

22. Wiring diagrams

22.1 Legend for circuit diagrams

X001 to X999 are electric couplers, butt-type connectors and other connectors.

A002	= E-Box	B029	= Accelerator pedal turning angle sensor
A003	= Drive mode switch	B030	= Measured value, position sensor
A004	= Operating console	B031	= Right load sensor pin
A005	= E-box lifting gear control	B032	= Load sensor pin left
A006	= Front dashboard keyboard	B033	= Discharge temperature sensor
A007	= Instrument panel	B034	= Immersed tube sensor
A008	= Vario Terminal	B035	= Hand throttle turning angle sensor
A009	= Actuator control	B036	= Tank sensor 1
A010	= Electronic thermostat	B037	= Tank Sensor 2
A011	= Radar sensor	B038	= EDC accelerator angle sensor
A012	= Flame starting system	B040	= Front power lift position torque sensor
A013	= Fuse board ABC	B041	= Temperature sensor (Air cond. NT C2)
A015	= Radio pre-fitting	B046	= Temperature sensor (Air cond. NT C1)
A016	= Mirror heater	B047	= Steering angle switch
A017	= LBS bus termination board	B050	= Loudspeaker, left
A018	= Tank	B051	= Loudspeaker, right
A020	= Electronic injection pump	E001	= H4 headlamp, right
A021	= EDC electronics box	E002	= H4 headlamp, left
A023	= Front LBS bus terminal	E003	= H4 headlamp, right
B001	= Steering angle sensor 1	E004	= H4 additional work lamp, left
B002	= PTO speed Hall sensor	E005	= Position lamp, front right
B003	= Suspension turning angle sensor	E006	= Position lamp, front left
B004	= Vacuum switch	E007	= Turn signal/brake/tail lamp, right
B005	= Engine temperature sensor	E008	= Left turn signal/brake/taillamp
B006	= Charge air temperature sensor	E009	= Licence plate lamp, right
B007	= Fuel level sensor	E010	= Licence plate lamp, left
B008	= High pressure sensor	E011	= Work lamp on roof, right rear
B009	= Discharge temperature sensor	E012	= Left rear roof work lamp
B010	= Engine Hall sensor 1	E013	= Right front roof work lamp
B012	= Engine oil pressure sensor	E014	= Work lamp on roof front left
B013	= Hydraulic oil temperature switch	E015	= Front work lamp on right turn signal lamp
B014	= Speed sensor, hydrostatic drive collector shaft	E016	= Front work lamp at left turn signal lamp
B015	= Bevel pinion speed sensor	E017	= Work lamp on taillamp holder right
B016	= Operating range recognition torque sensor	E018	= Work lamp at left taillamp holder
B017	= Clutch pedal turning angle sensor	E019	= Cab lighting
B018	= Engine rpm setpoint sensor	E020	= EPC lighting
B019	= Compressed air supply pressure sensor	E021	= Rotating beacon, right
B020	= Rear PTO rpm Hall sensor	E022	= Rotating beacon left
B021	= Rear PTO rpm after clutch sensor	E023	= Rear window heater
B022	= Kickout pressure switch	E024	= Right mirror heater connection
B023	= Flame starting system temperature sensor	E025	= Connection, mirror heater left
B024	= Steering angle sensor 2	E026	= Right turn signal lamp, on roof top rear
B025	= EDC speed sensor	E027	= Left turn signal indicator, roof top rear
B026	= EDC needle motion sensor		
B027	= Water temperature sensor		
B028	= ICharge pressure sensor		

CARE AND MAINTENANCE

E030	= Right-hand side working lamp	S011	= Rotating beacon switch
E031	= Left-hand side working lamp	S012	= Starter lockout switch
E032	= Diagnosis lamp	S013	= Emergency mode button
E033	= Fuel heating	S014	= Quick reverse button at steering wheel adjustment
E034	= Left licence plate lighting in tail light	S015	= Hand brake switch
G001	= Battery 1	S016	= EPC/DA switch
G002	= Alternator 1	S017	= Filter contamination switch
G003	= Battery 2	S018	= Engine brake pressure switch
G004	= Alternator 2	S019	= PTO ON key, rear left
H005	= Horn	S020	= Key PTO ON, rear right
H006	= Buzzer	S021	= External control button, raise front power lift
H010	= Indicator lamp for generator 2	S022	= External control button, lower front power lift
K001	= Relay +Ub 15	S023	= Lock solenoid switch, external front power lift control button
K002	= Relay +Ub 58	S024	= Brake fluid display
K003	= Relay +Ub 15E	S025	= Steering pressure switch
K004	= Relay 56A	S026	= Flow controller
K005	= Relay 56B	S027	= External Raise button, right
K006	= Cold-start indicator lamp relay	S028	= External Lower button, right
K007	= Brake relay	S029	= External button lift, left
K008	= Starter lockout relay	S030	= External "Lower" button left
K009	= Screen wipers pulse generator	S031	= Right door contact switch
K010	= Turn flasher relay	S032	= Door contact switch, left
K011	= Relay EPC Ub	S033	= Heater switch
K013	= 3rd hydraulic circuit relay	S034	= Coolant level switch
K014	= Engine brake relay	S035	= Air conditioning high/low pressure switch
K015	= Emergency operation relay	S036	= Level switch, hydraulic oil level
K016	= Suspension valve relay	S037	= Blower switch
K017	= Current spike relay, EPC/DA changeover	S038	= Rear screen heater switch
K018	= Battery changeover relay	S039	= Mirror heater toggle switch
K020	= EDC UB 30 relay	S041	= Front PTO brake
K021	= Cutout solenoid relay	S044	= Air conditioning switch
K022	= Relay +Ub 15	S045	= Růfa solenoid switch
K023	= Relay +Ub 58	S047	= Engine brake tappet switch
K029	= EPC - DA changeover relay	S048	= EPC - DA changeover solenoid switch
K033	= Fuel preheating relay	S051	= Fuel preheater temperature switch
M001	= Starter	V003	= Diode group
M002	= Front wiper motor separation point	V005	= Diode group
M003	= Front windshield washer system pump	Y001	= Excess quantity solenoid valve
M004	= Rear window wiper motor	Y002	= Driving mode 1 solenoid valve
M005	= Screen washers pump, rear	Y003	= Solenoid valve operating range 2
M007	= Engine electric coupler seat adjustment	Y004	= Transmission solenoid neutral/turbo-clutch valve
M008	= Heater fan line coupler	Y005	= Solenoid valve speed limiter
M009	= Fan speeds 1 - 3	Y006	= Engine brake solenoid valve
M011	= Starter 24V	Y007	= Engine Off solenoid
R001	= Glow plug	Y008	= Rear PTO solenoid
S001	= Steering column switch	Y009	= 4-WD solenoid
S002	= Ignition-starter switch	Y010	= Diff. lock solenoid
S003	= Driving lamps pushbutton	Y011	= Front PTO solenoid
S004	= Hazard warning light pushbutton	Y012	= Load suspension solenoid
S005	= Right brake solenoid switch	Y013	= Lower suspension solenoid
S006	= Left brake solenoid switch	Y014	= Raise suspension solenoid
S007	= Additional lighting pushbutton		
S008	= Front work lamps switch		
S009	= Rear work lamps switch		
S010	= Rear wiper motor switch		

CARE AND MAINTENANCE

Y015	= Valve 1
Y016	= Valve 2
Y017	= Valve 3
Y018	= Valve 4
Y019	= Valve 5
Y021	= Raise solenoid
Y022	= Lower solenoid valve
Y023	= Compressed air pilot control solenoid valve
Y024	= Air conditioning magnetic clutch
Y025	= Flame starting system solenoid valve
Y026	= Rear PTO stage 1 solenoid
Y027	= Solenoid valve, rear PTO stage 2
Y028	= Solenoid valve, rear PTO stage 3
Y030	= EPC/DA lock solenoid valve
Y031	= EPC/DA pilot control solenoid valve
Y032	= Solenoid valve neutral (valves)
Y033	= Solenoid valve, flush valves
Y034	= Brake release solenoid valve

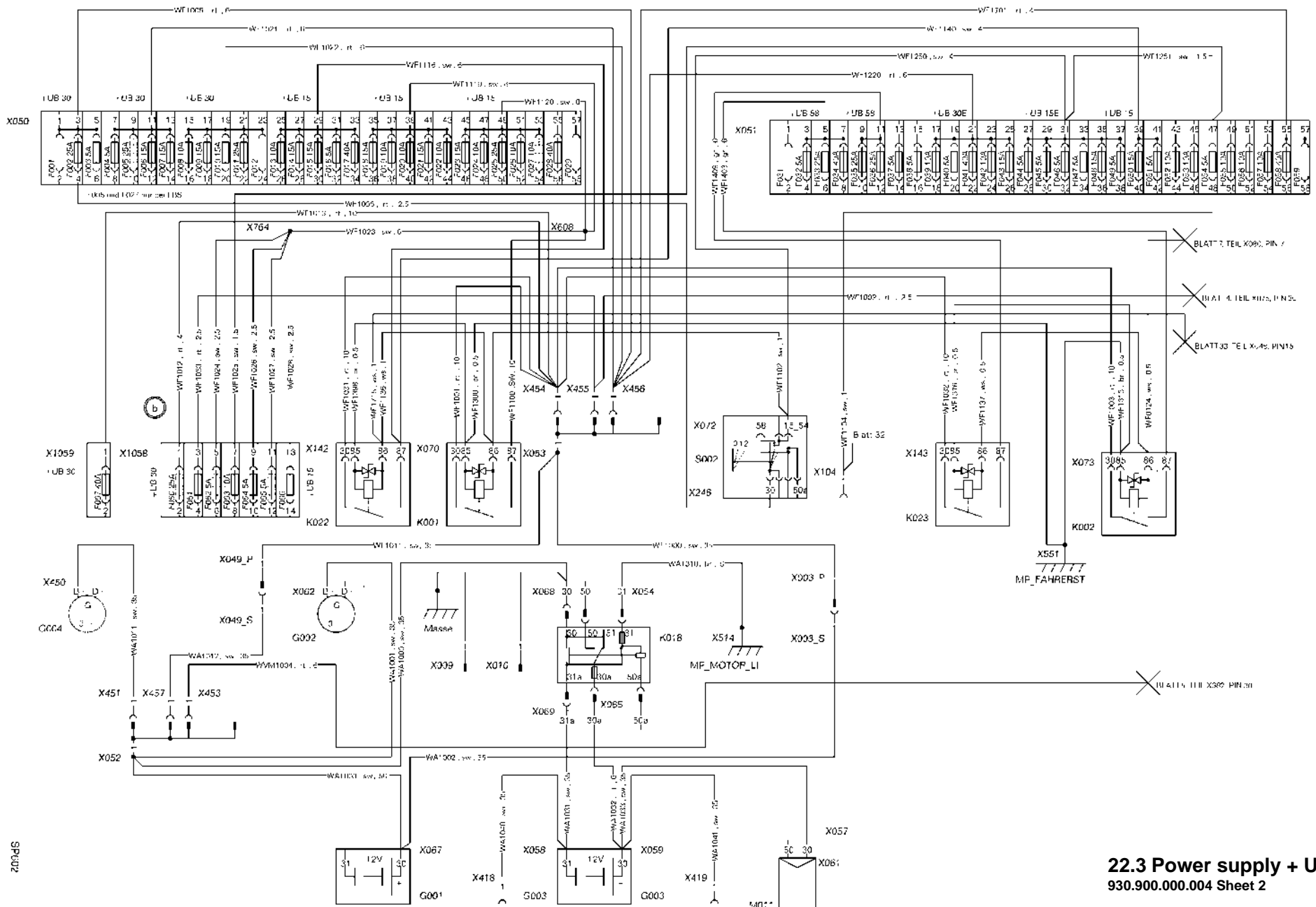
22.2 Colour coding for electric wires

Colour of wire	Abbreviation	Mark
white (with black printing)	ws	General colour of wires
red	rt	+ UB 30
black	sw	+ UB 15
yellow	ge	+ UB 15E
grey (basic colour for lighting)	gr	+ UB 58
grey - black	gr-sw	+ UB 58 lighting left
grey - red	gr-rt	+ UB 58 lighting right
yellow	ge	+ UB power supply
brown	br	vehicle body ground
brown - white	br-ws	Electronics ground
brown - yellow	br-ge	Sensors ground
black - green	sw-gn	Right side turn signal lamp
black - white	sw-ws	Left side turn signal lamp
orange	or	Additional wiring
blue	bl	
pink	rs	
turquoise	tk	
violet	vi	

22.3 Wiring diagrams

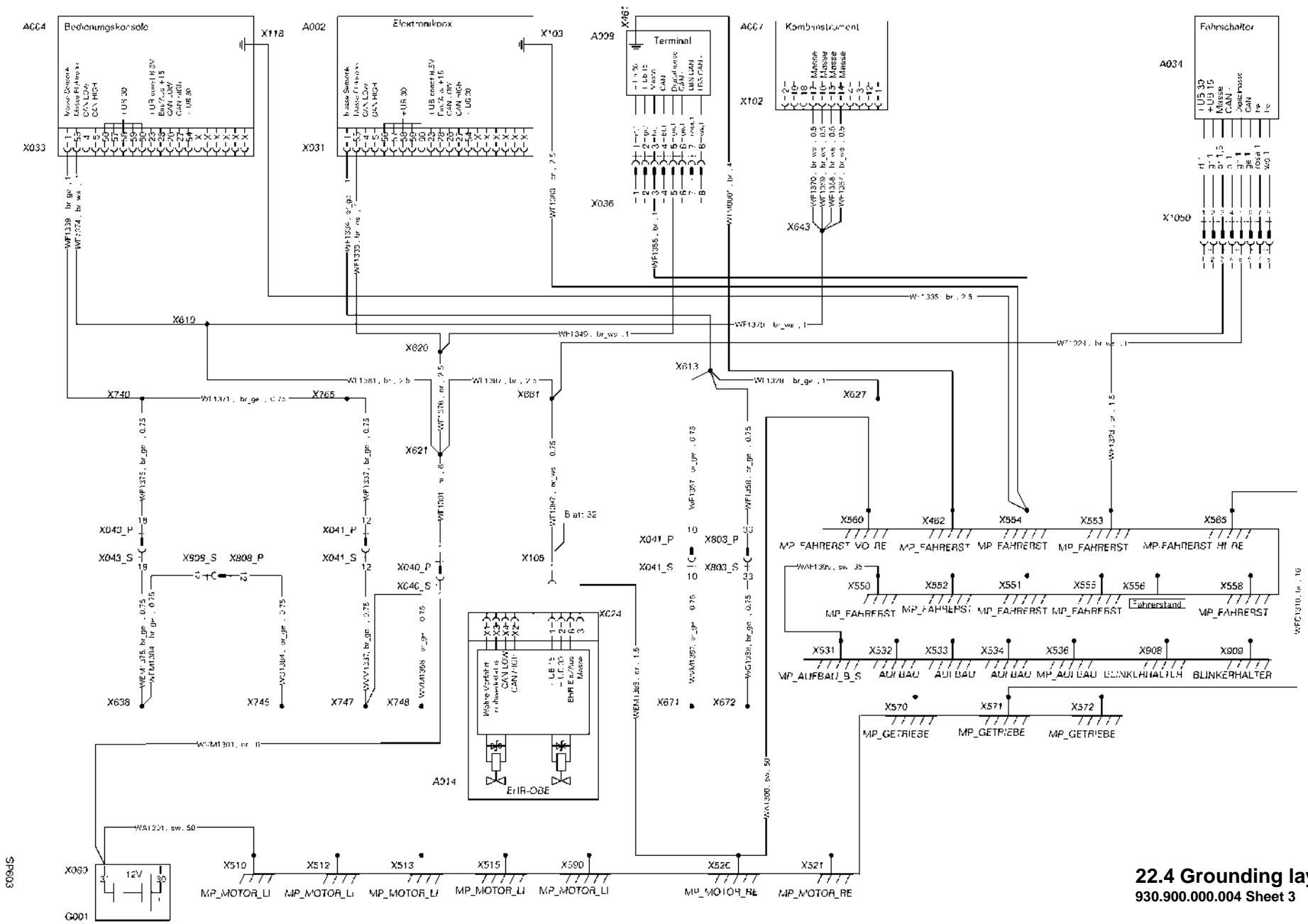
List of wiring diagrams

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- Sheet 28 = Transmission emergency operation
- Sheet 29 = Suspension
- Sheet 30 = PTO
- Sheet 31 = 4WD and differential lock
- Sheet 32 = LBS (Agricultural BUS system)
- Sheet 33 = Engine control

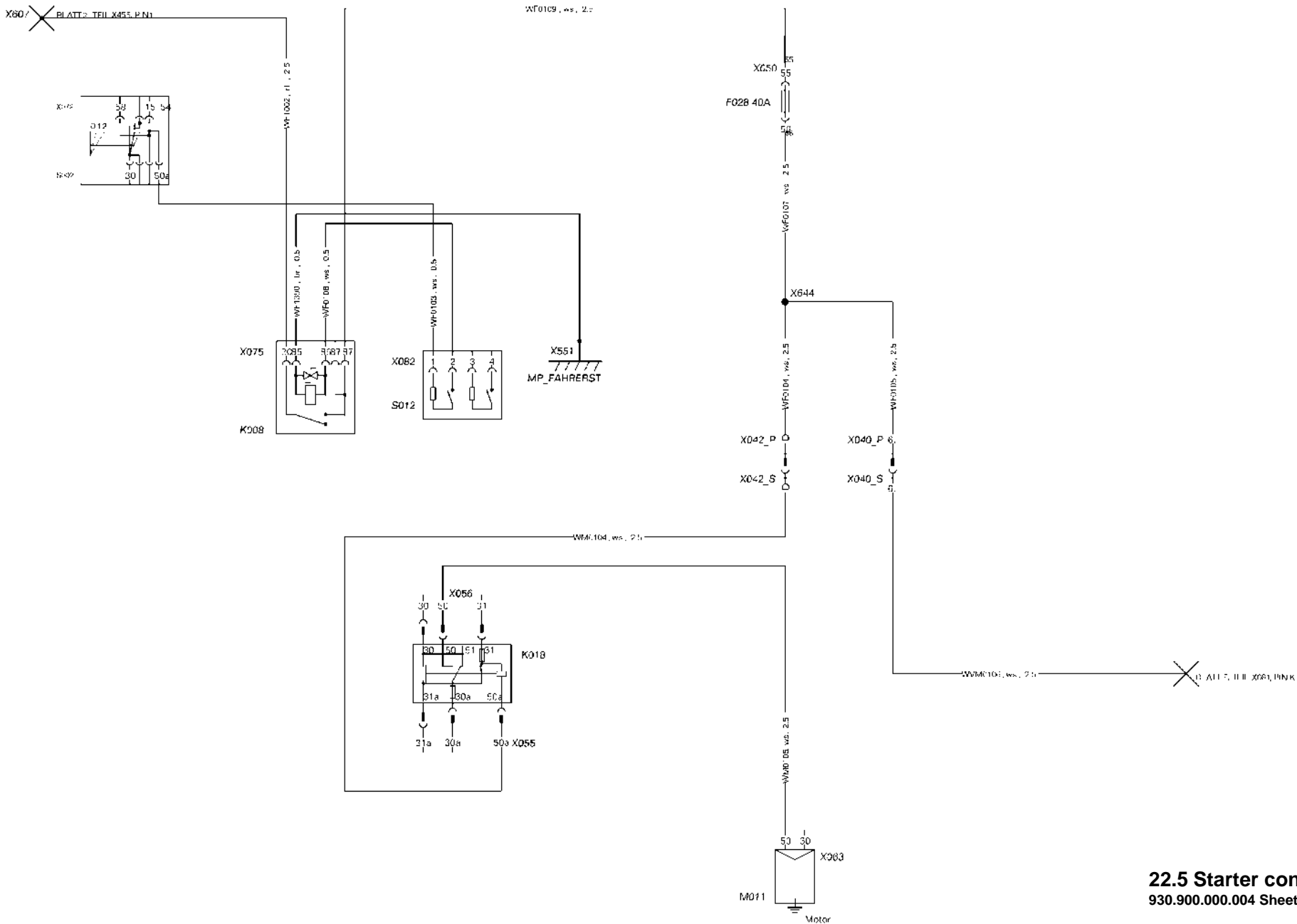


22.3 Power supply + UB
930.900.000.004 Sheet 2

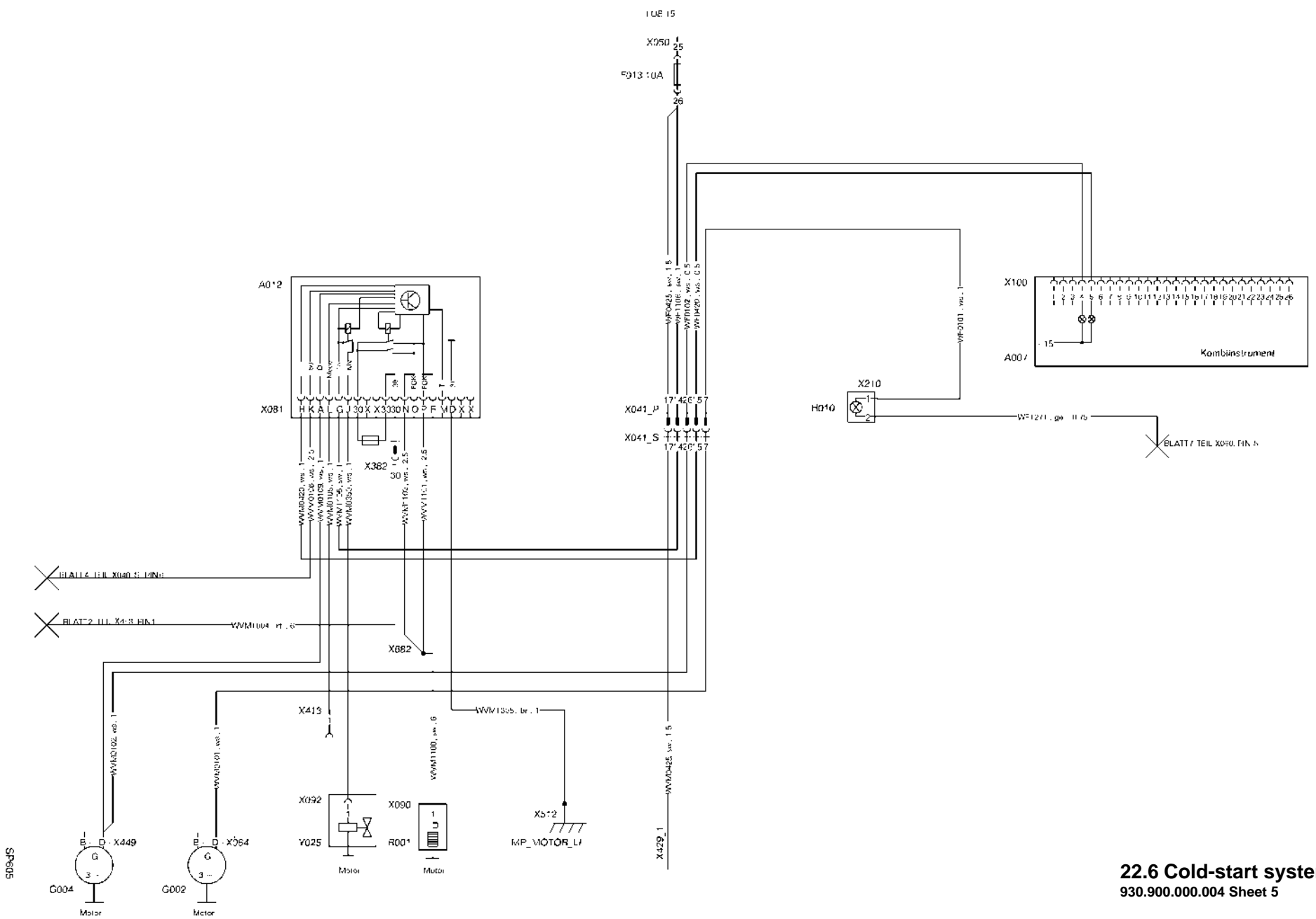
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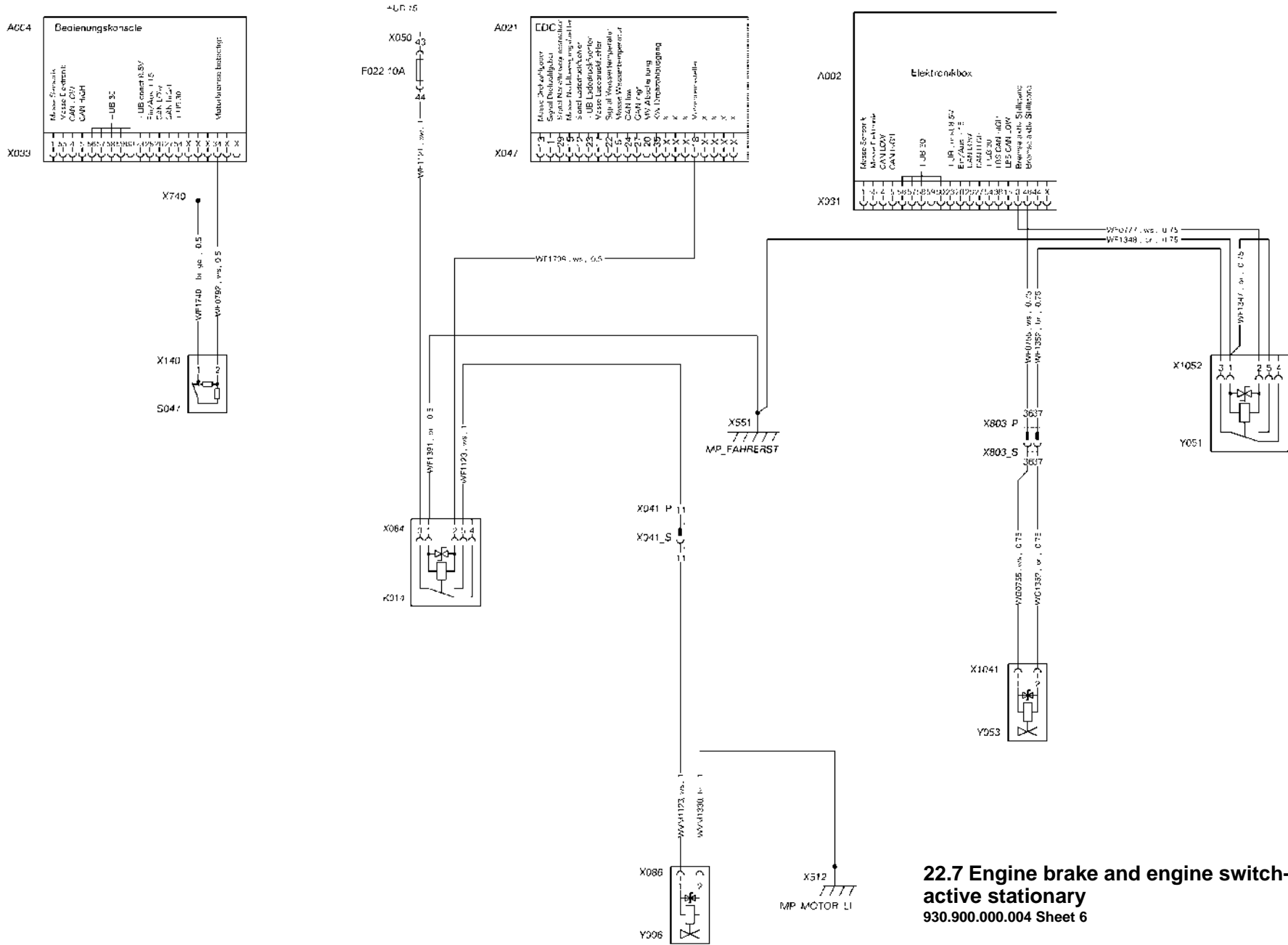
22.4 Grounding layout
 930.900.000.004 Sheet 3



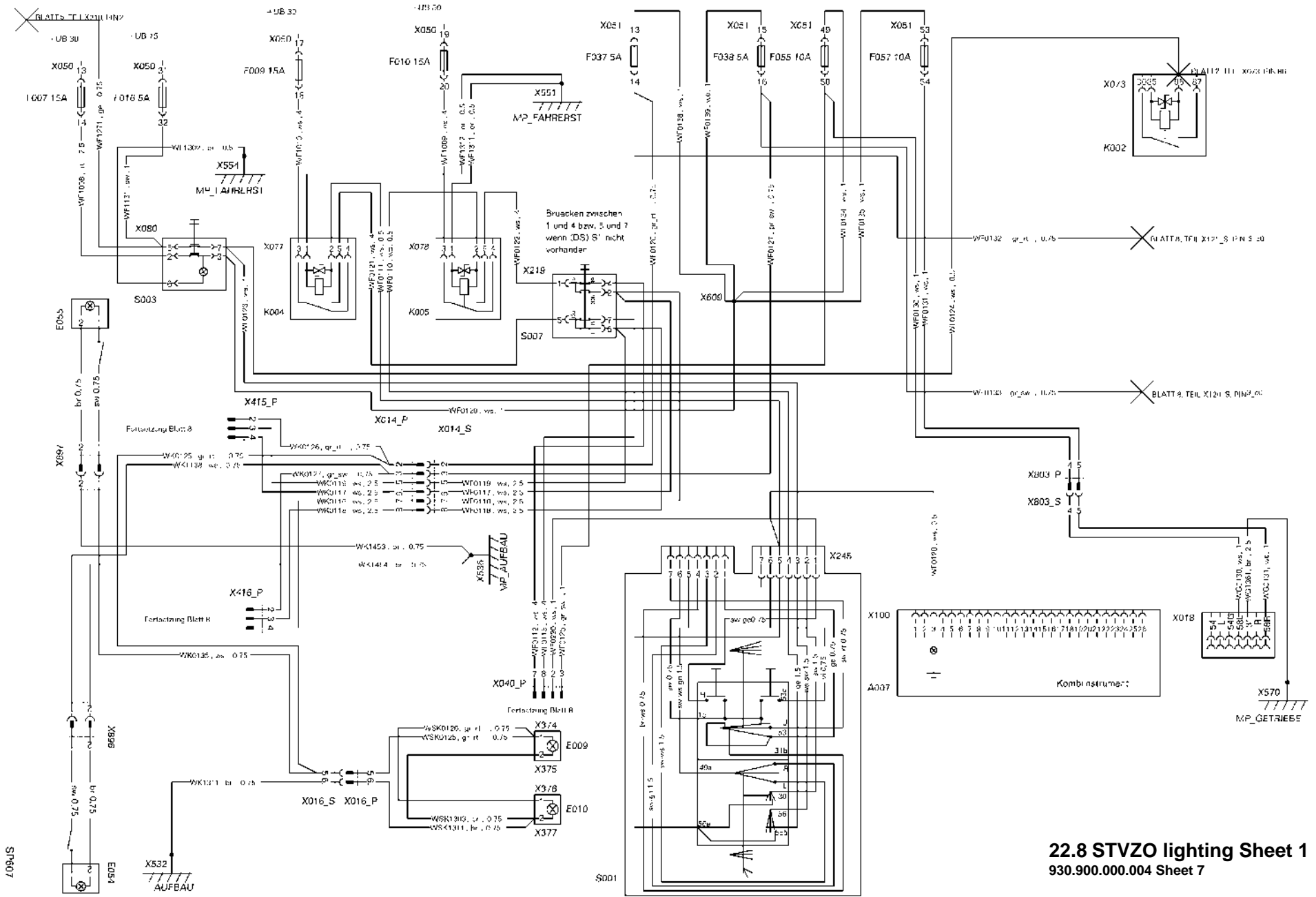
22.5 Starter control
930.900.000.004 Sheet 4



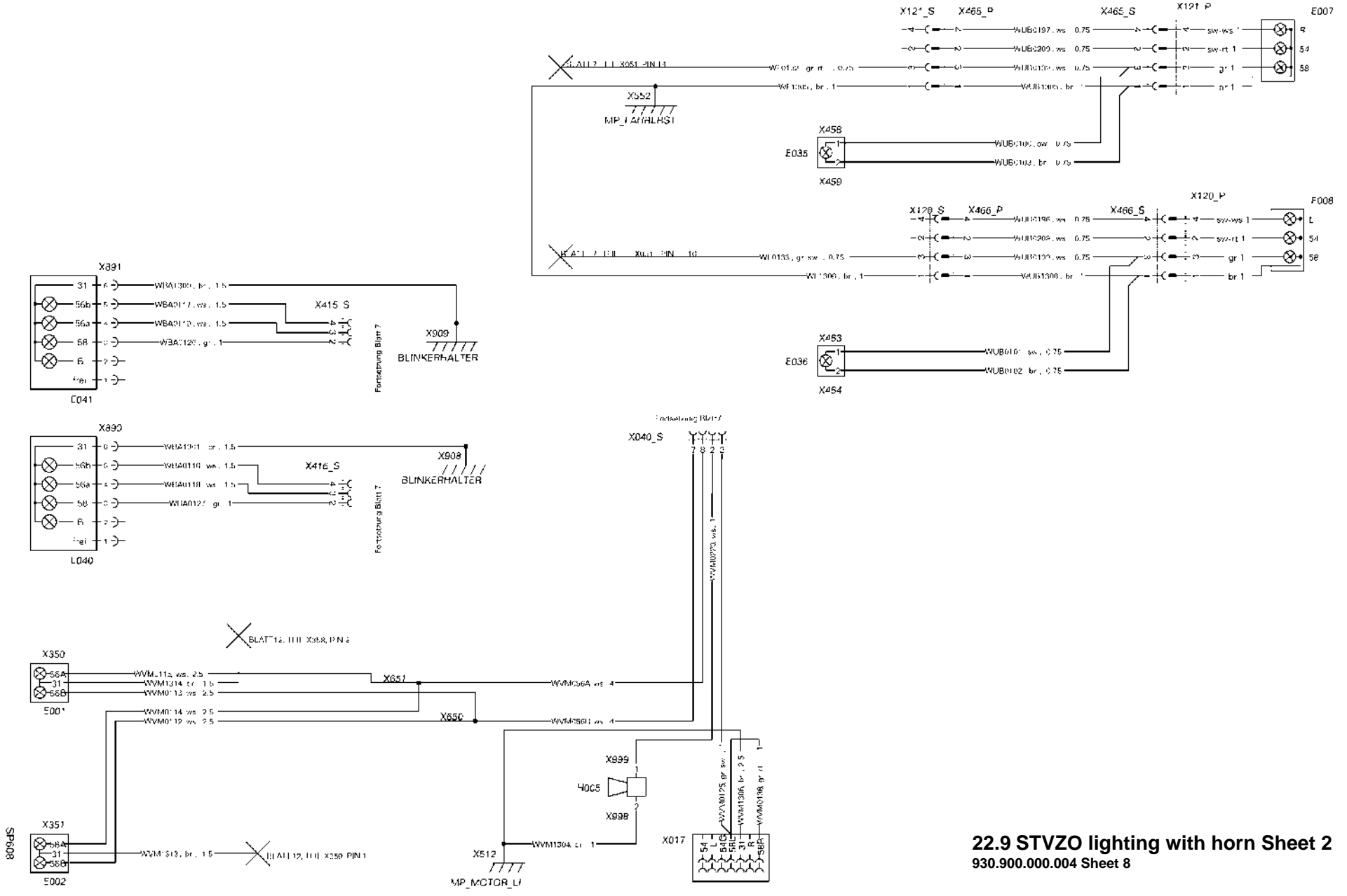
22.6 Cold-start system
930.900.000.004 Sheet 5



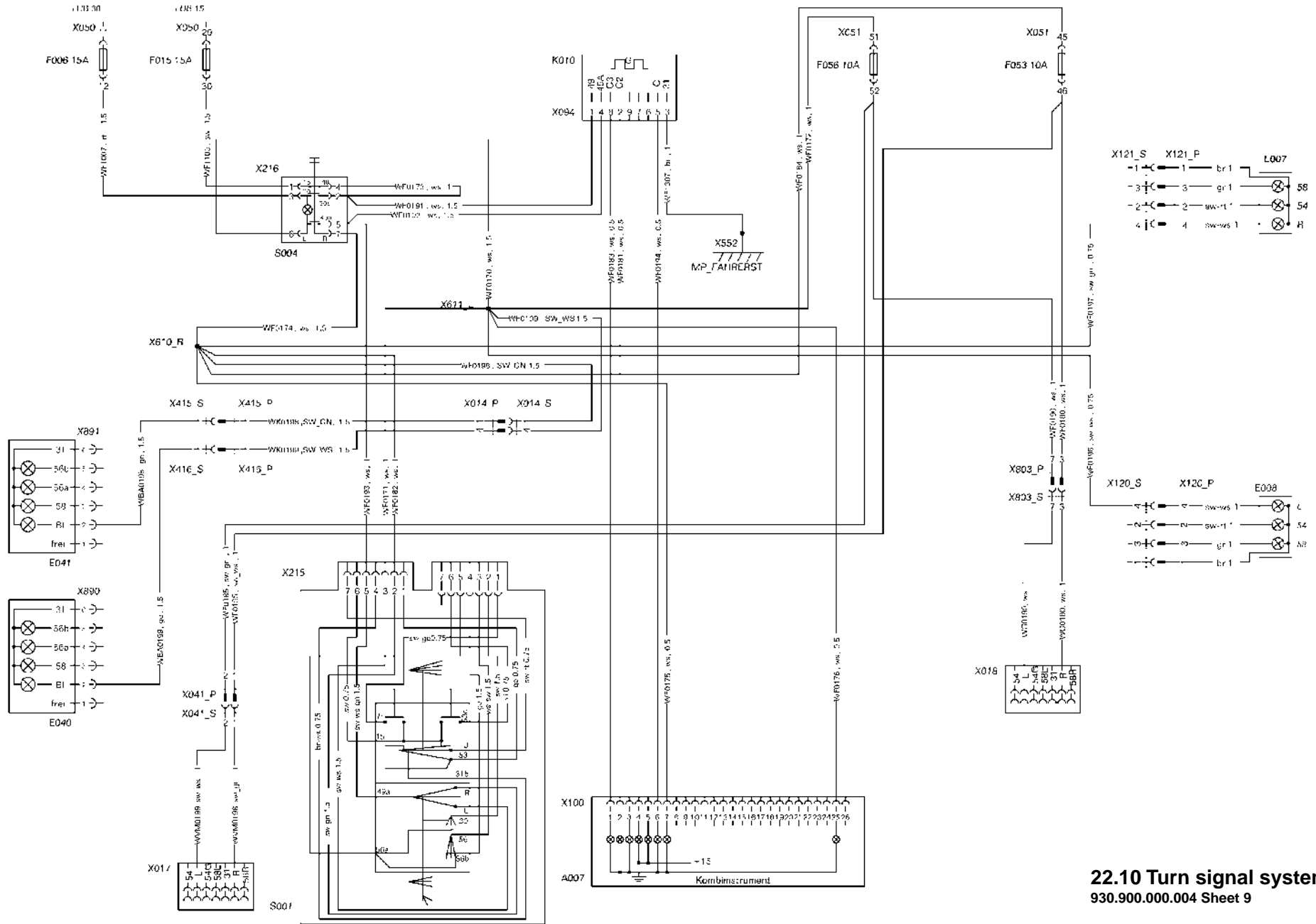
22.7 Engine brake and engine switch-off, active stationary
 930.900.000.004 Sheet 6



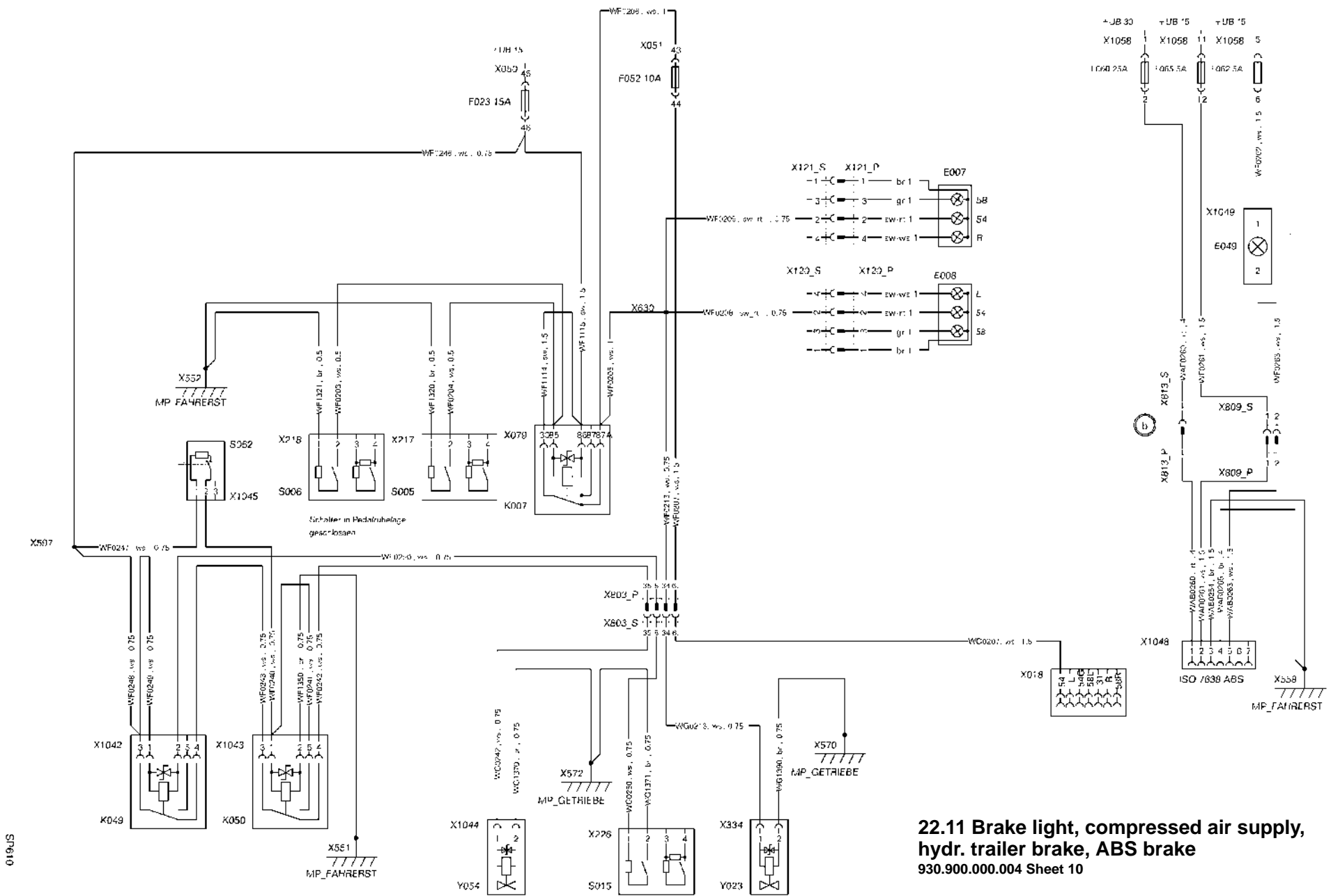
22.8 STVZO lighting Sheet 1
 930.900.000.004 Sheet 7



22.9 STVZO lighting with horn Sheet 2
930.900.000.004 Sheet 8

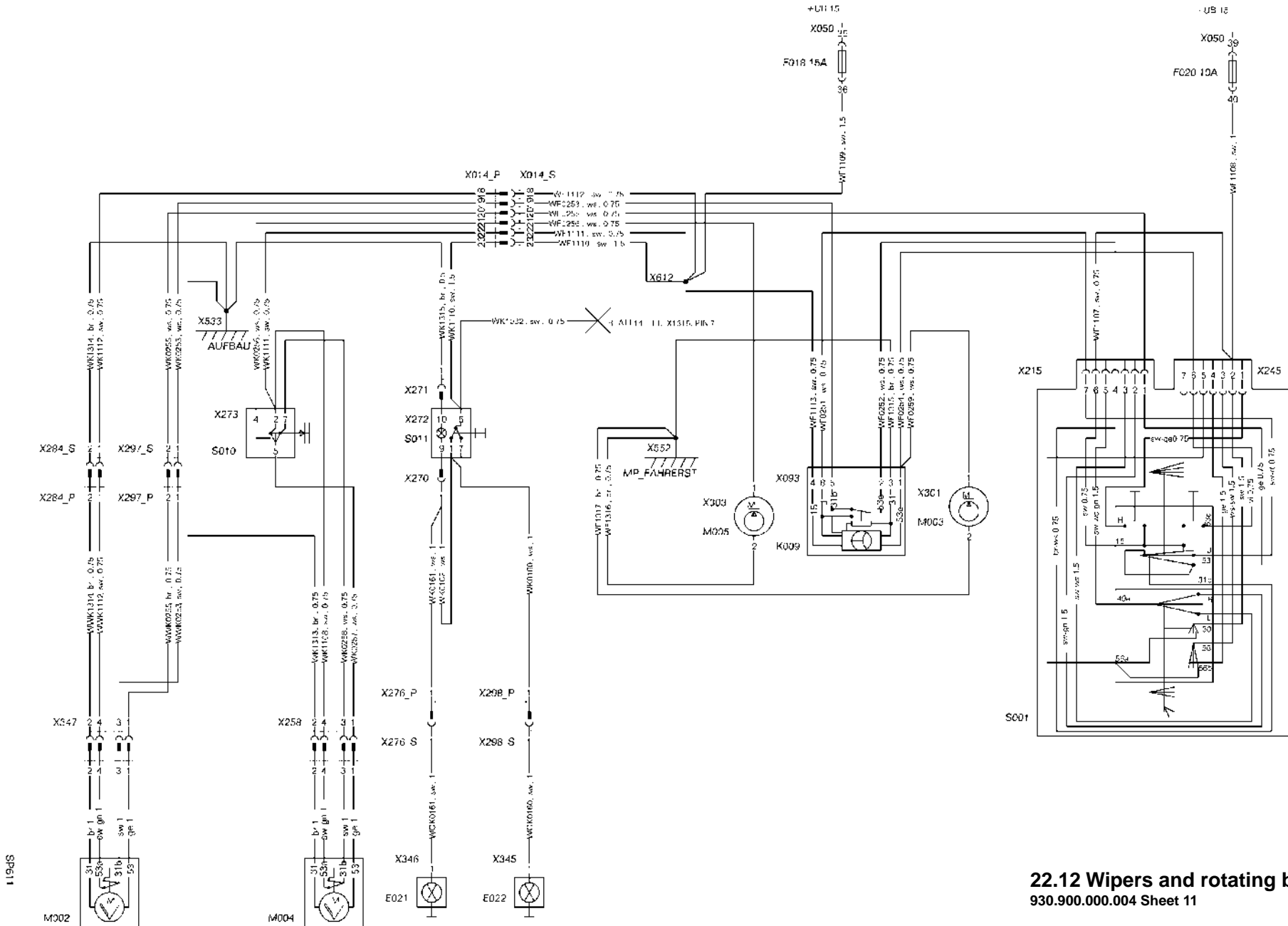


22.10 Turn signal system
930.900.000.004 Sheet 9

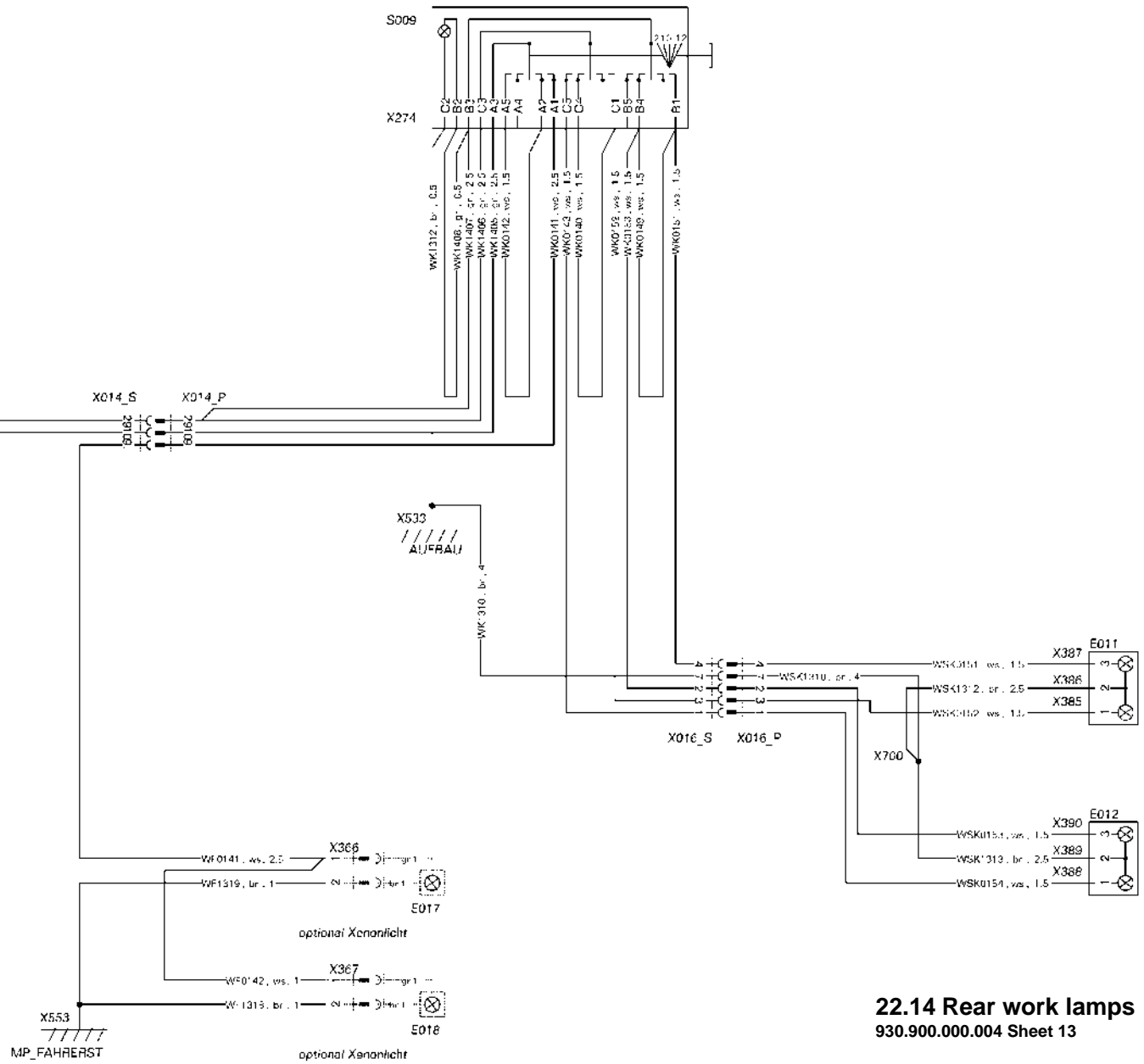
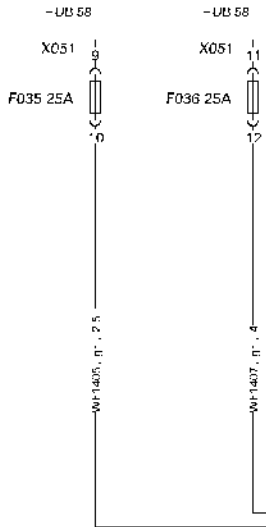


22.11 Brake light, compressed air supply, hydr. trailer brake, ABS brake
930.900.000.004 Sheet 10

SR610

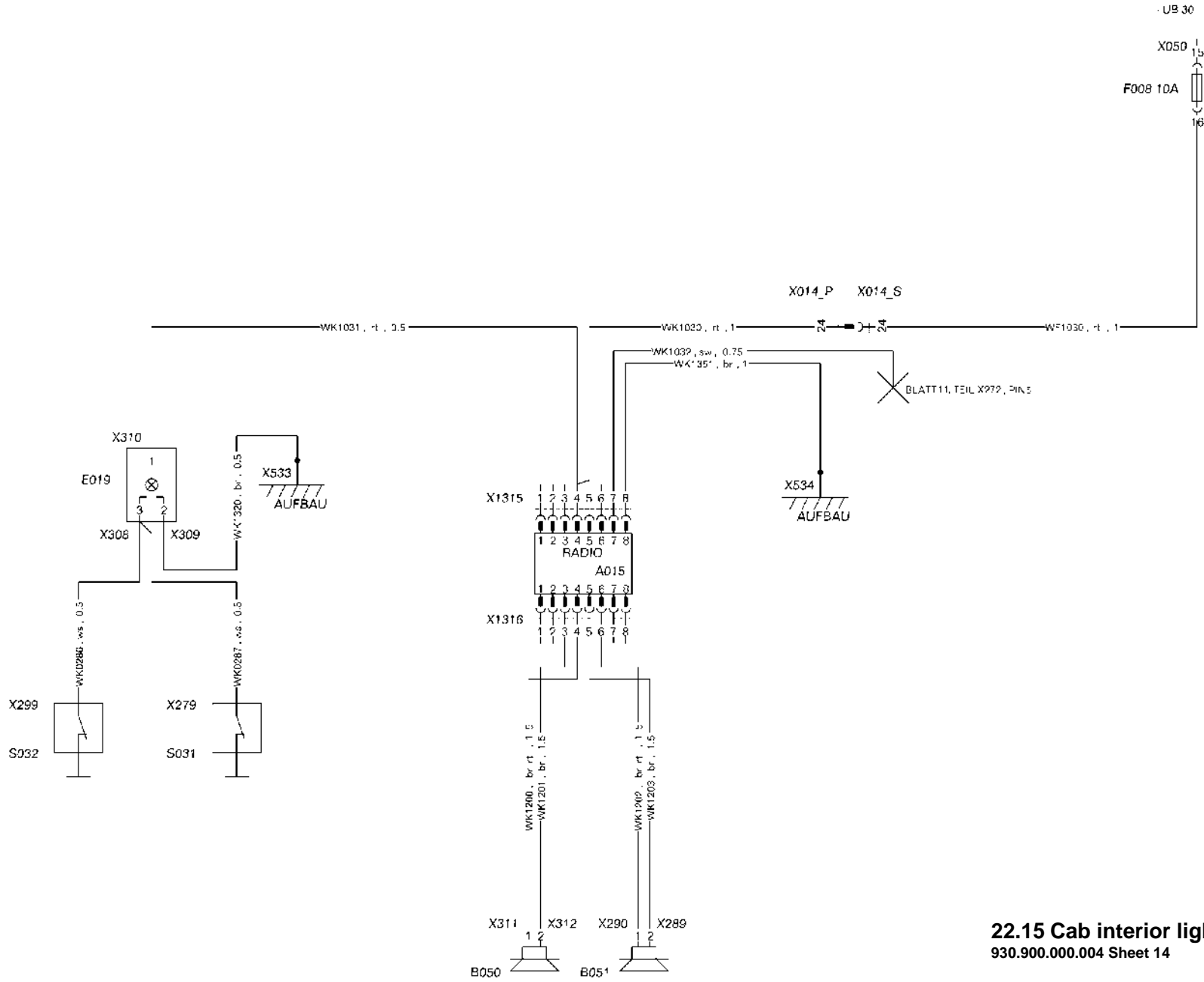


22.12 Wipers and rotating beacon
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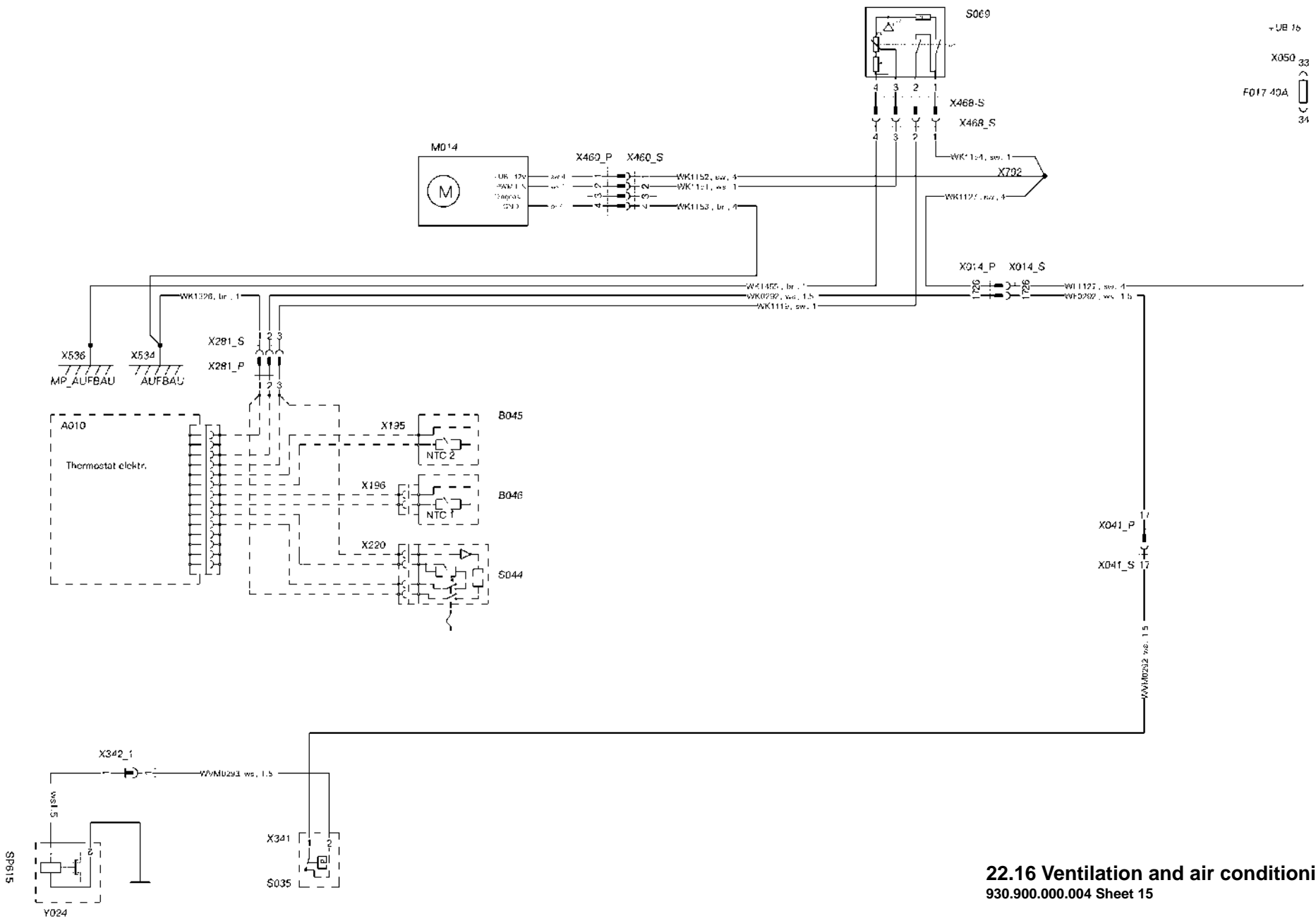


22.14 Rear work lamps
930.900.000.004 Sheet 13

SP613

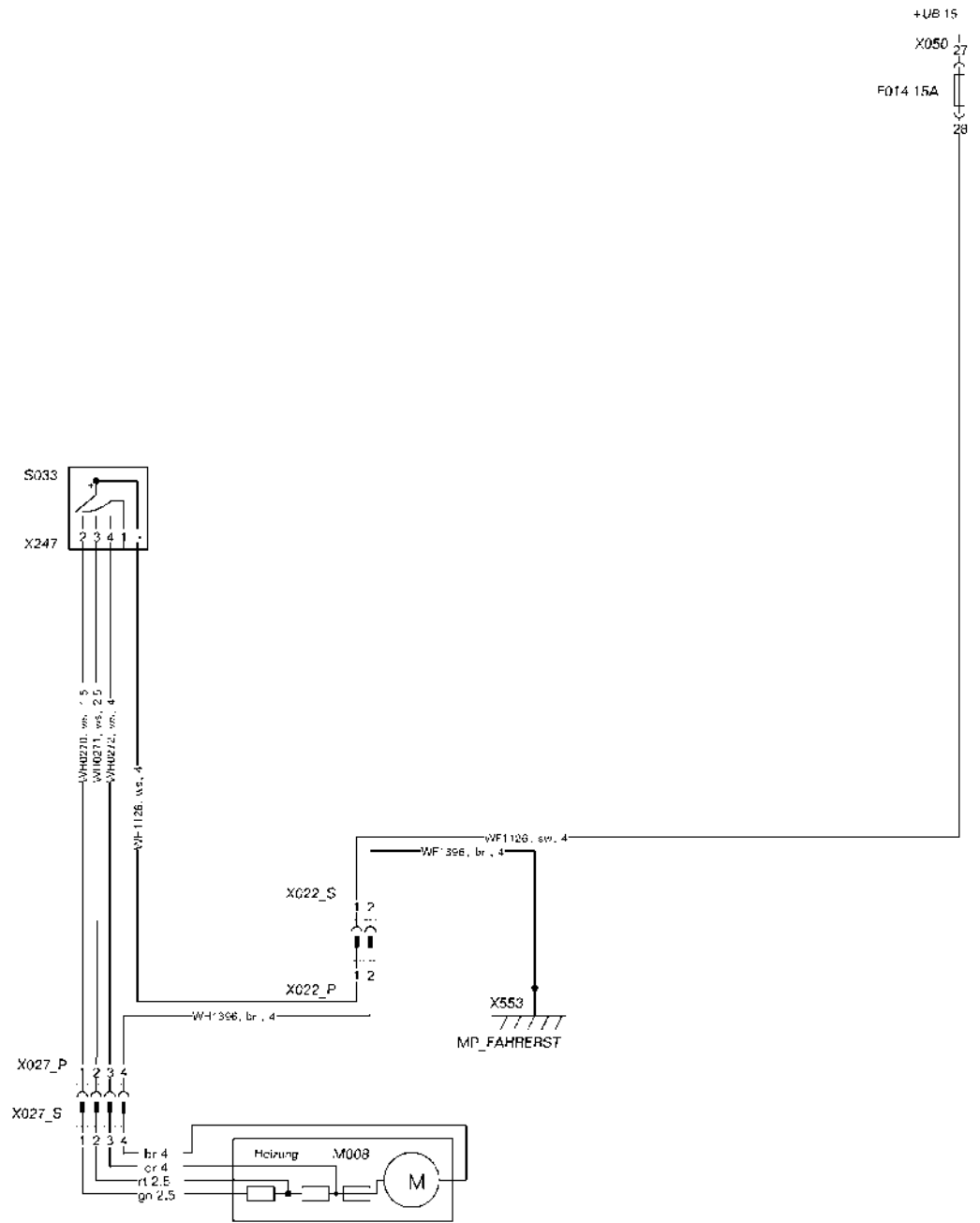


22.15 Cab interior lighting and radio
930.900.000.004 Sheet 14

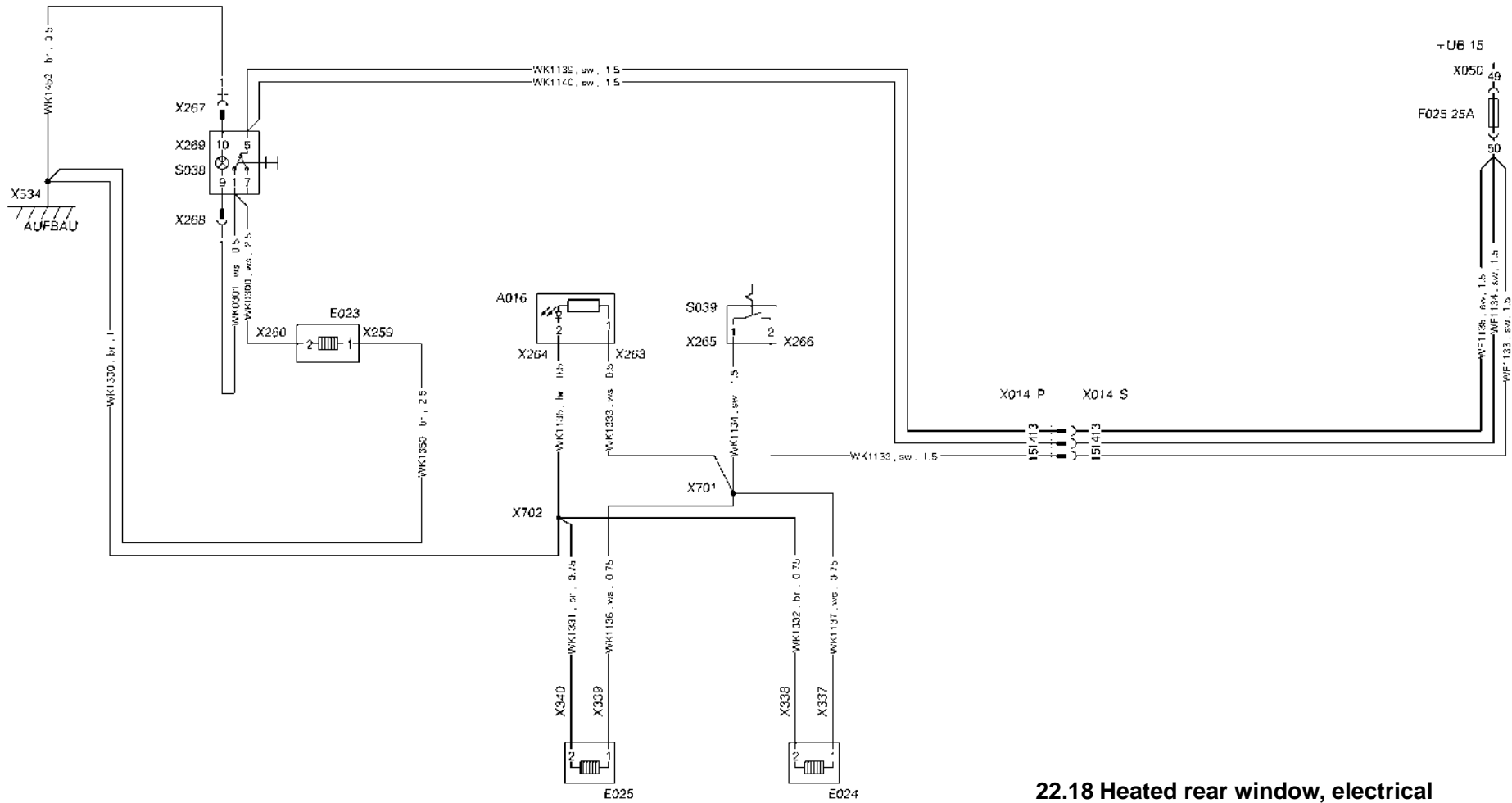


+UB 16
 X050 33
 F017 40A
 34

22.16 Ventilation and air conditioning
 930.900.000.004 Sheet 15

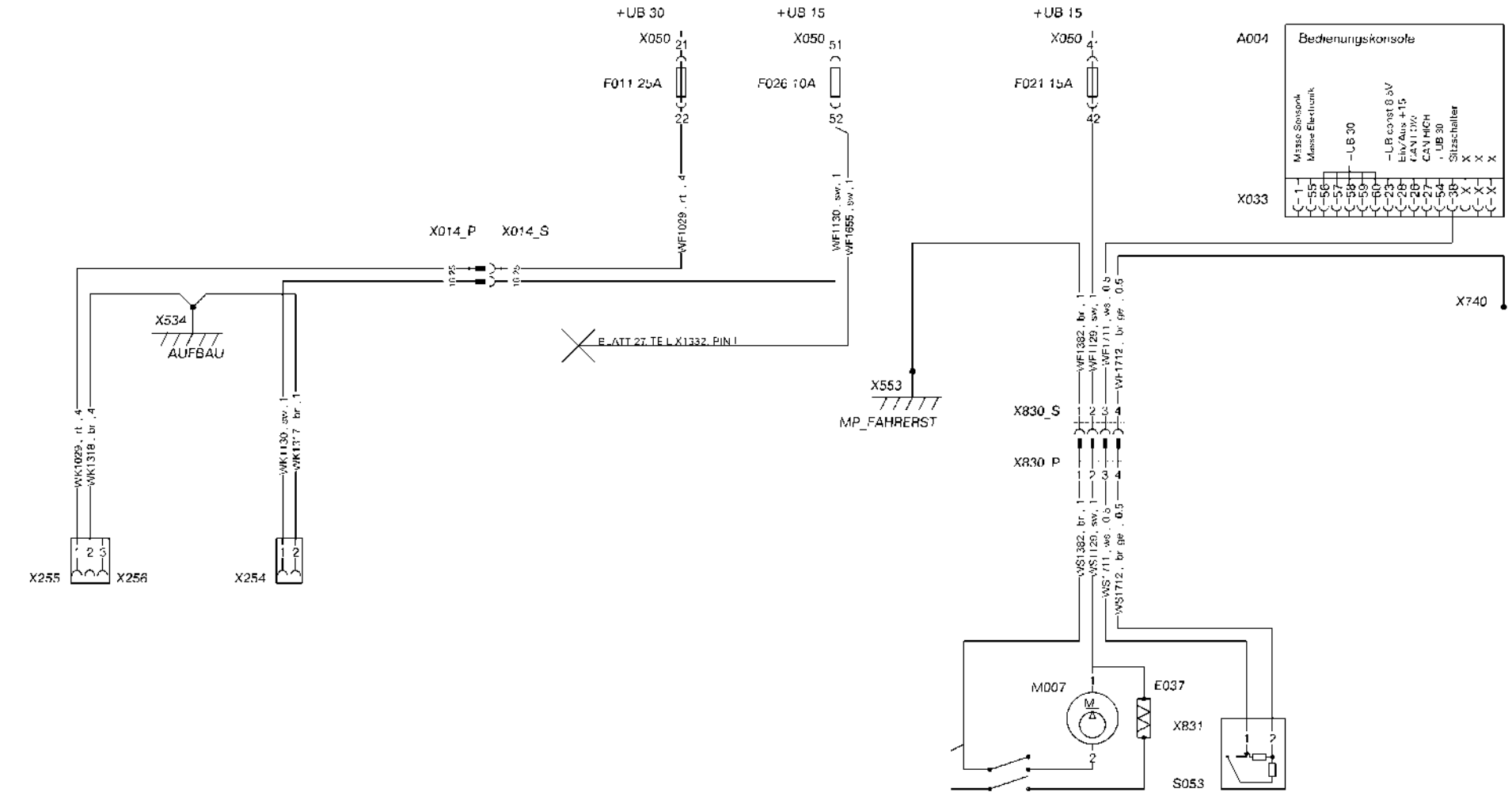


22.17 Heater
930.900.000.004 Sheet 16



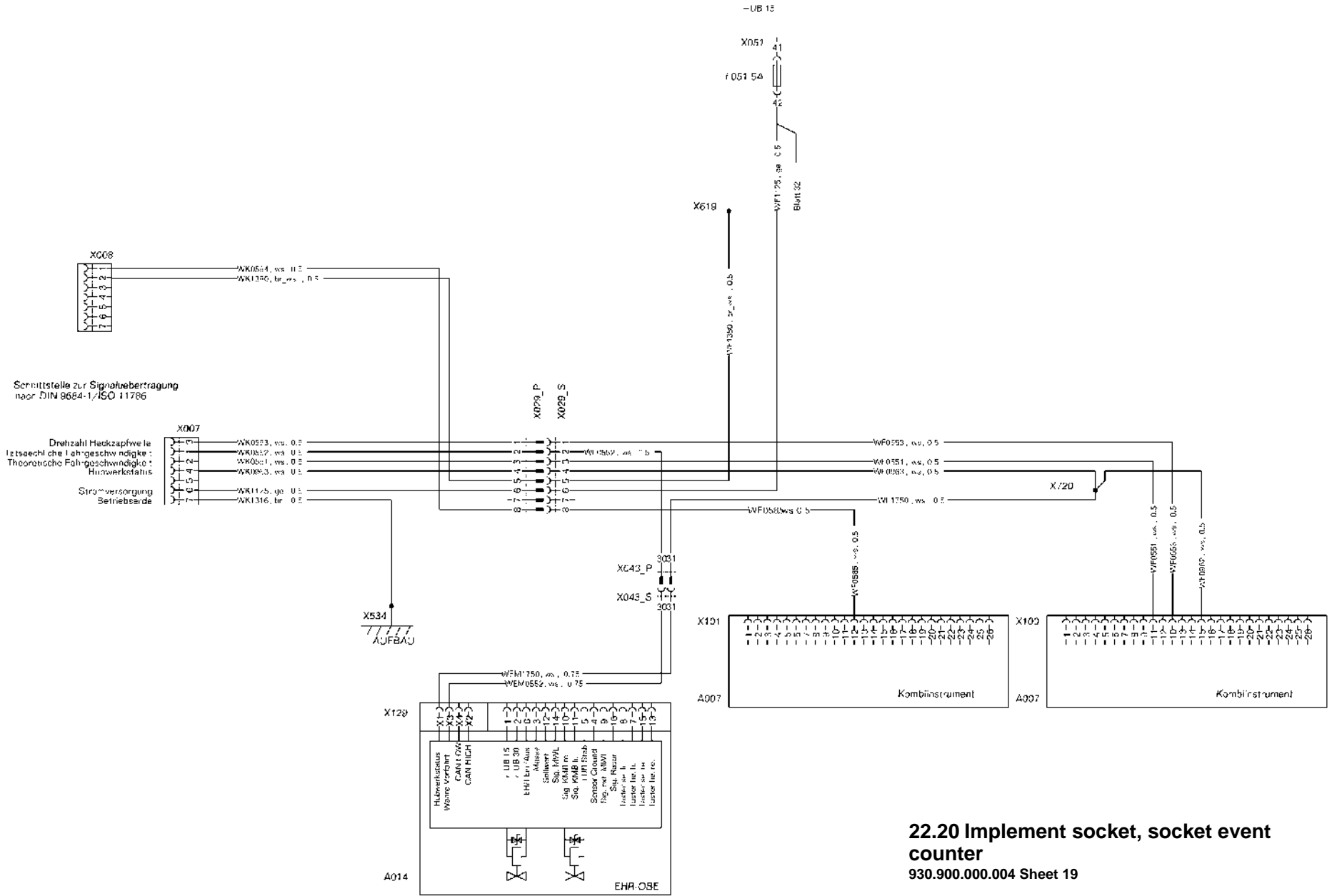
22.18 Heated rear window, electrical mirrors
 930.900.000.004 Sheet 17

SP817

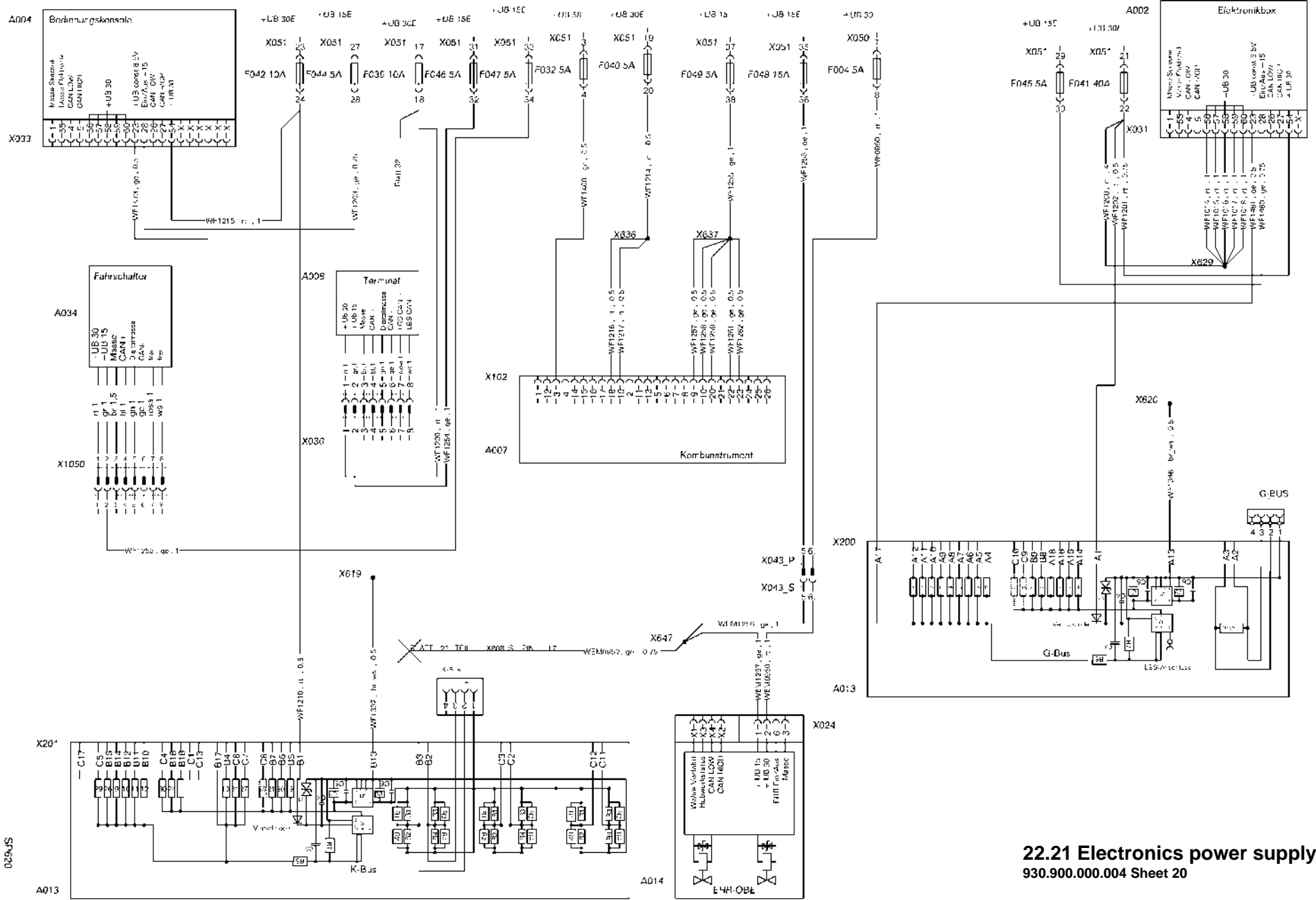


22.19 Socket and open separation points, seat switch
930.900.000.004 Sheet 18

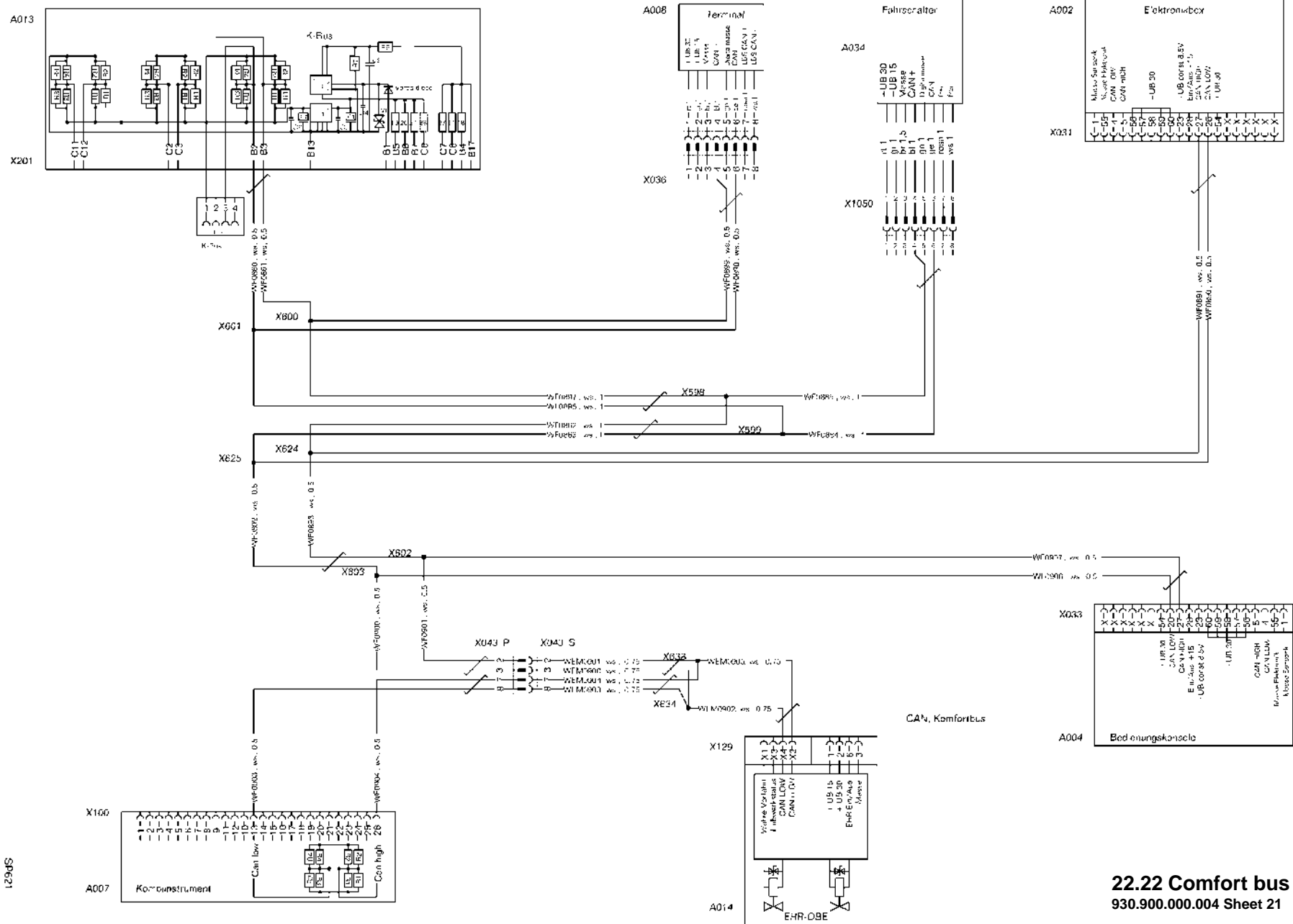
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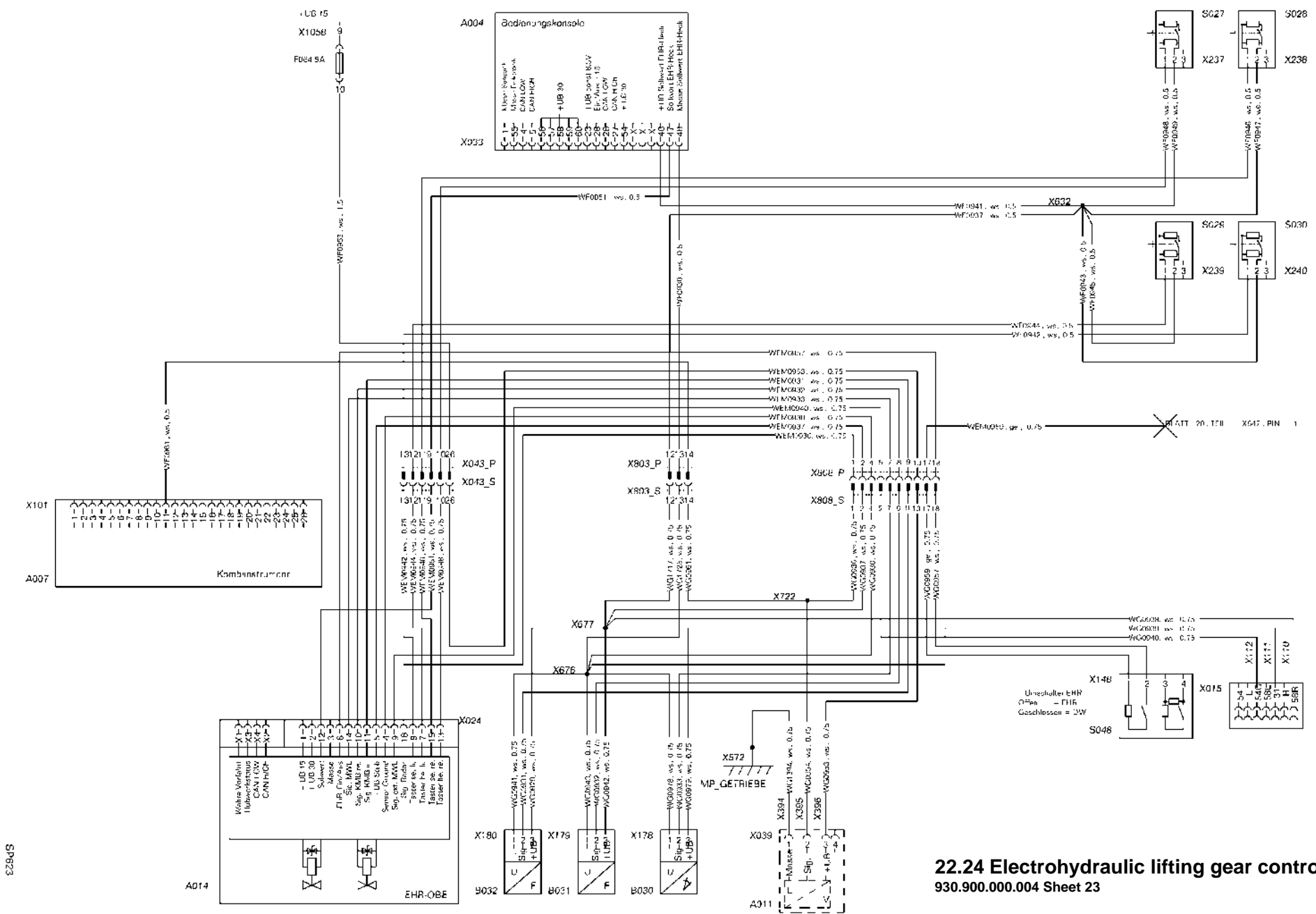
22.20 Implement socket, socket event counter
 930.900.000.004 Sheet 19



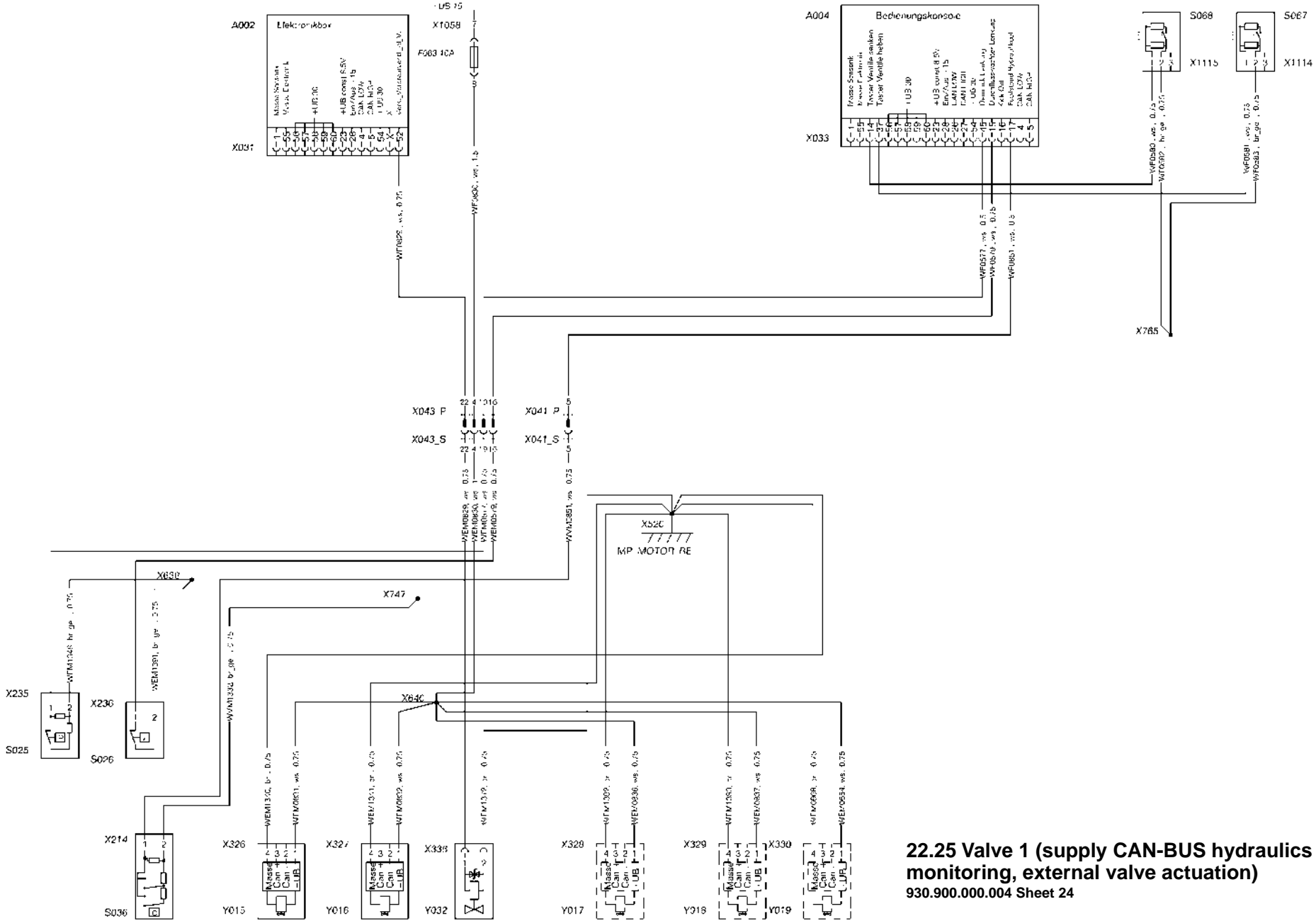
22.21 Electronics power supply
930.900.000.004 Sheet 20



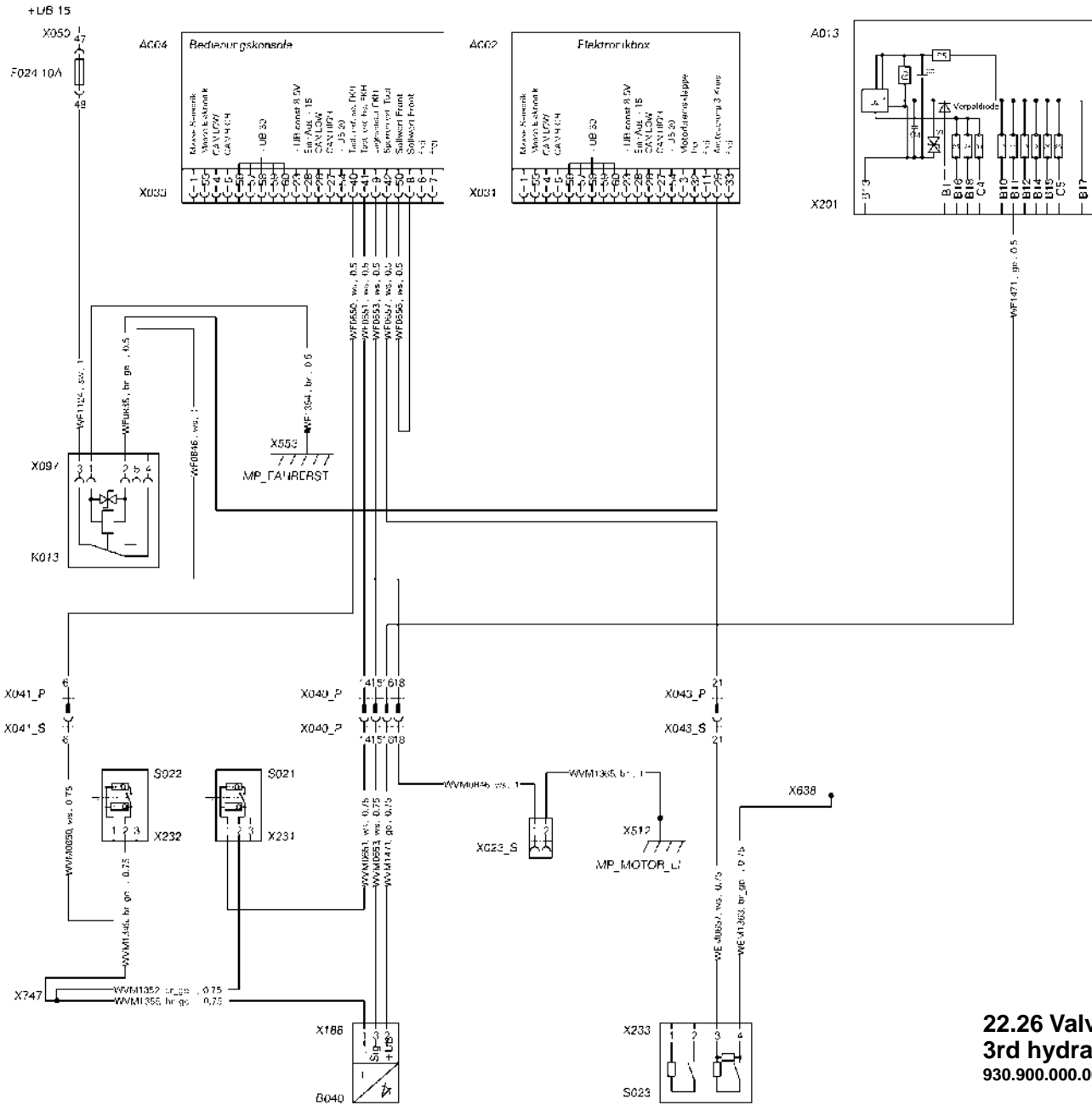
22.22 Comfort bus (K bus)
930.900.000.004 Sheet 21



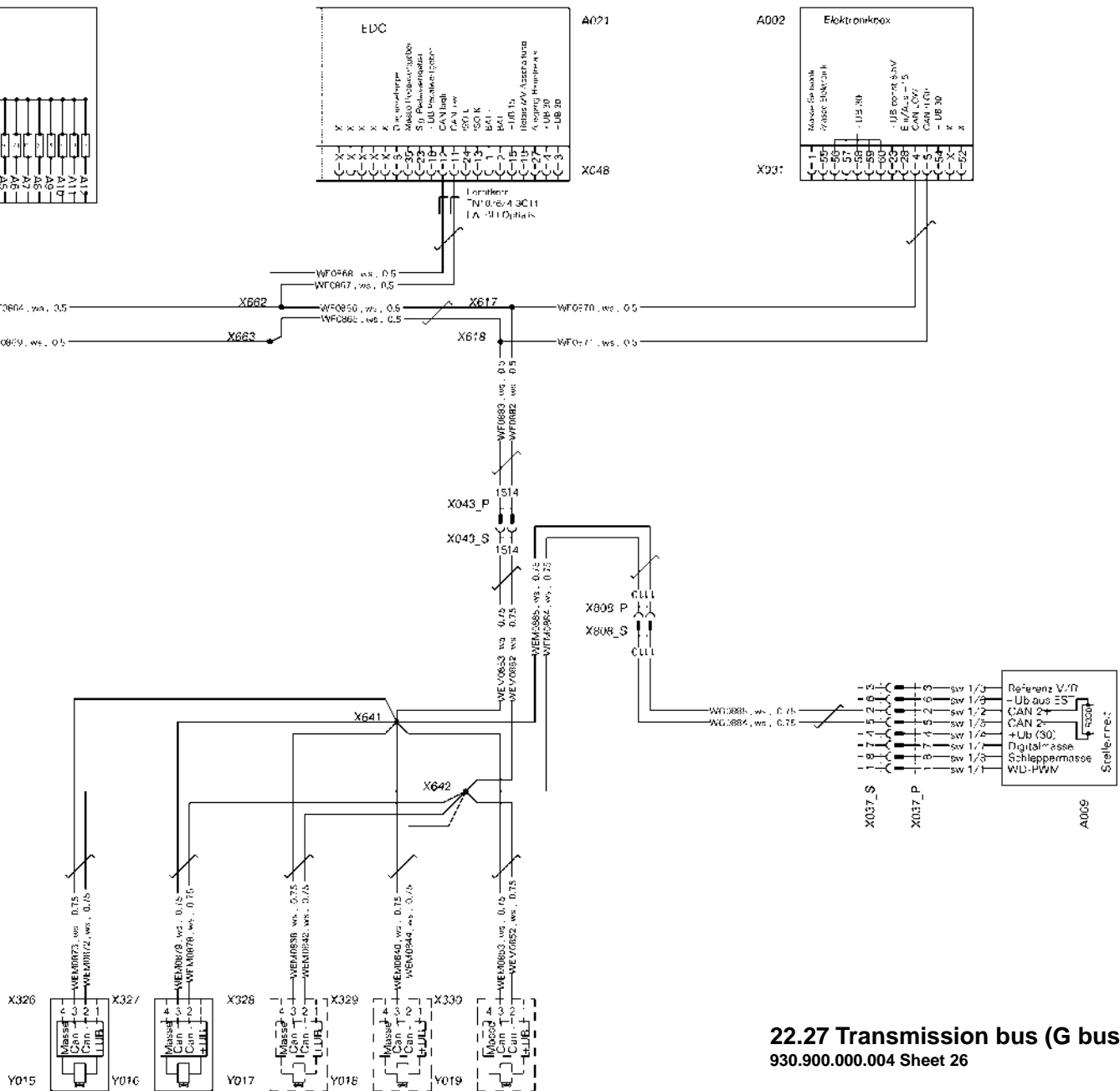
22.24 Electrohydraulic lifting gear control
 930.900.000.004 Sheet 23



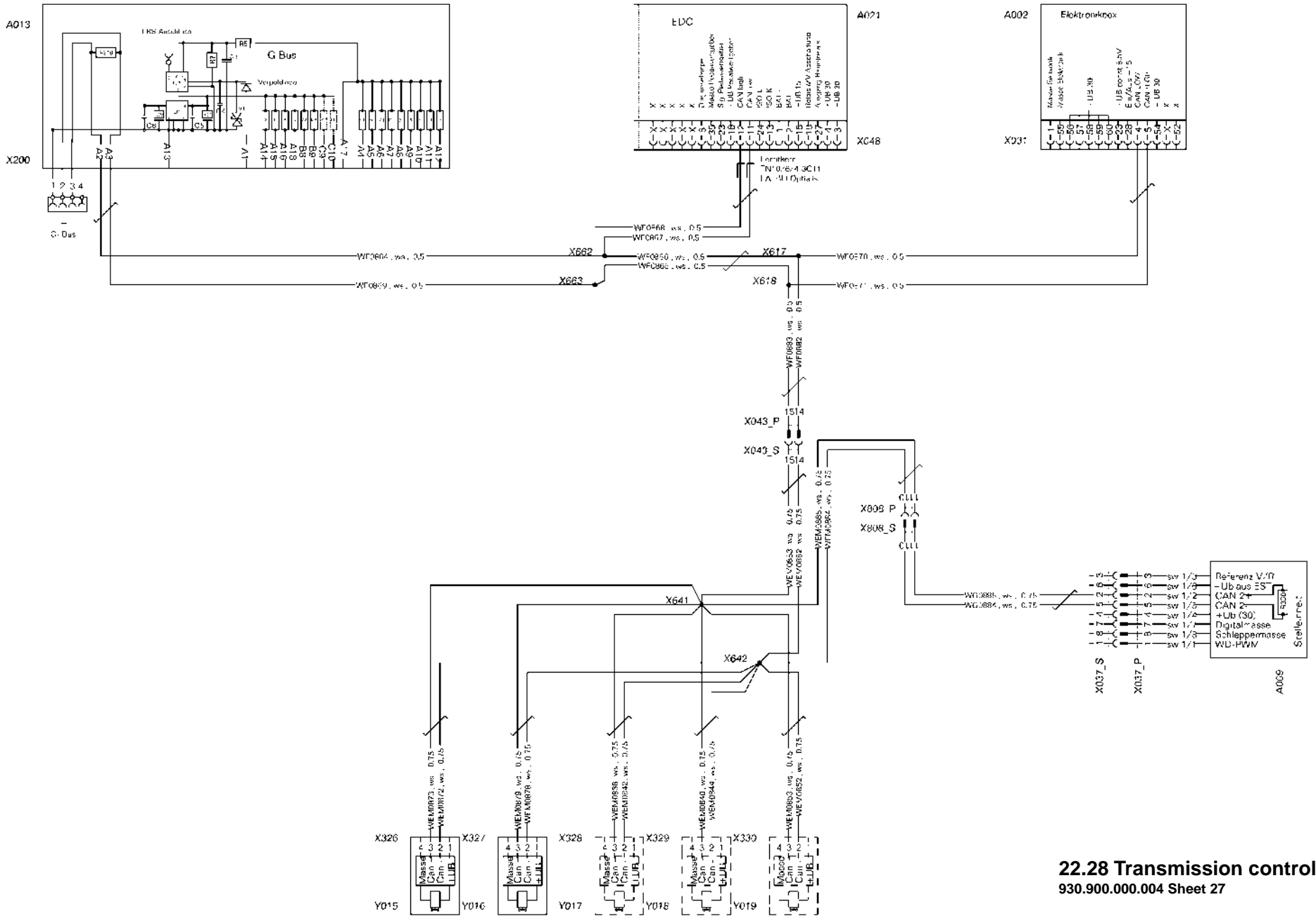
22.25 Valve 1 (supply CAN-BUS hydraulics monitoring, external valve actuation)
 930.900.000.004 Sheet 24



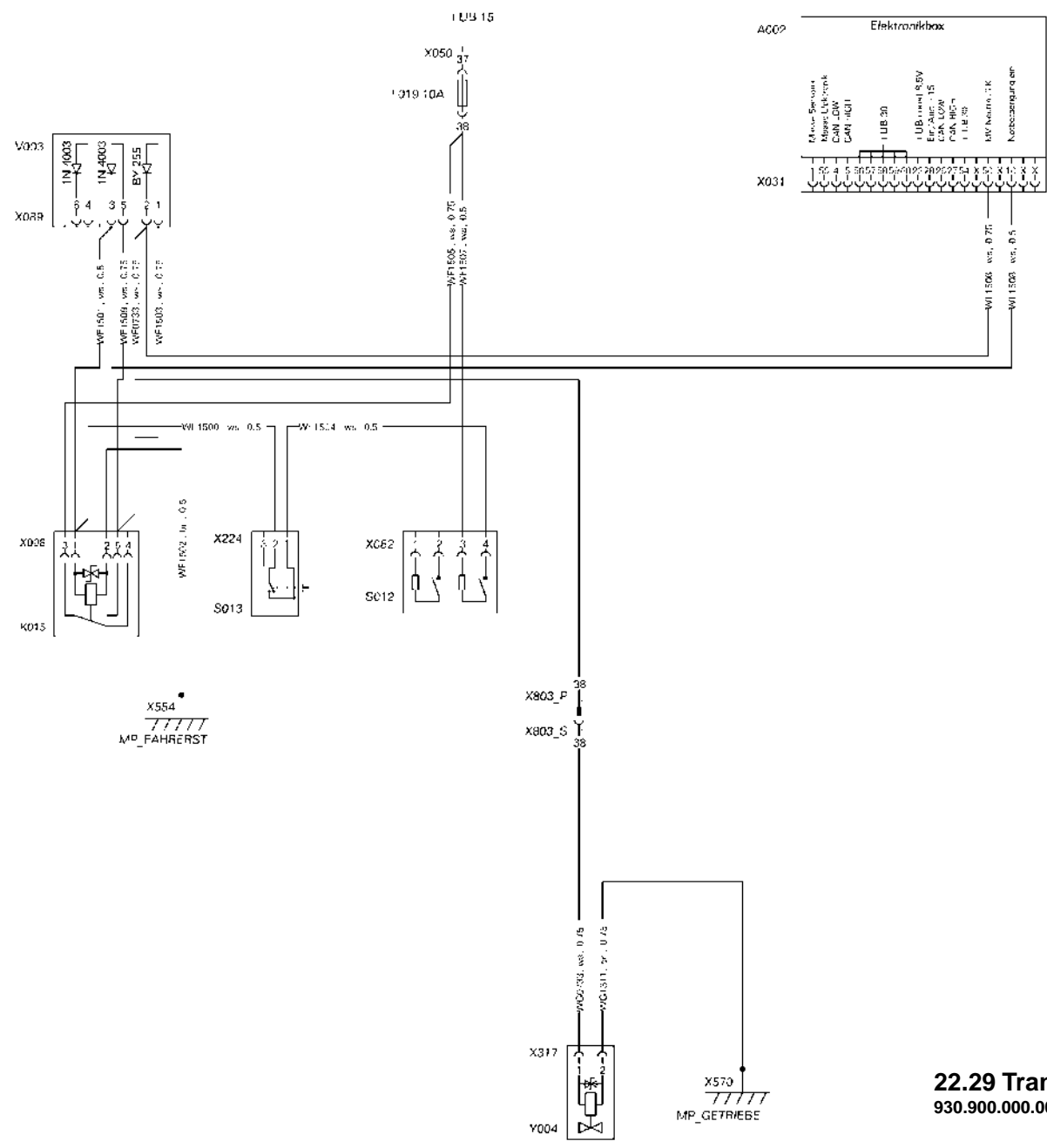
22.26 Valves 2 (front power lift, 3rd hydraulic circuit, valves operation)
 930.900.000.004 Sheet 25



22.27 Transmission bus (G bus)
930.900.000.004 Sheet 26

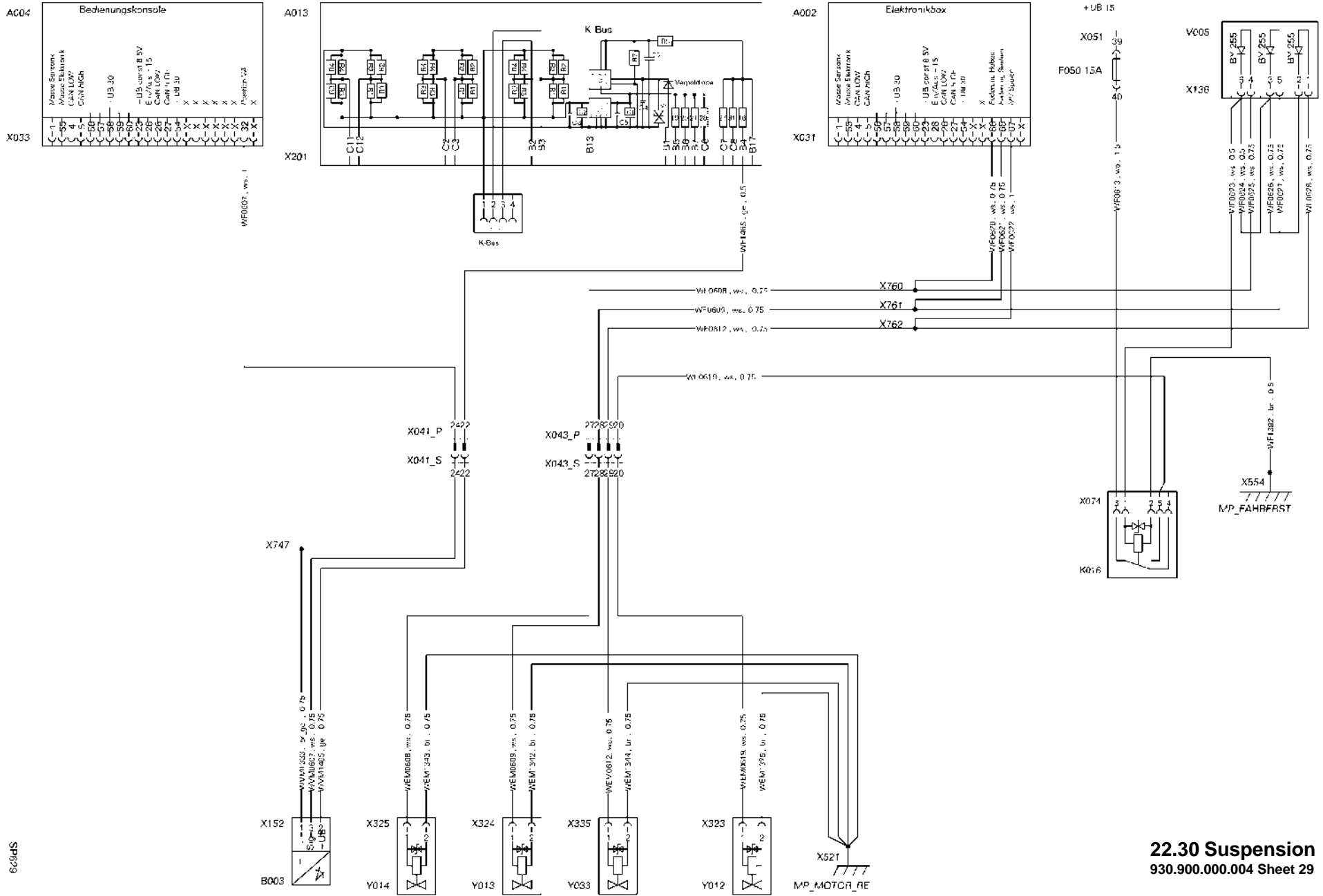


22.28 Transmission control
930.900.000.004 Sheet 27

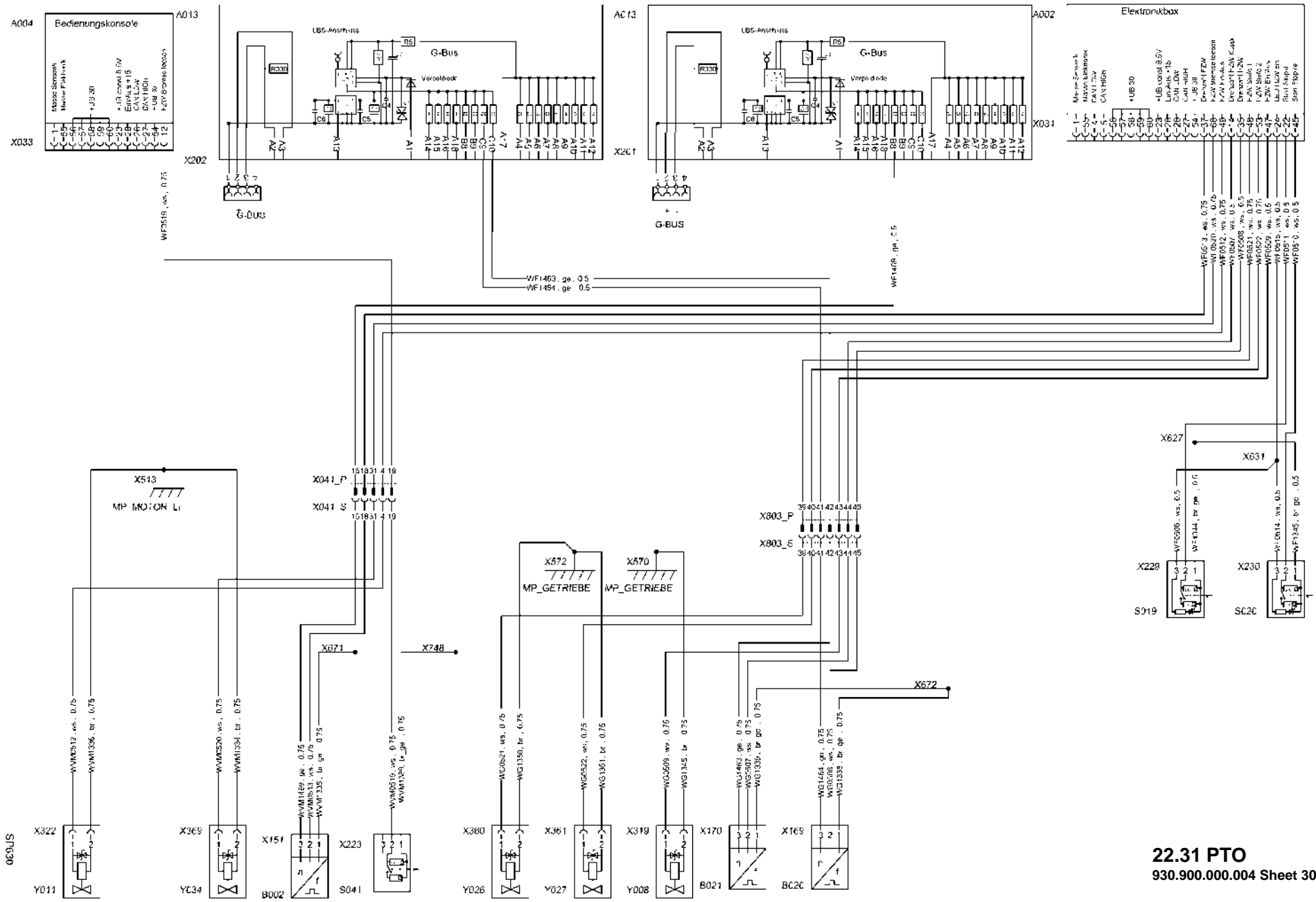


22.29 Transmission emergency operation
930.900.000.004 Sheet 28

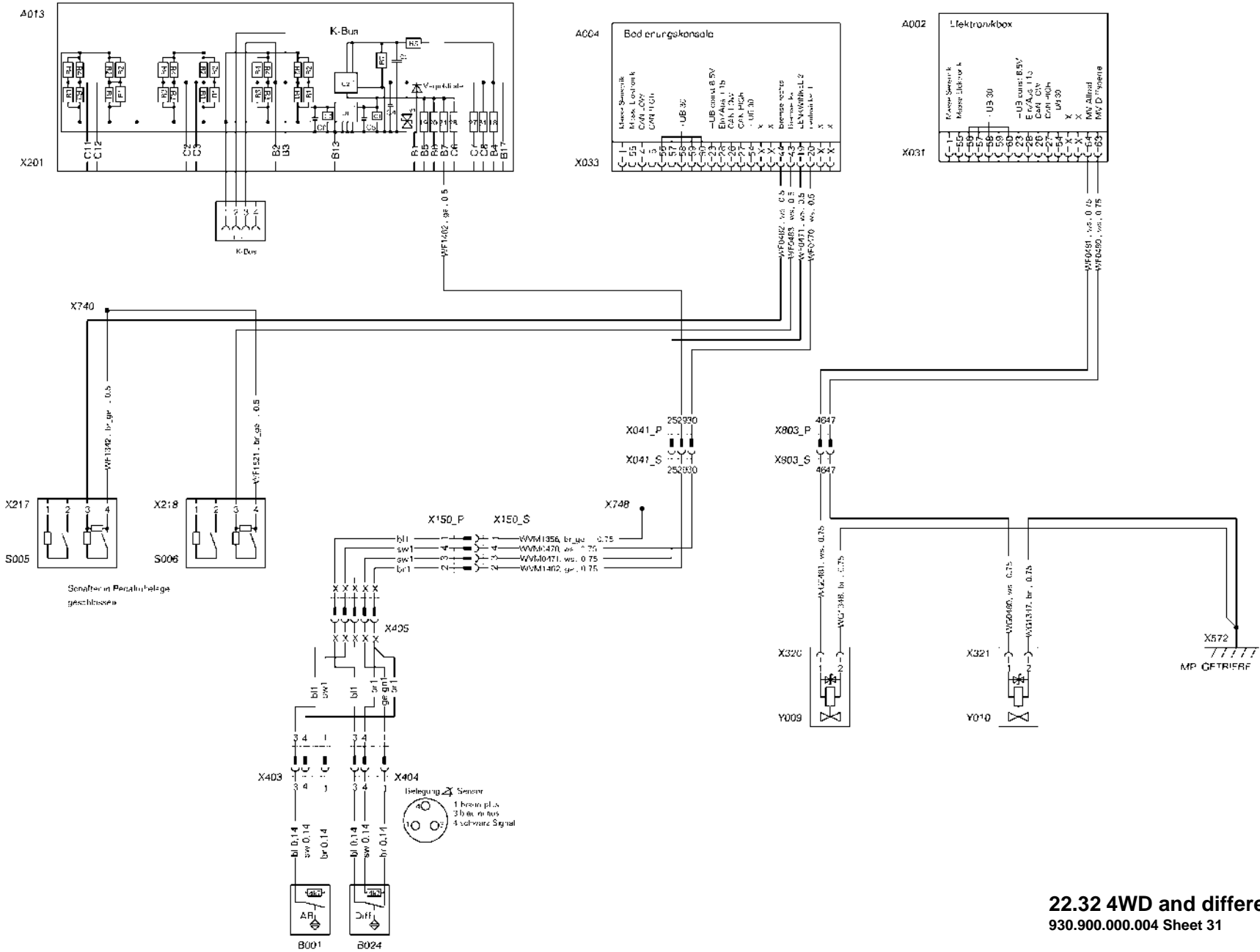
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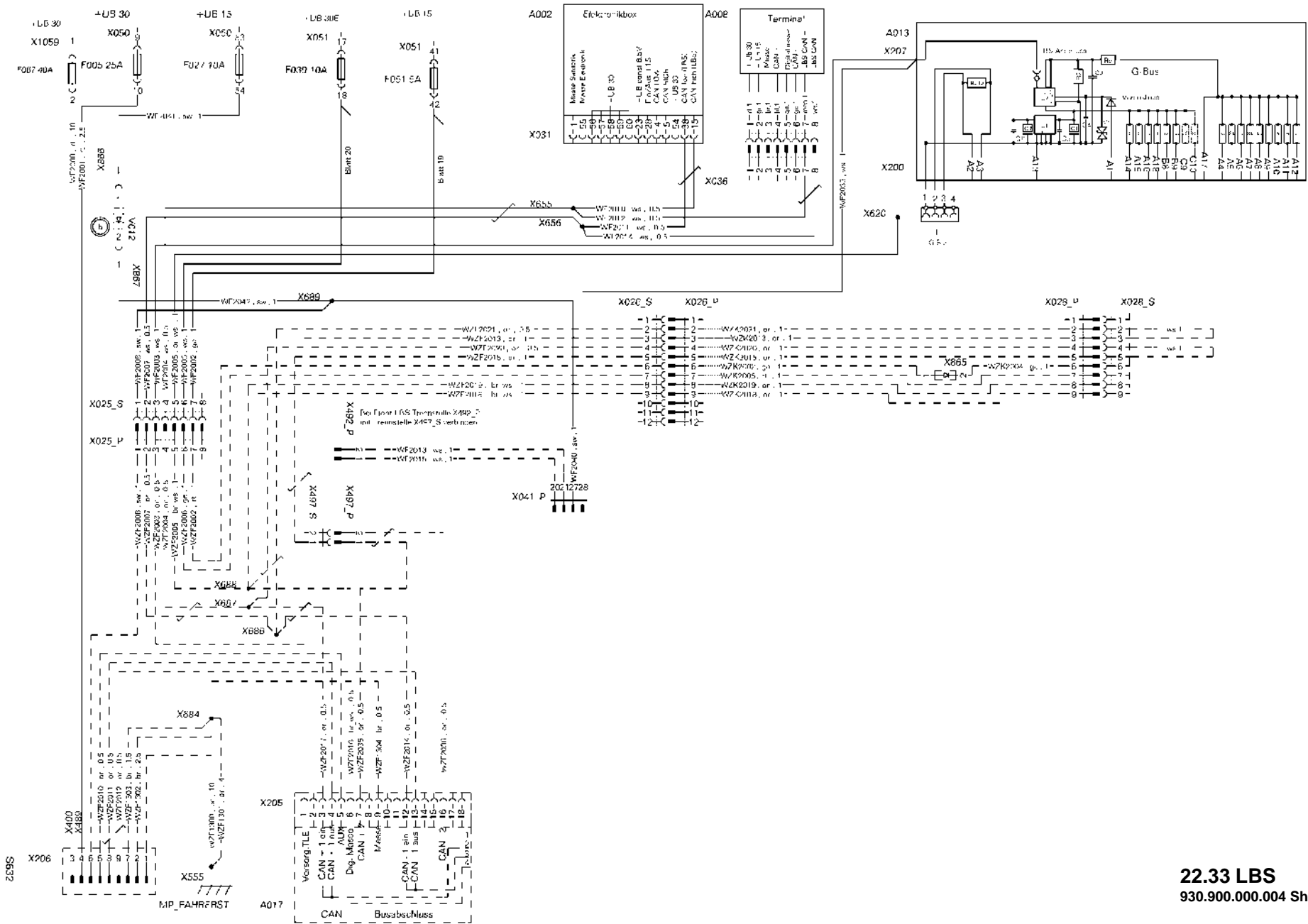


22.30 Suspension
930.900.000.004 Sheet 29

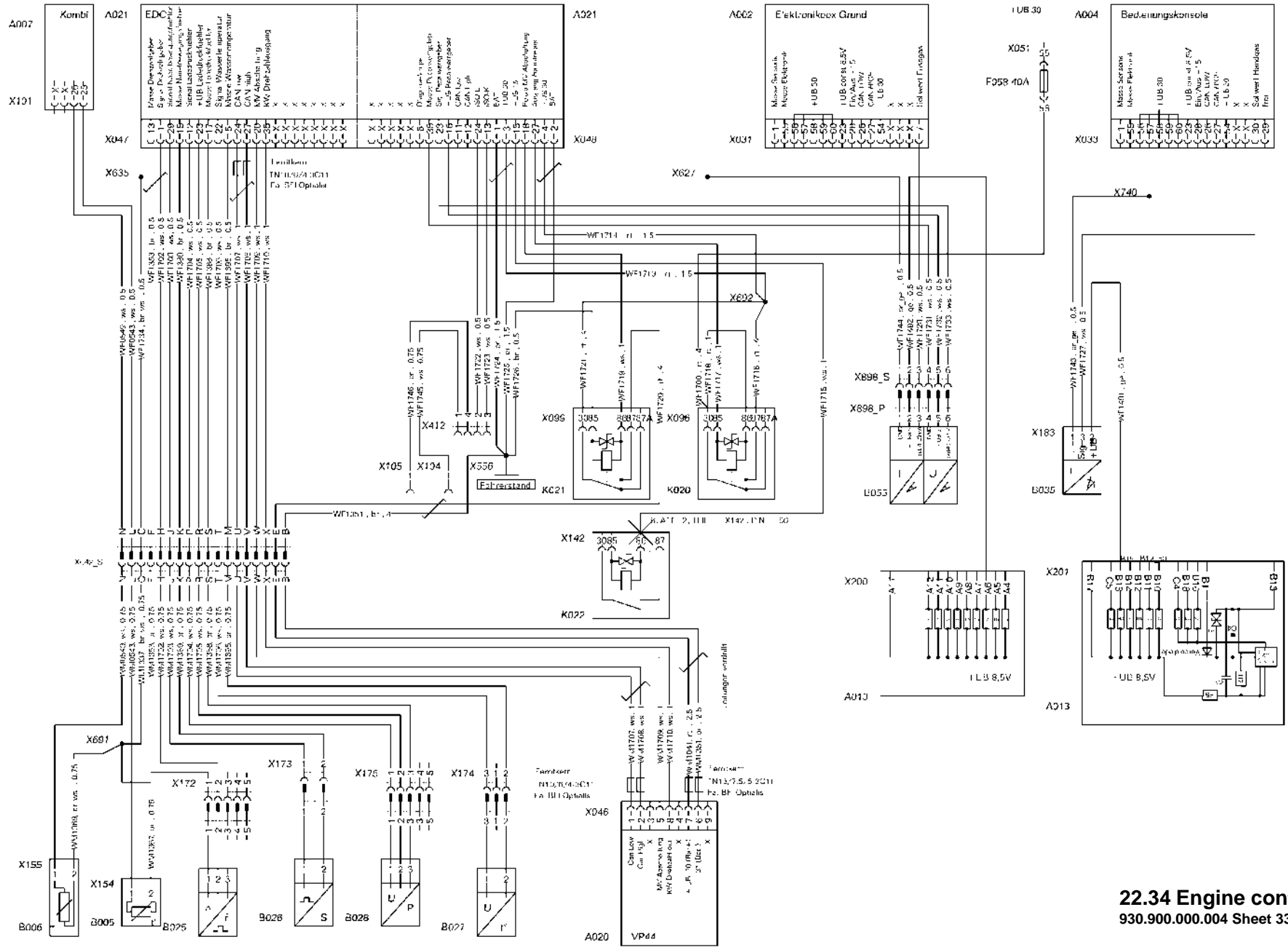


22.31 PTO
930.900.000.004 Sheet 30





22.33 LBS
930.900.000.004 Sheet 32



22.34 Engine control
930.900.000.004 Sheet 33