

RADIO CONTROLLED 21 ENGINE POWERED RACING BUGGY

21 ENGINE OFF-ROAD RACER

# TURBO BURNS 4WD

- COMPETITION ENGINEERED HIGH-PERFORMANCE FOUR-WHEEL DRIVE OFF-ROAD BUGGY.
- SUPERB HANDLING ON ALL TRACK SURFACES ALL-INDEPENDENT SUSPENSION WITH EXTENDED WHEEL TRAVEL.
- HIGH-EFFICIENCY POWER TRAIN WITH DRIVE SHAFTS, TRIPLE DIFFERENTIALS, AND A FULL SET OF BALL BEARINGS.
- FACTORY ASSEMBLED CENTER DIFF. LOW-RESTRICTION MUFFLER AND MANIFOLD INCLUDED.
- STRONG, LIGHT CHASSIS. GLASS-REINFORCED SUSPENSION AND STRUCTURAL PARTS.
- DESIGNED FROM THE GROUND UP FOR TOP PERFORMANCE.
- 21 CLASS ENGINE (NOT INCLUDED)
- 2 CHANNEL RADIO SYSTEM (NOT INCLUDED)

1:8 SCALE

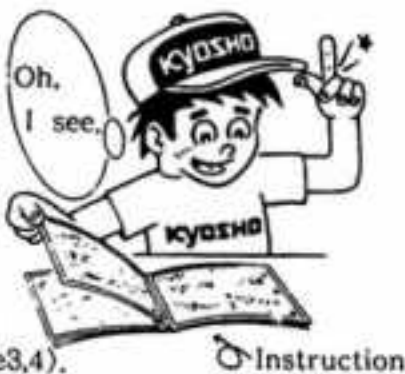


**KYOSHO**  
THE FINEST RADIO CONTROL MODELS

KIT No. 3097

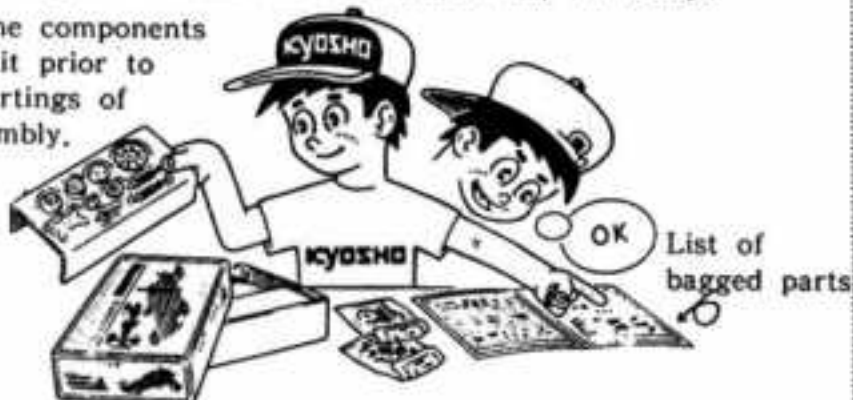
## BEFORE ASSEMBLY

- Read the instruction carefully. you can assemble the kit more easily if you have grasped the general idea of steps and structure beforehand by reading it through to the end.
- Check the parts in the kits. Check to see if all the parts are correctly bagged as they are listed in the "List of Bagged Parts" (page 3,4). Your thorough understanding of the assembly will enable you to build the kit without any difficulty.



Instruction

Check the components in the kit prior to your startings of the assembly.



Any claims for replacements or refunds for the model in the process of assembly will not be accepted.

- Learn the marks described in the instruction.

**SW-CEMENT** ... Place to put some locktite.

It will prevent the screws and nuts get loosen by vibration while running.

**GREASE** ... Point where grease should applied.

It will reduce friction are assure smooth movements.

## THINGS NEED BESIDES THE KIT

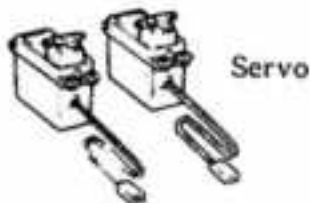
<2 Channel Radio System>

Two types of radio control set are on the market, the stick and the steering wheel type. Choose which ever you like.

\*This model car is provided with a rather large space so that you can mount bigger radio control units.



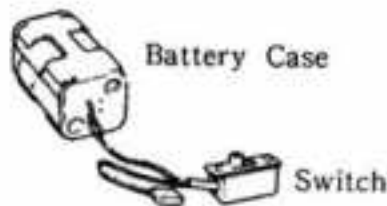
Transmitter



Servo



Receiver



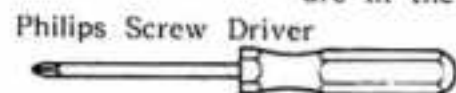
Battery Case

Switch

AA Size Battery  
For Transmitter...8 pcs.  
For Receiver...4 pcs.



<Tools Required> Wrench, Hex key, Grease and SW-Cement are in the kit.



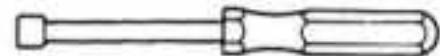
Philips Screw Driver



Needle Nose Pliers

Box Driver (For M2, M3 & M4 Nut)

Round Cutter



Sander



Sharp Hobby Knife

Be well aware of the different types of screws.

1) The difference between the TP screw (short form of self-tapping screw) and ordinary screw is...

- TP Screw Coarser Thread
- Ordinary Screw Some of them pointed tip. Finer Thread

2) The kinds of screws which will be used in this instruction.

- Bind Screw
- Set Screw Hexagonal Opening
- Flat Head Screw
- Cap Screw Hexagonal Opening
- Flange Cap Screw Hexagonal Opening

- Pick up the correct parts and screw. Compare the shape and size of small parts, such as screws, nuts and washers.



Check up

- Be sure about the location and direction of parts to install.

Double-check the location and orientation of parts with the illustration before installation. When necessary, assemble the parts themselves tentatively before proceeding to the next step.



OK

- Do not tighten the self-tapping screw too tight.

Do not use excessive force when tightening the self-tapping screw, or you may strip the thread in the plastic. It is recommended to stop tightening it when the thread part on the screw goes into the plastic part and you feel some resistance from the tightening.

Over tightening may strip the thread in the plastic.



Good

Wrong

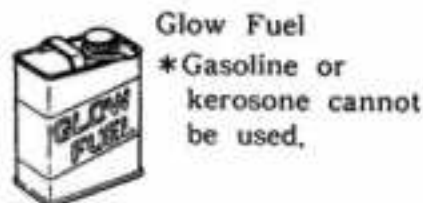
(Engine)

The following .21 size engines can be used for this model car.

OS 21 VFB  
ENYA 21 CXL

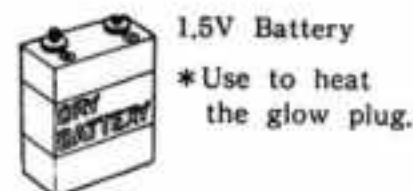


<Things need to start the engine>



Glow Fuel

\*Gasoline or kerosene cannot be used.



1.5V Battery

\*Use to heat the glow plug.



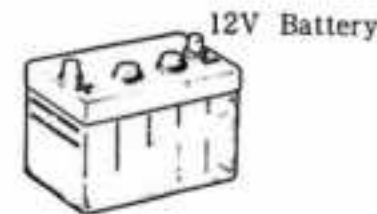
Fuel Pump



Glow Plug Battery Cord

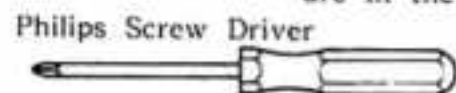


12V Starter



12V Battery

<Tools Required> Wrench, Hex key, Grease and SW-Cement are in the kit.



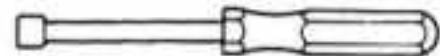
Philips Screw Driver



Needle Nose Pliers

Box Driver (For M2, M3 & M4 Nut)

Round Cutter



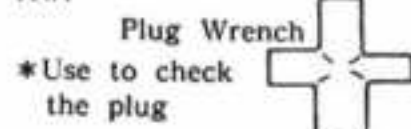
Sander



Sharp Hobby Knife



Awl

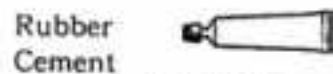


Plug Wrench

\*Use to check the plug

Micro Line Tape

Polyca Paint



Rubber Cement



Instant Glue



Brush

List of Bagged Parts (1) The key numbers with ★ indicate the plastic parts on a runner.  
See page 20 for the layout drawing.



《Do not throw away a bag header》

The symbol in the brackets after a name of parts in this instruction is the header number in which the part is contained.

The header is the only thing to rely upon when looking for a part. Do not discard it until you finish the assembly.



Bag No.	Key #	Parts Name	Q'ty	Step	
TBA-2	Assembly	Front Gearbox	1 Set	7	
	Assembly	Rear Gearbox	1 Set	4	
	Assembly	Adjust Center Diff. Gear	1 Set	10	
TBA-3	27	Rear Hub (L)	1	5	
	141	Rear Hub (R)	1	5	
	138	Front Suspension Arm	2	3	
	26	Rear Suspension Arm	2	5	
	43	6,8 φ Ball End	8	6 10	
	★ 29	Upper Sus.(A)	2	4	
	★ 30	Upper Sus.(B)	4	4 5	
	★ 144	Upper Sus.(C)	2	3	
	57	Center Diff. Housing (A)	1	10	
	58	Center Diff. Housing (B)	1	10	
	52	Hub Carrier (R)	1	3	
	53	Hub Carrier (L)	1	3	
	17	5,8 φ Ball End	6	5 10	
	18	Rear Sus. Holder	1	4	
	★ 133	Front Sus. Upper Holder	1	7	
	★ 100	Servo Fixing Stay (A)	1	15	
	★ 101	Servo Fixing Stay (B)	1	15	
	★ 85	Fuel Tank Pivot	1	11	
	★ 135	Body Hook	1	3	
	★ 136	Servo Spacer	2	15	
★ 165	Muffler Stay	1	15		
TBA-4	73	Tie Rod (A)	3	6 10	
	74	Tie Rod (B)	1	10	
	65	Servo Saver Shaft (A)	2	10	
	44	8 φ Aluminum Collar	2	10	
	39	3 φ Stopper	4	5 3	
	84	Torque Rod Pivot	1	12	
	42	6,8 φ Ball (Silver)	7	6 10	
	120	Wheel Stopper Bolt	4	20	
	75	6 φ Aluminum Collar	5	10 10	
	118	Wheel Stopper	4	20	
	54	King Pin	4	3	
	119	O Ring (L)	4	20	
	117	2,6 φ x16 Shaft	4	20	
	TBA-5	83	Mount Plate	2	15
		108	Plate Joint	1	15
60		Brake Pads	2	10	
49		Front Shock Stay	1	7	
34		Rear Shock Stay	1	4	
148		Wing Joint	2	15	

Bag No.	Key #	Parts Name	Q'ty	Step	
TBA-5	55	Universal Swing Shaft	2	3	
	33	Swing Shaft	3	5 10	
	81	Rear Center Shaft	1	11	
	62	Brake Stopper	1	10	
TBA-6	37	4 φ x78 Shaft	2	5	
	147	4 φ x67 Shaft	2	3	
	36	3 φ x43 Shaft	8	4 5 3	
	35	3 φ x28 Shaft	8	5 3 3 3	
	23	Joint	2	4 7	
	32	Rear Wheel Shaft	2	5	
	166	O Ring (P4)	2	13	
	★ 77	Radio Plate	1	11	
	★ 79	Servo Fixing Post	4	11	
TBA-7	59	Disk Brake	1	10	
	69	Servo Saver Horn (A)	1	10	
	70	Servo Saver Horn (B)	1	Assembly 10	
	71	Servo Saver Horn (C)	1		
	68	Servo Saver Spring	1		
	72	E Ring (E7)	2		
	66	Servo Saver Shaft (B)	1	Assembly 10	
	86	Bumper	1		13
	96	Clutch Bell (13T)	1		13
	89	Flywheel	1		Assembly 10
	90	Clutch Pin	2		
	92	Clutch Shoe	2		
	93	Clutch Spring	1	Assembly 10	
	50	Knuckle Arm (R)	1		3
	51	Knuckle Arm (L)	1	3	
	102	Wing Stay (L)	1	10	
	103	Wing Stay (R)	1	10	
	150	Wing Plastic Washer	2	20	
	168	Wing Holder (L)	1	10	
	169	Wing Holder (R)	1	10	
159	Rear Stabilizer	1	4		
TBA-8	61	Brake Cam	1	10	
	91	Pilot Shaft	1	13	
	112	Linkage Guide (B)	1	17	
	63	Brake Lever	1	10	
	153	Brake Rod	1	17	
	111	Engine Control Spring	1	17	
	110	2 φ Stopper	5	17	
	158	Stabilizer Ball	2	5	
88	Engine Mount	2	10		

List of Bagged Parts (2)

Bag No.	Key #	Parts Name	Q'ty	Step
TBA-8	105	Aluminum Pipe	1	15
	106	Rubber Bush	1	15
	78	Switch Boot	1	11
	109	M3x30 Rod	3	5 15
	164	Nipple	1	15
	28	8 φ x16 Bearing	8	5 8
	94	Clutch Bearing Case	1	Assembly
	95	Clutch Rollar	8	15 <small>Small Bag</small>
	38	E Ring (E3)	2	8 *
		6 φ x18 Washer	1	10 *
		5 φ Washer	1	12 *
	152	Wing Aluminum Washer	6	15
	167	5,8 φ Ball	4	5 10
TBA-9	104	Fuel Tank	1	15
		Shock Oil	1	2
	139	Silicone Grease	1	
	140	Screw Locking Compound	1	
		Big Pressure Shock (S)	2	1
		Big Pressure Shock (L)	2	1
	★ 41	Shock Bush	8	6 9 <small>Small Bag</small>
	★	Shock Piston (Soft)	4	16 page
		Shock Piston (Medium)	4	* *
	3	Shock O Ring (Orange)	8	1 *
	4	Shock C Ring	8	1 *
	5	Shock Collar (White)	4	1 *
	6	Plastic Washer (Black)	4	1 *
	8	6,8 φ Ball (Black)	4	8 *
	9	Pressure Top	4	2 *
		M3x20 Cap Screw	4	4 7 *
TBA-10	142	Engine Control Rod	1	17
	134	Strap (M)	4	17 18
	80	Strap (L)	1	11
	107	Tube	1	15
	146	Air Cleaner	1組	17
	76	Antenna Pipe	1	11
	67	Front Gear Cover	1	8
	40	Rear Gear Cover	1	4
	99	Silicone Tube	1	15
	87	Manifold	1	17
	98	Muffler	1	15
	BOX	121	Body	1
160		Wing	1	21
64		Side Guard	1	15 page
143		Main Chassis	1	10
113		Rear Wheel	1	10
114		Front Wheel	2	10
115		Rear Tire	2	10
116		Front Tire	2	10
145		Decal	1	
		Instruction	1	

Bag No.	Key #	Parts Name	Q'ty	Step
TBA-1	2	E Ring (E2,5)	18	4 5 8
	38	E Ring (E3)	10	5 8 11
	122	Body Pin	5	20
		M4 X 8 Flat Head Screw	4	
		M4 X 10 *	2	
		M3 X 12 *	3	
		M3 X 15 *	3	
		M3 X 8 Bind Screw	6	
		M3 X 10 *	1	
		M3 X 25 *	2	
		M4 X 15 *	2	
		M3 X 12 *	2	
		M3 X 15 *	1	
		M3 X 10 TP Bind Screw	12	
		M3 X 15 *	10	
		M4 X 15 *	6	
		M4 X 18 *	4	
		M4 X 15 TP FlatHeadScrew	10	
		M4 X 20 *	8	
		M4 X 25 *	6	
		M3 X 10 Cap Screw	5	
		M3 X 15 *	8	
		M3 X 18 *	4	
		M3 X 20 *	5	
		M4 X 10 * (Flange)	4	
		M3 X 3 Set Screw	12	
		M3 X 5 *	4	
		M4 X 12 *	6	
		M5 X 4 *	2	
	31	M5 X 40 *	4	4 9
		M2 Nut	1	
	M3 Nut	2		
	M3 Flange Nut	8		
	M3 Nylon Nut	18		
82	3 φ X 9.5 φ X 1 Washer	2	10	
163	8 φ X 16 φ X 1.5 *	6	10	
	3 φ X 8 φ X 0.5 *	4		
	13 φ X 16 φ X 0.15 Shim	6		
	8 φ X 12 φ X 0.2 *	8		
	Hex Wrench (1.5)	1		
	* (2)	1		
	* (2.5)	1		
	* (3)	1		

TBA-1

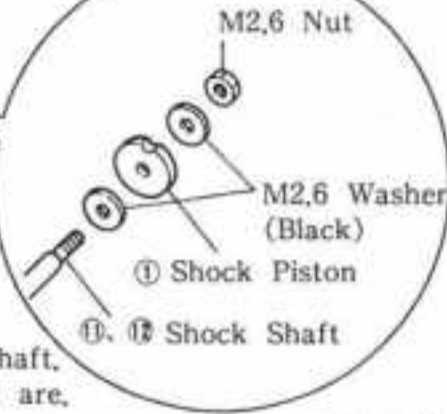
Screws  
Nuts  
washers  
& Others

# 1 ASSEMBLY OF THE SHOCKS

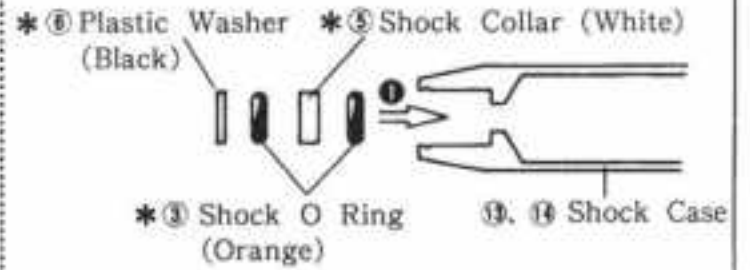
Disassemble the four shocks as shown, which are contained in a blister pack in a temporarily assembled form.

\*Do not break up the shock piston from the shock shaft. Use them as they are.

<Exploded View>



Assemble in order from ①~④.

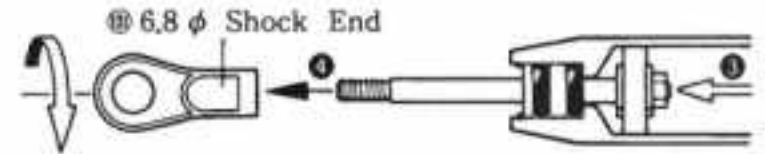


Fit the C Ring into the groove of the shock case. (Be careful not to lose it.)



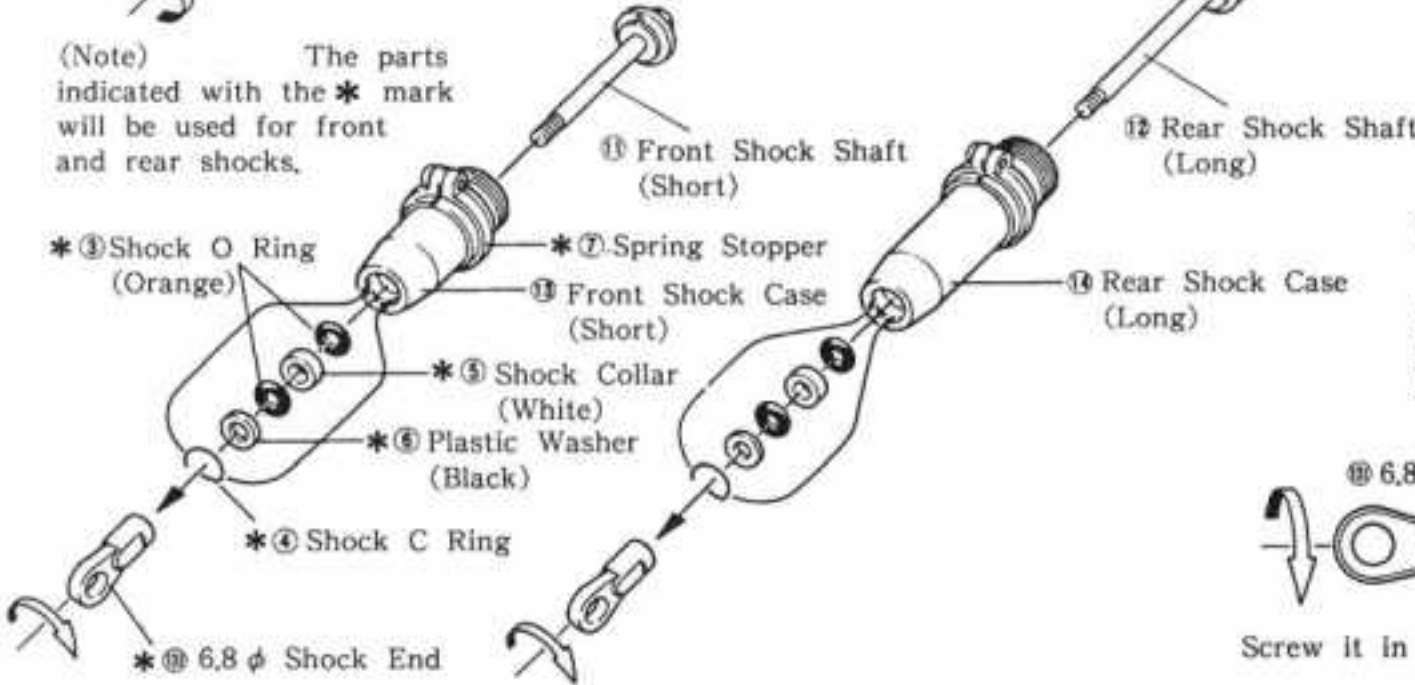
\*④ Shock C Ring

Fit the shock shaft through the shock case and screw the shock end on the shock shaft.



Screw it in

(Note) The parts indicated with the \* mark will be used for front and rear shocks.

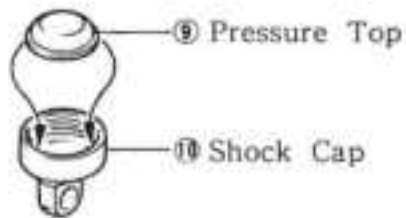


# 2 FILLING THE SHOCKS WITH OIL

1. Lower the piston to the bottom and pour the oil little by little.
2. Move the piston up and down slowly in order to drive the air bubbles towards the upper position.
3. Keep the piston in the lowest position, and tighten the shock cap (10) letting excessive oil spill over.
3. Move the piston up and down to confirm that it operates smoothly.

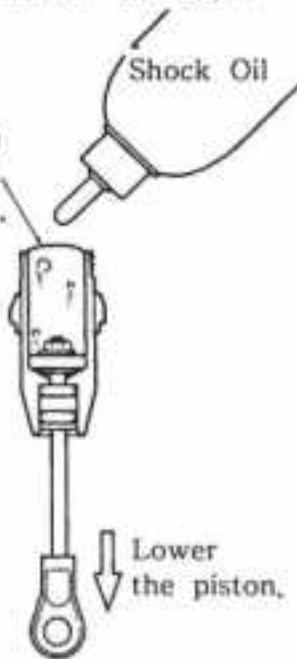
<Fitting Pressure Top>

Insert the pressure top (9) into the shock cap (10).



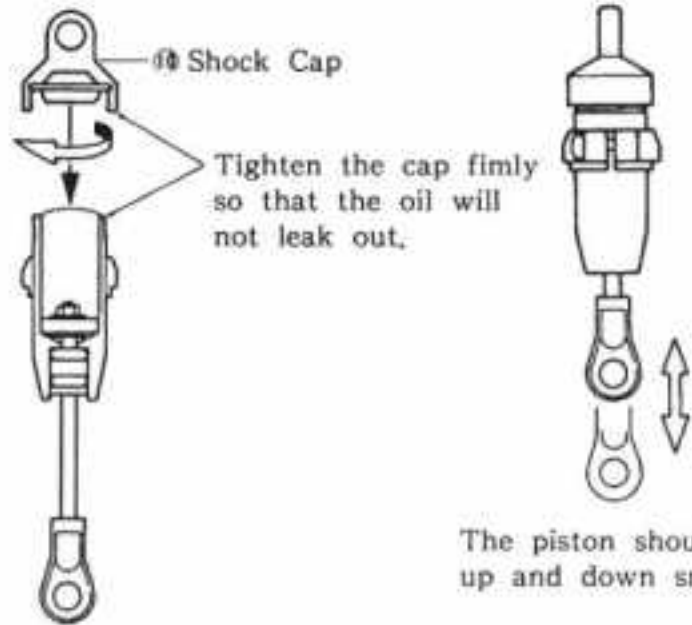
Fit it firmly into the groove.

Fill it with the oil to slightly above the brim.



⑩ Shock Cap

Tighten the cap firmly so that the oil will not leak out.

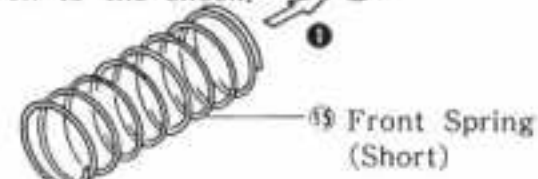


The piston should move up and down smoothly.

# 3 INSTALLATION OF SHOCK SPRINGS

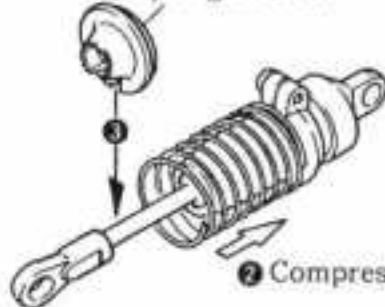
\*The shorter spring is for the front shock, and the longer one for the rear shock.

Slide the spring on to the shock.



⑩ Spring Holder

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



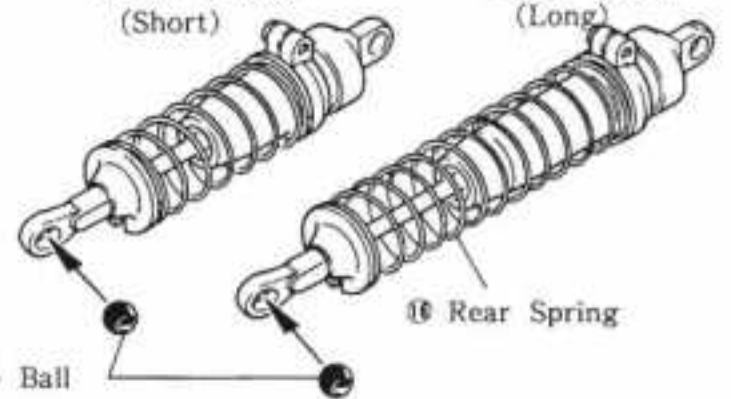
② Compress it.

● Front Shock (Short)

● Rear Shock (Long)

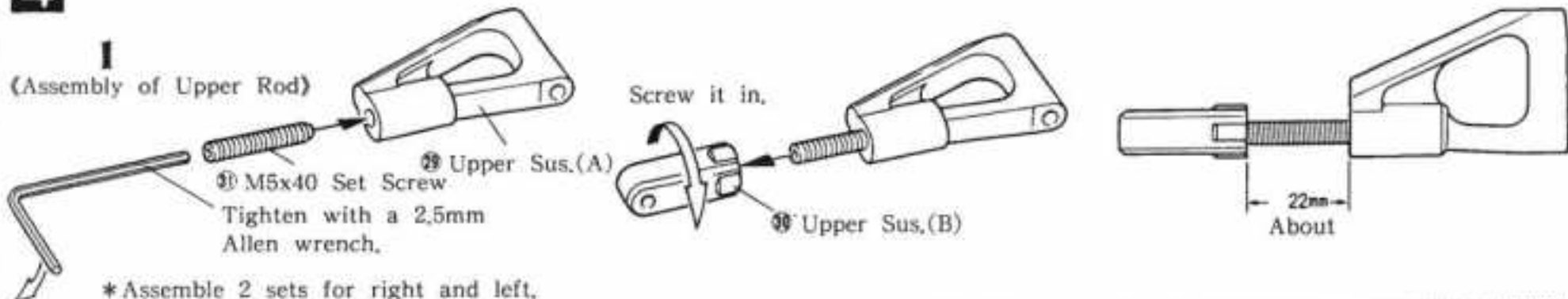
⑥ 6.8 φ Ball

⑩ Rear Spring

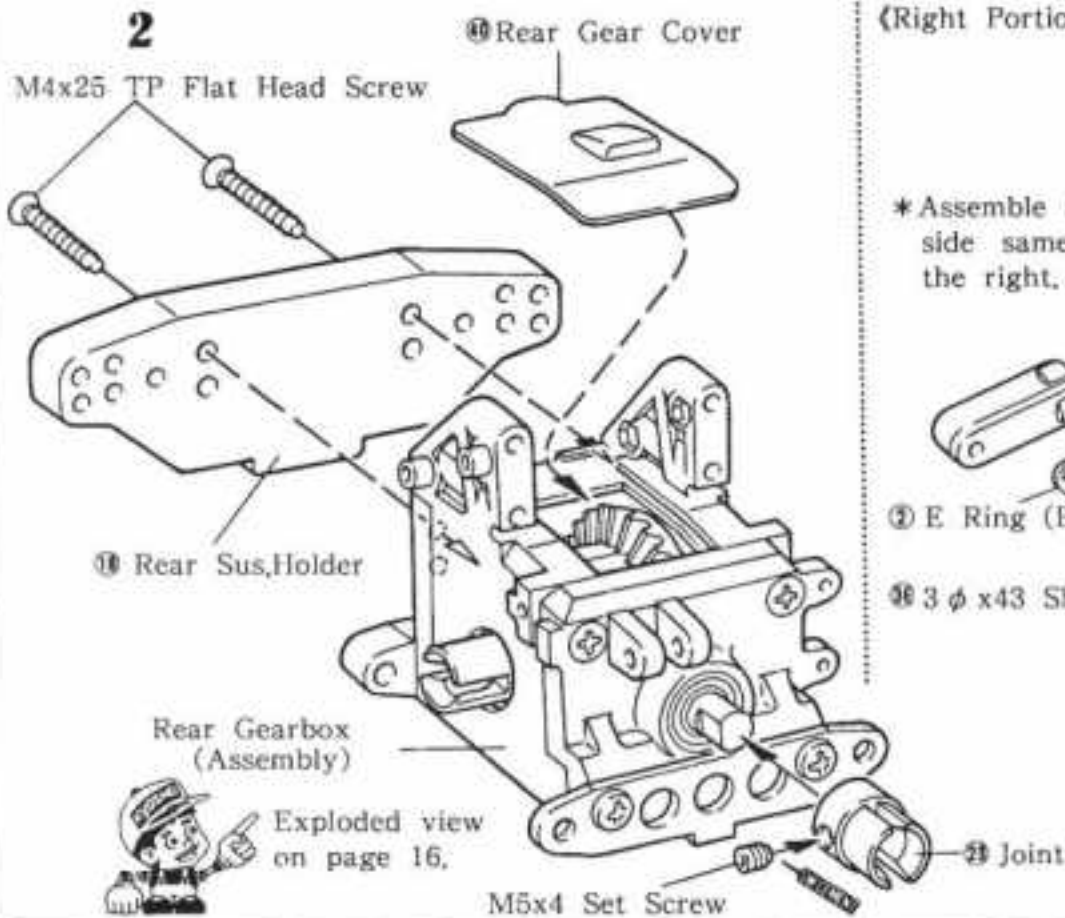


## 4 ASSEMBLY OF REAR GEARBOX PARTS

### 1 (Assembly of Upper Rod)

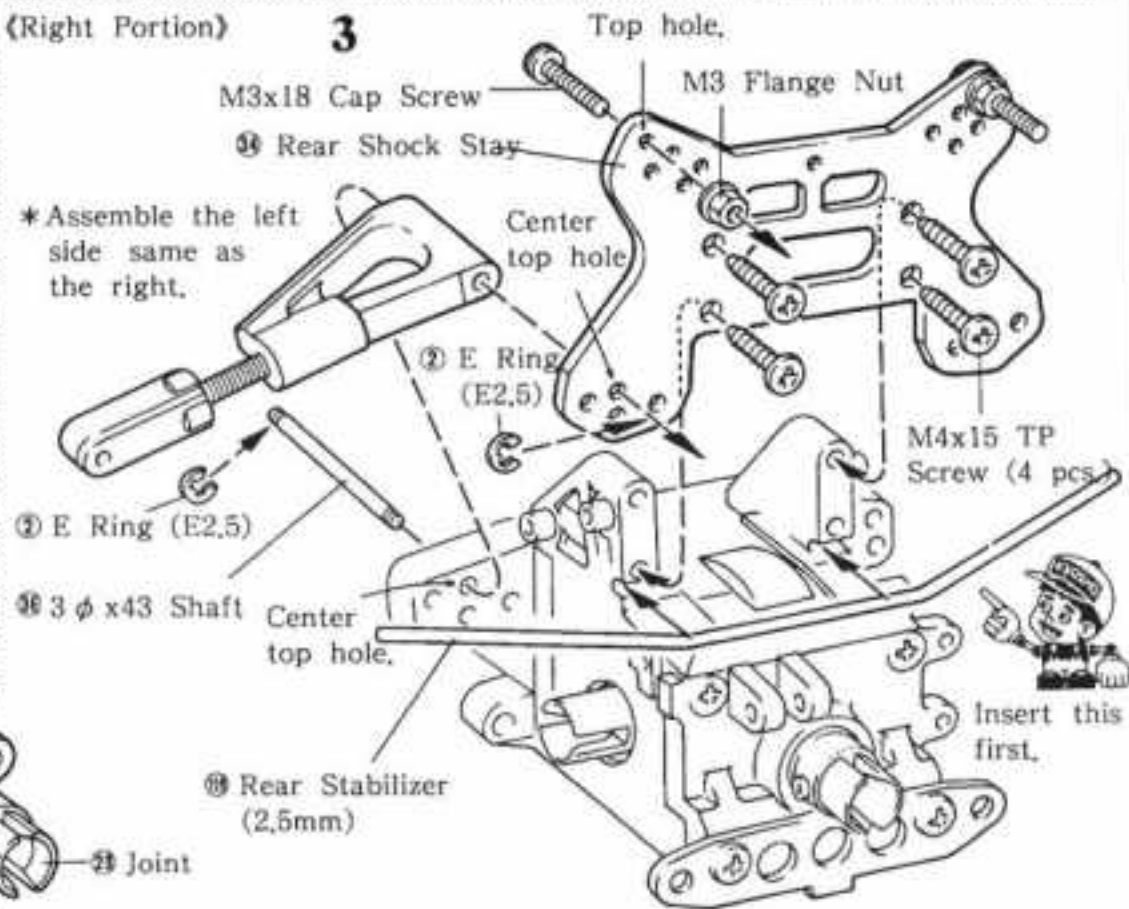


### 2



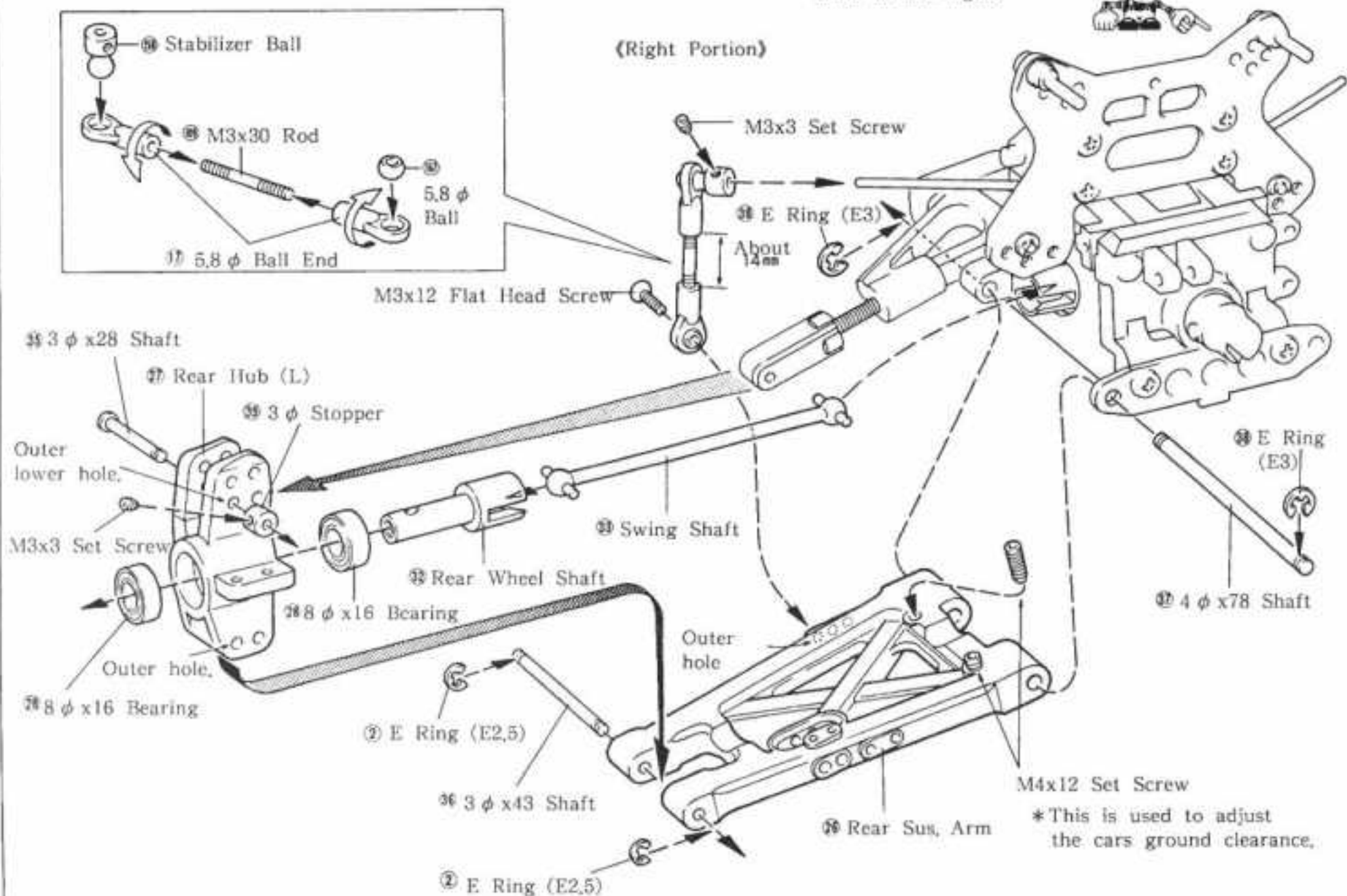
(Right Portion)

### 3



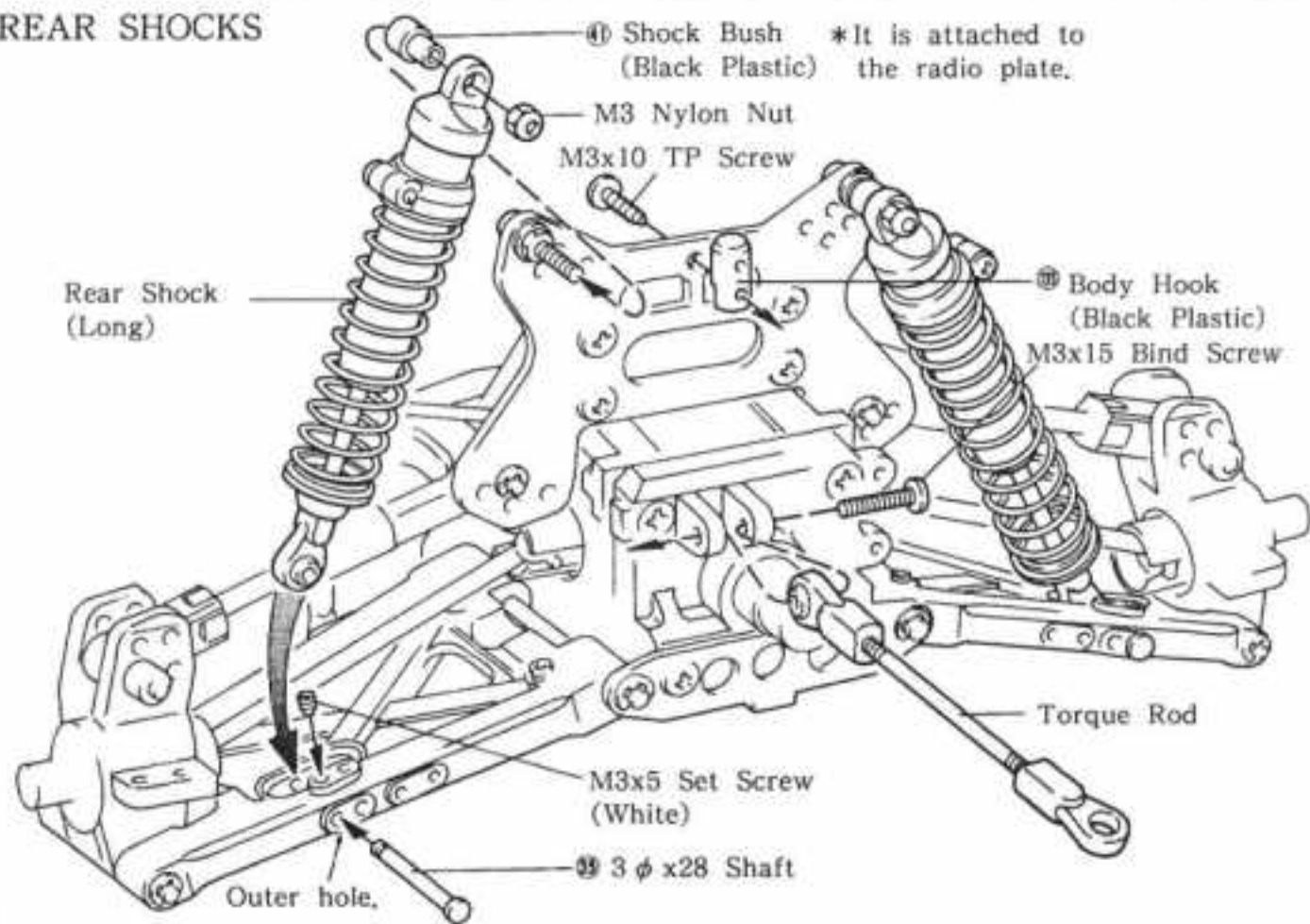
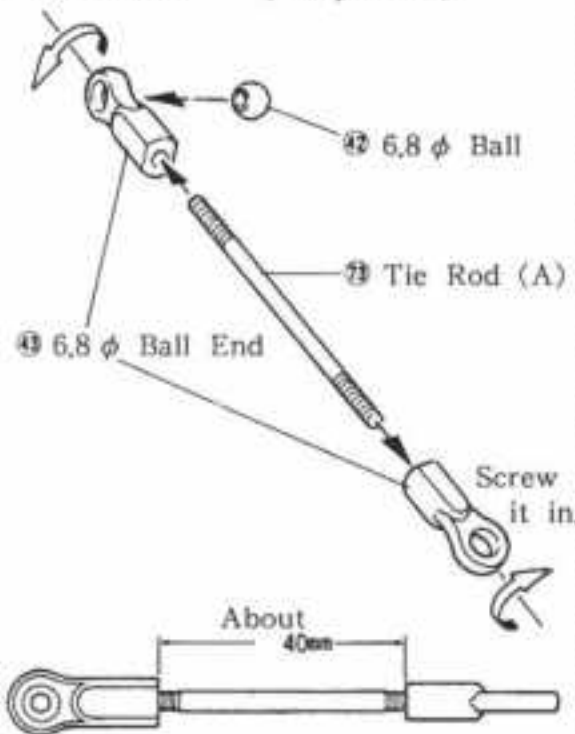
## 5 INSTALLATION OF REAR SUSPENSION ARMS

\* Assemble the left side same as the right.

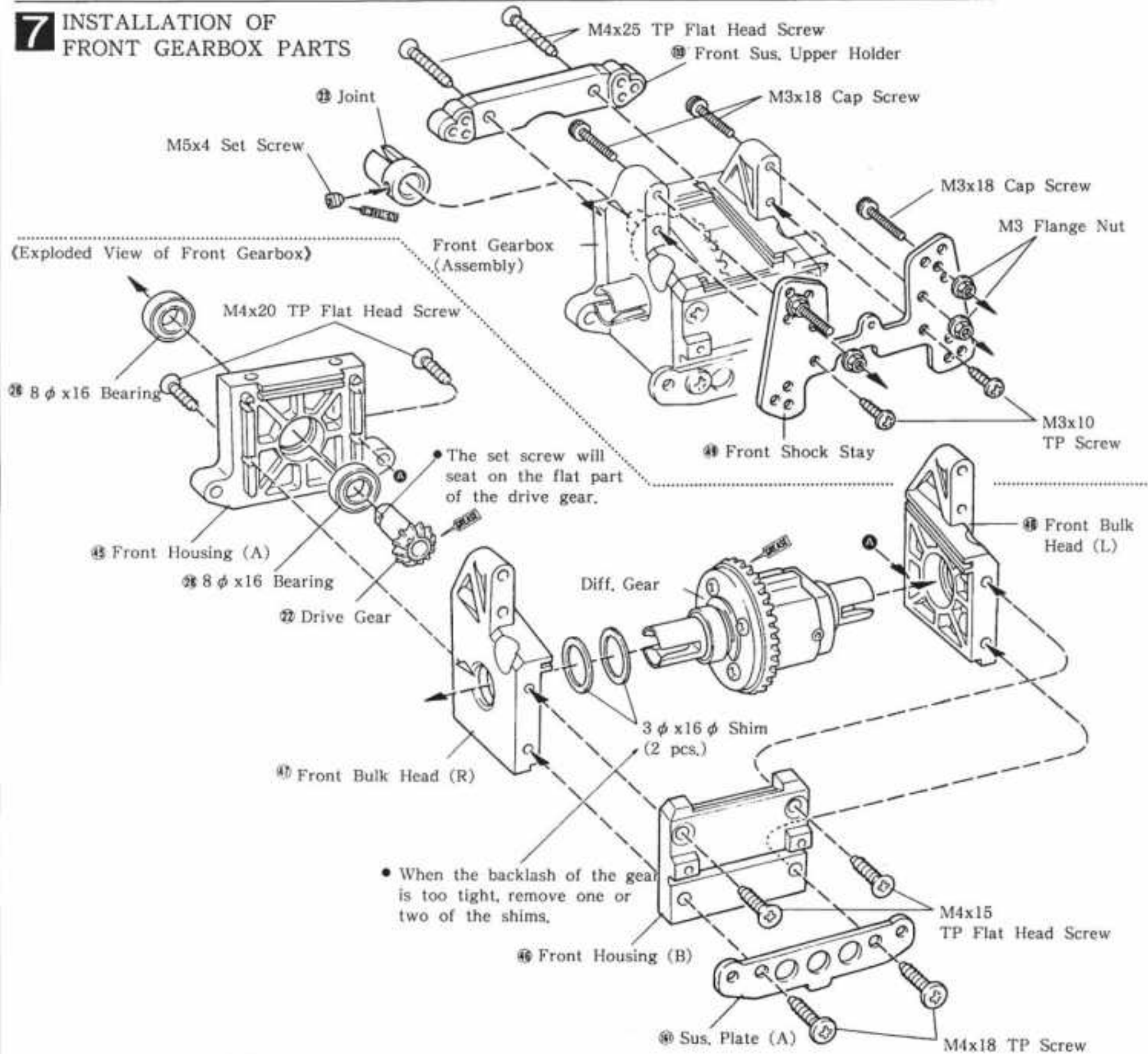


## 6 INSTALLATION OF THE REAR SHOCKS

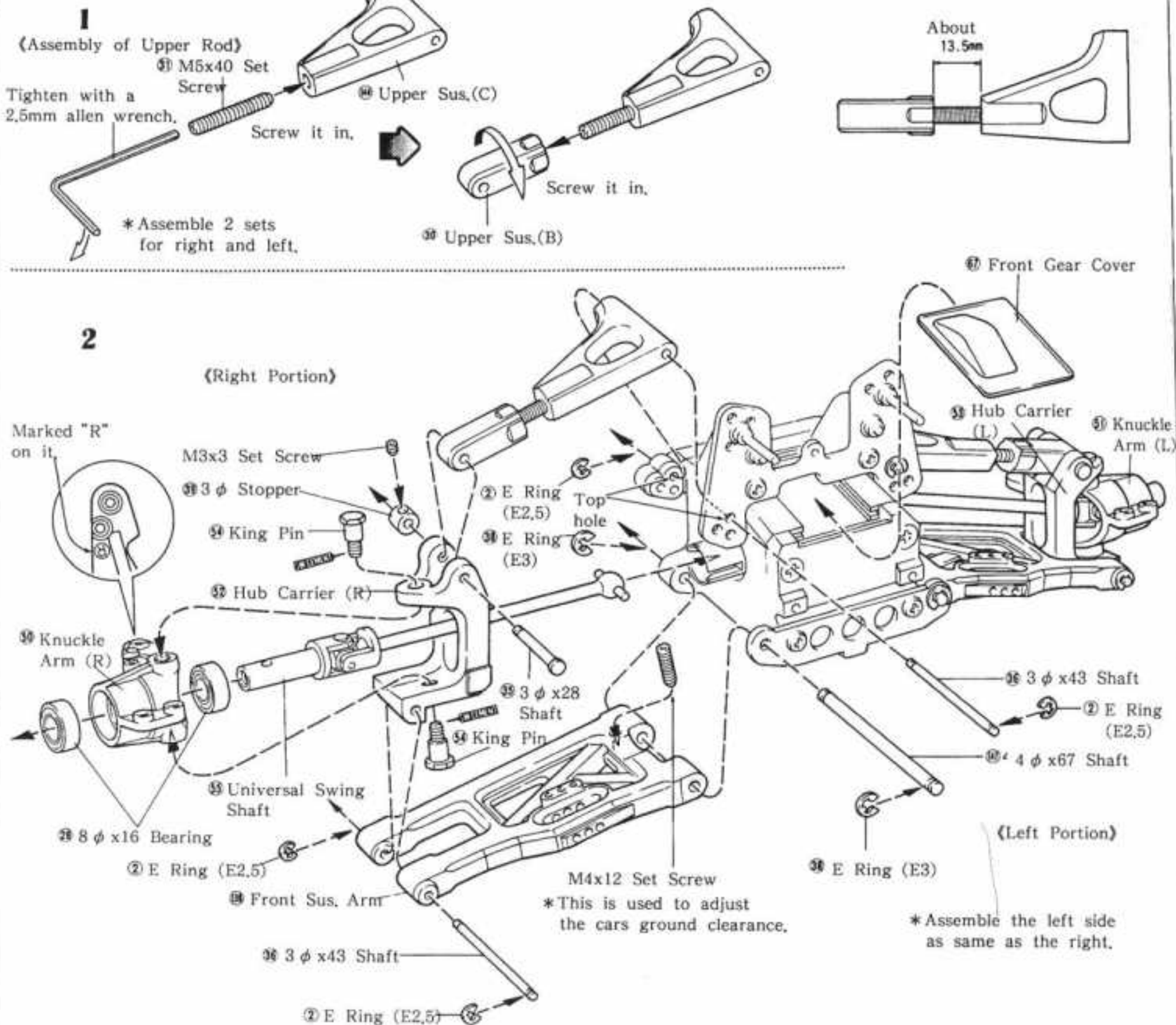
Screw it in. (Torque rod)



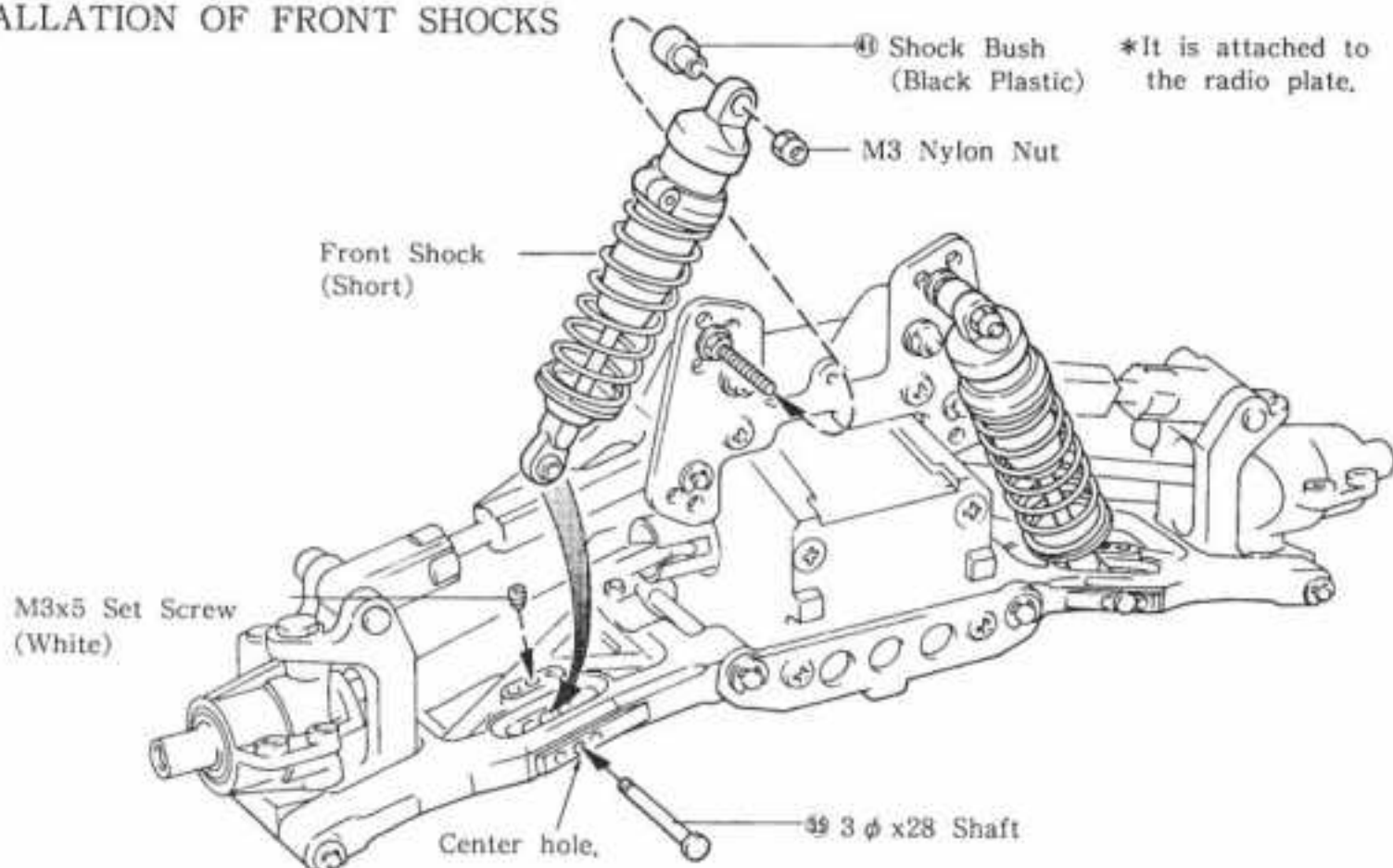
## 7 INSTALLATION OF FRONT GEARBOX PARTS



## 8 INSTALLATION OF FRONT SUSPENSION ARM

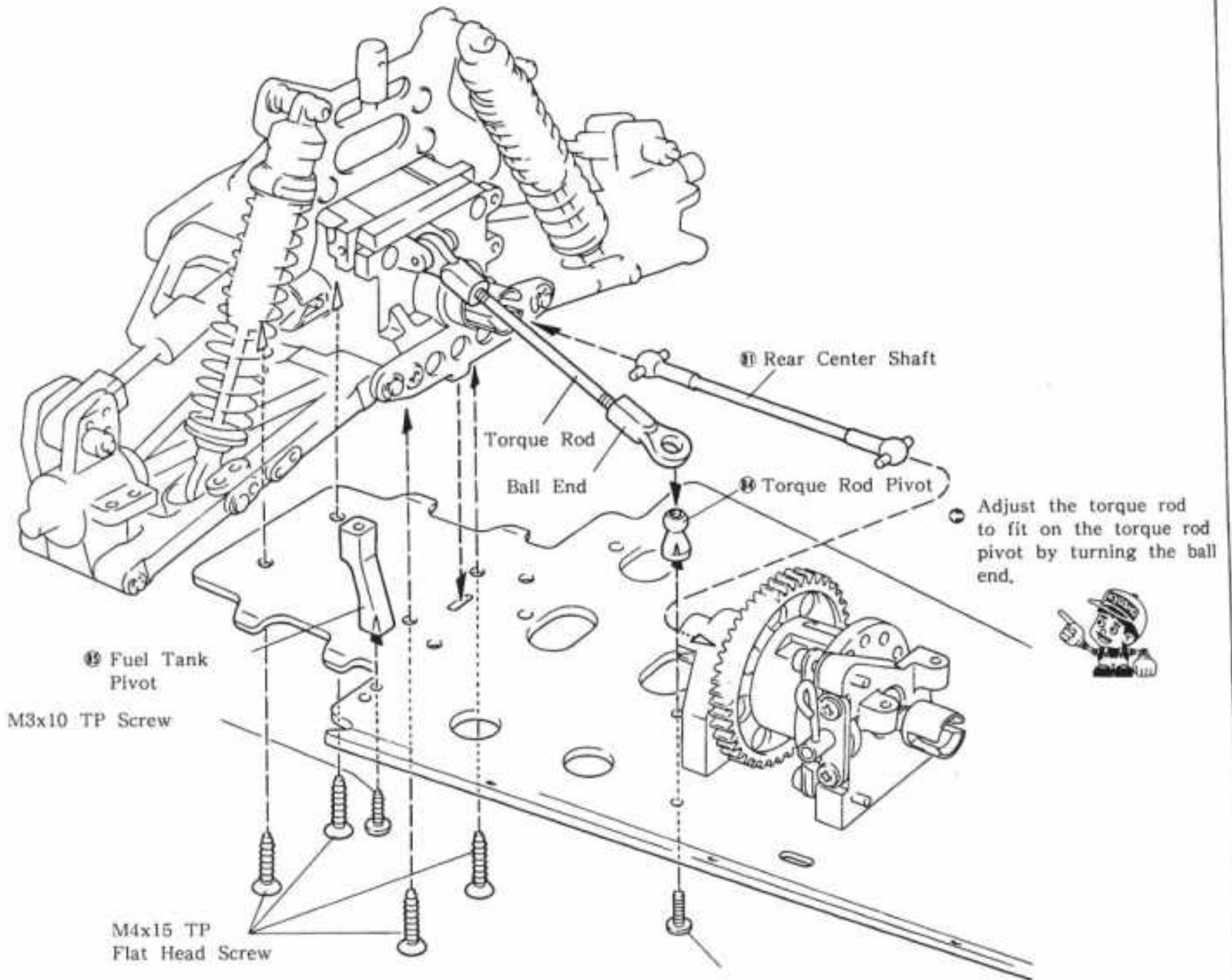


## 9 INSTALLATION OF FRONT SHOCKS

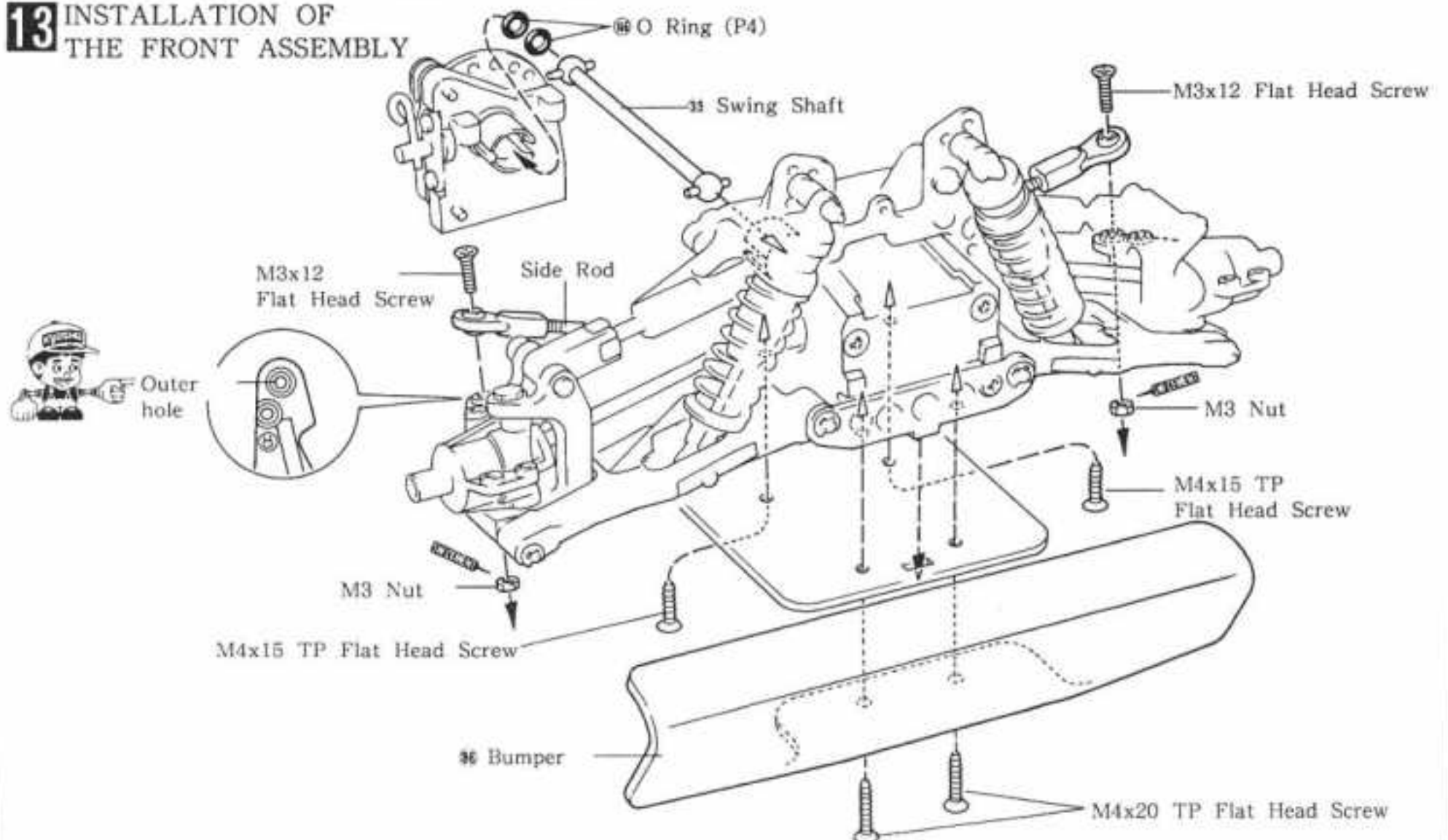




## 12 INSTALLATION OF THE REAR ASSEMBLY

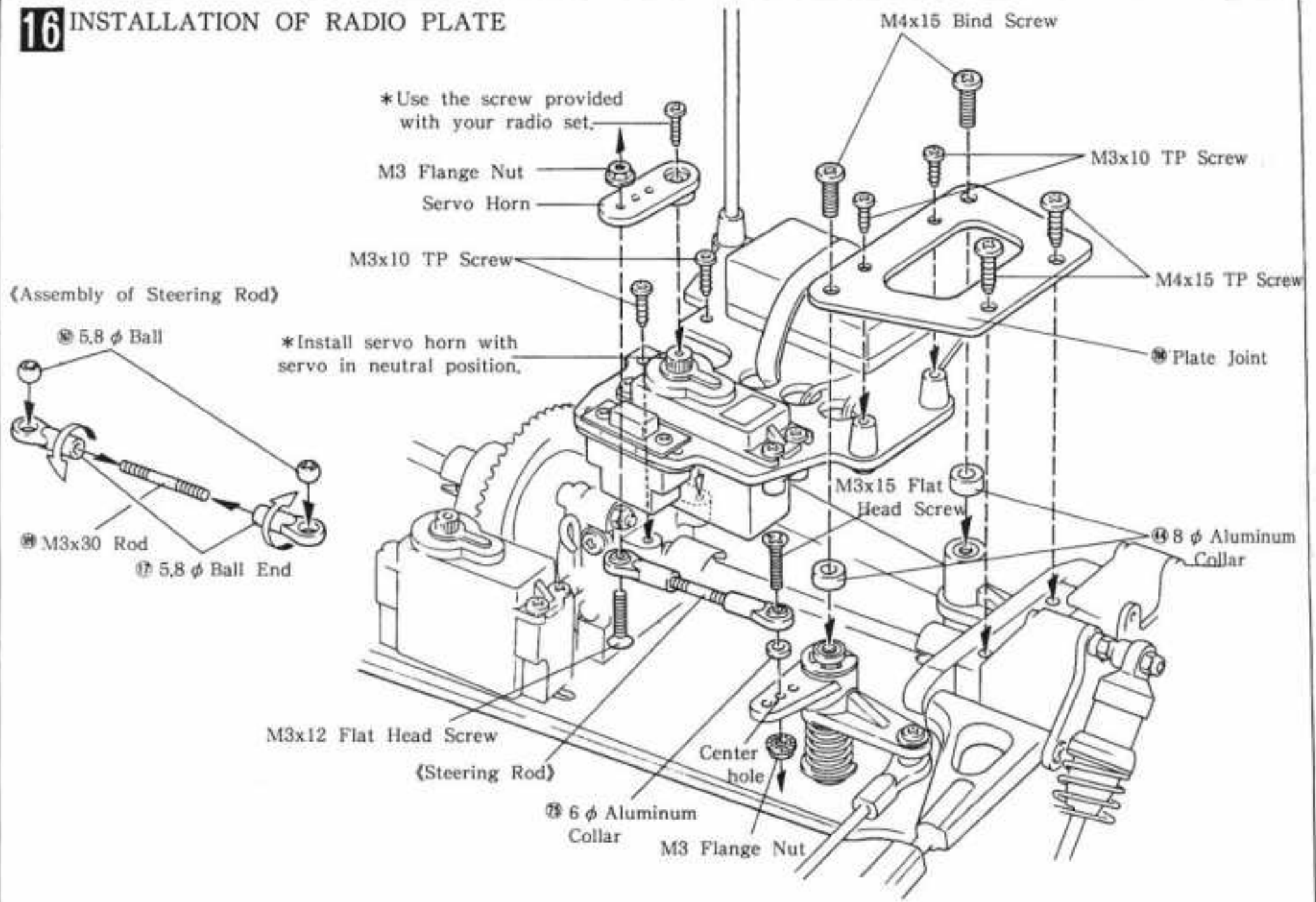


## 13 INSTALLATION OF THE FRONT ASSEMBLY

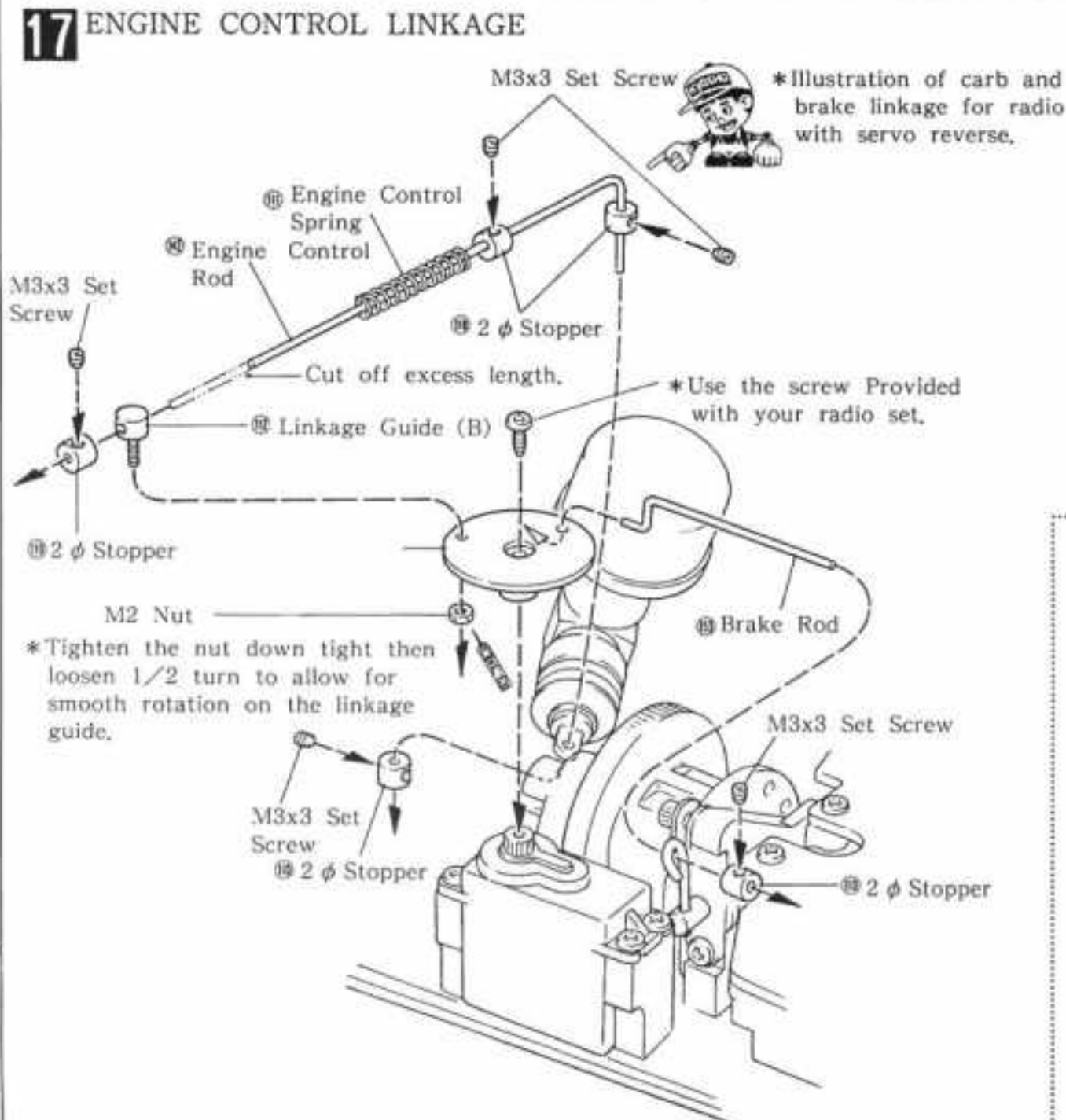




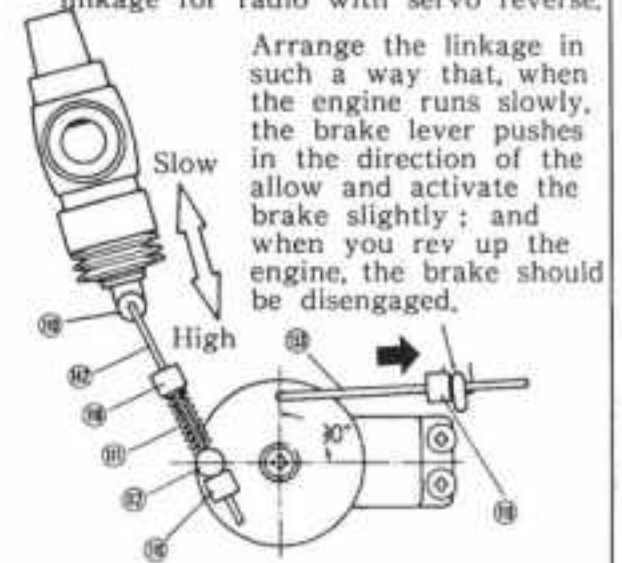
# 16 INSTALLATION OF RADIO PLATE



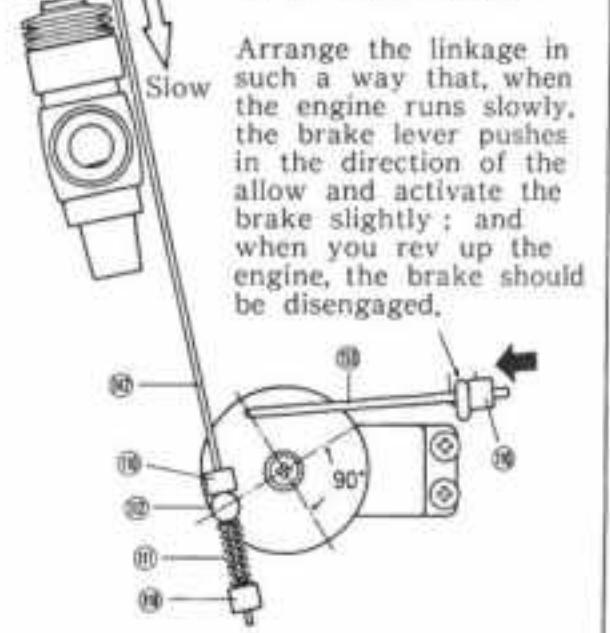
# 17 ENGINE CONTROL LINKAGE



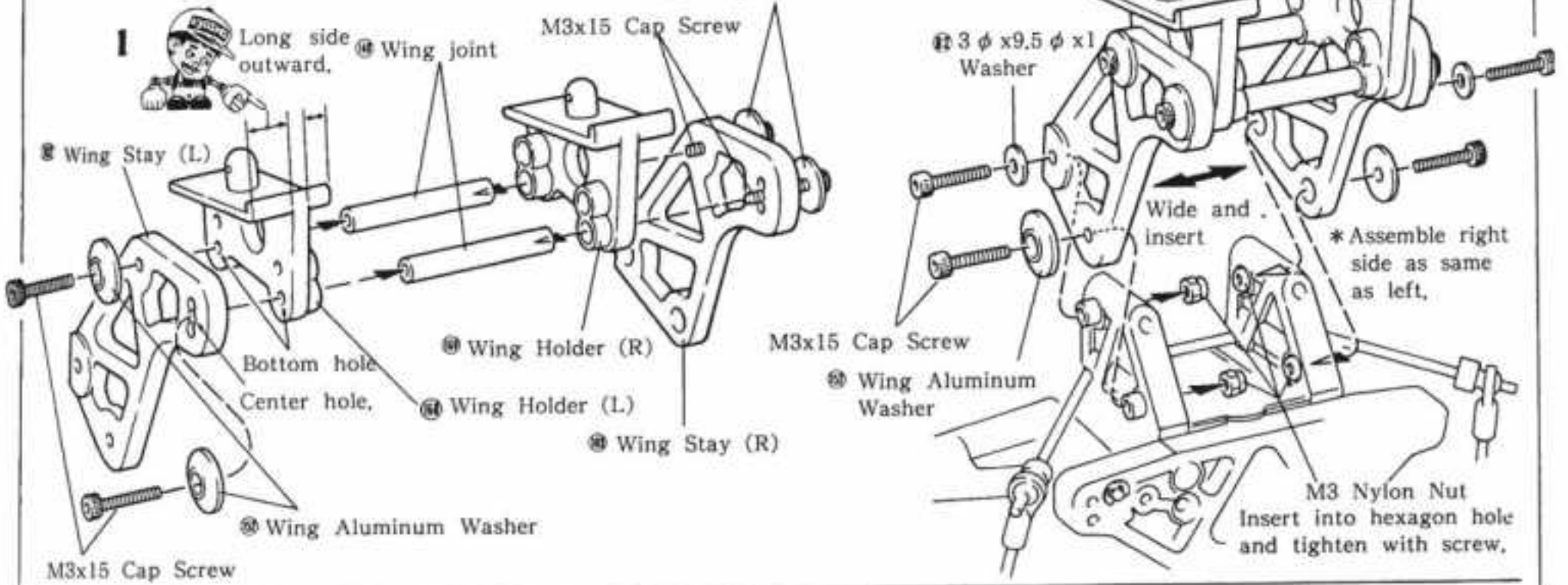
\*Illustration of carb and brake linkage for radio with servo reverse.



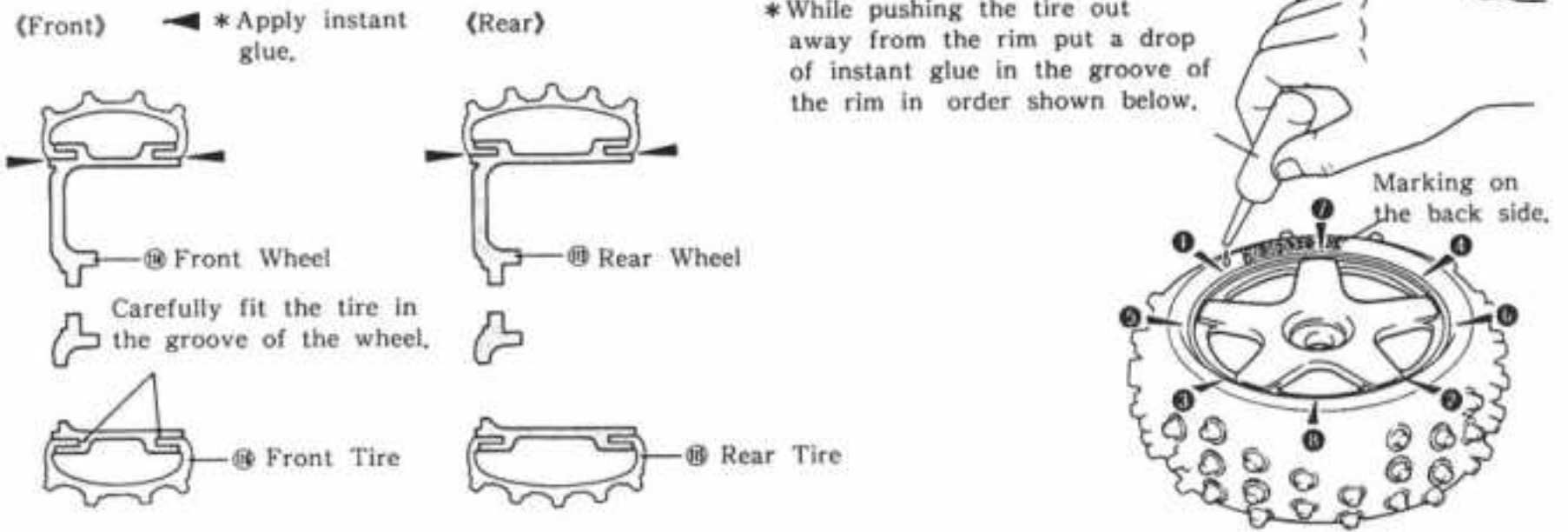
\*Illustration of carb and brake linkage for radio with normal servo.



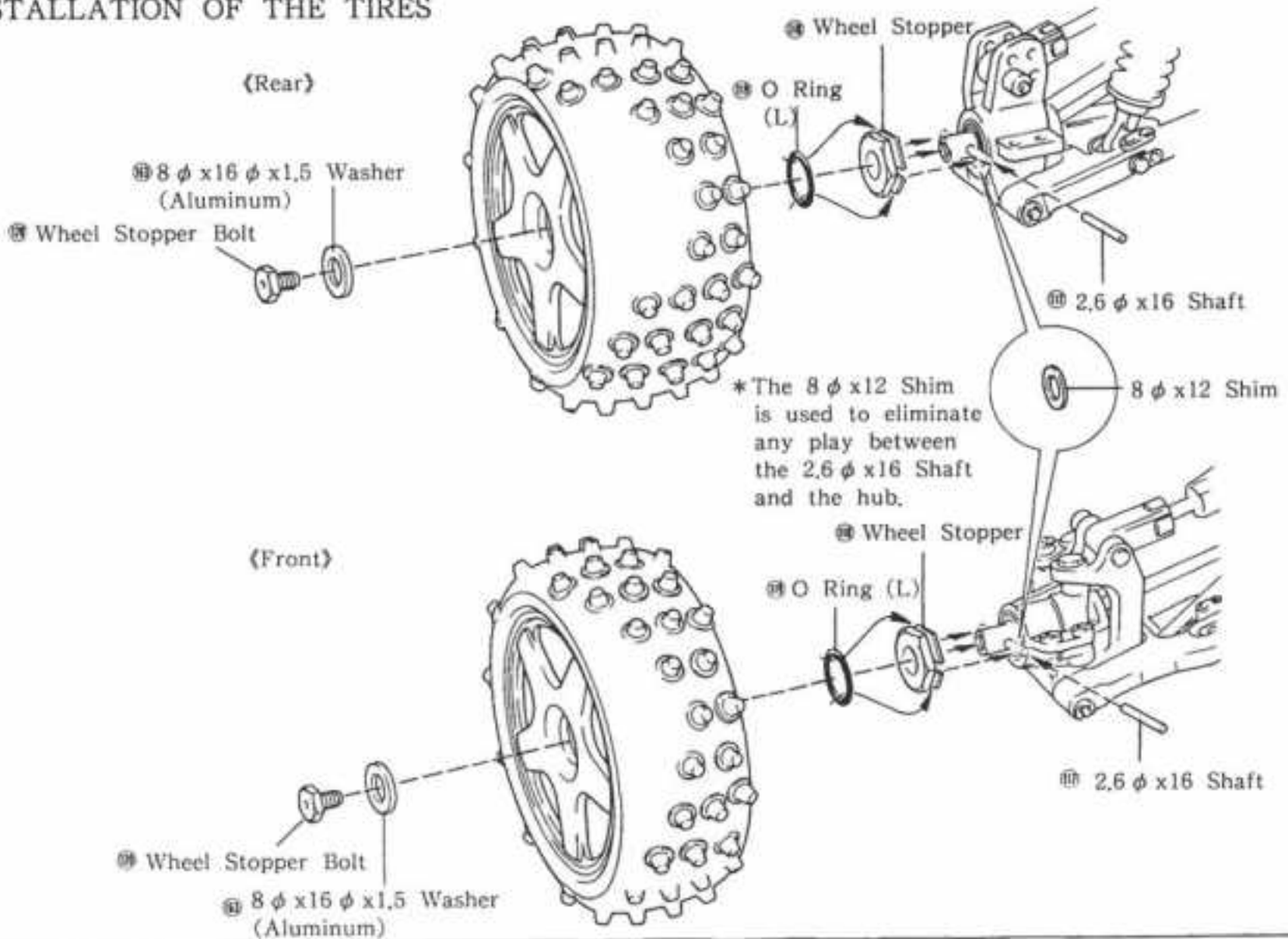
# 18 ASSEMBLY OF WING STAY



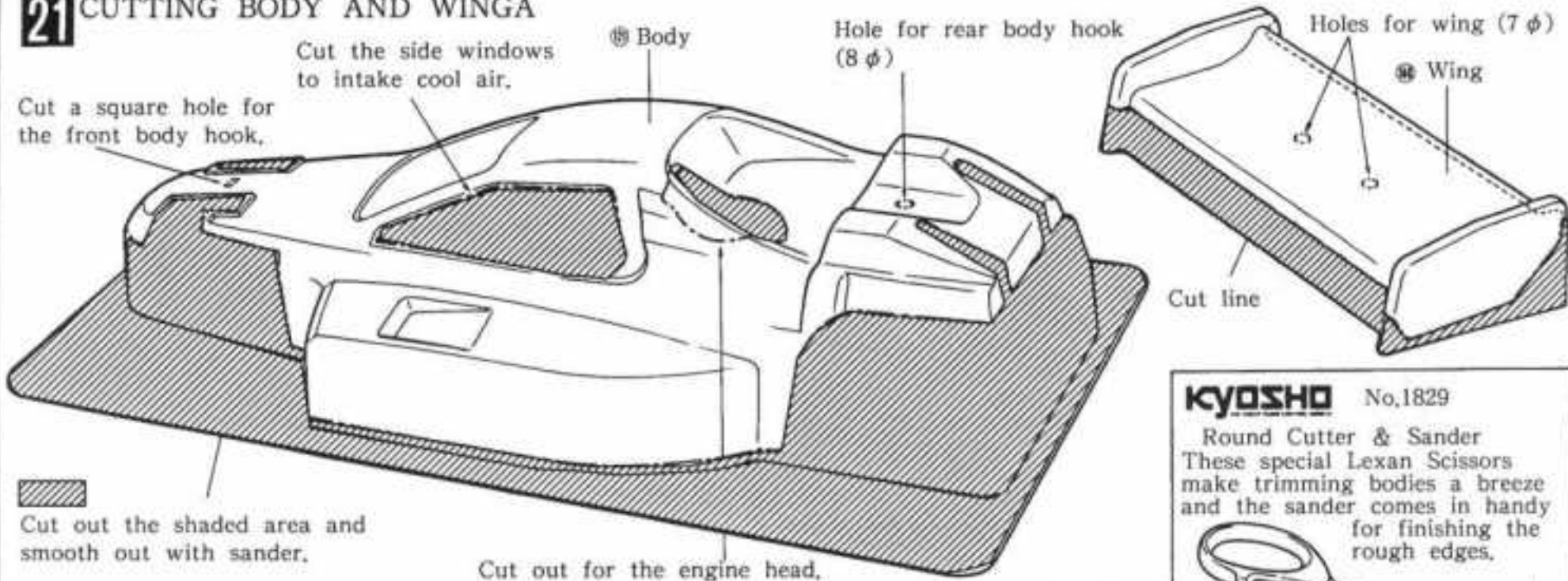
# 19 ASSEMBLY OF TIRES AND WHEELS



# 20 INSTALLATION OF THE TIRES

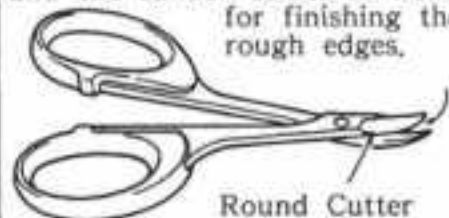


## 21 CUTTING BODY AND WING



**KYOSHO** No.1829

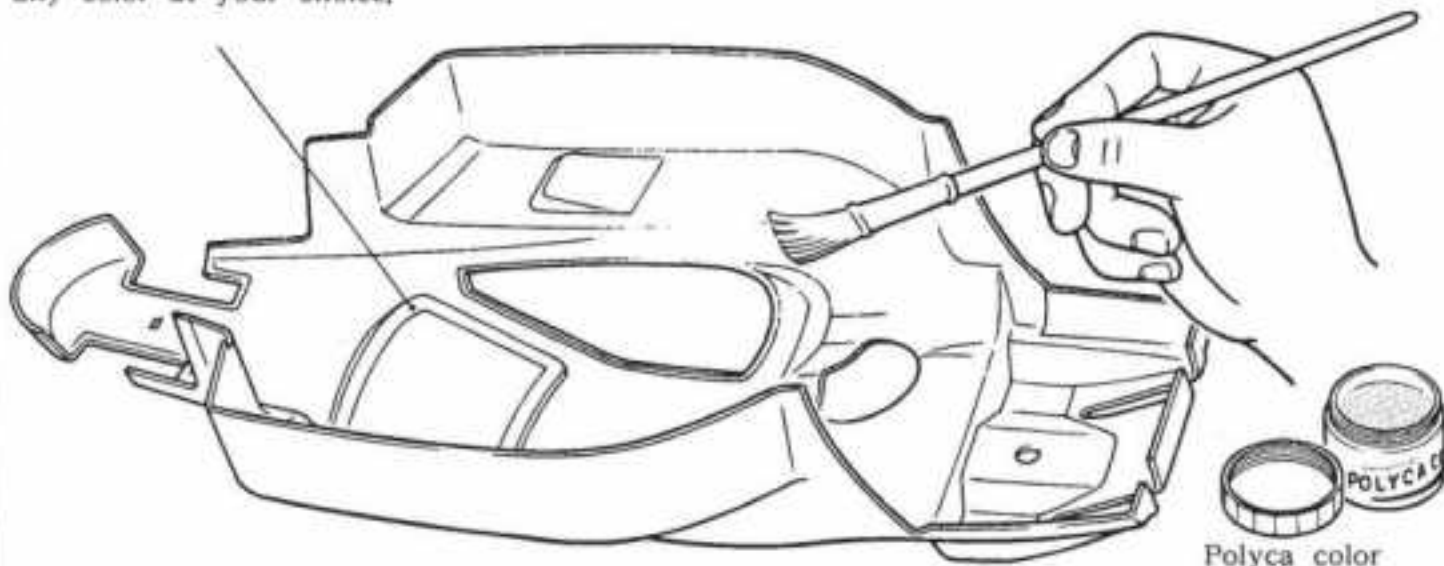
Round Cutter & Sander  
These special Lexan Scissors make trimming bodies a breeze and the sander comes in handy for finishing the rough edges.



## 22 PAINTING BODY AND WING

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

Mask the windows with the Micron Line Tape and paint the body in any color at your choice.



**KYOSHO**

Micron Line Tape  
No.1841...1mm  
No.1842...1.5mm  
No.1843...2.5mm

Color : White, Red  
Yellow, Green  
Blue and Black



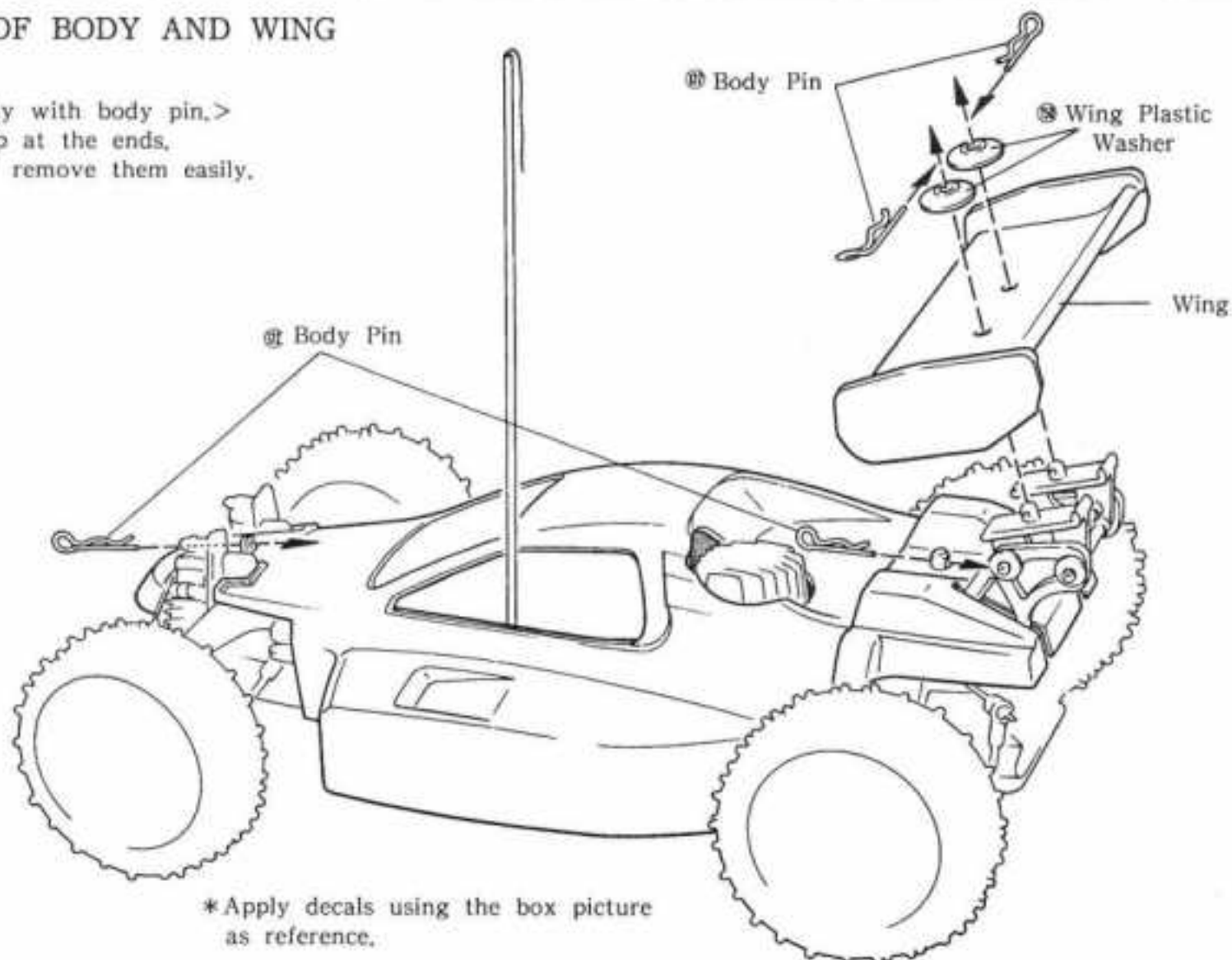
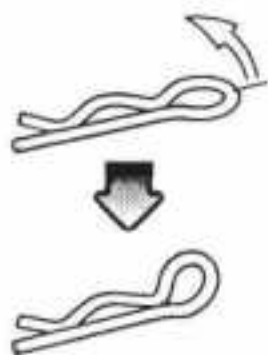
**KYOSHO** No.2230

Polyca Color  
White, Red, Yellow,  
Blue, Green, Skyblue,  
Orange, Black, Violet,  
F.Pink, F.Orange and  
Yellow Green

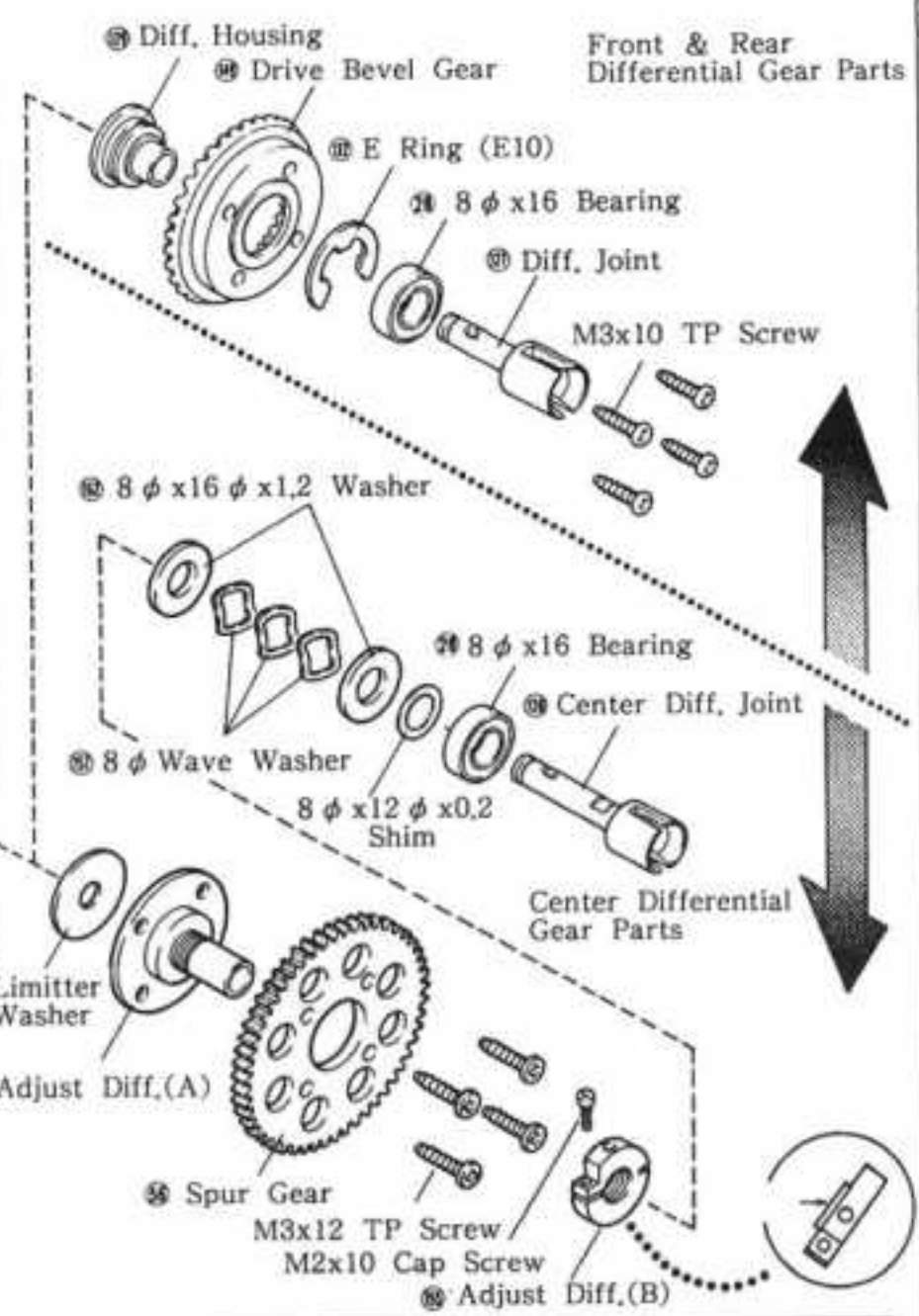
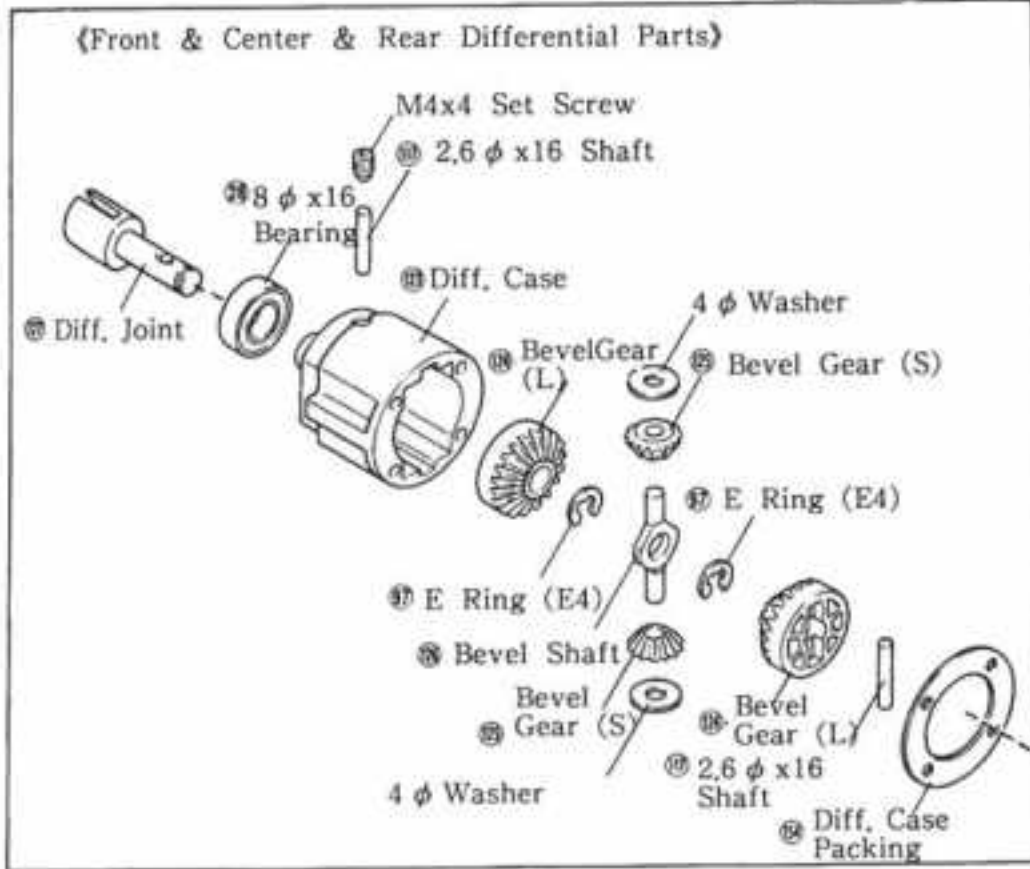


## 23 INSTALLATION OF BODY AND WING

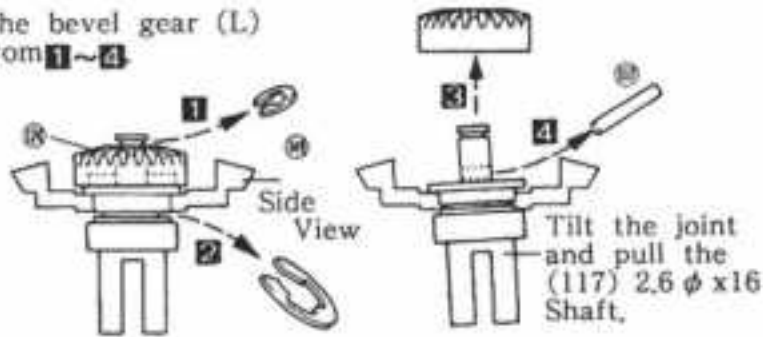
<Install the painted body with body pin.>  
\*Bend the body pins up at the ends, this will allow you to remove them easily.



# EXPLODED VIEW OF THE FRONT AND REAR DIFFERENTIAL GEARS

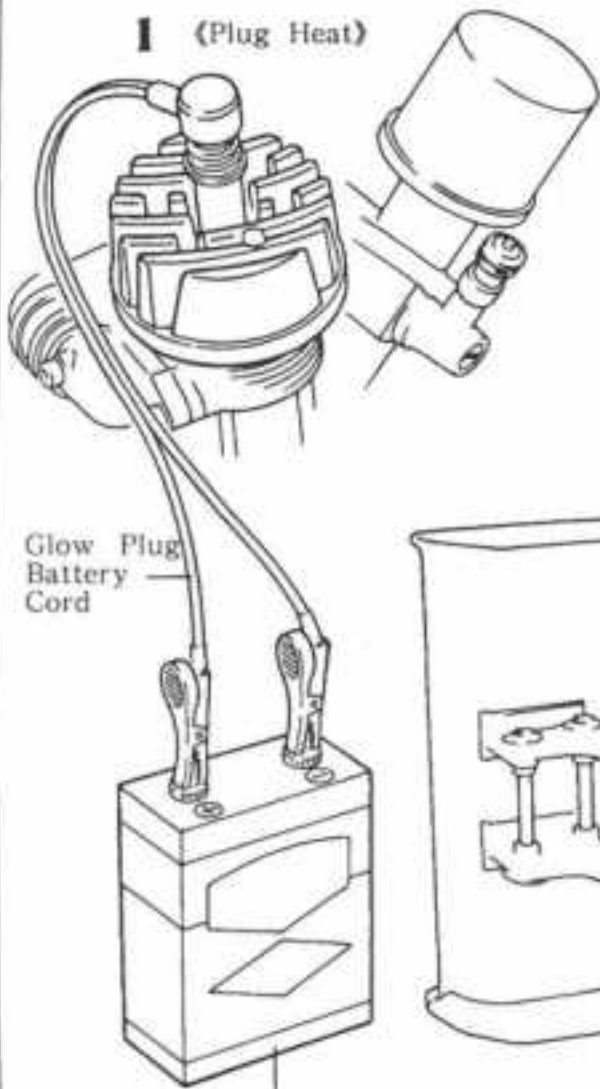


Take off the bevel gear (L) in order from 1~4



## STARTING THE ENGINE

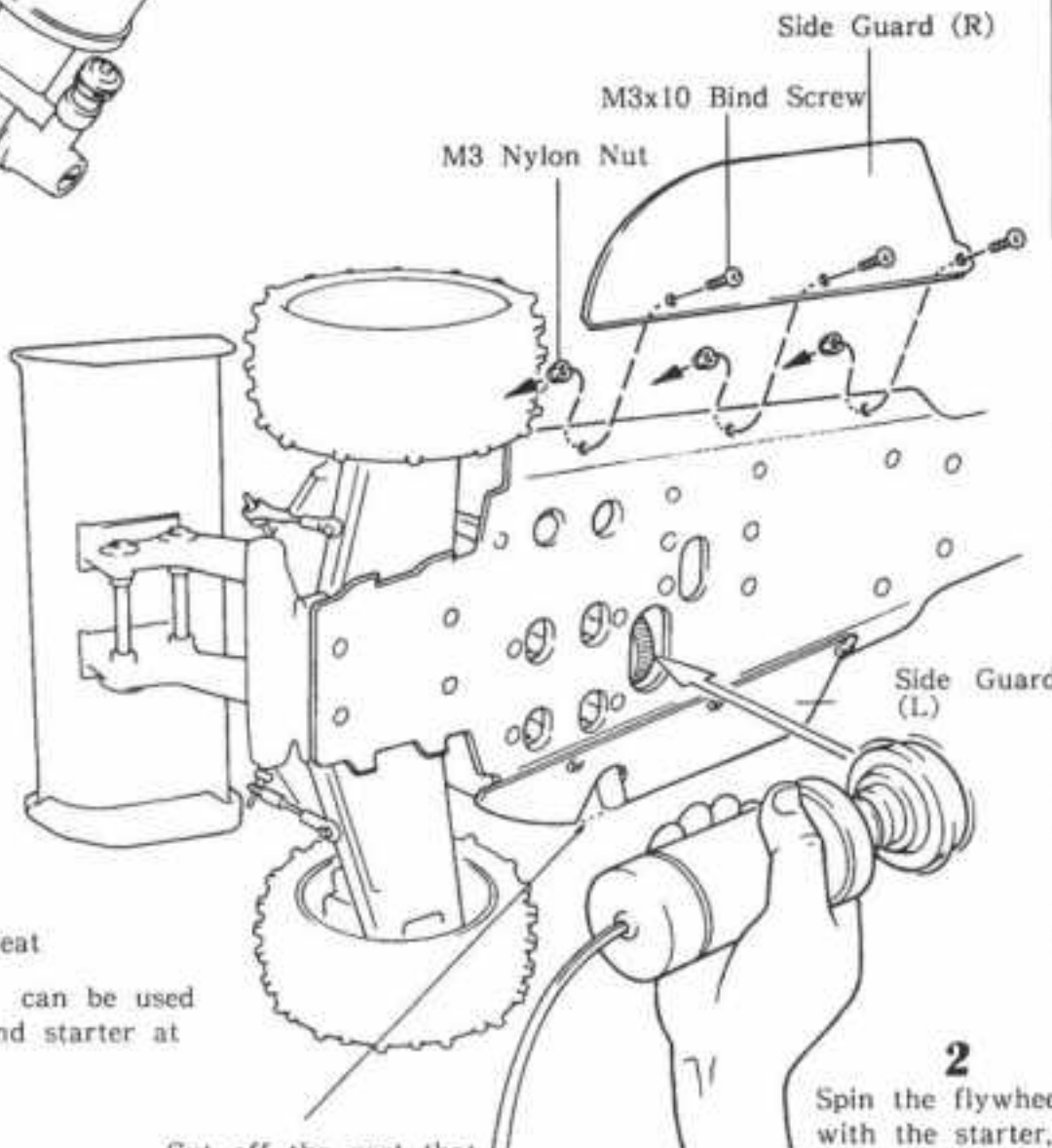
### 1 (Plug Heat)



1.5V Battery for Plug Heat

\*kyosho "Power Divider" can be used for both plug heater and starter at the same time.

(Note)  
(64) side guard parts are for racing. Cut 2 pcs. for right and left using actual size drawing on page 16.



Cut off the part that hits against the muffler.

It has two different voltage power sources; one for heating up the plug, 1.5volts; the other is for driving a starter, 12volts. It is powered from a 12 volt battery. The ammeter on it tells you how good or bad your plug is working.

No.1835 Power Divider

It is equipped with a high power 12 volt DC motor. It powers your model with fast rotation and high torque. It will start all models such as racing and buggy cars, air planes, helicopters, and boats mounted with small to large sized engines.

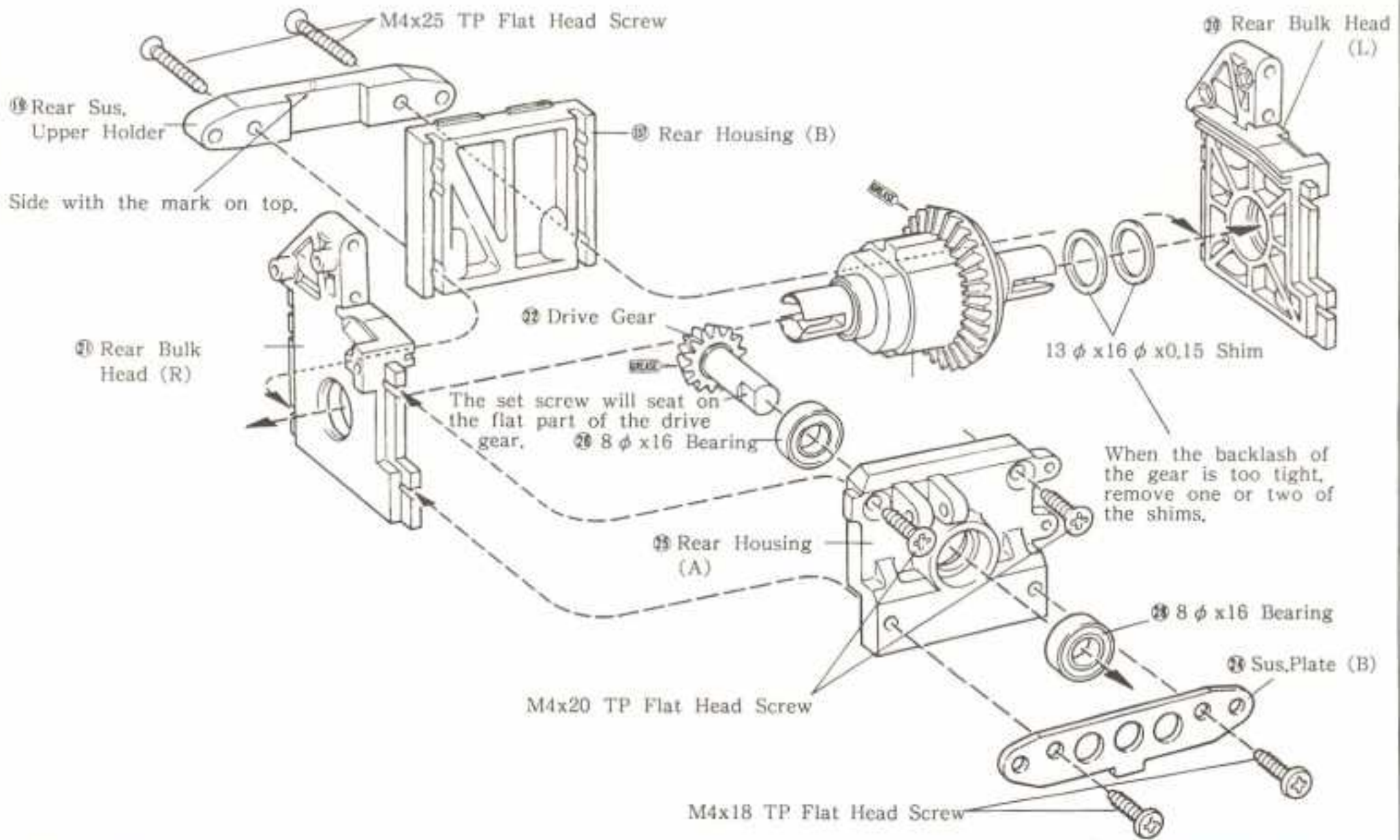


No.1791 Blitz Starter

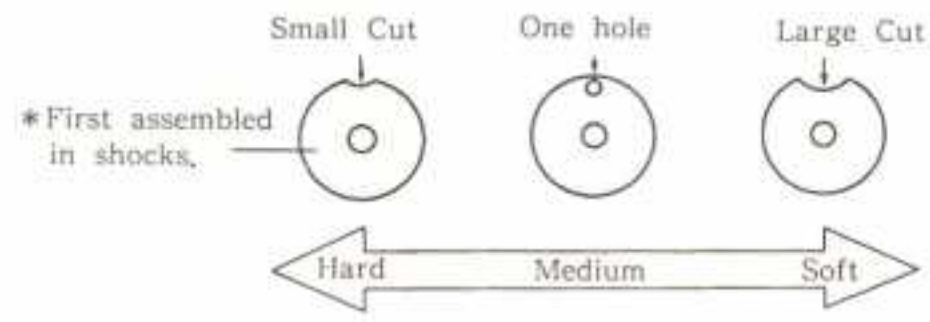
\*BZ-1 Starter Rubber Ring (for car)

<Not included>

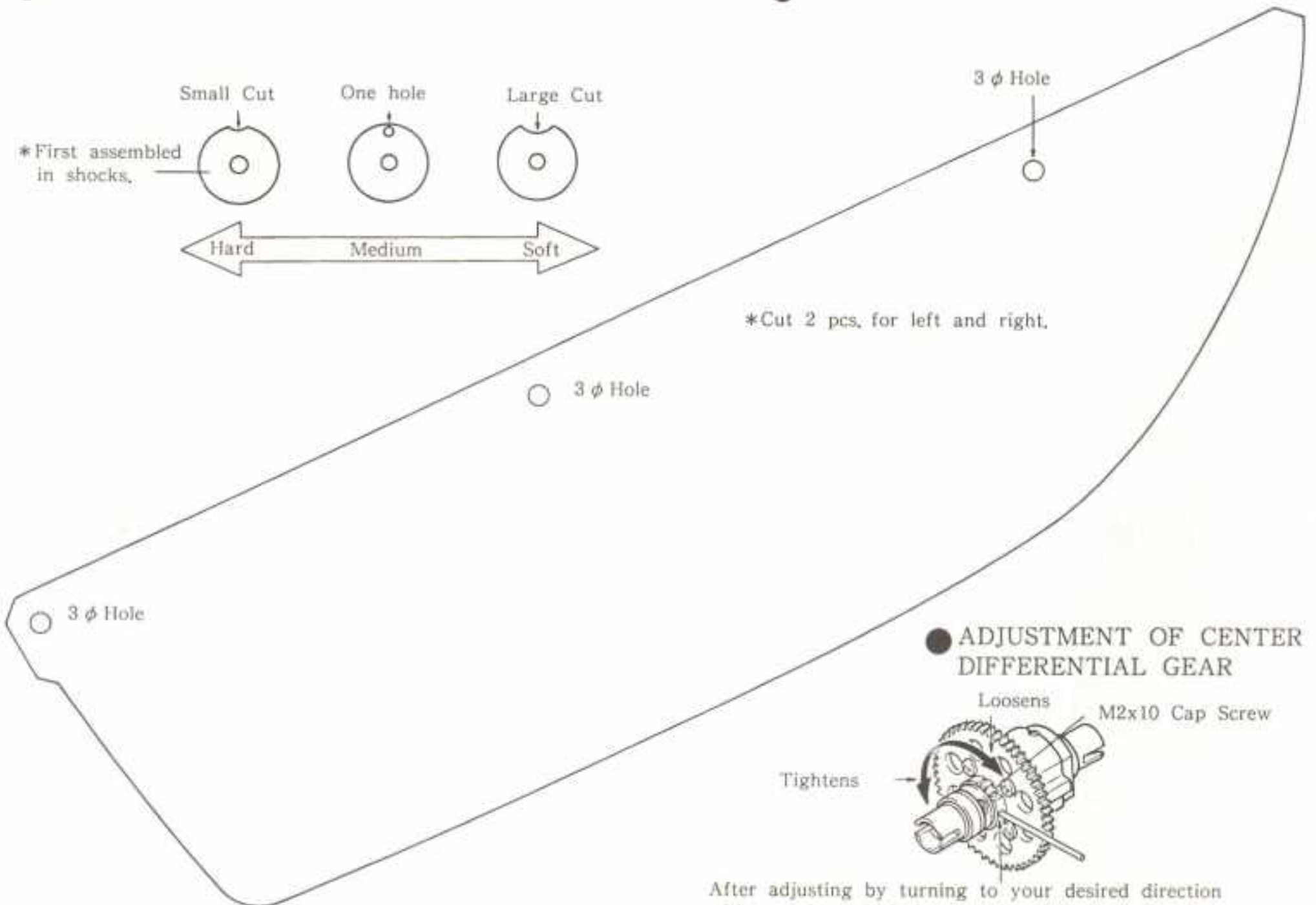
● EXPLODED VIEW OF REAR GEARBOX



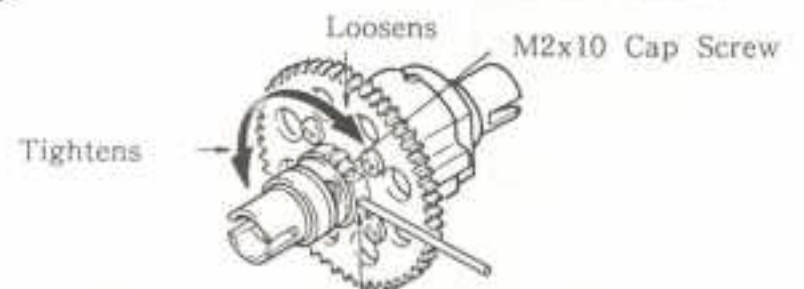
● SHOCK PISTON



● SIDE GUARD (ACTUAL SIZE)



● ADJUSTMENT OF CENTER DIFFERENTIAL GEAR



After adjusting by turning to your desired direction with a rod or shaft inserted into this hole, tighten with M2x10 Cap Screw.

**KEY NUMBER PARTS LIST**

Key #	Parts Name	Q'ty	Key #	Parts Name	Q'ty	Key #	Parts Name	Q'ty
①	Shock Piston	4	⑥⑧	Brake Pads	2	⑩⑪	O Ring (L)	4
②	E Ring (E2,5)	16	⑥⑨	Brake Cam	1	⑩⑫	wheel Stopper Bolt	4
③	Shock O Ring (Orange)	8	⑥⑩	Brake Stopper	1	⑩⑬	Body	1
④	Shock C Ring	4	⑥⑪	Brake Lever	1	⑩⑭	Body Pin	4
⑤	Shock Collar (White)	4	⑥⑫	Side Guard	1	⑩⑮	Diff. Gear Case	3
⑥	Plastic Washer (Black)	4	⑥⑬	Servo Saver Shaft (A)	2	⑩⑯	Bevel Gear (L)	6
⑦	Spring Stopper	4	⑥⑭	Servo Saver Shaft (B)	1	⑩⑰	Bevel Gear (S)	6
⑧	6.8 φ Ball (Black)	4	⑥⑮	Front Gear Cover	1	⑩⑱	Bevel Gear Shaft	3
⑨	Pressure Top	4	⑥⑯	Servo Saver Spring	1	⑩⑲	Diff. Gear Joint	5
⑩	Shock Cap	4	⑥⑰	Servo Saver Horn (A)	1	⑩⑳	Center Diff. Gear Joint	1
⑪	Front Shock Shaft	2	⑥⑱	Servo Saver Horn (B)	1	⑩㉑	Diff. Gear Housing	2
⑫	Rear Shock Shaft	2	⑥㉑	Servo Saver Horn (C)	1	⑩㉒	Adjust Diff. Gear Joint (A)	1
⑬	Front Shock Case	2	⑥㉒	E Ring (E7)	2	⑩㉓	6.8 φ Shock End	4
⑭	Rear Shock Case	2	⑥㉓	Tie Rod (A)	3	⑩㉔	E Ring (E10)	2
⑮	Front Spring	2	⑥㉔	Tie Rod (B)	1	⑩㉕	Front Sus. Upper Holder	1
⑯	Rear Spring	2	⑥㉕	6 φ Aluminum Collar	5	⑩㉖	Strap (M)	4
⑰	5.8 φ Ball End	6	⑥㉖	Antenna Pipe	1	⑩㉗	Body Hook	1
⑱	Rear Sus. Holder	1	⑥㉗	Radio Plate	1	⑩㉘	Servo Spacer	2
⑲	Rear Sus. Upper Holder	1	⑥㉘	Switch Boot	1	⑩㉙	Rear Housing (B)	1
⑳	Rear Bulk Head (L)	1	⑥㉙	Servo Fixing Post	4	⑩㉚	Front Sus. Arm	2
㉑	Rear Bulk Head (R)	1	⑥㉚	Strap (L)	1	⑩㉛	Silicone Grease	1
㉒	Drive Gear	2	⑥㉛	Rear Center Shaft	1	⑩㉜	Screw Locking Compound	1
㉓	Joint	2	⑥㉜	3 φ x9.5 φ x1 Washer	2	⑩㉝	Rear Hub (R)	1
㉔	Sus. Plate (A)	1	⑥㉝	Mount Plate	2	⑩㉞	Engine Contro Rod	1
㉕	Rear Housing (A)	1	⑥㉞	Torque Rod Pivot	1	⑩㉟	Main Chassis	1
㉖	Rear Sus. Arm	2	⑥㉟	Fuel Tank Pivot	1	⑩㊱	Upper Sus. (C)	2
㉗	Rear Hub (L)	1	⑥㊱	Bumper	1	⑩㊲	Decal	1
㉘	8 φ x16 Bearing	18	⑥㊲	Manifold	1	⑩㊳	Air Cleaner	1 Set
㉙	Upper Sus. (A)	2	⑥㊳	Engine Mount	2	⑩㊴	4 φ x67 Shaft	2
㉚	Upper Sus. (B)	4	⑥㊴	Flywheel	1	⑩㊵	Wing Joint	2
㉛	M5x40 Shaft	4	⑥㊵	Clutch Pin	2	⑩㊶	Drive Bevel Gear	2
㉜	Rear Wheel Shaft	2	⑥㊶	Pilot Shaft	1	⑩㊷	Wing Plastic Washer	2
㉝	Swing Shaft	3	⑥㊷	Clutch Shoe	2	⑩㊸	Spring Holder	4
㉞	Rear Shock Stay	1	⑥㊸	Clutch Spring	1	⑩㊹	Wing Aluminum Washer	6
㉟	3 φ x28 Shaft	8	⑥㊹	Clutch Bearing Case	1	⑩㊺	Brake Rod	1
㊱	3 φ x43 Shaft	8	⑥㊺	Clutch Rollar	8	⑩㊻	Diff. Gear Case Packing	3
㊲	4 φ x78 Shaft	2	⑥㊻	Clutch Bell (13T)	1	⑩㊼	Adjust Diff. Gear (B)	1
㊳	E Ring (E3)	9	⑥㊼	E Ring (E4)	6	⑩㊽	Limiter Washer (Spare 2pcs.)	3
㊴	3 φ Stopper	4	⑥㊽	Muffler	1	⑩㊾	8 φ Wave Washer	3
㊵	Rear Gear Cover	1	⑥㊾	Silicone Tube	1	⑩㊿	Stabilizer Ball	2
㊶	Shock Bushing	4	⑥㊿	Servo Fixing Stay (A)	1	⑪①	Rear Stabilizer (2,5 φ)	1
㊷	6.8 φ Ball (Silver)	7	⑥㊿	Servo Fixing Stay (B)	1	⑪②	Wing	1
㊸	6.8 φ Ball End	8	⑥㊿	Wing Stay (L)	1	⑪③	Sus. Plate (B)	1
㊹	8 φ Aluminum Collar	2	⑥㊿	Wing Stay (R)	1	⑪④	8 φ x16 φ x1.2 Washer (Aluminum)	2
㊺	Front Housing (A)	1	⑥㊿	Fuel Tank	1	⑪⑤	8 φ x16 φ x1.5 Washer (Aluminum)	6
㊻	Front Housing (B)	1	⑥㊿	Aluminum Pipe	1	⑪⑥	Nipple	1
㊼	Front Bulk Head (R)	1	⑥㊿	Rubber Bushing	1	⑪⑦	Muffler Stay	1
㊽	Front Bulk Head (L)	1	⑥㊿	Tube	1	⑪⑧	O Ring (P4)	2
㊾	Front Shock Stay	1	⑥㊿	Plate Joint	1	⑪⑨	5.8 φ Ball	4
㊿	Knuckle Arm (R)	1	⑥㊿	M3x30 Rod	3	⑪⑩	Wing Holder (L)	1
㊿	Knuckle Arm (L)	1	⑥㊿	2 φ Stopper	5	⑪⑪	Wing Holder (R)	1
㊿	Hub Carrier (R)	1	⑥㊿	Engine Control Spring	1			
㊿	Hub Carrier (L)	1	⑥㊿	Linkage Guide (B)	1			
㊿	King Pin	4	⑥㊿	Rear Wheel	2			
㊿	Universal Swing Shaft	2	⑥㊿	Front Wheel	2			
㊿	Spur Gear	1	⑥㊿	Rear Tire	2			
㊿	Center Diff. Housing (A)	1	⑥㊿	Front Tire	2			
㊿	Center Diff. Housing (B)	1	⑥㊿	2.5 φ x16 Shaft	10			
㊿	Disk Brake	1	⑥㊿	Wheel Stopper	4			



**1 ASSEMBLY OF SHOCKS**

- ① Shock O Ring... 8 (Orange)
- ② Shock C Ring... 4
- ③ Shock Collar ... 4 (White)
- ④ Plastic Washer... 4 (Black)
- ⑤ 6.8 φ Shock End... 4

**3 INSTALLATION OF SHOCK SPRINGS**

- ⑥ 6.8 φ Ball ... 4 (Black)

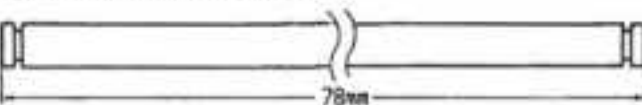
**4 INSTALLATION OF REAR GEARBOX PARTS**

- ⑦ M5x40 Shaft... 2
- M4x25 TP Flat Head Screw ... 2
- M5x4 Set Screw ... 1
- M3x20 Cap Screw ... 2
- M3 Flange Nut... 2
- M4x15 TP Screw... 4
- ⑧ E Ring (E2.5)... 4
- ⑨ 3 φ x43 Shaft... 2

**5 INSTALLATION OF REAR SUSPENSION ARM**

- ⑩ Stabilizer ... 2 Ball
- ⑪ M3x30 Rod... 2
- ⑫ 5.8 φ Ball ... 2
- ⑬ 5.8 φ Ball End ... 4
- ⑭ 3 φ x28 Shaft... 2
- M3x3 Set Screw... 4
- ⑮ 3 φ Stopper ... 2
- ⑯ E Ring (E2.5)... 4
- ⑰ 3 φ x43 Shaft... 2
- M3x12 Flat Head Screw ... 2
- ⑱ E Ring (E3) ... 4
- M4x12 Set Screw ... 4

- ⑲ 4 φ x78 Shaft... 2



**6 INSTALLATION OF REAR SHOCKS**

- M3x10 TP Screw ... 1
- M3x15 Bind Screw ... 1
- M3x5 Set Screw ... 2
- M3 Nylon Nut ... 2
- ⑳ 3 φ x28 Shaft... 2
- ㉑ Shock Bushing... 2
- ㉒ 6.8 φ Ball ... 1 (Silver)
- ㉓ Tie Rod (A)... 1

**7 INSTALLATION OF FRONT GEARBOX PARTS**

- M4x25 TP Flat Head Screw ... 2
- M5x4 Set Screw... 1
- M3x18 Cap Screw ... 2
- M3x20 Cap Screw ... 2
- M3 Flange Nut... 4
- M3x10 TP Screw ... 2

**8 INSTALLATION OF FRONT SUSPENSION PARTS**

- ⑲ M5x40 Shaft ... 2
- M3x3 Set Screw... 2
- ㉔ 3 φ Stopper ... 2
- ㉕ King Pin... 4
- ㉖ 3 φ x28 Shaft... 2
- M4x12 Set Screw ... 2
- ㉗ 3 φ x43 Shaft... 4
- ⑳ E Ring (E2.5)... 8
- ㉘ E Ring (E3) ... 4
- ㉙ φ x67 Shaft ... 2

**9 INSTALLATION OF FRONT SHOCKS**

- M3x5 Set Screw... 2 (White)
- M3 Nylon Nut ... 2

- ㉚ 3 φ x28 Shaft... 2
- ㉛ Shock Bushing... 2

**10 INSTALLATION OF BRAKE AND SERVO SAVER**

- ㉜ 6.8 φ Ball ... 6 (Silver)
- ㉝ 6.8 φ Ball End ... 6
- ㉞ Tie Rod (B)... 1
- ㉟ Tie Rod (A)... 2

- 13 φ x16 φ x0.15 ... 2 Shim
- M3x18 Cap Screw ... 2
- M3x10 TP Screw... 2
- M3x3 Set Screw... 1
- M4x15 TP Flat Head Screw ... 4
- M3x25 Bind Screw ... 2
- 3 φ Washer ... 4
- ㊱ 6 φ Aluminum... 4 Collar
- M3 Nylon Nut ... 2
- ㊲ Servo Saver Shaft (A) ... 2
- M4x8 Flat Head Screw ... 2

**11 INSTALLATION OF RADIO SYSTEM**




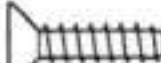
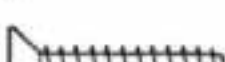
- ... 4
- ㊳ ... 2

**12 INSTALLATION OF REAR BLOCK**



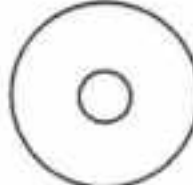

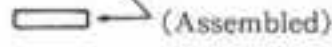


- M4x15 TP Flat Head Screw ... 4
- M3x10 TP Screw... 1
- M3x10 Bind Screw ... 1
- ㊴ Torque Rod Pivot ... 1

SMALL PARTS USED IN EACH ASSEMBLY STEP (2)

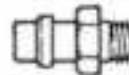

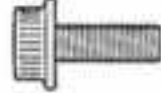

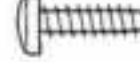


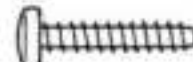

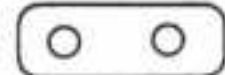
**13** INSTALLATION OF FRONT BLOCK

- Ⓞ O Ring (P4).....2  (Orange)
- M3x15 Flat Head Screw .....2 
- M3 Nut .....2 
- M4x15 TP Flat Head Screw ..2 
- M4x20 TP Flat Head Screw ..2 







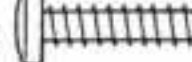


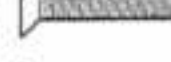

**14** INSTALLATION OF CLUTCH

- M3x20 Cap Screw .. 
- M3x10 Cap Screw ..5 
- 5 φ x18 Washer.....1 
- Ⓞ Clutch Bearing Case ..1 
- Ⓞ Clutch Rollar .....8  (Assembled)
- 5 φ Washer .....1 
- Ⓞ E Ring (E3).....1 



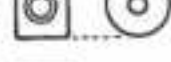


**15** INSTALLATION OF ENGINE & ENGINE CONTROL SERVO

- Ⓞ Nipple .....1 
- M3 Nylon Nut.....2 
- M4x10 Flange Cap Screw ..4 
- M4x8 Flat Head Screw .....4 
- M3x10 TP Screw .....2 
- Ⓞ Rubber Bush .....1 
- Ⓞ Aluminum Pipe .....1 
- M3x15 TP Screw .....6 
- M3x12 Screw.....2 
- (Use for big servo)  
Ⓞ Servo Spacer .....2 





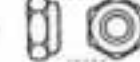
**16** INSTALLATION OF RADIO PLATE

- Ⓞ 5.8 φ Ball.....2 
- Ⓞ 5.8 φ Ball End.....2 
- Ⓞ M3x30 Rod .....1 
- M3x10 TP Screw .....4 
- M3 Flange Nut.....2 
- M4x15 Screw.....2 
- M4x15 TP Screw .....2 
- Ⓞ 8 φ Aluminum Collar.....2 
- Ⓞ 6 φ Aluminum Collar.....1 
- M3x15 Flat Head Screw .....1 
- M3x12 Flat Head Screw .....1 

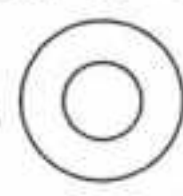


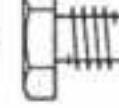

**17** ENGINE CONTROL LINKAGE

- M3x3 Set Screw.....5 
- M2 Nut .....1 
- Ⓞ 2 φ Stopper.....5 
- Ⓞ Linkage Guide (B) .....1 
- Ⓞ Brake Rod .....1 


**18** ASSEMBLY OF WING STAY

- M3x15 Cap Screw .....8 
- Ⓞ Wing Aluminum Washer.....6 
- Ⓞ Wing Joint .....2 
- Ⓞ 3 φ x9.5 φ x1 Washer.....2 
- M3 Nylon Nut .....4 

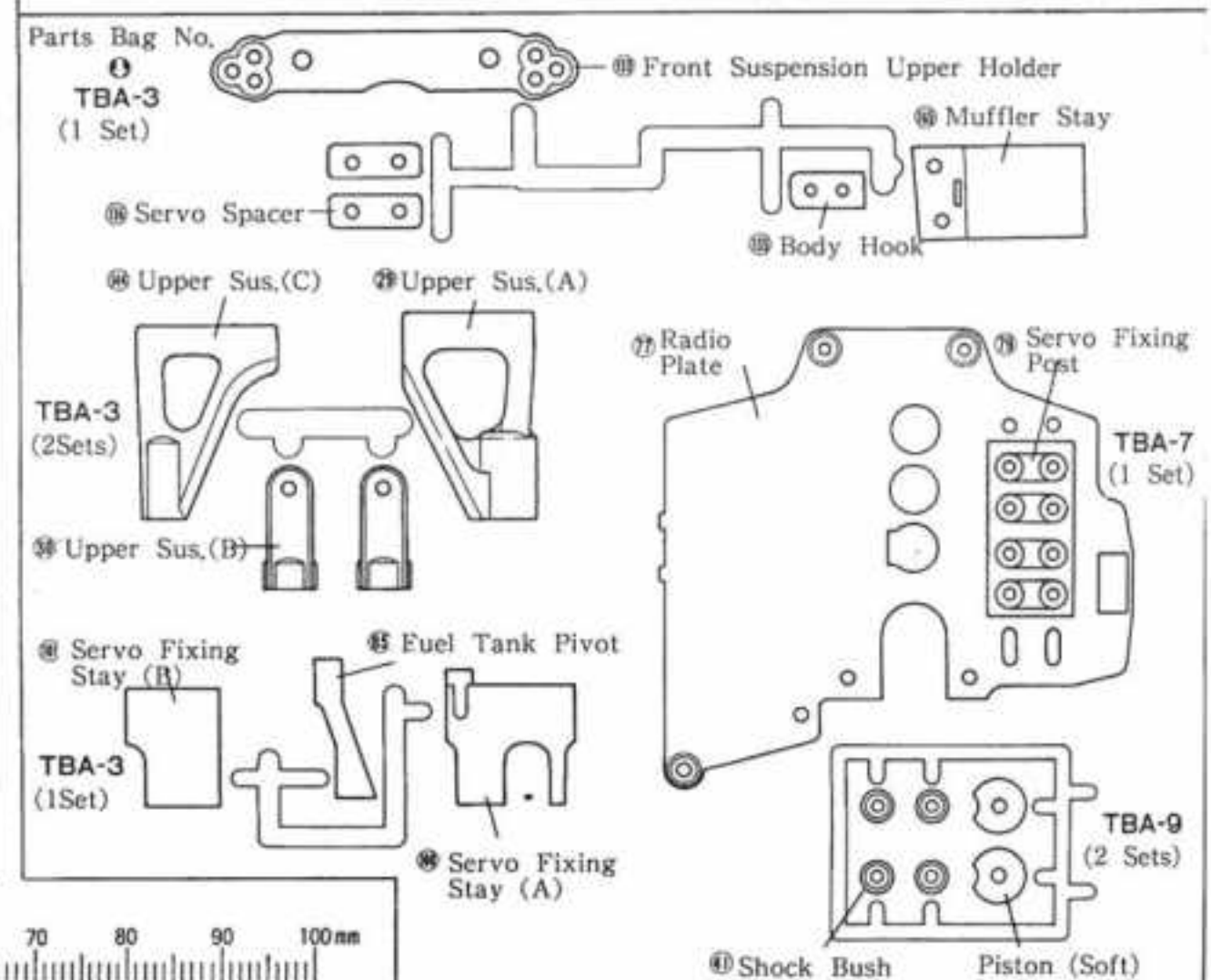
**20** INSTALLATION OF TIRE

- Ⓞ 8 φ x16 φ x1.5 Washer (Aluminum) .....4 
- Ⓞ 2.6 φ x16 Shaft .....4 
- Ⓞ O Ring (L).....4 
- Ⓞ Wheel Stopper Bolt .....4 
- Ⓞ 8 φ x12 Shim .....4 

**23** INSTALLATION OF BODY & WING

- Ⓞ Body Pin.....4 

DRAWING OF PLASTIC PARTS WITH RUNNERS



(Actual Size Scale)





# TURBO BURNS 4WD™



Action that's bigger, louder, faster ...  
1/8 scale gas.

## Parts List

		Sugg. Retail			Sugg. Retail
KYOC0535	3097 Turbo Burns .21 4WD Gas	\$649.95	KYOC4012	BS-65 Fuel Tank	\$16.00
KYOC6053	BS-03 Suspension Holder Set	\$9.60	KYOC3187	BS-66 Decals	\$4.80
KYOC2623	BS-04 Bulkhead - Rear	\$9.60	KYOC5570	BS-67 Shaft M5 x 40	\$3.50
KYOC2622	BS-05 Bulkhead - Front	\$9.60	KYOC2994	BS-68 Chassis Guard	\$8.00
KYOC6064	BS-07 Suspension Arm Set - Upper	\$9.60	KYOC5762	BS-69 Shock Stay	\$12.10
KYOC4234	BS-09 Hub Carrier Set - Rear (2)	\$5.70	KYOC4818	BS-70 Plate Set	\$4.80
KYOC2637	BS-10 Bumper	\$4.80	KYOC4454	BS-71 Linkage Set	\$8.90
KYOC4557	BS-11 Main Gear	\$6.40	KYOC3068	BS-72 Collar - Aluminum	\$4.80
KYOC4583	BS-12 Mechanism Plate	\$5.70	KYOC5462	BS-73 Screw Set	\$24.10
KYOC5662	BS-13 Shaft Set	\$20.80	KYOC4709	BS-74 O-Ring (P-4)	\$3.20
KYOC2218	BS-16 Bearing (8 x 16) (2)	\$10.50	KYOC3321	BSW-01 Drive Bevel - S	\$16.00
KYOC6331	BS-17 Wheel Shaft - Rear (2)	\$10.50	KYOC3322	BSW-02 Drive Bevel - L	\$27.40
KYOC4128	BS-18 Gear Cover	\$4.10	KYOC4578	BSW-03 Manifold - Special	\$34.20
KYOC4236	BS-19 Hub Set - Front	\$7.20	KYOC6361	BSW-05 Wing	\$14.40
KYOC6288	BS-20 Universal Joint (2)	\$38.30	KYOC6368	BSW-06 Wing Stay For BSW-05	\$16.00
KYOC5267	BSW-20 Rear Tire Block Hard (2)	\$30.20	KYOC3908	BSW-08 Front Wheel (Yellow) (2)	\$11.20
KYOC2603	BS-21 Brake Set (2)	\$8.00	KYOC5314	BSW-09 Rear Wheel (Yellow) (2)	\$11.20
KYOC3838	BSW-21 Front Tire Block Hard (2)	\$30.20	KYOC5232	BSW-10 Rear Tire (M-RS) (2)	\$17.60
KYOC5633	BS-22 Servo Saver Set	\$9.60	KYOC5233	BSW-11 Rear Tire (S-RH) (2)	\$19.20
KYOC6178	BS-23 Tie Rod Set	\$6.40	KYOC5234	BSW-12 Rear Tire (S-RS) (2)	\$19.20
KYOC5268	BSW-23 Rear Tire Block Soft (2)	\$30.20	KYOC3832	BSW-13 Front Tire (M-FS) (2)	\$16.00
KYOC3839	BSW-24 Front Tire Block Soft (2)	\$30.20	KYOC3833	BSW-14 Front Tire (S-FH) (2)	\$19.20
KYOC3458	BS-25 Engine Mount	\$16.00	KYOC3834	BSW-15 Front Tire (S-FS) (2)	\$19.20
KYOC4576	BS-26 Manifold	\$4.80	KYOC4559	BSW-19 Main Gear - Steel 53T	\$22.50
KYOC5231	BS-31 Rear Tire Block Medium (2)	\$17.60	KYOC3536	BSW-22 Flywheel (OS21EX)	\$40.35
KYOC3831	BS-32 Front Tire Block Medium (2)	\$16.00	KYOC5733	BSW-27 Shock-Lrg.-Front Burns (2)	\$43.95
KYOC3307	BSW-32 Diaphragm Set	\$8.00	KYOC5734	BSW-28 Shock-Lrg.-Rear Burns (2)	\$43.95
KYOC6326	BS-33 Wheel Stopper Set	\$12.00	KYOC5832	BSW-29 Spring Set (Front)	\$9.60
KYOC4694	BSW-33 O-Ring Set	\$12.80	KYOC5833	BSW-30 Spring Set (Rear)	\$9.60
KYOC3283	BS-35 Differential Gear Case	\$6.40	KYOC4832	BSW-31 Plastic Parts Set	\$16.00
KYOC6177	BSW-35 Tie Rod Set - Special	\$9.60	KYOC2808	BSW-34 Center Differential - Adjust	\$19.30
KYOC3278	BS-36 Differential Bevel (L) (2)	\$2.00	KYOC3395	CB-072 E Ring (E-3) (4)	\$1.60
KYOC6281	BSW-36 Upper Rod Set - Special	\$12.10	KYOC2030	CB-110 Air Cleaners - .19-.25 (2)	\$9.60
KYOC3279	BS-37 Differential Bevel (S) (2)	\$1.60	KYOC6030	EF-038 Strap (3/16 x 8) (6)	\$4.80
KYOC6229	BSW-37 Tires High Block	\$29.95	KYOC6020	EF-039 Strap (1/4 x 12) (6)	\$6.40
KYOC2334	BS-38 Bevel Joint (2)	\$4.80	KYOC2570	FM-029 Body Pins (10)	\$2.50
KYOC3303	BS-39 Differential Joint (2)	\$8.90	KYOC3459	FM-050 Engine Mount - Special	\$19.20
KYOC2801	BS-40 Center Differential Joint (2)	\$9.60	KYOC4725	FM-073 Pilot Shaft	\$8.00
KYOC3306	BS-41 Differential Housing (2)	\$2.50	KYOC2917	FM-075 Clutch Bearing (Ball)	\$51.30
KYOC3533	BS-44 Flywheel	\$11.20	KYOC2949	FM-082 Clutch Bell - 11T	\$13.70
KYOC6107	BS-45 Swing Shaft (2)	\$8.00	KYOC4307	FM-185 Joint (2)	\$9.60
KYOC3407	BS-47 E Ring (E-10) (10)	\$4.10	KYOC4649	FM-217 Muffler - Special	\$52.50
KYOC5656	BS-52 Shaft - 2.6 x 16 (10)	\$2.90	KYOC4360	KC-07 King Pin (4)	\$5.70
KYOC5573	BS-53 Shim Set (10)	\$5.70	KYOC6000	KC-18 Stopper - 3mm (10)	\$10.50
KYOC6327	BS-55 Wheel Stop Bolt - (10)	\$6.40	KYOC3400	KC-20 E Ring (E-4) (4)	\$2.00
KYOC6056	BS-56 Suspension Arms - Lower	\$13.95	KYOC2990	KC-45 Clutch Parts (HD)	\$20.80
KYOC3721	BS-57 Front Hub Set	\$6.40	KYOC5735	LD-29 Silicon Exhaust Tube (2)	\$6.40
KYOC5361	BS-58 Rear Wheel Set	\$9.95	KYOC2915	LD-70 Clutch Bearing (Roller)	\$9.30
KYOC3909	BS-59 Front Wheel	\$8.95	KYOC2167	OT-032 Ball-5.8mm (10)	\$4.10
KYOC2424	BS-60 Body	\$41.95	KYOC3392	OT-039 E Ring (E-2.5) (10)	\$2.00
KYOC4512	BS-61 Main Chassis	\$55.45	KYOC2950	SD-53 Clutch Bell - 12T (.20)	\$13.70
KYOC2807	BS-62 Centershaft - Rear	\$8.05	KYOC2955	SD-54 Clutch Bell - 13T (.20)	\$13.70
KYOC5953	BS-63 Stabilizer Set	\$8.90	KYOC2960	SD-55 Clutch Bell - 14T (.20)	\$13.70
KYOC4647	BS-64 Muffler	\$47.90	KYOC2055	SD-79 Antenna Tube (5)	\$4.10

**The ultimate 1/8 scale gas buggy**



Length: 17.6"  
Width: 11.8"  
Weight: 7.1 lbs.  
Requires:  
Engine: .21-Size Buggy Engine  
Radio: 2-Channel

- Replaces the original Burns as the most powerful 1/8 scale gas off-roader your customers can buy.
- Placed 2nd in the 1988 IFMAR World Championships in its very first race.
- Includes all of the high-performance features of the original Burns with several state-of-the-art upgrades including complete ball bearings, large volume shocks, rear anti-roll bar, and 3mm thick main chassis with flat head screws.
- Features new Lexan body with wing and adjustable wing mount, plus newly designed one-piece wheels, flip-top fuel tank, tuned pipe and header.
- A step up from the Burns DX. Meet the needs of anyone interested in 1/8 scale gas racing with one of these powerful Kyosho buggies.

**TURBO BURNS 4WD**



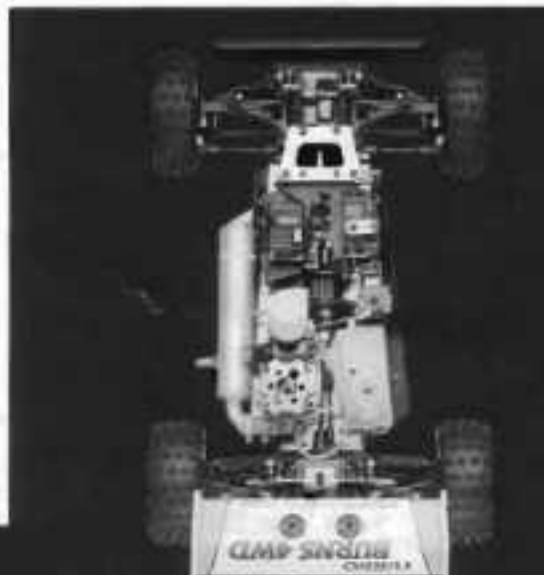
Three gear-type differentials such as this unit deliver tremendous power.



No faster buggy is available for 1/8 scale gas enthusiasts.



Longer suspension arms on Turbo Burns provide effective handling.



Durable 3mm flat-plan aluminum chassis provides ample protection for racing components.

