

I have to write two more articles to fulfill my original commitment for Model Graphix. I started with Tameo's Benetton B198, and the list includes the fully detailed kit (March 0-2-4), the resin kit (Provance Moulge's Porsche 911 GT1 '98 and Mercedes-Benz W196), and the white metal kit (Racing 43's Lancia Stratos). My intent was to cover a wide range of modeling subjects, materials, and methods in my articles. I chose the BBR's Daytona for my next-to-last article because I wanted to challenge BBR's unique "window framing." This kit has been on market for last three years, and it may be hard to find. However, I understand that this kit will be re-released as a fully detailed kit in near future.

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March 23, 1999



Today, I begin to make BBR's Ferrari Daytona Group 4, the Italian car modeled by the Italian model kit manufacturer. It is one of BBR's Classic series. The body is molded in the BBR's distinctive resin material, and the parts are cast in white metal.

The headlight covers are the only clear parts that are vacuum-formed. The windshield and the windows are to be cut from a flat clear sheet, and then glued to the photo-etched frame. It is a key point of building this kit.

The Daytona Group 4 competed in the long distance races such as Le Mans, Sebring, and Tour de France by various Ferrari dealer teams from the US, France, and Belgium.



Only 15 Daytona Group 4's were manufactured, and each was modified differently (like its aerodynamic parts) by the teams. As a typical Ferrari competition car, each had a colorful history and its chassis number and race results are researched in great detail. The more I researched, the more I felt overwhelmed by the pressure to not mess up.

This kit is supposed to be the car raced in the 1972 Daytona 24-hour race. However, the race at Daytona that year was in fact held as a 6-hour race, and the car finished in the dismal 15th place. In the next year's race, however, the car finished in the second place. I suspected if the instruction had a misprint, but I could not be sure that was the case after comparing the decal and the pictures e.g. that the font for the car number didn't match.

I finally gave up. I decided not to fashion it as any particular Daytona Group 4 or raced in any particular races.



*FERRARI THE GRAN TURISMO & COMPETITION BERLINETTAS* by Motorbooks International was the excellent source for the research, and I found the picture shown on the left. According to the caption for the photo, it is the S/N 15685 and featured in the Road & Track's Road Impression in 1974. Its famous NART color scheme is very attractive in red with the white and blue center stripes. I will build the kit based on this picture.



I started with the body.

The body side lacked the proper contour. I decided to shave off some resin below the door line to make it deeper.



There is a box molded in front of the rear wheel arch. It is a cooling air intake for the rear brake. I will remake it with brass sheets later.

This was the first time I dealt with BBR resin kit. I had heard the reputation from my fellow modelers, but I couldn't believe how hard and brittle the material was! It also had a strong petrol odor while I was sanding it with a file.



I deleted the front air dam. I will remake it with a brass plate later.

The four small headlamps (3.5mm in diameter) are made with the Make-up's turned detail parts.



I felt that they were a little too big, so I sanded the parts to 3.0mm in diameter.

I fixed the surface around the nose with epoxy filler.

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March 24, 1999



An exhaust pipe was molded on the chassis on each side, but there should be two pipes on each side. I deleted the moldings.

The exhaust pipes will be remade with brass rods and tubes later.



I had to extend the bottom of the rear body inward. I cut a 3-mm styrene tube into several pieces and glue them on the body with super glue.

After it hardened, I shaped it with a file (the marked area in the picture). I adjusted the width of the chassis to the new body shape.

March 25, 1999



On the main body, the recessed lines were well molded, so I only deepened them with a fine needle.



As in the W196, I again asked my mentor Nomura to machine the tires from ABS

I can't help but smile when I look at them!



I pre-assembled the body and the chassis, and then put them on the jig I made with a 1.0-mm styrene plate and a 0.5-mm rod.

I realized there was not enough clearance between the tires and the wheel arches, so I raised the jig 1-2 mm higher.



The chassis cracked when I put a tip of the drill on the chassis without any pressure. Scary!

March 26, 1999



I modified the body while comparing it to the pictures.

I shaved the inside of the wheel housing with a rotary tool.



The kit included two quick fuel fillers on the rear trunk lid, but the part for them didn't fit well. I decided to move the filler to the rear shoulder on the body.

I had to fill the holes on the trunk lid.



I heated a styrene rod with a lamp, and I pressed it onto the hole on the trunk lid while it was still hot. After it cooled down, I removed it and inserted it again after coating it with super glue. I sanded it down and it looked like this on the left picture.

I did it this way because I avoid the epoxy filler as much as possible because of possible shrinkage. However, lacquer thinner might affect the styrene when I would paint this later, but I am cautiously optimistic that it wouldn't.

March 27, 1999



There is an air intake on the nose, and so I replaced the lip with a 0.2-mm nickel silver plate.

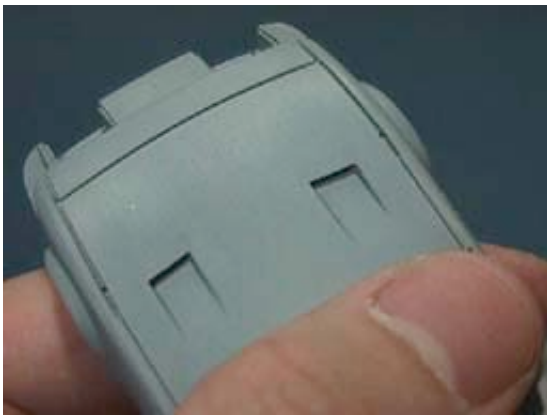


I did the same to the air outlet on the hood. I glued a strip of 0.2-mm nickel silver plate with super glue and I filled a gap with a minimal amount of epoxy filler.

I wish I could use solder to fix this!

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March 28, 1999



I sprayed the body with primer in the morning.

I found a few scratches, so I applied thin-out filler and I sanded the area with #600 sandpaper.



I went to Nomura's workshop in Fujisawa in the afternoon because I wasn't satisfied with the size of the tires. This time, I asked him to make a new smaller set.



I again adjusted the jig to be a little higher (0.5 mm).

I am not sure I could finish this in three weeks. My sixth sense tells me that this is going to be another struggle...

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March 29, 1999



Three days ago, I filled the holes for the fuel fillers on the rear trunk lid. Today, I drilled a hole on the right shoulder of the rear body.

The fuel filler itself was something I purchased at Fujiya a couple years ago (I can not recall the manufacturer, but it is Swiss made!).



I sprayed the body with a thick coat of primer for the second time.



Thirty minutes later, I checked the condition, and I applied thinned-out filler to cover scratches, and then put it back to the dish-dryer.

I re-adjusted the ride height of the car. I lowered the car so the smaller tires would fit nicely.



I prepared the body for the windows and the frames.

First, I cut the frame for the rear window, and I taped it in place to check it. The opening was a little too small, so I sanded it down with a file.



It is crucial that the opening be adjusted perfectly. If I file too much, there will be a gap between the body and the frame. If I don't file enough, the edge of the opening will be visible through the window. Mind you, we're talking about a margin of 1mm!



I did not use the clear sheet provided in the kit. Instead, I transferred the shape of the opening with a 0.3-mm styrene plate and made the window with cell film sheet for animation.

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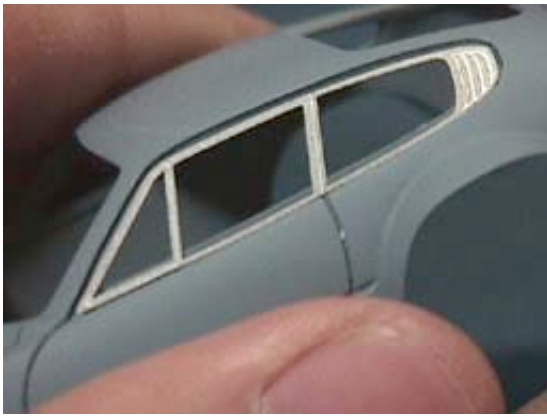
March 30, 1999



I repeated the same method for the windshield. I was afraid that the different radius on the top and the bottom edges might create a problem, but it turned out fine.

I plan to glue the frames just before clear coating, and spray the body and the frames with a clear coat. The windows will be glued from the inside. It sounds easy, doesn't it?





There is a problem for the side window frame. As you can see, it is vastly undersized. I think that it was designed this way because the factory built is painted with urethane paint that has a considerable thickness.

What can I do with this?



I couldn't find the solution easily, so I decided to make a wiper.

The double-armed wiper was a combination of Tameo's photo-etched part. I soldered the part together. I am now very confident and comfortable with soldering.



I used the vacuum-formed part provided in the kit. You could barely see them, but they fit nicely.

I cut the grill mesh with Hasegawa Trimaster photo-etched part.

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March 31, 1999



I sanded the body with #600 sandpaper.

There isn't a single complicated line on the Daytona's body shape. However, as in any Italian car design, the surface has delicate contours. I realized that the front fender should be more rounded, so I sanded the shoulder area until the resin was exposed. I sprayed it with primer again.

I was planning to make the brake lamps with a combination of acrylic rods and aluminum tube, but I decided to commission the part to the machine shop again.

April 1, 1999

I planned to make the roll cage with brass rods, but I didn't have a 1.3-mm brass rod that was the appropriate size. I have to go shopping. (Translator's note: If you live in or near Tokyo, you can find almost ANYTHING!)



I joined the body and the underbody tray with a screw. Since I cannot put the screw into the resin, I applied epoxy filler around it.

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April 2, 1999



I carefully sanded the body with #1000 sandpaper. I sprayed the body six coats of white. I mixed the paint with a larger percentage of thinner.



I put the body in the dish-dryer. Meanwhile, I poured clear resin into the headlamps. I estimate that it will take a few days to harden.

April 3, 1999

I went to Fujiya for the class, so there was no progress on the model today. However, I was able to see the factory built of this kit, and got the idea for how I would approach the article for the magazine.

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April 4, 1999



I checked the condition of the body surface before sanding it with #1500 sandpaper.

I cut the masking sheet for the car number circles and the center stripe.



I mixed red with a touch of yellow and magenta.

I started the painting with the "hard to reach" areas such as the inside of the ducts.



Thirty minutes later, I peeled the masking off and waited for another two hours before applying the blue decal.

The decal was printed by SLIXX in USA. The film is very thin, so I was very careful when I applied it.



I applied the rest of the decals in the kit. The Ferrari emblem and the Goodyear decals were from Tameo's F1 kits.

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April 5, 1999

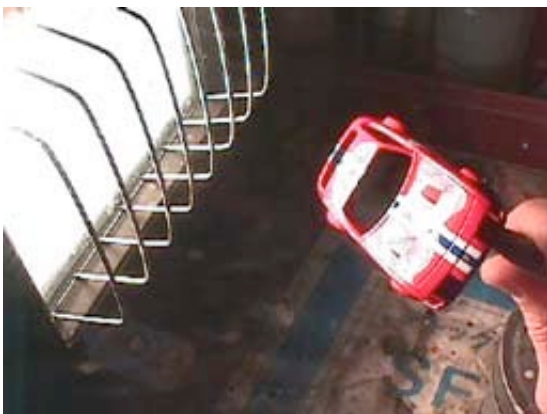


I used Tron's detail part for the left side rearview mirror. I drilled it a 0.5 mm hole, and inserted a nickel silver rod. I drilled a 0.6 mm hole in the body, and I will attach the mirror in the end.

I sprayed the body with clear coat in the afternoon. I couldn't be sure how the decal would react to it, so I would leave the body alone for a day.

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April 6, 1999



I clear-coated the body several times throughout the day.

The weather wasn't ideal today, but no problem! I warmed the body with the halogen lamp right after I sprayed, so moisture would evaporate quickly.

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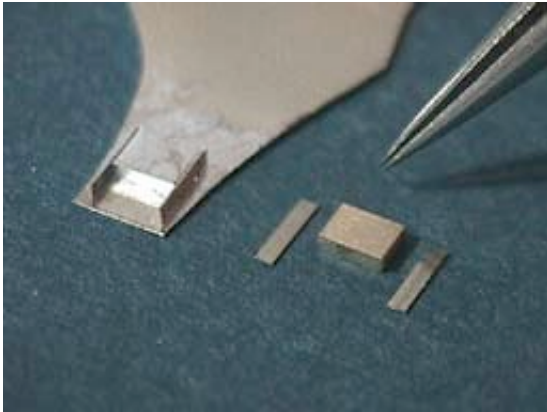
April 8, 1999



I was forced to spend a whole day writing an article for Model Graphix. (Sigh...)

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April 9, 1999

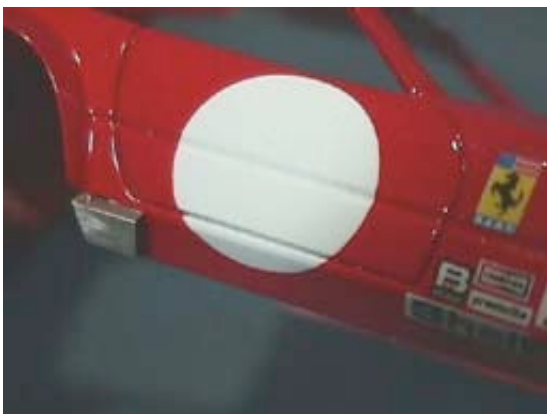


I can now return to model building (YEAH!). I deleted the cooling air duct for the rear brake in the beginning. I understand that this is a characteristic of the early Daytona Group 4.

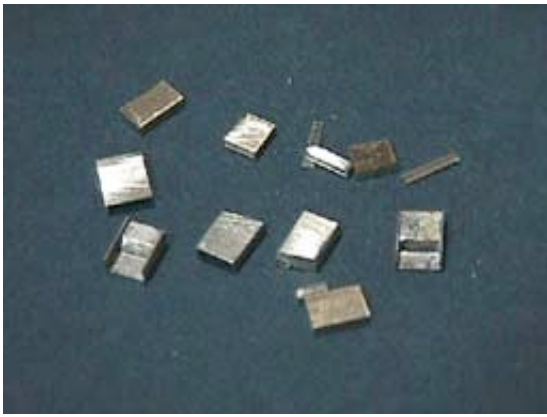
I cut various brass and nickel silver plates and soldered them together. I thought it was easy, but...

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April 10, 1999



I fitted the duct (4 mm width) I made yesterday, but it was too big.



I made so many before making one I could be satisfied with.

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April 11, 1999



There is a fin on the front fender. I used the photo-etched part provided in the kit.

I sprayed it (and the air ducts I made yesterday) red, and then clear.



The rear half of the roll cage was made with a 1.4-mm nickel silver rod.

I attached it to the chassis, and I shaved the top of the roll cage so it would fit under the body.

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April 12, 1999



The front half of the roll cage was made with a combination of 1.2-mm nickel silver rod. I measured the length of the A-pillar and cut the nickel silver rods. Then, I soldered them to the body.

It is recommended that you do this BEFORE you paint.

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April 13, 1999



I made the interior trim for the front doors. The trim included in the kit was for the road cars. The interior panels in the Daytona Group 4 were simpler, so I cut 0.5-mm brass and nickel silver plates to make a new pair. I made the handle with a photo-etched part from a 1/35th tank kit.



I made the rim for the steering wheel with brass rod and soldered it to the photo-etched spoke (Tron TF24)

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April 14, 1999



The steering wheel shaft is made with a combination of brass tubes. There is no compartment box on the Daytona Group 4's dashboard.

I deleted the molding, and then made the glove box lid with a nickel silver plate.



The brake lamps were machined with a 3-mm aluminum tube, and the colored acrylic tubes.



I began sanding the body with #1200 sandpaper.

I fitted the head lamp covers again because you have to consider the thickness of many paint coats.

You might not be able to tell the difference, but the one on the left was already sanded and the edge was already darkened by a black marker, and the one on the right is untreated.



I am ready to glue the window frame. I slightly curved the part with my fingers.

I checked the size of the template and made it a little smaller by subtracting the thickness of the paint coats.





The photo on the left shows the rear window from inside.

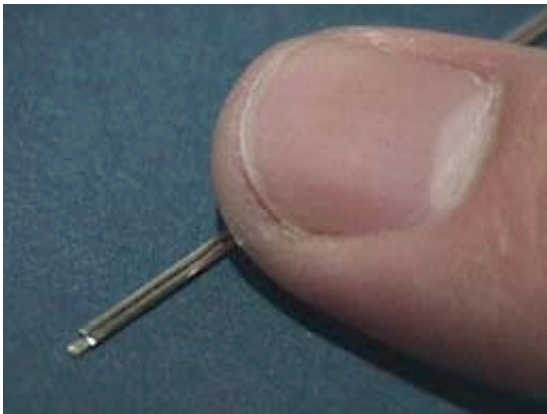
As you can see, you have to fit the window within the frame. Can I pull this off?

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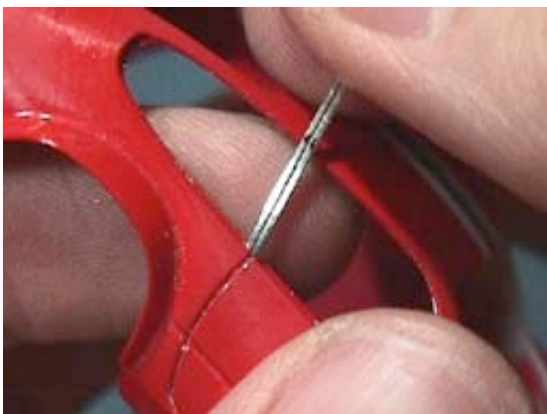
April 15, 1999



As I wrote on March 30, the frame for the side window was too small. I remade it with the nickel silver strip.



I aligned and soldered two 0.5-mm strips and one 0.6-mm strip together and made a U-shape strip.



I washed the flux off and curved it slightly. I measured the B-pillar, and cut the strip to fit.



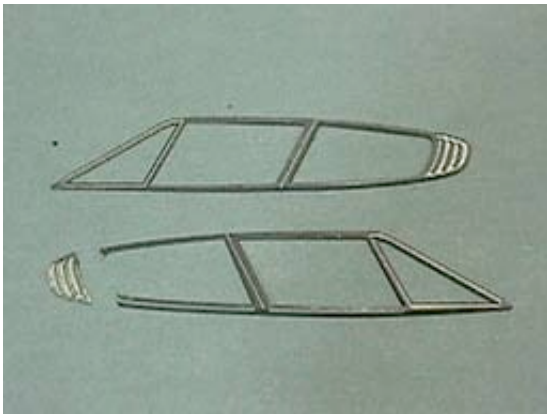
Then, I made the main side window frames. The top frame was made with the 0.5-mm strip (Number 1) and the bottom frame was with the 0.3-mm strip (Number 2), and I polished them with #2000 sandpaper and the rubber polishing burr on the rotary tool. I glued them with super glue.



The desktop is just chaotic!

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April 16, 1999



I cut off the louver in the end of the photo-etched part in the kit. I will paint it mat black and glue in the end.

I continued with the window frames. I made the rear window frames with the 0.3-mm rod.



I bent the rod to shape the frame, and then polished it. Unlike the front door window frame, I will glue this in the end.

I can see the end in sight.



I made the base for the catch pin with a brass rod.

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April 17, 1999



I had to go to the class at Fujiya today. As you can see in the picture, it is a bunch of adults building their models while chatting...

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April 18, 1999



I polished the body with #1500 sandpaper and then polishing compound.

After wiping the compound off, I painted the inside of the headlamp housing mat black. Then, I glued the headlamp covers with epoxy glue.



I taped the window frame. I scooped super glue with a design knife, and applied it inside the frame.

All the excess glue can be peeled off by a toothpick, because the frame was polished and nothing, even super glue, would stick to it.



I glued the side window frame with super glue.

I glued the fins on the hood and the side cooling ducts on the body. After I washed the body, I sprayed the body clear coat for the last time.

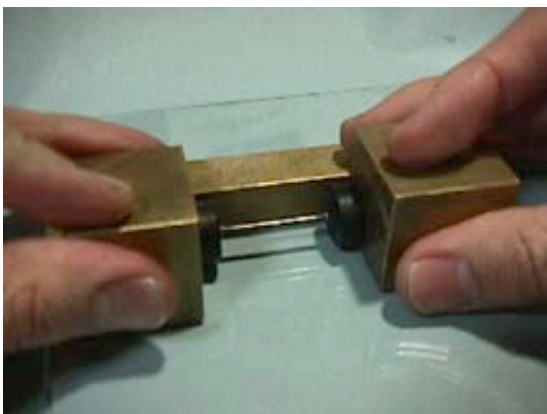


It was raining outside, but the condition was better than I thought, because there was no dust in the air.

The clear coating went really good. It really made me feel good.

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April 19, 1999



I sprayed the wheels silver mixed with a drop of purple. I glued the wheels, the brake rotors, and the brake calipers to the shaft.

I had to sandwich all the parts with brass blocks so everything would stay straight.



After the glue hardened, I attached the center lock. The disk brake rotor is visible through the wheel as you can see in the picture.



After the body and the wheels are finished, I have to finish the cockpit. The grip for the shift lever is made with epoxy glue.

The hand brake lever was not included in the kit. I glued the stainless steel rod and the brass tube together for the lever. The boot for the lever was made with a lead sheet.

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April 20, 1999

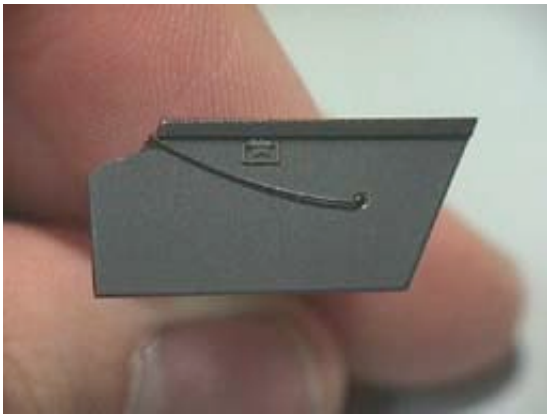


I painted the steering wheel rim semi matt black. The steering wheel shaft was made with a combination of brass tubes.

I made a horn pad with a round rivet, and applied the Prancing Horse decal in the kit.



I painted the dashboard. It is all in black, but I changed the mixture of the paint according to each material's texture.



I painted the door trim. The lock release cord was made with a 0.3-mm brass rod.

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April 21, 1999

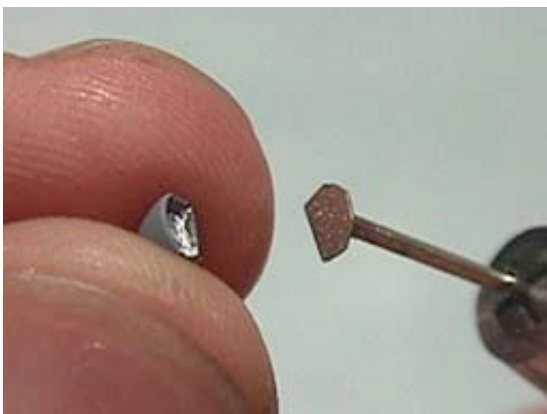


The fire extinguisher came from the Renaissance's McLaren F1 GTR. I painted the seat, the roll cages, the pedals, and the side brake lever...

I am exhausted!

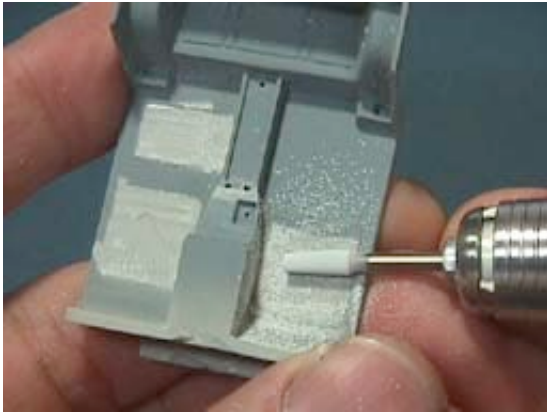


The rear view mirror was made with a nickel silver plate. I polished the part, and then soldered a 0.3-mm rod. I painted the whole thing black, and then peel the paint to expose a mirror surface.



The side rearview mirror was made as usual. It was easy because I just had to make one.

April 22, 1999



There is carpeting on the chassis floor, and it is not appropriate for the racing car.



I cut a 0.1-mm nickel silver plate and glue the pieces in place to express the bare chassis.



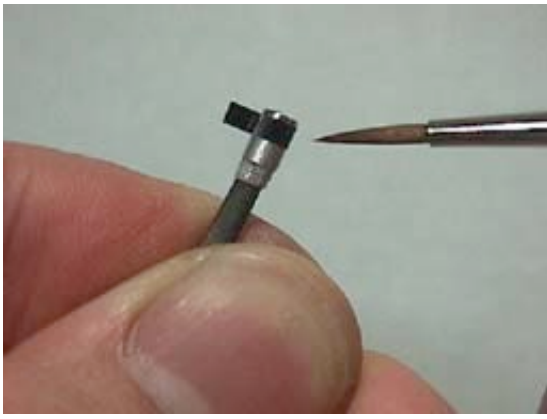
After I painted all the interior parts, I glued them together. Since I won't be able to see the interior like this again, I took this picture.

I spend a lot of time detailing the interior because it is quite visible from the outside.

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April 23, 1999

I painted the underside and the tire housing of the body matt black. I usually brush enamel paint, but I cannot do this, because the paint tends to flow too quickly into gaps. I masked the body and airbrushed it matt black.



I applied the black decal to the aluminum tube for the rear brake lamp.



I painted the bottom of the rear brake lamps silver, and then glue them to the body.

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April 24, 1999



I painted the exterior parts such as the wiper, the door handles, and the ignition switch.

I sprayed the front turn signals matt clear coat with a drop of white, and then painted a part of it clear orange.



Now comes the side window. It is the most difficult part of building this kit. I cut the cell sheet. I mixed the epoxy glue, and scooped a portion of it by a stick. I heated it with a hair dryer, so it would flow in between the body and the window.

The picture shows how I scribed the line with a knife to express the sliding window.



April 25, 1999



I continued on gluing the windows past the midnight. The windshield was also difficult to glue, spending nearly two and a half hours.

After taking this picture, I washed the whole body, and drying it by blowing air with the airbrush. However, I accidentally blew the rear window off...



After I regained my composure, I glued the rear window again, and I was very careful not to blow the thing off again when I washed the car for the last time. I put the body on the jig, and glue the wheels and the tires with epoxy glue. After taking this picture, I went to bed.



I woke up in a few hours, had something to eat, and went to vote (!) in the morning. After I came home, I glued the wiper and other exterior parts.



Doesn't the Prancing Horse on the steering wheel look great?



I hadn't made the exhaust pipes yet. I used a 1.8-mm brass tube and a 1.0-mm brass rod.

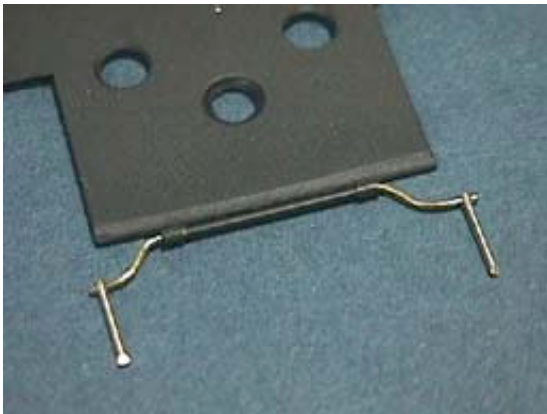


I inserted the 1.6-mm brass rod inside the brass tube. I heated them well, and put them on the vise. I shaped them by bending with force.

The "3 into 2" pipe was made with a combination of various brass rods.

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April 26, 1999



I have to take the finished model to the studio today, but I decided to make the anti-sway bar in the front.

I cut the chassis on the edge, and I made the bar with a 0.5-mm brass rod. I attached the bar with brass tube.



I anodized the bar, and glued it to the body. I painted the exhaust pipe purple, and I gently sprayed it white so you could still see purple underneath.



I glued the ignition switch on the front fender, and it is all finished!

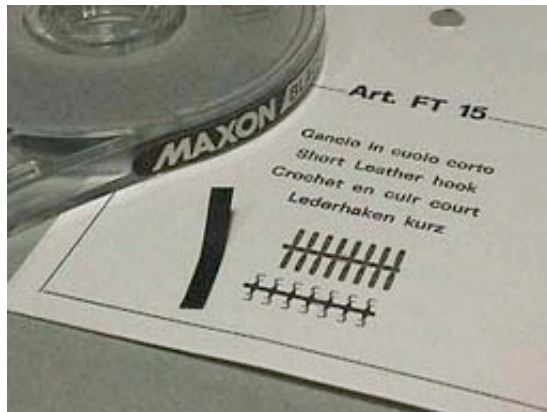
I realized that I forgot to make the leather straps on the hood after I took the model to the studio. The exhaust pipes were also attached too low. I will fix these points, and take pictures for this site after I get the model back.

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May 19, 1999



I got the model back yesterday. I remove the exhaust pipes, and glue them in the proper position.



I used Maxon's drafting tape and Tameo's photo-etched parts for the leather straps on the hood.