

# Comfortmatic MES kalibrering efter oljebyten

## Calibration procedure

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### MultiEcuScan (MES) Calibration Procedure — Ducato Comfortmatic

#### What is MultiEcuScan?

MultiEcuScan (MES) is a third-party Windows-based diagnostic software specifically tailored to Fiat, Alfa Romeo, and Lancia vehicles. A registered copy with all the necessary leads costs around £125 and lets your laptop communicate with all the Fiat modules. It is the go-to tool for Comfortmatic owners and does things a generic OBD reader simply cannot.

**Hardware you need:** The ELM327 OBD interface plus the green KKL adapter (for older protocols). For a 2017 Ducato, the ELM interface is the primary one to use.

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#### Overview — What MES Does for the Comfortmatic

MES communicates directly with the **Selespeed ECU (TCU)** — the brain of the robot unit. After a fluid change, or any time the gearbox behaves oddly, the TCU needs to re-learn the clutch behaviour. There are several distinct procedures, and they should be run in a specific order:

Step MES Procedure	Purpose
1 <b>Clutch Drain</b>	Purges air from hydraulic lines via 15 open/close cycles
2 <b>Actuator Base Adjustment</b>	Sets up the hydraulic and clutch units from scratch
3 <b>Clutch Self-Calibration Enable</b>	Fine-tunes clutch actuation / re-learns the "kiss point"
4 <b>Statistical Data Deletion</b> <i>(optional)</i>	Resets all counters and learned data in the TCU
5 <b>Calculate Degradation Index</b> <i>(optional)</i>	Measures clutch wear and updates the TCU's wear model

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#### Prerequisites — Before You Start Any Procedure

The following conditions are necessary for proper execution:

- Engine coolant temperature above 80°C
- Clutch temperature between 20°C and 150°C
- No active error codes in the engine ECU
- No active error codes in the Selespeed ECU

So: warm the engine up fully first, and clear any fault codes before you begin. One known cause of the calibration dropping out without completing is a weak or discharged battery — make sure the battery is fully charged (should read ~12.6V) before starting.

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#### Step-by-Step Procedures

##### Step 1 — Clutch Drain (Air Purge)

This is not the same as manually bleeding the clutch. The clutch drain procedure in MES performs 15 clutch open/close cycles, which brings any remaining air out of the hydraulic oil lines and the EVO solenoid valve.

Conditions during this procedure:

- Engine off
- Brake pedal depressed
- Key in MAR (ignition on, engine off)
- Clutch position sensor OK
- Clutch actuator OK

If any condition is not met, the procedure will end without an error code — it will simply silently stop.

The procedure lasts approximately 1 minute. You can confirm it ran correctly by listening for the clutch solenoid operating and the Selespeed pump activating during the cycle.

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### **Step 2 — Actuator Base Adjustment**

Run the "actuator base adjustment" in MES to set up the hydraulic and clutch units. This resets the physical reference positions the robot uses — essentially telling it where "fully open" and "fully closed" are for the clutch. Do this before the self-calibration, not after.

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### **Step 3 — Clutch Self-Calibration Enable (The Main Event)**


This is the key procedure after a fluid change. The "clutch self-calibration enable" sequence is a bit like pressing Ctrl+Alt+Del on a computer — it resets all the gearbox parameters to zero. The control module counts how many gear changes have been made and stores many other counters; this wipes the slate clean.

#### **Exact sequence:**

1. Press the Execute button in MES — engine must be OFF, Stop & Start function not active, gear in Neutral
2. Start the engine
3. Wait — the control unit will perform **5 clutch activation cycles**
4. The whole process should finish in approximately 1 minute

What's happening under the hood: when you press Execute, a request is sent to the gearbox ECU, which remains in a pending state until you start the engine. Once the engine starts, it runs the 5 cycles automatically.

The calibration takes only seconds — you don't feel or hear much. Stop the engine and restart when done. Many owners report being staggered by the improvement in smoothness after this sequence, especially if the gearbox had been notchy before.

 **Tip:** Some older documentation says to repeat the procedure 5 times manually. With MES on the Ducato, this is not necessary — the control unit performs the 5 activation cycles itself within a single run of the routine.

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### **Step 4 — Statistical Data Deletion (*Recommended after fluid service*)**

This clears the accumulated operational data stored in the TCU — things like gear change counts, clutch slip events, and temperature logs. It gives the system a genuinely fresh start. In MES this appears as "**Deletion of Statistical Data**" in the Adjustments tab. Simply select and execute with the engine off, key in MAR.

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### **Step 5 — Calculate Degradation Index (*Optional but informative*)**

This tells you how worn the clutch is. The procedure is:

1. Key to MAR, connect MES to the Selespeed ECU
2. Select "Calculate Degradation Index" and press Execute
3. Turn the key to STOP (connection drops, but that's fine)
4. Turn the key to MAR and start the engine
5. Select 2nd gear manually, accelerate gently to 3000 rpm
6. Brake and stop the car
7. Turn key to STOP, then back to MAR
8. Reconnect MES and check the "Clutch Degradation Index" in the parameters — it will now show an updated value

A low index value indicates a healthy clutch. A high value suggests significant wear and that a physical clutch inspection may be due soon.

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#### **After All Procedures — Test Drive Protocol**

1. Start the engine cold and let it idle for 2 minutes
2. Select 1st gear and drive off gently — the TCU is re-learning, so be smooth
3. Do a few gentle stops and starts in AUTO mode
4. Then do a slightly brisker drive in MANUAL mode through all 6 gears
5. Reconnect MES and check for any new fault codes — there should be none

Routine maintenance recommendations from experienced owners who have gone through this process: run the statistical data deletion and clutch self-calibration enable periodically — not just after a fluid change — to keep the gearbox data fresh and avoid the dreaded "no gear available" message.

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#### **Quick Reference Card**

FLUID CHANGED →

1. Warm engine to 80°C+
2. MES → Clear all fault codes
3. MES → Clutch Drain (engine off, key MAR, brake pressed)
4. MES → Actuator Base Adjustment
5. MES → Clutch Self-Calibration Enable
  - Press Execute (engine off)
  - Start engine
  - Wait ~1 min (5 cycles run automatically)
  - Stop + restart engine
6. MES → Statistical Data Deletion (optional)
7. Test drive gently, recheck codes

This full sequence, done after your fluid changes, should give the system a completely fresh baseline and noticeably smoother, more confident gear changes.