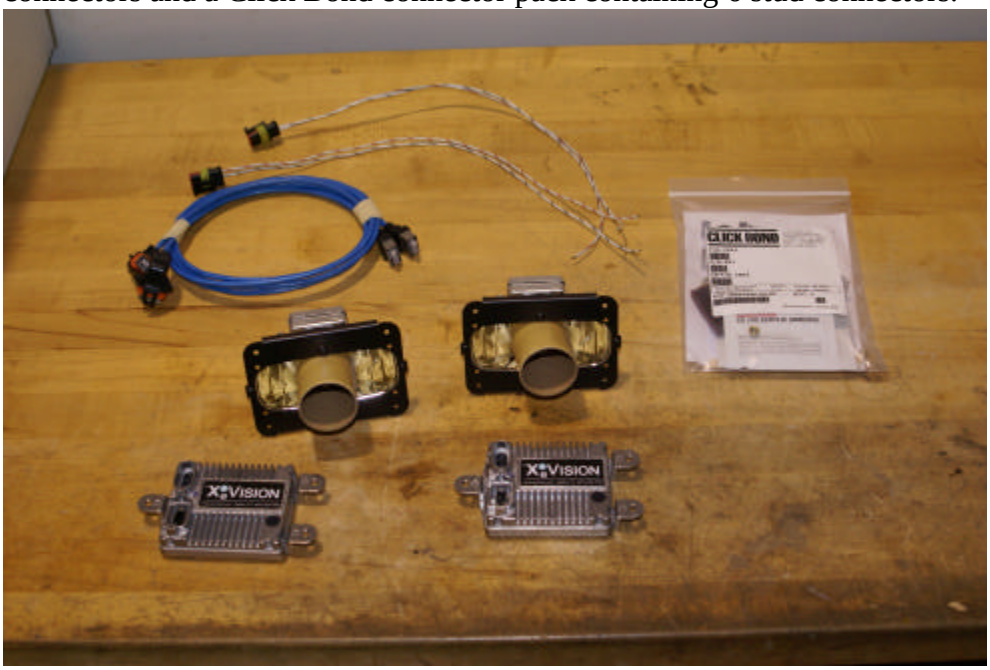
Installation of XeVision HID lights for Diamond DA40

1. The XeVision HID installation kit comes with everything you see here. The kit for both landing and taxi lights included two light assemblies, two ballasts, 2 24” 24V connector cables, 2 48” ballast to lamp connectors and a Click Bond connector pack containing 6 stud connectors.



2. Remove the wingtip screws using a 3mm hex driver. Be sure to record the order these are removed in as the lengths of these screws are different based upon their location.

3. Remove the tiedown by unscrewing the ring from the underside of the wing.

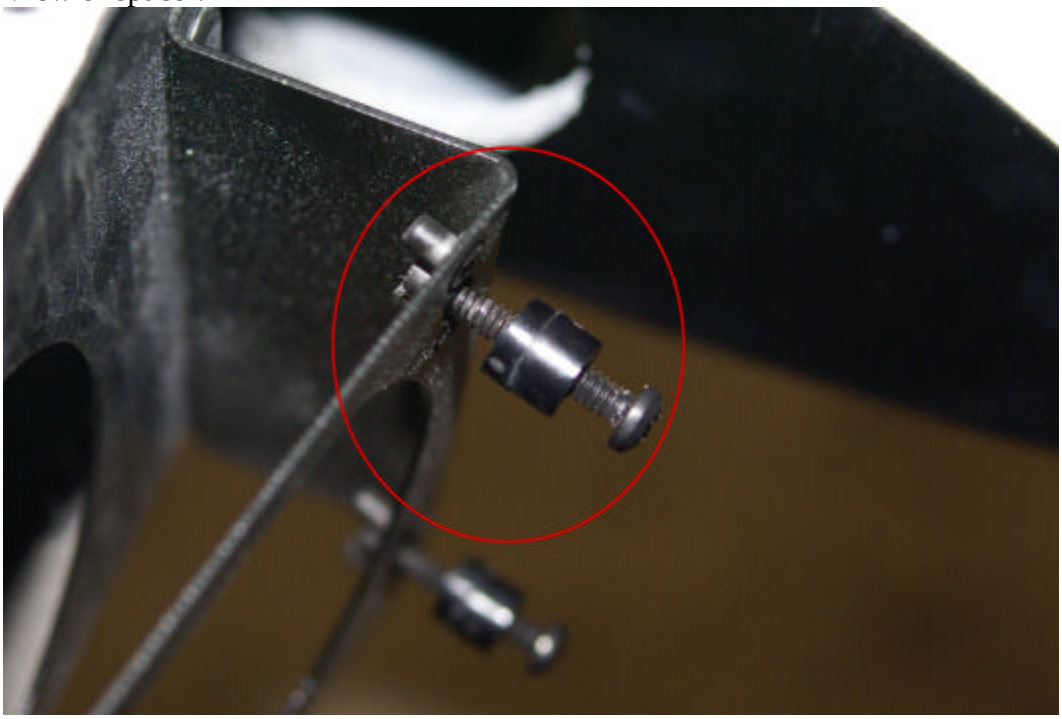
4. remove the stud for the tiedown by using a 4mm driver.

5. Remove the wingtip and support it by using zipties through the mounting holes.

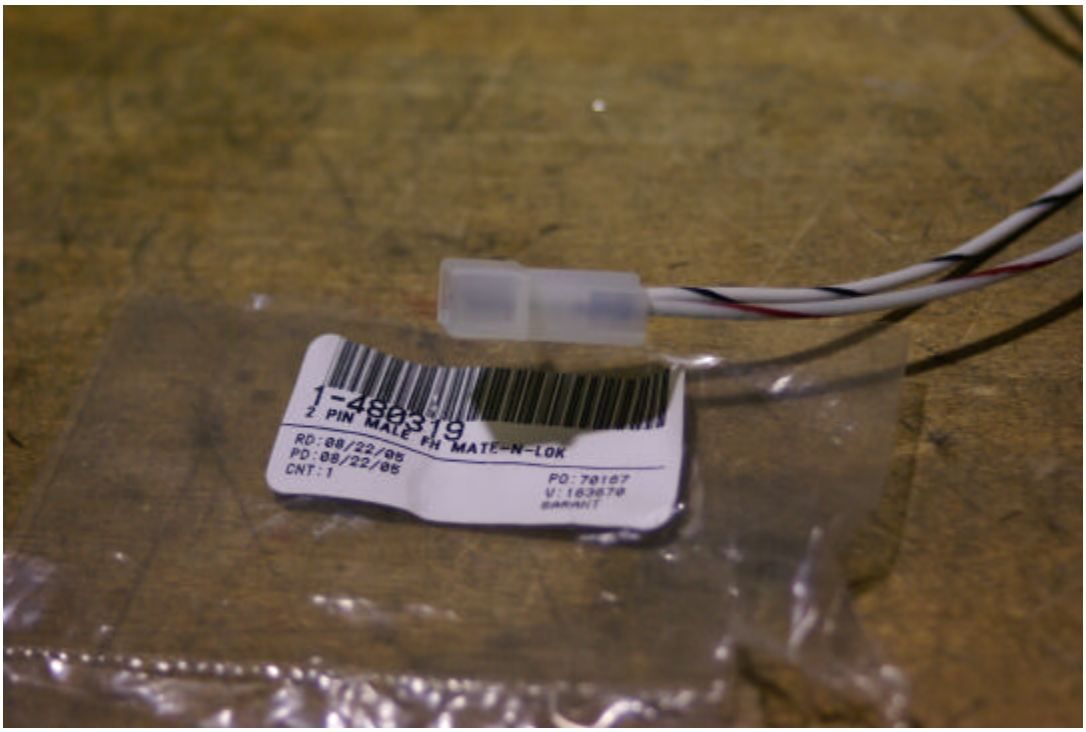
6. Remove the landing/ taxi light lens using a Phillips head screwdriver.

7. Remove the existing landing and taxi lights by unscrewing the 4 Phillips head mounting screws on each light and disconnection the plug-in connector. Keep the spacers and remember the orientation where the spacers were installed.

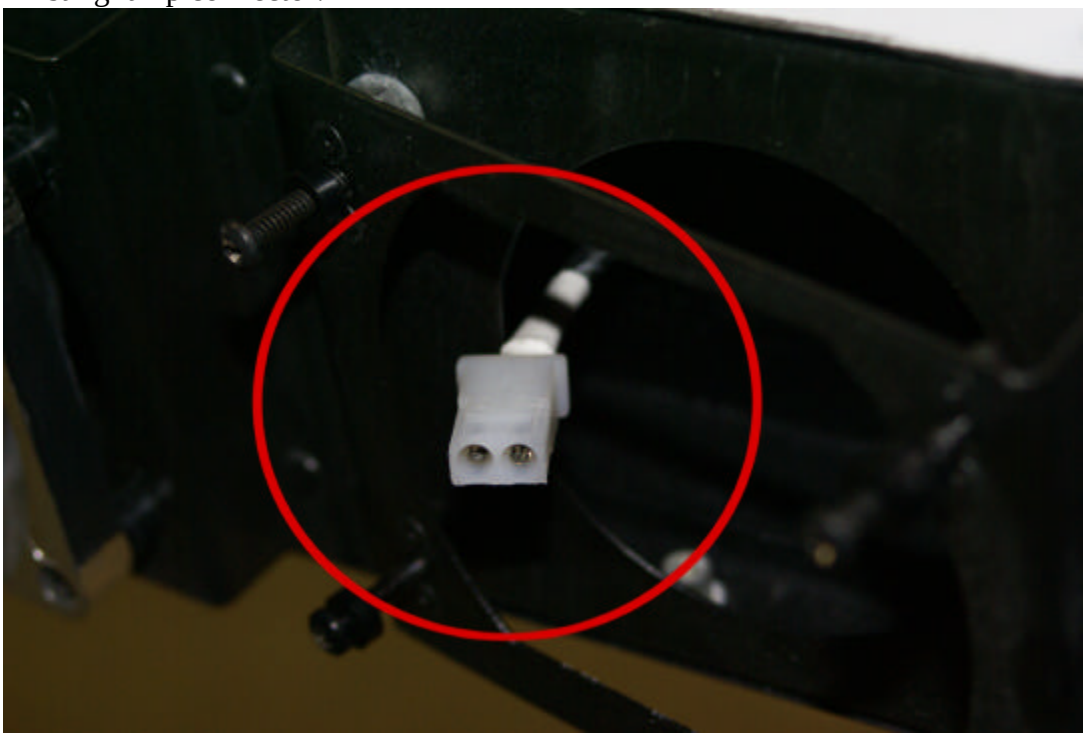
View of spacer:



8. Use a “Mate-N-Lok” male connector and crimp the 24V connector on to the cable supplied with the kit. Remember that polarity of the conections is important here and the positive connector fro the existing lights can be identified by the RAISED rib on the male connector. BE SURE THAT THE CORRECT POLARITY IS KEPT HERE AS INCORRECT POLARITY WILL RESULT IN THE LAMPS NOT WORKING!

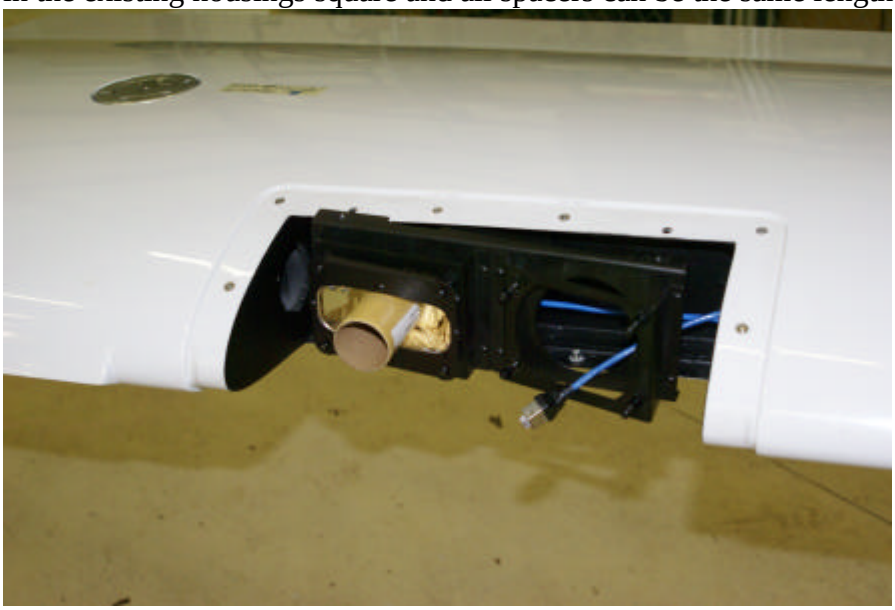


Existing lamp connector:

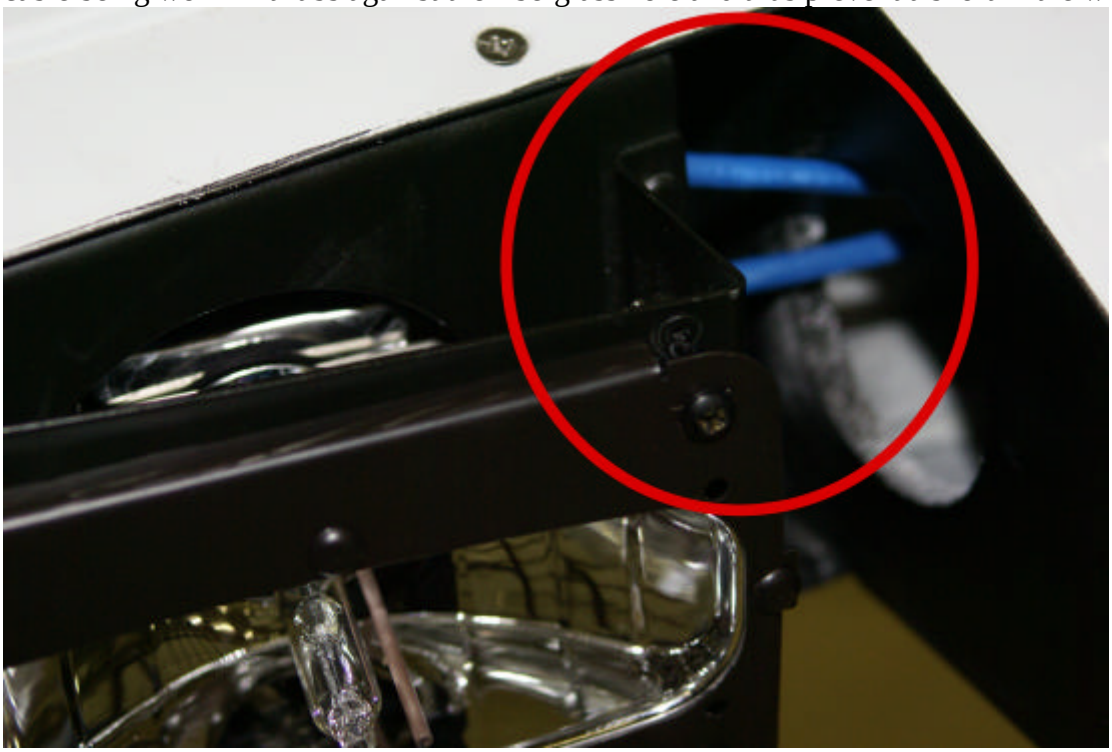


9. Use a piece of safety wire as a snake to connect the new connectors and 24V wire from the wingtip to the existing connectors. Once connected pull the connectors into the wing through the hole where the original connectors attached to the lights. The new connectors will not use this route to connect the ballasts to the lights. At this point it is useful to identify the landing and taxi light cables by labeling or color coding the new connectors as both connectors will look the same. It may be helpful here to remove the four screws that hold the lamp housings to the wing. There is also a ground strip holding this on and this was not removed during our install though.

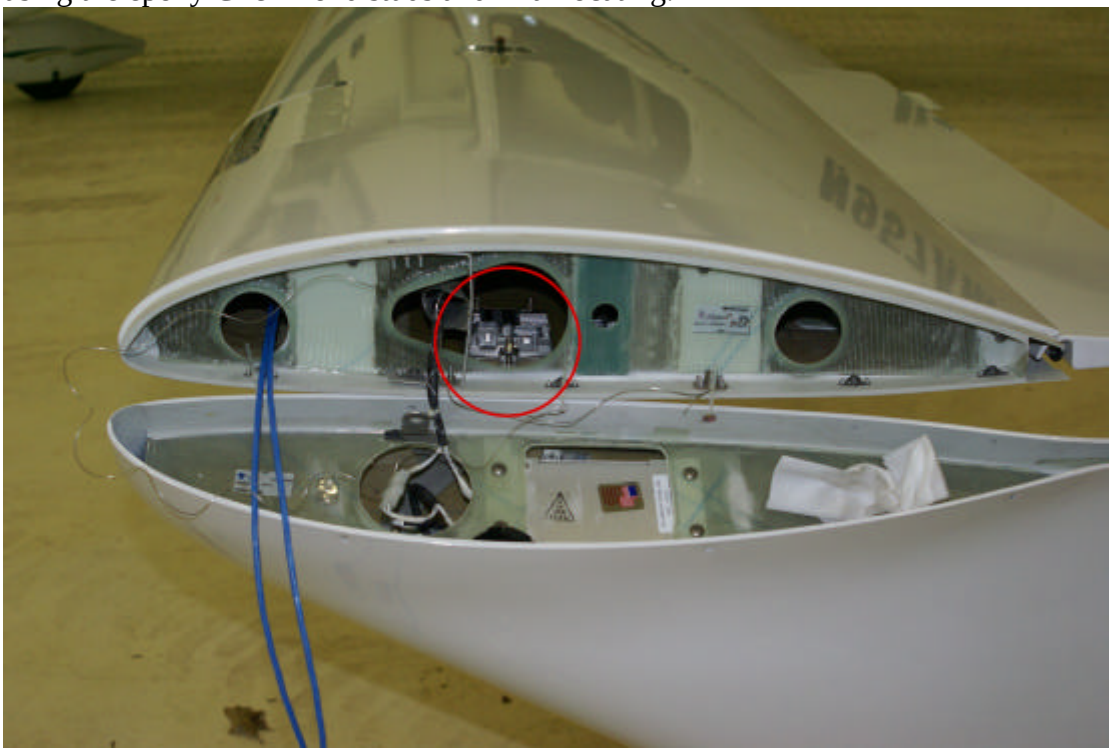
10. Connect and install the new lamps into the existing housings. Notice how the new lamp to ballast wires now route through the hole orientated towards the wingtip and not the original routing of the wires. You will find the new housings will need to be spaced out from the housing in order to fit correctly. The original lights had spacers that angled the lights inward even more than the bases that they were supported by. The new HID lights are brighter than the existing lights so the angle of the lights does not need to be the same as the original installation. Use short pieces of tubing to act as spacers for the new housings such as the old lights had just on the outboard sides. As the new lights are brighter and cast the light farther the lights can sit in the existing housings square and all spacers can be the same length (approximately 9mm or 3/8”).



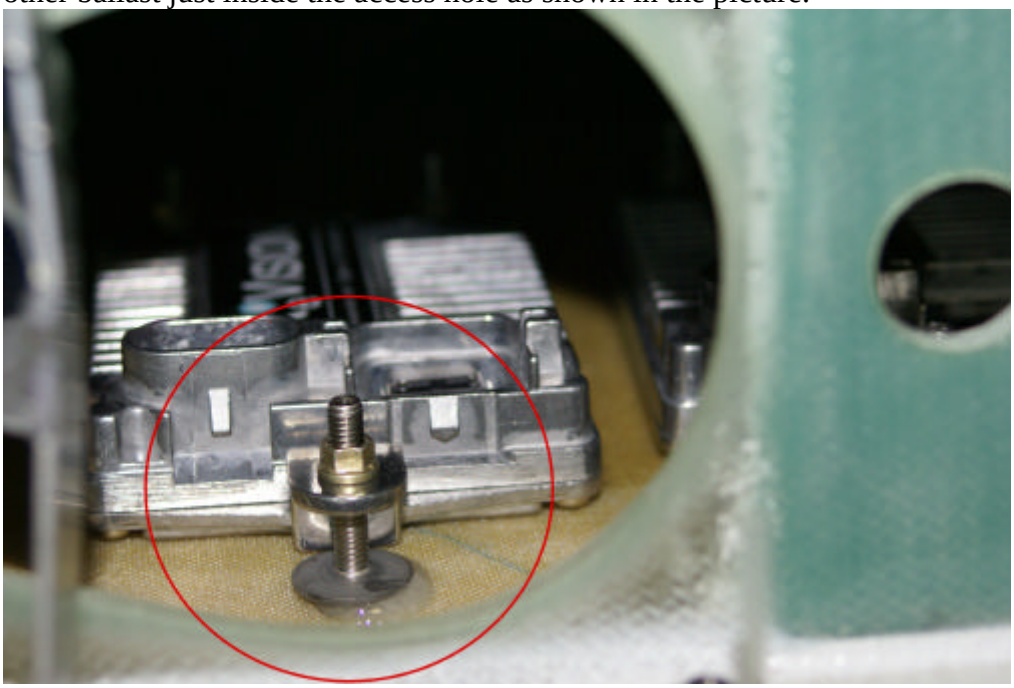
View of routing. This will eventually be covered by a piece of split duct cable cover. This will prevent the cable being worn if it rubs against the fiberglass hole and thus prevent a short in the wire:



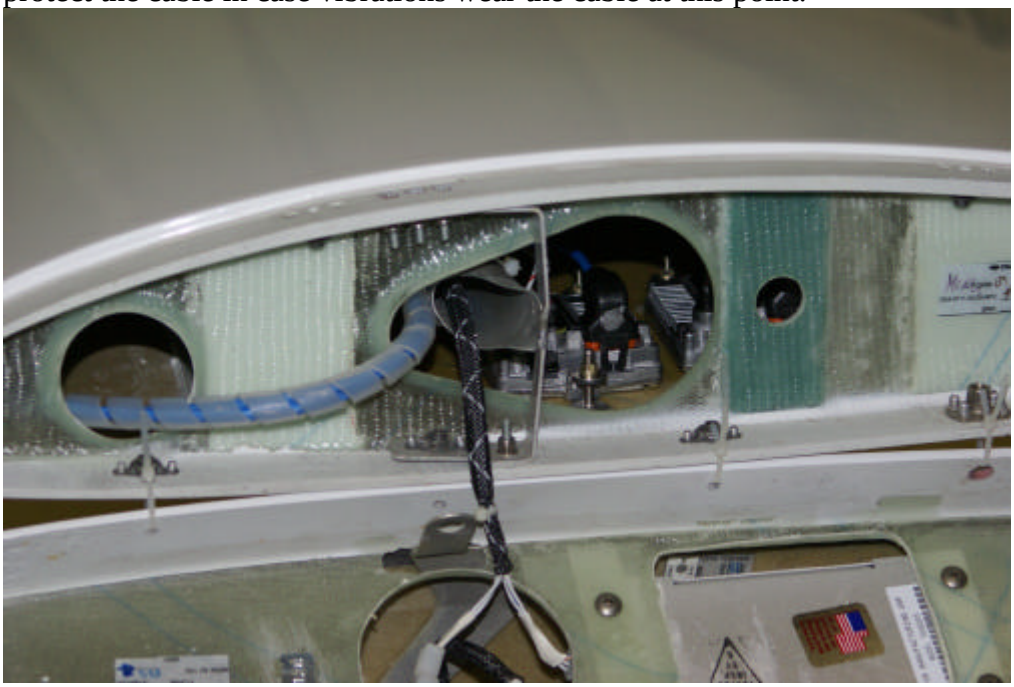
11. Locate both ballasts inside the wing on the lower section of the wing. At this stage connect the ballasts to the 24V connectors and lamp cables and test the lamps for operation. Be sure the lamps operate before using the epoxy Click Bond studs and final locating.



12. Set the depth of the Click Bond studs and nuts before affixing the ballasts. Set the nuts so that the base of the studs are at the same elevation of the base of the ballast. Once the epoxy is set on the studs the ballast should not need any more adjustment. Use the abrasive pad and alcohol cleaner to scuff and clean the area where the ballasts will be located. Be sure to use the alcohol pad to clean the base of the studs before adhering also.
Mix up a packet of the resin and hardener and apply the epoxy to the base of the studs already attached to the ballast. Position the aft ballast first just inside and behind the access hole in the wing. Then position the other ballast just inside the access hole as shown in the picture.



13. Allow the epoxy to set and connect the 24V power wires to the ballasts. Connect the ballast to lamp connectors (blue wires) and where the wires pass through the wing structure use a piece of split-duct to protect the cable in case vibrations wear the cable at this point.



14. Installed application.

15. Replace the wingtip and Plexiglas lens cover and enjoy landing at night at last!