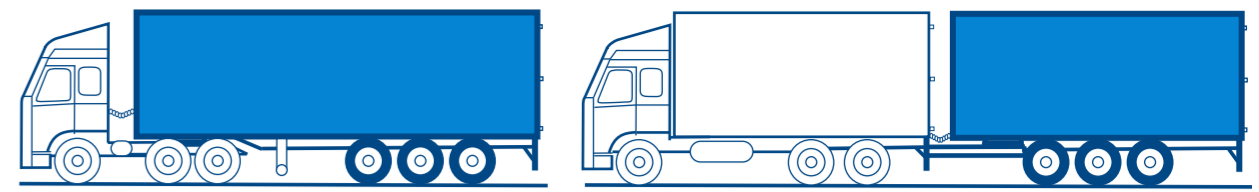


TEBS G2.2 System Component Overview - Semi-trailer and Centre-axle Trailer (2S/2M) with Raise/Lower Valve and pneumatically controlled Lift Axle



Coupling Head with integral Filter

K162828N00 - KU1400 Supply (red)
 K162829N00 - KU1410 Control (yellow)
 K162830N00 - KU1412 Control (yellow), with Test Point

Quattromatic Coupling Heads:
 K002640 - KU1414 for Semi-trailer - Fig. A
 K002641 - KU1415 for Centre-axle Trailer - Fig. B

for further Coupling Head variants see Product Data Sheet Y011338

Park/Shunt Valve

with integrated Charging Valve for Semi-trailers and Centre-axle Trailers

K141700N00 - AE4370 Park/Shunt Valve with integrated Charging Valve, without Plate
 K056570N00 Operation Instruction Plate

For further details see Product Data Sheet Y095829

Trailer Information Module (TIM G2)

K009166¹⁾ - EZ1035 Trailer Information Module (TIM G2) with integral battery
 K070605¹⁾ - EZ1035 Trailer Information Module (TIM G2) without integral battery, e.g. for use on ADR trailers

Modular In-Out cable from Brake Module to TIM G2
 K022272N00 Length 4 m
 K022279N00 Length 6 m

TEBS - PC Diagnostics

I139808F - EZ1034 24V-CAN Adapter Cable - Fig. A
 I139809F - EZ1031 Universal Diagnostic Interface (UDIF) incl. Cable Z005474 - Fig. B
 I139812F - EZ1032 Connecting Cable (UDIF - CAN) - Fig. C
 Z007887 USB Adapter Cable (UDIF - PC)

Trailer Data Plate

I139797F Silver Foil Data Plate (Print from ECUtalk*) - Fig. A
 I139796F ISO 7638 Headboard Information Sticker - Fig. B
 K112780N00 TEBS Sticker - Fig. C

Trailer EBS Brake Module

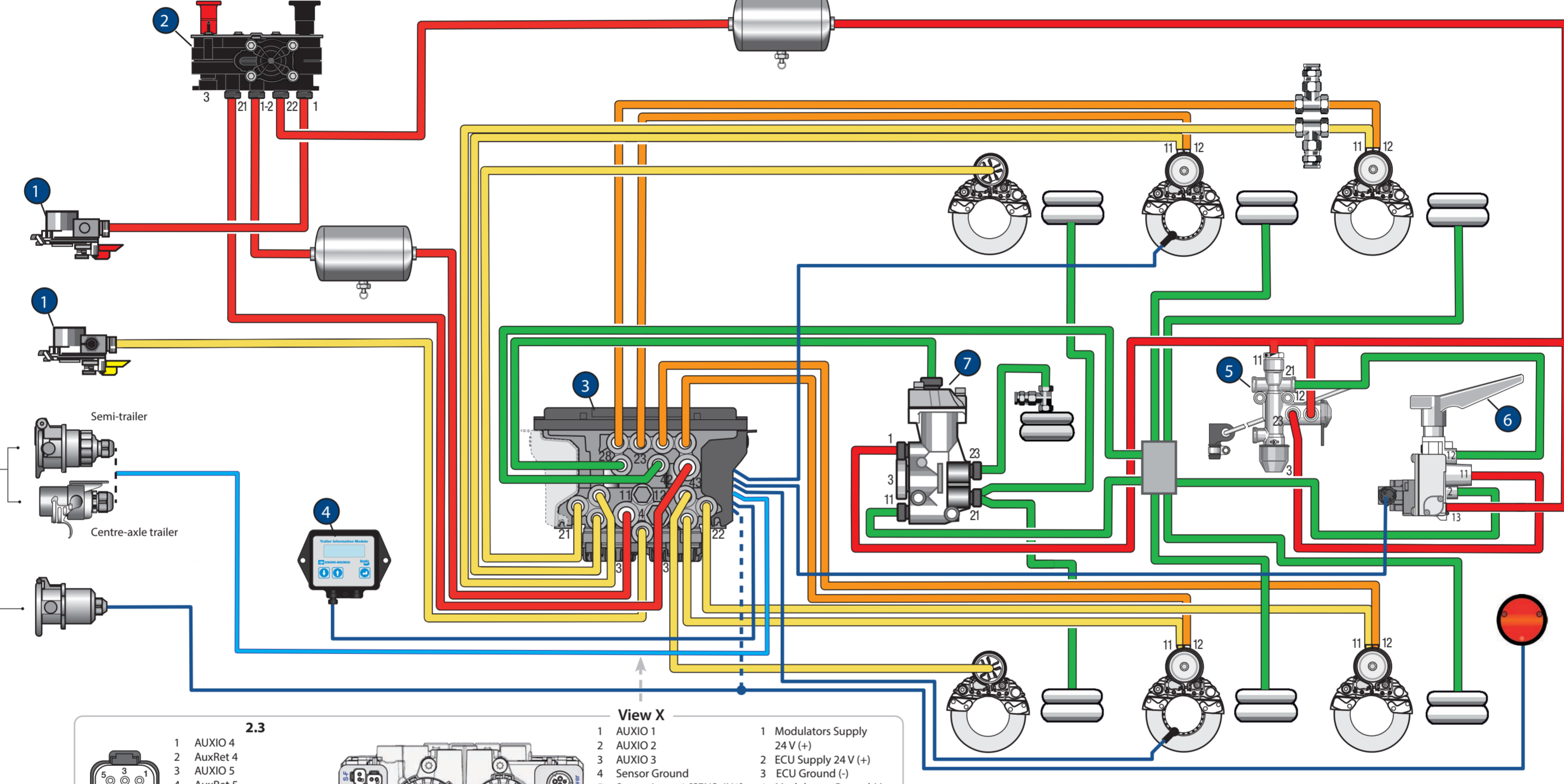
K0553...¹⁾ - ES2090 TEBS G2.2 Standard and Standard Plus Brake Modules
 K1106...¹⁾ - ES2095 TEBS G2.2 Premium Brake Modules

for further TEBS G2 variants see Product Data Sheet Y136107 & Y200882

TEBS G2.2 Standard Plus
 OE version IAM version

(TEBS G2.2 Premium has second side cover)
 K000847K50 Silencer
 K092404K50 Side Cover
 K004904K50 Port Filters (Ports 11 & 12)
 K108643K50 Port Filters (Port 4)

Note: All TEBS G2 brake modules must be programmed and an "End of Line Test" (EOL) carried out after installation!



ISO 7638 - Pin Allocation

1 - red	Modulators (24V)
2 - black	ECU (24V)
3 - yellow	ECU (Ground)
4 - brown	Modulators (Ground)
5 - white	Warning lamp
6 - white/green	Data line CAN-H
7 - white/brown	Data line CAN-L

ISO 12098 - Pin Allocation

1 - yellow	L/H Indicators
2 - green	R/H Indicators
3 - blue	Rear fog lights
4 - white	Ground for 1 - 3 & 5 - 12
5 - black	L/H Side Lights
6 - brown	R/H Side Lights
7 - red	Stop lamps
8 - pink	Reversing lamps
9 - orange	24 V supply
10 - grey	Brake Wear indicator
11 - black/white	Parking brake applied
12 - blue/white	Lift axle status
13 - red/white	Ground for CAN (14 & 15)
14 - green/white	CAN-H (not ABS/EBS)
15 - brown/white	CAN-L (not ABS/EBS)

7 Pin ISO 7638 Cable

K004098N00 - EK3150 ISO 7638 Connecting Cable Tractor to Trailer (Susie), with buckling protection

Blanking Plugs

K026197V01N00 Blanking Plug for In-Out Connector - Fig. A

TEBS G2.2 Premium
 Z005861 Blanking Plug for 2.3 or 2.4 Connectors - Fig. B
 Z005860 Blanking Plug for WSS Connectors - Fig. B

Push to Connect (PTC) fittings - Fig. C
 96210008 8 mm pipe
 96210012 12 mm pipe
 96210015 15 mm pipe

Note: Unused connectors must be plugged.

ISO 7638 Chassis Cable 7 Pin

K008430N00 ISO 7638 Socket + 10 m Cable (Semi-trailer) - Fig. A
 K008431N00 ISO 7638 Socket + 13 m Cable (Semi-trailer) - Fig. A

K008432N00 ISO 7638 Socket (90° Connector) + 16 m Cable (Semi-trailer) - Fig. B

K010710N00 ISO 7638 Socket + 10 m Cable (Centre-axle Trailer) - Fig. C
 K010711N00 ISO 7638 Socket + 13 m Cable (Centre-axle Trailer) - Fig. C

I88007 ISO 7638 Dummy Socket (Mounting Bracket Part No. B86617) - Fig. D

For other Power Supply Cables see Product Data Sheet Y142784

View X

1 AUXIO 4	1 Modulators Supply 24 V (+)
2 AuxRet 4	2 ECU Supply 24 V (+)
3 AUXIO 3	3 ECU Ground (-)
4 AuxRet 5	4 Modulators Ground (-)
5 Sensor Ground	5 Warning Lamp
6 Sensor Input 1 [SENS_IN1] (analogue or Tristate)	6 TT CAN-H (ISO 11992)
7 Sensor Supply [SENS_SUP] (analogue or Tristate)	7 TT CAN-L (ISO 11992)
8 Stop Lamp Supply (+)	
9 Stop Lamp Ground (-)	
10 TI CAN-L (J1939)	
11 TI CAN-H (J1939)	
12 AuxRet 3	
13 AuxRet 6	
14 Sensor Input 2 [SENS_IN2] (analogue)	
15 Not connected	

Legend

- Supply
- Control/Service Brake
- Parking Brake
- Air Suspension
- CAN Connection and ISO 7638 Power Supplies
- Electrical Signals and ISO 12098 (24N) Stop Lamp Power

Levelling Valve

K194770N00 - SV1395 Levelling Valve - Fig. A
 K194769N00 - SV1465 Levelling Valve with Height Limitation and Datum Adjustment - Fig. B
 K194773N00 - SV1466 Levelling Valve with Height Limitation - Fig. B
 K194771N00 - SV1478 Levelling Valve - Fig. A
 K193628 Lower Linkage

For further Levelling Valve variants see Product Data Sheet Y011375

Raise/Lower Valve

I136151 - SV3230 Raise/Lower Valve with pneumatic "Speed Pulse" Function (reset to ride height - Rtr) - Fig. A
 K054888N00 - SV3241 Raise/Lower Valve with electrical "Speed Pulse" Function (Rtr), Test Point, Adaptor Plate - Fig. B
 K054885N00 - SV3273 Raise/Lower Valve with electrical "Speed Pulse" Function (Rtr), Test Point, Legend Plate - Fig. C
 K022847N00 - SV3801 Raise/Lower Valve with electrical "Speed Pulse" Function (Rtr), direct acting solenoid - Fig. D

I136226004 Handle Kit
 Z006844 Legend Plate
 K016334K50 Solenoid Kit (for SV32...)
 K022901K50 Solenoid Kit (for SV3801)

For other Raise/Lower Valves see Product Data Sheets Y183920, Y095621, Y011377

Lift Axle Valve

K125537N00 - AE1141 5/2 Way Lift Axle Valve, 24 V Solenoid controlled - Fig. A
 K015384N00 - AE1141 5/2 Way Lift Axle Valve, 24 V Solenoid controlled - Fig. B*
 K017224N00 - AE1141 5/2 Way Lift Axle Valve, pneumatically controlled - Fig. C*
 K016334K50 Solenoid Kit for K125537N00 and K015384N00

*PTC-connections, non-removable exhaust valve

Wheel Speed Sensor and Connecting Cables

Sensors
 K144126K50* Radial (90°), Length 0.4 m
 K144128K50* Radial (90°), Length 1.0 m
 K145033K50 Axial, Length 1.0 m
 *complete with Bush and Grease

Connecting Cables
 K0278323000 Length 3 m
 K0278324000 Length 4 m
 K0278326000 Length 6 m
 K02783210000 Length 10 m

For other Sensors and Cables see Trailer Catalogue Y007570

¹⁾The part number of the module will carry two suffixes, firstly "V##" which represents the software revision of the product, e.g. V01, V02 etc., and secondly "N##" which defines the packaging requirements of different market sectors, e.g. N00, N99. Example: K55342V03N99 - is supplied with software to revision 03 and is supplied with packaging.

TEBS G2.2 Premium Component Overview - Semi-trailer (4S/3M) with iCargo and electrically controlled Lift Axle



Coupling Head with integral Filter

K162828N00 - KU1400	Supply (red)
K162829N00 - KU1410	Control (yellow)
K162830N00 - KU1412	Control (yellow), with Test Point

Quattromatic Coupling Heads:
K002640 - KU1414 for Semi-trailer - Fig. A
for further Coupling Head variants see Product Data Sheet Y011338

Park/Shunt Valve

with integrated Charging Valve for Semi-trailers and Centre-axle Trailers

K141700N00 - AE4370 Park/Shunt Valve with integrated Charging Valve, without Plate

K056570N00 Operation Instruction Plate

For further details see Product Data Sheet Y095829

Trailer Information Module (TIM G2)

K009166¹⁾ - EZ1035 Trailer Information Module (TIM G2) with integral battery

K070605¹⁾ Trailer Information Module (TIM G2) without integral battery, e.g. for use on ADR trailers

Modular In-Out cable from Brake Module to TIM G2
K022272N00 Length 4 m
K022279N00 Length 6 m

TEBS - PC Diagnostics

I139808F - EZ1034 24V-CAN Adapter Cable - Fig. A
I139809F - EZ1031 Universal Diagnostic Interface (UDIF) incl. Cable Z005474 - Fig. B
I139812F - EZ1032 Connecting Cable (UDIF - CAN) - Fig. C
Z007887 USB Adapter Cable (UDIF - PC)

Trailer Data Plate

I139797F Silver Foil Data Plate (Print from ECUtalk[®]) - Fig. A
I139796F ISO 7638 Headboard Information Sticker - Fig. B
K112780N00 TEBS Sticker - Fig. C

Trailer EBS Brake Module

K110612¹⁾ - ES2090 TEBS G2.2 Standard and Standard Plus Brake Modules
K110619¹⁾ - ES2095 TEBS G2.2 Premium Brake Modules
for further TEBS G2 variants see Product Data Sheet Y200882

OE version TEBS G2.2 Premium IAM version

(TEBS G2.2 Premium has second side cover)
K000847K50 Silencer
K092404K50 Side Cover
K004904K50 Port Filters (Ports 11 & 12)
K108643K50 Port Filters (Port 4)

Note: All TEBS G2 brake modules must be programmed and an "End of Line Test" (EOL) carried out after installation!

ISO 7638 - Pin Allocation

1 - red	Modulators (24V)
2 - black	ECU (24V)
3 - yellow	ECU (Ground)
4 - brown	Modulators (Ground)
5 - white	Warning lamp
6 - white/green	Data line CAN-H
7 - white/brown	Data line CAN-L

ISO 12098 - Pin Allocation

1 - yellow	L/H Indicators
2 - green	R/H Indicators
3 - blue	Rear fog lights
4 - white	Ground for 1 - 3 & 5 - 12
5 - black	L/H Side Lights
6 - brown	R/H Side Lights
7 - red	Stop lamps
8 - pink	Reversing lamps
9 - orange	24 V supply
10 - grey	Brake Wear indicator
11 - black/white	Parking brake applied
12 - blue/white	Lift axle status
13 - red/white	Ground for CAN (14 & 15)
14 - green/white	CAN-H (not ABS/EBS)
15 - brown/white	CAN-L (not ABS/EBS)

7 Pin ISO 7638 Cable

K004098N00 - EK3150 ISO 7638 Connecting Cable Tractor to Trailer (Susie), with buckling protection

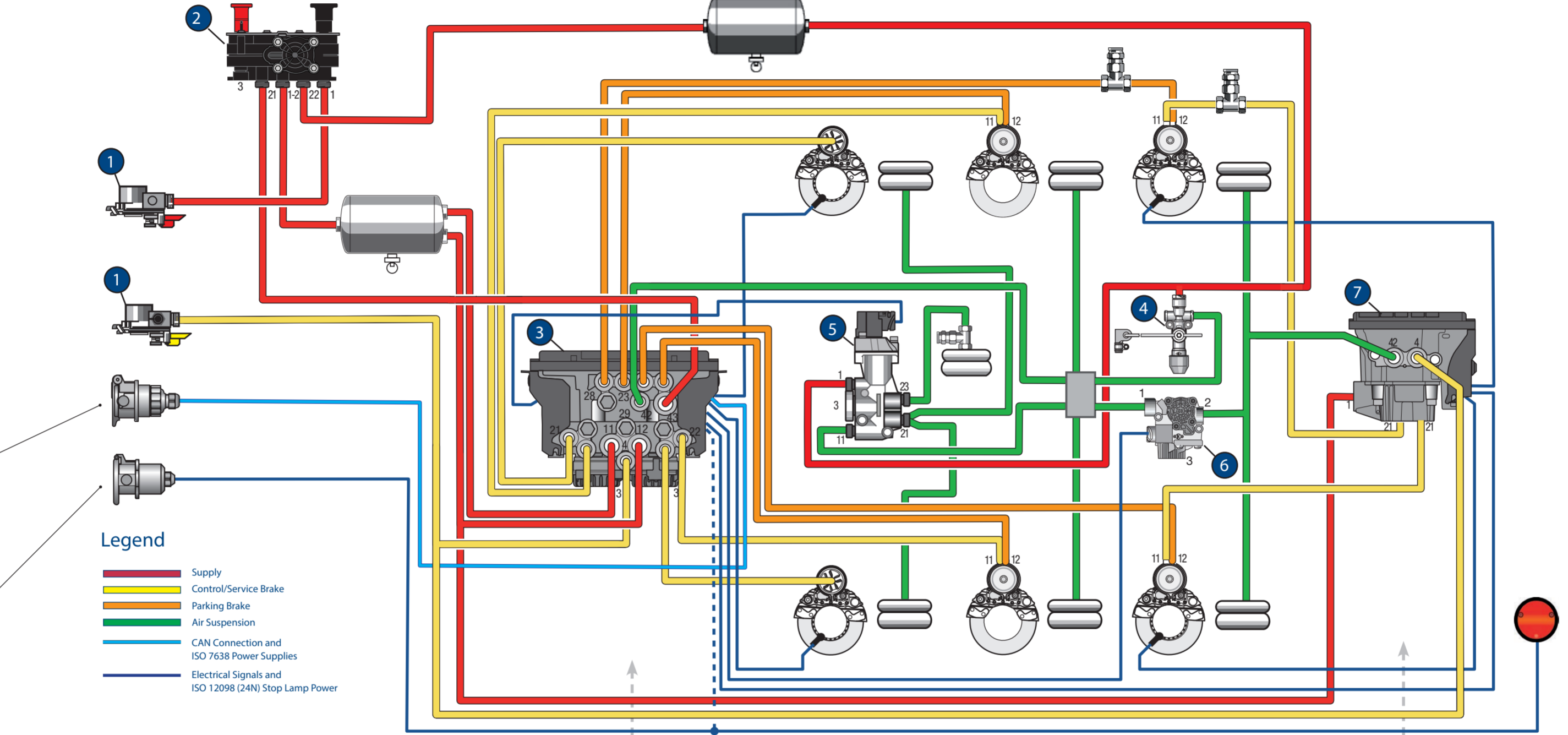
Blanking Plugs

K026197V01N00 Blanking Plug for In-Out Connector - Fig. A

TEBS G2.2 Premium
Z005861 Blanking Plug for 2.3 or 2.4 Connectors - Fig. B
Z005860 Blanking Plug for WSS Connectors - Fig. C

Push to Connect (PTC) fittings - Fig. C
96210008 8 mm pipe
96210012 12 mm pipe
96210015 15 mm pipe

Note: Unused connectors must be plugged.



2.3

1	AUXIO 4
2	AuxRet 4
3	AUXIO 5
4	AuxRet 5
5	J1939 Brake CAN-L
6	J1939 Brake CAN-H

2.4

1	Sensor Supply [SENS_SUP2] (analogue or Tristate)
2	Sensor Ground 2
3	AUXIO 6
4	AuxRet 6
5	Sensor Input 2 [SENS_IN2] (analogue)
6	Not connected

TEBS G2.2 Premium connectors shown, for full details of pin connections see Trailer Catalogue Y007570.

View X

1	AUXIO 1
2	AUXIO 2
3	AUXIO 3
4	Sensor Ground
5	Sensor Input 1 [SENS_IN1] (analogue or Tristate)
6	Sensor Supply [SENS_SUP] (analogue or Tristate)
7	Stop Lamp Supply (+)
8	Stop Lamp Ground (-)
9	TI CAN-L (J1939)
10	TI CAN-H (J1939)
11	AuxRet 3
12	AuxRet 12 (Return for AUXIO 1 & 2)

View Y

1	Modulators Supply 24 V (+)
2	ECU Supply 24 V (+)
3	ECU Ground (-)
4	Modulators Ground (-)
5	Warning Lamp
6	TT CAN-H (ISO 11992)
7	TT CAN-L (ISO 11992)

X1

1	5 VTI CAN-L
2	Not used
3	Not used
4	Sensor 1 Supply
5	Not used
6	Supply (12 V/24 V)
7	5 VTI CAN-H
8	AUXIO 2
9	Sensor 1 Input
10	Sensor 1 Ground
11	Sensor 2 Supply
12	Not used
13	Not used
14	AUXIO 1
15	Not used
16	AUXIO 12 Return
17	Sensor 2 Ground
18	Sensor 2 Input
19	Ground

For full details on pin connections see Trailer Catalogue Y007570.

7 Pin ISO 7638 Chassis Cable 7 Pin

K008430N00 ISO 7638 Socket + 10 m Cable (Semi-trailer) - Fig. A
K008431N00 ISO 7638 Socket + 13 m Cable (Semi-trailer) - Fig. A
K008432N00 ISO 7638 Socket (90° Connector) + 16 m Cable (Semi-trailer) - Fig. B
K002290 ISO 7638 Socket, 7 pin, with Pins - Fig. C

For other Power Supply Cables see Product Data Sheet Y142784

In-Out Plug and Cable (Examples)

K027860N00 In-Out Cable for SP on AUXIO 1 - Fig. A
K027863N00 In-Out Cable for SP/LAC on AUXIO 1, Stop Lamp powering/TH, open ended - Fig. B
K027861N00 In-Out Cable for Stop Lamp powering on AUXIO 1 - Fig. C
K002281N00 Connecting Cable (15 m) open ended, various possible connections - Fig. D
K002275N00 Aux Connecting Cable 2-pole (6.5 m), e.g. LAC, SP - Fig. E
K091439N00 12-Pin Deutsch Plug complete with blanking plugs - Fig. F

TH = Traction Help
LAC = Lift Axle Control
SP = Speed Pulse (e.g. signal for reset to ride height)

For other modular cables see Product Data Sheet Y142784

Trailer Electro-Pneumatic Module (TEPM-P)

K027900¹⁾ - ES2071 Trailer Electro-Pneumatic Module Premium (with additional Inputs/Outputs) for trailers with 4S/3M Systems and Port 42 for separate load sensing.

Cables
K097066N00 Connecting Cable TEPM-P to TEBS G2.2 Connector 2.3 (9 m) - Fig. A
K027814N00 Connecting Cable TEPM-P to TEBS G2.2 Premium Module via cable K02227. (3 m) - Fig. B
I1367562000 - EK3130 Wheel Speed Sensor Connecting Cable for TEPM-P (2 m) - Fig. C

For other modular cables see Product Data Sheet Y095618

Leveling Valve

K194770N00 - SV1395 Levelling Valve - Fig. A
K194769N00 - SV1465 Levelling Valve with Height Limitation and Datum Adjustment - Fig. B
K194773N00 - SV1466 Levelling Valve with Height Limitation - Fig. B
K194771N00 - SV1478 Levelling Valve - Fig. A
K193628 Lower Linkage

For further Levelling Valve variants see Product Data Sheet Y011375

Raise/Lower Valve

I136151 - SV3230 Raise/Lower Valve with pneumatic "Speed Pulse" Function (reset to ride height - RTR) - Fig. A
K054888N00 - SV3241 Raise/Lower Valve with electrical "Speed Pulse" Function (RTR), Test Point, Adaptor Plate - Fig. B
K054885N00 - SV3273 Raise/Lower Valve with electrical "Speed Pulse" Function (RTR), Test Point, Legend Plate - Fig. C
K022847N00 - SV3801 Raise/Lower Valve with electrical "Speed Pulse" Function (RTR), direct acting solenoid - Fig. D

I136226004 Handle Kit
Z006844 Legend Plate
K016334K50 Solenoid Kit (for SV32...)
K022901K50 Solenoid Kit (for SV3801)

For other Raise/Lower Valves see Product Data Sheets Y183920, Y095621, Y011377

Lift Axle Valve

K125537N00 - AE1141 5/2 Way Lift Axle Valve, 24 V Solenoid controlled - Fig. A
K015384N00 - AE1141 5/2 Way Lift Axle Valve, 24 V Solenoid controlled - Fig. B*
K017224N00 - AE1141 5/2 Way Lift Axle Valve, pneumatically controlled - Fig. C*
K016334K50 Solenoid Kit for K125537N00 and K015384N00

* PTC-connections, non-removable exhaust valve

Wheel Speed Sensor and Connecting Cables

Sensors
K144126K50* Radial (90°), Length 0.4 m
K144128K50* Radial (90°), Length 1.0 m
K145033K50 Axial, Length 1.0 m
*complete with Bush and Grease

Connecting Cables
K0278323000 Length 3 m
K0278324000 Length 4 m
K0278326000 Length 6 m
K02783210000 Length 10 m

For other Sensors and Cables see Product Data Sheet Y011363

Pressure Control Valve (PCV)

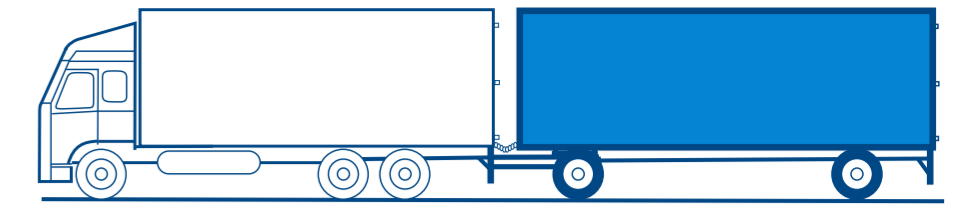
K038468N00 Pressure Control Valve e.g. for trailers with iCargo

PCV Connecting Cables to In-Out Connector
K095321N00 1.5 m for connection to TEPM-P
K002277N00 3 m for connection to TEBS G2.2
K002278N00 9 m }
K002279N00 15 m } Brake Module

For other modular cables see Product Data Sheet Y142784

¹⁾The part number of the module will carry two suffixes, firstly "V#*" which represents the software revision of the product, e.g. V01, V02 etc., and secondly "N#*" which defines the packaging requirements of different market sectors, e.g. N00, N99. Example: K55342V03N99 - is supplied with software to revision 03 and is supplied with packaging.

TEBS G2.2 Premium Component Overview - Drawbar Trailer (4S/3M)



Coupling Head with integral Filter

1

K162828N00 - KU1400 Supply (red)
 K162829N00 - KU1410 Control (yellow)
 K162830N00 - KU1412 Control (yellow), with Test Point

Quattromatic Coupling Heads:
 K002641 - KU1415 for Drawbar trailers

For further Coupling Head variants see Product Data Sheet Y011338

Trailer EBS Brake Module

3

K110612¹⁾ - ES2090 TEBS G2.2 Standard and Standard Plus Brake Modules
 K110619¹⁾ - ES2095 TEBS G2.2 Premium Brake Modules
 for further TEBS G2 variants see Product Data Sheet Y200882

TEBS G2.2 Premium
 OE version IAM version

(TEBS G2.2 Premium has second side cover)
 K000847K50 Silencer
 K092404K50 Side Cover
 K004904K50 Port Filters (Ports 11 & 12)
 K108643K50 Port Filters (Port 4)

Note: All TEBS G2 brake modules must be programmed and an "End of Line Test" (EOL) carried out after installation!

ISO 7638 - Pin Allocation

1 - red	Modulators (24V)
2 - black	ECU (24V)
3 - yellow	ECU (Ground)
4 - brown	Modulators (Ground)
5 - white	Warning lamp
6 - white/green	Data line CAN-H
7 - white/brown	Data line CAN-L

ISO 12098 - Pin Allocation

1 - yellow	L/H Indicators
2 - green	R/H Indicators
3 - blue	Rear fog lights
4 - white	Ground for 1 - 3 & 5 - 12
5 - black	L/H Side Lights
6 - brown	R/H Side Lights
7 - red	Stop lamps
8 - pink	Reversing lamps
9 - orange	24 V supply
10 - grey	Brake Wear indicator
11 - black/white	Parking brake applied
12 - blue/white	Lift axle status
13 - red/white	Ground for CAN (14 & 15)
14 - green/white	CAN-H (not ABS/EBS)
15 - brown/white	CAN-L (not ABS/EBS)

ISO 7638 Chassis Cable 7 Pin

K010710N00 ISO 7638 Plug + 10m Cable (Drawbar Trailer) - Fig. A
 K010711N00 ISO 7638 Plug + 13m Cable (Drawbar Trailer) - Fig. A
 K021138N00 Extension Cable, 4 m - Fig. B
 K028001N00 Extension Cable, 10 m - Fig. C
 K002291 ISO 7638 Plug, 7-pin, with Pins - Fig. C

For other Power Supply Cables see Trailer Catalogue Y007570

Blanking Plugs

K026197V01N00 Blanking Plug for In-Out Connector - Fig. A

TEBS G2.2 Premium - Fig. B
 Z005861 Blanking Plug for 2.3 or 2.4 Connectors
 Z005860 Blanking Plug for WSS Connectors

Push to Connect (PTC) fittings - Fig. C
 96210008 8 mm pipe
 96210012 12 mm pipe
 96210015 15 mm pipe

Note: Unused connectors must be plugged.

Park/Shunt Valve

2

with integrated Charging Valve for Drawbar Trailers
 K141699N00 - AE4371 Park/Shunt Valve with integrated Charging Valve and Front Axle Release Valve (FAV), without Plate
 Operation Instruction Plate
 K056570N00
 For further details see Product Data Sheet Y095829

Trailer Information Module (TIM G2)

4

K009166¹⁾ - EZ1035 Trailer Information Module (TIM G2) with integral battery
 K070605¹⁾ Trailer Information Module (TIM G2) without integral battery, e.g. for use on ADR trailers

Modular In-Out cable from Brake Module to TIM G2
 K022272N00 Length 4 m
 K022279N00 Length 6 m

TEBS - PC Diagnostics

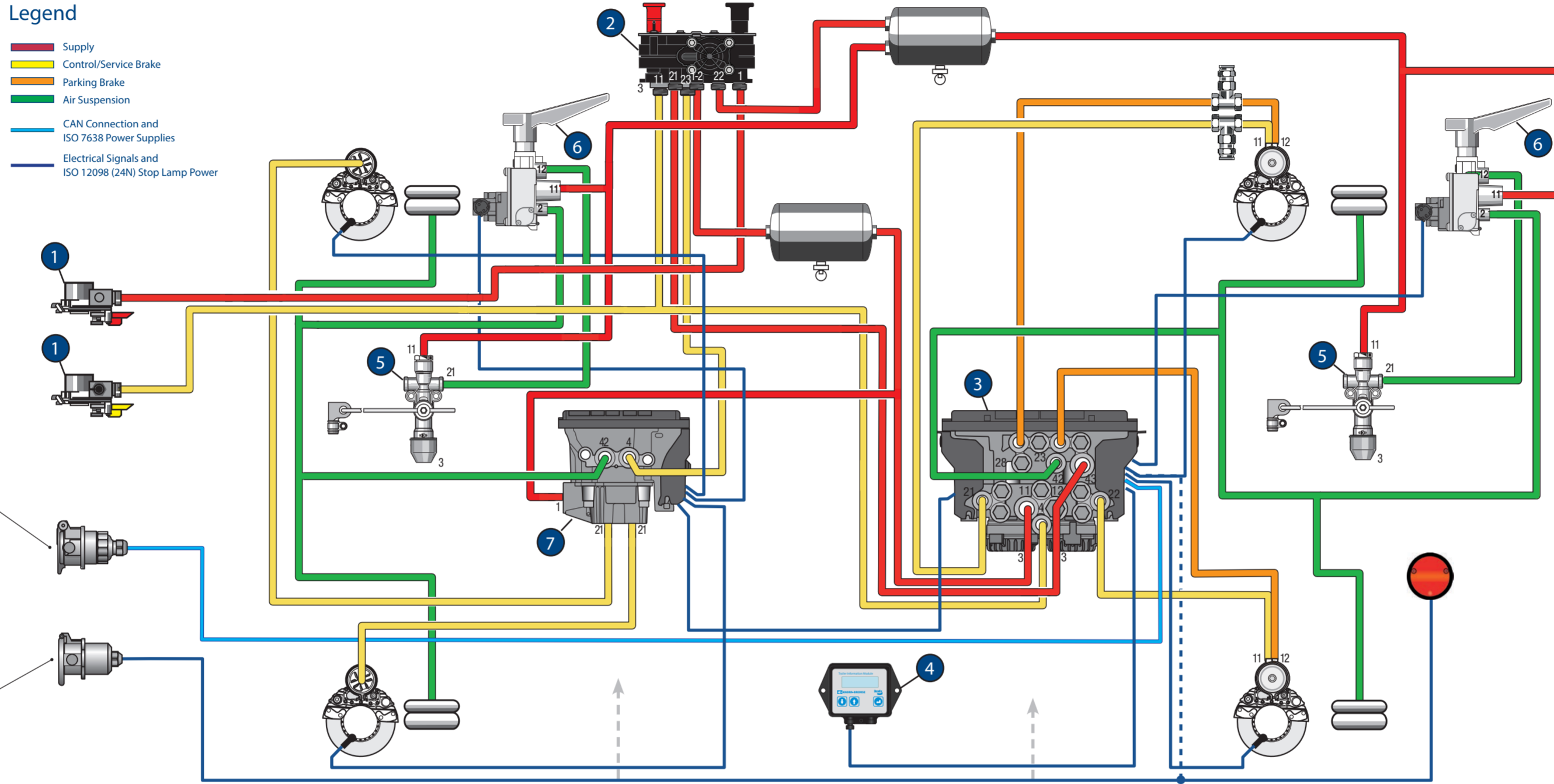
I139808F - EZ1034 24V-CAN Adapter Cable - Fig. A
 I139809F - EZ1031 Universal Diagnostic Interface (UDIF) incl. Cable Z005474 - Fig. B
 I139812F - EZ1032 Connecting Cable (UDIF - CAN) - Fig. C
 Z007887 USB Adapter Cable (UDIF - PC)

Trailer Data Plate

I139797F Silver Foil Data Plate (Print from ECUtalk*) - Fig. A
 I139796F ISO 7638 Headboard Information Sticker - Fig. B
 K112780N00 TEBS Sticker - Fig. C

Legend

- Supply
- Control/Service Brake
- Parking Brake
- Air Suspension
- CAN Connection and ISO 7638 Power Supplies
- Electrical Signals and ISO 12098 (24N) Stop Lamp Power



Levelling Valve

5

K194770N00 - SV1395 Levelling Valve - Fig. A
 K194769N00 - SV1465 Levelling Valve with Height Limitation and Datum Adjustment - Fig. B
 K194773N00 - SV1466 Levelling Valve with Height Limitation - Fig. B
 K194771N00 - SV1478 Levelling Valve - Fig. A
 K193628 Lower Linkage

For further Levelling Valve variants see Product Data Sheet Y011375

Raise/Lower Valve

6

I136151 - SV3230 Raise/Lower Valve with pneumatic "Speed Pulse" Function (reset to ride height - Rtr) - Fig. A
 K054888N00 - SV3241 Raise/Lower Valve with electrical "Speed Pulse" Function (Rtr), Test Point, Adaptor Plate - Fig. B
 K054885N00 - SV3273 Raise/Lower Valve with electrical "Speed Pulse" Function (Rtr), Test Point, Legend Plate - Fig. C
 K022847N00 - SV3801 Raise/Lower Valve with electrical "Speed Pulse" Function (Rtr), direct acting solenoid - Fig. D

I136226004 Handle Kit
 Z006844 Legend Plate
 K016334K50 Solenoid Kit (for SV32..)
 K022901K50 Solenoid Kit (for SV3801)

For other Raise/Lower Valves see Product Date Sheets Y183920, Y095621, Y011377

View Y

X1

1	5 VTI CAN-L	10	Sensor 1 Ground
2	Not used	11	Sensor 2 Supply
3	Not used	12	Not used
4	Sensor 1 Supply	13	Not used
5	Not used	14	AUXIO 1
6	Supply (12V/24V)	15	AUXIO 12 Return
7	5 VTI CAN-H	16	Sensor 2 Ground
8	AUXIO 2	17	Sensor 2 Input
9	Sensor 1 Input	18	Ground

For full details on pin connections see Trailer Catalogue Y007570.

View X

2.3

1	AUXIO 4
2	AuxRet 4
3	AUXIO 5
4	AUXIO 6
5	J1939 Brake CAN-L
6	J1939 Brake CAN-H

2.4

1	Sensor Supply [SENS_SUP2] (analogue or Tristate)
2	Sensor Ground 2
3	AUXIO 6
4	AuxRet 6
5	Sensor Input 2 [SENS_IN2] (analogue)
6	Not connected

1 Modulators Supply 24V (+)
 2 ECU Supply 24V (+)
 3 ECU Ground (-)
 4 Modulators Ground (-)
 5 Warning Lamp
 6 TT CAN-H (ISO 11992)
 7 TT CAN-L (ISO 11992)

12 11 10 9 8 7
 6 5 4 3 2 1
 In-Out Power

TEBS G2.2 Premium connectors shown, for full details of pin connections see Trailer Catalogue Y007570.

Wheel Speed Sensor and Connecting Cables

Sensors
 K144126K50* Radial (90°), Length 0.4 m
 K144128K50* Radial (90°), Length 1.0 m
 K145033K50 Axial, Length 1.0 m
 *complete with Bush and Grease

Connecting Cables
 K0278323000 Length 3 m
 K0278324000 Length 4 m
 K0278326000 Length 6 m
 K02783210000 Length 10 m

For other Sensors and Cables see Product Data Sheet Y011363

In-Out Plug and Cable (Examples)

K027860N00 In-Out Cable for SP on AUXIO 1 - Fig. A
 K027863N00 In-Out Cable for SP/LAC on AUXIO 1, Stop Lamp powering/TH, open ended - Fig. B
 K027861N00 In-Out Cable for Stop Lamp powering on AUXIO 1 - Fig. C
 K002281N00 Connecting Cable (15 m) open ended, various possible connections - Fig. D
 K002275N00 Aux Connecting Cable 2-pole (6.5 m), e.g. LAC, SP - Fig. E
 K091439N00 12-Pin Deutsch Plug complete with blanking plugs - Fig. F

TH = Traction Help
 LAC = Lift Axle Control
 SP = Speed Pulse (e.g. signal for reset to ride height)

For other modular cables see Product Data Sheet Y142784

Trailer Electro-Pneumatic Module (TEPM-S)

K021940¹⁾ - ES2070 TEPM-S, Trailer Electro-Pneumatic Module Standard (without additional Outputs) for trailers with 4S/3M Systems

Cables
 K097067N00 Connecting Cable TEPM-S to TEBS G2.2 (Connector 2.3) - Fig. A
 K027811N00 Wheel Speed Sensor Cable TEPM-S (2 m) - Fig. B
 K044708N00 Connecting Cable TEPM-S to external Pressure Sensor (3 m) - Fig. C

For other modular cables see Product Date Sheets Y095618

Trailer Electro-Pneumatic Module (TEPM-P)

7

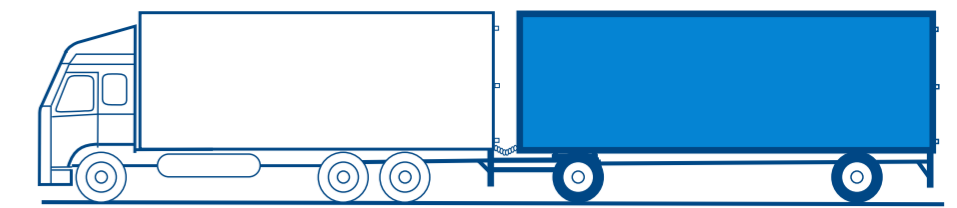
K027900¹⁾ - ES2071 Trailer Electro-Pneumatic Module Premium (with additional Inputs/Outputs) for trailers with 4S/3M Systems and Port 42 for separate load sensing.

Cables
 K097066N00 Connecting Cable TEPM-P to TEBS G2.2 Connector 2.3 (9 m) - Fig. A
 K027814N00 Connecting Cable TEPM-P to TEBS G2.2 Premium Module via cable K02227. (3 m) - Fig. B

I1367562000 - EK3130 Wheel Speed Sensor Connecting Cable for TEPM-P (2 m) - Fig. C
 For other modular cables see Product Data Sheet Y095618

¹⁾The part number of the module will carry two suffixes, firstly "V#*" which represents the software revision of the product, e.g. V01, V02, etc., and secondly "N#*" which defines the packaging requirements of different market sectors, e.g. N00, N99. Example: K53342V03N99 - is supplied with software to revision 03 and is supplied with packaging.

TEBS G2.2 Premium Component Overview - Drawbar Trailer (4S/3M) with 2-point iLvl Suspension Control and pneumatic Raise/Lower



Coupling Head with integral Filter

K162828N00 - KU1400	Supply (red)
K162829N00 - KU1410	Control (yellow)
K162830N00 - KU1412	Control (yellow), with Test Point

Quattromatic Coupling Heads:
K002641 - KU1415 for Drawbar trailers

For further Coupling Head variants see Product Data Sheet Y011338

Trailer EBS Brake Module

K110612¹⁾ - ES2090 TEBS G2.2 Standard and Standard Plus Brake Modules
K110619¹⁾ - ES2095 TEBS G2.2 Premium Brake Modules
for further TEBS G2 variants see Product Data Sheet Y200882

TEBS G2.2 Premium
OE version IAM version

(TEBS G2.2 Premium has second side cover)
K000847K50 Silencer
K092404K50 Side Cover
K004904K50 Port Filters (Ports 11 & 12)
K108643K50 Port Filters (Port 4)

Note: All TEBS G2 brake modules must be programmed and an "End of Line Test" (EOL) carried out after installation!

ISO 7638 - Pin Allocation

1 - red	Modulators (24V)
2 - black	ECU (24V)
3 - yellow	ECU (Ground)
4 - brown	Modulators (Ground)
5 - white	Warning lamp
6 - white/green	Data line CAN-H
7 - white/brown	Data line CAN-L

ISO 12098 - Pin Allocation

1 - yellow	L/H Indicators
2 - green	R/H Indicators
3 - blue	Rear fog lights
4 - white	Ground for 1 - 3 & 5 - 12
5 - black	L/H Side Lights
6 - brown	R/H Side Lights
7 - red	Stop lamps
8 - pink	Reversing lamps
9 - orange	24 V supply
10 - grey	Brake Wear indicator
11 - black/white	Parking brake applied
12 - blue/white	Lift axle status
13 - red/white	Ground for CAN (14 & 15)
14 - green/white	CAN-H (not ABS/EBS)
15 - brown/white	CAN-L (not ABS/EBS)

ISO 7638 Chassis Cable 7 Pin

K010710N00	ISO 7638 Plug + 10m Cable (Drawbar Trailer) - Fig. A
K010711N00	ISO 7638 Plug + 13m Cable (Drawbar Trailer) - Fig. A
K021138N00	Extension Cable, 4 m - Fig. B
K028001N00	Extension Cable, 10 m - Fig. B
K002291	ISO 7638 Plug, 7-pin, with Pins - Fig. C

For other Power Supply Cables see Trailer Catalogue Y007570

Blanking Plugs

K026197V01N00 Blanking Plug for In-Out Connector - Fig. A

TEBS G2.2 Premium - Fig. B
Z005861 Blanking Plug for 2.3 or 2.4 Connectors
Z005860 Blanking Plug for WSS Connectors

Push to Connect (PTC) fittings - Fig. C
96210008 8 mm pipe
96210012 12 mm pipe
96210015 15 mm pipe

Note: Unused connectors must be plugged.

Park/Shunt Valve

with integrated Charging Valve for Drawbar Trailers

K141699N00 - AE4371 Park/Shunt Valve with integrated Charging Valve and Front Axle Release Valve (FAV), without Plate
Operation Instruction Plate

K056570N00
For further details see Product Data Sheet Y095829

Trailer Information Module (TIM G2)

K009166¹⁾ - EZ1035 Trailer Information Module (TIM G2) with integral battery
K070605¹⁾ Trailer Information Module (TIM G2) without integral battery, e.g. for use on ADR trailers

Modular In-Out cable from Brake Module to TIM G2
K022272N00 Length 4 m
K022279N00 Length 6 m
for further details see Product Data Sheet Y050665

TEBS - PC Diagnostics

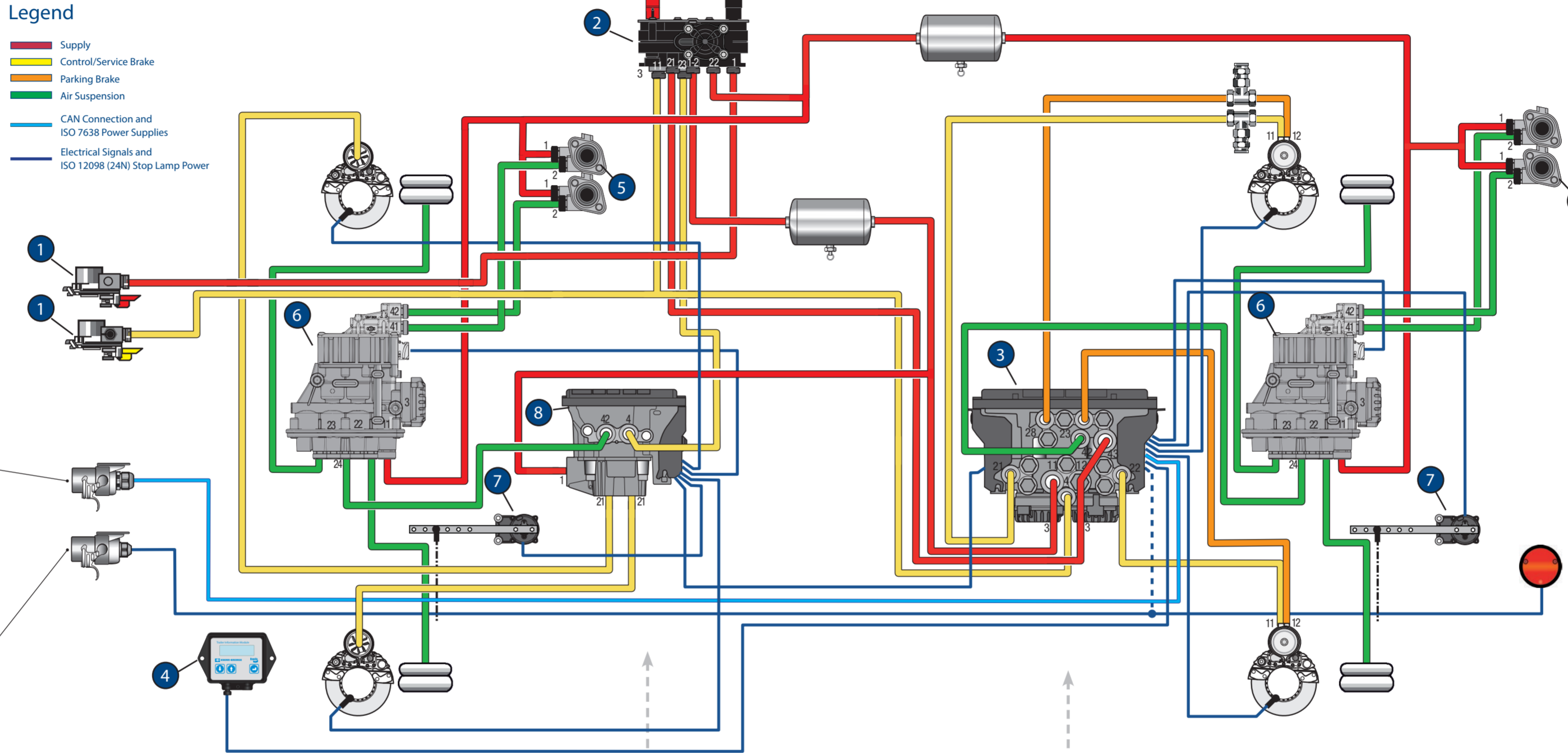
II39808F - EZ1034 24V-CAN Adapter Cable - Fig. A
II39809F - EZ1031 Universal Diagnostic Interface (UDIF) incl. Cable Z005474 - Fig. B
II39812F - EZ1032 Connecting Cable (UDIF - CAN) - Fig. C
Z007887 USB Adapter Cable (UDIF - PC)

Trailer Data Plate

II39797F Silver Foil Data Plate (Print from ECUtalk*) - Fig. A
II39796F ISO 7638 Headboard Information Sticker - Fig. B
K112780N00 TEBS Sticker - Fig. C

Legend

- Supply
- Control/Service Brake
- Parking Brake
- Air Suspension
- CAN Connection and ISO 7638 Power Supplies
- Electrical Signals and ISO 12098 (24N) Stop Lamp Power



X1

1	5 VTI CAN-L	10	Sensor 1 Ground
2	Not used	11	Sensor 2 Supply
3	Not used	12	Not used
4	Sensor 1 Supply	13	Not used
5	Not used	14	AUXIO 1
6	Supply (12 V/24 V)	15	AUXIO 12 Return
7	5 VTI CAN-H	16	Sensor 2 Ground
8	AUXIO 2	17	Sensor 2 Input
9	Sensor 1 Input	18	Ground

For full details on pin connections see Trailer Catalogue Y007570.

2.3

1	AUXIO 4	1	Modulators Supply 24V (+)
2	AuxRet 4	2	ECU Supply 24V (+)
3	AUXIO 5	3	ECU Ground (-)
4	AuxRet 5	4	Modulators Ground (-)
5	J1939 Brake CAN-L	5	Warning Lamp
6	J1939 Brake CAN-H	6	TT CAN-H (ISO 11992)

2.4

1	Sensor Supply [SENS_SUP2] (analogue or Tristate)	12	TT CAN-L (ISO 11992)
2	Sensor Ground 2	13	In-Out
3	AUXIO 6	14	Power
4	AuxRet 6		
5	Sensor Input 2 [SENS_IN2] (analogue)		
6	Not connected		

TEBS G2.2 Premium connectors shown, for full details of pin connections see Trailer Catalogue Y007570.

iLvl Push Button

K064890N00 - CP6PLF Push Button for Raise and Lower functions (backup function)

K102853 Label

for further details see Product Data Sheet Y172343

iLvl Valve

K058032N00 iLvl Valve with pneumatic backup - Fig. A
K066949N00 iLvl Valve without pneumatic backup - Fig. B

for further details see Product Data Sheet Y172342

iLvl-Sensor

K025259N00 iLvl Level Sensor
K095917N00 Sensor Linkage Kit (120-240 mm lever with rubber link)
K132615N00 Sensor Linkage Kit (120-312 mm lever with rubber link)
K001406 Axle Linkage
K193628 Lower Linkage
K193627 Single rubber joint
K09707... In-Out Cable for connecting Sensor to TEBS G2.2 Brake Module
K00227... In-Out Cable for connecting Sensor to TEBS G2.2 Brake Module (with open ends)

for further information see Product Data Sheet Y160685,Y095832

Wheel Speed Sensor and Connecting Cables

Sensors
K144126K50* Radial (90°), Length 0.4 m
K144128K50* Radial (90°), Length 1.0 m
K145033K50 Axial, Length 1.0 m
*complete with Bush and Grease

Connecting Cables
K0278323000 Length 3 m
K0278324000 Length 4 m
K0278326000 Length 6 m
K02783210000 Length 10 m

For other Sensors and Cables see Product Data Sheet Y011363

In-Out Plug and Cable (Examples)

K027860N00 In-Out Cable for SP on AUXIO 1 - Fig. A
K027863N00 In-Out Cable for SP/LAC on AUXIO 1, Stop Lamp powering/TH, open ended - Fig. B
K027861N00 In-Out Cable for Stop Lamp powering on AUXIO 1 - Fig. C
K002281N00 Connecting Cable (15 m) open ended, various possible connections - Fig. D
K002275N00 Aux Connecting Cable 2-pole (6.5 m), e.g. LAC, SP - Fig. E
K091439N00 12-Pin Deutsch Plug complete with blanking plugs - Fig. F

TH = Traction Help
LAC = Lift Axle Control
SP = Speed Pulse (e.g. signal for reset to ride height)

For other modular cables see Product Data Sheet Y142784

Connecting Cables (TEBS G2.2 PREMIUM)

K097070N00 Connecting Cable TEBS G2.2 Premium to iLvl Valve, iLvl Sensor and Diagnostic Socket - Fig. A
K097071N00 Connecting Cable TEBS G2.2 Premium to iLvl Valve and iLvl Sensor - Fig. B
K110195N00 Connecting Cable TEBS G2.2 Premium to iLvl Valve (3 m) - Fig. C
K110198N00 Connecting Cable TEBS G2.2 Premium to iLvl Valve (9 m) - Fig. C

For other modular cables see Trailer Catalogue Y007570

Connecting Cables (TEPM-P)

K027814N00 Power and CAN Connecting Cable (connects to TEBS G2.2 Premium Module via cables K022272 or K022279) - Fig. A
K022272N00 Connecting Cable (4 m) - Fig. B
K111594N00 Connecting Cable (6 m) - Fig. B
K111594N00 Connecting Cable TEPM-P to iLvl Valve on front axle (Plug fitted with diodes - 2 m) - Fig. C
Attention: Only use this cable to connect the iLvl Valve to the TEPM-P - Fig. C

For other modular cables see Product Data Sheet Y142784

Trailer Electro-Pneumatic Module (TEPM-P)

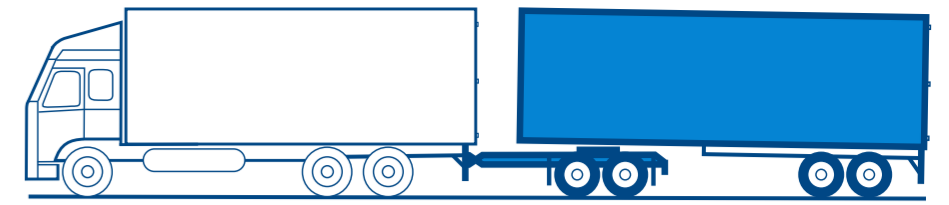
K027900¹⁾ - ES2071 Trailer Electro-Pneumatic Module Premium (with additional Inputs/Outputs) for trailers with 4S/3M Systems and Port 42 for separate load sensing.

Cables
K097066N00 Connecting Cable TEPM-P to TEBS G2.2 Connector 2.3 (9 m) - Fig. A
II367562000 - EK3130 Wheel Speed Sensor Connecting Cable for EPM-P (2 m) - Fig. B

For further details see Product Data Sheet Y095618

¹⁾The part number of the module will carry two suffixes, firstly "V##" which represents the software revision of the product, e.g. V01, V02, etc., and secondly "N##" which defines the packaging requirements of different market sectors, e.g. N00, N99. Example: K55342V03N99 - is supplied with software to revision 03 and is supplied with packaging.

TEBS G2.2 System Component Overview - EuroCombi Dolly (2S/2M) and Semi-trailer (2S/2M)



Coupling Head with integral Filter 1

For front of dolly and semi-trailer
 K162828N00 - KU1400 Supply (red)
 K162829N00 - KU1410 Control (yellow)
 K162830N00 - KU1412 Control (yellow), with Test Point

Quattromatic Coupling Heads
 K002640 - KU1414 for Semi-trailer - Fig. A
 K002641 - KU1415 for Centre-axle Trailer - Fig. B

Coupling Head (self sealing) 2

For rear of dolly
 K154215 - KU4124 Supply (red)
 K154213 - KU4128 Control (yellow)

For further Coupling Head variants see Product Data Sheet Y011338

Trailer EBS Brake Module 4

K0553...¹⁾ - ES2090 TEBS G2.2 Standard and Standard Plus Brake Modules
 K1106...¹⁾ - ES2095 TEBS G2.2 Premium Brake Modules
 for further TEBS G2 variants see Product Data Sheet Y136107 & Y200882

TEBS G2.2 Standard Plus
 OE version IAM version

(TEBS G2.2 Premium has second side cover)
 K000847K50 Silencer
 K092404K50 Side Cover
 K004904K50 Port Filters (Ports 11 & 12)
 K108643K50 Port Filters (Port 4)

Note: All TEBS G2 brake modules must be programmed and an "End of Line Test" (EOL) carried out after installation!

ISO 7638 - Pin Allocation

1 - red	Modulators (24V)
2 - black	ECU (24V)
3 - yellow	ECU (Ground)
4 - brown	Modulators (Ground)
5 - white	Warning lamp
6 - white/green	Data line CAN-H
7 - white/brown	Data line CAN-L

ISO 12098 - Pin Allocation

1 - yellow	L/H Indicators
2 - green	R/H Indicators
3 - blue	Rear fog lights
4 - white	Ground for 1 - 3 & 5 - 12
5 - black	L/H Side Lights
6 - brown	R/H Side Lights
7 - red	Stop lamps
8 - pink	Reversing lamps
9 - orange	24 V supply
10 - grey	Brake Wear indicator
11 - black/white	Parking brake applied
12 - blue/white	Lift axle status
13 - red/white	Ground for CAN (14 & 15)
14 - green/white	CAN-H (not ABS/EBS)
15 - brown/white	CAN-L (not ABS/EBS)

Trailer Roadtrain Module (TRM) 6

K036198¹⁾ - EZ2085 Amplifier and/or Splitter of CAN Signals. For use on road trains/long trailers.

K027817N00 Closure Cap for unused Bayonet connections.

K060758N00 External Pressure Sensor (to measure pressure in the yellow line for TRM).

for further details see Product Data Sheet Y095620

Park/Shunt Valve 3

with integrated Charging Valve for Dollies, Semi-trailers and Centre-axle Trailers
 K141700N00 - AE4370 Park/Shunt Valve with integrated Charging Valve, without Plate

K056570N00 Operation Instruction Plate
 For further details see Product Data Sheet Y095829

Single Check Valve 7

I60422 - AE5102 Single Check Valve - Fig. A (for in-line mounting)
 K001349 - AE5131 Single Check Valve - Fig. B (for valve/reservoir mounting)

Double Check Valve 8

I40405 - AE4105 Double Check Valve - Fig. A (without bracket)
 295358 Double Check Valve - Fig. B (with bracket)

Select Low (SL) Valve 9

K060386 Select Low Valve

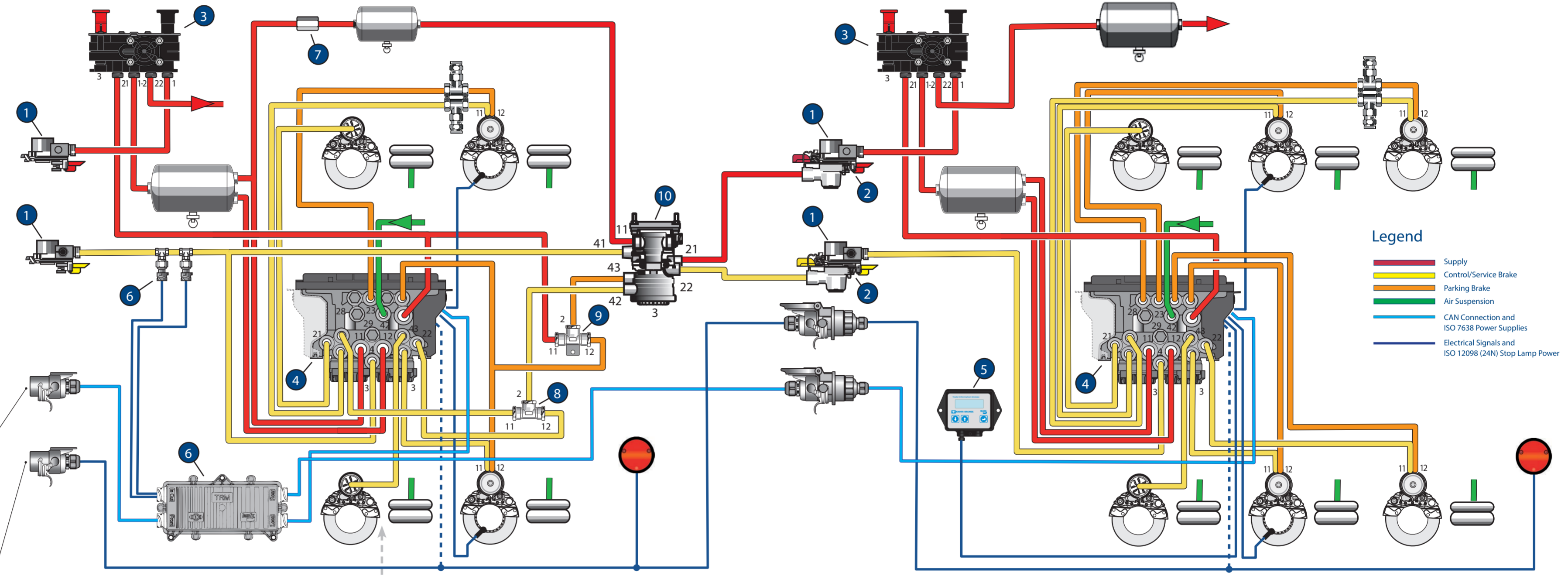
This valve is a legal requirement in some countries

Trailer Control Valve 10

0481061219000 Trailer Control Valve - Fig. A, predominance 0,25 bar max.
 AC597B Trailer Control Valve - Fig. B, predominance 0,2

TEBS - PC Diagnostics

I139808F - EZ1034 24V-CAN Adapter Cable - Fig. A
 I139809F - EZ1031 Universal Diagnostic Interface (UDIF) incl. Cable Z005474 - Fig. B
 I139812F - EZ1032 Connecting Cable (UDIF - CAN) - Fig. C
 Z007887 USB Adapter Cable (UDIF - PC)



Legend

- Supply
- Control/Service Brake
- Parking Brake
- Air Suspension
- CAN Connection and ISO 7638 Power Supplies
- Electrical Signals and ISO 12098 (24N) Stop Lamp Power

View X

2.3
 1 AUXIO 4
 2 AuxRet 4
 3 AUXIO 3
 4 AUXIO 5
 5 J1939 Brake CAN-L (analogue or Tristate)
 6 J1939 Brake CAN-H

2.4
 1 Sensor Supply [SENS_SUP2] (analogue or Tristate)
 2 Sensor Ground 2
 3 AUXIO 6
 4 AuxRet 6
 5 Sensor Input 2 [SENS_IN2] (analogue)
 6 Not connected

1 Modulators Supply 24V (+)
 2 ECU Supply 24V (+)
 3 ECU Ground (-)
 4 Modulators Ground (-)
 5 Warning Lamp
 6 TT CAN-H (ISO 11992)
 7 TT CAN-L (ISO 11992)

TEBS G2.2 Premium connectors shown, for full details of pin connections see Product Data Sheet Y200882.

Trailer Information Module (TIM G2) 5

K009166¹⁾ - EZ1035 Trailer Information Module (TIM G2) with integral battery
 K070605¹⁾ Trailer Information Module (TIM G2) without integral battery, e.g. for use on ADR trailers

Modular In-Out cable from Brake Module to TIM G2
 K022272N00 Length 4 m
 K022279N00 Length 6 m

Trailer Data Plate

I139797F Silver Foil Data Plate (Print from ECUdata*) - Fig. A
 I139796F ISO 7638 Headboard Information Sticker - Fig. B
 K112780N00 TEBS Sticker - Fig. C

Wheel Speed Sensor and Connecting Cables

Sensors
 K144126K50* Radial (90°), Length 0.4 m
 K144128K50* Radial (90°), Length 1.0 m
 K145033K50 Axial, Length 1.0 m
 *complete with Bush and Grease

Connecting Cables EK3130
 K0278323000 Length 3 m
 K0278324000 Length 4 m
 K0278326000 Length 6 m
 K02783210000 Length 10 m

For other Sensors and Cables see Product Data Sheet Y011363

Blanking Plugs 6

K026197V01N00 Blanking Plug for In-Out Connector - Fig. A

TEBS G2.2 Premium - Fig. B
 Z005861 Blanking Plug for 2.3 or 2.4 Connectors
 Z005860 Blanking Plug for WSS Connectors

Push to Connect (PTC) fittings - Fig. C
 96210008 8 mm pipe
 96210012 12 mm pipe
 96210015 15 mm pipe

Note: Unused connectors must be plugged.

TRM Cable

K027840N00 ISO 7638 Plug + 6 m Cable - Fig. A
 K027841N00 ISO 7638 Plug + 10 m Cable - Fig. B

K027838N00 Bayonet Splitter for Pressure Sensors - Fig. C
 K027839N00 Bayonet Splitter for Pressure Sensors + Auxiliary - Fig. D

For other TRM Cables see Product Data Sheet Y142784

ISO 7638 Chassis Cable 7 Pin

K008430N00 ISO 7638 Socket + 10 m Cable (Semi-trailer) - Fig. A
 K008431N00 ISO 7638 Socket + 13 m Cable (Semi-trailer) - Fig. A
 K008432N00 ISO 7638 Socket (90° Connector) + 16m Cable (Semi-trailer) - Fig. B
 I88007 ISO 7638 Dummy Socket (Mounting Bracket Part No. B86617) - Fig. C

For other power supply cables see Product Data Sheet Y142784

In-Out Plug and Cable (Examples)

K027860N00 In-Out Cable for SP on AUXIO 1 - Fig. A
 K027863N00 In-Out Cable for SP/LAC on AUXIO 1, Stop Lamp powering/TH, open ended - Fig. B
 K027861N00 In-Out Cable for Stop Lamp powering on AUXIO 1 - Fig. C
 K002281N00 Connecting Cable (15 m) open ended, various possible connections - Fig. D
 K002275N00 Aux Connecting Cable 2-pole (6.5 m), e.g. LAC, SP - Fig. E
 K091439N00 12-Pin Deutsch Plug complete with blanking plugs - Fig. F

TH = Traction Help
 LAC = Lift Axle Control
 SP = Speed Pulse (e.g. signal for reset to ride height)

¹⁾ The part number of the module will carry two suffixes, firstly "V##" which represents the software revision of the product, e.g. V01, V02, etc., and secondly "N##" which defines the packaging requirements of different market sectors, e.g. N00, N99. Example: K55342V03N99 - is supplied with software to revision 03 and is supplied with packaging.