

# Thank you for your order!

Enjoy your *Scale Auto* Direct-Downloadable Article.

Please remember that this copyrighted material is for your use only. It's unlawful to share or distribute this file to others in any way including e-mailing it, posting it online, or sharing paper copies with others.

Sincerely,

The staff of *Scale Auto*

## Troubleshooting Guide:

**Please note:** Packages are color intensive. To save color ink in your printer, change your printer setting to grayscale.

### SAVING PACKAGE

Save the package when you download the PDF. Click on the computer disk icon in Adobe Acrobat, or go to File, Save.

### MY PRINTER WON'T PRINT THE TEXT CORRECTLY

Close all other programs/applications and print directly out of the Acrobat Reader program, not your Web browser. Printing problems are caused by not enough free system memory.

### PAGES ARE NOT PRINTING FULL SIZE

Set your printer to print 100% and make sure "print to fit" is not checked under printer setup or printer options.

If you have suggestions on how we can improve this product or have topics you'd like to see in future Information Station packages, please contact us at [infostation@trains.com](mailto:infostation@trains.com)

## Kemp Collection: Buildups





# Haulin' HEMI

Building Ted Musgrave's Craftsman Series Dodge truck

by CLAY KEMP

**L**IKE MANY modelers, I struggle to finish everything I start. Usually the goal I set is to complete a project in time for a contest; it always gives me motivation and incentive.

I made plans last summer to attend the NNL Southern Nationals, held in Atlanta in the fall. I knew I wanted to build something really special and detail it to the maximum of my ability.

I hadn't built a superdetailed NASCAR model in a few years, so I racked my brain trying to come up with something unique, and decided to build a Craftsman truck. My theory was that it was still a modern stock car underneath,

but it's visually different enough on the outside to stand out. When I saw photos of Ted Musgrave's truck from Daytona, I knew I had the subject I wanted.

Then I began ordering parts, securing the kits, and drawing the artwork for the decals. By the middle of July, I had everything I needed to get started; with the contest coming up in November, I had to work fast. One of my best friends was building a superdetailed stock car at the same time, so we were able to share ideas and push each other to make the deadline. The truck was finished with a couple of days to spare, and I made the trip to Atlanta NNL.

Not only did the model make the top ten, it was voted Best in Show! I had no idea it would be so well received; it was a day I'll always remember.

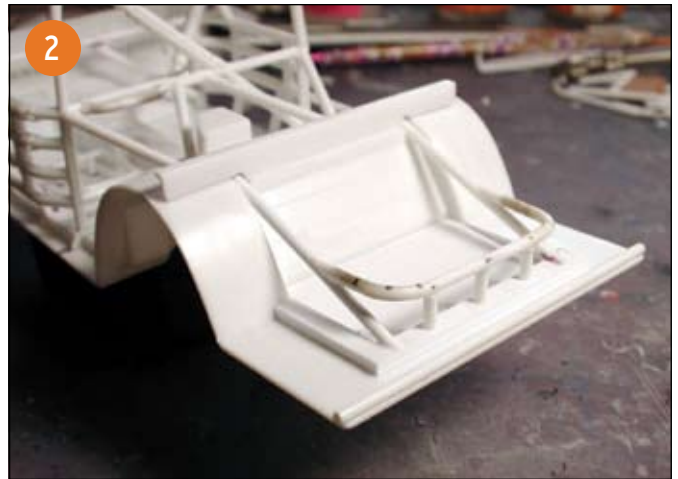
I learned along the way just how far the aftermarket industry has come in the quality of available parts: how simple some of the things were that I had been afraid to tackle before; and how much fun it was to be building alongside my buddy the whole time.

Here are some highlights of my truck buildup. I enjoyed it so much that I'm already working on topping it at the 2005 NNL Southern Nationals! ■

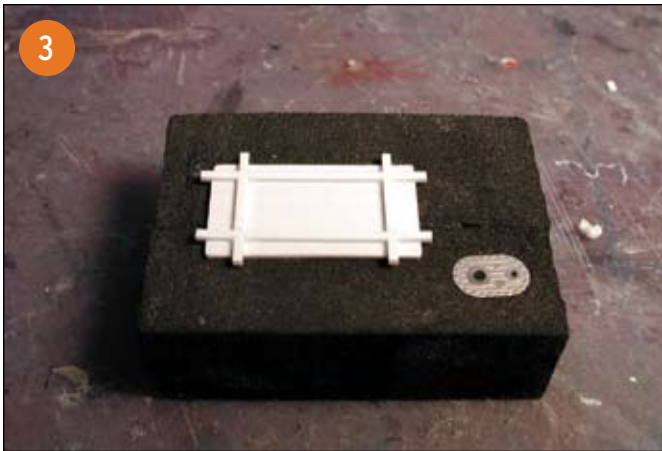




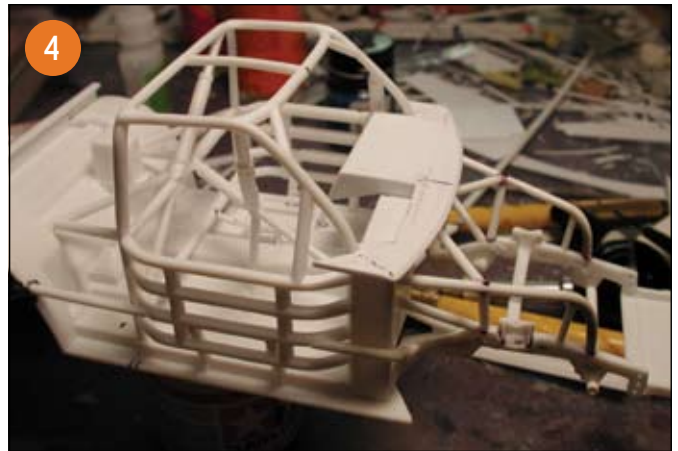
**1** I began modifications using the R-M Dodge kit chassis. All of the front bars were removed and replaced with a newer design, and all firewall holes were filled in and sanded smooth.



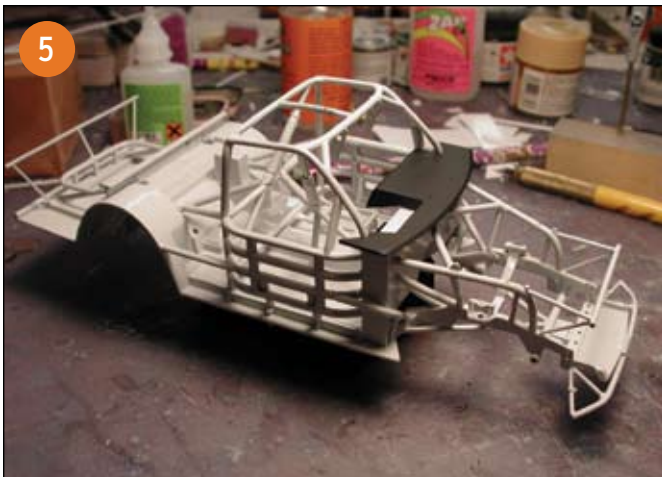
**2** Because the bed would be open, I wanted to detail the trunk area. I used rectangular plastic strip for the rear part of the frame that boxes in the fuel cell, and finished the trunk by adding the down bars, rear firewall, and bumper.



**3** Instead of spending a lot of time reworking the kit's fuel-cell plate, I opted to remake it. The new fuel-cell top was made with .040" sheet styrene and some styrene strip. The photoetched fuel-filler plate is from Model Car Garage.



**4** Most of the center section of the kit chassis was left stock, but I did add a few bars that were missing, and then started scratchbuilding a new dash.



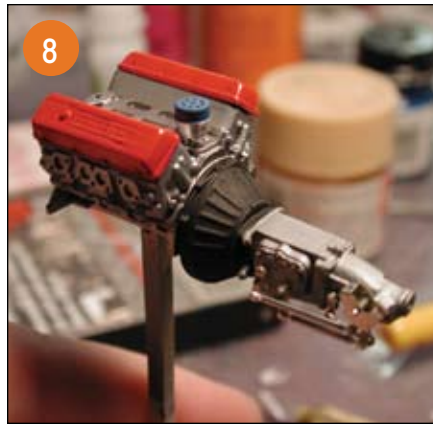
**5** I painted the chassis light gray, then clearcoated it with two-part urethane clear for durability during the rest of construction, and for its amazing shine. The dash was painted flat black and test-fitted before detailing and installation.



**6** Because this was going to be a "wheels off" contest-style build, the hubs and rotors would really be noticed. I used Model Car Garage drilled rotors, aftermarket cast-resin hubs, and found the lug studs in the model-railroad section of my local hobby shop.



**7** Model Car Garage makes a beautiful cast-resin transmission to replace the one from the kit. I added a set of RB Motion rod end linkages. This is one of the smallest and most-difficult parts on the truck, but I was happy with the way it turned out.



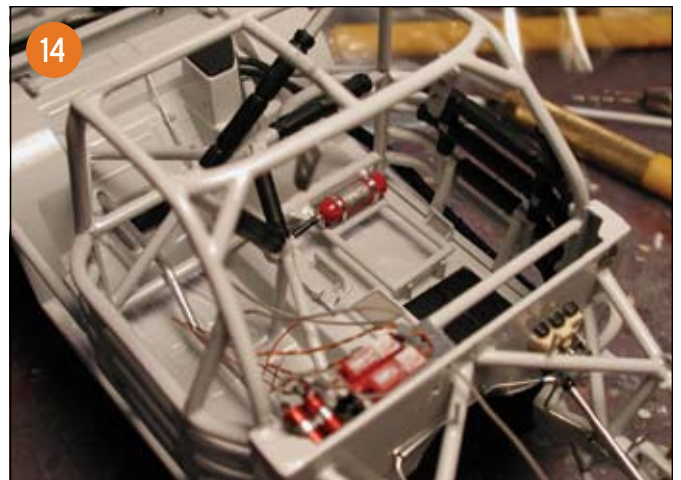
**8** I decided to go all out and replace the kit engine with a Ross Gibson Dodge stock car engine. I cleaned up and assembled all of the resin parts and painted the block, heads, and bell housing with various shades of Alclad. The valve covers are Tamiya Italian Red.



**9** The majority of the oil lines were made with Detail Master no. 3 braided line and fittings, but some were done in the more-modern style with black hoses. For these I used the Detail Master fittings along with Modelers of Japan black mesh hose.



**13** I added a switch box made from square styrene, and a new switch plate and long billet switches that were actually plug-wire looms. The gauges are a Slix decal cluster, with bezels made from aluminum tubing filled with clear glue to simulate lenses.



**14** These trucks have narrow dashes, so I didn't have much room for the electronics, but I installed two MSD boxes, two coils, and wired it all together. I also added the fire extinguisher, fuel line, brake lines, and other things that would be out of reach after the seat was installed.



**17** The interior was wrapped up with the seat installed with belts, koolbox with duct hoses, and the completed dashboard. The duct hoses were made by wrapping wire around a brass rod and covering it with Bare-Metal foil.

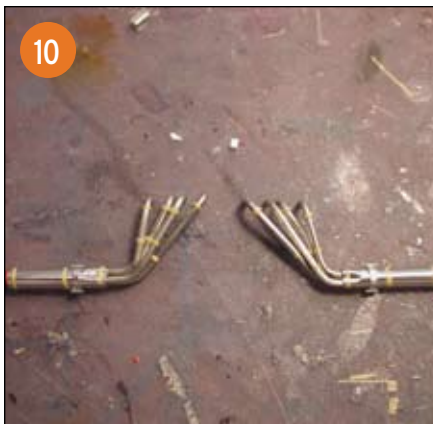


**18** I planned to update the 2000 body to a 2004, so the kit body needed some heavy modifications. I drilled out the fuel filler and replaced it with brass tubing.



**19** To pull off the body conversion, I had to make sure that the front end looked "right-on." I made a set of front-fender lips from brass sheet and began blending them into the body with epoxy putty.





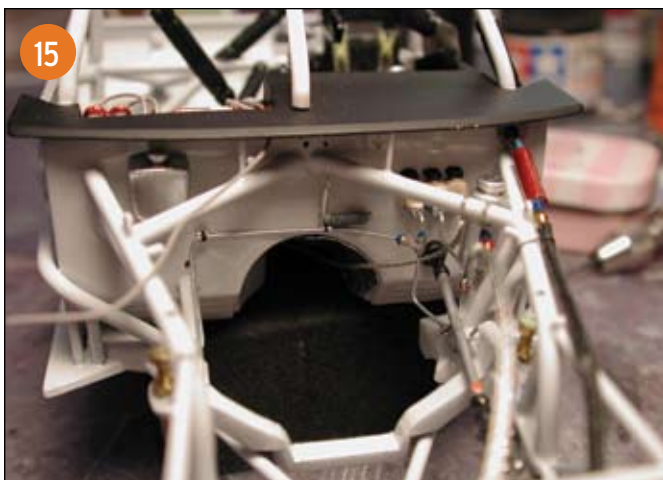
The header pipes were bent from solder, using the head for a guide. The collectors are soft embossing metal pressed into the edges of each pipe. Small pieces of fitting line simulate the pinch bolts that hold everything together.



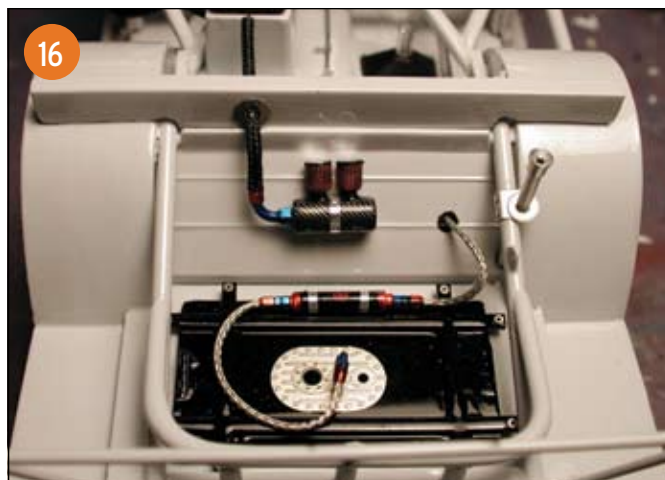
The headers were painted using Alclad clear amber, clear red, and steel to give them a heat-stained effect. The headers were added to the engine and it was ready to be installed into the chassis.



I really wanted to add one of the new-generation seats that are the norm in NASCAR, so I robbed one from a Revell-Monogram Monte Carlo kit and added a new set of leg extensions, a control box for the koolbox, and a mount for the fire extinguisher handle.



Things were also finished up in the engine bay before the engine was installed. Power steering tank and lines, break lines, wedge bolts, and oil lines were added while there was room.



Back in the trunk, I added the completed fuel-cell top, fuel lines with aluminum-tubing filter, and some photoetched hardware. I scratch-built an oil overflow tank, covered it with carbon-fiber decal film, and clearcoated it. The breathers are from an old Monogram sprint-car kit.



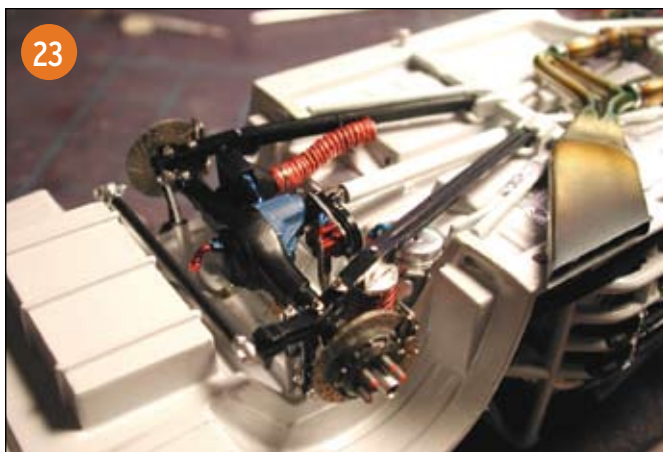
As the nose conversion progressed, I placed the new body (right) next to the original kit. Even in the early stages, it's clear that the new Dodge noses are much lower and sleeker.



I began modifying the hood, grille, and upper fender areas, and opened the roof flap. The nose was primed again to check for flaws, and I was finally ready to move on to other areas of the body.



I installed the engine and added the radiator, oil lines, water lines and other small details. After the engine was installed, I added the front suspension and the hubs and rotors built up earlier, completing the front end.



23

I replaced the kit's incorrect quick-change rear end with the proper nine-inch Ford unit from an AMT/Ertl stock car kit. The truck arms were separated from the chassis, and have turned-aluminum spring perches and RB Motion rod ends on the panhard bar.



24

The kit's tailpipe was replaced with a left-side-exit-only setup. The collector pipes are solder, the two-to-one collector was made from embossing metal, and the dump pipe was bent from .10" photoetch metal. The unit was heat-stained with Alclad.



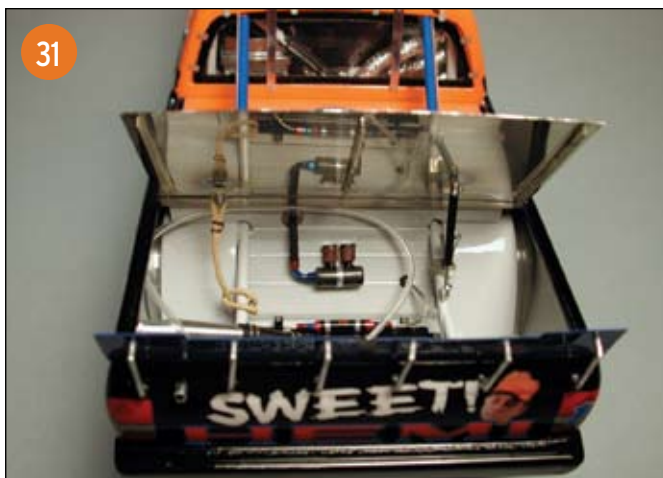
27

The body was primed in white, painted semigloss orange, and topped with a clearcoat base for the decals the grab onto. No decals are available for this truck, so I used Adobe Illustrator to create all the graphics on my computer, then printed them on my Alps printer.



28

I applied the front-fender decals from a Just Want To Build a Model sheet, and then cleared the body with two-part urethane. It worked well to seal the decals, and after it cured I was able to polish the finish glass-smooth.



31

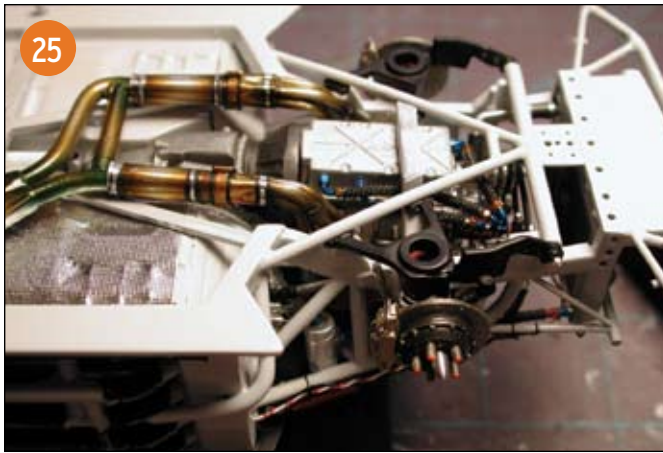
I made a new bed cover from sheet aluminum, to which I added hinges, tether cables, and support braces. The fuel-cell filler tube and overflow were installed, as well as a new rear spoiler with support rods.



32

Getting close to finishing it up: The roof flap is finished, the hood hinges, gas shocks, and new roof antenna are installed, and the entire body got a final coat of wax.





The completed underside up front shows the reworked front suspension, the solder headers, and the new tailpipes. I also added a piece of heat insulation from some cigarette lining paper.



Another view of the final rear suspension, complete with brake lines, coil springs, and plumbing.



After the clear cured and was polished, I began installing body details. A new front grille with grille tape, hood pin plates, window clips, and a new front windshield finished off the front half of the body.



The hood was hinged with RB Motion nuts and bolts, and I also added some vent grilles from an aftermarket photoetch sheet.







# Scratchbuilt SHORT-TRACKER

This USAC Silver Crown racer is a product of research and patience

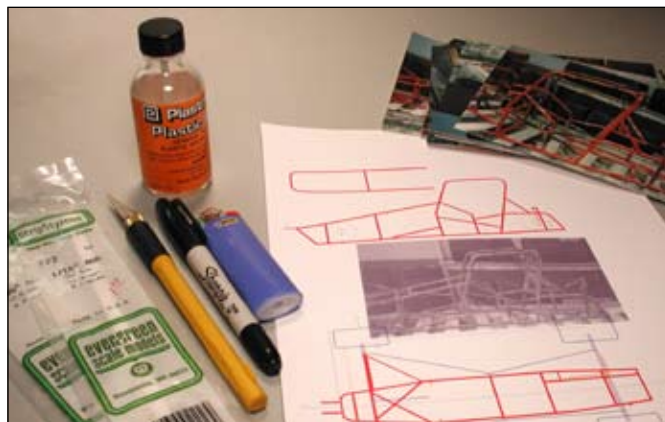
by CLAY KEMP

**S**cratchbuilding is one of the most enjoyable aspects of modeling. To be able to see a subject you want to build, and be able to build it whether or a not a kit is available, can be a very enjoyable experience. This model is a perfect example.

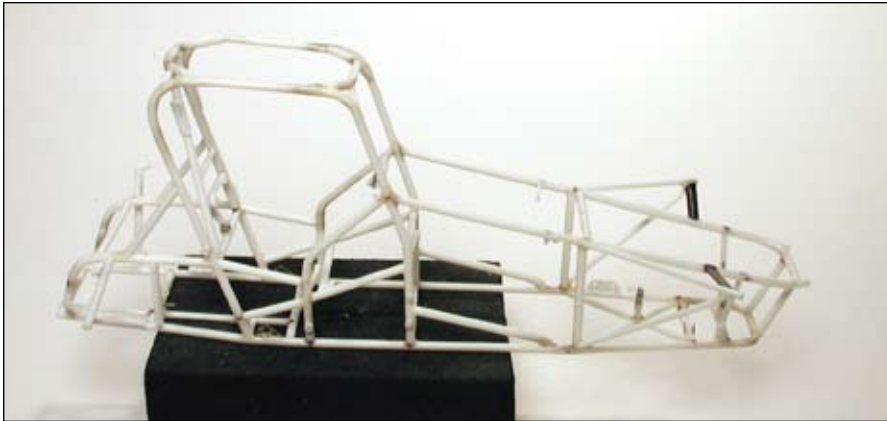
The chances of running down to your local hobby shop and finding a kit of a USAC Silver Crown car on the shelf are pretty slim; finding one as radical as this car can be even slimmer. But if you are willing to take a chance, and realize it can be possible with a little imagination and some basic skills, it will open up a whole new world in your model building.

The first thing to be addressed was the chassis, because everything else would be based on it. The bodywork, suspension, and decals relate directly to the chassis.

I was fortunate enough to find the original 1:1 chassis, and I photographed it for reference. Based on the class rules I found online, and the images I took, I was able to do a scale drawing of the chassis in an illustration program.



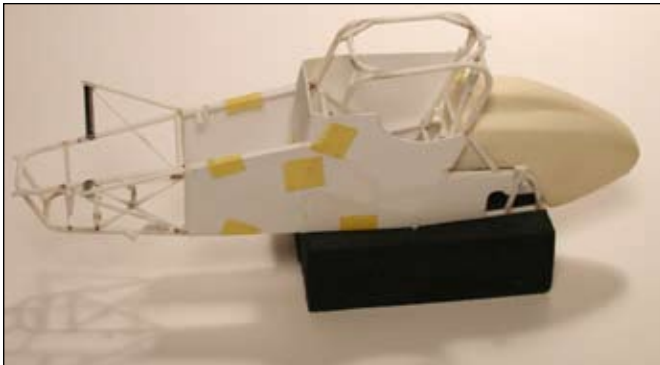
**This is where it all begins! What's required here is lots of reference material, scale drawings, good supplies, and a lot of patience. I used Evergreen styrene rod for almost everything on the basic chassis.**



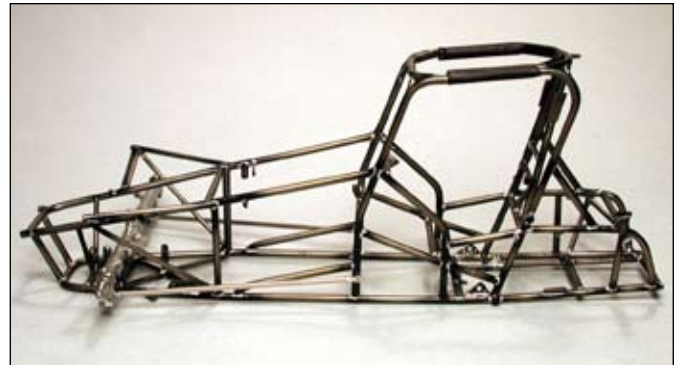
**1** Here's the completed chassis that I fabricated from the scale drawings. The darker areas are caused from the heat of the lighter used to make the bends in the Evergreen rod; I generally use a little heat to make the bars conform to the shape I need. Various tabs and brackets were also added, using sheet styrene or scrap photoetch material.



**2** The 1:1 Drinan chassis used special aircraft elliptical tubing for the front coil-over shock mounts. To duplicate this, I cut up a Tamiya 1/20 scale Formula 1 suspension wishbone to get the proper aerodynamic look. The starter-tube alignment holes were cut from aluminum tubing.



**3** With the chassis complete, I began to concentrate on the bodywork. A true, modern-day Silver Crown fuel tank has never been produced in kit form, so I was on my own. By merging two Monogram sprint car kit fuel tanks, with a lot of massaging, I was able to create a master that I cast in resin. With it fitted to the chassis, I began building the body panels one by one, using Evergreen .015" sheet plastic. After a panel was made and test-fitted, I taped it to the chassis and started the next panel, so that I could make sure the panels would fit to each other and to the chassis.

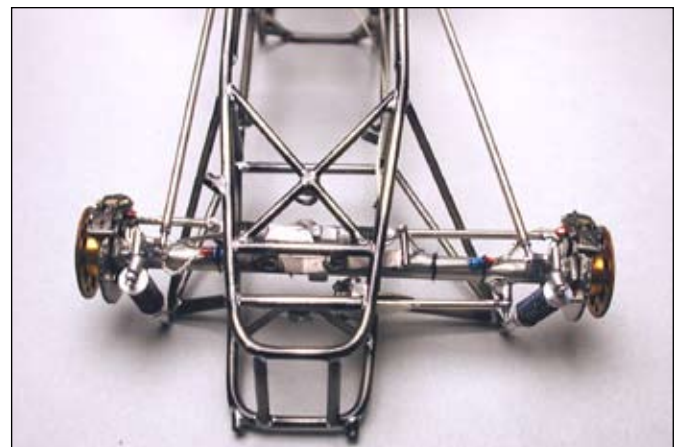


**4** I removed the mocked up panels, and it was time for the fun part: welding up the chassis, or at least simulating it. The 1:1 car ran as a raw, unpainted chassis and as a powder-coated red chassis. I loved the look of the raw steel, so I primed the chassis, gave it two coats of Alclad Steel, then airbrushed a thinned mixture of Tamiya Matte Black and Alclad Clear Amber onto the frame joints to simulate the heat from the welding process. The chassis then got a coat of Testor's Metalizer sealer to seal in all the Alclad work. After a day of drying time, the weld joints were highlighted with an extrafine brush dipped in Chrome Silver enamel.

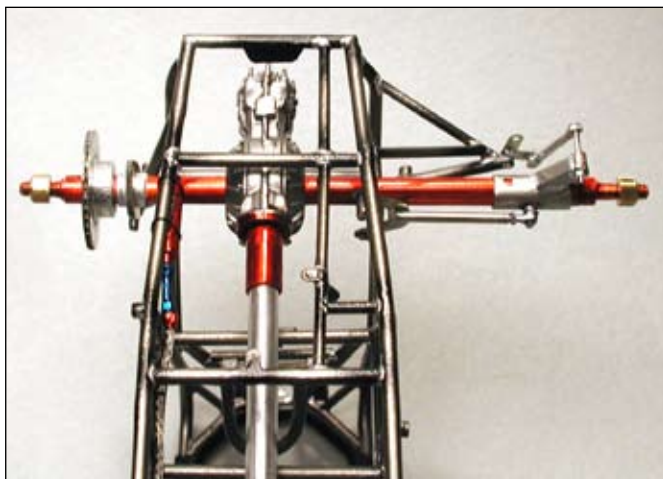
With some careful advance planning, when I sat down to the computer I was able to control the exact dimensions of the chassis, wheelbase, ride height, and track width. Having all this information worked out ahead of time makes a big difference in whether the project will be a success, or end up in the "to finish later" box.

With the basic plans worked out, I printed them off, grabbed my supplies, and got to work. Follow along as this model goes from a paper plan to a fully scratchbuilt model. ■

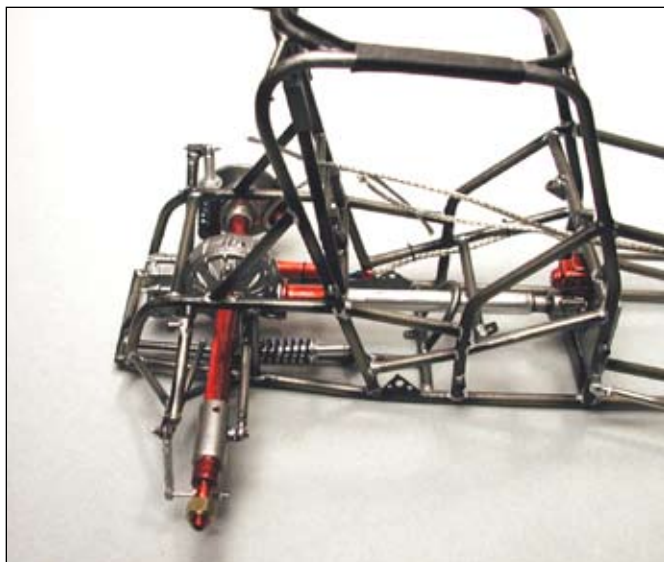
**5** A shot from below shows just how complex the front suspension is. You can also see the aluminum rod ends and stainless steel radius rods from RB Motion. The brake lines were added too, along with resin calipers. The suspension was one of the most difficult aspects of this project, but the difficulty is also what made finally being able to duplicate it so gratifying.







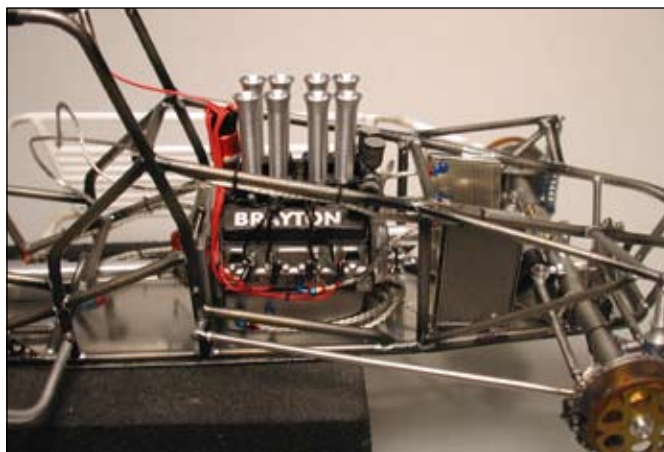
**6** The rear suspension is just as offset and unique as the front. I used the quick-change unit from the Monogram sprint car kit, with a new torque tube and rear axle made from aluminum tubing. These were brush-painted with Tamiya Clear Red to simulate the red-anodized finish. The birdcages are scratchbuilt from aluminum tubing and plastic, then painted with Alclad Aluminum. After installation, a wash of The Detailer black gave them some depth.



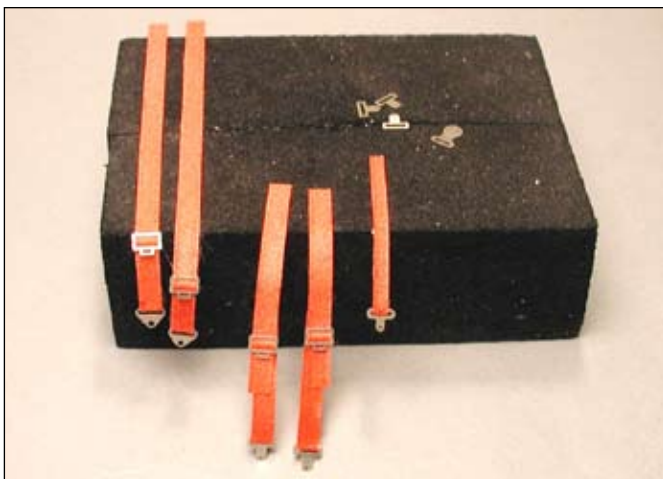
**7** The rear suspension was finally complete with the addition of two more RB Motion coil-over shocks, and the left rear brake rotor and caliper. The fuel lines were also roughed in while there was room to work in the cockpit before I installed the seat.



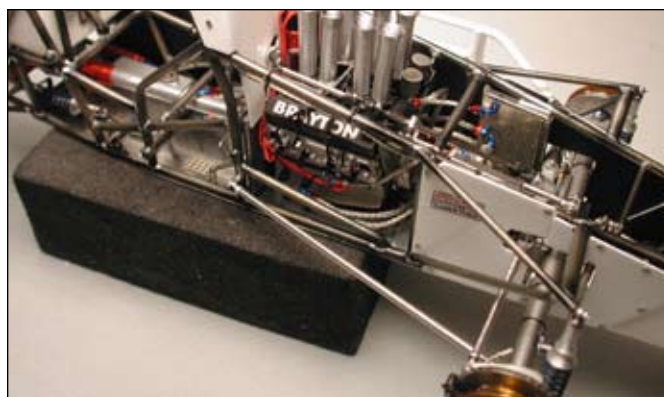
**8** Here you can get a peek just how “mechanical” this car was in real life. With the unpainted frame, and multiple metals used on the suspension components, it was important to be able to show the different finishes. Thankfully I had the Alclad paints, which did a great job duplicating the various metallic finishes.



**9** The basic engine block, heads, and valve covers came from the Revell-Monogram sprint car kit. They were assembled, drilled for various lines and hoses, and painted Alclad Dark Aluminum. The upper and lower fuel-injection lines are Detail Master battery cable, with their No. 1 pipe fittings at all of the connections.



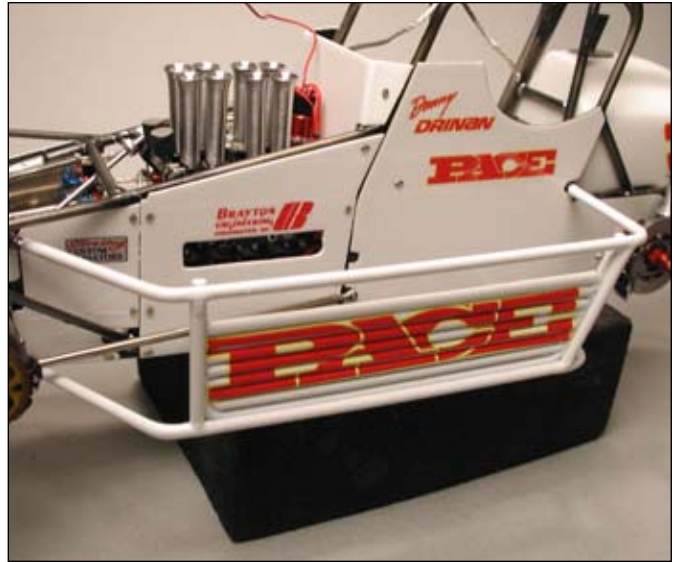
**10** The seat belts are made from several different products. The red belt material is an adhesive-backed strip from Studio 27 in Japan. I used Model Car Garage’s camlock hardware set. The Simpson logos will be applied after the belts are installed, .



**11** Because the 1:1 car used a rack-and-pinion setup, the steering shaft had to work its way through the engine bay, from the front suspension to the cockpit, and get around all the components in its way. The rod ends are from RB Motion.



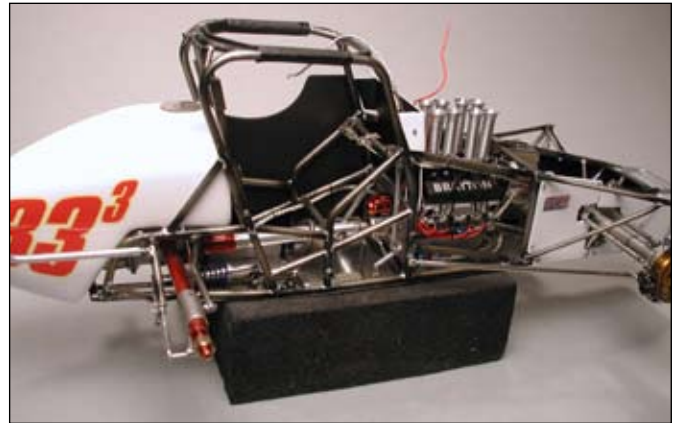
**12** The body panels and fuel tank were primed, painted with Tamiya Pure White spray, and then decaled. After the decals dried, the body panels and the fuel tank were sprayed with two-part automotive clear. I added a scratchbuilt gas pedal, brake pedal, throttle linkages, and the dash and roll-bar padding.



**13** Drinan built up a standard bar with several horizontal pieces of tubing stacked to fill in almost the entire opening. He said it was for advertising space, but USAC said it was for left-side weight, and ordered it removed. I built mine up the same way, using solid styrene rod.



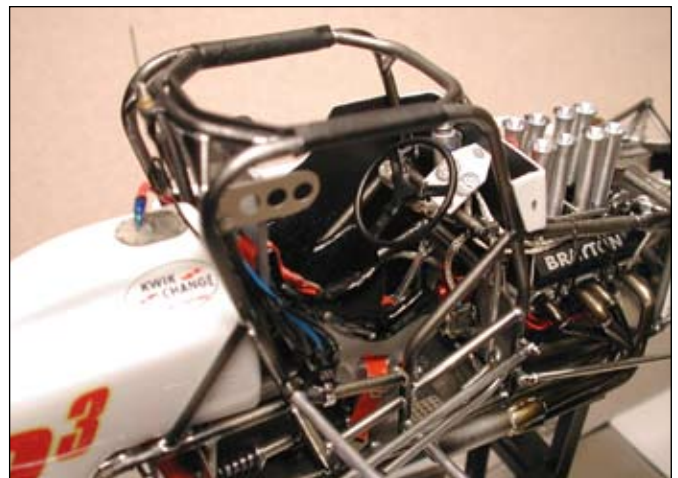
**14** I wanted a certain look for this project. I planned to display the model on a rotating base, so I came up with an idea: I wanted one side of the car with the body panels on, to show the graceful, sweeping lines the car had ...



**15** ... and then, as the car rotated, I wanted to show a fully exposed view of all the intricate parts and pieces.



**16** After a lot of parts-box digging, I came up with a set of wheels and tires. The left-rear tire and two front tires came from a R-M CART kit, and the right-rear tire came from a 1/20 Tamiya F1 kit. All four wheels were robbed from a Monogram sprint car kit, and were stripped, modified, and shot with Alclad chrome.



**17** The cockpit is stuffed with details. The seat was modified from a Revell-Monogram stock-car kit, then primed, painted with Alclad Aluminum, and flocked with Detail Master black. The vinyl sections were duplicated with masking tape painted acrylic semigloss black.





Clay's model is finished with House of Kolor Kandy Green over a silver base. The decals are from Slixx.

# Multimedia Brut Stratus Funny Car

Combine a resin body and a Firebird chassis  
by CLAY KEMP

**T**he 2005 NHRA POWERade Funny Car championship was the closest in the history of the class; going into the final event at Pomona, three drivers had a chance to win the title.

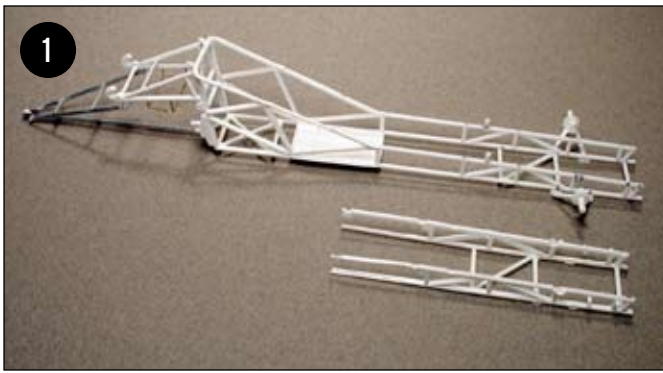
Gary Scelzi won the crown, and teammate Ron Capps' Brut Stratus finished second, just eight points behind.

Exciting days like that get my modeling juices flowing. I found myself wanting to build a replica of one of these amazing machines.

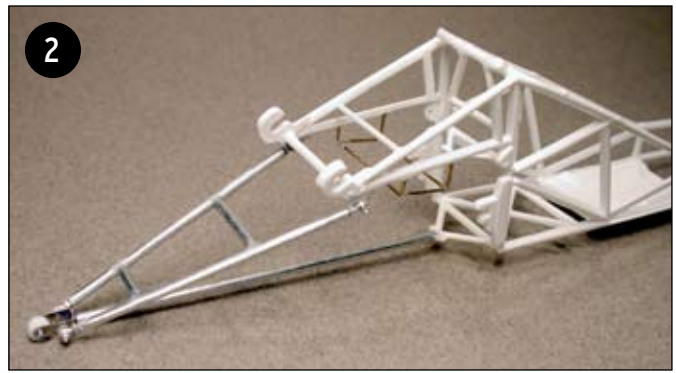
Capps' Stratus was one of the coolest vehicles in the Funny Car class; and when Slixx announced they would produce decals for it, I just had to build the

Brut Stratus. I picked up a few Revell-Monogram kits to use as donors, and the resin parts and decals that I needed were available from Slixx.

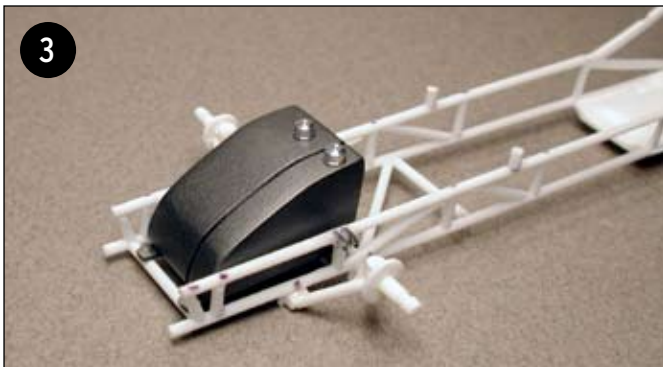
When the parts and supplies arrived, I was more than ready to begin, and I'm happy with the results. Here's how I built the Brut car. ■



The basis of this project was the Revell-Monogram *Mad* magazine Firebird kit. The frame in my kit was warped in two directions. I considered heating it and trying to bend it back, but worried that it might not stay straight, so I cut it right in front of the driver's area, and duplicated the warped portion with 1/16" Evergreen styrene rod.



The kit wheelie bar was duplicated in 1/16" K&S aluminum tubing, held together with gap-filling super glue and mounted to the frame with RB Motion rod ends. The "wheel" at the back was made from a scrap piece of kit sprue that I cut to width, rounded the edges, and mounted to the wheelie bar.



Up front, the kit suspension pieces were stripped of chrome and mounted to the frame. The combination fuel-and-oil tank was a resin item from Slix. I cleaned it up, scribed the separation lines between the two tanks, and shot it with a few coats of Alclad Steel. A pair of Model Car Garage breather caps topped it off.



The valve covers and oil pan were stripped of chrome and painted with Alclad Magnesium. The rear end and blower bag were sprayed with Tamiya Matte Black lacquer. These parts were then set aside until they were needed.



The frames on modern Funny Cars are normally left unpainted. To duplicate this look, I gave the frame a coat of primer, followed by two coats of Alclad Steel. Then I painted a mixture of flat black, Alclad Clear Amber, and thinner where the frame would have been welded. The frame was then sealed with Testor's Metalizer Sealer. I "picked out" the welds with a fine brush and some Testor's Chrome Silver.



I picked up this beautiful resin Dodge Stratus body from Slix. I cleaned it with hot, soapy water to remove all the mold-release residue, and left it to dry. I used the back side of my hobby knife to score the three window openings until they popped free. Most of the major panel and hatch lines were scribed a little deeper, then the body was painted inside and out with primer to see if additional bodywork was needed.

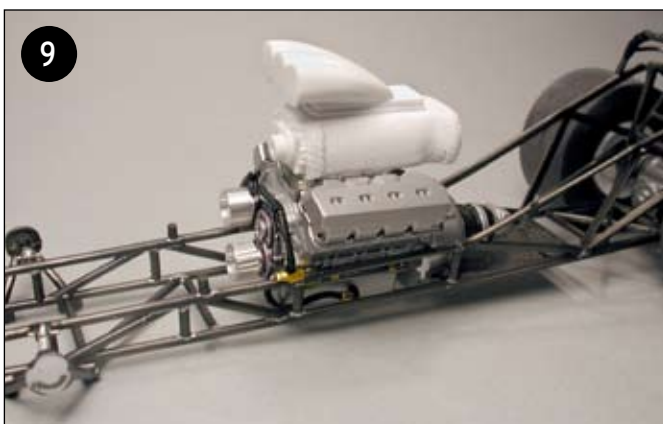




The engine that came in the Funny Car kit was a bit undersized, so I replaced it with one from a current Top Fuel kit. I cut the transmission off the Funny Car engine and used it in place of the one on the Top Fuel engine. The block and heads were assembled along with the rest of the basic engine parts, and were painted with various Alclad metallics.



One of the cooler aspects of a modern Fuel car is the switch to the black woven hoses instead of the old silver braid. I found some black elastic cord at a craft store. It's cheap, soft, flexible, and has just the right sheen to match the 1:1 car. I started assembling some hoses for the various oil and fuel lines using Detail Master fittings and hard lines.



With so many new parts, it was important to do lots of test-fitting. The biggest challenge was getting the engine mounted in the frame in the correct location so the injector hat would line up in the opening of the Dodge body – critical to the look of the finished model.



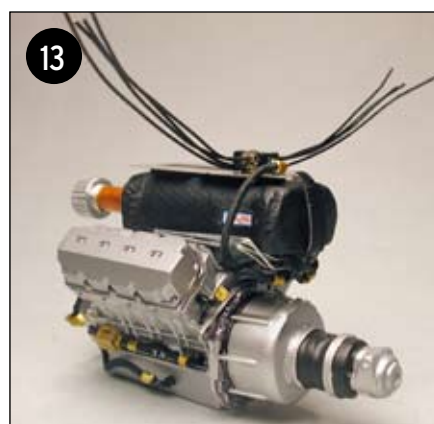
This is where the test-fitting really paid off: you can see the resin blower and resin injector hat in their proper locations. Now they're ready for paint and detailing.



With the placement and prep work complete. I began assembling the engine. The resin blower was painted flat black, and I added the "TAK" safety decal. I also began the process of adding the aluminum pulleys and some of the lower oil lines. The explosion hold-down plate from the Model Car Garage photoetch sheet was also added at this point.



I gave the injector hat a coat of primer to check for flaws. After everything was smoothed out, it was painted with gloss black, then decaled with Scale Motorsports carbon-fiber decals. I gave it one coat of clear to give the fragile decals some protection, and a slight semigloss sheen.



I scratchbuilt upper and lower fuel blocks from square styrene stock. They were drilled for the fuel lines and mounted to the engine. I added the two lower fuel lines to the heads, and connected them with another fuel line. I also added the blower hold-down straps, made from black Studio 27 seatbelt material.



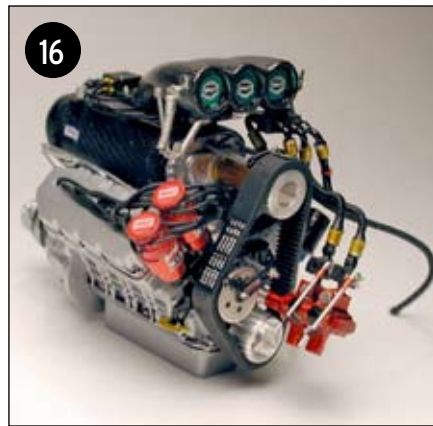
14

Because the blower is mounted so far back on a modern fuel engine, I needed to space out the upper pulley. I used a piece of aluminum tubing to extend it until it aligned with the other two pulleys. Soft craft wire was used for the lower "hard" fuel lines, and Detail Master black wire was used for the upper "soft" lines, with Detail Master pipe fittings at each end.



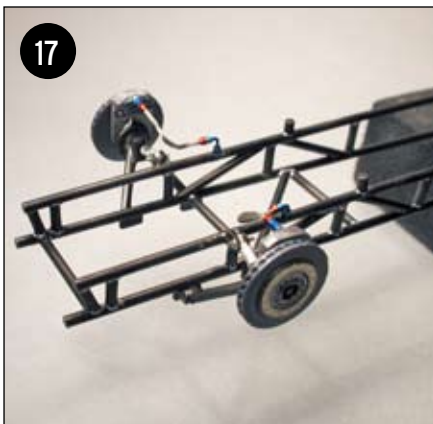
15

I added two Arrowhead Aluminum prewired MSD distributors, painted Tamiya Clear Red and mounted to the front of the engine. Then I routed the 16 plug wires to their proper locations. The completed injector head was added next, and I painted the butterflies metallic green and added BRUT decals.



16

The kit's fuel pump lacked detail, so I scratch-built a new one from square styrene. It was painted clear red and detailed with linkages and limiters. With the new pump mounted in place, I attached the fuel lines from the barrel valve, the blower belt, and a belt decal from a Slixx goodies sheet.



17

The R-M kit didn't include front brakes, so I raided my parts box for a set of carbon rotors from a Tamiya Williams F1 kit. I painted them with several shades of Alclad and gave them a black wash to "dirty" them up a bit. I mounted them to the front suspension and added brake lines using Detail Master #1 braid and fittings.



18

I added the steering box and the fire extinguisher line, which was bent from a piece of Detail Master #1 hard line, and has Sakatsu fittings on each end. The fittings were painted with Tamiya Clear Blue.



19

I replaced the kit's rear slicks with a set of soft, black resin tires from Slixx; the rear wheels are from So-Real. I used the kit's front tires, but Capps' car carried a set of retro-looking Torque Thrust front rims for part of the season, and nothing close was available, so I trimmed a set of Pegasus rims that had the right style, but were too big.



20

After the decals snuggled down and cured, the sidewalls were coated with Testor's flat clear to blend them into the tire.



21

A quick mockup shows that the massive slicks will tuck up under the body, and look just like the 1:1 car.





**22**

The green used on the Brut car was tricky to duplicate. I gave the body two coats of Gunze No. 8 Silver, then began to build up the House of Kolor Kandy Green. After five coats, the color was the shade I wanted. After letting the paint cure for a few days, I began the long process of decaling.



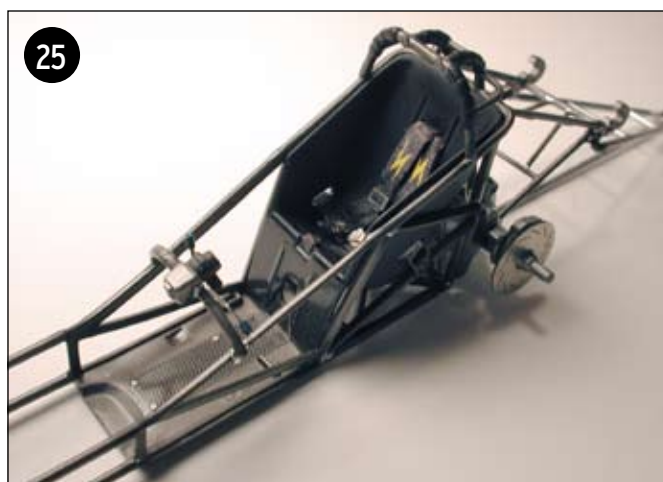
**23**

The carbon-fiber pattern on the 1:1 car came across darker than how the sheet printed, so I traced the areas I wanted to redo onto some FISpecialties 1/20 scale carbon-fiber decal film. Slowly I worked area by area, replacing carbon-fiber sections, while also adding the usable pieces from the Slix sheet. I used a fine brush to border the carbon-fiber areas with the sketchy pattern in white.



Compare to photo 22

After the basic graphics were on, and the outlining was complete, I gave the body four coats of Omni two-part clear. After a few days to gas out, I wet-sanded the body and polished it with Tamiya compounds until it was glass-smooth. Now it was ready for the windows, body braces, and rest of the smaller decals.



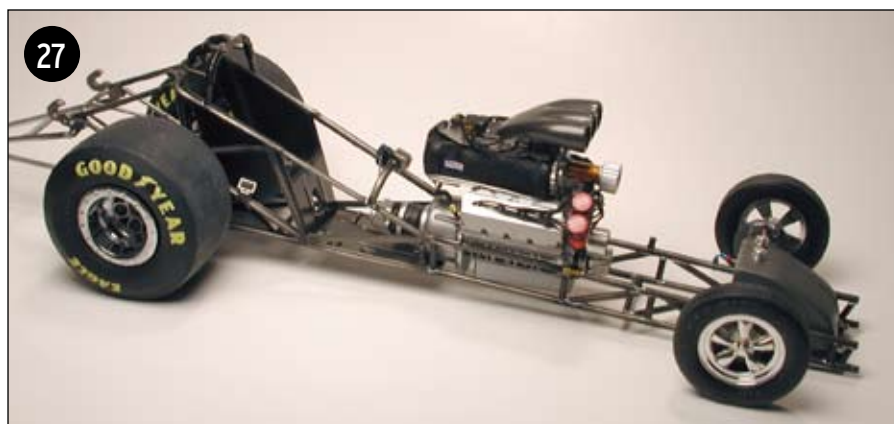
**25**

The seat belts use Model Car Garage's Dragline hardware on Studio 27 belt material. The yellow lightning-bolt IMPACT decals came from the Slix Brut sheet. I added some carbon-fiber decals to the seat front and floor panel. These were sealed with a coat of Future floor polish.



**26**

The kit brake lever needed a big improvement. Using a combination of Model Car Garage and Machined Aluminum Specialties photoetched pieces, I remade the brake levers and handle, and covered the grips with Scale Motorsport carbon-fiber decal.



**27**

I'm a firm believer in constant test-fitting and mocking-up; the last thing you want at this stage of a build is a surprise you can't fix. Everything looked good, so it was back to the chassis work and finishing up all the loose ends.



The bottom of the car was detailed just the same as the top. I added the driver's oxygen bottle, the puke tank with lines, and the clutch breather hose. The kit's rear axle was also detailed with new brake calipers and photoetched rotors.



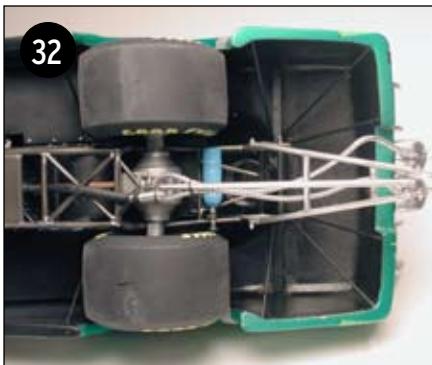
I added the oil blow-by lines from the valve covers to the frame with some black rubber hose, and two more sets of hold-down straps over the photoetched sparkplug shields. After looking at reference photos of the 1:1 car, I drew up a set of HEMI decals and printed them on my Alps printer.



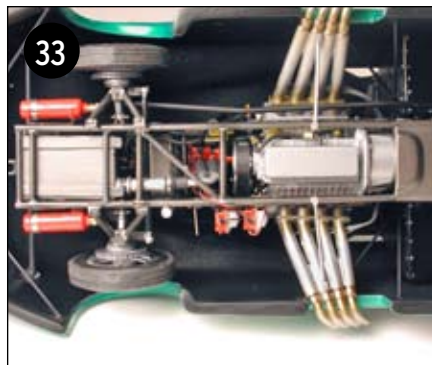
The huge rear wing offers lots of detailing opportunities. The sill plates were covered with carbon-fiber decals, topped with two coats of clear. Then I added the sponsor decals from the Slix sheet and mounted them to the body. The support braces are Detail Master fitting line. The final detail was photoetched fasteners on the outside edges.



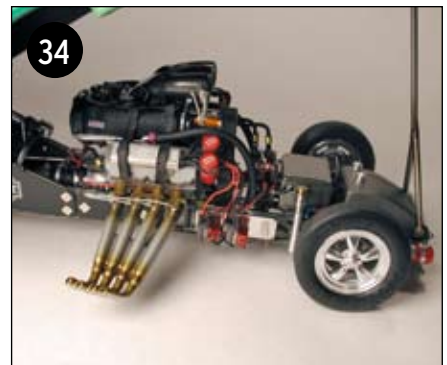
New front and side windows were cut from .010" clear sheet. I blackened the edges with a Sharpie and installed them. I bent a piece of soft aluminum, painted it flat black, and mounted it in front of the blower on the leading edge of the opening. The photoetched nuts were then glued in place.



The chute cords were made from some silver craft braid, with one end hooked to the rear end and the chutes on the other end. The finished slicks were mounted, and the inner support braces were glued inside the body.



More support braces were added around the nose and center section of the body. The kit headers were replaced with a resin set and heat-stained with various shades of Alclad metallics and clears. They were then mounted to the engine, and braced with more Detail Master fitting line.



I scratchbuilt a set of MSD boxes and mounted them to the side of the frame. These were then wired into the distributors and computer box. The last items to complete were the computer sensor lines on the exhaust pipes, and a new scratchbuilt body stand.





The Mopar Missile is ready for launch! Clay Kemp combined an AMT/Ertl Duster kit with aftermarket parts from several companies to make this 1970s Pro Stock.

# PRO STOCK

# MOPAR

How to build a multi-media Duster dragster  
by CLAY KEMP

**O**NE GREAT THING about this hobby is that it offers second chances. Mess up a body? Throw it in the paint stripper and try again! Miss out on a kit or decal sheet? Eventually they will be rereleased.

I got a “second chance” to build a 1970s Pro Stock car: the Mopar Missile. Pro Stocks were in their heyday before I was born, so I didn’t get to build all the great kits available then. Luckily, things have come full circle, and everything I needed to build a replica of this exciting car is readily available.

My goal was to capture the *look* of the car – not one that was 100% accurate. I wanted a build that wasn’t extremely difficult, but captured a good-looking version of one of the most-popular Pro Stocks of the 1970s.

Follow along as I build one *bad* Mopar.



Along with the AMT/Ertl Duster donor kit, here’s everything you need to turn the mild street Duster into one of the legends of 1970s drag racing. The Hemi engine kit came from Ross Gibson, and the rest of the supplies are available from Slix.



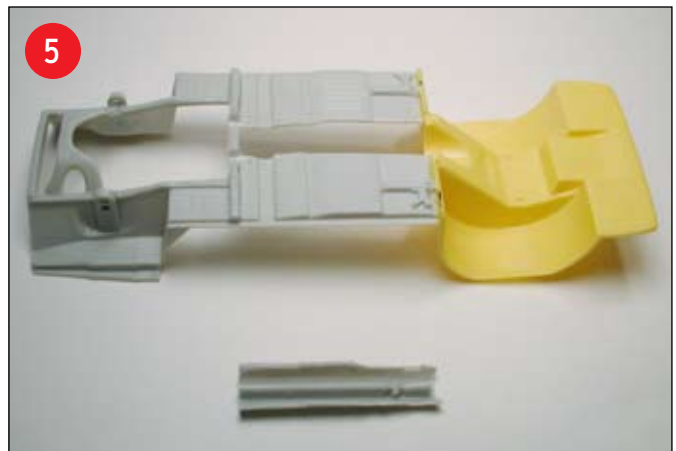
The AMT/Ertl kit tires and wheels are replaced by soft resin tires, and white resin rims that matched the reference photos of the 1:1 Missile.



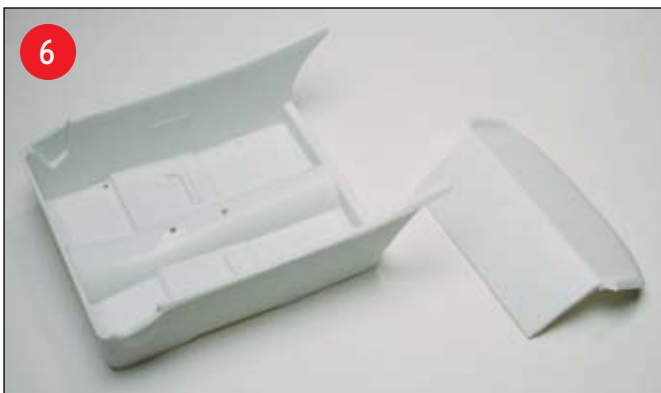
The tires were sanded on the tread surface with a coarse sanding stick to remove the mold lines and give them a more "raced" look. The wheels were cleaned, primed, and then shot with Alclad Pale Gold. The tire logos came from Slix. I thinned some Alclad Clear Amber and misted the inside edges of the white logos, then all four sidewalls were sprayed with Testor's Dullcote.



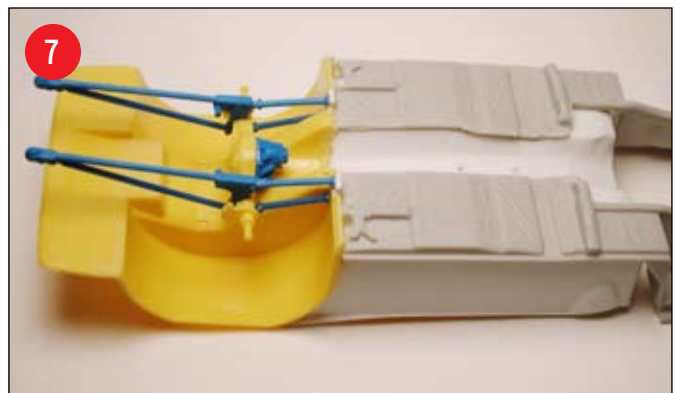
The resin conversion kit includes everything needed to transform the street Duster into the drag version. I used the back side of a hobby knife to score the windows, then I cleaned up the edges with a sanding stick. After all of the parts were prepped, I gave them a wash in hot, soapy water in preparation for primer.



Because the skinny kit rear tires were being replaced with the huge racing slicks, I needed to make room for them under the chassis. The easiest way was to simply remove the rear of the kit chassis, and replace it with the "tubs" from an old Monogram Pro Stock kit.

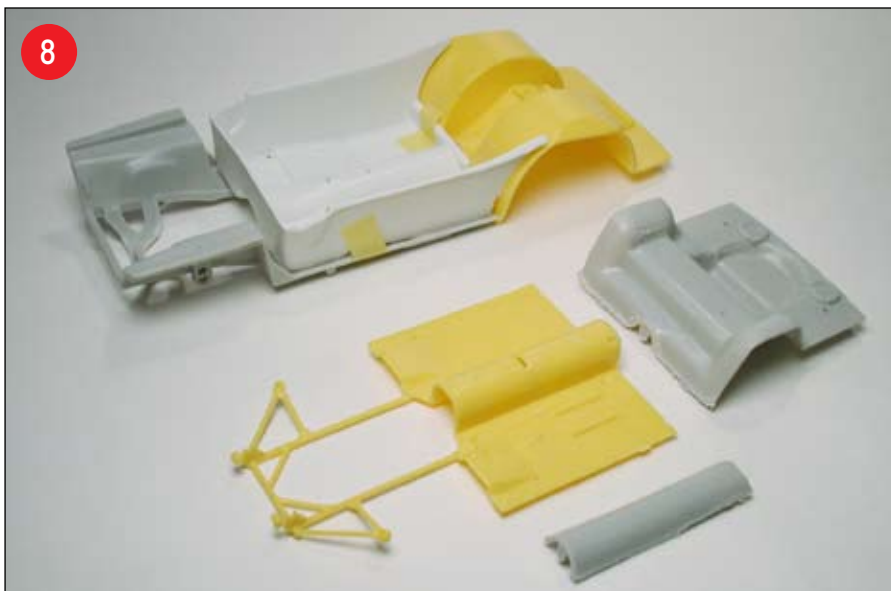


The resin interior tub had its back shelf removed, and was ready to install on the chassis.

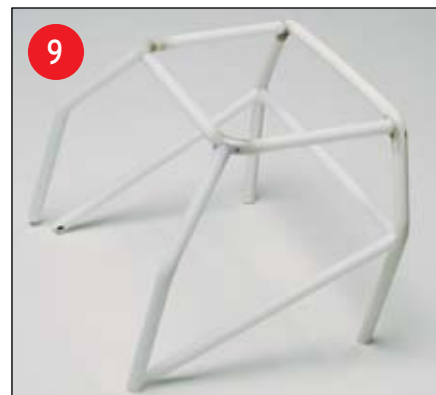


I also used the rear suspension and wheelie bars from the Monogram Pro Stock kit. Because everything will be semigloss black, this was installed before paint.





In the background, the completed chassis is ready for primer. The parts in front show what was left over after the construction.



I scratchbuilt a simple six-point cage from Plastruct tubing. This will drop right into the interior tub after it's painted and detailed.



When you're using parts from so many different sources, test-fitting is a must. A quick test-fit of the new chassis under the resin Duster was done to make sure everything would work together.



One area that showed it needed work during the test-fit was the rear fender openings. I marked them so they would be even with the wheel tubs, then sanded the opening until everything lined up.



With the tires and wheels added to the test-fitting, it showed another problem: The front end sits way too high. It's an easy fix, though.



Here's the problem area: The donor kit's inner fenders prevent the front tires from letting the front of the car drop down low enough. We'll take care of that next.



I used a razor saw to remove the tops of the inner fenders, allowing the car to drop down over the front tires. These two gaps will be covered in final assembly.



With the modifications made to the chassis, and the body in primer, things are now looking good. All of the test-fitting paid off. The stance looks right, and everything is ready for paint.



The resin body was given a final wash, then shot with Tamiya TS-14 Black, followed by two coats of Omni two-part clearcoat. After the clear dried for a few days, it was wet-sanded with 2000-grit paper, then polished using rubbing compound, then polish.



Another test-fit with the newly polished body was all the motivation I needed to keep going! After the body was removed, I added the foil to the window frames and installed the windows.

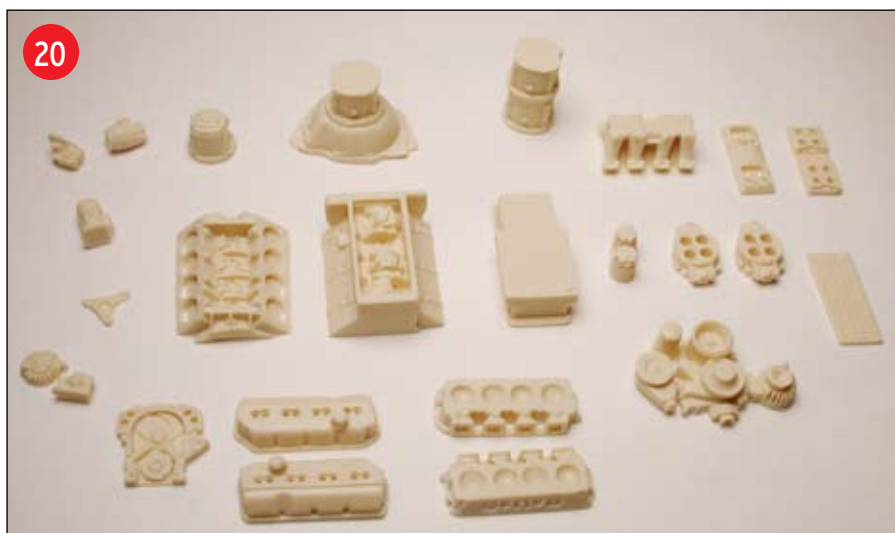


The chassis and roll cage were primed and shot with Tamiya TS-6 Matt Black. I added two pieces of roll-bar padding to the down bars, using heat-shrink tubing.



With the chassis drying, I went to work on the Missile's engine. I decided to replace the donor kit's engine with something with a bit more detailed. Ross Gibson's Pro Stock Hemi fit the bill perfectly.





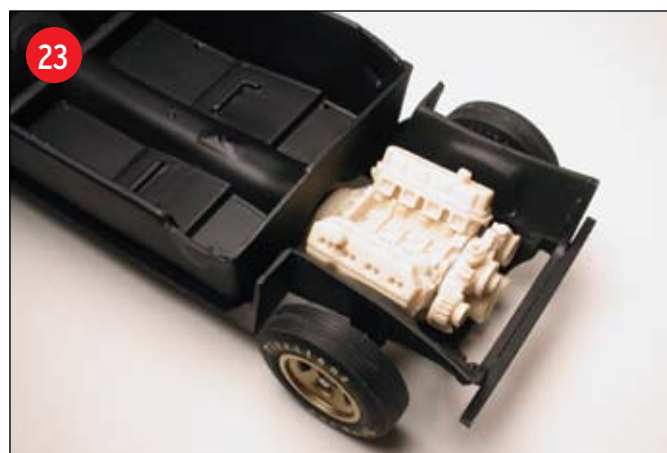
**20** All the pieces of the Gibson Hemi were laid out and organized. It's easy to see how much detail is added by this upgrade. The resin is clean and crisp, and easy to work with. Just a bit of cleanup and it's ready to go.



**21** Working with the resin engine pieces isn't much different than styrene. Cleanup takes a little longer, but the end result is worth it. Using a piece of 320-grit paper on a smooth surface, I began to clean up some of the flash. It's important to work slowly, and check your progress often. Resin is a lot softer than styrene, and it's easy to sand too far.



**22** When the resin engine parts were prepped and cleaned, it was time for an engine test-fit. Using white glue lets me assemble the resin parts in a temporary fashion. It's strong enough to hold together while you fit things, but easy to break back down for painting.



**23** It's close, but it fits! Making adjustments now is a lot easier than after things are already painted and assembled. Now it's ready to come apart and be painted.



**24** The block and heads were painted Hemi Orange; the other parts were painted with various shades of Alcad, and then assembled. The basic engine is ready for some detailing.



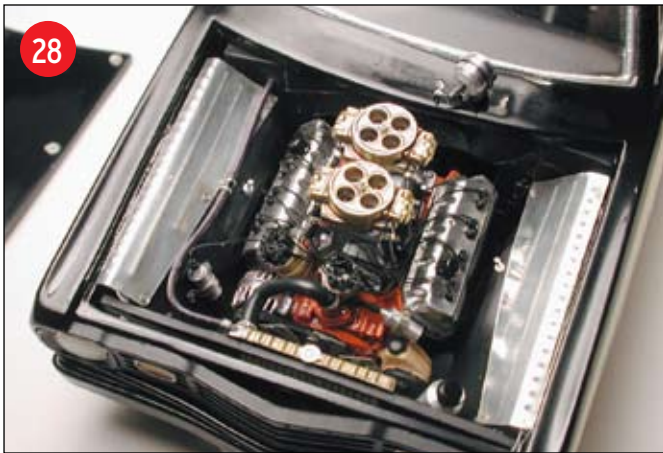
**25** The Spartan interior only needed a few things. A fire extinguisher was robbed from an old Monogram stock car, detailed, and installed. The seat came from the Monogram Pro Stock kit, and I added a simple lap belt and buckles from a Detail Master harness set. The cage, dash, and steering wheel were installed, and the chassis was ready to be mounted to the body.



Even with my constant test-fitting, I still managed to run into an unforeseen problem. All of the test-fitting had been done without the rear window present; after the window was installed, it hit the wheel tubs. Luckily, the fix was fairly easy. The tubs were sanded down and repainted, and the window edge was sanded down to gain enough clearance.



The body was finally installed on the chassis for the last time. The tires and wheels were added, and all that was left was applying the Slixx decals, and adding the final details.



With the body mounted for good, I finally took care of the new inner fenders. I made a paper template of the shape I needed, then transferred it to some soft embossing tin that I found at a craft store. I made a left and a right, then added a bead roll pattern with a ballpoint pen.



Because I replaced the engine and added a new rear suspension, I needed a new custom drive shaft. I used the U-joints from the Pro Stock kit, and inserted them into a piece of aluminum tubing. The U-joints were brush-painted metallic silver, and given a wash to darken the nooks and crannies.



The wheelie-bar tires received a light wash of white to simulate the shoe polish that was sometimes added. I installed the tail-lights, added the final decals, and the Missile was complete. ■



# Add **POWER** to your modeling prowess



Each issue of *Scale Auto* is packed with expert tips and techniques to help you build or customize stock cars, street rods, muscle cars, and more. Whether you're a modeler or collector, you'll appreciate everything the magazine has to offer.

- Complete and accurate product reviews
- Painting and detailing know-how
- All types of autos - from muscle cars to tuners
- Crisp photography of finished models
- Exclusive online extras such as Tips & Tech and kit reviews
- And so much more



**SUBSCRIBE TODAY!**  
**CALL 1-800-533-6644**

Monday - Friday, 8:30 a.m. - 5:00 p.m. Central Time. Outside the U.S. and Canada, call 262-796-8776, ext. 661.

Or order on-line at [www.ScaleAutoMag.com/promo](http://www.ScaleAutoMag.com/promo) and enter code IK89S

**Scale  
Auto**