



EXTRATOOL UTILITY FOR BMW AND MINI

CONTENT

- Intro
- Setup
- How-to use
- Diagnostic examples
- Feedback

INTRO

Works with F/G series BMW/Mini cars. With ExtaTool you can do next:

- Read/clear DTC
- Disable/enable Valvetronic
- Disable/enable Xdrive
- Disable/enable EGR valve on diesel engines
- Read ZF automatic transmission adaptation values
- Open/close radiator flaps / Activate fuel pump up to 20 minutes
- Service / customer mode for rear brakes and EHC / Change air suspension level
- Check FRM / Very fast battery registration / reset BDC
- Simulate KL15 "Ignition ON" to diagnose ECU on the table
- Disable/enable wideband O2 sensor in next release

SETUP

- Any Android mobile phone with Android version more than 5.0
- ELM 327 Bluetooth adapter
- Android Play Market
- Active Google account on your phone

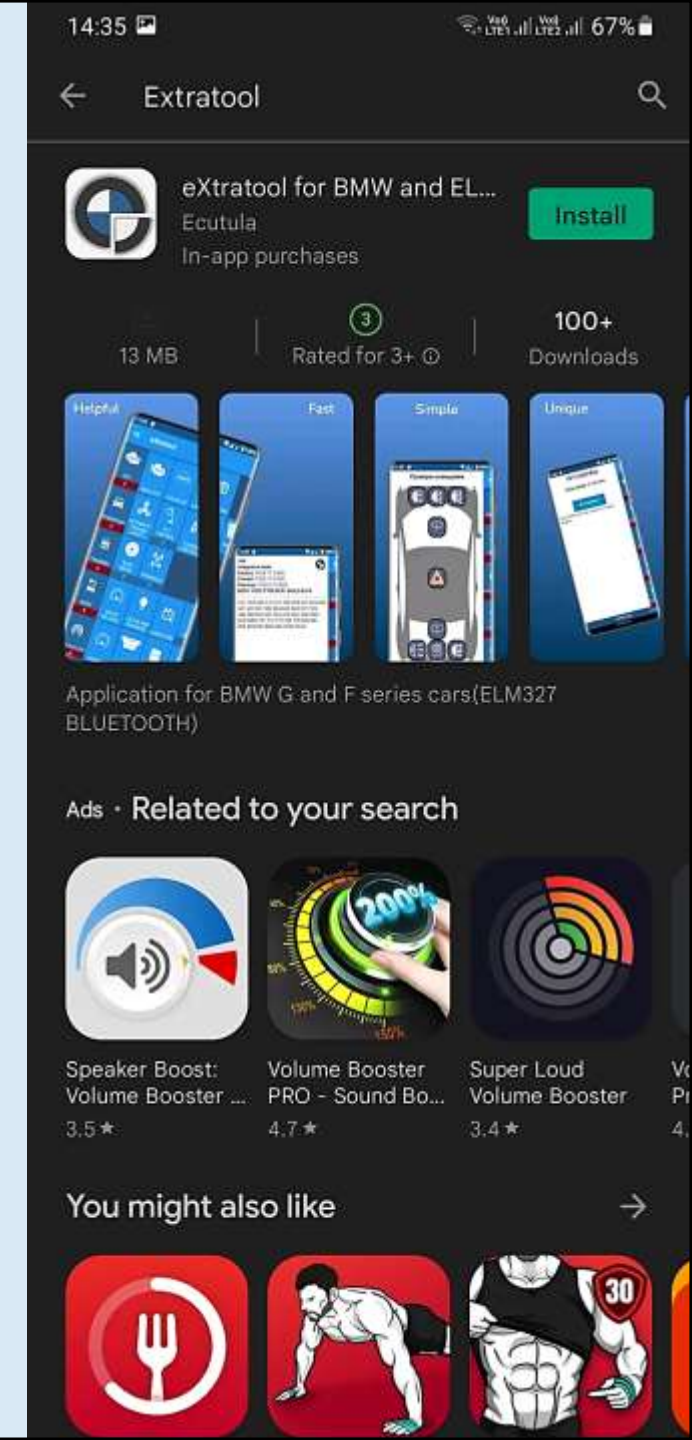
SETUP. ELM327

- ELM 327 Bluetooth adapter
- OBDLink Bluetooth adapter
- Pair your adapter with your phone



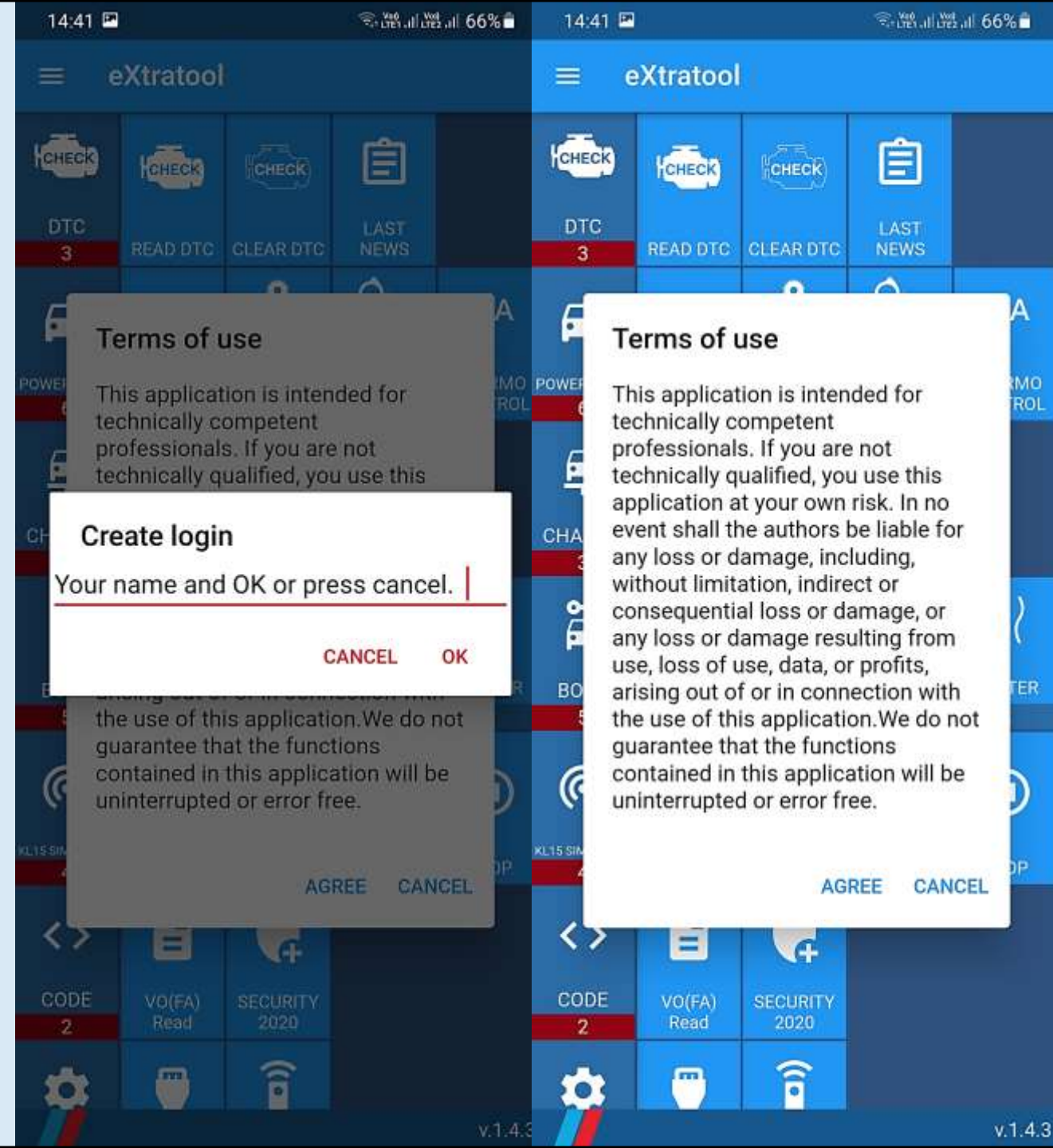
SETUP. INSTALL SOFTWARE

- Make sure you have active Internet connection
- Open Google Play Store on your mobile phone
- Type ExtaTool in search field
- Press Install



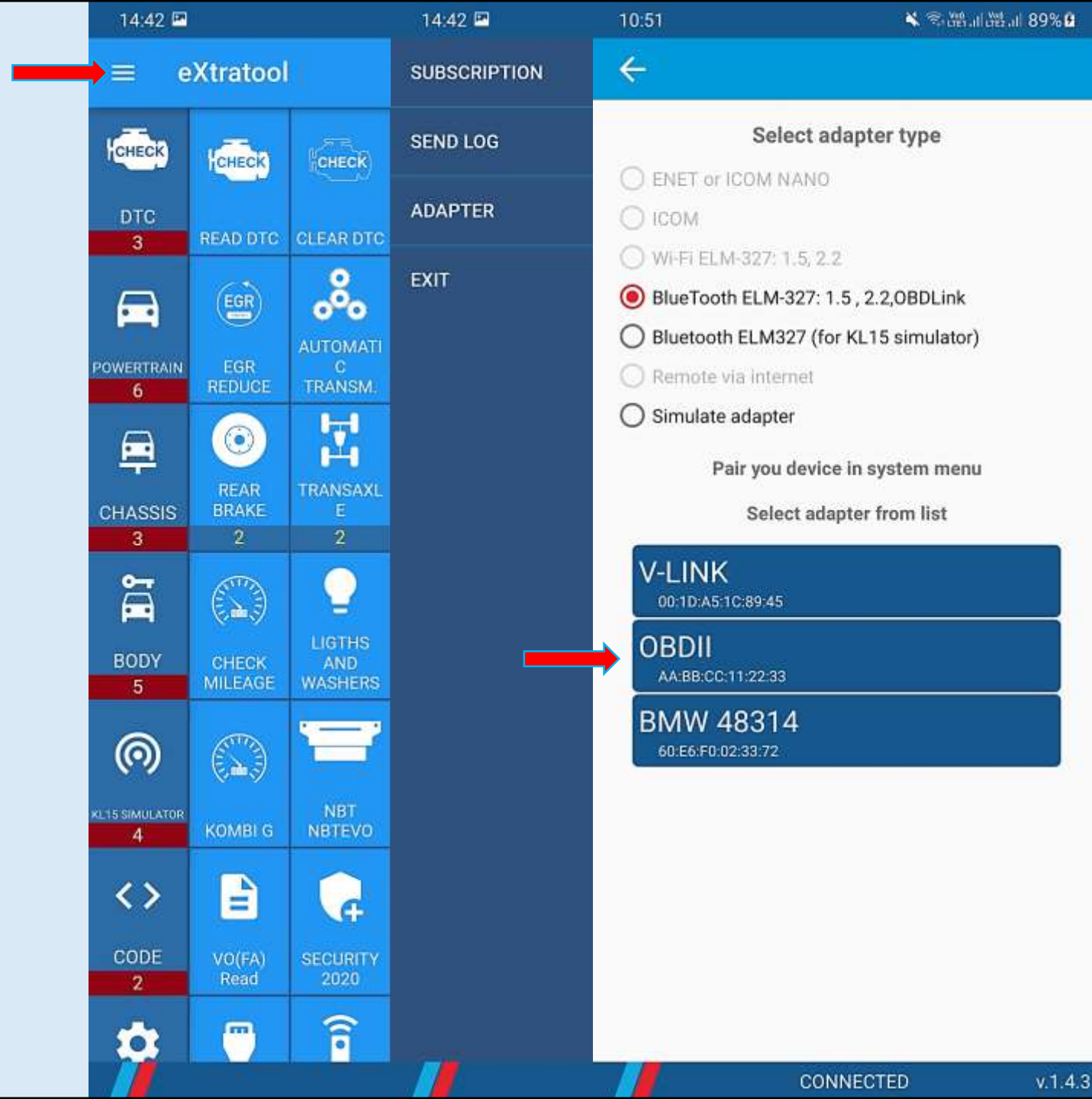
ACTIVATE SOFTWARE

- Open ExtaTool
- Enter Your name and OK or press Cancel
- Press Agree



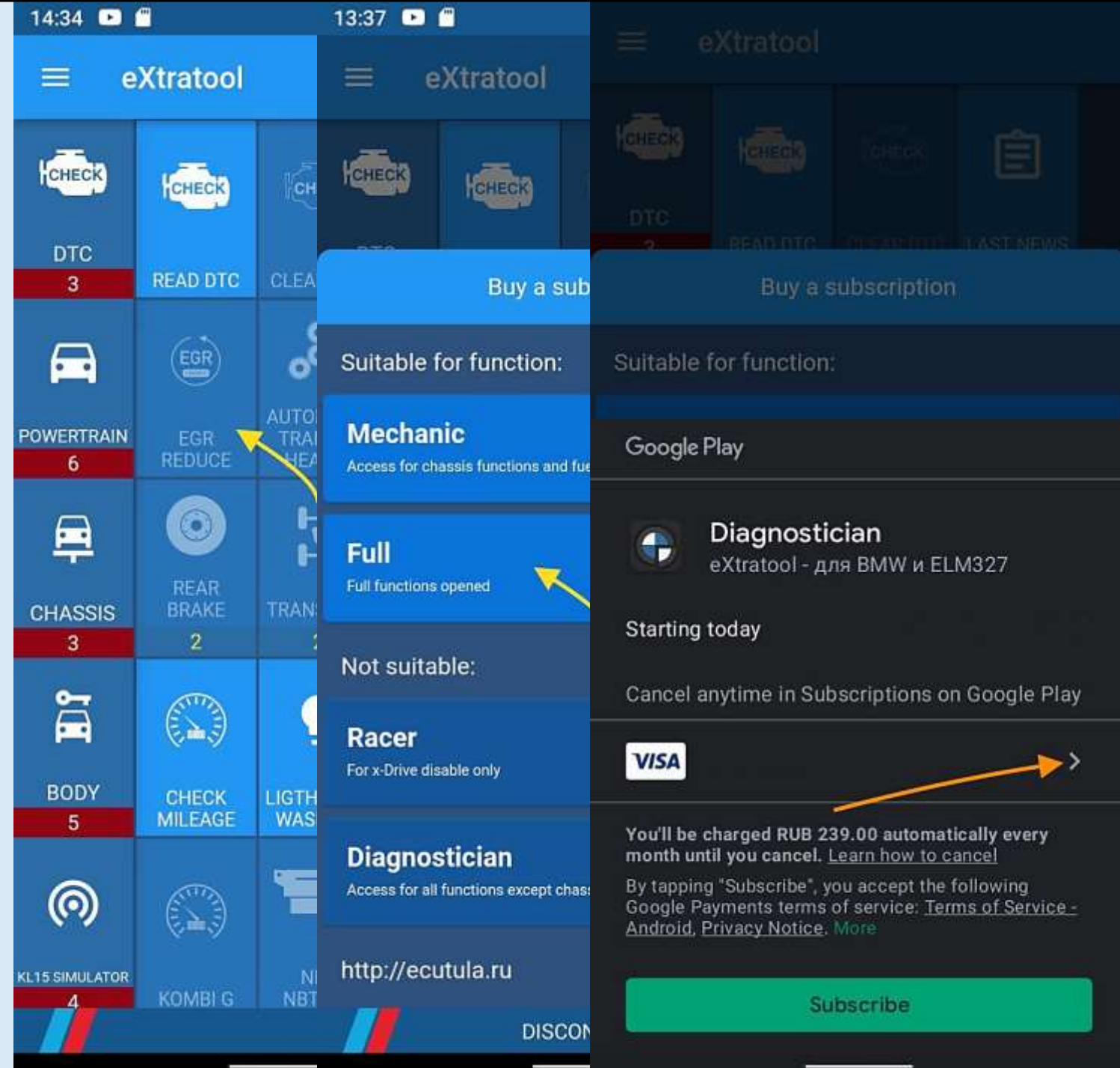
ACTIVATE SOFTWARE

- Go to Setting
- Press Adapter
- Press Bluetooth ELM / OBDLink
- Select / tap Your Adapter from the list
- Press Back



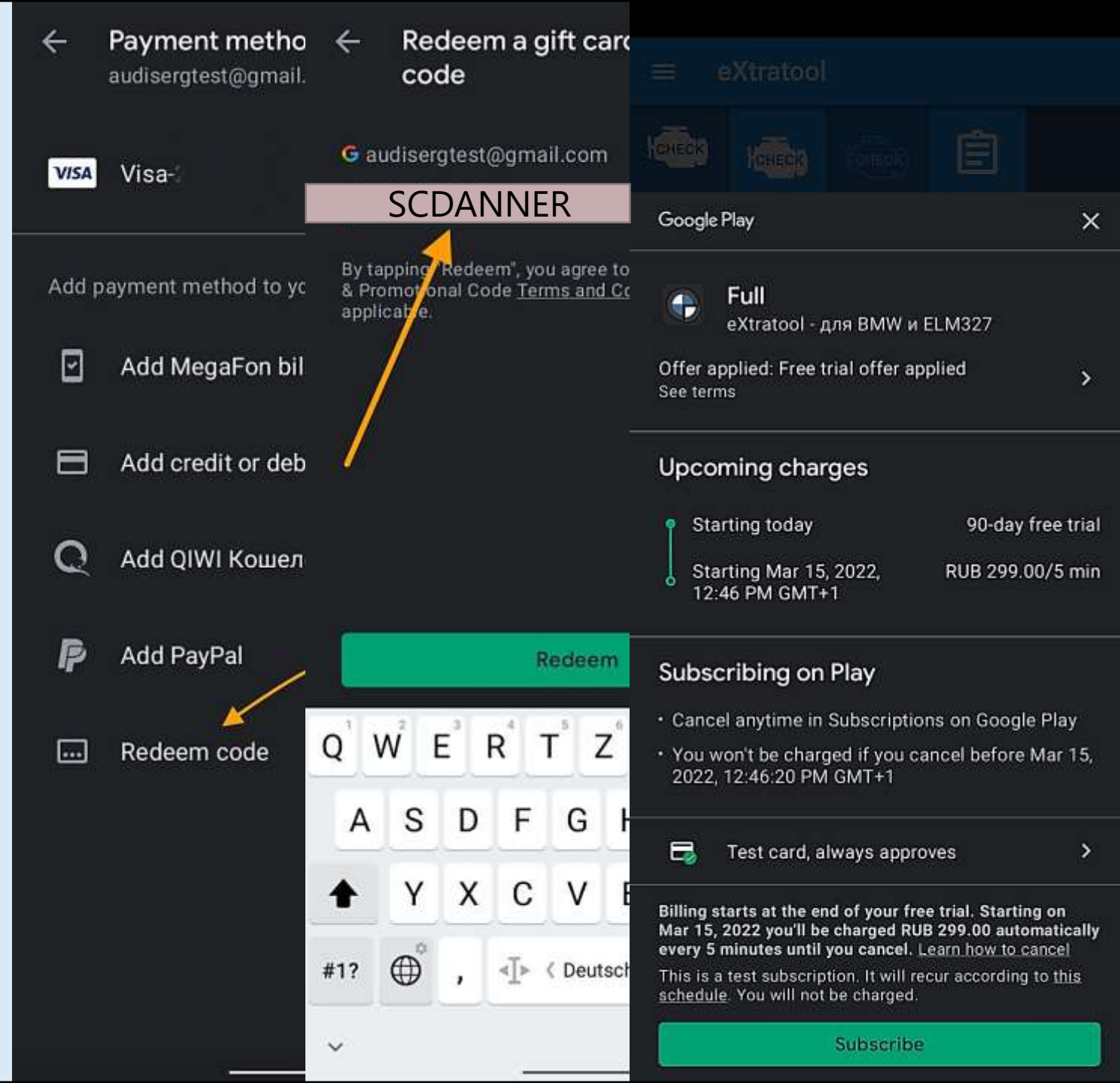
ACTIVATE SOFTWARE

- Press any grey-out icon
- Press Full
- Press Right Arrow



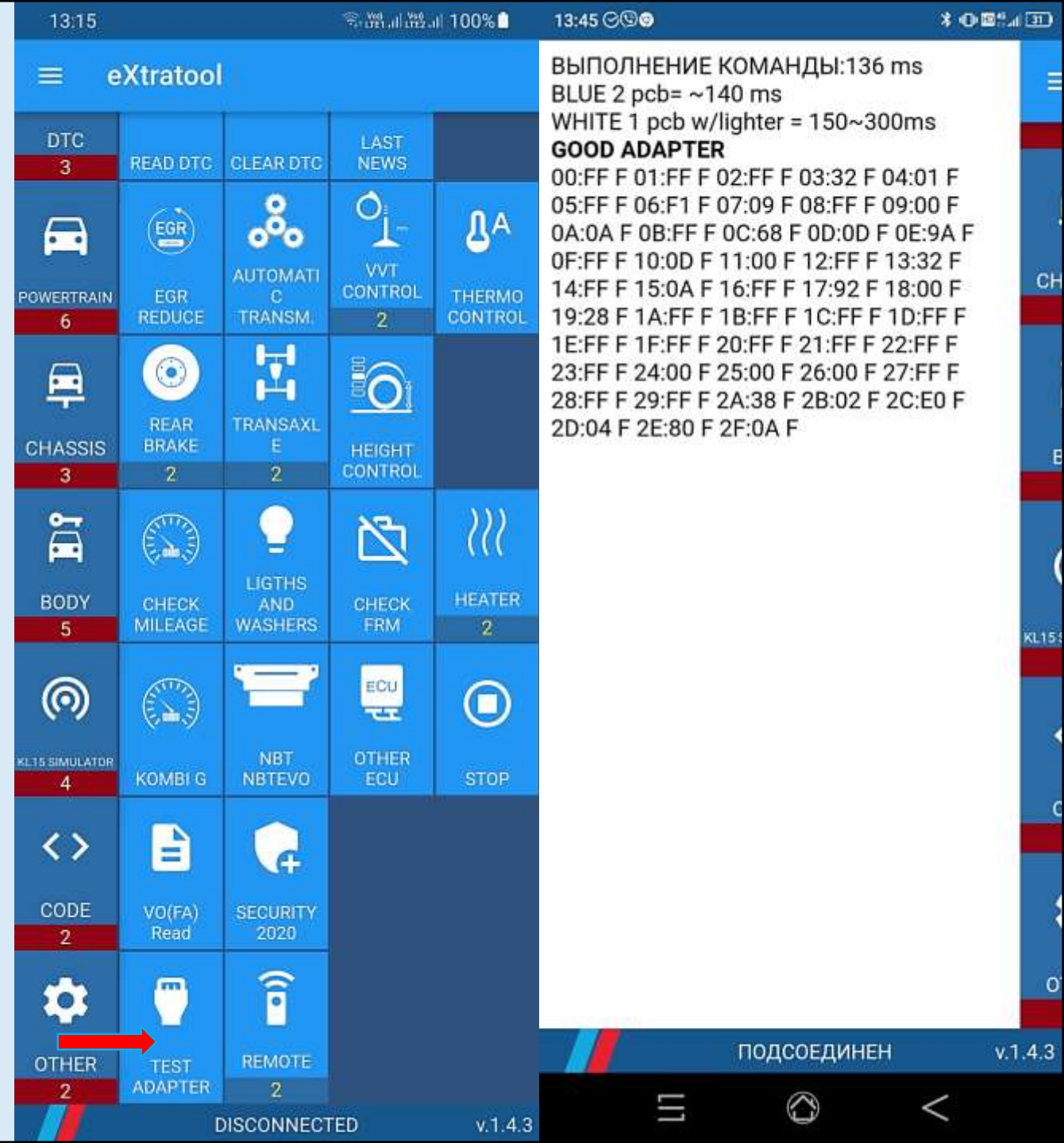
ACTIVATE SOFTWARE

- Press Redeem code
- Type SCDANNER
- Press Redeem
- Press Back
- Press Subscribe



HOW-TO USE

- Enable Bluetooth in your phone
- Press Test Adapter
- If all right – Good Adapter
- If something goes wrong – No answer



READ DTC. CLEAR DTC

- Press read DTC / clear DTC
- 12 / 40 – ECU address in HEX
- 990496 / 991312 – SGBD ID
- MEVD1723 / BDC – ECU name
- His / act – history error / actual error
- **CE** – this error activate Check Engine lamp

The screenshot displays the eXtratool application interface. The top status bar shows the time as 15:01 and 15:00, along with battery and signal indicators. The main screen is divided into two panels. The left panel, titled 'DTC PROTOCOL', lists diagnostic trouble codes (DTCs) for two ECUs: '12 MOTOR: DME_BX8 990496 Motorelektronik ME VD172.3 B38' and '40 CAS: BDC_G11 991312 Body Domain Controller'. It shows DTCs 118401 and 118001, both related to 'Mixture regulation: mixture too lean', with 'his' (history) and 'act' (actual) error status. The right panel is a grid of diagnostic functions, including 'CHECK', 'DTC', 'READ DTC', 'CLEAR DTC', 'LAST NEWS', 'POWERTRAIN', 'EGR REDUCE', 'AUTOMATIC TRANSM.', 'VVT CONTROL', 'THERMO CONTROL', 'CHASSIS', 'REAR BRAKE', 'TRANSAXLE', 'HEIGHT CONTROL', 'BODY', 'CHECK MILEAGE', 'LIGHTS AND WASHERS', 'CHECK FRM', 'HEATER', 'KL15 SIMULATOR', 'KOMBI G', 'NBT NBTEVO', 'OTHER ECU', 'STOP', 'CODE', 'VO(FA) Read', 'SECURITY 2020', and 'EN/RU' language toggle. A red arrow points to the 'READ DTC' button in the top row of the grid. The bottom status bar indicates 'CONNECTED' and 'v.1.4.3'.

DTC PROTOCOL

12 MOTOR: DME_BX8 990496
Motorelektronik ME VD172.3 B38

118401 Mixture regulation: mixture too lean, large deviation
his

118001 Mixture regulation: mixture too lean
his **CE**

40 CAS: BDC_G11 991312
Body Domain Controller

D90D37 Interior light unit 1 (ILE1): Incorrect variant installed
act

eXtratool

CHECK **CHECK** **CHECK** **LAST NEWS**

DTC 3 **READ DTC** **CLEAR DTC**

POWERTRAIN 6 **EGR REDUCE** **AUTOMATIC TRANSM.** **VVT CONTROL 2** **THERMO CONTROL**

CHASSIS 3 **REAR BRAKE 2** **TRANSAXLE 2** **HEIGHT CONTROL**

BODY 5 **CHECK MILEAGE** **LIGHTS AND WASHERS** **CHECK FRM** **HEATER 2**

KL15 SIMULATOR 4 **KOMBI G** **NBT NBTEVO** **OTHER ECU** **STOP**

CODE 2 **VO(FA) Read** **SECURITY 2020**

EN **RU**

CONNECTED **v.1.4.3**

DIAGNOSTIC EXAMPLE

- BMW 535i GT F07 comes to dealership with a lot history errors messages about missing communication between Flexray ECU's
- Car owner told that all error messages appear when he started engine early morning
- CD9437 – communication error between DME and DSC was more frequent (8) than other errors and sporadically
- ISTA ABL did not help to resolve this case
- Car owner has already changed DSC. He has installed used DSC for test purposes in another independent repair shop

DME-CD9437 DSC, Flexray: Нарушение связи

Описание Подробности Контекст системы

расширенные виды неисправностей
В данный момент неисправность отсутствует
В настоящий момент ошибка не вызывает никаких сведений о во

Условия окружающей среды

Условие	Первая запись
Информационная запись (1: да, 0: нет)	1
Код ошибки SAE	
Метка времени	260367213 s
Пробег	116960 km
Частотность	8
Частота вращения двигателя	40 1/min
Температура внутри ЭБУ	54.75 °C
Актуальное напряжение аккумуляторной батареи	12.37 V
Время после окончания запуска	0 s

VIN-номер: C189815 Автомобиль: 5/F07/SAT/535i/N55/AK

ABL-DIT-AT6131_SYS_TMOU - Анализ системы шины CAN

Действие

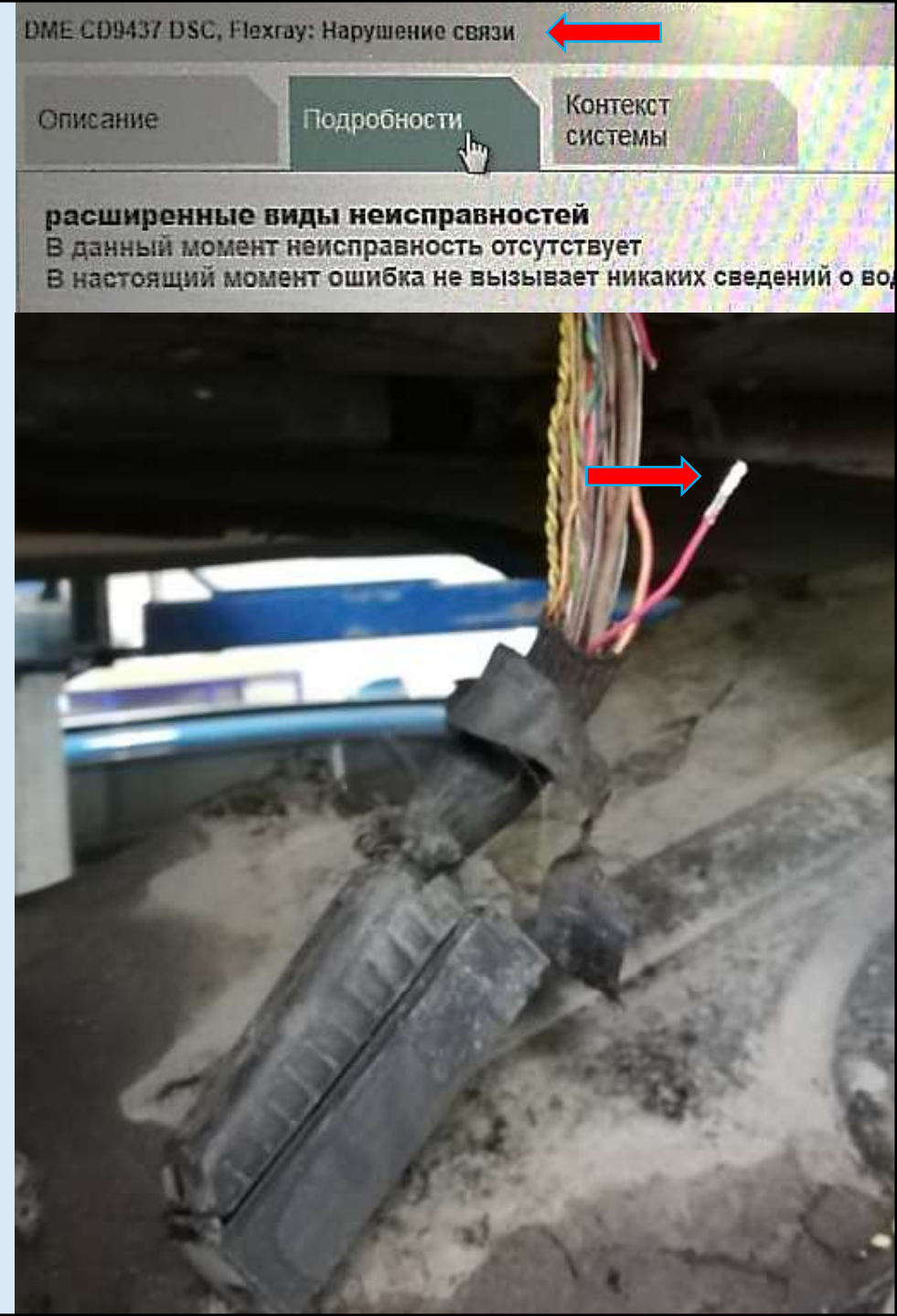
Передающие блоки управления с указанием вероятности возникновения ошибки:

- 1.DSC-----*---- (7 из 43)
- 2.DME-DDE---*---- (2 из 57)

Начать поиск ошибки в блоке управления с самой

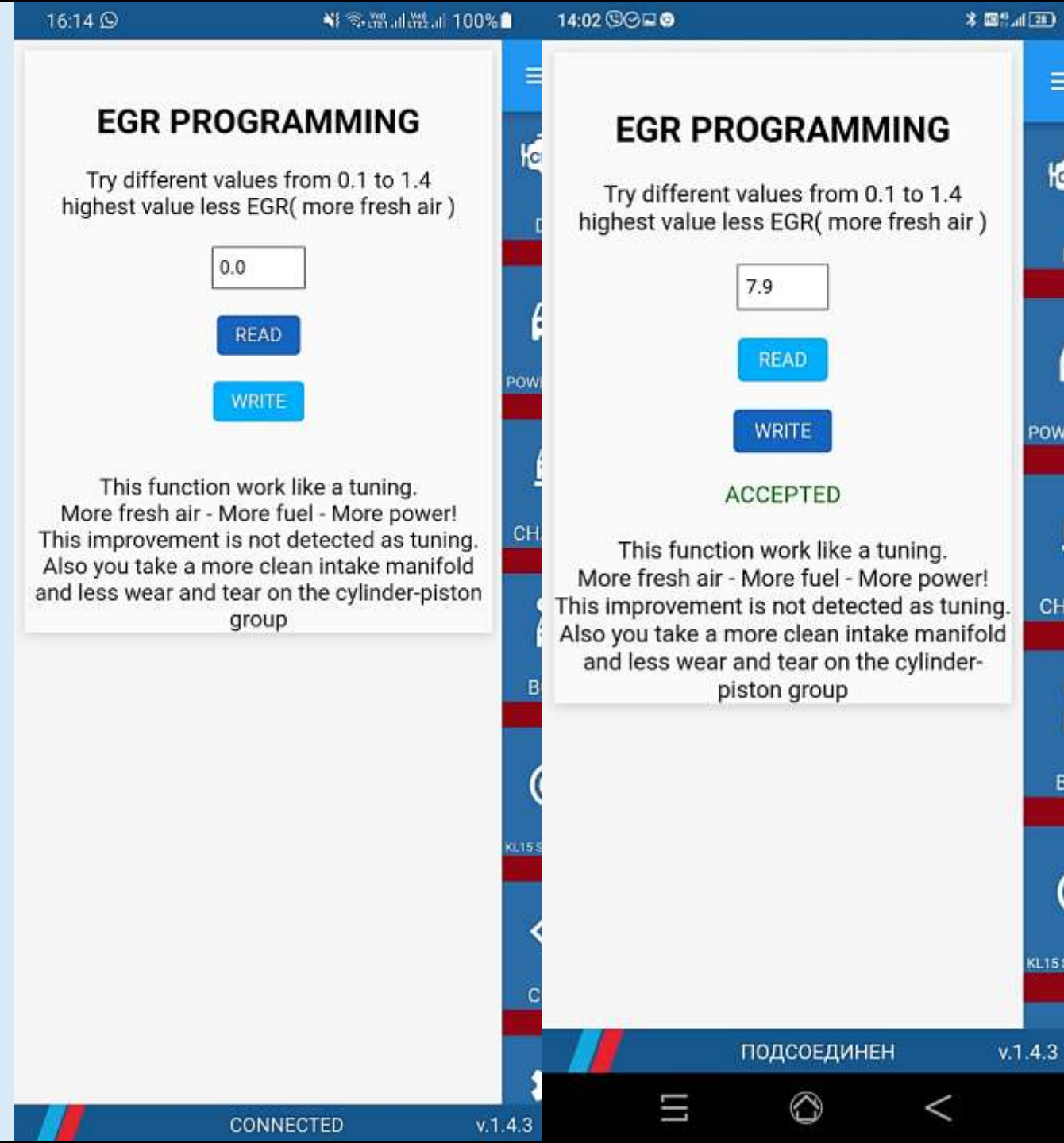
DIAGNOSTIC EXAMPLE

- Full error text in ISTA:
DME CD9437 DSC, Flexray: Missing communication
- Full error text in ExtraTool:
0xCD9437: Flexray, message (request wheel torque drive train sum stabilization / nominal distribution longitudinal moment front axle rear axle, 43.1.4)
at **under voltage**: communication error
- The problem was in corrosion wire
- I fixed this car very fast and client was happy
- ExtraTool helps even when you just read the DTC



EGR REDUCE

- Press read
- 0.0 means EGR works like BMW wants
- 0.7 / 1.4 / 7.9 (for N/B engine) and Write
- Up to 83 / 87 for M diesel engine
- Accepted – all good
- Rejected – try another value
- Try to type as much value as you can



ZF AT ADAPTATION VALUES

- Press Automatic transmission
- Typical values

Shift device	Adaption limits Charge pressure	Adaption limits Quick charge time
A	approx. - 400 mbar to +350 mbar	approx. - 40 ms to 120
B	approx. - 400 mbar to +350 mbar	approx. - 60 ms to 100
C	approx. - 400 mbar to +350 mbar	approx. - 50 ms to 120
D	approx. - 300 mbar to +200 mbar	approx. - 300 ms to +200
E	approx. - 300 mbar to +300 mbar	-----

15:37 59%

Fill pressure in clutch

CLUTCH A: 90 mbar
CLUTCH B: 130 mbar
CLUTCH C: 163 mbar
CLUTCH D: 74 mbar
CLUTCH E: 120 mbar

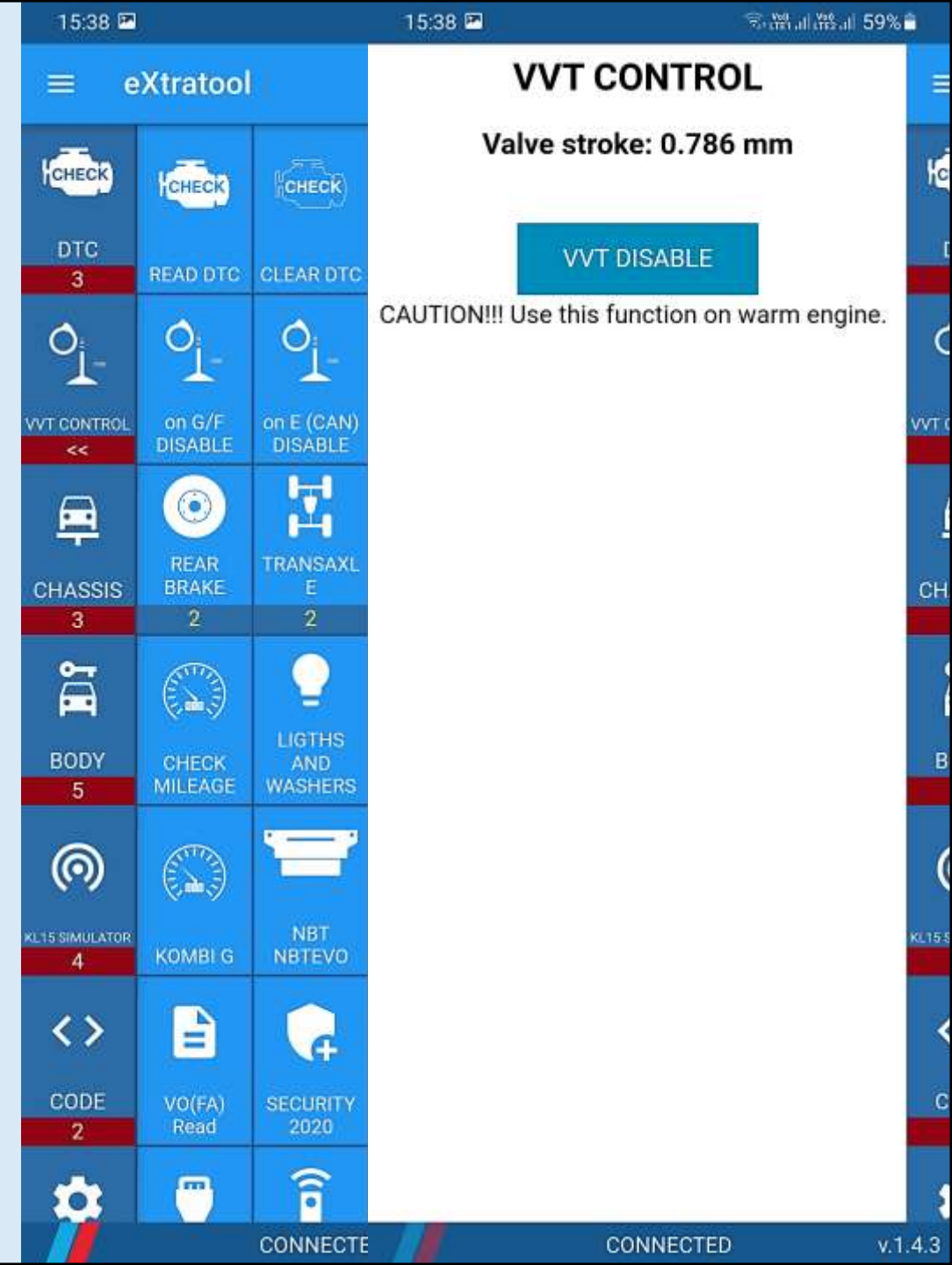
Fill time in clutch

CLUTCH A: 15 ms
CLUTCH B: 27 ms
CLUTCH C: 1 ms
CLUTCH D: 6 ms
CLUTCH E: 1 ms

CONNECTED v.1.4.3

DISABLE VALVETRONIC

- Engine is working on IDLE / KOER
- Press Vvt control
- Tap G/F series engine disable or E series disable
- Press Vvt disable / Valve opens to max position
- Shutdown and start engine again to enable Vvt



DIAGNOSTIC EXAMPLE

- BMW 750i G11 comes to dealership with a lot actual errors messages about misfire and mixture
- All errors were only on Bank 2
- Errors were in 800 – 1700 RPM
- When engine running on IDLE it sounds not good
- I've turned VVT off engine started to work on IDLE better
- In 5 minutes I understood that the problem was in engine mechanics

N63TU_L0	0x102902 - Air mass 2, plausibility: Air mass too low
	0x118502 - mixture adaption 2: mixture too fat, big deviation
	0x140010 - misfiring, several cylinder: detected
	0x140810 - misfiring, cylinder 8: identified
	0x140001 - misfiring, several cylinder: injection shutdown
	0x140801 - combustion misfire, cylinder 8: injection will be switched off
	0x140710 - misfiring, cylinder 7: identified
	0x140510 - misfiring, cylinder 5: identified
	0x140501 - misfiring, cylinder 5: injection shutdown
	0x140701 - combustion misfire, cylinder 7: injection will be switched off

DIAGNOSTIC EXAMPLE

- After teardown engine, mechanic found that gear on eccentric shuffle has too much free play
- Free play on Bank 1 was about 4 mm
- Free play on Bank 2 was about 14 mm



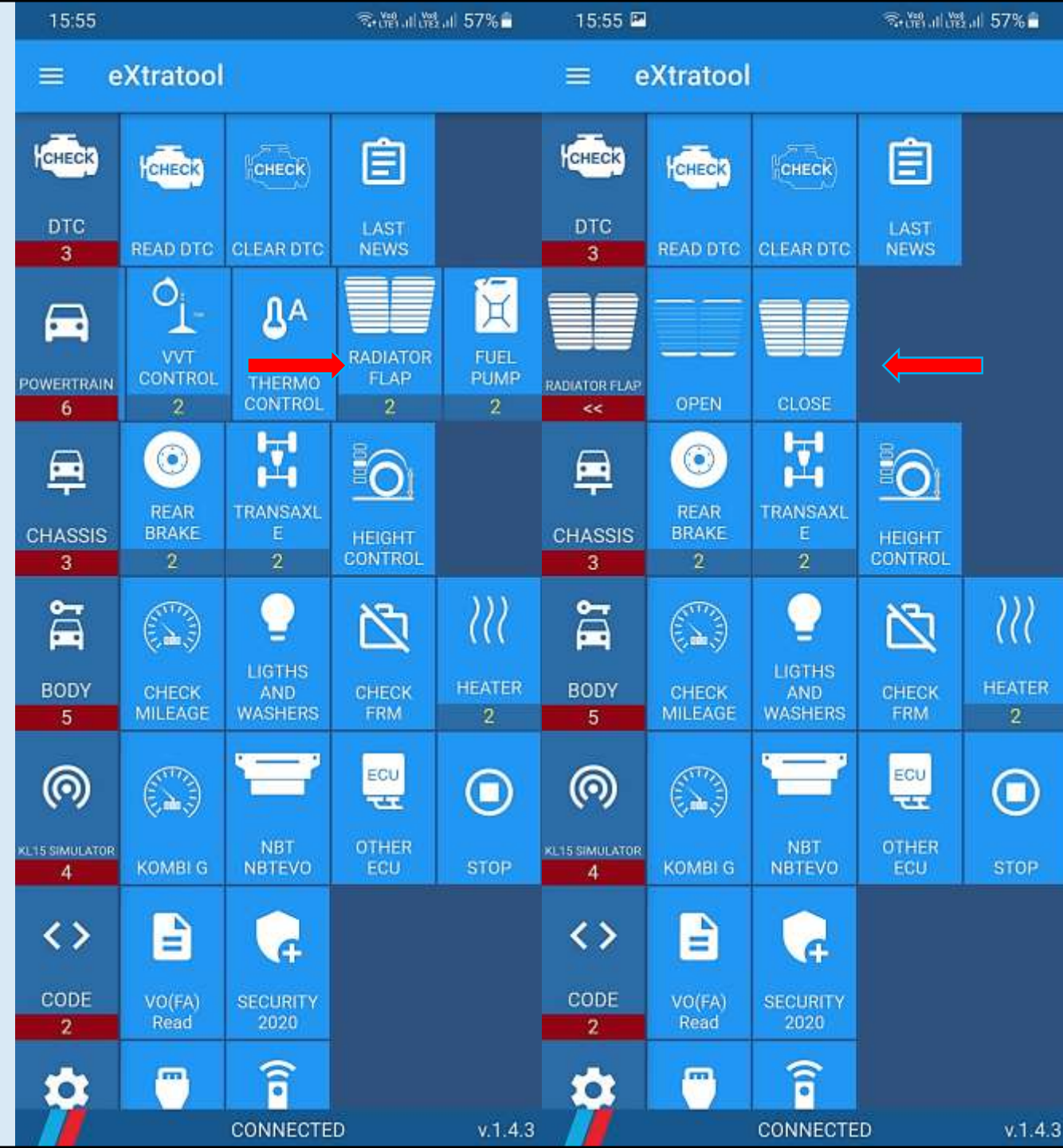
DIAGNOSTIC EXAMPLE

- After teardown engine, mechanic found that gear on eccentric shuffle has too much free play
- Free play on Bank 1 was about 4 mm
- Free play on Bank 2 was about 14 mm
- Please Play Video



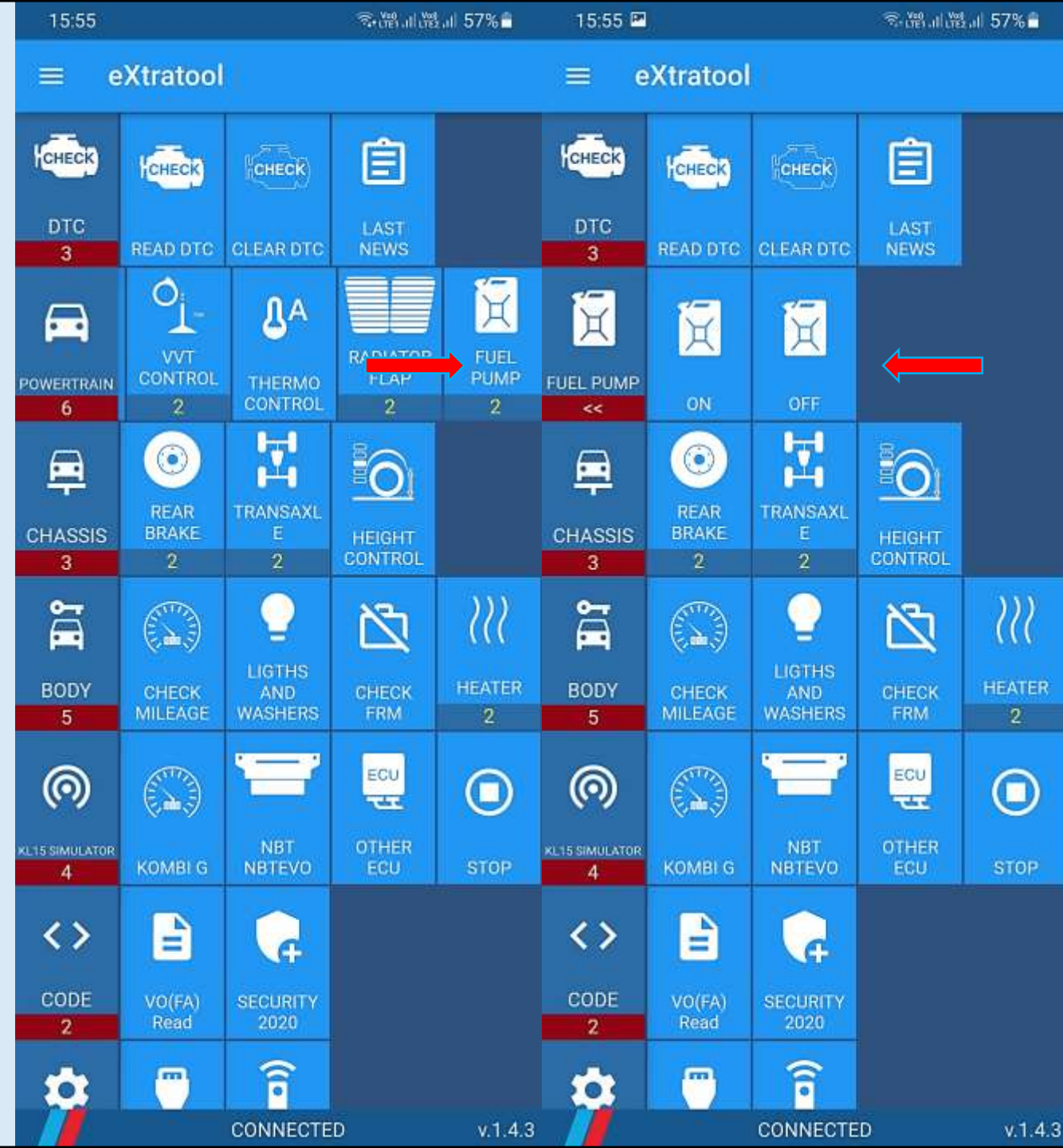
RADIATOR FLAP

- Tap Radiator flap
- Tap Open
- All radiator flaps are opened
- Tap Close
- All radiator flaps are closed



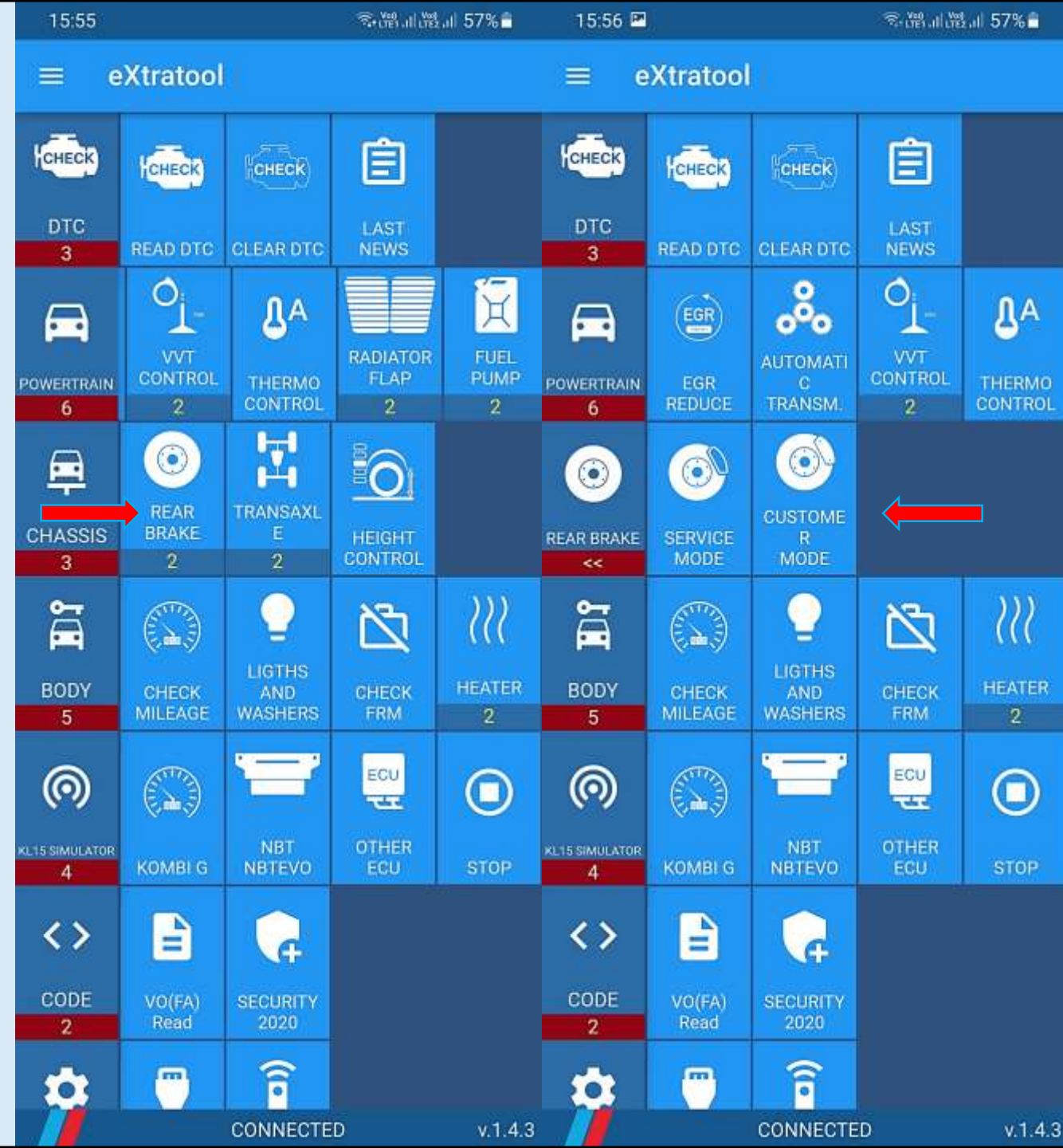
FUEL PUMP

- Tap Fuel pump
- Tap ON / OFF
- Fuel pump can be activated up to 20 min.



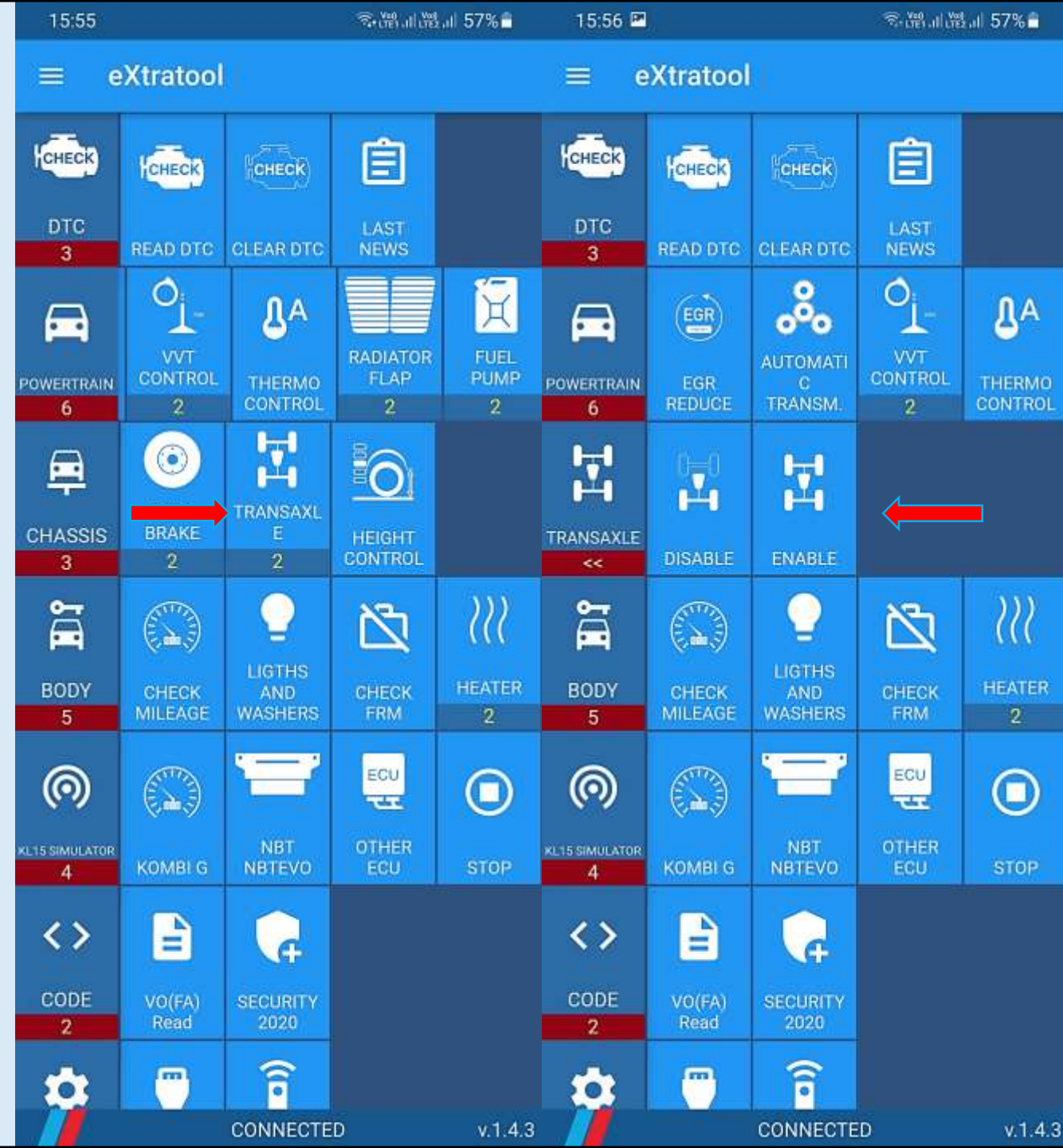
REAR BRAKE

- Tap Rear brake
- Tap Service mode
- Replace rear brake pads
- Tap Customer mode



TRANSAXLE

- Engine is running on IDLE
- Tap Transaxle
- Tap Disable
- Xdrive will be disabled
- Tap Enable or restart engine
- Xdrive will be enabled



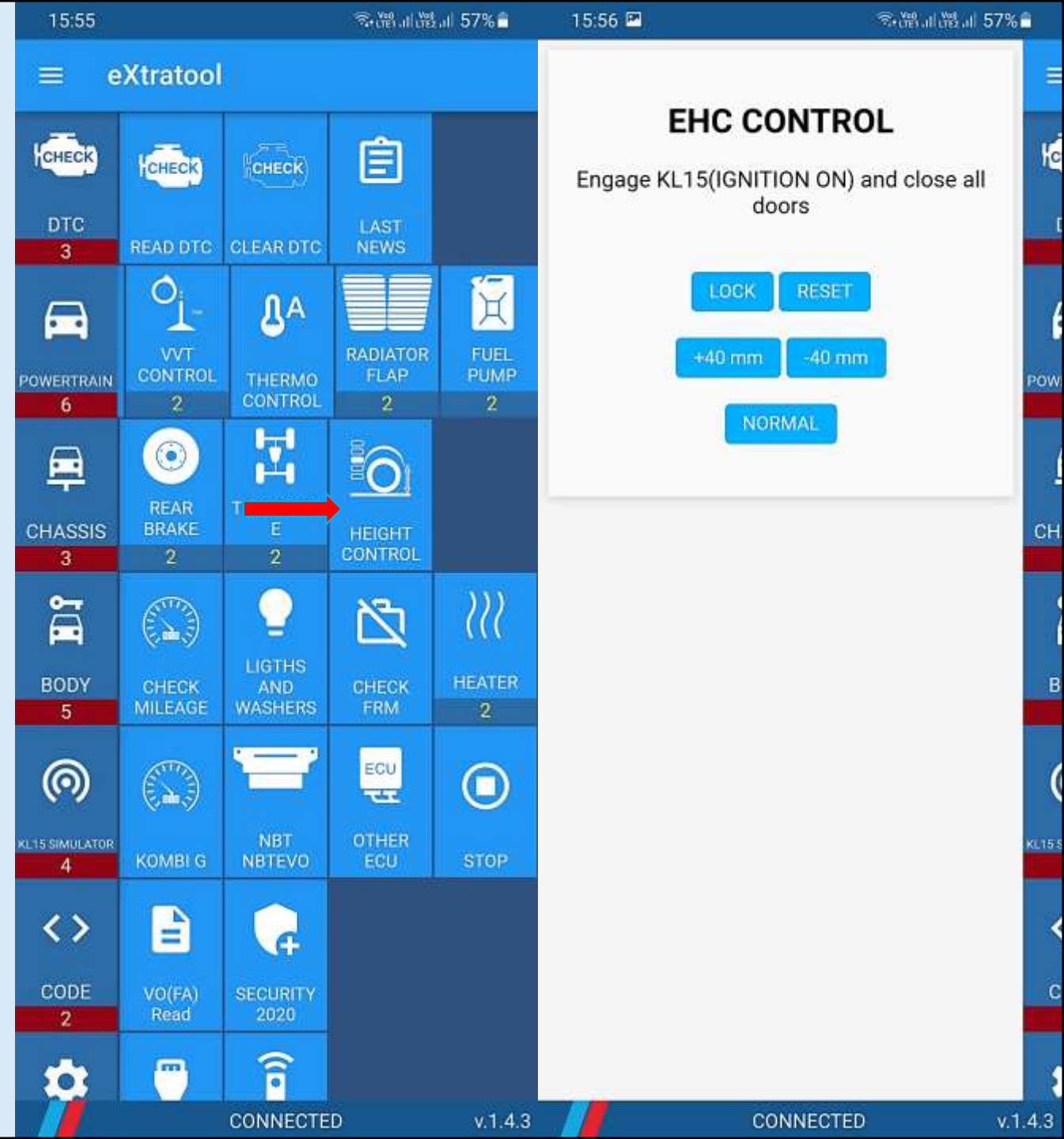
DIAGNOSTIC EXAMPLE

- BMW X5 F15 is jerking while driving
- Engine was chiptuned on Stage 2 before
- Problem appeared after chiptuning
- Problems may be in Xdrive or chip software
- If you remove Xdrive fuse engine lose power and no jerking
- Still misunderstanding where the problem is
- After disabling Xdrive using ExtraTool full engine power available
- No jerking anymore
- Xdrive hardware was broken immediately after chiptuning
- Works like M4WD / M2WD mode on M-cars
- Can be used if you like rally style in driving and drifting



HEIGHT CONTROL

- Tap Lock to convert EHC to service mode
- Tap Reset to revert EHC mode
- Tap +40 / - 40 / Normal to change air suspension level



CHECK MILEAGE

- Tap Check mileage
- Result: VIN, mileage in every ECU

The screenshot shows the eXtratool application interface. The left panel displays a grid of diagnostic categories, with 'CHECK MILEAGE' highlighted under the 'BODY' category. The right panel shows the results for various ECUs, including AIRBAG, ZGW, MOTOR, EGS, ICMQL, DSC, and others, all showing 'NO DATA' or specific mileage information.

eXtratool

Check Mileage Results:

- AIRBAG:** NO DATA
No data from Ecu
VIN:7D47803
KM :47803
- ZGW:** NO DATA
No data from Ecu
VIN:7D47803
KM :47803
- MOTOR:** DME_BX8
Motorelektronik ME VD172.3 B38
VIN:7D47803
KM :47803
- EGS:** GSZFB1
Getriebesteuergert 8HPxx
VIN:7D47803
KM :47803
- ICMQL:** NO DATA
No data from Ecu
VIN:7D47803
KM :47803
- DSC:** DSC_10
Dynamische Stabilitätskontrolle
VIN:7D47803
KM :47803

Other ECU Results:

- POWERTRAIN:** 6
- VVT CONTROL:** 2
- THERMO CONTROL:** 2
- RADIATOR FLAP:** 2
- FUEL PUMP:** 2
- CHASSIS:** 3
- REAR BRAKE:** 2
- TRANSAXL E:** 2
- HEIGHT CONTROL:**
- HEATER:** 2
- KL15 SIMULATOR:** 4
- KOMBI G:**
- NBT NBTEVO:**
- OTHER ECU:**
- STOP:**
- CODE:** 2
- VO(FA) Read:**
- SECURITY 2020:**

Language: EN / RU

Status: CONNECTED v.1.4.3

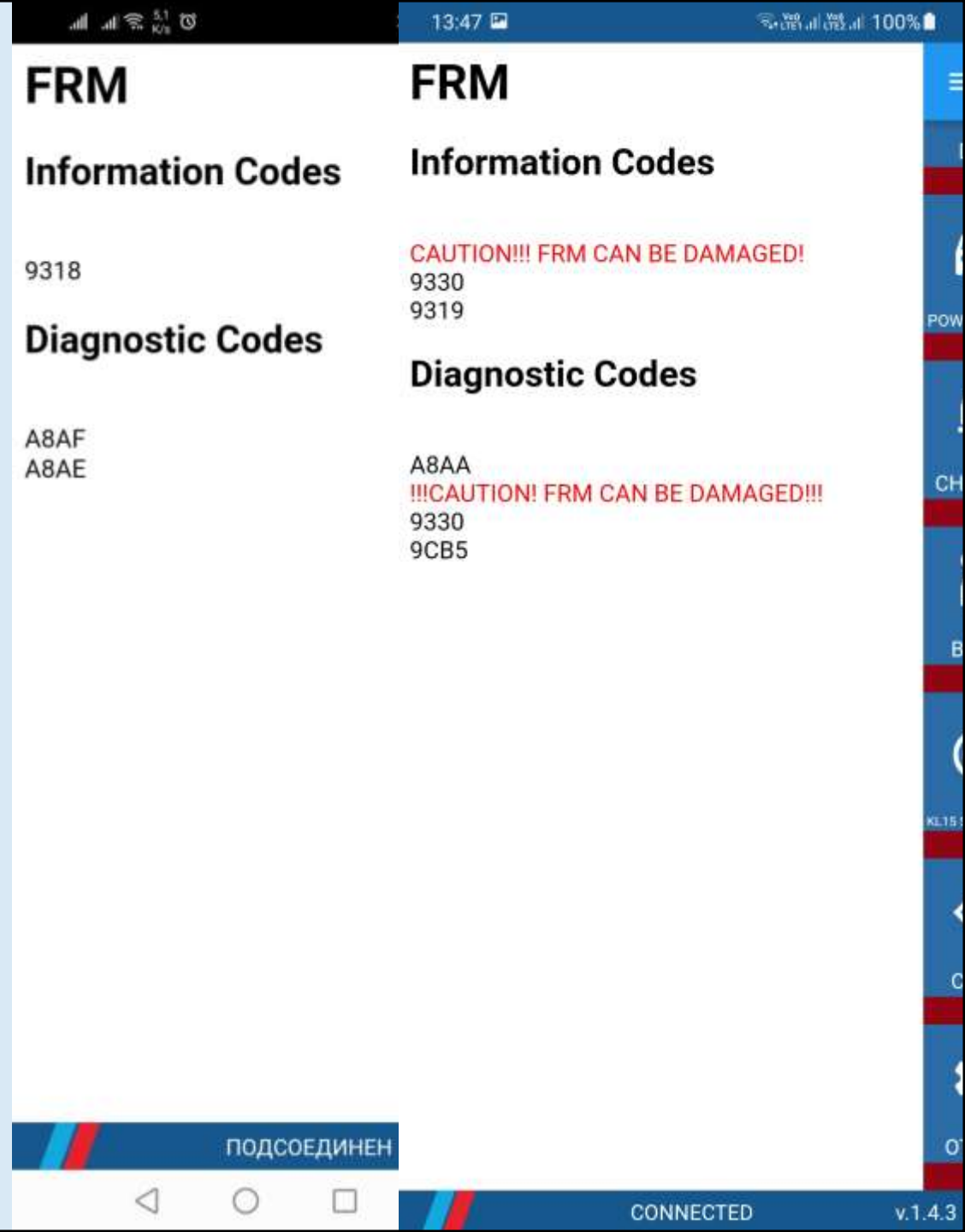
LIGHTS AND WASHERS

- Tap Lights and washers
- Tap Icons
- Lights or washers will be activated



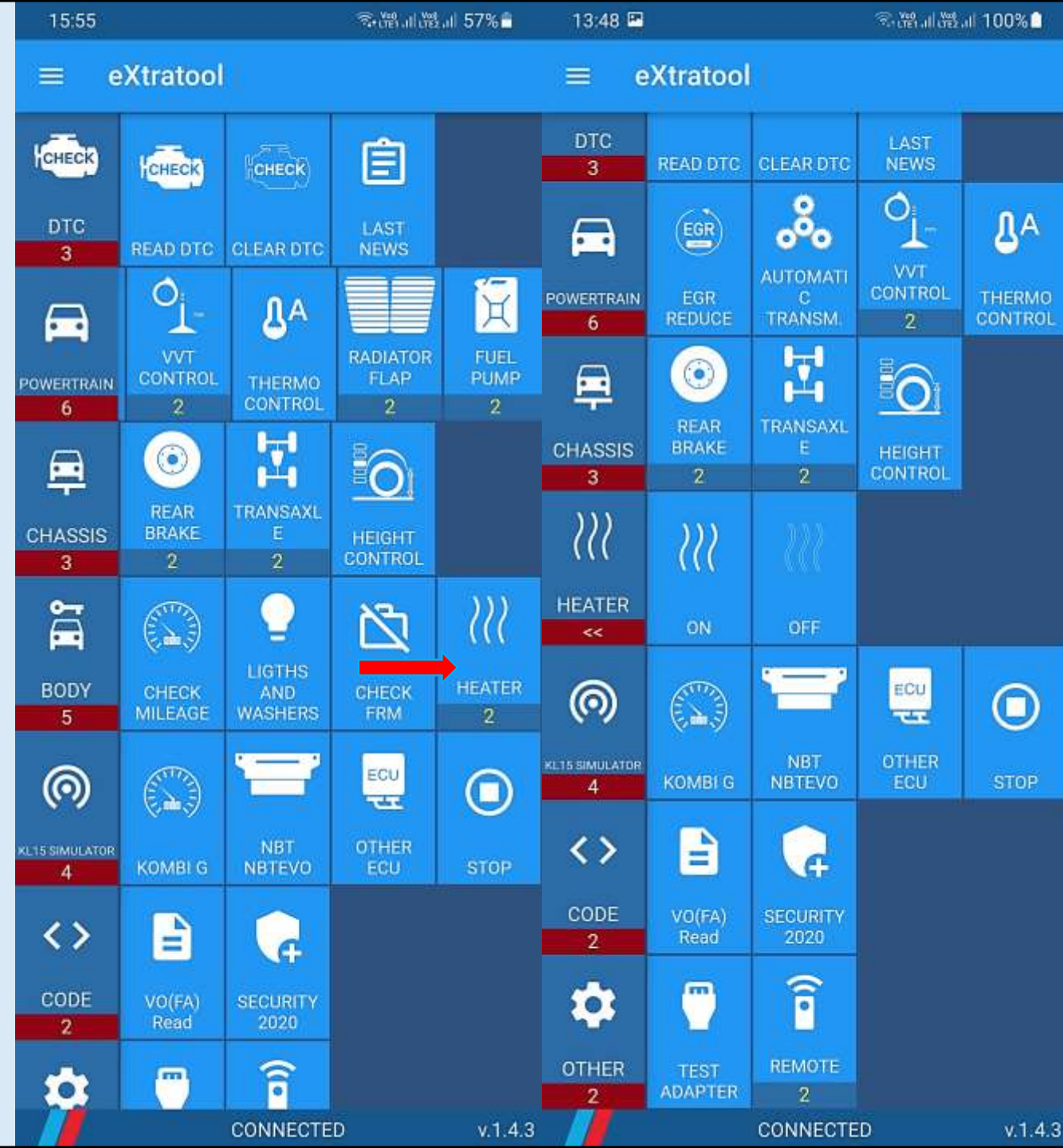
CHECK FRM

- Tap Check FRM
- Black codes – you can continue diagnostic
- **Alerts** – immediately flash FRM (Ista / WinKFP / Esys)



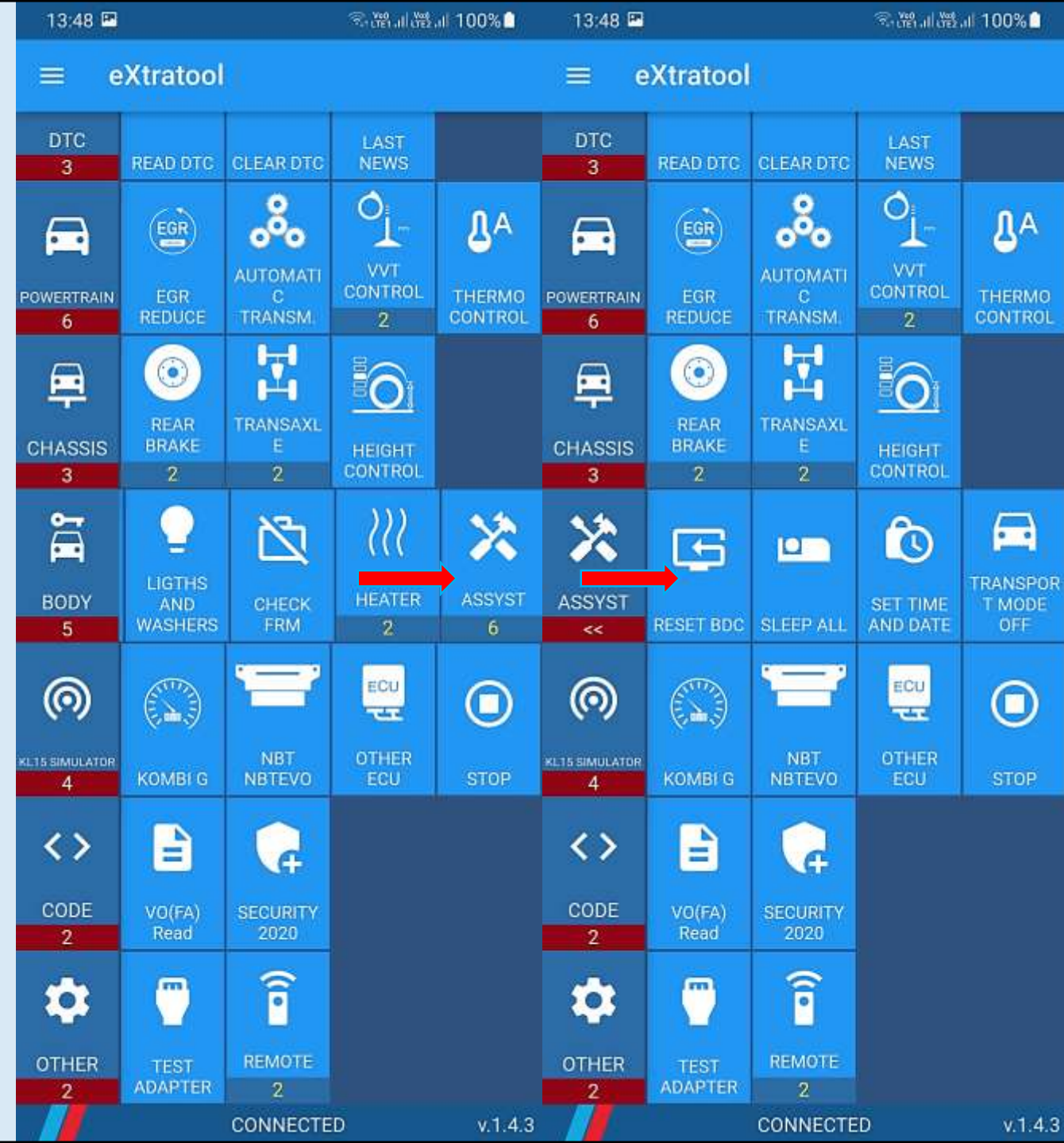
HEATER

- Tap Heater
- Tap On / Off
- Webasto will be unlocked if locked state before and starting / stopped



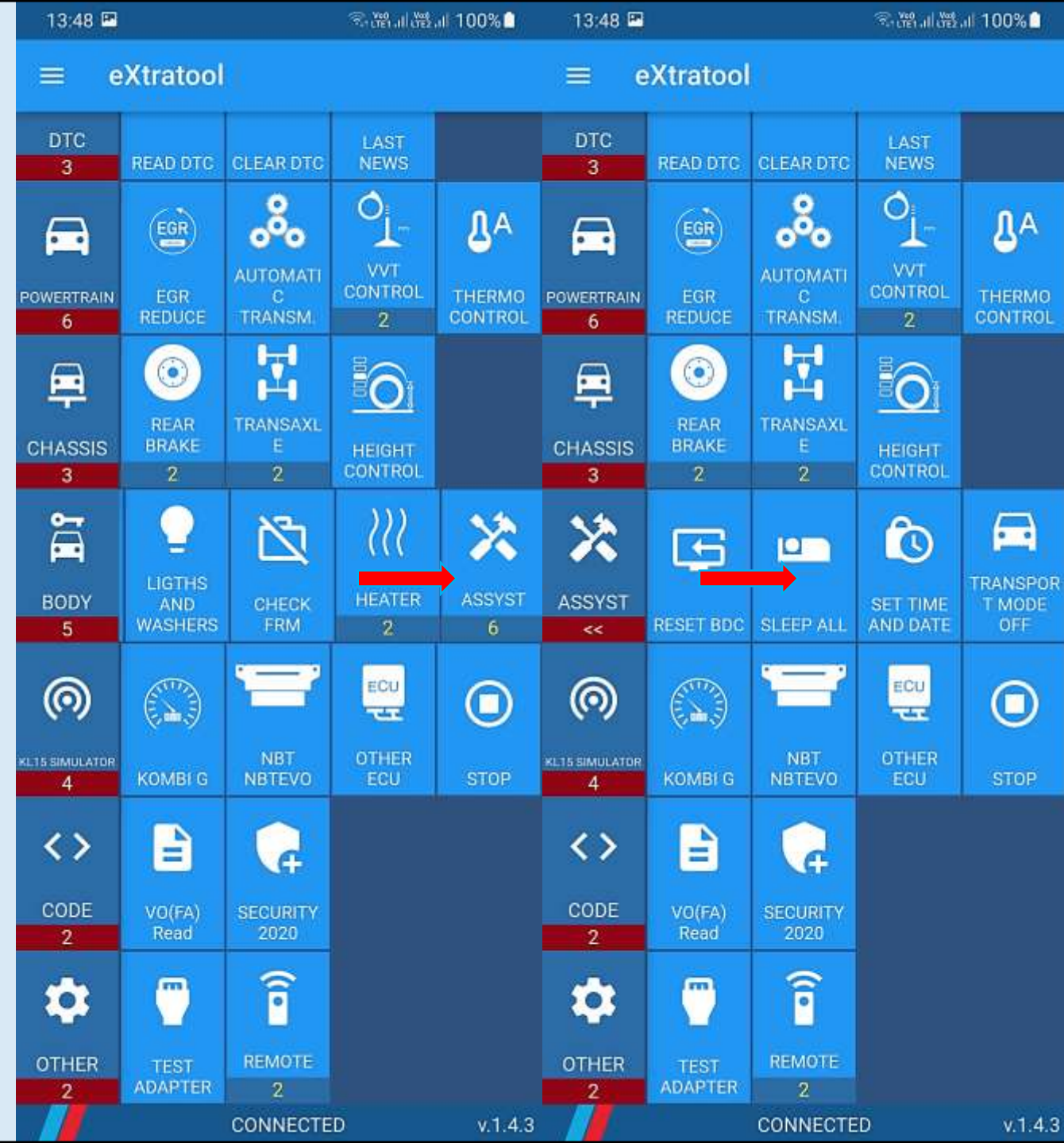
ASSYST. RESET BDC

- Tap Reset BDC



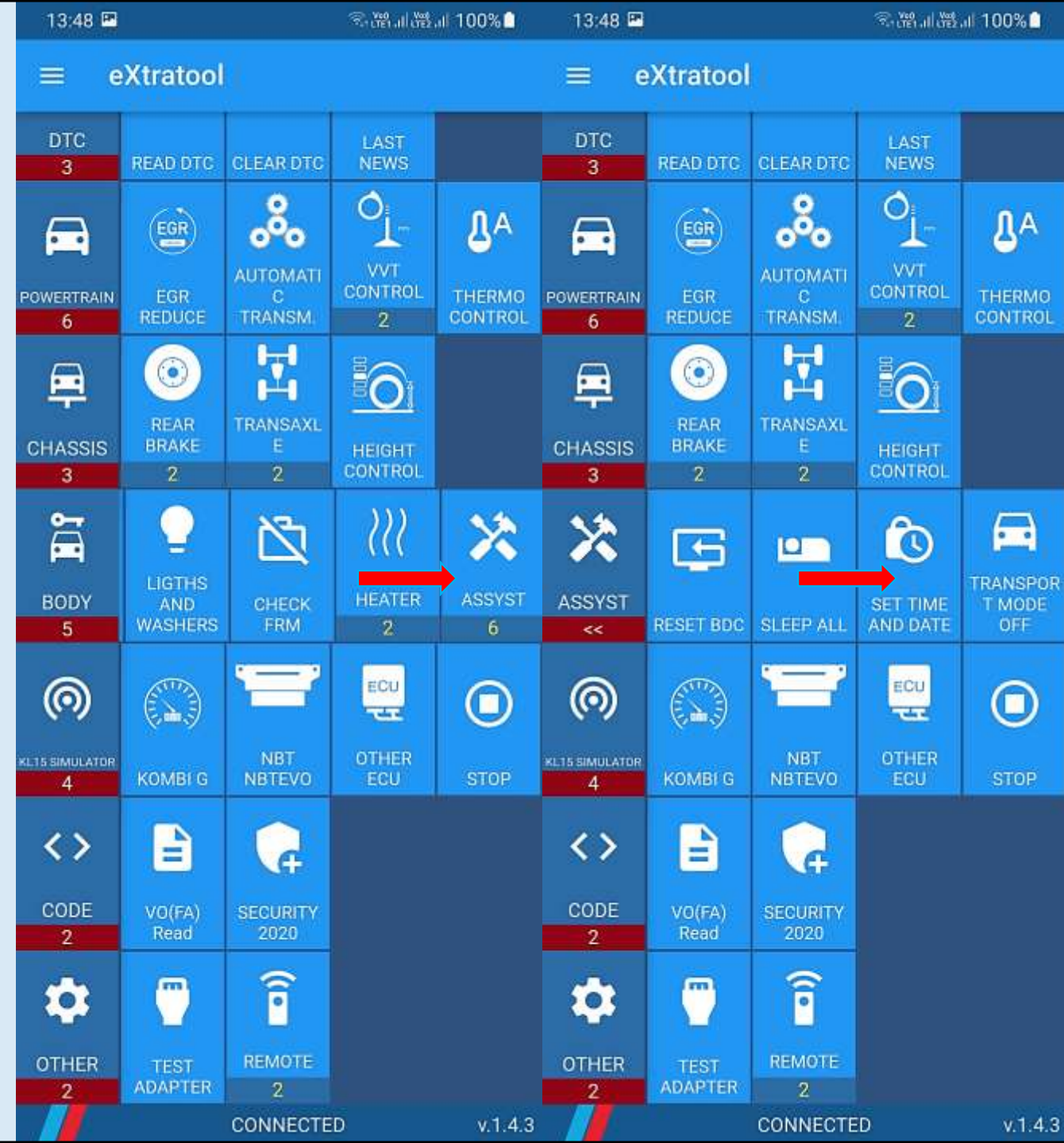
ASSYST. SLEEP ALL

- Tap Sleep all



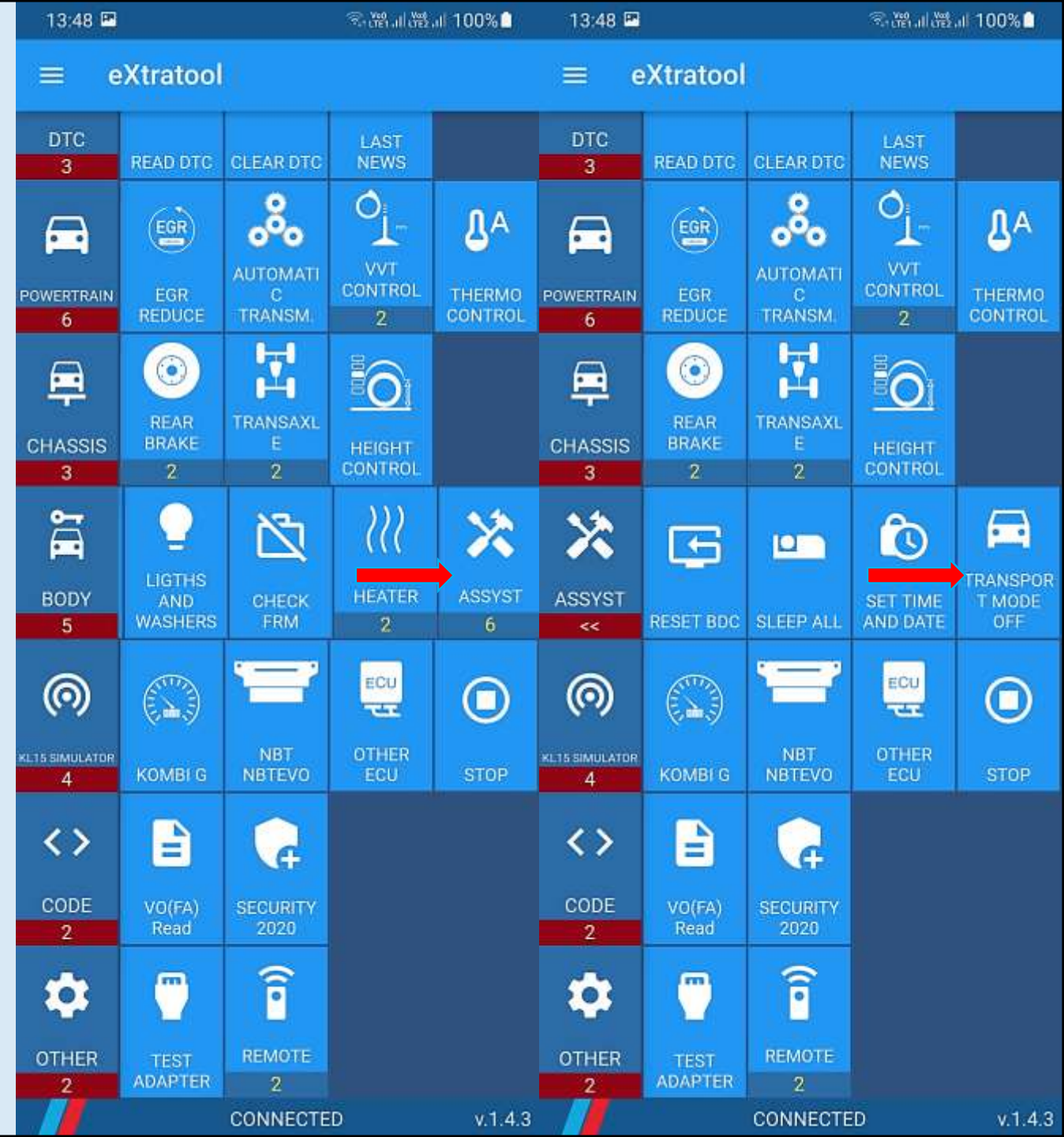
ASSYST. SET TIME

- Tap Set time and date



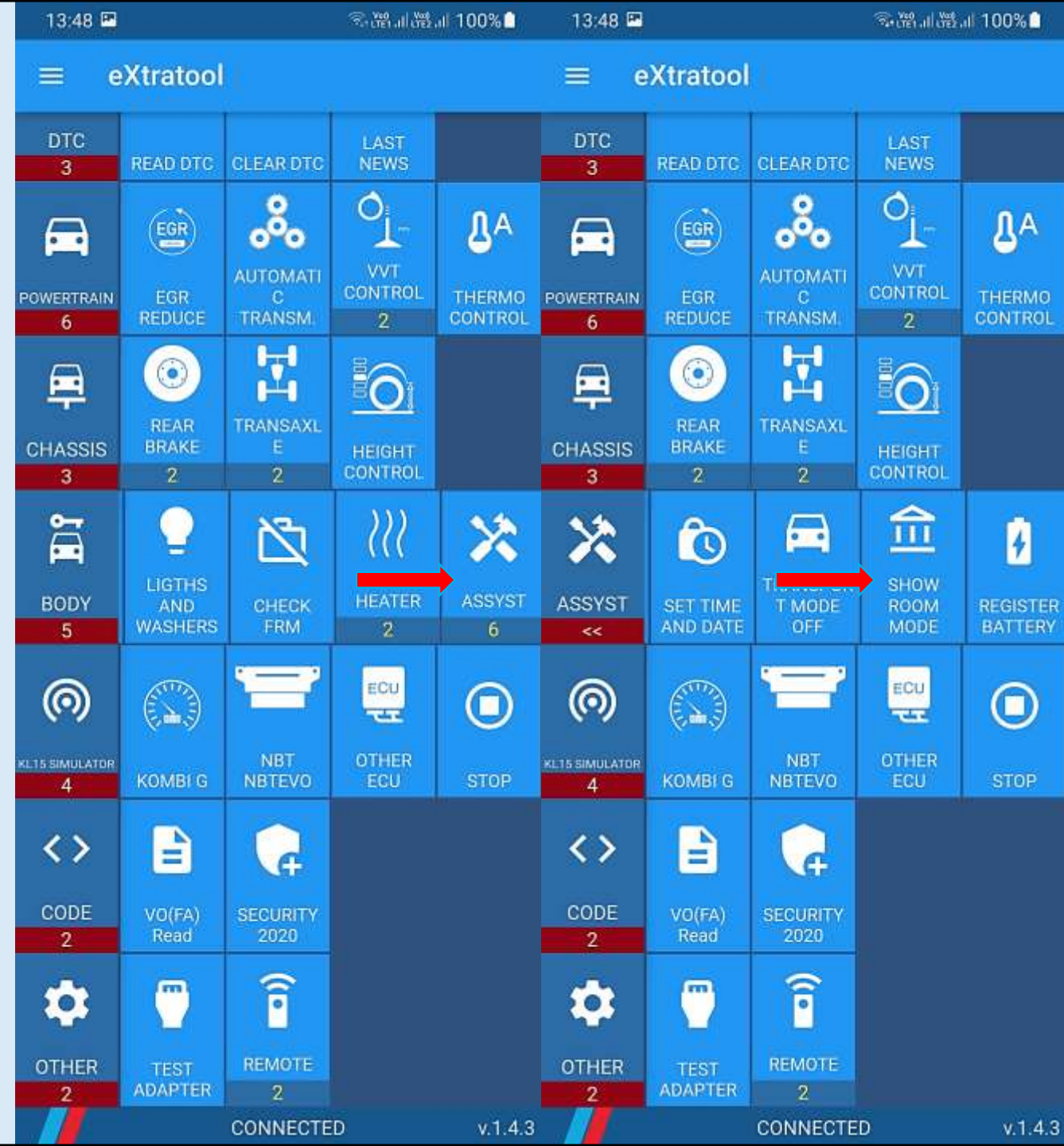
ASSYST. TRANS MODE

- Tap Transport mode off



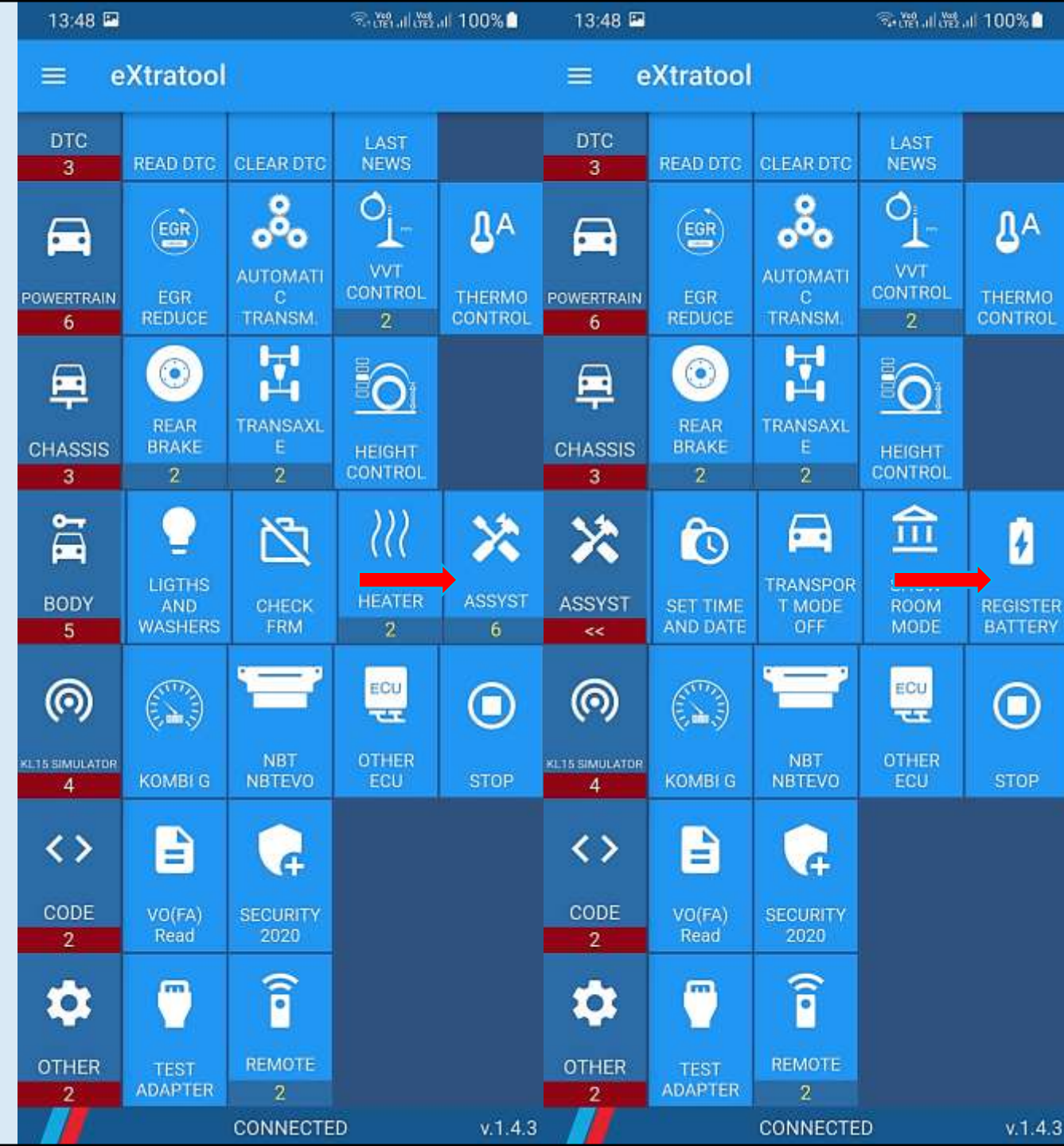
ASSYST. SHOWMODE

- Tap Showroom mode



REGISTER BATTERY

- Tap Register battery



KL15 / IGN ON SIMULATOR

- Simulate KL15 ON state for different ECUs
- It is needed if you want to enable single ECU on table
- Select ECU and tap KOMBI / NBT / EVO / OTHER
- You can diagnose / flash / code (Inpa/Tool32/WinKFP/NCS/Esys)
- Tap Stop to shutdown ECU



KL15 / IGN ON SIMULATOR

- Connect ELM327 (CAN H/L pins) to ECU (CAN H/L pins)
- Power on ELM327
- Run KL15 simulator
- Power on your ECU
- Diagnose / flash /code using J2534 interface
- Stop KL15 simulator
- Power off ECU / ELM327



CODE. VO / FA READ

- Tap VO / FA read
- Result: all options SA/LA/PA elements with descriptions

13:48

eXtratool


DTC
3

READ DTC

CLEAR DTC

LAST NEWS


POWERTRAIN
6



EGR REDUCE



AUTOMATIC TRANSM.



VVT CONTROL



THERMO CONTROL

CHASSIS
3



REAR BRAKE



TRANSAXLE



HEIGHT CONTROL

BODY
5



LIGHTS AND WASHERS



CHECK FRM



HEATER



ASSYST

KL15 SIMULATOR
4



KOMBI G



NBT NBTEVO



OTHER ECU



STOP

CODE
2



VO(FA) Read



SECURITY 2020

OTHER
2



TEST ADAPTER



REMOTE

VIN:
Integration level
Factory: F025-17-3-505
Current: F025-17-3-505
Previous: F025-17-3-505
BODY: F030 TYPE:8C91 BUILD:0316

161	EU5 EXHAUST EMISSIONS TECHNOLOGY
1CA	SELECTION COP RELEVANT VEHICLES
205	AUTOMATIC TRANSMISSION
216	SERVOTRONIC
21C	19 inch M LT/A.W.DO.SP.442 M BICOLOR ORB
258	RUNFLAT TYRES
2PA	LOCKING WHEEL BOLTS
337	M SPORT PACKAGE
423	FLOOR MATS, VELOUR
428	WARNING TRIANGLE
441	SMOKERS PACKAGE
465	THROUGH-LOAD SYSTEM
481	SPORT SEATS F DRIVER/FRONT PASSENGER
493	STORAGE COMPARTMENT PACKAGE
494	SEAT HEATING F DRIVER/FRONT PASSENGER
4AE	ARMREST FRONT RETRACTABLE
4WG	INT. T. FIN. ALU.HEX.W. H.T.F.BL.H-
521	RAIN SENSOR
534	AUTOMATIC AIR CONDITIONING
544	CRUISE CONTROL WITH BRAKING FUNCTION
548	SPEEDOMETER WITH KILOMETER READING
563	LIGHTS PACKAGE
5A1	LED-FOG LIGHTS

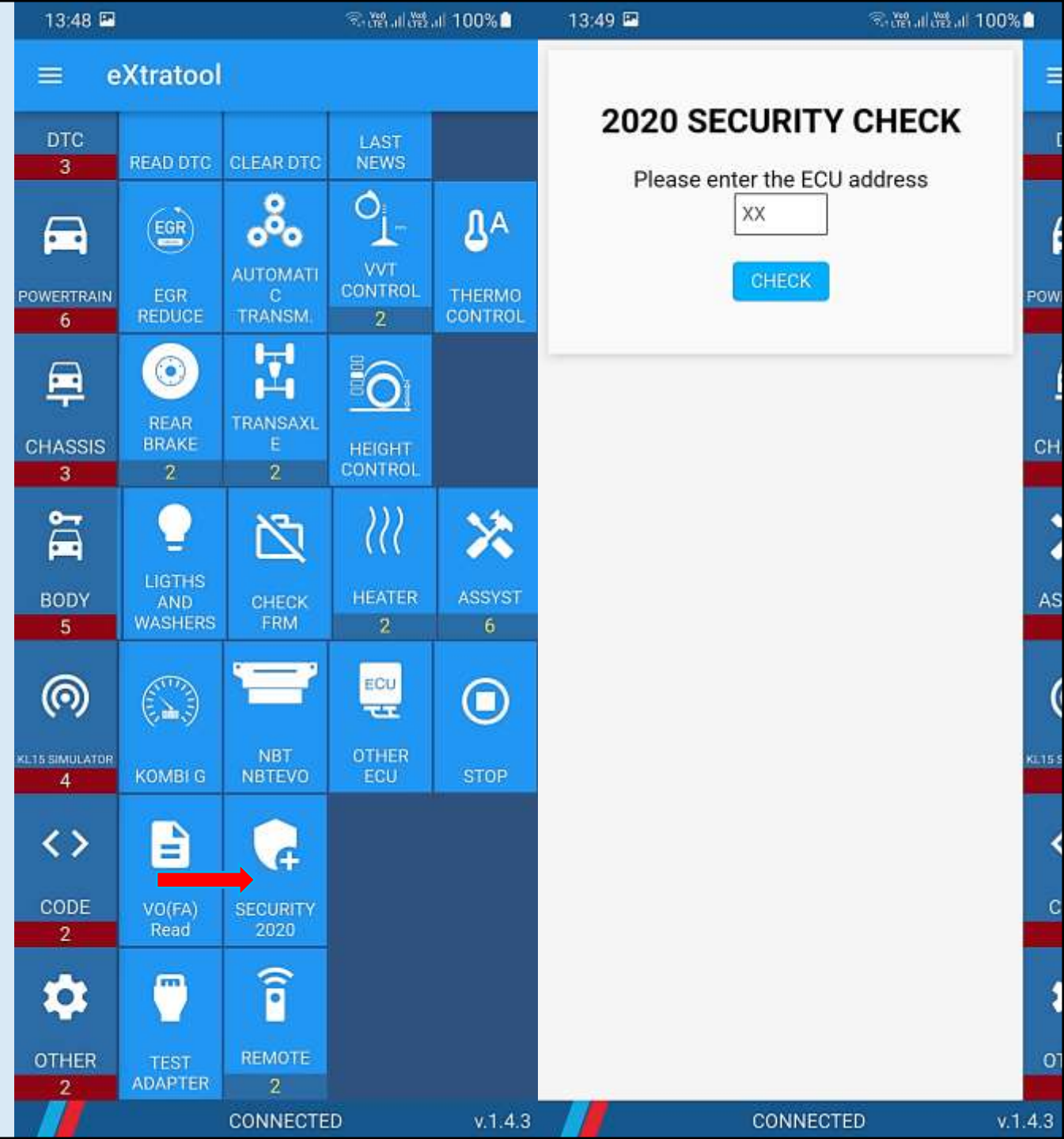
CONNECTED v.1.4.3

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CODE. SECURITY

- Tap Security 2020
- Enter ECU address in HEX
- Tap Check



2020 SECURITY CHECK

Please enter the ECU address

CHECK

TEST ADAPTER

- Press Test Adapter
- If all right – Good Adapter
- If something goes wrong – No answer



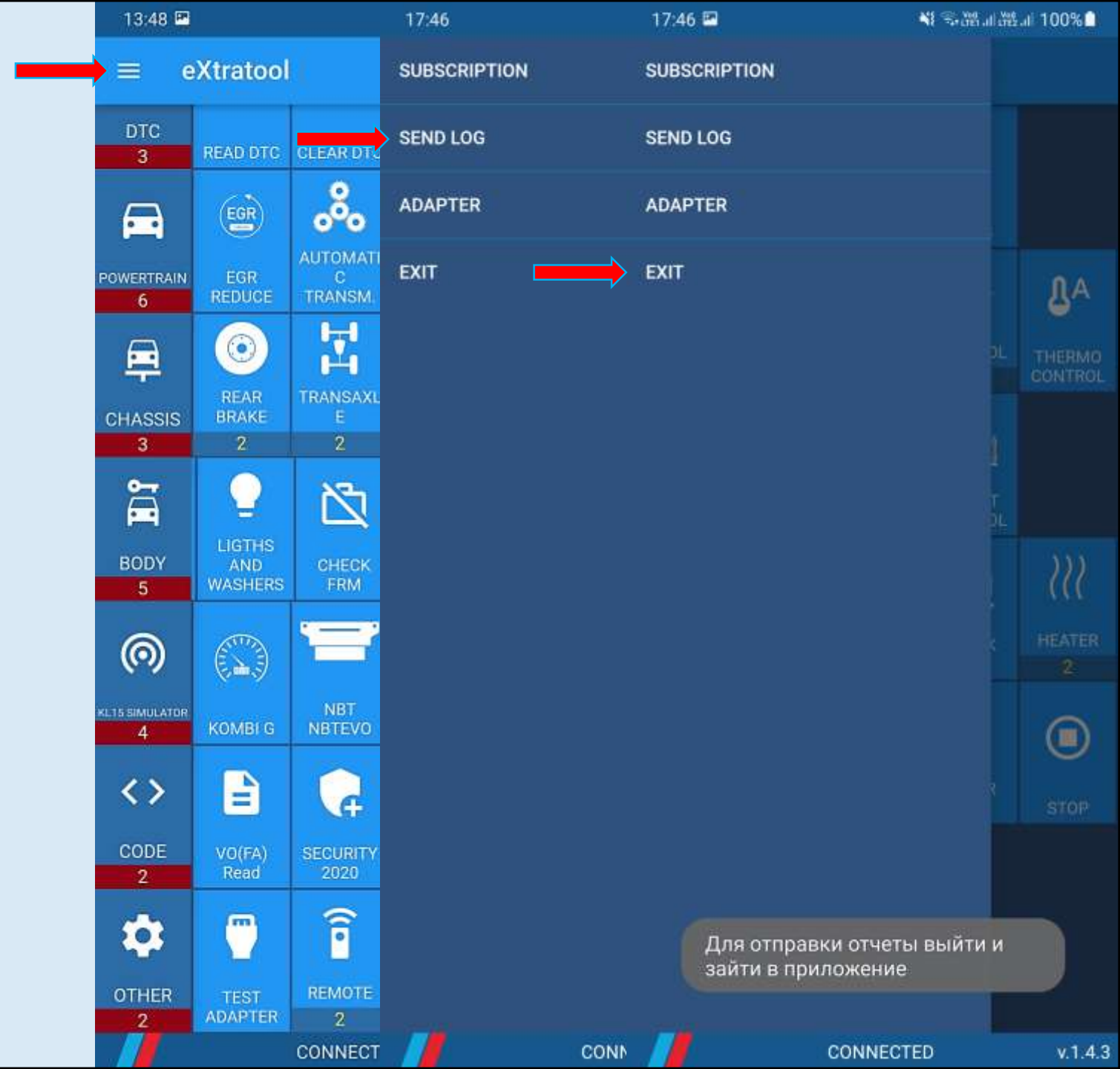
REMOTE

- Remote access to diagnose car
- Does not full work at the moment
- It will allow you to remote diagnose your clients car like BMW IRAP



FEEDBACK. SEND LOG

- Press Settings
- Press Send log
- Press Exit
- Start ExtaTool again
- Press Exit



FEEDBACK.

- Dear colleagues! In my dealership repair shop there are not so many different BMW cars, I haven't had a chance to test my application in all range BMW engines
- If you find bugs, please be so kind and send logs and write email to me.
- If you want something special for your own purposes , please write me too
- I will add these functions in next release specially for you
- audiserg@gmail.com
- Thank you so much for watching! Best regards, Sergey.