

## ***INSTRUCTIONS FOR CONTINUED AIRWORTHINESS***

For

High Density Seat Installations

**Document No.: AF-441**

**Revision "H"**

**Revision Date: 10/01/19**

**Applicable to:**

**Textron models: 65, A65, 65-80, 65-B80, 70, 65-88,  
65-90, 65-A90, B90, C90, C90A, C90GT, E90, F90, 99, 99A, A99,  
A99A, B99, C99, 100, A100, A100C, B100, 200, 200C, 200CT,  
200T, A200, A200C, A200CT, B200, B200C, B200CT, B200T,  
B200GT, B200CGT, 300, B300, B300C, 300LW**

**Modified by FAA STC's SA2774CE, SA2775CE, SA2776CE & SA2777CE**

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 King Air 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***

Document Title:       Instructions for Continued Airworthiness

Prepared By: Todd Pogue

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.

<b>Log of Revisions</b>				
<b>REV. NO.</b>	<b>EFFECTED PAGE(S)</b>	<b>DESCRIPTION</b>	<b>DATE</b>	<b>APPROVED BY</b>
IR	All	Initial Release		GRL
A	All	Updated with all STC's, seat p/n's, and models	10/01/08	GRL
B	All	Complete update of document to latest system	06/01/10	GRL
C	All	*Added seat assembly p/n's 32-0315 & 32-0316, pgs 5 & 7 *Added Figure 1.0E for Lifevest Pouch, pg 10 *Added Lifevest & Pouch to W&B Section 5.0, pg 12	11/12/10	GRL
D	All	*Updated Section 10 to latest format, p15 *Added Section 11 Troubleshooting, p15	01/14/13	JRL
E	All	*Added information for new p/n's 32-0409, 32-0410 32-0411, & 32-0416 thru 32-0427 to pgs 5, 6, 7, 10, & 13	03/12/14	JRL
F	All	*Added new "Fwd Facing Only" Placard information to Section 8.0, pgs 14, 15 *Added new "Headrest to be Extended" Placard to Section 8.0, pg 15	07/05/16	JRL
G	All	*Removed references to documents AF-581, AF-582, and AF-583 that were combined into other documents, pgs 5 & 6	10/19/17	JRL
H	11	*Added Figure 1.0G for Underseat Storage Bracket, p. 11 *Added Note 3 for Underseat Storage Bracket Placard to Section 8.0, p. 17	10/01/19	JRL

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.
STC	Supplemental Type Certificate

## **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 seat installations, for seat part numbers:

32-0124, 32-0315, 32-0316, 32-0369, 32-0372, 32-0373, 32-0374,  
32-0409, 32-0410, 32-0411, 32-0416, 32-0417, 32-0418, 32-0419,  
32-0420, 32-0421, 32-0422, 32-0423, 32-0424, 32-0425, 32-0426,  
& 32-0427

when installed in accordance with Aviation Fabricators design data included on STC Data Lists AF-151, AF-150, AF-149, and AF-148 and per Supplement Type Certificates (STC's) SA2774CE, SA2775CE, SA2776CE, & SA2777CE.

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 Continues Airworthiness and supplements the basic Airplane Maintenance Manual only in those areas listed as pertains to the installation of the high density seats, as installed per the Aviation Fabricator STC Data Lists AF-151, AF-150, AF-149, and AF-148. 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 in:

STC's SA2774CE, SA2775CE, SA2776CE, SA2777CE.  
STC Data Lists: AF-151, AF-150, AF-149, and AF-148.

Installation: STC Data List: AF-151 for STC SA2774CE  
AF-150 for STC SA2775CE  
AF-149 for STC SA2776CE  
AF-148 for STC SA2777CE

See document number: AF-143 for 200 & B200 Series Aircraft  
AF-410 for 300 Series Aircraft  
AF-411 for B300 Series Aircraft

Parts: Refer to p/n's 32-0124, 32-0315, 32-0316, 32-0369, 32-0372, 32-0373, 32-0374, 32-0409, 32-0410, 32-0411, 32-0416, 32-0417, 32-0418, 32-0419, 32-0420, 32-0421, 32-0422, 32-0423, 32-0424, 32-0425, 32-0426, & 32-0427 and respective drawings as listed on STC Data Lists AF-151, AF-150, AF-149, and AF-148.

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 FAA approved floor plans.

### **Design Change Control**

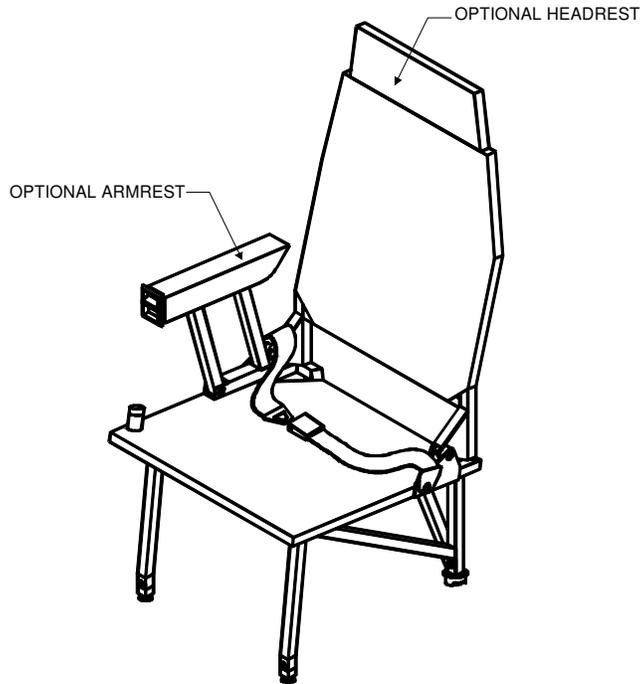
All data and changes to the parts and assemblies will be tracked per STC Data Lists AF-151 Rev P, AF-150 Rev L, AF-149 Rev L, and AF-148 Rev L or later FAA approved revisions.

### **Applicable Aircraft**

Textron models: 65, A65, 65-80, 65-B80, 70, 65-88, 65-90, 65-A90, B90, C90, C90A, C90GT, E90, F90, 99, 99A, A99, A99A, B99, C99, 100, A100, A100C, B100, 200, 200C, 200CT, 200T, A200, A200C, A200CT, B200, B200C, B200CT, B200T, B200GT, B200CGT, 300, B300, B300C, 300LW.

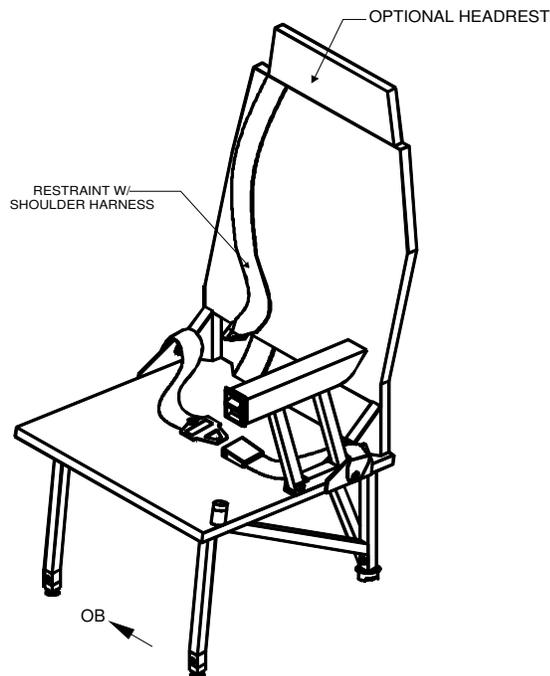
High Density Seat

P/N's 32-0124, 32-0315, 32-0369, 32-0372, 32-0373, 32-0374, 32-0409,  
32-0410, 32-0411



High Density Seat w/ Shoulder Harness

P/N's 32-0416, 32-0417, 32-0418, 32-0419, 32-0420, 32-0421, 32-0422, 32-0423,  
32-0424, 32-0425, 32-0426, 32-0427



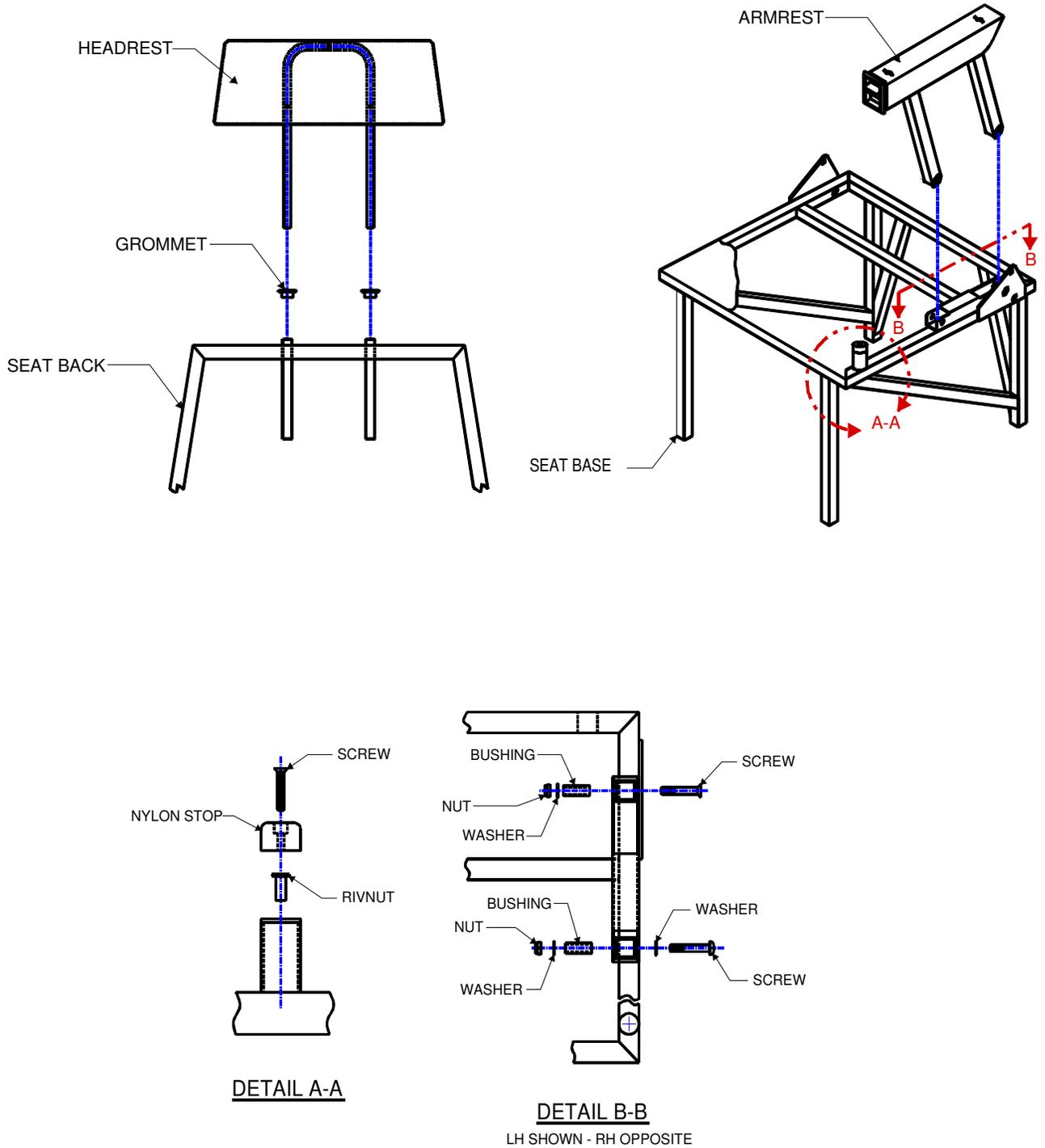
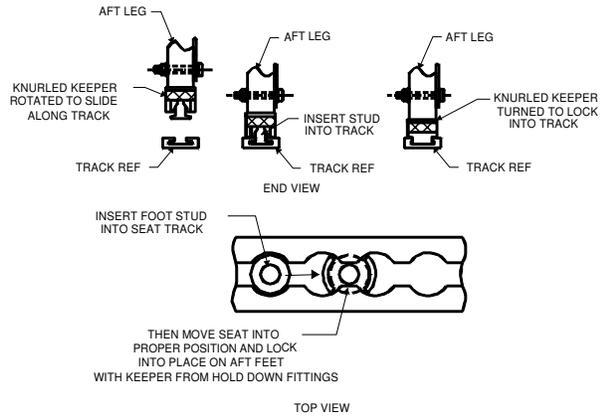
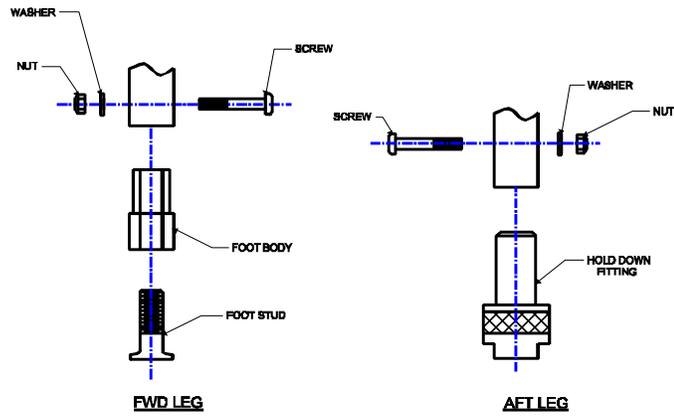


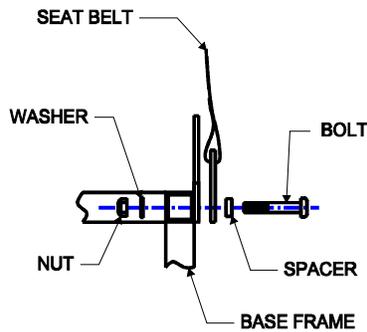
Figure 1.0A

Foot Attachment & Installation



**Figure 1.0B**

Seat Belt Attachment



**Figure 1.0C**

Shoulder Harness Attachment

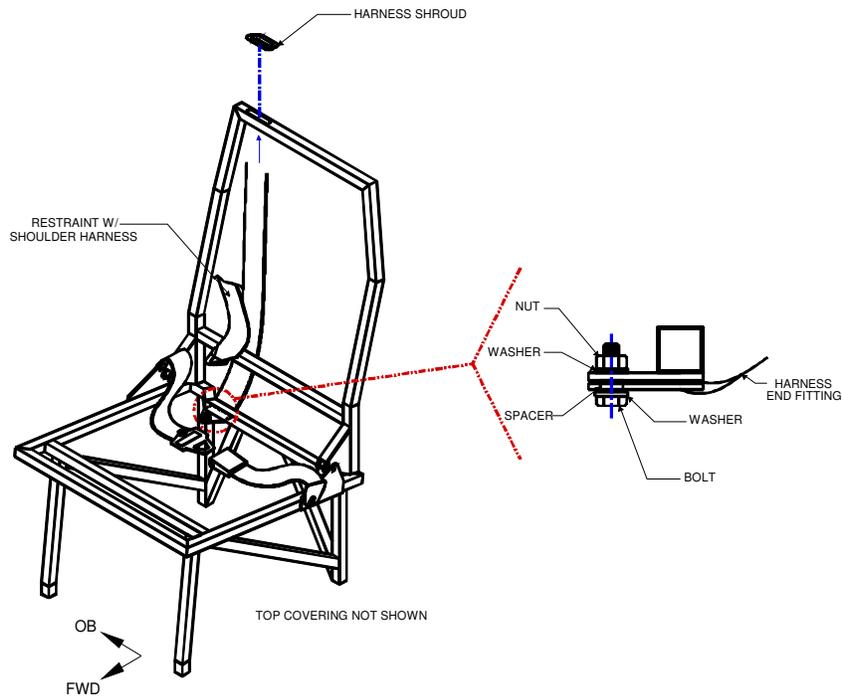
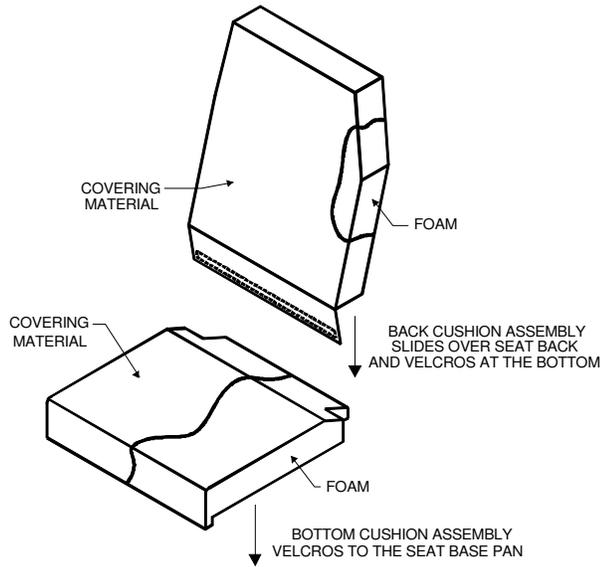


Figure 1.0D

Cushions



CUSHION ASSEMBLY REFERENCE

Figure 1.0E

Lifestest Pouch Attachment

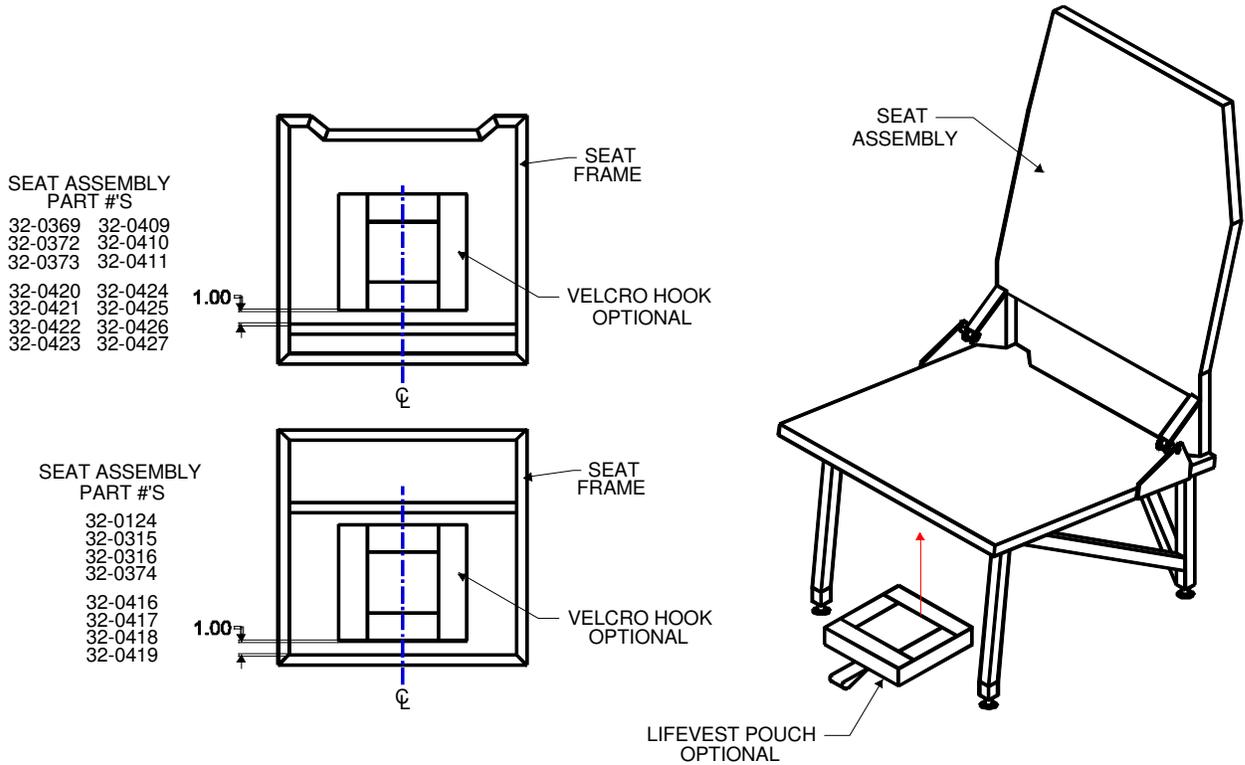


Figure 1.0F

Underseat Storage Bracket

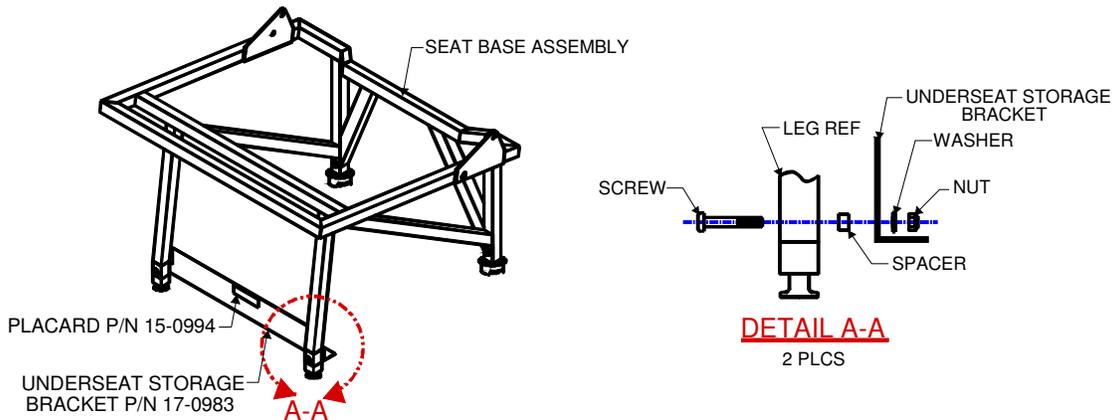


Figure 1.0G

## ***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 4 inspection schedule of 800 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.

2. Inspection Time Limit for high density seat assemblies:

Phase 4 inspection at 800 hours or 24 months whichever occurs first for the seat assembly and restraint systems

<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.				

A. Add the new high density and restraint system on the same inspection and maintenance schedule used per the applicable Beechcraft Maintenance Manual for seats.

### **3.0 DIMENSION AND ACCESS**

The installation of the high density assembly does not change the dimensions of the aircraft or alter the access to any existing aircraft system.

### **4.0 LIFTING AND SHORING**

No change.

### **5.0 LEVELING AND WEIGHING**

Due to variable seat up options and upholstery weights 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:

P/N's 32-0124, 32-0315, 32-0316, 32-0369, 32-0372, 32-0373, 32-0374, 32-0416, 32-0417, 32-0418, 32-0419, 32-0420, 32-0421, 32-0422, & 32-0423:

Seat frame assembly = 15 lbs

P/N's 32-0409, 32-0410, 32-0411, 32-0424, 32-0425, 32-0426, & 32-0427:

Seat frame assembly = 21 lbs

Options:

Headrest Assembly = 2 lbs

Armrest Assembly = 2 lbs

Lifest & Pouch = .5 lbs

Seat Belt & Hardware = 1 lbs

Shoulder Harness = .5 lbs

Maximum Allowable Seat Weight  
with Upholstery = 45 lbs

### **6.0 TOWING AND TAXIING**

No change.

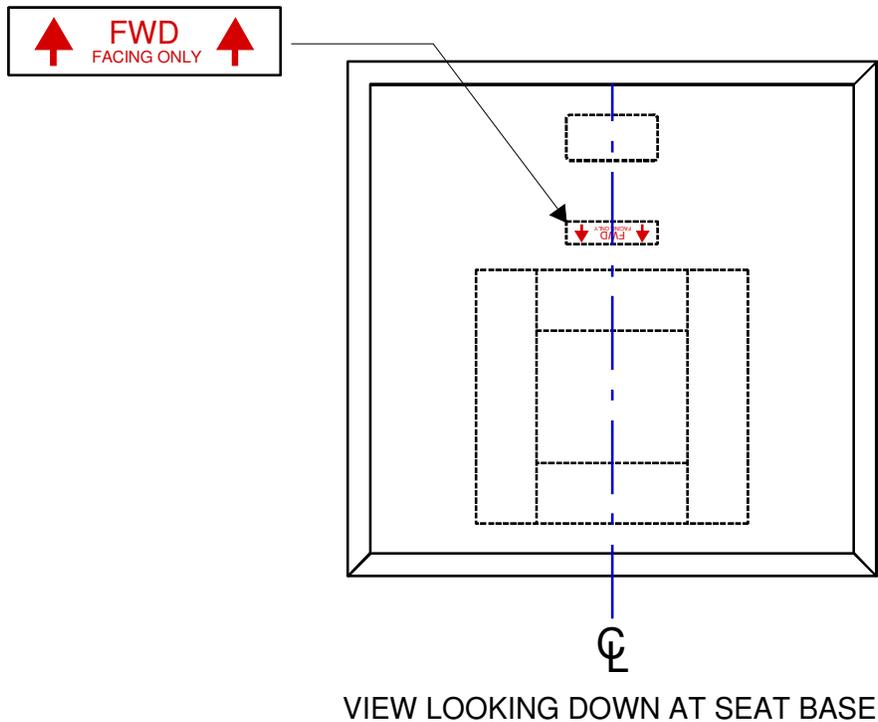
### **7.0 PARKING AND MOORING**

No change.

## 8.0 PLACARDS AND MARKINGS

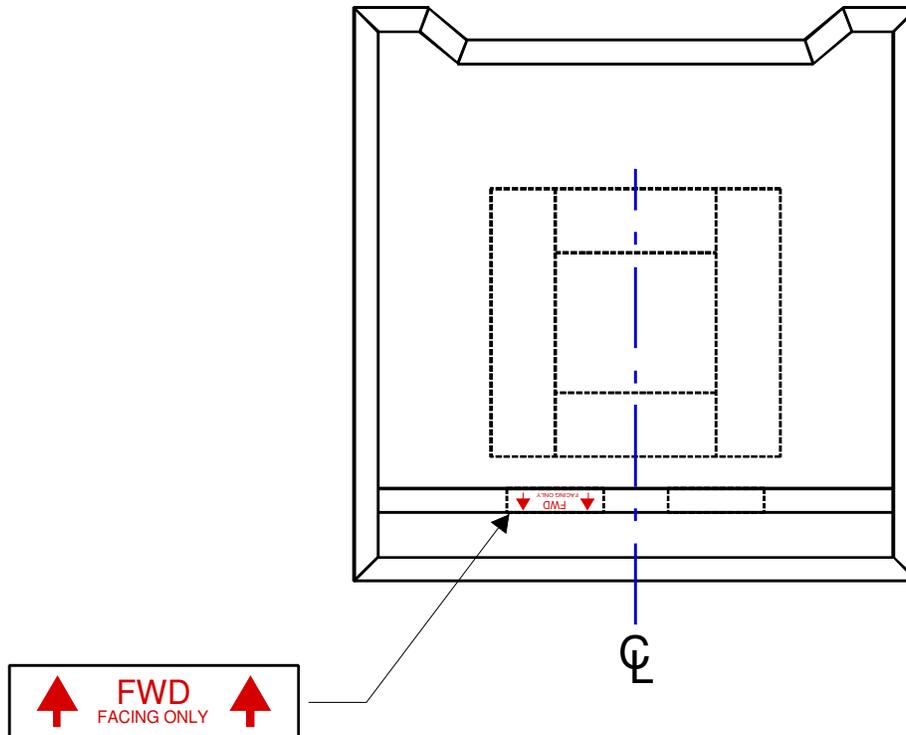
1. The following seat P/N's have Placard 15-0860 located on the underside of the seat base and must be installed in a FWD Facing position.

Fwd Facing Only Seat P/N's: 32-0124, 32-0315, 32-0316, 32-0374



Fwd Facing Only Seat P/N's: 32-0369, 32-0372, 32-0373, 32-0416, 32-0417, 32-0418, 32-0419, 32-0420, 32-0421, 32-0422, 32-0423

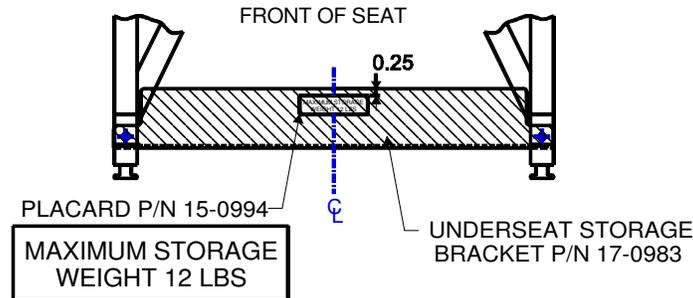
VIEW LOOKING DOWN AT SEAT BASE



2. Fwd/Aft Facing Seats P/N's: 32-0409, 32-0410, 32-0411, 32-0424, 32-0425, 32-0426, 32-0427 require Placard 15-0883 to be installed on the aircraft sidewall in plain view of the seat occupant when the seats are installed in the aft facing position.

THE HEADREST MUST BE EXTENDED  
DURING TAXI, TAKEOFF, AND LANDING  
FOR AFT FACING SEATS

3. Seats with P/N 17-0983 Underseat Storage Bracket installed Placard P/N 15-0994 must be installed on the front of the bracket.



## 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 lift hold down fitting keepers so that the studs will drop 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 1.0B.

#### Seat Removal

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

#### Seat Belt & Shoulder Harness

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

#### 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. The seat bottom and seat back cushions should weigh no more than 10 lbs each. All covering and upholstery materials must comply with 14 CFR 23.853 as stated on the installation instructions. Refer to Figure 1.0E for Cushion Assembly Reference.

#### Oxygen Dispensing Unit Availability

Per the installation instructions, the high density seat installation must comply with 14 CFR 23.1441. Each dispensing unit must be capable of being readily available to be placed into position on the face of the seat occupant.

## **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 installed by these STC's.

## ***11.0 TROUBLESHOOTING***

Refer to the existing Aircraft Maintenance Manual for troubleshooting the seat installation that is required beyond the information found on the STC Data Lists: AF-151, AF-150, AF-149, and AF-148.

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.