

TIPS OG TRIKS

for maksimal nytte av dataløsning og macsDIA



Elektriske kjøretøyer tar mer og mer plass på norske veier, og blir en større del av hverdagen på verkstedet for hver dag som går. Den digitale fremtiden er her nå, og det har aldri vært viktigere at verkstedet ditt er i forkant av den teknologisk utviklingen og bransjens nyeste trender.

Med en dataløsning fra Hella Gutmann er du sikker på at verkstedet ditt alltid har verktøyene, og den nødvendige kunnskapen tilgjengelig, så du alltid er klar til å takle morgendagens utfordringer.

Blant annet får du tilgang til sikkerhetsforskrifter og arbeidsprosedyrer, slik at du kan jobbe trygt og effektivt med høyspenningskretser på elektriske og hybrid biler.

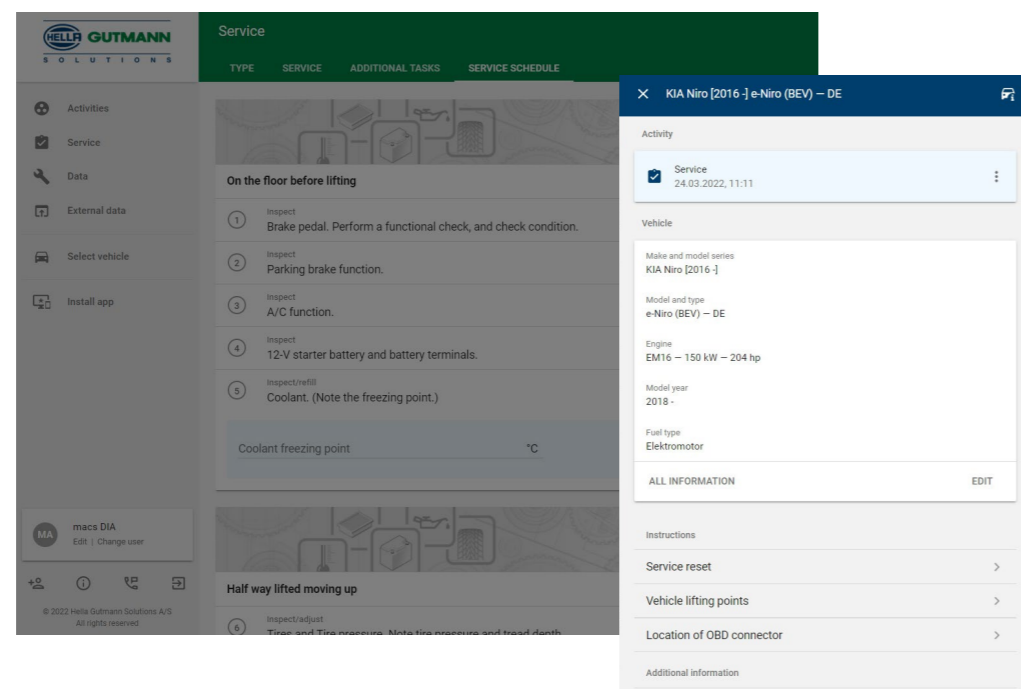
Alle EV-kjøretøy i dataløsningen er betegnet med forkortelsene BEV, HEV eller PHEV, slik at man lett kan skille mellom elektriske, hybrid og plug-in hybridbiler.

Disconnect high-voltage circuit. Warning!

- Use personal protective equipment approved for 1000 V.
- The high-voltage circuit breaker is located under the rear seat.
- Remove the trunk floor liner.
- Remove the rear seat cushions.
- Remove the cover plate from the high-voltage circuit breaker.
- Remove the high-voltage circuit breaker.
- Be careful not to damage the locking mechanism on the high-voltage circuit breaker.
- Release the high-voltage circuit breaker lock (1).
- Flip the high-voltage circuit breaker handle to the stop position (2).
- Pull the high-voltage circuit breaker from the high-voltage circuit breaker socket (3).
- The high-voltage circuit breaker must be safely stored to avoid unintentional installation and/or connection.
- Wait 10 minutes after disconnecting the high-voltage circuit to allow the circuit to discharge.

| | | |
|--------------------------------------|------------------------|---|
| Body | | ▼ |
| Passenger compartment | | ▼ |
| Electrical system | | ▲ |
| Battery | | |
| Auxiliary battery, type | 12 V / 45 Ah SAE 410 A | i |
| Auxiliary battery, terminal location | See information | i |
| Start and charging system | | |
| Charging socket, type | See information | i |
| Engine | | ▼ |
| Transmission | | ▼ |
| Cooling system | | ▼ |
| Suspension | | ▼ |

PRINT



Important

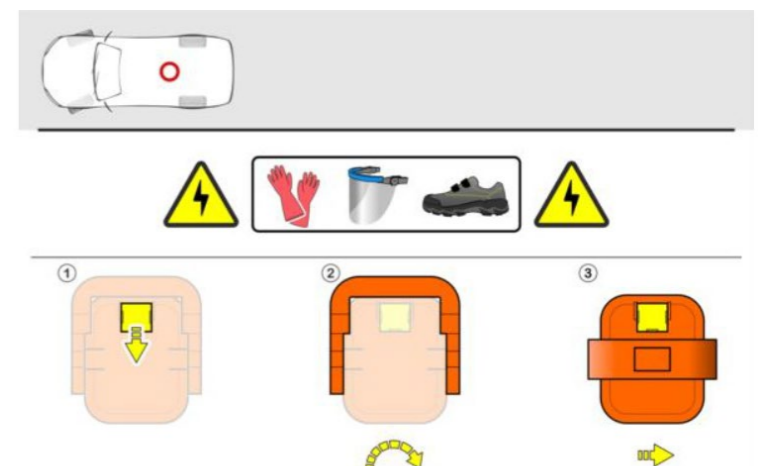
Work on high-voltage systems should only be performed by personnel with the necessary training with regard to electric and hybrid vehicles. Only work on high-voltage components when the high-voltage circuit is deactivated. It is not necessary to deactivate the high-voltage system when performing ordinary service work.

It is recommended to contact the importer/manufacturer who will check for outstanding service campaigns (this may be a requirement if the vehicle is under warranty).

If the vehicle is covered by a corrosion or paint warranty, specific checks can be required in order to maintain the warranty. In this case, the checks must be done in compliance with the directions of the importer.

"Extra work" should be selected if the vehicle mainly is used under one or more of the driving conditions described under the selected service type (notice the shorter intervals).

- Driving in regions with road salt or other corrosive materials
- Driving in sandy regions
- Driving in mountainous regions
- Driving in dusty areas.
- Driving in areas with very low temperatures (often below -15 °C)
- Driving with a roof box
- Driving at more than 170 km/h
- Off-road driving
- Taxi driving
- Courier driving



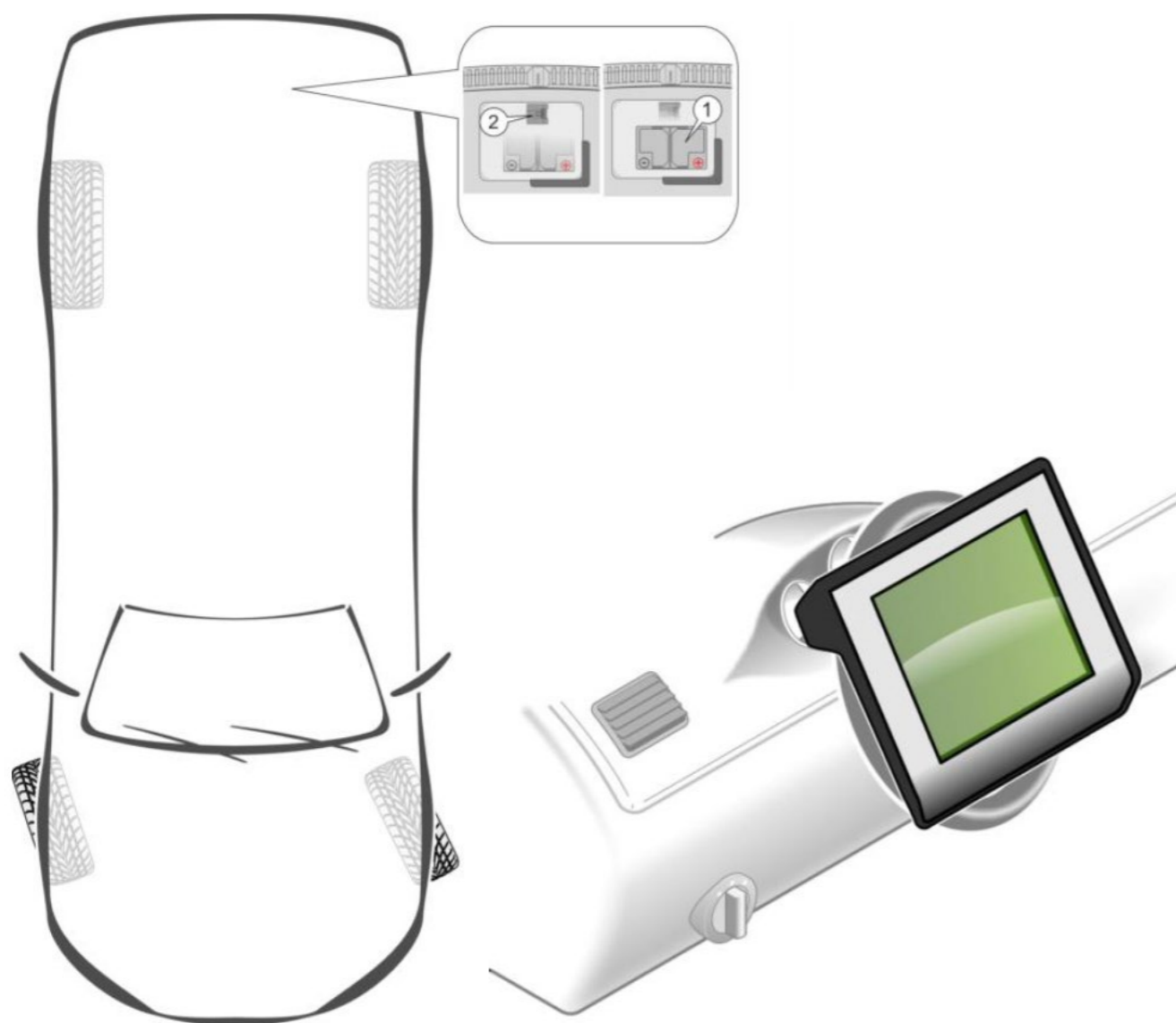
Den moderne bilen er mye mer enn bare en bil. Dagens biler har utviklet seg til høyteknologiske datasentre. Dette betyr at du som mekaniker er avhengig av å ha tilgang til nødvendig dokumentasjon for å kunne navigere i de ulike arbeidsprosessene for hver enkelt bilmerke og modell.

Med en dataløsning fra Hella Gutmann får du tilgang til battery management, som hjelper deg med å få innsikt i batterisystemene til bilene og strukturen til systemet.

Med battery management unngår du ubehagelige overraskelser der tidsforbruket eksploderer uforutsigbart og kundens regning vokser unødvendig.

Battery management hjelper deg med å holde deg i forkant av omfanget på oppgaven, slik at tilbudene dine alltid er riktig avstemte.

Følgende eksempel er basert på en BMW med et start/stopp-system. Ved frakobling av bilens 12V-system må flere av bilens systemer kalibreres på nytt. På siden til høyre vises arbeidsflyten for kalibrering av den aktuelle BMW-en.



Coding when disconnecting or connecting the battery

The ECU must be coded after battery change:

- Perform encoding in connection with battery registration if it is required by the system.

Setting:

- Clock: check/set the time

Coding the tilt/slide sunroof comfort closing:

- Turn on the ignition.
- Temperature is 23 +/- 5 °C
- Do not perform initialization in direct sunlight.
- Press and hold the switch in "LIFT" position during the entire procedure.
- When the sunroof is in fully open position, hold the "LIFT" switch.
- The basic setting starts automatically after approx. 30 s.
- During the basic setting, the sunroof first opens fully and then closes.
- Release the switch.
- The basic setting is complete.
- If not, repeat the procedure.
- Make sure that the error message is no longer shown in the display.
- Turn off the ignition

Coding the window regulator comfort closing:

- Close all doors during initialization.
- Turn on the ignition.
- Press and hold the switch to fully close the window.
- Immediately press and hold the switch for approx. 2 seconds.
- Fully open the side window, then release the switch.
- Immediately press and hold the power window switch for about approx. 2 seconds.
- Press and hold the switch to fully close the window.
- Immediately press and hold the switch for approx. 2 seconds.
- The basic setting is complete.
- If not, repeat the procedure.
- Repeat the procedure for remaining windows.
- Turn off the ignition

Resetting window to basic setting:

- Turn on the ignition.
- Make sure that all doors are closed.
- Fully open the side window, then release the switch.
- Press and hold the power window switch for 15-20 seconds.
- Resetting is complete.

Calibrating the steering angle sensor:

- Start the engine.
- Let engine idle.
- Fully turn steering wheel to both sides.
- Make sure that the steering wheel and the wheels point straight ahead.
- Turn off the ignition
- Turn on the ignition.
- Make sure that the error message on "Active Steering" in the display has gone off.
- Delete trouble code memory.

Calibrating the interior rear-view mirror compass:

- Setting the magnetic deflection zone:
- Activate the switch at the bottom of the mirror frame with a suitable tool.
- A number shows in the compass display.
- Continue activation until the correct magnetic deflection zone is selected.
- Wait until the direction indicator shows.
- The magnetic deflection zones are now set.
- Turn off the ignition

Calibrating the compass:

- Turn on the ignition.
- Activate the switch at the bottom of the mirror frame with a suitable tool.
- "C" shows in the compass display.
- Drive vehicle 2 to 3 times in a circle at approx. 15 km/h.
- The calibration process is complete when the direction indicator shows.

Med en dataløsning fra Hella Gutmann får du tilgang til informasjon om dekktrykkstyringssystemer, også kjent som tire pressure management system (TPMS).

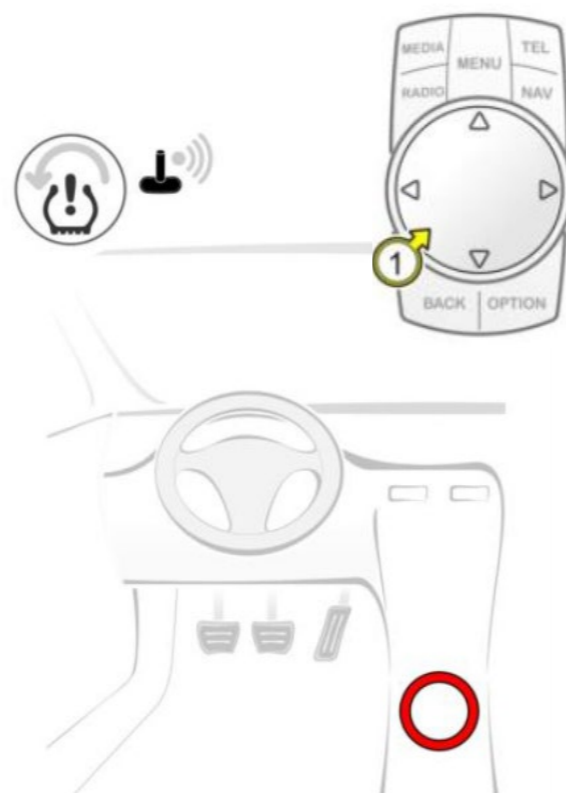
TPMS-informasjonen i dataløsningen hjelper deg med å lage en oversikt over bilens elektroniske dekktrykk-system. Du vil få innsikt i om bilens TPMS er et direkte eller indirekte system, som kan spille en stor rolle i måten systemet skal tilbakestilles / kalibreres på.

Noen systemer krever for eksempel at bilen må ut og kjøres i minst 15 minutter i mer enn 30 km/t for at systemet skal tilbakestilles, mens andre systemer kan tilbakestilles uten å måtte kjøre.

Hold deg i forkant av omfanget på oppgaven med en dataløsning fra Hella Gutmann, der du får tilgang til komplette guider som beskriver arbeidsflyten fra a til å. Dermed har du alltid guidene lett tilgjengelig og kan raskt og effektivt formidle riktig veiledning og informasjon til kundene dine.

På den måten sikrer du alltid maksimal kundetilfredshet!

I de følgende to eksemplene kan du se forskjellen mellom en
- BMW med direkte TPMS
- og VW Passat med indirekte TPMS.

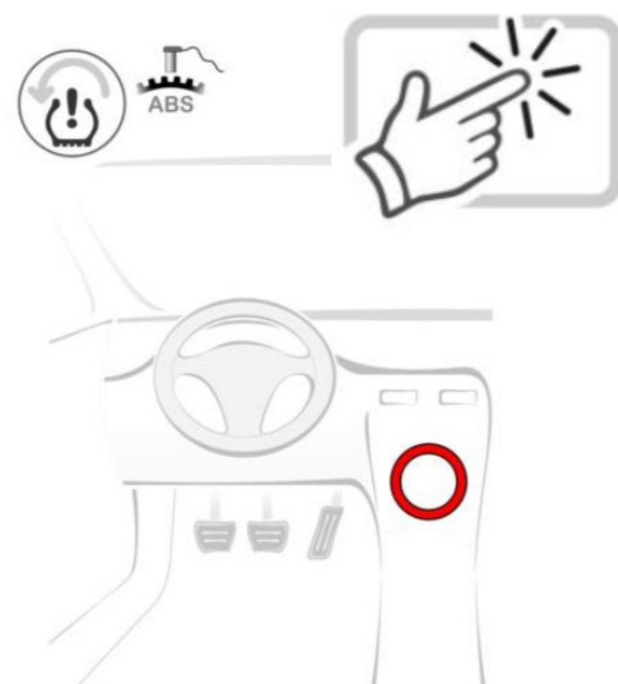


After tire pressure check and adjustment

The tire pressure monitoring system (TPMS) uses different colors to display the tire pressure status:
Yellow color: indicates that the tire pressure in one or more tires is outside the normal range.
Green color: indicates that the tire pressure in all tires is within the normal range.
Grey color: indicates that the tire pressure monitoring system is deactivated (system malfunction).

- Turn on ignition.
- Press the button (1).
- Turn button (1) until "Vehicle information"* is highlighted.
- Press the button (1).
- Turn the button (1) until "Vehicle status"* is highlighted.
- Press the button (1).
- Turn the button (1) until "Reset"* is highlighted.
- Press the button (1).
- "Reset"* and "Cancel"* are displayed.
- Turn the button (1) until "Reset"* is highlighted.
- Press the button (1).
- Start the engine.
- Drive for at least 15 minutes at a speed of more than 30 km/h until the display shows that the new values have been registered in the tire pressure

Text marked with * may vary.



After tire pressure check and adjustment

Text marked with * may vary.

- Turn on ignition.
- Select "Car"*.
- Select "Setup"*.
- Select "Tires"*.
- Select "Set"*.
- Select "Confirm"*.
- Drive for at least 20 minutes to register the new values in the tire pressure monitoring system.
- Basic setting of the tire pressure monitoring system is complete.

