

Swift R/C Racing Products tm

Thank you for purchasing our R/C Product.
It was proudly designed and manufactured in the USA.

If you should have any questions, need set-up information, or wish to give us feedback, please call us at 707-206-0583 or e-mail us at Info@swiftracingproducts.com.

By building and/or racing this product the user agrees not to hold Nor-Cal R/C Concepts, the seller, or their employees liable for any damages or injuries caused by the use or misuse of this product. The names Team Associated, Factory Team, L3, and L4 all belong to Associated Electronics and are only used here as a description of parts.

2005 Maverick OPC H.E.

The all new for 2005 Maverick OPC H.E. (Hayes Edition) is our finest offering to date. Co-designed by Brad Hayes (ADX founder) and Jake Rosen (JPH and Maverick founder), the '05 Maverick H.E. gives racers a highly tunable hi-performance conversion chassis for the Team Associated L3, Factory Team L3, and L4.

Our products are designed with the serious R/C Oval Racer in mind and these basic instructions are written assuming the builder has oval racing experience. "Knowledge is Power", as the saying goes, and having experience setting up an oval car is very important. Oval racing is won in the turns, not in the straights. Now that is not to say that if you're a beginner you should not have bought this chassis! It is just a reminder that it's the Racer who ultimately makes the car fast. Building and setting up an oval chassis correctly for your track and your driving style are two key parts of what it takes to win. (Refer to the Associated instruction manual when assembling the front end, shocks, t-plate, etc.)

Remember, this is an R/C racecar, which means that parts will occasionally break or bend under hard impacts. While we design our parts to be tough, we must also design them to be light. This helps the chassis be competitive. Please understand that crashes will eventually take their toll on all parts.

If you have any questions, please call or e-mail us. We are here to help you and we want to insure that you get the best opportunity to win with your new chassis! 707-206-0583 Info@swiftracingproducts.com

Chassis Prep:

Please take the time to sand and glue the edges of all the carbon fiber (graphite) parts. Round the outside edges and glue them with thin CA. This will strengthen the carbon fiber, helping it hold up to the normal stresses of oval racing. Although gluing the chassis cut outs is optional, it is a good idea to apply a light coat of CA to the slotted front end holes.

WARNING! Carbon fiber (graphite) dust is extremely harmful to your lungs. Please use common sense when working with carbon fiber. Wear safety glasses, a dust mask, and work outside or in a well-ventilated area. While using an electric grinding tool, use a vacuum cleaner with a hose attachment to draw away the dust. When using sand paper, sand all carbon fiber parts under running water.

Assembly and Tuning Tips:

Hardware

Use steel screws (included) for the front bumper, side shock mounts, pod, battery tray, nerf wing, and any other components. Use only steel ball studs in the side shock mounts. Aluminum ball studs can be used for the upper pod plate. Aluminum screws are not recommended in most areas on this chassis. Use aluminum screws at your own risk.

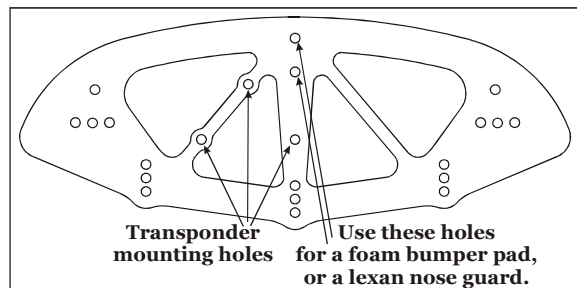
Front Bumper

The front bumper has multiple holes to mount the body posts and will fit most makes and models of 1/10 scale oval bodies. When faced with a choice, choose the widest mounting holes that properly fit the nose of the body.



There are three holes to mount the bumper to the chassis, so that it can be moved forward or back when running different wheelbases. Plus, you have the option of mounting the body with the nose further out or in a more standard location.

The front bumper also has holes to mount a personal transponder and the optional transponder mount can be used for house transponders.



Tuning Tips

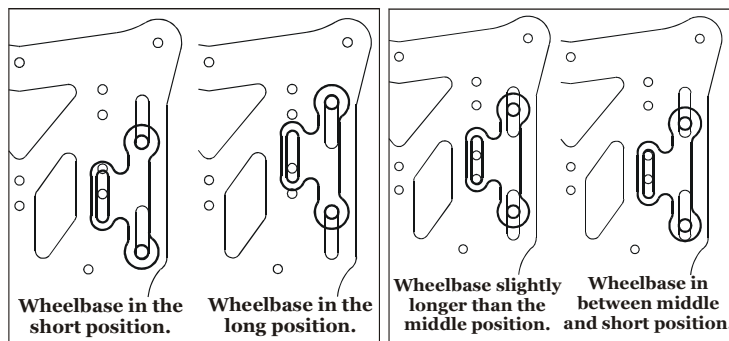
Generally if you mount the body forward there will be more down force on the front of the chassis, increasing steering, but decreasing chassis stability. Conversely, the chassis will be more stable, but have less steering the further back the body is mounted.

Front End

The '05 Maverick H.E. chassis comes with slotted holes that allow easy front end wheelbase changes. An added feature to this system is that it also allows for leading or trailing one side.

Depending on the type of tracks you run on, (and the amount of “brushing” against the inner and outer walls), you can also use the locking plates included with the '05 Maverick H.E. kit to secure the front end. Simply use them with or without spacers when mounting the front end to the chassis. Then use the 4-40 nuts, bolts and washers to lock them down.

The locking plates are designed slightly different, depending on which way you mount them. They have a .030 difference to make leading and trailing one side easier. Be sure to hold them up against each other to ensure you're installing them the same way to start with.



Check the location of the front end often. Even with the locking plates the front end can shift after an impact.

Tuning Tips

Short Wheelbase:

Shortening the overall wheelbase makes the car more sensitive to steering input, as the amount of weight towards the front increases. Shorter wheelbases are best used on tracks with high traction, very tight turns, and they work well on most carpet tracks. The car will change direction quicker, but it will give less “feel” before spinning out.

Long Wheelbase:

A longer wheelbase is often used on high speed tracks with sweeping turns. A longer wheelbase can be used on high banked tracks as well.

Chassis Balance:

You can change the balance of the chassis, but retain the same overall wheelbase length, by mounting the front end and the rear pod in different locations. Simply shorten the front end and lengthen the rear pod, or lengthen the front end and shorten the rear pod. Either way will change the weight distribution of the chassis and will have different effects on the handling.

Leading and trailing the front suspension:

Run equal spacing for the first few runs at a new track or with a new set-up. Use leading & trailing one side as a “fine tuning” tool.

Leading the right front ahead of the left front usually hooks up the car. However, This adjustment isn't used often.

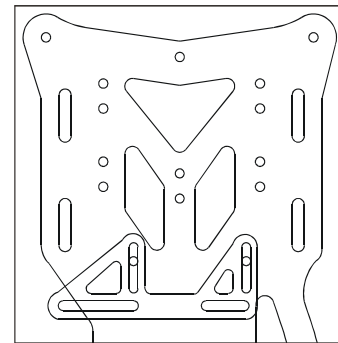
Leading the left front ahead of the right front makes the steering into and through the turn more aggressive. Once again, use this as a fine tuning tool when the chassis is handling well and you're looking to free it up just a little bit more.



Servo Plate

The new servo plate fits most common brands and sizes of servos and it is designed for the main body of the servo to be on the left side of the chassis, increasing left side weight bias. For further tuning options, the new servo plate also allows the servo to be easily adjusted front to back.

To install the servo plate, attach the front arms to the chassis and the tie rods, servo saver, and servo mounts to the servo. Bolt the servo to the servo plate and center the servo on the chassis using the servo saver screw as a reference point. When you are confident that you have found the center of the chassis, bolt the servo plate to the chassis. Double check for proper steering linkage clearance and make sure the angle of the tie-rods is correct.



Tuning Tips

Once the servo is mounted, the servo plate can be reset very easily when changing the wheelbase or changing the amount of tie rod angle. Adjust the servo location as needed to suit your preferences.

Battery Area

With either the receiver or the ESC mounted in the front of the battery tray, or at the rear, make sure there is adequate tire clearance, (front and rear) and that all wires are firmly secured.

When mounting your ESC to the rear of the battery tray, it is best to glue it in place. Servo tape can often fail, when being run so close to the traction compound used on the tires. Using glue will help insure the ESC will stay in place. Use Shoe-Goo, or Zap-a-dap-a Goo, to hold the ESC to the tray.

A trick to help keep your electronics looking new is to put a layer of electrical tape on the bottom and then glue, or sticky tape, it to the chassis or battery tray. This will hold the part in place, but allow for easy clean up when the part is removed.

Tuning Tips

Start with the batteries placed in the same spot you would normally run. Experiment with moving the battery front to rear. This will drastically change how the chassis handles, both into and out of the turns. The battery is a large portion of the overall weight of the car and moving it around will have a big effect on the handling so move it a little bit at a time.

There are a lot of conflicting ideas of when to run the battery forward, and when to run the battery in the rear. Generally, moving the battery back will add traction on loose tracks and moving the battery forward will increase steering on tracks with a lot of traction. Keep in mind these tuning rules sometimes work differently. For example, on some tight, high traction tracks, moving the battery towards the rear will increase steering entering and in the middle of the turn. By having more left rear weight, there is more weight transferred to the right front when entering the turn.

Different front, center, side springs, or oil may be needed when running extreme forward or rearward weight bias. Make your changes one at a time until the set-up works well for you. Do not give up too easily. Experimentation is part of learning how changes affect the overall handling of the chassis. Try different battery pack positions to find what works best for your driving style and track conditions.

T-Plate

One of many tuning options we've added to the '05 Maverick H.E. is being able to mount the t-plate centered on the chassis, or offset. (Not to be confused with standard of offset pod positions.)

To run the t-plate offset, you will need to use the offset hubs, the same wide right hub, that comes in the L4 kit.

Mount the t-plate in the "standard" holes on the pod, the holes furthest to the left.

Mount the T-plate and pod to the left set of holes on the chassis.

Mount the center shock in the left set of holes on the chassis, and the left side hole on the upper pod plate.

The side shocks should be mounted in the left set of holes on the side shock mounts, and the left side holes on the upper pod plate.



Check to make sure everything is smooth and there is no binding of any suspension components. Also make sure there is enough clearance between the pod, battery tray, and the left rear tire.

Tuning Tips

Offset T-Plate:

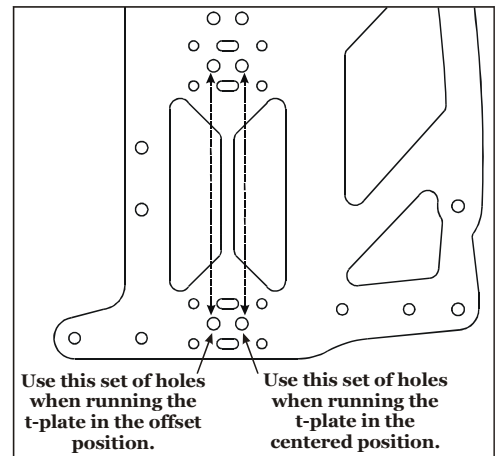
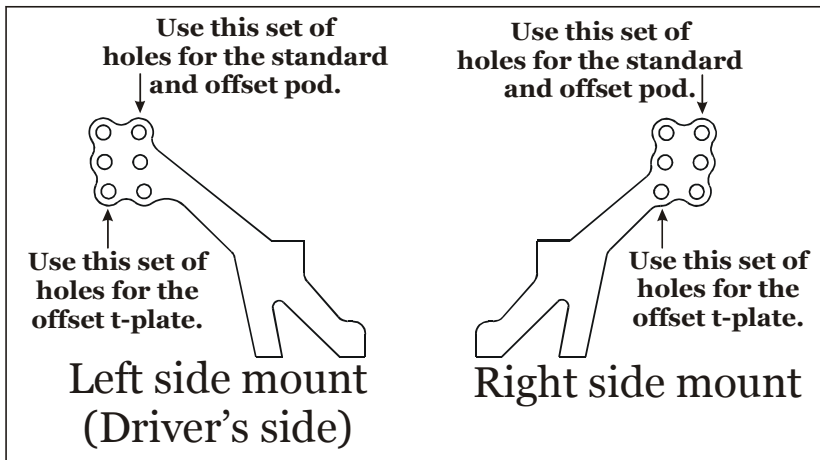
The offset t-plate works very well on flat tracks, either carpet or asphalt. It will increase the left side weight bias and increase forward bite.

Centered T-Plate:

A centered t-plate works best on rough flat tracks, and high banked tracks.

T-Plate Pivot ball Adjustment Holes:

The adjustments for removing pivot ball slop can be made without having to remove the t-plate from the chassis. There are four small holes located around each of the holes that are used when bolting the t-plate to the chassis. Slide a .050 wrench through the holes to adjust and maintain the pivot ball tension. Remember smooth pivot ball action is critical to a well handling chassis.



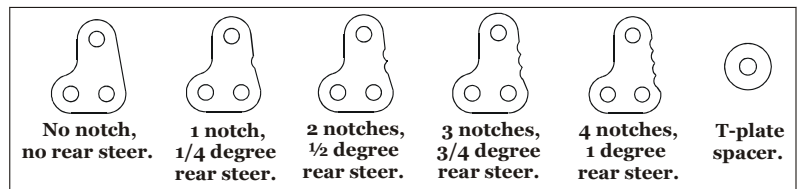
Rear Steer

This year, we've added the "Hayes style" rear steer as a tuning option on the '05 Maverick H.E.. There are 5 different slugs included with the chassis., with varying amounts of rear steer.

The Rear steer slugs are notched on one side, as an indicator of which ones they are:

- No notch is 0 degrees rear steer.
- 1 notch is 1/4 degrees rear steer.
- 2 notches is 1/2 degrees rear steer.
- 3 notches is 3/4 degrees rear steer.
- 4 notches is 1 degree of rear steer.

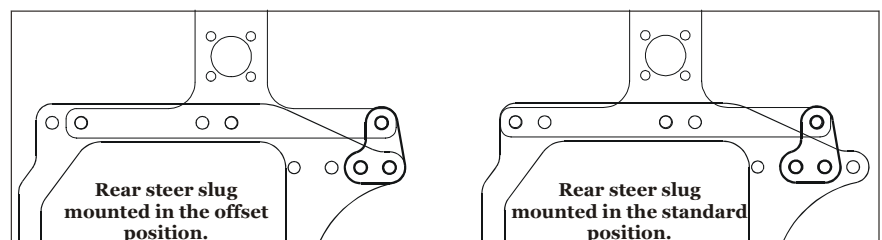
Tuning Tips



Rear steer works best on small to medium size flat tracks. But, it is usually best to start tuning the chassis without any rear steer at all. Get a good base set-up first, and then add rear steer into the set-up. How much depends on how aggressive you like the chassis to feel. Adding rear steer will generally loosen, or free up the car up into and out of the turn. In extremes, however, it will slow straight line speeds slightly.

When running high amounts of rear steer, with the third screw installed in the t-plate, be sure to file the third (middle) screw hole in the t-plate slightly to allow for the geometry change.

Included with the rear steer slugs are carbon



fiber t-plate spacers. Before installing, cut away the excess material.

Pod

With the Maverick pod, a large spur gear can be run in any of the three wheelbase locations.. The rear pod can also be run in standard or offset configurations. (Different hubs and hub spacing must be used for either option. Refer to the Associated instructions for more information.) When running offset pod, the battery tray will not be able to be moved all the way back. Be sure to check for clearance between the battery tray, pod, and the left rear tire, before running the car.

Tuning Tips

Wheelbase:

Most of the Maverick Team use either the middle or long wheelbase on the pod. Both seem to work well on all tracks. Use the long pod set-up on rougher surfaces.

Offset:

The Maverick Pod can be run in either the standard, or offset positions. Opinions vary greatly on when and where to run the pod offset. Experiment with both and find out which feels better and runs faster for you. If you're converting from an L4, Associated only provides hubs to build the pod in the offset position. To run the T-Plate offset, the pod must be run in the offset position.

Notches:

On the bottom pod plate, there are two small notches. They are centerline marks used for tweak adjustments, and for measuring the left and/or right rear track width. Be sure to use whichever notch lines up with the t-plate screws, this will change depending on whether you're running the pod offset or standard.

Wing Mounts:

On the '05, we also added mounting holes on the upper pod plate to attach wing mounts. These are best used for capped tire racing.

Center Shock

Mount the center shock mount to the chassis, one set of holes forward of the t-plate, with steel 4-40 screws and mount the center shock to the center shock mount. Check to make sure there is no binding in center shock and shock mount.

Tuning Tips

Pod Droop:

Once the shock has been mounted to the chassis and the top plate of the pod, make sure there is at least 1/16" to 1/8" of pod droop when the shock is fully extended. Trim or extend the long ball cup to achieve this amount of droop to start with. Decreasing rear pod droop will decrease on throttle traction and increasing rear pod droop will increase on throttle traction. Adjust this to fit your driving style and track conditions.

Long Center Shock:

Use either the Associated or MIP 1.02 or 1.32 shock shafts to lengthen the center shock in addition to long RPM ball cups. If you like using the HPI shocks, there are also long shafts available for them. Using a longer center shock will change the weight transfer on acceleration and deceleration, entering and exiting the turns.

Short Center Shock Springs:

When running short center shock springs, use Associated shock shaft spacers (part # 6466) on the shock shaft before putting on the long RPM ball cup. This will move the bottom spring retainer back towards the shock body, allowing the shorter springs to be used.

Side Shocks

Use the long Associated ball cups (included) to build the side shocks. Be sure to double check that the shocks are equal to each other in overall length. When mounted, check that the shock that is compressing collapses fully before the shock that is extending, extends fully. This will keep Associated Micro VCS shocks from blowing out during crashes.

Use only steel ballstuds in the aluminum side shock mounts.



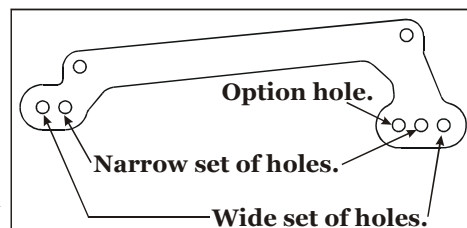
When using Silva Concepts micro shocks, drill out two of the Associated long ball cups to accept the 5-40 threads used on the shock body (the shock cap uses 4-40 thread size). Drilling the ballcup helps it go on straight and doesn't stress the plastic as much. You can also tap the ballcups.

Tuning Tips

One of the biggest changes we made to the '05 Maverick H.E. is the side shock geometry by changing the upper pod plate and the new side shock mounts. Raising or lowering the outside mount height of the side shocks will have different effects on the handling. Having the shocks at more of an angle makes the action stiffer and a flatter angle makes the action softer and, often times, smoother. Experiment until you get the desired handling from the car.

Rear Body Post Mounts

There are multiple holes on the cross brace to fit most brands of 1/10 oval bodies. The reason there are three holes for mounting the right rear body post is because the ProtoForm high down force Chevrolet Monte Carlo is a skewed body (meaning it is not symmetrical left to right). One of the tricks for making it handle correctly is to mount the body as far left as you can, without the right side wheels hitting the body. The third hole allows you to mount the right rear post in the left hole and miss the roof rails molded into the body.



Set-Up Sheets

Included with our conversion kits are blank set-up sheets. Please make copies before filling them out. These are the most extensive and thorough set-up sheets in the oval industry. But you don't have to fill out every single blank spot, be as thorough as you need to be. Keep in mind that taking good notes will make you faster in the long run. If you keep thorough notes and records about each track you race at, you won't have to rely on your memory for the facts. You will be able to go back and see exactly what you ran. There's no need to guess what you did last time, it's right there in black and white. Remember, "Knowledge is Power"!

Final Notes

The '05 Maverick OPC H.E. Oval chassis is a very tunable oval platform. Start with the same shock, shock spring, oil, and front springs you've been running. Make small changes until you've reached your ideal set-up. Most of the time, the chassis will be fast right away. A good set-up will often be reached with little effort, but there are other times when this is not the case. If the car turns wicked after installing the chassis conversion kit, please take the time to check everything. Shocks binding, sticky ball cups, sticky kingpins, over tightened t-plate pivot balls, loose screws that attach the pod to the t-plate, chassis dragging, body dragging, wheels hitting the body, and many other negative factors can all drastically effect how a car handles. Check everything!

Please visit our new website, www.swiftracingproducts.com, for more information on all of our R/C products. You will also find detailed set-ups, pictures, articles, Team Tips, and much more.

~Good Luck, and have FUN, with your R/C racing~

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