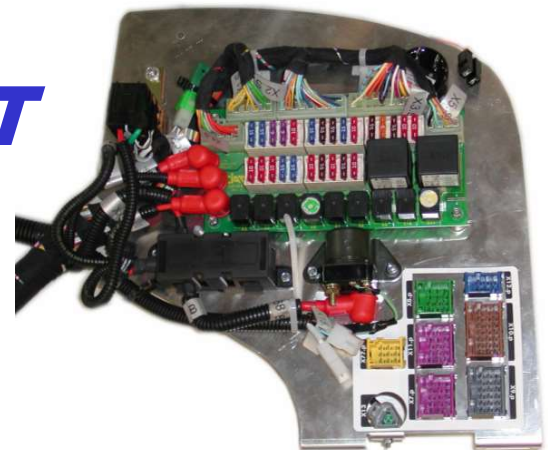


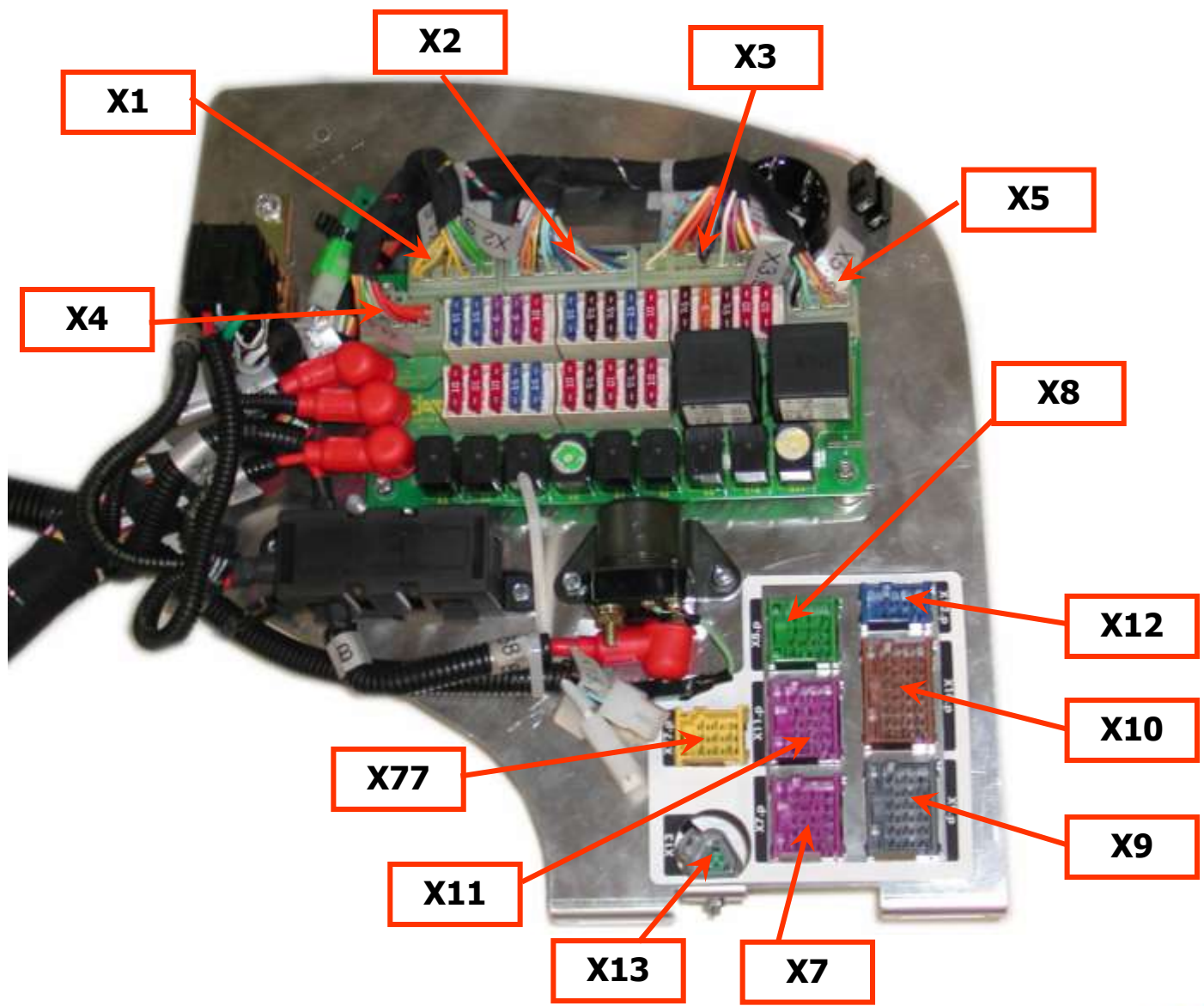
# Electric System

**FRONT**

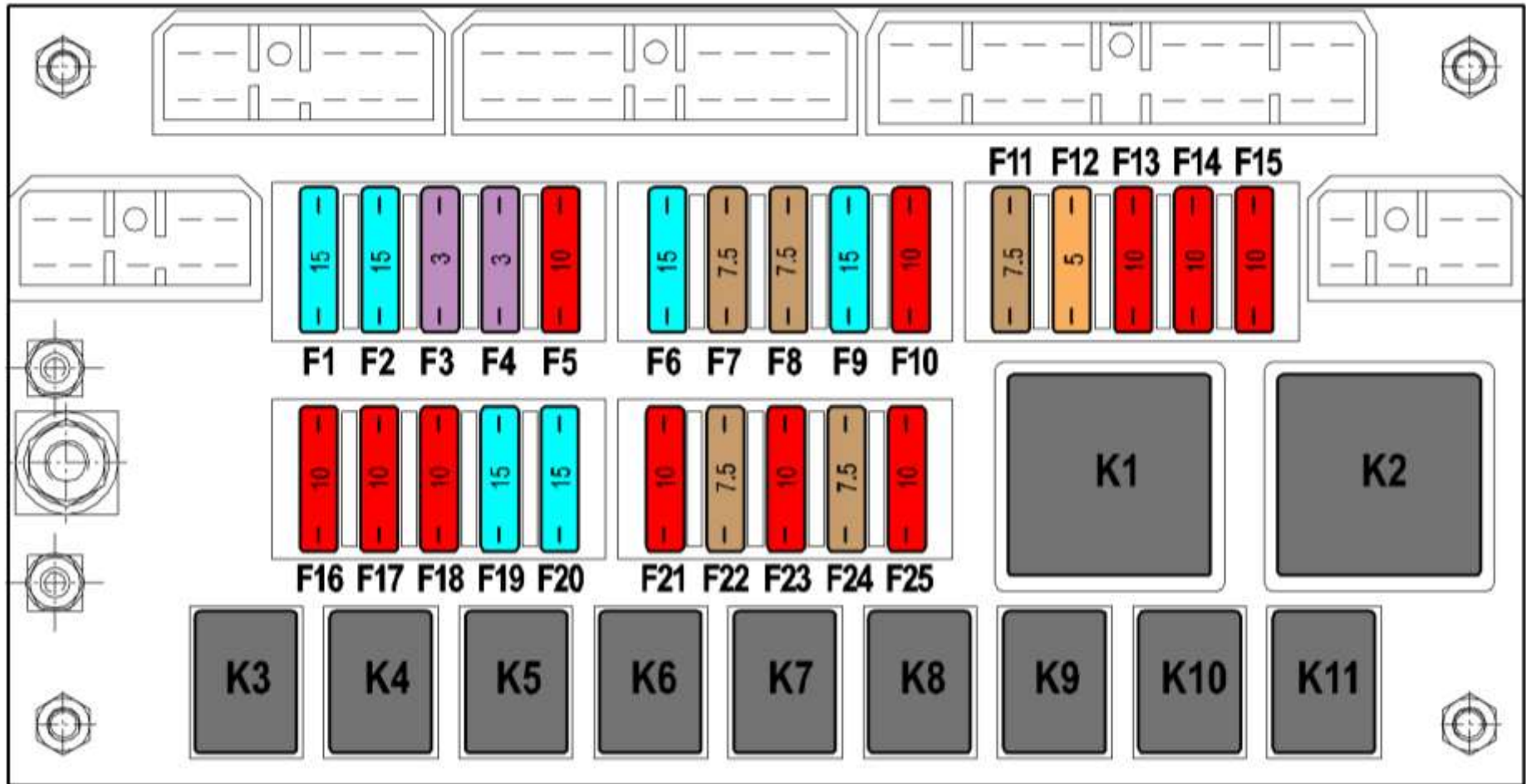


**REAR**

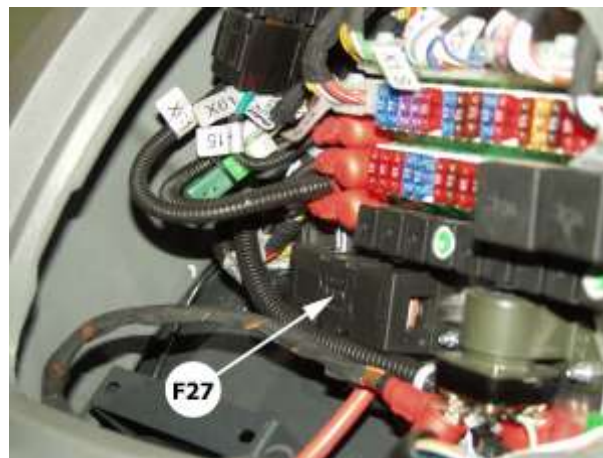
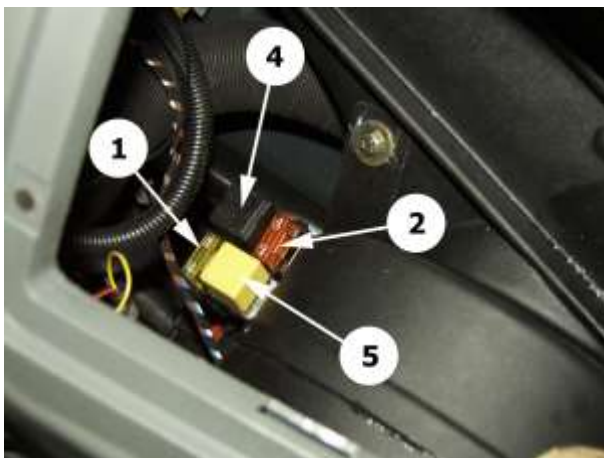
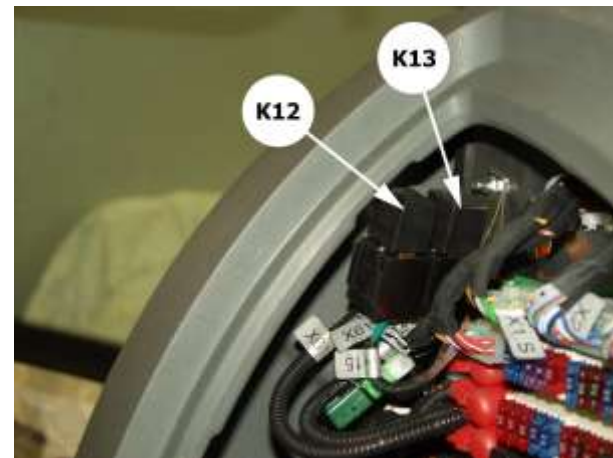
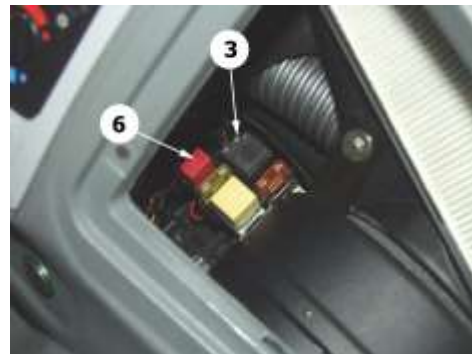




Customer Service Department







## FUSES

POSITION	COLOUR	CAPACITY (A)	CIRCUIT INVOLVED
F1	Light blue	15	Central front work lights
F2	Light blue	15	Central rear work lights
F3	Violet	3	Front left and rear right parking light, parking light warning light, instrument backlighting
F4	Violet	3	Front right and rear left parking light, cigarette lighter light
F5	Red	10	Front horn
F6	Light blue	15	Lateral rear work lights
F7	Brown	7,5	Rear windshield wiper
F8	Brown	7,5	Stop lights, stop light relay
F9	Light blue	15	Lateral front work lights
F10	Red	10	Front windshield wiper, windshield washer pump
F11	Brown	7,5	Boom locking solenoid valve, plate locking solenoid valve
F12	Orange	5	Buzzer power supply, general alarm power supply, instrument and front dashboard warning light power supply
F13	Red	10	Optional equipment power supply, differential locking solenoid valve, 4 WD solenoid valve

## FUSES

<b>F14</b>	Red	10	Blinking, high beam relay, low beam relay, horn relay, rear horn, safety valve solenoid valves
<b>F15</b>	Red	10	Electric stop power supply, ancillary functions relay, air conditioner relay
<b>F16</b>	Red	10	Revolving light power supply
<b>F17</b>	Red	10	Hour counter memory, hazard warning light
<b>F18</b>	Red	10	Cigarette lighter power supply, overhead light
<b>F19</b>	Light blue	15	Left low beam, right low beam
<b>F20</b>	Light blue	15	Left high beam, right high beam
<b>F21</b>	Red	10	Return-to-dig sensor power supply, ride control solenoid valve, loader arm floating device solenoid valve, return-to-dig solenoid valve, direction indicator
<b>F22</b>	Brown	7,5	Loader control locking solenoid valve, EC power solenoid valve, PPC power supply
<b>F23</b>	Red	10	Optional steering fuse
<b>F24</b>	Brown	7,5	Direction indicator power supply
<b>F25</b>	Red	10	Declutch relay, forward gear solenoid valve, reverse gear solenoid valve, back-up alarm
<b>F27</b>	-	175	General system fuse, ignition key, start relay, pre-heating consent, heating power supply

## RELAYS

POSITION	DESCRIPTION
K1	Safety unit (against repeated start)
K2	Blinking
K3	Low beam relay
K4	High beam relay
K5	Front horn relay
K6	Return-to-dig relay
K7	Stop light relay
K8	Start enabling relay
K9	Forward gear relay
K10	Reverse relay
K11	Direction indicator power supply relay (declutch)
K12	Machine functions relay
K13	Start relay
K14	Glow plug preheating relay
K15	Multifunction unit

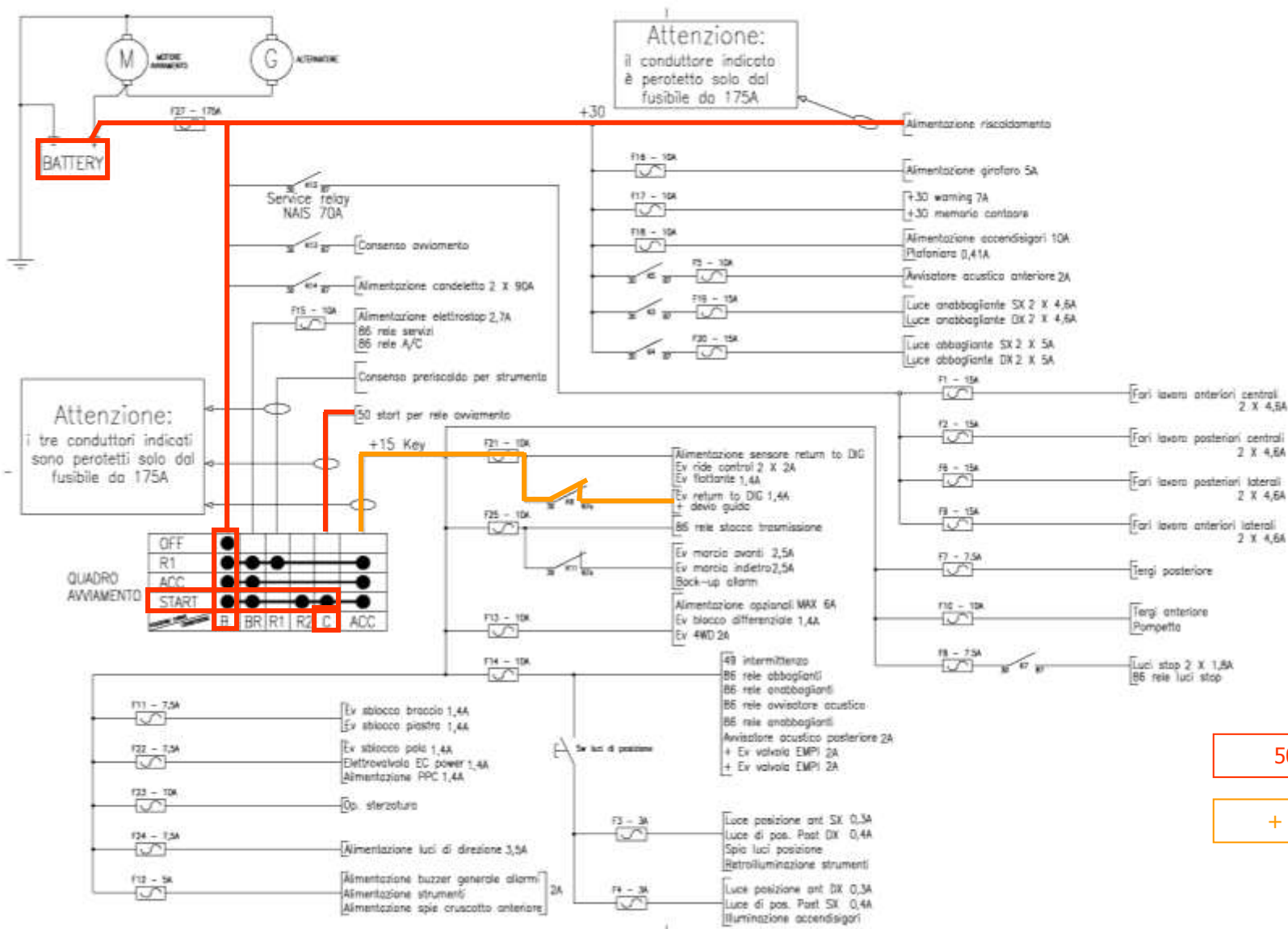


## FUSES

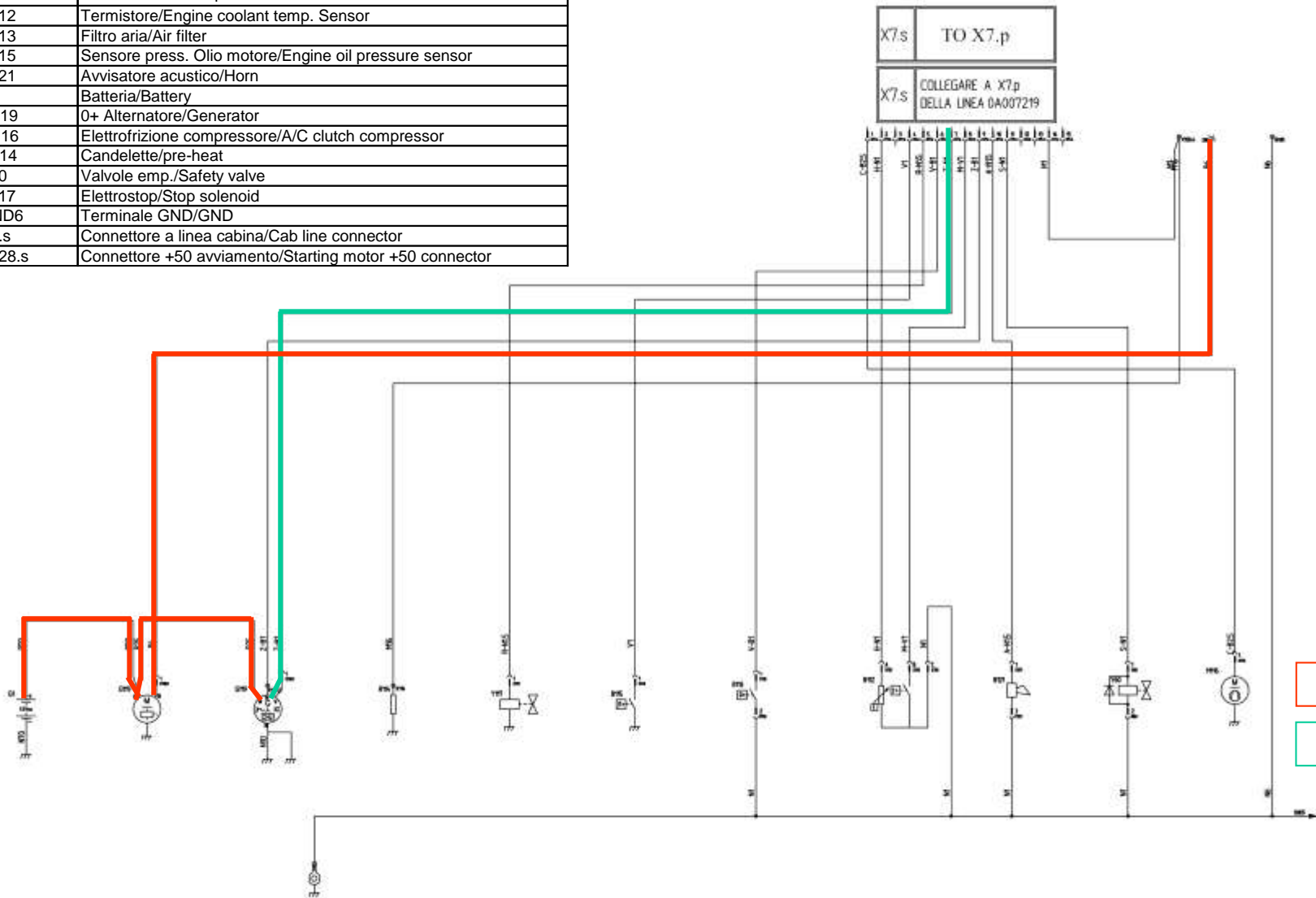
POSITION	COLOUR	CAPACITY (A)	CIRCUIT INVOLVED
1	Yellow	20	1 <sup>st</sup> and 2 <sup>nd</sup> fan speed power supply
2	Orange	40	3 <sup>rd</sup> fan speed power supply
3	Brown	7,5	Air conditioning compressor

## RELAYS

POSITION	DESCRIPTION
4	3 <sup>rd</sup> fan speed relay
5	General heating relay
6	Air conditioning compressor relay

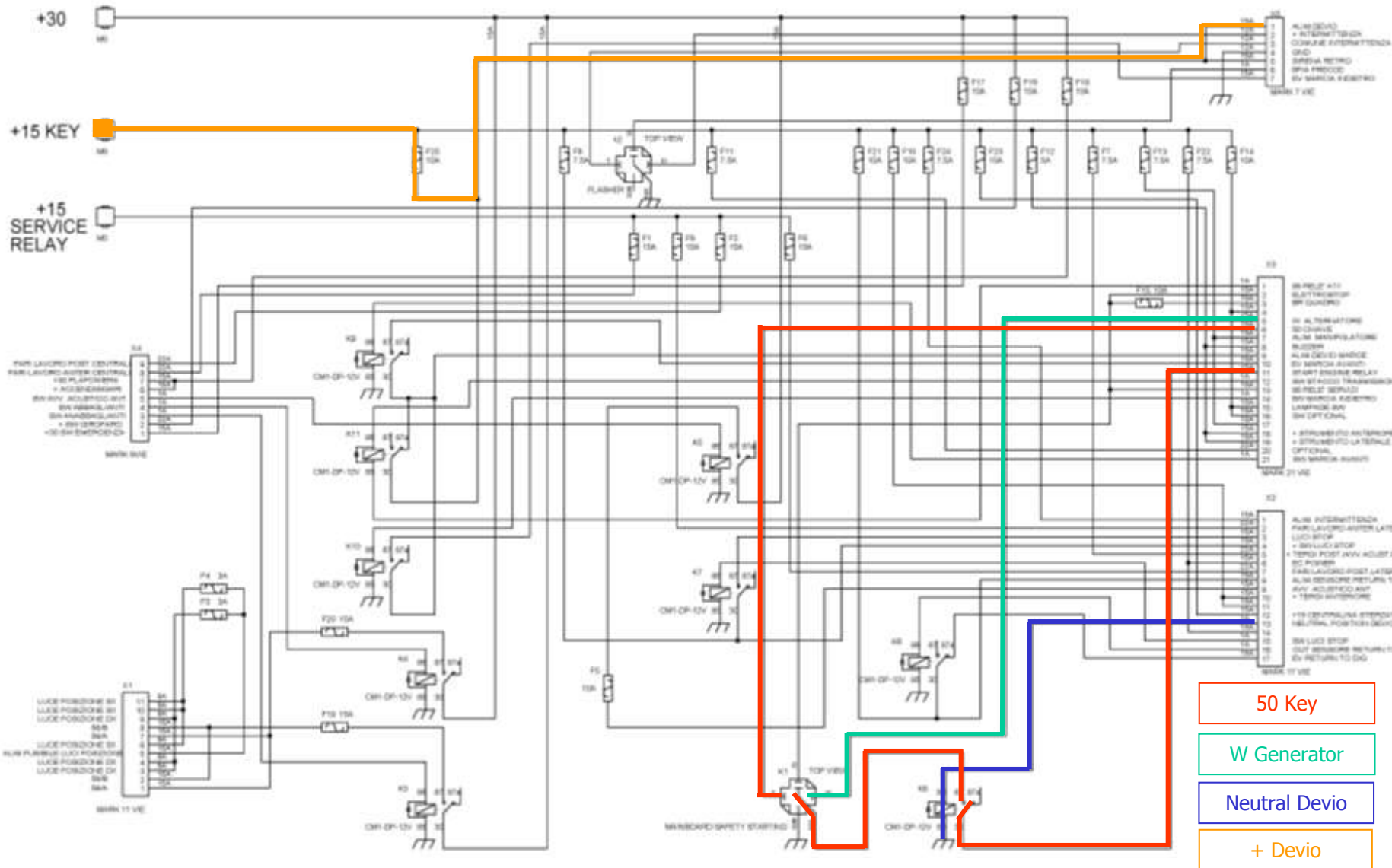


Nome/Item	Descrizione/Description
B112	Termistore/Engine coolant temp. Sensor
B113	Filtro aria/Air filter
B115	Sensore press. Olio motore/Engine oil pressure sensor
B121	Avvisatore acustico/Horn
G1	Batteria/Battery
G119	0+ Alternatore/Generator
M116	Elettrofrizione compressore/A/C clutch compressor
R114	Candelette/pre-heat
Y60	Valvole emp./Safety valve
Y117	Elettrostop/Stop solenoid
GND6	Terminale GND/GND
X7.s	Connettore a linea cabina/Cab line connector
X128.s	Connettore +50 avviamento/Starting motor +50 connector



+50 Key

W Generator



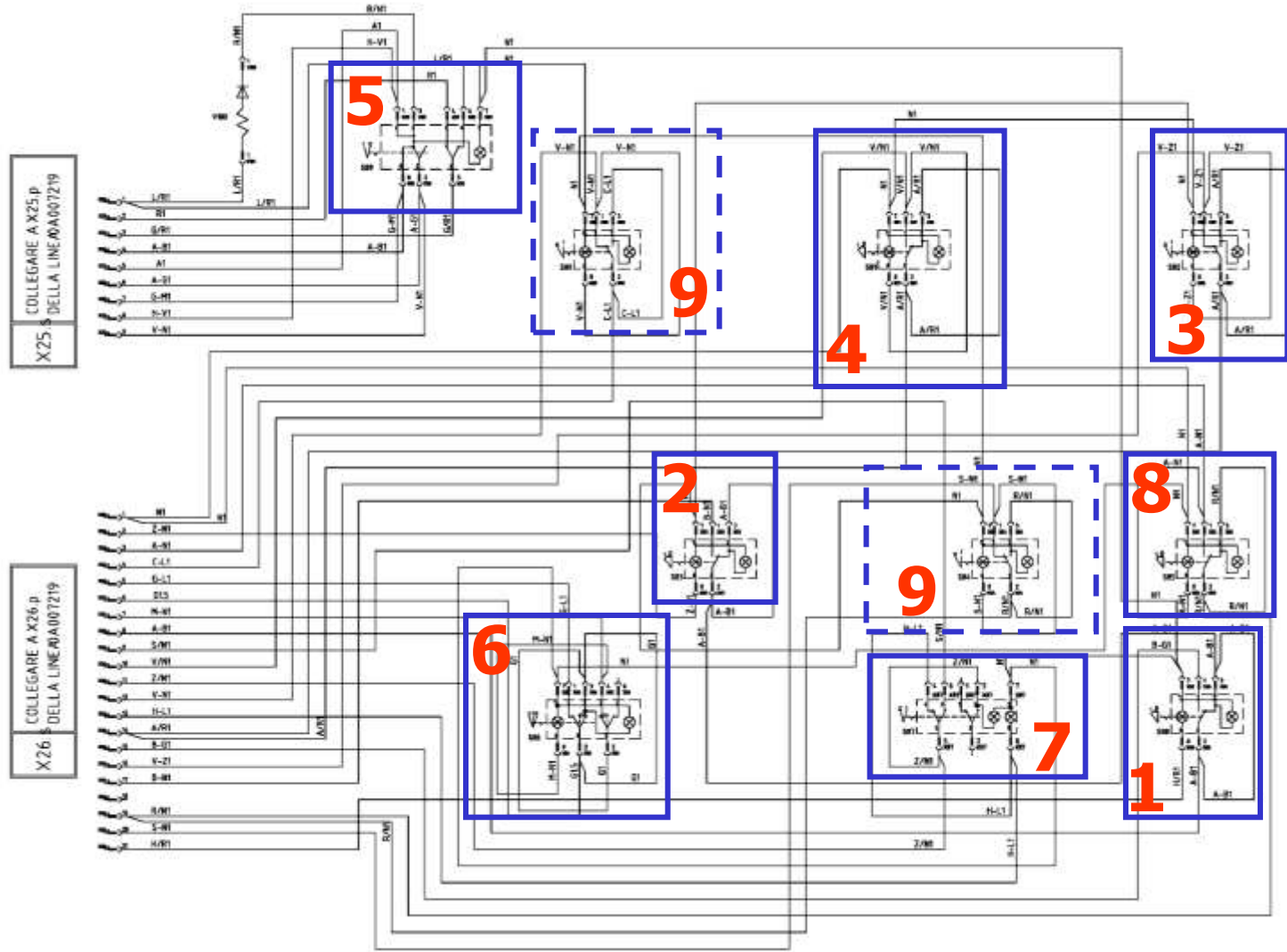
Customer Service Department

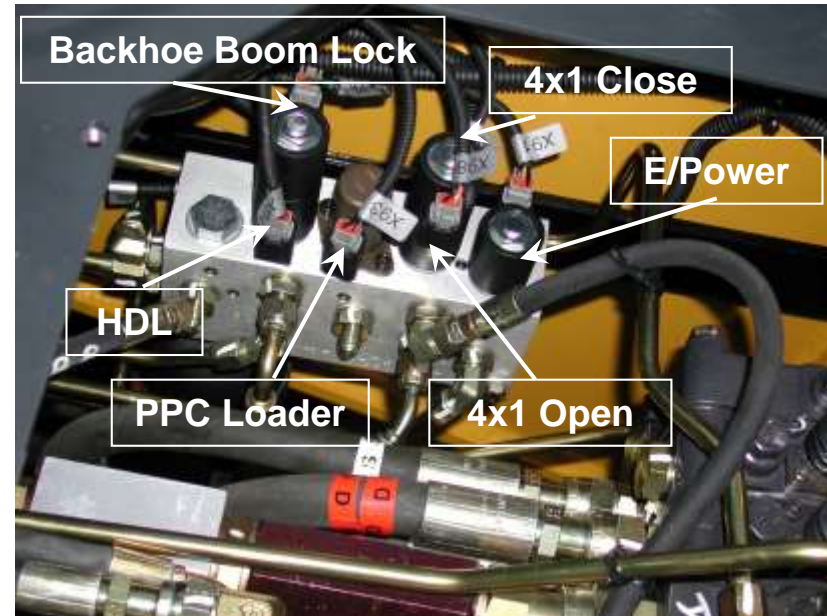
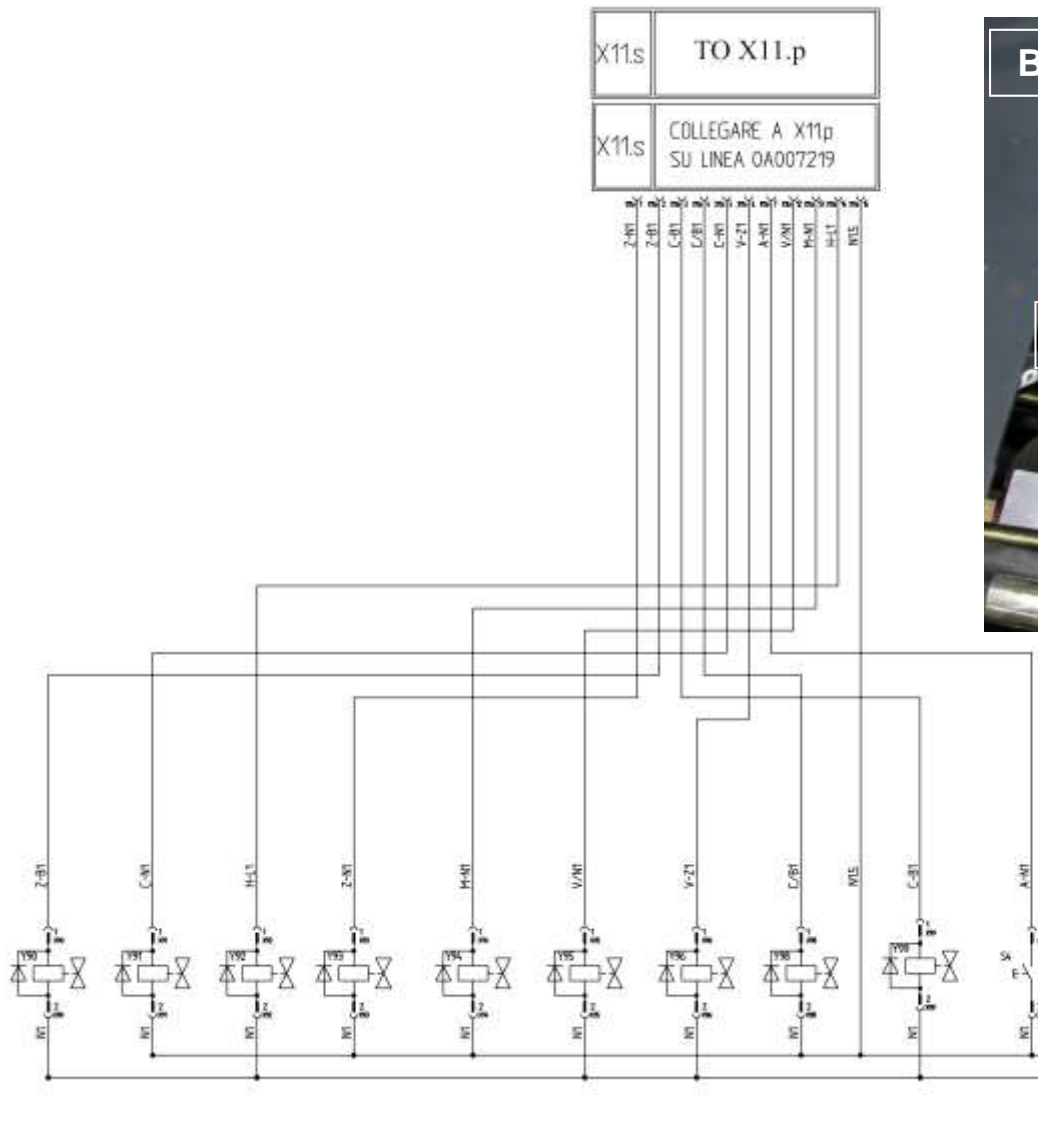


Item	Description
S80	Ride control switch
S81	Backhoe boom lock switch
S82	Backhoe sliding lock switch
S83	Backhoe speed control switch
S84	Block-Valve switch
S85	Rear acoustic alarm
S86	Light switch
S87	Four-wheel drive switch
S88	PPC control switch
S89	Emergency switch



**OPT.**

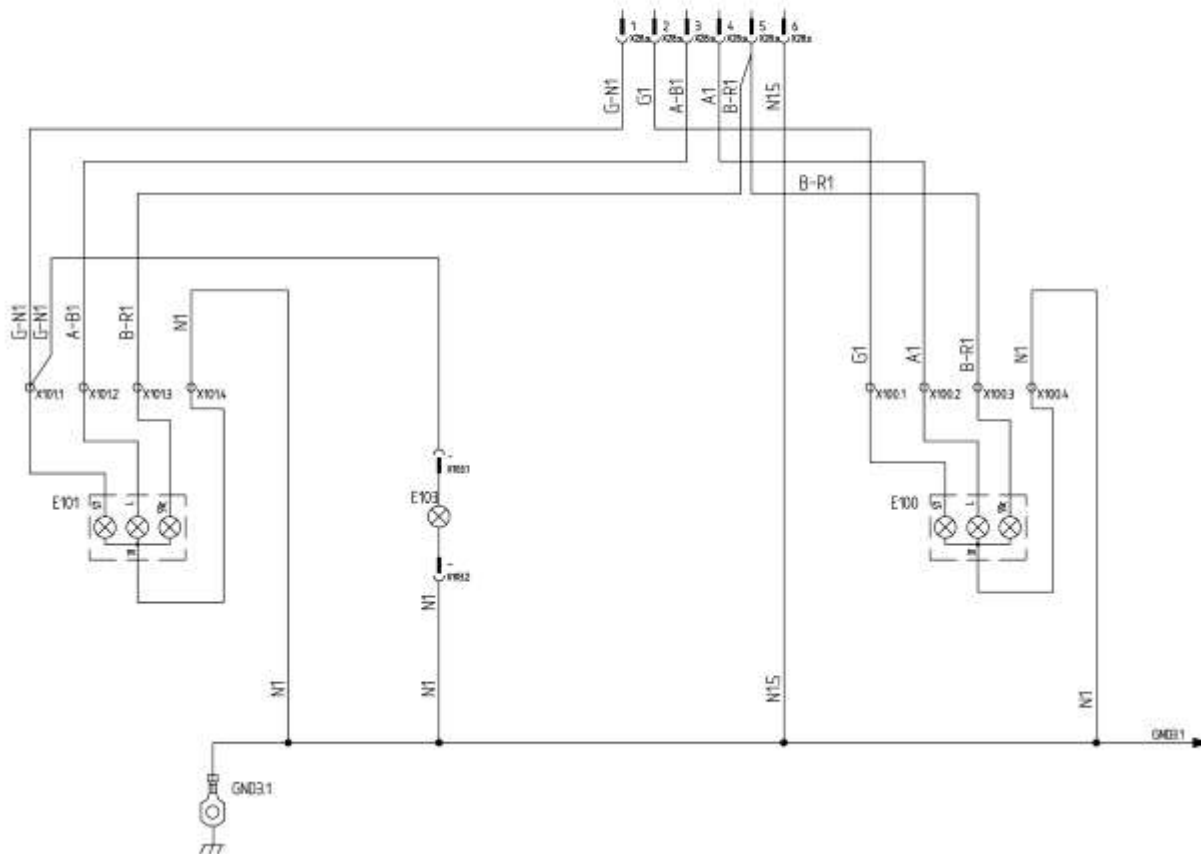




Nome/Item	Descrizione/Description
S4	Pulsante instabile/Horn
Y90	Ev PPC retro/Rear ppc solenoid valve
Y91	EV ecopower/Ecopower solenoid valve
Y92	Back-up-allarm/Back-up alarm
Y93	Ev PPC/PPC solenoid valve
Y94	Ev blocco differenziale/Differential lock
Y95	Ev sblocco braccio/Boom safety lock solenoid valve
Y96	Ev sblocco piastra/Sliding plate solenoid valve
Y98	Ev chiusura benna/4/1 bucket close solenoid valve
Y99	Ev apertura benna/4/1 bucket open solenoid valve

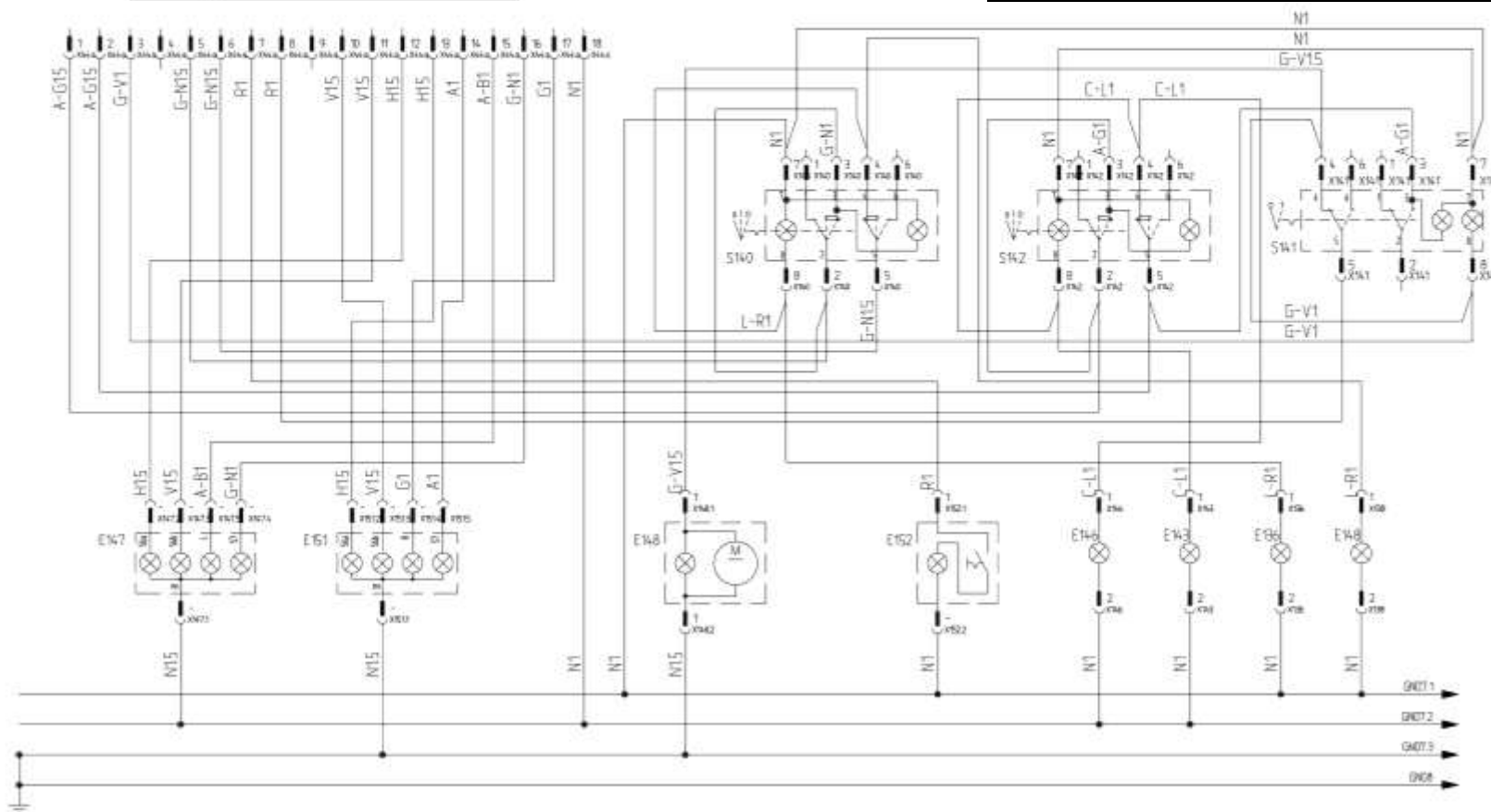
Nome/Item	Descrizione/Description
E100	Massa fanale post. DX/R.R. head light GND
E101	Massa fanale post. SX/R.L. head light GND
E103	Massa luce targa/License plate light GND
GND 3.1	Occhiello C6 massa/C6 GND

X12.p	TO X12.s
X12.p	COLLEGARE A X12.s DELLA LINEA 0A007219

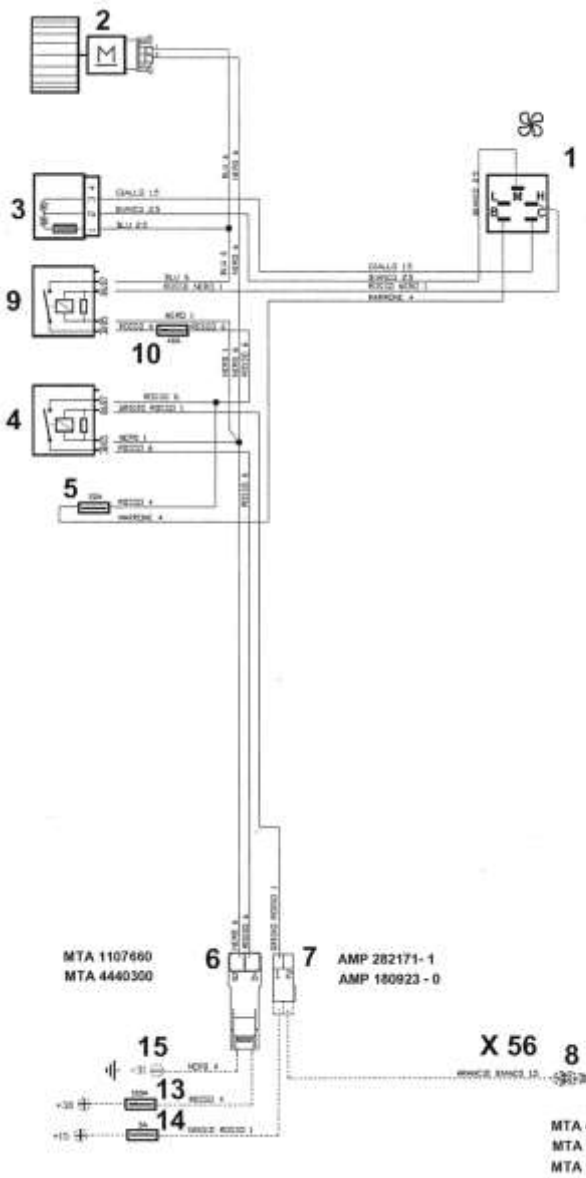


X44.s	TO X44.p
X44.s	COLLEGARE A X44.p DELLA LINEA 0A007219

Nome/Item	Descrizione/Description
E136	Faro lavoro post.DX/Work light R.R.
E143	Faro lavoro ant.DX/Work light F.R.
E146	Faro lavoro ant.SX/Work light F.L.
E147	Faro ant. SX/Left head light
E148	Presse girofaro/Beacon lamp connector
E149	Faro lavoro post.SX/Work light R.L.
E151	Faro ant. DX/Right head light
E152	Plafoniera/Roof light
S140	Interruttore fari lavoro post./Rear work light switch
S141	Interruttore girofaro/Beacon lamp switch
S142	Interruttore fari lavoro ant./Front work ligh switch
X44.s	Connettore a linea posto guida/Cab line connector



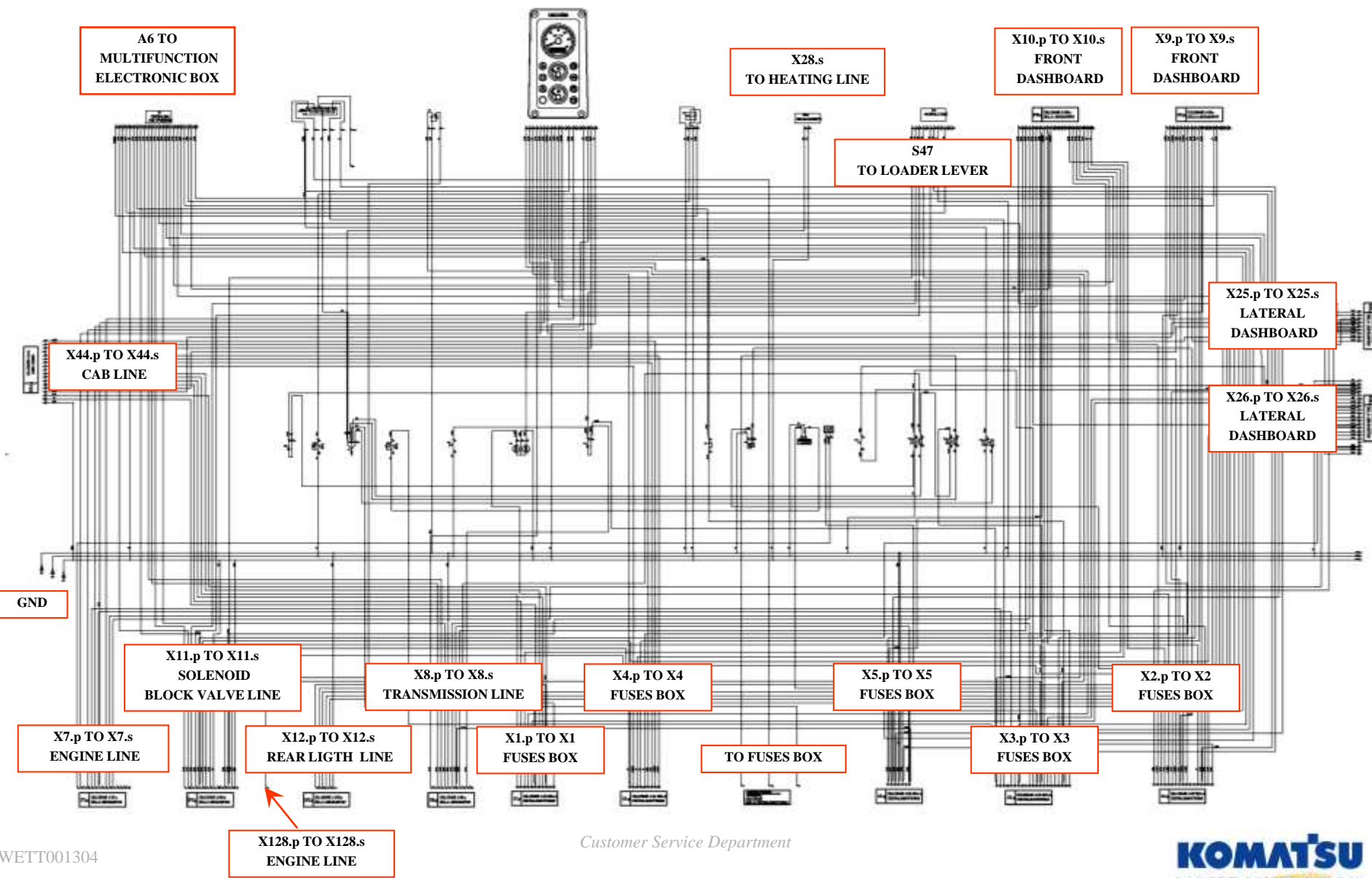


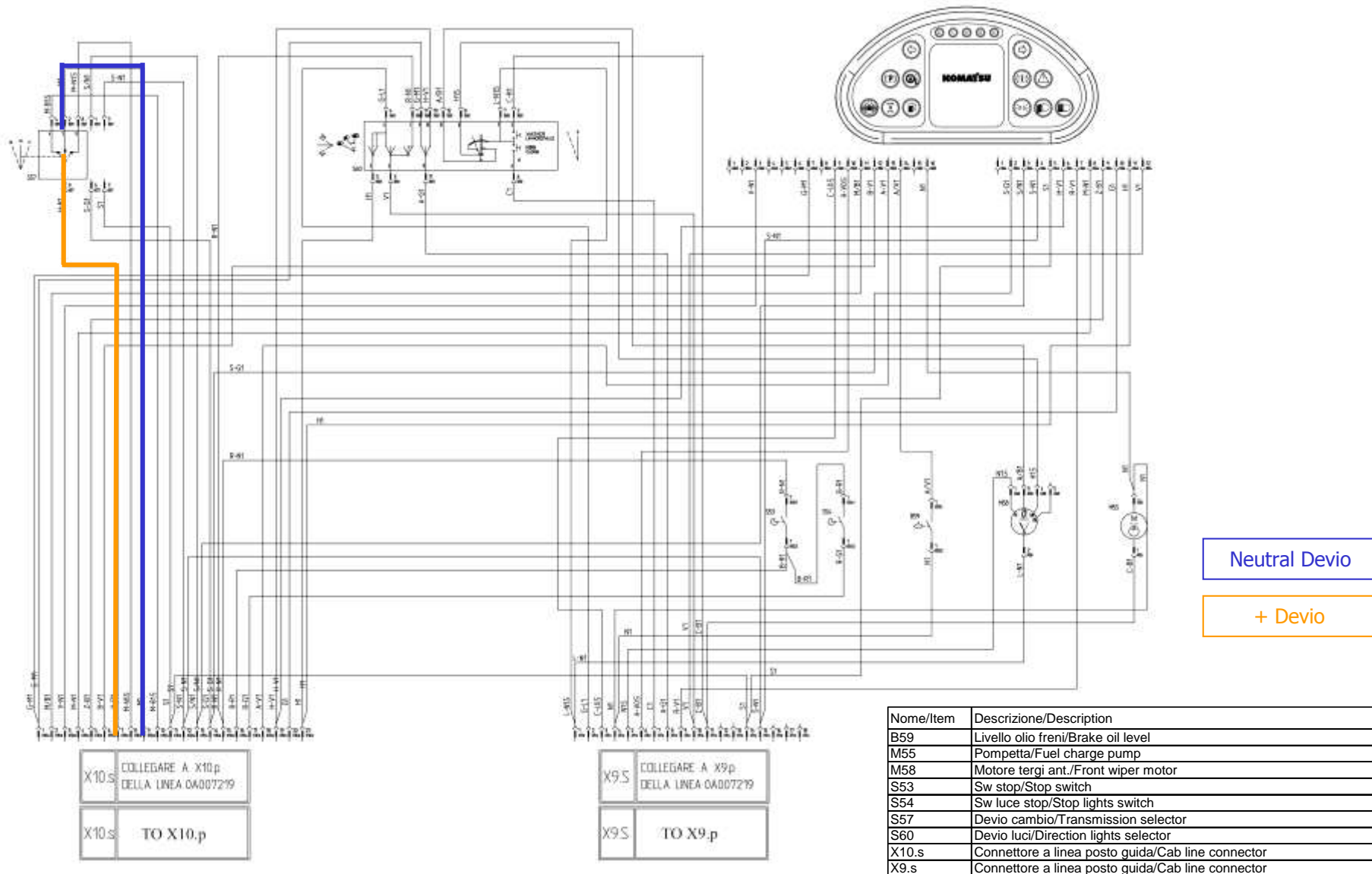


Pos.	DESCRIZIONE	DESCRIPTION
1	SELETTORE VENTILAZIONE	SELECTOR FAN
2	VENTILATORE	FAN
3	RESISTORE	RESISTOR
4	RELE 12V 40A	RELAY 12V 40A
5	FUSIBILE 20A	FUSE 20A
6	CONNETTORE 2 VIE MAXI	CONNECTOR 2 WAY
7	CONNETTORE 2 VIE	CONNECTOR 2 WAY MAXI
8	PREDISPOSIZIONE	PREDISPOSITION
9	RELE 12V 50A	RELAY 12V 50A
10	FUSIBILE 40A MAXI	FUSE 40A MAXI

MTA 4423510  
 MTA 1107510  
 MTA 1104510

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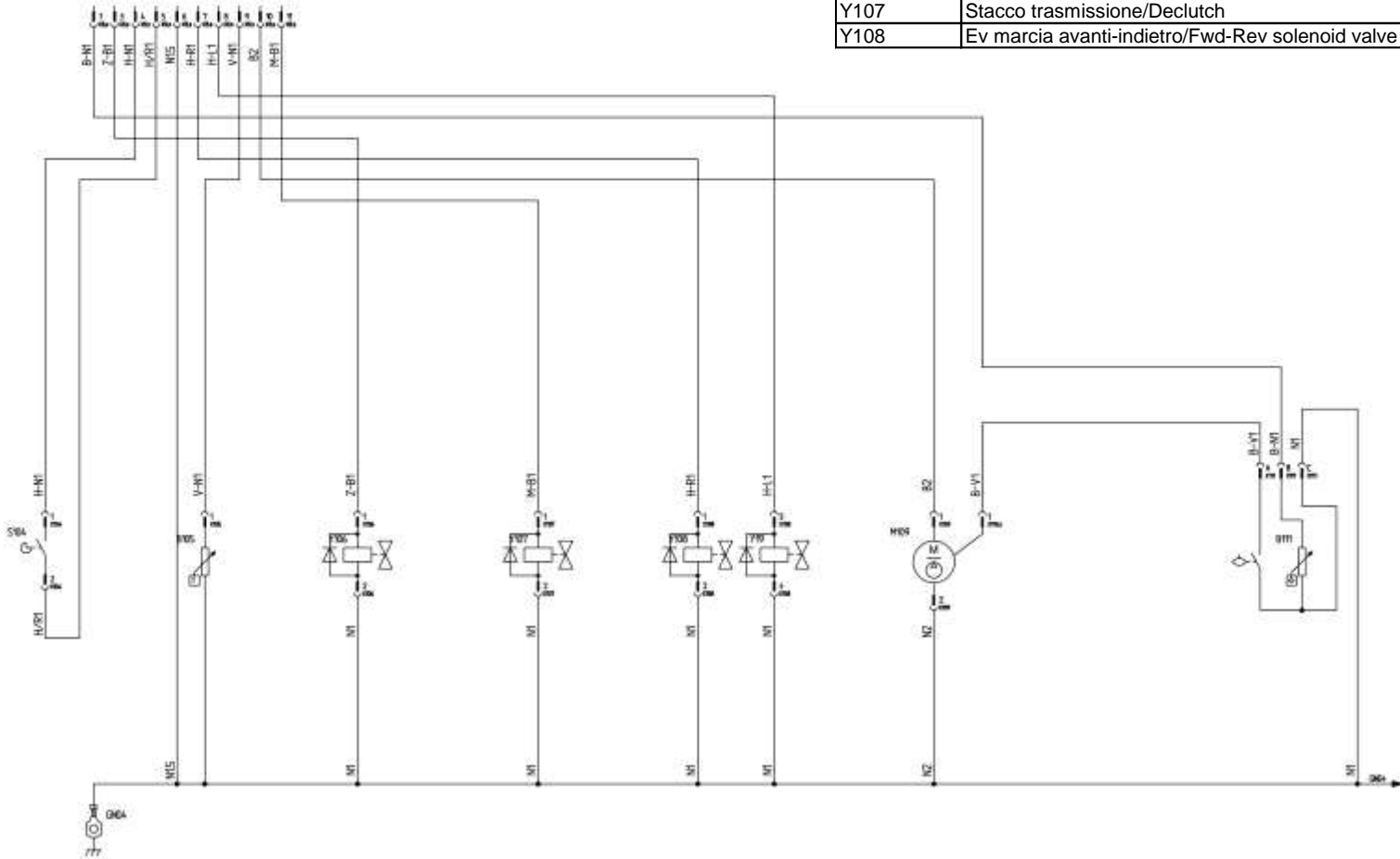




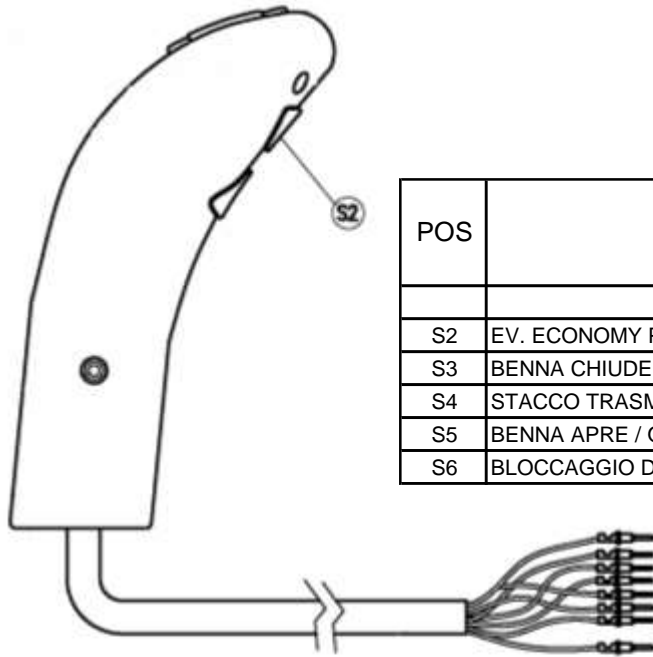
X8.s TO X8.p

X8.s COLLEGARE A X8.p DELLA LINEA 0A007219

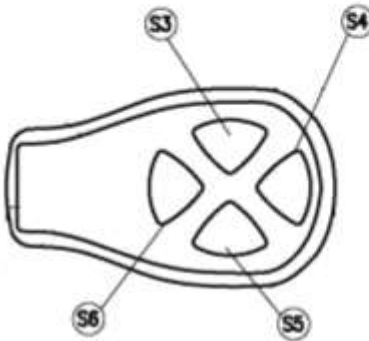
Nome/Item	Descrizione/Description
B105	Sensore temp. Olio trasm./Transmission oil temp. Sensor
B111	Galleggiante livello carburante/Fuel level sensor
GND4	Occhiello C6 massa/Ground
M109	Pompa travaso nafta/Fuel refill tank
S104	Sw 4° marcia/4th speed switch
Y19	Elettrovalvola/Solenoid valve
Y106	Ev 4WS/4ws solenoid valve
Y107	Stacco trasmissione/Declutch
Y108	Ev marcia avanti-indietro/Fwd-Rev solenoid valve



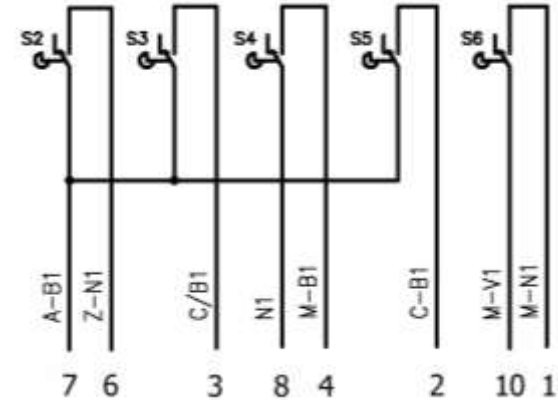


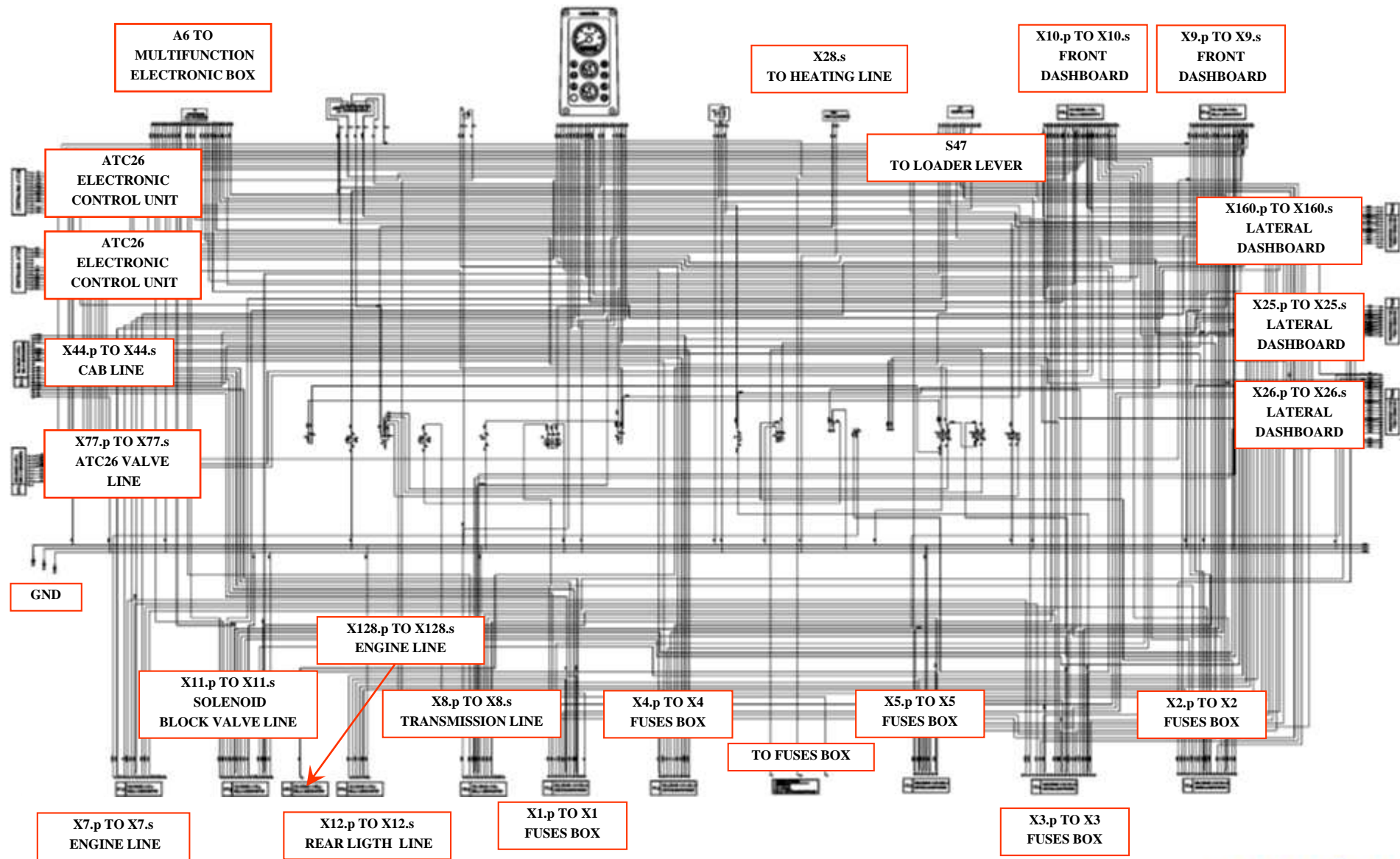


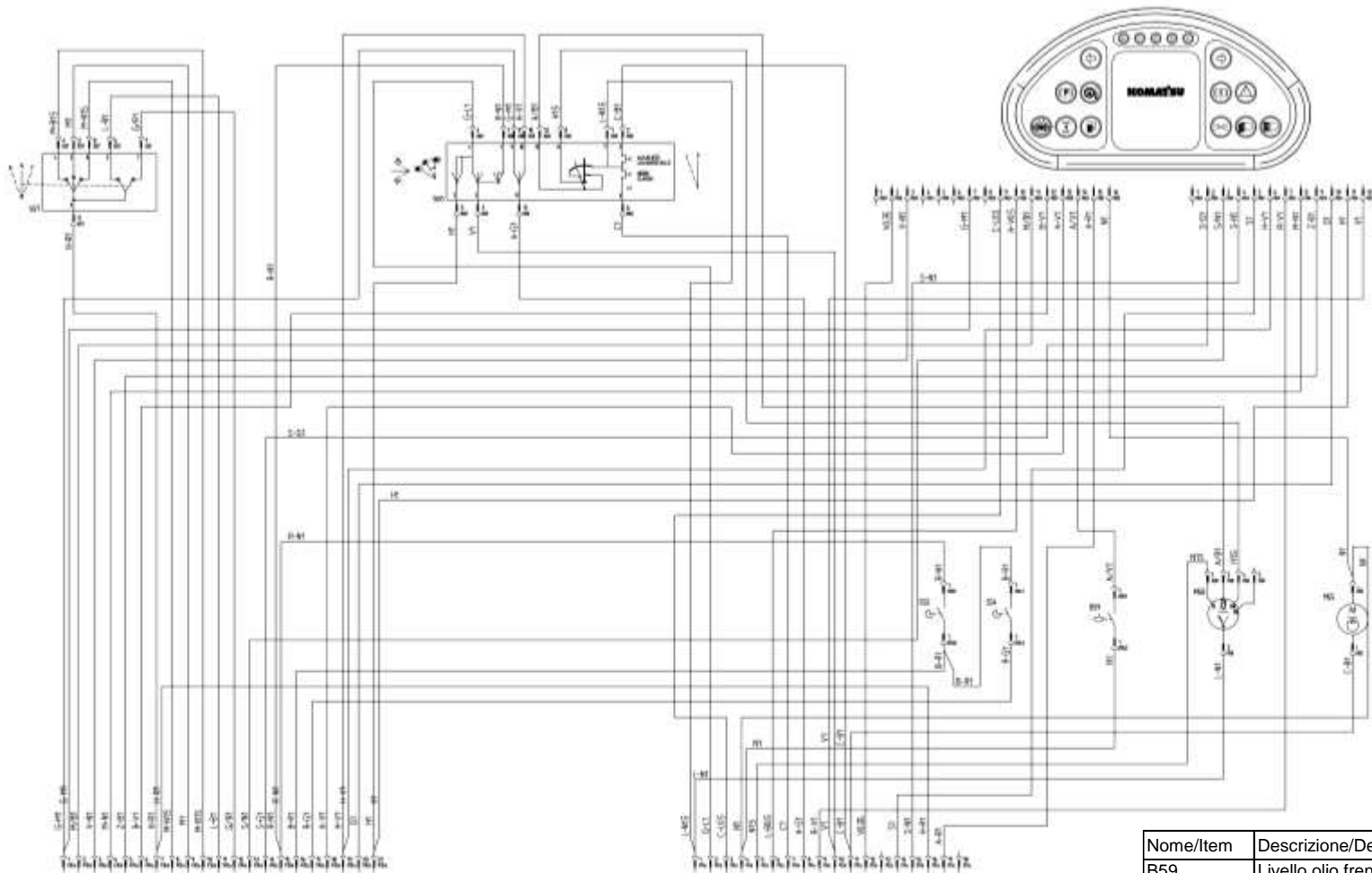
POS	DESCRIZIONE/DESCRIPTION	FILO COMUNE -- COM. WIRE	FILO CONT. N.A. -- N.O. CONTACT WIRE	FILO CONT. N.C. -- N.C. CONTACT WIRE
S2	EV. ECONOMY POWER	C - L1	Z - N1	
S3	BENNA CHIUDE / CLOSED GRAB	C - L1	C / B1	
S4	STACCO TRASMISSIONE / TRANSMISSION DETACHMENT	N1	M - B1	
S5	BENNA APRE / OPENED GRAB	C - L1	C - B1	
S6	BLOCCAGGIO DIFFERENZIALE / DIFFERENTIAL LOCK	M - V1	M - N1	



CONNECTOR  
POSITION







X10.s COLLEGARE A X10p DELLA LINEA 0A007219

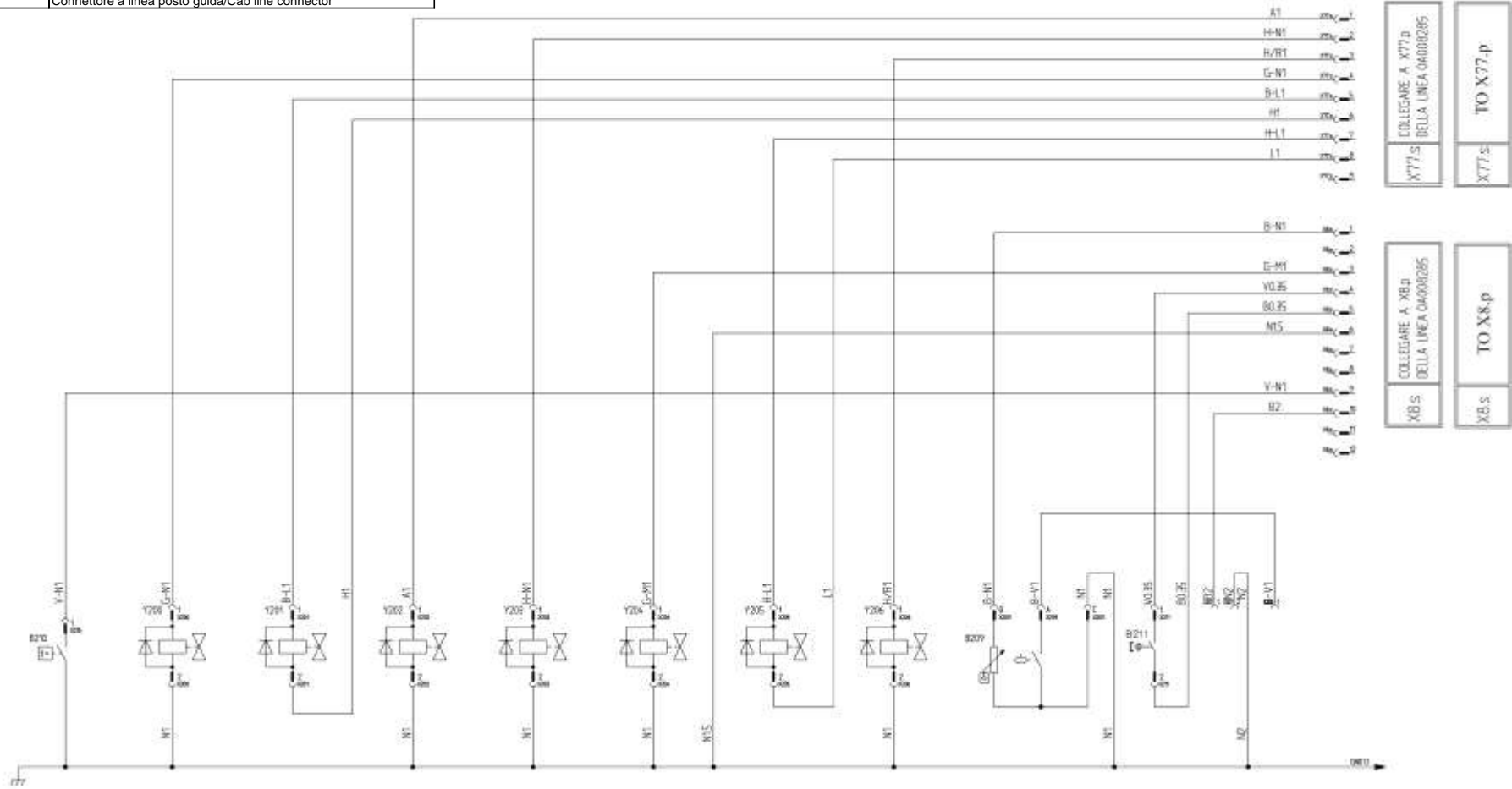
X10.s TO X10.p

X9.S COLLEGARE A X9.p DELLA LINEA 0A007219

X9.S TO X9.p

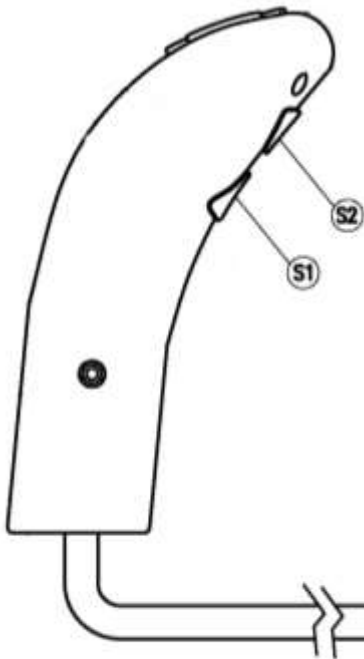
Nome/Item	Descrizione/Description
B59	Livello olio freni/Brake oil level
M55	Pompetta/Fuel charge pump
M58	Motore tergi ant./Front wiper motor
S53	Sw stop/Stop switch
S54	Sw luce stop/Stop switch light
S57	Devio cambio/transmission selector
S60	Devio luci/Direction lights selector

Nome/Item	Descrizione/Description
B209	Galleggiante/Fuel level sensor
B210	Temp. Olio trasmissione/Transmission oil temp. Sensor
B211	Sensore cardano/Transmission speed sensor
Y200	Ev 4° marcia/4th speed solenoid valve
Y201	Ev marcia avanti/Forward solenoid valve
Y202	Ev 1° velocità/1st speed solenoid valve
Y203	Ev 2° marcia/2nd speed solenoid valve
Y204	Ev doppia trazione/4wd solenoid valve
Y205	Ev retromarcia/Reverse solenoid valve
Y206	Ev 3° marcia/3rd speed solenoid valve
X77.s	Connettore a centralina ATC26/ATC26 connector
X8.s	Connettore a linea posto guida/Cab line connector

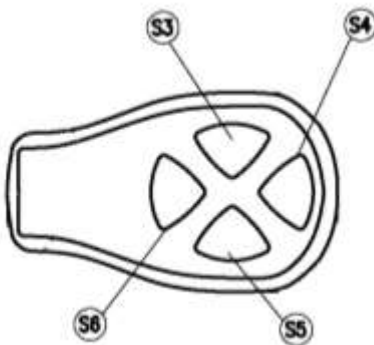


COLLEGARE A X77.p  
 DELLA LINEA 04000205.  
 X77.s TO X77.p

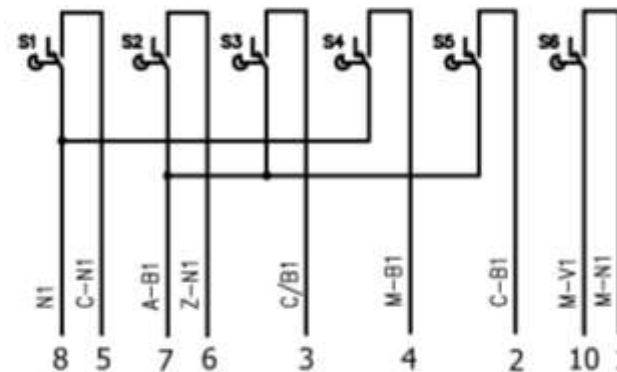
COLLEGARE A X8.p  
 DELLA LINEA 04000205.  
 X8.s TO X8.p



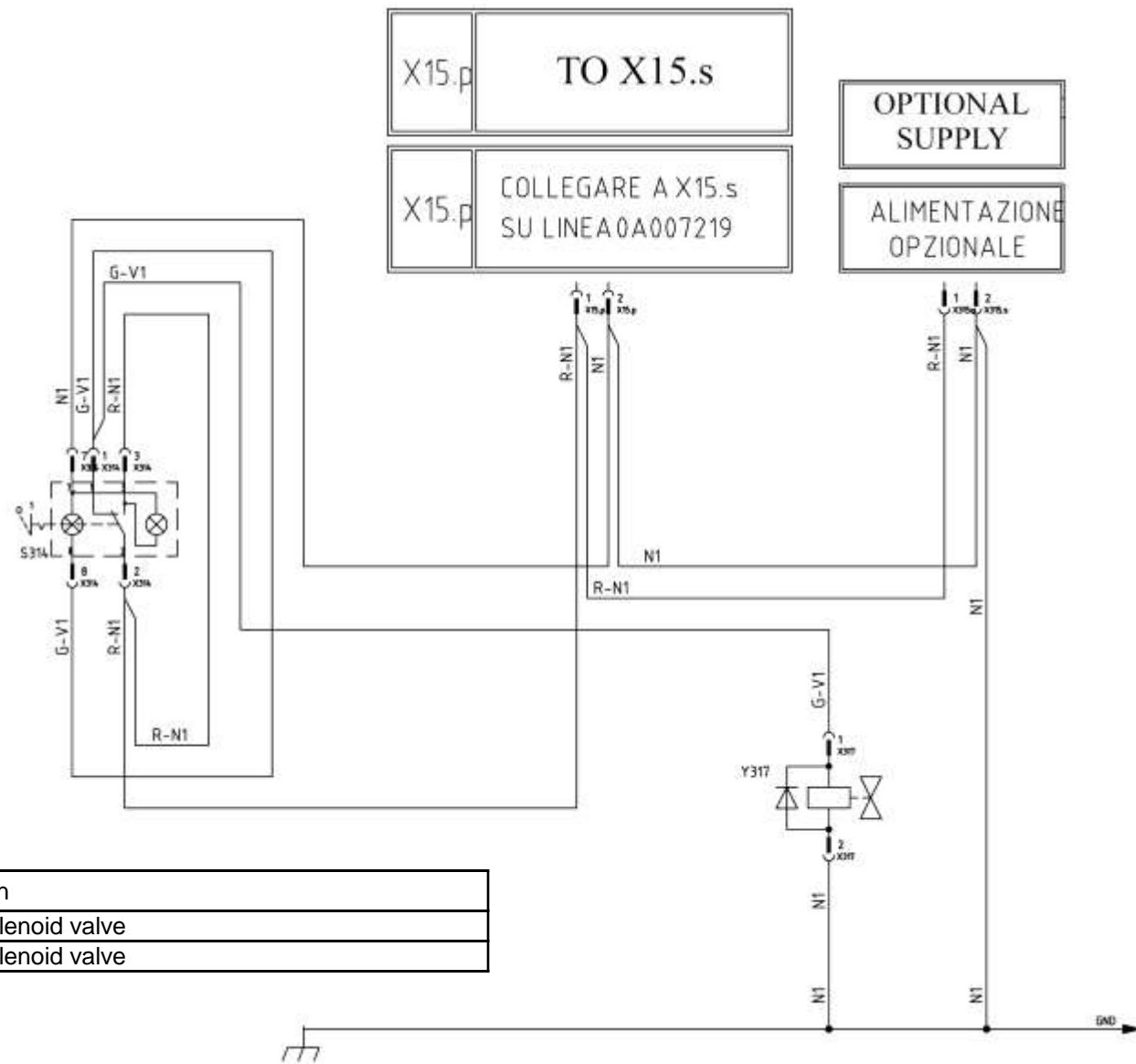
POS	DESCRIZIONE/DESCRIPTION	FILO COMUNE -- COM. WIRE	FILO CONT. N.A. -- N.O. CONTACT WIRE	FILO CONT. N.C. -- N.C. CONTACT WIRE
S1	KICK DOWN	N1	C - N1	
S2	EV. ECONOMY POWER	C - L1	Z - N1	
S3	BENNA CHIUDE / CLOSED GRAB	C - L1	C / B1	
S4	STACCO TRASMISSIONE / TRANSMISSION DETACHMENT	N1	M - B1	
S5	BENNA APRE / OPENED GRAB	C - L1	C - B1	
S6	BLOCCAGGIO DIFFERENZIALE / DIFFERENTIAL LOCK	M - V1	M - N1	



CONNECTOR POSITION







Nome/Item	Descrizione/Description
S314	Ev sicurezza/Safety solenoid valve
Y317	Ev sicurezza/Safety solenoid valve

X315.s

Alimentazione opzionale  
125017

Connettore Amp 2 via P.F.

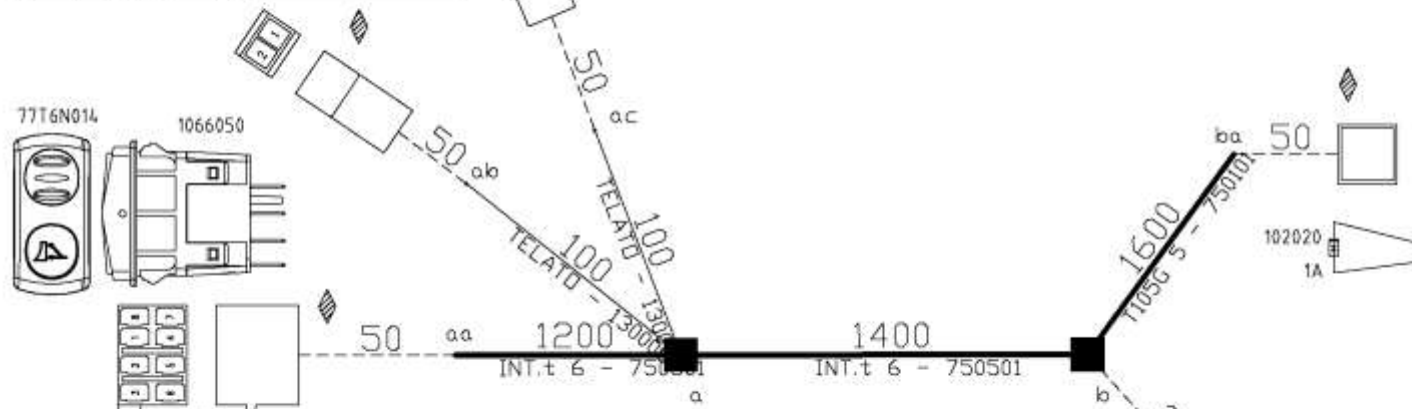
P.	COL./N.	SEZ.	RIF.	TERMIN.	FUNZIONE_FILD
1	R-N	1	X15.p/1	120473	Alimentaz. +15
2	N	1	X15.p/2	120473	Gnd
1	N	1	Gnd/-	-	Gnd

X15.p

A linea posto guida  
125008

Connettore Amp 2 via P.M.

P.	COL./N.	SEZ.	RIF.	TERMIN.	FUNZIONE_FILD
1	R-N	1	X315.s/1	120001	Alimentaz. +15
1	R-N	1	X314/2	-	Alimentazione sv martello a mano
2	N	1	X315.s/2	120001	Gnd
1	N	1	X314/7	-	Gnd



X314

Interruttore martello a mano  
124331

Connettore Int. COB0 serie 600

P.	COL./N.	SEZ.	RIF.	TERMIN.	FUNZIONE_FILD
1	G-V	1	X317/1	120473	Comando ev martello a mano
1	G-V	1	X314/8	-	Ponte 1
2	R-N	1	X15.p/1	120473	Alimentazione sv martello a mano
1	R-N	1	X314/3	-	Ponte
3	R-N	1	X314/2	120473	Ponte
4					
5					
6					
7	N	1	X15.p/2	120473	Gnd
8	G-V	1	X314/1	120473	Ponte 1

X317

Ev martello a mano

P.	COL./N.	SEZ.	RIF.	TERMIN.	FUNZIONE_FILD
1	G-V	1	X314/1	101077	Comando ev martello a mano
1	N	1	Gnd/-	101077	Gnd

Gnd

Punto di massa  
381013

Capicorsa non isolato II B x 4-6mm

COL./N.	SEZ.	RIF.	FUNZIONE_FILD
N	1	X317/2	Gnd
N	1	X315.s/2	Gnd

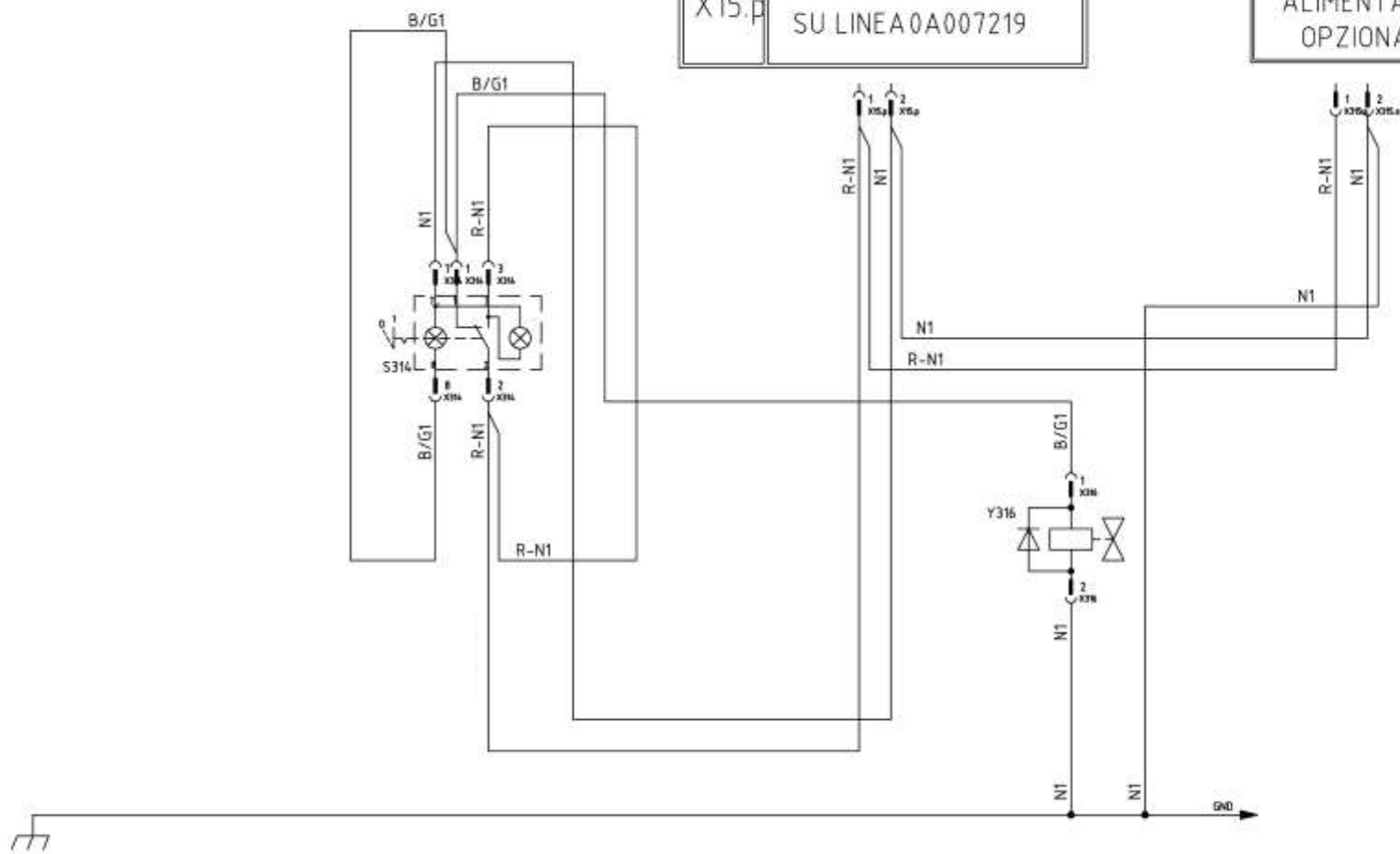
Nome/Item	Descrizione/Description
S314	Interruttore martello a mano/Hand hammer switch
Y316	Ev martello a mano/Hand hammer solenoid valve

X15.p TO X15.s

X15.p COLLEGARE A X15.s SU LINEA 0A007219

OPTIONAL SUPPLY

ALIMENTAZIONE OPZIONALE



### X315.p

Alimentazione opzionale

I25008

Connettore Amp 2 vie PM

P.	COL./N.	SEZ.	RIF.	TERMIN.	FUNZIONE_FILO
1	R-N	1	X315.s/1	I2000	Alimentaz. +15
	R-N	1	X314/2	-	Alimentazione sv martello a mano
2	N	1	X315.s/2	I2000	Gnd
	N	1	X314/7	-	Gnd

### X15.s

A linea posto guide

I25007

Connettore Amp 2 vie PF

P.	COL./N.	SEZ.	RIF.	TERMIN.	FUNZIONE_FILO
1	R-N	1	X315.p/1	I20473	Alimentaz. +15
2	N	1	X315.p/2	I20473	Gnd
	N	1	Gnd/-	-	Gnd

### X316

Ev martello a mano

P.	COL./N.	SEZ.	RIF.	TERMIN.	FUNZIONE_FILO
1	B/G	1	X314/1	I2011	Comando ev martello a mano
2	N	1	Gnd/-	I2011	Gnd

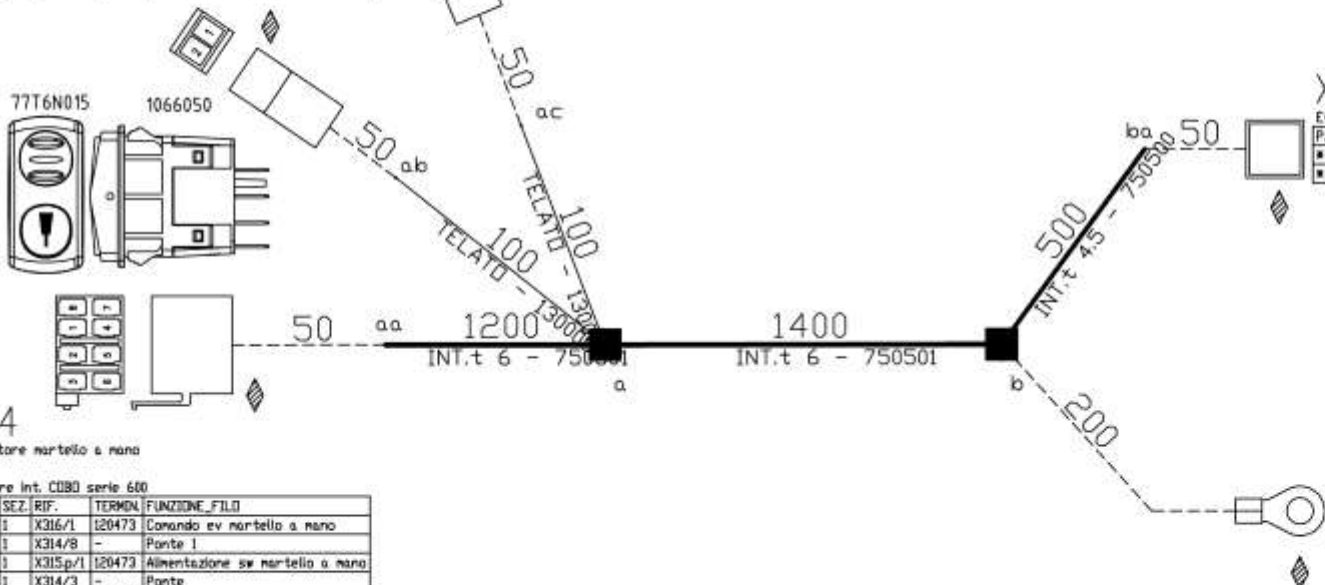
### X314

Interruttore martello a mano

I24331

Connettore Int. COBO serie 600

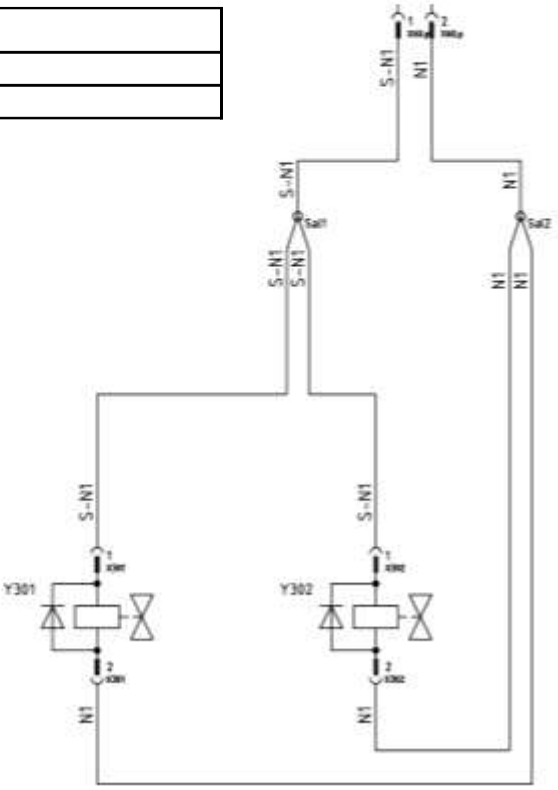
P.	COL./N.	SEZ.	RIF.	TERMIN.	FUNZIONE_FILO
1	B/G	1	X316/1	I20473	Comando ev martello a mano
2	B/G	1	X314/8	-	Ponte 1
3	R-N	1	X315.p/1	I20473	Alimentazione sv martello a mano
	R-N	1	X314/3	-	Ponte
	R-N	1	X314/2	I20473	Ponte
4					
5					
6					
7	N	1	X315.p/2	I20473	Gnd
8	B/G	1	X314/1	I20473	Ponte 1



X60.p	TO X60.s
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X60.p	COLLEGARE A X60.s SU LINEA 0A007170
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Nome/Item	Descrizione/Description
Y301	Ev sicurezza/Safety solenoid valve
Y302	Ev sicurezza/Safety solenoid valve





**X301**

Ev sicurezza  
125402  
Conn. DT 2 vie M.  
125403

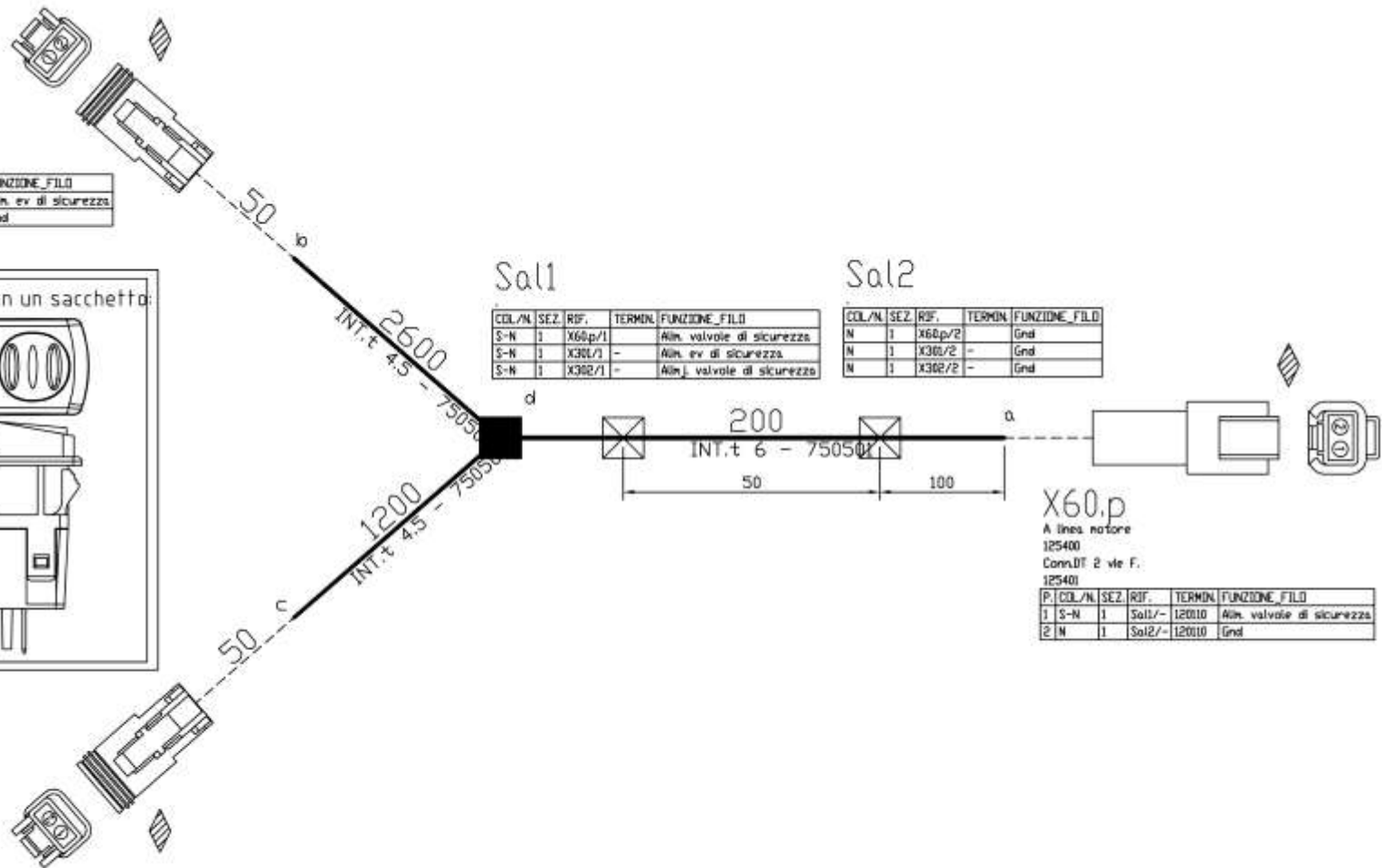
P.	COL./N.	SEZ.	RIF.	TERMIN.	FUNZIONE_FILO
1	S-N	1	Sal1/-	120011	Alim. ev di sicurezza
2	N	1	Sal2/-	120011	Gnd



**X302**

Ev sicurezza  
125402  
Conn. DT 2 vie M.  
125403

P.	COL./N.	SEZ.	RIF.	TERMIN.	FUNZIONE_FILO
1	S-N	1	Sal1/-	120011	Alim. valvole di sicurezza
2	N	1	Sal2/-	120011	Gnd



Sal1

COL./N.	SEZ.	RIF.	TERMIN.	FUNZIONE_FILO
S-N	1	X60p/1	-	Alim. valvole di sicurezza
S-N	1	X301/1	-	Alim. ev di sicurezza
S-N	1	X302/1	-	Alim. valvole di sicurezza

Sal2

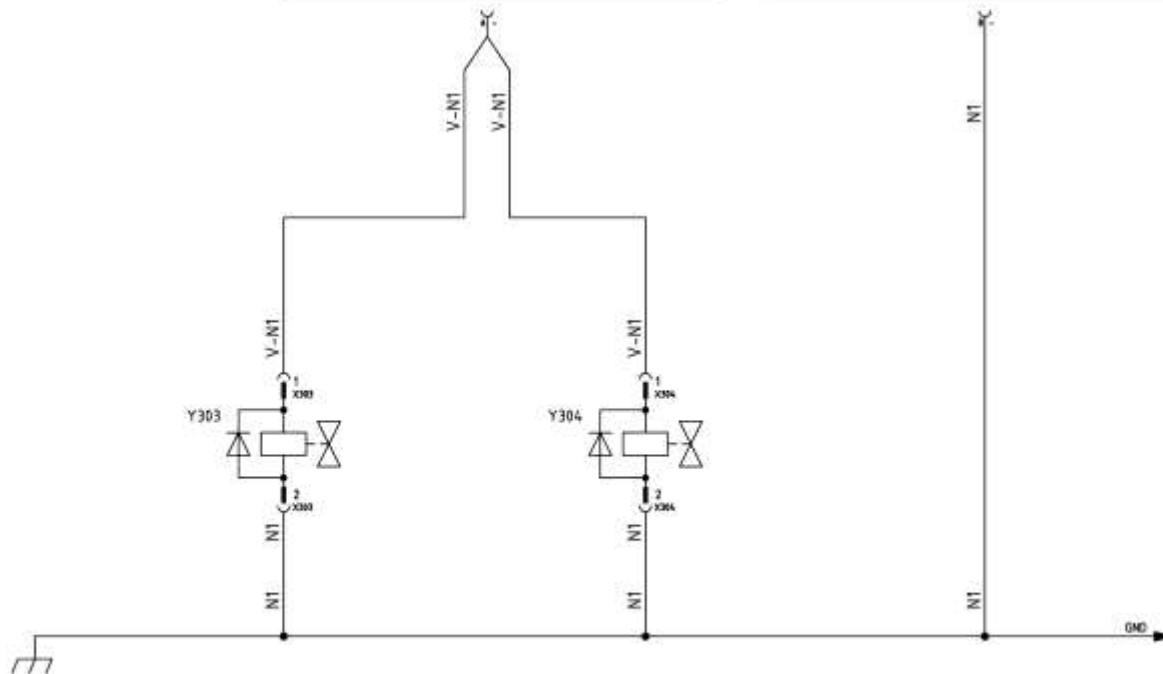
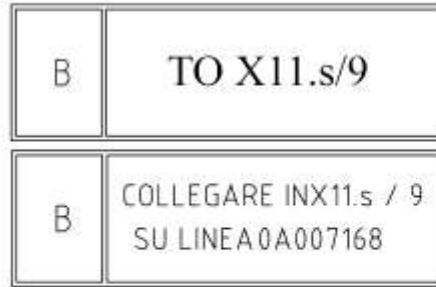
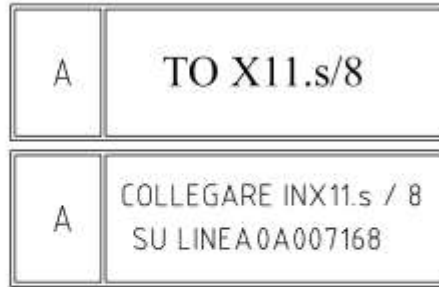
COL./N.	SEZ.	RIF.	TERMIN.	FUNZIONE_FILO
N	1	X60p/2	-	Gnd
N	1	X301/2	-	Gnd
N	1	X302/2	-	Gnd

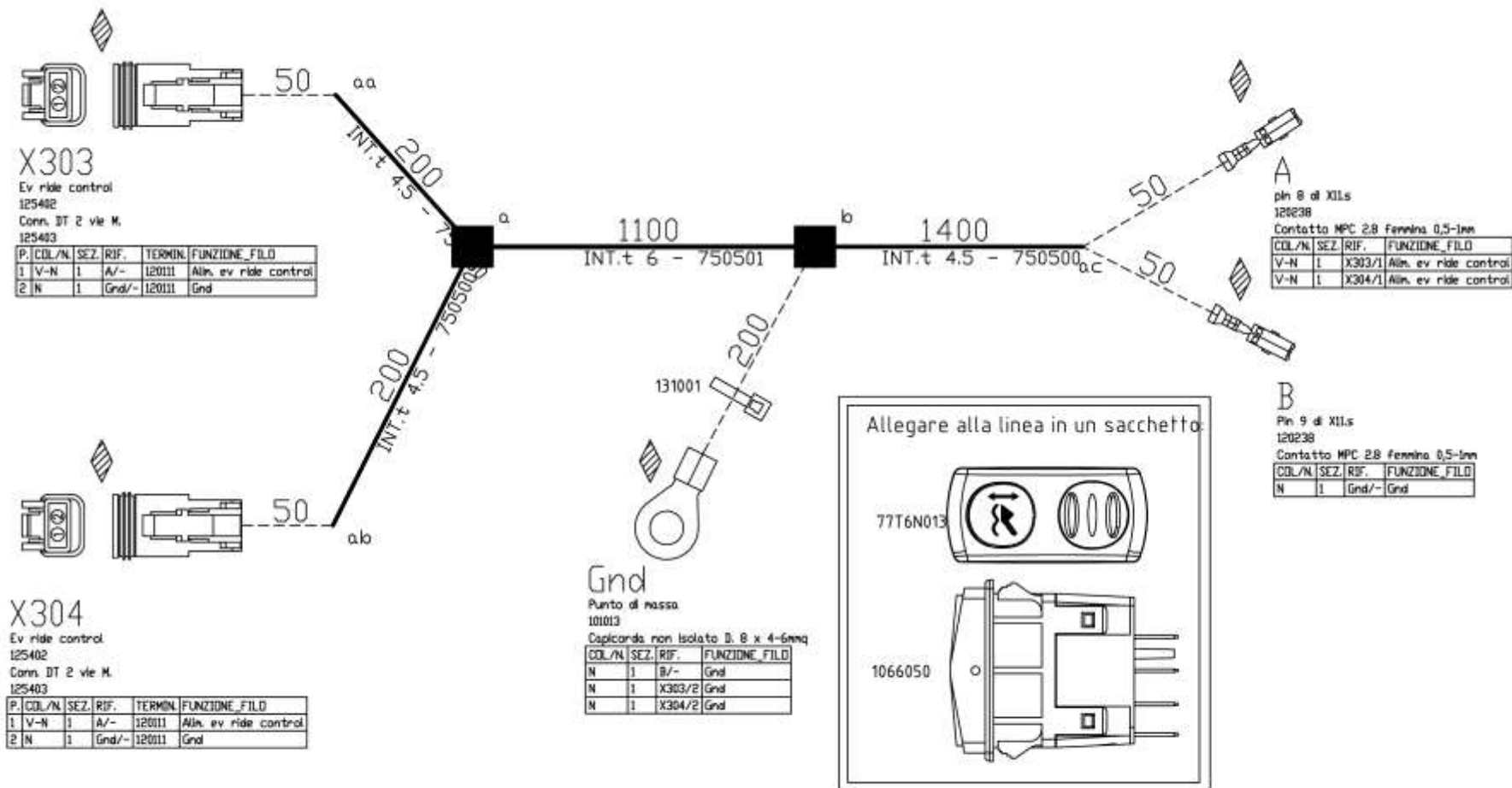
X60,p

A linea motore  
125400  
Conn.DT 2 vie F.  
125401

P.	COL./N.	SEZ.	RIF.	TERMIN.	FUNZIONE_FILO
1	S-N	1	Sal1/-	120010	Alim. valvole di sicurezza
2	N	1	Sal2/-	120010	Gnd

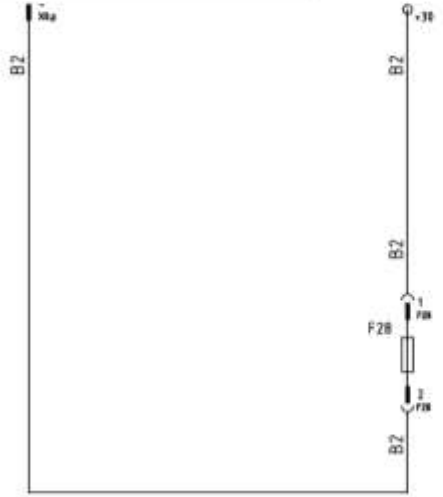
Nome/Item	Descrizione/Description
Y303	Ev ride control/Ride control solenoid valve
Y304	Ev ride control/Ride control solenoid valve





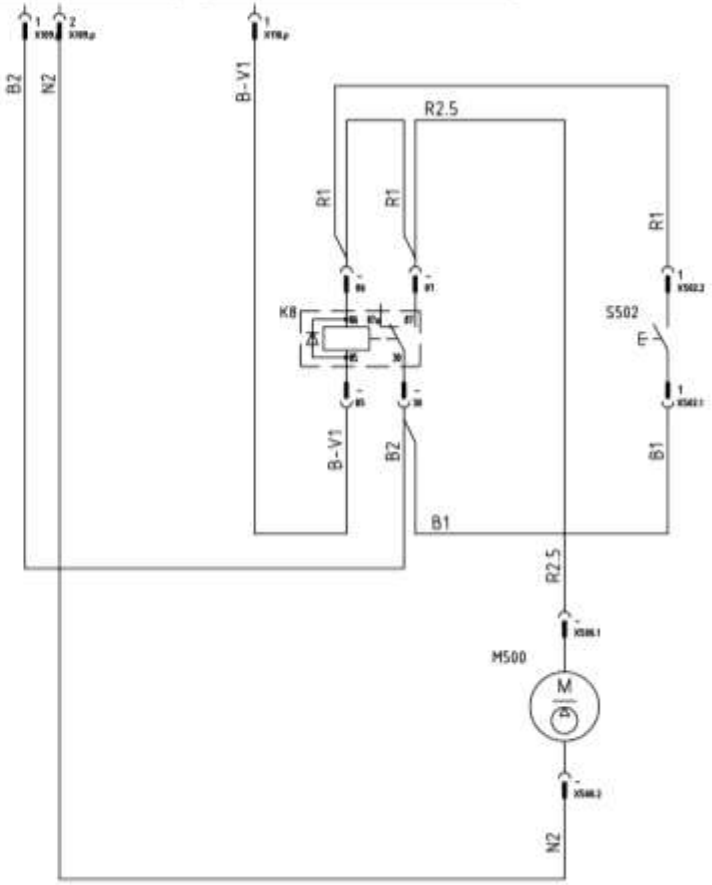
INSERT THE PIN IN THE CONNECTOR X8.s IN THE POSITION 10

Inserire il pin in posizione 10 del connettore X8.p della linea posto guida

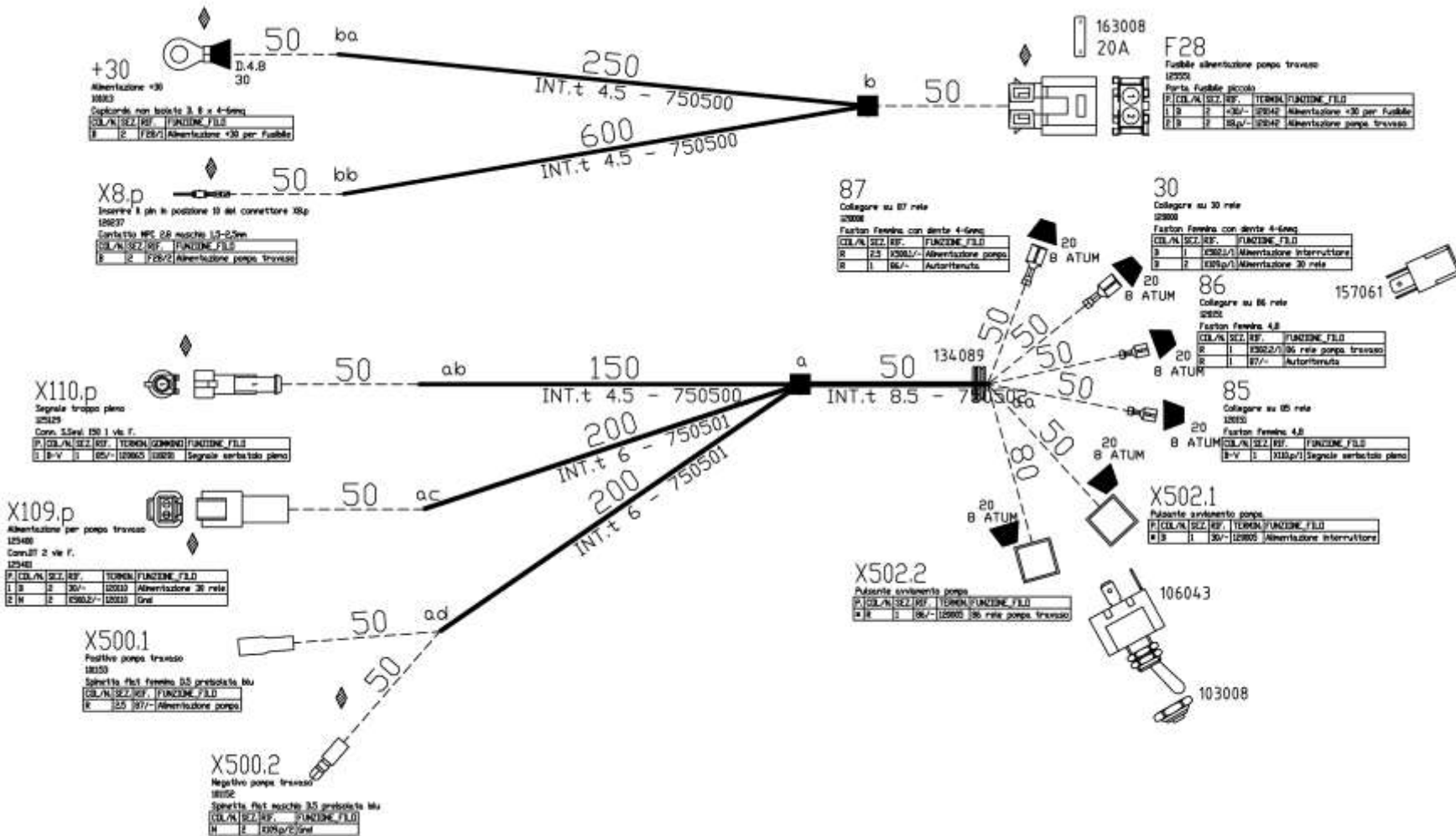


X109.p TO X109.s  
X109.p COLLEGARE A X109.s SU LINEA CAMBIO

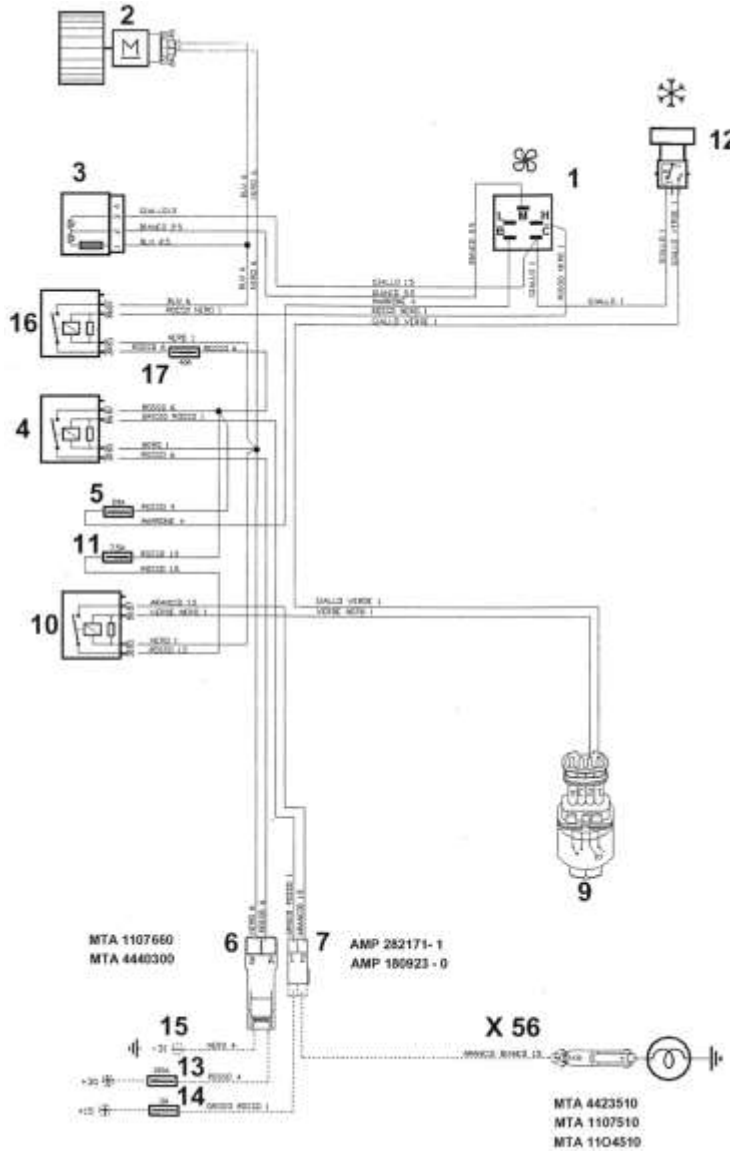
X110.p TO X110.s  
X110.p COLLEGARE A X110.s SU LINEA CAMBIO



Nome/Item	Descrizione/Description
F28	Fusibile alim. Pompa travaso/Fuel refill tank fuse
K8	Rele pompa travaso/Fuel refill tank rele
M500	Pompa travaso/Fuel refill tank
S502	Pulsante avv. Pompa/Starting fuel refill pump button







Pos.	DESCRIZIONE	DESCRIPTION
1	SELETTORE VENTILAZIONE	SELECTOR FAN
2	VENTILATORE	FAN
3	RESISTORE	RESISTOR
4	RELE 12V 40A	RELAY 12V 40A
5	FUSIBILE 20A MAXI	FUSE 20A MAXI
6	CONNETTORE 2 VIE MAXI	CONNECTOR 2 WAY
7	CONNETTORE 2 VIE	CONNECTOR 2 WAY MAXI
8	GIUNTO ELETTROMAGNETICO	A/C COMPRESSOR CLUTCH
9	PRESSOSTATO	PRESSURE-SWITCH
10	RELE 12V 30A	RELAY 12V 30A
11	FUSIBILE 7,5A	FUSE 7,5A
12	INTERRUTTORE A/C	SWITCH A/C
13	FUSIBILE 100A	FUSE 100A
14	FUSIBILE 3A	FUSE 3A
15	PUNTO DI MASSA	GROUND
16	RELE 12V 50A	RELAY 12V 50A
17	FUSIBILE 40A MAXI	FUSE 40A MAXI

# ATC26



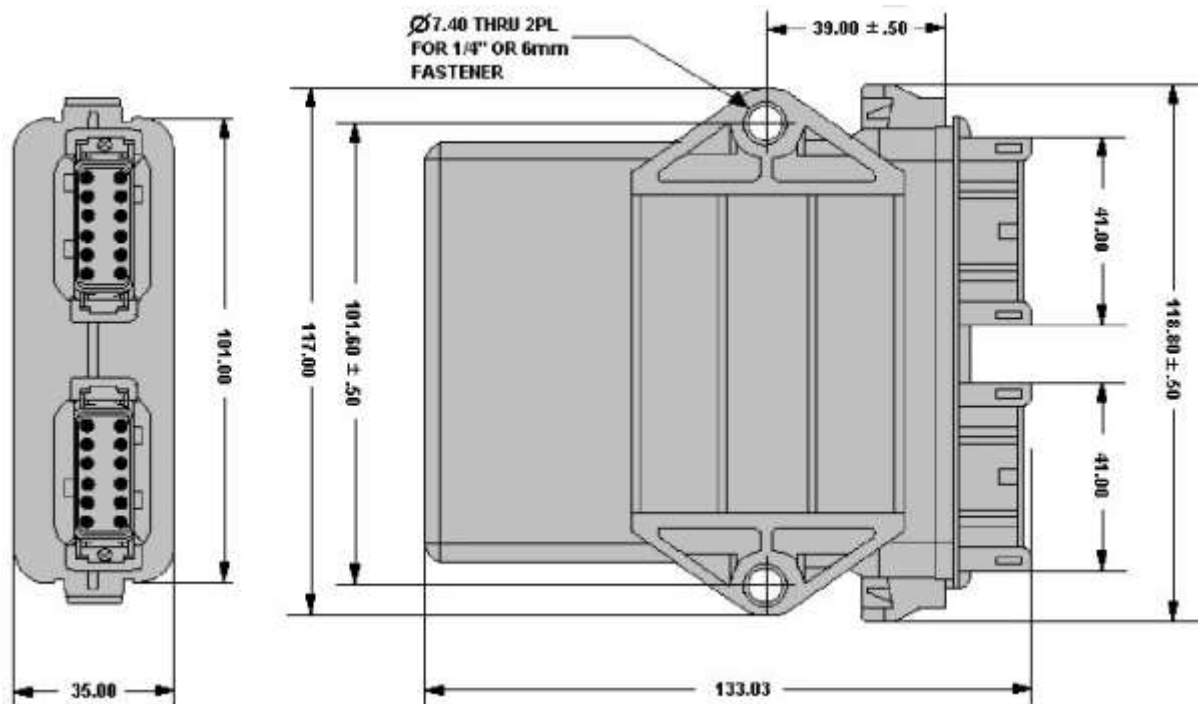
## Electronic module

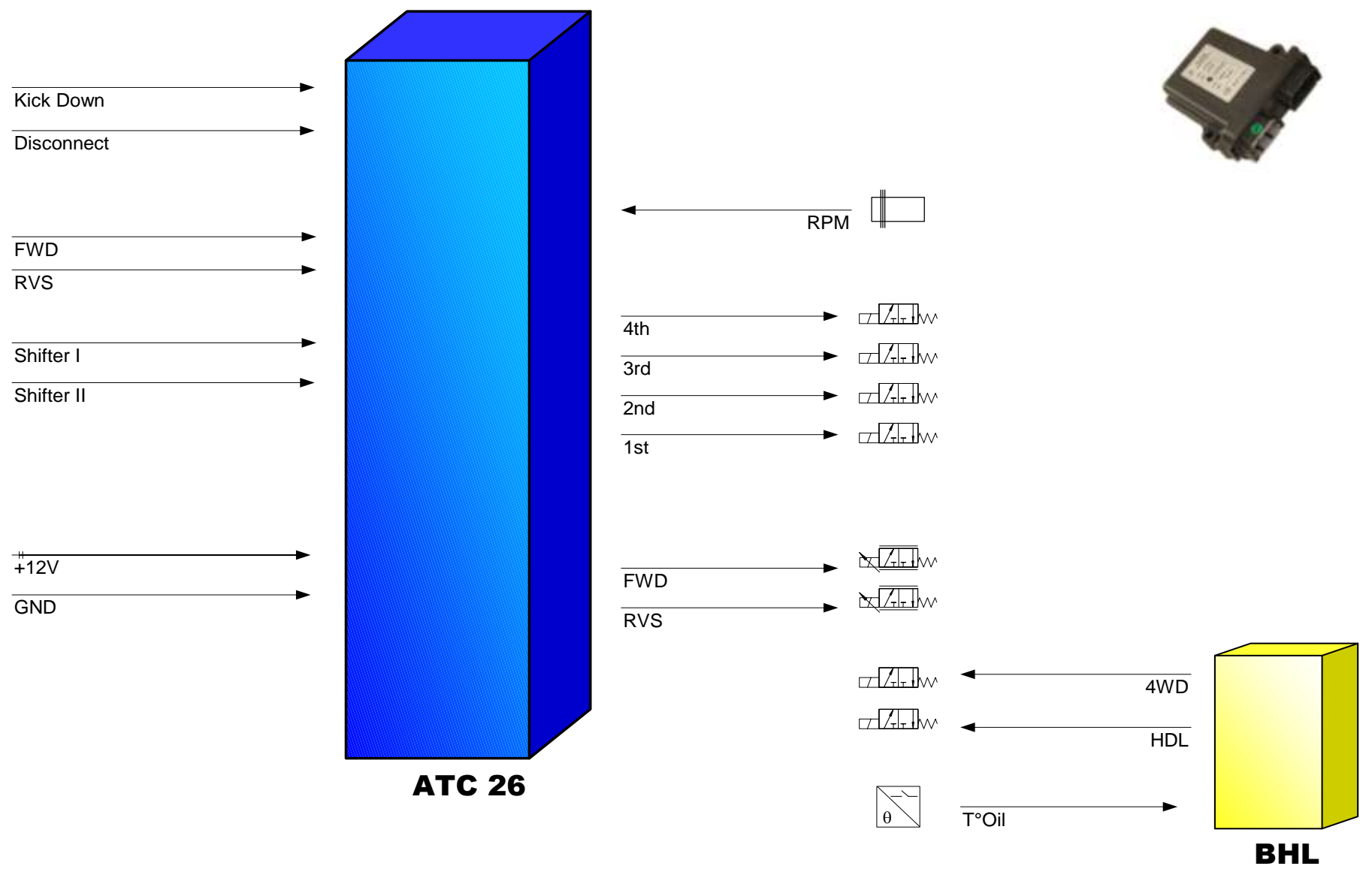


- ✓ FWD RVS management
- ✓ Manual - Automatic gearshifting combination
- ✓ Kick down
- ✓ Disconnect
- ✓ 4WD management (only 3<sup>rd</sup> 4<sup>th</sup> speed)
- ✓ HDL management (only 1<sup>st</sup> 2<sup>nd</sup> speed)



## Outline Dimensions





**ATC 26**

**BHL**

Customer Service Department







<b>S01</b>	1	GND	GND	GND
	2	Digital Output	+12V, High Impedence, 2A limited	1 <sup>st</sup> Gear Solenoid
	3	Digital Input	Pull Down Resistance, 1k $\Omega$	FWD
	4	Digital Input	Pull Up Resistance, 1k $\Omega$	Kick Down
	5	Frequency input	Frequency input	Inductive Sensor (Vehicle Speed)
	6	Digital Input	Pull Down Resistance, 1k $\Omega$	Shifter I
	7	Digital Input	Pull Down Resistance, 1k $\Omega$	Shifter II
	8			
	9	Digital Input	Pull Down Resistance, 1k $\Omega$	RVS
	10			
	11	Digital Output	GND, High Impedence, 2A limited	AUTO
	12	Power Supply	+12V	+12V
<b>S02</b>	1	Digital Output	+12V, High Impedence, 2A limited	4 <sup>th</sup> Gear Solenoid
	2	PWM Output	PWM Output	Reverse +
	3	PWM Output	PWM Output	Forward +
	4	RS 232 RxD	RS 232 RxD	RS 232 RxD
	5	RS 232 TxD	RS 232 TxD	RS 232 TxD
	6	Analog Input	EV current feedback	Reverse Feedback
	7	Digital Input	Pull Up Resistance, 1k $\Omega$	Disconnect
	8	Analog Input	EV current feedback	Forward Feedback
	9	Digital Output	+12V, High Impedence, 2A limited	2 <sup>nd</sup> Gear Solenoid
	10	Digital Output	+12V, High Impedence, 2A limited	3 <sup>rd</sup> Gear Solenoid
	11	Power Supply	+12V	PWM Mosfets Power Supply
	12			



<b>S01</b>	1	GND	GND	GND
	2	<b>Digital Output</b>	<b>+12V, High Impedence, 2A limited</b>	<b>1<sup>st</sup> Gear Solenoid</b>
	3	Digital Input	Pull Down Resistance, 1kΩ	FWD
	4	Digital Input	Pull Up Resistance, 1kΩ	Kick Down
	5	<b>Frequency input</b>	<b>Frequency input</b>	<b>Inductive Sensor (Vehicle Speed)</b>
	6	Digital Input	Pull Down Resistance, 1kΩ	Shifter I
	7	Digital Input	Pull Down Resistance, 1kΩ	Shifter II
	8			
	9	Digital Input	Pull Down Resistance, 1kΩ	RVS
	10			
	11	<b>Digital Output</b>	<b>GND, High Impedence, 2A limited</b>	<b>AUTO</b>
	12	Power Supply	+12V	+12V
<b>S02</b>	1	<b>Digital Output</b>	<b>+12V, High Impedence, 2A limited</b>	<b>4<sup>th</sup> Gear Solenoid</b>
	2	PWM Output	PWM Output	Reverse +
	3	PWM Output	PWM Output	Forward +
	4	RS 232 Rx/D	RS 232 Rx/D	RS 232 Rx/D
	5	RS 232 Tx/D	RS 232 Tx/D	RS 232 Tx/D
	6	Analog Input	EV current feedback	Reverse Feedback
	7	Digital Input	Pull Up Resistance, 1kΩ	Disconnect
	8	Analog Input	EV current feedback	Forward Feedback
	9	<b>Digital Output</b>	<b>+12V, High Impedence, 2A limited</b>	<b>2<sup>nd</sup> Gear Solenoid</b>
	10	<b>Digital Output</b>	<b>+12V, High Impedence, 2A limited</b>	<b>3<sup>rd</sup> Gear Solenoid</b>
	11	Power Supply	+12V	PWM Mosfets Power Supply
	12			

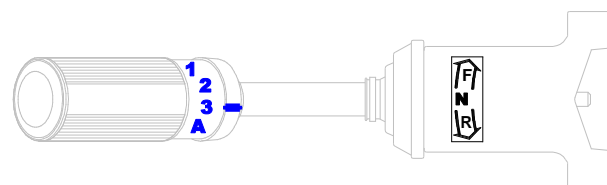


**AUTO** mode

**Manual** mode

**1<sup>st</sup> to 3<sup>rd</sup> shifting in Manual mode**

**2<sup>rd</sup> to 4<sup>th</sup> shifting in AUTO mode**



**Engaged gears shall be displayed**

**AUTO mode shall be displayed**





### Manual mode

- Manual to AUTO mode subjected to gear speed thresholds
- During transient event, AUTO led blinking

### AUTO mode

- 2<sup>nd</sup> to 4<sup>th</sup> gear shifting depending on BHL speed thresholds
- 2<sup>nd</sup> gear engaged in AUTO mode @ starting
- AUTO to Manual mode switching always available



### Basic features

Sequential Up & Down shifting (i.e 2nd to 1st, then 1st to 2nd, ...)

Kick Down function always available, irrespective of shifter position (F, N, R)

Kick Down is cancelled shifting the gear selector (1st, 2nd, 3rd, Auto)

Kick Down is maintained moving the shifter position (F to N, F to R, ...)

### Manual mode

AUTO led blinking during Kick Down operation

After Kick-down selection, 1st gear is maintained irrespective of vehicle speed

### AUTO mode

AUTO led always active

Kick Down is cancelled exceeding a programmable speed threshold



### Manual mode

Instantaneous interruption in power transmission, irrespective of shifter position (FWD, Neutral, RVS)

### AUTO mode

Instantaneous interruption in power transmission, irrespective of shifter position (FWD, Neutral, RVS)