Functional description

for the following LEIB CAN BUS modules (only for BMW F - models):

- LEIB CAN EXHAUST BASIC
- LEIB CAN EXHAUST LITE
- LEIB CAN EXHAUST PRO

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Functional description (Menu)

By pressing the RES button (> 5 seconds), the menu is called up, in which the settings of the individual functions can be changed. **Important:** The RES button **must** already be pressed before turning on the ignition. The menu is displayed in the speedometer (instrument cluster) and the turn signals are shining permanently as long as the menu is active.

Press the RES button once to exit the menu.

The engine should not be started when attempting to open the menu or while the menu is active!

Therefore, please only turn on the ignition (press the start button shortly, without touching the brake pedal)!

(available from LEIB CAN EXHAUST BASIC)

Menu points are displayed in 10 km/h increments:

1 menu point corresponds to 10 km/h.

The menu points are visualized and changed using the rocker on the multifunction steering wheel:

Rocker up = Increase menu point by one point

Rocker down = Decrease menu point by one point

Setting points are displayed in 1000 rpm increments:

A setting point corresponds to 1000 rpm.

The setting points are visualized and changed by the rev counter:

Plus button = Increase setting point by one point

Minus button = Decrease setting point by one point

Functional description (Flap mode) [1] – [3]

The LEIB CAN BUS module controls the exhaust flap(s) of the vehicle in 3 different modes: [Open | Closed | Series]

The exhaust flaps are controlled by the cruise control rocker.

If the rocker is actuated upwards, a visual feedback of the turn signal in the instrument cluster in direction to the left will flash twice according to the selected setting in menu point [1].

If the rocker is actuated downwards, a visual feedback of the turn signal in the instrument cluster in direction to the right will flash twice according to the selected setting in menu point [2].

If the rocker is actuated downwards (> 1,5 seconds), a visual feedback of the turn signal in the instrument cluster in direction to the left + right will flash twice according to the selected setting in menu point [3].

(available from LEIB CAN EXHAUST BASIC)

By pressing the RES button (> 1,5 seconds) the currently set flap mode is set for all further motor starts. The setting can be changed again at any time.

In order to avoid a dual function, it is not possible to change the flap mode while the cruise control or limiter is active. However, during this time the set flap remains unchanged and consequently active.

Functional description (Limiter installed) [4]

(available from LEIB CAN EXHAUST BASIC)

In the menu point [4], the setting must be set to the setting point [1], if the vehicle has a limiter function - i.e. a LIM button is installed on the multifunction steering wheel.

If the SET button is installed, you do not need to make any settings here, as the LEIB CAN BUS module is set to this at the factory.

Functional description (Start stop) [5]

The LEIB CAN BUS modules offer the possibility to actuate the start stop button, without manually pressing it and thus deactivating the start stop function directly after turning on the ignition or starting the engine. This process is not done by coding.

You can set the start stop function in menu point [5].

Or:

You keep the start stop button pressed before you turn on the ignition until the turn signals in the instrument cluster react.

If the turn signal flashes once to the left, the start stop function is deactivated, i.e. by turning on the ignition on the next time or when starting engine on the next time the start stop mode is activated, as original.

(available from LEIB CAN EXHAUST BASIC)

If the turn signal flashes once to the right, the start stop function is reactivated, i.e. by turning on the ignition on the next time or when starting engine on the next time the start stop mode is deactivated, as set in the factory at the LEIB CAN BUS modules.

Functional description (Boost gauge) [6]

(available from LEIB CAN EXHAUST BASIC)

(in conjunction with LEIB CAN EXHAUST BOOST)

The boost pressure is represented in the instrument cluster by the instantaneous consumption display in the ratio 1 : 10 (bar : L / 100 km). The display can be set and activated in menu point [6]. To use this function you need additional hardware, the LEIB CAN BOOST Module.

Functional description (Staging) [7] – [8]

(available from LEIB CAN EXHAUST LITE)

If the staging is activated and set in the menu point [7] und [8], the speedometer and rev counter will be deflected once from 0 to maximum and back again. The staging becomes visible each time the ignition is turned on. If the engine is started directly, the staging is not performed.

Functional description (Catalyst deleter) [9]

(available from LEIB CAN EXHAUST LITE)

The catalyst deleter clears cyclically, if activated in menu point [9], only the corresponding fault memory entries that occur when the main catalyst (downpipe) or the two main catalyst (downpipes) are removed. For this reason, the engine malfunction light will stop shining in the future due to these fault memory entries.

Other fault memory entries than those addressed are not deleted. This has the advantage that fault memory entries that affect other areas of the engine can still be displayed and read out with a diagnostic device. Thus, the vehicle is fully diagnosable.

Functional description (temperature display) [10]

In the menu point [10] you can activate and set the temperature display. The selected temperature is displayed each time the engine is started or every time you turn on the ignition. The indication takes place over the small lamp of the cruise control and / or the limiter.

You have the choice between:

- Engine oil temperature [1]
- Intake temperature [2]
- Transmission oil temperature [3]
- Cooling water temperature [4]
- Exhaust temperature [5]

When selecting [1] to [4]: **1 °C corresponds to 1 km/h**

When selecting [5]: **10 °C corresponds to 1 km/h**

(available from LEIB CAN EXHAUST LITE)

To avoid a dual function, it is not possible while the cruise control or limiter is active to get the temperature displayed.

During operation, you can switch between the temperatures by pressing the RES button shortly. The selected temperature is displayed after a simple flashing of the turn signal as follows:

Engine oil temperature [1]	= 2x left blinker
Intake temperature [2]	= 1x left blinker
Transmission oil temperature [3]	= 1x left + right blinker
Cooling water temperature [4]	= 1x right blinker
Exhaust temperature [5]	= 2x right blinker

Functional description (Sound tuning) [11]

(available from LEIB CAN EXHAUST PRO)

In menu point [11] you can deactivate the exhaust popping, if already existing.

EXTREMLY IMPORTANT: If you want to remove the LEIB CAN BUS module again, you must select setting point [0] in menu point [11], otherwise the exhaust popping will not remain active even if the module has been removed.

Functional description (Flashlight) [12] – [16]

In the menu point [12] you can set the number of flashes, but also deactivate the flashlight by setting the setting point to [0].

The flash duration is set in menu point [13] with multiplier in menu point [14].

Example: Menu point [13] + Setting point [2]: 2 Milliseconds multiplied with menu point [14] + Setting point [4]: 5 → 2 * 5 = 10ms

The time interval between the flashes can be selected in menu point [15].

The flashlight is activated according to the reaction time setting in the menu point [16] by actuating the steering column lever.

(available from LEIB CAN EXHAUST PRO)

If the duration of the operation of the steering column lever is less than the reaction time set in the menu point [16], then the flashlight is not active and thus has the original function of the headlamp.

So, you can configure your individual flashlight. However, depending on the headlamp version (Xenon - LED - Laser) you have to adjust the setting. Because if you choose the setting so that the built-in headlamp is too slow for your setting, then you have configured a long single flashlight instead of a lot short flashlights.

Functional description (Catalyst heating) [17]

(available from LEIB CAN EXHAUST PRO)

In the menu point [17] you can deactivate the catalyst heating – i.e. you can change the cold start behavior of your engine so that it runs directly at idle speed even if the engine is cold – thus avoiding unnecessary engine rev-up in the cold start phase.

Functional description (Menu 26) [26]

(available from LEIB CAN EXHAUST PRO)

In the menu point [26] the LEIB CAN BUS module can be reset to the factory default coding with the setting point [1].

Furthermore, the entire fault memory can be deleted with the setting item [7].

The respective function is activated when the corresponding setting point is selected and after waiting for 5 seconds. The corresponding function is now processed for approximately 10 seconds. During this time both turn signals in the instrument cluster will flash. After completing the function, the turn signals will start shining again and the setting point [0] will be set automatically.

Menu 1: Flap mode [1] (Rocker up)

0. Open
1. Series
2. Closed

MAX: 2000 rpm | Factory coding: 0 ≙ 0 rpm

Menu 2: Flap mode [2] (Rocker down)

0. Open
1. Series
2. Closed

MAX: 2000 rpm | Factory coding: 1 ≙ 1000 rpm

Menu 3: Flap mode [3] (Rocker down > 1,5 seconds)

0. Open
1. Series
2. Closed

MAX: 2000 rpm | Factory coding: 2 ≙ 2000 rpm

Menu 4: Limiter installed

0. not installed
1. installed

MAX: 1000 rpm | Factory coding: 0 ≙ 0 rpm

Menu 5: Start stop

0. not active
1. active

MAX: 1000 rpm | Factory coding: 1 ≙ 1000 rpm

Menu 6: Boost gauge (LEIB CAN BOOST)

0. not active
1. active

MAX: 1000 rpm | Factory coding: 0 ≙ 0 rpm

Menu 7: Staging (V – MAX)

0. not active
1. active (260 km/h)
2. active (280 km/h)
3. active (300 km/h)
4. active (330 km/h)

MAX: 4000 rpm | Factory coding: diffenrently

Menu 8: Staging (D – MAX)

0. not active
1. active (7000 rpm)
2. active (7500 rpm)
3. active (8000 rpm)
4. active (8500 rpm)

MAX: 4000 rpm | Factory coding: diffenrently

Menu 9: Catalyst deleter

0. not active
1. active

MAX: 1000 rpm | Factory coding: 0 ≙ 0 rpm

Menu 10: Temperatur gauge

0. not active
1. Engine oil temperature
2. Intake temperature
3. Transmision oil temperature
4. Cooling water temperature
5. Exhaust temperature (1 : 10)

MAX: 5000 rpm | Factory coding: 1 ≙ 1000 rpm

Menu 11: Sound tuning

0. active
1. not active

MAX: 1000 rpm | Factory coding: 0 ≙ 0 rpm

Menu 12: Flashlight (Number of flashes)

0. not active
1. 3x
2. 6x
3. 9x
4. 12x
5. 15x
6. 18x
7. 21x

MAX: 7000 rpm | Factory coding: 3 ≙ 3000 rpm

Menu 13: Flashlight (flash duration)

0. 1 ms
1. 2 ms
2. 3 ms
3. 4 ms
4. 5 ms
5. 6 ms
6. 7 ms
7. 8 ms

MAX: 7000 rpm | Factory coding: 1 ≙ 1000 rpm

Menu 14: Flashlight (flash duration multiplier)

0. x 1
1. x 2
2. x 3
3. x 4
4. x 5
5. x 6
6. x 7
7. x 8

MAX: 7000 rpm | Factory coding: 4 ≙ 4000 rpm

Menu 15: Flashlight (time interval between the flashes)

0. 50 ms
1. 100 ms
2. 150 ms
3. 200 ms
4. 250 ms
5. 300 ms
6. 350 ms
7. 400 ms

MAX: 7000 rpm | Factory coding: 2 ≙ 2000 rpm

Menu 16: Flashlight (Reaction time - steering column lever)

0. 100 ms
1. 200 ms
2. 300 ms
3. 400 ms
4. 500 ms
5. 600 ms
6. 700 ms
7. 800 ms

MAX: 7000 rpm | Factory coding: 1 ≙ 1000 rpm

Menu 17: Catalyst heating

0. active
1. not active

MAX: 1000 rpm | Factory coding: 0 ≙ 0 rpm

Menu 26: „Menu 26“

0. not active
1. Reset coding to factory default coding
7. Clear fault memory (all ECU’s)

MAX: 7000 rpm | Factory coding: 0 ≙ 0 rpm

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