

 **BOEING**  
COMPONENT  
MAINTENANCE MANUAL

TO: ALL HOLDERS OF INBOARD AND OUTBOARD AILERON SURFACE POSITION TRANSMITTER  
ASSEMBLY COMPONENT MAINTENANCE MANUAL 27-18-12

REVISION NO. 6 DATED MAR 01/05

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.

REPAIR 1-1

601

DESCRIPTION OF CHANGE

Revised REPAIR 1-1, page 601, to change the page footer words from REPAIR 3-1 to REPAIR 1-1.

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HIGHLIGHTS

01.1

Page 1

Mar 01/05

INBOARD AND OUTBOARD AILERON SURFACE  
POSITION TRANSMITTER ASSEMBLY

PART NUMBERS 251T1010-5 THRU -14,-17,-18  
251T1011-5 THRU -8,-11 THRU  
-16

COMPONENT MAINTENANCE MANUAL  
WITH  
ILLUSTRATED PARTS LIST

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TITLE PAGE

Page 1

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01.1

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

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REVISION RECORD

01

Page 1

Oct 01/87

TEMPORARY REVISION AND SERVICE BULLETIN RECORD

BOEING SERVICE BULLETIN	BOEING TEMPORARY REVISION	OTHER DIRECTIVE	DATE OF INCORPORATION INTO MANUAL
		PRR B10550 PRR C12245 PRR B11811 PRR B12085	APR 10/83 JAN 01/88 APR 01/90 JAN 01/93

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TR & SB RECORD

01.1

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PAGE	DATE	CODE	PAGE	DATE	CODE
27-18-12			REPAIR-GENERAL		
			601	JAN 01/88	01.1
			602	BLANK	
TITLE PAGE			REPAIR 1-1		
1	JAN 01/93	01.1	*601	MAR 01/05	01.1
2	BLANK		*602	BLANK	
REVISION RECORD			ASSEMBLY		
1	OCT 01/87	01	701	JUL 01/04	01.1
2	BLANK		702	JUL 01/04	01.1
TR & SB RECORD			703	JUL 01/04	01.1
1	JAN 01/93	01.1	704	JUL 01/04	01.101
2	BLANK		FITS AND CLEARANCES		
LIST OF EFFECTIVE PAGES			801	MAR 01/04	01.1
*1	MAR 01/05	01	802	BLANK	
THRU LAST PAGE			ILLUSTRATED PARTS LIST		
CONTENTS			1001	OCT 01/87	01
1	OCT 01/87	01	1002	MAR 01/04	01.1
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2	BLANK		1009	MAR 01/04	01.1
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302	BLANK		1012	MAR 01/04	01.1
CLEANING			1013	MAR 01/04	01.1
401	MAR 01/04	01.1	1014	MAR 01/04	01.1
402	BLANK		1015	BLANK	
CHECK			1016	MAR 01/04	01.1
501	MAR 01/04	01.1	1017	MAR 01/04	01.1
502	BLANK		1018	MAR 01/04	01.1
			1019	MAR 01/04	01.1
			1020	MAR 01/04	01.1

\* = REVISED, ADDED OR DELETED

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## INTRODUCTION

The instructions in this manual provide the information necessary to perform maintenance functions ranging from simple checks and replacement to complete shop-type repair.

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 &<br>Service Bulletin Record | 6. Introduction              |
|  | 7. Procedures & IPL Sections |

Refer to the Table of Contents for the page location of applicable sections. An asterisked flagnote \*[ ] in place of the page number indicates that no special instructions are provided since the function can be performed using standard industry practices.

The beginning of the REPAIR section includes a list of the separate repairs and a list of applicable standard Boeing practices.

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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Verification:

Assembly      MAY 30/90

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INTRODUCTION

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INBOARD AND OUTBOARD AILERON SURFACE POSITION TRANSMITTER ASSEMBLY

DESCRIPTION AND OPERATION

1. Description and Operation

A. The inboard and outboard aileron surface position transmitter assembly consists of a rotary transducer, forged bracket assembly and a molded nylon lever. It provides signals to the cockpit instruments indicating the position of the control surfaces.

2. Leading Particulars (Approximate)

Length -- 5 inches

Width -- 4 inches

Height -- 2 inches

Weight -- 2 pounds

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DESCRIPTION & OPERATION

01

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DISASSEMBLY

NOTE: Disassemble this component only as necessary to complete fault isolation, determine the serviceability of parts, perform required repairs, and restore the unit to serviceable condition.

1. Disassembly (IPL Fig. 1)

- A. Remove screw (35), washer (40A) and nut (45A) from crank (30). Remove crank (30) from transmitter (145A).
- B. Remove screws (15A), washers (20A) and nuts (25A) from bracket assy (8A). Remove bracket assy (8A) from transmitter (145A).

2. Disassembly (IPL Fig. 2)

- A. Remove screw (45,75), washer (80) and nut (85) from crank (40,70). Remove crank (40,70) from transmitter (90).
- B. Remove screws (20), washers (25) and nuts (30) from bracket assembly (15). Remove bracket assembly (15) from transmitter (90).

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DISASSEMBLY

01.1

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CLEANING

1. Clean all parts using standard industry practices and information contained in 20-30-03, except as noted in par. 2.
- |2. Clean crank (30) with soap and water. (IPL Fig. 1)
- |3. Clean crank (40,70) with soap and water. (IPL Fig. 2)

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CLEANING  
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CHECK

1. Check all parts for obvious defects in accordance with standard industry practices.
2. Penetrant check per 20-20-02 -- bracket assy (8A, IPL Fig. 1), crank (30A, 30C, 30E, 30G).
3. Penetrant check per 20-20-02 -- bracket assembly (15) crank (40,70).  
(IPL Fig. 2)

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CHECK

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REPAIR – GENERAL

1. Content

A. Repair, refinish and replacement procedures are included in separate repair sections as follows:

<u>P/N</u>	<u>NAME</u>	<u>REPAIR</u>
- -	MISC PARTS REFINISH	1-1

2. Standard Practices

A. Refer to the following standard practices as applicable for details of procedures in individual repairs.

- 20-41-01 Decoding Table for Boeing Finish Codes
- 20-41-02 Application of Chemical and Solvent Resistant Finishes
- 20-43-01 Chromic Acid Anodizing

3. Materials

NOTE: Equivalent substitutes may be used.

A. Primer -- BMS 10-11, Type 1 (Ref 20-60-02).

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REPAIR-GENERAL

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MISC PARTS REFINISH - REPAIR 1-1

1. Repair of parts listed in Fig. 601 consists of restoration of the original finish.

IPL FIG. & ITEM	MATERIAL	FINISH
<u>Fig. 1 &amp; Fig. 2</u>  Bracket assy (8A, 15)	Al alloy	Chromic acid anodize (F-17.02) and apply one coat of BMS 10-11, type 1 primer (F-20.02) all over except omit primer in 1.000-1.002 inch dia hole.
Crank (30A, 30C, 30E, 30G, 40, 70)	Al alloy	Chemically treat or chromic acid anodize. Apply one layer of BMS 10-11, type 1 primer (F-18.05) all over, except omit primer from internal splines.

Refinish Details  
Figure 601

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REPAIR 1-1

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ASSEMBLY

Material

NOTE: Equivalent substitutes may be used.

A. Sealant -- BMS 5-95 (Ref 20-60-04)

1. Assembly (IPL Fig. 1)

A. Hand sand faying surface of transmitter (145A) and bracket (8A) using aluminum oxide or garnet abrasive paper with 180 grit or finer to ensure electrical bonding.

B. Maximum resistance between transmitter (145A) and bracket (8A) should not exceed 0.003 ohms.

C. Install bracket (8A) on transmitter (145A) as follows:

(1) Install transmitter (145A) into bracket (8A).

(2) Install one of the screw (15A) (in the nearest side to splined shaft) on bracket (8A) and ensure that screw (15A) engages circumferential groove on transmitter (145A).

(3) Install other screw (15A), washers (20A) and nuts (25A). Do not tighten screws (15A).

D. Rotate transmitter (145A) until electrical zero index mark on housing is pointing toward bracket (8A) as shown in Fig. 701.

E. Install crank (30) on transmitter (145A) as follows:

(1) Install crank (30) on splined shaft of transmitter (145A) with electrical zero index mark on shaft pointing toward hole in crank clevis as shown in Fig. 701.

(2) Install screw (35) and push crank (30) down until screw (35) engages circumferential groove on shaft.

(3) Install washer (40A) and nut (45A). Tighten screw (35).

F. Position crank (30) relative to bracket (8A) as shown in Fig. 701.

G. Apply 26V, 400 Hz to pins 1 and 2 of electrical connector.

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- H. Rotate transmitter body (145A) until voltage between pins 4 and 5 is less than 50 millivolts RMS.
- I. Tighten screws (15A) to secure transmitter (145A) to bracket (8A).
- J. Fillet seal between transmitter (145A) and bracket (8A) with sealant.
- K. Seal screws (15A), washers (20A) and nuts (25A) with sealant.
- L. Prepare and store component in accordance with standard industry practices.

## 2. Assembly (IPL Fig. 2)

- A. Hand sand faying surface of transmitter (90) and bracket (15) using aluminum oxide or garnet abrasive paper with 180 grit or finer to ensure electrical bonding.
- B. Maximum resistance between transmitter (90) and bracket (15) should not exceed 0.003 ohms.
- C. Install bracket (15) on transmitter (90) as follows:
  - (1) Install transmitter (90) into bracket (15).
  - (2) Install one of the screw (20) (in the nearest side to splined shaft) on bracket (15) and ensure that screw (20) engages circumferential groove on transmitter (90).
  - (3) Install other screw (20), washers (25) and nuts (30). Do not tighten screws (20).
- D. Rotate transmitter (90) until electrical zero index mark on housing is pointing toward bracket (15) as shown in Fig. 701.
- E. Install crank (40,70) on transmitter (90) as follows:
  - (1) Install crank (40,70) on splined shaft of transmitter (90) with electrical zero index mark on shaft pointing toward hole in crank clevis as shown in Fig. 701.
  - (2) Install screw (45,75) and push crank (40,70) down until screw (45,75) engages circumferential groove on shaft.
  - (3) Install washer (80) and nut (85). Tighten screw (45,75).

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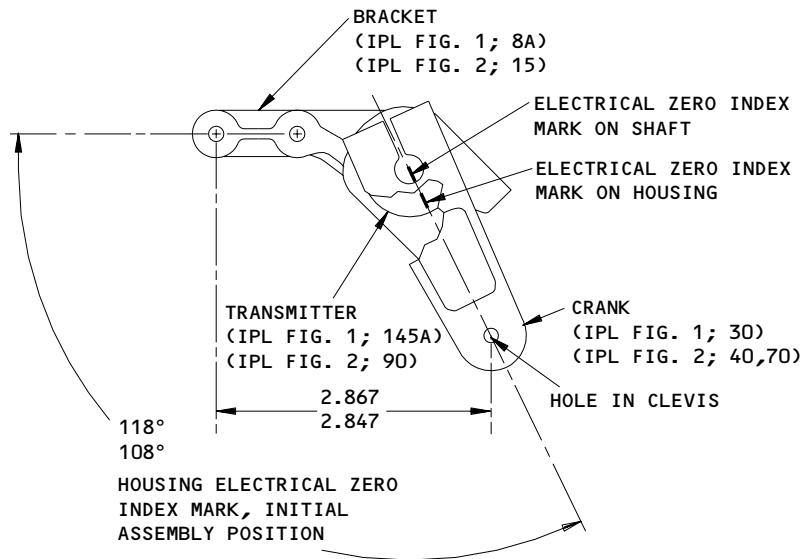


- | F. Position crank (40,70) relative to bracket (15) as shown in Fig. 701.
- | G. Apply 26V, 400 Hz to pins 1 and 2 of electrical connector.
- | H. Rotate transmitter body (90) until voltage between pins 4 and 5 is less than 50 millivolts RMS.
- | I. Tighten screws (20) to secure transmitter (90) to bracket (15).
- | J. Fillet seal between transmitter (90) and bracket (15) with sealant.
- | K. Seal screws (20), washers (25) and nuts (30) with sealant.
- | L. Prepare and store component in accordance with standard industry practices.

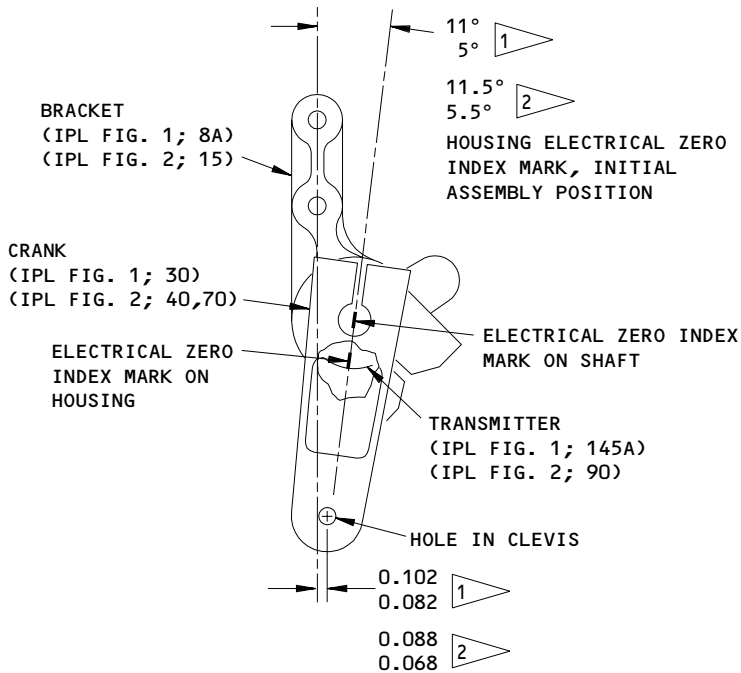
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251T1011-5,-7,-11,-13,-15 ASSEMBLY SHOWN  
 251T1011-6,-8,-12,-14,-16 ASSEMBLY OPPOSITE



251T1010-5,-7,-9,-11,-13,-17 ASSEMBLY SHOWN  
 251T1010-6,-8,-10,-12,-14,-18 ASSEMBLY OPPOSITE

- 1 251T1010-5 THRU -8,-11,-12 THRU -14,-17,-18
- 2 251T1010-9,-10

ALL DIMENSIONS ARE IN INCHES

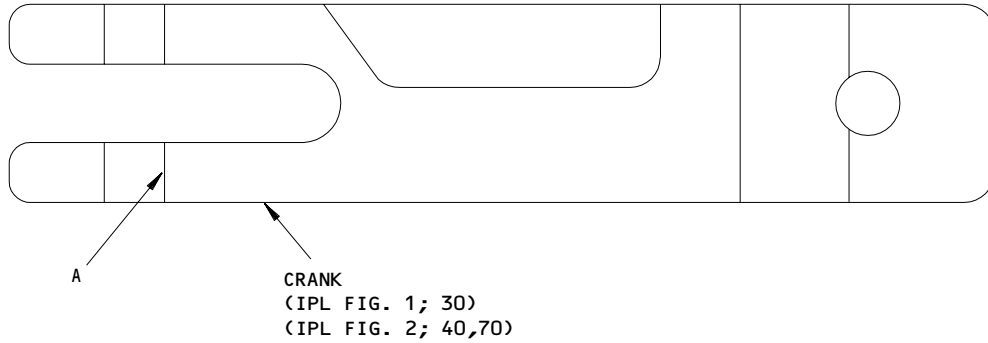
Transmitter Assembly  
 Figure 701

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ASSEMBLY  
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FITS AND CLEARANCES



REF LETTER	REF IPL		DESIGN DIMENSION*				SERVICE WEAR LIMIT*		
	FIG. NO.	MATING ITEM NO.	DIMENSION		ASSEMBLY CLEARANCE		DIMENSION		MAXIMUM CLEARANCE
			MIN	MAX	MIN	MAX	MIN	MAX	
A	1	ID 30	0.190	0.194				0.1985	
A	2	ID 40,70	0.190	0.194				0.1985	

\* ALL DIMENSIONS ARE IN INCHES

Fits and Clearances  
Figure 801

142846

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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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VENDORS

1K426 LITTON SYSTEMS INC LITTON SPECIAL DEVICES  
750 WEST SPROUL ROAD  
SPRINGFIELD, PENNSYLVANIA 19064-4084

10630 ANILLO INDUSTRIES, INCORPORATED  
2090 NORTH GLASSELL  
ORANGE, CALIFORNIA 92667  
FORMERLY WESTERN WASHER DIV OF SENG CO V87487

15653 FAIRCHILD FASTENERS KAYNAR PRODUCTS DIV  
800 S STATE COLLEGE BLVD  
FULLERTON, CALIFORNIA 92831-3001  
FORMERLY VK6405 MICRODOT AEROSP LTD; FORMERLY KAYNAR TECH  
KAYNAR DIV

33463 NOVATRONICS OF CANADA LTD  
677 ERIE STREET  
STRATFORD, ONTARIO, CANADA N5A 6VA

51761 ASTRO INSTRUMENT CORP  
450 GOLDSBY BLVD.  
DEERFIELD, FLORIDA 33442-3019  
FORMERLY IN POMPANO BEACH, FLORIDA

62554 SIMMONDS MECAERO FASTENERS INC  
1734 SEQUOIA AVENUE  
ORANGE, CALIFORNIA 92668

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ILLUSTRATED PARTS LIST  
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PART NUMBER	AIRLINE PART NO.	FIG.	ITEM	TTL REQ
AN960JD10L		1	40A	1
		1	55A	1
		2	80	1
BACN10YR3CD		1	25C	2
		1	45C	1
		2	30B	2
		2	85B	1
		2	85B	1
BACW10AT23AS		1	20A	2
		2	25	2
H505A		1	145J	1
H509B		2	90A	1
		1	145K	1
H52732-3CD		2	90	1
		1	25C	2
		1	45C	1
		2	30B	2
		2	85B	1
MS21042L3		1	25A	2
		1	45A	1
		1	60A	1
		2	30	2
		2	85	1
NAS1149D0332J		1	40B	1
NAS623-3-10		1	50A	1
NAS623-3-12		1	35A	1
NAS623-3-13		1	35G	1
		2	60	1
		2	75A	1
NAS623-3-16		1	35	1
		2	45	1
		2	75	1
NAS623-3-19		1	15A	2
		2	20	2
NAS623-3-8		1	50B	1
PLH53CD		1	25C	2
		1	45C	1
		2	30B	2
		2	85B	1
		1	145J	1
S250N104-1		2	90A	1
		1	145K	1
S250N104-6		2	90	1
		1	145S	1
ZR1A		2	90F	1

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ILLUSTRATED PARTS LIST  
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PART NUMBER	AIRLINE PART NO.	FIG.	ITEM	TTL REQ
ZR3A		1	145T	1
		2	90G	1
13TX0115A		1	145A	1
		2	90C	1
13TX0615A		1	145D	1
		2	90B	1
251T1010-10		1	2B	RF
251T1010-11		1	1D	RF
251T1010-12		1	2C	RF
251T1010-13		1	1E	RF
251T1010-14		1	2D	RF
251T1010-17		1	1F	RF
251T1010-18		1	2E	RF
251T1010-5		1	1A	RF
251T1010-6		1	2	RF
251T1010-7		1	1B	RF
251T1010-8		1	2A	RF
251T1010-9		1	1C	RF
251T1011-11		1	5C	RF
251T1011-12		1	6B	RF
251T1011-13		1	5D	RF
251T1011-13		2	1	RF
251T1011-14		1	6C	RF
		2	5	RF
251T1011-15		1	5E	RF
		2	1A	RF
251T1011-16		1	6D	RF
		2	5A	RF
251T1011-19		2	50	1
		2	65B	1
251T1011-20		2	35	1
		2	65A	1
251T1011-21		2	65	1
251T1011-5		1	5A	RF
251T1011-6		1	6	RF
251T1011-7		1	5B	RF
251T1011-8		1	6A	RF
60B40042-3		1	145A	1
		2	90C	1
60B40042-7		1	145D	1
		2	90B	1
65B80863-12		1	10A	1
		2	10	1

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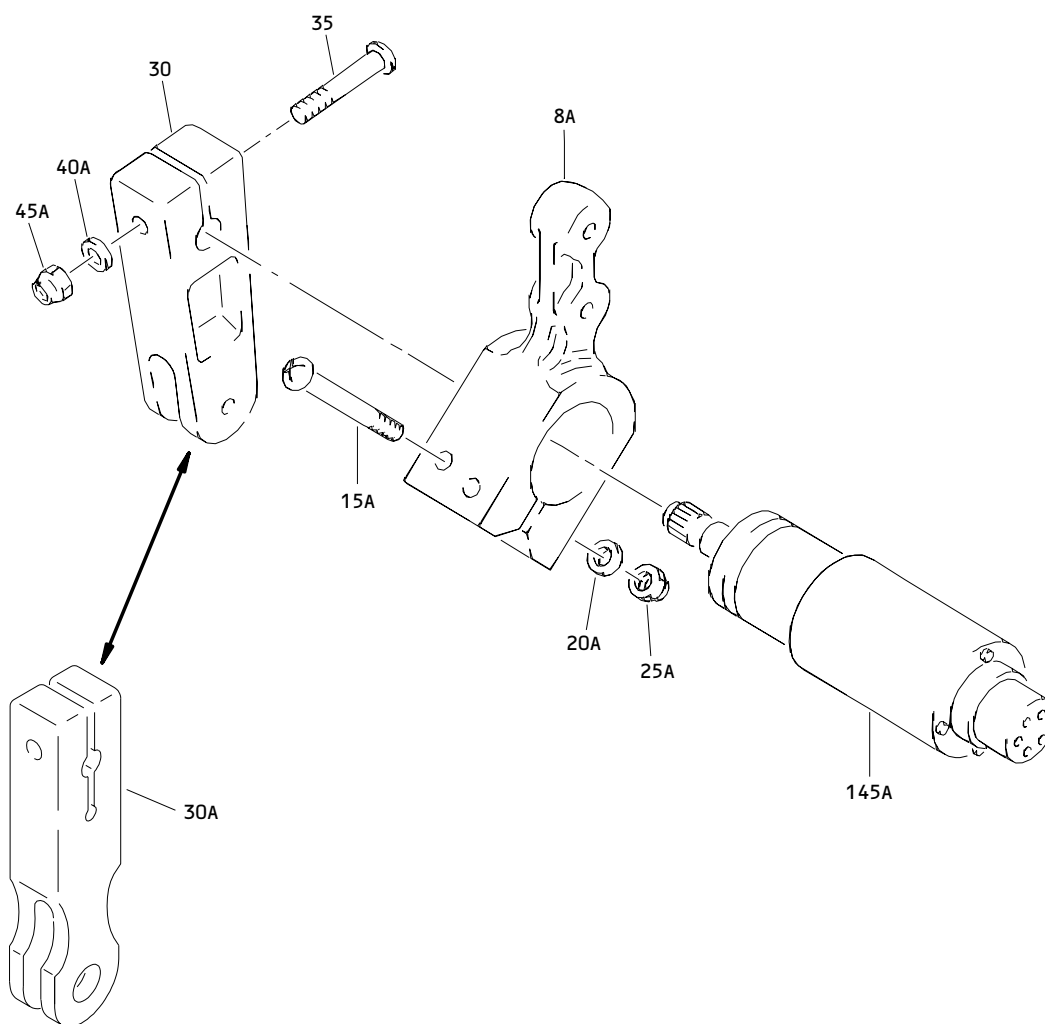
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PART NUMBER	AIRLINE PART NO.	FIG.	ITEM	TTL REQ
65B80863-13		1	8A	1
		2	15	1
69-15812-1		1	30	1
		2	40	1
		2	70A	1
69-15812-2		1	30H	1
		2	70	1
69-71007-3		1	30A	1
		2	55	1
		2	70B	1
7977-18-01		1	145P	1
		2	90D	1

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ILLUSTRATED PARTS LIST  
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Inboard-Outboard Aileron Surface Position Transmitter Assembly  
Figure 1

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**BOEING**  
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FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01- -1A	251T1010-5		TRANSMITTER ASSY-INBD AIL. SURF. POSITION (LH)	A	RF
-1B	251T1010-7		TRANSMITTER ASSY-INBD AIL. SURF. POSITION (LH)	E	RF
-1C	251T1010-9		TRANSMITTER ASSY-INBD AIL. SURF. POSITION (LH)	J	RF
-1D	251T1010-11		TRANSMITTER ASSY-INBD AIL. SURF. POSITION (LH)	L	RF
-1E	251T1010-13		TRANSMITTER ASSY-INBD AIL. SURF. POSITION (LH)	Q	RF
-1F	251T1010-17		TRANSMITTER ASSY-INBD AIL. SURF. POSITION (LH)	U	RF
-2	251T1010-6		TRANSMITTER ASSY-INBD AIL. SURF. POSITION (RH)	C	RF
-2A	251T1010-8		TRANSMITTER ASSY-INBD AIL. SURF. POSITION (RH)	F	RF
-2B	251T1010-10		TRANSMITTER ASSY-INBD AIL. SURF. POSITION (RH)	K	RF
-2C	251T1010-12		TRANSMITTER ASSY-INBD AIL. SURF. POSITION (RH)	M	RF
-2D	251T1010-14		TRANSMITTER ASSY-INBD AIL. SURF. POSITION (RH)	R	RF
-2E	251T1010-18		TRANSMITTER ASSY-INBD AIL. SURF. POSITION (RH)	V	RF
-5A	251T1011-5		TRANSMITTER ASSY-OUTBD AIL. SURF. POSITION (LH)	B	RF
-5B	251T1011-7		TRANSMITTER ASSY-OUTBD AIL. SURF. POSITION (LH)	G	RF
-5C	251T1011-11		TRANSMITTER ASSY-OUTBD AIL. SURF. POSITION (LH)	N	RF
-5D	251T1011-13		TRANSMITTER ASSY-OUTBD AIL. SURF. POSITION (LH)	S	RF
-5E	251T1011-15		TRANSMITTER ASSY-OUTBD AIL. SURF. POSITION (LH) (FOE DETAILS SEE FIG. 2) (FOR DETAILS SEE FIG. 2)	W	RF

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ILLUSTRATED PARTS LIST  
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FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01- -6	251T1011-6		TRANSMITTER ASSY-OUTBD AIL. SURF. POSITION (RH)	D	RF
-6A	251T1011-8		TRANSMITTER ASSY-OUTBD AIL. SURF. POSITION (RH)	H	RF
-6B	251T1011-12		TRANSMITTER ASSY-OUTBD AIL. SURF. POSITION (RH)	P	RF
-6C	251T1011-14		TRANSMITTER ASSY-OUTBD AIL. SURF. POSITION (RH)	T	RF
-6D	251T1011-16		TRANSMITTER ASSY-OUTBD AIL. SURF. POSITION (RH) (FOR DETAILS SEE FIG. 2)	X	RF
8 8A	65B80863-7 65B80863-13		DELETED .BRACKET	A,D,E ,H,J, L,P,Q ,U	1
-10 -10A	65B80863-6 65B80863-12		DELETED .BRACKET	B,C,F ,G,K, M,N,R ,V	1
15A	NAS623-3-19		ATTACHING PARTS .SCREW	A-R,U ,V	2
20A	BACW10AT23AS		.WASHER- (V10630) (SPEC BACW10AT23AS)	A-R,U ,V	2
25 25A	H10-3BAC MS21042L3		DELETED .NUT	B,D,G ,H,N, P	2
R -25B -25C	MS21042L3 H52732-3CD		DELETED .NUT- (V15653) (SPEC BACN10YR3CD) (OPT PLH53CD (V62554)) -----*	A,C,E ,F, J-M,Q ,R,U, V	2

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FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-30	69-15812-1		.CRANK- (ITEMS 30A AND 35A ARE OPTIONAL TO ITEMS 30 AND 35)	A,C,E ,F	1
30A	69-71007-3		.CRANK- (ITEMS 30A AND 35A ARE OPTIONAL TO ITEMS 30 AND 35)	A,C,E ,F	1
-30B	69-15812-1		.CRANK	G-K	1
-30C	69-71007-3		.CRANK	L-P	1
-30D	69-15812-1		.CRANK- (ITEM 30E WITH ITEMS 50B AND 35E OPTIONAL TO ITEM 30D WITH ITEMS 50A AND 35D)	B,D	1
-30E	69-71007-3		.CRANK- (ITEM 30E WITH ITEMS 50B AND 35E OPTIONAL TO ITEM 30D WITH ITEMS 50A AND 35D)	B,D	1
-30F	69-15812-1		.CRANK- (ITEMS 30G AND 35G ARE OPTIONAL TO ITEMS 30F AND 35F)	Q,R	1
-30G	69-71007-3		.CRANK- (ITEMS 30G AND 35G ARE OPTIONAL TO ITEMS 30F AND 35F)	Q,R	1
-30H	69-15812-2		.CRANK	U,V	1

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FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-35	NAS623-3-16		.SCREW- (ITEMS 30A AND 35A ARE OPTIONAL TO ITEMS 30 AND 35)	A,C,E ,F	1
-35A	NAS623-3-12		.SCREW- (ITEMS 30A AND 35A ARE OPTIONAL TO ITEMS 30 AND 35)	A,C,E ,F	1
-35B	NAS623-3-16		.SCREW	G-K,U ,V	1
-35C	NAS623-3-12		.SCREW	L-P	1
-35D	NAS623-3-16		.SCREW- (ITEM 30E WITH ITEMS 50B AND 35E OPTIONAL TO ITEM 30D WITH ITEMS 50A AND 35D)	B,D	1
-35E	NAS623-3-12		.SCREW- (ITEM 30E WITH ITEMS 50B AND 35E OPTIONAL TO ITEM 30D WITH ITEMS 50A AND 35D)	B,D	1
-35F	NAS623-3-16		.SCREW- (ITEMS 30G AND 35G ARE OPTIONAL TO ITEMS 30F AND 35F)	Q,R	1
-35G	NAS623-3-13		.SCREW- (ITEMS 30G AND 35G ARE OPTIONAL TO ITEMS 30F AND 35F)	Q,R	1
-35H	NAS623-3-13		DELETED		
-35J	NAS623-3-16		DELETED		
40	AN960PD10L		DELETED		
40A	AN960JD10L		.WASHER	B,D,G ,H,N, P	1
R -40B	NAS1149D0332J		.WASHER	A,C,E ,F, J-M,Q ,R,U, V	1

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FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01- -45 45A	H10-3BAC MS21042L3		DELETED .NUT	B,D,G ,H,N, P	1
R -45B -45C	MS21042L3 H52732-3CD		DELETED .NUT- (V15653) (SPEC BACN10YR3CD) (OPT PLH53CD (V62554))	A,C,E ,F, J-M,Q ,R,U, V	1
50A	NAS623-3-10		.SCREW- (ITEM 30E WITH ITEMS 50B AND 35E OPTIONAL TO ITEM 30D WITH ITEMS 50A AND 35D)	B,D	1
-50B	NAS623-3-8		.SCREW- (ITEM 30E WITH ITEMS 50B AND 35E OPTIONAL TO ITEM 30D WITH ITEMS 50A AND 35D)	B,D	1
55	AN960PD10L		DELETED		
55A	AN960JD10L		.WASHER	B,D	1
60	H10-3BAC		DELETED		
60A	MS21042L3		.NUT	B,D	1
145A	13TX0115A		.TRANSMITTER- (V51761) (SPEC 60B40042-3) (OPT 7977-18-01 (V1K426)) (OPT ITEM 145D)	A-D	1

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FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01- -145D	13TX0615A		.TRANSMITTER- (V51761) (OPT ITEMS 145A, 145P) (SPEC 60B40042-7)	A-D	1
-145E	13TX0615A		.TRANSMITTER- (V51761) (SPEC 60B40042-7)	E,F	1
-145G	13TX0615A		.TRANSMITTER- (V51761) (SPEC 60B40042-7) (OPT ITEM 145J)	G-P	1
-145J	H505A		.TRANSMITTER- (V33463) (SPEC S250N104-1) (OPT ITEM 145G)	G-P	1
-145K	H509B		.TRANSMITTER- (V33463) (SPEC S250N104-6) (OPT ZR3A (V51761)) (OPT ITEMS 145L, 145M, 145N, 145Q, 145S, 145U)	Q,R	1
-145L	H505B		.TRANSMITTER- (V33463) (SPEC S250N104-4) (OPT ZR1A (V51761)) (OPT ITEMS 145K, 145M, 145N, 145Q, 145S, 145U)	Q,R	1

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FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01- -145M	13TX0615A		.TRANSMITTER- (V51761) (SPEC 60B40042-7) (OPT ITEMS 145K, 145L, 145N, 145Q, 145S, 145U)	Q,R	1
-145N	13TX0115A		.TRANSMITTER- (V51761) (SPEC 60B40042-3) (OPT 7977-18-01 (V1K426)) (OPT ITEMS 145K, 145L, 145M, 145Q, 145A, 145U)	Q,R	1
-145P	7977-18-01		.TRANSMITTER- (V1K426) (SPEC 60B40042-3) (OPT 13TX0115A (V51761)) (OPT ITEM 145D)	A-D	1
-145Q	7977-18-01		.TRANSMITTER- (V1K426) (SPEC 60B40042-3) (OPT 13TX0115A (V51761)) (OPT ITEMS 145K, 145L, 145M, 145N, 145S, 145U)	Q,R	1
-145R	H509B		.TRANSMITTER- (V33463) (SPEC S250N104-6) (OPT ZR3A (V51761)) (OPT ITEM 145T)	U,V	1

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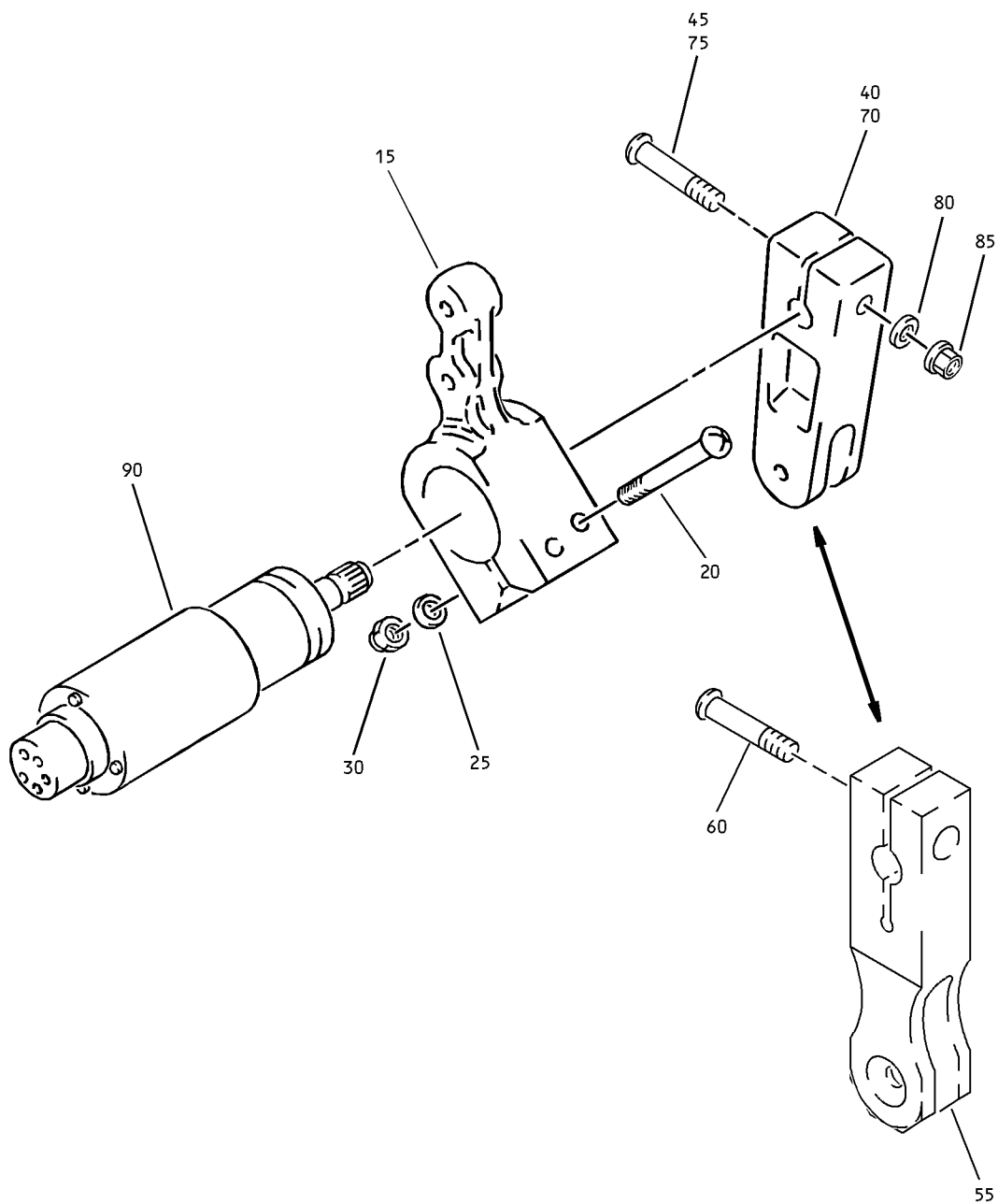


FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE	EFF CODE	QTY PER ASSY
			1234567		
01- -145S	ZR1A		.TRANSMITTER- (V51761) (SPEC S250N104-4) (OPT H505B (V33463)) (OPT ITEMS 145K, 145L, 145M, 145N, 145Q, 145U)	Q,R	1
-145T	ZR3A		.TRANSMITTER- (V51761) (SPEC S250N104-6) (OPT H509B (V33463)) (OPT ITEM 145R)	U,V	1
R -145U	ZR3A		.TRANSMITTER- (V51761) (SPEC S250N104-6) (OPT H509B (V33463)) (OPT ITEMS 145K, 145L, 145M, 145N, 145Q, 145S) BOEING LETTER HISTORY	Q,R	1

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Inboard-Outboard Aileron Surface Position Transmitter Assembly  
Figure 2

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FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
02- -1	251T1011-13		TRANSMITTER ASSY-OUTBD AIL. SURF. POSITION (LH)	S	RF
-1A	251T1011-15		TRANSMITTER ASSY-OUTBD AIL. SURF. POSITION (LH)	W	RF
-5	251T1011-14		TRANSMITTER ASSY-OUTBD AIL. SURF. POSITION (RH)	T	RF
-5A	251T1011-16		TRANSMITTER ASSY-OUTBD AIL. SURF. POSITION (RH)	X	RF
-10	65B80863-12		.BRACKET	S,W	1
15	65B80863-13		.BRACKET	T,X	1
20	NAS623-3-19		ATTACHING PARTS .SCREW	S,T,W ,X	2
25	BACW10AT23AS		.WASHER- (V10630) (SPEC BACW10AT23AS)	S,T,W ,X	2
30	MS21042L3		.NUT	S,T	2
-30A	MS21042L3		.NUT- (OPT ITEM 30B)	W,X	2
-30B	H52732-3CD		.NUT- (V15653) (SPEC BACN10YR3CD) (OPT PLH53CD (V62554)) (OPT ITEM 30A) -----*	W,X	2
R -35	251T1011-20		.KIT ASSY-SUBSTITUTE (OPT ITEM 50)	S,T,W ,X	1
R 40	69-15812-1		..CRANK	S,T,W ,X	1
R 45	NAS623-3-16		..SCREW	S,T,W ,X	1

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FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
02-50	251T1011-19		.KIT ASSY-SUBSTITUTE (OPT ITEM 35)	S,T,W ,X	1
R 55	69-71007-3		..CRANK	S,T,W ,X	1
R 60	NAS623-3-13		..SCREW	S,T,W ,X	1
R -65	251T1011-21		.KIT ASSY-SUBSTITUTE (OPT ITEMS 65A, 65B)	W,X	1
R -65A	251T1011-20		.KIT ASSY-SUBSTITUTE (OPT ITEMS 65, 65B)	W,X	1
R -65B	251T1011-19		.KIT ASSY-SUBSTITUTE (OPT ITEMS 65, 65A)	W,X	1
R 70	69-15812-2		..CRANK- (USED ON ITEM 65)	W,X	1
R -70A	69-15812-1		..CRANK- (USED ON ITEM 65A)	W,X	1
R -70B	69-71007-3		..CRANK- (USED ON ITEM 65B)	W,X	1
R 75	NAS623-3-16		..SCREW- (USED ON ITEMS 65, 65A)	W,X	1
R -75A	NAS623-3-13		..SCREW- (USED ON ITEM 65B)	W,X	1
80	AN960JD10L		.WASHER	S,T,W ,X	1
85	MS21042L3		.NUT	S,T	1
-85A	MS21042L3		.NUT- (OPT ITEM 85B)	W,X	1
-85B	H52732-3CD		.NUT- (V15653) (SPEC BACN10YR3CD) (OPT PLH53CD (V62554)) (OPT ITEM 85A)	W,X	1

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FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
02-90	H509B		.TRANSMITTER- (V33463) (SPEC S250N104-6) (OPT ZR3A (V51761)) (OPT ITEMS 90A, 90B, 90C, 90D, 90F)	S,T	1
-90A	H505B		.TRANSMITTER- (V33463) (SPEC S250N104-4) (OPT ZR1A (V51761)) (OPT ITEMS 90, 90B 90C, 90D, 90F)	S,T	1
-90B	13TX0615A		.TRANSMITTER- (V51761) (SPEC 60B40042-7) (OPT ITEMS 90, 90A, 90C, 90D, 90F)	S,T	1
-90C	13TX0115A		.TRANSMITTER- (V51761) (SPEC 60B40042-3) (OPT 7977-18-01 (V1K426)) (OPT ITEMS 90, 90A, 90B, 92D, 90F)	S,T	1
-90D	7977-18-01		.TRANSMITTER- (V1K426) (SPEC 60B40042-3) (OPT 13TX0115A (V51761)) (OPT ITEMS 90, 90A, 90B, 90C, 90F)	S,T	1

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FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
02- -90E	H509B		.TRANSMITTER- (V33463) (SPEC S250N104-6) (OPT ZR3A (V51761)) (OPT ITEM 90G)	W,X	1
-90F	ZR1A		.TRANSMITTER- (V51761) (SPEC S250N104-4) (OPT H505B (V33463)) (OPT ITEMS 90, 90A, 90B, 90C, 90D)	S,T	1
-90G	ZR3A		.TRANSMITTER- (V51761) (SPEC S250N104-6) (OPT H509B (V33463)) (OPT ITEM 90E)	W,X	1

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