



Fitting Slot.it chassis for Carrera DTM with Slot.it parts

If you have purchased a 3D printed DTM chassis for Carrera DTM models, or if you're planning to do so, here's what you need to know in order to get the best out of it.

These chassis have been designed with SLS (Selective Laser Sintering) in mind.

What is SLS? Quoting from 3dprinting.com *“This technology uses a high power laser to fuse small particles of plastic, metal, ceramic or glass powders into a mass that has the desired three dimensional shape. The laser selectively fuses the powdered material by scanning the cross-sections (or layers) generated by the 3D modeling program on the surface of a powder bed. After each cross-section is scanned, the powder bed is lowered by one layer thickness. Then a new layer of material is applied on top and the process is repeated until the object is completed.*

All untouched powder remains as it is and becomes a support structure for the object. Therefore there is no need for any support structure which is an advantage over FDM and SLA. All unused powder can be used for the next printing. SLS was developed and patented by Dr. Carl Deckard at the University of Texas in the mid- 1980s, under sponsorship of DARPA.”

In practice, while designing these chassis we kept the minimum thickness of the part in line with the design rules for this specific technology, sacrificing some edge sharpness and replacing the Slot.it complex logo with a simpler 'Slot.it' writing. *If you wonder why we've chosen the 'LMP' type guide holder, that's because it is the one that gives the best resistance to crash and tear forces, being anchored to front and rear part of the chassis.* The 'standard' guide relies instead on a simple plastic ring, and we fear that with 3D printing, it may be more prone to breakage. It must also be taken in account the fact that these cars are quite long and heavy.

Shapeways' SLS 3D process dimensional tolerance guarantees the part to be within +/-0.15mm of the CAD model. This is due to the way the machines operate, and it's been taken into account when designing the parts with this technology in mind, as much as possible. In practice, customers may occasionally have to use some sandpaper and file to match parts perfectly. In most cases, from experience, this is not necessary and Shapeways 3D printed products match our standard Slot.it parts or Carrera bodies very well.

Any of the Slot.it motor pods may be used with these chassis; however, due to the diameter of the wheels in the original Scalextric products, we recommend using 1.0mm offset units, and front and rear 17.3mm wheels for GT cars.

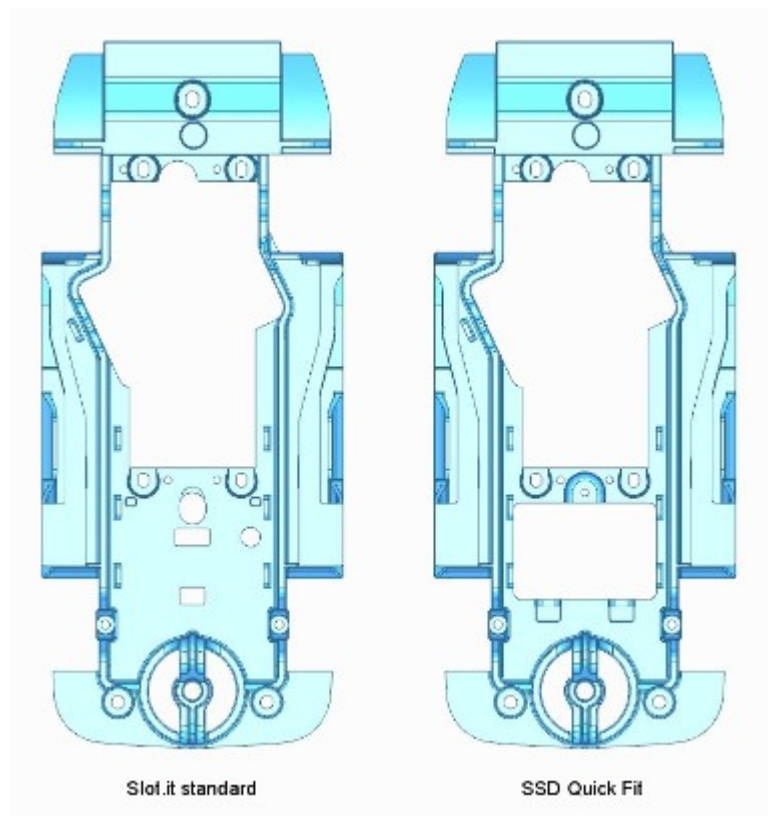
For each supported Carrera model two specific versions of chassis exist, one ready for Scalextric 'Quick Fit' SSD chip, one 'standard' made for analog, oXigen chips or Slot.it's own SSD SP15. To recap, choose between

- STD version: analog, oXigen or SSD with Slot.it SP15chip
- SSD version: prepared for Hornby Quick Fit SSD chips. If you plan to use the chip intermittently, the corresponding SSD hatch lid can also be ordered..

The only available plastic type is polyamidresin (nylon) but there are many different variations to choose from:

- Unpolished: white (cheapest), black.
- Polished: white, royal blue, violet purple, hot pink, coral red, orange, green, yellow, all at the same price.

The main difference here is between polished and unpolished: polishing is a mechanical process (we understand it's a fine, light sanding) that removes some of the graininess from the unpolished part, slightly rounding off edges in the meanwhile. They feel more 'refined' when held. Actually, in most cases, polished or not, no further work is necessary. However, as we explained earlier, some minor adjustment may be needed.




Here's a list of available Slot.it parts and codes for Carrera models:

S01-ST1	3DP Chassis Carrera Audi A5 DTM STD
S01-ST3	3DP Chassis Carrera Audi A5 DTM SSD
S02-ST1	3DP Chassis Carrera BMW M3 DTM STD
S02-ST3	3DP Chassis Carrera BMW M3 DTM SSD
S03-ST1	3DP Chassis Carrera Mercedes C-Klasse DTM STD
S03-ST3	3DP Chassis Carrera Mercedes C-Klasse DTM SSD
S99-S01	SSD hatch clip
S99-S02	Carrera D132 chip mounting post



Ordering

To order your chassis, visit the [Carrera section of the Slot.it Shapeways shop](#). You will be directed to Slot.it Shapeways shop, where you can find all the 3D drawings that we've currently made available for Carrera cars.




The Slot.it 3D Shop
Designs by 3DSlotitFab


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3D prints of special parts created from Slot.it, the reference brand in slot car racing



AudiA5-std
Not For Sale by 3DSlotitFab



BMW M3-std
Not For Sale by 3DSlotitFab



MercC-std
Not For Sale by 3DSlotitFab

To place the order register with Shapeways, select what you need and pay with Credit Card, Paypal, or possibly other means. It's really very simple. All logistics are handled directly by Shapeways and your order is delivered to your door. Depending on finishing and quantity, delivery time can range from 7 to 15 days.

Assembling - what's needed

Slot.it inline and anglewinder motor pods work easily with any Slot.it wheel. If you plan to use a sidewinder pod, instead, care must be taken because the motor shaft may rub against the rear wheels, in which case the motor shaft should be cut short.

In practice, we recommend using the same setup of our modern GT and LMP cars:

Part	Part n.	Description
Motor pod	CH30	Hard plastic white AW pod, offset 1.0
Bushings	CH56b	2x spherical oilites (<i>already included in pod CH30</i>)
Stopper	PA25/PA57	Standard or race Stopper. We suggest PA57
AW Spur Gear	GA26...GA30	Any of our AW gear will do. We suggest GA28-pl
Pinion	PS10/11/12/13	Any of our 6.5mm pinions. We suggest PS11
Spacers	PA47	Use 0.35/0.40mm spacer between gear and oilite
Shaft	PA01-54	2x 54mm steel shaft
Magnet (optional)	CN06/CN07	Standard or race NdFeB magnet
Front wheels	PA18-pl	17.3mm front wheel. May also be Mg or Al
Rear Wheels	PA38-Als/Wh1230-Mg	17.3*8 short hub wheel
Front tyres	PT15	Skinny front tyres, or use the same as rear
Rear Tyres	PT25/PT27/1207F22	PT25 for Carrera, F22 for Ninco, else to your liking
Grub screws	PA40/PA37	3 and 6mm grub screws for front axle adjustment
Pickup	CH88/CH84	LMP pickup, screw mounted, for plastic or wood
Braid	SP19/SP29	Braid, 1m or LMP special pre-cut and drilled
Motor	MN08/09/13/14	We suggest either a Boxer or a Flat motor

Parts in light grey can be replaced by one single KK14c conversion kit.

A note about screws: those used by Carrera in their chassis are quite different from the screws that are generally used in slot cars made by other companies. You must keep the original screws or purchase the custom brass units CH89 made by Slot.it.

