MODEL CAR BUILDER

PAINT TIPS:
PAINTING THE 'ORANGE CRATE'
& USING TAMIYA SPRAY CANS

ROY HAS A BIG ANNOUCEMENT!

BUGATTI CHIRON
COMPLETED

NEW RACE CAR PROJECTS:
SAUBER MERCEDES C9
TOYOTA TS050 HYBRID

GAS STATION DIORAMA
PART TWO: BUILDING MISC DETAILS
AND ADDING LIGHTS!

MODEL CAR BUILDER

Vol 5 / Issue No5

SUMMER 2021

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Order Additional Copies at:

www.ModelCarBuildermag.com

Model Car Builder is published quarterly by
HC Publications, PO Box 20144., Castro Valley, CA 94546.
E-mail: HCPublications@att.net

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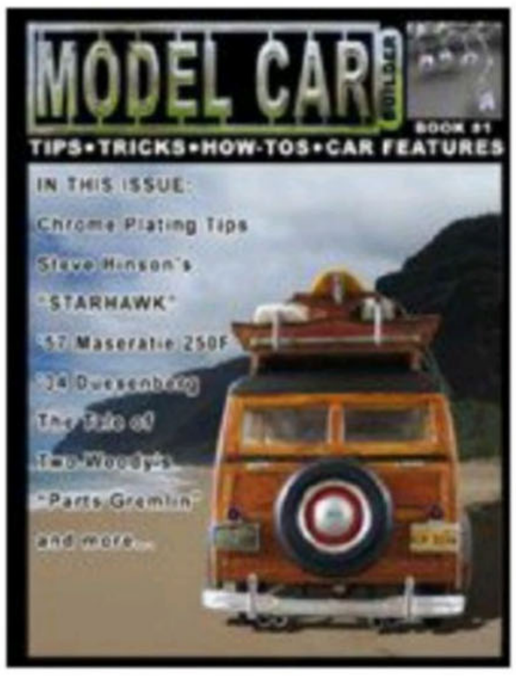
NEXT ISSUE:

FAREWELL ISSUE!

DIORAMA COMPLETED

EDITOR'S WORKBENCH

"Last year my wife and my good friends encouraged me to start building model cars again. So I set-up a small workbench in the corner of the guest bedroom and began building again. I began to realize how much I missed creating models with my two hands! I was hooked again! The only problem with being away from the hobby for ten years is that I have ten years of ideas and new projects in my head. Last Christmas Santa brought me a light box (See the review next issue), and I started photographing my projects to post on the web. People started asking if I would do another magazine? I thought, no way. Gregg is already doing a fantastic job with Model Cars, and I didn't need all the headaches involved with producing a full-fledge magazine. But how about a series of "print-on-demand" how-to books? Yeah, I can do that, and so here is "Book #1" in your hands. If enough modelers buy it, I think I have about five more in my future…"



That was from issue #1 of Model Car Builder magazine more than 40 issues, and ten years ago. Well guys, it's been great fun delivering this magazine filled with how tos, event coverage, and great feature cars, but it's time for me to retire. So if you've heard the rumors that Model Car Builder was closing their books, it's true. We will finish out the year with one more issue. I'm hoping to pack it with some great stuff!

So are we another victim of the Internet? Nope. I retired last year from my nine to five job, and I've decided to fully retire this year! At 65+ years old you begin to figure out life is way too short. I want to spend more time with my fantastic wife, I want to do more traveling, I want to pick up a paint brush and start painting again, and yes, I still have a ton of model car projects to start on and to finish!

So when I set up Model Car Builder years ago I knew I wanted to stick with the "print-on-demand" distribution. NO SUBSCRIPTIONS! By not offering subscriptions I could walk away from the magazine at any time and not have to worry about subscription fulfillments. If you're no getting your magazine subscription it's because you subscribed to that other model car magazine and not me!

I know I've left a lot of "projects" unfinished over the years, and I'm sorry about that, but I do plan on keeping the Model Car Builder Facebook page running, and I'll be posting my work on there. So come join me there while I finish those projects I didn't get done here.

CONTENTS

Gas Station Diorama Project **PAGE 4**

Orange Crate **PAGE 10**

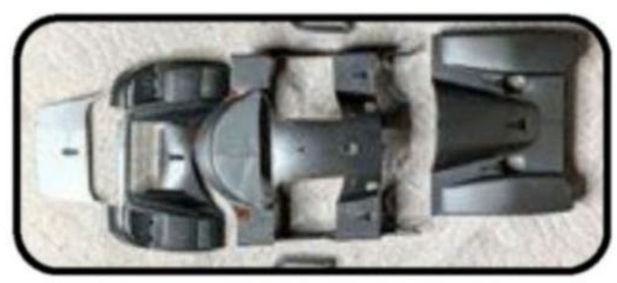
McLaren 720S From Alpha Models **PAGE 18**

Reading Around **PAGE 20**

Matchbox Magic! **PAGE 22**

Italeri 1/12 Alfa Romeo 8C 2300 Monza monoposto conversion **PAGE24**

Tamiya's Toyota Hybrid **PAGE 28**


Sauber Mercedes C9 **PAGE 32**

Bugatti Chiron Done! **PAGE 36**

PAINT! **PAGE 40**

DIORAMA LIGHTING PART 1 **PAGE 42**

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DIORAMA PROJECT: BUILDING DETAILS

I'm still having a great time building this diorama! In this issue we're going to look at building some of the accessories all around the station. Some of this you can buy already done. Just search for Doll House 1/2 scale. There's two different sizes, the regular (big) doll house size, and then there's the "Half Scale" that is closer to 1/24th scale.

There is also 1/24th scale resin kits. I have been using Scale Equipment Ltd (http://www.seltd.net) for decades and they always supply quality products, and a new source I recently discovered is Doozy Modelworks (at: https://www.hobbyworld-usa.com/Store/index.php?-controller=search&orderby=position&orderway=desc&search_query=doozy&submit_search=) who supplies a line of line of 1/24th scale diorama kits. I ordered their Coke Machine, Pinball Machine, and two 1930s gas station pumps (that are still on backorder). You can find these all listed on our diorama shopping list in our last issue.

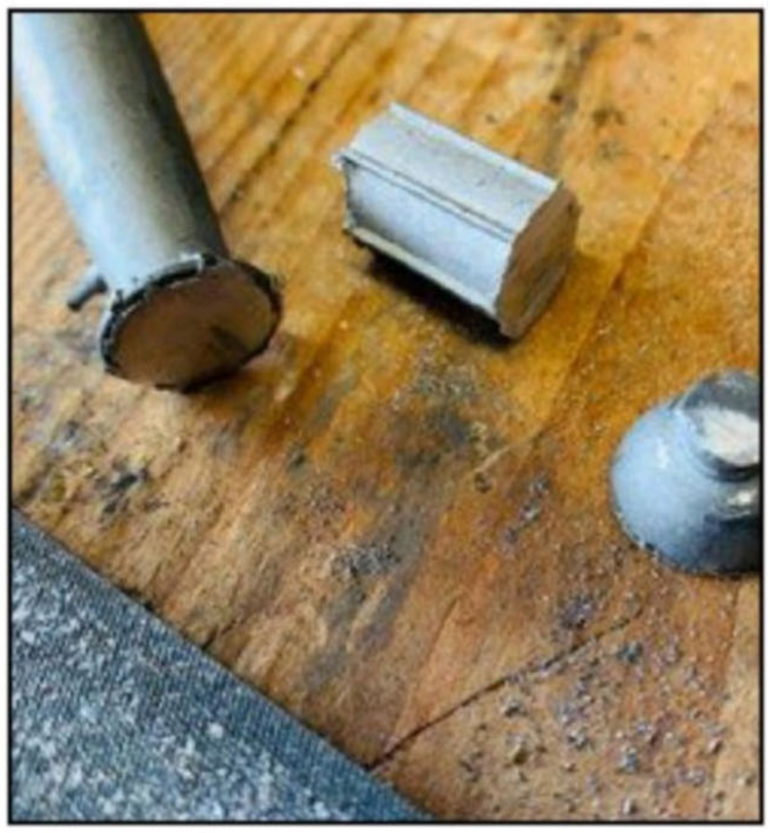
Next issue we'll get back to work on our building and build our diorama base.

ABOVE: Somethings you just have to scratchbuild. The gas can is a box made from Evergreen strips and covered in photo-reduced pictures of a real can. Evergreen rod and a PE handle top it off. The phone, cash register, desk, and air station were all bought online.

OLD GAS PUMPS

(This page) This is a working 1950s gas station that's been in operation since the '30s. But when they replaced the old pumps they just moved them to a side island for display. I've had these white metal pumps for decades. I believe they're Jimmy Flintstone's. Someone gave me the crowns years ago. The local museum (Blackhawk Museum, Danville, CA) has lots of great gas pumps on display. So I took the camera and shot a lot of reference photos.

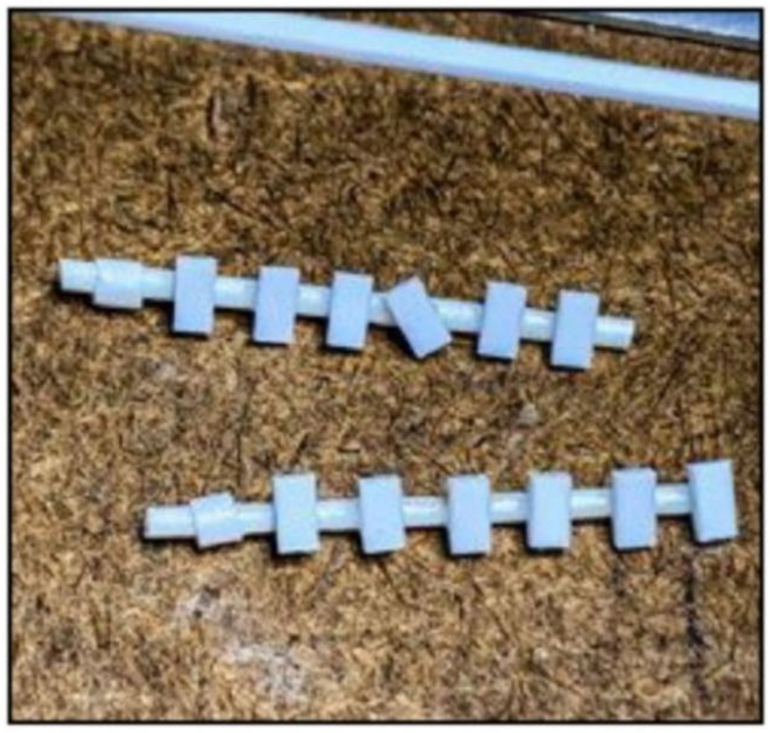
ABOVE: I knew I was going to have to cut out the molded-in glass tank. To save time I used a power tool, but a simple saw will work!



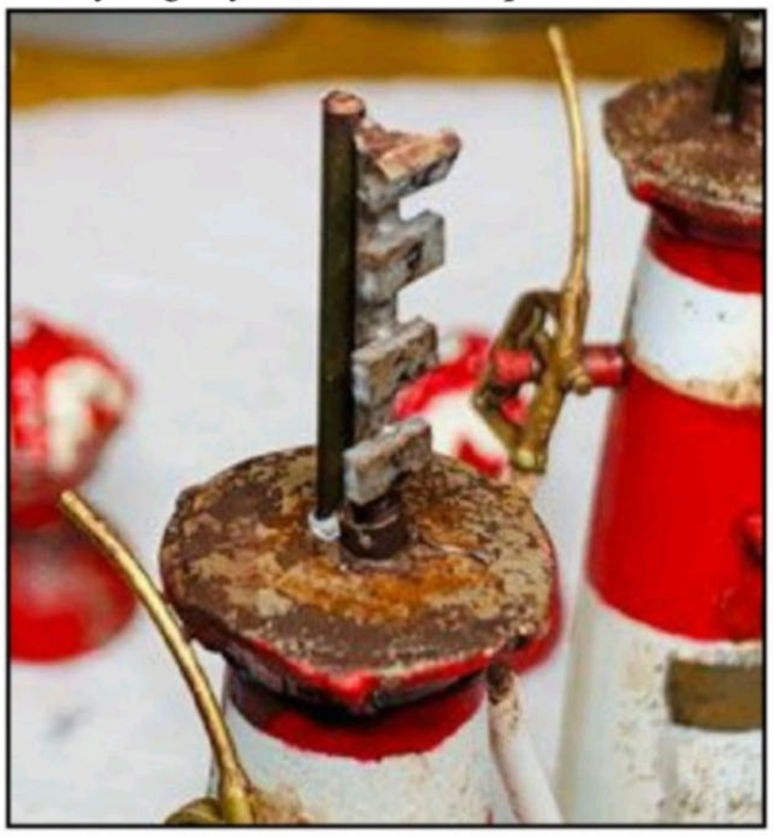
ABOVE: After cutting it out, I used a file to flatten things square. I also cut the mushroom style cap off the top off the pump so I could replace it with the crown.

ABOVE: The plexiglas tube is actually a cigar tube that happened to be just the right size. The crown is teetering, I need to do a little more filing to flatten out the top.

ABOVE: The center of the tank has a measuring stick with markings for each gallon pumped into the tank. Got out my "Chopper" and cut up some equal length of Evergreen strips.



ABOVE: The strips are glued to Evergreen rod at equal distances. It's all right if you get them crooked, remember these are old beat up pumps that haven't been used in years! Paint them silver and glue to the pump body.



ABOVE: I built a second feed tube and placed it right behind the level marker. Gas pump handles are from a different gas station kit.

ABOVE: The white hose is just some plastic hose I had in my spare parts box. The fittings are actually resin cast Top Studio A/N fittings that I covered in a wash of Tamiya Flat Brown.

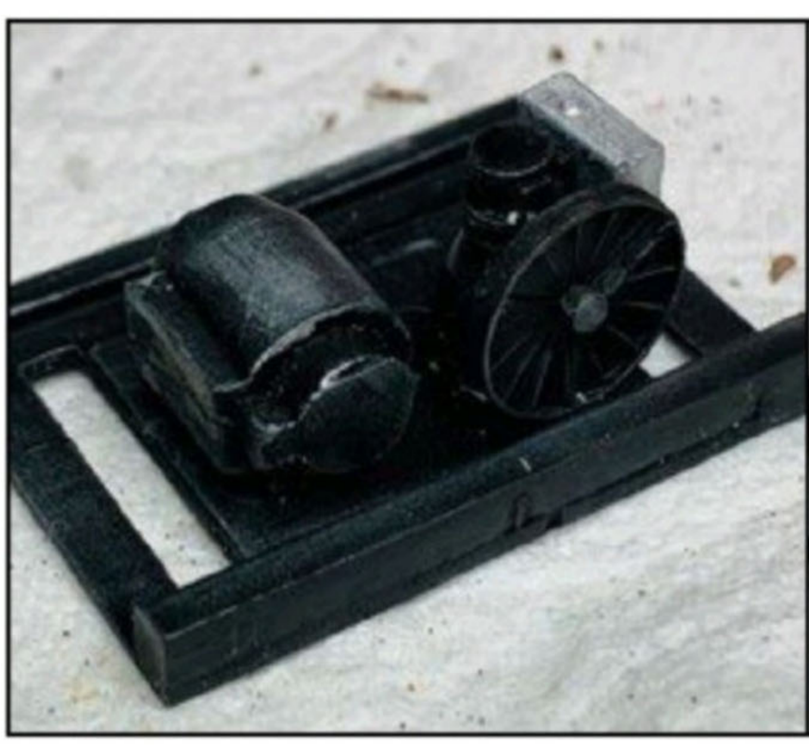
ABOVE: Doozy offers the "Decals for Route 66 Gas Pumps" and its Crown Gasoline decals fit our pumps perfectly.

ABOVE: A sponge dipped in tamiya flat colors add rust and dirt to our old pumps!

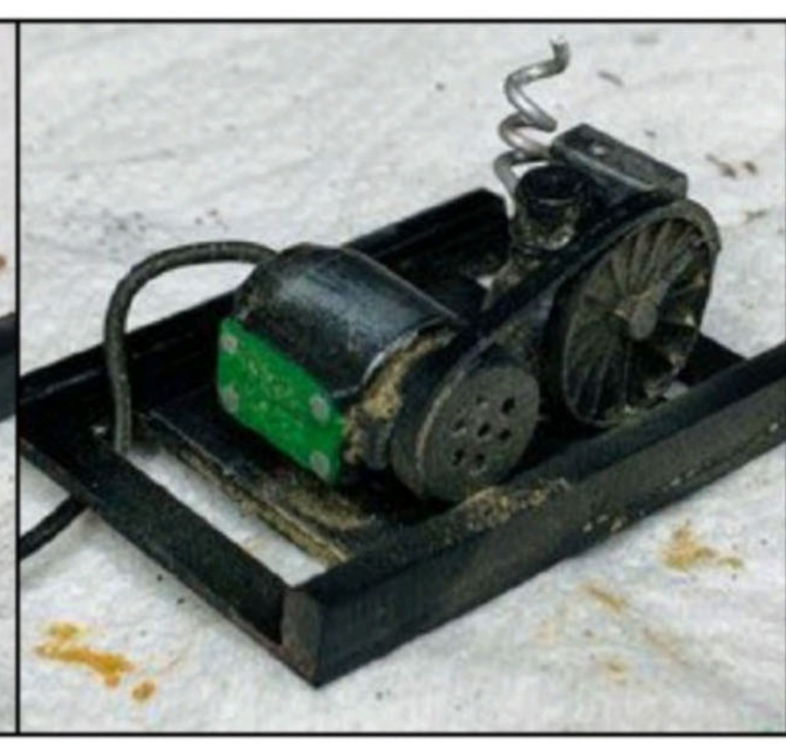
RIGHT: "Gas Pump for the Groveland Garage"(1928 Wayne 615 Gas Pump). A how-to for a 1/24th scale scratchbuilt pump using 3D printing methods. Photos & Text By: CHUCK DOAN, Model Car Builder Issue #11, Spring 2013.

COKE MACHINE

ABOVE and RIGHT: Doozy offers this amazing 1/24th scale Coca-Cola machine in resin. You'll notice that it comes with cans and decals for the cans. Not the right era for our gas station, we'll save them for car interiors. Pretty cool that it has open cooler bins to put ice and sodas in! There's instructions that come with the kit, and the simple motor/compressor is hardly visible once the kit's all together, but...



ABOVE: This is the box stock setup that slides up into the Coke machine, but I wanted to add a touch more detail.



ABOVE: I added a second pulley to the generator and then surrounded the two pullies with a thin strip of rubber. The motors ID plate was painted green. Everything was given a coat of Testors Dull Coat and some dirt thrown on it.

ABOVE: The generator was drilled to accept a piece of black wire (this will plug into an outside plug on the side of the building). A piece of aluminum wire was coiled and added to the condenser.

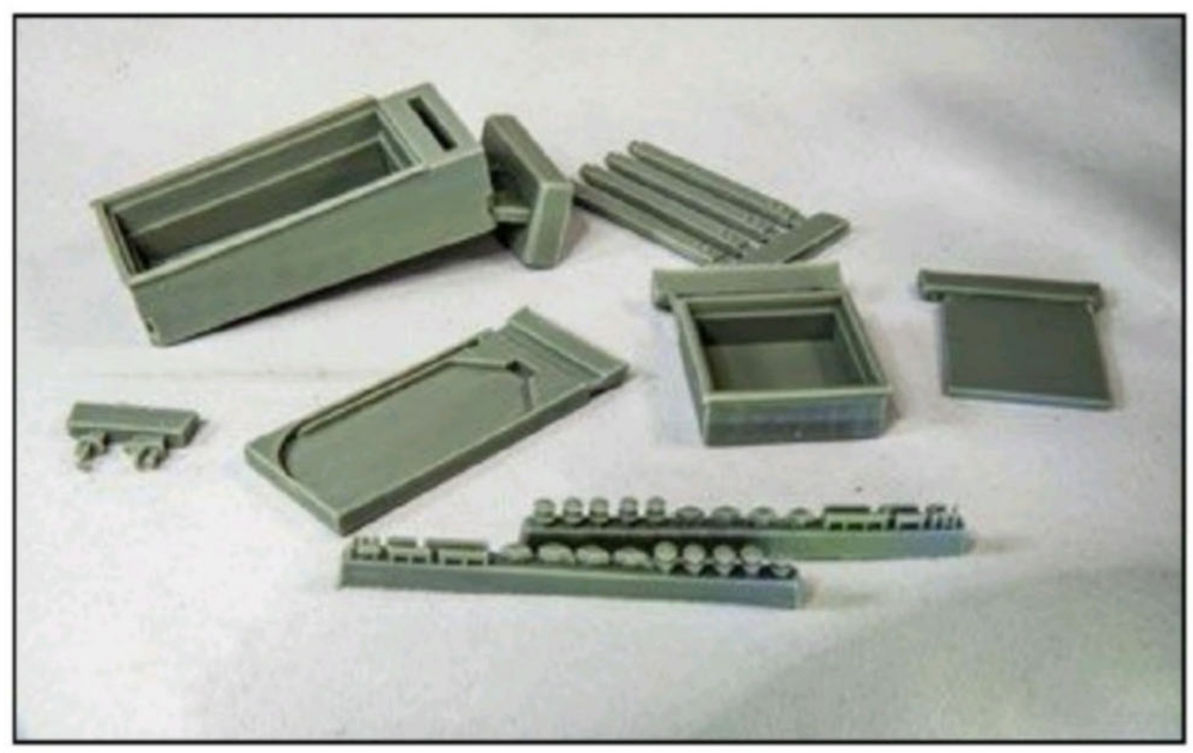
ABOVE & BELOW: Doozy offers cases of Coke bottles in either wooden cases or plastic cases. For our old station we chose the wooden cases. The wooden cases are one piece resin castings that I painted in a faux wood (Tamiya flat desert sand & flat brown). Then I "dabbed on" Tamiya Red to give the appearance that the red paint had been rubbed and chipped off over the years. They provide the Coca-Cola decals for the cases. The resin cast bottles look "foggy" but don't despair. I 'filled them up' by painting them with gloss black and then 'sealed' them with a dab of chrome silver on the caps. Doozy also provides the VERY small Coca-Cola decals for the bottles. A whole lot of patience and a lighted magnifying glass and a had all two dozen bottles done. A coat of Tamiya clear brings them to life! Rock salt was used to create the ice. The machine was painted in Dupli-Color Gray primer and Testors Guards Red. Wet sanding brought out the rough edges and worn off paint. A tooth pick and Tamiya gloss white were used to do all the raised lettering. The final product is very convincing and will add a lot of detail to our diorama.

COUNTER

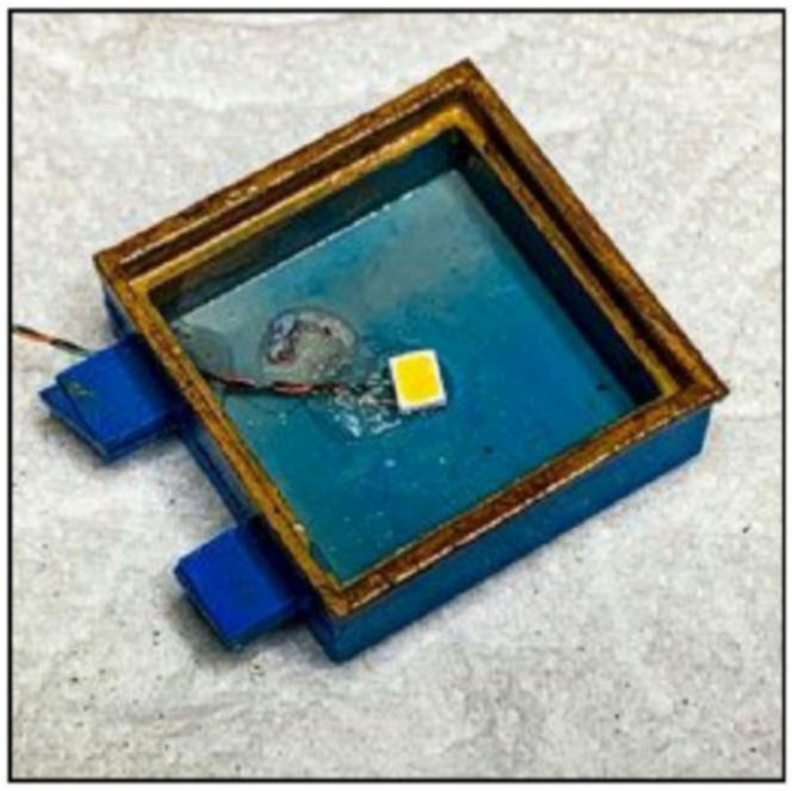
RIGHT: Sorry, I lost the how-to pics on building the counter. Basically it's doll house veneer glued over a plastic frame and painted with a wash of Tamiya Flat Brown. Since the sign out front says "Snacks" I felt the counter should have a candy bar display built into it (and yes, they were only 5¢ in the 1950s!). The cash register is a 3D printed part from Sauscha Mueller, and the pay phone on the wall behind it is a resin cast piece from Scale Equipment LTD. Candy bars are photo reduced vintage wrappers from the '50s.

PINBALL MACHINE

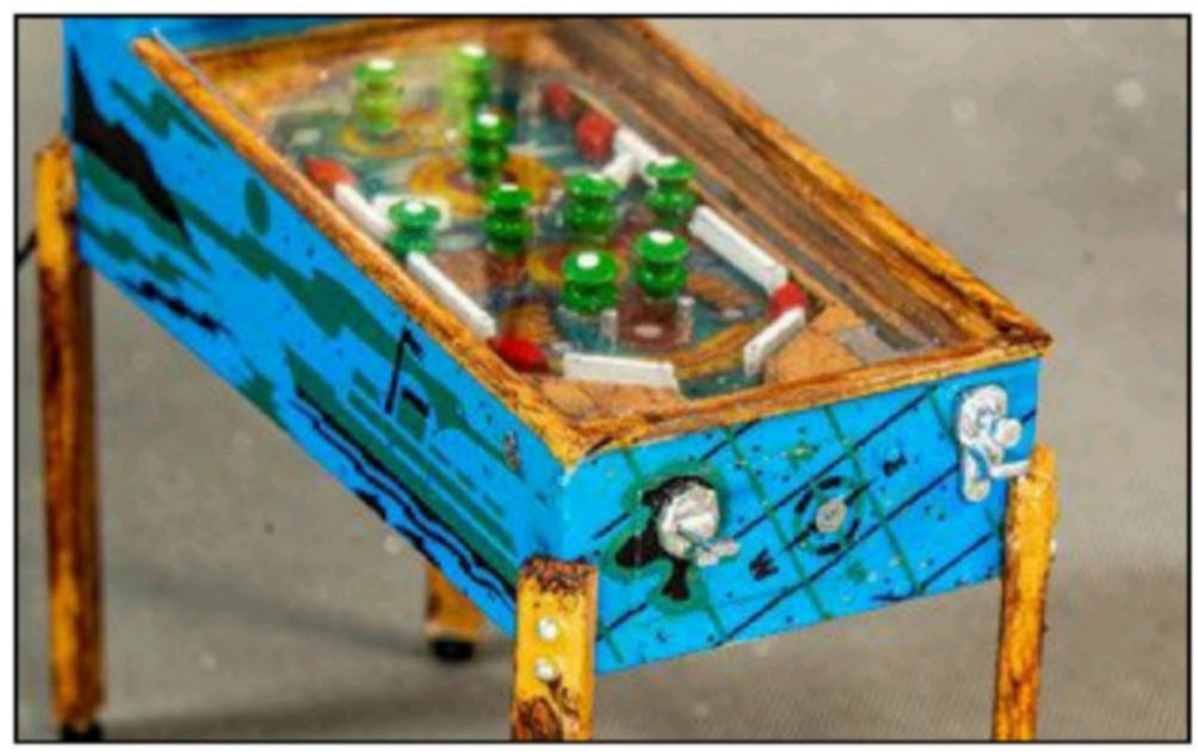
RIGHT: OK, I gotta tell you; building this pinball machine was fun! At first I was a little intimidated by how small it is, but once I got the kit from Doozy I started getting all kinds of ideas to detail it out. As you can see the kit is pretty simple and straightforward, the resin is beautifully cast. I decided to light the up right score board. And for a minute I even thought about drilling out each of the little bumpers on the game board and running light fibers to each one! There's plenty of empty space in the box it rests in! But then I thought that would be too much work for something that's going to be hard to see. The upper box sits high enough that you will be able to see it through the station's glass, so I decided not to do the fiber optics on the game board.



ABOVE: The Doozy kit gives you decals for the outside of the box, the game board, and the score board. I painted the outside of the box with Tamiya Light Blue, applied the decals, and then sealed it all with Tamiya Clear. Then it's up to you to mask off all the wood surfaces and do the faux wood finish on the trim. I used Testors Wood color as a base, then dry brushed the grain with Tamiya Flat Brown. I wanted it to have a high gloss to look like a heavily varnished wood so I applied two heavy coats of the Tamiya clear from the bottle using a (CLEAN) brush. If you don't want to use the faux wood treatment I would think you could just paint the trim and legs white.



ABOVE: The box that holds the scoreboard is deep and just screams out to be lighted. So I drilled a hole at the base to pass our LED wire through and used a Deka LED (Part # E47913) to light it. The kit comes with a resin board to put the scoreboard decal on. It was too opaque so I cut a very thin piece of white plastic sheet and put the decal on it. I painted the inside of the box with chrome silver to make it more reflective. The kit also has a clear sheet for the glass.



ABOVE: The hardest part of this whole kit is gluing down the green bumpers, white rails & paddles. I found the best way was to create a puddle of super glue, pick up the part with tweezers, slide the part through the glue and then CAREFULLY align it to the game board and place it once! Remember that you are gluing to a decal! You have to get it right the first time or it's going to ruin that decal. The pull knob for the ball shooter and the coin slot are separate pieces, so they were covered in Liquid Chrome before being glued on. The cash box key lock and the flipper buttons are PE metal decals.

MY TWIN TURBO '55 GETS A FACE LIFT WITH AN ALL NEW BODY AND PAINT!

When I built the "Pro Street '55 Chevy" project in the pages of Model Car Builder I kind of rushed the body work and paint. Even though the HOK Brandywine paint is beautiful, I felt the car had more of a race car vibe to it, then a Pro Street car kind of vibe. The lift-off hood and trunk lid was too race car like, and I messed up the scripts on the car.

So I wanted to do more of a street car vibe. First thing I did was lengthen the rear fenderwells to fit the bigger diameter tires. Then I went with the HOK Tangelo orange to make it stand out more at the next Cars and Coffee show, I also got rid of the lift off hood and trunk lid, and hinged them instead.

No one liked my bulging LED headlights, so I dumped them and went with stock looking headlights with a single LED bulb. To clean up the front end I got rid of the stock turn signals and added an amber bulb inside the stock headlight bucket, and filled the bumper bracket holes.

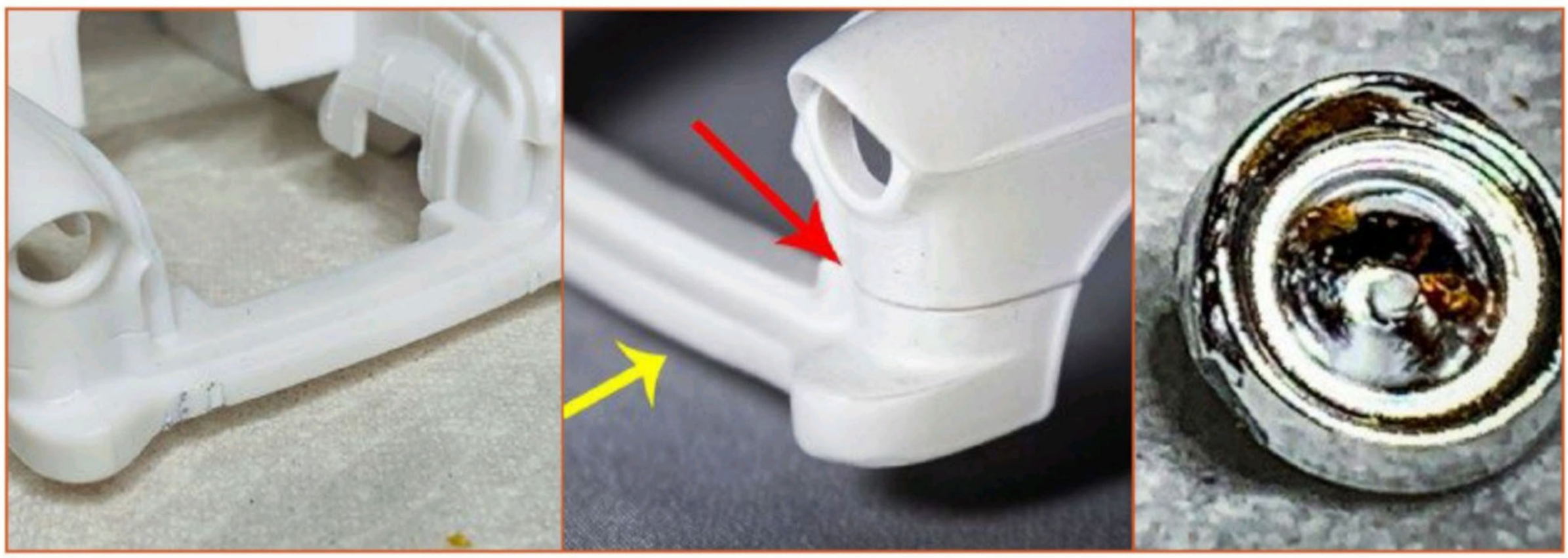
On the inside I added a rearview mirror to the front roll-cage crossbar, an amplifier was put in the back, along with a handheld fire extinguisher. These are all things to help get across that this is a street car. For fun I added a resin "Indiana Jones Fendora" as a salute to Harrison Ford. Since this would be Bob Falfa's modern day '55 Chevy, then he would be wearing a Indian Jones hat. I know, I know, two different characters, but I'm just having a little fun here!

The car is about 98% complete now. There are a couple more little things I want to do to it, but I'll call it done for now!

ABOVE: First step. Cut a section out of the quarter panel. Then cut straight up at the center of the wheel well. Now use strippers tape to make a horizontal cut to the section you just cut out. Now slide that piece of fender forward and glue back into quarter panel. Save the left over piece.

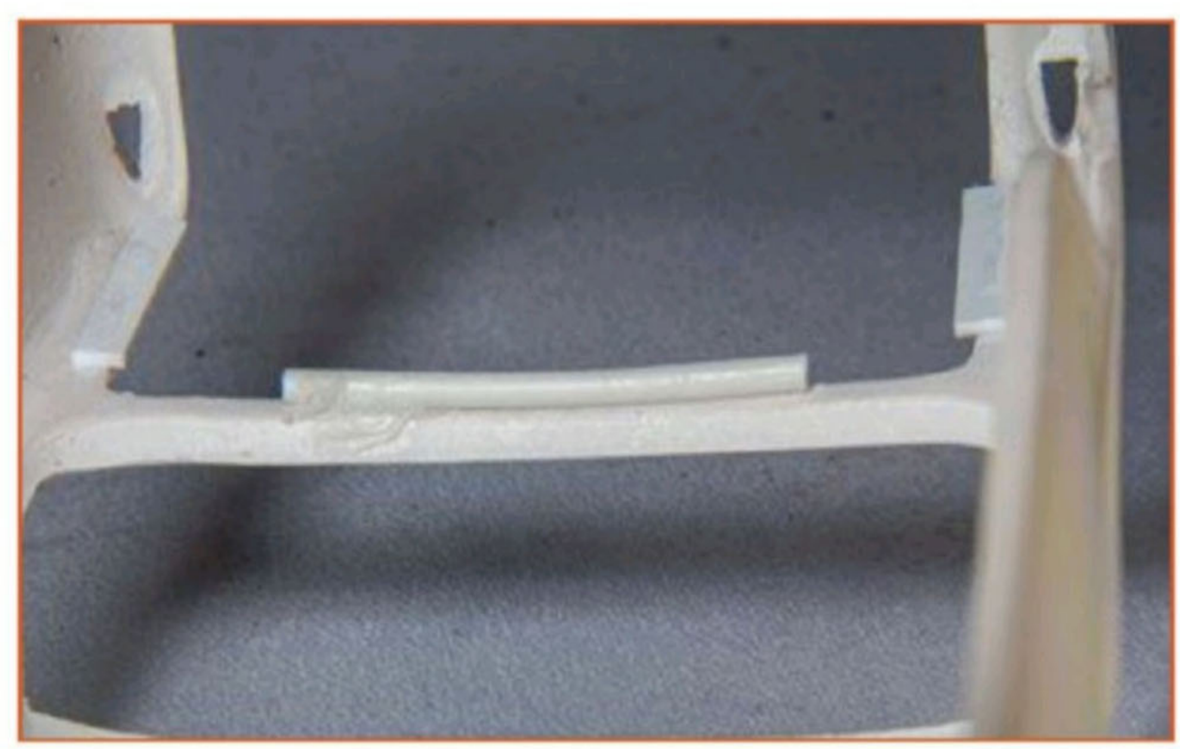
ABOVE: Hold the left over piece in the gap and mark where you're going to cut it. Notice that there's a lip at the bottom of this piece, match it to the fenderwell lip.

ABOVE: To help hold that tiny piece in place I put masking tape on the inside of the body (notice the yellow tape visible). With everything lined up (center photo) use C/A glue to lock it in place. Once it's dry I remove the masking tape on the inside and cover it with a heavy layer of C/A glue (just to help reinforce things). The picture on the far right is the stock fenderwell. Notice how off center the wheel is in the car. The new fenderwell opening looks stock, but it's longer and centers the wheel much better.

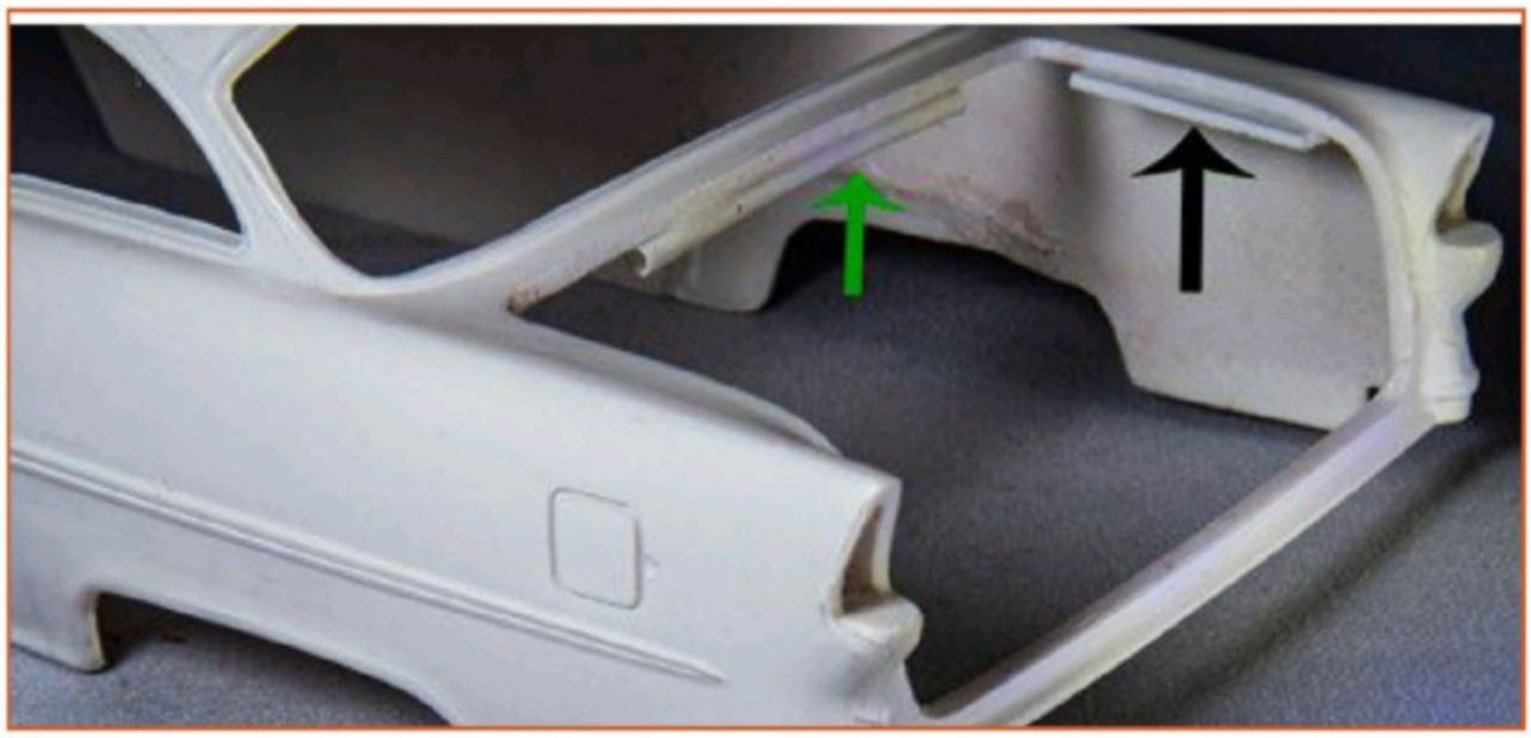


ABOVE: To clean up the front of the car I filled the reliefs for the front bumper brackets (yellow arrow). Then I wanted to get rid of the front turn signals. AMT doesn't have that fender seam under the glue-on turn signal. You can see in the photo on the far left that the fender gap just disappears, so I used a hobby saw to re-scribe that line (red arrow). With the turn signal gone I had to add one to the headlight bucket. First I drilled the center of the bucket for a LED light (clear rod). Then right below it I drilled a second hole for a second piece of clear rod, but this time I painted it with Tamiya clear orange.

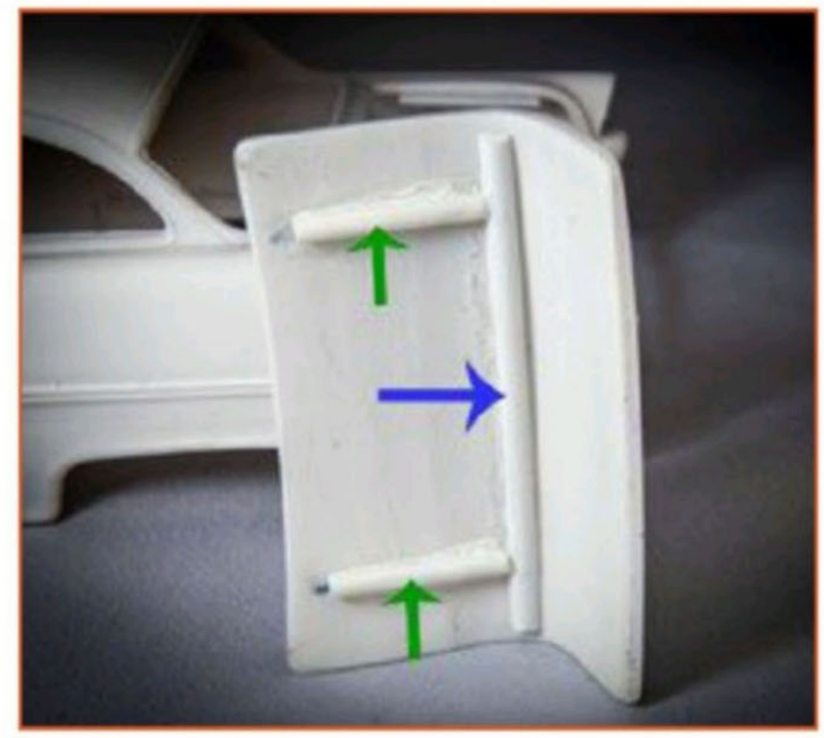
ABOVE: To make room for the twin-turbocharged big block you will need to cut the inner, front fenderwells and firewall out. In fact, I ended up cutting the radiator splash pan out as well. I scribed out the trunk lid using the back of a #11 blade.



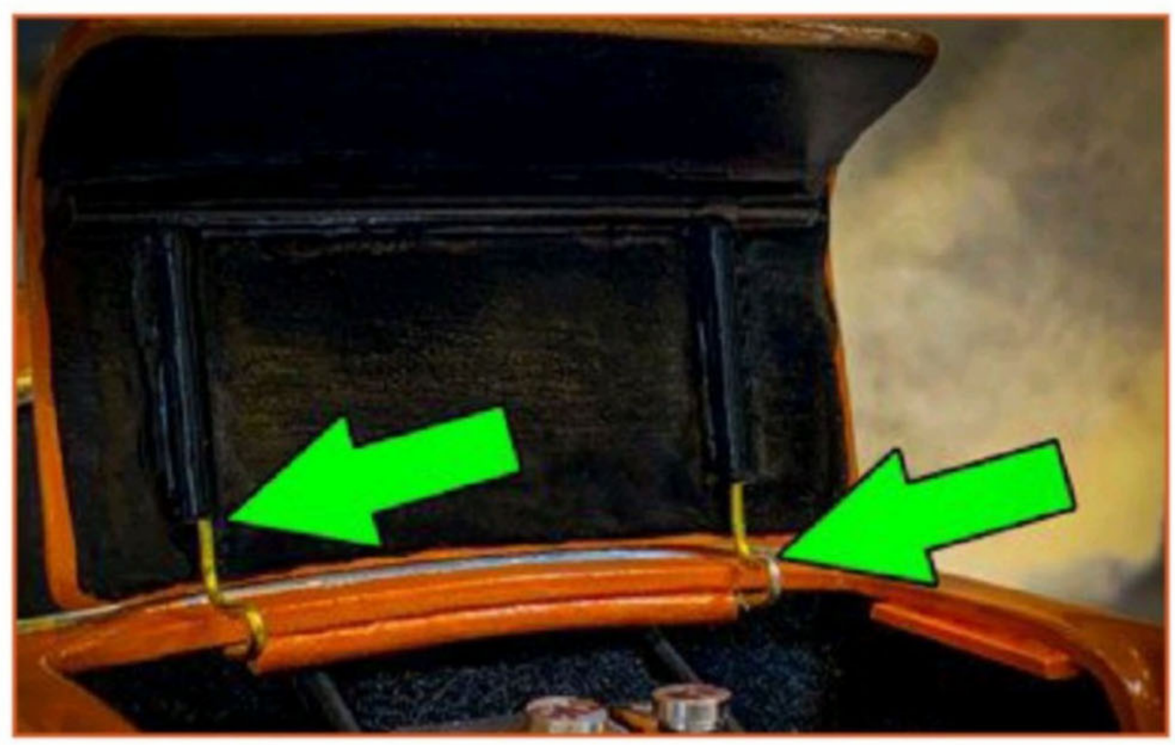
ABOVE: To hinge the trunk lid I glued a short piece of tubing to the front of the trunk opening (and below the back window. Two short strips, one on either side of the trunk opening keeps the lid from falling through the opening.



ABOVE: To hinge the trunk lid I glued a short piece of Evergreen tubing at the edge of the trunk (see green arrow). Normally I'd place this further back, but I needed very short 'U' shaped hinges to hinge the trunk (there's no clearance under it for bigger hinges). I got lazy and just glued a short strip of plastic to each side of the trunk lid (black arrow) to hold up the lid when it's in the down position.



ABOVE: To save weight I wanted to replicate a fiberglass trunk lid. To reinforce the lid I used Evergreen tubing (blue arrow) and two short pieces to accept the brass wire hinges (green arrow). BTW: I did the reinforcement on the hood the same way.



ABOVE: I like to use brass wire to form the hinges. The brass is easier to bend to shape, and easier to make adjustments (bend) once it's in the car. I don't glue these into the slip tubes. That way if I ever have to remove the hood for repairs in the trunk, or the trunk lid, I can easily slip it off and on.

ABOVE: The body was scuffed with 2000 sand paper, washed, dried, and primed with Dupli-Color white, sandable primer. The hood and trunk lid are taped in place. Anytime you're using a metallic or transparent color you need to paint everything at once. This will keep the color consistent between panels.

ABOVE: Here's our line up of paints; the Dupli-Color white primer, ScaleFinishes.com Champagne Gold (for the base), and House of Kolor Tangelo with HOK superfine gold flake, then we'll seal everything in Testors "Wet Look" gloss paint.

ABOVE: HOK Tangelo is a pretty cool color straight out of the bottle, but I wanted to add just a touch more gold flake. As you can see I used a very small drop of the flake. You don't see it indoors, but when you take the model out in the sunlight it sparkles like crazy!

ABOVE: After block sanding the primer with 4000 grit wet or dry sandpaper, the body is washed, dried, and wiped down. First up is the ScaleFinishes.com 1955 Chevy Champagne Gold shot right over the white primer. This creates a great reflective base color for our orange.

ABOVE: The Scalefinishes.com paints are pre-thinned and can be dumped right into the airbrush. Apply thin coats, slowly build up the coats until you get to the color you like. In this case I did like three thin coats and one heavy coat.

ABOVE: Since we're applying really thin coats with our airbrush I don't want to risk block sanding through the Tangelo color coat. Instead I applied two thin coats and one heavy coat of Testors "Wet Look" gloss paint. After it dried for a couple of days I block sanded with 4000 & 6000 (wet) sand paper watching for any signs of orange paint in the water or sandpaper.

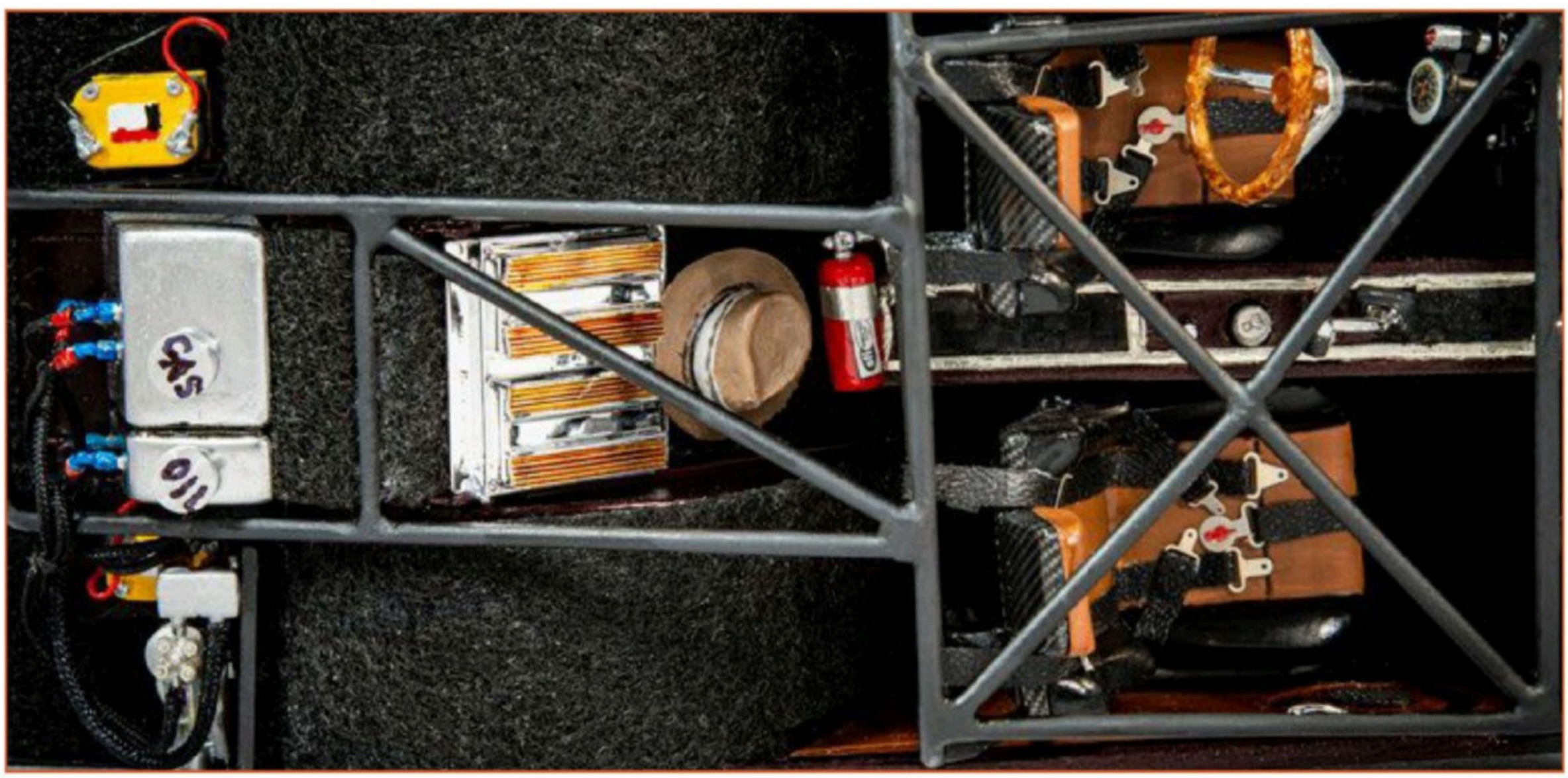
ABOVE: I tried a new technique this time. After wet sanding the body I applied Bare-Metal foil and then repeated the clear gloss coat. I've seen a lot of guys seal their BMF in the gloss before and wanted to give it a try. The only draw back I found was that the BMF seems to leave a black residue on the paint when polishing.

ABOVE: The gloss coat was so smooth I didn't block sand it. But I did go ahead and polish it using the Novus polishing three step system. Start with the #3 and work your way down to the #1 which is basically a cleaner to remove any leftover polishing compound. This polish never lets me down and I highly recommend it! Buy it at TAP plastics.

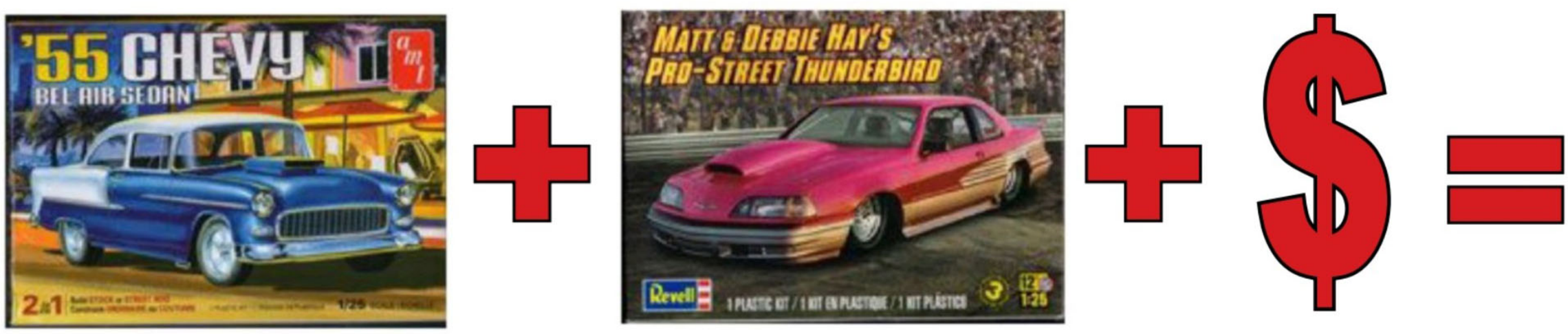
ABOVE: This the twin turbo motor/chassis from the '55 I built a couple of issues back. I was surprised to see that I never added the lower and upper radiator hoses (red arrow). So four fittings and a couple of short pieces of Top Studio black braided hose and I was done.

ABOVE: But then I began thinking that the tiny radiator needed some help. So I found a machined aluminum overflow tank to mount to the firewall. I drilled it for a ninety degree fitting and a long black hose to lead up to the radiator. Close up photos point out things you might not see. Notice the hose unraveling (center pic, next to tank) that goes from the air box to the top of the valve cover. This will have to be replaced.

ABOVE: A lot of judges will look for things that make your car "street legal" so I added a rear view mirror to the rollcage and a side view mirror to the driver's door .



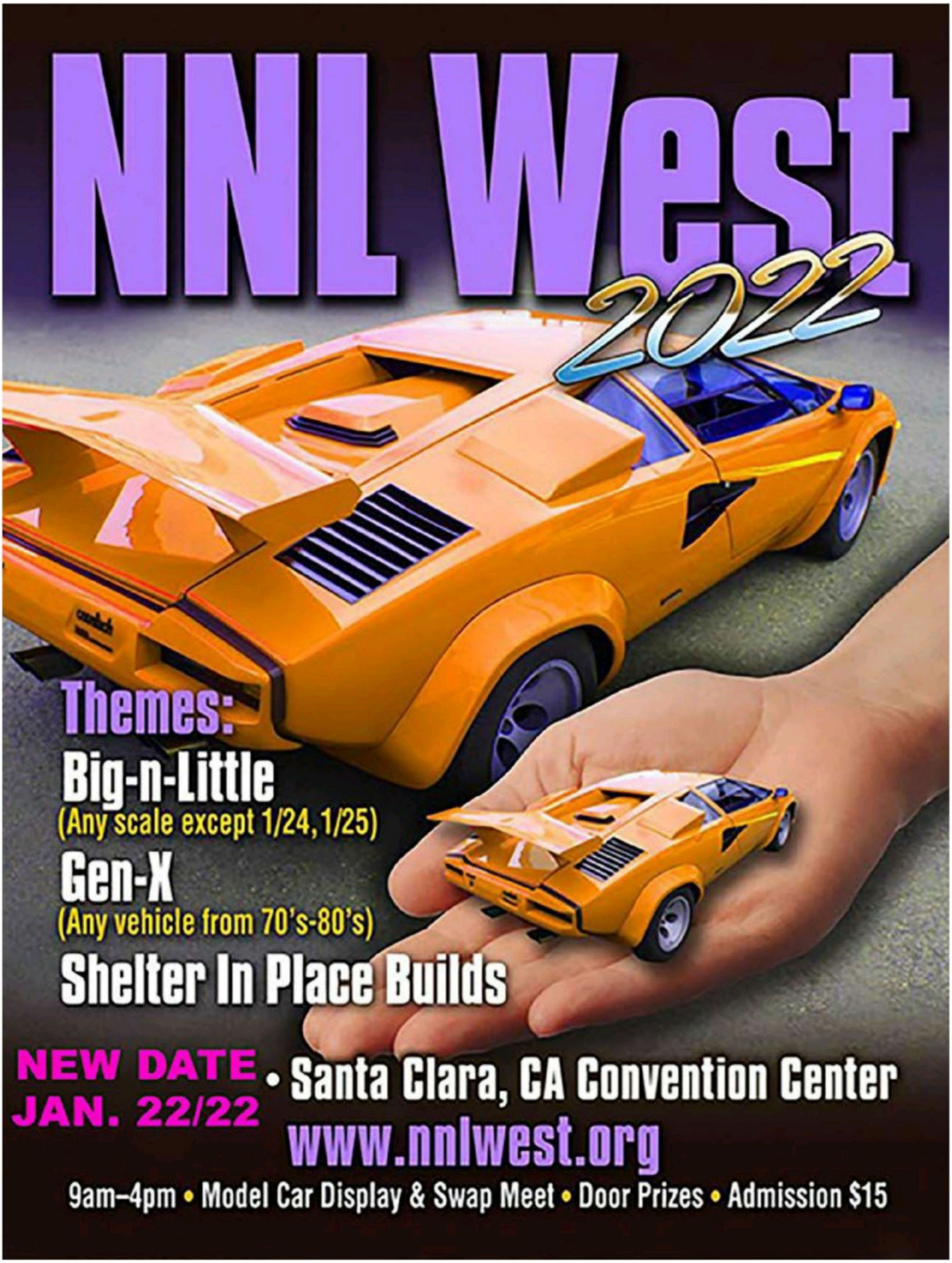
ABOVE: I was also surprised to see that I had no fire extinguisher in the car. So I grabbed one from the spare parts box, detailed it out, and mounted at the back of the center console. To give the car more of a Street Machine feel I added the twin amps from the Matt & Debbie Hays Pro Street T-bird. It didn't need it, but it was a way to reinforce that this was a street car and not an all-out race car. The Indiana Jones hat is a resin cast hat from Replica's & Miniatures of MD. The driver wore a cowboy hat in his younger days, but now he's older and wears this hat!



ABOVE: What did take to build the "Orange Crate" Chevy? Simple; the body, glass, and exterior trim from the AMT '55 Chevy Bel Air Sedan, and the chassis and interior from the Matt & Debbie Hay's Pro Street Thunderbird. Combine those two kits and whole lot of aftermarket parts; Dancing Bear machined aluminum wheels, Iceman Collections 3D printed supercharged Hemi, Turo Sanaka 3D printed fittings, Model Car Garage PE set, Top Studio braided lines, Replica & Miniatures of MD resin hat, and the list goes on...

ABOVE: The Model Car Garage PE scripts and door locks are a huge upgrade over the kit's molded-in scripts. I got a lot of flack from people for the rollcage inspection sticker visible on the drivers side down tube. Hey, gotta make money on the weekends to help pay the gas bill! To look at the car, the rollcage and wide tires are the only thing that gives it away, and, oh ya, the "55 TRBO" plate might tip them off too!

55 TRBO


NNL West
2022
Themes:
Big-n-Little
(Any scale except 1/24, 1/25)
Gen-X
(Any vehicle from 70's-80's)
Shelter In Place Builds
NEW DATE
JAN. 22/22
• Santa Clara, CA Convention Center
www.nnlwest.org
9am–4pm • Model Car Display & Swap Meet • Door Prizes • Admission $15

INTRODUCTION: ALPHA MODELS MCLAREN 720S

Since we're finishing up the Bugatti Chiron in this issue I thought I should introduce you to our next project-the McLaren 720S! I love these McLarens, let's face it, I love any car that looks like it's going fast standing still!

Just like the Chiron we've been building in the last couple of issue, this is a multimedia kit done in resin with detail parts in photo etch, rub on metal, clear plastic, rubber, and of course, decals.

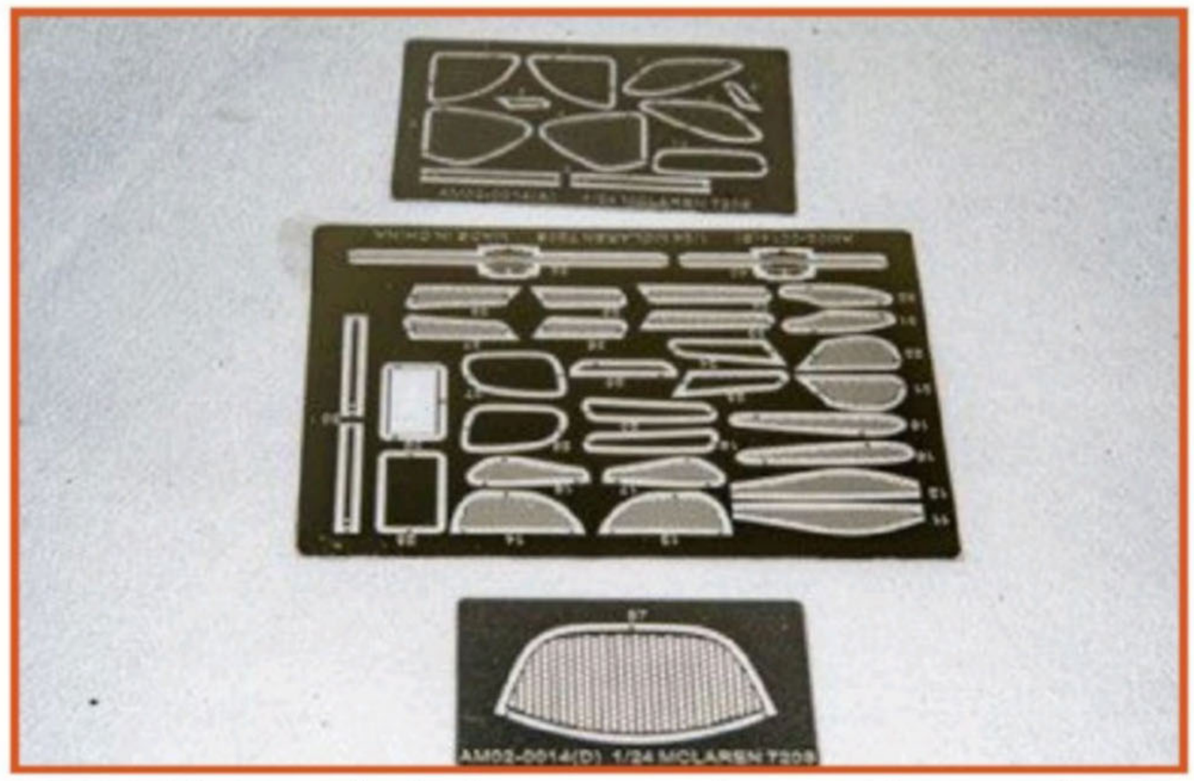
Just like all the other Alpha Models you are looking at an expensive high quality kit and even though it has no undercarriage detail, it is a museum quality replica that you will be proud to display in your collection or at the next NNL.

Next issue we'll get into the body work and paint, and the paint is going to be a wild burnt orange pearl.

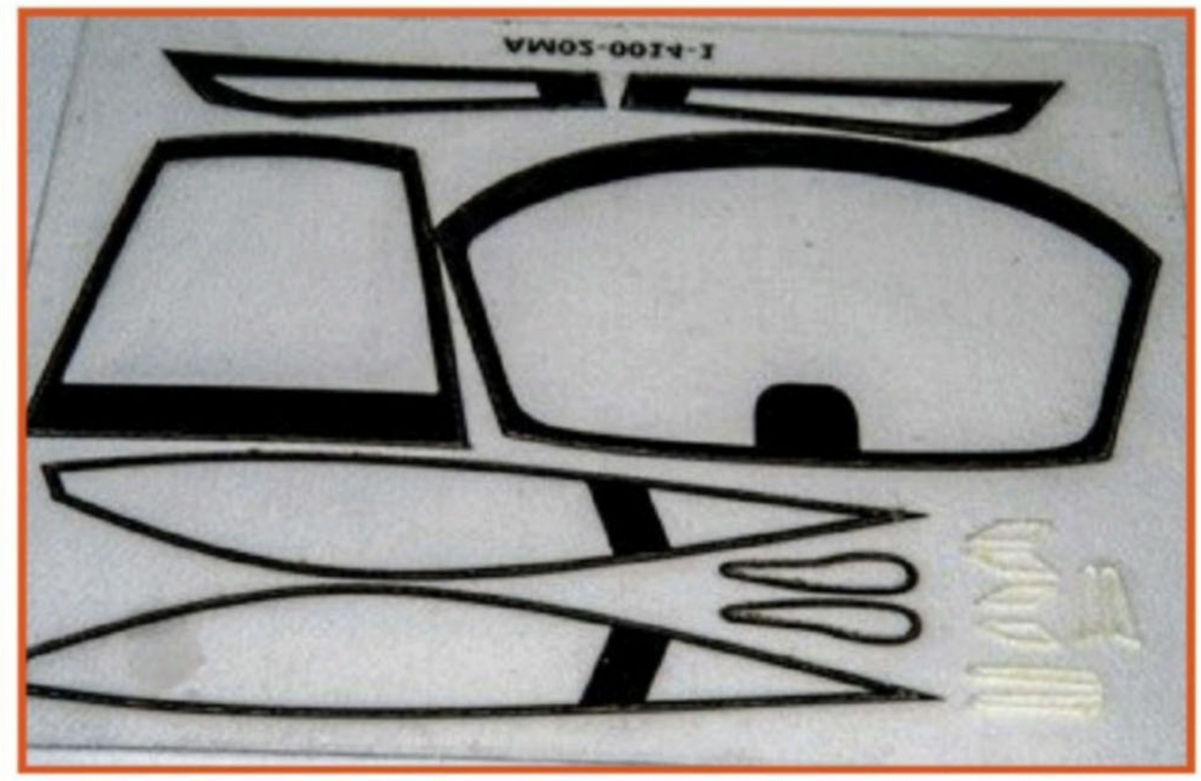
www.alphamodelkit.com

ABOVE: Here's the basic assembly straight out of the box. The fit and detail is perfect. Let's face it, there is not a whole lot of engine or suspension detail visible on this car when it's all closed up, so this curbside presentation is a perfect way to present this car.

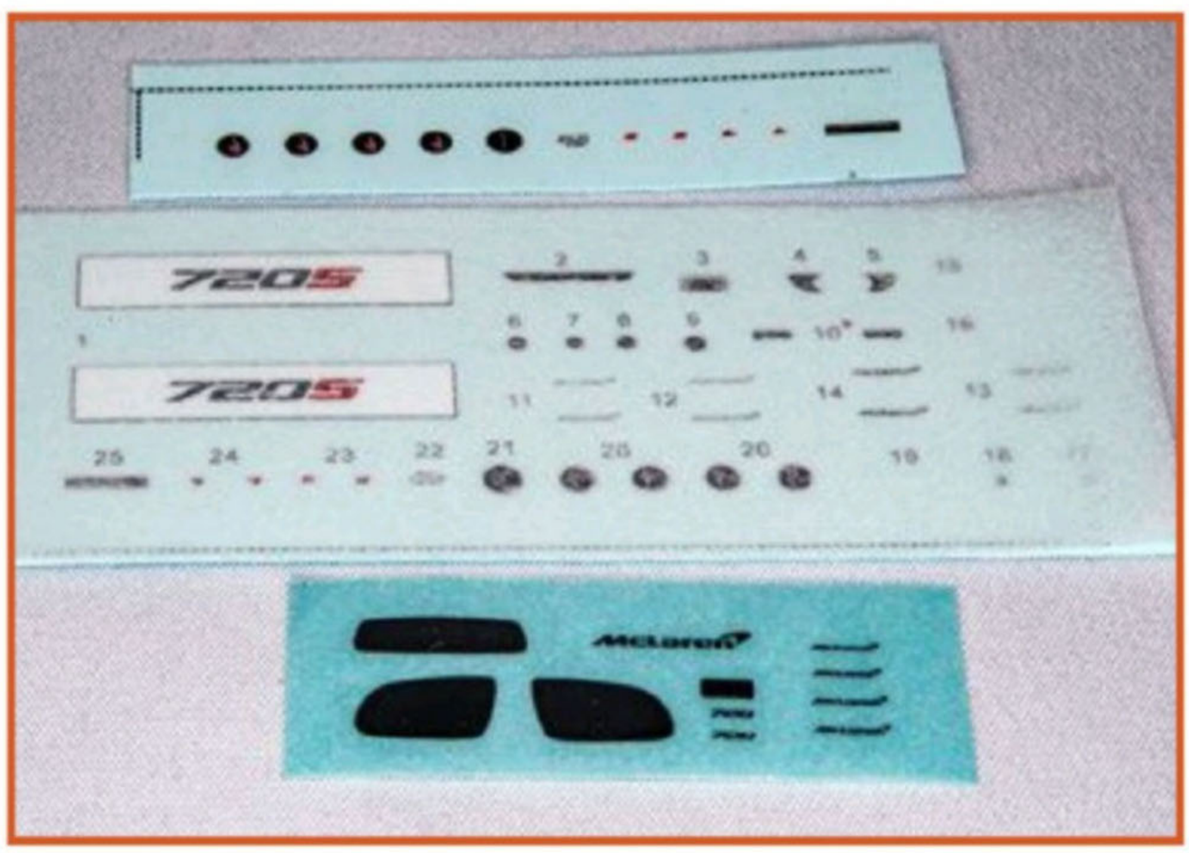
ABOVE: The interior is just as nice as the Bugatti Chiron. One of the things I love about these kits are the separate door inserts (center) and the two piece bucket seats (left). The dashboard might look simple in its bare resin state but with all the extra PE details and decals it's going to look great when completed.



ABOVE: The PE in this kit features a ton of screens. There are a lot of little air and radiator cooling openings in the body and the open screens looks so much better then the molded-in screens you typically find in your standard kit!



ABOVE: No need to mask and paint the window moldings, they are molded right onto the clear plastic sheet! All the windows on the McLaren are pretty flat. I think the windshield is the only one with any kind of bow in it, so these should be simple to install.



ABOVE: All the decals you need for both the exterior and interior are included in the kit (I forgot to remove the protective sheet before taking the picture). Plus those cool metal transfers for the mirrors and scripts (bottom of picture).

ABOVE: We love the wheels in this kit. Some semi-gloss black and some turned aluminum valve stems (painted black) and they're going to look perfect.

Next issue we dive into painting and assembling the body...

READING AROUND...

Over the next couple of issues I'm going to share some of my reading material with you. Some of these you might already know, others will be a total surprise to you. Like our first one right here. How many have you heard of ***Farm Modeller*** magazine? Raise your hand....go ahead... I'm waiting. Just as I thought, none of you. Oh wait, we do have some Norwegian readers, I bet that they've seen it before.

Farm Modeller is the world's No. 1 model farm magazine for all ages. It's a lot like our model car magazines, only it's about farm tractors and farm gear. There's the usual reviews on new kits and die-cast. Ho-to articles on building tractors or how to modify existing die cast tractors. Event coverage, readers models and more.

There is a how-to build issue on Revell's Porsche Junior 108 Tractor. A model I've seen popping up in model car pages on Facebook and in model magazines.

They're just starting to discover the world of 3D printing as well. In this issue they talk about ordering parts from Shapeways.com and all the different materials you can order your parts in, how to prepare them for paint, etc.. There's no doubt that 3D modeling will rock there hobby just like it's doing to ours!

Would I recommend ***Farm Modeller*** for your average model car guy? No, I wouldn't. But if you live in farm land and you're surrounded by tractors all the time, you might find it interesting.

https://farmmodellermagazine.com

Dedicated Scale Enthusiast Magazine has been around for a while. It centers around lowrider models but I've also seen street machines and tuners in it as well. This is a very beautifully printed magazine done on heavy, high gloss paper. There's lot of event coverage. In fact, in the issue shown above is the coverage on the 2020 NNL Western Nationals. The four pages of coverage includes the Friday night pizza party.

There's lots of great how-to articles on detailing and working parts. There's lots of reporting in ***Dedicated*** as well, they report on a lot of things happening in the lowrider hobby, do profiles on people, cover the lowrider lifestyle. Interesting stuff.

Then there's the little bonus stuff subscribers receive with their issue; a standalone centerfold style, two sided poster, PE Dedicated club window plaques and stickers! The mag is about 60 pages and sells for around $16.00 (plus postage)

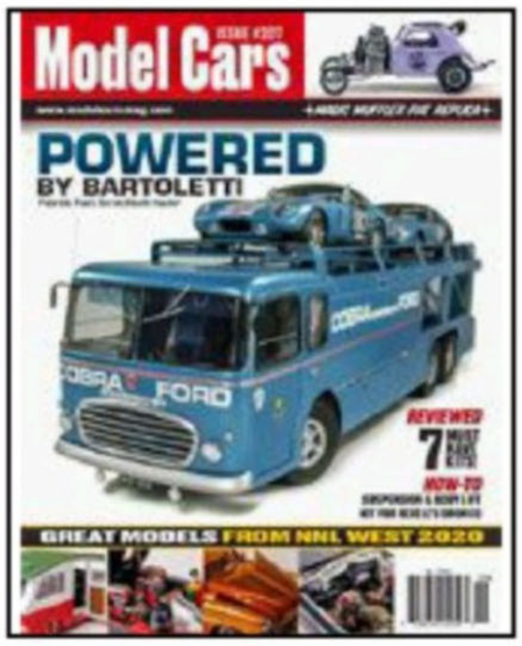
https://www.dedicatedmagazine.com

Model Cars has had its up and downs. Many modelers have complained about not getting their subscriptions. I was hesitant about even mentioning the magazine here.

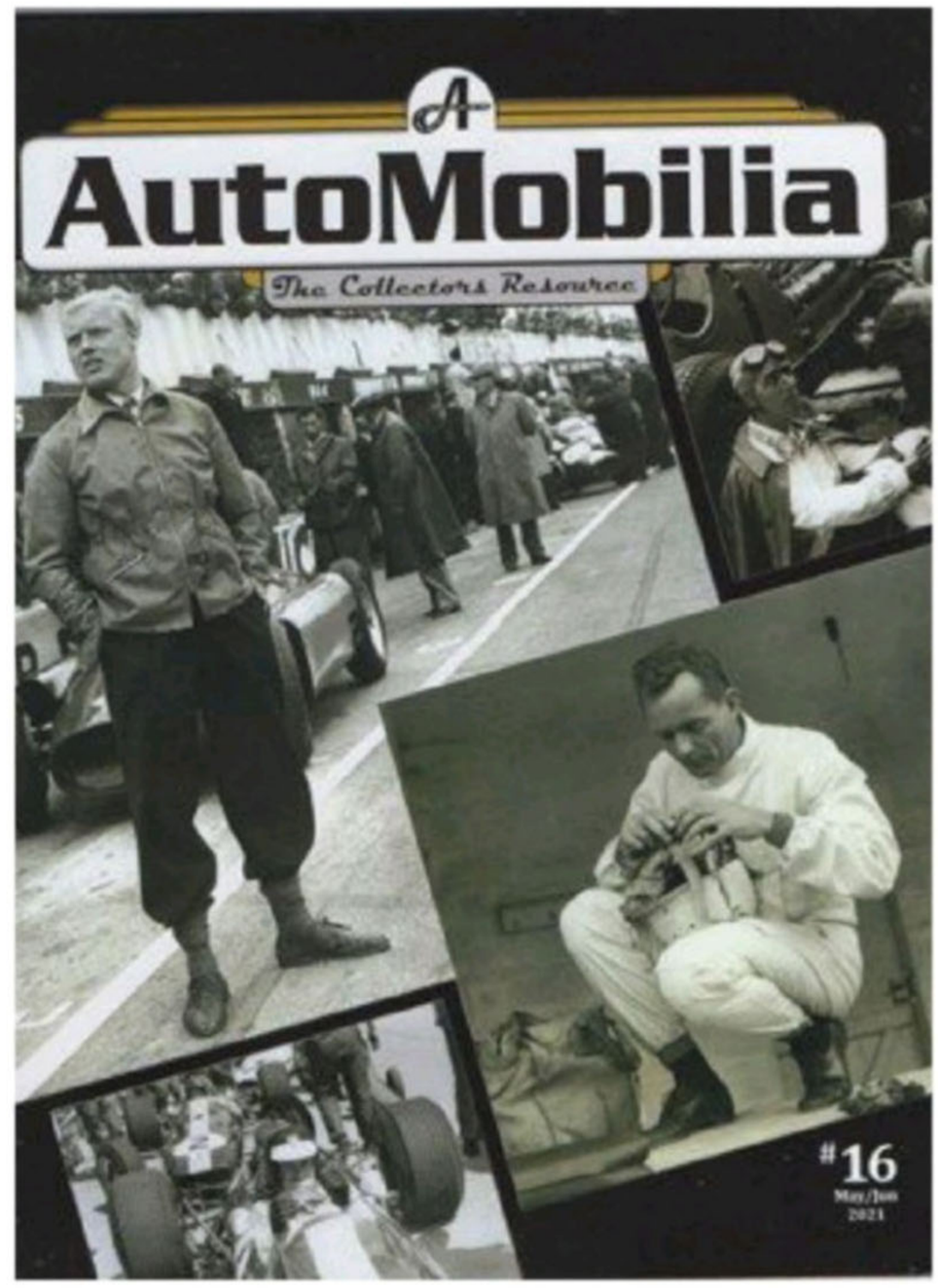
But when we thought the magazine had folded we were all surprised to see two issues being released recently! It seems that Darryl Gassaway, Larry Greenberg, and the rest of the staff seem determined to bring the magazine back to life. I won't be sending them subscription money anytime soon, but it's nice to be able to pick one up at my local hobby shop again!

The 64 page magazine is printed on glossy paper and sells for $6.50 per issue. *Model Cars* always has some great how-to articles in it, as well as event coverage, kit reviews, new products and more.

We were a little worried about slot car and die-cast taking up lots of room in the "model" car magazine, but that has not been the case with these new issues. I wish the guys the best of luck bringing back *Model Cars* and I'm looking forward to reading future issues!



https://www.modelcarsmag.com



AutoMobilia is NOT a model car magazine. If you collect model cars, die-cast, or just dig old car stuff then you should be reading *AutoMobilia*! Each issue is packed with vintage photos, great history on cars and race cars, and automobilia in general. There are regular features on auto art, gas station histories, auction coverage, and more! But let me tell you the two most interesting things;

1) The editor is master model car builder Marshall Buck! You might remember we featured Marshall in issue #27 of Model Car Builder magazine. Besides being the editor, Marshall also pens the model car column in each issue.

and 2) the advertising in the mag! I know what your thinking, advertising?! But yes the vintage signs and pictures are great reference material, or cut them out to use for diorama signage!

It's a great magazine for reference material, very interesting histories, good articles. I highly recommend it for all model car builders into older cars.

https://www.automobiliaresource.com

“I’ve got this old Matchbox and...”

My big brother walks out with this pitiful Matchbox Corvette in his hand and asks if I could fix it up for him? It’s in bad shape; wheels missing, body dinged up, dirt in all the body seams, etc.. But he’s my brother so I grab it, give a smile and say “No problem.”

No problem? Who am I kidding! The last Matchbox car I modified was when I was thirteen and I used an M-80 to “modify” it! Where was I going to find two wheels? How do you strip the paint? Oh well, time to jump on the old world wide web and do some searching.

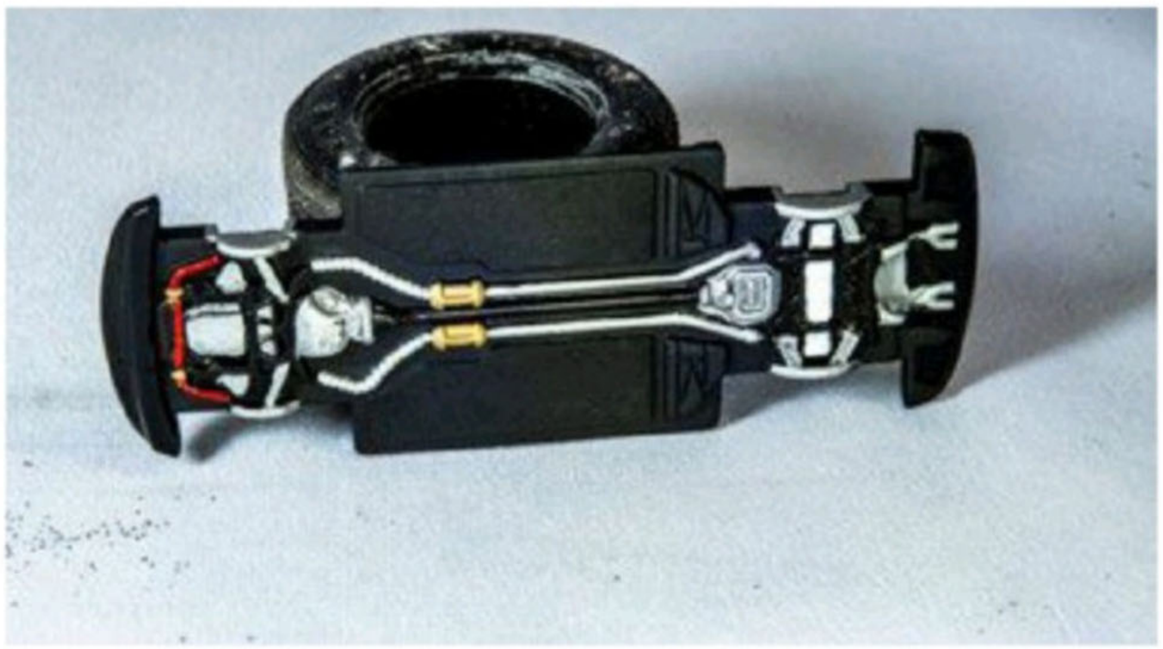
The first problem was wheels. I found a company in China who sells four custom wheels with cross drilled brake rotors and red calipers for $10. Took a while for them to get here, but they are pretty nice (https://164model.com/products/1-64-scale-rubber-tire-wheels-with-brake-disc-universal).

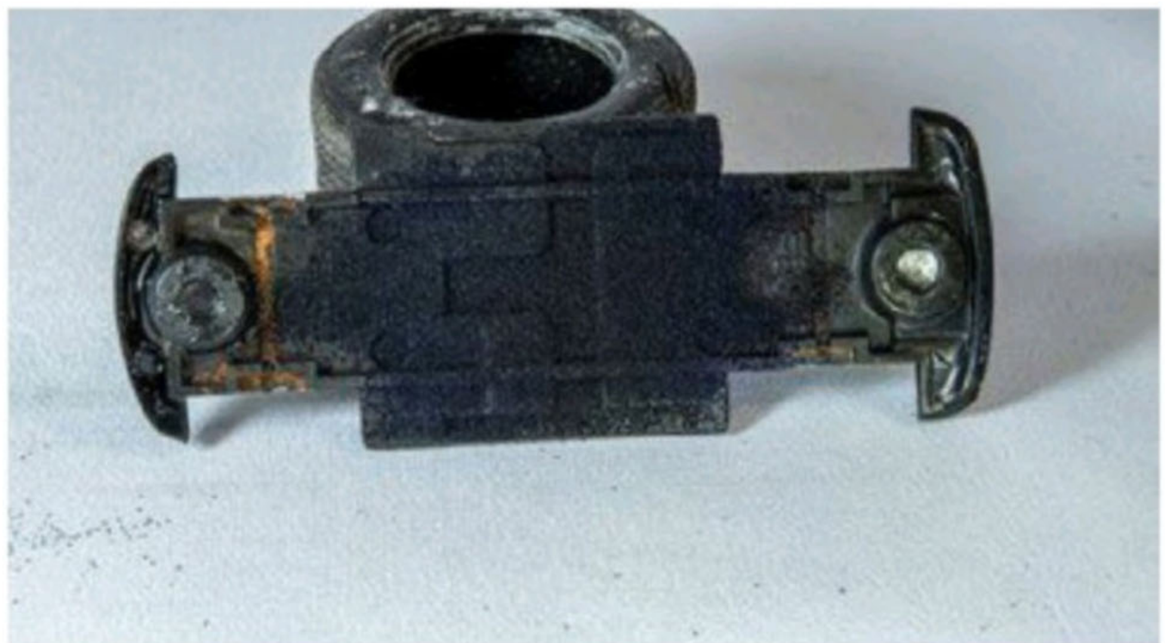
Next problem was stripping the paint. I tried my Purple Power cleaner. Nothing. Brake fluid. Nothing. So then I tried Easy Off oven cleaner. Don’t know if it was the combination of all three, or just the Easy Off, but it finally broke it down and I was able to clean it down to the bare metal with s steel wool pad. After that I filed off any parting seams, filled in dents, got everything looking good. A good wipe down with some metal prep and shot it with some red Dupli-Color primer/sealer. A light wet sand with 2000 grit paper and then painted it with some Grex black, and a dusting over the top with there pearl black (more metallic then pearl). Sealed it all with a coat of Testors Wet Look clear.

The body needed some detail work. I used Bare-Metal Foil on the taillights, side markers, and rear view mirrors. Tamiya clear red was used on the taillights and rear side marker lights. Clear orange for the front markers. Headlight covers were painted gloss black. The rear spoiler and roof insert were covered in Scale Motorsports 1/24th scale carbon fiber decals. Once the decals and Tamiya paints were dry we put another heavy coat of Testors Wet Look gloss.

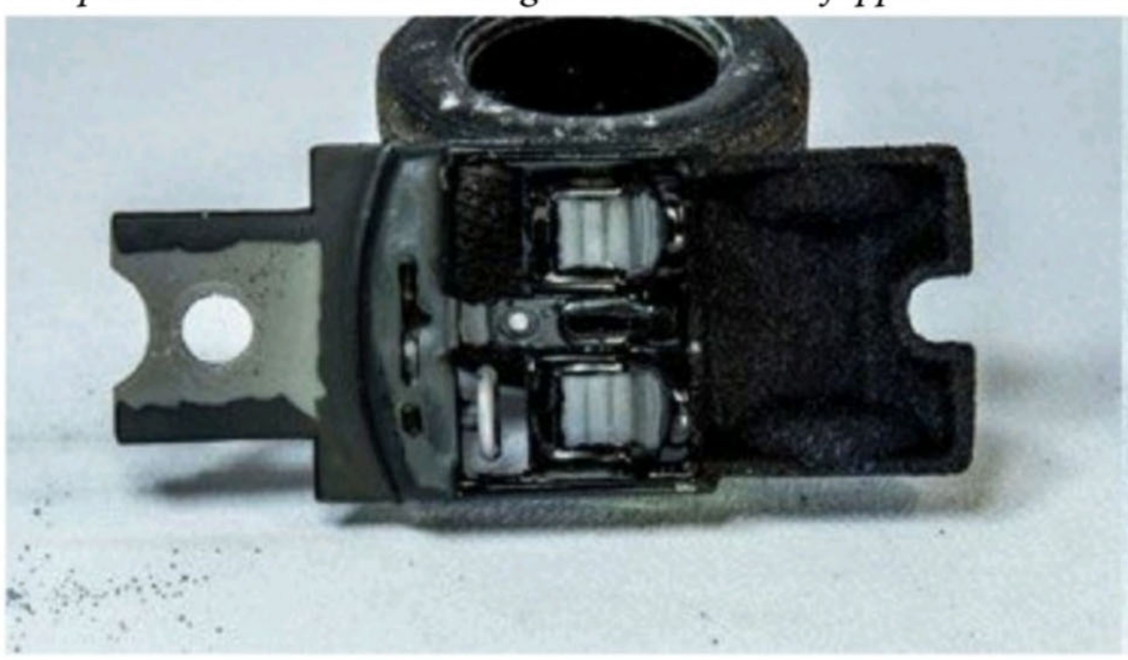
Follow along as we detail the rest of the car...

LEFT & ABOVE: After drilling out the rivets that hold everything together I was able to strip the body of paint and repaint it in Crex Pearl Black after removing the parting seams and filing 30+ years of being run into walls and other cars!





ABOVE: The molded in details in the chassis weren't to bad. Full exhaust, independent suspension, and motor and tranny detail. OK, the Matchbox collectors out there cover your ears! I sanded off all the Matchbox markings on the chassis pan. A new oil pan made from a scrap piece of plastic covers up the rivet hole in front, and spare piece of wire connects the front sway bar. The rear rivet hole was filled with C/A glue and painted silver to match the gas tank. Then we flipped the chassis over to add carpet by spraying some black paint and applying flocking.



ABOVE: The Matchbox interior was gray. I masked off the front half of the interior, and sprayed the trunk space black and flocked it as well. The rest of the interior was done in different shades of black, but I left the seat inserts and steering wheel the original gray. The glass had to have 30+ years of scratches polished out of it (I used the Novus three step system) and then the trim done in semi-gloss black.

FINAL THOUGHTS: I'm not a big fan of diecast cars, and I was a little upset when my mom gave away my HUGE Matchbox and Hot Wheels collection, but I had fun doing this project. It was something different, and it didn't take a whole lot of time to complete.

I ordered extra sets of these wheels, and I understand Dancing Bears does turned aluminum 1:64th scale custom wheels. So I just might have to do a few more of these...

Jim Drew's
Italeri 1/12 Alfa Romeo 8C 2300 Monza Monoposto Conversion

Italeri 1/12 Alfa Romeo 8C 2300 Monza monoposto conversion. This is Jim's interpretation of how chassis 2211077 would have looked post race at the 1936 Finnish GP. The big change on this conversion was going from a big dual bench seat that both the driver and mechanic sat in, to a single driver sitting in the middle. This new light weight version of the car also got its front and rear frame covers cut way down.

I've been a big Jim Drew fan for years. His builds are always top notch and beautifully detailed. But when I saw him building this on Facebook, I had to ask him if we could feature his gorgeous Alfa Romeo in Model Car Builder? Thankfully he said yes.

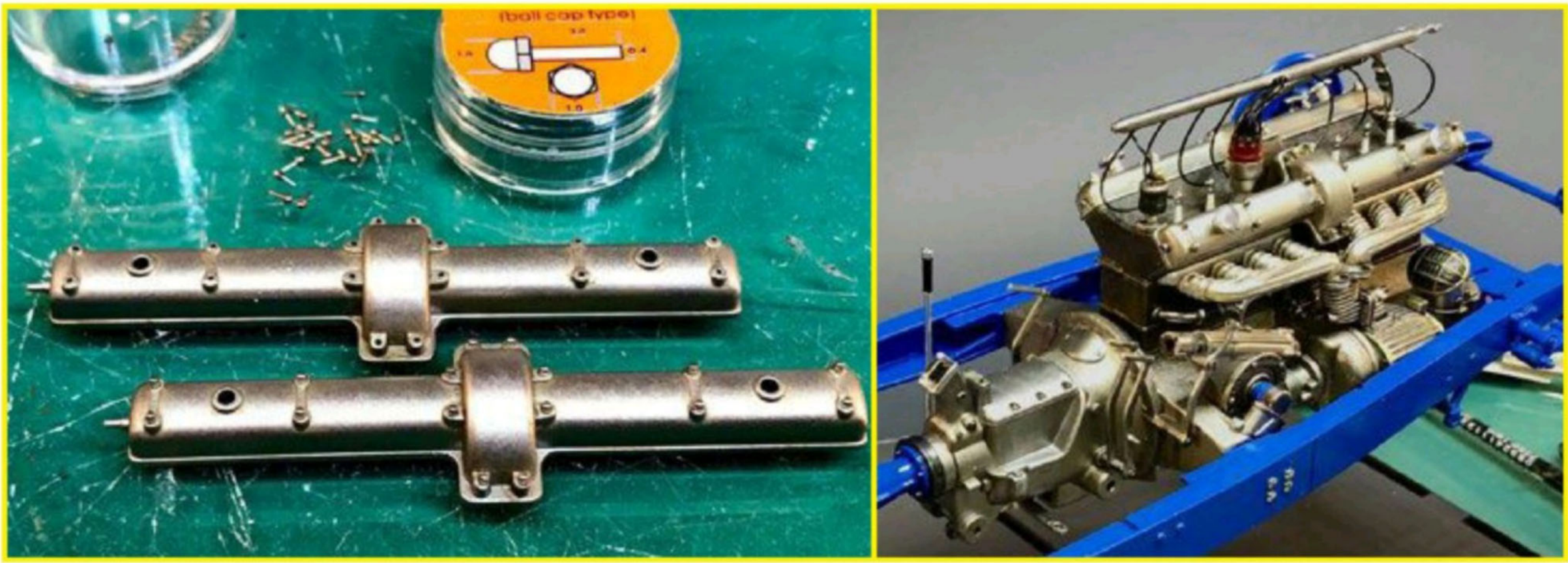
You can check out more of Drew's builds on his Facebook page: Drewid Fine Scale Models

Jim wanted me to note that the wheels for this one are hand laced by Fernando Pinto.

All photos courtesy of Jim Drew.

ABOVE: Jim used some scrap high density urethane board that he acquired from a sign maker to form the new cowl. Then a piece of plastic was vacuum formed over it (used epoxy putty to fine tune the shape). ABOVE RIGHT: The front frame cover piece (just ahead of the radiator)was modified for weight savings. The rear of the car got some weight saving trimming as well.

ABOVE: New gauge bezels out of silver rings and a MFH foil application to represent a machine turned panel. Bondic UV epoxy was used for the glass.



ABOVE: Valve covers. Replaced the nuts with some stainless ones that I had in the stash. Too bad they are no longer available. but you might want to check at Prime-Miniatures.Co.UK for similar bolts. The engine block casting texture that was created with Mr Surfacer 500 and a stipple brush. Metalizer paints were used throughout the motor and transmission.

ABOVE: Jim scratchbuilt the bucket seat and frame. Two-part epoxy putty forms the upholstery. Then some fun airbrush time for sure. Jim decided a splash of red would be an okay artistic license on the frame work. But let's look closer at that seat---that thing looks real! That's a real artist at work there.

ABOVE: Jim says he enjoyed a three hour fabrication session converting the kit steering wheel to a banjo style. After removing the spokes on the kit part he drilled holes in the three locations for the banjo wires. Plated copper wires were then inserted and glued in place. Two part epoxy putty was formed in the three transition locations. After that the horn button was turned on his lathe.

Jim Drew's
Italeri 1/12 Alfa Romeo 8C 2300

Monza Monoposto Conversion

MODEL CAR BUILDER

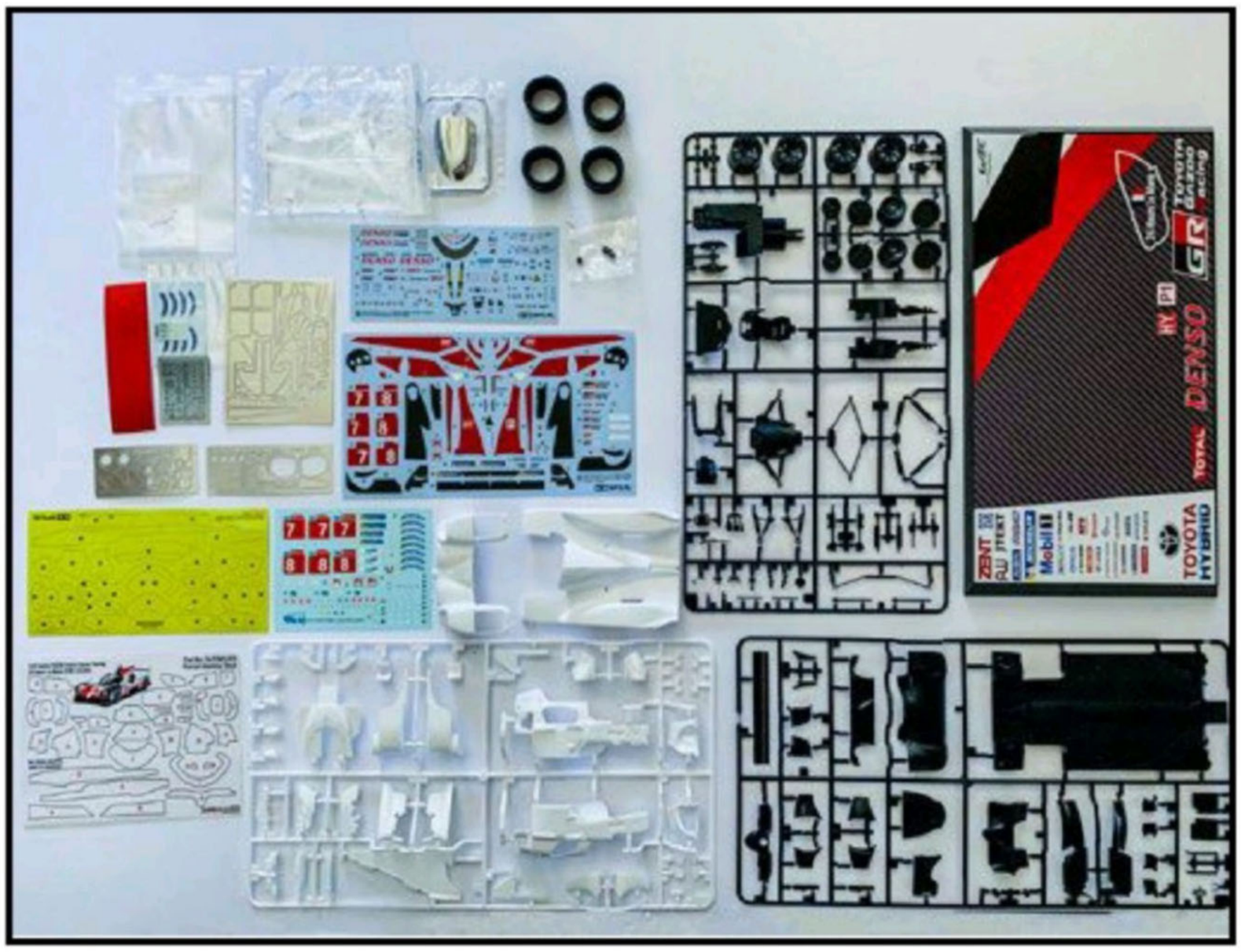
INTRODUCTION: Toyota Gazoo Racing TS050 Hybrid

If you ever get the chance to go see one of these 24hr of Le Mans hybrids race on a track, do it! These things are amazing! I got to watch the Porsche version set new track records at WeatherTech Raceway Laguna Seca during Rennsport one year. It looked like a slot car going on a slot car track!

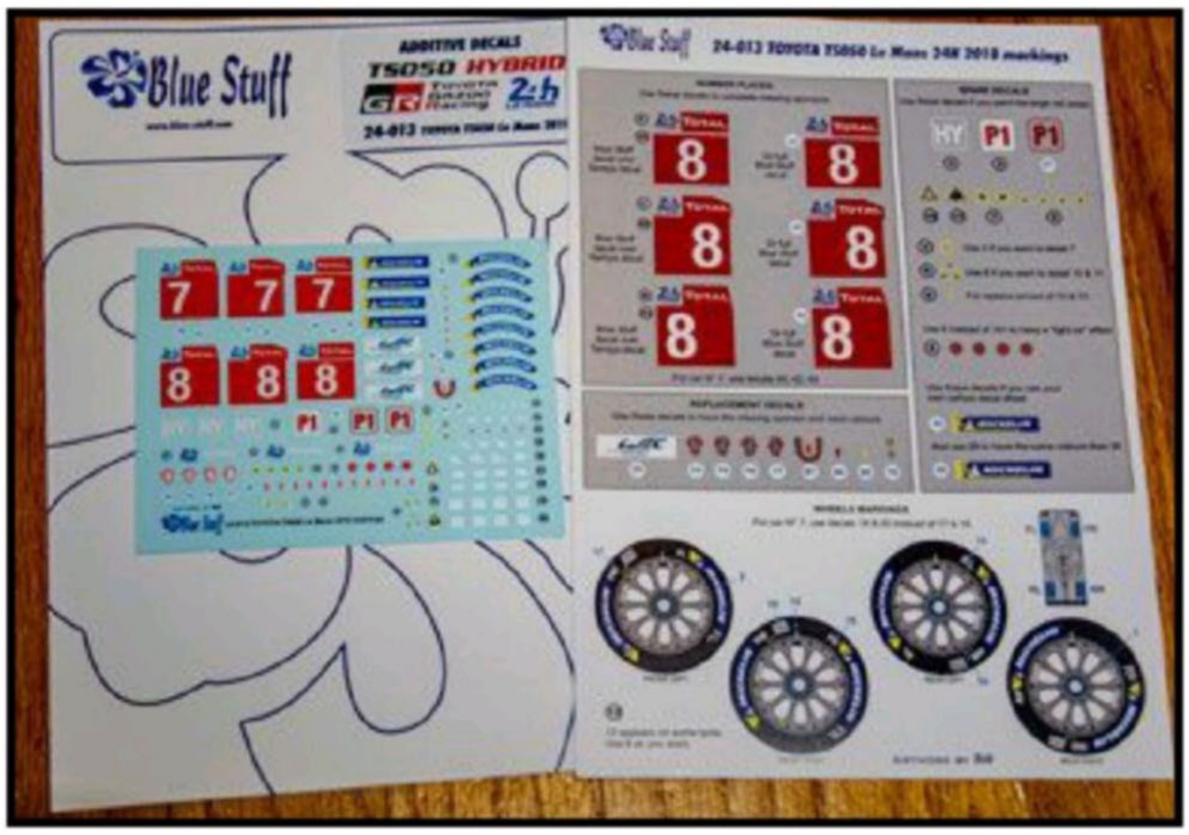
So when Tamiya released this Toyota version I was quick to snap up the kit.

After seeing how nice the kit is I decided to sit down and order all the aftermarket detail parts I could find for the car. A couple of hundred dollars and I was ready to build!

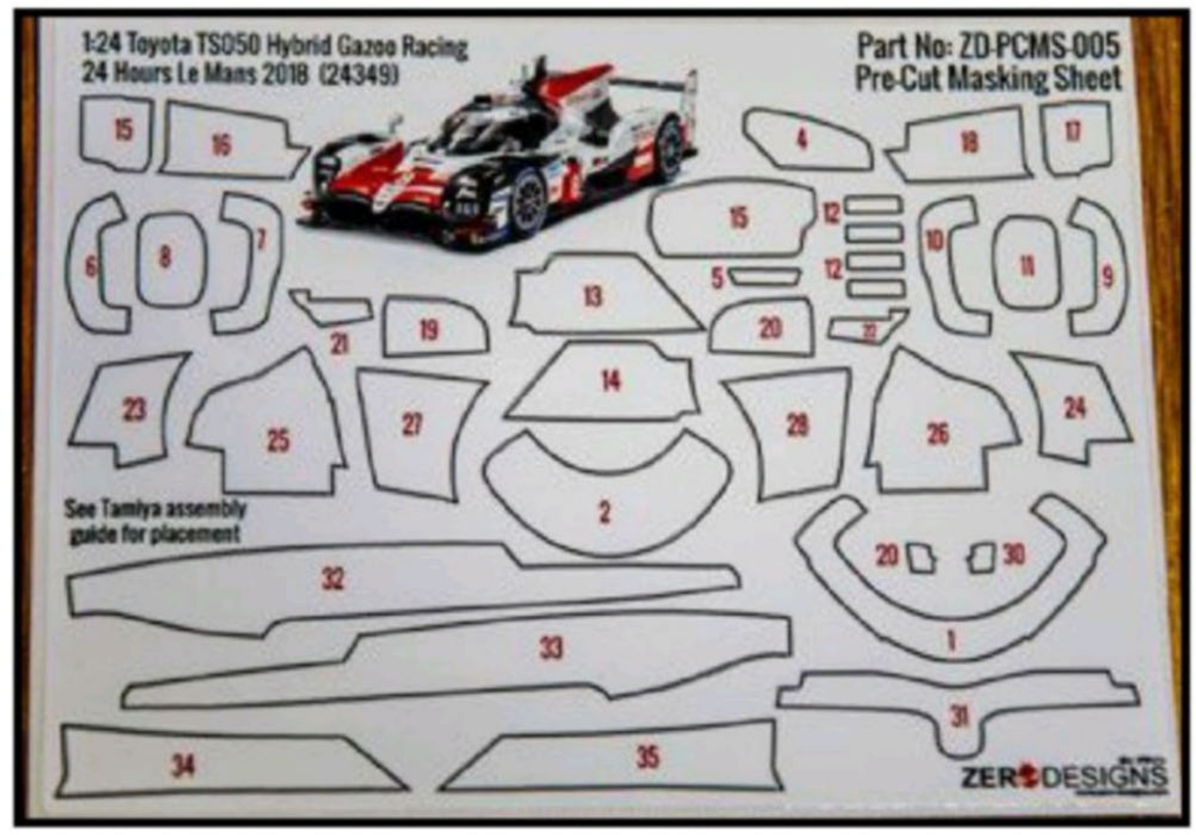
I'm just hoping I can get this sucker done in time for the next issue! Stay tuned...



ABOVE: OK, so I sit down at the computer to order detail parts for the basic kit, and this was just the first round! There is probably close to $200 sitting there!

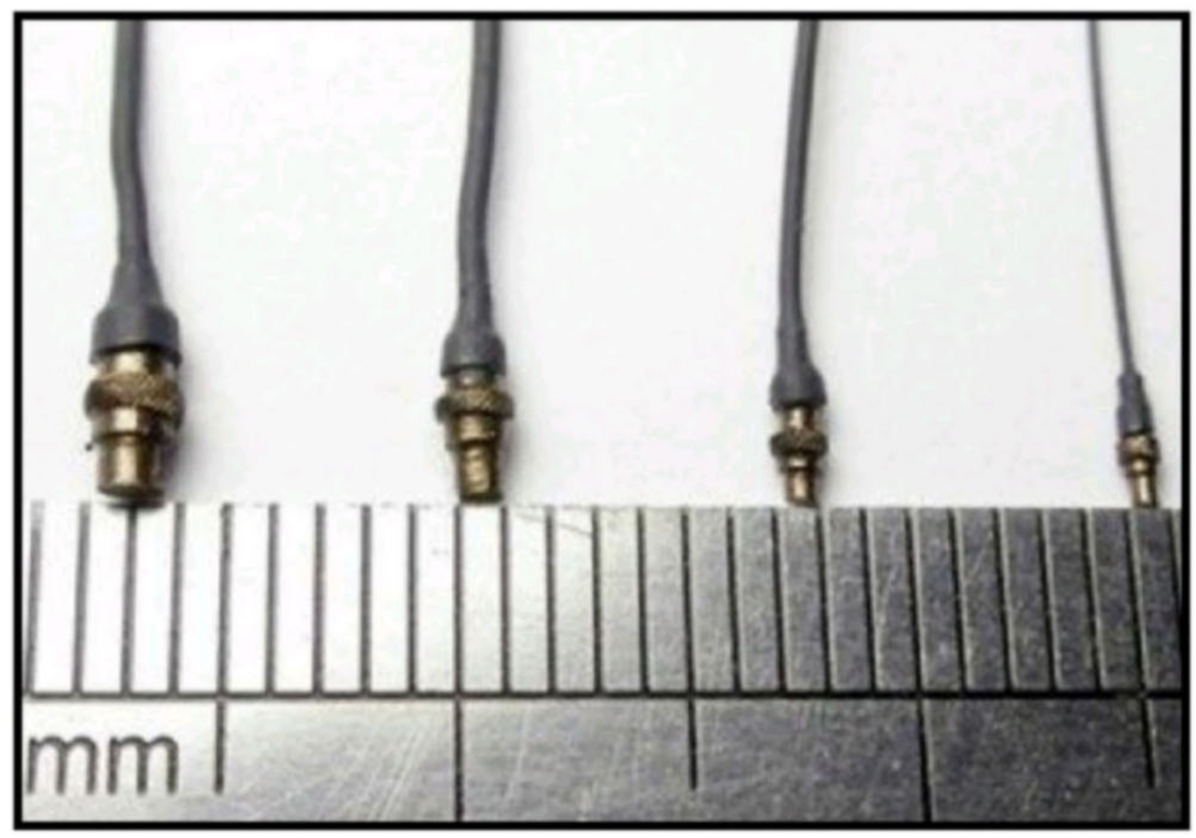


ABOVE: The Blue Stuff decal set includes extra decals so you can build different versions of the car. It features some beautifully printed waterslide decals and a full color instruction sheet.



ABOVE: If you want accurate, clean masking lines while painting this intricate paint job then you need to order this PRE-CUT masking sheet from Zero Designs (the masking sheet that comes with the kit is not pre-cut, you have to cut them yourself).

ABOVE: We're all used to seeing aftermarket A/N fittings, but what about electrical connections? Today's modern race car has a ton of computer boxes and electrical boxes that need scale connectors.



ABOVE: Here's a good example of electrical connectors with 1/12th on the left all the way down to 1/25th on the right. I usually buy a variety of sizes since there are different size electrical boxes and diameter of wires. You can find these connectors made in resin or metal. The metal is a little more expensive but looks great in the larger scales.

ABOVE: It is not easy to find reference photos of modern day race cars online. Fast Guide publishes a line of reference books and No. 10 is the Toyota TS050 Hybrid, it's 31 pages, full color, but NO chassis or motor shots! A few nice shots of the interior and the rest are exterior shots (of the car right after being in a race).

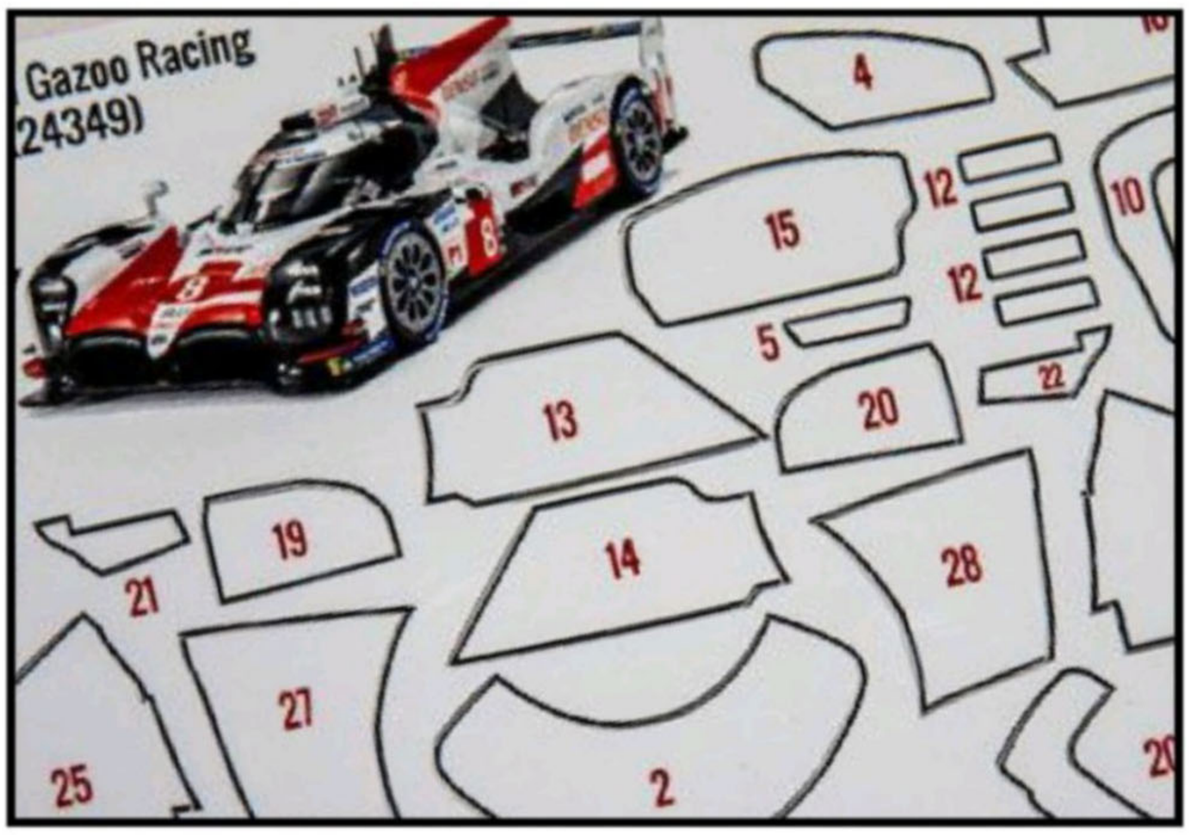
ABOVE: Found this cool base at Hiroboy.com. The hybrid markings and faux carbon fiber base makes it perfect for our project.

ABOVE: You can always count on Hobby Design turning out the best detail-up sets. Their set for this car (Part no. HD02-0394) is no exception. This set includes four sheets of photoetch, machined aluminum mounting hardware (really tiny stuff), and red seat belt material. The instruction is really well done and points out everywhere these parts need to go.

ABOVE: Brake heat shields were covered in carbon fiber decal, but I only did the front and back of the shields. When the tires/wheels are in place the center of the drum isn't visible. Do yourself a BIG favor; as soon as the caliper manufacturer decals are dry, cover them in a clear coat to lock them down. They fly off if you breath too heavily on them!

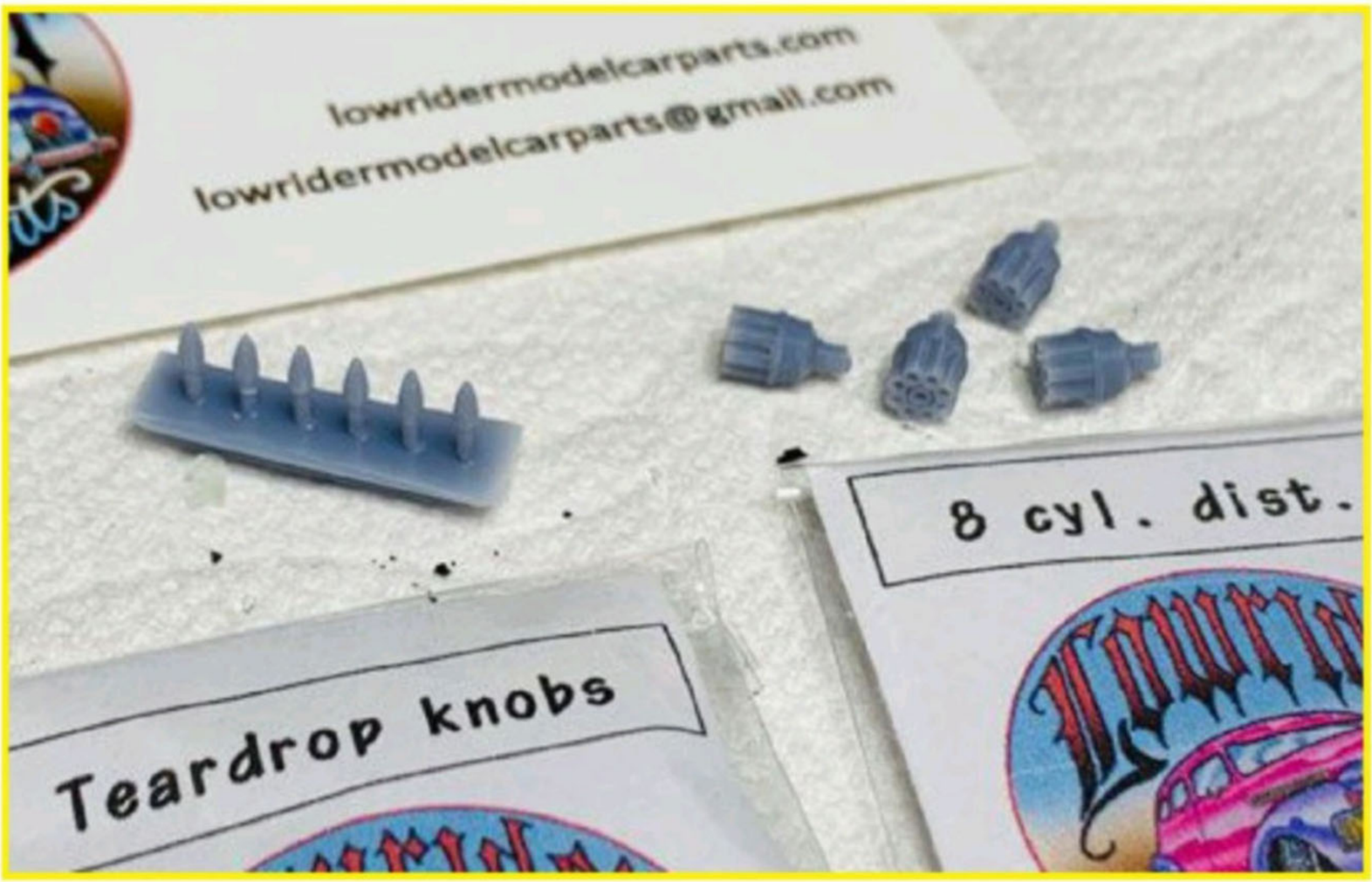
ABOVE: The Hobby Design PE kit does give you disc brake rotor surfaces, but they need to be painted since they are made from a carbon fiber composite. I used Tamiya Gun Metal Grey.

ABOVE: Four wheels/tires and 44 decals later! The Blue Stuff decal sheet is amazing, they have every marking for a set of scuffed tires! The decals fit and conformed perfectly to the tires. The wheels are painted Tamiya's gun metal grey. Tamiya flat clear seals the decals.



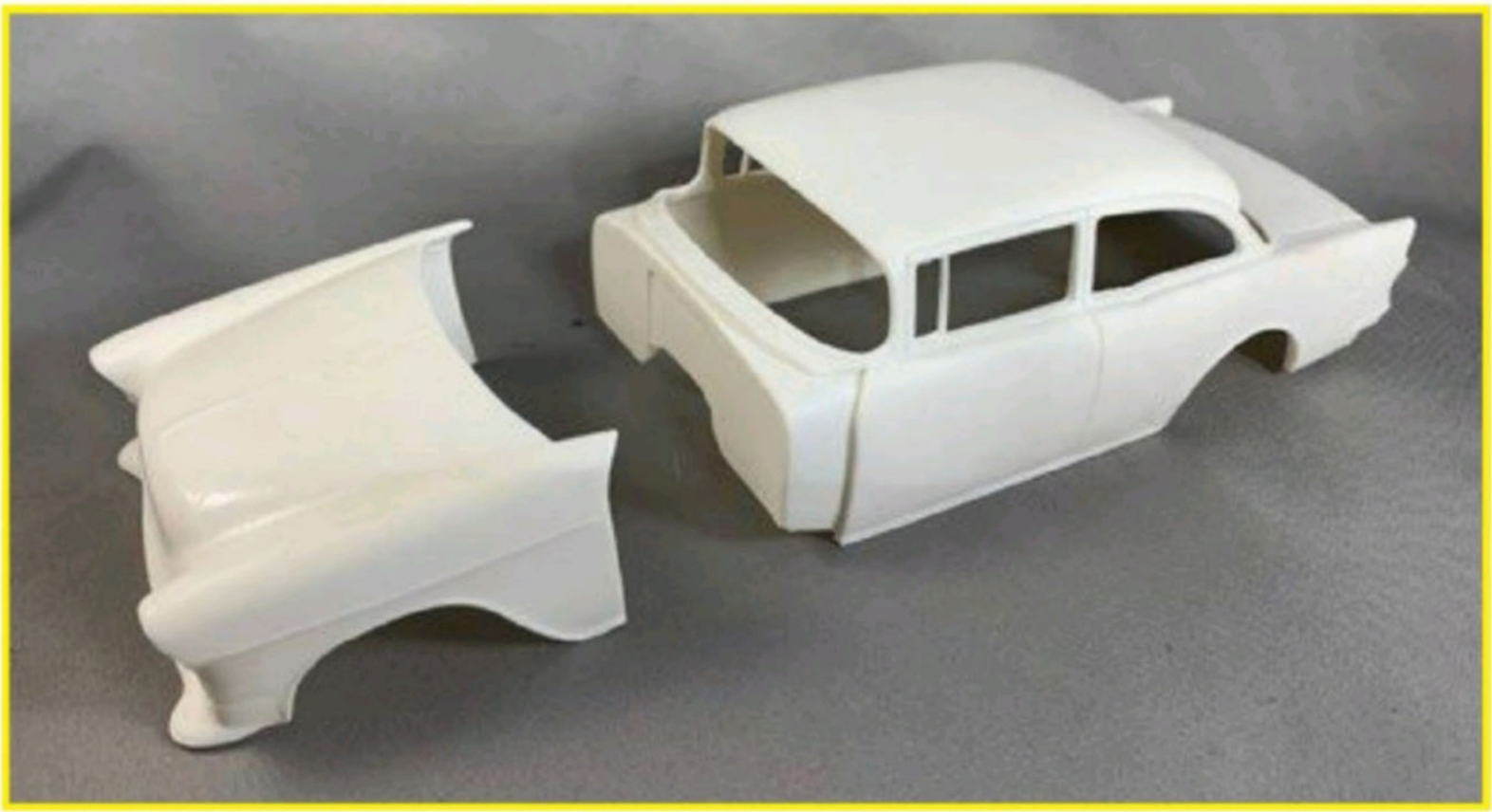
ABOVE: Next issue will get into the complicated paint job that requires a ton of masking and hopefully the final assembly.

WEB STUFF



LEFT: Lowrider Model Car Parts offers a great variety of parts, including these Tear Drop dashboard knobs (available in different colors) and these pre-drilled 8 cyclinder distributors.

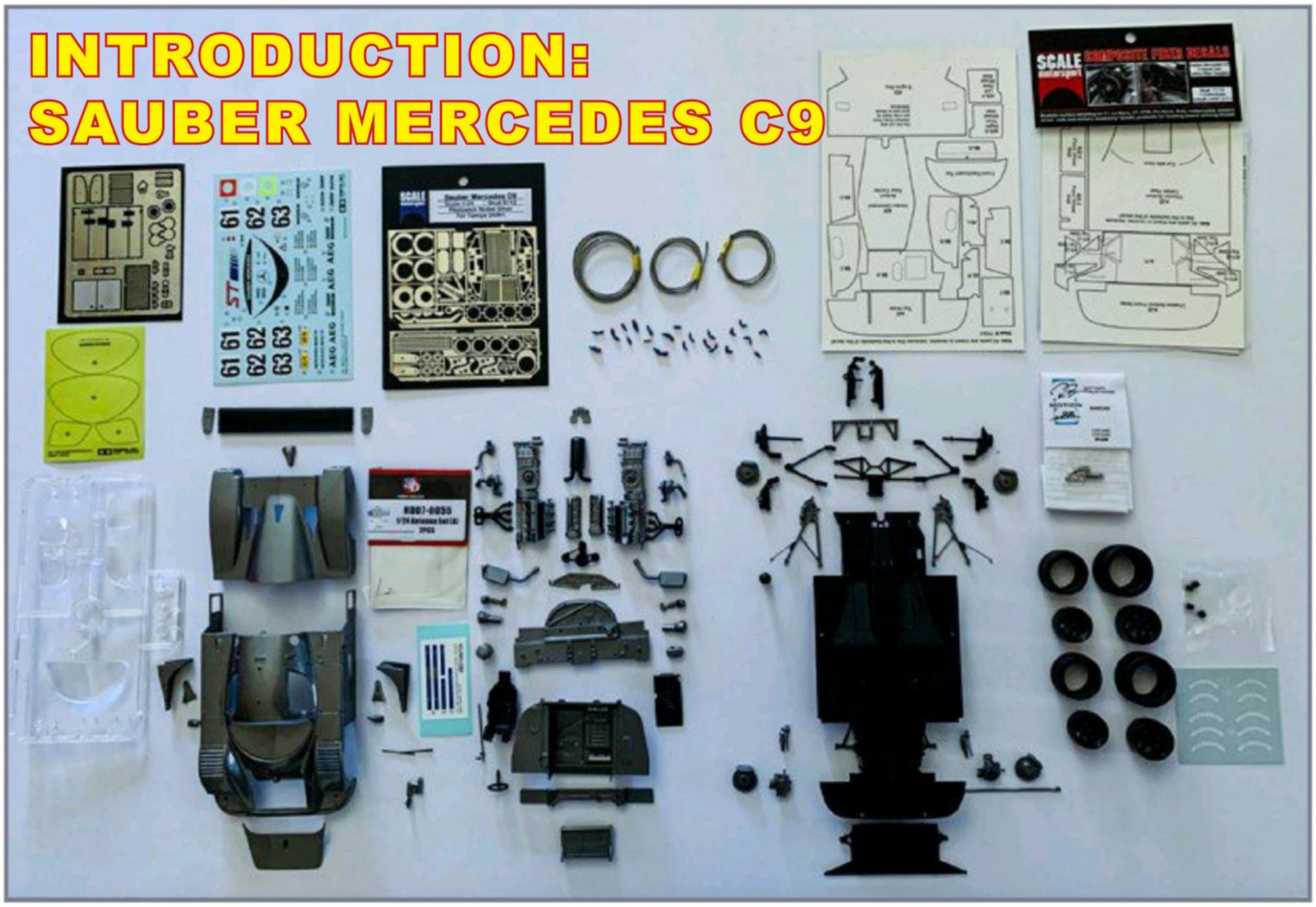
Check out their whole line of parts at: https://www.lowridermodelcarparts.com



MODEL CAR BUILDER

LEFT: Need a tilt nose '55 Chevy body to build a gasser? I have the prefect solution for you! Mike Powell offers this resin cast two piece body. It features a smooth firewall and the rear wheel wells have already been radiused for big slicks! I can't wait to get started on this one (you know how much I love '55 Chevys)!
If you'd like to order one you can PM Mike at his Facebook page: https://www.facebook.com/MikePowel

INTRODUCTION: SAUBER MERCEDES C9

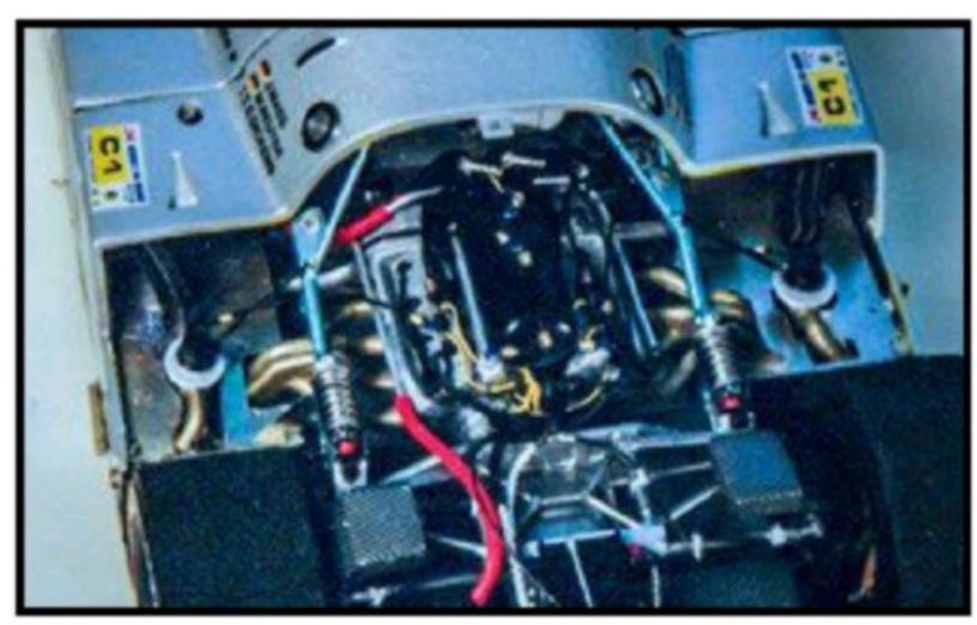


The first time I saw a Tamiya Sauber Mercedes C9 on a contest table was at the GSL International Model Car Championship decades ago! Russ Schwenkler had built a fully detailed version that just had me coming back to it again and again over the weekend because there was always a new detail that I hadn't see before. As soon as I got home I hit my local hobby shop and picked up one.

I ordered a detail up set for the car from S&S Specialties and a carbon fiber decal sheet from Scale Motorsport, plus a ton of Detail Master machined aluminum A/N fittings, and proceeded to detail the heck out of it! In fact I used it as a project car in the pages of *Plastic Fanatic* magazine. The car came out great and I won a ton of awards, including several "Best Detail" awards! But sadly, I sold the car on eBay to help finance going back to college.

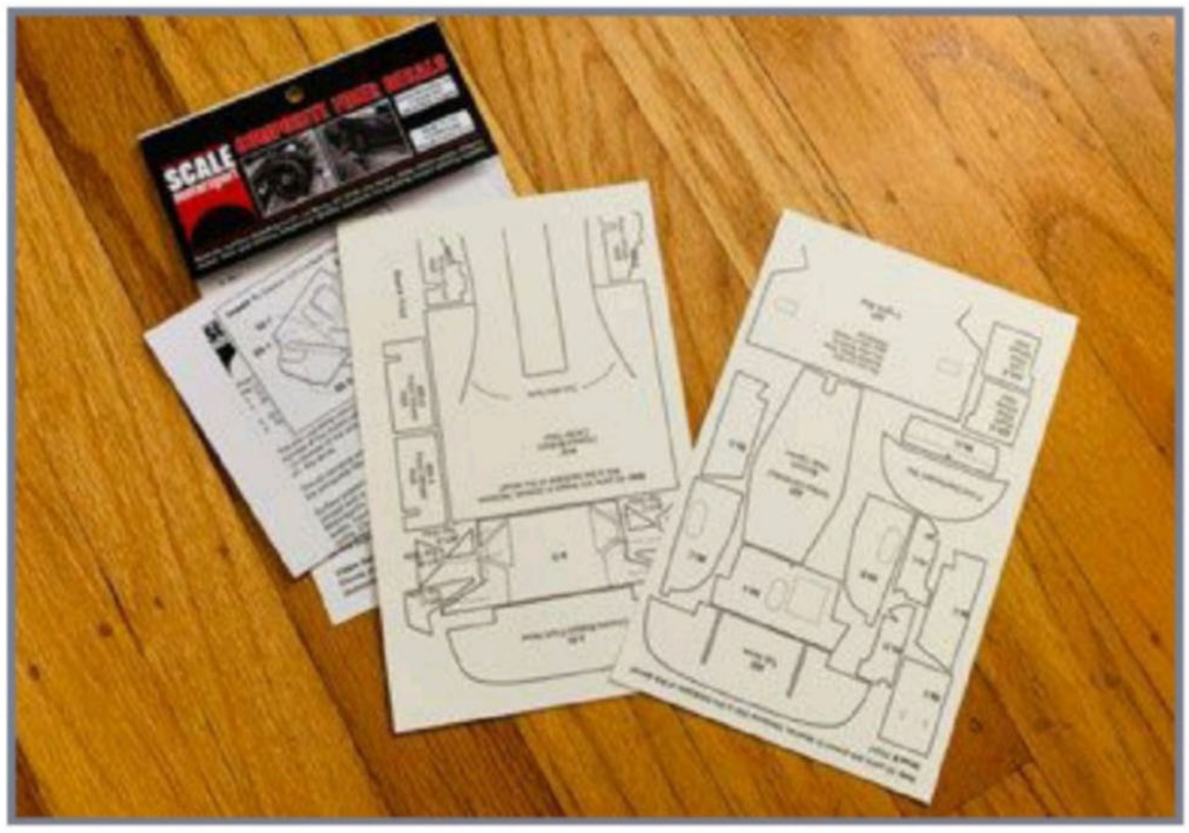
Fast forward a few decades to 2020 and Tamiya has re-released the C9! You better believe I was quick to hit my local hobby shop and pick up one. Now, for our readers here in the San Francisco Bay Area, yes that's Al's hand writing from Hobbies Unlimited (San Leandro, CA) for the $51.00 price on the box. People have bought from this hobby shop for decades and always recognize Al's handwriting.

After getting home from Al's I got online and ordered the PE set from Scale Motorsport (SKU #1831), since S&S Specialties is no longer in business, only now instead of ordering a carbon fiber decal sheet I ordered their two sheet carbon fiber template set (SKU #7113). Super easy cut outs to fit the Tamiya kit! Don't forget to order their decal solvent while you're there!

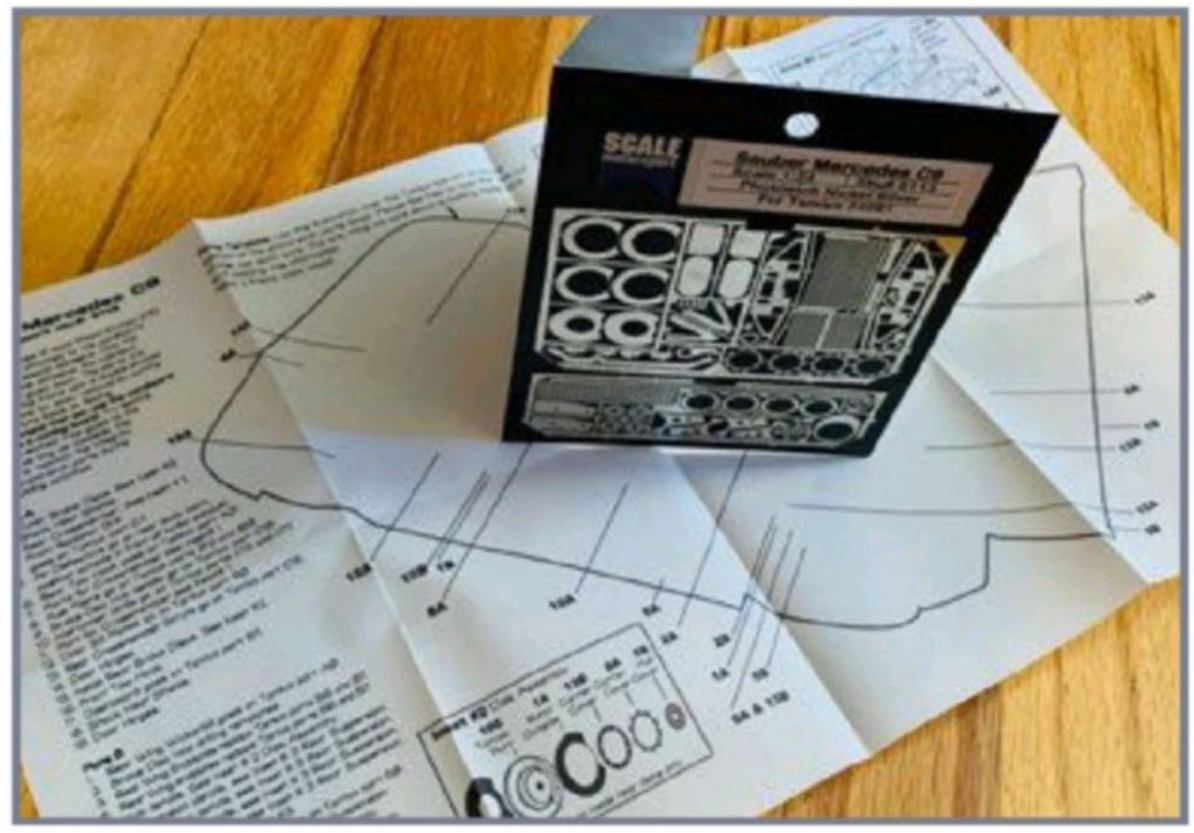


This time around we're going to skip the (expensive) Detail Master machined aluminum A/N fittings and go with the more economic 3D printed fittings from Turo Sanaka (https://www.facebook.com/toru.sanaka). Plus we'll be using Turo's new matching braided line that fits his fittings perfectly!

The only major change I'll be making to the Tamiya kit is to cut open and hinge the doors. The simple cantilever doors are easy to hinge.



ABOVE: Gotta love these carbon fiber templates from Scale Motorsport; this will save so much time! Before I would have to make templates from masking tape, or just guess at sizes.

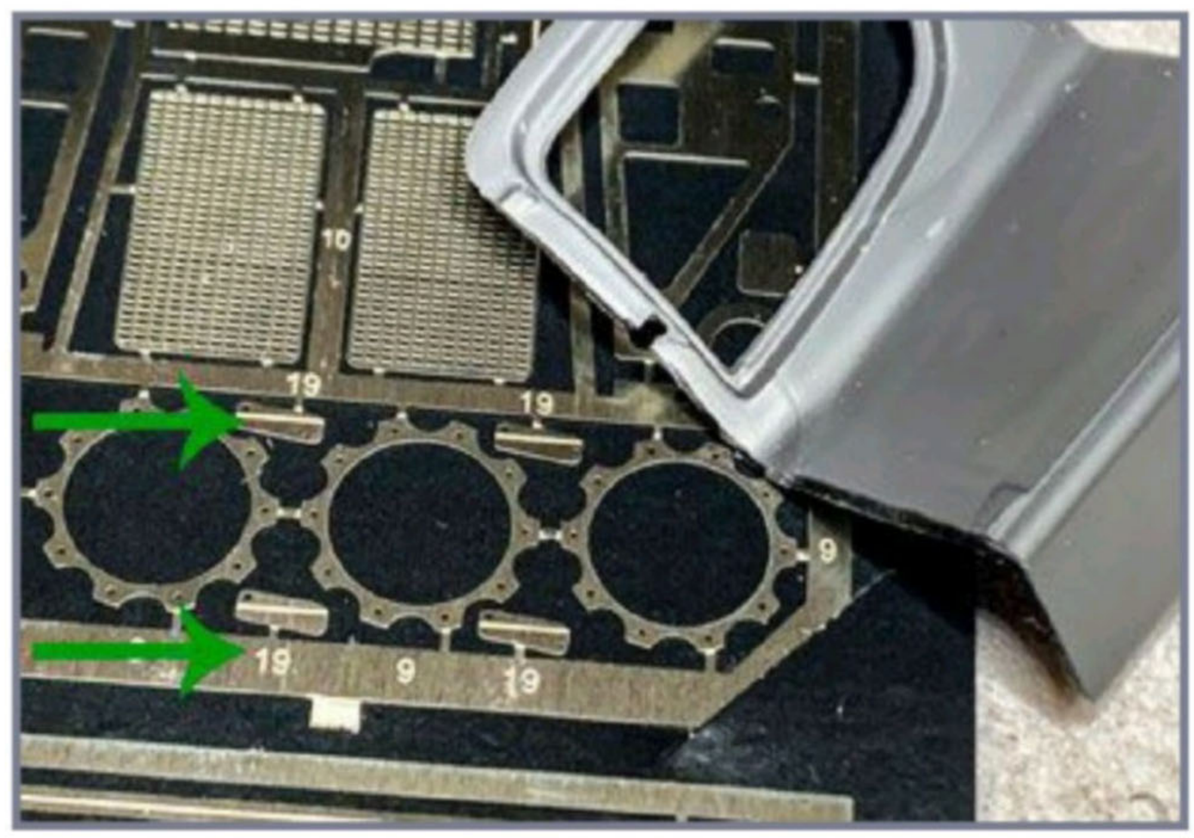


ABOVE: Scale Motorsport offers this great PE set. Check out the many layers that make up the brake rotor and hub details. This will definitely raise the detail level.

ABOVE: 3D printed fittings from Turo Sanaka (https://www.facebook.com/toru.sanaka will be used to plumb our car. Plus we'll be using Turo's new matching braided line that fits his fittings perfectly!

ABOVE: Let's start with our biggest detail step; cutting out the doors! I used the back of a fresh blade in a hobby knife to cut out the doors. This will make the detailed interior easier to view!

ABOVE: Even the best of us slip. Spot putty will be used to fill these scratches before we even start to prep the body for paint. The molded-in door hinges will need to be cut away and flattened as well.



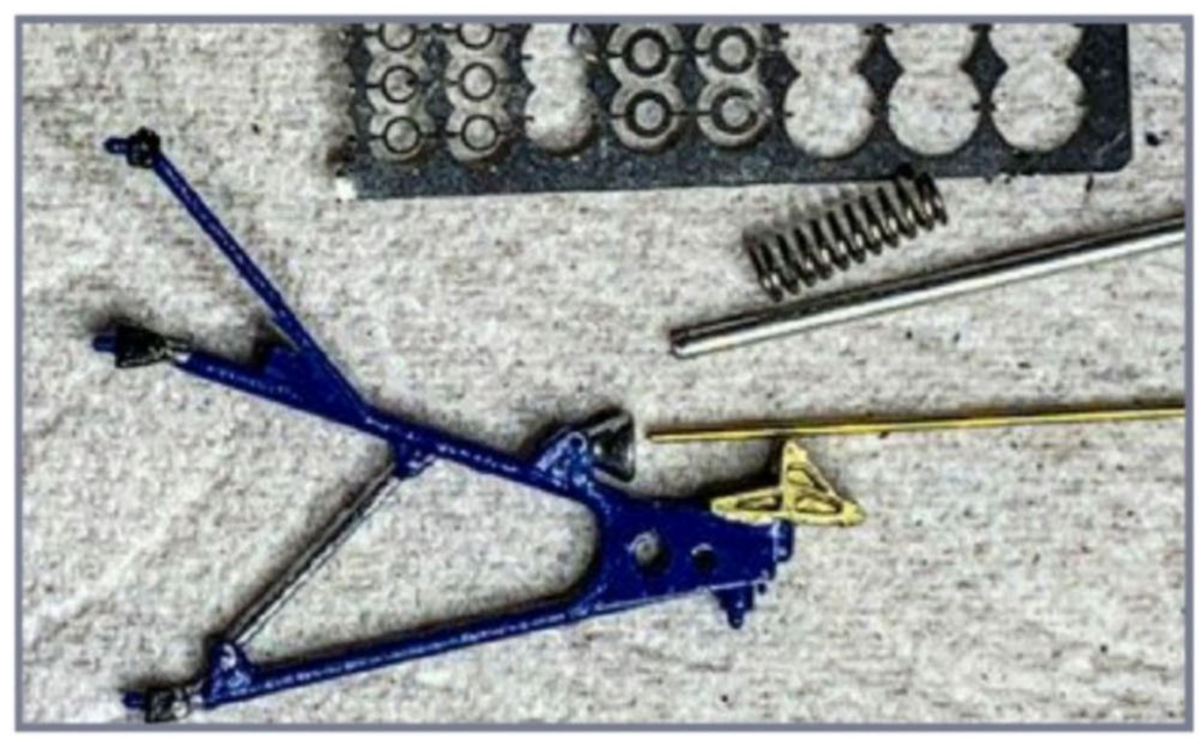
ABOVE: These tiny little hinges (part #19) on the PE set are the hinges we'll be using to hinge the doors. Luckily they already have holes in them at the hinge point.

RIGHT: With the doors cut out and cleaned up, it was time to cut off the nose. Same thing as we did on the doors. Scribed along the line until it cuts all the way through. We'll add some PE brackets under each finder to hold the nose in place. With the flat chassis under it, the nose will sit pretty flat anyway.

ABOVE: The rear coil over shocks are pretty visible in the engine compartment. So let's step up the detail. We'll start by cutting out most of the old shock. We left the top (hat)of the shock in place, (just to make it easier). Then used a file to cut a notch in the rear mounting bracket.

ABOVE: The coilover has a rod running through the middle of it, so to keep things aligned we drilled a hole in the center of the shock hat. The notch we made to mount the shock came in handy, helped keep the drill aligned while we made the hole in the hat!

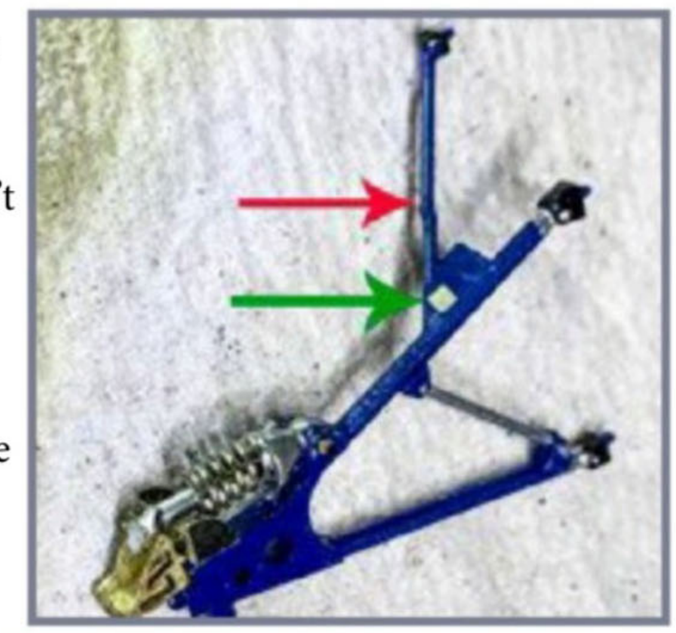
ABOVE: RB Motion (http://rbmotion.com) makes a fantastic machined aluminum coilover shock kit. If I had two sets, I would use a set for back here. But I don't, so we'll save my one set for the front of the car, and scratchbuild a set for back here.



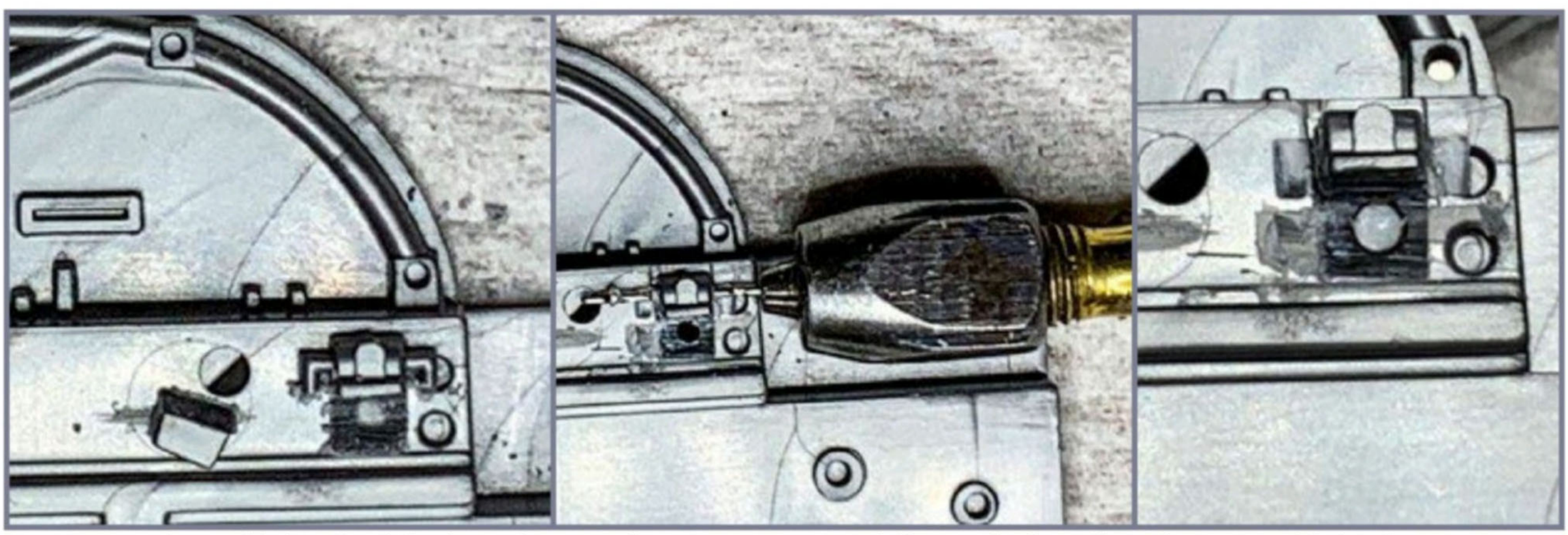
ABOVE: The main shaft is .032" brass rod, then 1/16 x .014" round aluminum tubing will slip over it forming the main part of the body. PE washers will cap off each end of the spring. The spring is just a spring from a ink pen, but it will have to be cut down to fit.

LEFT: The assembled shock. I still need to add nut and bolt details, but it looks a lot better then the molded-in shock. The PE detail set has a pair of rear shock heat shields (green arrow).

BELOW: This small bracket (green arrow) serves a couple of purposes; 1) it's a mounting point for a bracket (that we'll add later), and 2) it has a square Dzus button bracket right at the front point of the bracket. Don't be surprised if you break this firewall brace! (red arrow) It's the most fragile piece on the model!



ABOVE: Let's prep things to accept plumbing and wiring. If you drill out mounting spots and actually "plug-in" the wiring and hoses they will appear be much cleaner and straighter! Let's start with the electrical box on the passenger side. There should be three big connections/wires in the middle of the box, and two smaller wires on the outside edge of the box. I also drilled the fuel cell for plumbing & electrical. FAR RIGHT: I cut the hydraulic jack cylinder from the back of the transfer case. I don't like the big parting seam and the way it molds into the back of the transmission. The area around it was cleaned up and after painting it will be replaced with a piece of polished aluminum rod.



ABOVE: Another molded-in detail that bugged me was the SQUARE remote oil filter on the firewall! With square molded-in fittings. First I cut the square filter off (FAR LEFT), then cut off the A/N fittings (CENTER) and drilled the housing for new fittings. When I cut away the square oil filter, there was a round hole left behind in the firewall (FAR RIGHT). To fill the hole I found a piece of plastic rod the same size and glued it in from behind.

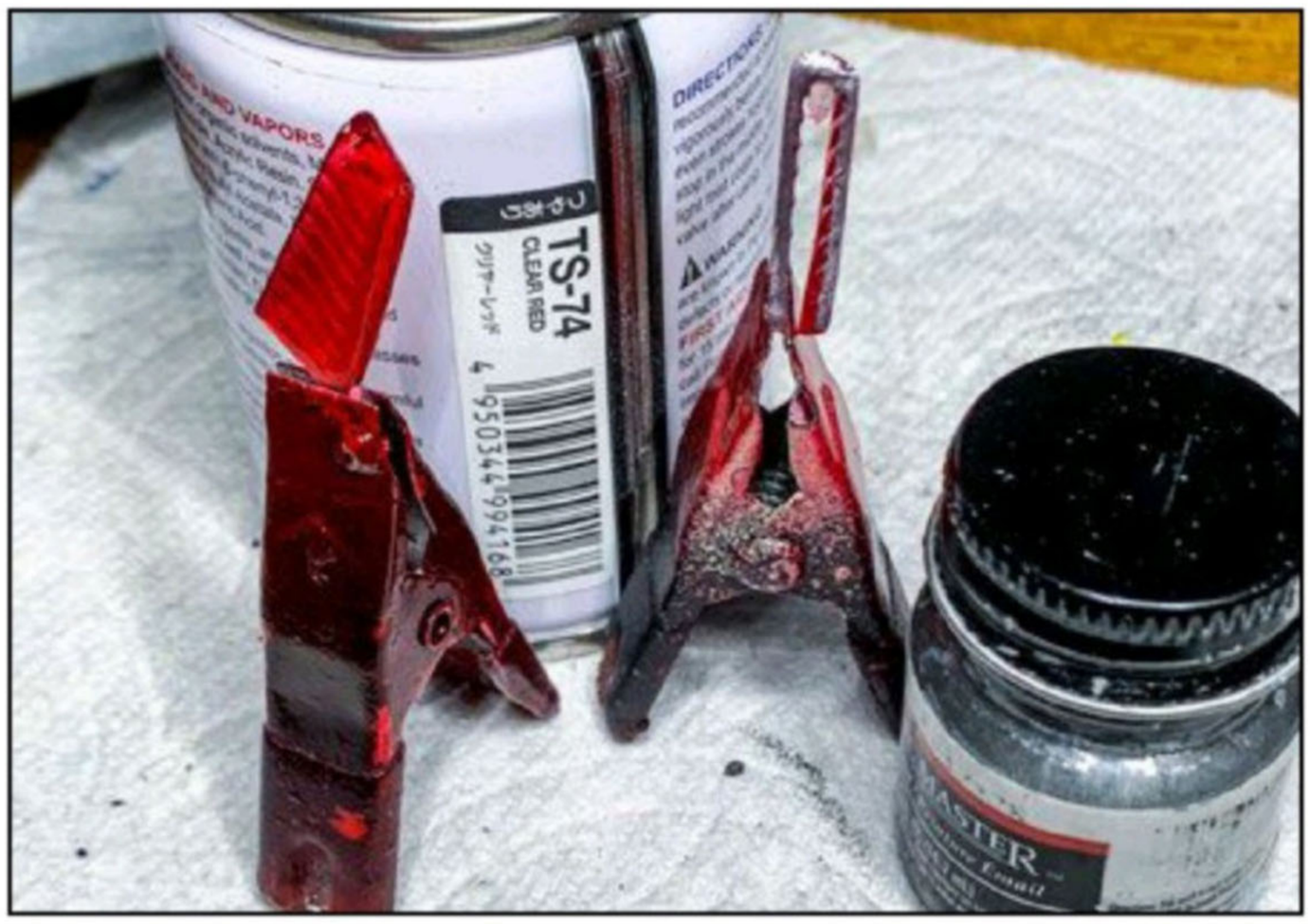
BUGATTI CHIRON SPORT FINAL CONSTRUCTION

Recently Alpha Models sent me two kits to build in the pages of Model Car Builder magazine, so thank you Alpha Models. I made it very clear to them that I don't do " kit reviews" but that I would be happy to share the build with our readers. With that said, let me tell you about the kit.

The Bugatti Chiron Sport we're building here is 1/18th scale. They do offer 1/24th scale Bugatti's but they're usually sold out! So I went with the 1/18th scale. First impression is that this thing is heavy! There is no suspension or lower motor detail, so the body is a big resin block that the interior plugs into from the bottom. To say that the Chiron has a complicated body & interior would be an understatement, but Alpha does an excellent job of capturing it all!

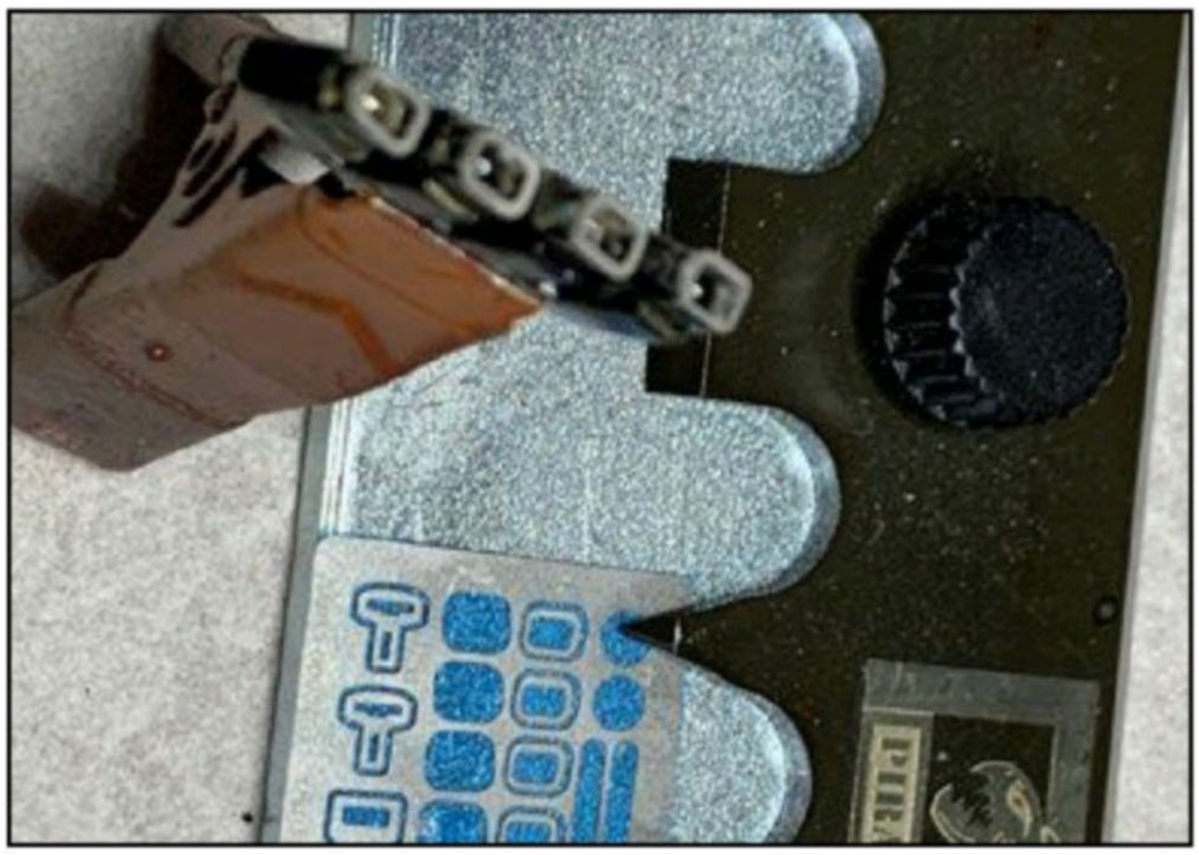
As you can see from the pictures, this is a multimedia kit with resin parts, photoetch sheets, clear cast parts, decals, and rub-on metal badging. In the last issue we detailed the wheels/brakes, started on the interior, and laid down our Champaign Gold and Gloss Black paint scheme. In this issue we'll follow it up with our final construction!

https://www.alphamodelkit.com



ABOVE: The wrap around taillights were painted with Tamiya Clear Red (TS-74), except for the back side that was painted with Testors Chrome Silver. Canopy glue was used to affix the lights to the body. They look great!

ABOVE: The third brake light was given the same treatment as the taillights. The long skinny taillight that runs the full length of the car was painted with a chrome pen, then I inserted a piece of aluminum wire with Tamiya Clear Red painted over it. Tailpipes were painted with a chrome pen as well. There are two options for the rear wing. One can be assembled in the up position, with the hydraulic mechanisms under it (FAR LEFT), or there's a second (flat wing) in the kit if you want to display it with the wing down (MIDDLE). I like wings, so I'm going to use the deployed wing!



ABOVE: Moving to the front of the car; the headlight housings were painted black, but the back of the lights painted chrome. There is a little rectangular photoetch piece that goes on each light. They're on the photoetch tree next to the seat belt buckles, very hard to find.

ABOVE: I tried gluing the Bugatti badge to the grille. I was afraid the chrome would be lost if I transferred the decal to the photoetch piece. But I don't like it, so I'm going to pull it off and use the PE piece.

ABOVE: The headlights look great. The grille opening below it was painted flat black, but not the surface leading to it. That's why the PE grille looks funny with the gold behind it. But if you look straight on, it's black behind the grilles. The radiator is aluminum, so I painted the surface behind the radiator grille aluminum.

MODEL CAR BUILDER

PAINT !

One of the biggest hurdles modelers face is painting their model cars. Some guys start with rattle cans. Either the hobby paints from their local hobby shops, or the stuff at their local hardware store. There are a lot of variables there that can cause you to screw up your paint job.

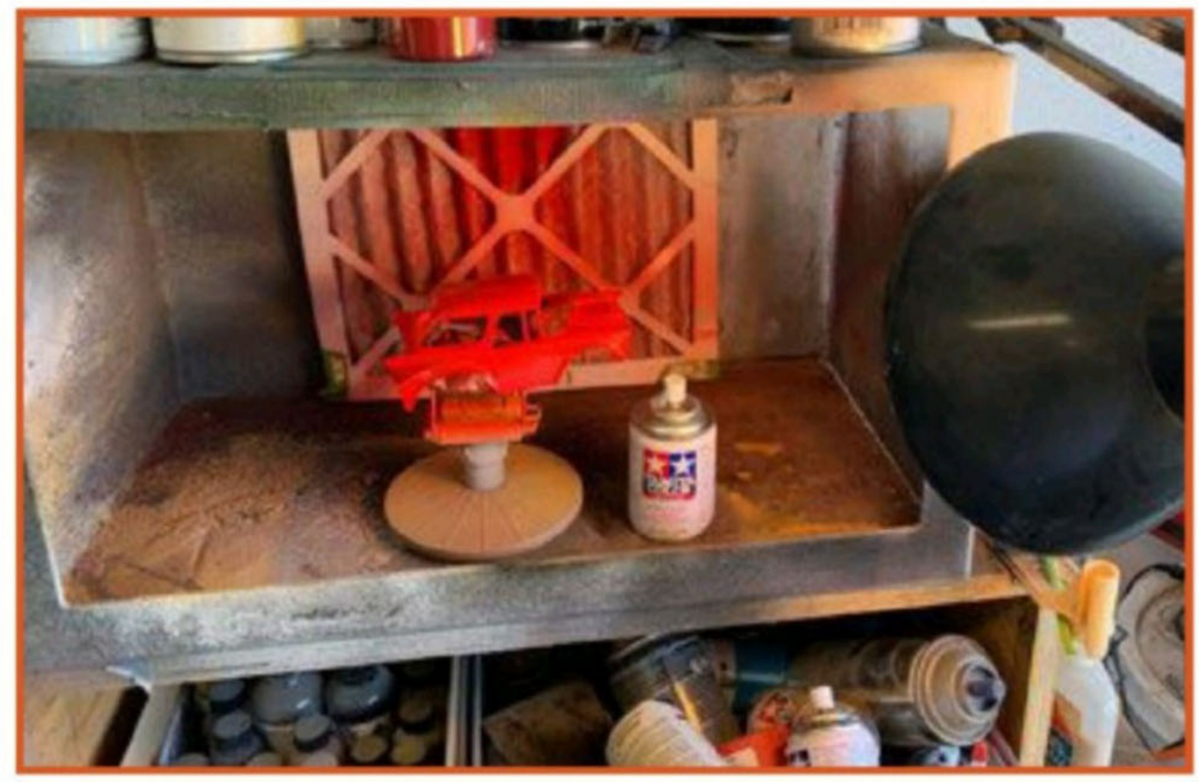
So what I want to show you here is the BEST way to do your first couple of paint jobs. I'm going to use Tamiya rattle cans. I know, I know, they are not cheap. But you just bought a $35.00 kit, and spent a hundred hours building it. Why risk all that with a $5.00 can of hardware store spray paint?

The Tamiya cans spray a light, even coat. Wipe the nozzle off when done, I've never had one clog. In this sample I'm shooting right over the white plastic with ***no primer first***. If you have a dark color plastic you might want to use a white primer/sealer first (I like Dupli-Color's). The only prep to the body was scuffing it with some 2000 or 2400 wet sand paper, and then washing it off. That's it!

So follow along as I show you how to do a quick, easy, paint job that any modeler would be proud of...

ABOVE: OK, here's the beauty of using Tamiya spray cans; the only thing we did to prep this model for paint was to scuff with some 2400 sand paper, wash it in soapy water, rinsed it off, and let it dry on the paint stand. We did mask off the big chrome trim sail to keep the molding crisp.
BELOW: We're using Tamiya's Mica Red to paint our car. Usually I'd use a metallic gold or silver as a base coat, depending on what shade of red I'm looking for, but this time we'll use it straight out of the can.

BELOW: The surf board was given a faux wood finish, but we covered that ten years ago in the first couple issues Model Car Builder.



ABOVE: Before we get started, let's talk about safety equipment. I know a lot of you don't want to bother with a respirator style mask, but if you're doing a lot of cars it should be a must! You only have one set of lungs, you don't want to fill them with this crap. A spray booth is a great idea as well. I have a small, ancient, spray booth I've been using for decades. Notice how clean the filter is in the left side photo, and then how red it is after spraying this one model in the right side photo. A booth also helps keep dust off your model while spray painting.

ABOVE: You don't want to try and cover the model with your first coat! This will only lead to runs in the paint. If you've used Tamiya cans before then you already know it's possible to lay down thin even coats with their paints.

ABOVE: Once you've applied two or three thin coats, hit it one last time with a heavy coat of paint. I actually find it pretty hard to create a heavy run in the paint with the Tamiya spray cans, that's why their paints are perfect for beginners.

ABOVE: If you're happy with the final coat, you can just let it dry overnight and do your final assembly. I usually add a couple coats of Testors high gloss paint to level it out and create a little more gloss. It's just a matter of personal taste.

ABOVE: So the final paint job is NOT going to win you any "Best Paint" awards, but then again, this paint job was super quick, and super easy! So if you want a nice paint job and don't have the time or money for a fancy one, Tamiya spray paints are the way to go!

DIORAMA PROJECT: LIGHTING PART 1

I was planning on running this in an later issue, but since there's only one more issue of Model Car Builder left, I better squeeze it in here! Let's take a close look at what it's going to take to light our gas station diorama.

First of all, if you're serious about doing any kind of LED lighting, you need to go by EvanDesigns.com and check out their how-to videos! Their videos will give you the basic steps to hook up LED lights and wire them properly! I think you'll agree that after watching their how to videos you will feel confident enough to try it yourself.

After I got to the point where I was able to place the roof/awning over the building it became very clear to me that it was going to need lighting all throughout the station. Once the large awnings are in place the inside of the building is almost impossible to see! I wasn't going to put lights on the roof at first, but decided that the real station would have the sign lit at night.

So that meant I had to light two restrooms, the office, and the main lobby if anyone was going to be able to see all the detail I put in there! Then the pumps under the awnings became very dark as well! So I decided to light the awnings as well. All total there's twenty-one LEDs on the diorama!

I felt that a single 9 volt battery couldn't keep twenty-one lights lit for hours, so I ordered a power convertor so I could plug it into the wall. But I also want to be able to switch to battery if I need too. But we'll get into all the final wiring in the next issue when we wrap up our diorama.

https://evandesigns.com

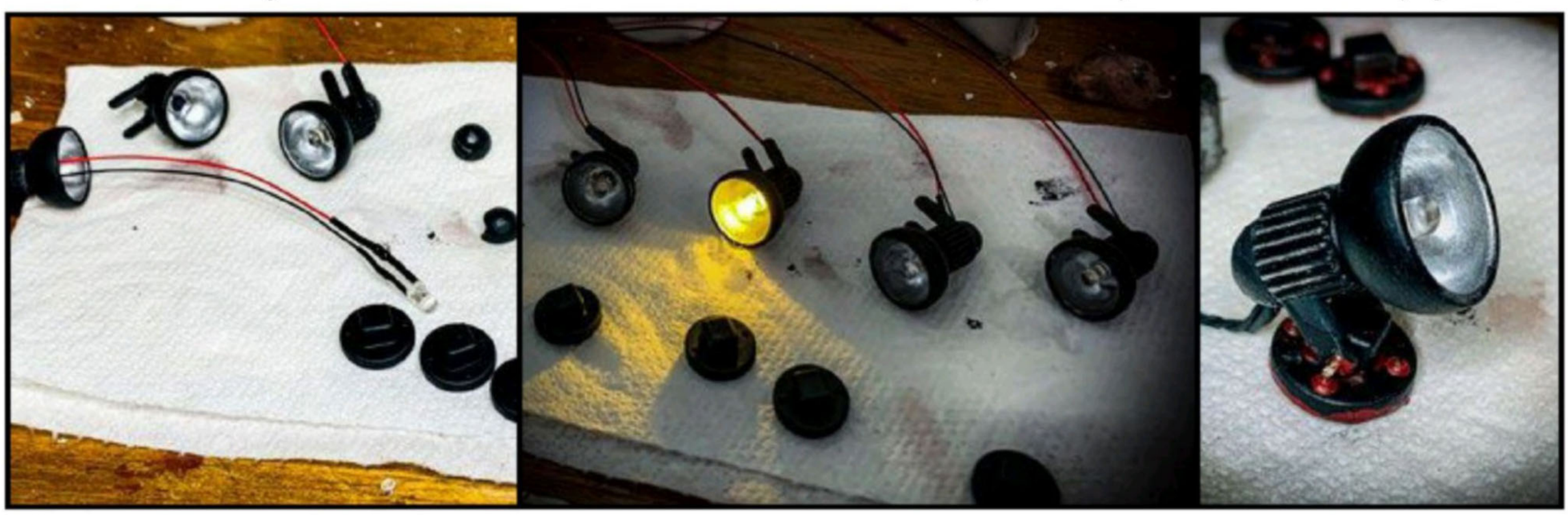
ABOVE: As the gas station began to come together it became very clear to me that it was going to need lighting all throughout the station. Once the large awnings are in place the inside of the building is almost impossible to see! I wasn't going to put lights on the roof at first, but decided that the real station would have the sign lit at night.

ABOVE: Before we can bolt spotlights to our awning we need to cover the wood with some aluminum. The cheapest, easiest way to do this is when some aluminum heater duct tape. You can find it in your hardware store. We glued down wood strips, equally spaced the same width of the tape, then burnished down the tape to slightly overlap.

ABOVE: To give our awning some age we started by spraying the Tamiya Flat Clear (TS-80) then used Tamiya's Weathering Master powders. We started with the "Oil Stain" powder and finished up with the "Burnt Red." Save the "Burnt Blue" for your headers. I used a combination of finger tips and cotton swabs to apply the powders.

ABOVE: The side awning was done in the same manner.

ABOVE: The roof hatch was left in white wood and dirt'dy up a little.



ABOVE: The spotlights for the large Texaco sign on the front awning are 3D printed by Sascha Mueller of Germany. The light comes in three pieces. They were painted matte black, but the inside of the light is painted in chrome silver to make them more reflective. I drilled the base for four hold bolts. Then the lights were assembled and tested before pinning them to the base. I 'pinned' them to hinge so I could adjust them once they were mounted on the roof and pointing at the sign.

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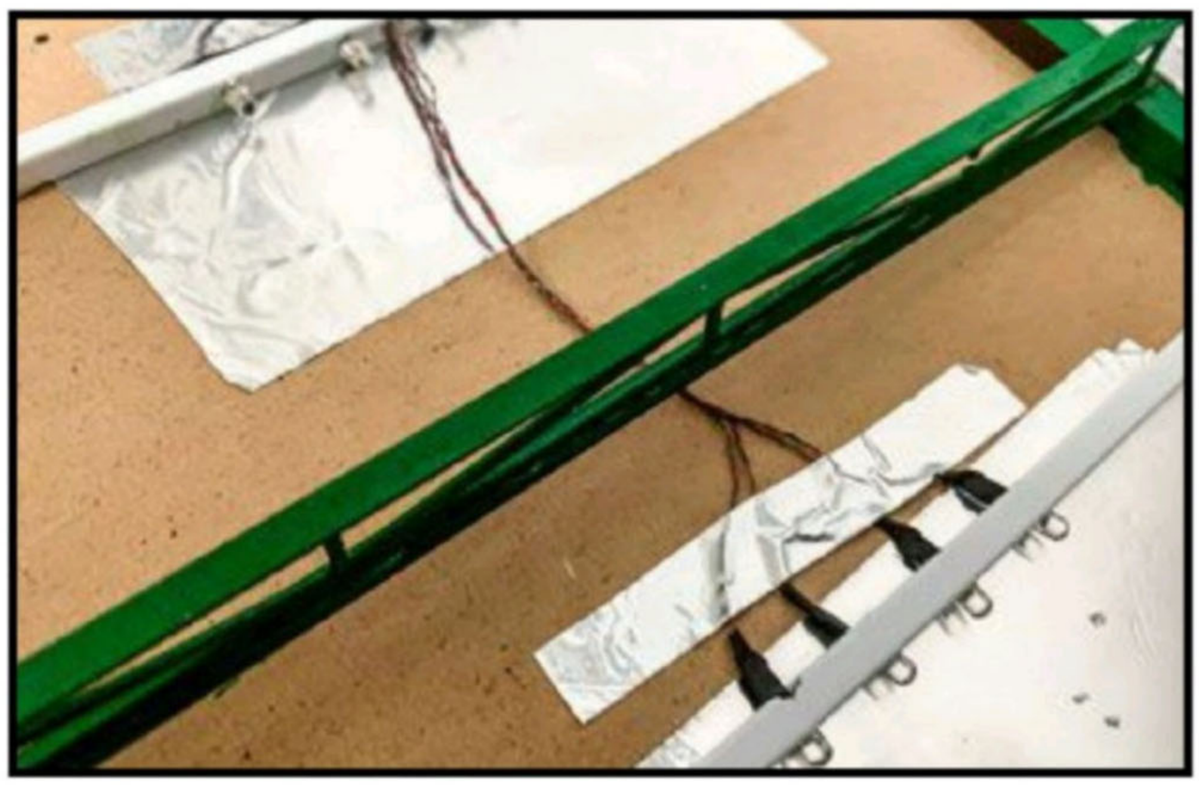
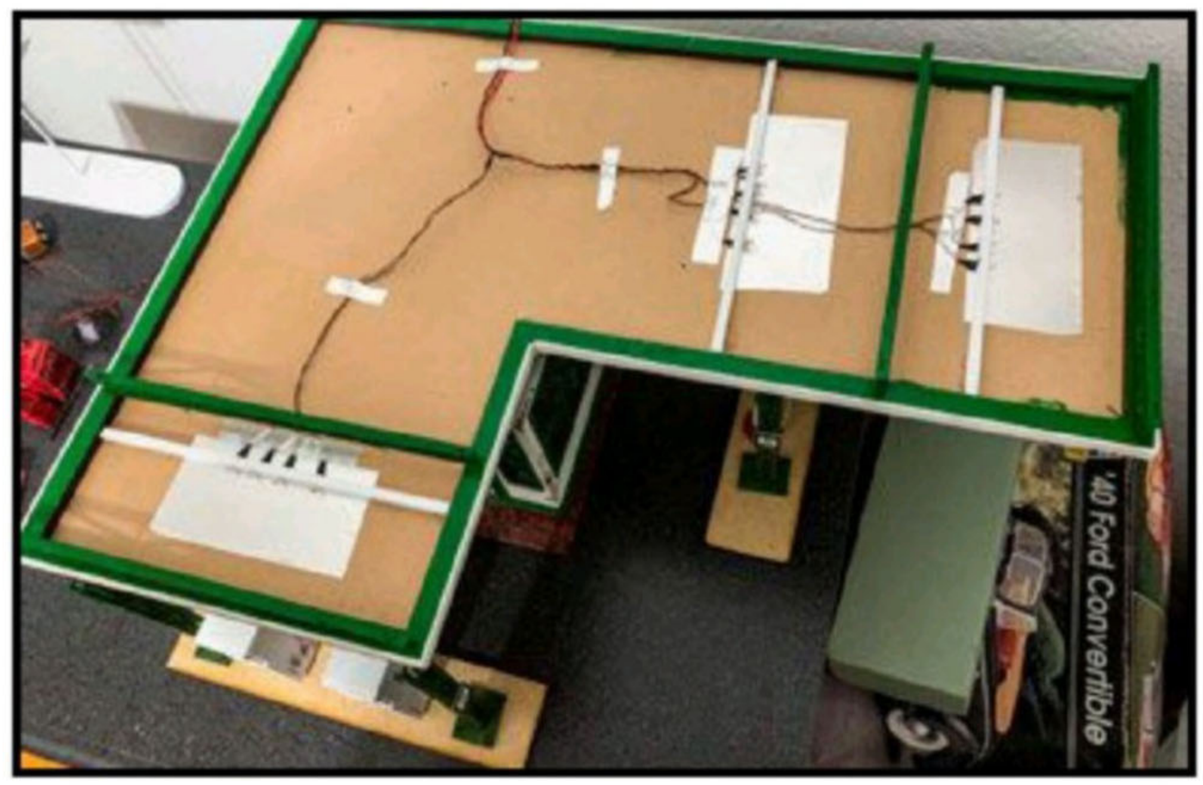
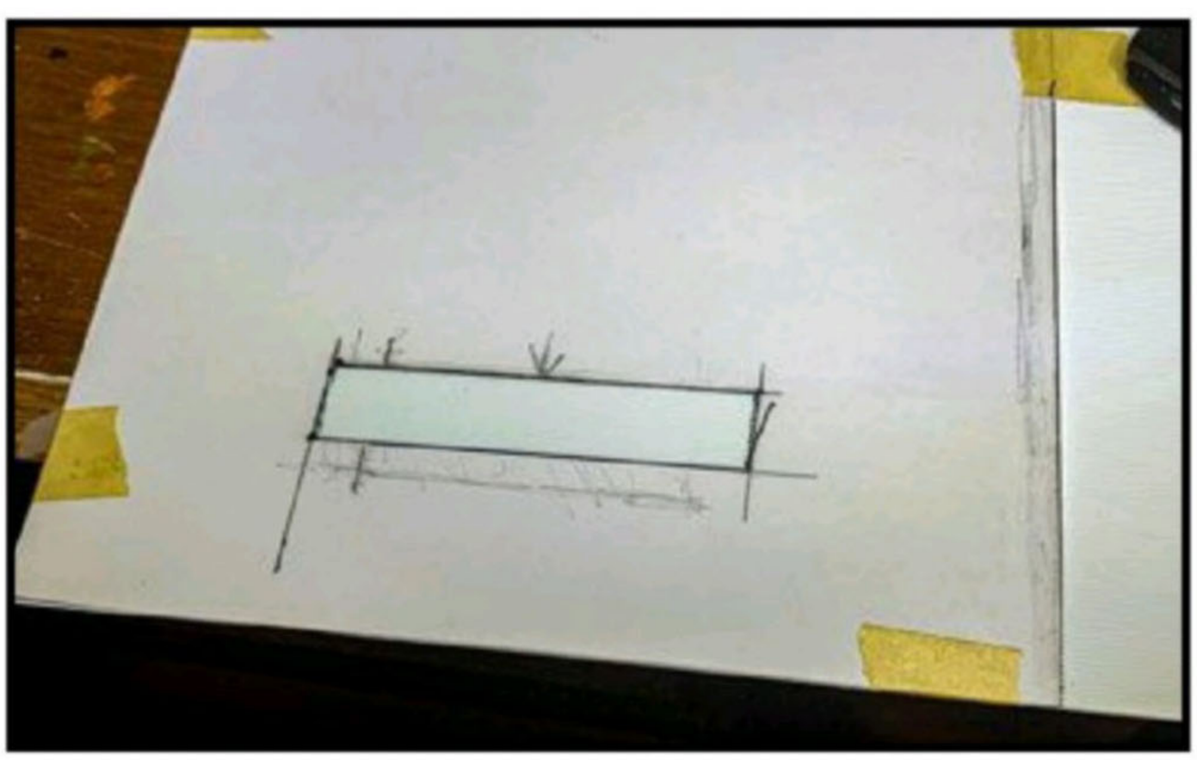
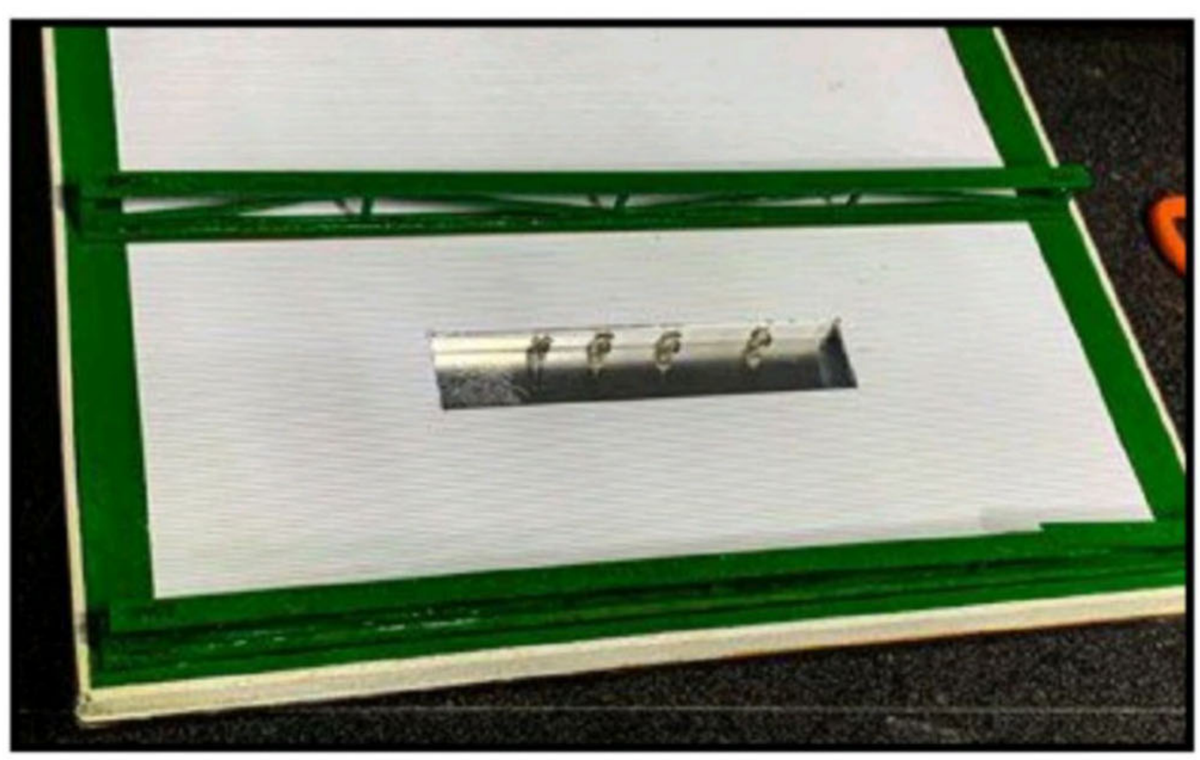
ABOVE LEFT: In this shot you can clearly see why I didn't glue the spot lights to their base. The front light is aimed to low! But with lights pivoting I will be able to raise it to match the rear light, thus lighting the sign much better. The broken letters on the sign add to the dioramas realism. If I had made the sign's lettering "perfect" it wouldn't be as interesting. Speaking of the sign, it seems HUGE to me! At first I thought it was oversized, but then I began to think of all the old gas stations I had driven by on those long, lonely, stretches of highway in the middle of nowhere. You would want the driver to see your sign from long distances. The huge sign made me think it would be unstable in high winds, so I did a few things to make it appear more stable. First I cut a path through the roof's wooden ribs so that the sign's edge sat flat on the roof. This still didn't seem like enough. So I built restraining cables for each side (ABOVE RIGHT). Turnbuckles are fashioned from Plastruct hex rod, 0090 nuts, and aluminum eye pins. The two anchor points are photoetch washers, 0090 bolts, and aluminum eye pins. The cable is aluminum wiring.



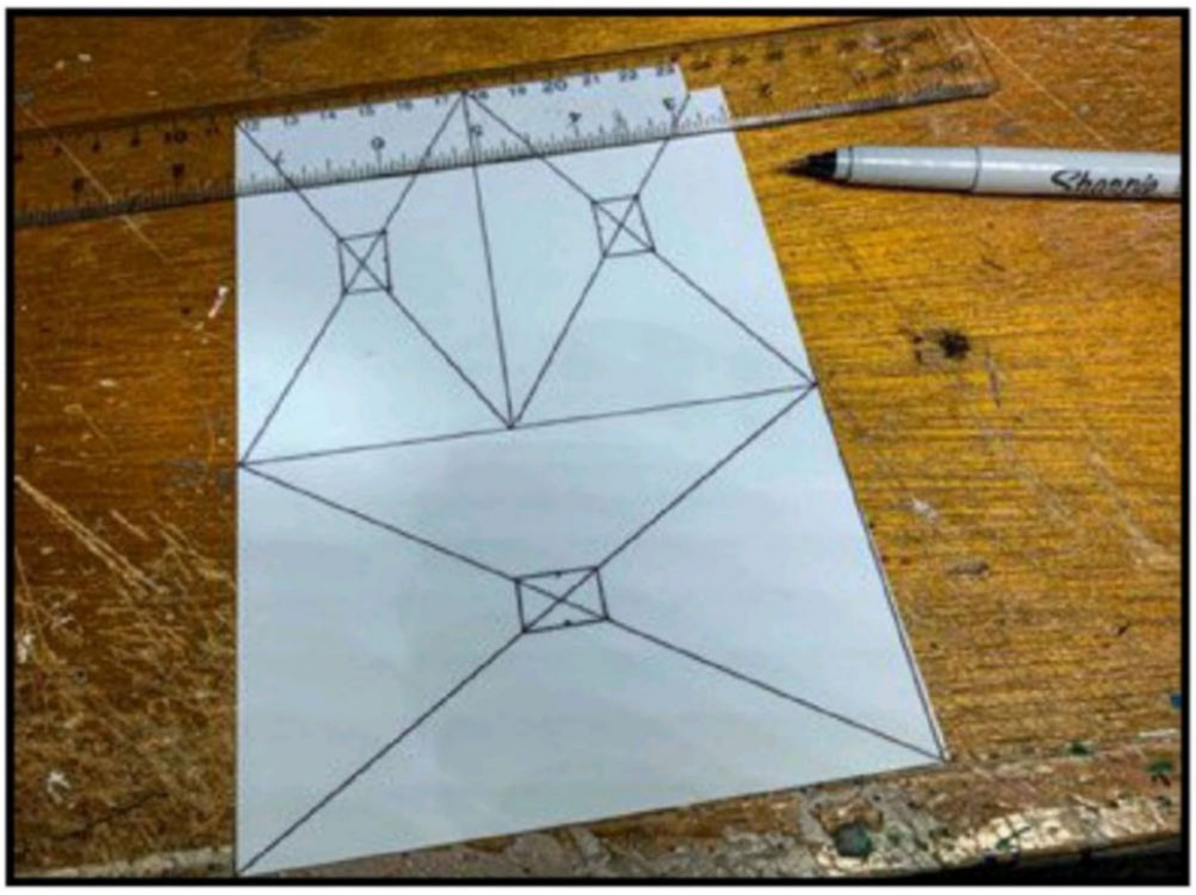


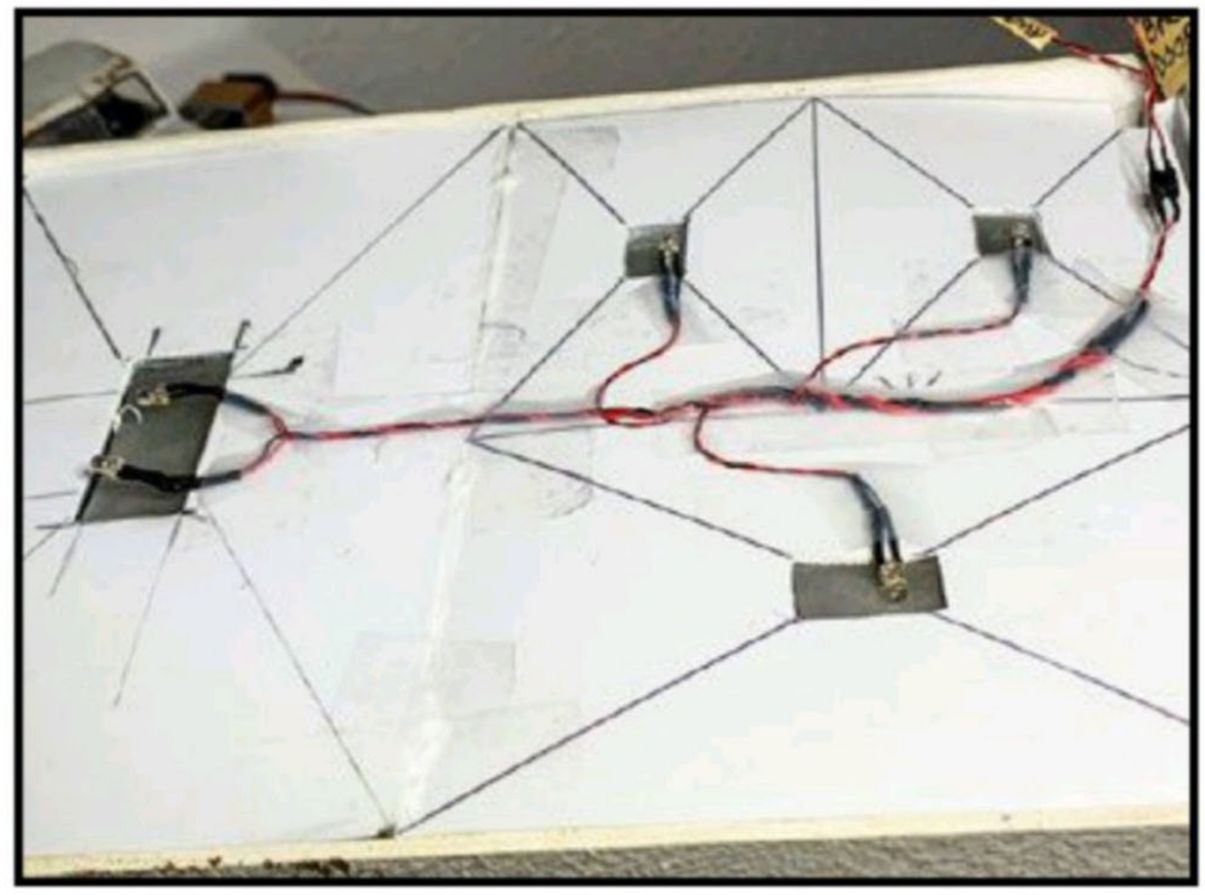
ABOVE: It is really dark under this big awning, so we're going to have to add more lighting. I ordered four pack LEDs, and I think it might be a bit of 'overkill' on the lighting, but I like the way it turned out. You could probably get away with running one or two LEDs instead. I used Evergreen rectangular tubing with holes drilled in it to mount the lights. ABOVE RIGHT: To make the lights a little more reflective I put the aluminum tape we used on the top of the awning under the lights.





ABOVE: To make the opening for the lights I first used a sheet a paper laid over the lights and traced out where I wanted the openings to be. I cleaned up these markings with a ruler and pen. Once I cut them out I laid the paper back on the lights and check to make sure my measurements were right. Then I taped the paper to some Evergreen #4526 Metal Siding (.040" spacing, .040" thick) plastic sheet and cut it out. Then I used C/A glue to affix siding to the Evergreen rectangular tubing that holds the lights.

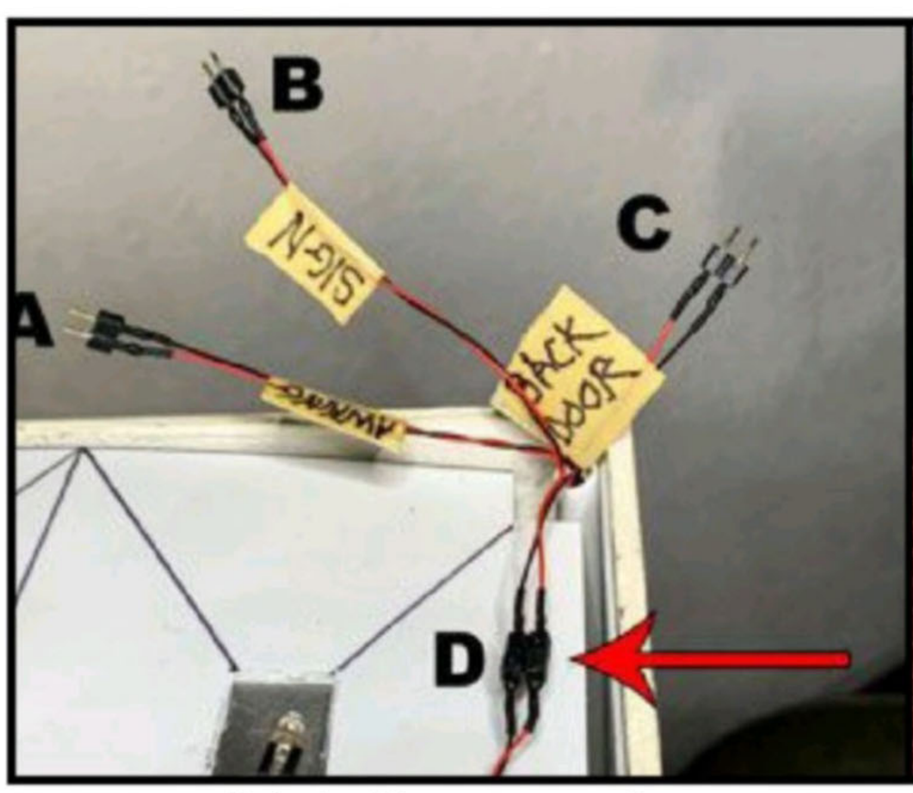


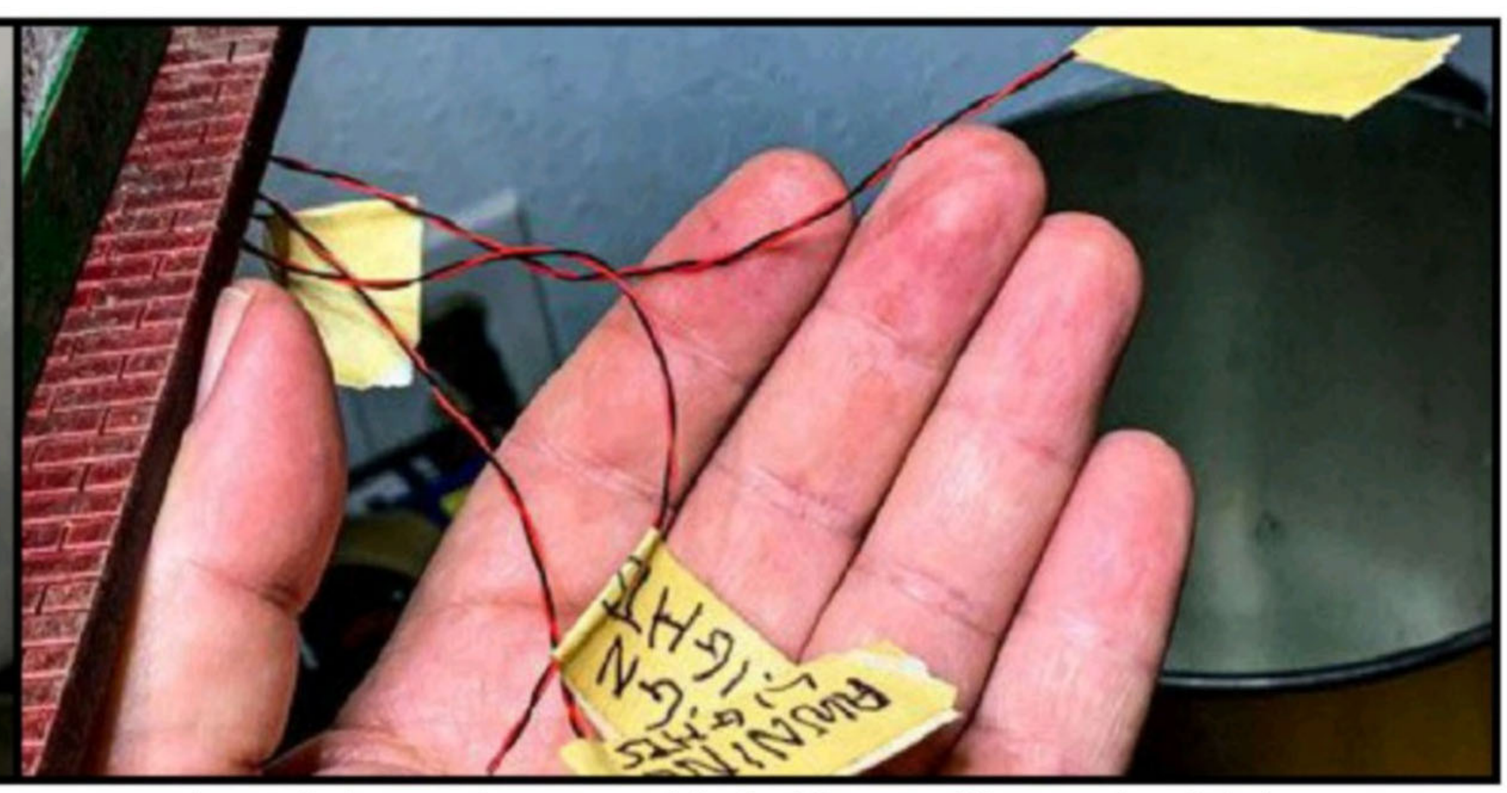


ABOVE: I searched and searched for some good looking commercial style ceiling lights, but had no luck finding any. After weeks of searching I decided that I was overthinking it. Unless you get down on your knees and twist your head to look up, no one is ever going to see the ceiling lights! So I used a ruler to find the center of each room. Cut a hole for the lights. Then I built a simple frame around each hole out of Evergreen square rod and painted the frames with some chrome silver. To diffuse the lights I cut a piece of clear sheet plastic, coated it in flat clears and glued it in place. Then the lights are simply taped into place in the center of each holes. An easy, quick way to add ceiling lights!

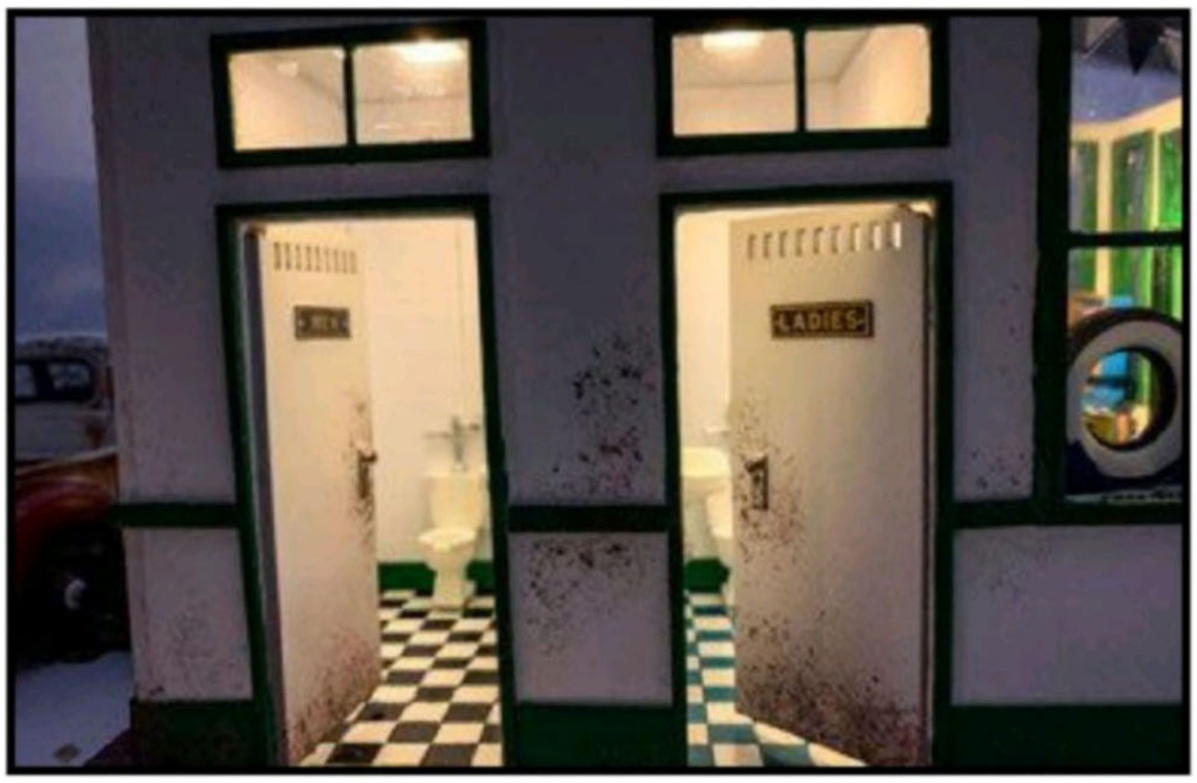
ABOVE: The back door light I'm going to hook to a flickering power source so it looks like it has a bad bulb, or a bad ground.

ABOVE: In case you were wondering. The pin ball machine has a separate wire that feeds through the base directly beneath it.

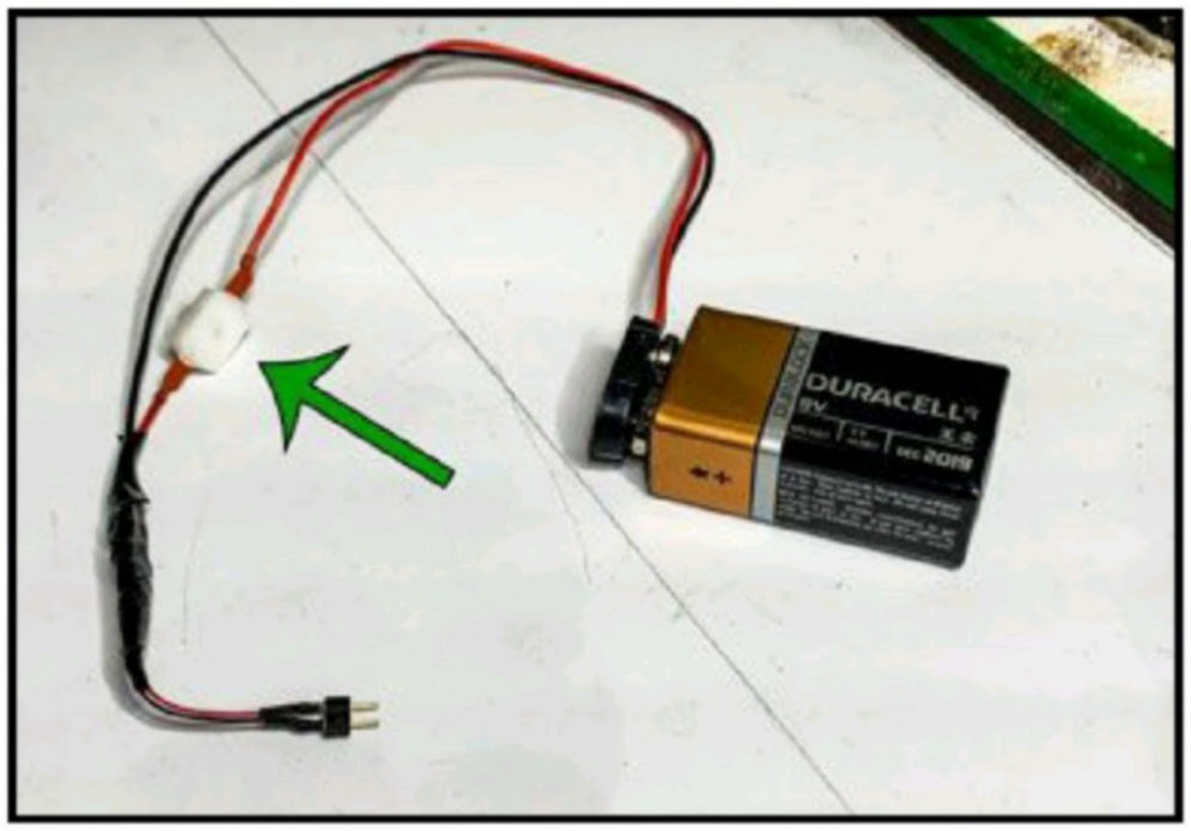




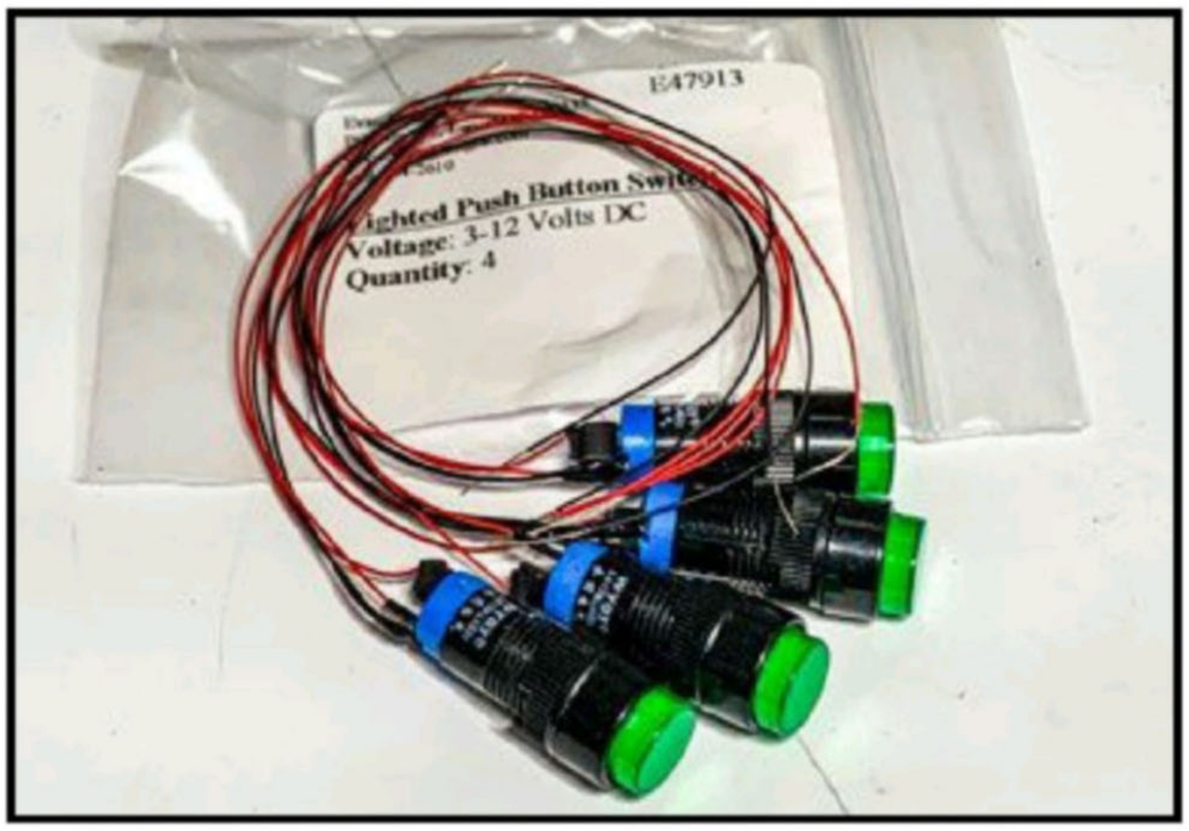
ABOVE: So all the building wiring and awning wiring comes together right here in the corner of the building. You'll notice that (A) the awning lights, (B) sign lights, (C) back door light, and (D) office lights all have their own separate plugs. This way if we need to replace a light or do any kind of maintenance in the future we can unplug and lift the roof/awning off the building. Each set of wires was fed one at a time through the pipe (that will go all the way through the base) and was marked with tape before doing the next one. This was done to just keep the wiring straight since each one will have it's own off & on switch at the back of the diorama.



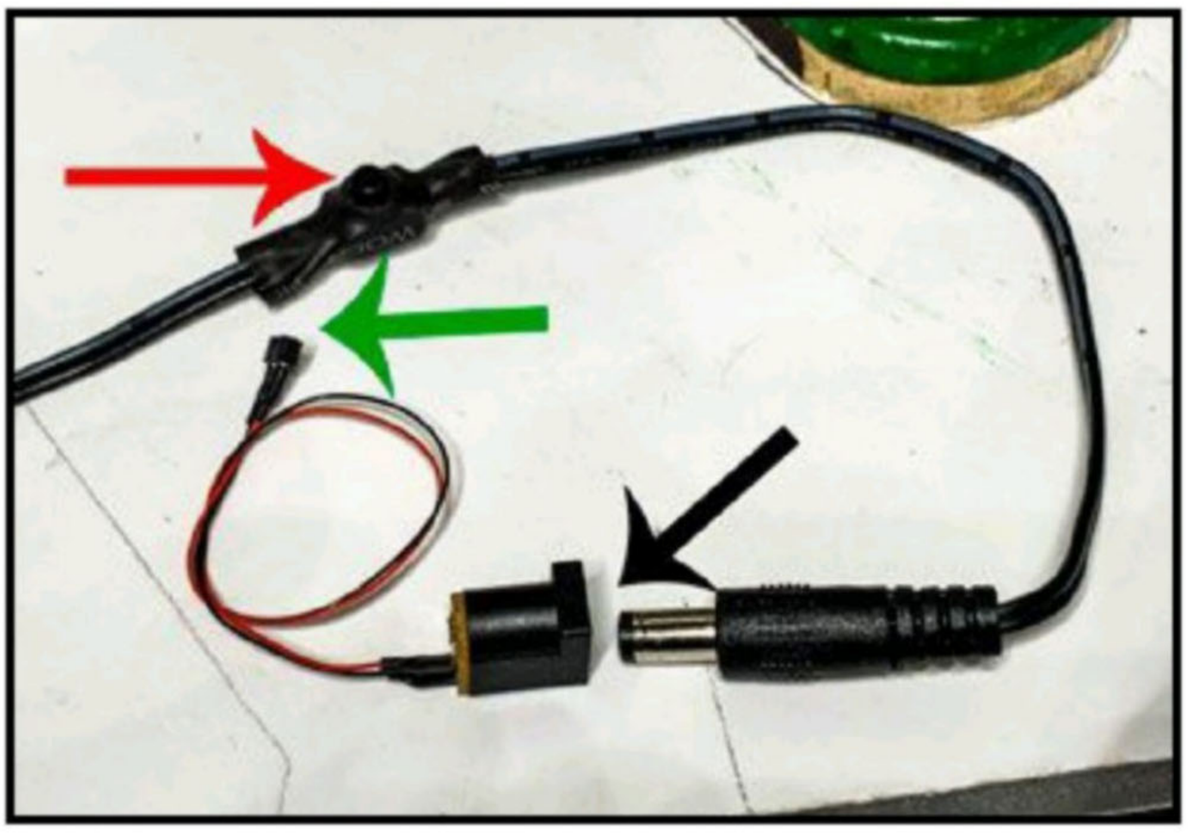
ABOVE & NEXT PAGE: As you can see the interior lighting makes a big difference! I'm really hoping to take the completed diorama out to a deserted highway in the dead of night and photograph it with all its lights on!



ABOVE: This is my "test" battery. The Evan Designs (E47913) is a battery strap with switch (green arrow). You want to test each LED before you put it into your diorama and this is the easiest way to do that. I put a connector on the end of the wire, but you don't have to, you could just twist the wires together, then turn the switch to see if the lights work.



ABOVE: At the back of the base will be a switch panel with these four lighted switches. One will turn the indoor lights off and on, one will be for the awning lights, one will be the spots for the Texaco sign, the final switch will be for the flickering back door light (I wanted to be able to turn it off if it gets too annoying).



ABOVE: This is our main power source. The 12V DC Regulated 1000ma Adapter will be the switch that turns the power on and off (red arrow). The plug that leads to the switch will have its receptacle (black arrow) in the switch plate alongside the switches for each light zone. Then that one plug will have all the power wires from the switches plug into it (green arrow). Next issue we will build the base and show you how we're going to do all this. With everything brought together in the next issue we'll cap our diorama with a custom made plexiglass cover! Stay tuned...

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CAR SERVICE - SNACKS - DRINKS
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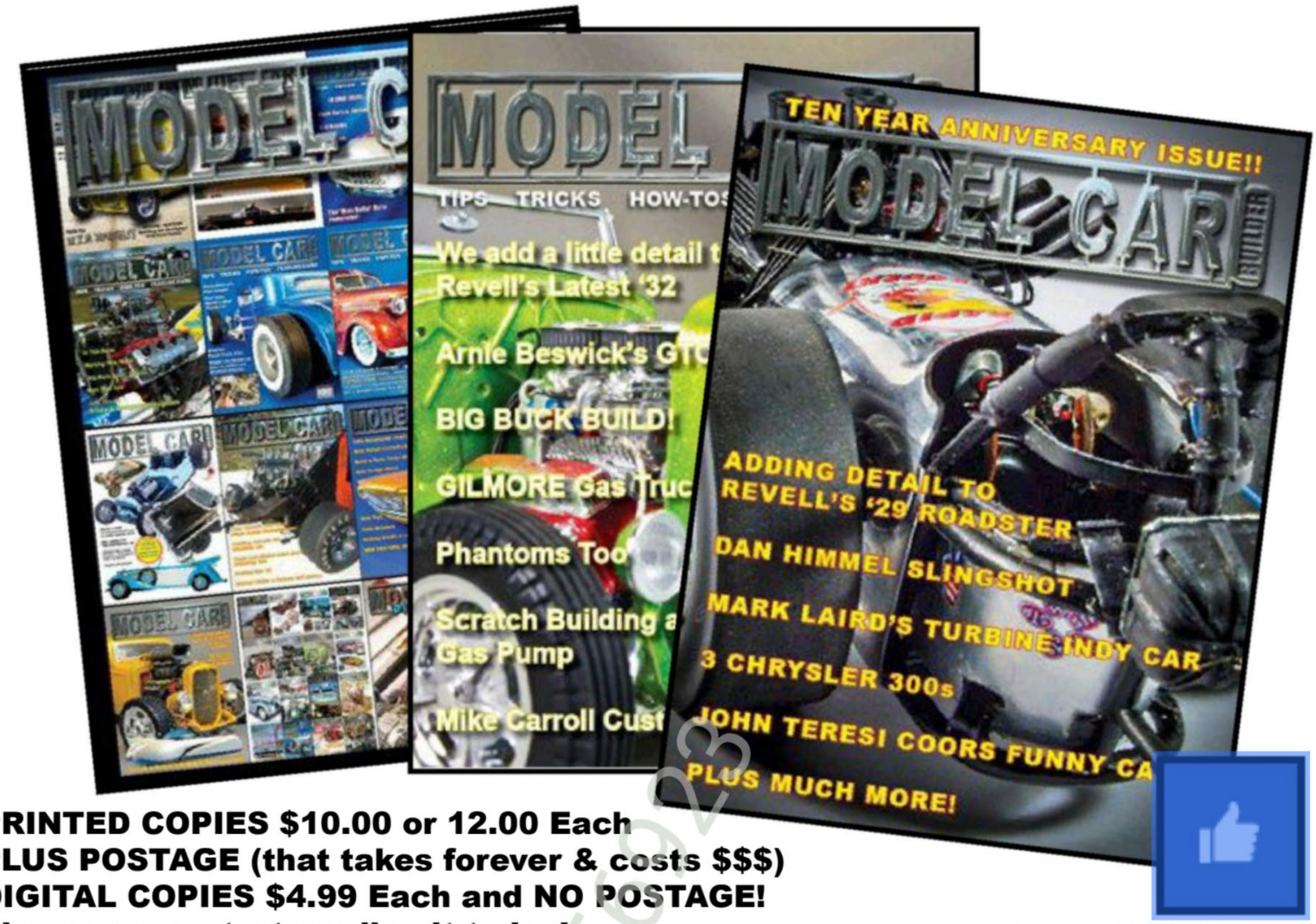
CAR SERVICE SNACKS DRINKS



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