Head Unit High (HU-H)

A control unit from Harman Becker and Alpine is used as the head unit. The Head Unit High (HU-H) in Servicepack 2021 is controlled by the optional equipment SA6U3 (BMW Live Cockpit Professional) and SA6U2 (BMW Live Cockpit Plus).

A hard disk is no longer found in the head unit. A flash memory will be installed instead.

This head unit supports the "BMW Remote Software Upgrade" function in vehicles with BMW ConnectedDrive.

This Headunit High (HU-H) represents the latest generation of the display and operating concept, the BMW Operating System 8.0.

In the new menu {APPS}, all apps for smartphone, vehicle and settings can be found.

Additional changes for the latest generation are:

- The central information display has its own voltage supply (terminal 30B).
- The SDARS Online function is integrated in the Headunit High (HU-H). The SDARS aerials remain connected to the receiver audio module (RAM).
- The head unit is capable of component protection and theft-proofing (2nd generation).

Functional description

The central information display is integrated into the display cluster. The display cluster consists of: Central information display, driver’s display and Driver Camera System (SA6U3).

The central information display is connected via a APIX data cable to the head unit.

The Augmented Reality Camera is connected to the head unit (HU) via SerDes.

The navigation display is supported for the following functions by means of augmented reality:

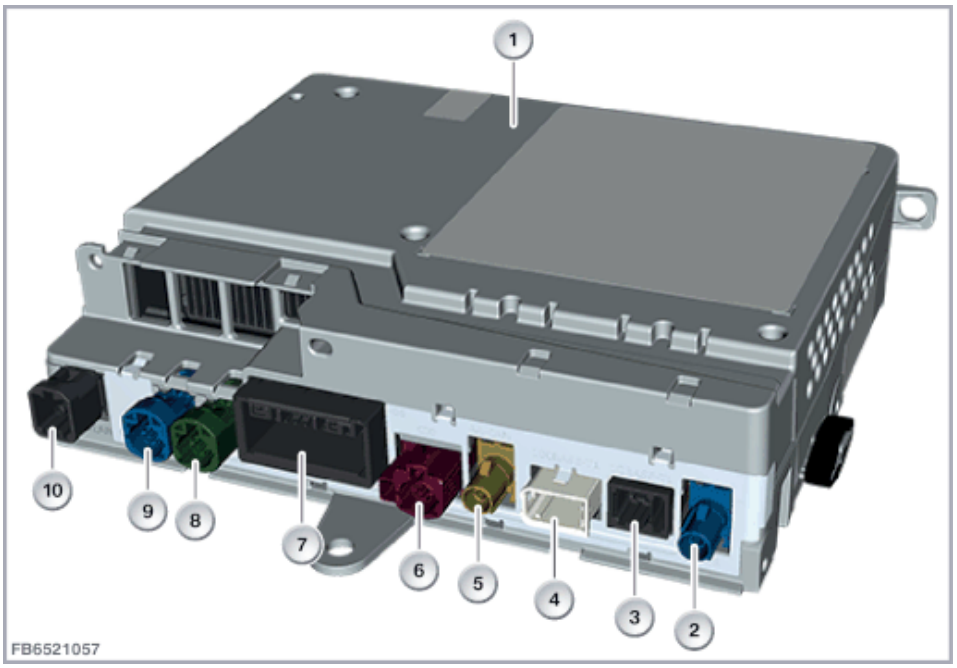
- Notes on turning
- Suggestions for choosing the driving lane
- Display of Points of Interest including interaction
- Instructions to follow when searching for a car park (On-Street Parking Information)

The following are also connected to the head unit: a maximum of 3 USB ports (one of which is for the Japanese version), WiFi aerial, Bluetooth aerial.

The Headunit High (HU-H) includes the following important functions:

- Central display and operating concept via touch control
- Other operating options are: Controller, speech processing / BMW Intelligent Personal Assistant, BMW gesture control
- Seamless display in the instrument cluster ("widgets")
- High-quality display using animation
- Personalised main menu
- Display colour depending on the setting of My Modes

- Integrated real, three-dimensional computer-aided design model of the vehicle for the display



Linux version

Index	Explanation	Index	Explanation
1	Head Unit High (HU-H)	2	GNSS aerial connection (GPS, countries without Connected Drive)
3	Connection Ethernet (1 GB)	4	Connection Ethernet (100 MB)
5	SerDes connection	6	APIX connection
7	16-pin connection, wiring harness	8	USB 3 connection (optional)
9	USB 2 connection	10	Bluetooth and WiFi connection

Notice!

The plug connections are country-dependent! Refer to wiring diagram!

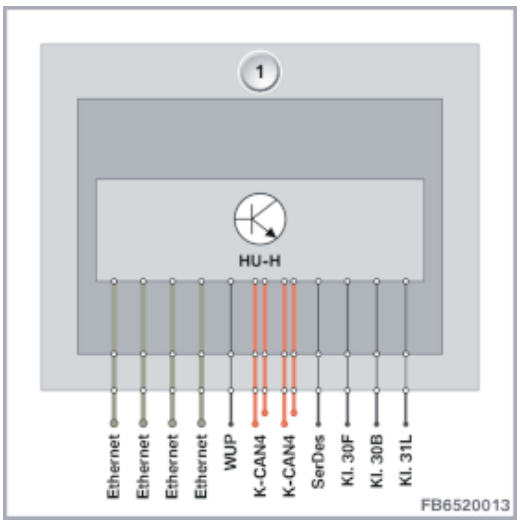
Structure and inner electrical connection

The Headunit High (HU-H) is connected to terminal 30B via the central power distribution box at the front. The terminal status is made available to the head unit via the bus system.

Terminal 30F supplies the Basic Central Platform (BCP).

The terminal 31L supplies the comb connector on the inner bulkhead.

The head unit is a bus user on the K-CAN4 and on the Ethernet (4 ports).



Index	Explanation
1	Head Unit High (HU-H)

Pin assignments

The graphic above shows only the supply and bus connection. The current pin assignment is recorded on the wiring diagrams in the ISTA diagnosis system (Integrated Service Technical Application). Click on the component code in the wiring diagram to activate the "Installation location" and "Pin assignment" tabs.

Nominal values

Note the following setpoint values for the Headunit High (HU-H):

Variable	Value
Supply voltage	9 to 16 V
Temperature range	-40 °C to 65 °C

Notes for Service department

Notice!

The "Audio Demo Mode" menu for the audio systems SA688 and SA6F1 is a new addition in the Headunit High. A video with music of the highest sound quality can be played for test purposes by the customer or in the workshop.

Diagnosis instructions

Notice!

Different settings can be reset via the diagnosis system with the aid of a service function.

Path: Service functions > Body > Headunit > Restore delivery status

The reset of the head unit is also possible via the menu on the central information display!

There is a fault pattern selection available for the selection "perceived symptom".

The following service functions are also available:

- Online service update
- Component protection initialisation

Failure of the component

If communication to the Headunit High (HU-H) fails, perform the standard checks (global test module). If there is an internal control unit fault, the following behaviour is to be expected:

- Fault memory entry in the Headunit High (HU-H)

Programming information

The following interface is used for programming the headunit:

- Ethernet via diagnosis socket

For informational purposes only. The information on this website is provided AS-IS with no warranties, express or implied, and is not guaranteed to be error-free, up-to-date or complete. NewTIS and BMW assume no liability for any loss or damage arising from the use or reliance on the information and content on this website. The content on this website is subject to change without notice.