

Tameo's first 1998 F1 kit was the Benetton B198. A few days after the kit was put on sale in Japan, I received a phone call from Art Box asking whether I could review the kit for the next month's Model Graphix Magazine.

Over the phone, I told the editor at Art Box "Oh, that's not a problem, the recent Tameo kits are all straightforward to build, so it 's gonna be a piece of cake!" However, soon after I realized that I lacked knowledge of the subject matter, as I don't closely follow F1 racing. So I e-mailed a "Help!" signal to a bunch of friends at NiftyServe's (a Japanese Internet provider) chatroom. They responded by sending me a half-dozen magazines so I could study the actual car until the kit arrived. (Thanks specially to Mr. Kashiwakura and his son!)

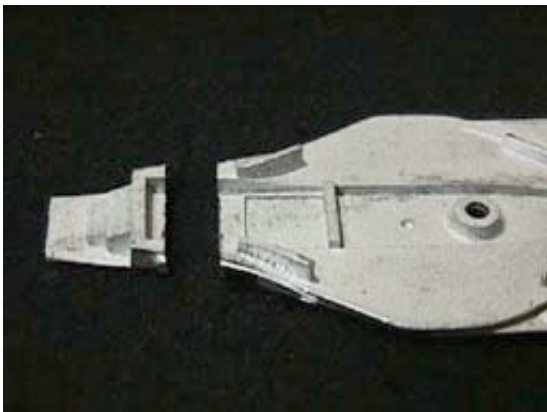
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June 3, 1998

Today, I began to compare the kit to pictures of the B198 as soon as I received it. Luckily, the B198 does not have a complicated rear section (the rear wing, the side wing, etc. are all independent of one another) and there are no aerodynamic aids hanging around the front suspension, so it is more accessible to build than other typical F1 kits of recent years.



In order to check the overall shape, I first soldered the separate bottom nose section to the body. It didn't need filler. Therefore there was no need to worry about shrinkage of the filler. However, one does need a good file to smooth it out, because metal, in general, is HARD!



On a closer inspection, I found that the division between the body and the underbody tray in the kit followed the coloring line between white and blue, and not the separation between the chassis and the underbody tray of the actual car. Plus, there was a sizeable gap.

After some pondering, I cut the front edge of the underbody tray and soldered it to the main body. Moreover, I remade the "Silly Plate" (the plate attached to the bottom in order to pass scrutiny) with a 0.15-mm silver nickel plate as shown in the picture.



Next, I checked the fitting between the body and the underbody tray. I joined the body and the underbody tray with a screw. In order to avoid over-tightening the screw, I applied epoxy filler around it as a "give".

Then, I filled the gap between the main body and the underbody tray using polyester filler this time. A tip: Apply a coat of household grease (hand lotion is good) on one side so it is easier to separate the two after the filler has hardened.

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June 4, 1998

I cut more parts from the tree and organized a general plan for construction.

The kit represents the car as raced at Australia. However, both Fisichella and Wurz failed to score any points there, and I did not want to attach that awful-looking on-board camera on top, so I decided to fashion it as the pre-season test car at Barcelona.

In order to finish it in a month, I could not wait until the body was painted to make intricate parts. I had to tackle them immediately. Calculating from the end of the process, I estimated that I would need at least five days to let clear coat to dry, and then three more days to attach all the intricate parts. It is a lesson from my BITTER experience in making the Revell FW-19. I also teach a model-making class at Fujiya (model shop in Tokyo). So, busy days are ahead of me!

I began to make the wheels first. I glued the rims and the spokes with epoxy glue. After spraying them with metallic gray, I sprayed a clear coat mixed with a drop of black paint in order to make them shiny.

In the main body, recessed lines were well molded, so I only deepened them with a fine needle and a design knife.

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June 5, 1998

I carefully deepened the recessed lines some more on the body.

Next is the rear wing. I chose the type that had an extended front end, and I soldered a 0.3-mm silver nickel line on the edge to express a "lip". I sprayed it white directly without spraying primer. Then I applied the decal, sprayed the clear coat, and tossed it into a dishwasher (just) to dry.

I chose to use a set of wheel locking nuts made by Make-Up of Japan. I sprayed clear red to the left ones and clear blue to the right ones and stored them in a safe place. Next, brake discs and brake ducts were fitted together and painted. The brake calipers are

made of brass, so I only applied the "Brembo" decal and sprayed the clear coat so the brass texture would be clearly visible through the spokes.

All the suspension and the brake parts will be attached to the body with epoxy glue after the body is painted, of course.

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June 6, 1998

Today, I concentrated on the air intake, which needed to be deepened.

Since it is such an eye-catching area in the finished model, it has to be precise. I used the rotary tool to make a tiny hole, and then enlarged it little by little. I soldered a 0.3-mm brass line around the edge line of the air intake opening to ensure equal thickness.

I also made the suspension arms. They were already power-coated, but I sanded them off with #1000 sandpaper, and then filled the gaps in with soldering metal. I might also apply a carbon-fiber decal around it.

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June 7, 1998

I continued refining the air intake area from yesterday.

I had to open a hole underneath the air box near the headrest. In order to position it precisely, I used the decal for this area from the kit as a template (I wish I had a spare decal!). First I made a large hole, and then sanded it into an elliptical shape with a sanding file.

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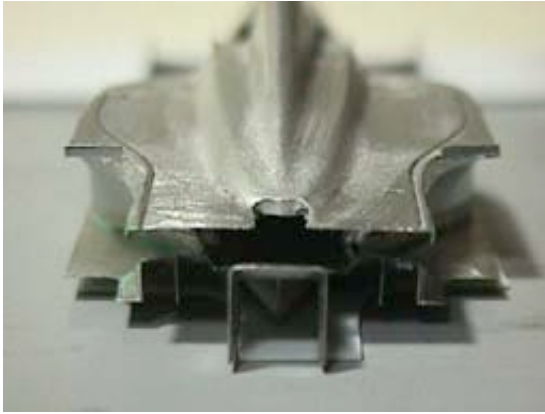
June 8, 1998

I cut away the excess metal around the rear body section with a knife to have a thinner lip.

The unified structure for transmission casing and rear wind mount is next. I will attach it in the end after all the painting is finished. The mount at the drive shaft casing was something I found for a train kit. I also filled some imperfections in the casting with epoxy glue.

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June 11, 1998



I let a couple of days pass me by without working on the model. I am revitalized now. I started by shaving off some excess metal from the rear diffuser.

The underbody tray around the rear tires was cut, and then replaced by a 0.2-mm silver nickel plate. I emulated the BBR's F310B that also had this configuration of separate endplates.

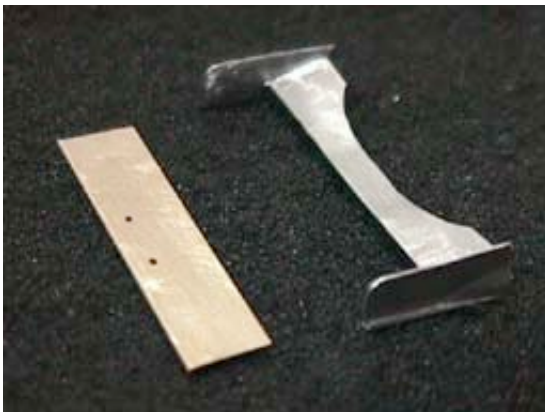
The gap between the plate and the underbody tray was filled by filler.

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June 12, 1998

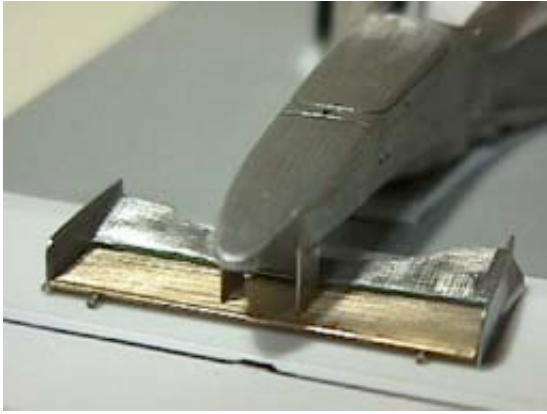
I soldered a nut to the bottom of the underbody tray for affixing the model to the display case. I now checked the height and set a proper ground clearance, or "ride height." I inserted a 0.5-mm plate between the model and the plate as a guide. When I saw from the front, it looked as though it was tilted to the right. I corrected it to the proper height by sanding a part of the underbody tray.

After setting the clearance, I modified the kit's front wing. Front wings and flaps are often molded into one piece in recent Tameo kits, so I often separate them by cutting away either one of them. This time I cut the wing from the rest and remade it. This way I can later easily paint them white and red and apply the decals.



To begin, I took the measurements of two holes in the original wing (for two vertical supports). Then, I shaved off some metal from the inside of the endplates. I carefully cut off the wing from the rest without damaging the flaps and the endplates. Finally, I remade the wing from a 0.5-mm brass plate, and opened two holes with the same measurements.

I set the ride height for the front wing at 1.3 mm by judging from the pictures and Tameo's instruction.



I shaved off some metal from the nose with the rotary tool to make a recess to which affixed the vertical support. I then pre-assembled all the parts for adjustment. Afterwards, I applied liquid solder flux and soldered the vertical supports to the body. There was no second chance, so I was a bit nervous at that moment!

I was so relieved that it went well. I washed off the flux with running water and I sanded off excess solder. After minor sanding, this area was then completed!

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June 13, 1998

I sanded the body and the front wings smooth and then sprayed them with primer. After spraying, I tried to dry them by placing them under a lamp. However, all the air holes underneath the primer coating expanded under the heat from the lamp, causing the primed surface to have so many bubble holes!

I had no choice but to put the whole thing in a sea of lacquer thinner .

I went to the art supply store in Ikebukuro to order special "Chromatic" letter transfer for the "Bridgestone" logo on the tires after teaching a class at Fujiya.

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June 14, 1998

I attempted to spray primer again. Before I did, I applied thinned-out filler with a brush. It went without mishap this time.

I shaved off the excess metal from the rear wing assembly, and then sprayed it with primer. There were a few blemishes, but they disappeared after brushing on thinned-out filler in the problem areas (Sounds like a beauty tip, doesn't it?)

The suspension part was next. I sanded the edges off the suspension parts, thus the cross section changed from square to elliptical. I then chrome-plated the arms and covered all of the arms with carbon fiber decal except the base. I also filled the gaps in the wing flaps by soldering.

June 15, 1998



I sprayed the semi-gloss clear coat to the suspension part I made yesterday. However, I added too much matt agent, so the surface looked too rough. There was nothing I could do to fix it, so I had to strip the whole thing .

Meanwhile, I had to "paint" the tires. In the newly introduced grooved tires from this year, the groove itself is shiny compared to the rest of tire tread. I masked the grooves with fine masking tape, and then sprayed semi-gloss medium gray to the tires while I rotated the tire with the rotary tool.



I carefully removed the tires without touching the painted surface. I then applied the letter transfer to the tires. Doesn't this look plain to you compared to Goodyear's yellow logos?

I felt better when the tires were finished. I took the body from the dish-dryer and started sanding with #600 sandpaper. It is very important to maintain consistent edges in this process in order for it to look "crisp" after painting.

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June 16, 1998



I continued on sanding the body. I spent nearly two hours just sanding every part of the body.

I mixed the white paint with thinner mixture, and then sprayed this on the body a few times.



While I let the paint dry, I made side air deflectors which are very characteristic on this year's Benetton. I again shaved off some metal to make them look sharper. The one on the right is as it came in the kit, and one on the left is altered.

I sprayed them with primer, taking special care not to spray too much.

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June 17, 1998

I polished the surface of the side air deflectors, and then I sprayed it pink before painting it red. However, the red paint I used darkened considerably after it dried, so it no longer matched with the red from the decal. I had to strip the paint AGAIN.



I sprayed white to part of the underbody tray. Then I sprayed it blue and applied decals. I cut the white decal from Modeler's and applied it to this area of the underbody tray instead of using paint.

I then mixed the light blue. I chose to use "Pure Blue" by a shop called "G.T." I matched the right shade of blue by adding a touch of white to it, so the paint is similar to the decal.

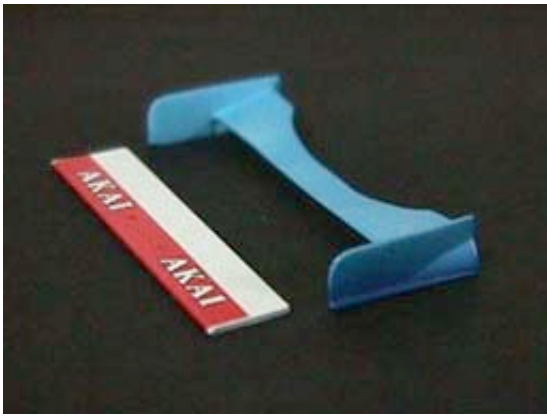
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June 18, 1998



I polished the white paint with #1000 sandpaper. I had to be very careful not to sand too much or I would expose the primer coat.

After washing the sanding scum off, I masked off the top and the nose section so I could spray the light blue.



I sprayed the same light blue on the endplates and the flaps. I applied the white and red decals to the front wing. I mixed in dark blue to spray to the endplate in the rear wing. However, the dark blue darkened considerably (again!). I may be forced to use the kit's decal.

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June 19, 1998

I sprayed red to the side air reflectors again. I mixed the red closer to orange this time to match the red from the decal. I also painted the inside of the endplates and the bottom edge of the front wing in black.

I could now apply decals to the body. Before I did that, I polished the body some more with #1200 sandpaper. I also sanded down the edge between the light blue and white paints created by the extra layer of paint.



I felt that the quality of the decals in this kit differed from the ones I had in Tameo's kit last year. There was too much gluten between the decal and the sheet, so it was difficult to "slide" the decal to set on the proper location. I recommend that the decals be soaked in water for a few seconds longer than usual.

As you can see in the picture to the left, the dark blue was not painted on, but all came from the kit's decals. I spent nearly three hours to apply the decals to one side. I had a problem with the decal not covering the area that it was supposed to. Maybe I should have mixed the dark blue to match the dark blue of the decal, and then touched up with the dark blue on the spot BEFORE applying the decals.

June 20, 1998



I took the picture on the left a few minutes past midnight. I hadn't finished applying all the decals yet at this stage.

If some areas of the decal go over the recess lines on the surface, you have to carefully cut the decal along the lines, and then apply decal solution there to completely set the decal to the surface. If you spray a clear coat without doing so, the decal in that area will melt away!

If there is white glue from the decal on the surface, you can soak a Q-tip with enamel thinner and rub to clean it off.

After applying all the decals, I washed the model in dish soap with a soft toothbrush. Then, I spray it with an airbrush to completely dry the body in a preparation for a clear coating.

I mixed the clear coat with a large percentage of thinner in the beginning. Then, I decreased the amount of thinner. After several coats, I spray the final clear coat mixed with more thinner again. After this stage, the surface looks pretty shiny. I let the clear coat dry at room temperature for six hours, and then toss it in the dish-dryer for 2 to 3 days on a very low temperature.

There was a party later that evening at Fujiya. It was tough standing and chatting for two hours after not sleeping much the previous night!

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June 21, 1998

I have already noted that the blue paint I used to spray the rear wing didn't quite match the tone of the decal. Today, I re-spray it. There are so many problems with spraying smaller parts this time!

The color I used was the 50-50 mixture of "Pure Blue" by "G.T. Color" and "Indy Blue" by Gunze (Both of them are only available in Japan). I let it dry for 4 hours in the dryer, and then I applied the "Mild Seven" decal. After that I sprayed a clear coat and placed it back in the dish-dryer.



Another tip: Don't cut off everything from the tree when you cut the photo-etched parts. The remaining tree will be useful as a grip when you can paint.

Even after the parts are painted, you can still cut the pieces from the tree, and then sand them with #400 sandpaper.



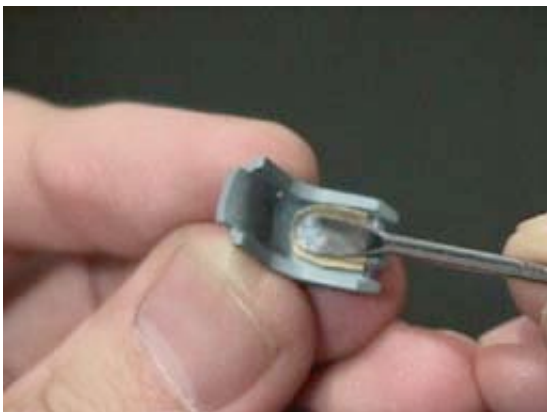
Instead of applying the carbon fiber decal again, I covered the suspension arms with a Modeler's black decal this time. I felt that, in this year's Benetton, the focal point should be placed on its bright color scheme and the grooved tires. The suspension parts should have a secondary role after the main points.

I am quite satisfied with the result after spraying a semi-gloss clear coat.

After applying clear coats to the body, the majority of parts are now completed. Let's finish the smaller parts!

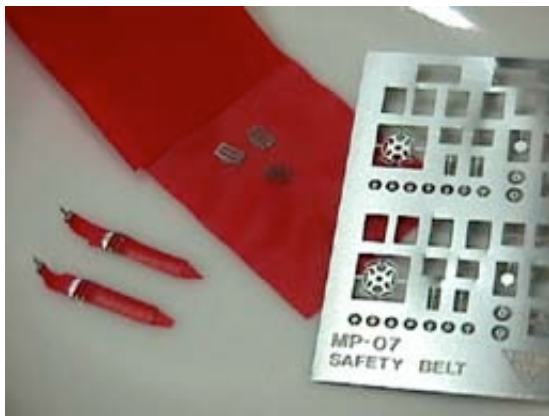


I opened several holes and "connected" them to make the elliptical hole for driver's belly seat. I cut the recesses for the shoulder harnesses which the real car doesn't have. However, the shoulder belt "sits" better, and it looks more natural this way (the recesses are totally covered by the shoulder harnesses).



I sanded it with #400 sandpaper before spraying the primer. Since it is such a tiny part, I wrapped the sandpaper around a paint mixing stick by Tamiya and sanded the areas I couldn't reach well.

I sprayed a thick coat of primer and filled a few blemishes. I sprayed it with dark gray after sanding it with #800 sandpaper.



I used the vinyl sheet in Hasegawa's 1/24th rally car kits to make the belts. It has a nice scale effect in the 1/43th, and I can use super glue to glue them together.

I also used the photo-etched part from Hasagawa for a strap to adjust the length of the shoulder harnesses. It is a little bigger than it is supposed to be, but it looks great! The rest of the seatbelts are from Make-up.

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June 22, 1998

I spray-glued and attached the belts I made yesterday to the driver's seat. When I looked at them later I realized that the belts didn't sit well. I have enough time so decided to remake them.

I made the emergency ignition switch located on the right side of the air box. I used the photo-etched part in Renaissance's McLaren F1 GTR kits. I made two and painted them red just in case I lost one of those microscopic parts (it happens more often than I would like!)

Next is the side mirrors. I sanded the parting line, and then I cut them away. I will make the mirror surface with a silver nickel plate, so I scooped out the inside of the mirror.



I finally attached the suspension part to see if everything now fit together. I glued the suspension parts and the hubs and measured the center of the hub.

The diameter of the tires is about 15mm, so the center of the hubs should be 7.5mm from the ground. When I measured it, it was EXACTLY 7.5 mm! Bravo, Luca Tameo!

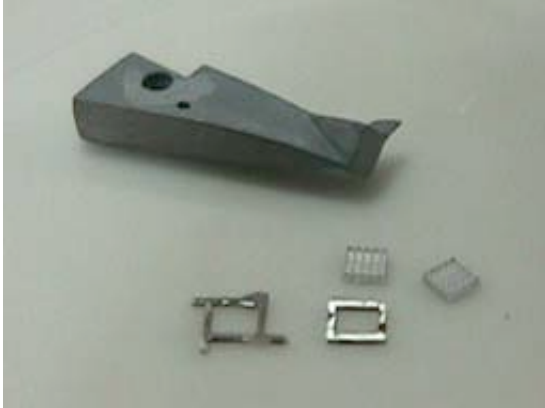


I should have checked this before painting any parts, but since I had to hurry up I had to rely on my conviction that recent Tameo kits are extremely accurate. I was not betrayed.

June 23, 1998

I made the front brake air duct from a brass plate since the test car has a much smaller one than the one included in the kit.

I sprayed the parts I made in the last couple of days with primer.



I also sprayed mat black on the structure for the transmission casing and rear wind mount after polishing them with #800 sandpaper.

I used the LED brake lamp kit by Fujiya. I soldered a 0.3-mm nickel silver line to make a frame around it.



I made the push rod for the front suspension by pressing fine brass tubes with a vise. The tubes I used for both ends had a 1.0-mm outside diameter with a 0.8-mm inside, and a 0.5-mm outside diameter with a 0.3-mm inside diameter. I inserted the 0.3-mm stainless steel line, and then solder them together and pressed them with the vise. I polished the surface with sandpaper to polish, and then I applied the black decal.

I always use the decal solution then heat the decal with a hair dryer in order to set the decal.

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June 24, 1998

I sprayed a coat of semi-gloss clear to the suspension parts I made yesterday. The tie rod (made with a 0.4-mm brass pipe) and rear suspension parts are painted black, and then also sprayed with a coat of semi-gloss clear so as to ensure a consistent texture.

The wheel hubs, the brake disks, and the brake ducts were all glued together with epoxy glue. I then attached the brake lamp I made yesterday. I have to sand the edges of the frame with sandpaper.

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June 25, 1998

I pre-assembled the body and the underbody tray, as well as the rear wing mount and the rear suspension. I also adjusted the length of the driveshaft. I used a 0.7-mm brass rod which is slightly thinner than the one provided in the kit. I sprayed them with a clear brown.



I then cut a 0.15-mm silver nickel plate to be the partition in the rear of the car that can be seen from the radiator air outlet. I sandwiched two plates to make two identical plates, and then cut them carefully so that they would not interfere with the body and the underbody tray.

I indicated the exact locations of the partition plates by etching lines on the underbody tray, and then I sprayed a thin coat of black directly to the plate.

I then sprayed a clear coat where I had painted blue on the underbody tray, and let it dry. I am planning to mask off the blue area, and then spray mat black to the rest of the underbody tray.



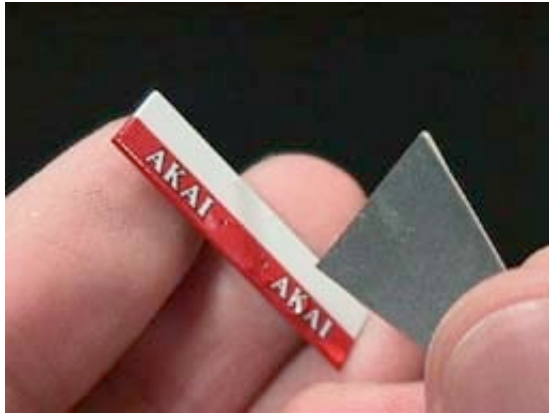
I remade a triangle plate for just in front of the cockpit. I made it from the tree in the photo-etched part.

Of course, I can not hold a part like this with my fingers, so I attached the part to a pair of tweezers then sand to shape it.



Why do I sand off such a tiny part like this from the body and then remake it? Because it is easier (for me, at least) to make the body as smooth as possible without the many details on the car body, such as indicators and door knobs, before sanding and polishing the body.

I sprayed the triangle plate with white, light blue, and then clear. I will glue it to the body just before the final clear coat.



I've reached the last stage of building the model - polishing the clear coat.

I started with the rear wing by sanding gingerly with #1200 sandpaper, and finishing with #1500 sandpaper. If you sand a flat surface, you have to attach the sandpaper to a piece of wood so you sand evenly.

For curved surfaces, I roll the sandpaper so it matches the surfaces' contours.



If you mistakenly sand down so much as to expose the coat underneath, you have to touch it up with the paint you used. In my experience, it is better to use the paint retardant rather than the thinner to thin down the paint.

The left picture shows the sanding inside of the end plate of the front wing. I wrapped the sandpaper around a cylinder-shape eraser.



It took me nearly three hours to sand. My right thumb was bruised from sanding with water!



Next, I made the rearview mirrors. After sanding the primer, I scooped out the inside with a rotary tool. I cut a 0.15-mm nickel silver plate to fit inside of the mirrors.

The mirrors used in a F1 car are square, so it is easier to shape, but they are so tiny it is difficult to hold them down. However, with some practice, I can now finish one side in less than 30 minutes.



The kit provided three identical photo-etched parts for the steering wheel by sandwiching them, so I remade the rim with a 0.6-mm brass tube .

I used the same kind of brass tube when I made Tameo's Jordan 197. I cut off the rim (center picture) and soldered the tube and the center spokes. The soldering did not go well, so it took me about 2 hours.

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June 27, 1998

I sprayed white to the rear view mirrors. Then I sprayed the mirrors and the body with clear.

The mixture of the clear coat is an equal split of clear and thinner. I wish I could use retardant, but I can't, because it might affect the decals. I used 1.2 psi and the spray from an airbrush. While spraying it should look as though the body is surrounded with fine mist. I let it dry at room temperature for six hours, and then put it in the dish-dryer. This time some dust got into the way a little bit on the top of the body, but overall it went well.

I sprayed the semi-clear coat to the area I sprayed black.

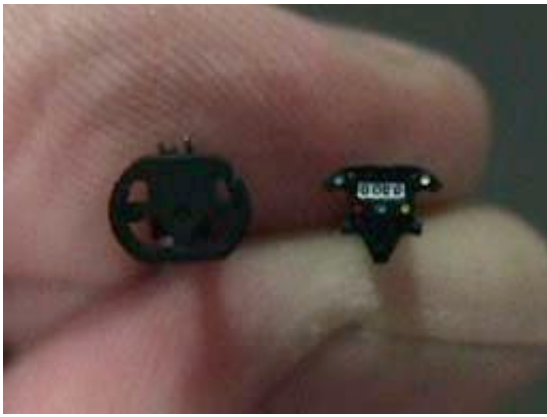
After having taught the class at Fujiya, I find myself completely exhausted. Tomorrow will be the day to finish this!

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June 28, 1998



I re-sprayed the driver's seat, and I tried again to make the driver's harness. I didn't plan to use the "Sabelt" decals since the real test car didn't have them, but it looked ridiculous without them, so I applied them a myway.



I painted the rim of the steering wheel dark gray, and the center panel and the gearshift switch semi-gloss black.

I painted the buttons on the center panel red, white, yellow and blue, and I applied the decal for the digital meter. It's kind of scary that I am able to recognize all the four digits in the meter!

I then made two antennas. For the front one on the nose, a combination of 0.4-mm diameter brass tube and 0.2-mm stainless steel rod was used.

For the rear one, I combined 0.5-mm and 0.3-mm brass tubing, then chrome plated them for the base. I inserted the thinnest needle for acupuncture after I painted it black and indicated a ball tip by thick paint.

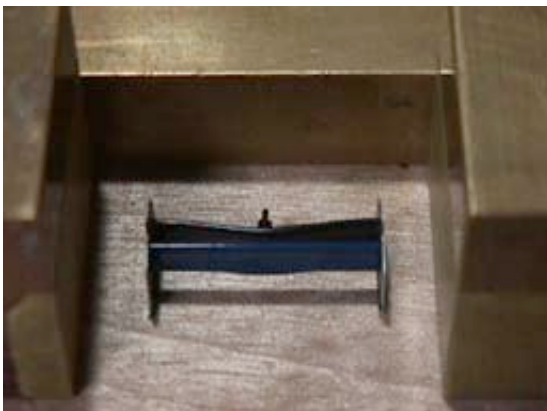


I sprayed semi-gloss black to the underbody tray. I used Tamiya's masking tape and Modeler's masking gel for masking. I sprayed the same color to the inside of the endplate of the front wing, too.



Next, I assembled the rear wing. I cut down the little space I left for the grip and made sure each wing had an equal length.

I removed the paint from the area where I want to apply glue. It will be more effective this way since this glue is made to adhere to metal not paint.



I used brass blocks to attach each wing so that they would be exactly at right angles to the end plates. The epoxy glue hardened so fast today because of high temperatures, so it made my work very difficult.

While I waited for the glue to completely harden, I painted the inside wall of the body mat black. Since the clear coat is not completely dried yet, I have to be extra careful not to touch the outside of the body.

After the mat black dried, I glued the instrumental panel, the steering wheel, and the seat to the body. I was very careful that each part was aligned to center.

10 minutes later, I held the body carefully with my gloved hand; I re-checked the fitting of the body and the underbody tray since the thickness of paint affected it. I had to shave the inside of the body a little for adjustment. I placed on the exhaust pipes and the partition plates, and I attached the gearbox to the body. Then, I finally attached the underbody tray to the body with a screw.

After a break, I glued the suspension parts and tires, driveshafts, and wheel lock nuts all at once. I sandwiched them in the brass blocks and checked the alignment of the wheels, and then I let them dry overnight.

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June 29, 1998

I had a tense moment when I took off the brass blocks, but everything turned out to be just fine. It was still too early to move them around, so I didn't remove the plate underneath the body.



I made the fasteners for the nose with a 0.6-mm brass tube which was cut up real short. The tie rods were made with a pipe and a pin. I had to glue them with a minimum of glue.

The duct for the front brake did not fit right in as it touched the pushrod of the suspension, so I had to cut off some of the lower portion and I touched it up with a black marker.



There is a vertical splitter plate in the airbox in all of recent Benetton F1 cars. So, I painted a little plate in black and inserted it very carefully.



The side air deflectors were glued with the plate placed underneath. I kept the plate until the glue was dried.

The next is the front wing. First, I placed the 1.0-mm plate plus pieces of paper underneath to set the ground clearance. Then, I glued the main wing to the wing supports. After the glue was hardened, I glued the endplates.



For the rear wing, I was careful to attach it at a right angle to the body using a brass block

There is a pipe on the left side of the transmission casing (bleeder pipe?) so I made it from gray plastic pipe.

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June 30, 1998

Today is the deadline. I woke up early and began with the supports for the rearview mirrors. I made them by bending a 0.2-mm stainless steel rod. I was a bit frustrated as I couldn't easily make two identical parts. I attached them to the body, and then the silver nickel plates to the mirror, but I struggled like hell to insert the left side mirror. I nearly gave up!

I was thinking in the worst case scenario, I could ask the photographer not to take a picture from the rear left side. However, I detached the left side mirror from the body, and I ground the inside so the left side mirror finally fit right in. This is a typical example of my walking the tight rope in model making!

There is a black cord (Detail Master's finest plastic line) from the cockpit area, but it is only seen in the test car.

The last parts to glue are the four vertical plates under the front wing. There is no hole to attach them, so I had to think about how to do that.



The time almost ran out, but I drew the construction lines to the plastic plate, and I attached them with masking gel so they could later be detached easily.

I then applied the glue on the top of the plates, and then slid them under the front wing, and attached them to the front wing. As the glue hardened, I gingerly peeled the plate off. It was perfect!

I then had only an hour until the appointment with the editor and the photographer.

After taking five deep breaths, I attached the antennas I made yesterday to the nose. I was so glad that I made them yesterday.

The last items are two antennas on the right side of the body. I made the bases with 0.3-mm and 0.5-mm brass tubes, and then I cut the 0.15-mm acupuncture needles at equal heights. I painted them black quickly, and I inserted them to the bases.



I slid into home base and the umpire yelled "Safe"!!