Selecting chassis components is something that should not be taken lightly. It's just as important as choosing the right camshaft or gear ratio. Making the right chassis setup decision wins races. Making the wrong one leaves you with a car that doesn't perform as expected and usually ends up wasting a lot of your hard earned money. Before purchasing a single chassis component, you must first make some very important decisions concerning your car and the level of competition you plan to achieve. First, determine what you want out of your car. Are you looking for better performance from your street machine; do you want a dedicated race car that will never see the street; or do you want a performance street machine that can do occasional track time? If you are going racing, become familiar with all rules and guidelines established by your sanctioning body. Determine the horsepower level you want the engine to make. Decide if you want to use bolt-on or weld-in components. Once you have addressed all of these important issues, you will be in a better position to choose the chassis components that are correct for your car.

To help both the beginner and seasoned racer select chassis equipment, we've grouped cars in four stages beginning with street performance and mild bracket cars, and ending up with "Outlaw" Pro Street and Pro Modified type race cars. In our Blueprint for Performance, we've built each of the four stages around the three most important factors concerning component selection:

1) Intended Use
2) Horsepower Level
3) Installation Complexity

Following along stage by stage will help you select equipment that best suits your performance requirements...
Street Performance & Mild Bracket Cars

Our first stage is our entry level stage intended for those looking to get more performance from their street machine that may see some track time occasionally as a mild bracket racer. In this stage, horsepower levels are stock or slightly modified. All of the equipment can be easily installed with simple hand tools. No welding is required. All of the bolt-on equipment included in Stage One is intended to strengthen the chassis, suspension, body and drivetrain. By making the car more rigid, power is transferred directly to the wheels for improved traction.

To control wheel hop on older cars with leaf or coil springs, Competition Engineering offers **Bolt-On Traction Bars**. These bars limit rear housing rotation, thereby eliminating wheel hop and improving rear wheel traction. As a step up from the traditional Traction Bar, we now offer the **Slide-A-Link™** traction device. This revolutionary, patented bolt-on piece provides you with the ultimate bolt-on traction system for leaf spring cars.

For better handling and improved traction in rear coil spring equipped street cars, we offer **Tubular Rear Control Arms**. These rugged control arms are direct replacements for flimsy stock units, and serve to strengthen the suspension for quick launches and stable cornering.

The Mustang and GM A&G Body versions have three adjustment settings to suit changing track conditions. Additional components for this stage include Competition Engineering's **Solid Aluminum Body Mounts** that help eliminate chassis twist, and **Solid Motor Mounts** and **Transmission Mounts** to keep the engine from wasting torque by twisting in the chassis. For uni-body cars, **Bolt-On Subframe Connectors** create a rigid structure for direct transmission of power.
Borderline Street Legal & Bracket Racing Cars

As horsepower levels start to increase, so does the need for stronger traction control. The components that make up Stage Two, along with the other stages that follow, will require skills in both welding and fabrication. Installation of this equipment will also cause street driveability to be affected. Stage Two cars may need to be trailered to the track.

An **8-point Roll Bar** and **Bolt-On Driveshaft Loop** should be among the first components added when deciding to build more horsepower and go faster. A properly installed roll bar not only offers increased protection in the event of a crash, but also adds rigidity to the chassis which results in quicker E.T.’s.

The rear suspension also needs to be reinforced in order to handle the higher torque loads produced by the engine. The installation of **Weld-In Ladder Bars** and a **Tubular Crossmember** will help control the transfer of power to the rear wheels. If you're retaining leaf springs, you'll also need a **Housing Floater** (see page 396) to keep the springs from working against the Ladder Bars. To provide additional suspension adjustment without going through the trouble of installing a **4-Link**, Competition Engineering offers the **Ladder Link™**. This popular traction device gives you more adjustability over standard Ladder Bars. Its 33-½" length is ideal for most applications.

More power also requires larger rear tires. To fit larger rear tires into a passenger car body, you'll need to enlarge the wheel housings and move the rear springs inboard. This can be accomplished by installing a set of our **Rear Fenderwells**, available in either steel or aluminum, and using our **Offset Spring Hangers** (see page 422) to relocate the leaf springs. You'll also need **Weld-In Subframe Connectors** to tie the front and rear subframes together in a uni-body car. For maximum strength on uni-body vehicles, our **Formed Rear Frame Rail Kits** provide a solid base for mounting a variety of traction components.

Additional components that make Stage Two complete include computer-designed **Trick Front Springs** for maximum front end lift and weight transfer, **Rear Drag Springs** that provide full suspension travel to take advantage of that weight transfer; **3-Way Adjustable Drag Shocks** to control suspension movement, and **Front End Travel Limiters** to prevent the front end from rising too high.
Pro-Street & Sportsman Class Cars

Stage Three includes all-out race cars that require fabrication skills to complete. Higher horsepower and larger tires also require that a dedicated racing suspension be installed. Installation of components included in this stage mandates that the car be "back-halved" to accept a fabricated rear frame and 4-Link rear suspension. The backbone of this stage is the 2" x 3" mandrel bent Rear Frame Rails and the 2" x 3" Dropped Crossmember.

This will give you a sturdy base in which to install our 4-Link Kit and Coil-Over Shock Mounts. In addition to this setup, an Axle Locating Device is required to keep the rear housing centered in the chassis. The installation of a 10-Point Roll Cage is mandatory to support the new back half, as well as to help protect the driver at increased speeds.
STAGE FOUR

Pro-Street & Pro-Modified Type Race Cars
We have designed this final stage for the professional racer. Hard core components for Stage Four include our 12-Point Roll Cage for maximum protection and chassis rigidity and our Magnum Series 4-Link to handle brute force horsepower levels. Our Wishbone Rear Axle Locator improves chassis stability. To locate the engine in tubular chassis cars, Aluminum Motor Plates and Steel Mid-Mount Plates are computer machined for precise fit and alignment. Fabricated Rear Axle Housings and 43" and 46" Monster Wheel Tubs are designed exclusively for Funny Car size slicks. To keep everything on a level attitude we strongly suggest our Universal 60" Wheel-E-Bars™ or 80" Single Wheel-E-Bar™. Additional components include Fabricated 9" Ford Housing, Steering Column Kit and Rack and Pinion Steering Units for the front end.