

# OUTSIGHT DESIGNS

## WING BODY/CAR TERMS

### **LOW DOWNFORCE BODIES.....**

These bodies usually have very low rear height tails. This allows for greater straight away speeds while providing less bite or traction in the turns. You may find that by using a lower downforce body with a thicker rear spoiler, you may achieve good straight line speeds while providing more bite in the turns. These type bodies work very well on High Speed Hi Banked tracks with heavy glue.

### **MEDIUM DOWNFORCE BODIES.....**

These bodies have a higher rear tail height when compared to the Low Downforce bodies. These bodies are usually very well balanced and provide both fast straightaway speeds and good bite/traction in the turns. With these bodies you will want to use either a .005" or .007" rear spoiler. Medium downforce bodies work very well on most tracks in both spray glue and heavy glue conditions.

### **HIGH DOWNFORCE BODIES.....**

These bodies have a very high rear tail and a big "dip" in the center of the body to provide lots of bite/traction. These bodies will be slower in a straight line, but have very fast cornering speeds. .005" rear spoilers work the best on these types of bodies. High Downforce bodies work the best on tracks that lightly glued or no glue conditions.

### **FRONT FENDERS.....**

All bodies have front fenders. The front fenders are very important and help to balance the car and provide nose pressure. Bodies with low or no fenders tend to work better on higher speed tracks where you can keep the car rolling while the air keeps the front end of the car planted in the slot. Bodies with low or no fenders have a tendency to "pop or tilt" out of the turns in heavy glue conditions and/or flat low speed turns where there is not enough speed and air to keep the front end in the slot. A body with low front fenders will allow more air to flow to the rear of the body/car for more bite/traction. High front fenders work very well on the flatter low speed turns and in very heavy glue conditions. High front fenders also work very well in spray glue as they reduce front end popping and tilting in the turns due to the lower cornering speeds.

## **REAR SPOILERS.....**

These are add on pieces of Mylar attached to the rear of the body usually by using double stick tape. There are usually made in the following thicknesses- .005", .007" and .010". The thinner spoiler the more straightaway speed and less bite/traction. The opposite result with a thicker spoiler. The bends in the rear spoiler are very important as well and some experimenting on the track you are racing on will decide on the thickness, bend angle and spoiler height. The higher/taller the spoiler is, the more drag it creates. The trick is to find the right thickness spoiler, combined with the right height and bends to get good straightaway speeds and good bite in the turns. If your car chatters in the turns, you will find your body to have too much bite and a thinner/shorter spoiler will help this problem. You may also want to try bending the spoiler forward for more bite or backwards for less bite.

## **SIDE DAMS.....**

These are add on pieces of Mylar attached to the sides of the body with double stick tape. This is where the most downforce is generated. There is two thicknesses of side dams, .004" and .005". The thinner .004" works the best in no glue or spray glue conditions with lower speed cars. The thicker .005" is most popular for high speed tracks and heavy glue conditions. The side dams need to be tape reinforced to prevent the side dams from "opening" too much creating drag and slower straightaway speeds.

## **DIAPLANES.....**

This is the front spoiler you find taped to the front of the body. The diaplane is there for two reasons, one is to act like a front bumper and protect the car in crashes and the second is to provide front downforce. It also helps the air to go over the body/car instead of underneath. You want the diaplane to be as close to the racing surface without rubbing or dragging the track. The length of the diaplane is important too. The longer it is the more downforce on the front end of the body/car. The shorter the length the more rear bite. The trick is to start with a length of .500"/1/2" and cut the spoiler length in small amounts to where the car feels the best. This is a great tuning trick.

## **BODY LENGTH/HEIGHT.....**

The longer the body, the more downforce and drag it will create. This will also make the car very easy to drive. The shorter the body length, the faster the body will be, but with less bite and more skill to tune. The lower the rear of the body is the less drag and more speed it will create while having less bite in the turns. The higher the rear of the body is you will find slower speeds with more bite. You can also tune the body by cutting the length off either the front or the rear. Cutting the body across the front will give you more bite and less front downforce. If you want more front downforce and less bite, cut across the rear of the body.

## **BODY POSITION.....**

If your car is very loose ( sliding in the turns or spinning out ) move the body towards the rear of the of the car. The further the body is back on the car the more bite it will provide. If your car is tipping out or popping in the turns, you can move the body forward on the chassis to reduce the bite. This also works in combination with the body length.