CITROËN C5 Infotainment Summary

Hybrid power!





READ ME!

For this report we spent more than 50 hours testing this car's infotainment system. Thousands of interactions were made and literally every possible button was used.

We went through hundreds of use cases, both stationary and while driving, and looked at the car as intensely as possible. We guess the only other people were probably its developers. This report represents only a fraction of our findings.

We captured the entire HMI structure and documented every possible click in a giant tree with hundreds of entries.

Therefore: <u>Contact us</u> if you have any questions about this infotainment system. We know almost everything that can be found out when using it.

The best part about this:

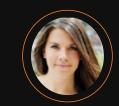
We have **recorded everything** and made the video material available in a tool called screens. screens is an interactive video-based online platform, which enables you to **compare** the latest infotainment systems in-depth.

Whether it is ADAS, media, apps, navigation, speech or radio, operated in the instrument cluster, the head unit, the head-up display or in the rear seat entertainment. You can check out every possible interaction on video. We render the videos searchable and interactive so you can find a particular sequence much faster than in the actual car.

Click <u>here</u> to create your trial account and dive deeply into the infotainment system right from your desk.

We are looking forward to your feedback!





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Overview

"Inspired by you". Based on the Citroën Aircross concept launched in 2015, the C5 is the latest member of the Citroën family to lead the SUV offensive. The plug-in hybrid model leads the manufacturer's so-called "low emission vehicles" offensive, as well. The goal is for 100% of the vehicle range to be electrically powered by 2025.

A look at the simple and functional car interior shows that there are distinct parallels to the Peugeot e208 and the Opel Corsa e. The main reason for this is the inclusion of technology of its parent company PSA. Consequently, the Peugeot e208, Opel Corsa e and the Citroën C5 Aircross are based on the Common Modular Platform (CMP), which is particularly striking when comparing the Head Unit elements. Unlike the Peugeot e 208, however, there is no 3D technology in the Instrument Cluster. In contrast to the practically oriented Instrument Cluster structure of the Opel Corsa e, the Citroën also offers a different representation and content division in the Instrument Cluster. Consequently, especially with regard to comparisons between the three models on screens studio, the Instrument Cluster has to be included.

The hybrid model therefore uses a cross-brand structure, which is complemented by typical Citroën elements. But what highlights does the Aircross offer and what differences do we find in the Instrument Cluster compared to the Peugeot e208 and the Opel Corsa e?

In the following report we will go into more detail about the various features, displays and input modalities.



• CAR OVERVIEW

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01 HIGHLIGHTS

Deferred charging Send destination to vehicle Recuperation animation

02 SCREENS & CONTROLS

Instrument Cluster Head Unit Controls

- Steering wheel
- Additional lever
- Next to Head Unit

03 VEHICLE

Specification HMI-Sitemap UX Assessment

04 MORE INFO

Upcoming Cars Contact Info

Deferred charging

A special Citroën C5 feature is the <u>Energy</u> feature, where we can find information on the energy flow and the recuperation, where statistics on the consumption can be displayed, where the so-called energy reserve can be set and where a deferred charging timer can be set. Especially with regard to different charging stations and time-dependent electricity prices, the Citroën C5 offers a highlight worth mentioning with a timer function, which is based on the aforementioned EV feature and a button directly next to the charge port. The associated steps are as follows:

- 1. Programming the charging start time in the Energy feature e.g. 5 pm, switching off and leaving the vehicle.
- 2. Opening the charging flap. Next to the charge port is an LED light element framing the corresponding deferred charging button. The colour of the LED light element provides information about the charging status of the vehicle:
 - White: Vehicle is not being charged Flashing green: Vehicle is charging Red: An error has occurred
 - Green: Vehicle is fully charged Blue: Vehicle does not start the charging process until the time set is reached
- 3. Insert loading plug. As soon as the charging process begins, the LED light changes from white to flashing green.
- 4. Press the Deferred Charging button. The LED light changes from flashing green to blue.
- 5. When the set time is reached, the LED light changes from flashing blue to flashing green. The charging process begins and the remaining charging time and charging animation appears in the Instrument Cluster.

The highlight of the Citroën is that this can not only be set via the Energy feature in the Head Unit, but also via the My Citroën application. In the <u>Charge menu</u> of the application, you can switch between the functions <u>"Immediate Charge"</u> and <u>"Deferred Charge</u>". In addition, as with the Deferred Charge feature in the Head Unit, a time can be set that serves as the basis for the timer-based charging option. This means that the function can be monitored and even actively controlled outside the vehicle at any time.

Assessment

- + The function within the My Citroën app makes it possible to check and control the charging process at any time. This means you don't have to be near your vehicle to postpone charging, set a new timer or switch to the normal charging process without timers.
- + In order to save costs, times, at which the electricity is cheaper, can be selected.
- + The colour coding of the LED light provides visual feedback and is easy to understand. In addition, we can find a written explanation inside the charging cap.
- The fact that, in addition to setting the time, the button next to the charging slot must be pushed is not mentioned anywhere.

• CHARGING



Send destination to vehicle

The importance and interaction between the vehicle system and the manufacturer's own smartphone applications is a crucial touchpoint these days. Remote services are the main focus of attention.

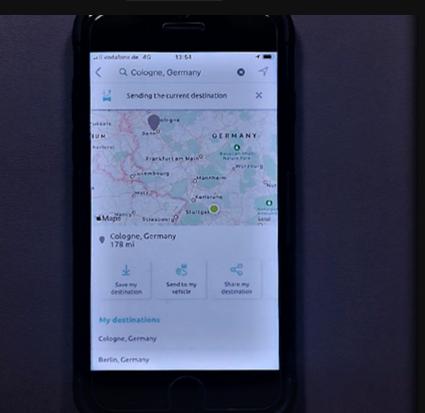
The common interactions are unlocking and locking the vehicle, the location of the vehicle, controlling the charging process and sending routes. In the My Citroën application, the process of sending a route from the smartphone to the vehicle is very intuitive. The "Prepare my journey" feature allows the user to plan a route on the smartphone and then send it to the vehicle using the "Send to my vehicle" action button.

The route guidance is activated and then started directly in the navigation feature of the Head Unit. No confirmation of the route is required. Consequently, a route can be started via the smartphone and the vehicle can be put into operation directly. This results in a smooth transfer of the navigation route and therefore route guidance without interruption.

Assessment

- The transmission of the route worked very quickly and without problems compared to other systems.
- There is no pin request when sending the route through the app or confirmation in the route in the Head Unit. This means that there are no integrated security levels.

⊙ MY CITROËN



Recuperation animation

The recovery of energy is an interesting and decisive aspect in hybrid powered vehicles, as electric motors have the ability to act as a generator at the same time.

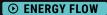
Thus, the kinetic energy of the vehicle can be converted back into electrical energy and fed back into the battery units. The intensity of the recuperation varies depending on the current speed and the pressure on the brake pedal.

This dependency and thus the intensity of recuperation is shown in the Citroën C5 - as well as in the Opel Corsa e and in the Peugeot e208 - by an animation in the Instrument Cluster and in the Head Unit.

Assessment

- + The recuperation is represented by a colour code, which corresponds to the common colour code assignment:
 - Green Energy flow battery > wheels
 - Blue Energy flow wheels > Battery
- + The animation and the colour code are supplemented by arrows which represent the direction of the energy flow and can be understood intuitively.
- + The recuperation can be shown simultaneously in both displays or separately in the Instrument Cluster and the Head Unit.





Overview

The 12.3" Instrument Cluster is operated both by a scroll wheel on the left side of the multifunction steering wheel and the lever to the right of the steering wheel. The basis is a rotating menu list, which is called up and operated by the scroll wheel on the left side of the steering wheel. The individual features are selected by pressing the scroll wheel or they are activated by simply waiting for a certain period of time. In each feature, the user has an additional option of opening the so-called Trip Computer, which always opens in the left third of the screen. The trip data since the last reset, trip 1 and trip 2 are displayed one after the other by pressing the front part of the lever. When selecting the Personal feature, it is possible to choose between 9 suggested types of content via the Head Unit. The content can be stored in the left area as well as in the right area of the Instrument Cluster. It is not possible to store content in the right as well as in the left area of the Personal feature. The personalisation of this feature or view is the only possibility of individualising the Instrument Cluster. The Limiter and Adaptive Cruise Control can be selected and operated by an additional lever on the left side behind the steering wheel. Steering Assist and Lane Departure Warning are activated and deactivated via two buttons in the area between the driver's door and the steering wheel device.



Display Size 12.3"





Overview

Compared to the content of the Peugeot e208 and the Opel Corsa e, it can be seen that not only the design of the Instrument Cluster but also the content differs:

Citroen C5 operated by the scroll wheel on the left part of the steering wheel	Opel Corsa e operated by the lever left to the steering wheel	Peugeot e208 operated by the scroll wheel on the left part of the steering wheel
	Energy	Energy
Trip Info (lever)	Computer	
Minimum		
Dials	Dials	Dials
Driving	Driving	Driving
Navigation	Navigation	Navigation
Personal	Personal 1 Personal 2	Personal 1 Personal 2

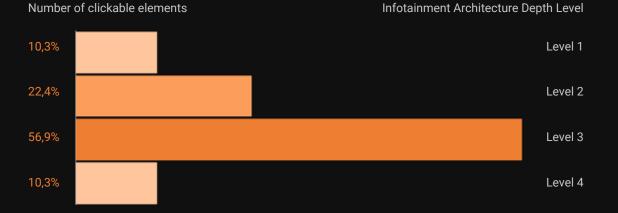
CONTROLS

Features & Content Distribution

The majority of the different elements is arranged in the third level of the infotainment system architecture. The last elements to be operated are the trip informations in the Personal feature.

Features

Minimum		
Dials		
Driving		
Navigation		
Personal		



● HMI-SITEMAP

11

Overview

The Citroën C5 standard equipment includes a 12.8 inch display element. The Head Unit contains 9 features of which six can exclusively be operated by the buttons directly next to the Head Unit. The Energy feature as part of the Application main feature can be opened by a button next to the climate buttons which are located between the Head Unit and the center console. There is no home page or main menu to be selected. That is why navigating through the system is not intuitive at first and also why it needs some time to understand the hierarchy and correlations of the different features.

Compared to the Peugeot e208 and the Opel Corsa e, the content area of the Head Unit extends across the entire width of the display. While in the two models mentioned above, the climate feature can be accessed on the left and right of the Head Unit content, this is done via the <u>upper bar</u> in the Citroën C5. This makes better use of the size of the Head Unit display. The Citroën also differs in design from the Peugeot e 208 and the Opel Corsa e: While in these systems triangular shapes are found in the Head Unit and also in the Instrument Cluster, the Citroën relies on squares and rectangles for the visual structuring and demarcation of content.

Display Size 12.8"



• HU OVERVIEW

Number of clickable elements

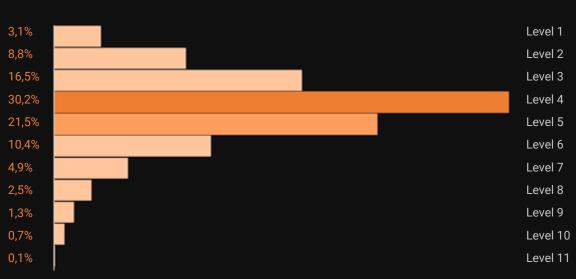
CONTROLS

Features & Content Distribution

The majority of the different elements is arranged in the first third of the infotainment system architecture. The element of level 11 is the read out of the track details in the genre filter of the Radio/Media feature.

Features

Climate settings	Navigation	
Connectivity settings	Vehicle	
Settings	Telephone	
Radio/Media	Applications	
Climate		



Infotainment Architecture Depth Level

• HMI-SITEMAP

HEAD UNIT

CONTROLS

We are family!

There is simply no denying its origins. This is also true for the Citroën C5, Peugeot e208 and the Opel Corsa e, which belong to the large PSA family. This can also be seen in the interior when you are compareing the Head Unit of the three infotainment systems:



02 SCREENS & CONTROLS

C

Audio volume

+_

HEAD UNIT







Channel list/media file list in Head Unit

Change media sources

HEAD UNIT

GAP

SET +

SET-

MEM

CONTROLS

LIMIT

0

Gap: Increase/decrease distance (ACC)

Additional lever

Set assistance system/ increase speed of assistance system (at the back front of the lever)

Resume/pause assistance system

> Set assistance system/ decrease speed of assistance system (at the back front of the lever)

> > Memory: Adapt current speed limit

W CRUISE

Activate/deactivate assistance system



INSTRUMENT CLUSTER

CC

HEAD UNIT

CONTROLS



Equipment Level

Shine

Display Sizes

Head Unit12,8"Instrument Cluster12,3"

Software Version

42.01.72.32_NAC-r0

Input Modalities

Touchscreen Speech

Application

My Citroen

Connectivity

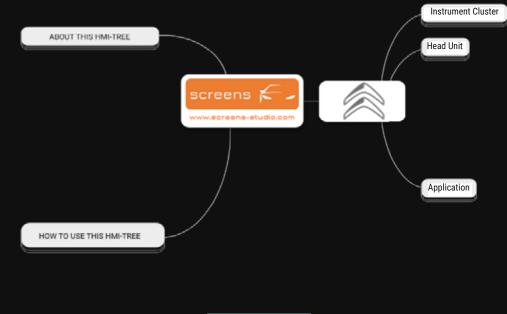


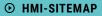


⊙ CAR OVERVIEW

HMI-Sitemap

This HMI tree is an exact copy of all clickable buttons in the infotainment system of this vehicle. To make the structure easier to understand, the **HMI-sitemap** also contains logical layers created by our HMI experts. Those layers do not represent any clickable buttons. Nevertheless, you can follow the original click paths, just as they would be in the actual vehicle. Click on the following link to navigate through the different displays and levels. You don't need a login.





UX Assessment

The following evaluation is based on the assessment of our HMI experts, who evaluate the overall infotainment system in accordance with the seven criteria of the **DIN EN ISO 9241-110**: Suitability for the task, suitability for learning, suitability for individualization, conformity with user expectations, self-descriptiveness, controllability and error tolerance. If you have any further questions or questions regarding our evaluation, please do not hesitate to contact us.



A new vehicle every three weeks

We have analyzed over 350 vehicles and selected the most interesting ones in terms of infotainment systems. Currently we are providing a new vehicle in the database **screens** every three weeks. We will increase the number of units as soon as we can offer vehicles, available on the American and Asian markets in addition to the European market as well.









Feel free to contact our experts!

Do you have questions, suggestions, praise or criticism?

Do not hesitate to contact us! We spend almost 24/7 in the car and know (almost) everything about infotainment systems. You wouldn't believe how motivated we are to share this knowledge with you.



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