



# BUILDING AND RACING THE SPEC CAYMAN

## PART 1

STORY BY KEITH FRITZE, PHOTOS BY KEITH TREDER & MIKE KLASKIN

### Introduction

In this article I will provide an overview of spec racing and the role of the new Spec Cayman (SPC) as spec classes evolve within PCA. I will compare a number of important issues for selecting the SPC over other popular racing classes. I will provide a cost comparison with one of the most popular spec classes, the Spec Boxster (SPB).

### Popularity of Spec Racing

Spec racing within PCA has enjoyed tremendous growth and popularity in recent years. Current classes, such as the 944 SP1 and SP3, and especially the Spec Boxster SPB class, are among the fastest growing classes in PCA. Racing at a number of tracks often exceeds 30 entries

just in SPB, with increased numbers in all of them. Regions recognize and welcome these classes, often with individual run groups created for the SPB class in particular.

### Goals & Benefits of Spec Racing

Some of the specific goals of spec racing are:

- To race a platform within a particular class that is built to a standard (spec) build list.
- To contain costs, both fixed (car) and recurring (consumables such as tires, fuel and brakes).
- Allow a limited number of parameters, such as suspension alignment settings and tire pressures, to be determined and selected by the racer.
- To focus on the driver's racing

abilities rather than expensive customization of the powertrain and suspension system; again emphasizing cost containment for the class.

The ultimate benefit is ability to attract more competitors to the class through racing platform cost containment, platform standardization, and lowered consumables costs.

Another benefit for racers is that these classes use very capable baseline consumer platforms. The SPB's Boxster chassis is one example. On technical road courses the SPB will often compete (in terms of performance) with some of the more traditional legacy 911 and 944 platforms. And all of this can be accomplished using standard



premium pump fuel and spec Toyo race tires! No wonder these classes are achieving such popularity!

### The Spec Cayman

The Spec Cayman class, SPC, is the newest addition to PCA spec racing. The specification for this class was completed in the Fall of 2015. Early adopters into this class have started racing this year.

The handling and performance benefits of the Cayman as a racing platform cannot be denied. Its mid-engine platform provides cornering stability and 3.4 liter engine adequate power for the race car. The SPC uses the first generation 987.1 platform with a second generation liquid cooled engine and transmission that can handle the power and

the more stringent demands required in a racing environment.

In the remainder of Part One (the article printed here) I discuss the economics of racing this platform (with comparisons), the reliability of the powertrain, and features built into the spec to ensure higher reliability. Finally, I provide testimonials of some of the original entrants into this class and those that have driven the Spec Cayman.

### Economics of Racing the SPC Acquiring a Donor

The SPC class uses the first generation 3.4L Cayman S (987.1, 2006-2008) chassis as its base platform. For a prepared race car, the Cayman is among the best of Porsche's platforms. It is well

balanced, predictable and easy to drive. The engine provides adequate and smooth power delivery. Modifications to this platform for the SPC are straightforward and relatively easy for a DIYer that chooses to build a car. Additionally, many shops around the U.S. now have extensive experience with the Cayman for those that want to have a car built for them.

A donor car can be found from dealerships, private parties and dismantlers. Prices vary, but can be found from \$10K to \$30K, with many in the mid-teens. I personally found a donor car for \$15K, and was informed of a car with a *rough* interior selling for \$10K. There are also many *base S* models (such as mine with no options) that make the build process easier. Since the interior and much of the suspension will be removed, concentration on a donor with a solid powertrain and straight chassis are two of the important selection criteria. Donor car prices within this range provide good value, considering the performance level of the end product.

### Ease of Building the Car

The specification for the SPC was written to make the build process easy. This allows for the class to grow and for racers to benefit from racing such a great platform.

Each component was scrutinized for cost/benefit to control build cost. Because the SPC platform is higher performance than the SPB platform, build cost is higher, but not significantly. This will be demonstrated in this article.

All of the major components can be purchased from race car component vendors with familiar names to many people within the racing community. Vendors such as Tarett Engineering provide complete SPC suspension kits and many of the other parts directly from their online catalogs.

Also, the overall weight of the car was selected so that builders could meet minimum weight without having to scrutinize every nut, bolt and body panel. The majority of the wiring harnesses can be left *as is*.

### A Build Cost Comparison – The SPB and the SPC

There are a number of similarities in terms of components between the SPB and SPC. Both are mid-engine platforms with similar suspensions and powertrains. Build costs between the two platforms are also similar. The SPC, however, is a newer platform with more power, performance, and a more modern rigid chassis. The results are significant considering the marginal differences in cost and the superior handling characteristics of the SPC.

### Costs

Many of the costs associated with building any race car are similar. They all require a roll cage, safety harnesses, racing seat and fire system. Windshields are of light-weight lexan. They will have race steering wheels with fast removal systems, window safety nets, etc. The build cost of any race car in any class will include these costs.

SPC Component	SPB Component	Qty	Differential Cost-Total	Comment
996 GT3 front sway bar	996 GT3 front sway bar	1	\$0	
Tarett rear sway bar	Tarett rear sway bar	1	\$0	
996 GT3 control arm-outer	996 GT3 control arm-outer		\$0	
996 GT3 control arm-inner & TAB adaptor, litronic brkt	996 GT3 control arm-inner	4	\$335	SPC is solid monoball
Rear thrust bushing	Rear thrust bushing	2	\$200	SPC is solid aluminum
JRZ R5One Kit. Includes shocks, springs and solid topmounts	PSS9 coilovers-set	1	\$1,695	SPB Coilover kit does not include solid topmounts
	Retrofit 450/500 lb-in springs	1	(\$400)	SPB uses retrofit springs
Adjustable toe links w/bump	Adjustable toe links no bump	2	\$50 to \$350	
Total Suspension Differential Cost			\$1,645	

Additionally, the reliability features between the SPB and SPC are very similar. Most SPBs use third radiators, Accusumps and transmission coolers to protect the powertrain. To create a comparison, the suspension system and donor costs can be used as examples.

### Donor Costs

The donor cost is currently the major differentiator in cost between the two platforms. Donors for an SPB can be found for as little as \$5-6K, the average being a little higher. The SPC cost is in the high teens or more, but with careful shopping can be found in the low to mid-teens. These numbers for an SPC donor are similar to those of the Spec Boxster in its earlier adoption phase (circa 2008-2010) upon which many SPB racecars were built.

The other cost differential areas are the suspension system and addition of an LSD. These costs are related to the increase in the car's performance, the increased refinement of the SPC as a racecar, and a desire to build safety into the platform.

### Suspension Costs

The suspension systems of the SPB and SPC are very similar. As mentioned previously, the SPC is a higher performance racing platform. Suspension components were selected with this difference in mind. Table 1 summarizes costs and component differences between the two suspensions:

As one can see, the differential is not great, especially considering performance and drivability. The JRZ R5One kit uses 700/800 lb-in springs and is a tuned-ready to race package for the SPC.

In addition, the SPC class allows the use of a limited slip differential. The

minimum additional cost for this component is \$1850 (OS Giken). The choice of any mechanical LSD is allowed however, which may further affect costs but is also at the discretion of the race car owner.

### An Operating Cost Comparison – The SPC to the SPB

The operating costs of the SPC are higher, but not significantly considering the increased levels of performance. Both cars use spec tires and standard premium pump fuel. Both have stock rotors and calipers, and use racing pads developed for these stock components.

Table 2 demonstrates the differences between the two platforms.

The goal for the SPC spec tire is to have a tire that is durable enough for two race weekends. The Toyo tires in both classes can withstand 30+ heat cycles and can last 6 or more track days depending upon the track and the track conditions. Driving style and how hard they are driven will also affect tire life. Both the Toyo RR and the Toyo RS1 slick use the same rubber compound. The Toyo RS1 racing slick, however, provides more grip than the RR.

The SPC has a 3.4L engine, which provides significantly more power. The car with Toyo RS1 slicks and a better suspension system can generate higher lateral G forces, and has significantly more torque output from the larger displacement engine. Tire life can also be affected by this performance difference.

When drivability and performance are taken into consideration for the SPC, the small cost differential can be easily justified.

### SPC Reliability

When developing the specification for the Spec Cayman, significant attention was paid to reliability of the powertrain. Heat, in particular, is one of the greatest contributors to

Consumable	SPC	SPB	Differential	Comment
Standard Premium Pump Fuel	Same	Same	SPC-7 to 8MPG, SPB-10MPG	The SPC will consume 20-30% more fuel
Tires	Toyo RS1 Slick F:245/640R18 R:285/650R18	Toyo RR F:255/40R17 R:255/40R17	\$300/set SPC-\$1200, SPB-\$900	Both tires use the same rubber compound
Brake Pads	Different pad sizes front/rear	Same pad size front/rear (initial thickness different)	\$15/set SPC-\$433, SPB-\$418 Type: Hawk SPB-DTC-60 F,DTC-70 R SPC-DTC-70 F, DTC-60 R	SPC and SPB use similar compounds but different pad sizes

powertrain failures. Lubrication and the oiling system is also extremely important.

The M97 engine is very similar to the M96 used in the SPB. The SPB engine has proven to be reliable with the addition of specific reliability components. The SPC specification allows for incorporation of the same components. The specification also allows front and rear bumper covers to be modified for increased air flow and cooling.

The transmission, when compared to the SPB, is much more raceworthy. Under the severe operating conditions when racing, transmission oil temperatures can approach, and even exceed, 300°F. An external oil cooler is allowed for the SPC to alleviate this condition.

An in-depth discussion of specific components that may be added is discussed in Part Two, offered online at the end of this article.

### Driving the Spec Cayman

The SPC class is new for 2016. The SPC (from my perspective) is an awesome platform to drive. It provides the drivability and cornering performance levels approaching those of cars in higher end spec classes at values more similar to lower cost spec car classes. The car is smooth and easy to drive, with adequate power for both technical and longer road courses.

### Driving comments from SPC racers and owners:

Luke Oxner, a top racer in the SPB class, recently drove a *still in develop-*

*ment* SPC at Motorsports Park Hastings. "The Spec Cayman was an absolute blast to drive. The car offers an exhilarating combination of mid-engine cornering agility with loads of useable power and torque throughout the entire RPM range. I got into the car basically expecting a bigger and better Spec Boxster, but in many ways the car provides a driving experience more reminiscent of a GT3 Cup."

Matt Distefano, SPC owner who moved from the GTB class, has this to say: "The LSD, solid thrust arm bushings, and rear bump adjustment really help to improve confidence in the rear end. The SPC is positioned between the SPB and 996-Cup (GTC3) and dynamically performs close to a GTB Cayman with lower running costs. I think it's the best current value proposition in PCA racing".

Steve Anderson, also an SPC driver and one of the first to race a car in this class says: "I have owned and competitively raced a Cayman GTB-1, GTC-4 cup car, a 1987 E class 911, and am now racing an SPC. What is great about the SPC is the ability to race the car at the drop



of the green flag. The spec Toyo tire is so compliant. With proper ducting and cooling, the brakes have been consistent during an entire Enduro, even at VIR this year. Run costs for the SPC are a fraction of what they are for the GTC-4 and GTB-1, which has allowed me to participate in eight club races this year. This is going to be an exciting class to be involved with, and watch grow over the next few years."

### Part Two: Build Process Details

Because of the large amount of information in Part Two, we decided that it was too much to try to include in this issue of Club Racing News, so we have made it available to download for any of you who would like to see specifics about the build process.

Please go to <http://tiny.cc/SpecCaymanPart2> to download Part Two.

I explain with detail the actual process of building a Spec Cayman. The explanation demonstrates the process with pictures and additional details about how to build a car. I also provide additional explanations about reliability and why some of the components were selected for the car.

Thanks to everyone who has helped get this Spec class up and running. Let's go have some fun with it!



# Building and Racing the Spec Cayman

## Part 2

by Keith Fritze

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### Building the Car

Following is a brief description of the process I went through building an SPC. There are many ways to go about building an SPC, and this is only one representative example.

I provide pictures of portions of the build. I also provide additional information on reliability and cooling for the drivetrain as well as what I did with this particular car.

### Interior Removal

Before the car was stripped, it was weighed to have an idea how much weight was removed from the car.

[car weighed]



Stripping the interior in the Cayman is not too difficult. It is a weekend project if done at a moderate pace. In the cockpit the stock seats are removed. The seat belts, sensors disconnected, and seat belt clasps are removed. The interior carpeting and center console covering the shifter and center tunnel are stripped. The headliner is removed. In this example the glovebox was removed as well as the door panels. Both of these items can be put back in later if desired and the car should still make weight. The door glass panels and regulator were also removed. It is not necessary to remove the door motors as they are connected to the CAN bus, but they can be removed. The radio and associated electronics are also removed with the PASM control panel remaining. Airbags are removed throughout including front steering, passenger side and seat (integrated into the seat). There are connectors associated with the airbags which can be left as is.

Stripping the cabin:



[stripping cabin 2]



Stripping the doors:



Here are the piles of parts that were stripped out of the car:



[seats and door panels]



In the rear, the carpet over engine compartment and plastic interior body panels and storage containers are removed.





[stripping rear 2]



Under the front deck lid, again the carpet liner and plastic decorative panels are removed. The sound system power amplifier is also upfront and should be removed.



The HVAC system does not have to be removed but has little value in a race car (it may be left in for the defrost function but I removed mine). When the windshield and dashboard are removed (for roll cage installation), the HVAC system can be extracted more easily.

[front cabin gutted]



It was found that almost exactly 300lbs was removed when the car was re-weighed after the removal of the interior, glass windshield and battery.

The first generation Cayman has a number of electrical networks running throughout the car. The most modern Porsches have even more increased complexity in these systems. There are multiple CAN bus networks running throughout. Luckily most of the wiring harnesses can be left "as is", which is desirable in easing the process of building the car. Cutting connectors without understanding how the systems are interconnected will lead to much frustration. The Cayman spec was written such that the car will make weight without cutting or altering these harnesses. It is easiest for the DIYer to carefully wrap and bundle the harnesses and disconnected connectors. This includes radio and associated electronics, airbags, seats and seat belt sensors. There are also connectors for the interior lighting throughout and HVAC under the dashboard. The HVAC system is connected to the CAN bus and the harness can be left "as is".

Note that many of the system electronics functions can be "deleted" from the car's electronic system using a Durametric diagnostic tool.

## Adding the Roll Cage

Generally this is one area in which custom fabrication is necessary. There are currently no vendors that provide off the shelf roll cages for the SPC. This may change and/ or there may be fabricators with expertise in building cages for the SPC. Talking amongst the PCA racing community is a good way to find a fabricator for the roll cage portion of an SPC build.



## Adding Spec Cayman Suspension Components

The components that will be replaced in the SPC are:

- 1) The coilovers and topmounts. These components are sole-sourced from JRZ and are purchased as a kit from either JRZ or a JRZ reseller. This system is not ad-hoc and underwent car development (SpeedSport Tuning and Olsen Motorsports) and one field revision to create a good, solid-performing suspension for the SPC. Solid monoball topmounts were selected in order to handle the punishment expected in the racing environment and provide for more precise car handling.
- 2) The control arms. The SPC uses 996 GT3 outer control and Tarett solid monoball inner control arm components to comprise the complete control arm. These are used on all four corners of the car.
- 3) Solid rear thrust bushings. The 996 GT3 control arm rubber thrust bushings are pressed out and solid thrust bushings added. The performance levels of the SPC are higher, so these bushings are necessary for safety and stability.
- 4) Sway bars - The front sway bar is a 996 GT3 or exact replica bar. The rear sway bar is a Tarett four way adjustable bar. Both require drop links. Front drop links can be long or short with long preferred.
- 5) Toe Links - The rear toe links are replaced for more exact alignment of the rear suspension. Toe links can be purchased that allow for bump steer correction.

This picture shows what is received as a kit from JRZ for the coilover suspension components:



The next picture shows the removal of the factory rubber thrust bushings from the GT3 outer control arms for the rear:



This is what the rear solid thrust bushings look like in the outer control arms:



Here is a picture of the front suspension completed. Observe the inner control arm bushings and extended drop links.





This is a picture of the rear suspension completed:



This is a picture of the ERP toelinks:



Here is a picture of the rear undercarriage where all the suspension components are visible. You can also see the semi-solid transmission mounts (discussed later) and the transmission oil cooler components (discussed later). Also note the rear subframe stabilizer and tie downs.



### **Adding Aero Options**

The specification allows for the addition of a 987.1 aero kit or exact replica. This kit consists of front splitters and a rear wing. This kit can be purchased from Porsche or be aftermarket provided it is an exact replica. GT-Racing is one vendor providing an exact replica of the Aerokit.

## Adding Reliability Components and Other Features

The SPC uses mostly stock components with reliability features added for longevity. Chipping of the ECU is not allowed to limit additional stress on the stock motor and transmission. Reliability components and features for the SPC are listed below and recommended.

### Engine

Two keys to longevity of the powertrain are proper lubrication and removal of heat. It should be added that good quality lubricants are also a must. For the engine, any of the following are allowed:

- 1) A deep sump
- 2) An Accusump
- 3) An external engine oil cooler
- 4) An additional center radiator in the front of the car
- 5) A Porsche Motorsports air/oil separator may be added

Recommended are 1 or 2 above and 4 and 5. Item 3 can be added to help increase engine reliability. The Accusump is often connected into the system using a spin-on filter adapter and Aeroquip AN fittings. An external oil filter and the Accusump fittings are screwed into the remote oil filter block that is added to the system. Various deep sumps are readily available from a number of vendors. Here is an example of the deep sump used on this SPC with a belly plate:



It is also recommended that the IMS bearing seal(s) be removed as a minimum on the engine. Other methods used to protect the IMS bearing are direct oil feed systems and outright replacement of the IMS bearing with an IMS solution bearing, LN Engineering ceramic bearing, or roller bearing system. Seal removal and a direct oil feed system from TuneRS can be done when replacing the flywheel and clutch. These two methods do not require complete disassembly of the engine whereas the IMS Solution does.

The SPC can use semi-solid engine and transmission mounts. The picture below shows the front engine mount at the bottom of the picture. In this case the mount is the Wevo brand.



A 996 Porsche Motorsports air/oil separator (AOS) was used on this car because of the large cost differential. This can be seen in the picture.



Note that some of the plumbing hoses (blue in color) had to be fabricated for use with the Cayman. Also of note is the addition of an underdrive pulley (not shown) since the engine will be running at high RPM most of the time while racing.

## Transmission

An external transmission oil cooler is allowed. It may be placed anywhere. Forced air coolers are often placed in the front of the car. An electric fan version of cooler can be placed in the rear of the car. Also popular is placing a cooler behind the rear bumper in an allowed cutout area around the license plate area. A 22mm x 1.5 banjo fitting can be screwed in the drain plug for oil feed to an external pump and radiator. The return line can be placed into the oil fill plug using Aeroquip AN fittings. The fill plug is 24mmx1.5.

Refer to the [\[rear undercarriage\]](#) picture above to see this version which uses a Setrab electric oil cooler in the rear on the left (driver's side) of the picture and a Mocal oil pump on the right side with associated plumbing.



In the [\[rear undercarriage\]](#) picture also observe the Wevo semi-solid transmission mounts on the left and right hand sides. The transmission mounts were also reinforced with gussets as seen in the [\[reinforcing transmission mounts\]](#) picture.

## Power Steering

A power steering cooler is allowed and recommended in the SPC. This is usually a passive tubular-finned cooler or small radiator and is either located in front of the left side radiator or inline with the power steering return line underneath the car. These components are available from SpeedSportTuning and LN engineering respectively.

In this example, the LN Engineering passive cooler was located on the return side of power steering as shown in the picture. The cooler is located beneath the driver's seat on the bottom of the car. Holes were drilled in the belly panels and an air scoop added to enhance cooling.

[power steering cooler]





## Body

Cutouts may be made in both front and rear bumper covers to allow for more air flow. In the front, the fog light area may be cutout. In the rear, a seven by twenty seven inch area may be cutout around the license plate to keep the engine compartment as cool as possible. Both of these modifications are recommended.

The front bumper cover was cut out for more air flow as shown in the picture below:



The rear bumper was also cut out to allow better cooling for the powertrain. This is important to keep the powertrain as cool as possible for better longevity and reliability:



The third radiator does not have an outlet area. To help with air flow through this radiator, 1 ½” holes can be drilled into the bumper underneath the car. Six to eight holes are recommended.

[center radiator bumper cover vents]



## Exhaust

The exhaust system in back of the cats are free for the SPC. The cats are integrated onto the headers in the Cayman and can be modified also. The cat material may be removed from these cats. One method to do this is to use a 1 3/4" hole saw with an extension to drill a hole from the rear of the cat to the front. The hole saw will fit into the header tube. Aftermarket headers are not allowed in this class.

The following pictures show the cats being bored and the end result after boring:





Boring the cats can generate unwanted powertrain codes, but can also add wanted HP to the SPC.

Two available exhaust systems for the SPC may be obtained from Fabspeed or Tarett Engineering.

Here is a picture of the exhaust removed. It is heavy!



Here is a picture of the exhaust with the rear bumper cover removed:



## Braking System

The stock Cayman braking system was originally designed for street use. Some of the features of this system are detrimental to the race environment and must be disabled or otherwise defeated. The Cayman is known for a condition known as “ice pedal” and understanding the condition as well as performing the following changes can eliminate this condition.

The first method disables the Yaw sensor. This is done by cutting the ground wire to the A/Y sensor. This sensor is located on the tunnel below all the console radio and navigation electronics. It is also common to wire the A/Y sensor ground through a switch which allows enabling it in wet driving conditions and disabling for dry racing conditions.

Second, the brake booster and master cylinders can be replaced per the 2016 PCA Club Racing Rules. The rules and part numbers can be found on pages 8-9 of the 2016 PCA Club Racing Rule Book.

Third, use of good brake fluid and brake pad selection is required. Brake pads should be selected that are more aggressive front than rear to avoid locking up the rear brakes. The ABS system senses this condition and can actually release fluid pressure to the rear calipers when this happens. Less rear bias on the Cayman can help control this condition.

Finally, understanding ABS operation for the Cayman or any race car that uses a street ABS system is advantageous.

Another note of considerable mention is that the SPC specification allows for modifications to the body for additional air venting and cooling. Refer to the 2016 PCA Club Racing Rule book for more specifics on what is allowed.

## Electronics

As automotive technology progresses, so does the sophistication of the electronics technology and driving aids in the car. The Cayman is no exception. Many of the systems inside the Cayman are “strung” together on the CAN bus which is a bussed 120 ohm differential twisted wire pair used for the transfer of information between the attached nodes. As mentioned earlier, the Spec Cayman does not require that the wiring harnesses be tampered with or be principally removed for the car to make weight. Wire weight certainly can be removed from the electrical harnesses, but the easy way for a DIYer to build the car is to leave these harnesses intact and just neatly tie or bundle them together. Plastic electrical conduit can be used to cover and protect the harnesses from damage.

The picture below shows an example of the main wiring harness shrouded in black plastic electrical conduit to protect it from abrasion.





## **Reliability of the Powertrain**

The transmission in the SPC is rugged and durable. It is of similar design to the 996 and can handle the power of the SPC's 3.4L engine.

The M97 engine is also of similar design to its predecessor, the M96 engine. The M97 has an IMS bearing that is larger than the M96s to handle more load. Under the reliability section of this article I discuss methods that can be used to make the bearing less susceptible to failure.

Also as mentioned, the key to reliability in this engine family is to prevent oil starvation, keep the engine as cool as possible, to use high quality lubricants and change them often.

The predecessor M96 engine used in the Spec Boxster has proven to be reliable under extremely hard use as a racing engine. The lower HP and lower RPM redline are significant factors.

A couple of comments from knowledgeable individuals in the racing community claim that the engines can be reliable under extreme use. Spencer Cox of SpeedSportTuning specializing in Cayman Motorsport says that if the heat can be removed and proper lubricants are used, good reliability can be achieved. John Gladwill, a long time SPB driver and advocate claims the same to be true of the M96 engine provided there is no oil starvation and the engines are properly cared for. I have had similar results with a rebuilt 2.5L M96 engine in my Spec Boxster.

Another key to engine longevity is the understanding and use of torque and RPM curves for determining optimal shift points. The SPC's 3.4L engine has a 7200RPM redline with optimum torque in the 4000-6600RPM range. Use of this information in conjunction with transmission gear ratios to limit constant redlining of the engine will contribute to longevity.

## **Customization**

There is some room for customization of the SPC similar to other race cars and classes. Consoles, electronics, choices of seats, cool suits, exterior lights, driving aids, some types of safety equipment, etc. can be selected at the racer's discretion.

This is a picture of the front area under the deck lid finished. A smaller battery than standard was used by modifying the battery box. An electrical fire system was used for this car as shown. Also, the coolsuit cooler was placed under the front deck lid. This was a personal choice. Many race cars prefer to place these items in the passenger seat area for better weight distribution and ease of access.

[front finished]



A custom center console for this car was fabricated with various switches, gauges and control panels in the original console area as shown in the following picture:



Here are a couple of pictures of the cockpit area finished for my preferences:





Here are a couple of pictures of the car in its completed form:





## Vendor List

Following is a partial list of vendors that can provide components for building the SPC Cayman. This list is to be a reference only. There are many other quality vendors, shops and specialists that are not currently listed:

<b>Vendor/Manufacturer</b>	<b>Category</b>	<b>Web Address</b>
Olsen Motorsports	Cayman Specialist, accessories, parts	<a href="http://www.olsenmotorsports.net/">http://www.olsenmotorsports.net/</a>
Tarett Engineering	Suspension, exhaust, accessories, kits	<a href="http://www.tarett.com/">http://www.tarett.com/</a>
LN Engineering	Engine, accessories, lubrication	<a href="http://lnengineering.com/">http://lnengineering.com/</a>
Rennline	Porsche accessories and parts	<a href="http://www.rennline.com/">http://www.rennline.com/</a>
JRZ Suspension	SPC Coilover/shock suspension kit	<a href="http://www.jrzsuspension.com/">http://www.jrzsuspension.com/</a>
SpeedSportTuning	Cayman Specialist, accessories, parts	<a href="http://www.speedsporttuning.net/">http://www.speedsporttuning.net/</a>
Bodymotion	Cayman Specialist, accessories and parts	<a href="http://bodymotion.com/">http://bodymotion.com/</a>
BGB	Cayman Specialist, accessories and parts	<a href="http://www.teambgb.com/">http://www.teambgb.com/</a>
AutoEdge	Cayman Specialist, accessories	<a href="http://www.autoedgeracing.com/">http://www.autoedgeracing.com/</a>
Demam Motorsports	Cayman Specialist	<a href="http://demamotorsport.com/">http://demamotorsport.com/</a>
GT-Racing	987.1 Aero Kit	<a href="http://www.gt-racing.com/">http://www.gt-racing.com/</a>
Bilt Racing Services	Deep sump, remote oil cooling	<a href="http://biltracingservice.com/">http://biltracingservice.com/</a>
Mantis Sport	Billet Deep Sump	<a href="http://www.mantissport.ca/">http://www.mantissport.ca/</a>
Elephant Racing	Suspension	<a href="http://www.elephantracing.com/">http://www.elephantracing.com/</a>
ERP Suspension Engineering	Suspension parts manufacturer	<a href="http://www.erpparts.com/">http://www.erpparts.com/</a>
Suncoast Porsche	AO Seperator, all Porsche parts	<a href="http://www.suncoastparts.com/">http://www.suncoastparts.com/</a>
Importec Auto Parts	Porsche parts	<a href="https://importecautoparts.com/">https://importecautoparts.com/</a>
ECS Tunig	Porsche parts	<a href="https://www.ecstuning.com/">https://www.ecstuning.com/</a>
TuneRS Motorsports	IMS, Direct Oil Feed	<a href="http://tunersmotorsports.com/">http://tunersmotorsports.com/</a>
FlatSix Innovations	Cayman engines, IMS, accessories	<a href="http://flat6innovations.com/">http://flat6innovations.com/</a>
APEX Performance	Safety equipment, accessories	<a href="http://www.apexperformance.net/">http://www.apexperformance.net/</a>
Fabspeed	Exhaust	<a href="http://www.fabspeed.com/">http://www.fabspeed.com/</a>
Pelican Parts	Porsche parts, accessories	<a href="http://www.pelicanparts.com/">http://www.pelicanparts.com/</a>
LA Dismantlers	Cayman donors, used parts	<a href="http://www.ladismantler.com/">http://www.ladismantler.com/</a>
Racer Parts Wholesale	Safety, coolers, fittings	<a href="http://www.racerpartswholesale.com/">http://www.racerpartswholesale.com/</a>