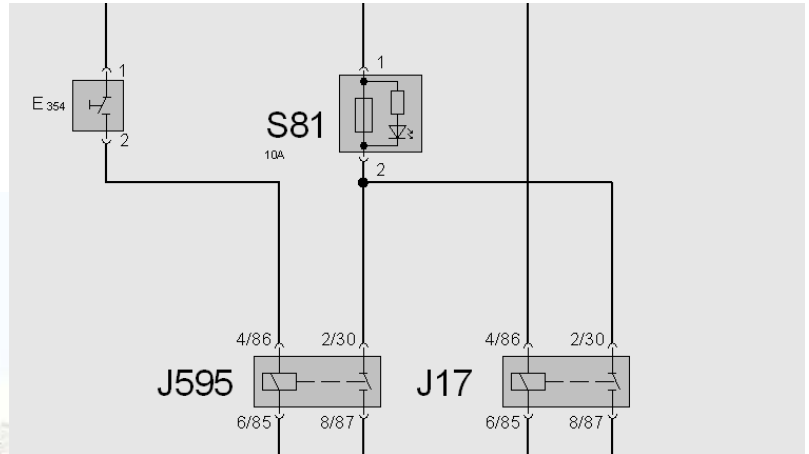
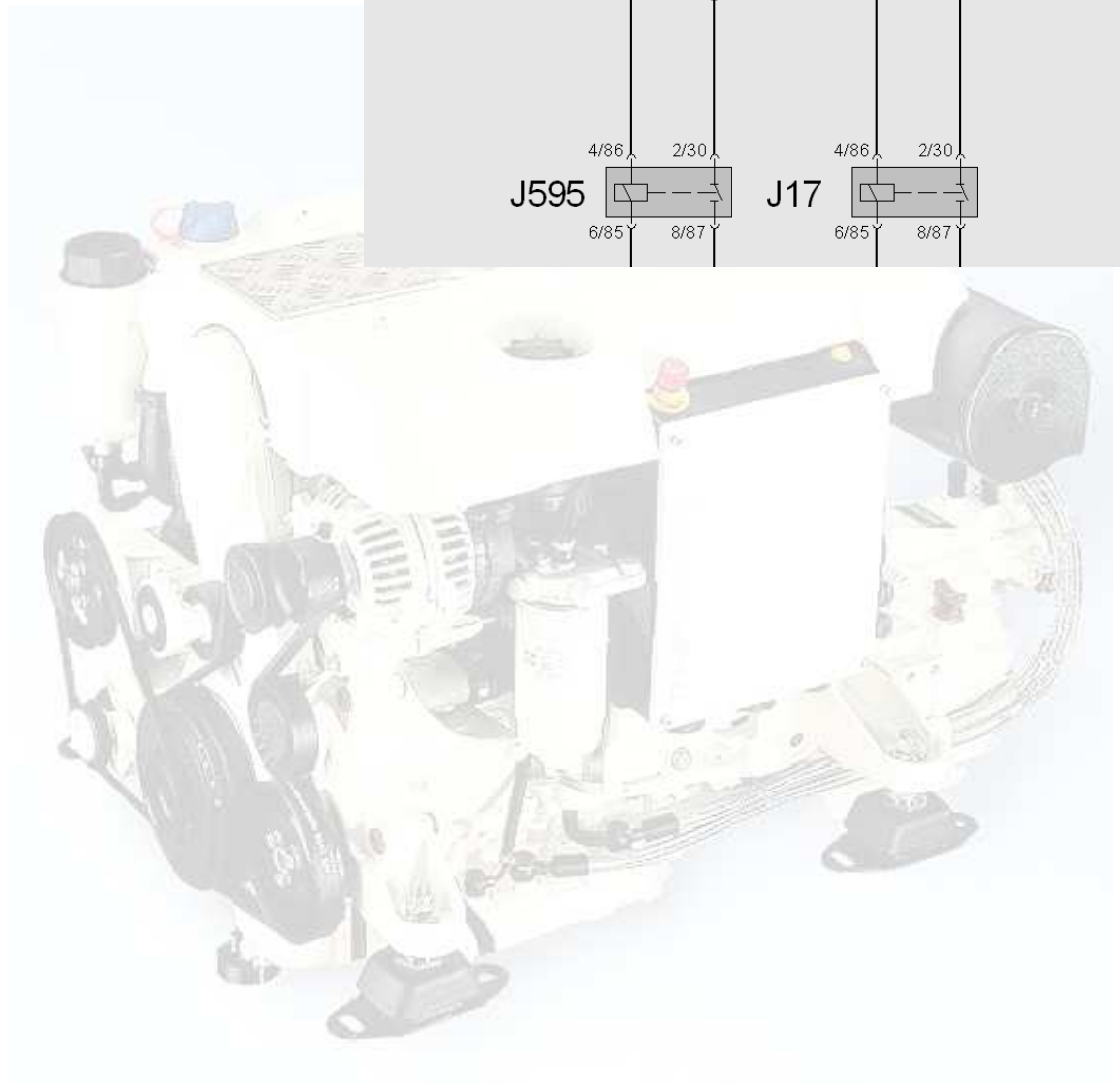


Current Flow Diagram

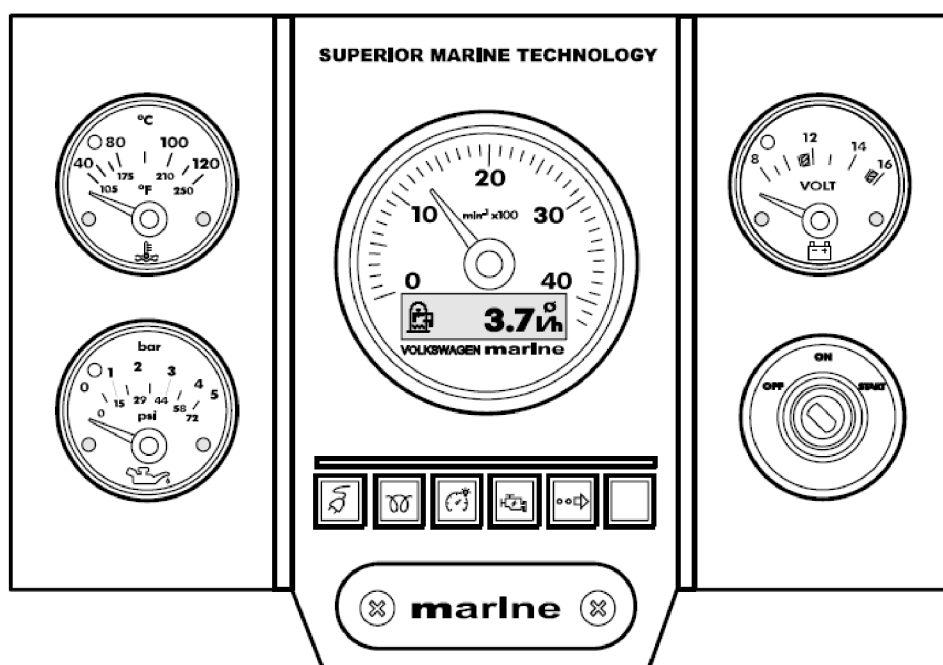


Boat Engines from Volkswagen Marine

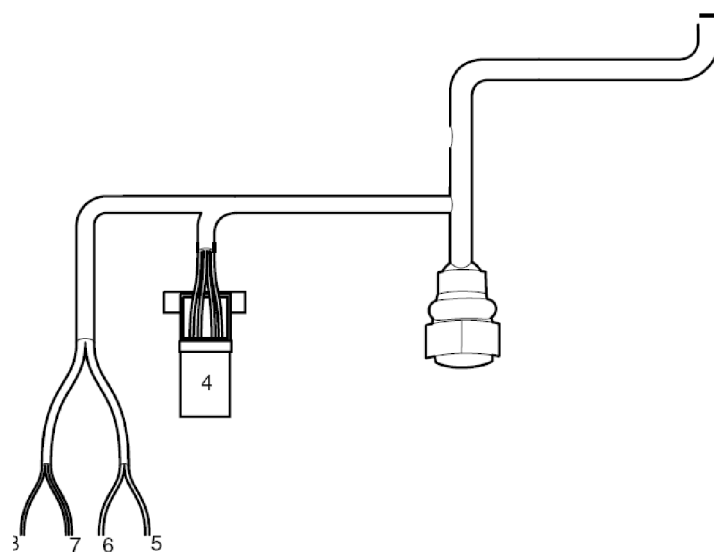


5 Cylinder model year 2004 - 2006
main panel until 2006

for all 5-Cylinder marine engines with central electric 065 937 025 B
with panel 065 805 51 and adapting harness 064 971 067 A

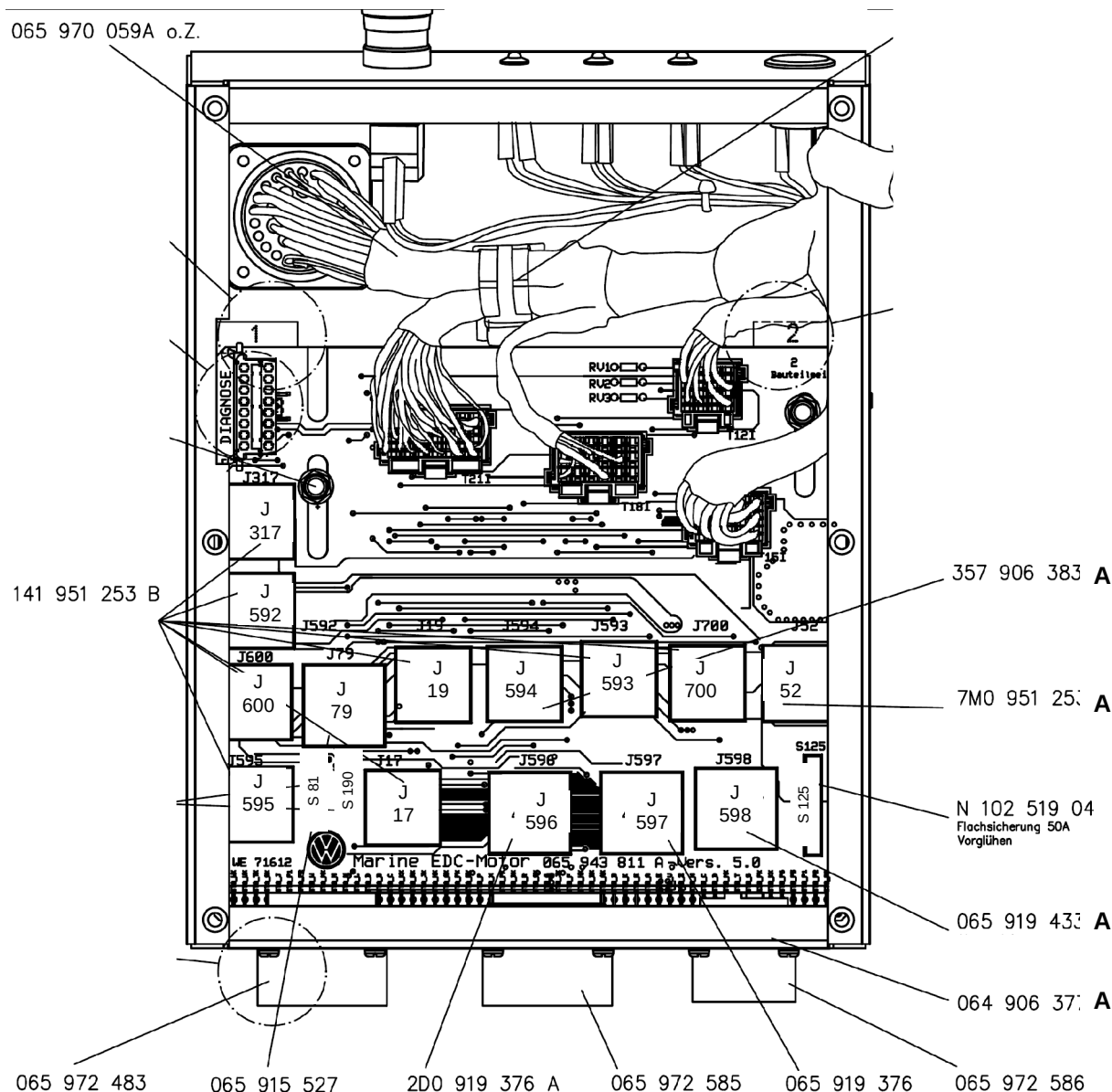


065 805 051

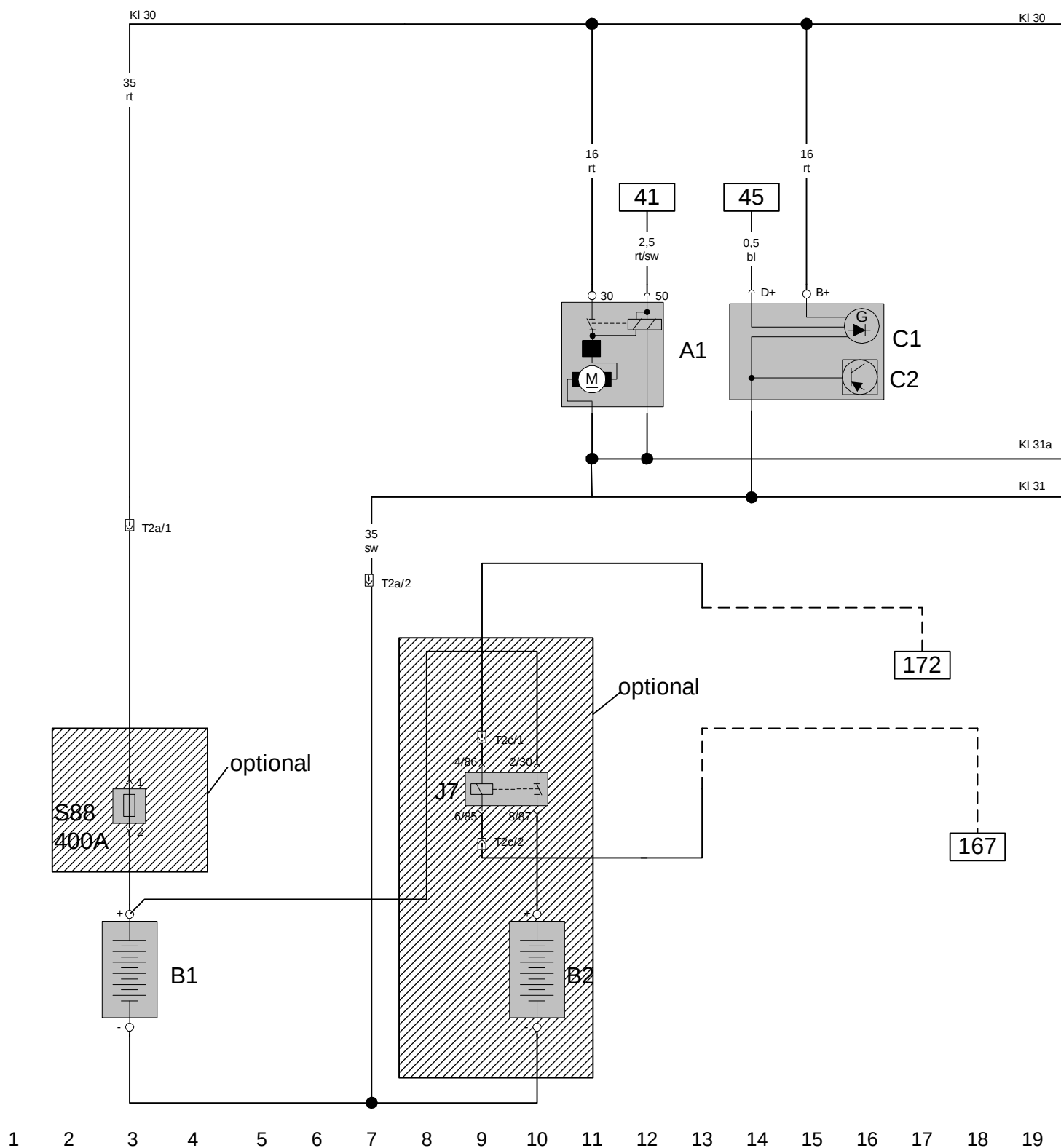


064 971 067 A

Relays and Fuses



J 317	main relay for MDC	J 79	diode group
J 593	relay "ground free" shutoff device	J 52	relay for glowing plugs
J 592	relay terminal 15	J 17	relay for fuel pump
J 597	relay "water in fuel"	S 81	fuse for oil extr. and fuel pump
J 600	starting aid relay	J 19	starting relay
J 700	relay "ground free" for glowing plugs	J 594	engine stop relay
S 125	fuse glowing plugs 50A	S 190	fuse terminal 30a 15A
J 595	relay oil extraction pump	J 598	acoustic alert relay
J 596	relay "coolant level"		

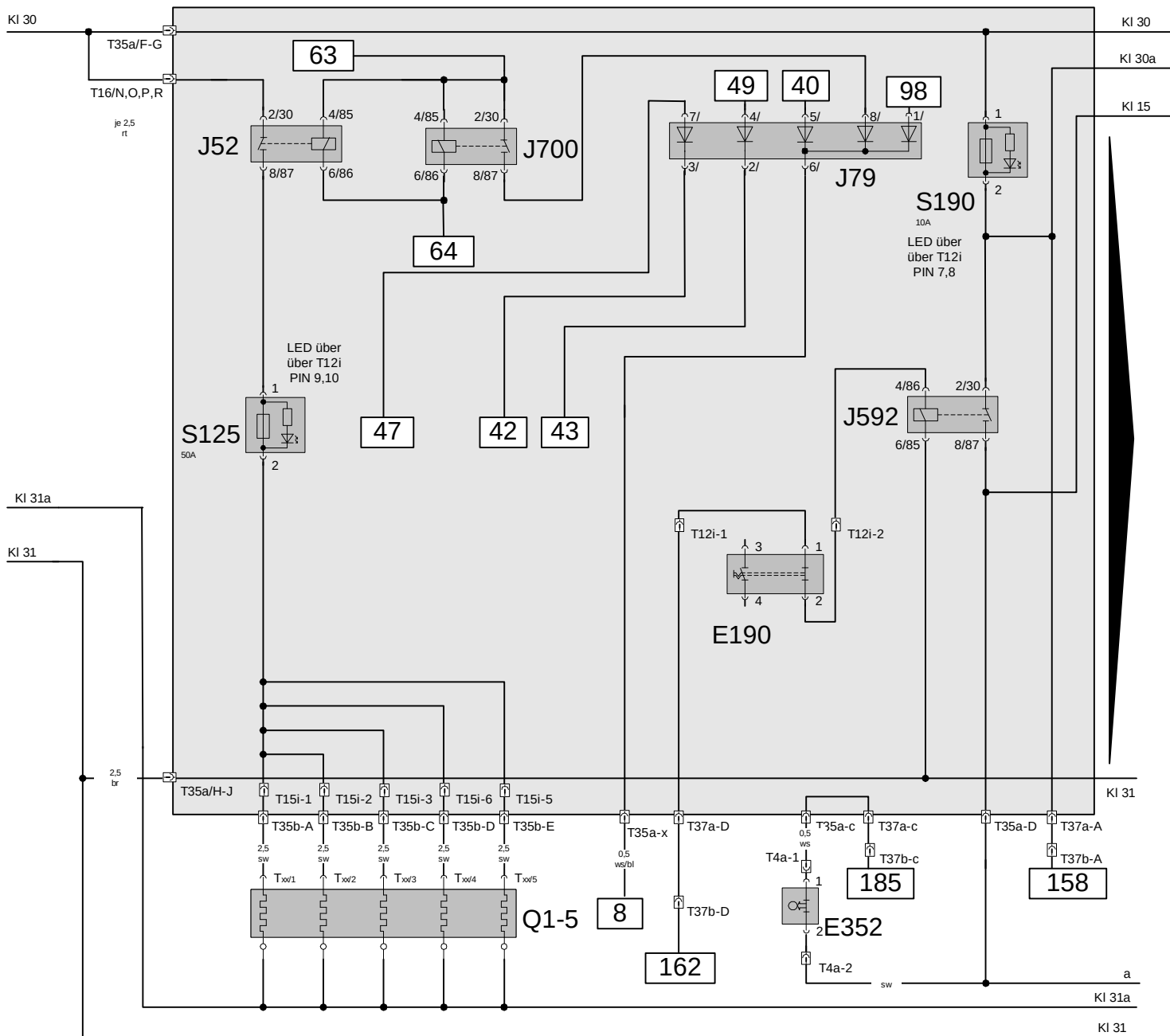


B1 Starter-Battery
 B2 optional 2nd battery
 S88 optional fuse
 J7 optional battery separation relay
 J591 relay for option "ground free"
 A1 starter
 C1 alternator
 C2 voltage regulator in alternator
 C24 Cap pack for relay "ground free"

T2a 2pin high current connector
 T2b 2pin connector on at J591
 T2c 2pin connector at relay J7

Colors:

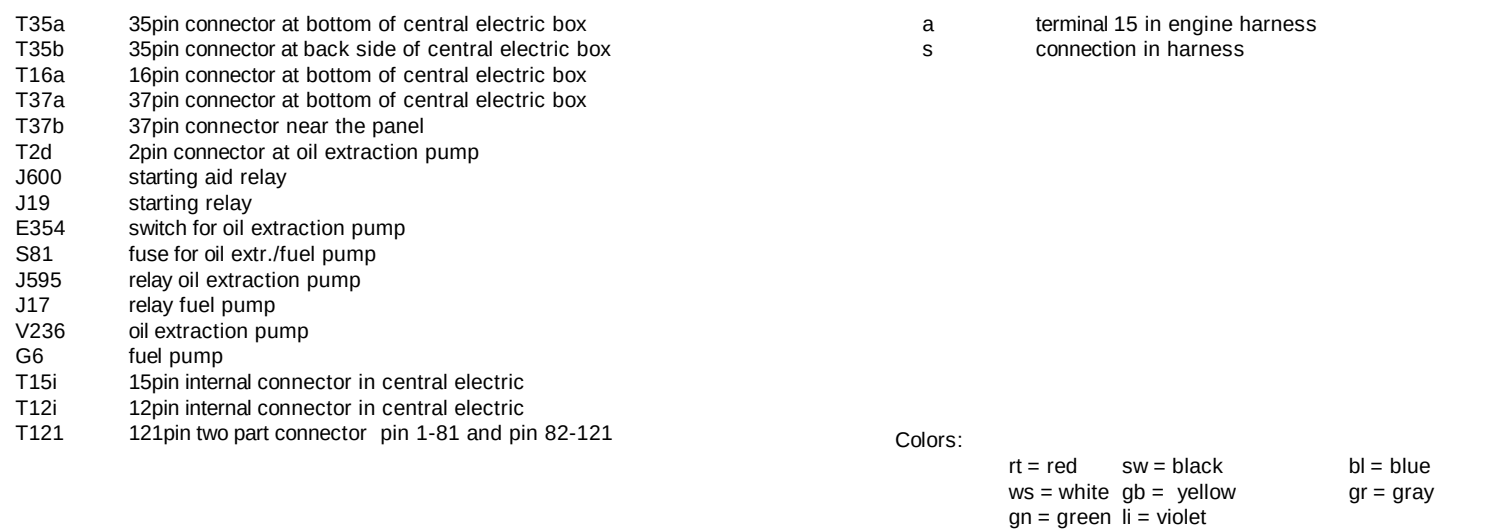
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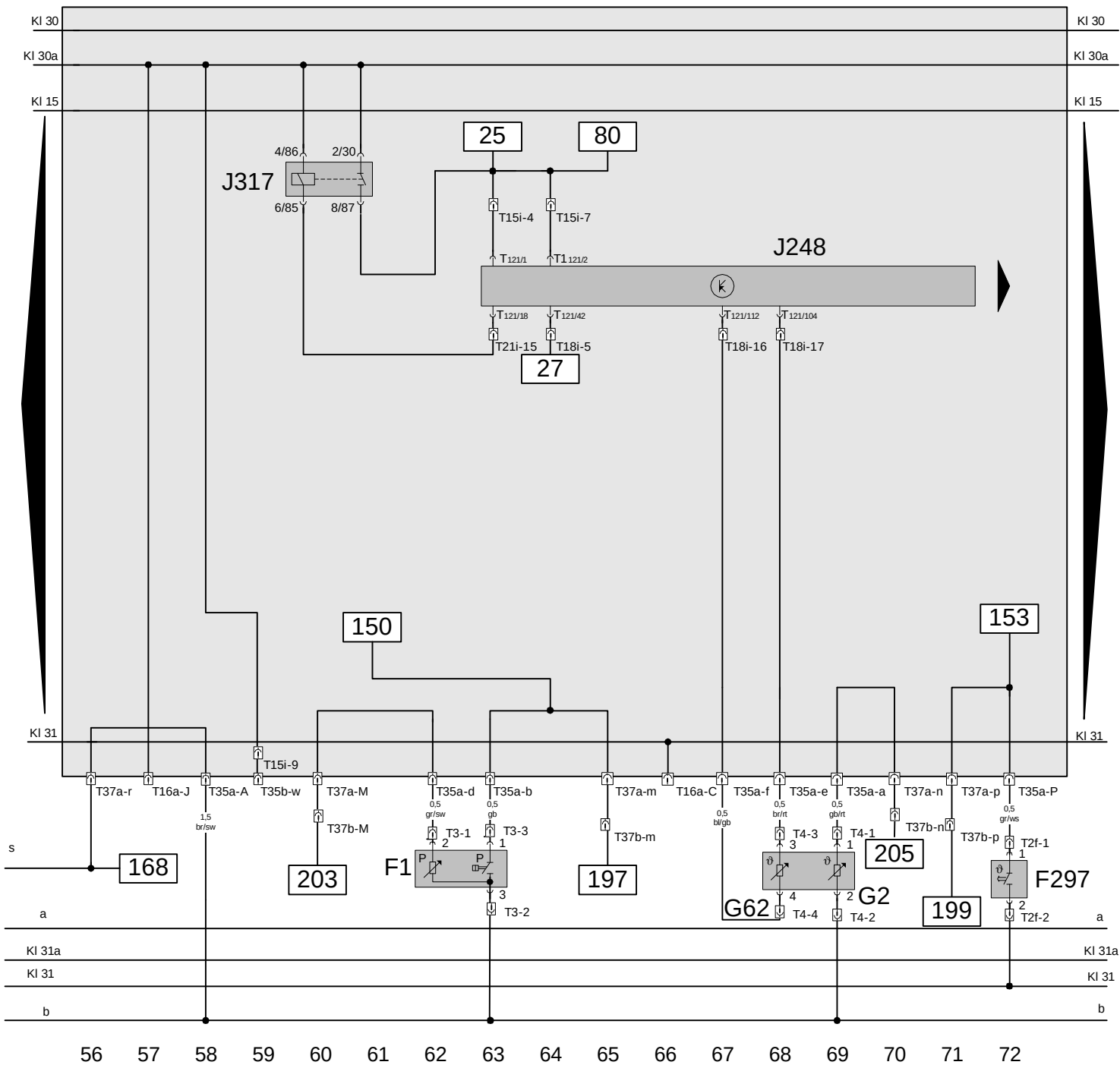


20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	
J52	relay for glowing plugs										a	terminal 15 in engine harness							
J700	relay "ground free" shutoff device																		
S125	fuse for glowing plugs																		
J79	diode group																		
S190	fuse terminal 30a																		
J592	fuse terminal 15																		
E190	stop switch at central electric box																		
E352	neutral switch (gear box)																		
Q1 bis Q5	glowing plugs																		
T35a	35pin connector at bottom of central electric box																		
T35b	35pin connector at back side of central electric box																		
T16a	16pin connector at bottom of central electric box																		
T37a	37pin connector at bottom of central electric box																		
T37b	37pin connector near the panel																		
T4a	4pin connector "gear box version" on the back of the engine																		
Txx	connector glowing plug																		
T15i	15pin internal connector in central electric										Colors:								
T12i	12pin internal connector in central electric										rt = red gw = black bl = blue								

Colors:

rt = red sw = black bl = blue
ws = white gb = yellow gr = gray
gn = green li = violet



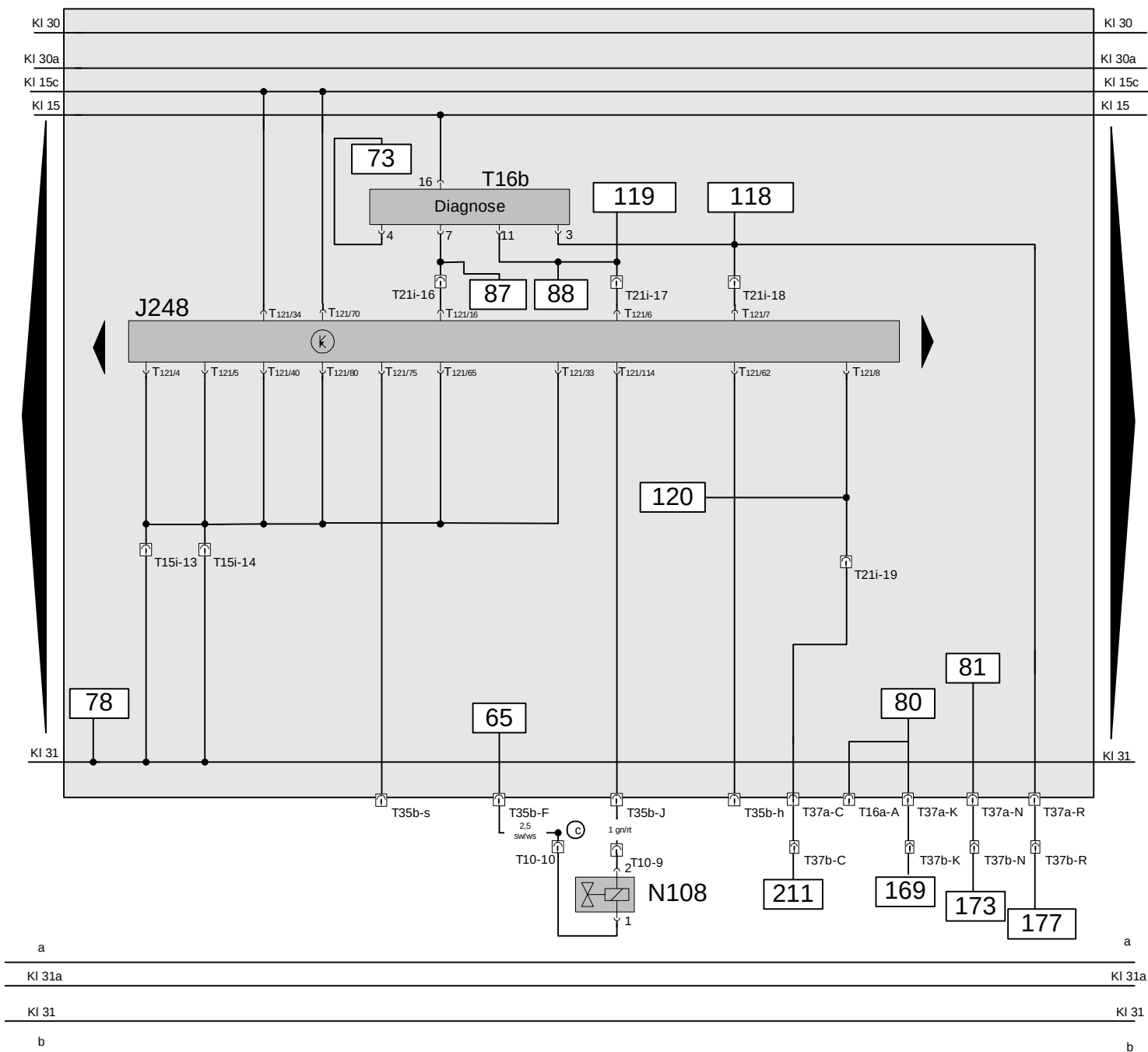


- T16a 16pin connector at bottom of central electric box
- T35a 35pin connector at bottom of central electric box
- T35b 35pin connector at the back side of central electric box
- T37a 37pin connector at bottom of central electric box
- T37b 37pin connector near the panel
- T2f 2pin connector at temperature switch
- F1 oil pressure sensor / switch
- G62 coolant temp. sensor for MDC
- G2 coolant temp. sensor for instruments
- F297 coolant temp. switch (Instruments)
- J317 main relay MDC
- J248 MDC (ECU)
- T15i 15pin internal connector in central electric
- T12i 12pin internal connector in central electric
- T21i 21pin internal connector in central electric
- T18i 18pin internal connector in central electric
- T121 121pin two part connector pin 1-81 and pin 82-121
- T4 4pin connector at temp. sensor
- T3 3pin connector at oil pressure sensor

- a terminal 15 in engine harness
- b sensor ground in engine harness
- s connection in harness

Colors:

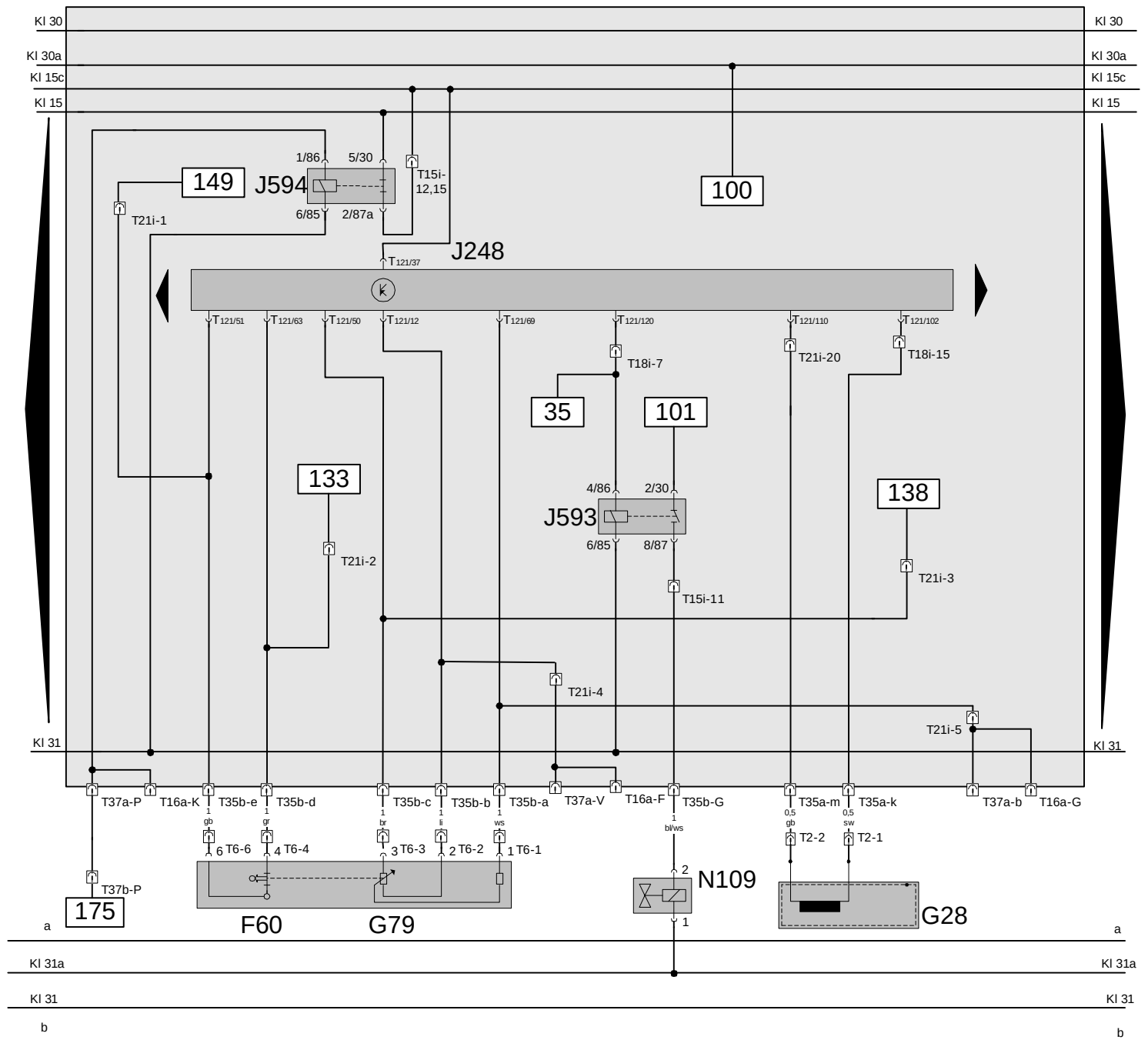
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gn = green li = violet



	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89
T16a	16pin connector at bottom of central electric box																
T35a	35pin connector at bottom of central electric box																
T35b	35pin connector at the back side of central electric box																
T37a	37pin connector at bottom of central electric box																
T37b	37pin connector near the panel																
T16b	16pin connector "diagnosis" in central electric box																
T10	10pin connector at distribution pump																
J248	MDC (ECU)																
N108	timing adjuster																
T15i	15pin internal connector in central electric																
T12i	12pin internal connector in central electric																
T21i	21pin internal connector in central electric																
T18i	18pin internal connector in central electric																
T121	121pin two part connector pin 1-81 and pin 82-121																

Colors:

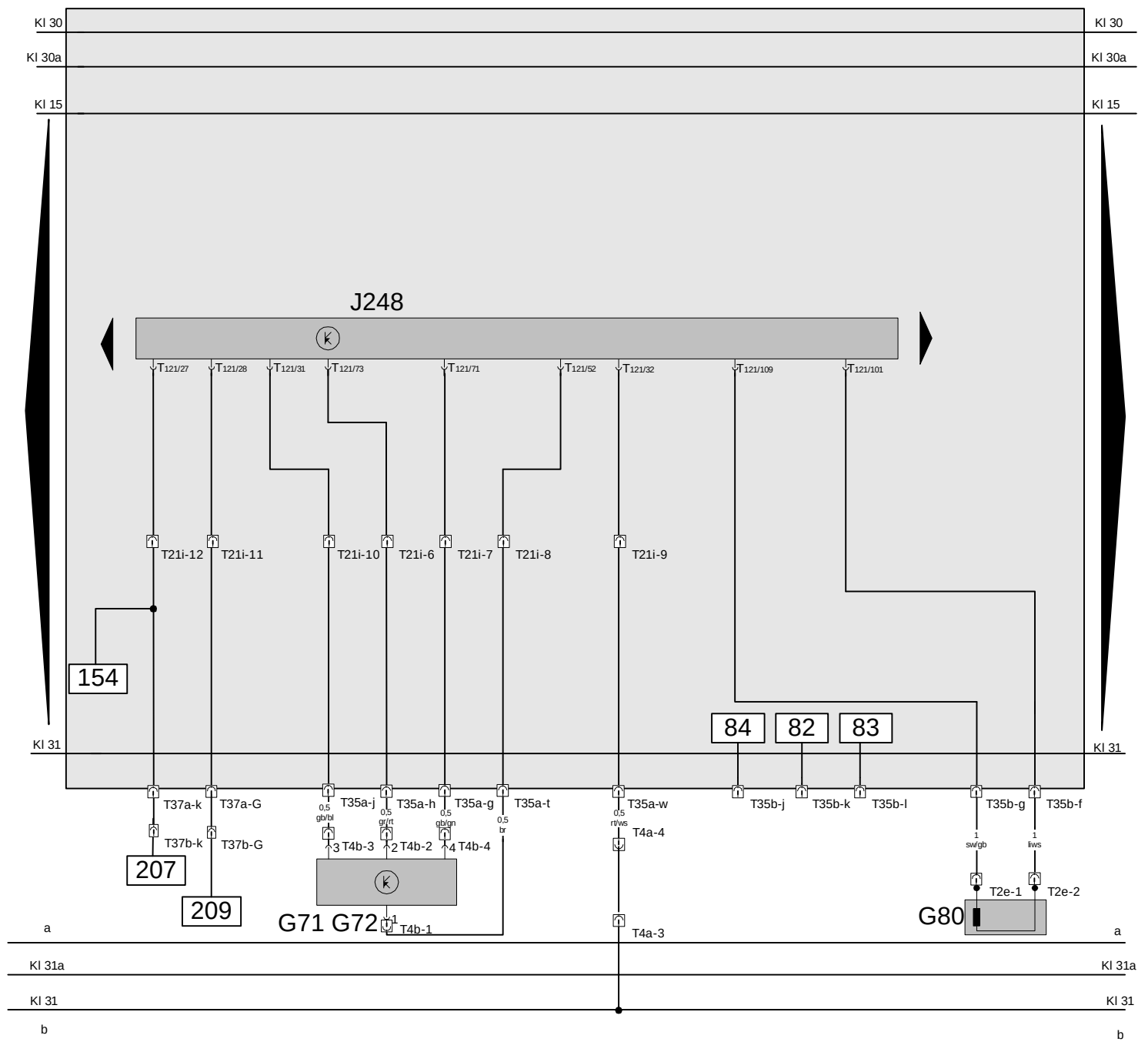
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gn = green li = violet



90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106
T16a	16pin connector at bottom of central electric box										a		terminal 15 in engine harness			
T35a	35pin connector at bottom of central electric box										b		sensor ground in engine harness			
T35b	35pin connector at the back side of central electric box															
T37a	37pin connector at bottom of central electric box															
T37b	37pin connector near the panel															
J593	relay "ground free" shutoff device															
J594	stop relay															
F60	idle switch in pedal-force sensor															
G79	sensor in pedal-force sensor															
N109	shutoff device															
G28	rpm sensor															
T15i	15pin internal connector in central electric															
T12i	12pin internal connector in central electric															
T21i	21pin internal connector in central electric															
T18i	18pin internal connector in central electric															
T121	121pin two part connector pin 1-81 and pin 82-121															
T6	6pin connector at pedal-force sensor															
T2	2pin connector at rpm sensor															

Colors:

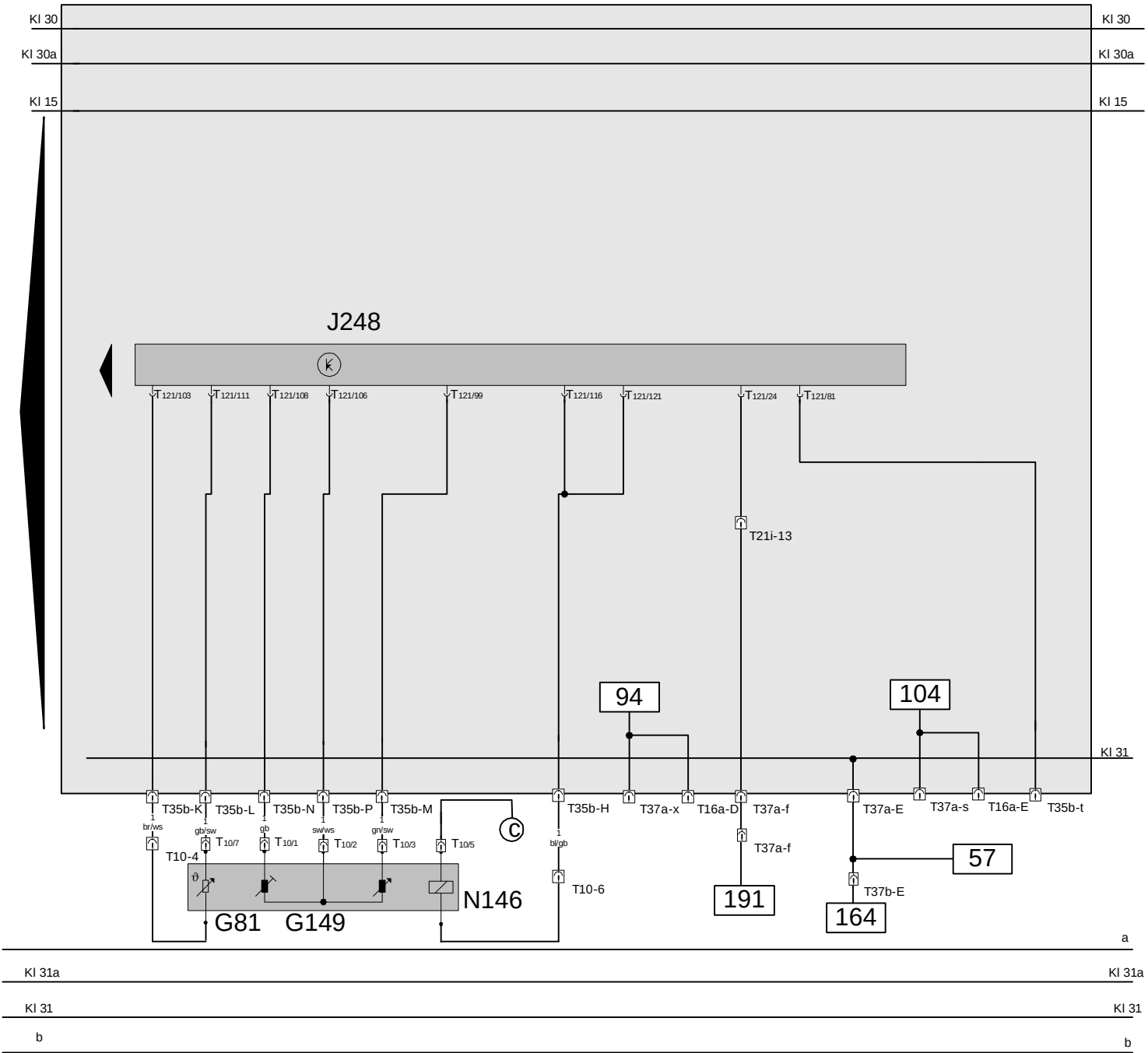
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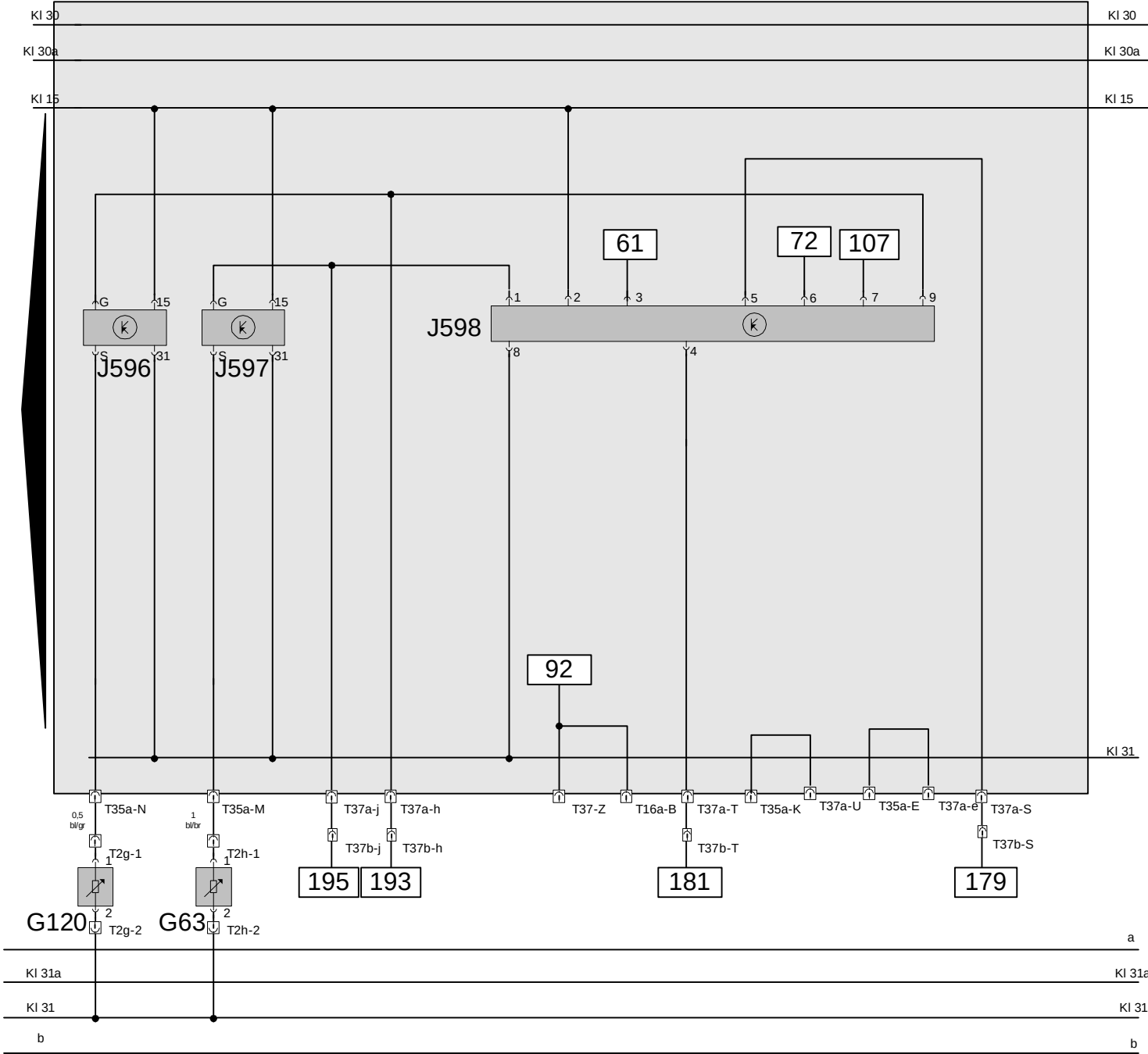
	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	
T16a	16pin connector at bottom of central electric box											a	terminal 15 in engine harness					
T35a	35pin connector at bottom of central electric box											b	sensor ground in engine harness					
T35b	35pin connector at the back side of central electric box																	
T37a	37pin connector at bottom of central electric box																	
T37b	37pin connector near the panel																	
J248	MDC (ECU)																	
F36	alpha-one switch																	
G71 G72	sensor air temp. and pressure																	
G80	needle-stroke sensor																	
T15i	15pin internal connector in central electric																	
T12i	12pin internal connector in central electric																	
T21i	21pin internal connector in central electric																	
T18i	18pin internal connector in central electric																	
T121	121pin two part connector pin 1-81 and pin 82-121																	
T4a	4pin connector of "gear box " at the back of the engine										Colors:							
T4b	4pin connector at air temp. and pressure sensor										rt = red sw = black bl = blue							
T2e	2pin connector at needle-stroke sensor										ws = white ab = yellow ar = gray							

Colors:

rt = red sw = black bl = blue
ws = white gb = yellow gr = gray
gn = green li = violet



	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140
T16a	16pin connector at bottom of central electric box												a	terminal 15 in engine harness			
T35a	35pin connector at bottom of central electric box												b	sensor ground			
T35b	35pin connector at the back side of central electric box												c	connection in harness			
T37a	37pin connector at bottom of central electric box																
T37b	37pin connector near the panel																
J248	MDC (ECU)																
G81	fuel temp. sensor in distribution pump																
G149	modulation piston movement sensor in distribution pump																
N146	metering adjuster sensor in distribution pump																
T15i	15pin internal connector in central electric																
T12i	12pin internal connector in central electric																
T21i	21pin internal connector in central electric																
T18i	18pin internal connector in central electric																
T121	121pin two part connector pin 1-81 and pin 82-121																
T10	10pin sensor at distribution pump																
													Colors:				
														rt = red	sw = black	bl = blue	
														ws = white	gb = yellow	gr = gray	
														gn = green	li = violet		

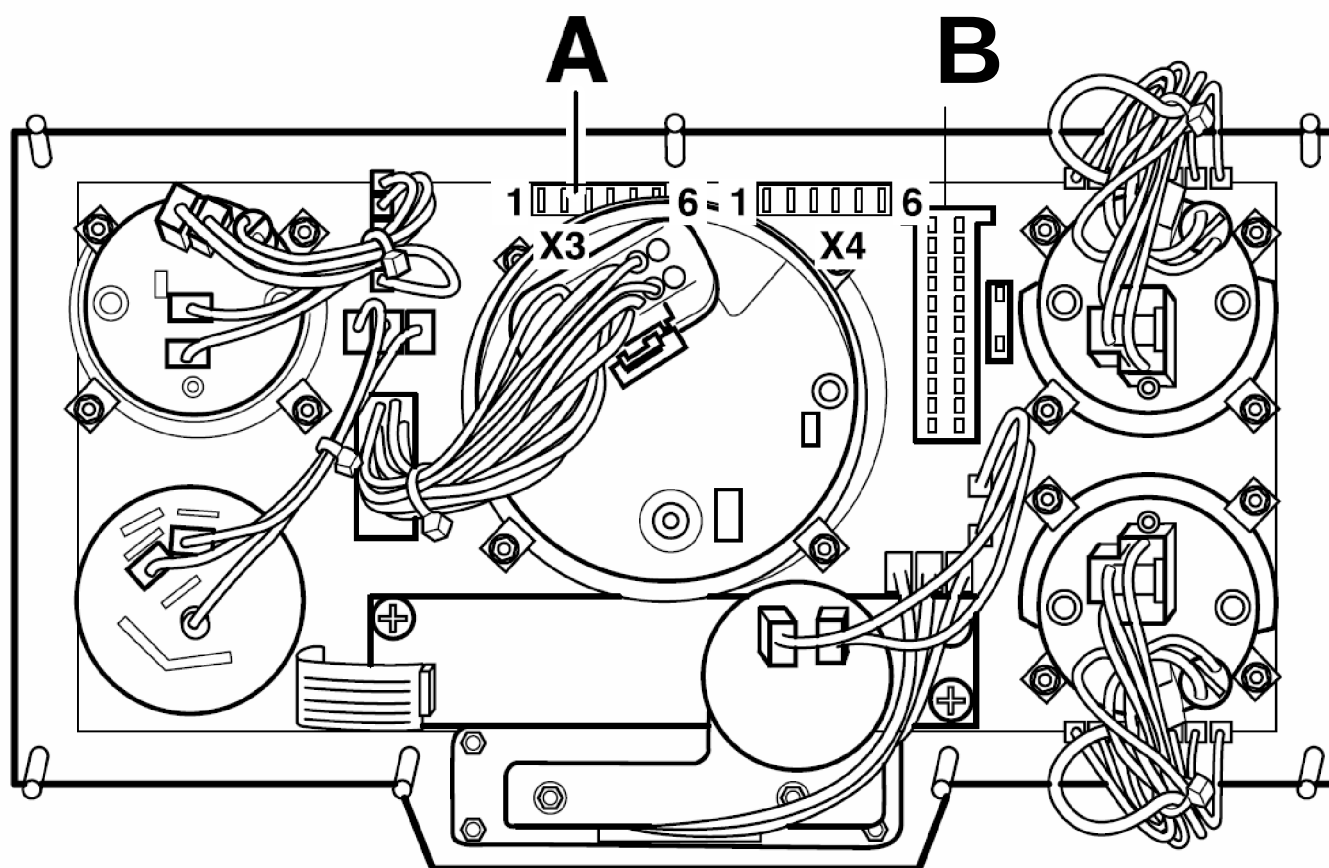


141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157				
T16a	16pin connector at bottom of central electric box											a	Terminal 15 in engine harness							
T35a	35pin connector at bottom of central electric box											b	sensor ground in engine harness							
T35b	35pin connector at the back side of central electric box																			
T37a	37pin connector at bottom of central electric box																			
T37b	37pin connector near the panel																			
T2g	2pin connector of coolant level sensor																			
T2h	2pin connector of "water in fuel" sensor																			
G120	coolant level sensor																			
G63	"water in fuel" sensor																			
J596	relay "coolant level"																			
J597	relay "water in fuel"																			
J598	acoustic alert relay																			
T121	121pin two part connector pin 1-81 and pin 82-121																			

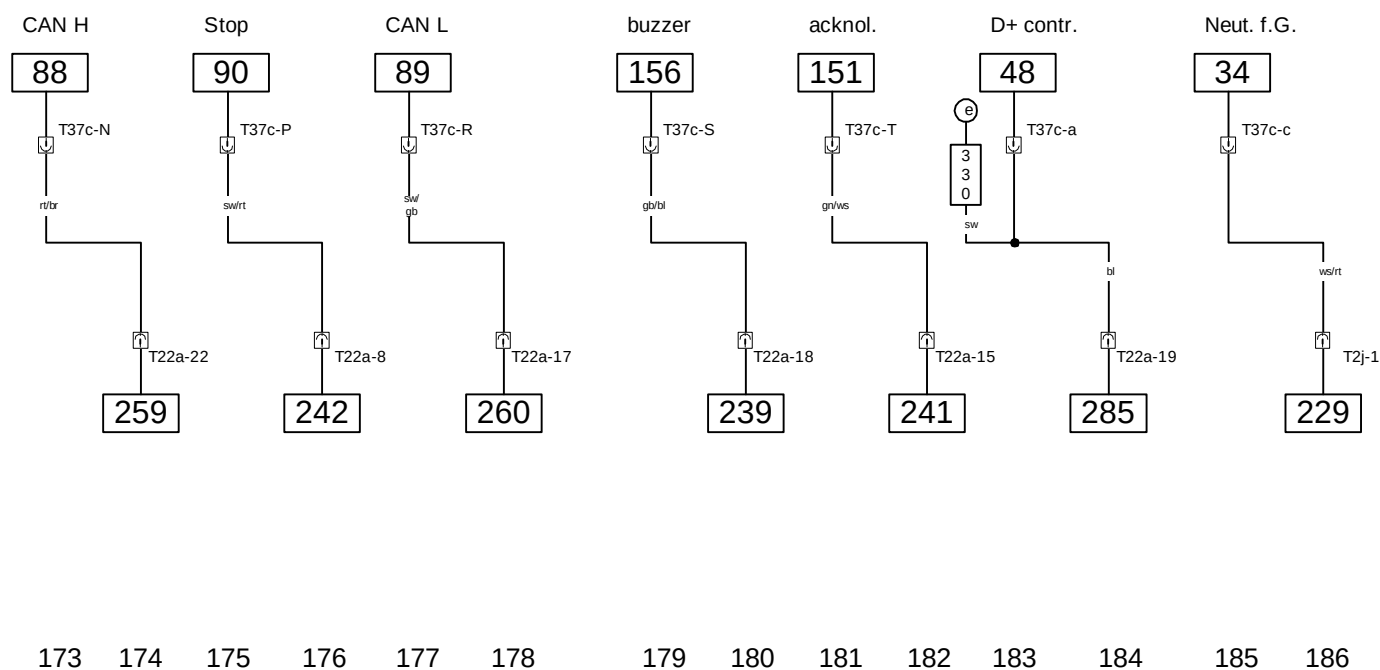
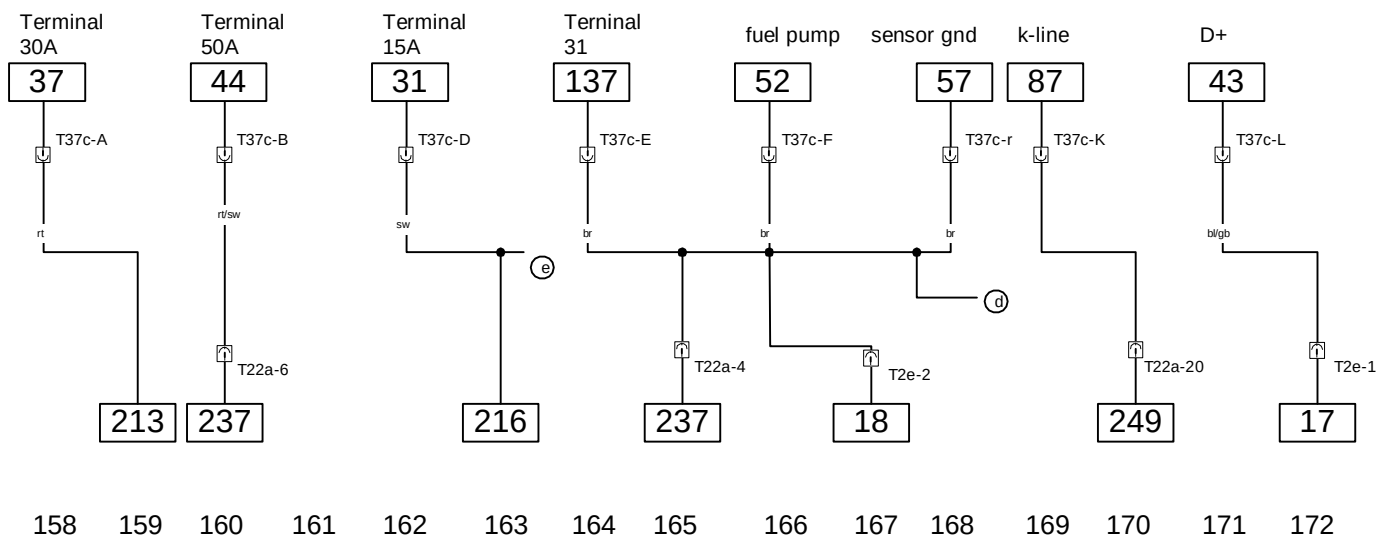
Colors:

rt = red	sw = black	bl = blue
ws = white	gb = yellow	gr = gray
gn = green	li = violet	

Instruments



- | | | |
|---|------|--------------------------------|
| A | Tx3 | Contacts for options like NMEA |
| B | T22a | 22pin connector on the panel |

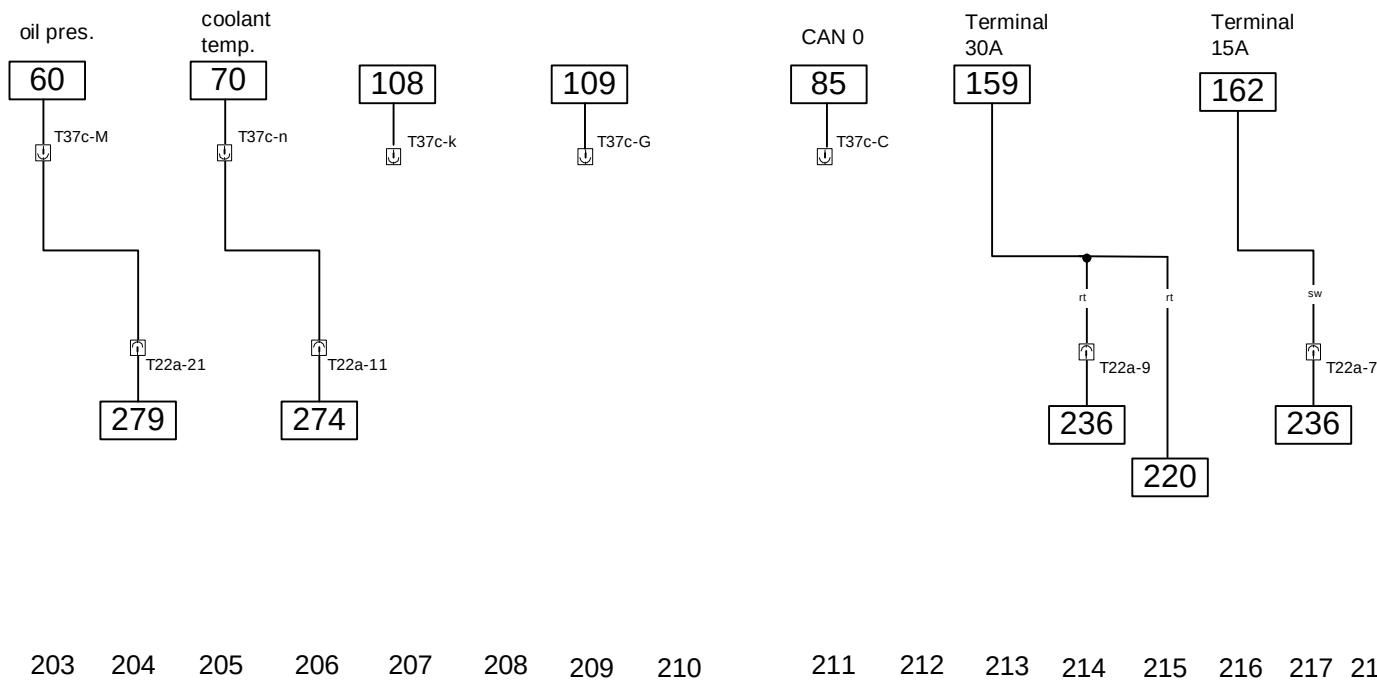
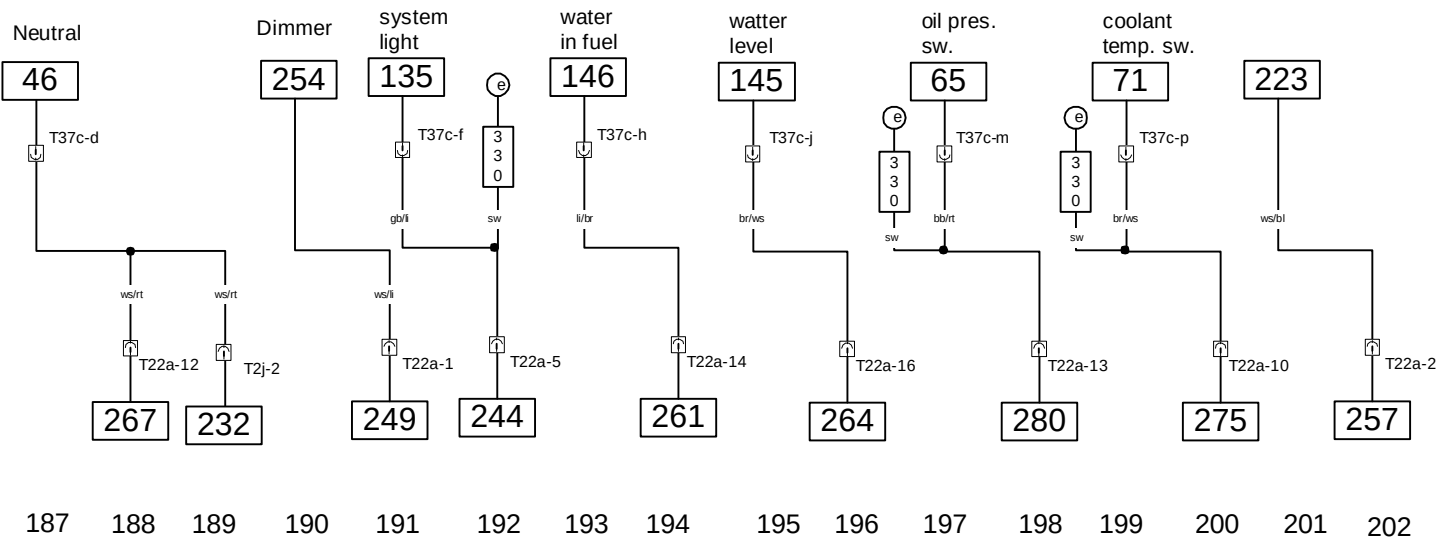


T37c 37pin connector at adapting harness
 T22a 22pin connector at adapting harness
 T2e 2 flat pin connectors for battery isolation (option)
 T2j 2 flat pin connectors for nettral switch of control lever
 T3b 3 flat pin connectors for ignition key

d connection in harness
 e connection in harness

Colors:

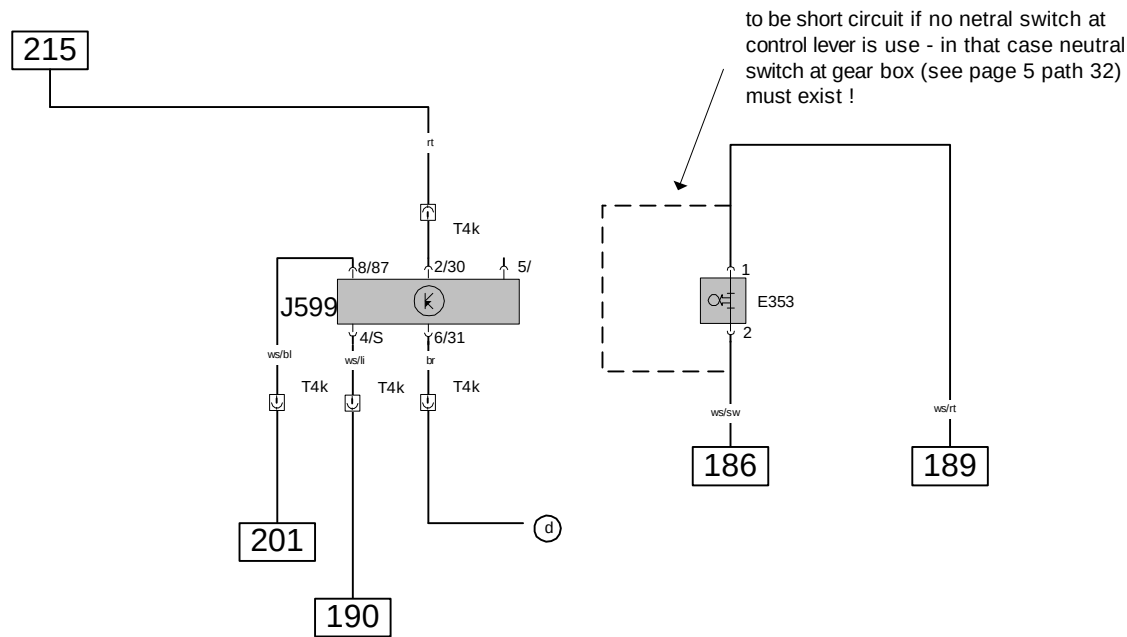
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T37c 37pin connector at adapting harness
T22a 22pin connector at adapting harness
T2e 2 flat pin connectors for battery isolation (option)
T2j 2 flat pin connectors for nettral switch of control lever
T3b 3 flat pin connectors for ignition key

d connection in harness
e connection in harness

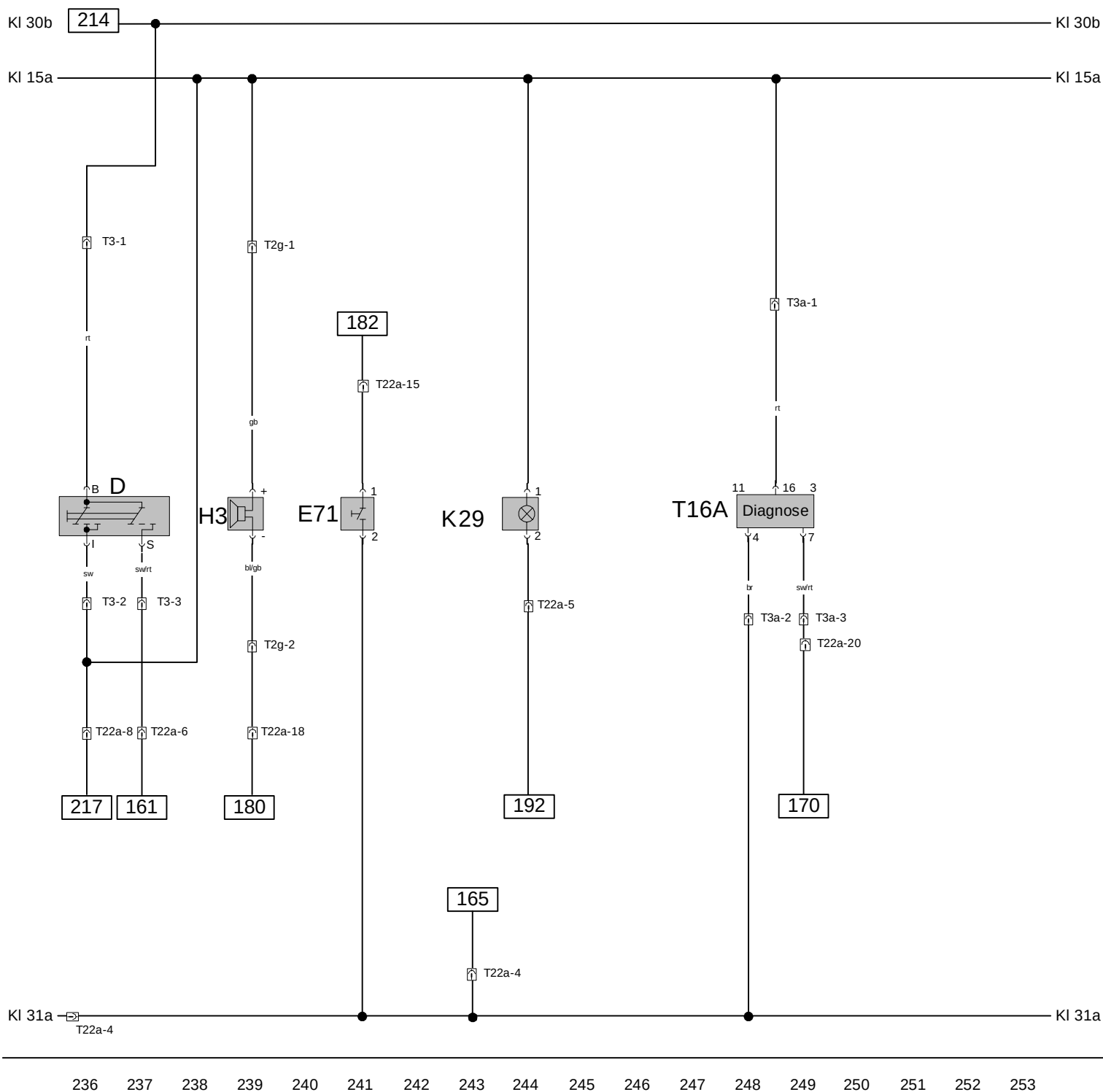
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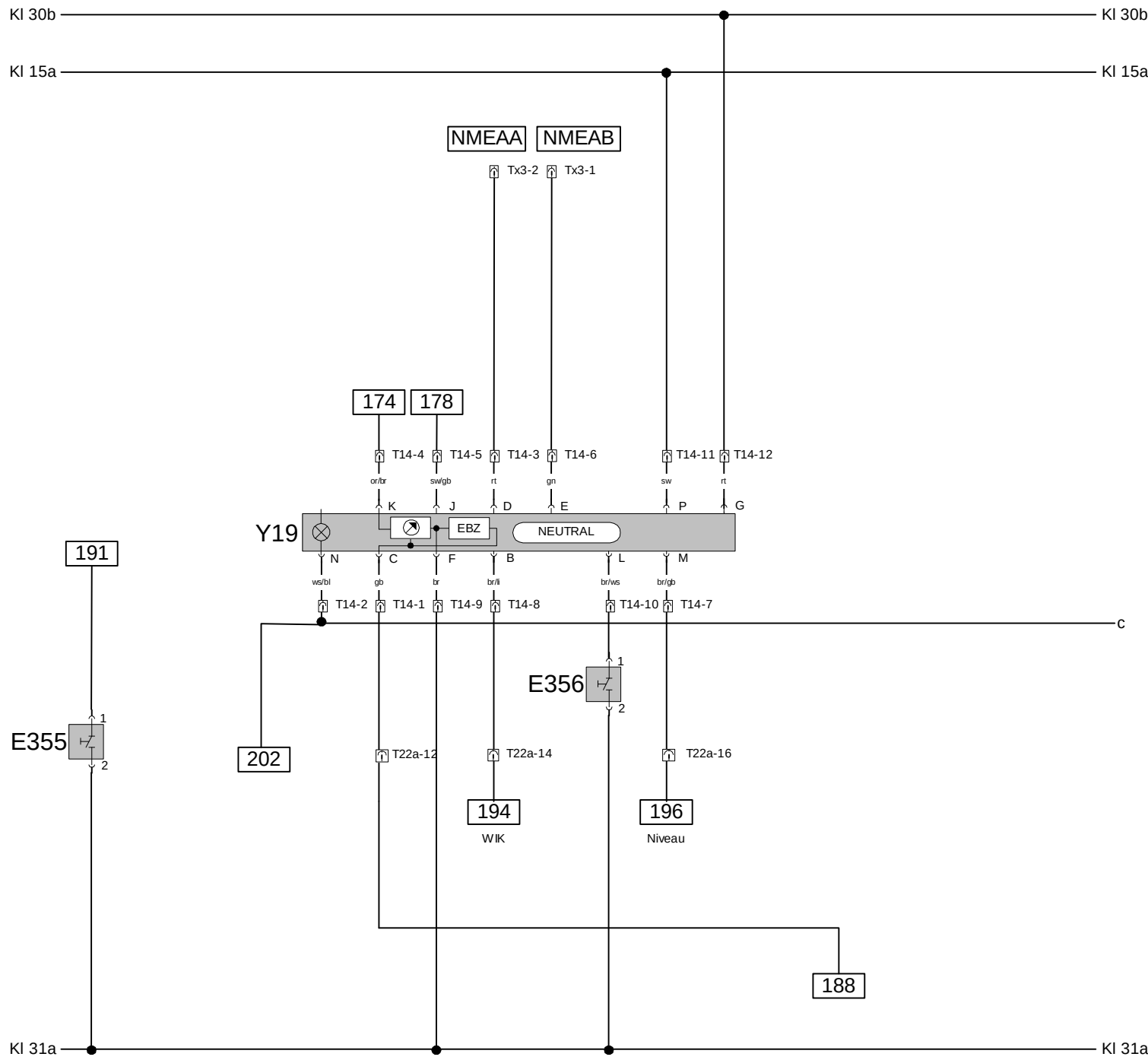


219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235

J599 instruments light relay (dimmm)
E353 neutral switch in control lever
T4K relay socket in adapting harness

Colors:
rt = red sw = black bl = blue
ws = white gb = yellow gr = gray
gn = green li = violet





- Y19 tacho with multi function display
- E355 key for instruments light (dimmm)
- E356 key for mfd
- T22a 22pin connector at the panel
- T14 14pin connector on panel for tacho
- Tx3 flat pin connector for options

Colors:

rt = red	sw = black	bl = blue
ws = white	gb = yellow	gr = gray
gn = green	li = violet	or = orange

