

TITLE SEAT BELT AND SHOULDER HARNESS KIT INSTALLATION

EFFECTIVITY

MODEL SERIES

SERIAL NUMBERS

180	30000 Thru 50911
180	18050912 Thru 18053203
180	604, 614, 624, 645
185	185-0001 Thru 185-1599
185	18501600 Thru 18504415
185	632, 652

DESCRIPTION

To replace existing seat belts with new seat belts and shoulder harnesses with metal-to-metal buckles.

APPROVAL

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

REFERENCE

SEB92-28

CHANGE IN WEIGHT AND BALANCE

Each seat belt and shoulder harness assembly (including airframe attachment parts) will increase the airplane's empty weight by 0.75 pounds at each seat location and should be included as part of the airplane's basic empty weight.

For 1975 and earlier model airplanes, refer to the airplane's weight and balance data and equipment list to determine the location (arm) of each seat.

For 1976 and later model airplanes, refer to Section 6, Weight & Balance/Equipment List, of the Pilot's Operating Handbook to determine the location (arm) of each seat.

September 4, 1992

Revision D -October 29, 2001

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To obtain satisfactory results, procedures specified in this publication must be accomplished in accordance with accepted methods and prevailing government regulations. The Cessna Aircraft Company cannot be responsible for the quality of work performed in accomplishing the requirements of this publication.

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SERVICE KIT

SK185-52D

MATERIAL INFORMATION

- A. Order, SK185-52D1, cockpit shoulder harness installation kit, for the following airplanes:

MODEL SERIES

180
180
180
185
185
185

SERIAL NUMBERS

30000 Thru 50911
18050912 Thru 18052175
604, 614, 624, 645
185-0001 Thru 185-1599
18501600 Thru 18501832
632

PART NUMBER

QUANTITY

DESCRIPTION

SK185-52D1

1

Kit, consisting of the
following parts:

AN525-832R9

16

Screw

S2456-4-5

12

Rivet

MS20426AD3-5A

8

Rivet

MS21042L4

4

Nut

MS21044N08

16

Nut

MS21047L4

2

Nutplate

NAS1149F0663P

4

Washer

NAS1149FN832P

16

Washer

NAS43HT4-22

2

Spacer

NAS464P4A12

2

Bolt

502987-401-2251

2

Harness Assembly

0415010-1

2

Cover

0591002-10

1

Gusset, Right

0591002-9

1

Gusset, Left

2013131-1

2

Spacer

1

Instructions

SERVICE KIT

SK185-52D

- B. Order, SK185-52D2, third and fourth place bench seat passenger harness installation kit, for the following airplanes:

MODEL SERIES

SERIAL NUMBERS

180	30000 Thru 50911
180	18050912 Thru 18052175
180	604, 614, 624, 645
185	185-0001 Thru 185-1599
185	18501600 Thru 18501832, 632

PART NUMBER

QUANTITY

DESCRIPTION

SK185-52D2	1	Kit, consisting of the following parts:
AN4-5A	4	Bolt
MS20426AD3-4A	8	Rivet
MS20470AD4-4A5	8	Rivet
MS21042L4	4	Nut
MS21047L3	2	Nutplate
MS27039-1-10	2	Screw
NAS1149F0432P	8	Washer
NAS43HT4-11	4	Spacer
503063-401-2251	2	Harness Assembly
0511232-4	2	Strap
1414025-1	2	Hook
1414025-2	2	Spring
	1	Instructions

- C. Order, SK185-52D3, third and fourth place bench seat passenger harness installation kit, for the following airplanes:

MODEL SERIES

SERIAL NUMBERS

180	18052176 Thru 18053203
185	18501833 Thru 18504415, 652

PART NUMBER

QUANTITY

DESCRIPTION

SK185-52D3	1	Kit, consisting of the following parts:
AN4-5A	4	Bolt
MS21042L4	4	Nut
NAS1149F0432P	8	Washer
NAS1149F0663P	4	Washer
NAS43HT4-11	4	Spacer
NAS43HT4-20	2	Spacer
NAS464P4A10	2	Bolt
503062-401-2251	2	Harness Assembly
0415010-1	2	Cover
	1	Instructions

SERVICE KIT

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- D. Order, SK185-52D4, third and fourth place divided seat harness installation kit, for the following airplanes:

MODEL SERIES

SERIAL NUMBERS

180	30000 Thru 50911
180	18050912 Thru 18052384
180	604, 614, 624, 645
185	185-0001 Thru 185-1599
185	18501600 Thru 18502310, 632, 652

PART NUMBER	QUANTITY	DESCRIPTION
SK185-52D4	1	Kit, consisting of the following parts:
AN4-5A	4	Bolt
MS20426AD3-4A	8	Rivet
MS20470AD4-4A5	8	Rivet
MS21042L4	4	Nut
MS21047L3	2	Nutplate
MS27039-1-10	2	Screw
NAS1149F0432P	8	Washer
NAS43HT4-11	4	Spacer
S2275-47	2	Harness Assembly
1414025-1	2	Hook
1414025-2	2	Spring
	1	Instructions

- E. Order, SK185-52D5, third and fourth place divided seat harness installation kit, for the following airplanes:

180	18052385 Thru 18052620
180	18052771 Thru 18053203
185	18502311 Thru 18502838
185	18503154 Thru 18504415

PART NUMBER	QUANTITY	DESCRIPTION
SK185-52D5	1	Kit, consisting of the following parts:
AN4-5A	4	Bolt
MS21042L4	4	Nut
NAS1149F0432P	8	Washer
NAS1149F0663P	4	Washer
NAS43HT4-11	4	Spacer
NAS43HT4-20	2	Spacer
NAS464P4A10	2	Bolt
502987-401-2251	2	Harness Assembly
0415010-1	2	Cover
	1	Instructions

SERVICE KIT

SK185-52D

- F. Order, SK185-52D6, third and fourth place divided seat harness installation kit, for the following airplanes:

180
185

18052621 Thru 18052770
18502839 Thru 18503153

PART NUMBER	QUANTITY	DESCRIPTION
SK185-52D6	1	Kit, consisting of the following parts:
NAS1149F0663P	4	Washer
NAS43HT4-20	2	Spacer
NAS464P4A10	2	Bolt
503001-401-2251	2	Harness Assembly
0415010-1	2	Cover
	1	Instructions

- G. Order, SK185-52D7, fifth and sixth place bench seat harness installation kit, for the following airplanes:

180
185
185

18052176 Thru 18053203
18501833 Thru 18504415
652

PART NUMBER	QUANTITY	DESCRIPTION
SK185-52D7	1	Kit, consisting of the following parts:
S2074-1	4	Spacer
NAS464P4A6	2	Bolt
3010-1-01A-2396	2	Harness Assembly
S1021Z4-6	4	Screw
0712761-1-532	2	Cup
	1	Instructions

SERVICE KIT

SK185-52D

ACCOMPLISHMENT INSTRUCTIONS

1. Install cockpit shoulder harness assembly and seat belt attachments

(For airplanes being modified by the installation of Service Kit SK185-52D1).

NOTE: Installation is typical for left and right side.

- A. Remove and discard existing seat belt. Retain attaching hardware for reinstallation, except nut, which may be discarded.
- B. Loosen headliner, headliner retainer and window molding to gain working access as required.
- C. (Refer to Figure 1, Sheet 1, Detail A.) Locate 0591002-9 (Left) or 0591002-10 (Right) Gusset.

- (1) Remove and discard existing gusset.

- (2) Clamp or hold the 0591002-9 (left) or 0591002-10 (right) Gusset securely on the doorpost and match drill four (4) existing holes to 11/64 (0.172) inch diameter in gusset and doorpost.

CAUTION: ENSURE SUFFICIENT CLEARANCE IS PRESENT WHILE DRILLING INTO GUSSET AND DOORPOST TO ENSURE FUEL LINE DOES NOT SUSTAIN DAMAGE.

- (3) Match drill three (3) existing holes to 11/64 (0.172) inch diameter in gusset thru door sill assembly.
- (4) Enlarge one (1) existing hole in headliner retainer to 11/64 (0.172) inch diameter, thru gusset and door sill assembly.
- (5) Enlarge two (2) existing holes in headliner retainer, common to gusset, to 11/64 (0.172) inch diameter.
- (6) Position the headliner retainer and gusset on the doorpost and secure using temporary sheet metal fasteners.
- (7) Match drill one (1) Number 40 (0.098 inch diameter) hole in headliner retainer, thru the gusset.
- (8) Enlarge hole in headliner retainer, thru gusset, to Letter F (0.257 inch diameter). Remove parts.

NOTE: It is permissible for nutplate location to vary to ensure nutplate and hole clear existing structure.

- (9) Position the MS21047L4 Nutplate on the gusset and match drill two (2) Number 40 (0.098 inch diameter) holes. Countersink 100° x 0.18 diameter.
- (10) Install nutplate on gusset using two (2) MS20426AD3-5A Rivets.
- (11) Install headliner retainer and gusset on doorpost using eight (8) AN525-832R9 Screws, NAS1149FN832P Washers and MS21044N08 Nuts
- (12) Install one (1) MS20426AD3-5A Rivet thru the headliner retainer and gusset.
- (13) Reinstall headliner and headliner retainer using S2456-4-5 Rivets, as required.

NOTE: It is permissible to trim headliner retainer to match gusset, if required.

- D. (Refer to Figure 1, Sheet 2, Detail B.) Install 502987-401-2251 Harness Assembly using two (2) NAS1149F0663P Washers and one (1) each 2013131-1 Spacer, NAS43HT4-22 Spacer, NAS464P4A12 Bolt and 0415010-1 Cover.
- E. Install seat belt attachments.
 - (1) (Refer to Figure 1, Sheet 2, Detail C.) Install seat belt half with buckle on the inboard side of seat using existing hardware and one (1) MS21042L4 Nut.
 - (2) (Refer to Figure 1, Sheet 2, Detail C.) Install seat belt half with link assembly on the outboard side of seat using existing hardware and one (1) MS21042L4 Nut.

SERVICE KIT

SK185-52D

2. Install third and fourth place passenger shoulder harness assembly and seat belt attachments.

NOTE: Shoulder harness and seat belt installation is typical for left and right side.

- A. Remove existing seat belt. Retain attaching hardware for reinstallation, except nut, which may be discarded.
- B. Loosen headliner and window molding as required to gain working access.
- C. Locate shoulder harness.

- (1) For airplanes being modified by the installation of SK185-52D2 or SK185-52D4.

- (a) (Refer to Figure 1, Sheet 3, View A-A.) Remove existing rivet in skin and bulkhead at approximately BL 12.00.
- (b) Lay out and drill two (2) Number 40 (0.098 inch diameter) holes in 0511232-4 Strap.
- (c) Position strap on bulkhead at FS 108.00 and back drill two (2) Number 30 (0.128 inch diameter) holes.
- (d) Install strap on bulkhead at FS 108.00 using two (2) MS20470AD4-4A5 Rivets.
- (e) Using MS21047L3 Nutplate as a template, lay out and drill two (2) Number 40 (0.098 inch diameter) holes thru strap and bulkhead at FS 90.00.
- (f) Again using nutplate as a template, drill one (1) Number 10 (0.193 inch diameter) hole to match nutplate.
- (g) Install nutplate on strap and bulkhead using two (2) MS20426AD3-4A Rivets.
- (h) Reinstall headliner and window molding in original position.
- (i) Locate nutplate in strap and, using a sharp instrument, pierce headliner at nutplate location.
- (j) Install shoulder harness assembly.

1 (Refer to Figure 1, Sheet 3, Detail D.) For airplanes being modified by the installation off SK185-52D2, install 503063-401-2251 Harness Assembly using one (1) each 1414025-1 Hook, 1414025-2 Spring and MS27039-1-10 Screw.

2 (Refer to Figure 1, Sheet 3, Detail D.) For airplanes being modified by the installation off SK185-52D4, install S2275-47 Harness Assembly using one (1) each 1414025-1 Hook, 1414025-2 Spring and MS27039-1-10 Screw.

- (2) For airplanes being modified by the installation of SK185-52D3, SK185-52D5, or SK185-52D6.

- (a) (Refer to Figure 1, Sheet 4, Detail E.) Locate existing nutplate at approximately FS 89.28 and WL 27.60 and match drill one (1) Letter F (.0257 inch diameter) hole thru window molding.
- (b) Reinstall headliner and window molding in original position.
- (c) Install harness assembly.

1 (Refer to Figure 1, Sheet 4, Detail E.) For airplanes being modified by the installation off SK185-52D3, install 503062-401-2251 Harness Assembly using two (2) NAS1149F0663P Washers, one (1) each NAS43HT4-20 Spacer, 0415010-1 Cover, and NAS464P4A10 Bolt.

SERVICE KIT

SK185-52D

2 (Refer to Figure 1, Sheet 4, Detail E.) For airplanes being modified by the installation of SK185-52D5, install 502987-401-2251 Harness Assembly using two (2) NAS1149F0663P Washers, one (1) each NAS43HT4-20 Spacer, 0415010-1 Cover, and NAS464P4A10 Bolt.

3 (Refer to Figure 1, Sheet 4, Detail E.) For airplanes being modified by the installation of SK185-52D6, install 503001-401-2251 Harness Assembly using two (2) NAS1149F0663P Washers, one (1) each NAS43HT4-20 Spacer, 0415010-1 Cover, and NAS464P4A10 Bolt.

D. Install seat belt attachments.

(1) For airplanes being modified by the installation of SK185-52D3 or SK185-52D5:

(a) (Refer to Figure 1, Sheet 6, Detail H.) Install seat belt half with buckle on the inboard side of seat using existing hardware, two (2) NAS1149F0432P Washers and one (1) each AN4-5A Bolt, NAS43HT4-11 Spacer and MS21042L4 Nut.

(b) (Refer to Figure 1, Sheet 6, Detail I.) Install seat belt half with link assembly on the outboard side of seat using existing hardware, two (2) NAS1149F0432P Washers and one (1) each AN4-5A Bolt, NAS43HT4-11 Spacer and MS21042L4 Nut.

(2) For airplanes being modified by the installation of SK185-52D6:

(a) (Refer to Figure 1, Sheet 5, Detail F.) Clip seat belt half with buckle on the inboard side of seat.

(b) (Refer to Figure 1, Sheet 5, Detail G.) Clip seat belt half with link assembly on the outboard side of seat.

3. Install fifth and sixth place passenger shoulder harness assembly and seat belt attachments.

(For airplanes being modified by the installation of SK185-52D7)

NOTE: Shoulder harness and seat belt installation is typical for left and right side.

A. Remove existing seat belt and shoulder harness assemblies as applicable.

B. Install shoulder harness assembly.

(1). (Refer to Figure 2, Sheet 1, Detail A and View B-B.) Remove cabin aft upper upholstery panel as required to gain working access, retain attaching hardware. Locate existing nutplate to attach shoulder harness.

(2). Cut slot in upper upholstery panel to match 0712761-1-532 Cup. Using cup as a guide, mark and drill two #44 (0.086 inch) holes in panel for each cup. Install cups in upholstery panel with S1021Z4-6 screws.

(3). (Refer to Figure 2, Sheet 1, Detail A) Install each 3010-1-01A-2396 Shoulder Harness Assembly as shown using two S2074-1 Spacers and one NAS464P4A6 bolt.

(4). Install cabin aft upper upholstery panel and secure using retained hardware.

C. Install seat belt attachments.

(1) (Refer to Figure 2, Sheet 2, Detail C.) Clip seat belt half with buckle on the inboard side of seat.

(2) (Refer to Figure 2, Sheet 2, Detail D.) Clip seat belt half with link assembly on the outboard side of seat.

4. Adjust harness assembly as follows:

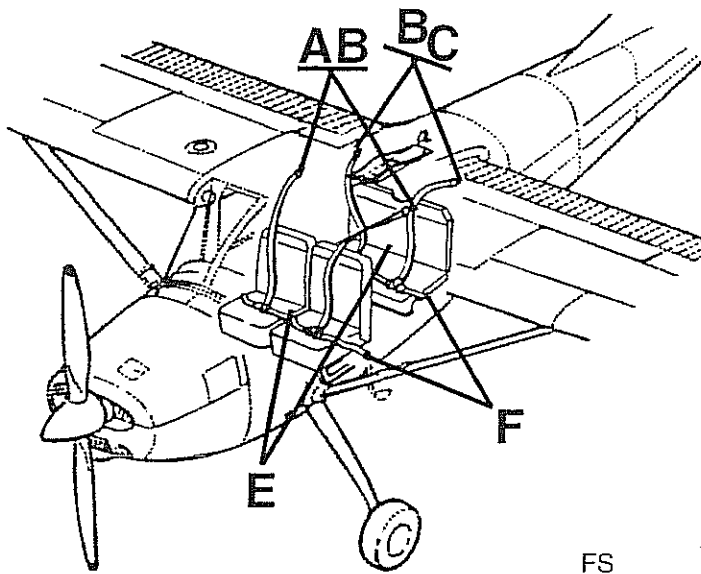
A. To snug up shoulder strap, pull down on lower free end of strap.

B. To loosen shoulder strap, pull up on cloth tab attached to lower adjustment fitting.

5. Make an entry in the airplane logbook stating this service kit has been accomplished.

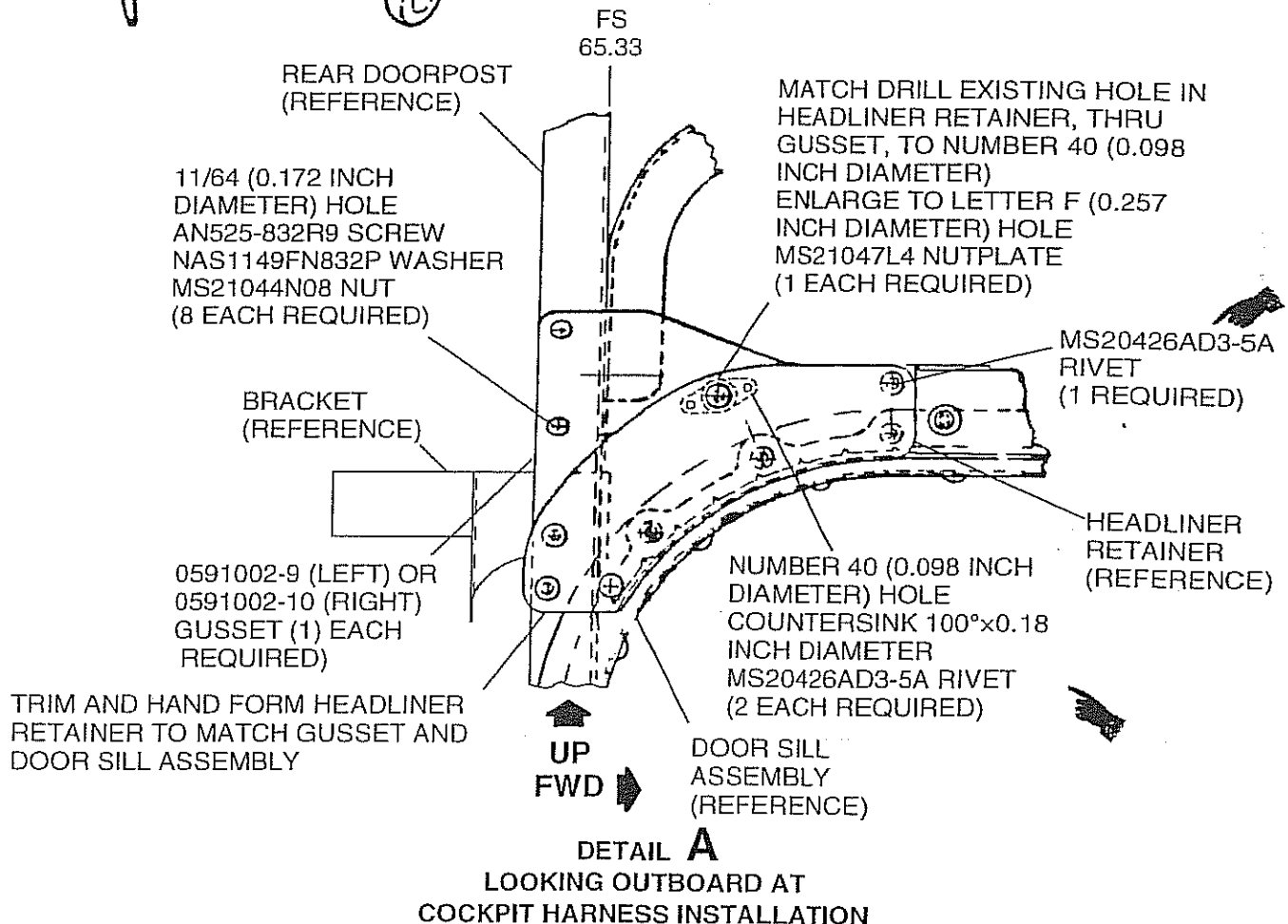
SERVICE KIT

SK185-52C



CAUTION: ENSURE SUFFICIENT CLEARANCE IS PRESENT WHILE DRILLING INTO GUSSET AND DOORPOST TO ENSURE FUEL LINE DOES NOT SUSTAIN DAMAGE

NOTE: NUTPLATE LOCATION MAY VARY SLIGHTLY TO ENSURE NO INTERFERENCE WITH STRUCTURE IS PRESENT



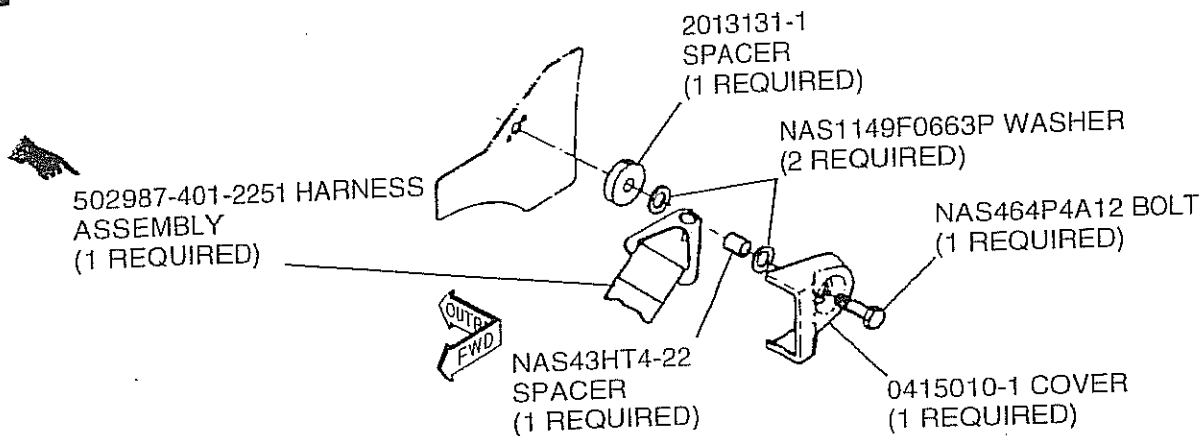
AIRPLANES

30000 THRU 18052175, 604, 614, 624, 645,
185-0001 THRU 18501832 AND 632
(LEFT SIDE SHOWN, RIGHT SIDE OPPOSITE)

Figure 1. Seat Belt and Shoulder Harness Kit Installation (Sheet 1 of 6)

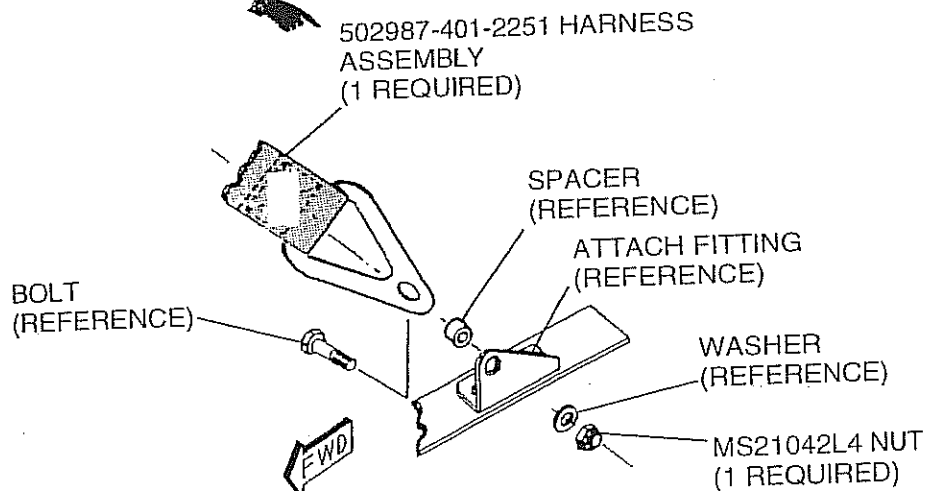
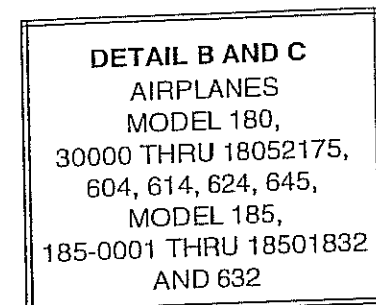
SERVICE KIT

SK185-52D



DETAIL B

COCKPIT HARNESS INSTALLATION
(RIGHT SIDE SHOWN, LEFT SIDE OPPOSITE)



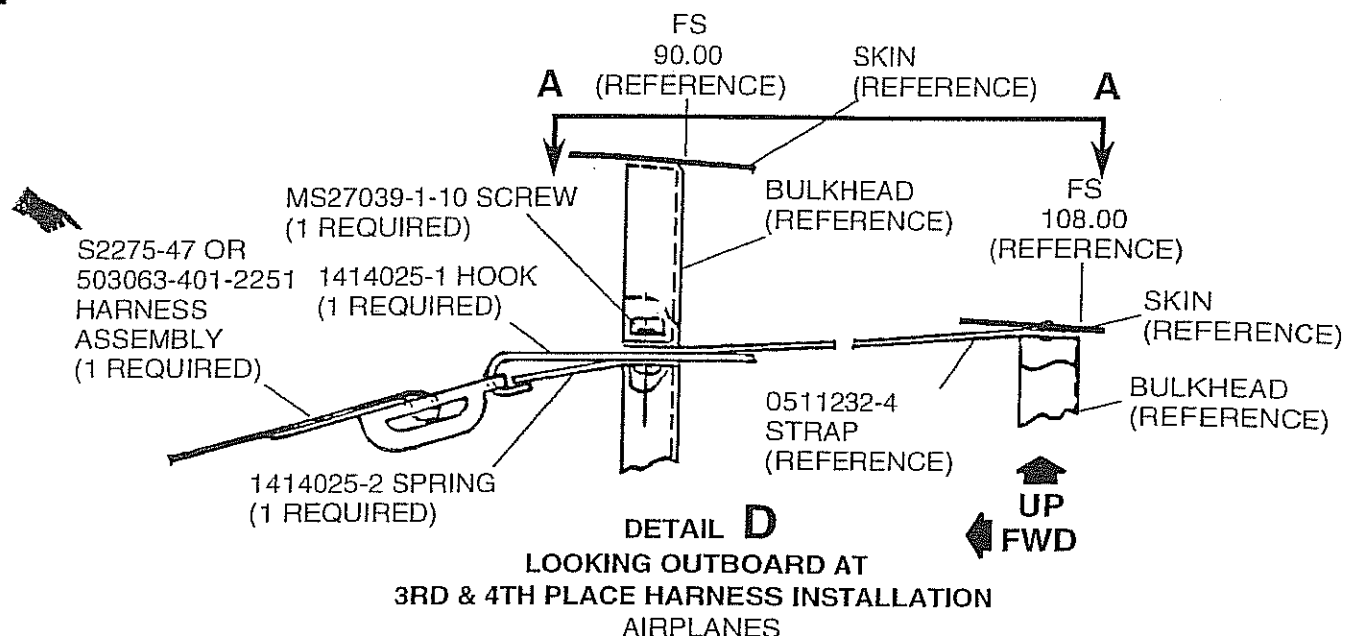
DETAIL C

COCKPIT SEAT BELT INBOARD
AND OUTBOARD ATTACHMENT
(RIGHT SIDE SHOWN, LEFT SIDE OPPOSITE)

Figure 1. Seat Belt and Shoulder Harness Kit Installation (Sheet 2)

SERVICE KIT

SK185-52D



MODEL 180, 30000 THRU 18052175,
604, 614, 624, 645,
MODEL 185, 185-0001 THRU 18501832 AND 632
(INCORPORATING BENCH SEAT)

MODEL 180, 30000 THRU 18052384,
604, 614, 624, 645,
MODEL 185, 185-0001 THRU 18502310 AND 632
(INCORPORATING DIVIDED SEAT)

(RIGHT SIDE SHOWN, LEFT SIDE OPPOSITE)

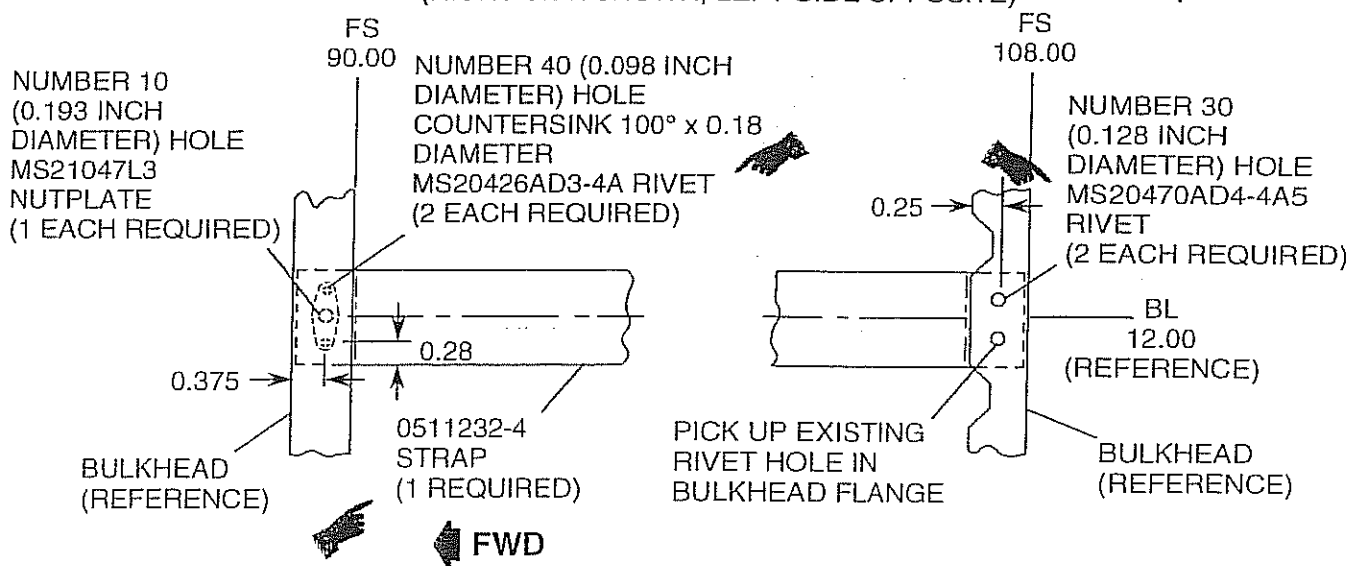
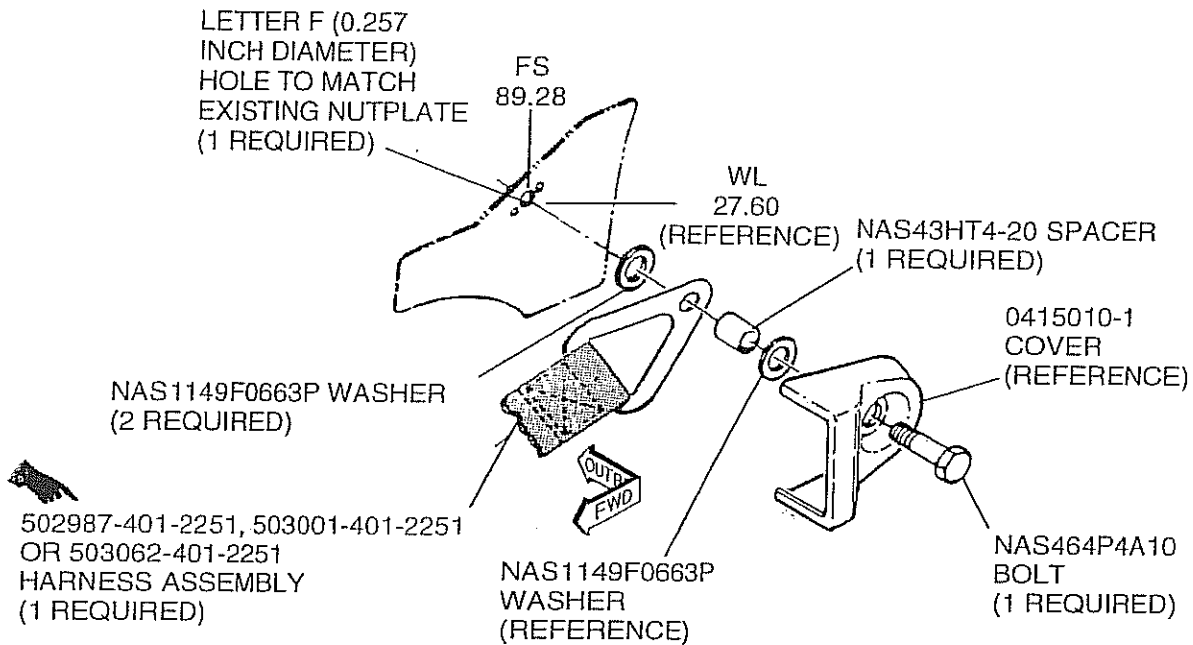


Figure 1. Seat Belt and Shoulder Harness Kit Installation (Sheet 3)

SERVICE KIT

SK185-52D



DETAIL E LOOKING OUTBOARD AT 3RD & 4TH PLACE HARNESS INSTALLATION

AIRPLANES

18052176 THRU 18053203
18501833 THRU 18504415 AND 652
(INCORPORATING BENCH SEAT)

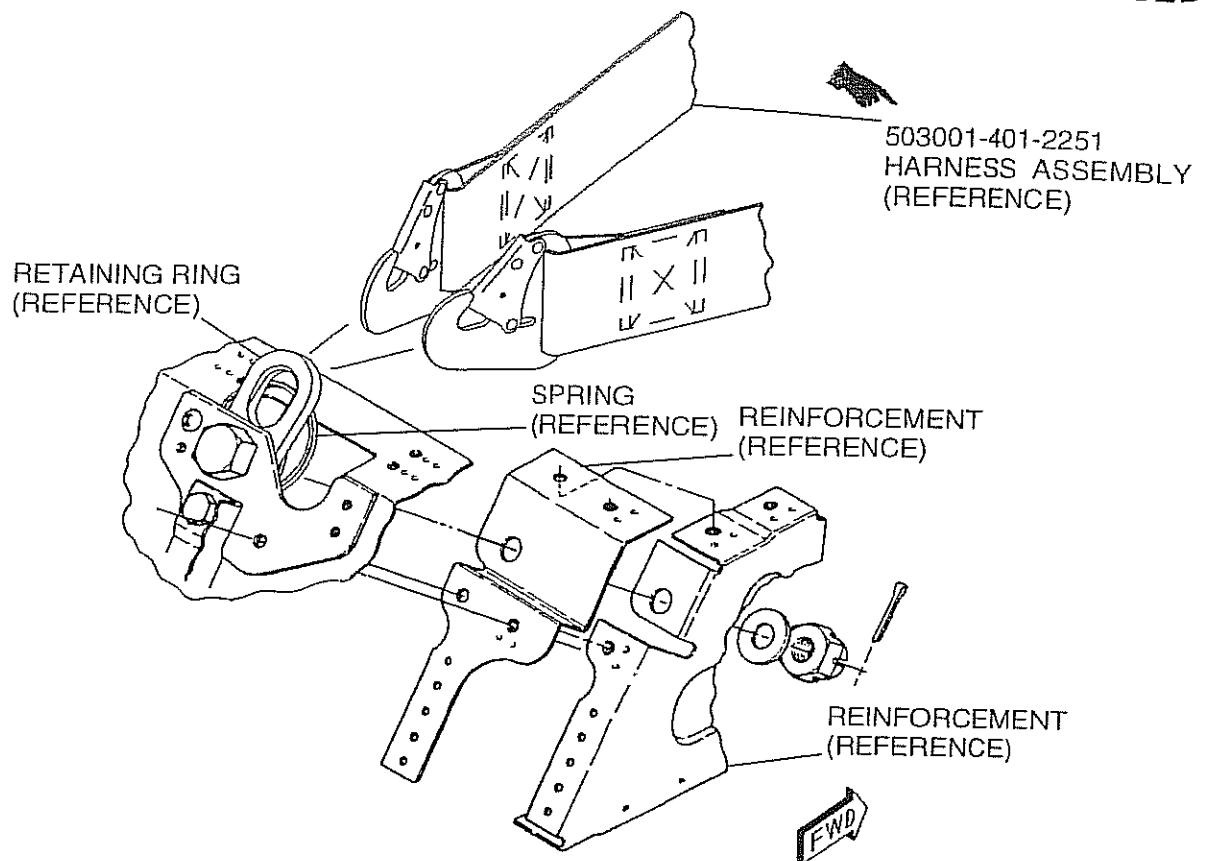
18052385 THRU 18053203
18502311 THRU 18504415
(INCORPORATING DIVIDED SEAT)

(RIGHT SIDE SHOWN, LEFT SIDE OPPOSITE)

Figure 1. Seat Belt and Shoulder Harness Kit Installation (Sheet 4)

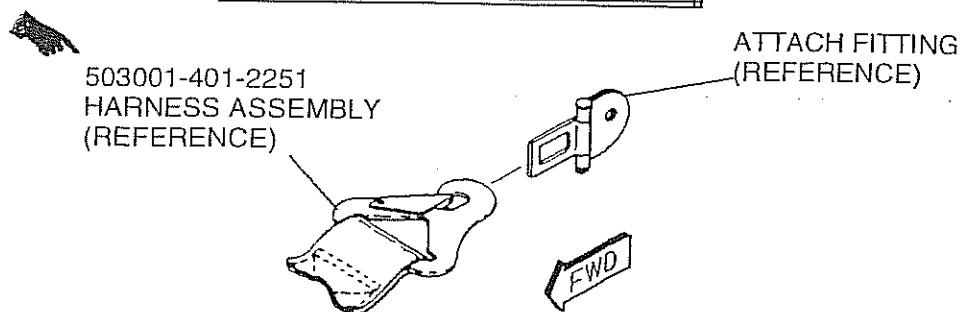
SERVICE KIT

SK185-52C



DETAIL F
PASSENGER SEAT 3RD AND 4TH PLACE
INBOARD ATTACHMENT

DETAIL F & G
AIRPLANES
18052621 THRU 18052770
18502839 THRU 18503153
(INCORPORATING DIVIDED SEAT)

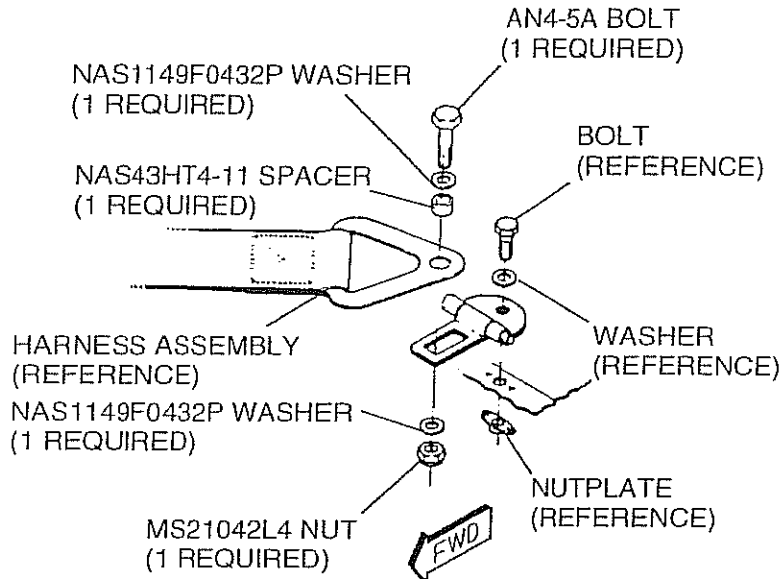


DETAIL G
PASSENGER SEAT 3RD AND 4TH PLACE
OUTBOARD ATTACHMENT

Figure 1. Seat Belt and Shoulder Harness Kit Installation (Sheet 5)

SERVICE KIT

SK185-52D



DETAIL H

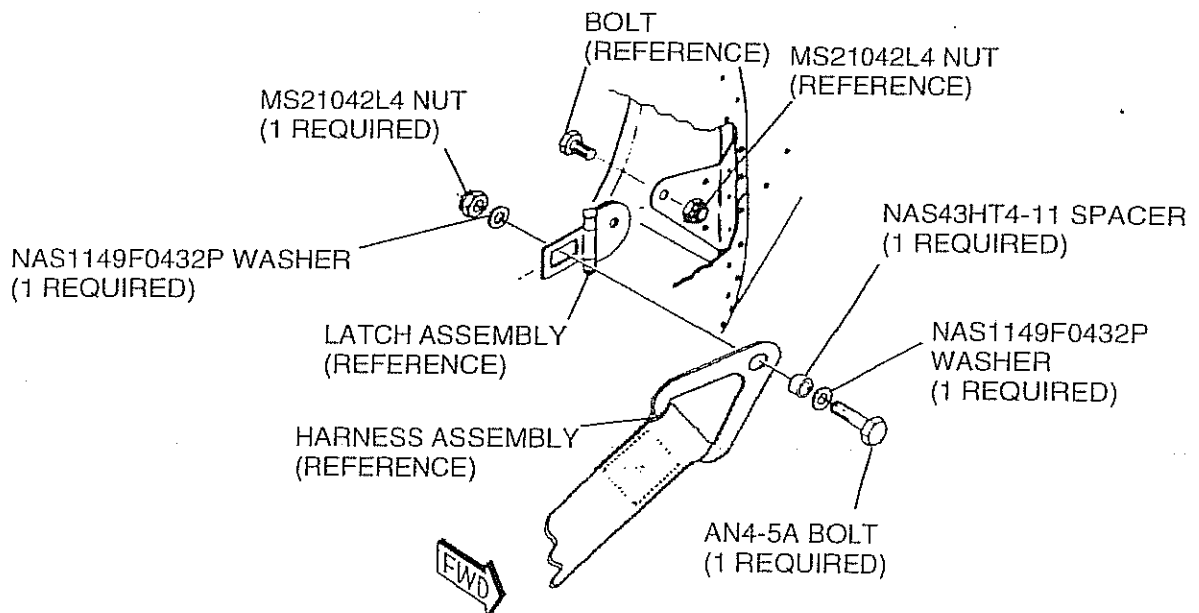
PASSENGER SEAT 3RD & 4TH PLACE
INBOARD ATTACHMENT

DETAILS H AND I

AIRPLANES

MODEL 180, 30000 THRU 18053203
MODEL 185, 185-0001 THRU 18504415
(INCORPORATING BENCH SEAT)

MODEL 180, 30000 THRU 18052620
18052771 THRU 18053203
MODEL 185, 185-0001 THRU 18502838
18503154 THRU 18504415
(INCORPORATING DIVIDED SEAT)



DETAIL I

PASSENGER SEAT 3RD AND 4TH PLACE
OUTBOARD ATTACHMENT

Figure 1. Seat Belt and Shoulder Harness Kit Installation (Sheet 6)

SERVICE KIT

SK185-52E

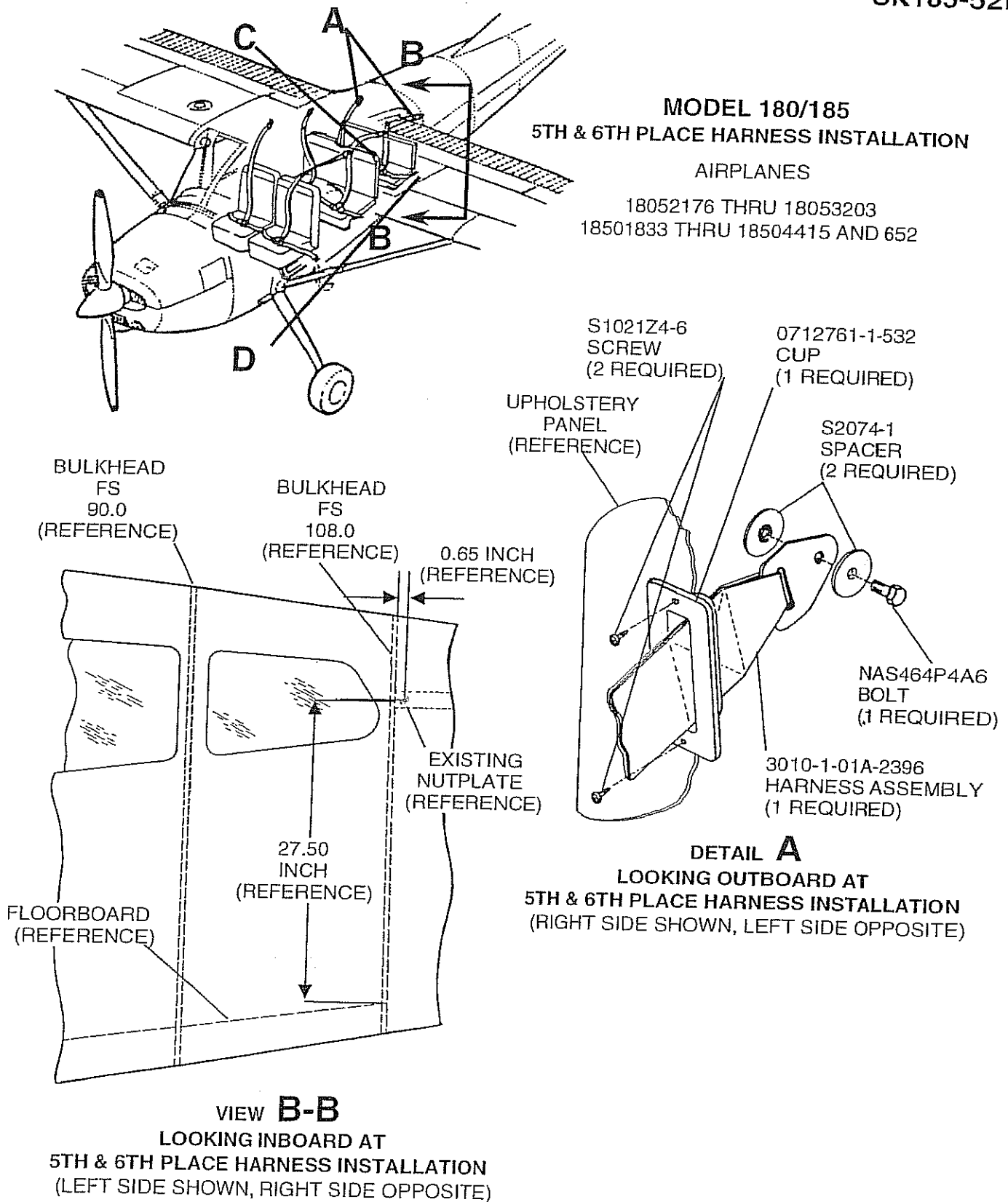
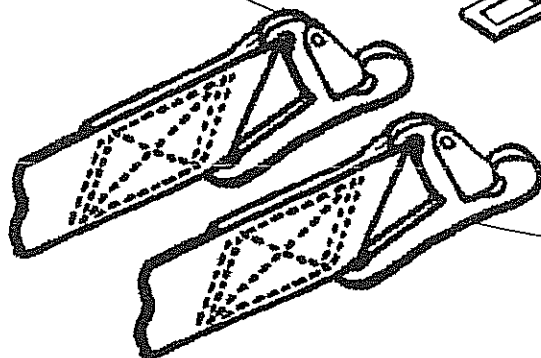


Figure 2. Seat Belt and Shoulder Harness Kit Installation (Sheet 1 of 2)

SERVICE KIT

SK185-52D

3010-1-01A-2396
HARNESS ASSEMBLY
(REFERENCE)

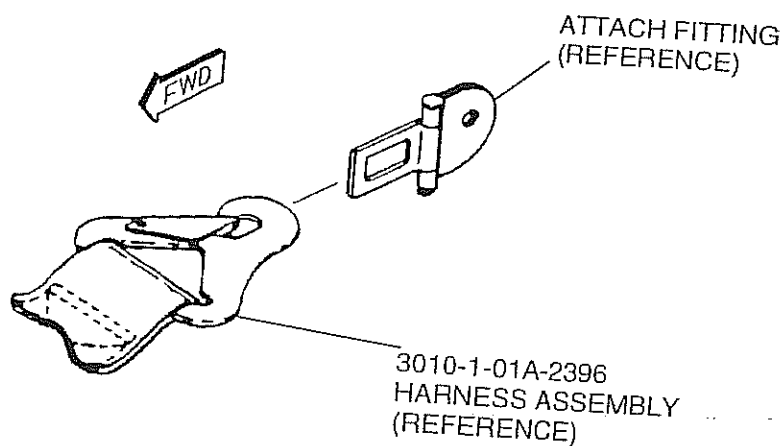


ATTACH FITTINGS
(REFERENCE)

3010-1-01A-2396
HARNESS ASSEMBLY
(REFERENCE)

FWD

DETAIL C
PASSENGER SEAT 5TH & 6TH PLACE
INBOARD ATTACHMENT



ATTACH FITTING
(REFERENCE)

3010-1-01A-2396
HARNESS ASSEMBLY
(REFERENCE)

DETAIL D
PASSENGER SEAT 5TH AND 6TH PLACE
OUTBOARD ATTACHMENT

Figure 2. Seat Belt and Shoulder Harness Kit Installation (Sheet 2)