

COMPONENT MAINTENANCE MANUAL WITH ILLUSTRATED PARTS LIST

STABILIZER TRIM COLUMN ACTUATED CUTOUT SWITCH ASSEMBLY

PART NUMBER 65C25529–11, –12, –15, –16, –19, –21, –22, –23, –24, –25, –26, –27, –6, –7

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Page 1 Jul 01/2009



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To: All holders of STABILIZER TRIM COLUMN ACTUATED CUTOUT SWITCH ASSEMBLY 27-41-91.

Attached is the current revision to this COMPONENT MAINTENANCE MANUAL

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COMPONENT MAINTENANCE MANUAL

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Subject/Page	Date	Subject/Page	Date	Subject/Page	Date
TITLE PAGE		27-41-91 TESTIN	G AND FAULT	27-41-91 ASSEM	BLY (cont)
0 1	Jul 01/2009	ISOLATION (con	it)	702	Mar 01/2006
2	BLANK	108	Jul 01/2006	703	Mar 01/2006
27-41-91 TRANS	MITTAL LETTER	109	Jul 01/2006	704	Mar 01/2006
0 1	Jul 01/2009	110	Jul 01/2006	705	Mar 01/2006
2	BLANK	27-41-91 DISASS	EMBLY	706	Mar 01/2006
27-41-91 HIGHLI	GHTS	301	Mar 01/2006	707	Mar 01/2006
0 1	Jul 01/2009	302	BLANK	708	BLANK
2	BLANK	27-41-91 CLEANI	NG	27-41-91 FITS AN	ND CLEARANCES
27-41-91 EFFECT	TIVE PAGES	401	Mar 01/2006	801	Mar 01/2006
1	Jul 01/2009	402	BLANK	802	BLANK
2	BLANK	27-41-91 CHECK		27-41-91 SPECIA	L TOOLS, FIXTURES,
- 27-41-91 CONTE	NTS	501	Mar 01/2006	AND EQUIPMEN	IT
1	Mar 01/2006	502	Mar 01/2006	901	Mar 01/2009
2	BLANK	27-41-91 REPAIR	- GENERAL	902	BLANK
- 27-41-91 TR AND	SB BECOBD	601	Mar 01/2006	27-41-91 ILLUST	RATED PARTS LIST
1	Mar 01/2006	602	Mar 01/2006	1001	Nov 01/2008
2	BI ANK	27-41-91 REPAIR	1-1	1002	Jul 01/2006
27_41_91_REV/ISI		601	Nov 01/2006	1003	Mar 01/2006
1	Mar 01/2006	602	Jul 01/2007	1004	Mar 01/2006
2	Mar 01/2006	27-41-91 REPAIR	2-1	1005	Mar 01/2006
27_41_91_BECOR		601	Nov 01/2006	1006	Mar 01/2006
REVISIONS		602	Jul 01/2007	1007	Mar 01/2006
1	Mar 01/2006	27-41-91 REPAIR	3-1	1008	Mar 01/2006
2	Mar 01/2006	601	Nov 01/2006	1009	Mar 01/2006
27-41-91 INTROE	DUCTION	602	BLANK	1010	Mar 01/2006
1	Mar 01/2009	27-41-91 REPAIR	4-1	1011	Mar 01/2006
2	BLANK	601	Nov 01/2006	1012	Mar 01/2006
27-41-91 DESCR	IPTION AND	602	BLANK	1013	Mar 01/2006
OPERATION		27-41-91 REPAIR	5-1	1014	Mar 01/2006
1	Mar 01/2006	601	Nov 01/2006	1015	Mar 01/2006
2	BLANK	602	BLANK	1016	Mar 01/2006
27-41-91 TESTIN	G AND FAULT	27-41-91 REPAIR	6-1	1017	Mar 01/2006
101	Nov 01/2006	601	Mar 01/2006	1018	Mar 01/2006
101	NUV 01/2000	602	BLANK	1019	Mar 01/2006
102		27-41-91 REPAIR	7-1	1020	BLANK
103		601	Jul 01/2006		
104	Jul 01/2000	602	BLANK		
105	Jul 01/2000	27-41-91 ASSEM	BLY		
100	Jul 01/2000	701	Nov 01/2006		
107	JUI 01/2006				

A = Added, R = Revised, D = Deleted, O = Overflow



65C25529



COMPONENT MAINTENANCE MANUAL

TABLE OF CONTENTS

Paragraph Title		Page
STABILIZER TRIM CONTROL COLUMN ACTUATED SWITCH - CUTOUT SWITCH ASSEMBLY - DESCRIPTION AND OPERATI	ON	1
TESTING AND FAULT ISOLATION		101
DISASSEMBLY		301
CLEANING		401
CHECK		501
REPAIR		601
ASSEMBLY		701
FITS AND CLEARANCES	(Not Applicable)	
SPECIAL TOOLS, FIXTURES, AND EQUIPMENT		901
ILLUSTRATED PARTS LIST		1001





TEMPORARY REVISION AND SERVICE BULLETIN RECORD

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All revisions to this manual will be accompanied by transmittal sheet bearing the revision number. Enter the revision number in numerical order, together with the revision date, the date filed and the initials of the person filing.

Revision		Filed		Revision		Filed	
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27-41-91 REVISION RECORD Page 1

Mar 01/2006



Rev	Revision Filed		Revision		Filed		
Number	Date	Date	Initials	Number	Date	Date	Initials

27-41-91 REVISION RECORD Page 2 Mar 01/2006



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Temporary	Revision	Ins	serted	Rei	moved	Tempora	ary Revision	Inser	ted	Rer	noved
Number	Date	Date	Initials	Date	Initials	Date	Initials	Number	Date	Date	Initials

27-41-91 RECORD OF TEMPORARY REVISION Page 1 Mar 01/2006



Temporary	Revision	Ins	serted	Rer	moved	Tempora	ary Revision	Inser	ted	Rer	noved
Number	Date	Date	Initials	Date	Initials	Date	Initials	Number	Date	Date	Initials

27-41-91 RECORD OF TEMPORARY REVISION Page 2 Mar 01/2006



INTRODUCTION

1. General

- A. The instructions in this manual supply the data necessary to do the maintenance functions together with the test, fault isolation, repair, and replacement of the defective parts.
- B. This manual is divided into different parts:
 - (1) Title Page
 - (2) Transmittal Letter
 - (3) Highlights
 - (4) List of Effective Pages
 - (5) Table of Contents
 - (6) Temporary Revision & Service Bulletin Record
 - (7) Record of Revisions
 - (8) Record of Temporary Revisions
 - (9) Introduction
 - (10) Procedures & IPL Sections
- C. Components that can be repaired have a different repair number for each specified repair. To find the repair number location of a component, look in the Repair-General procedure at the beginning of the REPAIR section. The Repair-General procedure also has an explanation of the True Position Dimension symbols used.
- D. All dimensions, measures, quantities and weights included are in English units. When metric equivalents are given they will be in the parentheses that follow the English units.
- E. The introduction to the Illustrated Parts List (IPL) shows how the IPL data is used.
- F. Design changes, optional parts, configuration differences and Service Bulletin modifications may cause different part numbers. These part numbers are identified in the IPL with an alphabetical letter which is added to the end of the basic item number. This new item number is referred to as an alpha-variant. Throughout the manual, IPL basic item number references also apply to alpha-variants unless shown differently.
- G. The tool reference numbers found in the individual procedures and in the Special Tools, Fixtures, and Equipment section are used to identify if a tool is a standard tool (STD-XXXX), a commercial tool (COM-XXXX), or a Special Tool (SPL-XXXX). This reference number is also used to distinguish between tools with similar names in the same procedure. These reference numbers are for use in the documentation only. They are not to be used for ordering tools.





STABILIZER TRIM CONTROL COLUMN ACTUATED SWITCH - CUTOUT SWITCH ASSEMBLY - DESCRIPTION AND OPERATION

1. Description

- A. The cutout switch assembly consists of 12 switches and 4 relays all attached to the wire bundle assembly. The switches and relays are mounted inside the mechanism assembly.
- B. The mechanism assembly consists of a cam attached to a shaft assembly. An input lever assembly with controlled shearout joint attaches to a gear and drives the cam to actuate the switches.

2. Operation

- A. The cutout switch assembly interrupts power to the main and autopilot trim motor and clutch when control column is moved in a direction opposing electrical trim.
- B. The cutout switch assembly also provides a signal to the flight control computer A and B modules when switches have been actuated.

3. Leading Particulars (Approximate)

- A. Length –7 inches
- B. Width 3 inches
- C. Height 6 inches
- D. Weight 3 pounds





TESTING AND FAULT ISOLATION

1. <u>Test</u>

A. Tools/Equipment

NOTE: Equivalent substitutes may be used.

Reference	Description
SPL-5372	Test Equipment - Stabilizer Trim Control Cutout Switch (Part #: C27006-48, Supplier: 81205)
SPL-5374	Test Equipment - Stabilizer Trim Control Cutout Switch (Part #: C27006-42, Supplier: 81205)
SPL-6044	Test Fixture Assembly (C27006-24 included in C27006-47 & C27006- 48) (Part #: C27006-48, Supplier: 81205) (Opt Part #: C27006-47, Supplier: 81205)
SPL-6045	Test Fixture Assembly (C27006-13 included in C27006-42) (Part #: C27006-42, Supplier: 81205)
SPL-6046	Test Box Assembly (C27006-43 included in C27006-42) (Part #: C27006-42, Supplier: 81205)

B. General

- (1) This procedure has the data necessary to do a test of the stabilizer trim column cutout switch assembly (1A) after an overhaul or for fault isolation.
- (2) Refer to the Standard Overhaul Practices Manual (SOPM) for the SOPM subjects identified in this procedure.
- (3) Refer to IPL Figure 1 for item numbers.

C. Test Procedure

(1) Install switch assembly (1, IPL Figure 1) in C27006-24 test fixture assembly, SPL-6044 or C27006-13 test fixture assembly, SPL-6045. The C27006-13 test fixutre assembly is part of the C27006-42 stabilizer trim control cutout switch, SPL-5374. The C27006-24 test fixutre assembly is part of the C27006-48 test equipment, SPL-5372. See TESTING AND FAULT ISOLATION, Figure 101.

NOTE: Clockwise and counterclockwise rotation of lever assembly (165) are as viewed from the lever side of the switch assembly.

- (2) Check full travel (TESTING AND FAULT ISOLATION, Figure 102).
 - (a) Rotate lever assembly clockwise until internal stop is contacted. Check that lever position is 33.5°-35.5° from rig position.
 - (b) Rotate lever assembly counterclockwise until internal stop is contacted. Check that lever position is 34.5°-36.5° from rig position.
 - (c) Check that lever rotation is smooth and free of binding throughout entire travel.
- (3) Check the operation of the switches.
 - (a) Preparation.
 - 1) Connect switch assembly to C27006-43 test box assembly, SPL-6046.

27-41-91 TESTING AND FAULT ISOLATION Page 101 Nov 01/2006



- 2) Set all switches to OFF (TESTING AND FAULT ISOLATION, Figure 103).
- 3) Set POWER switch to ON (POWER light is ON, all other lights are OFF).

NOTE: POWER light will remain ON for remainder of test.

- (b) Check MAIN STAB TRIM CLUTCH CUTOUT.
 - 1) Set MAIN STAB TRIM CLUTCH CUTOUT switch to ON (MAIN STAB TRIM CLUTCH AFT, FWD, and CLUTCH CUTOUT lights are ON).
 - Rotate input lever counterclockwise until MAIN STAB TRIM CLUTCH AFT light goes OFF (CLUTCH FWD light remains ON). Check that lever position is 7.0°-8.2° from rig position.
 - 3) Rotate input lever clockwise until MAIN STAB TRIM CLUTCH FWD light goes OFF (CLUTCH AFT light remains ON). Check that lever position is 4.8°-6.0° from rig position.
 - 4) Set MAIN STAB TRIM CLUTCH CUTOUT switch to OFF.
- (c) Check MAIN STAB TRIM MOTOR CUTOUT.
 - 1) Set MAIN STAB TRIM MOTOR CUTOUT switch to ON (MAIN STAB TRIM MOTOR and MOTOR CUTOUT lights are ON).
 - 2) Rotate input lever counterclockwise until MAIN STAB TRIM MOTOR light goes OFF. Check that lever position is 7.0°-8.2° from rig position.
 - 3) Rotate input lever clockwise until MAIN STAB TRIM MOTOR light goes OFF. Check that lever position is 4.8°-6.0° from rig position.
 - 4) Set MAIN STAB TRIM MOTOR CUTOUT switch to OFF.
- (d) Check MAIN STAB TRIM RELAY.
 - 1) Set MAIN STAB TRIM RELAY switch to ON (MAIN STAB TRIM CLUTCH AFT, FWD, MOTOR, CLUTCH CUTOUT, and RELAY lights are ON).
 - Rotate input lever counterclockwise to full travel. Check that MAIN STAB TRIM -CLUTCH AFT, FWD, MOTOR and RELAY lights are ON, and that the CLUTCH CUTOUT goes OFF.
 - Rotate input lever clockwise to full travel. Check that MAIN STAB TRIM CLUTCH AFT, FWD, MOTOR and RELAY lights are ON, and that the CLUTCH CUTOUT light comes ON.
 - 4) Set MAIN STAB TRIM RELAY switch to OFF.
- (e) Check MAIN STAB TRIM ground continuity
 - 1) Check that there is continuity between P2-7 and ground.
- (f) Check AUTOPILOT STAB TRIM CLUTCH CUTOUT.
 - 1) Set AUTOPILOT STAB TRIM CLUTCH CUTOUT switch to ON (AUTOPILOT STAB TRIM CLUTCH and CLUTCH CUTOUT lights are ON).
 - Rotate input lever counterclockwise until AUTOPILOT STAB TRIM CLUTCH light goes OFF. Check that lever position is 7.0°-8.2° from rig position.
 - 3) Rotate input lever clockwise until AUTOPILOT STAB TRIM CLUTCH light goes OFF. Check that lever position is 4.8°-6.0° from rig position.
 - 4) Set AUTOPILOT STAB TRIM CLUTCH CUTOUT switch to OFF.
- (g) Check AUTOPILOT STAB TRIM MOTOR CUTOUT.

27-41-91 TESTING AND FAULT ISOLATION Page 102 Jul 01/2006



- 1) Set AUTOPILOT STAB TRIM MOTOR CUTOUT switch to ON (AUTOPILOT STAB TRIM MOTOR AFT, FWD, and MOTOR CUTOUT lights are ON).
- 2) Rotate input lever counterclockwise until AUTOPILOT STAB TRIM MOTOR AFT light goes OFF (MOTOR FWD light remains ON). Check that lever position is 7.0°-8.2° from rig position.
- Rotate input lever clockwise until AUTOPILOT STAB TRIM MOTOR FWD light goes OFF (MOTOR AFT light remains ON). Check that lever position is 4.8°-6.0° from rig position.
- 4) Set AUTOPILOT STAB TRIM MOTOR CUTOUT switch to OFF.
- (h) Check AUTOPILOT STAB TRIM RELAY.
 - 1) Set AUTOPILOT STAB TRIM RELAY switch to ON (AUTOPILOT STAB TRIM CLUTCH and RELAY lights are ON).
 - Rotate input lever counterclockwise until AUTOPILOT STAB TRIM MOTOR AFT and FWD lights come ON (CLUTCH light remains ON). Check that lever position is 7.0°-8.2° from rig position.
 - Rotate input lever clockwise until AUTOPILOT STAB TRIM MOTOR AFT and FWD lights come ON (CLUTCH light remains ON). Check that lever position is 4.8°-6.0° from rig position.
 - 4) Set AUTOPILOT STAB TRIM RELAY switch to OFF.
- (i) Check AUTOPILOT STAB TRIM ground continuity
 - 1) Check that there is continuity between P1-9 and test box ground.
- (j) Check Flight Control Computer A input.
 - 1) Set FCC A INPUT switch to ON (FCC A AFT, A FWD, and FCC A INPUT lights are ON).
 - 2) Rotate input lever counterclockwise until FCC A AFT light goes OFF (FCC A FWD light remains ON). Check that lever position is 7.0°-8.2° from rig position.
 - Rotate input lever clockwise until FCC A FWD light goes OFF (FCC A AFT light remains ON). Check that lever position is 4.8°-6.0° from rig position.
 - 4) Set FCC A INPUT switch to OFF.
- (k) Check Flight Control Computer B input.
 - 1) Set FCC B INPUT switch to ON (FCC B AFT, B FWD, and FCC B INPUT lights are ON).
 - 2) Rotate input lever counterclockwise until FCC B AFT light goes OFF (FCC B FWD light remains ON). Check that lever position is 7.0°-8.2° from rig position.
 - Rotate input lever clockwise until FCC B FWD light goes OFF (FCC B AFT light remains ON). Check that lever position is 4.8°-6.0° from rig position.
 - 4) Set FCC B INPUT switch to OFF.
- (I) Check main stab autopilot override.
 - 1) Set AUTOPILOT STAB TRIM RELAY switch to ON (AUTOPILOT STAB TRIM CLUTCH, and AUTOPILOT STAB TRIM RELAY lights are ON).
 - Set MAIN STAB TRIM CLUTCH CUTOUT switch to ON. (MAIN STAB TRIM CLUTCH AFT and FWD, and MAIN STAB TRIM - CLUTCH CUTOUT lights are ON. AUTOPILOT STAB TRIM - CLUTCH light is OFF.)

TESTING AND FAULT ISOLATION Page 103 Jul 01/2006

27-41-91



- 3) Rotate input lever counterclockwise to full travel. Check that MAIN STAB TRIM -CLUTCH FWD, AUTOPILOT STAB TRIM - MOTOR AFT, AUTOPILOT STAB TRIM -MOTOR FWD, MAIN STAB TRIM - CLUTCH CUTOUT, and AUTOPILOT STAB TRIM -RELAY lights are ON; MAIN STAB TRIM - CLUTCH AFT light goes OFF and AUTOPILOT STAB TRIM - CLUTCH light remains OFF.
- 4) Rotate input lever clockwise to full travel. Check that MAIN STAB TRIM CLUTCH AFT, MAIN STAB TRIM - CLUTCH CUTOUT, AUTOPILOT STAB TRIM - MOTOR AFT and FWD, and AUTOPILOT STAB TRIM - RELAY lights are ON; MAIN STAB TRIM - CLUTCH FWD light goes OFF and AUTOPILOT STAB TRIM - CLUTCH light remains OFF.
- 5) Set MAIN STAB TRIM CLUTCH CUTOUT switch and AUTOPILOT STAB TRIM RELAY switch to OFF.
- (m) After the test is completed, set all switches to OFF and disconnect the test equipment from the switch assembly.

TROUBLE	PROBABLE CAUSE	CORRECTION
TESTING AND FAULT ISOLATION, Paragraph 1.C.(2)(a), TESTING AND FAULT ISOLATION, Paragraph 1.C.(2)(b), TESTING AND FAULT ISOLATION, Paragraph 1.C.(2)(c)	Defective gear (240), shaft assy (245), or cam (270).	Disassemble and replace defective part per TESTING AND FAULT ISOLATION, Paragraph 2.A.
TESTING AND FAULT ISOLATION, Paragraph 1.C.(3)(b)2)	Defective switch S10.	Replace defective switch per TESTING AND FAULT ISOLATION, Paragraph 2.B.
TESTING AND FAULT ISOLATION, Paragraph 1.C.(3)(b)3)	Defective switch S4.	Replace defective switch per TESTING AND FAULT ISOLATION, Paragraph 2.B.
TESTING AND FAULT ISOLATION, Paragraph 1.C.(3)(c)2)	Defective switch S8.	Replace defective switch per TESTING AND FAULT ISOLATION, Paragraph 2.B.
TESTING AND FAULT ISOLATION, Paragraph 1.C.(3)(c)3)	Defective switch S2.	Replace defective switch per TESTING AND FAULT ISOLATION, Paragraph 2.B.
TESTING AND FAULT ISOLATION, Paragraph 1.C.(3)(d)2)	Defective relay K4 or socket XK4 (CHECK, Figure 501).	Replace defective part (65, 70) TESTING AND FAULT ISOLATION, Paragraph 2.C.
TESTING AND FAULT ISOLATION, Paragraph 1.C.(3)(d)3)	Defective relay K3 or socket XK3 (CHECK, Figure 501).	Replace defective part (65, 70) per TESTING AND FAULT ISOLATION, Paragraph 2.C.

Table 101: Trouble Shooting Chart

27-41-91 TESTING AND FAULT ISOLATION Page 104 Jul 01/2006



Table 101: Trouble Shooting Chart (Continued)

TROUBLE	PROBABLE CAUSE	CORRECTION
TESTING AND FAULT ISOLATION, Paragraph 1.C.(3)(f)2)	Defective switch S11.	Replace defective switch per TESTING AND FAULT ISOLATION, Paragraph 2.B.
TESTING AND FAULT ISOLATION, Paragraph 1.C.(3)(f)3)	Defective switch S5.	Replace defective switch per TESTING AND FAULT ISOLATION, Paragraph 2.B.
TESTING AND FAULT ISOLATION, Paragraph 1.C.(3)(g)2)	Defective switch S9.	Replace defective switch per TESTING AND FAULT ISOLATION, Paragraph 2.B.
TESTING AND FAULT ISOLATION, Paragraph 1.C.(3)(g)3)	Defective switch S3.	Replace defective switch per TESTING AND FAULT ISOLATION, Paragraph 2.B.
TESTING AND FAULT ISOLATION, Paragraph 1.C.(3)(h)2)Light L5 goes OFF	Defective relay K2 or socket XK2 (CHECK, Figure 501).	Replace defective part (65, 70) per TESTING AND FAULT ISOLATION, Paragraph 2.C.
TESTING AND FAULT ISOLATION, Paragraph 1.C.(3)(h)3)Light L5 goes OFF	Defective relay K1 or socket XK1 (CHECK, Figure 501).	Replace defective part (65, 70) per TESTING AND FAULT ISOLATION, Paragraph 2.C.
TESTING AND FAULT ISOLATION, Paragraph 1.C.(3)(j)2)	Defective switch S7.	Replace defective switch per TESTING AND FAULT ISOLATION, Paragraph 2.B.
TESTING AND FAULT ISOLATION, Paragraph 1.C.(3)(j)3)	Defective switch S1.	Replace defective switch per TESTING AND FAULT ISOLATION, Paragraph 2.B.
TESTING AND FAULT ISOLATION, Paragraph 1.C.(3)(k)2)	Defective switch S12.	Replace defective switch per TESTING AND FAULT ISOLATION, Paragraph 2.B.
TESTING AND FAULT ISOLATION, Paragraph 1.C.(3)(k)3)	Defective switch S6.	Replace defective switch per TESTING AND FAULT ISOLATION, Paragraph 2.B.
TESTING AND FAULT ISOLATION, Paragraph 1.C.(3)(I)2)	Defective relay K3 or K4, or socket.	Replace defective part (65, 70) per TESTING AND FAULT ISOLATION, Paragraph 2.C.
TESTING AND FAULT ISOLATION, Paragraph 1.C.(3)(I)3)	Defective relay K3 or socket.	Replace defective part (65, 70) per TESTING AND FAULT ISOLATION, Paragraph 2.C.
TESTING AND FAULT ISOLATION, Paragraph 1.C.(3)(I)4)	Defective relay K4 or socket.	Replace defective part (65, 70) per TESTING AND FAULT ISOLATION, Paragraph 2.C.

27-41-91 TESTING AND FAULT ISOLATION Page 105 Jul 01/2006



Table 101: Trouble Shooting Chart (Continued)

	TROUBLE	PROBABLE CAUSE	CORRECTION
NOTE:	Trouble shooting is keyed to the test step.		







C27006-47 Test Equipment Figure 101

> 27-41-91 TESTING AND FAULT ISOLATION Page 107 Jul 01/2006





BOLT -- MS90726-5 WASHER -- NAS1149F0463P (OPTIONAL: AN960-416)

> C27006-24 Test Fixture Figure 102

> > 27-41-91 TESTING AND FAULT ISOLATION Page 108 Jul 01/2006





C27006-43 Test Box Figure 103

> **27-41-91** TESTING AND FAULT ISOLATION Page 109 Jul 01/2006

65C25529



COMPONENT MAINTENANCE MANUAL

2. Corrective Procedures

- A. Replace gear (240), shaft assembly (245) or cam (270C).
 - (1) Completely disassemble unit per DISASSEMBLY and replace defective parts.
 - (2) Assemble parts per ASSEMBLY and retest unit per TESTING AND FAULT ISOLATION, Paragraph 1.C..
- B. Replace defective switches (100).
 - (1) Remove bolts (5, 20), washers (10, 25) and covers (15, 30).
 - (2) Remove screws (75A), covers (80) and springs (85).
 - (3) Remove pins (90) and expose switches and wire bundle assembly (120A).
 - (4) Replace defective switch(es).
 - (5) Position switches in housing assembly (280) and install pins (90).
 - (6) Install springs (85), covers (80) and screws (75A).
 - (7) Install covers (15, 30), washers (10, 25) and bolts (5, 20).
 - (8) Retest unit per TESTING AND FAULT ISOLATION, Paragraph 1.C..
- C. Replace relays (65) or sockets (70).
 - (1) Remove bolts (5), washers (10) and cover (15).
 - (2) Remove bolts (50), washers (55) and carefully pull the relay mount (60) out of housing assembly (280).
 - (3) Replace defective part(s).
 - (4) Install relay mount (60) in housing assembly (280) and secure with bolts (50), washers (55).
 - (5) Install cover (15) and secure with bolts (5), washers (10).
 - (6) Retest unit per TESTING AND FAULT ISOLATION, Paragraph 1.C..





DISASSEMBLY

1. General

A. See TESTING AND FAULT ISOLATION to establish the condition of the component or most probable cause of its malfunction. This is to determine the extent of disassembly required without completely tearing down and rebuilding the component.

2. Parts Replacement

- **NOTE**: The following parts are recommended for replacement. Unless otherwise specified, actual replacement of parts may be based on in-service experience.
- A. Nuts (35, 105, 145, 200 or 200A)

3. Disassembly (IPL Figure 1)

- A. Remove bolts (5, 20), washers (10, 25) and covers (15, 30).
- B. Remove nuts (35), washers (40), bolts (45).
- C. Remove bolts (50), washers (55) and relay mount (60).
- D. Remove screws (75A), covers (80) and springs (85).
- E. Tap out pins (90) and rest switches (100) on the bottom of housing assembly (280).
- F. Remove nuts (310), washers (315) and bolts (115). Remove wire bundle assembly (120A) with attached relays (65) and switches (100) from housing assembly (280).
- G. Separate relays (65), mount (60) and sockets (70). Do not detach wires from relay sockets (70), switches (100) or connectors (125, 130) unless replacement of parts is required.
- H. Remove nut (162), washers (163), bolt (164) and lever assembly (165) from gear (240).

NOTE: Do not disassemble lever assembly unless necessary for repair or replacement.

- I. Remove nuts (200 or 200A), washers (205 or 205A), screws (210 or 210A) and remove cover assembly (195). Remove bearings (230, 235).
- J. Remove gear (240), shaft assembly (245) with attached cam (270C) and bearings (275) from housing assembly (280).
 - **NOTE**: Do not separate cam (270C) from shaft assembly (245), disassemble housing assembly (280) or remove markers (135, 140) unless necessary for repair or replacement.





CLEANING

1. General

- A. This procedure has the data necessary to clean the stabilizer trim column switch assembly.
- B. Refer to the Standard Overhaul Practices Manual (SOPM) for the SOPM subjects identified in this procedure.

2. Cleaning

A. References

Reference	Title
SOPM 20-30-03	GENERAL CLEANING PROCEDURES

B. Procedure

- (1) Clean all parts except teflon sealed bearings using standard industry practices and information contained in SOPM 20-30-03.
- (2) Clean teflon sealed bearings according to manufacturer's instructions.





CHECK

1. General

- A. This procedure has the data necessary to find defects in the material of the specified parts.
- B. Refer to the Standard Overhaul Practices Manual (SOPM) for the SOPM subjects identified in this procedure.
- C. Refer to IPL Figure 1 for item numbers.

2. Check

A. References

Reference	Title
SOPM 20-20-01	MAGNETIC PARTICLE INSPECTION
SOPM 20-20-02	PENETRANT METHODS OF INSPECTION

B. Procedure

- (1) Check all parts for obvious defects in accordance with standard industry practices.
- (2) Check wire bundle assembly (120A) for continuity (CHECK, Figure 501).
- (3) Magnetic particle check per SOPM 20-20-01 Pin (90A), fitting (180), arm (185), gear (240), shaft (260).
- (4) Penetrant check per SOPM 20-20-02 Pin (90), cover (225), cam (270C), housing (305).











Wire Bundle Details Figure 501

> 27-41-91 CHECK Page 502 Mar 01/2006



REPAIR

1. General

A. Instructions for repair, refinish, and replacement of the specified subassembly parts are included in each REPAIR when applicable:

Table 601:			
P/N	NAME	REPAIR	
65C25539	COVER	1-1	
65C25540	HOUSING	2-1	
65C25551 65C31205	MOUNT, RELAY	3-1	
69-73309	LEVER	4-1	
69-73314	PIN	5-1	
69-73400	SHAFT, PINION	6-1	
	MISC. PARTS REFINISH	7-1	

2. Standard Practices

- A. Refer to the Standard Overhaul Practice Manual (SOPM) for the SOPM subjects identified in these procedures.
 - SOPM 20-30-02 Stripping of Protective Finishes
 - SOPM 20-30-03 General Cleaning Procedures
 - SOPM 20-41-01 Decoding Table for Boeing Finish Codes
 - SOPM 20-41-02 Application of Chemical and Solvent Resistant Finishes
 - SOPM 20-43-01 Chromic Acid Andozing
 - SOPM 20-42-03 Hard Chrome Plating
 - SOPM 20-60-02 Finishing Materials

3. Materials

NOTE: Equivalent substitutes may be used.

- A. Primer primer, C00259 BMS 10-11, Ttype 1
- B. Enamel coating, C00260 BMS 10-11, Type 2

4. Dimensioning Symbols

A. Standard True Position Dimensioning Symbols used in the applicable repair procedures are shown in REPAIR-GENERAL, Figure 601.



_	STRAIGHTNESS		Ф	THEORETICAL OF A FEATURE	EXACT POSITION (TRUE POSITION)
	FLATNESS		Ø	DIAMETER	
⊥ 	PERPENDICULA	RITY (OR SQUARENESS)	sŐ	SPHERICAL DI	AMETER
//	PARALLELISM		R	RADIUS	
0	ROUNDNESS		SR	SPHERICAL RA	ADIUS
Ø	CYLINDRICITY		0	REFERENCE	
\cap	PROFILE OF A	LINE	BASIC	A THEORETICA	ALLY EXACT DIMENSION USED
	PROFILE OF A	SURFACE	(BSC)	TO DESCRIBE	SIZE, SHAPE OR LOCATION
0	CONCENTRICIT	Y	OR	OF A FEATURE	E FROM WHICH PERMISSIBLE
=	SYMMETRY		DIM	ON OTHER DIM	MENSIONS OR NOTES.
۷	ANGULARITY		-A-	DATUM	
7	RUNOUT		(M)	MAXIMUM MATE	ERIAL CONDITION (MMC)
11	TOTAL RUNOUT		Ū	LEAST MATERI	AL CONDITION (LMC)
ш	COUNTERBORE	OR SPOTFACE	\$	REGARDLESS C	OF FEATURE SIZE (RFS)
\sim	COUNTERSINK		P	PROJECTED TO	DLERANCE ZONE
			FIM	FULL INDICAT	OR MOVEMENT
			TIR	TOTAL INDICA	ATOR READING
		<u>EX/</u>	AMPLES		
	- 0.002	STRAIGHT WITHIN 0.002	0	Ø0.0005 C	CONCENTRIC TO C WITHIN 0.0005 DIAMETER
[⊥ 0.002 в	PERPENDICULAR TO B WITHIN 0.002		= 0.010 A	SYMMETRICAL WITH A WITHIN 0.010
[.	// 0.002 A	PARALLEL TO A WITHIN 0.002		∠ 0.005 A	ANGULAR TOLERANCE 0.005 WITH A
	0.002	ROUND WITHIN 0.002	₽Ø	0.002 🕥 в	LOCATED AT TRUE POSITION WITHIN 0.002 DIA RELATIVE
	0.010	CYLINDRICAL SURFACE MUST LIE			FEATURE SIZE
		DERS, ONE OF WHICH HAS A RADIUS 0.010 INCH GREATER THAN	ШØ	0.010 M A	AXIS IS TOTALLY WITHIN A
		THE OTHER	0.51	0 P	CYLINDER OF 0.010-INCH
Ĺ	∩0.006 A	EACH LINE ELEMENT OF THE SURFACE AT ANY CROSS SECTION MUST LIE BETWEEN TWO PROFILE			AND EXTENDING 0.510-INCH ABOVE, DATUM A, MAXIMUM MATERIAL CONDITION
		RELATIVE TO DATUM PLANE A		2.000 OR	THEORETICALLY EXACT DIMENSION IS 2.000
4	⊃0.020 A	SURFACES MUST LIE WITHIN PARALLEL BOUNDARIES 0.02 INCH APART AND EQUALLY DISPOSED ABOUT TRUE PROFILE		2.000 BSC	
<u>NOT</u>	<u>e</u> : datum may	APPEAR AT EITHER SIDE OF TOLERANC	E FRAME	0.020 A A 0.020	

True Position Dimensioning Symbols Figure 601

> 27-41-91 REPAIR - GENERAL Page 602 Mar 01/2006



COVER - REPAIR 1-1

65C25539-3, -4, -6

1. General

- A. This procedure has the data necessary to refinish the cover (IPL Figure 1, 225).
- B. Refer to REPAIR-GENERAL, Paragraph 2. for the Standard Overhaul Practices Manual (SOPM) subjects identified in this procedure.
- C. Refer to REPAIR-GENERAL, Paragraph 3. for the description of the consumable codes identified in this procedure.
- D. Refer to IPL Figure 1 for item numbers.

2. Plating Repair

A. For the repair of surfaces which is only the replacement of the original finish , refer to REFINISH instructions on REPAIR 1-1, Figure 601.



ALL DIMENSIONS ARE IN INCHES

Cover Refinish Figure 601 (Sheet 1 of 2)

> 27-41-91 REPAIR 1-1 Page 601 Nov 01/2006





A-A

<u>REFINISH</u>

HOLES

CHROMIC ACID ANODIZE AND APPLY 1 COAT OF PRIMER (F-18.13) EXCEPT OMIT PRIMER IN AREA INDICATED BY FOR COVER ASSEMBLIES 65C25539-7,-8,-9 ONLY, ALSO APPLY 1 COAT OF ENAMEL (F-21.03) TO ALL

EXTERIOR SURFACES EXCEPT OMIT ENAMEL FROM

MATERIAL: AL ALLOY ALL DIMENSIONS ARE IN INCHES

65025539-3,-4,-6

Cover Refinish Figure 601 (Sheet 2 of 2)

> 27-41-91 REPAIR 1-1 Page 602 Jul 01/2007



HOUSING - REPAIR 2-1

65C25540-3, -4, -6, -15, --16,

1. General

- A. This procedure has the data necessary to refinish the housing (IPL Figure 1, 305).
- B. Refer to REPAIR-GENERAL, Paragraph 2. for the Standard Overhaul Practices Manual (SOPM) subjects identified in this procedure.
- C. Refer to REPAIR-GENERAL, Paragraph 3. for the description of the consumable codes identified in this procedure.
- D. Refer to IPL Figure 1 for item numbers.

2. Plating Repair

A. For the repair of surfaces which is only the replacement of the original finish , refer to REFINISH instructions on REPAIR 2-1, Figure 601.



ALL DIMENSIONS ARE IN INCHES

65C25540-3,-4,-6,-15,-16 Housing Refinish Figure 601 (Sheet 1 of 2)

> 27-41-91 REPAIR 2-1 Page 601 Nov 01/2006





A-A

<u>REFINISH</u>

CHROMIC ACID ANODIZE AND APPLY 1 COAT OF PRIMER (F-18.13) EXCEPT OMIT PRIMER IN AREA INDICATED BY FOR HOUSING ASSEMBLIES 65C25540-7,-8,-9,-13,-14 ONLY, ALSO APPLY 1 COAT OF ENAMEL (F-21.03) TO ALL EXTERIOR SURFACES EXCEPT OMIT ENAMEL FROM HOLES AND MOUNTING FAYING SURFACE

MATERIAL: AL ALLOY ALL DIMENSIONS ARE IN INCHES

65C25540-3,-4,-6,-15,-16 Housing Refinish Figure 601 (Sheet 2 of 2)

> 27-41-91 **REPAIR 2-1** Page 602 Jul 01/2007



RELAY MOUNT - REPAIR 3-1

65C25551-1, 65C31205-1, -3, -5

1. General

- A. This procedure has the data necessary to refinish the relay mount (IPL Figure 1, 60).
- B. Refer to REPAIR-GENERAL, Paragraph 2. for the Standard Overhaul Practices Manual (SOPM) subjects identified in this procedure.
- C. Refer to REPAIR-GENERAL, Paragraph 3. for the description of the consumable codes identified in this procedure.
- D. Refer to IPL Figure 1 for item numbers.

2. Plating Repair

A. For the repair of surfaces which is only the replacement of the original finish , refer to REFINISH instructions on REPAIR 3-1, Figure 601.



<u>REFINISH</u>

FOR 65C25551-1, CHROMIC ACID ANODIZE AND APPLY 1 COAT OF PRIMER (F-18.13) ALL OVER

FOR 65C312O5-1,-3,-5 CHROMIC ACID OR SULFURIC ACID ANODIZE (F-17.05) ALL OVER. APPLY 1 COAT BMS 10-11, TYPE 1 PRIMER (F-20.02) ALL OVER

MATERIAL: AL ALLOY

AFTER REFINISH, SILK SCREEN REFERENCE DESIGNATIONS COLOR BLACK 0.08 IN. HIGH CHARACTERS AS SHOWN PER 20-50-10

> 65C25551-1 65C31205-1,-3,-5 Relay Mount Refinish Figure 601

> > 27-41-91 REPAIR 3-1 Page 601 Nov 01/2006



LEVER ASSY - REPAIR 4-1

69-73309-1

1. General

- A. This procedure has the data necessary to repair the lever assembly (IPL Figure 1, 165).
- B. Refer to REPAIR-GENERAL, Paragraph 2. for the Standard Overhaul Practices Manual (SOPM) subjects identified in this procedure.
- C. Refer to IPL Figure 1 for item numbers.

2. Parts Replacement (REPAIR 4-1, Figure 601)

A. Position arm (185) on fitting (180) as shown in REPAIR 4-1, Figure 601 and install rivets (170, 175) as indicated.









PIN - REPAIR 5-1

69-73314-1, -2

1. General

- A. This procedure has the data necessary to refinish the pin (IPL Figure 1, 90).
- B. Refer to REPAIR-GENERAL, Paragraph 2. for the Standard Overhaul Practices Manual (SOPM) subjects identified in this procedure.
- C. Refer to IPL Figure 1 for item numbers.

2. Plating Repair

A. For the repair of surfaces which is only the replacement of the original finish , refer to REFINISH instructions on REPAIR 5-1, Figure 601.



Pin Refinish Figure 601





PINION SHAFT - REPAIR 6-1

69-73400-1

1. General

- A. This procedure has the data necessary to repair the pinion shaft assembly (IPL Figure 1, 245).
- B. Refer to REPAIR-GENERAL, Paragraph 2. for the Standard Overhaul Practices Manual (SOPM) subjects identified in this procedure.
- C. Refer to IPL Figure 1 for item numbers.

2. Pinion Replacement

- A. Remove rivet (250) and pinion (255).
- B. Remove and discard set screw supplied with new pinion and install pinion on shaft (260).
- C. Secure pinion to shaft with rivet (250).





MISCELLANEOUS PARTS REFINISH - REPAIR 7-1

1. General

- A. This procedure has the data necessary to refinish the parts listed in REPAIR 7-1, Table 601.
- B. Refer to REPAIR-GENERAL, Paragraph 2. for the Standard Overhaul Practices Manual (SOPM) subjects identified in this procedure.
- C. Refer to REPAIR-GENERAL, Paragraph 3. for the description of the consumable codes identified in this procedure.
- D. Refer to IPL Figure 1 for item numbers.

2. Procedure

A. Repair of parts listed in REPAIR 7-1, Table 601 consists of restoration of the original finish.

IPL FIG. & ITEM	MATERIAL	FINISH
Fig. 1		
Covers (15, 30, 80, 95)	Al alloy	Chemical treat (colored film) and apply primer, C00259 (F-18.06).
Covers (15A,80A)	Al alloy	Chemical treat (colored film) and apply primer, C00259 (F- 18.06). Apply enamel coating, C00260 (F-21.03) to all exterior surfaces with overspray in holes permitted.
Fitting (180), arm (185)	15-5PH CRES, 150-170 ksi	Passivate (F-17.09).
Gear (240)	15-5PH CRES, 180-200 ksi	Passivate (F-17.09).
Shaft (260)	15-5PH CRES, 180-200 ksi	Passivate (F-17.09) except cadmium plate and apply primer, C00259 (F-16.01) on 0.374-0.375 in. O.D.
Cam (270C)	Al alloy	Chromic acid anodize and apply primer, C00259 (F-18.13) all over except omit primer on 0.195-0.196 in. and 0.377-0.378 in. dia. holes

Table 601: Refinish Details





ASSEMBLY

1. General

- A. This procedure has the data necessary to assemble the stabilizer trim control column cutout switch assembly.
- B. Refer to the Standard Overhaul Practices Manual (SOPM) for the SOPM subjects identified in this procedure.
- C. Refer to IPL Figure 1 for item numbers.

2. Assembly

A. References

Reference	Title
SOPM 20-11-03	REPAIR OF ELECTRICAL TERMINATIONS AND ELECTRICAL BONDING AREAS
SOPM 20-50-05	APPLICATION OF ALUMINUM FOIL AND OTHER MARKERS
SOPM 20-50-10	APPLICATION OF STENCILS, INSIGNIA, SILK SCREEN, PART NUMBERING AND IDENTIFICATION MARKINGS

B. Procedure (IPL Figure 1)

- (1) Install bearings (275) in housing assembly (280).
- (2) Assemble cam (270C) and shaft assembly (245). (If cam is already riveted to shaft assembly, refer to step C.)
 - (a) Install cam (270C) on shaft assembly (245) and install shaft assembly in housing assembly (280).
 - (b) Insert 0.1890-0.1895 in. dia. rigging pin thru cam (270C) and housing assembly (280) to secure cam in place.
 - (c) Install lever assembly (165) on gear (240).
 - (d) Install gear (240) on housing assembly (280) with lever assembly (165) located per ASSEMBLY, Figure 701 and gear (240) meshes with pinion (255).
 - (e) Mark position of cam (270C) on shaft assembly (245). Remove rigging pin, gear (240), lever assembly (165), cam (270C) and shaft assembly (245) from housing assembly (280).
 - (f) With cam (270C) installed on shaft assembly (245) as marked, drill 0.159-0.161 in. dia. holes thru for rivets (265) at hole locations on cam (270). Break sharp edges 0.008R and apply chemical coating (F-17.10) to the hole.
 - (g) Secure cam (270C) to shaft assembly (245) with rivets (265).
- (3) Install bearings (230, 235) in cover assembly (195).
- (4) Install gear (240) in cover assembly (195), then install lever assembly (165) on gear (240).
- (5) Insert 0.1890-0.1895 in. dia. rigging pin thru cover assembly (195).
- (6) Rotate lever assembly (165) to position indicated in ASSEMBLY, Figure 701 and hold in place.
- (7) Install shaft assembly (245) with attached cam (270C) in cover assembly (195) with rigging pin inserted through rigging pin hole in cam. Ensure pinion (255) meshes with gear (240).





(8) Install cover assembly (195) on housing assembly (280) and secure with screws (210 or 210A), washers (205 or 205A) and nut (200 or 200A). Remove rigging pin.

NOTE: The directional orientation of the screws (210A) is important in preventing inservice problems. See 737 Service Letter SL-27-80.

- (9) Secure lever assembly (165) to gear (240) with bolt (164), washer (163) and nut (162).
- (10) Assemble wire bundle assembly (120A), switches (100) and relay sockets (70) as required per wire bundle schematic (ASSEMBLY, Figure 702). Assemble relays (65), sockets (70) and mount (60).
- (11) Install markers (135, 140) if required on housing assembly (280) per SOPM 20-50-05 at location shown (ASSEMBLY, Figure 703).
- (12) Position switches (100) and covers (95) in housing assembly (280) and install pins (90) thru cover assembly (195), switches (100), covers (95) and housing assembly (280) to secure switches in place.
- (13) Install springs (85) and covers (80) and secure covers with screws (75A).

NOTE: Install covers (80A) with enamel painted surface facing away from mechanism assembly.

- (14) Install relay mount (60) with attached relays (65) and sockets (70) in housing assembly (280) and secure with bolts (50), washers (55).
- (15) Install screws (50) on housing assembly (280). Install washers (40) and ground terminals (132) of wire bundle assembly (120) on screws and secure with nut (35). Ground per SOPM 20-11-03. Resistance shall be 0.001 ohm.
- (16) Install connectors (125, 130) on housing assembly (280) and secure with bolts (155), washers (315) and nuts (310).
- (17) Rubber stamp (optional: silk screen) information indicated on housing assembly (280) per SOPM 20-50-10.
- (18) Install covers (15, 30) and secure with bolts (5, 20) and washers (10, 25).
- (19) Install marker (320) if required on cover (15) per SOPM 20-50-05 and align arrow with rig pin hole.
- (20) Test unit per TESTING AND FAULT ISOLATION.







COVER ASSY (195) OMITTED FOR CLARITY



0.1895 WITH 0.1890 DIA RIG PIN THRU COVER ASSY (195), CAM (270C), HOUSING ASSY (280) AND LEVER ASSY (165) AT POSITION SHOWN, LOCATE AND DRILL RIVET HOLES THRU CAM (270C) AND SHAFT ASSY (245) USING HOLE LOCATIONS ON CAM

ALL DIMENSIONS ARE IN INCHES

Assembly of Cam and Shaft Assembly Figure 701

> 27-41-91 ASSEMBLY Page 703 Mar 01/2006









Wire Bundle Details Figure 702

> 27-41-91 ASSEMBLY Page 704 Mar 01/2006

BOEING®

COMPONENT MAINTENANCE MANUAL







Assembly Details Figure 703 (Sheet 1 of 2)

27-41-91 ASSEMBLY Page 705 Mar 01/2006

S12

s11

0

s10

MARKER (140)

D-D

6S







THE RUBBER STAMP OR SILKSCREEN INFORMATION SHOWN PER 20-50-10

Assembly Details Figure 703 (Sheet 2 of 2)

> 27-41-91 ASSEMBLY Page 706 Mar 01/2006



3. Storage

A. Use standard industry practices to store this component.





FITS AND CLEARANCES

(NOT APPLICABLE)





SPECIAL TOOLS, FIXTURES, AND EQUIPMENT

1. General

- A. This section lists the special tools, fixtures, and equipment necessary for maintenance.
 - NOTE: Equivalent substitutes may be used.

Special Tools

Reference	Description	Part Number	Supplier
SPL-5372	Test Equipment - Stabilizer Trim Control Cutout Switch	C27006-48	81205
SPL-5374	Test Equipment - Stabilizer Trim Control Cutout Switch	C27006-42	81205
SPL-6044	Test Fixture Assembly (C27006-24 included in C27006-47 & C27006-48)	C27006-48	81205
		Opt: C27006-47	81205
SPL-6045	Test Fixture Assembly (C27006-13 included in C27006-42)	C27006-42	81205
SPL-6046	Test Box Assembly (C27006-43 included in C27006-42)	C27006-42	81205

Tool Supplier Information

CAGE Code	Supplier Name	Supplier Address
81205	THE BOEING COMPANY	17930 INTERNATIONAL BLVD. SOUTH SEATAC, WA 98188-4321 Telephone: 206-662-6650 Facsimile: 206-662-7145





ILLUSTRATED PARTS LIST

1. Introduction

- A. The Illustrated Parts List (IPL) contains an illustration and a list of component parts you can repair or replace. The Illustrated Parts Catalog (IPC) shows how to use the Boeing part number system.
- B. This shows how parts are related: The relation of each item to its next higher assembly (NHA) is shown in the NOMENCLATURE column. Use the indenture system that follows:

1	2	3	4	5	6	7
•	-	•	•	•	•	

- . Assembly
- . Attaching parts for assembly
- . Detail parts for assembly
- . . Subassembly
- . . Attaching parts for subassembly
- Detail parts for subassembly
- . . . Sub-subassembly
- . . . Attaching parts for subassembly
 - Details parts for sub-subassembly

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

- C. Each top assembly is given one use code letter (A, B, C, etc.) in the USAGE CODE column. All subsequent component parts in the list can have one or more of the use code letters to show effectivity to top assemblies. A component part without a use code applies to all top assemblies.
- D. An alphabetical letter is added after the item number for optional parts, parts changed by a Service Bulletin, configuration differences (except left-handed and right-handed parts), last engineering releases, and parts added between item numbers in a sequence. The alphabetical letter will not be shown on the illustration for equivalent parts of the same part number.
- E. Color-coded parts are identified with a single digit alpha following the dash number or with "SP" suffix. If the "SP" suffix is used, it represents consolidation of all color codes applicable for a given usage which are not separately listed. Orders for color-coded parts should include the registry number of the airplane for which the parts are ordered.
- F. If a part number is 15 characters long but will not fit in the part number column, the part number will be displayed with a "~" at the end of the line and will be continued on the next line. The "~" denotes that the part number continues on the next line.
- G. Parts changed by a Service Bulletin are shown by PRE SB XXXX and POST SB XXXX added to the NOMENCLATURE column.
 - (1) When a new top assembly is added by a Service Bulletin, PRE SB XXXX and POST SB XXXX will be added at the top assembly level only. The configuration differences at the detail part level are shown by use code letters.
 - (2) When the top assembly part number is not changed by the Service Bulletin, PRE SB XXXX and POST SB XXXX will be added at the detail level.
- H. Interchangeable Parts







Optional (OPT)	The part is optional to and interchangeable with other parts that have the same item number.
Replaces, Replaced by and not interchangeable with (REPLACES, REPLACED BY AND NOT INTCHG/W)	The part replaces and is not interchangeable with the initial part.
Replaces, Replaced by (REPLACES, REPLACED BY)	The part replaces and is interchangeable with, or is an alternative to, the initial part.

VENDOR CODES

Code	Name
12336	Replaced: [V12336] WELLS-BENRUS CORP TECHNICAL PRODUCTS DIV by Code: Name and Address below 04846: WELLS-BENRUS CO BENSON ROAD PO BOX 1004 MIDDLEBURY, CONNECTICUT 06762 FORMERLY WELLS-BENRUS CORP TECHNICAL PRODUCTS DIV V12336 FORMERLY IN RIDGEFIELD, CONNECTICUT
29440	WINFRED M BERG INC 499 OCEAN AVENUE EAST ROCKAWAY, L.I. NEW YORK 11518-1226
29964	ALLIED DEVICES CORP 2365 MILBURN AVENUE PO DRAWER E BALDWIN, NEW YORK 11510-3321
91929	HONEYWELL INC MICRO SWITCH DIV 11 WEST SPRING STREET FREEPORT, ILLINOIS 61032 FORMERLY MICRO SWITCH A DIV OF HONEYWELL FORMERLY V74059 AND V40228





NUMERICAL INDEX

PART NUMBER	AIRLINE PART NUMBER	FIGURE	ITEM	UNITS PER ASSEMBLY
65C25529-10		1	120A	1
65C25529-11		1	1D	RF
65C25529-12		1	1E	RF
65C25529-13		1	160D	1
65C25529-14		1	160E	1
65C25529-15		1	1F	RF
65C25529-16		1	1G	RF
65C25529-17		1	160F	1
65C25529-18		1	160G	1
65C25529-19		1	1H	RF
65C25529-20		1	160H	1
65C25529-21		1	1J	RF
65C25529-22		1	1K	RF
65C25529-23		1	1L	RF
65C25529-24		1	1M	RF
65C25529-25		1	1N	RF
65C25529-26		1	1P	RF
65C25529-27		1	1Q	RF
65C25529-6		1	1B	RF
65C25529-7		1	1C	RF
65C25529-8		1	160B	1
65C25529-9		1	160C	1
65C25539-1		1	195	1
65C25539-2		1	195B	1
65C25539-3		1	225	1
65C25539-4		1	225B	1
65C25539-5		1	195A	1
65C25539-6		1	225A	1
65C25539-7		1	195C	1
65C25539-8		1	195E	1
65C25539-9		1	195D	1
65C25540-1		1	280	1
65C25540-13		1	280F	1
65C25540-14		1	280G	1

27-41-91 ILLUSTRATED PARTS LIST Page 1003 Mar 01/2006 65C25529



COMPONENT MAINTENANCE MANUAL

PART NUMBER	AIRLINE PART NUMBER	FIGURE	ITEM	UNITS PER ASSEMBLY
65C25540-15		1	305C	1
65C25540-16		1	305D	1
65C25540-2		1	280B	1
65C25540-3		1	305	1
65C25540-4		1	305B	1
65C25540-5		1	280A	1
65C25540-6		1	305A	1
65C25540-7		1	280C	1
65C25540-8		1	280E	1
65C25540-9		1	280D	1
65C25548-1		1	240	1
65C25548-2		1	240A	1
65C25550-4		1	270C	1
65C25550-5		1	270E	1
65C25550-6		1	270D	1
65C25551-1		1	60	1
65C31205-1		1	60A	1
65C31205-3		1	60B	1
65C31205-5		1	60C	1
66-25992-1		1	170	1
66-25992-2		1	175	1
69-73307-1		1	180	1
69-73308-1		1	185	1
69-73309-1		1	165	1
69-73313-1		1	260	1
69-73314-1		1	90	4
69-73314-2		1	90A	4
69-73316-1		1	30	2
69-73316-2		1	95	2
69-73316-3		1	80	2
69-73316-4		1	80A	2
69-73319-1		1	15	1
69-73319-2		1	15A	1
69-73400-1		1	245	1
AN960D10L		1	40	4

27-41-91 ILLUSTRATED PARTS LIST Page 1004 Mar 01/2006



PART NUMBER	AIRLINE PART NUMBER	FIGURE	ITEM	UNITS PER ASSEMBLY
AN960KD8		1	163	1
AN960PD10		1	205	6
		1	205A	6
AN960PD4		1	10	6
		1	25	8
		1	315	8
AN960PD6		1	55	4
AP48KS36		1	255	1
BAC27DCT0351		1	135	1
BAC27DCT0352		1	140	1
BAC27DCT0355		1	330	1
BAC27DCT0391		1	190A	1
BACB10AP3		1	235	1
		1	275	2
BACB10AP6		1	230	1
BACB30LK04-1		1	5	6
BACB30LK04-10		1	50A	4
BACB30LK04-2		1	20	8
		1	115	8
BACB30LK06-10		1	50	4
BACB30LK2-14		1	164	1
BACC45FN12-12P		1	130	1
BACC45FN16-24P		1	125	1
BACN10JN04CM		1	300A	8
BACN10JP04CCD		1	300	8
BACN10NW1		1	310A	8
BACR13CF2AB		1	65	4
BACR15BA3D		1	295	16
BACS16X1A		1	70	4
BACT12AC		1	132	2
DP701T36		1	255A	1
MS20615-3M10		1	250A	1
MS20615-5MP12		1	265	2
MS21042L04		1	310	8
MS21042L08		1	162	1

27-41-91 ILLUSTRATED PARTS LIST Page 1005 Mar 01/2006 65C25529



COMPONENT MAINTENANCE MANUAL

PART NUMBER	AIRLINE PART NUMBER	FIGURE	ITEM	UNITS PER ASSEMBLY
MS21042L3		1	35	2
		1	200	6
		1	200A	6
MS21209C0410		1	290A	4
MS21209C0415		1	215	4
		1	285	8
MS21209C0610		1	290	4
MS24585-1005		1	85	4
NAS514P1032-7		1	45	2
NAS514P440-5		1	75A	6
NAS607-2-3P		1	220	3
NAS623-3-4		1	210	6
		1	210A	6
P70-1-36		1	255B	1
V3L2228		1	100	12







Stab Trim Control Column Actuated Switch Cutout Switch Assembly IPL Figure 1 (Sheet 1 of 2)

> 27-41-91 ILLUSTRATED PARTS LIST Page 1007 Mar 01/2006





(A)

Stab Trim Control Column Actuated Switch Cutout Switch Assembly IPL Figure 1 (Sheet 2 of 2)

> 27-41-91 ILLUSTRATED PARTS LIST Page 1008 Mar 01/2006



FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USAGE CODE	UNITS PER ASSY
1–					
-1	65C25529-1		DELETED		
-1A	65C25529-2		DELETED		
-1B	65C25529-6		SWITCH ASSY-STAB TRIM CONT COLUMN ACTUATED SWITCH CUTOUT (SWITCH ASSYS ITEM 1K, 1L, 1M, 1N, 1P, 1Q MAY BE CREATE FROM SWITCH ASSYS ITEM 1B, 1C, 1D, 1E, 1F, 1G RESPECTIVELY. THE -22 ASSEMBLY IS CREATED FROM THE - 6 ASSEMBLY BY INSTALLING THE SIX NAS623-3-4 SCREWS ITEM 210 SUCH THAT THE HEADS ARE ORIENTED AS SHOWN BY SCREWS ITEM 210A IN IPL FIG. 1, SHEET 2. THE -23 MAY BE CREATED FROM THE -7 IN THE SAME MANNER AND THE OTHERS SIMILARLY. SEE 737 SERVICE LETTER SL-27-80 FOR MORE INFORMATION. ALL CREATED ASSEMBLIES MUST ALSO BE REPART-MARKED, ACCORDINGLY.)	A	RF
-1C	65C25529-7		SWITCH ASSY-STAB TRIM CONT COLUMN ACTUATED SWITCH CUTOUT (SWITCH ASSYS ITEM 1K, 1L, 1M, 1N, 1P, 1Q MAY BE CREATE FROM SWITCH ASSYS ITEM 1B, 1C, 1D, 1E, 1F, 1G RESPECTIVELY. THE -22 ASSEMBLY IS CREATED FROM THE - 6 ASSEMBLY BY INSTALLING THE SIX NAS623-3-4 SCREWS ITEM 210 SUCH THAT THE HEADS ARE ORIENTED AS SHOWN BY SCREWS ITEM 210A IN IPL FIG. 1, SHEET 2. THE -23 MAY BE CREATED FROM THE -7 IN THE SAME MANNER AND THE OTHERS SIMILARLY. SEE 737 SERVICE LETTER SL-27-80 FOR MORE INFORMATION. ALL CREATED ASSEMBLIES MUST ALSO BE REPART-MARKED, ACCORDINGLY.)	В	RF

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27-41-91 ILLUSTRATED PARTS LIST Page 1009 Mar 01/2006



FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE	USAGE CODE	UNITS PER ASSY
1–					
-1D	65C25529-11		SWITCH ASSY-STAB TRIM CONT COLUMN ACTUATED SWITCH CUTOUT (SWITCH ASSYS ITEM 1K, 1L, 1M, 1N, 1P, 1Q MAY BE CREATE FROM SWITCH ASSYS ITEM 1B, 1C, 1D, 1E, 1F, 1G RESPECTIVELY. THE -22 ASSEMBLY IS CREATED FROM THE - 6 ASSEMBLY BY INSTALLING THE SIX NAS623-3-4 SCREWS ITEM 210 SUCH THAT THE HEADS ARE ORIENTED AS SHOWN BY SCREWS ITEM 210A IN IPL FIG. 1, SHEET 2. THE -23 MAY BE CREATED FROM THE -7 IN THE SAME MANNER AND THE OTHERS SIMILARLY. SEE 737 SERVICE LETTER SL-27-80 FOR MORE INFORMATION. ALL CREATED ASSEMBLIES MUST ALSO BE REPART-MARKED, ACCORDINGLY.)	С	RF
-1E	65C25529-12		SWITCH ASSY-STAB TRIM CONT COLUMN ACTUATED SWITCH CUTOUT (SWITCH ASSYS ITEM 1K, 1L, 1M, 1N, 1P, 1Q MAY BE CREATE FROM SWITCH ASSYS ITEM 1B, 1C, 1D, 1E, 1F, 1G RESPECTIVELY. THE -22 ASSEMBLY IS CREATED FROM THE - 6 ASSEMBLY BY INSTALLING THE SIX NAS623-3-4 SCREWS ITEM 210 SUCH THAT THE HEADS ARE ORIENTED AS SHOWN BY SCREWS ITEM 210A IN IPL FIG. 1, SHEET 2. THE -23 MAY BE CREATED FROM THE -7 IN THE SAME MANNER AND THE OTHERS SIMILARLY. SEE 737 SERVICE LETTER SL-27-80 FOR MORE INFORMATION. ALL CREATED ASSEMBLIES MUST ALSO BE REPART-MARKED, ACCORDINGLY.)	D	RF



FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE	USAGE CODE	UNITS PER ASSY
1–					
-1F	65C25529-15		SWITCH ASSY-STAB TRIM CONT COLUMN ACTUATED SWITCH CUTOUT (SWITCH ASSYS ITEM 1K, 1L, 1M, 1N, 1P, 1Q MAY BE CREATE FROM SWITCH ASSYS ITEM 1B, 1C, 1D, 1E, 1F, 1G RESPECTIVELY. THE -22 ASSEMBLY IS CREATED FROM THE - 6 ASSEMBLY BY INSTALLING THE SIX NAS623-3-4 SCREWS ITEM 210 SUCH THAT THE HEADS ARE ORIENTED AS SHOWN BY SCREWS ITEM 210A IN IPL FIG. 1, SHEET 2. THE -23 MAY BE CREATED FROM THE -7 IN THE SAME MANNER AND THE OTHERS SIMILARLY. SEE 737 SERVICE LETTER SL-27-80 FOR MORE INFORMATION. ALL CREATED ASSEMBLIES MUST ALSO BE REPART-MARKED. ACCORDINGLY.)	E	RF
-1G	65C25529-16		SWITCH ASSY-STAB TRIM CONT COLUMN ACTUATED SWITCH CUTOUT (SWITCH ASSYS ITEM 1K, 1L, 1M, 1N, 1P, 1Q MAY BE CREATE FROM SWITCH ASSYS ITEM 1B, 1C, 1D, 1E, 1F, 1G RESPECTIVELY. THE -22 ASSEMBLY IS CREATED FROM THE - 6 ASSEMBLY BY INSTALLING THE SIX NAS623-3-4 SCREWS ITEM 210 SUCH THAT THE HEADS ARE ORIENTED AS SHOWN BY SCREWS ITEM 210A IN IPL FIG. 1, SHEET 2. THE -23 MAY BE CREATED FROM THE -7 IN THE SAME MANNER AND THE OTHERS SIMILARLY. SEE 737 SERVICE LETTER SL-27-80 FOR MORE INFORMATION. ALL CREATED ASSEMBLIES MUST ALSO BE REPART-MARKED, ACCORDINGLY.)	F	RF
–1H	65C25529-19		SWITCH ASSY-STAB TRIM CONT COLUMN ACTUATED SWITCH CUTOUT	G	RF
–1J	65C25529-21		SWITCH ASSY-STAB TRIM CONT COLUMN ACTUATED SWITCH CUTOUT	н	RF



FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USAGE CODE	UNITS PER ASSY
1–					
-1K	65C25529-22		SWITCH ASSY-STAB TRIM CONT COLUMN ACTUATED SWITCH CUTOUT (SWITCH ASSYS ITEM 1K, 1L, 1M, 1N, 1P, 1Q MAY BE CREATE FROM SWITCH ASSYS ITEM 1B, 1C, 1D, 1E, 1F, 1G RESPECTIVELY. THE -22 ASSEMBLY IS CREATED FROM THE - 6 ASSEMBLY BY INSTALLING THE SIX NAS623-3-4 SCREWS ITEM 210 SUCH THAT THE HEADS ARE ORIENTED AS SHOWN BY SCREWS ITEM 210A IN IPL FIG. 1, SHEET 2. THE -23 MAY BE CREATED FROM THE -7 IN THE SAME MANNER AND THE OTHERS SIMILARLY. SEE 737 SERVICE LETTER SL-27-80 FOR MORE INFORMATION. ALL CREATED ASSEMBLIES MUST ALSO BE REPART-MARKED, ACCORDINGLY.)	J	RF
-1L	65C25529-23		SWITCH ASSY-STAB TRIM CONT COLUMN ACTUATED SWITCH CUTOUT (SWITCH ASSYS ITEM 1K, 1L, 1M, 1N, 1P, 1Q MAY BE CREATE FROM SWITCH ASSYS ITEM 1B, 1C, 1D, 1E, 1F, 1G RESPECTIVELY. THE -22 ASSEMBLY IS CREATED FROM THE - 6 ASSEMBLY BY INSTALLING THE SIX NAS623-3-4 SCREWS ITEM 210 SUCH THAT THE HEADS ARE ORIENTED AS SHOWN BY SCREWS ITEM 210A IN IPL FIG. 1, SHEET 2. THE -23 MAY BE CREATED FROM THE -7 IN THE SAME MANNER AND THE OTHERS SIMILARLY. SEE 737 SERVICE LETTER SL-27-80 FOR MORE INFORMATION. ALL CREATED ASSEMBLIES MUST ALSO BE REPART-MARKED, ACCORDINGLY.)	К	RF



FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE	USAGE CODE	UNITS PER ASSY
1– –1M	65C25529-24		SWITCH ASSY-STAB TRIM CONT COLUMN ACTUATED SWITCH CUTOUT (SWITCH ASSYS ITEM 1K, 1L, 1M, 1N, 1P, 1Q MAY BE CREATE FROM SWITCH ASSYS ITEM 1B, 1C, 1D, 1E, 1F, 1G RESPECTIVELY. THE -22 ASSEMBLY IS CREATED FROM THE - 6 ASSEMBLY BY INSTALLING THE SIX	L	RF
			6 ASSEMBLY BY INSTALLING THE SIX NAS623-3-4 SCREWS ITEM 210 SUCH THAT THE HEADS ARE ORIENTED AS SHOWN BY SCREWS ITEM 210A IN IPL FIG. 1, SHEET 2. THE -23 MAY BE CREATED FROM THE -7 IN THE SAME MANNER AND THE OTHERS SIMILARLY. SEE 737 SERVICE LETTER SL-27-80 FOR MORE INFORMATION. ALL CREATED ASSEMBLIES MUST ALSO BE REPART-MARKED, ACCORDINGLY.)		
-1N	65C25529-25		SWITCH ASSY-STAB TRIM CONT COLUMN ACTUATED SWITCH CUTOUT (SWITCH ASSYS ITEM 1K, 1L, 1M, 1N, 1P, 1Q MAY BE CREATE FROM SWITCH ASSYS ITEM 1B, 1C, 1D, 1E, 1F, 1G RESPECTIVELY. THE -22 ASSEMBLY IS CREATED FROM THE - 6 ASSEMBLY BY INSTALLING THE SIX NAS623-3-4 SCREWS ITEM 210 SUCH THAT THE HEADS ARE ORIENTED AS SHOWN BY SCREWS ITEM 210A IN IPL FIG. 1, SHEET 2. THE -23 MAY BE CREATED FROM THE -7 IN THE SAME MANNER AND THE OTHERS SIMILARLY. SEE 737 SERVICE LETTER SL-27-80 FOR MORE INFORMATION. ALL CREATED ASSEMBLIES MUST ALSO BE REPART-MARKED, ACCORDINGLY.)	Μ	RF

27-41-91 ILLUSTRATED PARTS LIST Page 1013 Mar 01/2006



FIG/		AIRLINE PART NUMBER	NOMENCLATURE	USAGE	UNITS PER ASSV
1_		NOMBER	1204007	OODL	A001
–1P	65C25529-26		SWITCH ASSY-STAB TRIM CONT COLUMN ACTUATED SWITCH CUTOUT (SWITCH ASSYS ITEM 1K, 1L, 1M, 1N, 1P, 1Q MAY BE CREATE FROM SWITCH ASSYS ITEM 1B, 1C, 1D, 1E, 1F, 1G RESPECTIVELY. THE -22 ASSEMBLY IS CREATED FROM THE - 6 ASSEMBLY BY INSTALLING THE SIX NAS623-3-4 SCREWS ITEM 210 SUCH THAT THE HEADS ARE ORIENTED AS SHOWN BY SCREWS ITEM 210A IN IPL FIG. 1, SHEET 2. THE -23 MAY BE CREATED FROM THE -7 IN THE SAME MANNER AND THE OTHERS SIMILARLY. SEE 737 SERVICE LETTER SL-27-80 FOR MORE INFORMATION. ALL CREATED ASSEMBLIES MUST ALSO BE REPART-MARKED, ACCORDINGLY.)	Ν	RF
-1Q	65C25529-27		SWITCH ASSY-STAB TRIM CONT COLUMN ACTUATED SWITCH CUTOUT (SWITCH ASSYS ITEM 1K, 1L, 1M, 1N, 1P, 1Q MAY BE CREATE FROM SWITCH ASSYS ITEM 1B, 1C, 1D, 1E, 1F, 1G RESPECTIVELY. THE -22 ASSEMBLY IS CREATED FROM THE - 6 ASSEMBLY BY INSTALLING THE SIX NAS623-3-4 SCREWS ITEM 210 SUCH THAT THE HEADS ARE ORIENTED AS SHOWN BY SCREWS ITEM 210A IN IPL FIG. 1, SHEET 2. THE -23 MAY BE CREATED FROM THE -7 IN THE SAME MANNER AND THE OTHERS SIMILARLY. SEE 737 SERVICE LETTER SL-27-80 FOR MORE INFORMATION. ALL CREATED ASSEMBLIES MUST ALSO BE REPART-MARKED, ACCORDINGLY.)	Ρ	RF
5	BACB30LK04-1		. BOLT		6
10	AN960PD4		. WASHER		6
15	69-73319-1		. COVER	A, B, J, K	1
–15A	69-73319-2		. COVER	C-H, L-N, P	1
20	BACB30LK04-2		. BOLT		8

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27-41-91 ILLUSTRATED PARTS LIST Page 1014 Mar 01/2006



FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USAGE CODE	UNITS PER ASSY
1–					
25	AN960PD4		. WASHER		8
30	69-73316-1		. COVER		2
35	MS21042L3		. NUT		2
40	AN960D10L		. WASHER		4
45	NAS514P1032-7		. SCREW		2
50	BACB30LK06-10		. BOLT	A-D, J-M	4
–50A	BACB30LK04-10		. BOLT	E-H, N, P	4
55	AN960PD6		. WASHER		4
60	65C25551-1		. MOUNT-RELAY (OPT ITEM 60A)	A-D, J-M	1
60A	65C31205-1		. MOUNT-RELAY (PREFERED)	A-D, J-M	1
60B	65C31205-3		. MOUNT-RELAY (OPT ITEM 60C)	E-H, N, P	1
-60C	65C31205-5		. MOUNT-RELAY (PREFERED)	E-H, N, P	1
65	BACR13CF2AB		. RELAY		4
70	BACS16X1A		. SOCKET-RELAY		4
75	BACB30LU04-1		DELETED		
75A	NAS514P440-5		. SCREW		6
80	69-73316-3		. COVER	A, B, J, K	2
-80A	69-73316-4		. COVER	C-H, L-N, P	2
85	MS24585-1005		. SPRING		4
90	69-73314-1		. PIN (OPT ITEM 90A)		4
90A	69-73314-2		. PIN (OPT ITEM 90)		4
95	69-73316-2		. COVER		2
100	V3L2228		. SWITCH (V91929)		12
105	MS21042L04		DELETED		
105A	BACN10NW1		DELETED		
110	AN960PD4		DELETED		

-Item not Illustrated

27-41-91 ILLUSTRATED PARTS LIST Page 1015 Mar 01/2006



FIG/		AIRLINE PART	NOMENCLATURE	USAGE	UNITS PER
IIEM	PARI NUMBER	NUMBER	1 2 3 4 5 6 7	CODE	ASSY
1–					
115	BACB30LK04-2		. BOLT		8
120	65C25529-5		DELETED		
120A	65C25529-10		. BUNDLE ASSY-WIRE		1
125	BACC45FN16-24P		CONNECTOR		1
130	BACC45FN12-12P		CONNECTOR		1
132	BACT12AC		TERMINAL		2
135	BAC27DCT0351		. MARKER		1
140	BAC27DCT0352		. MARKER		1
145	MS21042L08		DELETED		
150	AN960KD8		DELETED		
155	BACB30LK2-14		DELETED		
160	65C25529-3		DELETED		
-160A	65C25529-4		DELETED		
160B	65C25529-8		. MECHANISM ASSY	A, J	1
-160C	65C25529-9		. MECHANISM ASSY	В, К	1
-160D	65C25529-13		. MECHANISM ASSY	C, L	1
-160E	65C25529-14		. MECHANISM ASSY	D, M	1
-160F	65C25529-17		. MECHANISM ASSY	E, N	1
–160G	65C25529-18		. MECHANISM ASSY	F, P	1
-160H	65C25529-20		. MECHANISM ASSY	G, H	1
162	MS21042L08		NUT		1
163	AN960KD8		WASHER		1
164	BACB30LK2-14		BOLT		1
165	69-73309-1		LEVER ASSY		1
170	66-25992-1		RIVET		1
175	66-25992-2		RIVET		1
180	69-73307-1		FITTING		1
185	69-73308-1		ARM		1
190	BAC27DCT0347		DELETED		
190A	BAC27DCT0391		MARKER		1
195	65C25539-1		COVER ASSY	A, B, J, K	1



FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USAGE CODE	UNITS PER ASSY
1–					
–195A	65C25539-5		COVER ASSY (OPT ITEM 195)	A, J	1
–195B	65C25539-2		COVER ASSY (OPT ITEM 195)	В, К	1
-195C	65C25539-7		COVER ASSY	C-H, L-N, P	1
–195D	65C25539-9		COVER ASSY (OPT ITEM 195C)	C, E, G, H, L, N	1
-195E	65C25539-8		COVER ASSY (OPT ITEM 195C)	D, F, M, P	1
			ATTACHING PARTS		
200	MS21042L3		NUT	A-F	6
200A	MS21042L3		NUT	G, H, J- N, P	6
205	AN960PD10		WASHER	A-F	6
205A	AN960PD10		WASHER	G, H, J- N, P	6
210	NAS623-3-4		SCREW	A-F	6
210A	NAS623-3-4		SCREW	G, H, J- N, P	6
			*		
215	MS21209C0415		INSERT		4
220	NAS607-2-3P		PIN		3
225	65C25539-3		COVER (USED ON ITEMS 195,195C)		1
-225A	65C25539-6		COVER (USED ON ITEMS 195A,195D)		1
–225B	65C25539-4		COVER (USED ON ITEMS 195B,195E)		1
230	BACB10AP6		BEARING		1
235	BACB10AP3		BEARING		1
240	65C25548-1		GEAR		1
240A	65C25548-2		GEAR (OPT ITEM 240)	B, D, F	1
245	69-73400-1		SHAFT ASSY-PINION		1

-Item not Illustrated

27-41-91 ILLUSTRATED PARTS LIST Page 1017 Mar 01/2006



FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USAGE CODE	UNITS PER ASSY
1–					
250	MS20615-3M11		DELETED		
250A	MS20615-3M10		RIVET		1
255	AP48KS36		PINION (V29440) (OPT ITEM 255A,255B)		1
–255A	DP701T36		PINION (V29964) (OPT ITEM 255,255B)		1
–255B	P70-1-36		PINION (V12336) (OPT ITEM 255,255A)		1
260	69-73313-1		SHAFT		1
265	MS20615-5MP12		RIVET		2
270	65C25550-1		DELETED		
–270A	65C25550-3		DELETED		
–270B	65C25550-2		DELETED		
270C	65C25550-4		CAM		1
–270D	65C25550-6		CAM (OPT ITEM 270C)	A, C, E, G, H, J, L, N	1
–270E	65C25550-5		CAM (OPT ITEM 270C)	B, D, F, K, M, P	1
275	BACB10AP3		BEARING		2
280	65C25540-1		HOUSING ASSY	A, B, J, K	1
–280A	65C25540-5		HOUSING ASSY (OPT ITEM 280)	A, J	1
–280B	65C25540-2		HOUSING ASSY (OPT ITEM 280)	В, К	1
–280C	65C25540-7		HOUSING ASSY	C, D, L, M	1
–280D	65C25540-9		HOUSING ASSY (OPT ITEM 280C)	C, L	1
–280E	65C25540-8		HOUSING ASSY (OPT ITEM 280C)	D, M	1
-280F	65C25540-13		HOUSING ASSY	E-H, N, P	1

27-41-91 ILLUSTRATED PARTS LIST Page 1018 Mar 01/2006



FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USAGE CODE	UNITS PER ASSY
1–					
–280G	65C25540-14		HOUSING ASSY (OPT ITEM 280F)	E, G, H, N	1
285	MS21209C0415		INSERT		8
290	MS21209C0610		INSERT	A-D, J-M	4
–290A	MS21209C0410		INSERT	E-H, N, P	
295	BACR15BA3D		RIVET		16
300	BACN10JP04CCD		NUTPLATE		8
-300A	BACN10JN04CM		NUTPLATE (OPT ITEM 300)		8
305	65C25540-3		HOUSING (USED ON ITEMS 280,280C)		1
-305A	65C25540-6		HOUSING (USED ON ITEMS 280A,280D)		1
–305B	65C25540-4		HOUSING (USED ON ITEMS 280B,280E)		1
-305C	65C25540-15		HOUSING (USED ON ITEM 280F)		1
305D	65C25540-16		HOUSING (USED ON ITEM 280G)		1
310	MS21042L04		. NUT (OPT ITEM 310A)		8
310A	BACN10NW1		. NUT-CLIP (OPT ITEM 310, 315)		8
315	AN960PD4		. WASHER (OPT ITEM 310A)		8
330	BAC27DCT0355		. MARKER	Н	1

27-41-91 ILLUSTRATED PARTS LIST Page 1019 Mar 01/2006