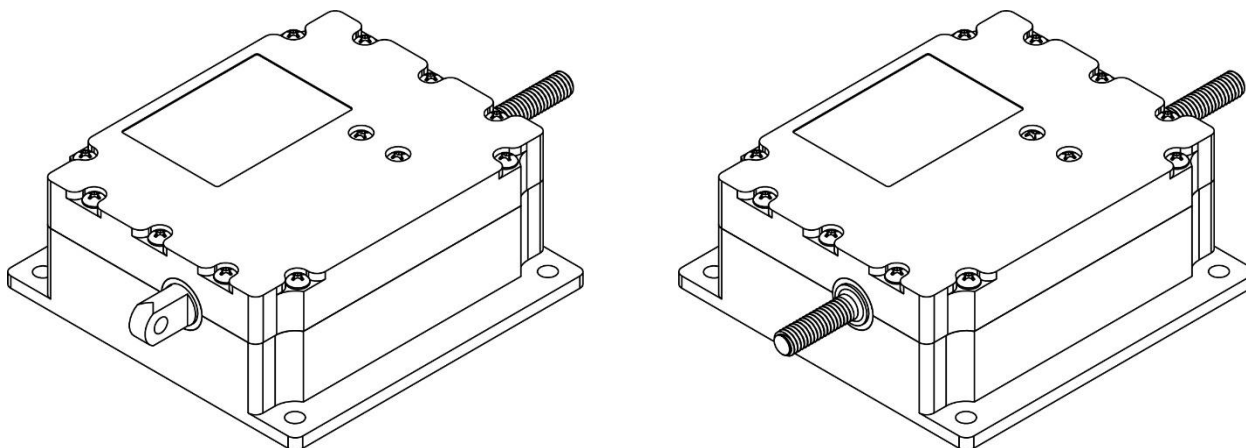


Thank you for purchasing a Corgi Aviation Trim Servo. Corgi Aviation's trim servos are designed to control trim surfaces and other systems in homebuilt and other light aircraft applications. They are commonly installed alongside modern autopilot systems to provide auto-trim functionality, which reduces the need for pilots to trim the aircraft manually when under autopilot control.

This Installation Guide provides an overview of what is included with your servo and what is needed for installation. The information herein applies to the following Corgi Aviation Trim Servo models:

PART #	NAME / DESCRIPTION
104626-007	CA-07C Trim Servo, 0.7IN, Clevis End
104626-010	CA-10C Trim Servo, 1.0IN, Clevis End
104626-011	CA-11C Trim Servo, 1.1IN, Clevis End
104626-012	CA-12C Trim Servo, 1.2IN, Clevis End
104627-007	CA-07T Trim Servo, 0.7IN, Threaded End
104627-011	CA-11T Trim Servo, 1.1IN, Threaded End



**Figure 1: Corgi Aviation Trim Servo (Clevis and Threaded Shaft Models)**

## Included Items

The following items are also included with your purchase:

PART #	NAME / DESCRIPTION	AMOUNT
100196-003	5-PIN MOLEX MICROFIT CONNECTOR (MALE)	1
100202-000	MICROFIT PIN CRIMP (FEMALE)	5

## Unit Installation

Mounting locations for trim servos vary by aircraft type and the control surface receiving the trim servo. Installers will need to determine the best mounting location for their application. Trim servo shaft travel needs to be considered when making this determination.

The following is a list of guidelines for mounting a trim servo:

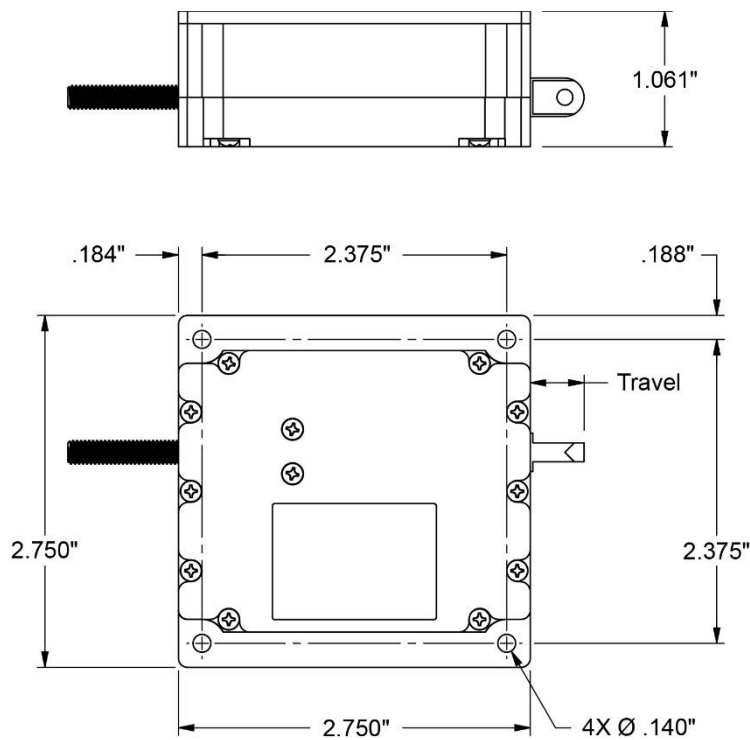
- If replacing a trim servo, mount the unit in same location as existing trim servo.
- If installing a new trim servo, mount the unit near the trim tab control, ensuring the area is not prone to extreme water exposure.
- Avoid riveting the unit directly to airplane structure, as this will hinder future servicing or removal/replacement.



Mounting hardware is not included with the trim servo. Use aviation standard screws and locknuts or nutplates to mount the unit to the aircraft's structure.

### To mount the Trim Servo:

1. Determine best mounting location (see guidelines above).
2. Use mounting holes on unit (see Figure 2) as template to mark hole locations on aircraft structure.
3. Drill up to #32 holes, and then deburr as needed.
4. Secure unit to aircraft structure with #6 aviation-standard hardware.



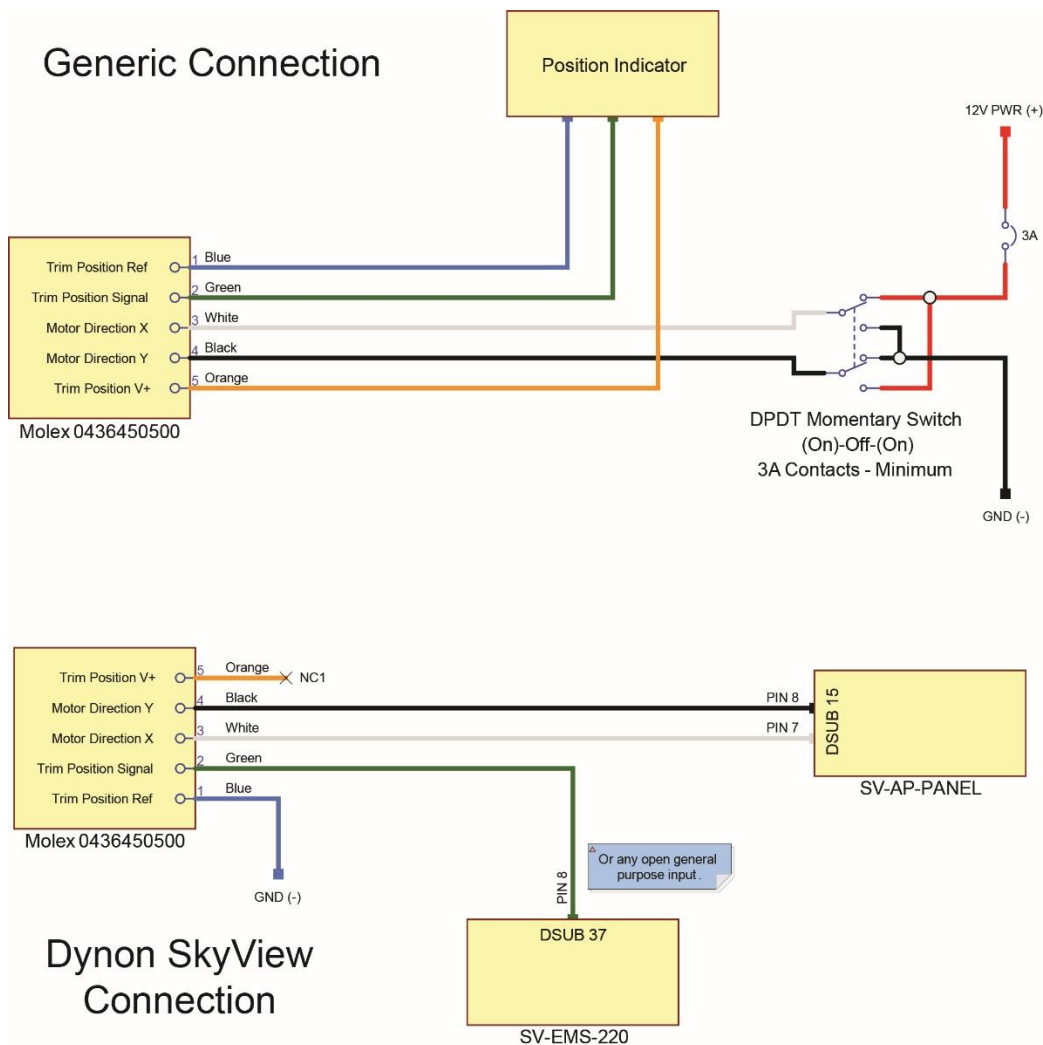
**Figure 2: Trim Servo Mounting Dimensions (All Models)**

### Electrical Connection

Installers will need to fabricate a 5-pin wire harness using at least 24 AWG wire (not included) and the included Molex connector and pin crimps. Pins must be crimped using Molex 638190000 or equivalent. See Figure 3 for pin/wire allocation, depending upon your installation.

#### To electrically connect the Trim Servo:

1. Make sure aircraft power is disconnected.
2. If connecting to a manual trim switch, make sure circuit is protected by a 3A circuit breaker/fuse (see aircraft manufacturer's documentation for guidance).
3. Wire and terminate servo trim harness according to the appropriate diagram in Figure 3.
4. Support and secure servo trim harness while routing through the airframe to avoid high heat, sharp edges, and moving components.
5. Connect servo trim harness to trim servo.
6. Reconnect aircraft power.



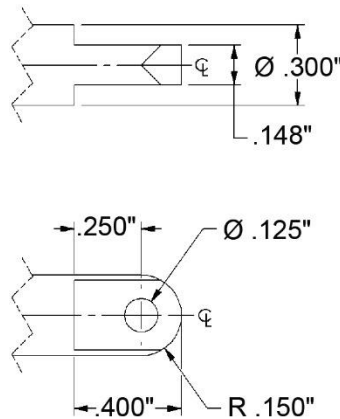
**Figure 3: Electrical Connections Diagram**

## Control Connection

As trim tab control components vary between aircraft types, installers will need to source necessary aviation-standard hardware to connect the trim servo shaft to the trim tab control. The shaft on models CA-07C, -10C, -11C, -12C has a clevis end (see Figure for specifications); the shaft on models CA-07T and -11T has #10-32 threads for connection.



**DO NOT** alter clevis end! Doing so will weaken the connection and may result in trim control failure.



**Figure 4 Clevis End Specifications (Models CA-07C, -10C, -11C, -12C)**

### To connect the Trim Servo to trim tab control:

1. Secure trim tab in neutral position.
2. Position trim servo shaft at half extension.
3. Measure distance between trim servo shaft end and trim tab control.
4. Size connecting rod as needed.
5. Attach trim servo shaft to trim tab control rod with aviation-standard hardware.

## Specifications

SPECIFICATION	MODEL NUMBER					
	CA-07C	CA-10C	CA-11C	CA-12C	CA-07T	CA-11T
Dimensions (L x W x H)	2.750in. x 2.750in. x 1.061in. (69.9mm x 69.9mm x 27.0mm)					
Weight	4.8oz. (.17kg)					
Operating Temperature	-22F to 140F (-30C to 60C)					
Storage Temperature	-40F to 158F (-40C to 70C)					
Operating Voltage	6-15V DC					
Housing Material	Glass-filled Nylon					
Shaft End Type	Clevis				Threaded #10-32	
Shaft Travel	0.7in. (17.8mm)	1.0in. (25.4mm)	1.1in. (27.9mm)	1.2in. (30.5mm)	0.7in. (17.8mm)	1.1in. (27.9mm)
Travel Time (@13.5V DC)	11 Sec	14 Sec	17 Sec	18 Sec	11 Sec	17 Sec
Max Operating Thrust	50lb					
Max Static Load	500lb					
No Load Current (@12V DC)	95mA					
Max Stall Current (@12V DC)	1.4A					