RADIO CONTROLLED ELECTRIC POWERED RACING BUGGY

4WD OFF-ROAD RACER

OPTIMA MID™

- *LIGHTWEIGHT, BELT DRIVEN, FOUR-WHEEL DRIVE FOR MAXIMUM PERFORMANCE.*
- *NEW MID-SHIP MOTOR DESIGN FOR BETTER WEIGHT DISTRIBUTION.*
- *STRONG, LIGHT ALUMINUM-ALLOY PLATE CHASSIS*
- *OVERSIZE OIL-FILLED GOLD SHOCKS, POWERFUL 240ST MOTOR, AND SPEED CONTROLLER INCLUDED IN KIT.*
- *STRONG, LIGHTWEIGHT, GLASS REINFORCED EXTRA-LONG SUSPENSION ARMS PROVIDE EXCELLENT HANDLING.*
- *LOW-PROFILE WHEELS WITH LARGE DIAMETER SPIKED TIRES INCLUDED.*
- *HIGH PERFORMANCE; LIGHTWEIGHT, COMPONENTS FOR CHAMPIONSHIP PERFORMANCE.*
- *EASY STEP-BY-STEP ASSEMBLY AND ADJUSTMENT.*

1:10 SCALE
BATTERY: 7.2V-1200mAh
RADIO: 2ch.
[NOT INCLUDED]

BELT DRIVE
4WD

KYOSHO®
THE FINEST RADIO CONTROL MODELS

KIT No.3135

VI 0

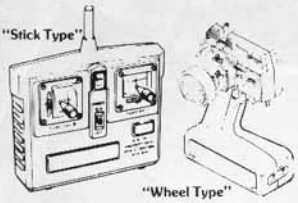
THINGS YOU WILL NEED BESIDES THIS KIT

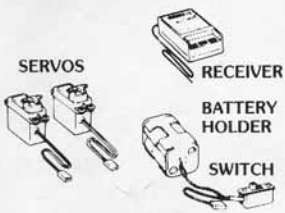
4WD OFF-ROAD RACER OPTIMA MID™

2 CHANNEL RADIO SYSTEM

A two-channel, two-servo radio control system is required for the Optima Mid. The various components are pictured below.

TRANSMITTER





NOTE! Use only radio frequencies specifically allowed to operate "surface" models such as R/C cars and boats. In the United States those frequencies fall within the "75MHz" or "27 MHz" bands. Use of any other frequencies is both illegal and dangerous.

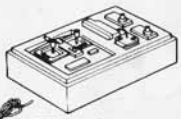
SMALL PARTS

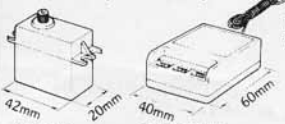
On Pages 27 and 28 there is a guide for the small parts used in each step. Simply cut out the sheet along the dotted line and use it to help you locate the particular parts and their shape used in each step.

CHECK YOUR RADIO SYSTEM

Follow the instructions that came with your radio system to check out its operation.

You will also need to supply your radio with the proper number of batteries (usually 7 or 8 in the transmitter). The receiver will be powered by the motor battery.



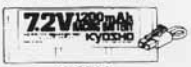


NOTE: The dimensions shown are the maximum sizes which will fit.

SERVO RECEIVER

BATTERY PACK

A 7.2V battery similar in shape to the one shown here is required. The Kyosho #2218 or #2306 are good choices.



6-CELL

CHARGERS

Model	Name	Time	Rate%	Features
No. 2326	Power Quick Charger	15-25 Min.	70%	7.2V 6-Cell Charging w/Built-In Timer
No. 1845	Peak Charger	20 Min.	100%	Trickle Charging, 4-7 Cells w/Peak detection auto cut-off

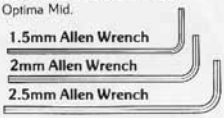
POWER QUICK CHARGERS

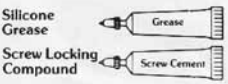
#2326

#1845 PEAK CHARGER

REQUIRED TOOLS

These ARE included with the Optima Mid.





These ARE NOT included with the Optima Mid.

OPTIONAL MOTORS

240SB 240S

The Optima Mid comes with a 240ST motor as stock. You may wish to upgrade the performance of the Optima Mid with a high performance LeMans motor. We have found the best motors for this are the 240SB or the 240S.

IMPORTANT! BEFORE YOU BEGIN

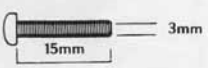
This is a sophisticated model with a large number of moving parts. Before you begin assembly, take a look through the box and these instructions carefully to decide whether or not you are ready for this challenge! If you do not feel that this type of model is for you, it may be returned to the dealer as long as it is NEW and UNUSED. UNDER NO CIRCUMSTANCES CAN YOUR DEALER ACCEPT A KIT FOR RETURN IF ASSEMBLY HAS ALREADY BEGUN! If this is not what you bargained for, then go no further and return this kit to the dealer immediately. BUT, if a little maintenance doesn't bother you and the thrill of high performance driving is for you, then don't hesitate another minute! Read through this entire manual thoroughly to familiarize yourself with the parts and methods of construction used before actually starting to build.

KYOSHO®

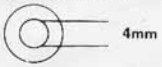
METRIC NUTS AND BOLTS

All nuts and bolts used throughout this kit are metric size. Therefore, some of the notations may not be familiar to you. An M3 nut is a 3 millimeter (3mm) nut. An *M3*×15 screw is 15mm long and 3mm in diameter. Some round parts may be labeled as a "4mm Washer" (this would be a washer with a 4mm inside diameter) or a "3 mm Bushing" (a bushing with a 3mm inside diameter). For your reference, 1 millimeter equals approximately .039 inches.

M3 × 15 SCREW



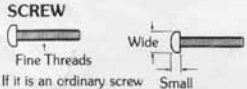
4mm WASHER



A few different types of screws are used in the construction of your model. Here are some examples of them and how they will be indicated in the instructions. For example, Self Tapping will simply be S/T screw.

SELF TAPPING (S/T)

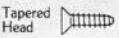
SCREW



If it is an ordinary screw it will be marked "screw".

ALLEN HEAD SCREW (A/H)

FLAT HEAD SCREW (F/H)



1 INSTALLATION OF JOINTS

Keep the header card with the parts bag to help locate the parts. Below most parts, a bag number will appear.

5 2mm ALLEN WRENCH (OPM-1)

M4X4 SET SCREW

M5 WASHER

3 8mmX14mm BEARINGS (BLISTER PACK B)

4 JOINT (BLISTER PACK A)

REAR DIFFERENTIAL GEAR (BLISTER PACK B)

Remove the flash with a hobby knife and smooth the surface to allow the 8mm x 14mm bearing to seat on the differential gear.

M4X4 SET SCREW

The set screw in the joint must seat on the flat of the shaft.

3 8mmX14mm BEARING (BLISTER PACK B)

M5 WASHER

4 JOINT (BLISTER PACK A)

M4X4 SET SCREW

FRONT DIFFERENTIAL GEAR (BLISTER PACK B)

4 JOINT (BLISTER PACK A)

M5 WASHER

3 8mmX14mm BEARING (BLISTER PACK B)

M4X4 SET SCREW

3 8mmX14mm BEARING (BLISTER PACK B)

M5 WASHER

4 JOINT (BLISTER PACK A)

2 ASSEMBLY OF REAR GEAR BOX

Step 1

6 REAR GEAR BOX (R) (OPM-2)

7 5mmX10mm BUSHING (BLISTER PACK B)

20 REAR GEAR BOX (L) (OPM-2)

7 5mmX10mm BUSHING (BLISTER PACK B)

Step 2

Attach the E-Ring with needle nose pliers.

17 CENTER GEAR (BLISTER PACK A)

18 CENTER GEAR SHAFT (OPM-4)

M4 WASHER

M4 WASHER

16 4mmX8mm BUSHING (BLISTER PACK B)

12 5mmX8mm BUSHING (BLISTER PACK B)

15 5mm COLLAR (YELLOW) (OPM-6)

9 11mm PIN (OPM-4)

11 E-RING (E-4) (OPM-1)

13 PULLEY (YELLOW) (OPM-6)

14 PULLEY FLANGE (YELLOW) (OPM-6)

CEMENT

8 SPUR GEAR SHAFT (OPM-4)

10 COUNTER GEAR (BLISTER PACK A)

Cement 14 pulley flange to 13 pulley. Be careful of the orientation of the pulley plange.

Step 3

Assemble in order steps 1 thru 3 then install the 19 drive belt as shown before attaching the 20 left gear box.

6 GEAR BOX

Do NOT apply grease to the sprocket where the belt will ride.

11 E-RING (E-4) (OPM-1)

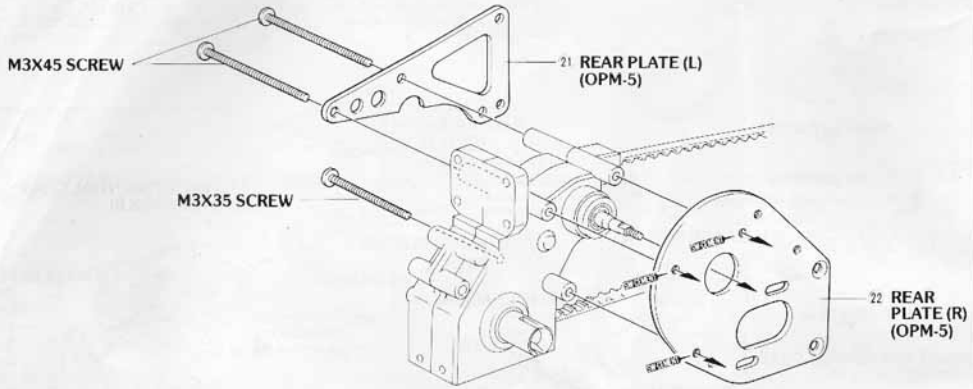
20 GEAR BOX

19 BELT (BLISTER PACK B)

M3X18 S/T SCREW

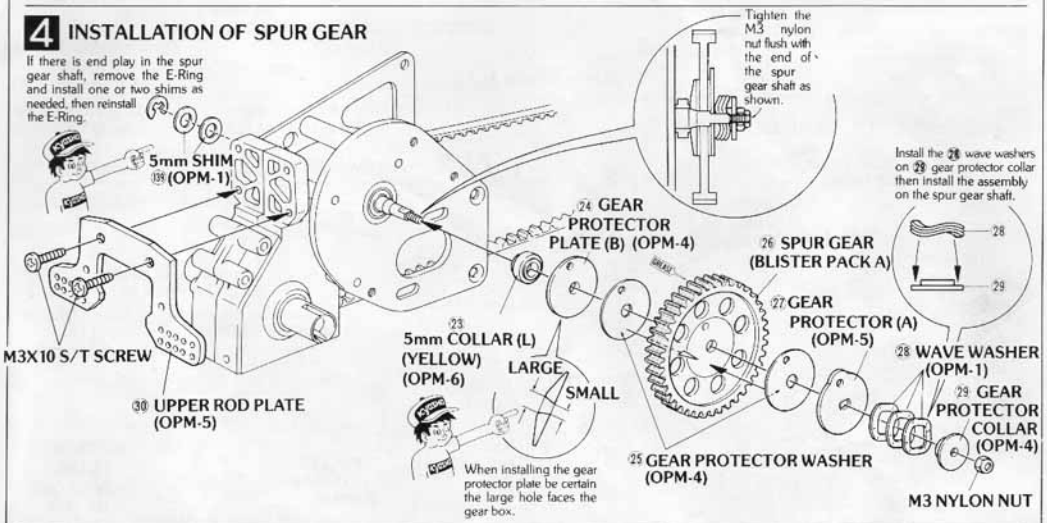
View of gears and belt installed.

3 INSTALLATION OF REAR PLATES

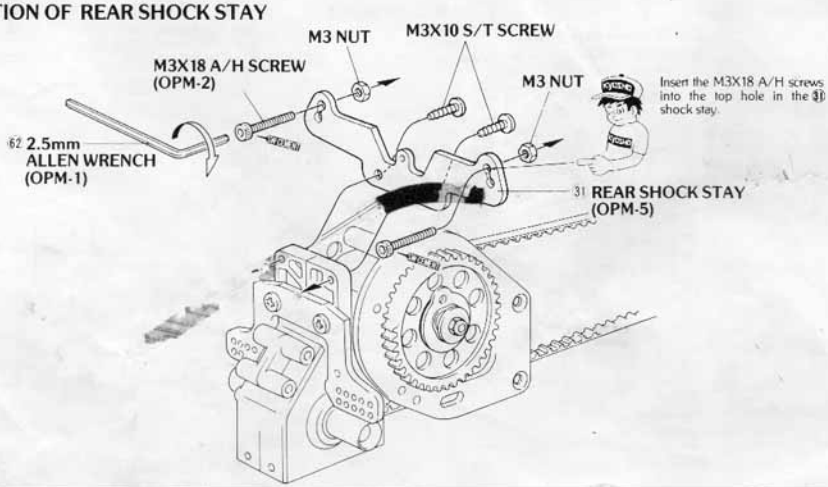


4 INSTALLATION OF SPUR GEAR

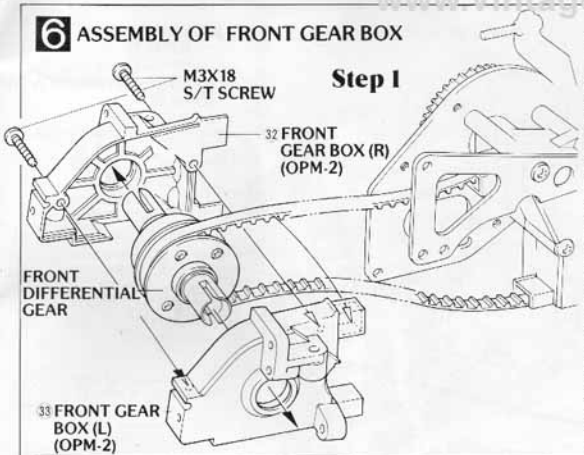
If there is end play in the spur gear shaft, remove the E-Ring and install one or two shims as needed, then reinstall the E-Ring.

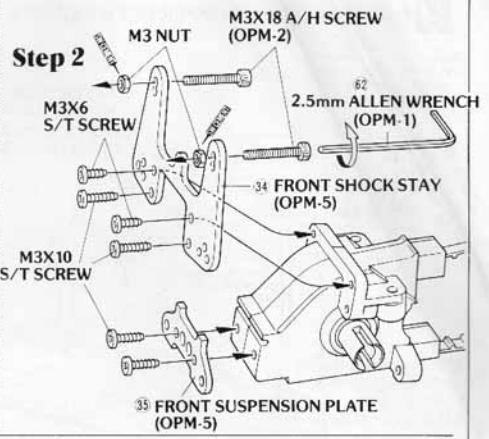


5 INSTALLATION OF REAR SHOCK STAY

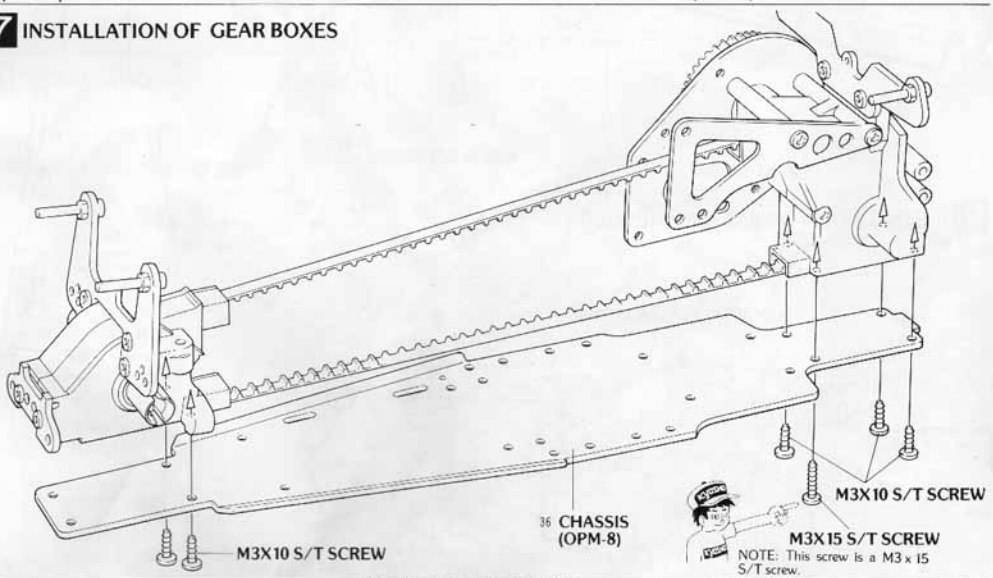


6 ASSEMBLY OF FRONT GEAR BOX

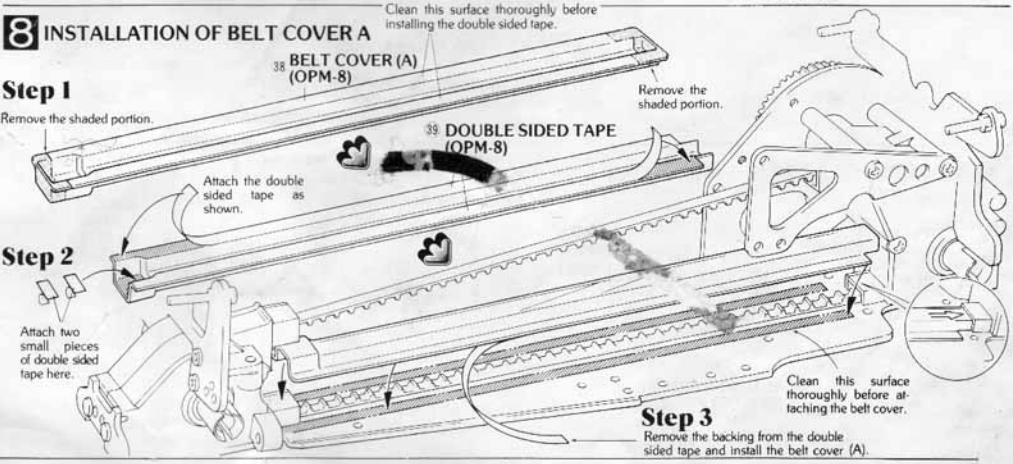




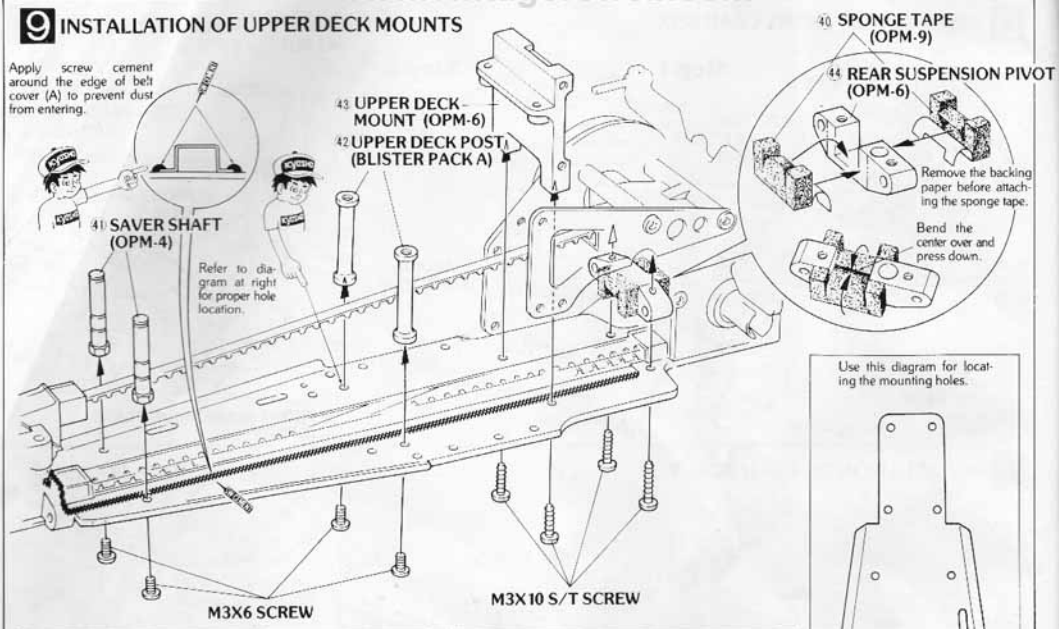
7 INSTALLATION OF GEAR BOXES



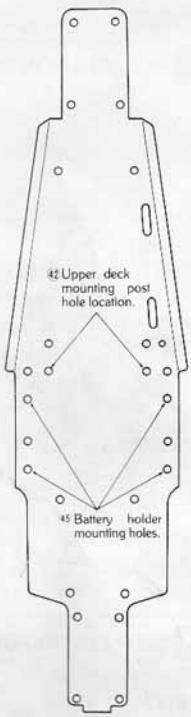
8 INSTALLATION OF BELT COVER A



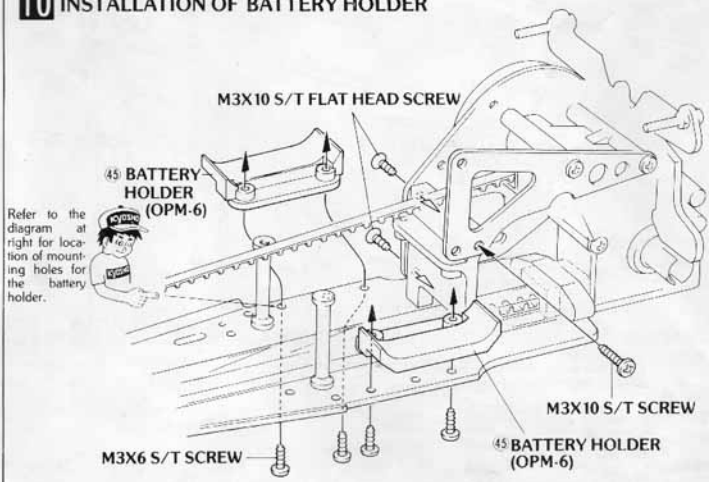
9 INSTALLATION OF UPPER DECK MOUNTS



Use this diagram for locating the mounting holes.

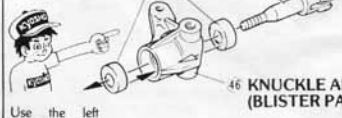


10 INSTALLATION OF BATTERY HOLDER

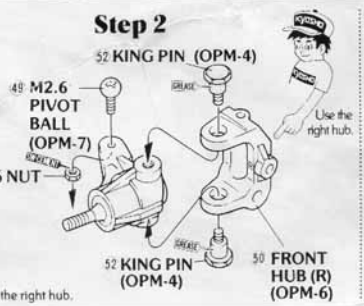


11 ASSEMBLY OF KNUCKLE ARMS

RIGHT SIDE **Step 1**



Step 2



Be careful to use the left knuckle arm with the right hub.

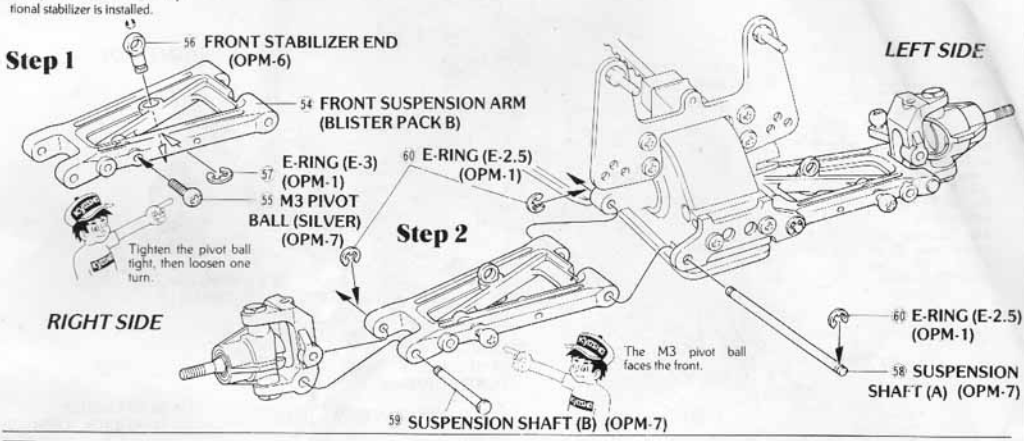
Step 3

LEFT SIDE

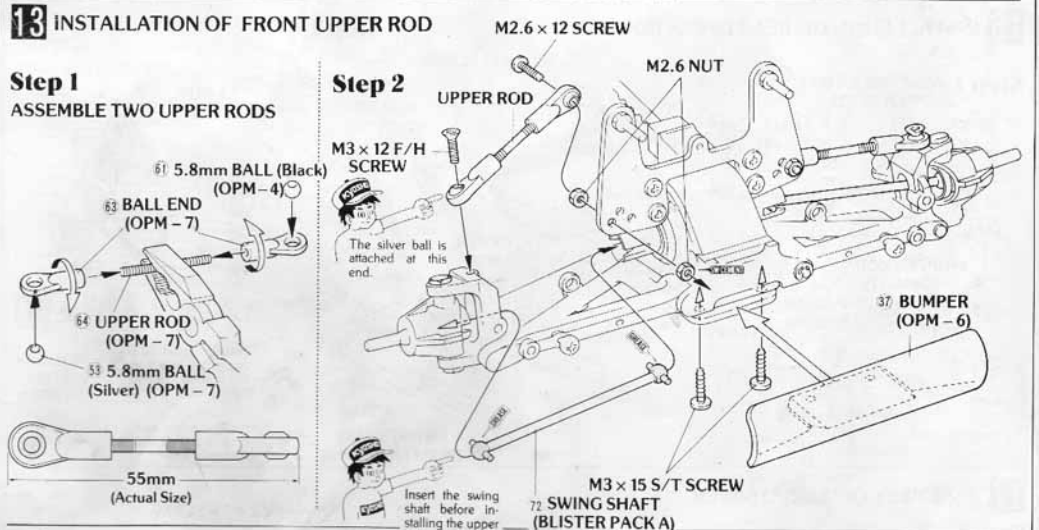
Assemble as same as the right hub.

12 INSTALLATION OF FRONT SUSPENSION ARMS

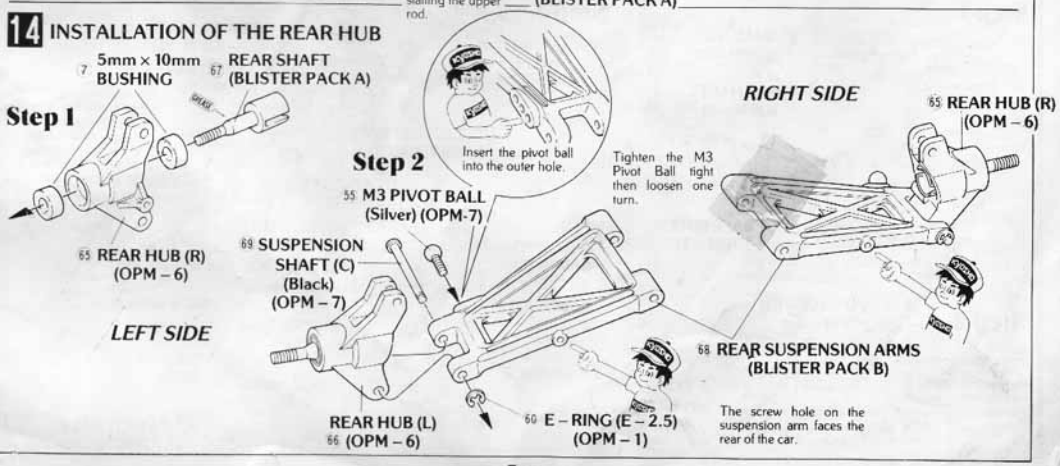
This part is installed if the optional stabilizer is installed.



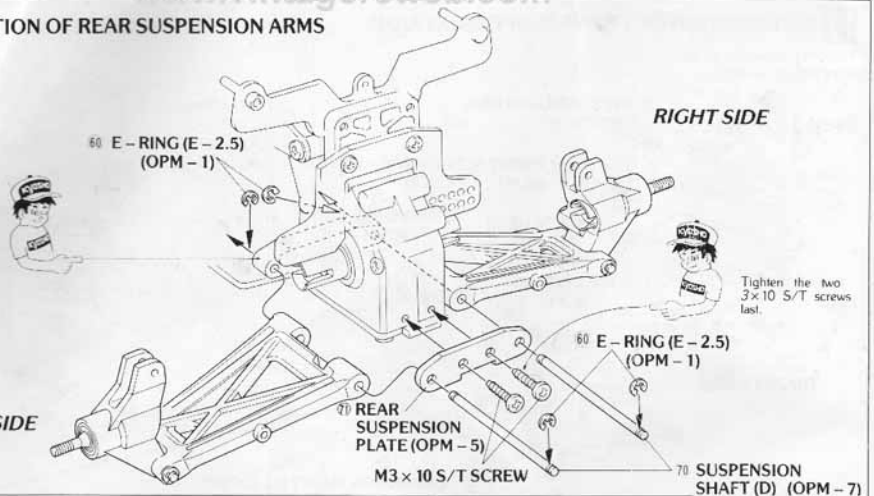
13 INSTALLATION OF FRONT UPPER ROD



14 INSTALLATION OF THE REAR HUB

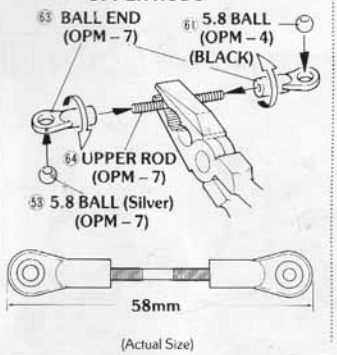


15 INSTALLATION OF REAR SUSPENSION ARMS

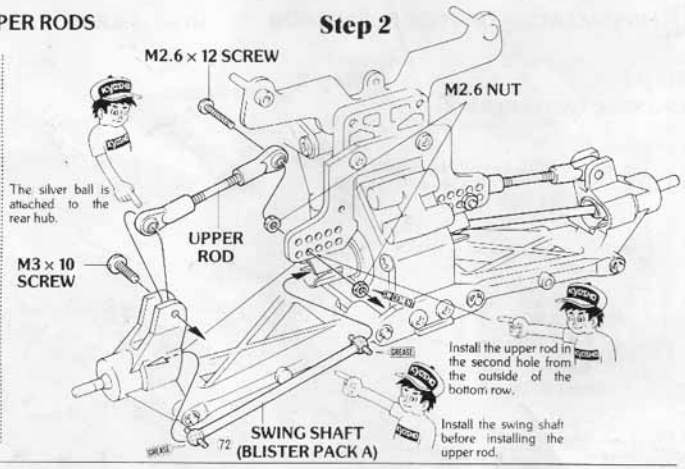


16 INSTALLATION OF REAR UPPER RODS

Step 1 ASSEMBLE TWO UPPER RODS

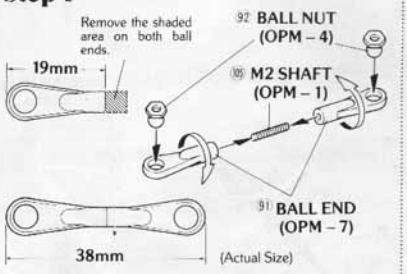


Step 2



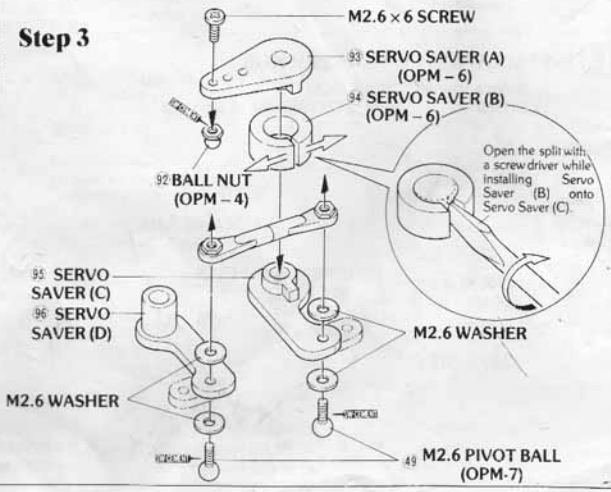
17 ASSEMBLY OF SERVO SAVER

Step 1

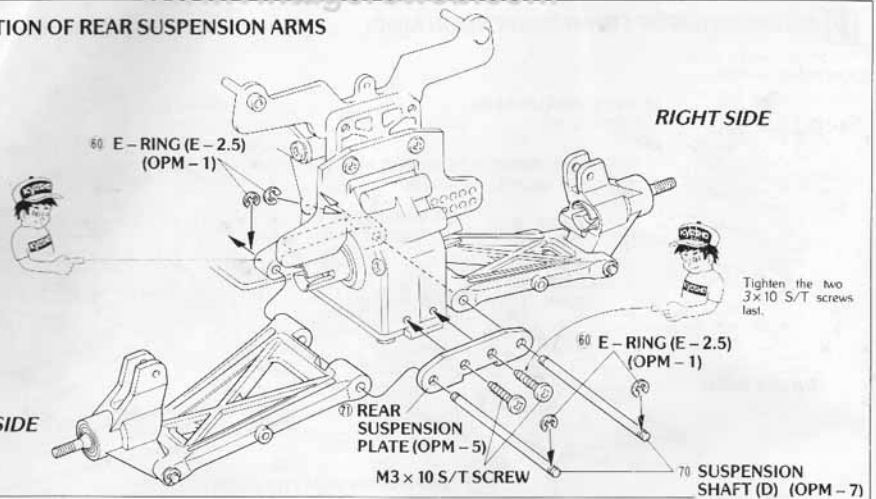


Step 2

Step 3

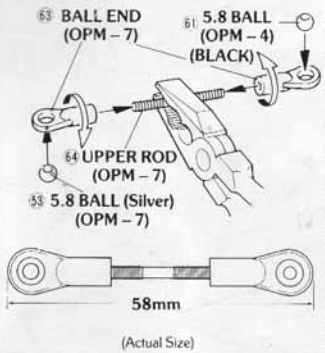


15 INSTALLATION OF REAR SUSPENSION ARMS

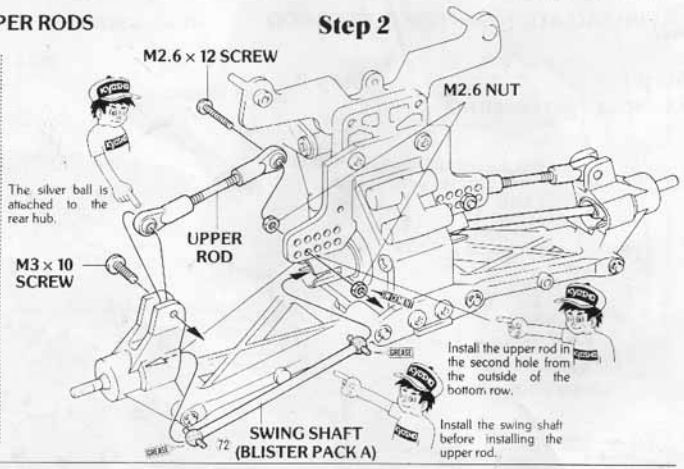


16 INSTALLATION OF REAR UPPER RODS

Step 1 ASSEMBLE TWO UPPER RODS

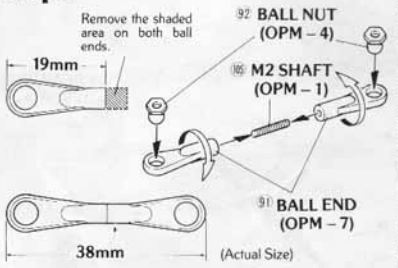


Step 2

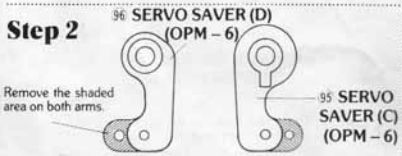


17 ASSEMBLY OF SERVO SAVER

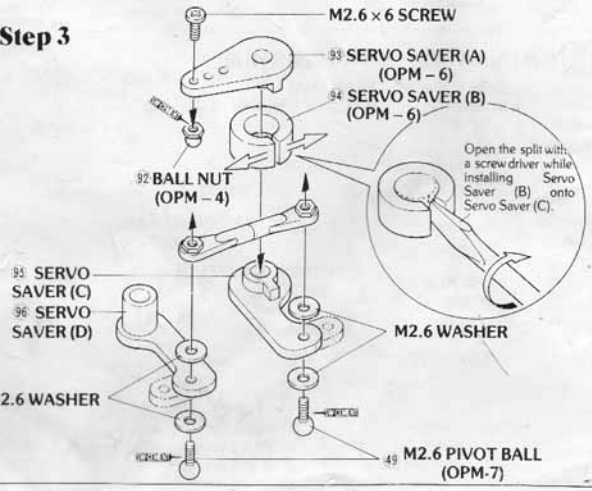
Step 1



Step 2



Step 3



20 FILLING THE SHOCK WITH OIL

Step 1

Push the piston all the way down and put the oil in little by little while moving the piston up and down. This will help remove air bubbles. Fill the shock full of oil.

Step 2

Keeping the piston at the bottom, gently screw the shock cap on while allowing the excess oil to overflow out of the shock.

Step 3

Check to see if the shock piston will move correctly by operating the shock.

Insert the diaphragm 84 into the shock cap 83.

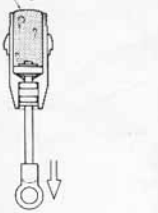
84 DIAPHRAGM (OPM – 2)

83 SHOCK CAP (BLISTER PACK B)

The diaphragm should fit into this groove firmly.

SHOCK OIL 73 (OPM – 2)

Put oil into the shock a little at a time to reduce air bubbles.

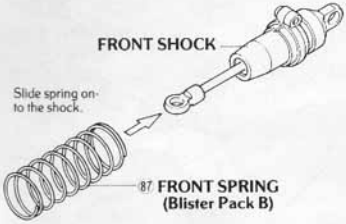


83 SHOCK CAP

Tighten the cap tight enough that the oil will not leak out.

The piston should move up and down smoothly.

21 INSTALLATION OF SHOCK SPRING

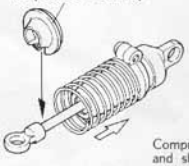


FRONT SHOCK

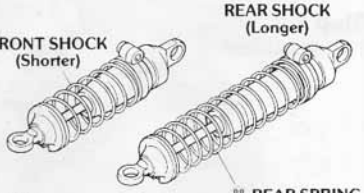
Slide spring onto the shock.

87 FRONT SPRING (Blister Pack B)

SPRING HOLDER 89 (Blister Pack B)



Compress the spring and slide the spring holder onto the shaft as shown.

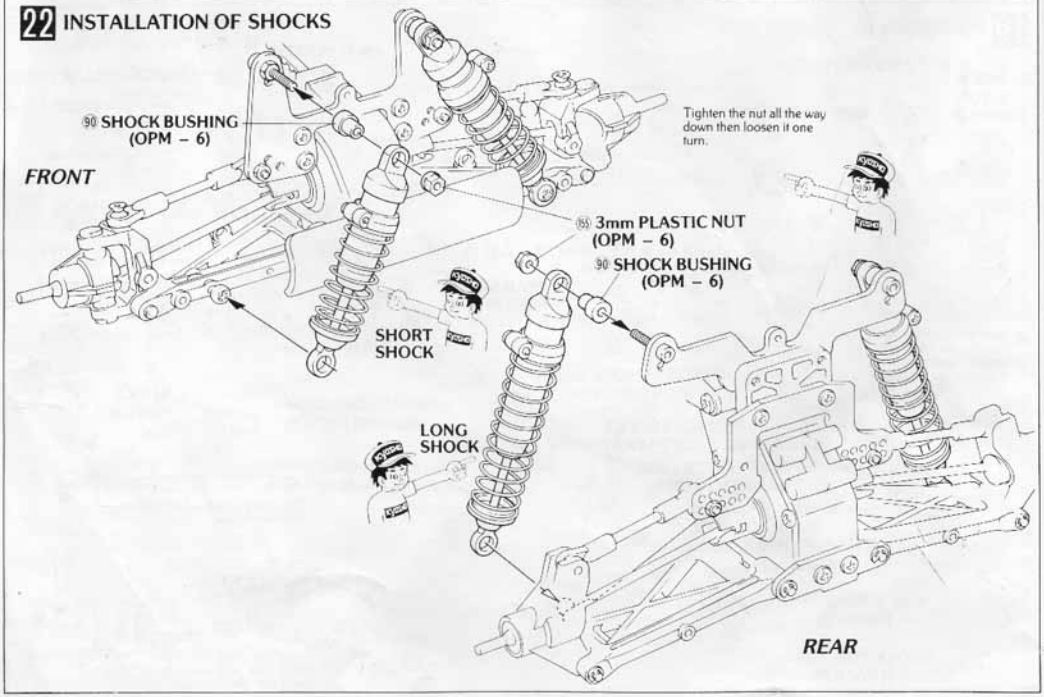


FRONT SHOCK (Shorter)

REAR SHOCK (Longer)

88 REAR SPRING (Blister Pack B)

22 INSTALLATION OF SHOCKS



90 SHOCK BUSHING (OPM – 6)

FRONT

Tighten the nut all the way down then loosen it one turn.

95 3mm PLASTIC NUT (OPM – 6)

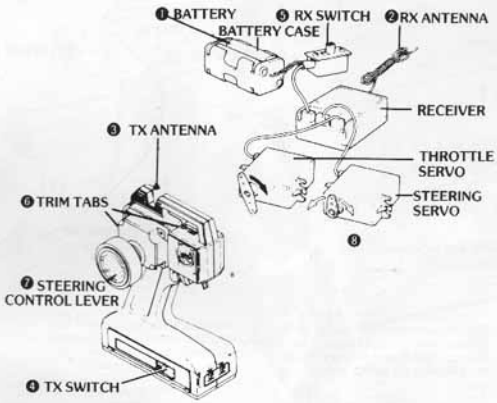
90 SHOCK BUSHING (OPM – 6)

SHORT SHOCK

LONG SHOCK

REAR

23 RADIO OPERATIONAL CHECKLIST



Follow steps 1-8.

It is important to always switch the transmitter on first . . . then the receiver. When turning off the system, turn off the receiver first and then the transmitter.

1. Install the batteries into both the transmitter and receiver. If your radio is a rechargeable system, 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.

3. Extend the transmitter antenna.

4. Turn on the power switch of the transmitter.

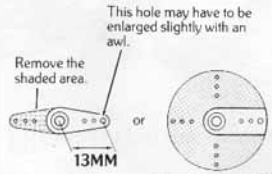
5. Turn on the power switch of the receiver.

6. Set the small trim levers to the center position and make sure that both main control sticks are also centered.

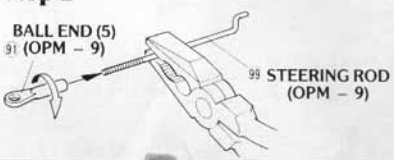
7. Move both main control sticks slowly through their full travel. The servo horns should move in proportion to the movement of your sticks.

8. When trim levers and sticks are at their neutral positions, the servo horns should be centered. You may now turn off the receiver, then the transmitter and unplug the servos and battery from the receiver.

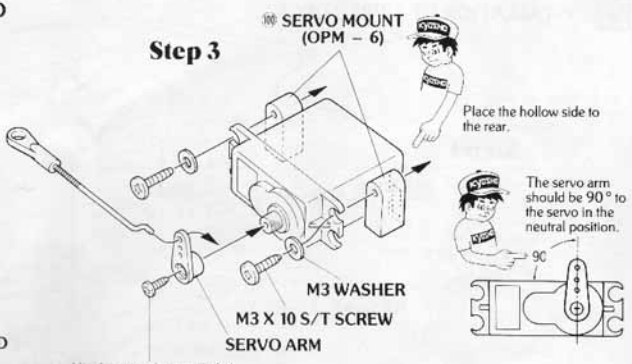
24 INSTALLATION OF STEERING ROD



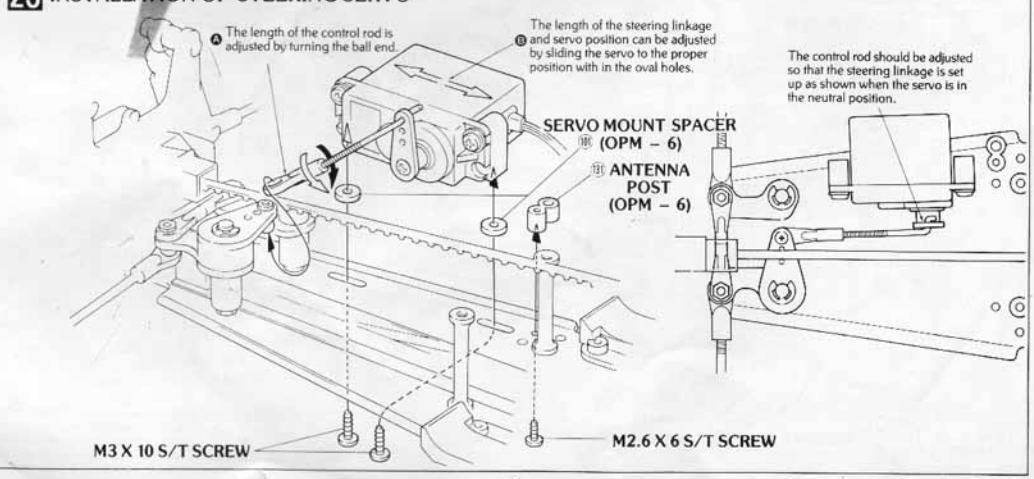
Step 2



Step 3



25 INSTALLATION OF STEERING SERVO



26 SWITCH HARNESS WIRING

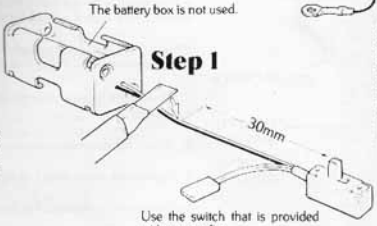
BEC BATTERY ELIMINATOR CIRCUITRY

If you are using the BEC type radio skip this step and continue on step 27.

The battery that powers the motor also powers the receiver. Be careful and do not allow the polarity to be reversed. Also do not allow 7.2V to flow directly into the receiver.

Step 1

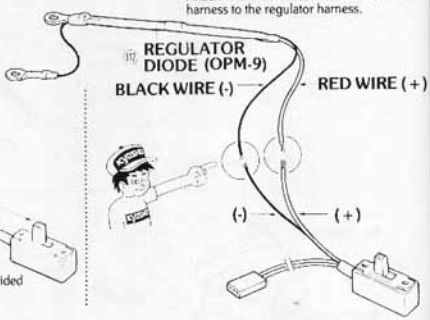
The battery box is not used.



Use the switch that is provided with your radio.

Step 2

Attach the wire leads from the switch harness to the regulator harness.



NOTE: The colors of the lead wires are different depending upon radio manufacturer. Most use red for positive (+) and black for negative (-). The exception being Cox and Airtronics (Sanwa). Their (+) lead has a white stripe and the middle lead is (-). Pay very close attention to the polarity. If necessary, contact the manufacturer to be sure.

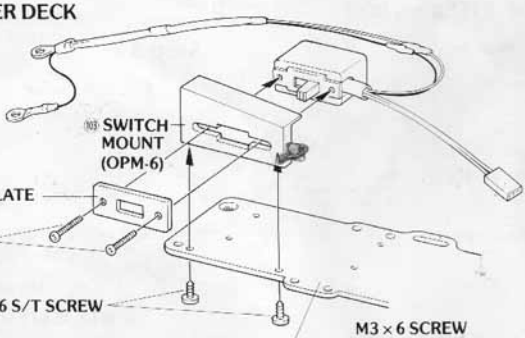
1. Remove 5mm of insulation from the end of the wire.

2. Join the wires together that are of the same polarity (+) to (+) and (-) to (-). Be very careful about the correct polarity. Soldering the joint is strongly suggested.

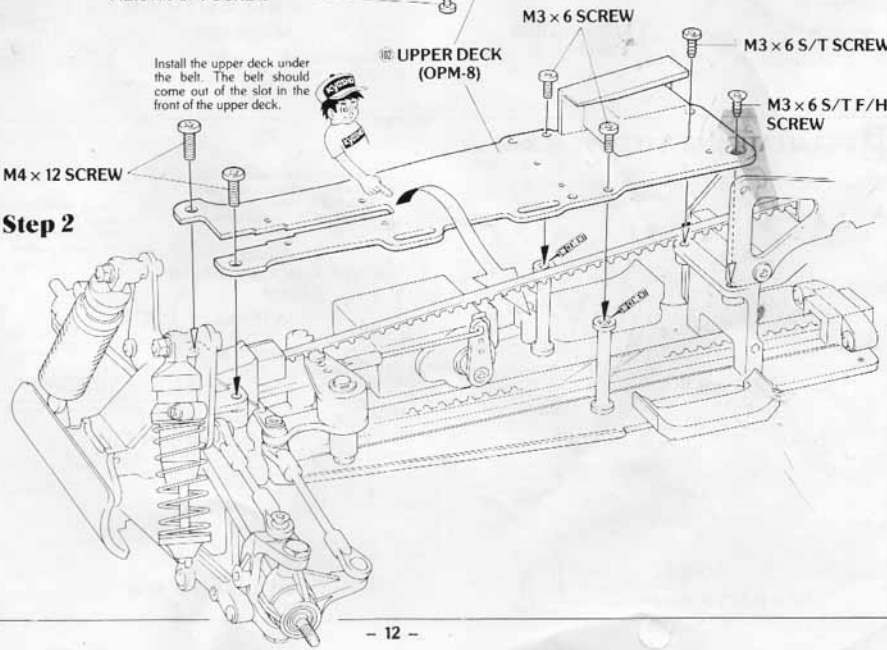
3. Insulate the connection joint with vinyl tape or heatshrink tubing this will prevent short circuiting.

27 INSTALLATION OF UPPER DECK

Step 1



Step 2



28 INSTALLATION OF BELT COVER

Step 1

Remove the shaded portion of the belt cover.

BELT COVER (C) (OPM-8)

(104) BELT COVER (B) (OPM-8)

Remove the shaded portion of the belt cover.

Apply a bead of screw locking compound along the edge of the belt cover.

M2.6 × 4 SCREW

M2.6 WASHER

M2.6 × 4 SCREW

M2.6 × 6 SCREW

Step 2

(Rear View)

Step 3

After installing the belt cover apply a bead of screw locking compound around the edge of the belt cover to prevent dirt from getting in and damaging the belt and gears.

UPPER DECK

Insert (107) belt cover C under the upper deck and slide it forward until the screw holes line up with the screw holes in the upper deck.

Apply screw locking compound to all four nuts.

(107) BELT COVER (C)

M2.6 NUT

(106) RUBBER COVER (OPM-9)

Insert the flange of the belt cover under the receiver switch.

29 INSTALLATION OF MOTOR

Step 1

(126) MOTOR FILTER (OPM-8)

(125) MOTOR COVER (OPM-8)

Cut-out the center part of the motor cover.

Apply contact cement to the shaded area and attach it to the inside of the motor cover end.

Step 2

(115) MOTOR CORD (OPM-8)

BRUSH HOLDER TERMINAL

(124) MOTOR (BLISTER PACK B)

(+)

RED

(-)

WHITE

Insert the condenser lead through this hole.

The condenser will reduce motor noise that can affect the radio operation.

MOTOR CONDENSER (OPM-9)

Step 3

Insert the motor cords through the holes in the motor cover.

Remove the upper right side of the shock temporarily while installing the motor.

(108) 1.5mm ALLEN WRENCH (OPM-1)

(123) PINION GEAR M3 × 3 ALLEN SCREW

The pinion gear/spur gear mesh may be adjusted by loosening these two screws and sliding the motor to the proper position. The gear should mesh smoothly without any binding.

PINION GEAR (BLISTER PACK A)

M3 × 10 SCREW

Step 4

The allen screw in the pinion gear must be tight on the flat of the motor shaft.

(127) MOTOR PLATE (OPM-5)

13mm

(123) PINION GEAR

(127) MOTOR PLATE

Step 5

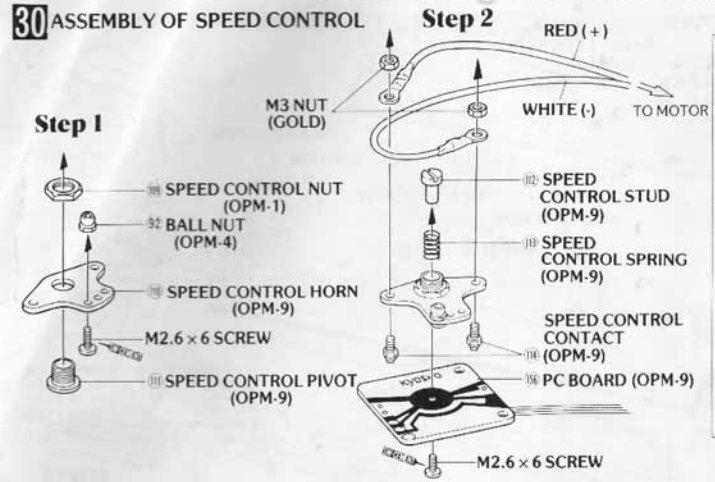
Reinstall the shock after the gear cover is installed.

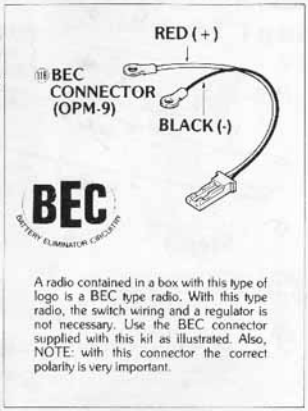
Remove the shaded area of the gear cover.

M3 × 4 SCREW

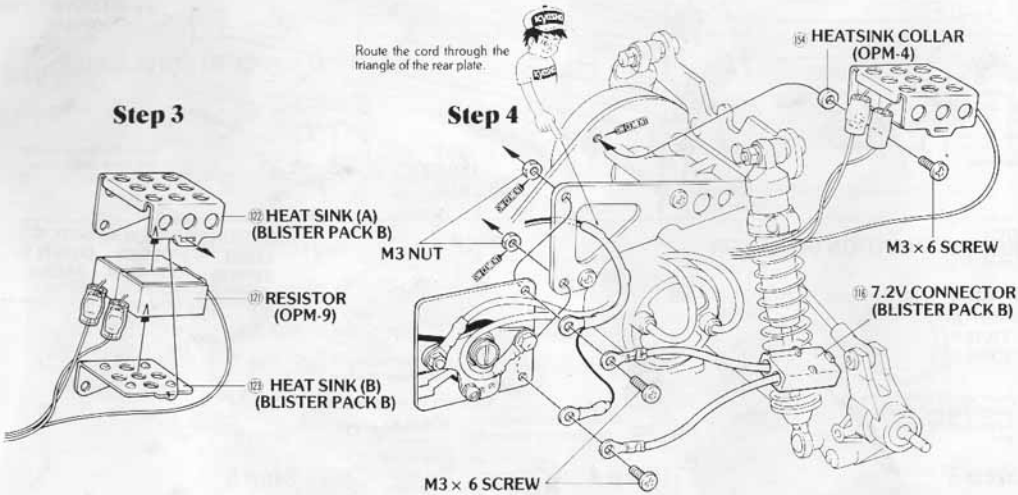
(129) GEAR COVER (OPM-8)

30 ASSEMBLY OF SPEED CONTROL

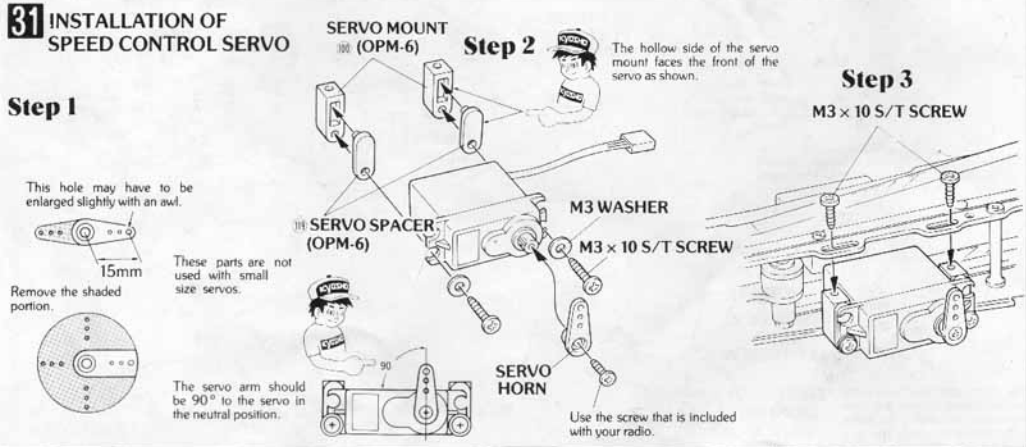




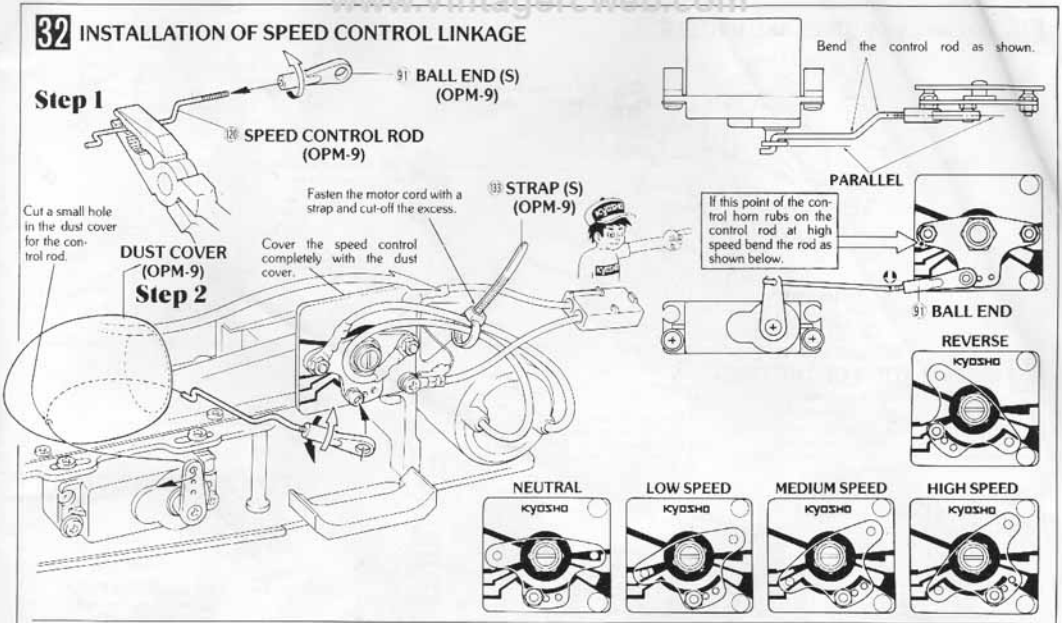
A radio contained in a box with this type of logo is a BEC type radio. With this type radio, the switch wiring and a regulator is not necessary. Use the BEC connector supplied with this kit as illustrated. Also, NOTE: with this connector the correct polarity is very important.



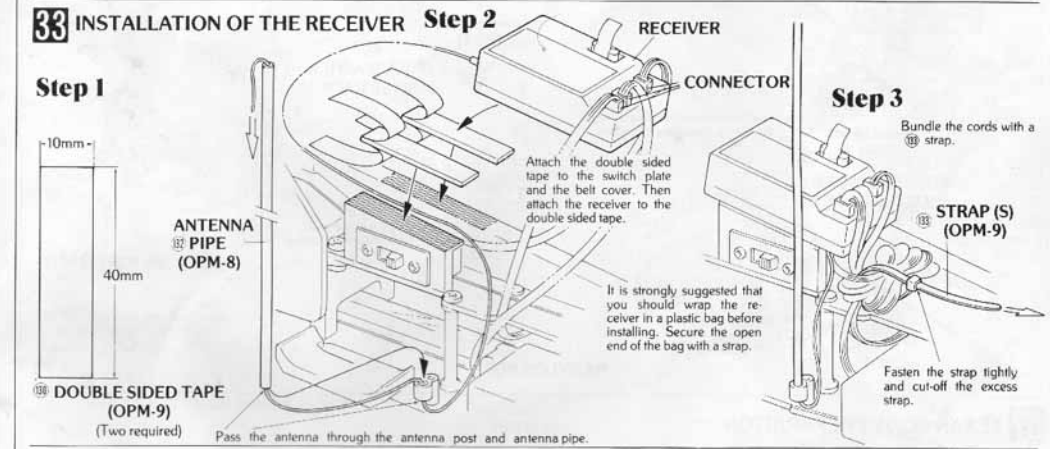
31 INSTALLATION OF SPEED CONTROL SERVO



32 INSTALLATION OF SPEED CONTROL LINKAGE

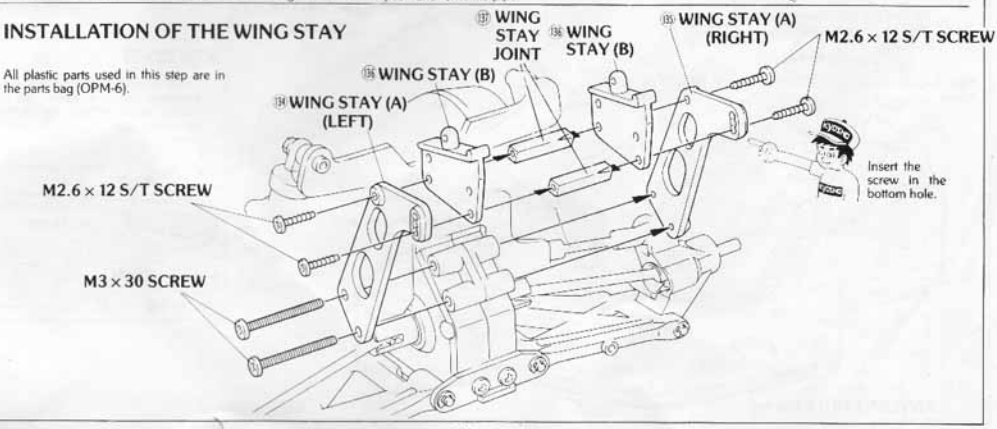


33 INSTALLATION OF THE RECEIVER

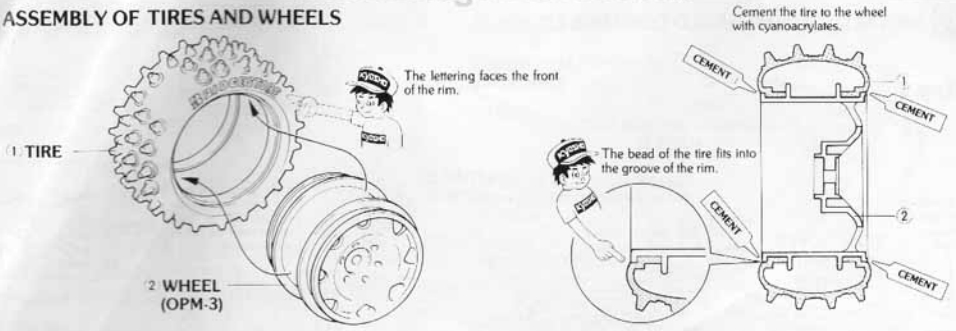


34 INSTALLATION OF THE WING STAY

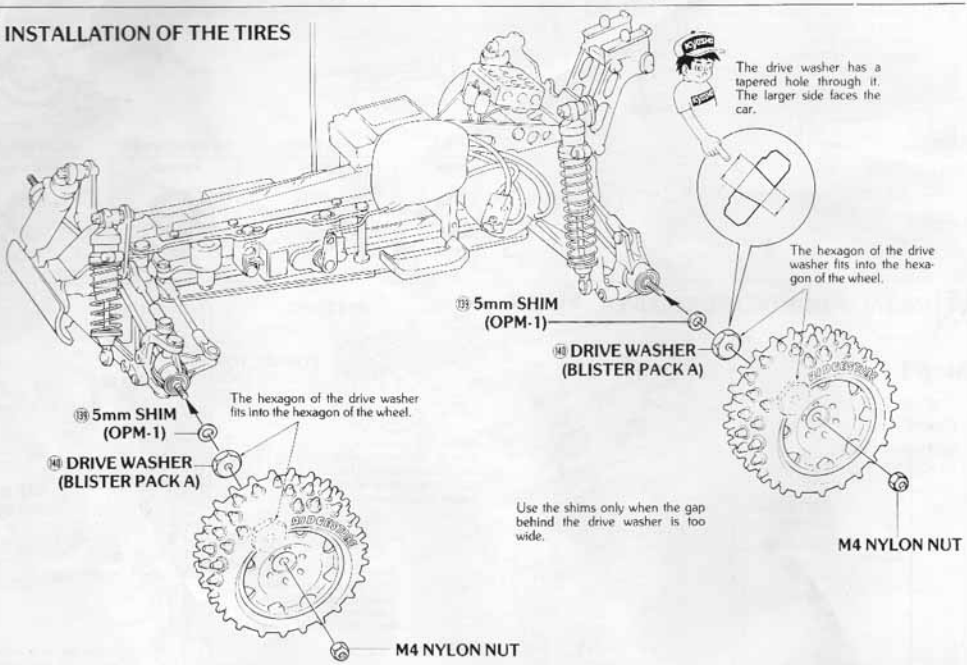
All plastic parts used in this step are in the parts bag (OPM-6).



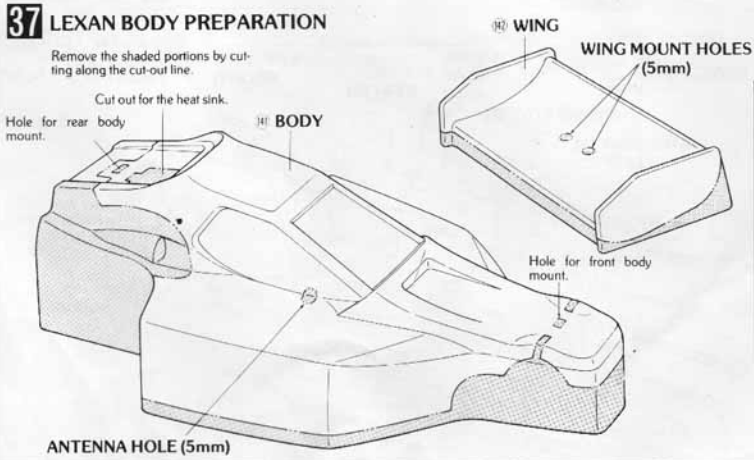
35 ASSEMBLY OF TIRES AND WHEELS



36 INSTALLATION OF THE TIRES

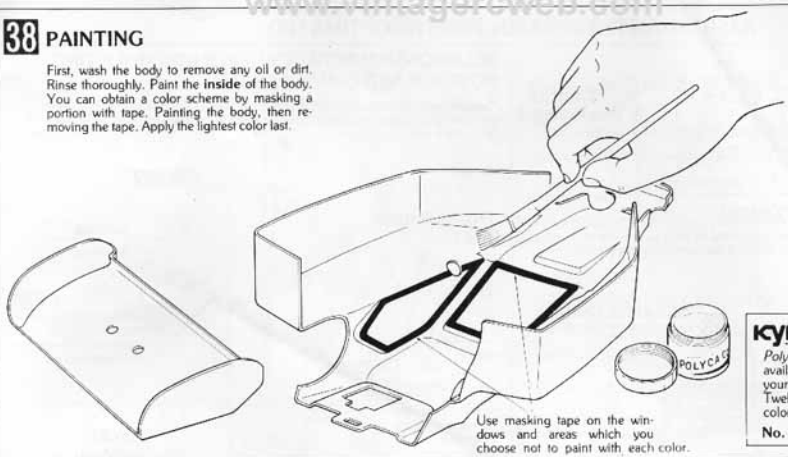


37 LEXAN BODY PREPARATION



38 PAINTING

First, wash the body to remove any oil or dirt. Rinse thoroughly. Paint the **inside** of the body. You can obtain a color scheme by masking a portion with tape. Painting the body, then removing the tape. Apply the lightest color last.



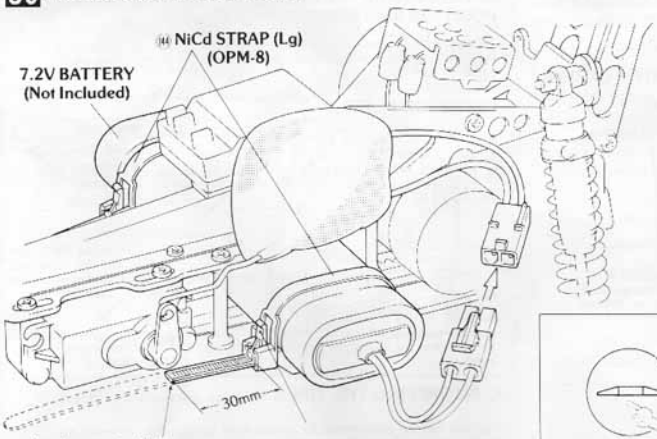
Use masking tape on the windows and areas which you choose not to paint with each color.

KYOSHO

Polyca Color Paint is available for painting your Lexan bodies. Twelve great looking colors are available.

No. 2230

39 MOUNTING THE BATTERY



After fastening the NiCd strap cut the strap 30mm from the clasp.

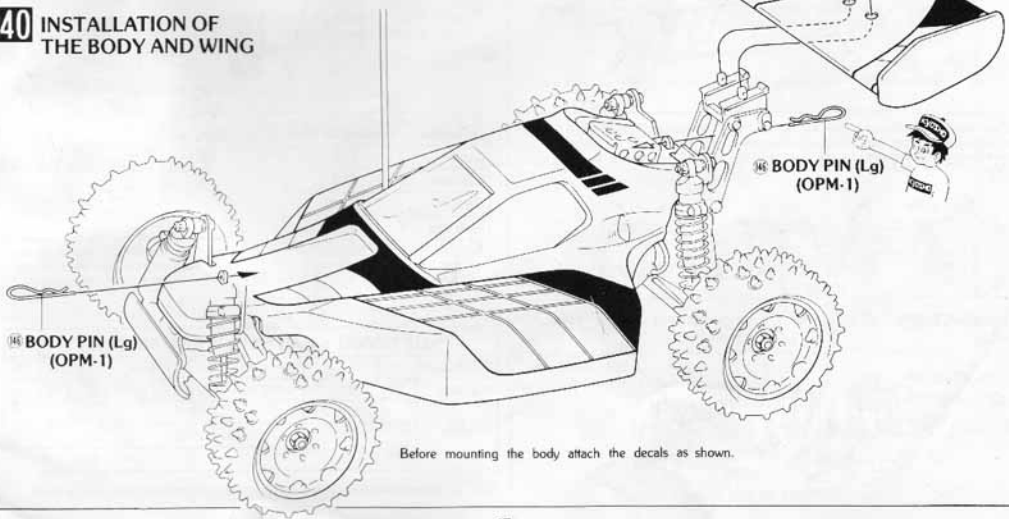
KYOSHO

For maximum performance, use a high performance battery. The Kyosho 7.2V Power Battery or Racing Battery is recommended.

7.2V POWER BATTERY . NO. 2306

7.2V RACING BATTERY . NO. 2218

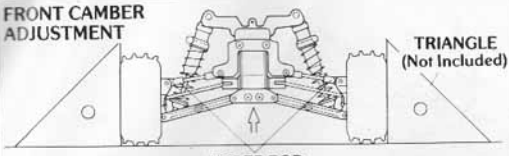
40 INSTALLATION OF THE BODY AND WING



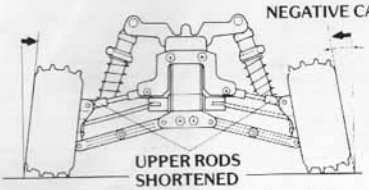
Before mounting the body attach the decals as shown.

BASIC ADJUSTMENT GUIDE FOR THE OPTIMA MID

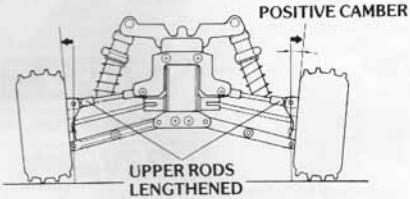
FRONT CAMBER ADJUSTMENT



Place the car on a flat surface with the chassis raised as high as possible and adjust the length of the front and rear upper rods in a way so that the tires stand at a right angle to the ground.

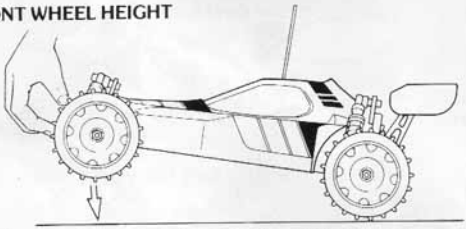


Negative camber results when you make the upper rods shorter. With negative camber on the front wheels, sharper steering tendency will result while on the rear wheels the traction improves.

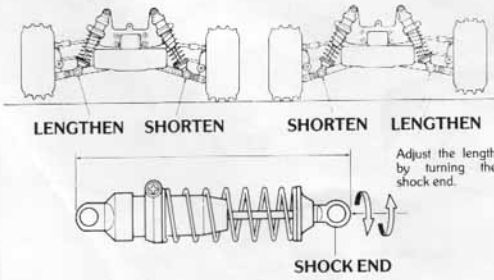


Positive camber results when you make the upper rods longer with positive camber on the front wheels under steering will result while on the rear wheels the car will over steer. With excessive positive camber the swing shafts may dislocate.

FRONT WHEEL HEIGHT

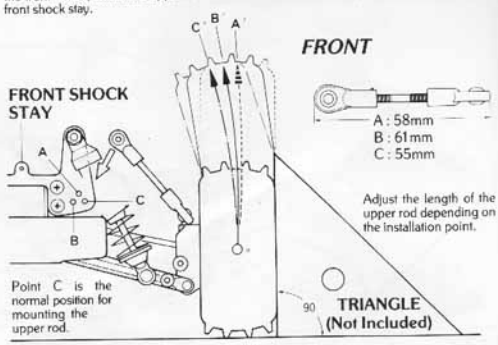


Place the car on a flat area, raise the front end and then lower the front wheels slowly to see whether they will touch the ground evenly. If not, adjust the length of the shocks. If they are uneven, steering to the right and left will not be the same.



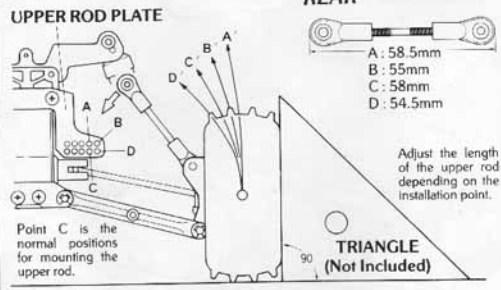
RELATIONSHIP BETWEEN UPPER ROD MOUNTING POSITION AND CAMBER ANGLE.

The drawing below shows the different camber angles, at maximum deflection of the front wheel, when the upper rod is mounted at the different positions on the front shock stay.



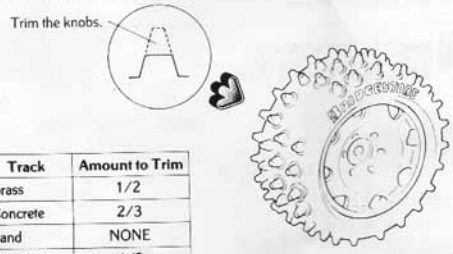
RELATIONSHIP BETWEEN UPPER ROD MOUNTING POSITION AND CAMBER ANGLE

The drawing below shows the different camber angles, at maximum deflection of the rear wheel, when the upper rod is mounted at the different positions on the upper rod plate.



CUSTOMIZING THE TIRES

You can increase performance for various track conditions by trimming the knobs of the tires. Consult the chart below.



Track	Amount to Trim
Grass	1/2
Concrete	2/3
Sand	NONE
Hard Dirt	1/3
Soft Dirt	NONE

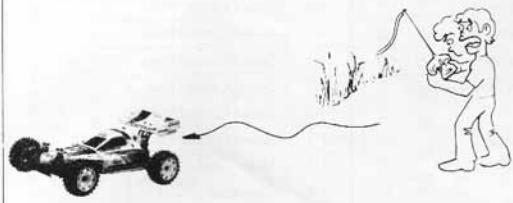
OPTIONAL GEAR RATIOS AND MOTORS

Pinion Gear	15	16	17	18	19	20	21	22	23	24	25
Gear Ratio	13.04	12.22	11.50	10.87	10.29	9.78	9.31	8.89	8.50	8.15	7.82
Motor	SPA 240WS										
				LeMans 240ST							
								LeMans 360GOLD			

The chart above shows the selection of gears that are suggested for each type of motor.

RUNNING THE OPTIMA MID

The same battery powers the radio **and** motor. As soon as the car starts to slow down, recharge the battery. Otherwise you will quickly lose control.



After running, always remove the battery from the car.

CHECK BEFORE EVERY RUN

Check to see if all bolts and nuts are tightened firmly.

Check to see if NiCd battery is fully charged.

Check to see if the steering and speed control is in proportion to your control of the transmitter.

Check to see that all wiring is properly insulated.

Check to see if parts are moving smoothly.

OPERATING PROCEDURES

Turn transmitter switch on.

Switch on the receiver.

Check to see if the radio system is working properly.

NOTE: When turning off the switches, turn off the receiver first then transmitter. Otherwise, the servos may be left in a position other than neutral.

TROUBLE SHOOTING IF THE CAR DOES NOT START

Poor contact of connectors of batteries, connector, and speed control.

Check to see if the ni-cad battery is fully charged.

Check to see shortage of battery power for the transmitter.

Signal interference from other radios.

OPERATIONAL SAFETY

Radio controlled model cars are powered by quick discharge NiCd batteries which allow the cars to obtain high speeds. **Caution** is required when operating R/C cars.

Do not run R/C cars on the street.

Check to make sure no one else is on your frequency. If so do not turn your radio on.

If your car is stopped by an obstacle do not continue running the car. Remove the car manually. Failing to do so may ruin the motor and wiring.

Do not grab the tires while they are rotating.

Before connecting the NiCd battery, check that the speed control is in the neutral position.

The motor and receiver are powered by the same NiCd battery. As the battery lowers the receiver looses power resulting in the loss of control of the car. When the car slows down, stop, and recharge the battery.

Remove the NiCd battery from the car.

MAINTENANCE AFTER RUNNING THE CAR

Wipe the dirt off of the car.

Make sure all the switches of the radio control unit are off.

Clean and grease the moving parts periodically.

Check and tighten all nuts and screws.

Wipe the speed control off with a rag or a brush and check regularly.

MOTOR CARE

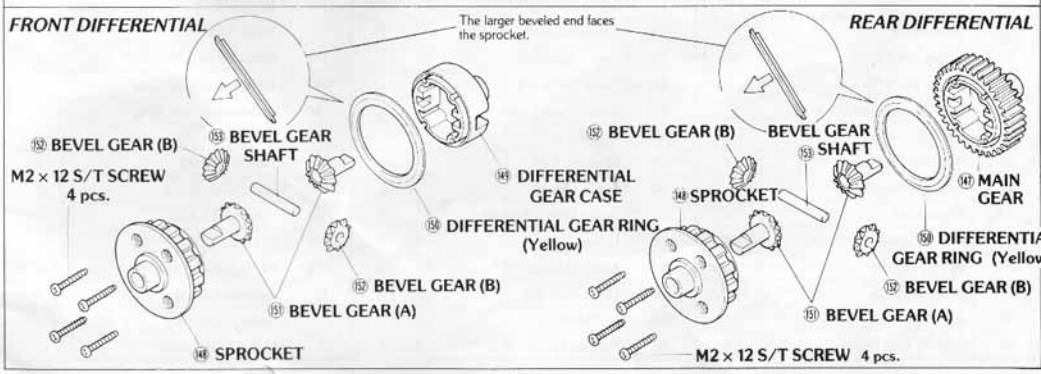
The motor generates a lot of heat while running. The motor needs time to cool between batteries. Failure to do this may shorten the life span of the motor.

After several runs the motor power may decrease from carbon accumulating on the commutator. Remove the pinion gear and run the motor for 15 minutes with a 7.2 volt battery. This will clean the commutator of the carbon.

Clean and oil the motor bushings regularly.

See the motor insert included in this kit for special motor care instructions.

EXPLODED VIEW OF THE FRONT AND REAR DIFFERENTIALS



KEY NUMBERS FOR PARTS

No.	Parts Name	Q'ty	No.	Parts Name	Q'ty	No.	Parts Name	Q'ty
1	Tire	4	54	Front Suspension Arm	2	107	Belt Cover (C)	1
2	Wheel	4	55	M3 Pivot Ball (Silver)	4	108	Allen Wrench (1.5mm)	1
3	8mm × 14mm Ball Bearing	4	56	Front Stabilizer End	2	109	Speed Control Nut	1
4	Joint	4	57	E-Ring (E-3) (Black)	2	110	Speed Control Horn	1
5	Allen Wrench (2mm)	1	58	Suspension Shaft (A)	2	111	Speed Control Pivot	1
6	Rear Gear Box (R)	1	59	Suspension Shaft (B) (Silver)	2	112	Speed Control Stud	1
7	5mm × 10mm Bushing	10	60	E-Ring (E-2.5)	20	113	Speed Control Spring	1
8	Spur Gear Shaft	1	61	5.8mm Ball (Black)	4	114	Speed Control Contact	2
9	2mm × 11 Pin	1	62	Allen Wrench (2.5mm)	1	115	Motor Cord	2
10	Counter Gear	1	63	Ball End (L)	12	116	Connector (7.2V)	1
11	E-Ring (E-4)	4	64	Upper Rod	4	117	Regulator	1
12	5mm × 8mm Bushing	2	65	Rear Hub (R)	1	118	BEC Connector	1
13	Pulley (Yellow)	1	66	Rear Hub (L)	1	119	Servo Spacer	2
14	Pulley Flange (Yellow)	1	67	Rear Shaft	2	120	Speed Control Rod	1
15	5mm Collar (S) (Yellow)	2	68	Rear Suspension Arm	2	121	Resistor	1
16	4mm × 8mm Bushing	2	69	Suspension Shaft (C) (Black)	2	122	Heat Sink (A)	1
17	Center Gear	1	70	Suspension Shaft (D)	2	123	Heat Sink (B)	1
18	Center Gear Shaft	1	71	Rear Suspension Plate	1	124	Motor	1
19	Belt	1	72	Swing Shaft	4	125	Motor Cover	1
20	Rear Gear Box (L)	1	73	Shock Oil	1	126	Motor Filter	1
21	Rear Plate (L)	1	74	Front Shock Case	2	127	Motor Plate	1
22	Rear Plate (R)	1	75	Rear Shock Case	2	128	Pinion Gear (20T)	1
23	5mm Collar (L) (Yellow)	1	76	Shock Piston	4	129	Gear Cover	1
24	Gear Protector Plate (B)	1	77	Front Shock Shaft	2	130	Double Sided Tape	1
25	Gear Protector Washer	2	78	Rear Shock Shaft	2	131	Antenna Post	1
26	Spur Gear	1	79	Shock O-Ring (Red)	8	132	Antenna Pipe	1
27	Gear Protector (A)	1	80	Shock Collar (White)	4	133	Strap (S)	3
28	Wave Washer	3	81	Plastic Washer (Black)	4	134	Wing Stay (A) (Left)	1
29	Gear Protector Collar	1	82	C-Ring	4	135	Wing Stay (A) (Right)	1
30	Upper Rod Plate	1	83	Shock Cap	4	136	Wing Stay (B)	2
31	Rear Shock Stay	1	84	Diaphragm	4	137	Wing Stay	2
32	Front Gear Box (R)	1	85	Spring Stopper	4	138	Wing Washer	2
33	Front Gear Box (L)	1	86	Shock End	4	139	5mm Shim	8
34	Front Shock Stay	1	87	Front Spring	2	140	Drive Washer	4
35	Front Suspension Plate	1	88	Rear Spring	2	141	Body	1
36	Chassis	1	89	Spring Holder	4	142	Wing	1
37	Bumper	1	90	Shock Bushing	4	143	Decal	1
38	Belt Cover (A)	1	91	Ball End (S)	4	144	NiCd Strap	2
39	Double Sided Tape	2	92	Ball Nut	4	145	Wing Pin	2
40	Sponge Tape	2	93	Servo Saver (A)	1	146	Body Pin	2
41	Saver Shaft	2	94	Servo Saver (B)	1	147	Main Gear	1
42	Upper Deck Post	2	95	Servo Saver (C)	1	148	Sprocket	2
43	Upper Deck Mount	1	96	Servo Saver (D)	1	149	Differential Gear Case	1
44	Rear Suspension Pivot	1	97	Servo Saver Collar	2	150	Differential Gear Ring	2
45	Battery Holder	2	98	Tie Rod	2	151	Bevel Gear (A)	4
46	Knuckle Arm (L)	1	99	Steering Rod	1	152	Bevel Gear (B)	4
47	Knuckle Arm (R)	1	100	Servo Mount	4	153	Bevel Gear Shaft	2
48	Front Shaft	2	101	Servo Mount Spacer	2	154	Heat Sink Collar	1
49	M2.6 Pillow Ball (Black)	4	102	Upper Deck	1	155	M3 Plastic Nut	4
50	Front Hub (R)	1	103	Switch Mount	1	156	PC Board	1
51	Front Hub (L)	1	104	Belt Cover (B)	1	157	Silicone Grease	1
52	King Pin	4	105	M2 Shaft	1	158	Screw Cement	2
53	5.8mm Ball (Silver)	4	106	Rubber Cover	1		Motor Condencer	1

LIST OF BAGGED PARTS

Bag	Key No.	Part Name	Q'ty	Step Used In
BLISTER PACK A	4	Joint	4	1
	10	Counter Gear	1	2
	17	Center Gear	1	2
	26	Spur Gear	1	4
	42	Upper Deck Post	2	9
	46	Knuckle Arm (L)	1	11
	47	Knuckle Arm (R)	1	11
	48	Front Shaft	2	11
	67	Rear Shaft	2	14
	72	Swing Shaft	4	13 16
	128	Pinion Gear (20T)	1	28
	140	Drive Washer	4	36
BLISTER PACK B	3	8mm × 14mm Ball Bearing	4	1
	7	5mm × 10mm Bushing	10	2 11 14
	12	5mm × 8mm Bushing	2	2
	16	4mm × 8mm Bushing	2	2
	19	Belt	1	2
	54	Front Suspension Arm	2	17
	68	Rear Suspension Arm	2	14
	116	Connector (7.2V)	1	30
	122	Heat Sink (A)	1	30
	123	Heat Sink (B)	1	30
	124	Motor 240ST	1	28
	Ass'y	Front Differential Gear	1	1
	Ass'y	Rear Differential Gear	1	1
	Ass'y	Front Shock (S)	2	19
	Ass'y	Rear Shock (L)	2	19
OPM-2	6	Rear Gear Box (R)	1	2
	20	Rear Gear Box (L)	1	2
	32	Front Gear Box (R)	1	6
	33	Front Gear Box (L)	1	6
	60	E-Ring (E-2.5)	4	19
	73	Shock Oil	1	20
	76	Shock Piston	4	19
	79	Shock O-Ring (Red)	8	19
	80	Shock Collar (White)	4	19
	81	Plastic Washer (Black)	4	19
	82	C-Ring	4	19
	84	Diaphragm	4	20
		A/H Bolt M3 × 18	4	5
	157	Silicone Grease	1	2 4 22
	158	Screw Cement	2	
OPM-3	2	Wheel	4	35
OPM-4	8	Spur Gear Shaft	1	2
	9	2mm × 11 Pin	1	2
	18	Center Gear Shaft	1	2

Bag	Key No.	Part Name	Q'ty	Step Used In
OPM-4	24	Gear Protector Plate (B)	1	4
	25	Gear Protector Washer	2	4
	29	Gear Protector Collar	1	4
	41	Saver Shaft	2	9
	52	King Pin	4	11
	61	5.8mm Ball (Black)	4	13 16
	92	Ball Nut	4	17 30
	154	Heatsink Collar	1	30
OPM-5	21	Rear Plate (L)	1	3
	22	Rear Plate (R)	1	3
	27	Gear Protector (A)	1	4
	30	Upper Rod Plate	1	4
	31	Rear Shock Stay	1	5
	34	Front Shock Stay	1	6
	35	Front Suspension Plate	1	6
	71	Rear Suspension Plate	1	15
	127	Motor Plate	1	28
OPM-6	13	Pulley (Yellow)	1	2
	14	Pulley Flange (Yellow)	1	2
	15	5mm Collar (S) (Yellow)	2	2
	23	5mm Collar (L) (Yellow)	1	4
	37	Bumper	1	13
	43	Upper Deck Mount	1	9
	44	Rear Suspension Pivot	1	9
	45	Battery Holder	2	10
	50	Front Hub (R)	1	11
	51	Front Hub (L)	1	11
	56	Front Stabilizer End	2	12
	65	Rear Hub (R)	1	14
	66	Rear Hub (L)	1	14
	90	Shock Bushing	4	22
	93	Servo Saver (A)	1	17
	94	Servo Saver (B)	1	17
	95	Servo Saver (C)	1	17
	96	Servo Saver (D)	1	17
	97	Servo Saver Collar	2	18
	100	Servo Mount	4	24 31
	101	Servo Mount Spacer	2	25
	103	Switch Mount	1	27
	119	Servo Spacer	2	31
	131	Antenna Post	1	25
	134	Wing Stay A (L)	1	34
	135	Wing Stay A (R)	1	34
	136	Wing Stay B	2	34
	137	Wing Stay	2	34
	138	Wing Washer	4	40 2

LIST OF BAGGED PARTS

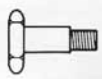
Bag	Key No.	Part Name	Q'ty	Step Used In
OPM-6	155	M3 Plastic Nut	4	22
	49	M2.6 Pivot Ball (Black)	4	11 17
	53	5.8mm Ball (Silver)	4	13 16
	55	M3 Pivot Ball (Silver)	4	12 14
	58	Suspension Shaft (A)	2	12
	59	Suspension Shaft (B) Silver	2	12
OPM-7	63	Ball End (L)	12	13 16 13
	64	Upper Rod	4	13 16
	69	Suspension Shaft (C) (Black)	2	14
	70	Suspension Shaft (D)	2	15
	91	Ball End (S)	2	17
	98	Tie Rod	2	18
	36	Chassis	1	7
	38	Belt Cover (A)	1	8
	39	Double Sided Tape	2	8
	102	Upper Deck	1	27
	104	Belt Cover (B)	1	28
OPM-8	107	Belt Cover (C)	1	28
	115	Motor Cord	2	29
	125	Motor Cover	1	29
	126	Motor Filter	1	29
	129	Gear Cover	1	29
	132	Antenna Pipe	1	33
	144	NiCd Strap	2	35
	40	Sponge Tape	2	9
	91	Ball End (S)	2	24
	99	Steering Rod	1	24
	106	Rubber Cover	1	28
	110	Speed Control Horn	1	30
	111	Speed Control Pivot	1	30
	112	Speed Control Stur	1	30
OPM-9	113	Speed Control Spring	1	30
	114	Speed Control Contact	2	30
	117	Regulator	1	26
	118	BEC Connector	1	30
	120	Speed Control Rod	1	30
	121	Resistor	1	30
	130	Double Sided Tape	1	30
	133	Strap (S)	2	32 33
	156	PC Board	1	30 (32)
		Motor Condencer	1	26
	1	Tire	4	35
	141	Body	1	37
	142	Wing	1	37
	143	Decal	1	39
		Instruction	1	

Bag	Part Name	Q'ty	Step Used In
	M2.6×4 Screw	4	
	M2.6×6 Screw	7	
	M2.6×12 Screw	4	
	M3×6 Screw	9	
	M3×10 Screw	4	
	M3×30 Screw	2	
	M3×35 Screw	1	
	M3×45 Screw	2	
	M4×12 Screw	2	
	M3×4 Screw	2	
	M3×12 F/H Screw	2	
	M2.6×6 T P S/T Screw	3	
	M2.6×12 S/T Screw	4	
	M3×6 S/T Screw	7	
	M3×10 S/T Screw	28	
	M3×15 S/T Screw	3	
	M3×18 S/T Screw	4	
	M3×6 TP S/T F/H Screw	1	
OPM-1	M3×10 S/T F/H Screw	2	
	M2.6 Nut	14	
	M3 Nut	6	
	M3 Nut (Gold)	2	
	101 Speed Control Nut	1	
	M3 Nylon Nut	1	
	M4 Nylon Nut	4	
	M2.6 Washer	8	
	M3 Washer	4	
	M4 Washer	2	
	M5 Washer	4	
	5mm Shim	8	
	28 Wave Washer	3	
	M3×3 Set Screw	1	
	M4×4 Set Screw	4	
	60 E-Ring (E-2.5)	13	
	57 E-Ring (E-3) (Black)	3	
	11 E-Ring (E-4)	5	
	145 Wing Pin	2	
	146 Body Pin	2	
	105 M2 Shaft	2	
	100 Allen Wrench (1.5)	1	
	5 Allen Wrench (2.0)	1	
	62 Allen Wrench (2.5)	1	

PURCHASING PARTS FOR YOUR KIT

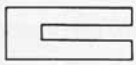
You can purchase replacement and optional parts for your kit. All of the parts identified by key numbers (see page 20 for complete list) are usually not available singularly, but we offer these parts in convenient parts "packs" which can be purchased separately. To figure out which parts pack you need, find the key number for that part within the manual. Then consult our parts pack guide below. When referring to the parts you need, always use the **Parts Pack Number**. For instance, if you need a Center Gear Shaft (Key #18) ask your dealer for Kyosho Parts Pack OT-087 (Gear Shaft Set).

OT-004 KING PIN



52 King Pin (4)

OT-005 JOINT

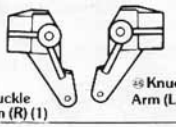


4 Joint (2)

OT-006 SWING SHAFT

70 Swing Shaft (2)

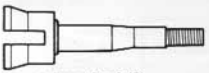
OT-016 KNUCKLE ARM



47 Knuckle Arm (R) (1)

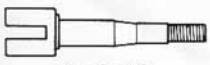
48 Knuckle Arm (L) (1)

OT-017 FRONT SHAFT



44 Front Shaft (2)

OT-018 REAR SHAFT

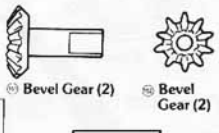


45 Rear Shaft (2)

OT-019 DRIVE WASHER

64 Drive Washer (4)

OT-028 DIFFERENTIAL GEAR SET



60 Bevel Gear (2)

59 Bevel Gear (2)

61 Bevel Shaft (4)

OT-031 M3 PIVOT BALL

55 M3 Pillow Ball (Silver) (10)

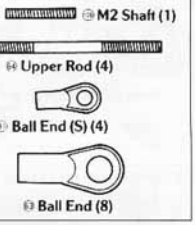
OT-032 5.8mm BALL

53 5.8mm Ball (Silver) (10)

OT-033 M2.6 BALL NUT

50 M2.6 Ball Nut (10)

OT-035 UPPER ROD SET



58 M2 Shaft (1)

66 Upper Rod (4)

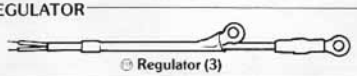
51 Ball End (S) (4)

63 Ball End (8)

OT-036 M2.6 PIVOT BALL

49 M2.6 Pivot Ball (10)

OT-037 REGULATOR



71 Regulator (3)

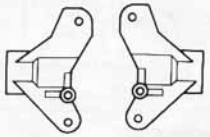
OT-038 SILICONE GREASE

54 Silicone Grease (2)

OT-039 E-RING (2.5)

69 E-Ring (E-2.5) (10)

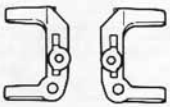
OT-045 REAR HUB



65 Rear Hub (R) (1)

66 Rear Hub (L) (1)

OT-055 FRONT HUB



56 Front Hub (R) (1)

57 Front Hub (L) (1)

OT-066 LOW PROFILE TIRE

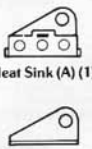
1 Tire (2)

OT-069 SUSPENSION ARM SET

14 Front Suspension Arm (2)

68 Rear Suspension Arm (2)

OT-072 HEAT SINK FOR RESISTOR



10 Heat Sink (A) (1)

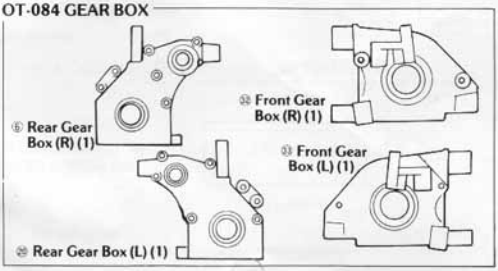
12 Heat Sink (B) (1)

OT-073 MOTOR CLEANER

9 Motor Filter (2)

13 Motor Plate (1)

OT-084 GEAR BOX



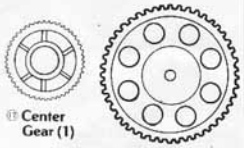
6 Rear Gear Box (R) (1)

52 Front Gear Box (R) (1)

23 Front Gear Box (L) (1)

29 Rear Gear Box (L) (1)

OT-085 SPUR GEAR



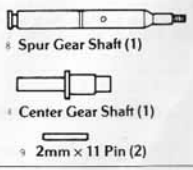
17 Center Gear (1)

16 Spur Gear (1)

OT-086 COUNTER GEAR

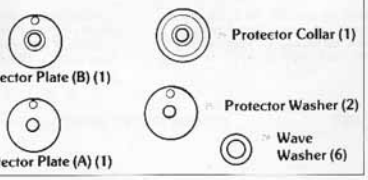
10 Counter Gear (1)

OT-087 GEAR SHAFT SET



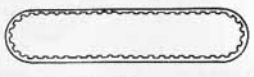
8 Spur Gear Shaft (1)
6 Center Gear Shaft (1)
9 2mm x 11 Pin (2)

OT-088 PROTECTOR SET



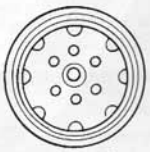
19 Protector Plate (B) (1)
21 Protector Plate (A) (1)
Protector Collar (1)
Protector Washer (2)
Wave Washer (6)

OT-089 BELT



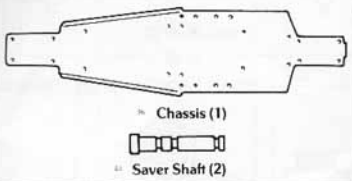
Belt (1)

OT-090 WHEEL



2 Wheel (2)

OT-091 CHASSIS



36 Chassis (1)
44 Saver Shaft (2)

OT-092 UPPER DECK

Upper Deck (1)
47 Upper Deck Post (2)

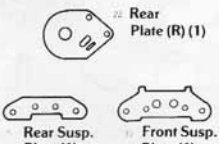
OT-093 BUMPER

31 Bumper (1)

OT-094 SHOCK STAY

34 Rear Shock Stay (1)
Front Shock Stay (1)
Upper Rod Plate (1)

OT-095 PLATE SET

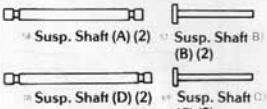


22 Rear Plate (R) (1)
Rear Susp. Plate (1)
Front Susp. Plate (1)

OT-096 REAR PLATE

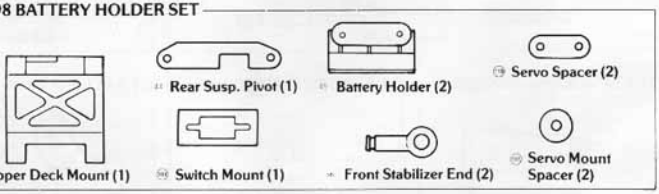
Rear Plate (L) (1)

OT-097 SUSPENSION SHAFT SET



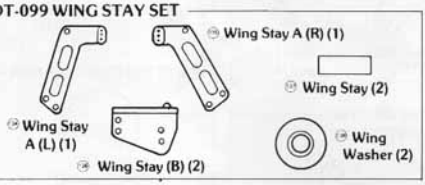
Susp. Shaft (A) (2)
Susp. Shaft (B) (2)
Susp. Shaft (D) (2)
Susp. Shaft (C) (2)

OT-098 BATTERY HOLDER SET



Upper Deck Mount (1)
41 Rear Susp. Pivot (1)
Battery Holder (2)
Servo Spacer (2)
Switch Mount (1)
Front Stabilizer End (2)
Servo Mount Spacer (2)

OT-099 WING STAY SET



Wing Stay A (R) (1)
Wing Stay (2)
Wing Stay A (L) (1)
Wing Washer (2)
Wing Stay (B) (2)

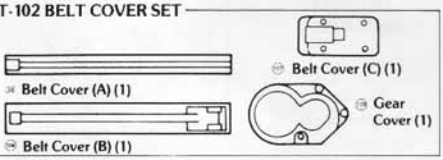
OT-100 COLLAR SET

Pulley (1)
5mm Collar (1)
Heat Sink Collar (1)
Pulley Flange (1)
5mm Collar (2)

OT-101 5.8mm BALL

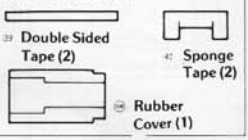
5.8mm Ball (Black) (10)

OT-102 BELT COVER SET



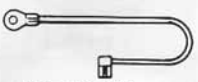
Belt Cover (C) (1)
Belt Cover (A) (1)
Gear Cover (1)
Belt Cover (B) (1)

OT-103 TAPE SET



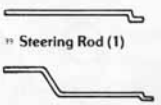
39 Double Sided Tape (2)
42 Sponge Tape (2)
Rubber Cover (1)

OT-104 MOTOR CORD



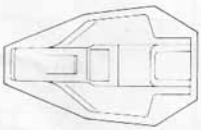
Motor Cord (2)

OT-105 ROD SET



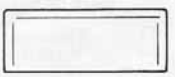
33 Steering Rod (1)
Speed Control Rod (1)

OT-106 BODY



Body (1)

OT-107 WING



Wing (1)

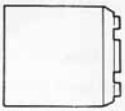
OT-108 DECAL

Decal (1)

OT-109 SCREW SET

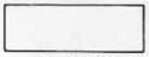
Screw Set (1)

SC-040 MOTOR COVER



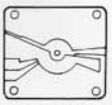
(28) Motor Cover (1)

1840 DOUBLE SIDED TAPE



(38) Double Sided Tape (1)

SC-067 CONTROLLER SET



(29) PC Board (1)

(30) Speed Control Stud (1)

(31) Speed Control Nut (1)

(33) Speed Control Horn (1)

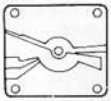
(32) Speed Control Pivot (1)

(34) Speed Control Spring (1)

(35) Speed Control Contact (2)

M3 Nut (2)

SC-078 CONTROLLER PC BOARD



(36) PC Board (1)

SC-079 CONTROLLER CONTACT

(37) Speed Control Contact (2)

SC-089 TIE ROD

(39) Tie Rod (2)

M2.6 Nut (4)

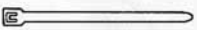
(43) Ball End (L) (1)

(41) M2.6 Pillow Ball (4)

EF-026E CONNECTOR

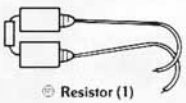
(42) Connector (1)

EF-037 STRAP



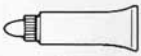
(40) Strap (S) (6)

SC-105 RESISTOR



(27) Resistor (1)

1878 SCREW CEMENT



(26) Screw Cement (2)

EF-039 NiCd STRAP

(44) NiCd Strap (6)

EP-22 HOOK PIN

(25) Wing Pin (5)

1889 BODY PIN

(24) Body Pin (5)

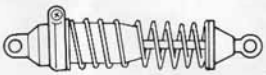
1911 8mm × 14mm BEARING

(3) 8mm × 14mm Bearing (2)

H-103 BUSHING SET

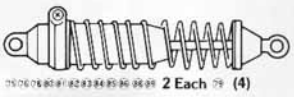
(16) 4mm x 8mm Bushing (17) 5mm x 10mm Bushing (18) 5mm x 8mm Bushing

W-5001 GOLD SHOCKS (S)



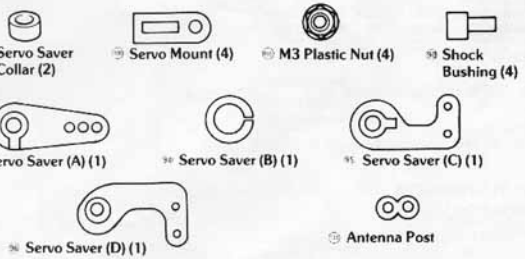
74 76 77 80 81 82 83 84 85 86 87 88 89 2 Each (75) (4)

W-5002 GOLD SHOCKS (L)



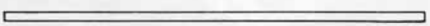
75 76 78 80 81 82 83 84 85 86 88 89 2 Each (79) (4)

UM-14 SERVO SAVER SET



(97) Servo Saver Collar (2)
(99) Servo Mount (4)
(60) M3 Plastic Nut (4)
(98) Shock Bushing (4)
(93) Servo Saver (A) (1)
(94) Servo Saver (B) (1)
(95) Servo Saver (C) (1)
(96) Servo Saver (D) (1)
(92) Antenna Post

SD-79 ANTENNA PIPE



(22) Antenna Pipe (5)

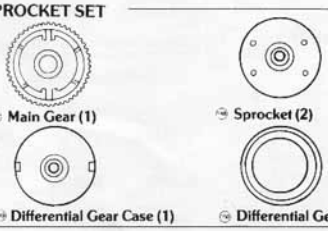
KC-20 E-RING (E-4)

(11) E-Ring (E-4) (4)

CB-072 E-RING (E-3)

(31) E-Ring (E-3) (4)

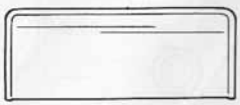
SG-25 SPROCKET SET



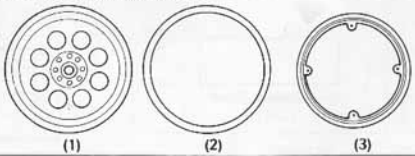
(91) Main Gear (1)
(90) Sprocket (2)
(89) Differential Gear Case (1)
(88) Differential Gear Ring (2)

OPTIONAL PARTS LIST

OT-064 SPECIAL WING



OT-067 LOW PROFILE WHEEL



1863 SPONSOR STICKER

2 Pcs.

OTW-03 SPECIAL CHASSIS

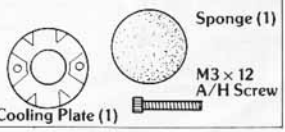
OT-047 FRONT HUB SET

(Low Caster)

PINION GEAR

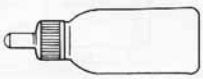
W-5090 (20T)
W-5085 (15T) W-5091 (21T)
W-5086 (16T) W-5092 (22T)
W-5087 (17T) W-5093 (23T)
W-5088 (18T) W-5094 (24T)
W-5089 (19T) W-5095 (25T)

LM-15 COOLING PLATE

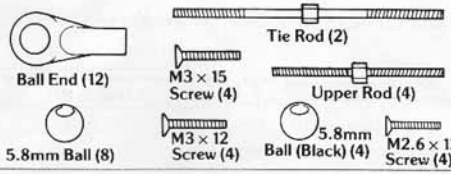


1951 SHOCK OIL SET

Soft (1) Medium (1) Hard (1)



W-5005 SPECIAL ROD SET



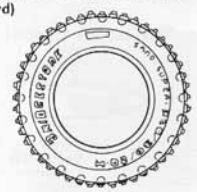
1952 DIFFERENTIAL OIL

1953 SHOCK OIL (S)

Soft (1)

W-5031 LOW PROFILE TIRE

(Hard)



1954 SHOCK OIL (M)

Medium (1)

1955 SHOCK OIL (H)

Hard (1)

W-5003 PLATINUM SHOCK (S)

(Front)

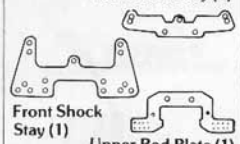
W-5004 PLATINUM SHOCK (L)

(Rear)

W-5032 LOW PROFILE TIRE

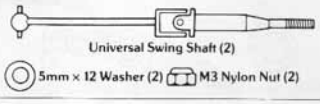
(Soft)

OTW-02 SHOCK STAY-SPECIAL

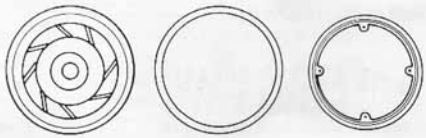


H-005 BEARING SET

W-5061

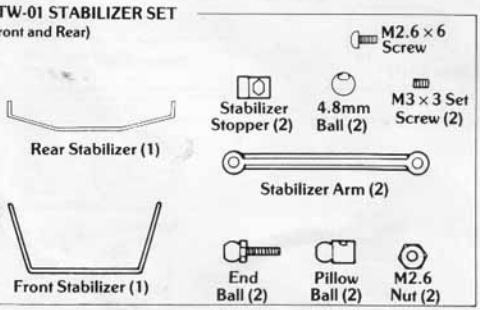


UM-17 LOW PROFILE WHEEL SET

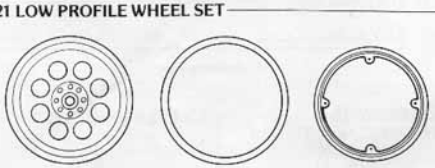


OTW-01 STABILIZER SET

(Front and Rear)

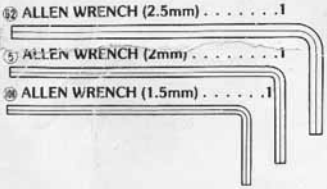


W-5021 LOW PROFILE WHEEL SET



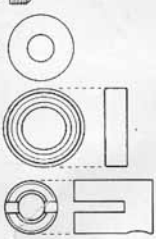
SMALL PARTS USED IN EACH STEP

(62) ALLEN WRENCH (2.5mm) 1
(5) ALLEN WRENCH (2mm) 1
(66) ALLEN WRENCH (1.5mm) 1



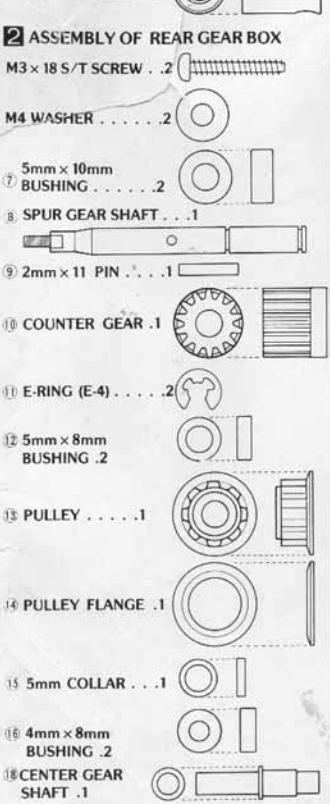
1 INSTALLATION OF JOINTS

M4 × 4 SET SCREW . .4
M5 WASHER 4
(3) 8mm × 14mm BEARING 4
(4) JOINT 4



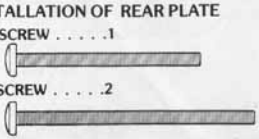
2 ASSEMBLY OF REAR GEAR BOX

M3 × 18 S/T SCREW . .2
M4 WASHER 2
(7) 5mm × 10mm BUSHING 2
(8) SPUR GEAR SHAFT . . .1
(9) 2mm × 11 PIN 1
(10) COUNTER GEAR .1
(11) E-RING (E-4) 2
(12) 5mm × 8mm BUSHING .2
(13) PULLEY 1
(14) PULLEY FLANGE .1
(15) 5mm COLLAR . . .1
(16) 4mm × 8mm BUSHING .2
(18) CENTER GEAR SHAFT .1



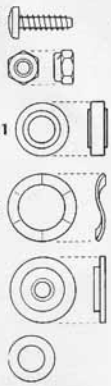
3 INSTALLATION OF REAR PLATE

M3 × 35 SCREW 1
M3 × 45 SCREW 2



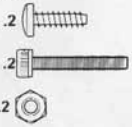
4 INSTALLATION OF SPUR GEAR

M3 × 10 S/T SCREW . .2
M3 NYLON NUT 1
(23) 5mm COLLAR 1
(28) WAVE WASHER . .3
(29) GEAR PROTECTOR COLLAR 1
(39) 5mm SHIM 2



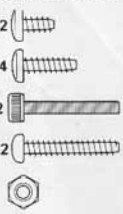
5 INSTALLATION OF REAR SHOCK STAY

M3 × 10 S/T SCREW . . .2
M3 × 18 A/H SCREW . .2
M3 NUT 2



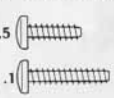
6 ASSEMBLY OF FRONT GEAR BOX

M3 × 6 S/T SCREW . . .2
M3 × 10 S/T SCREW . . .4
M3 × 18 A/H SCREW . .2
M3 × 18 S/T SCREW . . .2
M3 NUT 2



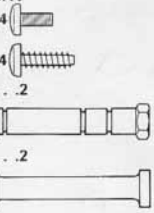
7 INSTALLATION OF GEAR BOX

M3 × 10 S/T SCREW . .5
M3 × 15 S/T SCREW . . .1



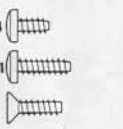
9 INSTALLATION OF UPPER DECK MOUNT

M3 × 6 SCREW 4
M3 × 10 S/T SCREW . . .4
(41) SAVER SHAFT 2
(42) UPPER DECK POST . . .2



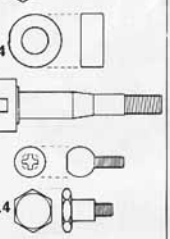
10 INSTALLATION OF BATTERY HOLDER

M3 × 6 S/T SCREW . . .4
M3 × 10 S/T SCREW . . .1
M3 X 10 F/H SCREW . .2



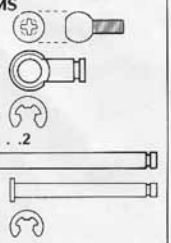
11 ASSEMBLY OF KNUCKLE ARMS

M2.6 NUT 2
(7) 5mm × 10mm BUSHING 4
(48) FRONT SHAFT 2
(49) M2.6 PIVOT BALL (Black) 2
(52) KING PIN 4



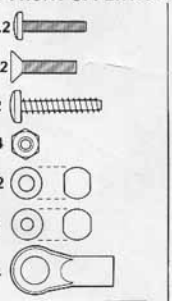
12 INSTALLATION OF FRONT SUSPENSION ARMS

(55) M3 PIVOT BALL (Silver) 2
(56) FRONT STABILIZER END 2
(57) E-RING (E-3) 2
(58) SUSP SHAFT (A) 2
(59) SUSP SHAFT (B) (Silver) 2
(60) E-RING (E-2.5) . . .6



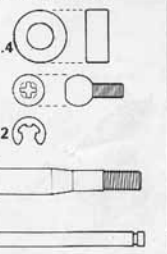
13 INSTALLATION OF FRONT UPPER RODS

M2.6 × 12 SCREW 2
M3 × 12 F/H SCREW . .2
M3 × 15 S/T SCREW . .2
M2.6 NUT 4
M5.8 BALL (Silver) . . .2
(61) M5.8 BALL (Black) .2
(63) BALL END (L) . . .4
(64) UPPER ROD 2



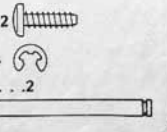
14 INSTALLATION OF REAR HUBS

(7) 5mm × 10mm BUSHING 4
(59) M3 PIVOT BALL (Silver) 2
(60) E-RING (E-2.5) 2
(67) REAR SHAFT 2
(69) SUSP SHAFT (C) (Black) 2



15 INSTALLATION OF REAR SUSP ARMS

M3 × 10 S/T SCREW . .2
(60) E-RING (E-2.5) . . .4
(70) SUSP SHAFT (D) 2



SMALL PARTS USED IN EACH STEP

16 INSTALLATION OF REAR UPPER RODS

- M2.6 × 12 SCREW 2
- M3 × 10 SCREW 2
- M2.6 NUT 4
- 53 M5.8 BALL (Silver) . . .2
- 61 M5.8 BALL (Black) . . .2
- 63 BALL END (L) 4
- 64 UPPER ROD 2

17 ASSEMBLY OF SERVO SAVER

- M2.6 × 6 SCREW 1
- M2.6 WASHER (Black) . .4
- 49 M2.6 PIVOT BALL . .2
- 91 BALL END (S) 2
- 92 BALL NUT 3
- 95 M2 SHAFT 1

18 INSTALLATION OF THE SERVO SAVER

- 11 E-RING (E-4) 2
- 63 BALL END (L) 4
- SERVO SAVER 97 COLLAR 2
- 98 TIE ROD 2
- 101 5mm SHIM 2

19 ASSEMBLY OF OIL SHOCKS

- 60 E-RING (E-2.5) 4
- 79 SHOCK O-RING (Red) . .8
- 80 SHOCK COLLAR (White) 4
- 81 PLASTIC WASHER (Black) 4
- 82 C-RING 4
- SHOCK PISTON 76 2

20 FILLING THE SHOCK WITH OIL

- 84 DIAPHRAGM 4

22 INSTALLATION OF SHOCKS

- 90 SHOCK BUSHING . .4
- 55 M3 PLASTIC NUT . .4

24 INSTALLATION OF THE STEERING ROD

- M3 × 10 S/T SCREW . . .2
- M3 WASHER 2
- 91 BALL END (S) 1
- 99 STEERING ROD 1
- 100 SERVO MOUNT . .2

25 INSTALLATION OF THE STEERING SERVO

- M2.6 × 6 S/T SCREW . .1
- M3 × 10 S/T SCREW . . .2
- 107 SERVO MOUNT SPACER 2
- 131 ANTENNA POST . . .1

27 INSTALLATION OF UPPER DECK

- M2.6 × 6 S/T SCREW . .2
- M3 × 6 S/T SCREW . . .1
- M3 × 6 SCREW 2
- M3 × 6 F/H SCREW . . .1
- M4 × 12 SCREW 2

28 INSTALLATION OF BELT COVER

- M2.6 × 4 SCREW 4
- M2.6 × 6 SCREW 4
- M2.6 WASHER 4

29 INSTALLATION OF MOTOR

- M3 × 4 SCREW 2
- M3 × 10 SCREW 2
- M3 × 3 SET SCREW . . .1

30 ASSEMBLY OF SPEED CONTROL

- M2.6 × 6 SCREW 2
- M3 × 6 SCREW 3
- M3 NUT 2

(cont'd)

- M3 NUT (Gold)
- 92 BALL NUT 1
- 96 SPEED CONTROL NUT 1
- 111 SPEED CONTROL PIVOT 1
- 112 SPEED CONTROL STUD 1
- 113 SPEED CONTROL SPRING 1
- 114 SPEED CONTROL CONTACT 2
- 134 HEATSINK COLLAR . .1

31 INSTALLATION OF SPEED CONTROL SERVO

- M3 × 10 S/T SCREW . . .4
- M3 WASHER 2
- 100 SERVO MOUNT . .2
- 119 SERVO SPACER . .2

32 INSTALLATION OF SPEED CONTROL LINKAGE

- 91 BALL END (S) 1
- 120 SPEED CONTROL ROD 1

34 INSTALLATION OF WING STAY

- M2.6 × 12 S/T SCREW .4
- M3 × 30 SCREW . . .2

36 INSTALLATION OF TIRES

- M4 NYLON NUT 4
- 140 DRIVE WASHER . . .4
- 101 5mm SHIM 4

40 INSTALLATION OF BODY AND WING

- 138 WING WASHER 2
- 145 WING PIN 2
- 146 BODY PIN 2

Millimeter Ruler

0 10 20 30 40 50 60 70 80 90 100 110 120 130