID-998/ASN (test panel), and includes instructions for its operation and maintenance. For Maintenance of Electronic Control Amplifier AM-3209/ASN (a component of the test panel) refer to TM 11-6110-211-15.

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

1-3. Reporting Equipment Improvement Recommendations (EIR)

EIR's will be prepared using DA Form 2407, Maintenance Request. Instructions for preparing EIR's are provided in TM 38-750, The Army Maintenance Management System. EIR's should be mailed direct to Commander, US Army Communications and Electronics Materiel Readiness Command, ATTN DRSEL-MA-Q, Fort Monmouth, NJ 07703. A reply will be furnished direct to you.

1-4. 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 700-58/NAVSUPINST 4030.29/AFR 71-13/MCO P4030.29A 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 55-38/NAVSUPINST 4610.33V/AFR 75-18/MCO P4610.19C, and DLAR 4500.15.

1-5. Administrative Storage.

Administrative storage of Test Panel for Indicator, Radio Magnetic Compass ID-998/ASN is for periods of 1 to 45 days and maybe accomplished as follows:

a. Storage site. The equipment should be stored in an area specifically marked Administrative Storage. The area should be covered and protected from the elements.

b. Maintenance Services. Before storage, perform, the next scheduled major preventive maintenance service.

c. Inspection. Inspect the equipment for proper operation before storage. Do not store inoperable equipment.

d. Protection. Protect the equipment by storing in barrier material (NSN 8135-00-0565) along with a dessicant bag (NSN 6850-00-264-6572).

1-6. Destruction of Army Electronics Materiel

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

Section II. DESCRIPTION AND DATA

1-7. Purpose and Use

a. Purpose. The test panel simulates the loads normally applied to Indicator, Radio Magnetic Compass ID-998/ASN (indicator) and provides facilities for testing circuits and components of the indicator.

b. Use. The test panel is used as a bench test set to perform high potential tests on the indicator and to check operation and calibration of components of the indicator.

1-8. Tabulated Data

Input voltage 115 VAC \pm 3,400 Hertz.

Synchro transmitter:

Type High precision torque transmitter, Bendix type AY201S-1-B.

Accuracy \pm 6 minutes.

Input voltage 26 VAC, 400 Hertz.

Synchro transmitter control dials:

Type Direct drive.

Range 360 degrees continuous.

Accuracy 0.25 degree.

Vernier ratio 10 to 1.

Meter

Type D. C. Microamp 50-0-50, Triplett type 327-PL.

1-9. Components

The test panel consists of a cabinet, spare fuses and indicator lamps, and internally mounted Electronic Control Amplifier AM-3209/ASN (amplifier). Refer to the packing list provided with each equipment to determine the components *actually* provided with each equipment at the time of shipment.

1-10. Description

The test panel (fig. FO-1) is housed in a rectangular metal case with rounded front side comers. All operating controls, indicators, meter, and binding posts are mounted on the front panel. Pin jacks and a switch (not shown) are mounted within the test panel, under the top cover, for testing and calibration of the test panel. Two handles are attached to the front of the test panel. Two brackets are bolted to the top of the case, to form a mount to support the indicator under test. A cable extends from the rear of the case for connection of the test panel to the indicator under test.

1-11. Additional Equipment Required

<i>Equipment</i>	<i>Technical manual</i>
Voltmeter, Meter ME-30A/U	TM 11-6625-320-12

Generator, Signal AN/URM-127
Multimeter AN/USM-223
Frequency Meter AN/USM-207
Oscilloscope AN/USM-281
Test Set, Meter TS-682A/GSM-I TM 11-6625-277-14
Ohmmeter ZM-21/U or TM11-2050 ZM-21A/U (ZM-21 (*))
Flux Valve T611/ASN (FSN 6605-531-2992)
Resistor, Fixed carbon, 100K ohms, ½ watt, 1 percent
Power Supply PP-1097A/G or equivalent
115 VAC, 400-Hertz source

CHAPTER 2

SERVICE UPON RECEIPT OF EQUIPMENT

2-1. Unpacking

a. Packaging Data. When packaged for shipment the spare parts are packed inside the test panel case. The test and power cables that extend from the back of the case are coiled and placed in the case. The case and instruction manuals are placed in a corrugated carton and all sides are padded. The corrugated carton is foil sealed and packed in a nailed wooden box that is bound with metal straps.

b. Removing Contents.

CAUTION

Be careful when unpacking the equipment. Do not thrust tools into the interior of the shipping containers; equipment damage may result from such action.

- (1) Cut and remove the metal straps.
- (2) Remove the nails from the box cover (use nailpuller, if available) and remove the cover.
- (3) Carefully lift the sealed corrugated carton from the box.
- (4) Carefully slit the sealed corrugated carton and remove the instruction manuals and test panel from the carton.
- (5) Open the top cover (fig. FO-1) and remove the spare parts package and packing from inside the case.
- (6) Uncoil the cables and extend them through the

rear opening in the case.

2-2. Checking Unpacked Equipment

a. Inspect the equipment for damage. If the equipment has been damaged, refer to paragraph 1-4.

b. Check the equipment against the packing list. When no packing list exists, check the contents against the basic issue items list, Appx. B. If the equipment is incomplete, refer to paragraph 1-4.

c. Check the binding posts, meter, and controls to be sure they are not loose or broken.

d. Open the top cover (fig. FO-1) by releasing the fasteners, and check to see that the cables extending from the test panel are held firmly by the cable clamp at the rear of the case.

2-3. Installation of Indicator Mount

The indicator mount is bolted to the inside of the test panel cover during shipment. To install the indicator mount for operation of the test panel, perform the following

a. Open the cover of the test panel (fig. FO-1) and remove the nuts and bolts that secure the mount to the cover.

b. Secure the mount on the outside of the cover (top of test panel) with the hardware removed in *a* above.

CHAPTER 3

OPERATING INSTRUCTIONS

3-1. Controls, Indicators, and Connectors (fig. FO-1)

Item	Function
Synchro transmitter No. 1 control	Controls rotation of pointer No. 1 and pointer No. 2 on indicator under test to check their operation and calibration.
Meter	Used during flag and annunciator tests of the indicator to indicate current or a null.
Synchro transmitter No. 2 control	Controls rotation of slaving control transmitter in indicator under test to check its operation and tuning.
OHMS control	Indicates resistance when BRIDGE SEL switch is in FLAG RES or ANNU RES position.
PRESS-TO-READ switch	When pressed, allows meter to indicate.
CUR ADJ control	Adjusts current through flag and annunciator circuits in indicator under test.
POWER indicator	Indicates power is applied to test panel (ON-OFF switch at ON position).
ON-OFF switch HIGH POT binding posts	Applies power to test panel, Provides connection for ohmmeter during insulation breakdown (HIGH POT) test of indicator (HIGH POT-NORM switch in HIGH POT position).
HIGH POT-NORM switch	<i>HIGH POT position.</i> Connects indicator to HIGH POT binding posts for high pot test. <i>NORM position</i> Connects indicator to test circuits in test panel during all other tests.
PIN SEL switch	Connects selected indicator connector pin(s) to HIGH POT binding posts during high pot test (HIGH POT-NORM switch in HIGH POT position).
POINTERS 1 & 2-ALL OTHER TESTS switch	<i>1 & 2 position.</i> Connects 26 VAC to pointer No. 1 and No. 2 for pointer tests of indicator. <i>ALL OTHER TESTS position.</i> Connects 26 VAC to B data transmitter B307, A data transmitter B308, and heading selector transmitter B304 in indicator during tests of those transmitter.
X-Y-Z (B307-B308-B304) binding posts	Connect to B data transmitter B307, A data transmitter B308 or heading selector transmitter B304 (through B307-B308-B304 switch) to allow individual testing of transmitter outputs.
BRIDGE SEL switch	Connects bridge circuit for current or resistance readings of

3-1. Controls, Indicators, and Connectors (fig. FO-1) (cont)

Item	Function
B307-B308-B304 switch	flag or annunciator circuit in indicator. Connects output of B data transmitter B307, A data transmitter B308, or heading selector transmitter B304 of indicator to adjacent X-Y-Z binding posts to allow testing of transmitter output (POINTER NO. 1 & 2-ALL OTHER TESTS switch in ALL OTHER TESTS position).
POINTER ADF-VOR-RMI switch	Connects synchro transmitter No. 1 output signal to ADF, VOR, or RMI input of pointer No. 1 on the indicator under test (POINTER NO. 1-NO. 2-B306 switch in No. 1 position). Also connects 26 VAC to pointer No. 1 (POINTER NO. 1 & 2-ALL OTHER TESTS switch at POINTER NO. 1 & 2 position).
POINTER NO. 1-NO. 2-B306 switch	<i>NO. 1 position</i> Connects synchro transmitter No. 1 output signal to pointer No. 1 of indicator under test (through ADF-VOR-RMI switch). Also connects 26 VAC to input of synchro transmitter No. 1. <i>NO. 2 position</i> Connects synchro transmitter No. 1 output signal to pointer No. 2 of indicator under test. Also connects 26 VAC to input of synchro transmitter No. 1. <i>B306 position.</i> Connects synchro transmitter No. 1 output signal to slaving control transmitter B306 in the indicator under test to simulate flux gate input signals. Also connects 1.5 VAC to input of synchro transmitter No. 1.
1.5 V ADJ control	Adjust 1.5 VAC Supply of test panel.
1.5 V binding posts	Used during adjustment of 1.5 VAC supply of test panel.
5 VDC binding posts	Provides connection-for external 5 VDC input for checking lights in indicator.
B306 X-Y-Z binding posts	Used to apply normal load (flux valve) to slaving control transmitter B306 in indicator during testing.
VTVM binding posts	Used to apply signal to slaving control transmitter B306 during testing.

3-2. Tests Performed With Test Panel

- a. High potential (HIGH POT) test (para 3-4).
- b. Lighting test (para 3-5).
- c. B306 rotor tuning test (para 3-6).
- d. Pointer No. 1 test (para 3-7).
- e. Pointer No. 2 test (para 3-8).
- f. Heading dial test (para 3-9).
- g. B306 calibration error test (para 3-10).
- h. B307 calibration error test (para 3-11).
- i. B308 calibration error test (para 3-12).
- j. B304 calibration error test (para 3-13).
- k. Flag test (para 3-14).
- l. Annunciator test (para 3-15).

3-3. Starting Procedure

- a. Set the ON-OFF switch to OFF.
- b. Connect the alligator clips at the end of the test panel power cable to the 115 VAC, 400-Hertz power source.
- c. Connect the indicator to be tested to the test panel test cable.
- d. Place the indicator to be tested in the indicator mount on top of the test panel.
- e. Turn the power source on.

NOTE

In the following procedures, all controls, indicators, binding posts, etc. are on test panel unless otherwise stated.

3-4. High Potential Test

- a. Connect Ohmmeter ZM-21 (*)/U between the HIGH POT binding posts.
- b. Rotate the PIN SELECTOR control through each of its positions, starting with its counterclockwise position. The position numbers on the PIN SELECTOR control correspond to the pins being tested on the indicator receptacle.
- c. The resistance at each switch position should be 250,000 ohms or greater.
- d. Disconnect the ohmmeter.

3-5. Lighting Test

- a. Connect the 5-vdc power supply to the 5 VDC binding posts. Connect the AN/USM-223 in series with one leg of the power supply (2.5 amp range).
- b. Turn on and adjust the 5 vdc power supply for 5 volts ± 0.1 .
- c. The AN/USM-223 should indicate 1.08 amperes ± 0.12 .
- d. Turn off and disconnect the 5-vdc power supply and AN/USM-223.

3-6. B306 Rotor Tuning Test

- a. Connect additional equipment (para 1-11) as shown in figure FO-3.
- b. Place POINTER NO. 1-NO.2-B306 switch at NO. 2 position.
- c. Connect ME-30A/U across VTVM binding posts.

d. Set amplitude of AN/URM-127 output for 0.5 volt as indicated on the ME-30A/U.

e. Rotate the AN/URM-127 frequency dial for an in-phase pattern on the AN/USM-81.

f. Frequency, as indicated by AN/USM-207 should be 740 Hertz ± 10 .

g. Set the ON-OFF switch to ON.

h. A Rotate the heading dial on the indicator through 360 degrees by rotating the synchro transmitter No. 2 control. Adjust the frequency dial on the AN/URM-127 to keep an inphase pattern on the AN/USM-281.

i. The frequency on the AN/USM-207 should be 740 Hertz ± 10 .

j. Disconnect the test equipment from test panel.

3-7. Pointer No. 1 Test

- a. Set switches on test panel as follows:
 - (1) ADF-VOR-RMI switch to ADF.
 - (2) POINTER NO. 1-NO.2-B306 switch to NO. 1.
 - (3) POINTERS 1 & 2-ALL OTHER TESTS switch to POINTERS 1 & 2.
- b. Set ADF-VOR switch on indicator to ADF.
- c. Rotate the synchro transmitter No. 1 control in 30-degree increments through 360 degrees.
- d. Note error between pointer No. 1 on the indicator and the synchro transmitter No. 1 dial reading. The error should not exceed ± 1.5 degrees.
- e. Set ADF-VOR-RMI switch to VOR.
- f. Set the ADF-VOR switch on the indicator to VOR.
- g. Rotate the synchro transmitter No. 1 control in 60-degree increments through 360 degrees and note the error between pointer No. 1 on the indicator and the synchro transmitter No. 1 dial for each control position. The error should not exceed ± 1.5 degrees.
- h. Operate the ADF-VOR-RMI switch to RMI.
- i. Repeat step g above.

3-8. Pointer No. 2 Test

- a. Operate POINTER NO. 1-NO. 2-B306 switch to NO. 2.
- b. Perform the steps in paragraph 3-7b through i, except substitute pointer No. 2 for pointer No. 1 wherever referenced.

3-9. Heading Dial Test

- a. Set the synchro transmitter No. 2 control to ZERO.
- b. Rotate the indicator SYNC knob until zero degree on its heading dial aligns with the major index within ± 0.5 degree.
- c. Rotate the heading dial in 60-degree increments with the synchro transmitter No. 2 control.
- d. The error spread between the 60-degree increment settings should not exceed ± 1.25 degrees.

3-10. B306 Calibration Error Test

- a. Set the POINTER NO. 1-NO.2-B306 switch to the B306 position and the POINTERS 1 & 2-ALL OTHER

TESTS switch to the ALL OTHER TESTS position.

b. Adjust the 1.5V ADJ control for 1.5 vac as measured across the 1.5V binding posts.

c. Connect the ME-30A/U across the VTVM binding posts.

d. Rotate the indicator SYNC knob until its heading dial aligns with the major index.

e. Rotate synchro transmitter No. 1 control for a null on the ME-30A/U.

f. The synchro transmitter dial should indicate ± 0.5 degree.

g. Rotate the synchro transmitter No. 2 control and the synchro transmitter No. 1 control in 60-degree increments and adjust the synchro transmitter No. 1 control for a null on the ME-30A/U.

h. The error between the synchro transmitter dials at each reading should not exceed ± 0.5 degree.

3-11. B307 Calibration Error Test

a. Set the B307-B308-B304 switch to the B307 position.

b. Connect the ME-30A/U between the adjacent X and Y binding posts.

c. Rotate the synchro transmitter No. 2 control for a null on the ME-30A/U.

d. The synchro transmitter No. 2 dial should indicate ± 0.5 degree.

e. Rotate the synchro transmitter No. 2 control to each position indicated in the following chart and connect the ME-30A/U between the indicated binding posts. Adjust the synchro transmitter No. 2 control for a null on the ME-30A/U; its dial should indicate within ± 0.5 degree of the settings indicated in the chart.

Synchro Transmitter NO. 2 Settings (DEGREES)	ME-30A/U Connection	
	FROM	TO
0	X	Y
60	Y	Z
120	X	Z
180	X	Y
240	X	Z
300	X	Z

3-12. B308 Calibration Error Test

a. Rotate the B307-B308-B304 switch to the B308 position.

b. Perform the steps in paragraph 3-11 *b* through *e*.

3-13. B304 Calibration Error Test

a. Set the B307-B308-B304 switch to the B304 position.

b. Align 0 degree on the indicator heading dial with the major index.

c. Set the synchro transmitter No. 2 control to the 0 degree position.

d. Rotate the indicator Set HDG control for a null on the ME-30A/U at each position of the Set HDG Cursor listed in the following chart. The Set HDG Cursor should be within ± 0.5 degree when null is obtained.

Set HDG Cursor (degrees)	ME-30A/U CONNECTION	
	FROM	TO
0	X	Y
60	Y	Z
120	X	Z
180	X	Y
240	Y	Z
300	X	Z

3-14. Flag Test

a. Rotate the BRIDGE SEL switch to the FLAG CUR position.

b. Rotate the CUR ADJ control until the flag on the indicator starts to move. The meter should indicate 280 microampere or more (scale X10).

c. Rotate the CUR ADJ control until the flag on the indicator is out of sight and stops. The meter should indicate 430 microampere ± 30 .

3-15. Annunciator Test

a. Rotate the BRIDGE SEL switch to the ANNUN CUR+ position.

b. Rotate the CUR ADJ control until a dot appears fully in the window of the indicator. The meter should indicate between 140 and 230 microampere (scale X10).

c. Rotate the BRIDGE SEL switch to the ANNUN CUR- position.

d. Rotate the CUR ADJ control until a cross appears fully in the window of the indicator. The meter should indicate between 140 and 230 microampere (scale X10).

3-16. Stopping Procedures

a. Set the ON-OFF switch to OFF and turn the power source off.

b. Disconnect the test panel from the power source.

c. Disconnect the indicator from the test panel cable.

d. Remove the indicators from the indicator mount on the test panel.

CHAPTER 4

ORGANIZATIONAL MAINTENANCE

4-1. Scope of Organizational Maintenance

Organizational maintenance personnel perform preventive maintenance (para 4-2 and 4-3) and replace the lamp and fuse in the test panel. During the operation of the test panel, observe the operation of switches and controls for evidence of looseness, binding, or mechanical malfunction.

4-2. Cleaning Instructions

a. All exterior surfaces of the equipment shall be free from dirt, grease, and fungus. Remove moisture and loose dirt with a clean, soft cloth.

WARNING

The fumes of TRICHLOROETHANE are toxic. Provide thorough ventilation whenever it is used; avoid prolonged or repeated breathing of vapor. Do not use near an open flame or hot surface; trichloroethane is nonflammable but

heat converts the fumes to a highly toxic phosgene gas the inhalation of which could result in serious injury or death. Prolonged or repeated skin contact with trichloroethane can cause skin inflammation. When necessary, use gloves, sleeves and aprons which the solvent cannot penetrate.

b. Remove grease, fungus, and ground-in dirt from the exterior surfaces with a clean cloth dampened (not wet) with trichloroethane. Wipe dry with a clean, dry, lint-free cloth.

4-3. 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 bare metal to protect it from further corrosion.

CHAPTER 5

FUNCTIONING OF TEST PANEL

5-1. General Functioning

a. Because the test panel is made up of switches, synchros, binding posts, etc., it does not operate on its own but depends for its operation on circuits and components within the indicator. Therefore, functioning of the test panel is described (para 5-2 through 5-13) in terms of the tests it performs on the indicator. Electronic Control Amplifier AM-3209/ASN mounted internally in the test panel, amplifies signals from the indicator. Refer to TM 11-6110-211-15 for its functioning.

b. Power 115 vat, 400 Hertz is applied to the test panel input transformer through the power cable and the ON-OFF switch. A POWER indicator is connected across the primary of the transformer to indicate that power is applied (ON-OFF switch in the ON position). The transformer steps down the 115 vac to 26 vac for use in the synchro transmitters. The 26 vac is also rectified to provide dc voltage for use in various tests of the indicator.

5-2. High Pot. Test

In this test, a high voltage from Ohmmeter ZM-21(*)/U is applied through the HIGH POT binding posts, PIN SELECTOR switch, and the HIGH POT position of the HIGH POT-NORMAL switch to each pin of the indicator connector in turn. If the ohmmeter indicates 250,000 ohms or greater for each pin, leakage of the indicator is considered normal.

5-3. Lighting Test, Functioning

In this test, 5 vdc is applied to the 5 VDC binding posts and then through the lighting circuit of the indicator. If the AN/USM-223 indicates 1.08 amperes ± 0.12 , the lighting circuit is functioning normally.

5-4. B306 Rotor Turning Check, Functioning

In this check, flux valve T-611 is connected to the stator of B306 X-Y-Z binding posts to simulate a normal load, and a 740 ± 10 Hertz or is applied to its tuned rotor through the B306 VTVM binding posts. The rotor of B306 is then rotated through 360 degrees by rotating the synchro transmitter No. 1 control (POINTER NO. 1-NO. 2-B306 in the NO. 2 position) to check for bad wiper contacts that might cause frequency pulling of the 740-Hertz rotor signal.

5-5. Pointer No. 1 Test, Functioning

In this check, the stator of synchro transmitter No. 1 is connected to pointer No. 1 through the No. 1 position of pointers switch S1-A and in turn through each of the three positions of ADF-VOR-RMI switch S3 to transmitter B301 which rotates the pointer, Twenty-six volts is applied directly from the input power source

to the rotor of synchro transmitter No. 1 and through POINTER NO. 1 & 2-ALL OTHER TESTS switch S4 (POINTER NO. 1 & 2 position) to the rotor of transmitter B301. Accuracy of the pointer No. 1 reading is checked by rotating it with synchro transmitter No. 1 and comparing the two readings which should coincide within ± 1.5 degrees.

5-6. Pointer No. 2 Test, Functioning

This test is the same as the pointer No. 1 test except that the stator of synchro transmitter No. 1 is connected to pointer No. 2 through the No. 2 position of POINTERS switch S-1A and in turn through each of the three positions of ADF-VOR-RMI switch S3 to transmitter B302 which rotates the pointer.

5-7. Heading Dial Test, Functioning

In this test, the heading dial of the indicator is rotated through 60-degree increments with synchro transmitter No. 2. The setting of the synchro, and the position of the heading dial, should coincide within ± 0.5 degree.

5-8. B306 Calibration Error Test, Functioning

In this test, the rotor of B306 is rotated in 60-degree increments by synchro transmitter No. 2 through heading control transmitter B303. The input to the stator of B306 is varied by rotating synchro transmitter No. 1 in step with synchro transmitter No. 2. If the two synchro transmitters are within ± 0.5 degree, as indicated by a null at the B306 rotor, B306 is within calibration limits.

5-9. B307 Calibration Error Test, Functioning

In this test, B307 is rotated by synchro transmitted No. 2 through heading selector transmitted B304, in 60-degree increments For each setting of the synchro transmitted No. 2, a null, as indicated by the ME-30A/U placed across B307 stator terminals (B307-B308-B304 switch in B307 position), indicates that B307 is within calibration limits.

5-10. B308 Calibration Error Test, Functioning

This test is the same as the B307 calibration error test (para 5-9) except that the outputs of B307 are measured by the ME-30A/U (B307-B308-B304 switch in B308 position).

5-11. B304 Calibration Error Test, Functioning

In this test, the rotor of B304 and the set HDG cursor on the indicator are rotated, by means of the set HDG control, in 60-degree increments. If the output of B304, as measured by the ME-30A/U connected across its

stator terminals, indicates a null for each setting, B304 is correctly calibrated.

5-12. Flag Test, Functioning

In this test, current from the test panel (BRIDGE SEL switch in the FLAG CUR position) is applied through the flag circuit of the indicator and causes the flag of the indicator to operate. If the meter indicates 280 microampere or more when the flag starts to move, and 430 microamperes ± 30 when the flag goes out of

sight and stops, the flag circuit is operating properly.

5-13. Annunciator Test, Functioning

In this test, current from the test panel (BRIDGE SEL switch in the ANNUN CUR + or ANNUN CUR - position) is applied through the annunciator circuit of the indicator and causes the annunciator to operate in the dot or cross direction. If the current in each case is between 140 and 230 microampere, the annunciator circuit is operating properly.

CHAPTER 6

GS AND DEPOT MAINTENANCE

Section I. TROUBLESHOOTING

6-1. General

Troubleshooting the test panel consists of performing voltage tests on the synchro transmitters and resistance measurements on the entire test panel. Measurements are made through pins of the test cable connector or binding posts. If an erroneous indication is observed, check the circuit connected to the pin or binding post at which the erroneous indication was observed.

6-2. Test and Additional Equipment Required

- a. Multimeter AN/USM-223.
- b. Voltmeter, Meter ME-30A/U.
- c. 115 VAC, 400-Hertz power supply.

6-3. Synchro Transmitter No. 1 Test

- a. Connect alligator clips on the power cable to the 115 VAC, 400-Hertz power source.
- b. Set the ADF-VOR-RMI switch to the VOR position.
- c. Set the ON-OFF switch to the ON position.
- d. Perform the test in the chart below by connecting the ME-30A/U between the pins of connector P1 indicated in column 1, setting the synchro transmitter No. 1 control as indicated in column 2, and obtaining the ME-30A/U indication in column 3. The synchro transmitter No. 1 dial should indicate within ± 0.1 degree in each position.

AN/USM-223 connections		Switch settings		AN/USM-223 indication (ohm)
FROM	TO			
1	2 of P1	HIGH POT-NORM switch to NORM		3 to 4
1	3 of P1			3 to 4
4	5 of P1			6K to 9K
5	6 of P1			6K to 9K
7	4 of P1			1 or less
11	TJ6 Jack			1 or less
17	TJ6 Jack			1 or less
26	TJ6 Jack			1 or less
36	TJ6 Jack			1 or less
41	TJ6 Jack			1 or less
11	12 of P1	B307-B308-B304 switch to B308		2 to 12
13	X BP			1 or less
14	Y BP			1 or less
15	Z BP	POINTERS 1 & 2-ALL OTHER TESTS switch to ALL OTHER TESTS		1 or less
16	TJ7 (R11 at minimum setting) (Under top cover)			1 or less
18	X BP			1 or less
19	Y BP			1 or less
20	Z BP			1 or less
		B307-B308-B304 switch to B307		1 or less
				1 or less
				1 or less
				1 or less
				1 or less

ME-30A/U connection to P1		SYNCHRO SETTING (degrees) ± 0.1	ME-30A/U indication
From pin	To pin		
24	25	0	Null
25	26	60	Null
24	26	120	Null
24	25	180	Null
25	26	240	Null
24	26	300	Null

6-4. Synchro Transmitter No. 2 Test

- a. Connect a jumper between pins 2 and 11 of connector P1.
- b. Perform the steps in paragraph 6-3a through d, except, use the following chart instead of the one referred to in paragraph 6-3d.

ME-30A/U connection to P1		SYNCHRO SETTING (degrees) ± 0.1	ME-30A/U indication
From pin	To pin		
1	3	0	Null
3	2	60	Null
1	2	120	Null
1	3	180	Null
3	2	240	Null
1	2	300	Null

6-5. Resistance Measurements

Perform the resistance measurements in the chart below by connecting the AN/USM-223 between the pins of connector P1, binding posts (BP), or test jacks (TJ) under top cover indicated in column 1, setting switches in column 2 (if indicated), and obtaining the readings in column 3.

NOTE

Switch settings for any measurement are as previously indicated unless otherwise stated.

AN/USM-223 connections		Switch settings	AN/USM-223 indication (ohm)
FROM	TO		
21	16 of P1	POINTER ADF-VOR-RMI switch to ADF POINTERS NO. 1-NO. 2-B306 switch to NO. 1	1 or less
22	23 of P1		3 to 4
23	26 of P1	No. 1-NO. 2-B306 switch ADF-VOR-RMI switch to VOR	3 to 4
24	25 of P1		3 to 4
25	26 of P1	ADF-VOR-RMI switch to ADF POINTER NO. 1-NO. 2-B306 switch to NO. 2 POINTER NO. 1-NO. 2-B306 switch to NO. 2 ADF-VOR-RMI switch to RMI POINTER NO. 1-NO. 2-B306 switch to NO. 1	3 to 4
27	34 of P1		1 ohm or less
29	30 of P1		3 to 4
30	33 of P1		3 to 4
31	32 of P1		3 to 4
34	TJ3	POINTER 1 & 2-ALL OTHER TESTS switch to POINTER 1 & 2	1 or less
37	16 of P1	B307-B308-B304 switch to B304	1 or less
38	Y BP		1 or less
39	X BP	POINTER NO. 1-NO. 2-B306 switch to B306	1 or less
40	Z BP		1 or less
42	43 of P1		1 or less
43	44 of P1		1 or less
42	B306 X BP		1 or less
43	B306 Y BP		1 or less
44	B306 Z BP		1 or less
45	VTVM Red BP		1 or less
46	VTVM Blk BP		1 or less
48	TJ6		1 or less
51	TJ3	BRIDGE SEL switch to ANNU RES	1 or less
54	TJ1	BRIDGE SEL switch to FLAG RES	1 or less
55	TJ2		1 or less

6-6. Replacement of Synchro Transmitter

Replace the synchro by performing the procedures in *a* and *b* below, then position and zero adjust it by performing the procedures in *c* below.

a. Removal

- (1) Loosen the set screw in the synchro transmitter control (fig. FO-1).
- (2) Open the cover and remove the clamps holding the synchro in position.
- (3) Disconnect the synchro wires from the test set and remove the synchro.

b. Installation.

- (1) Place the new synchro in position with its shaft in the synchro transmitter control.
- (2) Install the clamps to hold the synchro (clamps removed in a(2) above).
- (3) Tighten the set screw in the synchro transmitter control (fig. FO-1).
- (4) Connect the synchro wires to the test set. Refer to the schematic diagram for color code connections (fig. FO-3).

c. Synchro Positioning.

- (1) Connect a jumper lead between the rotor and stator black wires.

(2) Connect a jumper lead between the stator yellow and blue wires.

(3) Set up the multimeter for operation in the 100-volt ac range.

(4) Connect the multimeter between the blue stator wire and the red rotor wire.

(5) Set the INDICATOR TEST switch to TEST.

(6) Set the synchro transmitted control to 0.

(7) Loosen the clamps holding the synchro.

(8) Connect the power source output to the INPUT binding posts on the test panel.

(9) Turn on the power source and set the test panel POWER switch to ON.

(10) Slowly turn the synchro (not shown) until the minimum indication is obtained on the multimeter (approximately 15 volts).

(11) Tighten the clamps holding the synchro.

(12) Set the POWER switch (fig. FO-1) to OFF.

(13) Disconnect the multimeter from the test panel and the jumper lead between the yellow and blue stator wires.

(14) Adjust the synchro transmitter control (para 6-10).

Section II. CALIBRATION PROCEDURES AND DEPOT INSPECTION STANDARDS

6-7. Test Equipment Required for Calibration

- Test Set, meter TS-682A/GSM-I.
- 1,000-ohm resistor, ± 0.1 percent.
- 10 K-ohm resistor, ± 0.1 percent.

6-8. Meter Calibration

- Place the BRIDGE SEL switch in the FLAG RES position.
- Connect the TS-682A/GSM-I across test jacks TJ3 and TJ4 located under the top cover.
- Apply +50 microampere from the TS-682A/GSM-I.

NOTE

If the readings in *d* and *e* below are not obtained, the meter must be replaced.

- Press the MTR CAL switch located under the top panel. The test panel meter should indicate +50 microampere ± 2 percent.
- Repeat *c* and *d* above except apply 30 and 20 microampere from the TS-682A/GSM-I. Meter indication should be 30 and 20 microampere respectively ± 2 percent of full scale.
- Place BRIDGE SEL switch to FLAG CUR position.
- Apply +500 microamperes from the TS-682A/GSM-I.
- Press MTR CAL switch; test panel meter should indicate +500 microampere ± 2 percent (scale reading X10). If the proper current cannot be obtained, adjust variable resistor R?, located under the top cover.
- Apply -500 microampere from the TS-682A/GSM-I.
- Press MTR CAL switch; test panel meter should indicate -500 microampere ± 2 percent (scale reading X10).
- Disconnect the TS-682A/GSM-I.

6-9. Bridge Calibration

NOTE

If the readings in this procedure cannot be obtained, troubleshooting is required.

- Rotate BRIDGE SEL switch to FLAG RES position and energize test panel.
- Connect the 1,000-ohm resistor across test jacks TJ1 and TJ2 located under the top panel.
- Press the PRESS TO READ switch.
- Rotate the OHMS control for a null on the meter; the OHMS dial should indicate 100 ± 1 percent.
- Replace the 1,000-ohm resistor with the 10 K-ohm resistor.
- Rotate BRIDGE SEL switch to the ANNU RES position.
- Press the PRESS TO READ switch.
- Rotate the OHMS control for a null on the meter; the OHMS dial should indicate 100 ± 1 percent.

6-10. Synchro Transmitter Control Adjustment

Adjust each synchro transmitter control to zero, at the electrical zero of transmitted synchro B1, by performing the following

- Set the ON-OFF switch (fig. FO-1) to OFF.
- Connect the alligator clips at the end of the power cable to the power source.
- Connect a jumper lead from the blue wire of the rotor to the black wire of the stator of the synchro transmitted control.
- Set the multimeter up for operation on the 3-volt ac range.
- Connect the COMMON lead of the multimeter to the synchro transmitter control black stator wire and the AC multimeter lead to the yellow synchro transmitter control wire.
- Set the POINTER NO. 1-NO. 2-B306 control to NO. 1.
- Set the synchro transmitter control to 0.
- Turn on the power source and set the ON-OFF switch on the test panel to ON.
- Using the vernier knob on the synchro transmitter control, position the transmitter synchro control for a minimum indication on the multimeter (approximately 10 millivolts). Set the multimeter to the 1-volt range to accurately check the minimum indication.
- If the minimum indication is a 0 on the synchro transmitter control, the control is correctly adjusted. If the minimum indication is not at 0, perform the following
 - Set the synchro transmitter control to 0.
 - Open the cover of the test panel (fig. FO-2) and loosen the clamps holding synchro transmitter control housing (not shown).
 - Holding the synchro transmitter control at 0, turn synchro transmitter control housing until a minimum indication is obtained on the multimeter.
 - Tighten the clamps holding the synchro transmitter control housing.

k. Repeat the procedures in *i* above to check the adjustment. If the minimum indication on the multimeter is still not at 0 on the synchro transmitter control, check to be sure the control is tight on the shaft of the synchro transmitter control. Readjust the synchro transmitter control if required (*j* above).

l. Set the test panel ON-OFF switch to OFF and turn off the power source.

m. Disconnect the multimeter and jumper lead from the synchro transmitter control.

6-11. Depot Inspection Standard

The depot inspection standard consists of performing the synchro transmitter tests and test panel resistance measurements (para 6-3, 6-4, and 6-5).

APPENDIX A REFERENCES

DA Pam 310-4	Index of Technical Manuals, Technical Bulletins, Supply Manuals (Types 7, 8, and 9), Supply Bulletins and Lubrication Orders.
DA Pam 310-7	US Army Index of Modification Work Orders.
SB 11-573	Painting and Preservation Supplies Available for Field Use for Electronics Command Equipment.
TB 43-0118	Field Instructions for Painting and Preserving Electronics Command Equipment Including Camouflage Pattern Painting of Electrical Equipment shelters.
TM 11-2050	Test Set I-48-B and Ohmmeter ZM-21A/U.
TM 11-6110-211-15	Organizational, DS, GS, and Depot Maintenance Manual Including Repair Parts and Special Tools Lists: Amplifier, Electronic Control AM-3209/ASN.
TM 11-6625-277-14	Operator's, Organizational, Direct Support, and General Support Maintenance Manual: Meter Test Sets TS-682/GSM-I and TS-682A/GSM-I.
TM 11-6625-320-12	Operator's and Organizational Maintenance Manual: Voltmeter, Meter ME-30A/U and Voltmeters, Electronic ME-30B/U, ME-30C/U and ME-30E/U.
TM 11-6625-654-14	Operator's, Organizational, DS, and GS Maintenance Manual Including Repair Parts and Special Tools Lists (Including Depot Maintenance Repair Parts and Special Tools Lists) for Multimeter AN/USM-223.
TM 11-6625-683-15	Operator's, Organizational, DS, GS, and Depot Maintenance Manual: Signal Generator AN/URM-127.
TM 11-6625-700-25	Organizational, DS, GS, and Depot Maintenance Manual: Digital Readout Electronic Counter AN/USM-207.
TM 11-6625-2658-14	Operator's, Organizational, DS and GS Maintenance Manual for Oscilloscope AN/USM-281C.
TM 38-750	The Army Maintenance Management System (TAMMS).
TM 750-244-2	Procedures for Destruction of Electronics Materiel to Prevent Enemy Use (Electronics Command).

APPENDIX B

BASIC ISSUE ITEMS LIST

Section I. INTRODUCTION

B-1. General

This appendix lists items supplied for initial operation and for running spares. The list includes tools, parts, and material issued as part of the major end item. The list includes all items authorized for basic operator maintenance of the equipment. End items of equipment are issued on the basis of allowances prescribed in equipment authorization tables and other documents that are a basis for requisitioning.

B-2. Columns

Columns are as follows:

a. Federal Stock Number. This column lists the 11-digit Federal stock number.

b. Designation by Model. The dagger(†) indicates the model in which the part is used and further, by its position, designates the quantity used in each model where the quantity varies.

c. Description Nomenclature or the standard item

name and brief identifying data for each item are listed in this column. When requisitioning, enter nomenclature and description.

d. Unit of Issue. The unit of issue is each unless otherwise indicated and is the supply term by which the individual item is counted for procurement, storage, requisitioning, allowances, and issue purposes.

e. Expendability. Nonexpendable items are indicated by NX. Expendable items are not annotated.

f. Quantity Authorized. Under "Items Comprising an Operable Equipment" the column lists the quantity of items supplied for the initial operation of the equipment. Under "Running Spare Items" the quantities listed are those issued initially with the equipment as spare parts. The quantities are authorized to be kept on hand by the operator for maintenance of the equipment.

g. Illustration. Not used.

(Next page is B-3)

Section II. FUNCTIONAL PARTS LIST

(1)			BASIC ISSUE ITEMS LIST							(4)	(5)	(6)	(7)	(8)	
SOURCE CD (A)	MAINT. CD (B)	REC. CODE (C)	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION						UNIT OF ISSUE	QTY INC IN UNIT PACK	QTY INC IN UNIT	QTY AUTH	(8)	
														(A) FIGURE NUMBER	(B) ITEM OR SYMBOL NUMBER
				MODEL	1	2	3	4	5					6	
			6625-G39-5349							ITEMS COMPRISING AN OPERABLE EQUIP.	ea		1	1	
			5920-280-8342							TEST SET FOR ID-998/ASN					
										RUNNING SPARES					
										FUSE; BUSSMAN TYPE AGC-1, 1 AMP	ea		1	2	
										LAMP; 115V TYPE NE-2D	ea		1	1	
										ACCESSORY ITEMS					
										IM 11-6625-924-15	ea			2	
										TM 11-6110-211-15	ea			2	

Section III. SPARE PARTS KIT PER EQUIPMENT

(1)			REPAIR PARTS FOR										GENERAL SUPPORT,										(4)		(5)	(6)	(7)			(8)		(9)		(10)	
SOURCE CD (A)	MAINT. CD (B)	REC. CODE (C)	(2) FEDERAL STOCK NUMBER	(3)						DESCRIPTION	UNIT OF ISSUE	QTY INC IN UN PK	QTY INC IN UNIT	30 DAYS/GS MAINT. ALW.			1 YR. ALW. PER EQUIP.	DEPOT MAINT. ALW. PER 100 EQUIP.	ILLUSTRATIONS																
				MODEL										(A)	(B)	(C)			(A) FIGURE NUMBER	(B) ITEM OR SYMBOL NUMBER															
				1	2	3	4	5	6												IND CD														
			6625-639-5349							TEST SET FOR ID-998/ASN (END ITEM)																									
										SPARE PARTS KIT CONSISTING OF:																									
			5940-556-6194							BINDING POST (BLACK); SUPERIOR DF-30BC	ea		5				1																		
			5940-685-8603							BINDING POST (BLUE); SUPERIOR DF-30BLC	ea		2				1																		
			5940-578-0904							BINDING POST (RED); SUPERIOR DF-30RC	ea		3				1																		
										BINDING POST (YELLOW); SUPERIOR DF-30YC	ea		2				1																		
										CAPACITOR, ELEC; 500 mfd, 50V; CORN-	ea		1				1																		
										DUBLIER BR-500-50																									
										DIODE, SILICONE; INTERNATIONAL IN440	ea		1				2																		
										DIODE, ZENER; 10V-1W; INTERNATIONAL	ea		1				2																		
										IN1771A																									
			5920-280-8342							FUSE; BUSSMAN TYPE AGC-1 1 AMP	ea		1				2																		
										KNOB; HARRY DAVIES 1510	ea		5				1																		
										KNOB; 2" HARRY DAVIES 2350	ea		1				1																		
										LAMP, 115V; TYPE NE-2D	ea		1				1																		
										METER, D. C. MICROAMP; TRIPLETT	ea		1				1																		
										50-0-50 TYPE 327-PL																									
										MICROPOT TRIMMER; AMPHENOL-BORG	ea		1				1																		
										MOD. 1992 (50 ohms)																									
										POTENTIOMETER; OHMITE CU-1021	ea		1				1																		

(1)			REPAIR PARTS FOR										GENERAL SUPPORT, AND DEPOT MAINTENANCE										(4)	(5)	(6)	(7)			(8)	(9)	(10)	
SOURCE CD (A)	MAINT. CD (B)	REC. CODE (C)	(2) FEDERAL STOCK NUMBER	(3) MODEL						CD IND	(3) DESCRIPTION	(4) UNIT OF ISSUE	(5) QTY INC IN UN PK	(6) QTY INC IN UNIT	(7) 30 DAYS/GS MAINT. ALW.			(8) 1 YR. ALW. PER EQUIP.	(9) DEPOT MAINT. ALW. PER 100 EQUIP.	(10) ILLUSTRATIONS												
				1	2	3	4	5	6						(A)	(B)	(C)			(A) FIGURE NUMBER	(B) ITEM OR SYMBOL NUMBER											
										TEST SET FOR ID-998/ASN (END ITEM)																						
										SPARE PARTS KIT (CONT)																						
										POTENTIOMETER, PRECISION; SPECTROL MOD.																						
										530(10K)	ea		1					1														
										RESISTOR, CARBON FILM, 11 OHMS, 1W±1%;	ea		1					1														
										DALE RS-1B																						
										RESISTOR, CARBON FILM, 75 OHMS; 1/2 W	ea		1					1														
										±1%, DALE DCS 1/2(RN-20X)																						
										RESISTOR, CARBON FILM, 100-OHMS, 1 W	ea		1					1														
										±1%, DALE RS-1B																						
										RESISTOR, CARBON FILM, 1000 Ω, 1/2 W	ea		2					1														
										±1%; DALE DCS 1/2 (RN-20X)																						
										RESISTOR, FIXED, 470 OHMS, 2 W ±5%;	ea		1					1														
										OHMITE-CAR, RC42																						
										RESISTOR, FIXED, 910-OHMS, 1/2 W ±5%;	ea		1					1														
										OHMITE-CAR, RC-20																						
										RESISTOR, VARIABLE, 100-OHMS; OHMITE	ea		1					1														
										CU-1011																						
										SWITCH, MOMENTARY, SPST; GRAY HILL 23-1	ea		1					1														

(1)			REPAIR PARTS FOR GENERAL SUPPORT, AND DEPOT MAINTENANCE										(4)	(5)	(6)	(7)			(8)	(9)	(10)	
SOURCE CD (A)	MAINT. CD (B)	REC. CODE (C)	(2) FEDERAL STOCK NUMBER	(3) MODEL						(3) DESCRIPTION	UNIT OF ISSUE (4)	QTY INC IN UN PK (5)	QTY INC IN UNIT (6)	30 DAYS/GS MAINT. ALW. (7)			1 YR. ALW. PERI EQUIP. PL. (8)	DEPOT MAINT. ALW. PER 100 EQUIP. (9)	(A) FIGURE NUMBER	(B) ITEM OR SYMBOL NUMBER		
				MODEL										(A)	(B)	(C)						
				1	2	3	4	5	6												IND CD	
			5990-284-4813						TEST SET FOR ID-998/ASN (END ITEM) SPARE PARTS KIT (CONT) SWITCH, TOGGLE, SPST; CUTLER-HAMMER 7503K13 SWITCH, TOGGLE, SPST; CUTLER-HAMMER 8801K22 SYNCHRO TRANSMITTER; BENDIX AY-201S-1B TRANSFORMER, FILAMENT; TRIAD HS-438 SPARE PARTS KIT FOR AMPLIFIER, ELECTRONIC CONTROL AM-3209/ASN PART OF TEST SET FOR ID-998/ASN CAPACITOR: 50 mmf; SPR 112D607C705QJ0 CAPACITOR, FIXED, CERAMIC DIELECTRIC: 1000 mmf; MIL CK61Y102Z CAPACITOR, FIXED, ELECTROLYTIC: 20mf GE. 29F662G4 CAPACITOR, FIXED, ELECTROLYTIC: GE 29F652G4 CAPACITOR, FIXED, PAPER DIELECTRIC: 1uf; Astron Co. MQLF-2-1M	ea		1					1					
			5910-959-0018									1				1						
			5910-666-7156									1				1						
			5910-809-0809									1				1						
			5910-814-9906									1				1						
			5910-833-5539									1				1						

(1)			REPAIR PARTS FOR GENERAL SUPPORT, AND DEPOT MAINTENANCE										(4)	(5)	(6)	(7)			(8)	(9)	(10)	
SOURCE CD (A)	MAINT. CD (B)	REC. CODE (C)	(2) FEDERAL STOCK NUMBER	(3) MODEL						(3) DESCRIPTION	UNIT OF ISSUE	QTY INC IN UN PK	QTY INC IN UNIT	30 DAYS/GS MAINT. ALW.			1 YR. ALW. PERI EQUIP.	DEPOT MAINT. ALW. PER 100 EQUIP.	ILLUSTRATIONS			
				MODEL										(A)	(B)	(C)			(A) FIGURE NUMBER	(B) ITEM OR SYMBOL NUMBER		
				1	2	3	4	5	6													
			5910-820-6308						TEST SET FOR ID-998/ASN (END ITEM)			1				1						
			5995-226-1709						CAPACITOR, FIXED, PAPER DIELECTRIC: 470, 000mmf; Sprague 118P47494S2			1				1						
			5905-279-3514						LEAD ASSEMBLY, ELECTRICAL: Sperry Gyro 1755363			1				1						
			5905-299-1965						RESISTOR, FIXED, COMPOSITION: 180 ohm MIL RC20GF181J			2				1						
			5905-279-2019						RESISTOR, FIXED, COMPOSITION: Allen Bradley EB3015			2				1						
			5905-249-4195						RESISTOR, FIXED, COMPOSITION: 5100 ohm MIL RC20GF512J			1				1						
			5905-195-6806						RESISTOR, FIXED, COMPOSITION: 7500 ohm MIL RC20GF752J			1				1						
			5905-279-1885						RESISTOR, FIXED, COMPOSITION: 1000 ohm MIL RC20GF102J			1				1						
			5905-279-3511						RESISTOR, FIXED, COMPOSITION: 36 ohm MIL RC20GF360J			1				1						
									RESISTOR, FIXED, COMPOSITION: 510 ohm RC20GF511J			1				1						

(1)			REPAIR PARTS FOR										GENERAL SUPPORT,										(4)	(5)	(6)	(7)			(8)	(9)	(10)	
SOURCE CD (3)	MAINT. CD (3)	REC. CODE (6)	(2) FEDERAL STOCK NUMBER	(3) MODEL						IND CD	(3) DESCRIPTION	UNIT OF ISSUE	QTY INC IN UN PK	QTY INC IN UNIT	30 DAYS/GS MAINT. ALW.			1 YR. ALW. PER EQUIP.	DEPOT MAINT. ALW. PER 100 EQUIP.	(5) FIGURE NUMBER	(6) ITEM OR SYMBOL NUMBER											
				1	2	3	4	5	6						(A) 1-20	(B) 21-50	(C) 51-100															
			5905-299-1971								TEST SET FOR ID-998/ASN (END ITEM)				1				1													
			5905-279-3498								RESISTOR, FIXED, COMPOSITION: 8200 ohm MIL RC20GF822J				1				1													
			5920-042-9807								RESISTOR, FUSE: Bussman GLX2-10				2				1													
			5905-810-2845								RESISTOR, THERMAL: 295 ohm Victory Eng. Corp 23D7				1				1													
											RESISTOR, FIXED, WIRE WOUND: Daven R985 L4Aa48-A029				2				1													
			5960-617-4347								SEMICONDUCTOR DEVICE, DIODE: IN645				2				1													
			5950-226-1691								TRANSFORMER, POWER, STEP DOWN: Sperry 1784751				1				1													
			5950-657-7708								TRANSFORMER: Sperry 618506				1				1													
			5960-226-1693								TRANSISTOR: Minneapolis-Honeywell H6SP				2				1													
			5960-275-2427								TRANSISTOR: GE 4JX1E612				2				1													

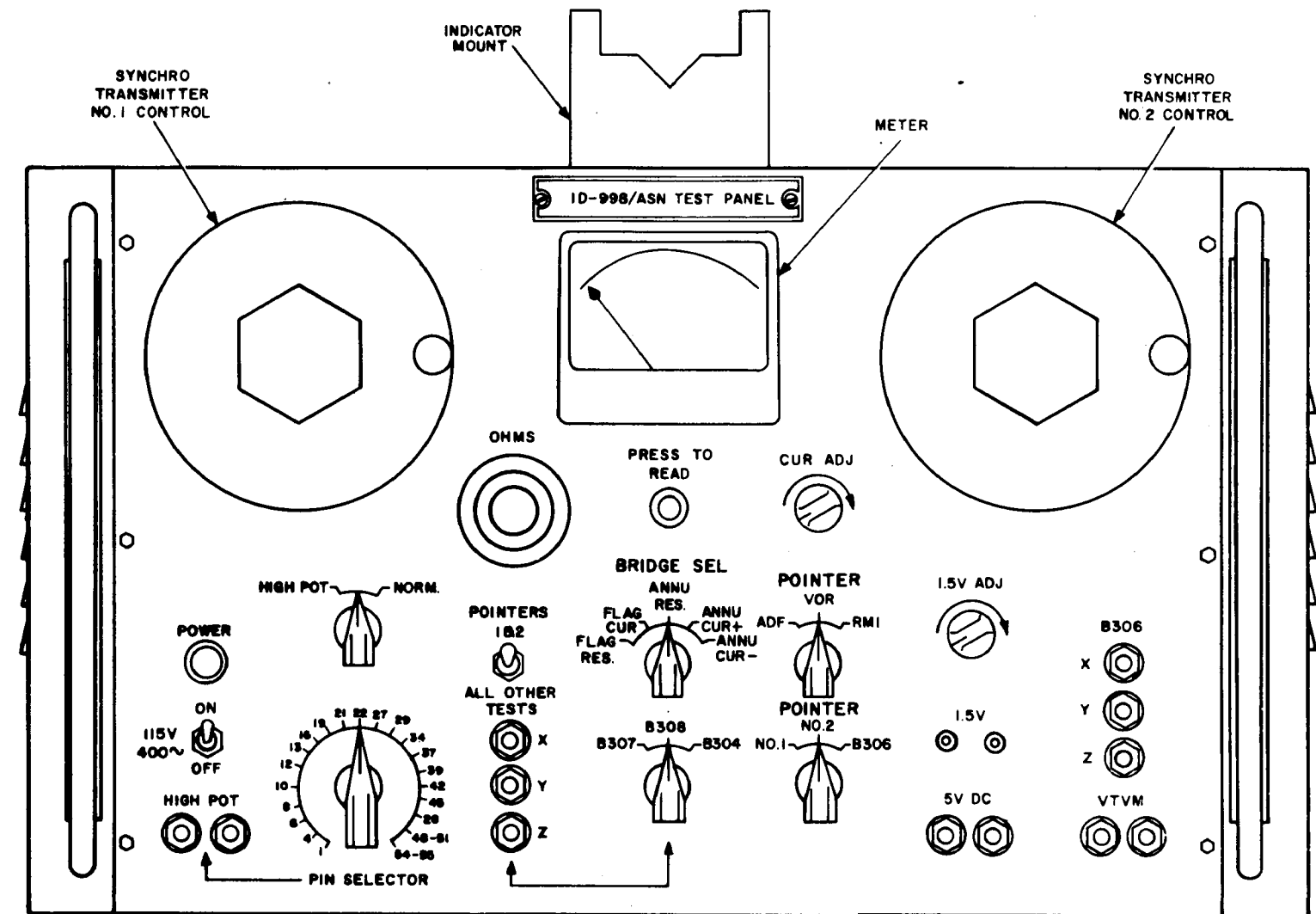
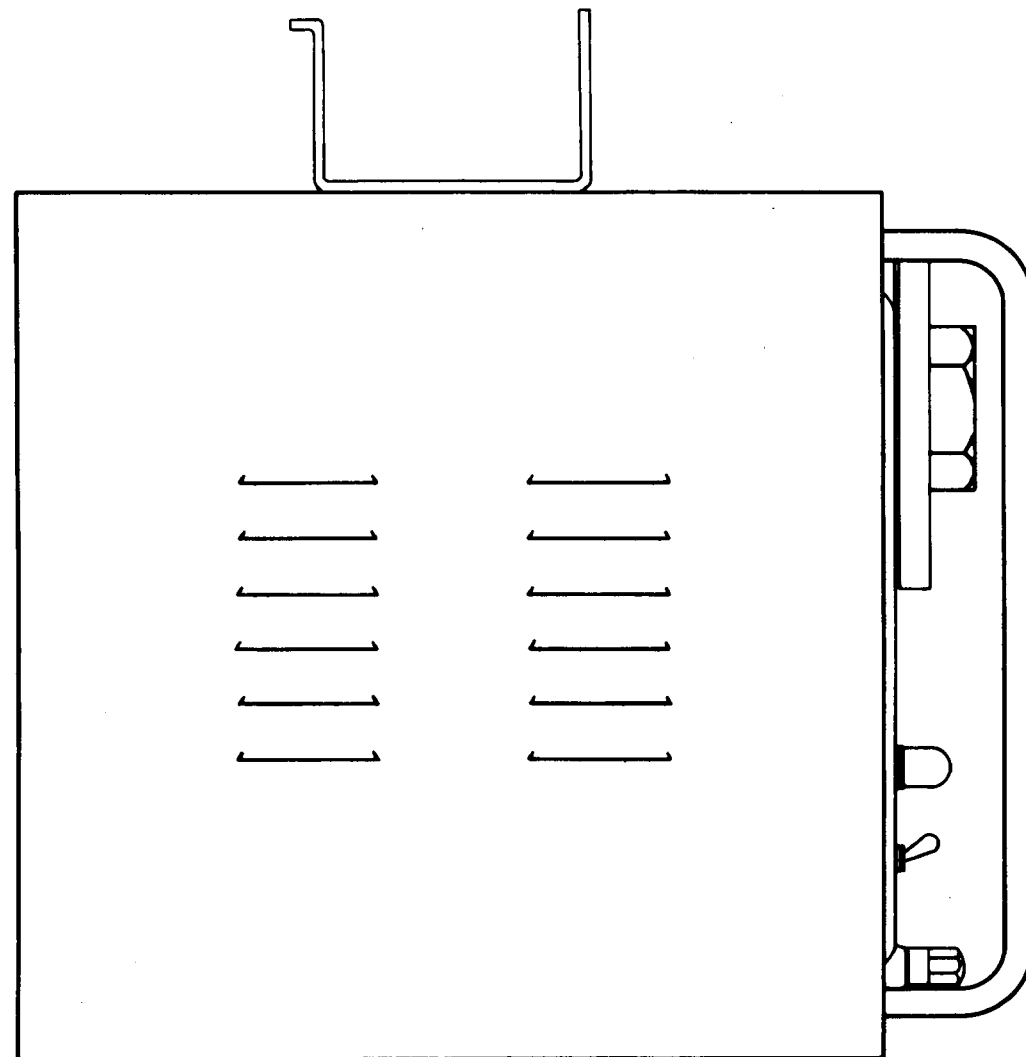


Figure FO-1. Test Panel for Indicator



H- TRIGGER OR EXT. SWEEP IN CONNECTOR
V- CHANNEL A CONNECTOR

Figure FO-2. Test Setup



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Stateside, N.J. 07703

DATE 10 July 1975

PUBLICATION NUMBER

TM 11-5840-340-12

DATE

23 Jan 74

TITLE

Radar Set AN/PSC-76

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PAGE NO.	PARA-GRAPH	FIGURE NO.	TABLE NO.
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2-25	2-28		
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Recommend that the installation antenna alignment procedure be changed throughout to specify a 2° IFF antenna lag rather than 1°.

REASON: Experience has shown that with only a 1° lag, the antenna servo system is too sensitive to wind gusting in excess of 25 knots, and has a tendency to rapidly accelerate and decelerate as it hunts, causing strain to the drive train. Hunting is minimized by adjusting the lag to 2° without degradation of operation.

3-10	3-3		
------	-----	--	--

			3-1
--	--	--	-----

Item 5, Function column. Change "2 db" to "3db."

REASON: The adjustment procedure for the TRANS POWER FAULT indicator calls for a 3 db (500 watts) adjustment to light the TRANS POWER FAULT indicator.

5-6	5-8		
-----	-----	--	--

Add new step f.1 to read, "Replace cover plate removed in step e.1, above."

REASON: To replace the cover plate.

			FO3
--	--	--	-----

Zone C 3. On J1-2, change "+24 VDC to "+5 VDC."

REASON: This is the output line of the 5 VDC power supply. + 24 VDC is the input voltage.

TYPED NAME, GRADE OR TITLE, AND TELEPHONE NUMBER

SSG I. M. DeSpirito 999-1776

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SSG I. M. DeSpirito

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TM 11-6625-924-14

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29 Aug 78

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