



Mercedes-Benz
7-G SCN coding and
programming

Electric plate /ECU
replacement

“Important “

When the new electrics plate /control unit/valve body is fitted to the transmission you must carry out the full initial start up process straight away.

If the vehicle is started and driven without the initial start up process fully completed, the vehicle will start and drive in emergency mode only.

The control unit will be locked out, and it will not be possible to complete initial start up of the electric plate/valve body/ ECU.

THIS WILL RENDER THE CONTROL UNIT UNSERVICABLE

This will result in having to purchase another new control unit/valve body

“Important “ The old electrics plate /control unit MUST still be FITTED TO VEHICLE before the **step 1 read is taken.**

INITIAL START-UP FOR SENSOR REPLACEMENT

Requirements:

The Old Control unit must still be installed.

The following steps must be performed in order.

Note: Do not remove the old ECU until step one has been completed.

• READ OF OLD ECU

Step 1

Note: If you have already done this Please continue onto the next page.

HELP

SCREEN
CAPTURE

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NEXT

Electric plate / ECU replacement

**THE FOLLOWING PAGES ARE ONLY IF YOU ARE REPLACING THE
CONTROL UNIT /ELECTRIC PLATE
WITH PART NUMBER 000 270 17 00**

**“important “ The old electrics plate /control unit MUST still be
FITTED TO VEHICLE before the **step 1** read is taken.**

This is because In the **step 1** read the working and resistance values of the solenoid values are read and stored in the autologic tool.

All the values that are retrieved from the old ECU in **step 1** are **live** data values, and that is why the old valve body still has to be **fitted** to the vehicle and the solenoid valves fitted **in place**, for the values to be read and transferred correctly.

Failure to do this will result in very harsh gear changes after the programming is complete (this will not remedy itself).

Electric plate / ECU replacement

We have found if you just connect and hang the old electric plate on the vehicle (after the new electric plate has already been fitted to the gearbox), and carry out the step 1 read, **this will Result in a problem with gear changes (every time).**

In this situation If the process is continued the gear change will be jerky and harsh and will never adapt itself correctly.

It will require the old control unit refitted back into the gearbox and the procedure carried out again correctly (from and Including **step 1**), for a second time, before a comfortable smooth gear change can be achieved.

Important

There are **two** different repair options for the 7-g gearbox ,it is important you select the correct repair procedure. (**complete valve body or electric plate/control unit**)

1/ Only if the valve body has one or more of the following speed sensor fault codes stored or present,(**0717,0718,2767,2768,0722,0723,**)

Or any of the following fault codes (which are also now also included) . **0705, 0604, 0605, 0641, 06A3, 0651, 1629, 1634, 1636, 0633, 062F, 0613, 0607, 0711, 1693, 1710, 1711, 1712, 0300, 060A, 1610, 0714, 0705, 0604, 0641, 06A3** - can you fit an **electric plate/control unit replacement part** .

The part number of this repair kit it **000-270-17-00** (and is only valid on **VGS-2** and **VGS-3** transmissions) .

If other codes are present that are not in the previous list, you **CANNOT** fit the repair kit.

The repair kit is also **not** compatible with **AMG** vehicles.

2/ If you have any other codes as well as the codes listed above the **complete valve body** must be replaced.

If you cannot communicate with the old valve body you **cannot** fit the electric plate repair kit, as the step 1 read cannot be performed.

**Common code for Automatic transmission in limp-home mode,
fault codes P0717, P0718, P0722, P0723, P2767, P2768**

Complaint: Automatic transmission 722.9 switches to limp-home while driving (gearshifts no longer possible) and/or one or more of the following fault codes are stored or current: 0717, 0718, 0722, 0723, 2767, 2768

Cause: Rpm sensor fault : Component Y3/8n2 (Internal speed sensor (VGS2)) is defective/not available /or open circuit . Or The signal from component Y3/8n3 (Output speed sensor (VGS)) defective/not available /or open circuit . ([VGS2]).

The repair kit is also **not** compatible with **AMG** vehicles.

NOTE : it is now possible to just replace the electric plate /control unit separately on the 7-G 722.9 transmission , only on VGS-2 and VGS-3 boxes.

The transmission control unit, which is bolted onto the electro hydraulic controller unit (EHS), may only be replaced using the EHS repair kit (A000 270 17 00).

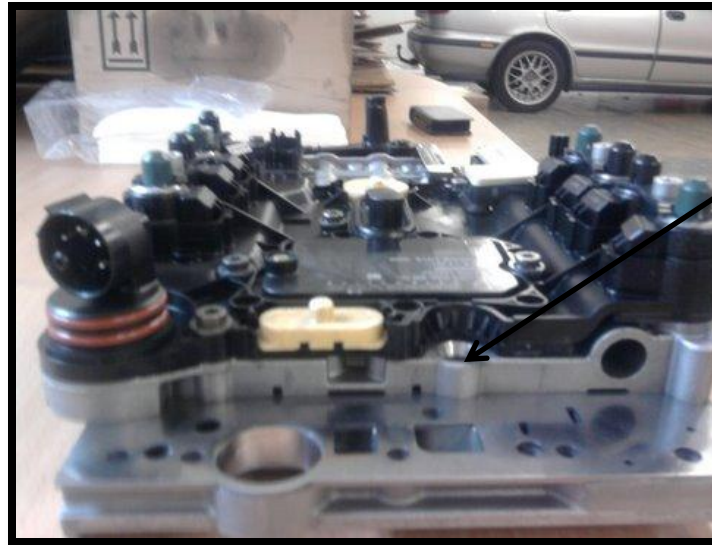
Parts Rep. kit A 000 270 17 00 contains, among other things, VGS3 electrical kit, B3 oil guide pipe, oil filter, small parts, screws/bolts

NOTE: On vehicles with VGS-1 the whole 7-g valve body needs to be replaced as before. VGS 1 part numbers A 220 270 12 06 or A 220 270 14 06 or A220 270 10 06 or A220 270 11 06 (any of these numbers are a VGS 1 EHS controller)

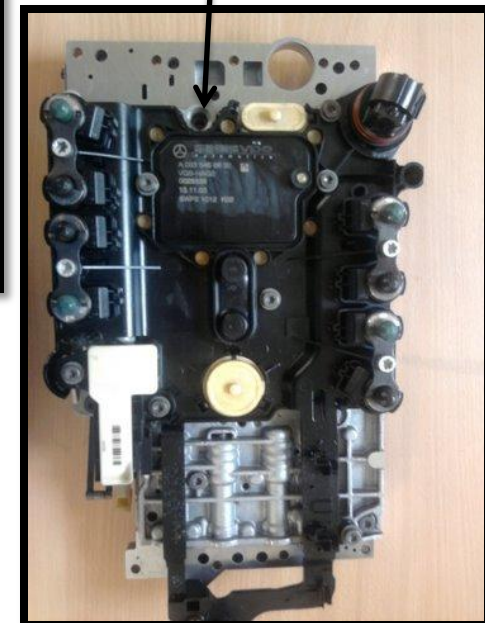
Electric plate / ECU replacement

Before starting the coding it is worth remembering a few points.

1/ When removing and refitting a valve body to a 7-G transmission care must be taken to remember to remove the oil feed pipe from the old valve body, and swap it over with the new valve body, as failure to do this will result in loss of drive.



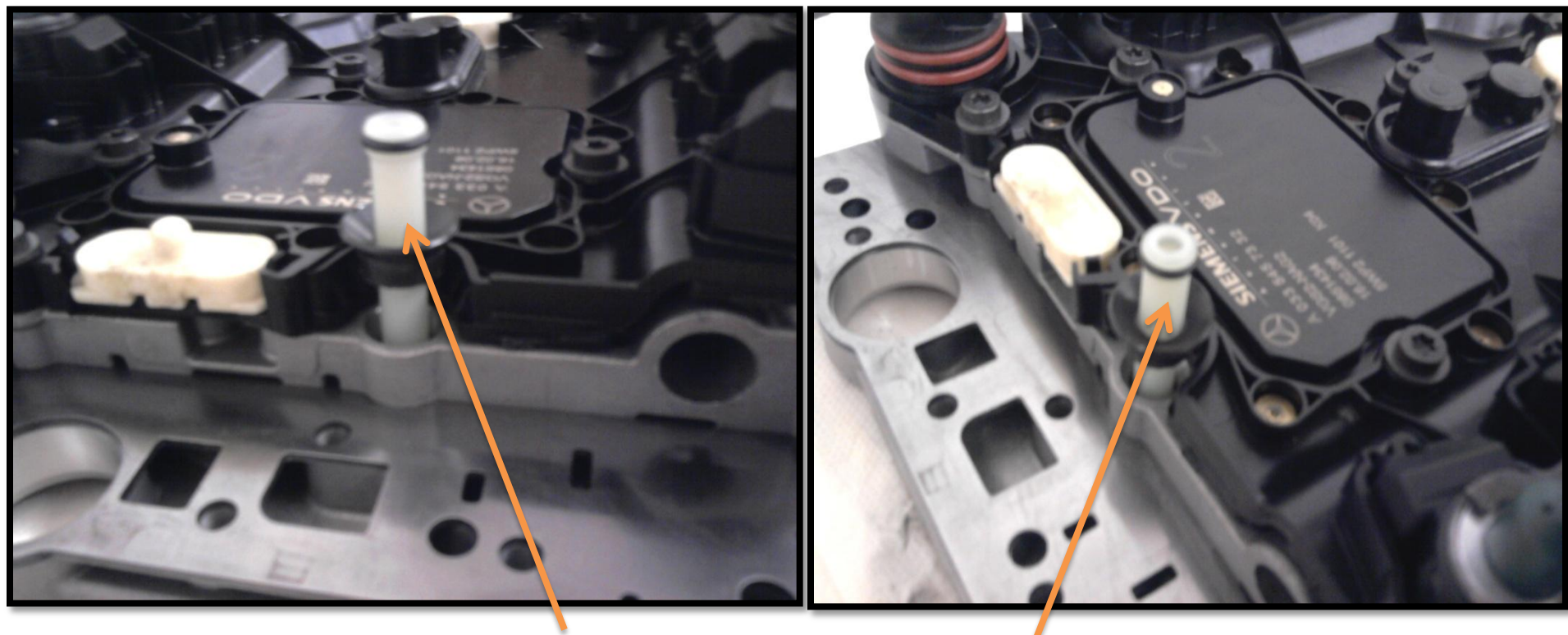
Oil feed pipe location



Oil filler pipe
needs swapping
over when fitting
new valve body.

Electric plate / ECU replacement

722.9 transmissions continued:



When replacing the valve body on the 722.9 gearbox remember to remove the white oil feed pipe from the shown location, and fit as next page suggests.

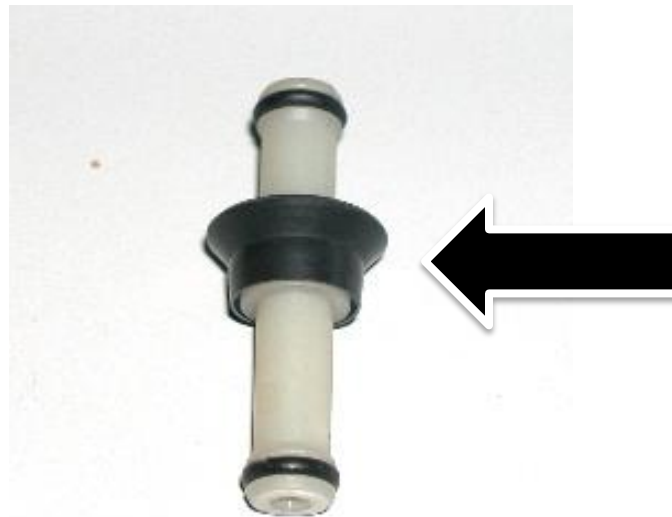
Failure to do this will result in no drive when **S** mode is selected and in **C** mode drive ok up to 6th gear (then slipping).

On 164 and 251 chassis vehicles will result in no drive at all .

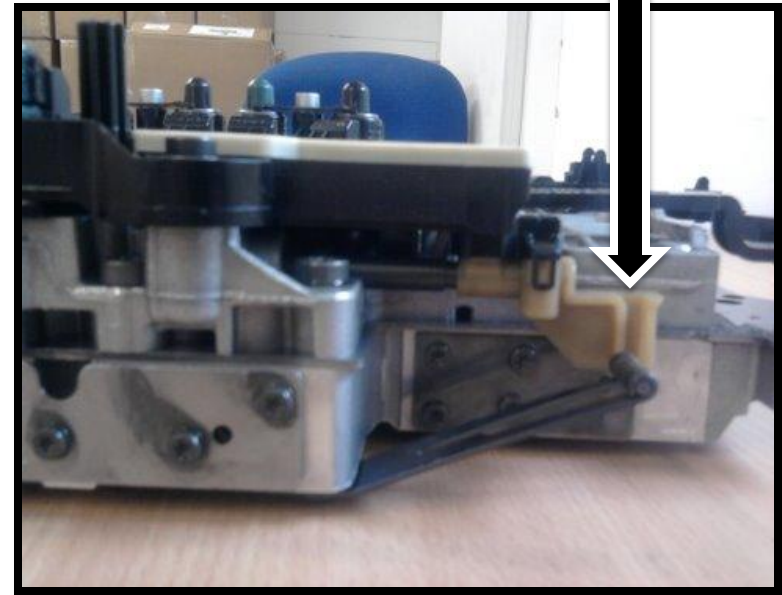
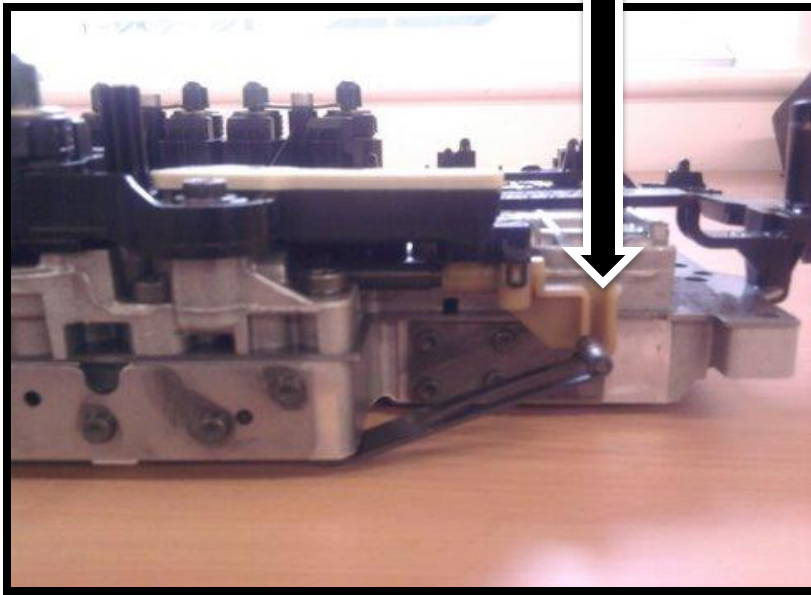
Electric plate / ECU replacement

It is simpler to install the pipe
Into the gearbox and
assemble the valve body on
to it.

Make sure the oil feed hose is
correctly and firmly installed
From old valve body assembly



2/ When re-fitting 7g valve body it is important that the selector linkage is correctly located in the sliding gate, as it will be impossible to complete the start up procedure with autologic.



3/ When carrying out SCN coding and drive authorisation, it is essential that you have cleared all stored faults in all other control units, (especially engine ECU) and also have a good stable vehicle voltage : (battery charger correctly installed on the vehicle) .
Also make sure the autologic is powered by its mains adapter.
Failure to do this may result in SD flash programming failing and the control module may sustain permanent damage .

Electric plate / ECU replacement

It is also worth remembering that if you are re-flashing the original 7-g transmission you will delete all previous saved gear change adaption data.
And the smoothness of gear changing may indeed be worse than before .

note: problems such as harsh gear changing are hardly ever cured by re-flashing the 7-g valve body , however if a re-flash or control unit programming is carried out the learning process for range selector must also be carried out ,failure to do this will result in harsh gear engagement or a possible non start situation. Also a long road test to carry out gear shift adaptations will also be required.

we have become aware that sometimes when fitting a 7-g transmission to a **ML-164** or **R CLASS -251** chassis range vehicle , If 7-g programming keeps failing it may be necessary to disconnect the ESP control unit electrically , and try again.

The same applies to 211-219 chassis with SBC or ABR or xenon headlights, disconnect and try again. This can be due to can bus excess traffic .

Re connect and clear codes when coding is complete .

caution

We would recommend that a short/quick test is carried out for all gearbox complaints and the Mercedes technical help desk is contacted before any 7-g transmission work is carried out .

Note- an engine control unit update may also be required in some instances.

Always ensure that there are **no** stored fault codes in engine control unit before carrying out SCN or control unit programming , as this could cause a programming failure.

THE FOLLOWING PAGES ONLY ARE ONLY IF YOU ARE REPLACING THE CONTROL UNIT /ELECTRIC PLATE WITH PART NUMBER 000 270 17 00

OLD UNIT MUST STILL BE FITTED TO VEHICLE

INITIAL STARTUP CHOICE

IMPORTANT! :There are two different repair options for the 7-G gearbox. It is important you select the correct repair procedure. (Complete valve body or electric plate/control unit)

- Only If the valve body has one of the following speed sensor fault codes stored or present (0717,0718,2767,2768,0722,0723) Or any of the additional fault codes (0705, 0604, 0605, 0641, 06A3, 0651, 1629, 1634, 1636, 0633, 062F, 0613, 0607, 0711, 1693, 1710, 1711, 1712, 0300, 060A, 1610, 0714, 0705, 0604, 0641, 06A3) - can you fit Sensor replacement Part.
The part number is 000-270-17-00 (and is only valid on VGS2 and VGS3 transmissions).

If other codes are present you **CANNOT** fit the repair kit.

The repair kit is also not compatible with AMG vehicles.

HELP

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PAGE 1 OF 3

INITIAL STARTUP CHOICE

- If you are replacing the whole valve body select the 'Whole valve body' option

Initial startup

start

HELP

SCREEN CAPTURE

BACK

PAGE 2 OF 2

ECU READ OF OLD UNIT

This data must be read from the old unit with speed sensor faults before new module can be fitted.

Vehicle Ident No. (VIN)

WDC1641862A0377

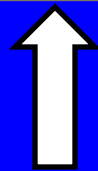
Edit

Standard VIN format

WDC1641862A037741

Data Request

Read



HELP

SCREEN
CAPTURE

BACK

The old electrics plate
/control unit
MUST still be fitted to
vehicle with solenoid
valves in place

Step 1 read old ECU data

ECU READ OF OLD UNIT

This data must be read from the old unit with speed sensor faults before new module can be fitted.

Vehicle Ident No. (VIN)

77

Edit

Standard VIN format

2A037741

Data Request

Reading data
Please wait

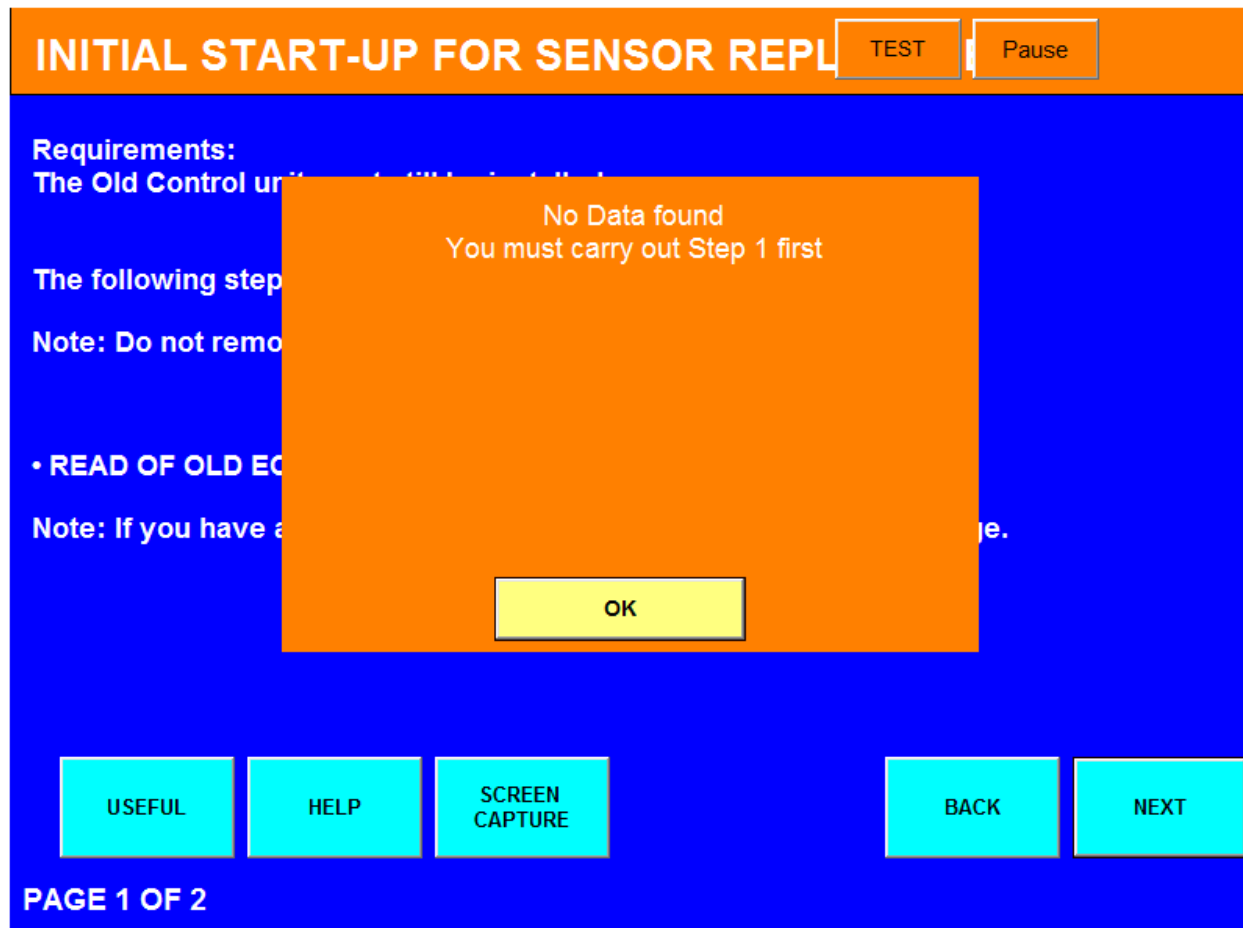
HELP

SCREEN
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Electric plate / ECU replacement

after pressing **NEXT** if **Step 1 cannot** be performed successfully, the following message will be displayed and the process will be terminated. Until a recognized step 1 data can be read from the old ECU.



Electric plate / ECU replacement

Reasons why step 1 read is important

A brand new **complete EHS valve body** may look like it arrives blank and just needs flashing and SCN coding and then all is ok. **this is not the case** .

It does in fact have some values already coded from factory: IE :the resistance and working values from the solenoid valves , and as this is done at factory it is already pre set on the new (seemingly) blank **EHS(complete valve body)**.

so if you buy an electric plate part number (000 270 17 00) this obviously could **not** be pre coded at the factory, as the working values of the solenoid valves for your vehicle are not known ,

So for **step 1** read the old ECU/electrics plate still needs to be **fitted** to the vehicle, then with autologic establish communication with transmission/initial start up / and select ECU and electrics plate repair.

In **step 1** the old working values of the solenoid valves are read and stored in autologic then remove valve body and fit new electrics plate and re write the EHS number to latest number available and then carry out rest of process.

The values that are retrieved from the old ECU in **step 1** read are **live** data values, and that is why the old valve body still has to be **fitted** to the vehicle for the values to be transferred correctly, if you just hang old unit on vehicle this will be a problem, the gear change will be not be smooth and will never adapt correctly .

Electric plate / ECU replacement

INITIAL START-UP FOR SENSOR REPLACEMENT

Requirements:

The Old Control unit must still be installed.

The following steps

Note: Do not remove

• READ OF OLD ECU

Note: If you have a

Now Remove old ECU and Fit new ECU before continuing

this process will now exit



OK

HELP

SCREEN
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NEXT

PAGE 1 OF 2

Step 1 read old ECU data

After pressing ok the autologic will close, and the valve body must be removed and the control unit /electric plate must be replaced and re-installed in the vehicle and the autologic reconnected.

Connect autologic and Then follow the initial start up menu as before.

INITIAL STARTUP CHOICE

IMPORTANT ! :There are two different processes depending on what part is to be fitted. It's important you select the correct option.

• Only If the valve body has one of the following faults 0717,0718,2767,2768,0722,0723 can you fit Sensor replacement Part (The part number is 000-270-17-00 and is only valid on VGS2 and VGS3). First of all process all other fault codes.

If other faults are present, or you cannot communicate to the old ECU you must replace the whole valve body. Select 'ECU+Electrics plate' option for this part.

• Sensor Replacement cannot be performed on the following transmissions A 220 270 10 06, A 220 270 11 06, A 220 270 12 06 and A 220 270 14 06 instead the whole valve body should be replaced.

HELP

SCREEN
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BACK

NEXT

Electric plate / ECU replacement

INITIAL START-UP FOR SENSOR REPLACEMENT

NOTE: Old ECU data should have been read and New ECU should be fitted

- WRITE EHS NUMBER (AFTER OLD ECU READ)
- CONTROL MODULE PROGRAMMING (AFTER EHS WRITE)
- WRITE DATA TO NEW ECU
- DRIVE AUTHORISATION
- SELECTOR SENSOR LEARNING PROCESS
- CYCLE IGNITION

STEP 2

STEP 3

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STEP 5

STEP 6

STEP 7

USEFUL

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PAGE 3 OF 3

Look at the EHS number original part
In this case it is (220 270 13 06) (MAKE A NOTE)

At this point you need to press **B/ EHS help** and a cross reference chart is made available for viewing.
Next page :

New EHS number should be 000 at this stage,
Or it may display just blank

Step 2 write EHS number

Step 1 must have already been performed,
Or process will be **ended** at this point.

A/ Check adjust the chassis number verification, enter the correct VIN for the vehicle.

WRITE EHS NUMBER

Note: This data must have been read from the old unit with speed sensor faults before new module can be fitted.

Vehicle Ident No. (VIN)

WDD221156222222

Edit

Standard VIN format

WDD221156222222

YOU MUST HAVE ALREADY READ THIS DATA FROM THE OLD ECU.

EHS Number from the original Part

2202701306

EHS Number from the fitted Part

0000000000

Write EHS number

Write

EHS HELP

HELP

SCREEN
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Electric plate / ECU replacement

EHS SUPERSESSION

For this the following must be observed for correct ordering:

Model 221, 209, 211, 215, 219, 220, 230 with transmission 722.901
A 220 270 18 06 replaced by
A 220 270 31 06
Model 221 with transmission 722.999
A 220 270 18 06 replaced by
A 220 270 31 06
Model 209 with transmission 722.902 and engine 642.910 up to 5/31/2007
A 220 270 21 06 replaced by
A 220 270 29 06
Model 209 with transmission 722.902 and engine 642.910 as of 6/1/2007
A 220 270 19 06 replaced by
A 220 270 32 06
Model 164, 251 with transmission 722.901
A 220 270 13 06 replaced by
A 220 270 27 06
Model 164, 203 with transmission 722.902
A 220 270 13 06 replaced by

PAGE UP

PAGE DOWN

SCROLL UP

SCROLL DOWN

TOP

QUIT

Step 2 continued:

Look up the latest EHS number from the list.

Then press quit.

If old EHS number not on the list, contact your local mercedes dealer or autologic for the latest EHS number.

WRITE EHS NUMBER

Note: This data must have been read from the old unit with speed sensor faults before new module can be fitted.

Vehicle Ident No. (VIN)

WDD221156222222

Edit

Standard VIN format

WDD2211562222222

YOU MUST HAVE ALREADY READ THIS DATA FROM THE OLD ECU.

EHS Number from the original Part

2202701306

EHS Number from the fitted Part

0000000000

Write EHS number

Write

EHS HELP

HELP

SCREEN
CAPTURE

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C

then go to **C/** write the latest EHS number from the list above.

Electric plate / ECU replacement

EHS number

2202701306

7	8	9	Backspace
4	5	6	
1	2	3	
-	0	.	

CLEAR

CANCEL

OK

Step 2 CONTINUED

After you have pressed **write** the following screen is displayed.

This screen will **always** show the old EHS number, and you will have to **overwrite** this number with the new EHS number, (from the updated list provided on previous page).

WRITE EHS NUMBER

Note: This data must have been read from the old unit with speed sensor faults before new module can be fitted.

Vehicle Ident No. ("VIN")

Standard VIN form

YOU MUST HAVE A

EHS Number from

EHS Number from

Write EHS number

The Process is now complete.
Continue on to step 3



OK

USEFUL

HELP

SCREEN
CAPTURE

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Once process is complete press ok

Step 3 ECU programming

INITIAL START-UP FOR SENSOR REPLACEMENT

NOTE: Old ECU data should have been read and New ECU should be fitted

- WRITE EHS NUMBER (AFTER OLD ECU READ)
- CONTROL MODULE PROGRAMMING (AFTER EHS WRITE)
- WRITE DATA TO NEW ECU
- DRIVE AUTHORISATION
- SELECTOR SENSOR LEARNING PROCESS
- CYCLE IGNITION

STEP 2

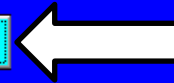
STEP 3

STEP 4

STEP 5

STEP 6

STEP 7



USEFUL

HELP

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Electric plate / ECU replacement

Control module programming

TEST

Pause

This procedure will check if there is an ECU programming update available for this variant of 7G-Tronic transmission control unit and then will update the ECU if necessary.

The procedure is as follows:

- Perform ECU programming update.
- Perform coding.

Vehicle Ident No. (VIN)

WDD2193222A11432

Edit

Begin programming procedure

Start

USEFUL

SCREEN
CAPTURE

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Edit correct chassis number and confirm .

Step 3

ECU programming

Begin procedure press start button.

Flashing is a way to update control unit software.

Flashing is only to be performed when needed, otherwise issues may arise.

Check VIN Status

Please check and correct if necessary the vehicle VIN using the 'EDIT' button below. This will be used to determine the programming file required for this variant of ETC-7G. Please note that the VIN will not be downloaded to the control module. The standard VIN format for this vehicle is displayed below. This conversion is for information only purposes and is only relevant for north american vehicles.

Vehicle ident no. (VIN)

WDD2211562A0470

Edit

Standard VIN format

WDD2211562A047091

Confirm VIN is correct

CONFIRM

Press 'CONFIRM' if the VIN is correct then press 'CONTINUE'.

SCREEN
CAPTURE

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Electric plate / ECU replacement

Check VIN Status

Please check and correct if necessary the vehicle VIN using the 'EDIT' button below. This will be used to determine the programming file required for this variant of ETC-7G. Please note that the VIN will not be downloaded to the control module. The standard VIN format for this vehicle is displayed below. This conversion is for information only purposes and is only relevant for north american vehicles.

Vehicle ident no. (VIN)

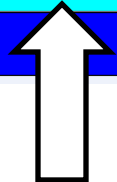
WDD2211562A0470

Standard VIN format

WDD2211562A047091

Confirm VIN is correct

Press 'CONFIRM' if the VIN is correct then press 'CONTINUE'.



Step 3

ECU programming

Check for ECU Programming Update

Current software version information ETC 7G-Tronic:-

MB Object number for hardware

033 545 73 32

MB Object number for software

Not programmed

VIN (standard form)

WDB2112702A977206

Check for ECU Programming update



Step 3 ECU programming

Check for ECU Programming Update

Current software version information ETC 7G-Tronic:-

MB Object number for hardware

MB Object number

VIN (standard form)

Check for ECU Prog

An online order has been created, please send this using the 'Orders' section in Autolink.

The update will be available to download from My Files on the website once it is ready.

OK

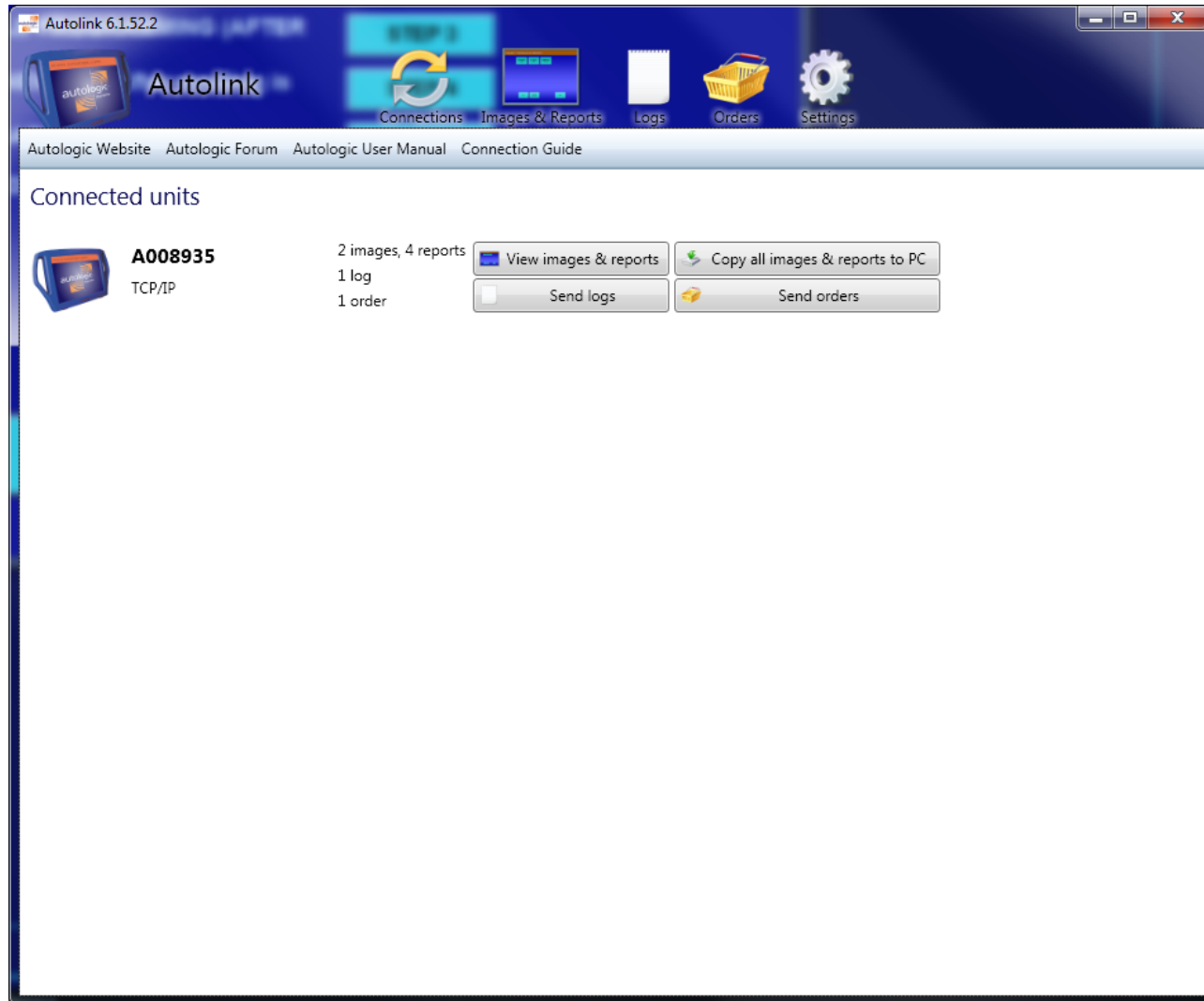
USEFUL

SCREEN CAPTURE

BACK

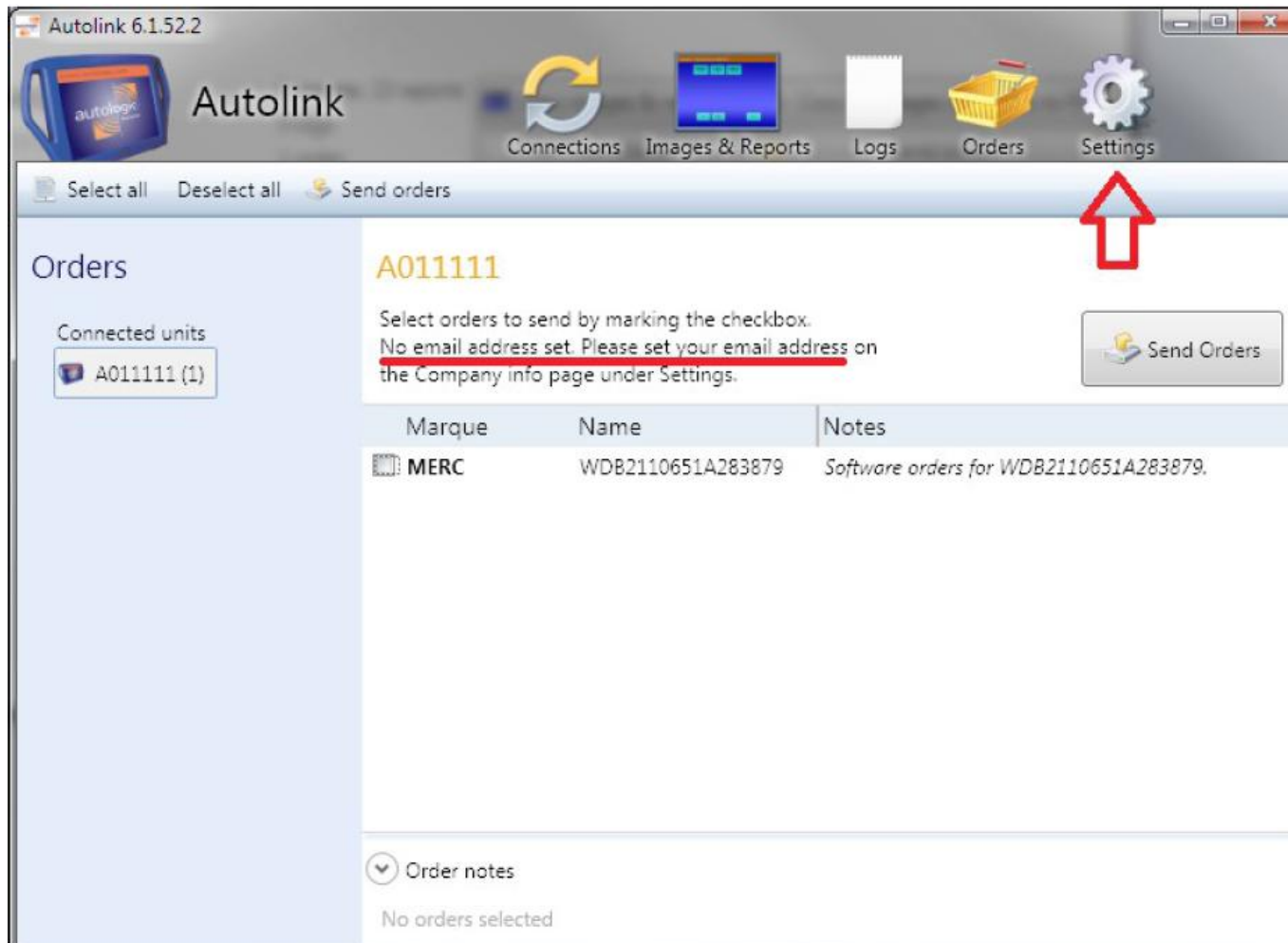
Electric plate / ECU replacement

Send Online Order using Autolink



Electric plate / ECU replacement

Send Online Order using Autolink



Please make sure your e-mail address is set up under Settings->Company Info

Electric plate / ECU replacement

Send Online Order using Autolink

Autolink 6.1.52.2

Autolink

Connections Images & Reports Logs Orders Settings

Save changes Check for update

Settings

General

Company info

Connections

Import

Print options

Company info

This information will be included when you print images or reports.

Company name
Autologic Diagnostics Ltd

Company address
Autologic House

Company email address
user@company.com

Company logo

autologic diagnostics

Change logo

1

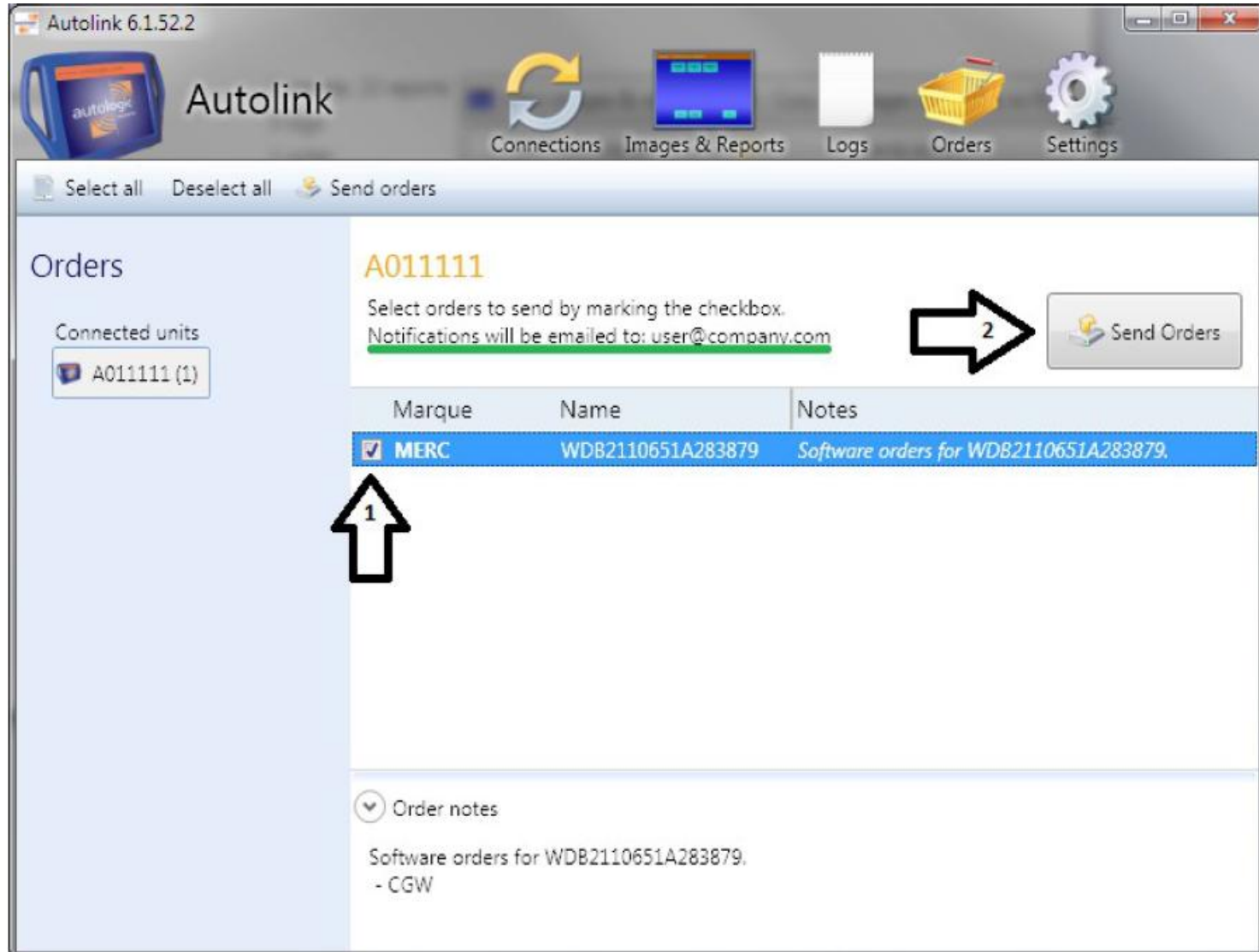
2

3

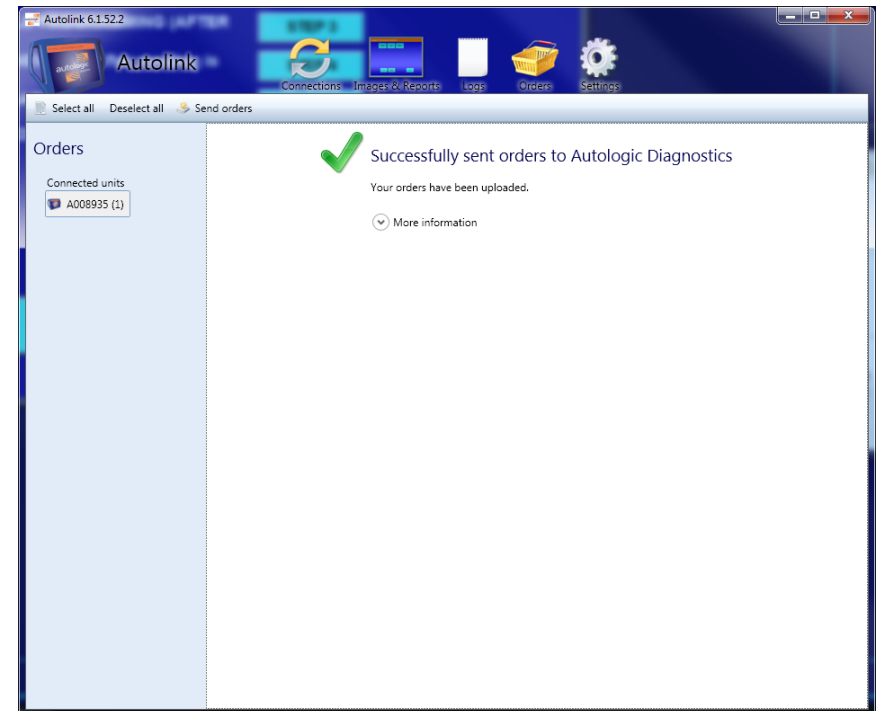
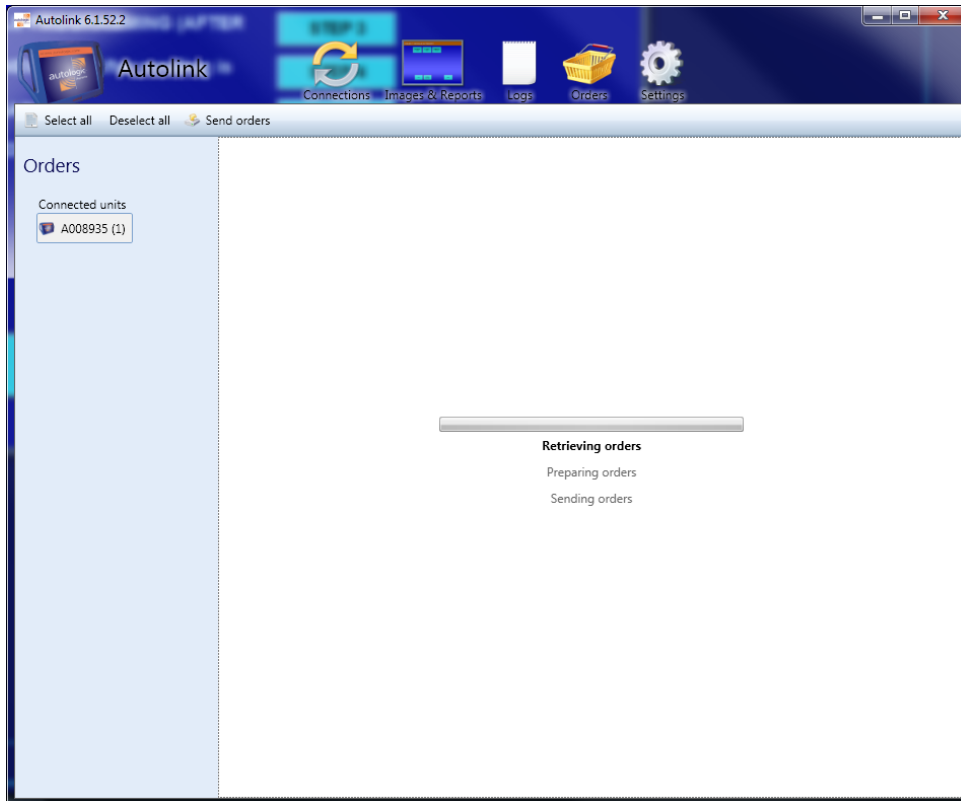
4

Electric plate / ECU replacement

Send Online Order using Autolink



Send Online Order using Autolink



Electric plate / ECU replacement

Download order update

An email will be sent to inform you that the update is ready to download under My Files.

Call your local distributor

YOU ARE LOGGED IN AS

Home/Products Technical Support and Training Information Downloads Company Overview News and Events Distribution Locations

My Files

General

BMW

Citroen and Peugeot

Jaguar

Land Rover

Mercedes-Benz

Porsche

Renault

VAG

Volvo

Autologic User Area:



My files

NAME	DESCRIPTION
ORDER_WDB2110651A283879	Software update for: WDB2110651A283879. (26/06/2013 at 11:36)



Step 3 ECU programming

INITIAL START-UP FOR SENSOR REPLACEMENT

NOTE: Old ECU data should have been read and New ECU should be fitted

- WRITE EHS NUMBER (AFTER OLD ECU READ)
- CONTROL MODULE PROGRAMMING (AFTER EHS WRITE)
- WRITE DATA TO NEW ECU
- DRIVE AUTHORISATION
- SELECTOR SENSOR LEARNING PROCESS
- CYCLE IGNITION

STEP 2

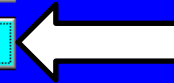
STEP 3

STEP 4

STEP 5

STEP 6

STEP 7



USEFUL

HELP

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BACK

Electric plate / ECU replacement

Control module programming TEST Pause

This procedure will check if there is an ECU programming update available for this variant of 7G-Tronic transmission control unit and then will update the ECU if necessary.

The procedure is as follows:

- Perform ECU programming update.
- Perform coding.

Vehicle Ident No. (VIN) WDD2193222A11432 Edit

Begin programming procedure Start

USEFUL SCREEN CAPTURE BACK

Edit correct chassis number and confirm .

Step 3

ECU programming

Begin procedure press start button.

Flashing is a way to update control unit software.

Flashing is only to be performed when needed, otherwise issues may arise.

Check VIN Status

Please check and correct if necessary the vehicle VIN using the 'EDIT' button below. This will be used to determine the programming file required for this variant of ETC-7G. Please note that the VIN will not be downloaded to the control module. The standard VIN format for this vehicle is displayed below. This conversion is for information only purposes and is only relevant for north american vehicles.

Vehicle ident no. (VIN) WDD2211562A0470 Edit

Standard VIN format WDD2211562A047091

Confirm VIN is correct CONFIRM

Press 'CONFIRM' if the VIN is correct then press 'CONTINUE'.

SCREEN CAPTURE BACK

Electric plate / ECU replacement

Check VIN Status

Please check and correct if necessary the vehicle VIN using the 'EDIT' button below. This will be used to determine the programming file required for this variant of ETC-7G. Please note that the VIN will not be downloaded to the control module. The standard VIN format for this vehicle is displayed below. This conversion is for information only purposes and is only relevant for north american vehicles.

Vehicle ident no. (VIN)

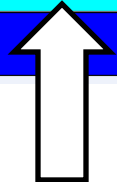
WDD2211562A0470

Standard VIN format

WDD2211562A047091

Confirm VIN is correct

Press 'CONFIRM' if the VIN is correct then press 'CONTINUE'.



Step 3

ECU programming

Check for ECU Programming Update

Current software version information ETC 7G-Tronic:-

MB Object number for hardware

033 545 73 32

MB Object number for software

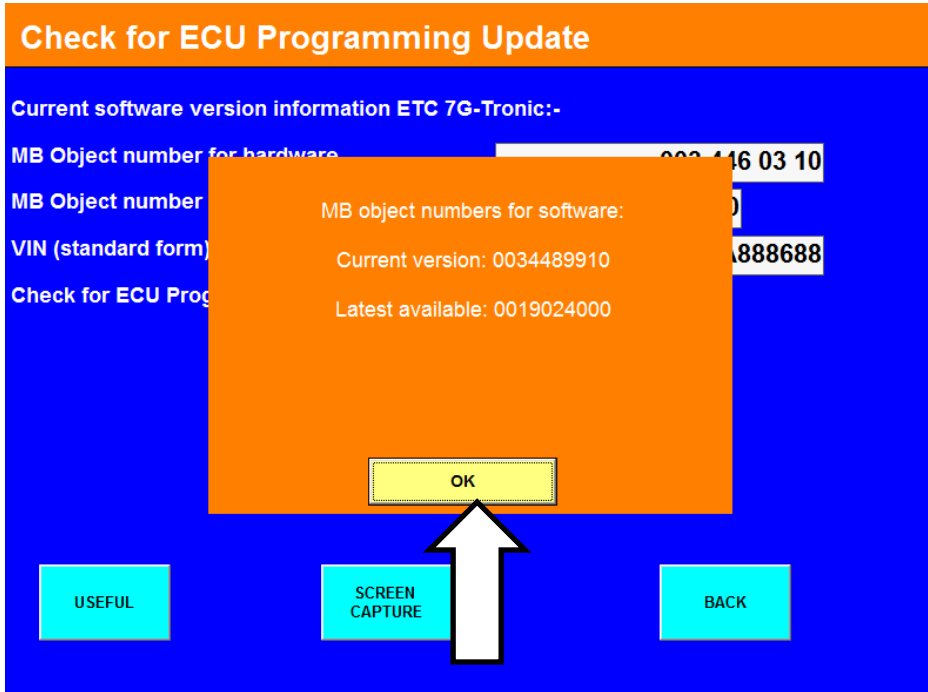
Not programmed

VIN (standard form)

WDB2112702A977206

Check for ECU Programming update

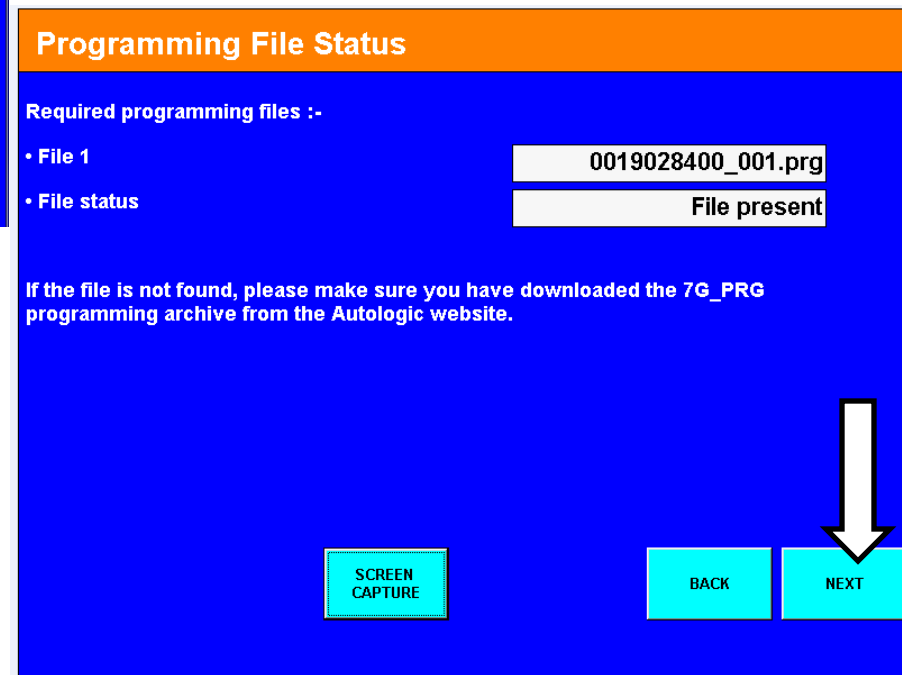




Remember a stable voltage is required Whilst flashing and SCN coding the control unit (failure to have stable voltage could result in failure and possible rendering the control unit un serviceable.

Step 3 ECU programming

When the flash file is known to autologic the sequence /screen shots are as follows.



Electric plate / ECU replacement

Perform ECU Programming

The required programming files are present on the Autologic.

WARNING:

Sufficient voltage must be available throughout the procedure. Connect a vehicle battery charger if necessary. A drop in supply voltage during programming could damage the control module beyond repair. Once begun, do not interrupt the programming procedure under any circumstances as this could lead to permanent damage to the control module.

To begin programming the ETC 7G-Tronic control module press the 'Start' button below.

Start programming

Start

USEFUL

HELP

SCREEN
CAPTURE

BACK

Step 3

SD flash programming

Perform ECU Programming

The required programming files are present on the Autologic.

WARNING:

Sufficient voltage must be available throughout the procedure. Connect a vehicle battery charger if necessary. A drop in supply voltage during programming could damage the control module beyond repair. Once begun, do not interrupt the programming procedure under any circumstances as this could lead to permanent damage to the control module.

To begin programming the ETC 7G-Tronic control module press the 'Start' button below.

Start programming

WARNING!

It is absolutely essential that a good vehicle battery charger / power supply is attached to the vehicle and the Autologic is powered by it's mains adapter.

Failure to do this may result in ECU programming failing and the control module may sustain permanent damage!

When connected click 'OK' to continue.

OK

USEFUL

HELP

SCREEN
CAPTURE

BACK

Electric plate / ECU replacement

Perform ECU Programming

The required programming files are present on the Autologic.

WARNING:
Sufficient voltage n
vehicle battery cha
programming could
do not interrupt the
this could lead to p

ECU programming is about to begin
You will see several progress bars during
programming and will get a confirmation message
when the procedure has completed.

Click 'Continue' to begin programming or 'Cancel' to
exit the procedure.



Continue

Cancel

To begin programm
button below.

Start programming

USEFUL

HELP

SCREEN
CAPTURE

BACK

Step 3

ECU programming

Perform ECU Programming

The required programming files are present on the Autologic.

WARNING:
Sufficient voltage n
vehicle battery cha
programming could
do not interrupt the
this could lead to p

Multi block ECU programming is being carried out
Software version: 0019024000

To begin
button be

Start prog

Programming is being carried out.
Please wait..



USEFUL

Electric plate / ECU replacement

Perform SDFlash Programming

The required programming files are present on the Autologic®.

WARNING :-
Sufficient voltage in
vehicle battery charge
programming could
do not interrupt the
this could lead to p

Programming is being finalized
Please wait.

To begin programming
button below.

Start programming

HELP

SCREEN
CAPTURE

BACK

Step 3

When ECU programming is **complete**
CODING will be performed

Perform ECU Programming

The required programming files are present on the Autologic®.

WARNING:
Sufficient voltage in
vehicle battery charge
programming could
do not interrupt the
this could lead to p

Programming is complete
Coding will now be carried out

To begin programming
button below.

Start programming

OK

USEFUL

HELP

SCREEN
CAPTURE

BACK

Electric plate / ECU replacement

Step 3 Coding

Perform ECU Programming

The required programming files are present on the Autologic.

WARNING:

Sufficient voltage must be maintained on the vehicle battery during programming. If the battery voltage drops or the programming is interrupted, this could lead to permanent damage to the ECU.

To begin programming, click the 'Start programming' button below.

Start programming

USEFUL

HELP

SCREEN
CAPTURE

BACK

Perform ECU Programming

The required programming files are present on the Autologic.

WARNING:

Sufficient voltage must be maintained on the vehicle battery during programming. If the battery voltage drops or the programming is interrupted, this could lead to permanent damage to the ECU.

To begin programming, click the 'Start programming' button below.

Start programming

OK

USEFUL

HELP

SCREEN
CAPTURE

BACK

Step 3 Coding

Perform ECU Programming

The required programming files are present on the Autologic.

WARNING:

Sufficient voltage must be maintained on the vehicle battery during programming. Interruption of power during programming could lead to damage to the ECU.

To begin programming, press the button below.

Start programming

Coding has completed successfully.

Press 'OK' to continue.

OK

USEFUL

HELP

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CAPTURE

BACK

Electric plate / ECU replacement

INITIAL START-UP FOR SENSOR REPLACEMENT

NOTE: Old ECU data should have been read and New ECU should be fitted

- WRITE EHS NUMBER (AFTER OLD ECU READ)
- CONTROL MODULE PROGRAMMING (AFTER EHS WRITE)
- WRITE DATA TO NEW ECU
- DRIVE AUTHORISATION
- SELECTOR SENSOR LEARNING PROCESS
- CYCLE IGNITION

STEP 2

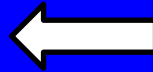
STEP 3

STEP 4

STEP 5

STEP 6

STEP 7



Step 4

This writes the adaption data from the old control unit stored in step 1 into the new control unit

USEFUL

HELP

SCREEN
CAPTURE

BACK

PAGE 3 OF 3

Values transferred in **step 4** consist of
(the working and resistance values of the solenoid valves Stored from step 1)

Electric plate / ECU replacement

DATA WRITE

Note: This data must have been read from the old unit with speed sensor faults before new module can be fitted.

Vehicle Ident No. (VIN)

WDC1641862A0377

Edit

Standard VIN format

WDC1641862A037741

You must have already Read this data From the OLD ECU.

Write Old data to the new unit

Write

HELP

SCREEN
CAPTURE

BACK

Step 4

This writes the data stored in step 1 into the new control unit(working and resistance values of the solenoid valves).

DATA WRITE

Note: This data must have been read from the old unit with speed sensor faults before new module can be fitted.

Vehicle Ident No. (VIN)

77

Edit

Standard VIN format

2A037741

You must have already

Write Old data to the

Communicating
Please wait

HELP

SCREEN
CAPTURE

BACK

Step 4

This writes the data stored in step 1 into the new control unit(working and resistance values of the solenoid valves).

DATA WRITE

Note: This data must have been read from the old unit with speed sensor faults before new module can be fitted.


Vehicle Ident No. (VIN)

Standard VIN format

You must have already read the data from the old unit.

Write Old data to the new unit

This Process is complete
Continue on to next step



OK

DRIVE AUTHORISATION step 5

INITIAL START-UP FOR SENSOR REPLACEMENT

NOTE: Old ECU data should have been read and New ECU should be fitted

- WRITE EHS NUMBER (AFTER OLD ECU READ)
- CONTROL MODULE PROGRAMMING (AFTER EHS WRITE)
- WRITE DATA TO NEW ECU
- DRIVE AUTHORISATION
- SELECTOR SENSOR LEARNING PROCESS
- CYCLE IGNITION

STEP 2

STEP 3

STEP 4

STEP 5

STEP 6

STEP 7

USEFUL

HELP

SCREEN
CAPTURE

BACK

PAGE 3 OF 3

DRIVE AUTHORISATION

TEST

Pause

INSTRUCTIONS:

Press the 'START DAS' button to begin the Driver Authorisation System (DAS).

Transport protection detached

NO

Personalised

NO

Activated

NO

Enabled

NO

START DAS

USEFUL

HELP

SCREEN
CAPTURE

BACK

Electric plate / ECU replacement

DRIVE AUTHORISATION step 5

DRIVE AUTHORISATION

TESTPause

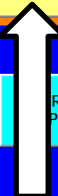
INSTRUCTIONS:
Press the 'START DAS' button to begin the Driver Authorisation System (DAS).

Transport protection
Personalised
Activated
Enabled

Do you wish to detach the transport protection and personalise the control unit ETC

ContinueCancel

USEFULHELPSCREEN CAPTUREBACK



DRIVE AUTHORISATION

TESTPause

INSTRUCTIONS:
Press the 'START DAS' button to begin the Driver Authorisation System (DAS).

Transport protection
Personalised
Activated
Enabled

Transport Protection is being detached.
Please wait

USEFULHELPSCREEN CAPTUREBACK

Electric plate / ECU replacement

DRIVE AUTHORISATION step 5

DRIVE AUTHORISATION

TESTPause

INSTRUCTIONS:
Press the 'START DAS' button to begin the Driver Authorisation System (DAS).

Transport protection
Personalised
Activated
Enabled

TRANSPORT PROTECTION IS REMOVED
Do you wish to personalise control unit ETC

ContinueCancel

USEFULHELPSCREEN CAPTUREBACK

DRIVE AUTHORISATION

TESTPause

INSTRUCTIONS:
Press the 'START DAS' button to begin the Driver Authorisation System (DAS).

Transport protection
Personalised
Activated
Enabled

Do you wish to activate control unit ETC
This process will permanently interlock this control module to this vehicle.
Press 'Continue' to perform the interlocking process

ContinueCancel

USEFULHELPSCREEN CAPTUREBACK

DRIVE AUTHORISATION step 5

DRIVE AUTHORISATION

TESTPause

INSTRUCTIONS:
Press the 'START DAS' button to begin the Driver Authorisation System (DAS).

Transport protection detached	YES
Personalised	YES
Activated	YES
Enabled	YES

START DAS

USEFULHELPSCREEN CAPTURE

BACK

Selector sensor learning process Step 6

INITIAL START-UP FOR SENSOR REPLACEMENT

NOTE: Old ECU data should have been read and New ECU should be fitted

- WRITE EHS NUMBER (AFTER OLD ECU READ)
- CONTROL MODULE PROGRAMMING (AFTER EHS WRITE)
- WRITE DATA TO NEW ECU
- DRIVE AUTHORISATION
- SELECTOR SENSOR LEARNING PROCESS
- CYCLE IGNITION

STEP 2

STEP 3

STEP 4

STEP 5

STEP 6

STEP 7

USEFUL

HELP

SCREEN CAPTURE

BACK

PAGE 3 OF 3

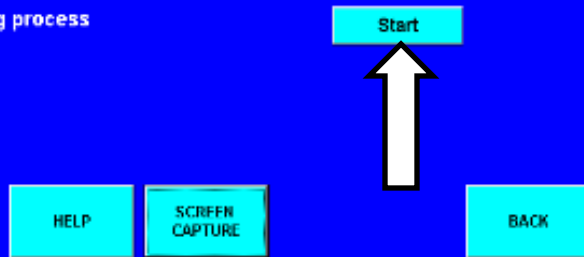
Once ok has been pressed you will be asked to place selector lever in various positions,
starting with park –reverse-neutral- drive - and process complete message .

SELECTOR SENSOR LEARNING PROCESS

Important note: Secure vehicle to prevent it moving away.

- This procedure teaches in the vgs selector range sensor (Y3/8S1).
- Follow the guided steps and place the gear selector in the required gear when instructed to. Placement of the selector in an incorrect gear during this teaching process will result in an incorrectly taught transmission, and the procedure will need to be restarted for correct calibration.

Initiate learning process



Selector sensor learning process

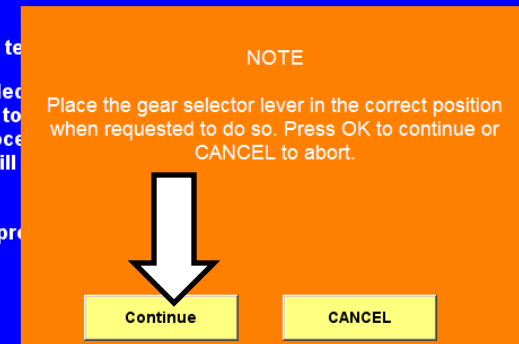
Step 6

Selector Sensor Learning Process

Important note: Secure vehicle to prevent it moving away.

- This procedure teaches in the vgs selector range sensor (Y3/8S1).
- Follow the guided steps and place the gear selector in the required gear when instructed to. Placement of the selector in an incorrect gear during this teaching process will result in an incorrectly taught transmission, and the procedure will need to be restarted for correct calibration.

Initiate learning process



Once ok has been pressed you will be asked to place selector lever in various positions, starting with park –reverse-neutral- drive - and process complete message .

Electric plate / ECU replacement

Selector Sensor Learning Process

Important note: Secure vehicle to prevent it moving away.

- This procedure teaches the gear selector sensor.
- Follow the guided instructions when instructed to perform this teaching procedure and the procedure will complete.

Place the gear selector in position 'P' and press OK to continue



OK

HELP

SCREEN
CAPTURE

BACK

Selector sensor learning process Step 6

Selector Sensor Learning Process

Important note: Secure vehicle to prevent it moving away.

- This procedure teaches the gear selector sensor.
- Follow the guided instructions when instructed to perform this teaching procedure and the procedure will complete.

Place the gear selector in position 'R' and press OK to continue



OK

HELP

SCREEN
CAPTURE

BACK

Electric plate / ECU replacement

Selector Sensor Learning Process

Important note: Secure vehicle to prevent it moving away.

- This procedure teaches the gear selector sensor.
- Follow the guided procedure when instructed to initiate this teaching process. If the procedure will fail, the procedure will display an error message.

Initiate learning process

Place the gear selector in position 'N' and press OK



OK

HELP

SCREEN
CAPTURE

BACK

Selector sensor learning process Step 6

Selector Sensor Learning Process

Important note: Secure vehicle to prevent it moving away.

- This procedure teaches the gear selector sensor.
- Follow the guided procedure when instructed to initiate this teaching process. If the procedure will fail, the procedure will display an error message.

Initiate learning process

Place the gear selector in position 'D' and press OK



OK

HELP

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CAPTURE

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Electric plate / ECU replacement

Selector Sensor Learning Process

Important note: Secure vehicle to prevent it moving away.

- This procedure te
- Follow the guided
- when instructed to
- this teaching proce
- the procedure will

Initiate learning pro

Saving data

Please wait

ear
ing
and

HELP

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BACK

Selector sensor learning
process
Complete

Selector sensor learning process Step 6

Selector Sensor Learning Process

Important note: Secure vehicle to prevent it moving away.

- This procedure te
- Follow the guided
- when instructed to
- this teaching proce
- the procedure will

Initiate learning pro

Learning process complete

ear
ing
and



OK

HELP

SCREEN
CAPTURE

BACK

Electric plate / ECU replacement

cycle ignition step 7

Initial Startup

Requirements:
Control unit must have already been installed.

The following step

- CONTROL MODU
- SCN CODING
- DRIVE AUTHORIS
- SELECTOR SENS
- CYCLE IGNITION

Turn Off Ignition
Then Click OK To Continue.

OK

HELP SCREEN CAPTURE BACK

Initial Startup

Requirements:
Control unit must have already been installed.

The following step

- CONTROL MODU
- SCN CODING
- DRIVE AUTHORIS
- SELECTOR SENS
- CYCLE IGNITION

Turn On Ignition
Then Click OK To Continue.

OK

HELP SCREEN CAPTURE BACK

Initial Startup

Requirements:
Control unit must have already been installed.

The following step

- CONTROL MODU
- SCN CODING
- DRIVE AUTHORIS
- SELECTOR SENS
- CYCLE IGNITION

Cycle of ignition is complete

OK

HELP SCREEN CAPTURE BACK

Clear error codes in vehicle and carry out gear change adaptation road test. After smooth changes adapted, the process is complete.

END OF ELECTRIC PLATE /CONTROL UNIT CODING INFORMATION

VGS 1 termination of programming

When trying to fit a new electric plate to an old valve body this is only possible if the old EHS is **not** a **VGS 1** valve body. VGS 1 part numbers **A 220 270 12 06** or **A 220 270 14 06** or **A220 270 10 06** or **A220 270 11 06** (any of these numbers are a **VGS 1** EHS controller)
The autologic will automatically check this (**at step 1**) when you select ECU and electric plate repair at step 1 it will automatically check and if it is found to be VGS 1 then the following messages will occur , and the programming will be terminated.

INITIAL STARTUP CHOICE

IMPORTANT ! :There are two different processes depending on what part is to be fitted. It's important you select the correct option.

- Only If the valve body has one of the following faults 0717,0718,2767,2768,0722,0723 can you fit Sensor replacement Part (The part number is 000-270-17-00 and is only valid on VGS2 and VGS3). First of all process all other fault codes. If other faults are present, or you cannot communicate to the old ECU you must replace the whole valve body. Select 'ECU+Electrics plate' option for this part.
- Sensor Replacement cannot be performed on the following transmissions A 220 270 10 06, A 220 270 11 06, A 220 270 12 06 and A 220 270 14 06 instead the whole valve body should be replaced.

HELP

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NEXT

INITIAL STARTUP CHOICE 2

IMPORTANT ! :There are two different processes depending on what part is to be fitted. It's important you select the correct option.

- Only If the valve body has one of the following faults 0717,0718,2767,2768,0722,0723 can you fit Sensor replacement Part (The part number is 000-270-17-00 and is only valid on VGS2 and VGS3). First of all process all other fault codes. If other faults are present, or you cannot communicate to the old ECU you must replace the whole valve body. Select 'ECU+Electrics plate' option for this part.
- If you are replacing the whole valve body' option

Initial startup

What are you installing



ECU+Electrics
plate

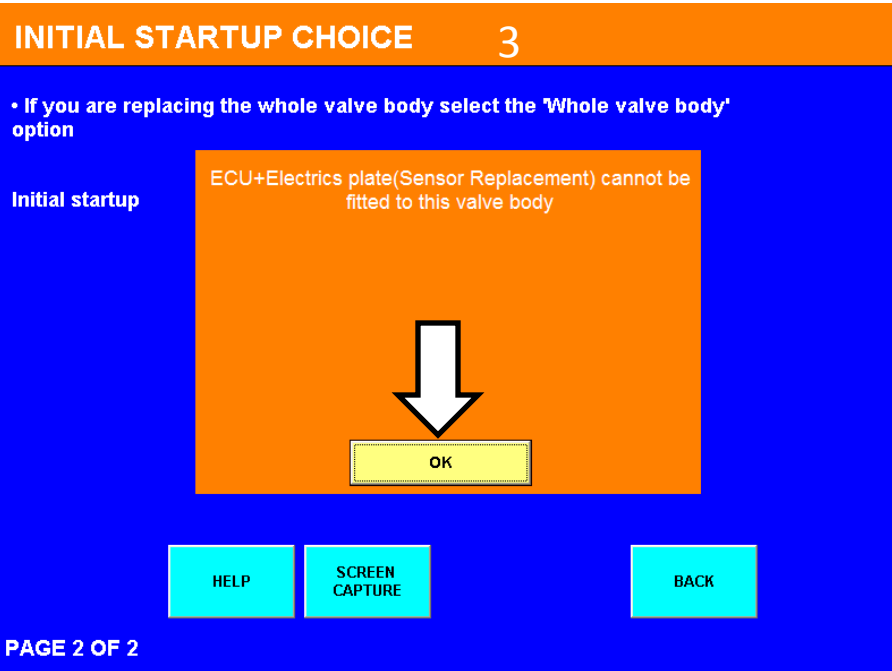
Whole valve
body

HELP

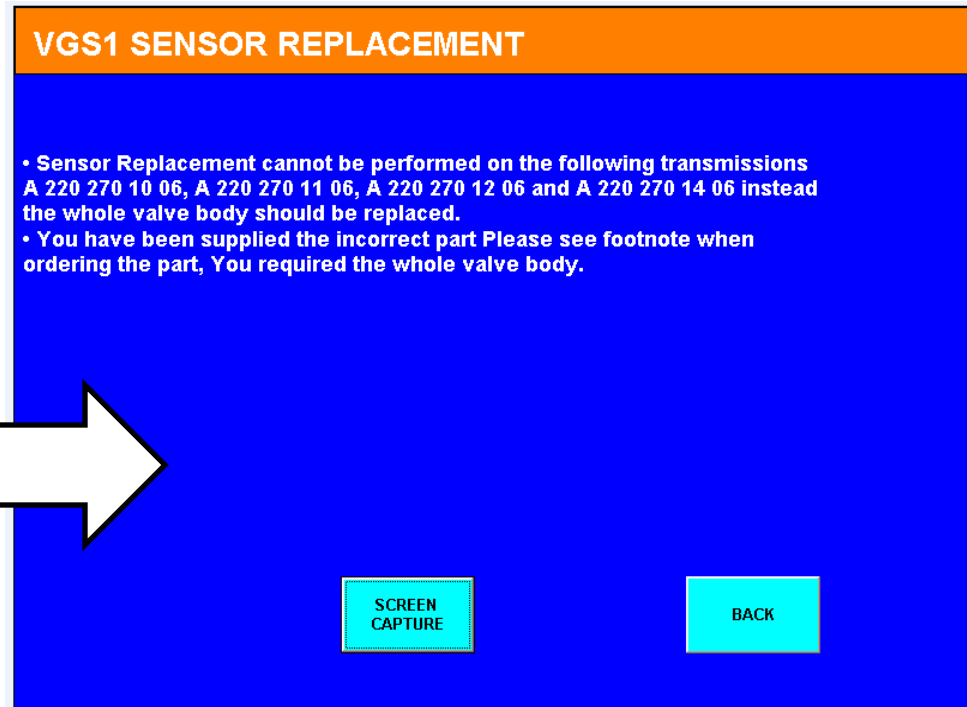
SCREEN
CAPTURE

BACK

Possible problems when coding



VGS 1 termination of programming continued



This means the only option you have is to fit a new complete valve body

7-g information

- 1/ To qualify for an electric plate only repair the vehicle must only have a speed sensor code of one or more of the following codes **0717-0718-0722-0723-2767-2768** Or any of the following fault codes (are also now included). **0705, 0604, 0605, 0641, 06A3, 0651, 1629, 1634, 1636, 0633, 062F, 0613, 0607, 0711, 1693, 1710, 1711, 1712, 0300, 060A, 1610, 0714, 0705, 0604, 0641, 06A3** - can you fit an **electric plate/control unit replacement part** .
- 2/ If you **cannot** communicate with the old ECU you need to **fit a complete valve body**.
The repair kit is also **not** compatible with **AMG** vehicles.
- 3/ The EHS numbers **220 270 12 06 and 220 270 14 06 or A220 270 10 06 or A220 270 11 06** are all VGS 1 boxes and therefore do not come under the electrics plate repair as VGS 1 boxes are not compatible with the new plate
so if you had a VGS 2 or a VGS 3 box > 2005 onwards then all should be ok(these can be seen on page 2 of control unit version page with autologic)
- 4/ make sure a **stable** voltage is present throughout the coding procedure (a battery charger is recommended).

5/ The brand new complete EHS valve body looks like it comes blank and just needs flashing and SCN coding and then all is ok. this is not the case ,
in fact it does have some values in from factory: IE :the resistance and working values from the solenoid valves , and as this is done at factory it is already pre set on the new (seemingly) blank EHS(complete valve body)
if you purchase a new electric plate (000 270 17 00) this obviously cannot be pre coded at factory as the working values of the solenoid valves for your vehicle are not known , so the Old ECU still needs to be fitted to the vehicle, then with autologic on vehicle establish communication with transmission/initial start up / and select ECU and electrics plate repair. In step 1/ (read data) with autologic the old working values of the solenoid values are read and stored in autologic then remove valve body and fit the new electrics plate and re write the EHS number to latest number available and then carry out rest of process on autologic. it seems the values that are retrieved from the old ECU are live data, and that is why the old valve body still has to be fitted to the vehicle for the values to be transferred correctly, if you just hang old unit on vehicle(with no solenoid valves fitted) this will transfer corrupt data and the gear change will be very harsh and unacceptable when programming is complete. And will not adapt it self even if driven for a few weeks.

Possible problems when coding

note: If you ever have a problem after flashing the EHS(valve body) or a electrics plate repair and you are not sure if the process has completed correctly ? (even if it seems to have completed the process via autologic)) a good way to check is have a look in actual values for gearbox and look at the transmission oil temperature, if the temp displayed is (**minus 50 degrees**) then something is wrong with the coding or it has not completed correctly.

(**note** : this is only possible to check when all the 5 steps have been completed).

Oil level check

Transmission oil temperature (°C)	-50
Actual gear	p
Target gear	p

HELP SCREEN CAPTURE BACK

It is also worth remembering that the control unit/ electric plate is coded to the vehicle and cannot be transferred to other vehicles once assigned to a vehicle .

New 7-g transmission

From June 2010 a modified 7-g transmission came into production.

This modified transmission requires a new transmission oil part number 001 989 78 03

This oil is a different colour from the older 7-g transmission

New oil = A 001 989 78 03 **this new oil is blue in colour**

Old oil = A001 989 68 03 **old oil is red in colour**

Note: the oils are **not** interchangeable

The two transmission types can be visually identified by the following :

1/ The New 7-g has 4x large moulded indent marks in underside of sump pan ,

In comparison the old type has 4 x smaller indents.

New 7-g transmission

2/ the front section of the new 7-g sump pan has two raised sections for cable brackets (as photo) which also makes it easier to identify.

3/ the new transmission also has a different internal filler pipe
new type which is green in colour

The old type was white in colour

New 7-g transmission

After carrying out the gearbox programming when replacing the 7-G control unit or just updating the programming in the original 7-G control unit, it is possible to have a current and stored fault in the transmission.

Code

061B the internal torque computation performed in component y3/8n4 is faulty (This can be a current and stored fault code, in transmission control unit).

Reason: the torque interfaces of the engine control unit and the transmission control unit are not suited to each other. Torque control is not possible.

Remedy : flash and SCN code the engine ECU with new programming files.

Note: even if no newer software is found for the engine ECU, the SCN coding should still be performed and fault codes deleted .

This fault mainly occurs on petrol vehicles ,

End of information