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Thread: Complete: Genuine M3 Mirror Install with Autofold Retrofit & 12pin to 6pin conversion

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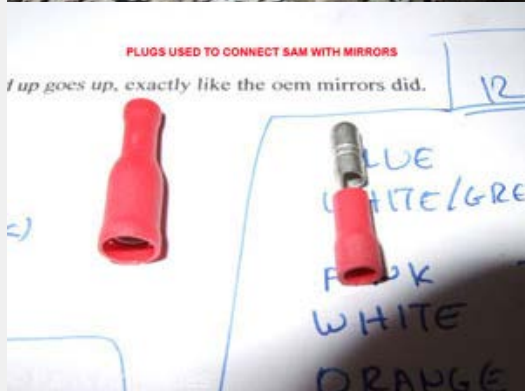
Join Date: Jan 2006
Location: Cyprus
Posts: 7,202
My Ride: B30\_TS2++
Year: 2001
Transmission: 5-Getrag
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Complete: Genuine M3 Mirror Install with Autofold Retrofit & 12pin to 6pin conversion

GENUINE M3 MIRROR RETROFIT WITH AUTOFOLD FUNCTION

This is my latest project, a retrofit that I wanted to do from the first day I got the car. It took me a very long time to get the right set of mirrors, relatively low price and to sort all the little things that must be done to allow them to fold/unfold on my car. Special thanks to Simon (320de47m47) for supplying the mirrors and his guidelines to make everything work.

This project was done on my 2001 E46 320CI. Manual seats (no memory), No autofold feature (module or switch). This car comes with a 6-Pin mirror plug. The objective is to make the mirrors to fold upon pressing the button on the mirror switch. The module I bought offers a variety of methods to make the mirrors fold, such as when the lock/unlock is pressed on the key, etc. The mirrors I got where the 12-Pin type, which I had to convert to match my car's plugs (6-Pin)





Parts List:

Genuine M3 Mirrors with Autofolding functionality. Colour coded: 364 - Topaz Blau

Genuine Mirror Switch (2 Plug / T-Shape) with Autofold button

Innoparts SAM 1.0 Mirror Folding control Module

Plugs

Tools List:

Multimeter

Soldering Station

8mm bit

10mm bit

Flathead screwdriver

Phillips screwdriver

Drill with 5mm bit

Torx T20 bit for door panel removal

Disclaimer: Follow this guide at your own risk. You will deal with door panels which have airbags installed, mess with the car's wiring harness, which may become damaged if done incorrectly. For your own safety, disconnect the battery and wait 10 minutes before starting this kind of work.

Difficulty level: 5/10

Time: 6 Hours

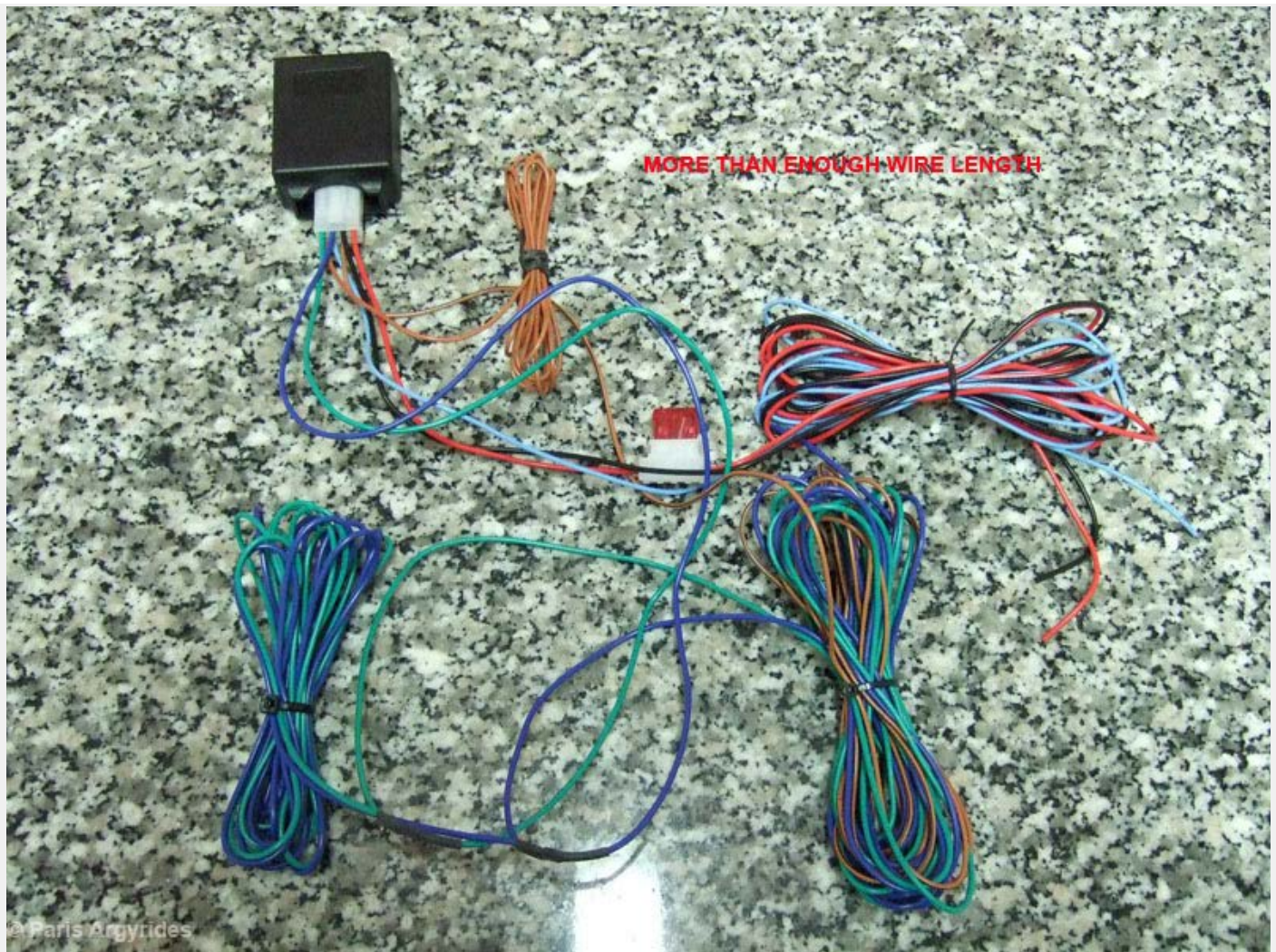
Let's start..

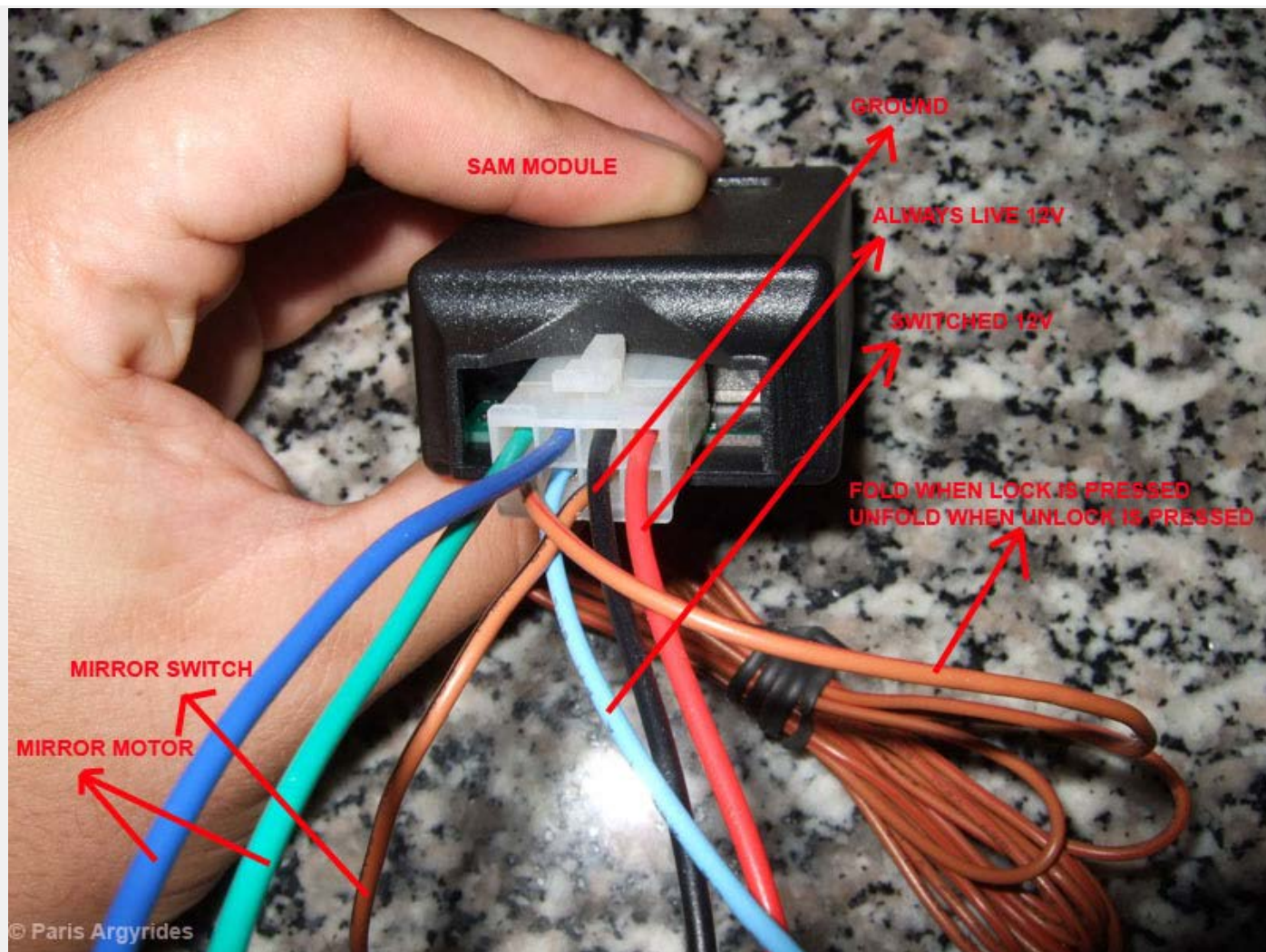
Genuine M3 Mirrors, colour code 364 (Topaz Blue)





The Innoparts' SAM Folding control module





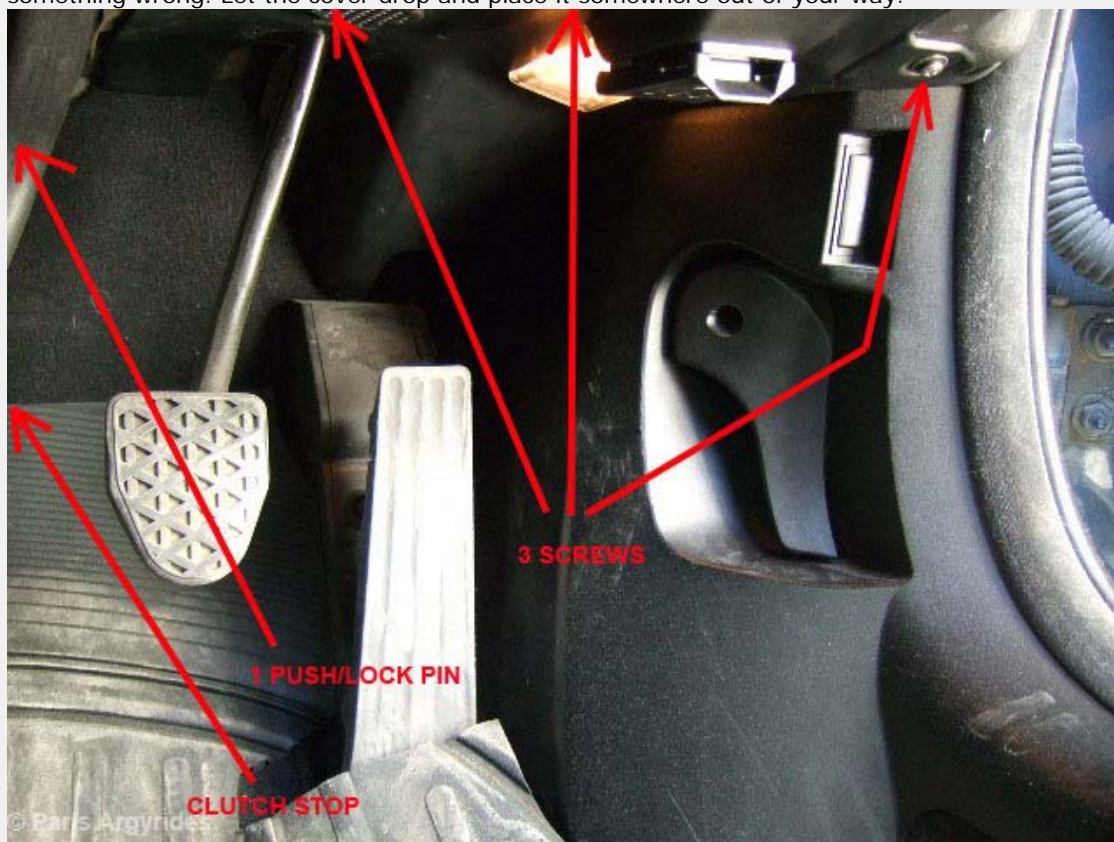


Remove both door cards. There is a DIY on my and this site how to do that so I will not get into details. 5 Torx screws and 21 plastic pins hold the card in place



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Remove the steering column cover by removing the 3 philips screws, clutch stop, and 1 push/lock pin. Disconnect the foot light, OBD port and the buzzer for the parking sensors. All plugs are not the same hence you can't connect something wrong. Let the cover drop and place it somewhere out of your way.



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Remove the glovebox on the opposite site. It's held by 4 philips screws on the bottom and 2 plastic pins (1 left strap, 1 right plastic holder)





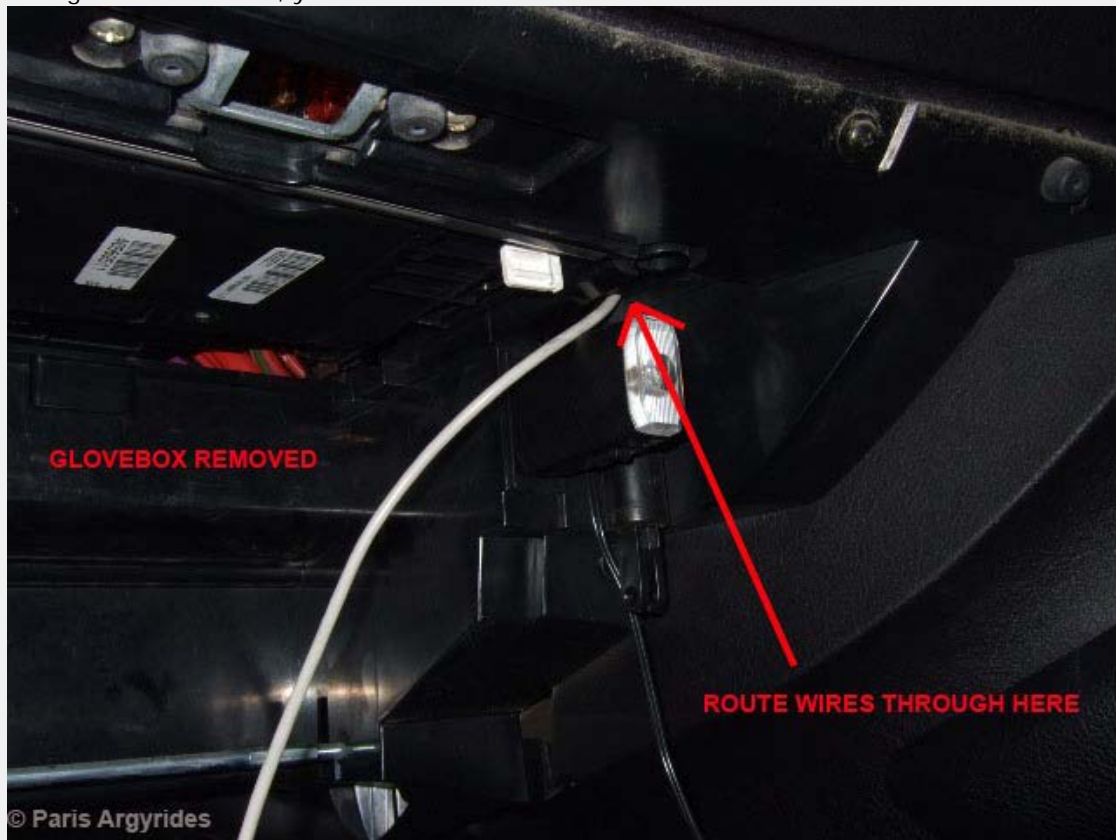


Remove the dash trim to gain access to wires and power.





With glovebox removed, you can see the route of the wires



Now, remove the door card and the mirror bolt cover (just pull it while pushing it upwards). The 2 10mm mirror bolts are revealed.



Old mirrors removed and placed next to new ones



Now the fun part begins.

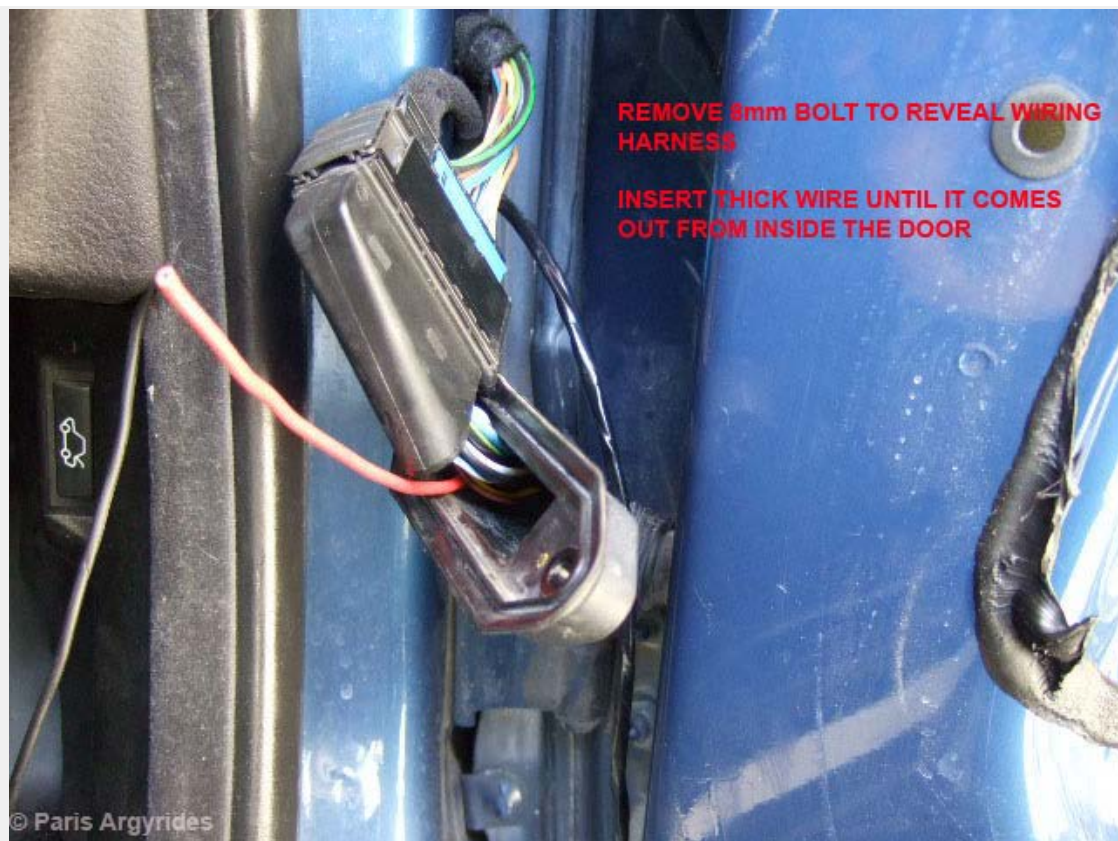
Time to run the SAM module wires, from the center dash to both right and left sides. On the right part (Driver's side) 3 wires must go because the mirror switch is there too. (2 wires for mirror motor and 1 for signal from mirror switch)



Must go through here



Wiring harness removed and a thick wire is used that will fish the smaller wires.





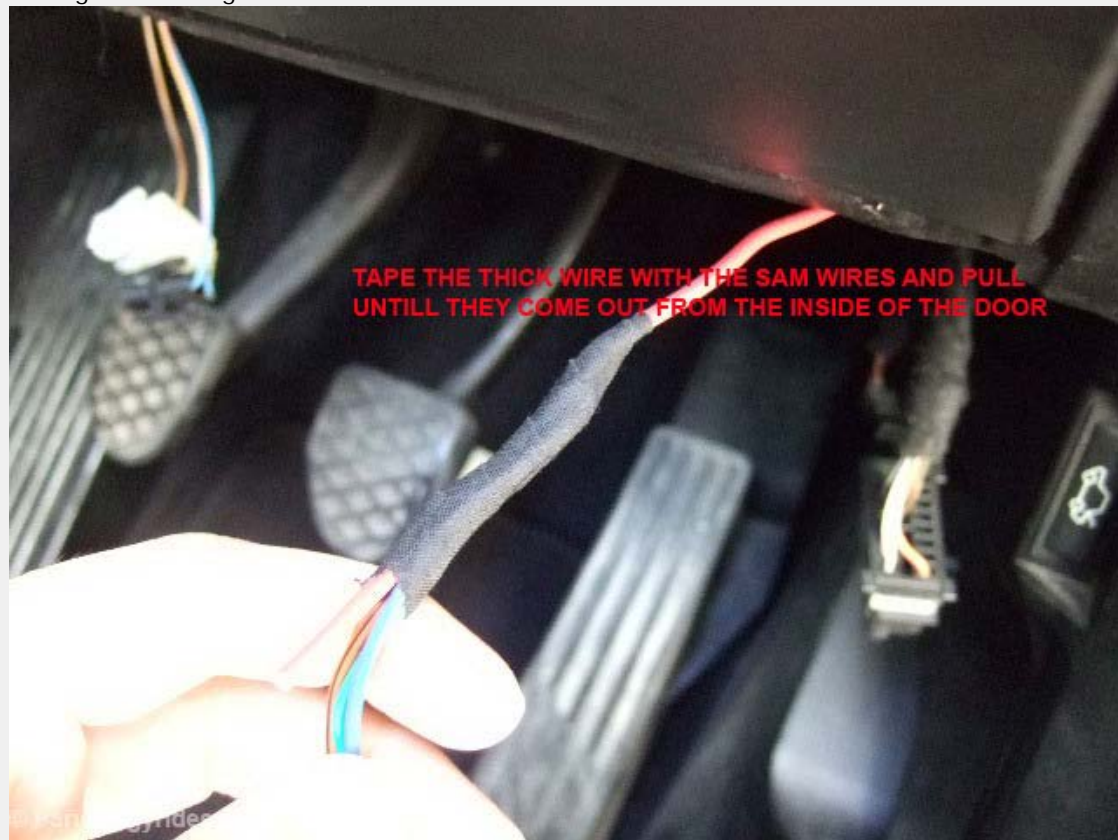
Same for the opposite side (passenger's side)







Fishing of wires begins



Use the same method to pass the wires inside the door now! I took this picture, it's from the inside of the door



Pull the thick wire until the SAM wires come out

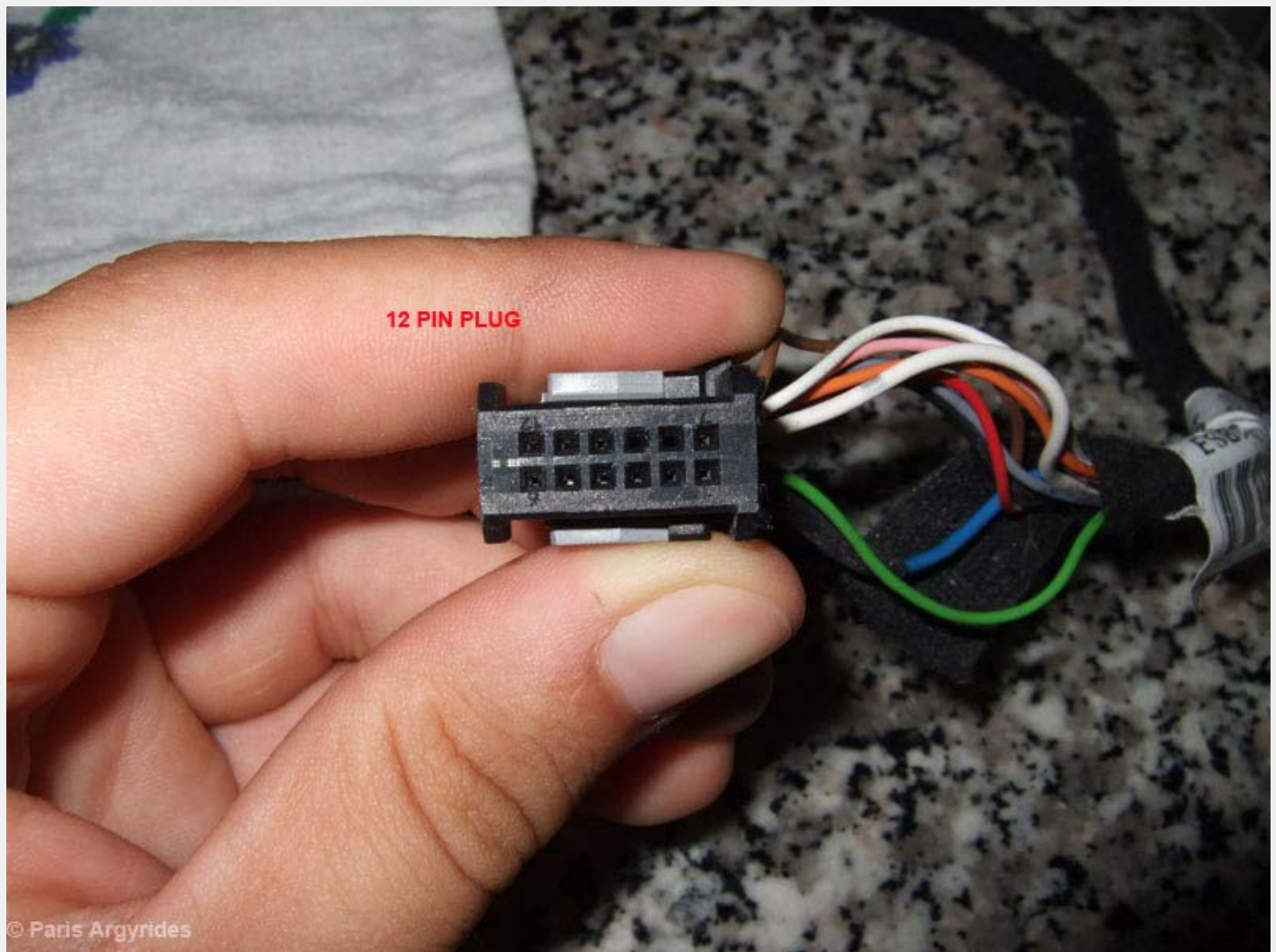


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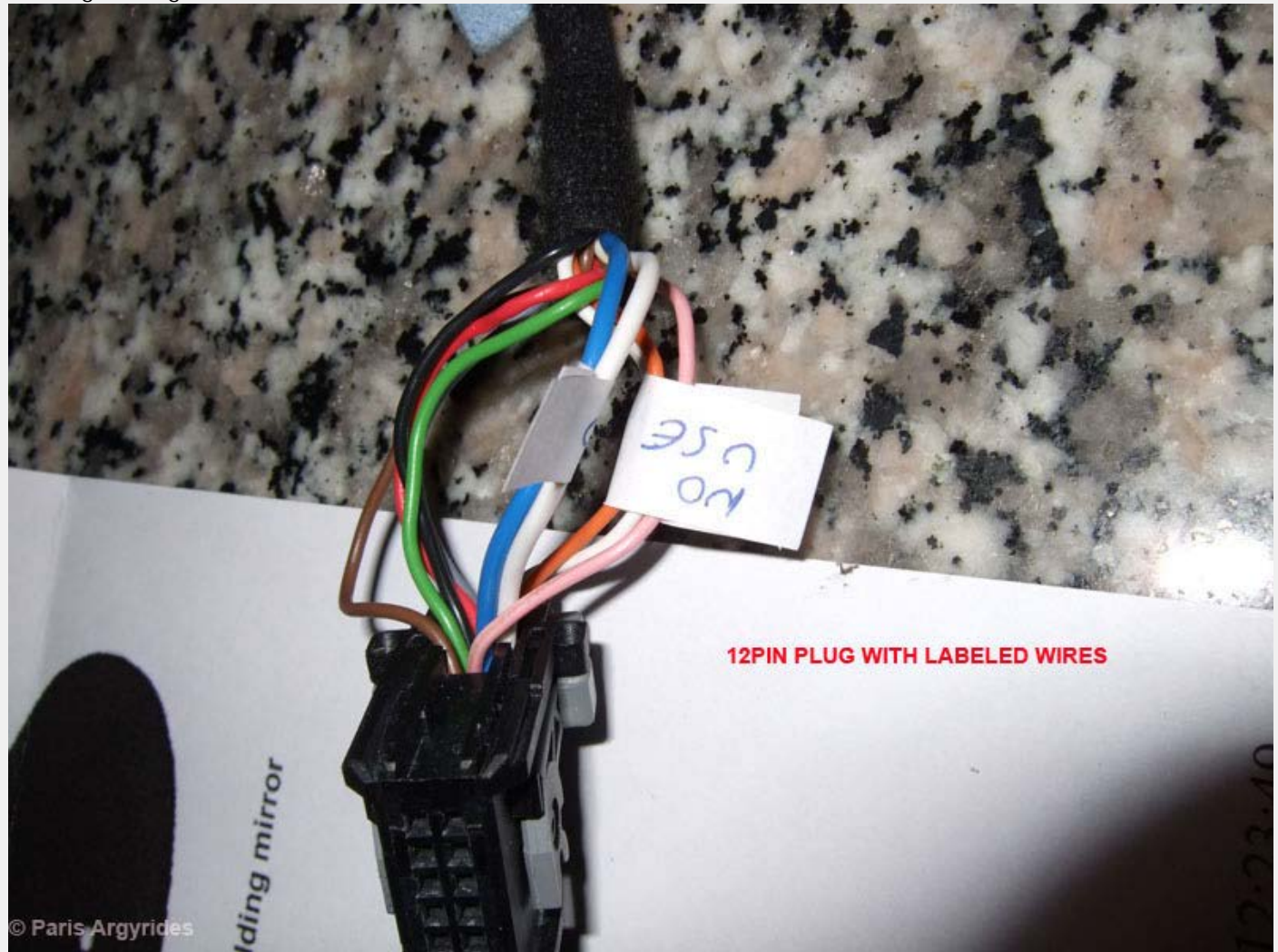


Now once all wires are in place, it's time to do the mirror plug conversion.

Left: Old Mirrors. Right: New M3 Mirrors



Labeling which goes where. Below the conversion is described better.



Brown, Black, Grey, Red, Green will go to 6 Pin plug, Orange, Pink, White are not used, and Blue, Thick White are the fold motors' wires

