

SLOT RACE SHOP

QUALITY SLOT PRODUCTS TO THE WORLD

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MARCH 2020 NEWSLETTER

NEWS

We receive the new 2020 Policar and Slot.it parts catalogues in a few days. Browsing for parts on paper is always easier than moving around web pages, so feel free to ask for a complimentary copy when next placing your next order.

We have just received another shipment of H&R Racing HAWK 18k motors. I know a few have been hanging out for these.

To compliment the Policar track system, we now have in stock two new models of controller, pre-wired with 3.5mm plugs, ready for use with Policar power bases.



Professor Motor **PMTR2148** for POLICAR Electronic Controller 3.5mm Stereo Type Plug.

Professor Motor **PMTR2149** for POLICAR 35 Ohm Resistor Controller 3.5mm Stereo Plug. This runs efficiently at lower than typical voltages, to make it more suited to the switchable Policar power supply

DIGITAL RACERS - A modification for all new Slot.It cars starting with the Mercedes 190E Karcher model, in future all new cars will be fitted with a plug & socket for the Digital chip



Shown at the **Nuremberg World Toy Fair** in February was the first 22.5 degree turn for the Policar track system. This was the R2, 22.5 degree versions of all 4 radii will be released this year CEO Maurizio Ferrari with the new 22.5 R2 curve on display.



Parent company Galileo Engineering also showed off new liveries of existing Slot.it and Policar models to come in 2020, and the new models which are in production. These are the most exciting ones for me. The R32 Nissan Skyline which was nicknamed Godzilla. There are three liveries coming in the next 12 months. These cars are the same era as the European DTM models, and raced against the dominant (in Europe) Mercedes 190e DTM in Asia. They have outfitted them with identical running gear, to add a suitable new model to race with the current DTM Alfa 155, Mercedes 190 and Opel Calibra models.





Also on show was a complete surprise under the Policar label, a generic modern F1, complete with Halo, and detachable nose cone, which is clipped in place with magnets.



A nice bit of nose weight for these light fronted F1 cars, but more importantly, the first thing that usually gets broken on open wheel cars – is the nose and front foils. With this system, the nose simply flips off in a hard crash, to be popped back in place.



It clips securely in place due to angular moulding, but releases on impact to prevent damage. So simple, but so clever.

They also announced a new classic F1 model, the Ferrari 312B2, one of the prettiest ever classic Ferraris.



And last but not least, another Nissan. The modern GT3 Nissan GTR – the Godzilla of today, which is a running mate for their about-to-be-released Maserati Gran Turismo GT3



We think that this is going to be the first livery.

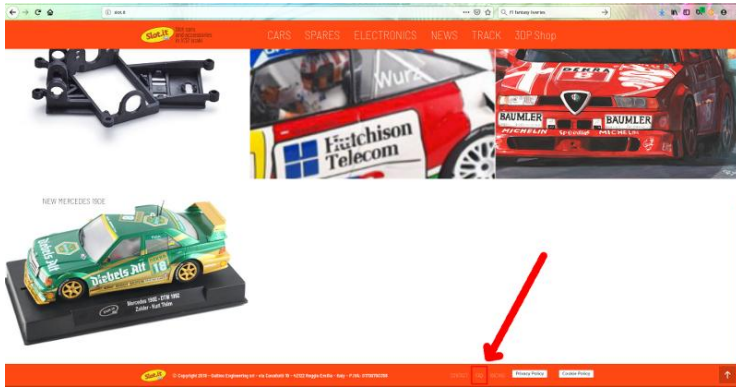


In a very pleasant surprise for our market which is mainly based on wood track racing; this and the Maserati are going to be released with the 23K MX16 Scan motor in sidewinder setup instead of the expected Flat-6 angle-winder configuration.

Woohoo, track ready apart from the usual “glue and true” blueprinting.

Slot.it Website

The very useful section of the Slot.it site with all their data sheets on it, is now back up and running on the new website. You can access it by clicking on FAQ at the bottom of the main page at www.slot.it



And it brings you to all these documents for download.



FAQ

CHASSIS & MECHANICAL

- EV06 Chassis
- Straighten a Chassis
- Adjusting the front axle in the Slot.it models
- Assemble the boxer2 flex
- Assemble the spring suspension
- Assembling the new side pods in the HRS2 chassis
- Assembling the HRS SCX digital chassis
- Assembling the new pickup CH66
- LMP pickup assembly instruction
- Preparing track for LMP pickup
- 3D SLG Parts for Carrera models
- Scaletric 3D Fab
- Mechanical Instructions 4WD Audi R18
- Using the "M" modular crowns
- Using the Pinion Press and Extractor
- Cross reference for wheels and tyres

CONTROLLERS & ELECTRICAL

- SCP-1 | Replace the Fuse
- SCP-1 | Remove automatic Brake
- SCP-1 | cartridge polarity selection
- SCP-1 | Sticky the trigger
- SCP-1 | External Relay
- SSD For Ferrari F40, 312 PB, Alfa 33
- Fitting Carrera digital chip
- Lighting kit SP06
- Lighting kit SP16
- LEDs on wires

The two parts catalogues mentioned at the beginning of the newsletter are now available for download as well.

[Slot.it Parts Guide 2020 PDF 4.6MB](#)

And as is showing on the [Policar](#) website

[Policar Parts Guide 2020 PDF 7MB](#)

I have also been updating documents and downloads in the **LINKS** section of the SlotRaceShop site, and have added some new helps, such as a gear pitch chart and a gearing ratio chart, copied below.

Corona Virus - impact on product deliveries

I have been talking to suppliers about the effect the Corona Virus will have on new product deliveries.

A quick summary: Next car product releases for our agencies left China prior to Chinese New Year shut-down which coincided with the explosion of the virus. Spares come from Europe and are unaffected in the short term.

Policar track is ex Europe; and braid and other track and controller supplies are all USA and are unaffected.

SOME factories are just beginning to re-open now in Southern China, but many staff will have been on holiday with family in other parts of China, and can't yet return to the southern area, so there will be staff shortages, due to movement restrictions.

There may be some staggering of car releases in the coming months; to smooth out the gap that is expected in output when production finally restarts following Chinese New Year, as factories are not yet back in normal production,

Future production will be affected – but no one knows how severe this will be as yet. With some components coming from sub-suppliers, it is likely to be a very stuttering 2020, even if the outbreak came to a halt immediately.

Slot.it gears guide and Gear Ratios Chart

compiled by slotnsz

Slot.it "offset" inline crown gears are all white							*	Crown	Crown	Crown	Crown	Crown	Crown	Crown	Crown	Crown	18mm SW Spur	18mm SW Spur	18mm SW	18/19mm SW Spur	18mm SW Spur	18/19mm SW Spur	19mm SW Spur
LH = Long Hub Angle Winder spur gears							**	AW & LH Spur	AW & LH Spur	AW & LH Spur	AW Spur	AW Spur	AW Spur	AW Spur	AW Spur	AW Spur	AW Spur	AW Spur	AW Spur	AW Spur	AW Spur	AW Spur	AW Spur
SIPI 5.5mm Pinion	SIPI 6mm Pinion	SIPS 6.5mm Pinion	SIPS 6.75mm Pinion	SIPI 7mm Pinion	7.5mm Pinion		23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	
8							2.88	3.00	3.13	3.25	3.38	3.50	3.63	3.75	3.88	4.00	4.13	4.25	4.38	4.50	4.63	4.75	
9							2.56	2.67	2.78	2.89	3.00	3.11	3.22	3.33	3.44	3.56	3.67	3.78	3.89	4.00	4.11	4.22	
10	10	10					2.30	2.40	2.50	2.60	2.70	2.80	2.90	3.00	3.10	3.20	3.30	3.40	3.50	3.60	3.70	3.80	
11	11	11	11				2.09	2.18	2.27	2.36	2.45	2.55	2.64	2.73	2.82	2.91	3.00	3.09	3.18	3.27	3.36	3.45	
			12	12	12		1.92	2.00	2.08	2.17	2.25	2.33	2.42	2.50	2.58	2.67	2.75	2.83	2.92	3.00	3.08	3.17	
			13		13		1.77	1.85	1.92	2.00	2.08	2.15	2.23	2.31	2.38	2.46	2.54	2.62	2.69	2.77	2.85	2.92	
Not made by Slot.it but provided for reference purposes					14	14	1.64	1.71	1.79	1.86	1.93	2.00	2.07	2.14	2.21	2.29	2.36	2.43	2.50	2.57	2.64	2.71	
					15	15	1.53	1.60	1.67	1.73	1.80	1.87	1.93	2.00	2.07	2.13	2.20	2.27	2.33	2.40	2.47	2.53	

Gear Colour Index

* Top line colour is for inline Crown gears up to 30 tooth. (Offset crown gears come in same tooth numbers but are all white in colour) From 31 tooth upwards the colour represents that of sidewinder gears where available

** Second line colour is for anglewinder gears where available.

*** Slot.it use the same gear colours for sidewinder spurs in both 18 and 19 mm nominal diameter where both are available [34, 36 tooth]

New Cars

Due late March Nissan Skyline Group 5 – SW67 Sideways



Chassis: Podded

Chassis can also take any Slot.it Pods

Motor: Slot.it Flat-6 20,500rpm 200 g/cm torque 10.25 watt,
mounted a/winder with adaptors for 0.5mm and 1.0mm offset
Axle & Gears - 2.38mm (3/32nd)

Gearing: Crown 28t (GA1628-pl) - Pinion 11t brass (PS11)

Has adjustable height front axle - requires optional M2.0 Hex screws,
not supplied with car

Hubs front: Plastic 16.5 x 8.2mm

Hubs rear: Alloy 16.5mm x 8.2mm

Accessories supplied with car: M2 allen key under box, adaptors for
0.5mm and 1.0mm offset of rear axle

SSD Upgradable: Yes, use Slot.it SP15b

*** Thanks to all the guys who have put in early pre-orders
for this model, it makes my planning orders with the
smaller makers a lot easier. If there is anyone else wanting
one on arrival, please could you let me know in the next
week, so I can allow for the right numbers.**

**I think this will be a big one, and will be a sellout at
Sideways day one, with no opportunity for me to re-stock.**

**** The cars left before Chinese New Year and are due to land
in France any day. Now we have to wait due to the current raft
French ports strikes and Go-Slows, to get them into the
Sideways warehouse, and out to distributors.**

Porsche 956LH Group C 3rd Le Mans 1989 CA34C Slot.it

Drivers: M.Reuter, F. Hunkeler, W. Lechner

Arriving 16th March – stock live now for ordering



Chassis: Podded

Motor: Slot.it MX16 23,000rpm 170g*cm 9.8 watts @12 volts dc
mounted as Inline

Axle & Gears - 2.38mm (3/32nd)

Gearing: Crown 28t - Pinion 9t brass

Has adjustable height front axle - this requires optional M2.0 Hex
screws not supplied with car

Hubs front: Plastic 15.8mm x 8.3mm

Hubs Rear: Alloy 16.5mm x 8.3mm

Tyres Front: PT1159C1

Tyres Rear: PT1167C1

M2 allen key under box for rear hubs and for optional screw for front
axle adjustment

SSD Upgradable: Yes, use Slot.it chip SP15b

Q & A

Q Do you have any crown and pinions for this model?
It says S9536 on crown and a number 2 picture enclosed



A. Ouch, that looks chewed over better than a dogs bone.

Scalextric part numbers don't mean anything to me, and I am not sure about that axle. It doesn't look to be splined like a standard Scalextric axle, so hoping it is a smooth shaft 3/32nd (2.38mm)

I am GUESSING that the motor is an ff-050 with a 1.5mm shaft.
Assuming all that is the case, my repair suggestion is this

I am hoping the old pinion was no more than 9 tooth as those ff050 motors have lots of revs but very little torque, so need gearing down a fair bit

Use a Slot.it [1.5mm hole pinion which is 9 tooth](#).

A Slot.it crown gear of say 28 tooth - but check the tooth count on your old pinion and crown, and try to get as close as possible in ratio eg 9:28 when selecting the [Slot.it crown](#). If your old pinion had say 10 teeth –go for the largest Slot.it crown with 30 teeth

Part of the reason it may have chewed out, is the gap in the contrate of the crown gear is much wider than the shaft diameter of the motor, so the axle is able to move sideways, tightening and loosening the gear mesh. I suggest you eliminate this sideways movement by the use of spacers between the outside of each axle bush, and the inside of the wheels when you press them back on.

[1mm spacers](#) for taking up the majority of the gap

Fine [0.1mm spacers](#) for shimming

However, if the axle is a standard splined Sxalextric one, the main shaft of it is only about 2.20mm, and that means any screw fixed crown gear designed for 2.38mm will be a little off centre. It may be near enough that the mesh variations don't worry you, but be aware of that. In my House brand replacement gears, I do have some [8 tooth nylon pinions](#) which are tight press-on to 1.5mm motor shafts. I don't have any press on nylon crown gears for splined Scalextric axles.

Q. I have brought some cheap Scalextric cars which will need some work, came across some videos on you tube about the subject, so am just going by it for a start.

Slot it 12 tooth pinion gear brass

Motor(s)

Race bushings/bearings

Axles

Braid

Spur gear 19mm 34/36/38 tooth

Hubs (to suit tyres I have)

A. Fitting parts to Scalextric cars is always subject to a few caveats:

1) Will the alloy wheels fit inside the wheel arches, as alloy wheels have a 1.5mm hub/boss, the original plastic hubs didn't

2) Will the combination of the hub and tyre profile roughly match the outside diameter of the original parts.

I can't answer those questions, I would have to have a particular car myself to compare. But in general, here is a sensible parts list, using kits for most of the parts you want. . In the descriptions you can read the individual components if you need separate items later. This is out cheaper than buying the individual parts included in the kits

Slot it 12 tooth pinion gear brass - PS12

https://www.slotraceshop.nz/index.php?main_page=product_info&cPath=3_21&products_id=198

(but if you retain the Scalex motors you won't need these.)

Motor(s) - Probably the MX16 is a good start point.

https://www.slotraceshop.nz/index.php?main_page=product_info&cPath=71&products_id=2168

Braid - Start with SP19 copper braid

https://www.slotraceshop.nz/index.php?main_page=product_info&cPath=3_14&products_id=661

Race bushings/bearings, Axles, Spur gear 19mm 34/36/38 tooth

Hubs (to suit tyres I have) **Buy kits, they work out cheaper**

The Scalex cars you want to modify are probably all sidewinder.

There are 3 kits with the 19mm spur gear you would use

2 diameter wheels, and two widths in the larger diameter version.

https://www.slotraceshop.nz/index.php?main_page=index&cPath=3_217

This narrower large wheel kit KK15b is a good start point. After that, see if others might suit a wider car

https://www.slotraceshop.nz/index.php?main_page=product_info&cPath=3_217&products_id=1562

Tech Article - Slot.it Group C car into sidewinder

Group C cars made by Slot.it have been one of the most popular club classes all over the world for well over a decade.



- They run well out of the box; are easy to set up for optimised running on both wood and plastic, and there is a wide variety of models and liveries. Porsches, Mercedes, Toyotas, Nissans, Alfas and Jaguars. Most clubs in NZ race them as a class, and they have been used both for the 12 hour teams enduros and are a "Nationals" class here in NZ.



They come standard as inline configuration; and most clubs race them in the standard configuration, both to keep costs down, and to offer an easy class for new members to master set-up out of the box.

Having set one up in sidewinder configuration for a proxy series (car builder's competition) in the USA a few years back with some success; I thought it would be interesting to set one up the same way as an example of what sidewinders handle like in general, as there are a lot of inline and angle-winder podded cars out there which can easily be converted to sidewinder. So this is not just about this Group C car, but about sidewinder configurations in general.

The model I have chosen is the #36 Toyota at right above. These are the parts I am using in the upgrade – plus some miscellaneous items I will list later.

The picture following shows the main parts required.

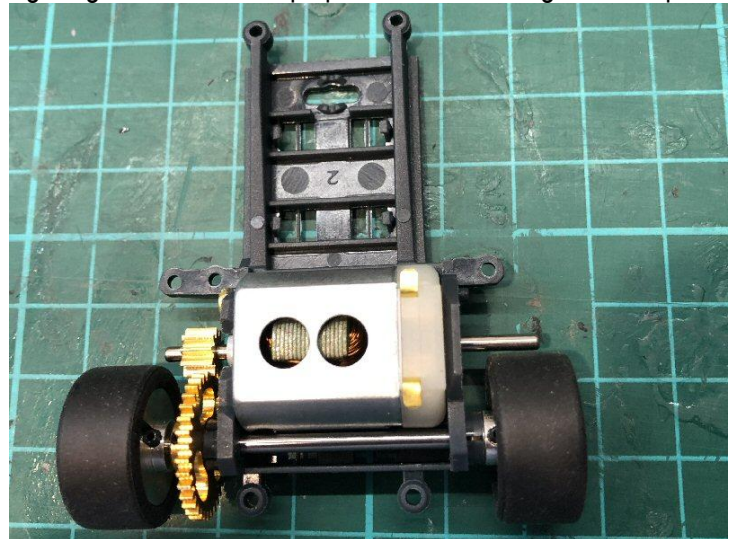
- CH67 sidewinder pod with the same 0.5mm offset as the original inline pod.
- An MX17 motor
- 6.5mm 10 tooth pinion for sidewinder pods.
- 35 tooth 18mm Sidewinder Spur gear.

There are some miscellaneous items, Motor fixing screws, as I like to lock my motors tight and make that part of the drive train as rigid as possible. Grub screws to set the front axle ride height as I always do, soft braid, numbers of axle spaces to set width and create sliding surfaces to minimise friction.

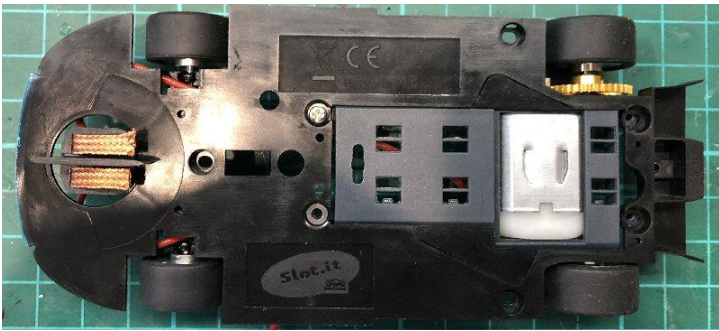


If you are wondering why I chose this low gear ratio of $10/35 = 3.5:1$, when the standard car has $9/28 = 3.1:1$. This is my reasoning. I am upgrading the motor. The MX17 has 26% more revs than the MX16, but a little lower torque, for overall power increase of 19%. I need to be able to stop the car from higher terminal speeds, and I still need short punch acceleration. With this gear ratio I have a 12% higher top speed, and 6% better braking torque. On a medium to larger track, I feel this is about right, especially given I have added 16 grams weight around parts of the chassis and pod.

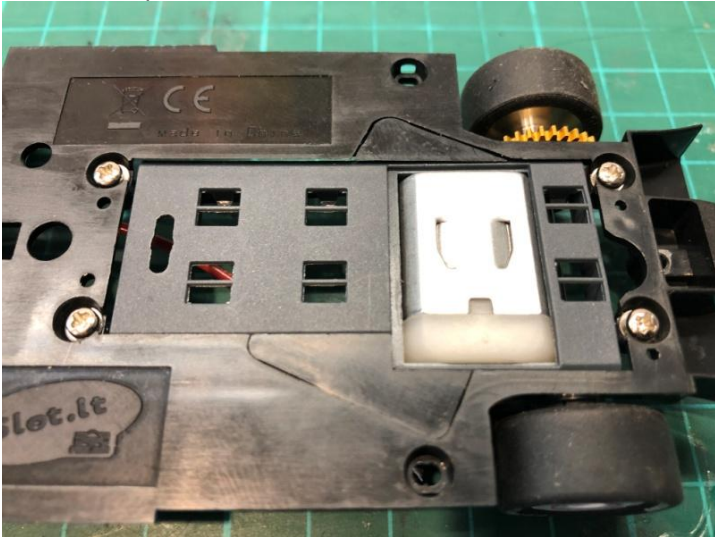
But if it isn't quite the right gearing for the track, I can gain one more tooth to a 36 tooth, or the more likely scenario or dropping to a 34 or 33 tooth spur to quickly experiment with higher gear ratios and top speed. But this is a good start point.



The assembled pod, prior to fitting and glue and true.



Pod fitted. The pod screws are about 3/4 turn off of tight, to allow the pod to slide, and have just a half a millimetre vertical play. I will later dampen that play by taping the underside of the chassis and pod.



Note at the front, I have removed the riders from inside the vertical axle uprights, and the chocks that sit on the chassis prongs under the axle. I want only the grub screws contacting with the axle and defining ride height and play. I use 6mm grub screws under the chassis and 3mm in the holes in the uprights.



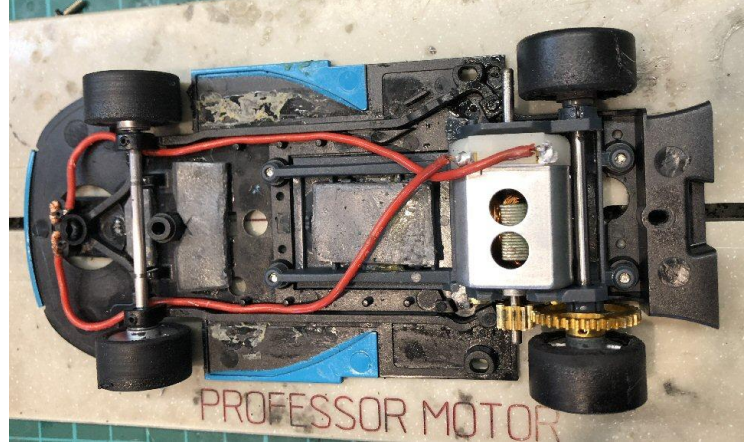
Original front tyres get glued to the original plastic hubs, trued, and the edges slightly more profiled. The ride height gets set for maximum guide depth, and the braid and front wheels sharing the front weight.

I want the wheels to turn as the car moves, but I want plenty of weight on the braid as well, to ensure good electrical contact, in a straight line and in corners.

I had fitted with my go-to tyre, PT1171N22 glued and trued to the stock 16.5mm rims. They lacked a little grip, and needed a polish anyway; so I just dabbed on some NSR tyre oil and spun the wheels on a wet sanding block. A 30 second "treatment" nothing much

The net result was so much grip, that when the car did (try) to let go, it shuddered and deslotted, often pointing inwards on the track.

I played around with lead placement and amount, and ended up with most lead in the pod, and none on the chassis wings. The 8 grams front lead anchors the guide under acceleration, and the 12 grams scatter around the pod is to stabilise that against body chassis roll.



But still it shuddered. After trying an identical set of wheels off my regular Group C car which is fast and smooth, and getting the same results, I reached the conclusion that the rearward weight of the sidewinder, was giving me too much grip, so I swapped out the tyres for a set of untreated N18 on the slightly smaller 15.8 diameter wheels.

The problem all but went away and a slight tweak of the pod and front body post screws to give 1 full turn off tight on all, resolved it. This car at front, very low.



I can now crack under 5 seconds on my 63 foot white lane, and drive consistent 5.0s and 5.1s; which is 3/10ths faster than my stock, blueprinted club car to Nationals and our local club rules. - Almost the same as a tuned GT1 or NSR Classic at 4.8s