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Aircraft Serial Number: _____

SA00560SE
SA00701SE
SA2622NM
SA01129SE
SA4005NM
ST00717SE
ST00733SE
SH3319NM

STC Number:

63354 POWELL BUTTE ROAD
BEND, OR 97701
800- 547-2558

**PulseLite® Instructions for Continued Airworthiness
STC Number SA00560SE, SA00701SE, SA01129SE, SA2622NM,
SA4005NM, ST00717SE, ST00733SE and SH3319NM**

NOTICE

The Airworthiness Limitations section (Section 2.0) is FAA Approved and Specifies maintenance required under Sections 43.16 and 91.403 of the Federal Aviation Regulations unless an alternative program has been FAA Approved.

These Documents Must be Kept with the Aircraft Records

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INSTRUCTIONS FOR CONTINUED AIRWORTHINESS**

1.0 OVERVIEW

1.1 PURPOSE

The Precise Flight Inc. Pulselite system is a solid-state electrical switching unit that pulses the aircraft's existing external lights, such as the Landing, Taxi, Recognition, Logo, or Hover Lights. The lights are pulsed in variety of patterns at 45 times per minute (90 times per minute selectable for certain units) to create an illusion of exaggerated motion. This illusion enhances aircraft recognition in flight, similar to the manner that the flashing lights on an emergency vehicle do for automobiles. Certain Pulselite systems can also be coupled to the aircraft's TCAS/TCAD system so when activated will automatically pulse the lights for the duration of a TCAS/TCAD "Traffic Event" or "Traffic Advisory" by tying into the TCAS/TCAD unit annunciator signals. (U.S. Patent No. 6,252,525)

The Pulselite system does not effect normal operation of the aircraft lighting system. The Pulselite simply bridges the existing aircraft light switches and/or relays. The pilot can turn on his external lights at any time, by moving the light switch(es) to the ON position. When the pilot switches the applicable external lights off and the Pulselite is switched to PULSE, the Pulselite function will resume. Both the original switches and the Pulselite switch need to be switched off to turn the lights off.

Some systems may utilize a Pulse Mode switch that will allow lights, when selected, to pulse. When the Pulse Mode switch is not in the Pulse mode, the selected light will operate normally.

The TCAS option allows automatic control of the Pulselite function for the duration of traffic advisory. By placing the Pulselite TCAS/TCAD "Traffic Event" control switch in the ACTIVE, or Traffic Event in the ON position, or the stroblight is on if coupled with the Pulselite, the TCAS/TCAD processor will initiate pulsing of the external lights. In IMC conditions this switch should be in the OFF position. The Pulselite "Pulse" and TCAS/TCAD Active "Traffic Event" pulse functions may be controlled by a separate Pulselite switch or incorporated into the existing Strobe or Logo light switches.

1.2 ICA REVISIONS

To ensure the maintenance of your existing aircraft, possible revisions to section 2.0 Instructions for Continued Airworthiness may require updating over the life of the aircraft. Per the applicable Federal Aviation Regulations, an update process is required to properly maintain these instructions in addition to the aircraft itself. Because of this, it is imperative to complete the registration card for the aircraft once the system is installed.

Revisions can be made by a service letter from Precise Flight, an Airworthiness Directive as issued by the administrator, by single page updates, or a complete replacement of all pages of the manual. It must be clearly noted as to the revision level of the pages listed in The List of Active Pages. If a single sheet(s) is replaced, replace the list of active pages with the new one provided, or update the list manually and initial and date the list.



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2.4.2 FUNCTIONAL TEST

The following test procedure will evaluate the Pulselite System installation in the aircraft:

System without TCAS/TCAD Interface:

1. Check wiring & connections before applying power.
2. Activate Pulse function and verify that the appropriate Landing/Taxi/Recognition/Hover Lights are flashing on the aircraft.
3. Switch the appropriate Landing/Taxi/Recognition/Hover Lights to steady ON and verify that the lights remain on without flashing.
4. Switch the Pulselite Control Unit off and the existing Landing/Taxi/Recognition/Hover Light switches are off and verify that the Landing/Taxi/Recognition/Hover Lights are OFF.

System with TCAS/TCAD Interface:

1. Check wiring & connections before applying power.
2. Activate Pulse function and verify that the appropriate Landing/Taxi/Recognition/Hover Lights are flashing on the aircraft.
3. Switch the appropriate Landing/Taxi/Recognition/Hover Lights to steady ON and verify that the lights remain on without flashing.
4. Switch the Pulselite Control Unit off and the existing Landing/Taxi/Recognition/Hover Light switches off and verify that the Landing/Taxi/Recognition/Hover Lights are OFF.
5. Place the Landing Light Switch(es) in the OFF position. Place the Strobe, Nose Landing, Traffic Event Armed, or Active Switch in the Active/Enable position.
6. Simulate a TCAS/TCAD traffic situation on the aircraft TCAS/TCAD system or ring out wiring at the Pulselite Control Unit and the TCAS/TCAD processor and apply a ground to TCAS/TCAD pin on the Pulselite Control Unit. Observe that the Lights are flashing during the simulated "Traffic Advisory."
7. Switch the Pulselite Control Unit switch to off, the TCAS/TCAD interface switches off, the existing Landing/Taxi/Recognition/Hover Light switches off, and verify that the External Landing/ Taxi/ Recognition Lights are OFF.

2.5 TROUBLE SHOOTING GUIDE

2.5.1 Pulselite Fails to Operate

- a. Check circuit breakers.
- b. Check Connector plugs for security and contact insertion.
- c. Check Wiring diagram against aircraft installation.
- d. Follow detailed trouble shooting guide in appropriate installation manual.

2.5.2 Additional Technical Assistance

Please call Precise Flight, Inc. 800-547-2558



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2.8 SCHEDULED MAINTENANCE INTERVALS AND INSPECTIONS FOR CONTINUED AIRWORTHINESS

If TCAS/TCAD option has been installed, repeat the TCAS/TCAD Checkout Procedure on an annual basis.

Wiring and termination security for the system will be consistent with the aircraft continued airworthiness regarding aircraft wiring and terminations.

Table 1 - Scheduled Maintenance Intervals and Inspections

ANNUALLY (If progressive Letter Checks not used)			
C LETTER CHECK			
STC SA00560SE, SA00701SE, SA01129SE, SA2622NM, SA4005NM, ST00717SE, ST00733SE, SH3319NM Pulselite® Scheduled Maintenance Intervals			
1.	Check Pulselite for Proper operation: Connect Ground Power to the Aircraft, or Power the aircraft on the ramp. Activate the Pulselite system. Observe that the external lights connected to the Pulselite system are flashing. These lights may be the Landing, Taxi, Recognition, Logo, Hover, or Runway Turnoff lights depending on installation. Switch the external lights connected to the Pulselite to steady ON.. Observe that the external lights connected to the Pulselite System are now on Steady. Switch the Pulselite Control Unit OFF and the connected Landing / Taxi / Recognition / Hover lights to OFF and observe that the external lights are off.	•	•
2.	TCAS/TCAD Checkout Procedure (If Option Installed): Connect Ground Power to the Aircraft, or Power the aircraft on the ramp. Place the Pulselite Switch in the ACTIVE position. (Alternately the Pulselite System TCAS function may be connected to the aircraft Strobe, or Recognition Light switch as indicated by an ACTIVE or ON / ACTIVE or STROBE marking depending on aircraft installation. Simulate a TCAS/TCAD traffic event and alert situation on the aircraft collision avoidance system, or ring out wiring between the Pulselite control unit TCAS Active Pin (reference appropriate Precise Flight Installation Manual and the appropriate Collision Avoidance System) and place a ground between the Pulselite Control Unit and the collision avoidance system. Observe that the external lights connected to the Pulselite system are flashing. Toggle switch OFF Reconnect wiring as required from testing.	•	•
3.	Check Wiring and connections for security and chaffing	•	•

SIGNED: _____
DATE: _____