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Inevitable SMG Troubles

12th April 2010, early morning, M56, driving to Manchester Airport for a support call to help out a colleague.

The traffic was stop start as it always is on the morning business commute, but not a problem to me in my M3, as of course it's an SMG, and the usual annoyance of the clutch up, clutch down has been a thing of the past for the last 14 months of ownership. The traffic starts to move once more. I start getting up through the gears, but only as far as 3rd before I'm slowing down again. Then I'm sat in 1st, foot on brake waiting for the car in front to start once more, when disaster strikes! The car selects neutral, and sits there, just revving with no gear selection. I turned her off, and restarted her, but alas no drive!

So basically I was stuck on the fast lane of the motorway, and required rescuing by the Highway Patrol (quite embarrassing, but they were very helpful). As I sat on the hard shoulder I thought it must just be the usual low hydraulic

oil issue, so I call my very understanding mother who agreed to go to my house, collect some SMG oil and bring it to me. Forty minutes later, I'd topped the SMG fluid up and alas it still wouldn't engage a gear.

I had to admit defeat and call the AA who swiftly recovered the car to R G Lewis Tattenhall, my local Independent BMW specialist, the same garage who reset the SMG after I confused it on the first week of ownership. Bob at R G Lewis started to look through the fault codes, and I expected a quick call later in the afternoon saying "we've reset it and it's ready for collection" but no such call came through. In fact quite the reverse, as the message was they couldn't find any fault codes to clear. Very odd, no faults, no tell tale signs on the SMG Panel, it just wouldn't engage a gear, as if the clutch had come on for the gear change and didn't want to release. Bob spent some time on the car, and enlisted a few different testing systems. They were all pointing to the gear selection switch at the rear of the gearbox, a part that was a good £250 + vat, so he wanted to be sure before we started buying parts.

I made the decision to try the switch, a decision that was made more difficult as one of the previous owners had cut the multi plug of the current switch, meaning I'd not be able to return it if it didn't fix the problem. So the switch was then ordered and fitted, and unfortunately it didn't fix it. So back to the drawing board, more testing, more checking, more searching, more stress!

I spoke to a few specialists whilst Bob was working on the car as it had them stumped. I had a good chat with Darren from DarJac Racing who was very helpful and knowledgeable, between us we surmised the only other thing that could be stopping the clutch releasing was the SMG ECU, however, as it was £650 + vat part from BMW on a 'non return' order only, it wasn't the conclusion I was hoping for. I was lucky to find one on eBay for £140 delivered, so with massive relief it was quickly ordered, and replaced, and again no difference, it still wouldn't release the clutch.

This was becoming a bit frustrating, as I had spent close to £500 and still had a broken car. So now, nearly one month after the car had broken



down, I was out of pocket, still no closer to having a working car, I had arrived at the place many E36 SMG owners have been.

"Do I just throw more money at the SMG issue to get it sorted, or do I convert it to Manual?" Now usually this is a no-brainer, as from looking at the internet lots of people have had SMG problems, there is a lot of information about how to do the conversion, and lots of people have already completed the conversion. Companies like FAB Direct even put together what they call a "Conversion Kit" so the conversion itself didn't give me too many concerns. The issue was my car was custom ordered by BMW UK with the SMG option, it was suspected to have been used in the press shots for the Imola Individual as the shots clearly show the SMG gear stick, and although the SMG 1 is regarded by most as rubbish, I liked it, it suited the way I drove the car, and more over, I'm a firm believer in keeping cars as original as possible, so the thought of ripping out the SMG gearbox was tugging on my heart strings. Finally, I gave in and started collecting the information required to do the conversion from the internet, and started ordering parts.

I found a 6-speed gearbox, complete with selector rods from a local breaker. They told me they had sold 10 of these gearboxes to people converting SMGs to manuals so they were familiar with the process. They also sold me a pedal box with both the clutch and brake pedals, clutch master and slave cylinder, clutch pipe work for the clutch and the reservoir. They also gave me the gear selector mount that the SMG cars don't have, as well as some of the interior trim should I decide to remove all traces of the SMG, a choice

I decided not to take, as I still wanted to keep the interior as close to original specification as parts and functionality would allow. I treated myself to a new gear knob and gater, although again these could be purchased second hand to save money, but I find new parts always lift the interior. I took the opportunity to change the clutch whist Carl (Bob's Son who was doing the conversion) had the gearbox out. The SMG clutch, even though it had only done 30K since its replacement was looking worse for wear. I also changed one of the clutch lines for an upgraded braided option. Carl removed the bare minimum of SMG parts, as again I wanted to keep as many original bits on the car as possible, in some cases hydraulic pipes were in the way, so they had to be removed, as did the SMG gear selector mechanism. The gear selector mount was then welded onto the underneath of the gear tunnel. The gearbox and selector were fitted along with the new slave cylinder, master cylinder, clutch lines, pedal box and pedals.

The final hurdle was to be the wiring, as everyone who has owned an E36 SMG, or read the various conversion articles on the forums, will know that the E36 M3 SMG has various sensors and conditions that need to be met before the car will start, so removing the SMG and its ECU can cause a few starting problems. As it happens, removing the SMG fuses, and a quick well documented modification of the Engine Start Relay and associated wires had the car firing into life first turn of the key. In fact Carl told me it was the easiest task in the whole conversion. So two months later I collected my 6-speed manual M3, and apart from the fact I had chosen to leave some traces of its history, you'd never have known it was ever an SMG, it drives just like any E36 M3 manual I've ever driven before, I just have to remember to change gear!

Now, when I first embarked on this journey I heard lots of conflicting information on how much everything would cost, what I would need etc, but now I've experienced my first conversion I thought I'd pass on some of my findings.

Basic requirements:

- 6 speed gear box (or 5 Speed) £500 - £700
- Gear sector rods (if they don't come with the gearbox)
- Master cylinder £117
- Slave cylinder £60
- Gear knob £47
- Gear gaiter £50
- Insert shifter covering £7
- Clutch line from Reservoir to slave cylinder (free with gearbox) but its just flex line and pipe.
- Clutch pedal assembly, will attach to existing mount (£50 Second hand up to £100 when bought separately new from BMW)
- Engine relay modification (from the Internet)

Labour 12-16 hours depending on whether the garage has done one before. In simple terms it's just the case of removing the SMG components and fitting the bits that make it a manual!

I also recommend you budget for some miscellaneous bits, like bushes or shims if they are worn or missing from the second hand gear box, as was the case in my conversion.

If anyone finds themselves in a similar position to me, please feel free to get in touch, as I may be able to pass on some advice now I've finally been through this conversion myself.

Even if you want to talk through your issues I'd be glad to hear from you. I must just take this opportunity to thank R G Lewis (Tattenhall) for their patience, as they didn't initially sign up to do the conversion.

As usual, Bob and especially Carl came through for me and got it all sorted. They also put up with my weekly "How's it going?" calls.

A closing thought now occurs to me, now the conversion is complete and my E36 M3 'Imola Red Individual SMG' no longer has an SMG, has it transformed into a 'Imola Individual'?

