
Service Bulletin

March 20, 2006

CAB06-3

TITLE

CONTROL QUADRANT MODIFICATION

EFFECTIVITY

<u>Model</u>	<u>Serial Numbers</u>
208	20800001 thru 20800395
208B	208B0001 thru 208B1170

PURPOSE

To announce a modification to the control quadrant that is designed to assist in optimizing the operation of the Emergency Power Lever and the Condition Lever by providing stop tabs in the quadrant cover.

The stop tab for the Emergency Power Lever is designed to assist in reducing the potential of inadvertent movement of the Emergency Power Lever past the idle position from the stowed position. The lever design has also been changed so the geometry of the lever and system linkage operate to assist in reducing the sensitivity of the lever movement and to make the lever movement more linear relative to its position in the quadrant and resultant engine power.

The stop tab for the Condition Lever is designed to assist in reducing the potential of inadvertent movement of the Condition Lever into the cutoff position.

Non-compliance with this Service Bulletin could result in engine damage if improper movements are made with the Emergency Power Lever and/or the Condition Lever.

COMPLIANCE

Recommended: should be accomplished within the next 200 hours of operation or 12 months, whichever occurs first.

APPROVAL

FAA approval has been obtained on technical data in this publication that affects airplane type design.

MAN-HOURS

Approximately 5.4 man-hours

MATERIAL

The parts listed below are available from Cessna Parts Distribution through an appropriate Cessna Service Station for the suggested list price shown.

<u>Part Number</u>	<u>Description</u>	<u>Qty/Airplane</u>	<u>Price</u>
SK208-166	Control Quadrant Modification Kit	1	\$ 69.90 (A) ea
SL6004-11	Lever (See Note 1)	1	\$ 755.00 (PD) ea
SL6004-8	Lever (See Note 2)	1	\$ 363.00 (PS) ea
SL6004-9	Lever (See Note 3)	1	\$ 302.00 (PS) ea
2613048-22	Cover Assembly (See Note 3)	1	\$ 450.00 (S) ea
SL6004-10	Lever (See Note 4)	1	\$ 302.00 (PS) ea
2601455-18	Cover Assembly (See Note 4)	1	\$ 866.00 (D) ea
2601455-13	Guard Assembly (See Note 4)	1	\$ 252.00 (S) ea
C489003	Lock Wire (See Note 5)	12 inches	\$ 662.50 (VR) lb
MS21042L08	Nut (See Note 5)	1	\$ 0.21 (PS) ea MQ 100
U074093	Alodine 1132 Marker	(as required)	\$ 146.00 (VA) ea

ALL PRICES SUBJECT TO CHANGE WITHOUT NOTICE

NOTE 1: Applicable to airplanes equipped with a 600 SHP engine.

NOTE 2: Applicable to airplanes equipped with a 675 SHP engine.

NOTE 3: Applicable to airplanes equipped with a standard control quadrant cover.

NOTE 4: Applicable to British Certified airplanes.

NOTE 5: Applicable to airplanes that are not equipped with an Engine Trend Monitoring (ETM) system.

ACCOMPLISHMENT INSTRUCTIONS

Service Kit SK208-166: Control Quadrant Modification instructions are attached.

CREDIT

Not Applicable

OWNER NOTIFICATION

On April 3, 2006 the following Owner Advisory message will be sent to applicable owners of record in CAB06-3A.

Dear Caravan Owner:

This Owner Advisory is to inform you that Cessna Service Bulletin CAB06-3 has been issued to announce a modification to the control quadrant that is designed to assist in optimizing the operation of the Emergency Power Lever and the Condition Lever by providing stop tabs in the quadrant cover.

The stop tab for the Emergency Power Lever is designed to assist in reducing the potential of inadvertent movement of the Emergency Power Lever past the idle position from the stowed position. The lever design has also been changed so the geometry of the lever and system linkage operate to assist in reducing the sensitivity of the lever movement and to make the lever movement more linear relative to its position in the quadrant and resultant engine power.

The stop tab for the Condition Lever is designed to assist in reducing the potential of inadvertent movement of the Condition Lever into the cutoff position.

Non-compliance with CAB06-3 could result in engine damage if improper movements are made with the Emergency Power Lever and/or the Condition Lever.

Compliance is recommended: should be accomplished within the next 200 hours of operation or 12 months, whichever occurs first.

The information contained in the referenced Cessna Service Bulletin shall be considered an amendment to the Cessna Manufacturer's Service/Maintenance Manual and should be accomplished within the specified time requirement.

Please contact a Cessna Caravan or Propjet Service Station for detailed information and arrange to have Cessna Service Bulletin CAB06-3 accomplished on your airplane.

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TITLE

CONTROL QUADRANT MODIFICATION

EFFECTIVITY

<u>Model</u>	<u>Serial Numbers</u>
208	20800001 thru 20800395
208B	208B0001 thru 208B1170

DESCRIPTION

This service kit gives parts and instructions to install a new control quadrant cover, fuel condition lever (FCL), emergency power lever (EPL) and emergency power control cable bracket.

APPROVAL

FAA approval has been obtained on technical data in this publication that affects airplane type design.

REFERENCE

CAB06-3

CHANGE IN WEIGHT AND BALANCE

Negligible

SERVICE KIT

SK208-166

MATERIAL INFORMATION

The parts below cover installation for one airplane.

NEW P/N	QUANTITY	DESCRIPTION	OLD P/N	DISPOSITION
SK208-166	1	Kit, consisting of the following parts:		
AN3-4A	1	Bolt	None	
AN3-5A	2	Bolt	None	
AN23-15	1	Bolt		
MS21045-3	3	Nut	None	
MS24665-86	2	Cotter Pin	Same	
NAS1149F0332P	1	Washer	None	
NAS1149F0363P	2	Washer	None	
1250025-1	1	Retainer	None	
2650112-8	1	Mount	2650112-2	Discard
	1	Instructions	and 2650112-6	

In addition to the SK208-166 kit, airplanes with a 600 SHP engine installed, order the following part.

NEW P/N	QUANTITY	DESCRIPTION	OLD P/N	DISPOSITION
SL6004-11	1	Lever	SL6004-1	Discard

In addition to the SK208-166 kit, airplanes with a 675 SHP engine installed, order the following part.

NEW P/N	QUANTITY	DESCRIPTION	OLD P/N	DISPOSITION
SL6004-8	1	Lever	SL6004-1	Discard

In addition to the SK208-166 kit, airplanes with a standard control quadrant cover installed, order the following parts.

NEW P/N	QUANTITY	DESCRIPTION	OLD P/N	DISPOSITION
SL6004-9	1	Lever	SL6004-3	Discard
2613048-22	1	Cover Assembly	2613048	Discard

In addition to the SK208-166 kit, British Certified airplanes, order the following parts.

NEW P/N	QUANTITY	DESCRIPTION	OLD P/N	DISPOSITION
SL6004-10	1	Lever	SL6004-5	Discard

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2601455-18	1	Cover Assembly	2601455	Discard
2601455-13	1	Guard Assembly	2601455	Discard

In addition to the SK208-166 kit, airplanes without Engine Trend Monitoring (ETM) installed, order the following parts.

NEW P/N	QUANTITY	DESCRIPTION	OLD P/N	DISPOSITION
C489003	12 inches	Wire	Same	Discard
MS21042L08	1	Nut	Same	Discard

Airplanes without ETM installed, the following materials, or equivalent, are necessary.

NAME	NUMBER	MANUFACTURER	USE
Alodine 1132 Marker	U074093	Cessna Aircraft Company Cessna Parts Distribution 5800 East Pawnee PO Box 1521 Wichita, KS 67218	To apply to bare metal.

ACCOMPLISHMENT INSTRUCTIONS

1. Prepare the airplane for maintenance.
 - A. Make sure that all switches are in the OFF/NORM position.
 - B. Disconnect electrical power from the airplane.
 - (1) Disconnect the airplane battery.
 - (2) Disconnect external electrical power.
 - C. Attach maintenance warning tags to the battery and external power receptacle that have **"DO NOT CONNECT ELECTRICAL POWER - MAINTENANCE IN PROGRESS"** written on them.
2. (Refer to Figure 1, Detail A.) Remove the control quadrant cover and keep the screws that attach it.
 - A. Remove and keep the emergency power lever, the propeller speed control lever, and fuel condition lever knobs and hardware.
 - B. (Airplanes with Engine Trend Monitoring (ETM) installed) Discard the control column cover.
 - C. (Airplanes without ETM installed) Temporarily keep the control column cover to match drill the shear-wire hole in the new control column cover that will be installed in a later step.
3. Replace the emergency power lever and fuel condition lever.
 - A. Disconnect the elevator trim cable assembly from the elevator trim wheel as necessary. (Refer to the Maintenance Manual, Chapter 27, Elevator Trim - Maintenance Manual.)
 - B. Remove the elevator trim wheel from the control quadrant shaft. Keep the hardware.
 - C. Remove the quadrant assembly. (Refer to the Maintenance Manual, Chapter 76, Quadrant Assembly and Controls - Maintenance Practices.)
 - D. (Refer to Figure 1, Detail B.) Remove the shaft and quadrant axle while you hold the stack-up of spacers and other hardware together.
 - E. Remove and discard the fuel condition lever and emergency power lever.

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- F. Install the SL6004-8 Emergency Power Lever (675 SHP engine) or SL6004-11 Emergency Power Lever (600 SHP engine) and the SL6004-9 Fuel Condition Lever (Standard) or the SL6004-10 Fuel Condition Lever (British certified airplanes) with the kept shaft and spacers.
 - G. Assemble the quadrant.
 - H. Install the quadrant assembly. (Refer to the Maintenance Manual, Chapter 76, Quadrant Assembly and Controls - Maintenance Practices.)
 - I. Rig the emergency power lever annunciator light switch.
 - J. Install the elevator trim wheel with the kept hardware.
 - K. Connect the elevator trim cable assembly to the elevator trim wheel.
 - L. Rig the elevator trim. (Refer to the Maintenance Manual, Chapter 27, Elevator Trim - Maintenance Manual.)
4. (Refer to Figure 1, Detail C.) Replace the emergency power control cable bracket.
- A. Get access to the bracket for the emergency power control cable by opening the right engine cowling.
 - B. Disconnect the starter-generator cooling hose from the starter-generator to get access to the emergency power control cable bracket.
 - C. Remove the emergency power control cable from the manual override arm. Keep the hardware that attaches it.
 - D. Remove the emergency power control cable bracket from the fuel control unit and from the control cable. Keep the 2650064-2 Bracket, 2650064-3 Bracket, 2650065-1 Bolt and two NAS509-3 Nuts. Discard all other control cable retaining brackets, spacers and hardware.
 - E. Assemble the 2650064-2 Bracket, the 2650064-3 Bracket and the 2650112-8 Mount with two each AN3-5A Bolts, NAS1149F0363P Washers and MS21045-3 Nuts.
 - F. Install the brackets on the fuel control unit with the kept 2650065-1 Bolt and two NAS509-3 Nuts. Safety wire the nuts. (Refer to the Maintenance Manual, Chapter 20, Safelying - Maintenance Practices.)
 - G. Install the control cable on the mount with one each 1250025-1 Retainer, AN3-4A Bolt, NAS1149F0332P Washer and MS21045-3 Nut.
 - H. Connect the starter-generator cooling hose to the starter-generator.
5. (Refer to Figure 1, Detail C.) Do an initial rig of the emergency power control.
- A. Loosen the nut that attaches the manual override arm of the fuel control unit on its shaft enough to allow the arm to rotate.
 - B. Change the position of the manual override arm so that its centerline is aligned with the stop on the manual override shaft, +7 or - 7 degrees.
 - C. Tighten the nut that holds the manual override arm in place. Attach the nut with one MS24665-86 Cotter Pin.
 - D. Attach the emergency power control cable to the manual override arm with the kept hardware and one MS24665-86 Cotter Pin.
 - E. Make sure that the head of the bolt does not interfere with surrounding structure. If interference is noted, replace the bolt with an AN23-15 Bolt.
6. Connect the airplane battery.
7. Rig the emergency power control. (Refer to the Maintenance Manual, Chapter 76, Engine Control Rigging - Maintenance Practices.)
8. Disconnect the airplane battery.
9. Close the right engine cowling.

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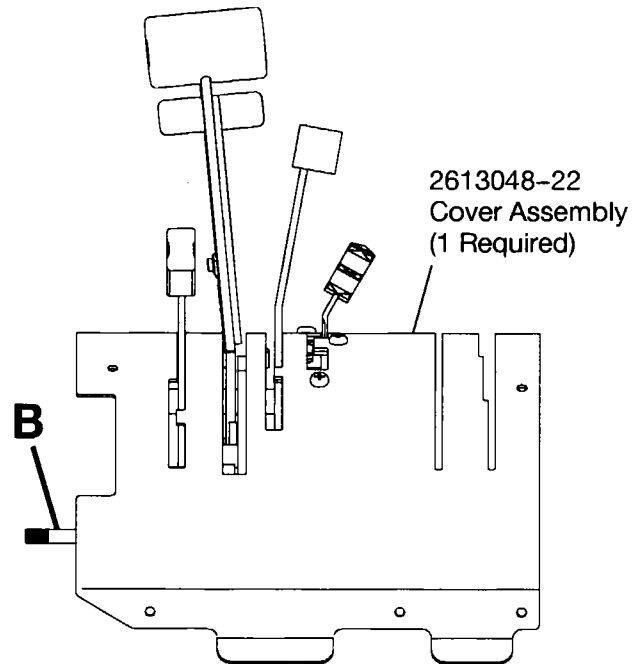
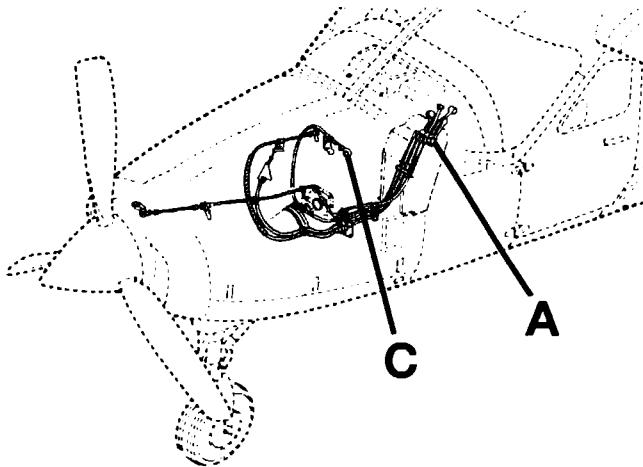
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10. (Refer to Figure 1, Detail A.) Install the new quadrant cover assembly. (Refer to the Maintenance Manual, Chapter 76, Quadrant Assembly and Controls - Maintenance Practices.)
 - A. (Airplanes without ETM installed) Install shear wire and quadrant cover.
 - (1) Use the kept control column cover as a guide and mark the shear-wire hole location on the new 2613048-22 Cover Assembly (standard) or 2601455-13 Guard and 2601455-18 Cover Assembly (British).
 - (2) Match drill a 0.172-inch diameter hole through the cover. British Certified airplanes, enlarge the hole in the 2601455-18 Cover Assembly only to 0.438 inch diameter. Deburr the hole.
 - (3) Apply Alodine to the hole.
 - (4) Reinstall the kept screw, washer and one new MS21042L08 Nut in the new hole.
 - (5) Install the 2613048-22 Cover Assembly (standard) or 2601455-18 Cover Assembly (British) with the 2601455-13 Guard Assembly and the kept screws.
 - (6) Install one C489003 Wire, cut to length, with the double-twist method around the emergency power lever. (Refer to the Maintenance Manual, Chapter 20, Safelying - Maintenance Practices.)
 - B. (Airplanes with ETM installed) Install the 2613048-22 Cover Assembly (standard) or 2601455-18 Cover Assembly (British) with the 2601455-13 Guard and the kept screws.
 - C. Install the kept knobs on the new levers with the kept hardware.
11. Remove maintenance warning tags and connect the airplane battery.
12. Make an entry in the airplane logbook stating this Service Kit has been installed.

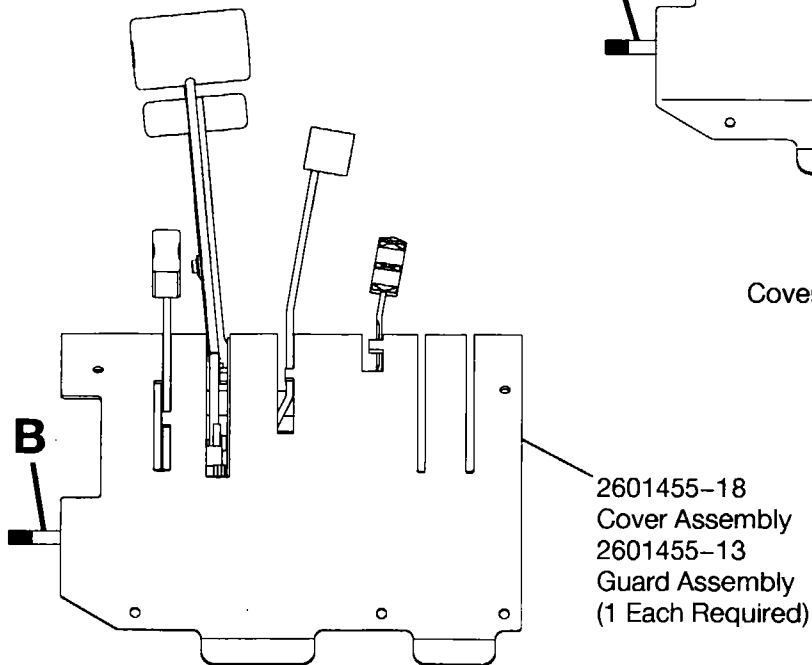
SERVICE KIT

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DETAIL A
Cover Assembly-Standard



DETAIL A
Cover Assembly-British Certified Airplanes

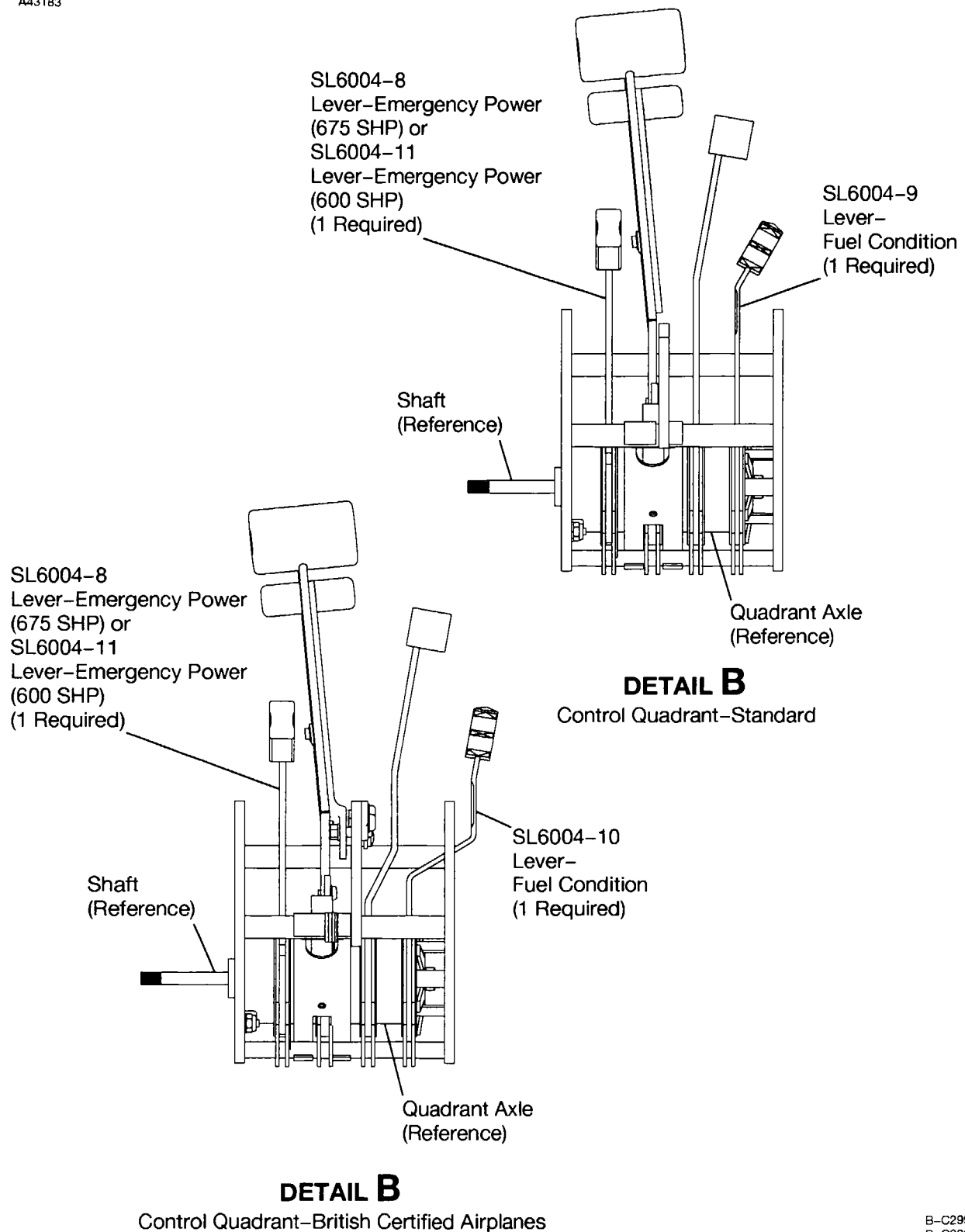
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Figure 1. Control Quadrant Modification (Sheet 1)

SERVICE KIT

SK208-166

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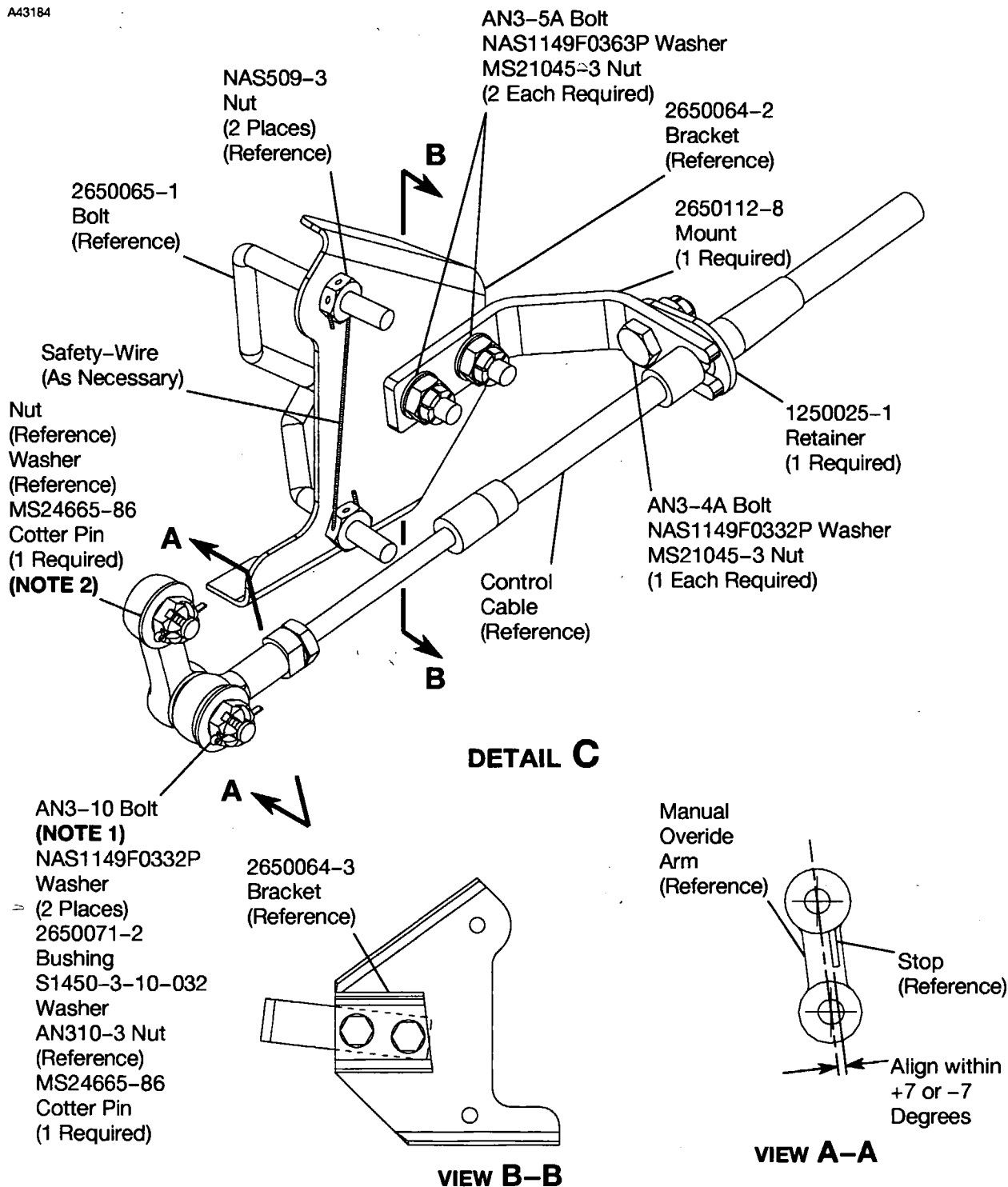
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Figure 1. Control Quadrant Modification (Sheet 2)

SERVICE KIT

SK208-166

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NOTE 1: If the AN3-10 Bolt interferes with structure, use an AN23-15 Bolt.

NOTE 2: Install the cotter pin after you position the manual override arm.

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Figure 1. Control Quadrant Modification (Sheet 3)