

## AFX Mega G Plus Review. Jan 2015. A. Whorton

The Mega G Plus is the latest chassis design from AFX Racemasters.

It follows the Mk1 released in 2009??, and the subsequent updated Mk2. This new chassis was designed to be in the middle ground between the outgoing AFX Tomy Turbo and the AFX Super G+.

The Mk1 Chassis was available as a Long wheelbase chassis only with Champ Car open wheel bodies

The later Mk2 came out in 2 1/2 different wheelbase lengths, the shorter 1.5 and the longer 1.7. All the magnets in the Mk 2 were now held in place using the chassis, instead of clips. LMP bodies were now available on the 1.7 chassis and bodies for the 1.5 included the GT40, Chaparral, and Group C cars. The very last body releases on the 1.7 chassis were the Ford Mustang Boss and the Chevrolet Camaro SS.

Delivered was a Brand New AFX Racemasters Infinity Raceway set.



It is the entry level set with a simple 2.6 metre (8.5ft) figure of 8. This is the first set available with the Mega G+ cars. The set comes with a Tri-Power pack to adjust the voltage depending on experience. The controllers are New High Ohm 120 controllers.

The Box is well printed and clear, with plenty of nice pictures all of very good quality and it's all very well printed.

Inside the box, a cardboard inlay holds the contents.



All the parts are neatly secured and well held. Under the straights are the track barriers. There is small bag with one set of springs, a pair of pickups and a piece of emery paper.

Instructions are clear and simple. A generic owners manual is also included. This is also clear, but the pictures still refer to the older Tomy Turbo and Super G+.

Other paperwork refers to the FCC regulations and its compliance of.

Controllers: The controllers are now labelled as 120. This refers to the ohm rating. The older controllers are 65 - 70ohms. The new controller has as Ferrite bead to assist in cutting down on electrical interference. The controllers were updated some time ago and this included a slightly rounded trigger and slightly larger profile at the top. The controller is still small to hold in adult hands but feels usable.



Power Supply: This is a wall mounted supply. It has switch for Beginner, Intermediate and Expert settings. These setting vary the voltage to 8, 12 and 22v all at 1Amp. Again the lead has a Ferrite bead on the end. For this review I am unable to use the supply as it has a US pin arrangement and we are in the UK on 240v domestic supply. All power will be supplied from a regulated power supply set at the appropriate voltage and at a current limited to 1Amp as per the AFX supply.



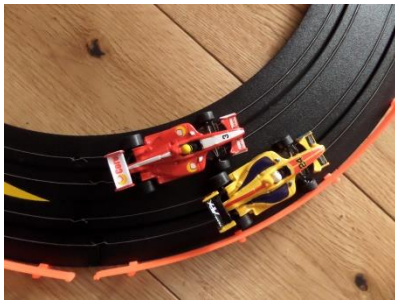
Track: The track is the AFX Racemasters track which has been around for many years. As the box artwork shows, other pieces are available.

The track goes together very well as expected. Some of the joints appear a bit stressed. The bridge supports are a bit of a loose fit. The barriers feel flimsy, but they clip of the edge of the track quite nicely and feel relatively secure. The power cable and controller plugs connect nicely, and would come out with a tug, from say a child pulling the controller away.



With the cars on track and the power set at 'Beginner' (12v) the cars start moving on track. Included in the set is a piece of emery paper to remove any oxidation on the track rails, but this was not needed.

The cars go round the track nicely, with a slight click at some of the track joints. Both cars are controllable throughout the range of the throttle, with full power being able to be reached and the cars only coming off occasionally. The Yellow bodied car feels a little more 'peppy'. Racing the cars side by side they just pass, occasionally taking one of the cars off, most probably with the front and rear wheels touching.



With both cars running, current draw is approx 0.25 amps. Stalling one of the cars draws 0.55 amps. Pulling the trigger from standstill the max current observed with one car is 0.22 amps.

The Voltage is upped to 'Intermediate' (18v). The cars noticeably go faster and they will come off just before full power is reached. Throttle response is still good across the whole range. The yellow car still feels faster.

With both cars running, current draw is now up to approx 0.3 amps. Stalling one of the cars draws 0.75 amps. Pulling the trigger from standstill the max current now observed with one car is 0.25 amps.

The voltage is set to 'Expert' (22v).

The cars go faster than the track is capable of. The yellow car now comes off the track at about half throttle, the red one a bit more throttle is required, but comes off at about the same speed. The cars now travel quite quickly from the slightest pull of the trigger.

With both cars running, current draw is still approx 0.3 amps. Stalling one of the cars draws 0.9 amps. Pulling the trigger from standstill the max current now observed with one car is 0.3 amps.

With this layout the 'Intermediate' is about right. Younger drivers will find the cars driveable at the beginner setting, and without the frustrations of the cars coming off at every corner.

The AFX power pack will deliver enough power that with both cars running, if one comes off the other one will not suddenly pick up speed.

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### Steves Test.

The track power was set at 'intermediate' 18v. Plugging in a brand new older type controller and using one of 2 brand new Mega G Mk2, each car was run for a few minutes. Both cars ran well, with the blue bodied car feeling little faster and handling slightly better (the MG+'s didn't feel different in handling, just speed). The car was driven until it came off mid corner. The MG+ would come off early in the corners. The Mega G Mk2 throttle response was consistent across its range, a bit hesitant to get going, but able to drive slowly around once moving.

Pushing each car, I could get the MG+ to go much faster, and more consistently so, with the car coming off less often. The MG+ felt much more drivable and less likely to fly off the track. The MG MK2 felt like it could come off the track at any moment.

With the MG Mk2 , current draw is approx 0.4 amps. Stalling one of the cars draws 1.9 amps. Pulling the trigger from standstill the max current now observed with one car is 0.9 amps.

The Voltage was put to 'Expert' 22v. Driving the cars now, the MG Mk2 felt the more drivable across the throttle range. It had a better low speed throttle control. The MG+ would go 'fast' from the moment the trigger was pressed. The MG mk2 would come off mid corner, the MG + at the entry or ¼ round. However I felt that the MG+ would go round the track faster, more consistently and I would do more laps before coming off.

With the MG Mk2 , current draw is approx 0.45 amps. Stalling one of the cars draws 2.5 amps. Pulling the trigger from standstill the max current now observed with one car is 2 amps. Well beyond the power given by the stock power pack.

The Voltage was put to 'Beginner' 12v. The MG Mk2 was reluctant to get going, suddenly starting about half throttle. A bit more throttle and it would go round quite quickly but by about ¾ throttle the car would come off the track. The MG+ was more drivable across the throttle range from a crawling start at low throttle to very quick at full, hardly coming off.

With the MG Mk2 , current draw is approx 0.35 amps. Stalling one of the cars draws 1.5 amps. Pulling the trigger from standstill the max current now observed with one car is 0.5 amps

The Track power was set back to 'Intermediate' 18v. The cars were swapped lanes so the 120 controller was driving the MG Mk 2 and the older controller the new MG+.

The MG Mk2 is controlled with the 120 controller. There is no movement from the car until halfway through its travel. The car is then reasonably driveable with the 120 controller at all speeds.

The MG+ is controlled with the older controller. The car takes off at speed with little throttle movement. The car is controllable across the throttle range, but low speeds cannot be made.

Both throttles can control both cars, but they is better car and speed control with the matched controller/car combination.

With both cars on track and with the 'matched' controllers, me and my 8 yr old son Josh had a go. We noticed that the older cars would go faster, but through the corners they could not pass at all. The MG+ cars were marginally slower, but could pass more, but would still come off as the car was alongside. More side-swiped out than punted by the front wing. We did seem to be coming off more with the MG+, but that was probably because we were trying to outpace each other!

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### Cars

The set comes with 2 cars. The liveries are existing ones, the 'Red Core', and the 'Yellow Team AFX'. 2 other cars are currently available as a twin pack with 'Silver Pro One' and a 'Yellow and White Flow' cars.

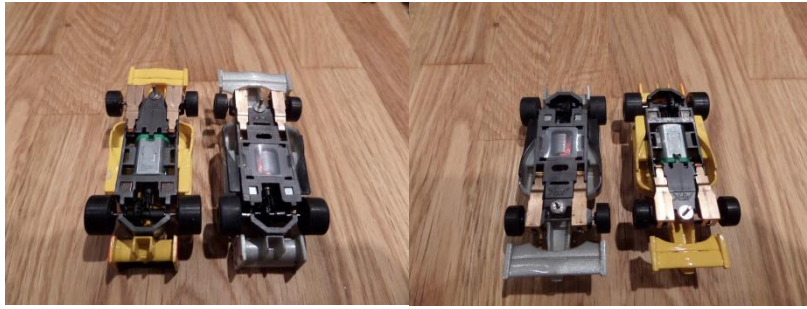


The cars are nicely finished with shiny bodywork and crisp paintwork and artwork. Noticeable differences from the older MG bodies are the narrower front wings. The car also sits a little higher on the chassis than the older MG.



Underneath the car now has 'can' type motor and the magnets are more exposed. There is no need for dust cover due to the sealed motor. The Pickups are wider and are attached at one end by hangers rather than over the brush barrels. The guide pin is in a much more forward position now ahead of the front axle. This guide position and the narrower front wings help prevent the cars colliding with each other in tighter turns which was observed with the earlier MG chassis.





The body unclips from the chassis which is a snug and secure fit. The motor can now be seen to have a small circuit board in front of it with a wire being attached to the topside of the motor. This board is largely down to reducing electronic interference. The chassis height with the can motor is the same as the older chassis.



Rear axle: The rear axle is clipped into the chassis and has a **22???** tooth gear. The gear saver now spans the width of the rear cutout. The gear appears to run true. The hubs do seem to run slightly off. The axle is well clipped in and the chassis has a cutout so the axle can only be put in one way. The rear gear meshes with a 7 tooth pinion. This pinion is now a long pinion along the length of the motor shaft. The mesh feels very smooth with no notchiness.

Front Axle: This fitted into holes at the front of the chassis and the wheels are push fitted into place on knurled axles. The runout on these is very good.

Pickups and Springs: The pickups are now wider than the older MG. They are held at the rear by hangers / busses. The pickups now have an edge on the sides. Wear marks after running are shown along the whole flat of the pickup. The spring is longer than the older MG, being more alike the Tomy Turbo / Super G Plus ones.



Guide pin: This is positioned in a much more forward position, ahead of the front axle. The length is approx the same as the old ones. Consistency in the length of the older MG guide pin length was always questionable. The 3 MG+ I have to hand all appear to be the same. It appears to be a different batch to the older car as these do not have a Pip on them.

### Traction Magnets:

These are 2 Neo Blocks. They do not appear to be put into the chassis in any configuration as the 2 cars from the set were in a different orientation from one of those split from a twin pack. The magnets are removable with a push from the underside of the chassis. The magnets are the same size as those from the older MG. The magnets' strength is comparable to that of the older chassis. The magnets sit at the same height in the chassis as in the MG Mk2.

### Motor and Circuit Board:

The motor, an exclusive to Racemasters type FN20, is held into place by mouldings in the chassis. It can be removed along with the circuit board by pushing from the underside of the chassis. The pinion is a good fit on the motor shaft, which is 1.0mm.

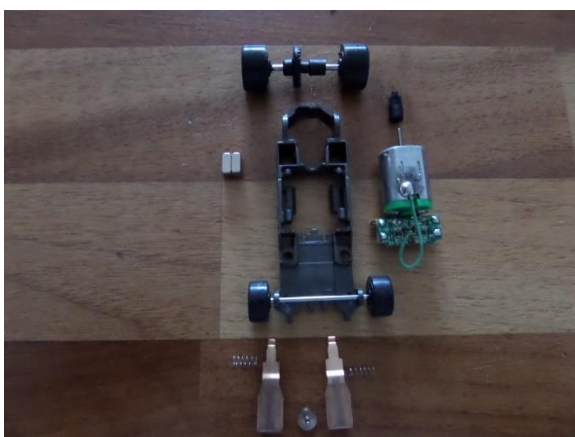


The circuit board is attached to the motor by a soldered joint to the motor tabs. The circuit board has the hangers for the pickups again, soldered to it. Pickup springs sit on this hanger and this creates a second electrical path from the pickups. **Removal of the wire is possible by cutting or desoldering, and the motor still runs.**

### Chassis

The chassis is a grey plastic which is quite flexible. It sits flat with no noticeable twist.

All the parts go back into the chassis and the car is returned to its original state.



**Body Compatibility:** To allow the fitting of the slightly more bulky can motor, the body tabs have had to be re-positioned. This means that the older Champ car bodies from the MG Mk1 and 2 will not fit. The new body will fit the older chassis but sits higher by about 1mm. The Audi Body will not fit the MG+. The Peugeot will only fit if 2 small pieces are removed from inside the body as these will foul

the circuit board. Even then the front of the car still sits up a bit. More material can probably be removed to get the body fitting better. Fitment to the Mustang and Camaro is unknown at the moment.



### Final Comments:

The new chassis looks and feels like it is well made. It is clearly from the same product line as the previous chassis.

The Can motor should mean that consistency between cars should be closer than in the previous incarnations, but only the test of time will prove this.

It is a shame that the mounting tabs on the body have had to change and that the older set of bodies will not fit.