### **Absolute Solutions LLC**

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Oregon City OR, 97045

### FAA APPROVED FLIGHT MANUAL SUPPLEMENT

for the

Absolute Solutions LLC Gear Warning Upgrade

as installed in

PIPER PA-44-180	

Registration number: Serial number:

This document serves as an FAA approved Airplane Flight Manual Supplement when the Absolute Solutions LLC Gear Warning upgrade is installed in accordance with Supplemental Type Certificate SA02725SE. This Document must be incorporated into the FAA approved airplane flight manual.

The information contained herein supplements the information in the FAA Approved Airplane Flight Manual. For limitations, procedures loading and performance information not contained in this document, refer to the FAA Approved Airplane Flight Manual, markings, or placards.

	7 June, 2023
For Manager, Flight Test & Human Factors Branch, AIR-710	Approved Date
Federal Aviation Administration	

AFMS, Absolute Solutions LLC Gear Warning Upgrade

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		LOG OF REVISIONS		
Revision number	Page Number	Description	FAA Approved	Date
IR	All	Complete Supplement	Robert Y Schlein	7/22/2022
1	Cover	Change of Company Address	John Hed	6/7/2023

AFMS, Absolute Solutions LLC
Gear Warning Upgrade
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### Section 1. General

## 1.1 Absolute Solutions LLC Gear Warning Upgrade

The Absolute Solutions LLC Gear Warning upgrade is a system that alerts the pilot that a potentially unsafe gear condition exists. This system does not rely on the standard throttle position system, rather it utilizes manifold pressure switches to achieve maximum consistency and accuracy of the gear warning alert.

Section 2. Limitations

**NO CHANGE** 

**Section 3. Emergency procedures** 

**NO CHANGE** 

**Section 4. Normal procedures** 

**NO CHANGE** 

Section 5. Performance

**NO CHANGE** 

Section 6. Weight and Balance

**NO CHANGE** 

Section 7. System description

**NO CHANGE** 

Section 8. Handling, Servicing and Maintenance

**NO CHANGE** 

**Section 9. Supplements** 

**NO CHANGE** 

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## Section 10. Safety and operational tips

# 10.1 Absolute Solutions LLC Gear Warning Upgrade operation

Vacuum switch(es) incorporated in the engine manifold pressure sense line(s), close(s) when engine manifold pressure drops below 14"HG. When either vacuum switch closes, it triggers a voltage signal to a relay installed under the instrument panel. The relay then powers the gear horn which operates at a frequency of 180 beeps/min, alerting the operator that one of the following conditions exist:

- The gear is not locked down and the manifold pressure has fallen below 14 inches on either one or both engines.
- The gear selector is in the UP position when the airplane is on the ground.
- The gear selector is in the UP position and wing flaps are extended to the second or third notch position.