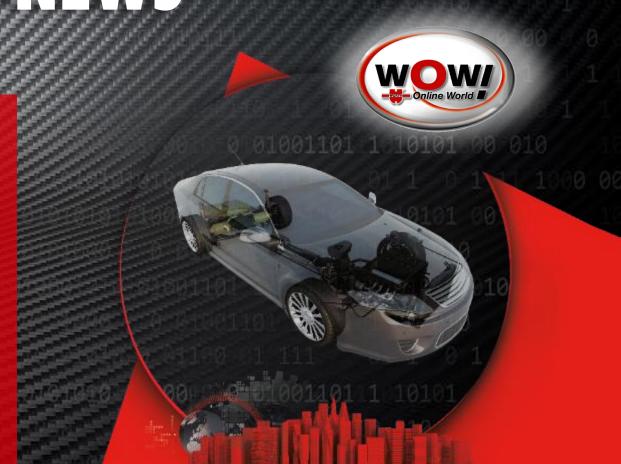


VEHCILE DIAGNOSTICS UPDATE 5.30.00



WOW! NEWS

BRAND NEW DESIGN FOR OUR BIRTHDAY!

The design of the WOW! diagnostic software has been reworked for the 20th anniversary in October 2020.

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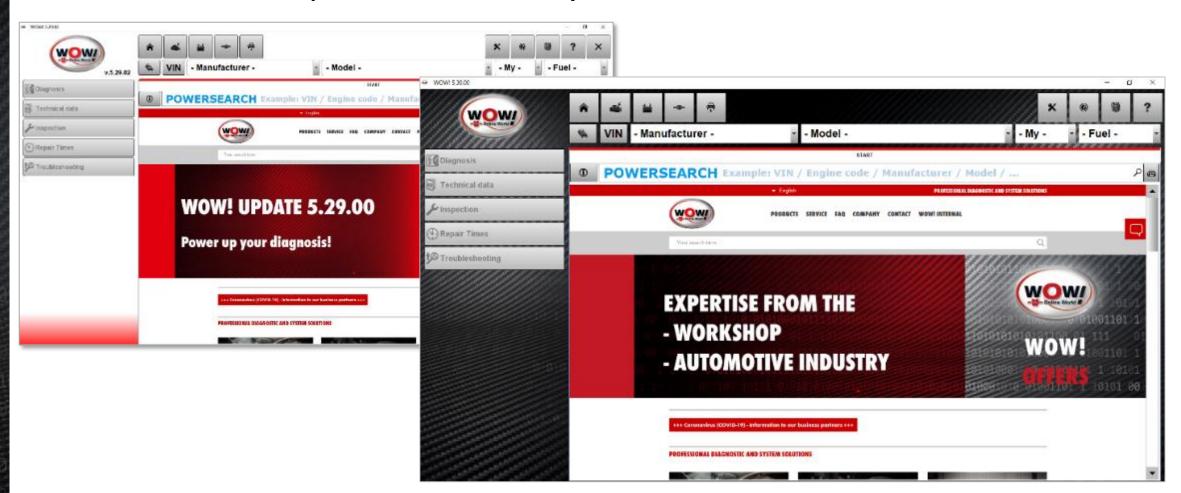






BRAND NEW DESIGN OF THE WOW! SOFTWARE

The WOW! Software is dressed up for WOW!s 20th anniversary in October 2020!







BRAND NEW DESIGN OF THE WOW! SOFTWARE

The WOW! Software is dressed up for WOW!s 20th anniversary in October 2020!

- Rework of the software design to the renewed corporate design of WOW!
- Rework of all buttons (sharp edges)
- Cleanup of the software interface:
 Removal of the X button to close the application no longer necessary from 5.30.00







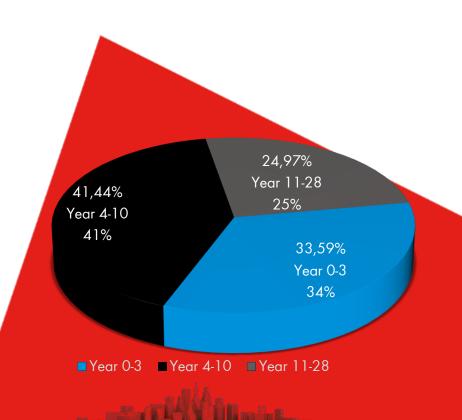
DATABASE COVERAGE

Facts, figures, numbers

- 45,291 new and renewed diagnostic functions
- Updated diagnostic data for 32 manufacturers with 434 different models
 - Thereof 6,959 petrol models and 5,379 diesel models
- In total 12,338 brands | model | engine combinations
- Coverage of new diagnosis depending the model age:

•
$$4 \text{ to } 10 \text{ years} = 41,44\%$$

• 11 to 27 years = 24,97%







DATABASE COVERAGE

New functions and extended diagnostic data

- Scope of complete diagnostic database
 - 70 manufacturers
 - 1,459 different models
 - 541,449 functionalities for all models
- E-mobility is the system with the highest increase (4,4%)
- ADAS
 - Development of 13 new systems
 - The data base grows about 2,76%
- Power Repair
 - Since version 5.00.26, POWER REPAIR helps you to find the shortest way to the repaired vehicle (with a valid license, modules WSD 300 and WTI 350)
 - The information "Confirmed Repair Instructions" is now available to all users (regardless of translations in national language)





NEW AND REVISED MODELS

Examples of technical improvements and updates

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VW

- T-Cross with full coverage
- Caddy 2K 16-19 Gearbox DSG with functions for clutch and mechatronic

Audi e-Tron

- Good coverage e.g. diagnostics:
- Airbag
- Climate control
- Central electroincs
- Comfort system central control module
- Electric steering lock
- HV-Battery charger control module
- HV-battery regulation
- Parking assistance
- And lots more

MAN

- TGE Front camera calibration
- Meriva B with engine codes

Opel

- Combo E with support for 5 new engine codes
- support for 6 new

Volvo DoIP vehicles

- Implemented powerscan
- Added support for more than 60 different systemtypes
- Mazda 3 (BP) 2019-> - new model with support for DTC, RTD for all systems Year model

Mazda

• CX 30 2019-> -

new model with

DTC,RTD for all

support for

systems

update for several models to 2020 including SLR and EPB-service

Ford

 SCR-function for solving problem with fault code P241D (run out of Ad-Blue)

Mercedes

- New models GLA (H247) and EQV (N447)
- Engine MED40, updated with functions who required security access





NEW AND REVISED MODELS

Examples of technical improvements and updates

Toyota	Suzuki	Renault	PSA	Nissan	Kia	FCA	BMW
Activation and Adjustment on several systems	• - S-Cross 2014- > with good coverage	 Clio V 2019-> new model with basic systems ZOE 2019-> new model with basic systems Captur II 2019-> new model with basic systems 	BSI system update for several models Partner/Rifter, Berlingo (K9) - several new systems	Juke F16 new model with basic systems Several new diagnostic variants for engine	• RIO 2017-> new model with good coverage	Update of engine codes	 1-series F40 new model with good coverage X5 G05 new model with good coverage X6 G06 new model with good coverage





DIGITAL SERVICEBOOK

Background

Many vehicle brands replace the handwritten stamp booklet, in which all service work is recorded, with a "digital service booklet".

The digital service book is **a centrally managed database** in which all maintenance data and service work at the manufacturer's premises is stored and can be called up as required. With the exception of Opel, all German manufacturers now offer an **electronic** version of the servicebook.

PRO:

More transparency:

Maintenance and repair entries cannot be manipulated

CON:

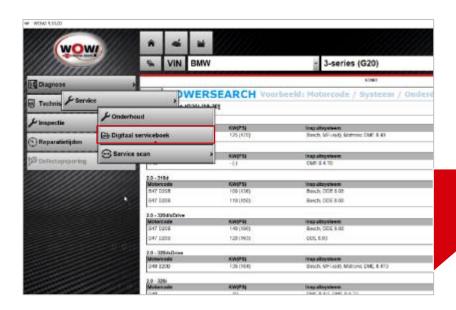
- Additional effort for independent workshops
- The introduction of the digital service booklet means more work and costs for independent workshops.
- After each service, they have to log in to the database of the respective manufacturer in order to store the relevant information.
- Every manufacturer makes different specifications or has different systems - often a distinction is even made between systems for independent workshops and contract partners.





DIGITAL SERVICEBOOK

WOW! solution in the area of digital servicebook - one way for all manufacturers



Goal: **Reduction of additional effort** and thus saving working time through a uniform path to the manufacturers' service booklets/platforms in the WOW! software.

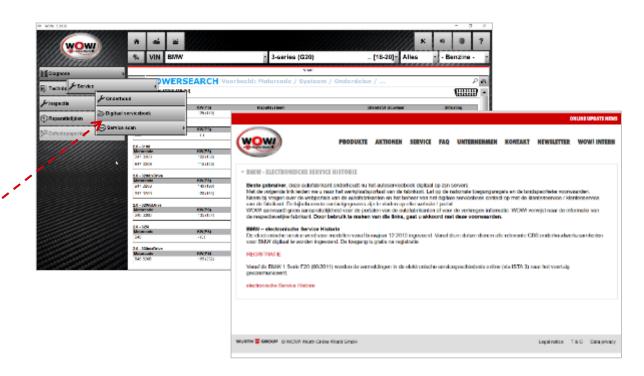




DIGITAL SERVICEBOOK

WOW! solution in the area of digital servicebook - one way for all manufacturers

- The solution was first integrated in software version 5.00.23 for the German market.
- Since version 5.28.00 the function is also available for the Italian market.
- With software version 5.30.00 we are rolling out the function in Austria, Belgium and France.
- WOW! is continuously working on the expansion of this service to make the daily work of our customers easier.*



^{*}Due to the different approaches of the manufacturers, not all accesses can be integrated at the same time.





INTEGRATION OF THE HELP TEXTS FOR PID DIAGNOSIS

Background development of the s.c. dynamic protocol

In the past, we have developed a new type of OBD protocol called the "Dynamic Protocol".

- One of our development challenges in diagnostics is that different variants of a system can use different parameter sets.
 - For example, a specific engine code of a vehicle can have 30 diagnostic variants.
- To provide the user with the correct data set, we have to develop a protocol for each variant.
 - In reality, we will never find these 30 variants or will need a very long time to develop them.
 - The result is that we may only cover a minority of the variants.
- For some vehicle manufacturers, such as Subaru and Nissan, a different approach is possible.
 - Here we can simply ask for each system: "Which parameters (PID:s) do you support?".
 - The ECU then responds with a list of PID:s. With this possibility we create a protocol in which we list "All possible PID:s" and "on the fly" create the right set of parameters and functions for this specific system variant. This is the "Dynamic Protocol".

ADVANTAGES DYNAMIC PROTOCOL:

- This approach gives us fantastic coverage.
- We consider this a huge step forward and believe it will dramatically improve the quality of diagnostics.

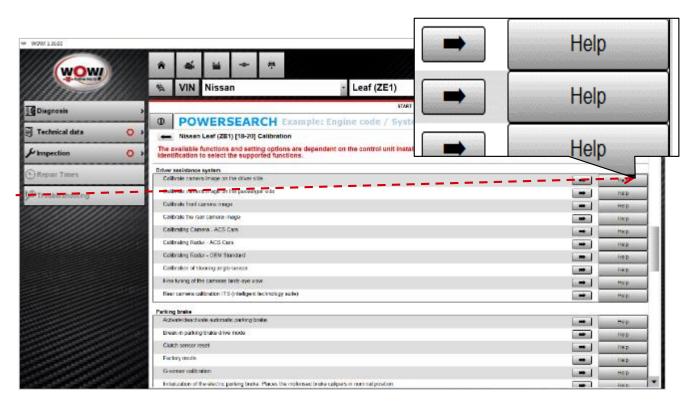




INTEGRATION OF THE HELP TEXTS FOR PID DIAGNOSIS

PID = Parameter Identified Diagnosis as of 5.30.00

- All diagnosis functionalities are created "on the fly" during the contact with the controller
- Until now (before update version 5.30.00) no help files were provided if no simulation was available.
- As of now the help files for PID diagnosis are integrated.



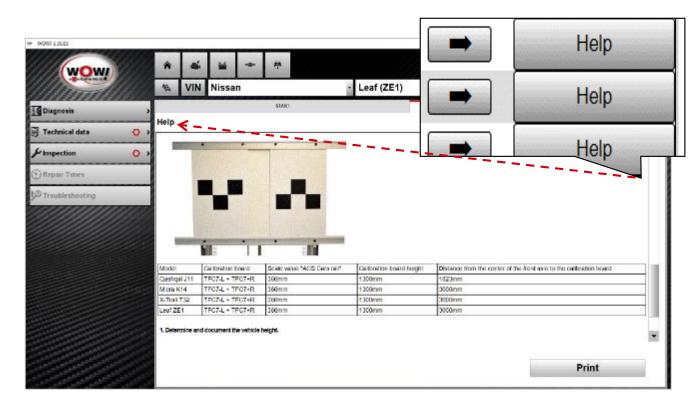




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FCA SGW-DIAGNOSIS WOW!-EMISSION CUSTOMERS

- A new "cloud" based wrapper for FCA Security Gateway enables WOW! emission customers to diagnose FCA vehicles equipped with a Security Gateway.
- For more information on the standardized SGW solution from WOW! please visit our online channels:
 - Landing page SGW with update news on the 5.29.00 update
 - <u>Tutorials and statements on the subject of Security Gateway</u>



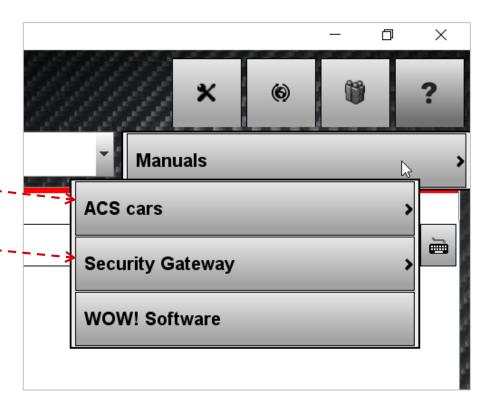




REDESIGN OF THE DISPLAY IN THE MANUALS SECTION

The display of the manuals has been redesigned with new buttons for faster finding and easier working.

- ACS cars
- Security Gatway

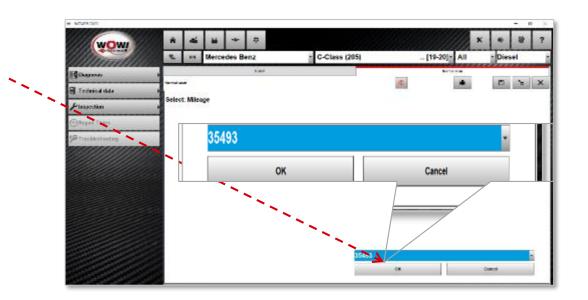






POWERSCAN AND NORMALSCAN

- Powerscan and Normalscan check the ECUs in the background for VIN and mileage information.
- If different values are found, a selection field is displayed.
- After the scan, the found values are taken over into storage and print jobs

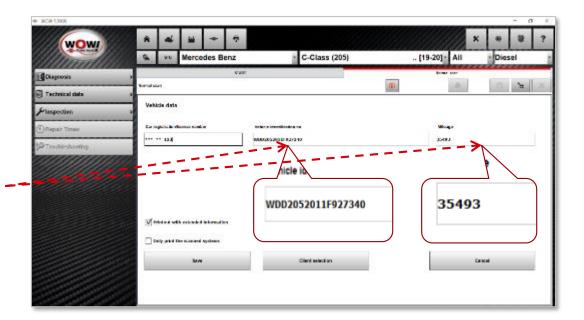






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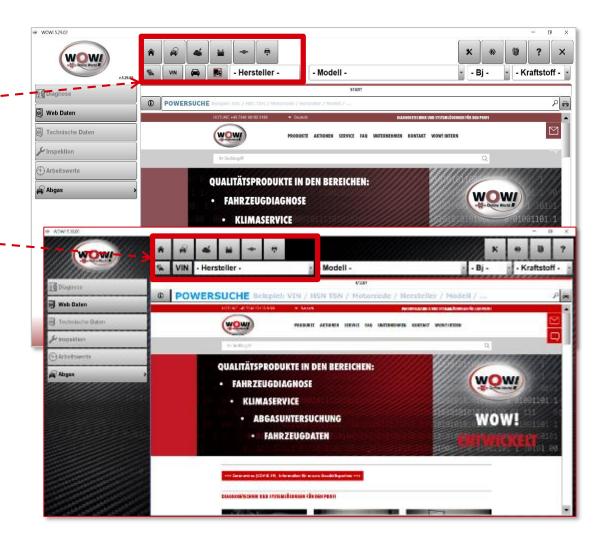






SPECIAL ADAPTATIONS FOR EMISSION INSTALLATIONS

- The presentation of the vehicle selection (car/truck) for the German emission test is moved from the vehicle selection page to the settings:
- Version 5.29.02
- Version 5.30.00 -



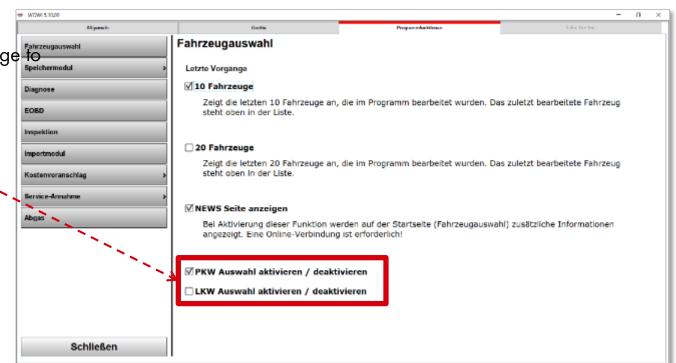




SPEZIELLE ANPASSUNGEN FÜR EMISSION INSTALLATIONEN

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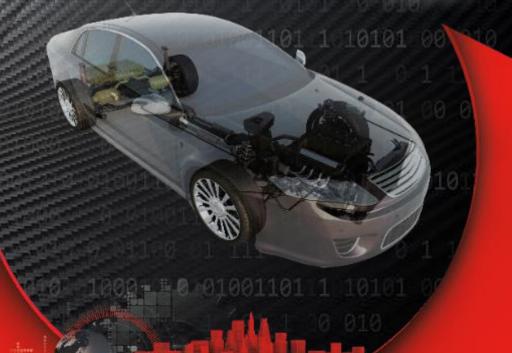
• From 5.30.00 you will find the selection under **program functions**.



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