

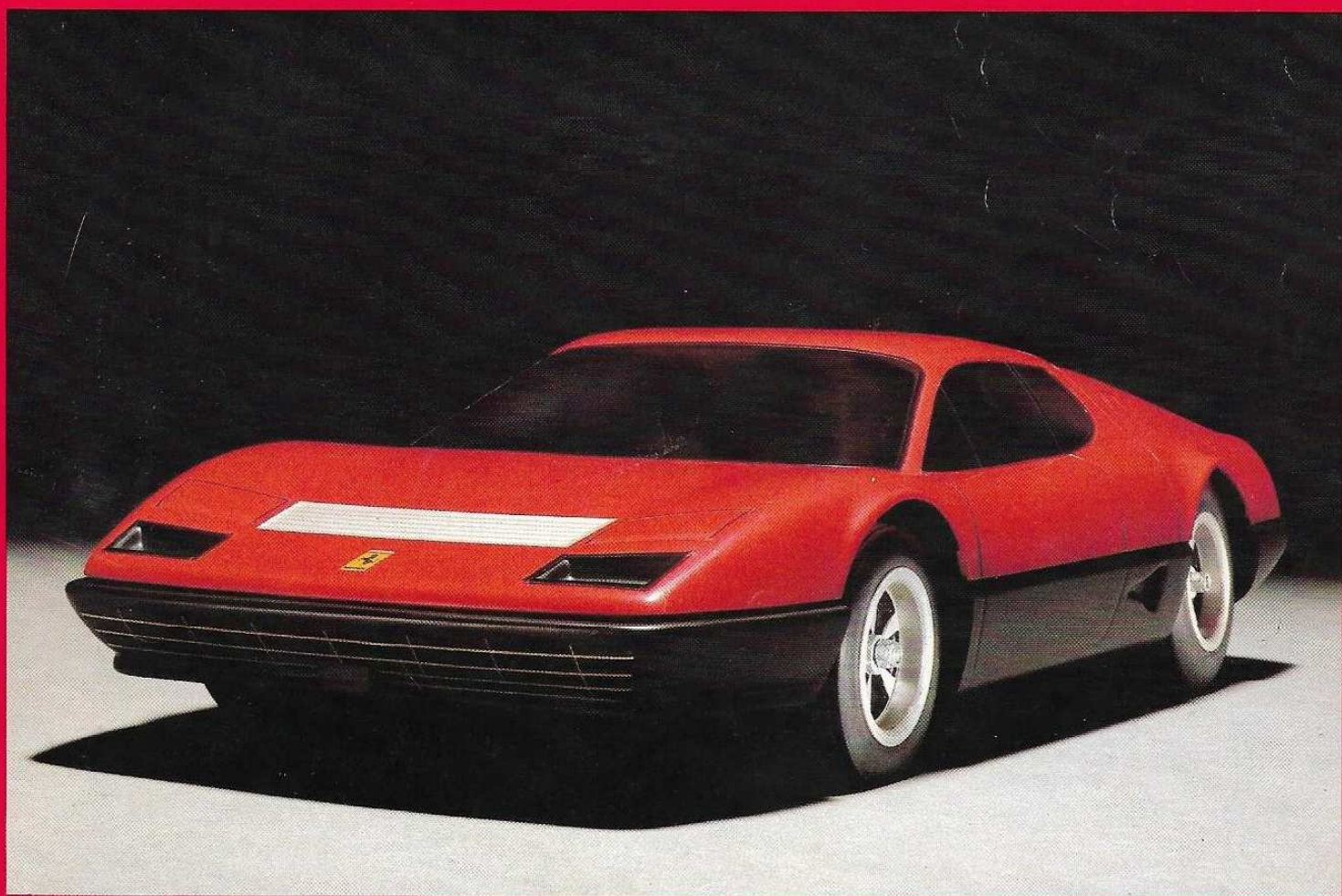
SPEED BUILT

MANUFACTURED BY O.K. MODEL CO., LTD.



Ferrari

512GT4BB



CONSTRUCTION GUIDE

RADIO CONTROL 09-10 ENGINE 2CHANNEL

PARTS LIST

[1] FRONT SUSPENSION ASSEMBLY

1101 Steering Block	2
1102 Front Axle	2
1103 Front Spring	2
2104 Knuckle Arm (L & R) each	1
1105 Lower Suspension Arm	1
2106~2111 Steering Rod Assembly	1
2x8mm bolt	1
2x6mm bolt	2
2mm nut	1
3x6mm bolt	2
3mm nut	4
lock washer	4

[2] POWER UNIT ASSEMBLY

1201 Gear (L)	1
1202 Gear (S)	1
1203 Cooling Fan	1
1204 Exhaust Adaptor	1
1205 Throttle Horn	1
1206 Throttle Pushrod	1
3x12mm bolt	4
3x15mm bolt	2
3x20mm bolt	1
3x20mm bolt	1
3x30mm bolt	2
2.6x15mm bolt	2
2.6x30mm bolt	2
3mm nut	6
2.6mm nut	2
lock washer	8
socket head wrench	1

[3] FUEL TANK ASSEMBLY

1301 Fuel Tank Lid	1
1302 Rubber Packing	1
1303 Plastic Cap (L)	1
1304 Plastic Cap (S)	1
1305 Rubber Cap	1
1306 Aluminum Pipe (L)	1
1307 Aluminum Pipe (S)	1
3x18mm bolt	1
4x10mm bolt	1

[4] WHEEL ASSEMBLY

1401 Front Wheel	2
1402 Rear Wheel	2
1403 Hub Nut	4

[5] FRONT BUMPER ASSEMBLY

1501 Bumper Mount	1
1502 Rubber Bumper	1
1503 Collar (L)	2
1504 Collar (S)	2
3x10mm bolt	2
3x25mm bolt	2
3mm nut	4
washer	4
lock washer	4
glue	1

[6] RADIO ASSEMBLY

1601 Control Arm	1
1602 Servo Horn	1
1603 Servo Mount	1
1604 Switch Mount	1
1605 Servo Collar	4
1606 Antenna Holder	1
1607 Antenna Pole	1
3x10mm bolt	3
3x6mm bolt	1
2.6x15mm bolt	4
2x12mm bolt	2
2.6mm nut	4
2mm nut	2
lock washer	7
servo tape	2

[7] PLASTIC BODY ASSEMBLY

2701 Plastic Body	1
2702 Wing	1
2703 Body Installation Bolt	1
1704 Body Installation Nut	1
2705 Cooling Cover	1
2706 Smoked Window Glass	1
2707 Colored Sticker (set)	1
3.6mm bolt	1

[8] CHASSIS-REAR SUSPENSION

1801 Die Cast Chassis	1
1802 Die Cast Gear Plate	2
1803 Large Nylon Clutch Gear	2
1804 Small Reverse Nylon Gear	1
1805 Reverse Gear Shaft Spacer	1
1806 Steel Clutch Gear Pin	1
1807 Die Cast Top Shaft Pin Holder	1
1808 Copper Clutch Plate	1
1809 Nylon Clutch Plate Driver	1
1810 Wire Clutch Pushrod	1
1811 Nylon Forward-Reverse Control Arm	1
1812 Nylon Throttle Control Arm	1
1813 Throttle Control Arm Spring	1
1814 High Speed Power Transmission Gear Set	1
1815 Power Transmission Gear Set	1
1816 Pinion Axle Gear	1
2817 Steel Drive Stub Axle (Rear)	2
2818 Suspension Plate and Gear Box Cover	1
1819 Spring Shaft Tower	2
1820 Rear Suspension Spring	2
2821 Final Gear	1
2822 Rear Axle Nylon Bearing	1
X1801-2822 Complete Chassis, Rear Gear Assembly, Suspension	

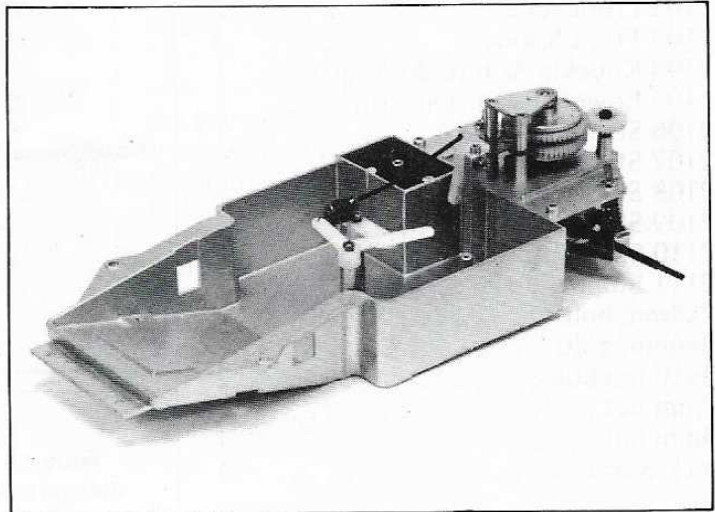
[9] BOLTS & NUTS SET

3x10mm bolt	6
3x12mm bolt	6
3x15mm bolt	6
3x25mm bolt	2
3mm nut	6
3mm washer	12
lock washer	6

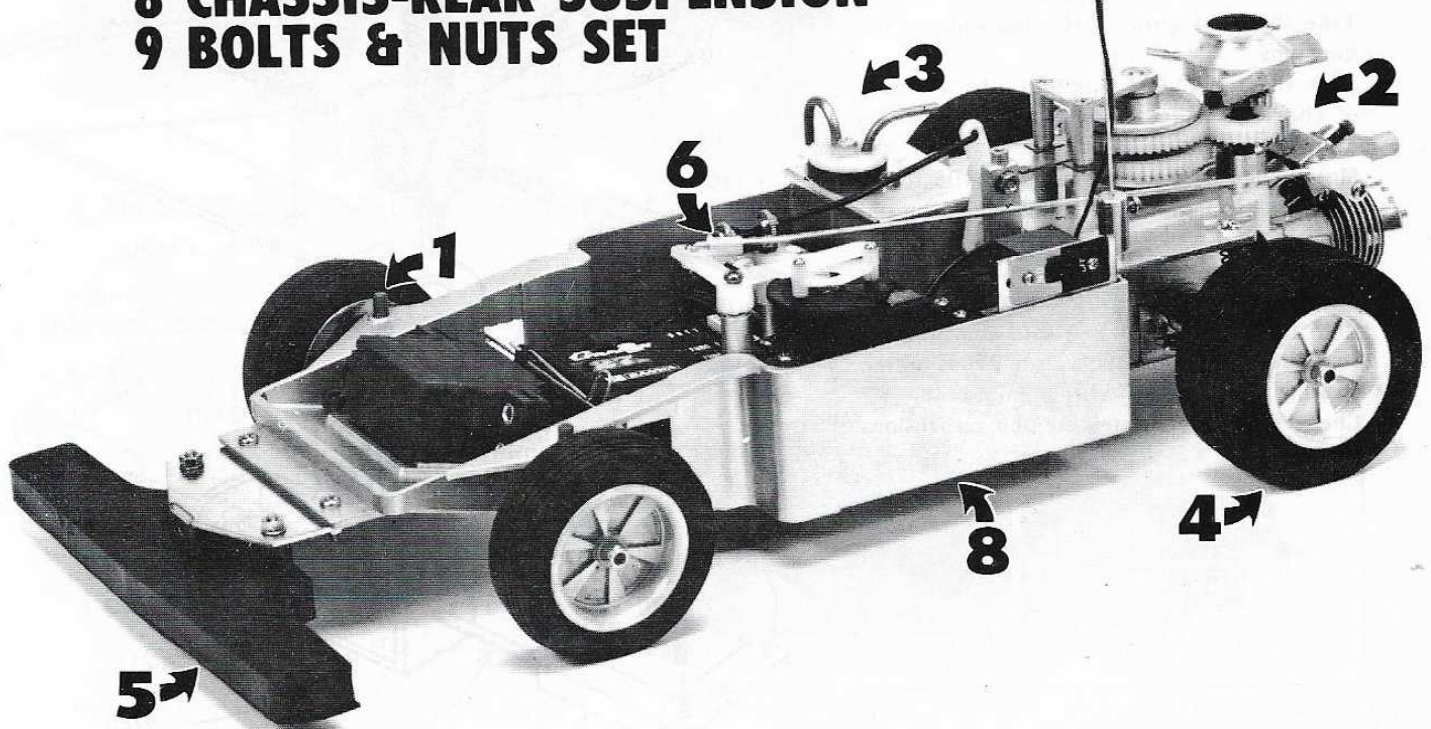
Ferrari 512GT4BB

RADIO CONTROL RACING CAR

This scale type model of the famous Ferrari-512BB is intended for use as a radio control racing car, and is most unique, as it has both forward and reverse control coupled with throttle control, as well as steering, and is operated by only a two channel radio system. The kit is distinctive in that the chassis and rear gear transmission are already factory assembled, with the suspension mounted and ready for the rear tires: the amount of work left has been kept to a minimum to allow you many hours of real racing enjoyment. Read the instructions carefully and you should have no problem assembling. In a few hours you will be able to 'Start Your Engine,' and feel the thrill of radio control racing.



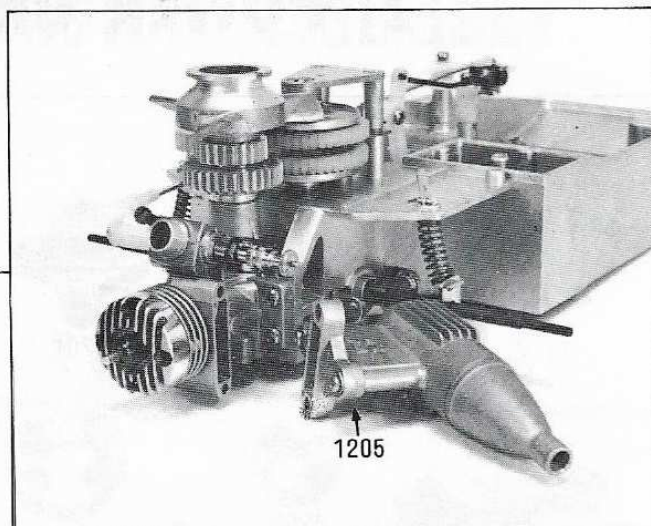
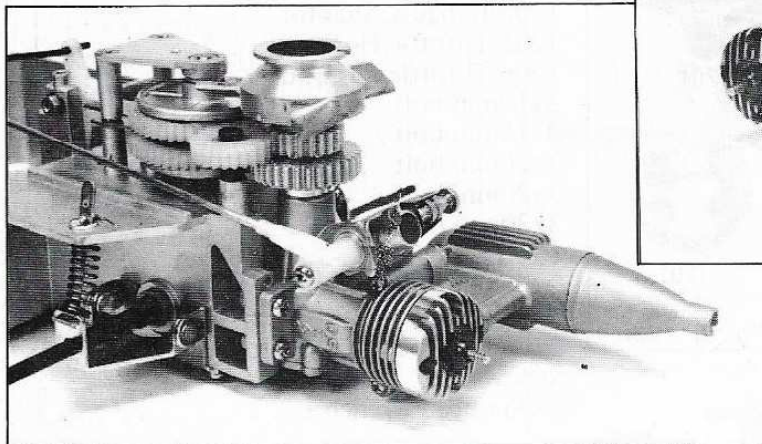
- 1 FRONT SUSPENSION ASSEMBLY**
- 2 POWER UNIT ASSEMBLY**
- 3 FUEL TANK ASSEMBLY**
- 4 WHEEL ASSEMBLY**
- 5 FRONT BUMPER ASSEMBLY**
- 6 RADIO ASSEMBLY**
- 7 PLASTIC BODY ASSEMBLY**
- 8 CHASSIS-REAR SUSPENSION**
- 9 BOLTS & NUTS SET**



Install the exhaust adaptor 1205 to the muffler with two 2.6mm bolts (15mm long). Use washers under the bolt heads.

Then install the exhaust assembly to the engine with 2.6mm bolts (30mm long), nuts and washers.

NOTE: In case of Enya engine, use the bolts for Enya engine in the small bag.



If you wish to decrease the engine noise, fit the steel wool included in this kit into the muffler.

[3] FUEL TANK ASSEMBLY

- | | |
|------------------------|---|
| 1301 Fuel Tank Lid | 1 |
| 1302 Rubber Packing | 1 |
| 1303 Plastic Cap (L) | 1 |
| 1304 Plastic Cap (S) | 1 |
| 1305 Rubber Cap | 1 |
| 1306 Aluminum Pipe (L) | 1 |
| 1307 Aluminum Pipe (S) | 1 |

Take the rubber cap 1305 and slide into the large hole of fuel tank lid 1301 from upper side.

Push the long aluminum tube 1306 and short aluminum tube 1307 into the outer holes of rubber cap 1305.

Put the large plastic cap 1303 and small cap 1304 to the top and bottom of rubber cap and then tighten two plastic caps with 3mm bolt.

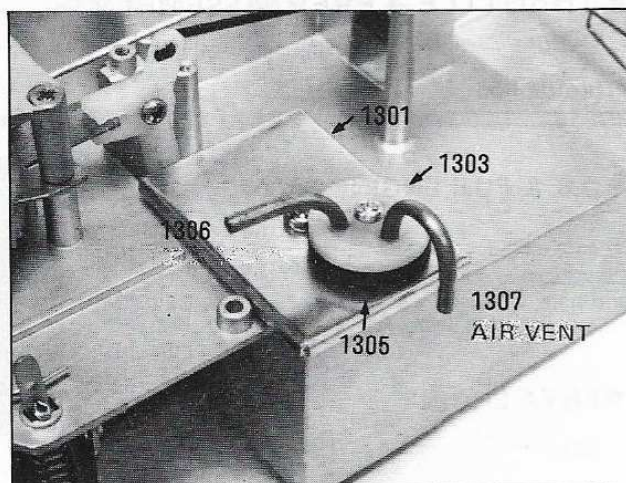
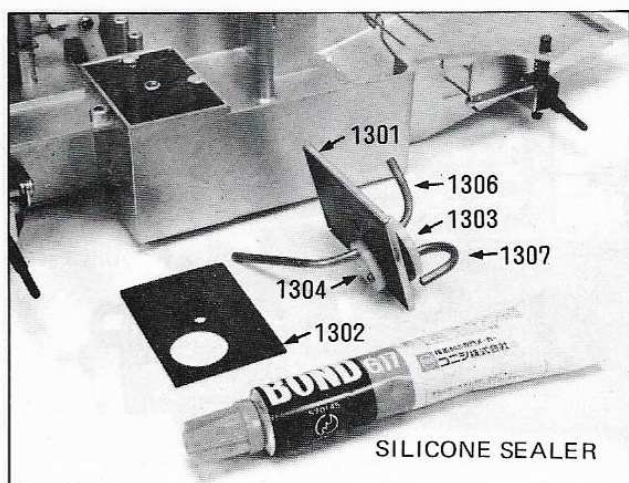
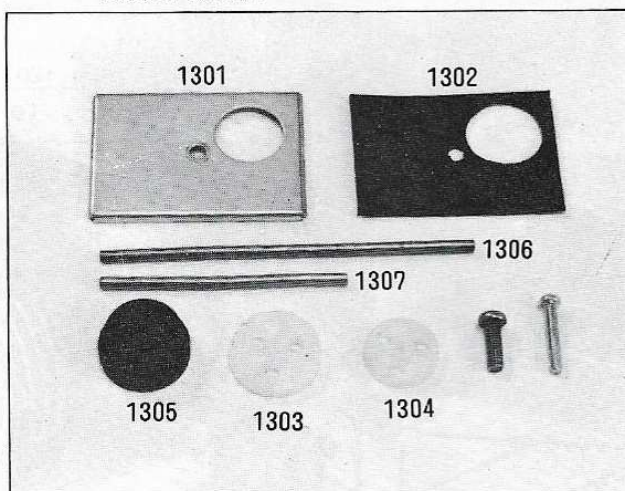
Bend the aluminum pipes as shown in photo.

NOTE: The long pipe 1306 must reach the bottom of the fuel tank.

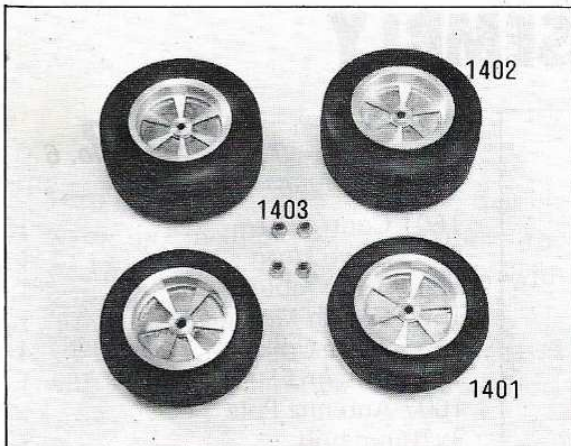
Place the rubber packing 1302 on the fuel tank and put the silicone sealer to the edges of the packing.

Cap the fuel tank with lid 1301 and fasten with 4mm bolt.

[3] To assemble parts No. 3 you will need a medium Phillip's screwdriver and silicone rubber sealer.



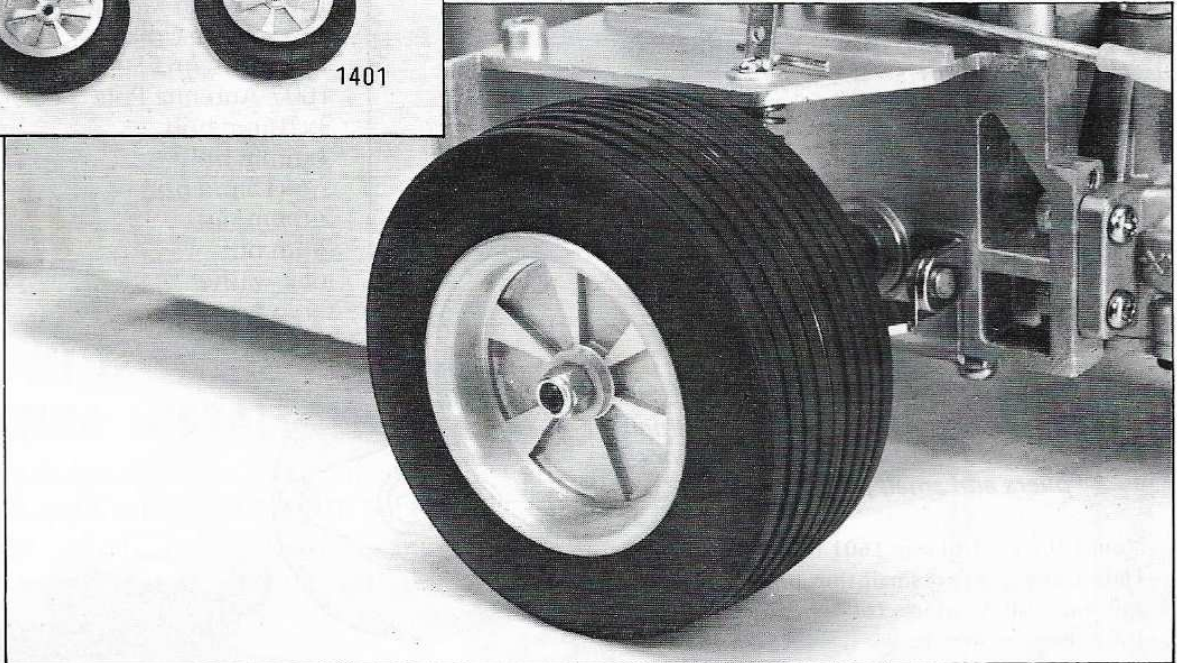
[4] WHEEL ASSEMBLY



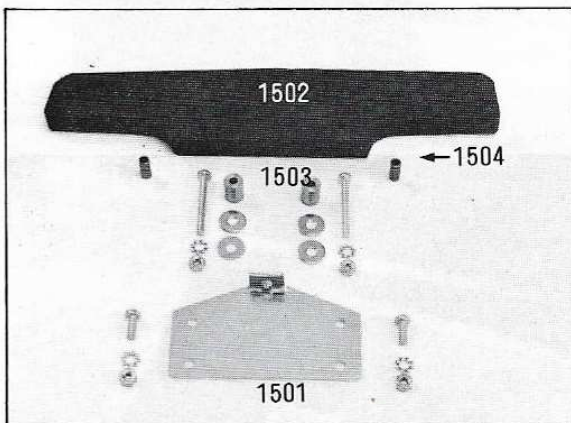
1401 Front Wheel	2
1402 Rear Wheel	2
1403 Hub Nut	6

Attach the front wheels 1401 to the front axle and then retain with lock nuts 1403. Lightly tighten the lock nuts and then slightly loosen to rotate the front wheels.

Rear wheels 1402 must attach the rear axle and retain with lock nuts 1403 firmly.



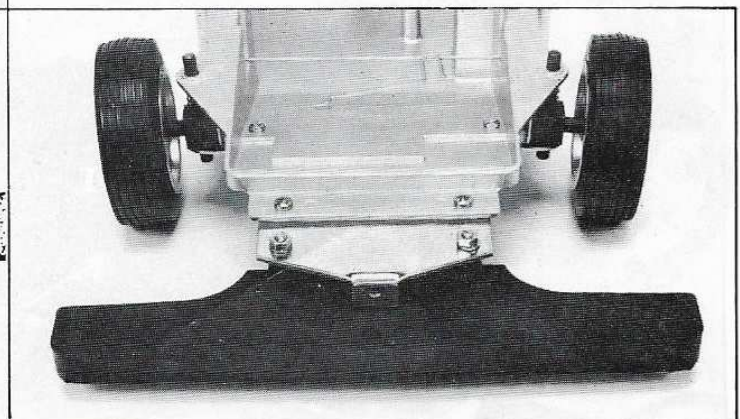
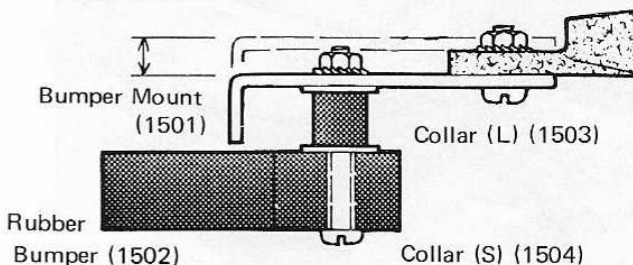
[5] FRONT BUMPER ASSEMBLY



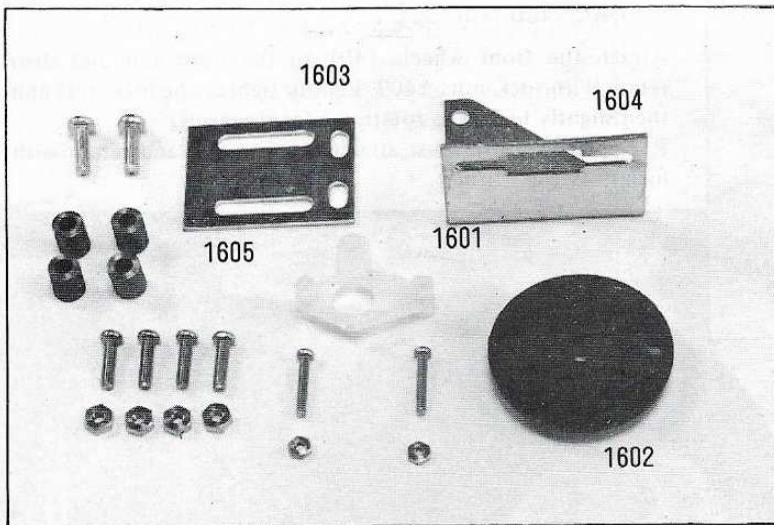
	3x10mm bolt	2
1501 Bumper Mount	1 3x25mm bolt	2
1502 Rubber Bumper	1 3mm nut	4
1503 Collar(L)	2 washer	4
1504 Collar(S)	2 lock washer	4

Insert the small collars 1504 into the holes of rubber bumper 1502. Place two plane washers and large collars 1503 between rubber bumper 1502 and bumper mount 1501. Slide the bumper mounting bolts (3mm 25mm long) into the front holes of bumper through rubber bumper and collars. Tighten the bolts with nut driver. Use washers under the nuts. Attach the bumper mount 1501 to the chassis with 3mm bolts (10mm long), nuts and washers.

[5] Check all parts in bag No. 5 before assembly
For running on rough surface mount bumper above chassis as seen by broken line. For smooth running surface place bumper below as illustrated.



[6] RADIO ASSEMBLY

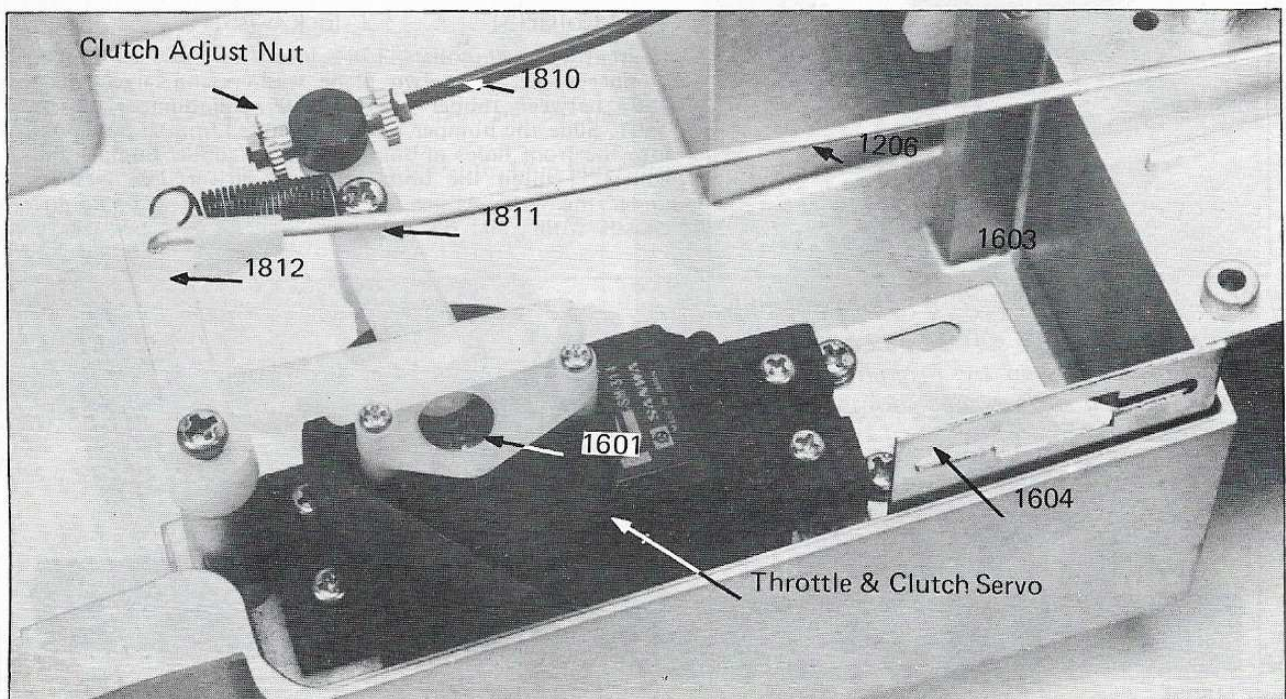
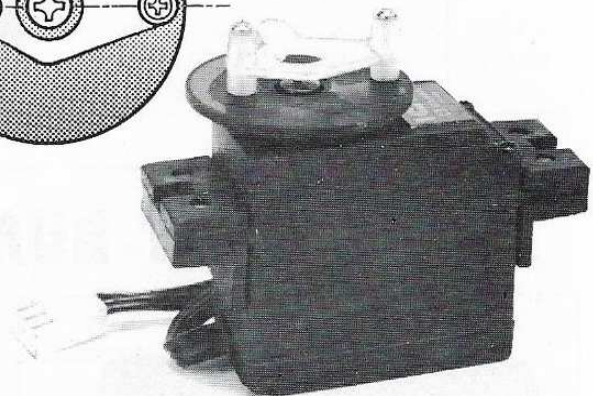
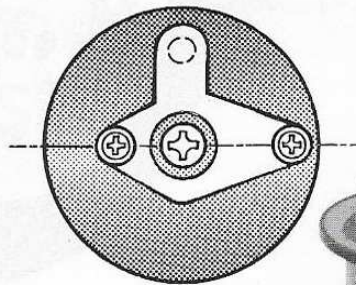


[6] Check all parts in bag No. 6 before assembly

1601 Control Arm	1
1602 Servo Horn	1
1603 Servo Mount	1
1604 Switch Mount	1
1605 Servo Collar	4
1606 Antenna Holder	1
1607 Antenna Pole	1
3x10mm bolt	3
3x6mm bolt	1
2.6x15mm bolt	4
2.6mm nut	2
2mm nut	2
lock washer	7
servo tape	2

[6] To assemble No. 6 parts bag you will need a medium and small Phillips screwdriver, needlenose pliers and small pliers.

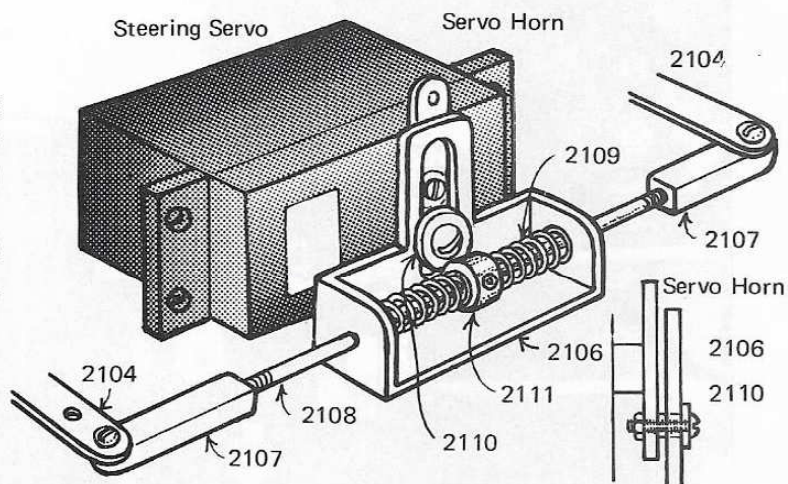
Mount the control arm 1601 to the servo wheel 1602 using the two small thin bolts (2x12mm) and nuts. Next, attach 1604 switch mount and 1603 servo mount to the chassis using 3x6mm bolts. Slide servo mount 1603 to fit your servo and then attach the servo to the mount using the 2.6mm (15mm long) bolts and nuts.



STEERING SETTING

Turn your radio on and set the steering servo in 'neutral' position. Link the steering servo to the slot of the 2106 with spacer 2110, bolt and nut.

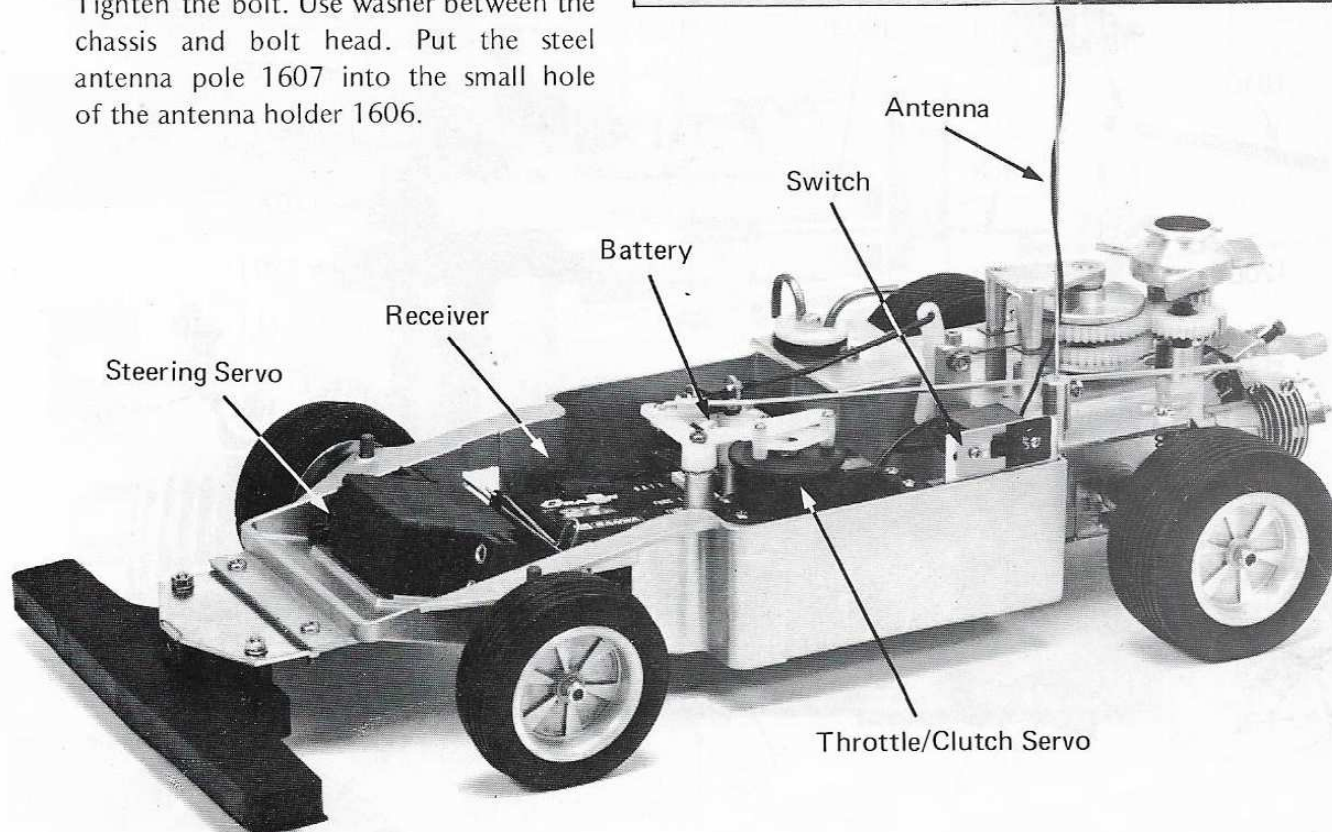
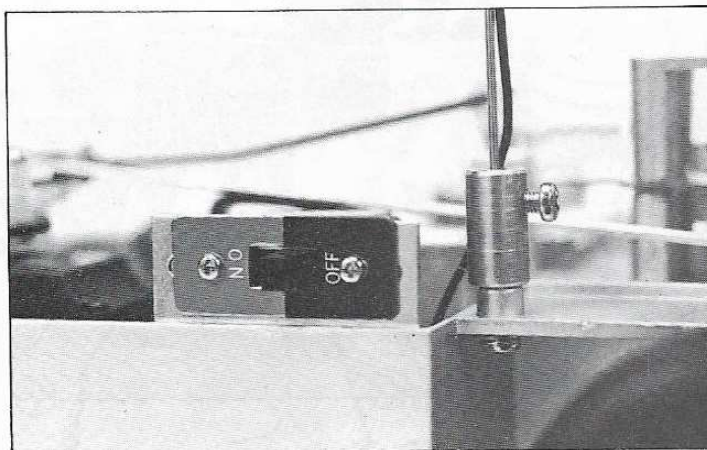
Then fit the steering servo to the chassis with servo tape into the correct position.



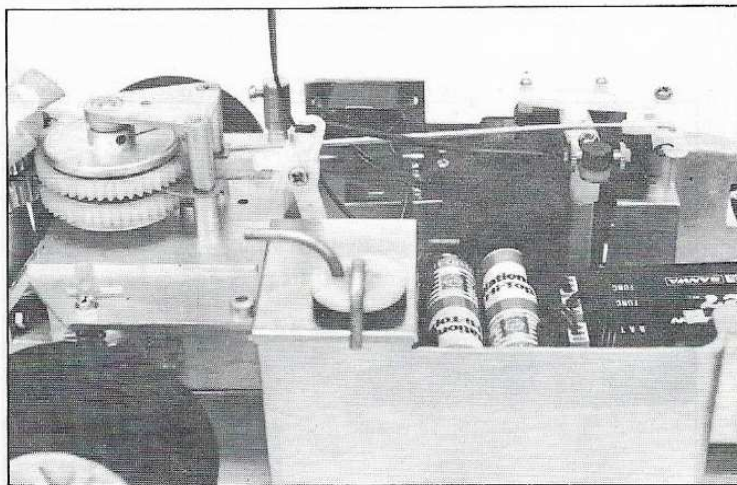
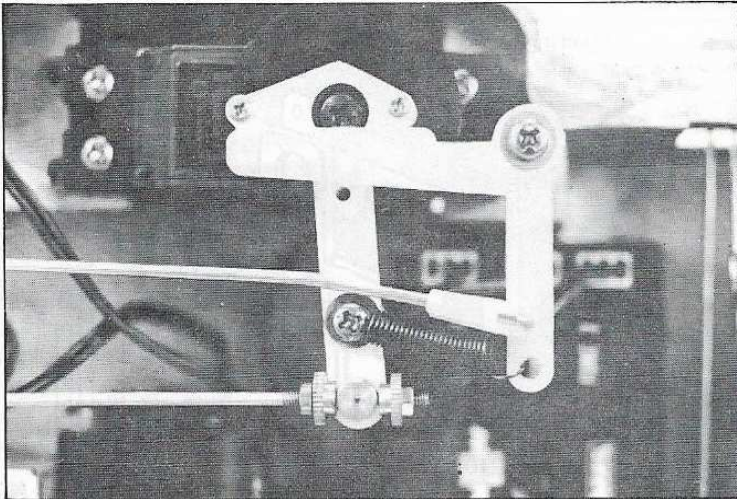
SWITCH & ANTENNA INSTALLATION

Clean the chassis and servo with methanol, to insure good adhesion. Check to see if the front wheels are centered to the chassis and then fit the servo on the chassis with adhesive sponge tape that is included in this kit. Install the radio switch to the switch mount 1604.

Slide the 3mm bolt (10mm long) into the hole of chassis from bottom and put the antenna holder 1606 on the chassis. Tighten the bolt. Use washer between the chassis and bolt head. Put the steel antenna pole 1607 into the small hole of the antenna holder 1606.



CLUTCH AND THROTTLE SETTING



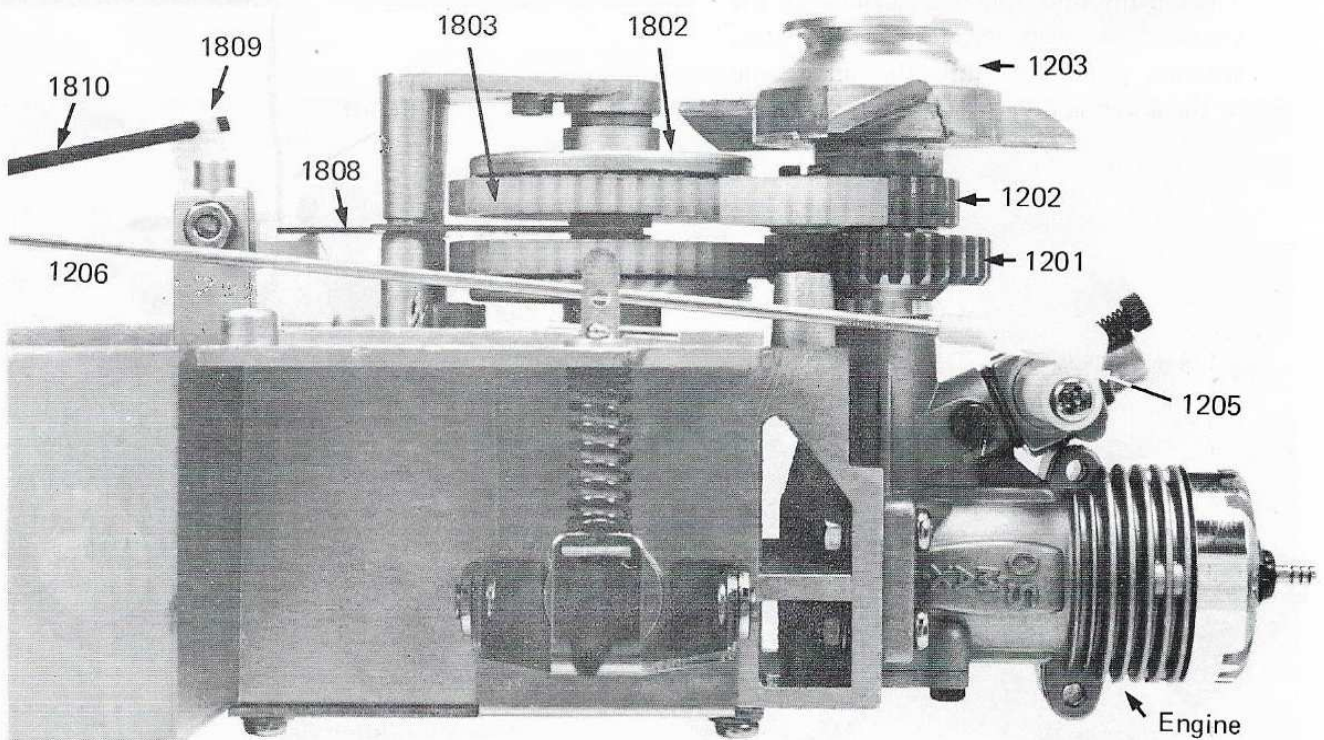
One of the very unique features of your Ferrari is the fact that one servo has several functions allowing the optimum use of your two channels. You use one servo for steering and the other servo controls forward, reverse, and also throttle control of the engine. Below is discussed the settings of this servo. It may take a little time to correctly make this setting properly.

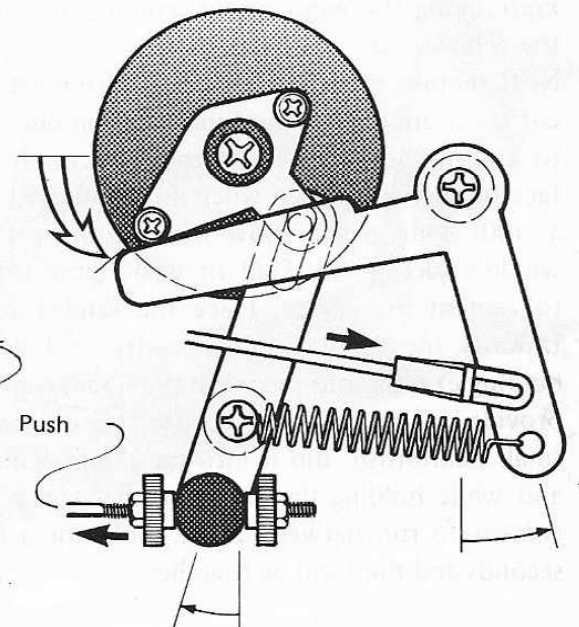
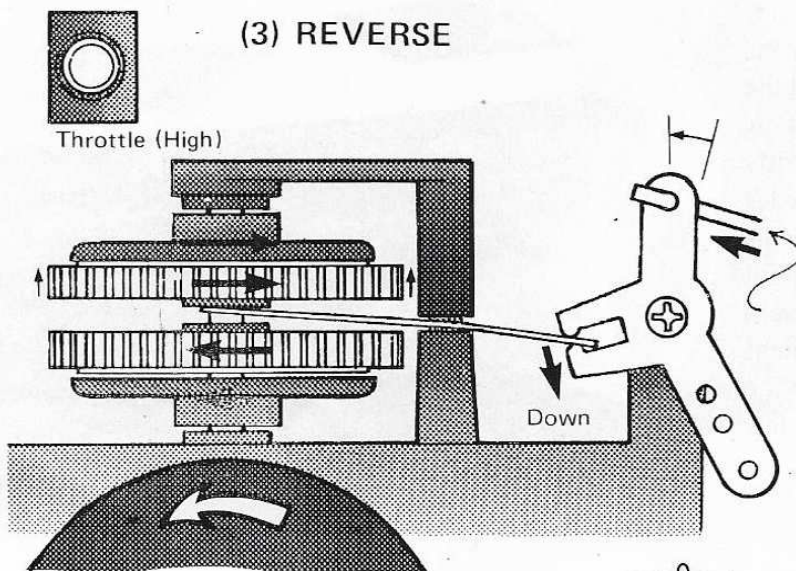
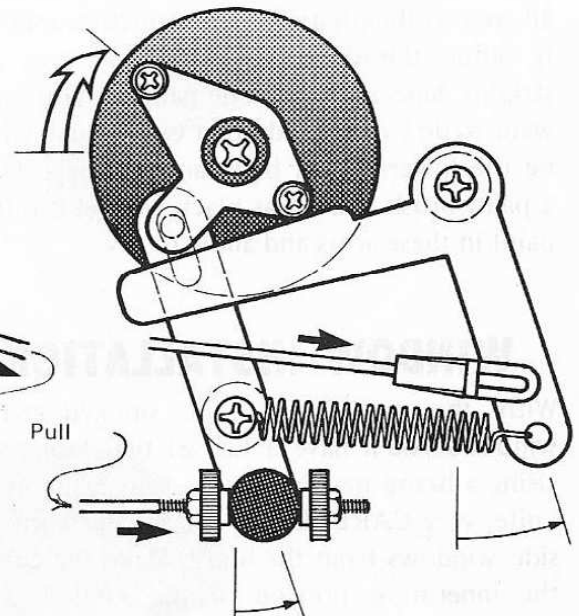
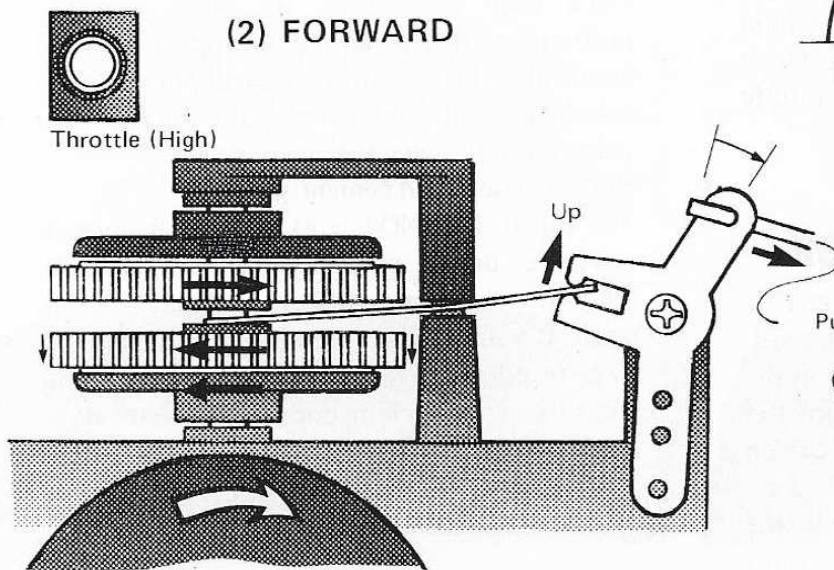
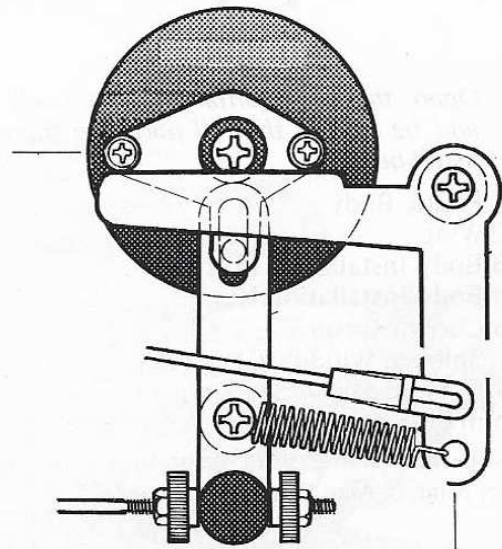
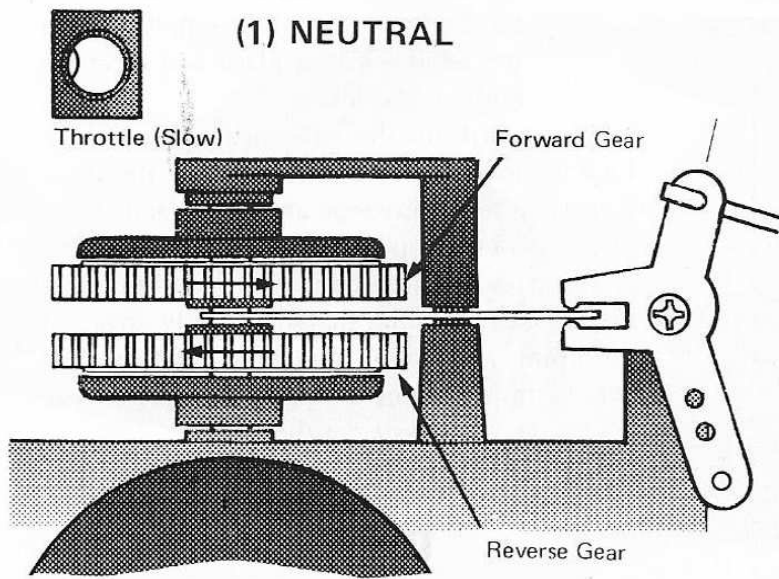
FIRST: with your servo in neutral position make the adjustment with your mini-link so that the throttle is set for idle (closed position). **SECOND:** with the servo still in neutral position you want the No. 1808 copper clutch plate to be in the same position as it was before you started assembly. Thus it will be resting the two gear plates with no tension up or down.

THIRD: FORWARD AND REVERSE RUNNING SETTINGS: For actual forward and reverse control, please note that when the servo moves and pulls the No. 1810 wire clutch push-rod you have forward car movement and when the servo pushes the control rod you have reverse control. To make the necessary adjustments you will have finished your car and have taken it to your driving place. Start the motor and engage gears in the forward running position. Should the forward running not be good make an adjustment to the top (or bottom, but only one) clutch gear plate No. 1803. Loosen the gear plate and move down **ONLY** in very small adjustments. Tighten and run the car again watching for improvement.

The reverse setting should be made if you place the car into reverse and it stops. In this case you will want to open the clearance between the No. 1803 clutch gear plates. Keep making these small adjustment until your car runs properly.

We should also point out that if you have a brand new engine it will most likely take some break-in time to run properly. Read the engine manufacturer's recommendations for this.





[7] PLASTIC BODY ASSEMBLY

[7] *Open the box containing the body set and be certain that all parts are there, as listed below:*

2701 Plastic Body	1
2702 Wing	1
2703 Body Installation Bolt	1
1704 Body Installation Nut	1
2705 Cooling Cover	1
2706 Smoked Window Glass (set)	1
2707 Colored Sticker (set)	1
3x6mm bolt	1

Tools needed are a small paint brush, flat black enamel paint, X-Acto knife (No. 11 blade).

FINISHING THE BODY

The Ferrari body does not need to be painted all over as the plastic is very attractive, especially after the decals, smoked windows, and striping tape are used. The painting you might want to do to really add that extra touch would be the lower half of body and bumpers. Using a paint brush and a flat black enamel carefully paint in these areas and allow to dry.

WINDOW INSTALLATION

With the addition of the smoked plastic windows you'll have a Ferrari that looks real. Using a brand new No. 11 X-Acto blade in the knife, very CAREFULLY cut out the front and side windows from the body. Make the cut on the inner-most portion of the window area. It is best to take your time and scribe the knife along the edge slowly several times until the window can be easily removed.

Next remove the smoked windows from the die cut sheet and lightly sand the edges on one side to a slight bevel. Be careful not to scratch the face of the windscreen when doing this and use a 400 grade paper. Now trial fit the plastic window pieces and if all fit well you're ready to cement into place. Place the sanded edge towards the body window cavity and while holding exactly into place use the liquid cement provided. The best way to use this is have a small paintbrush, dip it into the liquid cement and while holding the parts together allow the cement to run between them. Hold for a few seconds and they will be together.

NOTE: If you feel it is too difficult to remove the body plastic, then simply cement the windows into place and leave the body plastic intact.

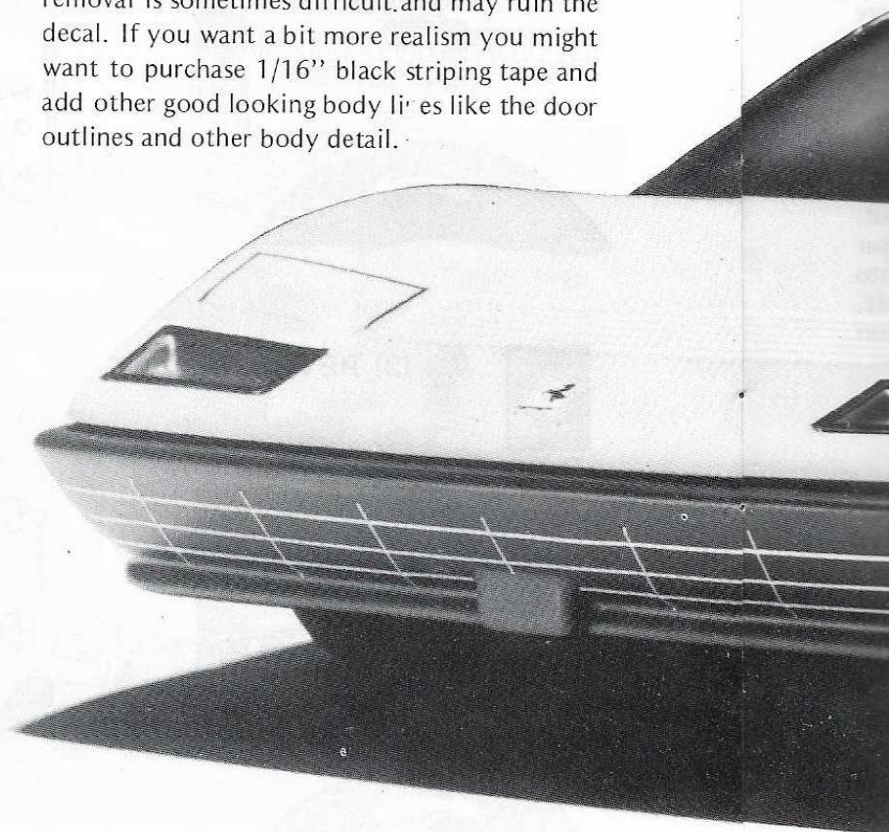
Next you will do the front headlight wipers. First remove the color sticker from the decal sheet (white with orange and silver lamps) and place into the proper cavity on the front of the body. After in place you may cement into place the smoked windows that fit directly ahead of the front air scoop. You may want to first remove the small piece of plastic below as you did on the windows from the body.

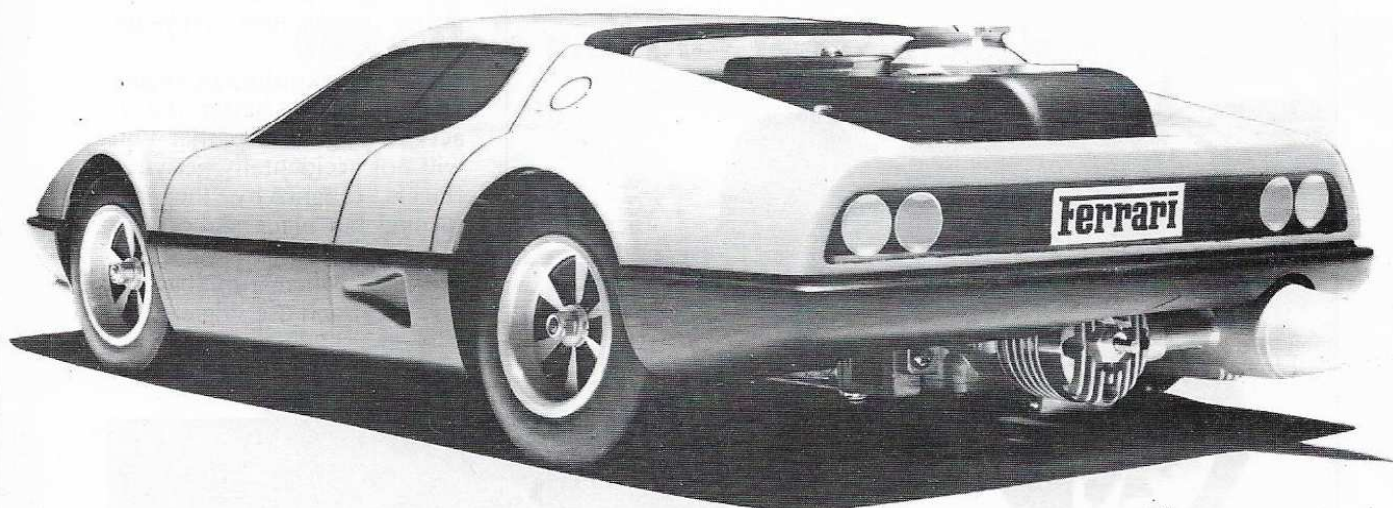
DECALS

To finish the body remove each decal from the sheet and put into proper position. Place rear black lamp panel onto the body, carefully positioning. If any air bubbles are under the decals after placement use a small pin and poke a hole into the decal and push smooth with your finger allowing the air to escape.

NOTE: Use liquid cement sparingly.

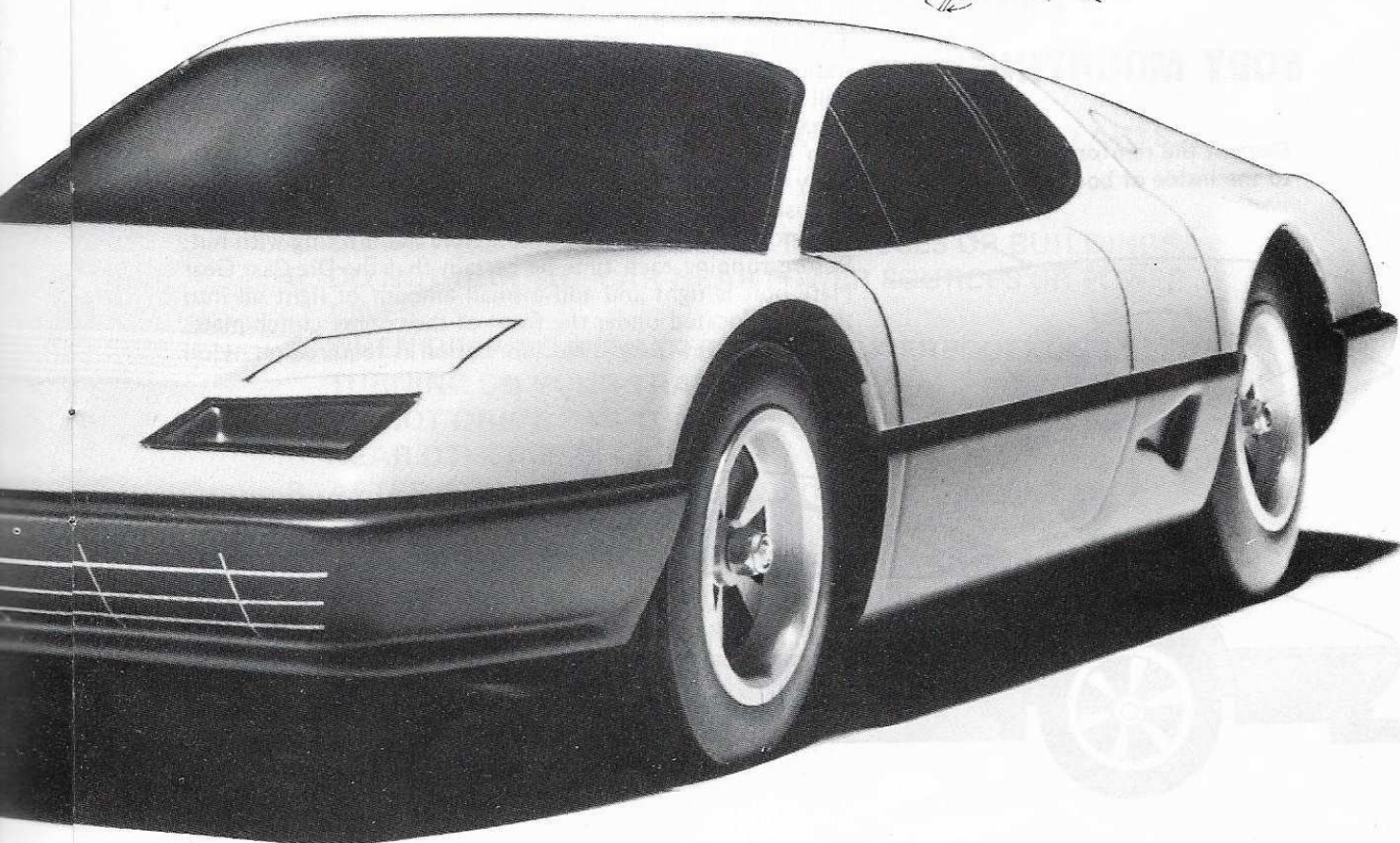
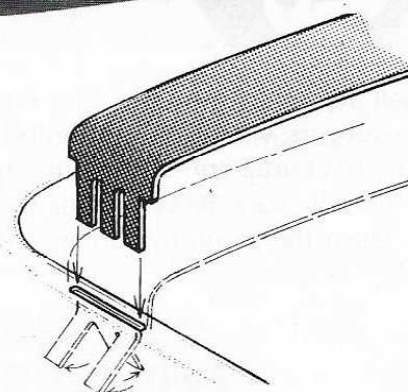
Too much does NOT work better! Be certain to place decals properly the first time as removal is sometimes difficult, and may ruin the decal. If you want a bit more realism you might want to purchase 1/16" black striping tape and add other good looking body lines like the door outlines and other body detail.



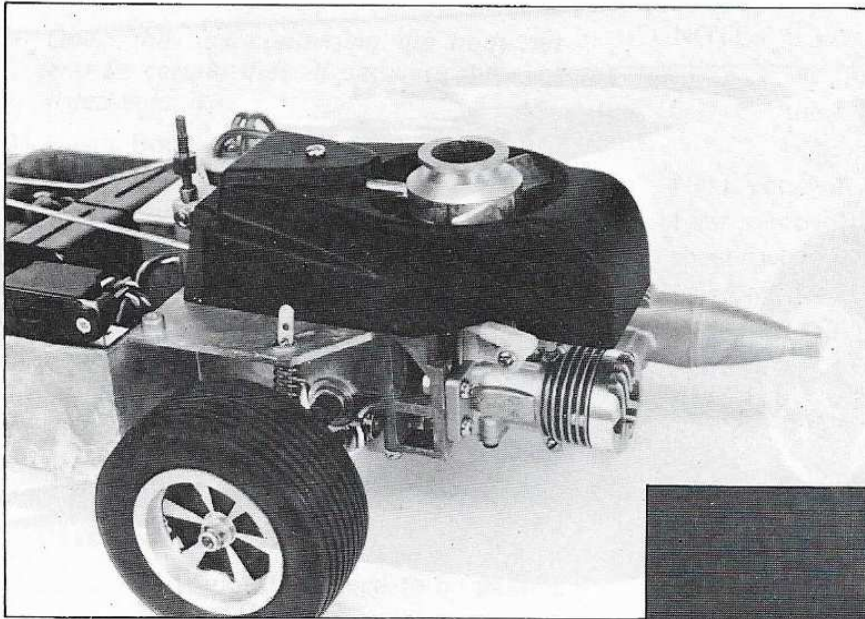


WING INSTALLATION

Open the slot to the body and insert the wing into the slot. Fix the wing by bending the tabs as shown.



REAR COVER FINGER GUARD



The rear fan shield cover guard serves two purposes which are:

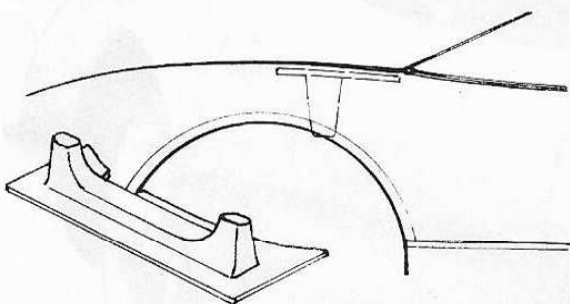
1) helps make the fan engine cooling operate better and 2) acts as a guard so that you will not accidentally get your fingers caught by the fast turning fan blade. Be certain to always have the fan cover in place when running the car. To attach use single

Phillips bolt that mounts directly into the top of the die cast part, which is already drilled and tapped. If the throttle arm touches the guard, cut away until it clears. Be certain the fan does not touch the guard, by turning it with your hand.

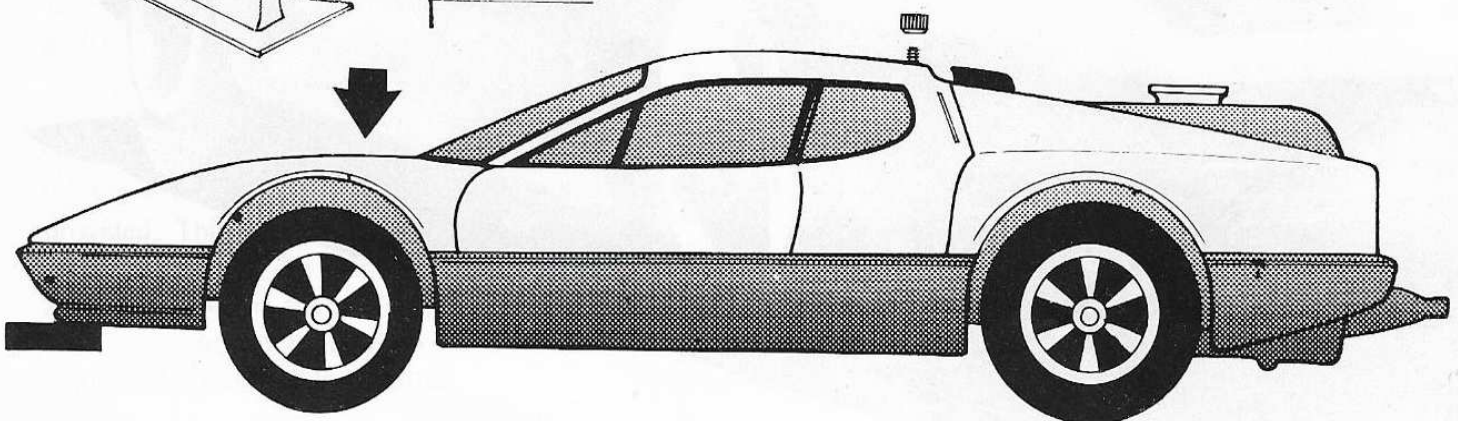


BODY MOUNTING

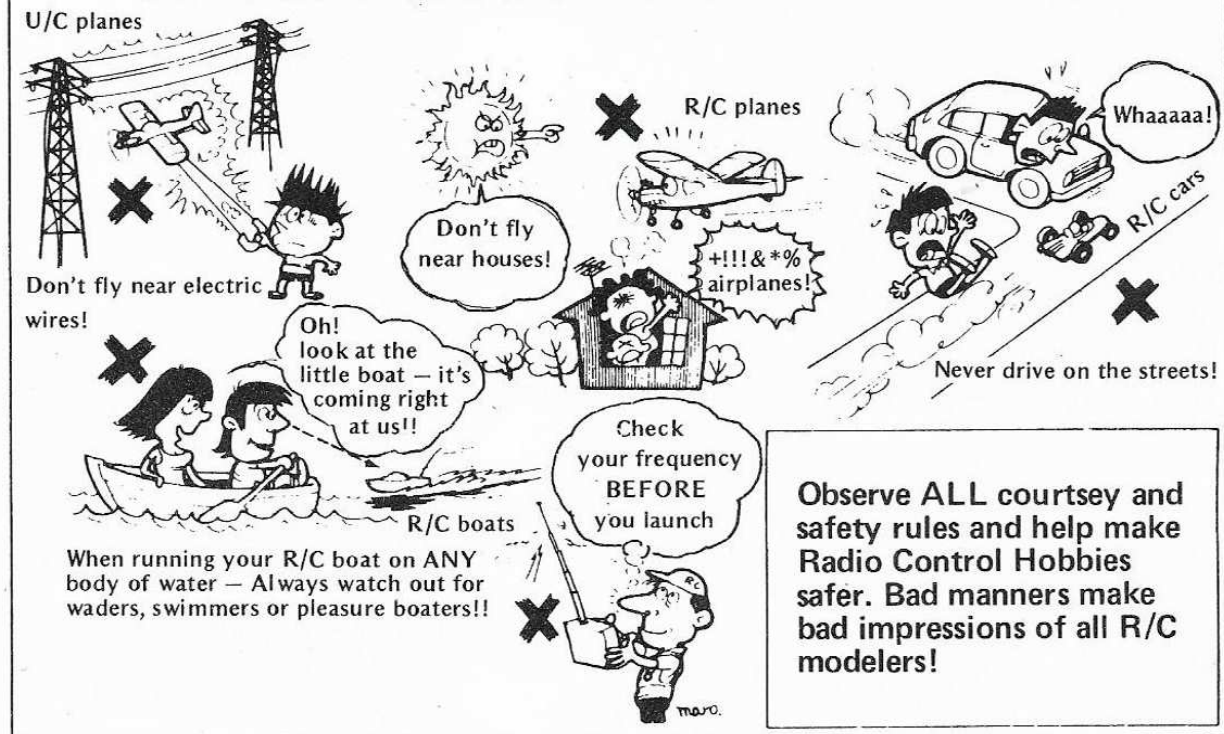
Cement the reinforcement to the inside of body.



To attach the body drill a small hole on the body top where indicated by an indentation spot in the plastic. The body will fit over No. 2703 body installation bolt that has already been mounted in a previous step. The body installation nut No. 1704 then screws onto the bolt securing the body into place. The body is ready for easy mounting by first sliding body under bumper mount and then dropping into position on body mounting bolt and affixing with nut. Before running each time be certain that the Die Cast Gear Plate bolt is tight and add a small amount of light oil into the hole located under the front of the copper clutch plate. Add only a few drops. No lubrication is required on nylon gears.

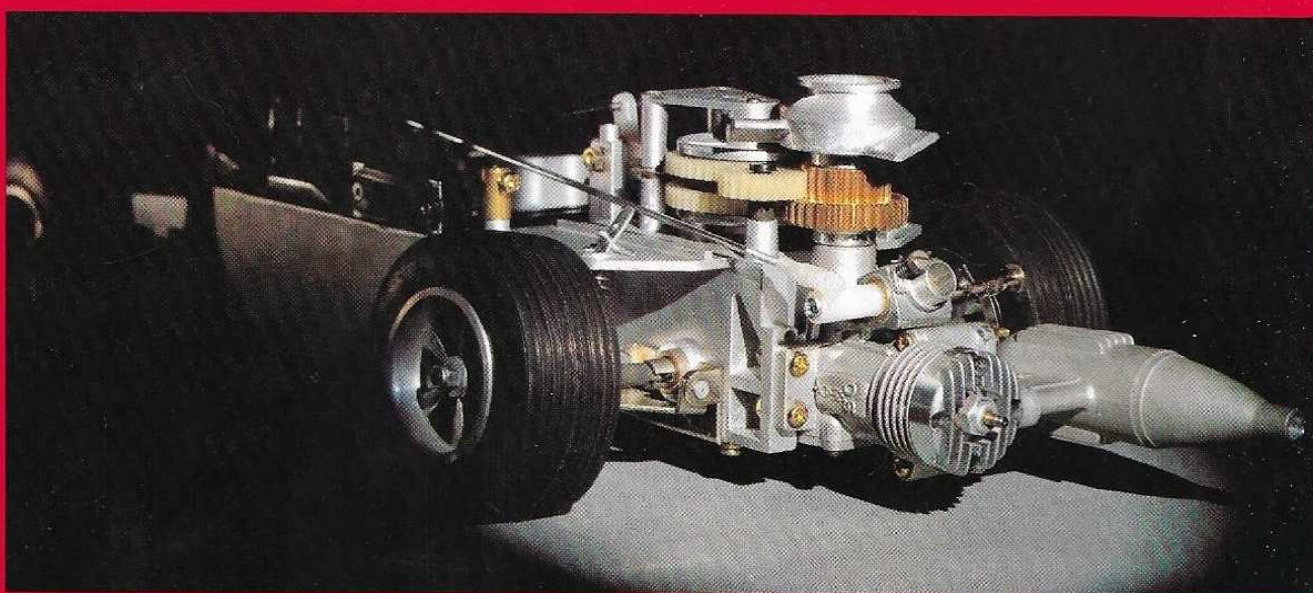


Some Do's and Don'ts for modelers



SAFETY WARNINGS AND OPERATING INSTRUCTIONS

1. DO NOT RUN THE CAR IN THE EARLY MORNING IF IN POPULATED AREAS.
2. BEFORE EACH RUNNING CHECK CAR FOR LOOSE PARTS, BOLTS & NUTS, AND TIGHTEN.
3. USE A MUFFLER.
4. DO NOT RUN THE CAR CLOSE TO HOUSES OR BUILDINGS.
5. DO NOT RUN THE CAR NEAR POWER SOURCES OR POWER LINES.
6. WHEN DRIVING WITH OTHERS CHECK FREQUENCIES BEFORE TURNING ON YOUR TRANSMITTER.
7. DO NOT DRIVE CAR TOWARDS OTHER PEOPLE OR EVEN NEAR OTHER PEOPLE.
8. AFTER RUNNING CAR CLEAN YOUR DRIVING PIT STOP AREAS.
9. DO NOT RUN YOUR CAR IN THE STREET: GO TO SAFE AREA.
10. OBSERVE ALL SAFETY RULES AND USE GOOD COMMON SENSE TO AVOID ACCIDENTS THAT COULD CAUSE INJURY TO YOURSELF AND OTHERS AROUND YOU.



SPEED BUILT
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