



Mercedes-Benz Actros MP1 / MP2 / MP3 / MP4 Electronic Power Shift EPS1 / EPS2 / EPS3

Following installation of the clutch, the sensors no longer detect the exact position of the clutch. This causes discrepancies in various systems which are often interpreted as a clutch error during the diagnosis.

- ➔ Teach-in the clutch position in the control unit.
- ➔ Execute the teach-in process (minor/major) depending on the implemented activity.

Mercedes-Benz distinguishes between a minor and major teach-in process. Observe the vehicle manufacturer specifications.

Implemented activity		Teach-in process	
		Minor	Major
Install clutch release bearing		•	
Install master cylinder		•	
Install transmission	Same transmission type	•	
	Different transmission type		•
Install clutch		•	
Bleed clutch		•	
Install engine	Same engine type		•
	Different engine type		•
Install slave cylinder		•	
Replace sensors		•	
Replace the gearshift control unit			•
Install auxiliary brake (retarder)			•

Teach-in process (minor)

WARNING

Risk of accident caused by automatic setting off while the engine is running. Possibility of severe injuries.
 ⇒ Secure the vehicle against rolling away and accidental setting off using chocks.
 ⇒ Do not reach towards hot or rotating parts.



An error code is displayed if the teach-in process is aborted.
 Note the error code as it is **not** saved.

Implement a clutch comparison using STAR DIAGNOSIS following each teach-in process. The vehicle may not be under load during the clutch comparison.



EPS 1 with clutch pedal



Fig. 1: EPS 1 selector lever

Fig. 2: EPS 1 display

- | | | | |
|---|----------------|---|-----------------|
| 1 | Selector lever | 2 | Neutral button |
| 3 | EPS display | 4 | Neutral display |

1. Check whether sufficient compressed air is available.
2. Switch off ignition.
3. Engage the parking brake.
4. Press the clutch pedal as far as it will go and hold it in this position.
5. Press and hold the neutral button (2) on the selector lever (1) during the entire teach-in process.
6. Switch on ignition.
 - ⇒ Extended signal tone.
 - ⇒ The two arrows (3) flash twice alternately in the EPS display (Fig. 2).
 - ⇒ Three seconds after switching the ignition on: Brief signal tone or pop sound from the selector lever.
7. Release the clutch pedal.
 - ⇒ Brief signal tone or pop sound from the selector lever (1).
8. Press the clutch pedal as far as it will go.
 - ⇒ The neutral display (2) illuminates in the EPS display (Fig. 4).
 - ⇒ The teach-in process is complete.
9. Release the clutch pedal.
10. Release the neutral button (2).

EPS 1 with folding clutch pedal



Execute the teach-in process (minor) in AUTO mode when dealing with a folding clutch pedal. The clutch is automatically actuated by the clutch control during the teach-in process.

1. Check whether sufficient compressed air is available.
2. Switch off ignition.
3. Engage the parking brake.
4. Press and hold the neutral button (2) on the selector lever (1) during the entire teach-in process.
5. Switch on ignition.
 - ⇒ The two arrows (3) flash alternately in the EPS display (Fig. 2) during the entire teach-in process.
 - ⇒ The teach-in process has been completed when the arrows (3) no longer flash and the neutral display (4) is illuminated.



EPS 2 with clutch pedal



Fig. 3: EPS 2 selector lever

- 1 Selector lever
- 3 EPS display

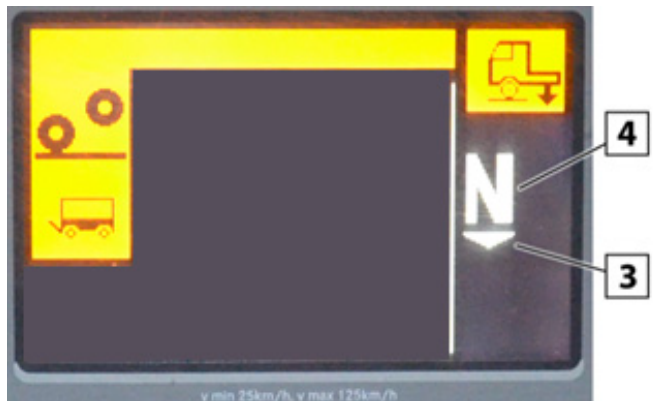


Fig. 4: EPS 2 display

- 2 Neutral button
- 4 Neutral display

1. Check whether sufficient compressed air is available.
2. Switch off ignition.
3. Engage the parking brake.
4. Press the clutch pedal as far as it will go and hold it in this position.
5. Press and hold the neutral button (2) on the selector lever (1) during the entire teach-in process.
6. Switch on ignition.
 - ⇒ The two arrows (3) flash alternately in the EPS display (Fig. 4) during the entire teach-in process.
 - ⇒ Brief signal tone or pop sound from the selector lever (1).
7. Release the clutch pedal.
 - ⇒ Brief signal tone or pop sound from the selector lever (1).
8. Press the clutch pedal as far as it will go.
 - ⇒ The neutral display (4) illuminates in the EPS display (Fig. 4).
 - ⇒ The teach-in process is complete.
9. Release the clutch pedal.
10. Release the neutral button (2).

EPS 2 without clutch pedal

1. Check whether sufficient compressed air is available.
2. Switch off ignition.
3. Engage the parking brake.
4. Press and hold the neutral button (2) on the selector lever (1) during the entire teach-in process.
 - ⇒ The two arrows (3) flash alternately in the EPS display (Fig. 4).
5. Switch on ignition.
 - ⇒ Brief signal tone.
 - ⇒ The neutral display (4) illuminates.
6. Start the engine.
 - ⇒ Brief signal tone.
 - ⇒ The neutral display (4) illuminates.
7. Release the neutral button (2).
 - ⇒ The teach-in process is complete.



EPS 3



Fig. 5: EPS 3 selector lever

- 1 Selector lever
- 3 M/A drive program button



Fig. 6: EPS 3 display

- 2 D/N/R switch
- 4 Neutral display

1. Check whether sufficient compressed air is available.
2. Switch off ignition.
3. Engage the parking brake.
4. On the selector lever (1), set the D/N/R switch (2) to neutral (N).
5. Press and hold the M/A drive program button (3) on the selector lever (1) during the entire teach-in process.
6. Press and hold the selector lever (1) towards the instrument cluster during the entire teach-in process.
8. Switch on ignition.
 - ⇒ The neutral display (4) illuminates.
7. Release the M/A drive program button (3).
8. Release the selector lever (1).
 - ⇒ The teach-in process is complete.

Teach-in process (major)

Observe the vehicle manufacturer specifications.



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