

Document title Use of wiring diagrams

Document number ov0001p190103dba

Model 213
up to model year 2021

Wiring diagrams

The wiring diagrams are assigned to the familiar function groups 00-91. The circuit diagrams are filed according to PE number in each function group, e.g.:

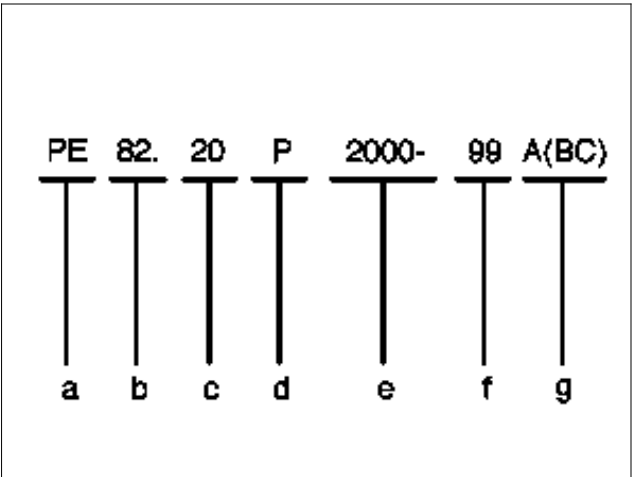
- PE07.08-P-2101DBA
- PE07.08-P-2101DBB

The location of electrical connections, ground points and solder points are shown in the following 3 documents:

- GF00.19-P-1001DBAArrangement of cable and plug connections
 - GF00.19-P-2001DBALocation of ground points
 - GF00.19-P-3001DBALocation of Z-connector sleeves (line connections in wiring harness)
- All electrical components are sorted alphabetically and listed according to the abbreviations in the "Search aid for all electrical components" OV00.01-P-1909DBA. A reference is made to the wiring diagrams in which the relevant component is explained completely.
- i** Variants of a component or the subdivision of a component into several wiring diagrams are stated in the third column.
- Example:**
B4/6 fuel pressure sensor high pressure valid for M642 PE07.16-P-2101DBA
B4/6 fuel pressure sensor high pressure valid for M654 PE07.16-P-2101DBD

Wiring diagram number

- a Information type
- b Function group
- c Function subgroup
- d Producer ID
- e Record number
- f Information unit number
- g Validity letter (s)



P00.19-0401-01

Kinds of wiring diagrams

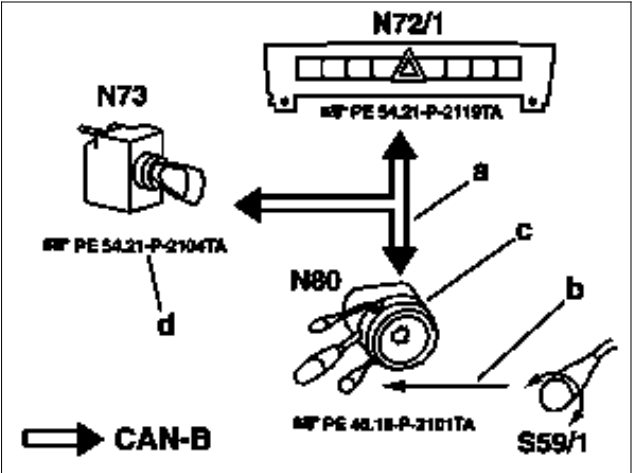
The wiring diagrams are prepared as function schematics, function/system diagrams, control unit diagrams or solder point wiring diagrams, ground wiring diagrams and connector wiring diagrams.

- Function schematics
The control units and electrical components required for the function are shown as symbols. The functional connections are realized by direct lines or by the data bus.

- Function/system diagrams
All the components that are relevant to a function or system are shown in the wiring diagram.
- Control unit diagrams
Control units are represented complete with all connected components. Control units with many connections can be subdivided into several wiring diagrams.
- Solder point wiring diagrams, ground wiring diagrams and connector wiring diagrams
Solder points, ground points and electrical connections, which are not shown completely in any control unit diagram, are shown here complete with all connected components.

Function schematic

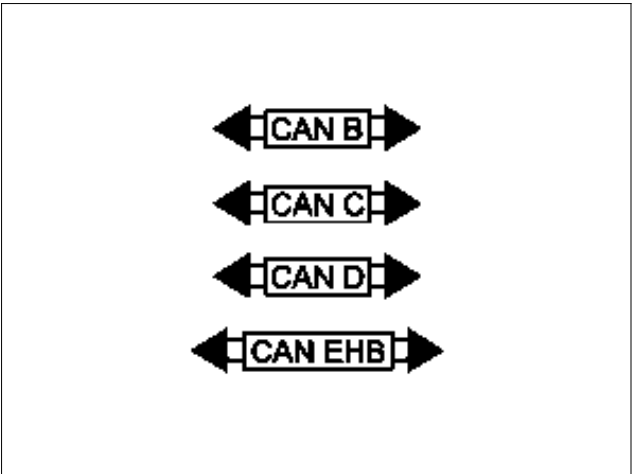
- a Data bus interface
- b Direct interface
- c Symbols (components, control units)
- d Reference to further wiring diagrams
- e Signal
- f LIN bus connection



P00.19-3084-01

CAN bus presentation

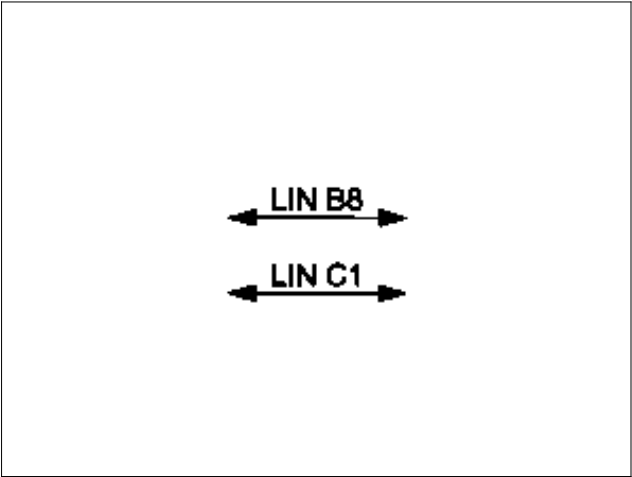
- CAN B Interior CAN
- CAN C Drive train CAN
- CAN D Diagnostic CAN
- CAN EHB Chassis CAN



P00.01-3557-01

LIN bus presentation

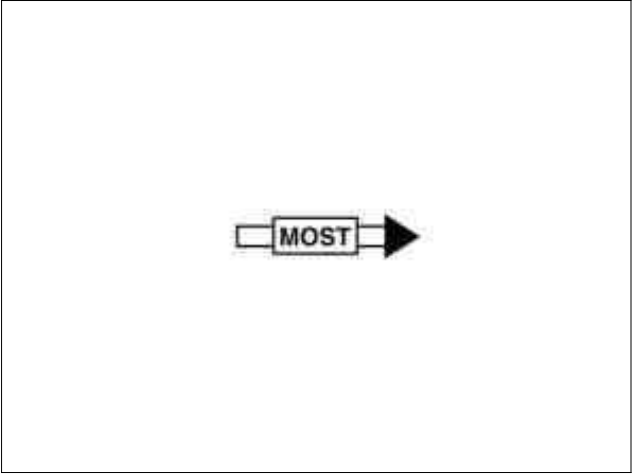
LIN B8 Climate control LIN
LIN C1 Drive train LIN



P00.01-3558-01

MOST bus presentation

MOST Media Oriented System Transport

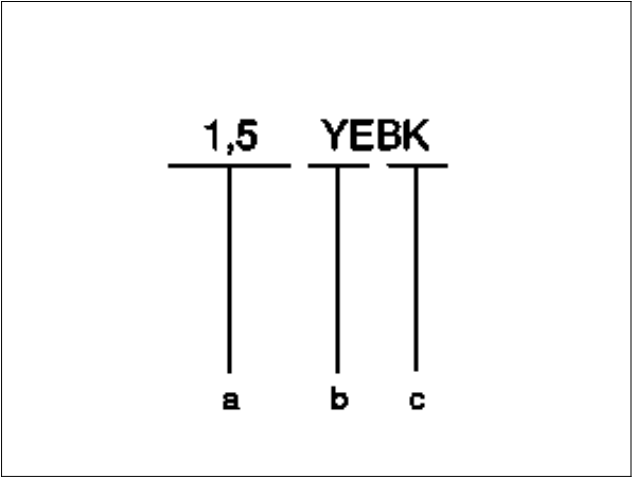


P00.01-3091-01

i Line cross-sections and line colors on the vehicle may differ from the illustration in the wiring diagrams.

Wire Identification


- a Line cross section in mm²
- b Basic color
- c Identification color



P00.19-2306-01

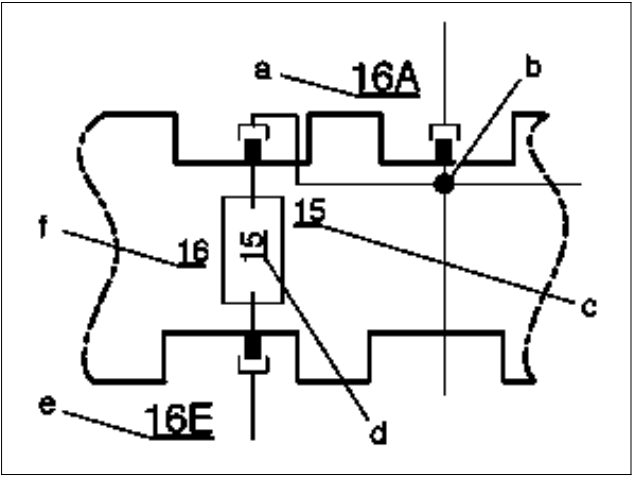
Wire colors:

- BK = Black
- BN = Brown
- BU = Blue
- GN = Green
- GY = Gray
- OG = Orange

- PK = Pink
 - RD = Red
 - TR = Transparent
 - VT = Violet
 - WH = White
 - YE = Yellow
- The symbol  PE ●● refers to further wiring diagrams.

Fuse blocks

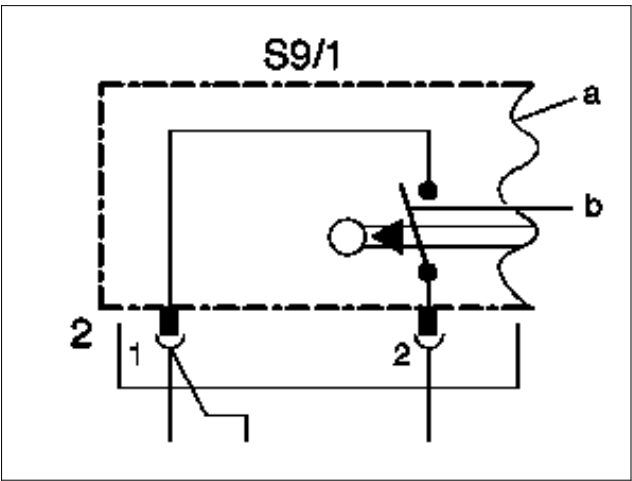
- a Output slot numbering (A, B, C or D)
- b Line bridge
- c Terminal designation
- d Fuse rating in amp(s)
- e Input slot numbering (E)
- f Fuse number



P00.19-0405-01

Components and switches

- a Components that are not completely shown are shown as an outline
- b Switching contacts are shown in the rest position



P00.19-0406-01

Variants

The wiring diagrams can contain variants that are framed to identify them and provided with an abbreviation "U..." or "Code ...", or are marked with a time limitation, a vehicle model designation, an engine model designation, a transmission model designation or a vehicle identification end number. The variants identified by the abbreviation "U..." or "Code ..." are listed in the legends.

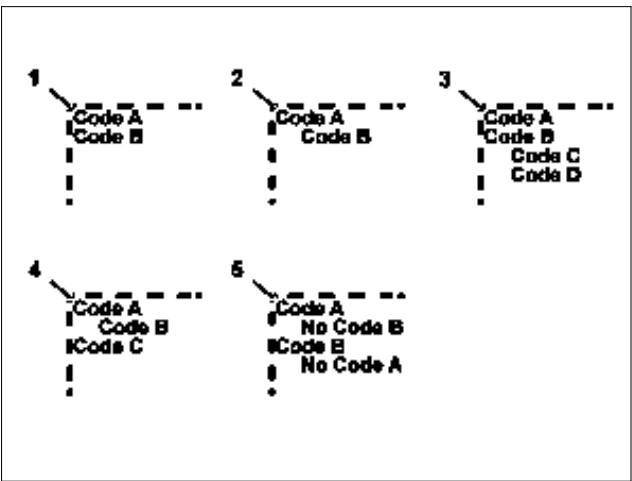
i The vehicle identification end numbers or time production data stated apply to the market launch of standard production. Preproduction vehicles can have a lower vehicle identification end number or an earlier production breakpoint.

i In case of changes that come up after the market launch of standard production, the variants can be designated with 1 and 2.

- 1 The variant is valid if at least one of the two validities applies.
- 2 The variant is valid if both validities apply.
- 3 The variant is valid if at least one of the two validities A and B and at least one of the two validities C and D applies.
- 4 The variant is valid if both validities A and B apply and/or the validity C applies.

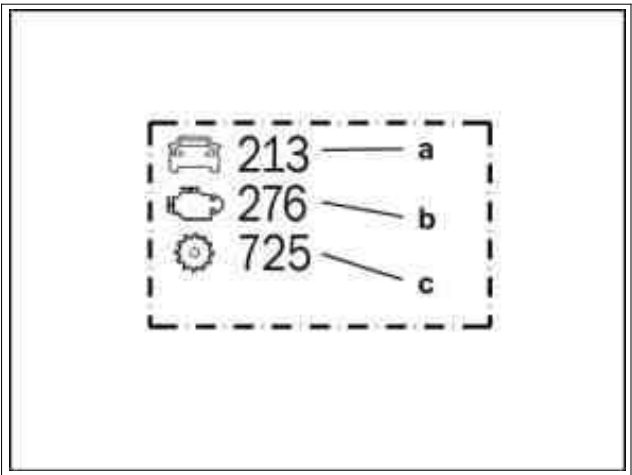
Logical combinations of variants are represented as follows:

- »And/or« combination
Validity elements are presented one below the other; the variant is valid if at least one of the validity elements applies.
- »And« combination
Validity elements are presented indented one below the other; the variant is valid if all the validity elements apply.



P00.19-5469-01

- a Vehicle model designation
- b Engine model designation
- c Transmission model



P00.01-4489-01

Signal and terminal designations

The signal and circuit designations used are explained in the section "Abbreviations of signal and circuit designations for wiring diagrams" OV00.01-P-1001-28DBA.

Special features in WIS presentation

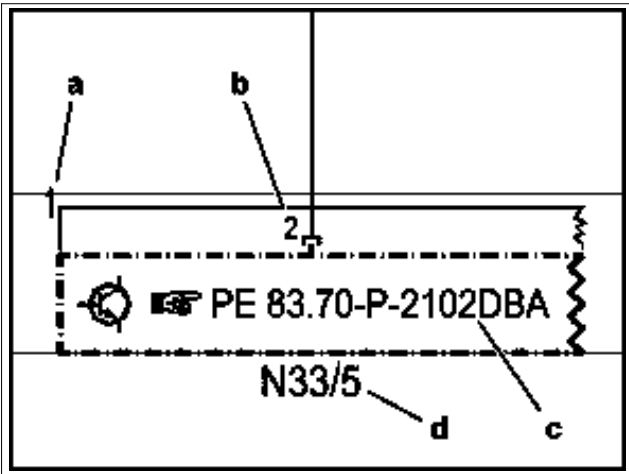
In WIS it is possible to select certain areas in the wiring diagram and consequently to switch to other documents or wiring diagrams.

- Selection of electrical connections → Document: Location of line and plug connectors
- Selection of ground points → Document: Location of ground points
- Selection of Z-connector sleeves → Document: Location of Z-connector sleeves (line and plug connectors in wiring harness)

- Selection of PE hands → Reference to further wiring diagrams
- Selection of wiring diagram references without PE hands → Reference to further wiring diagrams
- Selection of component designations A and N → Document: Abbreviations of signal and circuit designations for wiring diagrams
- Selection of component designation A0 → Document: Use of wiring diagrams

Reference to further wiring diagrams (selection of PE hands)

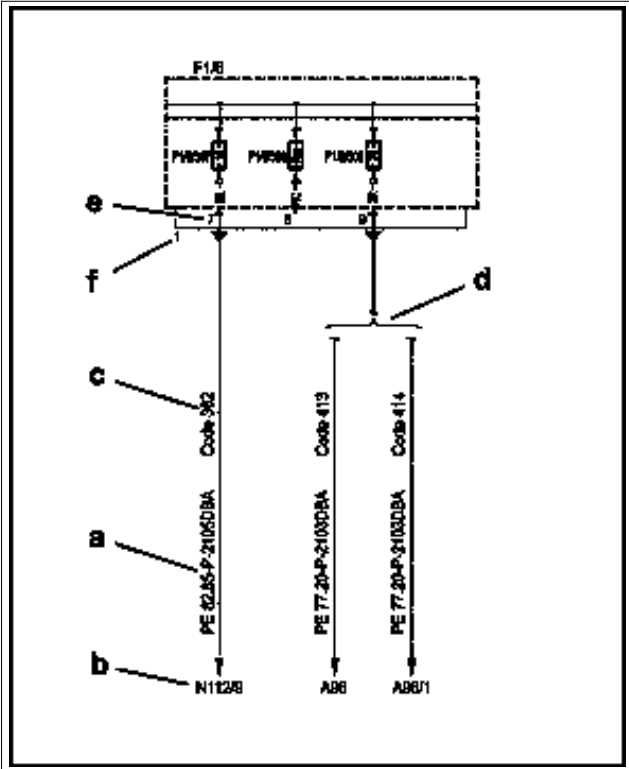
- a Connector designation
- b Pin number
- c Wiring diagram reference
- d Component designation



P00.19-5561-01

Reference to further wiring diagrams (references without PE hands)

- a Wiring diagram reference
- b Component designation
- c Validity
- d Version
- e Pin number
- f Connector designation



P00.19-5562-02