

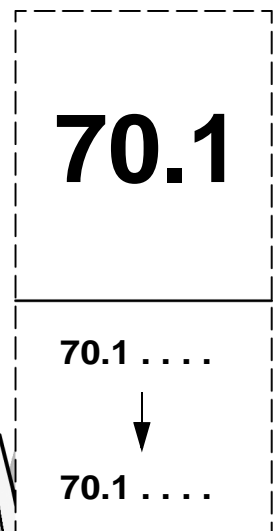
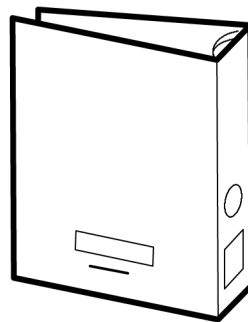
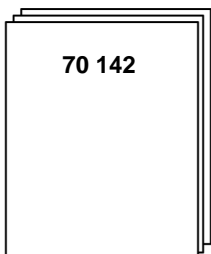
# 70 142 - GB - 10/2004

## ELECTRICAL CIRCUITS IDENTIFICATION STANDARD

RANGE	FAMILY	VARIANT
RENAULT MAGNUM DXi 12 440 - 480		



The above information may change in the course of time. Only the "Consult" section of the workshop manuals repository in standard N° 10320 serves as reference.



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**GENERALITIES**

## Warnings

In this document, safety instructions are symbolized as follows:



**DANGER!** NON-OBSERVANCE OF THE PROCEDURE DESCRIBED OR LACK OF CARE OR ATTENTION, RISK CAUSING SERIOUS INJURY OR EVEN DEATH.



**WARNING!** Any different or inappropriate working method risks causing damage to the product.



**NOTE!** Draws attention to particular or important points of the method.



**Comply without fail with the regulations in force relative to the recovery and treatment of used parts and waste.**

## **Object**

The present standard defines the identification system for all the electrical circuits fitted to the vehicle.

## **Scope**

This standard is applicable to all RENAULT TRUCKS vehicles of new design.

## **Definition**

The electrical functions of a vehicle are divided into 10 groups:

**Group 0 - Electronics**

**Group 1 - Earths and negative power supplies**

**Group 2 - Positive power supplies**

**Group 3 - Signalling**

**Group 4 - Comfort accessories**

**Group 5 - Safety accessories**

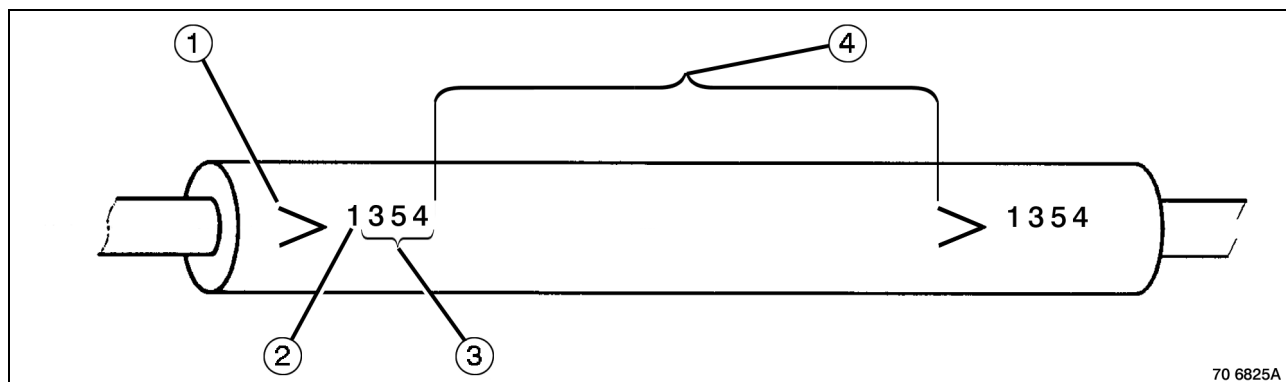
**Group 6 - Lighting**

**Group 7 - Onboard instruments**

**Group 8 - Auxiliary equipment and monitoring**

**Group 9 - Free**

## Items and identification



70 6825A

**Item (1):** the sign indicates the direction of reading

**Item (2):** first figure

Each group is identified by the first figure of the string of characters marked on the wire.

**Item (3):** second, third and fourth figures

Each circuit inside a group is identified by one, two or three figures depending on the possible combinations for grouping the figures.

**Item (4):** space between each string of characters identifying the polarity

## Colours of insulators

The colours of insulators are not indicated in the diagrams, but each colour corresponds to a cable cross-section

Section	Colour
0.5 mm <sup>2</sup>	Yellow
0.75 mm <sup>2</sup>	Orange
0.75 mm <sup>2</sup>	Green
0.75 mm <sup>2</sup>	Purple
0.75 mm <sup>2</sup>	Brown
1 mm <sup>2</sup>	Blue
1.5 mm <sup>2</sup>	Beige
2.5 mm <sup>2</sup>	Purple
4 mm <sup>2</sup>	Yellow
6 mm <sup>2</sup>	Blue
10 mm <sup>2</sup>	Brown
25 mm <sup>2</sup>	Black
25 mm <sup>2</sup>	Red

## Rules for colours specific to communication buses

### Communication bus **J1939**

Bus name	Equipotential N°	Wire colour
<b>J1939_1</b>	<b>0012</b>	Orange
	<b>0013</b>	Green
<b>J1939_2</b>	<b>0412</b>	Orange
	<b>0411</b>	Purple
<b>J1939_3</b>	<b>0412</b>	Orange
	<b>0411</b>	Purple

### Communication bus **J1587**

Bus name	Equipotential N°	Wire colour
<b>J1587</b>	<b>0010</b>	Orange
	<b>0011</b>	Brown
	<b>0104</b>	Orange
	<b>0105</b>	Brown

### Bus with function specific to the appliance **A21**

Function	Section	Colour
Internal CAN	0.75 mm <sup>2</sup>	Purple for the two twisted wires
Power supply (24V+ and earth)	1 mm <sup>2</sup>	Blue for the two twisted wires
Communication CAN J1939	0.75 mm <sup>2</sup>	Blue for the two twisted wires
Communication CAN J1587	0.75 mm <sup>2</sup>	Blue for the two twisted wires
Sensors power supply	0.75 mm <sup>2</sup>	Orange for the two twisted wires

### Bus with function specific to the appliance **B05**

Function	Section	Colour
	0.75 mm <sup>2</sup>	Orange for the two twisted wires

### Bus with function specific to the appliance **A17A**

Function	Polarity	Section	Colour
<b>CAN 2</b>	<b>0413</b>	0.75 mm <sup>2</sup>	Orange for the two twisted wires
	<b>0414</b>		

Communication bus **J1939-6**

Function	Polarity	Section	Colour
<b>J1939_6</b>	<b>0206</b>	0.75 mm <sup>2</sup>	Orange for the two twisted wires
	<b>0207</b>		

## Rules for twisting

One single twisting pitch is to be applied to all the buses, power supplies and signals defined below :  
**45<sup>±5</sup>** coils/m.

Consequently, all twisted wires must have a length of more than 210 mm.



**SINCE THE ENGINE UNIT IS IDENTIFIED AS A "POWERTRAIN" COMPONENT, ALL THE WIRING HARNESSSES FITTED TO THE ENGINE DO NOT HAVE POLARITIES IDENTIFIED BY IDENTIFICATION NUMBERS BUT BY A COLOUR CODE. IT IS THEREFORE NECESSARY TO REFER TO THE EQUIVALENTS TABLE IN THE WORKSHOP MANUAL.**

## Precautions to be taken when making electrical measurement readings

### Protection of appliances



**Bearing in mind the presence of numerous electronic appliances, the use of a test lamp is to be avoided. Preferably use a needle or digital type multi-meter.**



**It is forbidden to apply voltage to the terminals of electronic appliances or you may cause irreparable damage to the hardware. Consequently, no line continuity measurement should be made on the wires without having previously disconnected the appliances from the lines concerned.**



**DEFINITION OF EQUIPOTENTIALITIES**

**Group 0 - Electronics**

<b>Polarity N°</b>	<b>Designation</b>
0010	Communication bus J1587-1 (+ signal)
0011	Communication bus J1587-1 (- signal)
0012	Communication bus J1939-1 (+ signal)
0013	Communication bus J1939-1 (- signal)
0015	Radio remote control
0016	Radio remote control
0017	Radio remote control
0018	Radio remote control
0019	Radio remote control
0020	Radio remote control
0023	ECU power supply relay control
0024	Injection pump and camshaft speed sensor information (electronic fuel-injection) (- signal)
0025	Injection pump and camshaft speed sensor information (electronic fuel-injection) (+ signal)
0027	Hydraulic retarder (VOITH or ZF) proportional solenoid valve control
0029	Hydraulic retarder oil booster solenoid valve
0031	Hydraulic retarder (VOITH and ZF) coolant temperature information
0032	Hydraulic retarder (VOITH and ZF) coolant temperature information
0038	Retarder manual control (analogue signal)
0039	Encoded line for alarm siren activation/de-activation
0045	Communication bus for trailer EBS socket (line H)
0046	Communication bus for trailer EBS socket (line L)
0056	Vehicle speed sensor encrypted data
0057	Sequence signal for information display pull-down menu
0061	Gearbox input shaft speed information (+ signal)
0062	Gearbox input shaft speed information (- signal)
0063	Oil level sensor power supply
0064	ALLISON gearbox identification
0065	ALLISON gearbox casing oil temperature sensor information
0066	ALLISON gearbox casing oil level sensor information
0067	ALLISON gearbox diagnostic socket communication bus J1587 (+ signal)
0068	ALLISON gearbox diagnostic socket communication bus J1587 (- signal)
0069	ALLISON gearbox gear selector data bit 1
007	Accelerator pedal potentiometer power supply

<b>Polarity N°</b>	<b>Designation</b>
0070	ALLISON gearbox gear selector data bit 2
0071	ALLISON gearbox gear selector data bit 4
0072	ALLISON gearbox gear selector data bit 8
0073	ALLISON gearbox gear selector data parity bit
0074	ALLISON gearbox ECU / gear lever pattern display link
0075	ALLISON gearbox gear lever information in input mode on ALLISON gearbox ECU
0076	ALLISON gearbox hydraulic pressure sensor information
0084	Gearbox output shaft speed information (- signal)
0086	ALLISON gearbox retarder temperature information
0087	ALLISON gearbox blower speed sensor information
0088	Gearbox output shaft speed information (+ signal)
0089	Retarder coolant temperature sensor signal
0100	Data transmission positive (+) (GPS) TMC 2001 (TDC +)
0101	Data transmission negative (-) (GPS) TMC 2001 (TDC -)
0102	Data reception positive (+) (GPS) TMC 2001 (TDC +)
0103	Data reception negative (-) (GPS) TMC 2001 (TDC -)
0104	Communication bus J1587-2 (+ signal)
0105	Communication bus J1587-2 (- signal)
0107	RH front brake pads wear analogue sensor earth
0108	RH front brake pads wear analogue sensor signal
0109	RH front brake pads wear analogue sensor - 5 V power supply
0114	EGR temperature sensor analogue signal (EDC11)
0116	BRM coolant temperature sensor analogue signal (EDC7)
0117	Tag or pusher axle rear angle sensor minimum voltage
0118	Tag or pusher axle rear angle sensor maximum voltage
0119	Front angle sensor minimum voltage
0120	Front angle sensor maximum voltage
0123	Cab protection red LED positive (+) power supply on module in alarm operating state
0127	Alarm ultrasonics reception (RX + signal)
0128	Alarm ultrasonics reception (RX - signal)
0129	Alarm ultrasonics transmission (TX + signal)
0130	Alarm ultrasonics transmission (TX - signal)
0143	Engine crankcase pressure sensor signal
0144	Fuel pressure sensor signal

<b>Polarity N°</b>	<b>Designation</b>
0145	Engine management ECU earth for chassis engine stop switch
0146	Chassis engine stop switch information
0147	Communication bus between EBS ECU and front module (- signal)
0148	Communication bus between EBS ECU and front module (+ signal)
0149	Communication bus between EBS ECU and first additional module (+ signal)
0150	Communication bus between EBS ECU and first additional module (- signal)
0151	Engine coolant level sensor signal
0160	LH front brake pads wear analogue sensor earth
0161	LH front brake pads wear analogue sensor signal
0162	LH front brake pads wear analogue sensor + 5 V power supply
0163	1st axle RH rear brake pads wear analogue sensor earth
0164	1st axle RH rear brake pads wear analogue sensor signal
0165	1st axle RH rear brake pads wear analogue sensor + 5 V power supply
0166	1st axle LH rear brake pads wear analogue sensor earth
0167	1st axle RH rear brake pads wear analogue sensor signal
0168	1st axle LH rear brake pads wear analogue sensor + 5 V power supply
0169	2nd axle RH rear brake pads wear analogue sensor earth
017	Accelerator pedal potentiometer signal
0170	2nd axle RH rear brake pads wear analogue sensor signal
0171	2nd axle RH rear brake pads wear analogue sensor + 5 V power supply
0172	2nd axle LH rear brake pads wear analogue sensor earth
0173	2nd axle LH rear brake pads wear analogue sensor signal
0174	2nd axle LH rear brake pads wear analogue sensor + 5 V power supply
0180	RH rear brake pads wear analogue sensor earth on additional pusher axle module
0181	RH rear brake pads wear analogue sensor signal on additional pusher axle module
0182	RH rear brake pads wear analogue sensor + 5 V power supply on additional pusher axle module
0183	LH rear brake pads wear analogue sensor earth on additional pusher axle module
0184	LH rear brake pads wear analogue sensor signal on additional pusher axle module
0185	LH rear brake pads wear analogue sensor + 5 V power supply on additional pusher axle module
0186	RH rear brake pads wear analogue sensor earth on additional tag axle module
0187	RH rear brake pads wear analogue sensor signal on additional tag axle module
0188	RH rear brake pads wear analogue sensor + 5 V power supply on additional tag axle module
0189	LH rear brake pads wear analogue sensor earth on additional tag axle module

<b>Polarity N°</b>	<b>Designation</b>
0190	LH rear brake pads wear analogue sensor signal on additional tag axle module
0191	LH rear brake pads wear analogue sensor + 5 V power supply on additional tag axle module
0192	"Driver's hand presence" door sensor (+ signal)
0193	"Driver's hand presence" door sensor (power supply)
0194	"Driver's hand presence" door sensor (- signal)
0195	"Front passenger's hand presence" door sensor" (+ signal)
0196	"Front passenger's hand presence" door sensor" (power supply)
0197	"Front passenger's hand presence" door sensor" (- signal)
0198	Diver's door antenna (+ signal)
0199	Diver's door antenna (- signal)
0200	Front passenger's door antenna (+ signal)
0201	Front passenger's door antenna (- signal)
0202	Cab antenna 1 (+ signal)
0203	Cab antenna 1 (- signal)
0204	Cab antenna 2 (+ signal)
0205	Cab antenna 2 (- signal)
0206	Communication bus J1939-6 (+ signal)
0207	Communication bus J1939-6 (- signal)
0212	Cruise control analogue sensor (power supply)
022	Accelerator pedal potentiometer power supply
028	Cruise control on/off control
032	Engine oil temperature signal with electronic fuel-injection system
033	Intake air temperature signal with electronic fuel-injection system
034	Intake air pressure signal (P2) with electronic fuel-injection system
0374	TRF receiver/alarm encoded line link
0375	TRF or alarm hazard lights control
0376	Trailer EBS control module pressure sensor power supply
0377	Trailer EBS control module pressure sensor signal
0380	Trailer EBS control module pressure sensor earth
0381	Second communication bus additional EBS module (- signal)
0382	Second communication bus additional EBS module (+ signal)
0384	PWM control signal input for engine speed control (customer pre-arrangement)
039	Brake pedal position sensor signal with EBS system
040	Brake pedal position sensor signal with EBS system

<b>Polarity N°</b>	<b>Designation</b>
0403	Brake pedal sensor signal with EBS system
0405	Tachograph serial data base for fleet management
0411	Communication bus J1939-2 (+ signal)
0412	Communication bus J1939-2 (- signal)
0413	Communication bus for bodybuilders or fleet management (- signal)
0414	Communication bus for bodybuilders or fleet management (+ signal)
0415	Communication bus between EBS ECU and acceleration sensor module (+ signal)
0416	Communication bus between EBS ECU and acceleration sensor module (- signal)
0424	ACC radar communication bus J1939 (+ signal)
0425	ACC radar communication bus J1939 (- signal)
045	Cruise control deceleration control
0460	Bodybuilder switch pre-arrangement
0461	Bodybuilder switch pre-arrangement
0462	OBD communication bus (+ signal)
0463	OBD communication bus (- signal)
0464	DPF temperature sensor
0465	DPF temperature sensor
047	Speed regulation acceleration control
052	Flywheel engine speed sensor information (+ signal)
055	Flywheel engine speed sensor information (- signal)
056	EBS brake pedal position sensor + 5 V power supply
057	EBS system load sensor signal
064	Communication between EBS ECU and rear double module (- signal)
066	Communication between EBS ECU and rear double module (+ signal)
071	EBS system load sensor earth
072	EBS brake valve ECU earth
073	EBS system load sensor + 5 V power supply
077	Accelerator pedal "rest position" information
079	Variable drive cooling fan power supply
080	Oil pressure sensor earth
0801	Communication bus J1587 for adaptive engine speed regulation system (+ signal)
0802	Communication bus J1587 for adaptive engine speed regulation system (- signal)
0803	Engine speed regulation system information
0804	Engine speed regulation system information

<b>Polarity N°</b>	<b>Designation</b>
0805	Engine speed regulation system information
0806	Engine speed regulation system information
0807	Engine speed regulation system information
0808	Engine speed regulation system information
0809	Engine speed regulation system information
081	Engine oil pressure sensor power supply
0810	Gearbox output speed information (+ signal)
0811	Gearbox output speed information (- signal)
087	Engine oil pressure sensor information

## Group 1 - Earths and negative power supplies

Polarity N°	Designation
1	Chassis earth
12	Gearbox neutral information
119	Door open for lighting information (overhead light, driver, passenger lights, LH/RH stepwell, locker, lighting...)
123	Clutch position information
124	12 Volts electrical socket earth
130	Overhead lights lighting earth
131	Communication bus J....-6 (- signal)
132	Communication bus J....-6 (+ signal)
141	Tachograph speed sensor information
142	Tachograph speed sensor power supply
144	CB radio 12 Volts power supply output earth
147	Master switch coil earth
155	GSM VOCAL radio-telephone 12 Volts power supply output earth
156	Transfer box "low speed" information
157	Front wheels diff. lock information
158	Transfer box PTO switch earth
159	Transfer box diff. lock information
169	Doors central locking box inhibition earth (presence of key in ignition switch)
173	N° 1/2/3 cylinder injectors earth (line 1)
174	N° 4/5/6 cylinder injectors earth (line 1)
183	Hydraulic retarder proportional solenoid valve earth
184	Hydraulic retarder load accumulator solenoid valve earth
193	Earth between air conditioning ECU and fan management ECU
1006	Exhaust brake control electrovalve N° 2 earth
1007	Exhaust brake control electrovalve N° 1 earth
1010	Fan electric clutch pilot-control
1012	EBS solenoid valve earth
1018	Reversing lights relay control earth with ASTRONIC automatic transmission
1019	12 Volts output earth for IT systems pre-arrangement
1025	Corrected vehicle speed information
1026	Engine speed setting control (first selection)
1029	Automatic transmission electrovalve earth



Polarity N°	Designation
1030	Automatic transmission electrovalve earth
1031	Automatic transmission electrovalve earth
1032	Automatic transmission electrovalve earth
1033	Automatic transmission electrovalve earth
1034	Automatic transmission electrovalve earth
1035	Automatic transmission electrovalve earth
1043	Automatic transmission electrovalve earth
1045	Retarder control lever interface earth
1046	Automatic transmission electrovalve earth
1051	Engine power-sensitive air conditioning cut-off control
1058	Fuel preheating relay earth power supply
1077	Earth delivered by engine ECU for starting relay control
1081	Rear axle control ECU sensor earth
1084	Rear axle control ECU solenoid valve earth
1119	Alarm diode earth
1124	ASR sensor earth (ESP)
1140	PTO 1 engagement demand earth
1141	Engine speed setting control (second selection)
1147	Master switch closing control (ADR)
1148	Master switch opening control (ADR)
1149	Master switch warning light earth (ADR)
1150	Alternator de-energizing relay control (ADR)
1151	N° 1/2/3 cylinder injectors earth (line 2)
1152	Splitter earth on VECU SL1.4
1153	N° 4/5/6 cylinder injectors earth (line 2)
1154	Fuel pump control
1155	Air suspension ECU relay control
1156	Water/fuel separator solenoid valve control
1157	Alarm siren volume reduction control
1159	"Door open" information
1160	Solenoid valve VGT2 earth
1161	"Muddy terrain" warning light information feedback
1162	Turbocharger speed sensor earth
1163	Master switch diode earthing (ADR)

<b>Polarity N°</b>	<b>Designation</b>
1164	Electrical master switch relay earthing (ADR)
1165	Single H electrovalve N° 1 earthing
1166	Single H electrovalve N° 2 earthing
1200	"Gearbox neutral" information sensor earth

**Group 2 - Positive power supplies**

<b>Polarity N°</b>	<b>Designation</b>
2	Positive (+) power supply capable of being cut off by battery isolating switch
22	Ignition key relay energizing (after ignition position APC)
24	After ignition positive (+) power supply
25	Battery charge warning light, alternator terminal A+, engine running
201	Positive (+) power supply not capable of being cut off by battery isolating switch
202	Full time positive (+) power supply (ADR)
203	Positive (+) power supply not capable of being cut off by master switch
205	Starter relay energizing
206	After relay power supply (fan-coil heater)
208	Positive (+) power supply capable of being cut off by master switch
211	After ignition positive (+) power supply
212	After vehicle ECU power supply relay positive (+) power supply
214	Accessories positive (+) power supply (ignition switch position 1)
215	After ignition positive (+) power supply
229	After ignition positive (+) power supply
238	After master switch positive (+) power supply (heated windscreen)
240	Brake pedal switch information
243	After ignition positive (+) power supply
247	Positive (+) power supply not capable of being cut off by master switch
260	After air suspension ECU relay power supply power supply
263	Full-time power supply for central locking of electrical locks and electrical master switch control or network isolating relay and electronic master switch power supply if FPT vehicle
268	Battery intermediate cable
270	Positive (+) power supply capable of being cut off by master switch
273	After ignition positive (+) power supply
274	After ignition positive (+) power supply
275	After ignition positive (+) power supply
291	Power supply for electronic fuel-injection function of engine and vehicle management ECUs
292	Digital power supply for engine management ECU electronic fuel-injection function
293	N° 1 cylinder injector control (line 1)
294	N° 3 cylinder injector control (line 1)
295	N° 2 cylinder injector control (line 1)
296	N° 5 cylinder injector control (line 1)

<b>Polarity N°</b>	<b>Designation</b>
297	N° 6 cylinder injector control (line 1)
298	N° 4 cylinder injector control (line 1)
2000	After heated windscreen resistor fuse power supply
2005	Brake pedal switch information
2014	After ignition positive (+) power supply (air conditioning/heating)
2016	Information between air conditioning and ventilation control ECUs
2017	Information between air conditioning and ventilation control ECUs
2018	Information between air conditioning and ventilation control ECUs
2023	After master switch positive (+) power supply for ZF retarder
2025	After ignition positive (+) power supply for ABS and EBS systems
2050	Auto/manual retarder mode demand
2056	Positive (+) power supply capable of being cut off by master switch
2057	Bodybuilder chassis power supply
2069	Automatic transmission electrovalve power supply
2070	Automatic transmission electrovalve power supply
2071	Automatic transmission electrovalve power supply
2072	Automatic transmission electrovalve power supply
2088	Automatic transmission electrovalve power supply
2093	After fuse F41/10A power supply for reversing lights control with automatic transmission and double H solenoid valve
2109	Positive (+) power supply for air suspension ECU remote control
2117	After ignition positive (+) power supply
2119	Master switch opening conditions (ADR)
2120	After master switch positive (+) power supply
2121	After ignition positive (+) power supply
2122	After ignition positive (+) power supply
2123	Engine cooling fan control
2124	Engine cooling fan control
2125	After relay vehicle ECU power supply
2126	Alternator relay control (ADR)
2127	After Optidriver master relay power supply
2128	Night lighting power supply
2132	Batteries DC positive (+) power supply (independent heating)
2221	After master switch positive (+) power supply (crane)

<b>Polarity N°</b>	<b>Designation</b>
2222	Power fuses unit positive (+) power supply
2223	After master switch positive (+) power supply (flasher unit and power fuse box)
2224	After master switch positive (+) power supply (air preheater)
2226	Alternator energizing earthing upon opening of master switch
2227	After master switch positive (+) power supply (engine immobilizer box)
2229	Alternator control power supply if engine running
2230	After master switch positive (+) power supply
2231	Accessories power supply (sun-roof)
2232	Accessories power supply (electric window winders)
2233	After master switch positive (+) power supply
2234	After ignition positive (+) power supply (bodybuilder cab pre-arrangement)
2235	Vehicle management ECU "wake up" positive (+) power supply
2302	After master switch positive (+) power supply (refrigerator and voltage dropper)
2303	Alarm siren power supply
2304	After master switch positive (+) power supply (heating)
2306	After master switch positive (+) power supply
2307	"Battery charge, engine running" information
2309	After master switch positive (+) power supply (EBS ECU)
2310	After ignition positive (+) power supply
2311	After master switch positive (+) power supply
2312	After master switch positive (+) power supply
2315	Accessories power supply (pre-arrangement)
2316	After master switch positive (+) power supply
2317	After ignition positive (+) power supply (reversing lights)
2318	"Alarm panic" system power supply
2319	Alarm siren volume reduction control power supply
2320	Optidriver power supply relay control
2323	Engine cooling fan motor
2325	After ignition positive (+) power supply (gearbox)
2327	After master switch positive (+) power supply
2328	Batteries DC positive (+) power supply
2329	After vehicle ECU relay power supply
2330	Jake brake relay power supply
2331	Power supply for dashboard 24 V electrical socket

<b>Polarity N°</b>	<b>Designation</b>
2930	N° 1 cylinder injector control (line 2)
2940	N° 3 cylinder injector control (line 2)
2950	N° 2 cylinder injector control (line 2)
2960	N° 5 cylinder injector control (line 2)
2970	N° 6 cylinder injector control (line 2)
2980	N° 4 cylinder injector control (line 2)

**Group 3 - Signalling**

<b>Polarity N°</b>	<b>Designation</b>
3	Stop lights power supply
30	Trailer RH side direction change indicator lights power supply
31	Hazard lights control
32	Vehicle RH side direction change indicator lights power supply
33	Vehicle LH side direction change indicator lights power supply
36	Trailer RH side direction change indicator lights power supply
37	RH front side and side repeater direction change indicator lights power supply
38	RH rear direction change indicators power supply
39	Trailer LH side direction change indicator lights power supply
301	LH rear direction change indicators power supply
302	LH front side and side repeater direction change indicator lights power supply
303	Side/parking lights relay control
304	RH side clearance and side/parking lights power supply
305	LH side clearance and side/parking lights power supply
306	Rear fog lights power supply before fuse
307	Rear fog lights power supply
310	After master switch power supply
311	Horn power supply
313	Side/parking lights relay 2 control
321	After master switch power supply
322	Signal lights relay control (revolving beacons, "D" lights)
323	Signal lights power supply
352	Trailer EBS activation state information
370	Rear fog lights relay control
373	After master switch power supply
386	"Heated rearview mirror" function activation demand
388	Headlamp beam corrector voltage dropper 12 V power supply

**Group 4 - Comfort accessories**

<b>Polarity N°</b>	<b>Designation</b>
4	Heated rearview mirrors + windscreen defrosting control power supply
43	Air conditioning fan relay control
45	After master switch power supply (overhead lights)
46	After radio-telephone voltage dropper 12 V power supply (GSM vocal)
47	Accessories power supply
402	Driver's side window winder motor power supply
403	Driver's side window winder motor power supply
413	Fuel pump motor negative (-) control for independent heating
414	Fuel pump motor positive (+) control for independent heating
428	Rearview mirrors negative (-) power supply
429	LH rearview mirror vertical motor positive (+) power supply
430	RH rearview mirror vertical motor positive (+) power supply
431	LH rearview mirror horizontal motor positive (+) power supply
432	RH rearview mirror horizontal motor positive (+) power supply
433	Front passenger's side electric curtain motor control
434	Front passenger's side electric curtain motor control
435	Front passenger's side electric curtain motor control
436	Doors electric striker locking command via switch
437	Headlamps ride adjustment control
443	Front passenger's side electric curtain motor control
444	LH front loudspeaker earth
447	LH front loudspeaker power supply
448	RH front loudspeaker earth
451	LH front loudspeaker power supply
452	After master switch power supply
454	Windscreen electric curtain motor control
455	Windscreen electric curtain motor control
456	After master switch power supply for accessories
462	After air conditioning compressor pressure controller block power supply
463	After fuse power supply for hydraulic retarder, automatic transmission, automatic clutch, horn and/or fan-coil unit
469	Link between driver's side and passenger's side window winder switches
470	Link between driver's side and passenger's side window winder switches



<b>Polarity N°</b>	<b>Designation</b>
476	Independent heating control
484	Doors electric striker switch-operated locking command
485	Cab tilting pump motor power supply
489	Before air conditioning compressor pressure controller block power supply
491	Air/water independent heating distribution solenoid valve
496	Passenger's side window winder motor power supply
497	Front passenger's side window winder motor power supply
4000	12 V power supply for CB radio
4002	Air/air independent heating rheostat adjustment (level 1)
4003	Diagnostic information on independent heating timer
4004	Air/air independent heating rheostat adjustment (level 2)
4005	Driver's side electric curtain motor control
4006	Driver's side electric curtain motor control
4010	12V power supply for dashboard electrical socket
4014	Sun-roof motor control
4015	Sun-roof motor control
4019	BEHR air conditioning fresh air recycling control (position 3)
4020	BEHR air conditioning fresh air recycling control (position 2)
4021	BEHR air conditioning fresh air recycling control (position 1)
4022	BEHR air conditioning fresh air recycling control (position)
4028	Ventilation unit fresh air recycling control (speed 1)
4029	Link between engine heating switch and engine heating electrovalve pilot-control relay
4030	Ventilation unit fresh air recycling control (speed 2)
4050	Ventilation unit fresh air recycling control (speed 3)
4051	12 V socket power supply for IT systems pre-arrangement via 24/12 V voltage dropper
4060	Rearview mirrors defrosting relay control via vehicle management ECU
4068	Radio control in "silence" mode via GSM hands-free set
4069	GSM hands-free set loudspeaker (+ signal)
4070	GSM hands-free set loudspeaker (- signal)
4306	Alternator-controlled power supply (engine running)
4309	12 V socket power supply for IT systems pre-arrangement via 24/12 V voltage dropper
4310	Accessories positive (+) power supply (electric seats)
4313	Front passenger's side door electric striker locking/unlocking control
4314	Front passenger's side door electric striker locking/unlocking control

<b>Polarity N°</b>	<b>Designation</b>
4315	"Passenger's side door locked" information
4316	Driver's side door electric striker locking/unlocking control
4317	Driver's side door electric striker locking/unlocking control
4318	"Driver's side door unlocked" information
4320	Air conditioning compressor information feedback
4321	Interior lighting control
4322	Stepwell lighting control
4461	12 V power supply for accessories
4462	Independent heating control (ADR)
4469	Heating "on" switch
4470	Heating control on information display (air/water)

**Group 5 - Safety accessories**

<b>Polarity N°</b>	<b>Designation</b>
54	Electric retarder power supply (level 1)
55	Electric retarder power supply (level 2)
56	Electric retarder power supply (level 3)
57	Electric retarder power supply (level 4)
59	Corrected speed information given by tachograph
500	Electronically piloted electromagnetic retarder switch box N° 1 relay control
501	After fuse power supply (windscreen wiper)
502	Windscreen wiper motor high speed power supply
503	Speed controller relay control via vehicle ECU
504	Windscreen wiper motor low speed power supply
506	Windscreen wash pump power supply
507	Windscreen wiper fixed stop
508	Windscreen wiper speed controller power supply
509	Windscreen wiper fixed stop return
510	Headlamps wash pump time-delay
539	ABS system LH front intake solenoid valve control
540	ABS system LH front exhaust solenoid valve control
557	ABS system RH front exhaust solenoid valve control
566	Speed limitation system intermediate speed memorizing
588	Electronically piloted electromagnetic retarder switch box N° 2 relay control
589	Electronically piloted electromagnetic retarder switch box N° 3 relay control
5024	Electronically piloted electromagnetic retarder switch box N° 4 relay control
5025	Electronically piloted electromagnetic retarder switch box terminal V
5028	Stop lights relay power supply via engine ECU
5048	Acceleration sensor module (VDC) power supply
5050	Trailer EBS module power supply (+ 24V)
5067	Emergency stop switch (ADR)
5069	Emergency stop switch
5070	Emergency stop switch
5077	Foot brake position sensor information (EBS)
5079	Front module (EBS) power supply (+ 24 V)
5080	Front module (EBS) earth
5081	Rear module (EBS) power supply (+ 24 V)

<b>Polarity N°</b>	<b>Designation</b>
5082	Rear module (EBS) earth
5083	Additional first module (EBS) power supply (+ 24 V)
5084	Additional first module (EBS) earth
5087	Additional second module (EBS) power supply (+ 24 V)
5088	Additional second module (EBS) earth
5089	Trailer brake information (EBS)
5091	EBS-TCM air intake electrovalve control
5092	EBS-TCM air exhaust electrovalve control
5093	EBS-TCM load electrovalve control
5094	Headlamps wash pump power supply
5095	Headlamps wash pump relay power supply
5096	High pressure pump power supply
5097	High pressure pump (PWM)
5098	After ignition positive (+) power supply (EPB)
5099	After master switch positive (+) power supply for master switch interface
5100	After master switch power supply (airbag ECU)
5101	Engine starting relay power supply
5102	Engine starting relay earthing
5103	ADR master switch control 1 (between interface and engine ECU)
5104	ADR master switch control 2 (between interface and engine ECU)
5108	Tachograph speed information for fleet management

**Group 6 - Lighting**

<b>Polarity N°</b>	<b>Designation</b>
6	Instrument panel lighting fuses and customer extra lighting power supply
60	After RH and LH side fog driving lights and information display warning light power supply
62	Main beam headlights relay energizing
64	Power supply for vehicle switches and controls night lighting
65	After fog driving lights fuse power supply
69	Fog driving lights relay energizing
602	After RH main beam headlight fuse power supply
603	After LH main beam and information display warning light fuse power supply
604	After RH dipped beam headlight fuse power supply
605	After dipped beam and information display warning light fuse power supply
606	Power supply for working spotlight, valves lighting, sockets N and S
607	Working spotlight warning light on information display
608	Reversing lights power supply
609	Long range driving lights relay energizing
611	After LH and RH long range driving lights fuse power supply
613	Before LH and RH long range driving lights fuse power supply
618	ADR socket 24P for authorization of tail-lift power circuit, valves lighting and van interior lighting power supply
621	Main beam headlights power supply after relay
632	Customer available lighting power supply (+ 24 V)
634	Trailer socket power supply (terminals 2 and 6 on 24N or 6 and 5 on 15-way socket)
635	Reversing buzzer

**Group 7 - Onboard instruments**

<b>Polarity N°</b>	<b>Designation</b>
711	Cab interior temperature probe (- signal)
712	Cab interior temperature probe (+ signal)
778	Information bit 1 between fleet management ECU and information display
779	Information bit 2 between fleet management ECU and information display
780	Information bit 3 between fleet management ECU and information display
781	Information bit 4 between fleet management ECU and information display

**Group 8 - Auxiliary equipment and monitoring**

<b>Polarity N°</b>	<b>Designation</b>
81	Engine coolant level probe
82	Engine coolant level probe
87	Rear inter-wheel diff. lock warning light on information display
88	Gearbox warning light on information display
803	Preheat resistors and/or operating warning lights power supply
808	Fuel preheater resistor power supply
813	Air suspension main rear electrovalve and 6x2 axle lift-up electrovalve energizing
814	Air suspension RH rear electrovalve energizing
815	Air suspension LH rear electrovalve energizing
823	Exhaust brake electrovalve power supply
825	Pulse generator tachograph sensors positive (+) power supply (EURO 2) or negative (-) power supply to encrypted sensor (EURO 3)
846	ASR switch
851	Diagnostic socket: terminal 11 (type 8), line K
869	Oil level probe (+ signal)
870	Oil level probe (- signal)
880	Air suspension LH rear level sensor
881	Air suspension RH rear level sensor
899	RH and LH level sensors and air suspension pressure sensors common point
8044	Variable drive cooling fan motor speed sensor earth
8046	Variable drive cooling fan motor speed sensor power supply
8077	Air suspension pressure sensors power supply
8129	Rear wheels diff. lock electrovalve control
8140	Rear drive axle level sensor earth for air suspension
8142	Rear drive axle level sensor power supply for air suspension
8143	Air suspension remote control (memory position)
8144	Air suspension remote control (lift-up position)
8145	Air suspension remote control (lowering position)
8146	Air suspension remote control (memory 2 position)
8147	Air suspension remote control (return to normal level position)
8150	Rear drive axle air intake/exhaust solenoid valve control
8153	Lift-p axle load shedding control
8156	Front axle air suspension pressure sensor

<b>Polarity N°</b>	<b>Designation</b>
8157	Lift-up axle air suspension pressure sensor
8158	Rear axle LH side air suspension pressure sensor
8159	Rear axle RH side air suspension pressure sensor
8173	Double H position sensor information
8174	Sprayer pre-arrangement (+ signal)
8175	Sprayer pre-arrangement (- signal)
8176	Tank low level alert pre-arrangement (- signal)
8177	Tank low level alert pre-arrangement (+ signal)
8178	Difficult terrain idling demand
8179	Front wheels diff. lock electrovalve control
8180	2nd axle RH/LH rear brake pad wear sensors link
8181	Rear axle 1st/2nd rear brake pad wear sensors link
8182	2nd axle RH/LH front brake pad wear sensors link
8183	Front axle 1st/2nd rear brake pad wear sensors link
8184	Master switch interface light illuminated
8185	Automatic transmission gear selector position 1 information
8186	Automatic transmission gear selector position 2 information
8187	Automatic transmission gear selector position 3 information
8188	Automatic transmission gear selector position 4 information
8189	Automatic transmission gear selector position 5 information
8190	Automatic transmission gear selector position 6 information
8191	Retarder "on" control
8192	Engine sump oil temperature sensor information (+ signal)
8194	Electrovalve D1 control
8196	Automatic transmission electrovalve A control
8197	Automatic transmission electrovalve B control
8198	Automatic transmission electrovalve C control
8199	Automatic transmission electrovalve D control
8200	Automatic transmission electrovalve E control
8201	Automatic transmission electrovalve F control
8202	Automatic transmission electrovalve G control
8203	Driving mode information
8204	Rear wheels diff. lock "Auto/Manual" demand via switch



**Group 9 - Free**

<b>Polarity N°</b>	<b>Designation</b>
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