

**Aviation Fabricators  
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## ***INSTRUCTIONS FOR CONTINUED AIRWORTHINESS***

For

High Density Seat Installations

**Document No.: AF-608**

**Revision "B"**

**Revision Date: 11-18-19**

**Applicable to:**

**Textron 1900, 1900C, & 1900D Series Aircraft**

The information in the Instruction for Continued Airworthiness is FAA accepted material and complies with 14 CFR 23.1529, Instructions for Continued Airworthiness. It supersedes or adds to that provided in the Maintenance Manual for the Beechcraft 1900, 1900C, 1900D Series Aircraft, only where covered in the items contained herein. For limitations and procedures not contained in the Supplement, consult the Component Maintenance Manual, or other approved airplane data.

## REVISION PAGE

Updates to the ICA will be made by Aviation Fabricators Inc. Updates will be listed in the log of revisions and the effective pages will be listed below.

Log of Revisions				
REV. NO.	EFFECTED PAGE(S)	DESCRIPTION	DATE	APPROVED BY
IR	All	Initial Release	12-11-17	GRL
A	All	*Added P/N's 32-0538, 32-0539, 32-0540, & 32-0541 for Fwd/Aft Facing Seat assemblies	07-26-19	GRL
B	11	*Corrected Paragraph 1.a.) Phase inspection to 3 from 4 and corrected inspection schedule total hours to 1200 from 800 to match OEM Maintenance Schedule *Deleted Section 2.2, for Inspection Time Limit as redundant to Paragraph 2.1.a	11-18-19	GRL

Per the requirement of Appendix G of 14 CFR Part 23 paragraph G23.1 (c), the changes made to the ICA by the applicant will be distributed via mail by means of paper copy.

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## ABBREVIATIONS AND DEFINITIONS

<b>Abbreviations</b>	<b>Definitions</b>
AML	FAA Approved Model List (AML)
Detailed Inspection (DET)	An intensive examination of a specific item, installation or assembly to detect damage, failure or irregularity. Available lighting is normally supplemented with a direct source of good lighting at an intensity deemed appropriate. Inspection aids such as mirrors, magnifying lenses, etc. may be necessary. Surface cleaning and elaborate access procedures may be required.
FAA	Federal Aviation Administration
FAA MIDO	FAA Manufacturing Inspection District Office
General Visual Inspection (GVI)	A visual examination of an interior or exterior area, installation or assembly to detect obvious damage, failure or irregularity. This level of inspection is made from within touching distance unless otherwise specified. A mirror may be necessary to enhance visual access to all exposed surfaces in the inspection area. This level of inspection is made under normally available lighting conditions such as daylight, hangar lighting, flashlight or droplight and may require removal or opening of access panels or doors. Stands, ladders or platforms may be required to gain proximity to the area being checked.
ICA	Instructions for Continued Airworthiness
Special Detailed Inspection (SDI)	An intensive examination of a specific item, installation , or assembly to detect damage, failure or irregularity. The examination is likely to make extensive use of specialized Inspection Techniques and/or equipment. Intricate cleaning and substantial access or disassembly procedure may be required.

## **1.0 INTRODUCTION**

The purpose of this Maintenance Manual Supplement and Instructions for Continued Airworthiness (ICA) is to provide the maintenance technician with the information necessary to ensure the continued airworthiness of the Aviation Fabricators high density seats, for seat part numbers 32-0454, 32-0455, 32-0494, 32-0495, 32-0538, 32-0539, 32-0540, & 32-0541.

Modifications to an aircraft obligates the operator to include the maintenance information provided by this document into the operators aircraft Maintenance Manual and operator's aircraft scheduled maintenance program. This document defines supplementary maintenance operations and frequencies recommended by Aviation Fabricators Inc., to ensure the aircraft's airworthiness.

The information contained herein addresses the requirements specified in 14 CFR 23.1529, Instructions for Continued Airworthiness and supplements the basic Airplane Maintenance Manual only in those areas listed as pertains to the high density seat assemblies. For limitations and procedures not contained in this supplement, consult the basic Airplane Maintenance Manual.

### **DATA**

All information to support the continued airworthiness of this modification is contained on Master Data List AF-629.

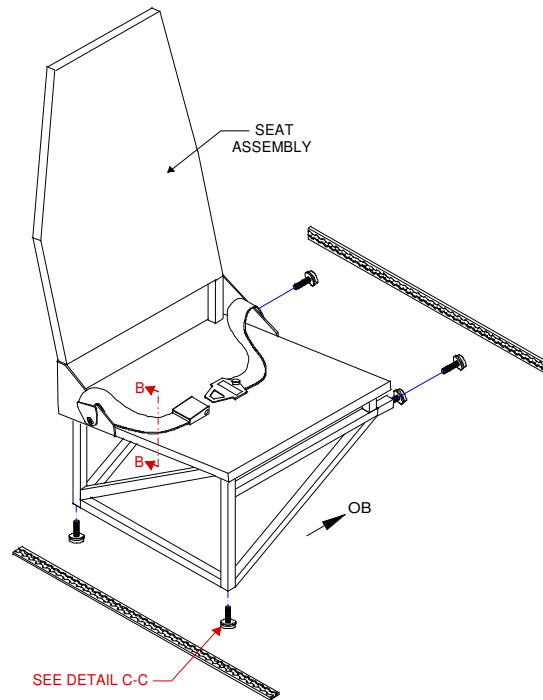
The high density seat is a self-contained complete assembly that mounts anywhere in the cabin to the existing seat track, using standard fittings, in accordance with a separate installer obtained FAA approval.

### **Design Change Control**

All data and changes to the parts and assemblies will be tracked per Master Data List AF-629.

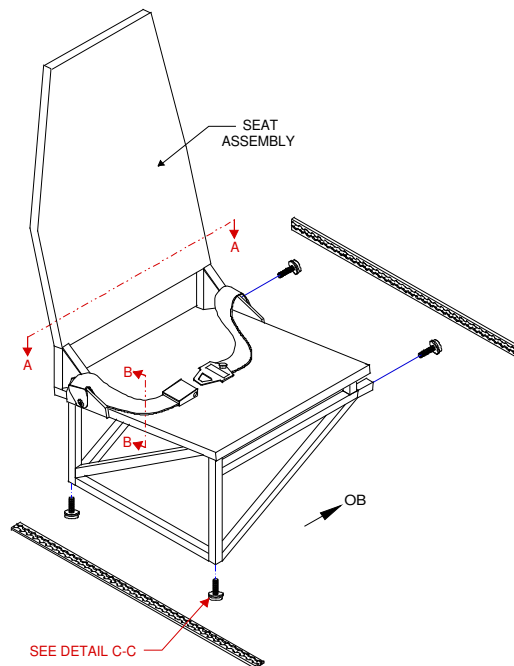
High Density Seat, Fixed Back

P/N's 32-0454, 32-0455, 32-0538 & 32-0539



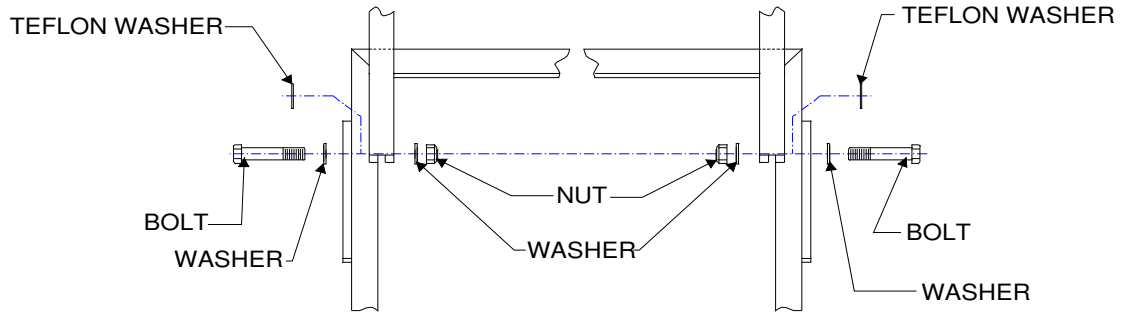
High Density Seat, Hinged Back

P/N's 32-0494, 32-0495, 32-0540, & 32-0541



**Figure 1.0A**

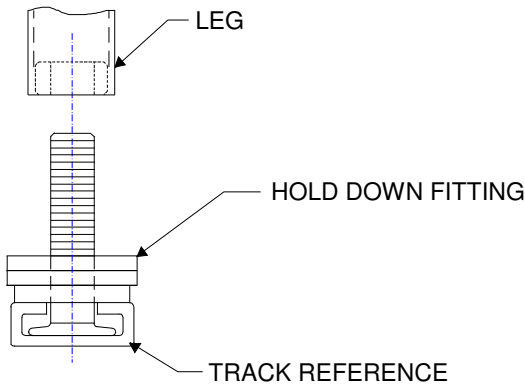
Seat Back Attachment for Hinged Back Seats



DETAIL A-A

**Figure 1.0B**

Foot Attachment & Installation

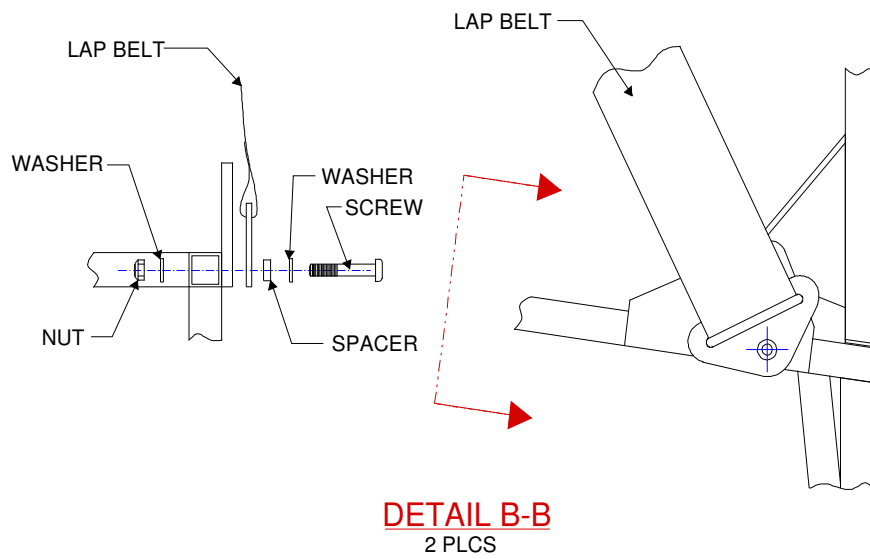


DETAIL C-C

.500" MINIMUM THREAD ENGAGEMENT

**Figure 1.0C**

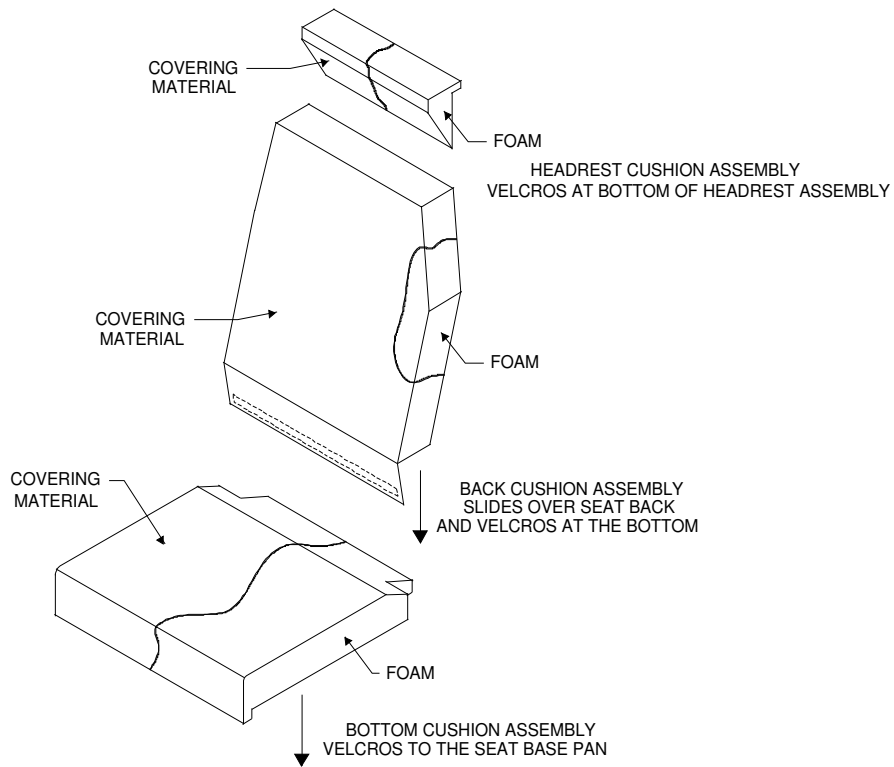
Seat Belt Attachment



**Figure 1.0D**



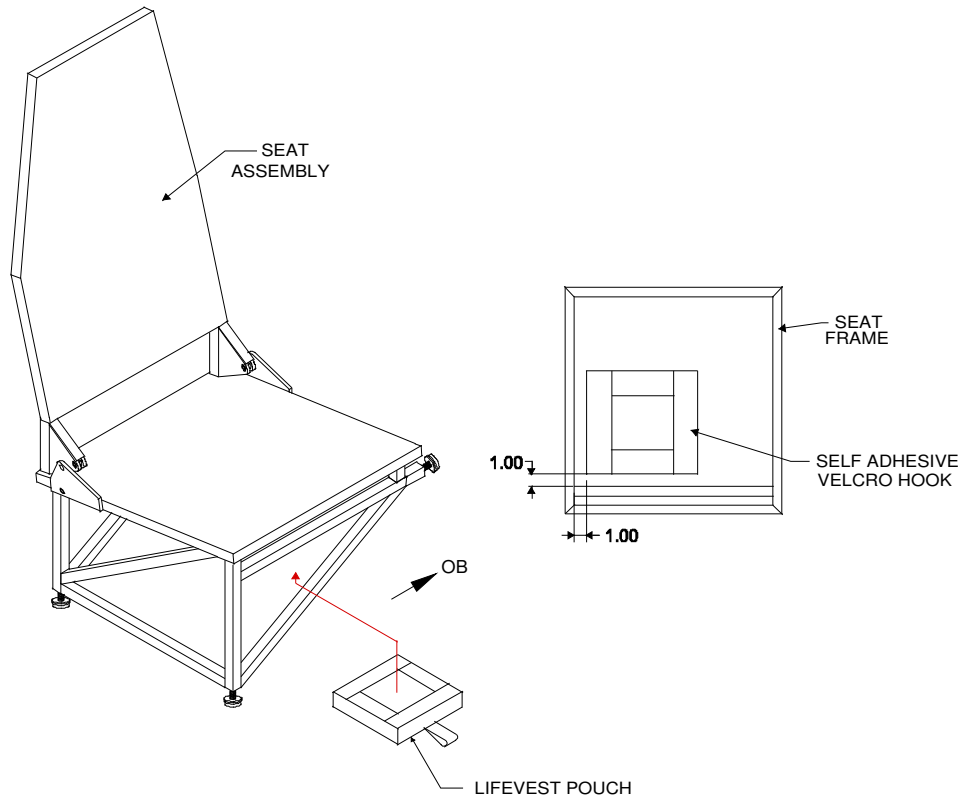
Cushions



CUSHION ASSEMBLY REFERENCE

**Figure 1.0E**

Lifevest Pouch Installation



**Figure 1.0G**

## ***2.0 INSPECTION REQUIREMENTS AND OVERHAUL SCHEDULE***

1. To comply with 14 CFR 23.1529, continue the high density seat and restraint system(s) on the same inspection and maintenance schedule used per the applicable Beechcraft Maintenance Manual for seats.
  - a. The new seat assembly and seat belt require no service other than inspection at normal Phase 3 inspection schedule of 1200 hours or 24 months whichever occurs first.
  - b. Perform a detailed visual inspection of each bottom and back cushion and cover to detect apparent or obvious defects, deterioration in the form of wear, tears, rips, punctures or irregularities that cause the cushion assembly to become worn or distorted. Replace the cushion assembly if this cover does not fit properly or the cushion develops a “lumpy” or irregular feel.
  - c. Perform a detailed visual inspection of each seat frame assembly including weld joints, diaphragm, fasteners and anchors, track fittings, and restraint systems to detect apparent or obvious defects, corrosion, cracks, large deformations (permanent deformation in frame tubes more than  $\frac{1}{4}$  the overall thickness of the tube diameter), irregularities that cause the frame assembly and/or anchor/fitting to become distorted and not fit into the intended seat track/anchor locations. If deformities are found, the seat frame assembly must be removed from the aircraft and returned to Aviation Fabricators for repair or replacement.

<b>Task Code</b>			Schedule	Date	Mech	Insp
AFI-100	a.	Inspect for damage to upholstery.				
AFI-101	b.	Inspect safety belts for wear, cuts, fraying, damage, and deterioration.				
AFI-102	c.	Inspect safety belt attachment fittings for wear and damage				
AFI-103	d.	Inspect foot fittings for damage, security, and function.				
AFI-104	e.	Inspect seat frame for damage, and corrosion.				
AFI-105	f.	Inspect seat back attaching points for wear and damage.				
AFI-106	g.	Inspect overall seat for fit and function.				

### **3.0 DIMENSION AND ACCESS**

No change.

### **4.0 LIFTING AND SHORING**

No change.

### **5.0 LEVELING AND WEIGHING**

It is the responsibility of the installer to determine the exact final seat weight and location when installing and removing the new high density seat. For reference, the typical frame assembly and sub part weights are listed as follows:

Fwd Facing Seat frame assembly	= 18.5 lbs
Fwd/Aft Facing Seat frame assembly	= 21.0 lbs
Headrest Assembly	= 1.0 lbs
Lifevest & Pouch	= 0.5 lbs
Seat Belt & Hardware	= 1.0 lbs
Armrest Assembly	= 1.5 lbs

## 6.0 TOWING AND TAXIING

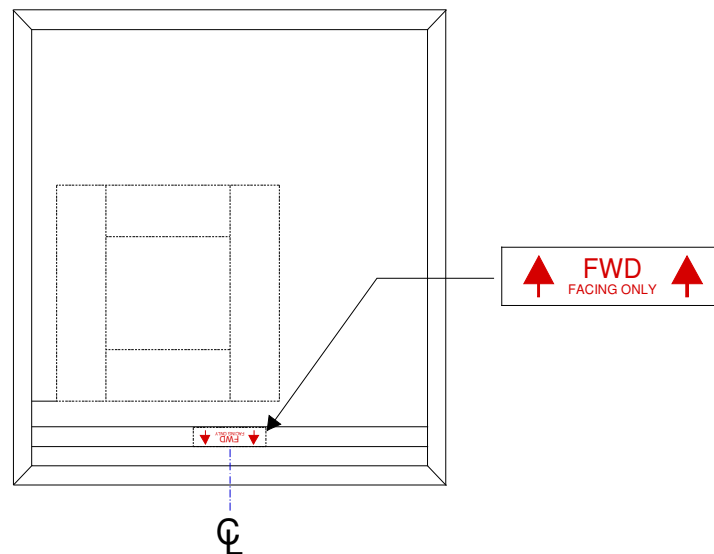
No change.

## 7.0 PARKING AND MOORING

No change.

## 8.0 PLACARDS AND MARKINGS

1. Placard 15-0860 located on the underside of the seat base and must be installed in a FWD Facing position for seat assembly P/N's 32-0454, 32-0455, 32-0494, & 32-0495



VIEW LOOKING DOWN AT SEAT BASE

## **9.0 SERVICE INFORMATION**

### **Typical Seat Service Instructions:**

#### **A. Upholstery Cleaning:**

##### **Seat Service Instructions**

1. If possible remove seat back and seat bottom cushion assemblies from the seat frame assembly.
2. If possible dry clean fabric cushions.
3. If dry cleaning is not possible clean fabric with Armour All fabric cleaner or equivalent.
4. Clean leather with Armour All leather cleaner or equivalent.
5. Clean and inspect restraint system for damage, fraying, cuts or seam deterioration.
6. Inspect all attachment fittings and replace if necessary.
7. Inspect overall seat for fit and function.

### **Typical Seat Maintenance Instructions:**

#### **Seat Assembly**

The high density seat is a self contained complete assembly that mounts anywhere in the cabin to the existing seat track using standard fittings. Refer to Figure 1.0A.

#### **Seat Installation**

To install the high density seat on to the existing seat track, place seat assembly in proper location and secure hold down fitting keepers in place using knurled nuts. so that the studs will lock into the seat track. Move the seat assembly forward or aft to allow the keeper to lock into place on the seat track. Refer to Figure 1.0C.

#### **Seat Removal**

To remove the high density seat from the aircraft seat track loosen the knurled nuts on each of the hold down fitting keepers and slide the seat forward or aft on the seat track so that the foot studs will be allowed to be lifted from the track.

#### **Seat Belt**

Seat belt removal is accomplished by loosening attaching hardware and removing the seat belt from the seat assembly. Refer to Figures 1.0D & 1.0E

#### **Cushions**

Seat bottom and seat back cushion assemblies are removed by simply pulling the cushion away from the velcro on the seat bottom panel or up over the seat back assembly, respectively. Refer to Figure 1.0F for Cushion Assembly Reference.

## **B. RECOMMENDED OVERHAUL PERIODS**

No additional overhaul time limitations.

## **10.0 AIRWORTHINESS LIMITATIONS**

The Airworthiness Limitations section is FAA approved and specifies maintenance required under Sec. 43.16 and 91.403 of the Federal Aviation Regulations unless an alternative program has been FAA approved.

There are no Airworthiness Limitations to the aircraft with the addition of the high density seats.

## **11.0 TROUBLESHOOTING**

Refer to the existing Aircraft Maintenance Manual for troubleshooting the seat installation that is required beyond the information found on Master Data List AF-629.

For replacement parts or repair of damage parts:

Contact Aviation Fabricators at (660) 885-8317.

Troubleshooting this installation should only be accomplished by FAA approved repair stations with the appropriate ratings or appropriately rated operator/individuals, with required test equipment and service data.