

# Police Vehicle Restoration Stories

## BMW 528i Restoration

I swore blind after I finished restoring the Volvo 240 and the Amazon that I would never do another one as long as I lived. Surprise, surprise I ended up doing the exact opposite. Having the opportunity to discover one of your old patrol cars still existed and being even luckier in that I was able to restore it was fantastic, but to do it twice was simply unbelievable. In 1988 I was transferred from inner city area car duties and onto my dream job on the Traffic Division. My first Traffic patrol car was a 1987 BMW 528i, call sign CM-07 and of course because it was my first car I took a few photos of it. About 18 months later that car was retired and we moved onto the replacement E34 BMW 530i saloons. CM-07 got sold off at auction like all other patrol cars never to be seen again.



Move forward to 2003 and I received an e mail via the club web site from a chap who had purchased the old CM-07 a few months earlier. He had discovered the car was an old Police car, then discovered the web site and to his utter amazement found the photo I'd taken of the car whilst it was in service on our web site. He was now very interested in restoring it back to original Police spec but needed some help. I said I'd be delighted to assist him and set about sending him further photos, lists of equipment etc he would need to track down etc. We then lost contact for a couple of years because he was working abroad a lot. However, in early 2006 I got a phone call from him and his enthusiasm appeared to have been rekindled. We agreed to meet up at the annual PC-UK season starter for 2006 at the Haynes Museum so that I could give the car the once over and to guide him further. I took a work colleague with me who had also driven the same car.

A cold Easter Sunday dawned and we met the old BMW 5 series at the Haynes venue. The car was looking a bit sad it has to be said but was remarkably original in many ways. On the minus side was the roof. Some idiot had grafted on another BMW roof complete with electric sunroof on it. This was going to be a major barrier to any restoration. The wheels were non-original alloys and it now sported a black leather interior, although the owner stated he still had the original seats at home. The lower front wings were corroded and the bonnet release mechanism was a piece of rope hanging out from under the front of the bonnet! The rear nearside door was badly corroded from the inside, which caused us to scratch our heads a little and the dash top had about half a dozen big splits in it. On the positive side it had its original steering wheel, the rubber load mat in the boot was still there, complete with the corner cut out where the auxiliary battery was mounted and there were still five screw holes in the carpet (and through the floor) just behind the driver's seat where the gun box used to be bolted. All the original fixing holes on the centre console for the radio kit were still there as were the holes in the boot lid where the Police/Stop box spoiler was fitted (although these had been filled obviously).



We were allowed to thrash it around the track during the day and I have to say it was probably one of the fastest cars there, despite having some 240,000 miles under its belt. It smoked quite a bit on the over-run but then the E28 model always did. In fact, the rear end of the bodywork used to get so brown we would regularly have to clean the carbon residue off using Vim.

A couple of weeks later I got a phone call from the owner who confessed that he really didn't have time to devote to the project and he had now decided to sell it. Was I interested? No definitely not. Oh, all right then, how much? We agreed a price and I drove up to Northamptonshire to reunite myself with the old CM-07 once again. The owner had replaced the leather interior with the original which was rather battered with the driver's seat in particular in rather poor condition. In fact, the upright section was so badly twisted that I could barely walk by the time I got home, my back was killing me. However, I do remember thinking on the way home just how lucky I was to have been given the chance to restore not one but two of my old patrol cars.







The next day I took the Beemer around to my paint sprayers (A&B Motors, Portsmouth) to discuss the roof situation with them. I thought we might be able to just weld the thing shut. The answer was a very swift no, because we would need to put so much heat into it that the rest of the roof would just buckle. The only answer was to go and buy a new roof. And don't bother going to the pattern part suppliers because they don't make roofs, you'll have to go to BMW and get an original I was told. What? A new roof from BMW. That will cost a fortune surely. I nervously entered my local BMW dealer and enquired. "We haven't got any in stock" came the reply. Not that I expected them to be holding a quantity of roofs for a 20-year-old car. "But they have 600 of them in Germany, how many do you want?" Err, one, please! The new roof cost me £300 and was delivered to my door, direct from Munich in just six days. I was impressed.

I then set about the strip down, dismantling everything, bagging it all and carefully labelling everything. Don't for one-minute think you can get away without doing this. It is a vital ingredient to a successful and pain free restoration. To my pleasant surprise the old car was in remarkably good condition body wise. I knew the bolt on front wings needed replacing so that wasn't an issue and pattern replacements cost me 30 quid each plus a new front valance at £78. The only welding required was to two fairly small holes in both front floor pans and to a broken hand brake bracket. Once they were repaired the car went off to A&B who had agreed to replace the roof for me (way beyond my capabilities) and then re-spray the car in Artic White.



Meanwhile I set about cleaning all the component parts which I thoroughly enjoy doing. There is something rather cathartic about dismantling items and restoring them back into good working order, reassembling them, ready for installation when your car is returned from the body shop. I also had lots of Police kit to obtain of course and I struck gold with some of it. Two examples stand out. I needed a 1980s type Police/Stop boot spoiler and PC-UK member Phil Lawrence brought three or four spares he had to a show and I took a couple of them home. One of them was almost spot-on, with the fixing bolts lining up perfectly with the holes I had in the boot lid already. It only needed a bit of fettling on the fibre glass sides to ensure an exact fit. And the second item concerned the radio kit. Hampshire motorway cars were fitted with two different types of radio system during the 1980s and I paid a visit to our force radio engineers who chuckled out loud when they discovered I was doing another car. And I was told in no uncertain terms that I would have great difficulty in locating the Philips VHF mains set and absolutely no chance at all of finding the 'yellow top' PR that went with it. Rocking horse shit I was told. Two days later I got a phone call from one of them. Could I pop over to workshops, they had something I might be interested in. It transpired that they were in the process of stripping out an old observation van and had to remove a ply-wood panel to access some wiring. And what did they find behind it? Yep, a complete Philips VHF radio set and a yellow top PR and all the ancillary equipment to go with it, like the overhead microphone and the Sonic Systems vox box to. Did I want it?

E bay is of course a great source to many of us when looking for vehicle parts or Police kit. The very first item I bought for the BMW (after the roof) was a new dash top. It cost me £20 plus postage and looked brand new when it arrived. A real bargain and I haven't seen one for sale ever since. Mind you, it took an entire weekends work to replace it and was one of the more challenging projects I undertook on this car.





A&B phoned and asked me to come over and have a look at something. When I arrived, I was amused to see that I now owned the world's only BMW 5 series convertible, as they had now removed the old roof. However, the smile was quickly replaced by a frown when they pointed out that whoever had grafted that roof on had neglected to install any roof support bars underneath. My mind went back to the track with visions of us cornering the thing on two wheels and a shudder went down my spine! New support bars were obtained from BMW and A&B duly welded them and the new roof into place. A few weeks later and CM-07 was returned to me, gleaming in its new paint. A&B had done a superb job as usual and I now had a smile back on my face.



I then set about the rebuild and this can be a slow process, as I grease or oil up every component part to help prevent future problems. But it didn't take too long to see her making progress and before I knew it I was starting to add all the Police kit to it. I had never had to stripe up a car before as both my previous restorations involved cars that were not adorned with any striping. I deliberately chose a warm day and set about the tricky task of adding the sticky bits. I found cutting the tape around the curves of the wheel arches particularly difficult but patience really is the key here. The rewards are easy to see and now all of a sudden CM-07 was back as a Police car.

My brand Code 3 LP6000 light bar and control box had arrived from the USA via Premier Hazard (at a cost of over £700) and a PC-UK member arrived to help me install it (I don't do electrics). I am still amazed that Code 3 can build and supply this type of equipment even though most UK forces stopped using it in the mid-1990s. Once this was installed it brought the car back to life, giving it light and sound. It looked fabulous.



I still had a long way to go though. As a car it still needed a MOT. I knew the exhaust manifold had several cracks in it (an E28 weak point), as I had discovered lots of white gunky paste pushed into the various holes. When I tapped the gunk it all fell out. Back to BMW to order a new manifold (about £650) and when I collected it, a BMW mechanic (sorry technician) was passing by the spares counter and saw it there. He laughed and said “Is that from an E28?” I nodded in acknowledgement “Good luck mate, you’re gonna need it”. After spending two whole days laying on my back in the garage and getting my eyes, ears and nose full of rust flakes I understood what he meant. Of the 12 bolts I needed to remove I only managed to get at four of them. I gave up and took the car to the MOT station and asked them to do the manifold first. It even took them two days and at one point they were seriously considering taking the engine out. But once installed it passed the MOT with no other problems.

CM-07 debuted at the Brooklands Emergency Services Show in May 2008 and I was very pleased to see her back out and about. However, I still had several jobs to undertake including the headlining. When I collected the car, it came with the old Police headlining, complete with three zips, dumped in the boot. Because the car had a sunroof it came with a different type of headlining but at least somebody had the decency to keep the old Police version. However, it was moth eaten and needed replacing. So, I ordered a new standard headlining and once that arrived I took it and the old one to the upholsterers I had used when I had the Volvo 240 seats refurbished. All I needed was the zips taken out the old one and sewn into the new one. A couple of days later I got a phone call because they had a problem. It transpired that the new head lining was 8 inches shorter than the old one and that there weren’t enough rod stays sown into it either and that by the time they had done that it would be about 12 inches too short. I therefore took it back to BMW and whilst we were all scratching our heads in disbelief, one of the staff there started to interrogate the BMW spares computer system. “Did you know that BMW can still supply a Police spec headlining, complete with the three zips already installed?” he said. Now I have to say at this point that the BMW spares department are first class. Truly very efficient and with very competitive pricing. But to find a 20-year-old Police spec headlining at just £30 more than the standard version was outstanding. I doubt any other manufacturers could top that. Mind you it was an absolute nightmare to fit and this was another job I contracted out to the upholsterers because both front and rear screens had to come out first (having already been taken out and replaced for the re-spray!) and cost me a whole lot more than the headlining itself.

Apart from the exhaust manifold I hadn’t touched the engine at all. However, I knew it was going to need some work, not least when the water pump disintegrated on me on route back from its third show. After fitting a new pump, it was still smoking a lot and the performance was very tired. So, it was time for a proper overhaul. Off she went to a local independent BMW specialist who rebuilt the top end with all new valves, guides, skimmed head and various other necessities (£1400) and the difference that made was quite incredible. CM-07 now goes as good as she looks without the smoking rear end either and should be good for another 240,000 miles.



I still need to sort out a few more items on the 528i, not necessarily because I have to but because I want to. I'd like to change the tyres to the Michelins that we used when the car was in service and I think the dampers and springs could probably do with replacing together with all the bushes. That might rejuvenate its legendary handling. I also need to have a new base plate made for the gun box. I managed to source an original Hampshire Police gun box but there was no base plate with it, so I need to get one of those sorted out. And then there are the replica H&K MP5 carbines to go in the box. What do you think? No, maybe not.

After finishing this latest restoration, I swore blind I'd never do another one. And then I found a 1970 Morris 1800S 'Landcrab' from the Durham Constabulary on E Bay, but that's another story.

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