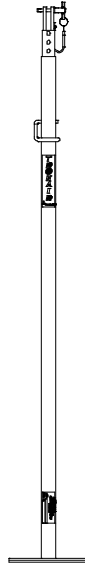




Operation & Service Manual



**Model: 03-5809C0000
Tailstand**



08/2010 – Rev. 01

Includes Illustrated Parts Lists

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Original Release

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This product can not be modified without the written approval of Tronair, Inc. Any modifications done without written approval voids all warranties and releases Tronair, Inc., its suppliers, distributors, employees, or financial institutions from any liability from consequences that may occur. Only Tronair OEM replacement parts shall be used.

1.0 PRODUCT INFORMATION

Name Of Equipment: Tailstand, CE compliant
Model Number: 03-5809C0000 See Nameplate for Serial Number
Manufactured By: **TRONAIR**, Inc. 1740 Eber Rd., Holland, OH 43528-9794 USA
Usage: The device is intended to stabilize an aircraft by its fuselage during maintenance
List Of Drawings: Reference Parts List and Illustrations

2.0 SAFETY INFORMATION

2.1 ALARM and WARNING SYSTEMS

None

2.2 WARNING and DANGER SIGNS

See labels on unit.

2.3 COMPONENT SAFETY FEATURES

Extension Lock Pin provides a visual check that the pin is fully inserted to meet the safety standards of the tailstand.

2.4 FUNCTIONAL SAFETY FEATURES

None

2.5 FEATURES FOR OPERATOR SAFETY

Cautions and Instruction Labels located on tailstand.

2.6 ENVIRONMENTAL SAFETY FEATURES

Tailstand is non-polluting.

2.7 PROTECTION SYSTEMS

None

2.8 CLOSED CIRCUITS

None

2.9 INTERLOCKING

None

2.10 NECESSARY PERSONAL PROTECTIVE EQUIPMENT



CAUTION!

Always wear safety glasses.

2.11 SAFETY GUIDELINES



CAUTION!

1. **DO NOT** place hands on top of tailstand near base tube receiver while lowering tailstand extension. Pinch point exists between top of tube and bracket on extension.
2. **ALWAYS** install tailstand **AFTER** aircraft has been jacked to working position.
3. **Never** put hands between aircraft and tailstand.
4. **ALWAYS** be sure tailstand extension lock pin is fully inserted and seated around tubing.
5. **NEVER** load tailstand by lowering jacks. **ALWAYS** lower tailstand and remove same **BEFORE** lowering aircraft.

2.12 CONDITIONS FOR SAFE USE

- Use in a clean dry environment on a hard level surface.
- Operate between -20° C and 50°C/-4° F and 122° F.

2.13 OPERATOR QUALIFICATIONS

This tailstand is intended to be used by a skilled and trained aircraft technician. The operator must be familiar with the jacking procedures for the aircraft to be raised, and the operation of the tailstand.

Installation/Maintenance/Dismantling Qualifications: This tailstand is to be installed, maintained, and dismantled by qualified technicians familiar with aircraft maintenance systems.

2.0 SAFETY INFORMATION *(continued)***2.14 ADDITIONAL SAFETY MEASURES**

This tailstand must be used in accordance with this Technical manual, and in accordance with the aircraft manufacturer's jacking and stabilizing procedures.

3.0 PACKAGING AND STORAGE**3.1 PACKAGING REQUIREMENTS**

Tailstand is to be packaged as required to prevent damage to legs or cradle equipment during shipment.

3.2 HANDLING

Tailstand can be rolled by hand on its casters.

3.3 STRAPPING

Tailstand can be strapped down by suitable means to prevent unwanted movement during shipment.

3.4 PACKAGING PROTECTION

No special packaging material for cushioning or suspension is required.

3.5 LABELING OF PACKAGING

Packaging should be labeled DO NOT DROP.

3.6 STORAGE COMPATIBILITY

No special considerations.

3.7 STORAGE ENVIRONMENT

- Store tailstand between -20° C and +50° C/-4° F and 122° F.
- Always store tailstand with extension all the way down.
- Suitable for outdoor storage by using a full coverage waterproof tarp or canvas.

3.8 STORAGE SPACE AND HANDLING FACILITIES:

- Minimum Closed Height: 62 ¾ in (159.38 cm)
- Maximum Height Obtainable: 103 ¾ in (263.52 cm)
- Weight: 26 lbs (11.79 kg)

4.0 TRANSPORTATION

Lifting can be accomplished by crane and strap through top of tripod, or by fork truck under lower tripod support. Approximate weight 26 lbs (11.79 kg).

5.0 ASSEMBLY**5.1 GENERAL INSTRUCTIONS**

This product should be assembled and/or repaired using good workmanship practices and proper tools. Bolts and elastic stopnuts should be tightened to a torque not to exceed industry standards for Grade '5' bolts. The 3/8-24 bolts should be tightened to 35 ft-lbs and the ½-20 bolts tightened to 85 ft-lbs.

All replacement parts must be the same as or equal to the original parts supplied.

5.2 PRE-USE CHECKS

1. Refer to the Illustrated Parts List identify and ensure that all parts are present.
2. Generally check over unit to assure the tightness of all nuts and bolts.

5.3 PERSONNEL REQUIREMENTS

This jack is to be assembled by qualified technicians familiar with aircraft maintenance systems.

5.4 ASSEMBLY STEPS

Slide extension inside base assembly. Adjust to desired height and insert lock pin.

5.5 INSPECTION AND TEST PROCEDURES

1. When functional tests are required, it is recommended that the tailstand be tested at 110% of the rated capacity.
2. After testing, visually inspect all welds, cradle, lock pin, and lock pin holes in the base and extension tubing for defects. If defects are found, remove tailstand from active service until repairs are made.

6.0 INSTALLATION

None

7.0 OPERATION

7.1 OPERATING PARAMETERS

1. The user shall work in accordance with the Operator Manual.
2. The employer of the operator shall provide all necessary training.
3. Operate between -20° C and 50° C/-4° F and 122° F.

7.2 NUMERICAL VALUES

- Minimum Closed Height: 62 ¾ in (159.38 cm)
- Maximum Height Obtainable: 103 ¾ in (263.52 cm)
- Weight: 26 lbs (11.79 kg)

7.3 OPERATOR CONTROLS

None

7.4 OPERATING INSTRUCTIONS

The user should be familiar with the following statements prior to using the tailstand:



CAUTION!

1. **DO NOT** place hands on top of tailstand near base tube receiver while lowering tailstand extension. Pinch point exists between top of tube and bracket on extension.
2. **ALWAYS** install tailstand **AFTER** aircraft has been jacked to working position.
3. **NEVER** put hands between aircraft and tailstand.
4. **ALWAYS** be sure tailstand extension lock pin is fully inserted and seated around tubing.
5. **NEVER** load tailstand by lowering jacks. **ALWAYS** lower tailstand and remove **BEFORE** lowering aircraft.

7.4.1 Rules For Operating

- a. The user shall work in accordance with the Operation and Service Manual.
- b. The employer of the operator shall provide all necessary training.
- c. Operate between -20° C and 50° C/-4° F and 122° F.

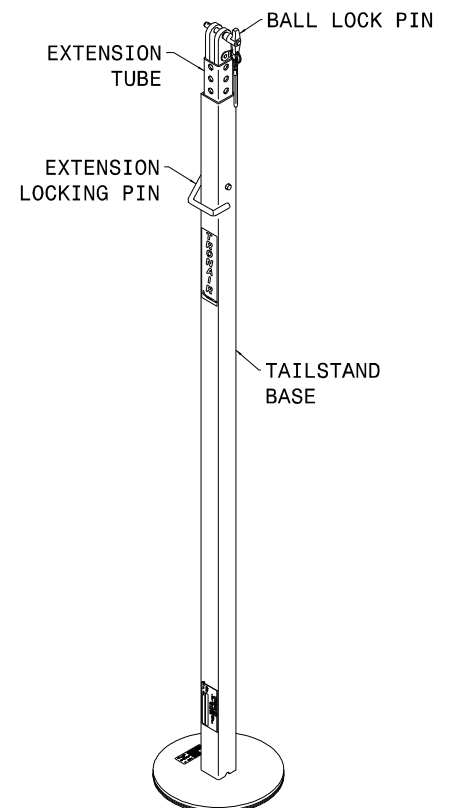
7.4.2 Tailstand Instructions

To Raise Aircraft:

- a. Jack aircraft to desired height.
- b. Place tailstand base on a hard, level surface.
- c. Position tailstand at aircraft manufacturer's recommended location.
- d. Raise tailstand extension tube to aircraft and connect with ball lok pin.
- e. Vertical adjustabl within ± ¼".
- f. Install tailstand extension locking pin and seat around tubing.

To Lower Aircraft:

- a. Clear all personnel from inside and under aircraft.
- b. Remove tailstand ball lock pin and extension locking pin and lower extension.
- c. Relocate tailstand away from aircraft and secure.
- d. Lower aircraft to the ground.



CAUTION!

1. **DO NOT** place hands on top of tailstand near base tube receiver while lowering tailstand extension. Pinch point exists between top of tube and bracket on extension.
2. **DO NOT** place feet under tailstand near base tube receiver while lowering tailstand extension. Pinch point exists between ground and extension tube.
3. **ALWAYS** wear safety glasses.

8.0 TRAINING

Training of operating personnel is the responsibility of the employer. This tailstand must be used in accordance with aircraft manufacturer's instructions.

9.0 MAINTENANCE

GENERAL

- All maintenance and/or repair work should be done using good workmanship practices and proper tools.
- Tailstand shall be maintained and repaired in accordance with the manufacturer's instructions. Such maintenance and repair shall be carried out by qualified persons.
- No modifications shall be carried out as they may adversely affect the compliance of the tailstand with draft standard 2006/42/EC.

9.1 MAINTENANCE SCHEDULE

Cleaning: Annually or as Needed

NOTE: Wipe with soft cloth only.

10.0 TROUBLE SHOOTING

None

11.0 PROVISION OF SPARES

11.1 SPARE PARTS

Spare parts may be obtained from the manufacturer:

TRONAIR, Inc.

1740 Eber Road

Holland, Ohio 43528-9794 USA

Telephone: (419) 866-6301 or 800-426-6301

Fax: (419) 867-0634

E-mail: sales@tronair.com

Website: www.tronair.com

11.2 PARTS LISTS & ILLUSTRATIONS

Reference the following page for Replacement Parts and Kits available.

12.0 IN-SERVICE SUPPORT

Contact Tronair for technical services and information.

13.0 GUARANTEES/LIMITATION OF LIABILITY

Tronair products are warranted to be free of manufacturing or material defects for a period of one year after shipment to the original customer. This is solely limited to the repair or replacement of defective components. This warranty does not cover the following items:

- a) Parts required for normal maintenance
- b) Parts covered by a component manufacturers warranty
- c) Replacement parts have a 90-day warranty from date of shipment

If you have a problem that may require service, contact Tronair immediately. Do not attempt to repair or disassemble a product without first contacting Tronair, any action may affect warranty coverage. When you contact Tronair be prepared to provide the following information:

- a) Product Model Number
- b) Product Serial Number
- c) Description of the problem

If warranty coverage is approved, either replacement parts will be sent or the product will have to be returned to Tronair for repairs. If the product is to be returned, a Return Material Authorization (RMA) number will be issued for reference purposes on any shipping documents. Failure to obtain a RMA in advance of returning an item will result in a service fee. A decision on the extent of warranty coverage on returned products is reserved pending inspection at Tronair. Any shipments to Tronair must be shipped freight prepaid. Freight costs on shipments to customers will be paid by Tronair on any warranty claims only. Any unauthorized modification of the Tronair products or use of the Tronair products in violation of cautions and warnings in any manual (including updates) or safety bulletins published or delivered by Tronair will immediately void any warranty, express or implied.

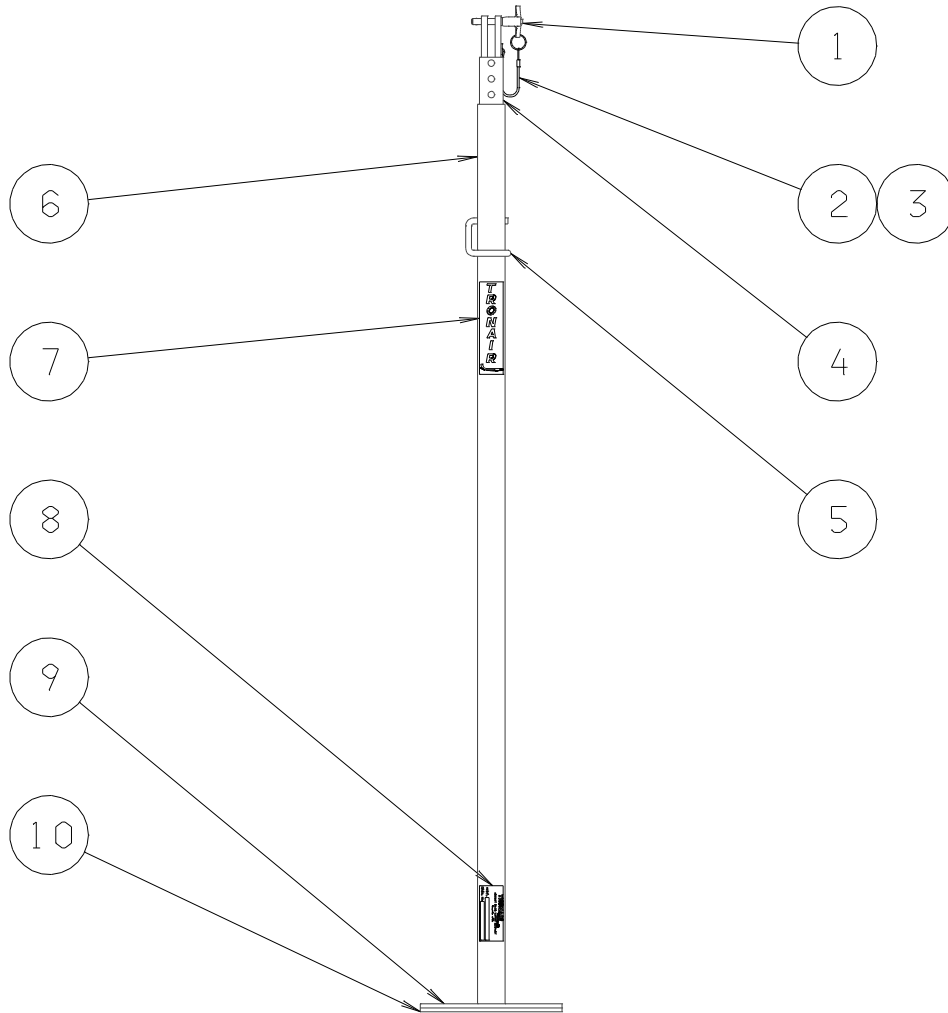
The obligations of Tronair expressly stated herein are in lieu of all other warranties or conditions expressed or implied. **Any unauthorized modification of the Tronair products or use of the Tronair products in violations of cautions and warnings in any manual (including updates) or safety bulletins published or delivered by Tronair will immediately void any warranty, express or implied and Tronair disclaims any and all liability for injury (WITHOUT LIMITATION and including DEATH), loss or damage arising from or relating to such misuse.**

14.0 APPENDICES

APPENDIX I Declaration of Conformity

Parts List

When ordering replacement parts/kits, please specify model, serial number and color of your unit.



Item	Part Number	Description	Qty
4	Z-2151-01	Extension, Tailstand	1
5	G-1311-01	Pin, Lock	1
	K-1827	Kit, Ball Lok-T Pin Replacement; consists of:	
1	G-1310-0615	Pin, Ball Lok-T, 3/8" diameter x 1.5 Grip Length	1
2	H-1026*07.0	Assembly, Lanyard	1
3	G-1351-04	Rivet, 1/8 Open-End Steel	1
	K-1902	Kit, Tailstand Base Replacement; consists of:	
6	Z-2150-01	Base, Tailstand (Includes Items 7-9 (Labels) & Item 10 Neoprene Pad)	1



APPENDIX I

**Declaration
of
Conformity**



DECLARATION of CONFORMITY

The design, development and manufacture is in accordance with European Community guidelines

TELESCOPING TAILSTAND (TRIPOD)
03-5809C0000

Relevant provisions complied with by the machinery:
2006/42/EC

Relevant standards complied with by the machinery:
EN ISO 12100-1

Identification of person empowered to sign on behalf of the manufacturer:

A handwritten signature in black ink that reads "David L. Kidd". The signature is written in a cursive style and is positioned above a horizontal line.

Quality Assurance Representative