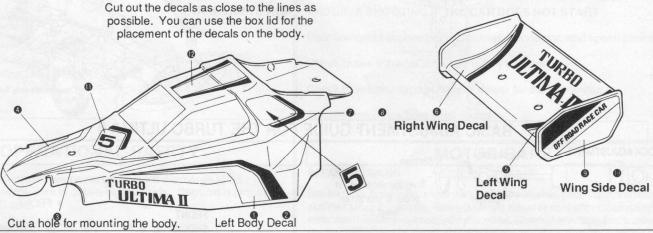
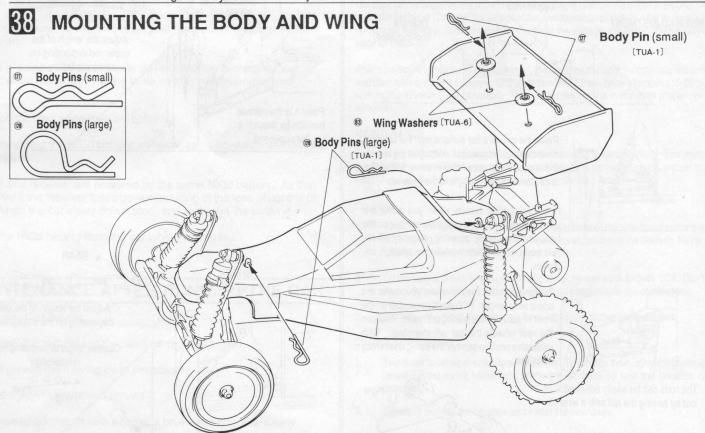


37 APPLYING THE DECALS



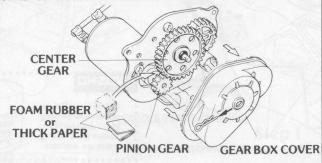


DIFFERENTIAL ADJUSTMENT

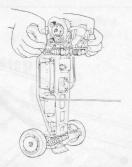
ADJUSTMENT OF BALL DIFFERENTIAL AFTER INSTALLATION

Swing the front of the Turbo Ultima II. If adjusted correctly, the car will rise to the horizontal postion and no farther.

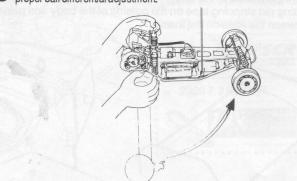
Remove the Gear Box Cover and insert apiece of foam or thick paper between the Pinion Gear and Center Gear to lock them.



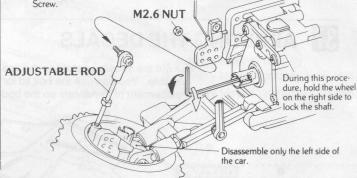
Hold both rear wheels with your hands.



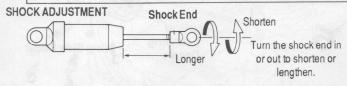
After the Turbo Ultima II is assembled, perform the following test to assure proper ball differential adjustment.

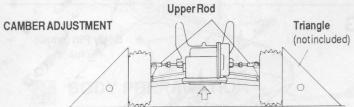


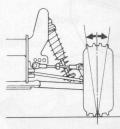
If the car goes beyond the horizontal position, the H/H Screw is too loose. If it does not reach the horizontal position, the H/H Screw is too tight. To readjust the Ball Differential, remove the nut that fastens the rear hub and adjust the H/H



BASIC ADJUSTMENT GUIDE FOR THE TURBO ULTIMA II

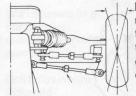






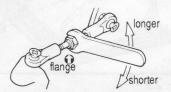
Place the car on a flat surface with the chassis raised as high as possible and adjust the length the front and rear upper rods in a way so that the tires stand at a right angle to the ground.

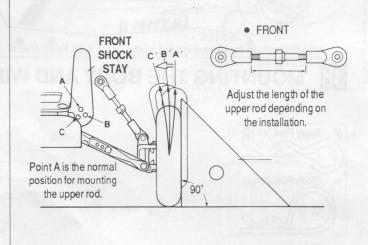
Negative camber results when you make the upper rods shorter. With negative camber on the front wheels, sharper steering rendency will result while on the rear wheels the traction improves.

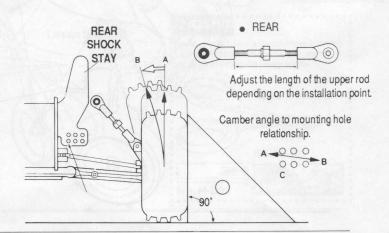


Positive camber results when you make the upper rods longer. With positive camber on the front wheels under steering will result. While on the rear wheels the car will oversteer. With excessive positive camber the swing shafts may dislocate.

The rods can be easily adjusted in or out by turning the nut with a wrench.





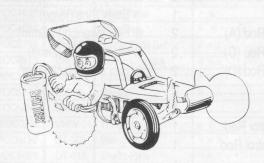


RUNNING YOUR TURBO ULTIMA II

Note: 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.



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 loses 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 when not in use...

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.

CHECK BEFORE EVERY RUN

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

Check to see if the 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 NiCd battery is fully charged.

Check to see shortage of battery power for the transmitter.

Signal interference from other radios.

MOTOR CARE

BREAK-IN RUNNING

Breaking in your new motor is necessary to allow the brushes, commutator, and bushings to seat themselves into position. Break-in running should be done with no load placed on the motor; don't break it in while installed in your model. Since higher voltages tend to cause some vibration before break-in, the ideal break-in procedure is to run the motor at around 3-4 volts for a total period of 10 hours. If a source of 3 or 4 volts is unavailable, run the motor at a higher voltage for less time. Just remember, the lower the voltage, the better. Never exceed 7.2 volts for break-in.

After a particularly rough run in your model, the brushes and commutator may become dirty and start to bind. If this is the case, run the motor with a 7.2 volt battery for about 15-20 minutes with no load(Pinion Gear removed). This should restore the motor to its proper operating condition.

MAINTENANCE

To keep your motor in top condition, keep it clean and inspect it often. The motor was designed for use with battery packs. It is a good idea to avoid battery packs greater than 8.4 volts (7-cells). Using more voltage will shorten motor life.

Cleaning

- To clean the inside working parts, we suggest one of the new spray motor cleaners such as "BLAST OFF" (follow the instructions suppled with the cleaner. Never spray lubricants such as WD-40 on your motor!
- Oil the front and rear bearings with a light machine oil such as 3-IN-1 Oil. Don't allow any oil to get into the inside of the motor and contaminate the commutator.
- Occasionally check the terminals for oxidation and other contaminates.

Changing the Brushes

- The motor brushes eventually will wear out. To replace them, slide the brush springs forward at the spring holder tabs and pull them back so that the brushes can be removed.
- Carefully remove the brushes and install the new ones.
 - You will now have to break-in the motor again to allow the brushes to seat.

PARTS LIST

1	Suspension Rod (B)2	© 39	E-Ring (E-2.5)16
2	Motor Plate1	© 40	Shock Pistion Tree4
3	5.8mm Ball (silver)10	(41)	Shock Seal (A)4
4	Front Shock Tower1	© 42	Shock Seal (B)4
5	Rear Shock Tower1	43	Diaphragm4
6	4 x 8mm Bearing6	© 44	O-Ring Seal8
7	5 x 10mm Bearing6	© 45	C-Ring4
8	Bearing Spacer1	46	M3 x 18 Hex Head Screw4
	Sponge Cap1	• 47	8 x 14mm Bearing2
10	Front Rim2	• 48	Differential Gear1
	Rear Rim2	• 49	Differential Shaft (A)1
12	Rear Wheel Shaft2	• 50	Differential Shaft (B)1
13	Driver Washer2	• 51)	Ball Plate2
	Final Pinion Gear1	• 52	Preasure Plate2
	Pinion Gear (15T)1	• 53	Collar1
16	Swing Shaft2	• 54	M2.6 x 15 Hex Head Screw .1
17	Center Gear Shaft1	• 55	
18	Counter Gear1	• 56	Chrome Balls (large)10
19	Center Gear1	• 57	
20	Front Wheel Shaft2	• 58	Spacers2
	Counter Gear Shaft1	• 59	8 x 12mm Shims2
22	2 x 11mm Pin2	60	Front Hub2
23	Servo Saver2	61)	Rear Hub2
	Plate Post2	62	Knuckle Arm (R)1
25	M3 x 27 Rod4	63	Knuckle Arm (L)1
26	M3 x 50 Rod2	64	Front Bulk Head1
27)	O-Ring1	65	Rear Axle Stopper1
	5.8mm Ball (Black)6	66	Rear Bulk Head1
	Front Shock Shaft2	67)	Gear Cover1
	Rear Shock Shaft2	68	Front Suspension Arms2
③ 31	Front Shock Body2	69	Rear Suspension Arms2
③ 32	Rear Shock Body2	70	Servo Saver (A)1
	Front Spring2	71)	Servo Saver (B)1
3 4	Rear Sping2	72	Servo Saver (C)1
	Spring Retainer4	73	Servo Saver (D)1
© 36	Shock Cap4	74	Servo Saver Collar2
	Spring Adjuster4	(75)	Gear Box Hatch1
© 38	Shock End4		

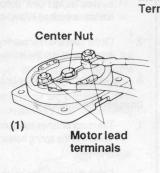
® Servo Mounts4
Thock Bushing4
® Antenna Mount1
79 Front Body Mount1
® Wing Mount2
81 Wing Adjuster2
82 Adjuster Retainer2
83 Wing Washer2
84 Battery Holder2
85 Battery Mount4
86 Battery Mount Spacer (A)4
® Battery Mount Spacer (B)4
88 Bumper 1
89 Ball End12
99 4.8m Ball End2
9) Ball Nut1
92 Suspension Rod (A)2
3 Suspension Rod (C)2
Suspension Rod (D)2
King Pin
96 Center Rod1
Throttle Control Rod1
98 Steering Control Rod1
99 4.8mm Ball1
(R)1
(I) Gear Box (L)
Radio Plate1
® Double Sided Tape1
® Tie Strap (small)2
® Battery Strap2
Antenna Tube
® Shock Oil1
® Screw Cement1
Hobby Grease1
(1) 4-Way Wrench
Gear Cover Seal 1
® Speed Control1

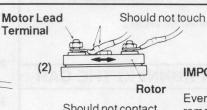
113	Resistor	1
114)	Resistor Headsink	1
115	Resistor Base	1
(116)	Resistor Bracket	1
(117)	Motor	1
118	Motor Leads	1
119	Front Tire	2
120	Rear Tire	2
	Body	
122	Chassis	1
123	Wing	1
	Decal Sheet	
125	E-Ring (E-3)	2
126	E-Ring (E-4)	1
(127)	Body Pins (small)	7
128	Body Pins (large)	2
129	Hex Wrench (1.5mm)	1
	Hex Wrench (2mm)	
	Hex Wrench (2.5mm)	

SPEED CONTROL MAINTENANCE

Check the following points before running the Speed Control.

- Make sure that the Center Nut and the Motor Lead Terminals are tight.
- Check the Motor Lead Terminals and Wires to make sure they do not hit on the Center Nut.
- Make sure that the Speed Control Rod does not hit on the Motor Lead Terminals





Should not contact.

IMPORTANT!

Every once in awhile it is necessary to remove the Center Nut and clean the Speed Control. This will ensure longer life and higher performance from your Speed Control.

(3)

PARTS LIST

You can purchase replacement and optional parts for your kit. All of the parts identified by key numbers (see page 26 for complete list) are usually not available singularly, but we offer these parts in convenient parts "packs" which can be purchased sparately. 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#17) ask your dealer for Kyosho Parts Pack UM-05 (Gear Shaft Set).

STOCK#	Part#	DESCRIPTION	CONTAINS
KYOC6025	EF-037	Straps (small)	®×6
KYOC6020	EF-039	Battery Straps	®×6
KYOC2055	SD-79	Antenna Tube	®×5
KYOC3395	CB-072	E-Ring (E-3)	®×4
KYOC3400	KC-20	E-Ring (E-4)	®×4
KYOC2171	LA-43	5.8mm Ball End	89 ×12
KYOC6314	MA-17HG	Wheel - Rear	①×4

		OPTIONAL PAR	
(YOC4767	OT-050	Pinion Gear (13T)	Ratio 9.5 : 1
(YOC4777	OT-051	Pinion Gear (14T)	Ratio 8.8 : 1
(YOC4787	OT-052	Pinion Gear (16T)	Ratio 7.7:1
(YOC4792	OT-053	Pinion Gear (17T)	Ratio 7.3:1
(YOC4797	UM-23	Pinion Gear (18T)	Ratio 6.9:1
(YOC4802	UM-24	Pinion Gear (19T)	Ratio 6.5:1
(YOC4807	UM-25	Pinion Gear (20T)	Ratio 6.2:1
(YOC4604	UM-28	Motor Guard	
(YOC5944	UM-29	Stabilizer Set	
(YOC3518	OT-076	Final Pinion	Hard
(YOC5638	OTW-10	Servo Saver	Special
(YOC4708	1883	Hobby Oil	
(YOC5681	1951	Shock Oil Set	(Thin, Medium, Thick)
(YOC5736	1953	Silicone Oil	Thin
(YOC5737	1954	Silicone Oil	Medium
(YOC5738	1955	Silicone Oil	Thick
(YOC5897	W-0110	Spur Gear	
(YOC3089	W-0111	Counter Gear	
(YOC5703	W-5003	Platinum Shocks (S)	
(YOC5704	W-5004	Platinum Shocks (L)	
(YOC6236	W-5031	Tires-Hard	Low-Pro Rears
(YOC6237	W-5032	Tires-Soft	Low-Pro Rears
(YOC6127	W-5061	Swing Shafts	Universal (2)
(YOC6254	W-5072	Tires Block	Front-Hard
(YOC6223	W-5073	Tires-Pin Spike	Front-Soft
(YOC6224	W-5074	Tires-Pin Spike	Front-Hard
(YOC6227	W-5077	Tires-Pin Spike	Low Profile
(YOC6228	W-5078	Tires-Block	Low Profile
See Your	W-5085	(15T - 25T)	Hardened Performance
ocal Hobby	thru	Pinion Gears	Gears
Dealer For Listing	W-5093		
(YOC2177	WBD-01	Ball Differential Joint	
(YOC2178	WBD-02	Ball Differential Balls	
(YOC2179	WBD-03	Ball Differential Gear	

STOCK#	Part#	DESCRIPTION	CONTAINS
KYOC4182	UM-01	GearSet	18 19 × 1
KYOC4184	UM-05	Gear Shaft Set	17 21 × 1 22 × 2
KYOC6078	UM-07	Susp. Shaft Set	1 92 93 94 × 2
KYOC3737	UM-08	Shaft Set-Front	20 95 × 2
KYOC5387	UM-09	Rod Set	96 97 98 × 1 90 × 2
KYOC6069	UM-13	Susp. Arm Set	68 69 × 2
KYOC5653	UM-14	Servo Saver	70:71:72:73:75:78:79 ×1 74×2 76:77×4
KYOC2677	UM-21	Bumper	88 × 1
KYOC5694	UM-26	ShockTowers	4 5 × 1
KYOC2486	UM-34	Body	12i × 1
KYOC6349	UM-39G	Wheels-Frt.	10 × 2
KYOC5639	UM-42	Servo Saver Set	23 24 × 2
KYOC6301	UM-49	Upright Set	62 63 × 1 60 61 × 2
KYOC2626	UM-50	Bulk Head Set	64 65 66 67 (II) × 1
KYOC4622	UM-51	Motor Plate	2 × 1
KYOC4034	UM-52	Gear Box	₩ @ × 1
KYOC6297	UM-65	Upper Plate Set	107 × 1
KYOC4523	UM-66	Kelron Chassis	₩ × 1
KYOC5372	UM-69	Resistor Stay	® × 1
KYOC3194	UM-80	Decals	®×1
KYOC5485	UM-81	Screw Set	
K YOC2258	UMW-01	Wing Stay Set	80 81 82 × 2 83 × 4
KYOC6122	OT-006	Swing Shafts	16 × 2
KYOC5658	OT-018	Shafts-Rear	12×2
KYOC3332	OT-019	Drive Washer	13 × 4
KYOC4782	OT-019	Pinion Gear (15T)	13 × 4
KYOC4707	OT-029	O-Ring	Ŷ ×10
KYOC2167	OT-032	Balls-5.8mm	3 ×10
KYOC2242	OT-033	Ball Rcptl2.6mm	
(YOC3392	OT-039	E-Ring (E-2.5)	9) ×10 39 ×10
KYOC6246	OT-066	Tires-Low Pro	39 × 10 20 × 2
KYOC2169	OT-101	5.8mm Ball	28 ×10
KYOC6363	OT-107	Wing	28 × 10
KYOC4485	OT-107	Linkage Set	90 × 2 99 × 1
KYOC3517	OT-041	Final Pinion	
KYOC4827		Plastic Parts	13 X 1
KYOC2037	OTW-09		84 × 2 85 86 87 × 4
	OTW-11	, , , , ,	23 × 2
(YOC2039 (YOC5692	W-5001	Gold Shocks (S)	26 × 2
(1003092	VV-5001	Guid Shocks (5)	29 31 33 35 36 37 38 40 41 42 43 46 ×2
(VOCECO2	W FOOD	Cald Charles (I.)	39 44 45 × 4
(YOC5693	W-5002	Gold Shocks (L)	30 32 34 35 36 37 38 40 41 42 43 46 ×2
(VOCCOED	W 5074	Time French	39 44 45 × 4
(YOC6253	W-5071	Tires Front	19 X 2
(YOC2176	W-0109	Ball Differential	9 48 49 50 53 54 ×1 51 52 58 59 ×2
(VO05000	1010	Desires 45144	\$5 × 4 \$7 × 8 \$6 × 10
(YOC5823	1819	Resistor-15W	999×1
(YOC5785	1831	Speed Control	® × 1
(YOC6141	1840	Double Sided Tape	103 × 1
(YOC5451	1878	Screw Cement	10, 2
(YOC2517	1889	Body Pins (Large)	19; × 5
(YOC2197	1901	5mmx10mm Bearing	7, X2
YOC2207	1903	4mm x 8mm Bearing	6 × 2
(YOC2217	1911	8 x 14mm Bearing	₹7 × 2
(YOC6390	1942	Wrench Set	19 × 1
(YOC2194	1974	Bearing Set	8 × 1 47 × 2 6 7 × 6
(YOG2476	2476	Outlaw Stock Motor	TX1
(YOC4586	BB-26	Motor Cord	fit, 1
(YOC2520	EP-22	Body Pins (small)	₩×5

THE SUPER HOBBY

