Zoom Motor Installation Instruction Sheet

INTRODUCTION

Use the following instructions to install the Zoom Motor Assembly on the lens you will be using with the projector (*Figure 1*). This procedure applies to the zoom lenses in the Roadie lens suite only.

Figure 1

KITS REQUIRED

Lens Zoom Motor Kit includes:

- Zoom motor assembly
- Gear clamp assembly
- Tether clamp assembly
- Spacer plate

TOOLS REQUIRED

- #1 & #2 Phillips screwdriver
- 3mm Allen key
- Measuring device (tape measure)

SAFETY GUIDELINE

⚠ DANGER **Always power down and disconnect all power sources to the projector before servicing or cleaning.**

INSTRUCTIONS

MOUNT ZOOM MOTOR ASSEMBLY ON LENS

1. Looking down at the lens, rotate the zoom ring clockwise until it stops (reaches the end of its range of motion). See *Figure 2*.

Figure 2

2. Slide the gear clamp assembly on the lens with the sensor flag down as shown in *Figure 3*.

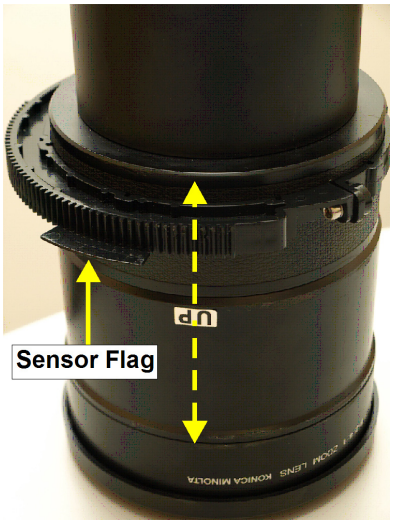

Figure 3

3. Align the gear clamp assembly ensuring that the lens “UP” mark is midway in between the sensor flag and the end of the gear teeth as shown in *Figure 3*.
4. Using a 3mm Allen key, lightly tighten the gear clamp assembly to hold it in place.
5. Adjust the gear clamp assembly height. Adjust the height depending on the lens type. See *Table 1.1*. **NOTE:** *Ensure to measure 3 points equally spaced around the gear clamp assembly.*

Figure 4

Table 1.1 - Lens and Installation Heights

Lens	A (mm)
1.25-1.45:1	16.75*
1.45-1.8:1	21.00
1.8-2.4:1	10.50
2.2-3.0:1	10.50
3.0-4.3:1	10.50
4.3-6.0:1	21.00
5.5-8.5:1	10.50

*** Spacer required for 1.25-1.45:1 Lens ONLY. See Step 7.**

6. Using the 3mm Allen key, lightly tighten the gear clamp assembly as shown in *Figure 5*. **NOTE:** *Torque setting of 3-in.lb. is recommended. DO NOT over-tighten this screw.*

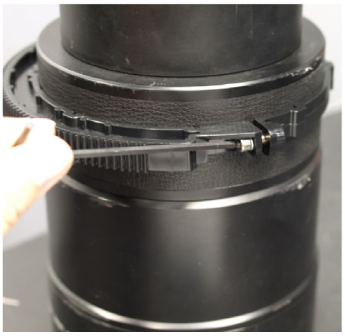

Figure 5

7. If using a 1.25-1.45 lens, install the spacer as follows:
   a. Using a #2 Phillips screwdriver, loosen the 2 screws from the connector (*Figure 6*).
   b. While lifting the connector, align the holes as shown in *Figure 7*.
   c. Secure the connector screws (*Figure 8*).

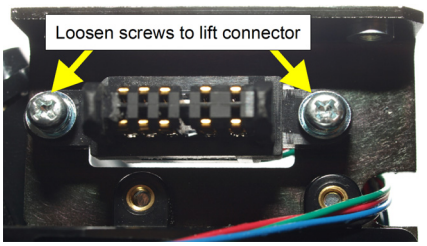

Figure 6

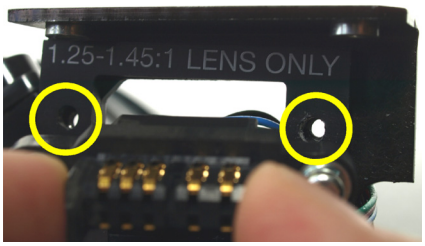

Figure 7

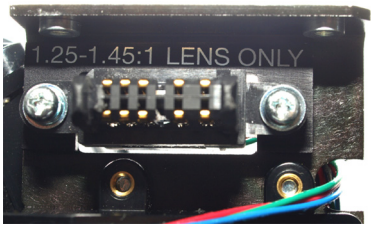

Figure 8

8. Using the #1 Phillips screwdriver, remove the safety cover from the zoom motor assembly.
9. Position the tether clamp assembly with the zoom motor assembly as shown in *Figure 9*.

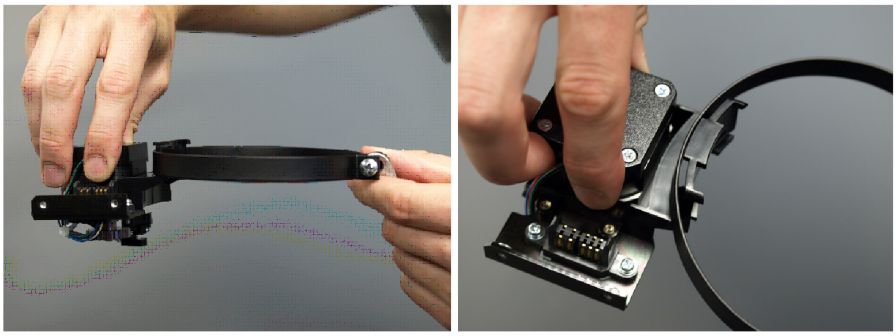

Figure 9

10. Position the tether clamp assembly and the zoom motor assembly onto the lens as shown in *Figure 10*. **NOTE:** *The tether clamp assembly may need to be adjusted to fit over the lens using a #2 Phillips screwdriver.*

Figure 10

11. Secure the tether clamp assembly screw using a #2 Phillips screwdriver.
12. Ensure the following:
    - Center of the zoom motor assembly is aligned with the top of the lens (use “UP” label as reference).
    - Adjustment screw on the tether clamp assembly is positioned as shown in *Figure 10*.
    - Tether clamp screw is secured.
    - Sensor flag is centered in the sensor slot. See *Figure 11*.

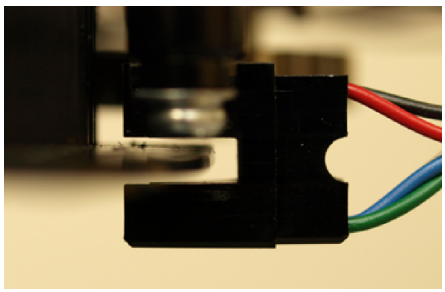

Figure 11

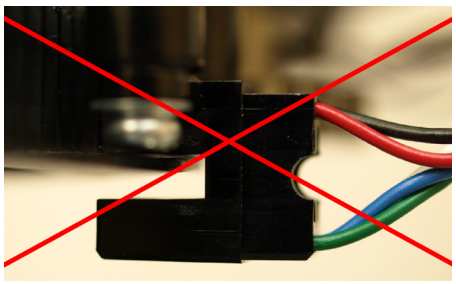

Figure 12

13. Rotate the zoom ring back and forth to ensure it runs smoothly. Check that the metal gear always remains engaged with the gear clamp assembly. **NOTE:** *The sensor flag must remain centered in the sensor slot as shown in Figure 11*.
14. To prevent premature wear of the zoom motor gear and gear clamp, ensure that there is a small gap between the teeth of these parts as shown in *Figure 13*.

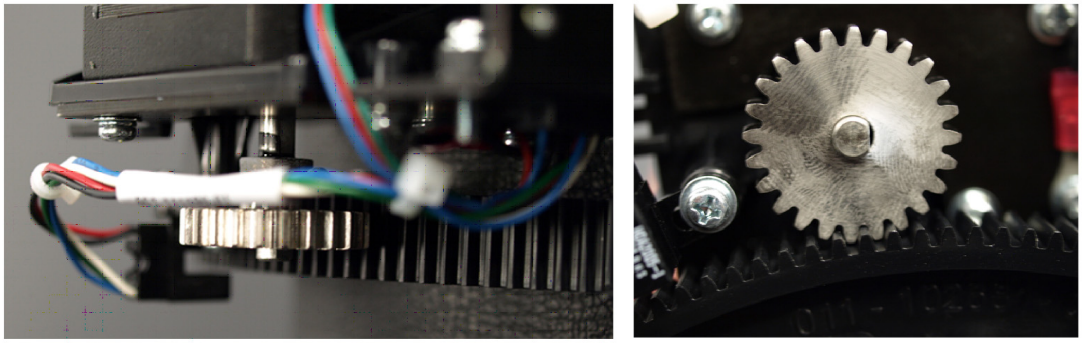

Figure 13

15. If there is no gap present, loosen the screw on the zoom motor gear (*Figure 14*) and adjust the screw in small increments until a small gap appears between the teeth, as shown in *Figure 13*.

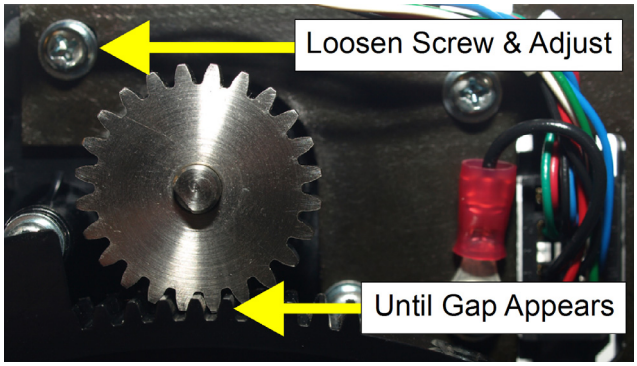

Figure 14

16. Using #1 Phillips, install the safety cover for the zoom motor assembly. See *Figure 15*.

Figure 15

17. Install the projection lens, ensuring that the zoom motor assembly is aligned at the 12 o'clock position and ensure the zoom connector is fully engaged.

The following steps are **IMPORTANT** and necessary to ensure your safety and that of the lens so it does not fall out.

a. Lock the lens assembly in place with the lens clamp DOWN.

b. For added security, tether the lens to the projector by wrapping it around either the handle or FredFrame™ if flown. **NOTE:** *This step is not required if the projector is floor-mounted.* See *Figure 16*.

⚠ DANGER **In the event a lens is dropped, the lens tether and clamp assembly may become stressed, and therefore must be replaced before continuing its use. Failure to do so could result in death or injury.**

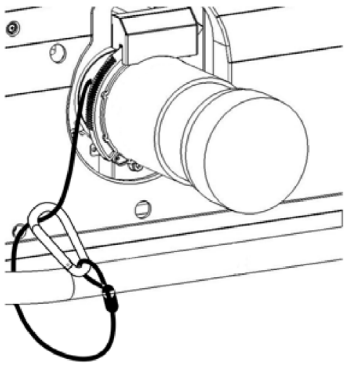

Figure 16

c. Remove the front lens cap.

18. Perform an ILS Calibration to ensure the x/y zoom focus is operational. For more information, refer to the projector's user manual.

⚠ CAUTION ***ILS calibration must be performed each time a new lens is inserted or after performing manual lens mount adjustments. This is critical to the projector functioning properly. Failure to do so could result in damage to the lens mount, the projector, or the projection lens.***