

## Modeling diary >> Lancia Stratos "Marlbro"

The dream of any rally and model car enthusiast would be to collect all the variations of the legendary Stratos. I too have purchased many kits from Starter and Racing 43, and have archived many references to achieve this goal over the last three years. I feel that I am wise and experienced enough to tackle the challenge now!

---

January 10, 1999



I purchased the kit which was on sale three years ago. It may be difficult to find it now.

Recently, Racing 43 released a totally new Stratos kit with many variations, but I felt that the original kit had the potential to be a better-looking Stratos. (Translator's note: The problem with the new kit is that the body is slightly oversized.)



The reference material is very limited on the 1974 Marlboro sponsored Stratos. I could find only two pictures. In a French volume entitled *LANCIA au volant/La Sirene*, there is a good picture of the Stratos in the front three-quarter view in Tour de Corse, and In *World Rallying 1973-1992* by Neko Publishing, there is a picture of the Stratos running on gravel in the San Remo Rally.

The metal body in the picture is Racing 43's 1/24th scale Stratos. It is a good kit and I used it as a reference.



The most noticeable problem in the Racing 43's original kit is that the front body's "chin" is not nearly deep enough.



White metal is a good material for using solder. I can pile solder on very quickly and sand it easily with a file. Unlike filler, you don't worry about shrinkage. It is the best material to modify the white metal body.

The left side of the body in the picture is the rough-looking condition just after piling on the solder. The right side has already been filed down.

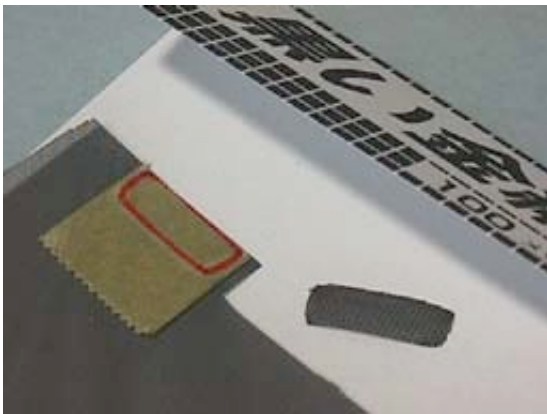
---

January 12, 1999



I continued on soldering and sanding until satisfied with the result.

Next, I opened the front air intake on the bumper with a rotary tool. I was very careful not to damage the edges around the intake. Unlike resin, metal is hard on the hand holding the rotary tool. I took several breaks before finishing the process.



I replaced the photo-etched mesh in the kit with a black metal mesh by Works.

I cut the mesh with a pair of special scissors, and then I bend it slightly with my fingers.



I fitted the mesh inside of the intake. I sanded the mesh to fit perfectly.

I already deleted the headlamps on the nose. I plan to make the headlamps and attach them later.

January 13, 1999



I didn't like the shape of the rear fender, so I piled solder on while comparing it with the picture (it is the 1978 Alitalia sponsored Stratos, but the shape of the fender is same.)

However, when I was taking this picture, I felt like I had committed a major crime by ruining the kit.

---

January 14, 1999



I had to pay the consequences of the crime!

I attached a large round bur on a rotary tool, and then sanded the fender. I was able to shape most of the fender just with the rotary tool. After that, I used #180 sandpaper to shape it.

---

January 15, 1999



As you can see, the fender now looks fine. I attached the wheel and the tire to adjust the gap between the tire and the wheel arch.



This wheel and tire set came from Vitesse's Ferrari 308 GTB. It is unusually good for a die-cast model car.

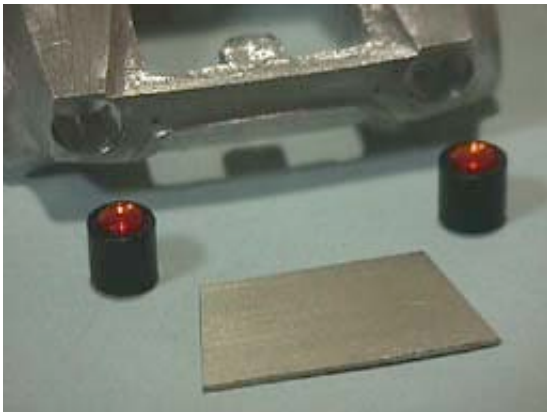
---

January 16, 1999



In the beginning of this diary, I wrote that I could only find two pictures of the 1974 Stratos. However, I found out that the Car Magazine (Japanese) Vol. 232 had a special feature story on the Stratos.

In the magazine, I found a picture of the Stratos on tarmac in its debut (San Remo Rally). I decided to model the San Remo version instead of the Tour de Course version.



The trunk lid was replaced with brass plate because it would be difficult to sand the part completely flat.

I specially ordered the rear brake lamps from a machine shop. I drilled 0.5mm holes on both sides for the lamps.

---



January 18, 1999



When I compared the width of the trunk lid to the one in the picture, I realized that it should be a little narrower, so I soldered the brass rods inside the lid opening. It is recommended to finish one side, in this case I did the right side, to see how it will look like before doing the other side. This way you have a better chance of getting a good balance.

By using the brass rods, I was able to get a sharp corner on the trunk opening.

January 19, 1999



A reader e-mailed me asking for an advice on how a nickel silver plate could be cut.

I usually use the Vallorbe's No.6/0 or 4/0 laser saw blade.



First, I set the blade to the saw frame. It is better to have a bench pin.

You must cut the part a little larger and sand the part with a file to shape it.



I replaced the brass trunk lid that I cut two days ago with a new one from a nickel silver plate, because I narrowed the width of the lid opening.

The rear brake lamps look really good in the picture, don't they?

January 20, 1999

I went to the editing office at Art Box, and I had a meeting about my future articles.

I wanted to buy a special screw at Tokyu Hands on the way back home, but it was closed today! I decided to modify the screw I already had.

---

January 21, 1999



I sanded and fitted the body and the chassis. However, it was obvious that the screw was quite visible from the rear.

I had to modify the middle rear body at the bottom.



I could not modify it just by piling solder, so I decided to cut the strips out of a brass sheet and I soldered them together. Then I filled the gap with solder. I refined the shape by sanding it with a file.

I also could not use the screw to affix the body and the chassis in the rear. I decided to cut a slit in back of the rear body so the chassis could slide in, and I affix the body and the chassis together by one screw in the front.



I set the ride height at 3.5mm. It shouldn't be too high, or too low.

The wheel size should be correct, but I felt it could be a little smaller.

---

February 1, 1999



I had to drill two holes on the nose for two headlamps. First, I made a template with a nickel silver plate. I glued the template to the position, and then I drew a line around the template. After that, I peeled off the template.



I drilled the holes quite deeply so the template (which would be the bottom plate for the headlamp cases) would fit nicely inside.

I also drew the door lines and the rear hatch lines.

As you can see in the picture, I purchased a special rotary tool from a dental assistant because my Dremel was broken after three years of harsh treatment.

---

February 2, 1999



I pre-assembled the cockpit so I could see if there was enough clearance for the windshield between the dashboard and the body.

The rubber molding around the windshield was not defined well in the kit. I soldered a 0.4-mm nickel silver rod inside, and I scribed new lines for the rubber molding.

February 3, 1999



I sanded the body with #320 sandpaper before I sprayed the primer.

After an hour, I fixed the holes by brushing primer, and I put the body in the dish-dryer.

---

February 4, 1999



I sanded the area where I brushed the primer with #400 sandpaper, and then I sanded the whole body with #500 sandpaper.

The metal surface is usually exposed at this stage.

---

February 5, 1999



I sprayed the second coat of primer, and again put the body in the dish-dryer.

---



February 6, 1999



The pop-up headlamp cases came from a Starter kit. I took a silicone mold of them and cast the parts, and then glued the silver nickel plate to the bottom of the cases.

The headlamp itself was from the Make-up's detail kit. The secondary lamps were the photo-etched parts I found in my junk box.

---

February 7, 1999



I sanded the body again with #600 sandpaper. There were some areas that I wasn't happy with, so I sprayed some spot primer.

I did not remake the rear blind. Instead, I only engraved the metal. I was greatly impressed with the durability of the X-Acto knife when I engraved the metal without any blade damage.



Before I could paint the body, I had to fit the windshield to the body.

However, the part didn't easily fit at all! I had to spend all day to sand and adjust the part.

February 8, 1999



The side windows in the kit became too small because I corrected the shape of the opening. Since they are flat, I cut them with the cell film sheet for animation.

I again made a template with a plastic sheet, and cut the film sheet according to the template.



Next, I planned how the wiper, the roof antenna, and the turn signals would be attached to the body.

The wiper was already made when I built a Starter's Stratos a long time ago. I used the wiper blade with Tameo's photo-etched part, and the wiper arm was a combination of the nickel silver rods.

---

February 9, 1999



I set the fog lamps in the air intake on the front bumper. I glued the brass rods to the body, and I inserted the lamps (Tron SP4) to the rods.

The mesh I cut last month had to be remade. However, I will deal with it later.



Now the model has a lovely face!

The rear exhaust pipe was also already made when I built the Starter's kit.

February 10, 1999

The most of the small parts are now finished. I sanded the primed body. I am now ready to spray the body white.



I mixed the paint and the thinner at the ratio of 9:1. I started spraying the edges and the recessed areas where the paint would not stick well. Since the mixture was so thin, it took quite a while before you could see whether the area was covered with the paint. You have to be very careful not to let the paint run.

I took the picture after the second coat of the spraying. You could hardly see the paint, but the texture remained glossy.



I gradually added more paint to the mixture during the five coats of the spraying. Finally, I went back with the original mixture and sprayed the paint while maintaining the glossiness.

In this season, there is a lot of dust in the air. If you find the dust got in the way, just let the paint dry for 30 minutes and pick the dust out with a pair of tweezers.

If you can not even touch the paint after 30 minutes, it means that you were spraying too much at once.

---

February 11, 1999



It snowed today. I planed to paint red stripes on the body, but I couldn't do it. I noticed that the paint was uneven on the front hood, so I carefully sanded the area with #1500 sandpaper.

---

February 12, 1999



I mixed the red paint matched to the kit's decal. I added a little yellow to the mixture, so it is a very bright red.



I used three materials for masking. An excellent masking sheet called Tricon SP100 for defining straight lines, Tamiya's masking tape for curves, and Modeler's masking gel.



Modeler's masking gel affects the paint surface if you leave it on for too long, so I was very careful to remove it as soon as possible.



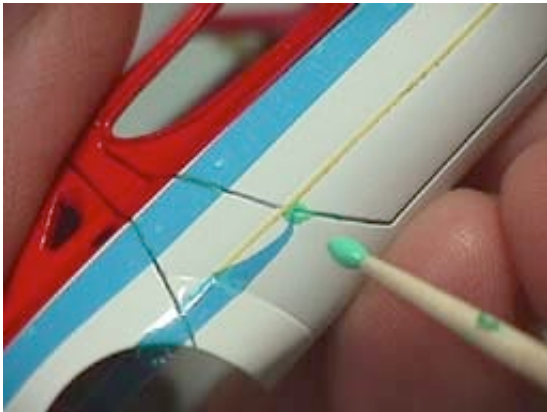
I removed all the masking materials immediately after spraying the red paint. After it had dried, I rubbed the edge of the red paint with a Q-tip with polishing compound.

I finished with the red over the upper body. I will paint the two red stripes on the side tomorrow.



February 13, 1999

There are two red stripes on the side. I realized that I could not mask and paint the two stripes at once. I will only paint the upper stripe today.



If masking had to be done over the door cut lines, I applied the masking gel so the paint would not flow in the recessed door cut lines.

It is an effective method for either brushing or spraying.

---

February 14, 1999

I painted the second stripe. I am now ready to apply the decals.



The decal is printed by Cartograph. Compared to the recent quality of their decal, this decal is a little inferior. The film is a little too thick, and the size of some of the decals is not perfect, either. However, the color is very bright and it was quite enjoyable to apply the decal.

I quite like this 70's Marlboro color instead of the modern fluorescent one.

---

February 15, 1999

Today, it was a perfect weather for spraying outside, with virtually no wind. I recorded the timetable for the process. It is important to note that the timing varies depending the different finishing products and conditions.

8:00 am: I washed the body with a toothbrush and dish soap.

12:00pm: I mixed the clear paint and the thinner at the ratio of 30:70 and sprayed it lightly.

12:30pm: same as above

13:00pm: same as above

13:30pm: I sprayed only to the area where it was covered by the decals. The mixture of the paint and the thinner was at 50:50.

14:45pm: I sprayed a thicker overall coat.

15:50pm: Again, I sprayed only to the area where it was covered by the decals.

17:10pm: I sprayed a thicker overall coat.



The clear paint and the thinner are again supplied by Hobby Shop G.T. It dries fast and the coat stays clear without becoming yellowish.



Increasing the number of the clear coats sometimes affects the decals. Of course, I did this **INTENTIONALLY** for everyone's benefit.

Where the decal was applied over the gap, the clear coat often attacks the decal. If this happens, stop spraying immediately, let the clear coat dry, and touch it up with appropriate paint.

February 16, 1999



I am so relieved that the body is now finished. While letting the body dry for a while, I tackled the small parts.

The rear license plate was made with and I anodized the plate with black dye. After the decal is applied, the clear coat is sprayed.



I referred the interior to the Racing 43's 1/24 scale Stratos. I will make a fire extinguisher and the shift lever from scratch.

The driver and the navigator seats were taken from Vitesse's Stratos (the black seat in the picture)

---

February 17, 1999



I repainted the wheel with a lighter gold. I also sprayed the tread of the tires dark gray, so it would contrast with the black sidewalls.

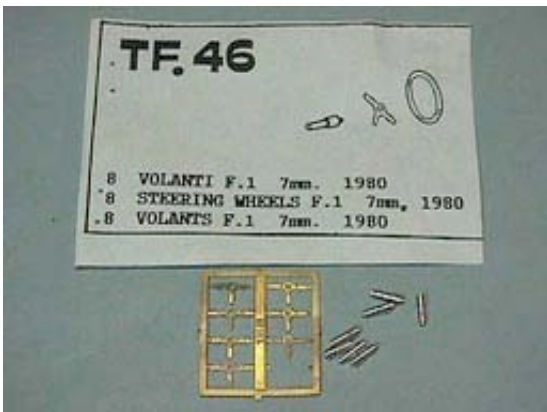


I cut the wheel shafts with a 1.2-mm nickel silver rod and anodized them, and then pre-assembled the car.

It looks so good that I almost quivered!

---

February 18, 1999



For the steering wheel, I used Tron's detail parts and I cut a 0.8-mm brass rod for the rim. I soldered the two together.



I attached the steering wheel almost perpendicular to the dashboard for a typical driving position of an Italian sports car.

---

February 19, 1999

I forgot to note yesterday, but after a day of drying in room temperature, I put the body in the dish-dryer set at 40 C degrees (102 F degrees) for 12 hours. Again, this is not foolproof!



I made sure that the clear coat was dried by poking the body with my fingernail. I sanded the body with #1200 sandpaper.

I adjusted the size of the windshield since the window frame got smaller from the many coats of paint.

---

February 20, 1999

I continued on sanding the body. I added a drop of dish soap to water, and I wet the sandpaper first. I carefully check the surface with each stroke. If you are experienced, you can judge the condition by the feel on your finger or the sound of the stroke.

You have to be calm and steady while doing this.





I cut the front mesh so that it would fit around the fog lamps.

I made small parts such as the rear license plate lamp with a nickel silver rod, and the mudguards with a 0.15-mm brass plate.

---

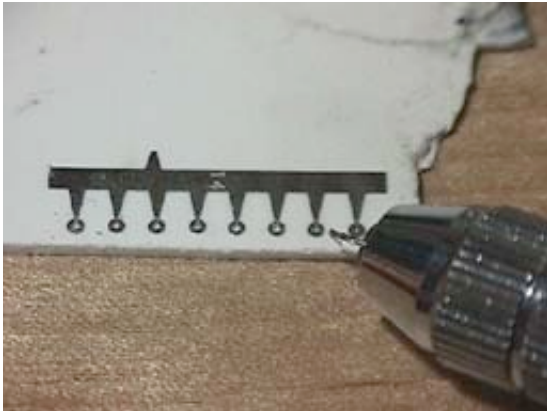
February 22, 1999



I had so much fun skiing yesterday.

I sanded the windshield with #1500-2000 sandpaper and clear-coated it.

I painted the very edge of the windshield with black marker.



I made the catch pins for the front and rear lids. I had to enlarge the hole of the photo-etched part to 0.3mm.

I had to fix the part while drilling, because I couldn't hold it with my fingers and the part would easily fly off by the torque of rotation. I affixed the part to a plastic sheet with super glue, and then drilled and enlarged the hole. I had to use a lot of the striping solution to peel the part off afterward.

February 23, 1999



Before spraying the final clear coat, I glued the rear truck lid and the base for the catch pins.

All the parts were intrusive while I was sanding the body, but it is better to cover those parts with the final clear coat.



The jack up point is the photo-etched part included in the Arena's Stratos kit.

As you can see in the picture, the door had a molded lip at the bottom edge, but I replaced it with a brass rod.

I plan to paint it mat black after the final clear coat.

---

February 24, 1999



The final clear coat was really good.

I was feeling good about myself, but I struggled like hell with the air outlet on top of the dashboard.

It took me about 4 hours. I combined the brass tube and ring.



The fuel tank cap is simply made with an aluminum rod with a nickel sliver plate in the center, but I couldn't make a cut on the exact center of the rod. I made five before making one I could be satisfied with.

The more torturous it is,  
The more thrilling it is.  
That's 1:43 model building (indeed!)

February 25, 1999



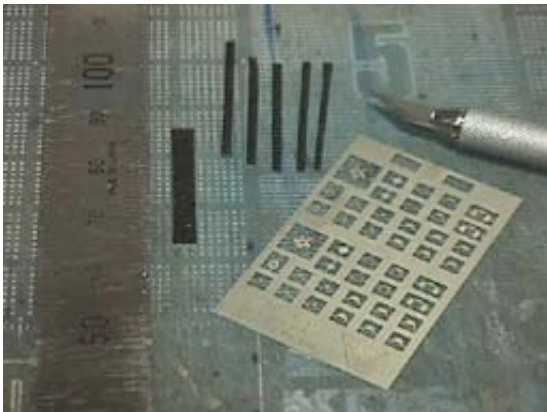
I painted all the small parts.

I anodized all the brass and nickel silver parts before I painted them black because I was afraid of chipped paint.



The dashboard is finished!

I nickel-plated the pedals and the footrest included in the kit. I painted the steering wheel glossy black to express the leather wrapped rim. I painted the Tameo shift knob bright red brown so it contrasts with the rest of the monochrome dashboard.



The seatbelts were the Make-up's detail part for rally cars.

I cut the cloth into strips after I affixed it to the cutting board with double-sided tape. I glued the buckles with super glue.



After cutting four shoulder belts, I applied the double-sided tape to the backside of the belts so the belts would affix to the seats later. I affixed the end of the belts to the bulkhead with the small pins.

I use many kinds of double-sided tapes with different adhesive strengths.

February 26, 1999



I glued the bulkhead to the chassis, and then glued the seats (already painted in gray).

I peeled off the double-sided tape's back sheet, and applied to the seats. Then, I applied the Sabelt decal to the shoulder belts. The decal did not soften fast with the solution, so the process took a little longer than expected.



There is a fire extinguisher between the seat. I combined brass tubes and pinheads to make it.

I will paint it red tomorrow.

---

February 27, 1999



I masked off the area around the windshield and the side window to paint the moldings black.

I cut the masking tape for the side windows because its radius is very tight, and the masking tape would not be able to follow it.



I cut the strip of the masking tape for the top of the side windows. I carefully stick the tapes to the body.

I also painted the rear blind, the wiper, and the door knobs semi gloss black.



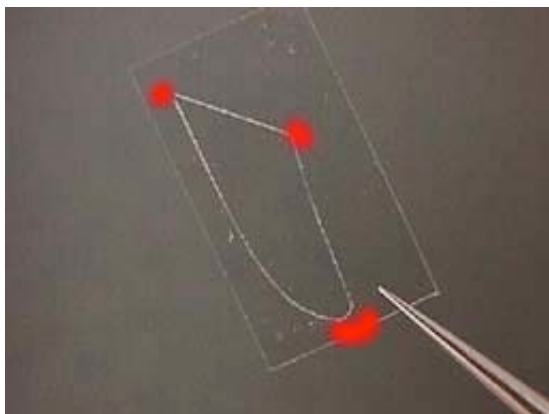
February 28, 1999



I have a lot to do today!

First, I glued the windshield to the body. There is not an area where you could apply the glue, so I applied the glue to the upper corners of the A-pillar. I hold the windshield for about 8 minutes until the epoxy glue hardened.

The next point would be around the wiper. I mixed the glue, let the mixture harden for a few minutes, and fill the gap between the glass and the body.



The side windows were cut from cell film sheet used for animation .

I again made a template with a plastic sheet, and cut the film sheet according to the template.



I applied glue to the two corners. I had no problem with the left window but I struggled with the right window. It took me almost 3 hours!

Then, I washed the body with dish soap, and then dried the body by spraying air.



I applied 30-minute epoxy glue to the shafts, and then attached the wheels and the tires. I joined the body and the chassis, and I set them on the jig. I adjusted the tires to the correct positions.

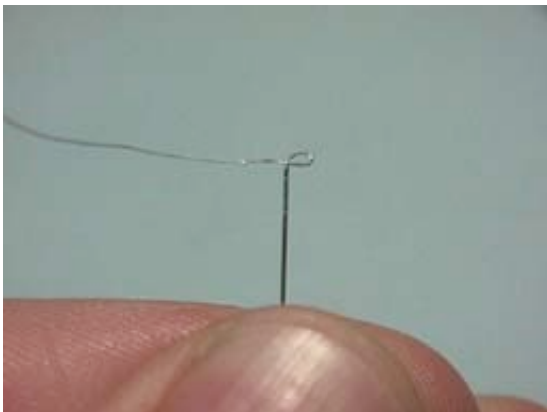


Even if I used the fast drying glue, I have to let the glue dry completely for at least 12 hours.

I made the rubber hooks with a combination of the kit's photo-etched part (seen in gold in the picture) and Tameo's detail part (Art FT14).



I soldered the two together, and I sprayed the rubber part dark gray.



I already attached the base for catch pins to the body. I had to make the catch pin itself now.

I soldered the electric wire and a 0.3-mm brass tube.



It looks like this after I attached the part to the body.



The roof antenna was made with a 0.12-mm stainless steel needle for acupuncture.



And now, this is the antenna base. I slightly curved the antenna and glue it to the base with super glue.

I will attach this to the body in the end.



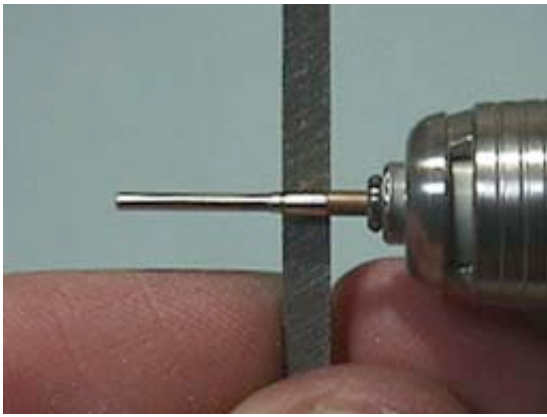
I used the rear mudguard from Arena's Stratos kit. I was thinking that I would just transfer the shape and made it with a brass plate, but I just run out of time.

I heated the part with a lamp, and curved it backward. I made a jig with a 2.0-mm plastic sheet and a masking tape.



I took a break for 30 minutes, and then started with exhaust pipes.

I thought that I would be able to use the pipes I had already made, but I realized that they were oversized. I had no choice but to make them from scratch again.



The pipe is tapered. I soldered together a 1.2-mm nickel silver rod, and a 1.5-mm and a 1.8-mm brass tube together. I attached the part to the rotary tool, and I filed it to a tapered shape.



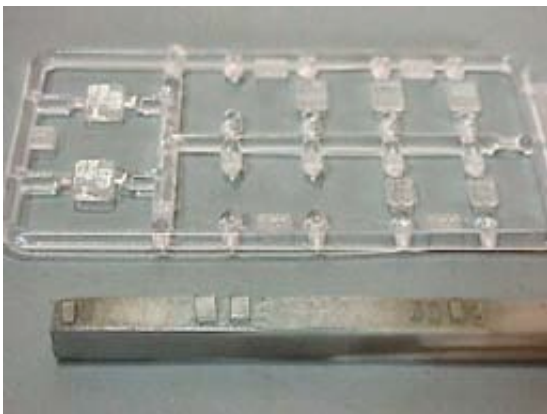
As you can see there is a sizeable difference in the pipes I made.



After I attached them to the body, I could finally call it a day.

---

March 2, 1999



I woke up at four in the morning. I made the secondary lamps.

I planed to use the photo-etched parts I found in my junk box, but the parts were mismatched.





I modified the clear plastic lamp parts by Modeler's. I sanded the parts down to the size, and painted the backside silver. I tinted the parts clear blue and clear black overall. Finally, I glued them to the body.

I hope you can notice that I also tinted the headlamps and the fog lamps clear blue.



I carefully glued the antenna on the roof, and all the work was finished.

Unlike previous diaries, I continued taking pictures of the process until the very end!



To tell you the truth, I glued the headlamp parts and the antenna while I was waiting for a patient. Imagine, for a moment, a surreal scene of a doctor in a white coat mixing epoxy glue and shooting the modeling process with a digital camera!