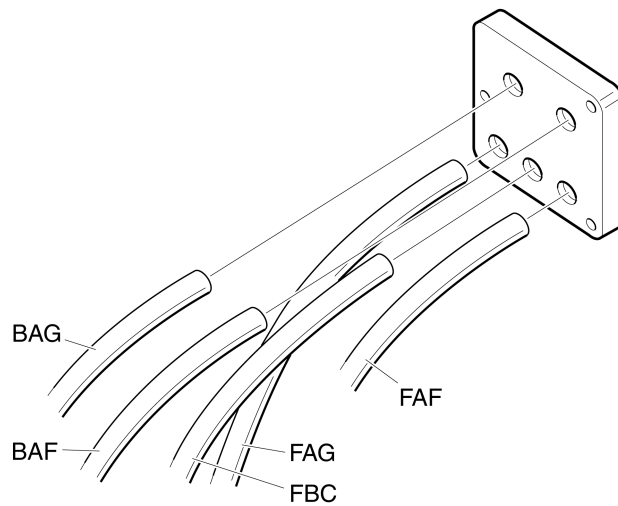


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Marking of compressed air lines and connections



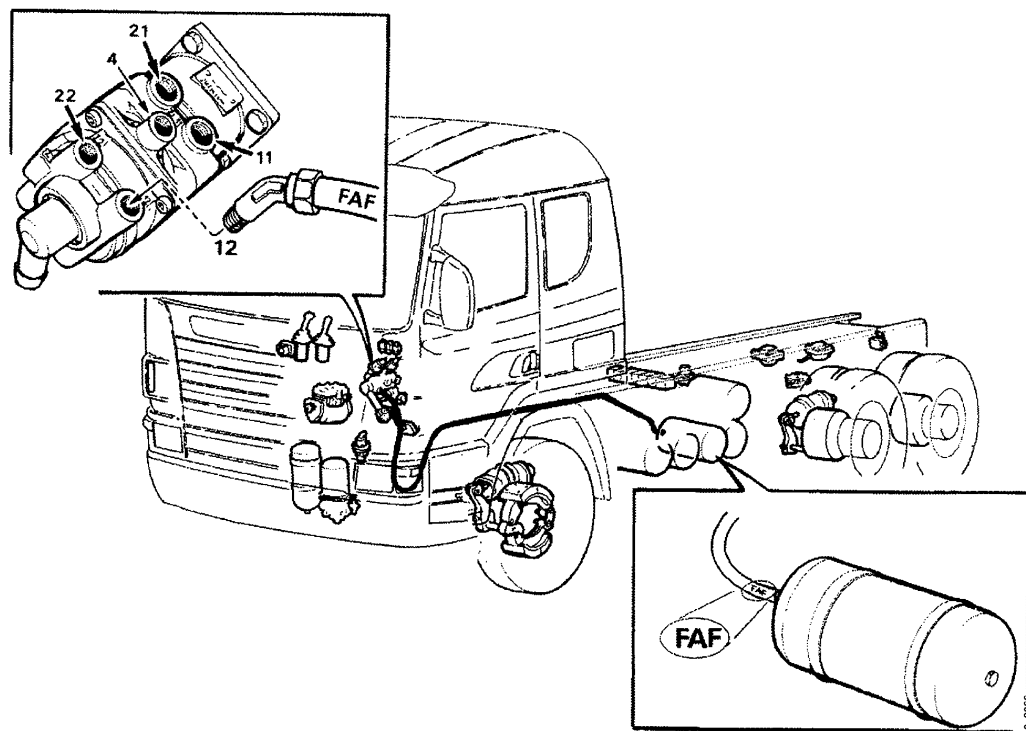
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Contents

Introduction	About this booklet 3
	Use of designation system 4
	Designation system 4
Marking of ports on brake components 5
Marking codes on compressed air pipes 6
Block circuit couplings 7
Marking codes	Supply circuit 9
	Service brake, front circuit 13
	Service brake, rear circuit 18
	Parking brake circuit 24
	Trailer brake circuit 29
	ABS/TC 33
	Extra equipment 34

The complete brake system

Introduction



About this booklet

This booklet covers the standard designations that are used on the vehicle compressed air system. The number-based designations refer to ports in the compressed air system and the letter-based designations refer to pipes in the truck chassis.

Use of designation system

The purpose of the alphanumeric system is to enable the designation, marking and identification of the compressed air system components and lines between different connections. This is to avoid incorrect fitting, and also to aid service personnel during servicing and troubleshooting.

Each letter-based designation is unique for a pipe that is routed between two specific connection points, irrespective of the length or cross-sectional area of the pipe.

This means that two lines that are not identical may have the same designation, provided that they are intended for use between the same connection points on two vehicles with different axle distances.

Designation system

The first number/letter in the designation always refers to a specific sub-system. The other numbers/letters have been generated in pure chronological/alphabetical order.

Marking of ports on brake components

0		Compressor intake
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1		Pressure in
1	1	Pressure in, identification of multiple inlets
1	2	Pressure in, identification of multiple inlets

2		Pressure out
2	1	Pressure out, identification of multiple outlets
2	2	Pressure out, identification of multiple outlets
2	3	Pressure out, identification of multiple outlets
2	4	Pressure out, identification of multiple outlets

3		Venting
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4		Control pressure (regulated pressure)/control signal
4	1	Control pressure, identification of multiple control ports
4	2	Control pressure, identification of multiple control ports
4	3	Control pressure, identification of multiple control ports

Marking codes on compressed air pipes

M = Supply circuit

F = Service brake, front circuit

B = Service brake, rear circuit

P = Parking brake circuit

S = Trailer brake circuit

X = Extra equipment

Marking codes for the systems below are not covered in this booklet:

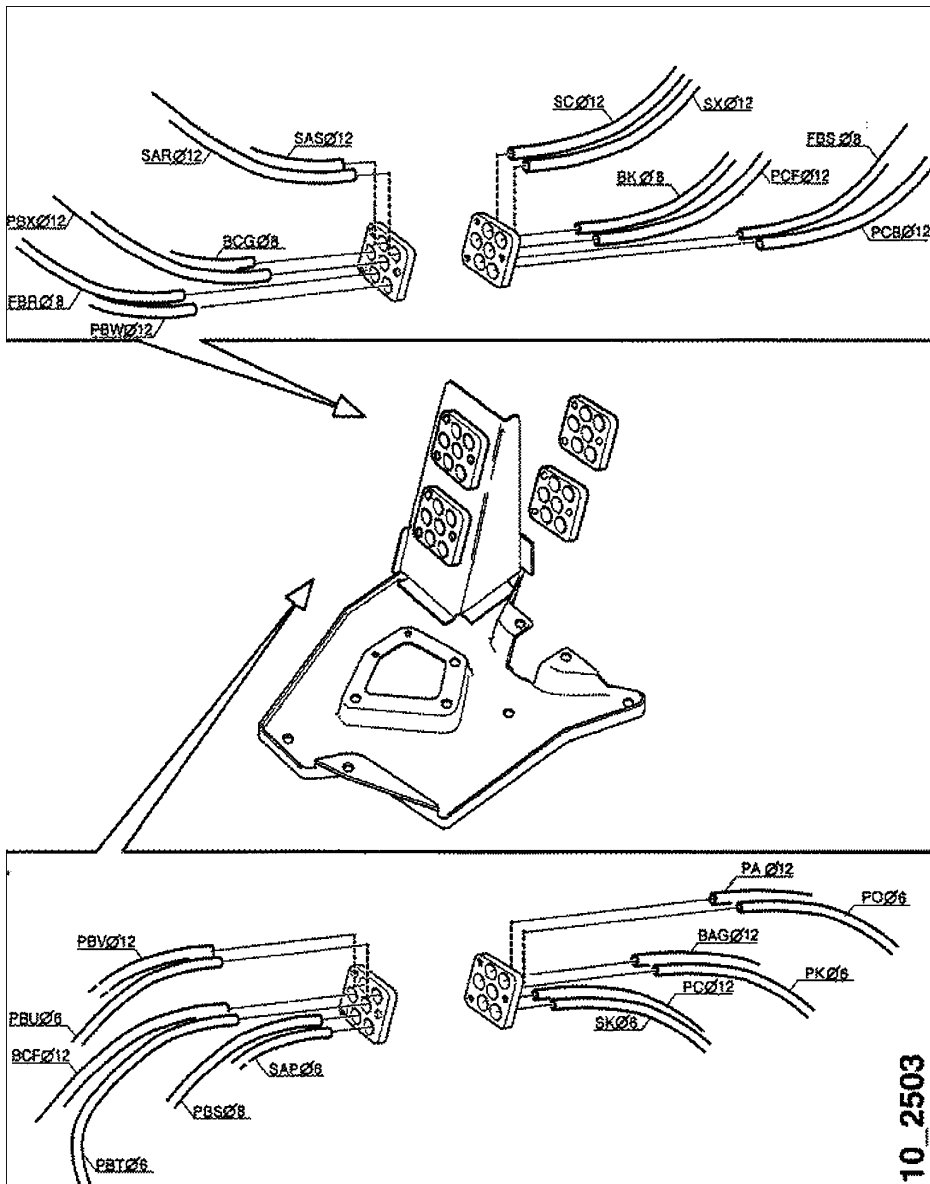
V = Gearbox control

K = Clutch servo

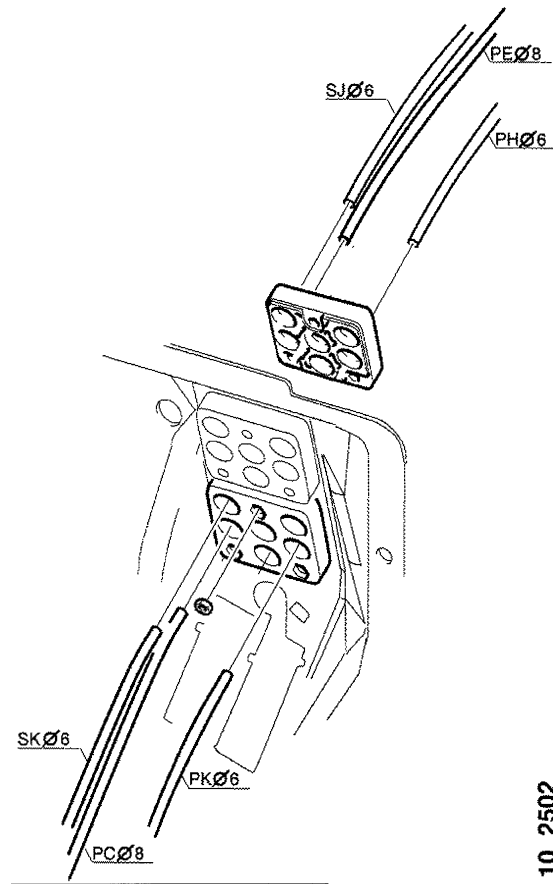
L = Air suspension

Block circuit couplings

Block circuit couplings are used when joining compressed air lines at different positions on the vehicle. The illustrations show examples of what the block circuit couplings may look like.

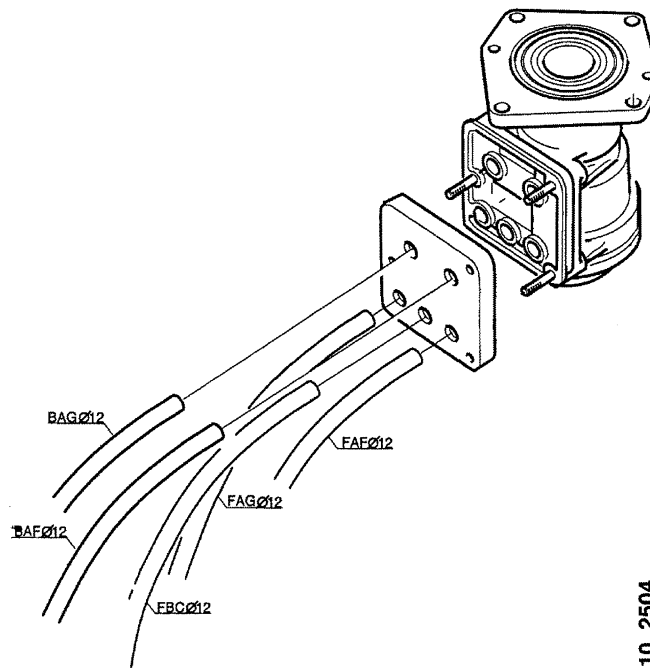


Block circuit coupling for central valve unit



10_2502

Block circuit coupling in the cab



10_2504

Block circuit coupling for service brake valve

Marking codes

Supply circuit

Pipe	Connection points	
	From	To
MA	Cooling coil	Hose
MB	Compressed air hose	Frame lead-in
MC	Wet tank	Four-circuit protection valve
MD	Frame lead-in	Wet tank
ME	Four-circuit protection valve, four-way lead-in union valve shelf	Pressure regulator
MF	Air dryer	Frame lead-in (wet tank)
MG	Pressure regulator	Alcohol injector
MH	Alcohol reservoir	Alcohol injector
MJ	Alcohol injector	Frame lead-in (wet tank)
MK	Pressure regulator	Compressor
ML	Pressure regulator, lead-in union	Compressor
MM	Wet tank	Compressed air tank, front circuit
MN	Pressure regulator	Compressor
MO	Air dryer	Compressor, pressure regulator
MP	Pressure regulator	Compressor
MR	Compressor	Air dryer
MS	Air dryer	Compressor
MT	Hose	Frame lead-in (wet tank)
MU	Wet tank, air dryer	Pressurising valve
MV	Hose	Air dryer
MW	Pressure limiting valve	Four-circuit protection valve
MX	Wet tank 1	Pressure regulator
MY	Wet tank 2	Pressure regulator
MZ	Wet tank 3	Pressure regulator

Pipe	Connection points	
	From	To
MAA	Wet tank	Compressed air tank, rear circuit
MAB	Compressed air tank, rear circuit	Compressed air tank, parking brake, trailer
MAC	Compressed air tank, parking brake, trailer	Four-way lead-in union
MAD	Compressor	Cooling coil
MAE	Hose	Air dryer
MAF	Air dryer1	Pressurising valve
MAG	Air dryer2	Pressurising valve
MAH	Air dryer2	Pressurising valve
MAJ	Overflow valve	Compressed air tank
MAK	Alcohol injector 1	Frame lead-in
MAL	Alcohol injector 2	Frame lead-in
MAM	Air dryer	Extra tank
MAN	Compressed air tank	Compressed air tank
MAO	Air dryer/hose assembly	Four-circuit protection valve/2-stage pressure limiting valve
MAP	Air dryer, frame lead-in	2nd four-circuit protection valve, manifold fitting
MAR	Frame lead-in	Pressure regulator
MAS	Air dryer	Check valve (wet tank), hose assembly
MAT	Nipple in frame lead-in	Safety valve, pressurising valve
MAU	Frame lead-in 1	Wet tank
MAV	Frame lead-in 2	Wet tank
MAW	Air dryer	Wet tank
MAX	Pressure regulator	Compressor, lead-in union
MAY	Hose assembly	Check valve, wet tank, hose assembly, relief valve
MAZ	Compressed air tank	3/2 Valve
MBA	Pressure regulator	3/2 Valve
MBB	3/2 Valve	Pressure regulator for high pressure

Pipe	Connection points	
	From	To
MBC	Manifold fitting	Compressed air tank, rear circuit
MBD	Wet tank	Pressure regulator
MBE	Manifold fitting	Compressed air tank, front circuit
MBF	Air dryer	2-stage pressure regulator
MBG	Air dryer	Compressed air tank, air suspension
MBH	Overflow valve, tank 1	Tank 2, air suspension
MBJ	Tank 2, air suspension	Tank 3, air suspension
MBK	Tank 3, air suspension	Tank 4, air suspension
MBL	Tank 4, air suspension	Tank 5, air suspension
MBM	Tank 5, air suspension	Tank 6, air suspension
MBN	Wet tank, air dryer	Pressurising valve, right

Service brake, front circuit

Pipe	Connection points		Continues as
	From	To	
FA	Four-circuit protection valve	Compressed air tank, front circuit	
FB	Bracket on frame, right hand side	ABS control valve, hose bracket, right	
FC	Compressed air tank, front circuit	Block circuit coupling, foot-operated control valve, service brake front circuit	
FD	Block circuit coupling, compressed air tank, front circuit	Joint nipple in cab, foot-operated control valve, service brake front circuit	
FE	Block circuit coupling, compressed air tank, front circuit	Foot-operated control valve, service brake front circuit	
FF	Joint nipple in cab, compressed air tank, front circuit	Foot-operated control valve, service brake, front circuit	
FG	Foot-operated control valve, service brake, front circuit	Block circuit coupling, quick exhaust valve, front load dependent valve	
FH	Joint nipple	ABS control valve	
FJ	Quick exhaust valve, front load dependent valve	Bracket on frame, left hand side	
FJ	Applies to 8x2 and 8x4: Relay valve	Bracket on frame, left hand side, right hand side	
FK	Joint nipple left hand side, right hand side	Bracket on frame, right hand side, left hand side	
FL	Quick exhaust valve, front load dependent valve, front outlet	ABS control valve, joint nipple	
FM	Quick exhaust valve, front load dependent valve, rear outlet	ABS control valve, joint nipple	
FN	Block circuit coupling, foot-operated control valve, service brake, front circuit	Quick exhaust valve, front load dependent valve	
FO	Quick exhaust valve, front load dependent valve	Frame lead-in, left hand side	
FO	Applies to 8x2 and 8x4: relay valve	Joint nipple left hand side, right hand side	
FP	Test connection	Front load dependent valve	
FR	Load dependent valve, manifold fitting	Relay valve	

Pipe	Connection points		Continues as
	From	To	
FS	Compressed air tank	Relay valve	
FT	Relay valve	Diaphragm chamber, right hand side	
FU	Relay valve	Diaphragm chamber, right hand side	
FV	Relay valve	Diaphragm chamber, left hand side	
FW	1 Footbrake valve	Brake chamber, left	
FX	2 Footbrake valve	Brake chamber, left	
FY	1 Footbrake valve	Brake chamber, right	
FZ	Footbrake valve	Brake chamber, right	
FAA	Block circuit coupling	Manifold fitting, nipple	
FAB	Manifold fitting	Quick exhaust valve	
FAC	Manifold fitting	Quick exhaust valve	
FAD	Manifold fitting	Quick exhaust valve	
FAE	Quick exhaust valve, manifold fitting	Frame lead-in, right hand side	
FAF	Compressed air tank, front circuit	Brake valve	
FAG	Brake valve	Brake chamber, ABS control valve, left hand side, right hand side 1st	
FAG1	Footbrake valve	Lead-in union, cab	
FAG2	Lead-in union, chassis	Quick exhaust valve, front circuit	
FAG3	Footbrake valve	Lead-in union, chassis	
FAH	Brake valve	Manifold fitting, left	
FAJ	Brake valve	Relay valve	
FAK	Bracket, shock absorber	ABS control valve	
FAL	Brake valve	Brake chamber	
FAM	Relay valve, front circuit	Compressed air tank 2	
FAN	Relay valve	ABS control valve, left	
FAO	ABS control valve, left	Brake chamber, axle 1, left	
FAP	ABS control valve, left	Lead-in union	
FAR	1st crossmember, frame lead-in	Quick exhaust valve	
FAS	Manifold fitting	1st brake chamber right	

Pipe	Connection points		Continues as
	From	To	
FAT	Footbrake valve	2nd brake chamber right	
FAU	Block circuit coupling	Brake chamber, right	
FAV	Brake chamber, left, 1st crossmember, frame lead-in	Brake chamber, right/left	
FAW	Relay valve	ABS control valve, right	
FAX	ABS control valve, right	Brake chamber, axle 1, right	
FAY	ABS control valve, right	Brake chamber, axle 2, right	
FAZ	Lead-in union	Brake chamber, axle 2, left	
FBA	Compressed air tank, front circuit	Joint nipple	
FBB	Joint nipple	Relay valve	
FBC	Service brake valve	1st crossmember, lead-in union	
FBD	ABS control valve, joint nipple, right	Hose bracket, right	
FBE	Joint nipple, right hand drive	Bracket on frame, right hand side	
FBF	Brake valve	Double check valve, left	
FBG	Brake valve	Double check valve, right	
FBH	ABS control valve, left	Joint nipple	
FBJ	ABS control valve	Bracket on frame, right hand side	
FBK	Foot-operated control valve	Quick exhaust valve	
FBL	Relay valve, front circuit	Joint nipple, left hand side	
FBM	Relay valve, front circuit	Joint nipple, right hand side	
FBN	Relay valve, front circuit	Manifold fitting, rear circuit	
FBO	Foot brake valve, four-circuit protection valve	Pressure sensor, front circuit	
FBP	Footbrake valve	Relay valve, front circuit	
FBR	Block circuit coupling, central valve assembly	Manifold fitting, test connection, front circuit	FBS
FBS	ABS control valve/lead-in union	Block circuit coupling, central valve assembly	
FBT	Compressed air tank 1, front circuit	Compressed air tank 2, front circuit	

Pipe	Connection points		Continues as
	From	To	
FBU	Compressed air tank 1, front circuit	EBS module, left front	
FBV	EBS module, left front	Hose lead-in	
FBW	EBS module, right front	Hose lead-in	
FBX	Joint nipple	EBS module, right front	
FBY	Hose lead-in, left front	Brake chamber, left front	
FBZ	Hose lead-in, right front	Brake chamber, right front	
FCA	Compressed air tank, front circuit	Joint nipple	
FCB	Four-circuit protection valve	Pressure limiting valve, front circuit	
FCC	Four-circuit protection valve	Relay valve, front circuit	
FCD	Relay valve, front circuit	ABS control valve, front axle, left	
FCE	Relay valve, front circuit	Lead-in union, frame, right	
FCF	Relay valve, front circuit	Emergency brake valve SR-1	
FCG1	ABS control valve, left	Lead-in union	
FCG2	Lead-in union	Relay valve, left	
FCH1	Brake chamber 1st axle, left hand side	Lead-in union	
FCH2	Lead-in union	Relay valve, left	
FCJ1	ABS control valve, right	Lead-in union	
FCJ2	Lead-in union	Relay valve, right	
FCK1	Brake chamber 1st axle, right hand side	Lead-in union	
FCK2	Lead-in union	Relay valve, right	
FCL	Compressed air tank, front circuit	Relay valve, left side	
FCM	Compressed air tank, front circuit	Relay valve, right side	
FCN	Quick exhaust valve, front circuit	Brake chamber or ABS control valve, left side	
FCO	Quick exhaust valve, front circuit	Brake chamber or ABS control valve, right side	

Service brake, rear circuit

Pipe	Connection points	
	From	To
BA	Four-circuit protection valve	Compressed air tank 1, rear circuit/lead-in, crossmember
BB	Relay valve, rear circuit	Joint nipple/manifold fitting (brake chamber, rear axle)
BC	Compressed air tank 1, rear circuit	Compressed air tank 2, rear circuit
BD	Manifold fitting	Brake chamber, rear axle/tag axle, left
BE	Compressed air tank 1, rear circuit	Block circuit coupling, foot-operated control valve, service brake, rear circuit
BF	Manifold fitting	Brake chamber, rear axle/tag axle, right
BG	Block circuit coupling, compressed air tank 1, rear circuit	Foot-operated control valve, service brake, rear circuit
BH	Foot-operated control valve, service brake, rear circuit	Block circuit coupling, T-union, rear circuit
BJ	Block circuit coupling, foot-operated control valve, service brake, rear circuit	T-union, rear circuit/manifold fitting
BK	Valve unit lower block circuit coupling, connection 3	Relay valve rear circuit/load sensing valve
BL	Load sensing valve, rear	Relay valve, rear circuit
BM	Manifold fitting	Brake chamber right, spring brake chamber, rear axle
BN	Relay valve, rear circuit	Double check valve
BO	Brake chamber, right	Brake chamber, left
BP	Manifold fitting	Brake chamber left, spring brake chamber, rear axle
BR	Relay valve rear circuit/joint nipple (3/2 valve)	Front load dependent valve/valve shelf
BS	Hose assembly, T-union, rear circuit	Load dependent valve, rear (6x4)
BT	Compressed air tank, rear circuit	Joint nipple (relay valve rear circuit)
BU	Joint nipple, compressed air tank 1, rear circuit	Relay valve, rear circuit

Pipe	Connection points	
	From	To
BV	From axle distance dependent pipe	Rear circuit relay valve (four-spring bogie + air suspension + balance tandem)/EB valve (pre-production vehicles only)
BW	Relay valve	ABS control valve, Bosch
BX	Brake chamber, left, rear axle	Brake chamber, right, rear axle
BY	Relay valve/ABS control valve	Brake chamber, front bogie axle, right
BZ	Relay valve/ABS control valve	Brake chamber, front bogie axle, right hand side
BAA	Relay valve	ABS control valve, front bogie axle, right hand side
BAB	Relay valve	ABS control valve, front bogie axle, right hand side
BAC	Relay valve/ABS control valve	Hose bracket, front bogie axle, left hand side
BAD	Relay valve/ABS control valve	Hose bracket, rear bogie axle, left hand side
BAE	Joint nipple, pipe BU/BT	Joint nipple, pipe BV
BAF	Four-circuit protection valve	Service brake valve
BAG	Brake valve	Block circuit coupling, central valve assembly
BAH	Manifold fitting, rear circuit	Double check valve, parking
BAJ	Brake valve	Double check valve
BAL	Relay valve	Bracket on frame
BAM	Joint nipple	Joint nipple, rear circuit, supply
BAN	Block circuit coupling, compressed air tank, rear circuit	Joint nipple in cab, foot-operated control valve, service brake, rear circuit
BAO	Pedal panel	Footbrake valve
BAR	Bracket on frame	Relay valve
BAS	Pressure reduction valve	Brake chamber, left, tag axle
BAT	ABS control valve	Pressure reduction valve, right
BAU	Pressure reduction valve	Brake chamber, right, tag axle
BAV	Compressed air tank 2, rear circuit	Solenoid valve for pressure reduction
BAX	Solenoid valve for pressure reduction	Pressure reduction valve, left
BAY	Pressure reduction valve, left	Pressure reduction valve, right
BAZ	ABS control valve	Pressure reduction valve, left

Pipe	Connection points	
	From	To
BBA	Valve shelf	Foot-operated control valve, cab, load sensing, front
BBB	Compressed air tank 2, rear circuit	Compressed air tank 3, rear circuit
BBC	Relay valve	TC solenoid valve
BBD	TC solenoid valve	Double check valve, left
BBE	TC solenoid valve	Double check valve, right
BBH	ABS control valve, left	TC relay valve, left
BBJ	Relay valve, left	Brake chamber, axle 2, left
BBK	Relay valve, right	Brake chamber, axle 2, right
BBL	Relay valve/double check valve	TC relay valve, right
BBM	TC relay valve, right	TC relay valve, left
BBN	ABS control valve, right	TC relay valve, right
BBO	TC relay valve, left	Pressure reduction valve, left
BBP	TC relay valve, right	Pressure reduction valve, right
BBR	EB valve (pre-production vehicles only)	Relay valve
BBS	Relay valve	EB valve (pre-production vehicles only)
BBT	EB valve (pre-production vehicles only)	ABS control valve, left
BBU	EB valve (pre-production vehicles only)	ABS control valve, right
BBV	ABS control valve, left	Pressure sensor, left
BBW	ABS control valve, right	Pressure sensor, right
BBX	ABS relay valve, left	Trailer relay valve, port 42
BBY	EB valve (pre-production vehicles only)	Solenoid valve (TC)
BBZ	ABS solenoid valve	TC relay valve, left
BCA	ABS solenoid valve	TC relay valve, right
BCB	Joint nipple, compressed air tank, rear circuit	Joint nipple, relay valve, rear circuit
BCC	Four-circuit protection valve port 21	Pressure sensor, rear circuit

Pipe	Connection points	
	From	To
BCD	Relay valve	3/2 valve
BCE	3/2 valve	Joint nipple, load dependent valve, left front
BCF	Valve unit, upper block circuit coupling, connection 3	Manifold fitting, test connection, rear circuit
BCG	Manifold fitting/test connection, rear circuit	Block circuit coupling, central valve assembly
BCH	Relay valve	ABS control valve, right hand side
BCJ	Relay valve	ABS control valve, left hand side
BCK	Compressed air tank, rear circuit	Relay valve
BCL	Compressed air tank, rear circuit	Relay valve
BCM	TC relay valve, left	Double TC check valve, left
BCN	TC relay valve, right	Double TC check valve, right
BCO	Rear manifold fitting	TC solenoid valve
BCP	Rear load dependent valve	TC relay valve, right
BCR	TC relay valve, right	Relay valve, rear circuit
BCS	Relay valve, rear circuit	TC relay valve, left
BCT	Relay valve/ABS control valve	Solenoid valve for pressure reduction, ABS
BCU	Relay valve/ABS control valve	Lead-in union, left, tag axle
BCV	Relay valve	Lead-in union, right, tag axle
BCX	Solenoid valve (TC)	Double check valve
BCY	TC relay valve, left	Lead-in union, tag axle
BCZ	TC relay valve, right	Lead-in union, tag axle
BDA	Relay valve, port 4	Pressure limiting valve
BDB	Pressure limiting valve	Pressure reduction valve, left
BDC	Pressure limiting valve	Pressure reduction valve, right
BDD	Manifold fitting, air spring	3/2 valve, air spring/load sensing valve
BDE	Manifold fitting, air spring	3/2 valve, air spring/load sensing valve
BDF	Double check valve	3/2 valve, air spring/load sensing valve
BDG	Compressed air tank, rear circuit/ lead-in, crossmember	EBS module, left rear/EBS axle module, right connection rear

Pipe	Connection points	
	From	To
BDH	Compressed air tank, rear circuit	EBS module, right rear/EBS axle module, left connection, rear
BDJ	Pipe BK T-union	Relay valve, tag axle
BDK	Quick exhaust valve	EBS module, left rear
BDL	EBS module, centre, rear/EBS axle module 1st driving axle, left connection	Lead-in union, right hand side member/brake hose bracket, right hand side
BDM	Air bellows	Pressure sensor, EBS
BDN	Compressed air tank 1, rear circuit	Compressed air tank 2, rear circuit
BDO	Lead-in union, crossmember	Compressed air tank
BDP	Compressed air tank/lead-in union, crossmember	EBS module, centre rear
BDR	EBS module, right, rear/EBS axle module, rear/EBS axle module, 2nd driving axle	EBS module, centre, rear/EBS wheel module, rear/EBS axle module, 1st driving axle
BDS	EBS module, centre, rear/EBS axle module 1st driving axle, right connection	Lead-in union, left hand side member/Brake hose bracket, left hand side
BDT	Pipe BK T-union	Relay valve, bogie axles
BDU	Compressed air tank, rear circuit	Relay valve, tag axle
BDV	Compressed air tank, rear circuit	Relay valve, tag axle
BDW	Four-circuit protection valve	Emergency brake valve SR-1
BDX	Compressed air tank, rear circuit	EBS axle module 1st driving axle, right connection
BDY	Compressed air tank, rear circuit	EBS axle module 1st driving axle, left connection
BYB	Left bellows/manifold fitting	Protection valve, air suspension/load sensing brakes
BYC	Protection valve, air suspension	Load-sensing valve, air suspension
BYD	Relay valve, rear circuit, port 1	Protection valve, load sensing brakes, air suspension

Parking brake circuit

Pipe	Connection points		Continues as
	From	To	
PA	Four-circuit protection valve	Valve unit, upper block circuit coupling, connection 1	PBV
PB	Brake chamber, right rear	Brake chamber, left rear	
PC	Block circuit coupling, cab	Block circuit coupling, central valve assembly	PE
PD	Manifold fitting/quick exhaust valve	Brake chamber, left	
PE	Block circuit coupling, cab	Pressurising valve, interlock valve, manual control valve	
PF	Manifold fitting/quick exhaust valve	Brake chamber, right	
PG	Interlock valve	Manual control valve, parking brake	
PH	Manual control valve, parking brake	Low pressure indicator, block circuit coupling, cab	PK
PJ	Low pressure indicator	Pedal panel, parking brake relay valve	
PK	Block circuit coupling, cab	Block circuit coupling, central valve assembly	PBT
PK2	Cab wall, block circuit coupling, cab	Emergency brake valve, parking, SR-1	
PK3	Emergency brake valve, parking, SR-1	Supply dump valve	
PK4	Emergency brake valve, parking, SR-1	Block circuit coupling, central valve assembly	
PK5	Block circuit coupling, cab	Supply dump valve	
PK6	Supply dump valve	Block circuit coupling, central valve assembly	
PL	Compressed air tank, parking brake/trailer	Parking brake relay valve	
PM	Pedal panel, four-circuit protection valve	Low pressure monitor	
PN	Relay valve, parking brake quick exhaust valve, emergency brake valve, parking	Double check valve, nipple, rear axle	
PO	Block circuit coupling, central valve assembly	Low pressure monitor, parking/trailer	

Pipe	Connection points		Continues as
	From	To	
PP	Double check valve	Brake chamber, left hand side, tag axle, air suspension	
	Relay valve, parking brake quick exhaust valve		
PS	Brake chamber, left hand side, tag axle	Brake chamber, right hand side, tag axle, air suspension	
PT	Double check valve, front axle	Quick exhaust valve, load dependent valve front	
PT	Applies to 8x2 and 8x4: Double check valve, front axle	Relay valve	
PU	Double check valve, front axle	Front wheel, left hand side	
PV	Compressed air tank, parking brake, trailer	Angled lead-in union, valve shelf	
PW	Front wheel, left	Front wheel, right	
PX	Hose bracket, front axle, left	Side member	
PY	Pressurising valve	Manual control valve, parking brake, without interlock valve	
PZ	Manual control valve, parking brake, without interlock valve	Venting/block circuit coupling, cab	
PAA	Pedal panel, manual control valve, parking brake	Quick exhaust valve	
PAC	Four-circuit protection valve	Pressure limiting valve	
PAD	Double check valve	Manifold fitting	
PAE	Compressed air tank	Pedal panel	
PAF	Double check valve	Front wheel, 1st right	
PAG	Double check valve	Front wheel, 2nd right	
PAH	Pressure limiting valve	Check valve, compressed air tank	
PAJ	Pressure monitor	Pedal panel	
PAK	Joint nipple in pedal panel, compressed air tank, rear circuit	Parking brake valve MV-2	
PAL	Joint nipple in pedal panel, compressed air tank, rear circuit	Parking brake valve MV-2	
PAM	Double check valve, cab	Parking brake valve MV-2	

Pipe	Connection points		Continues as
	From	To	
PAN	Pedal panel	Parking, emergency brake valve	
PAO	Compressed air tank, rear circuit	Parking, emergency brake valve	
PAP	Parking, emergency brake valve	Control valve, trailer/tractor, protection valve	
PAR	Quick exhaust valve	Hose, rear	
PAS	Quick exhaust valve	Hose, front	
PAT	Parking brake, compressed air tank	Test connection	
PAU	Relay valve	Brake chamber, right	
PAV	Relay valve	Brake chamber, front left	
PAW	Parking brake relay valve	Brake chamber, front	
PAX	T-union, driving axle	Quick exhaust valve, rear bogie axle	
PAY	Parking brake relay valve	Brake chamber, 1st right	
PAZ	Parking brake relay valve	Brake chamber, 2nd right	
PBA	Double check valve	Parking brake relay valve	
PBB	Footbrake valve	Emergency Brake Valve	
PBC	Manifold fitting/quick exhaust valve	Brake chamber, rear axle, left	
PBD	Manifold fitting/quick exhaust valve	Brake chamber, rear axle, right	
PBE	Manifold fitting	Double check valve	
PBF	Footbrake valve	Pedal panel	
PBG	Rear circuit supply	Pedal panel	
PBJ	Footbrake valve, compressed air tank, rear circuit	Double check valve	
PBL	Double check valve	Pedal panel, parking brake valve, PP1	
PBM	Pedal panel, (double check valve)	Parking brake valve, PP1	
PBN	Parking brake relay valve	Joint nipple, front, left hand side	
PBO	Joint nipple, front, left hand side	Brake chamber, front, left hand side	

Pipe	Connection points		Continues as
	From	To	
PBP	Relay valve, parking brake quick exhaust valve, emergency brake valve, parking	Lead-in union	
PBR	Lead-in union	Double check valve, nipple, rear axle	
PBS	Block circuit coupling, central valve assembly	Relay valve, parking brake, port 22	PC
PBT	Block circuit coupling, central valve assembly	Double check valve	
PBU	Manifold fitting, pressure limiting valve	Block circuit coupling, central valve assembly	PO
PBV	Block circuit coupling, central valve assembly	Pressure limiting valve, port 1	
PBW	Relay valve, parking brake, port 21	Lower block circuit coupling, central valve assembly	PCB
PBX	Relay valve, parking brake, port 21	Lower block circuit coupling, central valve assembly	PCF
PBY	Manifold fitting, pressure limiting valve	Relay valve, parking brake, port 1	
PCA	Manifold fitting, test connection, rear circuit	Double check valve, parking brake	
PCB	Block circuit coupling, central valve assembly	Lead-in union, brake chamber, axle 1, left	PCC
PCC	Lead-in union, brake chamber, axle 1, left	Lead-in union, frame side member, left front	PCD
PCD	Lead-in union, frame side member, left front	Joint nipple, right hand side	
PCD	Lead-in union, frame side member, left front	Joint nipple, right hand side	
PCE	Joint nipple, right hand side	Lead-in union, brake chamber, axle 1, right	
PCF	Block circuit coupling, central valve assembly	Joint nipple, driving axle	
PCG	Joint nipple, driving axle	Joint nipple, tag axle	
PCH	Quick exhaust valve	Brake chamber, front bogie axle, left	
PCJ	Quick exhaust valve	Brake chamber, front bogie axle, right	
PCK	Quick exhaust valve	Lead-in union, left front	

Pipe	Connection points		Continues as
	From	To	
PCL	Quick exhaust valve	Lead-in union, frame side member, left front	
PCM	Double check valve, disengaging device (parking brake/load handling)	Quick exhaust valve, disengaging device (parking brake/load handling)	
PCN	Hose lead-in, right front	Brake chamber, right front	

Trailer brake circuit

Pipe	Connection points		Continues as
	From	To	
SA	Compressed air tank, parking brake/trailer	Trailer relay valve	
SB	Block circuit coupling, supply dump valve	Low pressure indicator	
SC	Block circuit coupling, central valve assembly	Trailer connection, supply	
SC2	Block circuit coupling, central valve assembly	Supply dump valve	
SC3	Supply dump valve	Hose coupling for trailer connection	
SD	Manual control valve for trailer brake	Block circuit coupling, cab, venting	
EN	Trailer relay valve	Supply dump valve, supply	
SF	Parking brake valve MV-2	Pedal panel	
SG	Supply dump valve	Union, rear circuit	
SH	Pedal panel, foot brake valve	Manual control valve, service brake on trailer	
SJ	Trailer brake valve	Block circuit coupling, cab	SK
SK	Block circuit coupling, cab	Block circuit coupling, central valve assembly	SAP
SK2	Pedal panel, block circuit coupling, cab	Supply dump valve	
SK3	Supply dump valve	Block circuit coupling, central valve assembly	
SL	Double check valve, trailer, manifold fitting	Trailer relay valve	
SM	Joint nipple in cab, parking brake valve MV-2	Block circuit coupling	
SN	Trailer relay valve	Supply dump valve, control	
SO	Manual control valve, parking brake	Manual control valve, trailer brake	
SP	Manifold fitting, nipple	Control valve, trailer/tractor, protection valve	
SR	Supply dump valve, protection valve	Pedal panel, low pressure indicator	

Pipe	Connection points		Continues as
	From	To	
SS	Pedal panel	Control valve, trailer/tractor, protection valve	
ST	Trailer relay valve	Quick exhaust valve, load dependent valve front, foot brake valve	
SU	Manual control valve, parking brake	Block circuit coupling, trailer relay valve	
EN	Pedal panel	Control valve, trailer/tractor, protection valve	
SW	Compressed air tank, trailer	Extra compressed air tank, trailer	
SX	Block circuit coupling, central valve assembly	Trailer connection, control	
SX2	Block circuit coupling, central valve assembly	Quick exhaust valve	
SX3	Quick exhaust valve	Hose coupling for trailer connection	
SY	Pressure monitor	Pedal panel	
SZ	Block circuit coupling, manual control valve, parking brake	Trailer relay valve	
SAA	Four circuit protection valve	Trailer relay valve	
SAB	Trailer relay valve	Manifold fitting	
SAC	Double check valve	Manifold fitting	
SAD	Trailer relay valve	Union, brake chamber, right	
SAE	Trailer connection, supply, front	Air dryer	
SAF	Trailer connection, control, front	Quick exhaust valve	
SAG	Quick exhaust valve	Double check valve, front circuit, left	
SAH	Quick exhaust valve	Double check valve, front circuit, right	
SAJ	Quick exhaust valve	Double check valve, rear circuit	
SAK	Foot brake valve, compressed air tank, rear circuit	Pedal panel, manual control valve	
SAL	Double check valve, ELB	Trailer relay valve	
SAM	ABS control valve	Solenoid valve	
SAN	Solenoid valve	Trailer relay valve	

Pipe	Connection points		Continues as
	From	To	
SAO	ASR relay valve, right	Double check valve, ELB	
SAP	Block circuit coupling, central valve assembly	Trailer relay valve, port 43	
SAR	Trailer relay valve, port 22	Block circuit coupling, central valve assembly	SX
SAS	Valve unit, block circuit coupling, lower, connection 1	Trailer relay valve, port 12	SC
SAT	Pressure limiting valve for parking/trailer brake circuit	Trailer relay valve, port 11	
SAU	Manifold fitting, test connection, rear circuit	Trailer relay valve, port 41	
SAV	Manifold fitting, test connection, front circuit	Trailer relay valve, port 42	
SAX	Trailer relay valve	Lead-in union	
SAY	Lead-in union	Joint nipple	
SAZ	T-union (SC), trucks equipped with double trailer connections	Trailer connection, supply	
SBA	T-pipe (SX), trucks equipped with double trailer connections	Trailer connection, control	
SBB	T-pipe (SC), trucks equipped with double trailer connections	Trailer connection, supply, outside of frame	
SBC	T-pipe (SX), trucks equipped with double trailer connections	Trailer connection, supply, outside of frame	
SBD	Trailer connection, supply, front	Switch control valve, supply	
SBE	Trailer connection, control, front	Switch control valve, control	
SBF	Switch control valve, supply	Wet tank, air dryer	
SBG	Switch control valve, control	Quick exhaust valve	

ABS/TC

Pipe	Connection points	
	From	To
BAS	Pressure reduction valve	Brake chamber, left, tag axle
BAT	ABS control valve	Pressure reduction valve, right
BAU	Pressure reduction valve	Brake chamber, right, tag axle
BAX	Solenoid valve for pressure reduction	Pressure limiting valve, left
BAY	Solenoid valve for pressure reduction	Pressure limiting valve, right
BAZ	ABS control valve	Pressure reduction valve, left
BBD	TC solenoid valve	Double check valve, left
BBE	TC solenoid valve	Double check valve, right
BBH	ABS, left	TC relay valve, left
BBL	Relay valve, axle 1	TC relay valve, axle 2, right
BBM	ASR relay valve, axle 2, right	TC relay valve, axle 2, left
BBN	ABS, right	TC relay valve, right
BBO	ABS, left	Pressure reduction valve, left
BBP	ABS, right	Pressure reduction valve, right
BCH	Relay valve	ABS control valve, rear bogie axle, right
BCJ	Relay valve	ABS control valve, rear bogie axle, left
BCP	Load sensing valve, rear	TC relay valve, right
BCR	TC relay valve, right	Relay valve, rear circuit
BCS	Relay valve, rear circuit	TC relay valve, left
BCT	Relay valve	Solenoid valve for pressure reduction
BCU	Relay valve	Joint nipple, hose to brake chamber, left
BCV	Relay valve	Joint nipple, hose to brake chamber, right
BCX	Solenoid valve (TC)	Double check valve

Extra equipment

Pipe	Connection points	
	From	To
XA	Manifold fitting	Solenoid valves
XB	Solenoid valve, differential lock	Union, differential lock control
XC	Union in rear axle housing	Union, engaging of axle differential lock
XD	T-union	Union, engaging of axle differential lock
XE	T-union, solenoid valve	Union, engaging of rear axle differential lock
XF	Solenoid valve	Nipple, disengaging, bogie differential lock
XG	Manifold fitting	Valve, battery master switch
XH	Valve, battery master switch, connecting	Cylinder, battery master switch, connecting
XJ	Solenoid valve/proportional valve, exhaust brake, white smoke limiter	Lead-in union on engine
XK	Solenoid valve	Exhaust brake 2nd
XL	Solenoid valve	Exhaust brake 3rd
XM	Four-circuit protection valve	Manifold fitting, centre
XAA	Four-circuit protection valve, four-way union	Manifold fitting, front
XAD	Four-circuit protection valve	Protection valve
XAJ	Manifold fitting, crossmember	Manifold fitting, pedal panel
XAX	Four-circuit protection valve	Air filter
XCE	Four-circuit protection valve	Block circuit coupling, cab, lower
XCJ	Manifold fitting, centre	Manifold fitting, rear