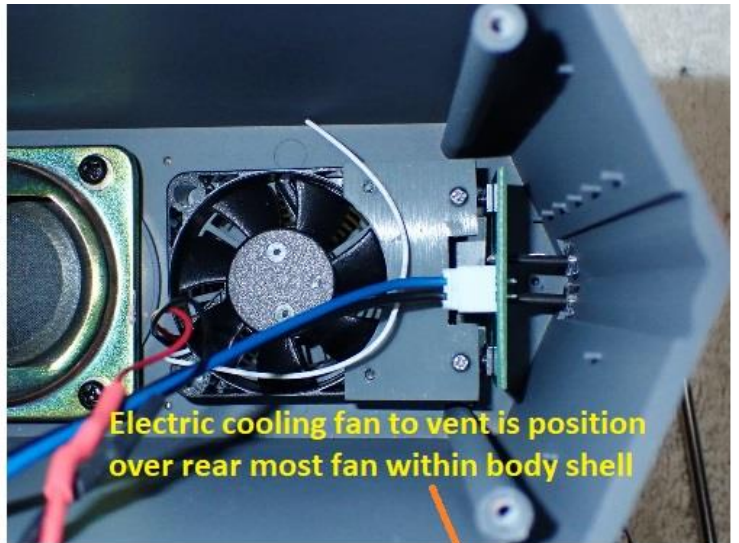
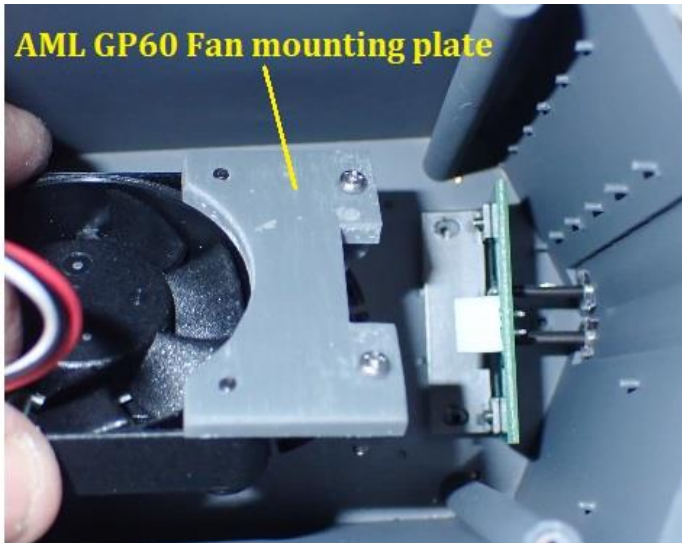


Installation Guide

CamPac AML GP60 Mounting Plate & Cooling Fan

Ted Doskaris

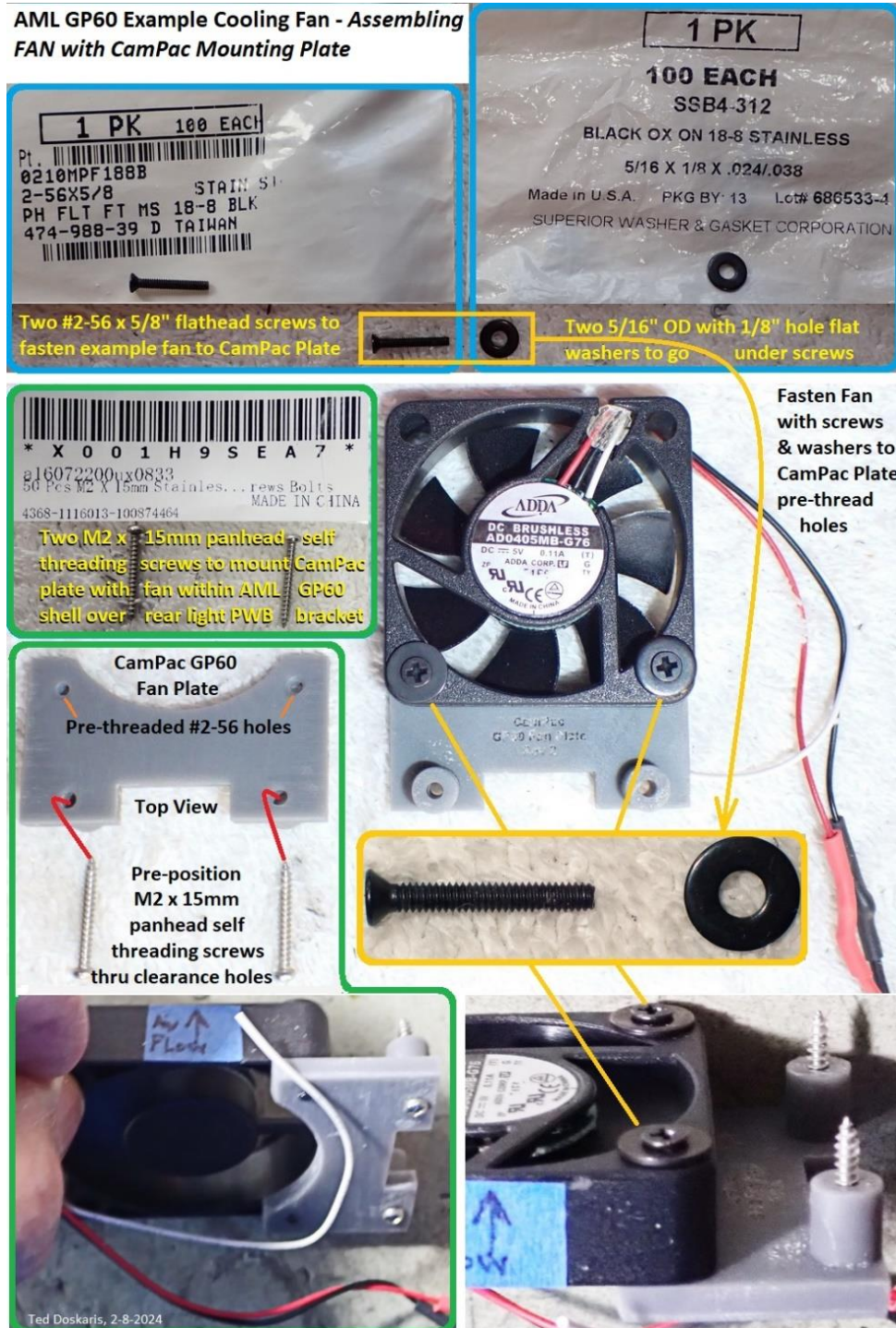
2/11/2024



Installing CamPac 3-D Printed Cooling Fan mounting Plate with Fan

Overview

- Instructions are provided as a guide for the installer of 3-D printed CamPac fan mounting plate with electric cooling fan for the American Main Line (AML) brand GP60 "G" (1/29) scale Diesel locomotive.
- The installer is to have access to tools and have a modicum of skill for the installation of parts.
- Tools needed include Phillips type P1 screwdriver with 4 inch or longer shank and long reach needle nose pliers.
- **The installer is to obtain electric cooling fan** having 32mm mounting hole centers. (an example to be illustrated)
- Included items are CamPac plate (1); Flathead screw #2-56 x 5/8" long (2); Flat washer 5/16" OD, 1/8" hole (2); Self-threading screw M2 x 15mm long (2)- all illustrated below.



An example 5vdc electric cooling fan obtainable via Amazon is illustrated below.

This example fan includes a connector with wires too short to reach within the chassis, so a mating connector could be used with longer wires, or cut off the connector and splice in longer wires. If 5vdc operating voltage is not suitable for a given application, a different model will be needed but have 32mm mounting hole centers.

Example Cooling Fan for AML GP60

**ADDA USA
DC FAN SPECIFICATIONS**

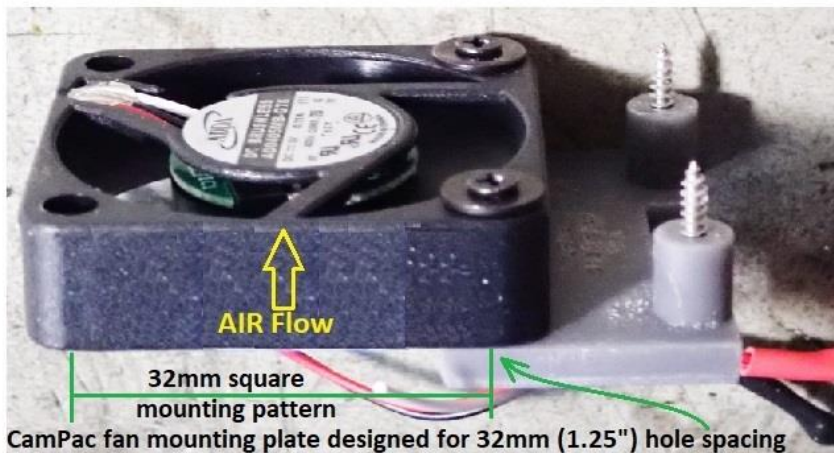
Frame Dimensions (mm)	Model Part Number	Bearing Type	Volts (V)	Current (A)	Power (W)	Speed (RPM)	Air Flow (CFM)	Pressure (Inches)	Noise (dB/A)	Weight (g)	Features Available	Safety Approvals	Units Per Box	Box Wt. (lbs.)
5vdc 110ma Brushless Ball Bearing Fan, overall size 40mm x 40mm x 10mm; Mounting hole spacing 32mm, diameter 4.3mm														
40 X 40 X 10	AD0405MB-G76	BALL	5	0.11	0.55	5000	6.0	0.080	20.0	24	6	UL,CUL,TUV,CE	700	



This example fan 5 pin connector with 3 wires



Only red (+) and black (-) wires used for powering fan



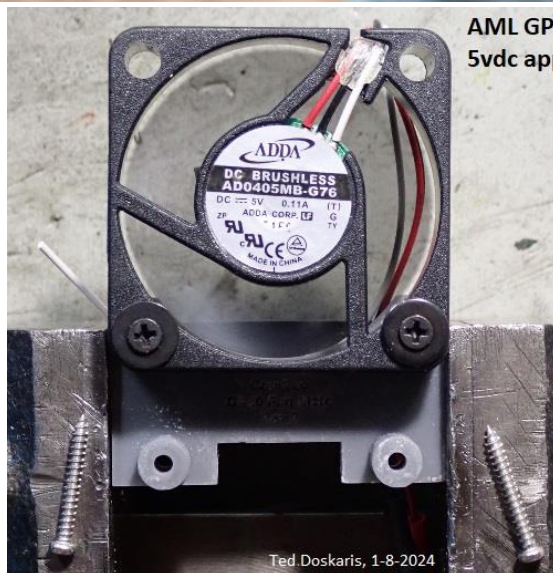
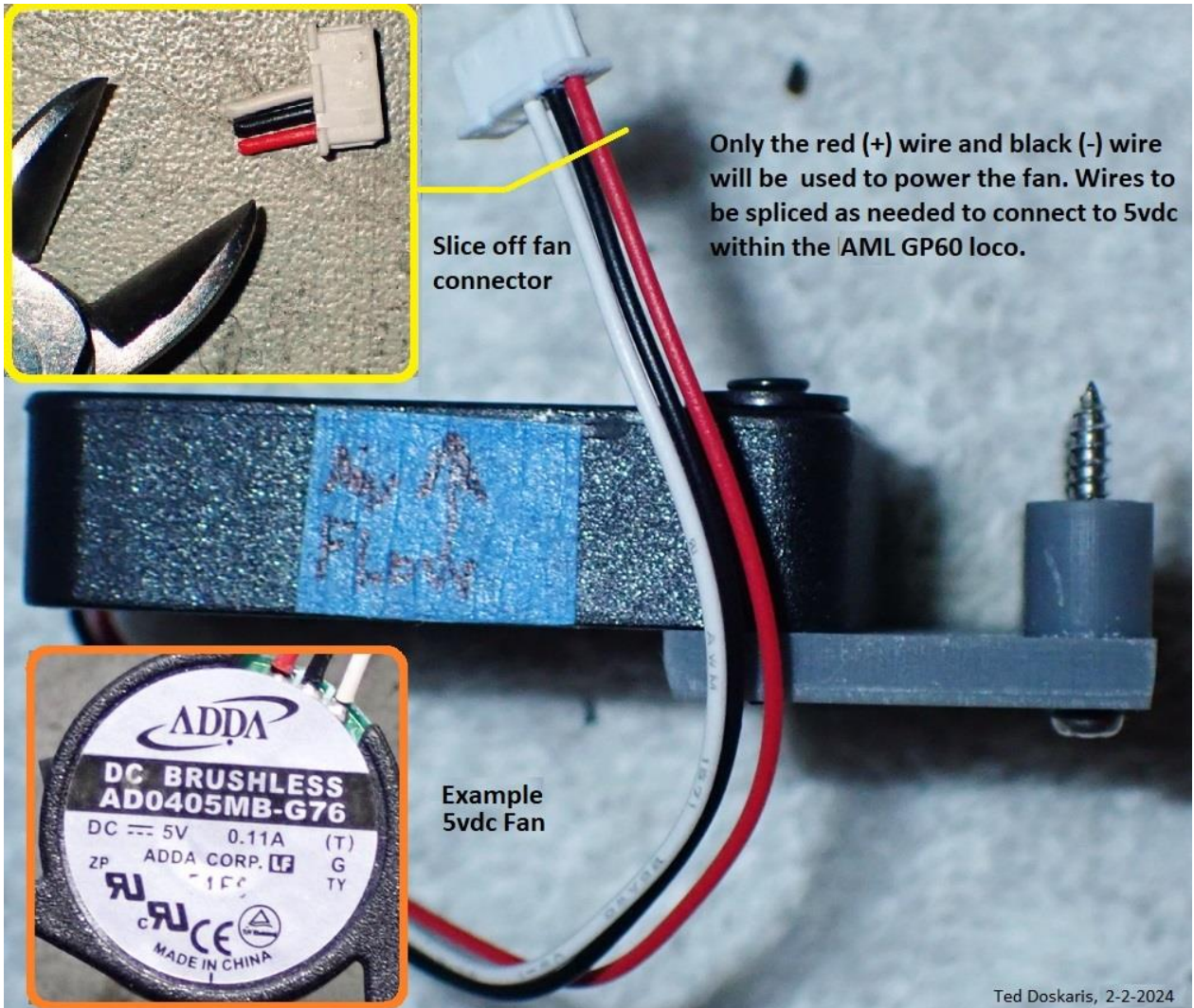
CamPac fan mounting plate designed for 32mm (1.25") hole spacing



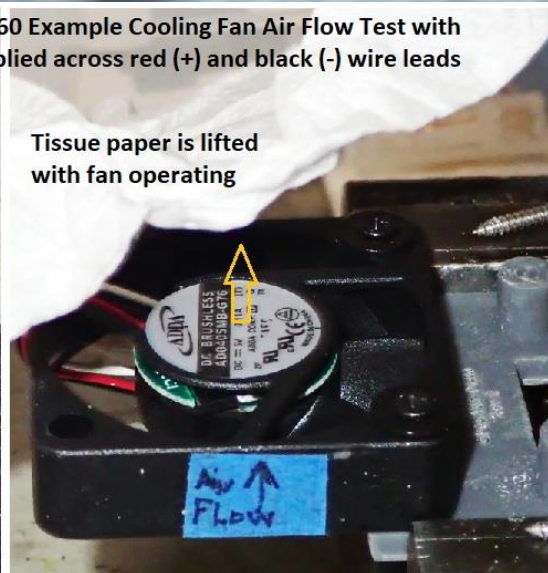
ADDA electric fan shown fastened to CamPac 3-D printed plastic plate for mounting on AML GP60 under rear most body shell fan. Plastic plate is sandwiched over rear light PWB metal bracket, utilizing existing mounting holes.

Ted Doskaris, 2-10-2024

Shown below is the example fan connector and power wires.



AML GP60 Example Cooling Fan Air Flow Test with 5vdc applied across red (+) and black (-) wire leads



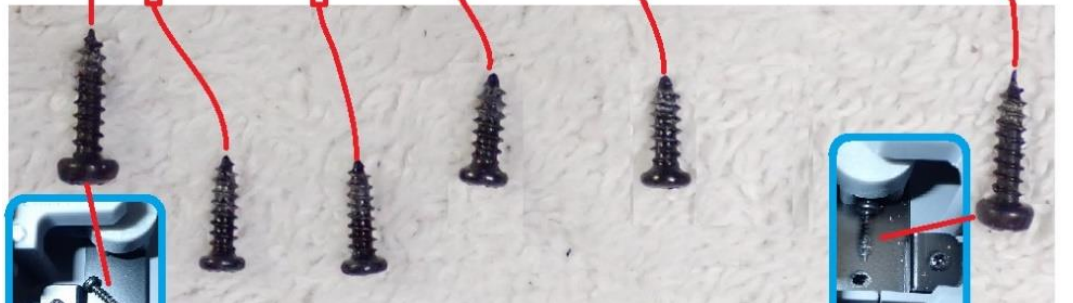
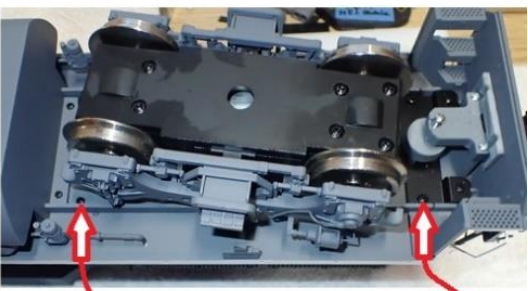
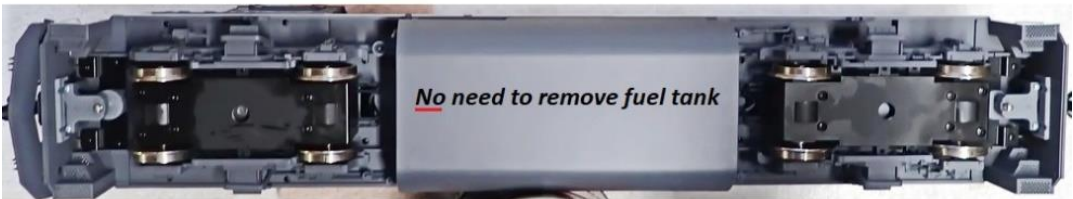
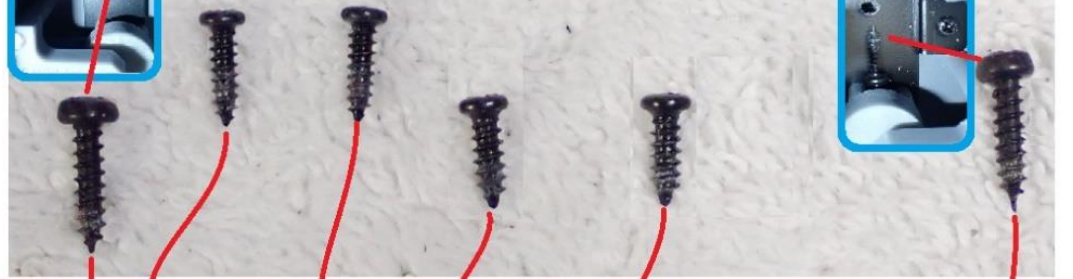
Separate Body Shell from Chassis - so it can be set upside down beside chassis.

There is no need to unplug wire connectors.



AML GP60 Chassis to Body Shell Fastening Screws - pertaining to Shell R&R

There are 12 total screws (6 each side) that fasten body shell to chassis, 8 (4 each side) at the front, none under fuel tank, and 4 (2 each side) at the rear. The larger screws at the ends go through the metal plates.



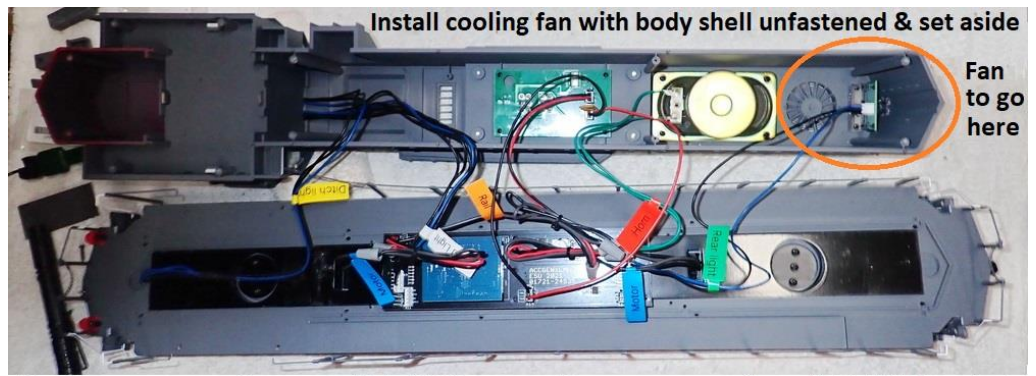
Railing prongs push into cab holes - same both sides of loco

After the 12 screws removed, the whole body shell can be withdrawn from the chassis. However, if railings are already installed, only the railing prongs that push into the cab sides need to be pulled away from the cab holes, then carefully lift up body shell from chassis so not to scratch paint at railing prongs.

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Mount CamPac fan plate with electric cooling fan – following the A to F sequence shown.

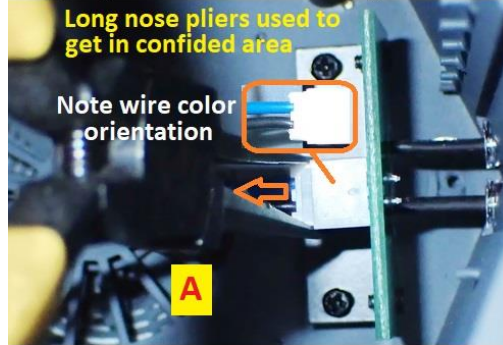
The body shell connectors do not have to be unplugged from the chassis.



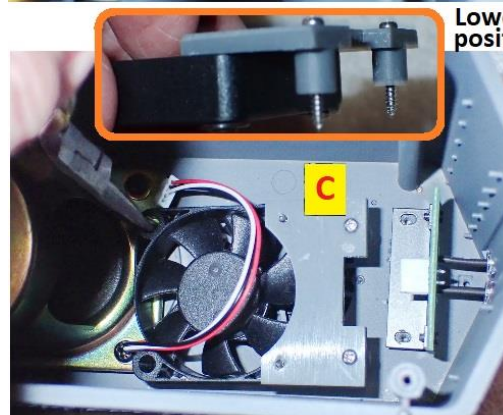
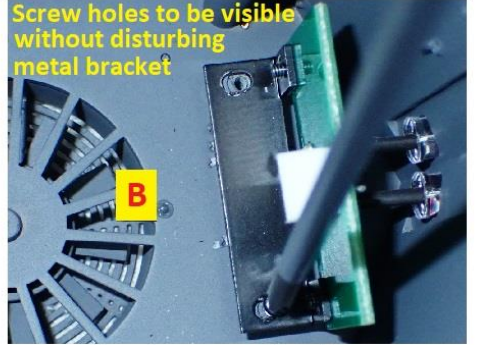
Install cooling fan with body shell unfastened & set aside

Fan to go here

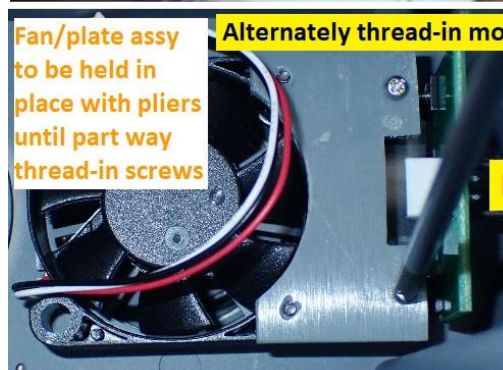
Un-plug connector from rear light PWB



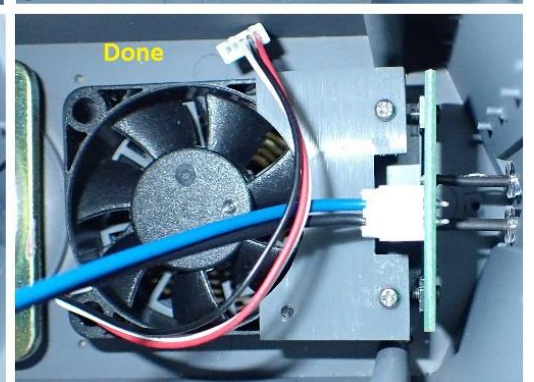
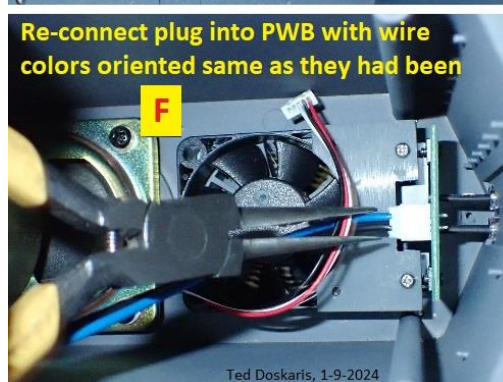
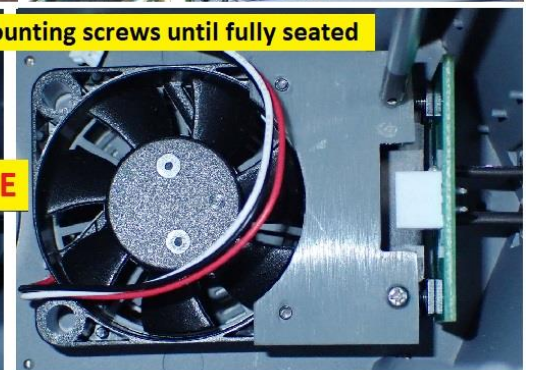
Remove screws from light PWB bracket



Lower CamPac plate fan assembly with pre-positioned M2 x 15mm mounting screws



Alternately thread-in mounting screws until fully seated



When done installing fan assembly and reconnecting rear light board PWB plug (and wherever Fan is to be connected for power) re-install body shell being careful not to pinch any wires.