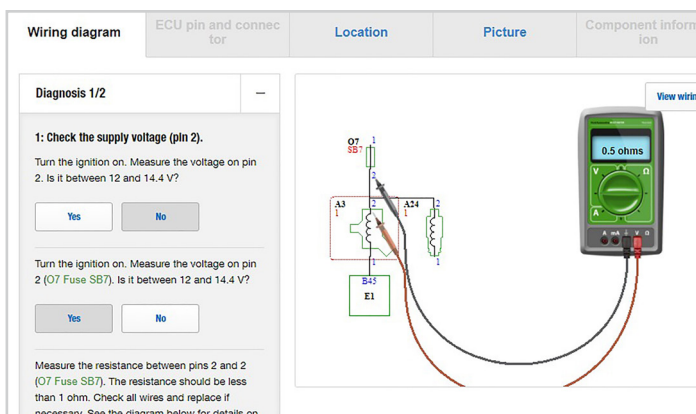
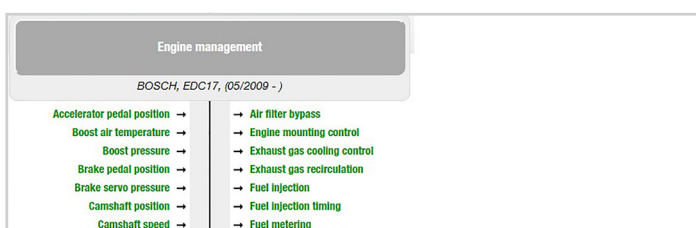
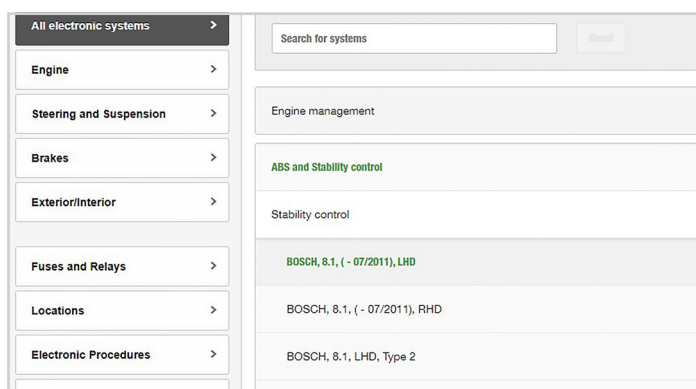


Een innovatieve applicatie die de technicus naar een **snelle, precieze identificatie** van systeem- en componentfouten leidt.



WorkshopData™ Electronics

De elektronische data van HaynesPro zijn altijd al een belangrijk hulpmiddel voor garages geweest. Maar nu **elektrische systemen en geavanceerde technologieën** een steeds grotere rol spelen in moderne auto's, **zijn ze onmisbaar geworden**. Centraal in onze elektronische data staat de **Vehicle Electronics Smart Assistant MK II (VESA)**, een unieke applicatie van HaynesPro.



Begeleide diagnose met VESA MK II



BEGELEIDE DIAGNOSE MET VESA MK II

Een innovatieve
applicatie voor
**diagnose van
elektronica.**

VESA is een innovatieve tool voor elektronica-diagnose die uniek is in de aftermarket. Op basis van de CAN-busgegevens van het voertuig helpt de tool de monteur om storingen en componentfouten te diagnosticeren. VESA vertaalt de vaak verwarrende elektrische schema's van de OEM naar een duidelijke, beter leesbare vorm en zoomt vervolgens in op het desbetreffende component of bedrading.

Voorbeeld A

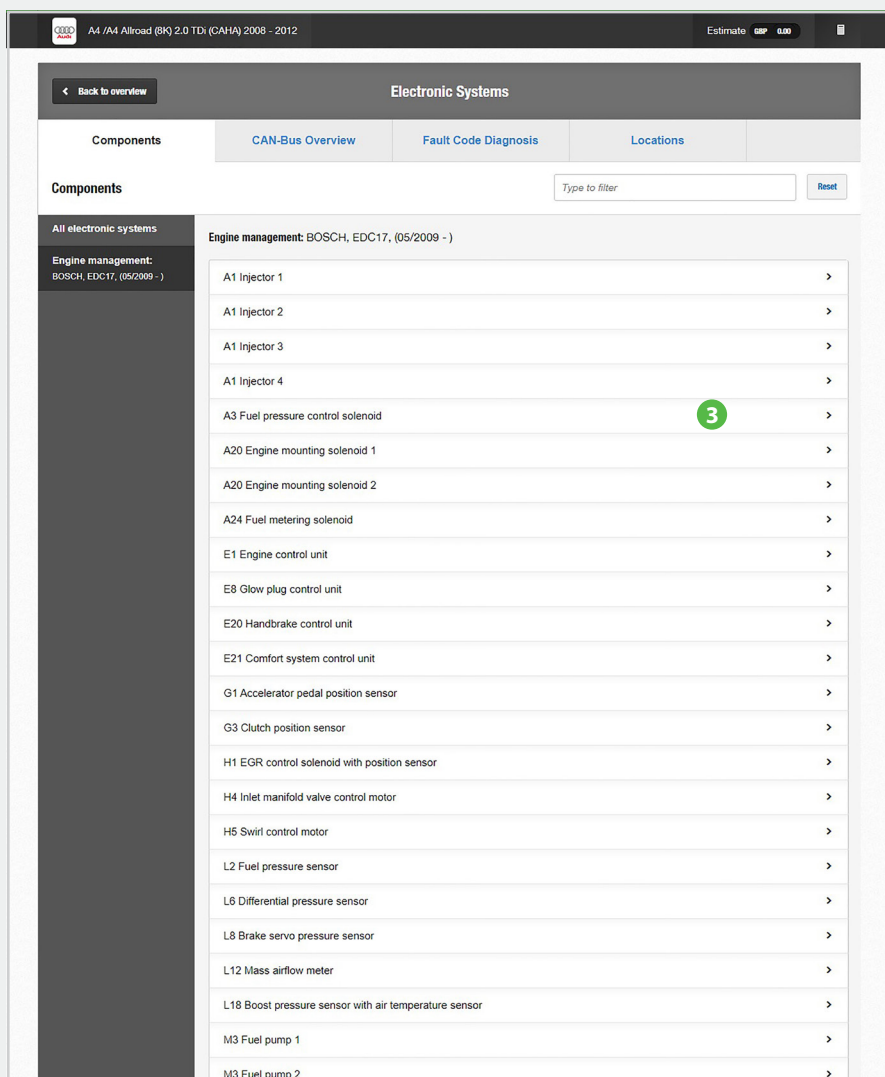
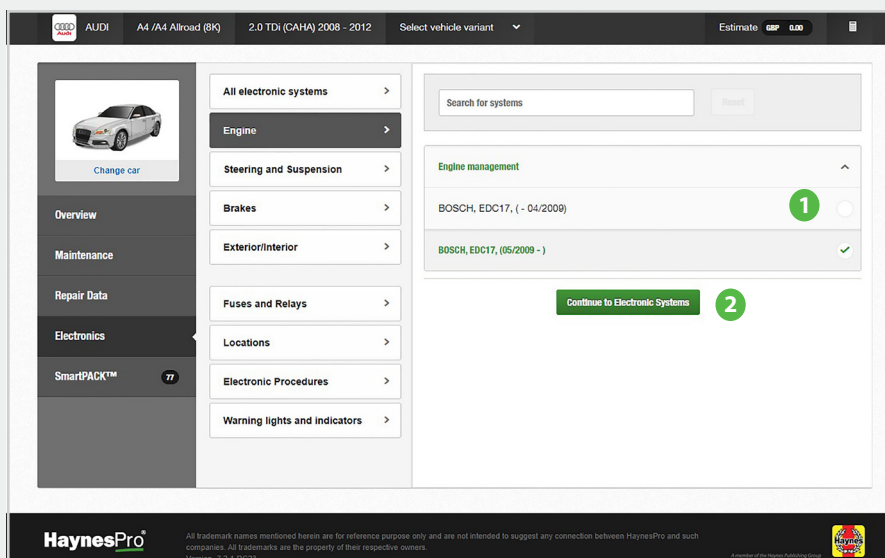
DIAGNOSE PER COMPONENT

[Tabblad Motor]

1. Selecteer systemen
2. Bevestig geselecteerde systemen

[Pagina Elektronische systemen]

3. Selecteer component



Vervolg op de volgende pagina

[Pagina Diagnose]

4. Beantwoord de vragen met *ja* of *nee* tot de component-diagnose is afgerond
5. of klik in het elektrische schema voor meer informatie over geselecteerde componenten, zekeringen of massapunten

A4 /A4 Altroad (8K) 2.0 TDi (CAHA) 2008 - 2012

Estimate **GBP 0.00**
📄

Component diagnosis : A3 - Fuel pressure control solenoid

Print
X

Wiring diagram
ECU pin and connector
Location
Picture
Component information
Initialisation procedures

Diagnosis 1/2

1: Check the supply voltage (pin 2).

Turn the ignition on. Measure the voltage on pin 2. Is it between 12 and 14.4 V?

Yes
No

Turn the ignition on. Measure the voltage on pin 2 (O7 Fuse SB7). Is it between 12 and 14.4 V?

Yes
No

Measure the resistance between pins 2 and 2 (O7 Fuse SB7). The resistance should be less than 1 ohm. Check all wires and replace if necessary. See the diagram below for details on wire colours, connectors, welds and locations (if applicable).

2 Fuel pressure control solenoid

Grey/Violet

D81 Weld

Grey/Violet

2 Fuse SB7

2: Check the connectivity of pin 1.

View wiring and pins
Extended wiring diagram

Pin number	Wire colour	Component	Pin number	Wire colour
1	Brown/Blue	E1 Engine control unit	B 45	Brown/Blue
2	Grey/Violet	A24 Fuel metering solenoid	2	Grey/Violet
2	Grey/Violet	O7 Fuse SB7	2	Grey/Violet


A4 /A4 Allroad (8K) 2.0 TDi (CAHA) 2008 - 2012

Estimate  **0.00**


Component diagnosis : 07 - Fuse SB7

 Print



Wiring diagram

ECU pin and connector

Location

Picture

Component information

Initialisation procedures

Diagnosis 1/1

1: Check the supply voltage (pin 1).

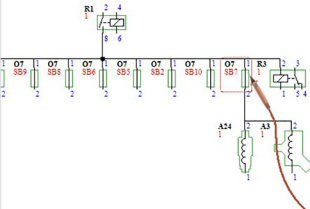
Turn the ignition on, crank or start the engine. Measure the voltage on pin 1. Is it between 12 and 14.4 V?

Yes

No

View wiring and pins

Extended wiring diagram




Pin number	Wire colour	Component	Pin number	Wire colour
1	Red/Grey	O7 Fuse SB10	1	Red/Grey
1	Red/Grey	O7 Fuse SB2	1	Red/Grey
1	Red/Grey	O7 Fuse SB5	1	Red/Grey
1	Red/Grey	O7 Fuse SB6	1	Red/Grey
1	Red/Grey	O7 Fuse SB8	1	Red/Grey



Voorbeeld B

DIAGNOSE VIA CAN-BUS COMPONENTENOVER- ZICHT

[Tabblad Alle elektronische systemen]

1. Selecteer systemen
2. Bevestig geselecteerde systemen

[Pagina Elektronische systemen]

3. Selecteer het tabblad CAN-bus overzicht
4. Selecteer signaal

BMW 3 (F30, F31, F80) 330e PHEV (B48 B20A) 2015 - ... Estimate GBP 0.00

Change car

Overview
Maintenance
Repair Data
Electronics
SmartPACK™ 31

All electronic systems >

Engine >
Steering and Suspension >
Brakes >
Exterior/Interior >
Fuses and Relays >
Locations >
Electronic Procedures >
Warning lights and indicators >

Search for systems

Engine management
ABS and Stability control
Electronic power steering
HVAC 1
Climate control
BMW, Advanced climate control, with navigation system
BMW, Advanced climate control, without navigation system
BMW, Standard climate control, with navigation system ✓
BMW, Standard climate control, without navigation system

Continue to Electronic Systems 2

HaynesPro® All trademark names mentioned herein are for reference purpose only and are not intended to suggest any connection between HaynesPro and such companies. All trademarks are the property of their respective owners. Version: 7.2.1-RC23

3 (F30, F31, F80) 330e PHEV (B48 B20A) 2015 - ... Estimate GBP 0.00

Back to overview

Electronic Systems

Components CAN-Bus Overview 3 Fault Code Diagnosis Locations

CAN-Bus Overview

Engine management
BOSCH, Motronic MED17

Accelerator pedal position →
Camshaft position →
Camshaft speed →
Clutch pedal position →
Coolant temperature →
Crankshaft position →
Crankshaft speed →
Cylinder head temperature →
Detonation →
Fuel pressure →
Inlet air temperature →
Manifold absolute pressure →
Mass airflow →
Oil level →
Oil pressure →
Oxygen level →
Throttle position →
Valve lift →

→ Alternator
→ Canister purge
→ Coolant pump
→ Coolant system bypass control
→ Cooling fan motor
→ Cooling fan relay
→ Crankcase ventilation heating
→ Engine mounting control
→ Fuel delivery control
→ Fuel injection
→ Fuel injection timing
→ Fuel pump
→ Ignition
→ Inlet camshaft timing control
→ Main supply control
→ Oil pressure control
→ Outlet camshaft timing control
→ Oxygen sensor heating
→ Throttle position control
→ Turbo cooling

Stability control
Teves, MK 100

Brake fluid level →
Brake pad wear →
Front left wheel speed →
Front right wheel speed →
Rear left wheel speed →
Rear right wheel speed →
Vehicle speed →

Main supply control

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Vervolg op de volgende pagina

[Pagina Diagnose]

5. Beantwoord de vragen met *ja* of *nee* tot de component-diagnose is afgerond
6. of klik in het elektrische schema voor meer informatie over geselecteerde componenten, zekeringen of massapunten

3 (F30, F31, F80) 330e PHEV (B48 B20A) 2015 - ... Estimate 0.00

Component diagnosis : V1 - Canister purge solenoid

Print X

Wiring diagram ECU pin and connector Location Picture Component information Initialisation procedures

Diagnosis 1/3

1: Check the supply voltage (pin 1).
Turn the ignition on. Measure the voltage on pin 1. Is it between 12 and 14.4 V?

Turn the ignition on. Measure the voltage on pin C 1 (E1 Engine control unit). Is it between 12 and 14.4 V?

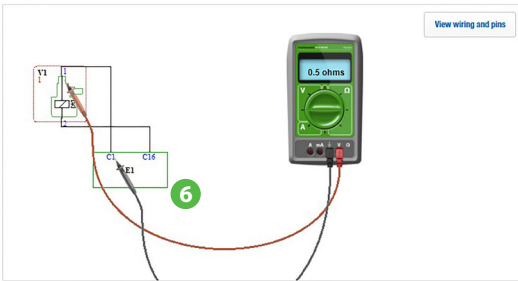
Measure the resistance between pins 1 and C 1 (E1 Engine control unit). The resistance should be less than 1 ohm. Check all wires and replace if necessary. See the diagram below for details on wire colours, connectors, welds and locations (if applicable).

1 Canister purge solenoid
Red/Green
C 1 Engine control unit 1

2: Check the solenoid operation

3: Check the connectivity of pin 2.

View wiring and pins



Pin number	Wire colour	Component	Pin number	Wire colour
1	Red/Green	E1 Engine control unit	C 1	Red/Green
2	White	E1 Engine control unit	C 16	White

3 (F30, F31, F80) 330e PHEV (B48 B20A) 2015 - ... Estimate 0.00

Component diagnosis : E1 - Engine control unit

Print X

Wiring diagram ECU pin and connector Location Picture Component information Initialisation procedures

Diagnosis 1/17

1: Check the supply voltage
Turn the ignition on. Measure the voltage on pin D 10. Is it between 12 and 14.4 V?

2: Check the connection to ground

3: Check the connectivity of pin A 21.

4: Check the supply voltage

5: Check the connection to ground

6: Check the connectivity of pin A 26.

7: Check the supply voltage

8: Check the connection to ground

9: Check the connectivity of pin A 32.

10: Check the supply voltage

11: Check the connection to ground

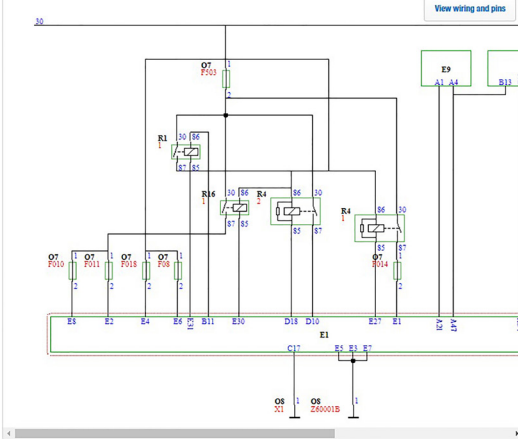
12: Check the connectivity of pin A 47.

13: Check the supply voltage

14: Check the connectivity of pin A 47.

15: Check the supply voltage

View wiring and pins





Voorbeeld C

DIAGNOSE VIA DE FOUTCODE

[Overzichtspagina]

1. Voeg één of meerdere foutcodes toe, gescheiden door komma's
2. Selecteer een systeem

[Pagina Elektronische systemen]

3. Selecteer een *foutcodebeschrijving* of selecteer *Gecombineerde diagnose van bovenstaande*

AUDI A4 /A4 Allroad (8K) 2.0 TDi 2008 - 2012

Maintenance schedules
Select

Fault codes
p0100, p0101, p0108 Search 1

SmartPACK™
TSBs (Technical Service Bulletins) 56
Recalls 4
Cases 17

AUDI A4 /A4 Allroad (8K) 2.0 TDi 2008 - 2012

Fault codes
p0100, p0101, p0108 Search Reset

Search results: p0100, p0101, p0108

Fault code description:
P0100 - Mass airflow meter 1 circuit/open
P0101 - Mass airflow meter 1 circuit range/performance
P0108 - MAP sensor/barometric pressure sensor circuit high
p0100, p0101, p0108 -

Electronic Systems
Engine management

BOSCH, EDC17, (- 04/2009) 2 Fault code: P0100 P0101 P0108
BOSCH, EDC17, (05/2009 -) Fault code: P0100 P0101 P0108

SmartCASE™
No results found

A4 /A4 Allroad (8K) 2.0 TDi (CAHA) 2008 - 2012

Electronic Systems

Components CAN-Bus Overview Fault Code Diagnosis Locations

Fault Code Diagnosis
p0100, p0101, p0108 Search

Fault code description:
P0100 - Mass airflow meter 1 circuit/open
P0101 - Mass airflow meter 1 circuit range/performance
P0108 - MAP sensor/barometric pressure sensor circuit high
p0100, p0101, p0108 -

P0100 Mass airflow meter 1 circuit/open
P0101 Mass airflow meter 1 circuit range/performance
P0108 MAP sensor/barometric pressure sensor circuit high

Combined diagnosis of the above 3

1 Mass airflow meter Show Diagnosis
2 Boost pressure sensor with air temperature sensor Show Diagnosis

Vervolg op de volgende pagina

[Pagina Diagnose]

- 4. Beantwoord de vragen met *ja* of *nee* tot de component-diagnose is afgerond
- 5. en/of klik hier om verder te gaan met de volgende fout-codiadiagnose

FUNCTIES	Car SET	Truck SET
Diagnosewizard	✓	✓
Elektrische schema's voor motormanagement, ABS en ESP	✓	✓
Elektrische schema's voor EPS, airconditioning, klimaatregeling	✓	
Foutcodes (fabrikant en EOBD)	✓	
Foutcodelink naar Smart-module	✓	
Component en massapuntlocaties	✓	✓
ECAS (elektronisch geregelde luchtvering)		✓

3 (F30, F31, F80) 330e PHEV (B48 B20A) 2015 - ...

Estimate GBP 0.00

Fault Code Diagnosis : L1 - MAP sensor

Wiring diagram

ECU pin and connector

Location

Picture

Component information

Initialisation procedures

Diagnosis 1/3

1: Check the supply voltage (pin 1).
Turn the ignition on. Measure the voltage on pin 1. Is it between 4.8 and 5.2 V?

Yes No

Turn the ignition on. Measure the voltage on pin B 53 (E1 Engine control unit). Is it between 4.8 and 5.2 V?

Yes No

Measure the resistance between pins 1 and B 53 (E1 Engine control unit). The resistance should be less than 1 ohm. Check all wires and replace if necessary. See the diagram below for details on wire colours, connectors, welds and locations (if applicable).

1

MAP sensor

Blue

B53

Engine control unit 1

2: Check the connection to ground (pin 2).

3: Check the connectivity of pin 3.

Pin number

Wire colour

Component

Pin number

Wire colour

1

Blue

E1 Engine control unit

B 53

Blue

2

Black/Yellow

E1 Engine control unit

B 48

Black/Yellow

3

Yellow

E1 Engine control unit

B 49

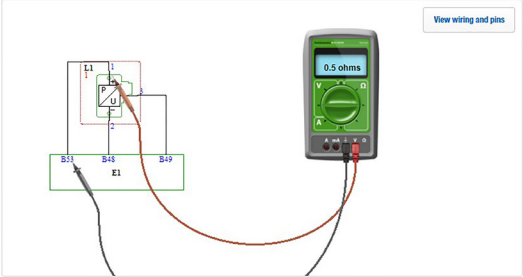
Yellow

1

2

5

View wiring and pins



A4 /A4 Allroad (84K) 2.0 TdI (CAHA) 2008 - 2012

Estimate GBP 0.00

Fault Code Diagnosis : L18 - Boost pressure sensor with air temperature sensor

Wiring diagram

ECU pin and connector

Location

Picture

Component information

Initialisation procedures

Diagnosis 1/4

1: Check the supply voltage (pin 3).
Turn the ignition on. Measure the voltage on pin 3. Is it between 4.8 and 5.2 V?

Yes No

Turn the ignition on. Measure the voltage on pin A 17 (E1 Engine control unit). Is it between 4.8 and 5.2 V?

Yes No

Measure the resistance between pins 3 and A 17 (E1 Engine control unit). The resistance should be less than 1 ohm. Check all wires and replace if necessary. See the diagram below for details on wire colours, connectors, welds and locations (if applicable).

3

Boost pressure sensor with air temperature sensor

Green/Red

A17

Engine control unit 1

2: Check the connection to ground (pin 1).

Pin number

Wire colour

Component

Pin number

Wire colour

3

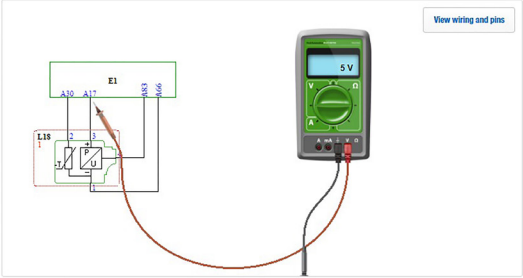
Green/Red

Boost pressure sensor with air temperature sensor

A 17

Engine control unit 1

View wiring and pins





YOUTUBE

Bezoek ons YouTube-kanaal voor meer informatie over het gebruik van WorkshopData™.

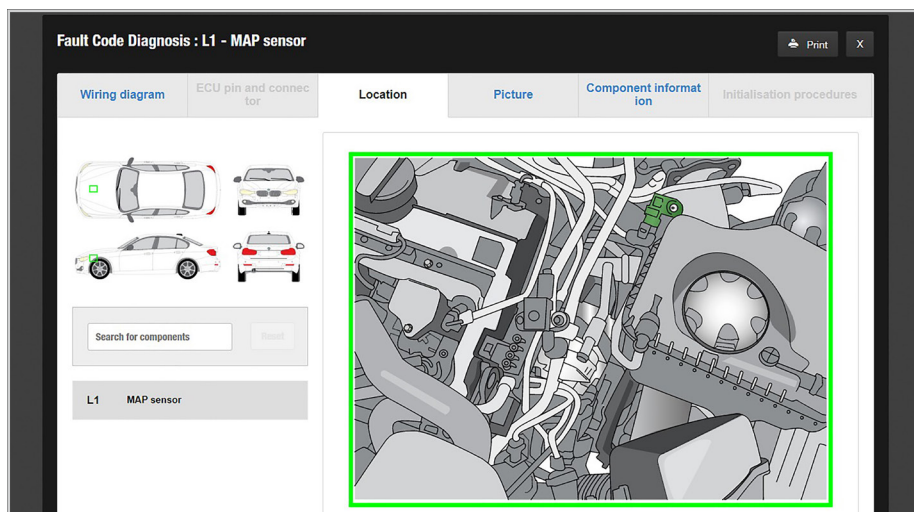




Begeleide diagnose met VESA MK II | algemene functies

LOCATIE

Locaties van componenten zijn **direct toegankelijk** vanuit de componentdiagnose.



AFBEELDING

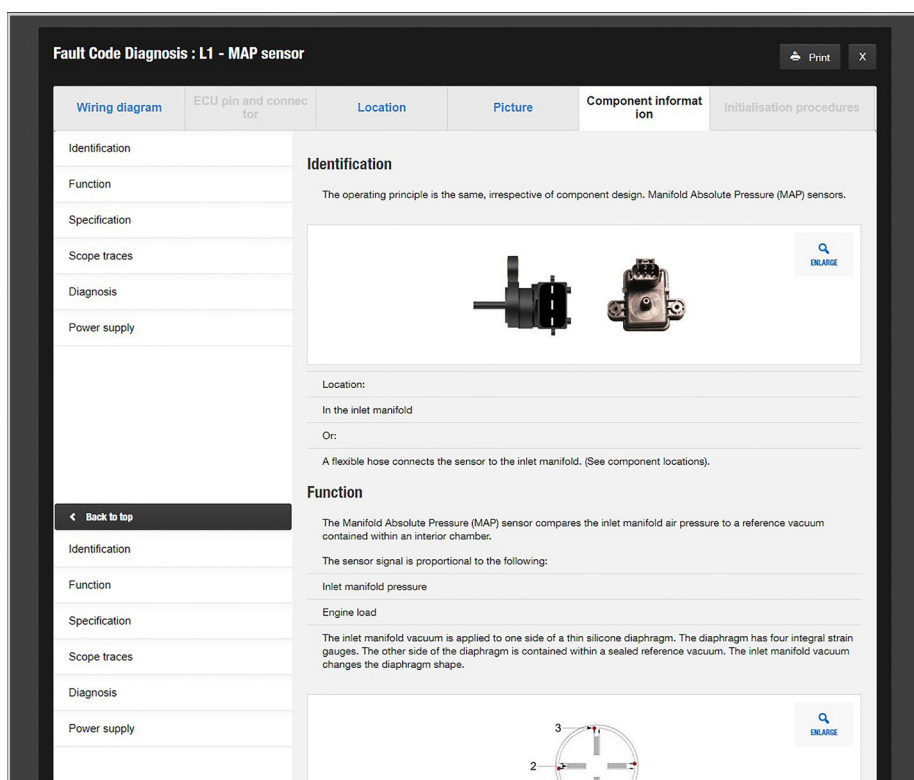
Generieke afbeelding van de **getoonde component**.



COMPONENTINFORMATIE

Gedetailleerde technische informatie.

De componentinformatie bevat technische gegevens over de geselecteerde component. De gegevens omvatten een functionele beschrijving en generieke scoopbeelden (indien van toepassing).



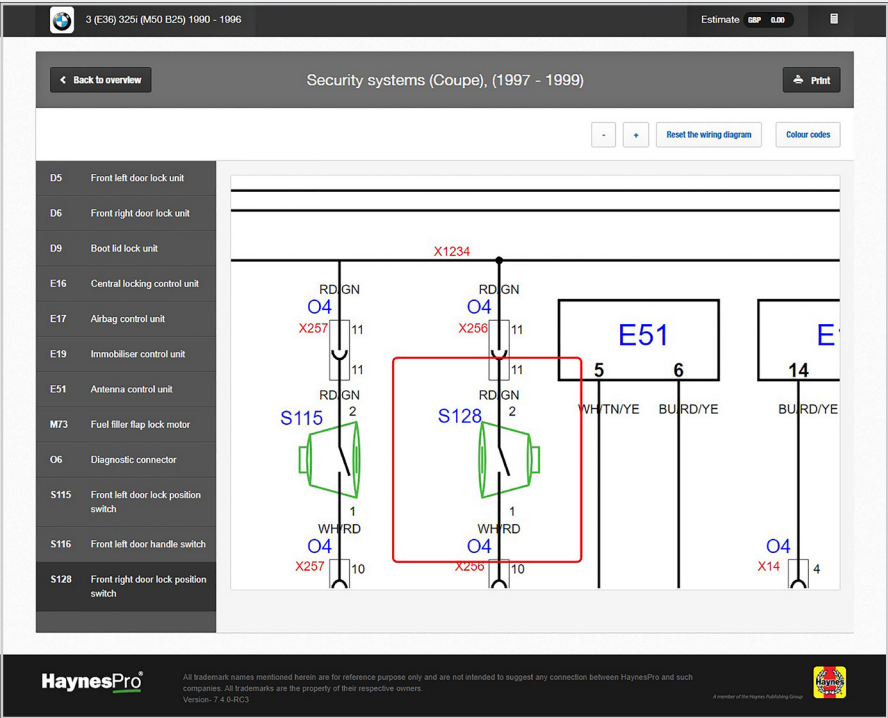
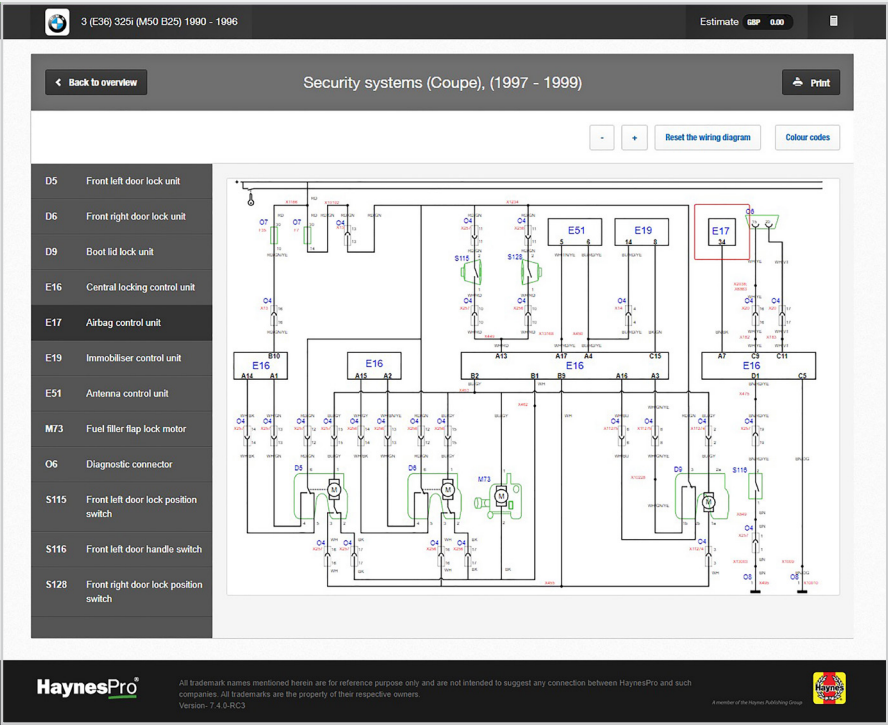
Elektrische schema's

COMFORT ELEKTRISCHE SCHEMA'S

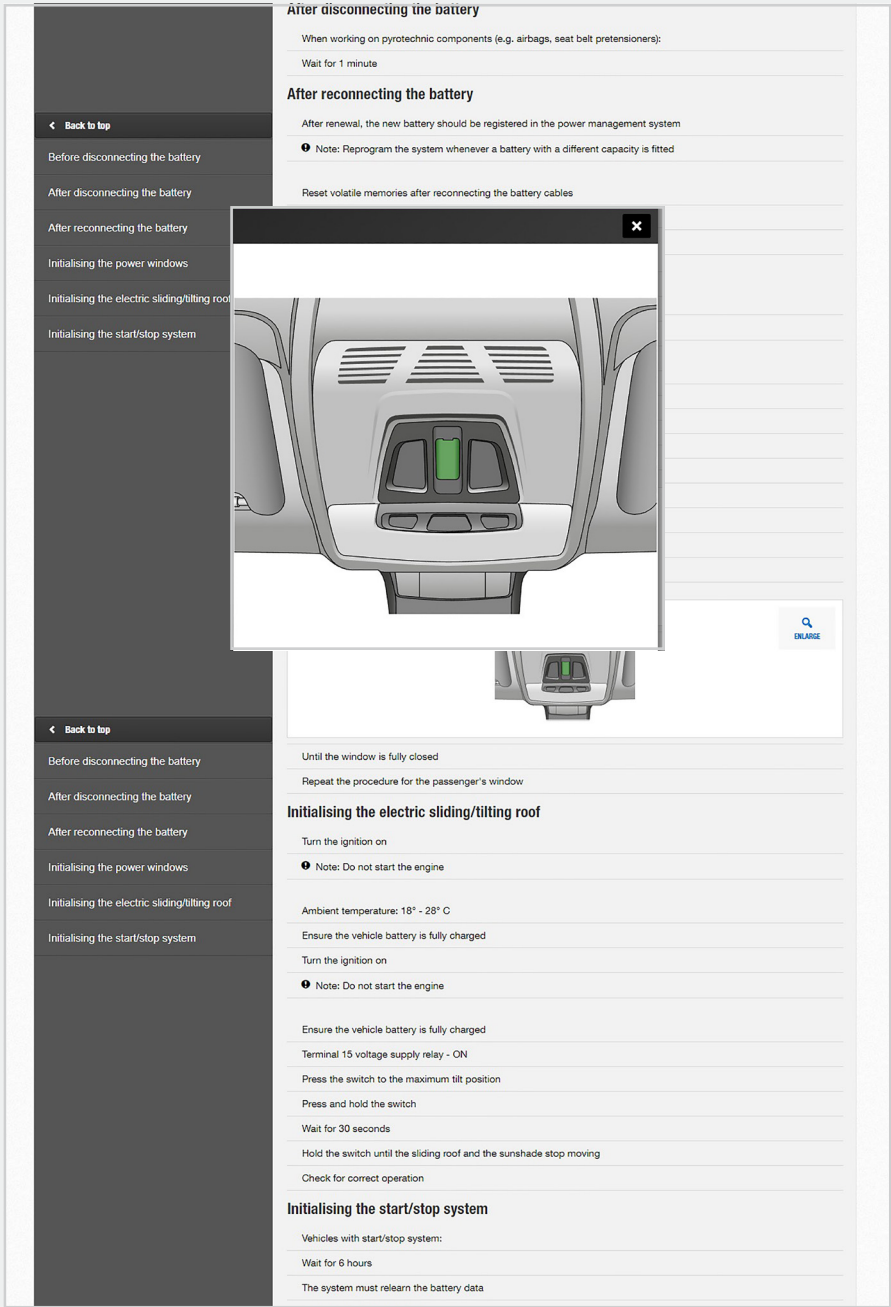
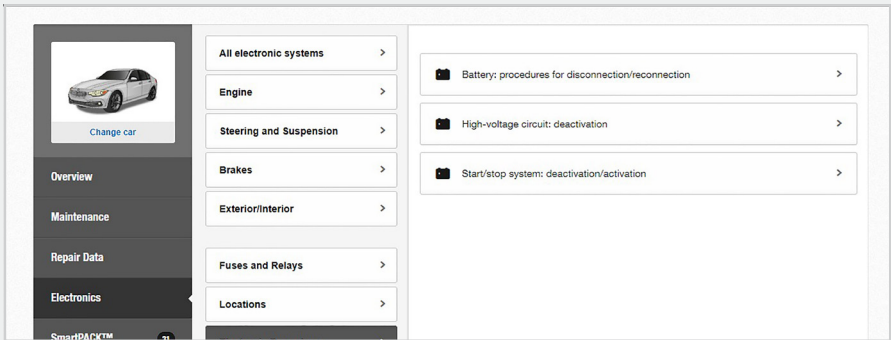
Duidelijke,
'gelokaliseerde'
elektrische schema's.

Duidelijke 'gelokaliseerde' elektrische schema's voor alle belangrijke voertuigfuncties, met traceringsfuncties voor snelle en efficiënte reparaties die in één keer succesvol zijn.

FUNCTIONIES	Car SET	Truck SET
Elektrische schema's voor elektrische systemen en componenten zoals deurvergrendelingen, elektrische ramen, wis- en sproeisystemen voor ruiten en koplampen, airbags, buitenverlichting en start- en laadsystemen	✓	✓
Pan-en-zoom functionaliteit	✓	✓
Markeringsfunctie voor het volgen van bedrading van en naar componenten	✓	✓



Elektronische procedures



ACCU: PROCEDURES VOOR ONTKOPPELEN EN AANKOPPELEN

Het af- en weer aankoppelen van een accu was vroeger heel eenvoudig.

In moderne voertuigen is dit ingewikkelder geworden. De monteur dient te weten welke procedures hij moet volgen nadat de accu weer is aangekoppeld. Anders moet de eigenaar met de auto terug naar de garage vanwege fouten in systemen zoals de parkeerhulp of de elektrische ramen. Vanwege het toenemende aantal hybride voertuigen op de markt hebben monteurs ook behoefte aan specifieke instructies om veilig met dergelijke voertuigen te kunnen werken.

Andere beschikbare procedures:



HOOGSPANNINGSCIRCUIT: DEACTIVEREN



START- EN STOPSYSTEEM: DEACTIVEREN/ACTIVEREN

Locaties

Een van de doelen van de data van HaynesPro is **terugdringen van het aantal niet-factureerbare uren.**

Dankzij onze Locatie-functie kunnen de gezochte componenten, regeleenheden en massapunten in een oogwenk worden gevonden. Alle locaties zijn te vinden via de lokale elektrische schema's.

Beschikbare locaties

 EOBD-STEKKER

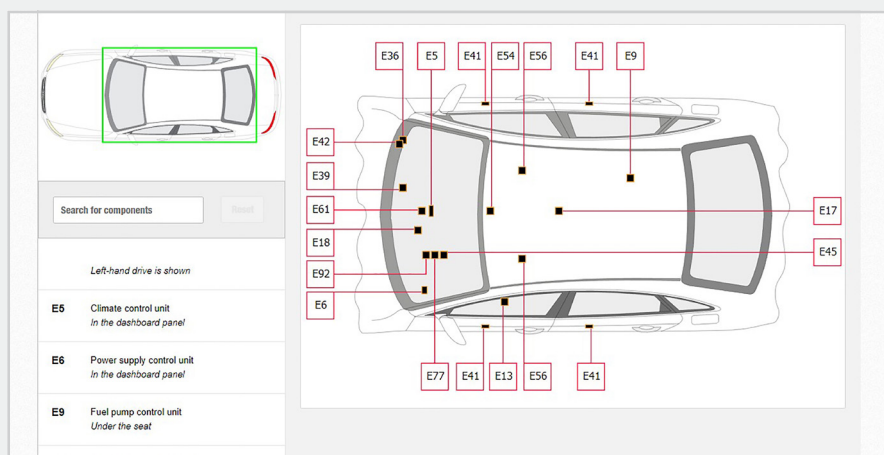
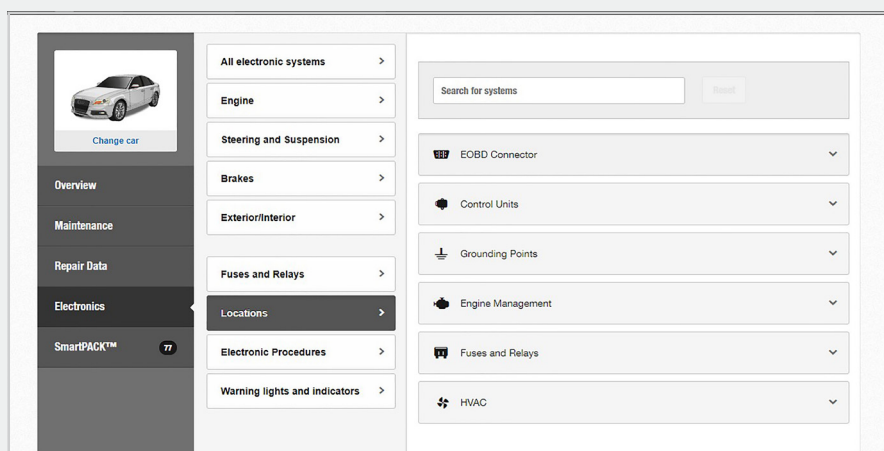
 REGELEENHEDEN

 MASSAPUNTEN

 MOTORMANAGEMENT

 ZEKERINGEN EN RELAIS

 VERWARMING, VENTILATIE EN AIRCONDITIONING (HVAC)



Clearly better data.

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