



# HLDX info sheet

## Haldex Control

The MFD28 has got the ability to send out can bus messages and control the 4motion system (VAG Gen1 PQ34 platform). For the communication path can bus is used. This means no changes to the original Haldex. Only retrofit the cables on your own.

The control is activated by a license which needs to be purchased from your display distributor.

# More information

More information regarding your display or our other produts please head to:

www.canchecked.de www.canchecked.de/mfd28/



#### Display, ECU and Haldex control unit form a single can bus. Display and ECU provide the can bus termination (120-ohm resistor). If you still have your tach in the can bus as well, the resistor can be deactivated in the display (menu – tri file – 120ohm). In addition, the Haldex control unit is connected to the hand break and brake lights. If one of both is active, the Haldex clutch will open to stabilize your car. The voltage feed of the Haldex needs to be connected as well.

Care must be taken on cars with ABS. This needs to be removed from the can bus as the display emulates this data. You will lose ESP and ASR functionality.

# Setup



## Installation

To purchase the license, you will need the serial number of your display. Either read it from the back of your display or get it from the display menu underneath "license". Here you will also enter the generated license code which you will be provided.

## Functionality

After the license activation and a restart you can access the "Haldex" menu, where you can find the basic setup and settings.

# Touch-areas on the display



- 1) Back to widget setup
- 2) Back to menu
- 3) Exit menu
- 4) Status information from Haldex
- 5) Status of the Haldex switches between OFF, IDLE, LOCK, RACE, STREET
- 6) Dynamic Haldex settings
- 7) Sensor settings (see lower section)

# Status

- OFF No can communication to Haldex
- IDLE Haldex open (0% lock)
- LOCK Haldex fully locked (100%)
- RACE Haldex fully locked when "SensorON" exceeds its value and fully open when exceeding "SensorOFF"
- Dynamic The lock of the haldex can be dynamically adjusted in reference to a sensor. 11 sampling points are available from "MinWarn" to "MaxWarn" of the specified sensor. To change the sensor tap on the y-axis.

#### Sensors

SensorON	User-defined sensor for RACE mode to lock the Haldex (e.g.: boost)
ValueON	Value for "SensorON"



SensorOFF User-defined sensor to unlock the Haldex after exceeding "SensorON" e.g. Speed ValueOFF Value for "SensorOFF"

If you do changes in your TRI file, you might double check your Haldex settings.

# Button RPM-CAN / Pump

If you run the display in a car with original can bus including tach, the display can send the RPM data to the tach (RPM-CAN – green). If you do not set this option your RPM needle either does not show anything or goes crazy.

Set the button to "pump active", to activate the Haldex pump even if the engine is not running. That's an important feature to either have a standalone Haldex controller or for trouble shooting. The button turns yellow for this function.

If you are not sure about both options just leave it "OFF".

#### Errors

If errors appear during Haldex operation, these will be shown in your Haldex widget. Here are the ones which can occur:

- ERROR1 Haldex error please double check your Haldex ECU
- ERROR2 Over temperature of the Haldex
- ERROR3 Haldex in emergency operation
- ERROR4 Haldex warning light active
- ERROR5 No Haldex found in can bus

#### Display / Widgets

To setup a Haldex widget please stop your display by tapping the screen once and use the upper option "widgets" to configure the current screen.

Either choose a current widget by tapping one or create a new one with "new widget". The widget will be marked with a red border.

Tap on "type" until you see "Haldex" in your widget. Now select which type of mode you want to run: LOCK, RACE, 20-80%, Dynamic. Adjust size and position of your widget and tap on "Exit" to finish your setup.

Now you can tap on your Haldex widget to switch between your pre-set mode and IDLE. You can have several Haldex buttons on one screen to switch between different modes.



## Plug connection



1) red – Plus 1qmm

- 2) black ground 1qmm
- 3) white brake lights (terminal 54) 1qmm
- 4) blue hand break 0.5qmm
- 5) brown K-Line (not needed) 0.5qmm
- 6) unused
- 7) blue/grey CAN Low 0.5qmm
- 8) blue/orange CAN High 0.5qmm

Mating plug to buy: 1J0 973 714

# Specific characteristics

- 1) Full lock will only be reached, when engine is running or "pump active" has been activated
- 2) Hand break and brake lights need to be cabled separately as shown above to stabilize your car in extreme conditions.
- 3) The Haldex control is not allowed for open streets. Please use only on tracks!
- 4) CANchecked is not responsible for damage or harm on the car or on any car components which are have been evoked by the display and/or the Haldex control.

For further questions or information visit our website (**www.canchecked.de**) or get in contact with us via email (**info@canchecked.de**).