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INSTRUCTIONS FOR CONTINUED AIRWORTHINESS

For

Cabinet Assembly, Toilet and Manual Storage

Document No.: AF-645

Revision "A"

Revision Date: 08/10/20

Applicable to:

Textron Aviation 400T Aircraft

The information in the Instruction for Continued Airworthiness is FAA accepted material and complies with 14 CFR 25.1529, Instructions for Continued Airworthiness. It supersedes or adds to that provided in the Maintenance Manual for the Textron Aviation 400T aircraft, only where covered in the items contained herein. For limitations and procedures not contained in the Supplement, consult the Textron 400T Maintenance Manual, or other approved airplane data.

REVISION PAGE

Document Title: Instructions for Continued Airworthiness

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

Log of Revisions				
REV. NO.	EFFECTED PAGE(S)	DESCRIPTION	DATE	APPROVED BY
Orig. Issue	All	Initial Release	11/13/18	G.R. Lowe
A	All	*Updated the paragraph at the bottom of page 1 to say "consult the Textron 400T Maintenance Manual" from "consult the Component Maintenance Manual *Updated the Abbreviations and Definitions list on page 4 to include only those used in the document *Updated the paragraph on page 5 in Section 1 under DATA heading to describe the toilet cabinet assembly with more detail to better comply with 14CFR G23.3(a)(3) *Changed "Work Unit Code (WUC)" to "Task Code" in the inspection table on page 8 and added AFI-XXX task code #'s *Updated the inspection table on page 8 to conduct GVI inspections for task A, B, & C on page 8 *Updated the paragraph under Section 2.2.b to say to clean any excess water from the tank assembly and removed reference to drain the entire system, page 8 *In Section 9.C. added items 1, 2, & 3 to describe the Toilet Cabinet Assembly Removal and Installation procedures, page 10 *In Section 9.E.1. added procedure to replace the pump hose, page 12 *In Section 9.E.2., noted the timer location on page 12 *Added "Installation document reference under DATA heading on page 5 *Added "as defined per supplier instructions" in the Note concerning the antifreeze mixture in Section 9.D.5 on page 13	08/10/20	G.R. Lowe

Per the requirement of Appendix H of 14 CFR Part 25 paragraph H23.1 (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

Abbreviations	Definitions
FAA	Federal Aviation Administration
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
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 cabinet assembly, toilet and manual storage, part number 32-0531K, when installed in accordance with Aviation Fabricators design data included on STC Data List AF-644.

Modification to an aircraft obligates the operator to include the maintenance information provided by this document into the operator's 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 25.1529, Instructions for Continued Airworthiness and supplements the basic Airplane Maintenance Manual only in those areas listed as pertains to the cabinet assembly, as installed per the Aviation Fabricator STC Data List AF-644. 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 Data List: AF-644.

Parts: P/N 32-0531, Cabinet Assembly, Toilet and Manual Storage
Refer to respective drawing listed on STC Data List AF-644

Installation: Drawing D-10580

The toilet cabinet assembly is attached to the existing cabin floor track at FS 170.0 +/-1.0 using four track bolts, lock washers, and floor fittings. The toilet assembly sits on a shelf in the toilet cabinet assembly and is attached to the toilet cabinet assembly using four bolts. The toilet assembly is connected to the aircraft electrical system using the existing electrical receptacle.

Once toilet cabinet assembly is installed, the toilet assembly is operated by lifting the lid assembly and ensuring that the waste container cap is stowed. To active the toilet press the flush switch which will pump fluid into the reservoir and will thoroughly rinse the bowl. The flushing reservoir has sufficient capacity for 10-13 flushes.

Design Change Control

All data and changes to the parts and assemblies will be tracked per STC Data List AF-644 rev IR or later approved revision.

Applicable Aircraft

Textron Aviation 400T Aircraft

Cabinet Assembly, Toilet and Manual Storage

P/N 32-0531

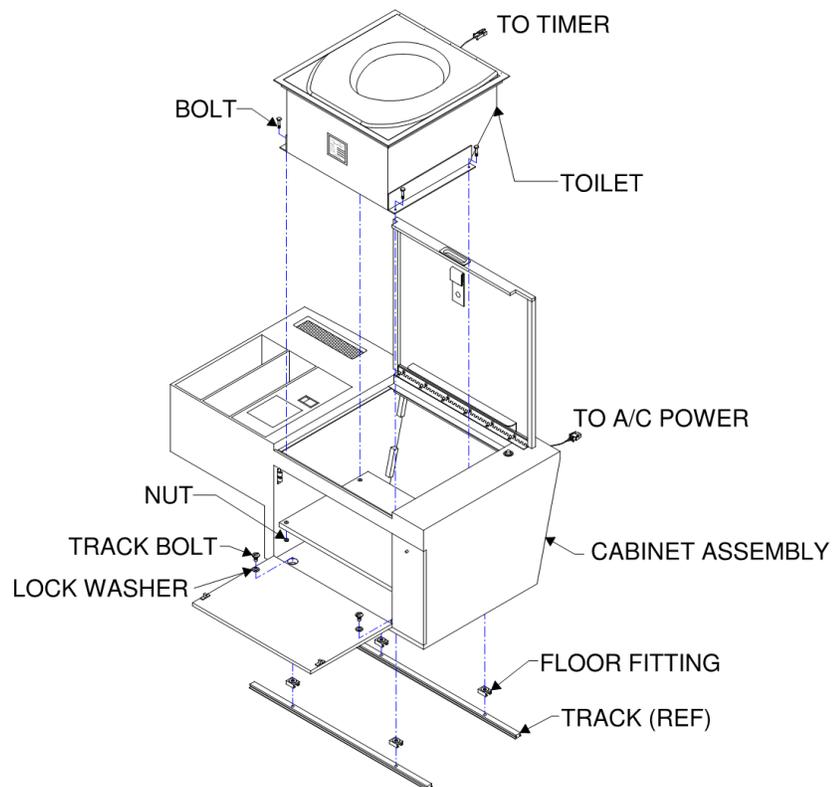


Figure 1.0A

Toilet Assembly
P/N 17-0939

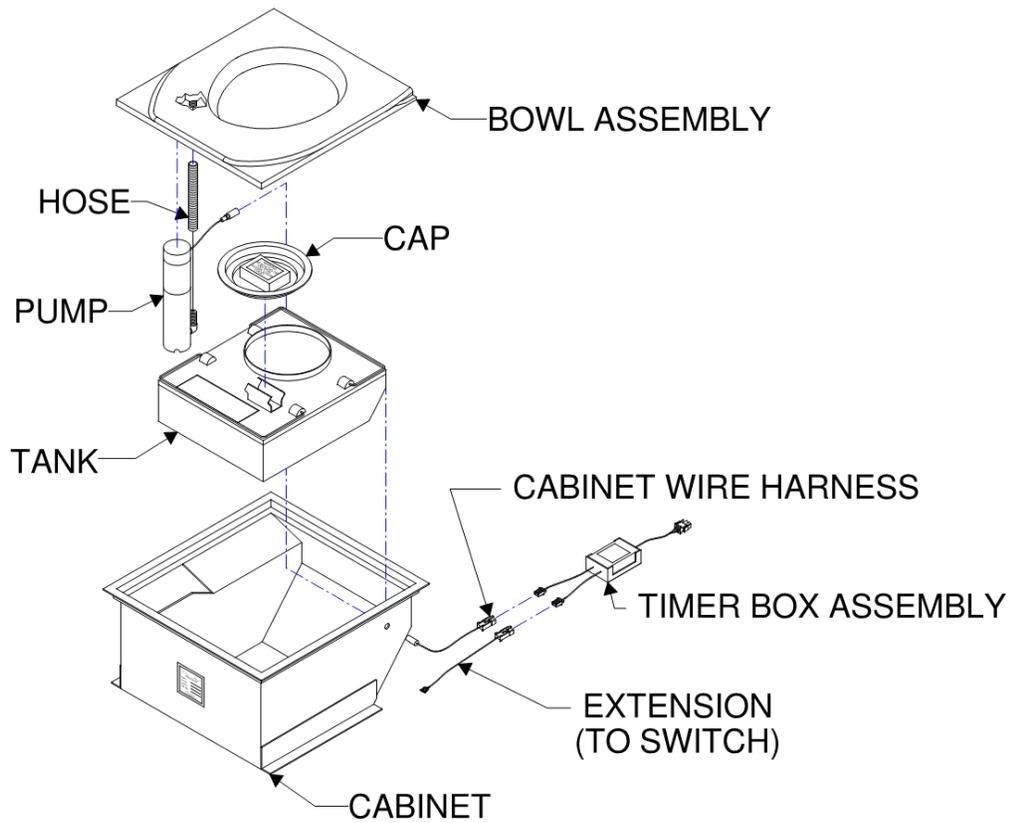


Figure 1.0B

2.0 INSPECTION REQUIREMENTS AND OVERHAUL SCHEDULE

1. To comply with 14 CFR 25.1529, continue the cabinet assembly on the same inspection and maintenance schedule used per the Beechcraft Maintenance Manual for Cabinet Assembly, Toilet & Manual Storage, p/n 132-384024-1.

The toilet cabinet assembly requires no service other than a scheduled inspection at 800 hours or 24 months whichever occurs first.

Task Code			Schedule	Date	Mech	Insp
AFI-100	A.	Conduct a General Visual Inspection (GVI) of attaching fittings for damage, security, and function.				
AFI-101	B.	Conduct a GVI of the cabinet assembly for damage, and corrosion.				
AFI-102	C.	Conduct a GVI of the entire assembly for fit and function.				
AFI-103	D.	Check operation of toilet assembly. See Section 9.0.				

2. Flushing toilet maintenance schedule:
 - a. Service and clean after each flight when toilet is used.
 - b. If the toilet is to remain inactive for an extended period, empty the water/chemical solution and thoroughly flush the system with fresh water. Be sure to clean any excess water from the toilet tank using paper towels.

3.0 DIMENSION AND ACCESS:

The installation of the toilet cabinet 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

For the toilet, the dry weight plus fluid will be used to conduct the aircraft weighing procedures for determining the empty weight of the aircraft:

Cabinet weight without toilet	=	26.0 lbs
Toilet weight	=	11.3 lbs
Flushing fluid reservoir liquid	=	5.2 lbs
Waste tank pre-charge	=	1.0 lbs
Total	=	<u>43.5 lbs</u>

6.0 TOWING AND TAXIING

No change.

7.0 PARKING AND MOORING

No change.

8.0 PLACARDS AND MARKINGS

No change.

9.0 SERVICE INFORMATION

A. Leading Particulars

Waste Tank Capacity	1.25 gallon
Flushing Reservoir Capacity	2 quarts (9-12 flushes)
Operating Voltage	24-28 VDC
Operating Amperage	2 amp
Operating Time	1 second per flush

B. Chemicals Needed for Servicing

NOTE: Equivalent substitutes may be utilized in place of the following items:

Germicidal Deodorant	ChemKare of Monogram Sanitation
Disinfectant	Lysol
Anti-Freeze	Ethylene Glycol Solution Containing Anti-Foam Agent

Refer to SDS for chemicals to ensure proper precautions are observed for their use.

C. Toilet Cabinet Servicing Instructions

1. Remove the Toilet Cabinet Assembly:
 - a. Open the front door of the cabinet assembly.
 - b. Loosen attaching bolts at the bottom of the cabinet assembly.
 - c. Unplug from power supply.
 - d. Lift cabinet assembly away from seat track.
2. Installation of the Toilet Cabinet Assembly:
 - a. Locate floor fittings in seat track to for Toilet Cabinet attachment.
 - b. Plug Toilet assembly into power supply and then set Toilet Cabinet into place on seat track.
 - c. Open the front door of the cabinet assembly.
 - d. Attach Toilet Cabinet to track fittings using track bolt and lock washer.
 - e. Close front door.

See Figure 1.0A

3. If aircraft is to be operated without the Toilet Cabinet Assembly then the operator needs to ensure that the existing aircraft wiring is stowed to prevent damage to it. The operator will need to adjust the aircraft weight & balance for removed toilet cabinet assembly.

D. Toilet Servicing Instructions

Servicing the waste container:

1. Lift the bowl assembly straight up and rest on lid angle. Secure with strap assembly.
2. Place cap firmly onto waste container.
3. Grasp both handles and remove container from the cabinet.
4. Dispose of contents in a commode and rinse waste container.
5. Pre-charge container with approximately one pint of water and two ounces of germicidal deodorant.

NOTE: If the aircraft is parked in sub-freezing temperatures, ensure an appropriate amount of propylene glycol-based antifreeze containing an anti-foam agent is added to the pre-charge mixture as defined per supplier instructions.

6. Reinstall waste container in the toilet. Stow waste container cap.

Servicing the flushing reservoir:

1. Lift the bowl assembly straight up and rest on lid angle. Secure with strap assembly.
2. Fill the reservoir with water to "Fill to Here" line.
3. Add 2 ounces of germicidal deodorant. See note under item 5 in waste container servicing instructions.
4. Replace the bowl assembly on the cabinet seal. Wipe down the bowl and seat with disinfectant.

Toilet functional test:

1. Fill reservoir to "Fill to Here" line.
2. Check that pump power wire plug is plugged into socket on rear wall of cabinet.
3. Check that timer is connected to aircraft power, pump power wire and to flush switch.
4. Depress and release flush button. Observe that flushing action continues for approximately 1 second.

E. Toilet Troubleshooting

1. Perform the following procedures to isolate and identify possible problems:

Problem	Probable Cause	Action
Toilet will not cycle	Aircraft power not operating	Check aircraft power, fuses, circuit breakers. Check input power to toilet.
	Defective switch or wiring	Check switch and wire for continuity.
	Defective flushing pump motor	Return to Aviation Fabricators or another Certified Repair Station for servicing of pump P/N 5250-AS-1
	Defective timer	Replace timer (see section E.2.).

Toilet cycles but
little or no flushing
liquid pumps to bowl

Inadequate flushing
fluid in reservoir

Fill reservoir to “Fill to
Here” line.

Broken or loose pump
hose

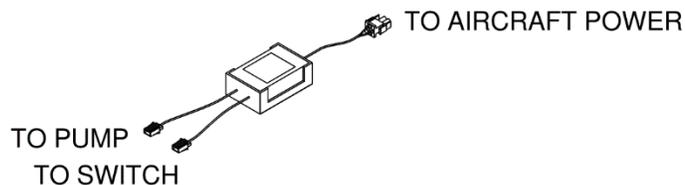
Replace hose P/N 5000-2-
2DLubricate each end of
the new hose with silicone
grease or petroleum jelly
and install it on the bowl
assembly and to the pump
by pressing straight down
on attachment fittings.

Broken or loose pump
impeller

Return to Aviation
Fabricators or another
Certified Repair Station for
servicing.

NOTE: To determine if the pump is defective, connect a separate power supply to the pump leads. If the pump does not operate, return to Aviation Fabricators for servicing. If the pump operates, replace the timer.

2. To replace timer, part number 17-0939-01, unplug the existing timer assembly from the aircraft, toilet power, and switch and install a new timer in its place. The timer is velcroed to the back panel inside the toilet cabinet assembly just outboard of the toilet assembly.



10.0 AIRWORTHINESS LIMITATIONS

The information contained herein supplements the basic Maintenance Manuals only in those areas listed, when the aircraft is modified in accordance with Aviation Fabricators STC Data List AF-644 revision IR or later approved revision. For limitations and procedures not contained in this supplement, consult the basic Airplane Maintenance Manuals.

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.

AIRWORTHINESS LIMITATIONS - LOG OF REVISIONS			
REV.	EFFECTED PAGE (s)	DESCRIPTION of REVISION	DATE
(IR)	All	Initial Release	11/13/18

AIRWORTHINESS LIMITATIONS

There are no new Airworthiness Limitations to the aircraft required when the toilet cabinet assembly is installed.