



LAA/MOD 3  
**MODIFICATION APPLICATION**  
Issue 5

Mod No.

This form is used to describe a modification in detail to constitute part of the aircraft build standard record. All pages must be included in any submission. A completed Modification Proposal form (LAA/MOD2) must have been submitted prior to submitting this form, see [TL 3.01](#).

This form may be printed out, completed by hand and either posted to LAA Engineering or scanned and emailed to [engineering@laa.uk.com](mailto:engineering@laa.uk.com), or it may be completed electronically, saved and emailed as an attachment to the same email address. If emailed without the owner's signature, it must be sent by the aircraft owner. Please retain a copy of the completed form for your records.

**1. AIRCRAFT DETAILS**

Registration	Type	Serial Number
<b>G - URMS</b>	<b>Europa Tri-Gear</b>	<b>PFA 247-12922</b>

**2. APPLICANT DETAILS (Note: Applicant must be a 'Full plus' member)**

Applicant's Name	<b>Carl Parkinson</b>	Membership No.	<b>039436</b>
Name and address of person to be contacted regarding this modification:			
<b>Carl Parkinson 5 Cleveland Grove Newbury RG14 1XF</b>			
Daytime Telephone Number:	<b>07810-565195</b>	e-mail:	<b>cparkinson@cisc-uk.com</b>

**3. MODIFICATION DETAILS**

Title:	<b>Wing tip Navigation Lights &amp; Strobes</b>
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Background: describe the purpose of the mod and what it consists of.

**The purpose of this modification is to install OE195 LED Wing Tip Combined Marker Lights and Strobes supplied by The Light Aircraft Company Ltd. to the wing tips of a completed and sealed Europa Classic wing.**

**The steps required to complete the installation have been developed so that a single hole is required in the tip of each wing to allow for power wiring and a mounting point.**



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**4. LIST OF ACCOMPANYING DOCUMENTS DESCRIBING MOD**

Document No.	Title / Description	Issue

**5. LIST OF ACCOMPANYING DOCUMENTS SUPPORTING AIRWORTHINESS OF MODIFICATION** (e.g. test report, compliance checklist, etc)

Document Ref	Title / Description	Issue

**6. PARTS LIST**

List any new manufactured or procured parts. Where a new part is designed and used it should be drawn up with sufficient dimensions to define it and make it, including any protective treatments (e.g. paint). Where one exists, the manufacturer's part number should be given, otherwise it should be allocated a part number in the following convention: Part number = M (Mod number)-(sequence number), example : M12345-01.

Qty	Part No.	Description	Source
<b>1 pair</b>	<b>OE195</b>	<i>LED Wing Tip Combined Marker Lights and Strobes</i>	<b>The Light Aircraft Company Ltd.</b>
<b>2</b>	<b>-</b>	<b>Plastic tube</b>	<b>Sourced locally</b>
<b>2</b>	<b>314-1198</b>	<i>2 Way Cable Mount Socket Connector</i>	<b>RS Components</b>
<b>15</b>	<b>22TG2T14</b>	<i>2 CORE 14g Screen Airframe Wire</i>	<b>Mendelssohn Pilot Supplies</b>
<b>2</b>	<b>233-455</b>	<b>2.5 mm Cable Tie</b>	<b>RS Components</b>
<b>1</b>	<b>2TC2-2</b>	<b>2 Amp Breaker</b>	<b>LAS Aerospace Ltd.</b>
<b>1</b>	<b>228-4581</b>	<i>Double-pole single throw switch</i>	<b>RS Components</b>
<b>1</b>	<b>G015700101</b>	<i>RTV157 High Strength Silicone Sealant</i>	<b>LAS Aerospace Ltd.</b>
<b>2</b>	<b>131583838983</b>	<i>AMP Superseal Waterproof Electrical Connector</i>	<b>3 Way Components Ltd.</b>

Attach a continuation sheet as required.



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## 7. IMPLEMENTATION

Describe:

- Health and safety provisions
- Any disassembly requirements
- Instructions for Installation of new parts.
- Re-assembly requirements to make aircraft flyable again.

*In a suitable, well lit, dry location, chock the aircrafts wheels to prevent it from moving.*

*This modification applies to a Europa classic wing and LED Wing Tip Combined Marker Light and Strobes units from The Light Aircraft Company.*

*With the wing still attached to the aircraft, remove the aileron bell-crank inspection cover. Cut a hole approximately 2 cm by 2 cm in the side of the bell-crank housing recess wall that faces the wing-tip.*

*Drill a hole 6 mm in diameter through the surface of the wing tip, ??? cm from the leading edge and equidistant between the top and bottom of the wing's surface. Make the hole 50 mm deep.*

*Push a long metal instrument (a long screwdriver for example) through the hole towards the trailing edge of the wing at an angle of approximately 30-40 degrees until it reaches the channel that runs through the length of foam core (numbered 4 on page 7-6 of the Europa Monowheel manual dated 17th Jan 1996).*

*Push the strobe power wiring through the hole made in the wing-tip and into the channel. Continue pushing the strobe power wire through the wing-tip hole until it is accessible through the hole cut in the wall of the bell-crank housing recess. Pull enough wire through wing for it reach 30 cm past the root rib.*

*With the wing removed, from the bell-crank recess, feed the wire down the aileron link-rod channel until it appears through the root rib.*

*Secure the wire to the wing surface covered by the wing fairing by drilling a small hole through it, passing a tie-wrap through the hole and securing the wire by closing the tie-wrap around it.*

*Prepare the wire and fit a two-pole male AMP Superseal waterproof connector to it.*

*Remove the pilots seat and the two screws securing the plywood panel beneath it. Remove the plywood panel and all foam packing to expose the inside surface of the fuselage.*

*From inside the cockpit, drill a small hole through the fuselage approximately 1 1/2 cm in-front of the rear face of the seat back and 1 1/2 cm above the floor of the fuselage so that it appears in the area covered by the wing and in-front of the spar socket.*

*Prepare a length of strobe power wire and fit a waterproof two-pole female connector to the end. Feed the wire through the hole in the fuselage with sufficient length that it can be routed to the common earth bus bar behind the cockpit instrument panel, and to the master switch 12 volt bus bar via a suitable switch and breaker. Seal the hole with a suitable silicone sealer.*

*Returning to the wing-tip, thread the strobe power wire protruding from it through a 50 mm length of plastic tube with an outside diameter of 6 mm.*

*Push the plastic tube carrying the wire through the hole in the wing-tip until only 10 mm remains outside the wing-tip. This will require additional effort as the wire and tube will be compressing the foam as it is push in. This will be used as the locater tube that the strobe units attach to.*

*Double-check you are fitting the correct strobe to the port wing - the red strobe.*

*Shorten the wires attached to the strobe to approximately 5 cm and solder them to the strobe power wiring, making the wires as short as possible and insulating them with heat-shrink tubing.*

*Test-fit the strobe by gently pushing the wiring into the plastic locater tube and locating the hole in the strobe's base-plate over the protruding plastic tube. Be careful not to put strain on the wires soldered to the strobe's circuit board. If the strobe won't touch the surface of the wingtip without putting strain on the wires, remove the strobe and push the plastic tube further into the wing-tip and repeat the test.*

*Once the strobe locates correctly over the tube, clean the surface of the wing tip with a suitable cleaning product and use high strength silicone sealer to secure the strobe to the wing-tip.*

*Repeat for the other wing and strobe.*

*Re-attach the wings, connecting any pitot tubes and the strobes before locating the wings fully home and securing them in the usual way.*

Is the proposed modification is currently fitted to the aircraft? (Note that once installed, the aircraft may not be flown until permission given)	YES <input type="radio"/>	NO <input checked="" type="radio"/>
If yes, briefly describe any other work needed for the aircraft to be ready for flight (e.g. finish re-build)		
If no, when do you intend to fit the modification?	<b>As soon as the approval is received.</b>	



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**8. WEIGHT AND BALANCE EFFECT ON AIRCRAFT**

Date of current W&B report:	14th April 2016	Weight (lb/kg)	CG (in/mm)	Moment
A/C pre-mod		<b>913 lbs</b>	<b>60.47</b>	<b>55205</b>
+/- weight change		<b>+0.1 lbs</b>	(moment arm) <b>58</b>	<b>5.8</b>
= A/C post-mod		<b>913 lbs</b>	<b>60.47</b>	<b>55211</b>

**9. INSPECTION CHECKS AND SPECIAL INSTRUCTIONS**

All modifications will need to be inspected for quality and conformity. State any additional proposed requirements e.g. function check, full and free checks, friction, clearance from other structures and systems, etc.

***A functional check of providing power to the strobes will be made prior to each flight.***

**10. FLIGHT TEST AND SPECIAL INSTRUCTIONS**

Example statements may be:

- 25 hours of reliability testing.
- Full performance and handling check by a qualified test pilot.
- 20 landings on various surfaces.

**None**

**11. OWNER'S DECLARATION**

**I declare that the foregoing information is correct and I agree to abide by any conditions pertaining to this modification.**  
**I agree that this modification, if approved, can be used free of charge by others.**

<b>Name (owner): (on behalf of all the owners)</b>	<b>Carl Parkinson</b>
<b>Signature:</b>	
<b>Date:</b>	<b>6th Feb 2017</b>

Note: a signature is not required if the owner is submitting this form by email; however, by submitting the application, you signify that you agree with the Owner's Declaration.

If this mod is successful, are you willing to allow potential applicants wishing to fit the same mod to their aircraft to contact you?  YES /  NO

If so, which means of contact is acceptable to be published on the LAA's web site?  
 home phone , mobile phone , email , address  [Tick whichever apply]