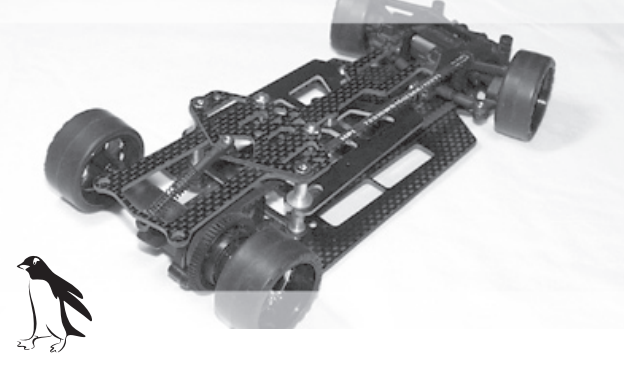


Hi-Performance Chassis

for HPI RS4 Micro



P3500RS Replacement Parts

P3501rs	P3500RS Main chassis	\$28.99
P3502rs	P3500RS Vertical Servo Upper Deck	\$8.99
P3503rs	P3500RS Rear Deck Kit (VCS Compatible)	\$28.99
P3504	P3500 Rear Pod Kit	\$12.99
P3505rs	P3500RS Battery Plate Set	\$14.99
P3507a	P3500 Graphite High Roll Plate Set	\$8.99
P3508m180	P3500/micro Graphite Motor Mount plate for 180 motor	\$5.99

P3500RS Option Parts

P3505	P3500 Center Battery Plate	\$3.99
P3506a/b	P3500 G10 High(a) or Low(b) Roll Plate Set	\$8.99 ea
P3507a/b	P3500 Graphite High(a) or Low(b) Roll Plate Set	\$8.99 ea
P3508	P3500/micro Mini/Micro Servo Mount Plate	\$3.99
P3508m***	P3500/micro Graphite Motor Mount plate (m180, m300, or m400)	\$5.99 ea
P3509rs	P3500RS 150mm Raised Cell Assembly Jig	\$4.99

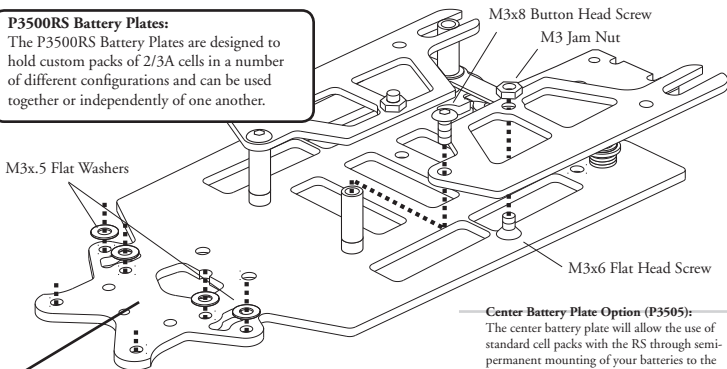
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3 Front Bulkhead and Battery Plate Installation:

P3500RS Battery Plates:

The P3500RS Battery Plates are designed to hold custom packs of 2/3A cells in a number of different configurations and can be used together or independently of one another.



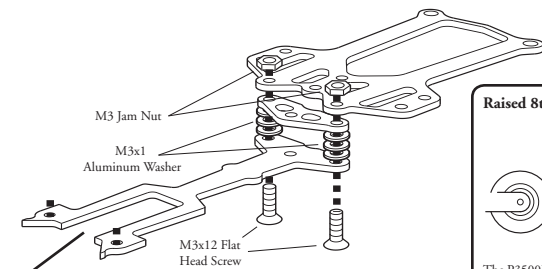
• **Attach Front Bulkhead as Normal**

Place steel washers under bulkhead as shown for proper belt alignment

Center Battery Plate Option (P3505):
The center battery plate will allow the use of standard cell packs with the RS through semi-permanent mounting of your batteries to the plate to facilitate quick battery changes.

Note: 150mm Wheelbase Shown...

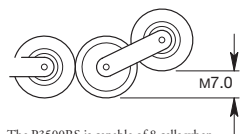
4 Upper and Rear Deck Assembly + other information:



• **Attach Upper Bulkhead as Normal**

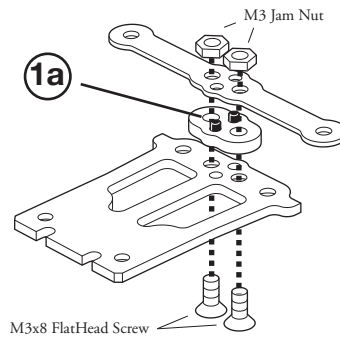
Motor Plate Information (P3508m180):
Included with the P3500RS is a lightweight Graphite Motor plate designed for use with the stock size 180 motors which includes The HPI Modified. Penguin r/c has optional motor plates capable of 300 size motors such as the Orion BigBlock or Speed 300 (P3508m300) or 400 size motors (P3508m400).

Raised 8th Cell Battery Info:



The P3500RS is capable of 8 cells when running the chassis in the 150mm mode. The cell is in a raised position (as indicated) above the rear suspension and should be secured to the center cells by way of battery bars and ShoeGoo or other battery safe adhesive. To ease construction of this type of pack we do offer the P3509rs Raised Cell Assembly Jig.

1 Rear Pod Assembly:



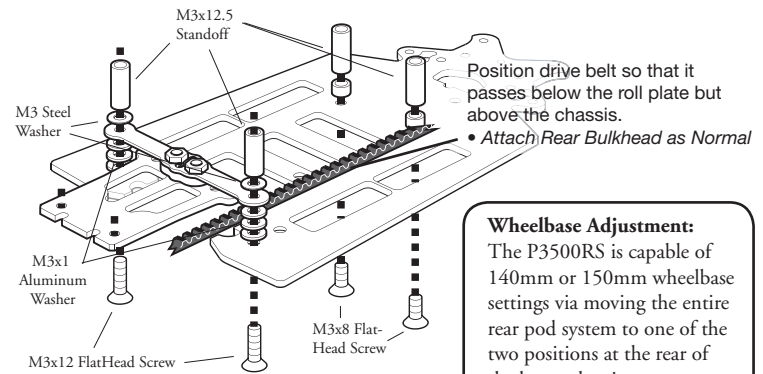
Note: Medium Roll Plate shown above, any version may be installed in its place. (see included Set-up sheet)

1a

Roll Pin Installation:

- 1 - Place Roll Spacer on Rear pod plate on a flat surface as shown above.
- 2 - Hold M2x6 pin above insertion hole with long nose pliers.
- 3 - Tap pin into hole with hammer until pin passes completely through the roll spacer and touches the surface below the Rear Pod, This insures that the roll pins will be flush with the bottom of the chassis.

2 Rear Pod Installation:



Note: 150mm Wheelbase Shown...

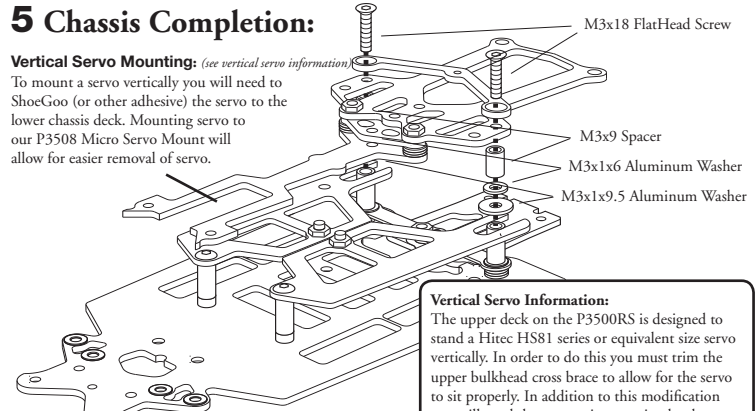
Wheelbase Adjustment:

The P3500RS is capable of 140mm or 150mm wheelbase settings via moving the entire rear pod system to one of the two positions at the rear of the lower chassis.

5 Chassis Completion:

Vertical Servo Mounting: (see vertical servo information)

To mount a servo vertically you will need to ShoeGoo (or other adhesive) the servo to the lower chassis deck. Mounting servo to our P3508 Micro Servo Mount will allow for easier removal of servo.



Note: 150mm Wheelbase / Standard Shock Set-up Shown...

Vertical Servo Information:

The upper deck on the P3500RS is designed to stand a Hitec HS81 series or equivalent size servo vertically. In order to do this you must trim the upper bulkhead cross brace to allow for the servo to sit properly. In addition to this modification you will need the appropriate steering hardware from HPI's Dual Link Kit #72490 or equivalent.

6 Adjustments for VCS Shock:

• 140mm Wheelbase

M3 O-Ring

4-40 Ball Stud (not included)

• 150mm Wheelbase

Ball Stud Placement:

The diagrams to the right show the appropriate placement of the VCS 4-40 ball stud for each wheelbase setting. To adjust the height of the ball stud for optimum clearance use the included M3x1 Aluminum Washers. If more washers are needed they can be purchased separately. (P9045)

Installing a VCS Shock:

The Associated style VCS Shock requires the user to do some modification to the standard Micro for proper installation. In order to install the VCS you will need Associated Ball Studs (4-40) and to modify the rear shock mount by cutting the stock plastic ball from the rear shock mount and drilling a new hole in its place for one of the new ball studs. In addition the Ball Cups on the VCS must be shortened to fit the Micro.

P3500RS Set-up Information:

Basic Principles of Handling -

Understeer aka "Push" - Your vehicle does not want to turn when you wish it to. Stiffer settings on the front or softer settings on the rear can cause this condition.

Oversteer aka "Loose" - Your vehicle wishes to turn too well causing the rear of the vehicle to want to step out inducing a potential spin. Softer settings on the front or stiffer settings on the rear can cause this condition.

Note: any adjustment can potentially cause Oversteer or Understeer depending upon how your tires, the track, and the chassis work together. When correcting a handling issue adjust the vehicle toward the opposite handling characteristic. A well handling or balanced vehicle shows little signs of understeer or oversteer.

For further set-up information please visit:
www.penguinrc.com

Roll Plate Information (12 plates are available):

Graphite (P3507) vs. G10 (P3506) - P3507 standard

Graphite - Allows stiffer spring rates which tend to cause the car to lean toward an oversteer condition. Material is less compliant resulting in a quicker reacting vehicle.

G10 - Allows for softer suspension settings and more subdued reaction due to more compliance in the material.

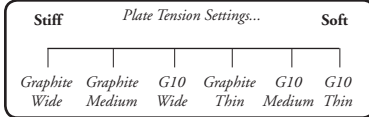
Low Roll (b) vs. High Roll (a) - Low Roll (b) standard

Low Roll - Allows less roll during cornering keeping the chassis flatter. Can cause oversteer characteristics.

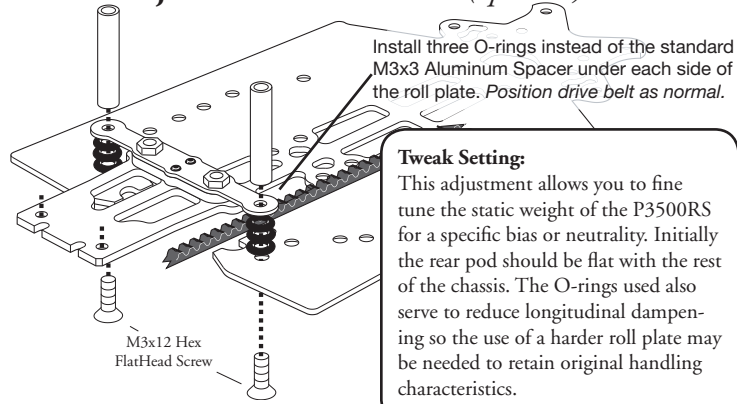
High Roll - Allows chassis to roll more in the corner allowing the car to place more weight upon the tires for greater grip and understeer characteristics. In certain circumstances when using softer plates you can cause oversteer by placing too much weight upon the tires.

Notes on Durability:

The softer roll plates will be more prone to breakage and/or fracturing in an accident due to their design. This is a side effect of the benefits that a soft plate provides.



7 Tweak Adjustment Modification: (optional)



Note: 150mm Wheelbase Shown...