

Denago

USER MANUAL

Android multimedia system for your car

Apple CarPlay

Android Auto

Bluetooth

CANBUS

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Introduction

1 Foreword

Thank you for choosing a Denago multimedia system. It gives you a modern solution for music, calls, navigation and vehicle information in your car.

About this manual

This manual helps you install, set up and use the system correctly. Among other things, it covers:

- installation and wiring;
- package contents;
- system settings and functions;
- home screen, apps, sound and Bluetooth;
- CANBUS, steering wheel controls and reversing camera;
- safety, maintenance and warranty.

Read the whole manual before you install or start using the system. This way you install it safely and get the most out of it.



Caution: this manual is updated regularly. Images, menus or functions may therefore differ from the software on your system. Suggestions for this manual are welcome at info@xlsuperstores.nl.

Brand name and legal entity

Denago is the brand name under which XLsuperstores BV offers its products. Where this manual refers to "Denago" as a company, XLsuperstores BV is meant.

We wish you a lot of enjoyment and safe travels with your Denago multimedia system.

2 About Denago

Denago has been a Dutch brand of XLsuperstores BV for more than five years. Denago designs and develops multimedia systems and reversing cameras for cars and supplies them throughout Europe.

What Denago stands for

- **Plug-and-play:** the systems are matched to specific car models. They fit the original connectors and the dashboard without major modifications.
- **Latest technology:** Android, Apple CarPlay, Android Auto, Bluetooth and Wi-Fi in one system.
- **Good value for money:** a complete solution at a fair price.

Own design and development

Denago designs and develops its products in-house. We use the experience of customers and installers to keep improving our products, software and documentation. The Denago multimedia system meets the applicable European requirements (chapter 4).

Who it is for

Denago products are intended for private customers as well as installers and car dealerships. You can buy them at denago.nl, through online marketplaces and from dealers and installers.

Service

Do you have a question about your Denago product? First contact the shop or dealer where you bought the product. If you cannot resolve it together, Denago customer service will help you by e-mail. The contact details are in chapter 27.4.

3 Intended use

The Denago multimedia system is intended for installation in suitable passenger cars, commercial vehicles and campers. Depending on the vehicle and version, the system replaces or supplements the original radio, with functions such as navigation, multimedia and wireless connections.

Which functions are available and which original vehicle functions are retained differs per vehicle, version and connection. Before installation, therefore, check that the system and the supplied cables are suitable for your car. Only use the system as described in this manual.



Caution: incorrect installation, connection or use can lead to malfunctions, damage to the system or the car and, in some cases, injury. Always follow the installation and safety instructions.

4 Declaration of conformity

4.1 EU declaration of conformity

Hereby, XLsuperstores BV declares that the radio equipment type Denago DNG-A series is in compliance with Directive 2014/53/EU. The full EU declaration of conformity can be found in appendix A at the back of this manual.

4.2 Frequency bands and transmission power

This system contains radio equipment for Bluetooth and Wi-Fi. There are no restrictions on putting it into service in the EU member states.

Function	Frequency band	Maximum transmission power
Bluetooth	2400 – 2483.5 MHz	7.5 dBm EIRP
Wi-Fi 2.4 GHz	2400 – 2483.5 MHz	16.7 dBm EIRP
FM radio (receive only)	87.5 – 108 MHz	n.v.t.
AM radio (receive only)	513 – 1602 kHz	n.v.t.
GPS/GNSS (receive only)	1559 – 1610 MHz	n.v.t.

4.3 Other standards and markings

- **CE marking:** the product meets the applicable European requirements for health, safety and the environment.
- **RoHS (Directive 2011/65/EU, amended by 2015/863/EU):** restricts the use of hazardous substances in electronic equipment.

4.4 Product identification and manufacturer

Product name	Denago multimedia system
Type or model number	DNG-A series
Serial or batch number	See the label on the housing
Manufacturer and importer	XLsuperstores BV, Ligusterbaan 1, 2908 LW Capelle aan den IJssel, the Netherlands, info@xlsuperstores.nl
Responsible person in the EU	Not applicable: XLsuperstores BV is the manufacturer and importer and is established in the Netherlands

5 Unpacking and safety warnings

Read these warnings before you unpack or install the product.

Subject	Warning
Small parts	Keep screws, clips and fixing materials out of the reach of young children: risk of choking.
Plastic bags and film	Keep packaging materials out of the reach of children: risk of suffocation.
Cables and cords	Do not leave loose cables lying around during installation: risk of entanglement and tripping.
Button cell batteries	A supplied remote control may contain a button cell. Swallowing it can be life-threatening. If you suspect that a battery has been swallowed, seek medical help immediately.
Electrical voltage	Only connect the system to an electrical system that matches the specifications (chapter 7). An incorrect connection can cause a short circuit, fire or damage.

Unpacking

1. Carefully remove the system and all parts from the packaging.
2. Check that the contents are complete (chapter 6) and that there is no visible damage.
3. Do not use or install the product if there is transport damage or the delivery is incomplete. In that case, contact your dealer or Denago at info@xlsuperstores.nl.



Tip: keep the original packaging if possible. It allows you to transport or ship the product safely.

5.1 Icons and signal words

Signal word	Meaning	What to do
Caution	Important safety information, risk of damage or an important limitation	Read this completely before you carry out the action
Tip	Practical advice for easier or better use	Use as extra help
See	Reference to another chapter or figure	Follow the reference for more explanation

6 Package contents

The contents of the package differ per model, vehicle type and version. Sometimes several cables are supplied for different vehicle variants; in that case not everything is needed for your car.

A standard package contains the following parts:

Part	Description
Multimedia system	The Denago unit with touchscreen, 9 or 10.1 inch depending on the model
Mounting frame	Frame for mounting in the dashboard, matching your car model
Power cable	For connection to your car's wiring (chapter 9.2)
RCA cable	Audio and video connections (chapter 9.5.2)
USB cable	For USB storage and wired CarPlay or Android Auto
GPS antenna	For satellite reception during navigation
Camera input cable with Bluetooth and Wi-Fi antenna	The multifunction signal cable (chapter 9.5.3)
External microphone	For hands-free calling and voice control (chapter 18.1.4)



Figure 6-1 Package contents

Depending on your car model, the power cable may include a CANBUS module (chapter 9.2.4).



Caution: not all parts are supplied as standard. Images in this manual are for illustration only; the shape, colour and design of parts may differ.



Installation and specifications

7 Technical specifications

The exact specifications differ per model and version.

Category	Feature	Specification
Power supply	Operating voltage	12 V DC
Power supply	Operating voltage range	9 – 16 V DC
Power supply	Maximum current consumption	15 A (fuse 15 A)
System	Processor	Depends on the model (for example RK3326)
System	Memory (RAM)	2, 4 or 6 GB, depending on the model
System	Storage	Depends on the model (for example 32 GB)
System	Operating system	Android 13 or Android 15, depending on the model
Display	Type	Touchscreen
Display	Resolution	1280 × 720 pixels
Display	Size	9 or 10.1 inch, depending on the model
Radio	FM range	87.5 – 108 MHz
Connectivity	Bluetooth	Bluetooth 5.0
Connectivity	Wi-Fi and hotspot	Yes
Connectivity	USB	2 × USB 2.0 (via cable)
Smartphone	Apple CarPlay and Android Auto	Yes, wired and wireless
Smartphone	Screen mirroring	AirPlay (iPhone)
Audio	Output power	4 × 45 W max. (4 × 25 W RMS)
Audio	Equalizer	Graphic DSP equalizer, balance and fader
Cooling	Fan	Yes, automatic or manual
Physical	Weight	Approx. 1.0 kg (without cables)
Certification	Markings	CE marking (RED 2014/53/EU and RoHS)

The specifications differ per model. This manual is based on a version with 2 GB of RAM; on other versions, screens and menus may differ slightly. You can find the details of your own device under **Settings → System** (chapter 13.6).

You can also find the processor, memory, storage, Android version and resolution on the system itself, under Settings → System (chapter 13.6).

8 Removing the original radio

Usually the original radio must first be removed from the car. How this is done differs per make, model and year. That is why there is no universal procedure here; always use instructions for your car.

Practical tips

- Look up removal instructions for your make, model and year, for example *Toyota Aygo 2018 radio removal*.
- Use the right tools. Preferably use plastic trim removal tools to avoid damaging panels.
- Never force parts that do not come loose easily. First check whether any screws or clips are still in place.

Connections and wiring

Do not pull the radio straight out of the dashboard. First check which connectors and antenna cables are attached at the back. Release connectors using their locking mechanism and never pull on the wires.

Previously installed equipment

Check whether additional equipment has been installed before, such as a car kit, amplifier or reversing camera. This can affect the connections and the installation space.



Tip: take photos of the original connections before you disconnect them. They will help later when connecting the Denago system.

9 Connecting the Denago system

This chapter explains step by step how to prepare, connect and check the Denago multimedia system. Follow the order and check each connection before you continue. An incorrect or incomplete connection can lead to malfunctions, loss of functions or damage to the system or the car. The exact connection differs per car and version.

Step	Description	Purpose
1	Preparation	Prepare the car and workplace, check the parts (9.1)
2	Choose the right power cable	Determine which cable set fits your car (9.2)
3	Connect the main power cable	Connect the system to the car's connector (9.2.2 to 9.2.4)
4	Connect extra cables and accessories	Antenna, GPS, USB, microphone, camera, fan and other accessories (9.3 to 9.6)
5	Check the installation	Test connections and functions before final mounting (9.7)
6	Additional configuration	Set up CANBUS, steering wheel controls and vehicle functions (chapters 15 and 16)



Tip for experienced installers: use this overview as a quick guide, but always check that the connections and settings suit the car in question and the Denago system.

The back of the Denago system



Figure 9-1 The back of the Denago system

Connection	Function
POWER (left)	Main power connector; the 15 A fuse is also located here
White connector ports (centre)	Signal cables, such as the RCA cable, the camera input cable and the CANBUS connector
ANT (green, top right)	Radio antenna (FM)
Screw connection (bottom right)	GPS antenna
Two fans	System cooling, with its own power connector (9.3)

9.1 Preparation

Good preparation prevents mounting problems, damage and incorrect connections.

Workplace and car

- Park the car in a level, safe and well-lit place and make sure it cannot roll away.
- Switch the ignition off completely, remove the key if possible and switch off all electrical consumers.
- Consult the car manufacturer’s instructions before disconnecting the 12V battery. If the battery has to be disconnected, disconnect the negative terminal (-) first.
- Protect the dashboard, centre console and panels with a soft cloth or protective mat.
- Remove the original radio as described in chapter 8 and keep the screws, clips and fixing materials.
- Take photos of the original wiring and connectors before disconnecting them.



Caution: never work on electrical connections while the ignition is on.

Parts and tools

- Compare the parts with chapter 6 (Package contents).
- Check that the correct power cable, any CANBUS module and accessories are present.
- Check cables, connectors and pins for visible damage.
- Have the right tools ready: plastic trim removal tools, Phillips and flat-head screwdrivers, a multimeter or voltage tester, cable insulation or crimp connectors, and cable ties.



Caution: never force a connector that does not seem to fit properly. Only mount the system permanently after you have checked all connections and functions.

9.2 Choosing the right power cable

The power cable connects the Denago system to the car's electrical system. A wrong cable or connection can lead to loss of functions, malfunctions, CANBUS errors or damage. Therefore, do not connect any cable until you are sure it fits your car.

Check the car's connector

- Look at the connector that was attached to the original radio.
- Compare the shape, pin layout and locking mechanism with the supplied power cable(s).
- Check whether one of the cable sets includes a CANBUS module.
- Identify the cable type using the table below.

Type	Application	How to recognise it	See
A – ISO	Cars with a standard ISO connector, without a CANBUS module	Two black ISO connectors (power and audio), no module, many loose coloured wires	9.2.2
B – Vehicle-specific without CANBUS	Cars with a make- or model-specific connector, without CANBUS	One continuous wiring harness, vehicle-specific connector (often blue or grey), antenna connector, no module	9.2.3
C – Vehicle-specific with CANBUS	Cars with CANBUS (steering wheel buttons, lighting, ignition detection, parking sensors, camera)	Black CANBUS module in a Y-harness, white connectors to the radio, large black main connector (often Quadlock)	9.2.4

9.2.1 Example: choosing the right power cable

Sometimes several power cables are supplied. Usually only one fits your car; the others are for other variants and you do not need them.

Step 1 – See which cables are supplied. Lay all power cables side by side on a flat surface. This way you can see at a glance which variants you have.



Figure 9-2 Supplied power cables side by side

Step 2 – Look at the connector on the radio. Look at the connector at the back of the original radio. Note its shape and design and compare it with the supplied cables.



Figure 9-3 Connector at the back of the original radio

Step 3 – Compare with the car's connector. Check that the chosen cable fits properly on the connection at the back of the Denago system. Never force a connector.



Figure 9-4 Comparing the vehicle connector

Step 4 – Confirm the right choice. Check that the cable fits properly at both ends: on the car's connector and on the Denago system. In the example below, cable 3 is the right one; cables 1 and 2 are for other variants.



Figure 9-5 Only the cable with the tick fits this car

9.2.2 Type A – Universal power cable (ISO)

Use this universal cable in cars without a CANBUS module, usually older cars or cars with a standard ISO connector. The cable provides power and the speaker signals.

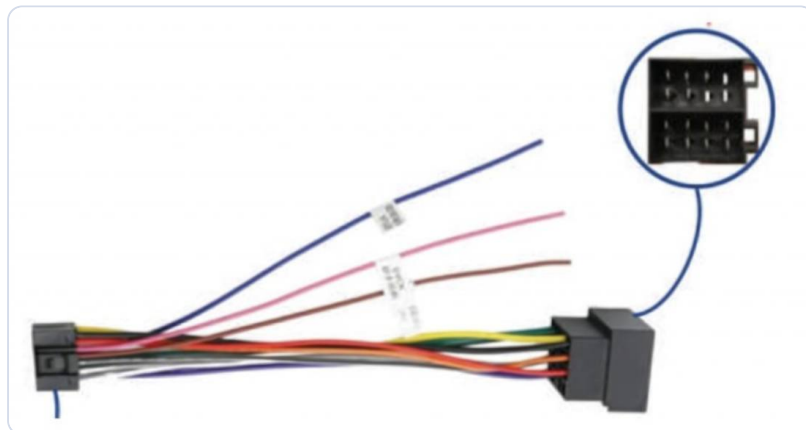


Figure 9-6 Type A: universal ISO power cable

Part	Identification
Main connector (ISO)	Black rectangular 8-pin connector, usually in two parts (power and audio)
Loose wires	Coloured wires according to the standard colour code, such as red (ACC), yellow (BATT), black (ground) and blue (antenna)
Cable labels	Small white labels on the wires, for example REVERSE or ILLUMI

Connection tips

- If the radio forgets its settings after the ignition is switched off, do not swap wires yourself. Use a multimeter to check which wire supplies permanent 12 V and which supplies switched 12 V, or have an installer check this.
- The ILLUMI wire (orange) is for the button illumination. Only connect it to your car's lighting signal. If in doubt, check the wiring with a multimeter or ask an installer.
- Always insulate unused wires (such as REVERSE and AMP OUT) with tape.

Wiring diagram

For proper operation, make at least these two connections:

1. **ISO power cable** for the power supply.
2. **Multifunction signal cable** (camera, Bluetooth, Wi-Fi). Always connect it, even without a reversing camera. Without this cable, Bluetooth, Wi-Fi and CarPlay work less well.

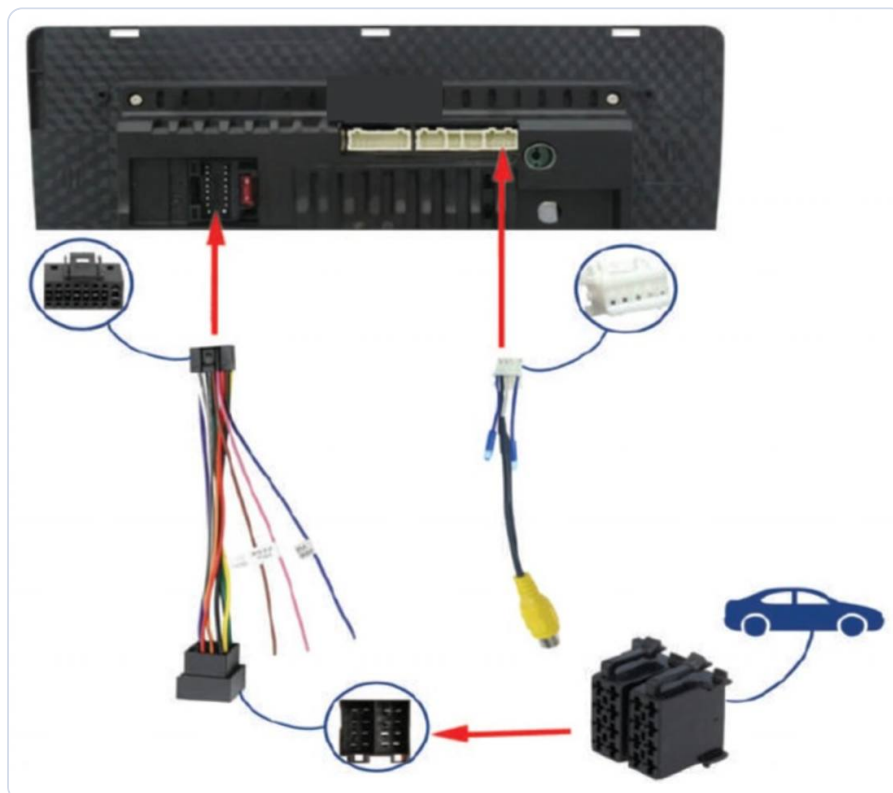


Figure 9-7 Type A: wiring diagram



Caution: do not use connecting clamps or methods that put voltage on the speaker outputs. This can damage the internal amplifier.



Tip: after connecting, check that the radio starts up properly and that the lighting follows the ignition. Then continue with 9.3 (fan).

9.2.3 Type B – Vehicle-specific cable without CANBUS module

Use this cable in cars without CANBUS but with a make- or model-specific connector. The vehicle-specific connector fits directly onto the car's original connector. It often also has an antenna connection.

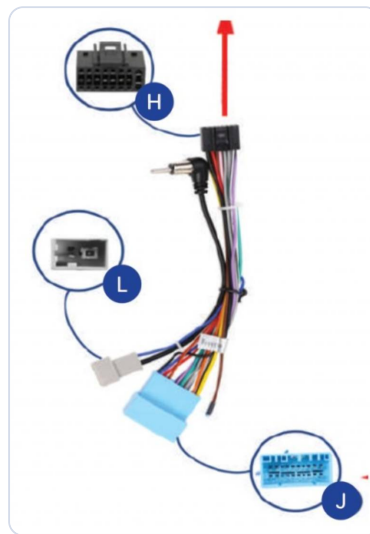


Figure 9-8 Type B: vehicle-specific cable with main connector (H), vehicle connector (J) and antenna cable (L)

How to recognise it: no CANBUS module, one continuous wiring harness with a fixed vehicle-specific connector (J), an integrated antenna connection (L) and fewer loose wires than type A.

Connecting (see figure 9-9)

- 1. H – Main power cable:** connect the black connector to the main power port at the back of the Denago system.
- 2. I – Multifunction signal cable** (camera, Bluetooth, Wi-Fi): always connect it, even without a camera.
- 3. J – Car-side coupling:** connect the car's original connector to the supplied Denago cable.
- 4. K – Harness connection:** the connection between the car's wiring and the main connector.
- 5. L – Antenna input:** connect the original antenna connector to the system's FM input.

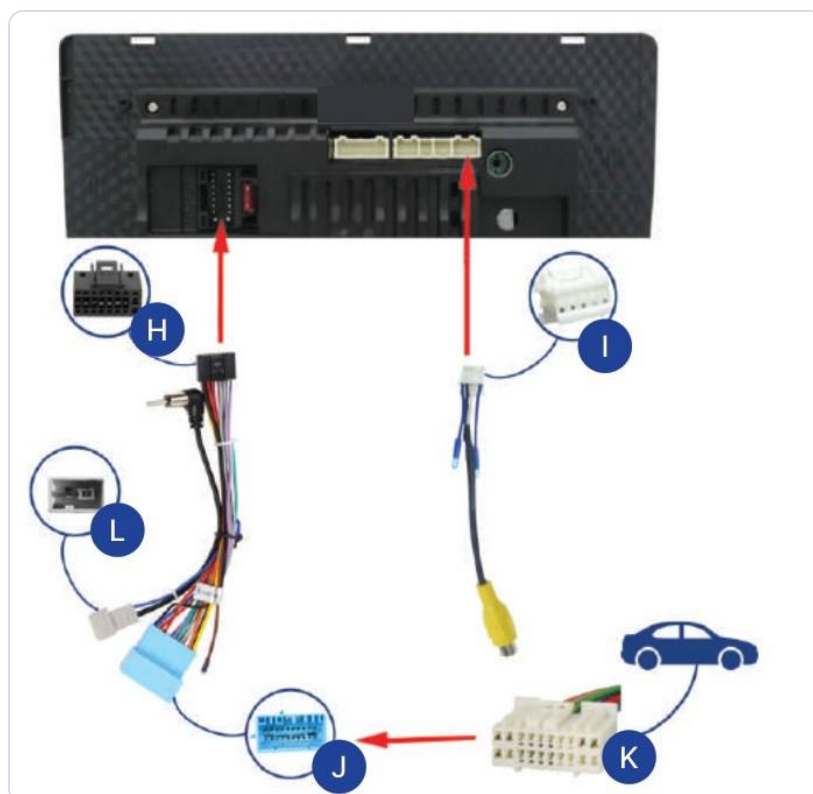


Figure 9-9 Type B: wiring diagram H to L



Caution: only connect the antenna connector to the antenna input, and check that each connector is on the correct port.

Check: start the system and check the sound, check that the system switches off when you turn off the ignition, and test the radio and Bluetooth. Then continue with 9.3.

9.2.4 Type C – Power cable with CANBUS module

Use this cable in cars in which functions such as steering wheel buttons, ignition detection, lighting and parking sensors run via the CANBUS.

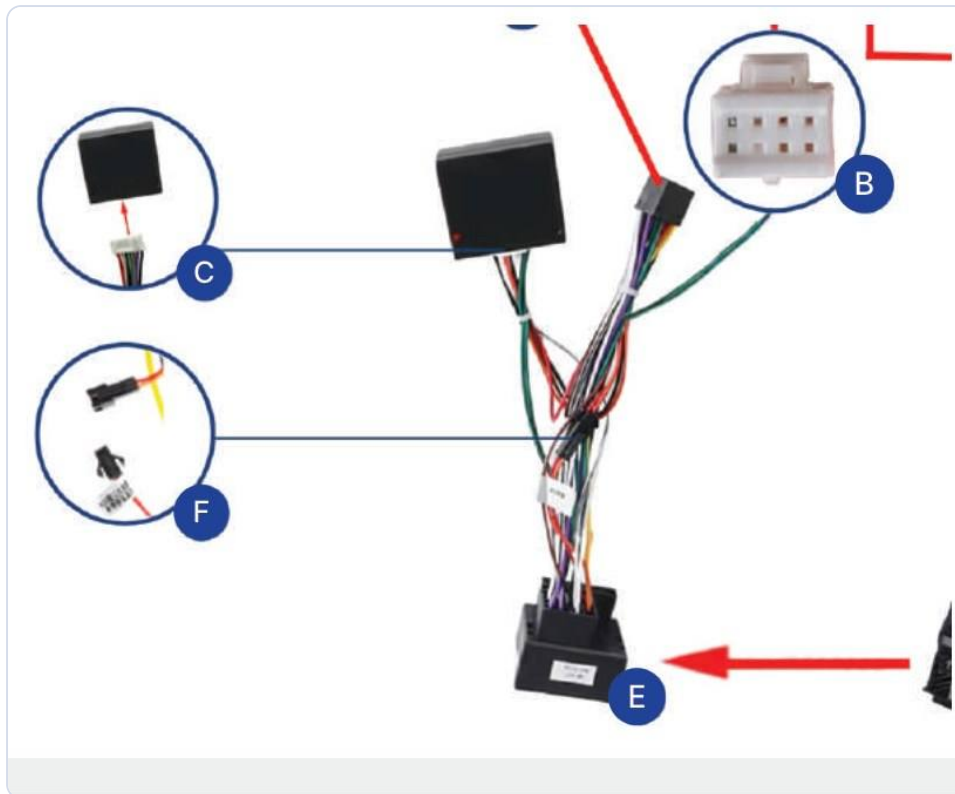


Figure 9-10 Type C: cable with CANBUS connector (B), CANBUS module (C), main connector (E) and intermediate connector (F)

Position	Part	Description
B	CANBUS connector	White, square 8-pin connector that goes into the back of the radio. Two wires handle the communication for the steering wheel buttons.
C	CANBUS module	Processes the car's CANBUS signals. Usually marked "CANBUS".
E	Main connector	Connector that connects to the car's original connector.
F	Intermediate connector (if present)	Required in some cars (including Volkswagen) for the switch-off behaviour. If the system does not switch off when the key is removed, have the connection checked by an installer or contact Denago.

Connecting (see figure 9-11)

- 1. A – Power connector:** connect the 16-pin connector to the port at the back of the system.
- 2. B – CANBUS connector:** connect it to the system's CANBUS input.
- 3. C – CANBUS module:** connect the connector to the module. The module stays in the wiring harness and is not connected directly to the system.

4. **D + E – Original power:** connect the car's original connector (D) to the matching connector of the Denago cable (E). Only connect E when the other connections are complete.
5. **F – Intermediate connector (if present):** see the table above.
6. **G – Multifunction signal cable:** always connect it, even without a camera. The antenna connections for Bluetooth and Wi-Fi are in this harness.

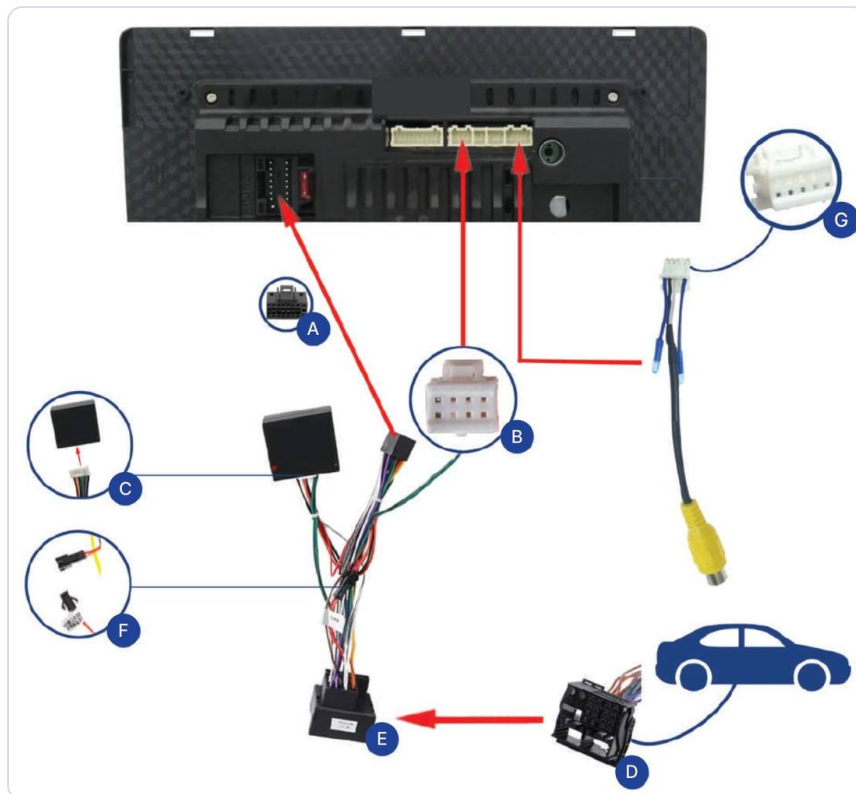


Figure 9-11 Type C: wiring diagram A to G

After connecting, check that the system switches on and off properly with the ignition, that the steering wheel buttons and lighting work, and that Bluetooth and Wi-Fi connect. If the steering wheel buttons do not work, see chapters 15 and 16.



Tip: before final mounting, check that all cables lie freely and cannot get pinched behind the dashboard.

9.2.5 Type C with original camera or factory amplifier

This version of the type C cable is for cars with original (OEM) functions from the car manufacturer, such as a factory-fitted reversing camera or factory amplifier. The cable has extra connections to retain these functions. The exact version differs per car.

Connecting (see figure 9-12)

1. **M – Main connector:** connect it to the power port at the back of the system.
2. **N – OEM camera input (yellow RCA):** for the original reversing camera. Sometimes a supplied camera interface or adapter is required.
3. **O – Amplifier and AUX connections:** use these if the car has a factory amplifier or external audio input.
4. **P – CANBUS or interface module:** handles communication with original functions, such as steering wheel buttons and camera activation.

5. Q – Car-side connectors: connect the brand-specific connectors to the original wiring.

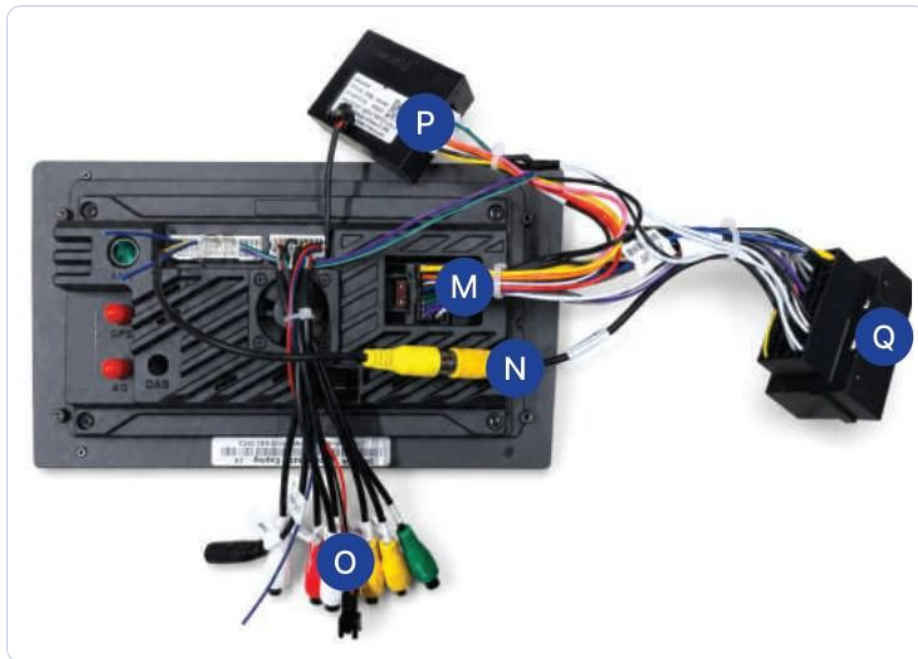


Figure 9-12 Cable for original camera or amplifier: connection points M to Q

How to recognise it: several brand-specific connectors with labels such as CAM IN, AMP CTRL or AUX IN, a yellow RCA video connector in the harness, and a thicker cable bundle than with type B or C.

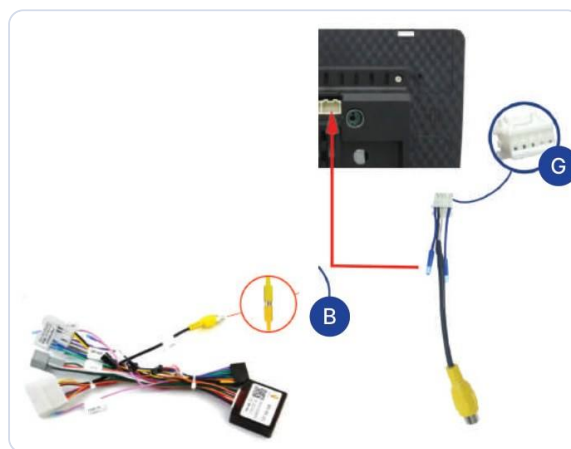


Figure 9-13 Multifunction signal cable (G) and CANBUS connector (B)



Tip: connect the yellow RCA cable first and only then the power. This prevents problems when the camera switches on automatically.



Caution: only use the yellow RCA connection for video. Mixing it up with AUX or microphone connections can cause damage.

9.2.6 RCA connections for an amplified audio system

In some cars, often from model year 2012–2013, RCA cables are supplied with the power cable set. Use them to connect the system to an original amplified audio system or an external amplifier.

From → To	Label	Function
A → H	FLOUT	Audio output front left
B → G	FR OUT	Audio output front right
C → F	AUX R IN	Audio input right
D → E	AUX L IN	Audio input left

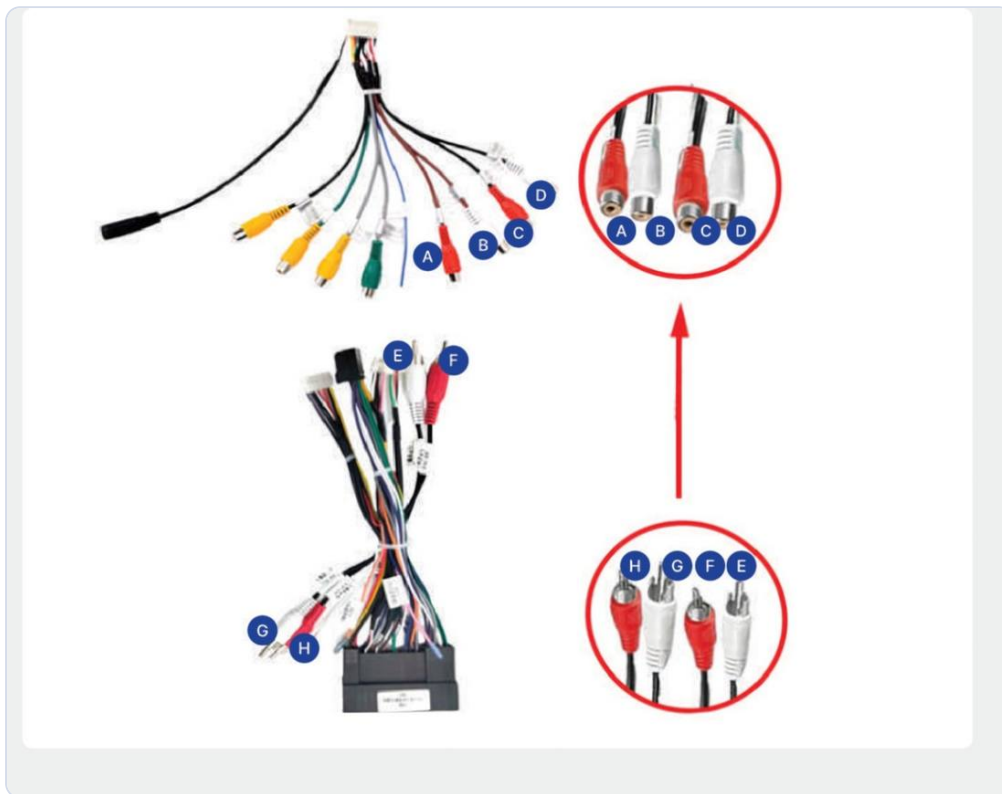


Figure 9-14 RCA connections A to H



Caution: these connections are only needed with a factory amplifier or if these cables are included in your set. See also 9.5.2.

9.2.7 Supplied external speaker

In some cars, warning sounds such as the ticking of the indicators, the seat belt warning and the beeps of the parking sensors are played through the original radio. After replacing the radio, these may be lost. That is why some systems come with an external speaker.

1. Connect the connector (A) to the wiring harness of the Denago system.
2. Connect the external speaker (B).
3. Test the indicators, seat belt warning and parking sensors.

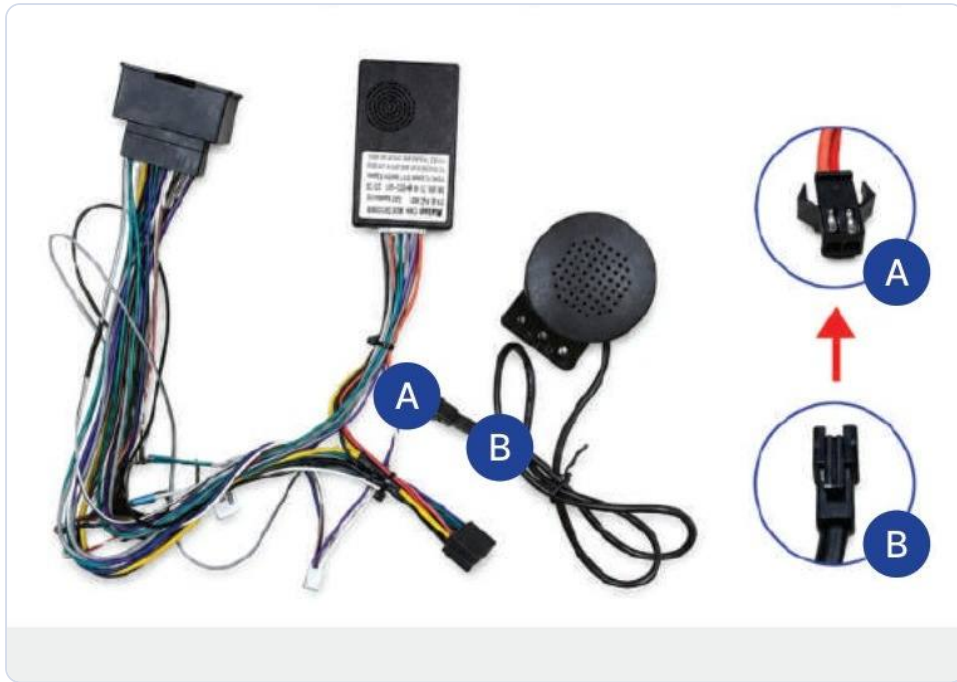


Figure 9-15 External speaker: connection to the wiring harness (A) and the speaker (B)



Caution: the external speaker is not included with every system and is only intended for the car's warning sounds, not for music.

9.3 Connecting the fan

The Denago system has two built-in fans at the back for extra cooling, for example during long use of navigation, high screen brightness or many apps at once.

Connect the fans' connector to the matching black connector with blue wire on the RCA cable.



Figure 9-16 Connecting the fans to the RCA cable

How to set the fan is described in chapter 17.



Caution: do not leave the fan switched off permanently, especially in warm weather or during long use.

9.4 Recognising the CANBUS module

The CANBUS module handles communication between the Denago system and the on-board computer. Through the module, the ignition status, steering wheel buttons, lighting, parking sensors and reversing camera, among others, are recognised. In most cases the module is set correctly at the factory. How to set it in the system is described in chapter 16.1.

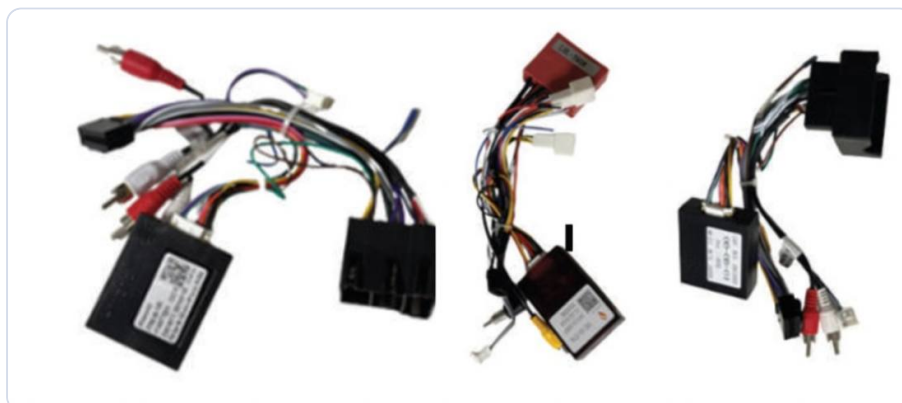


Figure 9-17 Examples of CANBUS modules with wiring harness

Appearance

- A compact box (approx. 5 × 3 cm) between the power cable and the radio.
- Plastic housing in black, grey or red-brown.
- A label with "CANBUS", a serial number or the manufacturer's name.
- Usually one white connector.

Sometimes the module is built into the radio panel itself. In that case you will not see a separate box, but the CANBUS works the same way.

Common brands

The Denago system works with Raise (Raize), Hiworld, Oudi, Simple Soft, Ximpu and LHL, among others. Always use the module supplied or recommended by Denago.

What does the label say?

- **Manufacturer**, for example Hiworld, Oudi, Raise or Simple Soft. You select this in the CANBUS menu (chapter 16.1).
- **Car make or series** the module is intended for, often as an abbreviation (such as VW, BZ for Mercedes-Benz, NS for Nissan).
- **Model or software version**, useful for updates or replacement.
- **Date or batch number**, usually not important for the user.

Examples

Hiworld: black housing with white label. In this example: AU = Audi, 10.20 = software version, "Fit for" lists the supported models and years.

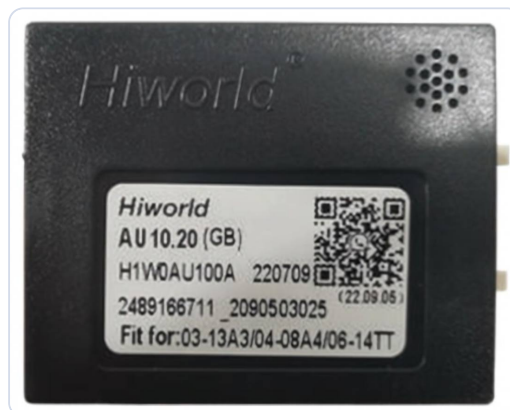


Figure 9-18 Hiworld CANBUS module

Oudi: the code after OD- indicates the make, for example OD-BZ for Mercedes-Benz, OD-TY for Toyota or OD-SU for Subaru. The hardware and software version are also on the label.

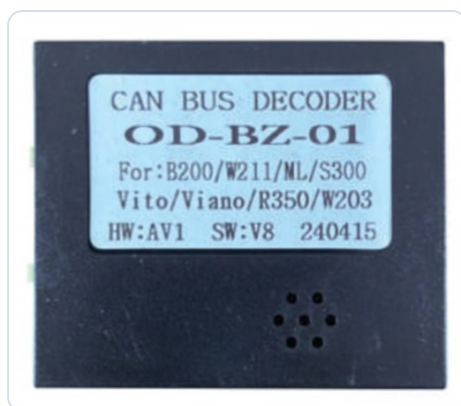


Figure 9-19 Oudi CANBUS module

Simple Soft: transparent red-brown housing, mainly for Asian makes. The letters at the beginning indicate the make, such as NS (Nissan), TY (Toyota), HY (Hyundai) or MZ (Mazda).



Figure 9-20 Simple Soft CANBUS module

Raise: black housing, often for the Volkswagen group (Volkswagen, Skoda, Seat). In the product code, RZ stands for Raise and VW for the Volkswagen platform. Raise also makes modules for other makes, such as FD (Ford) or HY (Hyundai).



Figure 9-21 Raise CANBUS module

Ximpu (Xin Pu): dark red housing with little information on the label. Predecessor of Simple Soft, still used occasionally, for example for Fiat (code URXT).



Figure 9-22 Ximpu CANBUS module



Tip: take a photo of the connected CANBUS module and its label before you refit the dashboard. This makes servicing easier later.

9.5 Connection cables and accessories

Depending on the car and version, you can expand the system with various cables and accessories. The colour or design of the supplied cables may differ per model; this does not affect operation.

9.5.1 Overview



Figure 9-23 Common cables and accessories

Cable or accessory	Function	See
Power cable	Power supply; the connector differs per car	9.2
CANBUS module (if present)	Communication with the car: steering wheel buttons, lighting, camera activation	9.4 and 16.1
RCA cables	External audio and video sources, subwoofer or amplifier	9.2.6 and 9.5.2
Multifunction signal cable	Camera input, Bluetooth and Wi-Fi; always connect	9.5.3
Antenna adapter (if applicable)	FM/AM reception with a vehicle-specific antenna connector	–
USB cables (usually 2)	USB storage or smartphone for Apple CarPlay and Android Auto	–
GPS antenna	Satellite reception for navigation; place it with a clear view outside, preferably near the windscreen	–
External microphone	Hands-free calling and voice control	–

9.5.2 Video cable and RCA connections

Use the video cable set to connect extra equipment, such as a media player, amplifier or external screen. These connections are not needed for basic operation.

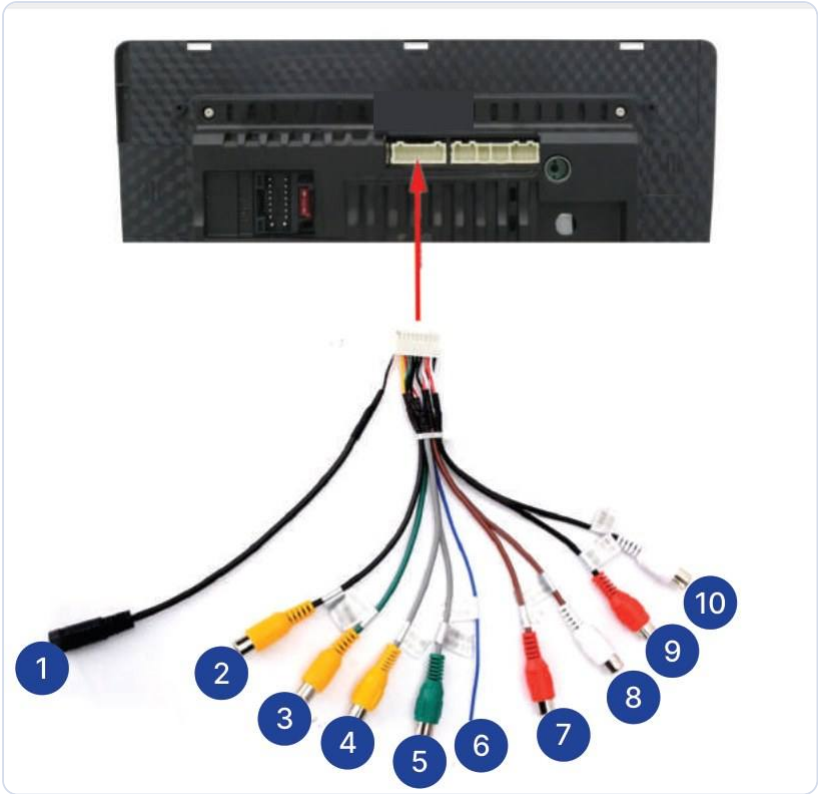


Figure 9-24 Video cable set with connections 1 to 10

No.	Connection	Function
1	MIC input	External microphone, recommended with a lot of road noise
2	Camera video in	Reversing camera (not for other video sources)
3	Video out	Image to an external screen, for example for rear passengers
4	Video in	External video source, such as a media player
5	Subwoofer out	Subwoofer or bass amplifier
6	AMP/REM (blue wire)	Switches on an external amplifier or active antenna
7	Audio out rear right	External amplifier or speaker
8	Audio out rear left	External amplifier or speaker
9	Audio out front right	External amplifier or speaker
10	Audio out front left	External amplifier or speaker

9.5.3 Multifunction signal cable (Wi-Fi, Bluetooth, camera)

You can recognise this cable by the yellow RCA connector and two blue wires.

- **Camera video in:** for an optional reversing camera. An adapter cable may be needed for an original camera.
- **Bluetooth and Wi-Fi:** the blue wires provide a stable wireless connection.



Figure 9-25 Multifunction signal cable



Caution: always connect this cable, even if you do not use a reversing camera. Without this cable, Bluetooth and Wi-Fi work poorly or not at all.

9.5.4 Wiring diagram and colour codes

The colour code of the power cable is the same for most cable variants.

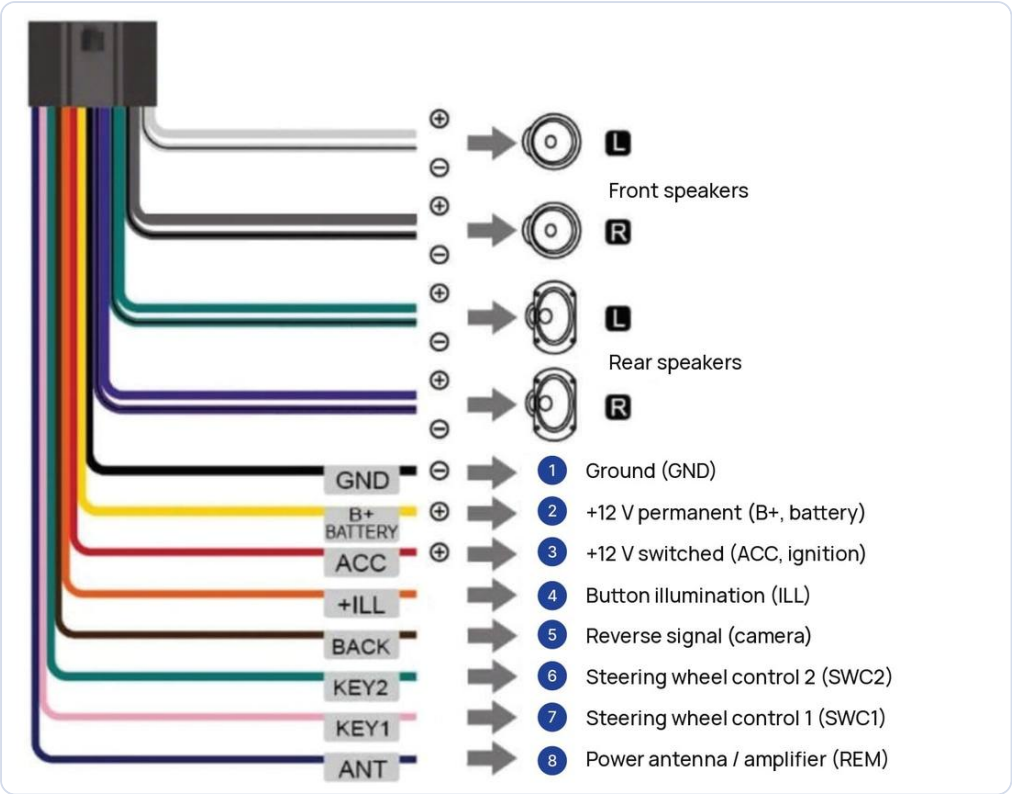


Figure 9-26 Wiring diagram of the power cable

Colour	Connection	Function
Red	ACC	Switched power; the radio switches on and off with the ignition
Yellow	BATT (+12 V permanent)	Permanent power from the battery; keeps settings and clock
Black	GND (ground)	Must be firmly connected to the chassis
Blue	ANT / REM	+12 V control signal for an active antenna or amplifier
Orange / white	ILLUMI	Button illumination; connect to the car's lighting signal
Grey / grey-black	FR+ / FR-	Speaker front right
White / white-black	FL+ / FL-	Speaker front left
Purple / purple-black	RR+ / RR-	Speaker rear right
Green / green-black	RL+ / RL-	Speaker rear left
Pink (if present)	REVERSE	Activates the camera image when reverse gear is engaged
Brown (if present)	BRAKE	Safety circuit via the handbrake; blocks video while driving
Blue-white (optional)	AMP CTRL	Control signal for an external amplifier or subwoofer
Grey-red (optional)	KEY1 / KEY2	Steering wheel controls for systems without CANBUS (type A)

Points of attention

- If the radio does not remember its settings, do not swap wires yourself. Use a multimeter to check which wire supplies permanent 12 V and which supplies switched 12 V, or have an installer check this.
- Only connect ILLUMI if the car does not control the lighting automatically via a switched signal.
- Always insulate unused wires, such as REVERSE or AMP CTRL, properly.
- With a CANBUS module (type C), most functions run via the CANBUS and you do not need to connect these wires separately.

9.6 Connecting a reversing camera (optional)

The Denago system supports a wired reversing camera. No camera is supplied as standard. If you use a camera from another brand, also follow that camera's manual.



Tip: preferably use a wired camera. Wireless cameras are not recommended, because reliability and image quality are often insufficient in practice.

Connection points

- 1. Camera video in (yellow RCA)** on the multifunction signal cable (9.5.3): connect the camera's video cable here.
- 2. Reverse wire (pink)**: connect to the +12 V of the reversing light, so that the system recognises that reverse gear is engaged. With a CANBUS module this is not necessary; the signal then comes via the CANBUS.
- 3. Camera power (red and black)**: connect to the reversing light (+12 V and ground). First use a multimeter to check that a stable 12 V is present there. In some cars, for example with LED lighting or bulb monitoring, a separate power supply or interface is required.
- 4. Testing:** put the car in reverse. The camera image should appear immediately.

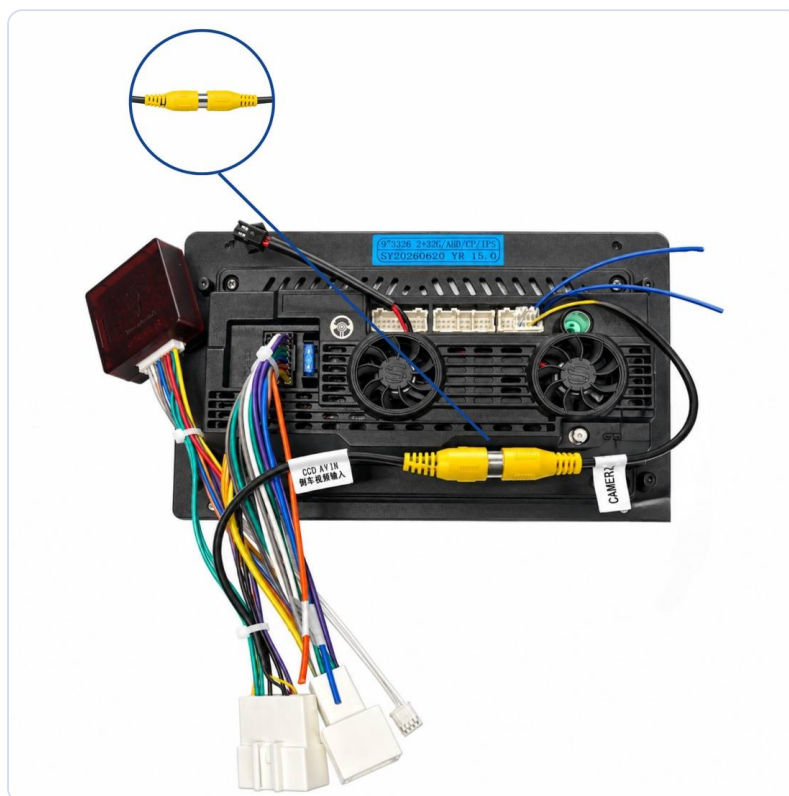


Figure 9-27 Connecting a reversing camera: CCD AV IN on the camera cable

In the photo, the yellow connector **CCD AV IN** of the signal cable is connected to the yellow connector **CAMERA** of the camera cable.

You set the camera's video format under Settings → Camera (chapter 13.3).

9.7 Checks after installation

- 1.** Reconnect the negative terminal of the battery if you disconnected it.
- 2.** Switch on the ignition and check that the system starts up.
- 3.** Check brake lights, indicators, wipers, warning sounds, parking sensors and other important functions of the car.

4. Test sound, radio reception, Bluetooth, Wi-Fi and, if applicable, the camera and steering wheel buttons.
5. Check that the system switches off when you turn off the ignition.
6. Only then mount the system permanently in the dashboard.



Caution: route cables so that they do not touch moving parts, such as the steering column, pedals, gear lever or seat rails. Always insulate unused wires with insulating tape.



Operation

10 Getting started and navigation bar

This manual explains the main screens and settings of the Denago multimedia system. The radio works with a touchscreen and runs on Android, so much of the operation will feel familiar if you use an Android phone.

At the top of every screen there is a fixed bar. It looks the same everywhere.

Position	Symbol	Function
Left, 1st	Square	Back to the home screen (Home)
Left, 2nd	Two rectangles	Overview of recently opened apps
Left, 3rd	Arrow to the left	Back to the previous screen
Left, 4th	Speaker with one wave	Volume down
Left, 5th	Speaker with two waves	Volume up
Right	Bluetooth symbol	Bluetooth is on
Right	Fan-shaped icon	Wi-Fi connection and signal strength
Right	Time	Current time

The screenshots in this manual are partly in English and partly in Dutch. How to change the system language is described in chapter 13.2.

10.1 Quick settings

In the quick settings panel you can operate the most frequently used functions with one tap. Open the panel by swiping down from the top edge of the screen.

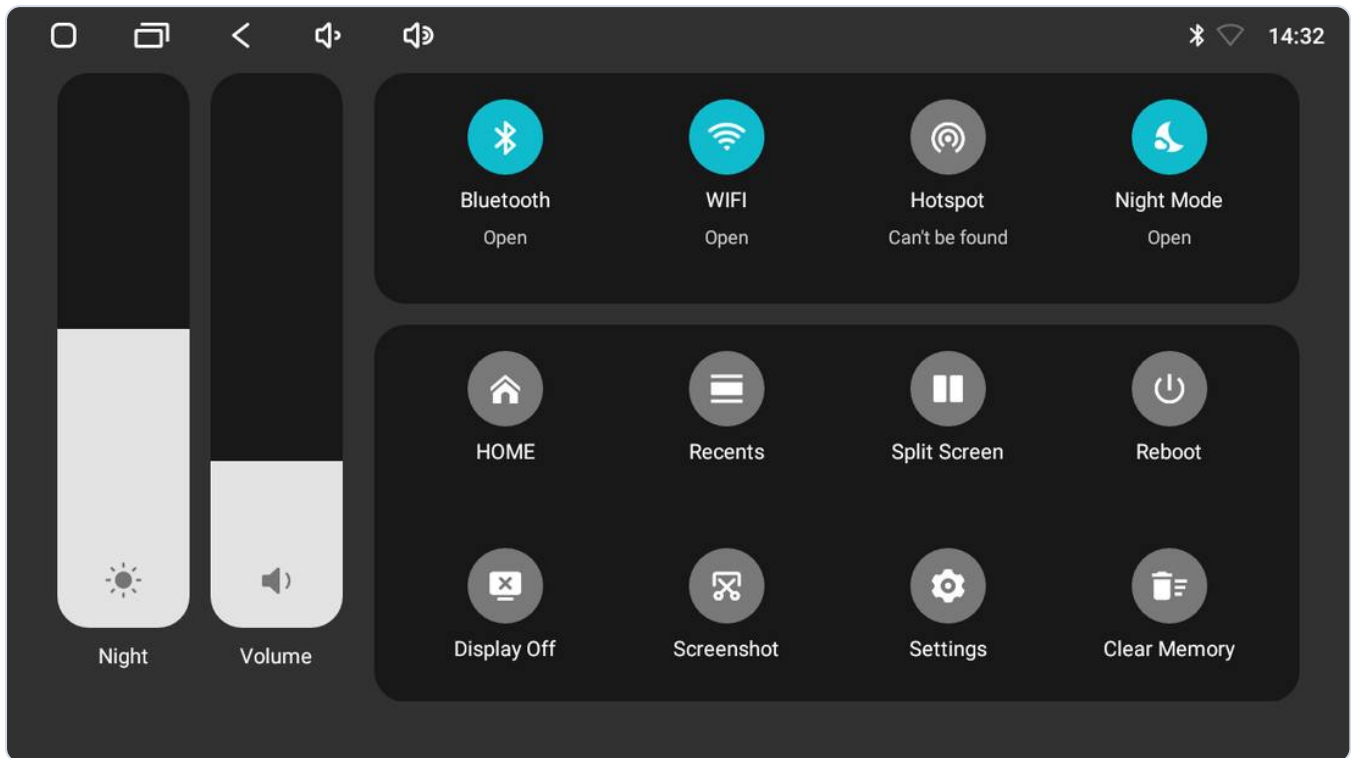


Figure 10-1 Quick settings

- **Night and Volume:** the two sliders on the left control screen brightness and volume.
- **Bluetooth, WIFI, Hotspot and Night Mode:** switch these functions on or off.
- **HOME and Recents:** go to the home screen, or the overview of recently opened apps.
- **Split Screen:** show two apps side by side, for example navigation and music.
- **Reboot:** restart the system.
- **Display Off:** switch off the screen; tap the screen to switch it on again.
- **Screenshot:** take a screenshot.
- **Settings:** open the settings (chapter 13).
- **Clear Memory:** close background apps to free up memory.

11 Home screen

The home screen shows your music, phone, clock, favourite apps and radio in one overview. You can always return here with the Home button (the square at the top left).

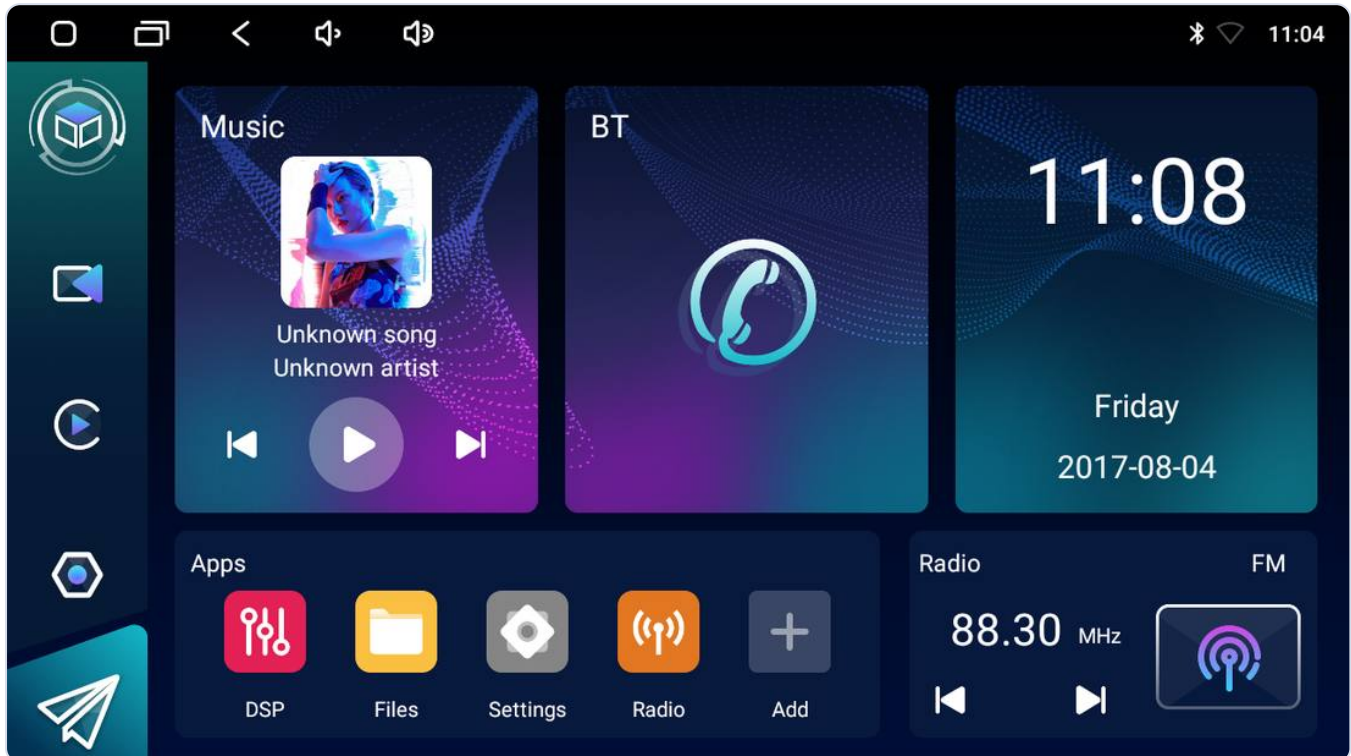


Figure 11-1 The home screen

Tiles on the home screen

- **Music:** shows the track that is playing, with cover, title and artist. Use the buttons for previous, play/pause and next.
- **BT:** opens the Bluetooth phone to make calls via your paired phone.
- **Clock:** shows time, day and date.
- **Apps:** shortcuts to five apps, by default DSP, Files, Settings and Radio.
- **Radio:** shows the current station (for example FM 88.30 MHz). Use the arrows to search for the previous or next station.

Left sidebar

The vertical bar on the left contains shortcuts, such as to video, media and navigation (the paper plane at the bottom).

Adding an app to the home screen

1. In the Apps tile, tap **Add** (the plus sign).
2. A window with all installed apps appears.
3. Tap the app you want to add. Close the window with the cross at the top right.

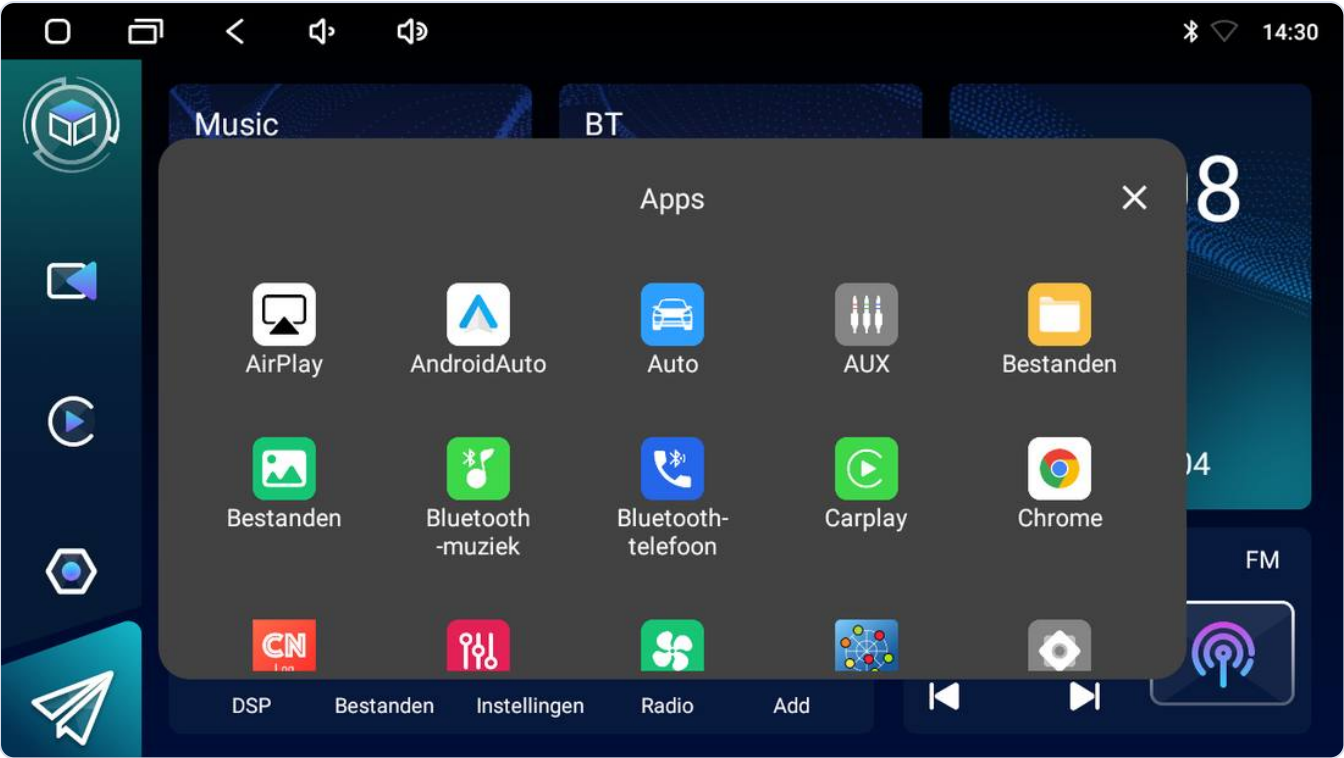


Figure 11-2 The Apps window for adding an app

12 App overview

All apps are spread over three pages; swipe left or right to switch. The dashes at the bottom of the screen show which page you are on.

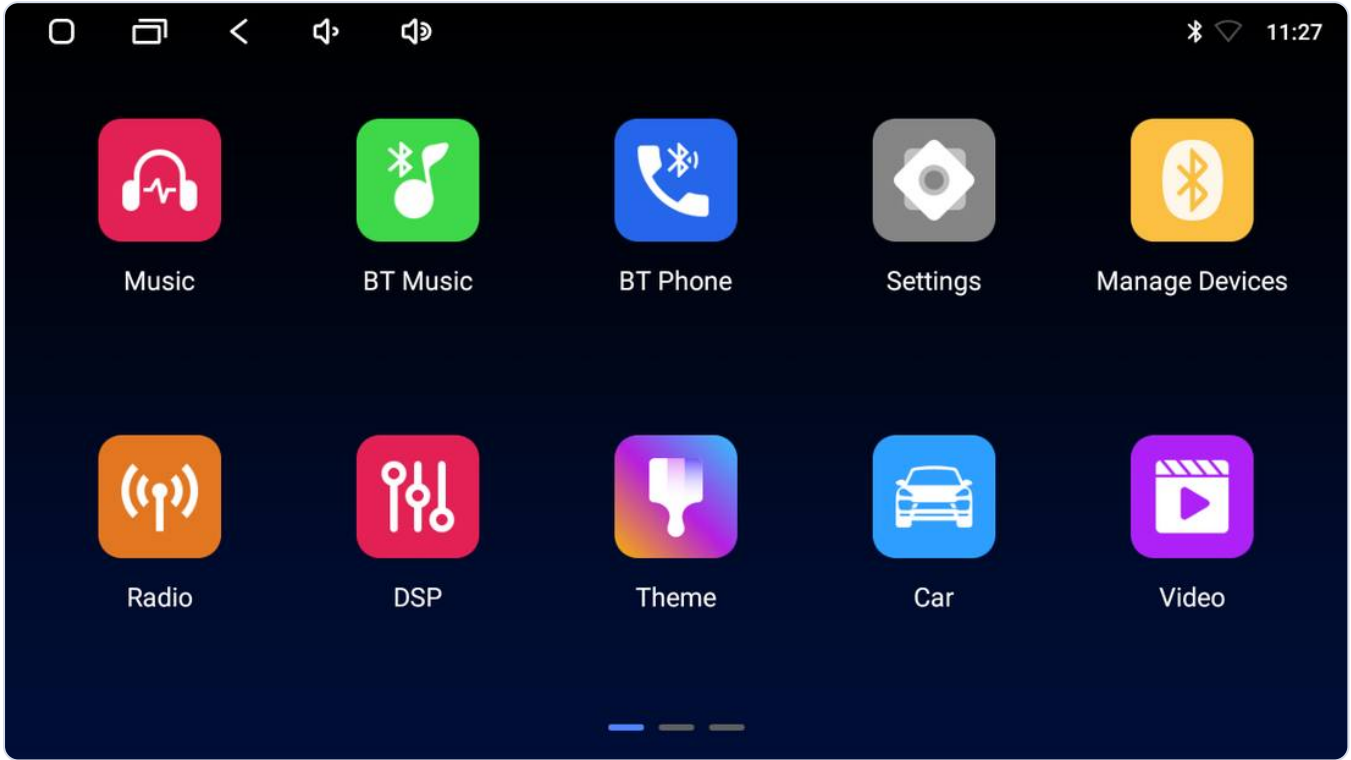


Figure 12-1 App overview, page 1

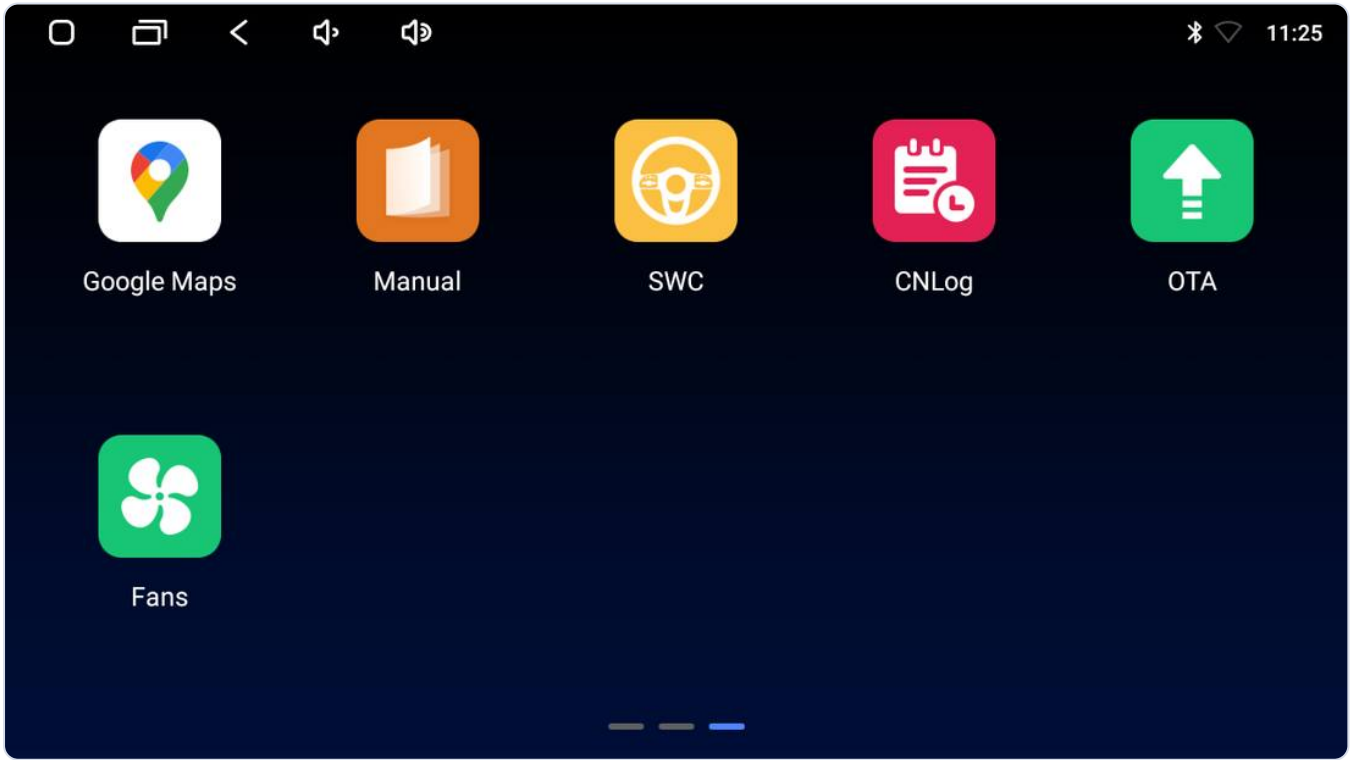


Figure 12-2 App overview, page 3

App	Page	What it does
Music	1	Play music from USB or internal storage
BT Music	1	Music from your phone via Bluetooth
BT Phone	1	Calls, contacts and call history via Bluetooth
Settings	1	All system settings
Manage Devices	1	Pair and manage Bluetooth devices
Radio	1	FM/AM radio
DSP	1	Equalizer and balance/fader (see chapter 14)
Theme	1	Appearance and background of the system
Car	1	Air conditioning, vehicle information and car settings via CANBUS
Video	1	Play videos
Google Maps	3	Navigation
Manual	3	Built-in manual
SWC	3	Program steering wheel buttons (see chapter 15)
CNLog	3	System log, mainly for technical support
OTA	3	Download and install software updates
Fans	3	Fan and CPU temperature (see chapter 17)

In the **Apps** window (via Add on the home screen) you will find even more apps, including AirPlay, Android Auto, Carplay, AUX, Chrome and Files. With Carplay and Android Auto you put apps from your iPhone or Android phone on the radio's screen.

Page 2 contains, among others, the apps for smartphone connections and the internet.

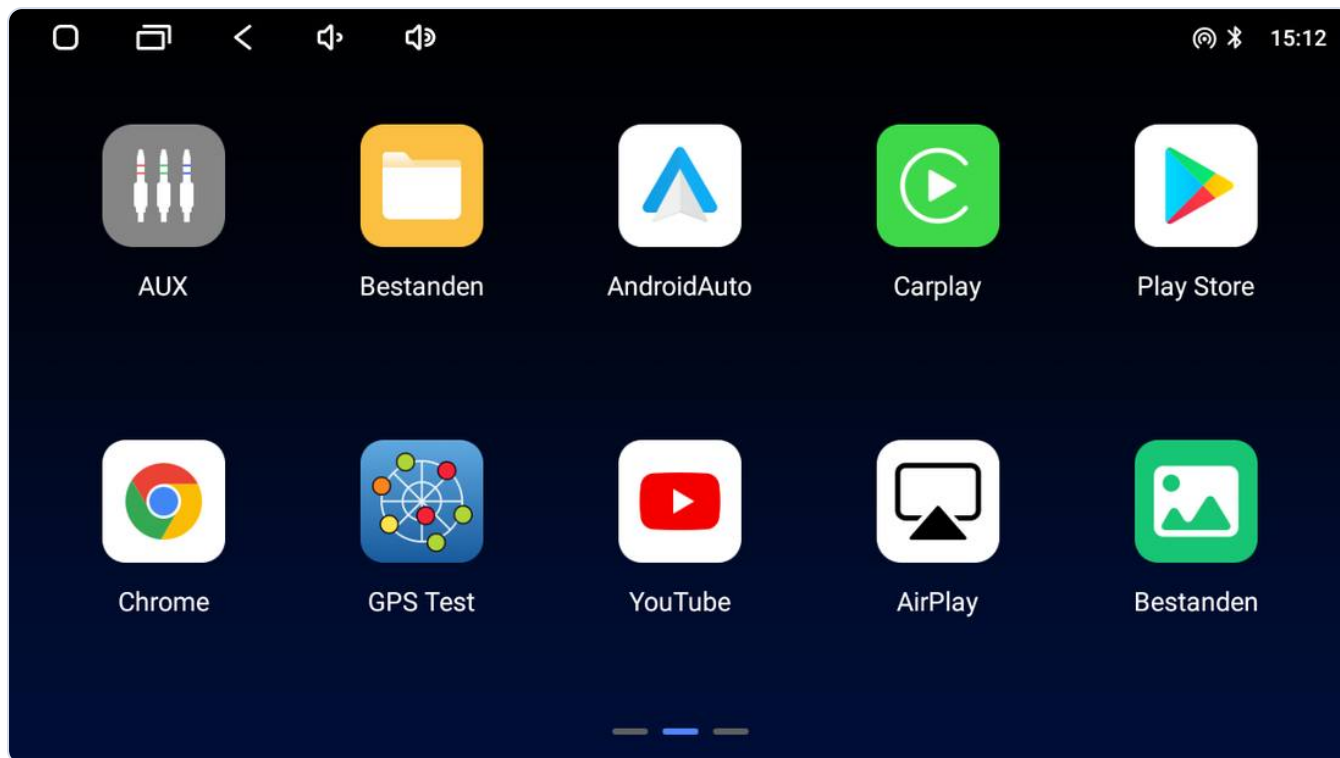


Figure 12-3 App overview, page 2

App	What it does
AUX	Sound from an external device via the AUX input
Files (folder)	View files on the internal storage or USB stick (chapter 18.5)
AndroidAuto	Start Android Auto (chapter 18.3)
Carplay	Start Apple CarPlay (chapter 18.2)
Play Store	Download and update apps (chapter 18.6.2)
Chrome	Browse the internet
GPS Test	Check the reception of the GPS antenna
YouTube	Watch videos (only with internet and when the car is stationary)
AirPlay	Mirror your iPhone's screen (chapter 18.4)
Files (gallery)	View photos and images



Tip: with **GPS Test** you can quickly check after installation whether the GPS antenna works properly.

13 Settings

Open **Settings** via the gear icon in the app overview or on the home screen. On the left is the list of sections, on the right the options of the selected section. Scroll through the left list to see all sections.

Sections in the list: Display, Bluetooth, Wi-Fi, Hotspot, Sound/Volume, Normal Setting, Application, Camera, Panel key lights, Panel pairing, Date and time, Language, Steering Wheel/Key Learn and System.

13.1 Display

- **Brightness:** drag the slider to the left (darker) or right (brighter).
- **Night mode:** manually switch the screen to the dimmed night mode.
- **Night mode auto-start:** with the option *According to lamps* the screen automatically switches to night mode as soon as you switch on the car lights.
- **Preset boot logo:** choose the logo that appears at start-up.

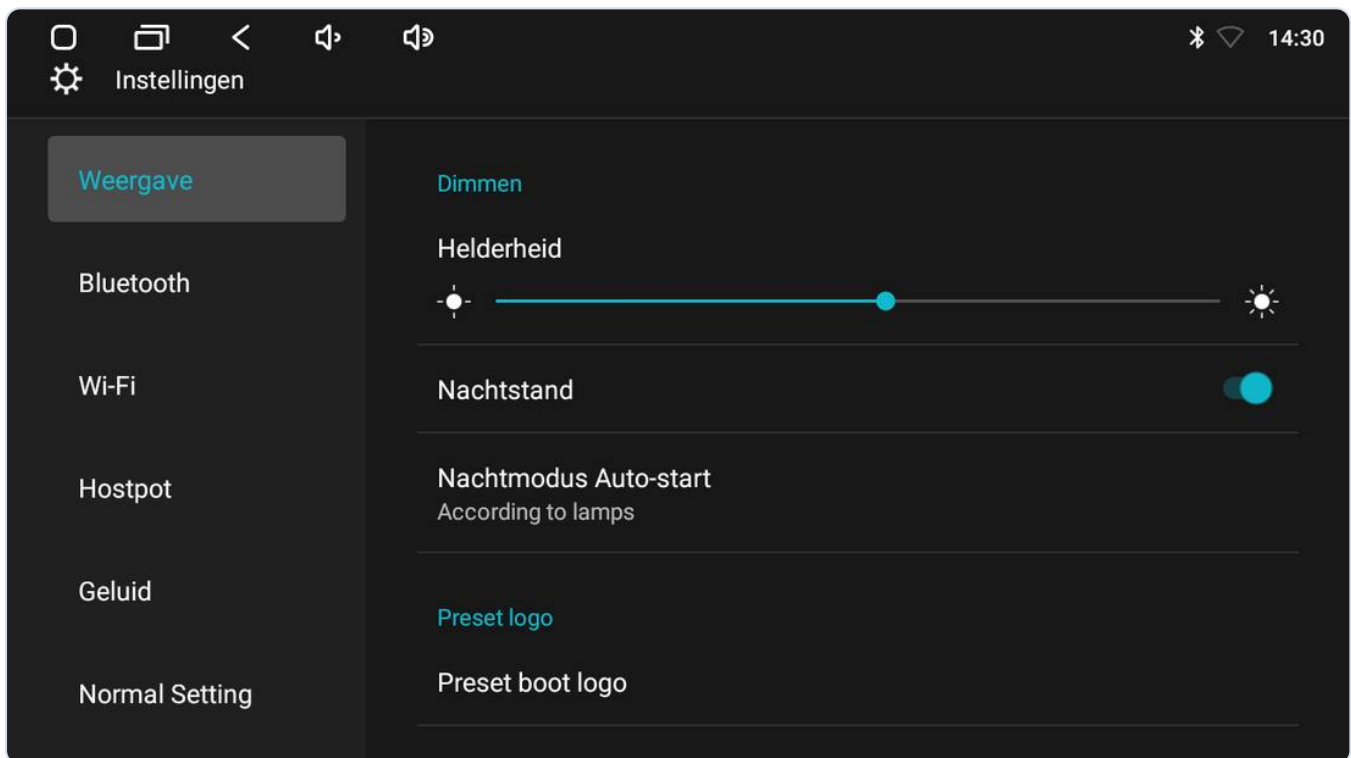


Figure 13-1 Display settings

13.2 Changing the language

1. Open **Settings** and tap **Language** on the left.
2. Tap **Language** on the right.
3. Choose your language from the list, for example **English (United Kingdom)**. The system switches immediately.

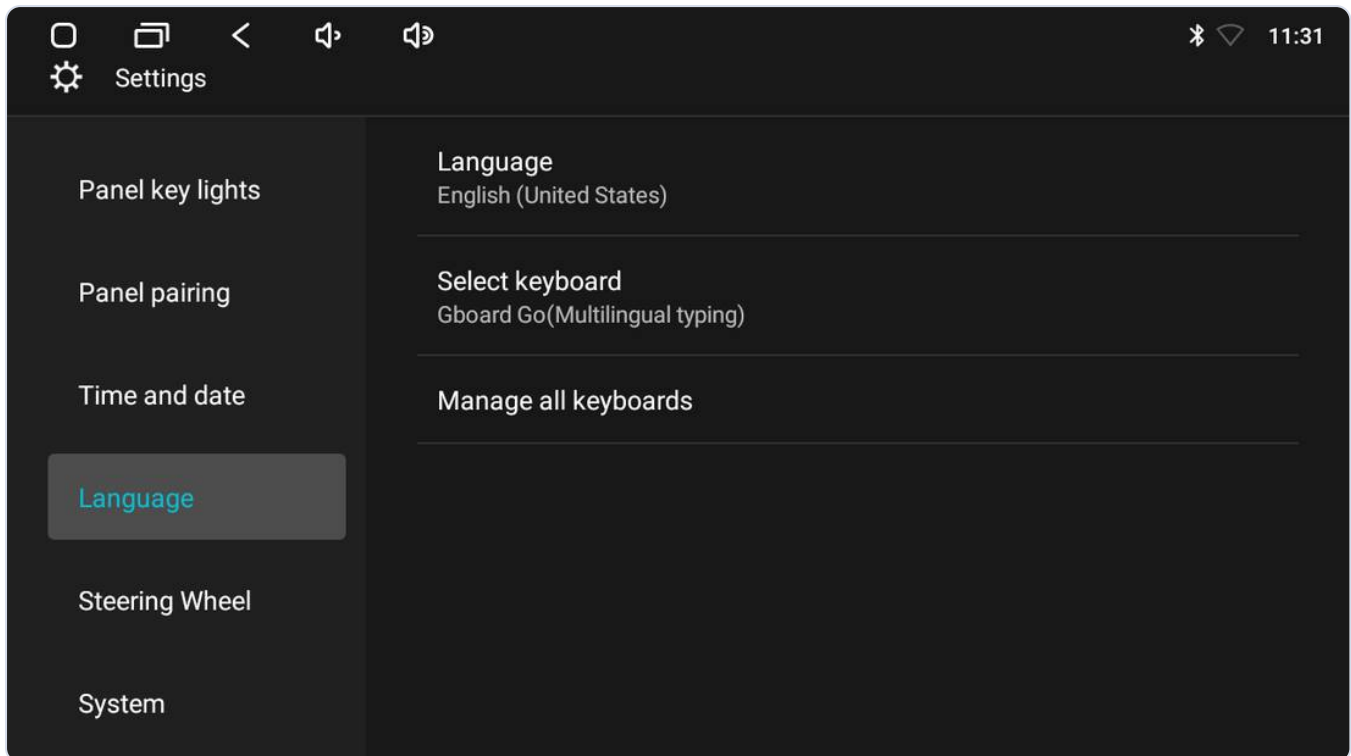


Figure 13-2 The Language menu

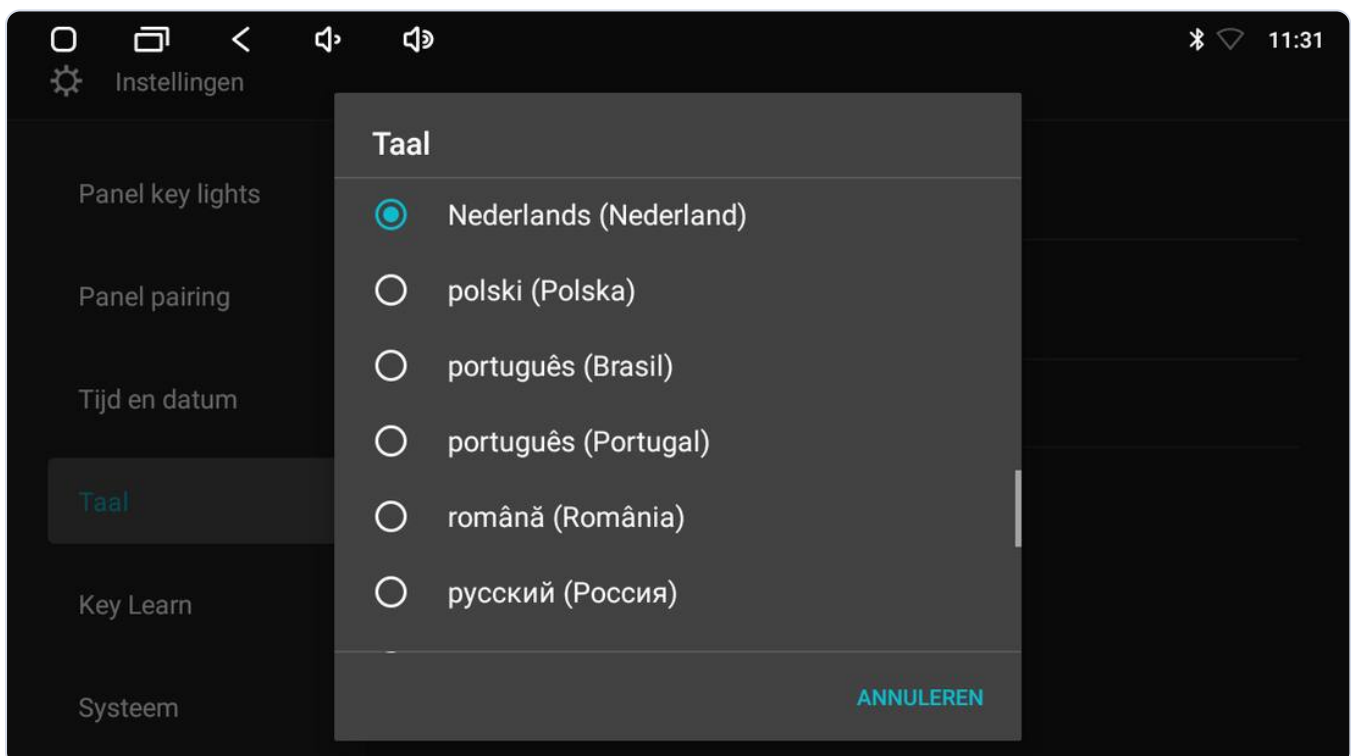


Figure 13-3 Choosing the language

Under **Select keyboard** you choose the keyboard (Gboard Go by default). Some menus, such as Normal Setting, remain in English.

13.3 Camera

Here you set up the reversing camera and any additional cameras.

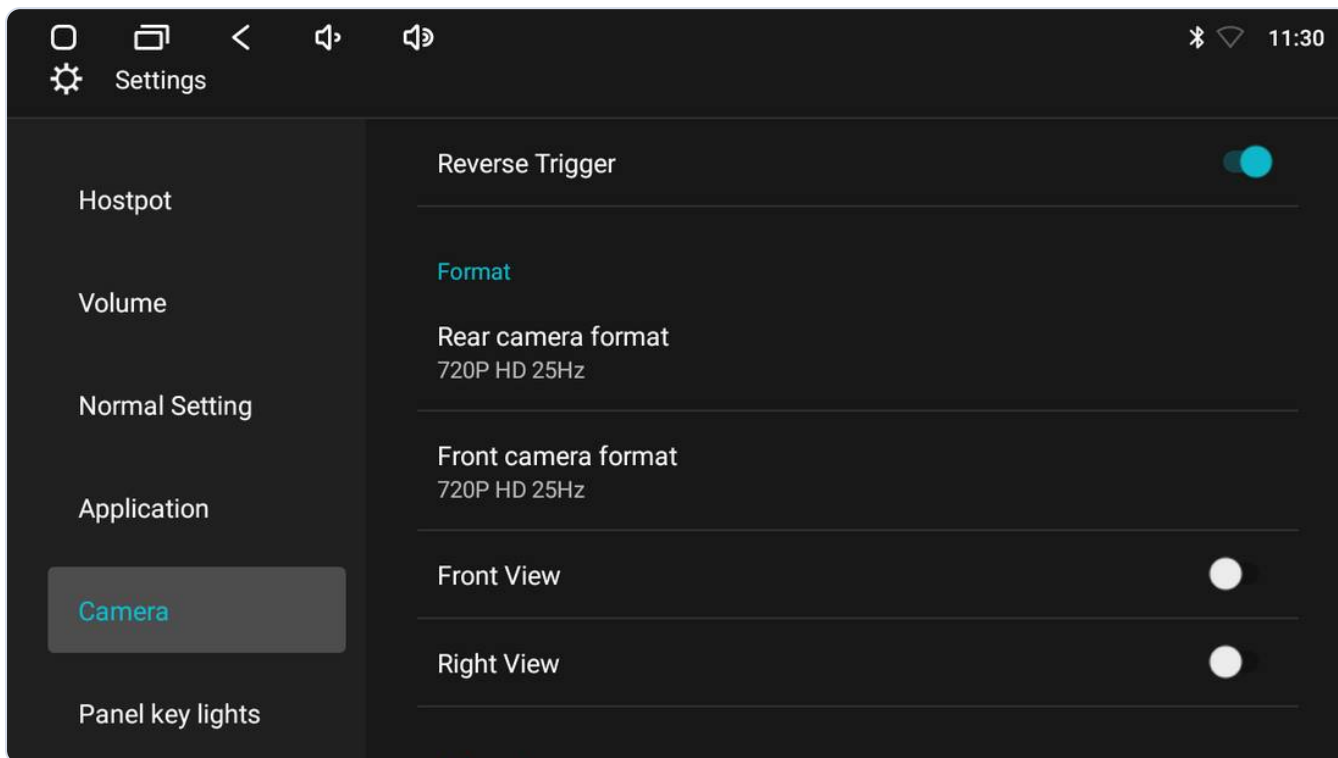


Figure 13-4 Camera settings

- **Reverse Trigger:** when this is on, the screen automatically shows the camera image as soon as you engage reverse gear.
- **Rear camera format / Front camera format:** choose the video format that matches your camera. Options are CVBS-PAL, CVBS-NTSC, 720P HD 25Hz or 30Hz, and 1080P FHD 25Hz or 30Hz.
- **Front View / Right View:** switch on the image of a front or side camera.

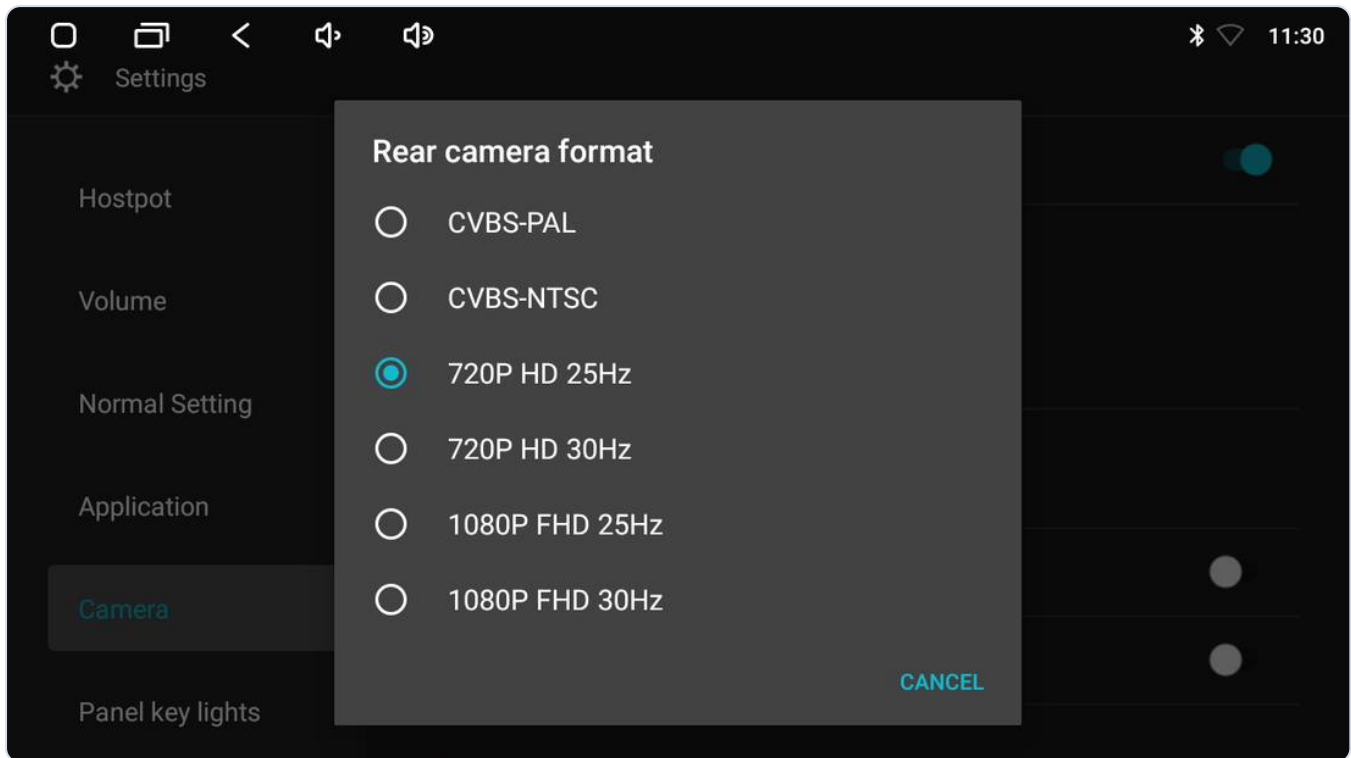


Figure 13-5 Choosing the reversing camera format

If you see no camera image or a distorted one, the format is often set incorrectly. Try the other options until the image is correct. The correct format is usually stated in the camera's manual or on its packaging.

13.4 Date and time

Set the clock under **Settings → Date and time**.

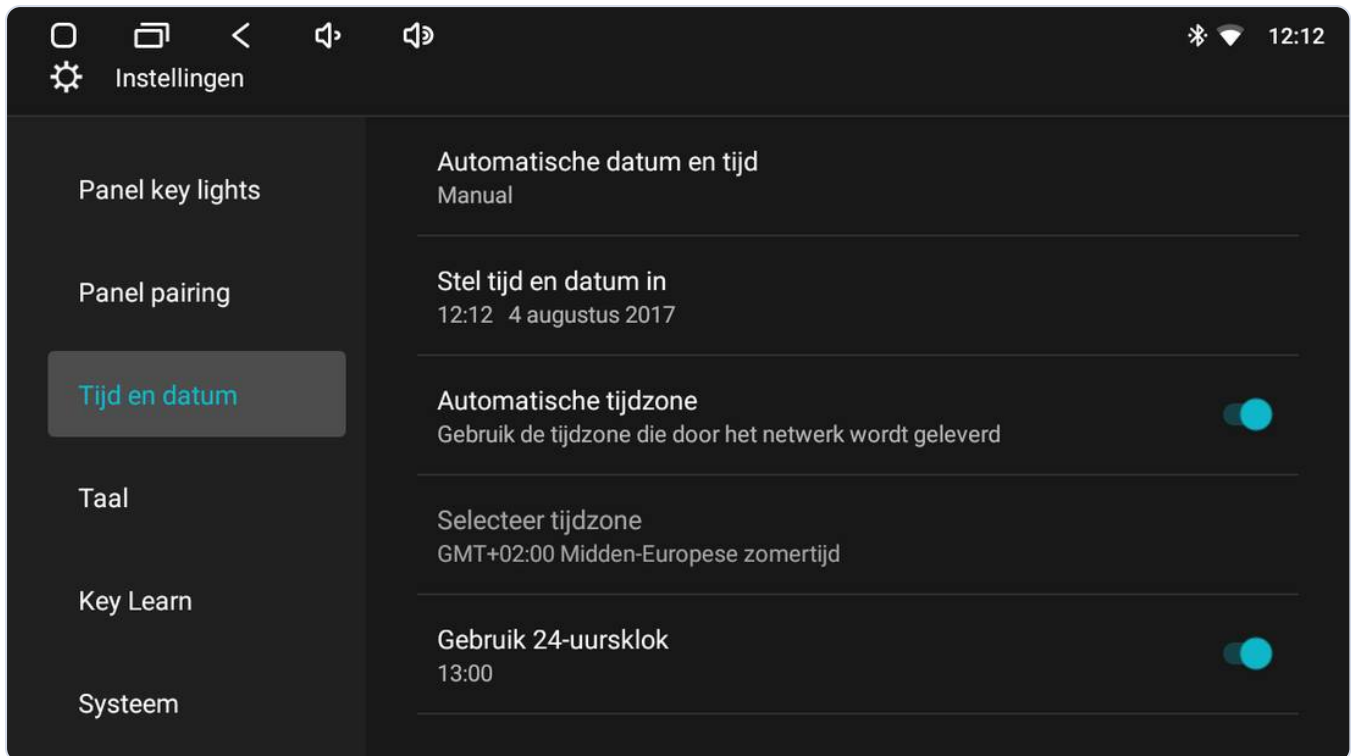


Figure 13-6 Date and time

- **Automatic date and time:** retrieve the time automatically via the internet or GPS, or set it manually.
- **Set date and time:** enter the date and time manually.
- **Automatic time zone:** use the network's time zone. Switch this off to choose a time zone yourself, for example GMT+02:00 Central European Time.
- **Use 24-hour format:** show the time as 13:00 instead of 1:00 PM.



Tip: if the date or time is wrong after start-up, switch on Automatic date and time and connect the system to the internet (chapter 18.6).

13.5 Theme and wallpaper

In the **Theme** app you choose the appearance of the home screen.

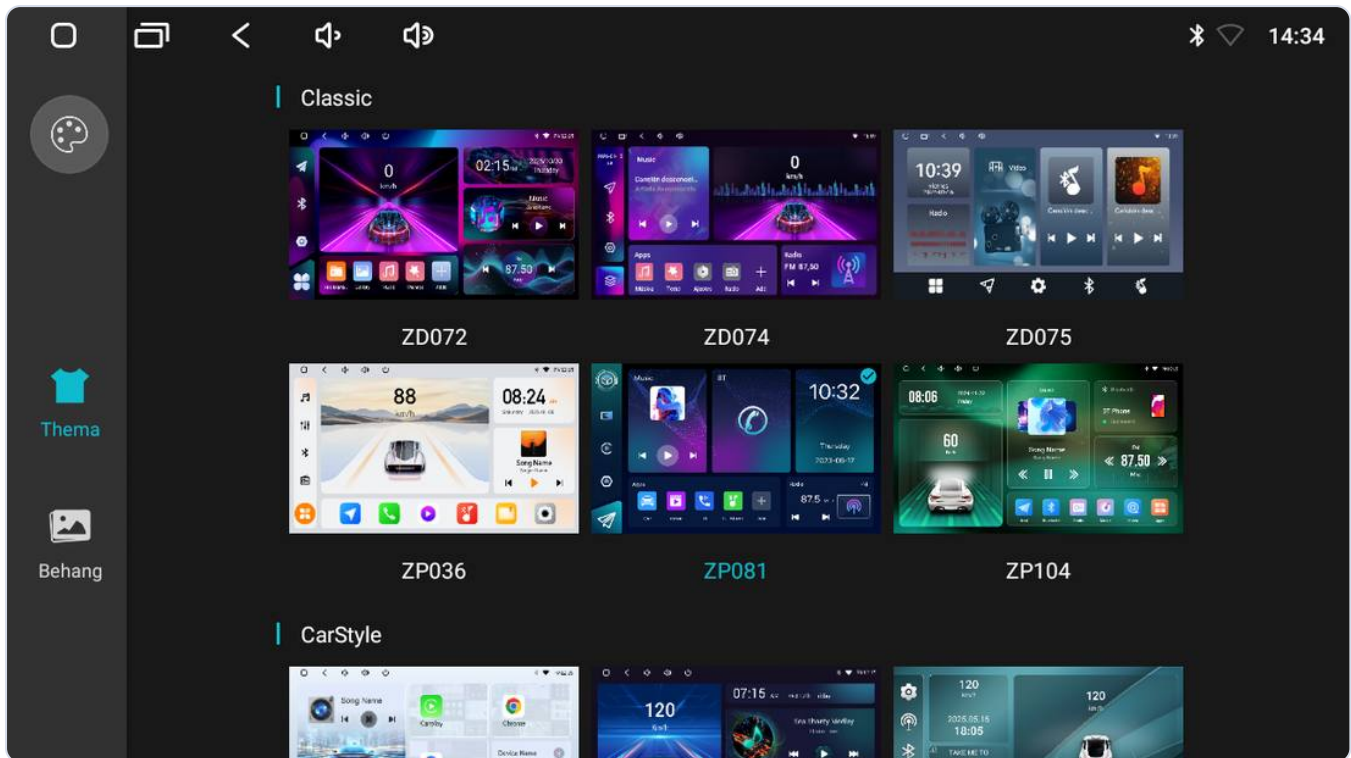


Figure 13-7 Choosing themes

1. Open **Theme** in the app overview.
2. Tap **Theme** on the left to choose a layout, for example from the Classic or CarStyle group.
3. Tap **Wallpaper** to choose a different background image.

13.6 System information

Under **Settings → System** you can see the details of your device, such as model, memory, storage, screen resolution, Android version and system version. Provide these details when you contact customer service.

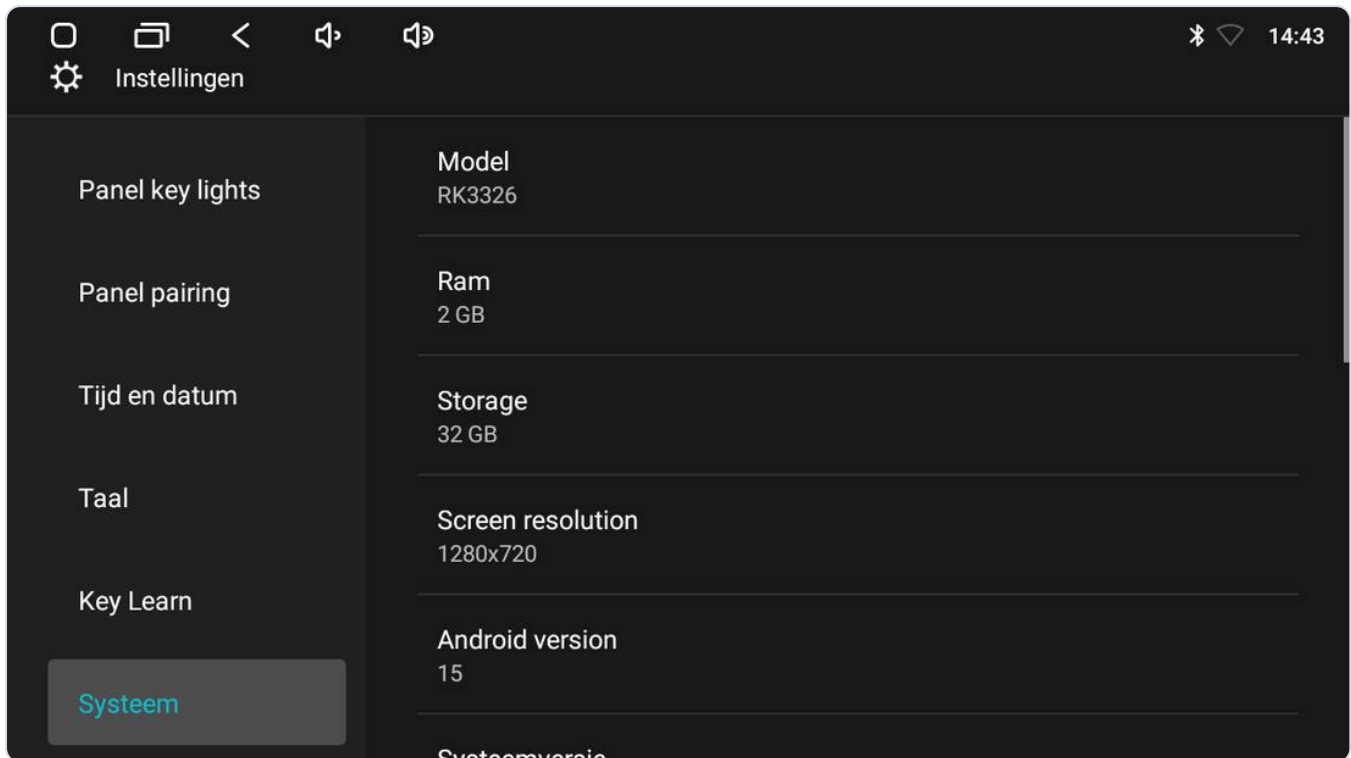


Figure 13-8 System information

13.7 Updating the software (system update)

Denago regularly releases updates with improvements and new functions. You install updates via the **OTA** app.

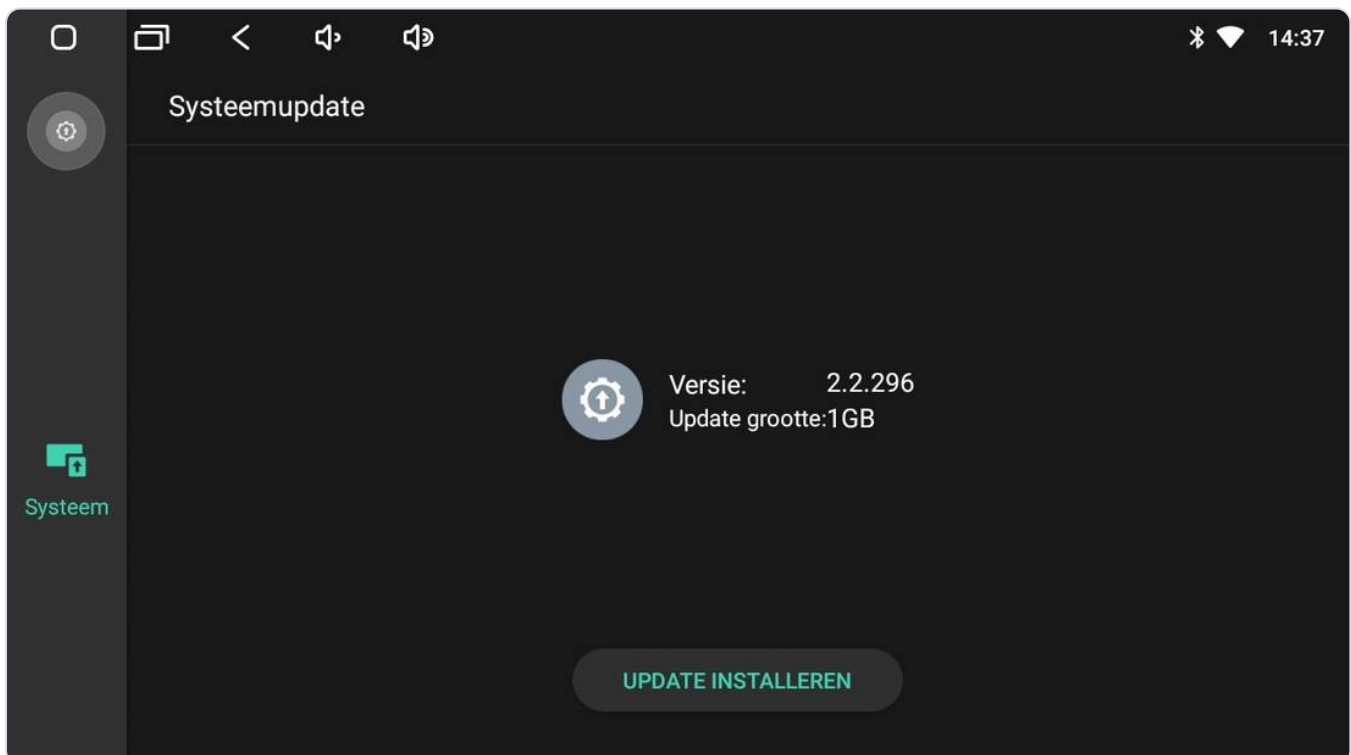


Figure 13-9 System update in the OTA app

Before you start

- Connect the system to a stable Wi-Fi network (chapter 18.6). An update can be large, for example 1 GB. Via your phone's hotspot, this uses a lot of mobile data.
- Leave the engine running or make sure the battery is well charged.
- Park the car in a safe place. Do not use the system during the update.

Installing an update

1. Open the **OTA** app in the app overview.
2. The **System update** screen shows the available version and the size of the update.
3. Tap **INSTALL UPDATE**.
4. Wait until the update has been downloaded and installed. The system then restarts automatically.
5. After the restart, check under **Settings → System** that the new version has been installed (13.6).



Caution: do not switch off the ignition, do not switch off the system and do not disconnect the power during an update. An interrupted update can make the system unusable.



Tip: after an update, check that your settings, such as the CANBUS selection and the steering wheel buttons, are still correct.

13.8 Sound settings

Under **Settings → Sound** you adjust the volumes of the various sound sources.

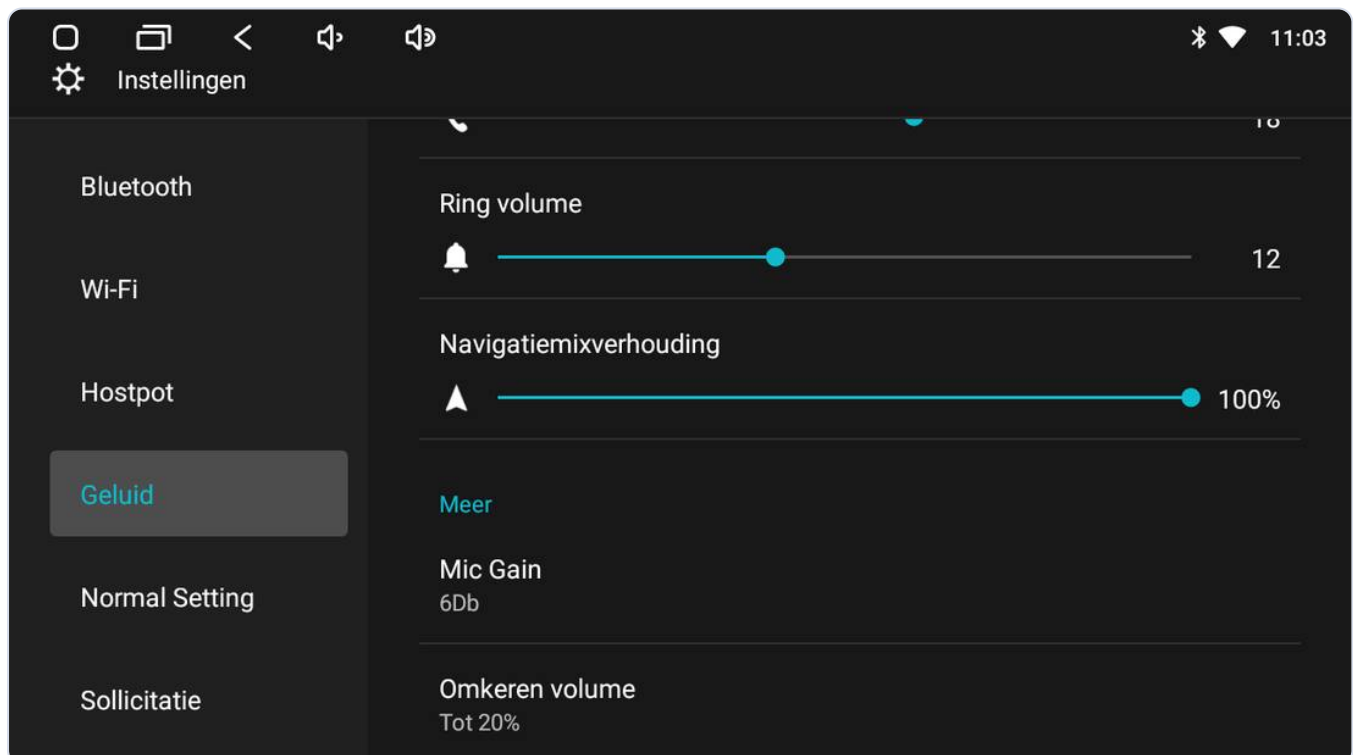


Figure 13-10 Sound settings

Setting	Function
Call volume (phone icon)	Volume of hands-free calls
Ring volume	Volume of the ringtone for an incoming call
Navigation mix ratio	How loud navigation instructions sound compared with music. At 100% they are easiest to hear.
Mic Gain	Microphone sensitivity: 6, 9 or 12 dB (see 18.1.4)
Reverse volume	The volume of music or radio as soon as you engage reverse gear

Volume when reversing

With **Reverse volume** the sound automatically becomes quieter when you reverse, so you can hear the parking sensors and your surroundings better. Choose how loud the sound should still be: from 0% (silent) to 100% (unchanged). The default setting is 20%.

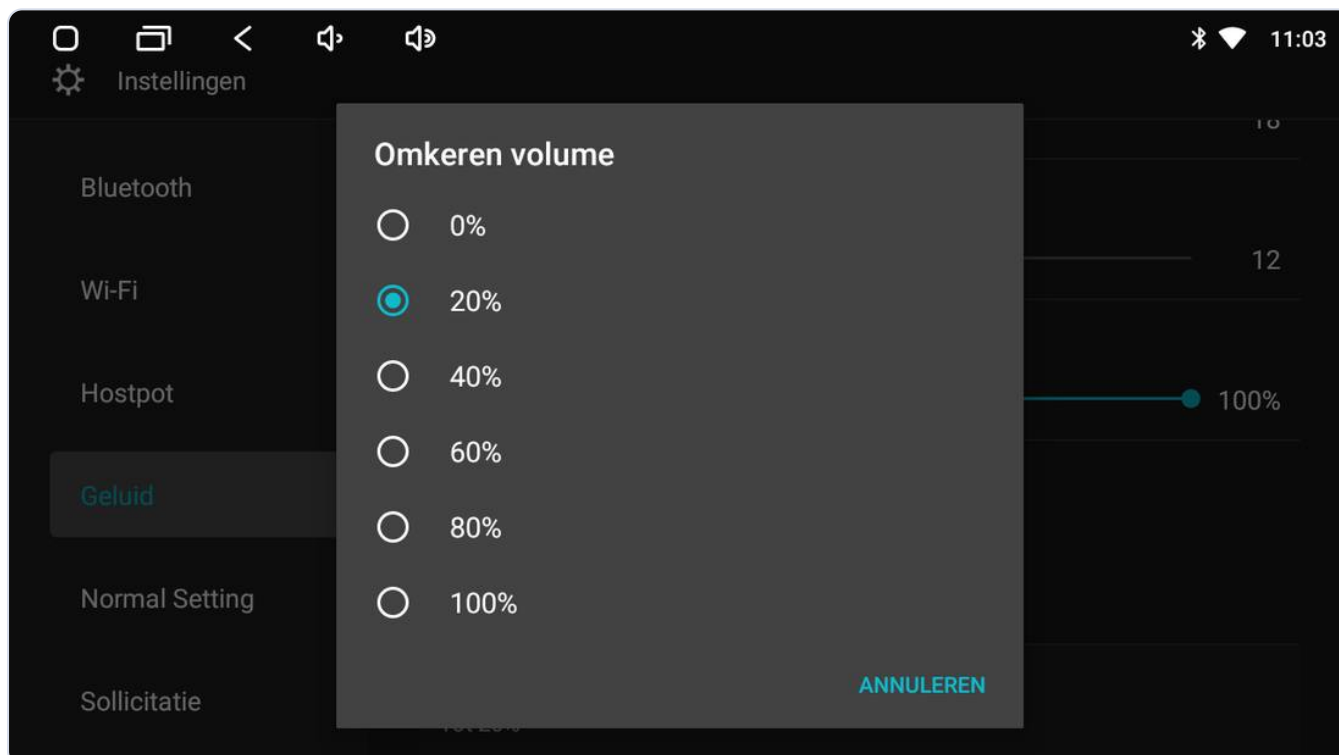


Figure 13-11 Reverse volume: the volume when reversing

13.9 Restoring factory settings

A factory reset returns the system to the state in which it was delivered. Do this, for example, if the system keeps malfunctioning, or before you sell or return it (chapter 21.10).



Caution: a factory reset erases all your data: paired phones, contacts, Wi-Fi networks, accounts, installed apps and your settings, such as the CANBUS selection and the steering wheel buttons. Write down important settings beforehand.

1. Park the car in a safe place and leave the ignition on.
2. Open **Settings** and tap **System** on the left.
3. Scroll down on the right and tap **Factory reset**.
4. The question **Factory reset?** appears. Tap **CONFIRM** to continue, or **CANCEL** to stop.
5. The system erases all data and restarts. Do not switch off the ignition while **Restarting...** is shown on the screen.
6. Then set the language (13.2), Wi-Fi (18.6.1) and the CANBUS (16.1) again.

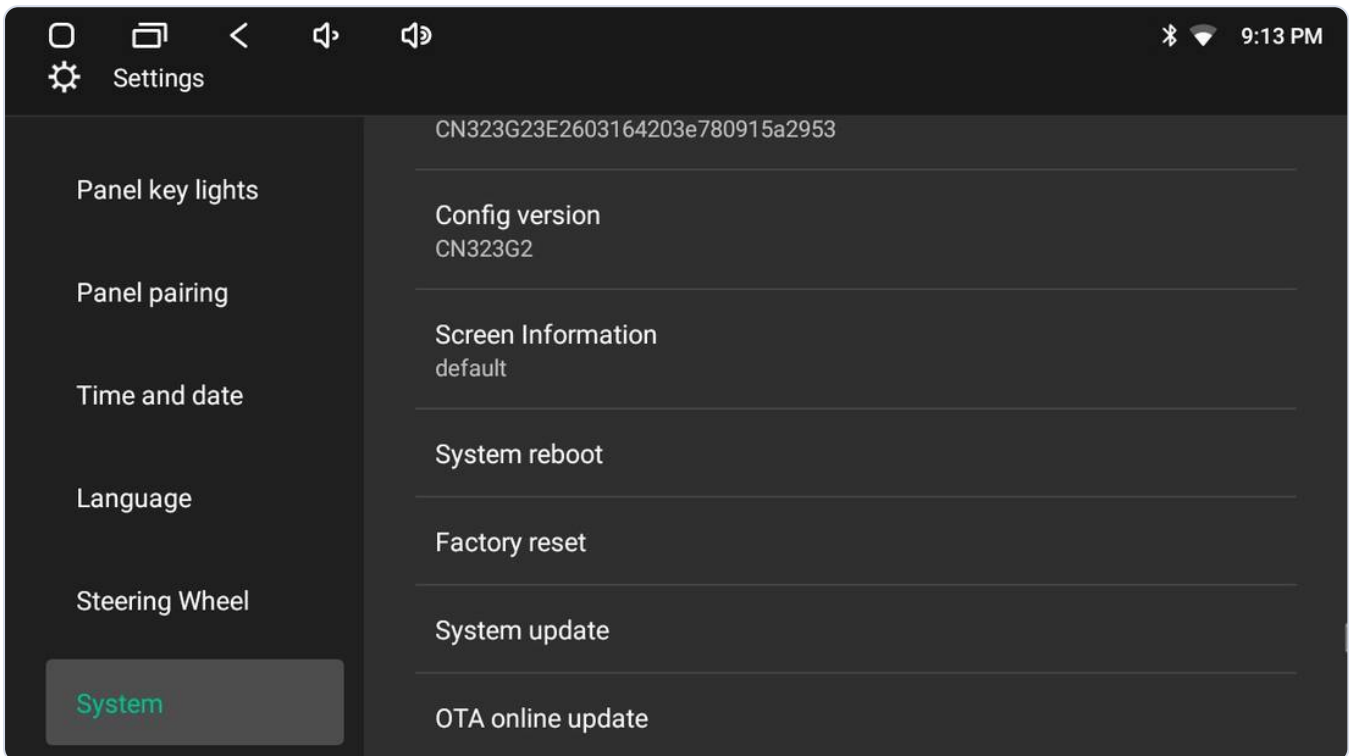


Figure 13-12 Factory reset in the System menu

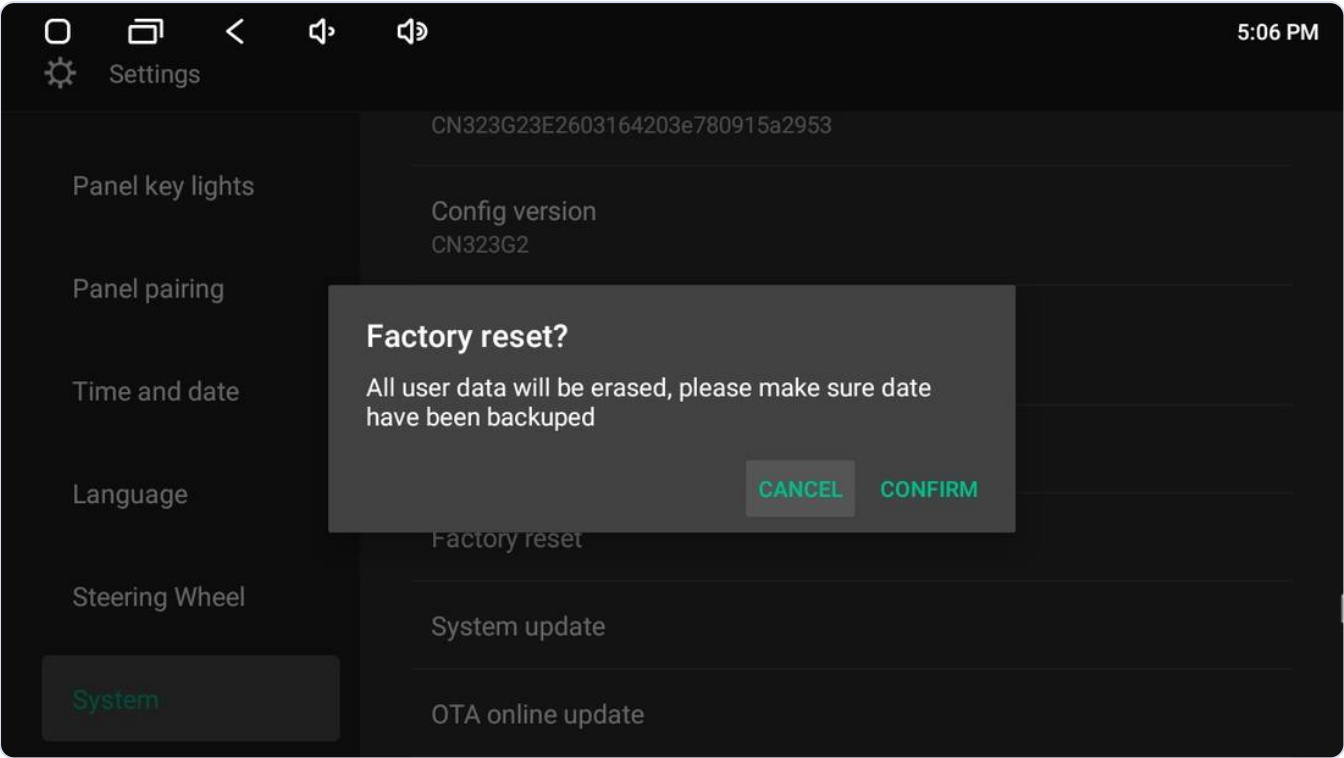


Figure 13-13 Confirming the factory reset

14 Sound (DSP)

In the **DSP** app you set the tone and the distribution of sound across the speakers. On the left you choose between **DSP** (equalizer) and **Balance** (balance/fader).

14.1 Equalizer

The equalizer has sliders for frequencies from 20 Hz (bass) to treble; swipe left for the second page with the higher frequencies. Each slider runs from -3 to +3.

1. Choose a preset at the top, for example **Flat** (all neutral).
2. Drag a slider up to boost that frequency or down to reduce it. More bass? Raise the left sliders (20 to 100 Hz).
3. Tap **SAVE** to keep your own setting.



Figure 14-1 The equalizer

With **SWITCH** you switch between equalizer views or presets.

14.2 Balance and fader

This determines where in the car the sound is loudest.

1. Tap **Balance** on the left.
2. Move the blue dot with the arrow keys: left/right for the balance, up/down for front/rear (fader). You can also drag the dot directly in the image of the car.
3. Tap the middle button (the circle) to centre everything again.

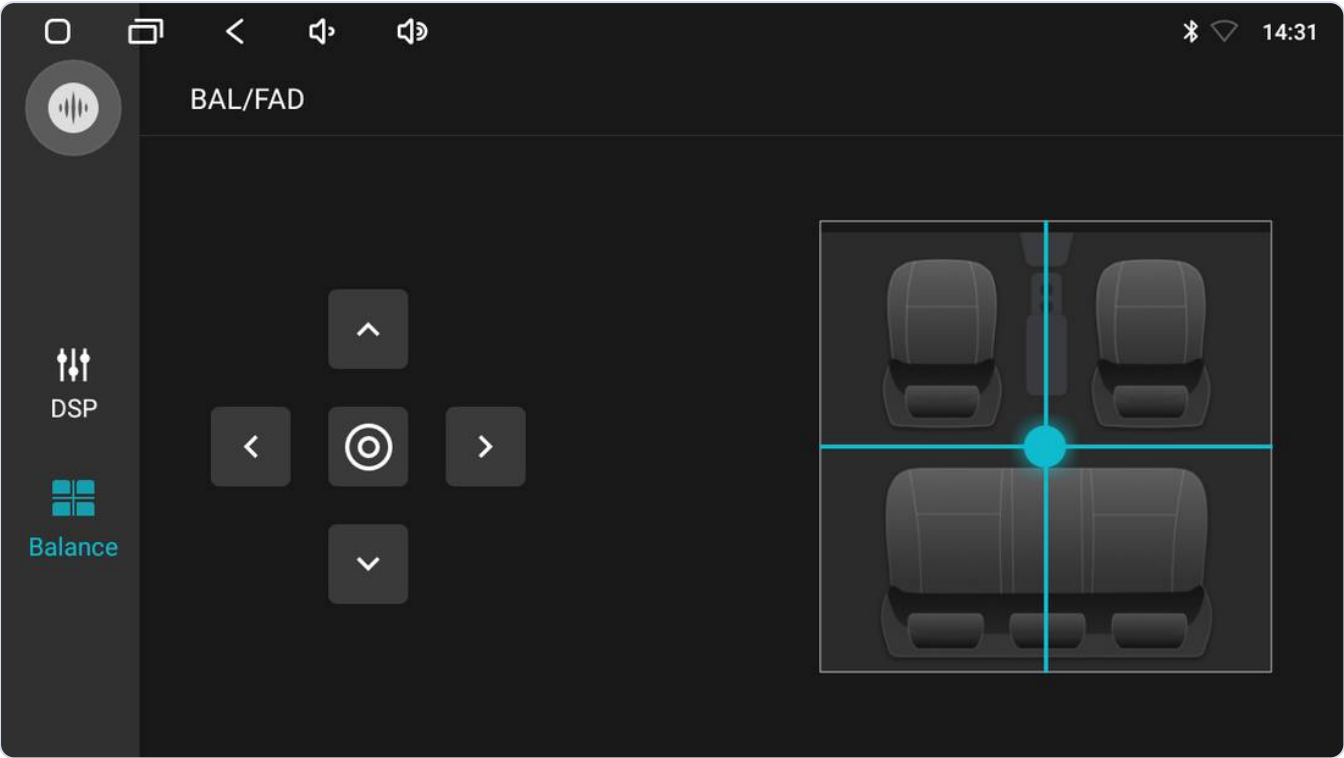


Figure 14-2 Balance and fader

15 Steering wheel controls (Key Learn)

With Key Learn you link the buttons on your steering wheel to functions of the radio. This is only necessary if your steering wheel buttons do not work automatically via CANBUS.

Open the **SWC** app or go to **Steering Wheel** (Key Learn) in Settings. You will see a grid of functions: Previous, Next, Volume + and -, Mute, Screen off, Power source, Mode, Play/Pause, Home, Answer, Hang up, MIC mute, Navi, Back, Voice, FM, Music, Bt Music, AUX and Apps.

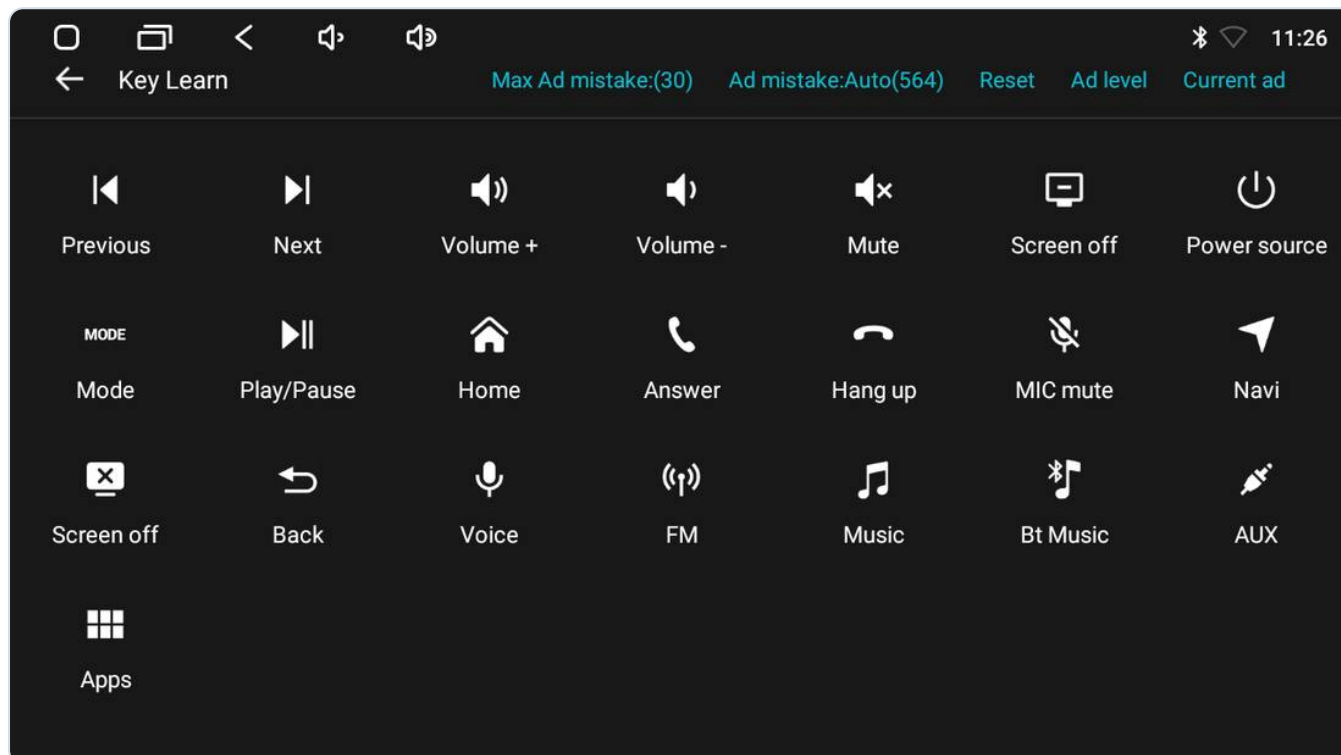


Figure 15-1 The Key Learn screen

Programming a steering wheel button

1. Press and hold the button on your steering wheel.
2. On the screen, tap the function that belongs to that button, for example **Volume +**.
3. Release the steering wheel button. Repeat this for each button.
4. Then test whether all buttons work properly.

Options at the top

- **Reset:** clears all programmed buttons so you can start again.
- **Current ad:** shows the measured value of the button you are pressing. Useful to check whether the radio recognises the button.
- **Ad level, Ad mistake and Max Ad mistake:** technical settings for the sensitivity of button recognition. Usually leave these on Auto.

If buttons respond incorrectly or twice, press Reset and program them again.



Tip: choose logical functions for frequently used buttons, such as Volume +/- or Next. This makes operation simpler and safer while driving.



Note: if the steering wheel buttons do not respond at all after installation, first check the CANBUS setting (chapter 16.1).

16 CANBUS and the Car app

The CANBUS module connects the radio to your car's electronics. This makes steering wheel buttons, air conditioning display and vehicle information work on the screen. First choose the correct CANBUS setting; after that the Car app works.

16.1 Setting up CANBUS

The first time you open the **Car** app, you set up the CANBUS. After that, this is only necessary if you want to choose a different car model, if the steering wheel controls or other vehicle functions do not work properly, or if customer service advises it.

Preparation

1. Make sure the radio has fully started up.
2. Check that the CANBUS module is properly connected to the power cable.
3. Connect the radio to Wi-Fi so that the latest vehicle profiles can be loaded.

Step by step

1. In the app overview, tap **Car**. You arrive at the **CANBUS Select** screen, with a grid of CANBUS module manufacturers, such as Raise, Hiworld, Oudi, Simple and Binarui.
2. Choose the manufacturer of the module fitted in your car. This name is usually printed on the module itself.
3. On the **Car Model Selection** screen, choose the make of your car, for example Volkswagen.
4. Then choose your car's platform on the left (for example Volkswagen PQ cars or Toyota cars), your model in the middle and the variant on the right; usually this is **Default**. At the top you see the chosen path, for example Hiworld > Volkswagen PQ cars.
5. Go back with the arrow at the top left. The Car app now shows the screens for your car (chapter 16.2).

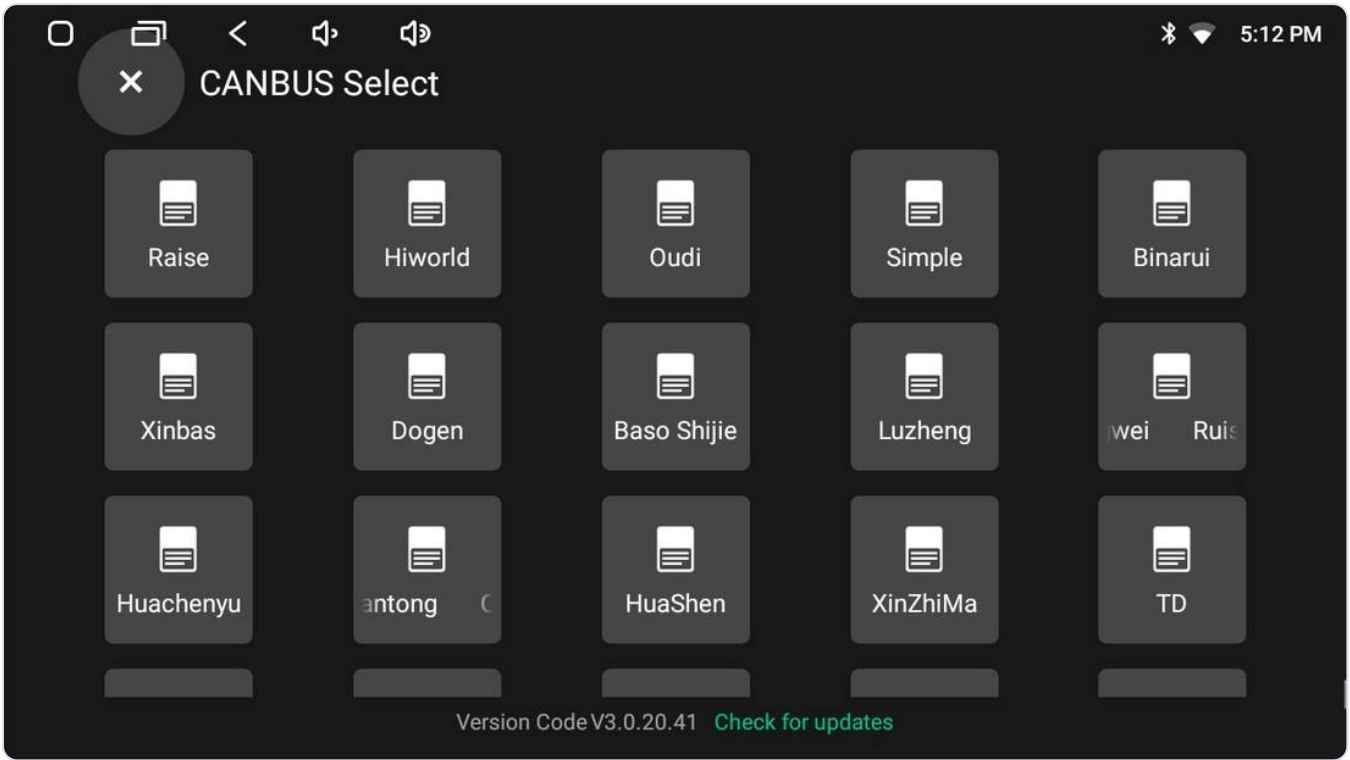


Figure 16-1 CANBUS Select: choosing the module manufacturer

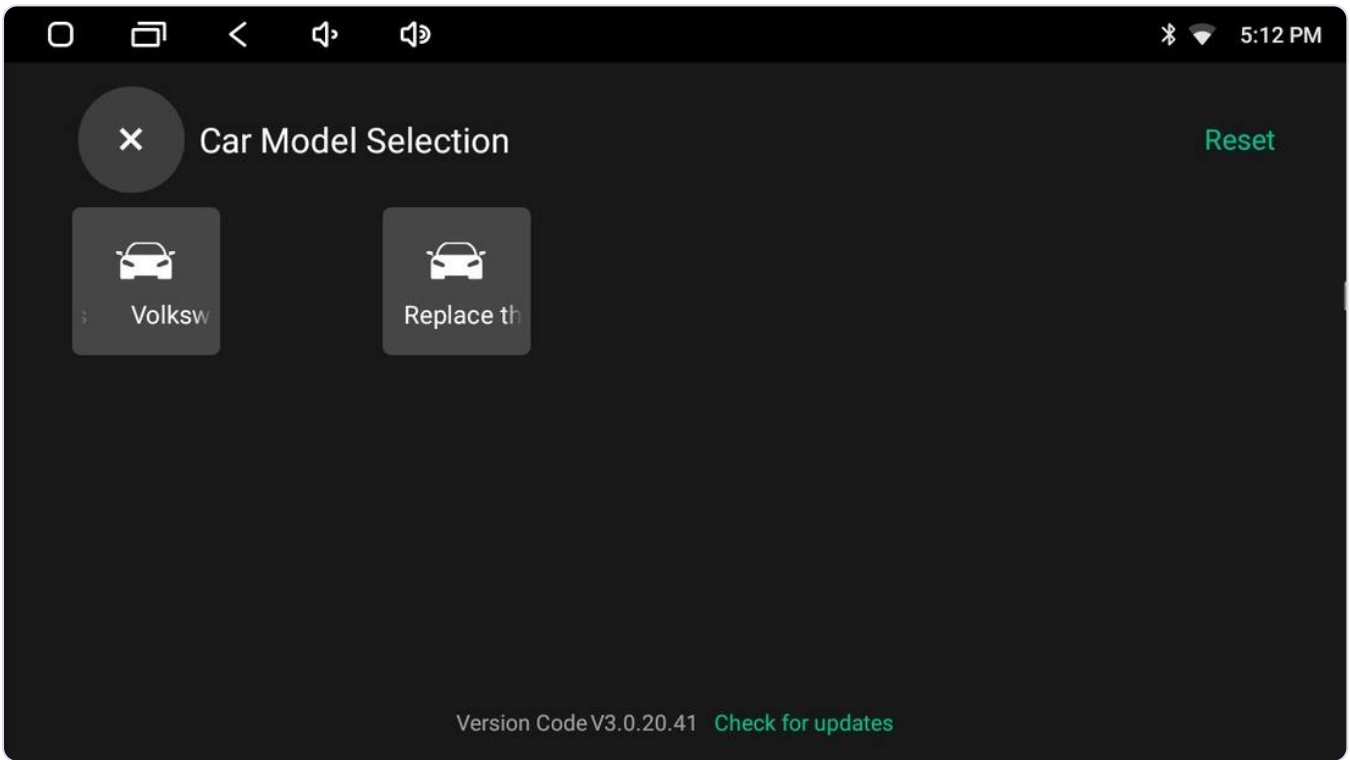


Figure 16-2 Car Model Selection: choosing the car make

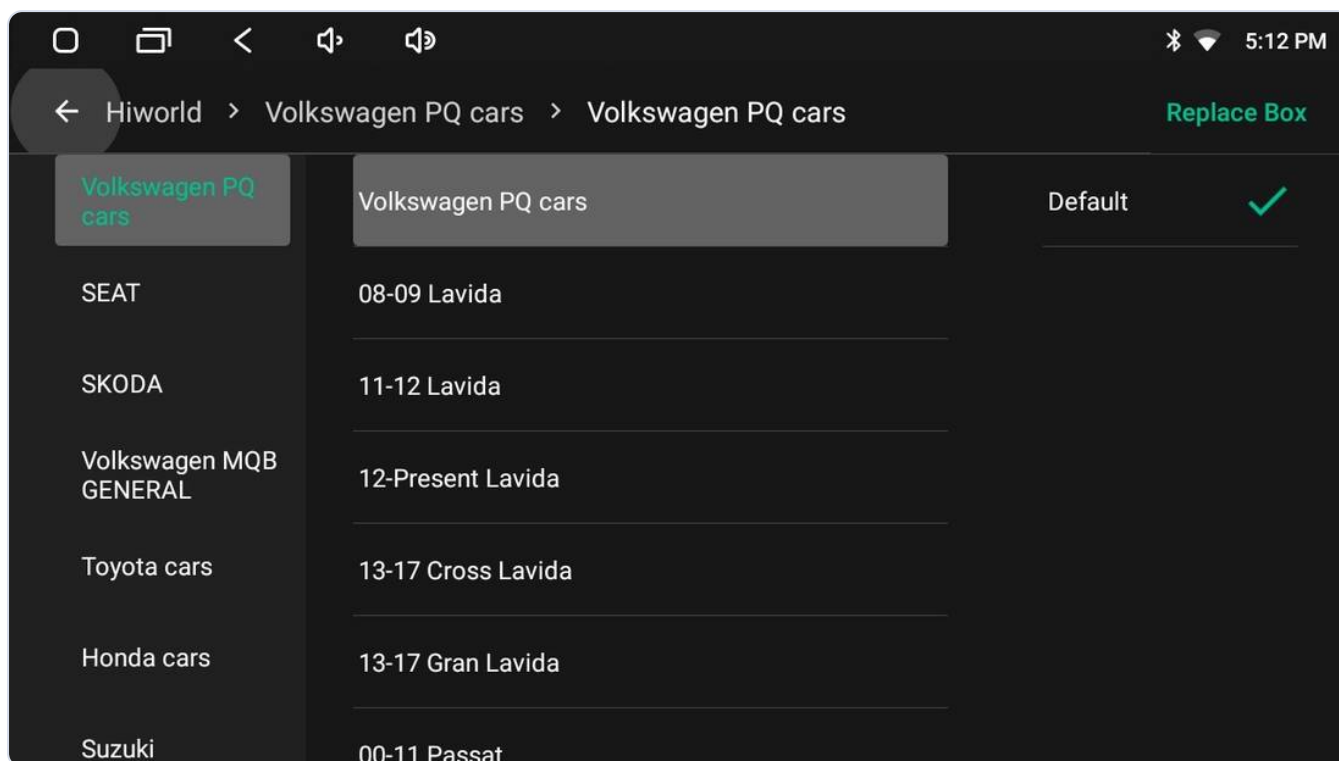


Figure 16-3 Choosing the car model and variant

With **Replace Box** (top right) you switch to a different CANBUS module. With **Reset** on the Car Model Selection screen you clear the selected car and start again. At the bottom are the version number (for example V3.0.20.41) and the **Check for updates** button.



Caution: never disconnect the CANBUS module and do not switch off the radio during setup. An interrupted setup can lead to faulty communication with the car.

After setup

Check that the connection works:

- use the buttons on the steering wheel;
- switch the lights on and off;
- engage reverse gear and check that the camera image appears.

16.2 Car app



Important: the content of the Car app differs per car. Which screens, buttons and settings you see depends on the make, model and year of your car and on the CANBUS module. The images and descriptions in this chapter are examples, made with a Volkswagen and a Hiworld module. On your system, items may look different, be missing or there may be additional ones.

After setting up the CANBUS, the **Car** app opens with the screens for your car. What you see depends on your vehicle: for example the air conditioning, the state of the doors or the tyre pressure (TPMS). On the left you choose from **Air-condition**, **Information** and **Car Settings**.

If you want to choose a different car model, tap the car icon at the top left. You then return to the CANBUS setup (chapter 16.1).

Air-condition

- Top row: windscreen heating (**Front**), recirculation (**Circulate**), **A/C** and **Others** for additional functions of your car.
- Left and right: temperature with + and - for driver and passenger.
- Middle: airflow direction and fan speed.
- Bottom row: left and right seat heating, **SYNC** (both zones the same), **OFF** and **AUTO**.

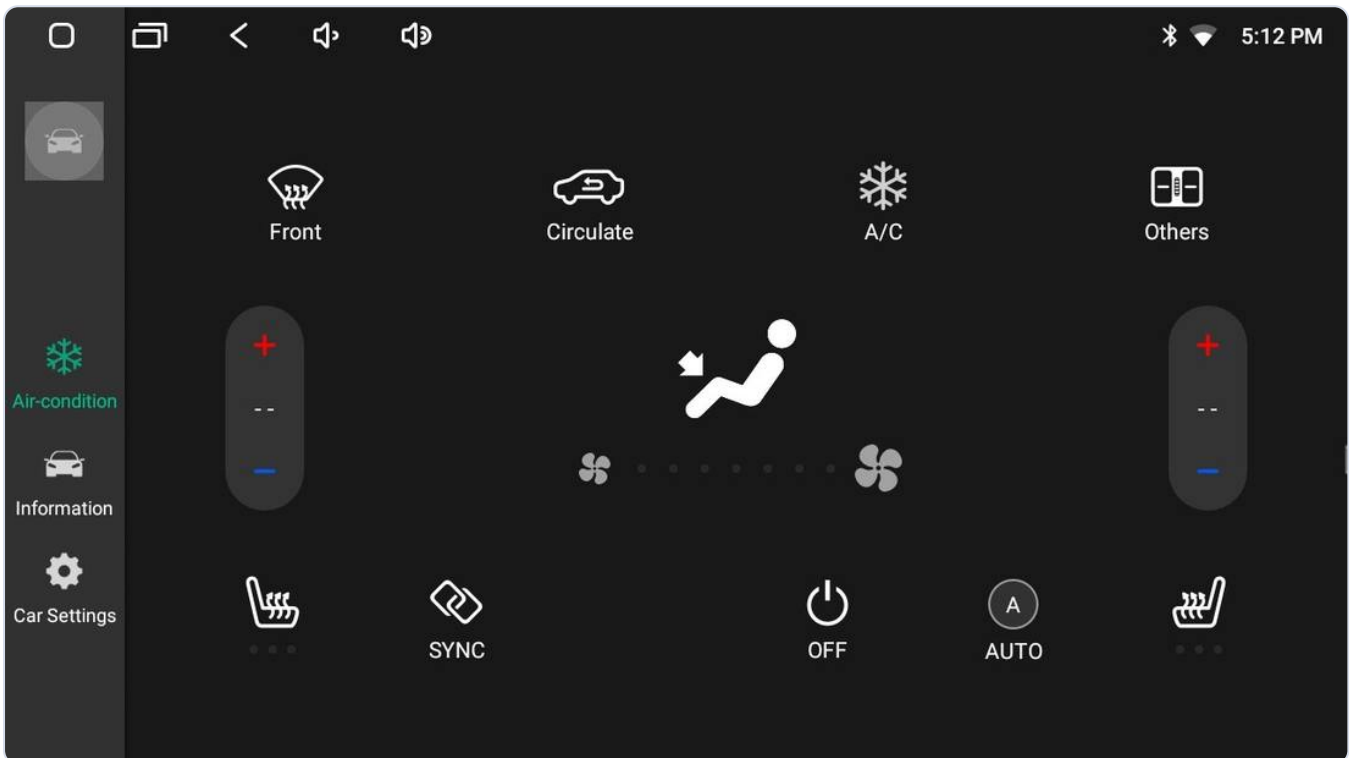


Figure 16-4 Air conditioning controls in the Car app

Information: shows the state of your car. An open door or an open boot lights up green. Depending on your car, you may also see other data here, such as tyre pressure or fuel consumption.

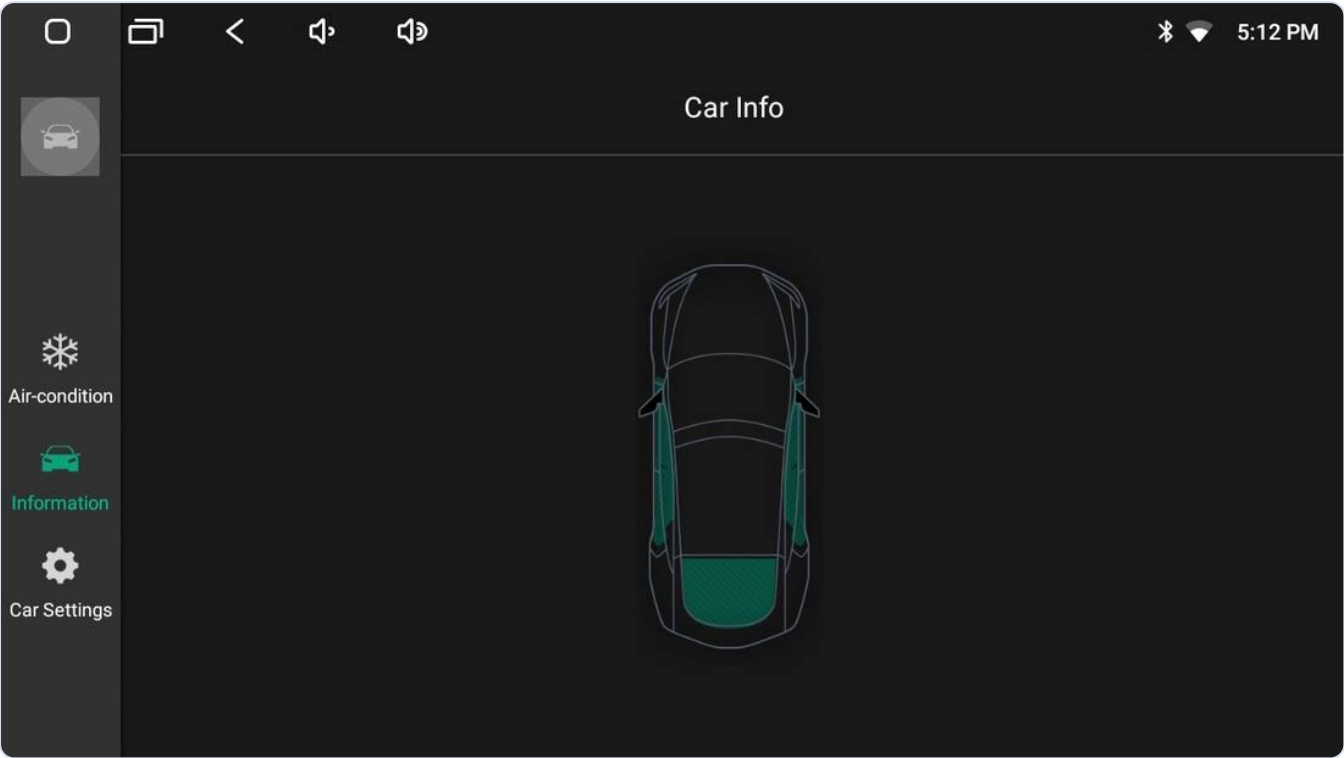


Figure 16-5 Car Info: state of doors and boot

Car Settings: settings of the car itself, such as **Usual Settings** (general settings) and **Driver Assistance System**. Which items you see depends on your car.

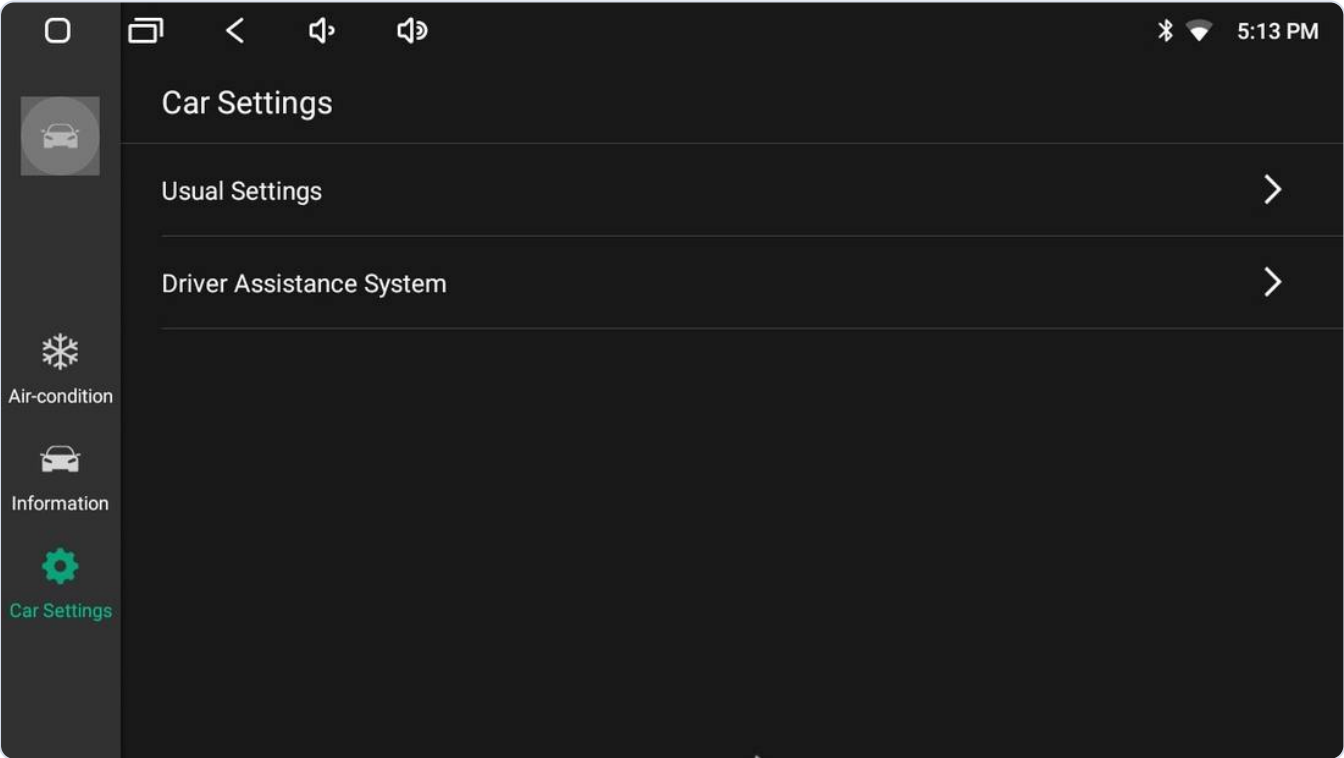


Figure 16-6 Car Settings

So your car determines which functions the Car app shows and which work. If you do not see a function from this chapter, or a button does nothing, your car or CANBUS module probably does not support that function. This is not a defect of the Denago system.



Tip: if you do not see any air conditioning or car settings, check that the correct CANBUS has been set (chapter 16.1). If in doubt, contact Denago customer service.

17 Fan (Fans)

The radio has a built-in fan that keeps the processor cool. In the **Fans** app you can see the status.



Figure 17-1 Fan and CPU temperature

- **Auto:** the fan adjusts its speed itself based on the temperature. This is the recommended setting.
- **Manual:** you set the speed yourself with the dial.
- **Alarm Temp:** the temperature at which the radio warns you, 110 °C by default.
- **CPU:** the current temperature of the processor, for example 34.8 °C.

If the temperature rises high, check that the back of the radio has enough space and airflow.

18 Multimedia and connections

This chapter explains how to connect your phone to the Denago system and how to play media. The system supports:

- **Bluetooth:** wireless connection, hands-free calling and music streaming.
- **Apple CarPlay and Android Auto:** an extended phone connection with apps for navigation, calling and music.
- **Media via USB:** music and video directly from a USB stick.
- **Wi-Fi and online functions:** internet and apps via the Google Play Store.

18.1 Bluetooth

With Bluetooth you connect your smartphone wirelessly to the system. You can then make hands-free calls, stream music and, if your phone supports it, synchronise your contacts.



Caution: you can only use the system's Bluetooth on its own when CarPlay or Android Auto is not active. If you only want to use Bluetooth, decline the CarPlay or Android Auto connection request when it appears on the screen.

18.1.1 Pairing a phone

You only need to pair your phone once. After that it is recognised automatically as soon as Bluetooth is on.

1. Open **Settings** → **Bluetooth** or the **Manage Devices** app (see chapter 12).
2. Here you see the Bluetooth name and PIN of the system. You can change both if you wish.
3. Open the Bluetooth settings on your phone and search for the name of the system.
4. Select the system and enter the PIN if necessary.
5. Confirm the pairing and, if you wish, give access to your contacts and call history. You can also do this later (18.1.2).
6. Via **Manage Devices** you manage previously paired phones or choose a different phone.

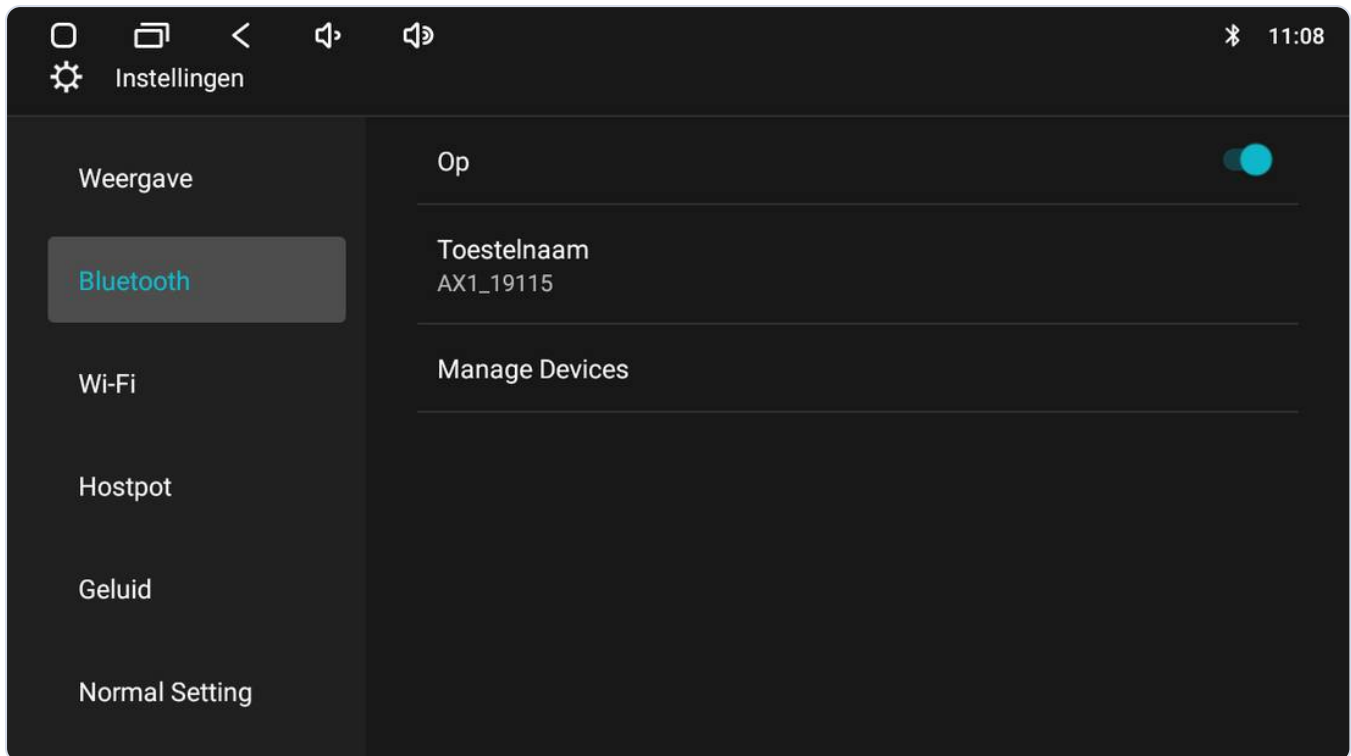


Figure 18-1 Bluetooth settings with the system's device name

The default name of the system is shown under **Device name**, for example AX1_19115. Search for this name on your phone.

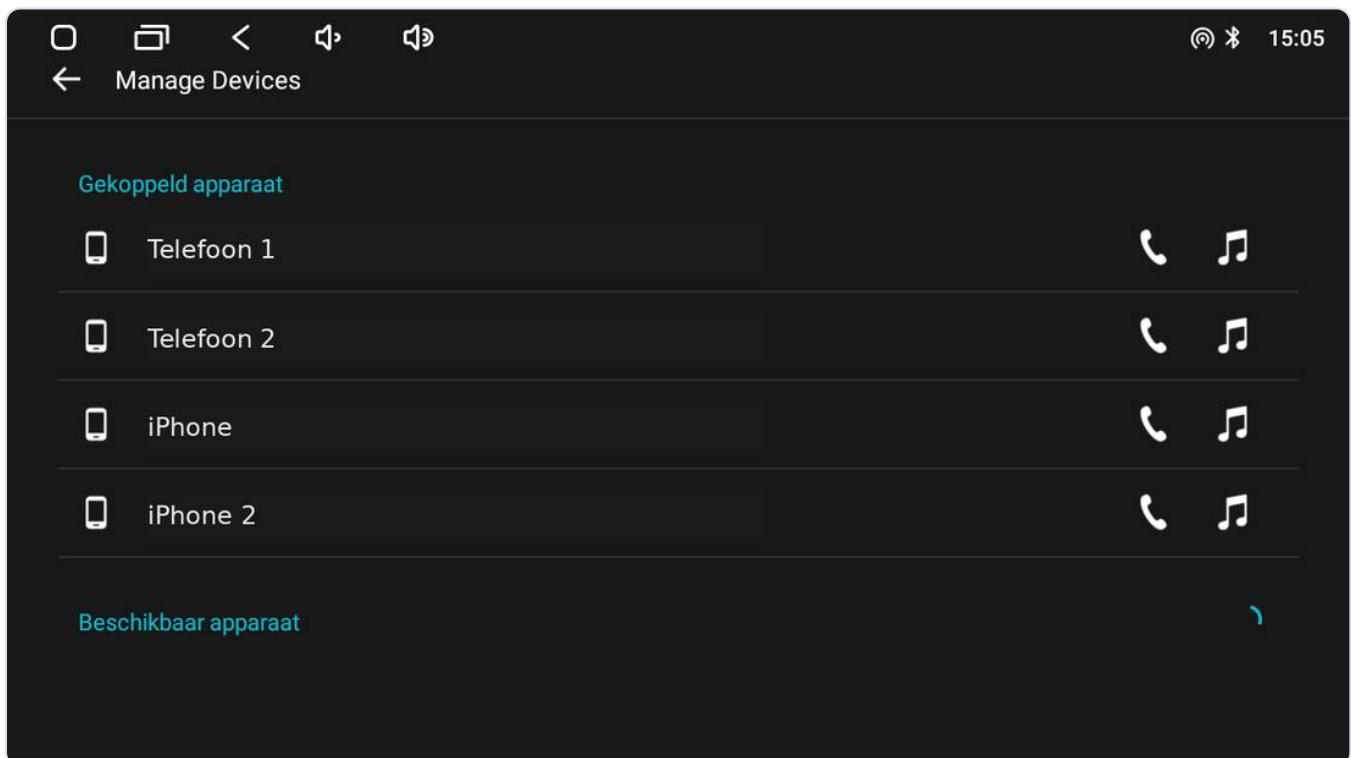


Figure 18-2 Manage Devices: paired phones

In **Manage Devices**, under Paired device, you see all previously paired phones. With the phone and music icons next to a name you choose whether that phone is used for calls, for music or for both. Under Available device, nearby phones that have not yet been paired appear.



Tip: pairing does not work? Remove the existing pairing on your phone and on the system, and pair again.



Caution: never pair while driving. Only do this when the car is stationary.

18.1.2 Importing the phone book

With your phone book on the screen you call contacts without typing a number.

Open the **BT Phone** app. On the left you choose from four sections:

Part	Function
Keypad	Enter a number and call with the green button
History	Missed, incoming and outgoing calls
Contacts	Your phone book, with search function and alphabet on the right
Favourites	Contacts you have marked as favourites; change them with Edit

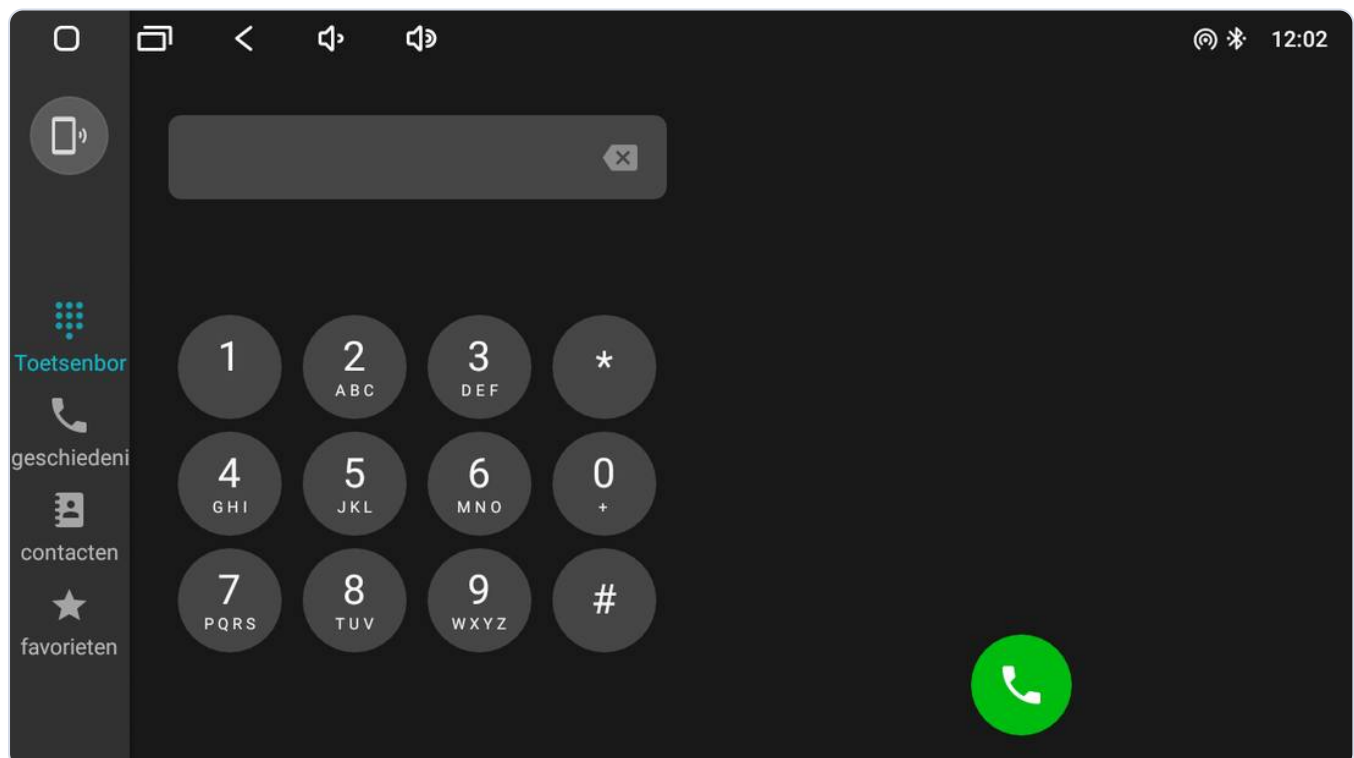


Figure 18-3 BT Phone: keypad

Synchronising contacts and history

1. Make sure your phone is connected via Bluetooth.
2. On your phone, confirm the request to share contacts and call history.
3. The system synchronises automatically; at the top right you see a sync indicator. This may take a while.
4. Then you see your contacts and call history on the screen. Tap a contact to call.

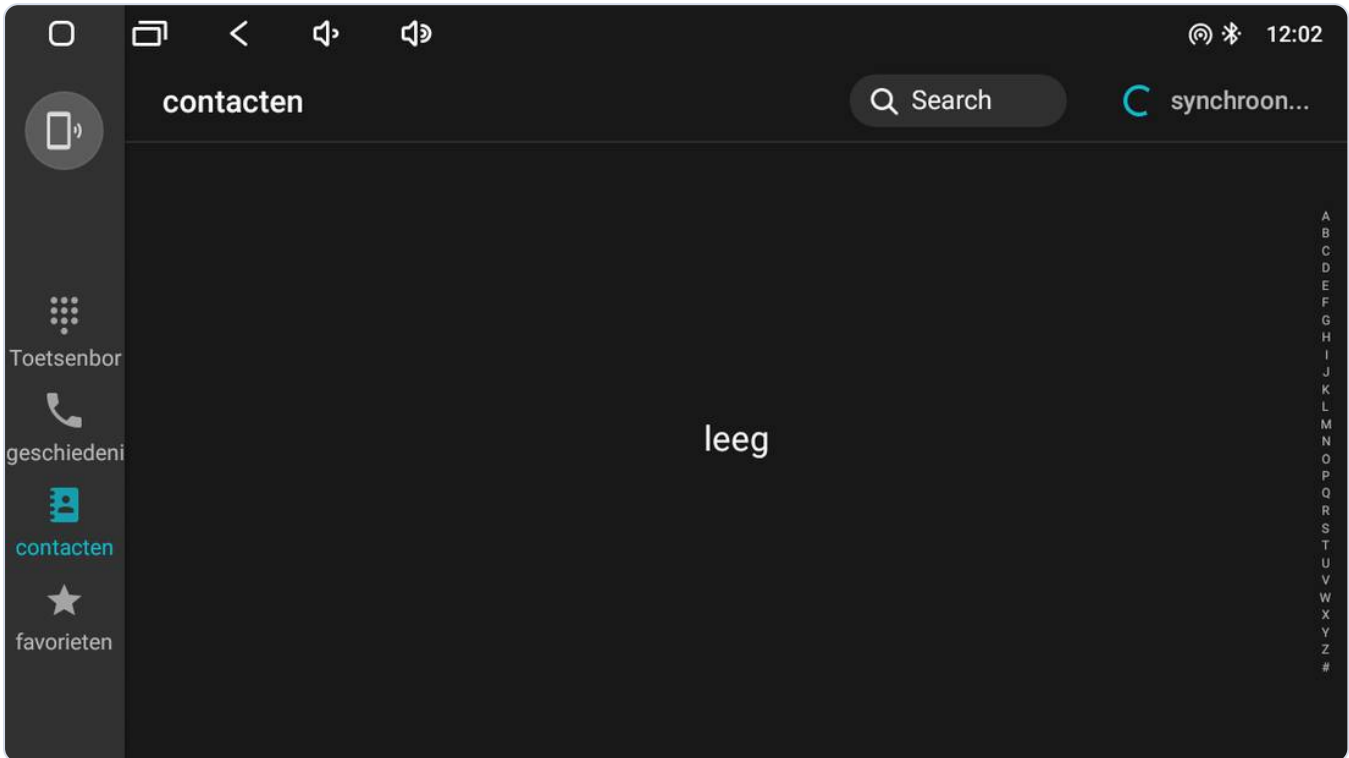


Figure 18-4 BT Phone: contacts during synchronisation

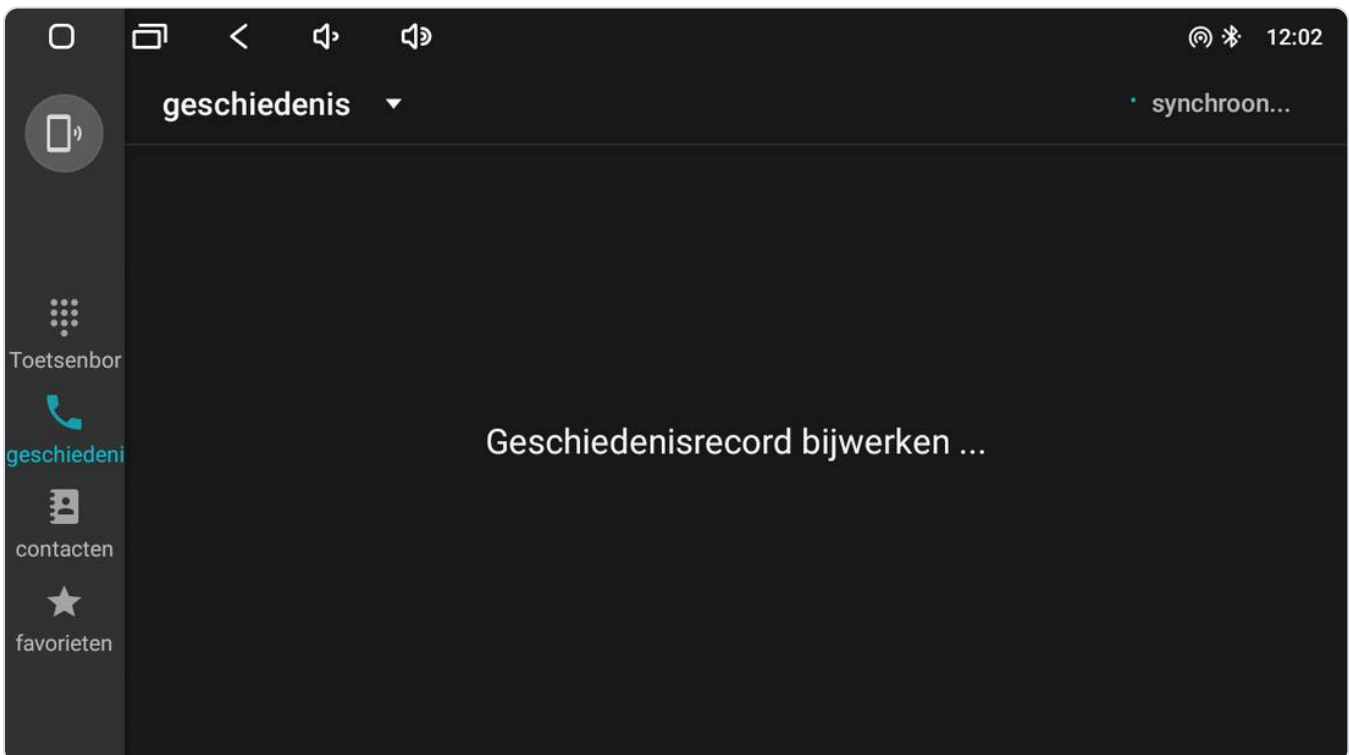


Figure 18-5 BT Phone: call history

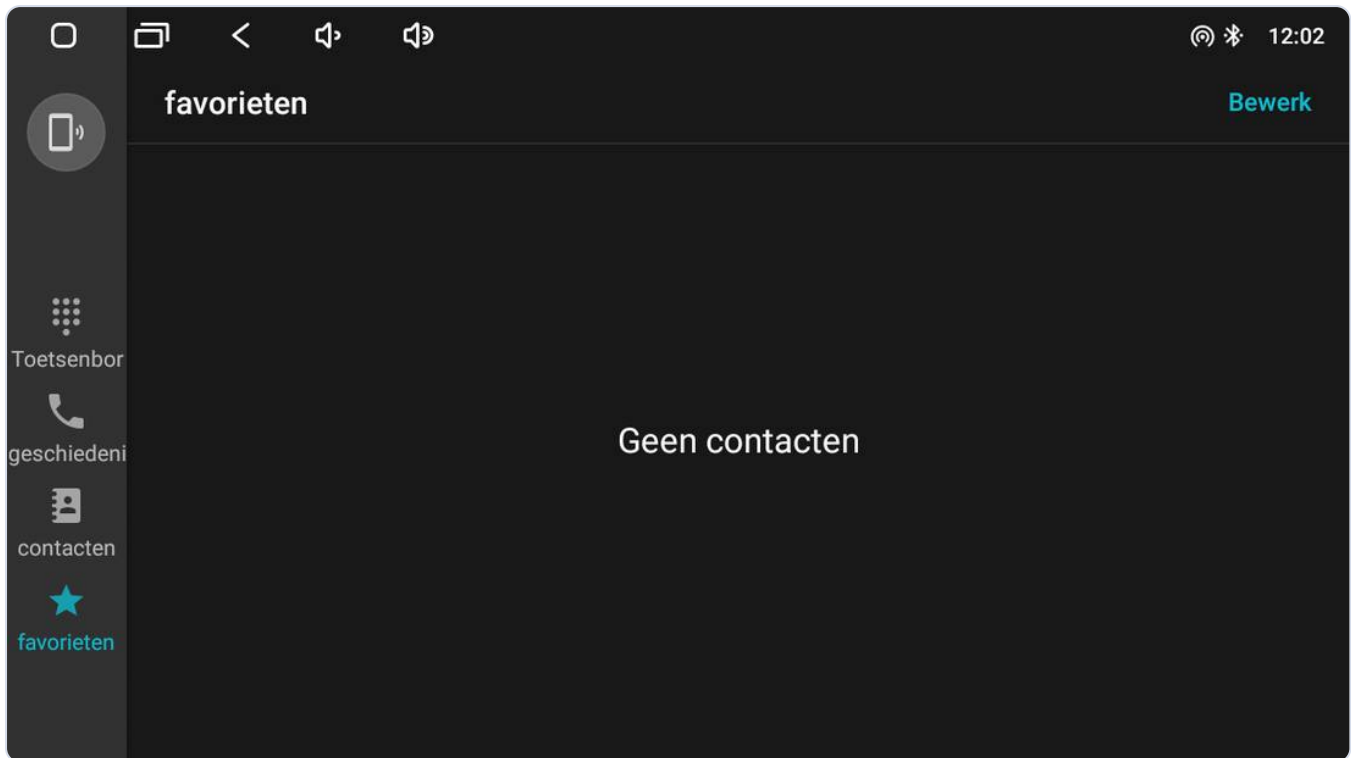


Figure 18-6 BT Phone: favourites

The contacts are only visible as long as your phone is connected. If someone else pairs a phone, your data is not shown.



Tip: phone book does not appear? On your phone, check whether you have given permission to share contacts with Bluetooth devices.

18.1.3 Playing music via Bluetooth

1. Make sure your phone is connected via Bluetooth.
2. Open the **BT Music** app.
3. Start a track on your phone. You then control pause, skip and back via the screen.
4. You can go to another screen; the music keeps playing in the background.

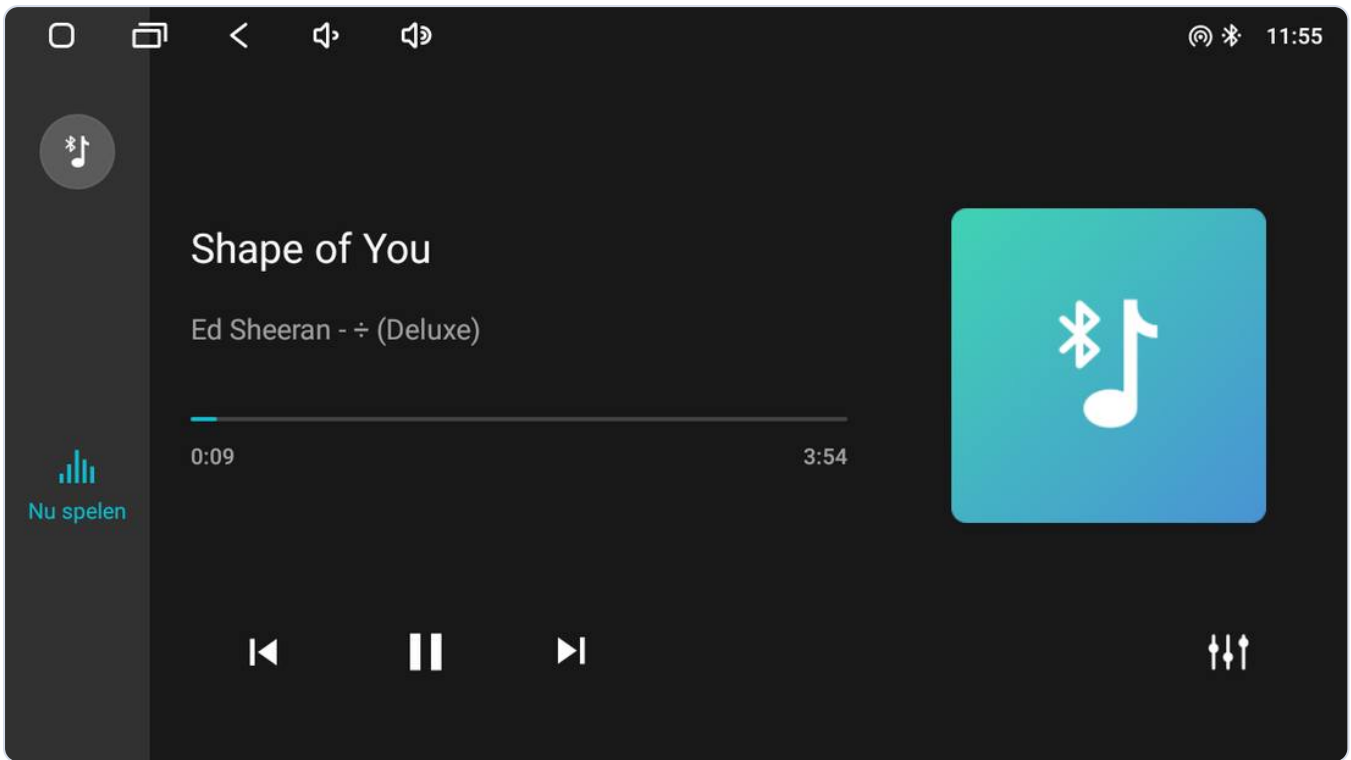


Figure 18-7 BT Music: music from your phone

You see the title, the artist and the progress of the track. With the equalizer icon at the bottom right you adjust the sound (chapter 14).

The music stops when you switch to another source, such as USB, radio, CarPlay or Android Auto.



Tip: with Apple CarPlay or Android Auto you have more control options and voice control via Siri or Google Assistant (18.2 and 18.3).

18.1.4 Microphone and call volume

You set the microphone sensitivity under **Settings → Sound → Mic Gain** (see also 13.8). The higher the value, the more sensitive the microphone.

Setting	When to use
6 dB (default)	Quiet car, or microphone close to the driver
9 dB	The other party has difficulty hearing you, or the microphone is further away
12 dB	Lots of road noise or a microphone far from the driver; may also give more background noise or echo

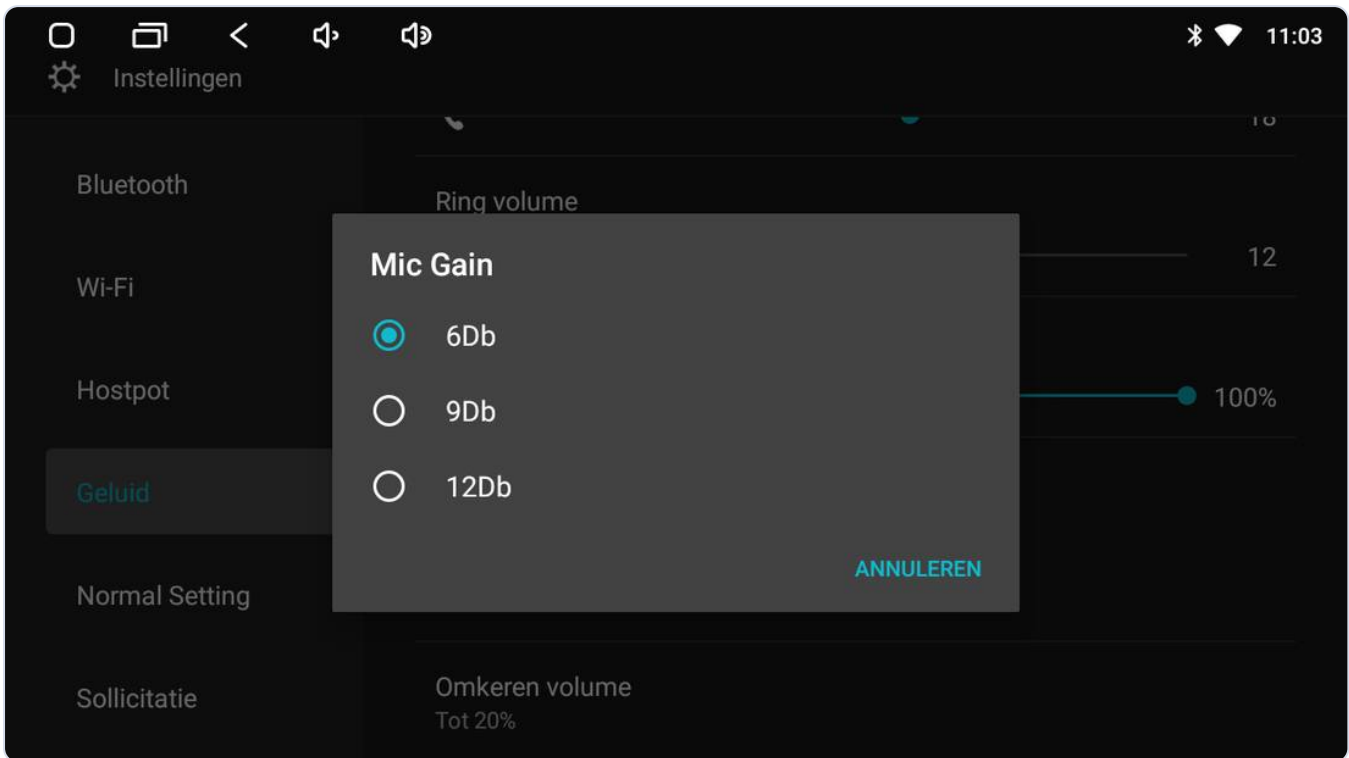


Figure 18-8 Setting Mic Gain

You adjust the volume of calls and the ringtone with the sliders at the top of Settings → Sound.



Tip: make a test call and ask whether the other party can hear you well. Adjust the settings until the sound is clear without sounding too sharp or too loud.

18.2 Apple CarPlay

With Apple CarPlay you use your iPhone safely via the screen of the Denago system: navigation, calls, messages, music and apps, without holding your phone. How CarPlay itself works is determined by Apple and may differ per iOS version.



Caution: check in the specifications whether your version supports wireless CarPlay.



Tip: CarPlay may use mobile data. Make sure there is an active data plan on your iPhone.

18.2.1 Requirements and preparation

- A Denago system with CarPlay support.
- An iPhone with a recent iOS version; this applies to both wired and wireless CarPlay. Keep iOS up to date, as CarPlay and apps such as navigation and music require a recent version.
- An original Lightning or USB-C data cable for a wired connection.

Before you start

- 1. Switch on the ignition.
- 2. Put the car in P (Park) or make sure it is stationary.
- 3. Check that Siri is switched on on your iPhone (Settings → Siri). CarPlay does not work without Siri.
- 4. Take the time to complete the pairing fully before you start driving.

You start CarPlay via the **Carplay** app in the app overview. After the first pairing, CarPlay starts automatically from then on as soon as you switch on the ignition.

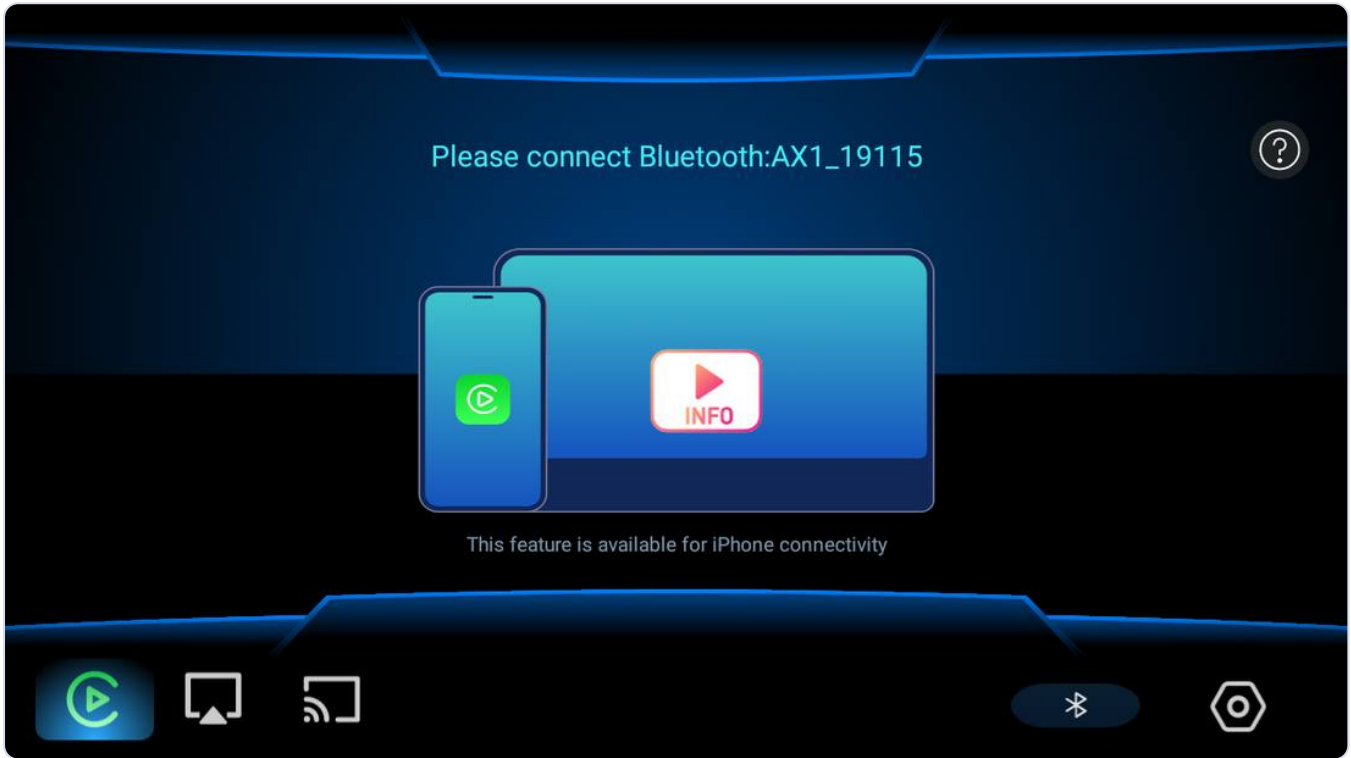


Figure 18-9 Connection screen for CarPlay

The connection screen shows the Bluetooth name your iPhone must connect to, for example *Please connect Bluetooth: AX1_19115*. At the bottom you choose the connection mode:

Icon (left to right)	Function
Play button in a circle	CarPlay and Android Auto
Screen with triangle	AirPlay: mirror the iPhone screen (18.4)
Screen with waves	Screen mirroring (cast)
Bluetooth icon	Bluetooth status of the system
Hexagon (right)	Settings of the connection app

**Tip:** if no connection is made, first check that the CarPlay icon at the bottom left is selected.

Settings of the connection app

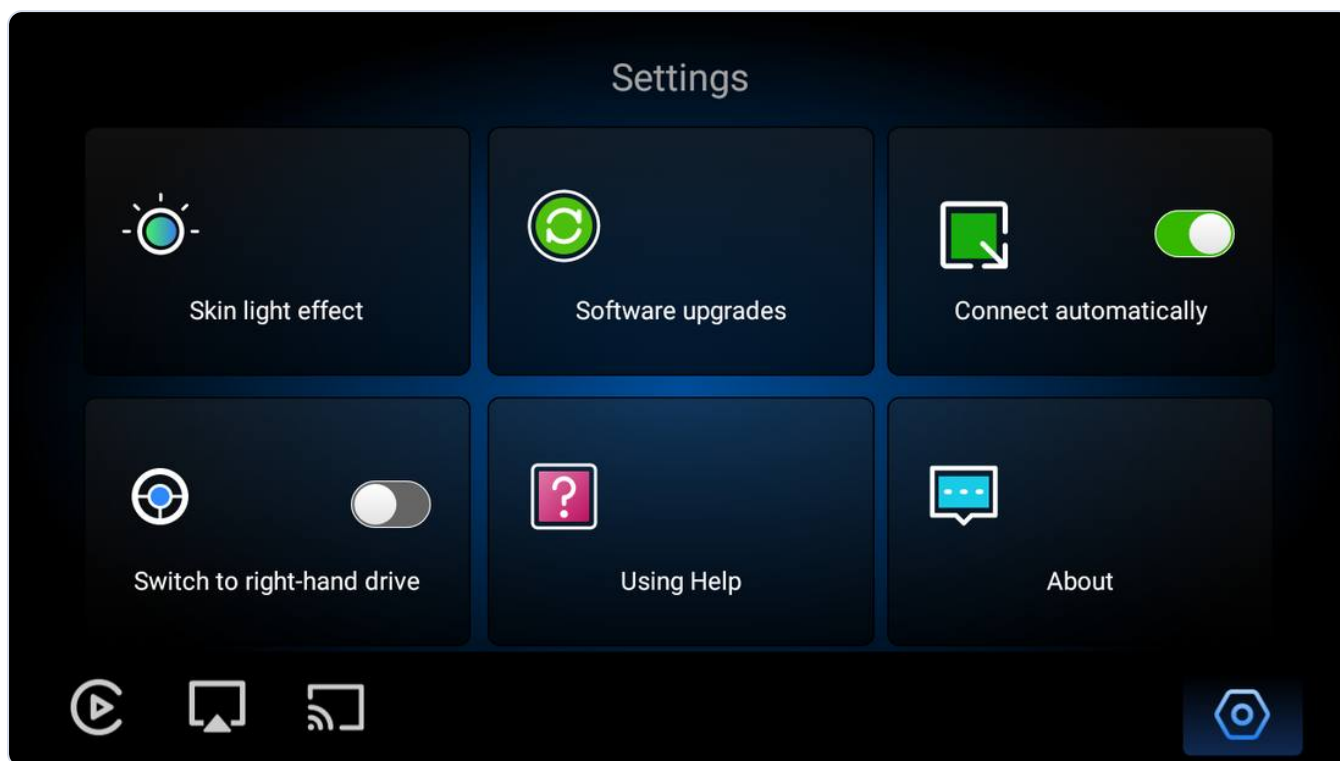


Figure 18-10 Settings of the connection app

- **Skin light effect:** the light effect of the connection screen.
- **Software upgrades:** check whether there is a new version of the connection app. Make sure you have an internet connection first.
- **Connect automatically:** automatically connect to a previously paired phone as soon as the ignition is switched on.
- **Switch to right-hand drive:** mirror the CarPlay layout for cars with the steering wheel on the right.
- **Using Help:** explanations, via QR codes on your phone.
- **About:** version information.

18.2.2 CarPlay via USB

1. Connect the iPhone with a suitable data cable to the system's USB cable. Preferably use an original cable.
2. Open the **Carplay** app if necessary.
3. Unlock your iPhone and give permission to use CarPlay in this car.
4. After a few seconds the CarPlay home screen opens.



Caution: cheap, damaged or charge-only cables can prevent CarPlay from being recognised.

18.2.3 Wireless CarPlay

1. Switch on Bluetooth and Wi-Fi on your iPhone and check that Siri is active.
2. On the system, open the **Carplay** app.
3. On your iPhone, choose the name of the system in the Bluetooth list and connect.
4. Confirm on your iPhone that you want to use CarPlay.

5. After a few seconds the CarPlay home screen opens.

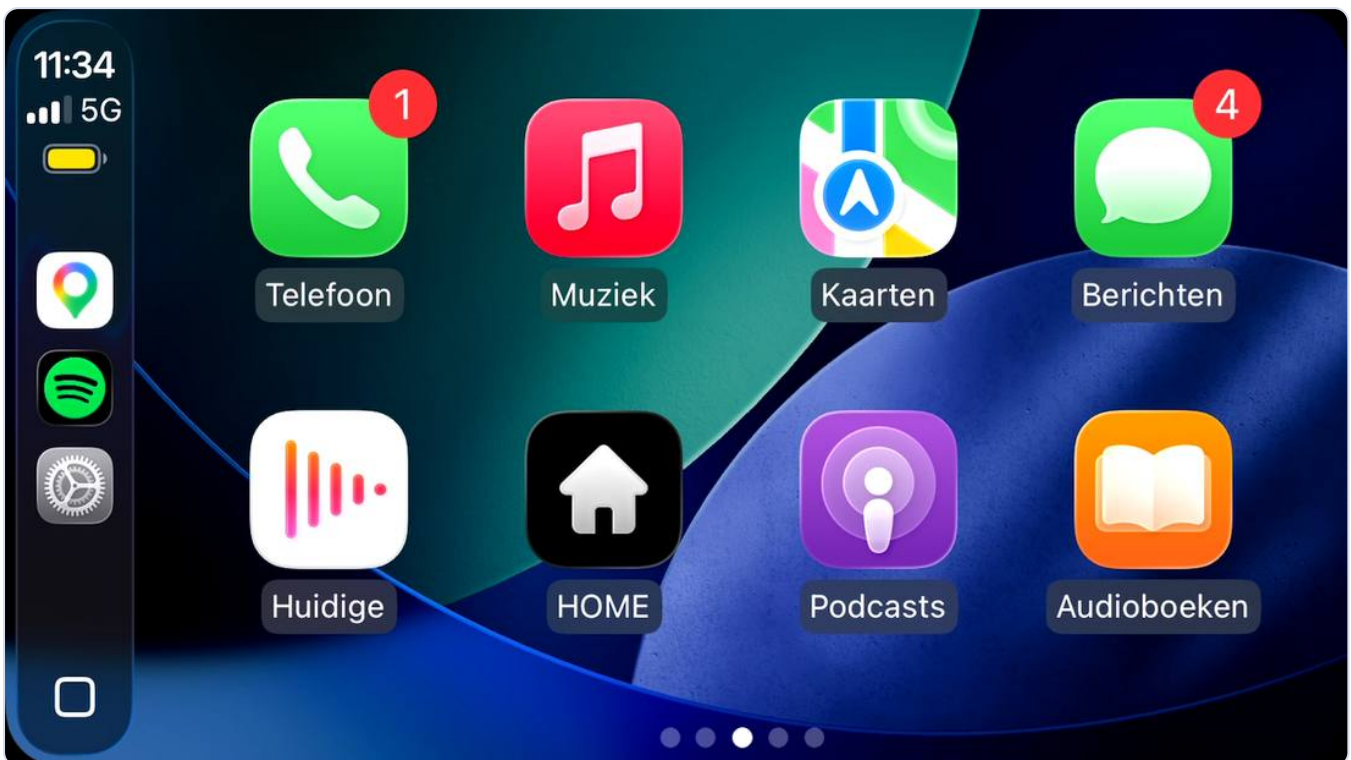


Figure 18-11 CarPlay home screen

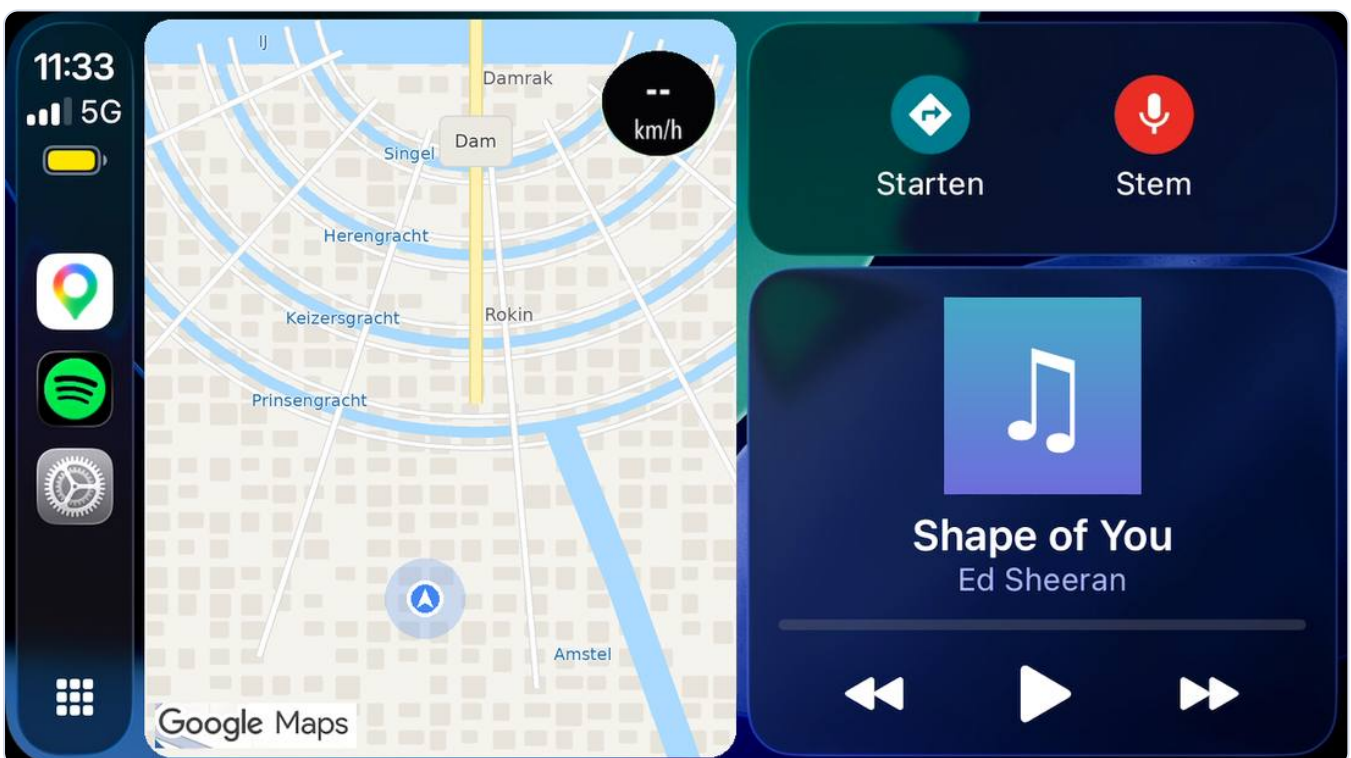


Figure 18-12 CarPlay with navigation and music side by side



Tip: the first pairing may take a little longer. After that, CarPlay connects automatically on every journey.



Caution: while CarPlay is in use, the system's Bluetooth is occupied. You cannot then use other Bluetooth functions of the system.

18.3 Android Auto

With Android Auto you use your Android phone safely via the screen: navigation, music, messages and hands-free calling. Depending on the phone and version, this can be wired or wireless.

18.3.1 Requirements and preparation

- A Denago system with Android Auto support.
- An Android phone with Android 9.0 or higher; Android Auto is then already built in. Wireless Android Auto requires Android 11.0 or higher (Android 10.0 on some Google Pixel and Samsung devices).
- An original USB data cable.

Before you start

1. Switch on the ignition and put the car in P or keep it stationary.
2. Check that Android Auto is installed and up to date.
3. Switch on Bluetooth and location on your phone.

You start Android Auto via the **AndroidAuto** app in the app overview. After the first pairing it starts automatically from then on.

18.3.2 Android Auto via USB

1. Connect your phone with a data cable to the system's USB cable.
2. Android Auto usually starts by itself. If not, open the **AndroidAuto** app.
3. Unlock your phone and give permission. If you wish, choose **Always allow in this car**.
4. Android Auto opens on the screen.



Figure 18-13 Android Auto: app overview



Caution: some USB cables are only suitable for charging and do not support data.

18.3.3 Wireless Android Auto

1. Switch on Bluetooth and Wi-Fi on your phone.
2. On the system, open the **AndroidAuto** app.
3. Pair your phone with the system via Bluetooth and confirm the PIN on both devices.
4. On your phone, give permission for Android Auto. If you wish, choose **Always allow in this car**.
5. The Android Auto screen opens automatically.

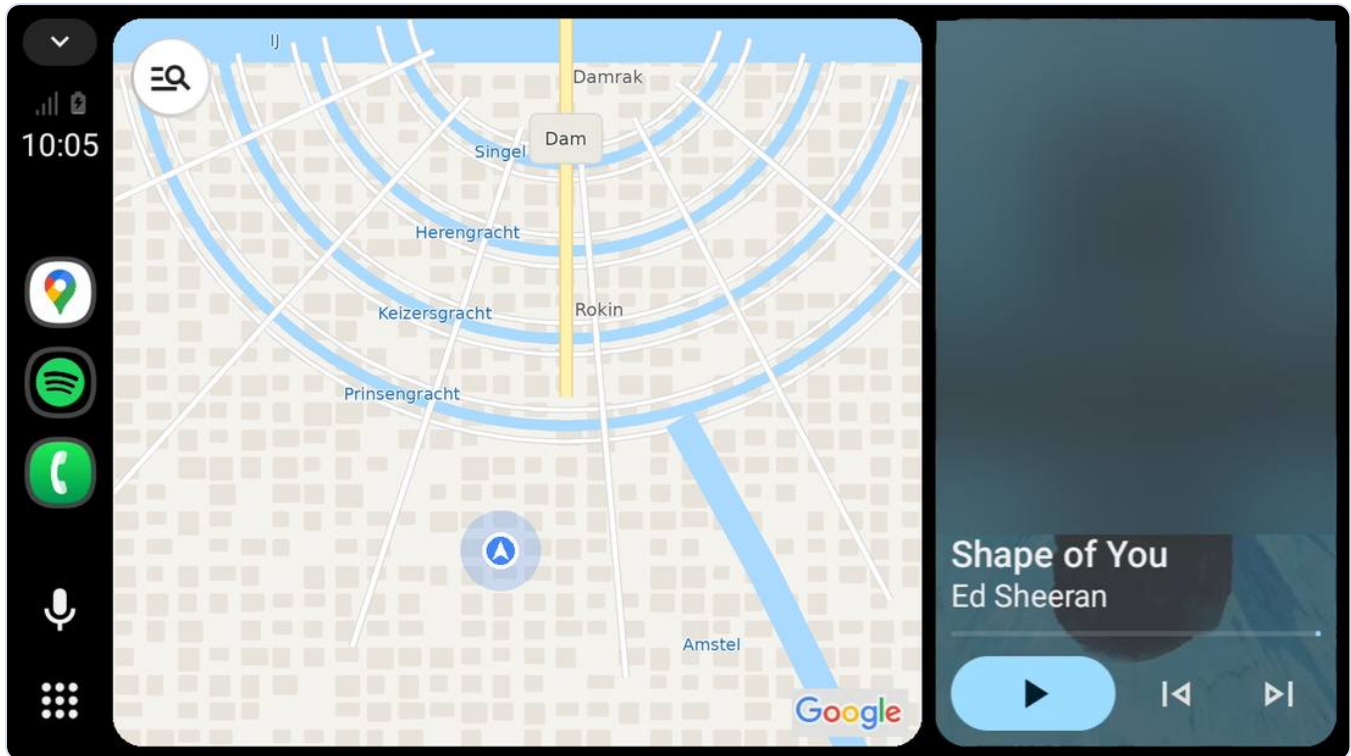


Figure 18-14 Android Auto with navigation and music



Tip: wireless does not work straight away? Connect once via USB first. After that, wireless often works.



Caution: while Android Auto is in use, the system's Bluetooth is occupied. You cannot then pair other Bluetooth devices or play via BT Music.

18.4 AirPlay

With AirPlay you mirror your iPhone's screen on the Denago system. This works via your iPhone's personal hotspot.

1. On your iPhone, switch on the **Personal Hotspot**.
2. On the system, open the **AirPlay** app, or choose the AirPlay icon (screen with triangle) on the connection screen.
3. The screen asks you to connect to your phone's hotspot. Tap the Wi-Fi icon at the top left and choose your iPhone's hotspot.
4. On your iPhone, open Control Centre and choose **Screen Mirroring**. Choose the Denago system.
5. Your iPhone's screen appears on the system.

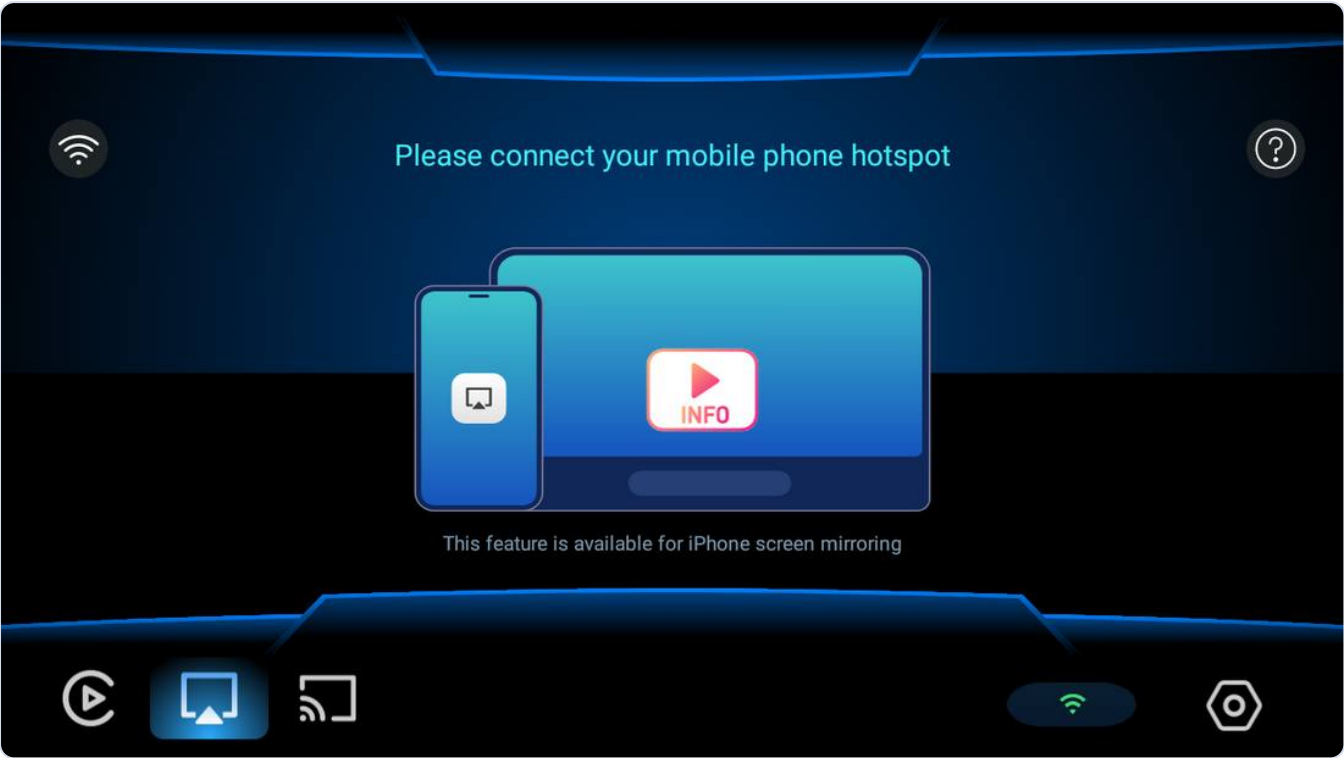


Figure 18-15 AirPlay: connecting to your phone's hotspot

Via the question mark at the top right you open **Using Help**, with QR codes for an explanation and for the app for Android phones.

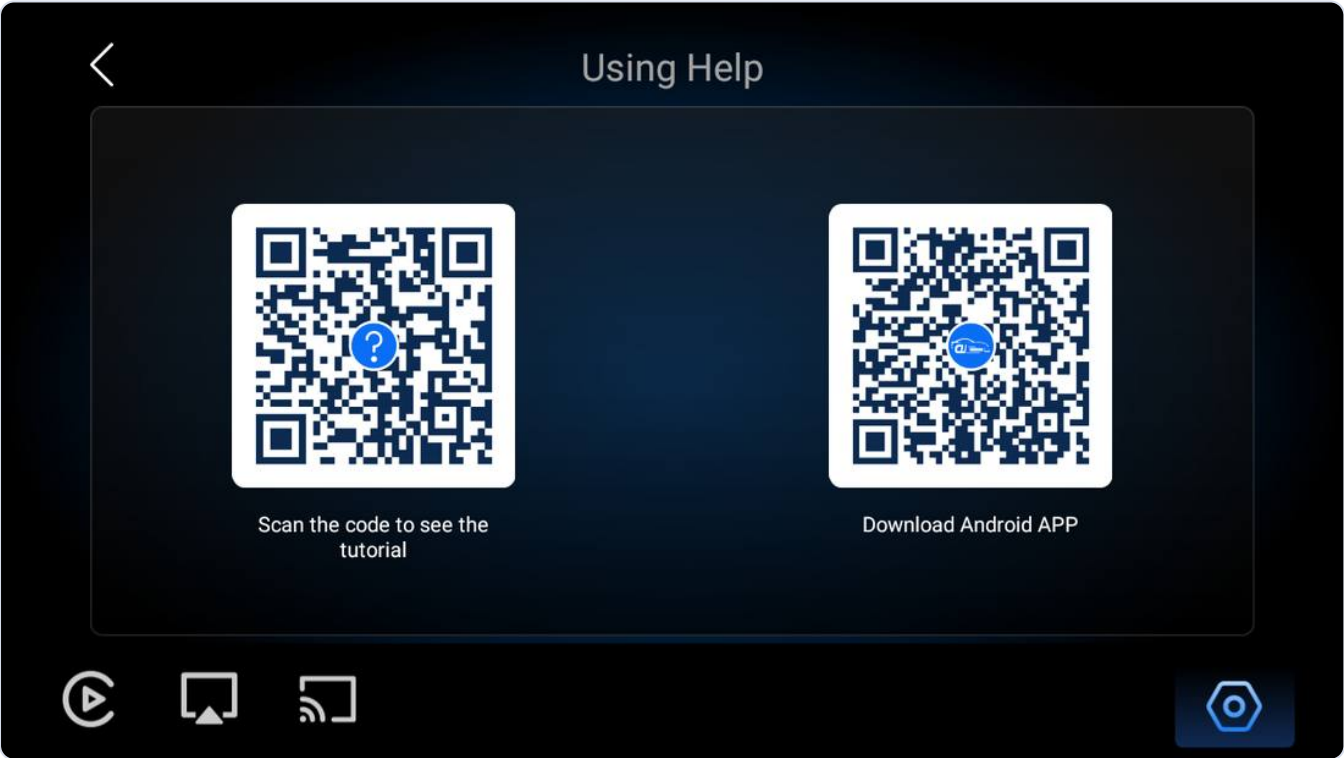


Figure 18-16 AirPlay: Using Help



Caution: do not watch videos or other distracting content on the mirrored screen while driving. For navigation and music while driving, preferably use CarPlay.

18.5 Playing media via USB

You can play music and video directly from a USB stick, without a phone.

A USB stick is recognised automatically but does not start by itself. Open the right app yourself:

- **Music** for audio files;
- **Video** for video files;
- **Files** to browse through folders.

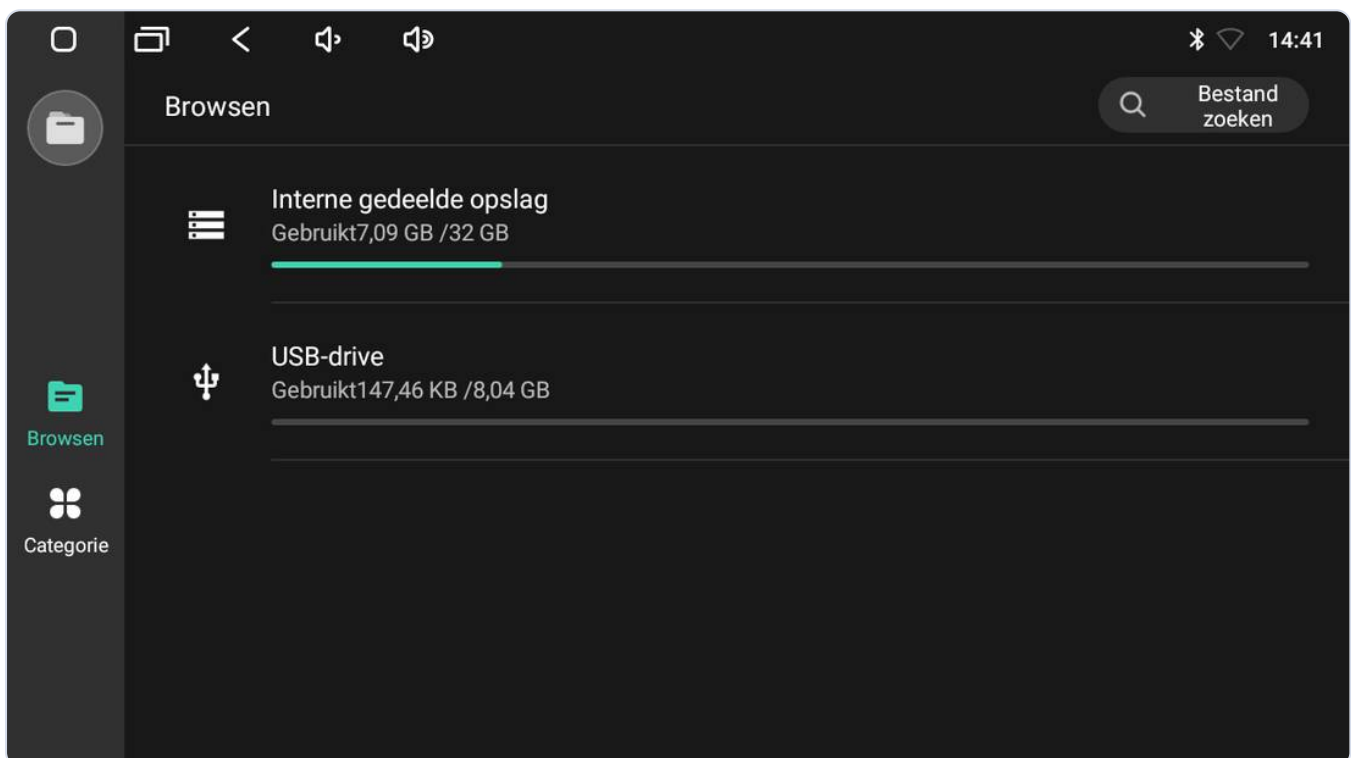


Figure 18-17 Files: internal storage and USB stick

In the **Files** app, under Browse, you see the internal storage and a connected USB stick, with how much space is used. Under Categories you see files sorted by type, such as music, video and images. With Search files you search by name.



Tip: tuck the USB cable away neatly, for example in the glove box. That way you can easily change sticks without visible cables.

18.5.1 Playing music

1. Open **Music**. On the left you choose from **Now playing**, **Library** (your music per source) and **Favourites**.
2. Tap **Library** and choose the USB stick or the internal storage. If there is no music on it, you see "Empty".
3. Tap a track to play it.

4. Use the buttons to pause, skip, mark as favourite (heart) or show the playlist.

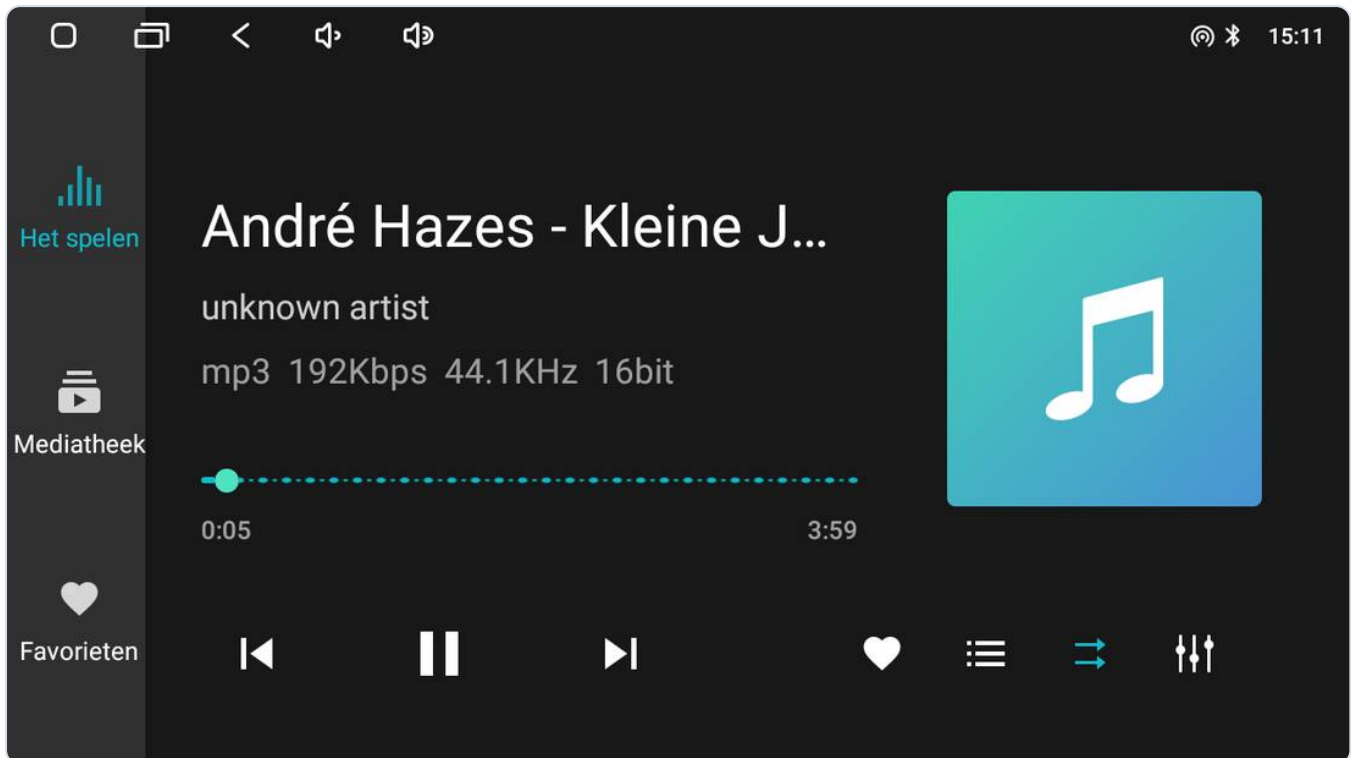


Figure 18-18 Music: playing a track from USB

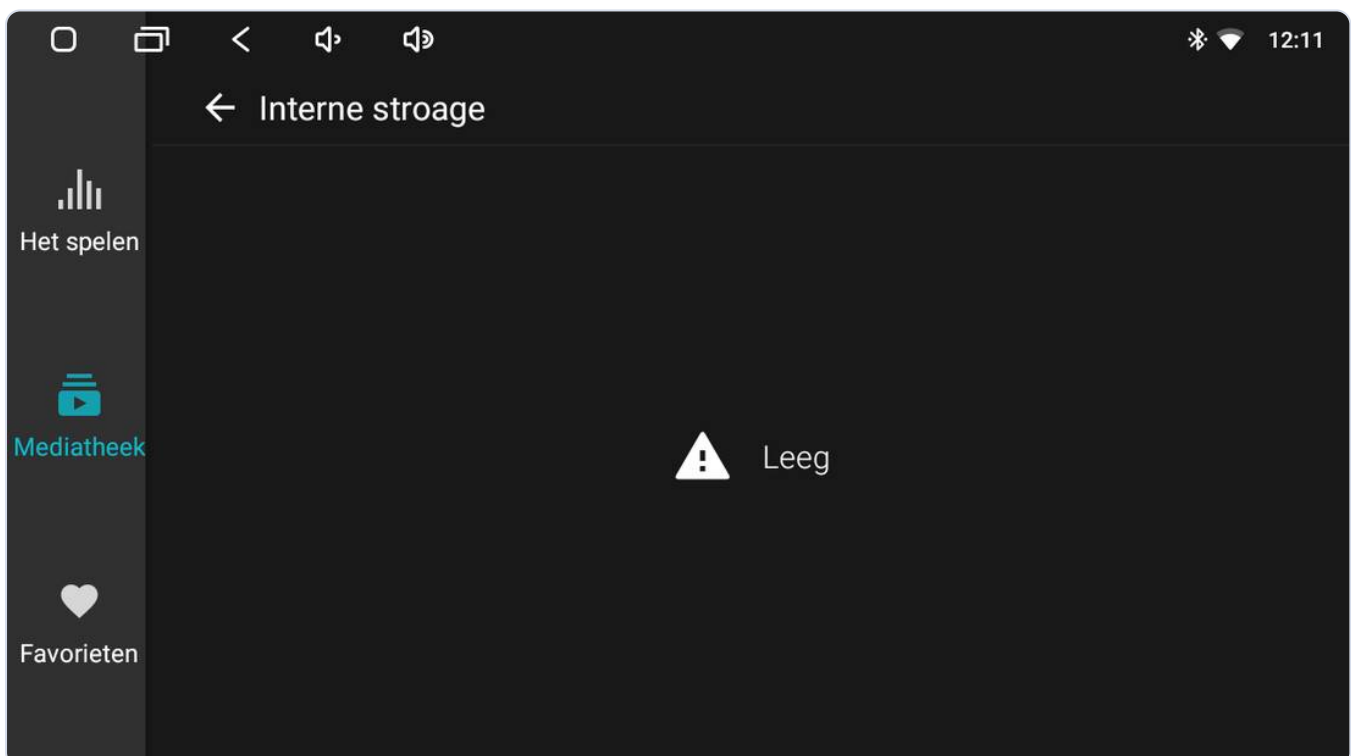


Figure 18-19 Music: Library without music

Function	Description
Files	Overview of folders and media files
Previous / Next	Previous or next track
Pause / Play	Pause or resume playback
Repeat	Repeat current track or whole list
Equalizer	Open sound settings

18.5.2 Playing video

The system plays all common video formats, such as MP4, AVI and MKV.

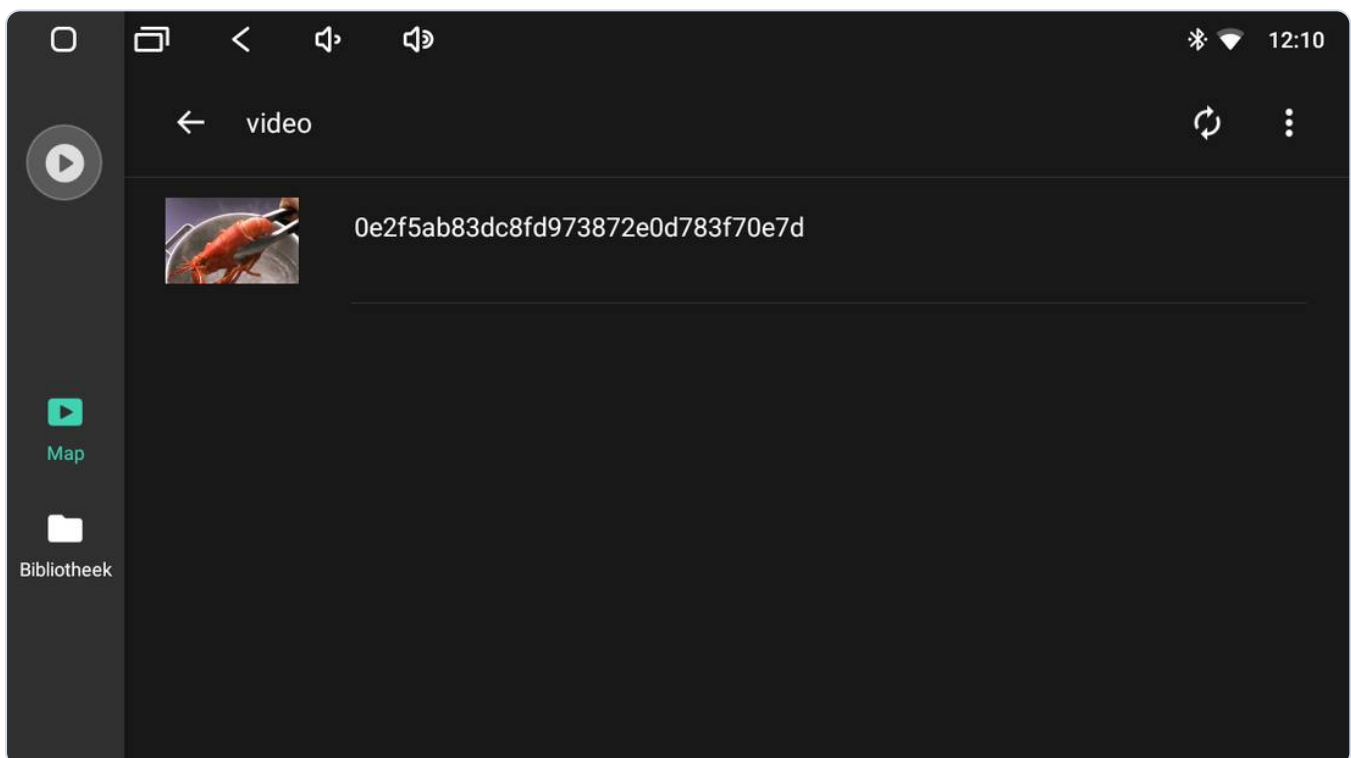


Figure 18-20 Video: overview of video files

In the Video app you choose on the left between **Folder** (video files per folder) and **Library**. With the refresh icon at the top right you search for files again.

1. Insert a USB stick with video files.
2. Open **Video**.
3. Browse to the folder and tap a video to start it.
4. Use the buttons to pause, fast-forward or restart.



Caution: do not watch video while driving. This may be prohibited by law and is dangerous. In some installations, video is automatically blocked while driving.



Tip: use a USB stick with FAT32 or exFAT format. Streaming via apps such as YouTube is only possible with an internet connection (18.6).

18.6 Wi-Fi and online functions

Thanks to Android and the built-in Wi-Fi, you can download and use apps, just like on a tablet.

18.6.1 Connecting to Wi-Fi

1. Open **Settings** and choose **Wi-Fi**.
2. Switch on Wi-Fi and tap the desired network.
3. Enter the password. The connection is made automatically.

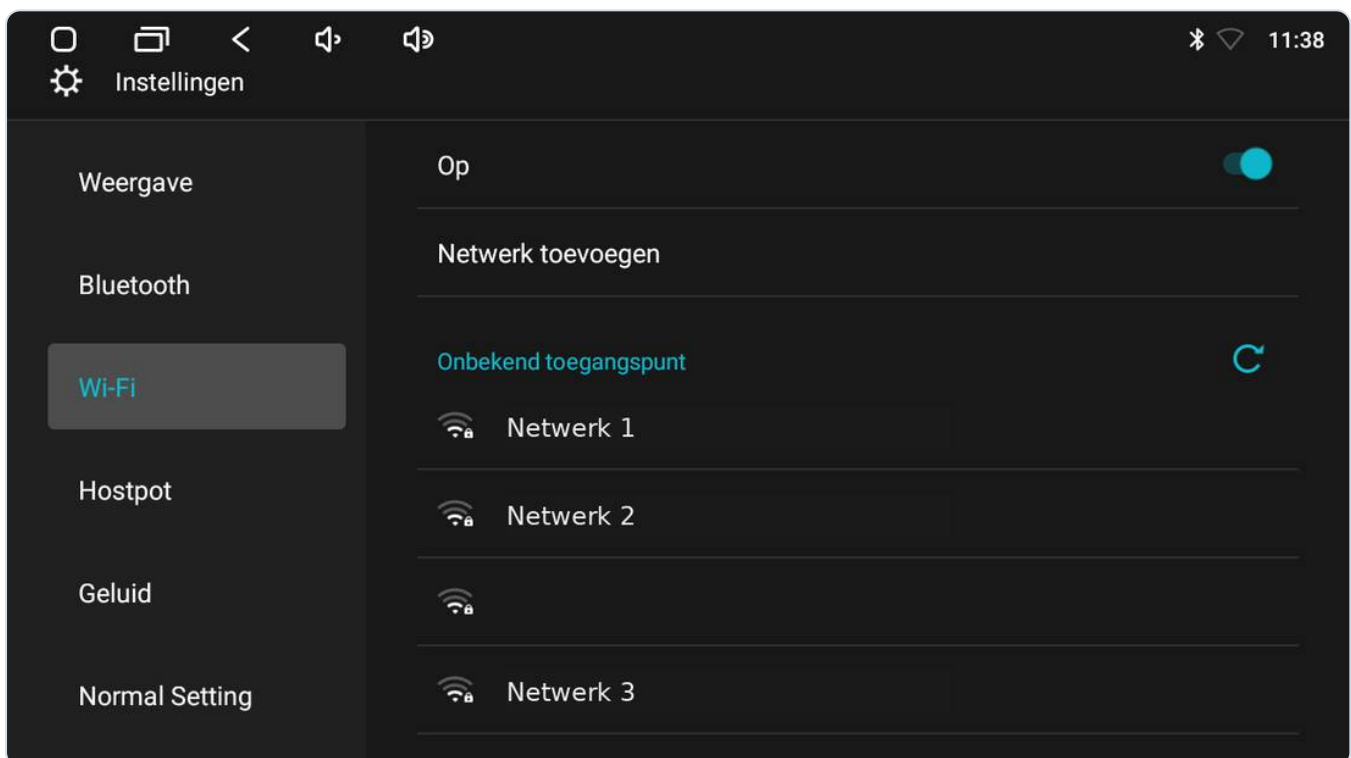


Figure 18-21 Wi-Fi settings with available networks

If Wi-Fi is off, you see the message "Turn on Wi-Fi to see available networks". Then switch on the toggle at the top.

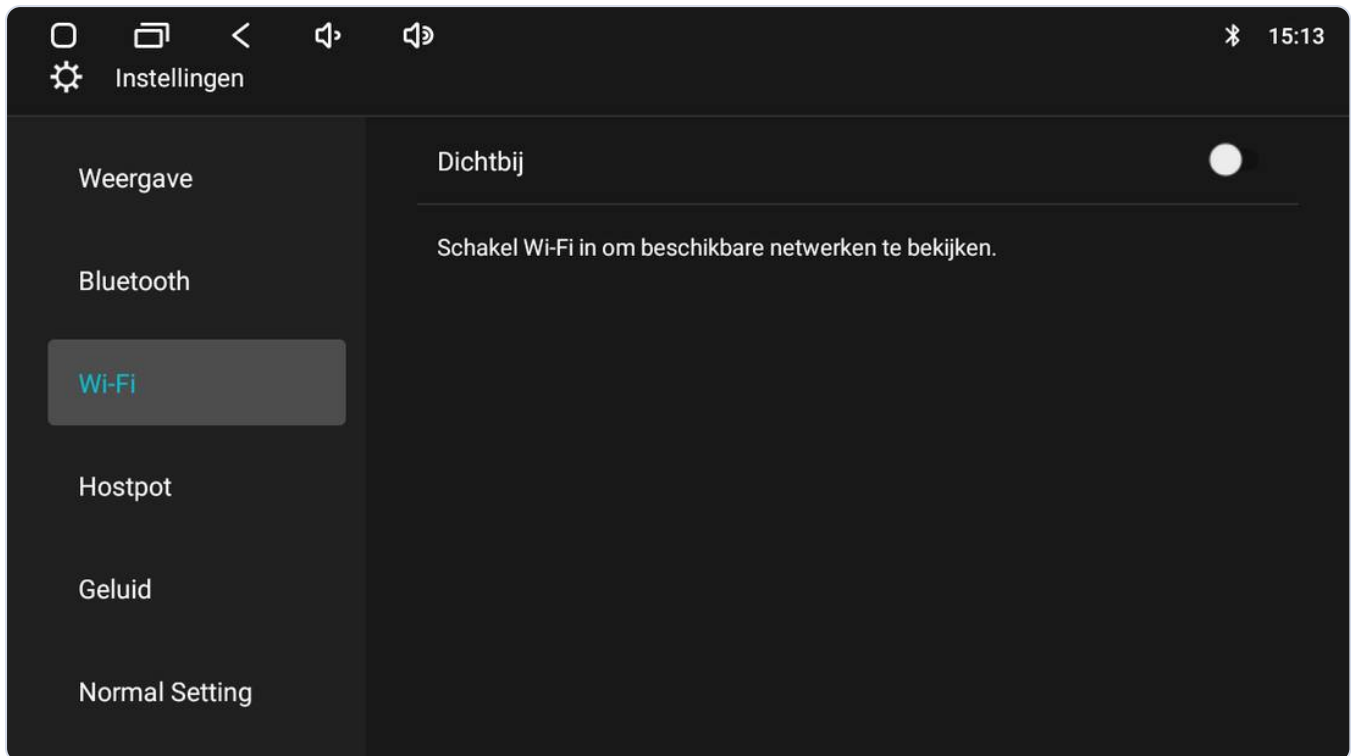


Figure 18-22 Wi-Fi is off

If you do not see your network, tap the refresh icon, or choose **Add network** to enter the network name manually.



Tip: on the road, use your phone's hotspot. Switch it on first on your phone and then choose it in the Wi-Fi list.



Caution: wireless CarPlay and Android Auto also use Wi-Fi. On some versions you therefore cannot be connected to another Wi-Fi network at the same time.

18.6.2 Google Play Store and apps

1. Open **Play Store** in the app overview.
2. The first time, sign in with a Google account.
3. Search for an app and tap **Install**. Updates appear automatically in the Play Store.

Make sure you have a stable Wi-Fi connection while downloading and updating. Most apps need the internet to work properly.



Caution: Denago is not responsible for the operation of third-party apps. While driving, only use apps that are safe to operate.



Caution: never remove the built-in apps for CarPlay and Android Auto. A removed app does not come back by itself after a restart; a factory reset may then be necessary.

19 Radio

Open the **Radio** app in the app overview or tap the radio tile on the home screen (chapter 11). The system supports FM radio with RDS: if the station broadcasts this information, you see the station name and additional information on the screen.

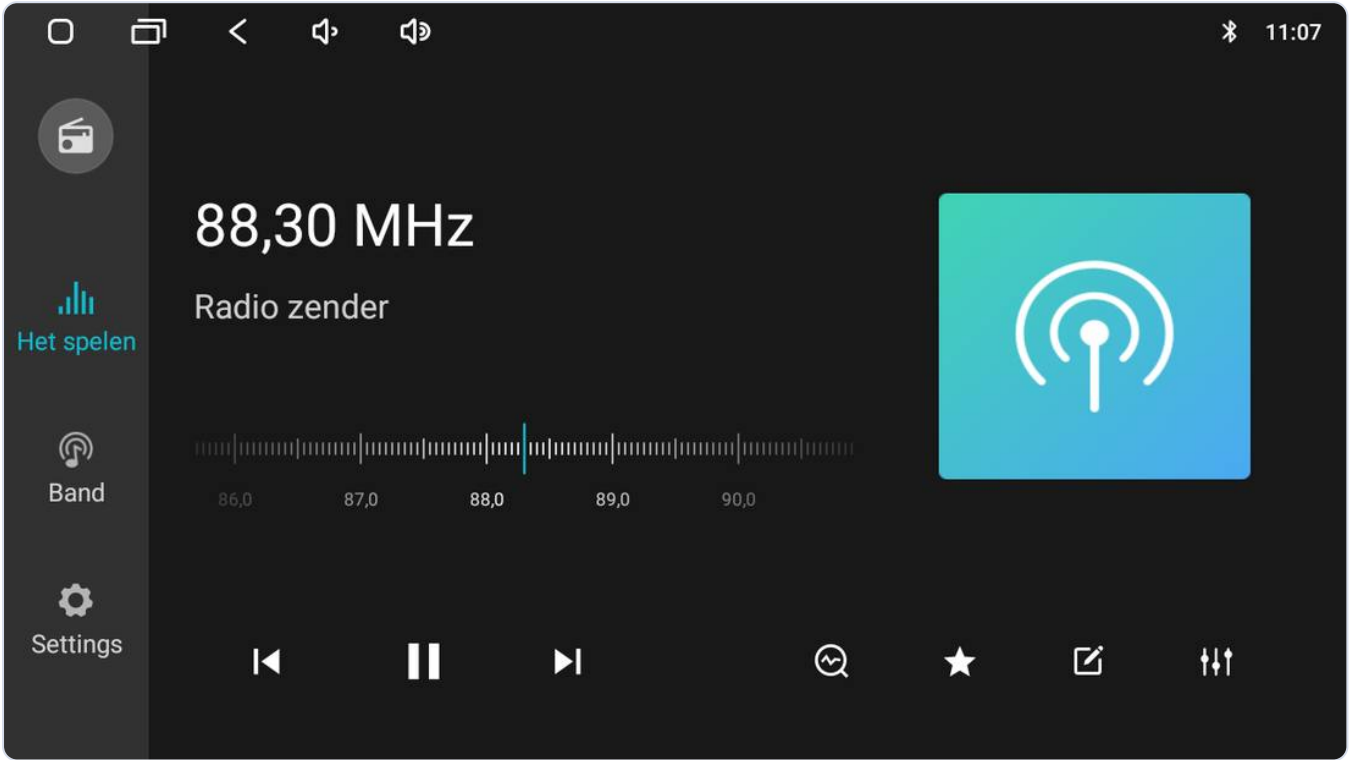


Figure 19-1 The radio screen

On the left you choose from **Now playing**, **Band** and **Settings**. At the bottom of the screen are the buttons:

Button	Function
Previous / Next	Search for the previous or next station
Pause	Pause the radio sound
Magnifying glass	Automatically search all stations (FM Search)
Star	Save the current station as a favourite
Pencil	Edit the station list
Sliders	Equalizer (chapter 14)

19.1 Searching for stations

- **Manually:** drag the marker on the frequency bar to the desired frequency.
- **Automatically:** tap the search button or the arrows. The radio searches for the next station with sufficient signal.

Searching and saving all stations

1. Tap the magnifying glass. The **FM Search** screen shows the stations found.
2. Tap **Auto Store** at the top right to save the stations found automatically.
3. Tap the star next to a station to mark it as a favourite.

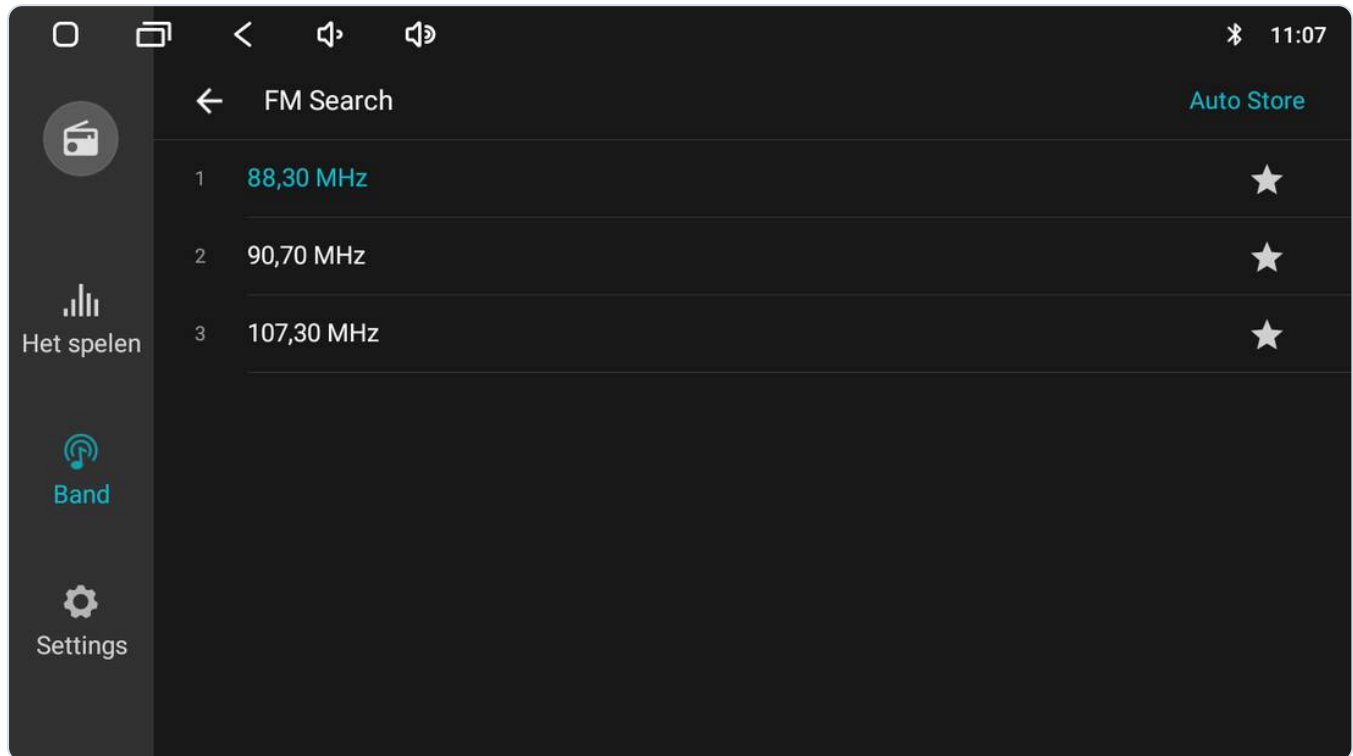


Figure 19-2 FM Search: stations found



Tip: whether RDS information appears depends on the station and the antenna.

19.2 Saving stations

1. Tune in to the desired station.
2. Press and hold a preset button for a few seconds.
3. The station is saved in that position.

Depending on the version, you can use several pages of preset stations by swiping.

19.3 Other radio functions

- **Equalizer:** adjust the sound (chapter 14).
- **Search sensitivity (DX / LOC):** go to **Settings** in the radio app and tap **Sensitivity**. Choose **DX** to also find weaker stations further away, or **LOC** to search only for strong, local stations. Choose LOC if the radio stops on noisy stations while searching.

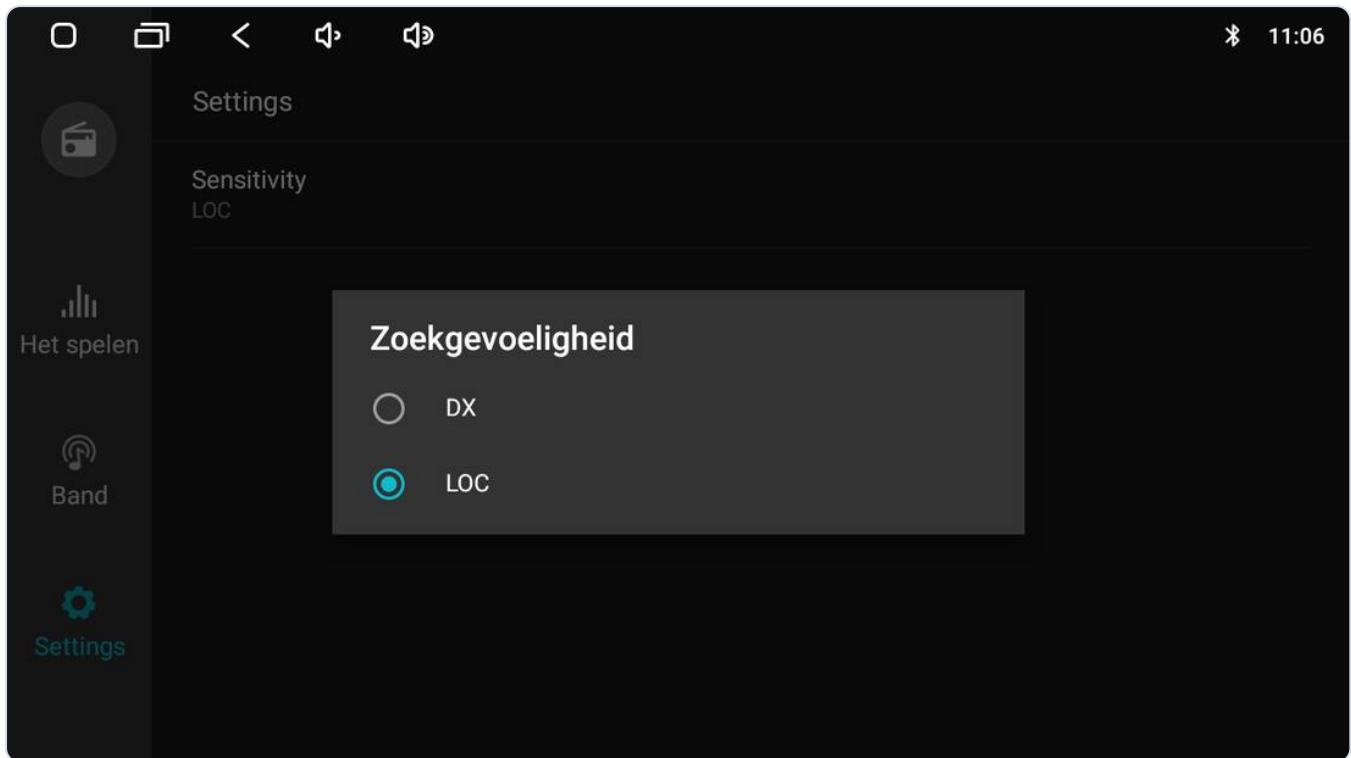


Figure 19-3 Search sensitivity DX or LOC

19.4 DAB+ digital radio (optional)

The system has no built-in DAB+ receiver. With an external DAB+ adapter with receiver you can still listen to digital radio, with better sound quality and more stations. The adapter is not supplied.

1. Connect the DAB+ adapter to a USB port of the system.
2. Mount the adapter's antenna, usually a window antenna on the windscreen.
3. Open the corresponding DAB+ app and let it search for stations automatically.

Always follow the adapter's manual for installation and use.



Caution: position the DAB+ antenna so that it does not obstruct the driver's view.

19.5 Internet radio

With an internet connection you can also listen to internet radio, with stations from all over the world. There are two ways to do this:

- via apps on the system itself, such as myTuner or Radio FM, downloadable from the Play Store (18.6.2);
- via CarPlay or Android Auto, with radio apps on your phone.



Tip: internet radio also works where FM reception is poor, as long as you have a stable internet connection via Wi-Fi or your phone's hotspot.



Troubleshooting

20 Troubleshooting

20.1 Settings and operation

Problem	Solution
Menus are in the wrong language	Settings → Language → choose English (United Kingdom)
No image when reversing	Switch on Reverse Trigger and check the camera format
Camera image flickers or is distorted	Try a different format: PAL, NTSC, 720P or 1080P, 25 or 30 Hz
Steering wheel buttons do not work	Check the CANBUS setting, or program the buttons via Key Learn
Air conditioning display or car data missing	In CANBUS Select, choose the correct module, car and model
Screen too bright in the dark	Set Night mode auto-start to <i>According to lamps</i>
Sound is unbalanced	Set the balance to the centre and choose equalizer setting Flat
New functions or errors	Search for updates via the OTA app

20.2 Power supply

Problem	Possible cause and solution
Radio does not switch on	Check the power connector, the fuse and whether the battery is connected. With a CANBUS cable: check that the module is firmly connected.
Radio does not switch off when ignition is off	The permanent positive and switched positive (ACC) may have been swapped. Have the wiring checked.
Radio forgets settings after switching off	Permanent positive and switched positive have probably been swapped, or the permanent positive is not connected.
Battery runs flat	The system keeps drawing power. Check the ACC connection and have the wiring checked.

20.3 Image and sound

Problem	Possible cause and solution
Touchscreen does not respond properly	Clean the screen, remove any protective film and restart the system.
Camera image stays on the screen	Check the reverse signal cable or the CANBUS setting (chapter 16.1).
No sound from the speakers	Check the volume, mute and the speaker connections. With a factory amplifier, a separate connection or adapter is sometimes needed.
Sound distribution is wrong	Set balance and fader to the centre (chapter 14.2).
Poor intelligibility during calls	Check that the external microphone is connected and positioned close to the driver.

20.4 Reception and connections

Problem	Possible cause and solution
FM radio has poor or no reception	Check the antenna connection and whether any antenna amplifier is receiving power.
Bluetooth does not connect	Remove the pairing on phone and radio, and pair again via Manage Devices.
CarPlay or Android Auto does not work	Use a good USB cable, check that the function is switched on on your phone and restart both devices.
No or poor GPS reception	Check that the GPS antenna is connected and has a view of the sky.
USB stick is not recognised	Use a stick with FAT32 or exFAT format and try another USB port.
Wi-Fi drops out	Check the distance to the hotspot and whether the phone hotspot stays switched on.

20.5 Problem not solved?

If you cannot solve it, open the **CNLog** app. The log can help when you contact the supplier.

Contact your dealer or Denago (chapter 27.4). State the model, the software version number and a short description of the problem.

E

Safety, maintenance and warranty

21 Safety information

Read this information before you install or use the system. Navigation, multimedia and smartphone connection are aids; the driver always remains responsible for driving safely and complying with traffic rules.

Do not open the housing and do not carry out repairs if you are not qualified to do so. Damage caused by not following these instructions is not covered by the warranty.

21.1 Safety during installation

- If you are unsure about the installation, have the system installed by a qualified installer. Only use the system with a 12 V battery with negative earth.
- Follow the car manufacturer's instructions for disconnecting the battery. If the battery has to be disconnected, switch off the ignition and disconnect the negative terminal (-) first.
- Never install the system in a place where it obstructs the view, interferes with airbags or warning lights, or gets in the way of operating the car.
- Never disable or bypass the parking detection (handbrake cable). This is a safety feature.
- Do not route cables along moving parts, under screws or in hot places.
- Do not use the radio's power supply for other devices.
- After installation, check the brake lights, indicators and windscreen wipers.

21.2 Safety while driving

- Only operate the system when it is safe to do so. If you want to change settings, first park in a safe place.
- Do not look at the screen for long periods while driving.
- Watching video while driving may be prohibited by law. Check the rules in the country where you are driving.
- Set the volume to a safe level so that you can still hear traffic and emergency services. Prolonged loud sound can damage your hearing.
- Make as few calls as possible while driving; use hands-free.
- Never rely solely on the reversing camera. Also look in your mirrors and around the car.

21.3 Navigation

- Navigation is an aid. Check yourself whether a route is safe and permitted.
- Traffic rules, road signs and the current situation always take precedence over navigation.
- Map data may be out of date and contains no information about, for example, clearance heights, weight restrictions or roadworks.
- Never use navigation as the only source for finding emergency services.

21.4 The screen

- A few non-working pixels can occur with LCD screens. If in doubt, contact your seller.
- Only operate the touchscreen with your finger, never with sharp objects.

- In extreme cold or heat, the screen may respond more slowly.
- Do not point the air conditioning or heater vents directly at the screen.
- A protective film can reduce touch sensitivity.

21.5 Abnormalities and malfunctions

If you see or smell smoke, notice a strange smell or hear unusual noises, switch off the system immediately and contact your dealer. Also stop using it if the screen freezes or other malfunctions occur.

21.6 Preventing a flat battery

- Do not use the system in a car without ignition-switched power (ACC).
- For extended use, keep the engine running.
- If the battery runs flat or is disconnected, settings may be lost.

21.7 Reversing camera

Only use the camera input for a reversing or mirror camera, as an aid when manoeuvring. The image may be shown mirrored.

21.8 Water, heat and cooling

- The system is not waterproof. Do not operate it with wet hands and do not place drinks on or near the device.
- If liquid gets in, switch off the system immediately and have it checked before using it again.
- Keep ventilation openings clear. After the car has stood in the sun for a long time, let it cool down first.
- Keep hot objects, such as cigarettes, away.

21.9 Remote control battery (if supplied)

- Keep button cell batteries out of the reach of children and pets. If swallowed, seek medical help immediately.
- Do not recharge, open, heat or throw button cells into fire.
- When replacing, observe the polarity (+ and -) and use the same type of battery.
- Do not touch leaking batteries.

21.10 Personal data

The system stores data about you and your phone, such as paired phones, contacts, call history, Wi-Fi networks and app accounts. This data remains on the system.

- Are you selling the car or the system, returning it or having it repaired? First unpair your phones (chapter 18.1), forget saved Wi-Fi networks (chapter 18.6) and sign out of apps.
- If you want to erase all data in one go, reset the system to factory settings. This also deletes your settings and installed apps. Chapter 13.9 explains how to do this.

22 Cleaning

- Switch off the system before cleaning it.
- Wipe the screen regularly with a soft, dry cloth, without pressing hard.
- For stubborn stains, use a cloth lightly moistened with a mild cleaning agent. Then dry it off.
- Never use alcohol, solvents or abrasive agents.
- Never immerse the system or the remote control in water.
- Do not let children clean the system.

23 Maintenance and service

The system does not need regular maintenance. Do check it for damage now and then.

- Never open, disassemble or modify the system yourself. You could get an electric shock or damage the system. Damage caused by your own repairs or modifications is not covered by the warranty.
- Only the remote control battery (if present) and the system's fuse may be replaced by you.
- Always have repairs and inspections carried out by a qualified installer or service partner.

23.1 Replacing the fuse

Always use a fuse with exactly the same ampere rating (15 A). If the new fuse also blows, do not replace it again but have the system checked by your dealer.

24 Storage and transport

- Clean the system before storing it for a longer period.
- Store it dry, dust-free and out of the sun, and not at extreme temperatures.
- If you have a remote control, remove the battery if you will not use it for a long time.
- Protect the system against shocks and vibrations during transport, preferably in the original packaging.

25 Disposal and recycling

The product

This product is covered by the European WEEE Directive 2012/19/EU. The crossed-out wheeled bin symbol means that you must not dispose of it with household waste. Take it to a collection point for electrical equipment, or to the shop when you buy a comparable new device.

Batteries

If a remote control is supplied, it contains a button cell battery. Under the European Batteries Regulation (EU 2023/1542) you must not dispose of batteries with household waste. Remove the battery from the remote control before disposing of it, and hand in empty batteries free of charge at a collection point for batteries or small chemical waste.

Packaging

Dispose of packaging materials such as cardboard, plastic and film separately, according to the instructions on the packaging.

26 Disclaimer

- This manual has been compiled with care. Images, menus and functions may differ due to differences in version, vehicle and software version.
- Descriptions are based on the default settings. The content may differ from the product or the software; Denago may make changes without notice.
- Apple, CarPlay and AirPlay are trademarks of Apple Inc. Android, Android Auto and Google are trademarks of Google LLC. The Bluetooth word mark is owned by Bluetooth SIG, Inc. Wi-Fi is a trademark of the Wi-Fi Alliance. Other brand names are the property of their respective owners.
- Apps that use a lot of processing power or memory can slow down the system. Third-party apps may not work properly; Denago does not guarantee the operation of third-party apps.
- Your provider may charge for data traffic via your phone. For large downloads, preferably use Wi-Fi.
- Pre-installed third-party apps may change or be discontinued through updates.
- Do not copy, share or download copyrighted material without permission.

Open-source software. This product contains open-source software, including Android and the Linux kernel, which is covered by licences such as the GNU General Public License (GPL). You can request the source code of the components covered by the GPL for up to three years after purchase via info@xlsuperstores.nl.

Your statutory rights. Nothing in this manual limits your statutory rights as a consumer, or any liability that cannot be excluded by law.

27 Warranty, complaints and contact

27.1 Warranty

Your statutory rights

As a consumer, you have statutory rights if your product is defective. Exactly what these rights are depends on the country where you bought the product. In the event of a defect, you can contact the seller.

Your Denago product is covered by the statutory warranty of the country of purchase. Keep your proof of purchase, such as an invoice or order confirmation; you will need it if you make a warranty claim.

When is damage not covered by the warranty?

Damage is not covered by the warranty if it has been caused by:

- opening the housing or modifying the system;
- modifying the operating system or installing software from unofficial sources;
- incorrect installation or incorrect use, contrary to this manual.

Damage to a supplied transport protection film is not covered by the warranty.

27.2 Complaints

Does the system not fit your car, does installation not work, or did you receive the wrong product? First contact the shop or dealer where you bought the product. If you cannot resolve it together, e-mail Denago customer service; together we will look for a solution.

27.3 Return conditions

Withdrawal and returns

Whether and how you can withdraw from a purchase or return it depends on the seller and on the country where you bought the product. Please refer to your seller's terms and conditions.

Practical arrangements for returns

- Preferably return the product in its original packaging.
- You may briefly connect the system to test it. Do not modify the wiring, as this may reduce its value.
- Returns are handled via the seller or dealer where you bought the product. Return conditions and return addresses differ per seller.

27.4 Contact

Do you have a question or a problem with your product? First contact the shop or dealer where you bought it. If you cannot resolve it together, e-mail Denago customer service. Customer service can only be reached by e-mail.

Manufacturer and importer	XLsuperstores BV
Postal address	Ligusterbaan 1, 2908 LW Capelle aan den IJssel, the Netherlands
E-mail	info@xlsuperstores.nl
Website	www.denago.nl
Responsible person in the EU	Not applicable (established in the Netherlands)
Chamber of Commerce (KvK) number	91546915

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Appendices

Appendix A – EU declaration of conformity

EU declaration of conformity

1. Radio equipment	Denago DNG-A series, Android in-car multimedia system, with Bluetooth and Wi-Fi
2. Manufacturer	XLsuperstores BV, Ligusterbaan 1, 2908 LW Capelle aan den IJssel, the Netherlands
3. Responsibility	This declaration of conformity is issued under the sole responsibility of the manufacturer.
4. Object of the declaration	Denago DNG-A series, screen size 9 or 10.1 inch, Android 13 or Android 15, RAM 2, 4 or 6 GB
5. Legislation	The object of the declaration described above is in conformity with the relevant Union harmonisation legislation: Directive 2014/53/EU (radio equipment) and Directive 2011/65/EU (RoHS), as amended by Delegated Directive (EU) 2015/863.
6. Standards applied	Health (art. 3.1a): EN IEC 62311:2020. Safety (art. 3.1a): EN 62368-1:2014+A11:2017. EMC (art. 3.1b): EN 50498:2010, EN 55032:2015+A11:2020+A1:2020, EN 55035:2017+A11:2020, EN 301 489-1 V2.2.3, EN 301 489-17 V3.2.4, EN 301 489-19 V2.1.1. Radio spectrum (art. 3.2): EN 300 328 V2.2.2, EN 303 413 V1.1.1, EN 303 345-1 V1.1.1, EN 303 345-2 V1.1.1, EN 303 345-3 V1.1.1. RoHS: EN IEC 63000:2018.
7. Notified body	SGS North America Inc., notified body number 2906, performed the EU-type examination (Module B of Annex III to Directive 2014/53/EU) and issued an EU-type examination certificate.
8. Accessories and software	Supplied cables and antennas as described in chapter 6; operating system Android 13 or Android 15.

Signed for and on behalf of XLsuperstores BV

Place and date	Capelle aan den IJssel, 12 January 2026
Name and function	M. Yaalou, Managing Director, XLsuperstores BV
Signature	