aeromotions | AERODYNAMICS WITHOUT COMPROMISE

R2.STATIC EVO X Install Guide

The AeroMotions Edge

Wind tunnel designed and race-proven, AeroMotions wings reduce your lap time. The heart of every wing is our signature high-downforce, low-drag wing blade. Hand-made in the USA, this is the most advanced airfoil available. Now it's yours.

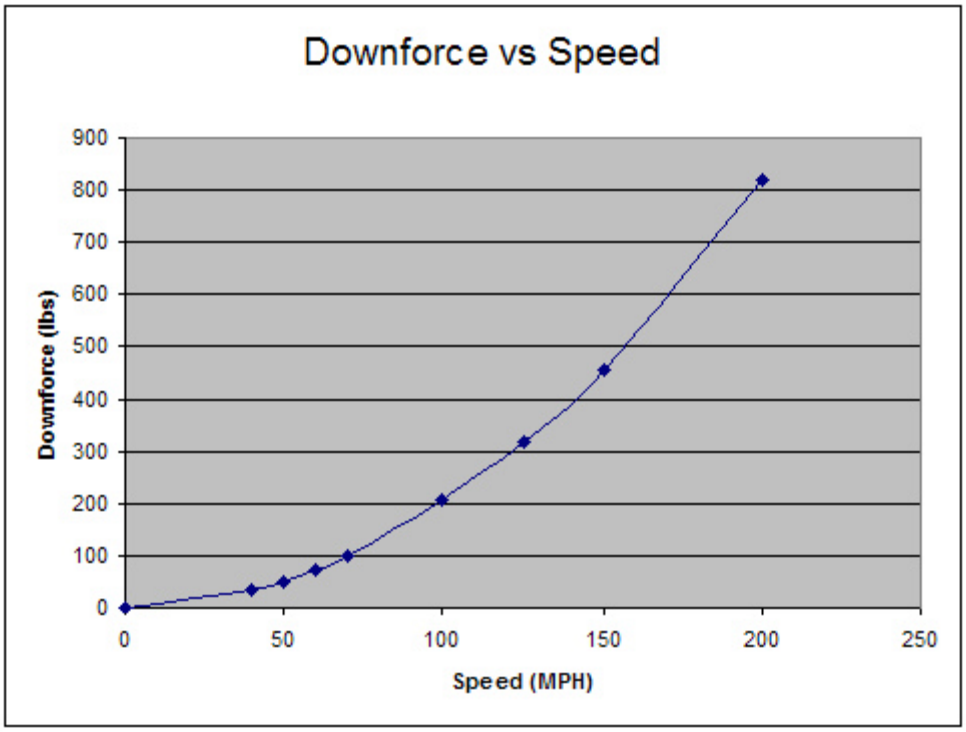
Tuning

This graph gives the maximum downforce as a function of speed for the Nissan GT-R. This should be used as a reference to get a general idea of how much downforce the wing will create for the Evo X.

The Aeromotions wing features a high performance airfoil. This means small wing angles produce more downforce than standard wings. When tuning on a new car, the goal is to get the rear aero (wing, diffuser, etc) to balance the front aero (splitter, canards, etc). As a rule of thumb, a 30-60mm front splitter should start with 2-3 degrees of wing angle, and increase 1 degree at a time.

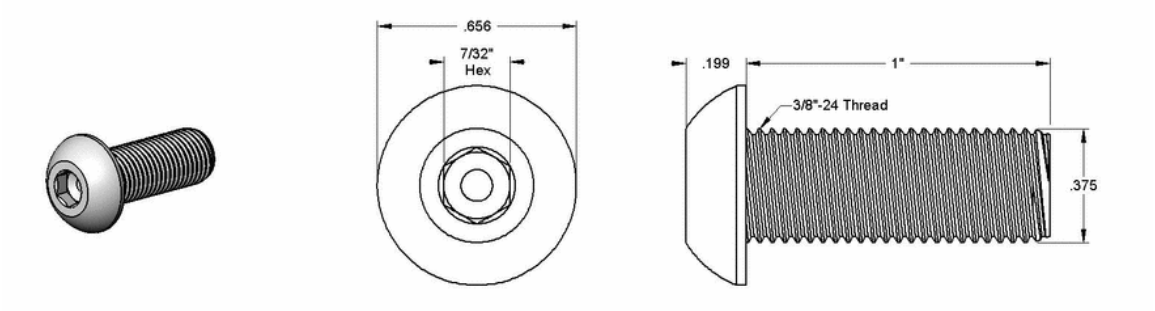
The AMS NOS Time attack Evo, with a huge front splitter, ran 6 degrees of rear wing. Ryan Gates' Evo X, pictured above, runs about 5 degrees of rear wing. Both these cars have substantial front splitters.

As the below graph shows, the effect of the wing will increase with the square of speed. Low speed handling is dominated by tires and suspension, high speed handling is dominated by aero. The crossover point is somewhat unique to each car and setup.

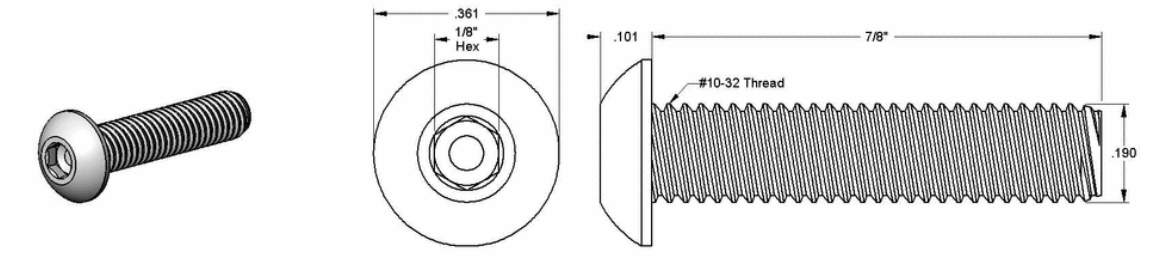


Mounting Hardware for Stainless Steel Angle Of Attack Plates

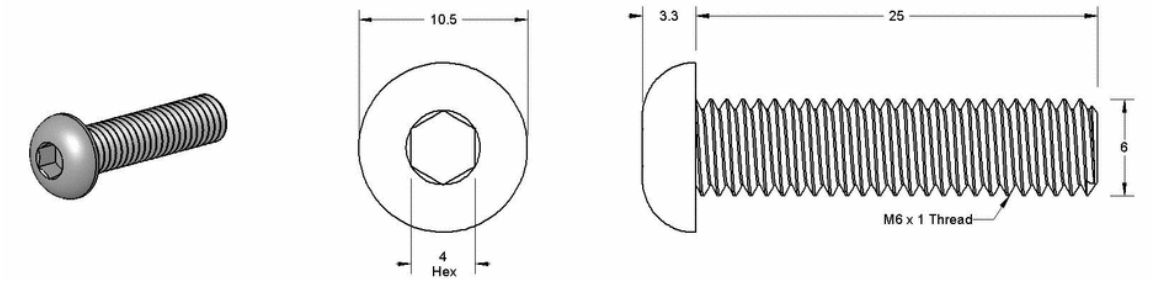
3/8” x 1”



10-32

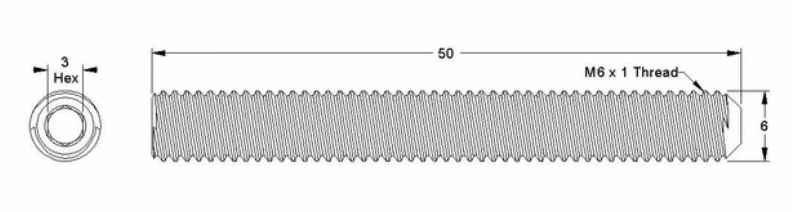


M6 x 25

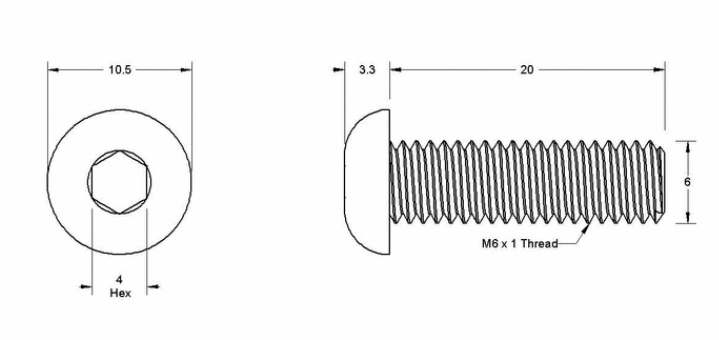


Hardware To Mount Wing to Trunk

M6 x 50 Stud

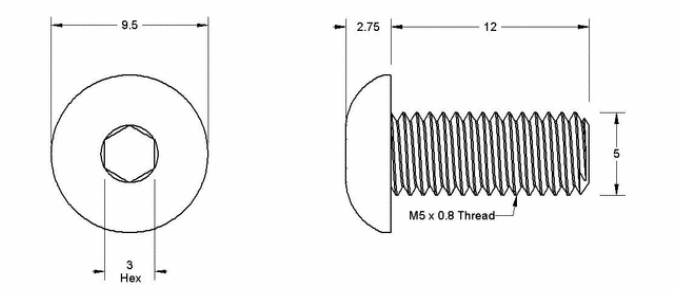


M6 x 20 (outside OE mounting screws)

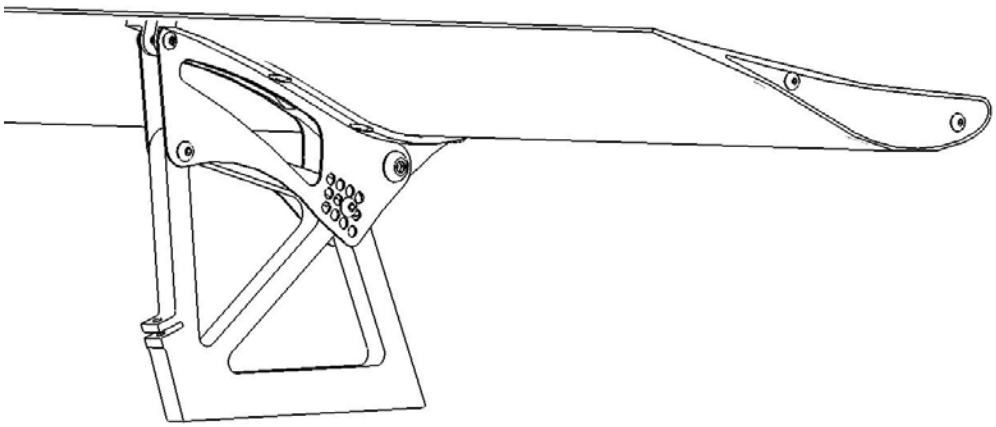


Mounting Hardware for End Plates

M5 x 12



1. Wing Assembly

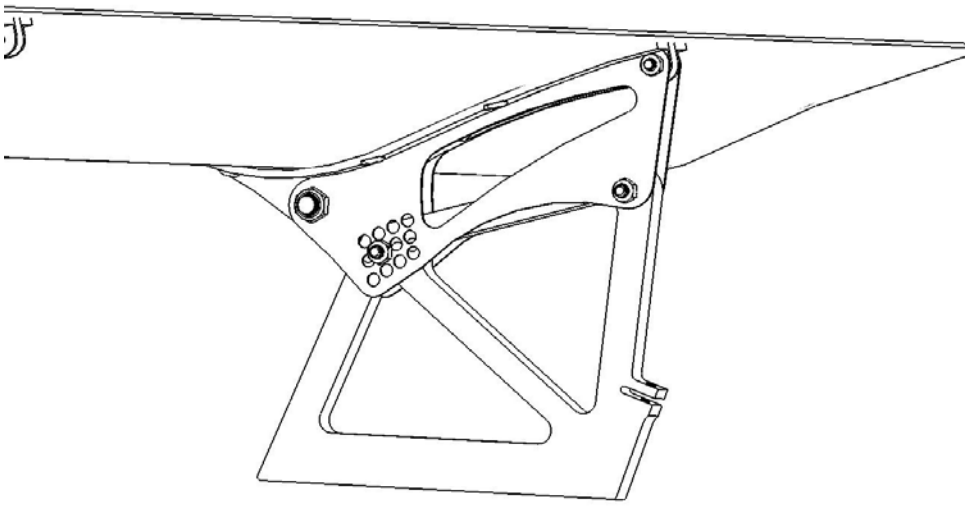


I. There are two stainless steel Angle of Attack (AoA) plates on each upright. The outside surface of each plate ships with a PVC coating to protect the finish. Peel off the coating, and wash with mild soap and water.

II. Bolt one to each side of the black wing support as shown. Use the 3/8" bolt and nut for the front hole, and the 10-32 bolt and nut for the rear hole. The bolt heads should be placed facing outward, as shown above. The nuts are placed on the inside, as shown below.

III. The Stainless Steel AoA plates bolt to the upright with the two M6 x 25 bolts. Use the front bolt to set the angle for the wing. Tighten all bolts before operation.

IV. Recheck that all the bolts are tight before and after each track use.



2. Wing Mounting

The wings are designed to be used with OEM body panels. Carbon Fiber panels, aftermarket panels, or modified panels need to be reinforced to handle the high loads of the wings.

I. **Use the holes in the mounting plate to mark the drill locations for the mounting hardware.** ***If your car came with the smaller factory wing option, you will only use the bottom one of the OE holes and have to drill the additional two holes that are used for the larger OE wing (top two dots).***

Plate Set On Trunk Lid

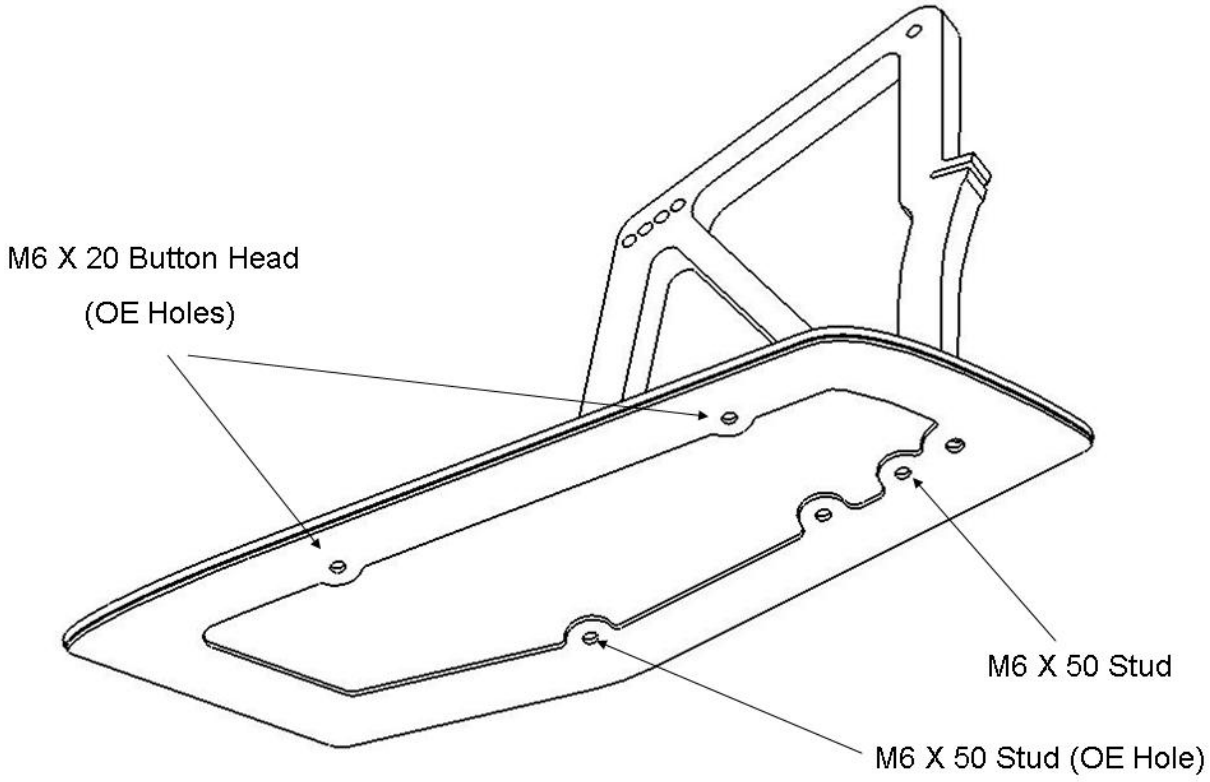
Close up of Deck Lid

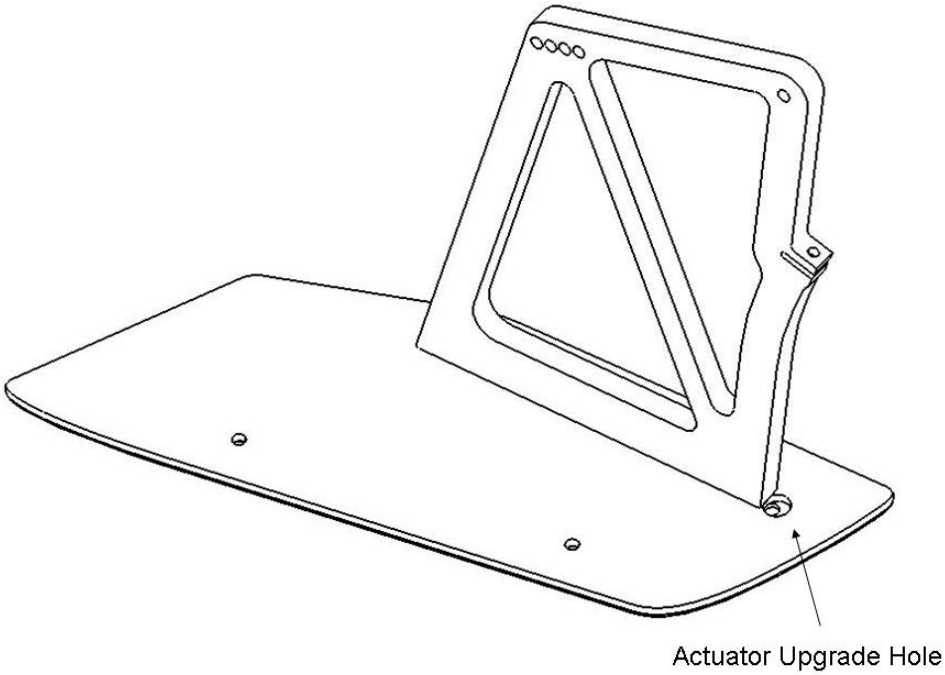
II. Mount the wing to the car using the included hardware as shown below. Place a drop of red loctite on the threads of the M6 studs. Screw the studs into the front and rear holes of the uprights.

III. Attach the mounting feet. The miter on each upright is side specific and should match the angle of the trunk.

IV. Use the included M6 nuts to fasten the wing to the car. Washers should be used to distribute the load.

V. The Actuator upgrade hole is drilled in the mounting plate for easy upgrade to the R2.TWO. **Do not drill this hole for the static wing.**





Driver Side View

Legal Notice

PROFESSIONAL INSTALLATION IS HIGHLY RECOMMENDED and products are understood by consumer to be OFF-ROAD USE ONLY upon purchase. RACING IS INHERENTLY DANGEROUS. The consumer assumes responsibility and all liability associated with operating an aeromotions wing upon purchase. CHECK ALL EQUIPMENT before racing. Car setup is unique. The consumer is responsible for ensuring the correct setup, tuning, and working of the Dynamic Wing with their vehicle setup.