



**Report Card:**

2008 Porsche Cayenne S (Silver)



**DISCLAIMER:** Use of Adobe Photoshop.

All photographs are **UNALTERED** except for the addition of a frame & watermark and automatic contrast adjustments.

Some background items have been deleted from the cover.

Registration plates have been masked in accordance with our client confidentiality policy.



# CURRICULUM

1.0 Enrolment:.....	5
2.0 Remedial Tutelage: .....	11
Engine Bay.....	11
Wheels & Arches .....	15
Pre Rinse .....	23
Foam Bath.....	27
Hand Wash.....	31
Clay Treatment.....	33
3.0 Initial Assessment: .....	35
4.0 Course of Correction.....	41
5.0 Finishing .....	47
6.0 Interior.....	51
7.0 Final Showing .....	56





## 1.0 Enrolment:

Recently, we were engaged to perform a transformation on what ‘used’ to be called an ‘Off Roader’. Nowadays, SUVs are prevalent throughout urban centers and many never leave tarmac roads – this subject however, covers as many miles of unsealed metal as it does on the highway.

This Porsche Cayenne S rolled of the assembly line in Stuttgart early in 2008. Interestingly, it was purchased ‘new’ by its current owner from a Porsche dealership in Portugal, and freighted to New Zealand independently to be complied & registered for use here. Although not quite as straightforward as walking into a showroom and driving away, this allegedly saved the owner ‘tens of thousands of dollars’ off the purchase price from the NZ dealership.



On arrival, the vehicle appeared to be in relatively good condition:



However, it was evident that the miles covered on gravel had resulted in the accumulation of a fair amount of grit in the wheel wells...



Yes, a swipe with a fingertip revealed that there actually *was* an indicator lens hiding up in the wheel arch:



The rims themselves had a reasonable covering of brake dust and grime.



These two shots reveal just how big the job was going to be!





These two pics of the rear arches show the stark contrast between new/clean paint, and the exposure to some of our local 'goat tracks'.



The lower panels and features of the vehicle also showed a decent amount of mud and general grime.



## 2.0 Remedial Tutelage:

Before approaching the vehicle's painted panels, it's important to attend to some prerequisite tasks. Generally, we tackle areas such as the vehicles engine bay, wheels, arches and sills/shuts ahead of a traditional 'wash' process to ensure that the vehicle is cleaned in the safest possible manner. This also ensures that we don't end up rinsing dirt onto areas that have already been cleaned.

### Engine Bay

The German powerplant was certainly showing evidence of having powered the vehicle along many miles of very dusty roads:



With some evidence of chemical spills staining the plastics:



As precaution, the exposed electrical connections were covered...



...and the entire engine bay given a thorough going over with Meguiars All Purpose Cleanser, and "Slide-Lock Detailing Brush".



This was then rinsed off at low pressure, leaving things in a much better state.



“303 Aerospace Protectant” was applied with a microfibre work cloth to protect the plastics:



This product leaves a fantastic ‘factory fresh’ finish – not overly shiny or sticky.



## Wheels & Arches

Before anything else, we needed to get rid of the caked on dirt. Twenty minutes with the pressure washer in the arches left us with a mess that we needed a shovel to clear away!



...and left us with this to take care of:



The tyres and wheel arches were liberally sprayed with Meguiars Super Degreaser (10:1) and agitated with a stiff bristled brush.



With the wheel faces being cleaned with Menzerna Wheel Gel.





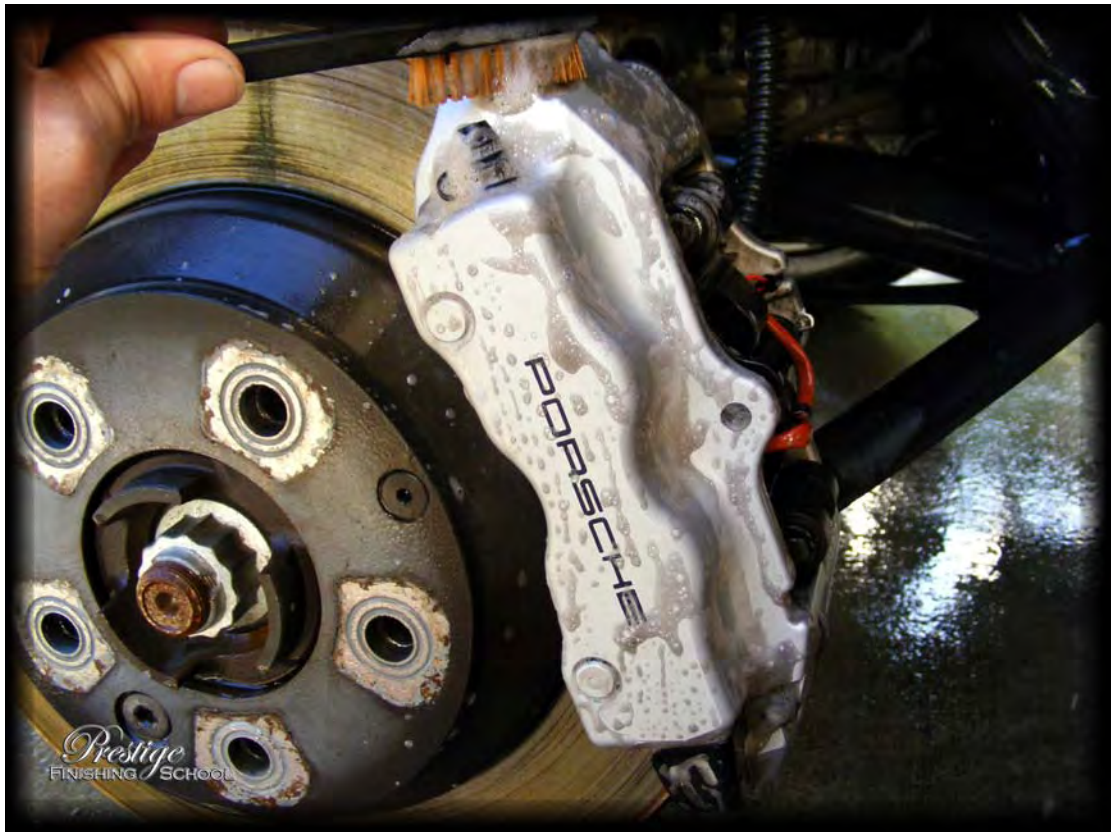
The wheels were then removed to enable a thorough detailing...



...and gave us the opportunity to ensure that the wheel wells were left spotless.



This also enabled us to fully clean the brake calipers. This was achieved with more Menzerna Wheel Gel, and a Meguiars Triple Detail brush.



Clean!



Rear wheels also removed...



...and arches thoroughly cleaned.



The wheels were left with some spots of tar, as well as glue residue from earlier wheel balancing weights. They were sprayed with our trusty tar removal solution and left for 30seconds. This lets the product completely dissolve the tar and glue...



And the mess is then easily wiped clean with an old microfibre work cloth.



The result is a perfectly clean wheel:



Though, it is hugely disappointing to see this kind of damage that must have been inflicted during the vehicle's first ever tyre change...



The wheels were then protected with Poorboy's Wheel Sealant – inside and out.



Yes, we did also take the opportunity to 'dress' the inside tyre walls – let's face it, you never want to be "Caught short without clean underwear!"



## Pre Rinse

The petrol filler cap had a small buildup of dirt:



...quickly taken care of with some APC and a quick rinse.



The hinges on the tailgate were also showing signs of neglect.



Nooks and crannies such as these are often missed in 'regular' washes, and can end up with years of dirt building up.





Again, these spots were addressed with Meguiars APC and a soft brush...



Leaving them looking much better!



Finally, the side sills were given a quick scrub...



...to remove much of the bonded road grime.



## Foam Bath

The entire vehicle was then treated to a bath of Meguiars All Purpose Cleaner, applied via an Autobrite UK Foam Lance. APC is a more aggressive cleaner than a regular shampoo, and will strip away much of any wax that may be protecting the paint.



It was used in this case, primarily due to the sheer amount of dirt on the vehicle – and as we would be following the process with finishing and protective coats, there was no downside.





The foam was left to dwell on the vehicle for 5min which gives it an opportunity to dissolve the grime and loosen it from the vehicle's surface.



...and then rinsed off.



This was followed up with a second treatment, this time comprising Meguiars Hyperwash Shampoo.



The vehicle was again rinsed clean of the foam with a pressure washer, and was already looking much more respectable. Only the finest film of dirt remained on the painted surfaces, thus greatly reducing the risk of marring the paint during the contact wash process.



## Hand Wash

With as much dirt as possible removed from the vehicle without direct contact, it was time to complete the wash process with a hand wash via a Lambswool Mitt and Meguiars Shampoo Plus.



A lambswool (or microfibre) mitt should always be used for ‘contact’ washing of a vehicle’s painted surfaces. Particles of grit and dirt on the paint are the **primary** cause of swirls on modern vehicles with clear ‘coat paint’. Regular sponges cause the grit to be trapped against the surface of the paint and dragged across it. (Even worse still are the brushes at self-service or automatic carwashes.) The plush mitt however will draw the dirt away from the paint surface, deep into the fibers of the wool, thus preventing it from inflicting further damage.

Also notice the separate buckets for ‘wash’ and ‘rinse’ action. This is the safest and most effective way to clean a vehicle’s paint. The Mitt is soaked in the 60° C Shampoo Plus solution which has a “*Low-Suds / High-Lubricity*” formula and then worked over the vehicle. After each panel, the Mitt is cleaned off in the ‘rinse’ bucket, dislodging any dirt picked up off the car, before being re-soaked in the shampoo.





If you consider the use of two buckets 'overkill', consider the state of the rinse bucket after completing the wash:



Would you consider wiping your car with anything soaked in the left bucket?





## Clay Treatment

The final step in ensuring a perfectly clean paint surface is the removal of bonded contaminants with a detailing clay bar. This can include tar spots, tree sap or industrial fallout, all of which contribute to making the paint surface rough to the touch and dull to look at. In this instance, a Meguiars 'Mild Professional Detailing Clay' bar was used with Meguiars Last Touch (diluted 1:1) as lubrication.



Very little contamination was removed from the vehicle, with the above picture being representative of the amount of bonded material on each panel.

Even small amounts of contamination can dramatically reduce the effectiveness of any subsequent polishing, so it is well worth taking the time to ensure that the paint is perfectly clean and smooth prior to any form of correction.



The vehicle was then given a final rinse off with the pressure washer and then patted dry with a Sonus Der Wonder Microfibre Drying Towel.



With the Porsche's exterior now in a perfectly clean and dry state, it was moved inside to begin a thorough examination of the condition of the paint and to determine the type and quantity of correction that would be required to produce a perfect finish.



### 3.0 Initial Assessment:

Right from the beginning, it was evident that only a very small amount of paint correction would be necessary for this vehicle, with very little marring present on any of the painted surfaces. Nevertheless, we still undertook a thorough examination of each panel, paying particular attention to the thickness of the paint present.

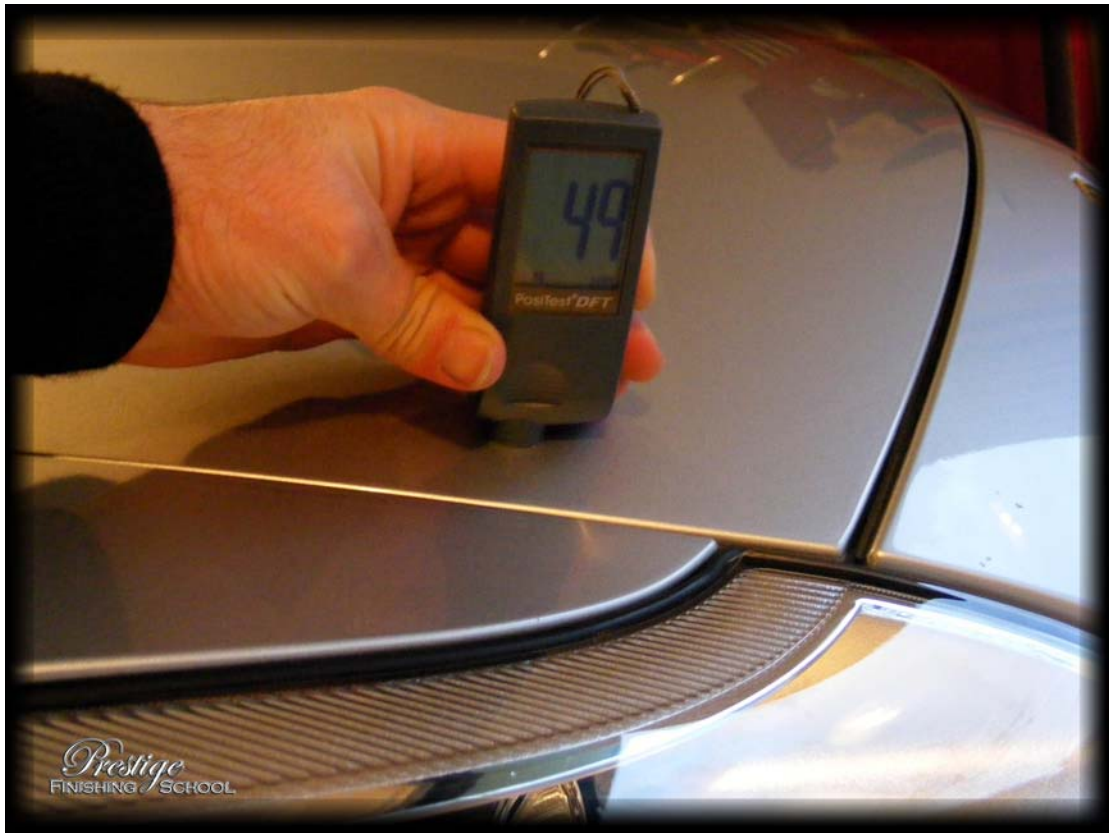
The PosiTest DFT Combo gauge from DeFelsko is an invaluable tool for this purpose. It will quickly and accurately (to the nearest micron ( $\mu\text{m}$ ) which is 1/1000<sup>th</sup> of a millimeter) the thickness of a surface coating on any ferrous (eg. steel) or non-ferrous (eg. aluminium) surface.

Having knowledge of the relative thickness of the paint is a fundamentally important factor when undertaking any form of paint correction. Both in terms of understanding the amount of “working material” that you have to begin with, and throughout the correction process to ensure that only safe amounts of the top layer of clear coat are removed.

Across the majority of the Cayenne, paint levels were showing consistently healthy readings:



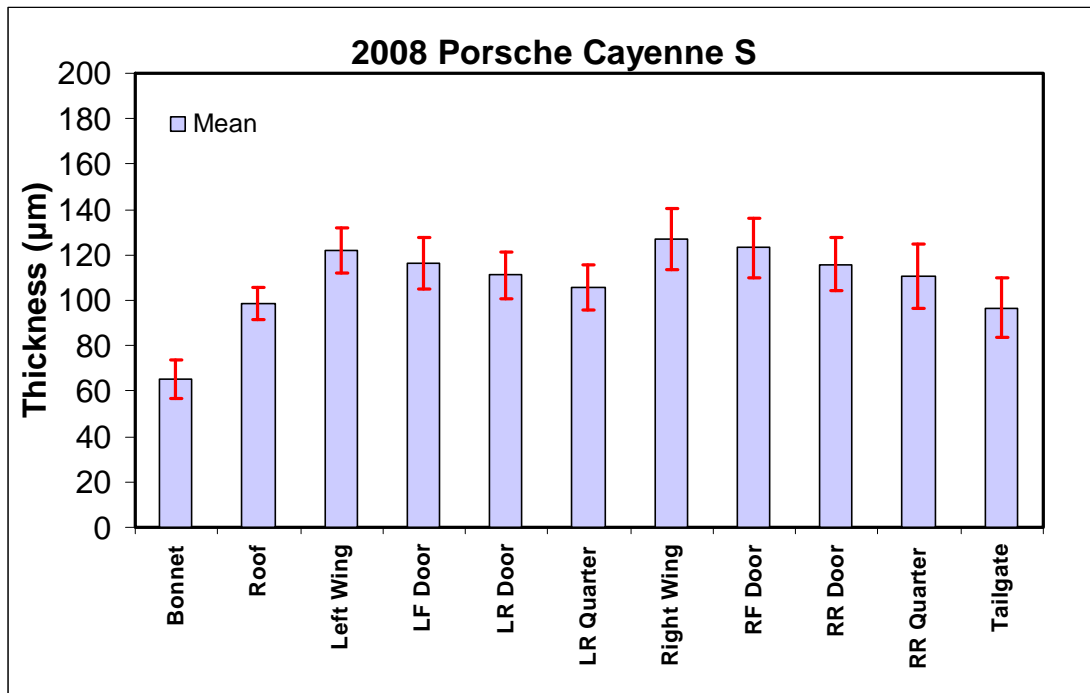
However, on the aluminium bonnet, there was a significantly thinner application of paint, with some areas reading as low as  $45\mu\text{m}$ . That's roughly the thickness of a very thin human hair! (And bear in mind, that reading comprises a layer of primer and a layer of colour, as well as the clear.)



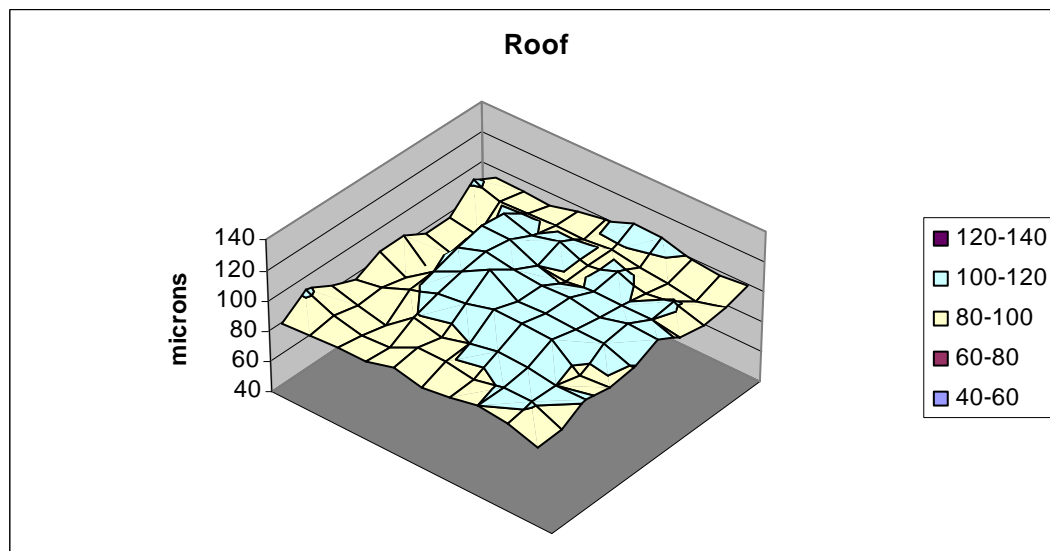
Undertaking any corrective action on this level of paint with aggressive compounds or polishes would run a significant risk of “striking through” the protective clear coat altogether. Such a misstep would necessitate a complete re-spray of the panel, so we always check every panel before, during and after any of our details.



In all, almost a thousand readings were taken throughout the course of this detail, with only the bonnet showing any area of significant concern.



Each panel was carefully assessed to highlight any localised 'thick' or 'thin' areas that might represent previous touch-up work, or aggressive cutting in a localised area.



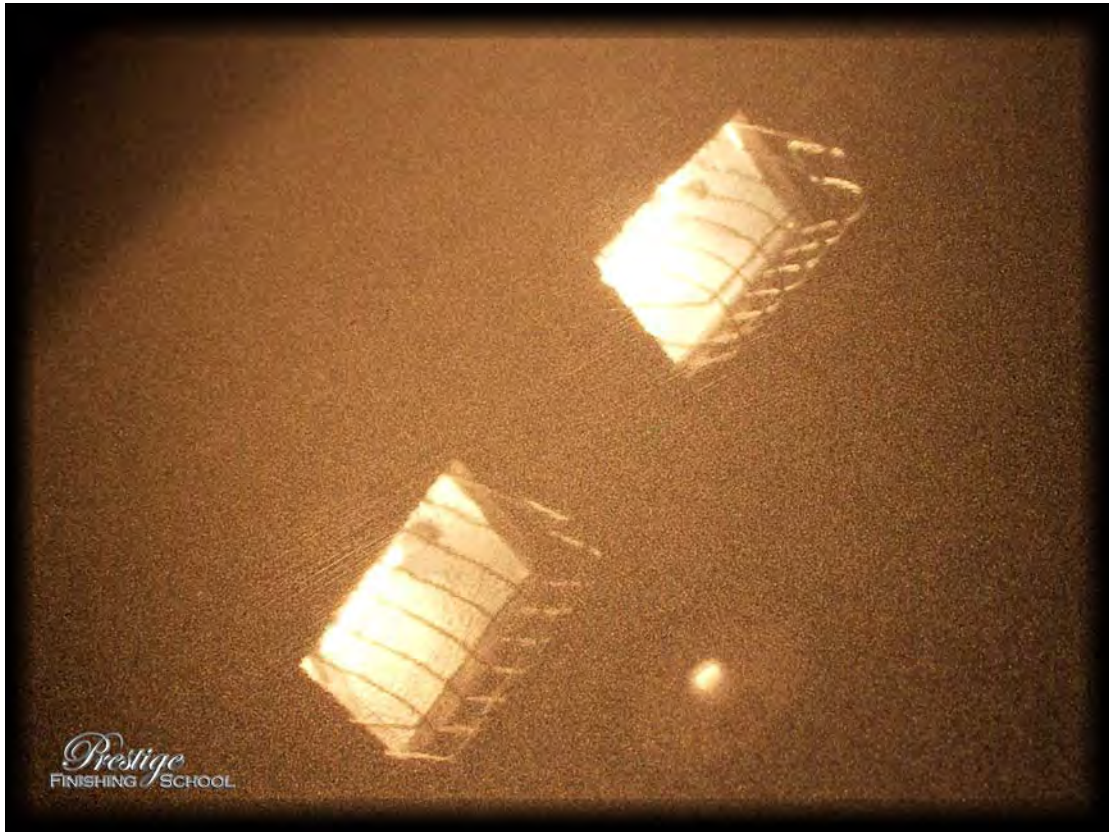
As far as we could ascertain, this vehicle had completely 'virgin' paint.



And, the paint was in great shape, with no evidence of swirling or scratches



Only a very small amount of mico-marring could be seen on close inspection.



There were two areas of concern, both on the vehicle's boot. Here, severe swirling of the trim just below the rear window:



And here, some deeper scratches at the base of the boot door.



These will be addressed first of all!





## 4.0 Course of Correction

This stage of the detail would be carried out with the Makita 9227CB rotary polisher. There are a plethora of “cheap & nasty” rotaries on the market, but the Makita has several features that are practically mandatory for any quality correction. The first is a guaranteed constant rotational torque, irrespective of the amount of pressure placed on the machine head, and the second is a variable speed control, providing fine-grained control between the ranges of 500-2000RPM. These combined with the superior ergonomics and ‘nice’ features such as the ‘soft start’ mechanism make for an ideal tool.



The machine is fitted out with a 3M rotary backing plate and 3M polishing pad. Given the German subject, we opted for Menzerna polishes – starting off with the least aggressive 85RD



The area was taped off in preparation with 3M painters tape:



We corrected half the section at a time – this shot shows the dramatic reduction in swirl marks and increase in clarity on the right. This was achieved with only two 'hits' with the very mild 85RD.



...and here is the completed panel looking brand new once again.



The scratches at the base of the tailgate were not so easily moved. These required a slightly more aggressive treatment, but not significant cutting or compounding. In this case, 3M's "Extra Fine Polish" on a new 3M polishing pad did the trick.





The results are a great improvement.



Also, on the loading 'ledge' of the boot, just above the rear bumper, there was some discoloration and etching, as well as some light scuffs.



This was cleaned up by hand with more of the 3M polish on a microfibre work cloth.



Finally, the entire vehicle was finished to a jewel-like clarity with an application of 3M's Ultrafina SE on a finishing pad.



This really brought out the sparkle in the metallic paint



## 5.0 Finishing

The “Last Step Product” for this detail was Blackfire’s “Wet Ice over Fire” solution. This begins with the “All Finish Paint Protection” Polycharged Sealant, which is applied by machine, then buffed off and left to ‘cure’ for 8 hours. The Meguiars G220 Dual Action Orbital Buffer and Meguiars finishing pad was employed for this.



It is then followed up with two coats of “Midnight Sun” Ivory Carnauba Wax, applied by hand – again separated by 8hours. This leaves a spectacular finish!



Blackfire's products were also used to dress the tyres.





The plastic trim was dressed with Meguiars All Season Dressing.



The windows were cleaned, inside and out, with Meguiars Glass Cleaner Concentrate



Remember those nasty looking exhausts?



They were cleaned up with Meguiars NXT Metal Polish.



## 6.0 Interior

Inside the wagon was the usual assortment of stains...



...and ground-in dirt.



Oh, and crumbs ☺



And several of the hard surfaces were also looking a little worse for wear.



These were cleaned up relatively easily...



And the interior mats scrubbed clean.



There was some dye transfer from clothing on the passenger's seat.



Which was vastly improved with a gentle application of leather cleaner.



All the storage compartments were also cleaned.



## 7.0 Final Showing

With all the details taken care of, it's time to show off...



...and roll the vehicle out into the sunlight and indulge ourselves in a few choice pictures.











Although not in need of any serious paint correction, this was a big job. The sheer size of SUV's, coupled with the extent of dirt on this particular subject made this a solid two-day detail. The end result, as always, was deeply satisfying. With the vehicle's owner expressing his pleasure at the job done, we thank you for taking the time to read about another graduate from Prestige Finishing School!

