BMW. Настройка высоты дорожного просвета (EHC)

A E53 настройка EHC

(1) Когда нужно выполнять адаптацию EHC:

1. После замены ЭБУ EHC.
2. Датчик EHC был снят для выполнения любого ремонта.
3. Была проведена замена кабелей к EHC или датчику.

(2) Подготовка (до адаптации):

1. Установите машину на ровное место.
2. Запустите двигатель после замены воздушного амортизатора.
3. Никаких тяжелых предметов не должно быть внутри машины.
4. Никто не должен сидеть в автомобиле при проведении этой процедуры.

Примечание: Бывают одноосные и двухосные пневмоподвески для E53.
Если подвеска одноосная, то только задняя ось оснащена пневмоподвеской.
В случае двухосной подвески, все 4 колеса оснащены пневмоподвеской.

Процедура выполнения:

1. Загружаем прошивку **BMWCODING**
2. Выбираем **X5 EHC ADJUSTMENT** (Пример 1. для одноосной подвески)

1

FUNCTIONS

1 'ZCS/FA CODING'
2 'CAR/KEY MEMORY(NEW)'
5 'LEW SYNC'
6 'X5 EHC ADJUSTMENT'
7 'E65/E66 EHC ADJUSTMENT'

2

EHC HEIGHT OFFSET

An 1-axle car is detected.
If the car is not 1-axle, please exit and report to the distributor.

Press ENTER to continue.

3. Выбираем **AUTOMATIC**

3

select calibration mode

1 MANUAL
2 AUTOMATIC

4

ATTENTION

1. Car must be in a horizontal position.
2. Before doing adjustment, switch the engine on and off.

Press ENTER to continue.

4. Выбираем **X5 3.0i/3.0D/4.4i** -> **18 inch**

5

car select

1 X5 3.0i/3.0D/4.4i
2 X5 4.6is

6

X5 3.0i/3.0D/4.4i

1 17 inch
2 18 inch
3 19 inch
4 20 inch

5. Проведите измерения

7

EHC adjustment

The standard height of EHC is 708 +/ - 10mm

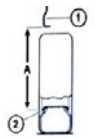
Press ENTER to continue

8

EHC adjustment

Measure distance from bottom middle of rim flange to lower edge of wheel arch.

Press ENTER to continue



6. Введите измеренное расстояние: 708 мм (заднее правое колесо)

9

EHC adjustment

Enter measured distance of right wheel in mm:

...mm

10

EHC adjustment

Enter measured distance of right wheel in mm:

708mm

7. Введите измеренное расстояние: 700 мм (заднее левое колесо)

11

EHC adjustment

Enter measured distance of left wheel in mm:

...mm

12

EHC adjustment

Enter measured distance of left wheel in mm:

700mm

8. Проверяем высоту

13

EHC adjustment

The height is outside the required tolerance limit.
The adjustment must be carried out.
Please confirm the measured values.
LEFT: 700mm RIGHT: 708mm
Yes: ENTER No: Exit

14

Do adjustment

Doing adjustment.....

9. Коротко запустите и заглушите двигатель. Подождите 10 секунд.

15

EHC adjustment

Adjustment is finished.
1.Briefly start and turn off engine.
2.Please wait 10 seconds.
Press ENTER to continue.

16

EHC adjustment

Any inclination is adjustment during vehicle operation.
Press ENTER to continue.

10. Выбираем X5 EHC ADJUSTMENT (Пример 2. для двухосной подвески)

17

FUNCTIONS

1 'ZCS/FA CODING'
2 'CAR/KEY MEMORY(NEW)'
5 'LEW SYNC'
6 'X5 EHC ADJUSTMENT'
7 'E65/E66 EHC ADJUSTMENT'

18

EHC adjustment

A 2-axle car is detected. If the car is not 2-axle, please exit and report to the distributor.

[ENTER]: continue
[EXIT]: exit

11. Проверьте режим

19

EHC adjustment

Mode: NOT SET
The above mode must not be in [SET] status, otherwise ECU will be damage when doing adjustment.
[ENTER]: Clear [SET] status and continue
[EXIT]: exit

20

EHC adjustment

Please run engine at idle speed, and wait 30 seconds.
[ENTER]: Above steps is finished, continue
[EXIT]: exit

12. Давление в ресивере должно быть выше 13 бар.

21

EHC adjustment

Accumulator Pressure(bar): 15.60
Compressor Temperature(°C): 42
Accumulator Pressure must be above 13 bar.
[ENTER]: Build up pressure, or continue
[EXIT]: exit

22

ATTENTION

1. Car must be in a horizontal position.
2. Before doing adjustment, switch the engine on and off.
Press ENTER to continue.

13. Выберите кузов

23

CHASSIS

1 Original BMW chassis
2 Not original BMW chassis

24

X5 3.0i/3.0D/4.4i

4 X5 4.8 is with wide wheel arch

14. Выбираем переднюю ось

25

WHEEL SIZE CHOOSING
1 17 inch
2 17 inch, Sport Suspensions
3 18 inch
4 18 inch, Sport Suspensions
5 19 inch
6 19 inch, Sport Suspensions
7 20 inch
8 20 inch, Sport Suspensions

26

EHC adjustment

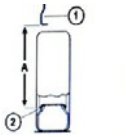
1 FRONT AXLE
2 REAR AXLE

15. Проведите измерения

27

EHC adjustment
Measure distance from bottom middle of rim flange to lower edge of wheel arch.

Press ENTER to continue



28

EHC adjustment

Enter measured distance of left wheel in mm:

...mm

16. Введите измеренное расстояние: 690 мм (левое колесо)

29

EHC adjustment

Enter measured distance of left wheel in mm:

690mm

30

EHC adjustment

Enter measured distance of right wheel in mm:

...mm

17. Введите измеренное расстояние: 685 мм (правое колесо)

31

EHC adjustment

Enter measured distance of right wheel in mm:

685mm

32

EHC adjustment

The height is outside the required tolerance limit.
The adjustment must be carried out.
Please confirm the measured values.
LEFT: 690mm RIGHT: 685mm
Yes: ENTER No: EXIT

18. Выполняется адаптация

33

EHC adjustment

Doing adjustment……

34

EHC adjustment

Finished……

Press ENTER to continue

19. Выбираем заднюю ось

35

EHC adjustment

The height isn't regulared immediately after adjustment but rather loading the vehicle or while driving.

Press EXIT to exit

36

EHC adjustment

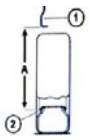
1 FRONT AXLE
2 REAR AXLE

20. Проведите измерения

37

EHC adjustment
Measure distance from bottom middle of rim flange to lower edge of wheel arch.

Press ENTER to continue



38

EHC adjustment

Enter measured distance of left wheel in mm:

…mm

21. Введите измеренное расстояние: 700 мм (левое колесо)

39

EHC adjustment

Enter measured distance of left wheel in mm:

700mm

40

EHC adjustment

Enter measured distance of right wheel in mm:

…mm

22. Введите измеренное расстояние: 710 мм (правое колесо)

41

EHC adjustment

Enter measured distance of right wheel in mm:

710mm

42

EHC adjustment

The height is outside the required tolerance limit.
The adjustment must be carried out.
Please confirm the measured values.
LEFT: 700mm RIGHT: 710mm
Yes: ENTER No: EXIT

23. Выполняется адаптация

43

EHC adjustment

Doing adjustment……

44

EHC adjustment

Finished……

Press ENTER to continue

45

EHC adjustment

The height isn't regulared immediately after adjustment but rather loading the vehicle or while driving.

Press EXIT to exit

B E65 настройка EHC

(1) Когда нужно выполнять адаптацию EHC:

1. После замены ЭБУ EHC.
2. Датчик EHC был снят для выполнения любого ремонта.
3. Была проведена замена кабелей к EHC или датчику.

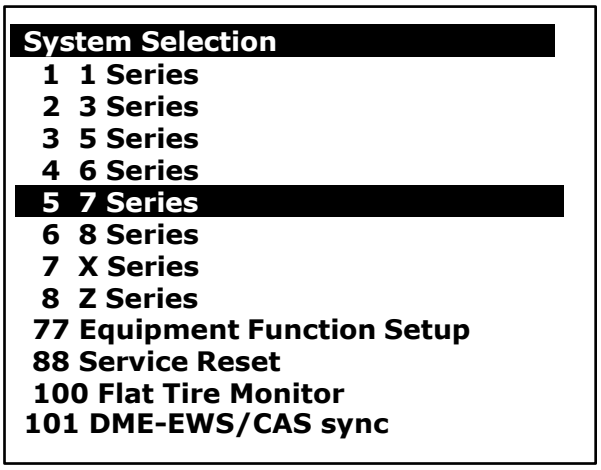
(2) Подготовка (до адаптации):

1. Установите машину на ровное место.
2. Запустите двигатель после замены воздушного амортизатора.
3. Никаких тяжелых предметов не должно быть внутри машины.
4. Никто не должен сидеть в автомобиле при проведении этой процедуры.

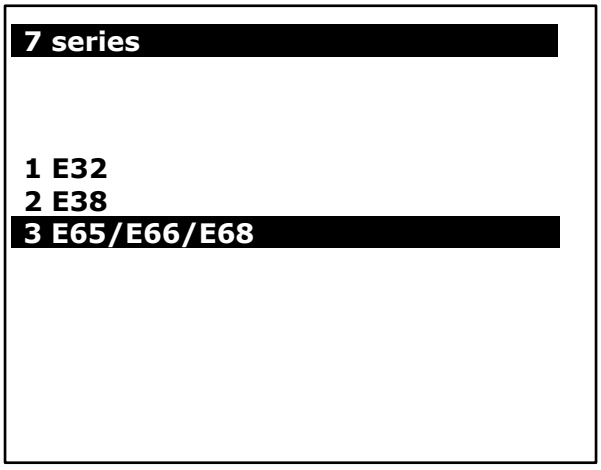
Процедура выполнения:

1. Загружаем прошивку BMW_E
2. Выбираем 7 series -> E65/E66/E68

1

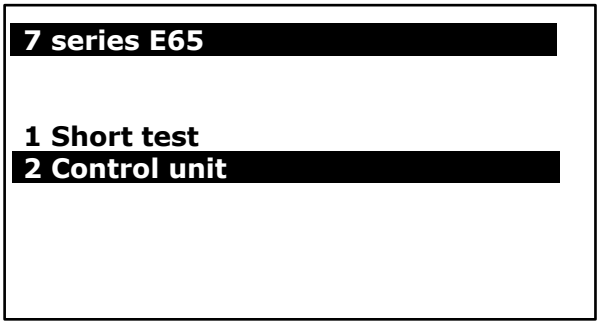


2

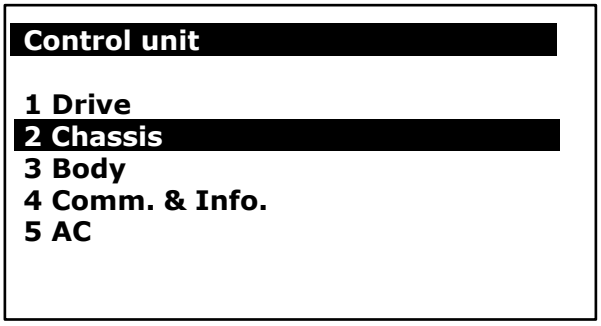


3. Выбираем Control Unit -> Chassis

3

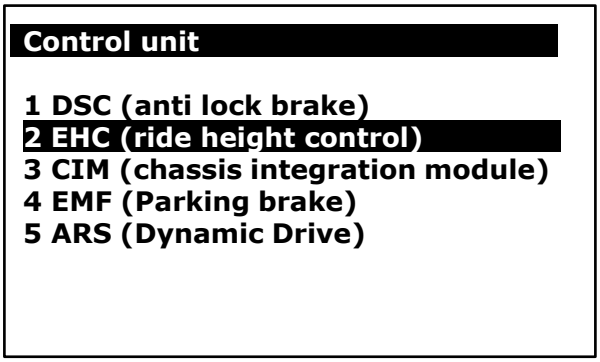


4

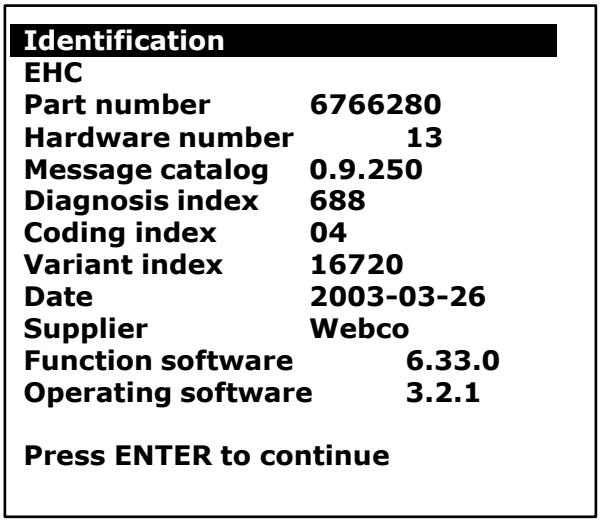


4. Выбираем EHC (система регулировки дорожного просвета)

5



6



5. Выбираем **EHC HEIGHT OFFSET**

7

EHC

1 Identification
2 Read Fault Code
3 Clear Fault Code
4 Data Stream
5 Activation
6 EHC HEIGHT OFFSET

8

ATTENTOIN

1. Car must be in a horizontal position.
2. Before doing adjustment, switch the engine on and off.

Press ENTER to continue

6. Выбираем **BMW-approved suspension system** и соответствующий размер колес

9

SUSPENSION

1 BMW-approved suspension system
2 non BMW-approved suspension system
3 EXIT

10

WHEEL SELECTION

1 17 inch
2 17 inch, with sport suspensions
3 18 inch
4 18 inch, with sport suspensions
5 19 inch
6 19 inch, with sport suspensions
7 20 inch
8 20 inch, with sport suspensions
9 21 inch
10 21 inch, with sport suspensions

7. Измерьте расстояние от верхней середины обода до нижней кромки колесной арки.

11

EHC ADJUSTMENT

Measure distance from bottom middle of rim flange to lower edge of wheel arch.

Press ENTER to continue

Измерьте расстояние между самой низкой точкой обода и ближайшей по вертикали точкой на колесной арке.

8. Введите измеренное расстояние: 675 мм (левое колесо)

12

EHC ADJUSTMENT

Enter measured distance of left wheel (mm)

...

13

EHC ADJUSTMENT

Enter measured distance of left wheel (mm)

675

9. Введите измеренное расстояние: 649 мм (правое колесо)

14

EHC ADJUSTMENT

Enter measured distance of right wheel (mm)

...

15

EHC ADJUSTMENT

Enter measured distance of right wheel (mm)

649

10. Подтвердите введенные значения

16

EHC ADJUSTMENT

The difference between the normal value and the measured values is:
LEFT: 32 mm
RIGHT: 6 mm

Press ENTER to continue

17

EHC ADJUSTMENT

The height is outside the required tolerance limit. The adjustment must be carried out. Please confirm the measured values.
LEFT: 675 mm
RIGHT: 649 mm

Yes: ENTER
No: EXIT

11. Адаптация выполнена. Коротко запустите и заглушите двигатель. Подождите 10 секунд.

18

EHC ADJUSTMENT

Doing adjustment.....

19

EHC ADJUSTMENT

Adjustment is finished.
1.Briefly start and turn off engine.
2.Please wait 10 seconds.
Press ENTER to continue.

12. AI:IanTaI.IIII.R EHC 3aKOH'IeHa. Tenepb MO>KHO IIIH1111.1111an1113111pOBaTb IIIH,AMKaTop noape>K,AeHM.R WMH.

20

EHC ADJUSTMENT

Any inclination is adjusted during vehicle operation.

Press ENTER to continue

21

EHC ADJUSTMENT

The tire failure indicator can now be initialized.

Press EXIT to exit.

C F01 настройка EHC

(1) Обзор системы:

В кузове F01 (7 серия с 2009 и новее) датчики EHC связаны с блоком управления ICM (интегрированное управление шасси). В зависимости от характеристик автомобиля, может быть до 4 датчиков EHC и все они передают сигнал в ЭБУ ICM.

(2) Когда нужно выполнять адаптацию EHC:

1. После замены ЭБУ EHC.
2. После замены ЭБУ ICM.
3. Датчик EHC был снят для выполнения любого ремонта.
4. Была проведена замена кабелей к EHC или датчику.

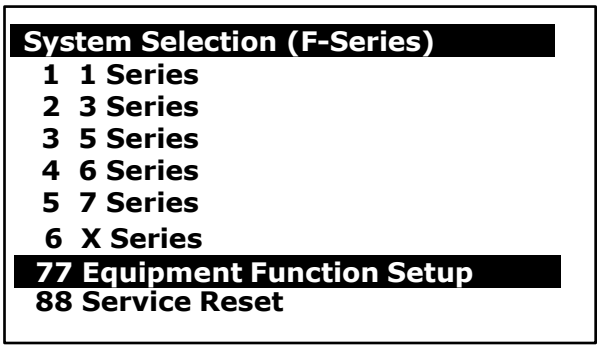
(3) Подготовка (до адаптации):

1. Заглушите двигатель, включите зажигание.
2. Установите автомобиль на ровном месте и поставьте колеса прямо.

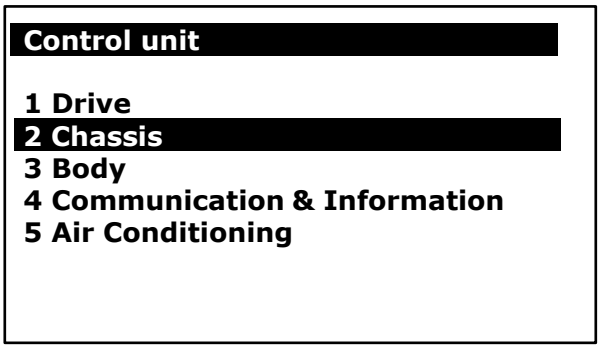
Процедура выполнения:

1. Загружаем прошивку BMW_F
2. Выбираем 77 Equipment Function Setup -> Chassis

1

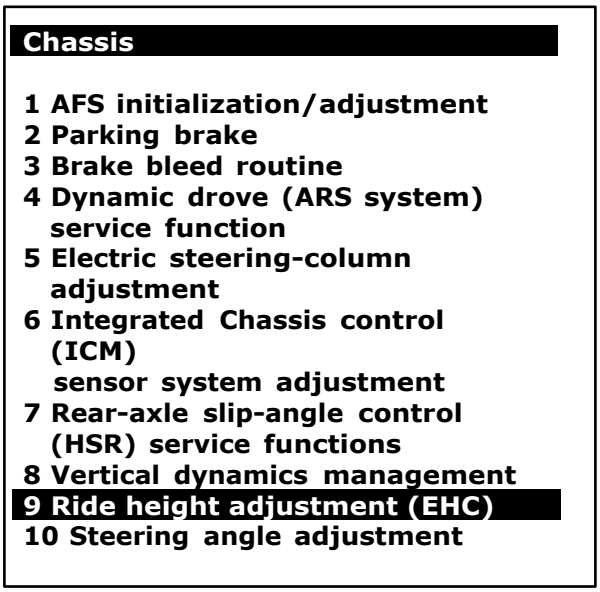


2

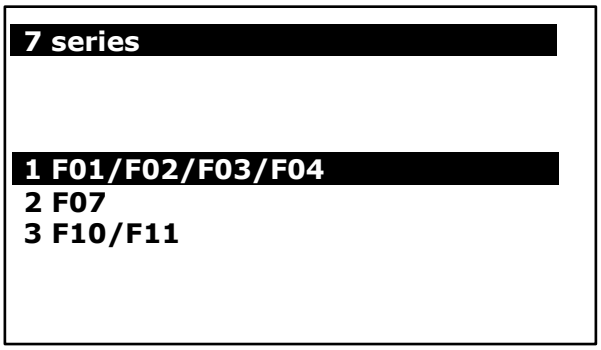


3. Выбираем Control Unit -> Chassis

3

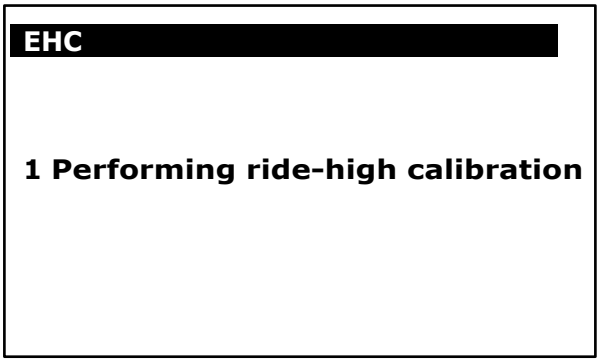


4

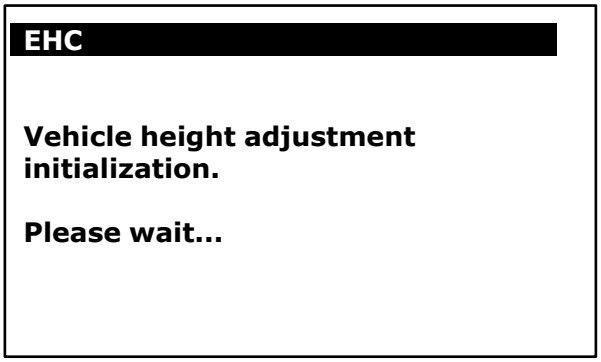


4. Выбираем Performing ride-high calibration

5



6



5. Вводим размер шин

7

EHC
Note:
The vehicle height calibration process, do not start the engine or change the vehicle weight.
Please enter your tire size (17 to 21) inch:
--

If you enter the wrong value, will to cause height calibration fail.
Please enter 0 to 9 number.
If you make a mistake, please press

EXIT: calibration.
Input is complete.
Please press ENTER to continue...

8

EHC
Note:
The vehicle height calibration process, do not start the engine or change the vehicle weight.
Please enter your tire size (17 to 21) inch:
18 --

If you enter the wrong value, will to cause height calibration fail.
Please enter 0 to 9 number.
If you make a mistake, please press

EXIT: calibration.
Input is complete.
Please press ENTER to continue...

6. Стандартная таблица

9

EHC
17-inch tires standard height:
Rear wheel: 634(mm) front wheel: 632(mm)
18-inch tires standard height:
Rear wheel: 647(mm) front wheel: 645(mm)
19-inch tires standard height:
Rear wheel: 660(mm) front wheel: 658(mm)
20-inch tires standard height:
Rear wheel: 673(mm) front wheel: 671(mm)
21-inch tires standard height:
Rear wheel: 686(mm) front wheel: 684(mm)

Please press ENTER to continue...

10

EHC
Please use the tape measure along the direction of travel, to measure the currently left rear height.
The lower part of the rim flange of the measurement to the wheel covers from the edge of
Please enter 'left rear' round the measurement height ____(mm):

Note:
If you enter the wrong value, will lead to the height correction fail.
Please enter 0 to 9 digits.
If you make a mistake press EXIT: correction.
After the input.
Please press ENTER to continue...

7. Вводим измеренное расстояние: 634 мм (левое заднее колесо)

11

EHC
Please use the tape measure along the direction of travel, to measure the currently left rear height.
The lower part of the rim flange of the measurement to the wheel covers from the edge of
Please enter 'left rear' round the measurement height ____(mm):
634
Note:
If you enter the wrong value, will lead to the height correction fail.
Please enter 0 to 9 digits.
If you make a mistake press EXIT: correction.
After the input.
Please press ENTER to continue...

12

EHC
Please use the tape measure along the direction of travel, to measure the currently left rear height.
The lower part of the rim flange of the measurement to the wheel covers from the edge of
Please enter 'right rear' round the measurement height ____(mm):

Note:
If you enter the wrong value, will lead to the height correction fail.
Please enter 0 to 9 digits.
If you make a mistake press EXIT: correction.
After the input.
Please press ENTER to continue...

8. Вводим измеренное расстояние: 634 мм (правое заднее колесо)

13

EHC
Please use the tape measure along the direction of travel, to measure the currently right rear height.
The lower part of the rim flange of the measurement to the wheel covers from the edge of
Please enter 'right rear' round the measurement height ____(mm):
634
Note:
If you enter the wrong value, will lead to the height correction fail.
Please enter 0 to 9 digits.
If you make a mistake press EXIT: correction.
After the input.
Please press ENTER to continue...

14

EHC
Please use the tape measure along the direction of travel, to measure the currently left rear height.
The lower part of the rim flange of the measurement to the wheel covers from the edge of
Please enter 'left front' round the measurement height ____(mm):

Note:
If you enter the wrong value, will lead to the height correction fail.
Please enter 0 to 9 digits.
If you make a mistake press EXIT: correction.
After the input.
Please press ENTER to continue...

9. Вводим измеренное расстояние: 633 мм (левое переднее колесо)

15

EHC
Please use the tape measure along the direction of travel, to measure the currently left front height.
The lower part of the rim flange of the measurement to the wheel covers from the edge of
Please enter 'left front' round the measurement height ____(mm):
633
Note:
If you enter the wrong value, will lead to the height correction fail.
Please enter 0 to 9 digits.
If you make a mistake press EXIT: correction.
After the input.
Please press ENTER to continue...

16

EHC
Please use the tape measure along the direction of travel, to measure the currently right front height.
The lower part of the rim flange of the measurement to the wheel covers from the edge of
Please enter 'right front' round the measurement height ____(mm):

Note:
If you enter the wrong value, will lead to the height correction fail.
Please enter 0 to 9 digits.
If you make a mistake press EXIT: correction.
After the input.
Please press ENTER to continue...

10. Вводим измеренное расстояние: 634 мм (правое переднее колесо)

17

EHC
Please use the tape measure along the direction of travel, to measure the currently right front height.
The lower part of the rim flange of the measurement to the wheel covers from the edge of
Please enter 'right front' round the measurement height ____(mm):
634
Note:
If you enter the wrong value, will lead to the height correction fail.
Please enter 0 to 9 digits.
If you make a mistake press EXIT: correction.
After the input.
Please press ENTER to continue...

18

EHC

Correction of body height...

Please wait...

11. Адаптация EHC закончена

19

EHC

Body height correction successfully

Press ENTER again to body height correction.
Press EXIT to leave.

12. Проверьте высоту подвески.

Измерьте расстояние между самой низкой точкой обода и ближайшей по вертикали точкой на колесной арке.