

VOLKSWAGEN

Group Motorsport

 **Audi Sport**
customer racing

 **SEAT**
SPORT

Volkswagen
Motorsport



TN_VAG_07_17_MXG_brake_bias

Application to:

- VAG cars with Sequential gear box
- VAG cars with DSG gear box

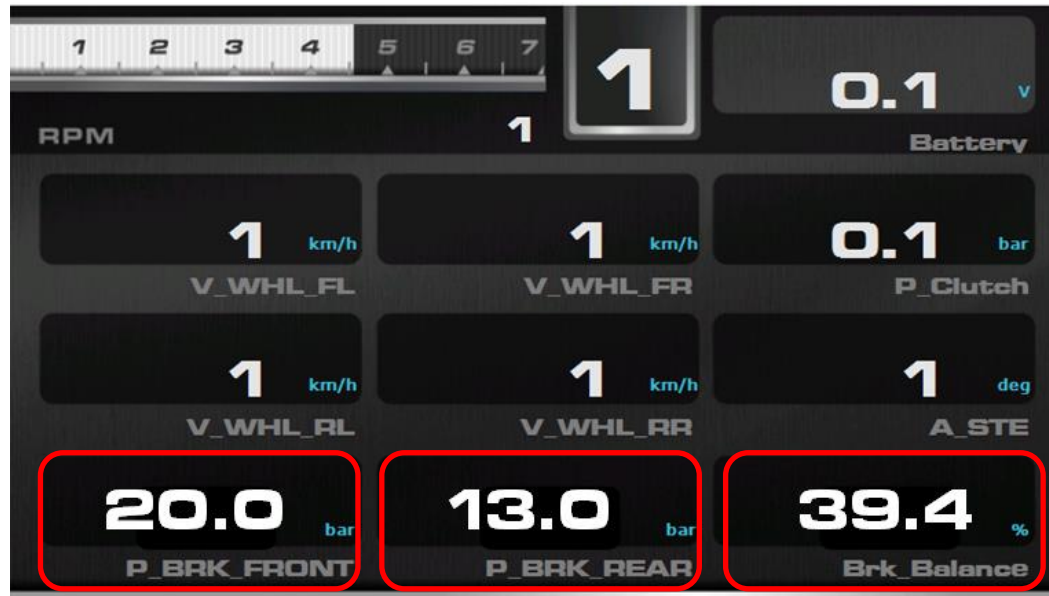
TN_VAG_07_17_brake_bias_configuration

Issue

Dear customer:

We have spotted a firmware bug which causes the given brake bias value to be the opposite as it should. The shown value is the rear % instead of being the front one.

If we take a look at the pressure values we will see that they don't match the percentage value. There is an example in the picture here below:



If this is the case, the math channels in RS3 configuration must be changed. Proceed as shown in the next page.

TN_VAG_07_17_brake_bias_configuration

Solution

Open the configuration double-clicking on it and then go to “Math Channels tab”

1. Click on the “gear icon” on the right side of “BrkBalance” row, then on “Edit Selected Match Channel”
2. Swap “First Channel” and “Second Channel” values as shown in the picture.
3. Save the values
4. Save the configuration
5. Transmit the configuration to the datalogger

Note: Remember to revert this once the bug has been fixed in future firmware updates.

The image shows a software interface for configuring a datalogger. At the top, there are buttons for 'Save', 'Save As', 'Close', and 'Transmit'. Below these are tabs for 'Channels', 'ECU Stream', 'CAN2 Stream', 'Math Channels', 'Parameters', 'Shift Lights and Alarms', 'Trigger Commands', 'Display', 'SmartyCam Stream', 'CAN Expansions', and 'CAN Output'. The 'Math Channels' tab is active, showing a table of channels. A gear icon on the right of the 'BrkBalance' row is circled with a red '1'. Below the table are buttons for 'Edit Selected Math Channel' and 'Delete Selected Math Channel'. Below the table is a 'Mathematical Channel Settings' dialog box. The dialog has fields for Name, Sampling Frequency, Unit of Measure, and Display Precision. Under 'Bias Mathematical Operation', there are dropdowns for 'First Channel' and 'Second Channel', and a 'Min. Threshold' field. The formula is $VALUE = CH1 / (CH1 + CH2)$ [if both thresholds are exceeded, else 0]. The 'First Channel' is 'P_BRK_FRONT' and the 'Second Channel' is 'P_BRK_REAR'. A red arrow points to the 'First Channel' dropdown, which is circled with a red '2'. A large grey arrow points to the right, indicating the next step. The next dialog box shows the 'First Channel' as 'P_BRK_REAR' and the 'Second Channel' as 'P_BRK_FRONT'. A red arrow points to the 'Save' button, which is circled with a red '3'. A red arrow points to the 'Save' button in the top toolbar, which is circled with a red '4'. A red arrow points to the 'Transmit' button in the top toolbar, which is circled with a red '5'.

ID (2/2)	Name	Function	Unit	Freq
BThr	BrkBalance	Percent	% 0.1	10 Hz
LnCr	Pos_actuator	Number	#	20 Hz

Mathematical Channel Settings

Name: BrkBalance
Sampling Frequency: 10 Hz
Unit of Measure: %
Display Precision: 1 decimal place

Bias Mathematical Operation

First Channel: P_BRK_FRONT
Second Channel: P_BRK_REAR
Min. Threshold: 2
VALUE = CH1 / (CH1 + CH2) [if both thresholds are exceeded, else 0]

Mathematical Channel Settings

Name: BrkBalance
Sampling Frequency: 10 Hz
Unit of Measure: %
Display Precision: 1 decimal place

Bias Mathematical Operation

First Channel: P_BRK_REAR
Second Channel: P_BRK_FRONT
Min. Threshold: 2
VALUE = CH1 / (CH1 + CH2) [if both thresholds are exceeded, else 0]