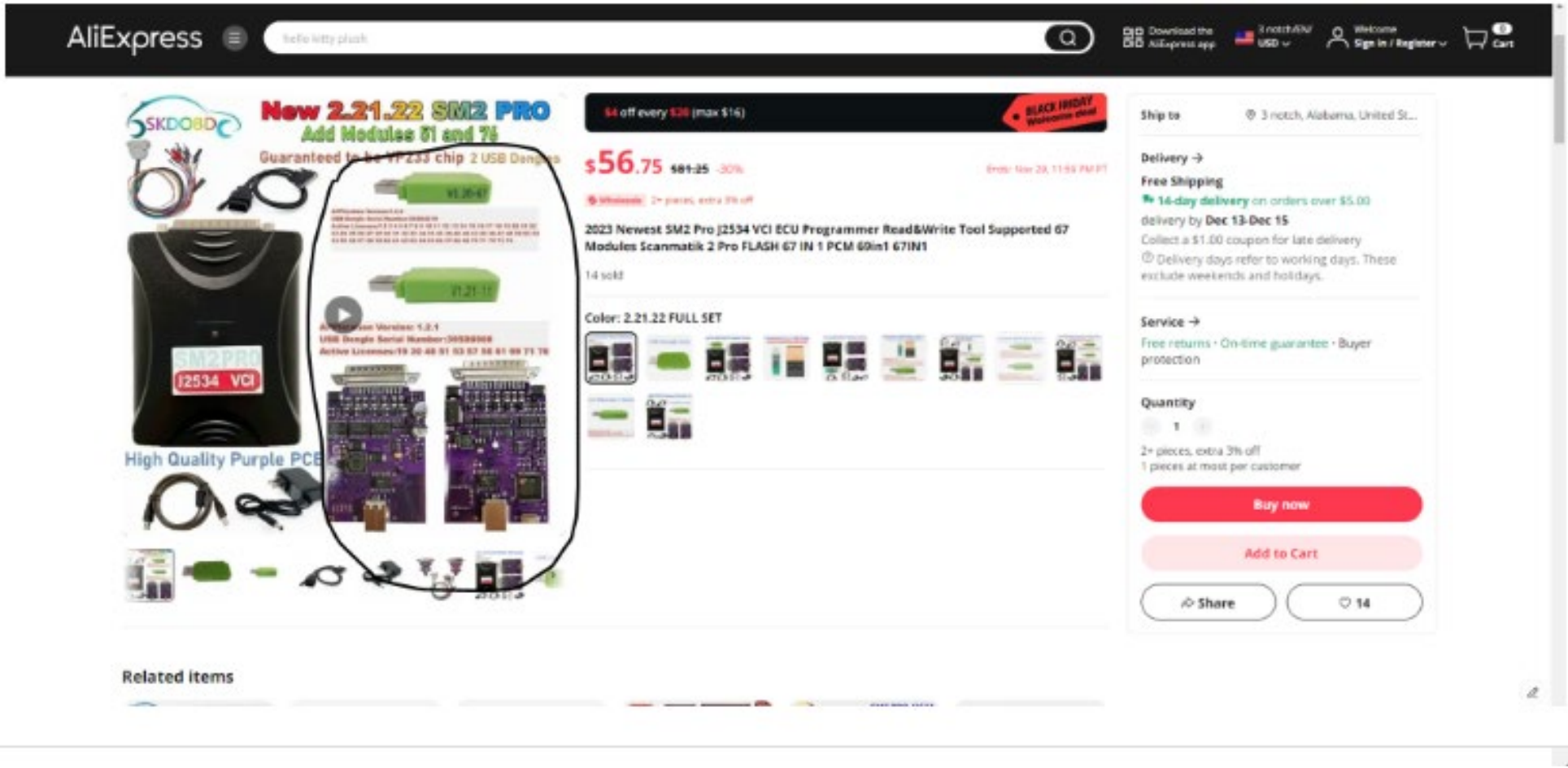
How to clone your ECM

SM2 PRO 2.21.22



What you should receive

- You should have black programmer box, 3 cables (1 for obd port, one to manually place connectors on pins, and one to connect the programmer to the laptop). We will be using the cable to manually place connectors onto pins.

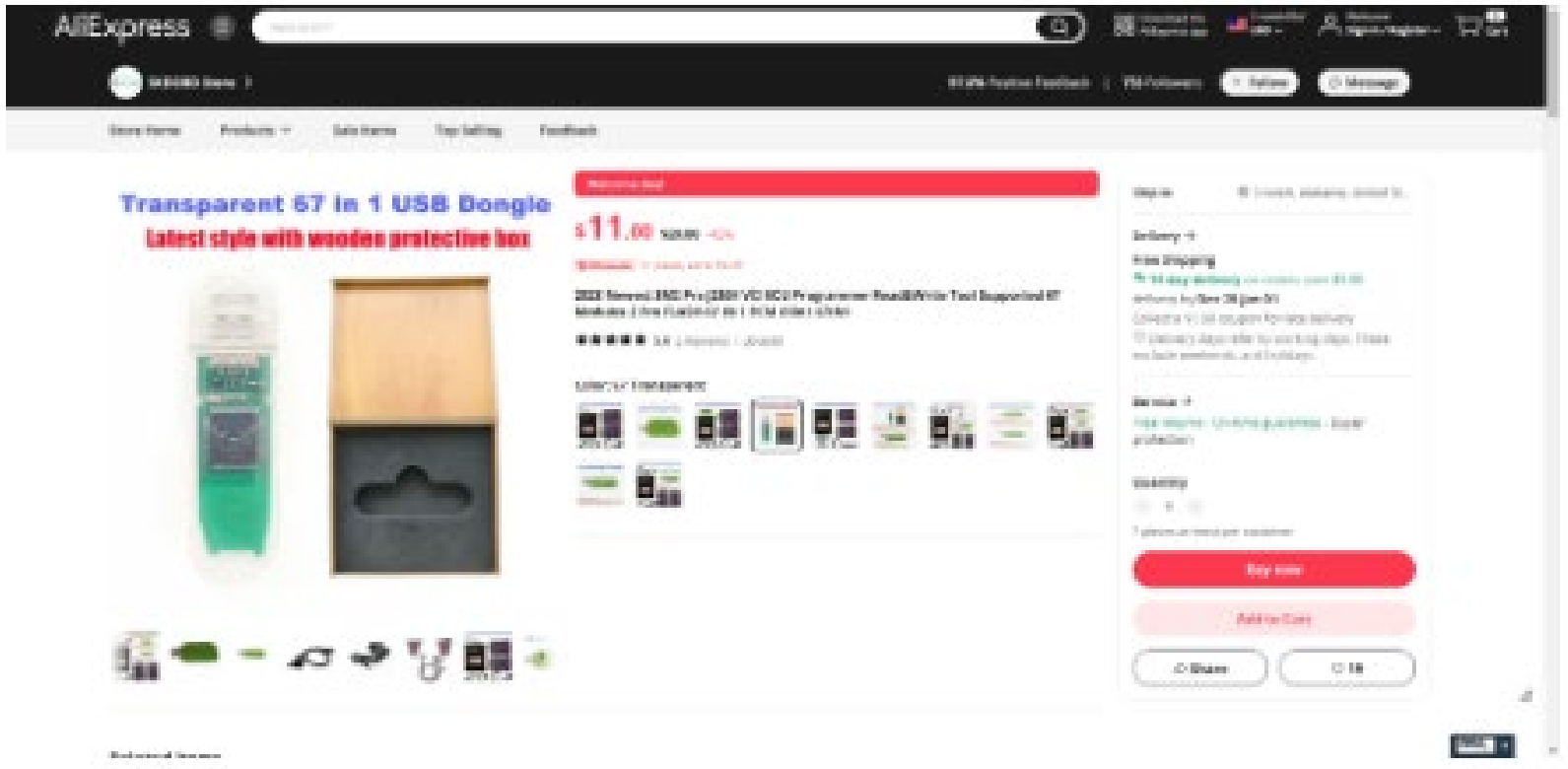
  1 12v power adapter which provides 12v to ECM during the programming read/write steps
  1 USB dongle
  1 CD rom

  The purple boards you see in the picture are of the front and back side of the board inside the black programmer box

Newer Dongle(had to order as my kit was incomplete)

pflasher v1.20-67 dongle works

- Newer usb dongle is clear instead of green and inside a wooden box



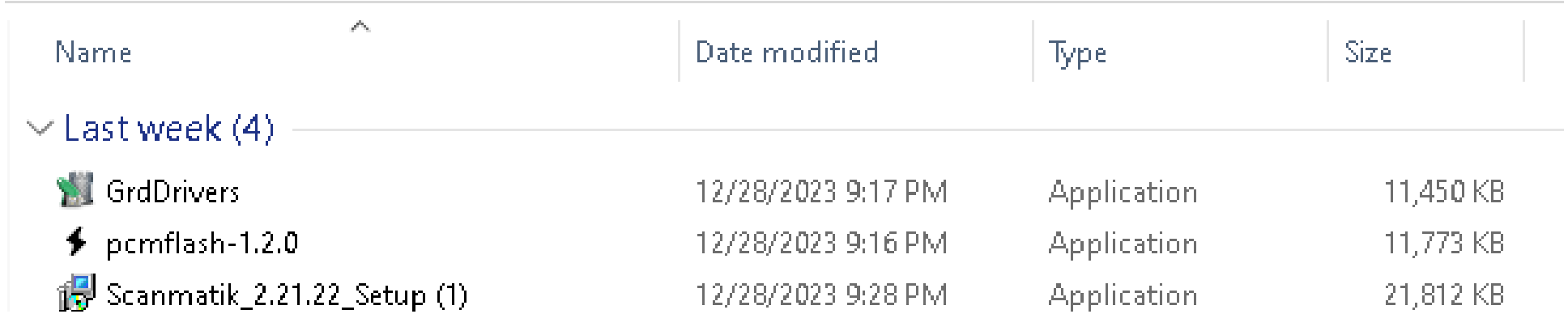
Programs to install

- 3 programs installed (had to disable AV during this step) using old computer so no issues if I have to wipe after this

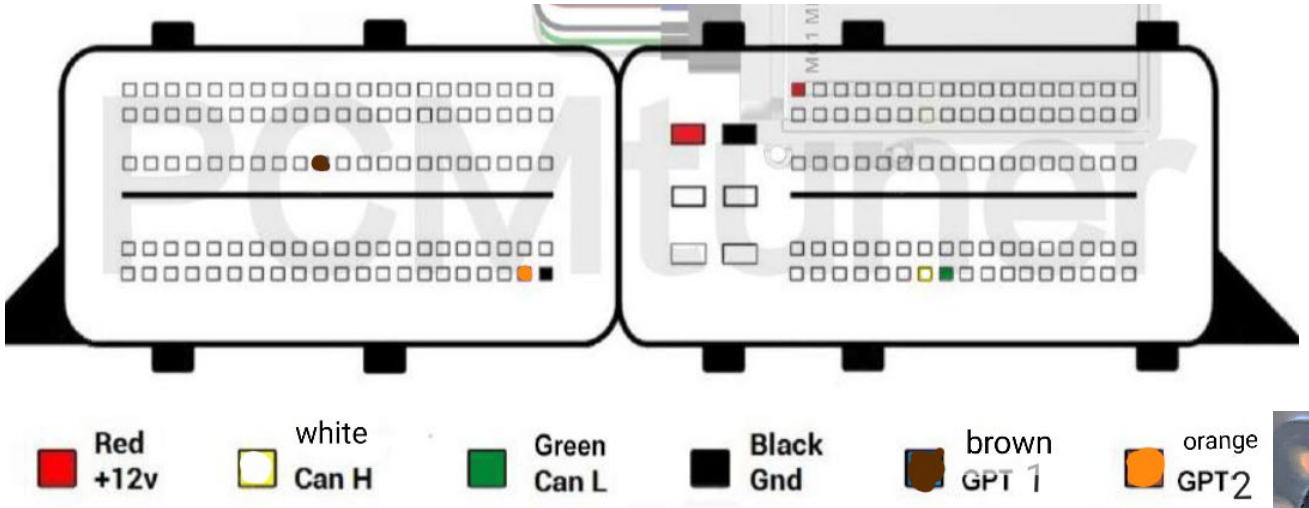
2 PCM flash (when installing this don't let it update when it asks)

1 Guardiant drivers

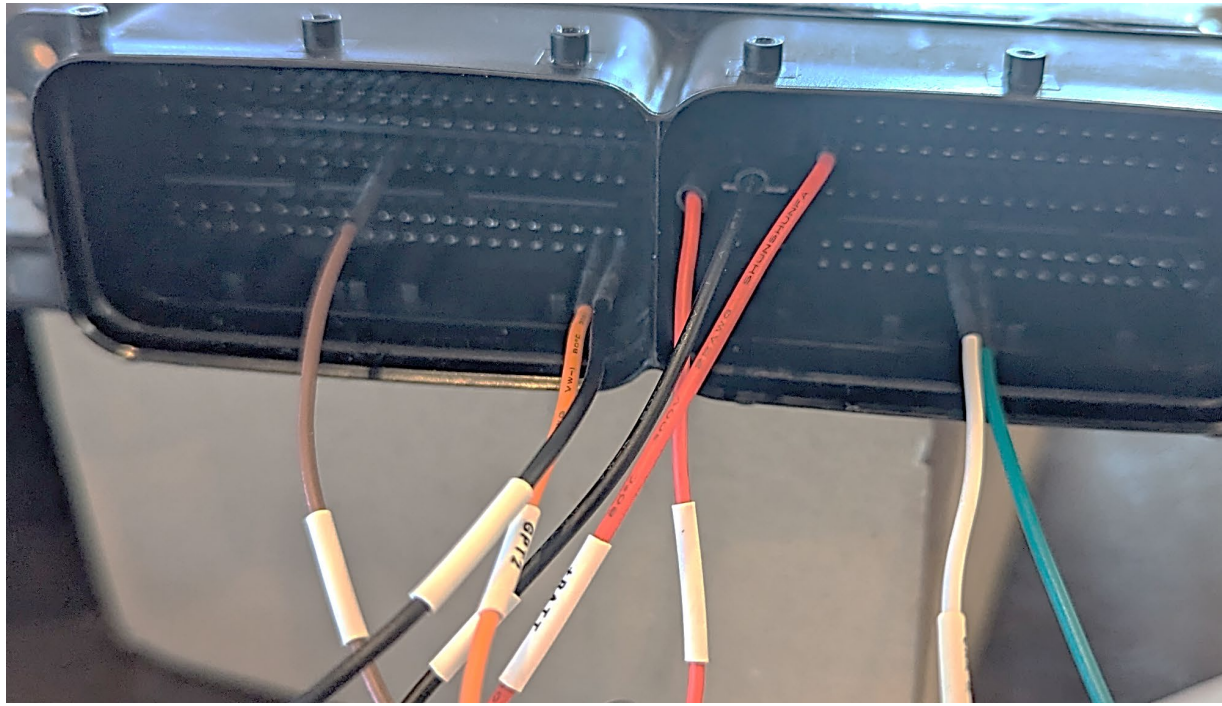
3 Scanmatik 2.21.22



Pull ECM from vehicle and attach jumpers



Refer to other pinout diagrams for more clarity



- Verify Jumpers before doing anything
- Attach USB Dongle
- Plug harness into SM2 Pro
- Plug USB cable into SM2 Pro
- Plug power adapter in but don’t plug

Into harness yet.

Open PCM FLash (DO Not update)

Finding FLASH File to save

flip switch on sm2 gray plug to AUTO,

- Under ECU go to pull down menu

Bosch MEDC17 (TC1791/1793) Flash

plug in power to harness
Test connection by using the identification button. if passes go to read.
Software might ask to auto control power, click ok

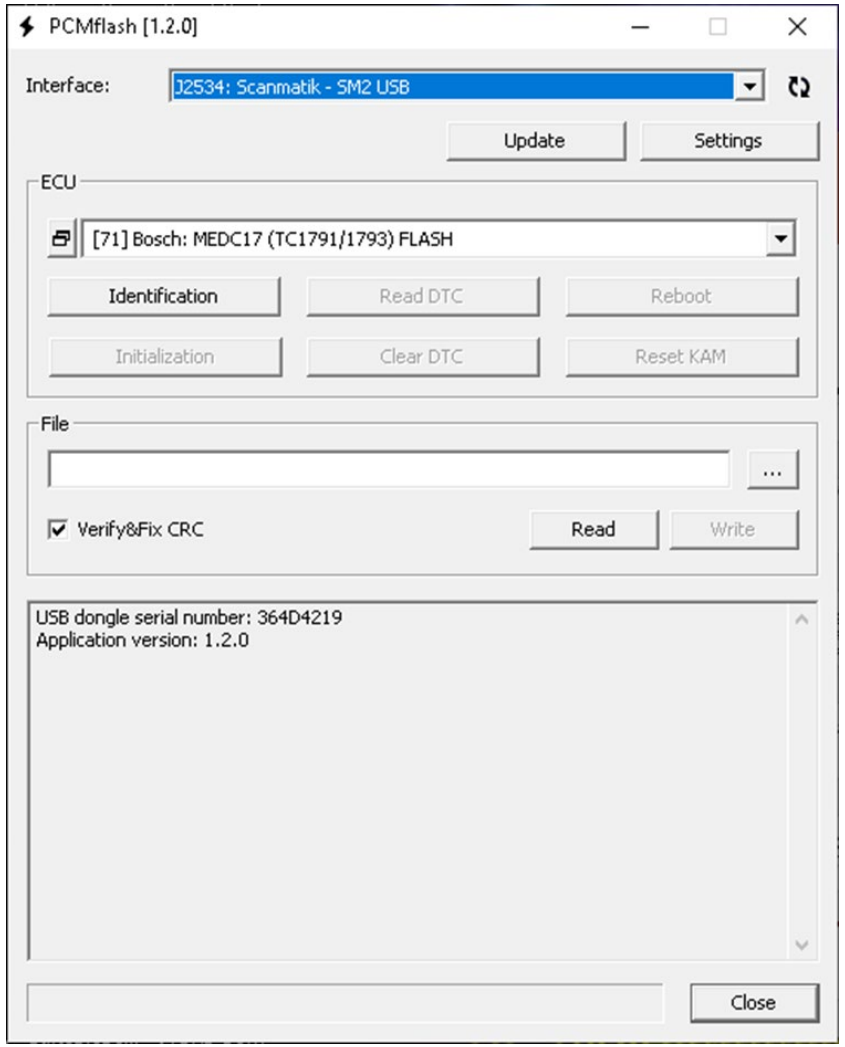
- Select Read
- Verify/Fix is optional
- When it starts to process if it starts to count but no

Movement on progress bar…. Momentarily pull

12v plug from harness and plug back in

- Save file somewhere where you will remember it
- This is the larger of two files and will take a few

Minutes to save



Finding EEPROM File to save

- Under ECU go to pull down menu

Bosch MEDC17 (TC1791/1793) EEPROM

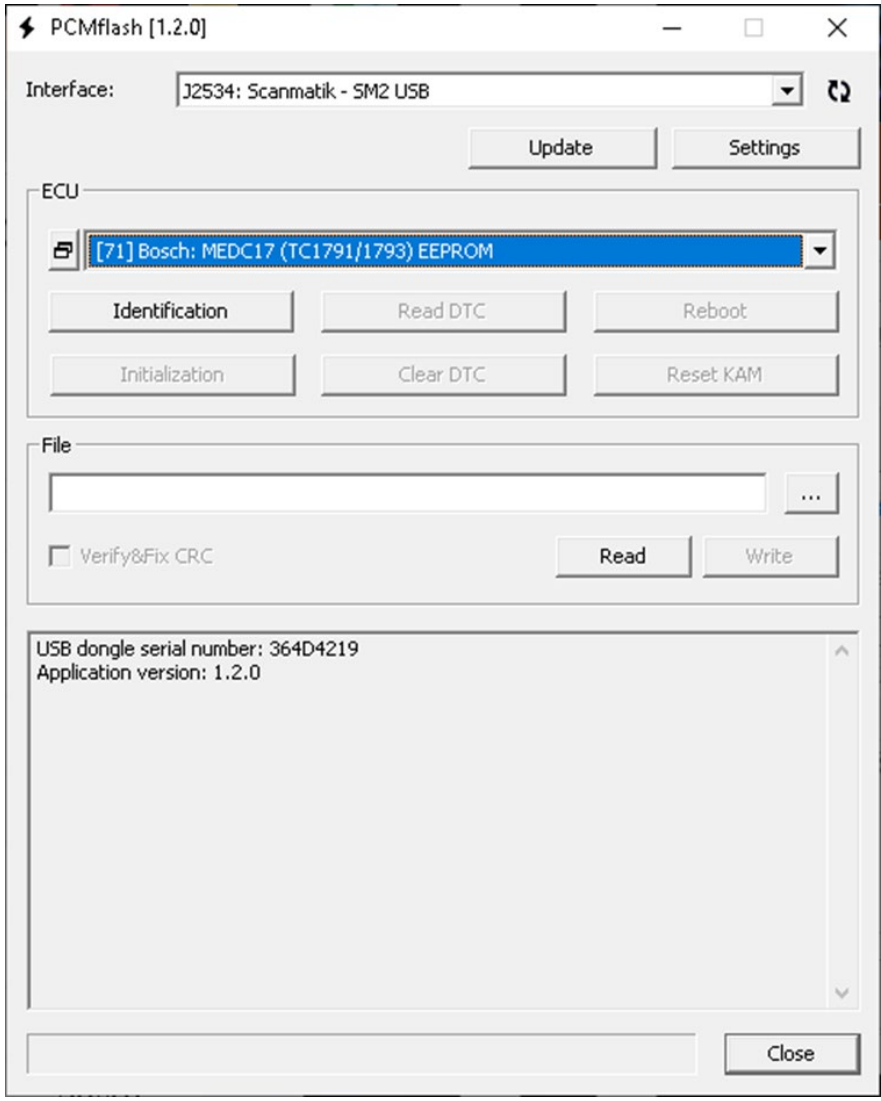
- Select Read
- When it starts to process if it starts to count but no

Movement on progress bar…. Momentarily pull

12v plug from harness and plug back in

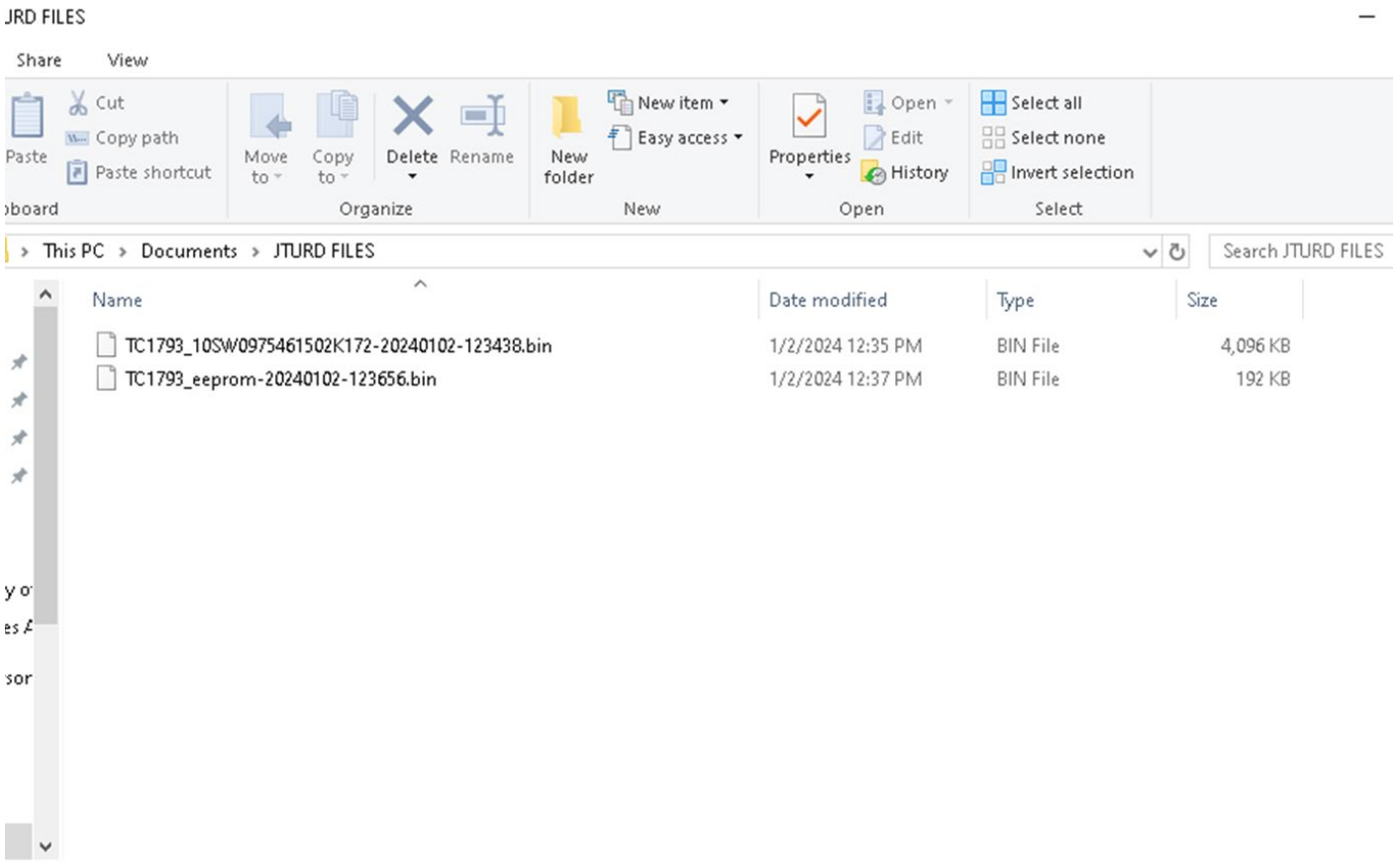
- Save file somewhere where you will remember it
- This is the smaller of the two files and will take only a

a few seconds to save

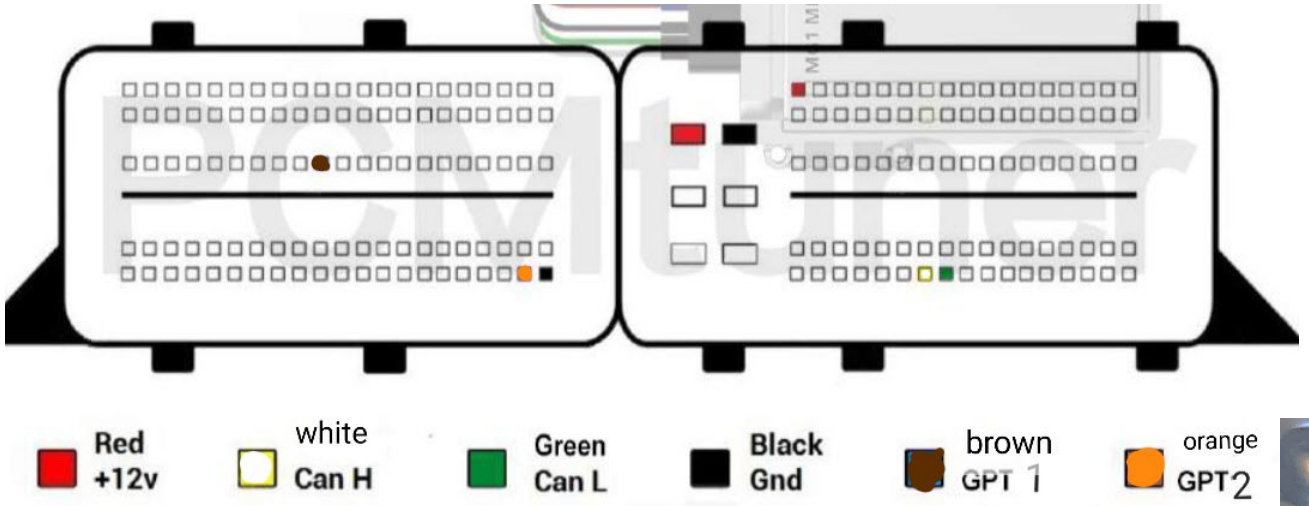


You now have your stock ECM files saved ;)

- Remember this location
- Halfway done
- Pull 12v power and remove harness from ECM
- Now we will setup and write to the spare ECM



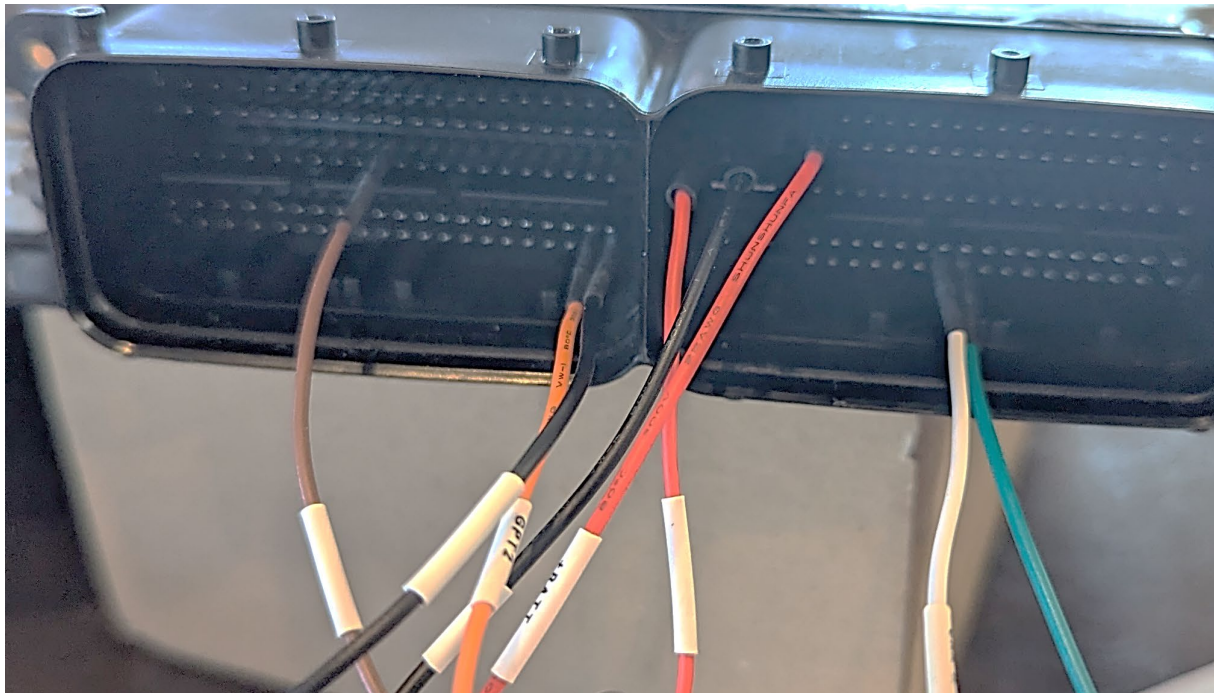
Setup Spare ECM and attach jumpers



- Verify Jumpers before doing anything
- Attach USB Dongle
- Plug harness into SM2 Pro
- Plug USB cable into SM2 Pro
- Plug 12v power adapter in but don’t plug

Into harness yet.

Open PCM Flash (DO Not update) if you closed it during last step



Finding FLASH File to Write

- Under ECU go to pull down menu

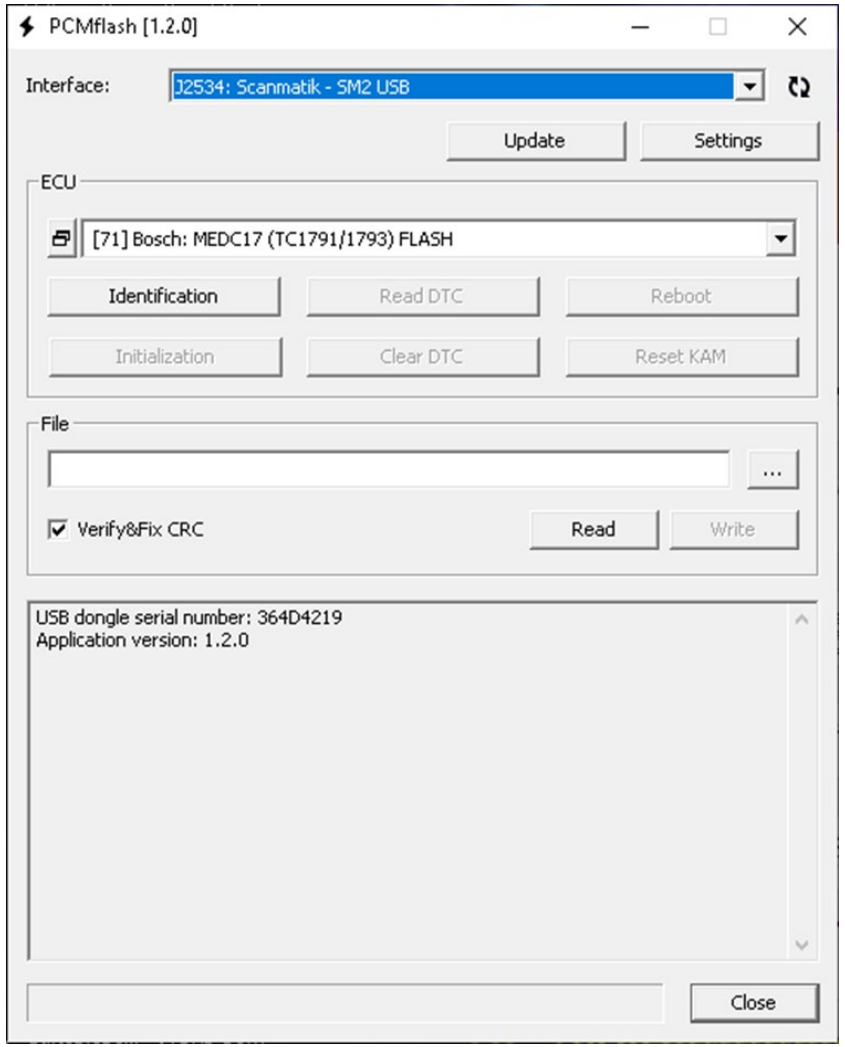
Bosch MEDC17 (TC1791/1793) Flash

- Select … symbol and select the flash file copy you saved earlier
- Select the write button
- When it starts to process if it starts to count but no

Movement on progress bar…. Momentarily pull

12v plug from harness and plug back in

- This will take several minutes to write to the ECM



Finding EEPROM File to Write

- Under ECU go to pull down menu

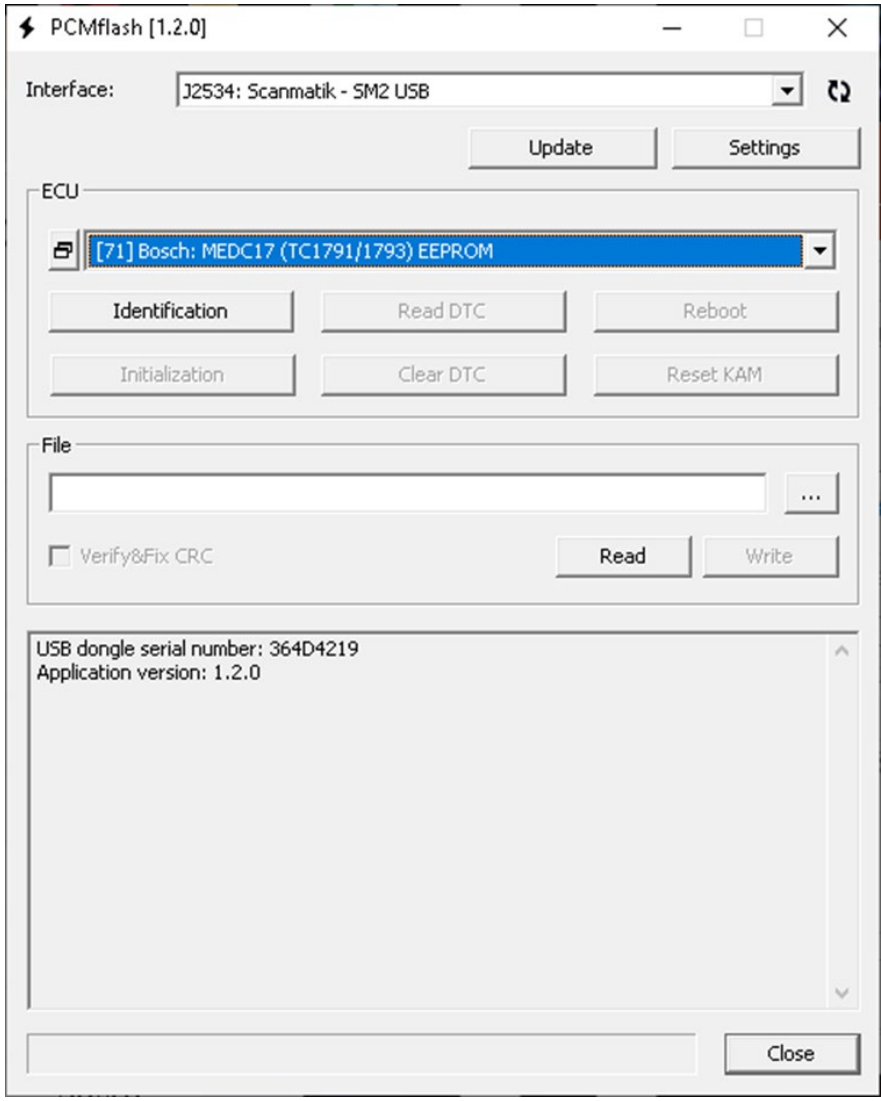
Bosch MEDC17 (TC1791/1793) EEPROM

- Select … symbol and select the EEPROM file copy you saved earlier
- Select the write button
- When it starts to process if it starts to count but no

Movement on progress bar…. Momentarily pull

12v plug from harness and plug back in

- This will take under a minute to write to the ECM



- You are done at this point
- Enjoy your spare ECM