



Mercedes-Benz

Transporters • Electrical System  
VITO/VIANO (Model 639)

Wiring Diagrams

Technical training for Customers



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# Wiring Diagram Manuals Part Number: Z6517 2111 02

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The term »employees« does not imply any preference of gender and incorporated male and refers to male and female employees alike.

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# Use of Wiring Diagrams

## Chapter 1



OV00.01-S-1901-03VA	Use of wiring diagrams		
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Wiring diagrams

/ The wiring diagrams are assigned to the familiar function groups 00-91. The systems are listed alphabetically with an indication of the function group/ function subgroup in the "Search aid for all wiring diagram groups"

OV00.01-S-1901VA or A3 (paper version).

/ The wiring diagrams are filed in the respective function group arranged according to the PE number,

e.g.: PE07.16-S-2000VA

PE07.16-S-2000IVB

To check the completeness of the volume the sequence of the wiring diagrams filed can be seen from the lists of contents of the respective function group. For supplements the wiring diagrams should be filed as per the supplement sheet.

e.g.: PE00.19-P-1100VA Overview of wiring diagrams....

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/ The wiring diagrams are prepared as function diagrams or control unit diagrams and are built up as follows:

-Function diagrams

The control units and electrical components belonging to the function are shown as symbols. The functional connections are realized by direct lines or by the data bus.

-Control unit diagrams

Control units are represented complete with all connected components. The feed of the control units appears first.

The wiring diagrams also contain linkages of possible versions and functions.

Linkages, recognizable as versions, are framed and provided with an abbreviated designation/ abbreviation.

The versions are designated with 1 and 2

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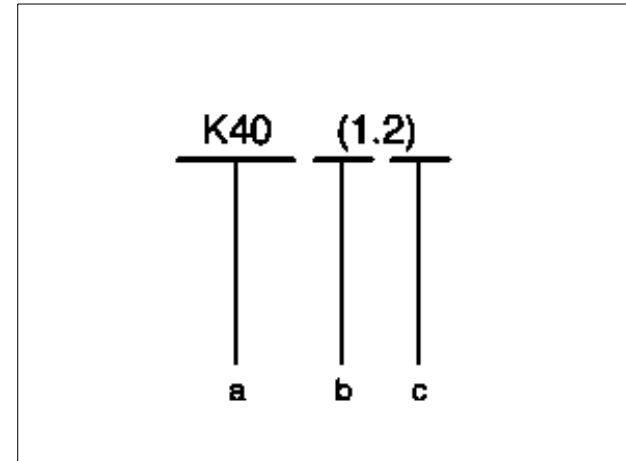
/ Notes on the accompanying documents for connectors/ terminal blocks (B1)

Special equipment (SA) is specifically highlighted in the notes column. For connectors, which are installed in special equipment, the special equipment is specified in the notes column in the row in front of the connector designation. For connectors, which are installed as standard, special equipment specification is noted directly at the respective jack and/or connector.

The feed of the terminal blocks is shown by means of an arrow pointing to the left, the outputs by means of arrows pointing to the right. The grouping of the individual variants/ special equipment (SA) is highlighted by means of broken lines. All outputs to components, which are installed as standard, are listed up to the first broken line.

### Connection designation

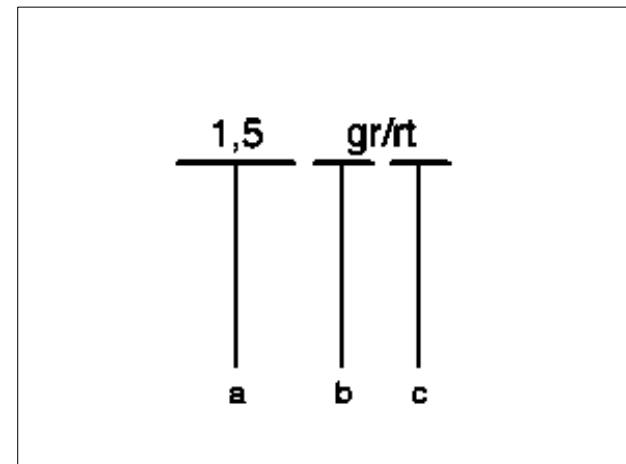
- a Component
- b Clutch
- c Socket



P00.19-0402-01

### Wire designation

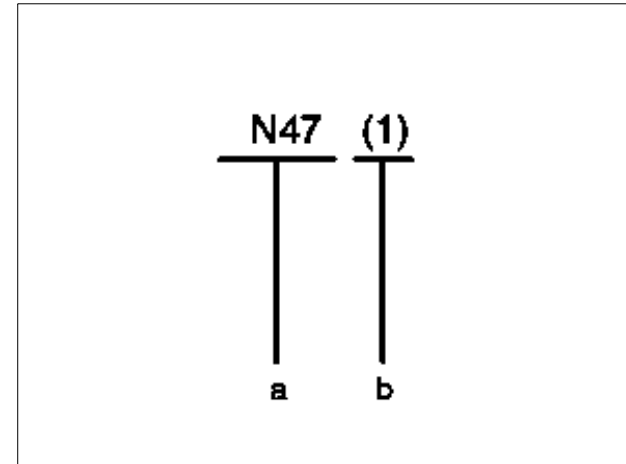
- a Conductor cross-section in mm<sup>2</sup>
- b Basic color
- c Identification color



P00.19-0403-01

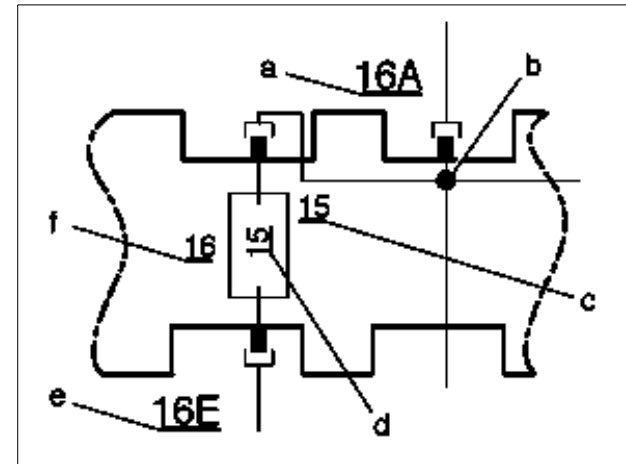
### Identification of truncated wires

- a Component to which the truncated electric line leads
- b Connection designation on component



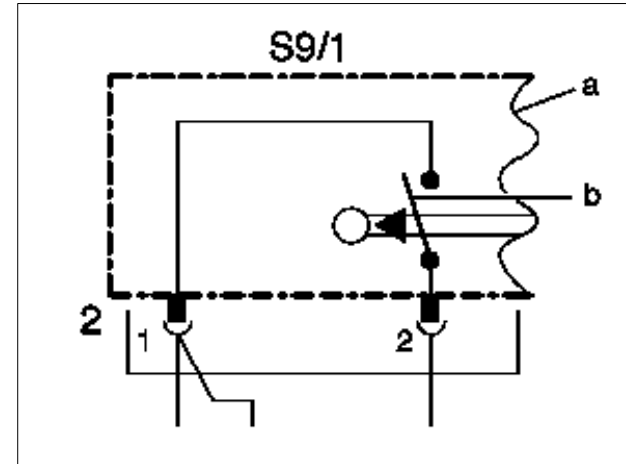
### Fuse blocks

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

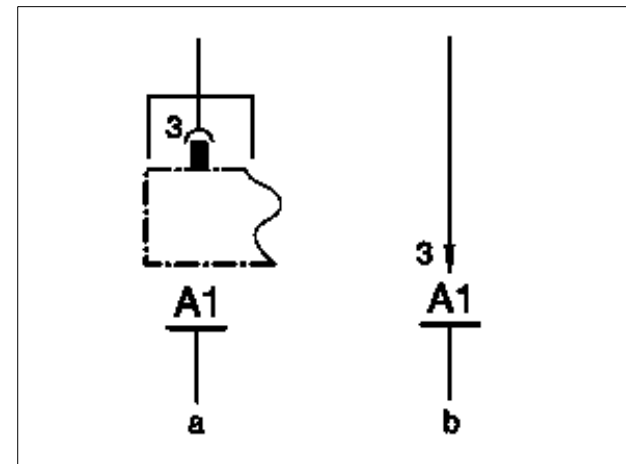


## Components and switches

- a Component which are not represented completely are shown dismantled.
- b Switching contacts are shown in the rest position.

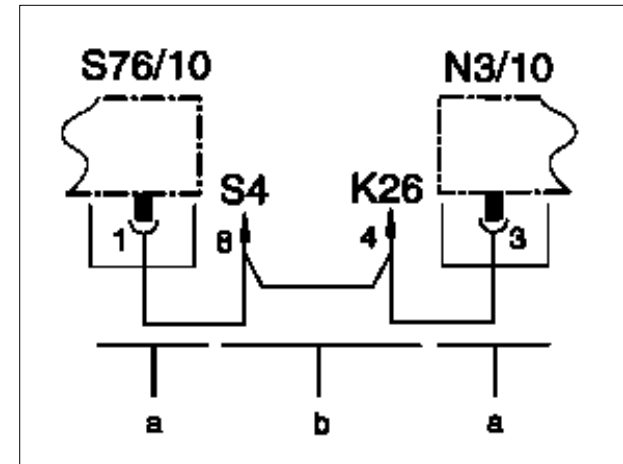


- a Illustration of a function-specific component with connection designation and corresponding line
- b Illustration of a function-independent component connection with corresponding line



### Looped lines

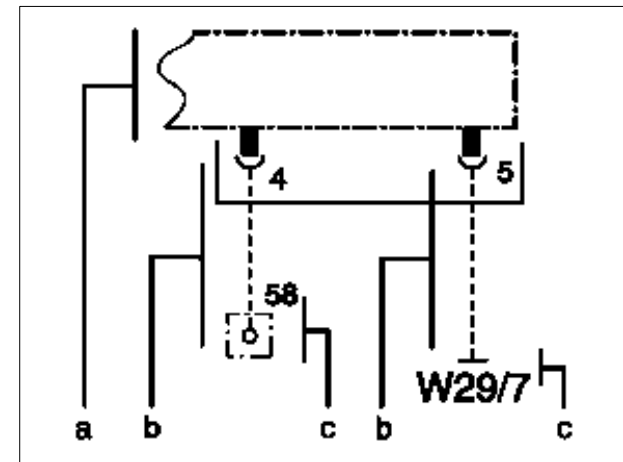
- a Function-specific components
- b The looped line connects two function-specific components across one or more function-independent component connections.



P00.19-2089-01

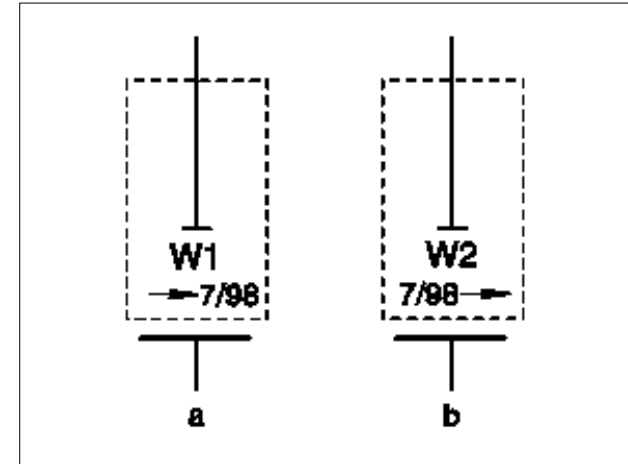
### Indirect line (only for terminal 31 or terminal 58)

- a Function-specific component
- b Indirect line for more than two intermediate function-independent component connections/ loops.
- c Connection to either terminal 31 or terminal 58



Installation date

- a Installation of a component up to date
- b Installation of a component as of date



P00.19-2094-01

BK	=	Black	=	black
BN	=	Brown	=	brown
BU	=	blue	=	blue
GN	=	green	=	green
GY	=	gray	=	gray
OG	=	orange	=	orange
PK	=	pink	=	pink
RD	=	red	=	red
TR	=	transparent	=	transparent
VT	=	violet	=	violet
WH	=	white	=	white
YE	=	yellow	=	yellow

# Abbreviations for Wiring Diagrams

## Chapter 2

OV00.01-S-1001-27VA	Abbreviations for wiring diagrams	MODEL 639.601/603/605/701/703/ 705/711/713/811/813/815	
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Abbreviation	Designation	Code	FG.FUG
AB	Airbag		91.00
ABL	Exterior lights		82.10
ABS	Antilock brake system		42.30
AT	Automatic transmission	G40 - Automatic transmission	27.19
AHV	Trailer hitch	Q22 - Fixed trailer hitch Q50 - Trailer hitch with detachable ball head	31.19
AKC	Anti-knock control		
ACSR	Automatic child seat recognition		91.60
BCAPC	Barometric pressure/charge air pressure compensation		
APS	Auto pilot system	EN2 - Auto pilot system with TMC interface EN4 - Auto pilot system with TMC interface, large display EN9 - Auto pilot system for Japan, large display	82.61
EGR	Exhaust gas recirculation		14.20
ART	Adaptive cruise control	IN18 - Distronic	
DSV	Drive authorization system shutoff valve (DSV)		80.35
ASR	Acceleration slip regulation	BB3 - Electronic Stability Program (ESP)	42.40
ATS	Antenna systems		82.62 82.70
BAS	Brake Assist	BB3 - Electronic Stability Program (ESP)	42
CDI	Common rail diesel injection		07.16
CDC	CD changer	EP5 - CD changer	82.64
D2B	Digital data bus	EH3 - Portable CTEL preinstallation linked to D2B network	82



OCP	Overhead control panel control unit	LD0 - Dome lamp with reading lamp for driver/front passenger	54.21
DTR	Distronic (adaptive cruise control)	IN18 - DISTRONIC	
EDC	Electronic diesel control		07.16
EDS	Electronic diesel system		07
ATA	Anti-theft alarm system	FZ5 - Anti-theft alarm system	80.50
EFH	Power windows		72.29
ISC	Electronic idle speed control		07
ELC	Electronic level control	CL0 - Rear lowerable/raisable air suspension	32.33
ESP	Electronic stability program	BB3 - Electronic Stability Program (ESP)	42.45
ESA	Electric seat adjustment	SF1 - Electrically adjustable luxury driver seat	91.00
DFI	Diesel injection system (electronic distributor-type fuel injection)		07.16
EIS	Electronic ignition switch control unit		54.21
RFL/IRCL	Radio frequency locking/infrared remote central locking	FZ5 - Anti-theft alarm system	80.50
HFS	Hands-free system		82.70
GPS	Global positioning system		
ETR	Emergency tensioning retractor		91.00
HEAT	Automatic heater		83
HFM-SFI	HFM sequential multiport fuel injection/ignition system		07.61
HHS	Heated rear window		67.29
IRCL	Infrared remote central locking		80.20
IMS	Interior motion sensor		80.50
TWC	Catalytic converter		07
IC	Instrument cluster		54.30
AAC	Automatic air conditioning	HH4- Automatic air conditioning	83.00
LHD	Left-hand drive vehicle		
ISC	Idle speed control		
LS	Power steering gear		

HRA	Headlamp range adjustment		82.10
ME-SFI	ME-SFI fuel injection and ignition system		07.61
MT	Manual transmission		
MOST	Media Oriented System Transport		82
REST	Residual engine heat utilization system		
OSL	Orthopedic seat backrest		
PTS	Parktronic system	EZ8 - Parktronic System (PTS)	54.65
RHD	Right-hand drive vehicle		
SR	Tilting/sliding roof	D24 - Glass tilting/sliding roof in passenger compartment D27 - Glass tilting/sliding roof in driver compartment	54.21 77.20
HS	Heated seats	H15 - Heater for front passenger H16 - Heater for driver seat	91.00
SOUND	SOUND systems		82.85
SPH	Mirror heater		88.79
HCS	Headlamp cleaning system		82.35
STH	Stationary heater	H12 - Warm water auxiliary heater H85 - Preinstallation for auxiliary heater HZ1 - Warm air auxiliary heater (Westfalia)	83.70
TEL	Telephone	EH3 - Portable CTEL preinstallation linked to D2B network JV4 - Portable CTEL telephone preinstallation	82.70
TELE AID	Telematic Alarm Identification on Demand (emergency call system)	EZ9 - Car telephone emergency call system (Tele Aid)	
DCU	Door control unit		72.29
HB	Heater booster	HZ9 - Heater booster	83.70
CL	Central locking		80.20

OV00.01-S-1001-28VA	Abbreviations of signal and circuit designations for wiring diagrams		
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Abbreviation	Designation	Notes
(+)	Positive	
(-)	Negative	
15	Switched positive	
30	Battery voltage, positive (continuous positive)	
31	Return line to battery negative or ground, direct	
49	Turn signal generator input	
49a	Turn signal generator output	
49L	Left turn signal lamp	
49R	Right turn signal lamp	
50	Starter control (direct)	
55	Front fog lamp	
56	Headlamp light	
56a	High beam and high beam indicator	
56b	Low beam	
58	Position, tail, license plate and instrument lamps	
58d	Variable instrument/switch illumination	
61	Alternator monitor	
85	Negative or ground winding end	
86	Start of winding	
87	Input	
87a	First output (NC side)	
87b	Second output	
87c	Third output	
A-CDW-SIG	CD-player with changer signal	

A-P-EV1	Output - pulse width signal - injection valve, cyl. 1	
A-P-EV2	Output - pulse width signal - injection valve, cyl. 2	
A-P-EV3	Output - pulse width signal - injection valve, cyl. 3	
A-P-EV4	Output - pulse width signal - injection valve, cyl. 4	
A-S-LSHVK	Output - shift signal - oxygen sensor heater	
A-S-RPR	Output - fuel pumps signal - relay	
A-STAR	Output - starting relay	
A-T-LUES	Output, fan control	
A-ZUE1	Output, ignition coil 1	
A-ZUE2	Output, ignition coil 2	
AE	Trailer recognition	
AKSE (CSD)	Automatic child seat recognition (ACSR)	
AL	Exit lamp	
AS	Towing sensor	
ASS/IRS	Towing sensor/interior protection	
ASV 1	Intake solenoid valve 1	
ASV 2	Intake solenoid valve 2	
Autom. Ant.	Automatic antenna	
A_AGR	Actuation of exhaust gas recirculation positioner	
A_ANR	Output, fuse and relay box	
A_Dachz_1	Roof sign lamp	
A_Dachz_2	Roof sign lamp	
A_DKS	Intake air throttle valve actuator	
A_DRV	Grounded output, pressure regulator valve	
A_EC_Daten	Mirror taximeter	
A_EKA	Actuation of inlet port shutoff switchover valve	
A_EKP	Actuation of inlet port shutoff switchover valve	
A_IRS_2_ALARM	Interior protection	
A_IRS_2_ALARM	Output, alarm	
A_KEH	Grounded output, vent line heater element	

A_Kl.31_MIC	Voltage supply, microphone ground	
A_LDR	Grounded output, boost pressure control pressure transducer	
A_LED_Funk	Roof sign switch LED	
A_LSH1	Output, O2 sensor, upstream from TWC	
A_Mute	Radio muting	
A_RS485_H	RS 485 interface, high signal	
A_RS485_L	RS 485 interface, low signal	
A_TEL_Mute	Telephone muting	
A_VDK	Actuation of intake air throttle valve actuator	
A_Wegstr_SPT	Output, mirror taximeter vehicle speed signal	
A_ZME	Grounded output, quantity control valve	
B -	Battery negative	
B+	Battery positive	
B-D-DIAK	Bus - data transfer - diagnosis (K-line)	
BBVVR	Brake wear, right front	
BF	Front passenger	
BFT	Front passenger door	
BLS	Stop lamp switch NO contact	
BS	Stop lamp switch NC contact	
BSA (17, ADXL76)	Acceleration pick-up (piezoelectric, micromechanical)	
CAN (H)	CAN (high)	
CAN (L)	CAN (low)	
CD	Compact Disc	
CDW Bus	CD changer bus	
CDW Masse	CD changer ground	
CDW Steuerung	CD changer control	
CDW Versorg.	CD changer supply	
Cod. RXD	Coding for service bus (RXD)	
Cod. TXD	Coding for service bus (TXD)	
CROA	Crash output, analog	

D-	Dynamo, negative	
D+	Dynamo, positive	
D2B IN	Input, digital data bus	
D2B OUT	Output, digital data bus	
Daten IR	Infrared	
DBE	Overhead control panel	
DFA hi.li.	Rpm sensor output, left rear	
DFA hi.re.	Rpm sensor output, right rear	
DFA-HR	Rpm sensor output, right rear	
DFHL	Rpm sensor, left rear	
DFHR	Rpm sensor, right rear	
DFVL	Rpm sensor, left front	
DFVR	Rpm sensor, right front	
Diag.	Diagnosis	
Diag. Sthzg	Stationary heater diagnosis	
DRS-1	Yaw rate and lateral acceleration sensor	
DRS-AY	Yaw rate and lateral acceleration sensor	
DRS-Ref	Yaw rate and lateral acceleration sensor	
DRSS	Yaw rate and lateral acceleration sensor	
DS	Pressure switch	
E-A-Crash	Input - analog signal - crash	
E-A-Kupp.	Input - analog - clutch switch	
E-A-LSVK	Input - analog - oxygen sensor	
E-A-TMOT	Input - analog - coolant temperature	
E-F-KS	Input frequency - knock sensor	
E-F-KWDGB	Input frequency - crankshaft sensor	
E-F-NWHG	Input frequency - camshaft Hall sensor	
E-S-AUS	Input - shift signal - off	
E-S-FSMOEL	Input - signal - oil fill level and temperature	
E-S-KSK	Input - shift signal - control shift contact	

E-S-S+B	Input - shift signal - set plus accelerate	
E-S-S-B	Input - shift signal - set - accelerate (decelerate)	
E-S-v. Begr.	Input - signal - variable limit	
E-S-WA	Input - shift signal - resume	
ED	Duty cycle	
EDW D	ATA data	
EDW M	Ground	
EDW-ZA	ATA state display	
EHD	Electrohydraulic pressure supply	
ELV Magnetabsch.	Solenoid switch for electric steering adjustment	
ELV-Daten	Electric steering lock control unit data	
EMV	Electromagnetic compatibility	
ENR-OFF	Actuation of level control lock-out switch LED	
ER	Capacitor	
ESG	Electrical control unit	
E_AT_NOTA	Input, emergency alarm system activate button	
E_Dachz/Funk_UBF	Input, roof sign switch	
E_DPF	Input, pressure differential sensor CAT (NAFTA)	
E_HFM	Input, mass air flow sensor hot film	
E_HFM2	Input, mass air flow sensor hot film	
E_HFMT1	Input, mass air flow sensor hot film, temperature 1	
E_IRS_2_DATAS	Signal, interior protection sensor, rear	
E_KIK	Input, kickdown switch pedal value sensor	
E_KT_Dachz/Stat WLH_WVC	Input, taximeter	
E_KUP1	Input, clutch pedal switch	
E_KW+	Signal, crankshaft position sensor	
E_KW-	Signal, crankshaft position sensor	
E_LDF	Input, charge pressure sensor	
E_LSH1	Input, O2 sensor, upstream from TWC	

E_LSI A1	Input, O2 sensor, upstream from TWC	
E_LSIP1	Input, O2 sensor, upstream from TWC	
E_LSIP2	Input, common rail high pressure pump	
E_LSUN1	Input, O2 sensor, upstream from TWC	
E_L SVM1	Input, O2 sensor, upstream from TWC	
E_MOK	Input, oil sensor (oil level, temperature and quality)	
E_NWDG	Input, Hall sensor for camshaft	
E_P1	Input, pressure sensor, downstream from air filter	
E_P3	Input, charge pressure sensor	
E_PWG1	Input, pedal value sensor	
E_PWG2	Input, pedal value sensor	
E_RDS	Input, rail pressure sensor	
E_RT_NOTA	Input, emergency alarm system cancel button	
E_Sitz_Bel/Stat ASD_WVC	Input, pop-up roof (Westfalia)	
E_T1_2	Input, mass air flow sensor hot film	
E_TANS	Input, charge air temperature sensor	
E_TKS	Input, fuel temperature sensor	
E_TMOT	Input, coolant temperature sensor	
E_WSG	Input, fuel filter water level sensor	
F	Driver	
FMEA	Failure mode and effect analysis	
FSB	Parking brake	
FT	Driver door	
FTA	Failure tree analysis	
Fz	Vehicle	
GAL	Speed-dependent volume control	
Gnd. RF-Ant.	Ground, radio frequency antenne	
GPS-Ant.	Global positioning system antenna	
GS	Emergency tensioning retractor	
GSL	Seat belt buckle	



GSLBF +	Front passenger seat belt buckle, positive	
GSLFA+	Driver seat belt buckle, positive	
GUSFO li. -	Left rear emergency tensioning retractor, negative	
GUSFO li.+	Left rear emergency tensioning retractor, positive	
GUSFO re. -	Right rear emergency tensioning retractor, negative	
GUSFO re.+	Right rear emergency tensioning retractor, positive	
HFE	Remote trunk lid release	
HFE-HS	Switch on rear lock for remote trunk lid release	
HFE-IS	Interior switch for remote trunk lid release	
HHS	Heated rear window	
HL AV	Left rear pressure reduction solenoid valve	
HL EV	Left rear pressure hold solenoid valve	
HR AV	Right rear pressure reduction solenoid valve	
HR EV	Right rear pressure hold solenoid valve	
IP1S	Actual value potentiometer 1	
IP2S	Actual value potentiometer 2	
IPA	Drive actual value potentiometer	
IPDK	Throttle valve actual value potentiometer	
IRS1	Signal, interior protection sensor, front	
IS	Interior safety switch	
KDS	Kickdown switch position	
L/R	Left/right	
Lsp. hi.li. +	Left rear speaker, positive	
Lsp. hi.li. -	Left rear speaker, negative	
Lsp. hi.re. +	Right rear speaker, positive	
Lsp. hi.re. -	Right rear speaker, negative	
L_GAL	Speed-dependent volume control	
L_MIC	Microphone for speed-dependent volume control	
M SENS	Ground, sensor	
M-C-KS	Ground - knock sensor	

M-C-KWDGB	Ground - crankshaft sensor	
M-R-LSVK	Ground - oxygen sensor	
MBBVVR	Ground, brake pad wear, right front	
MDFHL	Ground, vehicle speed sensor, rear left	
MDFHR	Ground, vehicle speed sensor, right rear	
MDFVL	Ground, vehicle speed sensor, left front	
MDFVR	Ground, vehicle rpm sensor, right front	
MH	Engine hood	
Mikr. -	Microphone negative	
Mikr.+	Microphone positive	
MKL	Multicontour backrest	
MMV	Solenoid valve	
MRS	Multiple restraint system	
MTSG	Motor - door control unit	
MV+	Solenoid valve positive	
M_AGR	Ground, exhaust gas recirculation positioner	
M_DPF	Ground, pressure differential sensor CAT (NAFTA)	
M_EDW	Ground, interior protection sensor, rear	
M_EKA	Ground, inlet port shutoff switchover valve	
M_HFM	Ground, mass air flow sensor hot film	
M_KW	Ground, crankshaft position sensor	
M_LDF	Ground, charge pressure sensor	
M_MOK	Ground, oil sensor (oil level, temperature and quality)	
M_NWDG	Ground, Hall sensor for camshaft	
M_P1	Ground, pressure sensor, downstream from air filter	
M_PWG1	Ground, pedal value sensor	
M_PWG2	Ground, pedal value sensor	
M_RDS	Ground, rail pressure sensor	
M_TANS	Ground, charge air temperature sensor	
M_TKS	Ground, fuel temperature sensor	

M_TMOT	Ground, coolant temperature sensor	
M_VDK	Ground, intake air throttle valve actuator	
M_WSG	Ground, fuel filter water level sensor	
N-R-NWHC	Ground - camshaft Hall sensor	
NAV MUTE	Navigation system muting	
NAV NF -	Navigation low frequency negative	
NF	Low frequency	
NF li	Low frequency, left	
NF re	Low frequency, right	
NOE	Emergency opening	
NSL -LL	Rear fog lamp - left-hand drive vehicle	
NSL -RL	Rear fog lamp - right-hand drive vehicle	
NV	Ancillary consumer (accessory)	
P1	Gearshift lever gear recognition	
P2	Selector lever gear recognition	
P3	Shift intention detection	
PIC	Peripheral integrated circuit (peripheral component with various functions)	
Poti (+)	Potentiometer (positive)	
Poti (-)	Potentiometer (negative)	
P <sub>u</sub>	Vacuum	
P <sub>ü</sub>	Overpressure	
RL	Backup lamp	
RT	Interior temperature	
RW	Residual heat utilization	
SAB	Sidebag	
SAL	Left sidebag	
SAR	Right sidebag	
SBE	Seat occupied recognition	
SEO	Selective unlocking	
SFS	Safingswitch, mechanical safety switch	

Sig.	Signal	
Sig. RF-Ant.	Signal, radio frequency antenna	
SL -1	Signal, level sensor, left rear	
SL -2	Signal, level sensor, left rear	
SL-GND	Ground, level sensor, left rear	
SL_Vcc	Voltage supply, level sensor, left rear	
SN	Lock switch	
SN-HD	Trunk lid lock switch (voltage-coded)	
SN1	Lock switch 1	
SN2	Lock switch 2	
SP1M	Set value potentiometer 1 ground	
SP1S	Set value potentiometer 1 signal	
SP2M	Set value potentiometer 2 ground	
SP2S	Set value potentiometer 2 signal	
SR-1	Signal, level sensor, right rear	
SR-2	Signal, level sensor, right rear	
SR-GND	Ground, level sensor, right rear	
SRU	Manifold vacuum assist	
SR_Vcc	Voltage supply, level sensor, right rear	
STÖ	Tappet switch (trunk lid)	
T-HS	Raise/lower level adjustment switch	
T-OFF	Level control lock-out switch	
TD	Tank lid	
Temp -	Temperature negative	
Temp+	Temperature positive	
TK	Door contact	
TKBFT	Door contact front passenger door	
TKFT	Door contact driver door	
TKHT	Door contact rear doors and tailgate	
U87	Voltage supply, circuit (terminal) 87	

UB	Voltage operation	
ÜKB	Excess force limiter	
UMRFP	Return flow pump monitor	
USP1	Voltage supply, set value potentiometer 1	
USP2	Voltage supply, set value potentiometer 2	
USV 1	Switchover solenoid valve 1	
USV 2	Switchover solenoid valve 2	
U_DPF	Voltage supply, pressure differential sensor CAT (NAFTA)	
U_DRV	Voltage supply, pressure regulator valve	
U_DRVa	Voltage supply, pressure regulator valve	
U_EDW	Voltage supply, interior protection sensor, rear	
U_HFMB	Voltage supply, mass air flow sensor hot film	
U_KEH	Voltage supply, vent line heater element	
U_LDF	Voltage supply, charge pressure sensor	
U_LDRb	Voltage supply, boost pressure control pressure transducer	
U_MOK	Voltage supply, oil sensor (oil level, temperature and quality)	
U_NWDG	Voltage supply, Hall sensor for camshaft	
U_P1	Voltage supply, pressure sensor, downstream from air filter	
U_PWG	Voltage supply, pedal value sensor	
U_RDS	Voltage supply, rail pressure sensor	
U_V2	Voltage supply, charge pressure sensor	
U_WSGb	Voltage supply, fuel filter water level sensor	
U_ZMEa	Voltage supply, grounded output	
U_ZMEb	Voltage supply, common rail high pressure pump	
V-AB	Air suspension compressor assembly valve	
V-QL	ELC [ENR] valve unit	
V-QR	ELC [ENR] valve unit	
VL AV	Left front pressure reduction solenoid valve	
VLEV	Left front pressure hold solenoid valve	
vo.li. -	Left front negative	

vo.li. +	Left front positive	
vo.re. +	Right front positive	
vo.re. -	Right front negative	
VR AV	Right front pressure reduction solenoid valve	
VR EV	Right front pressure hold solenoid valve	
V_Signal_Eing.	Input, mirror taximeter vehicle speed signal	
WALA	See WL	
WL (SRS)	Warning lamp (supplemental restraint system)	
ZA	State display	
ZA-LED	State displays - light emitting diode	
ZK	Ignition circuit(s)	
Zp. AB, BF-	Front passenger airbag squib, negative	
Zp. AB, BF+	Front passenger airbag squib, positive	
Zp. AB, FA-	Driver airbag squib, negative	
Zp. AB, FA+	Driver airbag squib, positive	
Zp. GS, BF -	Front passenger ETR [GUS] squib, negative	
Zp. GS, BF+	Front passenger ETR [GUS] squib, positive	
Zp. GS, FA -	Driver ETR [GUS] squib, negative	
Zp. GS, FA+	Driver ETR [GUS] squib, positive	
Zp. SB,li. -	Left sidebag squib, negative	
Zp. SB,li.+	Left sidebag squib, positive	
Zp. SB,re. -	Right sidebag squib, negative	
Zp. SB,re.+	Right sidebag squib, positive	

# Location and assignment of ground points

## Chapter 3

**MODEL 639.601 /603 /605 /701 /703 /705 /711 /713 /811 /813 /815**

W10	Ground (battery)		GF00.19-S-2000-04VB
W10/4	Ground (additional battery)		GF00.19-S-2000-05VB
W12	Ground (cockpit and center console)		GF00.19-S-2000-26VB
W2	Ground (right front lamp unit)		GF00.19-S-2000-02VB
W2/1	Ground (right front ABS)		GF00.19-S-2000-02VB
W26	Ground (restraint systems control unit)		GF00.19-S-2000-26VB
W29/8	Ground (left D-pillar)		GF00.19-S-2000-21VB
W29/9	Ground (right D-pillar)		GF00.19-S-2000-21VB
W33/4	Ground (tank filler neck)		GF00.19-S-2000-25VB
W38	Ground (roof)		GF00.19-S-2000-24VB
W43/1	Ground (left interior compartment firewall)		GF00.19-S-2000-30VB
W43/2	Ground (right interior compartment firewall)		GF00.19-S-2000-34VB
W9	Ground (left front lamp unit)		GF00.19-S-2000-01VB
W9/3	Ground (left front ABS)		GF00.19-S-2000-01VB
GF00.19-S-2000-01VB	Arrangement and assignment of ground points, engine compartment, left		GF00.19-S-2000-01VB
GF00.19-S-2000-02VB	Location and assignment of ground points, engine compartment, right		GF00.19-S-2000-02VB
GF00.19-S-2000-04VB	Arrangement and assignment of ground points - interior left		GF00.19-S-2000-04VB
GF00.19-S-2000-05VB	Location and assignment of ground points, interior compartment, right		GF00.19-S-2000-05VB
GF00.19-S-2000-21VB	Location and assignment of ground points - rear-end		GF00.19-S-2000-21VB





N01.00-2433-06

Ground point	Designation	Component	Designation	Con- nector. Pin

<b>W9</b>	<b>Ground (left front lamp unit)</b>	→ E1	Lamp unit, left front	3
		→ E1	Lamp unit, left front	4
		→ E1	Lamp unit, left front	8
		→ E22/1	Additional turn signal lamp, left	2
		→ K40/9	Fuse and relay block	MK2.7
		→ M5/1	Windshield washer fluid pump	2
		→ M5/2	HCS [SRA] pump	2
		→ M5/3	Rear window washer fluid pump	2
		→ M5/31	Rear window washer fluid pump with headlamp cleaning system	2
		→ M6/1	Windshield wiper motor	4
		→ N3/9	CDI control unit	2.2
		→ N3/9	CDI control unit	2.4
		→ N3/9	CDI control unit	2.6
		→ N3/10	ME control unit	5.5
		→ N3/10	ME control unit	5.6
		→ N3/10	ME control unit	5.7
		→ N3/10	ME control unit	5.8
		→ N3/20	CDI control unit	2.2
		→ N3/20	CDI control unit	2.4
		→ N3/20	CDI control unit	2.6
		→ N14/2	Glow output stage	2.1
		→ S11	Brake fluid indicator switch	1
		→ S62/5	Emergency alarm system cancel button	3
		→ X15	Engine fan 100 °C temperature switch connector	2
		→ X25/14	O2 sensor/exhaust gas temperature sensor connector	11
		→ Y19/2k1	Water valve relay	9
<b>W9/3</b>	<b>Ground (left front ABS)</b>	→ N30/4	ESP control unit	A. 1
		→ N30/4	ESP control unit	A. 5



N62.20-2030-06

Ground point	Designation	Component	Designation	Con- nector. Pin

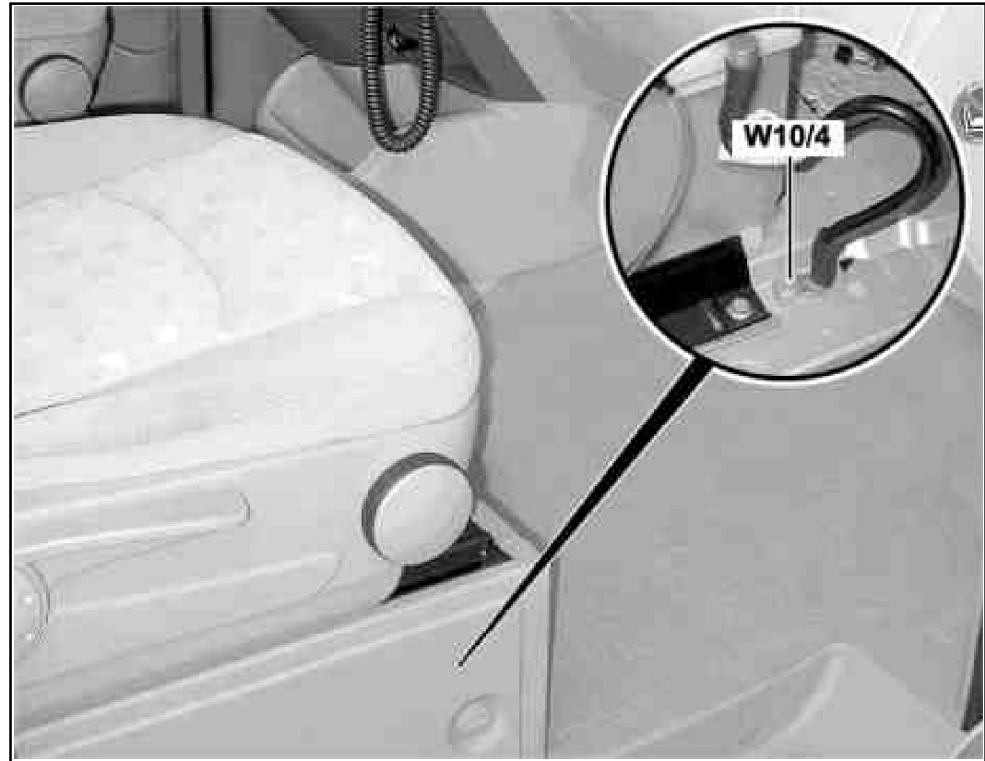
<b>W2</b>	<b>Ground (right front lamp unit)</b>	→ M13/5	Heating water circulation pump	1
		→ E2	Lamp unit, right front	3
		→ E2	Lamp unit, right front	4
		→ E2	Lamp unit, right front	8
		→ E22/2	Additional turn signal lamp, right	2
		→ H1	Audible warning device	A
		→ H3/1	Alarm signal horn with additional battery	2
		→ K2	Headlamp cleaning system relay	4
		→ K40/9	Fuse and relay block	MK2.7
		→ M5/1	Windshield washer fluid pump	2
		→ M5/2	HCS [SRA] pump	2
		→ M5/3	Rear window washer fluid pump	2
		→ M5/31	Rear window washer fluid pump with headlamp cleaning system	2
		→ N14/2	Glow output stage	2.1
		→ N3/9	CDI control unit	2.2
		→ N3/9	CDI control unit	2.4
		→ N3/9	CDI control unit	2.6
		→ N3/10	ME control unit	5.5
		→ N3/10	ME control unit	5.6
		→ N3/10	ME control unit	5.7
		→ N3/10	ME control unit	5.8
		→ N3/20	CDI control unit	2.2
		→ N3/20	CDI control unit	2.4
		→ N3/20	CDI control unit	2.6
		→ S11	Brake fluid indicator switch	1
		→ X25/14	O2 sensor/exhaust gas temperature sensor connector	11
		→ X42/30	ATA [EDW] separation point, engine hood contact	2
<b>W2/1</b>	<b>Ground (right front ABS)</b>	→ N30/4	ESP control unit	A. 1
		→ N30/4	ESP control unit	A. 5



N91.10-2171-11

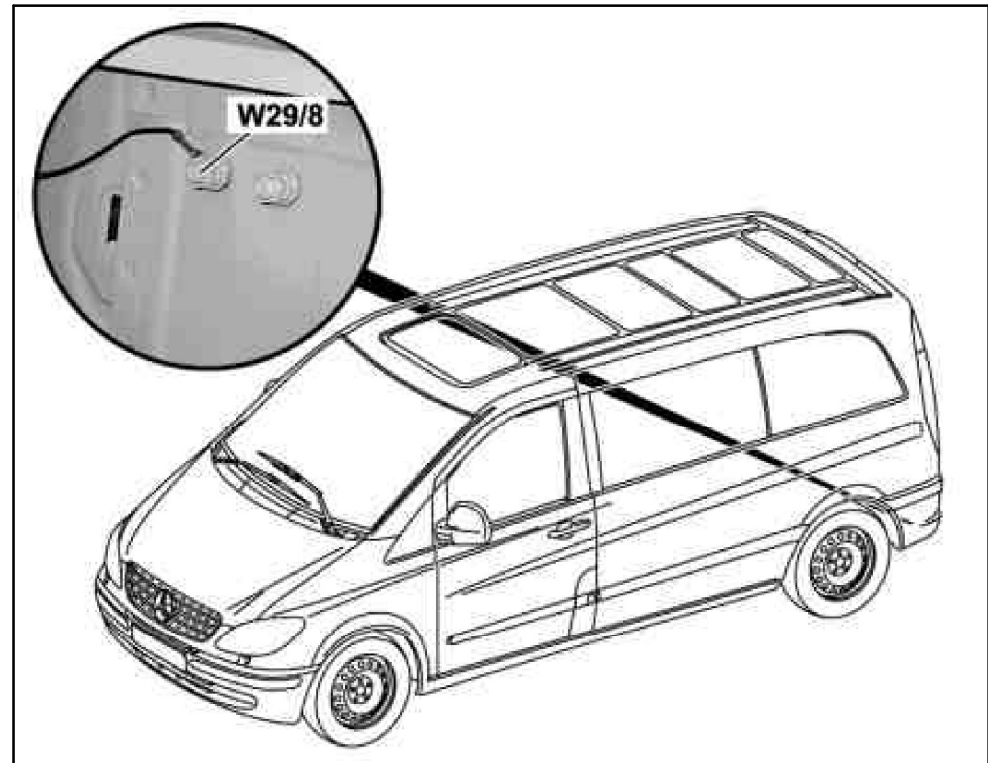
Ground point	Designation	Component	Designation	Con- nector. Pin
W10	Ground (battery)	→ G1	Battery	2

GF00.19-S-2000-05VB	Location and assignment of ground points, interior compartment, right	Type 639	
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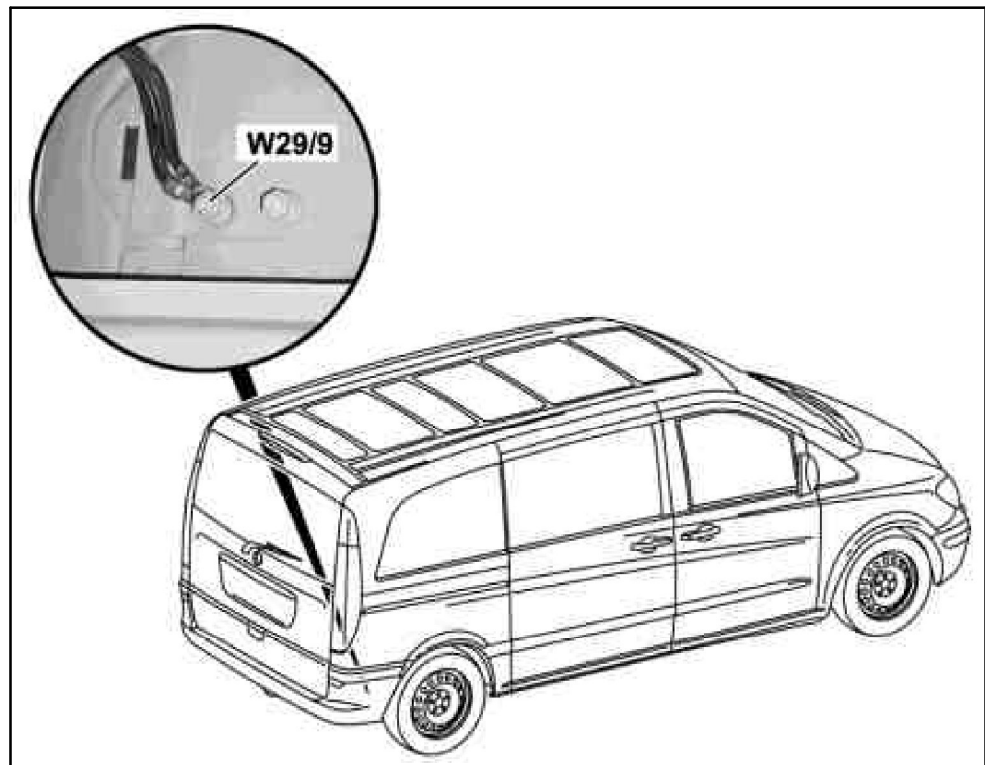


N91.10-2170-11

Ground point	Designation	Component	Designation	Con- nector. Pin
W10/4	Ground (additional battery)	→ G1/1	Additional battery	2



N64.20-2014-11



N64.20-2015-11

Ground point	Designation	Component	Designation	Connector. Pin



<b>W29/8</b>	<b>Ground (left D-pillar)</b>	→ E3	Taillamp, left	3
		→ E22/3	Additional turn signal lamp, left rear	
		→ N19/3	Rear AC control unit FONDKLA	A. 4
		→ N125	Telephone high frequency compensator	1.2
		→ S81/1	Rear heater operating switch	A. 4
		→ X8/22	Left rear-end door connector	8
		→ X8/23	Left rear-end door connector	1
		→ X8/23	Left rear-end door connector	5
		→ X52/5	Left taillamp connector	3
		→ X58/4	Load compartment socket, left front	1
		→ X96/5	Rear recirculation unit connector 3	
		→ Y67	Refrigerant shutoff valve	1
		<b>W29/9</b>	<b>Ground (right D-pillar)</b>	→ A9/1
		→ E4	Taillamp, right	3
		→ E22/4	Additional turn signal lamp, right rear	
		→ H3/4	Backup warning horn	2
		→ N9/1	Additional turn signal module control unit	17
		→ N28/1	Trailer connection unit [AAG] control unit	1.3
		→ N28/1	Trailer connection unit [AAG] control unit	2.2
		→ N51/3	ENR control unit	1.6
		→ S77	Raise/lower level adjustment switch	10
		→ S77/1	Level control lock-out switch	10
		→ X8/20	Right rear-end door connector	6
		→ X8/20	Right rear-end door connector	8
		→ X8/21	Tailgate connector	1
		→ X8/21	Tailgate connector	5
		→ X8/24	Pop-up roof connector (Westfalia)	8
		→ X11/35	Air suspension compressor assembly connector	1
		→ X20/11	Center high-mounted stop lamp connector, rear-end door	2
		→ X52/6	Right taillamp connector	3
		→ X58	Trailer hitch socket (13-pin)	3
		→ X58	Trailer hitch socket (13-pin)	13
		→ X58/12	Load compartment socket, right rear	1



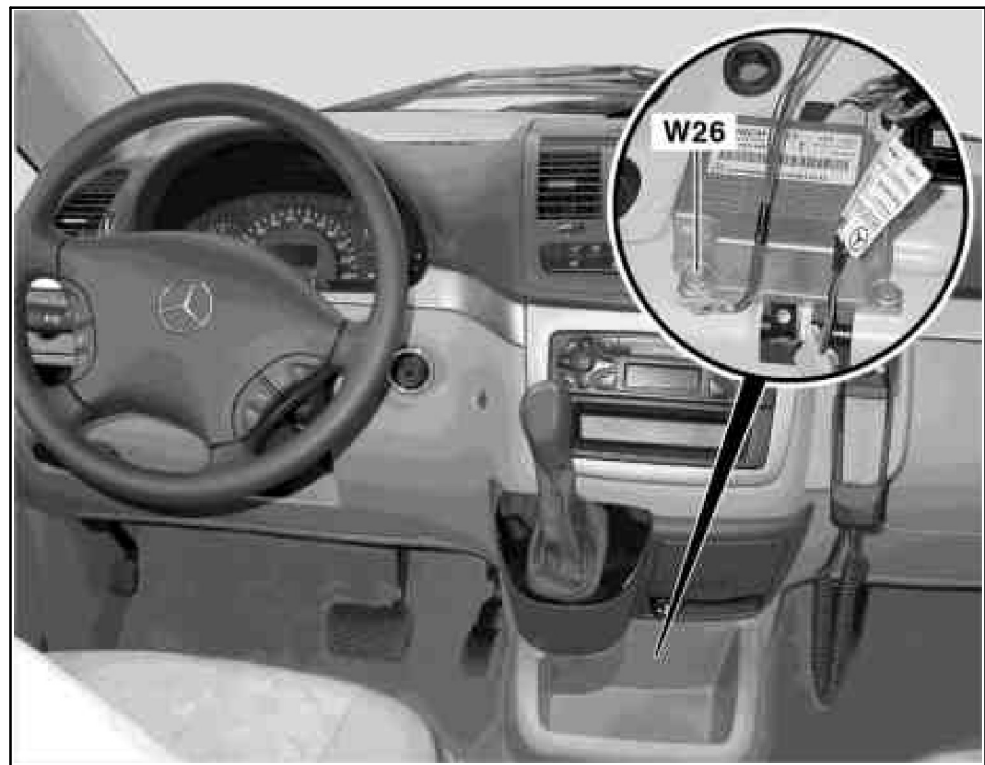
N65.00-2028-11

Ground point	Designation	Component	Designation	Con- nector. Pin
W38	Ground (roof)	→ A50	Taximeter	8
		→ E15	Dome lamp with reading lamp, front	1
		→ E15/6	Interior lamp, left front grab handle	A
		→ E15/7	Interior lamp, right front grab handle	A
		→ E15/8	Interior lamp, left rear grab handle	A
		→ E15/9	Interior lamp, right rear grab handle	A
		→ E25/7	Transistor lamp, left	2
		→ E25/8	Transistor lamp, right	2

	→ N70	Overhead control panel control unit	1.2
	→ N70/1	Rear sliding roof unit control unit (SDE-H)	1.2
	→ S62/6	Emergency alarm system activate button	2
	→ S138/1	Left sun visor illumination switch	2
	→ S138/2	Right sun visor illumination switch	2
	→ X2/17	Antenna amplifier voltage supply connector	1
	→ X2/79	TV antenna selector connector	1
	→ X2/97	TV double amplifier 1 connector	1
	→ X2/98	TV double amplifier 2 connector	1
	→ X8/25	Sliding roof in pop-up roof separation point (Westfalia)	2
	→ X29/17	MQS coupling (10-pin)	8
	→ X41/6	Mirror taximeter separation point	2
	→ Z20/62	Screening end connector sleeve	
	→ Z83/15	Shielding connector sleeve	



N68.20-2061-11

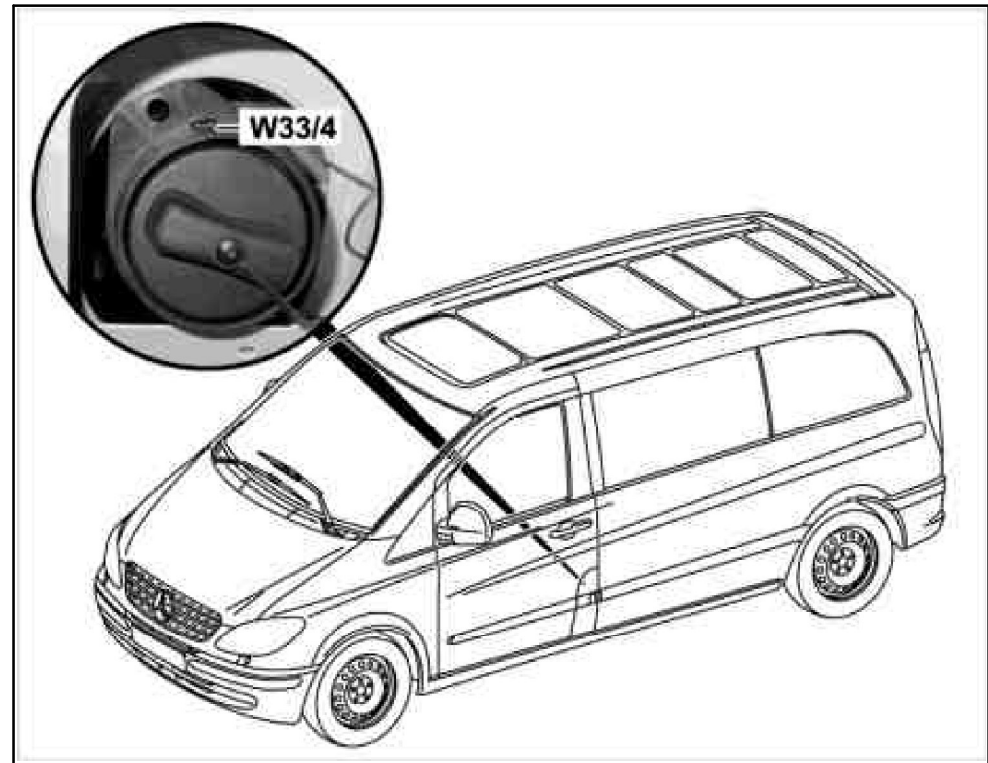


N68.20-2062-11

Ground point	Designation	Component	Designation	Con- nector. Pin

<b>W12</b>	<b>Ground (cockpit and center console)</b>	→ A1	Instrument cluster	8
		→ A1	Instrument cluster	12
		→ A2/77	Telephone and communication unit	j8.12
		→ A2/77	Telephone and communication unit	j8.13
		→ A2/78	Audio-Video-Navigation (AVN)	AB. A8
		→ A35/11	SBS control unit	1.3
		→ A35/13	D2B telephone transmitter/receiver	1.3
		→ A45/1	Steering wheel clock spring contact	9
		→ A49	Taxi two-way radio	1.8
		→ A49/4	STH radio receiver	6
		→ A56	Modular tachograph	A. 5
		→ E9/7	Illumination, front ashtray	1
		→ E13/1	Glove compartment light	1
		→ K23/1	Blower motor relay	6
		→ N15/5	Electronic selector lever module control unit	1.2
		→ N26/5	Electric steering lock control unit	3
		→ N33/4	Heater booster control unit	PTCA
		→ N66/4	Rear conversation unit control unit	1.1
		→ N72/1	Upper control panel control unit	1.1
		→ N73	EIS [EZS] control unit	B. 2
		→ N123	Hands-free system control unit	1.1
		→ R3	Front cigar lighter (with illumination)	1
		→ S13/3	Taxi two-way radio/roof sign switch	10
		→ S16/2	Backup lamp switch	1
		→ S46/10	Stationary heater switch	10
		→ S66/4	Rear entertainment system switch	10
		→ S98	Air conditioning operating module	B. 12
		→ S144	Combination switch	4
		→ X11	Data link connector	4
		→ X11	Data link connector	5
		→ X11/32	Connector between selector lever module and data link connector	2
		→ X31/12	Blower connector, terminal 31	MK2.7
<b>W26</b>	<b>Ground (restraint systems control unit)</b>	→ A53	Thoraxbag and windowbag sensor, left	1

	→	A54	Thoraxbag and windowbag sensor, right	1
	→	N2/2	SRS control unit	1.83
	→	N2/2	SRS control unit	1.84
	→	N2/10	SRS control unit	1.83
	→	N2/10	SRS control unit	1.84
	→	N2/11	ARCADE airbag control unit	1.15
	→	N2/11	ARCADE airbag control unit	1.16
	→	X28/18	Seat occupied recognition with ACSR [AKSE] connector	3
	→	X55/32	Switch connector, driver seat belt buckle	1
	→	X55/42	Switch connector, front passenger seat belt buckle	1



N63.00-2004-11

Ground point	Designation	Component	Designation	Con- nector. Pin
W33/4	Ground (tank filler neck)	→ W43/1	Ground (left interior compartment firewall)	

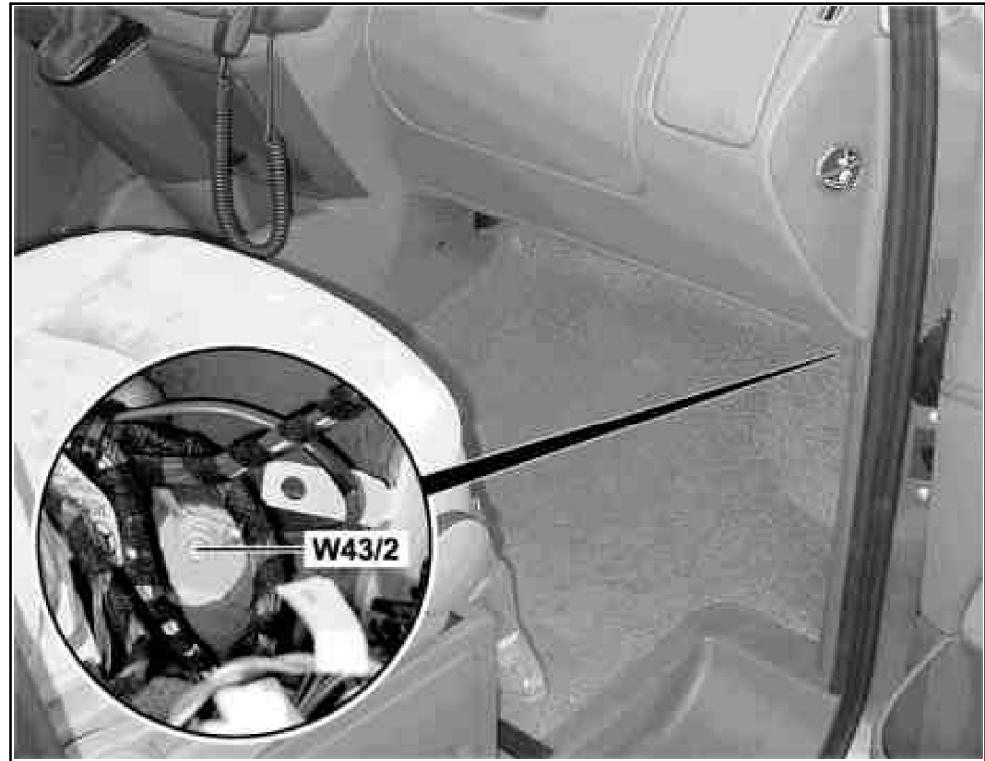




N62.25-2068-11

Ground point	Designation	Component	Designation	Con- nector. Pin
W43/1	Ground (left interior compartment firewall)	→ A6n1	STH control unit	1.2
		→ K40/9	Fuse and relay block	11.6
		→ M3/3	Fuel pump with fuel level sensor	4
		→ M28/11	Lumbar support adjustment motor, right	2
		→ M28/12	Lumbar support adjustment motor, left	2
		→ M46/1	STH fuel metering pump	2
		→ N10/16	COU [ZBE] control unit	1.8
		→ N10/16	COU [ZBE] control unit	1.25

	→	N32/1	Left front seat adjustment control unit with memory	2.2
	→	N32/2	Right front seat adjustment control unit with memory	2.2
	→	N33/5	Hot air stationary heater control unit	1.10
	→	N34	STH timer	1.4
	→	N69/1	Door control unit, left front	2.4
	→	S12	Parking brake indicator switch	1
	→	X54/29	Heated seats connector, left front	1
	→	X54/30	Heated seats connector, right front	1
	→	X58/1	Interior socket	1
	→	X58/17	12V socket	1



N62.25-2067-11

Ground point	Designation	Component	Designation	Con- nector. Pin
W43/2	Ground (right interior compartment firewall)	→ A6n1	STH control unit	1.2
		→ B37/3	Pedal value sensor	2.2
		→ K2	Headlamp cleaning system relay	4
		→ K40/9	Fuse and relay block	11.6
		→ M28/11	Lumbar support adjustment motor, right	2
		→ M28/12	Lumbar support adjustment motor, left	2
		→ N26/15	PSM control unit	2.3
		→ N32/1	Left front seat adjustment control unit with memory	2.2

	→	N32/2	Right front seat adjustment control unit with memory	2.2
	→	N62	PTS control unit	1.10
	→	N69/2	Door control unit, right front	2.4
	→	S12	Parking brake indicator switch	1
	→	S40/3	Clutch pedal switch	1
	→	X30/27	Engine CAN bus connector	1.3
	→	X54/29-2	Heated seats connector, left front	1
	→	X54/30-1	Heated seats connector, right front	1

# Location and assignment of plug connections

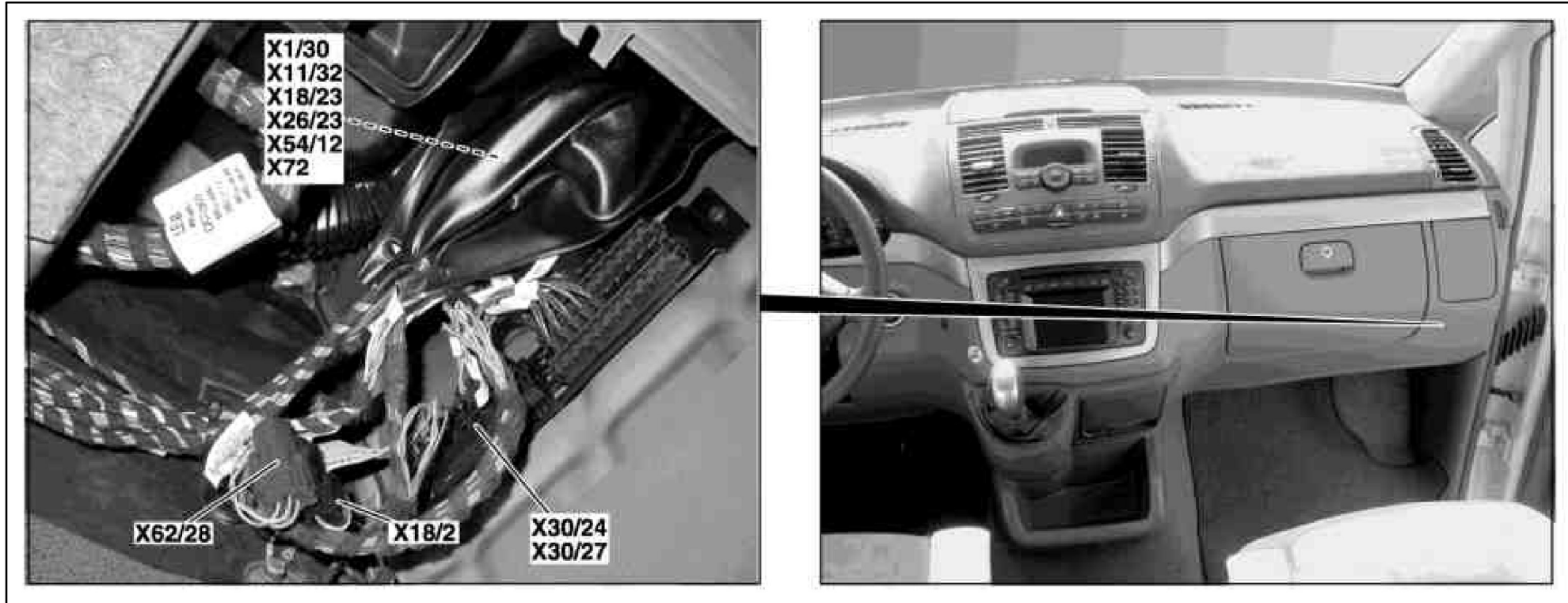
## Chapter 4

X1/30	Speaker connector		GF00.19-S-1000-05VB
X8/20	Right rear-end door connector		GF00.19-S-1000-20VB
X8/22	Left rear-end door connector		GF00.19-S-1000-20VB
X11/32	Connector between selector lever module and data link connector		GF00.19-S-1000-05VB
X15	Engine fan 100 °C temperature switch connector		GF00.19-S-1000-33VB
X18/2	Load compartment lamp connector		GF00.19-S-1000-05VB
X18/23	Telephone ON Telephone connector		GF00.19-S-1000-05VB
X26/23	Engine compartment to cockpit connector		GF00.19-S-1000-05VB
X28/23	Airbag connector, driver and front passenger		GF00.19-S-1000-28VB
X30/24	Interior CAN bus connector		GF00.19-S-1000-05VB
X30/27	Engine CAN bus connector		GF00.19-S-1000-05VB
X52	Trailer hitch connector		GF00.19-S-1000-20VB
X54/12	2-pin heated seats connector, left and right		GF00.19-S-1000-05VB
X62/6	Rpm sensor and brake wear sensor connector, right front		GF00.19-S-1000-33VB
X62/7	Rpm sensor and brake wear sensor connector, left front		GF00.19-S-1000-33VB
X62/8	Rpm sensor and brake wear sensor connector, left rear		GF00.19-S-1000-24VB
X62/21	ABS/ASR rpm signal connector, left rear		GF00.19-S-1000-24VB
X62/22	ABS/ASR rpm signal connector, right rear		GF00.19-S-1000-24VB
X62/28	Rpm sensor connector		GF00.19-S-1000-05VB
X62/39	BBV rear axle connector, left		GF00.19-S-1000-24VB
X62/40	BBV rear axle connector, right		GF00.19-S-1000-24VB
X72	STH connector		GF00.19-S-1000-05VB

GF00.19-S-1000-05VB

Location and assignment of line and plug connectors, interior compartment, right

Model 639



N68.10-2199-08

Code	Designation	Cable colors	Cable colors	Notes
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X1/30	Speaker connector	GY — 1    )— GY BNGY — 2    )— BNGY WH — 3    )— WH BNWH — 4    )— BNWH green — 5    )— gn BNGN — 6    )— BNGN BU — 7    )— BU BUBN — 8    )— BUBN	
X11/32	Connector between selector lever module and data link connector	PKYE — 1    )— PKYE bn — 2    )— bn	
X18/2	Load compartment lamp connector	RDWH — 1    )— RDWH RD — 2    )— RD	
X18/23	Telephone ON Telephone connector	YE — 1    )— YE	



X26/23	Engine compartment to cockpit connector	GNGY — 3    )— GNGY GNWH — 4    )— GNWH GNYE — 5    )— GNYE BNBU — 7    )— BNBU BURD — 8    )— BURD green — 9    )— GNWH BUVT — 10    )— BU BUWH — 11    )— BUWH BUGY — 12    )— BUGY YERD — 13    )— YERD YEW — 14    )— YEW RDBU — 15    )— RDBU GNYE — 16    )— GNYE BKGN — 17    )— BKGN BN — 18    )— BN RDGN — 19    )— RDGN BNGN — 20    )— BNGN BKBU — 21    )— BKBU	
X30/24	Interior CAN bus connector	— 1    )— BNRD — 2    )— BN	
X30/27	Engine CAN bus connector	— 1    )— GNWH — 2    )— GN — 3    )— BNYE	
X54/12	2-pin heated seats connector, left and right	BKVT — 1    )— BKVT BKGY — 2    )— BKGY	

X62/28	Rpm sensor connector	BUBN — 1    )— BUBN BU — 2    )— BU YE BN — 3    )— YE BN YE — 4    )— YE	
X72	STH connector	VTGN — 1    )— VTGN	
		VTBK — 2    )— VTBK VTYE — 3    )— VTYE OG — 4    )— OG YEGN — 5    )— YEGN BUGY — 6    )— BUGY	

GF00.19-S-1000-20VB	Location and assignment of line and plug connectors - rear	Model 639	
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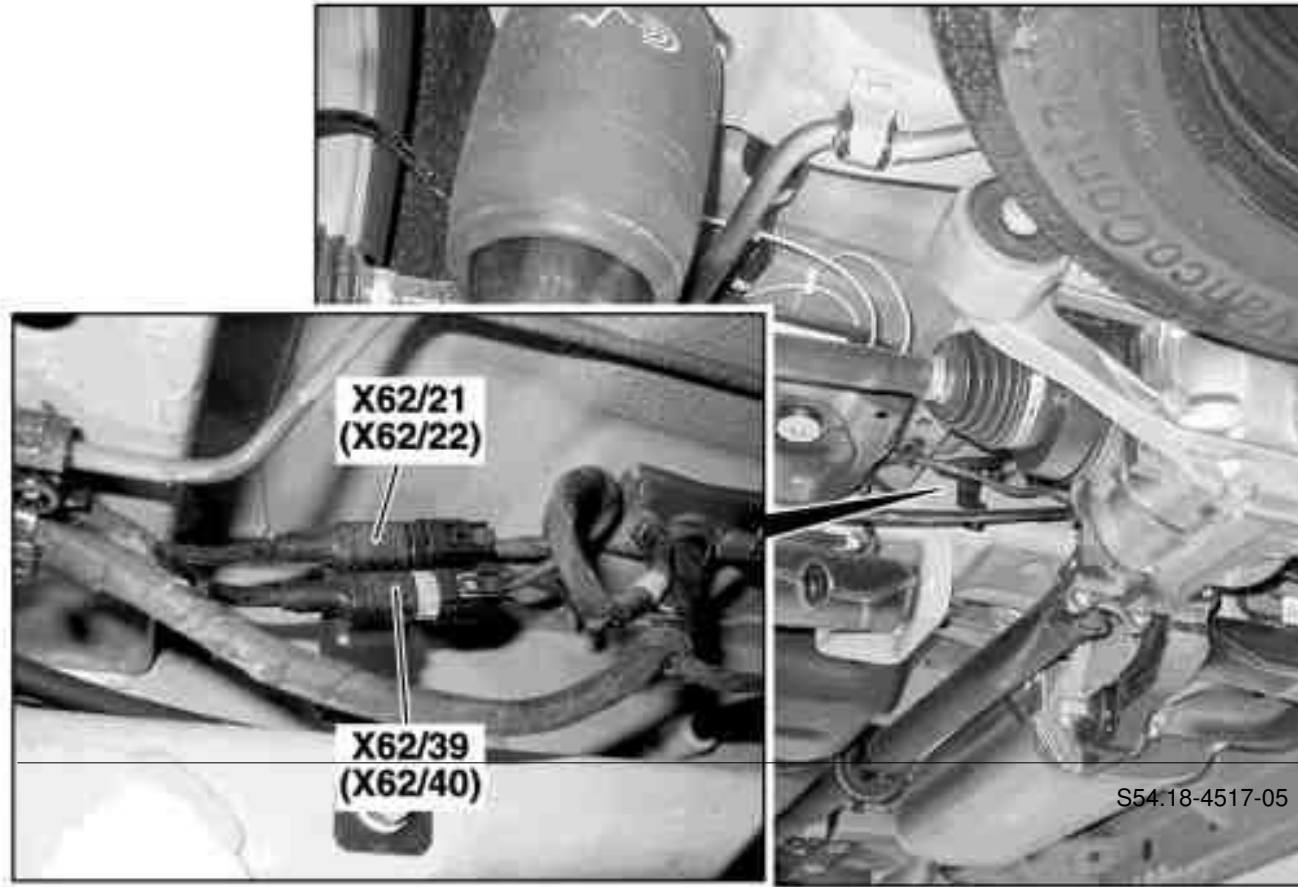
N68.30-2073-12

Code	Designation	Cable colors	Cable colors	Notes
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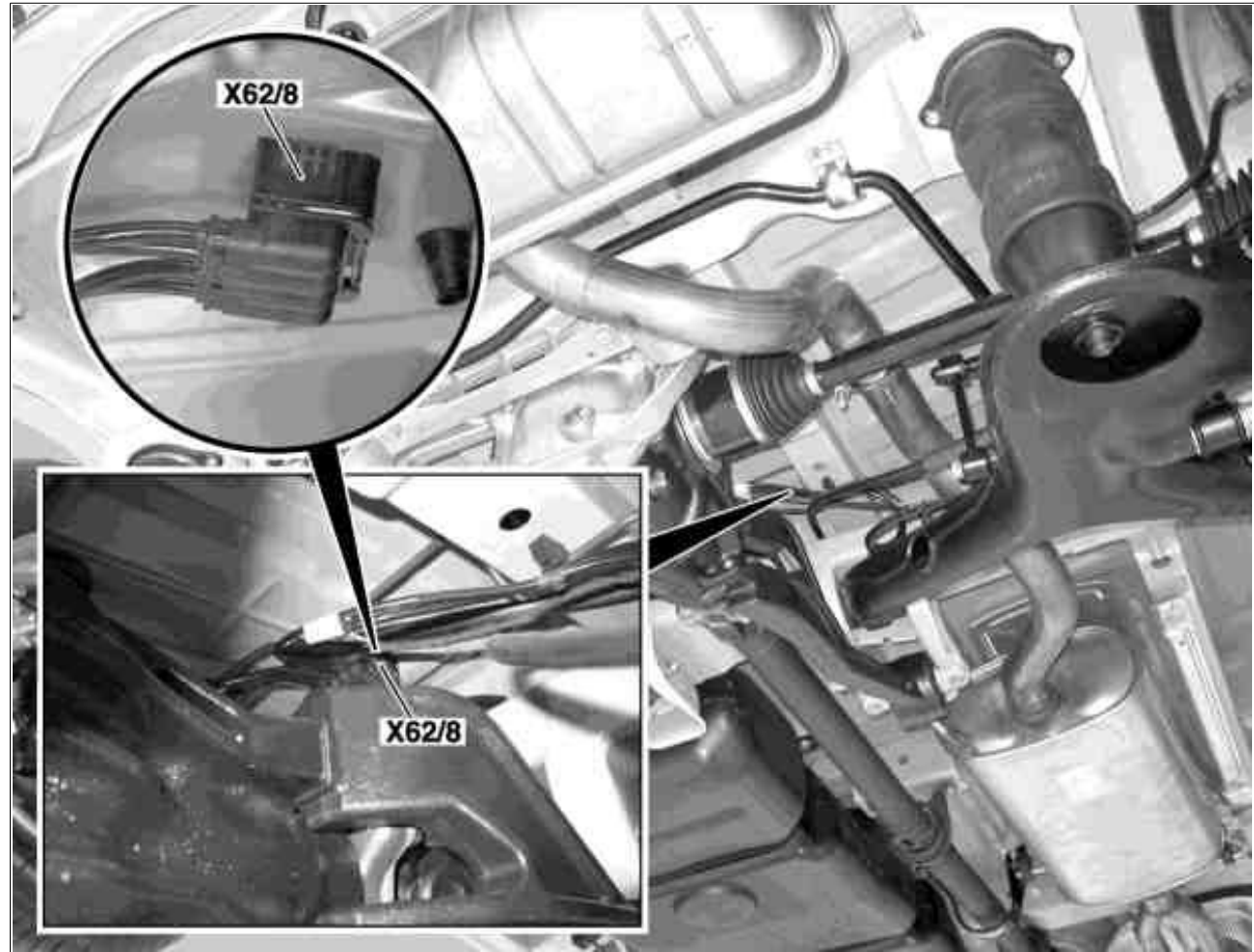
X8/20	Right rear-end door connector	<p>BURD — 1    ) BURD</p> <p>BUBK — 2    ) BUBK</p> <p>BUWH — 3    ) BUWH</p> <p>BUGN — 4    ) BUGN</p> <p>BKYE — 5    ) BKYE</p> <p>BN — 6    ) BN</p> <p>GYGN — 7    ) GYGN</p> <p>BN — 8    ) BN</p> <p>BUWH — 10    ) BUWH</p>	
X8/22	Left rear-end door connector	<p>GYGN — 7    ) GYGN</p> <p>BN — 8    ) BN</p> <p>BUGN — 9    ) BUGN</p> <p>BUWH — 10    ) BUWH</p>	
X52	Trailer hitch connector	<p>BKBN — 1    ) BKBN</p> <p>BKRD — 2    ) BKRD</p> <p>RDYE — 3    ) RDYE</p> <p>BNBU — 4    ) BNBU</p> <p>BN — 5    ) BN</p>	

GF00.19-S-1000-24VB	Location and assignment of line and plug connectors - underfloor	Model 639	
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Shown on left side of vehicle



Illustrated on right side of vehicle

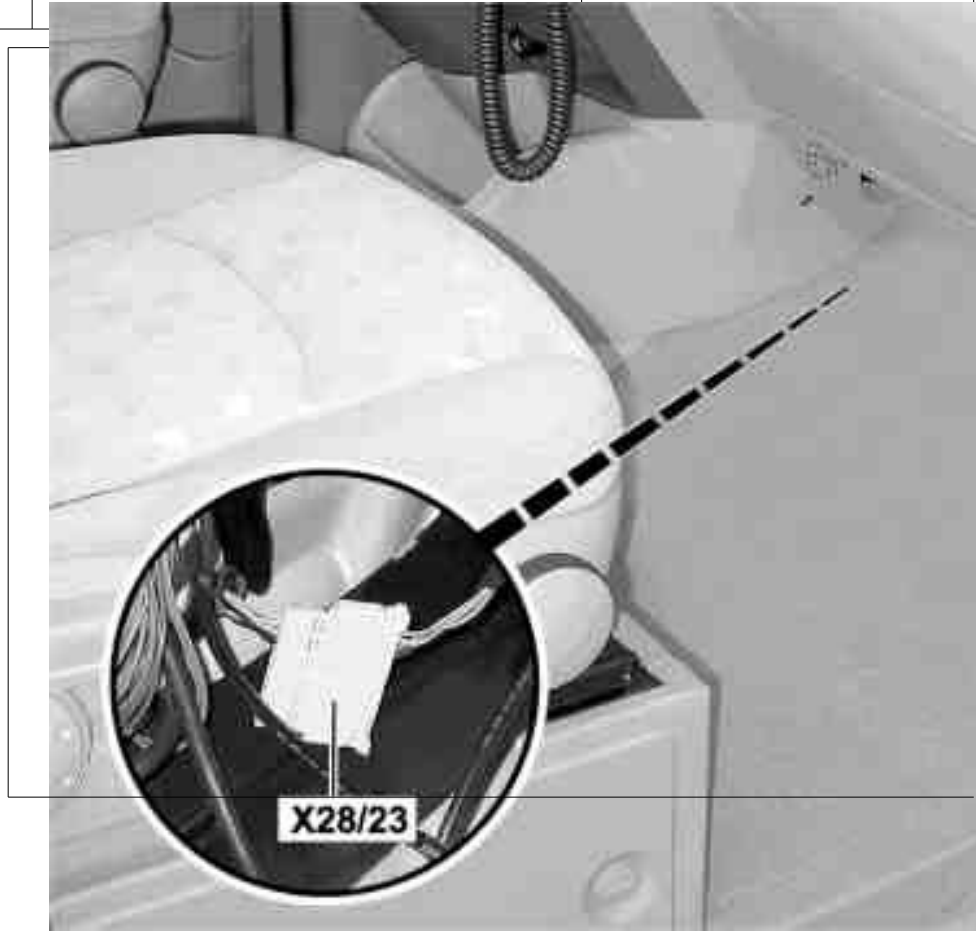


S35.00-4510-06

Code	Designation	Cable colors	Cable colors	Notes
X62/8	Rpm sensor and brake wear sensor connector, left rear	BK — 1 WH — 2 WH — 1	)—GNRD )—GNBN )—BU	

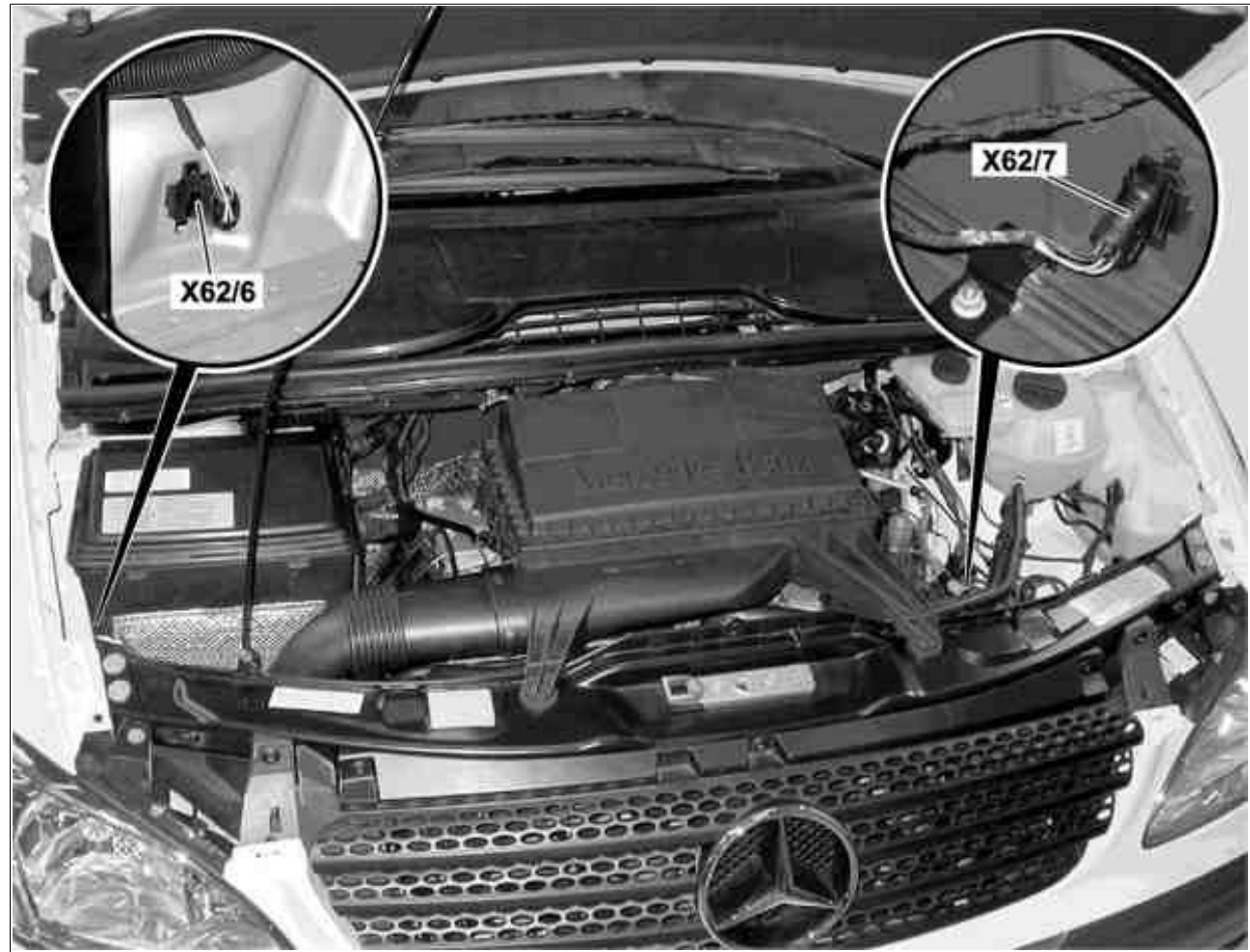
		BK — 2 ) BUBN WH — 1 ) YE BK — 2 ) YEBN BK — 1 ) green WH — 2 ) GNRD	
X62/21	ABS/ASR rpm signal connector, left rear	WH — 1 ) YE BK — 2 ) YEBN	
X62/22	ABS/ASR rpm signal connector, right rear	WH — 1 ) BU BK — 2 ) BUBN	
X62/39	BBV rear axle connector, left	BK — 1 ) GN WH — 2 ) GNRD	
X62/40	BBV rear axle connector, right	BK — 1 ) GNRD WH — 2 ) GNBN	

GF00.19-S-1000-28VB	Location and assignment of line and plug connectors - center console	Model 639	
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Code	Designation	Cable colors	Cable colors	Notes
X28/23	Airbag connector, driver and front passenger	VT — 1 GN — 2 BUGN — 3 BNBK — 4	)—VT )—GN )—BUGN )—BNBK	





N01.00-2432-06

Code	Designation	Cable colors	Cable colors	Notes
X15	Engine fan 100 °C temperature switch connector	RD — 1 BN — 2 BUVT — 3	⤴ RD ⤴ BN ⤴ BU	

		BUWH — 4 ) BUWH	
X62/6	Rpm sensor and brake wear sensor connector, right front	WH — 1 ) WH BK — 2 ) WHYE BK — 1 WH — 2 3 ) YEVT 4 ) VTGN	
X62/7	Rpm sensor and brake wear sensor connector, left front	WH — 1 ) BK BK — 2 ) BKYE BK — 1 WH — 2 3 ) VTWH 4 ) YEVT	

# Battery, starting charging circuit

## Chapter 5

PE15.00-S-2000VA	Wiring diagram for starter, alternator	25.3.03
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**ENGINES 646.982 /983, 112.951 /976, 642.990 up to 28.2.05 in MODELS 639.601 /603 /605 /701 /703 /705 up to 28.2.05**

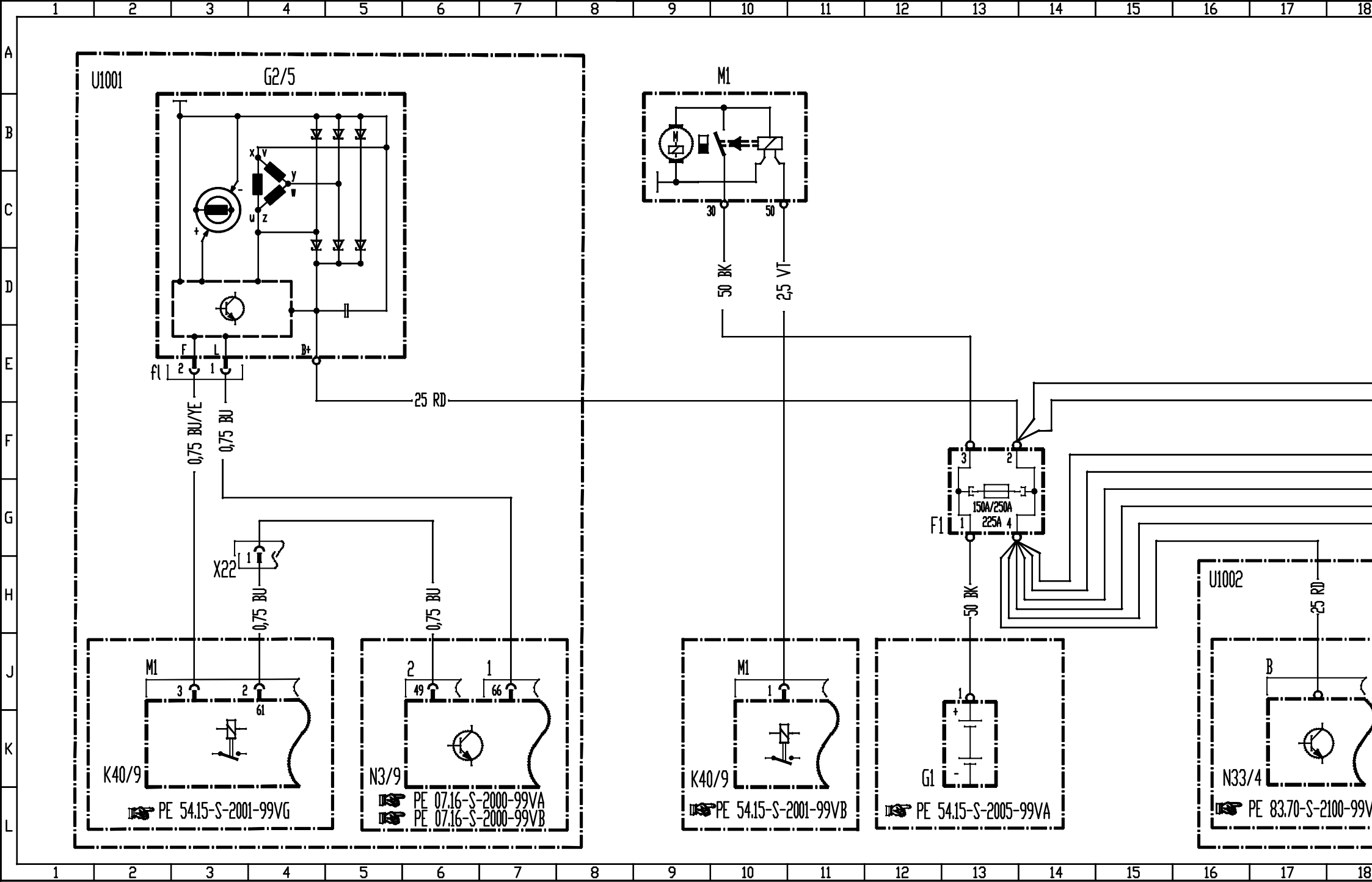
**ENGINES 646.982, 112.951 /976, 642.990 up to 28.2.05 in MODELS 639.711 /713 /811 /813 /815 up to 28.2.05**

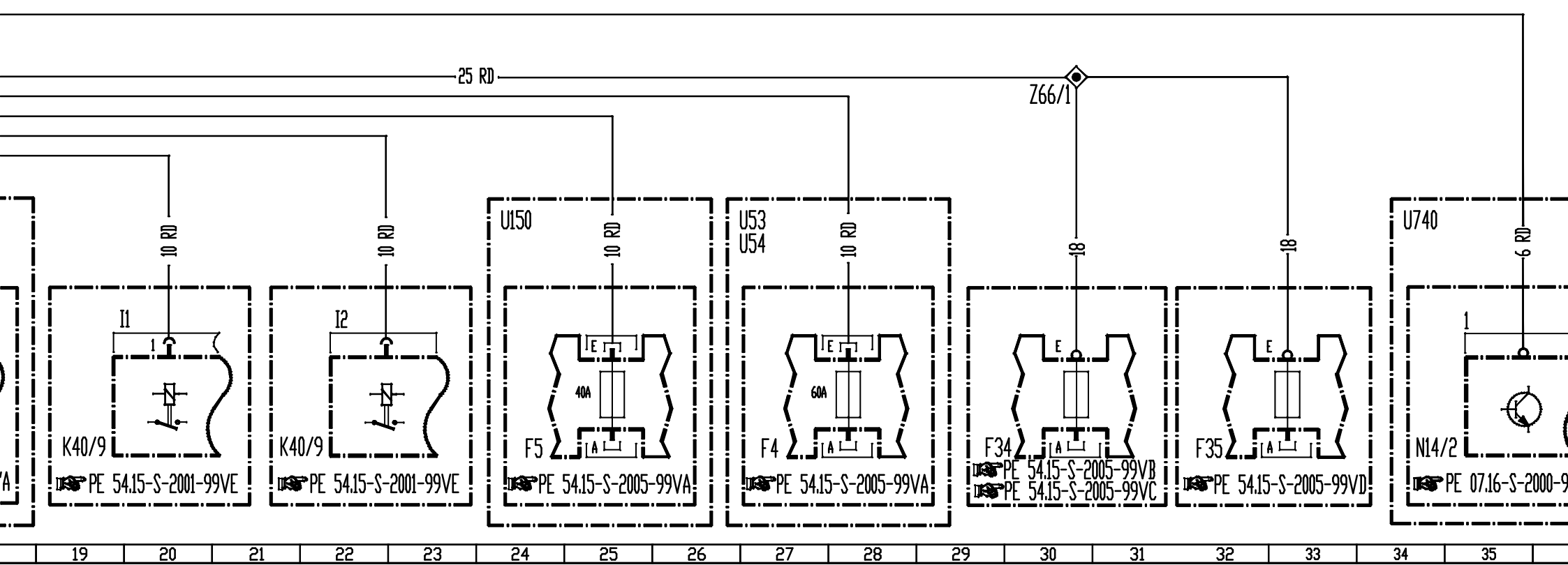
PE15.00-S-2000-99VA	Wiring diagram for starter, alternator		PE15.00-S-2000-99VA
PE15.00-S-2000-60VA	Legend of wiring diagram for starter, alternator		PE15.00-S-2000-60VA
OV00.01-S-1901-03VA	Use of wiring diagrams		OV00.01-S-1901-03VA
OV00.01-S-1901VA	Search aid for all wiring diagram groups		OV00.01-S-1901VA
OV00.01-S-1909VA	Search aid for all electrical components	Components from A to E	OV00.01-S-1909VA
OV00.01-S-1909VB	Search aid for all electrical components	Components from F to J	OV00.01-S-1909VB
OV00.01-S-1909VC	Search aid for all electrical components	Components from K to O	OV00.01-S-1909VC
OV00.01-S-1909VD	Search aid for all electrical components	Components from P to T	OV00.01-S-1909VD
OV00.01-S-1909VE	Search aid for all electrical components	Components from U to Z	OV00.01-S-1909VE
OV00.01-S-1001-27VA	Abbreviations for wiring diagrams		OV00.01-S-1001-27VA
OV00.01-S-1001-28VA	Abbreviations of signal and circuit designations for wiring diagrams		OV00.01-S-1001-28VA
GF00.19-S-1000VB	Location and assignment of line and plug connectors		GF00.19-S-1000VB
GF00.19-S-1100VB	Location and assignment of connectors and sockets		GF00.19-S-1100VB
GF00.19-S-2000VB	Location and assignment of ground points		GF00.19-S-2000VB
GF00.19-S-3000VB	Location and assignment of Z connector sleeves (line connectors in wiring harness)		GF00.19-S-3000VB
GF54.15-S-0900VA	Fuse and relay box - location/assignment		GF54.15-S-0900VA

PE15.00-S-2000-60VA	Legend of wiring diagram for starter, alternator	<p>ENGINES 646.982 /983, 112.951 /976, 642.990 up to 28.2.05 in MODELS 639.601 /603 /605/ 701 /703 /705 up to 28.2.05</p> <p>ENGINES 646.982, 112.951 /976, 642.990 up to 28.2.05 in MODELS 639.711 /713 /811/ 813 /815 up to 28.2.05</p>	
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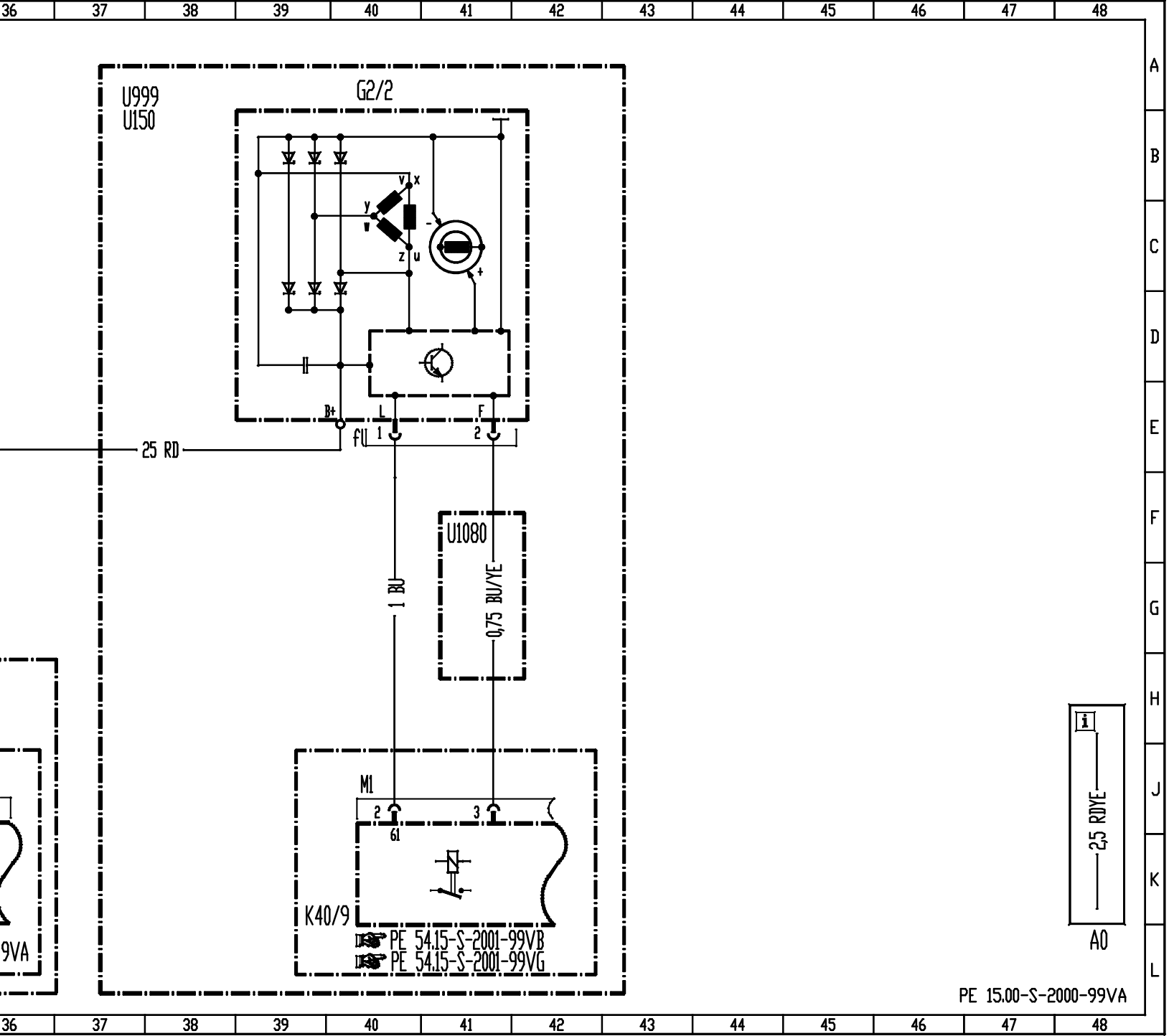
Code	Designation	Coordinates
A0	Color code key	48L
F1	1-pin prefuse box	12G
F4	Fuse box (1-pin)	27L
F5	Fuse box (1-pin)	24L
F34	Fuse block, 22-pin	29K
F35	Fuse block, 22-pin	32L
G1	Battery	12K
G2/2	Alternator	40A
G2/5	200 A Alternator	4A
K40/9	Fuse and relay block	2K 9K 19K 21K 39K
M1	Starter	10A
N3/9	CDI control unit	5K
N14/2	Glow output stage	34K
N33/4	Heater booster control unit	16K
U53	Valid for automatic air conditioning "Thermotronic"	26H
U54	Valid for regulated air conditioning "Tempmatic"	26H
U1001	Valid for engine OM 646 with automatic transmission	1A
U1002	Valid for PTC element	16H

U1080	Valid for alternator 14V / 200 A without automatic transmission	41F
U150	Valid for engine M 112	24H 37B
U740	Valid for engine OM 646	34H
U999	Valid for engine OM 646 without automatic transmission	37A
X22	Engine compartment and engine connector	3H
Z66/1	Additional fuse box feed connector sleeve	30F









A  
B  
C  
D  
E  
F  
G  
H  
J  
K  
L

<b>PE15.00-S-2000VB</b>	<b>Wiring diagram for starter, alternator</b>	<b>24.8.05</b>
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**ENGINES 646.982 /983, 112.951 /976, 642.990 as of 1.3.05 in MODELS 639.601 /603 /605 /701 /703 /705 as of 1.3.05**

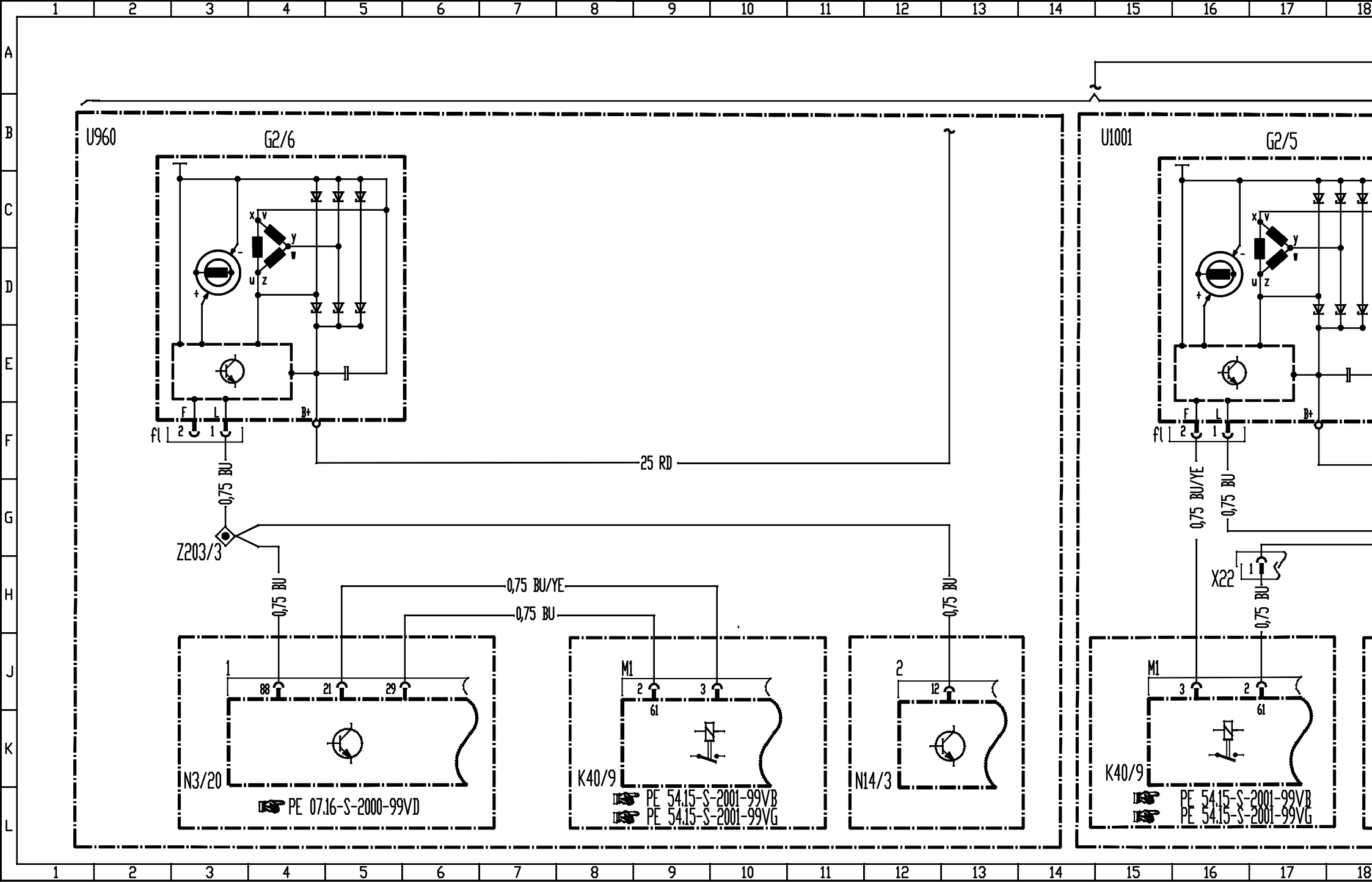
**ENGINES 646.982, 112.951 /976, 642.990 as of 1.3.05 in MODELS 639.711 /713 /811 /813 /815 as of 1.3.05**

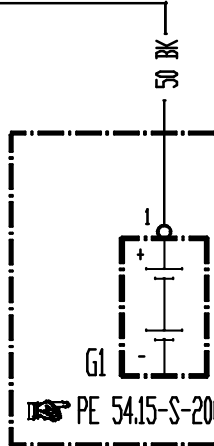
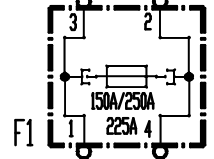
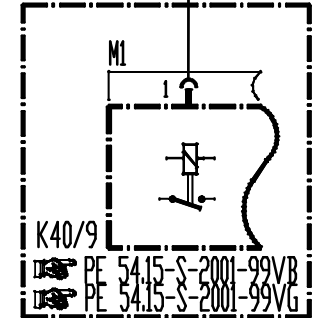
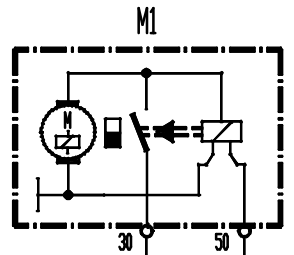
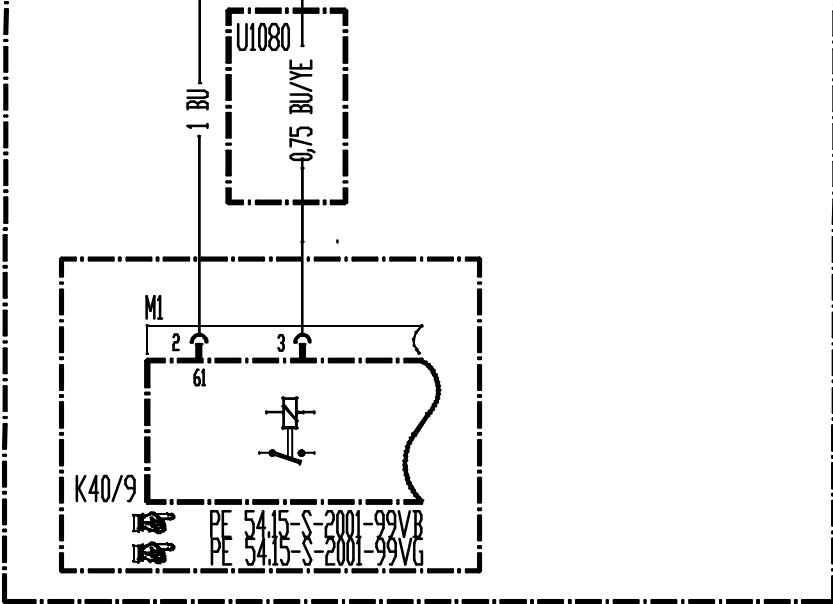
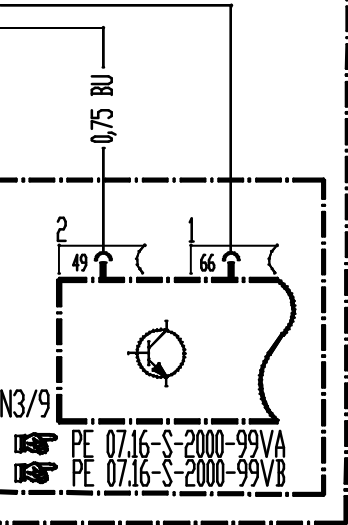
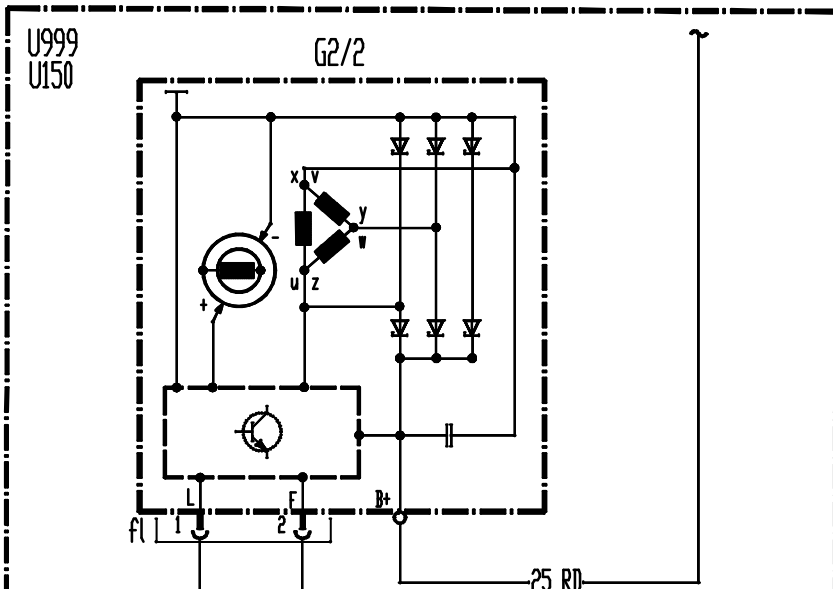
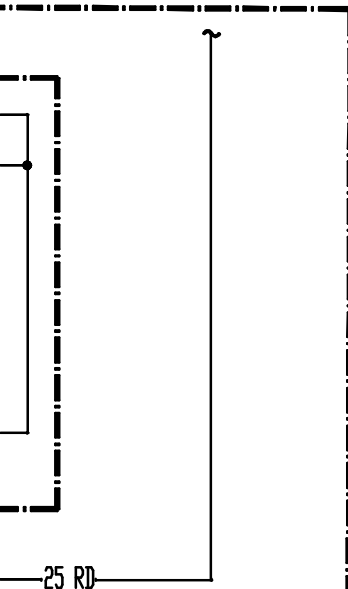
PE15.00-S-2000-99VB	Wiring diagram for starter, alternator		PE15.00-S-2000-99VB
PE15.00-S-2000-60VB	Legend of wiring diagram for starter, alternator		PE15.00-S-2000-60VB
OV00.01-S-1901-03VA	Use of wiring diagrams		OV00.01-S-1901-03VA
OV00.01-S-1901VA	Search aid for all wiring diagram groups		OV00.01-S-1901VA
OV00.01-S-1909VA	Search aid for all electrical components	Components from A to E	OV00.01-S-1909VA
OV00.01-S-1909VB	Search aid for all electrical components	Components from F to J	OV00.01-S-1909VB
OV00.01-S-1909VC	Search aid for all electrical components	Components from K to O	OV00.01-S-1909VC
OV00.01-S-1909VD	Search aid for all electrical components	Components from P to T	OV00.01-S-1909VD
OV00.01-S-1909VE	Search aid for all electrical components	Components from U to Z	OV00.01-S-1909VE
OV00.01-S-1001-27VA	Abbreviations for wiring diagrams		OV00.01-S-1001-27VA
OV00.01-S-1001-28VA	Abbreviations of signal and circuit designations for wiring diagrams		OV00.01-S-1001-28VA
GF00.19-S-1000VB	Location and assignment of line and plug connectors		GF00.19-S-1000VB
GF00.19-S-1100VB	Location and assignment of connectors and sockets		GF00.19-S-1100VB
GF00.19-S-2000VB	Location and assignment of ground points		GF00.19-S-2000VB
GF00.19-S-3000VB	Location and assignment of Z connector sleeves (line connectors in wiring harness)		GF00.19-S-3000VB
GF54.15-S-0900VA	Fuse and relay box - location/assignment		GF54.15-S-0900VA

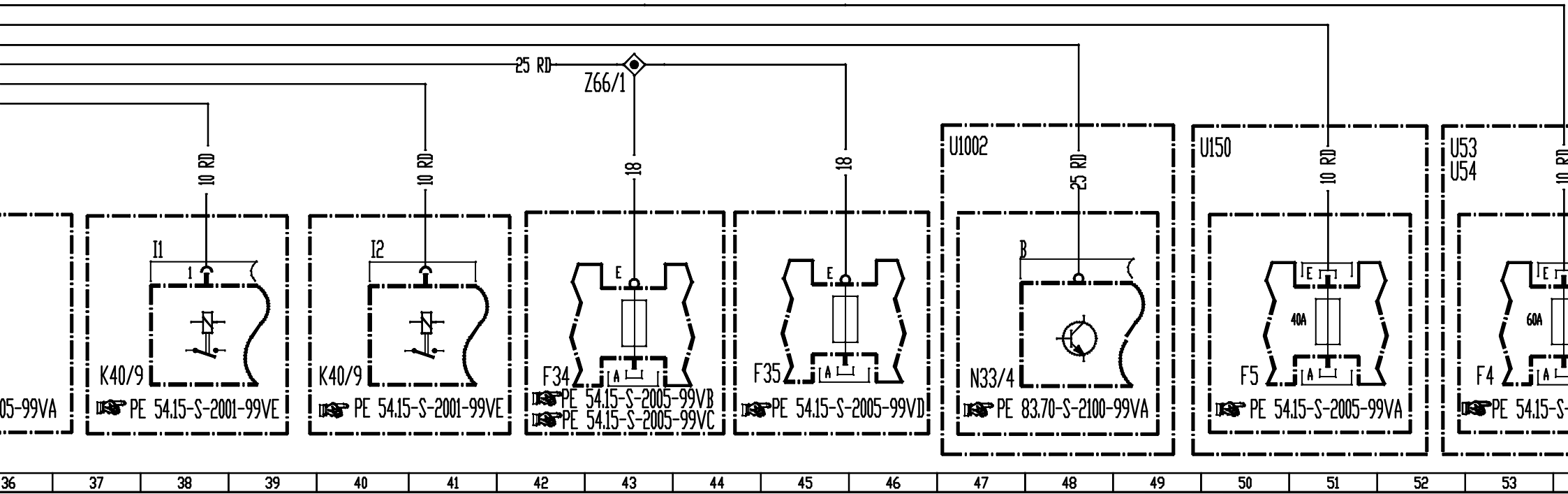
PE15.00-S-2000-60VB	Legend of wiring diagram for starter, alternator	<p>ENGINES 646.982 /983, 112.951 /976, 642.990 from 1.3.05 in MODELS 639.601 /603 /605/ 701 /703 /705 from 1.3.05</p> <p>ENGINES 646.982, 112.951 /976, 642.990 from 1.3.05 in MODELS 639.711 /713 /811/ 813 /815 from 1.3.05</p>	
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Code	Designation	Coordinates
A0	Color code key	64L
F1	1-pin prefuse box	31G
F4	Fuse box (1-pin)	53K
F5	Fuse box (1-pin)	50K
F34	Fuse block, 22-pin	42K
F35	Fuse block, 22-pin	44K
G1	Battery	35K
G2/2	Alternator	24B
G2/5	200 A Alternator	17B
G2/6	Alternator 200 A with LIN bus	4B
K40/9	Fuse and relay block	8K 15K 22K 29K 37K 40K
M1	Starter	29A
N3/9	CDI control unit	18K
N3/20	CDI control unit	3L
N14/2	Glow output stage	58K
N14/3	Glow output stage	11L 55K

N33/4	Heater booster control unit	47L
U53	Valid for automatic air conditioning "Thermotronic"	52H
U54	Valid for regulated air conditioning "Tempmatic"	52H
U1001	Valid for engine OM 646 with automatic transmission	15B
U1002	Valid for PTC element	47H
U1080	Valid for alternator 14V / 200 A without automatic transmission	23G
U150	Valid for engine M 112	21B 50H
U740	Valid for engine OM 646	58H
U960	Valid for engine OM 642	1B 55H
U999	Valid for engine OM 646 without automatic transmission	21B
X22	Engine compartment and engine connector	16H
Z66/1	Additional fuse box feed connector sleeve	43G
Z203/3	Alternator connector sleeve	3H

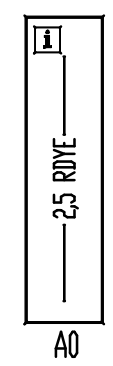
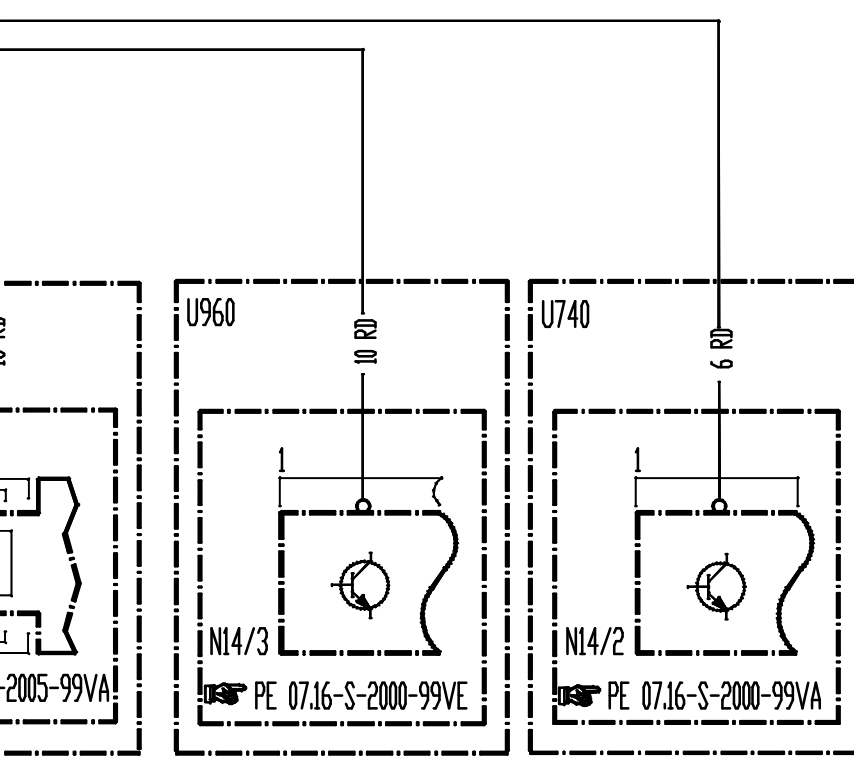






54 55 56 57 58 59 60 61 62 63 64

A  
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D  
E  
F  
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H  
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K  
L



PE 15.00-S-2000-99VB

54 55 56 57 58 59 60 61 62 63 64



# Voltage supply fuses

# Chapter 6

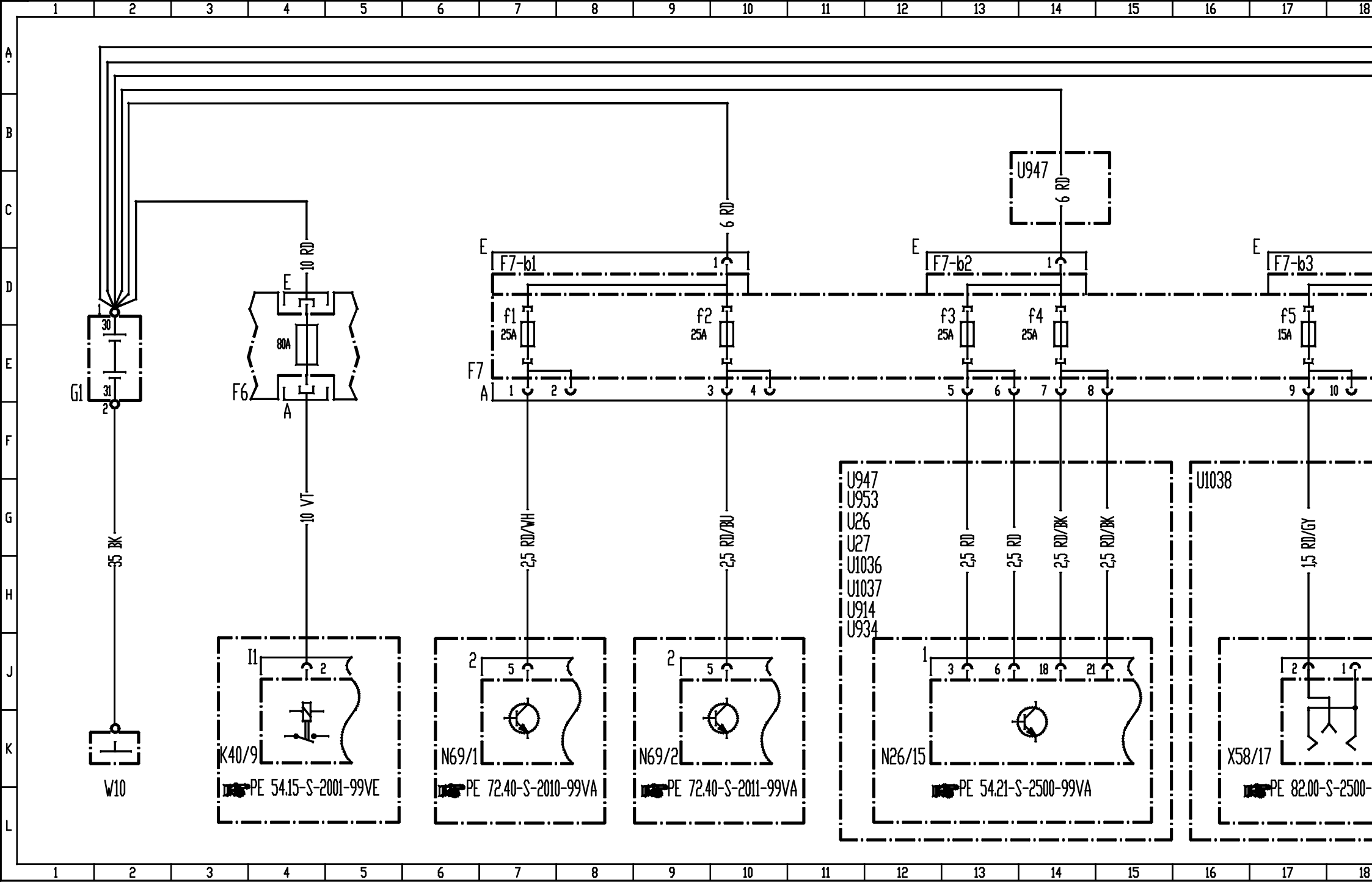
**MODEL 639.601 /603 /605 /701 /703 /705 /711 /713 /811 /813 /815**  
**left seat frame**

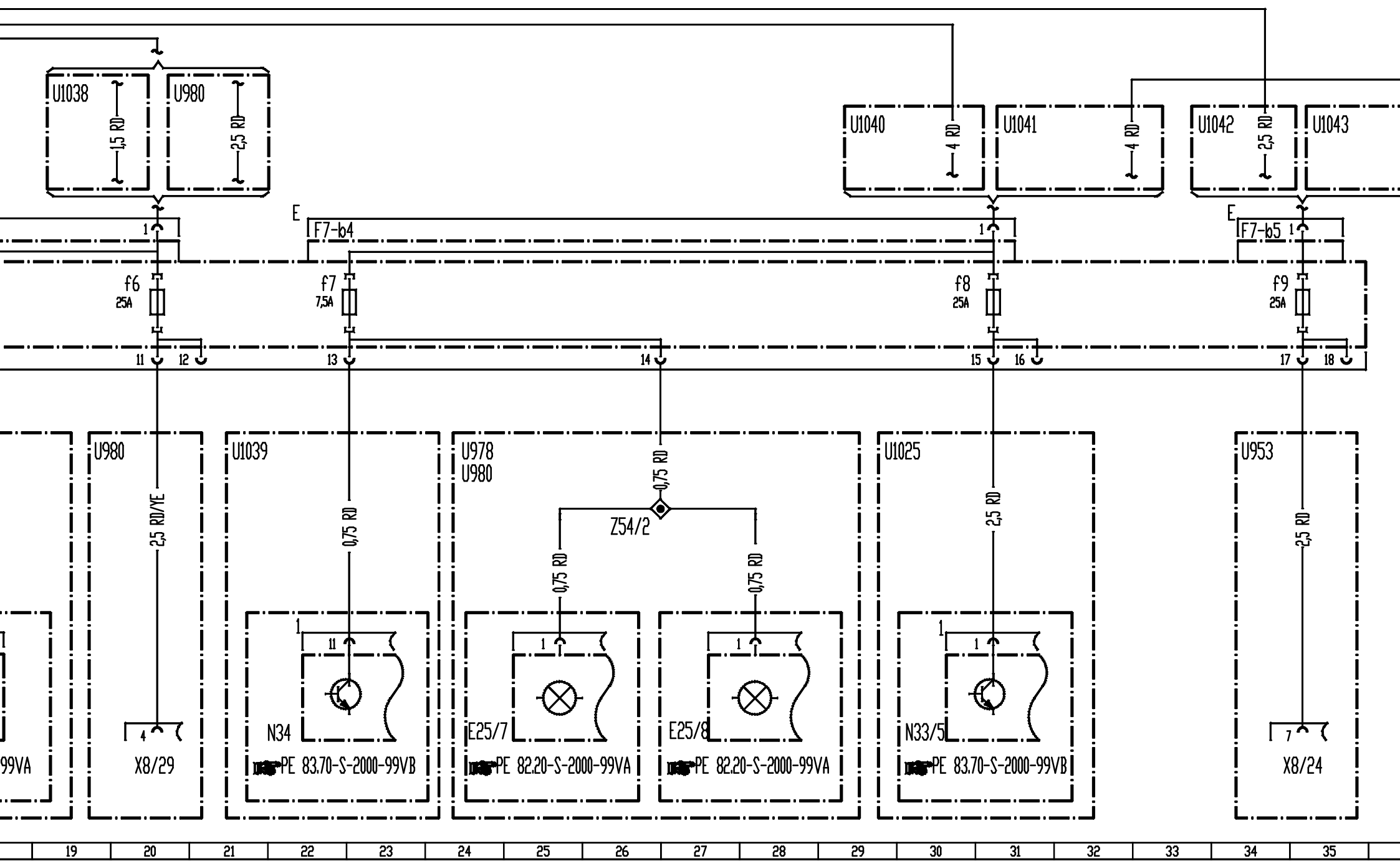
PE54.15-S-2005-99VA	Wiring diagram of voltage supply of fuses		PE54.15-S-2005-99VA
PE54.15-S-2005-60VA	Legend of wiring diagram for voltage supply of fuses		PE54.15-S-2005-60VA
OV00.01-S-1901-03VA	Use of wiring diagrams		OV00.01-S-1901-03VA
OV00.01-S-1901VA	Search aid for all wiring diagram groups		OV00.01-S-1901VA
OV00.01-S-1909VA	Search aid for all electrical components	Components from A to E	OV00.01-S-1909VA
OV00.01-S-1909VB	Search aid for all electrical components	Components from F to J	OV00.01-S-1909VB
OV00.01-S-1909VC	Search aid for all electrical components	Components from K to O	OV00.01-S-1909VC
OV00.01-S-1909VD	Search aid for all electrical components	Components from P to T	OV00.01-S-1909VD
OV00.01-S-1909VE	Search aid for all electrical components	Components from U to Z	OV00.01-S-1909VE
OV00.01-S-1001-27VA	Abbreviations for wiring diagrams		OV00.01-S-1001-27VA
OV00.01-S-1001-28VA	Abbreviations of signal and circuit designations for wiring diagrams		OV00.01-S-1001-28VA
GF00.19-S-1000VB	Location and assignment of line and plug connectors		GF00.19-S-1000VB
GF00.19-S-1100VB	Location and assignment of connectors and sockets		GF00.19-S-1100VB
GF00.19-S-2000VB	Location and assignment of ground points		GF00.19-S-2000VB
GF00.19-S-3000VB	Location and assignment of Z connector sleeves (line connectors in wiring harness)		GF00.19-S-3000VB
GF54.15-S-0900VA	Fuse and relay box, location/assignment		GF54.15-S-0900VA

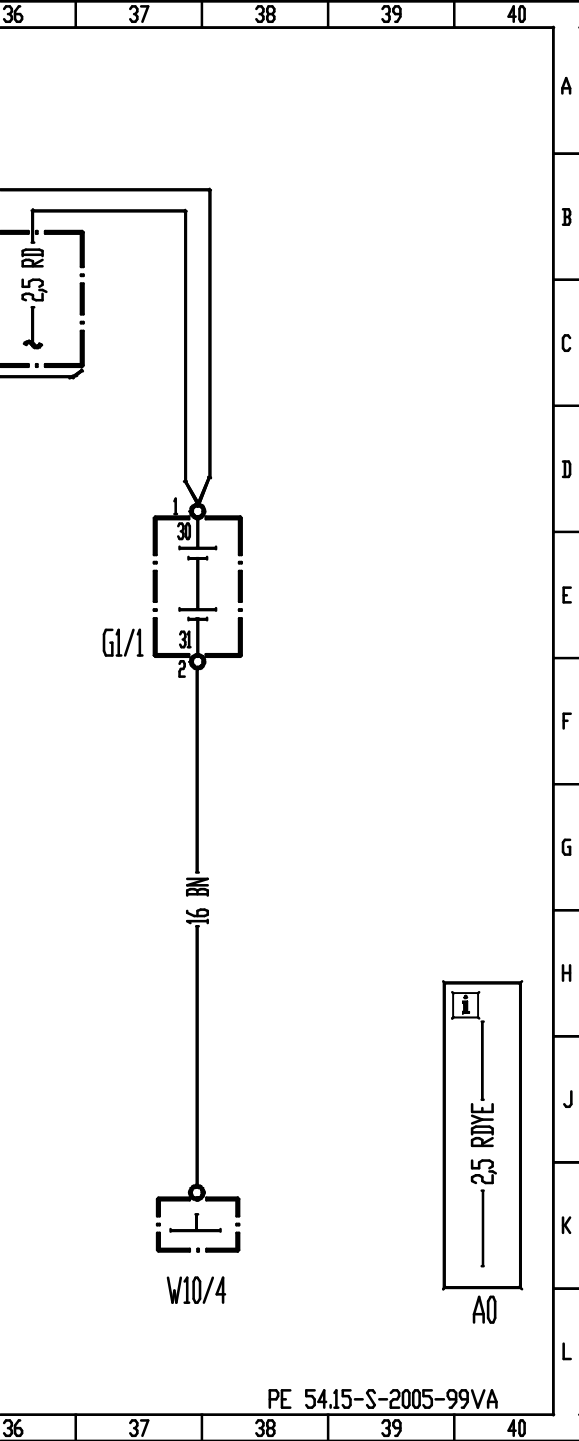
PE54.15-S-2005-60VA	Legend of wiring diagram for voltage supply of fuses	MODEL 639.601 /603 /605 /701 /703 /705 /711 /713 /811 /813 /815 left seat frame	
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Code	Designation	Coordinates
E25/7	Transistor lamp, left	24K
E25/8	Transistor lamp, right	27K
F6	Fuse box (1-pin)	3E
F7	Fuse block (9-pin)	6E
F7-b1	Fuse connector (2-pin)	7D
F7-b2	Fuse connector (2-pin)	12D
F7-b3	Fuse connector (2-pin)	17D
F7-b4	Fuse connector (2-pin)	22D
F7-b5	Fuse connector (1-pin)	34D
F7f1	Left door control unit fuse	7D
F7f2	Right door control unit fuse	9D
F7f3	Fuse 1 (PSM)	12D
F7f4	Fuse 2 (PSM)	14D
F7f5	12V socket fuse, front passenger seat box	17D
F7f6	Charge line to vehicle battery fuse	20D
F7f7	Timer and illumination power supply fuse	22D
F7f8	STH power supply fuse	30D
F7f9	Pop-up roof power supply fuse	34D
G1	Battery	1E
G1/1	Additional battery	37E
K40/9	Fuse and relay block	3K
N26/15	PSM control unit	12K
N33/5	Hot air stationary heater control unit	30K

N34	STH timer	22K
N69/1	Door control unit, left front	6K
N69/2	Door control unit, right front	9K
U26	Valid for taxi version with emergency alarm system	11G
U27	Valid for taxi version without emergency alarm system	11G
U1025	Valid for warm air auxiliary heater with timer and temperature control	29G
U1036	Valid for freezer vehicle	11H
U1037	Valid for refrigerator vehicle	11H
U1038	Valid for FUN equipment line with refrigerator box	16G 19B
U1039	Valid for warm air auxiliary heater with timer and temperature control with FUN equipment line or comfort plus package	21G
U1040	Valid for FUN equipment line or comfort plus package without additional heavy-duty battery	29B
U1041	Valid for FUN equipment line or comfort plus package with heavy-duty battery in addition or for "Marco Polo" camper	31B
U1042	Valid for electrohydraulic "Easy up" pop-up roof without heavy-duty battery in addition	33B
U1043	Valid for electrohydraulic "Easy up" pop-up roof with heavy-duty battery in addition or gel additional battery 12V 80Ah	35B
U914	Valid for rental vehicle package with emergency alarm system	11H
U934	Valid for rental vehicle package without emergency alarm system	11J
U947	Valid for parameterizable special module	11G 14C
U953	Valid for electrohydraulic "Easy up" pop-up roof	11G 34G
U978	Valid for FUN equipment line	24G
U980	Valid for "Marco Polo" camper	19G 20B 24G
W10	Ground (battery)	2L
W10/4	Ground (additional battery)	37L
X8/24	Pop-up roof connector (Westfalia)	34L
X8/29	Separation point 2 (Westfalia)	20L
X58/17	12V socket	16K







PE 54.15-S-2005-99VA

**MODEL 639.601 /603 /605 /701 /703 /705 /711 /713 /811 /813 /815****Sheet 1,  
E-box F34**

PE54.15-S-2005-99VB	Wiring diagram of voltage supply of fuses	Sheet 1	PE54.15-S-2005-99VB
PE54.15-S-2005-60VB	Legend of wiring diagram for voltage supply of fuses	Sheet 1	PE54.15-S-2005-60VB
OV00.01-S-1901-03VA	Use of wiring diagrams		OV00.01-S-1901-03VA
OV00.01-S-1901VA	Search aid for all wiring diagram groups		OV00.01-S-1901VA
OV00.01-S-1909VA	Search aid for all electrical components	Components from A to E	OV00.01-S-1909VA
OV00.01-S-1909VB	Search aid for all electrical components	Components from F to J	OV00.01-S-1909VB
OV00.01-S-1909VC	Search aid for all electrical components	Components from K to O	OV00.01-S-1909VC
OV00.01-S-1909VD	Search aid for all electrical components	Components from P to T	OV00.01-S-1909VD
OV00.01-S-1909VE	Search aid for all electrical components	Components from U to Z	OV00.01-S-1909VE
OV00.01-S-1001-27VA	Abbreviations for wiring diagrams		OV00.01-S-1001-27VA
OV00.01-S-1001-28VA	Abbreviations of signal and circuit designations for wiring diagrams		OV00.01-S-1001-28VA
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GF00.19-S-1100VB	Location and assignment of connectors and sockets		GF00.19-S-1100VB
GF00.19-S-2000VB	Location and assignment of ground points		GF00.19-S-2000VB
GF00.19-S-3000VB	Location and assignment of Z connector sleeves (line connectors in wiring harness)		GF00.19-S-3000VB
GF54.15-S-0900VA	Fuse and relay box, location/assignment		GF54.15-S-0900VA

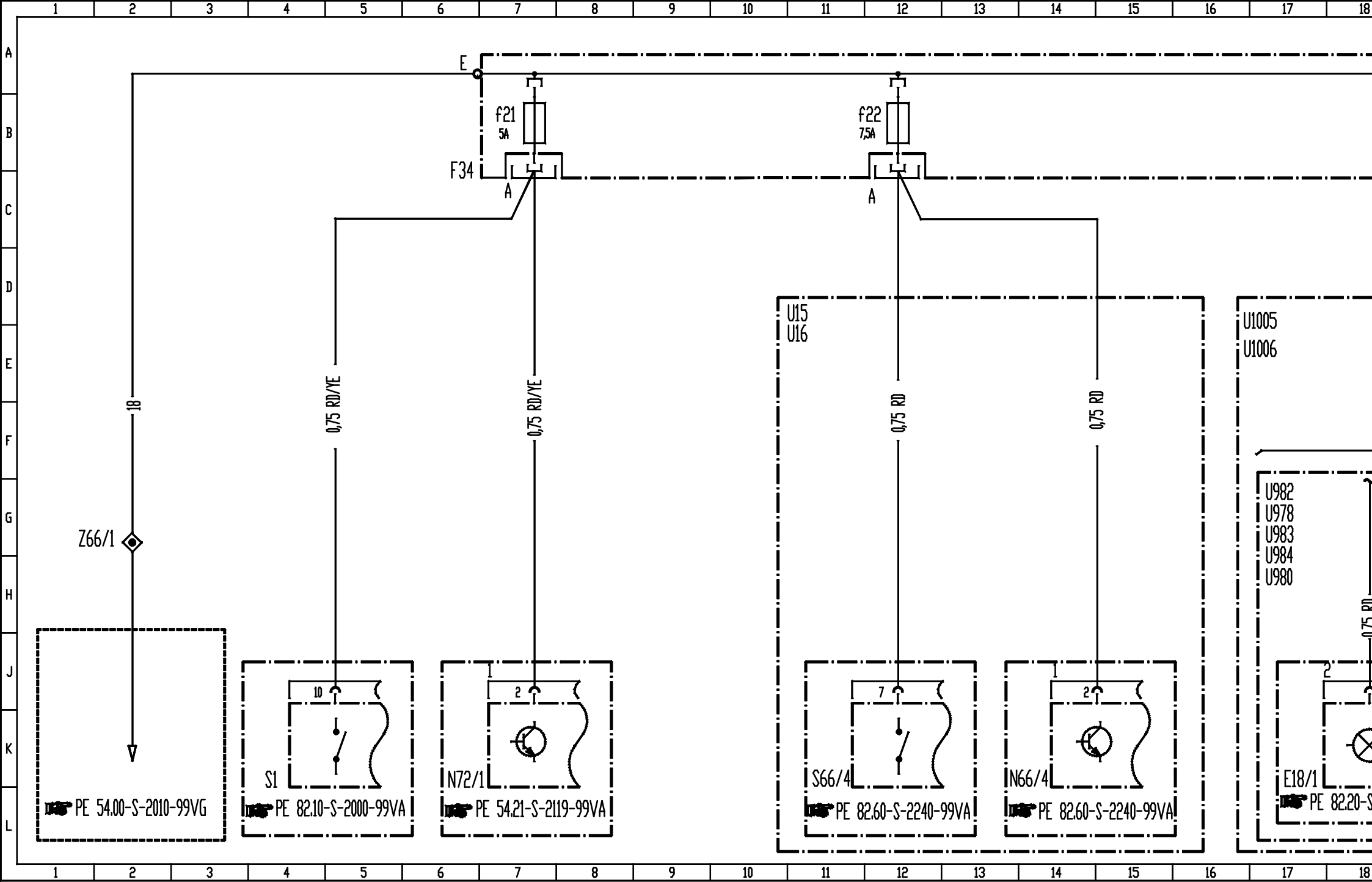


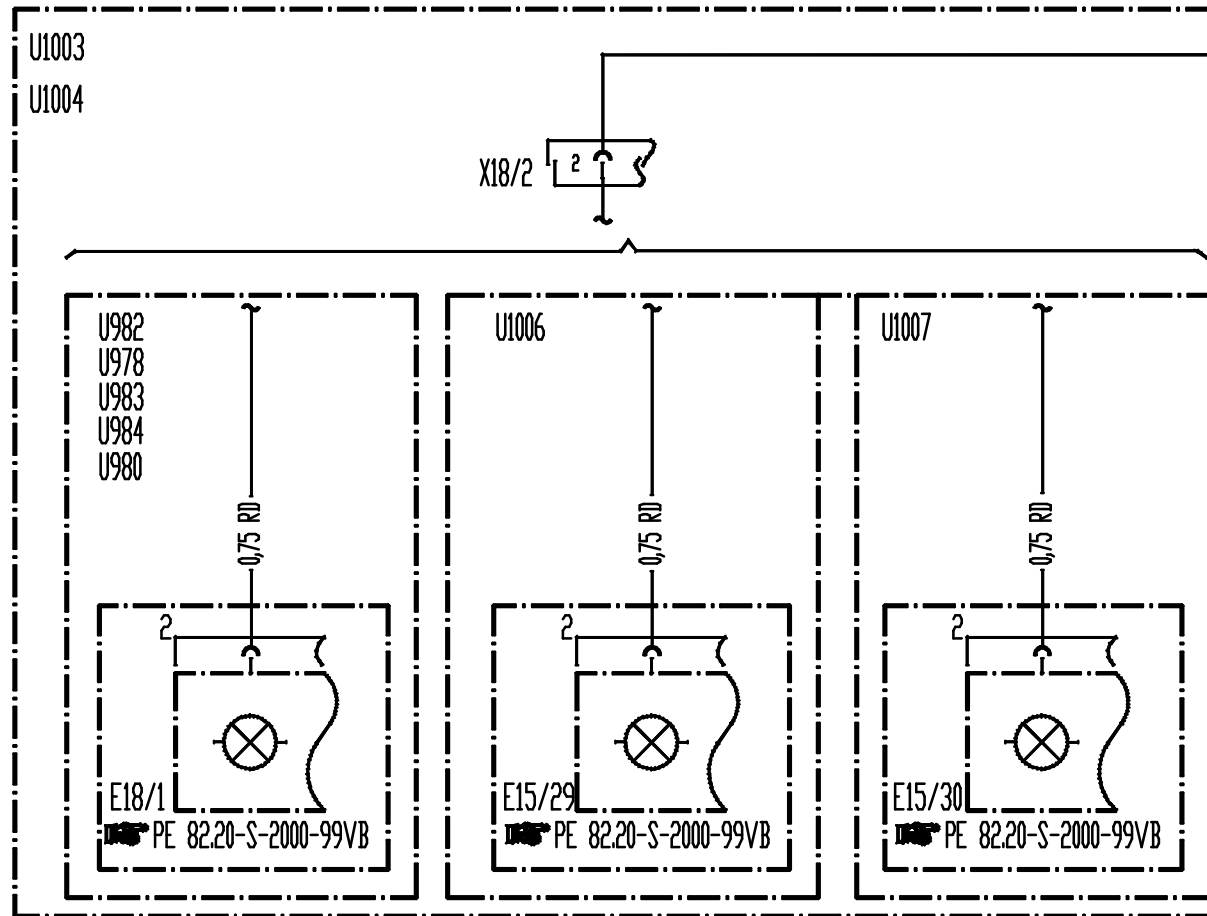
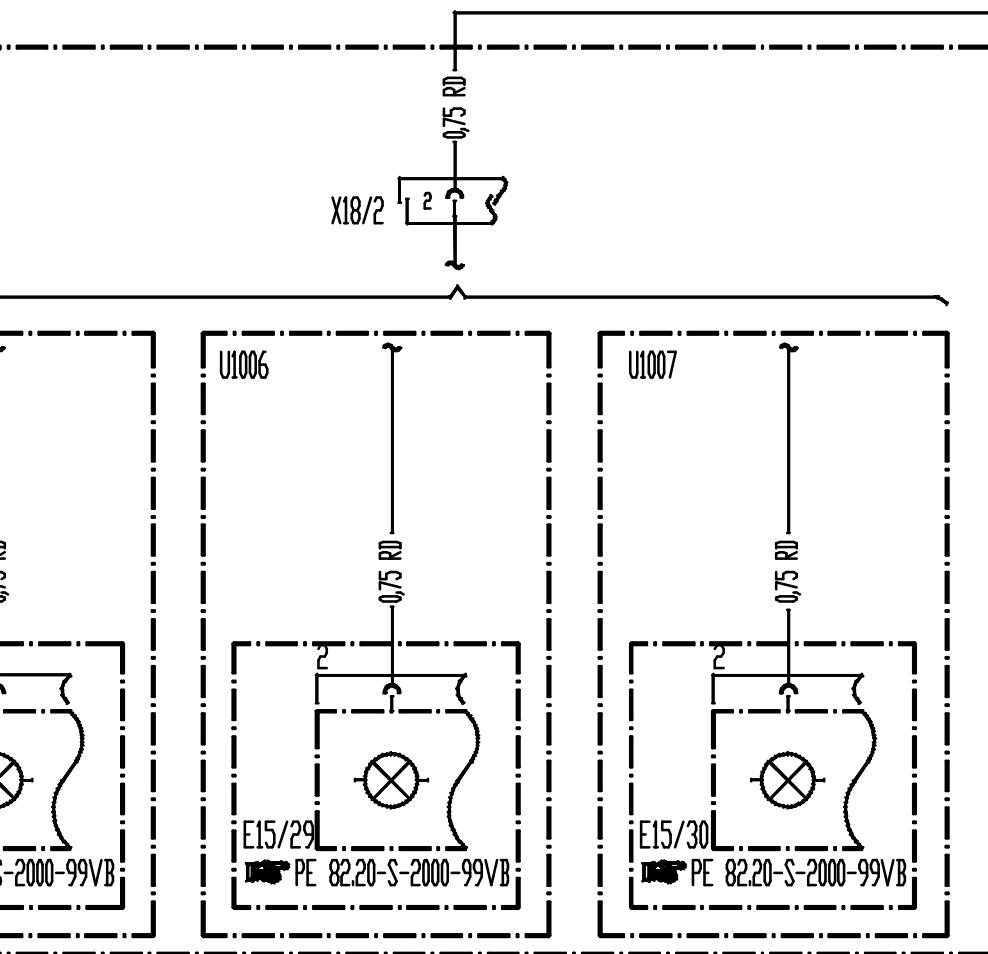
PE54.15-S-2005-60VB	Legend of wiring diagram for voltage supply of fuses	MODEL 639.601 /603 /605 /701 /703 /705 /711 /713 /811 /813 /815 Sheet 1, E-box F34	
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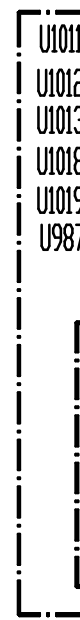
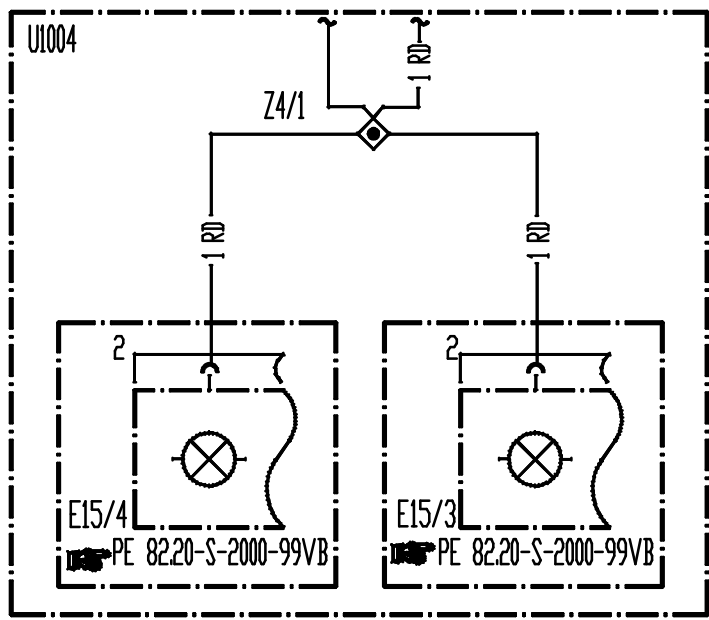
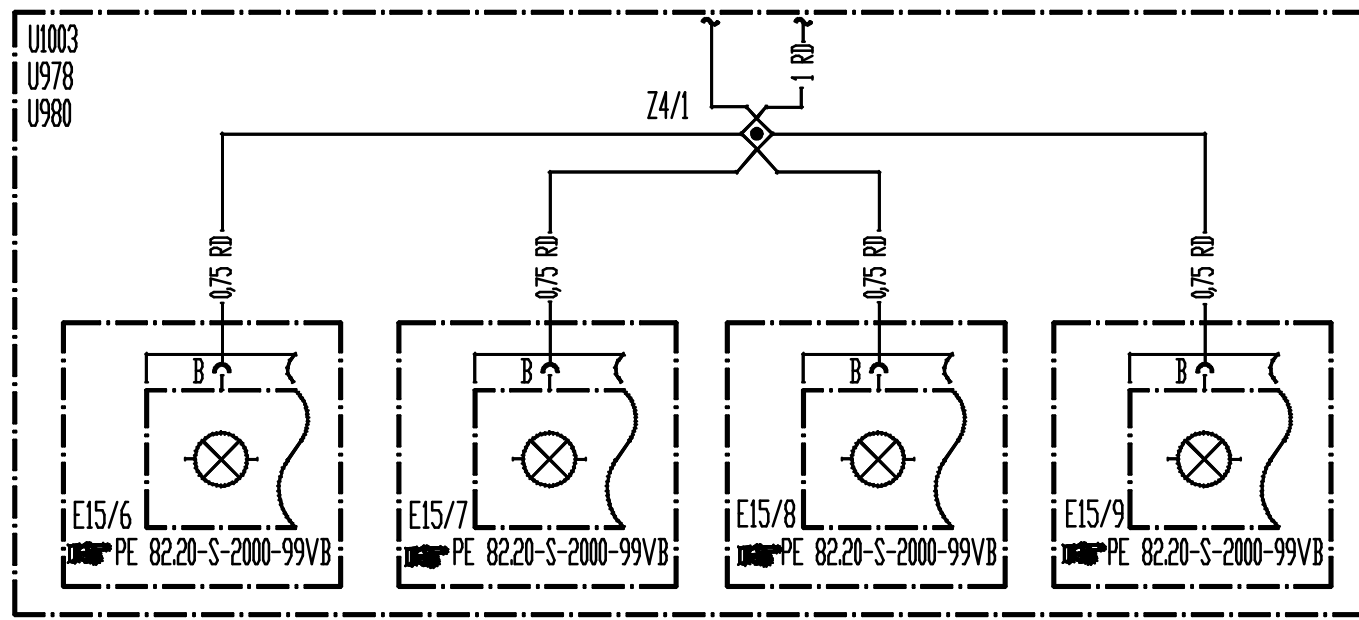
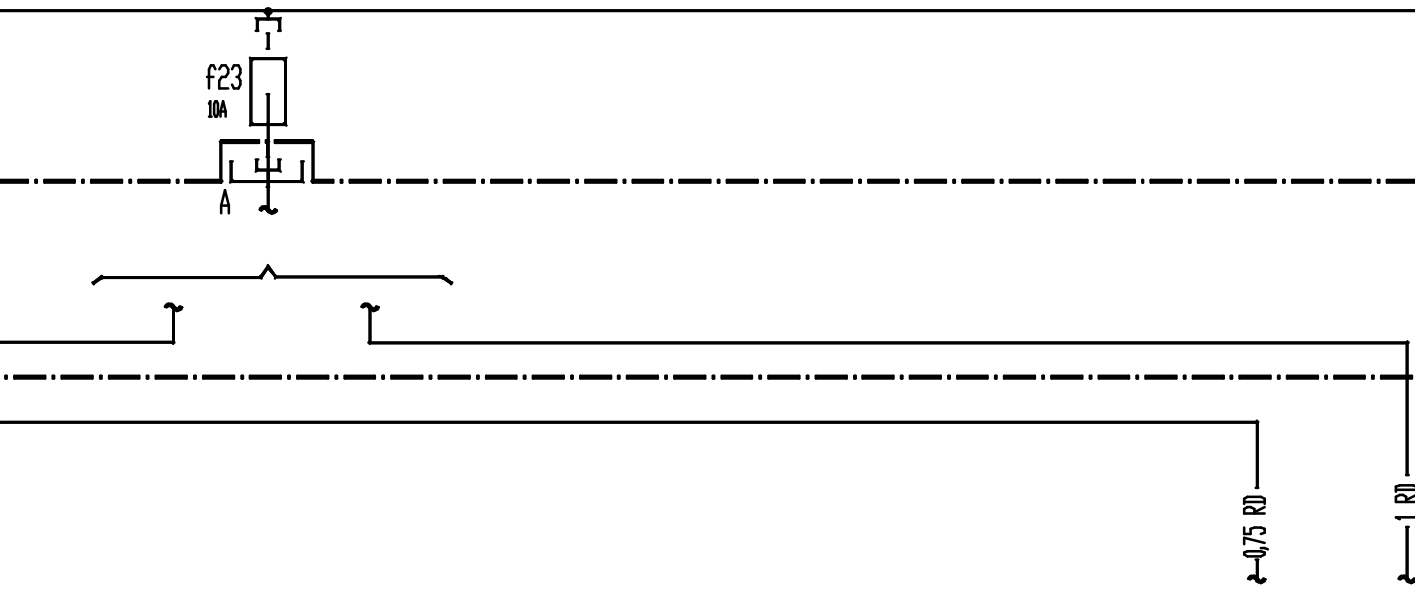
Code	Designation	Coordinates
A49/4	STH radio receiver	69K
E15	Dome lamp with reading lamp, front	54K
E15/3	Dome lamp, front of rear	50K
E15/4	Dome lamp, rear of rear	48K
E15/6	Interior lamp, left front grab handle	37K
E15/7	Interior lamp, right front grab handle	39K
E15/8	Interior lamp, left rear grab handle	42K
E15/9	Interior lamp, right rear grab handle	45K
E15/29	Load compartment lamp 1, right	20K 30K
E15/30	Load compartment lamp 2, left	23K 33K
E18/1	Trunk lamp	17K 27K
F34	Fuse block, 22-pin	6C
F34f21	Exterior lamp switch fuse	7B
F34f22	TV console fuse	11B
F34f23	Interior lamps fuse	37B
F34f24	SHD overhead control panel fuse	58B
F34f25	Rear sliding roof fuse	64B
F34f26	STH radio receiver fuse	69B
F34f27	Front climate control fuse	73B
F34f28	Socket fuse, TV console	76B

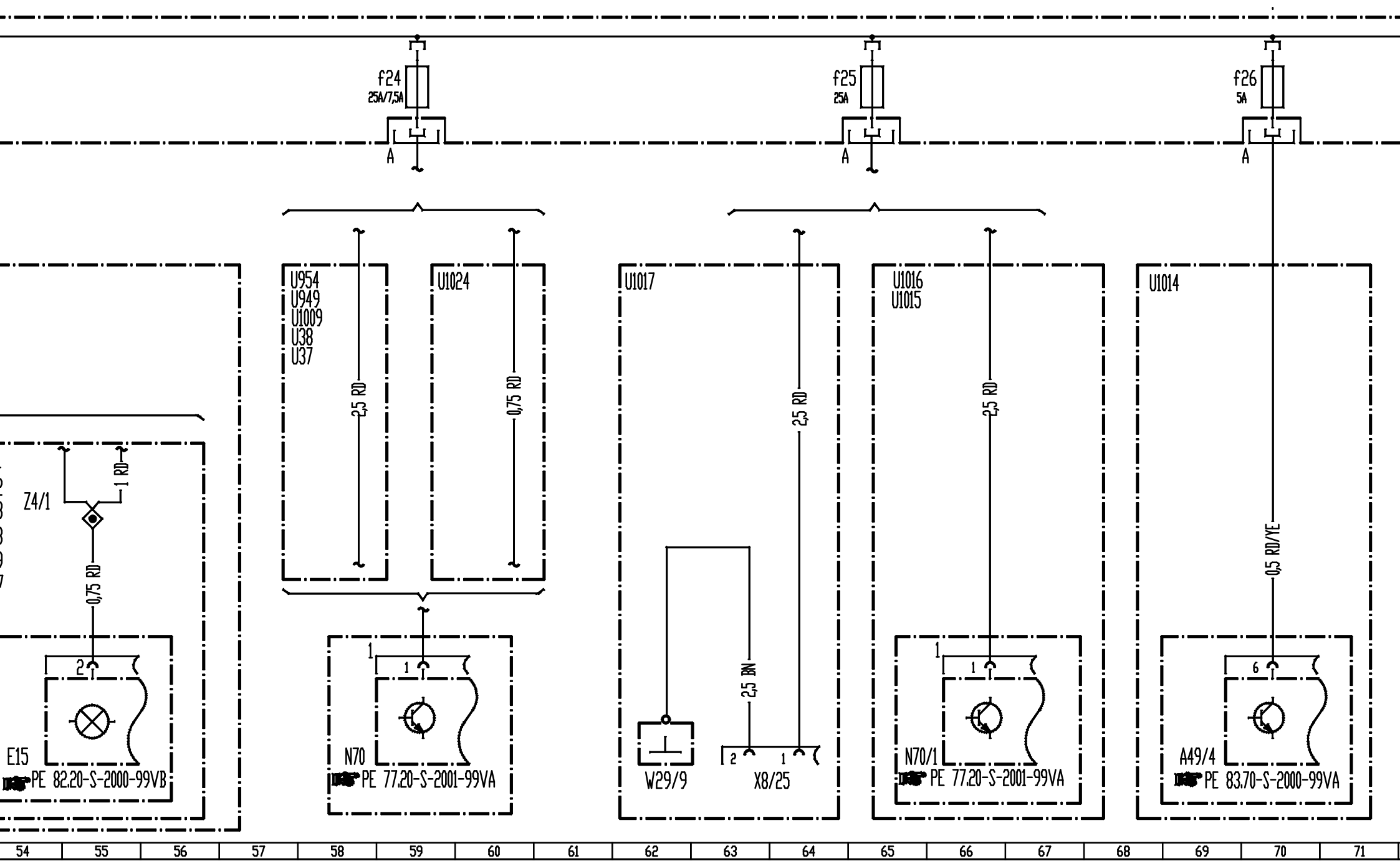
N66/4	Rear conversation unit control unit	13K 75K
N70	Overhead control panel control unit	58K
N70/1	Rear sliding roof unit control unit (SDE-H)	65K
N72/1	Upper control panel control unit	6K
S1	Exterior lamp switch	4K
S66/4	Rear entertainment system switch	11K
S98	Air conditioning operating module	72K
U15	Valid for screen in rear and DVD player	11D 75D
U16	Valid for screen in rear, DVD player and TV tuner	11E 75E
U37	Valid for ATA [EDW] I	57E
U38	Valid for ATA [EDW] II	57E
U53	Valid for automatic air conditioning "Thermotronic"	72D
U54	Valid for regulated air conditioning "Tempmatic"	72E
U1003	Valid for additional interior lamp in passenger compartment	26E 36G
U1004	Valid for interior lamp in rear	26E 47G
U1005	Valid without additional interior lamp in passenger compartment	16E
U1006	Valid without interior lamp in rear	16E 20G 30G
U1007	Valid for additional interior lamp in load compartment without interior lamp in rear	23G 33G
U1009	Valid for light/rain sensor	57E
U1011	Valid without glass tilting/sliding roof in passenger compartment	53G
U1012	Valid without glass tilting/sliding roof in driver/passenger compartment	53G
U1013	Valid without anti-theft alarm system with interior protection (EDW II)	53G
U1014	Valid for warm water auxiliary heater with radio remote control	68D
U1015	Valid for glass tilting/sliding roof in passenger compartment and roof and rear-end doors, high version	65E
U1016	Valid for glass tilting/sliding roof in passenger compartment without roof and rear-end doors, high version	65D

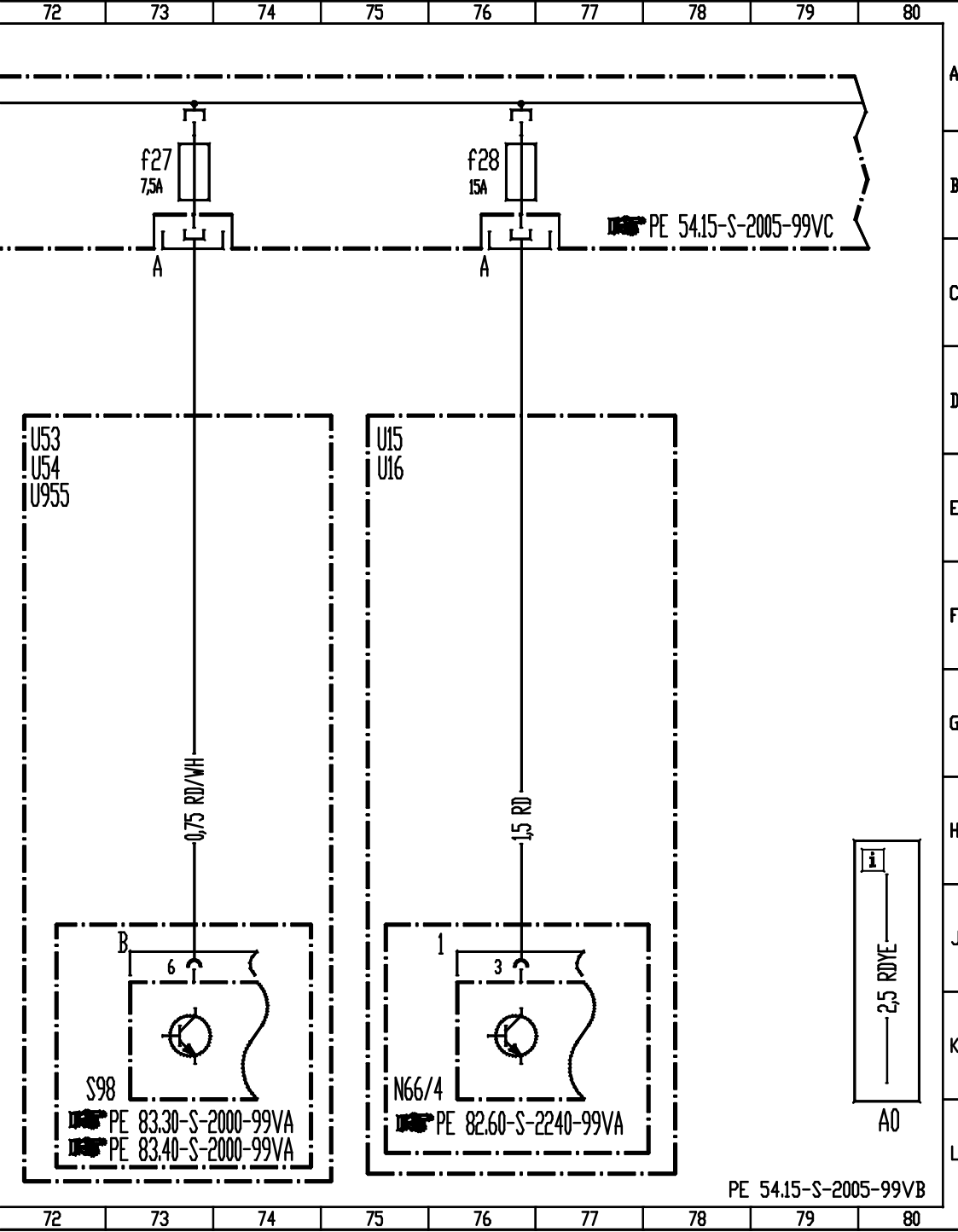
U1017	Valid for electrohydraulic "Easy up" pop-up roof and glass sliding/lifting roof in driver area/front passenger area	62D
U1018	Valid without EDW I	53H
U1019	Valid without light/rain sensor	53H
U1024	Valid for DBE with 2 reading spotlights or garage door opener without glass tilting/sliding roof in driver/passenger compartment, glass tilting/sliding roof in passenger compartment, light/rain sensor, EDW II or EDW I	59D
U949	Valid for glass tilting/sliding roof in passenger compartment	57E
U954	Valid for glass tilting/sliding roof in driver/passenger compartment	57D
U955	Valid for alternator 14V / 200 Ah	72E
U978	Valid for FUN equipment line	17G 27G 36G
U980	Valid for "Marco Polo" camper	17H 27H 36G
U982	Valid for MPV	17G 27G
U983	Valid for TREND equipment line	17G 27G
U984	Valid for AMBIENTE equipment line	17H 27H
U987	Valid without DBE with 2 reading spotlights	53H
W29/9	Ground (right D-pillar)	62L
X8/25	Sliding roof in pop-up roof separation point (Westfalia)	63L
X18/2	Load compartment lamp connector	21F 30F
Z4/1	Ceiling illumination terminal 30 connector sleeve	41G 49G 54G
Z66/1	Additional fuse box feed connector sleeve	1G













PE54.15-S-2005VC	Wiring diagram of voltage supply of fuses	25.7.03
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**MODEL 639.601 /603 /605 /701 /703 /705 /711 /713 /811 /813 /815**

**Sheet 2,  
E-box F34**

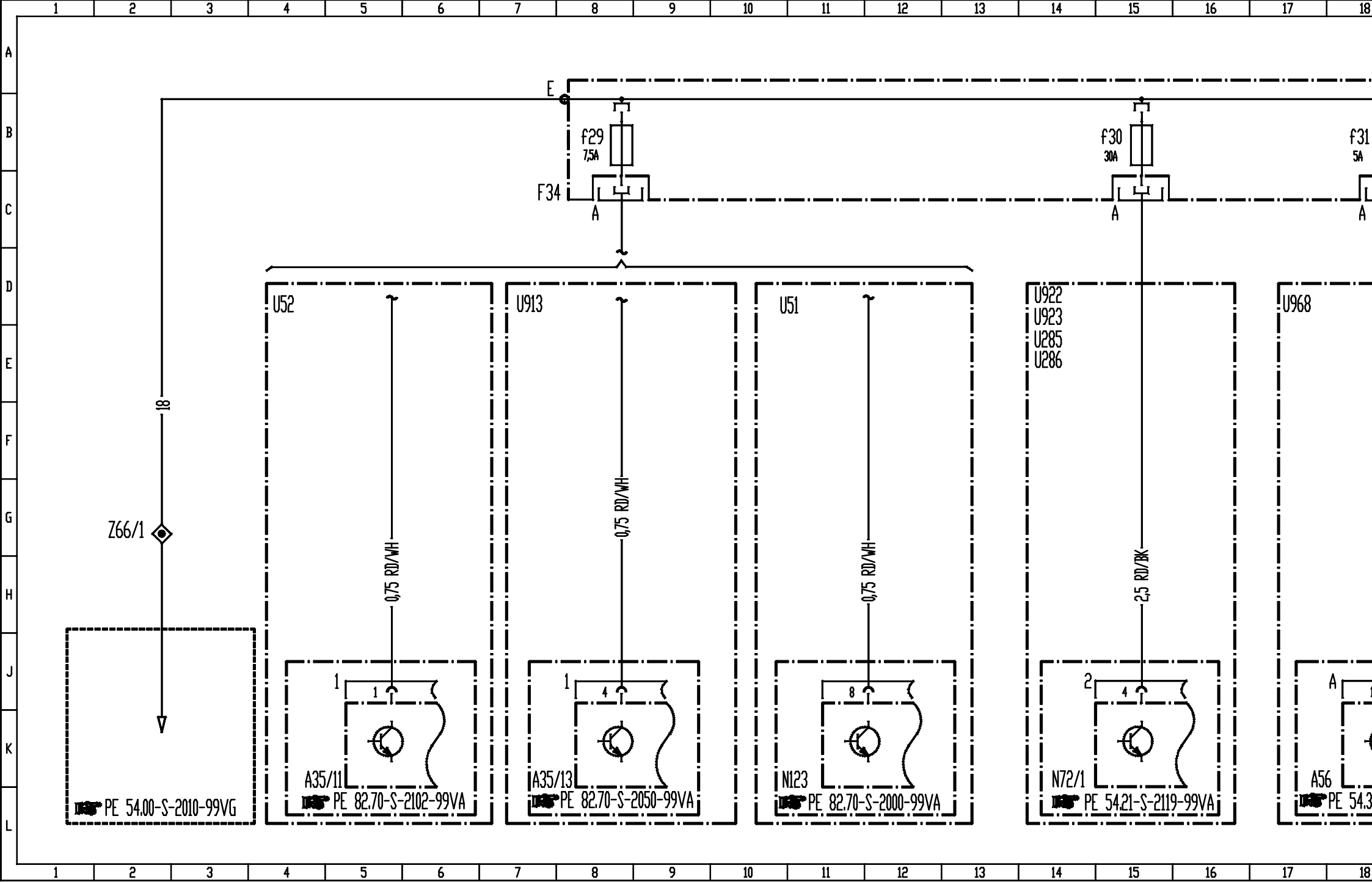
PE54.15-S-2005-99VC	Wiring diagram of voltage supply of fuses	Sheet 2	PE54.15-S-2005-99VC
PE54.15-S-2005-60VC	Legend of wiring diagram for voltage supply of fuses	Sheet 2	PE54.15-S-2005-60VC
OV00.01-S-1901-03VA	Use of wiring diagrams		OV00.01-S-1901-03VA
OV00.01-S-1901VA	Search aid for all wiring diagram groups		OV00.01-S-1901VA
OV00.01-S-1909VA	Search aid for all electrical components	Components from A to E	OV00.01-S-1909VA
OV00.01-S-1909VB	Search aid for all electrical components	Components from F to J	OV00.01-S-1909VB
OV00.01-S-1909VC	Search aid for all electrical components	Components from K to O	OV00.01-S-1909VC
OV00.01-S-1909VD	Search aid for all electrical components	Components from P to T	OV00.01-S-1909VD
OV00.01-S-1909VE	Search aid for all electrical components	Components from U to Z	OV00.01-S-1909VE
OV00.01-S-1001-27VA	Abbreviations for wiring diagrams		OV00.01-S-1001-27VA
OV00.01-S-1001-28VA	Abbreviations of signal and circuit designations for wiring diagrams		OV00.01-S-1001-28VA
GF00.19-S-1000VB	Location and assignment of line and plug connectors		GF00.19-S-1000VB
GF00.19-S-1100VB	Location and assignment of connectors and sockets		GF00.19-S-1100VB
GF00.19-S-2000VB	Location and assignment of ground points		GF00.19-S-2000VB
GF00.19-S-3000VB	Location and assignment of Z connector sleeves (line connectors in wiring harness)		GF00.19-S-3000VB
GF54.15-S-0900VA	Fuse and relay box, location/assignment		GF54.15-S-0900VA

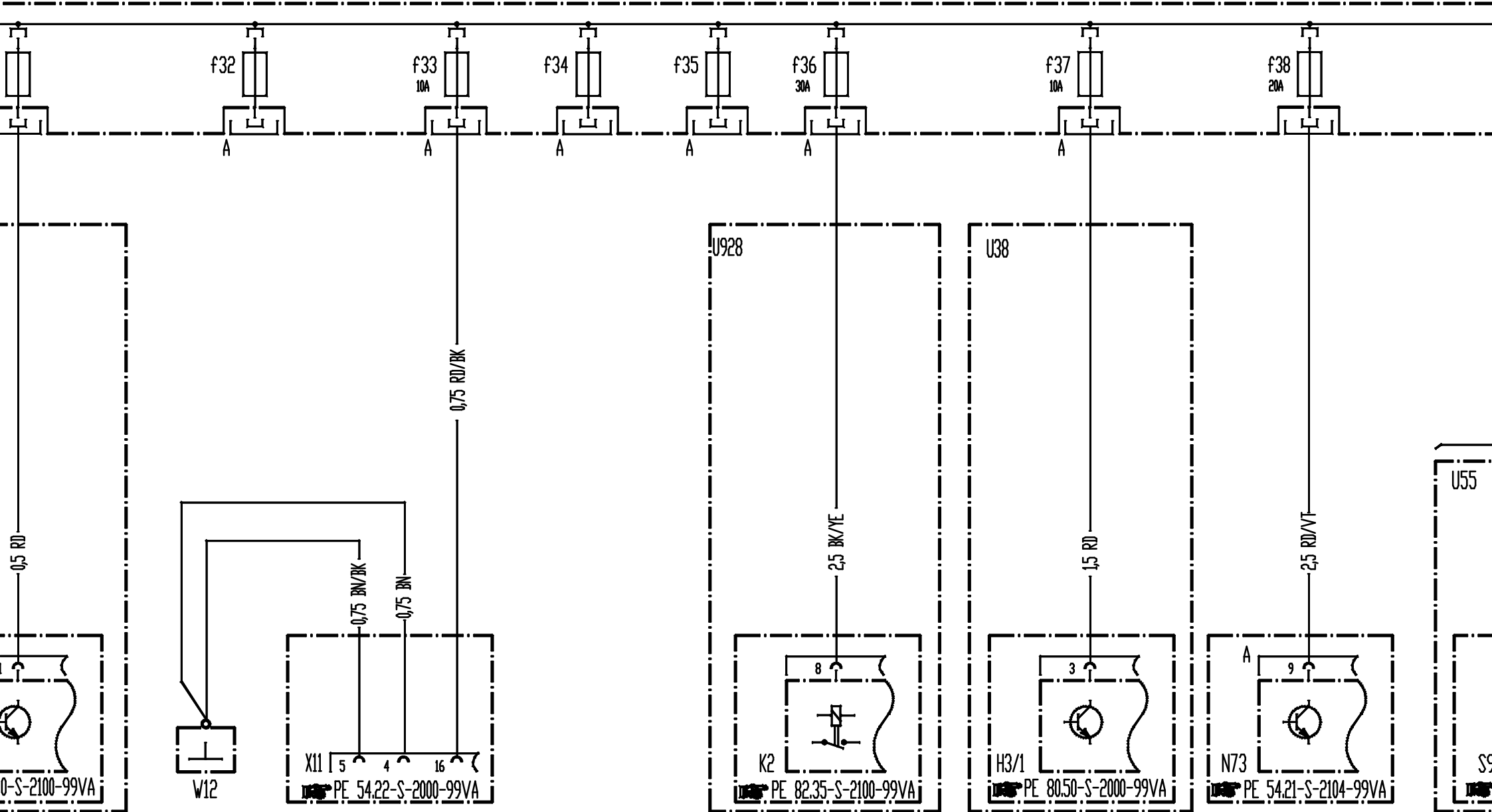
PE54.15-S-2005-60VC	Legend of wiring diagram for voltage supply of fuses	MODEL 639.601 /603 /605 /701 /703 /705 /711 /713 /811 /813 /815 Sheet 2, E-box F34	
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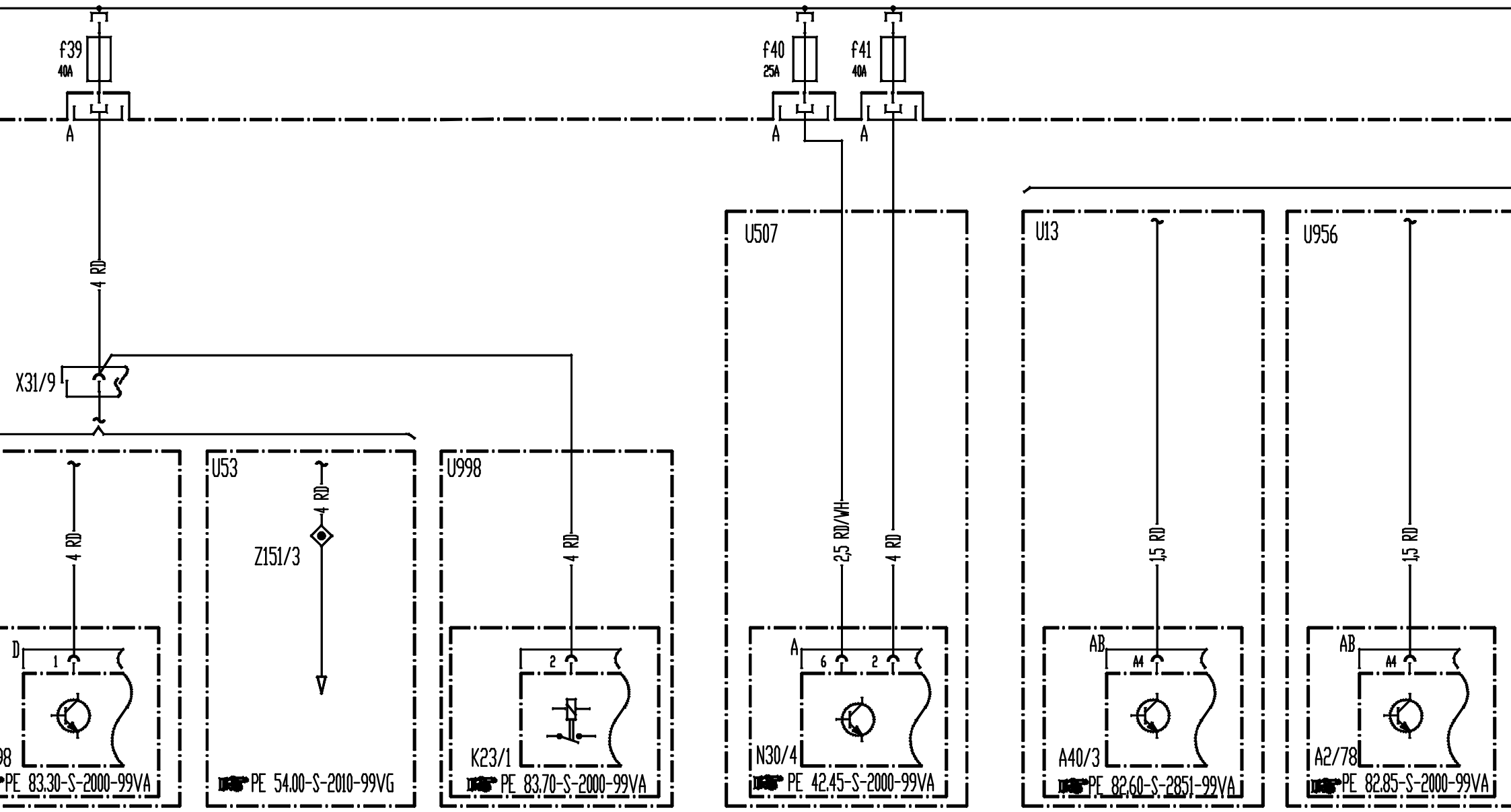
Code	Designation	Coordinates
A0	Color code key	72L
A2	Radio / Sound 10 / Sound 40 / Audio 10	58K 61K 64K
A2/56	Radio and navigation unit	54K
A2/78	Audio-Video-Navigation (AVN)	51K
A35/11	SBS control unit	4L
A35/13	Telephone transmitter/receiver, D2B	7L
A40/3	COMAND operating, display and control unit	48L
A56	Modular tachograph	17K
F34	Fuse block, 22-pin	7C
F34f29	D2BPortable CTEL fuse, portable CTEL and SBS	8B
F34f30	Heated seats fuse	14B
F34f31	Fuse, tachograph	18B
F34f32	Fuse 32	20B
F34f33	Data link connector fuse	23B
F34f34	Fuse 34	24B
F34f35	Air conditioning pulsed valve power supply fuse	26B
F34f36	SRA fuse	27B
F34f37	ATA [EDW] siren fuse	30B
F34f38	EIS [EZS] steering lock fuse	33B
F34f39	Front blower fuse	36B
F34f40	Brake system valve fuse	45B

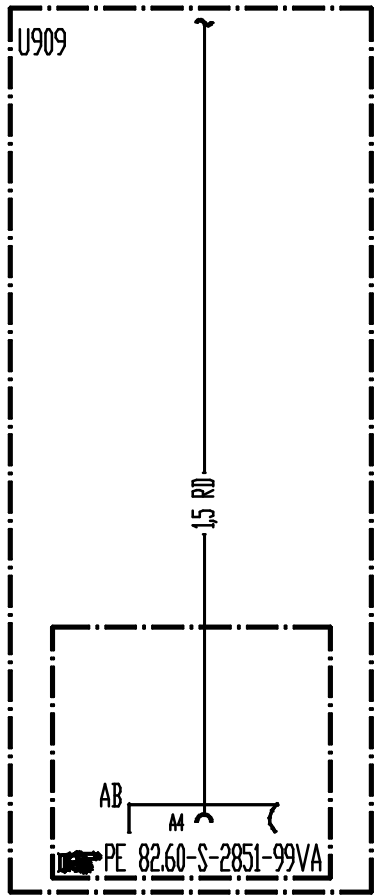
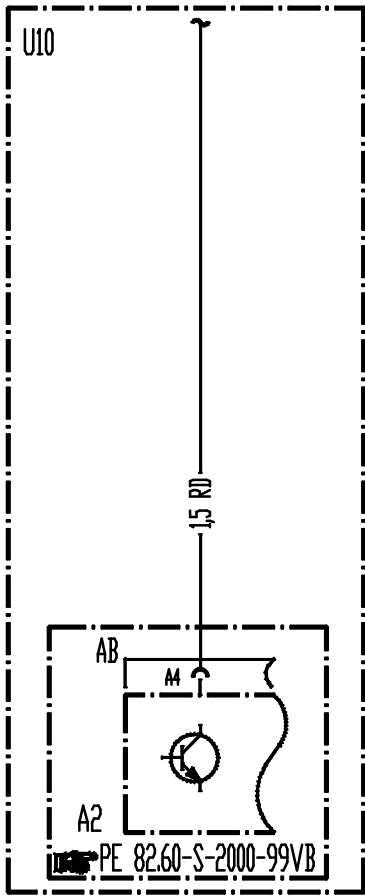
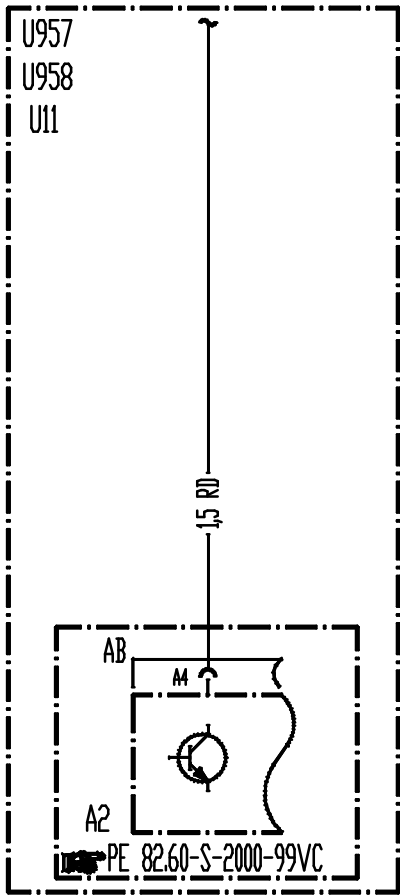
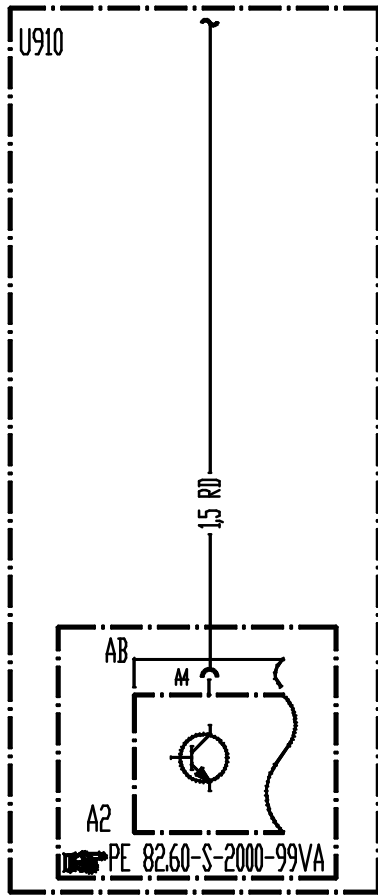
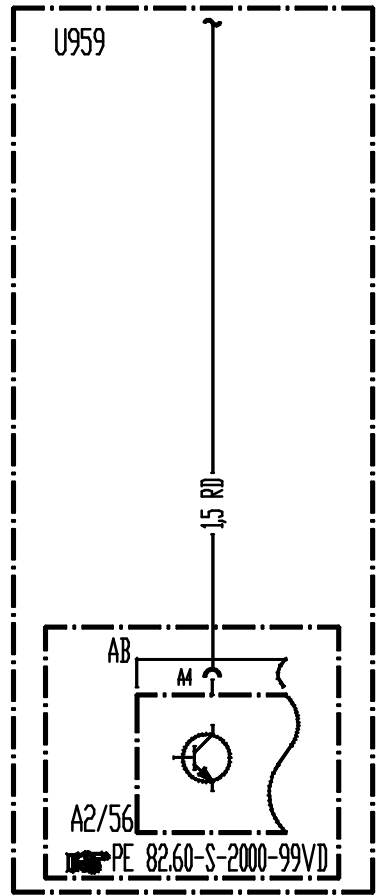
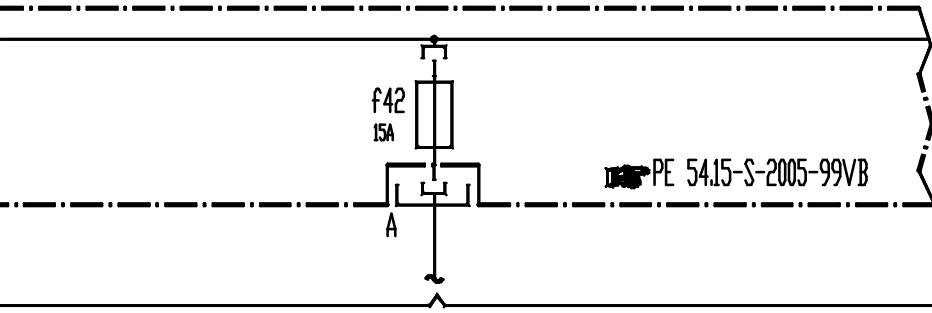
F34f41	Brake system delivery pump fuse	46B
F34f42	Radio fuse or DIN navigation	57B
H3/1	Alarm signal horn with additional battery	30K
K2	Headlamp cleaning system relay	27K
K23/1	Blower motor relay	41L
N30/4	ESP control unit	45K
N72/1	Upper control panel control unit	14K
N73	EIS [EZS] control unit	33K
N123	Hands-free system control unit	10L
S98	Air conditioning operating module	36L
U10	Valid for Sound 40 Pro radio	64D
U11	Valid for radio with cassette drive, Latin America	61E
U13	Valid for auto pilot system with TMC interface	48D
U38	Valid for ATA [EDW] II	30D
U51	Valid for telephone preinstallation	10D
U52	Valid for voice control	4D
U53	Valid for automatic air conditioning "Thermotronic"	38G
U55	Not valid for air conditioning	35G
U285	Valid for partially electric seat adjustment, driver	14E
U286	Valid for partially electric seat adjustment, front passenger	14E
U507	Valid for Electronic Stability Program (ESP)	45D
U909	Valid for radio preinstallation	67D
U910	Valid for radio Sound 10 with cassette drive	57D
U913	Valid for networked telephone preinstallation	7D
U922	Valid for heater for front passenger seat	14D
U923	Valid for heater for driver seat	14D
U928	Valid for headlamp cleaning system	27D
U956	Valid for auto pilot system for Japan, large display	51D
U957	Valid for Audio 10 radio with cassette drive	61D
U958	Valid for Audio 10 radio with CD	61E

U959	Valid for Audio 30 APS radio with TMC interface	54D
U968	Valid for 1 day/2 driver tachograph	17D
U998	Valid for auxiliary heater without air conditioning system	41G
W12	Ground (cockpit and center console)	20L
X31/9	Blower switch feed-in connector	36F
Z66/1	Additional fuse box feed connector sleeve	2G
Z151/3	A/C 1st stage connector sleeve	39H











**MODEL 639.601 /603 /605 /701 /703 /705 /711 /713 /811 /813 /815****E-box F35**

PE54.15-S-2005-99VD	Wiring diagram of voltage supply of fuses		PE54.15-S-2005-99VD
PE54.15-S-2005-60VD	Legend of wiring diagram for voltage supply of fuses		PE54.15-S-2005-60VD
OV00.01-S-1901-03VA	Use of wiring diagrams		OV00.01-S-1901-03VA
OV00.01-S-1901VA	Search aid for all wiring diagram groups		OV00.01-S-1901VA
OV00.01-S-1909VA	Search aid for all electrical components	Components from A to E	OV00.01-S-1909VA
OV00.01-S-1909VB	Search aid for all electrical components	Components from F to J	OV00.01-S-1909VB
OV00.01-S-1909VC	Search aid for all electrical components	Components from K to O	OV00.01-S-1909VC
OV00.01-S-1909VD	Search aid for all electrical components	Components from P to T	OV00.01-S-1909VD
OV00.01-S-1909VE	Search aid for all electrical components	Components from U to Z	OV00.01-S-1909VE
OV00.01-S-1001-27VA	Abbreviations for wiring diagrams		OV00.01-S-1001-27VA
OV00.01-S-1001-28VA	Abbreviations of signal and circuit designations for wiring diagrams		OV00.01-S-1001-28VA
GF00.19-S-1000VB	Location and assignment of line and plug connectors		GF00.19-S-1000VB
GF00.19-S-1100VB	Location and assignment of connectors and sockets		GF00.19-S-1100VB
GF00.19-S-2000VB	Location and assignment of ground points		GF00.19-S-2000VB
GF00.19-S-3000VB	Location and assignment of Z connector sleeves (line connectors in wiring harness)		GF00.19-S-3000VB
GF54.15-S-0900VA	Fuse and relay box, location/assignment		GF54.15-S-0900VA

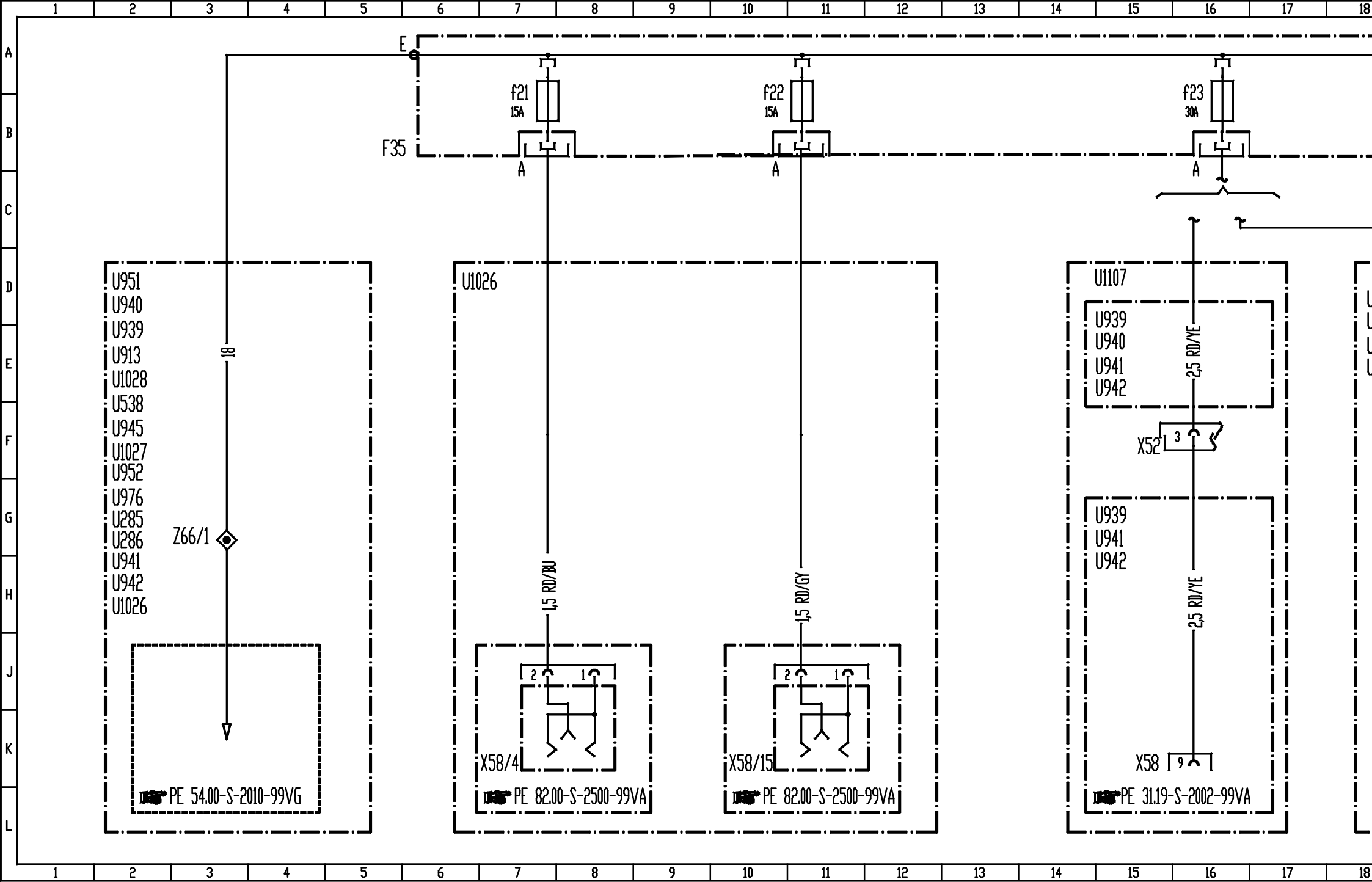
PE54.15-S-2005-60VD	Legend of wiring diagram for voltage supply of fuses	MODEL 639.601 /603 /605 /701 /703 /705 /711 /713 /811 /813 /815 E-box F35	
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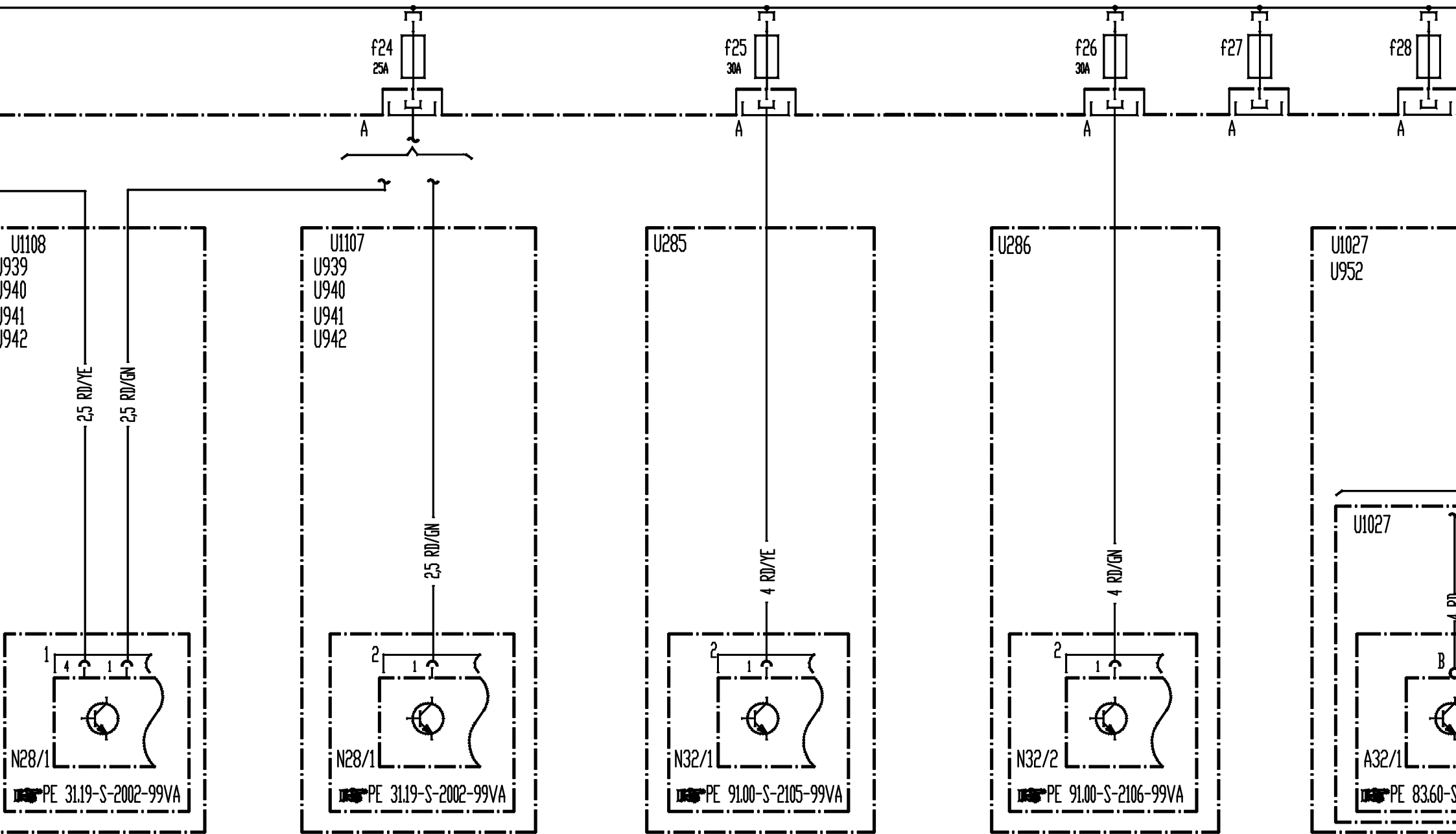
Code	Designation	Coordinates
A2/17	Antenna amplifier voltage supply	58K
A2/77	Telephone and communication unit	50K
A6n1	STH control unit	63K
A32/1	Rear air recirculation heater	35K
A32/2	Rear automatic air conditioning air unit	38K
F35	Fuse block, 22-pin	5B
F35f21	Left passenger compartment 12V socket fuse	7B
F35f22	Right passenger compartment 12V socket fuse	10B
F35f23	Trailer socket fuse	16B
F35f24	AAG fuse	23B
F35f25	Driver seat adjustment fuse	27B
F35f26	Front passenger seat adjustment fuse	31B
F35f27	Left electric sliding door fuse	33B
F35f28	Right electric sliding door fuse	35B
F35f29	Rear blower fuse	37B
F35f30	Air suspension or all-wheel drive fuse	42B
F35f31	PTS fuse	46B
F35f32	Tire pressure monitoring system fuse	49B
F35f33	Communications unit (Japan) or telephone (USA) fuse	51B
F35f34	Compensator fuse, VICS and TV amplifier (Japan)	58B
F35f35	STH control unit fuse	63B
F35f36	Tailgate power closing fuse	67B
F35f37	Rear air conditioning fuse	68B

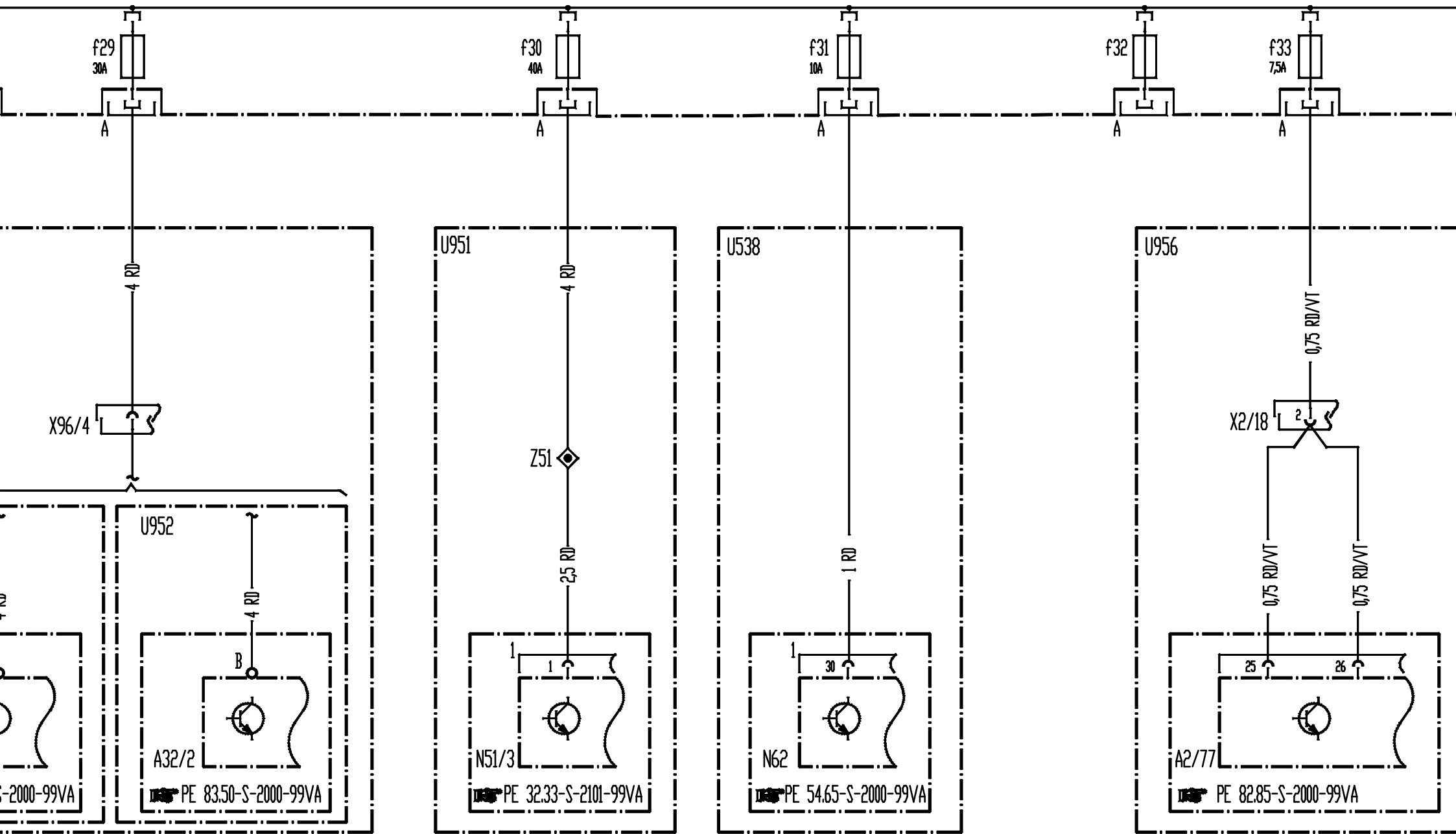
F35f38	Brake controller fuse (NAFTA)	70B
F35f39	Front blower fuse	71B
F35f40	Rear 12V socket fuse	73B
F35f41	Additional turn signal module fuse	76B
F35f42	Fuse 42	78B
N9/1	Additional turn signal module control unit	76K
N19/3	Rear AC control unit FONDKLA	66K
N28/1	Trailer connection unit [AAG] control unit	18K 22K
N32/1	Left front seat adjustment control unit with memory	26K
N32/2	Right front seat adjustment control unit with memory	31K
N51/3	ENR control unit	42K
N62	PTS control unit	45K
N125	Telephone high frequency compensator	55K
S81/1	Rear automatic air conditioning operating switch	69K
U1026	Valid for ashtray and beverage holder in passenger compartment	2H 6D
U1027	Valid for additional heat exchanger in passenger load compartment	2F 34D 35G 69D
U1028	Valid for socket 12V in passenger compartment	2E 72D
U1107	Valid up to08/2005	15D 22D
U1108	Valid as of09/2005	18D
U285	Valid for partially electric seat adjustment, driver	2G 26D
U286	Valid for partially electric seat adjustment, front passenger	2G 30D
U538	Valid for Parktronic System	2F 45D
U913	Valid for networked telephone preinstallation	2E 54D

U939	Valid for socket for rear-mounted bicycle carrier repeater lamps	2E 15E 15G 18D 22D
U940	Valid for electrical system for trailer socket	2D 15E 18E 22E
U941	Valid for fixed trailer hitch	2H 15E 15G 18E 22E
U942	Valid for removable trailer hitch	2H 15E 15H 18E 22E
U945	Valid for warm water auxiliary heater	2F 63D
U946	Valid for diesel heater booster	63D
U951	Valid for raisable/lowerable rear air suspension	2D 41D
U952	Valid for Tempmatic/Additional air conditioning in rear	2G 34D 38G 66D
U956	Valid for auto pilot system for Japan, large display	50D 58D
U976	Valid for additional turn signal lamps on rear of roof	2G 75D
X2/18	Antenna amplifier voltage supply connector	51F
X52	Trailer hitch connector	15F
X58	Trailer hitch socket (13-pin)	15K
X58/4	Load compartment socket, left front	7K
X58/12	Load compartment socket, right rear	72K
X58/15	Load compartment socket, right front	10K

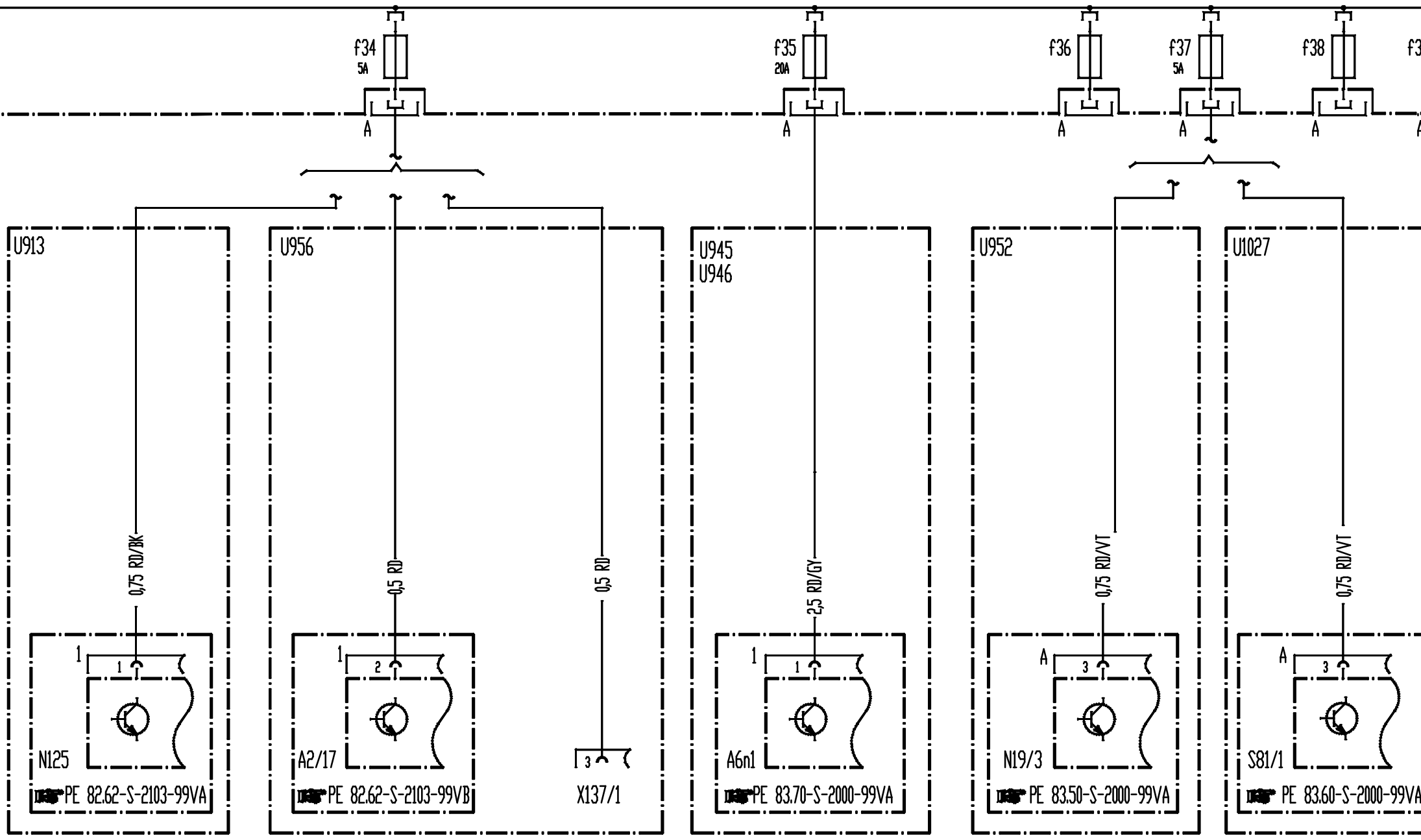
X96/4	Rear recirculation unit connector 2	37F
X137/1	VICS+ETC voltage supply separation point	61L
Z51	ELC [ENR] terminal 30 connector sleeve	42G
Z66/1	Additional fuse box feed connector sleeve	3G

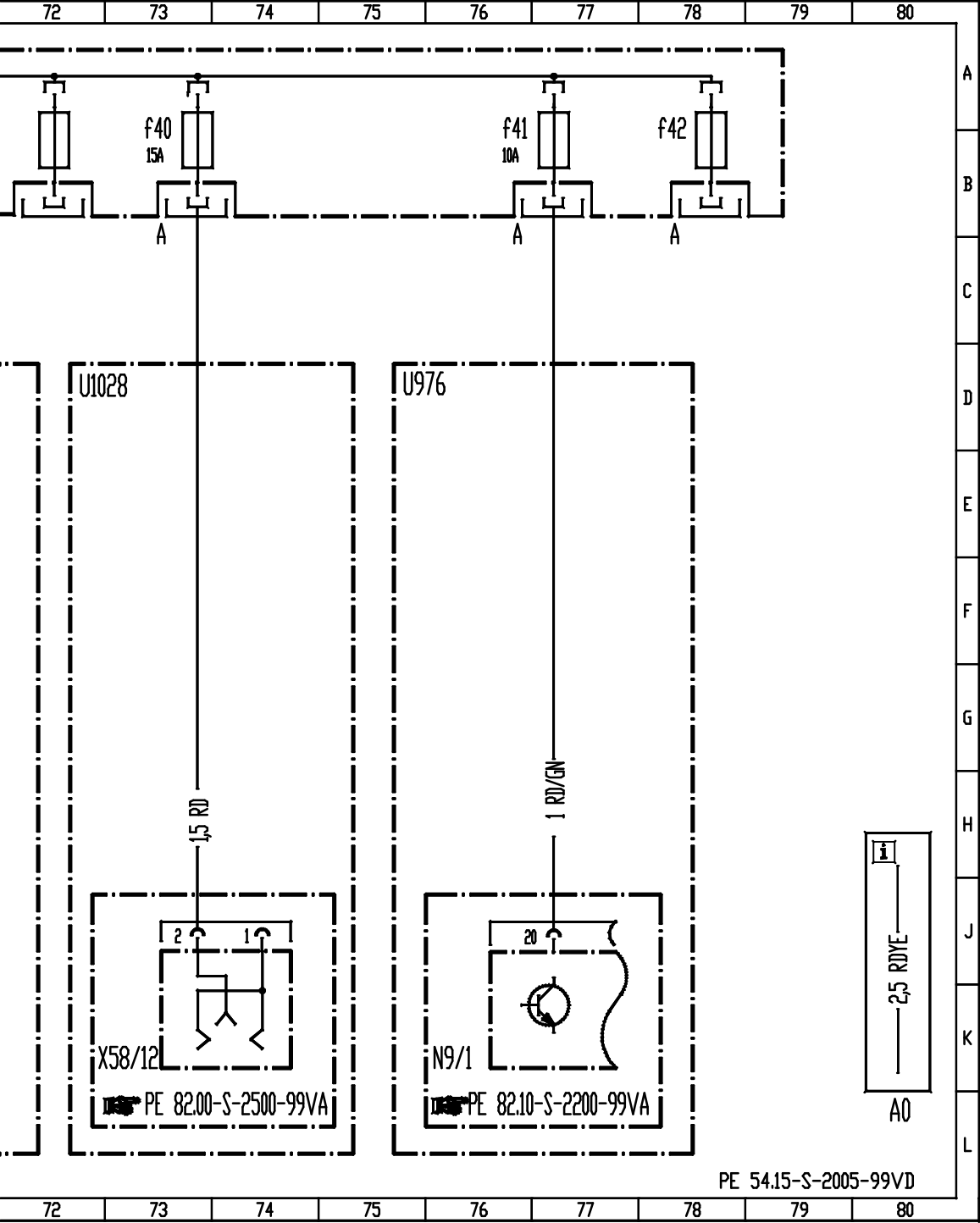












# Fuse and relay board (SRB)

# Chapter 7

PE54.15-S-2001VA	Wiring diagram for fuse and relay box	14.5.03
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**MODEL 639.601 /603 /605 /701 /703 /705 /711 /713 /811 /813 /815**  
**Sheet 1**

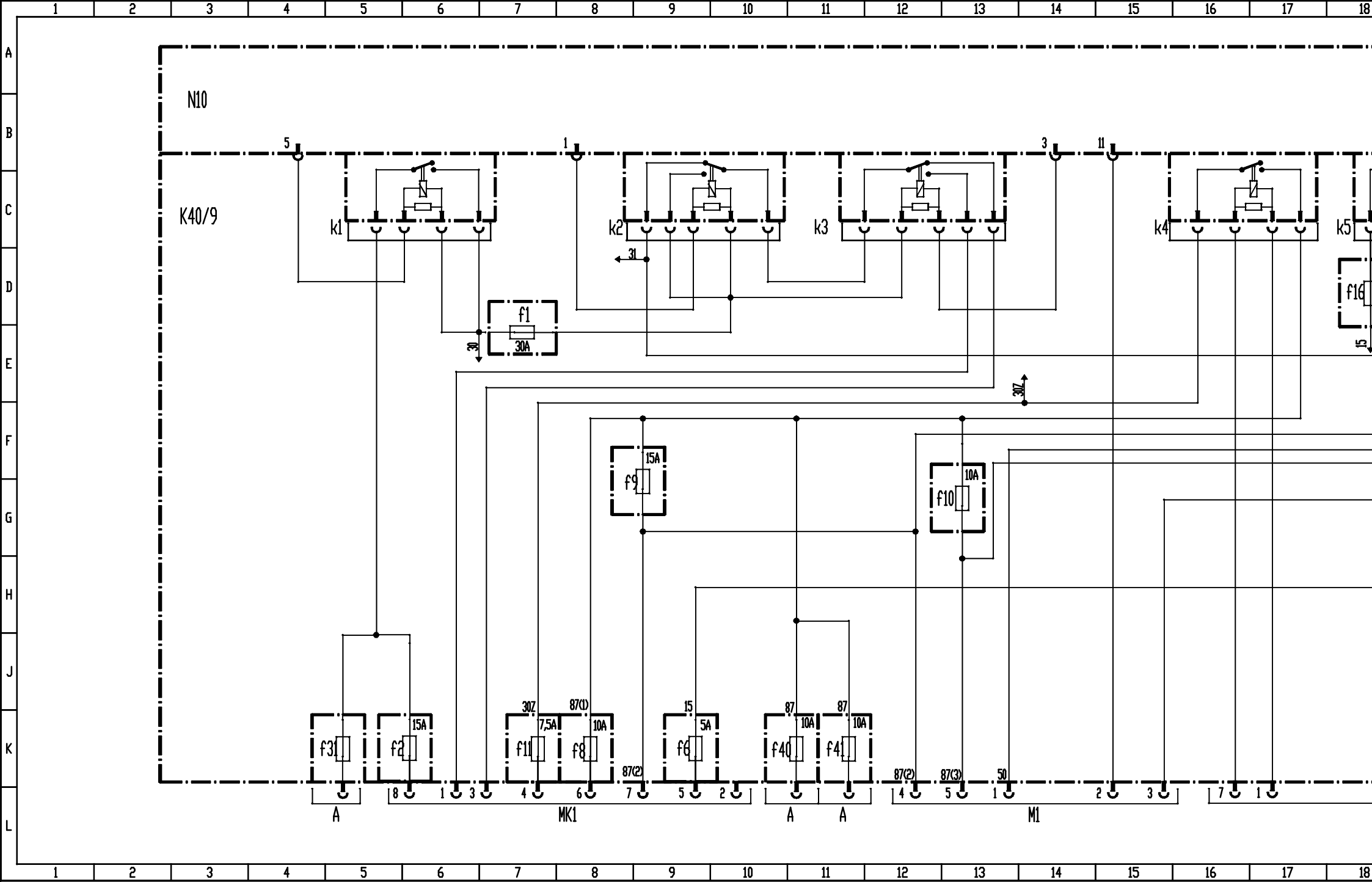
PE54.15-S-2001-99VA	Wiring diagram for fuse and relay box	Sheet 1	PE54.15-S-2001-99VA
PE54.15-S-2001-60VA	Legend of wiring diagram for fuse and relay box	Sheet 1	PE54.15-S-2001-60VA
OV00.01-S-1901-03VA	Use of wiring diagrams		OV00.01-S-1901-03VA
OV00.01-S-1901VA	Search aid for all wiring diagram groups		OV00.01-S-1901VA
OV00.01-S-1909VA	Search aid for all electrical components	Components from A to E	OV00.01-S-1909VA
OV00.01-S-1909VB	Search aid for all electrical components	Components from F to J	OV00.01-S-1909VB
OV00.01-S-1909VC	Search aid for all electrical components	Components from K to O	OV00.01-S-1909VC
OV00.01-S-1909VD	Search aid for all electrical components	Components from P to T	OV00.01-S-1909VD
OV00.01-S-1909VE	Search aid for all electrical components	Components from U to Z	OV00.01-S-1909VE
OV00.01-S-1001-27VA	Abbreviations for wiring diagrams		OV00.01-S-1001-27VA
OV00.01-S-1001-28VA	Abbreviations of signal and circuit designations for wiring diagrams		OV00.01-S-1001-28VA
GF00.19-S-1000VB	Location and assignment of line and plug connectors		GF00.19-S-1000VB
GF00.19-S-1100VB	Location and assignment of connectors and sockets		GF00.19-S-1100VB
GF00.19-S-2000VB	Location and assignment of ground points		GF00.19-S-2000VB
GF00.19-S-3000VB	Location and assignment of Z connector sleeves (line connectors in wiring harness)		GF00.19-S-3000VB
GF54.15-S-0900VA	Fuse and relay box, location/assignment		GF54.15-S-0900VA

PE54.15-S-2001-60VA	Legend for wiring diagram of fuse and relay box	MODEL 639.601 /603 /605 /701 /703 /705 /711 /713 /811 /813 /815 Sheet 1	
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Code	Designation	Coordinates
K40/9	Fuse and relay block	3C 22C 44C 66C
K40/9f1	Front wiper fuse	7D
K40/9f2	Horn fuse	5K
K40/9f3	Stop lamp switch fuse	57K
K40/9f4	Heater fuse	37K
K40/9f5	Data link connector fuse, exterior lamp switch, instrument cluster	36K
K40/9f6	Engine components fuse	9K
K40/9f7	Rear wiper fuse	56K
K40/9f8	Engine components voltage supply fuse 1	8K
K40/9f9	Engine components voltage supply fuse 2	8G
K40/9f10	Engine components voltage supply fuse	12G
K40/9f11	Engine terminal 30Z fuse	7K
K40/9f12	Rear window heater fuse	62D
K40/9f13	Instrument cluster fuse, EIS [EZS]	36K
K40/9f14	Brake system fuse	25K
K40/9f15	Headlamp range adjustment fuse	30F
K40/9f16	Starter fuse	18D
K40/9f17	FP fuse	29D
K40/9f18	Cigar lighter fuse, glove compartment illumination	34K
K40/9f19	Radio fuse	35K
K40/9f20	Ignition coil M112 fuse	45K

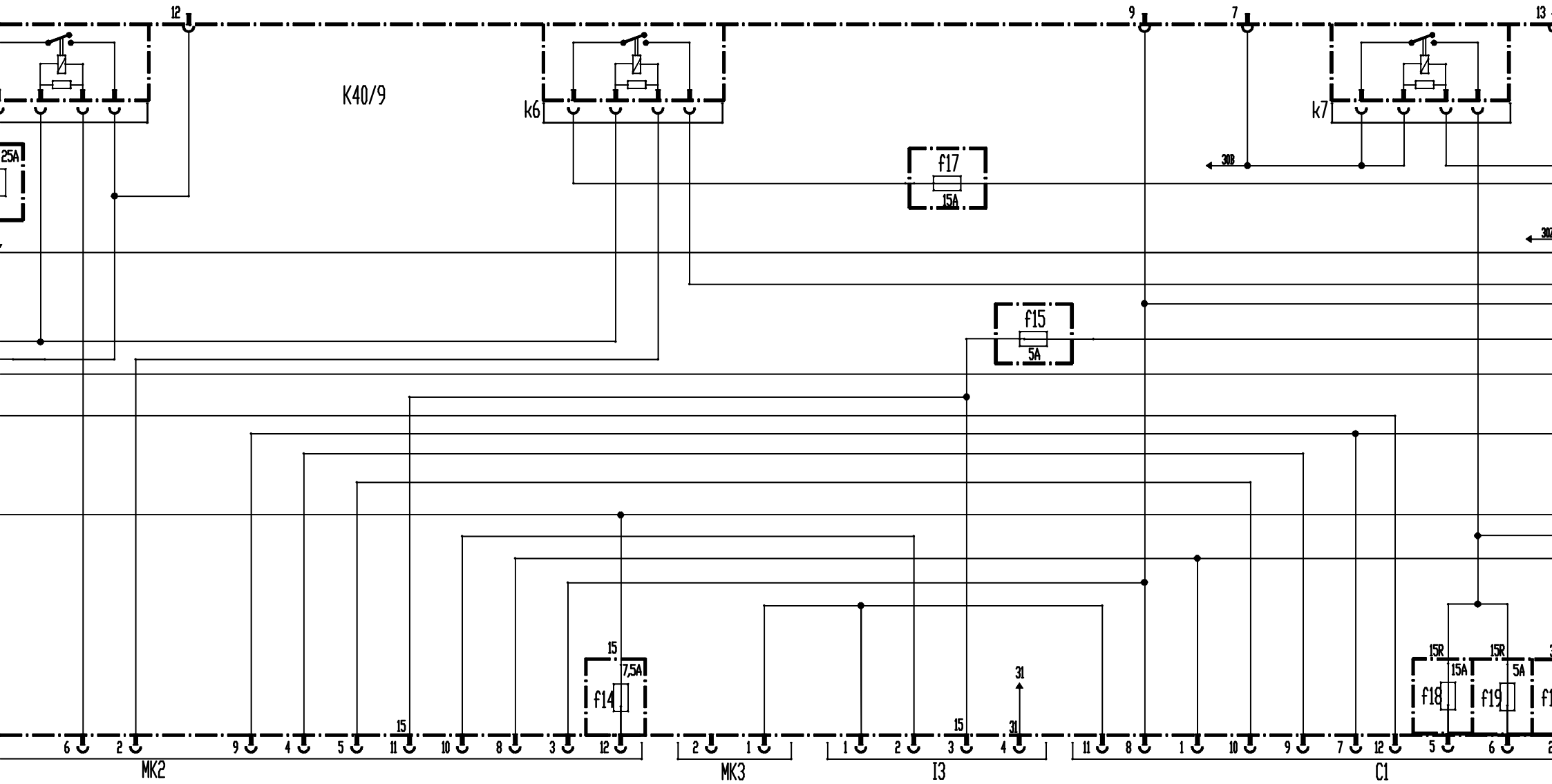
K40/9f21	Electronic selector lever module fuse	46K
K40/9f22	Fuse, tachograph	47K
K40/9f23	Airbag control unit fuse	49K
K40/9f24	Fuse	45K
K40/9f25	AAG fuse	47K
K40/9f26	Cutoff relay fuse (Westfalia)	48K
K40/9f27	Body manufacturer terminal 15 fuse	49K
K40/9f28	Terminal 87 fuse, ETC [EGS]	52K
K40/9f29	Fuse	51K
K40/9f30	Fuse	50K
K40/9f31	ATA [EDW] horn fuse	4K
K40/9f32	Portable CTEL fuse, VICS	40K
K40/9f33	Airbag control unit fuse, ACSR [AKSE]	41K
K40/9f34	Body manufacturer terminal 15 fuse	42K
K40/9f35	Standard overhead control panel fuse	42K
K40/9f36	Lumbar support adjustment fuse	43K
K40/9f37	Vanity mirror fuse	53K
K40/9f38	TV entertainment system fuse	53K
K40/9f39	Fuse	54K
K40/9f40	Engine fuse (diesel control unit)	10K
K40/9f41	Engine fuse (diesel control unit)	11K
K40/9k1	Horn relay	4C
K40/9k2	Wiper On and Off relay	8C
K40/9k3	Wiper level 2 relay	11C
K40/9k4	Circuit 87 engine relay	15C
K40/9k5	Starter relay	17C
K40/9k6	Fuel pump relay	24C
K40/9k7	Circuit 15R relay	33C
K40/9k8	Circuit 15 relay	36C
K40/9k9	Heated rear window relay	58C

K40/9k10	Terminal 15R relief relay	49C
K40/9k11	Circuit 15 relief relay	54C
M1	Starter	14L
N10	SAM control unit	3B 22B 45B 66B

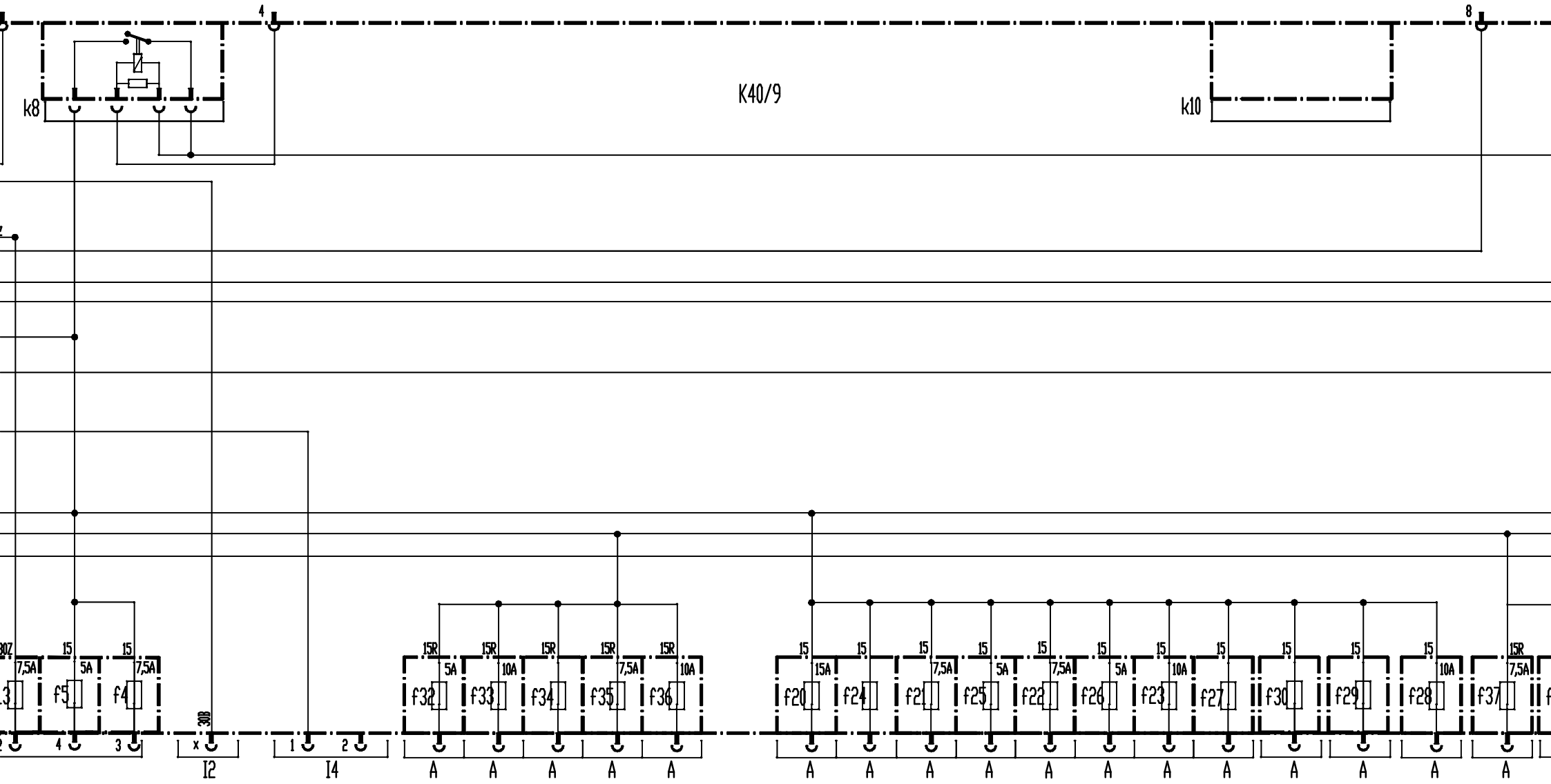


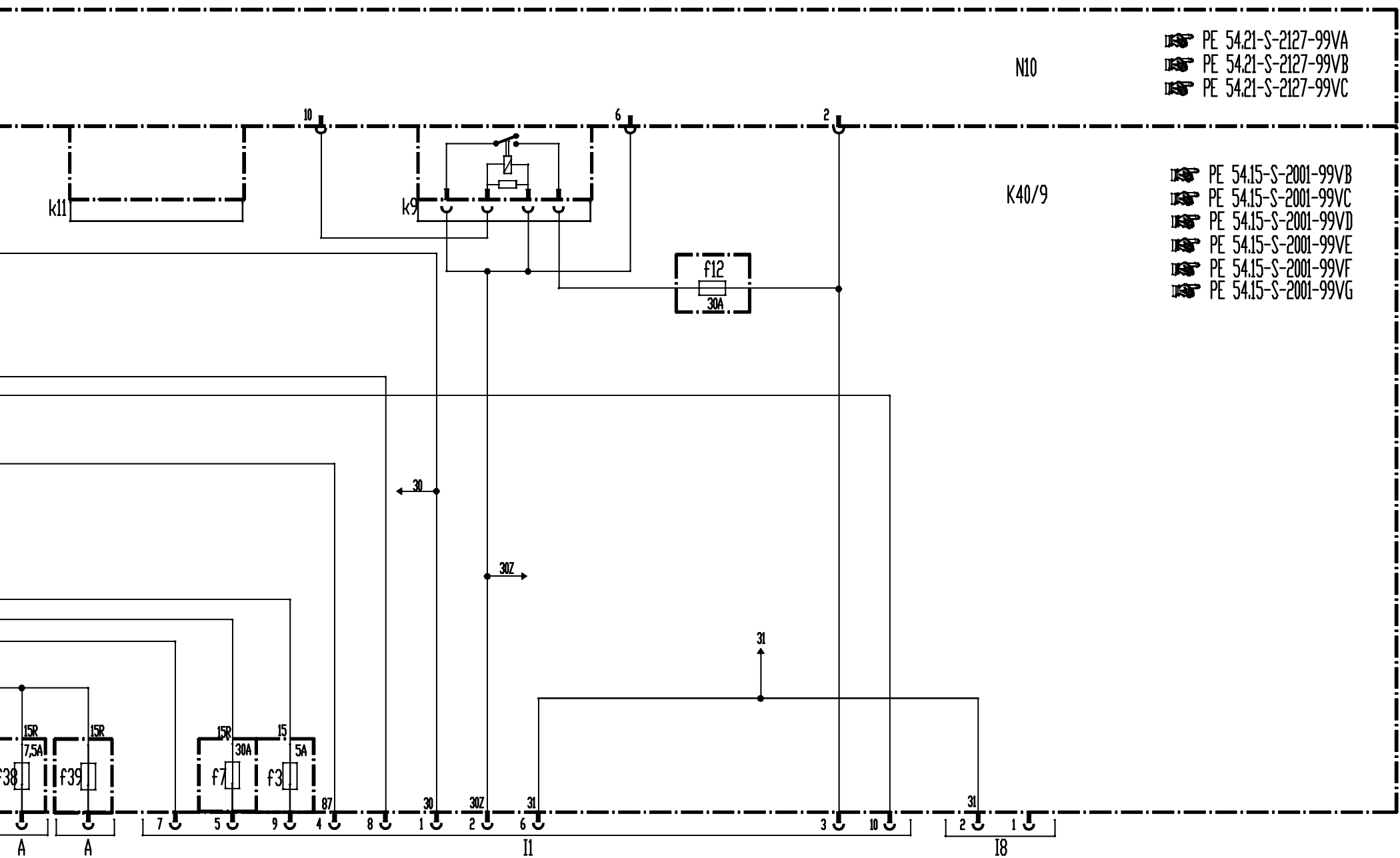


N10



N10





- PE 54.21-S-2127-99VA
- PE 54.21-S-2127-99VB
- PE 54.21-S-2127-99VC

- PE 54.15-S-2001-99VB
- PE 54.15-S-2001-99VC
- PE 54.15-S-2001-99VD
- PE 54.15-S-2001-99VE
- PE 54.15-S-2001-99VF
- PE 54.15-S-2001-99VG

PE54.15-S-2001VC	Wiring diagram for fuse and relay box	25.7.03
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**MODEL 639.601 /603 /605 /701 /703 /705 /711 /713 /811 /813 /815**  
**Sheet 2**

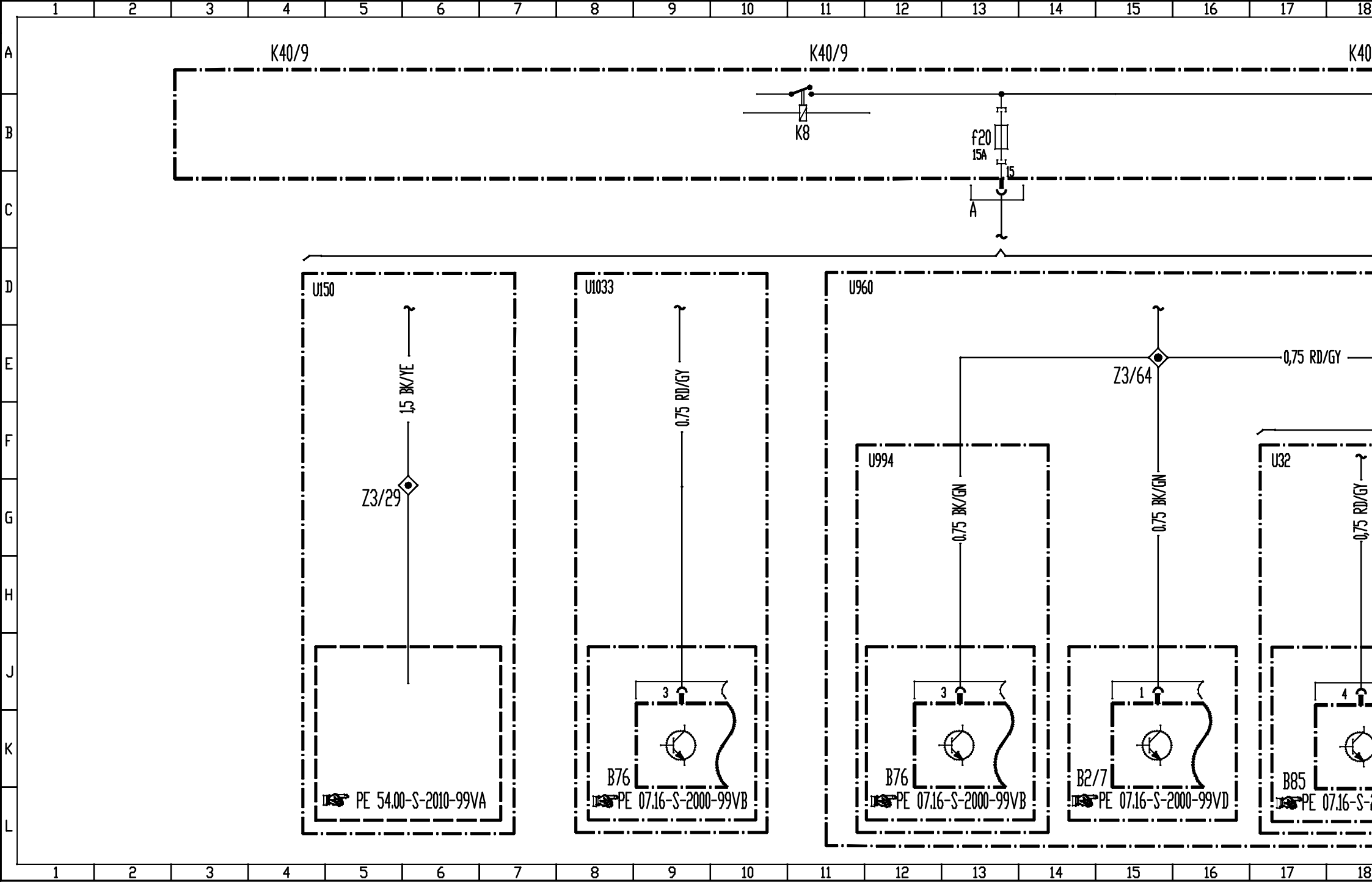
PE54.15-S-2001-99VC	Wiring diagram for fuse and relay box	Sheet 2	PE54.15-S-2001-99VC
PE54.15-S-2001-60VC	Legend of wiring diagram for fuse and relay box	Sheet 2	PE54.15-S-2001-60VC
OV00.01-S-1901-03VA	Use of wiring diagrams		OV00.01-S-1901-03VA
OV00.01-S-1901VA	Search aid for all wiring diagram groups		OV00.01-S-1901VA
OV00.01-S-1909VA	Search aid for all electrical components	Components from A to E	OV00.01-S-1909VA
OV00.01-S-1909VB	Search aid for all electrical components	Components from F to J	OV00.01-S-1909VB
OV00.01-S-1909VC	Search aid for all electrical components	Components from K to O	OV00.01-S-1909VC
OV00.01-S-1909VD	Search aid for all electrical components	Components from P to T	OV00.01-S-1909VD
OV00.01-S-1909VE	Search aid for all electrical components	Components from U to Z	OV00.01-S-1909VE
OV00.01-S-1001-27VA	Abbreviations for wiring diagrams		OV00.01-S-1001-27VA
OV00.01-S-1001-28VA	Abbreviations of signal and circuit designations for wiring diagrams		OV00.01-S-1001-28VA
GF00.19-S-1000VB	Location and assignment of line and plug connectors		GF00.19-S-1000VB
GF00.19-S-1100VB	Location and assignment of connectors and sockets		GF00.19-S-1100VB
GF00.19-S-2000VB	Location and assignment of ground points		GF00.19-S-2000VB
GF00.19-S-3000VB	Location and assignment of Z connector sleeves (line connectors in wiring harness)		GF00.19-S-3000VB
GF54.15-S-0900VA	Fuse and relay box, location/assignment		GF54.15-S-0900VA

PE54.15-S-2001-60VC	Legend of wiring diagram for fuse and relay box	MODEL 639.601 /603 /605 /701 /703 /705 /711 /713 /811 /813 /815 Sheet 2	
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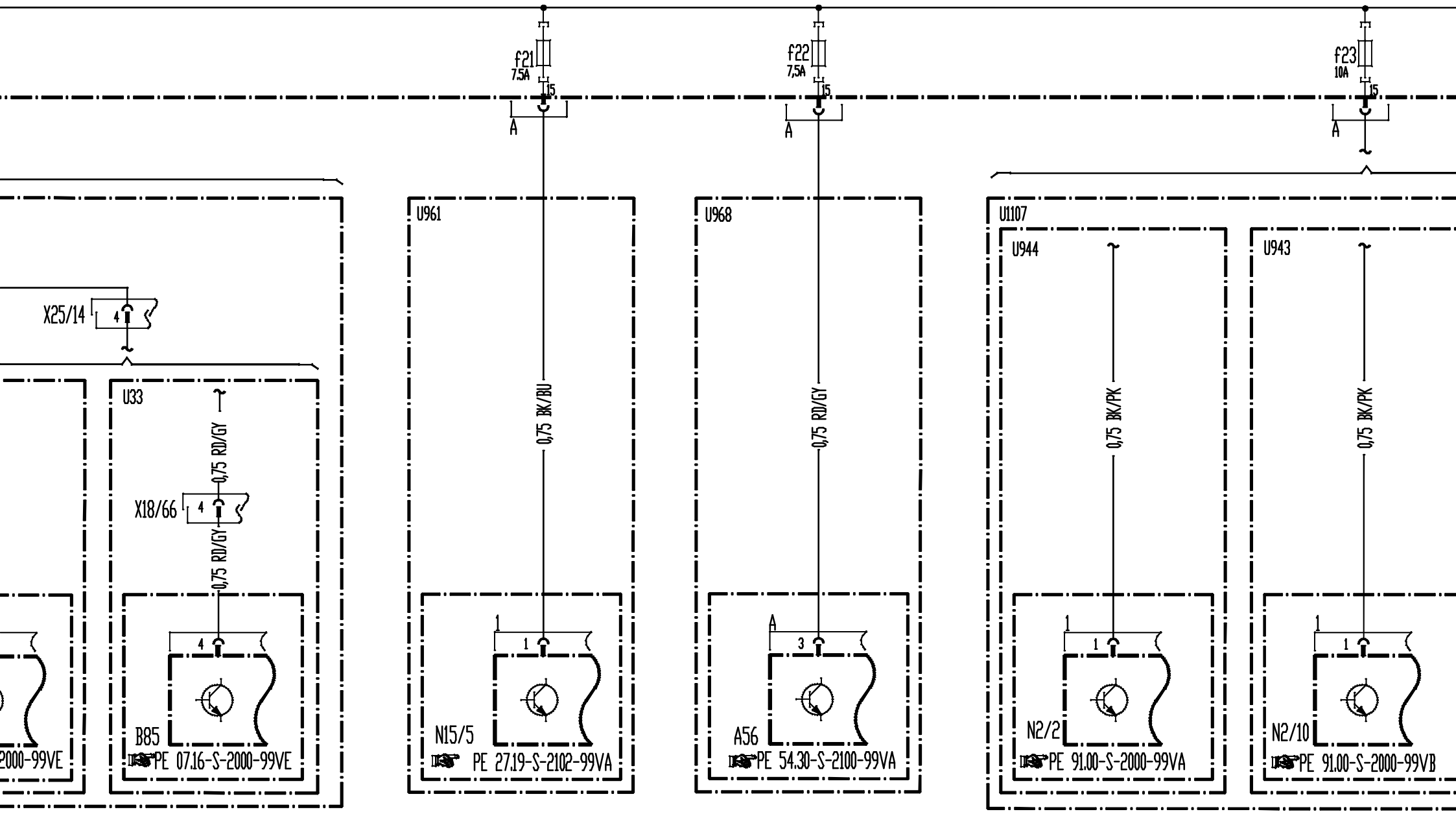
Code	Designation	Coordinates
A56	Modular tachograph	27K
B2/7	Hot film mass air flow sensor	14K
B76	Fuel filter water level sensor	8K 12K
B85	O2 sensor, upstream from TWC	17L 20L
K40/9	Fuse and relay block	4A 11A 18A 25A 32A 39A 46A 53A 60A
K40/9f20	Ignition coil M112 fuse	13B
K40/9f21	Electronic selector lever module fuse	24B
K40/9f22	Fuse, tachograph	28B
K40/9f23	Airbag control unit fuse	34B
K40/9f24	Fuse	37B
K40/9f25	AAG fuse	42B
K40/9f26	Cutoff relay fuse (Westfalia)	47B
K40/9f27	Body manufacturer terminal 15 fuse	49B
K40/9f28	Terminal 87 fuse, ETC [EGS]	51B
K40/9f29	Fuse	52B
K40/9f30	Fuse	54B
K40/9f31	ATA [EDW] horn fuse	56B

K57	Battery cutoff relay	47K
N2/2	SRS control unit	31K
N2/10	SRS control unit	34K
N2/11	ARCADE airbag control unit	37K
N15/3	EGS control unit	50K
N15/5	Electronic selector lever module control unit	23K
N28/1	Trailer connection unit [AAG] control unit	40K 43K
U32	Valid for left-hand drive vehicles	17F
U33	Valid for right-hand drive vehicles	20F
U1031	Valid for additional heavy-duty battery	47D
U1033	Valid for engine OM 646 with fuel filter with water separator and engine version Euro 3 (diesel)	8D
U1107	Valid up to 08/2005	30D 40D
U1108	Valid as of 09/2005	37D 43D
U150	Valid for engine M 112	4D
U939	Valid for socket for rear-mounted bicycle carrier repeater lamps	40D 43D
U940	Valid for electrical system for trailer socket	40E 43D
U941	Valid for fixed trailer hitch	40E 43E
U942	Valid for removable trailer hitch	40E 43E
U943	Valid with Window-Thoraxbag for driver and front passenger	34E
U944	Valid without window thoraxbag for driver and front passenger	30E
U960	Valid for engine OM 642	11D
U961	Valid for automatic transmission	23D 50D
U968	Valid for 1 day/2 driver tachograph	27D
U994	Valid for fuel filter with water separator	12F
X18/66	O2 sensor connector	20H

X25/14	Connector for O2-sensor/exhaust gas temperature sensor	19E
Z3/29	Circuit 15 connector sleeve (fused)	5G
Z3/64	Circuit 15 connector sleeve	15E



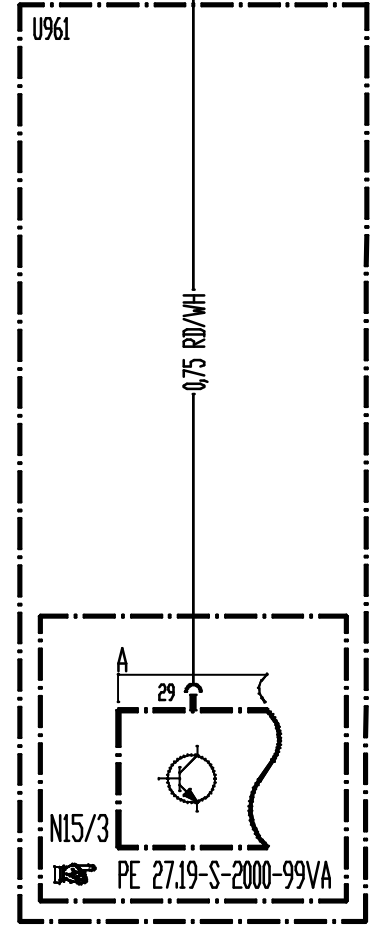
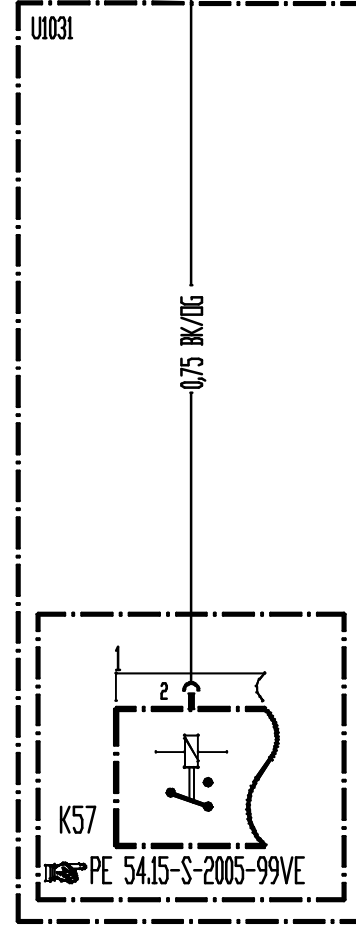
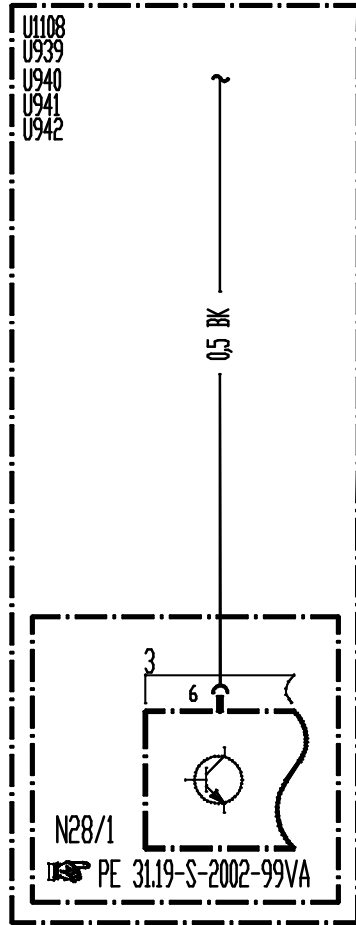
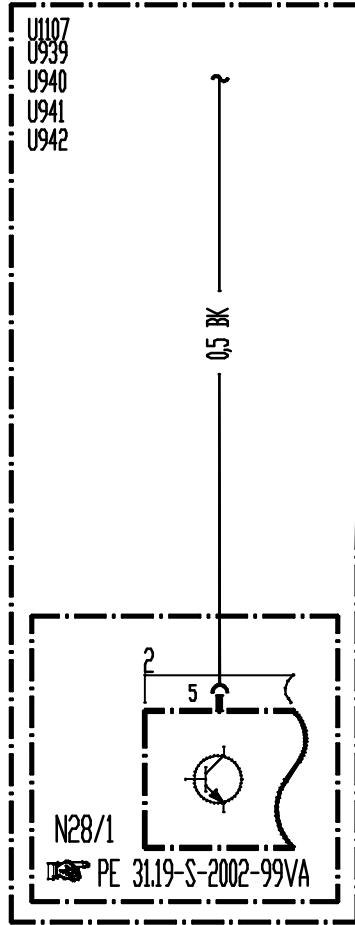
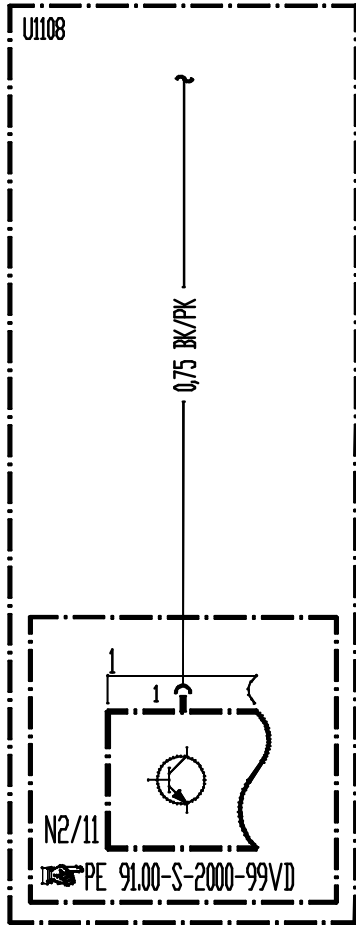




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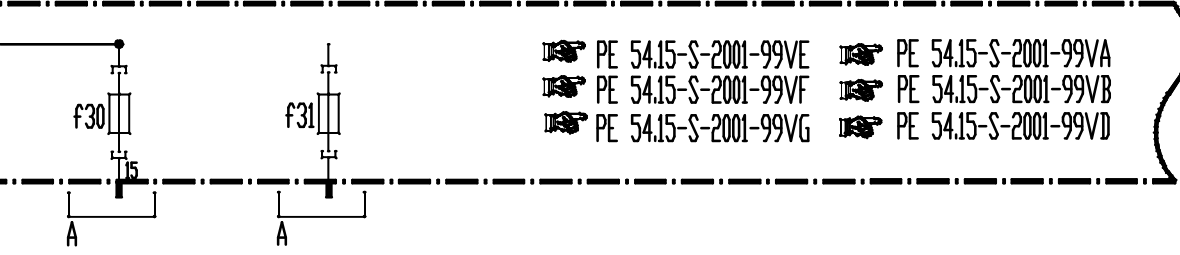
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K40/9



- PE 54.15-S-2001-99VE
- PE 54.15-S-2001-99VF
- PE 54.15-S-2001-99VG
- PE 54.15-S-2001-99VA
- PE 54.15-S-2001-99VB
- PE 54.15-S-2001-99VD

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PE 54.15-S-2001-99VC

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**MODEL 639.601 /603 /605 /701 /703 /705 /711 /713 /811 /813 /815**  
**Sheet 3**

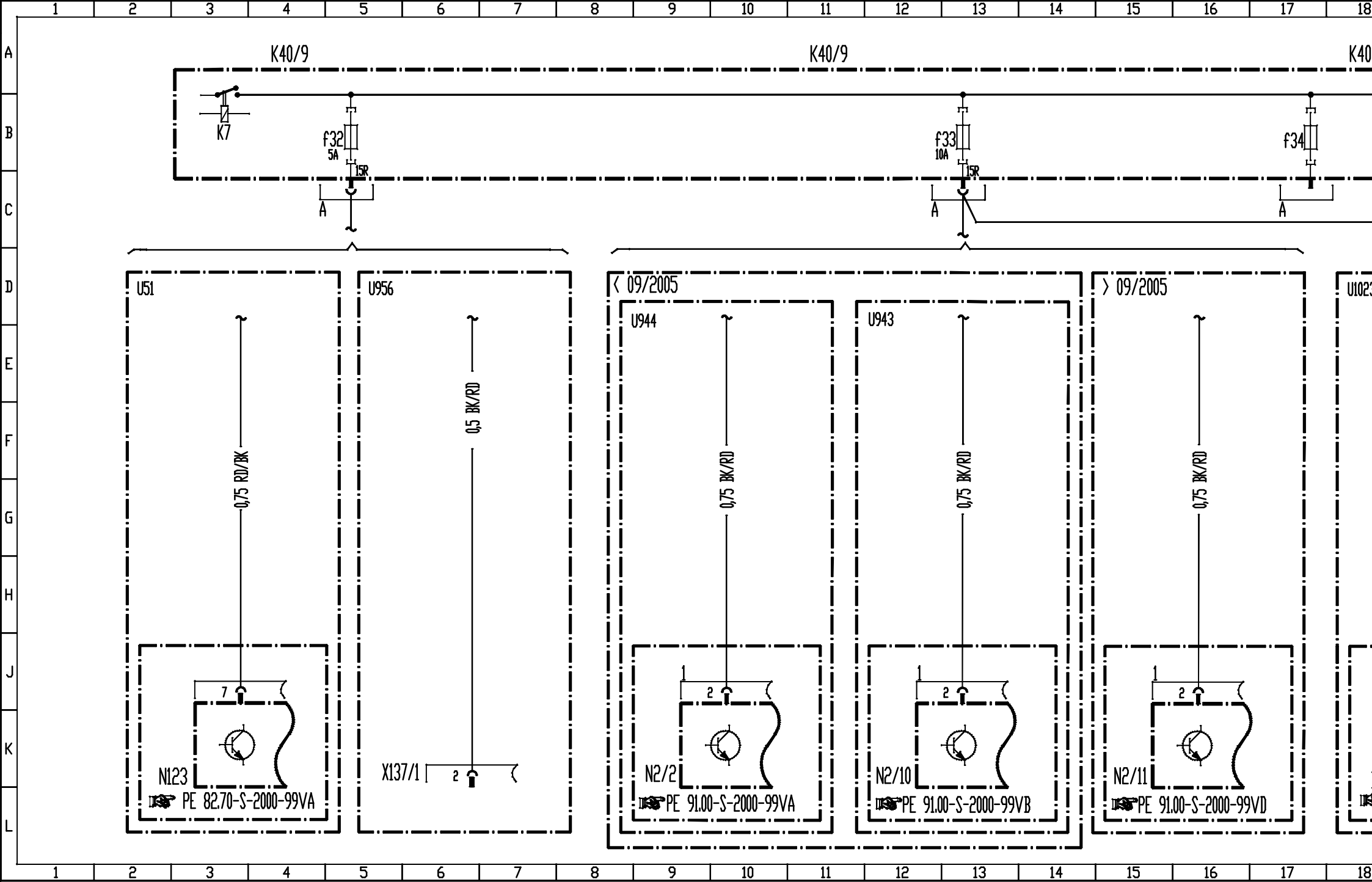
PE54.15-S-2001-99VD	Wiring diagram for fuse and relay box	Sheet 3	PE54.15-S-2001-99VD
PE54.15-S-2001-60VD	Legend of wiring diagram for fuse and relay box	Sheet 3	PE54.15-S-2001-60VD
OV00.01-S-1901-03VA	Use of wiring diagrams		OV00.01-S-1901-03VA
OV00.01-S-1901VA	Search aid for all wiring diagram groups		OV00.01-S-1901VA
OV00.01-S-1909VA	Search aid for all electrical components	Components from A to E	OV00.01-S-1909VA
OV00.01-S-1909VB	Search aid for all electrical components	Components from F to J	OV00.01-S-1909VB
OV00.01-S-1909VC	Search aid for all electrical components	Components from K to O	OV00.01-S-1909VC
OV00.01-S-1909VD	Search aid for all electrical components	Components from P to T	OV00.01-S-1909VD
OV00.01-S-1909VE	Search aid for all electrical components	Components from U to Z	OV00.01-S-1909VE
OV00.01-S-1001-27VA	Abbreviations for wiring diagrams		OV00.01-S-1001-27VA
OV00.01-S-1001-28VA	Abbreviations of signal and circuit designations for wiring diagrams		OV00.01-S-1001-28VA
GF00.19-S-1000VB	Location and assignment of line and plug connectors		GF00.19-S-1000VB
GF00.19-S-1100VB	Location and assignment of connectors and sockets		GF00.19-S-1100VB
GF00.19-S-2000VB	Location and assignment of ground points		GF00.19-S-2000VB
GF00.19-S-3000VB	Location and assignment of Z connector sleeves (line connectors in wiring harness)		GF00.19-S-3000VB
GF54.15-S-0900VA	Fuse and relay box, location/assignment		GF54.15-S-0900VA

PE54.15-S-2001-60VD	Legend of wiring diagram for fuse and relay box	MODEL 639.601 /603 /605 /701 /703 /705 /711 /713 /811 /813 /815 Sheet 3	
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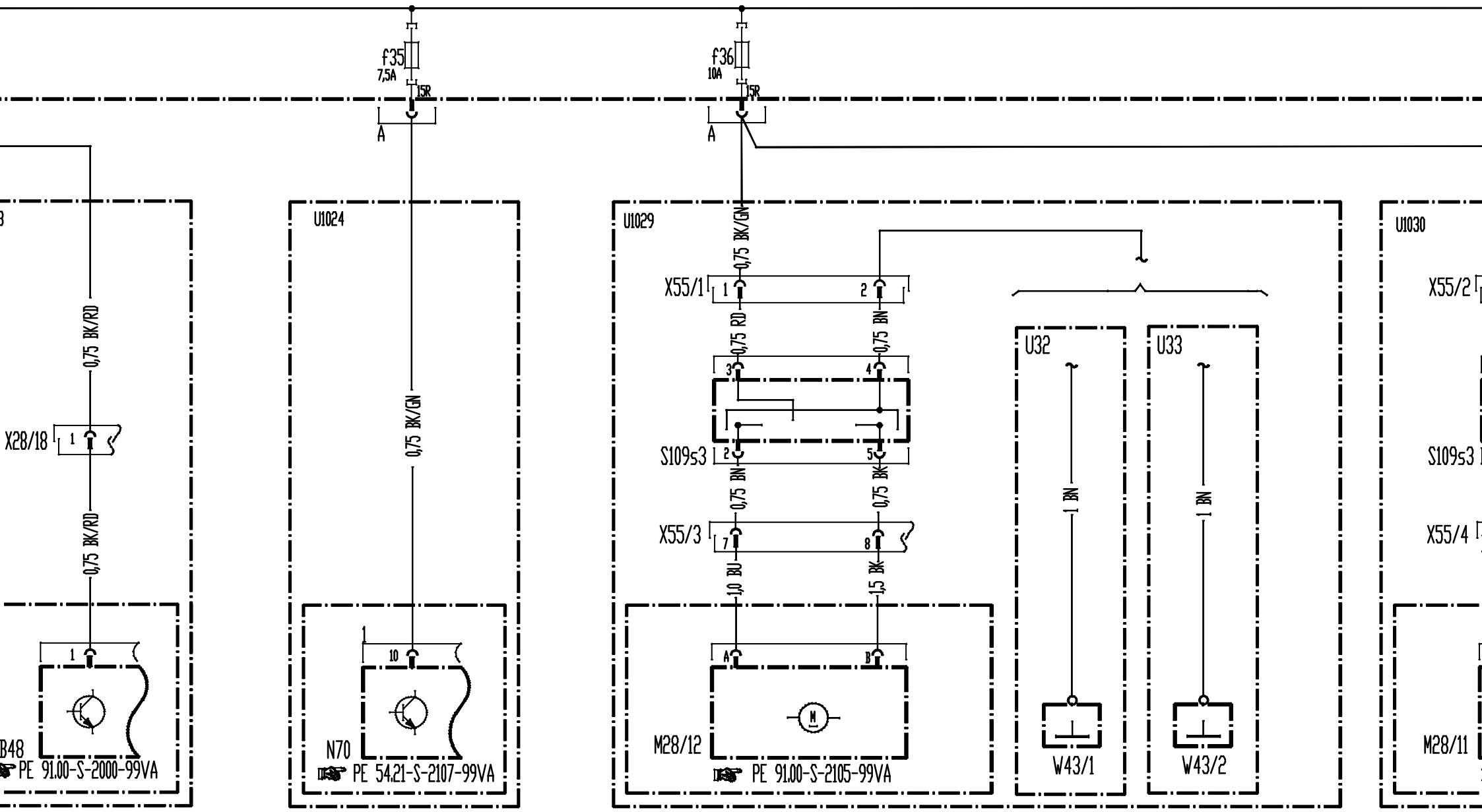
Code	Designation	Coordinates
B48	Front passenger seat occupied and child seat recognition sensor	18K
E14/6	Illumination, left front vanity mirror	45K
E14/7	Illumination, right front vanity mirror	48L
K40/9	Fuse and relay block	4A 11A 18A 25A 32A 39A 46A 53A 60A 67A 74A
K40/9f32	Portable CTEL fuse, VICS	4B
K40/9f33	Airbag control unit fuse, ACSR [AKSE]	12B
K40/9f34	Body manufacturer terminal 15 fuse	17B
K40/9f35	Standard overhead control panel fuse	22B
K40/9f36	Lumbar support adjustment fuse	26B
K40/9f37	Vanity mirror fuse	48B
K40/9f38	TV entertainment system fuse	52B
K40/9f39	Fuse	54B
K40/9f40	Engine fuse (diesel control unit)	57B
K40/9f41	Engine fuse (diesel control unit)	64B
M28/11	Lumbar support adjustment motor, right	35K
M28/12	Lumbar support adjustment motor, left	26K
N2/2	SRS control unit	9K

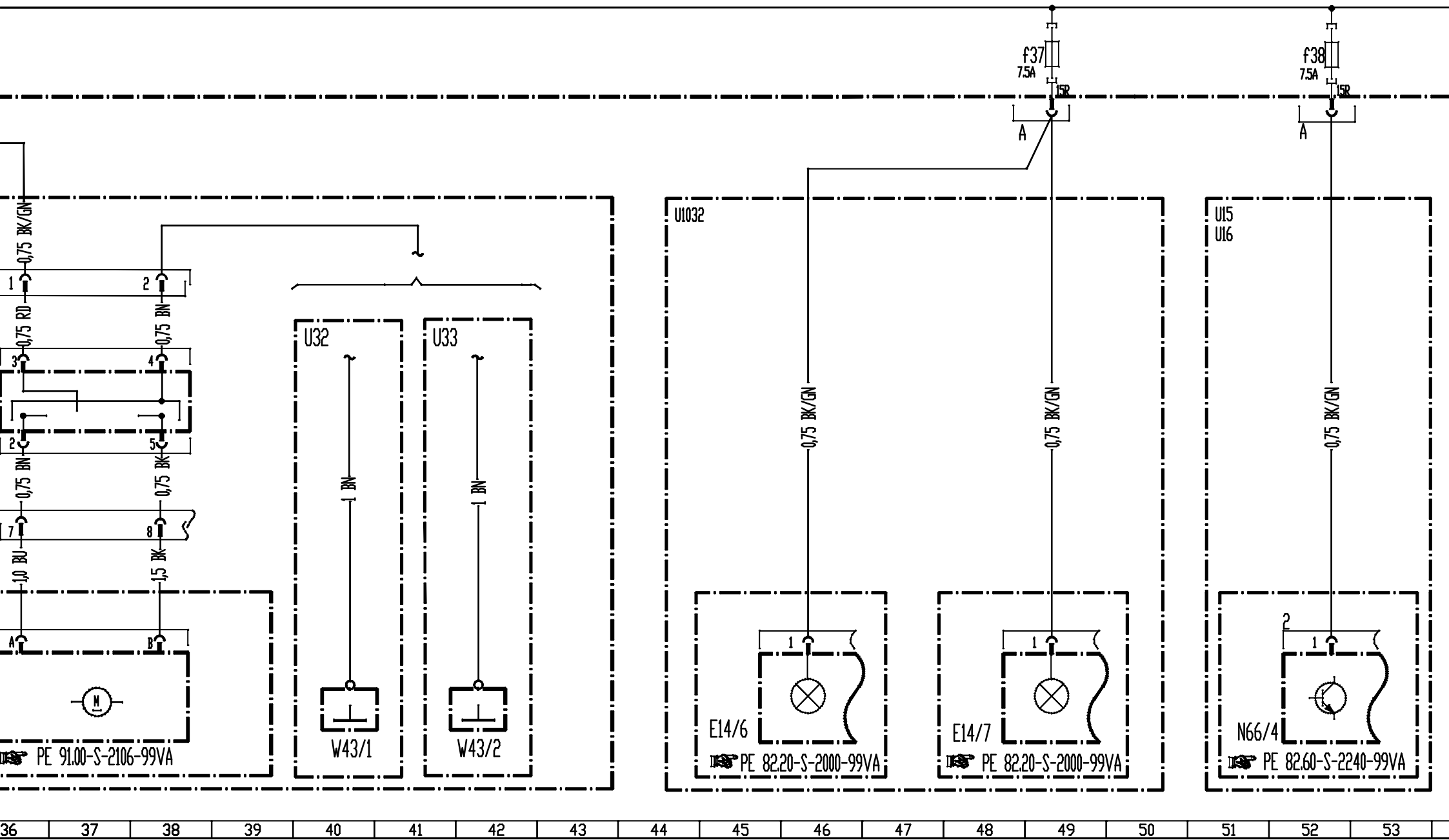
N2/10	SRS control unit	12K
N2/11	ARCADE airbag control unit	15K
N3/9	CDI control unit	55K 62K
N3/20	CDI control unit	58K 65K
N66/4	Rear conversation unit control unit	51K
N70	Overhead control panel control unit	22L
N123	Hands-free system control unit	2K
S109s3	Lumbar support adjustment switch, left front	26G 35G
U15	Valid for screen in rear and DVD player	51D
U16	Valid for screen in rear, DVD player and TV tuner	51D
U32	Valid for left-hand drive vehicles	30F 40F
U33	Valid for right-hand drive vehicles	32F 41F
U51	Valid for telephone preinstallation	2D
U1023	Valid for front passenger airbag and comfort front passenger seat or revolving comfort front passenger seat or front passenger seat with electric adjustment	18D
U1024	Valid for DBE with 2 reading spotlights or garage door opener without glass tilting/sliding roof in driver/passenger compartment, glass tilting/sliding roof in passenger compartment, light/rain sensor, EDW II or EDW I	22D
U1029	Valid for lumbar support for driver seat	26D
U1030	Valid for lumbar support for passenger seat	35D
U1032	Valid for driver/passenger sun visor with illuminated mirror	44D
U740	Valid for engine OM 646	55D 62D
U943	Valid with Window-Thoraxbag for driver and front passenger	12D
U944	Valid without window thoraxbag for driver and front passenger	9E
U956	Valid for auto pilot system for Japan, large display	5D
U960	Valid for engine OM 642	58D 65D

W43/1	Ground (left interior compartment firewall)	31L 40L
W43/2	Ground (right interior compartment firewall)	32L 42L
X28/18	Seat occupied recognition with ACSR [AKSE] connector	18G
X55/1	Left lumbar support adjustment connector	26E
X55/2	Right lumbar support adjustment connector	35E
X55/3	Left seat adjustment connector	26H
X55/4	Right seat adjustment connector	35H
X137/1	VICS+ETC voltage supply separation point	5K



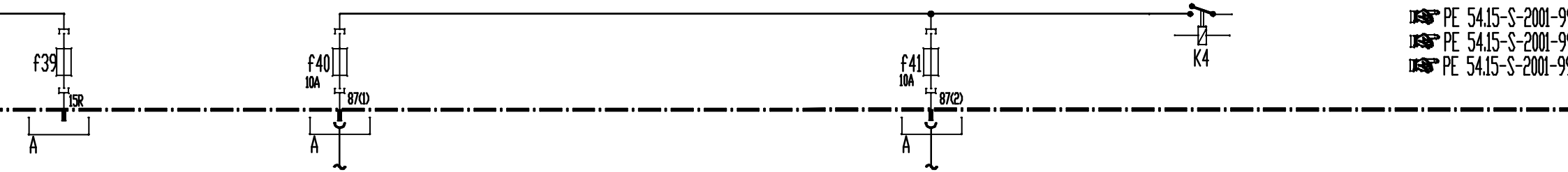




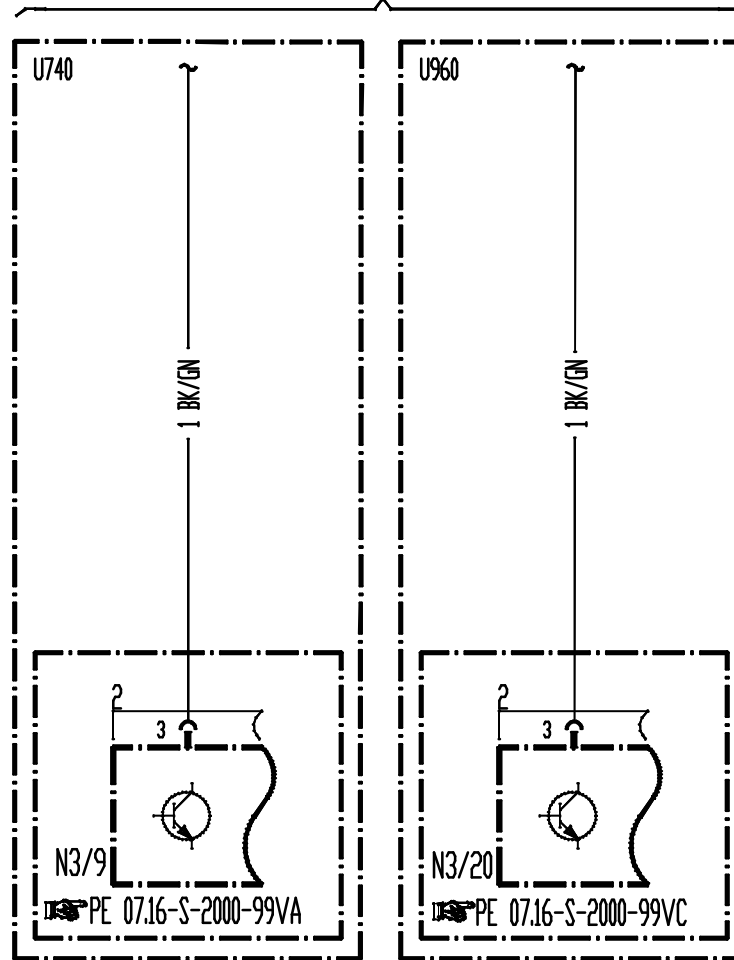
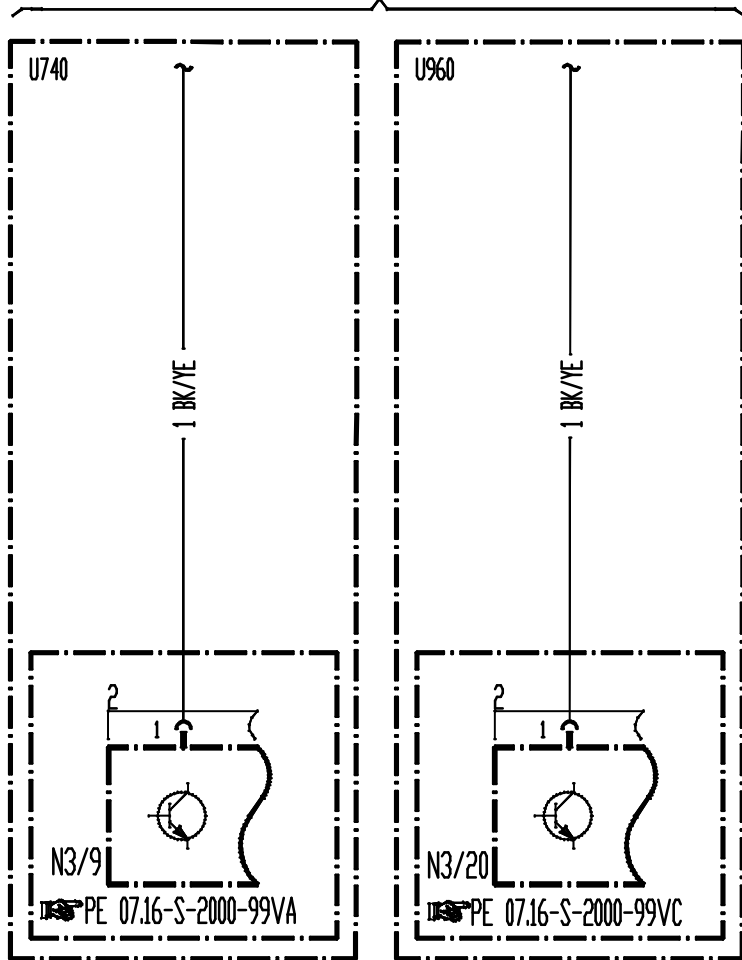


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- PE 54.15-S-2001-9
- PE 54.15-S-2001-9
- PE 54.15-S-2001-9



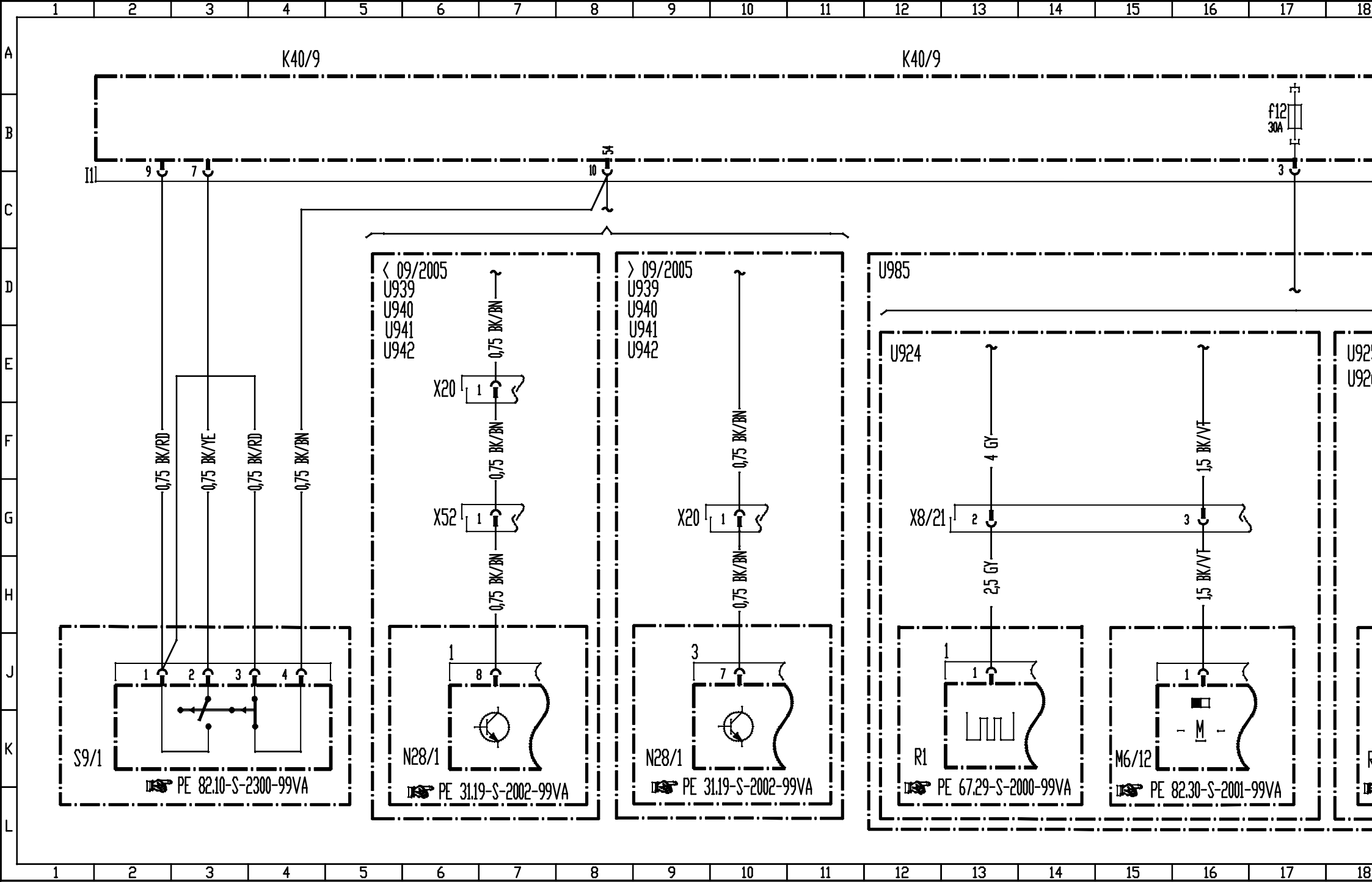
**MODEL 639.601 /603 /605 /701 /703 /705 /711 /713 /811 /813 /815****Sheet 4**

PE54.15-S-2001-99VE	Wiring diagram for fuse and relay box		PE54.15-S-2001-99VE
PE54.15-S-2001-60VE	Legend of wiring diagram for fuse and relay box		PE54.15-S-2001-60VE
OV00.01-S-1901-03VA	Use of wiring diagrams		OV00.01-S-1901-03VA
OV00.01-S-1901VA	Search aid for all wiring diagram groups		OV00.01-S-1901VA
OV00.01-S-1909VA	Search aid for all electrical components	Components from A to E	OV00.01-S-1909VA
OV00.01-S-1909VB	Search aid for all electrical components	Components from F to J	OV00.01-S-1909VB
OV00.01-S-1909VC	Search aid for all electrical components	Components from K to O	OV00.01-S-1909VC
OV00.01-S-1909VD	Search aid for all electrical components	Components from P to T	OV00.01-S-1909VD
OV00.01-S-1909VE	Search aid for all electrical components	Components from U to Z	OV00.01-S-1909VE
OV00.01-S-1001-27VA	Abbreviations for wiring diagrams		OV00.01-S-1001-27VA
OV00.01-S-1001-28VA	Abbreviations of signal and circuit designations for wiring diagrams		OV00.01-S-1001-28VA
GF00.19-S-1000VB	Location and assignment of line and plug connectors		GF00.19-S-1000VB
GF00.19-S-1100VB	Location and assignment of connectors and sockets		GF00.19-S-1100VB
GF00.19-S-2000VB	Location and assignment of ground points		GF00.19-S-2000VB
GF00.19-S-3000VB	Location and assignment of Z connector sleeves (line connectors in wiring harness)		GF00.19-S-3000VB
GF54.15-S-0900VA	Fuse and relay box, location/assignment		GF54.15-S-0900VA

PE54.15-S-2001-60VE	Legend of wiring diagram for fuse and relay box	MODEL 639.601 /603 /605 /701 /703 /705 /711 /713 /811 /813 /815 Sheet 4	
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Code	Designation	Coordinates
F1	1-pin prefuse box	36G 40G
K40/9	Fuse and relay block	4A 12A 19A 26A 33A 40A
K40/9f7	Rear wiper fuse	19B
K40/9f12	Rear window heater fuse	17B
M6/10	Wiper motor, left rear-end door	24K
M6/11	Wiper motor, right rear-end door	21K
M6/12	Wiper motor, tailgate	15K
N28/1	Trailer connection unit [AAG] control unit	6K 9K
R1	Heated rear window	12K
R1/2	Heated rear window, right	18K
S9/1	Stop lamp switch	1K
U32	Valid for left-hand drive vehicles	32D
U33	Valid for right-hand drive vehicles	33D
U1045	Valid up to 02/2004	35D
U1046	Valid as of 03/2004	39D
U924	Valid for tailgate	12E
U925	Valid for 180° 2-wing rear-end door	18E
U926	Valid for 270° 2-wing rear-end door	18E

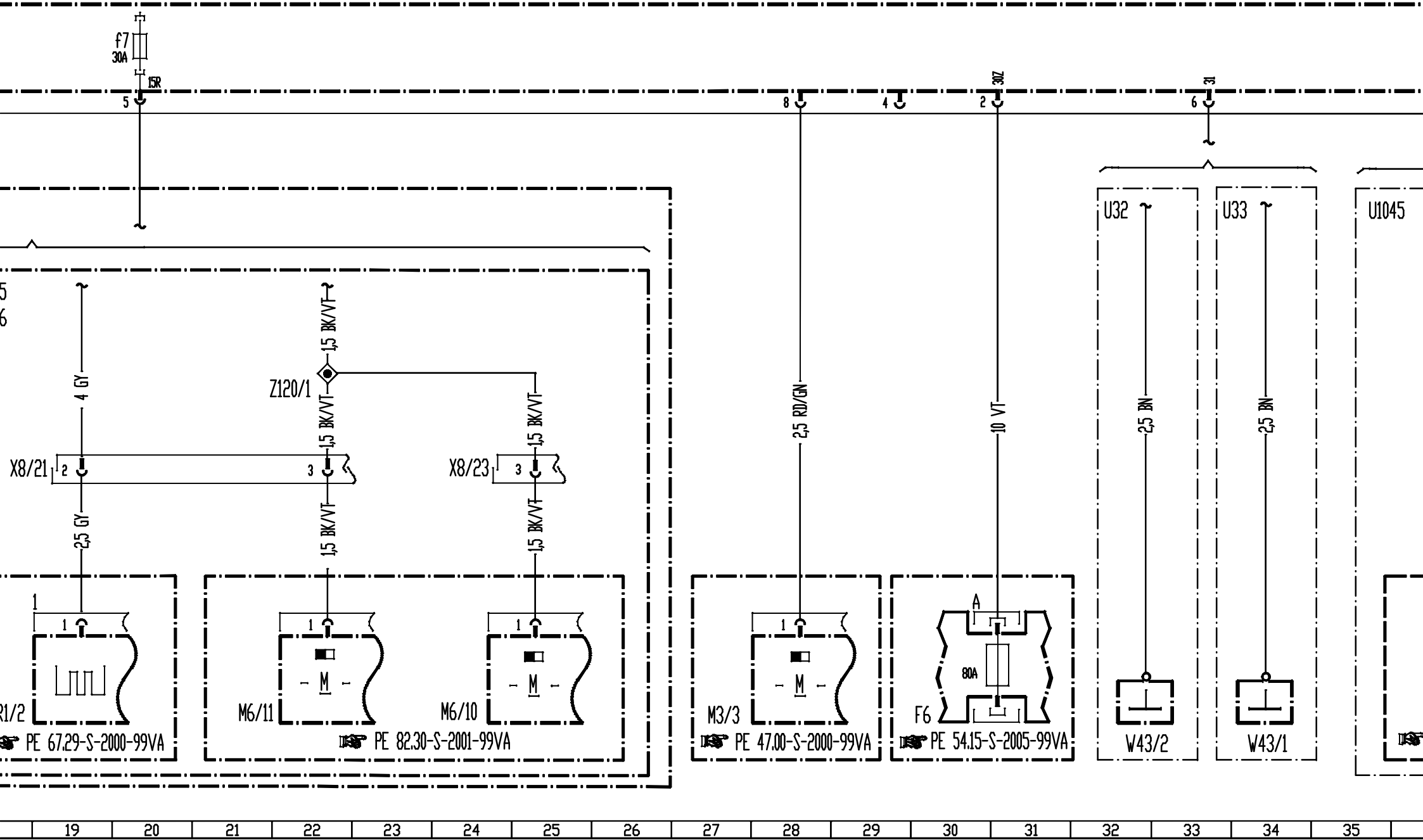
U939	Valid for socket for rear-mounted bicycle carrier repeater lamps	5D 8D
U940	Valid for electrical system for trailer socket	5D 8D
U941	Valid for fixed trailer hitch	5E 8E
U942	Valid for removable trailer hitch	5E 8E
U985	Valid for tailgate/hinged rear door window with wipe/wash system	12D
W43/1	Ground (left interior compartment firewall)	34L
W43/2	Ground (right interior compartment firewall)	32L
X8/21	Tailgate connector	12G 18G
X8/23	Left rear-end door connector	24G
X20	Shift lock switch connector	6E 9G
X52	Trailer hitch connector	6G
Z66/1	Additional fuse box feed connector sleeve	36H 40H
Z120/1	Rear-end door wiper motor terminal 15 connector sleeve	21F



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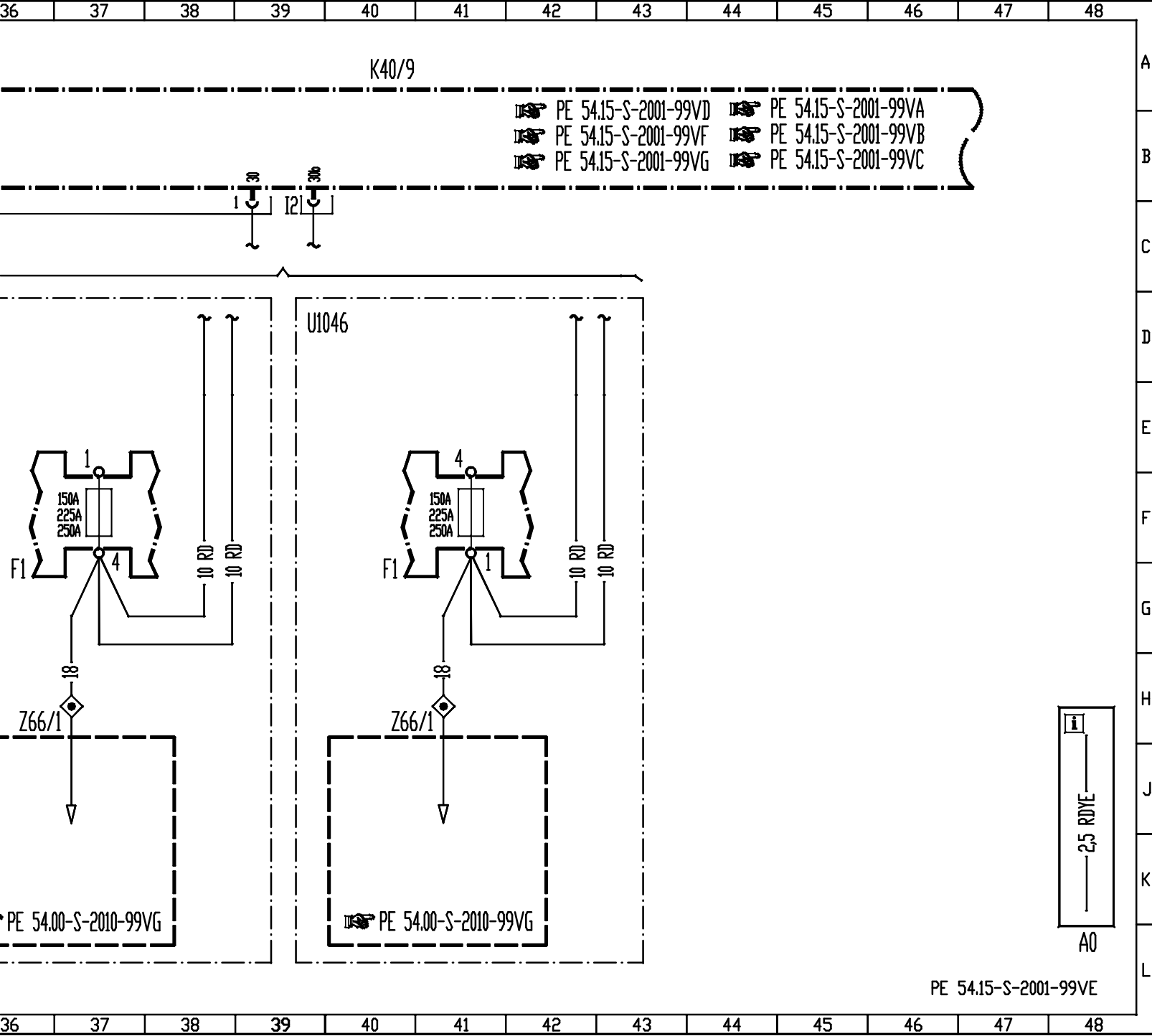
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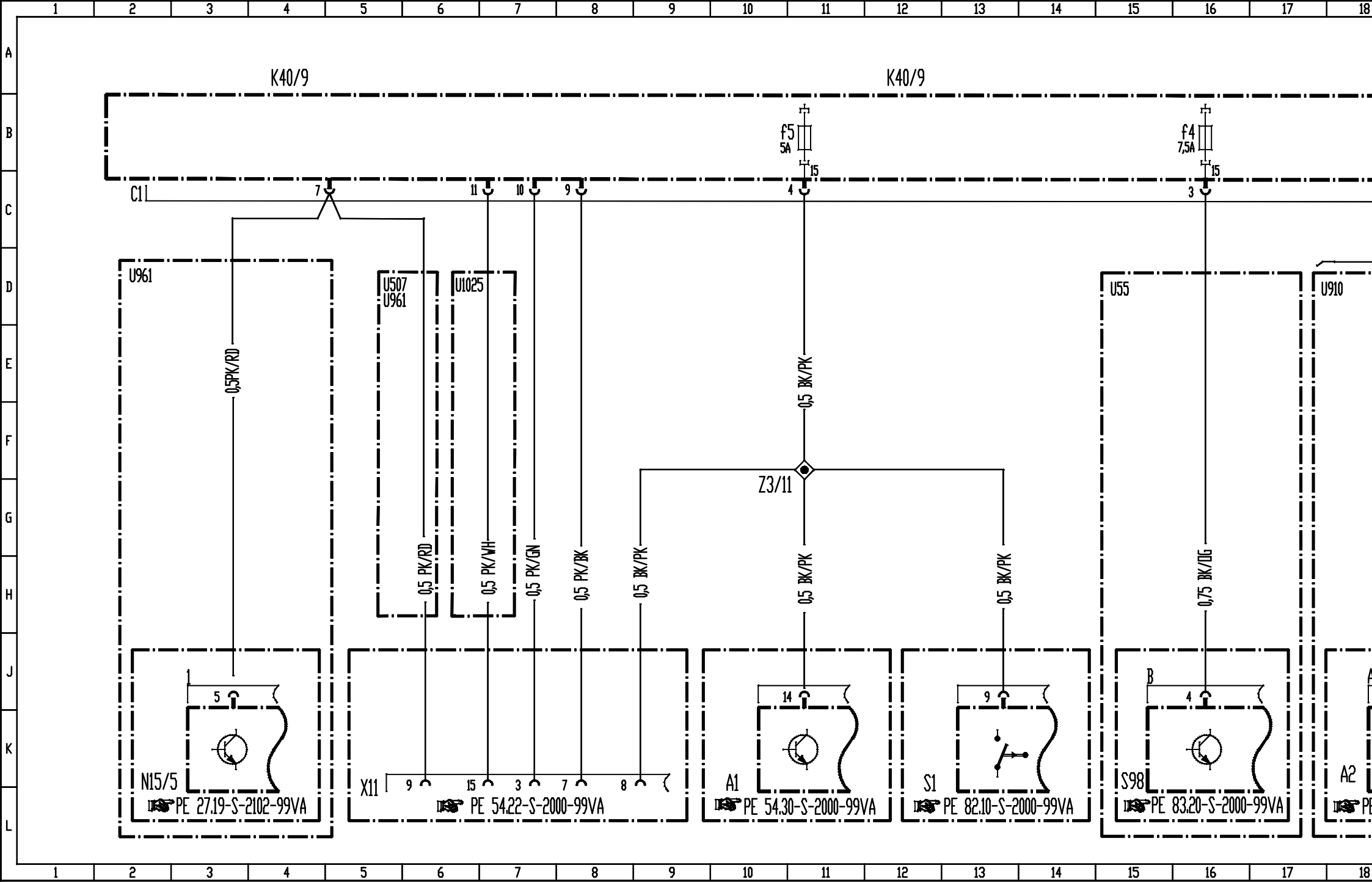
**MODEL 639.601 /603 /605 /701 /703 /705 /711 /713 /811 /813 /815****Sheet 5**

PE54.15-S-2001-99VF	Wiring diagram for fuse and relay box		PE54.15-S-2001-99VF
PE54.15-S-2001-60VF	Legend of wiring diagram for fuse and relay box		PE54.15-S-2001-60VF
OV00.01-S-1901-03VA	Use of wiring diagrams		OV00.01-S-1901-03VA
OV00.01-S-1901VA	Search aid for all wiring diagram groups		OV00.01-S-1901VA
OV00.01-S-1909VA	Search aid for all electrical components	Components from A to E	OV00.01-S-1909VA
OV00.01-S-1909VB	Search aid for all electrical components	Components from F to J	OV00.01-S-1909VB
OV00.01-S-1909VC	Search aid for all electrical components	Components from K to O	OV00.01-S-1909VC
OV00.01-S-1909VD	Search aid for all electrical components	Components from P to T	OV00.01-S-1909VD
OV00.01-S-1909VE	Search aid for all electrical components	Components from U to Z	OV00.01-S-1909VE
OV00.01-S-1001-27VA	Abbreviations for wiring diagrams		OV00.01-S-1001-27VA
OV00.01-S-1001-28VA	Abbreviations of signal and circuit designations for wiring diagrams		OV00.01-S-1001-28VA
GF00.19-S-1000VB	Location and assignment of line and plug connectors		GF00.19-S-1000VB
GF00.19-S-1100VB	Location and assignment of connectors and sockets		GF00.19-S-1100VB
GF00.19-S-2000VB	Location and assignment of ground points		GF00.19-S-2000VB
GF00.19-S-3000VB	Location and assignment of Z connector sleeves (line connectors in wiring harness)		GF00.19-S-3000VB
GF54.15-S-0900VA	Fuse and relay box, location/assignment		GF54.15-S-0900VA

PE54.15-S-2001-60VF	Legend of wiring diagram for fuse and relay box	MODEL 639.601 /603 /605 /701 /703 /705 /711 /713 /811 /813 /815 Sheet 5	
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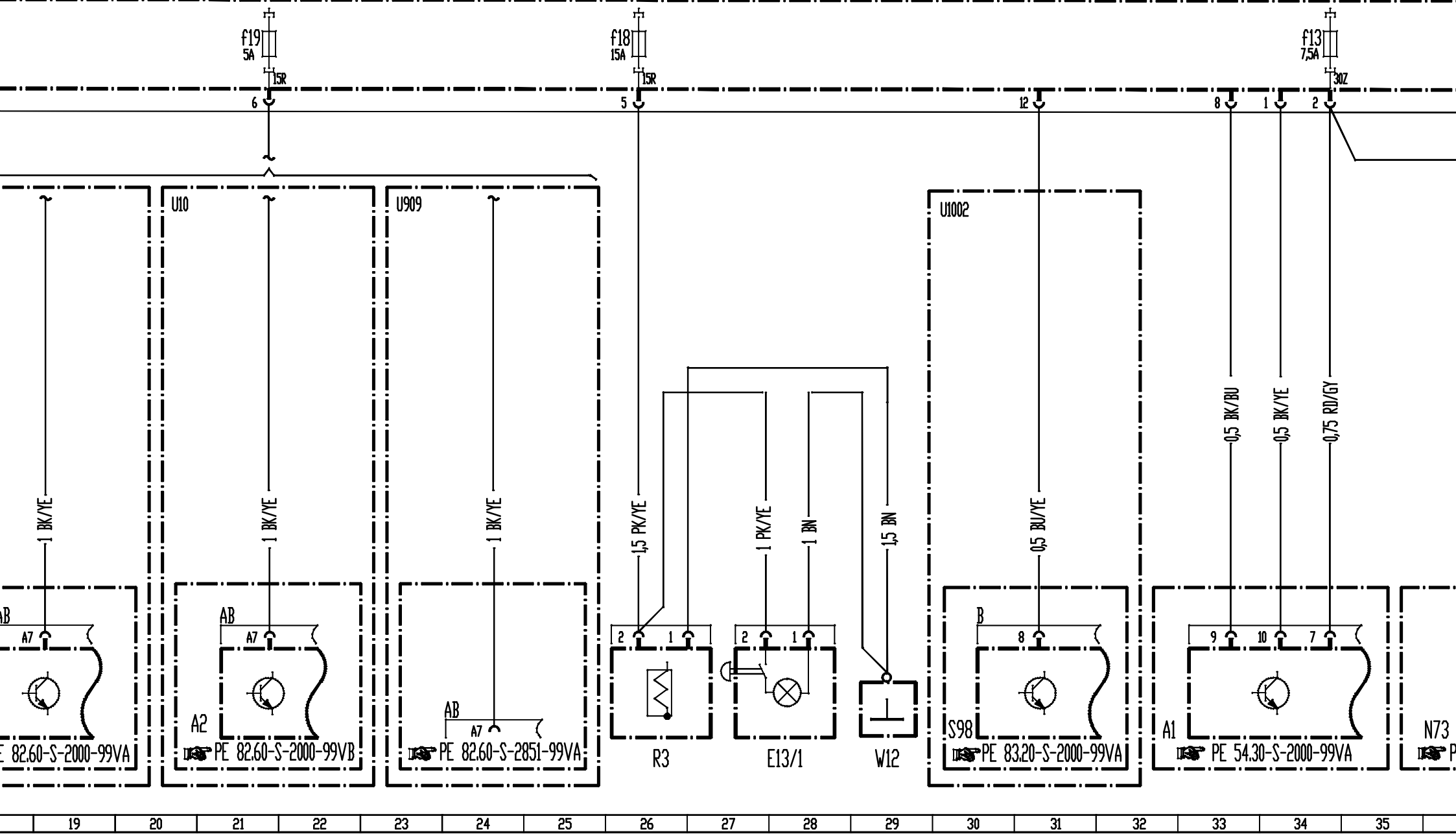
Code	Designation	Coordinates
A1	Instrument cluster	10L 32L
A2	Radio / Sound 10 / Sound 40 / Audio 10	18K 20K
E13/1	Glove compartment light	28L
K40/9	Fuse and relay block	4A 12A 20A 31A
K40/9f4	Heater fuse	15B
K40/9f5	Data link connector fuse, exterior lamp switch, instrument cluster	10B
K40/9f13	Instrument cluster fuse, EIS [EZS]	34B
K40/9f15	Headlamp range adjustment fuse	39B
K40/9f18	Cigar lighter fuse, glove compartment illumination	25B
K40/9f19	Radio fuse	21B
N15/5	Electronic selector lever module control unit	2L
N33/5	Hot air stationary heater control unit	41L
N73	EIS [EZS] control unit	36L
R3	Front cigar lighter (with illumination)	26L
S1	Exterior lamp switch	12L 38L
S98	Air conditioning operating module	15L 30L
U10	Valid for Sound 40 Pro radio	20D
U55	Not valid for air conditioning	15D
U1002	Valid for PTC element	30D

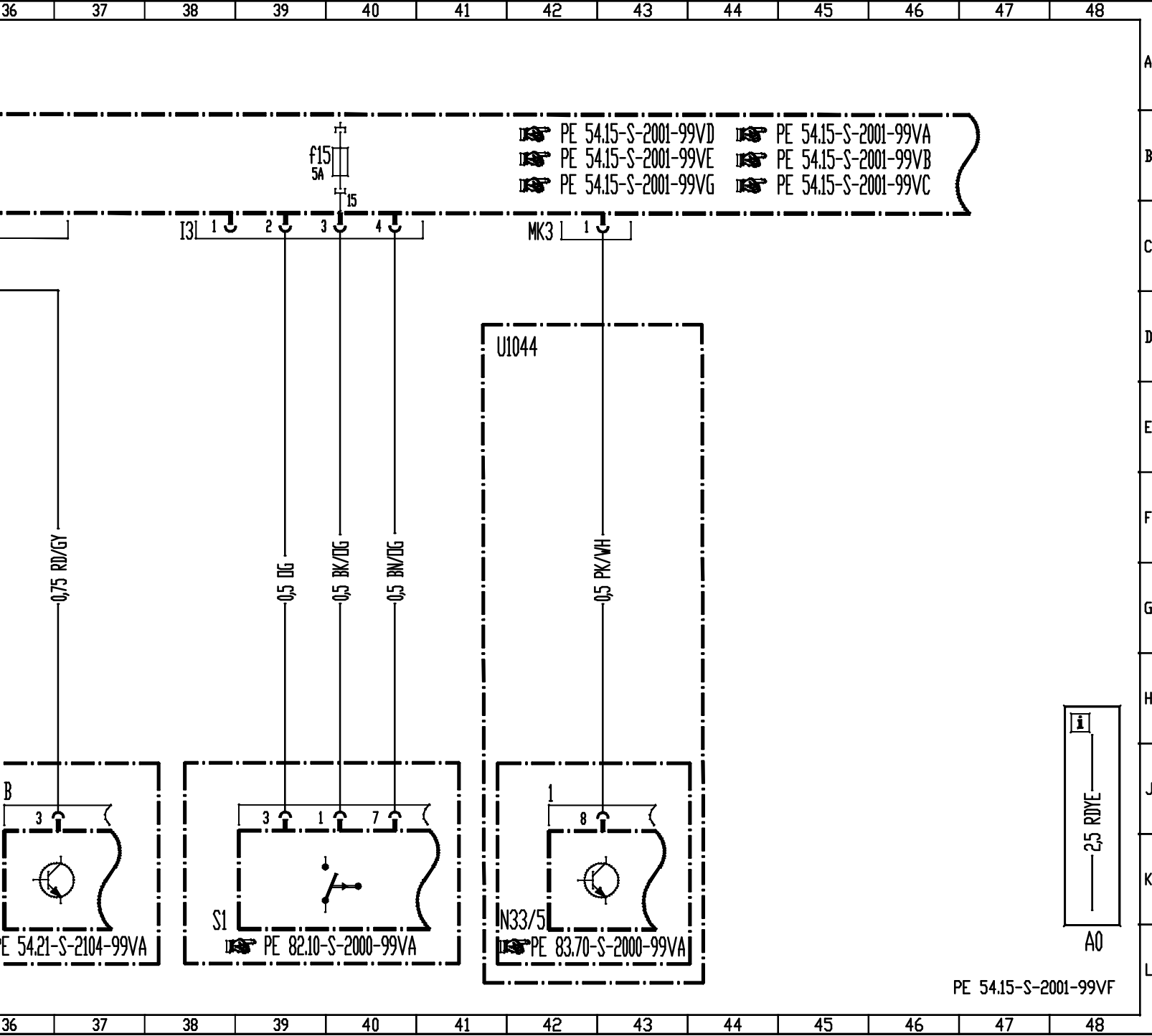
U1025	Valid for warm air auxiliary heater with timer and temperature control	6D
U1044	Valid for FUN equipment line with warm air auxiliary heater with timer and temperature control	41D
U507	Valid for Electronic Stability Program (ESP)	5D
U909	Valid for radio preinstallation	23D
U910	Valid for Sound 10 radio with cassette drive	17D
U961	Valid for automatic transmission	2D 5D
W12	Ground (cockpit and center console)	29L
X11	Data link connector	5L
Z3/11	Terminal 15 connector sleeve	10G



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K40/9





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# Signal acquisition and actuation module (SAM)

## Chapter 8



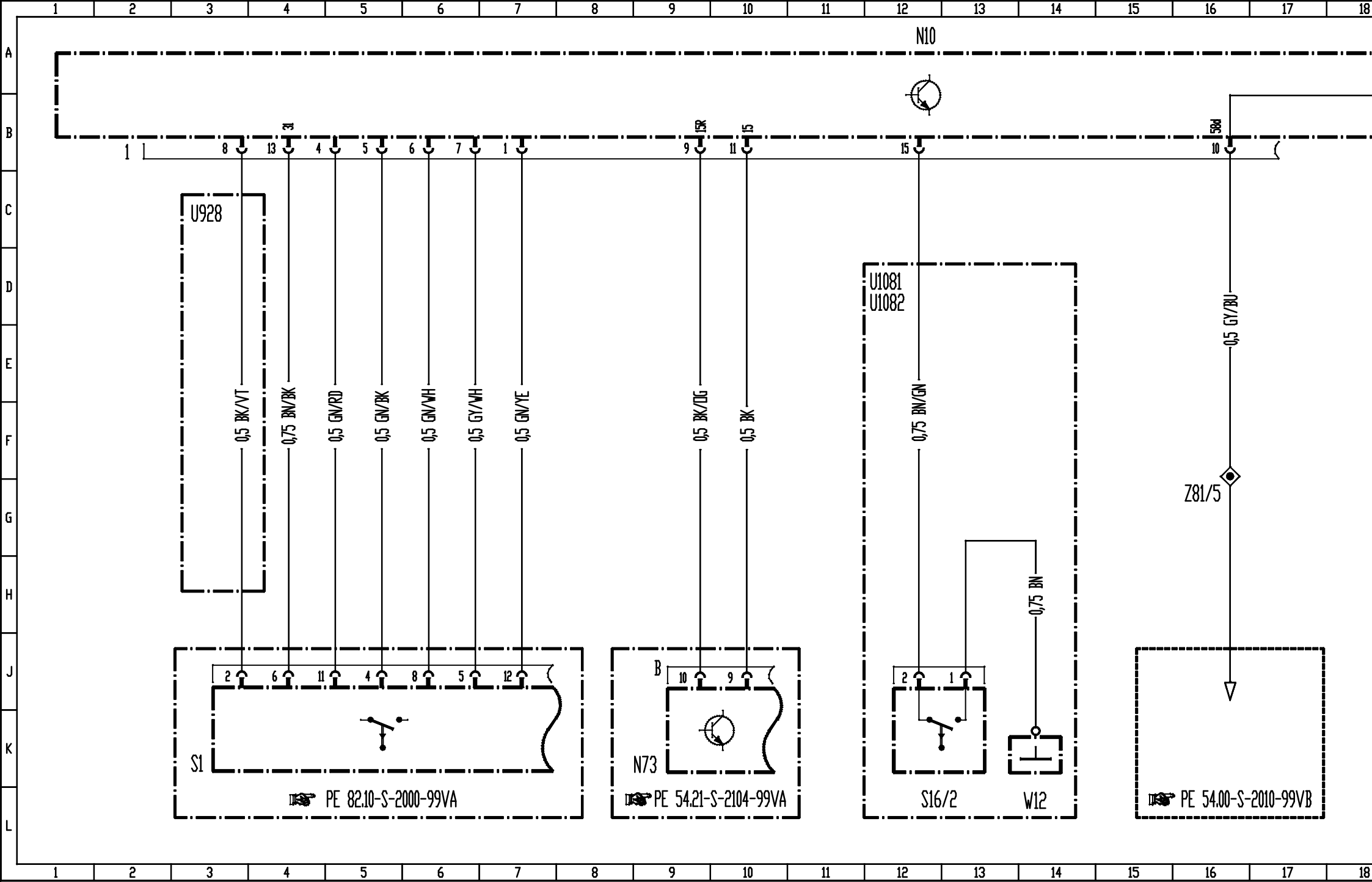
**MODEL 639.601 /603 /605 /701 /703 /705 /711 /713 /811 /813 /815****Sheet 1**

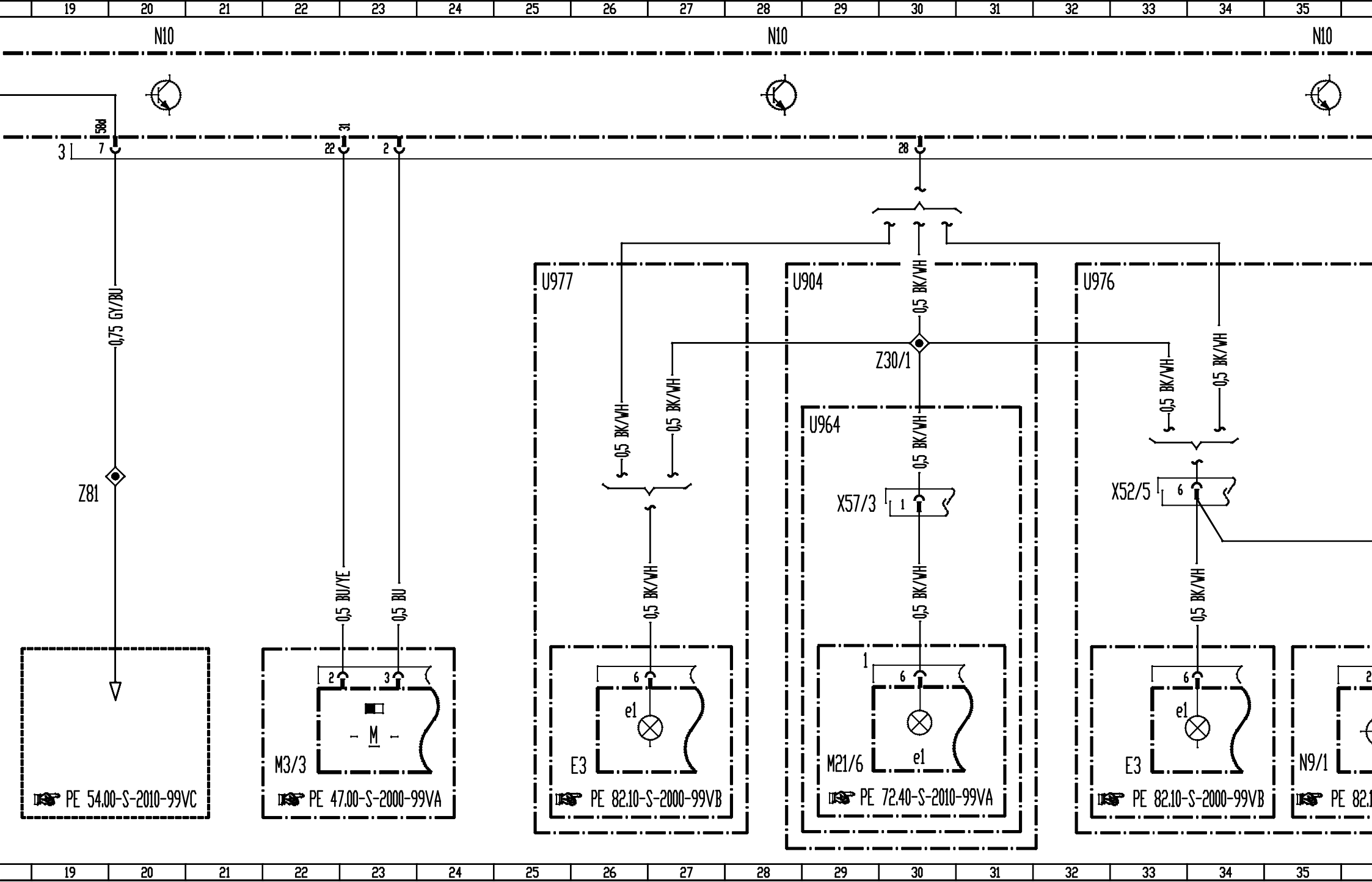
PE54.21-S-2127-99VA	Wiring diagram for signal acquisition and actuation module (SAM) control unit	Sheet 1	PE54.21-S-2127-99VA
PE54.21-S-2127-60VA	Legend of wiring diagram for signal acquisition and actuation module (SAM) control unit	Sheet 1	PE54.21-S-2127-60VA
OV00.01-S-1901-03VA	Use of wiring diagrams		OV00.01-S-1901-03VA
OV00.01-S-1901VA	Search aid for all wiring diagram groups		OV00.01-S-1901VA
OV00.01-S-1909VA	Search aid for all electrical components	Components from A to E	OV00.01-S-1909VA
OV00.01-S-1909VB	Search aid for all electrical components	Components from F to J	OV00.01-S-1909VB
OV00.01-S-1909VC	Search aid for all electrical components	Components from K to O	OV00.01-S-1909VC
OV00.01-S-1909VD	Search aid for all electrical components	Components from P to T	OV00.01-S-1909VD
OV00.01-S-1909VE	Search aid for all electrical components	Components from U to Z	OV00.01-S-1909VE
OV00.01-S-1001-27VA	Abbreviations for wiring diagrams		OV00.01-S-1001-27VA
OV00.01-S-1001-28VA	Abbreviations of signal and circuit designations for wiring diagrams		OV00.01-S-1001-28VA
GF00.19-S-1000VB	Location and assignment of line and plug connectors		GF00.19-S-1000VB
GF00.19-S-1100VB	Location and assignment of connectors and sockets		GF00.19-S-1100VB
GF00.19-S-2000VB	Location and assignment of ground points		GF00.19-S-2000VB
GF00.19-S-3000VB	Location and assignment of Z connector sleeves (line connectors in wiring harness)		GF00.19-S-3000VB
GF54.15-S-0900VA	Fuse and relay box, location/assignment		GF54.15-S-0900VA

PE54.21-S-2127-60VA	Legend of wiring diagram for signal acquisition and actuation module (SAM) control unit	MODEL 639.601 /603 /605 /701 /703 /705 /711 /713 /811 /813 /815 Sheet 1	
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Code	Designation	Coordinates
E3	Taillamp, left	26K 33K 52K 59K 65K 72K
E4	Taillamp, right	39K 46K 55K 62K 68K 75K
K40/9	Fuse and relay block	77A
M3/3	Fuel pump with fuel level sensor	22K
M21/6	Left electrically adjustable and heated outside mirror	29K
M21/7	Right electrically adjustable and heated outside mirror	42K
N9/1	Additional turn signal module control unit	35K 48K
N10	SAM control unit	12A 20A 28A 35A 43A 51A 59A 67A
N73	EIS [EZS] control unit	9K
S1	Exterior lamp switch	3K
S16/2	Backup lamp switch	12L

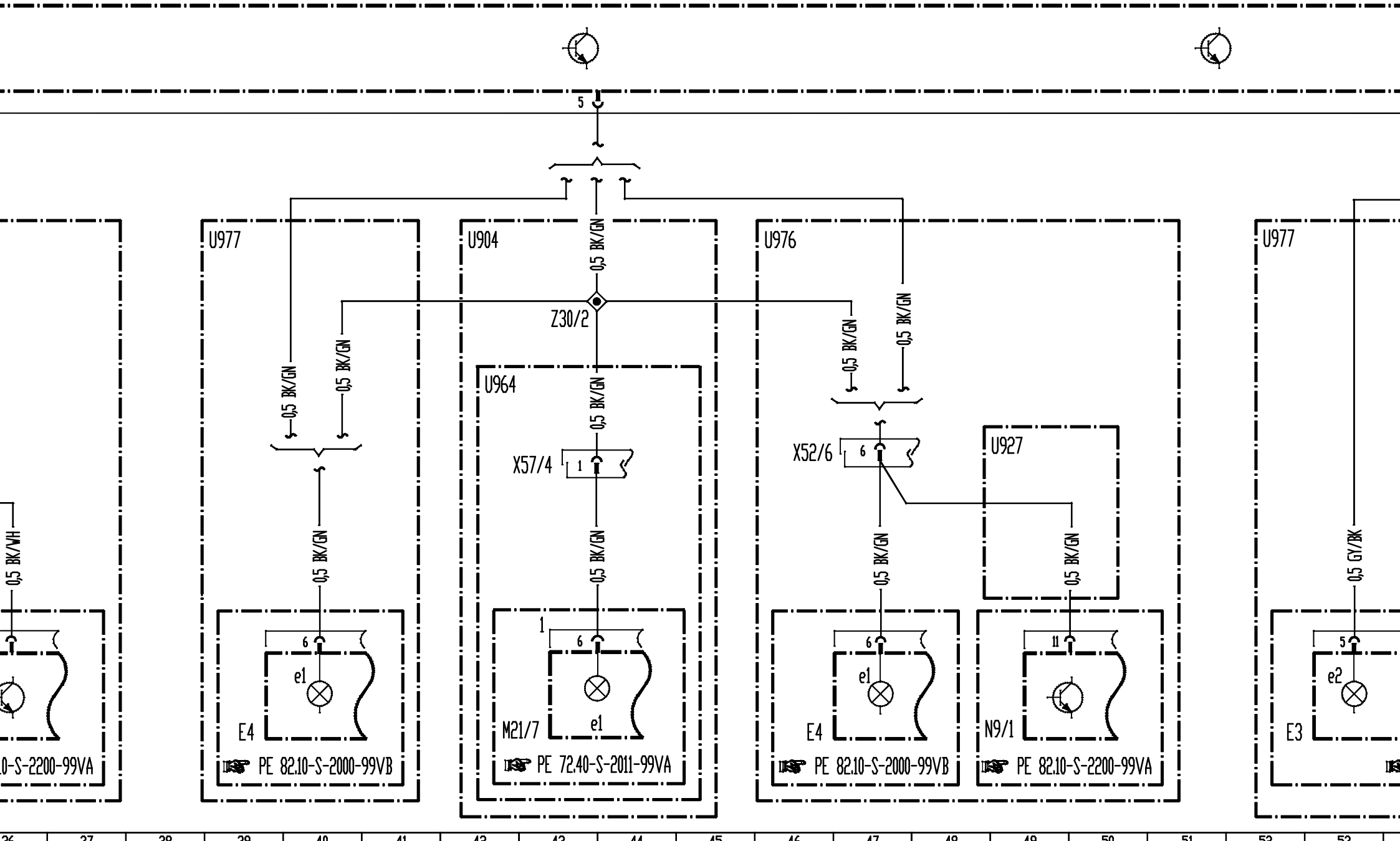
U32	Valid for left-hand drive vehicles	58E 72E
U33	Valid for right-hand drive vehicles	61E 75E
U1081	Valid for 6-speed manual transmission, NSG 250	12D
U1082	Valid for 6-speed manual transmission, NSG 370	12D
U904	Valid for qualification as passenger car	28D 42D
U927	Valid without backup warning system	49G
U928	Valid for headlamp cleaning system	3C
U964	Valid without electrically adjustable and heated outside rearview mirror	29F 42F
U976	Valid for additional turn signal lamps on rear of roof	32D 46D 65D
U977	Valid for additional turn signal lamps on rear of roof	25D 39D 52D
W12	Ground (cockpit and center console)	14L
X52/5	Left taillamp connector	33G 65G 72G
X52/6	Right taillamp connector	46G 68G 75G
X57/3	Left outside mirror turn signal lamp connector	29G
X57/4	Right outside mirror turn signal lamp connector	42G
Z30/1	Left turn signal indicator connector sleeve	29E
Z30/2	Right turn signal indicator connector sleeve	43E
Z81	Tml. 58d connector sleeve, interior	19G
Z81/5	Cockpit terminal 58d connector sleeve	16G





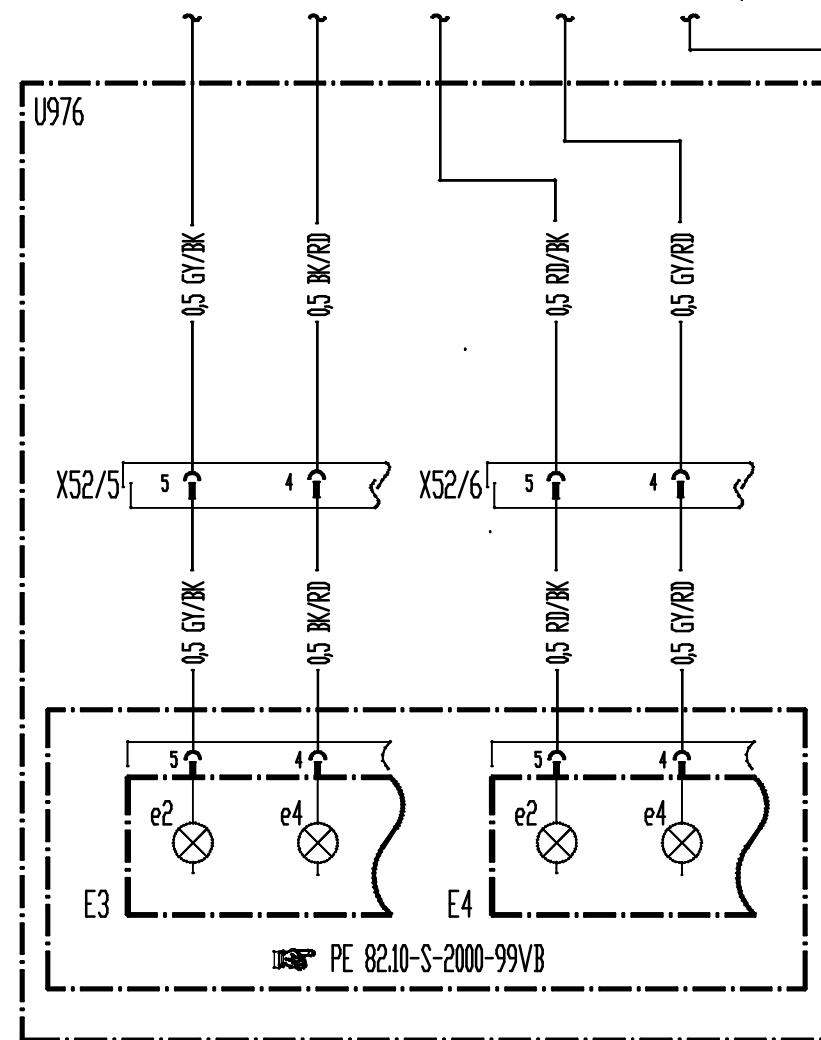
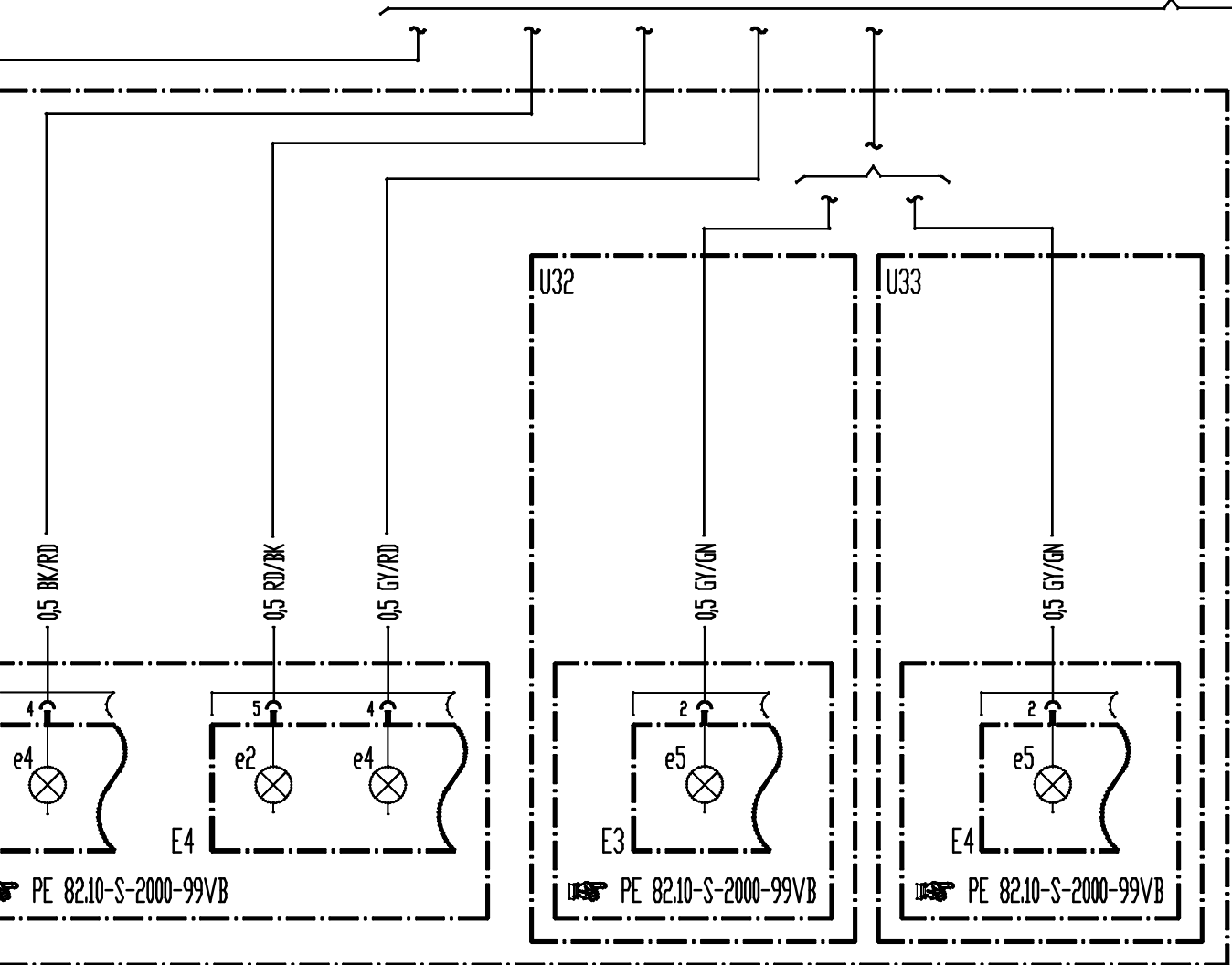
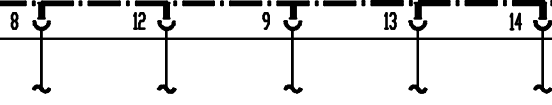
N10

N10






N10


N10

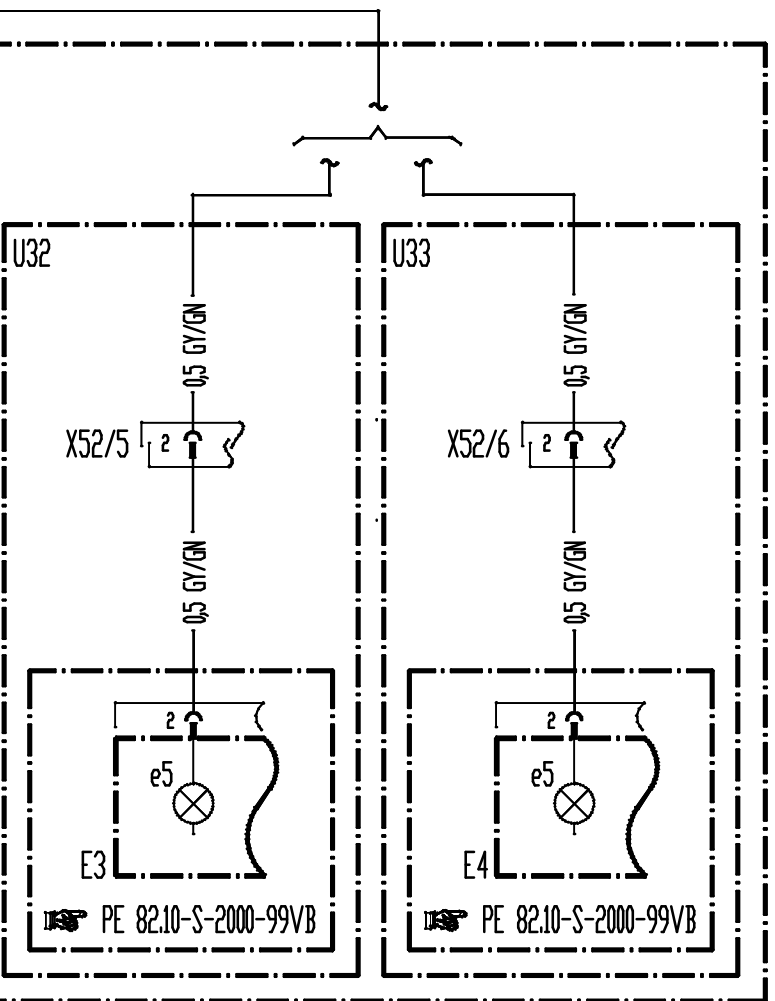


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-  PE 54.21-S-2127-99VB
-  PE 54.21-S-2127-99VC
-  PE 54.21-S-2127-99VD

 PE 54.15-S-2001-99VA



PE 54.21-S-2127-99VA

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**MODEL 639.601 /603 /605 /701 /703 /705 /711 /713 /811 /813 /815**  
**Sheet 2**

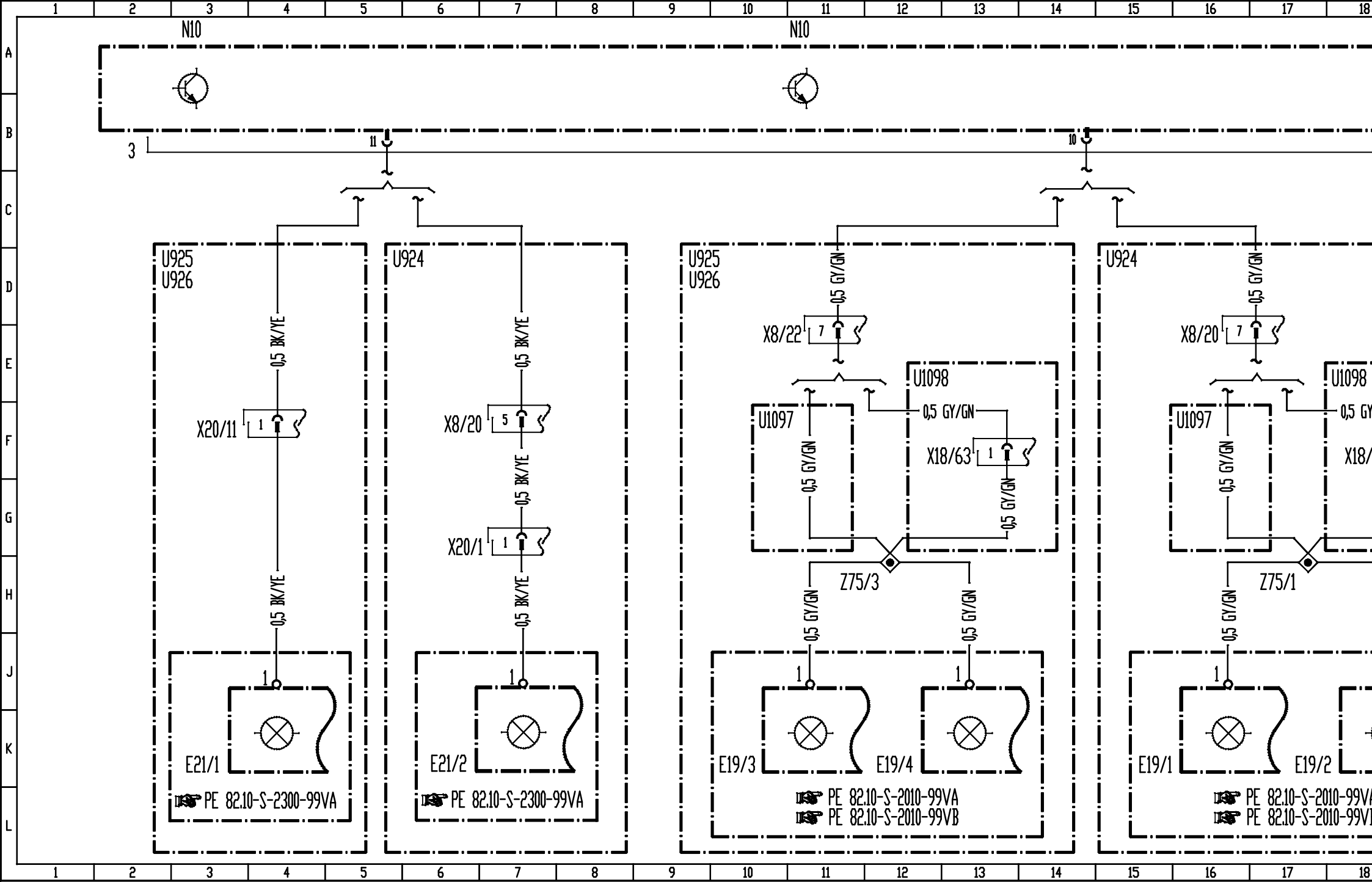
PE54.21-S-2127-99VB	Wiring diagram for signal acquisition and actuation module (SAM) control unit	Sheet 2	PE54.21-S-2127-99VB
PE54.21-S-2127-60VB	Legend of wiring diagram for signal acquisition and actuation module (SAM) control unit	Sheet 2	PE54.21-S-2127-60VB
OV00.01-S-1901-03VA	Use of wiring diagrams		OV00.01-S-1901-03VA
OV00.01-S-1901VA	Search aid for all wiring diagram groups		OV00.01-S-1901VA
OV00.01-S-1909VA	Search aid for all electrical components	Components from A to E	OV00.01-S-1909VA
OV00.01-S-1909VB	Search aid for all electrical components	Components from F to J	OV00.01-S-1909VB
OV00.01-S-1909VC	Search aid for all electrical components	Components from K to O	OV00.01-S-1909VC
OV00.01-S-1909VD	Search aid for all electrical components	Components from P to T	OV00.01-S-1909VD
OV00.01-S-1909VE	Search aid for all electrical components	Components from U to Z	OV00.01-S-1909VE
OV00.01-S-1001-27VA	Abbreviations for wiring diagrams		OV00.01-S-1001-27VA
OV00.01-S-1001-28VA	Abbreviations of signal and circuit designations for wiring diagrams		OV00.01-S-1001-28VA
GF00.19-S-1000VB	Location and assignment of line and plug connectors		GF00.19-S-1000VB
GF00.19-S-1100VB	Location and assignment of connectors and sockets		GF00.19-S-1100VB
GF00.19-S-2000VB	Location and assignment of ground points		GF00.19-S-2000VB
GF00.19-S-3000VB	Location and assignment of Z connector sleeves (line connectors in wiring harness)		GF00.19-S-3000VB
GF54.15-S-0900VA	Fuse and relay box, location/assignment		GF54.15-S-0900VA

PE54.21-S-2127-60VB	Legend of wiring diagram for signal acquisition and actuation module (SAM) control unit	MODEL 639.601 /603 /605 /701 /703 /705 /711 /713 /811 /813 /815 Sheet 2	
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Code	Designation	Coordinates
A2	Radio / Sound 10 / Sound 40 / Audio 10	64K
E3	Taillamp, left	55K 60K
E4	Taillamp, right	53K 58K
E19/1	License plate lamp, left	15K
E19/2	License plate lamp, right	17K
E19/3	Left rear-end door license plate lamp	10K
E19/4	Right rear-end door license plate lamp	12K
E21/1	Hinged rear door center high-mounted stop lamp	3K
E21/2	Tailgate center high-mounted stop lamp	6K
H3/4	Backup warning horn	71L
K57	Battery cutoff relay	39K
M6/10	Wiper motor, left rear-end door	28K
M6/11	Wiper motor, right rear-end door	31K
M6/12	Wiper motor, tailgate	25K
M14/7	Actuator, CL [ZV] tailgate	49K
M14/9	Actuator, right CL [ZV] sliding door	74K
M14/12	Actuator, right CL [ZV] rear-end door	43K

N10	SAM control unit	3A 11A 18A 26A 34A 42A 50A 56A
N66/4	Rear conversation unit control unit	67K
S10/3	Brake pad contact sensor, left rear	34K
S10/4	Brake pad contact sensor, right rear	36K
S12	Parking brake indicator switch	21L
S49/7	Rotary tumbler switch, left rear-end door	45K
U10	Valid for Sound 40 Pro radio	63D 63F
U15	Valid for screen in rear and DVD player	63D 66F
U16	Valid for screen in rear, DVD player and TV tuner	63D 66F
U25	Valid for backup warning system	63E 69F
U32	Valid for left-hand drive vehicles	22G
U33	Valid for right-hand drive vehicles	23G
U1031	Valid for additional heavy-duty battery	39D
U1097	Valid up to vehicle ident end no. 094908	10F 16F
U1098	Valid as of vehicle ident end no. 094909	12E 18E
U924	Valid for tailgate	5D 15D 25D 48D
U925	Valid for 180° 2-wing rear-end door	2D 9D 28D 43D

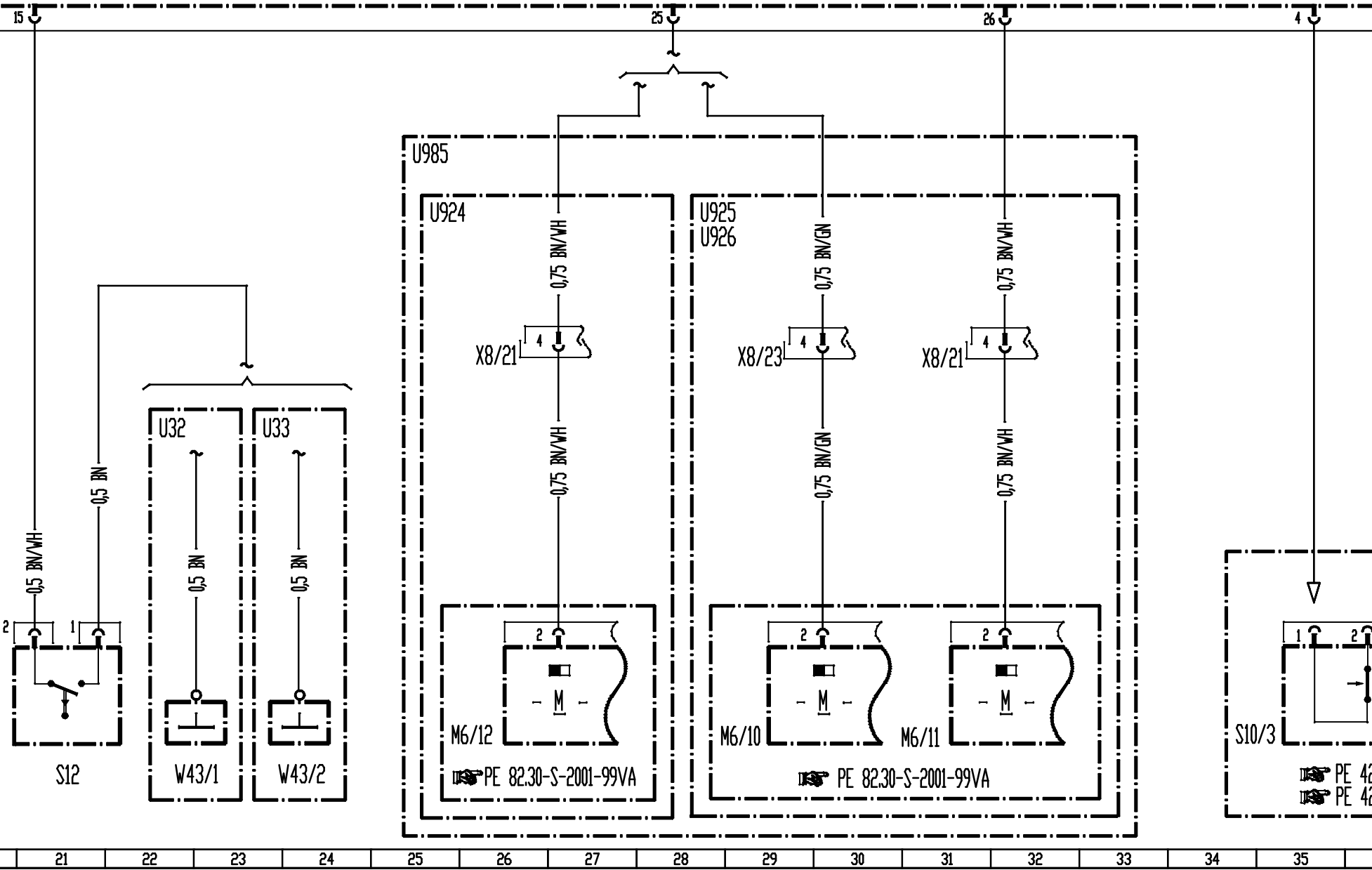
U926	Valid for 270° 2-wing rear-end door	2D 9D 28E 43D
U976	Valid for additional turn signal lamps on rear of roof	57D
U977	Valid for additional turn signal lamps on rear of roof	52D
U985	Window in tailgate/hinged rear door with wipe/wash system	25D
W29/9	Ground (right D-pillar)	72L
W43/1	Ground (left interior compartment firewall)	22L
W43/2	Ground (right interior compartment firewall)	23L
X8/20	Right rear-end door connector	6F 16E 43F 49F
X8/21	Tailgate connector	26F 31F
X8/22	Left rear-end door connector	10E 45F
X8/23	Left rear-end door connector	29F
X8/38	Actuation cutoff relay separation point	39E
X18/62	Tailgate license plate lamp connector	18F
X18/63	Rear-end door license plate lamp connector	12F
X20/1	Center high-mounted stop lamp connector, tailgate	6G
X20/11	Center high-mounted stop lamp connector, rear-end door	3F
X28/31	Backup alarm connector	67C
X28/32	Backup alarm connector	70G
X52/5	Left taillamp connector	60G
X52/6	Right taillamp connector	58G
X100/5	Right sliding door contact plate 1 separation point	74D
X100/6	Right sliding door contact pin 1 separation point	74E
Z38	Backup lamp connector sleeve	68E
Z75/1	License plate lamp connector sleeve	17H
Z75/3	License plate lamp connector sleeve	11H

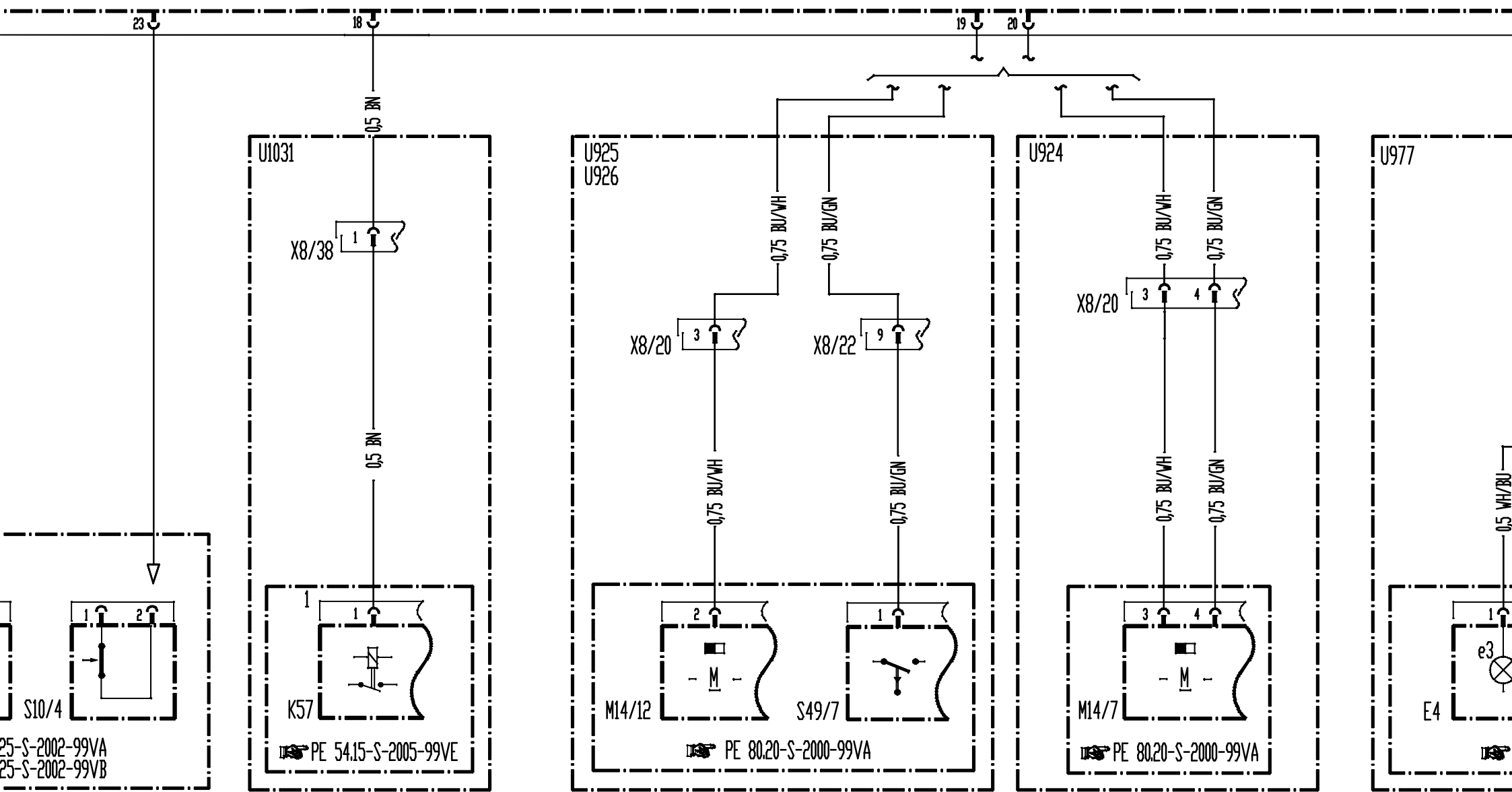


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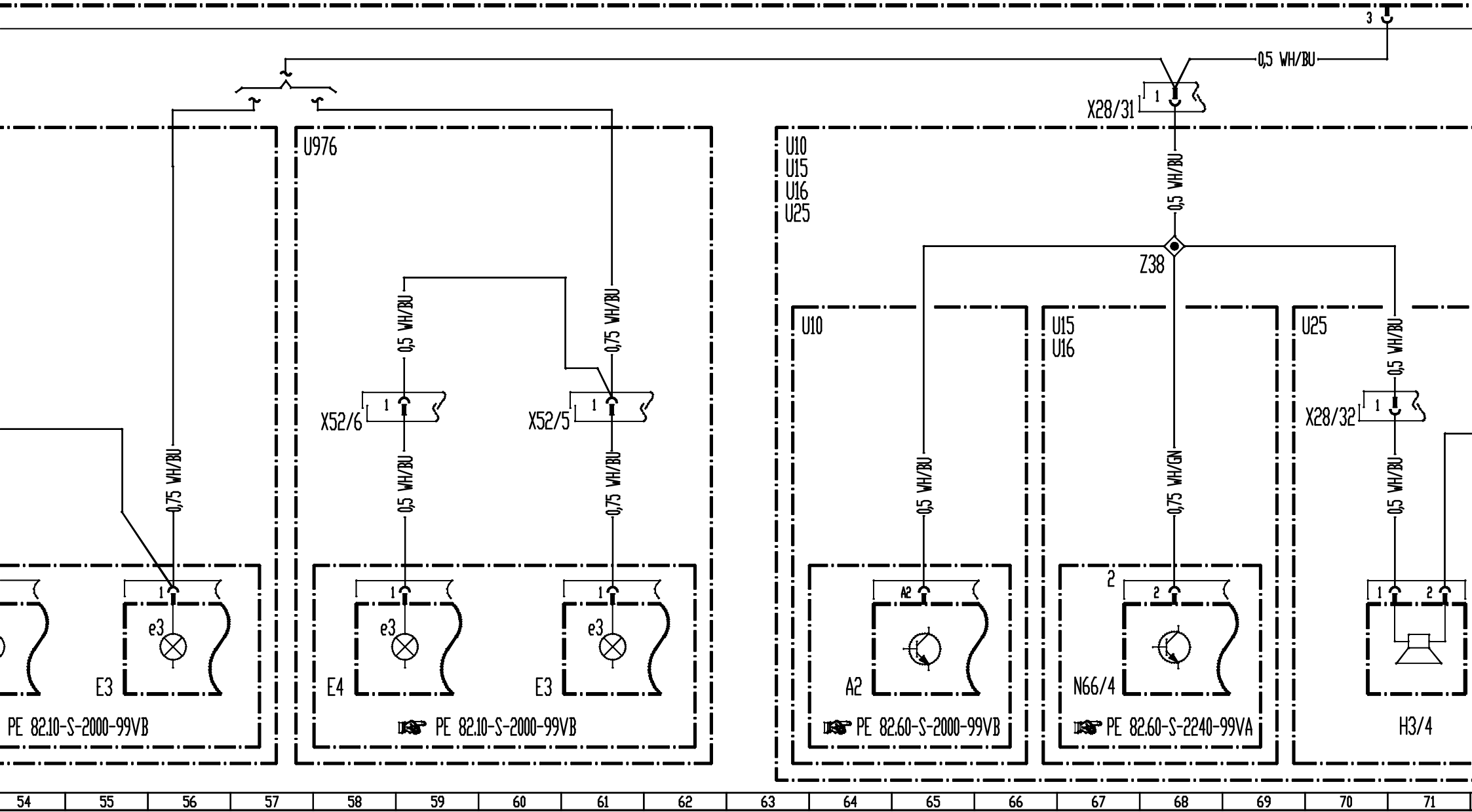
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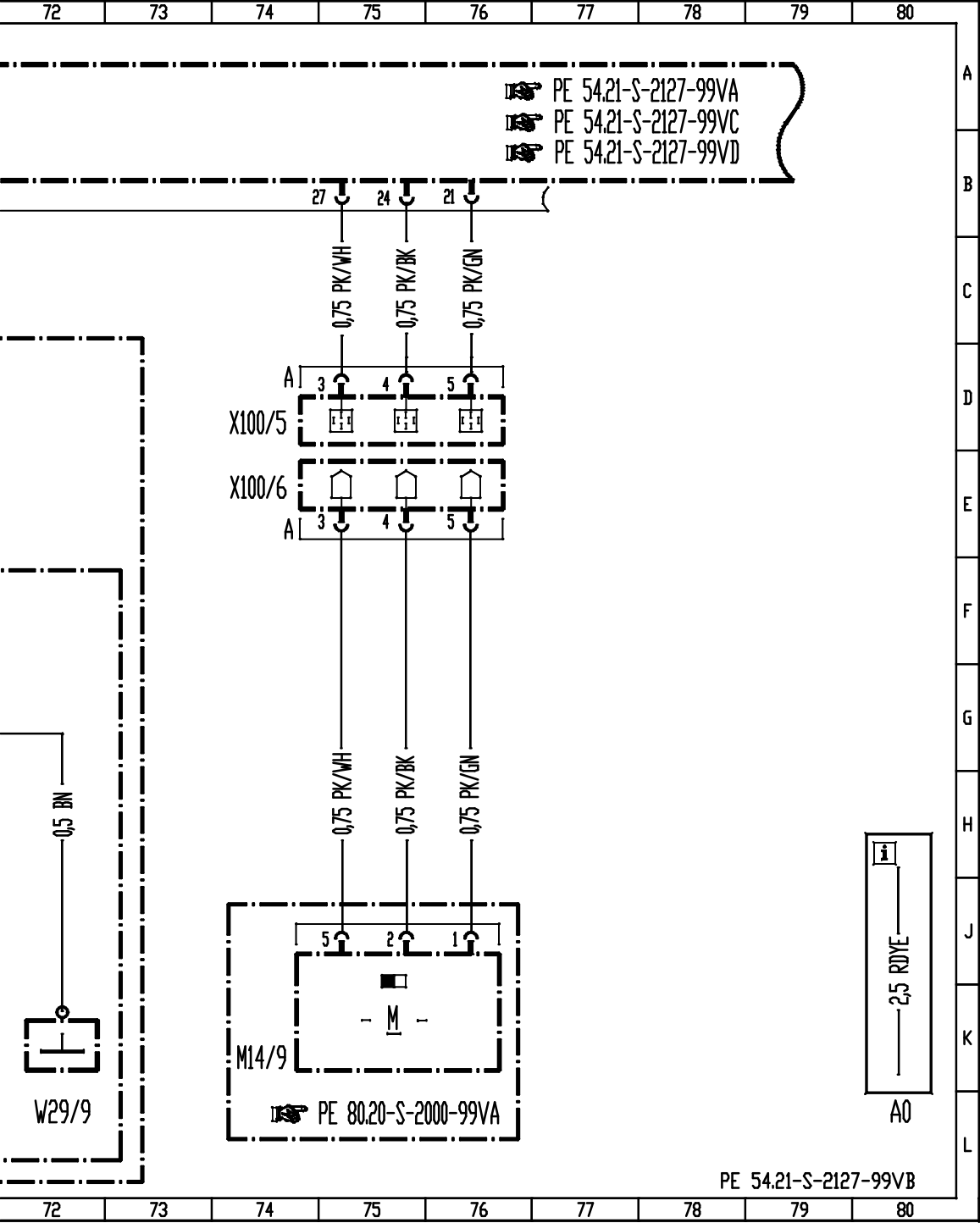




N10







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K  
L

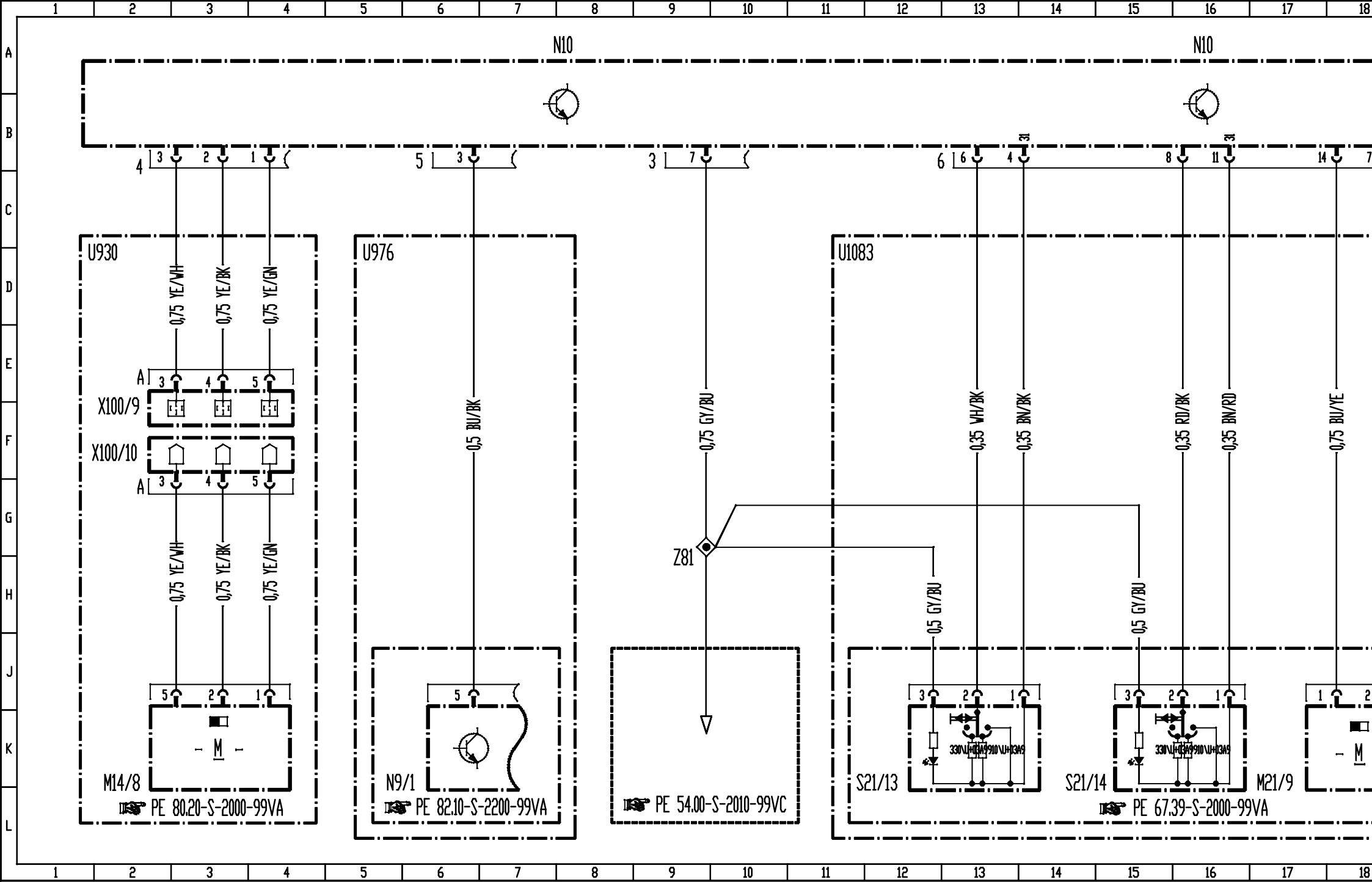
**MODEL 639.601 /603 /605 /701 /703 /705 /711 /713 /811 /813 /815**  
**Sheet 3**

PE54.21-S-2127-99VC	Wiring diagram for signal acquisition and actuation module (SAM) control unit	Sheet 3	PE54.21-S-2127-99VC
PE54.21-S-2127-60VC	Legend of wiring diagram for signal acquisition and actuation module (SAM) control unit	Sheet 3	PE54.21-S-2127-60VC
OV00.01-S-1901-03VA	Use of wiring diagrams		OV00.01-S-1901-03VA
OV00.01-S-1901VA	Search aid for all wiring diagram groups		OV00.01-S-1901VA
OV00.01-S-1909VA	Search aid for all electrical components	Components from A to E	OV00.01-S-1909VA
OV00.01-S-1909VB	Search aid for all electrical components	Components from F to J	OV00.01-S-1909VB
OV00.01-S-1909VC	Search aid for all electrical components	Components from K to O	OV00.01-S-1909VC
OV00.01-S-1909VD	Search aid for all electrical components	Components from P to T	OV00.01-S-1909VD
OV00.01-S-1909VE	Search aid for all electrical components	Components from U to Z	OV00.01-S-1909VE
OV00.01-S-1001-27VA	Abbreviations for wiring diagrams		OV00.01-S-1001-27VA
OV00.01-S-1001-28VA	Abbreviations of signal and circuit designations for wiring diagrams		OV00.01-S-1001-28VA
GF00.19-S-1000VB	Location and assignment of line and plug connectors		GF00.19-S-1000VB
GF00.19-S-2000VB	Location and assignment of ground points		GF00.19-S-2000VB
GF00.19-S-3000VB	Location and assignment of Z connector sleeves (line connectors in wiring harness)		GF00.19-S-3000VB
GF54.15-S-0900VA	Fuse and relay box, location/assignment		GF54.15-S-0900VA

PE54.21-S-2127-60VC	Legend of wiring diagram for signal acquisition and actuation module (SAM) control unit	MODEL 639.601 /603 /605 /701 /703 /705 /711 /713 /811 /813 /815 Sheet 3	
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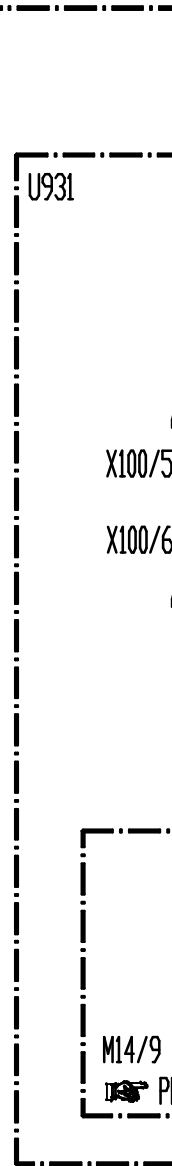
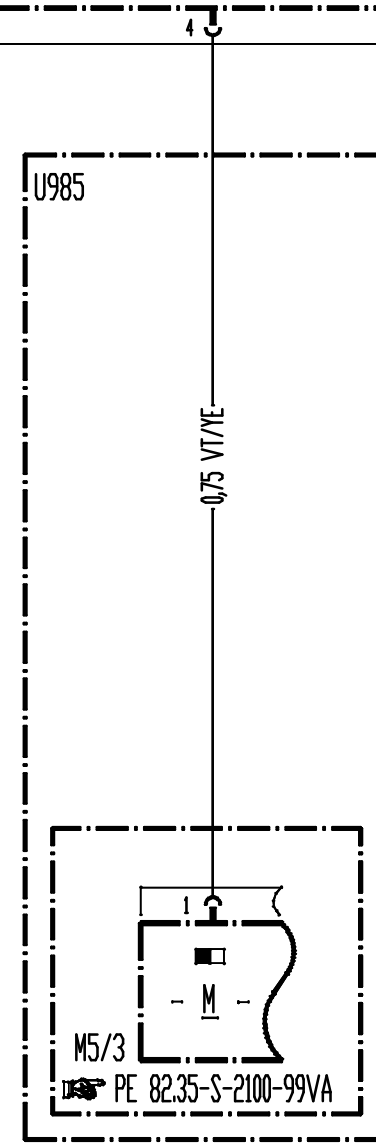
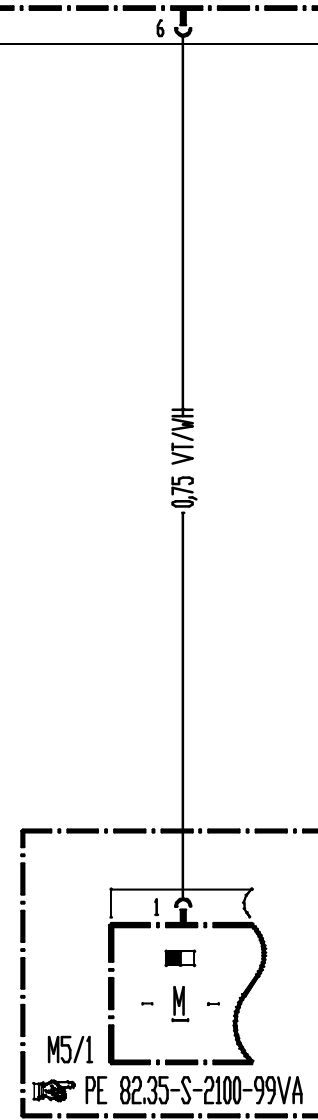
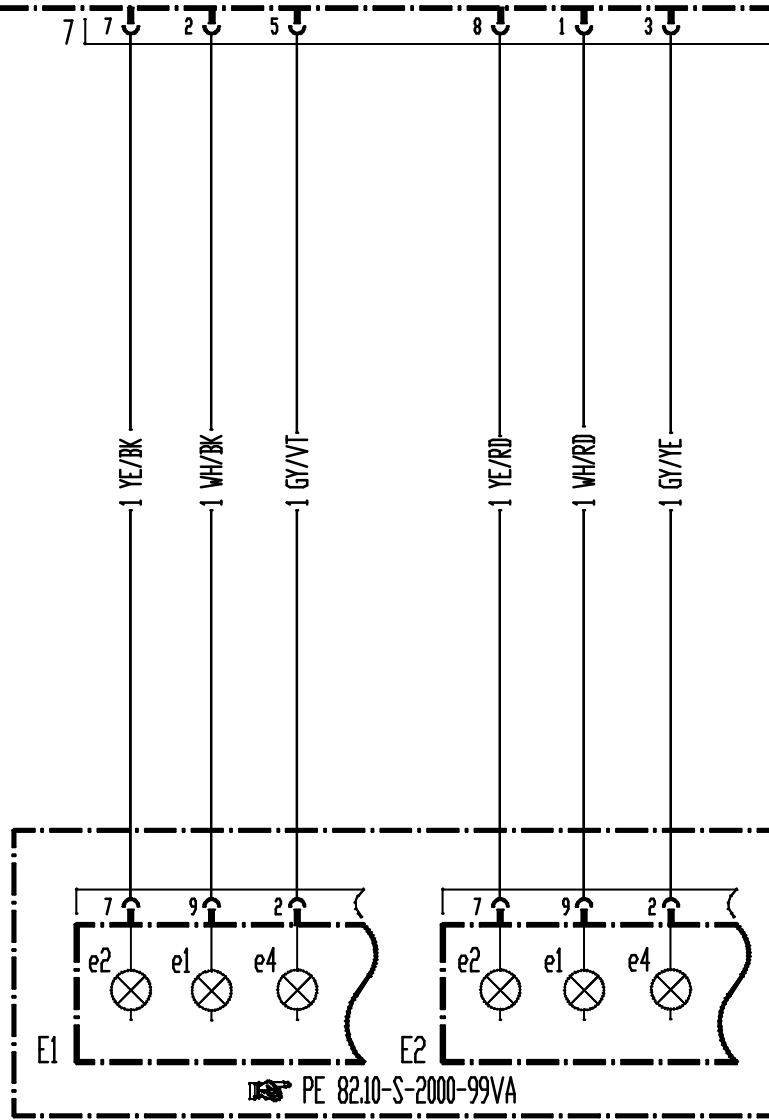
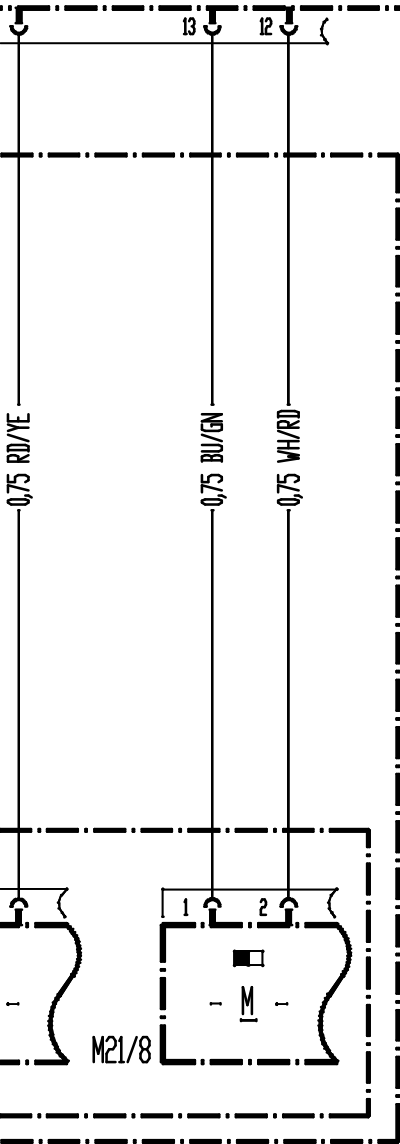
Code	Designation	Coordinates
E1	Lamp unit, left front	22L
E2	Lamp unit, right front	25L
M5/1	Windshield washer fluid pump	28L
M5/3	Rear window washer fluid pump	32L
M14/7	Actuator, CL [ZV] tailgate	39L 57L
M14/8	Actuator, CL [ZV] left sliding door	2L 49L
M14/9	Actuator, right CL [ZV] sliding door	35L 54L
M14/12	Actuator, right CL [ZV] rear-end door	42L 61L
M21/8	Vent window motor, left	19L
M21/9	Vent window motor, right	17L
N9/1	Additional turn signal module control unit	5L
N10	SAM control unit	7A 16A 23A 32A 40A 48A 56A 64A 70A 76A
S10/1	Brake pad contact sensor, left front	69L 74L
S10/2	Brake pad contact sensor, right front	70L 76L

S21/13	Left vent window button	11L
S21/14	Right vent window button	14L
S49/6	Rotary tumbler switch, right rear-end door	46L 64L
U1034	Valid for vehicles with ESP/ABS	68A
U1035	Valid for vehicles without ESP/ABS	73A
U1083	Valid for electric pop-out window in rear of passenger compartment	11D
U924	Valid for tailgate	39G 57G
U925	Valid for 180° 2-wing rear-end door	42G 61G
U926	Valid for 270° 2-wing rear-end door	42G 61G
U930	Valid for left load compartment sliding door	1D 49D
U931	Valid for all except left load compartment sliding door	35D
U976	Valid for additional turn signal lamps on rear of roof	5D
U985	Window in tailgate/hinged rear door with wipe/wash system	31D
X8/20	Right rear-end door connector	40F 59F
X43/10	CL [ZV] motor connector, rear-end door	54E
X100/5	Right sliding door contact plate 1 separation point	35F 54G
X100/6	Right sliding door contact pin 1 separation point	35F 54G
X100/9	Left sliding door contact plate 1 separation point	2F 49F
X100/10	Left sliding door contact pin 1 separation point	1F 49F
Z81	Tml. 58d connector sleeve, interior	9H
Z82/3	CL [ZV] rear-end door connector sleeve	43H 62H



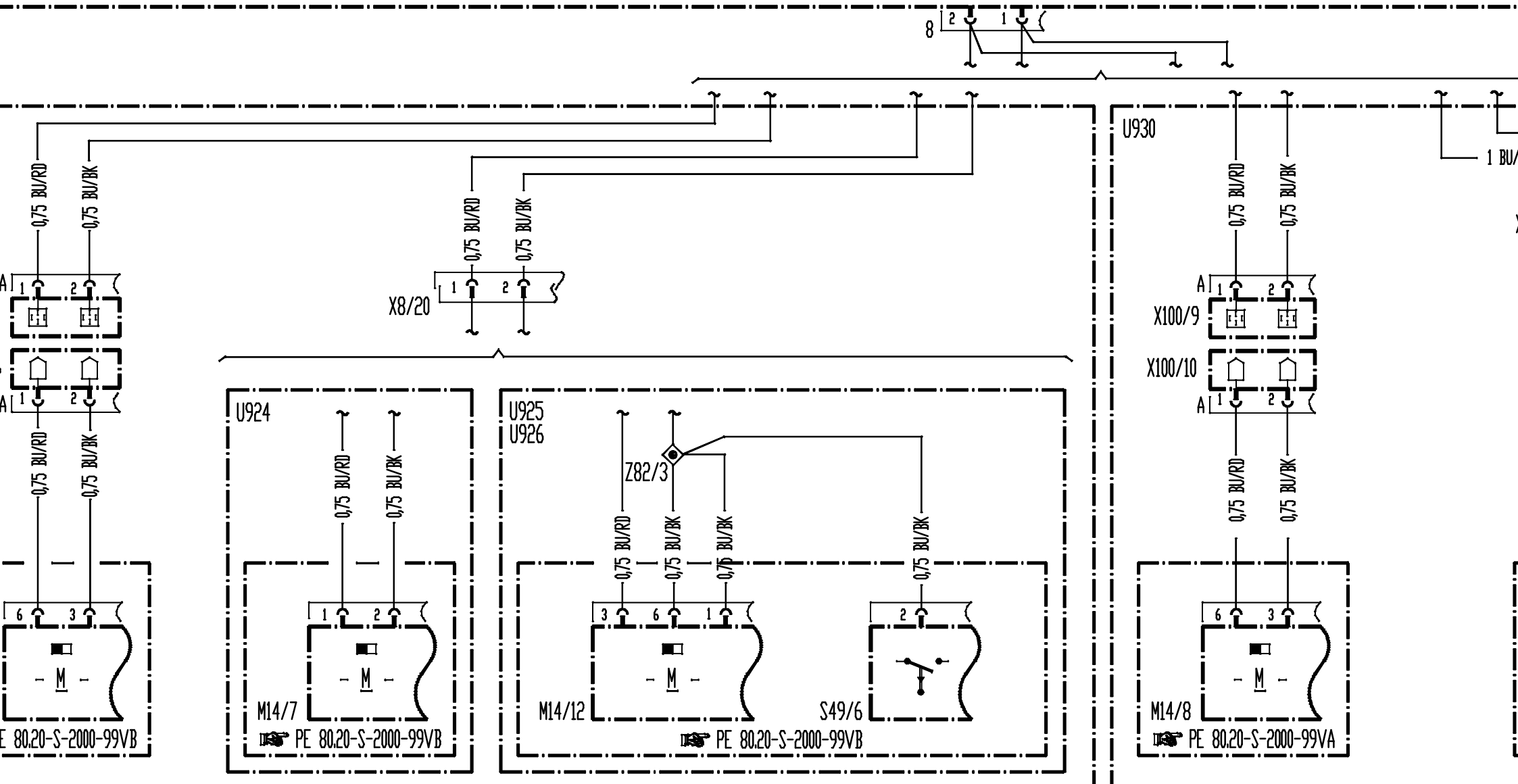
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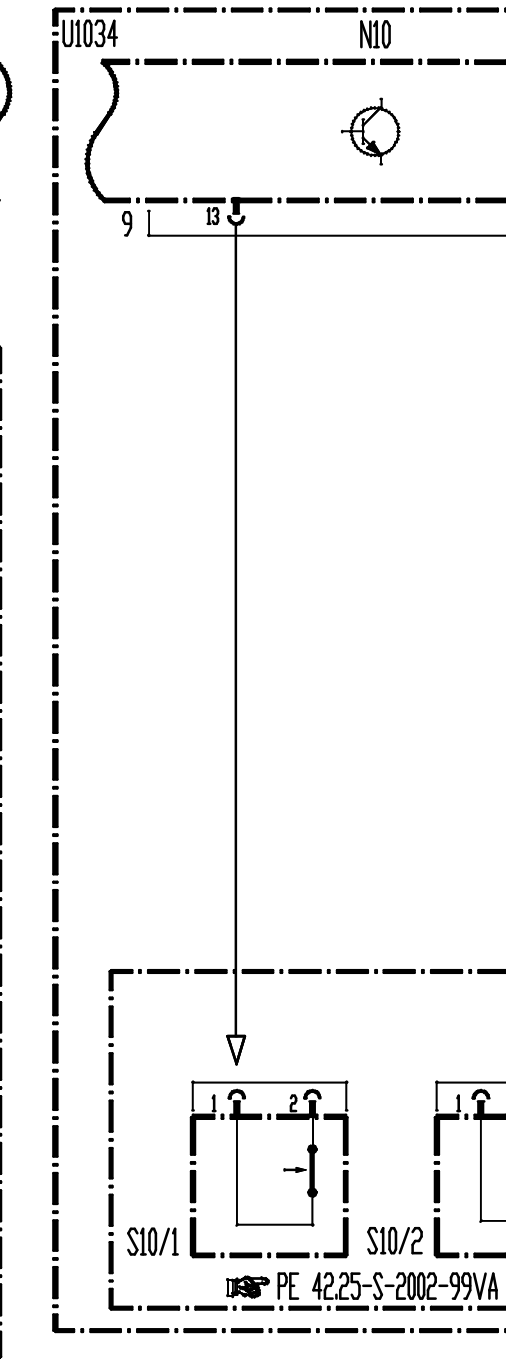
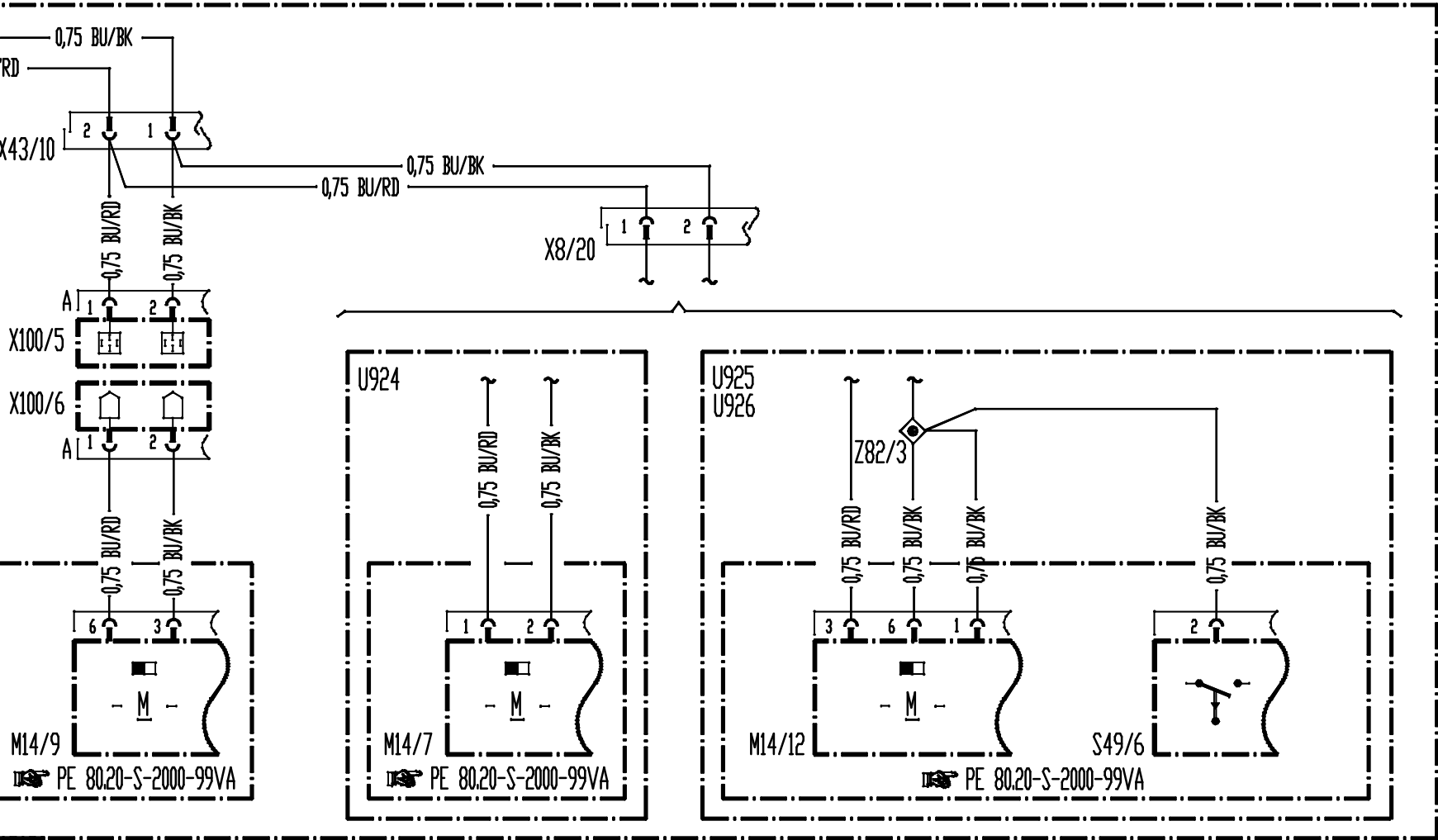
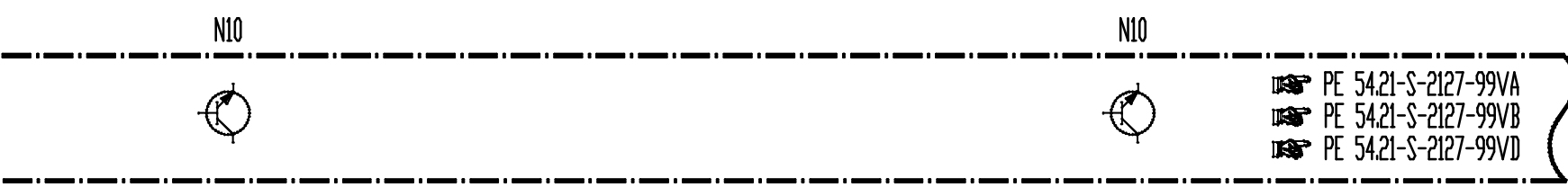
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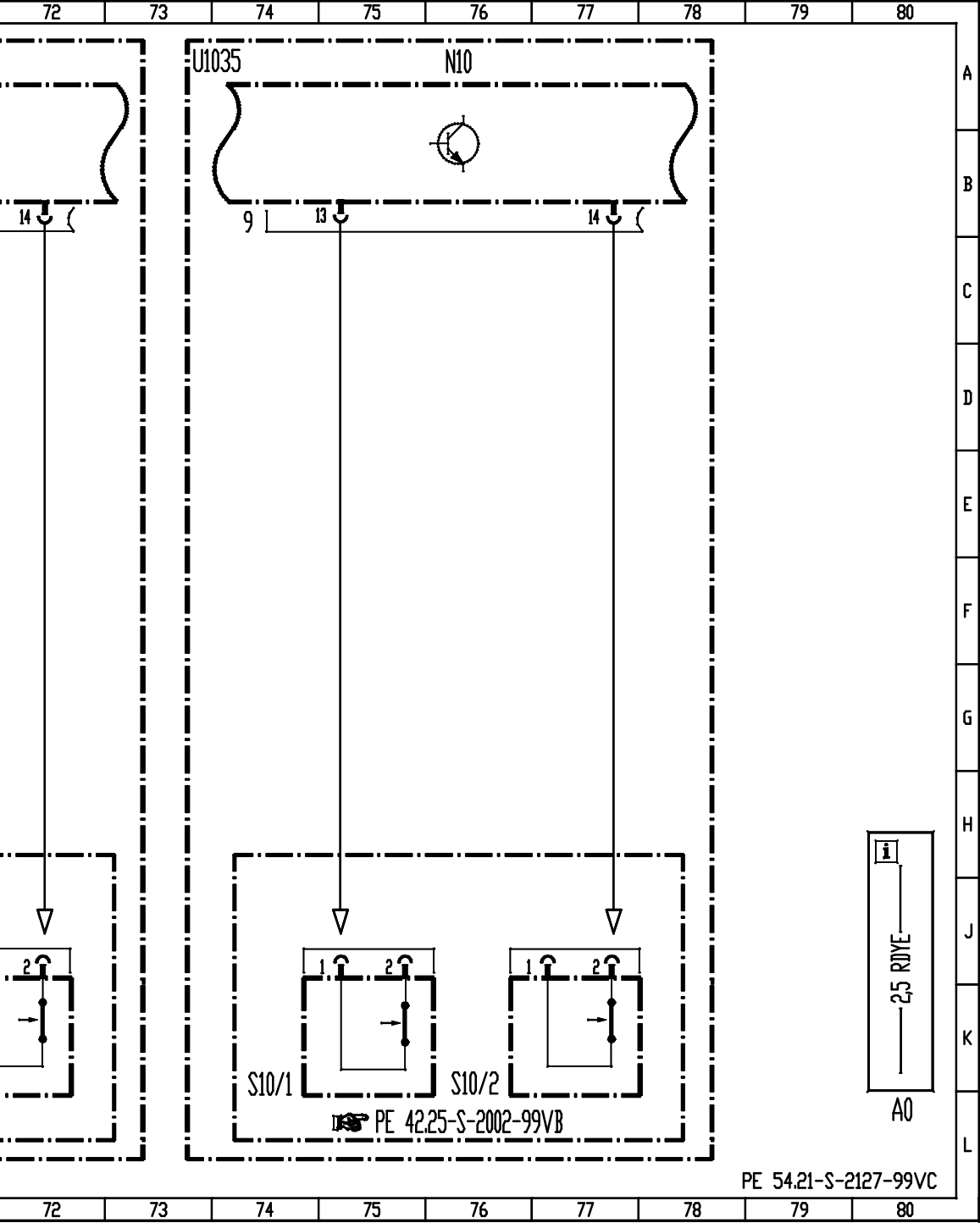
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**MODEL 639.601 /603 /605 /701 /703 /705 /711 /713 /811 /813 /815****Sheet 4**

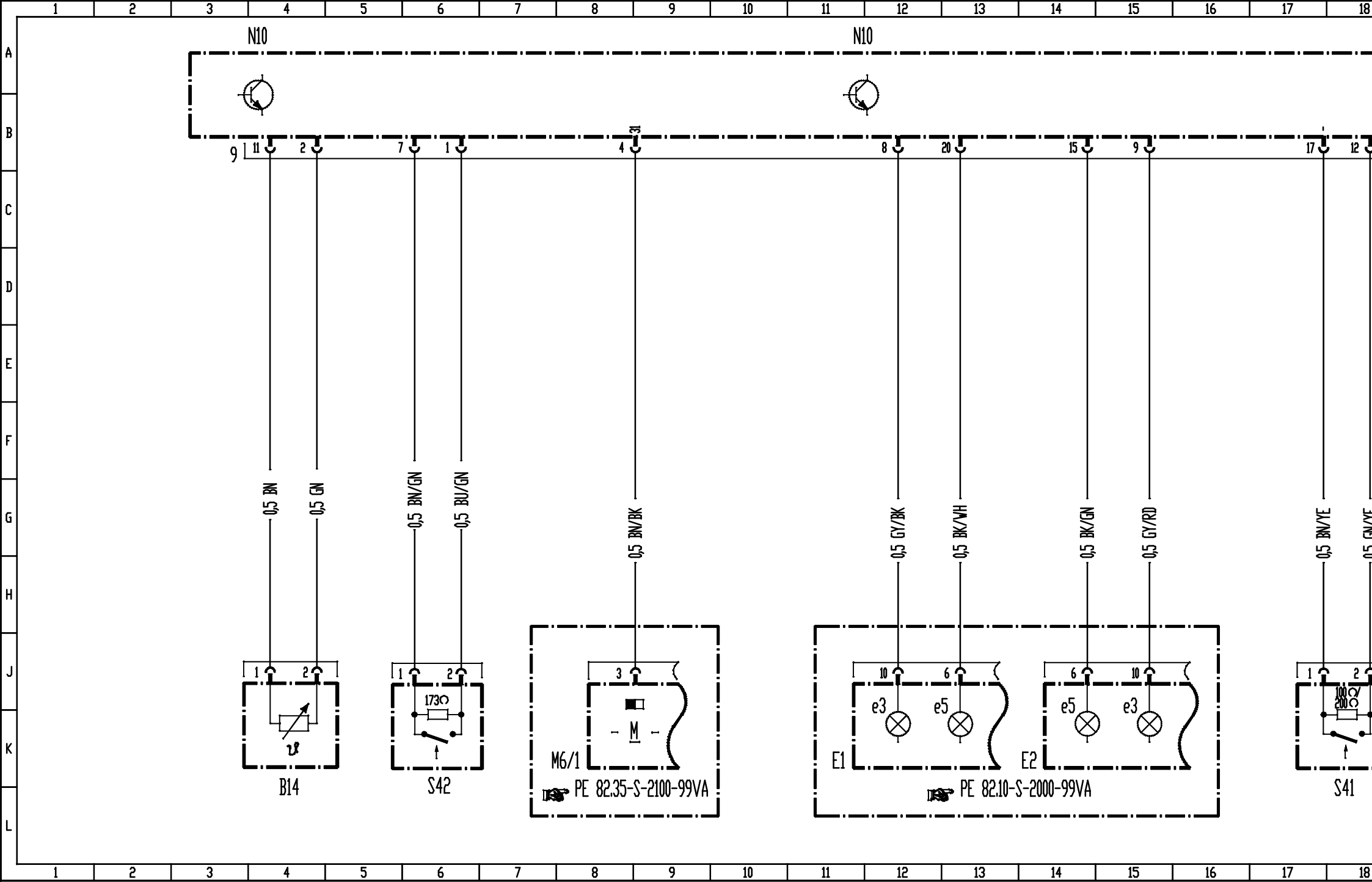
PE54.21-S-2127-99VD	Wiring diagram for signal acquisition and actuation module (SAM) control unit		PE54.21-S-2127-99VD
PE54.21-S-2127-60VD	Legend of wiring diagram for signal acquisition and actuation module (SAM) control unit		PE54.21-S-2127-60VD
OV00.01-S-1901-03VA	Use of wiring diagrams		OV00.01-S-1901-03VA
OV00.01-S-1901VA	Search aid for all wiring diagram groups		OV00.01-S-1901VA
OV00.01-S-1909VA	Search aid for all electrical components	Components from A to E	OV00.01-S-1909VA
OV00.01-S-1909VB	Search aid for all electrical components	Components from F to J	OV00.01-S-1909VB
OV00.01-S-1909VC	Search aid for all electrical components	Components from K to O	OV00.01-S-1909VC
OV00.01-S-1909VD	Search aid for all electrical components	Components from P to T	OV00.01-S-1909VD
OV00.01-S-1909VE	Search aid for all electrical components	Components from U to Z	OV00.01-S-1909VE
OV00.01-S-1001-27VA	Abbreviations for wiring diagrams		OV00.01-S-1001-27VA
OV00.01-S-1001-28VA	Abbreviations of signal and circuit designations for wiring diagrams		OV00.01-S-1001-28VA
GF00.19-S-1000VB	Location and assignment of line and plug connectors		GF00.19-S-1000VB
GF00.19-S-1100VB	Location and assignment of connectors and sockets		GF00.19-S-1100VB
GF00.19-S-2000VB	Location and assignment of ground points		GF00.19-S-2000VB
GF00.19-S-3000VB	Location and assignment of Z connector sleeves (line connectors in wiring harness)		GF00.19-S-3000VB
GF54.15-S-0900VA	Fuse and relay box, location/assignment		GF54.15-S-0900VA

PE54.21-S-2127-60VD	Legend of wiring diagram for signal acquisition and actuation module (SAM) control unit	MODEL 639.601 /603 /605 /701 /703 /705 /711 /713 /811 /813 /815 Sheet 4	
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Code	Designation	Coordinates
B14	Outside temperature display temperature sensor	4L
E1	Lamp unit, left front	11K
E2	Lamp unit, right front	14K
E15	Dome lamp with reading lamp, front	59L
E15/29	Load compartment lamp 1, right	70K
E15/30	Load compartment lamp 2, left	73K
E18/1	Trunk lamp	67K
E22/1	Additional turn signal lamp, left	32K 36K
E22/2	Additional turn signal lamp, right	25K 28K
F34	Fuse block, 22-pin	61G
F34f33	Data link connector fuse	62G
K2	Headlamp cleaning system relay	40K
M6/1	Windshield wiper motor	7K
N10	SAM control unit	4A 11A 19A 27A 35A 43A 51A 59A 67A
N70	Overhead control panel control unit	49K 54K
S11	Brake fluid indicator switch	20L

S41	Fill level switch, coolant	18L
S42	Fill level switch, window washer fluid	6L
U32	Valid for left-hand drive vehicles	21G 25D 32D
U33	Valid for right-hand drive vehicles	22G 28D 35D
U37	Valid for ATA [EDW] I	49E
U38	Valid for ATA [EDW] II	49E
U1003	Valid for additional interior lamp in passenger compartment	67D
U1004	Valid for interior lamp in rear	67E
U1005	Valid without additional interior lamp in passenger compartment	71C
U1006	Valid without interior lamp in rear	70G 71D
U1007	Valid for additional interior lamp in load compartment without interior lamp in rear	73G
U1009	Valid for light/rain sensor	49E
U1011	Valid without glass tilting/sliding roof in passenger compartment	57D
U1012	Valid without glass tilting/sliding roof in driver/passenger compartment	57D
U1013	Valid without anti-theft alarm system with interior protection (EDW II)	57E
U1018	Valid without EDW I	57E
U1019	Valid without light/rain sensor	57E
U1024	Valid for DBE with 2 reading spotlights or garage door opener without glass tilting/sliding roof in driver/passenger compartment, glass tilting/sliding roof in passenger compartment, light/rain sensor, EDW II or EDW I	54D
U1099	Valid as of 09/2005 for vehicles with outside rearview mirror without turn signal lamp	25C
U1100	Valid up to 08/2005: Valid for panel van (Vito)/ Valid for MPV (Vito) and luxury multipurpose vehicle (Viano), both with outside rearview mirrors without turn signal lamp	25C
U928	Valid for headlamp cleaning system	40D
U949	Valid for glass tilting/sliding roof in passenger compartment	49D
U954	Valid for glass tilting/sliding roof in driver/passenger compartment	49D
U978	Valid for FUN equipment line	66H
U980	Valid for "Marco Polo" camper	66H

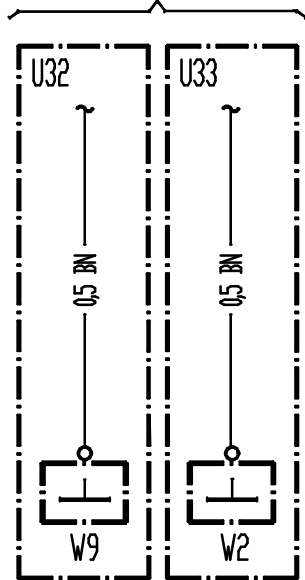
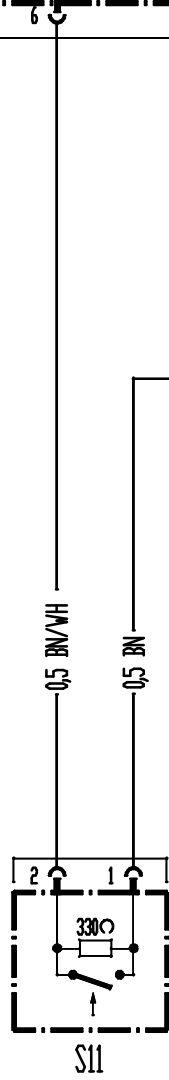
U982	Valid for MPV	66G
U983	Valid for TREND equipment line	66H
U984	Valid for AMBIENTE equipment line	66H
U987	Valid without DBE with 2 reading spotlights	57F
W2	Ground (right front lamp unit)	22L
W9	Ground (left front lamp unit)	21L
W38	Ground (roof)	57L
X18/2	Load compartment lamp connector	70F
X18/29	Connector 1, left engine compartment or right engine compartment	33F
X18/30	Connector 2, left engine compartment or right engine compartment	29F
X30/24	Interior CAN bus connector	43K 43K 43K 46K 46K 46K
X30/25	Interior CAN bus connector	43K 46K
X30/26	Interior CAN bus connector	43K 43K 43K 46K 46K 46K
Z4/1	Ceiling illumination terminal 30 connector sleeve	62E
Z54/5	SAM ceiling illumination connector sleeve	67D
Z66/1	Additional fuse box feed connector sleeve	62J



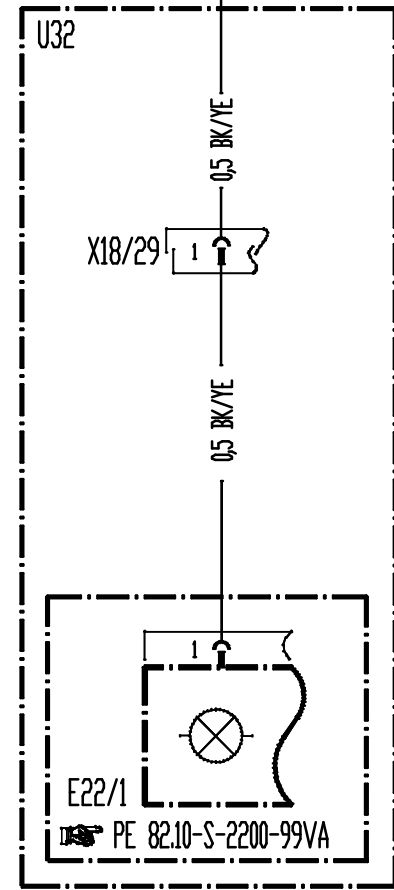
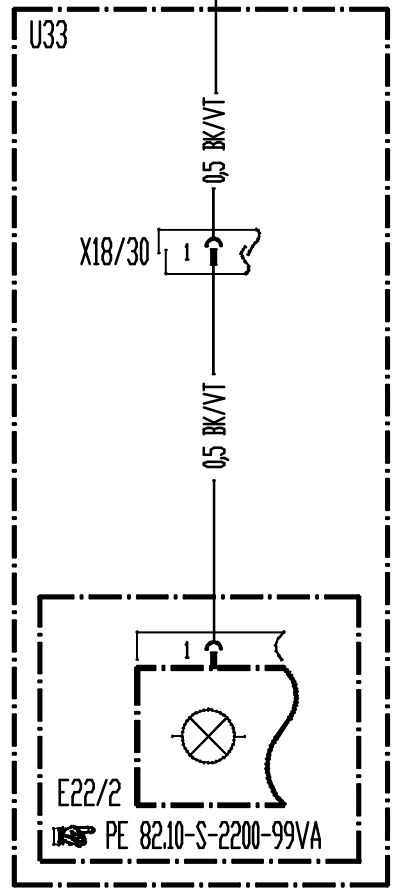
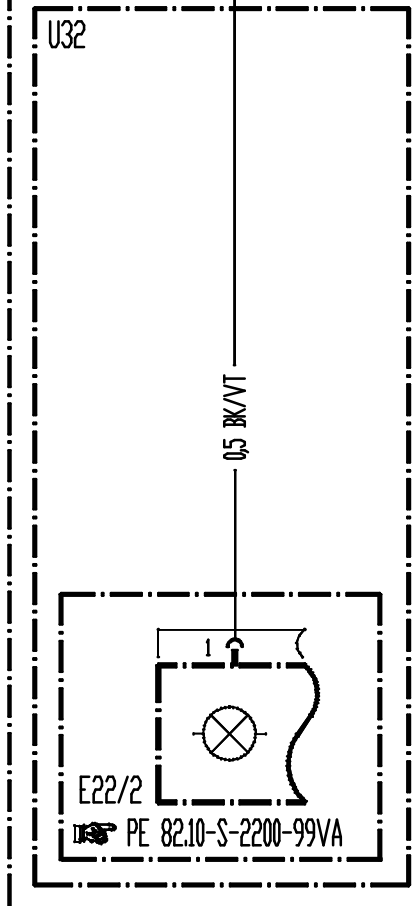
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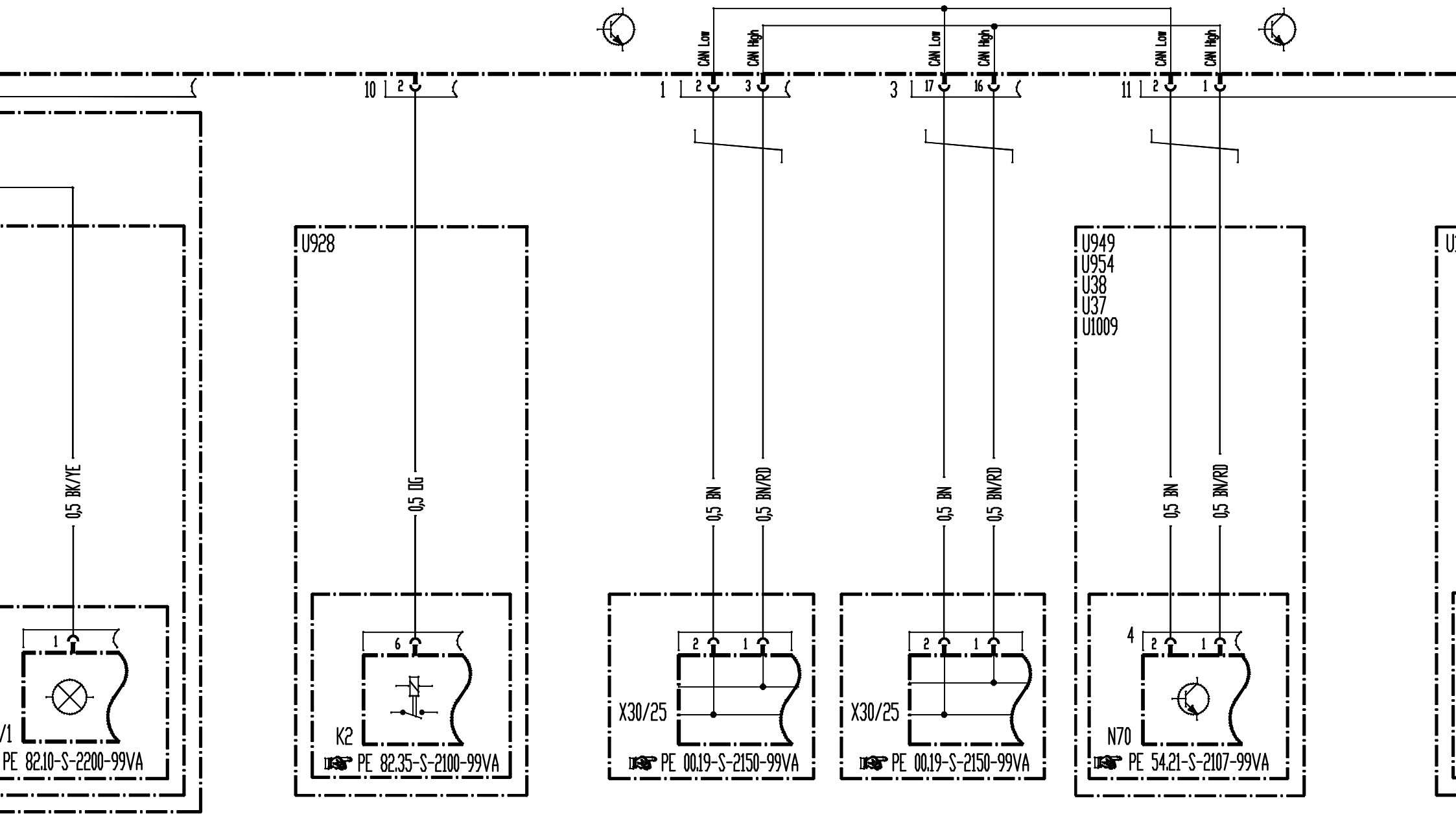


U1099  
U1100



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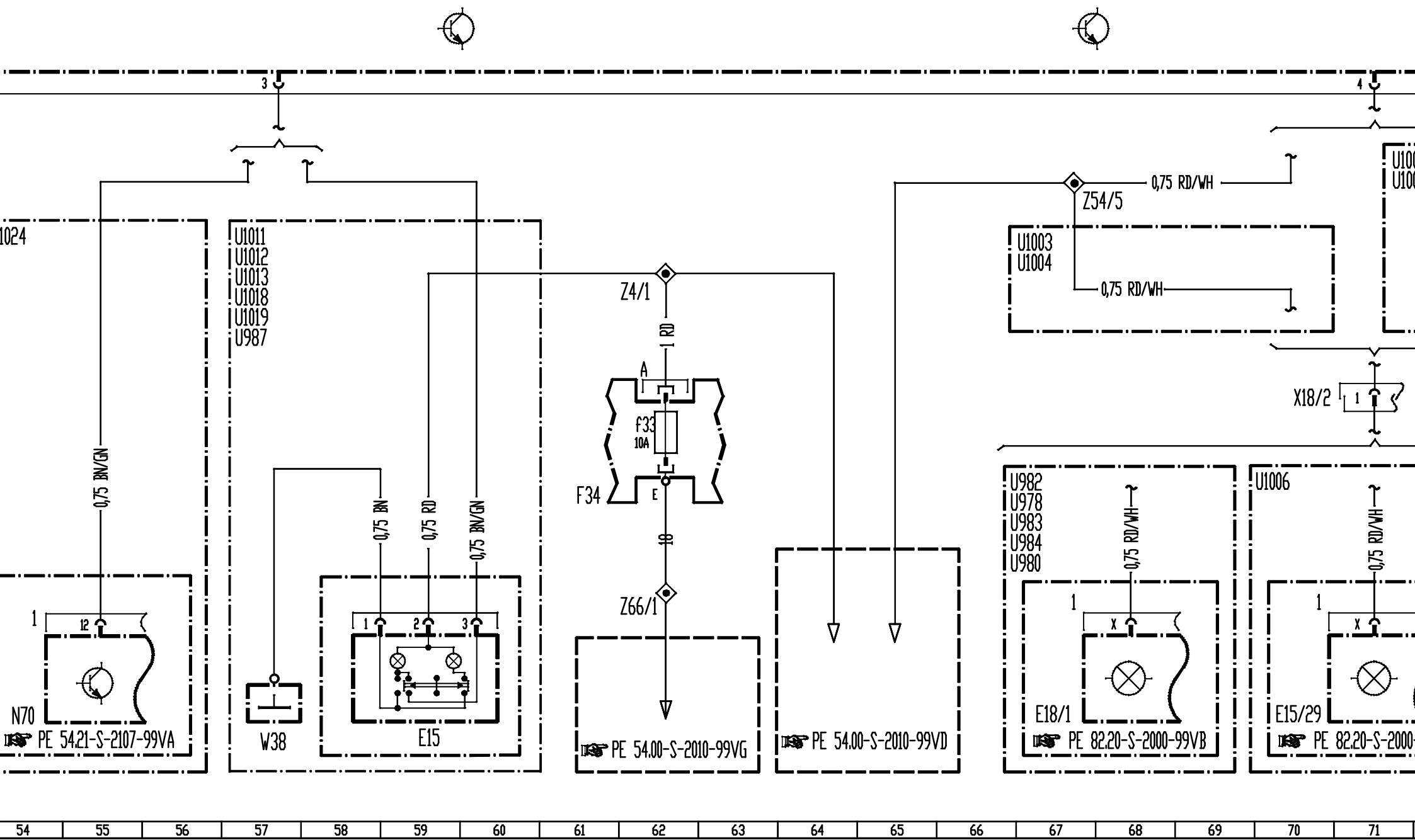
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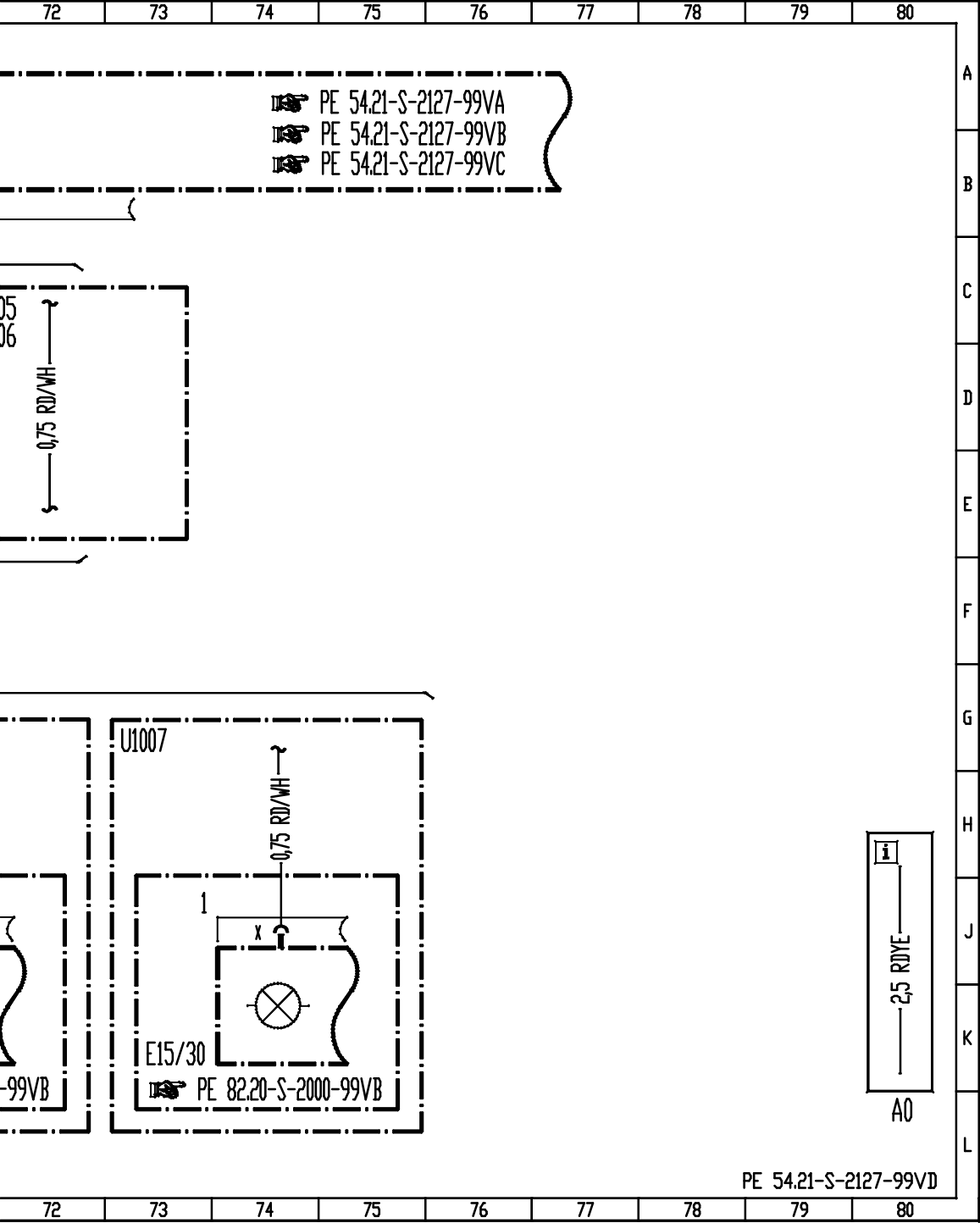




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# Exterior lights

# Chapter 9

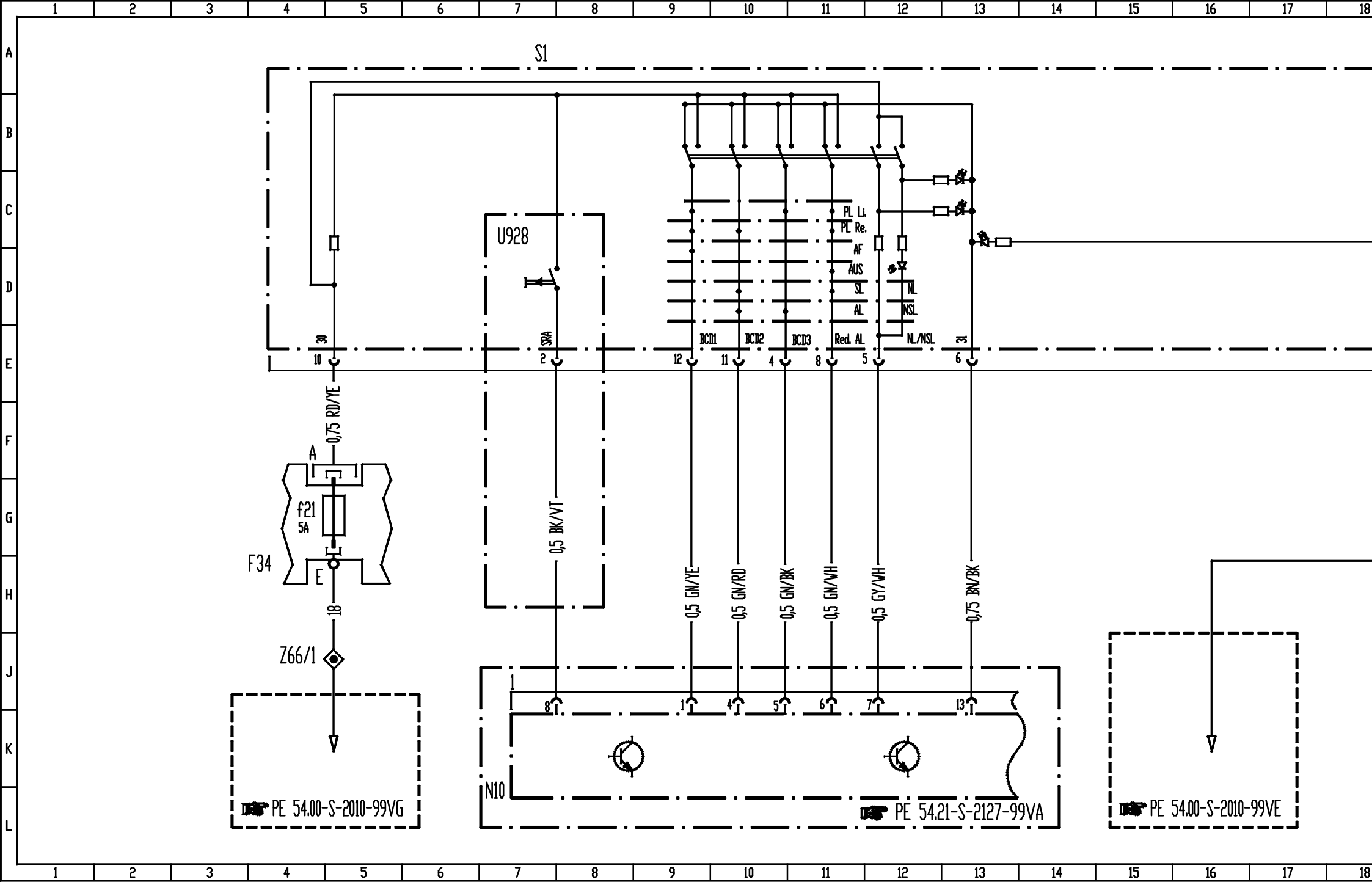
**MODEL 639.601 /603 /605 /701 /703 /705 /711 /713 /811 /813 /815 except CODE (L84) Additional turn signal lamps on rear of roof**

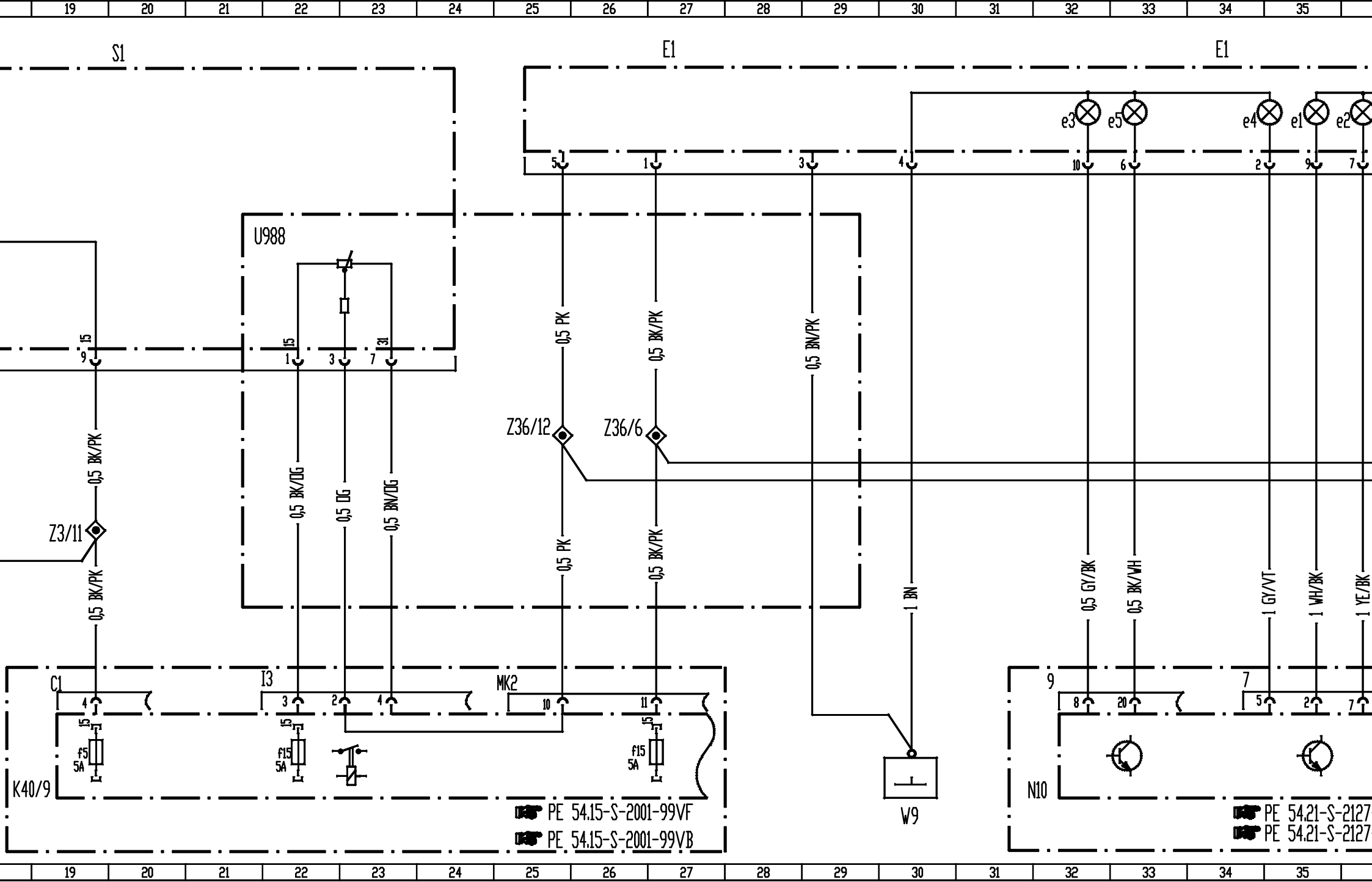
PE82.10-S-2000-99VA	Wiring diagram of exterior lights		PE82.10-S-2000-99VA
PE82.10-S-2000-60VA	Legend for wiring diagram of exterior lights		PE82.10-S-2000-60VA
OV00.01-S-1901-03VA	Use of wiring diagrams		OV00.01-S-1901-03VA
OV00.01-S-1901VA	Search aid for all wiring diagram groups		OV00.01-S-1901VA
OV00.01-S-1909VA	Search aid for all electrical components	Components from A to E	OV00.01-S-1909VA
OV00.01-S-1909VB	Search aid for all electrical components	Components from F to J	OV00.01-S-1909VB
OV00.01-S-1909VC	Search aid for all electrical components	Components from K to O	OV00.01-S-1909VC
OV00.01-S-1909VD	Search aid for all electrical components	Components from P to T	OV00.01-S-1909VD
OV00.01-S-1909VE	Search aid for all electrical components	Components from U to Z	OV00.01-S-1909VE
OV00.01-S-1001-27VA	Abbreviations for wiring diagrams		OV00.01-S-1001-27VA
OV00.01-S-1001-28VA	Abbreviations of signal and circuit designations for wiring diagrams		OV00.01-S-1001-28VA
GF00.19-S-1000VB	Location and assignment of line and plug connectors		GF00.19-S-1000VB
GF00.19-S-1100VB	Location and assignment of connectors and sockets		GF00.19-S-1100VB
GF00.19-S-2000VB	Location and assignment of ground points		GF00.19-S-2000VB
GF00.19-S-3000VB	Location and assignment of Z connector sleeves (line connectors in wiring harness)		GF00.19-S-3000VB
GF54.15-S-0900VA	Fuse and relay box, location/assignment		GF54.15-S-0900VA

PE82.10-S-2000-60VA	Legend for wiring diagram of exterior lights	MODEL 639.601 /603 /605 /701 /703 /705 /711 /713 /811 /813 /815 except CODE (L84) Additional turn signal lamps on rear of roof	
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Code	Designation	Coordinates
E1	Lamp unit, left front	27A 34A
E1e1	High beam, left	47B
E1e2	Low beam, left	48B
E1e3	Standing and parking lamp, left	32B 44B
E1e4	Front fog lamp, left	34B 46B
E1e5	Turn signal lamp, left	32B 45B
E2	Lamp unit, right front	41A 47A
F34	Fuse block, 22-pin	4H
F34f21	Exterior lamp switch fuse	4G
K40/9	Fuse and relay block	18L
K40/9f5	Data link connector fuse, exterior lamp switch, instrument cluster	19K
K40/9f15	Headlamp range adjustment fuse	22K 26K
N10	SAM control unit	7L 31L 44L
S1	Exterior lamp switch	7A 20A
U928	Valid for headlamp cleaning system	7C
U988	Valid without lowerable/raisable rear air suspension	21C 39C

W2	Ground (right front lamp unit)	43L 50L
W9	Ground (left front lamp unit)	30L 37L
Z3/11	Terminal 15 connector sleeve	19G
Z36/6	HRA [LWR] power supply connector sleeve	26F 40G
Z36/12	HRA [LWR] control bus connector sleeve	25F 39G
Z66/1	Additional fuse box feed connector sleeve	4J

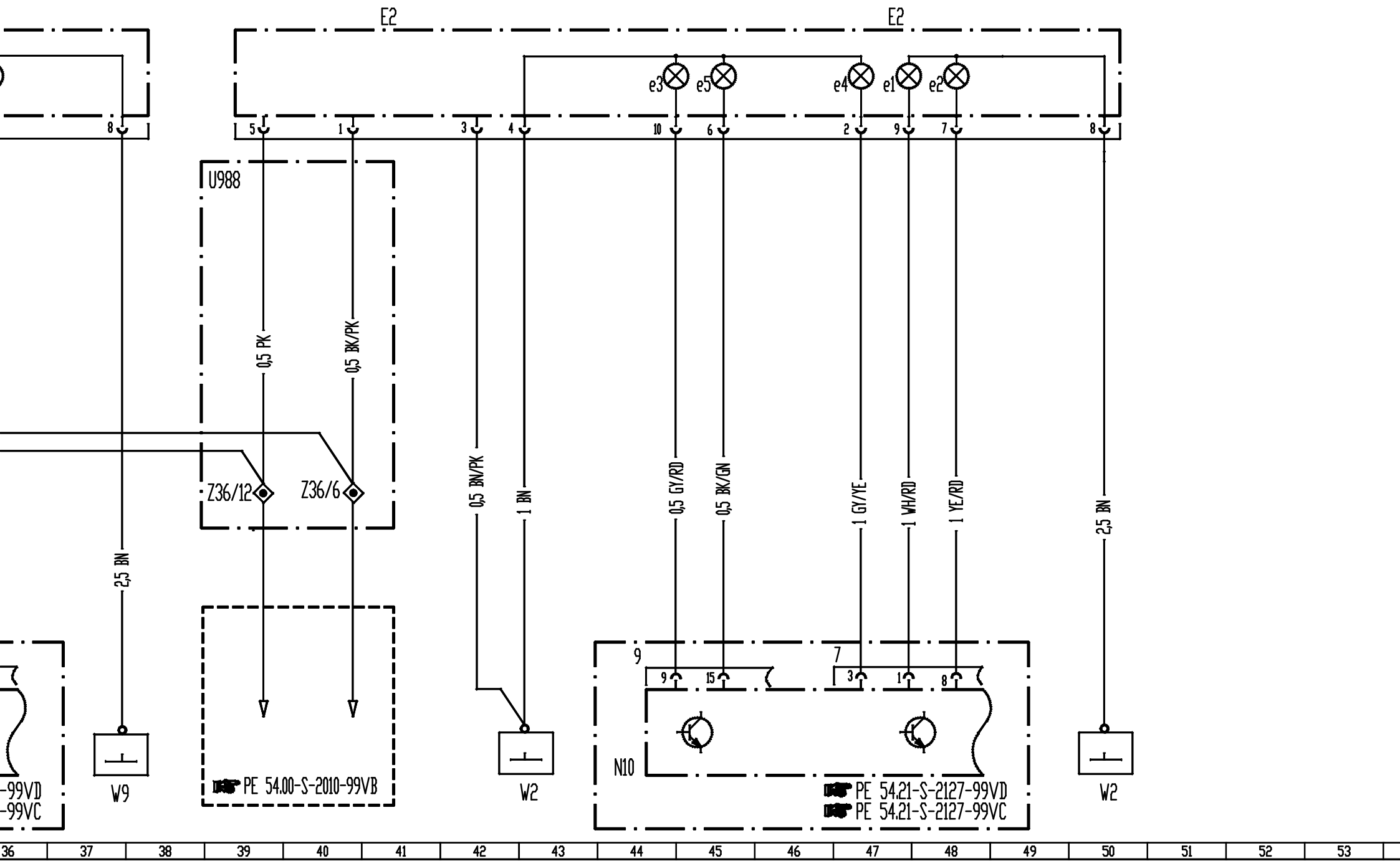




PE 54.15-S-2001-99VF  
 PE 54.15-S-2001-99VB

PE 54.21-S-2127  
 PE 54.21-S-2127





PE82.10-S-2000VB	Wiring diagram of exterior lights	25.8.05
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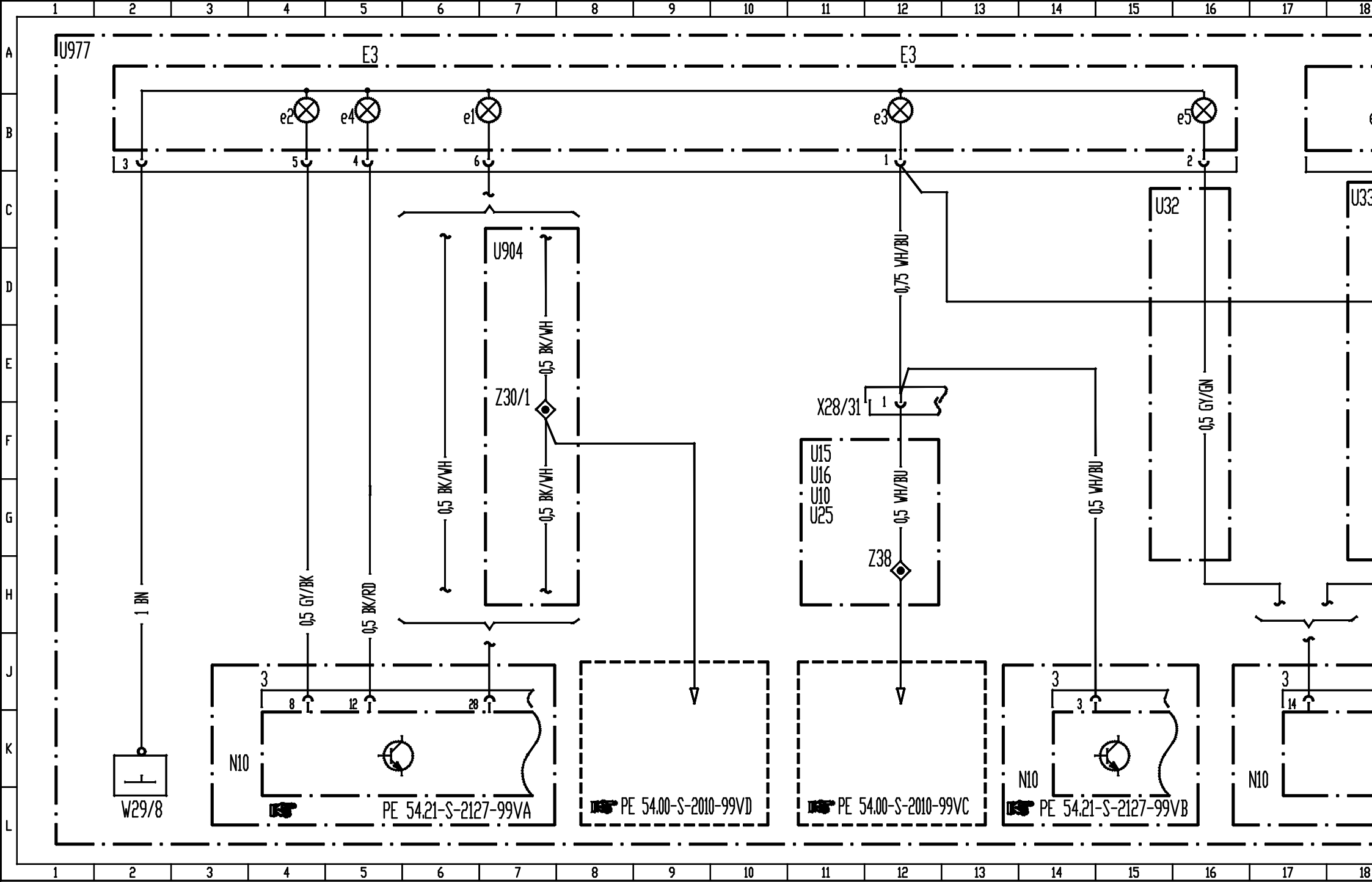
**MODEL 639.601 /603 /605 /701 /703 /705 /711 /713 /811 /813 /815 with CODE (L84) Additional turn signal lamps on rear of roof**

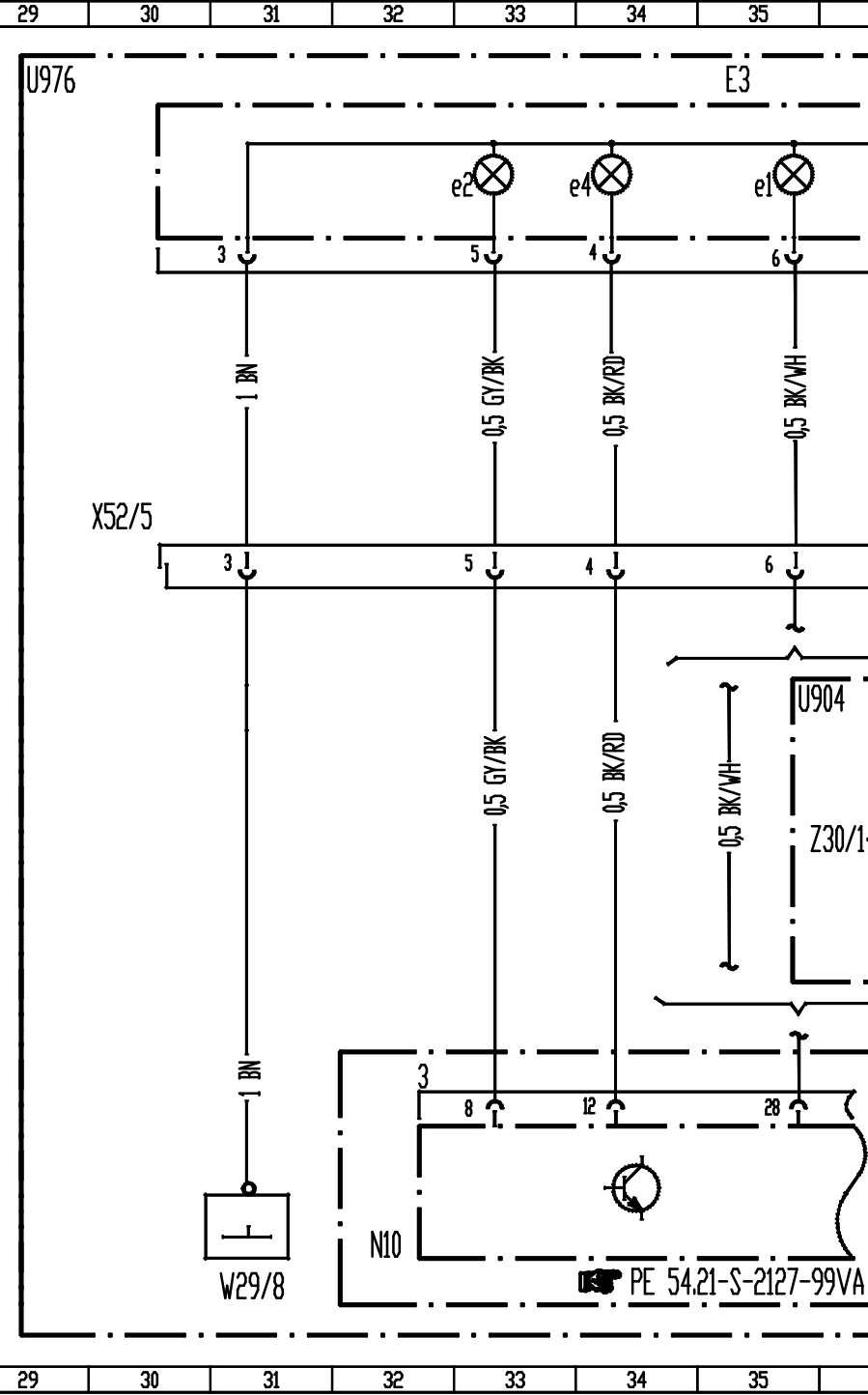
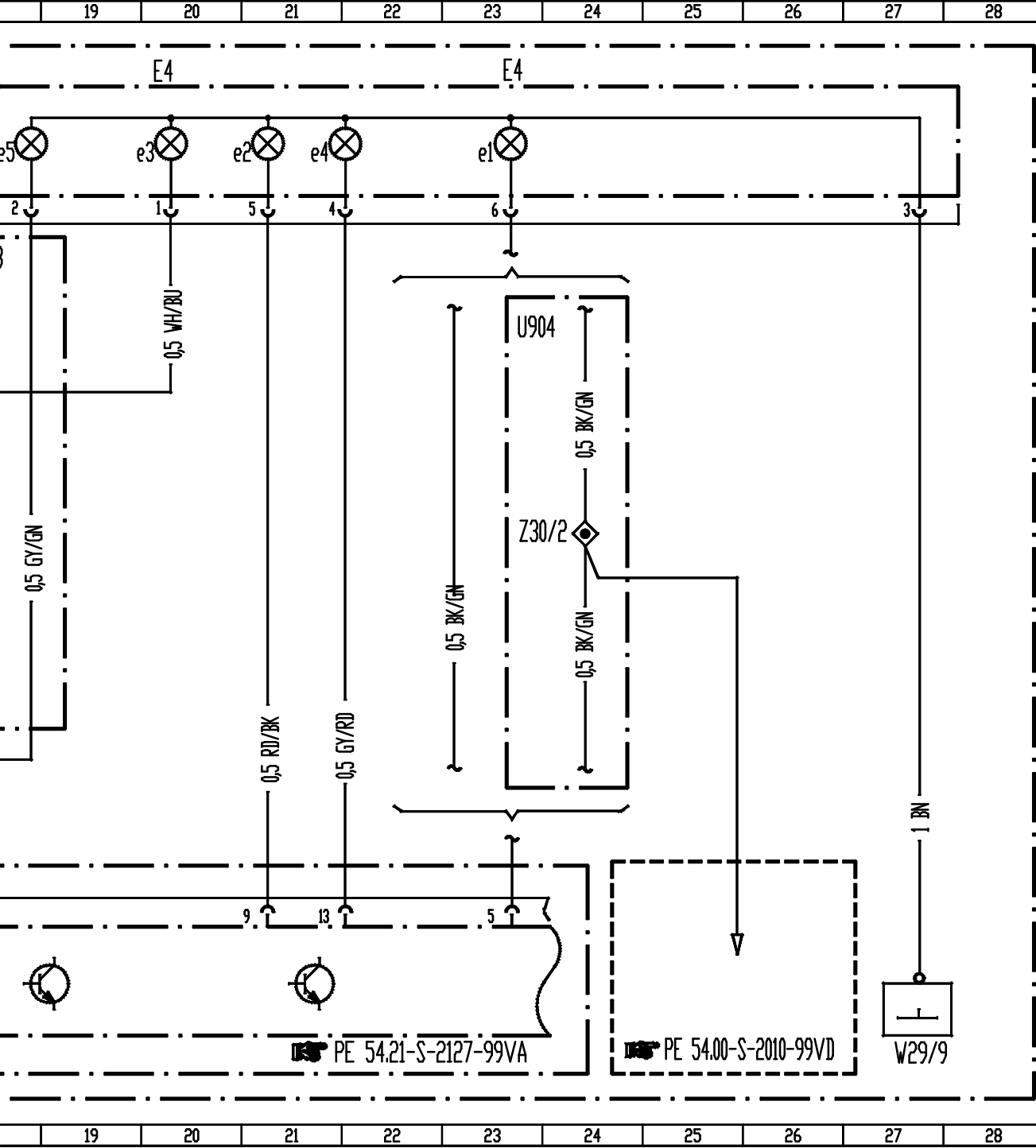
PE82.10-S-2000-99VB	Wiring diagram of exterior lights		PE82.10-S-2000-99VB
PE82.10-S-2000-60VB	Legend for wiring diagram of exterior lights		PE82.10-S-2000-60VB
OV00.01-S-1901-03VA	Use of wiring diagrams		OV00.01-S-1901-03VA
OV00.01-S-1901VA	Search aid for all wiring diagram groups		OV00.01-S-1901VA
OV00.01-S-1909VA	Search aid for all electrical components	Components from A to E	OV00.01-S-1909VA
OV00.01-S-1909VB	Search aid for all electrical components	Components from F to J	OV00.01-S-1909VB
OV00.01-S-1909VC	Search aid for all electrical components	Components from K to O	OV00.01-S-1909VC
OV00.01-S-1909VD	Search aid for all electrical components	Components from P to T	OV00.01-S-1909VD
OV00.01-S-1909VE	Search aid for all electrical components	Components from U to Z	OV00.01-S-1909VE
OV00.01-S-1001-27VA	Abbreviations for wiring diagrams		OV00.01-S-1001-27VA
OV00.01-S-1001-28VA	Abbreviations of signal and circuit designations for wiring diagrams		OV00.01-S-1001-28VA
GF00.19-S-1000VB	Location and assignment of line and plug connectors		GF00.19-S-1000VB
GF00.19-S-1100VB	Location and assignment of connectors and sockets		GF00.19-S-1100VB
GF00.19-S-2000VB	Location and assignment of ground points		GF00.19-S-2000VB
GF00.19-S-3000VB	Location and assignment of Z connector sleeves (line connectors in wiring harness)		GF00.19-S-3000VB
GF54.15-S-0900VA	Fuse and relay box, location/assignment		GF54.15-S-0900VA

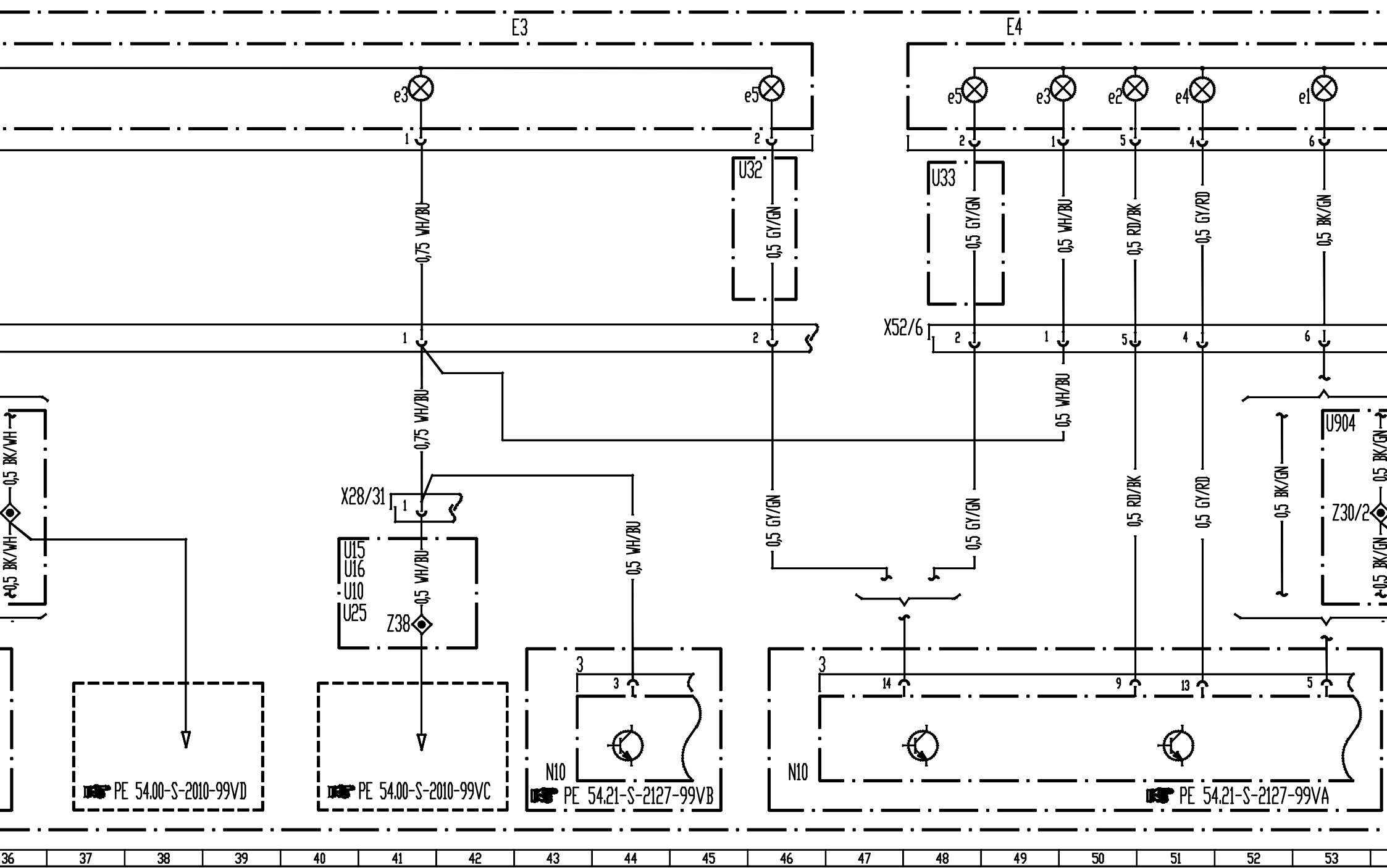
PE82.10-S-2000-60VB	Legend for wiring diagram of exterior lights	MODEL 639.601 /603 /605 /701 /703 /705 /711 /713 /811 /813 /815 with CODE (L84) Additional turn signal lamps on rear of roof	
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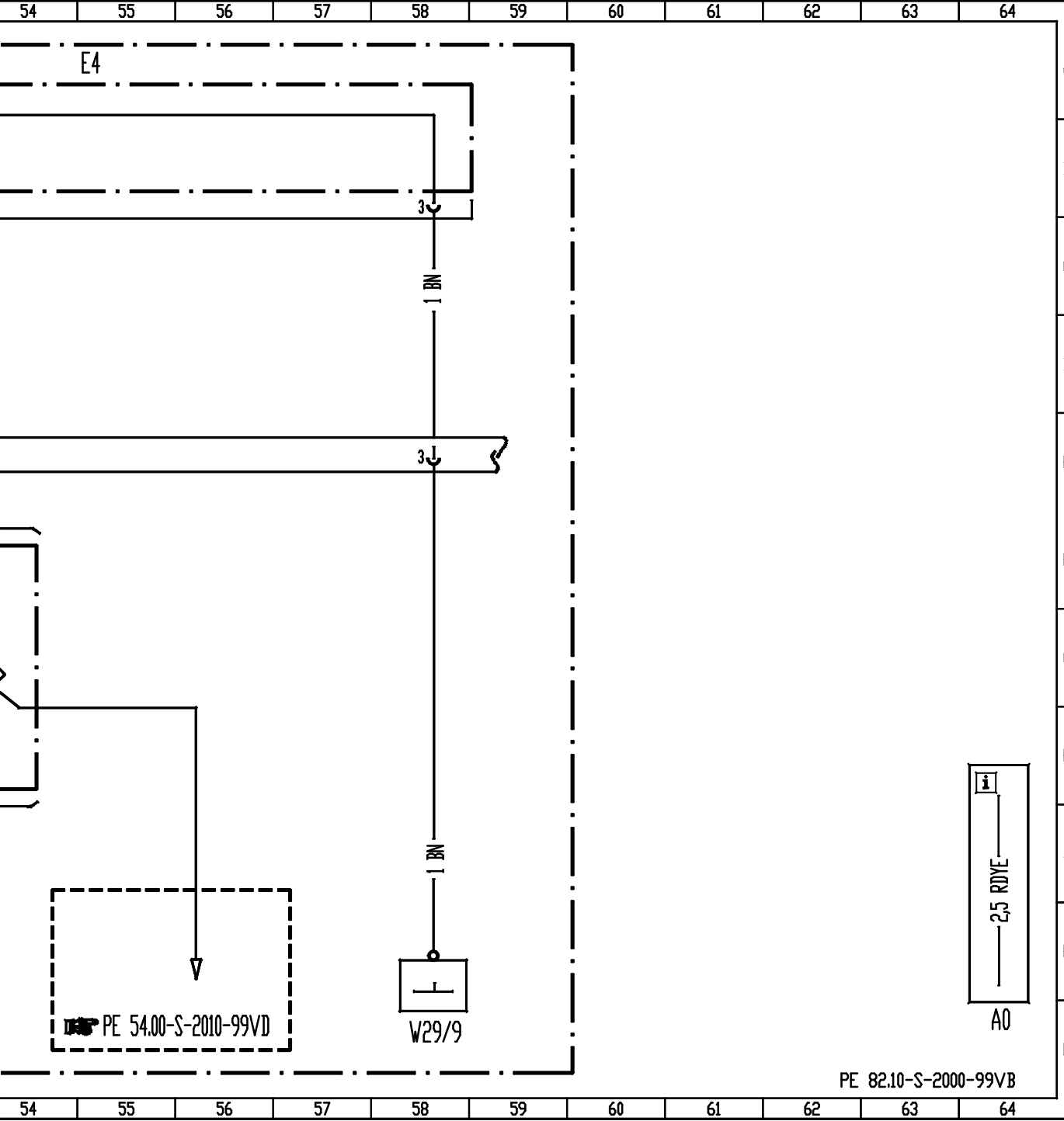
Code	Designation	Coordinates
E3	Taillamp, left	5A 12A 35A 42A
E3e1	Turn signal lamp, left	6B 35B
E3e2	Tail lamp and parking lamp, left	4B 32B
E3e3	Backup lamp, left	12B 41B
E3e4	Stop lamp, left	5B 33B
E3e5	Rear fog lamp, left	16B 45B
E4	Taillamp, right	20A 23A 49A 55A
E4e1	Turn signal lamp, right	23B 53B
E4e2	Tail lamp and parking lamp, right	20B 50B
E4e3	Backup lamp, right	19B 49B
E4e4	Stop lamp, right	21B 51B
E4e5	Rear fog lamp, right	18B 48B

N10	SAM control unit	3K 14K 17K 32L 43L 46L
U10	Valid for Sound 40 Pro radio	11G 40H
U15	Valid for screen in rear and DVD player	11F 40H
U16	Valid for screen in rear, DVD player and TV tuner	11G 40H
U25	Valid for backup warning system	11G 40J
U32	Valid for left-hand drive vehicles	15C 45C
U33	Valid for right-hand drive vehicles	18C 48C
U904	Valid for qualification as passenger car	7D 23D 35F 53F
U976	Valid for additional turn signal lamps on rear of roof	29A
U977	Valid without additional turn signal lamps on rear of roof	1A
W29/8	Ground (left D-pillar)	2L 31L
W29/9	Ground (right D-pillar)	27L 58L
X28/31	Backup alarm connector	11F 40G
X52/5	Left taillamp connector	30E
X52/6	Right taillamp connector	47E
Z30/1	Left turn signal indicator connector sleeve	7F 35G
Z30/2	Right turn signal indicator connector sleeve	23F 53G









A  
B  
C  
D  
E  
F  
G  
H  
J  
K  
L



# Central locking

# Chapter 10

PE80.20-S-2000VA	Wiring diagram of central locking (CL)	25.3.03
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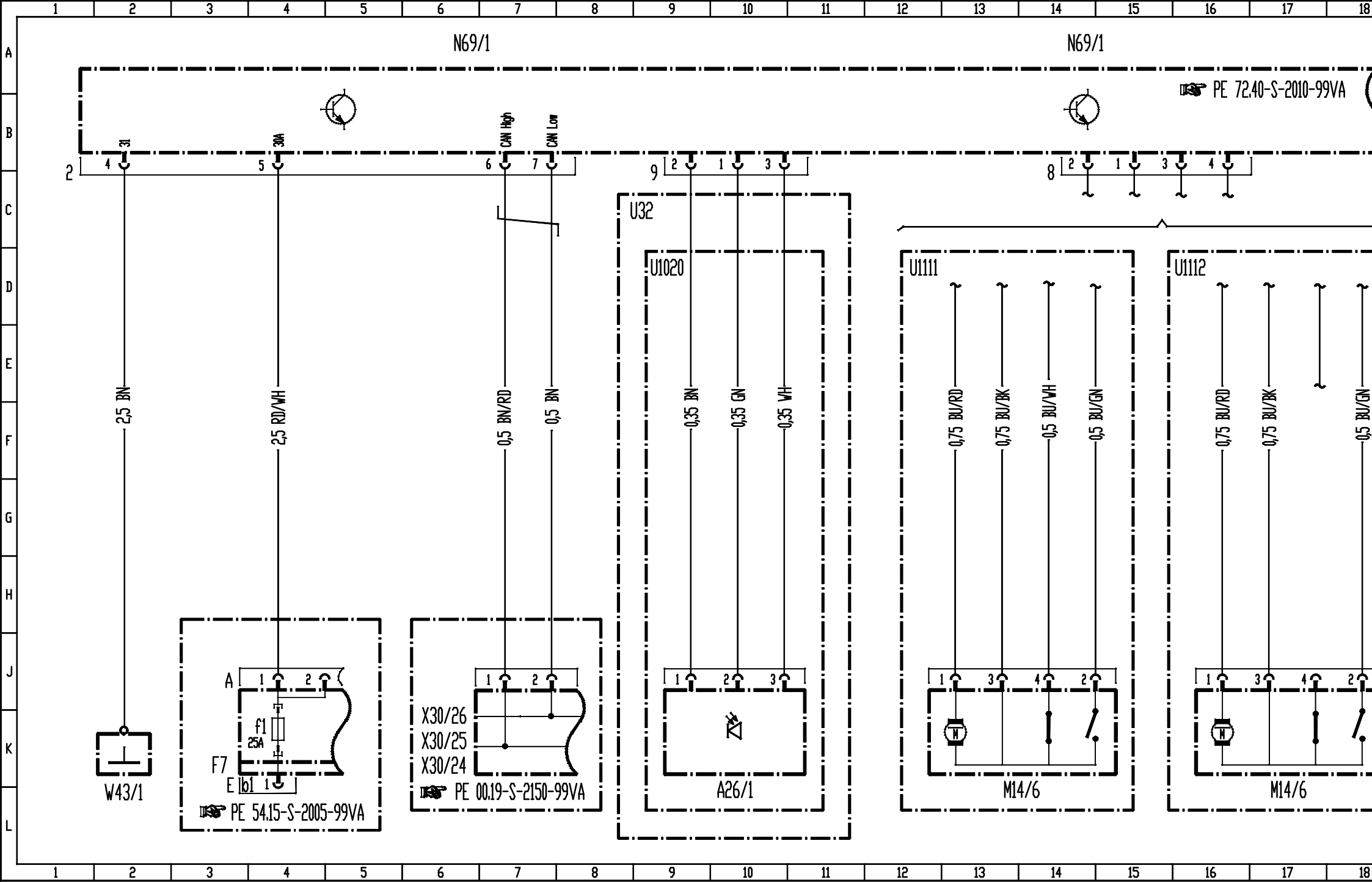
**MODEL 639.601 /603 /605 /701 /703 /705 /711 /713 /811 /813 /815 with CODE (T19) Left sliding door**

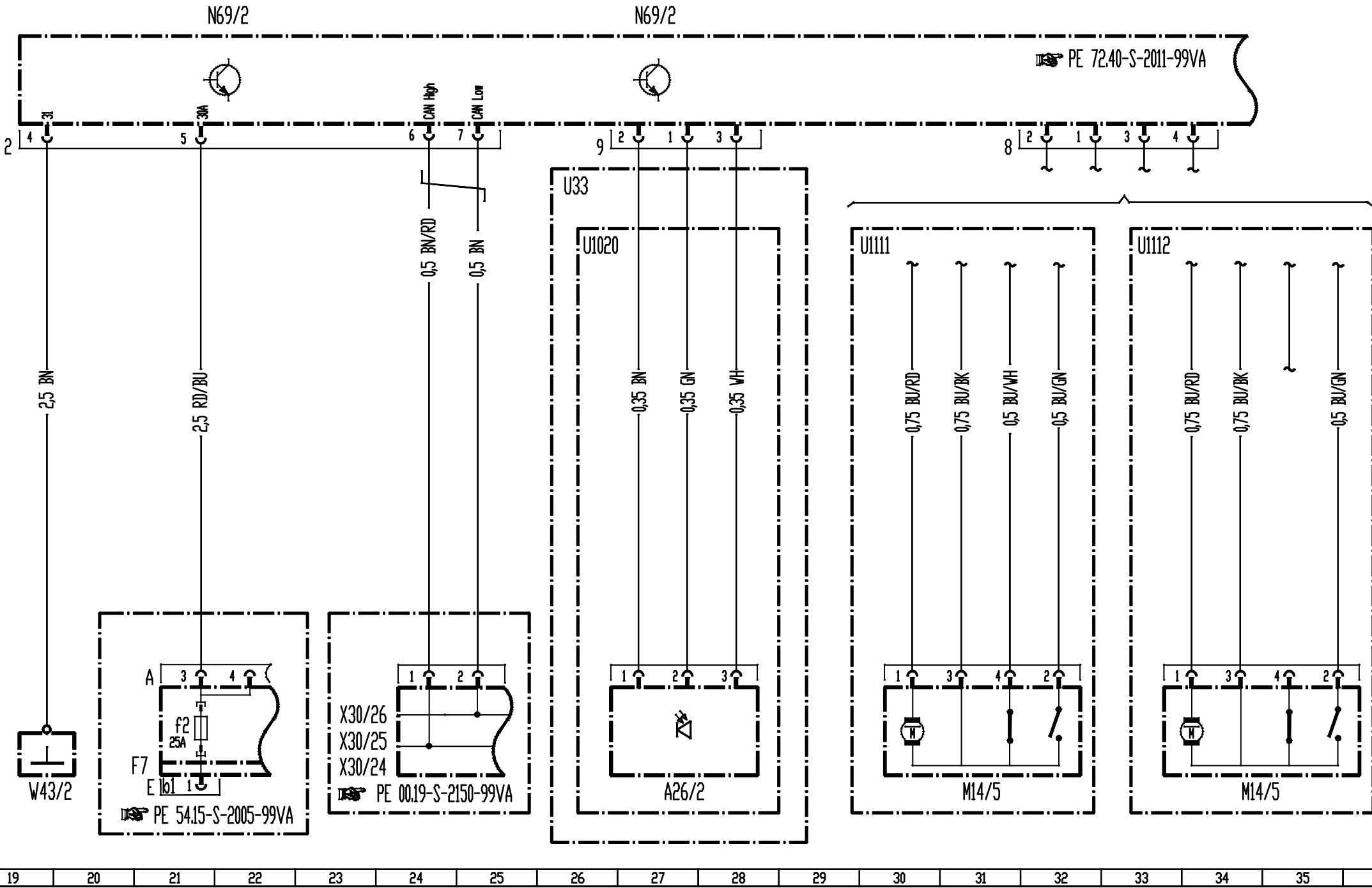
PE80.20-S-2000-99VA	Wiring diagram of central locking (CL)		PE80.20-S-2000-99VA
PE80.20-S-2000-60VA	Legend of wiring diagram for central locking (CL)		PE80.20-S-2000-60VA
OV00.01-S-1901-03VA	Use of wiring diagrams		OV00.01-S-1901-03VA
OV00.01-S-1901VA	Search aid for all wiring diagram groups		OV00.01-S-1901VA
OV00.01-S-1909VA	Search aid for all electrical components	Components from A to E	OV00.01-S-1909VA
OV00.01-S-1909VB	Search aid for all electrical components	Components from F to J	OV00.01-S-1909VB
OV00.01-S-1909VC	Search aid for all electrical components	Components from K to O	OV00.01-S-1909VC
OV00.01-S-1909VD	Search aid for all electrical components	Components from P to T	OV00.01-S-1909VD
OV00.01-S-1909VE	Search aid for all electrical components	Components from U to Z	OV00.01-S-1909VE
OV00.01-S-1001-27VA	Abbreviations for wiring diagrams		OV00.01-S-1001-27VA
OV00.01-S-1001-28VA	Abbreviations of signal and circuit designations for wiring diagrams		OV00.01-S-1001-28VA
GF00.19-S-1000VB	Location and assignment of line and plug connectors		GF00.19-S-1000VB
GF00.19-S-1100VB	Location and assignment of connectors and sockets		GF00.19-S-1100VB
GF00.19-S-2000VB	Location and assignment of ground points		GF00.19-S-2000VB
GF00.19-S-3000VB	Location and assignment of Z connector sleeves (line connectors in wiring harness)		GF00.19-S-3000VB
GF54.15-S-0900VA	Fuse and relay box, location/assignment		GF54.15-S-0900VA

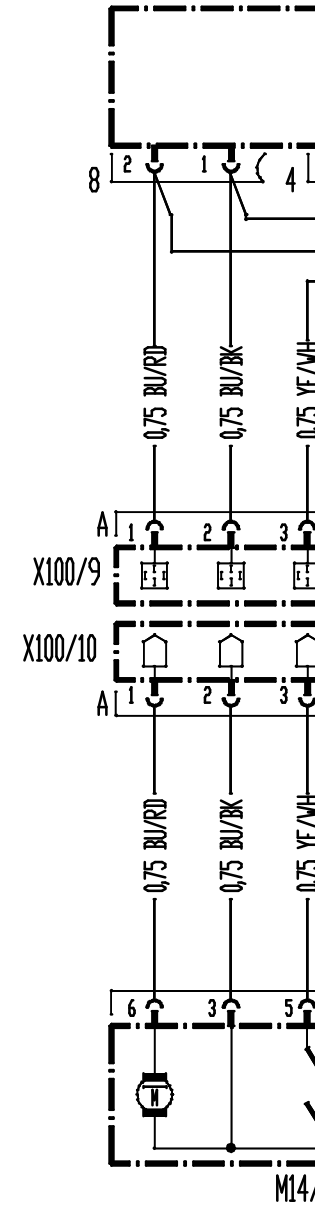
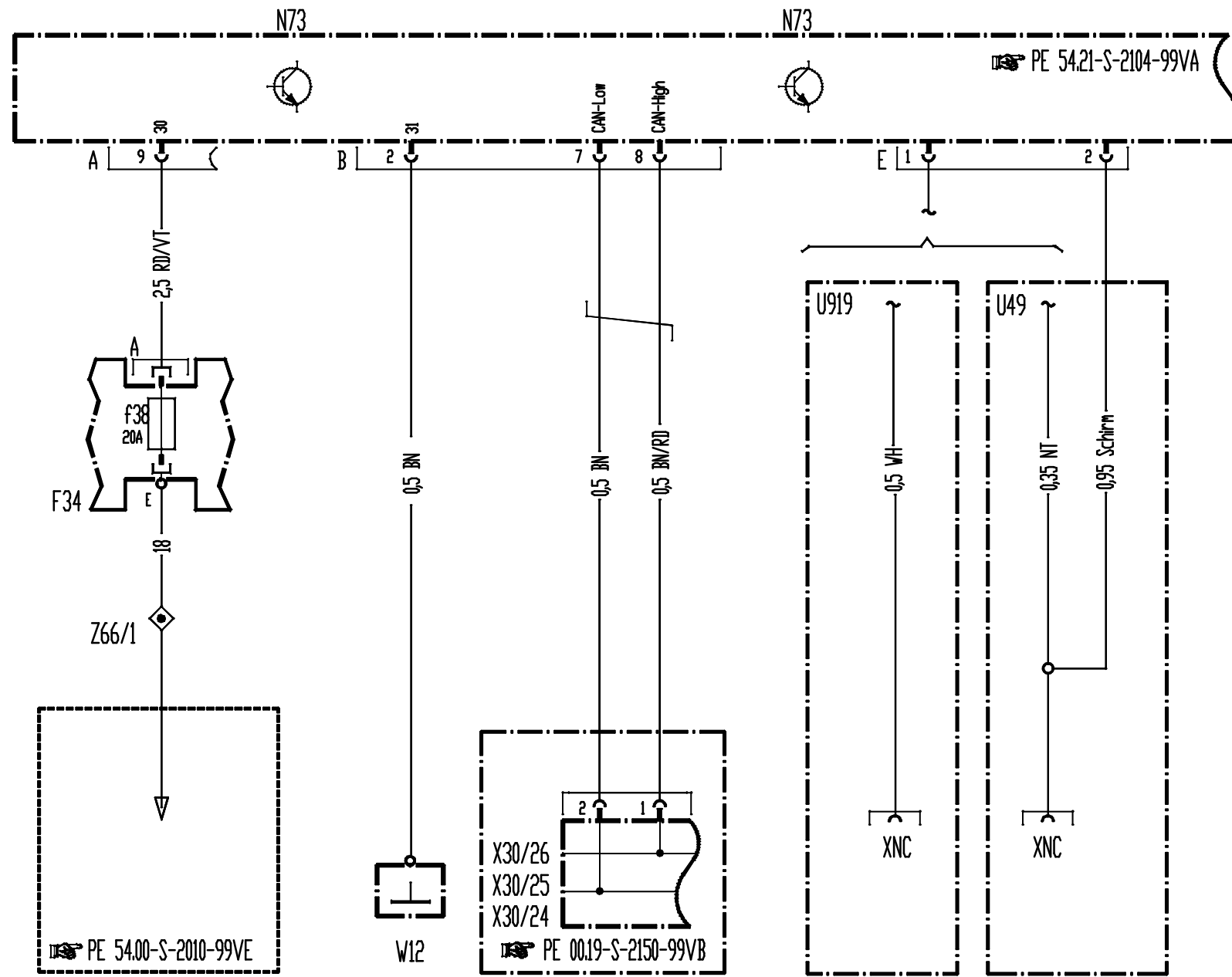
PE80.20-S-2000-60VA	Legend of wiring diagram for central locking (CL)	MODEL 639.601 /603 /605 /701 /703 /705 /711 /713 /811 /813 /815 with code (T19) Left sliding door	
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Code	Designation	Coordinates
A26/1	Left front IR receiver	10L
A26/2	Right front IR receiver	27L
F7	Fuse block (9-pin)	3K 20K
F7f1	Left door control unit fuse	4K
F7f2	Right door control unit fuse	21K
F34	Fuse block, 22-pin	38F
F34f38	EIS [EZS] steering lock fuse	39E
M14/5	Actuator, right CL [ZV] front door	31L 34L
M14/6	Actuator, left CL [ZV] front door	13L 17L
M14/7	Actuator, CL [ZV] tailgate	62L
M14/8	Actuator, CL [ZV] left sliding door	53L
M14/9	Actuator, right CL [ZV] sliding door	58L
M14/12	Actuator, right CL [ZV] rear-end door	67L
N10	SAM control unit	55A 63A 71A
N69/1	Door control unit, left front	6A 14A
N69/2	Door control unit, right front	21A 27A
N73	EIS [EZS] control unit	41A 46A
S49/6	Rotary tumbler switch, right rear-end door	69L

S49/7	Rotary tumbler switch, left rear-end door	72L
U32	Valid for left-hand drive vehicles	8C
U33	Valid for right-hand drive vehicles	26C
U49	Valid for Japan	48D
U1020	Valid for convenience opening/closing with IR remote control	9D 26D
U1111	Valid for vehicle ident end. no. 148282	12D 30D
U1112	Valid as of vehicle ident. end no. 148283	16D 33D
U919	Valid for all, except Japan	46D
U924	Valid for tailgate	60D
U925	Valid for 180°, 2-wing rear-end door	65D
U926	Valid for 270°, 2-wing rear-end door	65D
W12	Ground (cockpit and center console)	42L
W43/1	Ground (left interior compartment firewall)	2L
W43/2	Ground (right interior compartment firewall)	19L
X8/20	Right rear-end door connector	61F 65F
X8/22	Left rear-end door connector	71F
X30/24	Interior CAN bus connector	6K 23K 43K
X30/25	Interior CAN bus connector	6K 23K 43K
X30/26	Interior CAN bus connector	6K 23K 43K
X43/10	CL [ZV] motor connector, rear-end door	56D
X100/5	Right sliding door contact plate 1 separation point	56F
X100/6	Right sliding door contact pin 1 separation point	56G
X100/9	Left sliding door contact plate 1 separation point	51F
X100/10	Left sliding door contact pin 1 separation point	51F



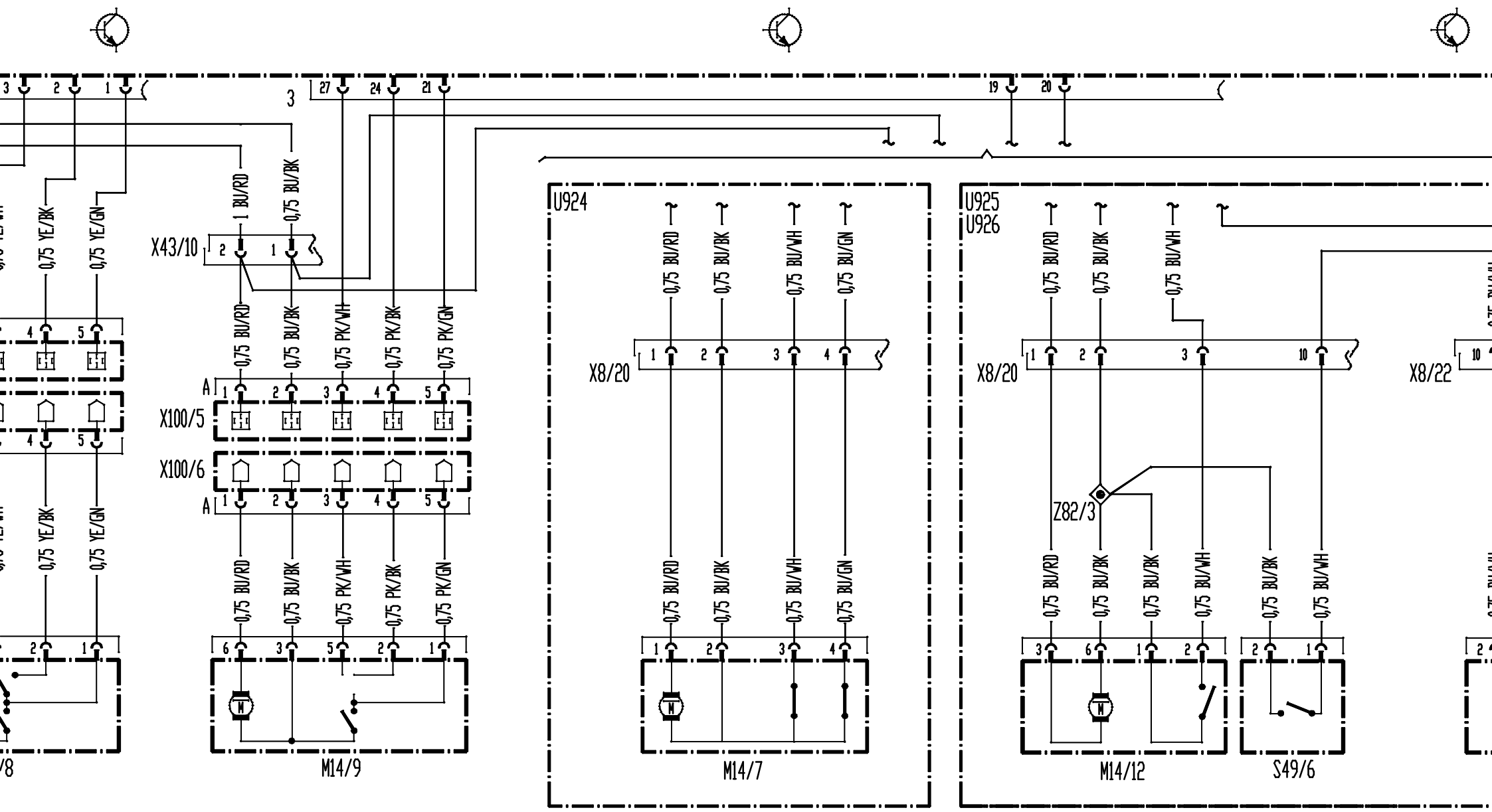






N10

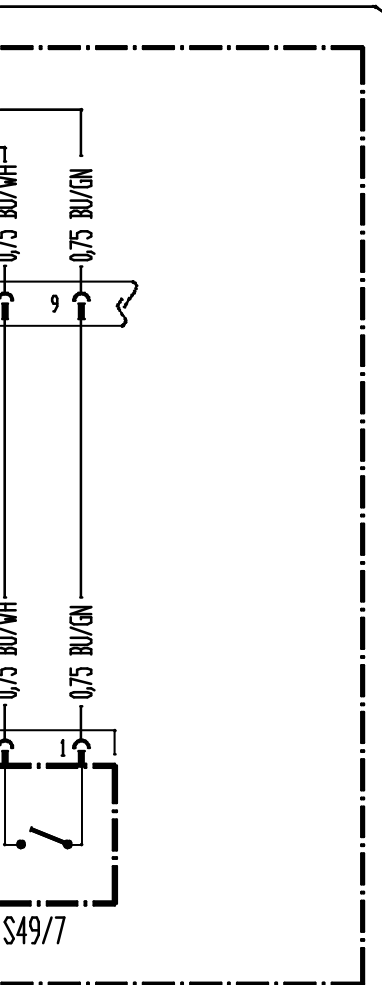
N10

N10





 PE 54.21-S-2127-99VB  
 PE 80.20-S-2000-99VB



PE 80.20-S-2000-99VA

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D  
E  
F  
G  
H  
J  
K  
L

72 73 74 75 76 77 78 79 80



PE00.19-S-2150VA	Wiring diagram of CAN bus	25.3.03
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**MODEL 639.601 /603 /605 /701 /703 /705 /711 /713 /811 /813 /815**  
**Sheet 1**

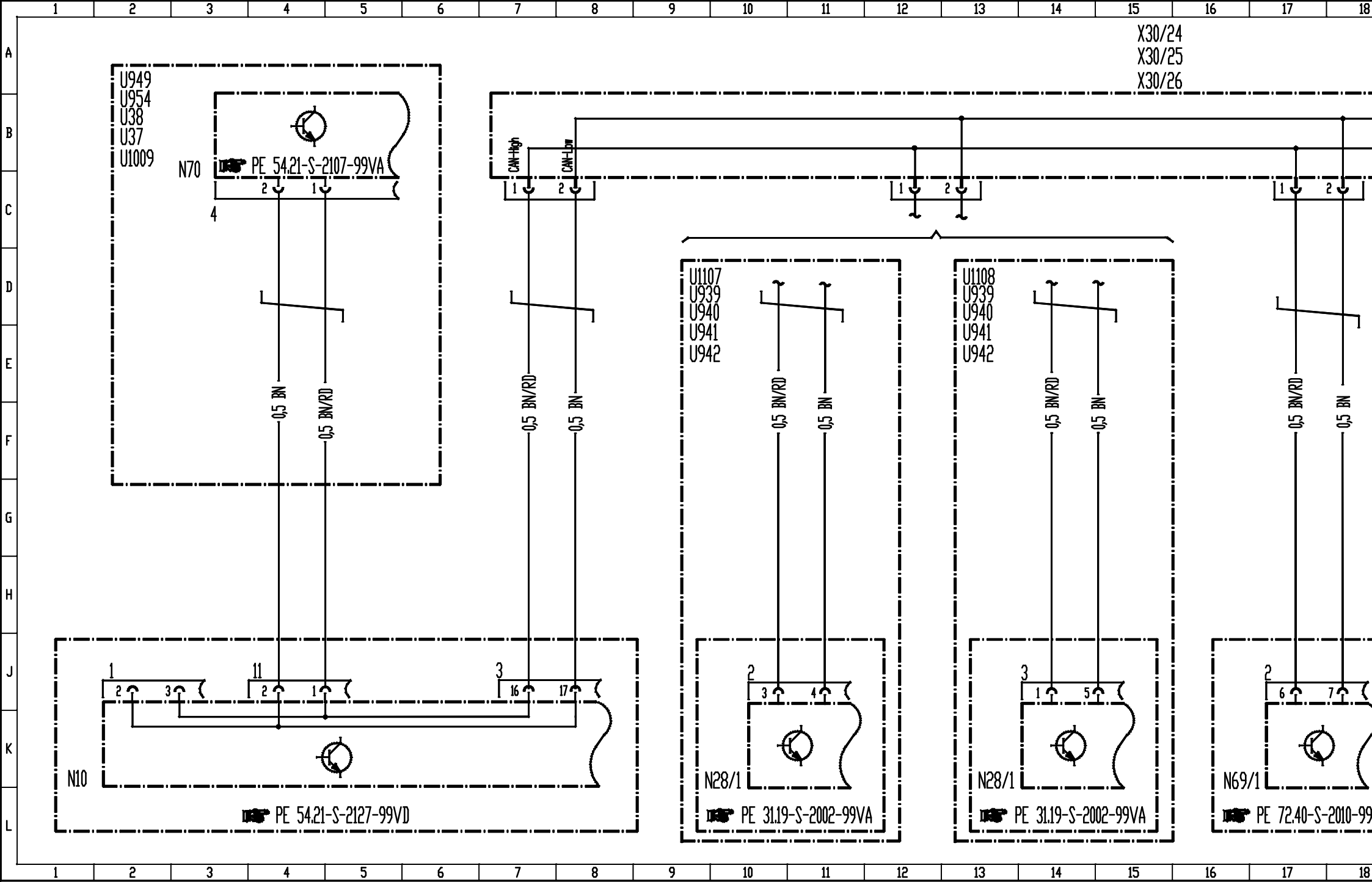
PE00.19-S-2150-99VA	Wiring diagram of CAN bus	Sheet 1	PE00.19-S-2150-99VA
PE00.19-S-2150-60VA	Legend for electric wiring diagrams of CAN bus	Sheet 1	PE00.19-S-2150-60VA
OV00.01-S-1901-03VA	Use of wiring diagrams		OV00.01-S-1901-03VA
OV00.01-S-1901VA	Search aid for all wiring diagram groups		OV00.01-S-1901VA
OV00.01-S-1909VA	Search aid for all electrical components	Components from A to E	OV00.01-S-1909VA
OV00.01-S-1909VB	Search aid for all electrical components	Components from F to J	OV00.01-S-1909VB
OV00.01-S-1909VC	Search aid for all electrical components	Components from K to O	OV00.01-S-1909VC
OV00.01-S-1909VD	Search aid for all electrical components	Components from P to T	OV00.01-S-1909VD
OV00.01-S-1909VE	Search aid for all electrical components	Components from U to Z	OV00.01-S-1909VE
OV00.01-S-1001-27VA	Abbreviations for wiring diagrams		OV00.01-S-1001-27VA
OV00.01-S-1001-28VA	Abbreviations of signal and circuit designations for wiring diagrams		OV00.01-S-1001-28VA
GF00.19-S-1000VB	Location and assignment of line and plug connectors		GF00.19-S-1000VB
GF00.19-S-1100VB	Location and assignment of connectors and sockets		GF00.19-S-1100VB
GF00.19-S-2000VB	Location and assignment of ground points		GF00.19-S-2000VB
GF00.19-S-3000VB	Location and assignment of Z connector sleeves (line connectors in wiring harness)		GF00.19-S-3000VB
GF54.15-S-0900VA	Fuse and relay box, location/assignment		GF54.15-S-0900VA

PE00.19-S-2150-60VA	Legend for electric wiring diagrams of CAN bus	MODEL 639.601 /603 /605 /701 /703 /705 /711 /713 /811 /813 /815 Sheet 1	
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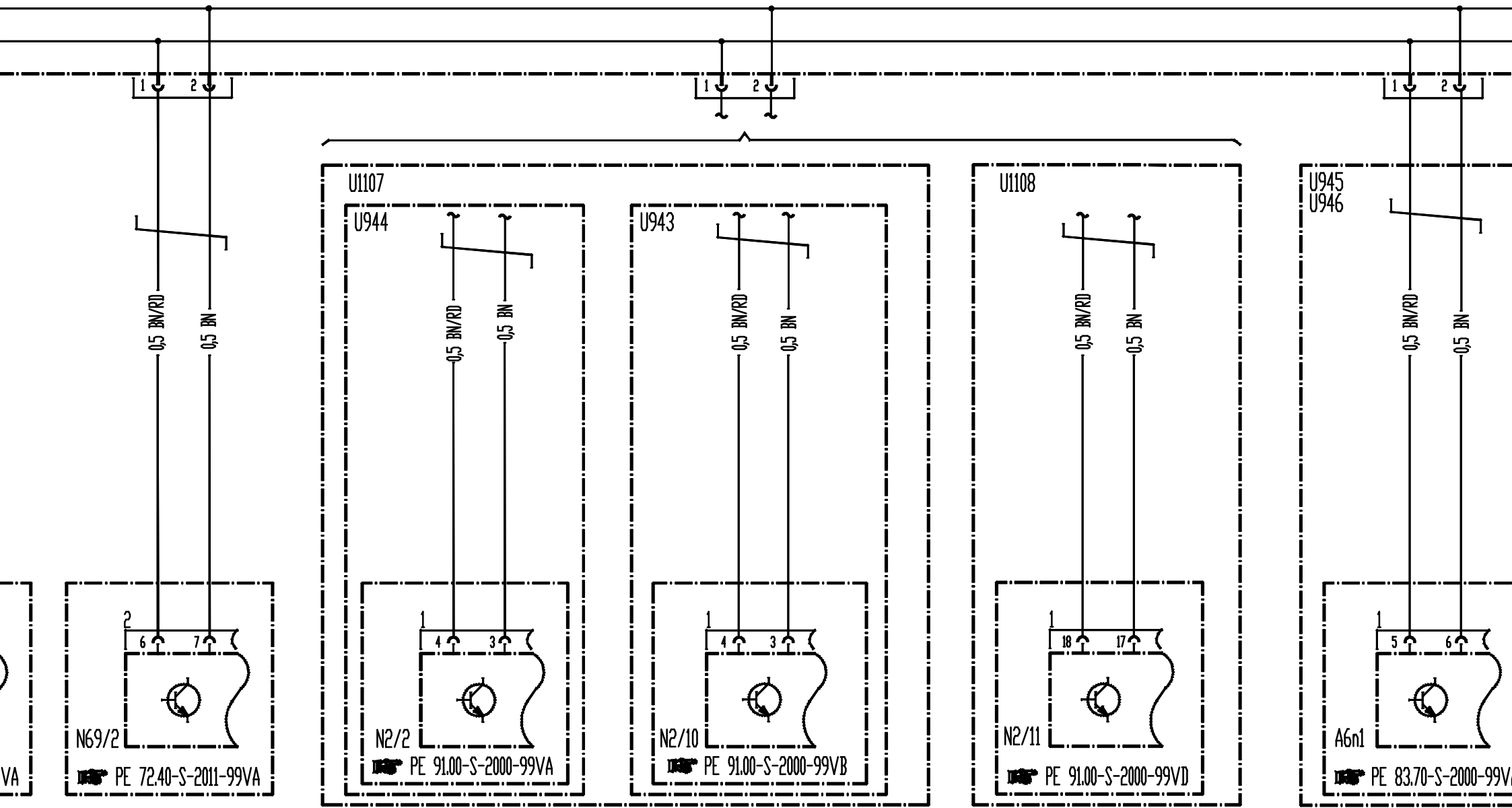
Code	Designation	Coordinates
A0	Color code key	80L
A6n1	STH control unit	34L
N2/2	SRS control unit	23L
N2/10	SRS control unit	26L
N2/11	ARCADE airbag control unit	30K
N10	SAM control unit	1K
N19/3	Rear AC control unit FONDKLA	55K
N26/15	PSM control unit	41L
N28/1	Trailer connection unit [AAG] control unit	9L 13L
N32/1	Left front seat adjustment control unit with memory	62L
N32/2	Right front seat adjustment control unit with memory	65L
N51/3	ENR control unit	69L
N62	PTS control unit	37L
N69/1	Door control unit, left front	16L
N69/2	Door control unit, right front	19L
N70	Overhead control panel control unit	3C
N70/1	Rear sliding roof unit control unit (SDE-H)	45L
U26	Valid for taxi version with emergency alarm system	41E
U27	Valid for taxi version without emergency alarm system	41E
U37	Valid for ATA [EDW] I	2C
U38	Valid for ATA [EDW] II	2B
U1009	Valid for light/rain sensor	2C

U1016	Valid for glass tilting/sliding roof in passenger compartment without roof and rear-end doors, high version	44D
U1017	Valid for electrohydraulic "Easy up" pop-up roof and glass tilting/sliding roof in driver/front passenger compartment	49E 58D
U1107	Valid up to 08/2005	9D 22D
U1108	Valid as of 09/2005	13D 30D
U285	Valid for partially electric seat adjustment, driver	49E 62D
U286	Valid for partially electric seat adjustment, front passenger	49E 65D
U538	Valid for Parktronic System	37D
U914	Valid for rental vehicle package with emergency alarm system	41E
U934	Valid for rental vehicle package without emergency alarm system	41F
U939	Valid for socket for rear-mounted bicycle carrier repeater lamp	9D 13D
U940	Valid for electrical system for trailer socket	9E 13E
U941	Valid for fixed trailer hitch	9E 13E
U942	Valid for removable trailer hitch	9E 13E
U943	Valid with window thoraxbag for driver and front passenger	26D
U944	Valid without window thoraxbag for driver and front passenger	22D
U945	Valid for warm water auxiliary heater	34D
U946	Valid for diesel heater booster	34D
U947	Valid for parameterizable special module	41D
U949	Valid for glass tilting/sliding roof in passenger compartment	2B
U951	Valid for rear lowerable/raisable air suspension	49D 69D
U952	Valid for Tempmatic/Additional air conditioning in rear	49D 55D
U953	Valid for electrohydraulic "Easy up" pop-up roof	41D
U954	Valid for glass tilting/sliding roof in driver/passenger compartment	2B

X8/25	Sliding roof in pop-up roof separation point (Westfalia)	59L
X30/24	Interior CAN bus connector	15A 26A 42A 56A 64A 71A
X30/25	Interior CAN bus connector	15A 26A 42A 56A 64A 71A
X30/26	Interior CAN bus connector	15A 26A 42A 56A 64A 71A

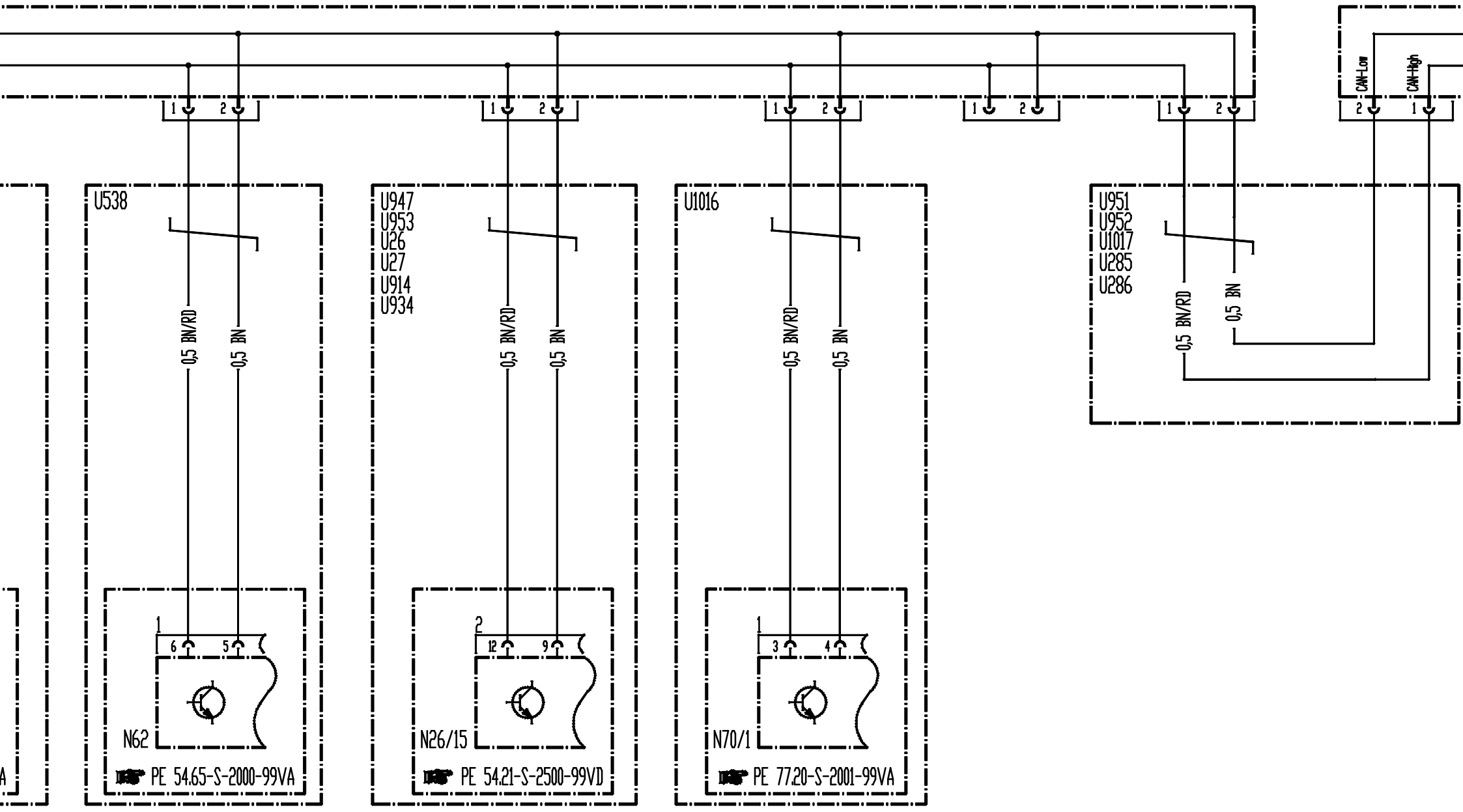


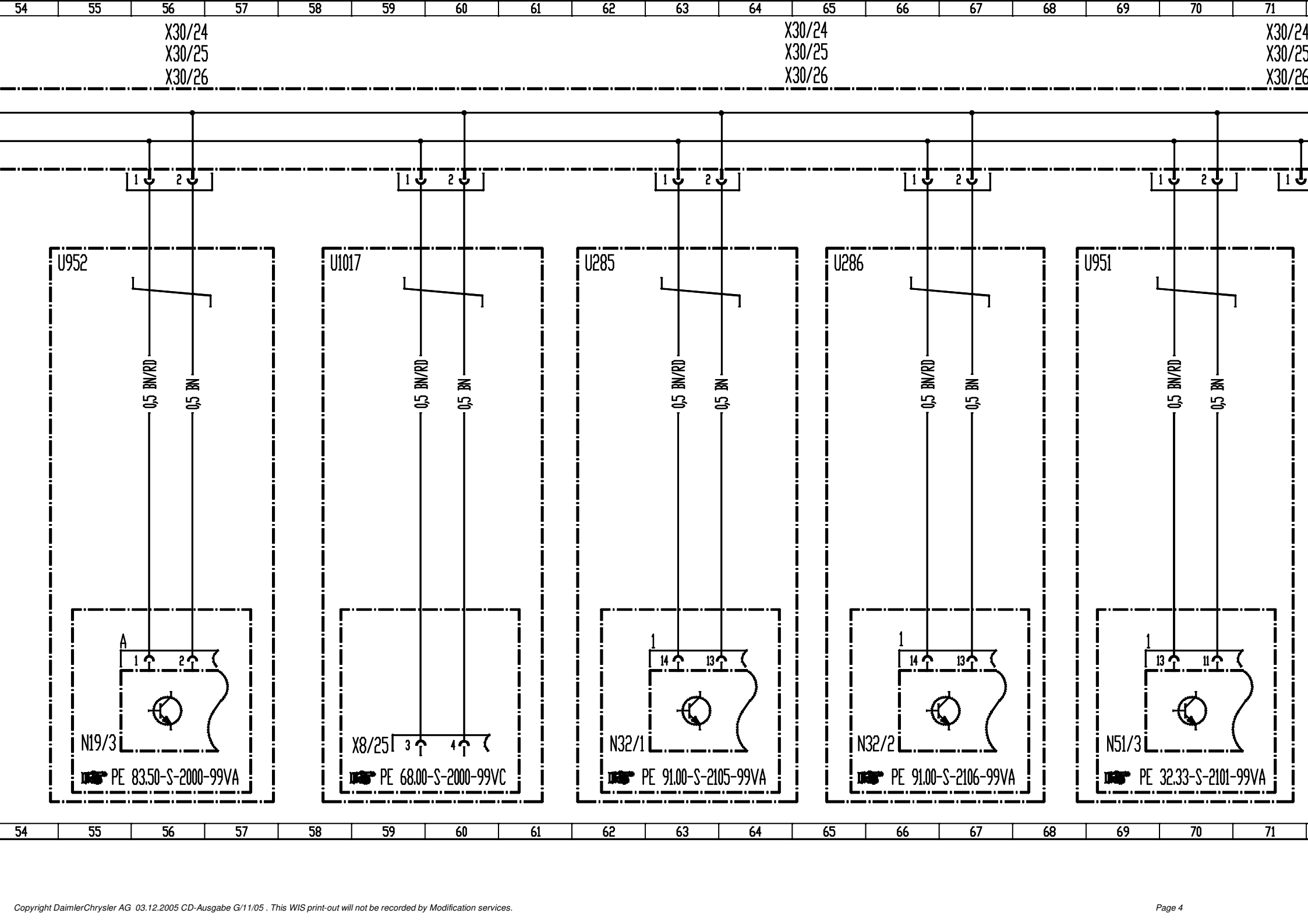
X30/24  
X30/25  
X30/26





X30/24  
X30/25  
X30/26





X30/24  
X30/25  
X30/26

X30/24  
X30/25  
X30/26

X30/24  
X30/25  
X30/26

PE00.19-S-2150VB	Wiring diagram of CAN bus	25.7.03
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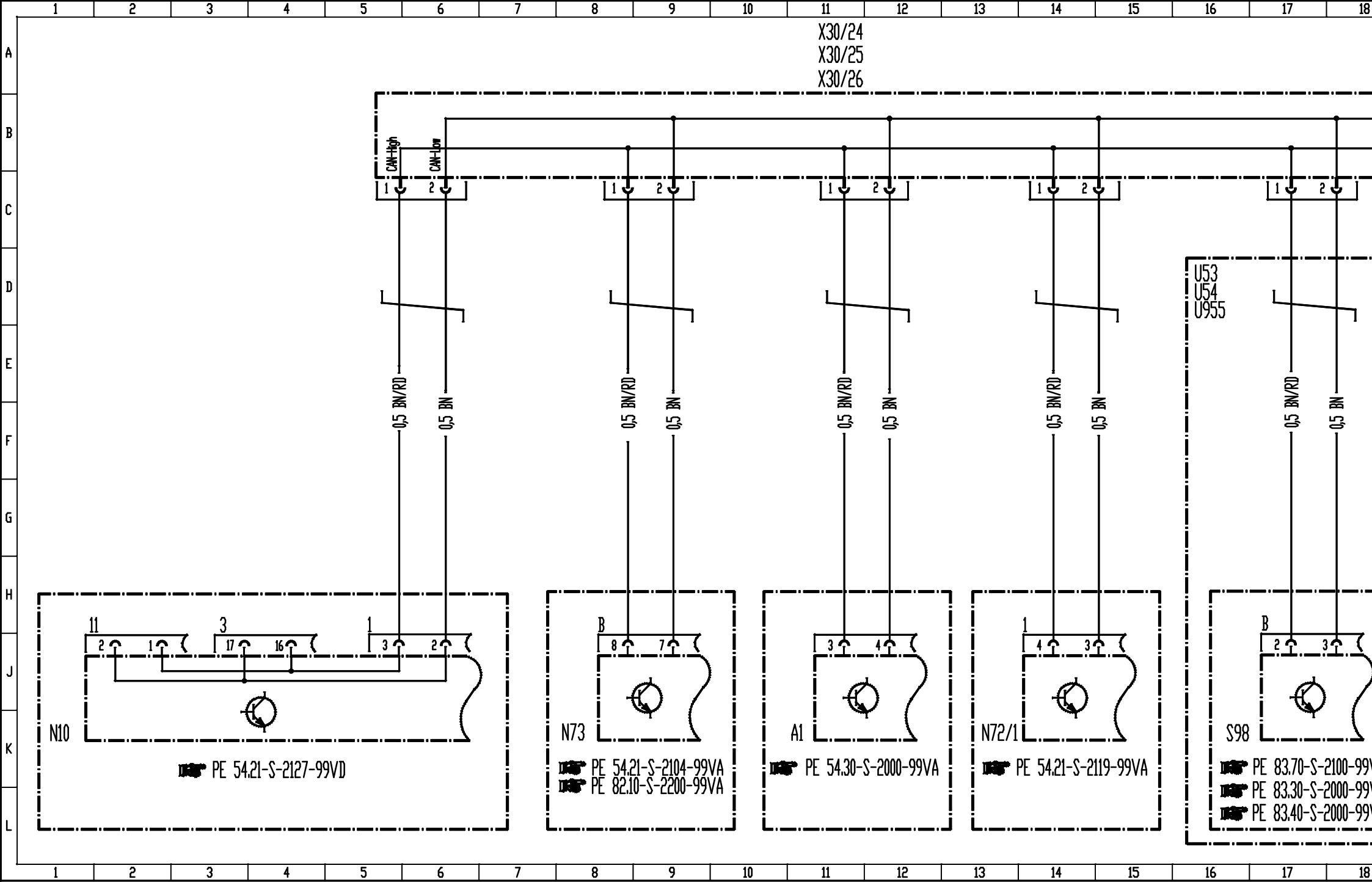
**MODEL 639.601 /603 /605 /701 /703 /705 /711 /713 /811 /813 /815**  
**Sheet 2**

PE00.19-S-2150-99VB	Wiring diagram of CAN bus	Sheet 2	PE00.19-S-2150-99VB
PE00.19-S-2150-60VB	Legend for electric wiring diagrams of CAN bus	Sheet 2	PE00.19-S-2150-60VB
OV00.01-S-1901-03VA	Use of wiring diagrams		OV00.01-S-1901-03VA
OV00.01-S-1901VA	Search aid for all wiring diagram groups		OV00.01-S-1901VA
OV00.01-S-1909VA	Search aid for all electrical components	Components from A to E	OV00.01-S-1909VA
OV00.01-S-1909VB	Search aid for all electrical components	Components from F to J	OV00.01-S-1909VB
OV00.01-S-1909VC	Search aid for all electrical components	Components from K to O	OV00.01-S-1909VC
OV00.01-S-1909VD	Search aid for all electrical components	Components from P to T	OV00.01-S-1909VD
OV00.01-S-1909VE	Search aid for all electrical components	Components from U to Z	OV00.01-S-1909VE
OV00.01-S-1001-27VA	Abbreviations for wiring diagrams		OV00.01-S-1001-27VA
OV00.01-S-1001-28VA	Abbreviations of signal and circuit designations for wiring diagrams		OV00.01-S-1001-28VA
GF00.19-S-1000VB	Location and assignment of line and plug connectors		GF00.19-S-1000VB
GF00.19-S-1100VB	Location and assignment of connectors and sockets		GF00.19-S-1100VB
GF00.19-S-2000VB	Location and assignment of ground points		GF00.19-S-2000VB
GF00.19-S-3000VB	Location and assignment of Z connector sleeves (line connectors in wiring harness)		GF00.19-S-3000VB
GF54.15-S-0900VA	Fuse and relay box, location/assignment		GF54.15-S-0900VA

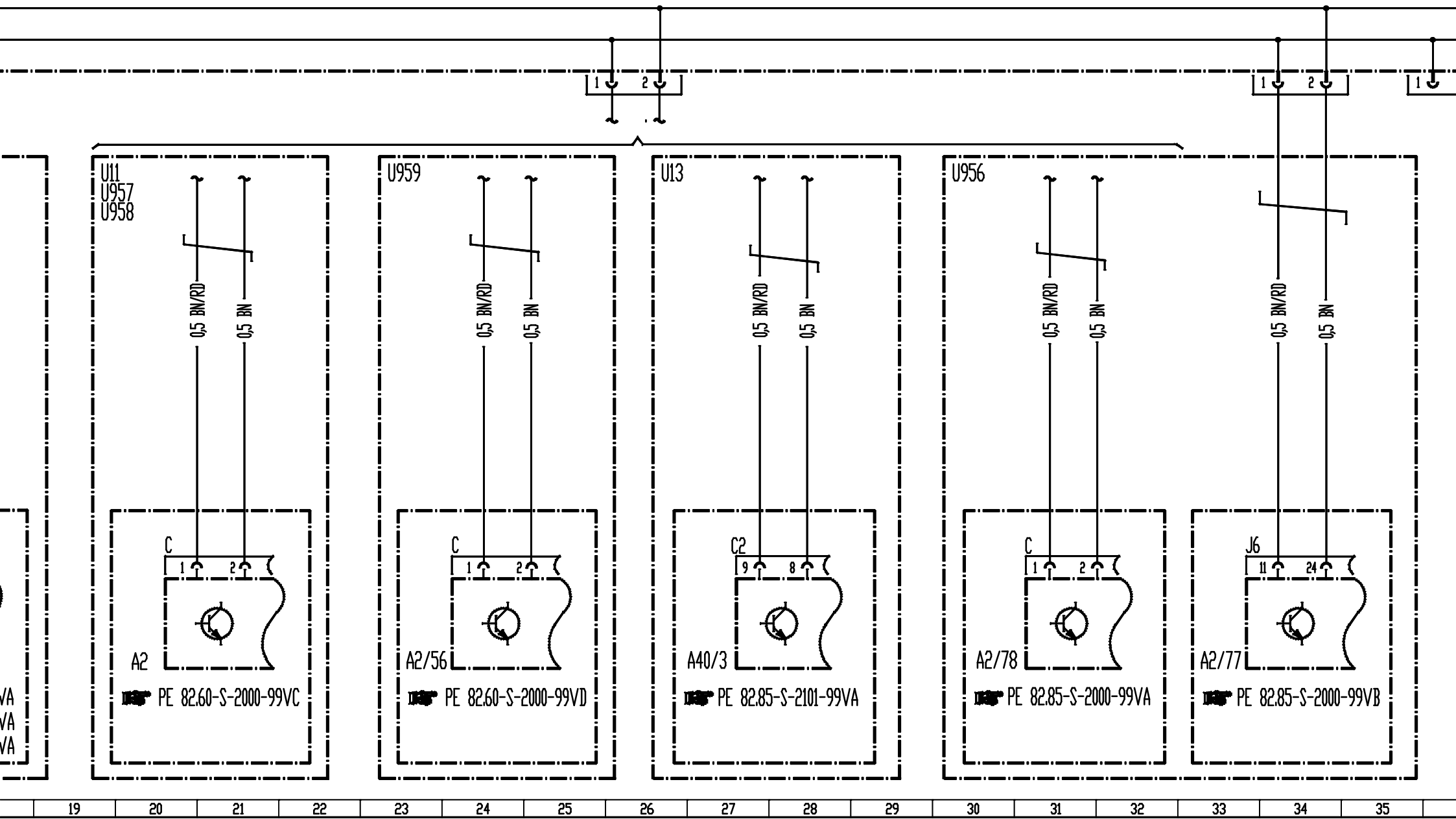
PE00.19-S-2150-60VB	Legend for electric wiring diagrams of CAN bus	MODEL 639.601 /603 /605 /701 /703 /705 /711 /713 /811 /813 /815 Sheet 2	
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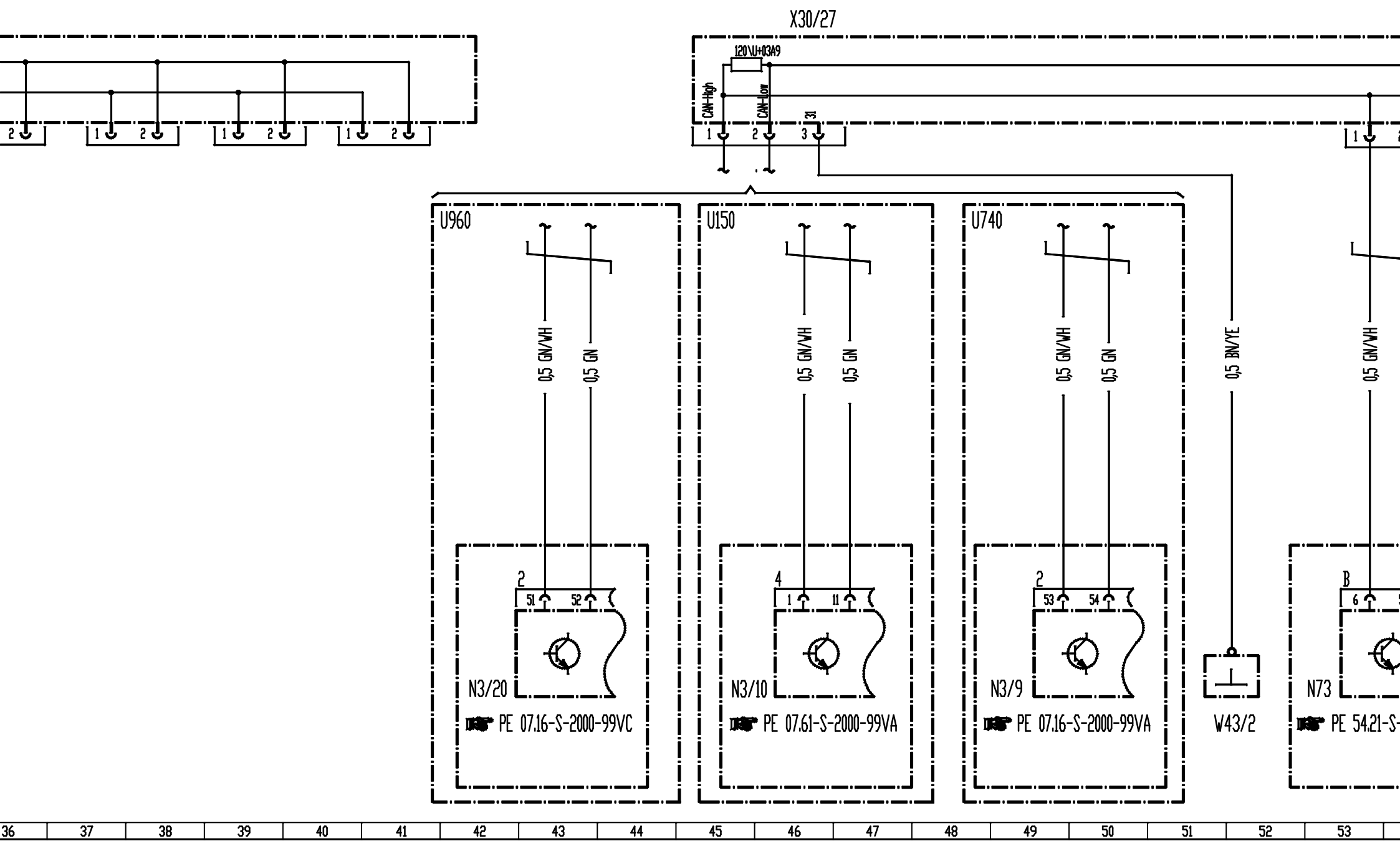
Code	Designation	Coordinates
A0	Color code key	80L
A1	Instrument cluster	11K 61K
A2	Radio / Sound 10 / Sound 40 / Audio 10	20K
A2/56	Radio and navigation unit	23K
A2/77	Telephone and communication unit	33K
A2/78	Audio-Video-Navigation (AVN)	30K
A40/3	COMAND operating, display and control unit	27K
B24/8	Steering angle sensor	55K
N3/9	CDI control unit	49K
N3/10	ME control unit	45K
N3/20	CDI control unit	42K
N10	SAM control unit	1K
N15/3	EGS control unit	67K
N15/5	Electronic selector lever module control unit	64K
N30/4	ESP control unit	57K
N72/1	Upper control panel control unit	13K
N73	EIS [EZS] control unit	8K 53K
S98	Air conditioning operating module	16K
U11	Valid for radio with cassette drive, Latin America	19D
U13	Valid for auto pilot system with TMC interface	26D
U53	Valid for automatic air conditioning "Thermotronic"	16D
U54	Valid for regulated air conditioning "Tempmatic"	16D

U150	Valid for engine M 112	45D
U507	Valid for Electronic Stability Program (ESP)	55D
U740	Valid for engine OM 646	48D
U955	Valid for alternator 14V / 200 Ah	16E
U956	Valid for auto pilot system for Japan, large display	30D
U957	Valid for Audio 10 radio with cassette drive	19D
U958	Valid for Audio 10 radio with CD	19E
U959	Valid for Audio 30 APS radio with TMC interface	23D
U960	Valid for engine OM 642	41D
U961	Valid for automatic transmission	64D
W43/2	Ground (right interior compartment firewall)	51K
X30/24	Interior CAN bus connector	11A 22A
X30/25	Interior CAN bus connector	11A 22A
X30/26	Interior CAN bus connector	11A 22A
X30/27	Engine CAN bus connector	46A 56A 68A 79A



X30/24  
X30/25  
X30/26

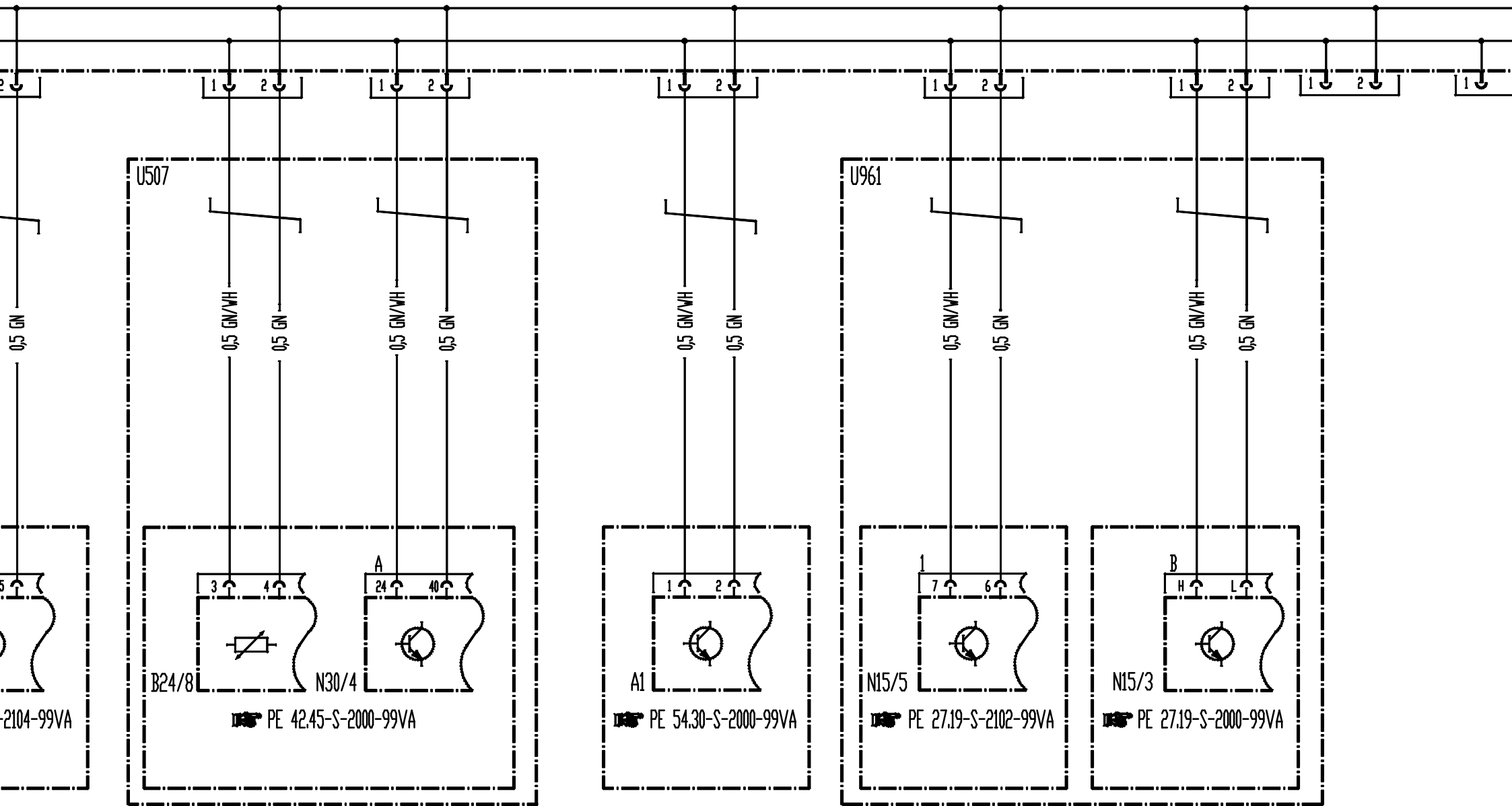






X30/27

X30/27



54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71
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# Instrument cluster

# Chapter 12

<b>PE54.30-S-2000VA</b>	<b>Wiring diagram of instrument cluster (IC)/gages/warning devices</b>	<b>14.5.03</b>
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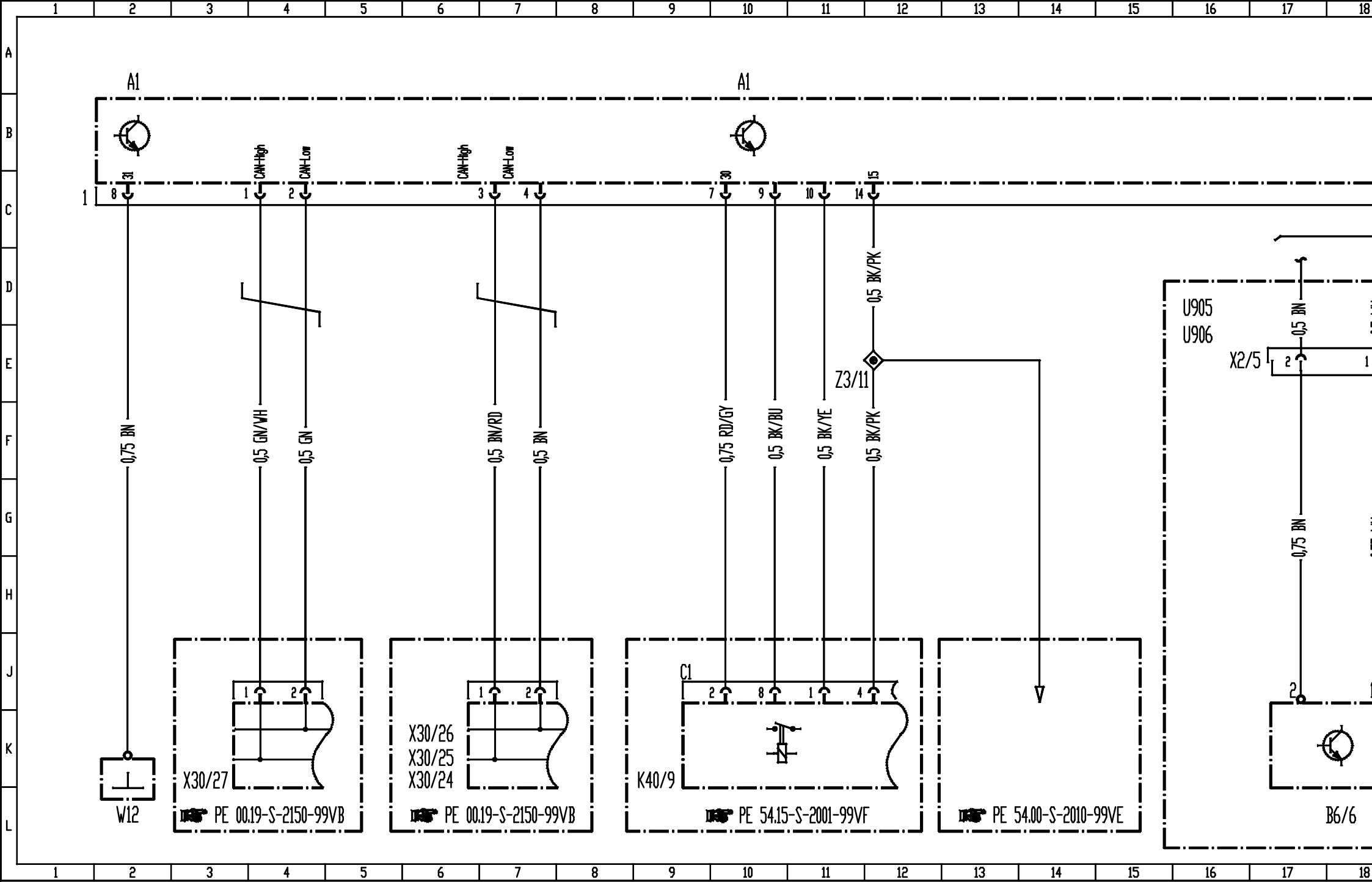
**MODEL 639.601 /603 /605 /701 /703 /705 /711 /713 /811 /813 /815**

PE54.30-S-2000-99VA	Wiring diagram of instrument cluster (IC)/gages/warning devices		PE54.30-S-2000-99VA
PE54.30-S-2000-60VA	Legend of wiring diagram for instrument cluster (CLUS) / display instruments / warning devices		PE54.30-S-2000-60VA
OV00.01-S-1901-03VA	Use of wiring diagrams		OV00.01-S-1901-03VA
OV00.01-S-1901VA	Search aid for all wiring diagram groups		OV00.01-S-1901VA
OV00.01-S-1909VA	Search aid for all electrical components	Components from A to E	OV00.01-S-1909VA
OV00.01-S-1909VB	Search aid for all electrical components	Components from F to J	OV00.01-S-1909VB
OV00.01-S-1909VC	Search aid for all electrical components	Components from K to O	OV00.01-S-1909VC
OV00.01-S-1909VD	Search aid for all electrical components	Components from P to T	OV00.01-S-1909VD
OV00.01-S-1909VE	Search aid for all electrical components	Components from U to Z	OV00.01-S-1909VE
OV00.01-S-1001-27VA	Abbreviations for wiring diagrams		OV00.01-S-1001-27VA
OV00.01-S-1001-28VA	Abbreviations of signal and circuit designations for wiring diagrams		OV00.01-S-1001-28VA
GF00.19-S-1000VB	Location and assignment of line and plug connectors		GF00.19-S-1000VB
GF00.19-S-1100VB	Location and assignment of connectors and sockets		GF00.19-S-1100VB
GF00.19-S-2000VB	Location and assignment of ground points		GF00.19-S-2000VB
GF00.19-S-3000VB	Location and assignment of Z connector sleeves (line connectors in wiring harness)		GF00.19-S-3000VB
GF54.15-S-0900VA	Fuse and relay box, location/assignment		GF54.15-S-0900VA

PE54.30-S-2000-60VA	Legend of wiring diagram for instrument cluster (CLUS) / display instruments / warning devices	MODEL 639.601 /603 /605 /701 /703 /705 /711 /713 /811 /813 /815	
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Code	Designation	Coordinates
A1	Instrument cluster	2A 10A 19A 28A 35A 39A
A2	Radio / Sound 10 / Sound 40 / Audio 10	39L 42L
A56	Modular tachograph	22L
B6	Speed inductive sensor	35L
B6/4	Speed inductive sensor	30L
B6/6	Speed inductive sensor	18L
K40/9	Fuse and relay block	9L
N66/4	Rear conversation unit control unit	51L
N123	Hands-free system control unit	48L
U10	Valid for Sound 40 Pro radio	42J
U15	Valid for screen in rear and DVD player	51J
U16	Valid for screen in rear, DVD player and TV tuner	51J
U51	Valid for telephone preinstallation	48J
U905	Valid without ABS/ASR and with 1 day/2 driver tachograph	16D
U906	Valid for odometer preinstallation and without 1 day/2 driver tachograph	16E
U907	Valid without ABS/ASR and with 1 day/2 driver tachograph	20D
U908	Valid for odometer preinstallation and with 1 day/2 driver tachograph	20E
U909	Valid for radio preinstallation	45J
U910	Valid for radio Sound 10 with cassette drive	39J
U911	Valid for 1 day/2 driver tachograph and with automatic transmission	33G

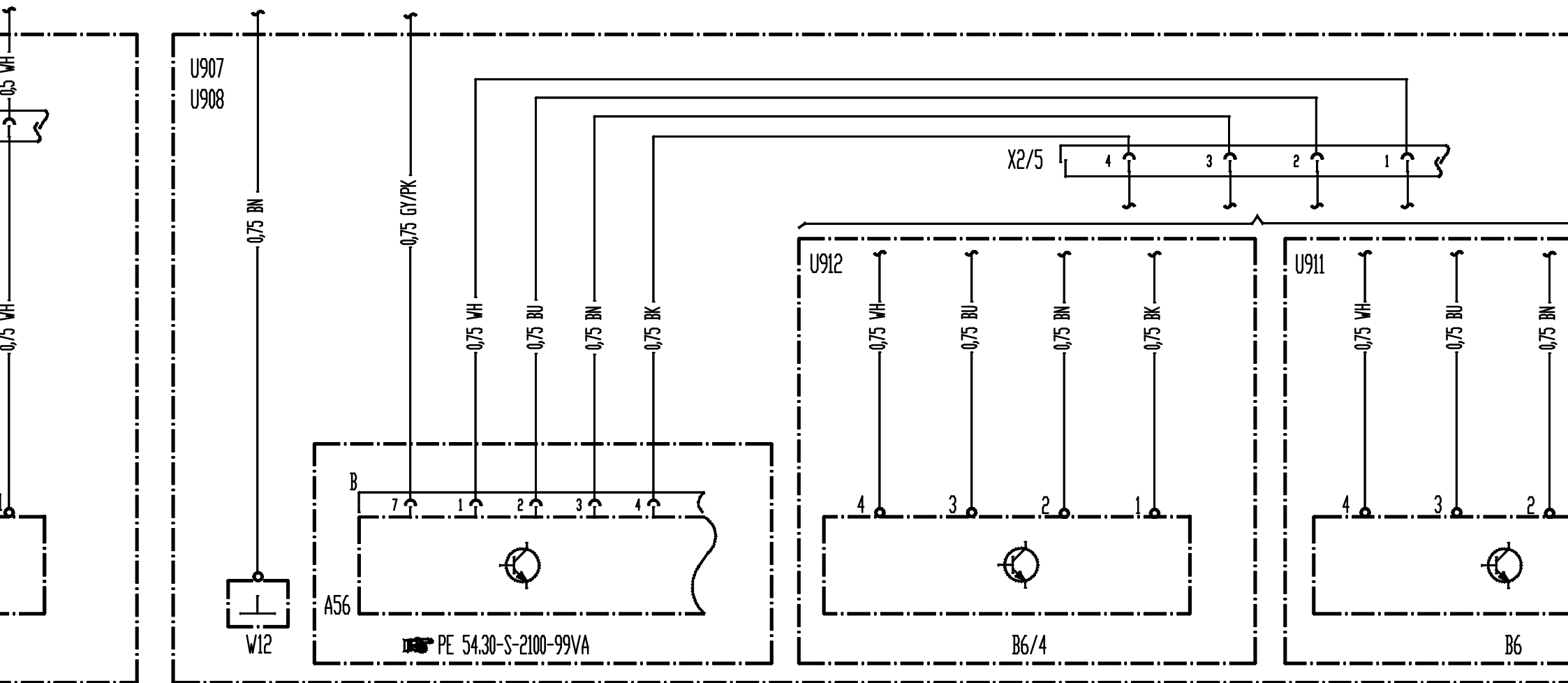
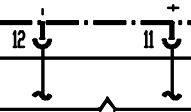
U912	Valid for 1 day/2 driver tachograph and without automatic transmission	27G
W12	Ground (cockpit and center console)	2L 21L
X2/5	Tachograph connector	16E 30E
X30/24	Interior CAN bus connector	6L
X30/25	Interior CAN bus connector	6K
X30/26	Interior CAN bus connector	6K
X30/27	Engine CAN bus connector	3L
Z3/11	Terminal 15 connector sleeve	11E
Z60	Speed-dependent volume control signal connector sleeve	42E

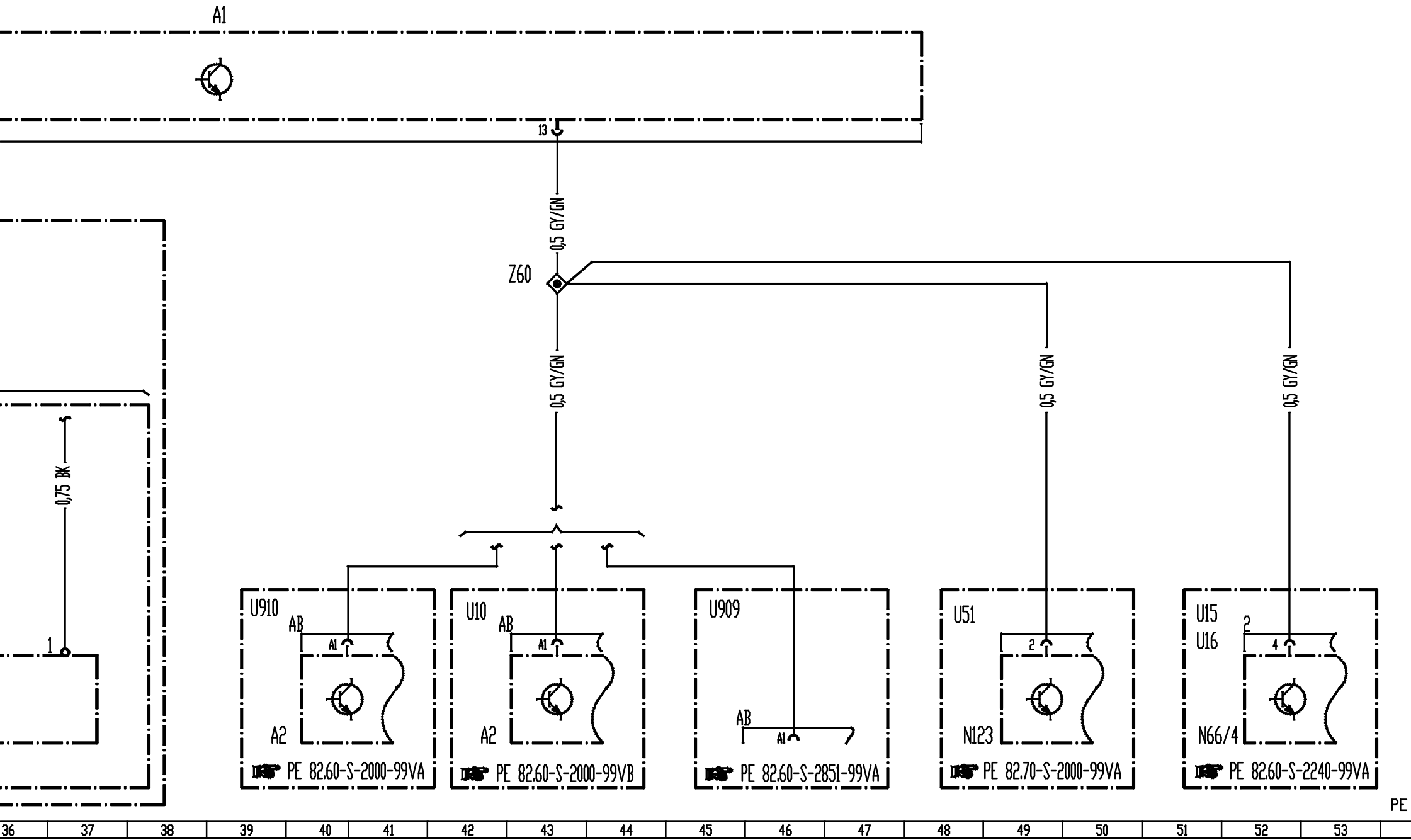


A1

A1

A1







# Electronic ignition switch (EIS)

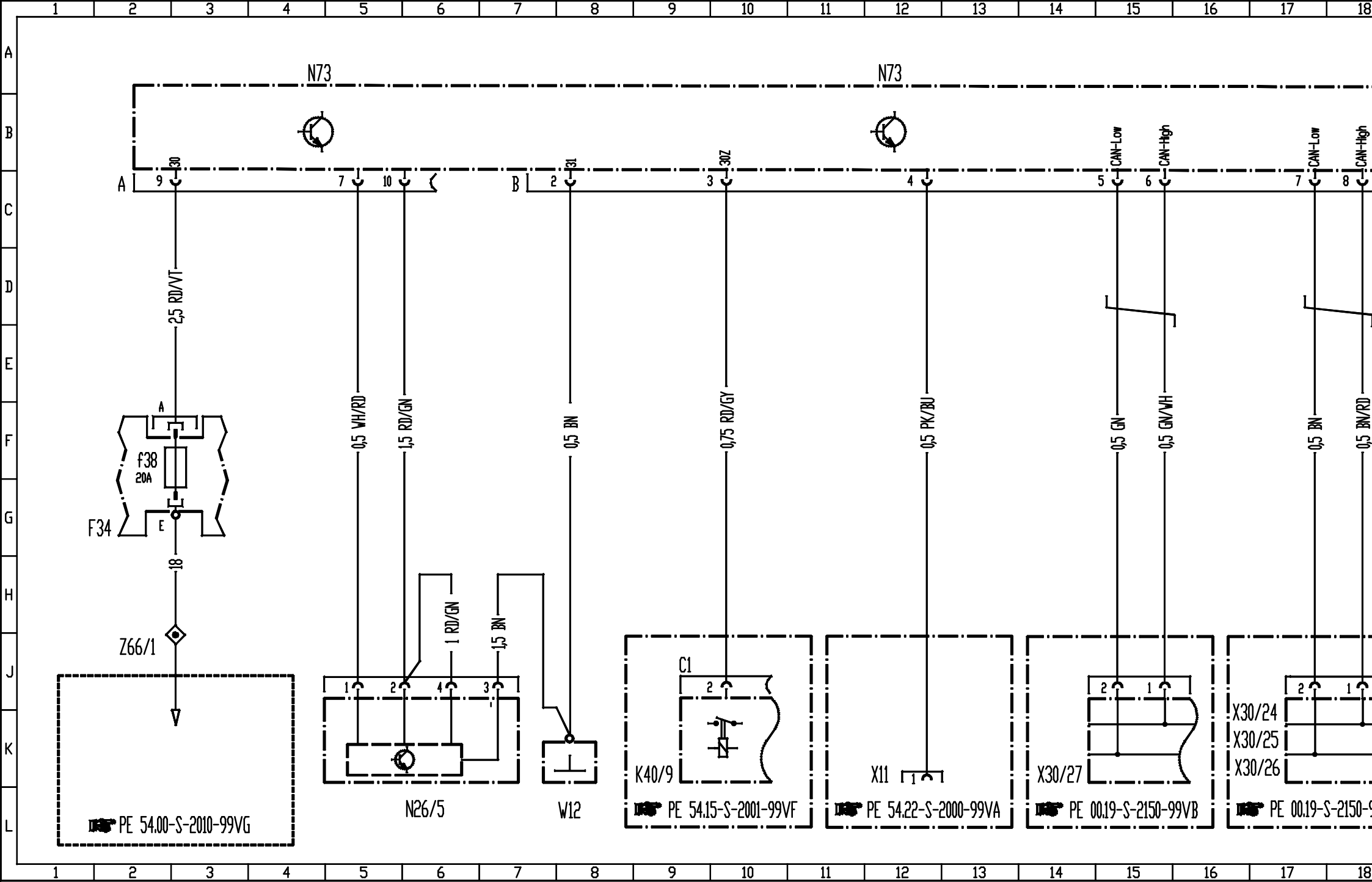
## Chapter 13

**MODEL 639.601 /603 /605 /701 /703 /705 /711 /713 /811 /813 /815**

PE54.21-S-2104-99VA	Wiring diagram of electronic ignition switch (EIS) control unit		PE54.21-S-2104-99VA
PE54.21-S-2104-60VA	Legend of wiring diagram for electronic ignition switch control unit (EIS)		PE54.21-S-2104-60VA
OV00.01-S-1901-03VA	Use of wiring diagrams		OV00.01-S-1901-03VA
OV00.01-S-1901VA	Search aid for all wiring diagram groups		OV00.01-S-1901VA
OV00.01-S-1909VA	Search aid for all electrical components	Components from A to E	OV00.01-S-1909VA
OV00.01-S-1909VB	Search aid for all electrical components	Components from F to J	OV00.01-S-1909VB
OV00.01-S-1909VC	Search aid for all electrical components	Components from K to O	OV00.01-S-1909VC
OV00.01-S-1909VD	Search aid for all electrical components	Components from P to T	OV00.01-S-1909VD
OV00.01-S-1909VE	Search aid for all electrical components	Components from U to Z	OV00.01-S-1909VE
OV00.01-S-1001-27VA	Abbreviations for wiring diagrams		OV00.01-S-1001-27VA
OV00.01-S-1001-28VA	Abbreviations of signal and circuit designations for wiring diagrams		OV00.01-S-1001-28VA
GF00.19-S-1000VB	Location and assignment of line and plug connectors		GF00.19-S-1000VB
GF00.19-S-1100VB	Location and assignment of connectors and sockets		GF00.19-S-1100VB
GF00.19-S-2000VB	Location and assignment of ground points		GF00.19-S-2000VB
GF00.19-S-3000VB	Location and assignment of Z connector sleeves (line connectors in wiring harness)		GF00.19-S-3000VB
GF54.15-S-0900VA	Fuse and relay box, location/assignment		GF54.15-S-0900VA

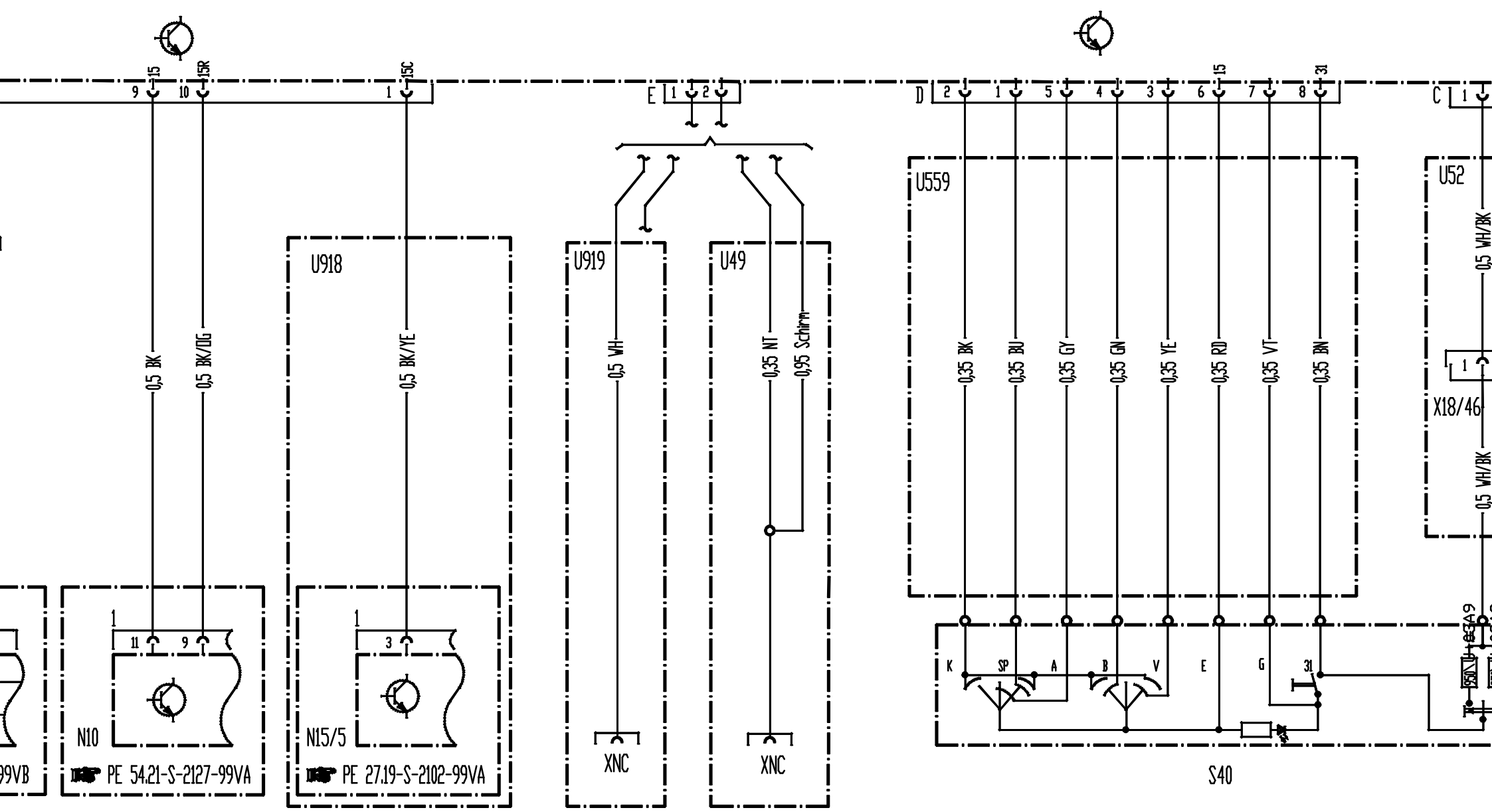
PE54.21-S-2104-60VA	Legend of wiring diagram for electronic ignition switch control unit (EIS)	MODEL 639.601 /603 /605 /701 /703 /705 /711 /713 /811 /813 /815	
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Code	Designation	Coordinates
A45/1	Steering wheel clock spring contact	42K
F34	Fuse block, 22-pin	1G
F34f38	EIS [EZS] steering lock fuse	2F
K40/9	Fuse and relay block	9K
N10	SAM control unit	19K
N15/5	Electronic selector lever module control unit	22K
N26/5	Electric steering lock control unit	6L
N73	EIS [EZS] control unit	4A 12A 20A 31A 40A
S40	Pushbutton switch with variable speed limiter TPM	33L
S144	Combination switch	39L
U49	Valid for Japan	27E
U52	Valid for voice control	35D
U559	Valid for cruise control	29D
U918	Valid for Australia and [ ] with automatic transmission	22E
U919	Valid for all except Japan	25E
W12	Ground (cockpit and center console)	8L 41L 47L
X11	Data link connector	12K
X18/46	Voice control switch connector	35F
X30/24	Interior CAN bus connector	16K
X30/25	Interior CAN bus connector	16K



N73

N73





# Electronic stability control (ESP)

## Chapter 14

**MODEL 639.601 /603 /605 /701 /703 /705 /711 /713 /811 /813 /815 with CODE (BB3) Electronic Stability Program (ESP)**

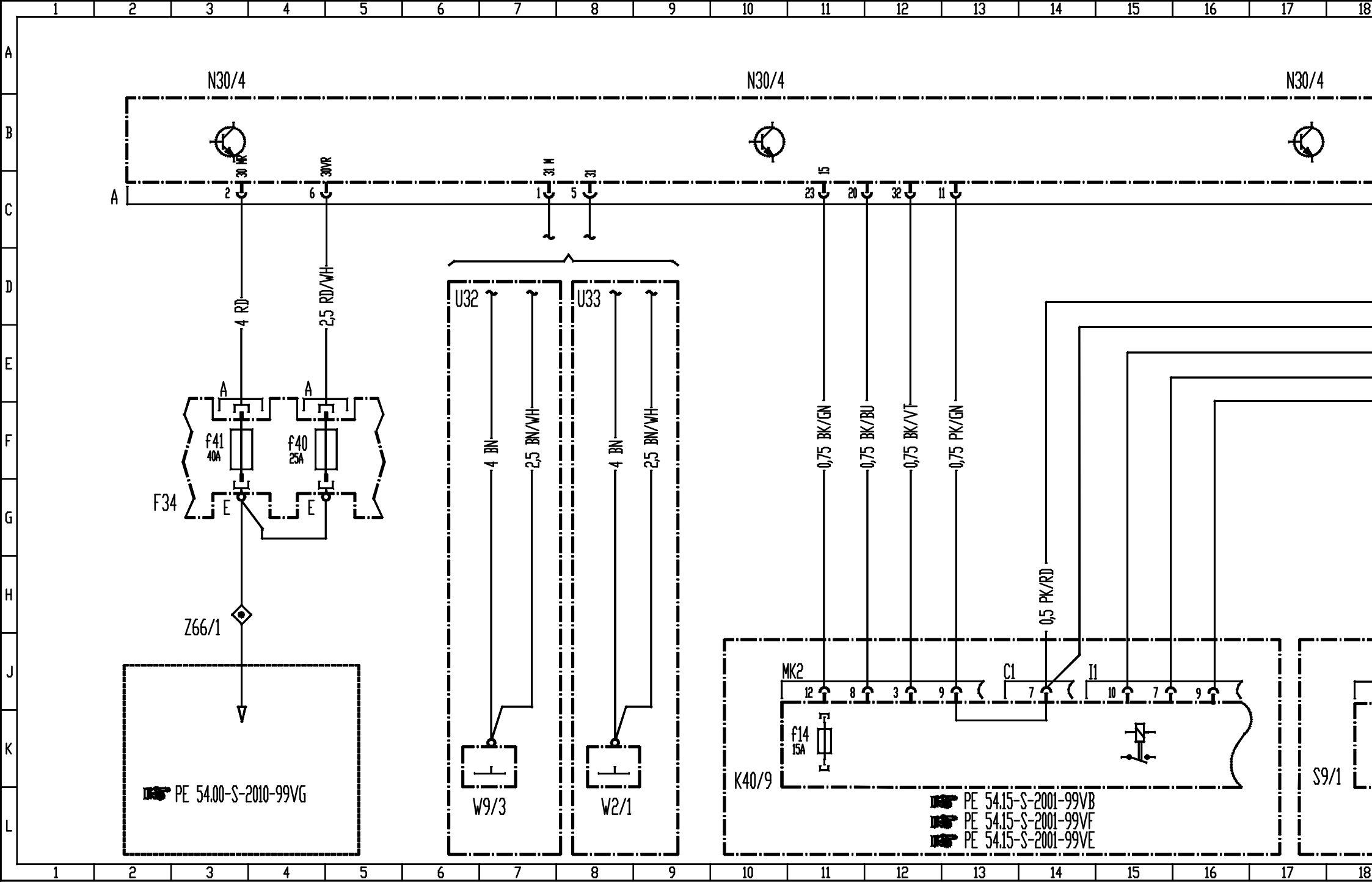
PE42.45-S-2000-99VA	Wiring diagram - electronic stability program (ESP)		PE42.45-S-2000-99VA
PE42.45-S-2000-60VA	electronic stability program		PE42.45-S-2000-60VA
OV00.01-S-1901-03VA	Use of wiring diagrams		OV00.01-S-1901-03VA
OV00.01-S-1901VA	Search aid for all wiring diagram groups		OV00.01-S-1901VA
OV00.01-S-1909VA	Search aid for all electrical components	Components from A to E	OV00.01-S-1909VA
OV00.01-S-1909VB	Search aid for all electrical components	Components from F to J	OV00.01-S-1909VB
OV00.01-S-1909VC	Search aid for all electrical components	Components from K to O	OV00.01-S-1909VC
OV00.01-S-1909VD	Search aid for all electrical components	Components from P to T	OV00.01-S-1909VD
OV00.01-S-1909VE	Search aid for all electrical components	Components from U to Z	OV00.01-S-1909VE
OV00.01-S-1001-27VA	Abbreviations for wiring diagrams		OV00.01-S-1001-27VA
OV00.01-S-1001-28VA	Abbreviations of signal and circuit designations for wiring diagrams		OV00.01-S-1001-28VA
GF00.19-S-1000VB	Location and assignment of line and plug connectors		GF00.19-S-1000VB
GF00.19-S-1100VB	Location and assignment of connectors and sockets		GF00.19-S-1100VB
GF00.19-S-2000VB	Location and assignment of ground points		GF00.19-S-2000VB
GF00.19-S-3000VB	Location and assignment of Z connector sleeves (line connectors in wiring harness)		GF00.19-S-3000VB
GF54.15-S-0900VA	Fuse and relay box, location/assignment		GF54.15-S-0900VA



PE42.45-S-2000-60VA	electronic stability program	MODEL 639.601 /603 /605 /701 /703 /705 /711 /713 /811 /813 /815 with CODE (BB3) Electronic Stability Program (ESP)	
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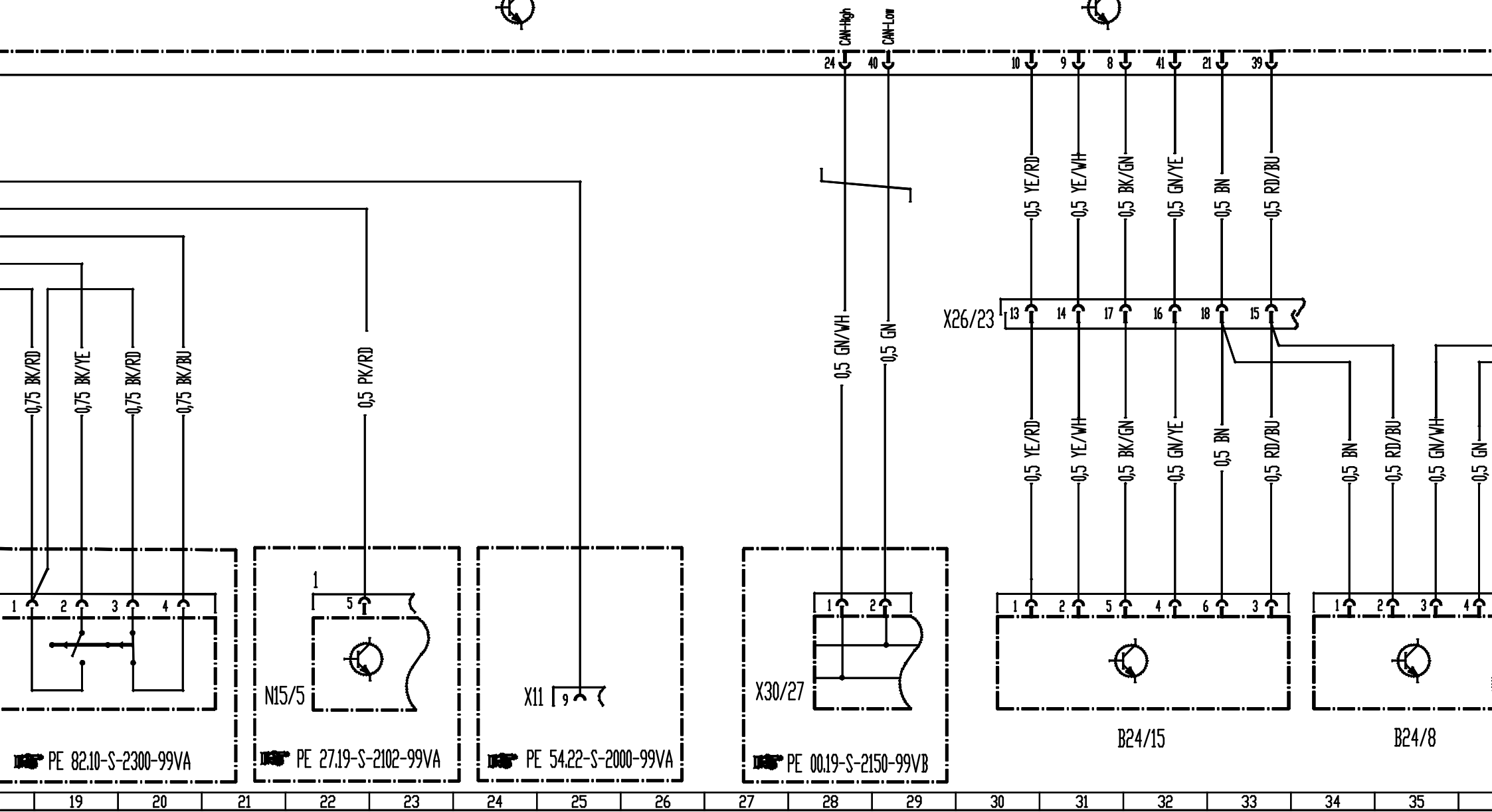
Code	Designation	Coordinates
A0	Color code key	73L
B24/8	Steering angle sensor	35L
B24/15	Turn rate and lateral acceleration sensor	31L
F34	Fuse block, 22-pin	2G
F34f40	Brake system valve fuse	4F
F34f41	Brake system delivery pump fuse	3F
K40/9	Fuse and relay block	10L
K40/9f14	Brake system fuse	11K
L6/1	Left front rpm sensor	51L 54L
L6/2	Right front rpm sensor	57L 60L
L6/3	Left rear rpm sensor	41L 46L
L6/4	Right rear rpm sensor	43L 48L
N15/5	Electronic selector lever module control unit	21K
N30/4	ESP control unit	3A 10A 17A 24A 31A 38A 45A 52A 59A 66A

S9/1	Stop lamp switch	17K
U32	Valid for left-hand drive vehicles	6D 50D 56D
U33	Valid for right-hand drive vehicles	8D 52D 59D
U920	Valid up to vehicle identification end no. 30230	40D
U921	Valid as of vehicle identification end no. 30231	44D
W2/1	Ground (right front ABS)	8L
W9/3	Ground (left front ABS)	6L
X11	Data link connector	24K
X18/29	Connector 1, left engine compartment or right engine compartment	50F
X18/30	Connector 2, left engine compartment or right engine compartment	59F
X26/23	Engine compartment to cockpit connector	29F
X30/27	Engine CAN bus connector	27K 37K
X62/6	Rpm sensor and brake wear sensor connector, right front	56H 59H
X62/7	Rpm sensor and brake wear sensor connector, left front	50H 53H
X62/8	Rpm sensor and brake wear sensor connector, left rear	40H
X62/21	ABS/ASR rpm signal connector, left rear	45H
X62/22	ABS/ASR rpm signal connector, right rear	47H
X62/28	Rpm sensor connector	40F 45F
Z66/1	Additional fuse box feed connector sleeve	3J



N30/4

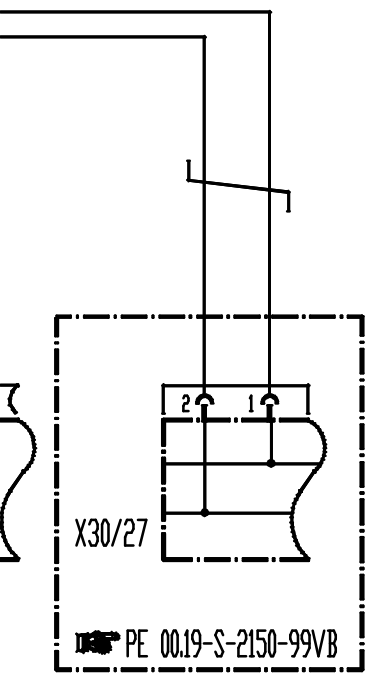
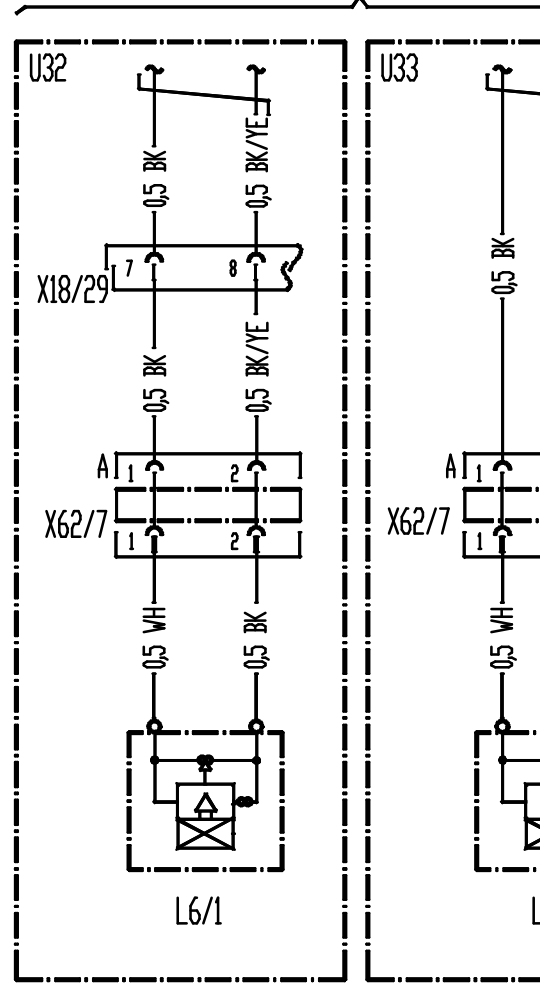
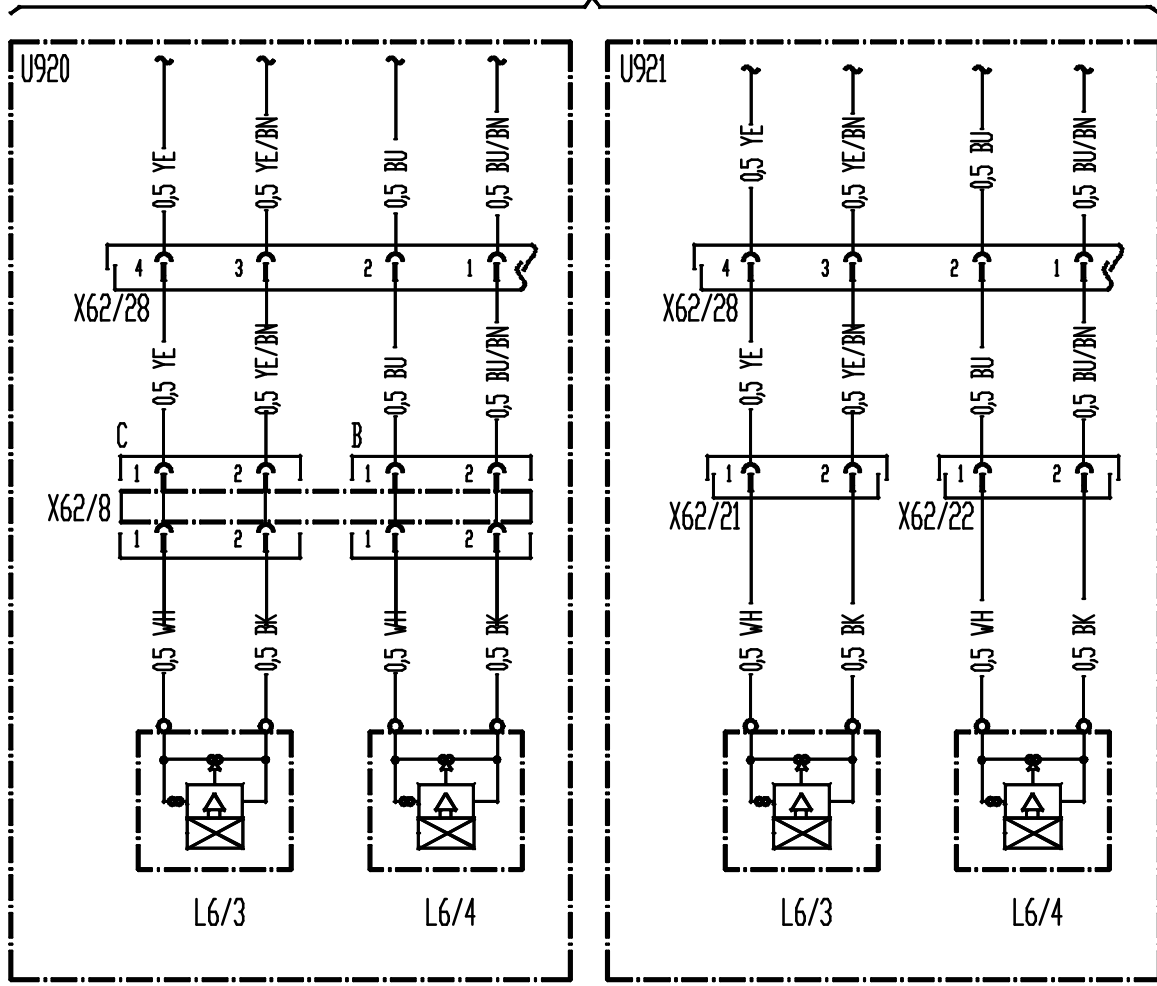
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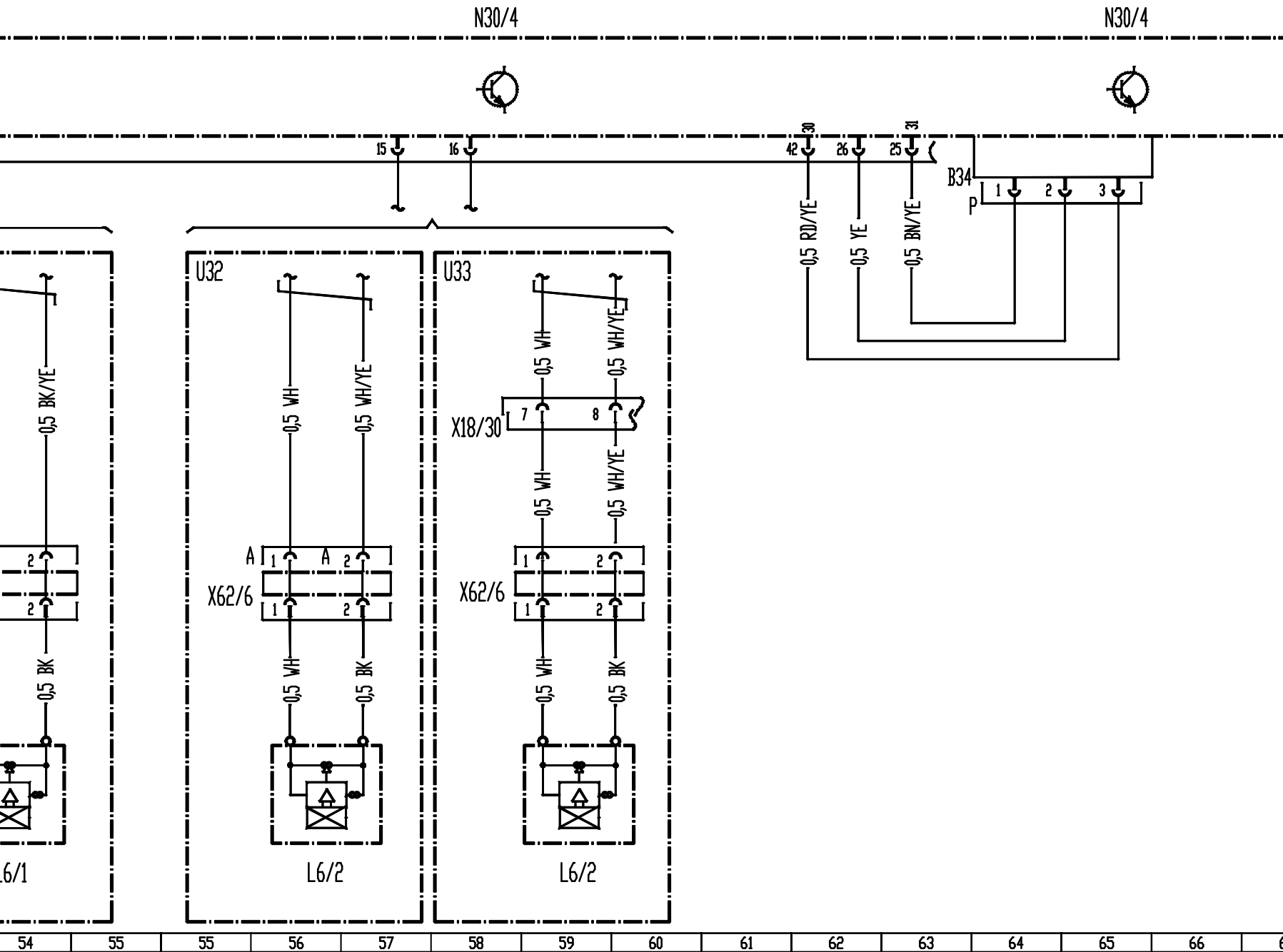


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# Common rail diesel injection (CDI)

## Chapter 15

PE07.16-S-2000VA	Wiring diagram for common rail diesel injection (CDI) control unit	25.3.03
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**ENGINE 646.982 /983 in MODELS 639.601 /603 /605 /701 /703 /705**

**Sheet 1**

**ENGINE 646.982 in MODELS 639.711 /713 /811 /813 /815**

**Sheet 1**

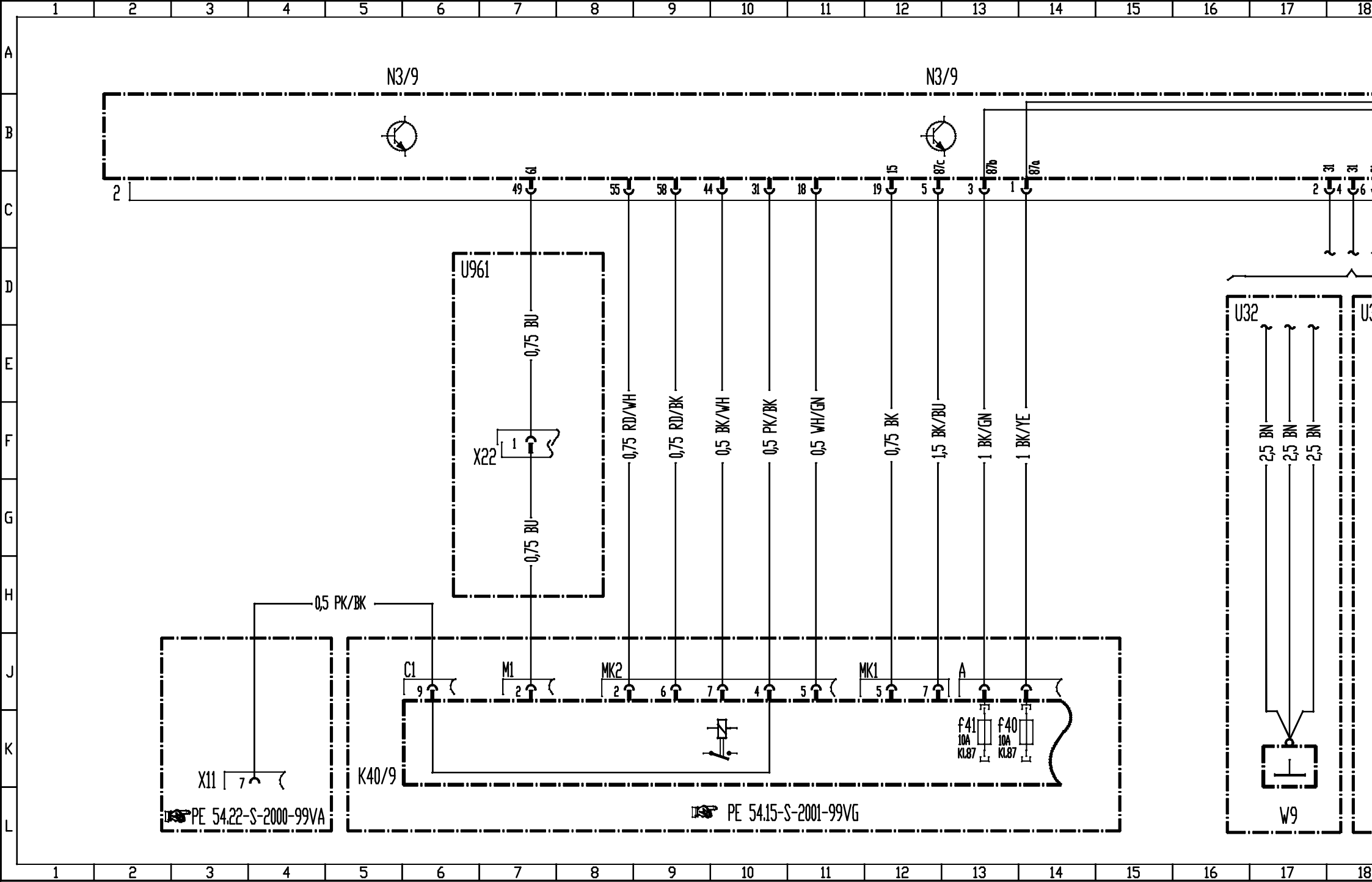
PE07.16-S-2000-99VA	Wiring diagram for common rail diesel injection (CDI) control unit	Sheet 1	PE07.16-S-2000-99VA
PE07.16-S-2000-60VA	Legend of wiring diagram for common rail diesel injection (CDI)	Sheet 1	PE07.16-S-2000-60VA
OV00.01-S-1901-03VA	Use of wiring diagrams		OV00.01-S-1901-03VA
OV00.01-S-1901VA	Search aid for all wiring diagram groups		OV00.01-S-1901VA
OV00.01-S-1909VA	Search aid for all electrical components	Components from A to E	OV00.01-S-1909VA
OV00.01-S-1909VB	Search aid for all electrical components	Components from F to J	OV00.01-S-1909VB
OV00.01-S-1909VC	Search aid for all electrical components	Components from K to O	OV00.01-S-1909VC
OV00.01-S-1909VD	Search aid for all electrical components	Components from P to T	OV00.01-S-1909VD
OV00.01-S-1909VE	Search aid for all electrical components	Components from U to Z	OV00.01-S-1909VE
OV00.01-S-1001-27VA	Abbreviations for wiring diagrams		OV00.01-S-1001-27VA
OV00.01-S-1001-28VA	Abbreviations of signal and circuit designations for wiring diagrams		OV00.01-S-1001-28VA
GF00.19-S-1000VB	Location and assignment of line and plug connectors		GF00.19-S-1000VB
GF00.19-S-1100VB	Location and assignment of connectors and sockets		GF00.19-S-1100VB
GF00.19-S-2000VB	Location and assignment of ground points		GF00.19-S-2000VB
GF00.19-S-3000VB	Location and assignment of Z connector sleeves (line connectors in wiring harness)		GF00.19-S-3000VB
GF54.15-S-0900VA	Fuse and relay box - location/assignment		GF54.15-S-0900VA



PE07.16-S-2000-60VA	Legend of wiring diagram for common rail diesel injection (CDI)	ENGINE 646.982 /983 in MODELS 639.601 /603 /605 /701 / 703 /705 Sheet 1	
		ENGINE 646.982 in MODELS 639.711 713 /811 /813 /815/ Sheet 1	

Code	Designation	Coordinates
A0	Color code key	64L
B37/3	Pedal value sensor	29L 32L
B37/4	Accelerator pedal module	25L
F1	1-pin prefuse box	43K
K40/9	Fuse and relay block	5K
N3/9	CDI control unit	5A 12A 19A 26A 33A 40A 47A 54A
N14/2	Glow output stage	48L
R9/7	Cylinder 1 glow plug	52L
R9/8	Cylinder 2 glow plug	54L
R9/9	Cylinder 3 glow plug	56L
R9/10	Cylinder 4 glow plug	58L
S40/3	Clutch pedal switch	34L
U32	Valid for left-hand drive vehicles	16D 40G
U33	Valid for right-hand drive vehicles	18D 41G
U1113	Valid up to 12/2005	27D

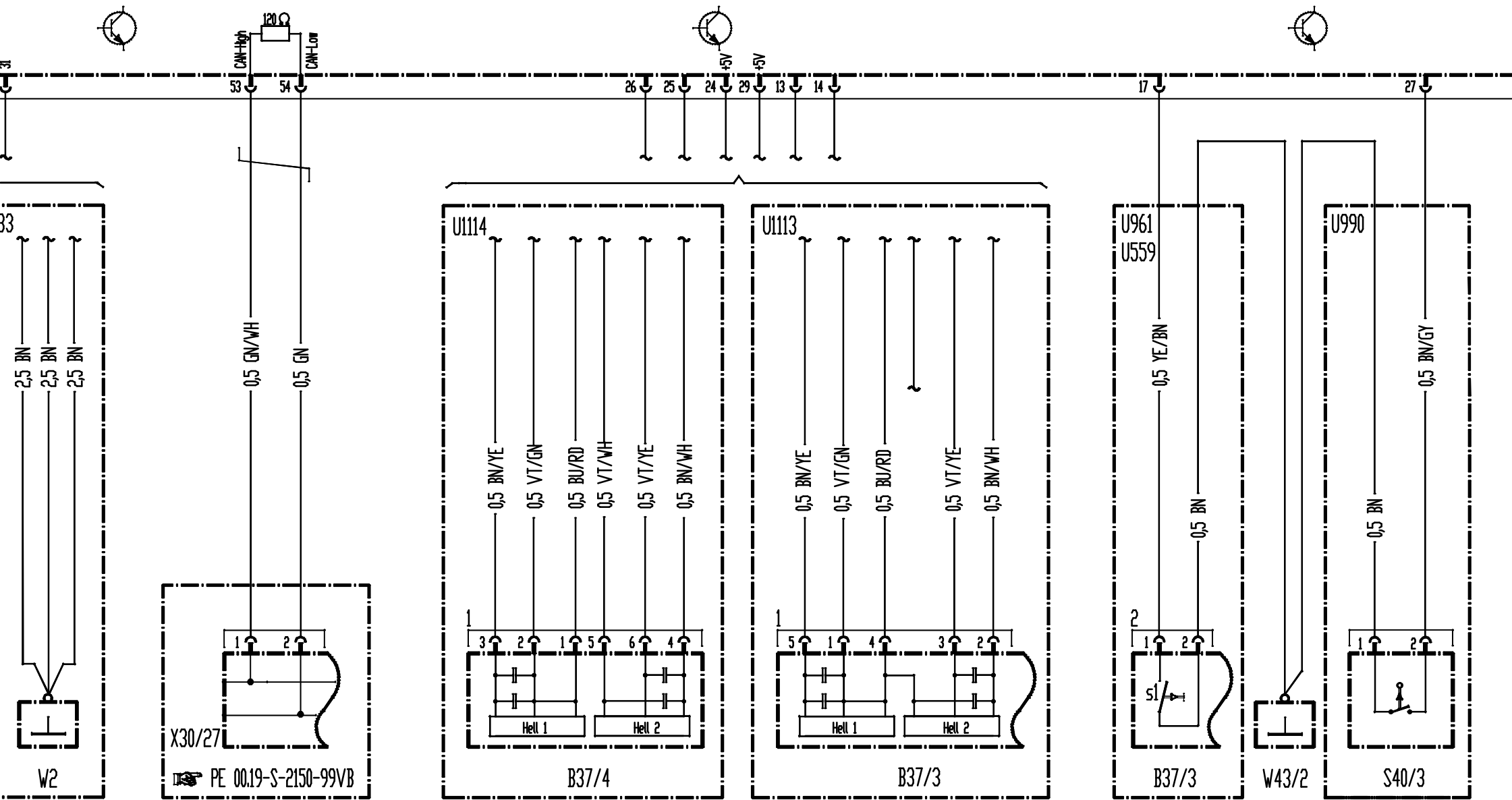
U1114	Valid as of 01/2006	23D
U559	Valid for cruise control	31E
U961	Valid for automatic transmission	6D 31D
U990	Valid without automatic transmission	34D
W2	Ground (right front lamp unit)	19L 41L
W9	Ground (left front lamp unit)	17L 40L
W43/2	Ground (right interior compartment firewall)	33L
X11	Data link connector	3L
X22	Engine compartment and engine connector	6F
X30/27	Engine CAN bus connector	20K
Y77/1	Charge pressure control vacuum transducer	37L



N3/9

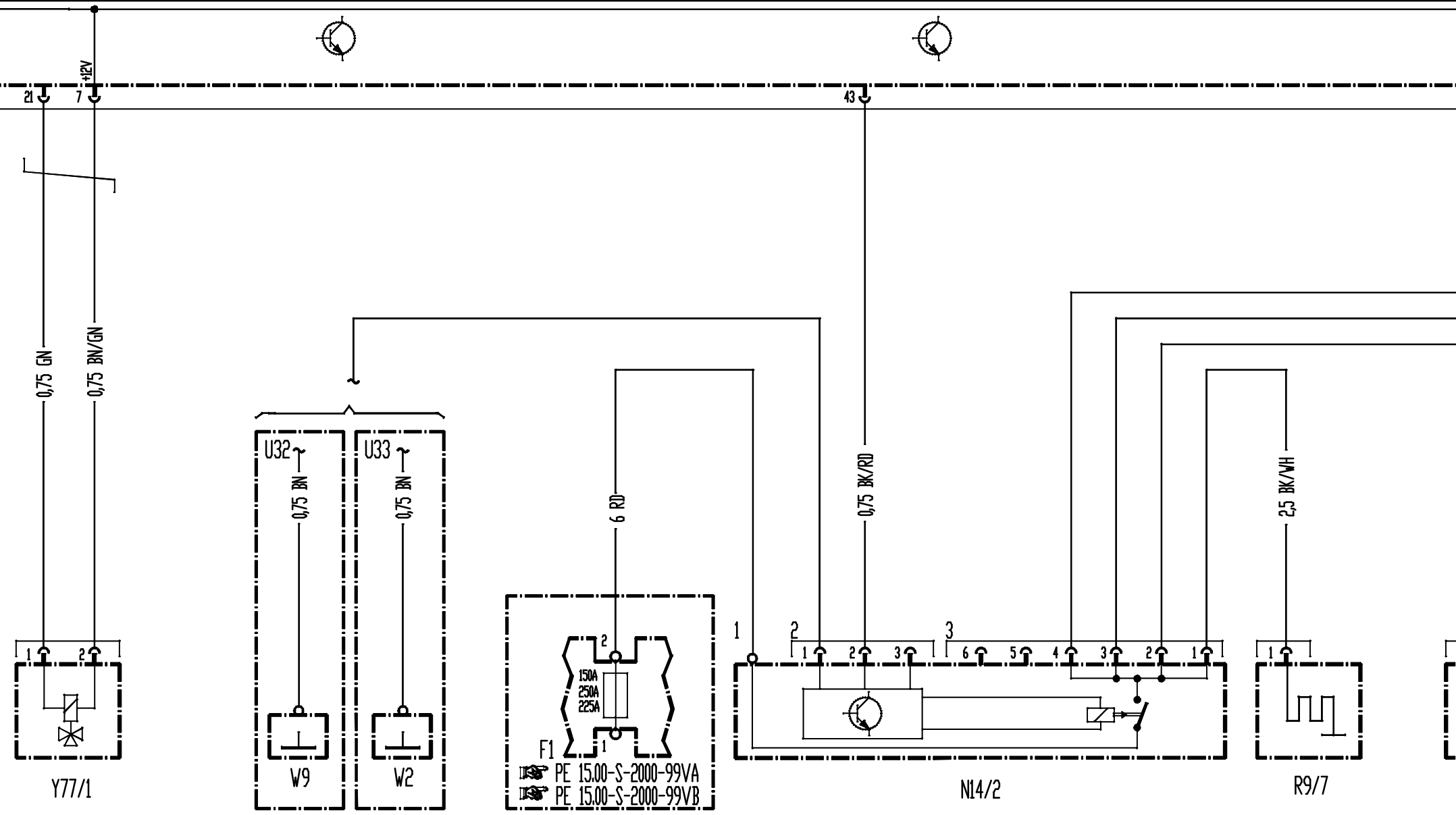
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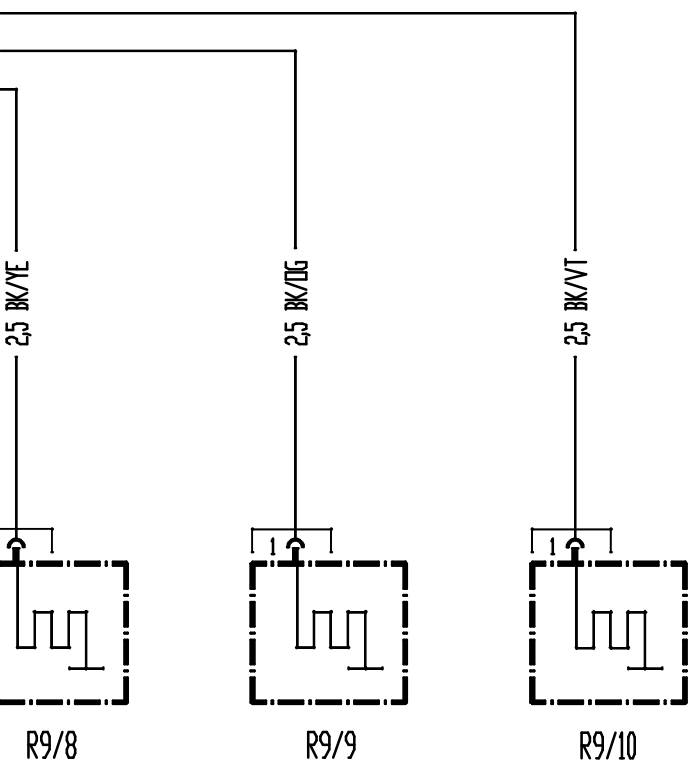
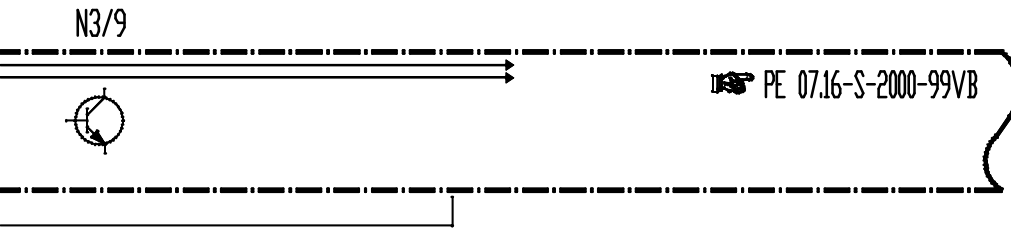


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54 55 56 57 58 59 60 61 62 63 64



PE 07.16-S-2000-99VA

54 55 56 57 58 59 60 61 62 63 64

A  
B  
C  
D  
E  
F  
G  
H  
J  
K  
L

PE07.16-S-2000VB	Wiring diagram for common rail diesel injection (CDI) control unit	25.7.03
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**ENGINE 646.982 /983 in MODELS 639.601 /603 /605 /701 /703 /705**

**Sheet 2**

**ENGINE 646.982 in MODELS 639.711 /713 /811 /813 /815**

**Sheet 2**

PE07.16-S-2000-99VB	Wiring diagram for common rail diesel injection (CDI) control unit	Sheet 2	PE07.16-S-2000-99VB
PE07.16-S-2000-60VB	Legend of wiring diagram for common rail diesel injection (CDI)	Sheet 2	PE07.16-S-2000-60VB
OV00.01-S-1901-03VA	Use of wiring diagrams		OV00.01-S-1901-03VA
OV00.01-S-1901VA	Search aid for all wiring diagram groups		OV00.01-S-1901VA
OV00.01-S-1909VA	Search aid for all electrical components	Components from A to E	OV00.01-S-1909VA
OV00.01-S-1909VB	Search aid for all electrical components	Components from F to J	OV00.01-S-1909VB
OV00.01-S-1909VC	Search aid for all electrical components	Components from K to O	OV00.01-S-1909VC
OV00.01-S-1909VD	Search aid for all electrical components	Components from P to T	OV00.01-S-1909VD
OV00.01-S-1909VE	Search aid for all electrical components	Components from U to Z	OV00.01-S-1909VE
OV00.01-S-1001-27VA	Abbreviations for wiring diagrams		OV00.01-S-1001-27VA
OV00.01-S-1001-28VA	Abbreviations of signal and circuit designations for wiring diagrams		OV00.01-S-1001-28VA
GF00.19-S-1000VB	Location and assignment of line and plug connectors		GF00.19-S-1000VB
GF00.19-S-1100VB	Location and assignment of connectors and sockets		GF00.19-S-1100VB
GF00.19-S-2000VB	Location and assignment of ground points		GF00.19-S-2000VB
GF00.19-S-3000VB	Location and assignment of Z connector sleeves (line connectors in wiring harness)		GF00.19-S-3000VB
GF54.15-S-0900VA	Fuse and relay box - location/assignment		GF54.15-S-0900VA

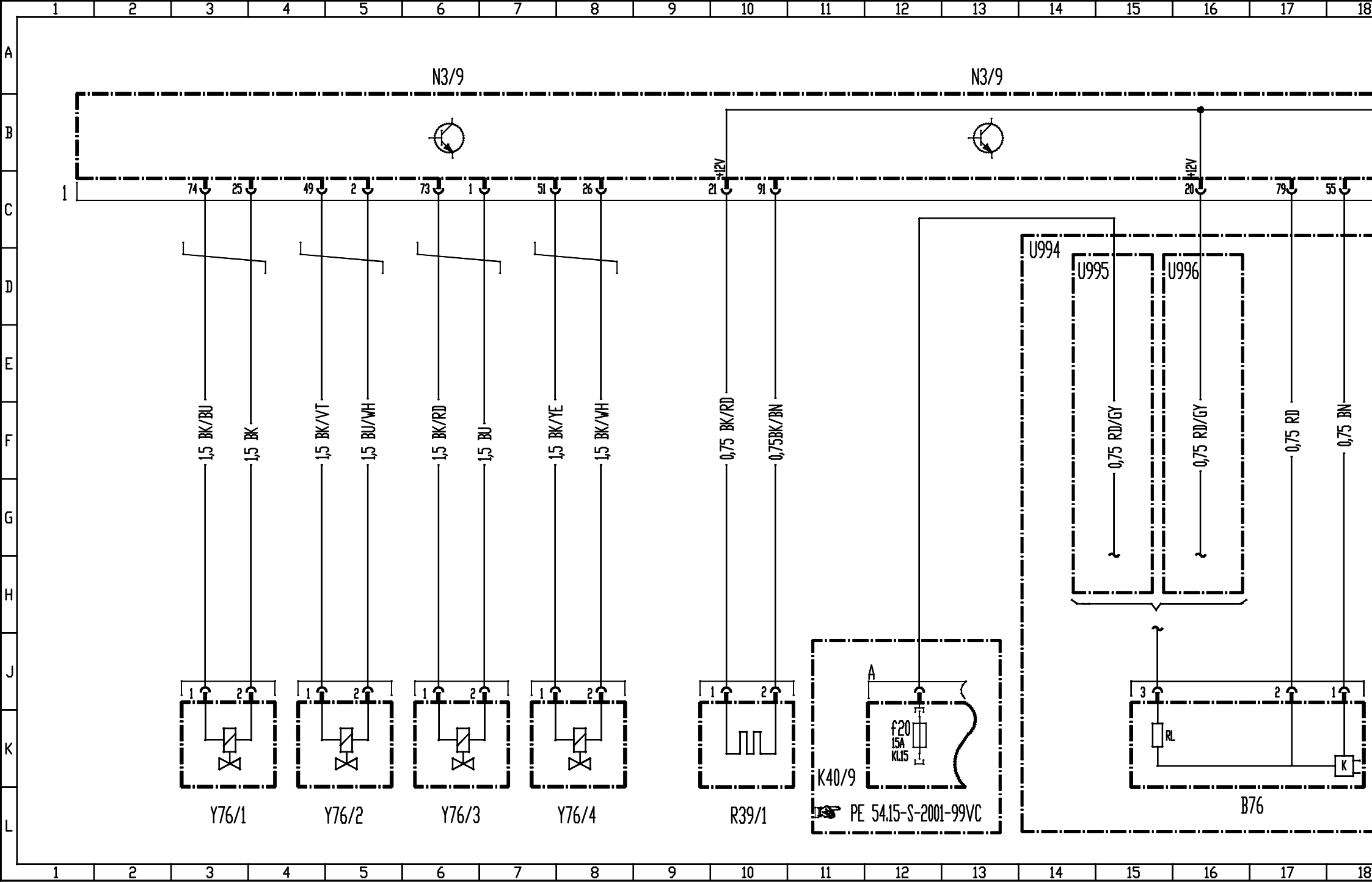
PE07.16-S-2000-60VB	Legend of wiring diagram for common rail diesel injection (CDI)	<p>ENGINES 646.982 /983 in MODELS 639.601 /603 /605 /701 / 703 /705 Sheet 2</p> <p>ENGINE 646.982 in MODELS 639.711/ 713 /811 /813 /815 Sheet 2</p>	
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Code	Designation	Coordinates
A0	Color code key	72L
B2/5	Mass air flow sensor hot film	38L
B4/6	Rail pressure sensor	32L
B5/1	Charge pressure sensor	31L
B6/1	Hall sensor for camshaft	24L
B11	Coolant temperature sensor	19L
B17/9	Charge air temperature sensor	21L
B19/9	Temperature sensor upstream of diesel particulate filter	56L
B19/10	Temperature sensor downstream of TWC	63L 65L
B28/1	Pressure sensor downstream of air filter	29L
B28/14	Pressure differential sensor (DPF)	58L 60L
B40	Oil sensor (oil level, temperature and quality)	27L
B50	Fuel temperature sensor	22L
B60	Exhaust back pressure sensor	68L
B76	Fuel filter water level sensor	16L
B85	O2 sensor, upstream of TWC	41L
G2/5	200 A Alternator	52K
K40/9	Fuse and relay block	11K 49K



K40/9f10	Engine components voltage supply fuse	50K
K40/9f20	Ignition coil M112 fuse	12K
L5/7	Crankshaft position sensor	26L
M16/9	Intake air throttle valve actuator	45L
N3/9	CDI control unit	6A 13A 20A 27A 33A 40A 47A 54A 61A
R39/1	Vent line heater element	10L
U32	Valid for left-hand drive vehicles	57F 62F
U33	Valid for right-hand drive vehicles	59F 64F
U961	Valid for automatic transmission	52D
U991	Valid for particulate filter	55D
U992	Valid for low emission vehicle EU4 Group III	37D 47D
U993	Valid for low emission engine EU3 Group III (diesel)	47D
U994	Valid for fuel filter with water separator	14D
U995	Valid for engine version Euro 3 (diesel)	14D
U996	Valid for all except engine version Euro 3 (diesel)	15D
X18/65	Connector for O2 sensor	59H 64H
X25/13	Connector for O2 sensor/exhaust gas temperature sensor	57E
Y27	EGR positioner	48L
Y74	Pressure regulator valve	34L
Y76/1	Cylinder 1 fuel injector	3L
Y76/2	Cylinder 2 fuel injector	5L
Y76/3	Cylinder 3 fuel injector	6L

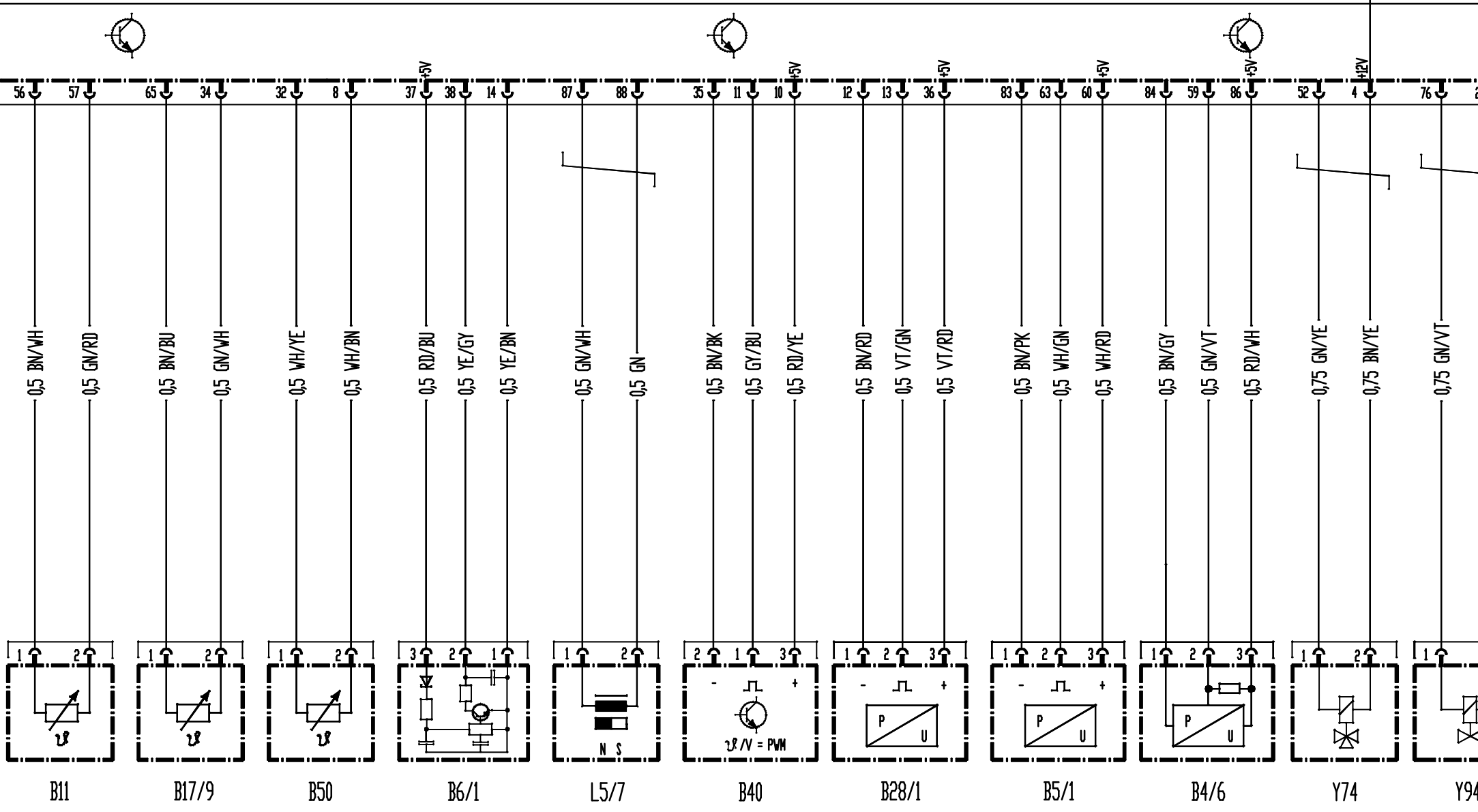
Y76/4	Cylinder 4 fuel injector	8L
Y83	Inlet port shutoff switchover valve	43L
Y94	Quantity control valve	36L
Z7/24	Circuit 87 connector sleeve	50F

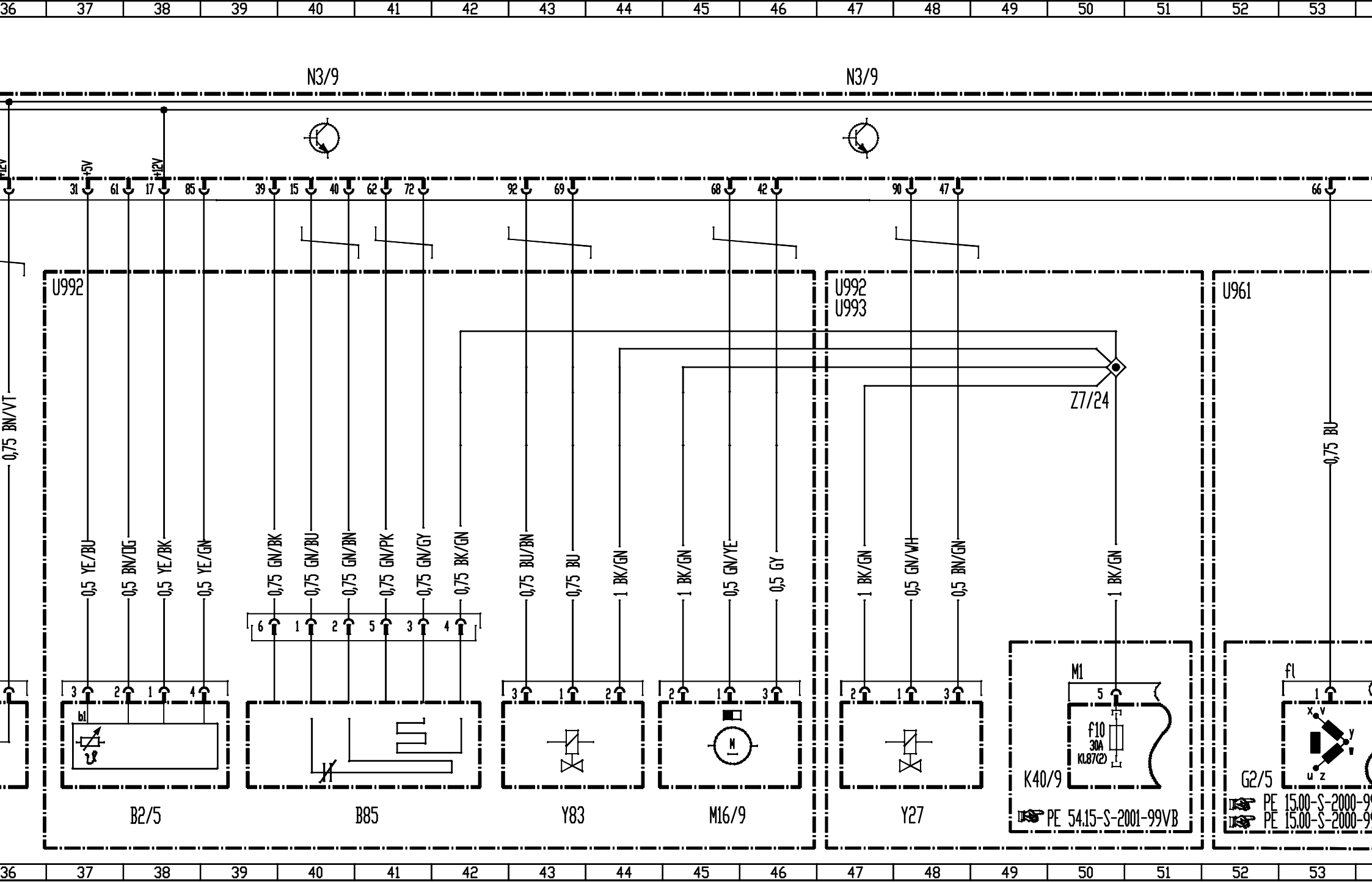


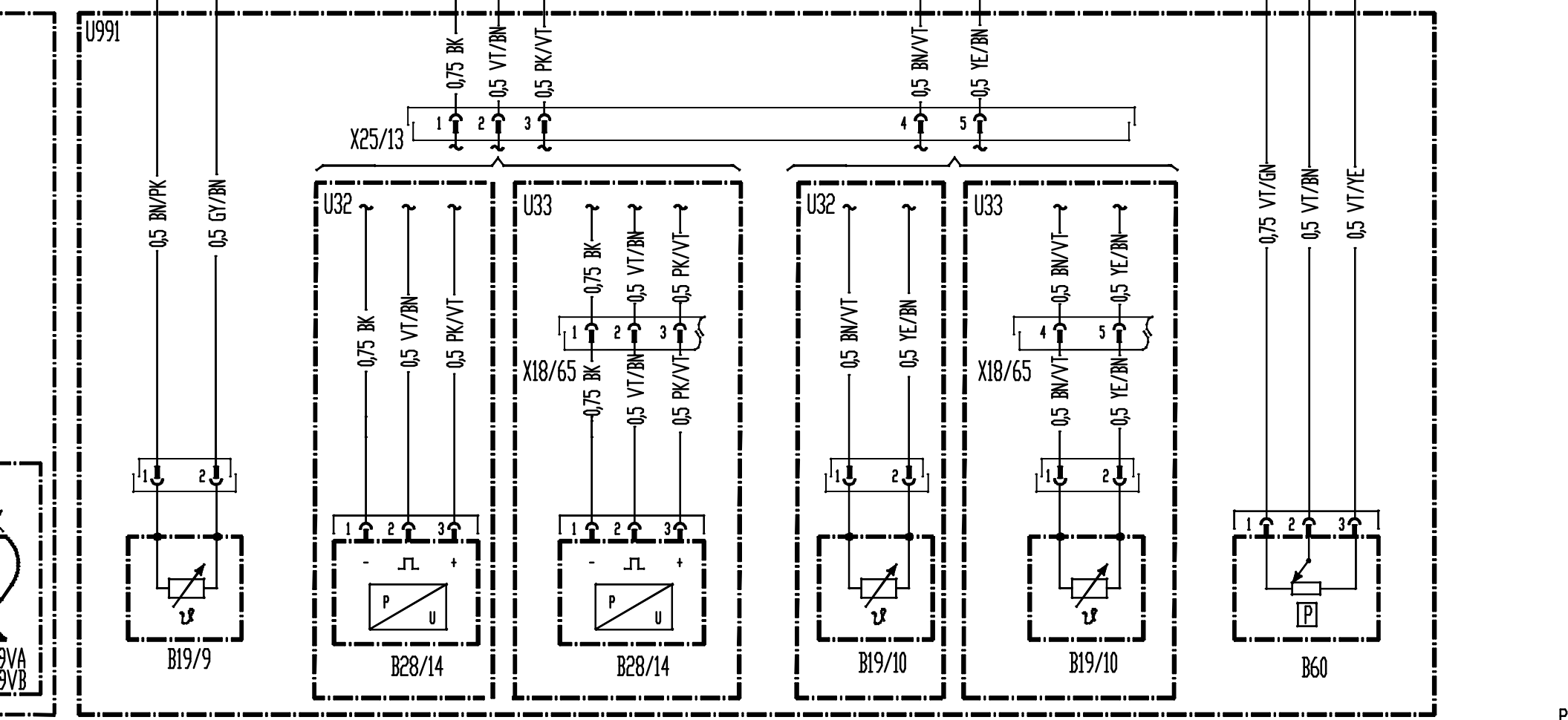
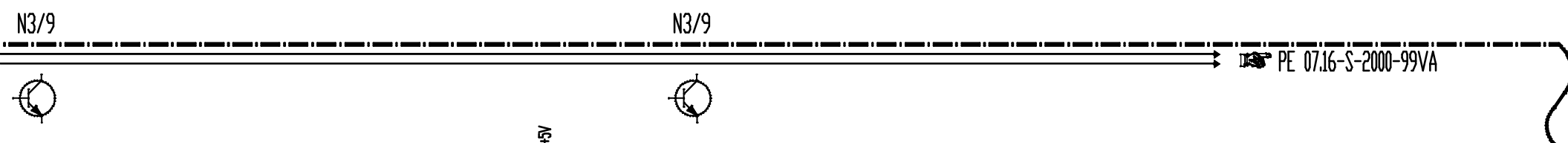
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N3/9







# Standard heater

# Chapter 16

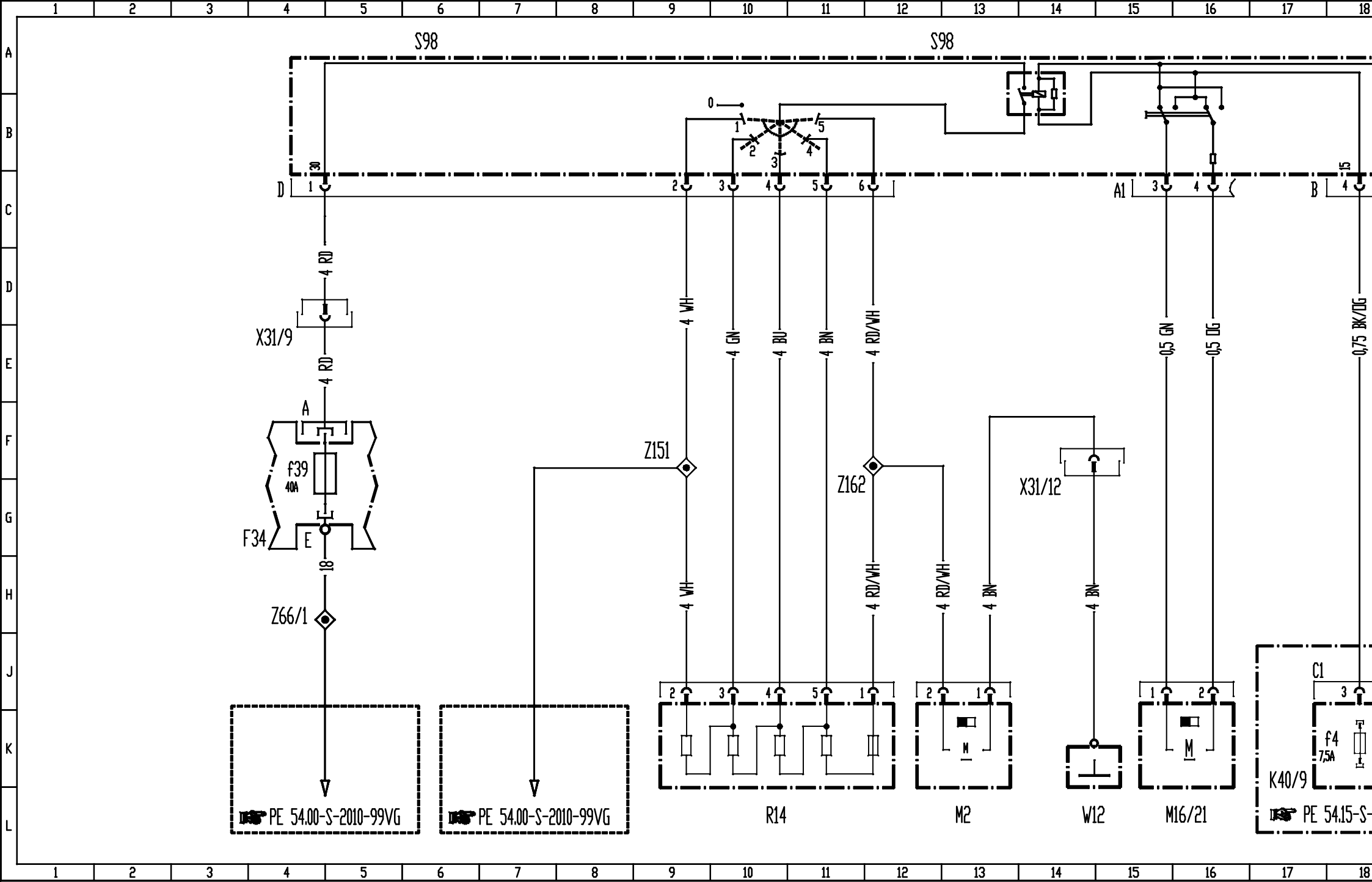
**MODEL 639.601 /603 /605 /701 /703 /705 /711 /713 /811 /813 /815****except CODE (HH4) Automatic air conditioning****except CODE (HH9) Regulated air conditioning (Tempmatic)**

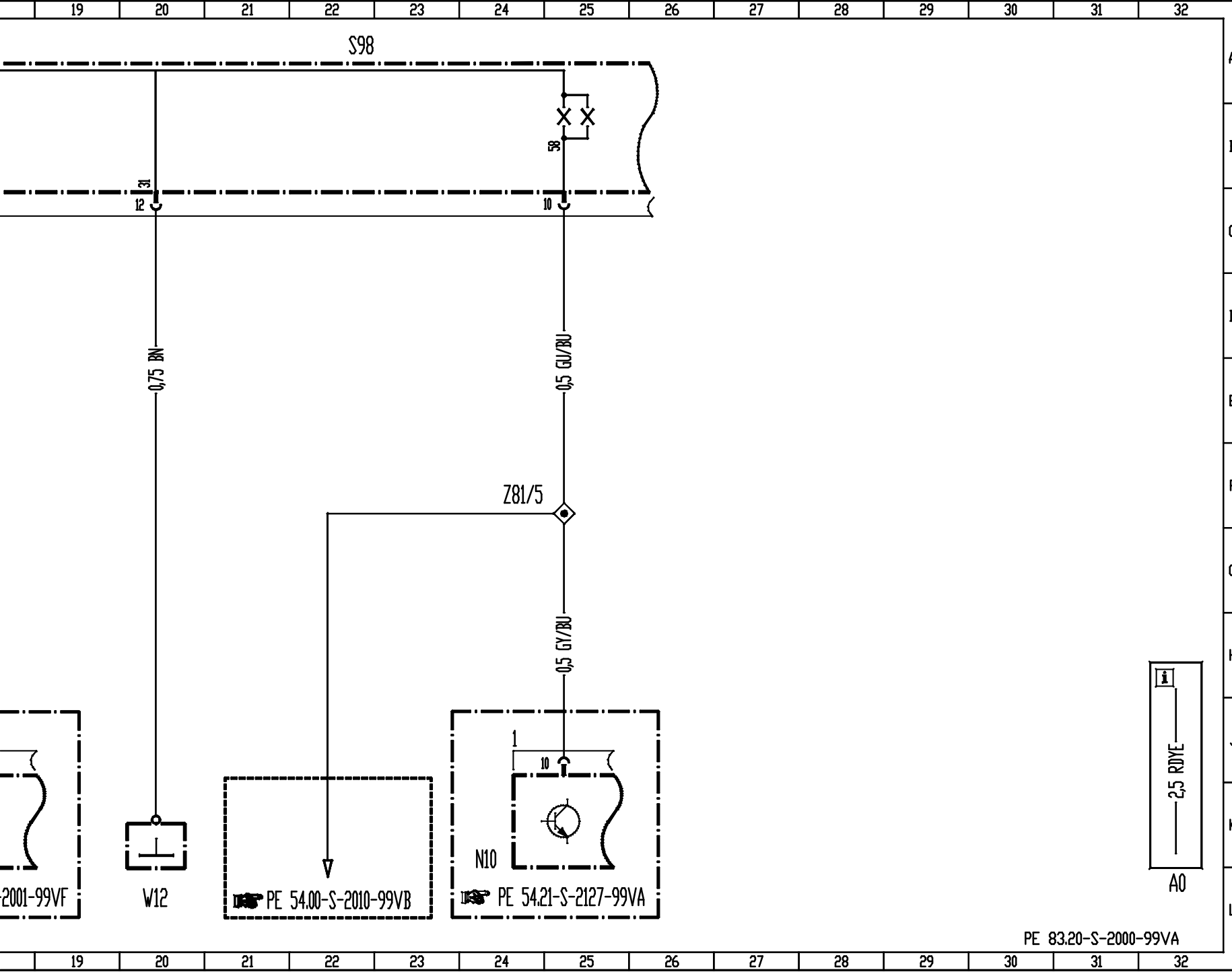
PE83.20-S-2000-99VA	Wiring diagram heater		PE83.20-S-2000-99VA
PE83.20-S-2000-60VA	Legend of wiring diagram heater		PE83.20-S-2000-60VA
OV00.01-S-1901-03VA	Use of wiring diagrams		OV00.01-S-1901-03VA
OV00.01-S-1901VA	Search aid for all wiring diagram groups		OV00.01-S-1901VA
OV00.01-S-1909VA	Search aid for all electrical components	Components from A to E	OV00.01-S-1909VA
OV00.01-S-1909VB	Search aid for all electrical components	Components from F to J	OV00.01-S-1909VB
OV00.01-S-1909VC	Search aid for all electrical components	Components from K to O	OV00.01-S-1909VC
OV00.01-S-1909VD	Search aid for all electrical components	Components from P to T	OV00.01-S-1909VD
OV00.01-S-1909VE	Search aid for all electrical components	Components from U to Z	OV00.01-S-1909VE
OV00.01-S-1001-27VA	Abbreviations for wiring diagrams		OV00.01-S-1001-27VA
OV00.01-S-1001-28VA	Abbreviations of signal and circuit designations for wiring diagrams		OV00.01-S-1001-28VA
GF00.19-S-1000VB	Location and assignment of line and plug connectors		GF00.19-S-1000VB
GF00.19-S-1100VB	Location and assignment of connectors and sockets		GF00.19-S-1100VB
GF00.19-S-2000VB	Location and assignment of ground points		GF00.19-S-2000VB
GF00.19-S-3000VB	Location and assignment of Z connector sleeves (line connectors in wiring harness)		GF00.19-S-3000VB
GF54.15-S-0900VA	Fuse and relay box, location/assignment		GF54.15-S-0900VA



PE83.20-S-2000-60VA	Legend of wiring diagram heater	MODEL 639.601 /603 /605 /701 / 703 /705 /711 /713 /811 / 813 /815 except CODE (HH4) Automatic air conditioning except CODE (HH9) Regulated air conditioning, (Tempmatic)	
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Code	Designation	Coordinates
F34	Fuse block, 22-pin	3G
F34f39	Front blower fuse	4F
K40/9	Fuse and relay block	17K
K40/9f4	Heater fuse	17K
M2	Blower motor	13L
M16/21	Fresh air/air recirculation flap actuator motor	15L
N10	SAM control unit	24K
R14	Blower motor series resistor group	10L
S98	Air conditioning operating module	6A 12A 22A
W12	Ground (cockpit and center console)	14L 20L
X31/9	Blower switch feed-in connector	4E
X31/12	Blower connector, terminal 31	14G
Z66/1	Additional fuse box feed connector sleeve	4H
Z81/5	Cockpit terminal 58d connector sleeve	24F
Z151	Heater 1st stage connector sleeve	9F
Z162	Blower motor connector sleeve	11G





A  
B  
C  
D  
E  
F  
G  
H  
J  
K  
L

» ... Staff must in future assume the role of personal knowledge managers, who actively take responsibility for their own qualification ... « Jürgen E. Schrempp

DCUK Training.  
*CV Electrics and Telematics Team*

*Prepared by Ian Swales*

***Mercedes-Benz Commercial Vehicle Training  
CV Electrics & Telematics Team***

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Zertifiziert nach/certified according to:

> ISO 9001 (Nr.: 70104 M 034 TMS)  
> VDA 6.2