

AURORA[®] AFX[®] World Championship Motor Racing

INSTRUCTION MANUAL

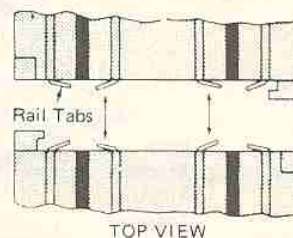
AURORA SETS HAVE BEEN CAREFULLY DESIGNED AND PRODUCED TO GIVE YOU MANY HOURS OF FUN AND PLEASURE. PLEASE DO NOT HURRY THE ASSEMBLY, FOLLOW THE INSTRUCTIONS STEP BY STEP.

①

Check the contents of your set against the contents panel shown on the side of the box top.

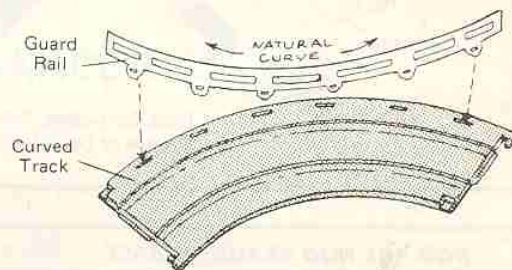
②

Inspect rail tabs for correct positions as shown. Rail tabs must touch from one track to the next



③

Assemble guard rails and trackside banners to all curved track, inserting the tabs into the slots as shown. Note: insert the guard rail into the track with the natural curve of the guard rail OPPOSITE the curve of the track as shown, this ensures the ends of the guard rail bend away from the track



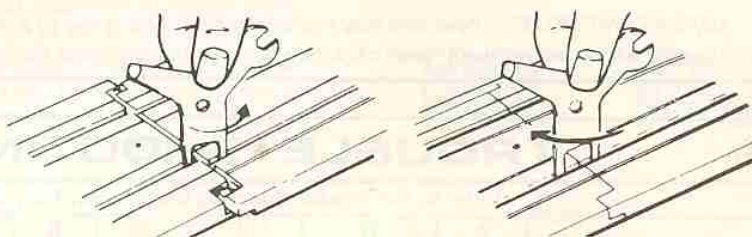
④

TRACK ASSEMBLY

A To assemble your tracks, join two sections so they just touch. Then using the QUIKEE-LOK KEY (supplied), insert the pronged end in the TRACK SLOTS and twist in direction of arrow, until tracks snap together.

B To disassemble tracks twist KEY in opposite direction

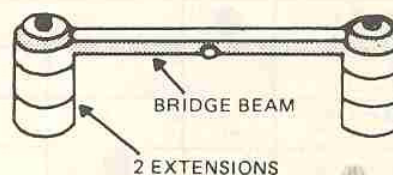
C Decide which of the layouts applicable to your set you wish to build, and using the QUIKEE-LOK KEY completely assemble your track layout on a flat firm surface carefully following the layout diagram. Moving an assembled layout can strain track joints. Dismantle layout to move or store.



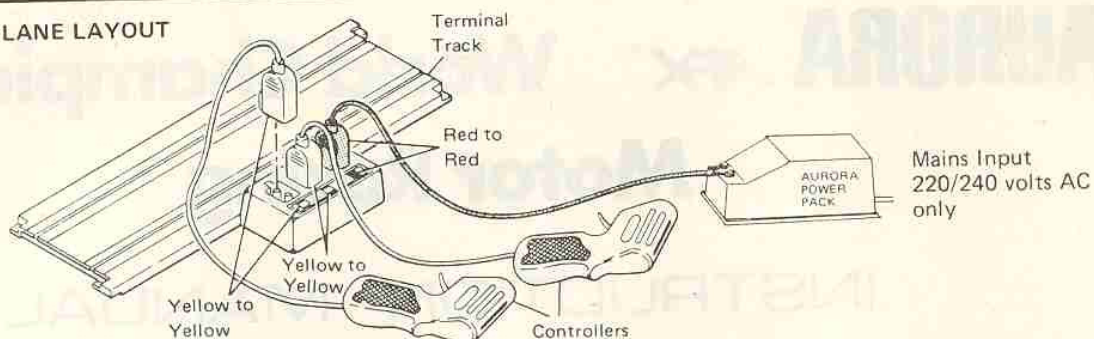
⑤

Now place the bridge beams and extensions under the track where shown on the track layout diagram, carefully noting the number of extensions to be used on each beam.

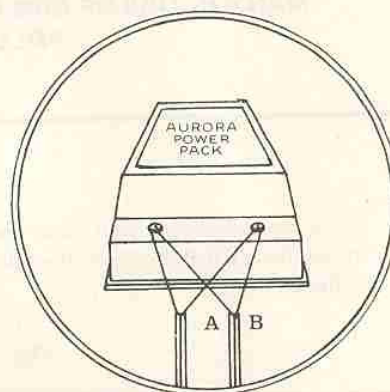
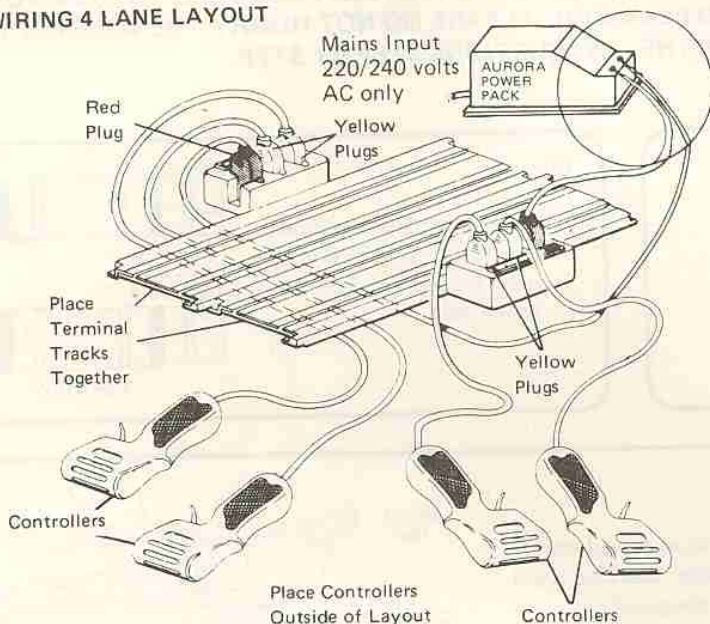
Site beams to allow a progressive gradient. Badly positioned beams can result in dips and humps at track joints causing erratic car performance and strain on the track.



⑥ WIRING 2 LANE LAYOUT



⑦ WIRING 4 LANE LAYOUT

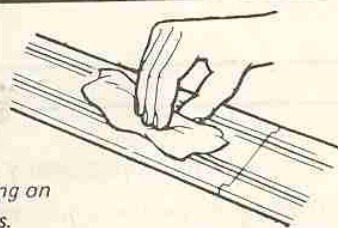


NOTE: IF CARS TRAVEL IN OPPOSITE DIRECTIONS CHANGE WIRES 'A' AND 'B' TO OPPOSITE TERMINALS

⑧ YOU ARE NOW READY TO RACE

Before racing your cars wipe down your track layout with a clean lint-free cloth.
Note: Do not use Polishes or Solvents to clean track.

IMPORTANT NOTE: Your cars may hesitate at first. This is due to a protective coating on the rails which will normally wear off after your cars travel around the layout a few laps.



⑨

TROUBLE SHOOTING CHART

Refer to the Trouble Shooting Chart below for your particular problem.

PROBLEM	A	B	C	D	E	F	G	H	I	J
	LUBRI-CATION	INCORRECT WIRING	RAIL TABS DO NOT TOUCH	DIRTY TRACKS	CARS DIRTY	WHEEL BODY INTERFER.	DIRTY OR WORN PICK-UP SHOES	MORE THAN ONE CAR IN LANE	DIRTY TIRES	EXCESSIVE OILING
CARS WON'T RUN		●	●	●		●				●
CARS HESITATE				●	●		●			
CARS RUN NOISY	●				●	●				
CARS RUN SLOWLY OR OVERHEAT	●				●	●	●	●		●
CARS SPIN OUT				●					●	
CONTROLLERS HOT or SMOKE								●		
SOUND UNITS (OPTIONAL IN SOME SETS)		● (SEE ACCESS INSTRUCTIONS)								

1. **CLEAN TRACK (FIG.1)** Is a 'must' for your AFX cars to perform properly. A carborundum eraser should be used to clean metal rails. Always keep track clean by wiping off with a lint-free cloth.
2. **TRACK PREPARATION (FIG.2)** As the rear tyres wear down, the magnetic attraction will increase and the car will handle even better. It now becomes very important to check the height of your track rails as due to standard manufacturing tolerances, there occasionally will be small variances in the height of the rails. If your car chassis drags in a few places on the track, the rails are too high at these points. Gently tap down the rails at these points with a block of hard wood and a hammer.
3. **CLEANING AND ADJUSTING PICK-UP SHOES (FIG.3)** Clean pick-up shoes are essential for top performance. Keep them clean with a carborundum eraser, not a standard pencil eraser which will tend to leave a greasy film. Pick-up shoes should sit flat on the track rails when viewed from the front and side of chassis. Run your car and check if wear pattern is even on contact surfaces of pick-up shoes. If wear is not even, adjust shoes with a pair of tweezers. When shoes become grooved, they should be replaced.
4. **CLEAN AXLES (FIG.4)** Dirt, lint, carpet, hairs and dust etc. on the axles will slow down your AFX car. Use a toothpick or fine tweezers to remove this from the axles. To minimise this type of problem do not set up your track on a rug or carpet.
5. **CLEAN TYRES** Clean tyres are necessary for maximum traction. Simply roll them across the adhesive side of a strip of masking tape or sellotape.



Fig. 1

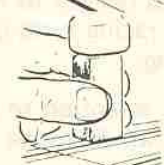


Fig. 2

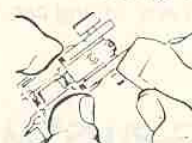


Fig. 3

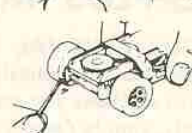


Fig. 4

11 MAGNATRACTION® CARS

AURORA AFX CARS FEATURING MAGNATRACTION, gives a new standard of design and performance in HO scale model motoring.

All with the exclusive AFX self lubricating Nylotron chassis, spring balanced pick-up shoes, a low road hugging centre of gravity and super-fat sponge racing tyres that make for far better control and handling. Proper care and maintenance will reward you with many hours of top performance.

12 MAGNATRACTION® CAR MAINTENANCE TIPS

1. **BODY REMOVAL (FIG.1)** (Magnatraction Standard Chassis) Hold rear wheels firmly, pull one side of body slightly until it clears the side chassis bar and snap body off.
(Magnatraction Specialty Chassis) Remove screw nearest guide pin and lift off body.
2. **DISMANTLING CHASSIS (FIG.2A)** Taking an AFX chassis apart is easy if you refer to the appropriate exploded view diagram. Remove gear clamp by prying it off with a small screwdriver or AFX Quikee-Lok tool.
(For Specialty Chassis, also remove screw nearest rear wheels). Now lift gear plate and armature from chassis noting how gear plate is located at front of chassis (see Fig. 2B). Turn chassis over to remove magnets, commutator brushes and brush springs and they will drop out. Assemble in reverse order. Note: Magnets must be replaced in original position or car will run backwards.
3. **PROPER LUBRICATION (FIG.3)** The Aurora Special Racing Oil is formulated to improve the performance of your AFX car. Apply one small drop of oil sparingly to specific oiling points (See diagram). A small drop of oil goes a long way.

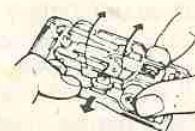


Fig. 1

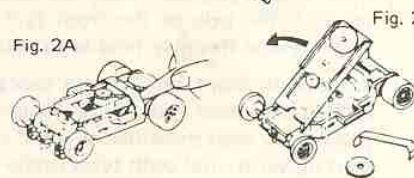


Fig. 2A

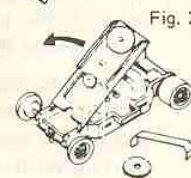


Fig. 2B

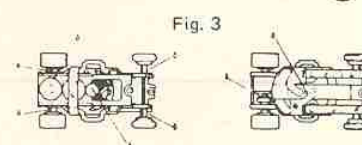
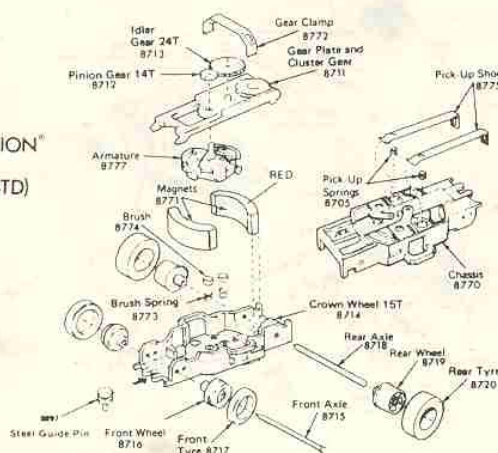


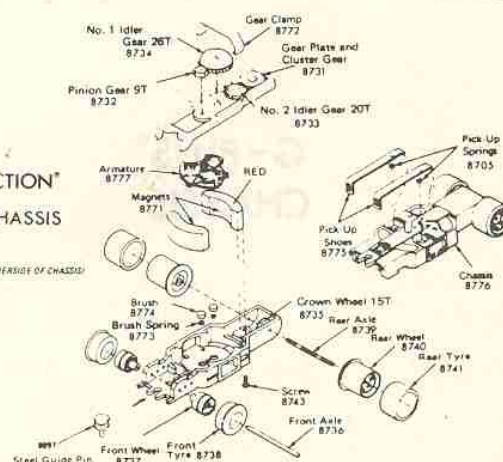
Fig. 3

MAGNATRACTION® STANDARD (STD) CHASSIS



MAGNATRACTION® SPECIALTY CHASSIS

(IDENTIFIED BY 2 SCREWS IN UNDERSIDY OF CHASSIS)



13 G-PLUS® CARS

AURORA AFX CARS FEATURING G-PLUS, brings a new dimension of speed, authentic body detail with unmatched realism to HO scale model motor racing. G-Plus magnetic downforce, precision engineering and super-fat sponge racing tyres gives breathtaking speed, unbelievable control and high performance that cannot be touched by anything.

Careful attention to scale has made the AFX G-Plus Model Motor racing car the World's finest detailed and fastest production HO scale racing car ever.

As with any racing car, proper care and maintenance will reward you with many hours of top performance.

14 G-PLUS® MAINTENANCE TIPS

1. **BODY REMOVAL (FIG.1)** G-Plus bodies are designed for easy removal. Hold the rear wheels firmly, gently, pull out slightly one side of the body until it clears the side chassis tap. Then snap the body off. To replace the body, simply reverse this procedure.
2. **DISMANTLING CHASSIS (FIG.2)** Taking a G-Plus chassis apart is easy if you refer to the exploded view drawing, simply remove the magnet retaining clip with the assistance of a small screwdriver or AFX Quikee-Lok tool. The armature and bearings and magnets can now be removed. Assemble in reverse order.
3. **PROPER LUBRICATION (FIG.3)** The Aurora Special Racing Oil is formulated to improve the performance of your AFX car. Apply one small drop of oil sparingly to specific oiling points (See diagram). A small drop of oil goes a long way. Oil should be applied to the armature front bearing with care to avoid contaminating the commutator. If this occurs, clean commutator with a lint free cloth.
4. **CHASSIS ADJUSTMENT (FIG.4)** Chassis adjustment is as important in HO scale as it is on fullsize racing cars. Making sure your car is 'flat', can give you an important edge over your competitor. To check for flatness, take the body off and place the car on a piece of straight track. Look closely to see if both front tyres are in contact with the track. If one is not, carefully bend upwards the axle of the front tyre that is touching. If one is not, carefully bend upwards the 'high' tyre as this may tend to raise the car too much.

When both front tyres are in contact with the track, use a fingertip to roll each front wheel individually (with car sitting on track). If one tyre rolls more easily than the other, it is still a little 'high' and the other axle should be bent upwards until both tyres rotate with the same resistance.

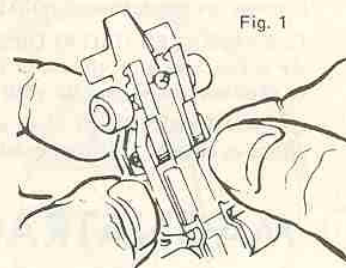


Fig. 1

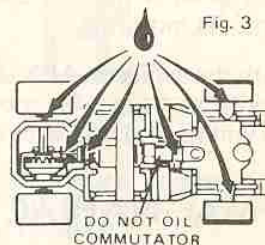


Fig. 3

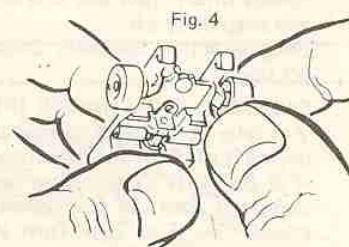


Fig. 4

G-PLUS® CHASSIS

