

 **BOEING**
COMPONENT
MAINTENANCE MANUAL

TO: ALL HOLDERS OF THRUST REVERSER TEST PANEL ASSEMBLY M1977 COMPONENT
MAINTENANCE MANUAL 78-35-02

REVISION NO. 2 DATED JAN 01/93

HIGHLIGHTS

Pages which have been added or revised are outlined below together with the highlights of the revision. Remove and insert the affected pages as listed and enter Revision No. and date on the Record of Revision Sheet.

CHAPTER/SECTION
AND PAGE NO.

DESCRIPTION OF CHANGE

101	Added a current limit specification to the power supply.
102	Added a component location configuration.
103-105	Changed the switch nomenclatures shown in the functional test procedure and the schematic diagram.

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HIGHLIGHTS

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THRUST REVERSER TEST PANEL ASSEMBLY, M1977

PART NUMBER 233T4259-1

COMPONENT MAINTENANCE MANUAL
WITH
ILLUSTRATED PARTS LIST

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TITLE PAGE

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01

A46359



REVISION RECORD

- Retain this record in front of manual. On receipt of revision, insert revised pages in the manual, and enter revision number, date inserted and initial.

REVISION NUMBER	REVISION DATE	DATE FILED	BY	REVISION NUMBER	REVISION DATE	DATE FILED	BY

**BOEING**
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MAINTENANCE MANUALTEMPORARY REVISION AND SERVICE BULLETIN RECORD

BOEING SERVICE BULLETIN	BOEING TEMPORARY REVISION	OTHER DIRECTIVE	DATE OF INCORPORATION INTO MANUAL
		PRR B11480-107	JUL 01/92

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TR & SB RECORD

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PAGE	DATE	CODE	PAGE	DATE	CODE
78-35-02			ILLUSTRATED PARTS LIST		
TITLE PAGE			1001	JUL 01/92	01
1	JUL 01/92	01	1002	JUL 01/92	01
2	BLANK		1003	OCT 01/92	01.1
REVISION RECORD			1004	OCT 01/92	01.1
1	JUL 01/92	01	1005	BLANK	
2	BLANK		1006	OCT 01/92	01.1
TR & SB RECORD			1007	OCT 01/92	01.1
1	JUL 01/92	01	1008	BLANK	
2	BLANK				
LIST OF EFFECTIVE PAGES					
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TESTING & TROUBLE SHOOTING					
*101	JAN 01/93	01.1			
*102	JAN 01/93	01.1			
*103	JAN 01/93	01.1			
*104	JAN 01/93	01.1			
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Fits and Clearances (not applicable)	
Special Tools*[1]	
Illustrated Parts List.	1001

*[1] Use applicable procedures in 20-11-04 and standard industry practices.
 *[2] Special instructions not required.



INTRODUCTION

The instructions in this manual provide the information necessary to perform maintenance functions including test, fault isolation, and replacement of defective components.

This manual is divided into separate sections:

- | | |
|--|------------------------------|
| 1. Title Page | 4. List of Effective Pages |
| 2. Record of Revisions | 5. Table of Contents |
| 3. Temporary Revision &
Service Bulletin Record | 6. Introduction |
| | 7. Procedures & IPL Sections |

Refer to the Table of Contents for the page location of applicable sections.

An explanation of the use of the Illustrated Parts List is provided in the Introduction to that section.

All weights and measurements used in the manual are in English units, unless otherwise stated. When metric equivalents are given they will be in parentheses following the English units.

Design changes, optional parts, configuration differences and Service Bulletin modifications create alternate part numbers. These are identified in the Illustrated Parts List (IPL) by adding an alphabetical character to the basic item number. The resulting item number is called an alpha-variant. Throughout the manual, IPL basic item number references also apply to alpha-variants unless otherwise indicated.

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INTRODUCTION

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THRUST REVERSER TEST PANEL ASSEMBLY M1977

DESCRIPTION AND OPERATION

1. Description

- A. The thrust reverser test panel assembly contains indicator lights and switches mounted on a baseplate. External connections are made through four connectors mounted on a support bracket in rear.

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DESCRIPTION & OPERATION

01

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TESTING AND TROUBLE SHOOTING

 1. Test Equipments

- A. Power Supply: 28 \pm 1v dc, 0.5A max
- B. Multimeter: Simpson 260 or equivalent
- C. Test Connector: Boeing breakout box A33003-2 with test cables shown below may be used

<u>Test Connector</u>	<u>Mates with</u>	<u>Test Cable</u>
BACC45FT8-3S	J1	-
BACC45FT10-5S	J2	A33003-160
BACC45FT14-15S	J3	A33003-18
BACC45FT12-12S	J4	A33003-9

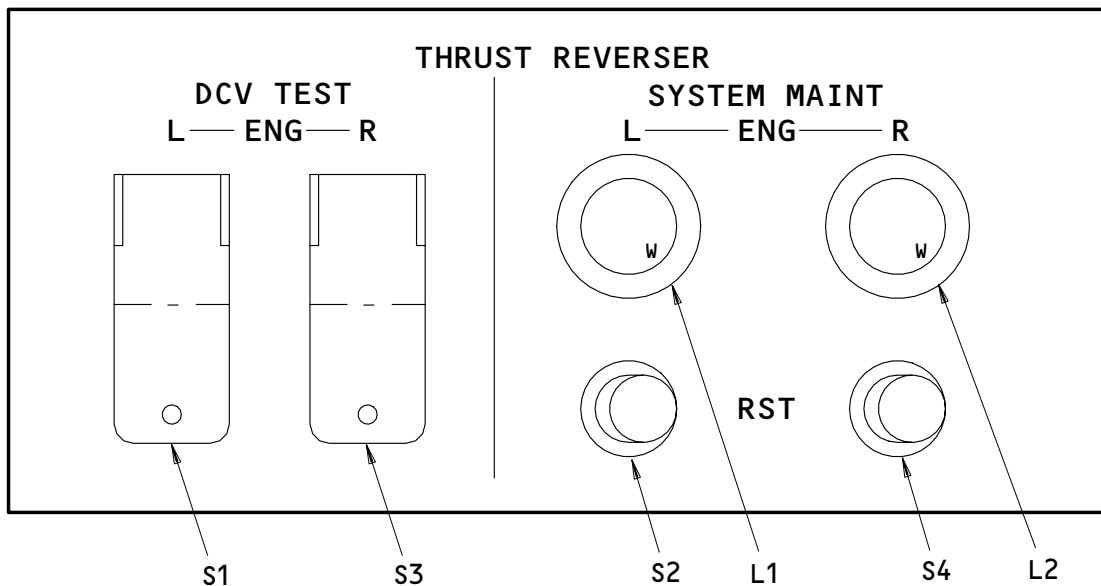
 2. Functional Test

- A. Connect the thrust reverser test panel assembly to the test connectors.
- B. Do the functional test procedure shown in Fig. 101.

NOTE: Continuity is defined as 3 ohms or less and Open is defined as 900k ohms or greater.

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233T4259-1
Component Location
Figure 101

B24975

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TEST STEP	PROCEDURE	REQUIRED RESULT	COMPONENT TEST
1	Measure ohms between J1-1 and J1-2 with S1 (L DCV TEST) set to the position specified in the required result column.	<u>Toggle-up & Held</u> <u>Released</u> Open Continuity	S1
2	Measure ohms between J2-5 and J2-4 with S3 (R DCV TEST) set to the position specified in the required result column.	<u>Toggle-up & Held</u> <u>Released</u> Open Continuity	S3
3	Apply 28v dc to J3-5 and ground to J3-10.	L1 (L SYSTEM MAINT) on	L1
4	Momentarily press and release L1 (L SYSTEM MAINT).	L1 off while pressed	L1
5	Remove ground from J3-10.		
6	Ground J3-7.	L1 (L SYSTEM MAINT) off	L1
7	Momentarily press and release L1 (L SYSTEM MAINT).	L1 on while pressed	L1
8	Remove 28v dc from J3-5 and ground from J3-7.		
9	Measure ohms between J3-15 and J3-12 with S2 (L RESET) set to the position specified in the required result column.	<u>Pressed & Held</u> <u>Released</u> Continuity Open	S2

Functional Test Procedure
 Figure 102 (Sheet 1)

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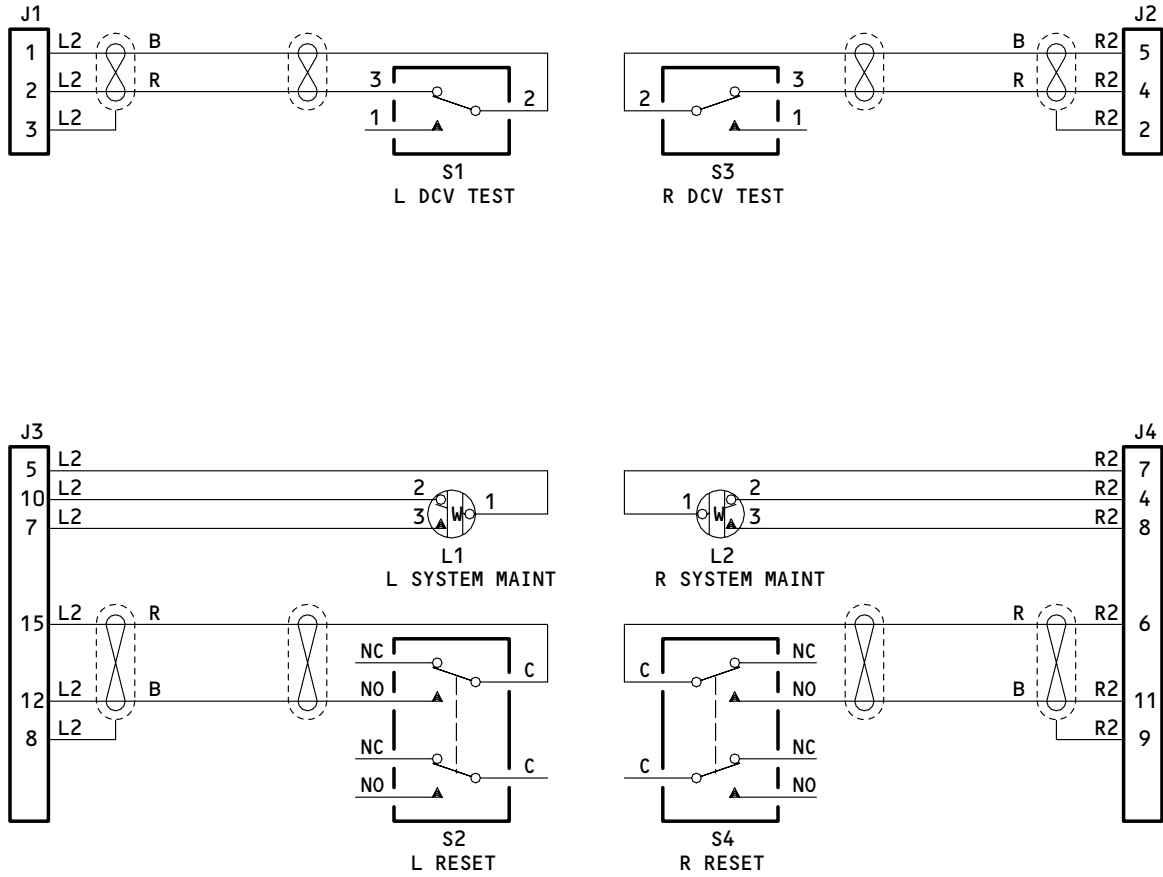
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TEST STEP	PROCEDURE	REQUIRED RESULT	COMPONENT TEST
10	Apply 28v dc to J4-7 and ground to J4-4.	L2 (R SYSTEM MAINT) on	L2
11	Momentarily press and release L2 (R SYSTEM MAINT).	L2 off while pressed	L2
12	Remove ground from J4-4.		
13	Ground J4-8.	L2 (R SYSTEM MAINT) off	L2
14	Momentarily press and release L2 (R SYSTEM MAINT).	L2 on while pressed	L2
15	Remove 28v dc from J4-7 and ground from J4-8.		
16	Measure ohms between J4-6 and J4-11 with S4 (R RESET) set to the position specified in the required result column.	<u>Pressed & Held</u> Continuity	<u>Released</u> Open
17	Remove all connections.		S4

Functional Test Procedure
 Figure 102 (Sheet 2)

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NOTE: ALL WIRES BMS 13-48 TYPE 1, CLASS 1, AND TYPE 24, CLASS 2, AWG 20 EXCEPT AS NOTED. SEE REPAIR FOR WIRE SEPARATION.

Schematic Diagram
 Figure 103

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REPAIR

1. All repair may be accomplished with standard industry practices and procedures contained in 20-11-04 except as follows:
 - A. Wire categories are color-coded R2 (green) and L2 (red). Maintain a minimum of 1/4-inch spacing between bundles of different categories.

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REPAIR-GENERAL

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ILLUSTRATED PARTS LIST

1. This section lists and illustrates replaceable or repairable component parts. The Illustrated Parts Catalog contains a complete explanation of the Boeing part numbering system.

2. Indentures show parts relationships as follows:

Assembly

Detail Parts for Assembly

Subassembly

Attaching Parts for Subassembly

Detail Parts for Subassembly

Detail Installation Parts (Included only if installation parts may be returned to shop as part of assembly)

3. One use code letter (A, B, C, etc.) is assigned in the EFF CODE column for each variation of top assembly. All listed parts are used on all top assemblies except when limitations are shown by use code letter opposite individual part entries.

4. Letter suffixes (alpha-variants) are added to item numbers for optional parts, Service Bulletin modification parts, configuration differences (Except left- and right-hand parts), product improvement parts, and parts added between two sequential item numbers. The alpha-variant is not shown on illustrations when appearance and location of all variants of the part is the same.

5. Service Bulletin modifications are shown by the notations PRE SB XXXX and POST SB XXXX.

A. When a new top assembly part number is assigned by Service Bulletin, the notations appear at the top assembly level only. The configuration differences at detail part level are then shown by use code letter.

B. When the top assembly part number is not changed by the Service Bulletin, the notations appear at the detail part level.

6. Parts Interchangeability

Optional
(OPT)

The parts are optional to and interchangeable with other parts having the same item number.

Supersedes, Superseded By
(SUPSDS, SUPSD BY)

The part supersedes and is not interchangeable with the original part.

Replaces, Replaced By
(REPLS, REPLD BY)

The part replaces and is interchangeable with, or is an alternate to, the original part.

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7. Use substitute parts only as specified in the drawing, 280T1001, Airplane Electrical/Electronic Parts Substitution Drawing.

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VENDORS

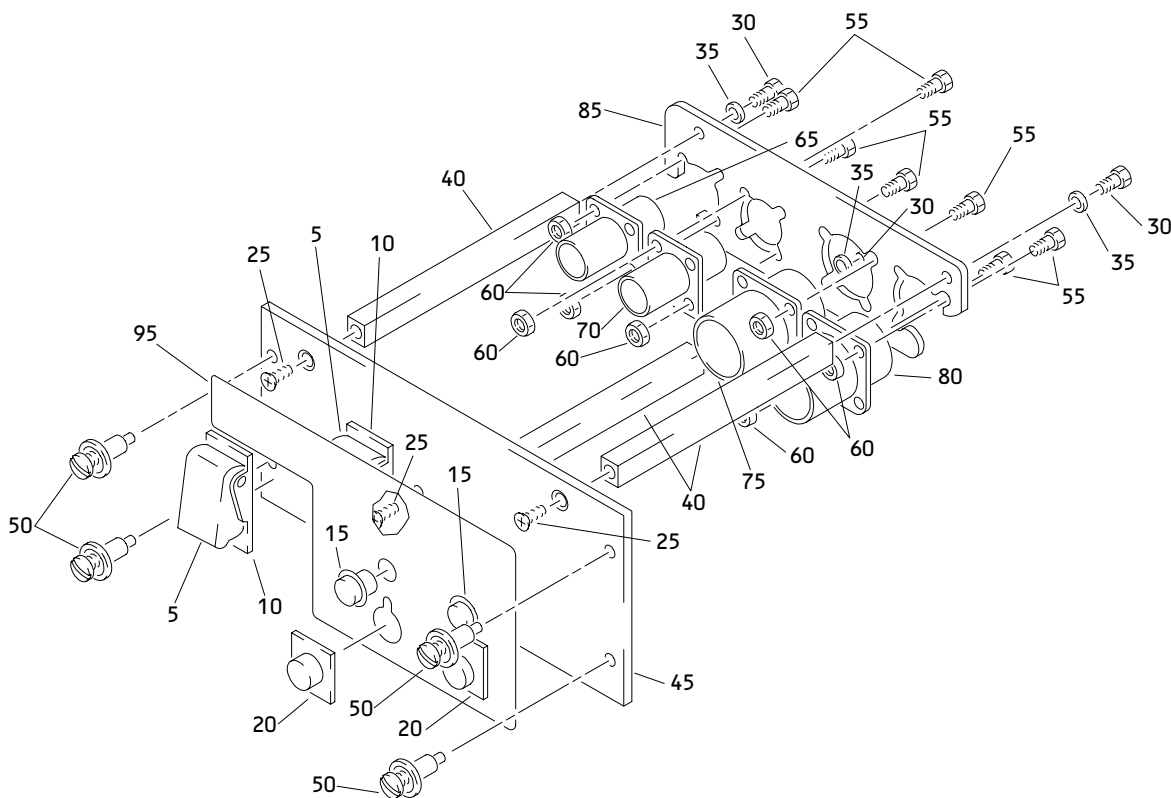
28277	DEXTER-WILSON CORP 4133 STONE WAY NORTH SEATTLE, WASHINGTON 98103-8013
81590	KORRY ELECTRONIC INC SUB OF CRITON CORP 901 DEXTER AVENUE NORTH SEATTLE, WASHINGTON 98109-3515
91929	HONEYWELL INC MICRO SWITCH DIV 11 WEST SPRING STREET FREEPORT, ILLINOIS 61032

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REFERENCE DESIGNATOR INDEX (SEE SCHEMATIC DIAGRAM)		
REFERENCE DESIGNATOR	PART NUMBER	FIG-ITEM
J1	BACC45FN8-3P	1-65
J2	BACC45FN10-5P	70
J3	BACC45FN14-15P	75
J4	BACC45FN12-12P	80
L1,L2	BCREFA3292	15
S1	MS24523-26	10
S2	2PB11H58	20
S3	MS24523-26	10
S4	2PB11H58	20

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Thrust Reverser Test Panel Assembly, M1977
Figure 1

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FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01- -1	233T4259-1		PANEL ASSY-THRUST REVERSER TEST, M1977		RF
5	400-122		.GUARD-SWITCH (V28277)		2
10	MS24523-26		.SWITCH (S1, S3)		2
15	BACREFA3292		.LIGHT-IND (V81590) (116-565-1042-002) (L1, L2)		2
20	2PB11H58		.SWITCH-PUSHBUTTON (V91929) (S2, S4)		2
25	NAS514P632-5P		.SCREW		3
30	NAS1801-06-5		.SCREW		3
35	MS35338-41		.WASHER		3
40	69B46200-7		.STANDOFF		3
45	233T4259-2		.BASEPLATE ASSY		1
50	BACS21DX1B		..STUD ASSY		4
55	NAS1801-04-5		.SCREW		8
60	BACN10NW1		.NUT		8
65	BACC45FN8-3P		.CONNECTOR (J1)		1
70	BACC45FN10-5P		.CONNECTOR (J2)		1
75	BACC45FN14-15P		.CONNECTOR (J3)		1
80	BACC45FN12-12P		.CONNECTOR (J4)		1
85	233T6200-197		.SUPPORT-CONNECTOR		1
-90	233T4259-3		.WIRE BUNDLE ASSY		1
95	BAC27TFDE0438		.DECAL		1

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