DEPARTMENT OF THE ARMY TECHNICAL MANUAL

Operator and Organizational Maintenance Manual
TEST SET, RESOLVER AN/ASM-101

Headquarters, Department of the Army, Washington 25, D.C.
5 October 1962

This copy is a reprint which includes current pages from Changes 1 through 3

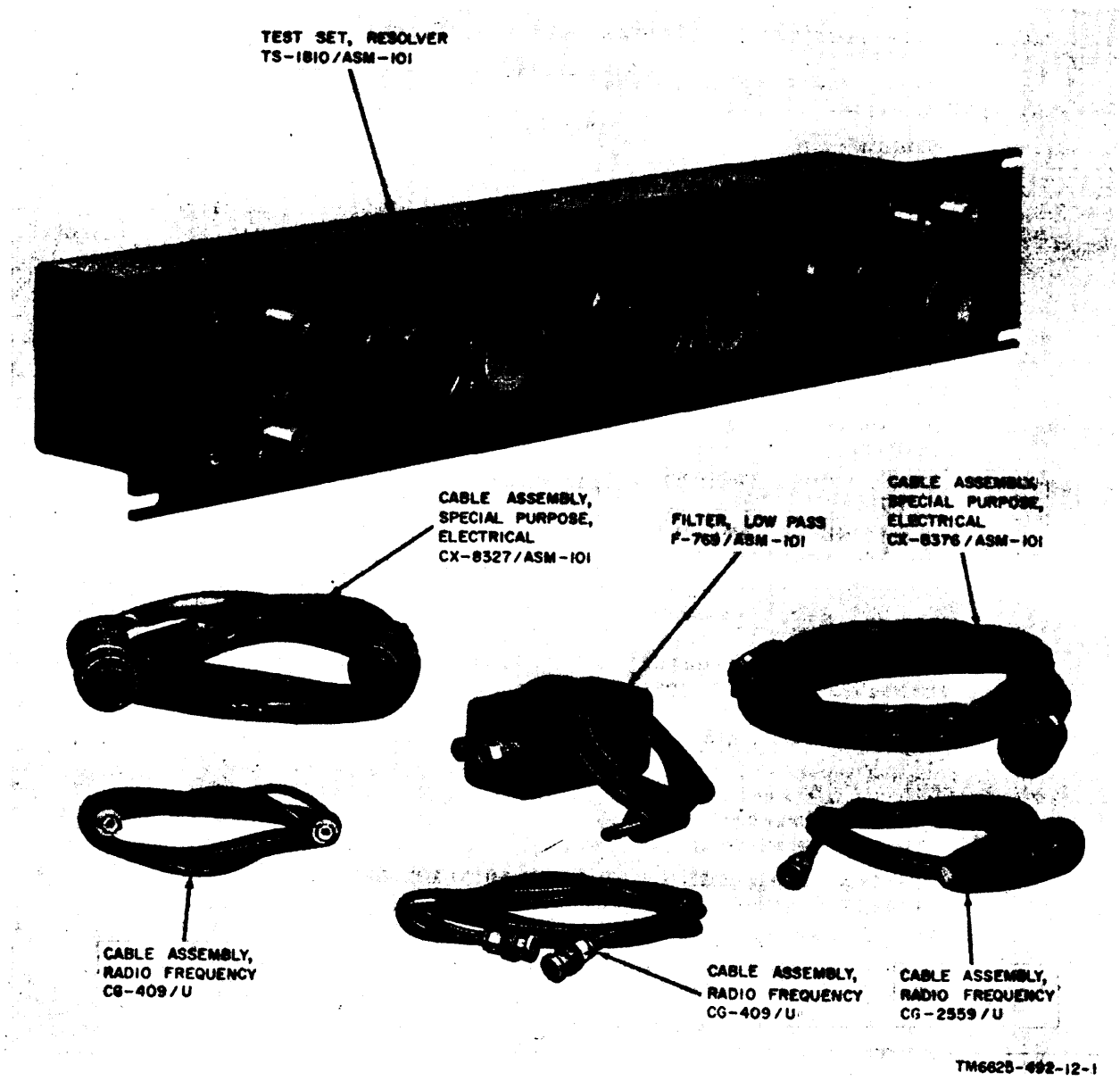

Figure 1. Test Set, Resolver AN/ASM-101.

CHAPTER 1

Section I. GENERAL

1. Scope

a. This manual describes Test Set, Resolver AN/ASM-101 (fig. 1) and covers its operation and first and second echelon maintenance.

b. The maintenance allocation chart (MAC) for Test Set, Resolver AN/ASM-101 appears in appendix II; the basic issue items list (BIIL) appears in appendix III.

Note. Refer to DA Pam 310-4 to determine what changes to or revisions of this publication are current.

2. Forms and Records

a. Reports of Unsatisfactory Equipment. Fill out DA Form 2407 (Maintenance Request) in accordance with instructions in TM 38-750 and forward it to: Commanding Officer, U.S. Army Electronics Materiel Support Agency, ATTN: SELMS-PIE, Fort Monmouth, N.J. The form should be filled out and forwarded to report :

(1) Receipt of defective equipment (use DD Form 6 (b below) if defect is due to damaged or improper shipment).

(2) Equipment deficiencies (deadlined equipments).

(3) Equipment shortcomings (operable, but at less than rated capability or efficiency).

(4) Equipment improvement suggestions or recommendations.

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

c. Reports of Comments on Maintenance Allocation Chart (Appx II) and Basic Issue Items List (Appx III). Fill out and forward DA Form 2028 (Recommended Changes to DA Technical Manual Parts Lists or Supply Manuals 7, 8, or 9) direct to: Commanding Officer, U.S. Army Electronics Materiel Support Agency, ATTN: SELMS-ML, Fort Monmouth, N.J.

d. Comments on Manual. Forward all other comments on this publication direct to: Commanding Officer, U.S. Army Electronicx Materiel Support Agency, ATTN: SELMS-MPP-4, Fort Monmouth, N.J. (DA Form 1598. (Record of Comments on Publications), DA Form 2028, DD Form 96 (Disposition Form), or letter may be used.)

Section II. DESCRIPTION AND DATA

3. Purpose and Use

a. Purpose. Test Set, Resolver AN/ASM-101 provides a means of interconnecting test equipment and controlling the phase and amplitude of signals used in the alignment of resolvers in aircraft navigational systems.

b. Use. Test Set, Resolver AN/ASM-101 is used with the additional equipment required (par. 7) to test resolvers (such as used in Computer Set, Navigational AN/ASN-33) for alignment to the standard omnirange zeroing (ORZ) point, and align them to the ORZ point, when necessary.

4. Technical Characteristics

a. Test Set, Resolver TS-1810/ASM-101.

Input signal requirements:

For ORZ procedure . . . . Reference phase 30 cps ±1%, 4.5 to 8 volts.

For calibration:

Reference phase . . 30 cps ±l%, 3 to 7 volts

Variable phase . . ..30 cps ±1%, 1.5 volts, phase variable 0° to 180°.

Environmental operating limits:

Temperature . . . . . -30° to 55° c. (-22° to 131° F.).

Relative humidity. . 0 to 95% at 32° C. (90° F.).

Altitude . . . . -1,000 ft to 55,000 ft
Weight . . . . 3¼ lb.

b. Filter, Low Pass F-769/ASM-101.

Input impedance . . . . . 380,000 ohms.
Output impedance . . . . . 100,000 ohms.
Response . . . . . -6 decibels at 35 cps.
Environmental operating limits:
Temperature . . . . . -30° to 55°c. (-22° to 131° F.).
Relative humidity . . . . . 0 to 95% at 32° C. (90° F.).
Altitude . . . . . -1,000 ft to 55,000 ft.
Weight . . . . . 1 ½ lb.

5. Components

Components of Test Set, Resolver AN/ASM-101 are listed in the basic issue items list (app. III). The components of Test Set, Resolver AN/ASM–101 are illustrated in figure 1.

6. Description of Test Set, Resolver AN/ASM-101 (fig. 1)

a. Test Set, Resolver TS–1810/ASM–101. Test Set, Resolver TS-1810/ASM-101 (resolver test set) may be rack mounted. The front panel is a standard 19-inch rack panel, on which test cable connectors, potentiometers, and a switch are mounted.

b. Filter, Low Pass F-769/ASM–101. Filter, Low Pass F-769/ASM–101 (filter) contains two jacks mounted on the front panel. A cable, terminating in a plug, is fastened to the unit.

c. *Test Cables.* Two test cables are supplied to connect the resolver test set to the equipment under test. Both test cables are furnished for use with components of Computer Set, Navigational AN/ASN-33. Cable Assembly, Special Purpose, Electrical CX-8327/ASM-101 (indicator test cable) is used to connect the resolver test set to the AN/ASN-33 course indicator; and Cable Assembly, Special Purpose, Electrical CX–8376/ASM-101 (selector test cable) is used to connect the resolver test set to the AN/ASN-33 course selector.

Note. When the resolver test set is used with equipment other than the AN/ASN-33, a suitable test cable is required to connect the resolver test set to the equipment under test. Refer to the technical manual covering the specific equipment under test for information concerning the test cables.

d. Interconnecting Cables. Three cables are supplied to connect the resolver test set with the additional equipment (par. 7) necessary to perform tests:

(1) Two Cable Assemblies, Radio Frequency CG409/U (signal generator cable) are supplied for connecting the signal generator (par. 7) to the resolver test set. Both ends of each cable terminate in a male coaxial connector, UG-88/U.

(2) Cable Assembly, Radio Frequency CG-2559/U (alternating current (at) voltmeter cable) is supplied to connect the resolver test set to the ac voltmeter (par. 7). One end of the cable terminates in a male coaxial plug, UG-88/U; the other end terminates in a dual plug which mates with the INPUT jack on the ac voltmeter (par. 7c).

7. Additional Equipment Required

The following equipment is not supplied as part of Test Set, Resolver AN/ASM–101, but is required to enable the user to perform the test and adjustment functions of the equipment.

a. Signal *Generator.* Modulator MD-83A/ARN (signal generator), or equivalent, is required to supply the 30-cycle-per-second (cps) variable-phase (VAR Ø) and reference-phase (REF. Ø) input signals needed by the resolver test set.

b. Oscilloscope. Oscilloscope AN/USM–81, or equivalent, is required as a null point indicator during testing.

c. *Ac Voltmeter.* Voltmeter, Electronic ME–30B/U, or equivalent, is required for setting the input level during testing.

d. Coaxial Tee Connectors. The coaxial tee connectors are used to enable the operator to monitor the input signals to the resolver test set during initial adjustment and ORZ procedures, without having to disconnect the interconnecting cables from the resolver test set. Two coaxial tee connectors, UG-274B/U (REF. Ø tee and VAR Ø tee), are required when performing the calibration procedure (par. 12).

One coaxial tee connector, UG-274B/U (REF. Ø tee , is required when performing the ORZ procedure (par. 14).

e. Power Source. If the additional test equipment specified in *a, b,* and *c* above is used, a power source which provides 115 volts ac is necessary for operation. The power source should have sufficient current capacity for all the equipments (refer to the technical manuals of each equipment for the current it requires, and permissible variations in the power supply voltage). If other test equipment is used, refer to the technical manual for each specific equipment to determine power source requirements.

f. Adapter Cable. An adapter cable is required to connect the cable from the filter to the OUTPUT jack (terminals) on the ac voltmeter. Fabricate the adapter cable from a length of flexible coaxial cable, such as RG-58/U (the impedance of the adapter cable is not critical). The length of the adapter cable must meet the requirements for placement of equipment (par. 10). One end of the adapter cable must be terminated in a phone jack which mates with the phone plug on the cable which is attached to the filter. Terminate the other end of the adapter cable *in* dual banana plugs, spade lugs, or tinned leads; be sure the center conductor of the cable is attached to the banana plug or spade lug attached to the hot output terminal of the ac voltmeter on one end, and to the part of the jack which contacts the center (hot) part of the phone plug on the cable attached to the filter.

CHAPTER 2

SERVICE UPON RECEIPT OF EQUIPMENT

8. Unpacking

(fig. 2.)

a. Packaging Data. Test Set, Resolver AN/ASM-101 is shipped in a double corrugated carton. The inner corrugated carton is protected by a moisture-vaporproof barrier bag. Bags of desiccant are provided in the inner corrugated carton. A humidity indicator is secured to the outside of the inner corrugated carton. The resolver test set is protected from jolts in shipping and storage by corrugated fillers, and is inclosed in a plastic bag. The filter and cables are contained in separate plastic bags. Technical manuals complete the contents of the inner corrugated carton. The packaged Test Set, Resolver AN/ASM-101 measures 11¾ by 22½ by 9¼ inches. Its volume is 1.7 cubic feet; it weighs 12 pounds.

b. *Removing Contents.*

(1) Slit the tape along the top seam of the outer corrugated carton and open the outer corrugated carton.

(2) Lift out the moisture-vaporproof barrier bag containing the inner corrugated carton. Tear open and remove the moisture-vaporproof barrier bag from the inner corrugated carton.

(3) Check the humidity indicator on the inner corrugated carton. If the humidity indicator shows the presence of excess moisture, wipe the equipment with a clean, dry cloth, after completing the unpacking procedure.

(4) Slit the tape along the top seam of the inner corrugated carton and open the inner corrugated carton. Lift out the top corrugated filler and remove the side corrugated fillers, cellulose wadding, and bags of desiccant.

Note. If necessary, the desiccant can be reactivated by heating. Place the bags of desiccant in an oven set at 245° to 260° F. for16 hours.

(5) Remove the technical manuals.

(6) Lift the plastic bags containing the resolver test set, filter, and cables out of the inner corrugated carton. Slit the plastic bags and remove the equipment.

c. *Component Dimensions.* Following are the dimensions of components of Test Set, Resolver AN/ASM-101:

Quantity	Item	Height	Depth (in.)	Width (in.)	Unit weight (lb.)
1	Resolver test set	3⅛ in.	4⅛	19	3¼
1	Filter	2 in.	5	2	1⅛
1	Ac voltmeter cable	6 ft lg			
1	Indicator test cable	6 ft lg			
1	Selector test cable	6 ft lg			
2	Signal generator cable	6 ft lg			

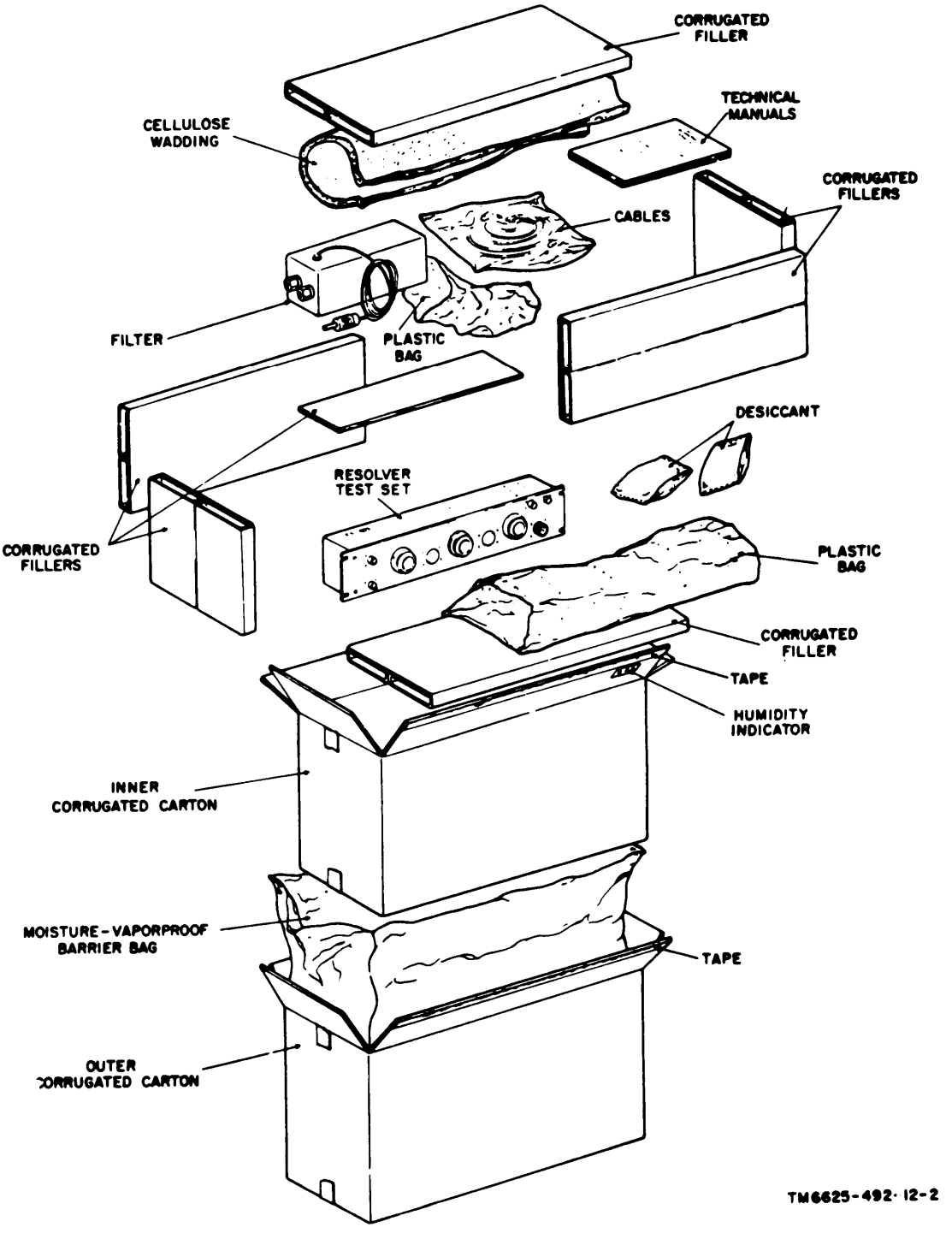

Figure 2. Test Set, Resolver AN/ASM-101, typical packaging.

9. Checking Unpacked Equipment

a. Inspect the equipment for damage incurred during shipment.

b. Check the equipment against the packing list. When no packing list accompanies the equipment, use the basic issue items list (app. III).

c. If the equipment is damaged or does not check with the packing list, refer to paragraph *2b.*

10. Placement of Equipment

Arrange the work area to meet the following requirements:

a. All test equipment controls face the operator, and are easily reached from the operator's position.

b. The operator can easily change connections during the test procedure.

c. The operator can easily read the ac voltmeter face, signal generator dial, and oscilloscope screen from his position.

d. Power receptacles (par. 7e) are located near the workbench.

Caution: **Be sure the power source meets equipment requirements before connecting and energizing the equipment.**

11. Operator's Controls and Connectors
(fig. 3.)

Control or connector	Function
OUTPUT connector	Provides connection for external ac voltmeter to monitor null during ORZ and calibration procedures.
VAR ∅ connector	Provides connection for a 30-cps variable-phase input during calibration of internal phase-shift network.
AMP. BAL. control	Controls amplitude of reference-phase signal for adjusting null during ORZ and calibration procedures.
CAL. E control	Controls amplitude of 30-cps, variable-phase input during calibration.
Function switch	Three-position rotary switch: Selects mode of resolver test set operation.
	Switch position — *Action* CAL. E — Used during calibration of resolver test set to adjust for correct level of 30-cps variable-phase input. CAL. ∅ — Used during calibration of resolver test set to adjust phase-shift network for precise 83° phase shift. SET ORZ. — Used to set up resolver test set and additional equipment (par. 7) to adjust resolver under test for correct ORZ.
CAL. ∅ control	Controls phase shift of internal phase-shift network during calibration.
INPUT LEVEL control	Controls amplitude of reference-phase signal during ORZ and calibration procedures.
REF. ∅ connector	Provides connection for source of 30-cps signal used as the reference phase signal during ORZ and calibration procedures.
VOLTMETER connector	Provides connection for external ac voltmeter used for monitoring reference-phase amplitude when adjusting INPUT LEVEL control during ORZ and calibration procedures.
Test connector	Provides connection for resolver under test.

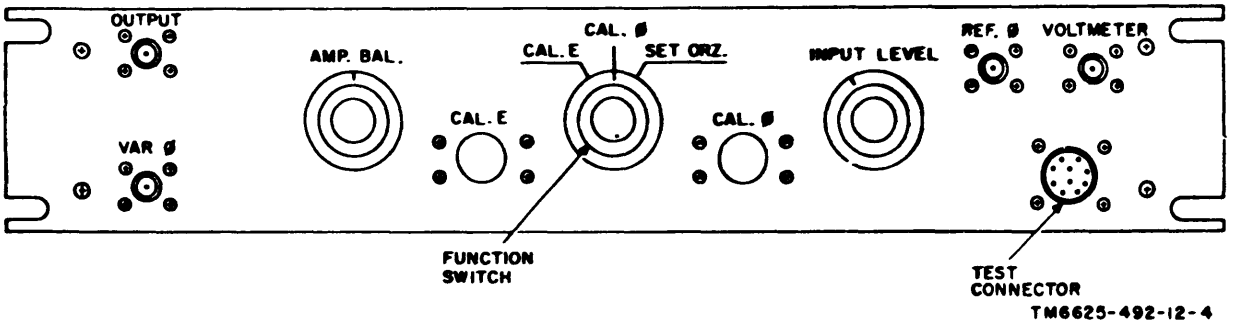

Figure 3. Test Set, Resolver TS–1810/ASM-101, operator's controls and connectors.

12. Calibration

a. Preliminary Calibration Procedure. Before using the resolver test set, calibrate it to produce the exact phase shift required for proper omnirange zeroing of resolvers. Calibrate the resolver test set weekly, each time troubleshooting is performed, and each time it has been moved or handled extensively, since vibration could disturb the control settings.

(1) Set the controls of the resolver test set to the positions listed in the following chart:

(2) Connect all equipment as shown in figure 4 with the ac voltmeter connetted to one end of the VAR Ø tee connector (1, fig. 4). Be sure that the hot lead of the oscilloscope is connected to the red terminal of the filter.

Note. Since the course indicator or course selector serves only as a load for the 30-cps reference signal, it is not necessary to use a course indicator or course selector that has had previous ORZ adjustment

(3) Using a screwdriver, remove the protective caps on the front panel covering the CAL. E and CAL. Ø controls (fig. 3) and loosen the locknuts so that the shafts are free to turn.

(4) Connect the ac voltmeter (TM 11-6625-320-12), oscilloscope (TM 11-6625-219-12), and signal generator to the power source.

(5) Energize all test equipment and allow 15 minutes warmup time.

b. Calibration Procedure.

Note. In the process of obtaining a null in the following procedure, start with a relatively high range setting on the ac voltmeter and a high gain setting on the oscilloscope. As the null is aprpoached, the range setting of the ac voltmeter is decreased so that the reading takes up more than one-third of the scale used. The oscilloscope gain setting remains constant. The most accurate null indication will be on the oscilloscope.

(1) Set the signal generator phase dial to 0° and the output frequency to 30 cps.

Note. Set the FUNCTION SELECTOR switch of Modulator MD–83A/ARN (signal generator) to CAL, and the SPECIFIC SIGNAL SELECTOR switch to 30-VAR Ø to obtain a variable-phase 30-cps output signal of variable amplitude at the MOD OUTPUT connector. The amplitude of the variable-phase output is then adjusted with resistor R138, and the amplitude of the reference-phase output is adjusted with R151. Adjust the amplitude of the signal at each output to the values specified in (2) through (10) below.

(2) Adjust the signal generator variable-phase output (with R138) to provide an output of 1.5 volts as indicated on the ac voltmeter attached to the resolver test set VAR Ø connector.

(3) Remove the ac voltmeter cable from the VAR Ø tee connector and reconnect it to the REF. Ø tee connector (2, fig. 4) and adjust the signal generator reference-phase output (with R151) to provide an output of 7 volts as indicated on the ac voltmeter.

(4) Remove the ac voltmeter cable from the REF. Ø tee connector and reconnect it to the VOLTMETER connector (3, fig. 4) ; adjust the INPUT LEVEL control to obtain 4.25 volts as observed on the ac voltmeter.

(5) Remove the ac voltmeter from the VOLTMETER connector and reconnect it to the OUTPUT connector (4, fig. 4).

(6) Turn the CAL. E control fully clockwise.

(7) Alternately adjust the signal generator phase dial and CAL. E. control on the resolver test set to obtain a minimum-amplitude signal indication (null) on the oscilloscope. This will occur near a reading of 180° on the phase dial of the signal generator. Note the exact phase dial reading where the null occurs.

Notes.

1. When adjusting the phase dial of the signal generator, always approach the point where the null occurs, using the same direction of dial rotation to minimize possible errors due to mechanical backlash.

2. During the calibration and test proce-

dures, a sine wave will be observed on the oscilloscpe screen. When null conditions are approached the sine wave will decrease in amplitude. Minimum null is reached when the oscilloscope trace becomes a straight horizontal line. When a straight horizontal line cannot be reached, the null condition is obtained when the amplitude of the sine wave on the oscilloscope screen reaches minimum value.

(8) Set the function switch on the resolver test set to CAL. Ø and set the signal generator phase dial for a reading of 83° less than the signal generator phase dial reading noted in (7) above.

(9) Adjust the AMP. BAL. control for a null indication on the oscilloscope. Observe the null indication obtained. Rotate the CAL. Ø control slightly counterclockwise and again adjust the AMP. BAL. control for a null. Compare the amplitude of this null indication to the null previously obtained. Rotate the CAL. Ø control clockwise until it is slightly past its original setting. Again adjust the AMP. BAL. control for a null and compare the result to the nulls previously obtained. Continue this procedure of alternately resetting the CAL. Ø control and adjusting the AMP. BAL. control for null until the minimum null is obtained. Leave the CAL. Ø control set to the position in which adjustment of the AMP. BAL. produces the minimum null.

(10) Set the function switch to CAL. E and repeat the procedure given in (7), (8), and (9) above to see if any reduction in the null can be obtained.

(11) Tighten the locknuts on the shafts of the CAL. E and CAL. Ø controls, being careful not to disturb the control setting.

(12) Reenergize all test equipment (a(4) above) and disconnect all test equipment from the power source.

(13) Press the protective caps into place over the CAL. E and CAL. Ø controls.

(14) Remove all interconnecting cables, test leads, and tee connectors from the test equipment.

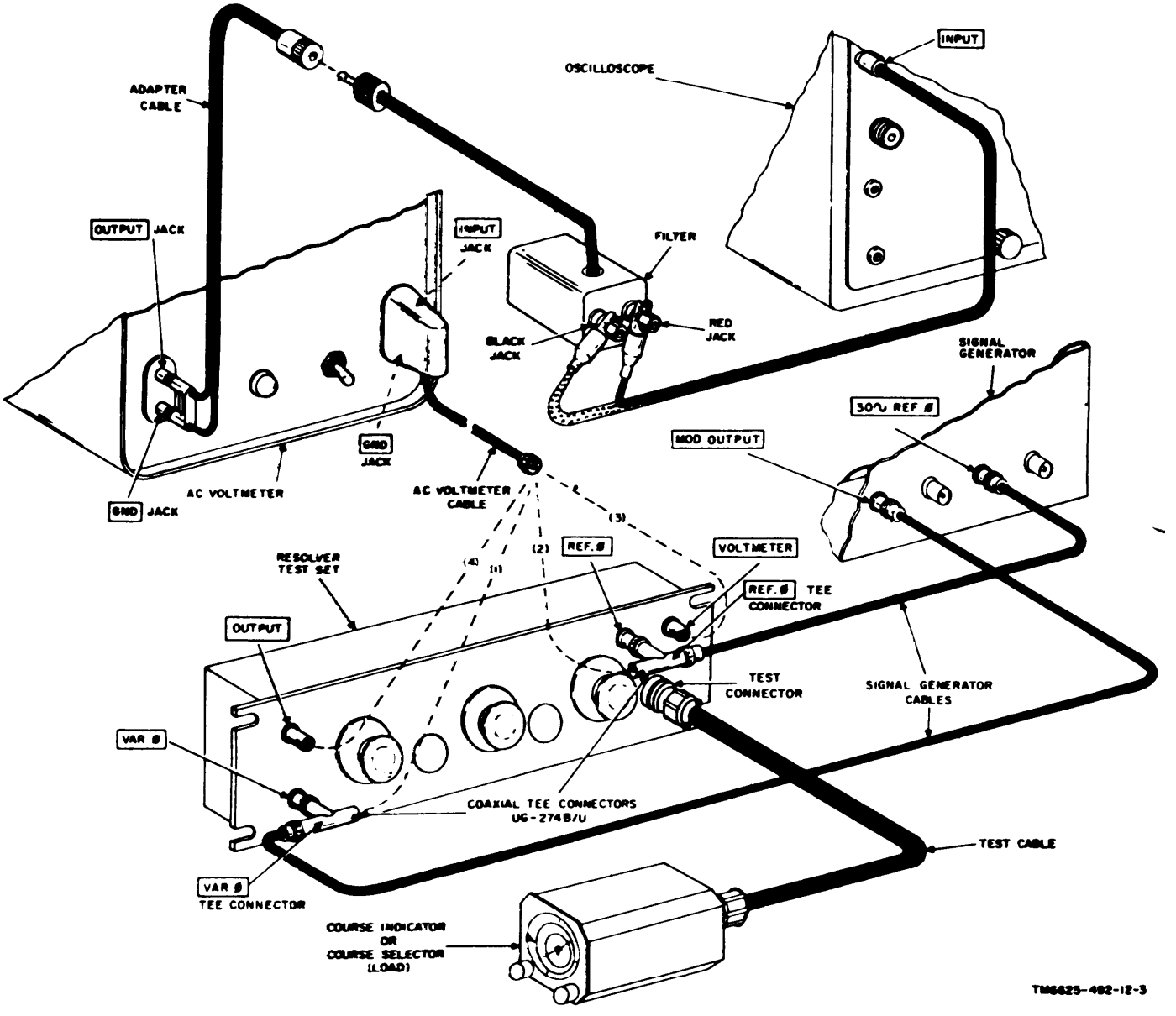

Figure 4. Calibration cabling diagram.

13. Preliminary Opertating Procedure

a. Set the resolver test set controls to the positions listed in the following chart:

Control	Position
AMP. BAL. control	Fully counterclockwise
Function switch	SET ORZ.
INPUT LEVEL control ...	Fully counterclockwise

b. Connect the resolver test set and filter to the equipment to be tested and the additional equipment (par. 7) as shown in figure 5. The ac voltmeter should be connected to the REF. Ø tee connector (1, fig. 5). Be sure the hot lead of the oscilloscope is connected to the red terminal on the filter. Use Cable Assembly, Special Purpose, Electrical CX–8327/ASM-101 as the test cable if the AN/ASN-33 course indicator is being zeroed. If the AN/ASN-33 course selector is being zeroed, use Cable Assembly, Special Purpose, Electrical CX-8376/ ASM-101 as the test cable. If an equipment other than the AN/ASN-33 is being zeroed, a suitable test cable must be fabricated (par. 6C).

c. Connect the test equipment to the power source.

d. Energize all test equipment and allow 15 minutes warmup time.

14. Operating Procedure

a. Adjust the signal generator output frequency to 30 cps and adjust the signal generator output level for 7 volts as observed on the ac voltmeter.

b. Remove the ac Voltmeter connection from the tee connector and reconnect it to the VOLTMETER connector (2, fig. 5) and adjust the INPUT LEVEL control for 4.25 volts as observed on the ac voltmeter.

c. Remove the ac voltmeter connection from the VOLTMETER connector and reconnect it to the OUTPUT connector (3, fig. 5).

d. Set the indicator connected to the rotor of the resolver being zeroed to 300" and unlock the resolver rotor or the resolver stator (depending upon the particular unit being zeroed).

Note. Refer to the technical manual covering the specific unit being zeroed to determine the particular control to be used to set the indicator and the specific winding to be unlocked.

e. Alternately adjust the AMP. BAL. control and the resolver rotor (or stators) of the unit under test to obtain the least possible signal amplitude (minimum null) as observed on the oscilloscope.

f. After the minimum null has been obtained lock the resolver stator (or rotor) of the unit under test in place.

15. Mopping Procedure

a. Reenergize the test equipment and disconnect the test equipment from the power source.

b. Disconnect all interconnecting cables, test leads, and the tee connector from test equipment and equipment under test.

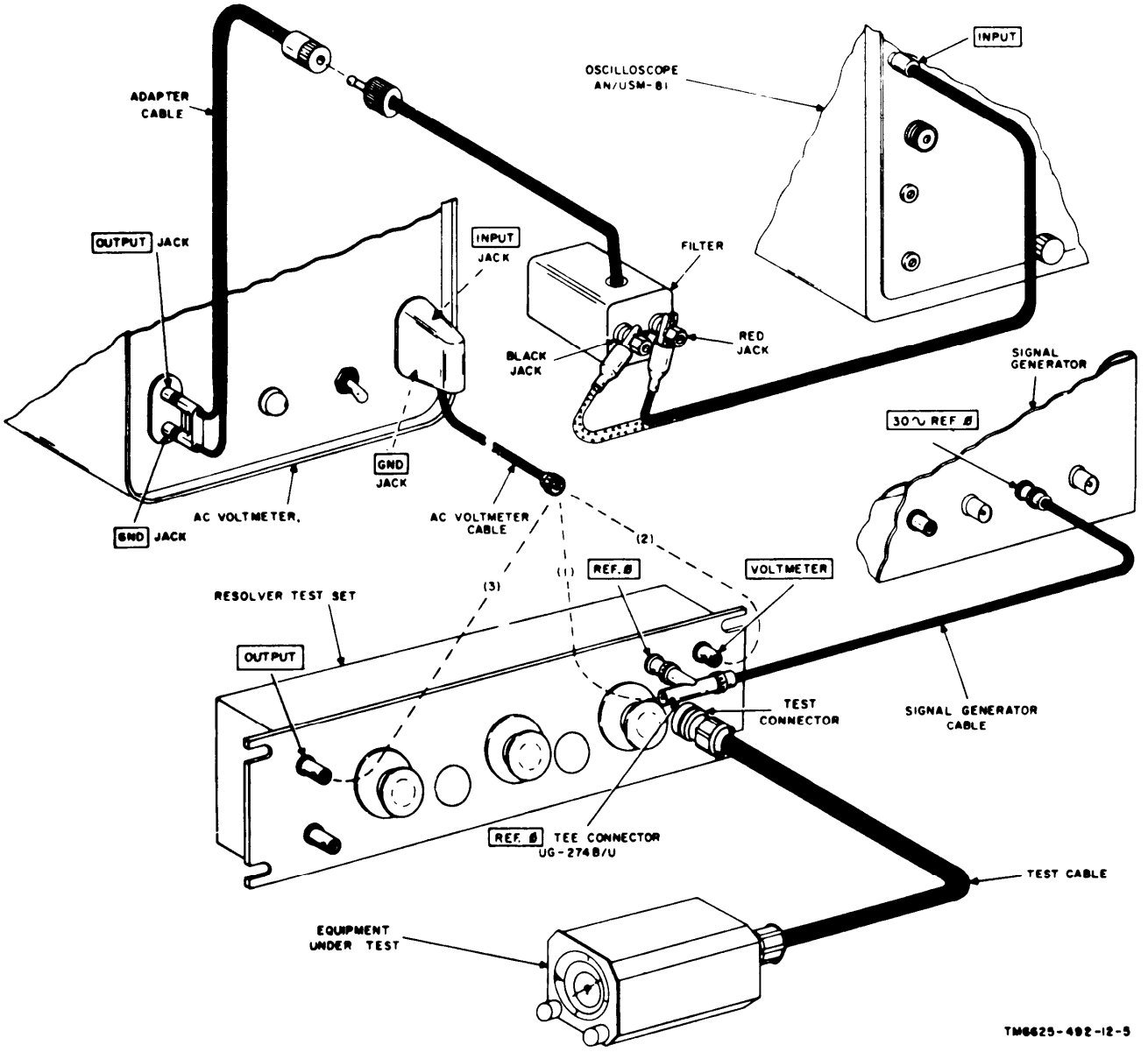

Figure 5. Omnirange zeroing cabling diagram.

CHAPTER 4

MAINTENANCE INSTRUCTIONS

16. Scope of Maintenance

Maintenance of the resolver test set is performed by the repairman-user and consists of the following:

a. Preventive maintenance (par. 18).

b. Troubleshooting (par. 19).

c. Replacement of authorized maintenance parts.

17. Tools, Materials, and Test Equipment Required

a. Tools and Test Equipment.

(1) Tool Kit, Radio Repair TK-l15/G

(2) Multimeter AN/URM-105

b. Materials. The following materials are required for preventive maintenance:

(1) Fine sandpaper (#000).

(2) Clean, dry, lint-free cloth (cloth, textile, lintless, FSN 8305–170–5062, or equivalent).

(3) Cleaning compound (FSN 7390-395-9542).

(4) Small, soft-bristled brush (brush, flat, FSN 8020-245-4509, or equivalent).

(5) Friction tape (Tape TL-83/U, FSN 5970–296-3305, or equivalent)..

(6) Rubber tape (Tape TL-636/U, FSN 5970-296-1175, or equivalent).

18. Preventive Maintenance

a. Daily.

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

(1) Inspect the resolver test set and filter housings, cables, and connectors for dirt and moisture. Remove dirt and moisture with a clean, dry, lint-free cloth. For stubborn dirt on bare or painted metal surfaces, moisten the cloth used for cleaning with cleaning compound, before wiping the housings.

Caution: **Cleaning compound is harmful to cable sheathing. Use cleaning compound only on bare or painted metal surfaces, and glass.**

(2) Inspect the resolver test set and filter housings for cracked or chipped paint, rust, or corrosion. Clean metal surfaces by lightly sanding them with fine sandpaper. Brush two thin coats of paint on the bare metal to protect it from further corrosion. Refer to applicable cleaning and refinishing practices specified in TM 9-2851.

(3) Inspect the jacks, terminals, controls, function switch, and knobs for tightness. Tighten jacks, control- and switch-shaft nuts, and knobs where necessary. Replace any knobs that are broken or missing. Be sure the protective caps over the CAL. E and CAL. Ø controls are not corroded, or held in place by corrosion. Be sure the switch and control knobs do not rub against the resolver test set housing.

(4) Inspect the controls and function switch for binding and scraping. When the resolver test set is in operation (before using it in the test procedures), tap the controls lightly to check for cutout due to loose contacts; be alert for any unusual performance or condition in operation.

b. Weekly.

(1) Inspect the test and interconnecting cables for breaks, cuts, kinks, deterioration, fraying, and strain. Repair minor damage to insulation by covering the damaged area with rubber tape and then with friction tape.

(2) Inspect exposed metal surfaces for rust and corrosion (a (2) above).

(3) Inspect connectors for clean and straight contacts.

(4) Inspect the seating of interconnecting and test cables. Use direct pressure to insure they are firmly seated.

(5) See that there are no loose or missing screws. Tighten loose screws, and replace any that are missing.

19. Troubleshooting

If the equipment fails to perform properly, turn off the power to all additional equipment used in the test procedure. Perform the checks indicated in a and b below. If these checks do not locate the trouble, troubleshooting at a higher echelon of maintenance is required. Note on the repair tag how the equipment performed at the time of failure.

a. Visual Inspection. Check the equipment for the following possible causes of malfunction:

(1) Test or interconnecting cables loosely or improperly connected.

(2) Incorrect settings of switches or controls on either the resolver test set or the additional equipment used in the test procedure.

b. Cable Continuity Tests. Use the AN/URM-105 to check for continuity (0 ohms resistance) between the connectors on each of the cables.

(1) Signal generator cables, ac voltmeter cable, and adapter cable. These cables have only single center conductors and ground connections.

(2) Test cables. Each of these cables has six connections which are used. Both cables are wired in the following manner:

P1 contact	P2 contact
A	C
B	B
C	A
D	D
E	E
F	F

Note. On the selector test cable P1 and P2 are identical. On the indicator test cable P1 is the plug which connects to the course indicator.

CHAPTER 5

SHIPMENT AND LIMITED STORAGE AND DEMOLITION TO PREVENT ENEMY USE

Section I. SHIPMENT AND LIMITED STORAGE

20. Preparation for Shipment or Limited Storage

a. Disconnect all test leads from the resolver test set filter, and all additional equipment used in the test procedure.

b. Coil the cables neatly, and tie each coiled cable with cotton twine.

21. Repackaging for Shipment or LImited Storage

The exact procedure for repackaging Test Set, Resolver AN/ASM-101 depends upon the materials available and the conditions under which the equipment is to be shipped or stored. Whenever possible, adapt the procedures outlined in *a* and *b* below. The informtion concerning the original packaging (par. 8) will also be helpful.

a. Materials Required. The materials and the approximate quantities of each required for repackaging Test Set Resolver AN/ASM-101 are listed in the chart below. For stock numbers of materials, refer to SB 38-100.

Item	Quantity
Waterproof barrier material	12 square feet
Pressure-sensitive tape, water-resistant	16 feet
Corrugated fiberboard (wrapping and cushioning)	12 square feet
Gummed paper tape	10 feet
Cotton twine	5 feet
Filler material	As required
Fiberboard box, approximately 11¾ by 22½ by 9¼ inches.	1 each

b. Packaging.

(1) Pad the front panel of the resolver test set with filler material, and then wrap the unit in waterproof barrier material and seal with pressure-sensitive tape.

(2) Overwrap the packaged equipment tightly in corrugated fiberboard and seal with gummed paper tape.

(3) Coil the cable attached to the filter, and tie it with twine. Place the filter in the middle of the coil, wrap the unit in waterproof barrier material, seal with pressure-sensitive tape, and place padding around the unit.

(4) Overwrap the packaged filter tightly in corrugated fiberboard and seal with gummed tape.

(5) Wrap the coiled test and interconnecting cables together in corrugated fiberboard and seal with gummed paper tape.

(6) Wrap the technical manuals in waterproof barrier material, and seal with pressure-sensitive tape.

(7) Place the packaged resolver test set, filter, and cables in the fiberboard box and place the packaged technical manuals within the box.

(8) Fill all remaining space within the box with filler material and pads of fiberboard to prevent all movement within the box.

(9) Fold down the flaps of the fiberboard box and seal all seams and closures with pressure-sensitive tape.

(10) Mark the outside of the fiberboard box as prescribed in MIL-STD 129B and pertinent instructions in the movement directive.

Section II. DEMOLITION OF MATERIEL TO PREVENT ENEMY USE

22. Authority for Demolition

The demolition procedures given in paragraph 23 will be used to prevent the enemy from using or salvaging this equipment. Demolition of the equipment will be accompished only upon order of the commander.

23. Methods of Demolition

Any or all of the methods of destruction given below may be used.

a. Smash. Smash the front panel of the resolver test set and that of the filter, the connectors, and as many of the internal parts as possibe; use sledges, axes, handaxes, pickaxes, hammers, crowbars, or other heavy tools.

b. Cut. Cut all cables and, if time permits, internal wiring; use axes, handaxes, machetes, or similar tools.

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

c. Burn. Burn the technical literature and as much of the equipment as is flammable; use gasoline, kerosene, oil, flamethrowers, or incendiary grenades.

d. Explode. If explosives are necessary, use firearms, grenades, or TNT.

e. Dispose. Bury or scatter the destroyed parts in slit trenches, foxholes, or other holes, or throw them into streams.

APPENDIX I

REFERENCES

Following is a list of applicable references available to the operator and organizational repairman of Test Set, Resolver AN/ASM-101:

DA PAM 310-4	Index of Technical Manuals, Technical Bulletins, Supply Bulletins, Lubrication Orders, and Modification Work Orders.
MIL-STD 129B	Marking for Shipment and Storage.
SB 38-100	Preservation, Packaging, and Packing Materials, Supplies, and Equipment Used by the Army.
TM 9-2851	Painting Instructions for Field Use.
TM 11-674	Servo Systems and Data Transmission.
TM 11-5826-218-12	Operator and Organizational Maintenance Manual: Computer Set, Navigational AN/ASN-33 and Coupler, Indicator CU-865/ASN.
TM 11–5826-218-35	Field and Depot Maintenance Manual: Computer Set, Navigational AN/ASN-33.
TM 11-6625-203-12	Operator's and Organizational Maintenance Manual: Multimeter AN/URM-105 Including Multimeter ME-77/U.
TM 11-6625-219-12	Operator's and Organizational Maintenance Manual: Oscilloscope AN/USM-81.
TM 11–6625-320-12	Operator's and Organizational Maintenance Manual: Voltmeter, Meter ME-30A/U and Voltmeters, Electronic ME-30B/U and ME-30C\U.
TM 38-750	The Army Equipment Record System and Procedures.

APPENDIX II

MAINTENANCE ALLOCATION

Section I. INTRODUCTION

1. General

a. This section assigns maintenance functions and repair operations to be performed by the lowest appropriate maintenance echelon. It also specifies the tool and test equipments authorized at each echelon for performance of the assigned maintenance functions.

b. Columns in the maintenance allocation chart are as follows:

(1) *Part or component.* This column shows only the nomenclature or standard item name.

(2) *Maintenance function.* This column indicates the various maintenance functions allocated to the echelons. These functions are as follows:

(a) Inspect. To verify serviceability and to detect incipient electrical or mechanical failure by scrutiny.

(b) Test. To verify serviceability and to detect incipient electrical or mechanical failure by use of special equipment such as gages and meters.

(c) Replace. To substitute serviceable comopnents, assemblies, or subassemblies, for unserviceable components, assemblies, or subassemblies.

(d) Repair. To restore an item to serviceable condition by correcting a specific failure or unserviceable condition. This function includes but is not limited to welding, grinding, riveting, straightening, and replacement of parts.

(e) Calibrate. To check and adjust the electrical and mechanical alignment of an item.

(f) Overhaul. To restore an item to completely serviceable condition as prescribed by serviceability standards developed and published by heads of technical services. This is accomplished by use of the technique of "inspect and repair only as necessary" (IROAN). Maximum utilization of diagnostic and test equipment is combined with minimum disassembly of the item during the overhaul process.

(3) *1st, 2d, 3d, 4th, 5th echelons.* The symbol X in any of these columns indicates the echelon responsible for performing the particular maintenance operation, but does not necessarily indicate that repair parts will be stocked at that level. Echelons higher than the echelon marked by X are authorized to perform the indicated operation.

(4) *Tools required.* The numbers in this column represent tool equipments required for performance of the assigned maintenance functions. These numbers are identified in section III.

(5) *Remarks.* Notations in this column clarify the data cited in the preceding columns.

c. Columns in the allocation of tools for maintenance functions chart are as follows:

(1) *Tools required for maintenance functions.* This column lists tool and test equipments required for performance of the maintenance functions.

(2) *1st, 2d, 3d, 4th, 5th echelon.* A dagger (†) in any of these columns indicates that the tool or test equipment normally is allocated to that echelon.

(3) *Tool code.* This column lists the assigned tool codes.

2. Maintenance by Using Organizations

When this equipment is used by signal services organizations organic to the theater headquarters or communication zone to provide theater communications, those maintenance functions allocated up to and including fourth echelon are authorized to the organization operating this equipment.

SECTION II MAINTENANCE ALLOCATION CHART

(1) PART OR COMPONENT	(2) MAINTENANCE FUNCTION	(3) 1ST ECH	(4) 2ND ECH	(5) 3RD ECH	(6) 4TH ECH	(7) 5TH ECH	(8) TOOLS REQUIRED	(9) REMARKS
TEST SET, RESOLVER AN/ASM-101	inspect		X				6	
	test		X				2	Continuity
					X		3	Resistance and Circuit Check
	repair		X				6	
	calibrate				X		1,4,7	Refer to TM 11-6625-492-12 paragraph number 12
	overhaul				X		5	
CABLE ASSEMBLY	test		X				2	Continuity
	replace		X					
	repair		X					
	overhaul				X			
FILTER, LOW PASS F-769/ASM-101	inspect		X					
	test				X		3	Resistance and Circuit Check
	repair		X				6	
	overhaul				X		5	
TEST SET RESOLVER TS-1810/ASM-101	inspect		X				6	
	test		X				2	Continuity of cables
					X		3	Resistance and Circuit Check
	replace		X					
	repair		X				6	
	calibrate		X					Refer to TM 11-6625-492-12 paragraph Number 12
	overhaul				X		5	

TOOLS REQUIRED FOR MAINTENANCE FUNCTIONS	(2) 1ST ECH	(3) 2ND ECH	(4) 3RD ECH	(5) 4TH ECH	(6) 5TH ECH	(7) TOOL CODE	(8) REMARKS
AN/ASM-101 (Continued)							
GENERATOR SIGNAL TS-382/U				†	†	1	Freq requirement of 30v. Note: Refer to TM 11-6625-492-12 paragraph 7
MULTIMETER, AN/URM-105		†				2	Continuity checking
MULTIMETER TS-352/U				†	†	3	Continuity checking
OSCILLOSCOPE AN/USM-81				†	†	4	Note: Refer to TM 11-6625-492-12 paragraph 7
TOOL KIT RADAR AND RADIO REPAIRMAN TK-87 U				†	†	5	
TOOL KIT RADIO REPAIR TK-115/G		†				6	
VOLTMETER, ELECTRONIC ME-30 U				†	†	7	Accurate low voltage ac readings; Note: Refer to TM 11-6625-192-12 paragraph 7

APPENDIX III

BASIC ISSUE ITEMS LIST

Section I. INTRODUCTION

1. General

This appendix lists items supplied for initial operation. The list includes all parts issued as part of the major end item. 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.

2. Columns

The columns of section II are as follows:

a. Source, Maintenance, and Recoverability Code. Not used.

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

c. Designation by Model. Not used.

d. Description. Nomenclature or the standard item name and brief identifying data for each item are listed in this column. When requisitioning, enter the nomenclature and description.

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

f. Expendability. Nonexpendable items are indicated by NX.

g. Quantity Authorized. Under ITEMS COMPRISING AN OPERABLE EQUIPMENT, the column lists the quantity of items supplied for the initial operation of the equipment.

h. Illustration. The FIGURE NO. column lists the figure in which each item is shown.

SECTION II FUNCTIONAL PARTS LIST

(1) SOURCE MAINTENANCE AND RECOVERABILITY CODE	(2) FEDERAL STOCK NUMBER	(3) DESIGNATION BY MODEL	(4) DESCRIPTION	(5) UNIT OF ISSUE	(6) EXPENDABILITY	(7) QUANTITY AUTHORIZED	(8) ILLUSTRATIONS FIGURE NO	(9) ILLUSTRATIONS ITEM NO
	6625-086-7844		TEST SET, RESOLVER; AN/ASM-101: formerly nomenclatured as SB-1430/ASN; Collins type No. 479X-2		NX			
			ITEMS COMPRISING AN OPERABLE EQUIPMENT					
	Ord thru AGC		TECHNICAL MANUAL TM 11-6625-492-12			2		
	6625-086-7842		CABLE ASSEMBLY, SPECIAL PURPOSE ELECTRICAL CX-8327/ASM-101		NX	1	1	
	6625-086-7846		CABLE ASSEMBLY, RADIO FREQUENCY; CG-2559/U:		NX	1	1	
	6625-086-7847		CABLE ASSEMBLY, SPECIAL PURPOSE ELECTRICAL CX-8376/ASM-101		NX	1	1	
	6625-086-7845		CABLE ASSEMBLY, RADIO FREQUENCY; CG-409/U:		NX	2	1	
	5915-889-1442		FILTER, LOW PASS F-769/ASM-101:		NX	1	1	
	6625-086-7843		TEST SET, RESOLVER; TS-1810/ASM-101:		NX	1	1	
			RUNNING SPARE ITEMS					
			NO PARTS AUTHORIZED FOR STOCKAGE AT FIRST ECHELON					

Omnirange. A system of transmitting very high frequency (VHF) radio signals for navigational purposes. Omnirange stations transmit in such a way that the signal has individual phase characteristics at any point in 360° around the transmitter antenna. The signal, therefore, is thought of as consiting of an infinite number of straight line transmissions, or radials, extending out from the antenna like spokes from the hub of a wheel.

Omnirange zeroing (ORZ). The adjustment of a resolver so that the voltage induced in the stator leads the generator voltage induced in the rotors by 83° when the resolver indicator reads 300". This insures that aircraft navigational equipment using resolvers will give correct indications when taking bearings on VHF omnirange navigational transmitting stations.

By Order of the Secretary of the Army:

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

Official:

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

Distribution:

To be distributed in accordance with DA Form 12-31 requirements for organizational maintenance instructions for AO-1 air craft.

Operator and Organizational Maintenance Manual

TEST SET RESOLVER AN/ASM-101

CHANGE No. 1

HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON, D. C., *21 November 1963*

TM 11-6625–492-12, 5 0ctober 1962, is changed as follows:

Page 3, paragraph 1. Add paragraph 1.1 after paragraph 1.

1.1. Index of Publications

Refer to the latest issue of DA Pam 310-4 to determine whether there are new editions, changes, or additional publications pertaining to the equipment. DA Pam 310-4 is an index of current technical manuals, technical bulletins, supply manuals (types 4, 6, 7, 8 and 9), supply bulletins, lubrication orders, and modification work orders available through publications supply channels. The index lists the individual parts (-10, -20, -35P, etc.) and the latest changes to and revisions of each equipment publication.

Delete paragraph 2 and substitute:

2. Forms and Records

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

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

c. Reporting of Equipment Manual Improvements. The direct reporting, by the individual user, or errors, omissions, and recommendations for improving this manual is authorized and encouraged. DA Form 2028 (Recommended changes to DA technical manual parts lists or supply manual 7, 8, or 9) will be used for reporting these improvement recommendations. This form will be completed in triplicate by the use of pencil, pen, or typewriter. The original and one copy will be forwarded direct to Commanding Officer, U.S. Army Electronics Materiel Support Agency, ATTN: SELMS-MP, Fort Monmouth, N. J. 07703. One information copy will be furnished to the individual's immediate supervisor (officer, noncommissioned officer, supervisor, etc.).

Page 15. Delete paragraphs 16, 17, and 18 and substitute:

Section I. Operator's Maintenance

16. Scope of Operator's Maintenance

The maintenance duties assigned to the operator of the equipment are listed below, together with a reference to the paragraphs covering the specific maintenance functions. The duties assigned do not require tools or materials other than those listed in paragraph 17.

a. Daily preventive maintenance checks and services (par. 18.2).

b. Weekly preventive maintenance checks and services (par. 18.3).

c. Cleaning (par. 18.4).

17. Tools and Materials Required

The following tools and materials are required to perform the operator's preventive maintenance

a. Cleaning Compound (FSN 7930-395-9542).

b. Lint-free cloth (FSN 8305-170-5062).

c. Small soft-bristle brush (FSN 8020-245-4509).

18. Operator's Preventive Maintenance

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

a. Systematic Care. The procedures given in paragraphs 18.2, 18.3, and 18.4 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 (pars. 18.2 and 18.3) outline functions to be performed at specific intervals. These checks and services are to maintain Army electronic equipment in serviceable condition; that is, in good general (physical) condition and in good operating condition. To assist operators in maintaining serviceability, the charts indicate what to check, how to check, and the normal conditions. The references column lists the areas that contain supplementary information. If the defect cannot be remedied by the operator, higher echelon 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.

Add paragraphs 18.1 through 18.4 after paragraph -18:

18.1. Operator's Preventive Maintenance Checks and Services Periods

a. Daily. Preventive maintenance checks and services of the equipment are required on a daily basis while the equipment is in use. If the equipment is being maintained in a standby (ready for immediate operation) condition, the daily checks and services should be performed once each week. Paragraph 18.2 specifies checks and services that must be accomplished daily and when the equipment is initially placed in service or removed from service.

b. Weekly. Perform the maintenance functions indicated in the weekly preventive maintenance checks and services chart (par. 18.3) once each week. Equipment in limited storage (requires service before operation) does not require weekly maintenance.

18.2. Daily Preventive Maintenance Checks and Services Chart

Sequence No	Item	Procedure	References
1	Exterior surfaces ----------	Clean exterior surfaces (fig. 1), including panel and meter glasses. Check meter glasses and indicator lenses for cracks.	Par. 18.4a, b, and c.
2	Controls ----------	Inspect knobs (fig. 3), for looseness- ------- -----	
3	Operation ----------	During operation, be alert for any unusual signs or conditions.	

18.3. Weekly Preventive Maintenance Checks and Services Chart

Sequence No.	Item	Procedure	References
1	Control ----------	Check controls (fig. 3) for binding and scraping; tap lightly to check for cutout due to loose contacts. Controls knobs should operate smoothly, be properly secured to shafts, and should not bind. Tighten loose knobs and be sure that knobs do not rub against panel.	
2	Cords and cables ----------	Inspect cords and cables (figs. 1 and 2) for breaks, cuts, kinks, deterioration, strain, and fraying.	Par. 18.4d.
3	End item of equipment ------	Inspect equipment for completeness ----------	App. III.

18.4. Cleaning

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

a. Remove dust and loose dirt with a clean, soft, lint-free cloth.

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

b. Remove grease, fungus, and ground-in dirt with a cloth dampened (not wet) with cleaning compound; dry thoroughly.

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

d. Clean the cords and cable with a cloth slightly dampened with cleaning compound; dry thoroughly.

Add section II after paragraph 18.4:

Section II. ORGANIZATIONAL (SECOND ECHELON) MAINTENANCE

18.5. Scope of Second Echelon Maintenance

The maintenance duties assigned to second echelon maintenance personnel of the equipment are listed below, together with a reference to the paragraphs covering the specific maintenance functions.

a. Monthly preventive maintenance checks and services (par. 18.9).

b. Quarterly preventive maintenance checks and services (par. 18.11).

18.6. Tools, Materials, and Test Equipment Required

In addition to the tools and materials listed in paragraph 17, the following items are required.

a. Tool Kit, Radio Repairman TK–115/G.
b. Sandpaper (No. 000).
c. Friction tape (FSN 5970-296-3305).
d. Rubber tape (FSN 5970-296-1175).
e. Multimeter AN/URM-105.

18.7. Second Echelon Preventive Maintenance

a. Second echelon preventive maintenance is the systematic care, inspection, and servicing of equipment to maintain it in serviceable condition, prevent breakdowns, and assure maximum operational capability. Preventive maintenance is the responsibility of all echelons concerned with the equipment and includes the inspection, testing, and repair or replacement of parts, subassemblies, or units that inspection and tests indicate would probably fail before the next scheduled periodic service. Preventive maintenance checks and services of the equipment at the second echelon level are made at monthly and quarterly intervals at the same time as the daily (par. 18.2) and weekly (par. 18.3) checks and services unless otherwise directed by the commanding officer.

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

18.8. Monthly Maintenance

Perform the maintenance functions indicated in the monthly preventive maintenance checks and services chart (par. 18.9) once each month. A month is defined as approximately 30 calendar days of 8-hour-per-day operation. If the equipment is operated 16 hours a day, monthly preventive maintenance checks and services should be performed at 15-day intervals. Adjustment of the maintenance interval must be made to compensate for any unusual operating conditions. Equipment maintained in a standby condition must have monthly preventive maintenance checks and services performed on it. Equipment in limited storage does not require monthly preventive maintenance.

18.9. Monthly Preventive Maintenance Checks and Services Chart

Sequence No.	Item	Procedure	References
1	Jacks and connectors	Inspect jacks and connectors for snug fit and good contact.	
2	Transformer terminals	Inspect transformer terminals; there should be no evidence of dirt or corrosion.	Par. 18.4*a* and *b*.
3	Terminal board	Inspect terminal board for loose connections and cracked or broken insulation.	
4	Resistors	Inspect resistors for cracks, blistering, or other defects.	
5	Gaskets and insulators	Inspect gaskets, insulators, and bushings for cracks, chipping, and excessive wear.	
6	Interior	Clean interior of chassis and case	Par. 18.4.

18.10. Quarterly Maintenance

Quarterly preventive maintenance checks and services on the equipment are required. Periodic daily (par. 18.2), weekly (par. 18.3), and monthly (par. 18.9) checks and services constitute a part of the quarterly preventive maintenance checks and services and must be performed concurrently. All deficiencies or shortcomings will be recorded in accordance with the requirements of TM 38-750. Perform all the checks and services listed in the quarterly preventive maintenance checks and services chart (par. 18.11) in the sequence listed.

18.11. Quarterly Preventive Maintenance Checks and Services Chart

Sequence No.	Item	Procedure	References
1	Publications	See that all publications are complete, serviceable, and current.	DA Pam 310–4.
2	Modifications	Check DA Pam 310–4 to determine whether new applicable MWO's have been published. All URGENT MWO's must be applied immediately. All NORMAL MWO's must be scheduled.	TM 38–750 and DA Pam 310–4.
3	Installation	See that equipment is properly installed	Par. 10.
4	Preservation	Check all surfaces for evidence of fungus. Remove rust and corrosion and spot-paint bare spots.	Par. 18.12.
5	Mounting	See that all bolts, nuts, and washers are correctly positioned and properly tightened.	

18.12. Cleaning and 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. Refer to the applicable cleaning and refinishing practices specified in TM 9-213.

Page 19, appendix I. Make the following changes:

Delete the first reference and substitute:

DA Pam 3104 Index of Technical Manuals, Technical Bulletins, Supply Manuals (Types 4, 6, 7, 8, and 9), Supply Bulletins, Lubrication Orders, and Modification Work Orders.

Delete "TM 9-2851" and substitute: TM 9-213.

Add the following to the list of references:

TM 11-6625-203-12 Operator and Organizational Maintenance: Multimeter AN/URM-105, Including Multimeter ME-77/U.

By Order of the Secretary of the Army:

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

Official:

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

Distribution:

To be distributed in accordance with DA Form 12-31 requirements for Organizational Maintenance Instructions for (OV-1) AO-1 Aircraft.

TM 11-6625-492-12
*C 3

CHANGE
No. 3

HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON, DC, 1 December 1975

Operator's and Organizational Maintenance Manual
TEST SET, RESOLVER AN/ASM-101

TM 11-6625-492-12, 5 October 1962, is changed as follows:

Page 3, Paragraph 1b. Delete "the basic issue items (BIIL) appears in appendix III" from subparagraph *b*.

Delete the note following subparagraph *b*.

Paragraph 1.1 is superseded as follows:

1.1. 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 this 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.

Paragraph 2 is superseded as follows:

2. 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 4610.33A/AFR 75-18/MCO P4610.19B, and DSAR 4500.15.

2.1. Recommendation for Maintenance Publications Improvements

You can improve this manual by recommending improvements using DA Form 2028 (Recommended Changes to Publications and Blank Forms) or DA Form 2028-2 (TEST) located in the back of the manual. To use the form in the back of the manual, simply tear it out, fill it out as shown on the sample in figure 1.1, fold it where shown, and mail direct to Commander, US Army Electronics Command, ATTN: AMSEL-MA-Q, Fort Monmouth, NJ 07703. A reply will be furnished direct to you.

*This change supersedes C 2, 4 October 1973.

RECOMMENDED CHANGES TO EQUIPMENT TECHNICAL MANUALS

SOMETHING WRONG WITH THIS MANUAL?

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

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

DATE 10 July 1975

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

BE EXACT. . .PIN-POINT WHERE IT IS

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

TYPED NAME, GRADE OR TITLE, AND TELEPHONE NUMBER
SSG I. M. DeSpiritof 999-1776

SIGN HERE: SSG I. M. DeSpiritof

DA FORM 1 AUG 74 2028-2 (TEST)

P.S.--IF YOUR OUTFIT WANTS TO KNOW ABOUT YOUR MANUAL "FIND," MAKE A CARBON COPY OF THIS AND GIVE IT TO YOUR HEADQUARTERS.

HISA 1686-75

Figure 1.1. DA Form 2028-2 (TEST) - Sample

Page 4. Paragraph 5 is superseded as follows:

5. Items Comprising an Operable Test Set, Resolver AN/USM-101

NSN	*QTY*	*Nomenclature*	Fig. No.
6625-00-086-7844		Test Set, Resolver AN/ASM-l0l consisting of:	
6625-00-086-7842	l	Cable Assembly. Special Purpose Electrical CX-8327/ASM-101.	1
6625-00-086-7846	...1	Cable Assembly. Radio Frequency; CG-2559/U	1
6625-00-086-7847	...1	Cable Assembly. Special Purpose Electrical CX-8376/ASM-101.	1
6625-00-086-7845	...2	Cable Assembly, Radio Frequency, CG—409/U.	1
5915-00-889-4442	...1	Filter, Low Pass F-769/ASM-101.	1
6625-00-086-7843	1	Test Set, Resolver, TS-1810/ASM-101	1

Page 10. Paragraph 12b(3) is superseded as follows:

(3) Remove the ac voltmeter cable from the VAR Ø tee connector and reconnect it to the REF. Ø tee connector (2, fig. 4) and adjust the signal generator reference-phase output (with R151) maximum output (not greater than 7 volts, but not less than 3 volts) as indicated on the AC VTVM.

Page 23. Appendix III is deleted in its entirety.

By Order of the Secretary of the Army:

FRED C. WEYAND
General, United States Army
Chief of Staff

Official:

PAUL T. SMITH
Major General, United States Army
The Adjutant General

Distribution:
To be distributed in accordance with DA Form 12-36A, (qty rqr block no. 860) Organizational Maintenance requirements for AN/ASM-101.

☆ U.S. GOVERNMENT PRINTING OFFICE : 1987 O - 181-421 (70862)

RECOMMENDED CHANGES TO EQUIPMENT TECHNICAL MANUALS

SOMETHING WRONG WITH THIS MANUAL?

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

FROM: (YOUR UNIT'S COMPLETE ADDRESS)

DATE

PUBLICATION NUMBER	DATE	

BE EXACT. . .PIN-POINT WHERE IT IS				IN THIS SPACE TELL WHAT IS WRONG
PAGE NO	PARA-GRAPH	FIGURE NO.	TABLE NO.	

TYPED NAME, GRADE OR TITLE, AND TELEPHONE NUMBER	SIGN HERE:

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DATE

PUBLICATION NUMBER	DATE	

BE EXACT. . .PIN-POINT WHERE IT IS				IN THIS SPACE TELL WHAT IS WRONG
PAGE NO.	PARA-GRAPH	FIGURE NO.	TABLE NO.	

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DA FORM 1 AUG 74 2028-2 (TEST)

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REVERSE OF DA FORM 2028-2 (TEST)

RECOMMENDED CHANGES TO EQUIPMENT TECHNICAL MANUALS

SOMETHING WRONG WITH THIS MANUAL?

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

FROM: (YOUR UNIT'S COMPLETE ADDRESS)

DATE

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BE EXACT...PIN-POINT WHERE IT IS				IN THIS SPACE TELL WHAT IS WRONG
PAGE NO.	PARA-GRAPH	FIGURE NO.	TABLE NO.	

TYPED NAME, GRADE OR TITLE, AND TELEPHONE NUMBER	SIGN HERE:

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