



**AERIAL FIRE SUPPRESSION  
AERIAL SEARCH & RESCUE**

**FAA PART 135  
CERTIFICATE NUMBER  
3SEA158M**

To whom it may concern,

Tanker 857, N836MM had experienced a prior fire gate malfunction prior to the accident on 9/22/2020. The prior gate malfunction occurred on 8-20-2020. I received a phone call from the pilot Ricky Fulton on the evening of August 21<sup>st</sup> 2020. Ricky stated that he had encountered an issue with the fire gate. The issue as described by Ricky Fulton is the fire gate LED display of the numbers and words on the fire gate controller went inverted or went upside down. This happened on the way to a fire west of Ontario Oregon. Ricky somehow corrected the display or it corrected itself and everything seemed to be working properly so Ricky continued on the mission. When Ricky got to the fire and tried to perform his fire dump nothing came out of the gate, and he did a go around as there was no imminent emergency. Ricky then radioed to the air attack that his gate system malfunctioned but he thought it was working so he wanted to take another run at the drop. Ricky went in for a second time on the same drop and no fire retardant dispersed again, this time instead of doing a go around Ricky reached for the red salvo button on the fire controller and the load finally dispersed. Once Ricky got back to Ontario Oregon, he shut down and gave Patrick Mertens a call about the failure of the fire gate. This phone call took place on the evening of August 21<sup>st</sup> 2020. Patrick Mertens then immediately called the Air Tractor dealer (Lane Aviation) to try to get a hold of Victor Trotter at Trotter Controls. Approximately an hour later Victor Trotter called Patrick Mertens back where this narrative was explained to him. He acknowledged that they have had that issue with the new Gen III fire gates and they had a simple fix that he would send me in the morning. The next morning Patrick Mertens waited for the fix but had to call Victor Trotter back to get the corrective actions. Victor Trotter or one of his employees forwarded Patrick Mertens the fix to correct the problem that was described to Victor. Patrick Mertens then forwarded the corrective actions to pilot Ricky Fulton. Ricky then performed the simple fix which was comprised of disconnecting one cable from the fire gate computer. This fix corrected the issue and to my knowledge there was not another fire gate problem.

Approximately two weeks later on 9-8-2020 I received an email from Victor Trotter stating the same fix to correct this issue. The email was just sent to me but it seemed like it went out to everyone that had the Gen III fire gate installed on their aircraft.

I have included along with this statement an email chain between myself and Victor Trotter on this issue. I have included the instructions that were sent to us to perform the fix that was described.

Sincerely,

Patrick Mertens

Phone [REDACTED]

Fax [REDACTED]

Sterling, CO 80751

[REDACTED]  
[www.aeroseat.com](http://www.aeroseat.com)

Subject **Instructions for LCD display disconnect**

From Victor Trotter [REDACTED]

To Robert Ray [REDACTED]

Cc patrick [REDACTED], Logan Lane

Date 2020-08-21 8:33



Hi Robert,

Victor Trotter  
CEO / President  
SALT 352-1142  
www.roundcube.com

---

Hi Robert,

Please send the instructions to Patrick and Logan at the e-mail addresses above.

Regards,

Victor Trotter  
President / CTO



[www.trottercontrols.com](http://www.trottercontrols.com)



Subject **Re: Instructions for LCD display disconnect**  
From Patrick Mertens [REDACTED]  
To Victor Trotter [REDACTED]  
Cc Robert Ray [REDACTED]  
Date 2020-08-21 8:43



Hey Robert,

Thanks for passing the word on Victor, if we could get those instructions as soon as possible so we can make the fix and have the plane up and running as soon as possible. We have been covered up with fires and will probably be back out around 10 am mtn time again.

Patrick Mertens

On 2020-08-21 8:33, Victor Trotter wrote:

Hi Robert,

Please send the instructions to Patrick and Logan at the e-mail addresses above.

Regards,

Victor Trotter

President / CTO

[www.trottercontrols.com](http://www.trottercontrols.com)

--

Patrick Mertens

Mobile: [REDACTED]

Email: [REDACTED]  
[REDACTED]

Sterling, Co 80751



Subject **RE: Instructions for LCD display disconnect**

From Robert Ray [REDACTED]

To Victor Trotter [REDACTED]

Cc patrick [REDACTED], Logan Lane

Date 2020-08-21 9:44



- PS-0381 - GEN3 DataVault LCD Display Modification.pdf (~1.4 MB)

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Please see the attached instructions for disconnecting the LCD display. If you have any questions, please feel free to call me on my cell at [REDACTED]

Thanks,  
Robert Ray

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**From:** Victor Trotter [REDACTED]  
**Sent:** Friday, August 21, 2020 8:34 AM  
**To:** Robert Ray [REDACTED]  
**Cc:** patrick [REDACTED]; Logan Lane [REDACTED]  
**Subject:** Instructions for LCD display disconnect

Hi Robert,

Please send the instructions to Patrick and Logan at the e-mail addresses above.

Regards,

Victor Trotter  
President / CTO

[REDACTED]  
[www.trottercontrols.com](http://www.trottercontrols.com)

**From:** [Victor Trotter](#)  
**To:** [Gutierrez Eric](#)  
**Subject:** Re: GEN III FRDS Service Items  
**Date:** Wednesday, June 22, 2022 1:54:08 PM  
**Attachments:** [image001.png](#)

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[CAUTION] This email originated from outside of the organization. Do not click any links or open attachments unless you recognize the sender and know the content is safe.

Hi Eric,

Its OK for you to use PS-381 as you see fit (i.e. release to the public dictet).

Best Regards,

Victor Trotter  
Trotter Controls, Inc.

Get [Outlook for Android](#)

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**From:** Gutierrez Eric [REDACTED]  
**Sent:** Wednesday, June 22, 2022 10:24:47 AM  
**To:** Victor Trotter [REDACTED]  
**Subject:** RE: GEN III FRDS Service Items

Hello Victor,

Can you give me a call when you have a min, [REDACTED] ?

Respectfully,

Eric



Eric M. Gutierrez  
Air Safety Investigator  
National Transportation Safety Board  
32125 32<sup>nd</sup> Avenue South, Suite 140  
Federal Way, WA 98001  
Office - [REDACTED]  
Fax - [REDACTED]  
[REDACTED]

---

**From:** Victor Trotter [REDACTED]





1726 Layton Ave  
Fort Worth, TX 76117

www.trottercontrols.com  
817-535-2243  
info@trottercontrols.com

## PS-0381 GEN3 DataVault LCD Display Modification

PROCESS  
SPEC

DOC #:		PS-0381		REV	
MODEL:		5025-0149		A	
SERIAL:		All		DATE:	08/21/2020
BY:	RMR	CK'D:	-	REV:	08/21/2020

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## 1. REVISIONS

- Initial Release is Revision A: 08/21/2020

## 2. PURPOSE

The GEN 3 DataVault (TCI P/N 5025-0149) may experience erratic system behavior due to EMI-induced issues on certain Air Tractor AT802 configurations. This document describes a process to disconnect the LCD display section of the DataVault to mitigate this issue.



### 3. DISCONNECTING THE DISPLAY

NOTE: The screws to be removed in this procedure have o-rings, which may have a tendency to remain with the lid when removing the screws.

#### 3.1. REMOVE THE LID

- First, remove the 7 silver screws that hold the PCB to the lid. Leave the 4 smaller silver screws in place (see Figure 1). Be sure to keep track of the o-rings.



Figure 1 - Lid to PCB Screws



- Next, remove the 8 black screws that attach the lid to the enclosure (see Figure 2). Be sure to keep track of the o-rings.



**Figure 2 - Lid to Enclosure Screws**

- The lid is attached to the PCB inside by a keypad ribbon cable, as well as a fan power cable, which should be zip-tied to a standoff on the PCB (see Figure 3). Gently remove the keypad ribbon cable, and set the lid carefully aside, making sure not to strain the fan cable. It may be necessary to remove the zip-tie to have enough wire length to work with.



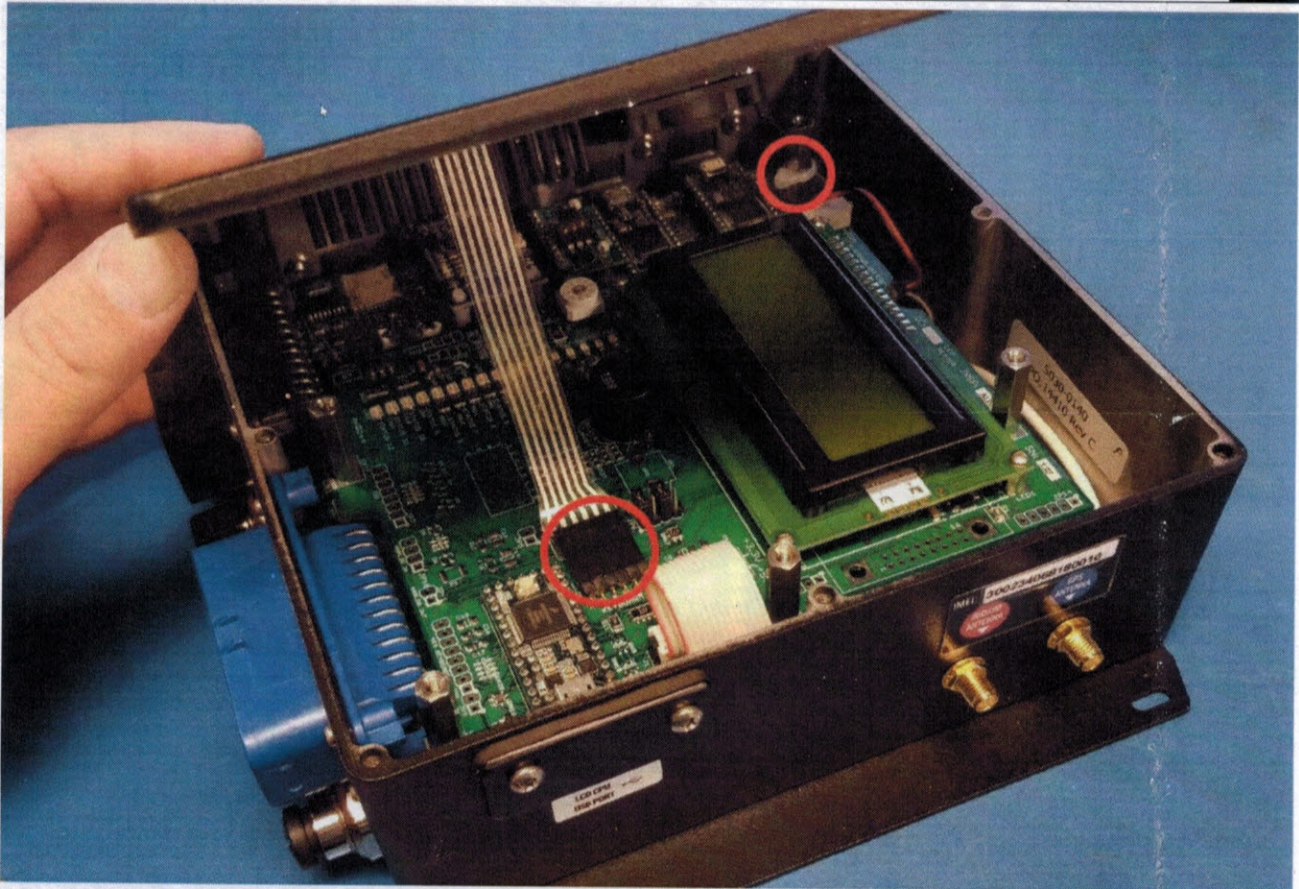


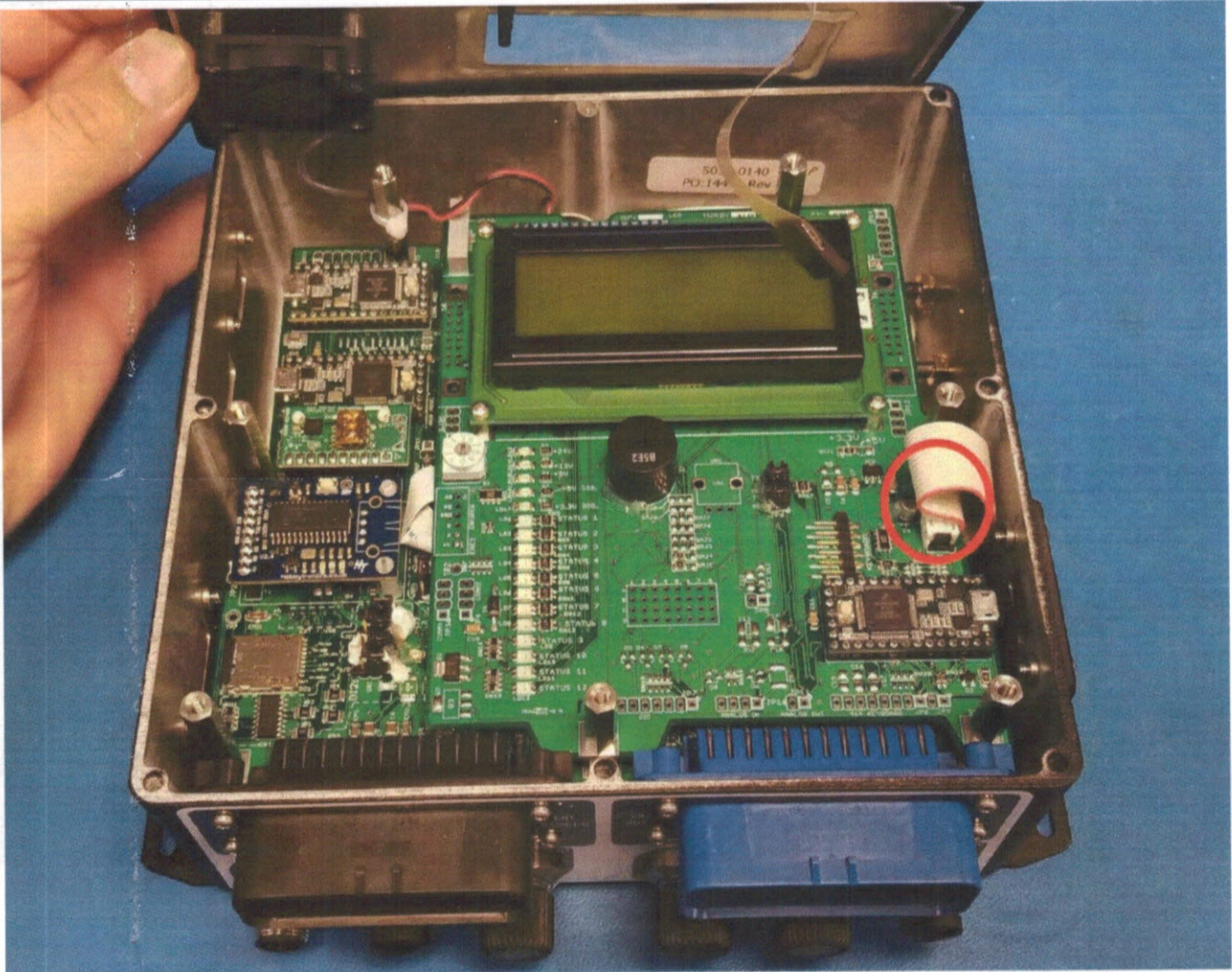
Figure 3 - Keypad and Fan Cables

### 3.2. REMOVE AND SECURE THE LCD RIBBON CABLE

- Locate the ribbon cable on the same side of the enclosure as the "LCD CPU" access plate (see Figure 4). Carefully lift straight up on the ribbon cable connector to remove it.

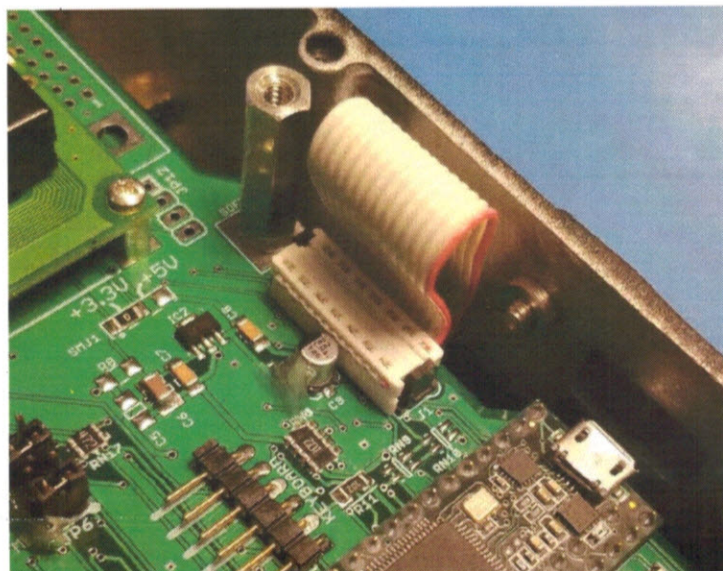






**Figure 4 - LCD Ribbon Cable Location**

- Take care not to break the keying tabs on the connector.



**Figure 5 - LCD Ribbon Cable Connector**



- Roll the ribbon cable connector inside the cable to protect the contacts from shorting anywhere, and secure with a small zip-tie as shown (see Figure 6).

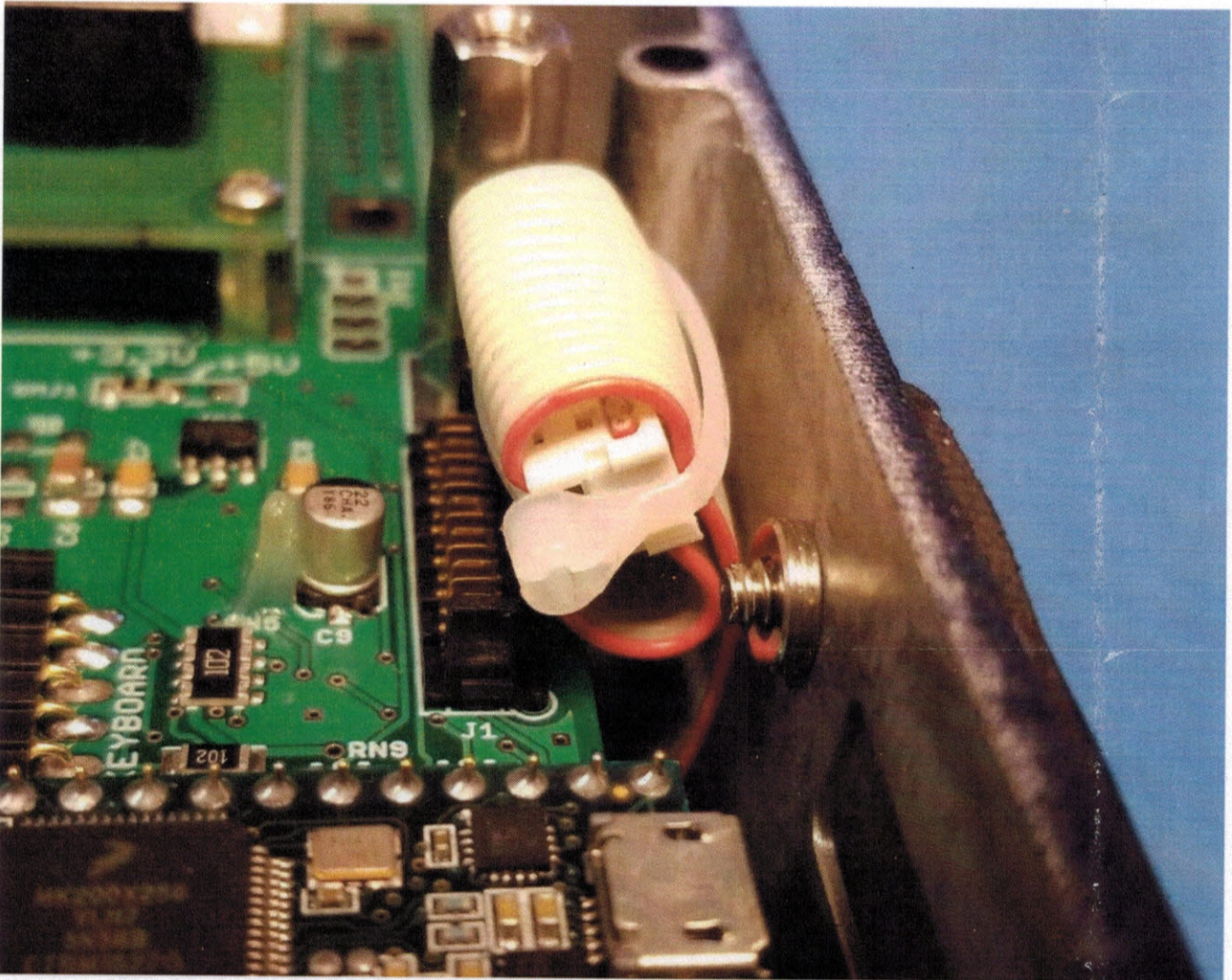


Figure 6 - Securing LCD Ribbon Cable

### 3.3. REASSEMBLE

- If the fan cable zip-tie was removed, re-secure the fan cable.
- Reconnect the keypad ribbon cable
- Install the lid with the 8 black screws, making sure the o-rings are in place at the head of the screw.
- Install the 7 silver screws that attach the PCB to the lid, making sure the o-rings are in place at the head of the screw.



Subject **GEN III FRDS Service Items**

From Victor Trotter [REDACTED]

To patrick [REDACTED]

Date 2020-09-08 11:16



Good morning

- PS-0381 - GEN3 DataVault LCD Display Modification.pdf (~1.4 MB)
- GEN III - Cleanout Time Adjustment.pdf (~1.7 MB)

Please forward this e-mail to your pilot and/or maintenance crew for your GEN III equipped AIRCRAFT.

1. System faults are consistently found operator have already corrected (this)

a. The LCD display on the DataVault controller should be disconnected

b. Instructions for doing this are attached

2. Excessive mixing on the wiper blade

a. The default "cleanout" timing for the GEN III is to hold the door open for 2 seconds

b. This setting should be changed to 1 second

c. Please follow the instructions attached to adjust the cleanout to 1 second

We appreciate your business and will keep you updated as we continue to refine & improve the FRDS GEN III system.

Best Regards,

Victor Trotter

Team Lead, FRDS

Team Lead, FRDS

13501 West Loop East, Suite 1000

Houston, TX 77040

409-533-1234

409-533-1235

409-533-1236

409-533-1237

Good morning,

I hope today finds you well with a successful and relaxing labor day weekend behind you.

I'm writing regarding a couple of issues that have been reported with some GEN III FRDS firegate systems.

Please forward this e-mail to your pilot and/or maintenance crew for your GEN III equipped AT802.

1. System locks up occasionally (some operators have already corrected this)
  - a. The LCD display on the DataVault controller should be disconnected
  - b. Instructions for doing this are attached
2. Excessive Misting on the windshield
  - a. The default "cleanout" setting for the GEN III is to hold the doors open for 5 seconds
  - b. This setting should be reduced to 1 second
  - c. Please follow the instructions attached to adjust the cleanout to 1 second

We appreciate your business and will keep you updated as we continue to refine & improve the FRDS GEN III system.

Best Regards,

Victor Trotter

Trotter Controls, Inc.

President/CTO

<http://www.TrotterControls.com>



Fort Worth, TX 76117



## **RECORD OF E-MAIL CORRESPONDENCE**

**Eric M. Gutierrez  
Air Safety Investigator  
Western Pacific Region**

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**Date: October 21, 2020  
Person Contacted: Robert Hust (witness)  
NTSB Accident Number: WPR20LA315**

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### **Narrative:**

The following is a synopsis of the information provided by Mr. Robert Hust in an e-mail correspondence.

On or about August 21, 2020, he witnessed Ricky L. Fulton perform the manufacturer's service bulletin for the gate malfunction on N836MM, an Air Tractor, AT-802A. Ricky followed the procedure as described in the paperwork from the manufacture. Ricky did not remove the box from the compartment or remove any other cables other than described in the procedure. Ricky was very careful to follow each step as described and I was there to verify those steps.