# 1971 SUNOCO FERRARI 512 M Assembly and Painting Instructions Important !! read this *before* you begin !!

This model kit is cast in Polyurethane resin. If you are allergic to this material, DO NOT handle it. In the normal course of building this kit you will be exposir yourself to various solvents, glues and paints. Good ventilation and eye protection are essential. Please use your head. Just a friendly reminder in the hopes that you'll be with us for many models to come.

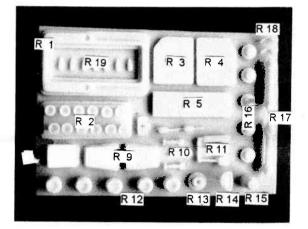
FISHER MODEL AND PATTERN

#### Preparation :

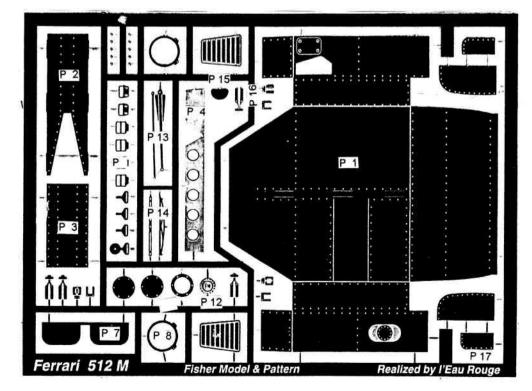
Carefully inspect all the various parts of the kit and dry - fit the parts together , dressing off mold lines as needed . Pay special attention to the window openings as there is a very fine ledge molded in to support the windows . Be careful not to trim this off or fitting the windscreen will be a problem . Thoroughly clean all mold release from all the resin parts with a few drops of bleach in warm water , or a strong solvent . An old toothbrush is very useful for this , but be gentile so as not to damage the small parts .

This kit is designed in such a way that the chassis and body shell can be built and finished separately . All the parts should be painted before assembly . We recommend enamels or lacquers for this . When painting always remember that you can remove the finish simply by wiping with solvent if you should be unhappy with your paintwork . Do not soak the resin parts for long periods in solvent as this may soften them and render them useless . Please keep in mind that resin parts shrink over time so check the fit of the assemblies carefully before forcing anything together . This kit may appear complex at first glance , but with a bit of care a magnificent model can be added to your collection .

Study the figures below and identify the parts with the list .



- R 1. Injector stack surround
- R 2. Fuel injection stacks
- R 3. Left side radiator
- R 4. Right side radiator
- R 5. Nose Oil Cooler
- R 6. Shift Levers
- R 7 Shift Lever Gate
- R 8. Cockpit switch box
- R 9 Left & Right Fender vents
- R 10 . Early Rubber Bonnet catches
- R 11 . Foot Pedals
- R 12 . Hubnuts
- R 13 . Main Fuel Entry
- R 14 . Rear View Mirror Housing
- R 15 . Oil Filter Bottle
- R 16 . Taillights
- R 17 . Halfshafts
- R 18 . Exhaust Stone Deflectors
- R 19, Running Lights



- Photo Etch Parts List :
- P 1.Cockpit Tub
- P 2. Tub Divider
- P 3. Floor Insert
- P 4. Dashboard Face
- P 6. Seatbelt Hardware
- P 7. Taillight Mount
- P 8. Headlight Supports
- P 9. Fender Vents (optional) P 10. Tub Blanking Plates
- P 11. Main Fuel Entry Ring
- P 12. Fuel Exit Valve
- P 13. Windscreen Wiper Arm
- P 14. Wiper Blade Assembly
- P 15. Rear View Mirror
- P 16. Bonnet Catch Assembly
- P 17. Tub Endplate Front
- P 18. Tub Endplates Rear
- P 19. Headlight Cover Screws

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## 1971 FERRARI 512 M

## **Building The Chassis**

Start out by Painting the following :

Matte Black : Main Chassis , Dashboard , Steering Wheel , Radiators , , Axle , Dashboard Face (P 4), Seat . Rubber : Tires

Matte Silver : Lower Suspension Arms , Transade housing , Halfshafts , Foot Pedals , Hubnuts .

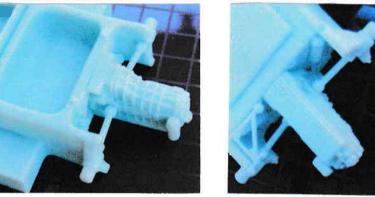
Bright Silver : Fuel Injection Stacks , Shift Gate and Lever , Taillights , Spring colls on Chassis .

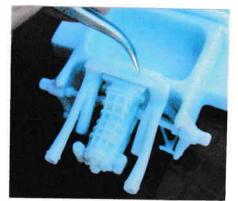
Matte Metallic Grey : Suspension Uprights , Brake Calipers .

Matte White : Exhaust Pipes with Stone Deflectors . Backside of Dashboard instruments .

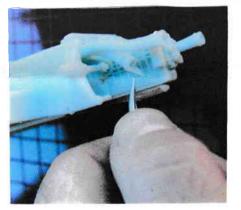
Bright Gold :Resin Wheels

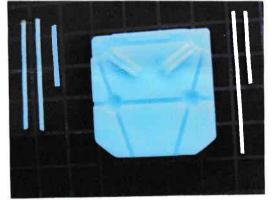
Matte Light Grey: Tail Support Frame , after assembly

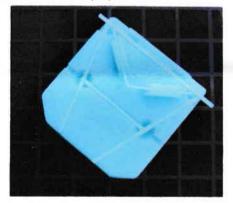




Begin Assembly by lightly gluing the halfshafts to the transaxle, then locate the outboard ends of the halfshafts into the suspension uprights and push the transaxle forward into the chassis . a drop of glue at the joint will hold this in place . Now add the lower suspension arms (When trimming these be careful not to remove the webs in the corners). Note that the arms slope upwards as they attach to the chassis when viewed from the rear. Now you can attach the exhaust pipes to the joint at the chassis / transaxle . Note the locating studs, and be careful that the long pipes slope down to the same height as the axle stubs when viewed from the side . A bit of matte Black airbrushed gently into the pipe ends adds alot. Now add the stone deflectors (P7) as shown below.



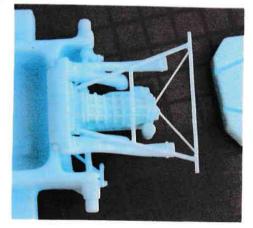


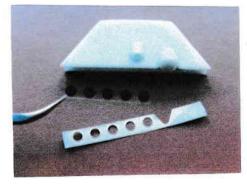


Now find the two round and one square length of plastic strip and cut as follows : NOTE 11 cut all pieces just a bit long and trim down to fit 11. Square strip : 1 piece 1.625 "(41.25mm) long , one piece 0.850 "(21.6mm) long . Large round rod : 2 pieces 1.350 "(34.35mm) long . Small round rod : 2 pieces 0.725 "(18.43mm) long .

Using the jig supplied in the kit assemble the tail support frame as shown. The square rod goes cross-wise, the round rods go length-wise. It helps to use the jig to bevel the ends where they meet so there will be a clean joint. The 2 pieces of small round rod tip up on the jig and should be glued lightly as they will need to be adjusted later. The frame glues into the two sockets on the transaxle and angles uphill to the rear when viewed from the side. The vee made by the small rods glues to the very top of the transaxle at the rear. don't glue it until final assembly as there will be adjusting to do. Now scuff the paint off the bezels on the dashboard face, glue the instruments to it and then glue it to the dashboard. Punch out the tach with a sharpened piece of 5 / 32 " ( 4.30mm ) brass tubing and glue it into the dash .







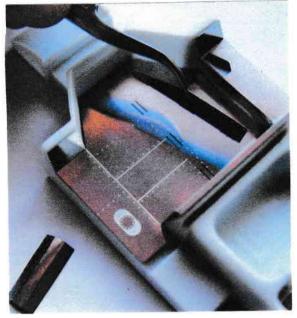
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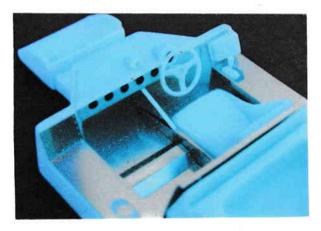
## Chassis cont'd

#### Always wear safety glasses when working with photo-etched parts !

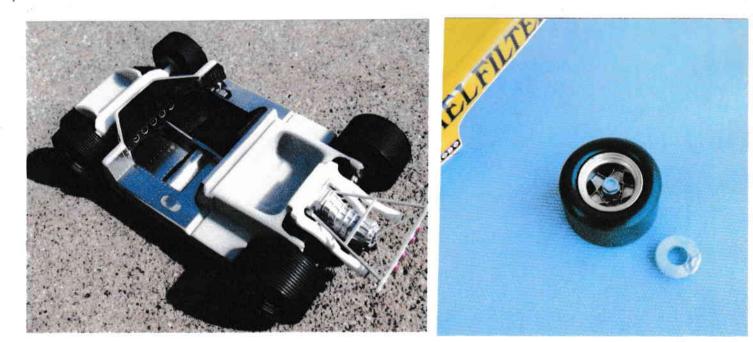
Now take the cockpit tub (P1) and carefully fold up the sides, then the forward panels (these lean forward to match the resin chassis) and then fold the back up with the lowest part straight up, the middle part leaning back like the chassis, and the thin upper part flat paralell to the horizontal. This is best done by clamping the top segment between two rulers, or a similar hard straightedge to get a good clean bend. This tub is a press fit into the resin chassis and may require some scraping out of corners due to shrinkage. Don't try to bend things too far as the metal will break and dont glue the back of the tub to the chassis. Leave this until later.



Fold the Tub divider (P2) over a wire or piece of sheet plastic with the edge scraped round and fit it to the slots in the tub. Glue this carefully to avoid a mess. Next fold the floor insert (P3) into a flat topped pyramid until it fits the cross-wise lines in the tub. Paint the matte area on the passenger side sill rubber color to simulate the fuel bag.



Fit the dashboard assmbly to the fwd wall and run a piece of round plastic rod from under the dash into the tub divider . Install the seat steering wheel . Seat betts are best cut from paper , blackened and run the buckles . Glue the mounting brackets above and behind th seat on the rear tub wall .



Assemble the wheels into the tires. The front brakes mount onto the wheel from inside, with the boss facing out, calipers forward. The rear brakes mount to the suspension uprights, bosses outward, calipers aft. Be sure to fully trim the molding nib offthe wheels so they seat into the tires completely or the tires will rub on the bodywork later. The wheel / tire units slip onto their axles and can be rotated to compensate for any "float" and the front axle can be tipped before gluing if needed to get everything planted firmly on the ground.

Now, while all this is drying, prepare the Body Shell by cleaning out all the various openings and removing molding lines from the edges, etc.

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#### **Body Shell**

First, test the fit of the body to the chassis, checking for any tight spots. You may want to scrape away some resin around the rear tires, to assure proper fit, when you're happy with the body chassis fit, begin by painting the insides of the body Light Grey from the bulkhead forward, and Matte Black from the bulkhead aft. While this is drying, decide which race you're building for and prepare the rear wing. The narrow chord wing is for Le Mans, the broad chord wing is for Daytona, Sebring etc. Also, now is a good time to assemble the windscreen wiper, paint it black and set it aside. The airbox can now be painted Bright Yellow (Testors 2917 spray will exactly match the decal) and left to dry.

Before painting the exterior of the body, decide how you'll want to simulate the polished aluminum of the real car. The kit is molded with foil in mind but if you don't like working with foils try one of the new paste type metallizers such as SnJ products. Aluminum paste Spray metallizers will work too, but they need a primer coat to stick to . Once you're set up for the metal, paint the body shell Sunoco Blue. Testors' 1111 Dark Blue (2111 spray) is a good match, or you can use Plasti - Kote 3208 Toyota Blue. Plan on polishing out a few coats as the car should be very glossy.



Note in the above photos the location of the Injector stack surround, fuel injection stacks and Roll bars. These can be made from the larger round rod supplied. Also you will need to make two very small support shafts for the windscreen wiper to sit on. See the photo above. The headlight lenses can be punched out using sharpened brass tube A .308 caliber (7.62 mm) shell is great for this if you can get one. Remember to locate the headlight support rings behind the lights before you glue them in . If you forget, clip the support ring in half horizontally, and then drop it in behind the light.



The photos above show the location of the wing mounts for the Le Mans car. To build the Daytona / Sebring car delete the long inboard mounts, use the broad chord wing and run a piece of the thin plastic rod from the underside of the wing to the tail support frame on either side of the taillight mount after final assembly. The photo above right shows the relative positions on the body of the three piece bonnet catch (P 16), the Main fuel Entry (R 13) and the Fuel Entry Ring (P 11).





To apply the bonnet catches start with the long piece. Apply this to the body at a right angle to the panel line. The thinnest section of the part should be directly on the panel line. Use a very small dab of clear lacquer to glue these parts down. Next, glue the square piece over the downwards half of the long piece with the tab downhill. The" U " shaped piece goes over the uppermost " T " of the long piece, the legs of the" U " pointing downhill. These legs should be bent outwards a small amount from the body to sit over the " T ". Two sets of these parts are provided, so you may want to do a test run on a sheet of plastic or similar. Note the location of the taillights and their mount ( P 7 ) in the photos above.

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### **Final Assembly**

Most of the parts left can be located on the photos below. The running lights are best removed from their carrier sheet by placing a piece of tape across their tops and sanding them free on wet or dry paper of about 320 grit. Extras are provided as some will get away. Also note that the mirror sits on the windscreen, at 12 o'clock while the viewing hole is offset towards the driver. The photo etched mirror (P 15) should be glued in before mounting the mirror to the car. Small bits of very thin metal wire can be cut and inserted into the recesses in the doors for buttons. File the ends flat so they shine. The Airbox snaps nto the injector stacks, there is no need to glue it.

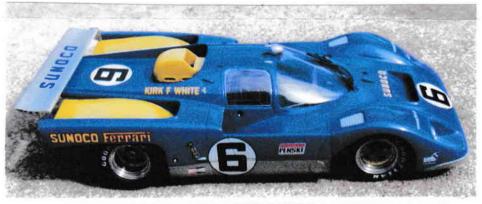
Trim out the clear parts with care, and they will fit very well. Leaving a small amount of the clear plastic at the front base of the windscreen helps as you can glue this up into the body as a tab. The frame areas for the side windows should be the same light grey as the insides of the car. Also, to be accurate the photo etched tub should be painted grey, but that's no fun.

#### References

Ferrari at Le Mans, by Dominique Pascal ------ Ferrari 312 and 512 Sports Racing Cars, by Ian Bamsey Ferrari, the Gran Turismo & Competition Berlinettas, by Dean Batchelor A huge pile of clippings from car magazines of the early 70's. Ask your friends.

Special thanks to all who helped, especially Patrick Badot, Kurt Stagmaier, Mike Quarterman at Umi Art, Mike Klessig, Lloyd Asbury and last but not least Tommy Castro and Robben Ford for the background music.









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