

AFX Mega G Plus Review. Feb 2015. A. Whorton

Test 1 Jan 2015

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 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 on the small circuit. The bridge supports are a bit of a loose fit and 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. 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. 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. 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.

### Cars

The set comes with 2 cars. The liveries are existing ones, the 'Red Core', and the 'Yellow Team AFX'. Other cars are currently available as a twin pack are: 'Silver Pro One' and a 'Yellow and White Flow' cars, and Blue Chevy SS / White Ford Fusion NASCARs. Also available are unpainted versions of the NASCARs.



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.



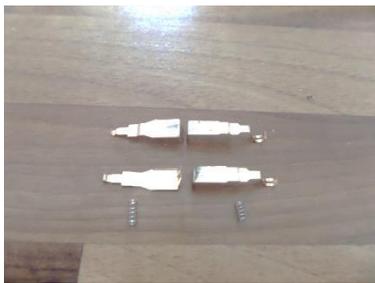
The body unclips from the chassis which is a snug and secure fit. The motor can now be seen to have a small circuit board in front of it with a wire being attached to the topside of the motor. This board is largely down to reducing electronic interference. The chassis height with the can motor is the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



Rear axle: The rear axle is clipped into the chassis and has a 25 tooth gear. The gear saver now spans the width of the rear cut-out. 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 cut-out 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. The rear axle spins very freely in the new MG+.

Front Axle: This fitted into holes at the front of the chassis and the wheels are push fitted into place on knurled axles. The run-out on these is very good. There is a little too much side to side movement.

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 specific 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 measured 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.

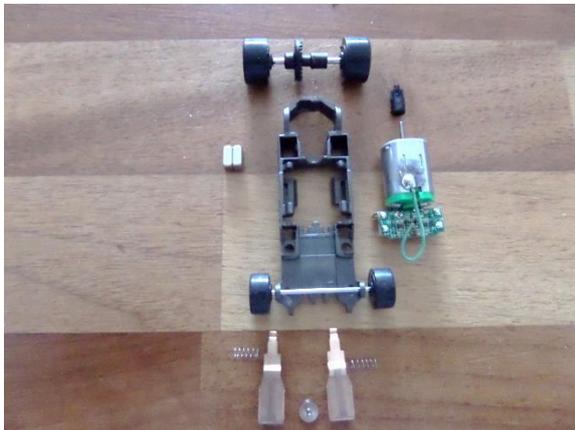


The circuit board is attached to the motor by a soldered joint to the motor tabs. The circuit board has the hangars for the pickups again, soldered to it. Pickup springs sit on this hanger and this creates a second electrical path from the Pickups. Removal of the wire is possible by cutting or de-soldering,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

#### Chassis

The chassis is a grey plastic (Nylatron) 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 Camero is unknown at the moment.



### Spares:

There is a Pit Kit for the Mega G Plus. It contains pickups for the long and short versions of the chassis, 4 pickup springs, Pinion, Guide pin, Rear tyres and Rear axle Assembly.

### 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 new car has addressed the main niggles from the old model. It runs straight from the packet as expected, and should keep going without having to adjust or replace the temperamental pickup / brush barrel arrangement.

The modifications to the front wing and the Guide pins should help the cars pass each other. The older cars would also clip the barriers with the front wing. This should not happen with the new chassis and body.

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. The bodies for the 1.5 (SWB) hopefully will not have these issues as many of the bodies fitted onto the bulkier Tomy Turbo and Super G+ Chassis.

Running the cars using the older controllers and visa-versa is possible and does work, but some of the throttle characteristics can make the cars challenging to drive. The 120 controller is well suited for the new MG+ cars.

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## Test 2 – Feb 2015

After the initial test, in which you can only glean so much from a short figure of eight, a larger track was built. The 19m (62.5ft) AFX Giant Raceway is due for release with the new Mega G Plus cars and this was re-created. The track layout was kept the same, including a squeeze section and crossovers. All the barriers were also added. I do not have a new version of the AFX Lap Timer, so the old Tomy AFX Electronic Control Station was dusted down, batteries added, and duly 'beeped' into life.



The only issue with the layout was one section where the banked curve pulls the track upwards into the path of the upper track. An extra track support under the banking cured this. The track was given a wipe over with an emery block and the cars were under way. Not bad for track in which some pieces are nearly 20 years old. This track is quite large and fills a good portion of the lounge floor (The wife will be pleased!!!).



The Voltage the track was set at 18v (equivalent to the Intermediate setting on the AFX Power Supply). AFX 120 controllers were used. The Mega G+ cars felt quick, nimble, and controllable. Full throttle was briefly achievable down 2 of the longer straights. Best lap MG+ 7.86.

The Voltage was turned down to 12v (equivalent to the Beginner setting on the AFX Power Supply). The cars operate nicely throughout the throttle range, have to squeeze a bit more. The cars reach full speed and the Red car will not come off the track. The Yellow car (which feels faster) will nearly get all the way round, but does fall off one of the inside lanes. Best Lap time is 7.93.

The Voltage is turned up to Expert 22v. These cars really do move at this voltage. The cars don't just come off the track, they fly off. The throttle control is quite sensitive now and is all the start of the

trigger. Both cars are able to lap in 7.82 seconds, but they are crashing quite a lot. The 'fun' has been taken out of it a bit.

Turning the voltage back down to 18v, and the cars feel so much better to drive. Throttle control is better, the cars are going quickly and I am crashing a lot less. I go quicker in both cars, 7.44 and 7.52.

The Cars and controllers are exchanged for the older Mega Gs and controllers. Voltage is kept at 18v.

Immediately the cars feel a bit more 'stuttery'. They move fairly well throughout the throttle range but they feel slightly too stuck down and will not flow around the track. One car feels nicer to drive, if a bit slower, but I am coming off more frequently using the older cars and controllers. Lap time is still good at 7.37 for the silver car.

One observation is how clean the pickups on the MG+ are. There is very little oxide or dirt build-up. The old MG shows some build up after a short running period. Cleaning the pickups result in the cars running a little smoother.

The MG+ cars are returned to the track with the older controllers. The throttle is very sensitive and the cars move very quickly with very little trigger input. Quick lap times are still possible, but crashing will occur.

The combination of the New Mega G Plus and the 120 controller set at 18v makes for a very nice driving experience. The cars are controllable, able to be driven at a very high pace and are enjoyable.

The children were let loose on the cars. They had multiple goes using both cars with the corresponding controllers. The MG+ did seem smoother and was having less 'odd' crashes. On quizzing the children, they preferred the old MG. Further questioning revealed it was the body colour, and the fact it was a 'Red Bull' that they really liked!!

The older Mega G does go faster around the track, but at the expense of frustration in crashing more. The new car is also smoother to drive around the track regardless of the controller used.

As a Home Set car the Mega G+ is nicer to drive and should function better, for longer. Chassis maintenance is less complex with fewer parts to come apart for repairs. The cars performance is yet to be tested fully on larger tracks (100ft plus), but the lack of speed from the motor may harm its overall racing potential.