TB 11-5810-256-14

DEPARTMENT OF THE ARMY TECHNICAL BULLETIN

GENERAL MAINTENANCE INFORMATION FOR COMMUNICATIONS SECURITY EQUIPMENT TSEC/KY-57

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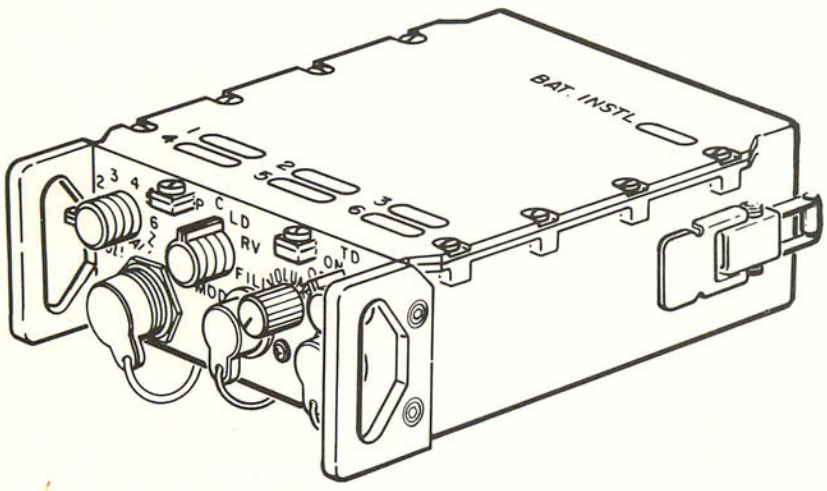

Protective marking is in accordance with paragraph 3-200, exemption 3a, AR 340-17

Headquarters, Department of the Army, Washington, DC

MARCH 1985

FOR OFFICIAL USE ONLY

5 Safety Steps to Follow if Someone is the Victim of Electrical Shock

1. Do not try to pull or grab the individual
2. If possible, turn OFF the electrical power
3. If you cannot turn off the electrical power, pull, push, or lift the person to safety using a wooden pole or a rope or some other insulating material
4. Send for help as soon as possible
5. After the injured person is free of contact with the source of electrical shock, move the person a short distance away and immediately start artificial resuscitation

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WARNINGS

Adequate ventilation should be provided while using TRICHLOROTRIFLUOROETHANE. Prolonged breathing of vapor should be avoided. The solvent should not be used near heat or open flame; the products of decomposition are toxic and irritating. Since TRICHLOROTRIFLUOROETHANE dissolves natural oils, prolonged contact with the skin should be avoided. When necessary, use gloves which the solvent cannot penetrate. It solvent splashes into eyes, flush eyes with water immediately and consult a physician.

Dangerous voltages can exist at the antennas of receiver-transmitters. Do not touch antennas while receiving-transmitting. Observe the precautions given in TB SIG 291 concerning vehicular whip antennas.

Lithium organic batteries or cells are used in this equipment. They are potentially hazardous if misused or tampered with before, during or after discharge. The following precautions must be strictly observed to prevent possible injury to personnel or equipment damage.

- DO NOT heat, incinerate, crush, puncture, disassemble, or otherwise mutilate the batteries.
- DO NOT short circuit, recharge, or bypass internal fuse.
- DO NOT use the battery without first checking the fuses, they must be 1 ampere fast blow fuses.
- DO NOT store batteries in equipment during long periods of non-use (in excess of 30 days).
- TURN OFF the equipment immediately if you detect battery compartment becoming unduly hot, hear battery cells venting (hissing sound), or smell irritating sulphur dioxide gas.

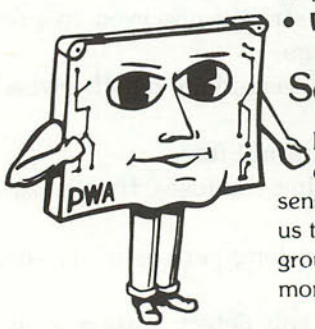
Use extreme caution when connecting cables to vehicle battery terminals or power receptacles. Accidental shorting of the battery can cause electrical arcing, extreme heating of the conductive item, or even an explosion. Serious, painful burns can result.

Use excessive heat, mercury fill batteries (BA-1372/U) are likely to explode and spread mercury contamination. Sufficient heat to cause an explosion may be generated by accidential shorting or by incineration. Care should be exercised in using mercury batteries to prevent accidental shorting. Mercury batteries shall be disposed of as specified in current operating procedures.

STATIC  ELECTRICITY

Get To Know It—because when it gets on semiconductor devices it'll ***ZAP***'em for sure. It can certainly ***DEGRADE*** and even ***DESTROY*** your *Printed Wiring Assemblies (PWAs).* A discharge as low as 100 to 200 Volts will zap a PWA, and it can build up to a level of 39,000 Volts. It's created by the contact and separation of materials. It can be generated by *work surfaces, floors, chairs, clothing, paper, work order holders, packaging material and personnel.* Your body can carry a charge up to 4,000 Volts and you'll never even know it. Here's what you can generate when you're:

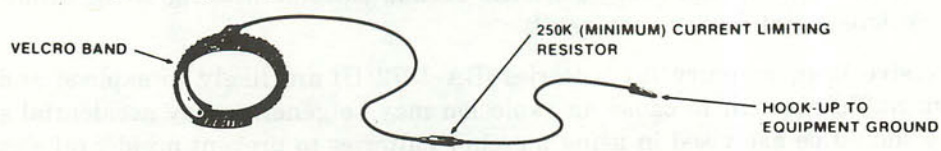
- ***Walking on a carpet***—12,000 to 39,000 VOLTS
- ***Walking across a floor***—4,000 to 13,000 VOLTS
- ***Working at a Bench***—500 to 3,000 VOLTS



See Why You Must Protect Us!!

Remember-people, plastics, styrofoam, dust, lint, all carry large charges of static electricity and must not be allowed to touch sensitive semiconductor devices. The static charge can even reach us through test points. To protect us from getting zapped, proper grounding and handling is required. Follow these instructions and more of us will be available to keep your equipment in service.

1. STORE and TRANSPORT PWAs in conductive materials—not plastic "snow" or plastic trays.
2. Do not wear CLOTHING material which can store static electricity, i.e. nylon.
3. GROUND yourself, using a WRISTSTRAP as shown below, when unpacking, handling and replacing PWAs or removing equipment cover.



4. If a GROUNDED BENCH AREA is not available always place PWAs on an antistatic surface mat. The known good PWAs must be removed from the protective packing and immediately installed or placed on the antistatic surface mat. The replaced PWAs must also be placed on the antistatic surface mat or immediately placed in protective packaging.

FOR OFFICIAL USE ONLY

DIRECT SUPPORT PRESERVATION

DON'T LET ME BE EXPOSED—touch me up. Weather, moisture, fungus and corrosion will hurt my exposed metal or damaged coat. ***CLEAN ME, SCRAPE ME AND SAND MY BARE METAL.*** Prime me and then finish me with a nice coat. My coat must be at least 0.8 mils thick, so touch me twice if necessary. Appendix D lists all the materials you need to improve my looks and performance. Don't worry about perfect matches. I may have oxidized here and there.

PLEASE—Don't Cover My Nameplates, Decals, Labels or other Markings.

IF YOU EXPOSE ME—to salt spray or drop me in salt water, pull my pluckable insides and wash me with fresh warm water. Be gentle with my insides, pressure tickles if under 40 psi but hurts me if higher. Dry me with gentle air pressure or in a ventilated oven at 135°F or less. Then spray me with water displacing compound, let me sit for 20 minutes and dry me again. Tag me and send me to your nearest specialized repair activity or LBDA, Lexington, KY for more cleaning and testing.

TECHNICAL BULLETIN
No. 11-5810-256-14

HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON, DC *4 March 1985*

GENERAL MAINTENANCE INFORMATION FOR COMMUNICATIONS SECURITY EQUIPMENT TSEC/KY-57 (NSN 5810-00-434-3644)

REPORTING OF ERRORS AND RECOMMENDING IMPROVEMENTS

You can help improve this manual. If you find any mistakes or if you know of a way to improve the procedures, please let us know. Mail your letter or DA Form 2028 (Recommended Changes to Publications and Blank Forms) directly to Commander, US Army Communications Security Logistics Activity, ATTN: SELCL-NMP-TP, Fort Huachuca, AZ 85613-7090. A reply will be furnished to you.

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Section I. GENERAL

1. Purpose. The purpose of this bulletin is to provide information for personnel responsible for the custody, accounting, installation, operation and maintenance of the TSEC/KY-57 equipment.

2. Scope. This bulletin explains US Army maintenance policies, procedures, personnel requirements and repair parts procurement. This bulletin will serve as a permanent document for the TSEC/KY-57 equipment information.

3. Responsibilities. The communications security (COMSEC) officer or officer in charge, is responsible for compliance with and adherence to the provisions of KAO-168( )/TSEC, KAM-336( )/TSEC, KAM-338( )/TSEC, KAM-339( )/TSEC, KAM-340( )/TSEC, and the supplementary provisions of this bulletin by all personnel engaged in the operation, maintenance and repair of the TSEC/KY-57.

4. Related Publications. Related publications for the TSEC/KY-57 are listed in the following publications.

a. DA PAM 310-9.

b. TB 750-38.

c. Appendix A.

5. Description. The TSEC/KY-57 (figure 1) is contained in a die cast aluminum housing for use in a rugged tactical environment. It is approximately 3 inches high, 5 inches wide, 6¼ inches long (7⅞ inches, including handles) and weighs 5 pounds (without battery). It has a compression spring latch on both sides for attaching a battery box for manpack operation, or a vehicular power adapter. Writing surfaces are provided on the top of the chassis for recording fill battery installation dates and other operational data. The front panel has a 19-pin RADIO connector, a 6-pin FILL connector, and a 6-pin AUDIO connector. Those connectors have protective rubber covers attached to the chassis with nylon cords. Also on the front panel are four operational controls and luminescent panel markings. The rear panel contains the primary battery or vehicular power adapter connector.

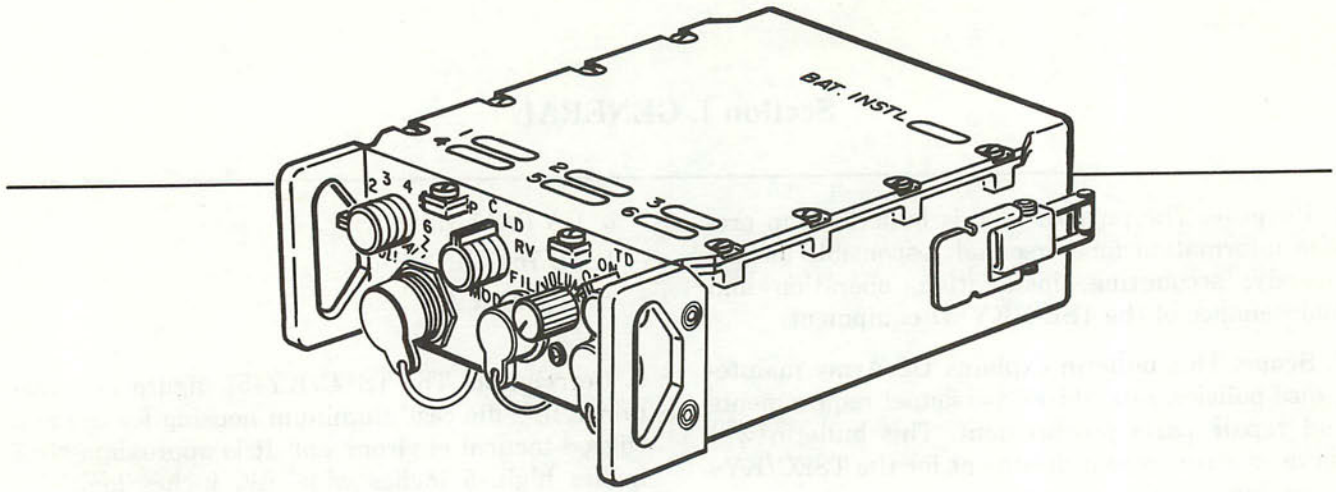

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Figure 1. TSEC/KY-57 speech security equipment.

6. Employment. The TSEC/KY-57 is a small lightweight, wideband, secure voice, digital communications unit. It operates half duplex push-to-talk and is used with AM/FM, VHF/UHF radio communications systems. The equipment is capable of storing 6 cryptovariables which may be independently selected for use in net communications and remote keying operations. The TSEC/KY-57 is designed for use as a battery-powered, transportable equipment, primarily for man-carried (figure 2) or ground-vehicle applications (figure 3). Vehicular use requires an installation kit specifically designed for installation in a certain type of vehicle containing an AN/VRC-12 (family), AN/GRC-160 or AN/VRC-64 radio set.

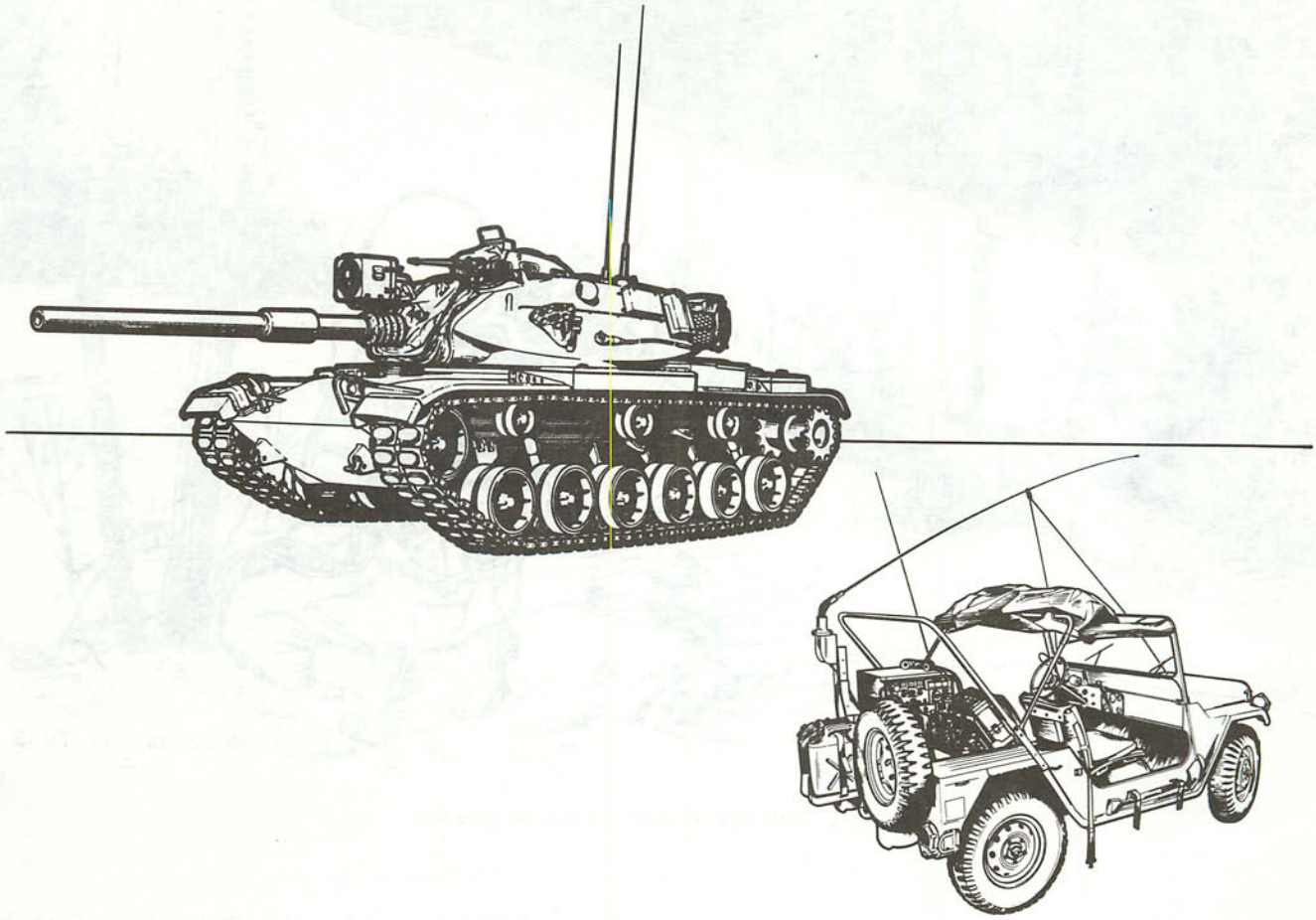

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Figure 2. TSEC/KY-57 may be used in vehicular configurations.

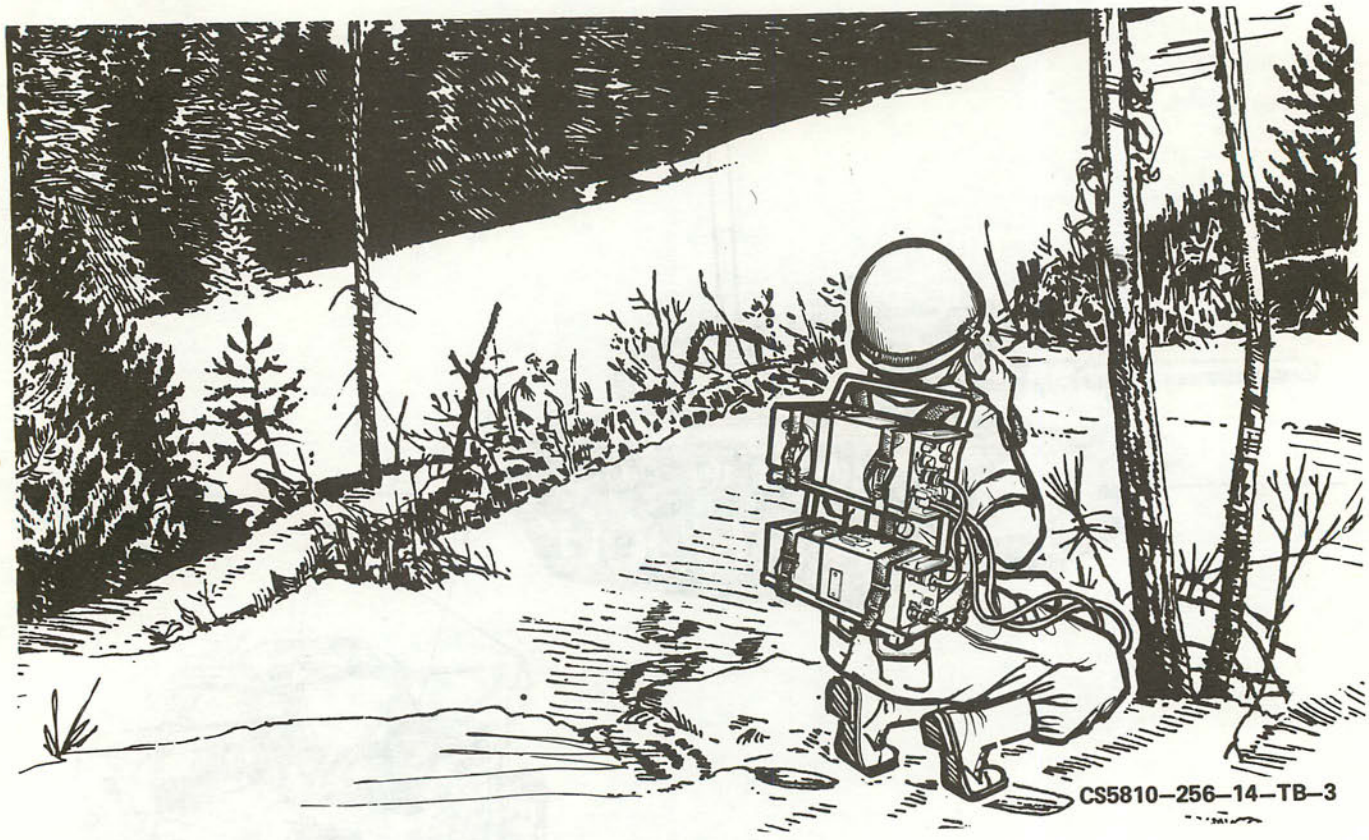

Figure 3. TSEC/KY-57 used in manpack operation.

7. Ancillary/Associated Equipment.

a. Ancillary Equipment. Ancillary equipment for the TSEC/KY-57 includes the wireline adapter HYX-57/TSEC.

(1) HYX-57/TSEC wireline adapter (figure 4). The HYX-57/TSEC is a vehicular-powered or battery-operated equipment which provides the appropriate wireline interface for the TSEC/KY-57. The HYX-57/TSEC enables the TSEC/KY-57 to be used over a direct point-to-point wireline link or through widebank switchboards and provides remote radio operation for various radios. The HYX/57-TSEC is approximately 3 inches high, 5 inches wide, 6¼ inches long and weighs 4¾ pounds.

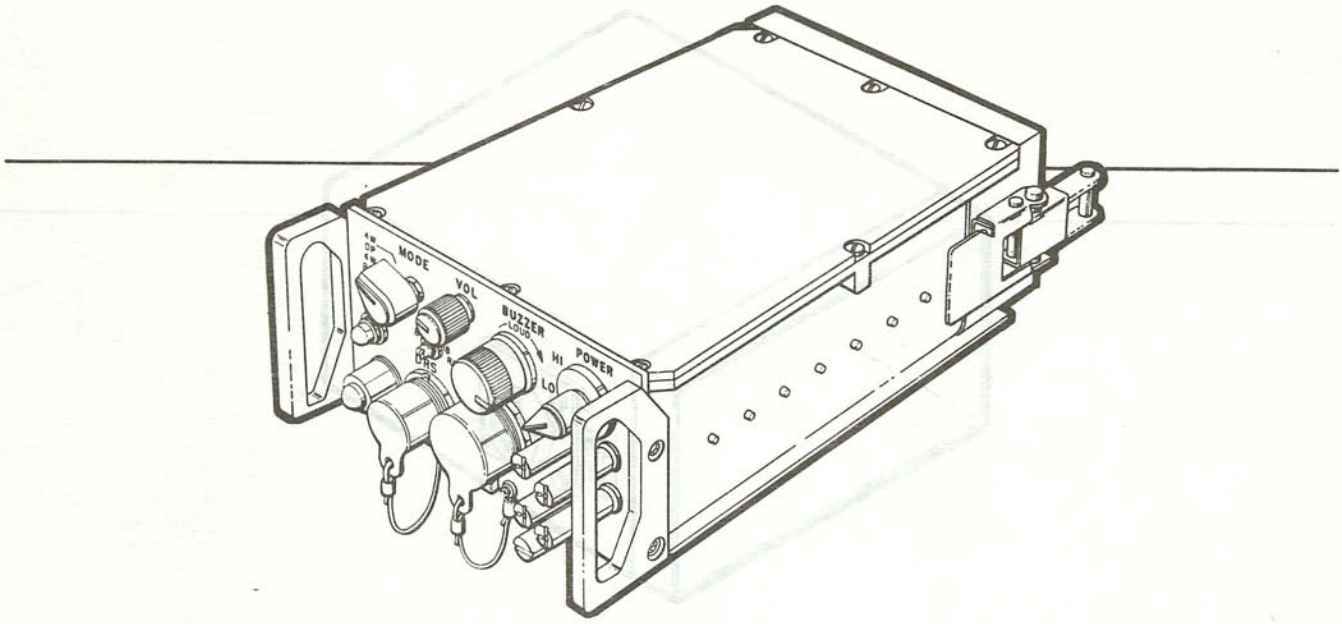

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Figure 4. HYX-57/SEC wireline adapter.

(2) Z-AIJ battery case. The lightweight metal battery case (figure 5) protects and houses the battery for manpack and field portable use. The battery is set on a damping pad fastened to the bottom of the battery case which in turn is attached to the TSEC/KY-57 housing by two latches. A pressure relief valve protects the battery case from excessive internal pressure which may occur due to gas leakage from the battery. It is approximately 2¾ inches high, 4¾ inches wide, 5½ inches long and weighs 1.1 pounds.

(3) HYP-57/TSEC, vehicular power adapter. The HYP-57/TSEC (figure 6) attaches at the back of the TSEC/KY-57 using the compression spring latches provided. It is approximately 2¾ inches high, 4¾ inches wide, 2¾ inches long and weighs 2.1 pounds. The HYP-57/TSEC functions as an interface connector adapter. It provides filtered power to the TSEC/KY-57 or HYX-57/TSEC when operating with a standard vehicular power source.

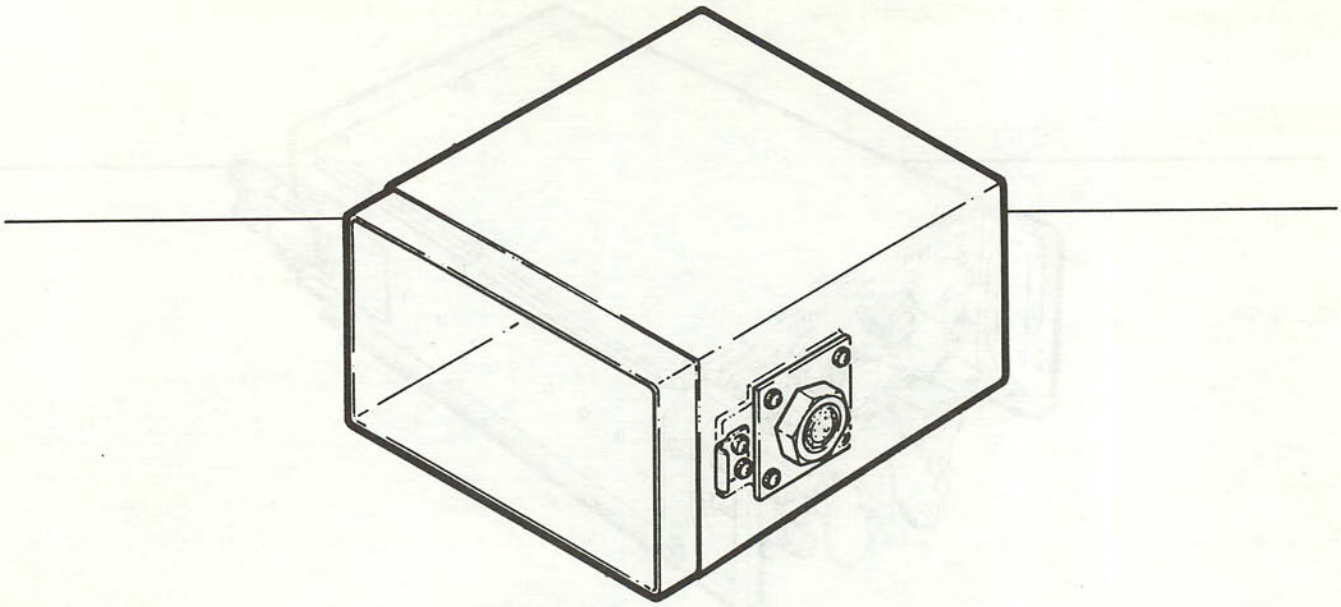

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Figure 5. Z-AIJ battery case (without battery inserted).

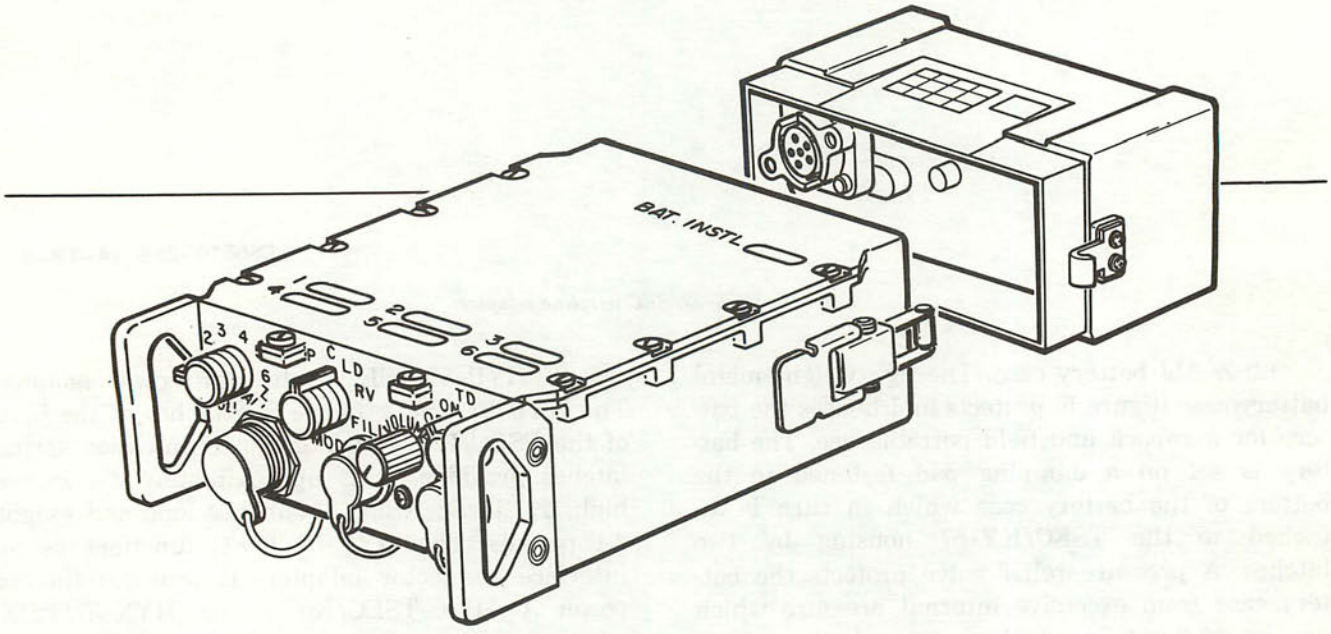

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Figure 6. HYP-57/TSEC vehicular power adapter.

b. Associated Equipment. Associated equipment for the TSEC/KY-57 includes the following ancillary cables.

Cable	*Description*	*Function*
CX-13072/U	Cable Assembly, Special Purpose, Electrical CX-13072/U. The CX-13072/U is a 9-conductor shielded cable. The cable has a 19-terminal plug on one end and a 26-terminal plug on the other. The cable shield is connected to each connector shell.	Connects TSEC/KY-57 RADIO connector to HYX-57/TSEC RADIO/KY connector for secure wireline operation.
CX-13073/U	Cable Assembly, Special Purpose, Electrical CX-13073/U. The CX-13073/U is a 6-conductor shielded cable. The cable has a 6-terminal jack on each end and the cable shield is connected to each connector shell.	Connects TSEC/KY-57 AUDIO connector to SA-2184/U or C-10377/GTC KY-57 connector for connecting data input to TSEC/KY-57.
CX-13074/U	Cable Assembly, Special Purpose, Electrical CX-13074/U. The CX-13074/U is a 9-conductor cable. The cable has a 26-terminal plug each end.	Connects HYX-57/TSEC RADIO/KY connector to another HYX-57/TSEC RADIO/KY connector for wireline retransmission operation.
CX-13075/U	Cable Assembly, Special Purpose CX-13075/U. The CX-13075/U is a 5-conductor branched cable that is 7 inches long. The cable has a 5-terminal plug on one end and two 5-terminal jacks on the other end.	Used to connect two hand sets or a CVC helmet to interconnecting box J-3513/U (J5) for operation.

c. Other Cables. The cables that are not provided with any installation kits, but are required for certain types of operation, are described in this paragraph and fully identified in the Additional Authorization List (app C) of TM 11-5810-256-12.

Cable	*Description*	*Function*
CX-12991/U	Cable Assembly, Special Purpose, Electrical CX-12991/U. The CX-12991/U is a 7-conductor shielded 30-inch cable. The cable has a 19-terminal plug on one end and a 14-terminal jack on the other. The cable shield is connected to each connector shell.	Connects TSEC/KY-57 RADIO connector to RT-841/VRC POWER connector when equipment is being used for manpack operation.
CX-13069/U	Cable Assembly, Special Purpose, Electrical CX-13069/U. The CX-13069/U is an 8-conductor shielded cable. The cable has a 26-terminal jack on one end and a 26-terminal plug on the other. The cable shield is connected to each connector shell.	Connects interconnecting box J-3513/U (J4) to HYX-57/TSEC RADIO/KY connector for plain text wireline operation.
CX-13071/U	Cable Assembly, Special Purpose, Electrical CX-13071/U. The CX-13071/U is a 9-conductor shielded cable. The cable has a 14-terminal jack on one end and a 26-terminal plug on the other. The cable shield is connected to each connector shell.	Connects HYX-57/TSEC RADIO/KY connector to RT-841/VRC AUDIO connector for manpack operation.

d. Fill Devices. TM 11-5810-292-12 contains configurations and operation of the common fill devices KOI-18/TSEC (figure 7), KYK-13/TSEC (figure 8) and KYX-15/TSEC (figure 9) used with the TSEC/KY-57.

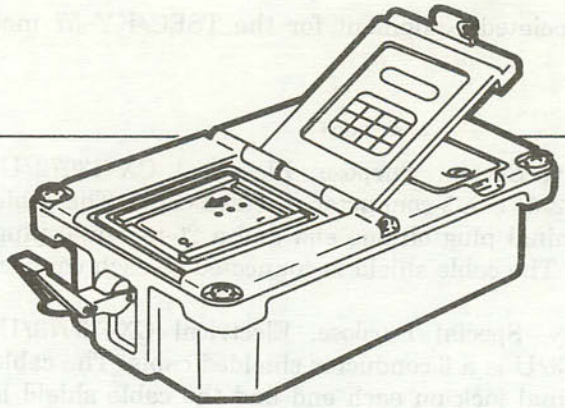

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Figure 7. KOI-18/TSEC, general purpose tape reader.

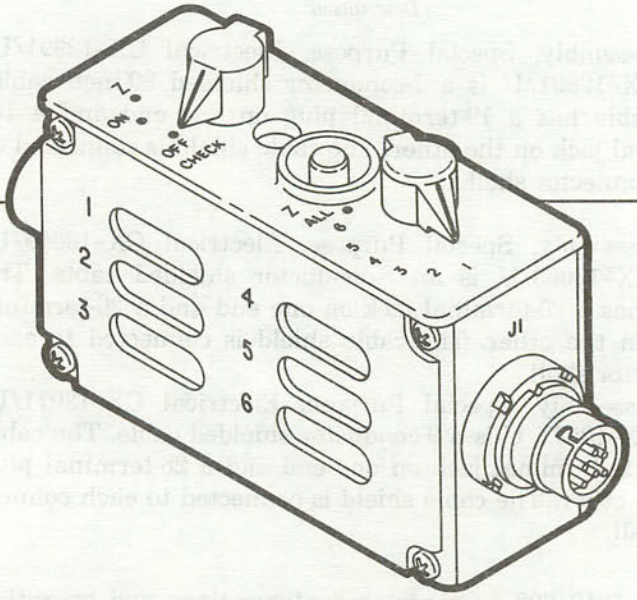

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Figure 8. KYK-13/TSEC, electronic transfer device.

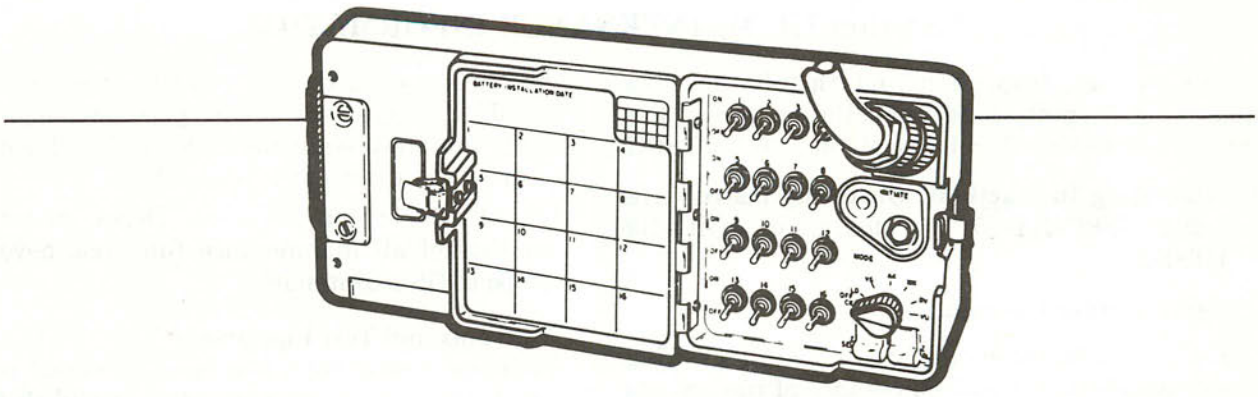

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Figure 9. KYX-15/TSEC, net control device.

8. Acquisition of COMSEC Material.

a. Refer to TB 380-41 and AR 710-2 for information on the requisition of COMSEC aids equipment and repair parts.

b. COMSEC material assigned an accountability legend code (ALC) is accountable under AR 380-40. For accounting and reporting procedures, see TB 380-41-3. ARKAG 2( ) contains a listing of applicable COMSEC materiel. The catalog can be obtained by submitting a requisition on DD Form 1348 through COMSEC logistic channels.

c. The maintenance allocation chart (MAC) found in TM 11-5810-256-12 shows the maintenance function authorized for performance at each maintenance category. TM 11-5810-256-34P, TM 11-5810-312-34&P, TM 11-5810-343-34&P, TM 11-5810-343-12&P-1, -2, -3 and -4 list the repair parts authorized for all categories of maintenance (including installation kits) and are the basis for requisitioning authorized repair parts for the TSEC/KY-57.

9. Forms, Records and Reports.

a. Maintenance and Improvements. The following forms will be used in accordance with DA Pamphlet 738-750:

(1) DA Form 2404 for recording inspection results and periodic maintenance services.

(2) Standard Form (SF) 368 for submitting equipment faults in design, operation and manufacture; for submitting equipment improvement recommendations (EIRs) and for reporting new equipment received which is below standard quality workmanship. (DA Form 2407 will no longer be used to submit EIRs.)

b. Modification Work Orders (MWOs). MWOs will be reported, using DA Form 4363 in accordance with instructions contained in chapter 8, DA Pamphlet 738-750.

c. Deficiencies and Discrepancies. Listed below are forms and regulations to be used for reporting discrepancies or deficiencies.

(1) *Reporting unsatisfactory newly procured and contractor maintained material.* Refer to AR 702-7 and use SF 368.

(2) *Reporting of discrepancies attributable to shippers.* SF 364 as prescribed in AR 735-11-2.

(3) *Reporting discrepancies in shipment.* Refer to AR 55-38 and use SF 361.

(4) *Reporting of physical insecurity found in shipments of COMSEC material.* See TB 380-41.

Section II. SECURITY REQUIREMENTS AND QUALIFICATIONS OF PERSONNEL

10. Equipment Security. Detailed security information for the TSEC/KY-57 is contained in KAO-168( )/TSEC and KAM-336( )/TSEC. In addition, refer to AR 380-40 and TB 380-41. Specific requirements for the physical security of the TSEC/KY-57 are contained in TB 380-40-2.

11. Personnel Security. Detailed personnel security requirements are contained in KAO-168( )/TSEC and KAM 336( )/TSEC. In addition, refer to AR 380-40 and TB 380-41.

12. Qualification of Maintenance Personnel. Only those maintenance personnel who are currently certified in accordance with AR 640-15 shall be permitted to install, maintain or repair the TSEC/KY-57.

Section III. MAINTENANCE INFORMATION

13. Unpacking, Inspection and Installation. For unpacking, inspection and installation procedures for the TSEC/KY-57, refer to KAM-336( )/TSEC.

14. Operating Instructions. Operating instructions for the TSEC/KY-57 are found in KAO-168 ( )/TSEC.

15. Maintenance Concept.

a. General. Maintenance of the TSEC/KY-57 is the responsibility of the commander of the activity holding the COMSEC equipment or providing maintenance support. Commanders will insure that proper maintenance procedures are adhered to in accordance with current directives.

b. Categories of Maintenance. Maintenance of the TSEC/KY-57 will be performed under the categories of maintenance listed below.

(1) Organizational maintenance. Organizational maintenance consists of the maintenance functions authorized by the MAC of TM 11-5810-256-12. This category of maintenance is normally performed on COMSEC equipment by operator personnel.

(2) Direct support (DS) maintenance. DS maintenance consists of the maintenance functions authorized by the MAC of TM 11-5810-256-12. DS maintenance is performed on COMSEC equipment by the maintenance activities which are authorized COMSEC equipment repair personnel and proper tools and test equipment. Repair and return to user concept is applicable.

(3) General support (GS) maintenance. GS maintenance consists of the maintenance functions authorized by the MAC of TM 11-5810-256-12 and maintenance which is beyond the scope of DS maintenance. GS maintenance is performed by maintenance activities which are authorized COMSEC equipment repair personnel and proper tools and test equipment. Repair and return to user or stock concept is applicable.

(4) Depot maintenance. Depot maintenance consists of all maintenance functions beyond the scope of GS maintenance.

16. Tools and Test Equipment. TM 11-5810-256-12 contains a lst of tools and test equipment required at all levels of maintenance to accomplish maintenance functions.

17. Adjustments and Troubleshooting. Refer to KAM-336( )/TSEC and KAM-338( )/TSEC for troubleshooting procedures.

18. Performance Tests.

a. Serviceability Test. Equipment Serviceability Criteria (ESC) is being phased out and is being replaced by Preventive Maintenance Checks and Services (PMCS). The TSEC/KY-57 will be tested for serviceability in accordance with the PMCS chart in TM 11-5810-256-12.

b. Testing After Repair. When the TSEC/KY-57 or its components are repaired at a DS maintenance facility, they must meet requirements of TM 11-5810-256-30 before they are returned to user or serviceable stock.

19. Modifications and Repair Actions. TB 750-38 provides a chronological listing of modifications and repair actions issued against Army COMSEC equipment. Table 57 of TB 750-38 lists the authorizing document, its date, the priority and the purpose for modification and repair actions that pertain to the TSEC/KY-57.

Section IV. EQUIPMENT IMPROVEMENT RECOMMENDATION SUMMARY

20. Equipment Improvement Recommendations. This section contains information extracted from Equipment Improvement Recommendations (EIRs). The summarized articles provide data which can be used by personnel responsible for maintenance. EIRs received subsequent to the printing of this bulletin will be found in TB 43-0001-6-( ).

21. BA-1372/U Fill Battery. BA-1372 fill battery should be removed from the TSEC/KY-57 prior to shipping or placing in long term storage. Failure to remove the fill battery may cause damage to equipment from corrosion or possibly from a battery explosion. Location of the fill battery is easily identified by a cover plate which measures 2 ¼ x ⅞ inches and is secured by two screws which can be removed with a small screwdriver or a dime. It is the responsibility of the COMSEC custodian in accordance with paragraph 2003-c(1) of KAO-168B/TSEC to assure that those batteries are removed prior to shipment.

22. TSEC/KY-57 Potentiometer. Broken potentiometers on VINSON E-DTC and E-DTH were caused by prying the boards loose with a screwdriver or other improper tool. Use of the board extractor tool for removal of all printed wiring assemblies will eliminate this damage.

Section V. SPECIAL MAINTENANCE INFORMATION

23. Maintenance Support Notes. This section contains special maintenance information designed to improve maintainability, operation, safety or installation of COMSEC equipment.

24. VINSON CX-13064/U Cable. The CX-13064/U cable, NSN 5995-01-044-4701, is the "Y" shaped cable used with VINSON installation kits. Direct support activities may repair this cable. When removing and replacing connectors, technicians should be extremely careful to align the new connector the same way as the one being replaced. If the new connector is not aligned properly, the cable will be extremely difficult to connect. If the cable shows evidence of prior repair, check the alignment of all three connectors. This can be done by comparing it with a new cable, or check it in a VINSON installation to see if it will connect easily.

25. VINSON Knob Setscrews. Be sure to use the proper tools to tighten knobs on VINSON equipment to prevent stripping the screw heads. Do *not* use an allen wrench. The proper tool for removing screws is a spline wrench, size No 4, NSN 5120-00-293-0195, source of supply (SOS) G O (GSA). The recommended method to attain maximum grip for these setscrews is as follows:

a. Remove knob from equipment.

b. Remove setscrews with spline wrench No 4.

c. Clean setscrews, including screw threads in the knob, with a cleaning solution that does not leave residue; i.e., denatured alcohol, etc.

d. After screws and knobs are dry, place one drop of thoroughly mixed (shaken) Loctite, NSN 8030-00-058-5398, SOS G__O (GSA), on each setscrew and reassemble setscrews into knobs.

e. be sure to position knob on switch shafts correctly and tighten firmly.

f. Allow Loctite to harden (24 hours) before returning VINSON to normal service.

26. VINSON Interconnecting Box J-3513A/U. Do not turn in J-3513A/U for Direct Exchange or repair without the Clamping Plate Assembly P/N 930707. Clamping Plate Assembly P/N 930707 is a component part of J-3513A/U and must be attached when J-3513A/U is turned in for Direct Exchange or repair.

27. VINSON Junction Boxes, J-3513A/U, in Vehicular Installation. Care should be taken when installing the J-3513A/U junction box with vehicular installation kits. To avoid broken J6 connectors and failure of the K5 relay inside the J-box follow these tips:

a. Always insure that the connector on the CX-13064/U or CX-13065/U cable, that connects to J6 on the J-3513A/U, is in good condition with no bent pins.

b. Make sure the keyways on the J6 connector and the attaching cable align properly when the cable is connected.

c. Always turn off power to the radio system before starting the vehicle's engine. This will protect the junction box from a possible voltage surge.

28. TSEC/KY-57 Flexible Circuit Maintenance. Flexible etched circuits are composd of flat copper conductors inclosed in insulating materials. The flexible circuits are used in the TSEC/KY-57.

a. Many defective TSEC/KY-57 units have open flexible cables around the area of switches S1, S2 and S3. Maintenance technicians should be very careful not to rub the flexible cable while inserting PWAs in to the TSEC/KY-57. Rubbing of the flexible cable causes damage to and eventual failure of the circuit.

b. Replacement of the flexible circuitry is a major task requiring 3 hours for the TSEC/KY-57 at SRA or Depot level.

29. Lithium Battery (BA-5590). Before using the lithium battery with any VINSON equipment, remove the fuse holder caps and make sure the correct fuses are installed. The (two) fuses should be 1-ampere fast blow fuse, NSN 5920-00-280-4465 (F02A250VIAS). SOS S9E.

Section VI. REPAIR ACTIONS

30. General.

a. Repair actions listed in this section are limited to minor electrical and/or mechanical improvements to enhance the equipment's operation, maintenance or reliability. They are not of enough significance to warrant the issuance of a formal modification work order (MWO). These repair actions are either NSA-approved equipment changes or are provided for optional application by users. NSA approved repair actions are published in the NSA maintenance manuals (KAMs, NAMs, SAMs) for the applicable item of equipment. For Army use, application of repair actions is optional.

b. Only the repair actions contained in this section are authorized. They may be applied at the discretion of the user. No set time compliance

period is established for application of repair actions.

c. Do not report repair action accomplishments unless specific instructions are provided.

d. The parts removed during a repair action will be disposed of in accordance with current supply procedures, unless specific disposal instructions are provided.

31. Repair Action A.

a. Purpose. This repair action applies pot-strapping compound on sides of R-2 and R-5 potentiometers.

b. Instructions. Follow the instructions in Amendment 1 to KAM-339( )/TSEC. Repair action A instructions for HYX-57 will be published in KAM-340( )/TSEC.

32. NSA Repair Action B.

a. Purpose. This repair action adds a transient suppression diode to the E-DTH printed wiring assembly.

b. Instructions. Instructions for Repair Action B will be published in KAM-339( )/TSEC.

33. NSA Repair Action C.

a. Purpose. This repair action changes three components on the E-DTG printed wiring assembly.

b. Instructions. Instructions for Repair Action C will be published in KAM-339( )/TSEC.

34. NSA Repair Action D.

a. Purpose. This repair action removes the old Modification Record Label and replaces it with a new Modification Record Label in a new location.

b. Instructions. Instructions for Repair Action D will be published in KAM-339( )/TSEC.

APPENDIX

REFERENCES

1. Scope. This appendix lists the forms, Army regulations, technical manuals, technical bulletins and other publications referenced in this bulletin.

2. Forms.

DA Form 2028	Recommended Changes to Publications and Blank Forms.
DA Form 2404	Equipment Inspection and Maintenance Worksheet.
DA Form 4363	COMSEC Equipment Modification Application Report.
DA Form 1348	Single Line Item Requisition.
Standard Form (SF) 361	Discrepancy in Shipment Report.
SF 364	Report of Discrepancy.
SF 368	Quality Deficiency Report (Category II).

3. Army Regulations (ARs)

AR 55-38	Reporting of Transportation Discrepancies in Shipment.
AR 380-40	Department of the Army Policy for Safeguarding COMSEC Information.
AR 640-15	Criteria for Insuring the Competency of Personnel to Install, Maintain and Repair Communications Security Equipment.
AR 702-7	Reporting of Quality Deficiency Data.
AR 710-2	Material, Management for Using Units, Support Units and Installations.
AR 735-11-2	Reporting of Item Discrepancies Attributable to Shippers.

4. DA Pamphlet (DA PAM).

(C) DA PAM 310-9	Index of Communications Security (COMSEC) Publications (U).
DA PAM 738-750	The Army Maintenance Management System (TAMMS).

5. Technical Bulletins (TBs).

(C) TB 380-41	Department of the Army Policy for Control of COMSEC Materiel (U).
(C) TB 750-38	Alteration Communications Security Equipment (U).
(C) TB-43-0001-6-( )	Equipment Improvement Report and Maintenance Digest for Communications Security Equipment (U).

6. Technical Manuals (TMs).

TM 11-5810-256-OP-1	Net Controller Operating Procedures for Communications Security Equipment TSEC/KY-57
TM 11-5810-256-OP-2	Operating Procedures for Communications Security Equipment TSEC/KY-57 in Manpack Operations.
TM 11-5810-256-OP-3	Operating Procedures for Communications Security Equipment TSEC/KY-57 in Wheeled Vehicles.
TM 11-5810-256-OP-4	Operating Procedures for Communications Security Equipment TSEC/KY-57 in Tracked Vehicles.
TM 11-5810-256-OP-5	Operating Procedures for Communications Security Equipment TSEC/KY-57 Retransmission.
TM 11-5810-256-OP-6	Operating Procedures for Communications Security Equipment TSEC/KY-57 with HYX-57/TSEC for FM Secure Remote Communications.
TM 11-5810-256-OP-7	Operating Procedures for Communications Security Equipment TSEC/KY-57 with HYX-57/TSEC to Provide Point-to-Point Communications.

TM 11-5810-256-12	Operator's and Organizational Maintenance Manual Communications Security Equipment TSEC/KY-57.
TM 11-5810-256-30	Direct Support Maintenance Manual Communications Security Equipment TSEC/KY-57.
TM 11-5810-256-34P	Direct Support and General Support Maintenance Repair Parts and Special Tools Lists (Including Depot Maintenance Repair Parts and Special Tools) for Communications Security Equipment TSEC/KY-57 and HYX-57/TSEC.
TM 11-5810-312-12-1	Operator's and Organizational Maintenance Manual Installation Kits for Communications Security Equipment TSEC/KY-57, Volume. 1.
TM 11-5810-312-12-2	Operator's and Organizational Maintenance Manual Installation Kits for Communications Security Equipment TSEC/KY-57, Volume 2, Installation Kits for Wheeled Vehicles.
TM 11-5810-312-12-3	Operator's and Organizational Maintenance Manual Installation Kits for Communications Security Equipment TSEC/KY-57, Volume 3, Installation Kits for Tracked Vehicles.
TM 11-5810-312-12-4	Operator's and Organizational Maintenance Manual Installation Kits for Communications Security Equipment TSEC/KY-57, Volume 4, Installation Kits for General Purpose Use and Shelter Applications.
TM 11-5810-312-34&P	Direct Support and General Support Maintenance Manual Including Repair Parts and Special Tools Lists Installation Kits for Communications Security Equipment TSEC/KY-57.
TM 11-5810-343-34&P	Director Support and General Support Maintenance Manual Including Repair Parts and Special Tools Lists Consolidated General Purpose Installation Kits for Communications Security Equipment TSEC/KY-57.
TM 11-5810-292-13	Operator's, Organizational and Direct Support Maintenance Manual Communications Security Equipment KOI-18/TSEC General Purpose Tape Reader, KYK-13/TSEC, Electronic Transfer Device and KYX-15/KYX-15A/TSEC, Net Control Device.
TM 11-5810-292-34P	Director Support and General Support Maintenance Repair Parts and Special Tools Lists (Including Depot Maintenance Repair Parts and Special Tools) for Communications Security Equipment KOI-18/TSEC, KYK-13/TSEC and KYX-15/KYX-15A/TSEC.
TM 11-5810-345-12	Operator's and Organizational Maintenance Manual, Test Set, VINSON Interconnecting Box, AN/USM-481.
TM 11-5810-345-34	Director Support and General Support Maintenance Manual, Test Set VINSON Interconnecting Box, AN/USM-481.
TM 11-5810-345-24P	Organizational, Direct Support and General Support Maintenance Repair Parts and Special Tools Lists for Test Set, VINSON Interconnecting Box, AN/USM-481.
TM 11-5810-343-127P-1	Operator's and Organizational Maintenance Manual Consolidated General Purpose and Unique Installation Kits Including Repair Parts and Special Tools Lists for Communications Security Equipment TSEC/KY-57, Volume 1, General Installation Kit Information and Detailed Maintenance Instructions.
TM 11-5810-343-12&P-2	Operator's and Organizational Maintenance Manual, Installation Kits for Communications Security Equipment TSEC/KY-57, Vol 2 (Wheeled).
TM 11-5810-343-12&P-3	Operator's and Organizational Maintenance Manual, Installation Kits for Communications Security Equipment TSEC/KY-57, Vol 3 (Tracked).
TM 11-5810-12&P-4	Operator's and Organizational Maintenance Manual, Installation Kits for Communications Security Equipment TSEC/KY-57, Vol 4 (General Purpose/Shelter.)

7. Maintenance Manuals

KAO-168( )/TSEC	Operating Instructions, TSEC/KY-57-58.
KAM-336( )/TSEC	Limited Maintenance Manual, TSEC/KY-57.

KAM-337( )/TSEC	Limited Maintenance Manual, TSEC/KY-58.
KAM-338( )/TSEC	Maintenance Manual, Theory TSEC/KY-57/58 Vol 1.
KAM-339( )/TSEC	Maintenance Manual, TSEC/KY-57/58 Vol II.
KAM-340( )/TSEC	Maintenance Manual, TSEC/KY-57/58 Vol III.
KAM-330( )/TSEC	Limited Maintenance Manual for Common Fill Devices KYK-13/TSEC, KYX-15/TSEC, KOI-18/TSEC.
KAM-331( )/TSEC	(Full) Maintenance Manual Common Fill Devices KYK-13/TSEC, KYX-15/TSEC, KOI-18/TSEC.

8. Other Publications.

(C) ARKAG-2	COMSEC Material Management Data Catalog (U).

By Order of the Secretary of the Army:

JOHN A. WICKHAM, JR.
General, United States Army
Chief of Staff

Official:

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The Adjutant General

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