



# BoomBeam™

## See and Be Seen

Installation Instructions

**Cirrus SR20, SR22**

Cowl Mounted Landing Light

LSM-500-082 Rev B 09-02-09



LoPresti Aviation  
800-859-4757 • 772-562-4757  
210 Airport Drive East  
Sebastian, FL, 32958, U.S.A.  
[www.LoPrestiAviation.com](http://www.LoPrestiAviation.com)

*Life is Short ... Fly FAST!*



***LoPresti***  
***SpeedMerchants***

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<http://www.SpeedMods.com>  
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## REVISION DESCRIPTION

REV	DATE	DESCRIPTION
IR	6-24-09	1. Initial Release
A	7-23-09	1. Added photos 2 and 3. 2. Added LSM-500-304-1 qty 1.
B	9-02-09	1. Added LSM-500-336-21 harness qty 1. 2. Added LSM-500-358-11/-13 qty 1. 3. Added 14502-003 vibration isolator qty 2. 4. Added AN960-8 qty 3. 5. Deleted LSM-SCD-004-1. 6. MS3367-1-9 qty was 6.



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**BOOM BEAM****READ ALL INSTRUCTIONS**

Call us at 800-859-4757 if you have any questions.

**Begin by checking the contents of your kit against the list below**

<b>Nomenclature</b>		<b>Part Number</b>	<b>Vendor</b>	<b>Qty</b>
Reflector, Landing		LSM-SCD-003-1	LoPresti Speed Merchants	1
Wire Harness, Ballast Power		LSM-SCD-007-1	LoPresti Speed Merchants	1
Wire Harness, Ballast to Connector		LSM-500-336-19	LoPresti Speed Merchants	1
Wire Harness, Lamp/Starter to Connector		LSM-500-336-21	LoPresti Speed Merchants	1
Tuning Plate		LSM-500-358-11	LoPresti Speed Merchants	1
Tuning Plate		LSM-500-358-13	LoPresti Speed Merchants	1
Lamp/Starter		LSM-SCD-009-1	LoPresti Speed Merchants	1
Ballast		LSM-SCD-019-1	LoPresti Speed Merchants	1

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Strap		LSM-500-304-1	LoPresti Speed Merchants	1
Vibration Isolator		14502-003	Cirrus Design Corporation	2
Splice Connector		M7928/5-4		2
Shrink Wrap		M23053/5-106-0		6"
Cable Tie Wraps		MS3367-1-9		12
Washers		AN960-8		3

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## Installation Instructions

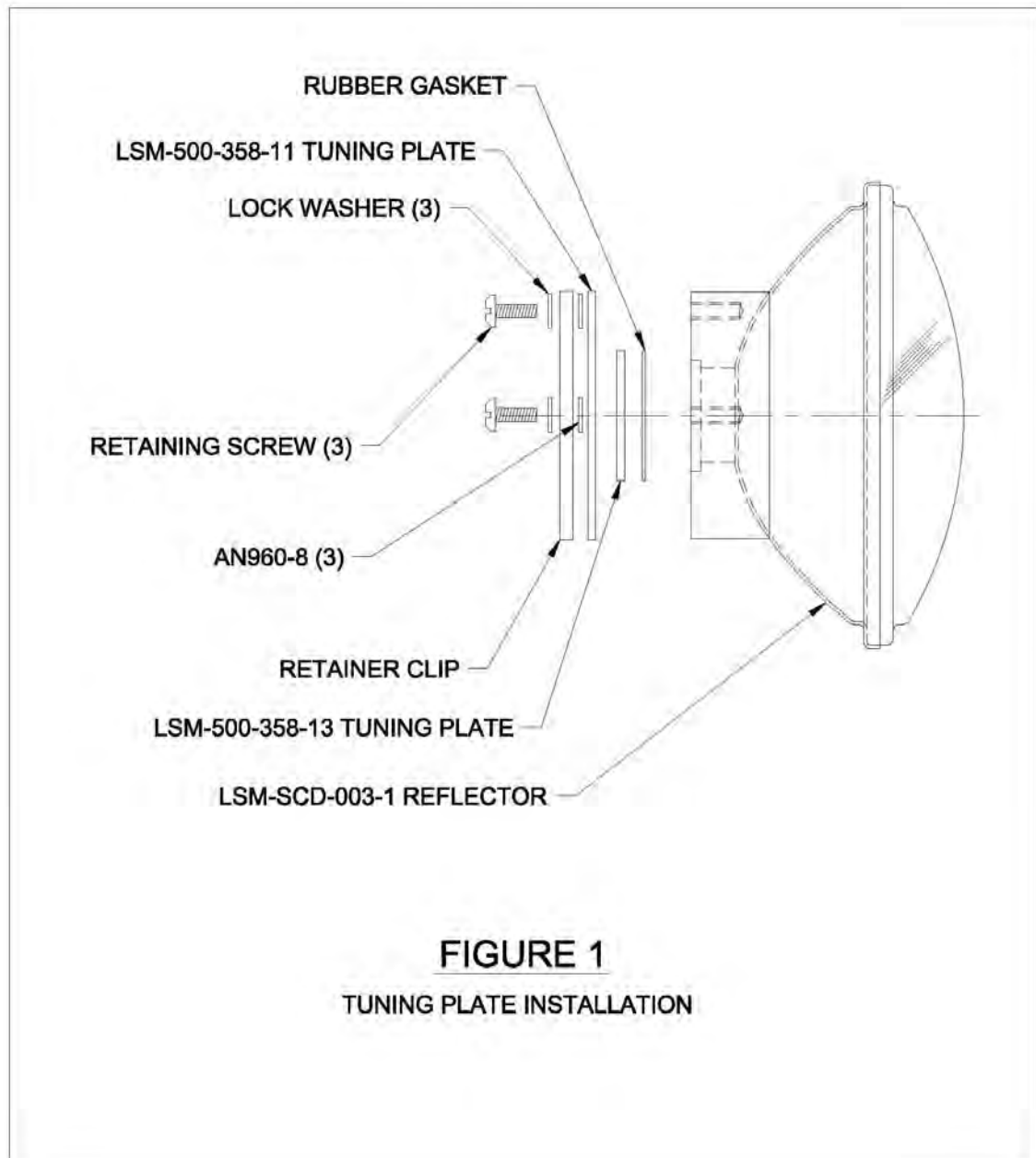
1. Mark the position of the landing light beam on a hangar wall or witness board. This mark will be used after the installation to aim the new landing light.
2. Remove the lower LH cowling and support it temporarily underneath the engine.
3. Disconnect the lamp/starter harness connector. Remove the lens cover and the landing light assembly from the cowling.
4. Remove the existing reflector assembly, vibration isolators and heat shield from the light housing. Discard the vibration isolators and heat shield.
5. Remove the existing reflector from the mounting ring. Retain the reflector gasket and all mounting hardware. Discard the old reflector.
6. The supplied LSM-SCD-003-1 reflector is preconfigured as a landing light. To modify the reflector output for increased width, install the LSM-500-358-11 tuning plate, LSM-500-358-13 tuning plate and AN960-8 washers as shown in Figure 1.

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7. For both reflector configurations, install the LSM-500-304-1 strap and the LSM-SCD-009-1 lamp/starter onto the reflector using supplied hardware. Ensure the lamp/starter connector faces down in relation to the "TOP" marker on the reflector.

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8. Install the reflector assembly into the mounting ring. Reinstall the mounting ring into the light housing using existing hardware and replacement 14502-003 vibration isolators. See photo 1.



**Photo #1**

9. Remove the existing wire harness between the ballast and the cowling harness. Disconnect the power lead harness. Remove the existing ballast and retain all mounting hardware.
10. Install the LSM-SCD-019-1 ballast on the firewall using existing hardware. See photo 2.

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**Photo #2**

11. Install the LSM-500-336-19 ballast to connector harness and route back to the existing cowling harness. Secure the harness using MS3367-1-9 cable tie wraps per AC43.13-1B.
12. Verify and label the existing power and ground leads for the ballast power harness. Cut and splice these leads to the red (positive) and black (ground) leads of the LSM-SCD-007-1 ballast power harness using M7928/5-4 connectors. Cover the splices with M23053/5-106-0 heat shrink tubing. See photo 3.

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**Photo #3**

13. Install the ballast power harness. Secure the power harness using MS3367-1-9 cable tie wraps per AC43.13-1B.
14. Reinstall all connectors to the ballast and lamp/starter. Use DC-4 dielectric compound (or equivalent) on all connectors.
15. Remove the forward cowling harness and install replacement LSM-500-336-21 harness. Secure to existing cable tie mounts using MS3367-1-9 cable tie wraps per AC43.13-1B.
16. Reinstall the light housing and lens cover into the cowling using existing hardware.
17. Temporarily reinstall the lower cowling. Check the light aiming and adjust as required.
18. Reinstall the lower cowling.
19. Fill out FAA Form 337.

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## **Maintenance Requirements – Instructions for Continued Airworthiness**

“Modification of an aircraft by this Supplemental Type Certificate obligates the aircraft operator to include the maintenance information provided by this document in the operator’s Aircraft Maintenance Manual and the operator’s Aircraft Scheduled Maintenance Program.”

1. Maintenance Manual information for the Boom Beam is contained in LoPresti Speed Merchants Installation Manual Number LSM-500-082 (this document), and should be placed into the operators appropriate airplane Maintenance Manual.
2. Line Replaceable Unit (LRU) part numbers and other necessary part numbers contained in the installation data package should be placed into the aircraft operators appropriate airplane Illustrated Parts Catalog (IPC).
3. Wiring diagram information contained in this data package should be placed into the aircraft operator’s appropriate airplane Wiring Diagram Manuals.
4. Scheduled Maintenance Program tasks to be added to the aircraft operators appropriate airplane maintenance program are as follows:
  - During an annual or 100-hour inspection interval, inspect the mechanical and electrical integrity of the BOOM BEAM equipment and components.
  - All fasteners must be checked for tightness and all cable ties must be checked for the security of the wiring harnesses. Loose or broken fasteners or cable ties must be tightened or replaced.
  - The wiring harnesses must be checked for frayed or damaged insulation, broken wires or connectors. Replace if damaged.
  - The lamp/starter, ballast and reflector must be checked for soundness in mechanical and electrical conditions. Cracked or broken bulb/starter, ballast, or reflector must be replaced.

### **Weight and Balance Information**

No change.

### **Electrical Load Analysis**

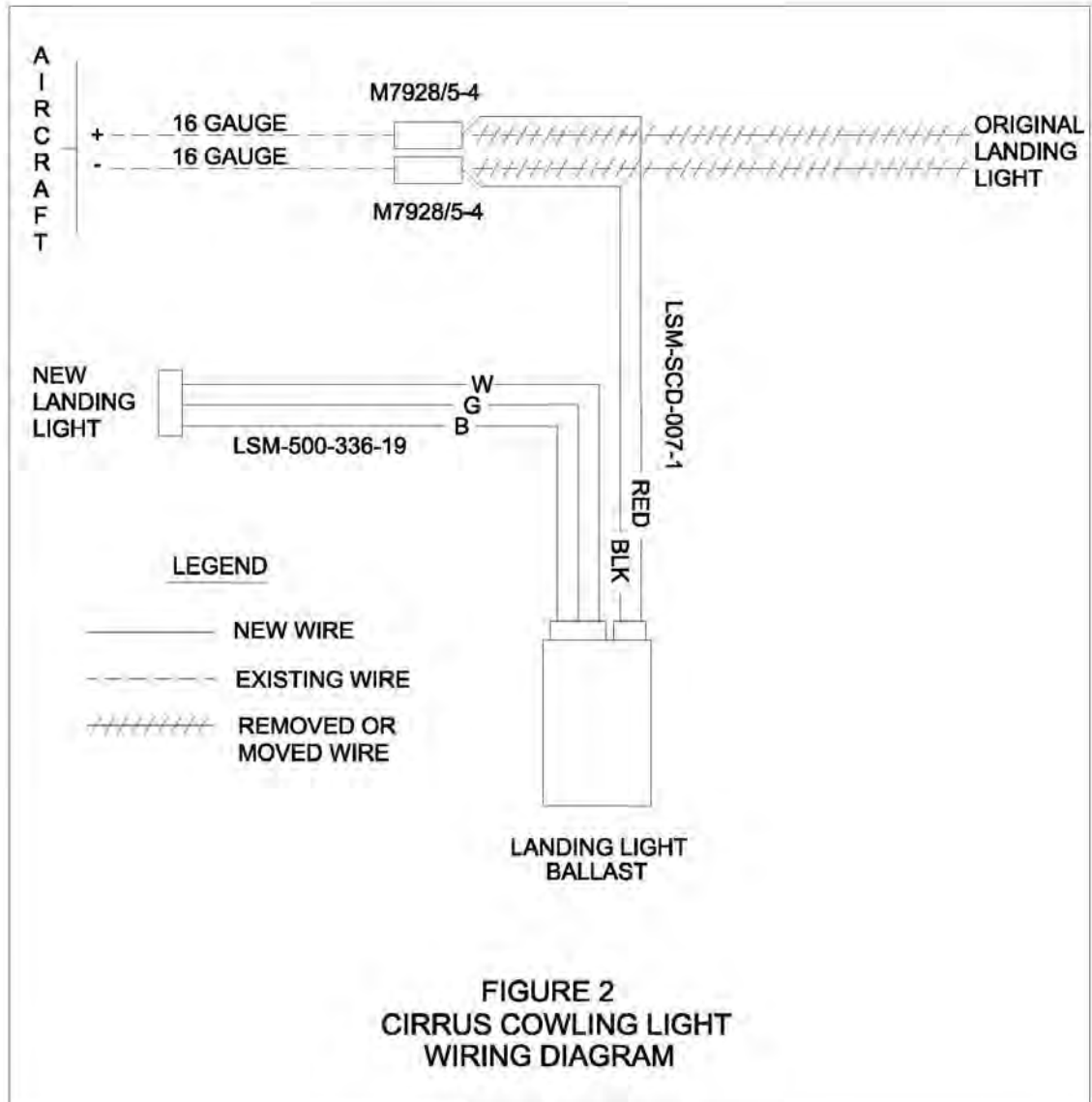
The new Boom Beam installation replaces the existing HID landing light with a ballast and lamp assembly. The ballast assembly draws a maximum of 5.1 amperes at startup and then draws 2.1 amperes at steady state, after the lamp warms up.

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