

Summary Report for Individual Task
091-94R-1404

Repair Test Set, Transponder AN/APM-421
Status: Approved

Distribution Restriction: Approved for public release; distribution is unlimited.

Destruction Notice: None

Foreign Disclosure: FD6 - This product/publication has been reviewed by the product developers in coordination with the FT. Lee/ CASCOM foreign disclosure authority. This product is releasable to students from foreign countries on a case-by-case basis.

Condition: You are in an Operational Environment (OE), with a non-mission capable Transponder Test Set AN/APM-421 that has been submitted to your Shop along with DA Form 2407, Maintenance Request and DA Form 2404, Equipment Inspection and Maintenance Worksheet. Your supervisor has assigned the work order to you for repair. At your workstation you have the following items: Transponder Test Set AN/APM-421; Receiver-transmitter RT-1157A/APX-100(V) or RT-(*)/APX-100(V); Control C-(*)/APX-100(*) (used with RT-1157A/APX-100(V)); Dual-trace Oscilloscope AN/USM-488; Digital Multimeter, AN/PSM-45A; Tool Kit TK-100/G; DA Form 2404; DA Form 2407; local SOP; TM 11-6625-3058-13&P; and DA Pam 738-751, Functional Users Manual for the Army Maintenance Management System Aviation. NOTE: Substitutions for equipment may be made per test equipment modernization (TEMOD) publications. Some iterations of this task should be performed in MOPP 4.

Standard: Restore the Transponder Test Set AN/APM-421 to an operational status using TM 11-6625-3058-13&P. Complete without error DA Form 2407 using DA Pam 738-751.

Special Condition: None

Safety Risk: Low

MOPP 4: Sometimes

Task Statements

Cue: Your supervisor has directed you to repair a non-mission capable Transponder Test Set AN/APM-421 that was submitted to your shop. You are to correctly complete DA Form 2407.

DANGER

None

WARNING

that voltage is present on power cable W 1, inside the APM-421, and at pins 69 and 70 of TRANSPONDER jack on the AN/APM-421 front panel. When connecting or disconnecting W1 from the AN/APM-421, first set the 400-Hz power source off.

TOLUENE is toxic and flammable; use only in a well ventilated area away from any open flame or heat. Wear safety glasses and avoid prolonged or repeated skin contact or breathing of fumes.

CAUTION

This equipment contains electrostatic discharge (ESD) sensitive devices. Use the procedures contained in TM 43-0158 to prevent the destruction of these devices.

Remarks: None

Notes: None

Performance Steps

1. Obtain required tools, test equipment and reference materials.
2. Complete appropriate blocks on DA Form 2407 per DA Pam 738-751.
3. Perform visual inspection.
4. Set up test equipment per TM 11-6625-3058-13&P.
5. Verify faults on DA Form 2407 using troubleshooting chart in TM 11-6625-3058-13&P.
6. Troubleshoot the Transponder Test Set AN/APM-421 using the troubleshooting chart in TM 6625-3058-13&P.
7. Identify the defective component (s) per TM 11-6625-3058-13&P.
8. Replace defective component (s) with operational one (s) per TM 11-6625-3058-13&P.
9. Perform operational checks per TM 11-6625-3058-13&P.
10. Complete appropriate blocks on DA Form 2407 per DA Pam 738-751.
11. Tag defective component (s) for turn-in per DA Pam 738-751.
12. Notify supervisor upon completion of task.

(Asterisks indicates a leader performance step.)

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO-GO if any performance measure is failed. If the Soldier fails any performance measure, show the Soldier what was done wrong and how to do it correctly.

Evaluation Preparation: Ensure all items required in the condition statement (or appropriate substitutions) are on hand and all safety requirements are met.

PERFORMANCE MEASURES	GO	NO-GO	N/A
1. Obtained all required tools, test equipment, and reference materials.			
2. Completed appropriate blocks on DA Form 2407 per DA Pam 738-751.			
3. Performed visual inspection.			
4. Properly set up test equipment per TM 11-6625-3058-13&P.			
5. Verified faults on maintenance request using troubleshooting chart in TM 11-6625-3058-13&P.			
6. Performed troubleshooting the Transponder Test Set AN/APM-421 using the troubleshooting chart in TM 11-6625-3058-13&P.			
7. Identified the defective component (s) per TM 11-6625-3058-13&P.			
8. Replaced defective component (s) with operational one (s) per TM 11-6625-3058-13&P.			
9. Performed operational checks per TM 11-6625-3058-13&P.			
10. Completed appropriate blocks on DA Form 2407 per DA Pam 738-751.			
11. Tagged defective component (s) for turn-in per DA AM 738-751.			
12. Notified supervisor upon completion of task.			

Supporting Reference(s):

Step Number	Reference ID	Reference Name	Required	Primary
	DA FORM 2404	EQUIPMENT INSPECTION AND MAINTENANCE WORKSHEET	Yes	No
	DA FORM 2407	MAINTENANCE REQUEST	Yes	No
	PAM 738-751	FUNCTIONAL USER'S MANUAL FOR THE ARMY MAINTENANCE MANAGEMENT SYSTEM-AVIATION (TAMMS-A) http://www.apd.army.mil/pdffiles/p738_751.pdf	No	No
	TM 11-6625-3058-13&P	OPERATORS AND ORGANIZATIONAL MAINTENANCE MANUAL (INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST) FOR TRANSPONDER TEST SET AN/APM-421 (NSN 4920-01-078-0271)	Yes	No

Environment: Environmental protection is not just the law but the right thing to do. It is a continual process and starts with deliberate planning. Always be alert to ways to protect our environment during training and missions. In doing so, you will contribute to the sustainment of our training resources while protecting people and the environment from harmful effects. Refer to FM 3-34.5 Environmental Considerations and GTA 05-08-002 ENVIRONMENTAL-RELATED RISK ASSESSMENT. In an Operational Environment, it is the responsibility of the Soldier and DA Civilians to protect the environment from damage.

All operations must conform to the Army Environmental Program, TC 3-34.489 (The Soldier and the Environment), FM 3-100.4 (Environmental Consideration in Military Operations), and local, state, and federal environmental policies, the Clean Air Act (CAA), CAA amendments, National Ambient Air-Quality Standards (NAAQS), as well as Occupational Safety and Health Administration (OSHA), Hazard Communication Standard for Industry, 29 CFR, part 1910.

Safety: In a training environment, leaders must perform a risk assessment in accordance with ATP 5-19, Risk Management. Leaders will complete the current Deliberate Risk Assessment Worksheet in accordance with the TRADOC Safety Officer during the planning and completion of each task and sub-task by assessing mission, enemy, terrain and weather, troops and support available-time available and civil considerations, (METT-TC). Note: During MOPP training, leaders must ensure personnel are monitored for potential heat injury. Local policies and procedures must be followed during times of increased heat category in order to avoid heat related injury. Consider the MOPP work/rest cycles and water replacement guidelines IAW FM 3-11.4, Multiservice Tactics, Techniques, and Procedures for Nuclear, Biological, and Chemical (NBC) Protection, FM 3-11.5, Multiservice Tactics, Techniques, and Procedures for Chemical, Biological, Radiological, and Nuclear Decontamination. Incidental to Army operations and activities, all operations must provide for public safety, safe and healthful work places, procedures, and equipment. Observe all safety precautions when using lifting devices and handling heavy parts. Observe all safety and/or environmental precautions regarding electricity, radiation, radio frequency (RF), fuel, lubricants, high pressures, and refrigerants. Provide ventilation for exhaust fumes during equipment operation and use hearing protection when required in accordance with AR 385-10, (The Army Safety Program) the Clean Air Act (CAA), CAA amendments, National Ambient Air-Quality Standards (NAAQS), and the Occupational Safety and Health Administration (OSHA) Hazard Communication standard.

Prerequisite Individual Tasks : None

Supporting Individual Tasks : None

Supported Individual Tasks : None

Supported Collective Tasks : None