

AURORA[®]

1986?
1986b

AFX TURBO CARS



**THE CLOSEST THING
TO REAL RACING**

TOMY[®]

AURORA



Welcome to a new generation of Aurora. A new generation car and track. A new generation of kids to enjoy the thrill of the closest thing to real racing.

HO scale model car racing was developed in England by Derek Brand and introduced into the United States by Aurora in 1960.

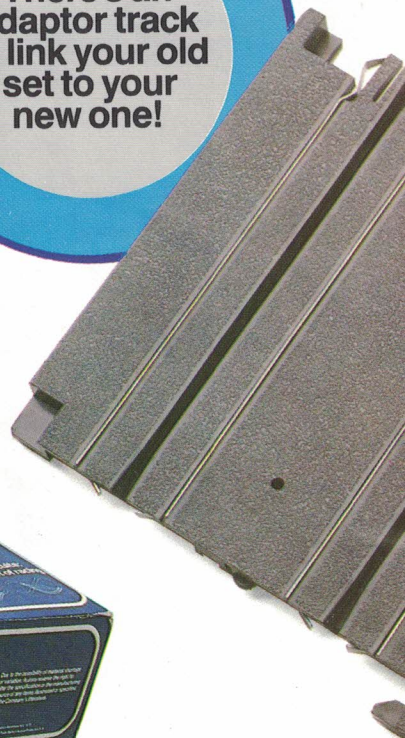
Although many minor changes have occurred since 1960, the basic dimensions of track and car remain unchanged, since they have always proved a winning team. No competitor's model racing cars have ever come close to challenging the Aurora standard, though many other sizes of home racing sets have been tried. When Tomy bought Aurora, the range of products was good enough to put into production immediately. But Tomy's commitment to quality necessitated the production of all-new tooling first, to ensure the name of Aurora stays where it belongs – at the top.

THE TRACK

The newly tooled track features one of the best connector designs on the market. It's quick, positive and virtually eliminates the breakage so common in other designs.

If you've tried other tracks or if you're an old fan of Aurora, you'll probably know the track could be quite difficult to apply and remove. You may even have broken a part of the track when inserting or removing the connector. But not now. The new Aurora connector just couldn't be smoother or more positive in contact.

And, if you still have your old Aurora track (as many dads still have), we've developed an adaptor track so you can add it on to your new layout.



IS BACK!

THE CARS

Every Aurora car is a replica of the actual model, down to the tiniest detail. And the shape is totally accurate.

The range includes many of the old Aurora bodies revitalised with bright new colours and decals. We'll be introducing new bodies each year. The body mounts for all Aurora cars (except the new Indy-types) are interchangeable with all old Aurora AFX, G-Plus and Magna-Traction chassis.

Every AFX Turbo car is moulded in ABS plastic, the same material your phone is made from. This means they're not only strong, but are also created with the highest gloss finish you could hope for.

Most importantly though – how fast can they go?

The AFX Turbo is more than a match for any production slot car in the market, both in speed and handling. It will always have a better than average chance of winning any 'box-stock' race. But, of course, a lot depends on you, the driver.

The more skilful you become, the faster your car will go. As they say, practice makes perfect. You provide the practice. We provide the perfection!

The new Aurora AFX Turbo racing sets from Tomy are hard to beat for quality, value-for-money and speed. It's a range of products in which every component, has a purpose. The system has an energy, an excitement you can lose yourself in, while you experience what we still maintain is the closest thing to real racing.





CAMARO CHALLENGE

Electric Racing

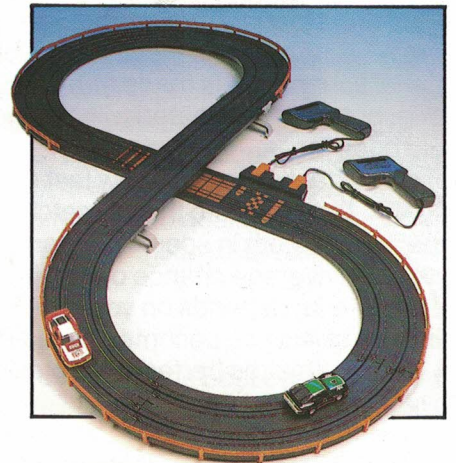
No 8601

Over and under layout proves all the thrills and excitement of high performance racing. Two full-race Camaros battle it out over a fast 8 1/2 foot figure-8 layout.

Contains: 2 all new, hot AFX Turbo Camaros - 8 sections of track for high speed figure-8 layout - 2 Piers - 6 Crash Barriers - 2 race-proven plug-in hand controllers - Power Pack.

Standard Pack: 6

Package Size: 20" x 13" x 2 5/8"



8 1/2 feet of Racing Action



CORVETTE CLASSIC

Electric Racing

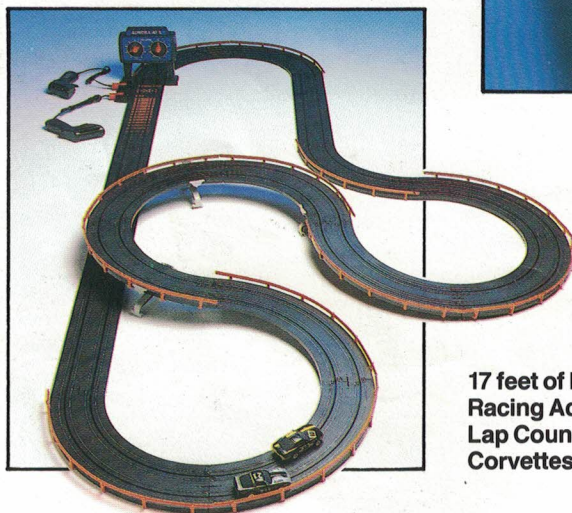
No 8604

If you're looking for a challenge, you've found it! Two hot Turbo Chassis Corvettes, one long straight and four tight hairpin turns, team up to give you all the speed, power and real racing action you can handle.

Contains: 2 all new AFX Turbo racing Corvettes - 16 sections of track for a 17 foot road course layout - Lap Counter - 3 Piers - 12 Crash Barriers - 2 rugged, race-proven hand controllers - Power Pack

Standard Pack: 4

Package Size: 22 3/4" x 15 1/4" x 2 5/8"



17 feet of Real Racing Action
Lap Counter
Corvettes





FORMULA 1 DUEL

Electric Racing

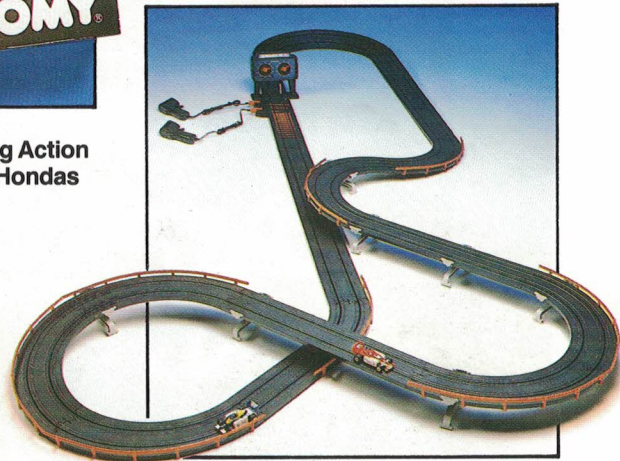
No 8605

The straights don't get any faster! And the turns don't get any tighter. Two hot, turbo-chassed Formula 1 Williams-Hondas meet to give you all the excitement and challenge of the Grand Prix circuit.

Contains: 2 all new AFX Turbo Williams-Honda Formula 1 race cars - 22 sections of track for a 21 foot Grand Prix race course - Banked Curve - Lap Counter - 6 Piers - 7 Crash Barriers - 2 rugged, race-proven hand controllers - Power Pack Standard Pack: 4

Package Size: 267/8" x 167/8" x 25/8"

21 feet of Real Racing Action
Formula 1 Williams-Hondas
Banked Curve
Lap Counter



FIREBIRD FRENZY

Electric Racing with Lighted Cars

No 8603

Test your skill with these full matched Firebirds with working headlights as they go head to head over the hairpins, straight and banked turns of this championship road course.

Contains: 2 all new AFX Turbo Firebirds with working headlights - 17 sections of track for 19-foot bi-level layout - Banked Curve - 4 Piers - 8 Crash Barriers - 2 rugged, race-proven hand controllers - Power Pack

Standard Pack: 4

Package Size: 223/4" x 151/4" x 25/8"



19 feet of Real Racing Action
Lighted Cars
Banked Curve
Two-level track
layout



THE CLOSEST THING TO REAL RACING



How Aurora works: Technical Data

The Controller

This allows you to control the speed of the car by varying the amount of direct current entering the track. A small variable resistor in the handle of the controller is squeezed, trigger-fashion, to speed the car up or slow it down.

Guiding the Car

When the car is placed on the track with its guide pin in the slot, contact between the pick-up shoes and track is made and the car will operate very much like a full size car. So, if you come into a corner too fast, the car will de-slot and crash off the course. As you become a more

experienced driver, you'll be able to 'drift' the corners in a manner uncannily like a real racing car. And Aurora cars, unlike some other cars, have all four wheels in contact with the track surface to create that 'real race feel'.

Stopping the Car

When power is cut off by releasing pressure on the controller, the car will continue to roll for a short time, thus creating electricity. The magnetic field created by this electricity inhibits the turning of the car's armature which helps to slow it down. This process is known as EMF - 'back electro-motive force'.

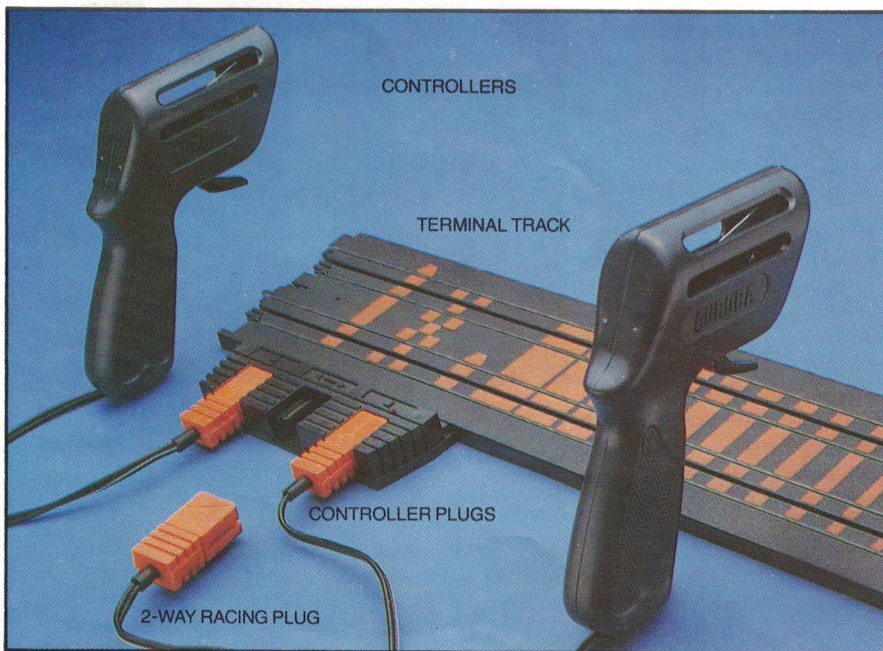
Aurora Components

The Chassis

The Aurora AFX Turbo is moulded from nylon plastic - a very tough material. It has to be tough because the chassis must literally hold all the car's components exactly in place for them to function perfectly.

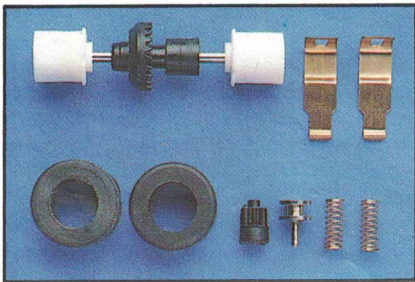
The Tyres

The tyres selected for the AFX turbo are made of an exceptionally strong vinyl. This ensures excellent traction (road holding), especially important when handling through the corners. They will also hold their shape and remain relatively unaffected by long exposure to the atmosphere.



Easy change 2 Way Plug makes changing racing direction simple. The arrow on the plug indicates the

direction your cars will travel, turn it round and you have a whole new race!



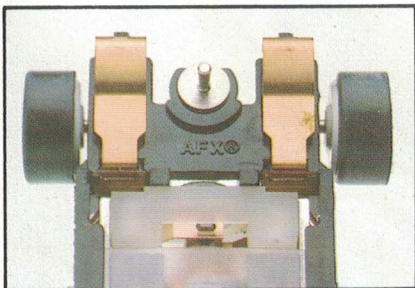
Aurora Tune-Up Kit available.

The Axles

Made of high-grade steel, the axles are plated to inhibit rust.

The Pick-Up Shoes

These conduct the power from the track through the busses in the chassis, to the motor. They are made of phosphor bronze which, being over 90% copper, is an excellent conductor. Aurora Pick-Up Shoes, unlike wire conductor systems are designed to facilitate all four tyres being in contact with the track surface.



Aurora Pick-Up Shoes allow all four wheels track contact.

The Busses

These are the small phosphor bronze parts that carry the electrical power from the pick-up shoes to the motor – both directly from the shoe and through the shoe spring.

The Pick-Up Shoe Springs

The springs ensure optimum contact of the shoe against the rail in the track and provide another path for the electric current to travel along to the motor.

The Gears

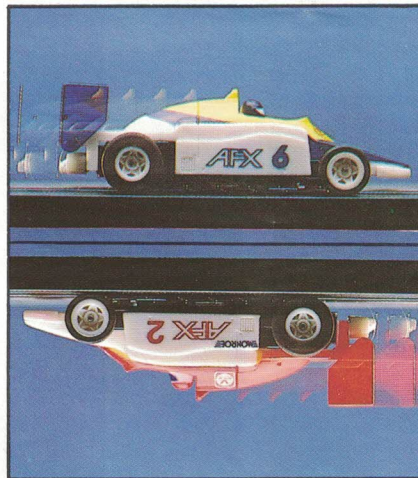
Since the language of gears is highly complex – addendum, diametrical pitch, back lash – to name but a few we have supplied the vital statistics of the gears in figure form for those of you who are technically minded:

- Gear Ratio 3.14
- Teeth, Pinion 7
- Teeth, Crown 22
- Diametrical Pitch 64
- Pressure Angle 208
- Material (both gears) .. Nylatron (nylon filled with molybdenum disulfide for added lubricity)

- ID (inside diameter)
 - Pinion15mm
 - ID Crown090"
- (For the rest of us, all we need to know is that the gearing on the AFX Turbo cars is brilliant!)

Magnet, Ground Effects

The use of magnets to improve the cornering power of the cars was first developed by the Aurora Hobbycrafts division in the mid '70's. This opened a whole new dimension of performance. The ground effect magnet used on the AFX Turbo is transverse mounted in the rear of the chassis just forward of the rear wheels. The material is one of the new family of ceramics that has made possible field strengths never before realised.



The rear mounted magnet will even hold your car to the track when upside down..

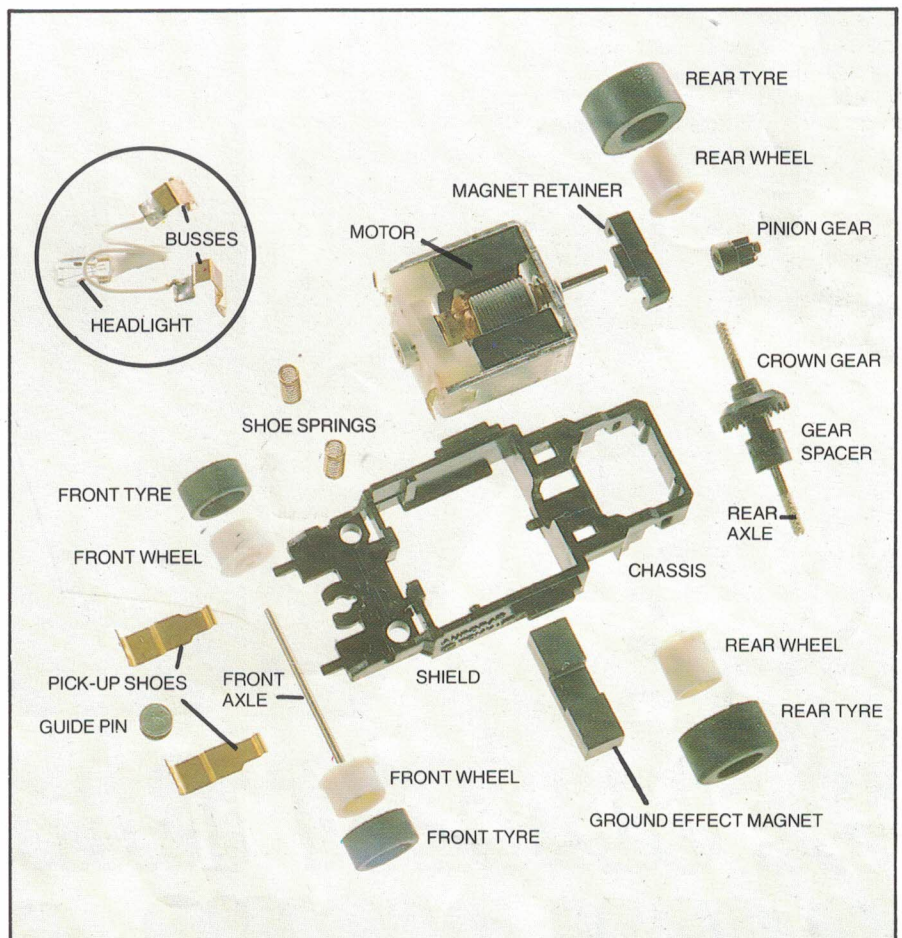
The Motor

Here are the technical details, of the latest in a long line of high-performance motors, to power the AFX Turbo:

- Stator ID390"
 - Armature OD368"
 - Mounting bosses, front & rear20"
 - Frame aluminium
 - End Bell acetal
 - Bushings oilite type
 - Commutator design ... leaf-type mounted 908 out of phase with conventional side-mounted, tube type.
 - Height370"
 - Width710"
 - Length737"
 - Weight 9 grams
 - Motor shaft length 28.5mm
- This little powerhouse of a motor was carefully chosen. Some might question Tomy not having specified a motor with more torque or higher rpm's. Each incremental power increase comes at a cost in terms of life expectancy, not only of the motors but also of the controllers and the power pack.

The Chequered Flag

The AFX Turbo is as fast as the state of the art will presently allow without any of the penalties discussed above. The speed and handling (stock from the box) are more than adequate to challenge the skills of even the most advanced pro. The Tomy Aurora sets have the perfect balance of performance and durability for a lot of fun and a lot of value. Tomy Aurora. It's the closest thing to real racing.

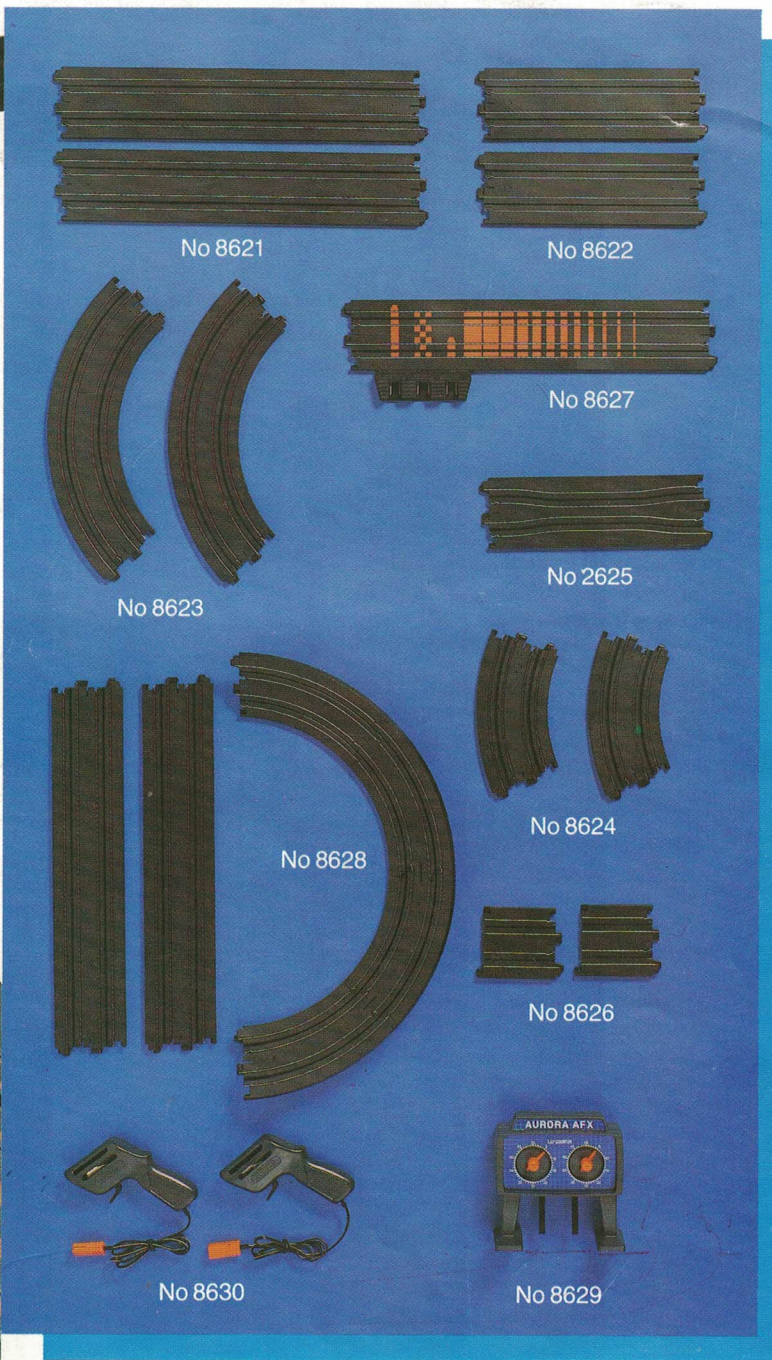


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ACCESSORIES

- No 8621 Straight Track 2 15" sections
- No 8622 Straight Track 2 9" sections
- No 8623 Curve Track 2 1/4 curve sections
- No 8624 Curve Track 2 1/8 curve sections
- No 8627 Terminal Track 15" section
- No 8625 Squeeze Track 1 9" section
- No 8628 Banked Curve Set includes: 4 curve sections & 2 15" straights
- No 8626 Adapter Track 2 3" sections
- No 8630 Controller (1 only)
- No 8629 Automatic Lap Counter



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