OFF-ROAD RACER PEGESSIS

RADIO CONTROLLED ELECTRIC POWERED RACING BUGGY

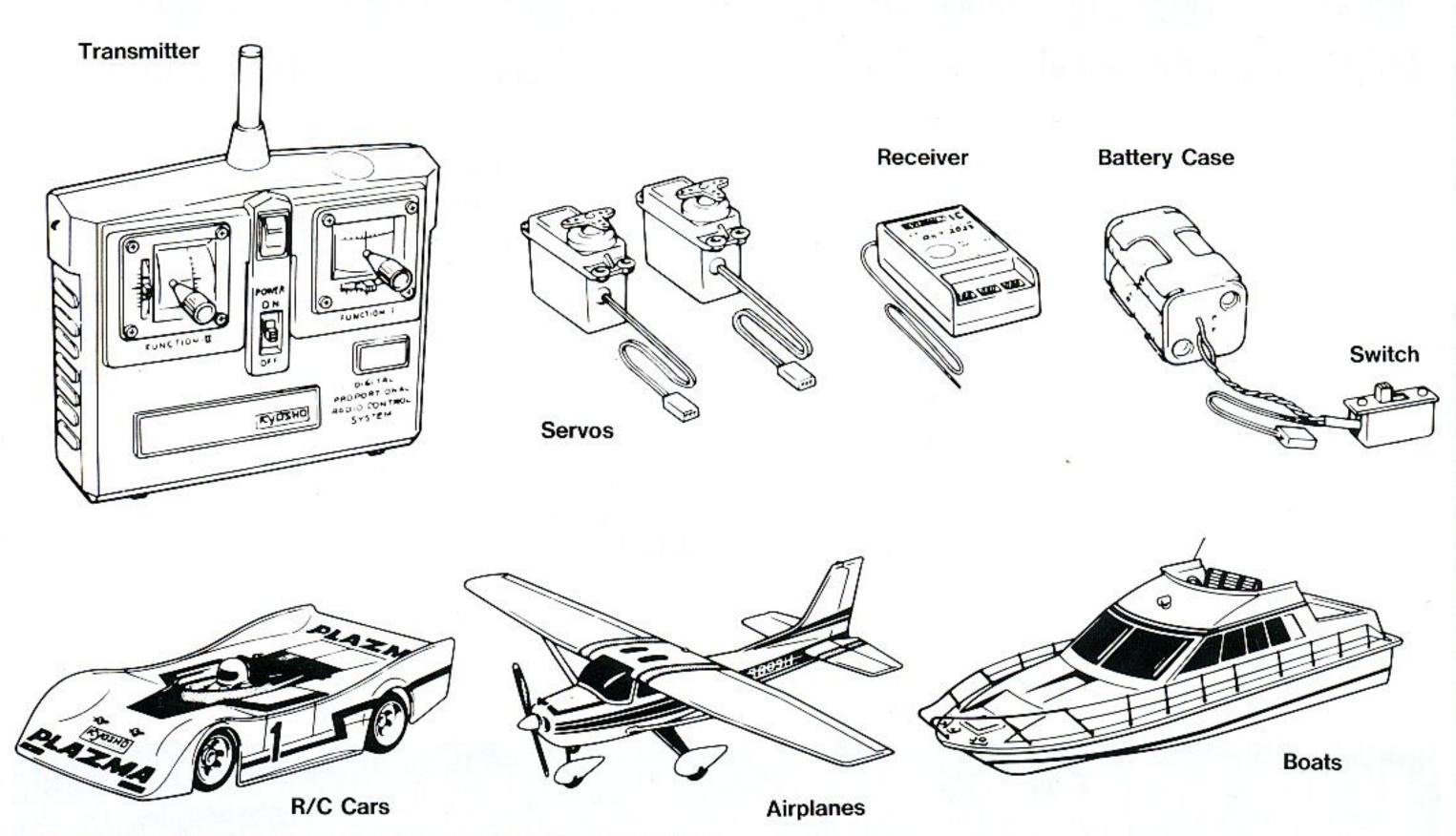
- ★IDEAL ENTRY LEVEL ELECTRIC OFF-ROAD RACER
- ★ EASY ASSEMBLY WITH SIMPLE ADJUSTMENTS AND MAINTENANCE
 - ★ SOPHISTICATED SUSPENSION SYSTEM FOR TOP HANDLING
 - ★ "BIG LEAGUE" POWERFUL MABUCHI 540S MOTOR INCLUDED
 - ★ DOUBLE WISHBONE FRONT SUSPENSION
 - ★ SWING ARM REAR SUSPENSION
 - ★ FRICTION-TYPE SHOCK ABSORBERS
 - **★**TRUE GEAR-TYPE DIFFERENTIAL
 - ★ LIGHTWEIGHT ABS THREE-PIECE RACING WHEELS
 - ★ SPACIOUS CHASSIS BOX ACCEPTS ANY TYPE OF SERVO
- ★ INFINITE-FLEX PIVOT SYSTEM FOR TROUBLE-FREE SUSPENSION
- ★ LARGE FRONT BUMPER FOR MAXIMUM CRASH PROTECTION
 - * ALL PNEUMATIC RUBBER TIRES



PEGASUS

NOTES ON RADIO CONTROL SETS

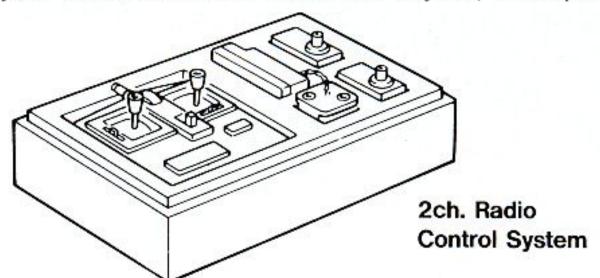
A digital proportional radio control set is required for operating this car. Two servos (standard or mini size) are required. The transmitter and receiver may be a 2-channel type, although a 3- or 4-channel set may be used with only two servos.



THINGS TO BE PROCURED BESIDES THE KIT

[2 channel Radio Control System]

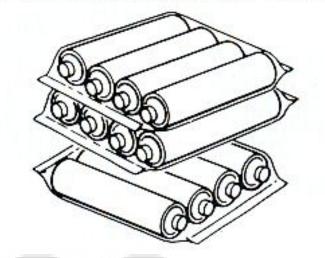
Two types of transmitter are available. One uses a wheel for controlling the direction of the vehicle, while the other uses two "sticks" that control direction and speed when pushed sideways or backward/forward. The choice is yours, and depends on cost and comfort using it.



Batteries for radio set

Simple radio control sets use penlight dry cells for power batteries must be replaced regularly at appreciable cost. In the long run it is more economical to purchase a radio set that is supplied with nickel-cadmium (NiCd) batteries, or to substitute NiCd pencells for the disposable type.

Simple radio control sets use penlight dry cells for power. While such sets are the least expensive way to begin radio control operation, the



Battery for Radio Control Unit

CAR BATTERY

Pegasus is designed to use a rechargeable 7.2V 1200mAh NiCd battery pack. A Kyosho Racing Battery, part number 2218 (and some other brands) may be recharged at a wide range of rates. The charging rate depends on the type of charger used.

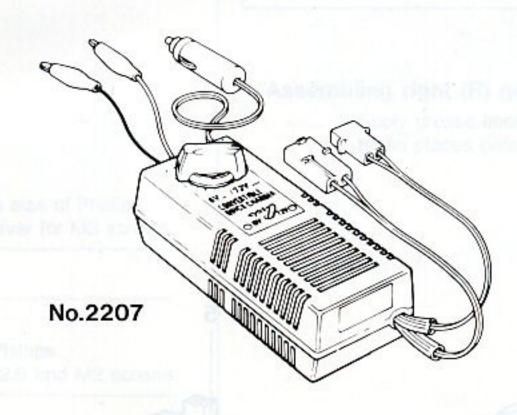


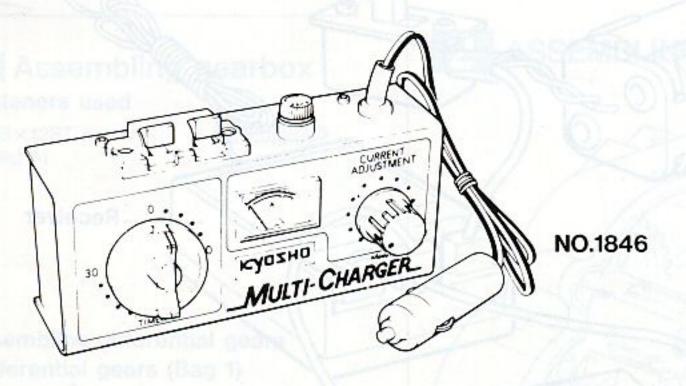
BATTERY CHARGER

The simplest charger supplies a low current, and the battery is charged for 14-16 hours. This type of charger operates on household AC power. Faster chargers are available, all operated from a well-charged 12V car battery. Using these, the battery pack can be recharged in 15-20 minutes. With two or three battery packs, it is possible to run the car almost continuously. Kyosho offers three types of fast charger.

Type 1846 allows adjusting the current using a built-in ammeter, and a timer shuts off the current at the time set by the user. Type 1848 also allows adjusting the current with a built-in ammeter, but a circuit in it monitors the voltage of the cells and cuts off the charging current when the cells are fully charged. The latter two can charge a battery pack to 100% of its capacity, while the first gives about 70% of full charge safely.

Item No.	Name of Charger	Charging time	Charging Rate	Features
No. 2207	Super Ni-Cd Rapid Charger (DC-12V)	15 minutes	about 70%	For beginners; timer built in
No. 1846	Multi Charger (DC 12V)	20 minutes	100%	Timer, ammeter built in
No. 1848	Auto Charger (DC 12V)	about 20 minutes	100%	Ammeter, volt- meter built in; automatic cut-off at peak of charge









Several tools are required for assembling Pegasus.

The following are included with the kit:

1.5mm hex key

Grease

The following are not included:

Phillips-head screwdriver (medium size)

5 and 7mm nutdrivers or socket wrenches

Scissors

Awl or 3mm and 4mm drills

Wire cutter

Hobby "cutter" knife

Cyanoacrylate adhesive 瞬間接着剤

The following items are useful for finishing the body attractively:

Polyca (or similar) acrylic paint

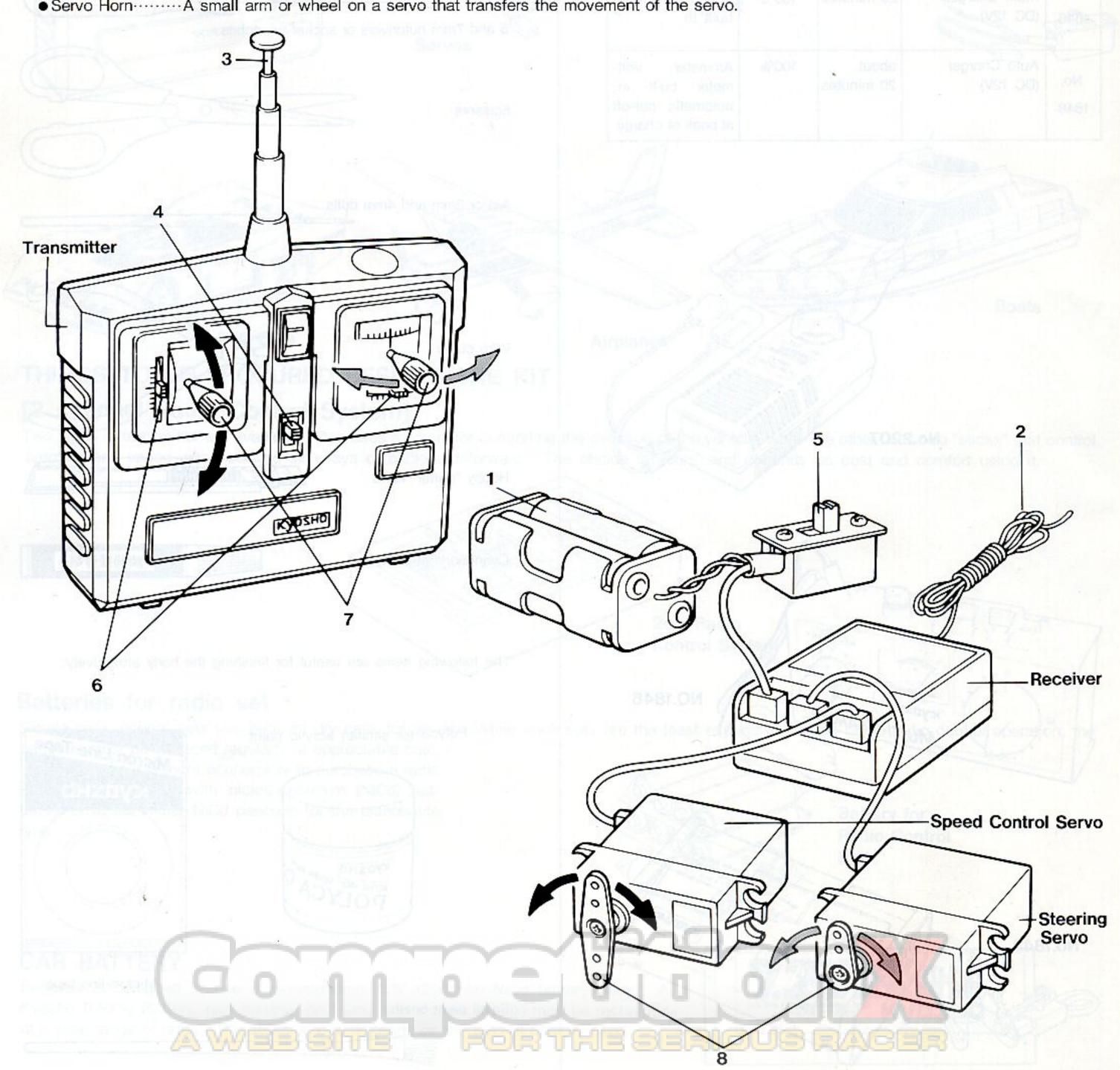


Micron-line tape

Small paint brush

CHECKING YOUR RADIO SYSTEM

- 1. Install the batteries into both the transmitter and receiver. If your radio uses rechargeable batteries, charge it as outlined in the manual that came with your set.
- 2. Unwind the receiver antenna and plug the servo and battery connectors into the receiver.
- Extend the transmitter antenna.
- 4. Turn On the transmitter power switch.
- 5. Turn On the receiver power switch.
- 6. Set the small trim levers to the center position and make sure that both main control sticks are also centered.
- 7. Move both main control sticks slowly through their full travel. The servo horns should move in proportion to the movement of your sticks.
- 8. When trim levers and sticks are at their neutral positions, the servo horns should be centered. Switch off the transmitter, then the receiver.
- ●It is important to always switch the transmitter on first······ then the receiver. When turning off the system, turn off the receiver first, then the transmitter.
- A 2-channel radio control system is composed of a transmitter, receiver, two servos, and a battery holder (for the receiver.)
- Transmitter A "box" with external controls ("sticks" or a wheel and trigger, for example) that can be moved by the operator to control the model by means of a radio signal.
- Receiver ------ Receives the radio signals from the transmitter and operates the required servo(s).
- Antennas······Transmitter antenna: broadcasts the radio signal produced by the transmitter.
 - Receiver antenna: Picks up the signals from the transmitter and conducts them to the receiver.
- Servos······Electric motor units that move the controls of the model in response to the movements of the controls of the transmitter.
- Trim Levers Adjust the neutral position of the servos from the transmitter. Trim levers provide fine tuning of the steering and speed control.
- Battery Meter ---- Allows you to see the condition of your transmitter batteries.
- Servo Horn.....A small arm or wheel on a servo that transfers the movement of the servo.



BEFORE ASSEMBLY

Please read through these instructions before assembly. Your thorough understanding of the assembly will enable you to build the kit without difficulty. Check the components in the kit prior to starting assembly. Any claim for replacement or refund for a model in the process of assembly will not be accepted.

Apply "GREASE" to points indicated with "Groom" mark.

Assembly is simple and straightforward. Just follow each of the following instructions, step by step, and refer to the drawings for an illustration of the appearance of each assembly.

Large parts are identified individually. Small parts, like screws and washers, are identified by the parts bag in which they are packed.

Note: Every screw, etc., has a specific place in which it is to be used. Please refer to the text and drawings to find a description and illustration of the part required.

Self-tapping screw Machine screw

("ST" in text) ("screw" in text)

Round end | Flat end

Deep thread Shallow thread

Screws are shown full size in these sections. Match the actual screw with the drawing to be sure of having the right part for each place.

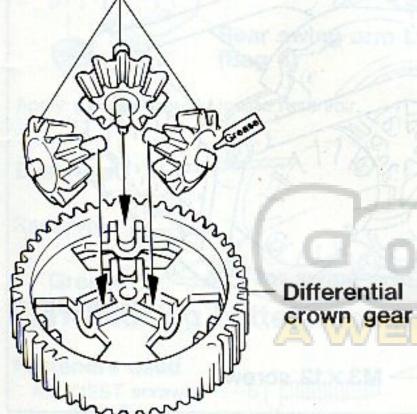
Use this size of Phillips screwdriver for M3 screws.

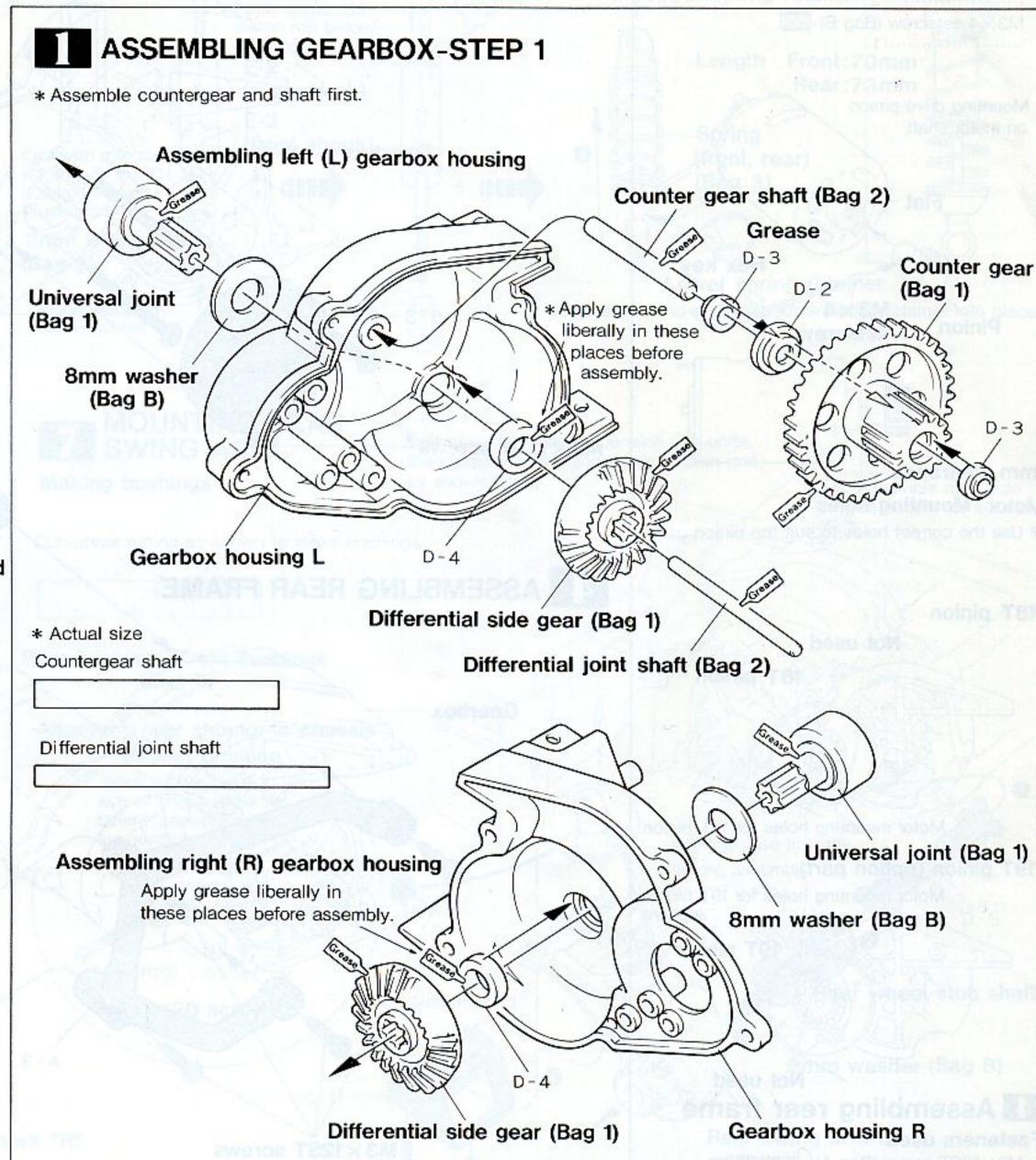
Use this size of Phillips screwdriver for M2.6 and M2 screws.

2 Assembling gearbox

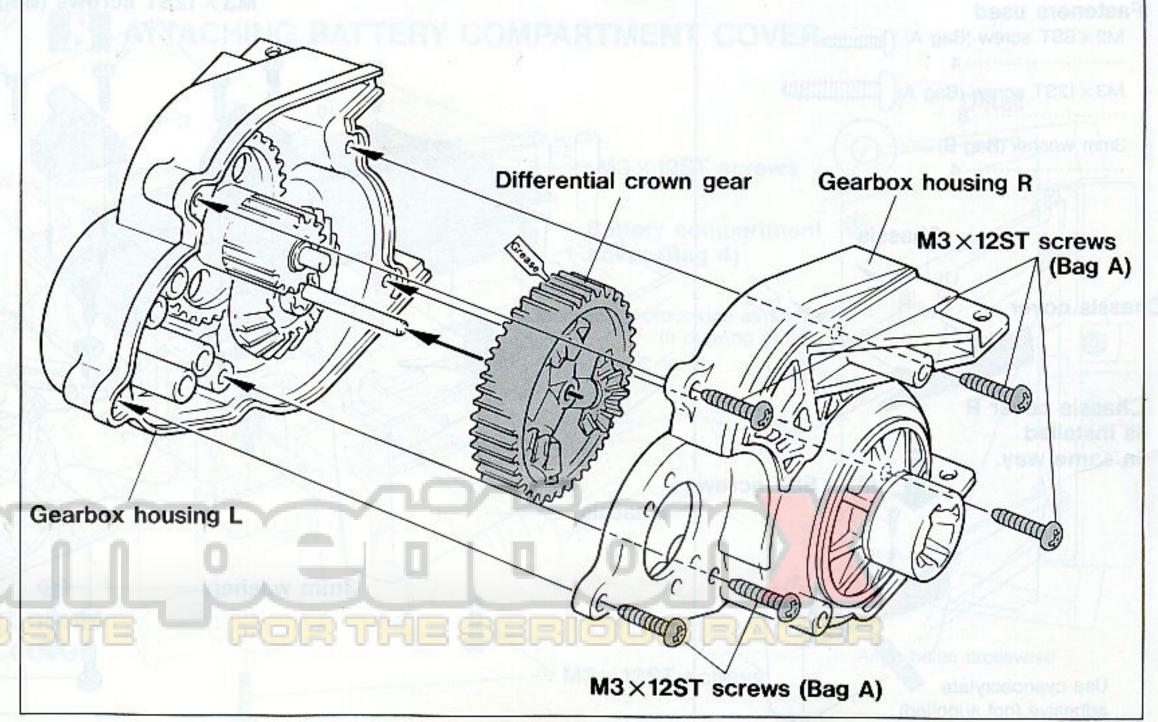
Fasteners used

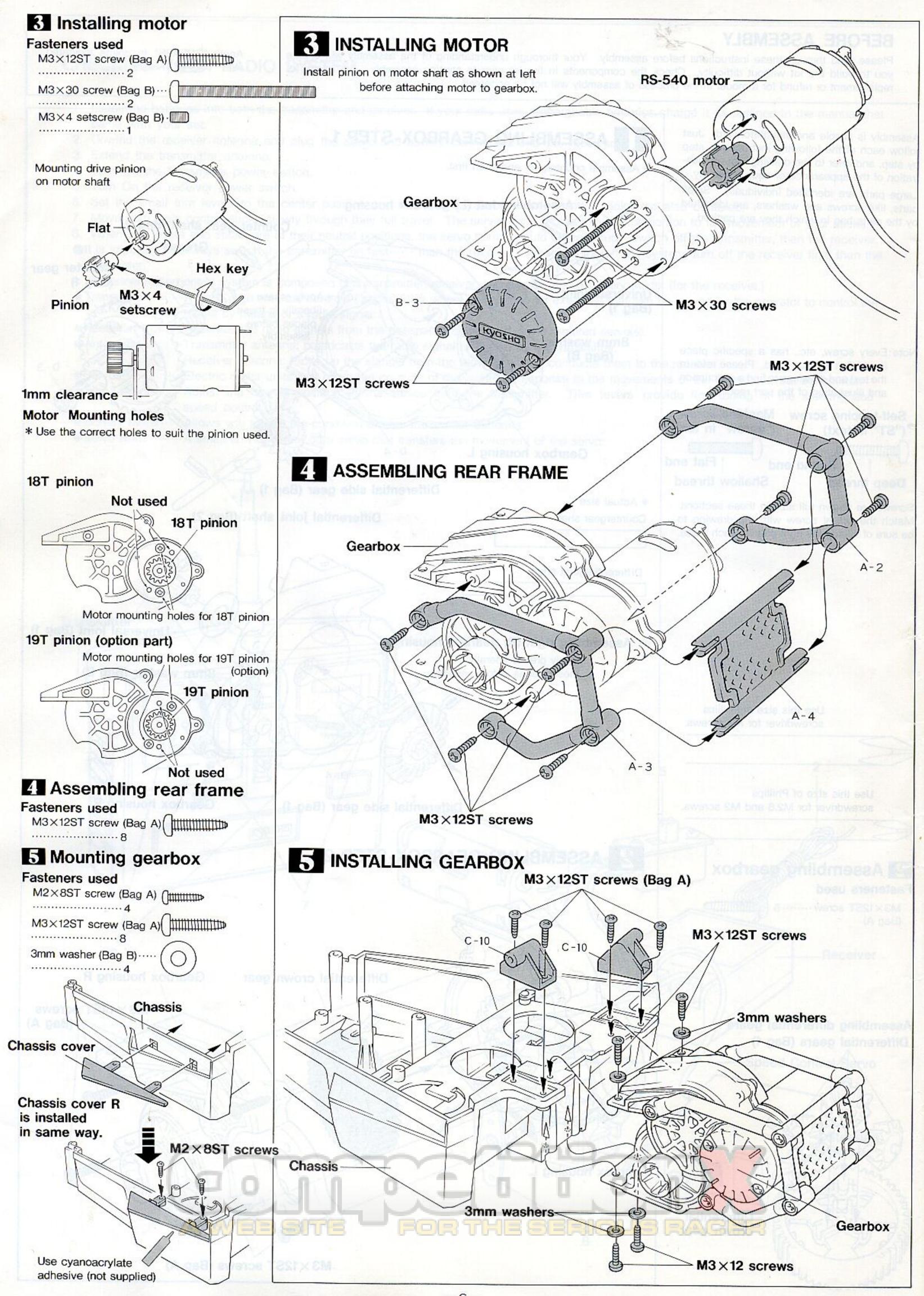
Assembling differential gears
Differential gears (Bag 1)

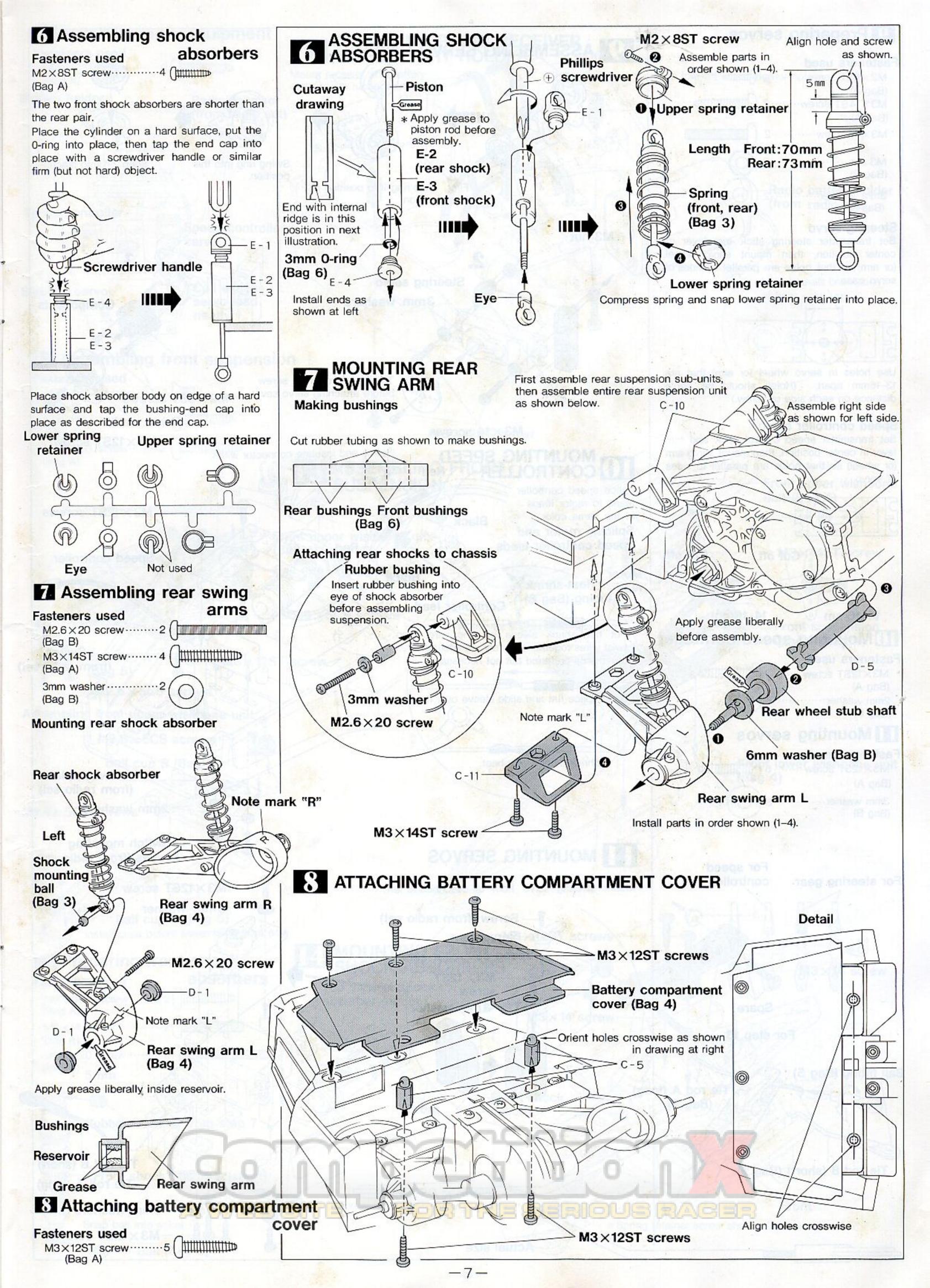


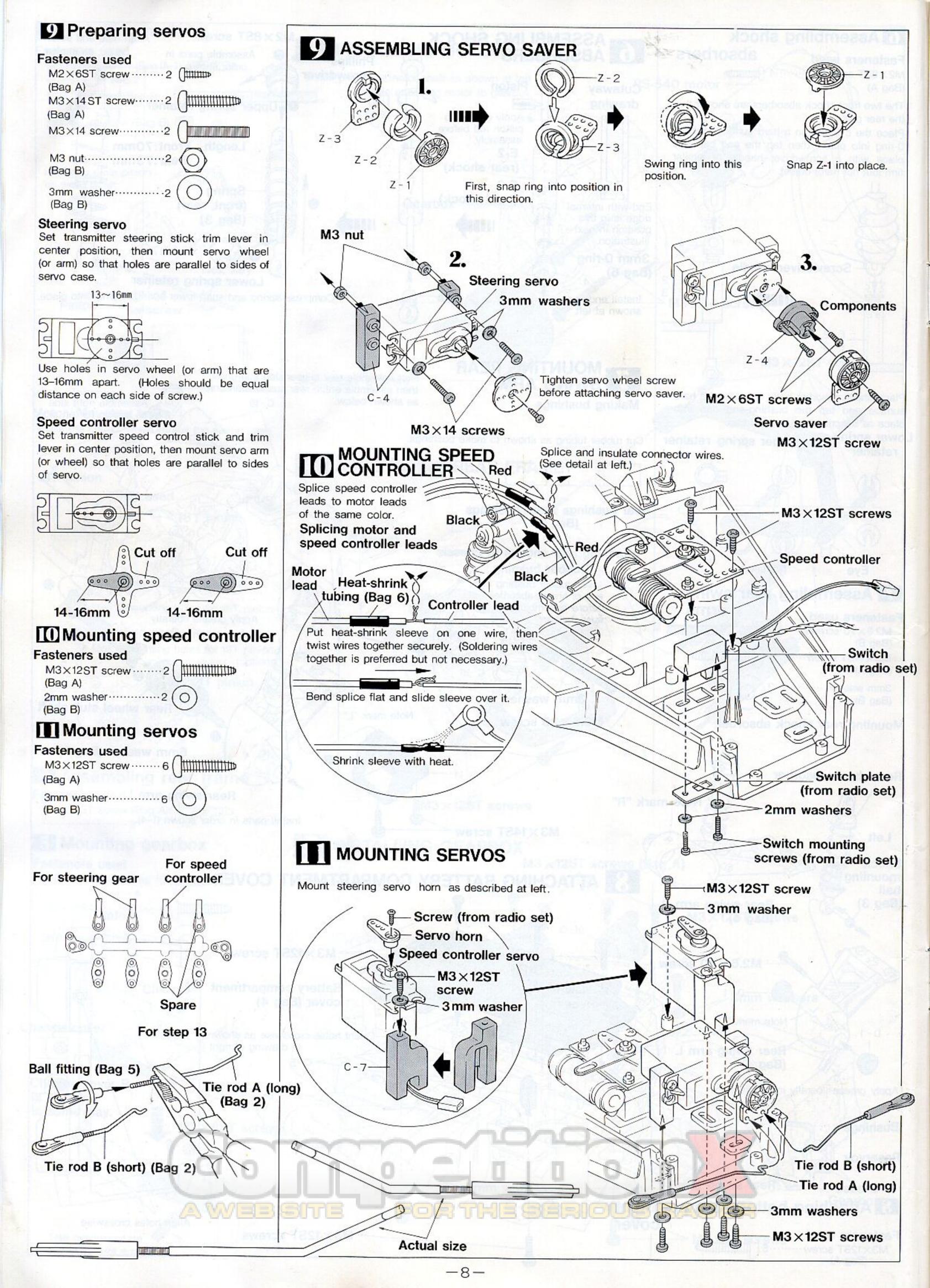


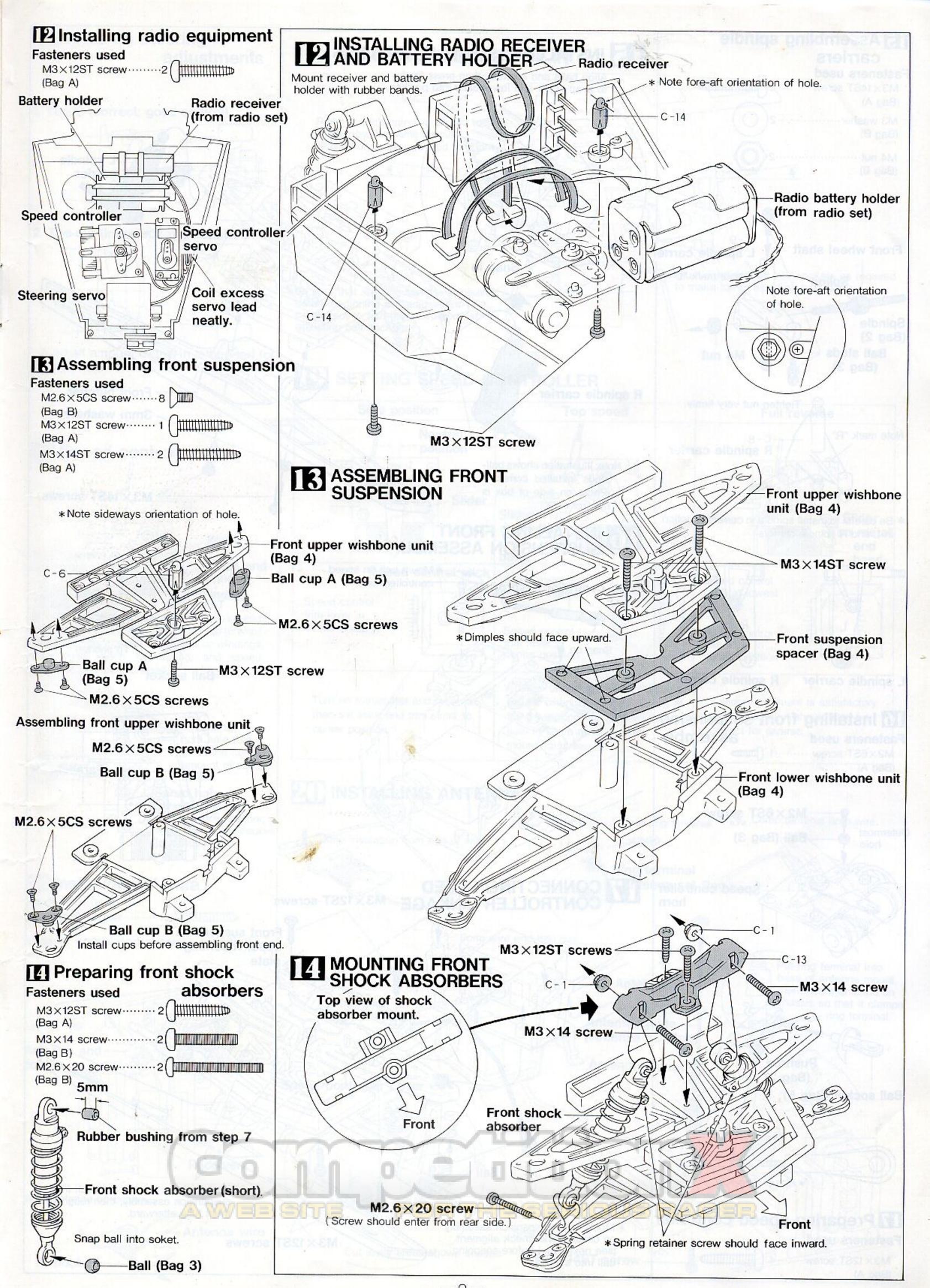
2 ASSEMBLING GEARBOX-STEP 2

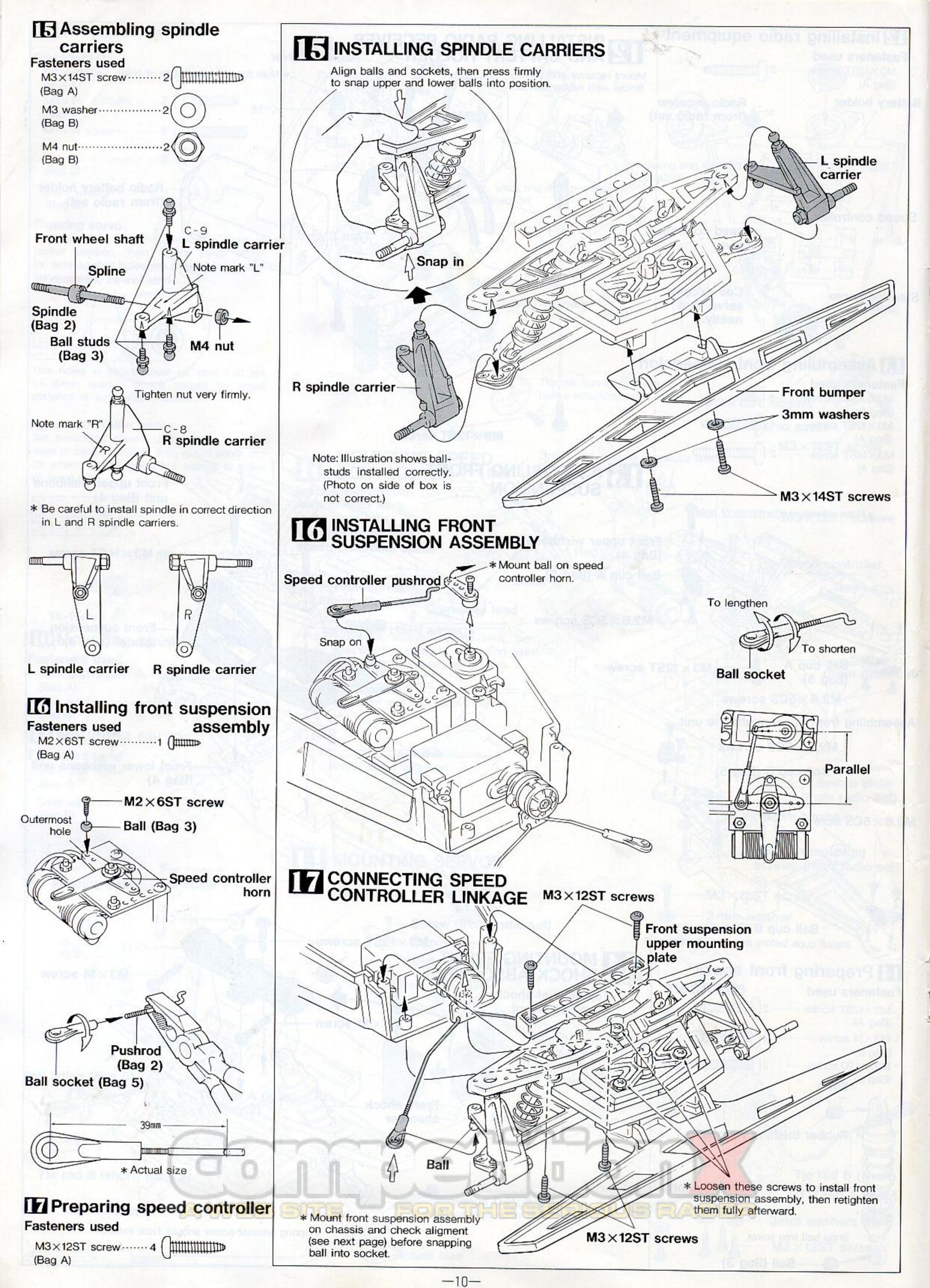






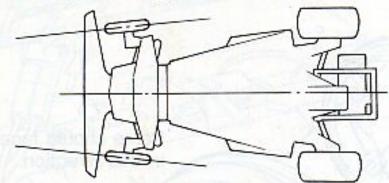




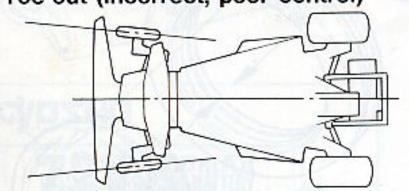


Notes on steering adjustments

1. Toe-in (correct; good control)

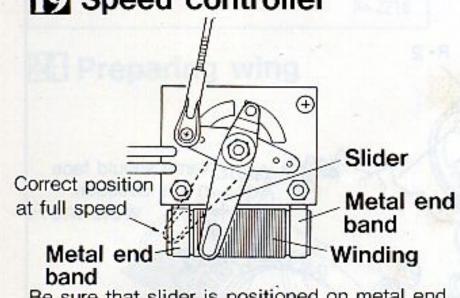


2. Toe-out (incorrect; poor control)

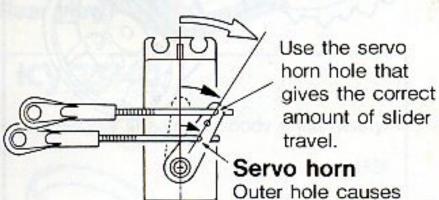


A small amount of toe-in is needed for directional stability.

Speed controller



Be sure that slider is positioned on metal end band when servo is at full travel for top forward speed. If slider constantly remains on windings, car cannot reach full speed, and speed controller may be damaged.



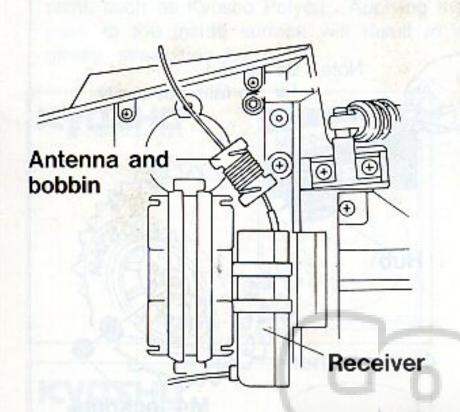
Outer hole causes slider to move farther, while inner hole causes less movement.

20 Installing antenna

Fasteners used

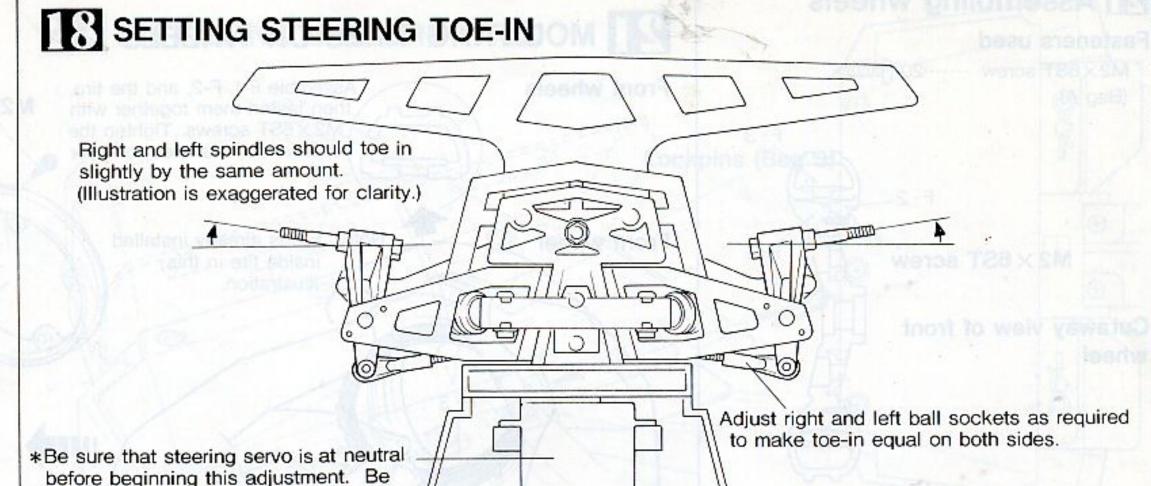
M3×14ST screw.....1

View of completed antenna installation



Wind antenna on bobbin.

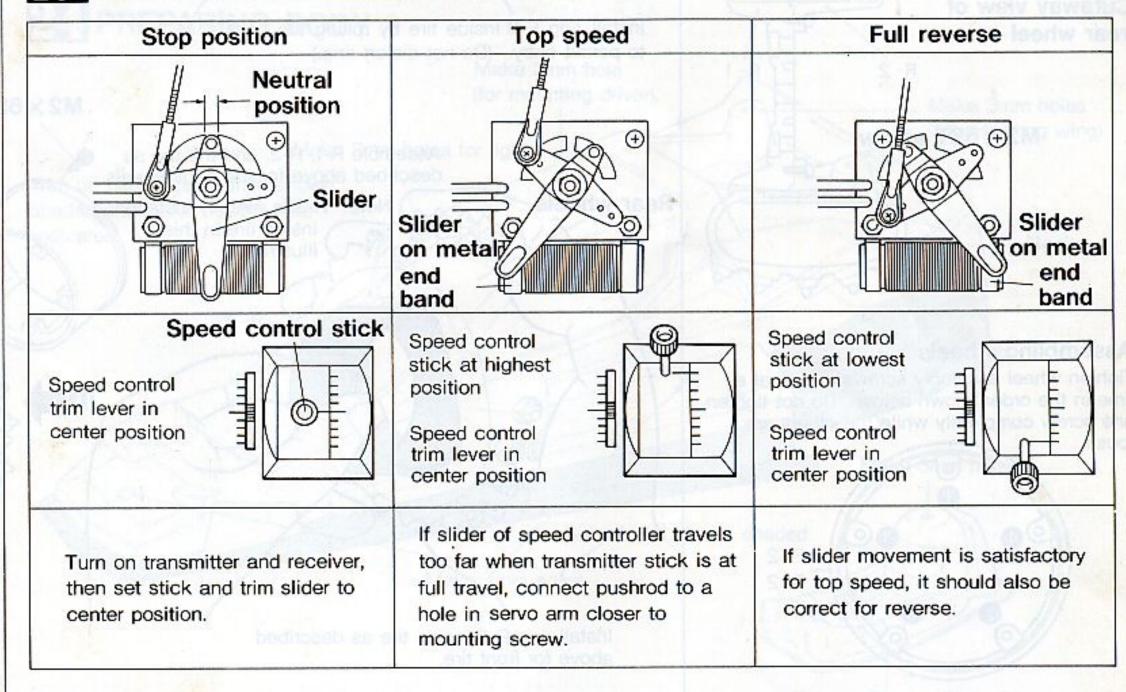


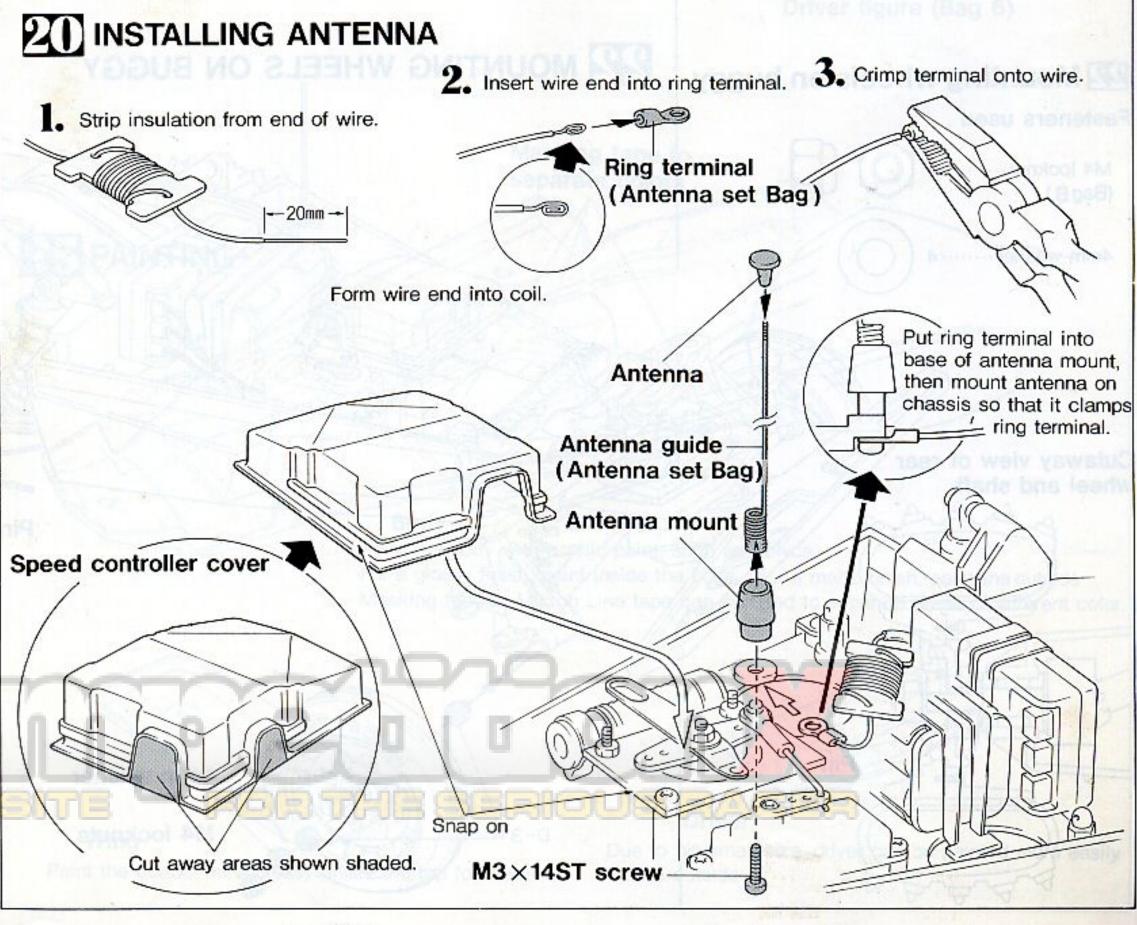


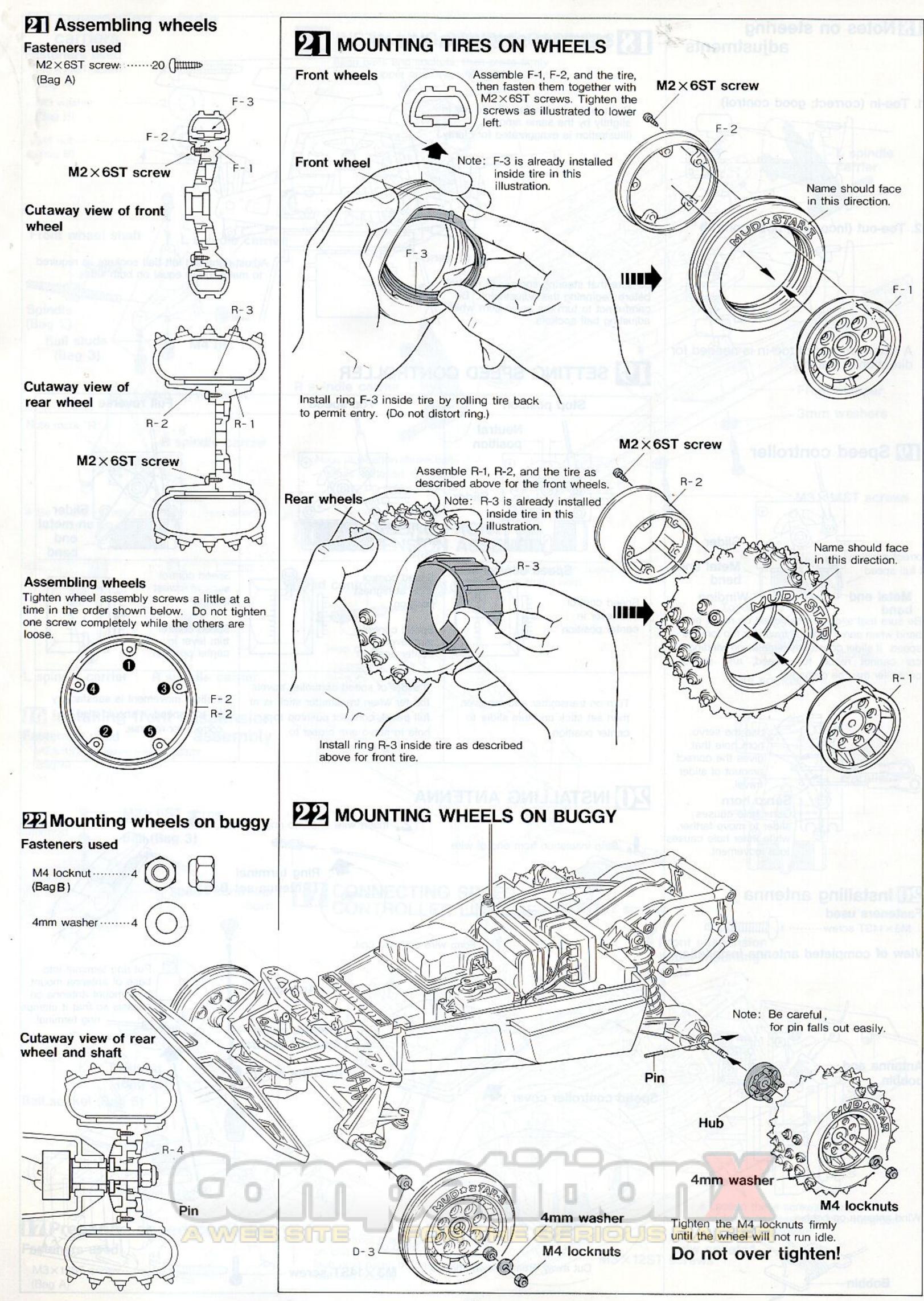
SETTING SPEED CONTROLLER

careful not to turn the servo horn while

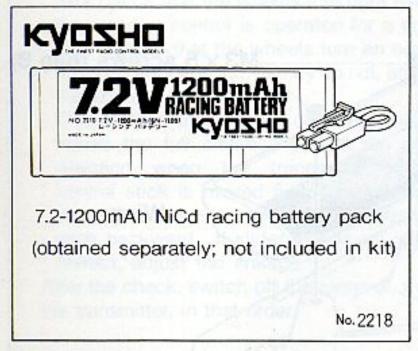
adjusting ball sockets.



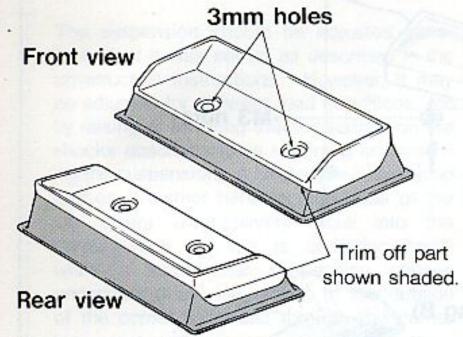


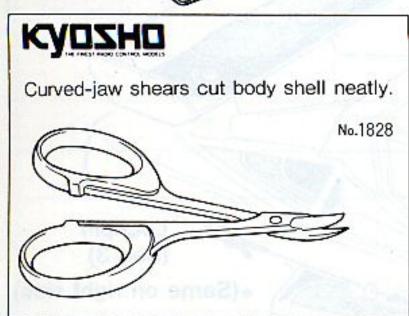






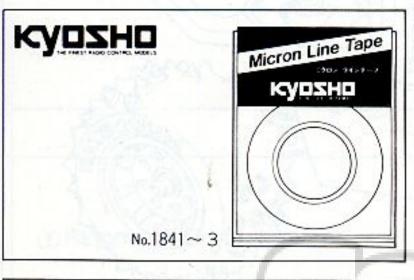
22 Preparing wing

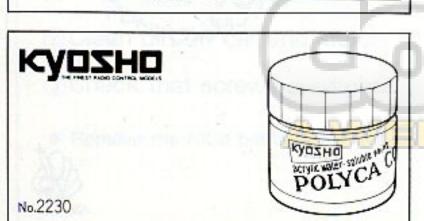


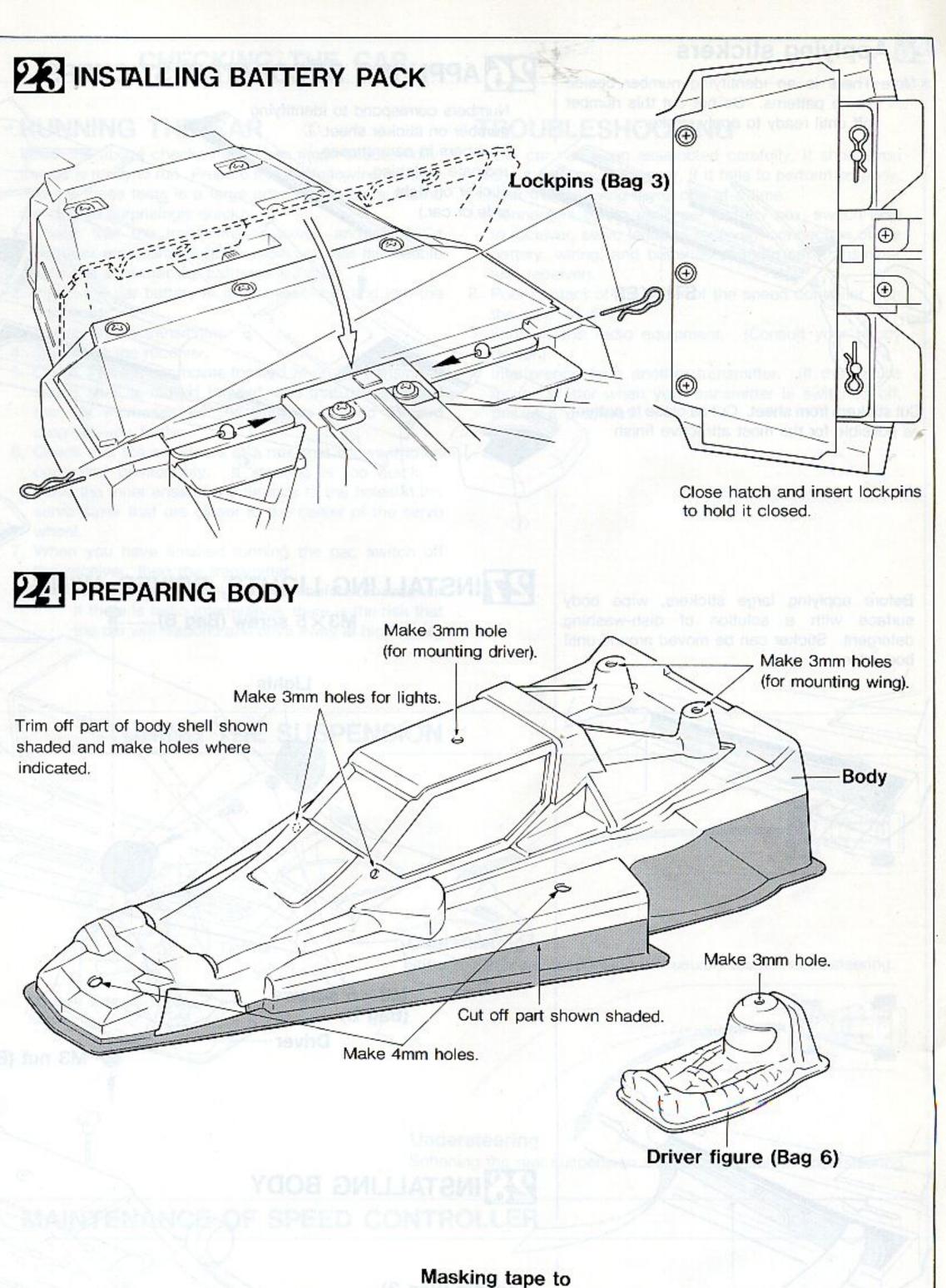


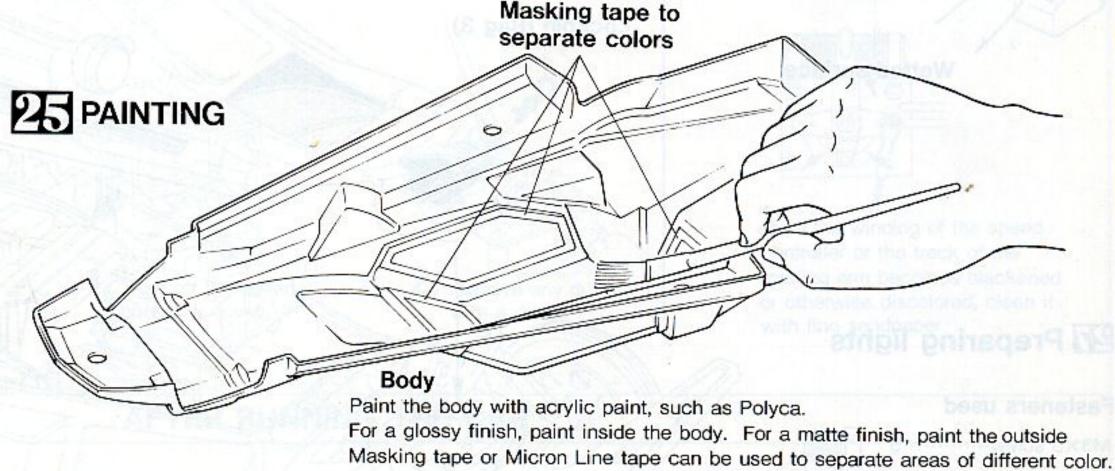
Notes on painting

*The body shell, wing, and driver are polycarbonate and may be painted using acrylic paint, such as Kyosho Polyca. Applying the paint to the inside surface will result in a glossy, streak-free finish.





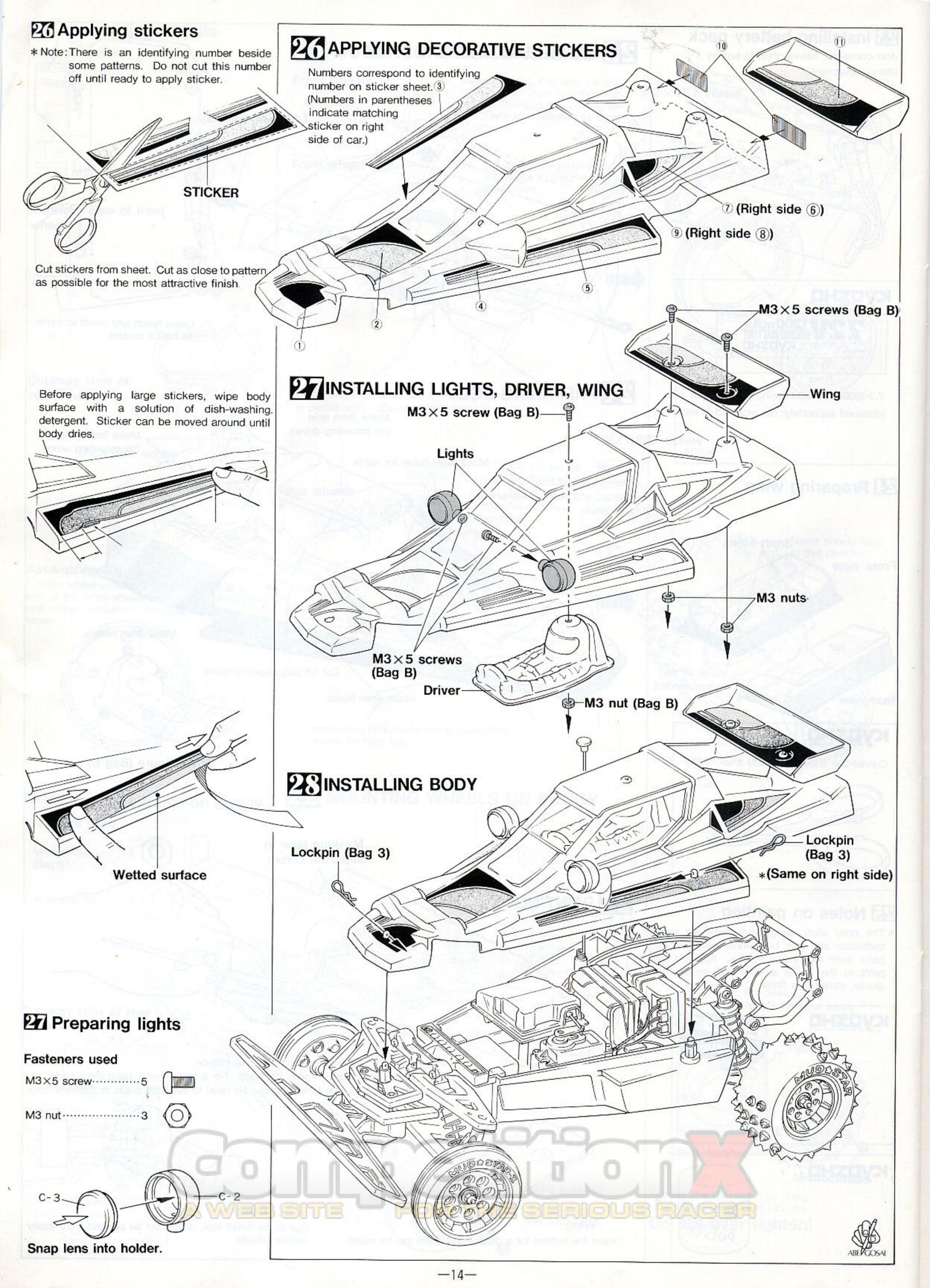






Paint the bottom for a glossy finish, the top for matte.

Due to his small size, driver can be painted more easily on the outside.



CHECKING THE CAR

CHECKING THE CAR

Before running the car, perform the following checks. (The car battery is not needed for these checks.)

- Check that all screws and nuts are tightened properly.
- 2. Check that the wiring is neat and that there are no short circuits. (Use electrical insulating tape if there are any bare wires.)
- 3. Check that all wheels turn freely, without binding or drag. Rotate the wheels by hand for about two seconds to distribute the grease evenly and to free up the bushings.
- 4. Switch on the transmitter and receiver, then check that the wheels turn right when the steering control is operated for a right turn. Check that the wheels turn an equal distance right and left. If they do not, adjust the linkage.
- 5. Check that the speed controller slider moves the full distance and in the right direction when the transmitter speed control stick is moved fully forward, then check the same for reverse by moving the stick backward. If slider movement is not correct, adjust the linkage.

After the check, switch off the receiver, then the transmitter, in that order.

RUNNING THE CAR

When the above checks have been made successfully, the car is ready to run. Prepare it in the following manner. Perform these tests is a large open space because the car can go surprisingly quickly.

- 1. Check that the transmitter, receiver, and car NiCd batteries are charged. (If the radio set uses disposable cells, be sure that the batteries are fresh.)
- 2. Install the car battery in its compartment and join the connector.
- Switch on the transmitter.
- Switch on the receiver.
- 5. Check that the car moves forward when the transmitter speed stick is moved forward, and that the speed of the car increases as the stick is moved forward progressively farther.
- 6. Check that the car steers at a rate that allows it to be controlled comfortably. If steering is too quick, move the inner ends of the tie rods to the holes in the servo saver that are closer to the center of the servo wheel.
- 7. When you have finished running the car, switch off the receiver, then the transmitter.

NOTE: Never switch off the transmitter before the receiver. If there is radio interference, there is the risk that the car will respond and drive away at high speed.

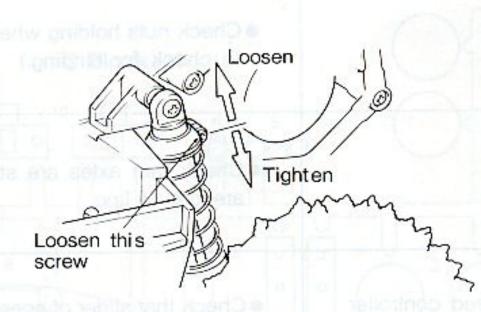
TROUBLESHOOTING

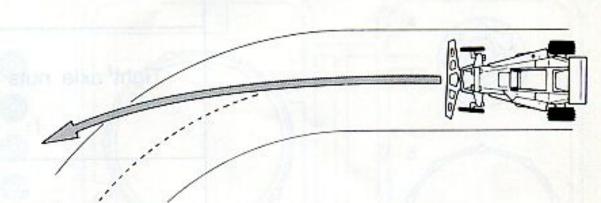
If the car has been assembled carefully, it should run without problem. However, if it fails to perform properly, check the following items one at a time.

- 1. Connectors of the radio set (battery box, switch lead to receiver, servo leads to receiver), connectors of car battery, wiring, and batteries of radio set (transmitter and receiver).
- 2. Poor contact of the slider of the speed controller with the wire winding.
- 3. Fault in the radio equipment. (Consult your hobby dealer.)
- 4. Interference from another transmitter. (If the servos move or jitter when your transmitter is switched off, this is a problem.)

TUNING THE SUSPENSION

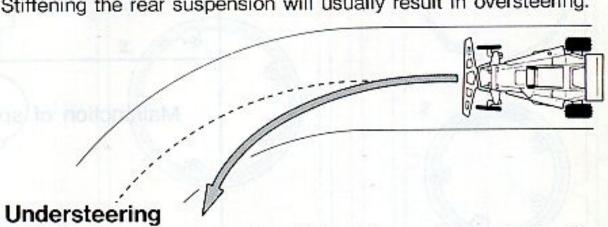
The suspension should be adjusted satisfactorily if it was set up as described in the construction instructions. However, it may be adjusted for different road conditions, etc., by raising or lowering the coil springs on the shocks absorbers (thus softening or hardening the suspension). A harder rear suspension causes oversteer behavior (the nose of the car steers progressively more into the corner when the car is cornering hard), while a softer rear suspension causes understeer (the nose moves to the outside of the corner as speed through the corner increases).





Oversteering

Stiffening the rear suspension will usually result in oversteering.



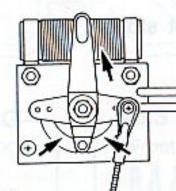
Softening the rear suspension will usually result in understeering.

MAINTENANCE OF SPEED CONTROLLER

The cover of the speed controller is designed to keep out dirt. However, after running Pegasus in dusty conditions, some dust may have entered and may affect operation (intermittent, unsmooth, etc.). It is advisable to remove the cover regularly and clean off the windings and to oil the pivot of the slider if it becomes stiff and difficult to turn.







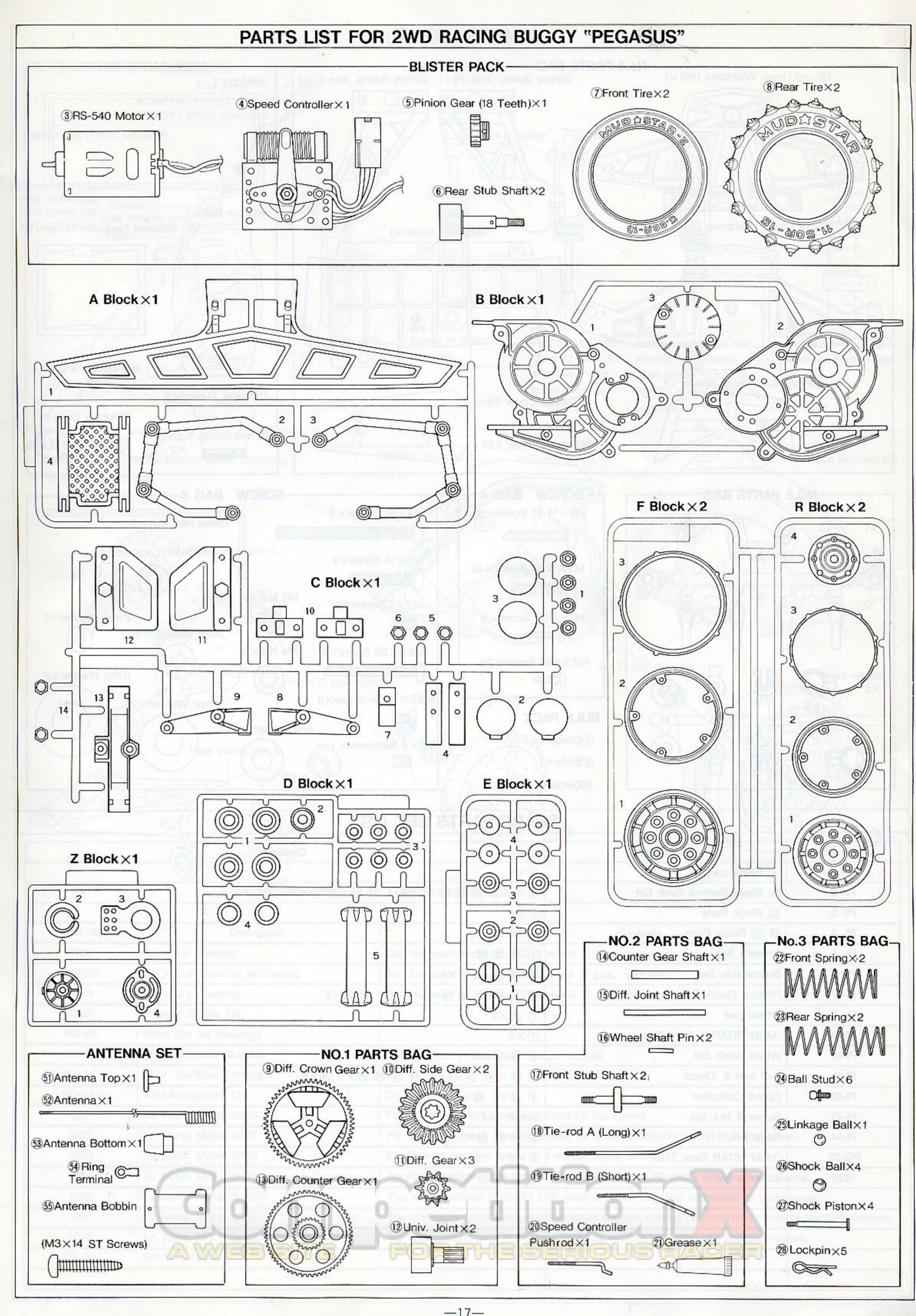
If the winding of the speed controller or the track of the rotating arm becomes blackened or otherwise discolored, clean it with fine sandpaper.

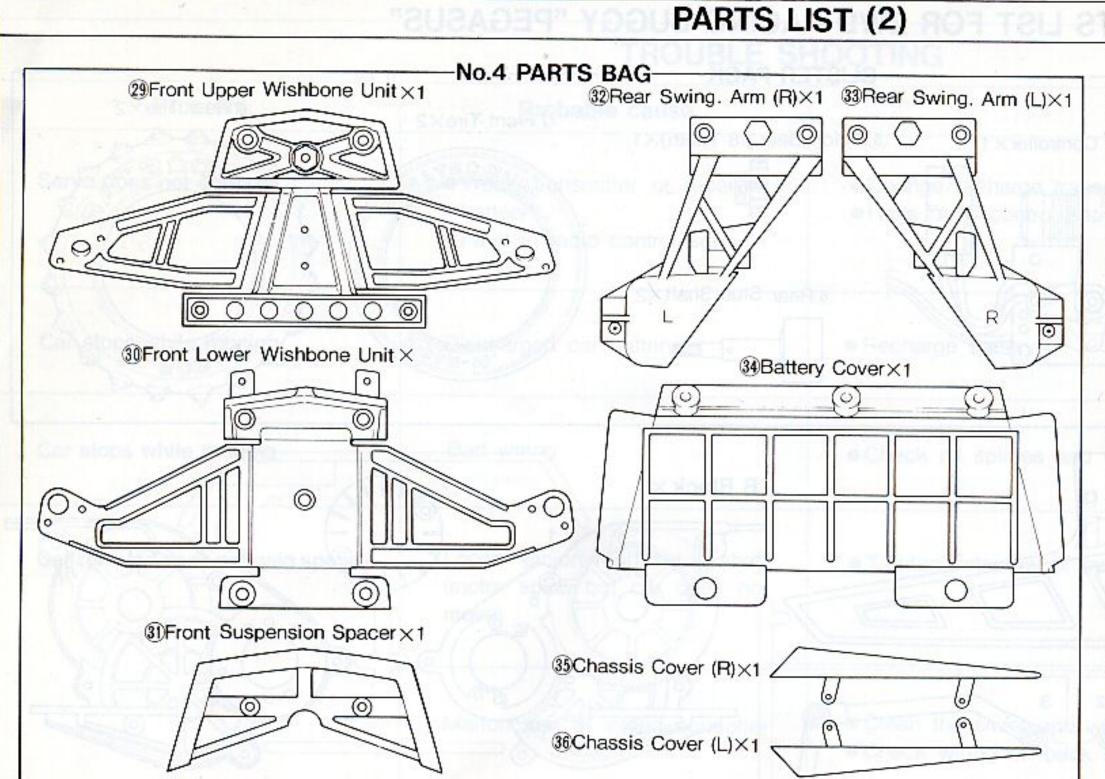
AFTER RUNNING THE CAR

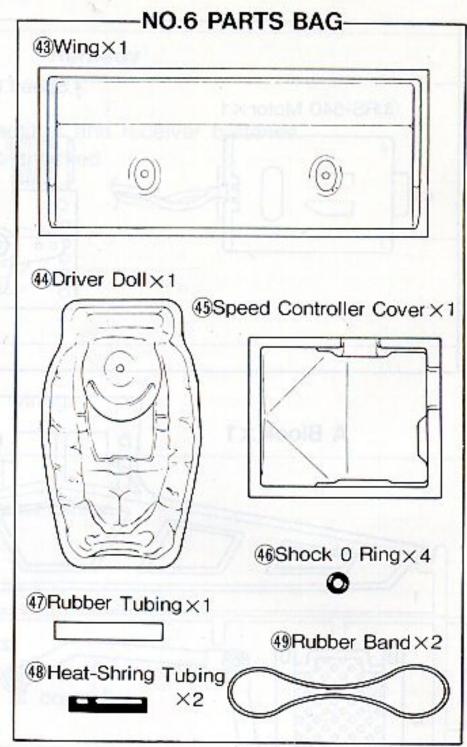
- Remove NiCd battery.
- 2 Clean dirt off car and motor.
- 3 Check that screws are tight.
- * Remove the NiCd battery from the car when it is not in use.

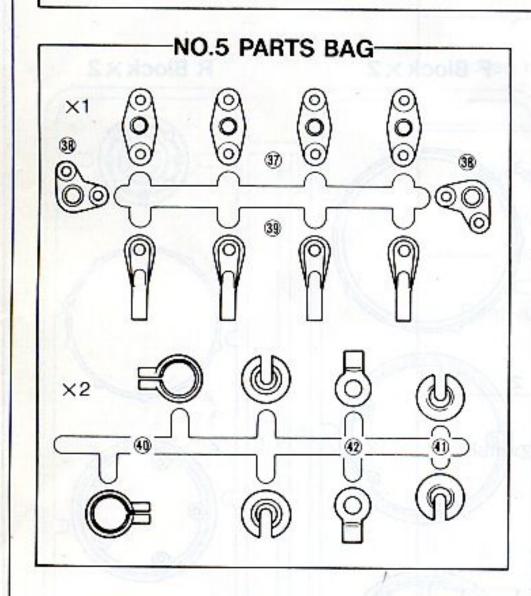


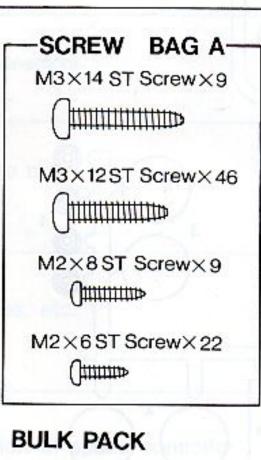
TROUBLE SHOOTING					
Probrem	Probable cause	АЗВЕНТ ЭИНИИЯ - Remedy AO ЭНТ ЭИНЭЭН			
Servo does not operate	Weak transmitter or receiver battery Fault in radio control set	Change/recharge transmitter and receiver batteries. Have radio control set checked.			
Car stops while running	Discharged car battery	● Recharge battery.			
Car stops while running	Bad wiring	Check all splices and wiring.			
Car runs but does not gain speed	Loose pinion on motor shaft (motor spins but car does not move)	● Tighten setscrew of motor pinion.			
one manipus large stickers, while to the such as polition of pulsewood equal Scance end by Microsi structs of a Silvin.	Malfunction of speed controller	Clean the slider and winding of controller. Check wiring on back of controller.			
	Loose connectors	Check that all connectors are joined securely.			
	Tight axle nuts	 Check nuts holding wheels on axles. (Turn front and rear wheels to check for binding.) 			
	Bent axles, etc.	Check that axles are straight and that no other important parts are out of line.			
	Malfunction of speed controller	 Check that slider of speed controller moves fully to end of winding when transmitter is set for full speed. Check that speed controller slider and winding are free of dirt and corrosion. 			
	Deterioration of motor, battery	Replace faulty item.			
Car does not stop	Speed controller linkage	 Eliminate free play in speed controller linkage. Check that transmitter speed control stick is in center position when released (not offset by trim lever). Adjust speed controller linkage so that slider is in center when transmitter stick is in neutral position. 			
	Dirty speed controller	Check that speed controller slider and winding are free of dirt and corrosion.			
Car does not run straight	Insufficient toe-in	Adjust length of tie rods as described in instructions.			
	Steering servo	Horn on steering servo not centered. Trim lever on transmitter not centered.			
	Wheel drag	• Check if a wheel is binding, scraping, or dragging.			
AWE	Smaller tires on one side	Tires may have worn more on one side of car. Check diameter of tires and fit new ones if this is the cause of the problem.			

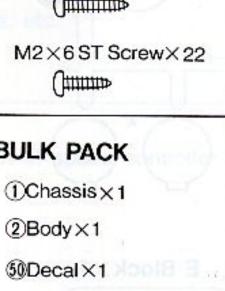


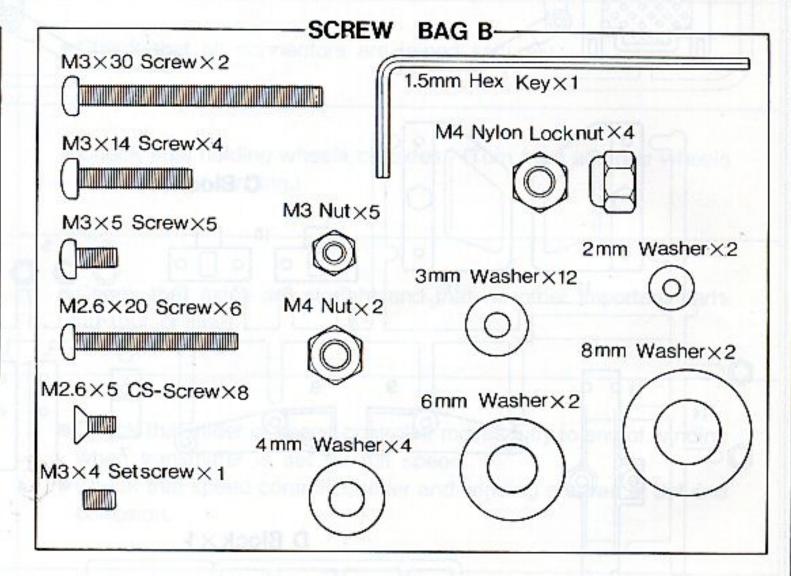






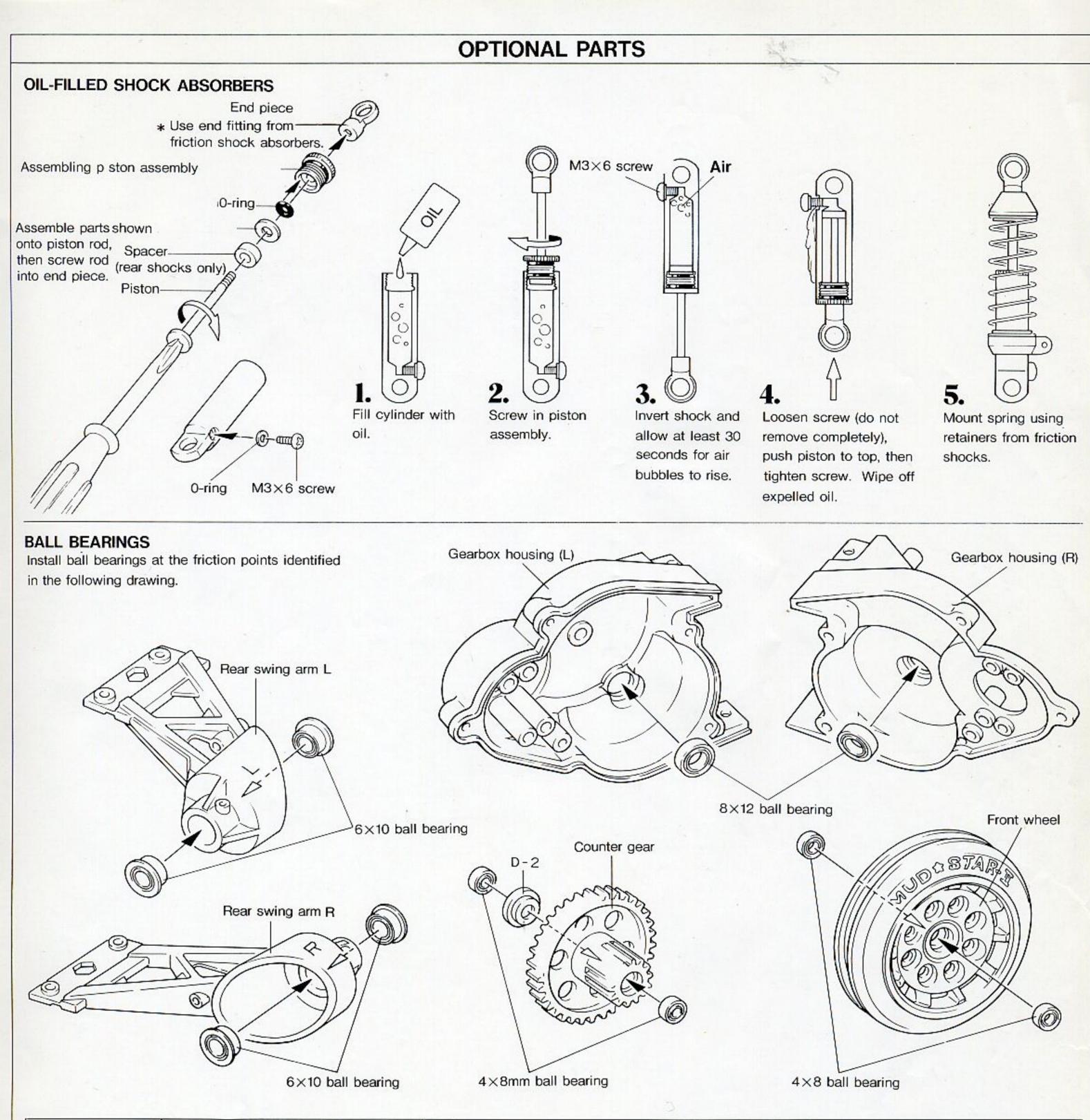




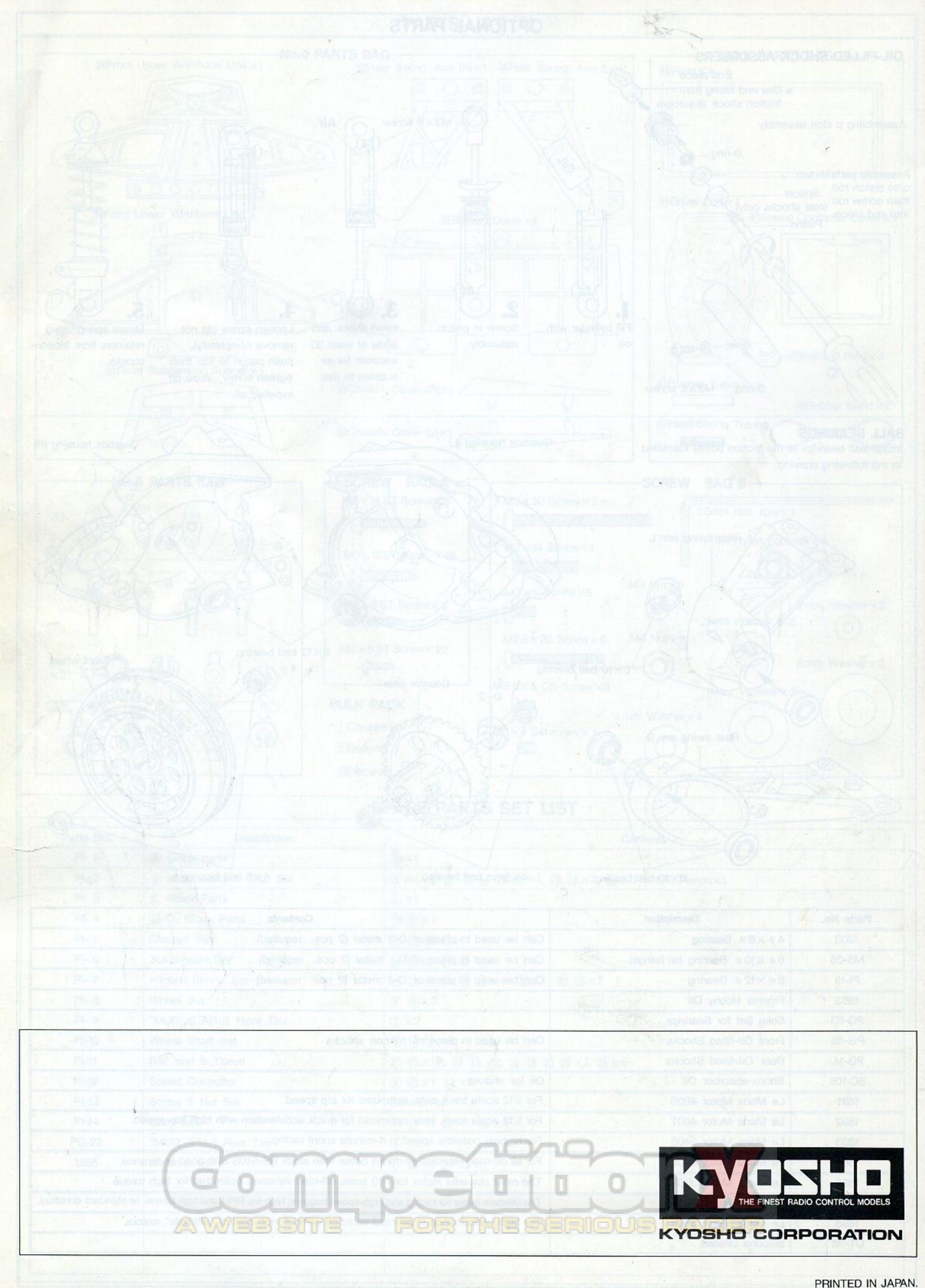


SPARE PARTS SET LIST

PI- 1 (A) Block parts (A) X1 PI- 2 (B) Block Parts & Gear Set (B) X1, (5) (9) (1) (1) (2) (2), (1) X3 19T PI- 3 (C) Block Parts (C) X1 PI- 4 (D) (Z) Block Parts (D) (Z) X1 PI- 5 Chassis Set (1) (2) (3) (3) (3) X1 PI- 6 Suspension Set (2) (2) (4) (4) (2) (3) X4 PI- 7 Friction Shock Set (2) (2) (4) (4) (2) (3) X4 PI- 8 Wheel Set (F) (R) X2 PI- 9 "MUD" STAR-II Front Tire (7) X2 PI-10 Wheel Shaft Set (6) (6) (7) X2 PI-11 Ball end & Tierod (3) (3) X4, (3) (4) X2, (1) (1) (2) (2) X1, (2) X6 PI-12 Speed Controller (4) (5) X1, (6) X2 PI-13 Screw & Nut Set Screw, Nut	Pinion×1		
PI- 3	Pinion×1		
PI- 4 ⑤ ② Block Parts ⑥ ② ×1 PI- 5 Chassis Set ① ¾ ⅓ ⅙ ×1 PI- 6 Suspension Set ② ¾ ② ② ¾ √ √ √ √ √ √ √ √ √ √ √ √ √ √ √	PESITION TO THE PERIOD OF THE		
PI- 5 Chassis Set ① 34 35 36×1 PI- 6 Suspension Set ② 30 30 30 33 ×1 PI- 7 Friction Shock Set ② 27 40 40 40 46×4 €×1 22 23×2 PI- 8 Wheel Set F R×2 PI- 9 "MUD" STAR-II Front Tire ⑦ ×2 PI-10 Wheel Shaft Set ⑥ 16 ①×2 PI-11 Ball end & Tierod ② 39×4, 38 49×2, 18 (9 20 25×1, 24×6 PI-12 Speed Controller ④ 45×1, 48×2			
PI- 6 Suspension Set ② ③ ① ① ② ③ ③ ② ③ ×1 PI- 7 Friction Shock Set ② ② ④ ④ ④ ② ⑥ ×4 ⑥ ×4 ⑥ ×1 ② ② ×2 PI- 8 Wheel Set ⑤ ⑥ ⑥ ×2 PI- 9 "MUD" STAR-II Front Tire ⑦ ×2 PI-10 Wheel Shaft Set ⑥ ⑥ ① ×2 PI-11 Ball end & Tierod ③ ③ × ④, ③ ④ ×2, ⑥ ④ ② ② ×1, ② ×6 PI-12 Speed Controller ④ ⑥ ×1, ⑥ ×2			
PI- 7 Friction Shock Set ②6 ② ④ ④ ④ ② ⑥ ×4 ⑥ ×1 ② ③×2 PI- 8 Wheel Set ⑤ ⑥ ※2 PI- 9 "MUD" STAR-II Front Tire ⑦ ×2 PI-10 Wheel Shaft Set ⑥ ⑥ ⑦ ×2 PI-11 Ball end & Tierod ③ ③ × ④, ③ ④ × 2, ⑥ ⑤ ② ⑤ × 1, ② × 6 PI-12 Speed Controller ④ ④ × 1, ⑥ × 2			
PI- 8 Wheel Set F ® ×2 PI- 9 "MUD" STAR-II Front Tire 7 ×2 PI-10 Wheel Shaft Set 6 6 6 7 ×2 PI-11 Ball end & Tierod 37 39 × 4, 38 49 × 2, 18 (9 20 25 × 1, 24 × 6 PI-12 Speed Controller 4 45 × 1, 48 × 2			
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PI-10 Wheel Shaft Set 6 16 17×2 PI-11 Ball end & Tierod 37 39×4, 38 49×2, 18 19 20 25×1, 24×6 PI-12 Speed Controller 4 45×1, 48×2	(F) (R) × 2		
PI-11 Ball end & Tierod	⑦×2		
PI-12 Speed Controller 4 45 ×1, 48 ×2	⑥ ⑥ ⑦×2		
Di 46	37 39×4, 38 49×2, 18 19 20 25×1, 24×6		
PI-13 Screw & Nut Set Screw, Nut			
The state of the s	Screw, Nut		
PI-14 Body Set ② 43 44 50 ×1, 28 ×5	② 43 44 50×1, 28×5		
PG-22 "MUD" STAR Rear Tire 8×2	The state of the s		
1885 Antenna Set §1) §2 §3 §4 §5×1	Legime I		
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Parts No.	Discription Contents		
1903	4 ¢ ×8 ¢ Bearing	Can be used in place of D-3 metal (2 pcs. required)	
MS-26	6 ¢ ×10 ¢ Bearing (w/flange)	Can be used in place of D-1 metal (2 pcs. required)	
PI-15	8 ¢ ×12 ¢ Bearing	Can be used in place of D-4 metal (2 pcs. required)	
1883	Frontier Hobby Oil		
PG-63	Shim Set for Bearings		
PG-65	Front Oil-filled Shocks	Can be used in place of friction shocks	
PG-14	Rear Oil-filled Shocks	"	
SC-106	Shock-absorber Oil	Oil for shocks	
1891	Le Mans Motor 480S	For 1/12 scale track cars; optimized for top speed.	
1892	Le Mans Motor 480T	For 1/12 scale track cars; optimized for quick acceleration with high top speed.	
1893	Le Mans Motor 240S	For highest possible speed in 4-minute sprint racing.	
1894	Le Mans Motor 600E	For all off-road vehicles; performs better than stock RS-540S with good endurance.	
1895	Le Mans Motor 360PT	The most powerful motor for 1/10 scale off-road vehicles; optimized for high torque.	
1897	Le Mans Motor 480G	The ultimate motor for racing and high-speed buggies; high top RPM and high torque. (w standard duration).	
1898	Le Mans Motor 360ST	For high performance in off-road vehicles without high cost of "ultimate" motors.	
OT-38	Silicone Grease	FER THE EERIEUS RASER	

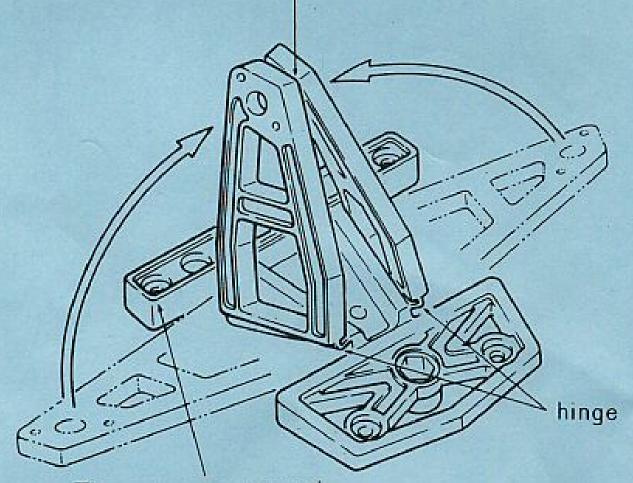


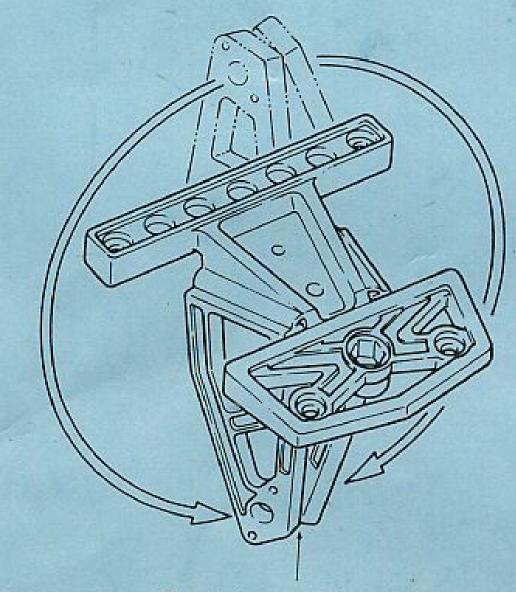
BEFORE ASSEMBLY

Before assembly flex the hinges of the front suspension arms up and down at least five times as shown below.



Bend both arms up together until they touch.





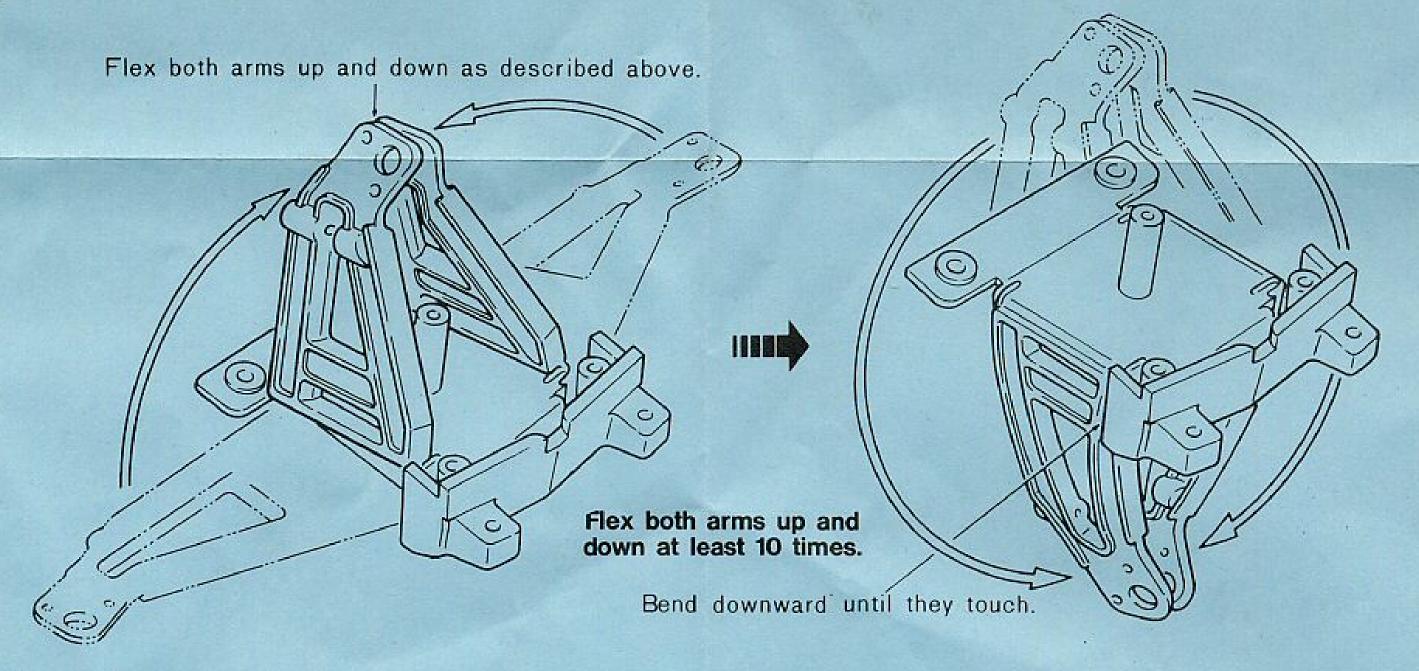
The same as upward.

Flex both arms up and down at least 10 times.

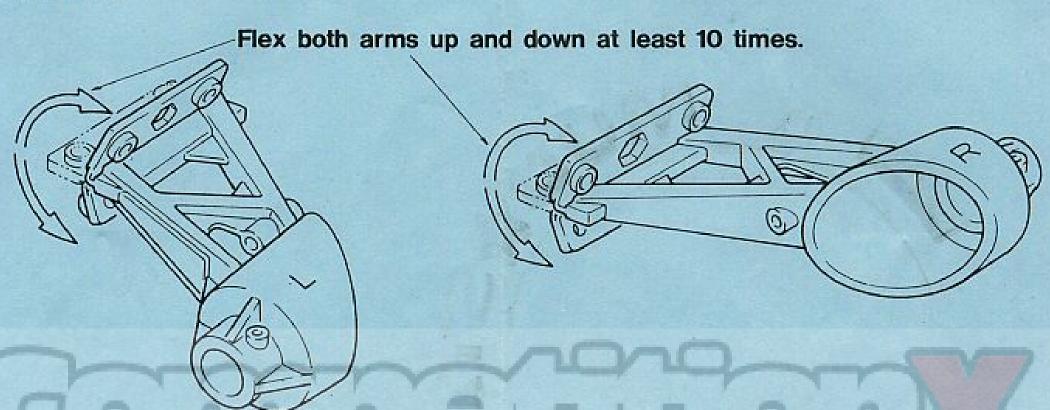
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Bend downward as shown.

@Front Lower Arm



Rear Suspension Arm



The plastic at the hinge joint will become lighter in color as a result of this flexing and the hinge will become more flexible.