



## Razor Build Guide



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## Introduction

Thank you for purchasing our product. T-One Models is very happy to introduce the Razor Sport Jet!

This Build Guide will help you with the assembly and basic lay-out of your model. The build information suggested in this manual will show you the primary build recommendations. There are many ways to install components/equipments to personalize and make this model successful.

#### Tips for Success:

- > Don't rush! Allow plenty of time for your build. Take your time, enjoy it, and do it right.
- Don't be afraid to ask questions! In addition to this document there are several build video on the Pacific RC Jets Facebook page
- > We recommend completing the latter part of your build on a CG stand...when you're down to the components, lay them out to get the proper location for the CG
- > After your build is complete, have another turbine operator/pilot review your build. A fresh set of eyes is a good sanity check.





#### **Razor ARF Kit:**

- Fuselage. Nose & AFT
- Stabs (Factory Hinged)
- > Wings, Factory Hinged Ailerons with Flaps
- > Electric Landing Gear with struts wheels and brakes. Includes T-One gear controller
- Complete Hardware Package
- Linkage and ball links
- > Dual Walled Pipe
- > Fuel Tank
- > Installed nose gear door with HV Servo

#### Specifications, control throws and CG:

- Length: 75"
- > Wing Span: 66"
- Fuel Tank 68oz
- > Dry Weight No Fuel with K102 18.9lbs
- > Recommended Engine K86-102
- > Total Servos (9)
- > Center of Gravity: 200-205mm from leading edge of wing root.
- > Recommended Aileron Throw: 15-18mm
- > Recommended Elevator Throw: 13-16mm
- > Recommended Rudder Throw: 25-30mm
- > Recommended Flap Throw: Half flaps = 30mm Full flaps 50mm
- > Recommended Crow 6mm up





#### Equipment Used (Sold Separately)

- AR Smooth Flight 16 with FrSky TDMX Receivers  $\triangleright$
- KingTech K102G4+  $\triangleright$
- KingTech 2X 6.6 3800 Life Packs  $\triangleright$
- KingTech 9.9 3800 Life Pack  $\triangleright$
- T-One Small UAT  $\triangleright$
- PRCJ 6mm Poly Fuel Tubing (3 Feet)  $\triangleright$
- PRCJ Vent with caps  $\triangleright$
- PRCJ Razor Wire Harness  $\triangleright$
- Servos (9) Savox SV-1260MG  $\triangleright$



























## Un-boxing and Inspection

The kit will come very well packed. Carefully remove all the parts from the bubble wrap that they are encased in. Do not use a knife or razor blade as you can inadvertently cut through the packaging and damage the finish of the parts. Peel or use scissors to carefully cut and remove the tape. Inspect all parts for any shipping damage and test fit.







### AFT Fuselage Zip Tie Mounts & Harness Installation

For this process we use self adhesive Zip Tie mounts and small Zip Ties to secure the wire harness in place. Run the harness at the top of the fuselage. Use the photos for reference on where to install the Zip Tie mounts and harness. Note: Start wire harness installation from the AFT forward leaving at least 2" of wire out of the fuselage at the Stab and rudder servo pocket. Once wires are secure use CA or Hysol on edges of Zip Tie mounts for permanent adhesion.

Make sure to have no sagging wires. You can use aluminum tape or Fiberglass heat tubing around wires for added heat protection.







## Pipe Installation

Slide pipe into place and set the end of the pipe just past the end of the fuselage. Measure, remove pipe, drill and mount the (2) L-Brackets to the Bell-Mouth. Use 3mm machine screws, Washers and lock nuts to secure to pipe,

Slide the pipe back into place and secure to the bulkhead making sure the pipe is center to the bulkhead opening.

Use large servo style wood screws to secure pipe to the bulkhead.







## Stab Servo Installation

Center the Servo and install servo arm using Loctite. Install servo into stab with the arm rotated horizontally. After servo is in place rotate the arm back up through the slot.

DO NOT USE A SERVO DRIVER TO RE-POSITION SERVO ARM AS YOU CAN CAUSE DAMAGE.

Install servo screws and washers.

Install servo linkage using the supplied Clevis, 3mm screws, washers and nuts.

Repeat for other side.











## **Rudder Servo Installation**

Install servo using the supplied L-Brackets and hardware. Install servo with the arm center to the slot. Install 3mm servo screws and washers using Loctite to secure.

Center the Servo and install servo arm using Loctite.

Plug in the extension and secure with Heat Shrink or clips.

Set Servo/Hatch in place(Som trimming for servo fitment might be required)

Drill and secure with provided Servo hatch screws.

Install servo linkage using the supplied Clevis, 3mm screw, washers and nuts.







### Aileron Servo(s) Installation

After you have pulled your PRCJ Razor Wire Harness through the wing, install servo using the supplied L-Brackets and hardware. Center your servo and install servo arm.

Install servo with the arm center to the slot. Install 3mm servo screws and washers using Loctite to secure.

Plug in the extension and secure with Heat Shrink or clips.

Set Servo/Hatch in place (Som trimming for servo fitment might be required)

Drill and secure with provided Servo hatch screws.

Install servo linkage using the supplied 3mm screws, washers and nuts.

















# Flap Servo(s) Installation

Center the Servo and install servo (SHORT) arm using Loctite. Install the flap linkage to the servo arm, set servo in place and connect to the flap.

Manually adjust linkage to get the best mechanical advantage.(Meaning when the flap is down the servo arm and linkage are horizontal)

After linkage adjustments are complete, Install servo screws and washers to secure.

Plug in the wire harness extension in and secure with Heat Shrink or clips.

You may need to trim the opening in the T/E of the wing for proper geometry on the linkage.

Use a flat file to carefully remove the rough paint edge so that the flaps fully closes and seats flush to the wing.

Repeat for other wing Flap.











## Wing wire routing Installation

Your main gear will be preinstalled from the factory.

You will need to run your wires through and make sure they have a clear passage to the fuselage without hitting the main wheels.

Use a wire tie holder and zip tie to secure the wires out of the way.

Recommend using adhesive to secure the wire tie holder to the inside top of the wing skin.







## Steering Servo Installation

Your nose gear will be preinstalled along with the Door and door servo.

You will need to install your steering servo. Center the Servo and install servo arm using Loctite. Install servo using 3mm servo screws and washers to secure Servo in place. use Loctite.

Connect ball linkage using 3mm screws and lock nuts.

Plug in the wire harness extension in and secure with Heat Shrink or clips.







## Turbine Install

When installing the Turbine, make sure the engine is centered to the pipe and the height is correct as well.

You will want to make sure your spacing is correct to the engine you install. In this case we are using the K102G4+ and I have a spacing of about 1" from the end of the tail cone to the beginning of the pip (ENGINE WILL SIT INTO THE BELL MOUTH)

The kit will come with wood mounting extensions for the engine if needed.

Drill and secure engine with large wood type screws or bolts and lock nuts







### FWD/AFT Fuselage Bolt-Together

This processes is pretty simple. Run your AFT section wires through the forward fuselage. NOTE: If you have the quick connect plug (PNP) inbetween than there is no wires to run forward.

The FWD/AFT sections will bolt together. Install the 3 inside Bolts with washers and the single bolt at the bottom will screw into the aluminum tongue, tighten down snug.

The AFT section can be easily removed for transport with the mid section quick connect wire harness.







## Fuel Tank Install

If not already installed, use Hysol to install your fuel fittings to your tank. Install the vent a the top front of the tank.

Use a long brass tubing and build your clunk system. This will keep the tubing from curling and also keep it at the back of the tank. Make sure you have at least <sup>1</sup>/<sub>4</sub>' from the end of the clunk to the back of the tank for movement. Secure with wire-tie.

Run your vent line through the bottom of the airframe (Your Location)

Mount the tank using Velcro on the bottom and the top hoop with supplied hardware.





Connect to UAT





## T-One L/G Controller

For the T-One Retract and Brake controller, its best to use a 2cell Lipo 2000mAh.

-Gear in from Radio Ch Switch -Brake in from Radio Ch Switch -Str in from Radio Steering Ch -Str out (Steering Servo)

Make sure to plug the Right Main into the (R) output on the gear controller.

Make sure to plug the Left Main into the (L) output on the gear controller.

You can download the T-One Gear Controller Manual from the Pacificrcjets.com site in the T-One models section for the complete setup processes.



#### Electric retract controller manual







#### FWD Fuselage Installation

Fuselage build. We used the PRCJ Razor One-Click wire harness. This lay-out works great for me however you can set your model up however you like. The PRCJ Razor wire harness is plenty long enough however l recommend you (mock-up) you lay-out just to be sure.

Secure wire harness using zip ties and holders.

My electronics board lay-out works for me as well, again you can setup to your liking but room is minimal so this seems to work best.







## FWD Fuselage Installation

NOTE: The batterie tray is now horizontal, not vertical, this gives better room for the battery install in the nose cone section.

Using the K102G4+ and the Kingtech batteries with this installation of components, you should not need to add nose weight for CG

This is a great flying jet! Slow speed for landing is great and predictable. Full throttle with a K102G4+ will put you right at the 200MPH mark.

Nice center axis rolls and clean knife edges with ease. A must have jet in your fleet or to start out.

Happy Flying!





