

TECHNICAL MANUAL

**ORGANIZATIONAL, DIRECT SUPPORT AND
GENERAL SUPPORT MAINTENANCE MANUAL**

**CONTROL INDICATOR C-8157/ARC
AND MOUNTING MT-3802/ARC**

This copy is a reprint which includes current
pages from Change 1.

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ORGANIZATIONAL, DIRECT SUPPORT, AND GENERAL SUPPORT
MAINTENANCE MANUAL

CONTROL INDICATOR C-8157/ARC AND
MOUNTING MT-3802/ARC
(NSN 5820-00-167-8002)

REPORTING 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, DA Form 2028 (Recommended Changes to Publications and Blank Forms), or DA Form 2028-2 located in back of this manual direct to: Commander, US Army Communications-Electronics Command and Fort Monmouth, ATTN: AMSEL-ME-MP, Fort Monmouth, New Jersey 07703-5007. In either case, a reply will be furnished direct to you.

Paragraph

Page

Chapter 1. INTRODUCTION

Section I. General

Scope	1-1	1 - 1
Consolidated Index of Army Publications and Blank Forms	1-2	1 - 1
Maintenance Forms, Records and Reports	1-3	1 - 1
Reporting Equipment Improvement Recommendations (EIR)	1-3.1	1 - 1
Administrative Storage	1-3.2	1 - 1
Destruction of Army Electronics Material	1-3.3	1 - 1

II. Description and data

Purpose and use	1-4	1 - 1
C-8157/ARC technical characteristics	1-5	1 - 2
Description of Control Indicator C-8157/ARC	1-6	1 - 2
Description of Mounting MT-3802/ARC	1-7	1 - 2
Description of additional equipment required	1-8	1 - 2

Chapter 2. INSTALLATION AND REMOVAL

Installation of control indicator	2-1	2 - 1
Installation of mounting	2-2	2 - 1
Removal of control indicator	2-3	2 - 1
Removal of mounting	2-4	2 - 1

3. OPERATION

C-8157/ARC controls and indicators	3-1	3 - 1
Operation	3-2	3 - 1
Stopping procedures	3-3	3 - 2

4. ORGANIZATIONAL MAINTENANCE INSTRUCTIONS

Section I Maintenance

Scope of maintenance	4-1	4 - 1
Tools, materials, and test equipment required	4-2	4 - 1
(Deleted)	4-3	4 - 1
(Deleted)	4-4	4 - 2
(Deleted)	4-5	4 - 2
(Deleted)	4-6	4 - 1
Cleaning	4-7	4 - 2
Replacement of indicator lamps C-8157/ARC	4-8	4 - 2
Repainting and refinishing instructions	4-9	4 - 2

II Preventive Maintenance Checks And Services

Preventive maintenance	4-10	4 - 3
Preventive maintenance checks and services chart	4-11	4 - 3

*This manual supercedes so much of TM 11-5821-244-12, 24 March 1964, and TM 11-5221-244-35, 17 November 1965, as pertains to Control Indicator C-8157.

	Paragraph	Page
III. Troubleshooting		
General	4 - 1 2	4 - 3
Troubleshooting chart	4 - 1 3	4 - 3
Chapter 5. FUNCTIONING OF CONTROL INDICATOR C-8157/ARC		
Scope	5 - 1	5 - 1
Power control CB-1.	5 - 2	5 - 1
ZEROIZE switch SW-3.	5 - 3	5 - 1
PLAIN-CIPHER switch SW-1	5 - 4	5 - 1
REG-RE-X switch SW-2	5 - 5	5 - 1
Panel lights	5 - 6	5 - 2
Chapter 6. DIRECT SUPPORT MAINTENANCE		
Scope of direct support maintenance	6 - 1	6 - 1
Troubleshooting chart	6 - 2	6 - 1
Tools and test equipment required	6 - 3	6 - 1
Troubleshooting chart, direct support maintenance	6 - 4	6 - 1
Chapter 7. GENERAL SUPPORT MAINTENANCE		
Scope of general support maintenance	7 - 1	7 - 1
8. DEPOT OVERHAUL STANDARDS		
Applicability of depot overhaul standards	8 - 1	8 - 1
Test equipment required	8 - 2	8 - 1
Procedures	8 - 3	8 - 1
Appendix A. REFERENCES		A - 1
B. MAINTENANCE ALLOCATION		B - 1

CHAPTER 1

INTRODUCTION

Section I. GENERAL

1-1. Scope

This manual describes Control Indicator C-8157/ARC (fig. 1-1, 1-2) and Mounting MT-3802/ARC (fig. 1-3). The manual provides instructions for operation, organisational, direct support, and general support maintenance, and functioning of the equipment.

1-2. Consolidated Index of Army Publications and Blank Forms

Refer to the latest issue of DA Pam 310-1 to determine whether there are new editions, changes or additional publications pertaining to the equipment.

1-3. Maintenance Forms, Records, and Reports

a. Reports of Maintenance and Unsatisfactory Equipment. Department of the Army forms and procedures used for equipment maintenance will be those prescribed by DA Pam 738-750 as contained in Maintenance Management Update.

b. Report of Packaging and Handling Deficiencies. Fill out and forward SF 364 (Report of Discrepancy (ROD)) as prescribed in AR 735-11-2/DLAR 4140.55/NAVMATINST 4355.73A/AFR 400-54/MCO 4430.3F.

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 4610.33C/AFR 75-18/MCO P4610.19D/DLAR 4500.15.

1-3.1. Reporting Equipment Improvement Recommendation (EIR)

If your equipment needs improvement, let us know. Send us an EIR. You, the user, are the only one who can tell us what you don't like about your equipment. Let us know why you don't like the design. Put it on an SF 368 (Quality Deficiency Report). Mail it to Commander, US Army Communications-Electronics Command and Fort Monmouth, ATTN: AMSEL-ME-MP, Fort Monmouth, New Jersey 07703-5007. We'll send you a reply.

1-3.2. Administrative Storage

a. Administrative storage of equipment issued to and used by Army activities will have preventive maintenance performed in accordance with the PMCS charts before storing. When removing the equipment from administrative storage, the PMCS should be performed to assure operational readiness. Removal and repacking equipment for shipment or limited storage is covered in chapter 2 and SB 38-100.

b. COMSEC. equipment must be removed before storage, and turned in to the COMSEC account custodian.

1-3.3. Destruction of Army Electronics Materiel

Destruction of Army electronics materiel to prevent enemy use shall be in accordance with TM 750-244-2. COMSEC equipment and keying information have first priority.

Section II. DESCRIPTION AND DATA

1-4. Purpose and Use

a. Control Indicator C-8157/ARC (fig. 1-1, 1-2) is used as auxiliary equipment to provide control of the TSEC/KY-28 Cipher voice security equipment (CX mode) operation.

b. Control Indicator C-8157/ARC is used by the pilot and co-pilot of an aircraft to control TSEC/KY-28 and Radio Set AN/ARC-54 (or equivalent for operation in either the plain or the ciphony made). In addition retransmission facilities are available through the C-8157/ARC.

NOTE

MWO 11-5821-244-30/2, 12 September 1966 must be applied to Radio Set AN/ARC-54 for operation with Control Indicator C-8157/ARC and TSEC/KY-28 in the (X) Mode.

c. Mounting MT-3802/ARC (fig. 1-3) provides a secure mount for the TSEC/KY-28 Cipher equipment within an aircraft or radio console.

1-5. C-8157/ARC Technical Characteristics

Modes of operation: PLAIN, CIPHER and Re-transmission (RE-X).

Power Requirements: +28 volts dc at 0.5 amps.

Dimensions:

Height---2 7/16 inches.

Width---5 inches.

Depth---2 7/8 inches.

1-6. Description of Control Indicator

C-8157/ARC

(fig. 1-1 and 1-2)

The Control indicator is a separately housed unit containing one. (1) circuit breaker and three (3) switches, three (3) indicator lamps and two (2) panel lamps. All four (4) switches and all of the lamps are wired to receptacle J1 on the rear of the control indicator which provides for plain, or cipher transmission and a remote cipher lamp. The two (2) panel lights are used to illuminate the front panel. The control indicator is flush mounted by means of Dzus fasteners located on the side of the panel mounting plate. The unit is capable of operating from a power source of 27.5 $\pm$ 0.5 volts dc which is normally obtained from the main power source of the aircraft.

NOTE

Control Indicator C-8157/ARC is used with, but not part of Radio Set AN/ARC-54.

1-7. Description of Mounting MT-3802/ARC

The MT-3802/ARC (mounting) consists of an upper and lower plate separated by four isolator mounts. The two (2) plates are electrically connected through grounding straps. The TSEC/KY-28 Cipher equipment is secured to the upper plate of the mount by the rear retainer assembly and the front retainer assembly. Drilled holes in the lower plate allow the mount to be secured in an aircraft or radio console.

1-8. Description of Additional Equipment Required

a. Interconnecting Cabling. A ten-wire electrical harness and cabling terminated at one end by an MS-3126F-12-10S connector is needed for interconnection of the control indicator with the TSEC/KY-28 Cipher equipment and the aircraft power and ground bus.

b. Remote Cipher Light. This light can be installed in the rear seat of the aircraft to be used by an observer or radio operator, and is optional.

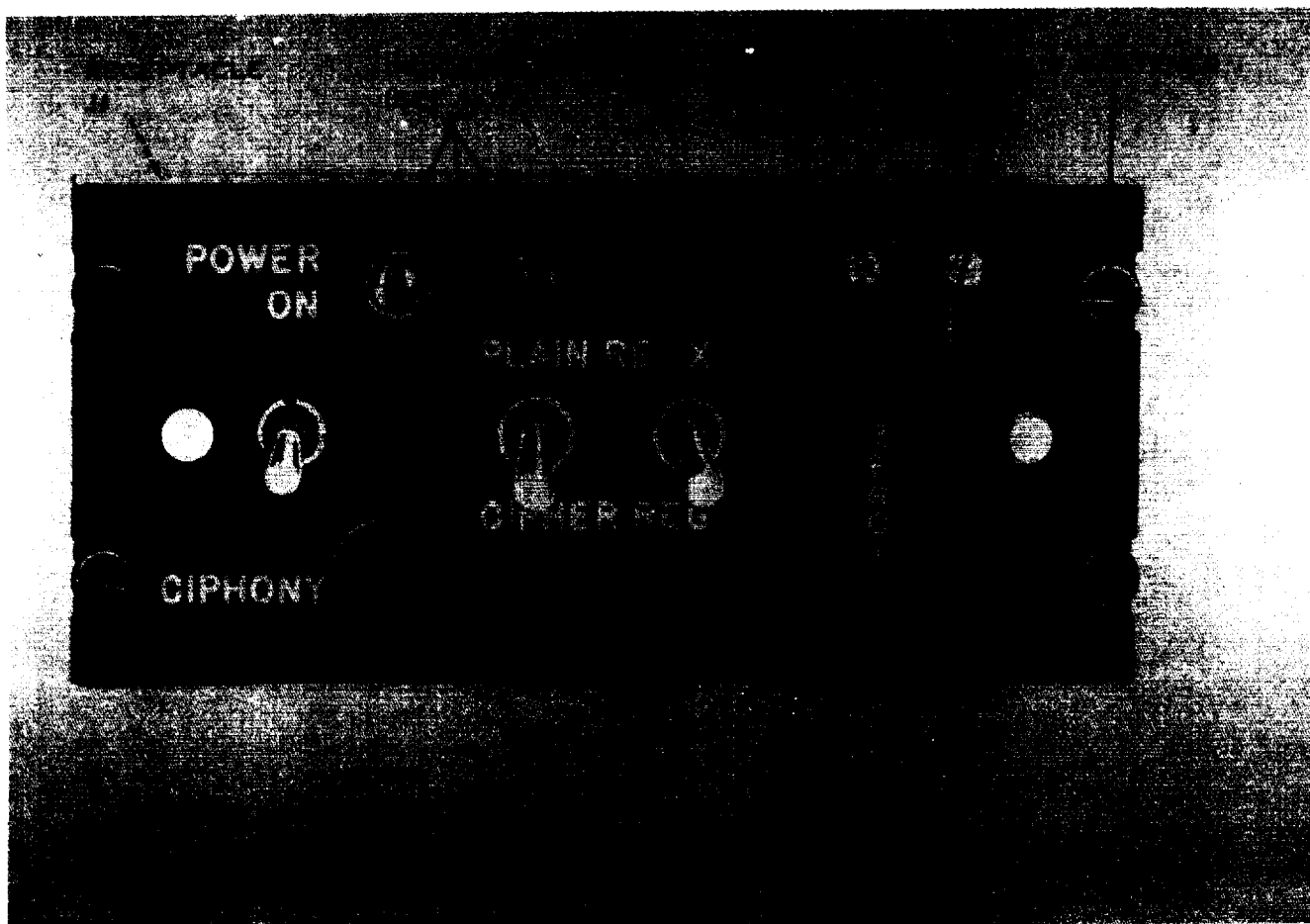


Figure 1-1. Control Indicator.