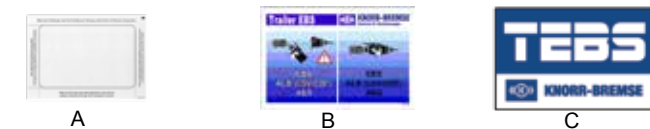


TEBS G2.1 - Component Overview, Semi-trailer/Centre-axle Trailer


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




Park/Shunt Valve

1
with integral Charging Valve
for Semi-trailers and Centre-axle Trailers
 K025700N00 Park/Shunt Valve with integral Charging valve, without Plate
 - AE4370
 K056570N00 Operation Instruction Plate



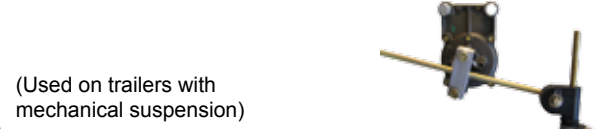
Trailer Information Module (TIM G2)

4
 K009166* Trailer Information Module (TIM G2)
 K022272N00 (4 m) Modular In-Out cable from Module to TIM G2
 K022279N00 (6 m)



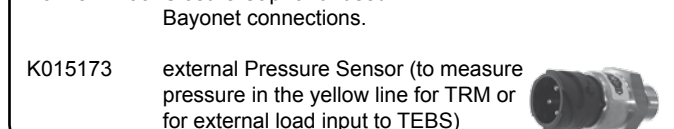
Mechanical Load Sensing

K026919B90 External Load Sensor for mechanical suspension, complete with linkage
 I119422 - ZB3131 Lever and Linkage
 K001406 Axle Linkage
 (Used on trailers with mechanical suspension)




Trailer Roadtrain Module (TRM)

K036198* - EZ2085 Amplifier and/or Splitter of CAN Signals. For use on road trains/long trailers.
 K027817N00 Closure Cap for unused Bayonet connections.
 K015173 external Pressure Sensor (to measure pressure in the yellow line for TRM or for external load input to TEBS)




TEBS - PC Diagnostics

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



Coupling Head with integral Filter

2
 K000952 - KU1400 Supply (red)
 K000954 - KU1410 Control (yellow)
 K000956 - KU1412 Control (yellow), with Test Point

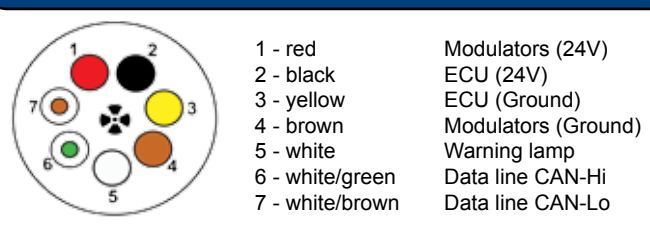


7 pin ISO 7638 Cable

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

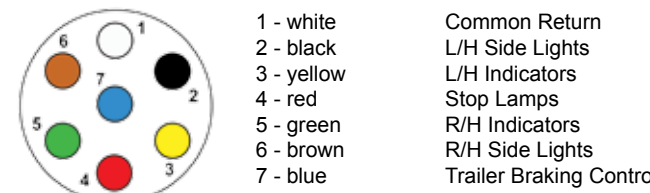


ISO 7638 - Pin Allocation



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-Hi
 7 - white/brown Data line CAN-Lo


ISO 1185 - Pin Allocation



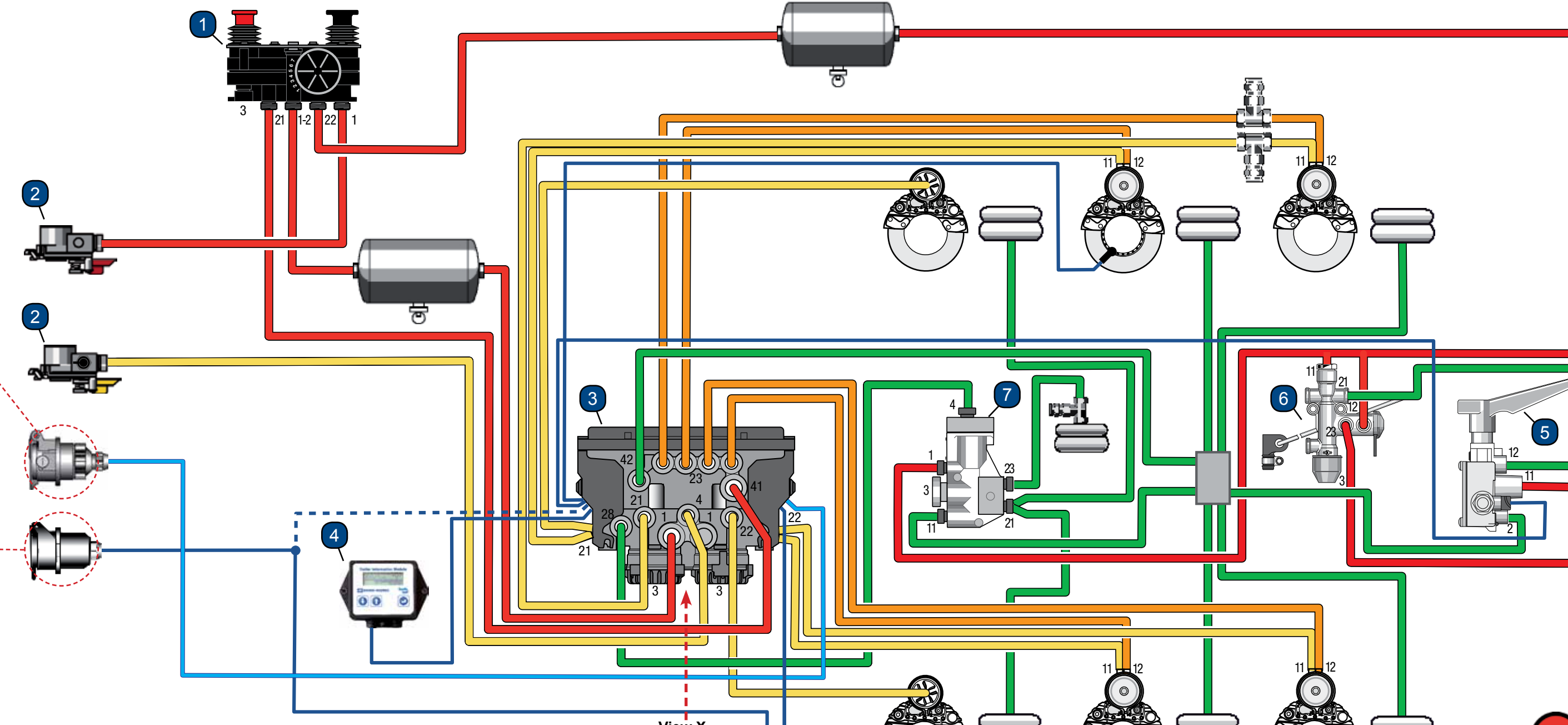
1 - white Common Return
 2 - black L/H Side Lights
 3 - yellow L/H Indicators
 4 - red Stop Lamps
 5 - green R/H Indicators
 6 - brown R/H Side Lights
 7 - blue Trailer Braking Control

Trailer EBS Brake Module

3
 K01931.* - ES2060 TEBS G2.1 Module, 2S-6S/3M, Port P28 programmable
 K01935.* - ES2060 TEBS G2.1 Module, 2S/2M, P28 Test Point.
 For other TEBS G2 variants see Trailer Catalogue Y007570
 K000847K50 Silencer



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



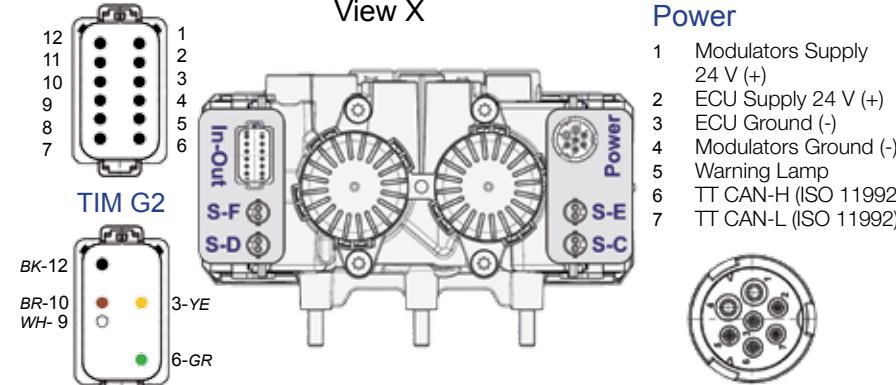
In-Out

1 AUXIO 1
 2 AUXIO 2
 3 AUXIO 3
 4 Sensor Supply [SENS_SUP] (5-V- or Tristate Input)
 5 Sensor Input 1 [SENS_IN1] (analogue or Tristate)
 6 Sensor Ground or Magic Eye or C3
 7 Stop Lamp Supply (+)
 8 Stop Lamp Ground (-)
 9 TI CAN-L (J1939)
 10 TI CAN-H (J1939)
 11 AuxRet 12 (Return for AUXIO 1 & 2)
 12 AuxRet 3

Power

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)

View X



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

BR-12
 WH-9


Legend

- Supply
- Control/Service Brake
- Parking Brake
- Air Suspension
- CAN Connection and ISO 7638 Power Supplies
- ISO 1185 (24N) Stop Lamp Power
- Electrical Signals

7 pin ISO 7638 Chassis Cable

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
 K010710N00 ISO 7638 Socket + 10 m Cable (Centre-axle Trailer) - Fig. C
 K010711N00 ISO 7638 Socket + 13 m Cable (Centre-axle Trailer) - Fig. C
 K002290 ISO 7638 Socket, 7-pin, with Pins - Fig. D

For other Power Supply Cables see Trailer Catalogue Y007570

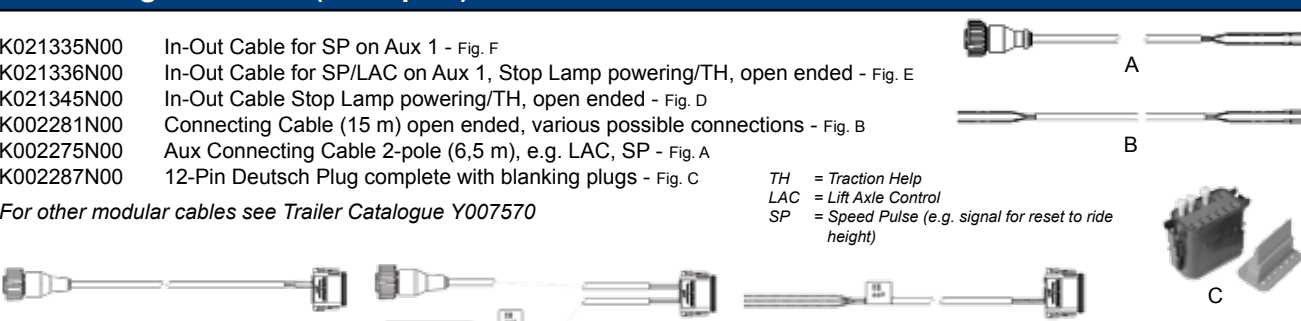


In-Out Plug and Cable (Examples)

K021335N00 In-Out Cable for SP on Aux 1 - Fig. F
 K021336N00 In-Out Cable for SP/LAC on Aux 1, Stop Lamp powering/TH, open ended - Fig. E
 K021345N00 In-Out Cable Stop Lamp powering/TH, open ended - Fig. D
 K002281N00 Connecting Cable (15 m) open ended, various possible connections - Fig. B
 K002275N00 Aux Connecting Cable 2-pole (6,5 m), e.g. LAC, SP - Fig. A
 K002287N00 12-Pin Deutsch Plug complete with blanking plugs - Fig. C

For other modular cables see Trailer Catalogue Y007570

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




Trailer Electro-Pneumatic Module (TEPM-S)

K021940* - ES2070 TEPM-S, Trailer Electro-Pneumatic Module Standard (without additional Inputs/Outputs) for trailers with 4S/3M Systems, e.g. with Steering Axle

Cables
 K0583. Connecting Cable TEPM-S to TEBS G2/G2.1 - 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 Trailer Catalogue Y007570




Trailer Electro-Pneumatic Module (TEPM-P)

K027900* - ES2071 TEPM-P Trailer Electro-Pneumatic Module Premium (with additional Inputs/Outputs) for trailers with 4S/3M Systems, e.g. with Steering Axle

Cables
 K058249N00 Connecting Cable TEPM-P to TEBS G2/G2.1 (7 m) - Fig. A
 K058256N00 Connecting Cable TEPM-P to TEBS G2/G2.1 with additional Aux connection - Fig. B

For other modular cables see Trailer Catalogue Y007570



* 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, N50. Example: K021940V00N00 - is supplied with software to revision 00 and is supplied without packaging.

TEBS G2.1 Component Overview, Drawbar Trailer with TEPM-S/P (4S/3M-System)



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

Park/Shunt Valve with integral Charging Valve for Drawbar Trailers

K025699N00 Park/Shunt Valve with integral Charging Valve with Front Axle Release Valve (FAV) without Plate
 - AE4371
 K056570N00 Operation Instruction Plate

Trailer Information Module (TIM G2)

K009166* Trailer Information Module (TIM G2)
 K022272N00 (4 m) Modular In-Out cable from Module to TIM G2
 K022279N00 (6 m)

Mechanical Load Sensing

K026919B90 External Load Sensor for mechanical suspension, complete with linkage
 II19422 - ZB3131 Lever and Linkage
 K001406 Axle Linkage

(Used on trailers with mechanical suspension)

Trailer Roadtrain Module (TRM)

K036198* - EZ2085 Amplifier and/or Splitter of CAN Signals. For use on road trains/long trailers.
 K027817N00 Closure Cap for unused Bayonet connections.
 K015173 external Pressure Sensor (to measure pressure in the yellow line for TRM or for external load input to TEBS)

TEBS - PC Diagnostics

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

Coupling Head with integral Filter

K000952 - KU1400 Supply (red)
 K000954 - KU1410 Control (yellow)
 K000956 - KU1412 Control (yellow), with Test Point

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-Hi
7 - white/brown	Data line CAN-Lo

ISO 1185 - Pin Allocation

1 - white	Common Return
2 - black	L/H Side Lights
3 - yellow	L/H Indicators
4 - red	Stop Lamps
5 - green	R/H Indicators
6 - brown	R/H Side Lights
7 - blue	Trailer Braking Control

Trailer EBS Brake Module

K01931.* - ES2060 TEBS G2.1 Module, 2S-6S/3M, Port P28 programmable
 For other TEBS G2 variants see Trailer Catalogue Y007570
 K000847K50 Silencer

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

7 pin ISO 7638 Chassis Cable

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

In-Out Plug and Cable (Examples)

K021335N00 In-Out Cable for SP on Aux 1 - Fig. F
 K021336N00 In-Out Cable for SP/LAC on Aux 1, Stop Lamp powering/TH, open ended - Fig. E
 K021345N00 In-Out Cable Stop Lamp powering/TH, open ended - Fig. D
 K002280N00 Connecting Cable (7 m) open ended, various possible connections - Fig. B
 K002275N00 Aux Connecting Cable 2-pole (6,5 m), e.g. LAC, SP - Fig. A
 K002287N00 12-Pin Deutsch Plug complete with blanking plugs - Fig. C

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

Trailer Electro-Pneumatic Module (TEPM-S)

K021940* - ES2070 TEPM-S, Trailer Electro-Pneumatic Module Standard (without additional Inputs/Outputs) for trailers with 4S/3M Systems, e.g. with Steering Axle

Cables
 K0583. Connecting Cable TEPM-S to TEBS G2/G2.1 - 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

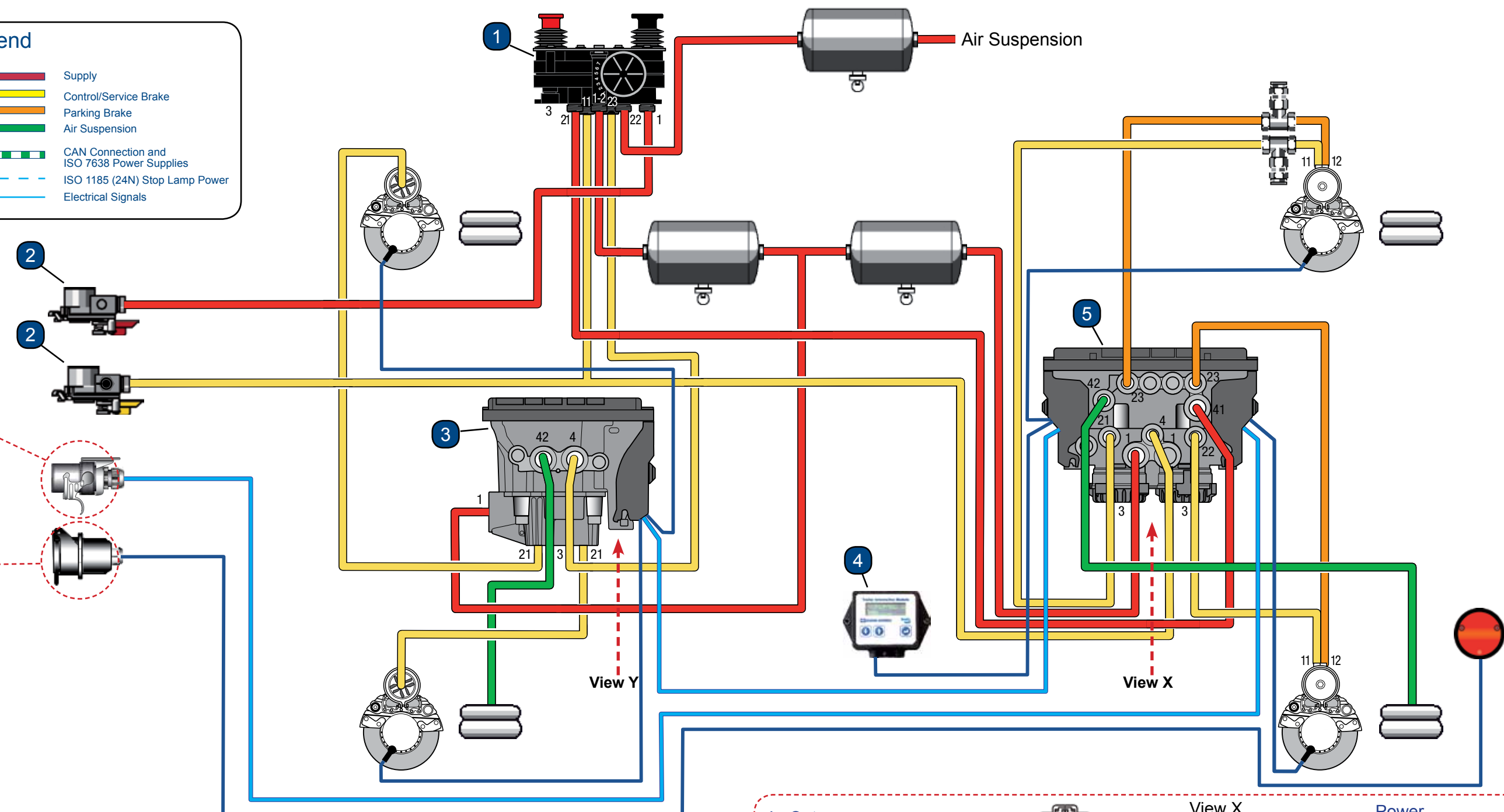
Trailer Electro-Pneumatic Module (TEPM-P)

K027800* - ES2071 TEPM-P, Trailer Electro-Pneumatic Module Premium (with additional Inputs/Outputs) for trailers with 4S/3M Systems, e.g. with Steering Axle

Cables
 K058249N00 Connecting Cable TEPM-P to TEBS G2/G2.1 (7 m) - Fig. A
 K058256N00 Connecting Cable TEPM-P to TEBS G2/G2.1 with additional Aux connection - Fig. B

Legend

- Supply (Red)
- Control/Service Brake (Yellow)
- Parking Brake (Green)
- Air Suspension (Blue)
- CAN Connection and ISO 7638 Power Supplies (Dashed Green)
- ISO 1185 (24N) Stop Lamp Power (Dashed Blue)
- Electrical Signals (Dashed Yellow)



In-Out

1	AUXIO 1
2	AUXIO 2
3	AUXIO 3
4	Sensor Supply [SENS_SUP] (5-V- or Tristate Input)
5	Sensor Input 1 [SENS_IN1] (analogue or Tristate)
6	Sensor Ground or Magic Eye or C3
7	Stop Lamp Supply (+)
8	Stop Lamp Ground (-)
9	TI CAN-L (J1939)
10	TI CAN-H (J1939)
11	AuxRet 12 (Return for AUXIO 1 & 2)
12	AuxRet 3

Power

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)

* 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, N50. Example: K021940V00N00 - is supplied with software to revision 00 and is supplied without packaging.

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