

Teil Part	Beschreibung Description	Sachnummer Code no.	Position Sheet Pos.	Ort Loc.
A01	Maschinensteuerung machine controller	97166763	siehe Zusatztable	
A02	Bedienfeld control panel	97135842	4/39	
A04	Fahrsteuerung drive controller	90699422	siehe Zusatztable	
A20	Fleetrecorder fleetrecorder	97160097	8/10	
A101	Chemiepumpensteuerung chemical pump controller	97117816	7/43	
B03	Fahrgeber accelerator	97131882	6/10	
B04	Frischwassersensor fresh water sensor	97139471	5/49	
B05	Schmutzwassersensortankensensor sewage sensor	92000082	5/42	
B20	I-Button-Reader i-button-reader	97131429	8/26	
B101	Durchflussmesser flow sensor	90596529	7/44	
E01	Arbeitsscheinwerfer working headlight	97132807	7/8	
E02	Warneinrichtung Front warning beacon front	97131023	7/33	
E03	Warneinrichtung Heck warning beacon back	97131023	7/23	
E04	Blitzleuchte am Stab warning beacon on the rod	97084222	7/17	
F02	Sicherung Steuerspannung 7,5A controller fuse 7,5A	19731066	2/21	
F03	Sicherung Leistung 125A power fuse 125A	19731579	2/35	
F04	Sicherung Fahrsteuerung 100A drive controller fuse 100A	19731422	2/41	
F05	Sicherung Hupe 5A horn fuse 5A	19731181	4/55	
F20	Sicherung Fleetrecorder 5A fleetrecorder fuse 5A	19731181	8/4	
G01	Batterie battery	-	2/3	
G02	Batterie battery	-	2/3	
G03	Batterie battery	-	2/3	
G04	Batterie battery	-	2/3	
G10	Einbau-Ladegerät 35A onboard charger 35A	92003284	2/22	
H01	Hupe horn	90422627	4/55	
K02	Relais Fahrsteuerung drive control contactor	90665670	6/2	
K03	Relais Hupe horn contactor	90567777	4/52	
K04	Hauptrelais main contactor	90676180	2/12	
M01	Fahrantrieb drive motor	90698655	6/40	
M02	Saugmotor suction motor	97132562	5/9	
M05	Tellerbürstenmotor rechts brush motor right	90586645	5/26	
	oder or			
M05	Walzenbürstenmotor rechts-vorne cylindrical motor brush right-front	90529371	5/65	
M06	Tellerbürstenmotor links brush motor left	90586645	5/18	
	oder or			
M06	Walzenbürstenmotor links-hinten cylindrical motor brush left-back	90529371	5/57	
M07	Hubelement Saugfuss lifting element for suction element	92011550	5/45	
M08	Wasserpumpe water pump	97116529	5/49	
M09	Hubelement Bürstendeck lifting element for brush deck	92023332	5/34	
P02	Summer buzzer	97047187	5/25	
R102	Vorwiderstand 2k7 resistor 2k7	19245258	8/26	
S01	Schlüsselschalter key switch	90323437	3/23	
S05	Sitzschalter seat contact switch	90690694	4/33	

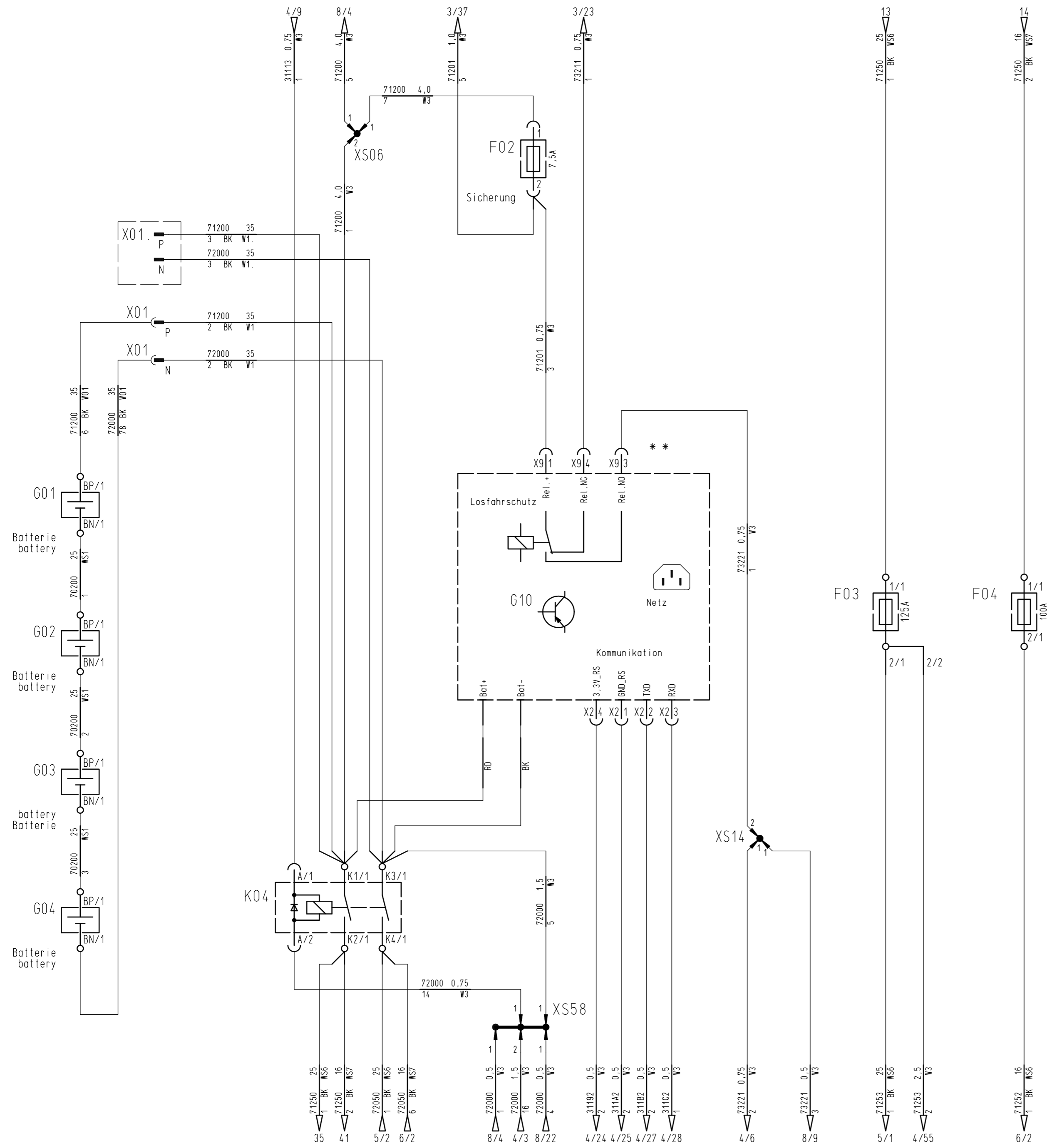
Teil Part	Beschreibung Description	Position Sheet Pos.	Ort Loc.
S10	Bremstaster brake switch	90472176 6/14	
V01	Freilaufdiode Hupe free-wheeling diode for horn	90194879 4/61	
Y01	Wasserventil water valve	90543562 5/20	

Teil Part	Beschreibung Description	Position Sheet Pos.	Ort Loc.
X01	Batteriestecker 160A battery connector 160A	X01/P 2/7 X01/N 2/7	
X46	Steckverbinder 6pol. (W2<->W10) connector 6 pole (W2<->W10)	X46/1 7/24 X46/2 7/24	X46/3 7/17 X46/4 7/17 5/43 5/45
X47	Steckverbinder 4pol. (W2<->W3) connector 4 pole (W2<->W3)	X47/1 7/33 X47/2 7/33	X47/3 4/46 X47/4 4/61
X48	Steckverbinder 2pol. (W10<->W65) connector 2 pole (W10<->W65)	X48/1 7/17 X48/2 7/17	
X51	Steckverbinder 4pol. (W2<->W4) connector 4 pole (W2<->W4)	X51/1 5/50 X51/2 5/53	X51/3 5/38 X51/4 5/39
X60	OBDDI Diagnosestecker OBDDI diagnostic connector	X60 3/41	
X100	VGND Display VGND connector display	X100 4/37	
X101	VGND MaSt VGND connector machine controller	X101 4/6	
X103	Steckverbinder 1pol. (W2<->W3) connector 1 pole (W2<->W3)	X103/1 3/20	
X108	Steckverbinder 8pol. (W2<->W42) connector 8 pole (W2<->W42)	X108/1 4/34 X108/2 4/35	X108/3 4/37 X108/4 4/38 X108/5 +/- X108/6 +/- X108/7 +/- X108/8 +/-

Teil Part	Beschreibung Description	Sachnummer Code no.	Position Sheet Pos.	Ort Loc.
XS01	USSP ussp	-	6/36	
XS02	USSP ussp	-	6/21	
XS03	Stossverbinder butt joint	-	5/17	
XS04	USSP ussp	-	6/27	
XS05	USSP ussp	-	6/29	
XS06	ussp USSP	-	2/14	
XS07	Stossverbinder butt joint	-	5/20	
XS08	USSP ussp	-	3/18	
XS09	USSP ussp	-	3/26	
XS11	USSP ussp	-	6/11	
XS12	USSP ussp	-	5/11	
XS13	USSP ussp	-	5/13	
XS14	USSP ussp	-	2/30	
XS40	USSP ussp	-	4/54	
XS41	USSP ussp	-	4/19	
XS42	USSP ussp	-	4/20	
XS58	USSP ussp	-	2/21	

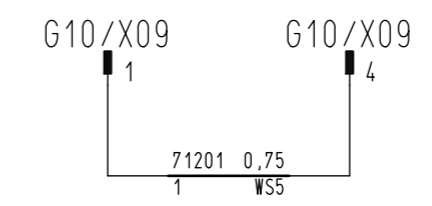
Teil Part	Beschreibung Description	Position Sheet Pos.	Ort Loc.
A01	Maschinensteuerung machine controller	X1 5/1 X2 5/2 X2 5/4 X5 5/14 X6 5/26 X7 5/18 X7 5/9 X14 5/24 X15 5/11 X22 4/42	
A01/X3	Maschinensteuerung machine controller	X3/1 +/- X3/2 +/- X3/3 +/- X3/4 4/33 X3/5 4/35 X3/6 +/-	
A01/X4	Maschinensteuerung machine controller	X4/1 4/19 X4/2 +/- X4/3 4/24 X4/4 4/25 X4/5 4/21 X4/6 +/- X4/7 4/27 X4/8 4/28	
A01/X8	Maschinensteuerung machine controller	X8/1 +/- X8/2 4/3 X8/3 4/6 X8/4 +/- X8/5 4/39 X8/6 4/3 X8/7 4/9 X8/8 +/-	
A01/X9	Maschinensteuerung machine controller	X9/1 5/38 X9/2 +/- X9/3 4/34 X9/4 +/- X9/5 +/- X9/6 5/49 X9/7 +/- X9/8 4/33 X9/9 +/- X9/10 5/42 X9/11 5/37 X9/12 +/- X9/13 4/36 X9/14 +/- X9/15 +/- X9/16 5/52 X9/17 +/- X9/18 4/37 X9/19 +/- X9/20 5/44	
A01/X10	Maschinensteuerung machine controller	X10/1 6/22 X10/2 6/25 X10/3 +/- X10/4 6/36 X10/5 6/35 X10/6 +/- X10/7 +/- X10/8 +/- X10/9 4/46 X10/10 4/46 X10/11 +/- X10/12 6/38 X10/13 6/33 X10/14 +/- X10/15 +/-	
A01/X11	Maschinensteuerung machine controller	X11/1 5/7 X11/2 5/11 X11/3 5/16 X11/4 5/51 X11/5 5/24 X11/6 5/39 X11/7 5/46 X11/8 5/8 X11/9 5/13 X11/10 5/20 X11/11 5/49 X11/12 5/25 X11/13 5/37 X11/14 5/43	
A01/X13	Maschinensteuerung machine controller	X13 4/6	
A01/X16	Maschinensteuerung machine controller	X16/1 5/4 X16/2 5/5	
A01/X19	Maschinensteuerung machine controller	X19/1 +/- X19/2 5/28 X19/3 5/34 X19/4 +/-	
A04	Fahrsteuerung drive controller	B+ 6/2 B- 6/2 M1 6/36 M2 6/34 M3 6/37	
A04/A	Fahrsteuerung drive controller	A/1 6/26 A/2 6/28 A/3 6/9 A/4 6/25 A/5 +/- A/6 +/- A/7 6/14 A/8 6/12 A/9 6/14 A/10 6/6 A/11 6/39 A/12 6/5 A/13 6/45 A/14 +/- A/15 6/40	A/16 6/15
A04/B	Fahrsteuerung drive controller	B/1 +/- B/2 +/- B/3 +/- B/4 +/- B/5 6/24 B/6 6/22 B/7 +/- B/8 +/-	
A04/C	Fahrsteuerung drive controller	C/1 6/42 C/2 6/41 C/3 +/- C/4 6/45 C/5 6/44 C/6 6/43	

Teil Part	Beschreibung Description	Sachnummer Code no.	Position Sheet Pos.	Ort Loc.
	Flachbandkabel ribbon cable	90680059		
W1	Kabelbaum W1 cable harness W1	97137228		
W1.	Kabelbaum W1 cable harness W1	97158448		
W2	Kabelbaum W2 cable harness W2	97163026		
W3	Kabelbaum W3 cable harness W3	97161855		
W4	Kabelbaum W4 cable harness W4	97137293		
W10	Kabelbaum W10 cable harness W10	97137251		
W35	Kabelbaum W35 cable harness W35	97148183		
W36	Kabelbaum W36 cable harness W36	97148191		
W42	Kabelbaum W42 cable harness W42	97137269		
W65	Kabelbaum W65 cable harness W65	97147144		
W102	Kabelbaum W102 cable harness W102	97137277		
WS5	Kabelsatz WS5 cable harness WS5	97130017		
WS6	Kabelsatz WS6 cable harness WS6	97140750		
WS7	Kabelsatz WS7 cable harness WS7	97140768		



Legende

- F02 Sicherung Steuerspannung 7,5A
controller fuse 7,5A
- F03 Sicherung Leistung 125A
power fuse 125A
- F04 Sicherung Fahrsteuerung 100A
drive controller fuse 100A
- G01 Batterie
battery
- G02 Batterie
battery
- G03 Batterie
battery
- G04 Batterie
battery
- G10 Einbau-Ladegerät 35A
onboard charger 35A
- G10/X09 Brückenstecker 4pol.
bridge plug 4 pole
- K04 Hauptrelais
main contactor
- X01 Batteriestecker 160A
battery connector 160A
- X01. Batteriestecker SR175
battery connector SR175
- XS06 USSP
ussp
- XS14 USSP
ussp
- XS58 USSP
ussp

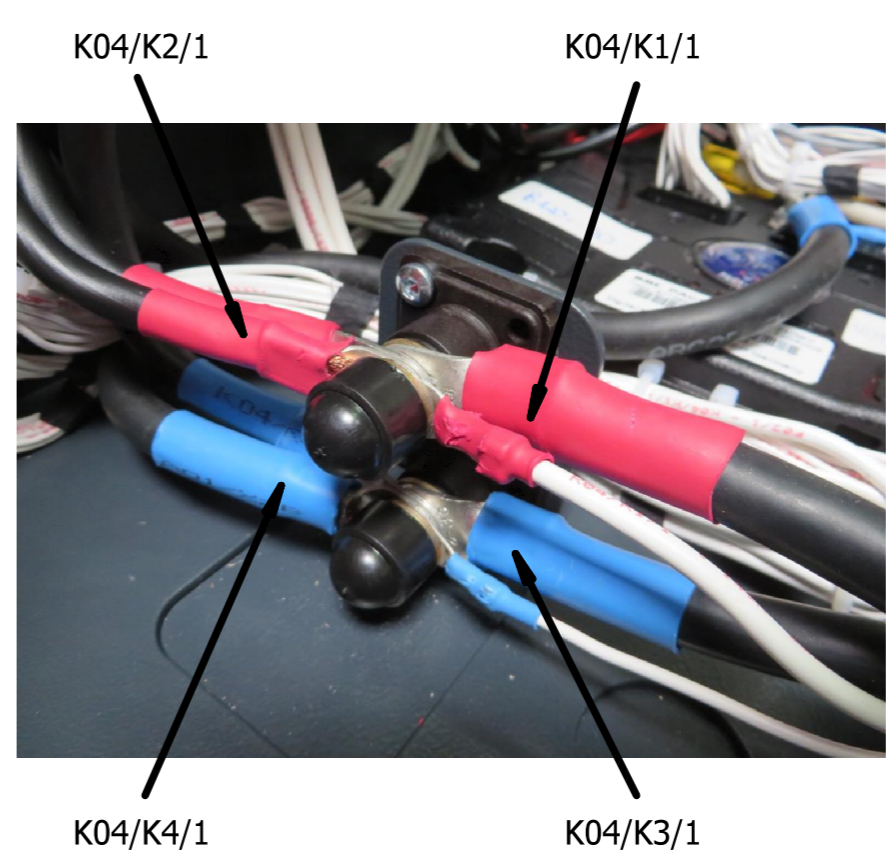


Bei Variante Übersee Stecker G10.X09 an Stecker für G10.X9 anschließen.

at variant overseas connect G10.X09 at connector for G10.X9.

Bei Variante Übersee entfallen das Einbauladgerät G10 und das Hauptrelais K04. Anstelle des Hauptrelais sind zwei isolierte Bolzen montiert. Anschliessen wie unten dargestellt. Auf Steckverbinder G10/X9 den Brückenstecker (Kabelsatz WS5) aufstecken (Losfahrerschutz).

in the overseas variant, the onboard charger G10 and the main contactor K04 are omitted. Two insulated bolts are mounted instead of the main contactor. Connect as shown below. Attach the bridge plug (cable harness WS5) to the plug connector (start protection)



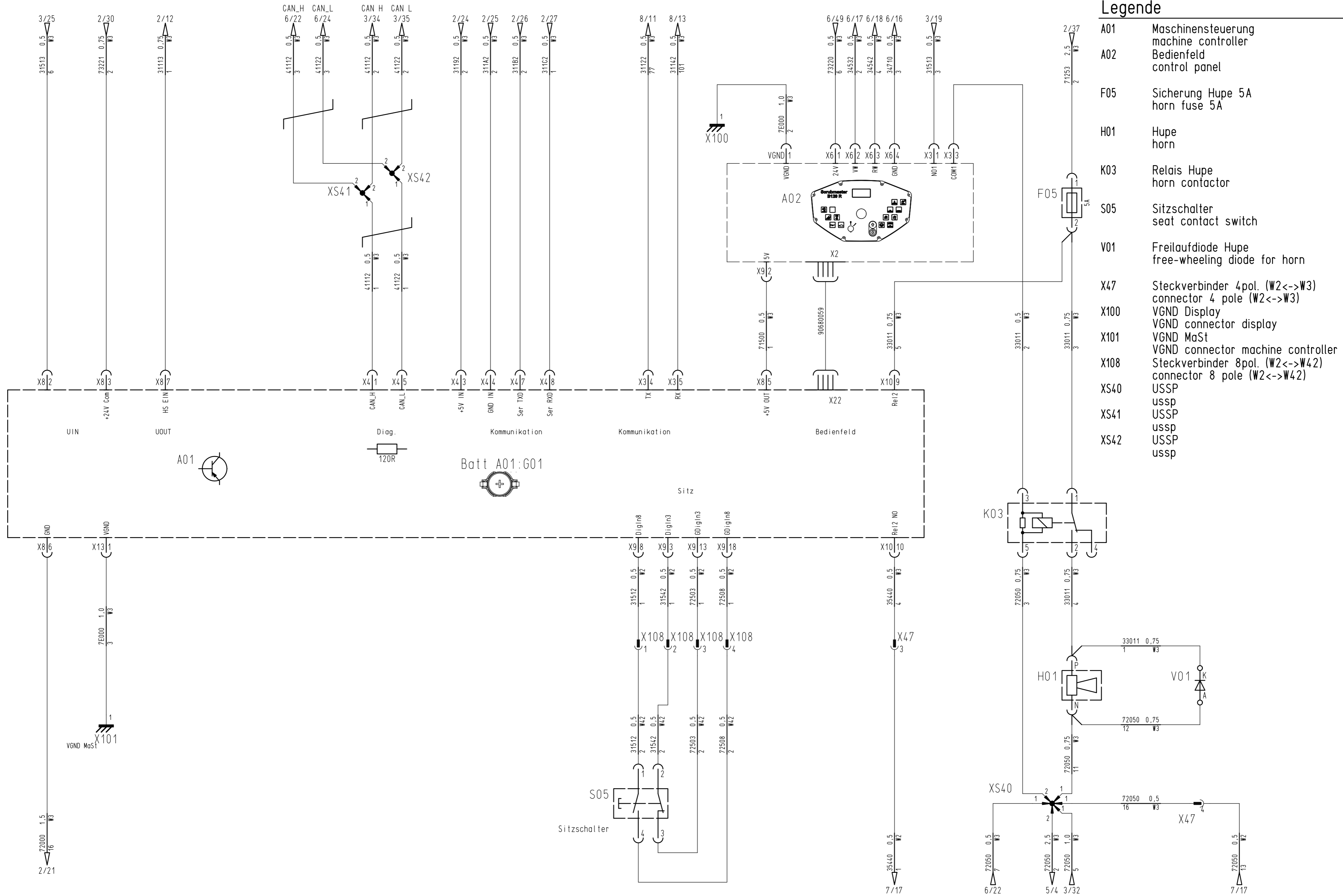
Auf dem oberen Bolzen (+ Potenzial) Adern mit der Beschriftung auflegen:
von links: K04/K2/1
von rechts: K04/K1/1

on the top bolt (+ potential) connect the wires to the label
from left: K04/K2/1
from right: K04/K1/1

Auf dem unterem Bolzen (- Potenzial) Adern mit der Beschriftung auflegen:
von links: K04/K4/1
von rechts: K04/K3/1

on the lower bolt (- potential) connect the wires to the label
from left: K04/K4/1
from right: K04/K3/1

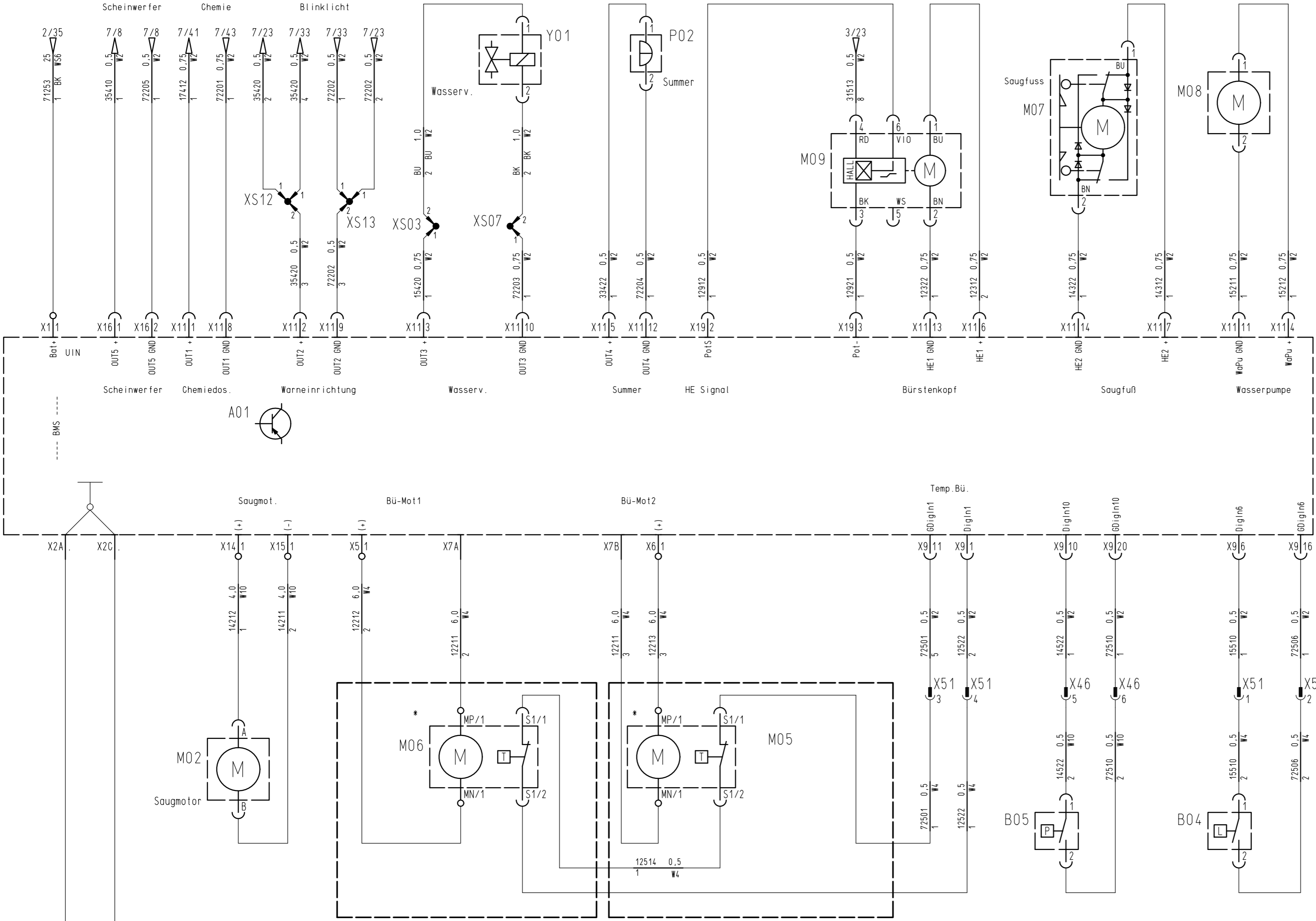
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A2	No.	Number appears	Change No.	Date	Name	Standard	Change No. 4181-04	For this drawing we reserve all rights (acc. DIN ISO 16016)	KABI 472 Type 7177 Dep. DS	No. of Sh. 10 Sheet 2



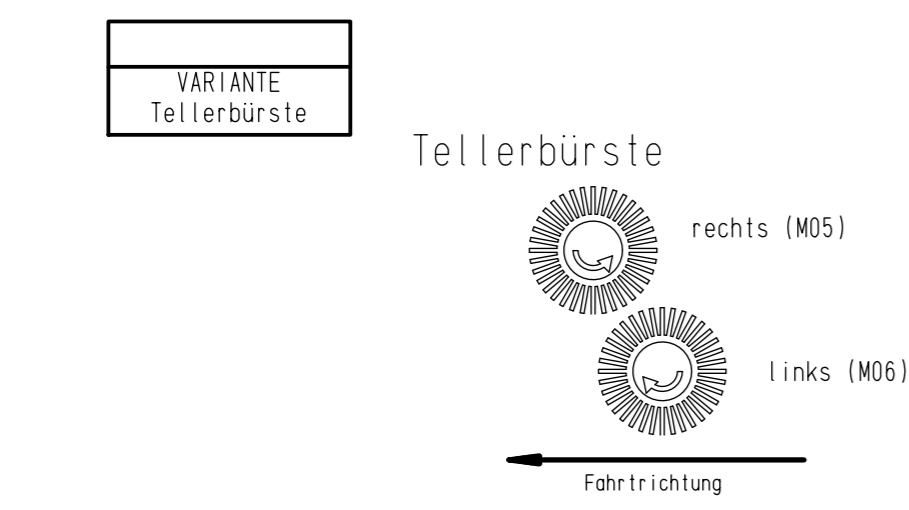
Legende

- A01 Maschinsteuerung
machine controller
- A02 Bedienfeld
control panel
- F05 Sicherung Hupe 5A
horn fuse 5A
- H01 Hupe
horn
- K03 Relais Hupe
horn contactor
- S05 Sitzschalter
seat contact switch
- V01 Freilaufdiode Hupe
free-wheeling diode for horn
- X47 Steckverbinder 4pol. (W2<->W3)
connector 4 pole (W2<->W3)
- X100 VGND Display
VGND connector display
- X101 VGND MaSt
VGND connector machine controller
- X108 Steckverbinder 8pol. (W2<->W42)
connector 8 pole (W2<->W42)
- XS40 USSP
- XS41 USSP
- XS42 USSP

1	./.	4457-00	19.04.21	Ri	2019 Date 04.07.	Name Ri	B120R	Name Schaltplan B120 R / Circuit diagram B120 R	 Hako GmbH D-23840 Bad Oldesloe	Drawing Number 91040956				
A2	No.	Number appears	Change No.	Date	Name	Standard	Replacem. for ./.	Change No. 4181-04	For this drawing we reserve all rights (acc. DIN ISO 16016)	KABI 472	Type 7177	Dep. DS	No. of Sh. 10	Sheet 4

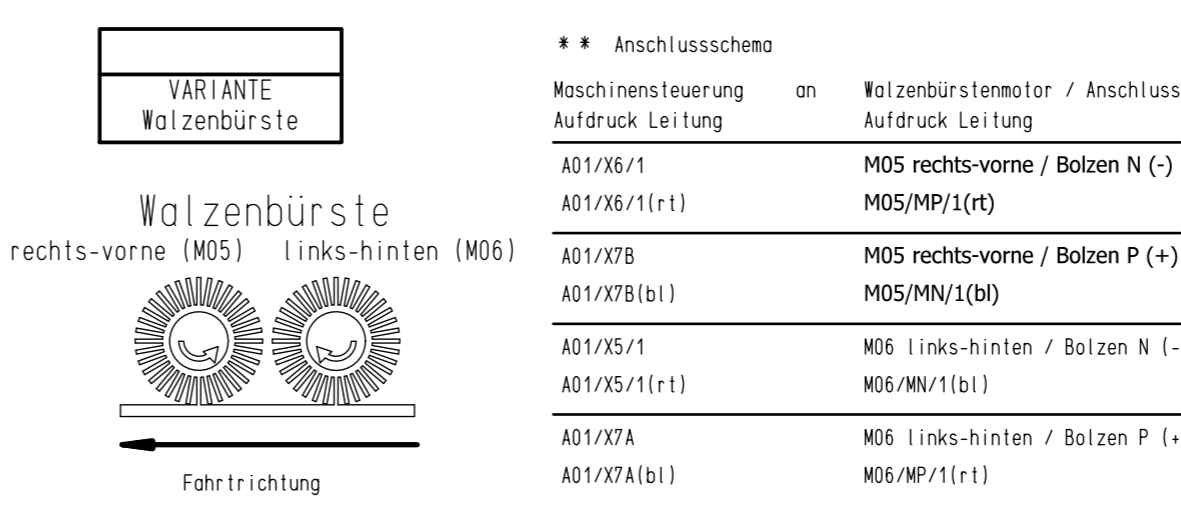


- ### Legende
- A01 Maschinensteuerung
machine controller
 - B04 Frischwassersensor
fresh water sensor
 - B05 Schmutzwassersensortankensensor
sewage sensor
 - M02 Saugmotor
suction motor
 - M05 Tellerbürstenmotor rechts
brush motor right
 - M05. Walzenbürstenmotor rechts-vorne
cylindrical motor brush right-front
 - M05/S1 Steckverbinder 2pol. (W4<->W36)
connector 2 pole (W4<->W36)
 - M06 Tellerbürstenmotor links
brush motor left
 - M06. Walzenbürstenmotor links-hinten
cylindrical motor brush left-back
 - M06/S1 Steckverbinder 2pol. (W4<->W35)
connector 2 pole (W4<->W35)
 - M07 Hubelement Saugfuß
lifting element for suction element
 - M08 Wasserpumpe
water pump
 - M09 Hubelement Bürstendeck
lifting element for brush deck
 - P02 Summer
buzzer
 - X46 Steckverbinder 6pol. (W2<->W10)
connector 6 pole (W2<->W10)
 - X51 Steckverbinder 4pol. (W2<->W4)
connector 4 pole (W2<->W4)
 - XS03 Stossverbinder
butt joint
 - XS07 Stossverbinder
butt joint
 - XS12 USSP
ussp
 - XS13 USSP
ussp
 - Y01 Wasserventil
water valve



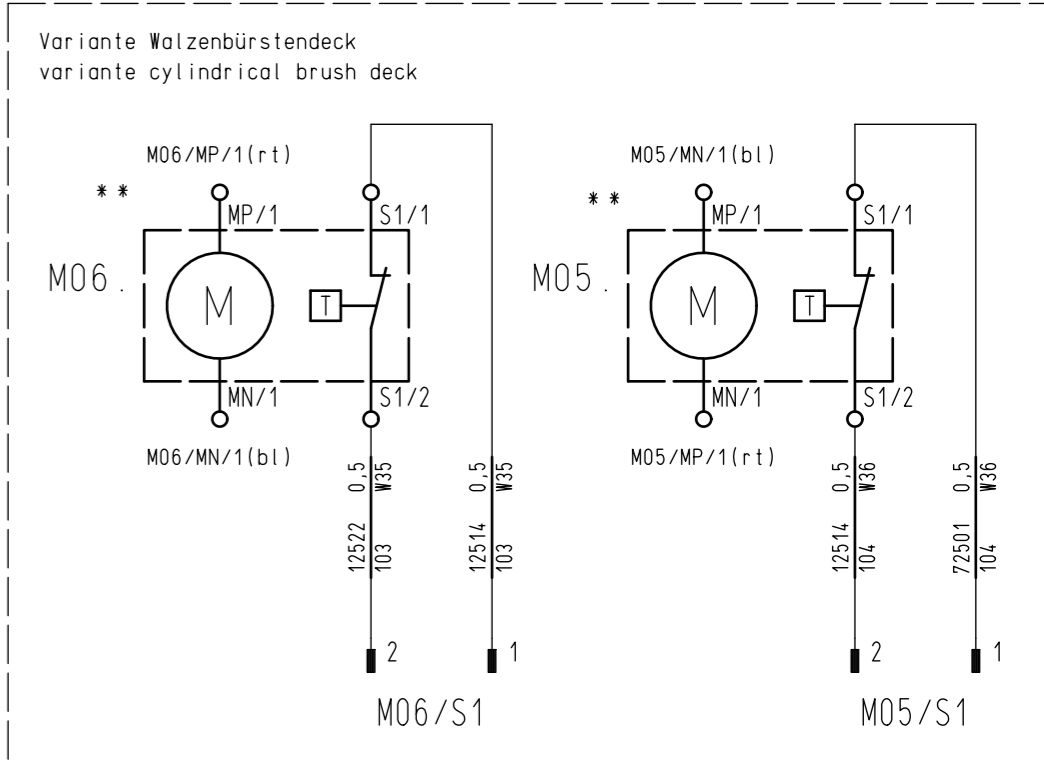
*** Anschlusschema**

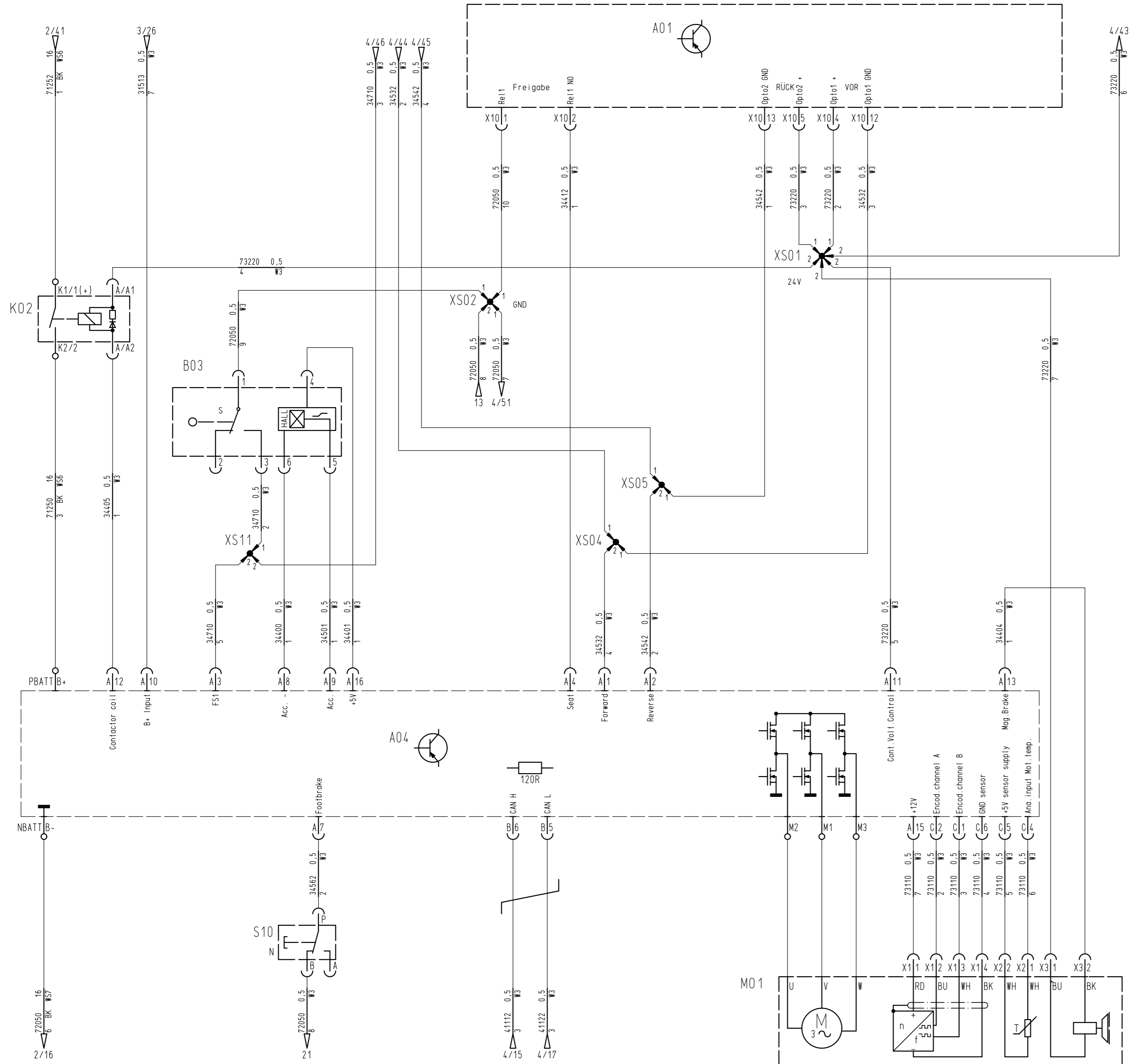
Maschinensteuerung	an	Tellerbürstenmotor / Anschluss
A01/X6/1		M05 rechts / Bolzen P (+)rote Leitung
A01/X6/1(rt)		M05/MP/1(rt)
A01/X7B		M05 rechts / Bolzen N (-) schwarze Leitung
A01/X7B(bl)		M05/MN/1(bl)
A01/X5/1		M06 links / Bolzen N (-) schwarze Leitung
A01/X5/1(rt)		M06/MN/1(bl)
A01/X7A		M06 links / Bolzen P (+) rote Leitung
A01/X7A(bl)		M06/MP/1(rt)



**** Anschlusschema**

Maschinensteuerung	an	Walzenbürstenmotor / Anschluss
A01/X6/1		M05 rechts-vorne / Bolzen N (-)
A01/X6/1(rt)		M05/MP/1(rt)
A01/X7B		M05 rechts-vorne / Bolzen P (+)
A01/X7B(bl)		M05/MN/1(bl)
A01/X5/1		M06 links-hinten / Bolzen N (-)
A01/X5/1(rt)		M06/MN/1(bl)
A01/X7A		M06 links-hinten / Bolzen P (+)
A01/X7A(bl)		M06/MP/1(rt)

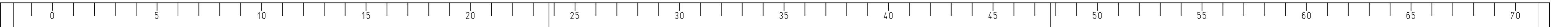




Legende

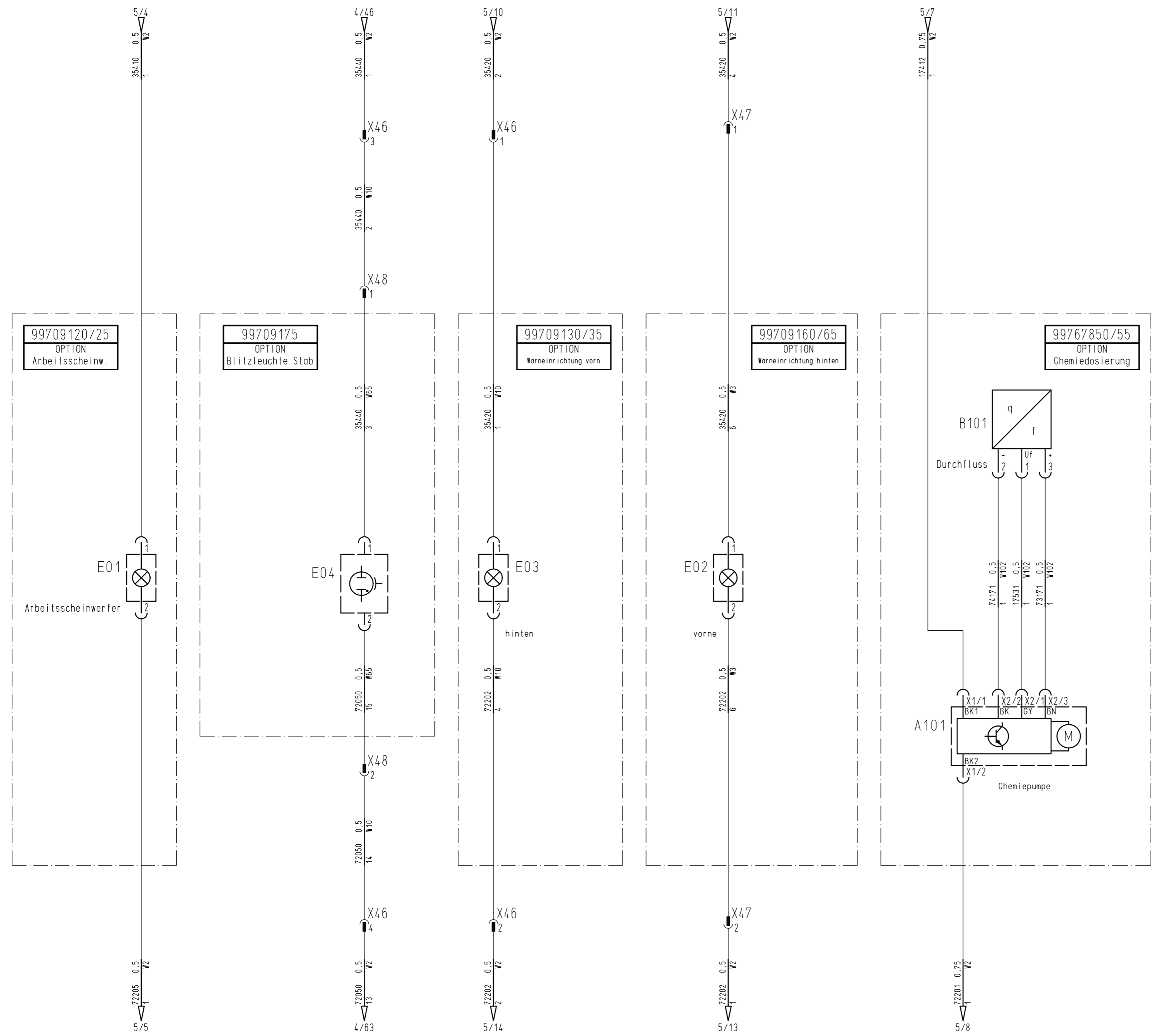
- A01 Maschinensteuerung
machine controller
- A04 Fahrsteuerung
drive controller
- B03 Fahrgeber
accelerator
- K02 Relais Fahrsteuerung
drive control contactor
- M01 Fahrtrieb
drive motor
- S10 Bremsstaster
brake switch
- XS01 USSP
ussp
- XS02 USSP
ussp
- XS04 USSP
ussp
- XS05 USSP
ussp
- XS11 USSP
ussp

1	•/•	4457-00	19.04.21	Ri	2019 Date 04.07.	Name Ri	B120R Name Schaltplan B120 R / Circuit diagram B120 R	Name Schaltplan B120 R / Circuit diagram B120 R	 <small>Hako GmbH D-23840 Bad Oldesloe</small>	Drawing Number 91040956
A2	No.	Number appears	Change No.	Date	Name	Standard	Replacem. for •/• Change No. 4181-04	For this drawing we reserve all rights (acc. DIN ISO 16016)	KABI 472 Type 7177 Dep. DS	No. of Sh. 10 Sheet 6



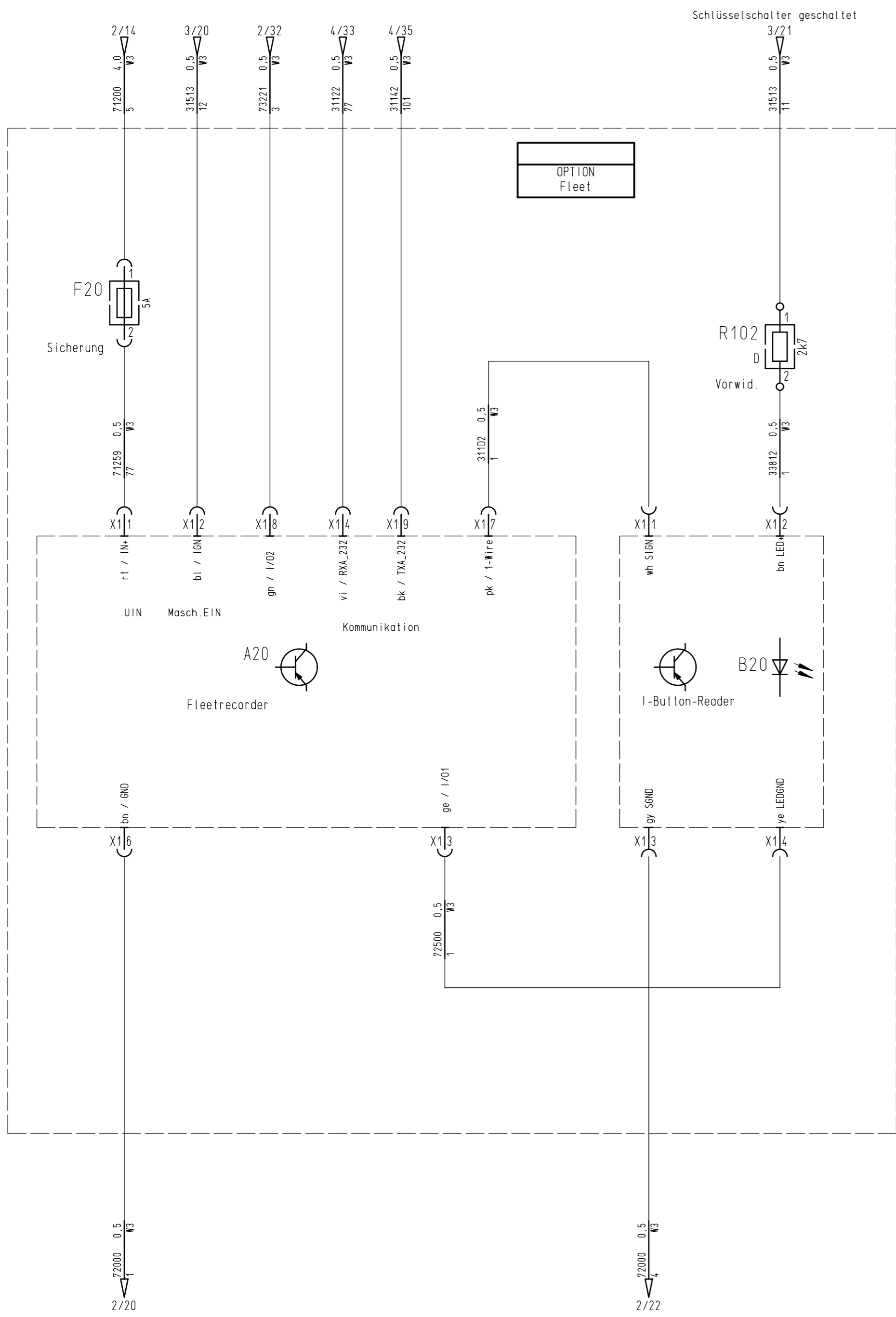
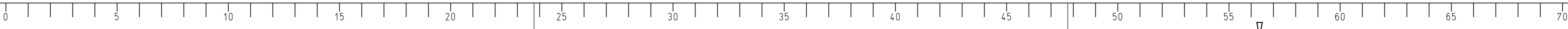
Legende

- A101 Chemiepumpensteuerung
chemical pump controller
- B101 Durchflussmesser
flow sensor
- E01 Arbeitsscheinwerfer
working headlight
- E02 Warneinrichtung Front
warning beacon front
- E03 Warneinrichtung Heck
warning beacon back
- E04 Blitzleuchte am Stab
warning beacon on the rod
- X46 Steckverbinder 6pol. (W2<->W10)
connector 6 pole (W2<->W10)
- X47 Steckverbinder 4pol. (W2<->W3)
connector 4 pole (W2<->W3)
- X48 Steckverbinder 2pol. (W10<->W65)
connector 2 pole (W10<->W65)



1	./.	4457-00	19.04.21	Ri	2019	Date	Name	B120R	Name	Schaltplan B120 R / Circuit diagram B120 R	 Hako GmbH D-23840 Bad Oldesloe	Drawing Number				
					Drawn by	04.07.	Ri					Replacem. for ./.	91040956			
A2	No.	Number appears	Change No.	Date	Name	Standard		Change No.	4181-04	For this drawing we reserve all rights (acc. DIN ISO 16016)		KABI 472	Type 7177	Dep. DS	No. of Sh. 10	Sheet 7

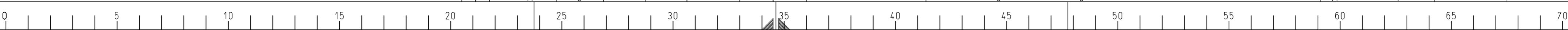




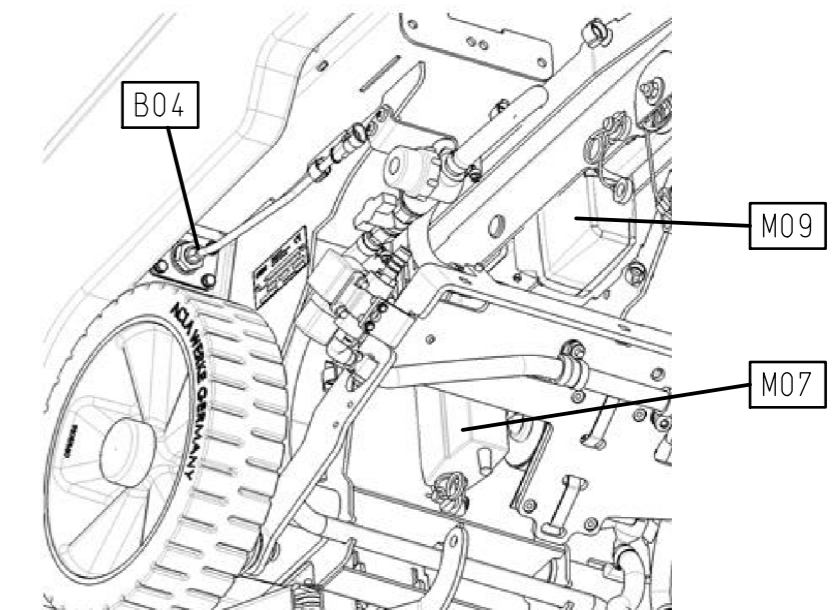
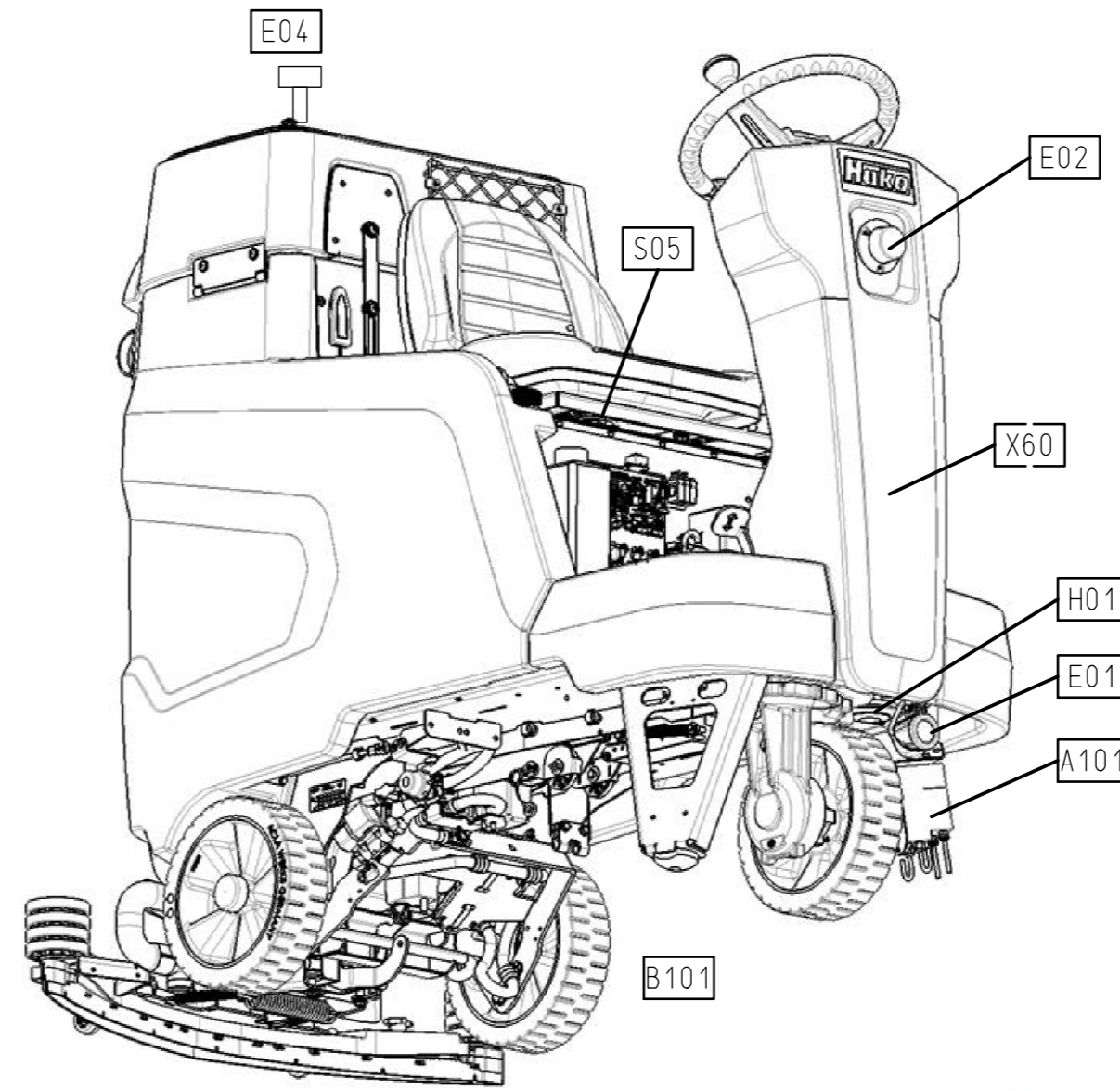
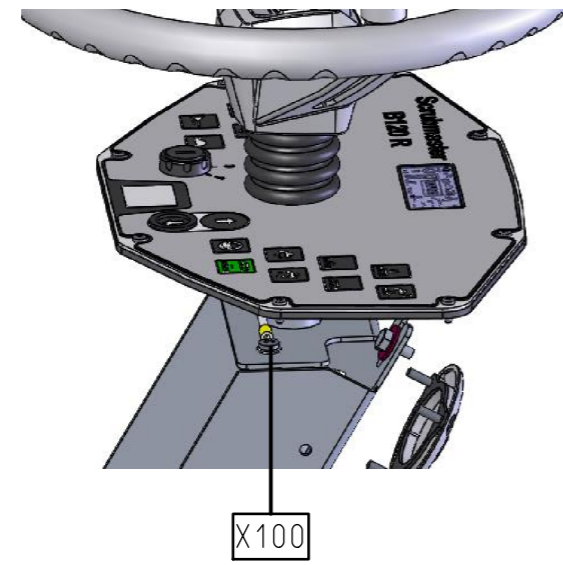
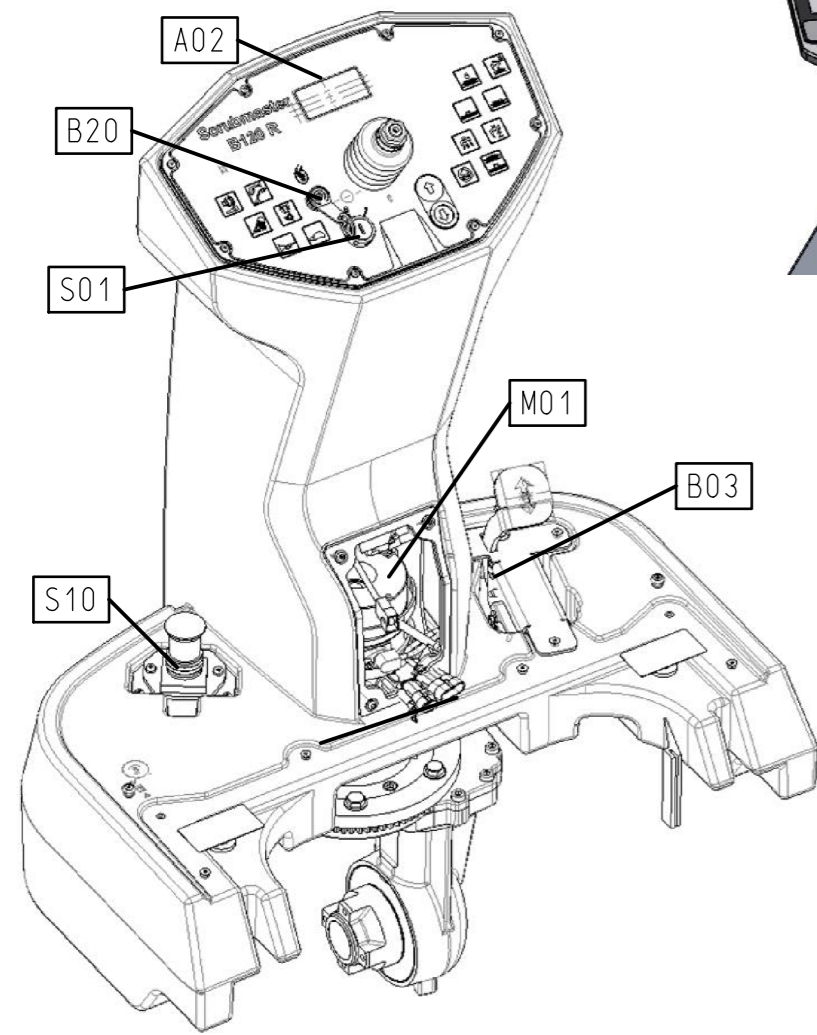
Legende

A20	Fleetrecorder fleetrecorder
B20	I-Button-Reader i-button-reader
F20	Sicherung Fleetrecorder 5A fleetrecorder fuse 5A
R102	Vorwiderstand 2k7 resistor 2k7

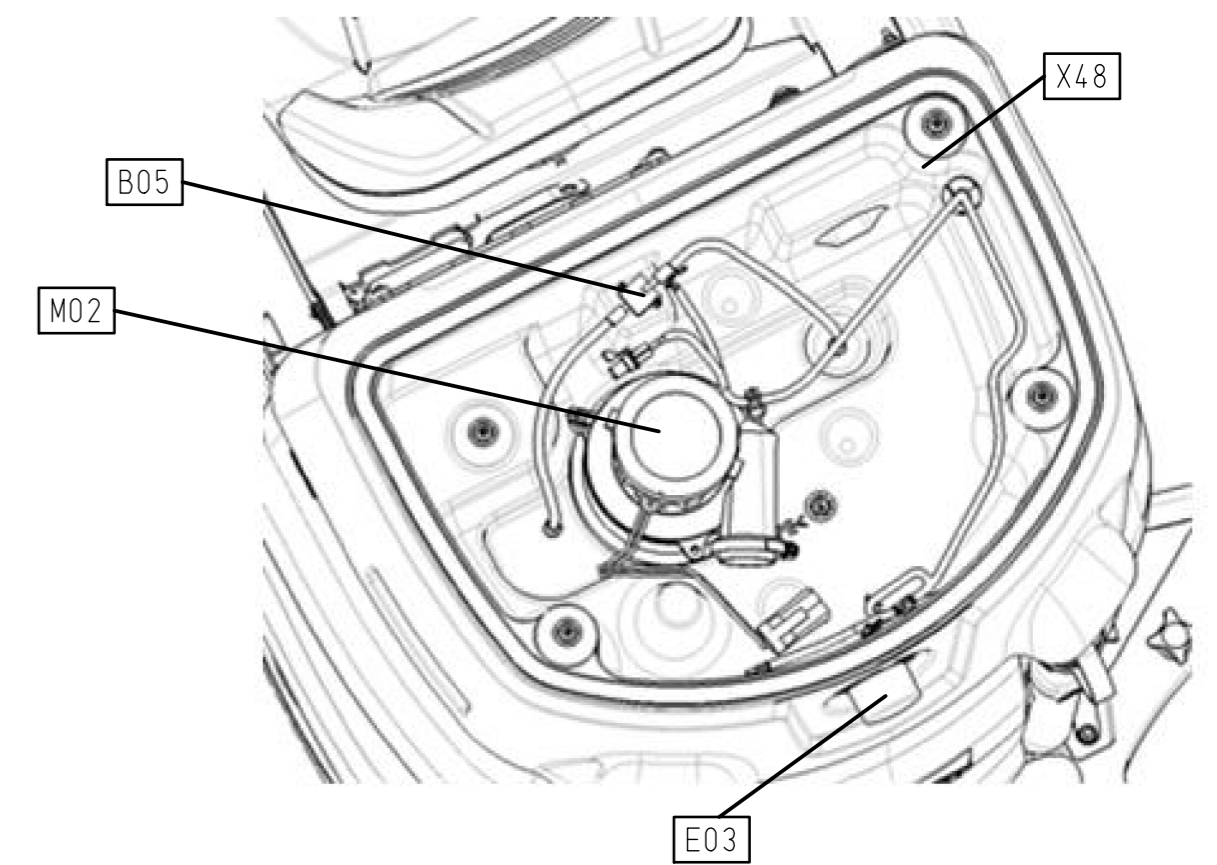
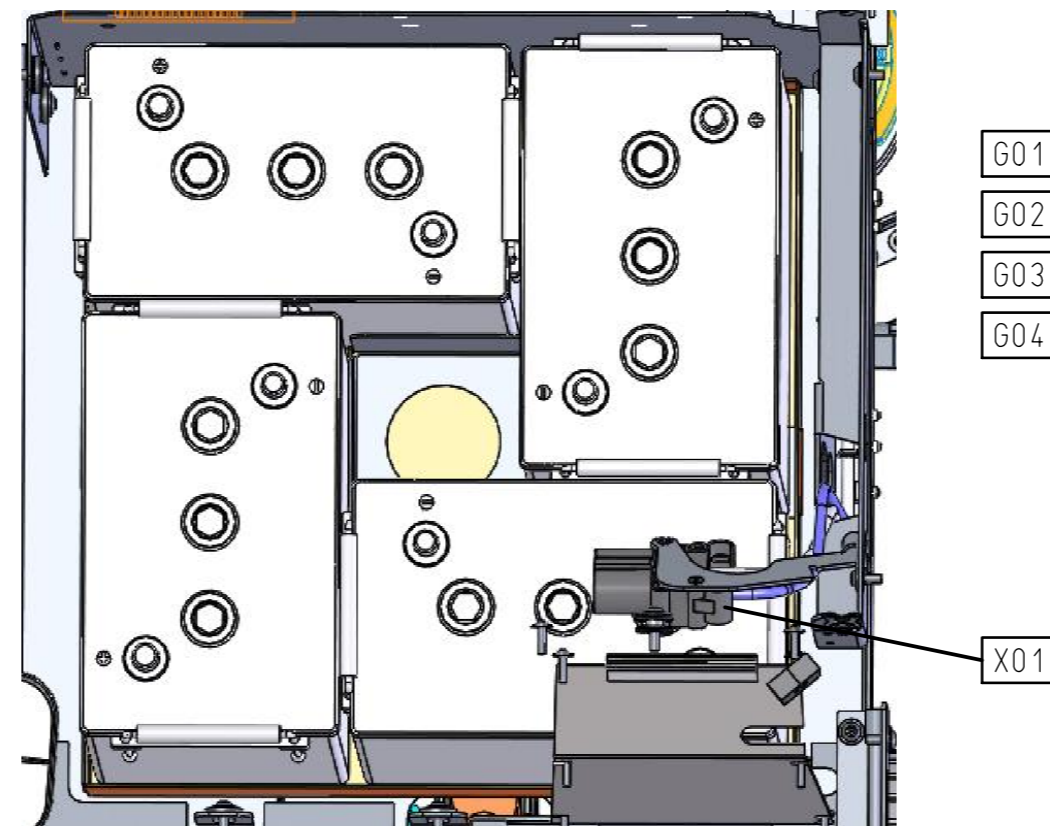
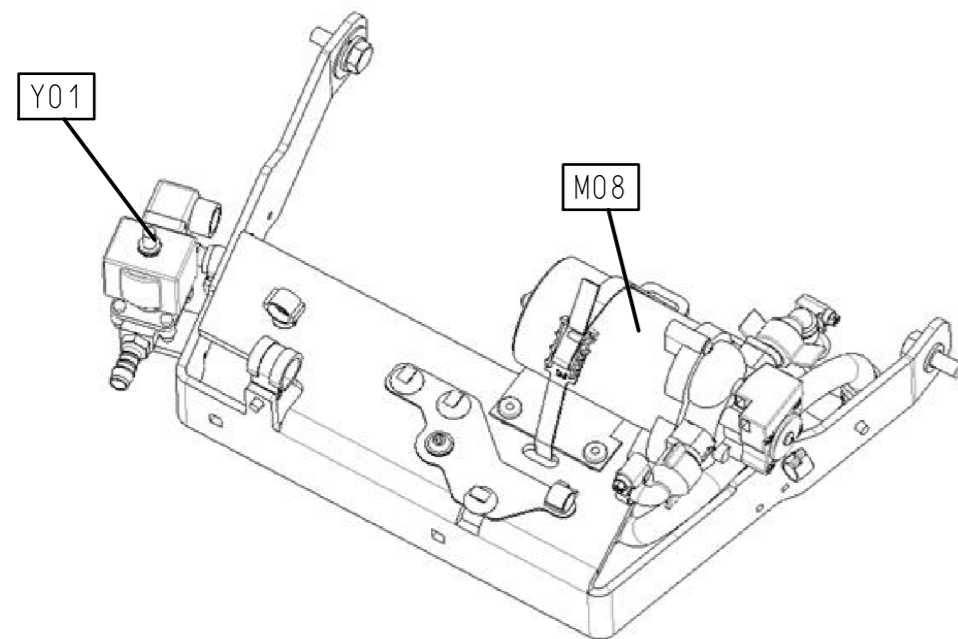
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					Drawn by	04.07.	Ri					Replacem. for ./.	91040956			
A2	No.	Number appears	Change No.	Date	Name	Standard		Change No.	4181-04	For this drawing we reserve all rights (acc. DIN ISO 16016)		KABI 472	Type 7177	Dep. DS	No. of Sh. 10	Sheet 8



Lenkkonsole
steering console

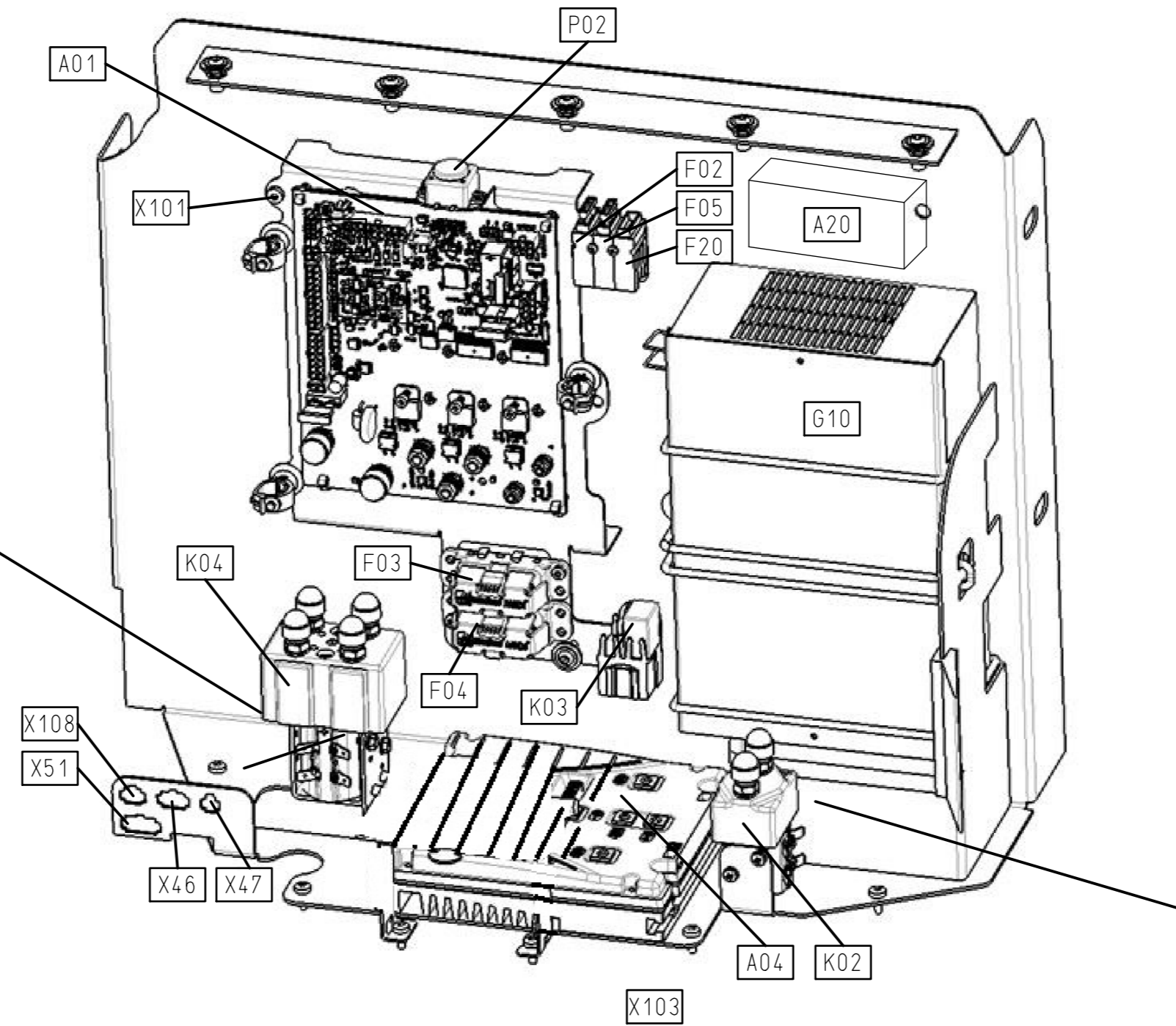


Schwinge
wing

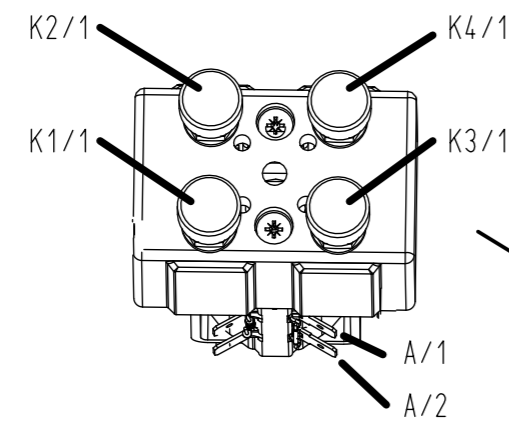
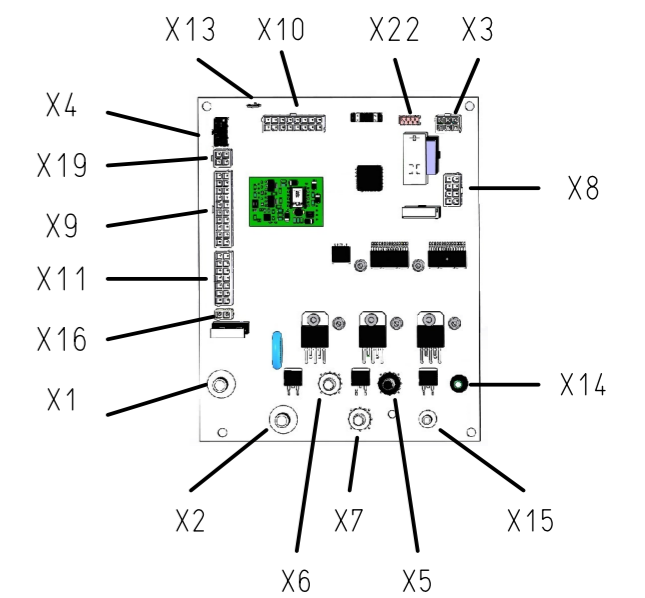


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A2	No.	Number appears	Change No.	Date	Name	Standard	Change No. 4181-04	Replacem. for •/•	For this drawing we reserve all rights (acc. DIN ISO 16016)		KABI 472	Type 7177	Dep. DS	No. of Sh. 10

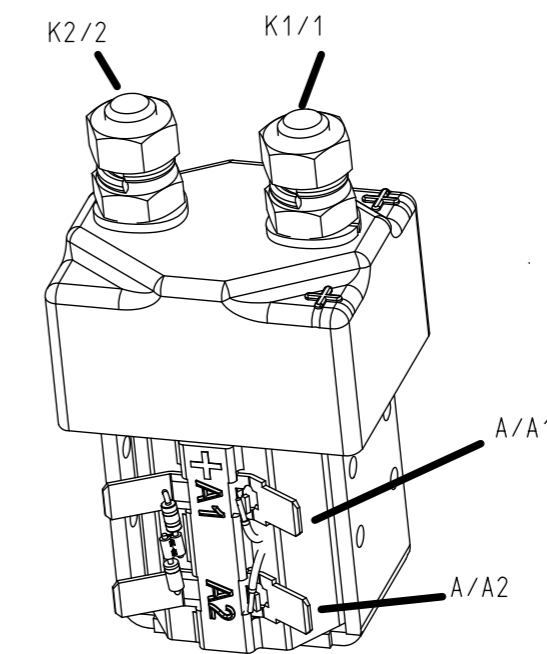
E-Blech
electronic compartment



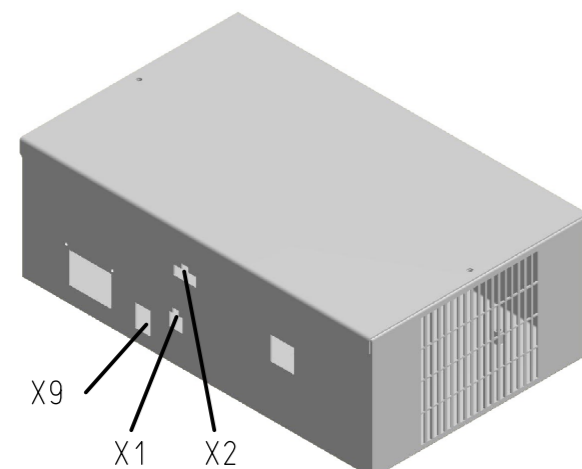
Maschinensteuerung A01
machine control A01



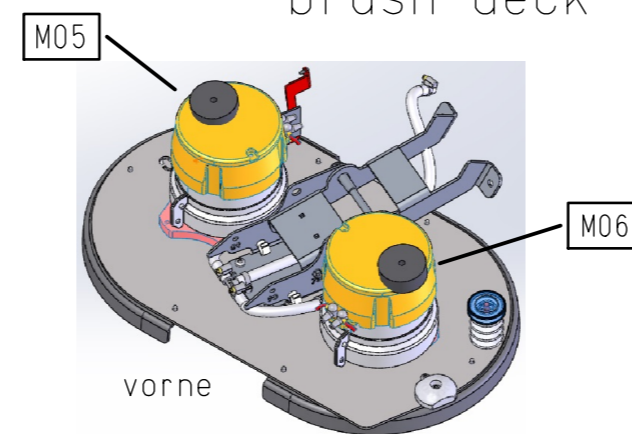
Variante Übersee
variant overseas



Ladegerät G10
onboard charger G10

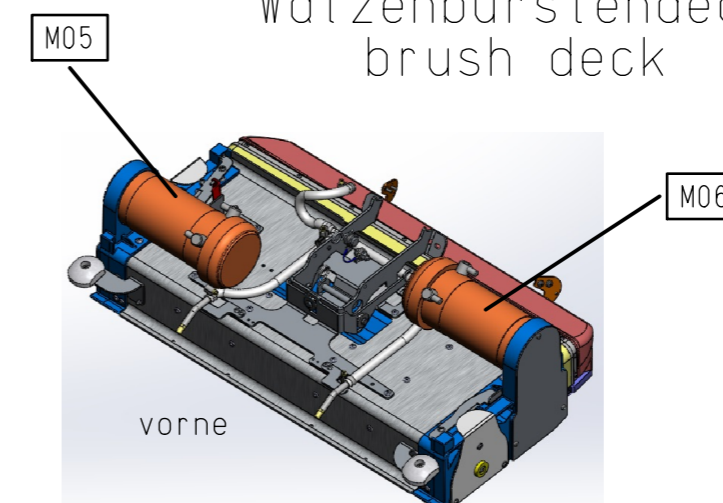


Tellerbürstendeck
brush deck



vorne

Walzenbürstendeck
brush deck



vorne

1	•/•	4457-00	19.04.21	Ri	2019 Drawn by Verified	Date 04.07.	Name Ri	B120R Replacem. for •/•	Name Schaltplan B120 R / Circuit diagram B120 R	 Hako GmbH D-23840 Bad Oldesloe	Drawing Number 91040956	
A2	No.	Number appears	Change No.	Date	Name	Standard	Change No. 4181-04	For this drawing we reserve all rights (acc. DIN ISO 16016)	KABI 472		Type 7177	Dep. DS