

4-YEAR LIMITED WARRANTY

MAINTENANCE MANUAL

PED SAFE-PAK

AVIATION SERIES



PART NUMBER/ 14-PED-SP=8S

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PED SAFE-PAK MAINTENANCE MANUAL

PREFACE

Revision Control is accomplished in accordance with Federal Aviation Regulations [Part 21]. Revisions to this manual shall be prepared by the Manufacturing Process Manager, having a revision number, revision bars, date, and page numbers being revised. Revisions to this manual shall be consecutively numbered, and logged on the Log of Revisions page of the Preface.

In order to facilitate efficient and effective recordkeeping and ensure that all Customers are utilizing the most current manuals, a Revision Notice will be noted on the website www.fcconcepts.com under Revision Tab indicating the most recent revision to the PED SAFE-PAK Maintenance Manual. It is the sole responsibility of the Customer to ensure they are utilizing the most current recommended maintenance procedures for any requirements.



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26-61-00-001

PED SAFE-PAK (PSP) Maintenance Task Requirements

TASK NUMBER	FREQUENCY	DESCRIPTION
Task # 26-61-00-401	ANNUAL (12 MONTH)	Annual Inspection Procedures (12 month)
Task # 26-61-00-501	TEN (10) YEARS	Suppression Bladders removal & installation within the PED SAFE-PAK (PSP)

PED SAFE-PAK MAINTENANCE MANUAL

Task # 26-61-00-101

PED SAFE-PAK Direct Velcro Mounting Procedures

A) Reference Information

REFERENCE	DESIGNATION
N/A	N/A

B) Tools and Equipment

REFERENCE	DESIGNATION
P/N- PSP-14--TEMPLATE	14" PED SAFE-PAK -Template
P/N -151405	(2) 2" Adhesive Back FR Hook Velcro Direct Mount
Commercially Available	Masking Tape
Commercially Available	isopropyl alcohol
Commercially Available	Lint free cloth
Commercially Available	Material Roller

C) Job Set-Up:

- 1) Obey the following safety precautions for cleaning.
 - Use safety goggles
 - Put on protective clothing
 - Do not let cleaning agents touch your skin, eyes, or mouth
 - Work in an area that has a good flow of clean air
 - Obey the manufacturer's instructions
 - Get medical aid if irritation occur
 - Cleaning agents can cause injuries.

NOTE: The PED SAFE-PAK (PSP) may be Velcro mounted in any suitable safe location which does not interfere with emergency egress procedures. The PSP may be mounted vertically or horizontally based on the needs of the individual installation.

- 2.) Select the desired location to mount the PED SAFE-PAK for Direct Mounting ensure the installation allows for quick accessibility, does not obstruct emergency egress, effect the proper operation of seats, doors, overhead bins, or cabinets.

The following are a few suggested areas within the aircraft where the units can be mounted

- Behind any seat in the passenger compartment
- In an overhead storage bin
- In a closet
- Under a seat or divan.
- In a cabinet or accessible cargo compartment
- Next to a flight attendant station on or near a bulkhead
- In a cockpit behind, adjacent, or accessible pocket adjacent to a crew seat.

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Task # 26-61-00-001 (continued)

NOTE: When selecting the location that the PED SAFE-PAK unit will be mounted and stored within the aircraft the installer must ensure that any failure of the mounting system, which could occur, will not jeopardize the safety of passengers, crew members or the safe continuation of flight.

C) Procedures

1. After selecting desired mounting location of the PED SAFE-PAK locate the provided template and follow the instructions to trim out the template as needed for your specific installation.
2. Complete a general cleaning of the location (see job set-up)
3. Install 1" Masking tape in the area noted in the template to prepare for Adhesive backed Velcro installation. And install in location,
4. Clean the surface exposed for Velcro installation to remove any traces of dirt grease, wax and silicone. Allow to thoroughly dry before proceeding. Failure to properly clean the surface prior to installation of the adhesive backed Velcro will most likely result in premature failures.

NOTE: The Velcro will not adhere to carpet or fabric

5. Remove adhesive protection film from 2" Velcro hook strips and place in the template guided location. For optimal adhesion of the adhesive backing on the Velcro to the mounting surface the ambient temperature should be $> 60^{\circ}\text{F}$ or 16°C .
6. Utilizing a suitable roller, firmly seat the Velcro hook starting from the middle and working out to the edges of the Velcro.
7. Place the PED SAFE-PAK directly over previously installed Velcro in the selected location and firmly mate the Hook & Loop Velcro to complete the installation.
8. Inspect the final installation for security and accessibility.

PED SAFE-PAK MAINTENANCE MANUAL

Task # 26-61-00-201

1. Removing the PED SAFE-PAK from the Velcro installed Location

A. Reference Information

REFERENCE	DESIGNATION
N/A	N/A

B. Tools and Equipment

REFERENCE	DESIGNATION
N/A	N/A

C. Procedures

- (1) Gain access to where the Unit is located within the aircraft.
- (2) Grasp the Plastic handle of the PED SAFE-PAK. With adequate force pull the unit away from its mounting Velcro.

PED SAFE-PAK MAINTENANCE MANUAL

Task # 26-61-00-301

1. Reinstallation of the PED SAFE-PAK after removal

A. Reference Information

REFERENCE	DESIGNATION
N/A	N/A

B. Tools and Equipment

REFERENCE	DESIGNATION
N/A	N/A

C. Procedures

- (1) Gain access to where the PED SAFE-PAK is located within the aircraft.
- (2) Align the PED SAFE-PAK with the previously installed Velcro.

NOTE: Ensure the handles, gloves, and user guide is correctly positioned to the PED SAFE-PAK assembly.

- (3) Firmly mate the hook and loop Velcro together to ensure the PED SAFE-PAK is correctly installed.

PED SAFE-PAK MAINTENANCE MANUAL

Task # 26-60-00-401

1. PED SAFE-PAK Annual Inspection Procedures (12 month)

A. Reference Information

REFERENCE	DESIGNATION
TASK # 26-60-00-101	Removing the PED SAFE-PAK from the Storage Container
TASK # 26-60-00-102	Installing of the PED SAFE-PAK into Storage Container.

B. Tools and Equipment

REFERENCE	DESIGNATION
Commercially Available	Flashlight
Commercially Available	Wax Lubricant (Zipper Ease, Zip Tech wax)

C. Procedure

- (1) Remove the PED SAFE-PAK from its mounted or stored location [TASK #26-60-00-201](#).
- (2) Complete a general visual inspection for obvious damage to the PED SAFE-PAK interior & exterior.
 - Ensure the containment bag is free from tears, cuts and abrasions and that all stitching is intact.
 - Ensure there are no loose or missing parts, handle is firmly attached
- (3) Open the PED SAFE-PAK upper flap to expose the zipper. Open the zipper with attached red zipper pull. Ensure zipper opens and closes without binding. If required lubricate the zipper teeth with non-flammable wax lubricant.
- (4) Inspect the inside of the PED SAFE-PAK for general condition. Ensure the Suppression bladders are not leaking and correctly positioned inside of the webbing pockets. Verify the Velcro closures for the webbing pockets are closed. The printing on the bladders should not be visible through the individual web pockets.
- (5) Ensure the User Instruction Card is free from damage & attached to front of the unit..
- (6) Confirm the fire-resistant gloves are attached and free from damage.
- (7) Reinstall the PED SAFE-PAK into its mounted or stored location ([TASK 26-60-00-301](#)).

PED SAFE-PAK MAINTENANCE MANUAL

Task # 26-61-00-501

1. Suppression Bladders removal and installation within the PED SAFE-PAK

A. Reference Information

REFERENCE	DESIGNATION
TASK # 26-61-00-201	Removing the PED SAFE-PAK from stored location.
TASK # 26-61-00-301	Re-Installing the PED SAFE-PAK in its stored location

B. Tools and Equipment

REFERENCE	DESIGNATION
FCConcepts/ Approved Vender	(P/N=FCC-RSD7-113008) Support Ring Tool 14" PFS
FCConcepts/ Approved Vender	(Part Number -PFS-14-BL-KIT) (4) four self-contained suppression bladders)

C. Procedures

- (1) Remove the PED SAFE-PAK from its mounted or stored location [TASK # 26-61-00-201](#).
- (2) Open the PED SAFE-PAK and insert the Support Ring Tool into the zippered opening.
- (3) Remove bladders mounted inside by separating the Velcro at the side of each pocket.

NOTE: Remove all bladders prior to installing new bladders.

- (4) All bladders are provided with a date of manufacture and expiration date. This side of the bladder which embossed with this information is considered the backside of the bladder and should be installed to face away from the inner most recess. This data information should not be visible through the mesh pockets when looking into the bag.
- (5) Replace bladders starting at the bottom of the bag and working towards the top.

NOTE: As you install the new bladder in the mesh pocket, work the edges of the bladder into the four corners of the mesh pocket to ensure the bladder is flat and properly aligned in the mesh pocket.

- (6) Ensure the bladder is completely seated within each pocket and the Velcro retaining strips are securely mated.
- (7) When all bladders have been replaced, remove the support return the zipper to its closed position and fold the leather flap back down.

CAUTION: The inside lining of the PED SAFE-PAK contains fiberglass which can cause skin and eye irritation. Eye protection, protective gloves & a long-sleeved shirt is recommended when replacing the bladders in the PED SAFE-PAK. After completion, it is suggested to wash any exposed skin thoroughly with soap and water.

- (8) Reinstall the PED SAFE-PAK in its stored location [TASK # 26-61-00-301](#).

ILLUSTRATED PARTS DIAGRAM



ITEM	PART NUMBER	DESCRIPTION	EFFECTIVE
100	14-PED SP=8S	14" FIRE CONTAINMENT BAG WITH AUTOMATIC SUPPRESSION SYSTEM	PED SAFE-PAK
101	PFS-14-BL-KIT	14" Suppression Bladder Replacement Kit	PED SAFE-PAK
102	FCC-PFS-ZL	Zipper Assist	All
103	FCC-L10-010	Large Thermal-Guard Gloves	All
104	FCC-151405	(2) 2" Adhesive Back FR Hook Velcro Direct Mount	PED SAFE-PAK
105	FCC-RSD-14	14" PED SAFE-PAK Support Ring Tool	PED SAFE-PAK
110	FCC-PSP-PLACARD	PED SAFE-PAK Interior Placard	PED SAFE-PAK
111	PFS-5-CL-SL	5" Clear Plastic Tag Snap Lock	PED SAFE-PAK
112	FCC-PSP-USER	PED SAFE-PAK USER GUIDE	PED SAFE-PAK

MINIMUM EQUIPMENT LIST (MEL)

FIRE CONTAINMENT CONCEPTS, LLC.		MASTER MINIMUM EQUIPMENT LIST	
13155 MARKET AVENUE N. HARTVILLE, OHIO 44632 1 (800) 877-2204			
AIRCRAFT: ALL		REVISION NO: Original DATE: 10012017	PAGE NO: 10
1. SYSTEM, SEQUENCE NUMBERS & ITEM	REPAIR CATEGORY		
	2. NUMBER INSTALLED		
	3. NUMBER REQUIRED FOR DISPATCH		
	4. REMARKS AND EXCEPTIONS		
26 FIRE PROTECTION			
61-1 PED SAFE-PAK Fire Containment & Suppression System	D	1	0 Not required for flight.

GENERAL EFB FIRE SAFETY

STANDARD OPERATING PROCEDURES (Recommendation)

EFB Dangers and Early Warning Signs:

Electronic Flight Bags (EFB) units are powered by rechargeable lithium batteries which are susceptible to experiencing thermal runaway events. Lithium battery fires are extremely dangerous and difficult to extinguish as portable halon extinguishers are successful in momentarily knocking down initial flames but must be cooled by water or another non-alcoholic beverage to cool and extinguish. Thermal runaway events may involve venting of smoke, flammable vapors, fire and subsequent explosions which lithium metals and electrolyte may be ejected from the EFB unit. Any of these events experienced in a cockpit can lead to potentially catastrophic events. For this reason, it is of the utmost importance for crew members to remain proactive by taking immediate action when early warning signs to a potential overheat event may occur. Any EFB showing early warning signs should be removed from the cockpit area and proactive EFB fire prevention procedures followed. Early warning signs may include:

- Damaged devices
- Higher than normal operating temperatures
- Electrical burning smell
- Screen delamination.
- Devices which have been recalled due to fire, smoke or explosive dangers.
- Any EFB which is of any concern to crew members.

Proactive EFB Fire Prevention Procedures:

1. Power down the device and remove all charging capabilities.
2. Remove the PED SAFE-PAK from its stored location.
3. Don the provided fire-resistant gloves and safety glasses.
4. Open the PED SAFE-PAK leather flap to reveal zipper and open.
5. Place the EFB inside of the PED SAFE-PAK, close the zipper, and return the flap to its starting position.
6. Attach the flap hold down straps with locking snaps.
NOTE: Tug on straps to ensure lock on snaps has properly engaged.
7. Relocate the PED SAFE-PAK to a secured area that is accessible to the cabin crew yet removed from passengers and flight sensitive areas.
8. Check frequently and provide temperature and status update to the pilot in command (PIC).
9. Upon landing either at the intended destination or a diversionary airport the PED SAFE-PAK should be removed from the aircraft as soon as possible and handled or opened by Airport or qualified fire personnel only.

EFB Firefighting Procedures for EFB's In Unstable Condition:

In the case lithium battery is in an unstable condition (i.e., the fire is actively burning expelling dense smoke or the device appears to be expanding or popping from heat). the device should not be moved until Cooled.

1. Don any available personal protective equipment (PPE) including provided Thermal-Guard gloves.
2. Extinguish the fire with a halon or water hand-held extinguisher, or nonflammable liquid.
3. Crew members should self-evaluate the condition and hazard in picking up the device after a full thermal discharge event. If there is no imminent danger to crew, passengers or the continued safe operations of the aircraft, continue to cool the device and let the device rest without touching for at least 15 minutes.
4. When the device is adequately cooled place the device inside of the PED SAFE-PAK.
5. Relocate the PED SAFE-PAK to a secured area that is accessible to the cabin crew yet removed from passengers and flight sensitive areas.
6. Check frequently and provide a status update to the pilot in command (PIC).
7. Upon landing either at the intended destination or a diversionary airport the PED SAFE-PAK should be removed from the aircraft as soon as possible and handled or opened by Airport or qualified fire personnel only. The PED SAFE-PAK must then be returned to the manufacture for evaluation replacement.

GENERAL LITHIUM BATTERY FIRE SAFETY

Standard Operating Procedures Recommendation:

General Lithium-Battery Fire Safety

Company Name utilizes a PED SAFE-PAK (fire containment bag/ suppression system) from Fire Containment Concepts to help combat the growing danger of lithium-ion related battery fires. Flight crews should be vigilant of any PED's or other devices using lithium batteries for over temperature.

Proactive Utilization of The PED SAFE-PAK

Flight crews should be proactive in looking for signs of possible lithium battery over temperature. Lithium batteries and PED devices most commonly provide early indication that their internal cells are entering a thermal runaway condition. These early signs may include:

- Damaged devices
- Higher than normal operating temperatures
- Electrical burning smell
- Screen delamination.
- Devices which have been recalled due to fire, smoke or explosive dangers.

At the first sign of potential over-heat condition, the PED SAFE-PAK should be utilized and the User Instructions followed.

The PED SAFE-PAK is equipped with an internal automatic bladder suppression system designed to rupture and extinguish an internal fire threat. The temperature at which the Bladders are designed to rupture is **400°F/204°C +/- 10%**. There are (4) individual suppression bladders. In most scenarios it may only require one bladder to fully extinguish the fire with the remaining bladders on standby should they be needed.

If for any reason the temperature or integrity of the unit is questioned flight crew should consider a diversion and emergency landing should be accomplished as a precaution by the flight crew.

If the PED SAFE-PAK is deployed as a precautionary measure the PED SAFE-PAK **must be** returned to the manufacturer for inspection, recertification or replacement prior to further utilization.

Firefighting Procedures for a PED in an Unstable Condition-

In the case lithium battery is in an unstable condition (i.e., the fire is actively burning expelling dense smoke or the device appears to be expanding or popping from heat). the device should not be moved until Cooled.

- 1) Don any available personal protective equipment (PPE) including provided Thermal-Guard gloves.
- 2) Extinguish the fire with a halon or water hand-held extinguisher, or nonflammable liquid.
- 3) Cool a smoking/overheating device with water from any available source, a nonalcoholic beverage, or an aqueous extinguisher.
- 4) Crew members should self-evaluate the condition and hazard in picking up the device after a full thermal discharge event. If there is no imminent danger to crew, passengers or the continued safe operations of the aircraft, continue to cool the device and let the device rest without touching for at least 15 minutes
- 5) When the device is adequately cooled place the device inside of the PED SAFE-PAK.
- 6) Relocate the PED SAFE-PAK to a secured area that is accessible to the cabin crew yet removed from passengers and flight sensitive areas.
- 7) Check frequently and provide status update to the pilot in command (PIC).
- 8) Upon landing either at the intended destination or a diversionary airport, the P.E.D. Fire Safe should be removed from the aircraft as soon as possible and handled or opened by Airport or qualified fire personnel only. The PED SAFE-PAK must then be returned to the manufacture for evaluation replacement.

PED SAFE-PAK FOUR-YEAR WARRANTY

1) Limited 4-year Warranty:

Fire Containment Concepts (“Manufacturer”) provides to its customers a four (4) year Limited Warranty against defects in material or workmanship of the **PED SAFE-PAK or** (“Product”), subject to the terms and conditions described herein below. Manufacturer warrants that during the warranty period the product delivered to the original purchaser will be free from defects in material or workmanship so long as the product remains in the ownership of the original purchaser, Product has not been activated or deployed, Product has been properly stored in storage case or in a manner as not to result in physical damage to the system, and product has been properly inspected and maintained per Manufacturers Maintenance Procedures. The Manufacturer reserves the right to amend any or all of the maintenance requirements from time to time. The maintenance requirements in effect at any given time must be complied with in order to maintain warranty coverage. The warranties shall be valid from the date of receipt.

2) Repairs Completed Under Warranty:

If a product complies in all respect with the warranty provisions set forth above, Manufacturer will make all adjustments, repairs, modifications, corrections, or replacements at Manufacturer’s expense; provided, however that Product has been properly inspected and otherwise treated in accordance with Manufacturer’s requirements, Operating Instructions, Maintenance Procedures, applicable service bulletins, and the provisions of this limited warranty, and provided that Product has not been activated or deployed. Manufacturer shall use its best efforts to make all adjustments, modifications, corrections, or replacements under this warranty within Thirty (30) Business days or less from receipt of a Product.

3) Repairs Not Covered by Warranty:

If Product fails to comply in any respect with the limited warranty set forth in Section 1, any and all repairs will be the sole responsibility of the original purchaser.

4) Return of Product under Limited Warranty Provisions:

Purchaser must complete the online Material Return Authorization (“MRA”) form located on the manufacturer’s website or contact the manufacturer to receive the MRA forms in another manner such as via mail, email, or fax. Manufacturer must receive written notice of failure of a Product to comply with this warranty within thirty (30) days of discovery of such failure. Purchaser shall return the defective Product to the Manufacturer or its Approved Representative. Purchaser shall pay all costs of shipping the defective part to and from Manufacturer or its Approved Representative. All items shipped to Manufacturer or its Approved Representative must be prepared for shipment in accordance with the requirements of the Maintenance procedures, must be adequately packed to prevent damage in transit, and, if desired, insured by Purchaser. All items returned for replacement shall be shipped prepaid to the Manufacturer’s current address provided on the MRA form.

5) Service costs—Product Not Found Defective (No Fault Found):

In the event that Manufacturer determines that any Product returned is not defective or not covered by this Limited Warranty, customer shall be responsible for service and handling charges “No Fault Found” shall mean a returned product that is damaged or fails to operate properly as a result of operator error, abuse, or misuse or other causes not covered by this limited warranty.

6) Failure to Maintain in Accordance with Manufacturer’s Maintenance Requirements:

Failure to service Product in exact and specific compliance with the Manufacturer’s prescribed Maintenance Requirements herein below or as amended from time to time shall immediately void this limited warranty.

7) Product Registration

This limited warranty becomes effective upon receipt of the product. Warranty Registration Form is included in the User Manual and available online at www.fcconcepts.com. Failure to submit this provided form or register online within 30 days of receipt of the product shall void this Limited Warranty.

8) Product Transfer

Not applicable

(Continued)

PED SAFE-PAK FOUR-YEAR WARRANTY

(Limited 4Year Warranty Continued)

9) Maintenance Requirements:

Purchaser shall, prior to, or simultaneously with shipment, send a separate written warranty claim to the Manufacturer or its Approved Representative, advising that a Product is to be shipped for Warranty claim purposes and shall include a description of the failure, and airway bill number. Purchaser is hereby authorized to use any selected Shipping Agent or as otherwise mutually agreed, for goods returned to the Manufacturer or its Approved Representative. Shipments are to be conspicuously marked with Purchaser's and Manufacturer's name. Except when otherwise stated, all shipping and insurance shall be at the Purchaser's expense.

Note: Please visit our website at www.fcconcepts.com for the most current PED SAFE-PAK maintenance procedures.