

TECHNICAL MANUAL

ORGANIZATIONAL MAINTENANCE MANUAL:

DISPLAY EQUIPMENT MAINTENANCE

GUIDED MISSILE AIR DEFENSE SYSTEM AN/TSQ73

**This copy is a reprint which includes current
pages from Changes 1 through 16.**

**HEADQUARTERS, DEPARTMENT OF THE ARMY
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TABLE OF CONTENTS

Chapter		Page
	LIST OF ILLUSTRATIONS	iv
	LIST OF TABLES	v
1	INTRODUCTION.....	1-1
	Section I GENERAL.....	1-1
	1-1 Scope.....	1-1
	1-2 Forms, Records, and Reports	1-1
	1-3 Destruction of Army Materiel to Prevent Enemy Use	1-1
	1-4 Reporting Equipment Publications Improvements.....	1-1
	1-5 References.....	1-2
	1-6 Abbreviations	1-2
	1-7 Official Nomenclature.....	1-2
	Section II DESCRIPTION AND DATA.....	1-3
	1-8 General	1-3
	1-9 Display Console Description	1-3
	1-10 Data Display Group (DDG) Description.....	1-5
	1-11 Display Junction Box (DJB) Description.....	1-5
	1-12 Display Console and Data Display Group (DDG) Performance Characteristics	1-5
2	THEORY OR OPERATION.....	2-1
	Section I OVERALL THEORY OF OPERATION	2-1
	2-1 General	2-1
	2-2 Functional Description	2-1
	Section II DISPLAY CONSOLE THEORY OF OPERATION	2-2
	2-3 General	2-2
	2-4 Functional Description	2-2
	2-5 Alterable Processor (AP) Functions	2-3
	2-6 Front Panel Logic	2-3
	2-7 Display Buffer Logic	2-8
	2-8 Display Controller Functions.....	2-9

TABLE OF CONTENTS - Continued

Chapter		Page
	2-9 Video Compressor Functions.....	2-10
	2-10 Display Generator Functions	2-11
	Section III. DATA DISPLAY GROUP THEORY OF OPERATION.....	2-13
	2-11 General	2-13
	2-12 Data Display Group Functional Description.....	2-13
3	COMPONENT LOCATION AND FAULT ISOLATION/TROUBLESHOOTING.....	3-1
	Section I GENERAL.....	3-1
	3-1 Scope.....	3-1
	3-2 Emergency Power Shutdown.....	3-1
	3-3 Normal Shutdown Procedure.....	3-1
	3-4 Tools and Test Equipment.....	3-1
	3-5 Preventive Maintenance Procedures	3-1
	3-6 Alinements and Adjustments	3-1
	Section II DISPLAY EQUIPMENT COMPONENT LOCATION	3-2
	3-7 General	3-2
	3-8 Reference Designators	3-2
	3-9 Circuit Card Description.....	3-2
	3-10 Circuit Card Color Coding.....	3-2
	3-11 Display Console Component Location	3-2
	3-12 Data Display Group Component Location	3-2
	3-13 Display Junction Box (DJB) Component Location	3-2
	Section III FAULT ISOLATION AND TROUBLESHOOTING	3-50
	3-14 General	3-49
	3-15 Procedural Guidelines	3-49
4	REMOVAL AND REPLACEMENT PROCEDURES AND CABLING/WIRING DIAGRAMS ..	4-1
	Section I REMOVAL AND REPLACEMENT PROCEDURES	4-1
	4-1 Scope.....	4-1
	4-2 Panel Indicator Lamp, Removal and Replacement	4-1
	4-3 Indicator-Switch Lamp, Removal and Replacement.....	4-2
	4-4 Indicator-Switch Mechanism, Removal and Replacement.....	4-3
	4-5 Lenticular Indicator-Switch Lamp Removal and Replacement.....	4-3
	4-6 Thumbwheel Switch Removal and Replacement	4-3
	4-7 Deleted	
	4-8 Deleted	
	4-9 Circuit Card Assembly. Removal and Replacement.....	4-7
	4-10 Card Retainer, Removal and Replacement.....	4-8

TABLE OF CONTENTS-Continued

Chapter		Page
4-11	Application of Color Disks to Card Retainers	4-8
4-12	Display Console, Removal and Replacement	4-8
4-13	Left-Hand Assembly A1 and Right-Hand Assembly A3, Removal and Replacement	4-8
4-14	Voice Communications Station Assembly A3A3, Removal and Replacement	4-9
4-15	Keyboard Assembly A3A6, Removal and Replacement	4-10
4-16	Center Section A2, Removal and Replacement	4-11
4-17	CRT Assembly A2A1, Removal and Replacement	4-12
4-18	Center Section Card Cage A2A2, Removal and Replacement	4-13
4-19	Deflection Amplifier Assembly A2AR1, Removal and Replacement	4-14
4-20	CRT Bias High-Voltage Power Supply A2PS1, Removal and Replacement	4-15
4-21	Deflection Amplifier Power Supply A2PS2, Removal and Replacement	4-16
4-22	POSN TAB Force Stick A2MT1, Removal and Replacement	4-17
4-22.1	VAR SCALE Encoder R2, Removal and Replacement	4-17
4-23	Display Console Fan Assembly A4, Removal and Replacement	4-18
4-24	Display Console Dust Filter, Removal and Replacement	4-18.1
4-25	Display Console DC/DC Converter Assemblies PSI, PS2, and PS3 and Variable Lamp Power Supply PS4, Removal and Replacement	4-18.1
4-26	Data Display Group, Removal and Replacement	4-18.1
4-27	Data Display Group Control Panel Assembly A1, Removal and Replacement	4-18.1
4-28	Left-Hand Card Cage/Array Assembly A2 and Right-Hand Card Cage/Array Assembly A3, Removal and Replacement	4-19
4-29	Data Display Group Fan Assembly B1, Removal and Replacement	4-19
4-30	Data Display Group Dust Filter, Removal and Replacement	4-20
4-31	Data Display Group Window Viewing Assembly, Removal and Replacement	4-20
4-32	Data Display Group DC/DC Converter Assemblies PSI and PS2, Removal and Replacement	4-20
4-33	Data Display Group LED Module and Edge-Lit Screen, Removal and Replacement	4-21
	Section II CABLING AND WIRING AND DIAGRAMS	4-22
4-34	Scope	4-22
4-35	Cabling	4-22
4-36	Power Distribution	4-22
4-37	Wire Lists	4-22
Appendix		
A	LIST OF ABBREVIATIONS	A-1
INDEX	Index-1

LIST OF ILLUSTRATIONS

Figure	Title	Page
1-1.	Display Equipment	1-1
1-2.	Display Console	1-3
1-3.	CRT Radar Data and Symbology.....	1-4
1-4.	Data Display Group	1-5
1-5.	Data Display Group Characters	1-6
2-1.	Display Equipment Functional Block Diagram	2-1
2-2.	Display Console Functional Block Diagram	2-2
2-3.	Alterable Processor Functional Block Diagram	2-5
2-4.	Front Panel Logic Functional Block Diagram	2-7
2-5.	Display Buffer Functional Block Diagram.....	2-8
2-6.	Display Controller Functional Block Diagram.....	2-9
2-7.	Video Compressor Functional Block Diagram.....	2-10
2-8.	Display Generator Functional Block Diagram	2-11
2-9.	Data Display Group Functional Block Diagram	2-13
3-1.	Typical Digital Circuit Card	3-5
3-2.	Typical Analog Circuit Card	3-7
3-3.	Circuit Card Color Codes.....	3-7
3-4.	Display Console Component Location	3-9
3-5.	Display Console Circuit Card Location.....	3-13
3-6.	Left-Hand Assembly AI Component Location.....	3-23
3-7.	Left-Hand Front Panel Assembly Component Location	3-25
3-8.	Center Section A2 Component Location	3-27
3-9.	Right-Hand Assembly A3 Component Location	3-31
3-10.	Right-Hand Front Panel A3AI Component Location	3-33
3-11.	Data Display Group Component Location	3-37
3-12.	Data Display Group Circuit Card Location	3-40
3-13.	Data Display Group Control Panel AI Component Location.....	3-45
3-14.	Left-Hand Card Cage/Array Assembly A2 and Right-Hand Card Cage/Array Assembly A3 Component Location	3-47
3-15.	Display Junction Box Component Location.....	3-48
3-16.	AN/TSQ-73 Troubleshooting Sequence	3-52
3-17.	Display Console Fault Isolation Flow Chart.....	3-53
3-18.	Display Console Indicator to Lamp Drive Index	3-84
3-19.	Data Display Group Fault Isolation Flow Chart	3-85
3-20.	Data Display Group LED Module Identification	3-101
4-1.	Panel Indicator Lamp Removal and Replacement	4-1
4-2.	Indicator Switch Removal and Replacement.....	4-2
4-3.	Lenticular Indicator-Switch Lamp Removal and Replacement	4-4
4-4.	Thumbwheel Switch Removal and Replacement	4-4.1
4-5.	Deleted	
4-6.	Deleted	
4-7.	Circuit Card Assembly, Removal and Replacement.....	4-7
4-8.	Display Console Cabling Diagram	4-23
4-9.	Data Display Group, Cabling Diagram	4-25
4-10.	Display Console Power Distribution Diagram	4-27
4-11.	Data Display Group Power Distribution Diagram.....	4-39
4-12.	Display Junction Box Power Distribution Diagram.....	4-43

LIST OF TABLES

	Title	Page
1-1.	AN/TSQ-73 Official Nomenclature.....	1-2
1-2.	Physical and Technical Characteristics.....	1-7
3-1.	Display Equipment Reference Designators.....	3-3
3-2.	Display Equipment Power Supplies	3-4
3-3.	Display Console Circuit Card Location.....	3-14
3-4.	Data Display Group Circuit Card Location	3-41
3-5.	Flow Chart Symbology	3-50
3-6.	Display Console Symptom Number to Corrective Action Index.....	3-76
3-7.	Display Console Error Stop Number Catalog	3-79
3-8.	Data Display Group Visual Fault Isolation.....	3-97

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CHAPTER 1

INTRODUCTION

Section I. GENERAL

1-1. Scope. This manual contains organizational maintenance information for the Guided Missile Air Defense System AN/TSQ-73 display equipment (fig. 1-1). This manual is published for use by personnel responsible for maintaining the display equipment. Chapter 1 provides physical description and data. Chapter 2 provides theory of operation. Chapter 3 provides maintenance and fault isolation data. Chapter 4 provides removal and replacement procedures.

1-2. Forms, Records, and Reports. Refer to DA PAM 738-750 for the use and completion of all forms required for operating and maintaining the equipment.

1-3. Destruction of Army Materiel to Prevent Enemy Use. If capture of this equipment appears imminent, or if the equipment must be abandoned, it should be destroyed to prevent enemy use. Destruction procedures should be carried out only on orders from

the cognizant authority. Refer to TM 43-0002-21 for procedures required for destruction of the equipment and related system materiel. Recorded tape transport cartridges and classified manuals are priority items requiring destruction.

1-4. Reporting Equipment Publications

Improvements. Reporting of errors and omissions and recommendations by the individual user for improving this publication is encouraged. Reports should be submitted on DA Form 2028, Recommended Changes to Publications, and forwarded to: Commander, U.S. Army Missile Command, ATTN: AMSMI-LC-ME-P, Redstone Arsenal, AL 35898-5238.

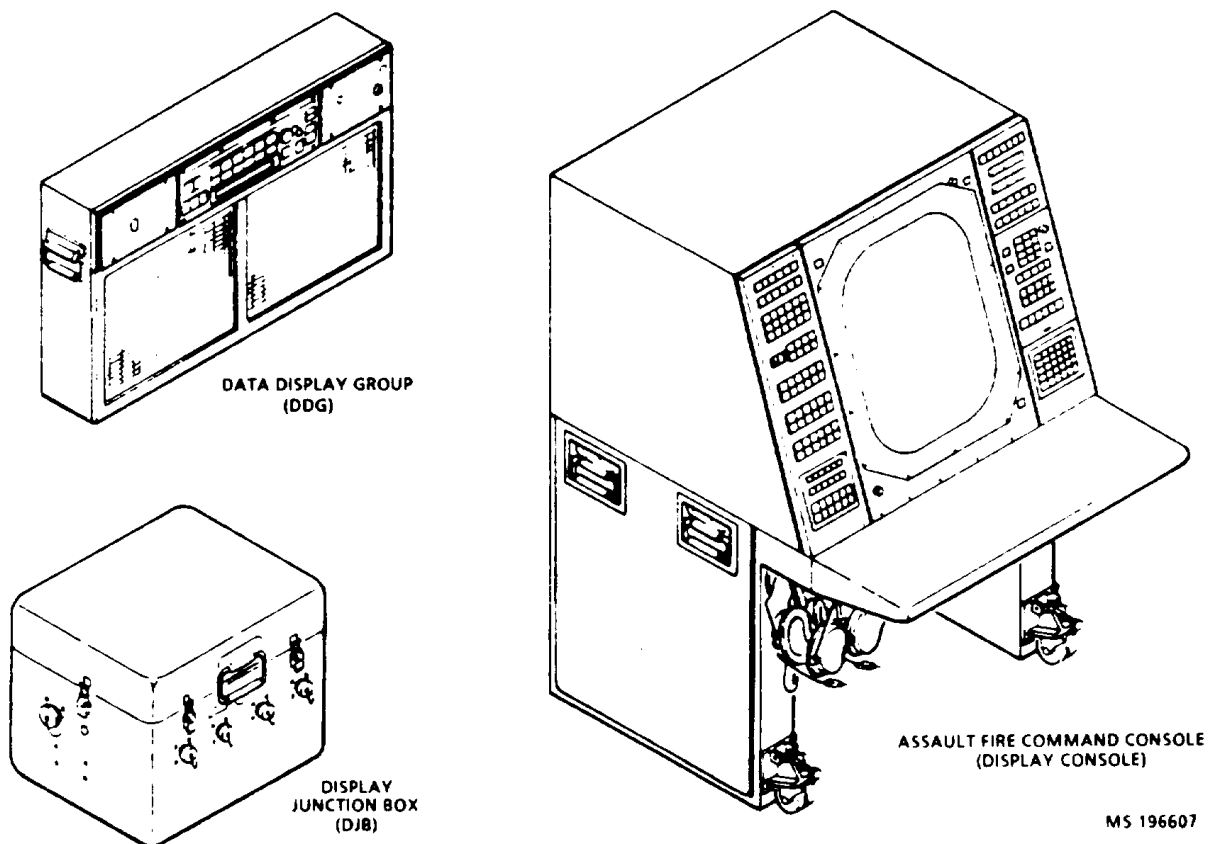


Figure 1-1. Display Equipment.

1-5. References. Refer to List of Applicable Publications TM 9-1425-L for a list of related publications and reference documents.

1-6. Abbreviations. Refer to appendix A for a list of abbreviations used in this manual.

1-7. Official Nomenclature. AN/TSQ-73 system nomenclature associated with the AN,TSQ-73 equipment is listed in table 1-1. For further identification, a cross-reference is provided for the common name used in this technical manual.

Table 1-1. AN,TSQ-73 Official Nomenclature

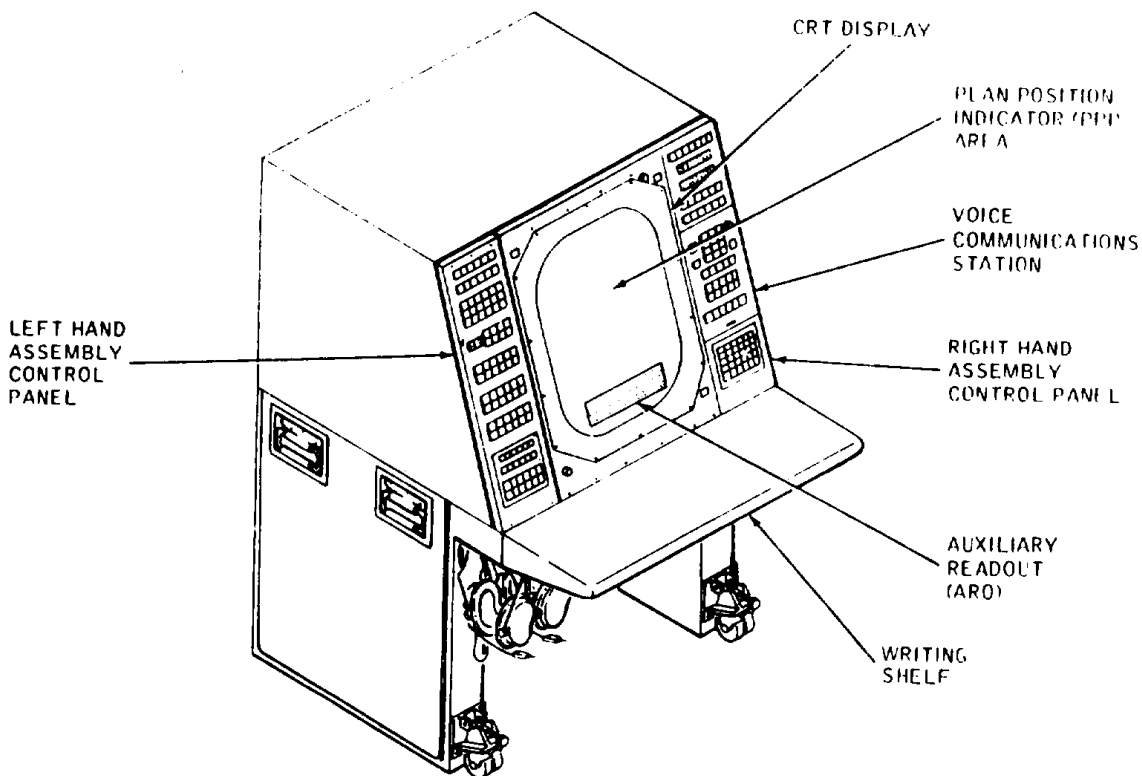
Official nomenclature	Common name
Air Defense System, Guided Missile, AN/TSQ-73	AN/TSQ-73 system (battalion configuration) AN/TSQ-73 system (brigade configuration)
Shelter, Electrical Equipment S-529/TSQ-73	System shelter (battalion configuration) System shelter (brigade configuration)
Console, Assault Fire Command, Guided Missile OJ-299/TSQ-73	Display console
Data Display Group OD-96/TSQ-73	Data Display Group (DDG)
Recorder-Reproducer, Guided Missile System, RD-449/TSQ-73	Magnetic Tape Unit (MTU)
Test Set, Electronic Circuit Plug-In Unit TS-3317/TSQ-73	Module Test Set (MTS)

Section II. DESCRIPTION AND DATA

1-8. General. The display equipment includes the Assault Fire Command Console (display console), Data Display Group (DDG), and Display Junction Box (DJB). In a brigade configuration, two display consoles and two DDGs are used in the AN/TSQ-73 Guided Missile Air Defense System. In a battalion configuration, one DDG is used with two display consoles. Up to eight display consoles can be used with two DDGs. Remote operation capability is provided for both the display console and DDG.

1-9. Display Console Description. The display console is a free-standing console containing a Cathode Ray Tube (CRT) display, electronics for the receipt and processing of display data, operator controls, and a writing shelf (fig. 1-2). The display console provides the console operator with a position referenced display of

situation data comprising characters (graphic symbols and alphanumerics), lines, radar and identification friend or foe (IFF) data, and a tabular display of alphanumeric status data (fig. 1-3). Controls to enter, modify, and delete information in the interfacing Automatic Data Processor (ADP) equipment display file are located on the left and right hand assembly control panels. Data is displayed on the CRT surface in two separate areas: situation and radar data is displayed on a 14.5-inch diameter area on the upper portion of the CRT screen designated the Plan Position Indicator (PPI) display, and tabular alphanumeric status data is displayed in a 1.5-inch high by 8-inch wide area below the PPI display designated the Auxiliary Read-Out (ARO). A voice communications station is located in the display console which permits the console operator to communicate with other subscribers in the intercom network.



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Figure 1-2. Display Console.