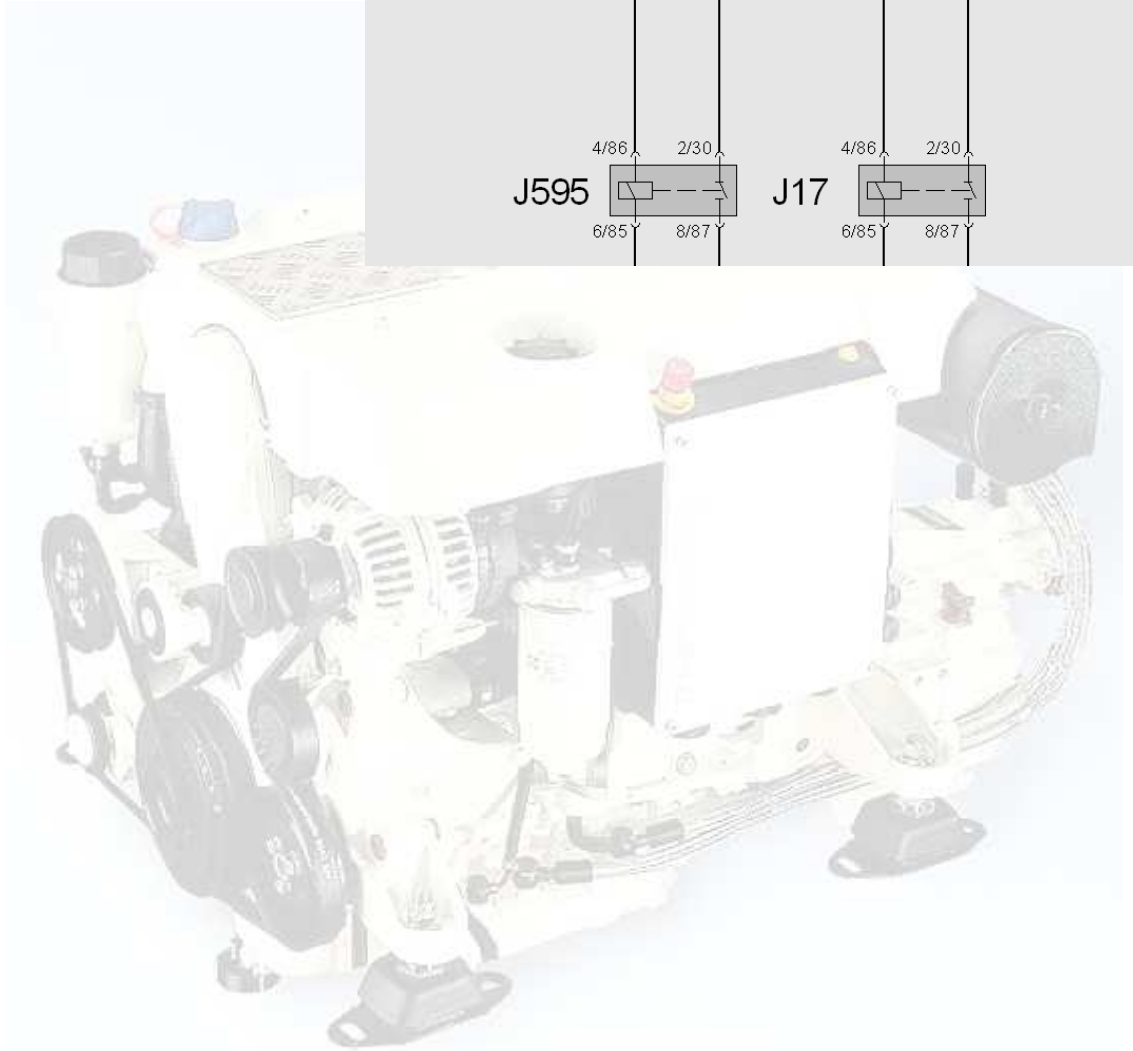


Current Flow Diagram



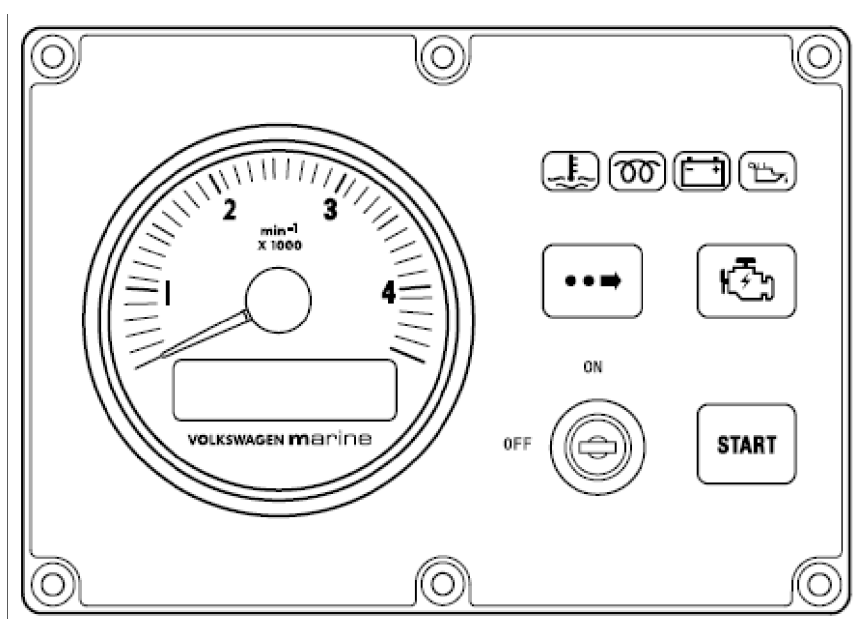
Boat Engines from Volkswagen Marine



5 Cylinder from model year 2005
Arvor Edition with Midipanel

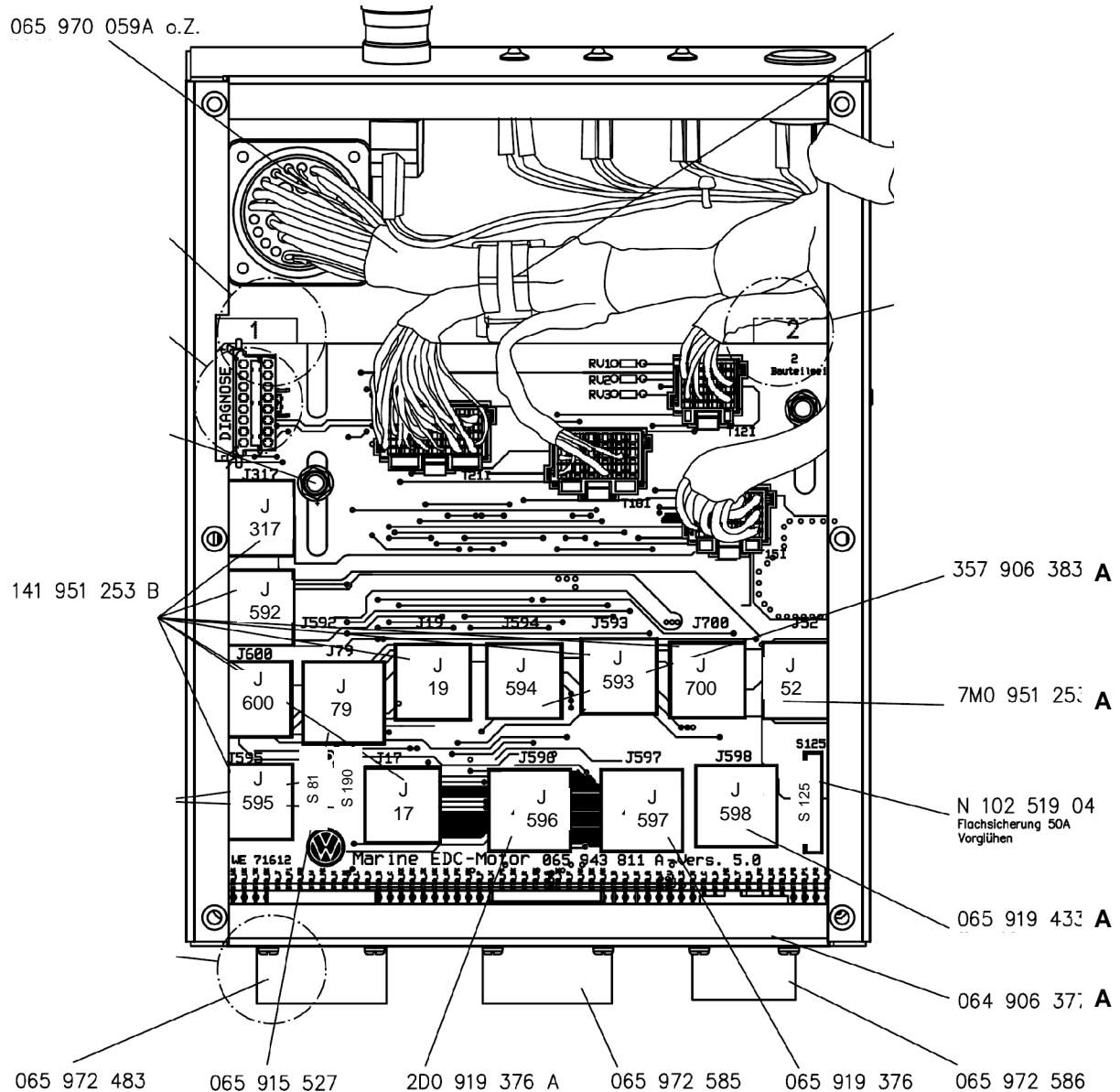
Information of versions

for all 4-cyl. engines with central electric box no. 065 937 025 B (from model year 2005)
and midi panel 065 805 104

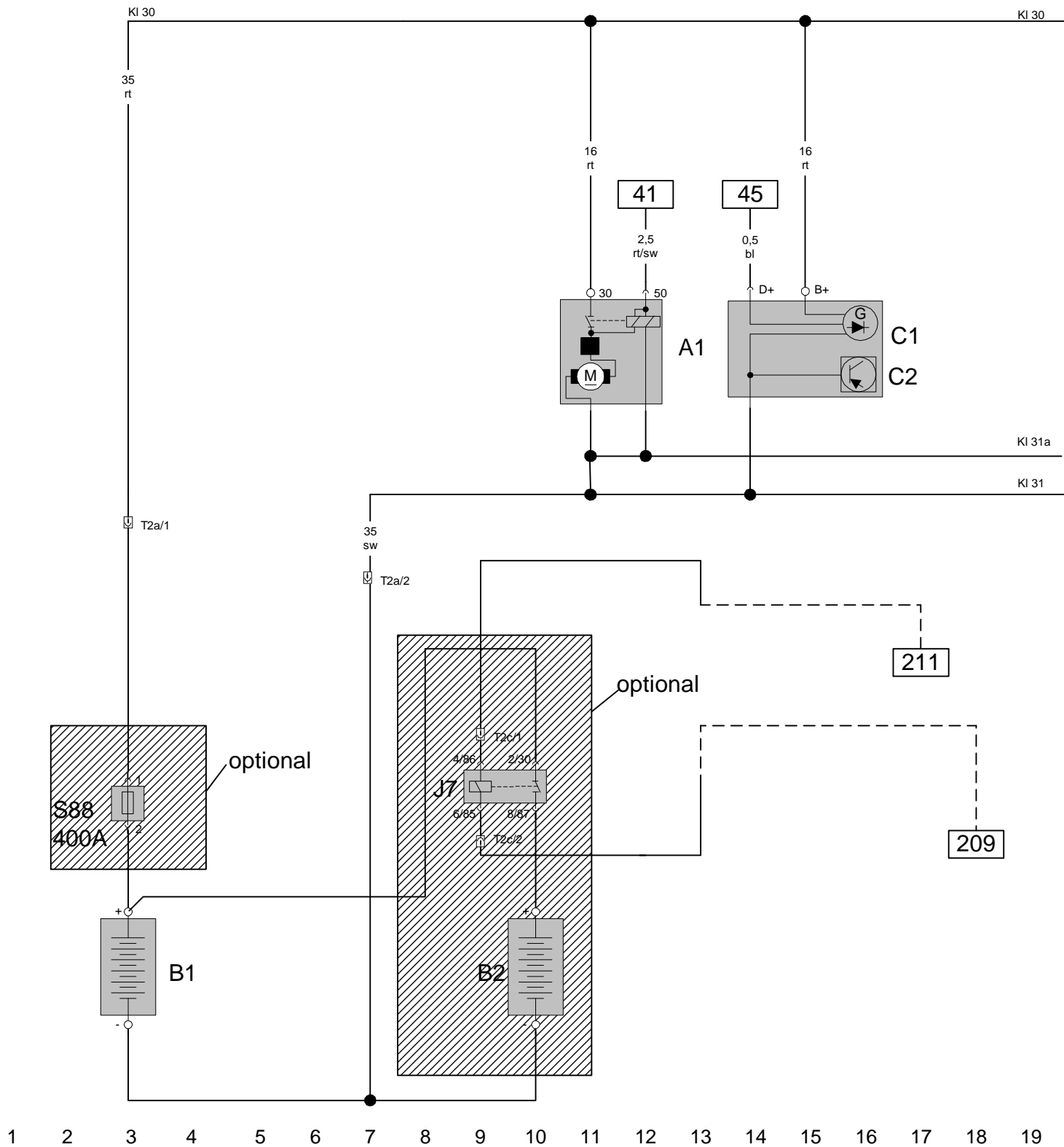


065 805 104

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 (not used)
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"		



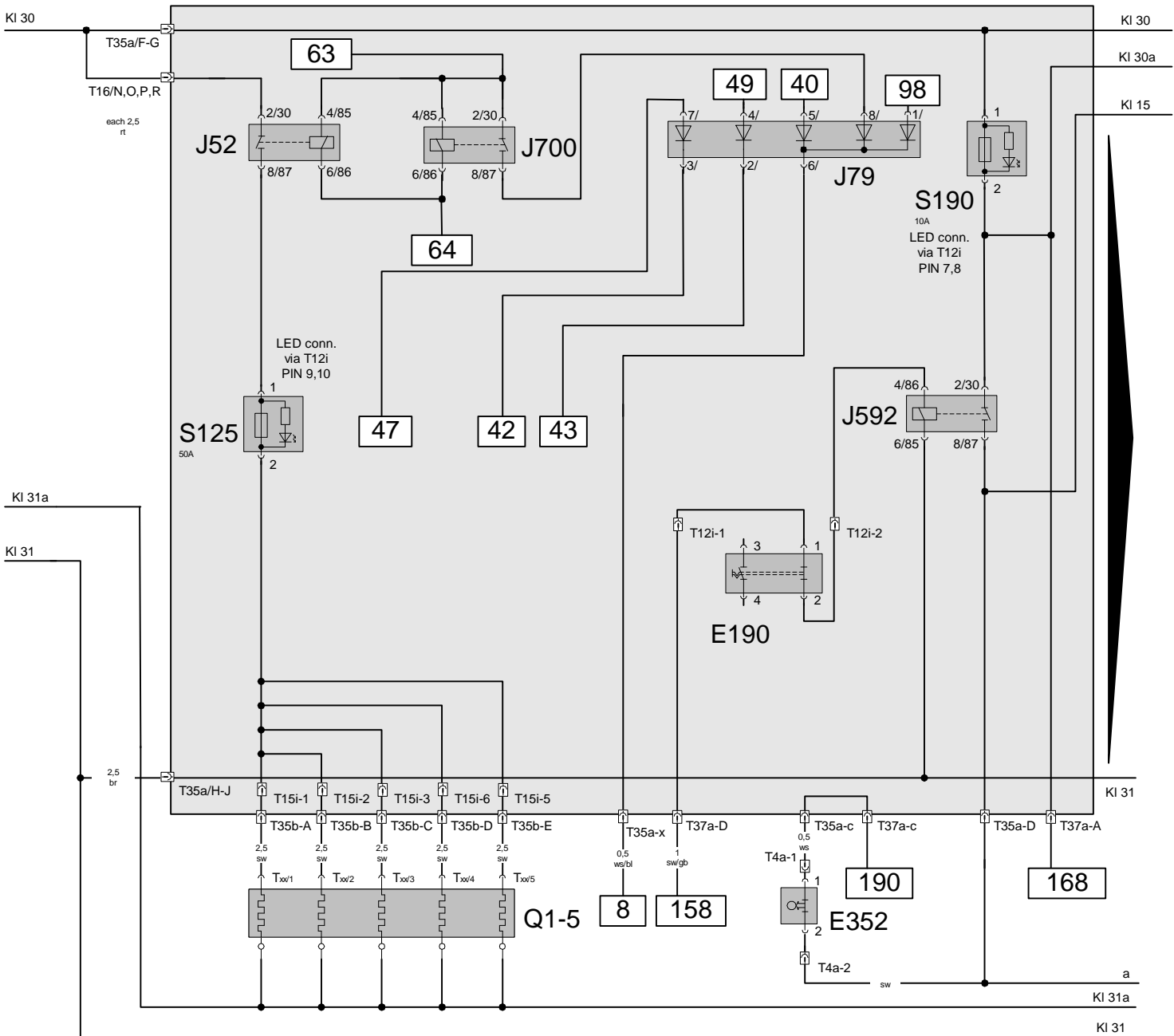
- B1 Starter-Battery
- B2 optional 2nd battery
- S88 optional fuse
- J7 optinal battery separation relay
- A1 starter
- C1 alternator
- C2 voltge regulator in alternator

T2a 2pin high current connector

T2c 2pin connector at relay J7

Colors:

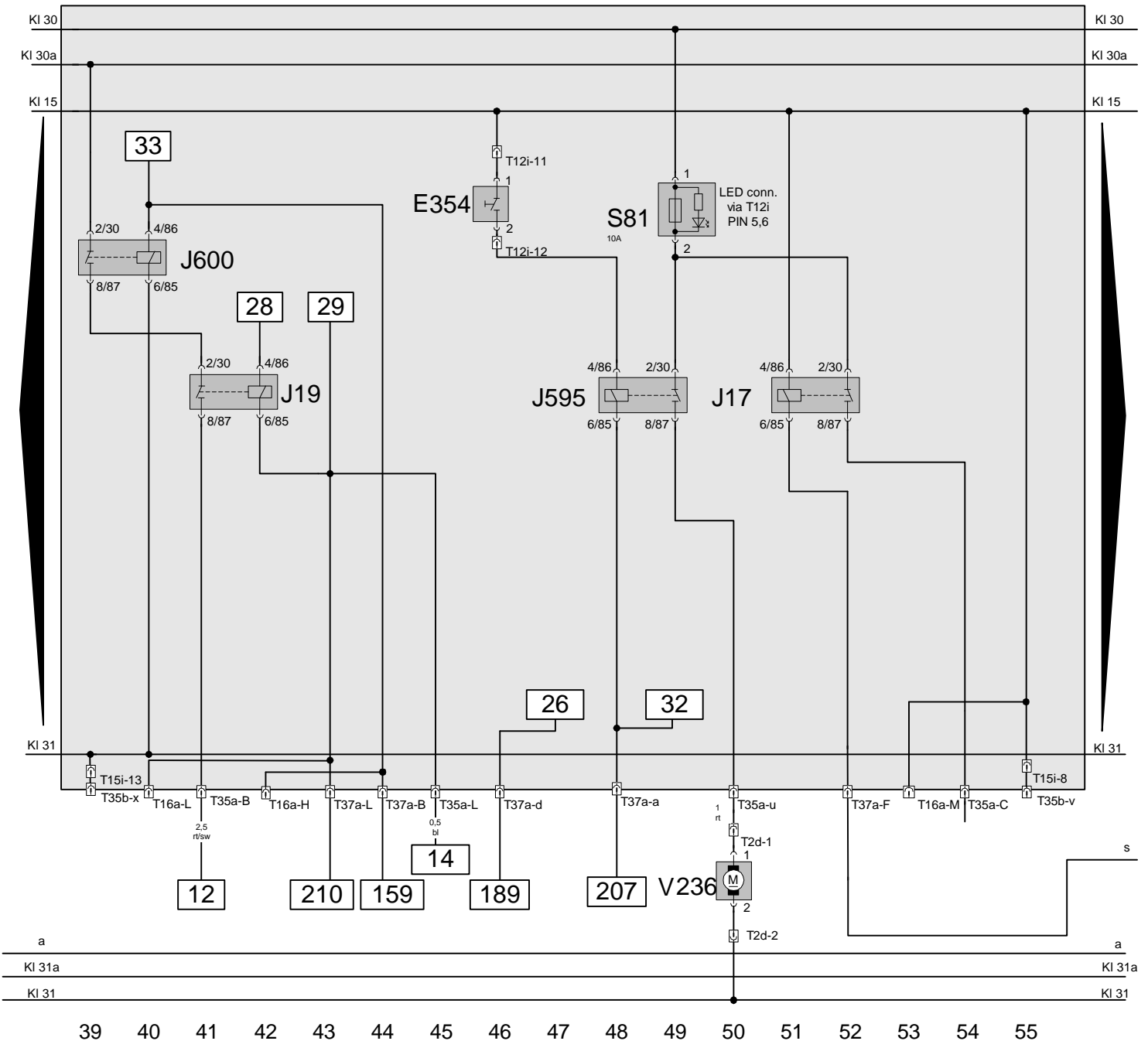
rt = red sw = black bl = blue
ws = white gb = yellow gr = gray
gn = green li = violet



20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38
 J52 relay for glowing plugs
 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
 T4a 4pin connector "gear box version" on the back of the engine
 Txx connector glowing plug
 T15i 15pin internal connector in central electric
 T12i 12pin internal connector in central electric

Colors:

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



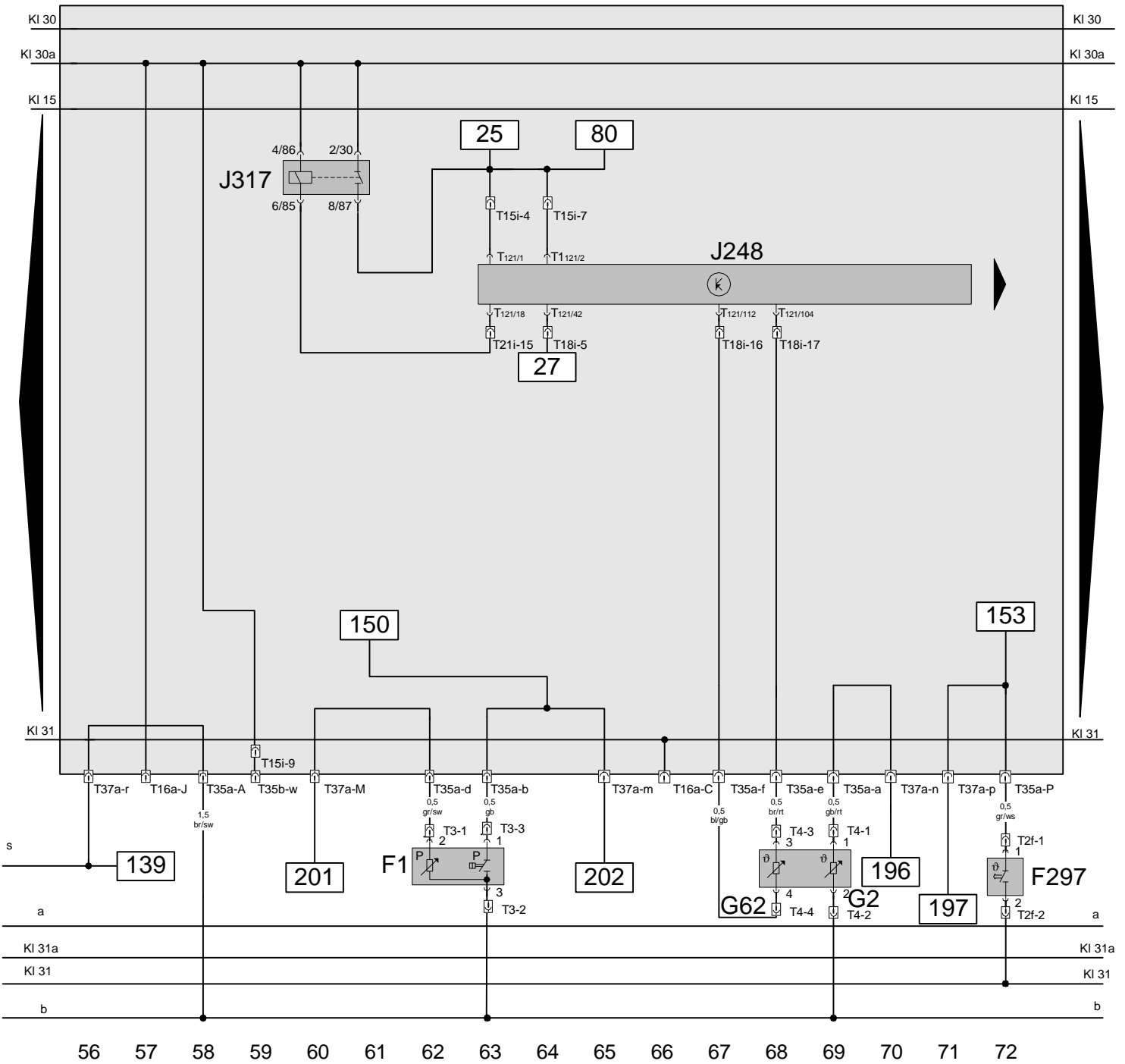
- T35a 35pin connector at bottom of central electric box
- T35b 35pin connector at back side of central electric box
- T16a 16pin connector at bottom of central electric box
- T37a 37pin connector at bottom of central electric box
- T2d 2pin connector at oil extraction pump
- J600 starting aid relay
- J19 starting relay
- E354 switch for oil extraction pump
- S81 fuse for oil extr./fuel pump
- J595 relay oil extraction pump
- J17 relay fuel pump
- V236 oil extraction pump

- T15i 15pin internal connector in central electric
- T12i 12pin internal connector in central electric
- T121 121pin two part connector pin 1-81 and pin 82-121

- a terminal 15 in engine harness
- s connection in harness

Colors:

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- bl = blue
- ws = white
- gb = yellow
- gr = gray
- gn = green
- li = violet

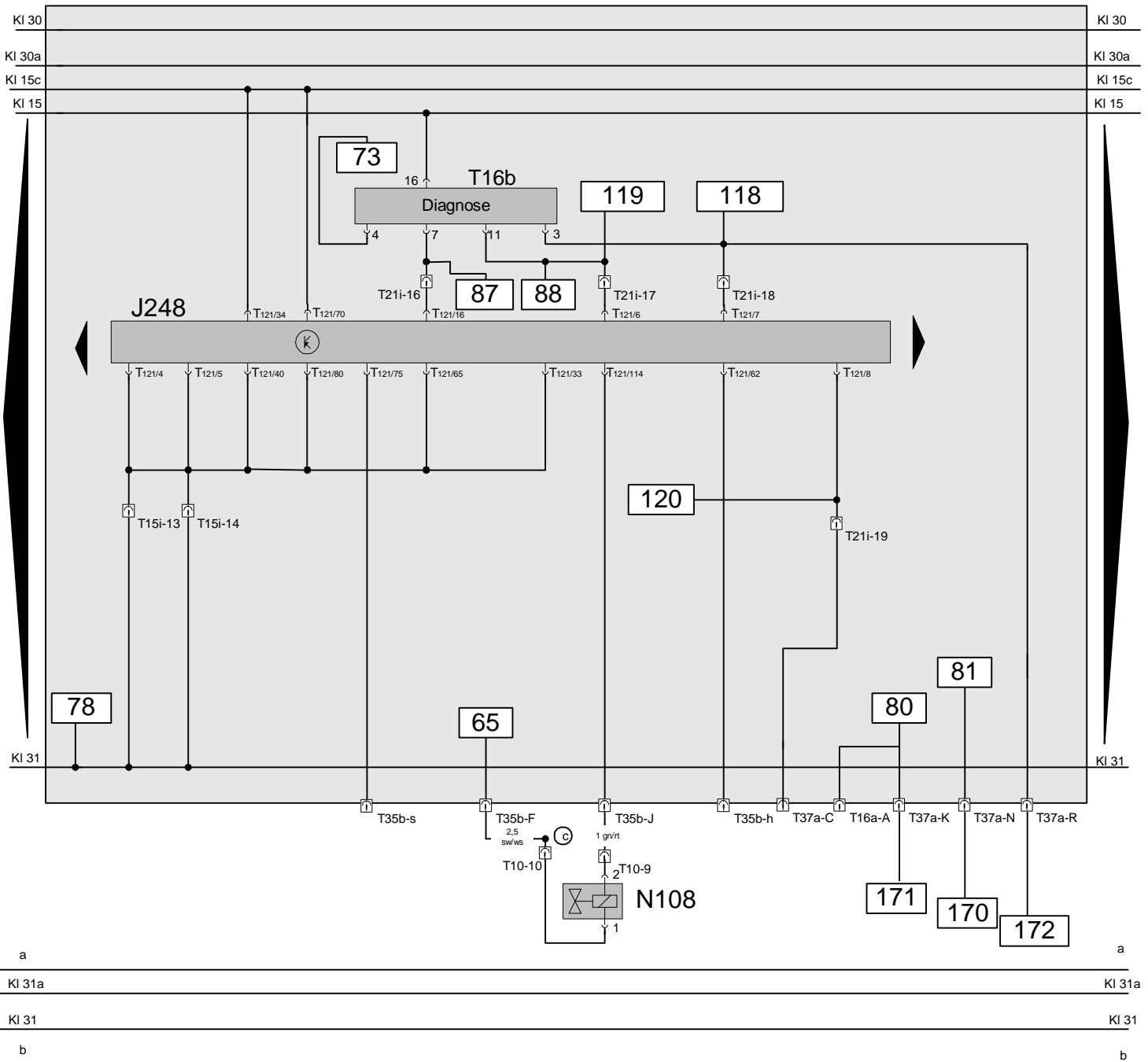


- T16a 16pin connector at bottom of central electric box
- T35a 35pin connector at bottom of central electric box
- T35b 35pin connector at the back side of central electric box
- T37a 37pin connector at bottom of central electric box
- T2f 2pin connector at temperature switch
- F1 oil pressure sensor / 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:

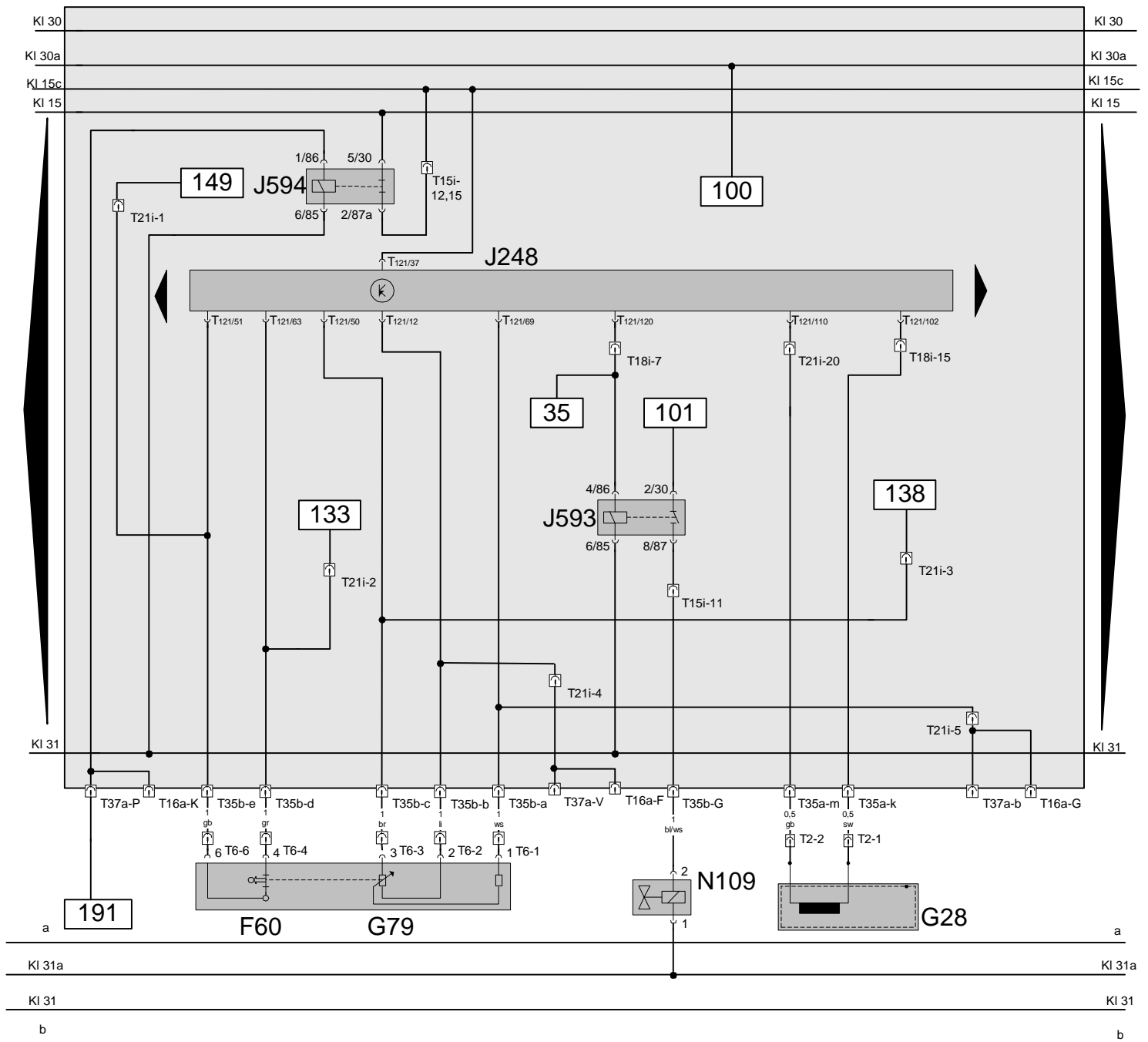
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- gn = green li = violet



	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											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													c	connection in harness		
T37a	37pin connector at bottom of central electric box																
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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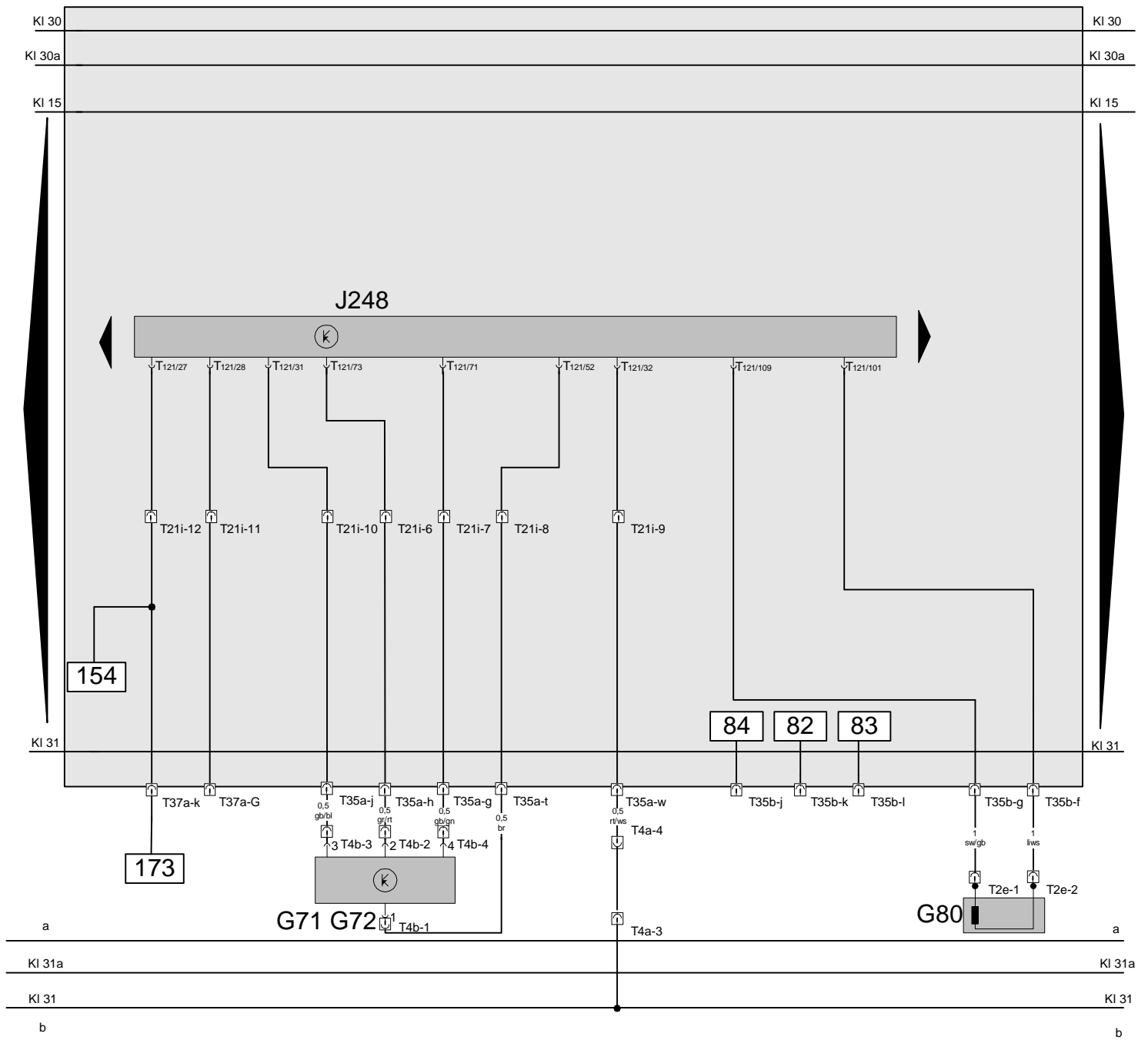
90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106

- T16a 16pin connector at bottom of central electric box
- 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
- 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

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

Colors:

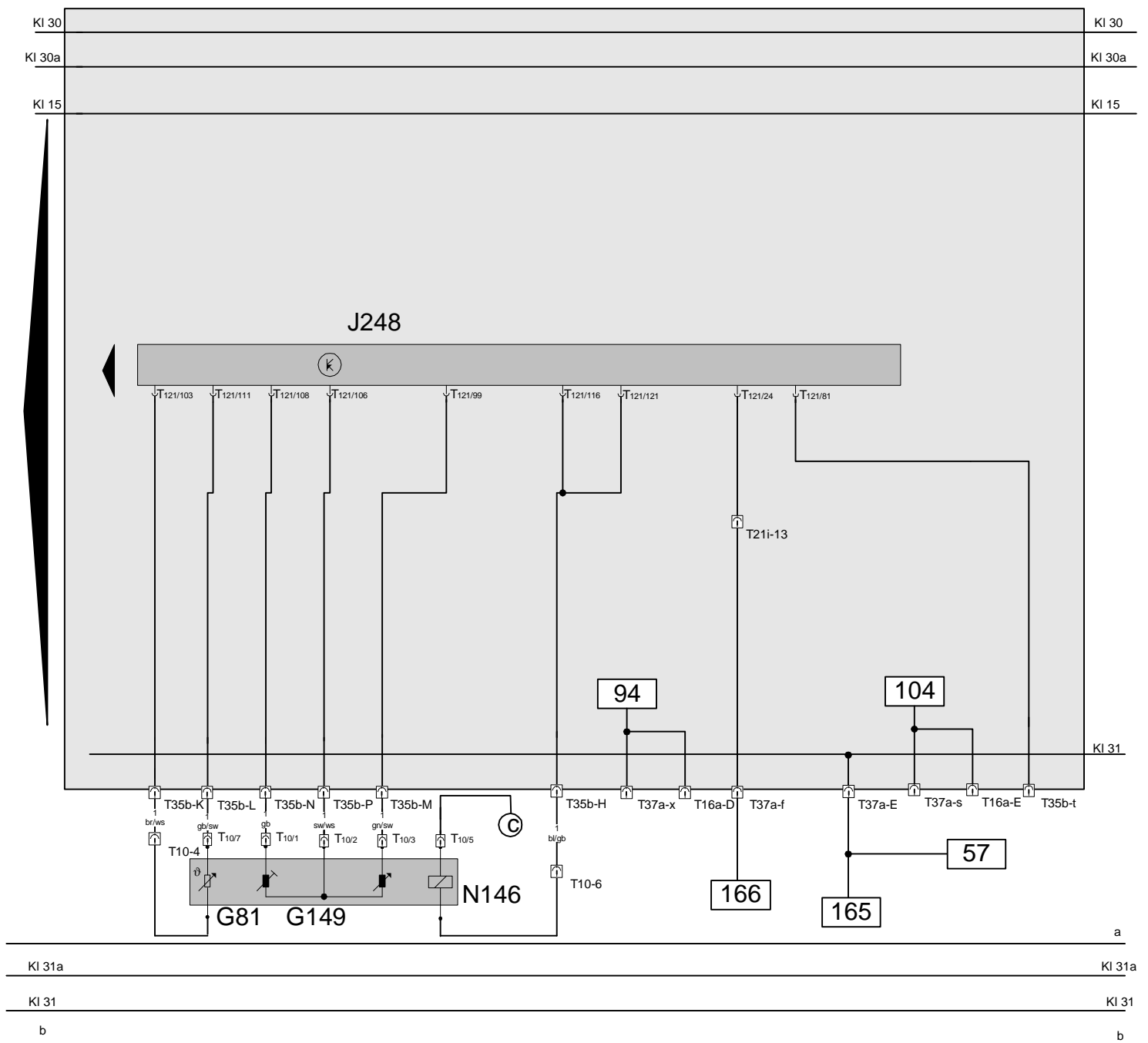
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- gn = green li = violet



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															
J248	MDC (ECU)															
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															
T4b	4pin connector at air temp. and pressure sensor															
T2e	2pin connector at needle-stroke sensor															

Colors:

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 ws = white gb = yellow gr = gray
 gn = green li = violet



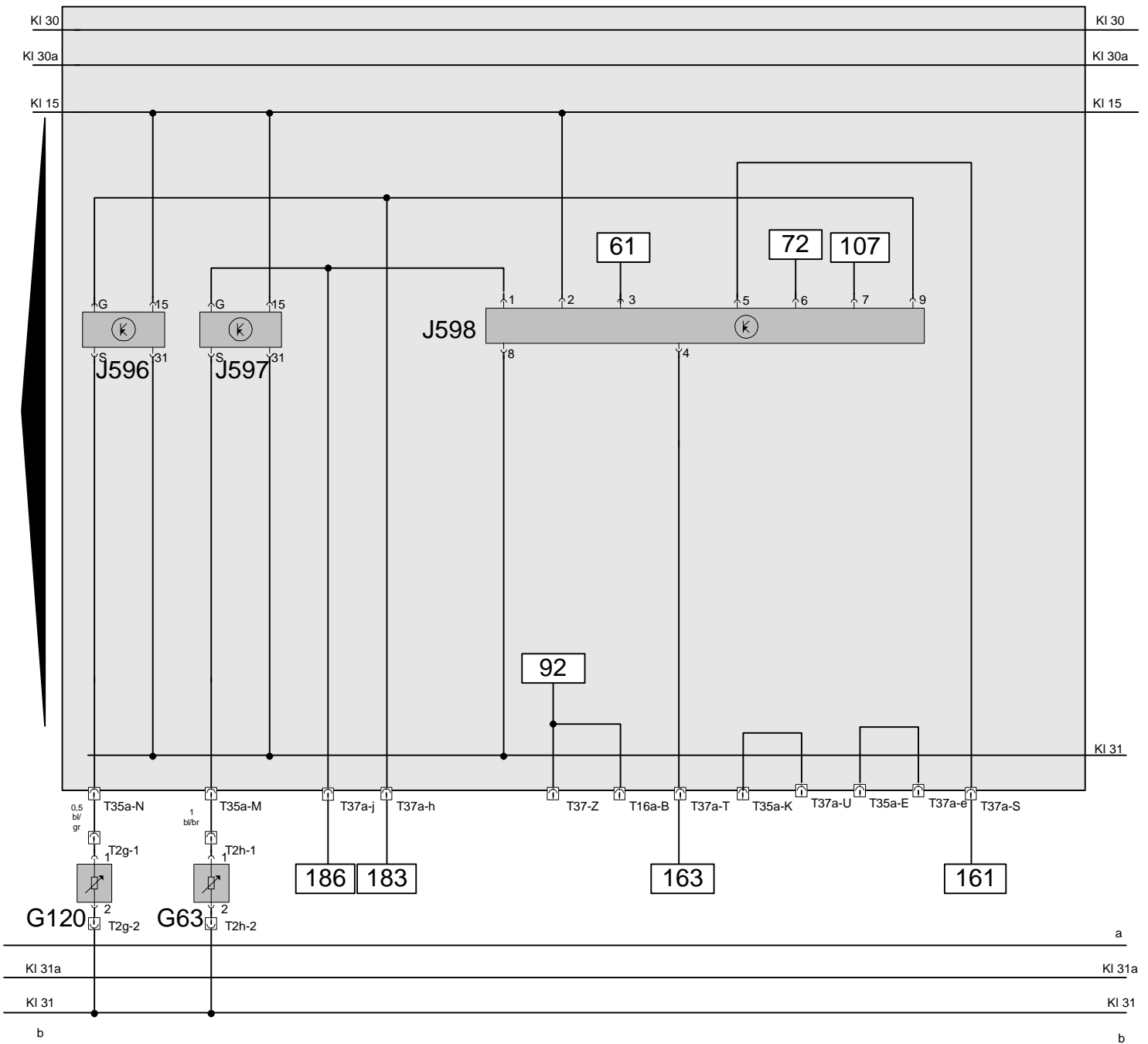
124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140

- T16a 16pin connector at bottom of central electric box
- 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
- 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

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

Colors:

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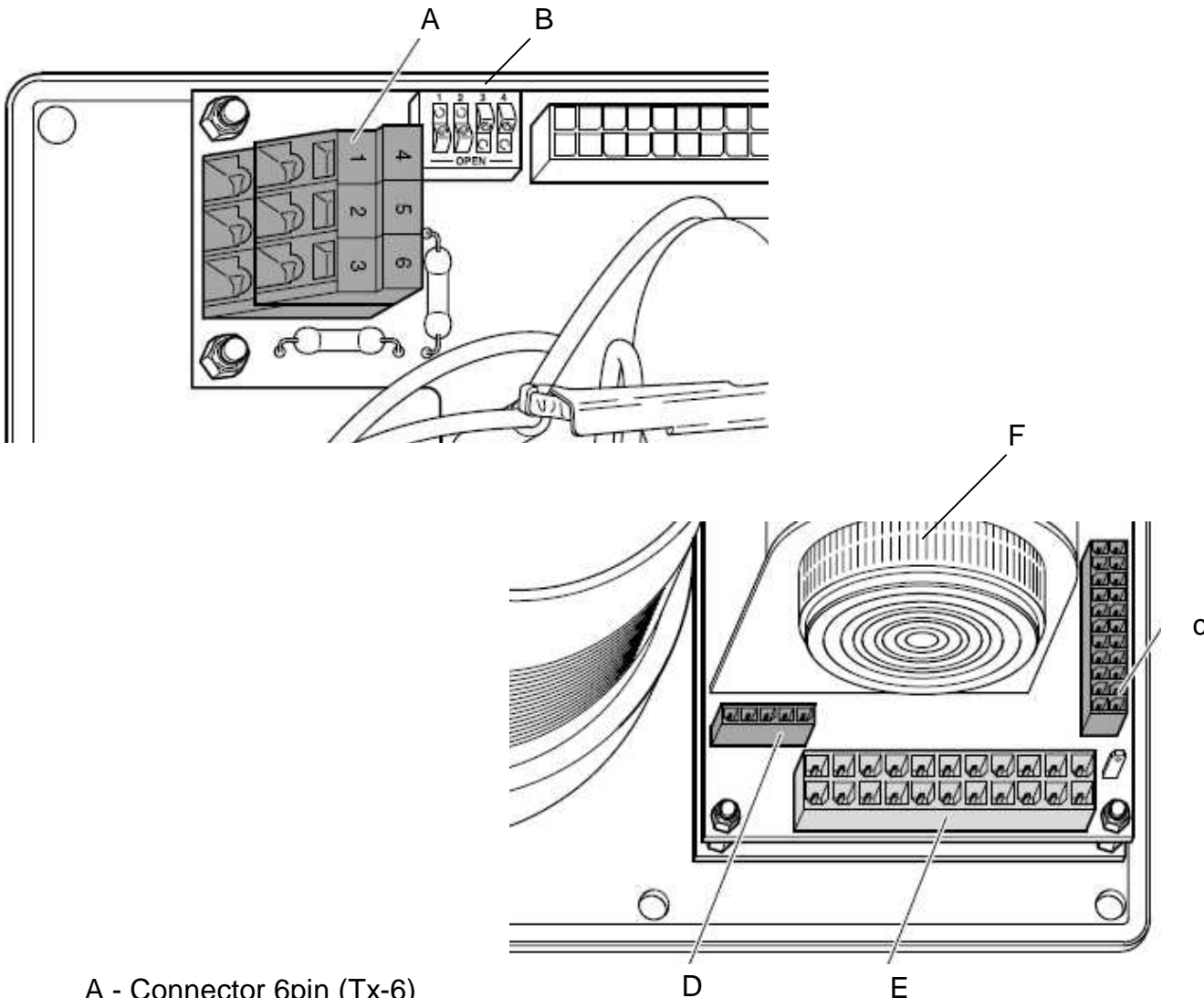


141	T16a	16pin connector at bottom of central electric box	a	Terminal 15 in engine harness
142	T35a	35pin connector at bottom of central electric box	b	sensor ground in engine harness
143	T35b	35pin connector at the back side of central electric box		
144	T37a	37pin connector at bottom of central electric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

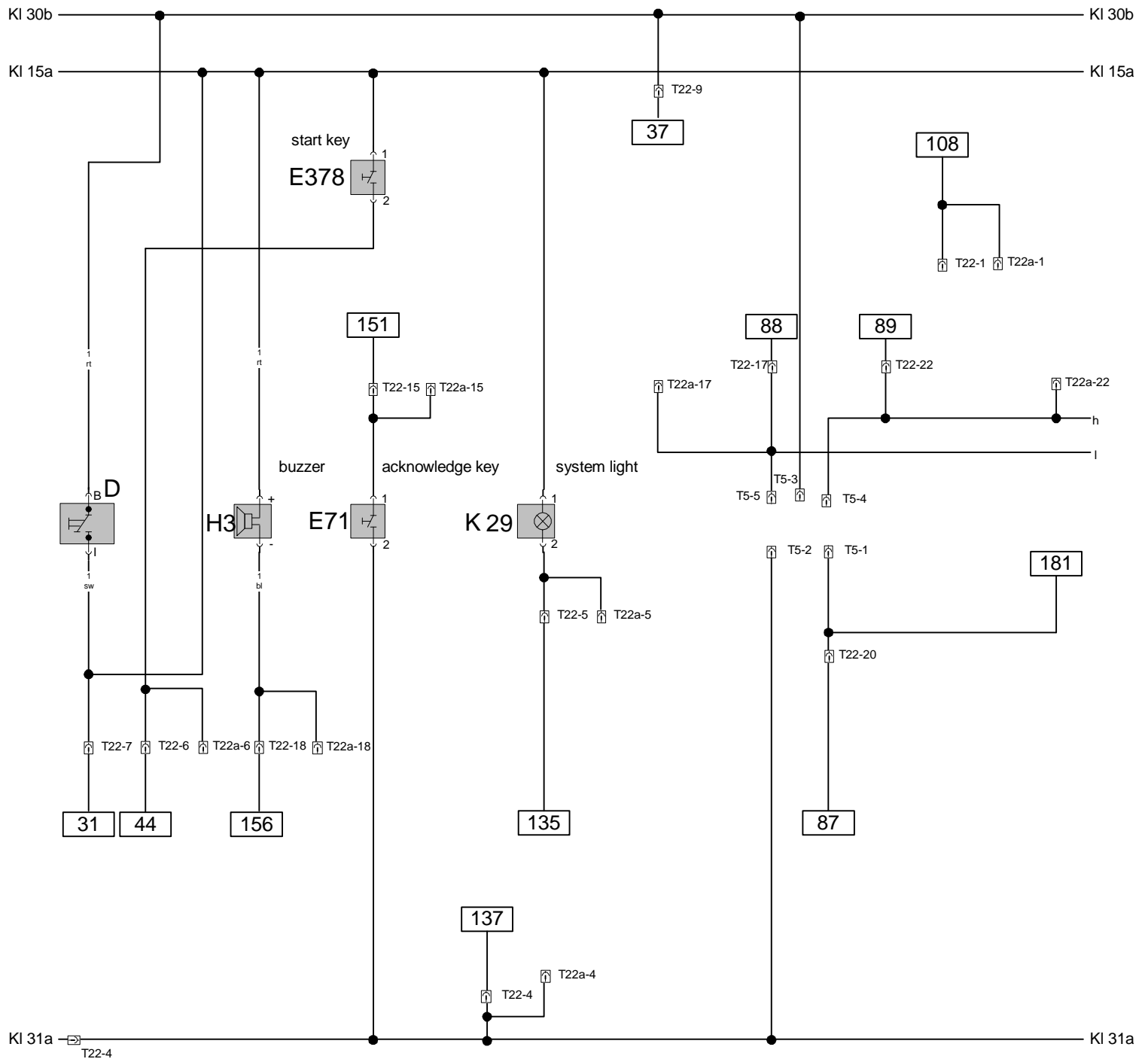
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Instruments



- A - Connector 6pin (Tx-6)
 - 1 - Neutral
 - 2 - Neutral to central electric
 - 3 - Neural to flybridge
 - 4 - batt. separation relay (D+)
 - 5 - NMEA - B
 - 6 - NMEA - A
- B - Dip-Switch (E91)
 - 1 - instrum. light dark / bright
 - 2 - instrum. light on / off
 - 3 - changeover switch (off for 4-5 Zyl / on for 6 Zyl)
 - 4 - Diagnosis at flybridge
- C - 22pin connector to flybridge
- D - 5pin connector for diagnosis
- E - 22pin connector to central electric
- F - buzzer



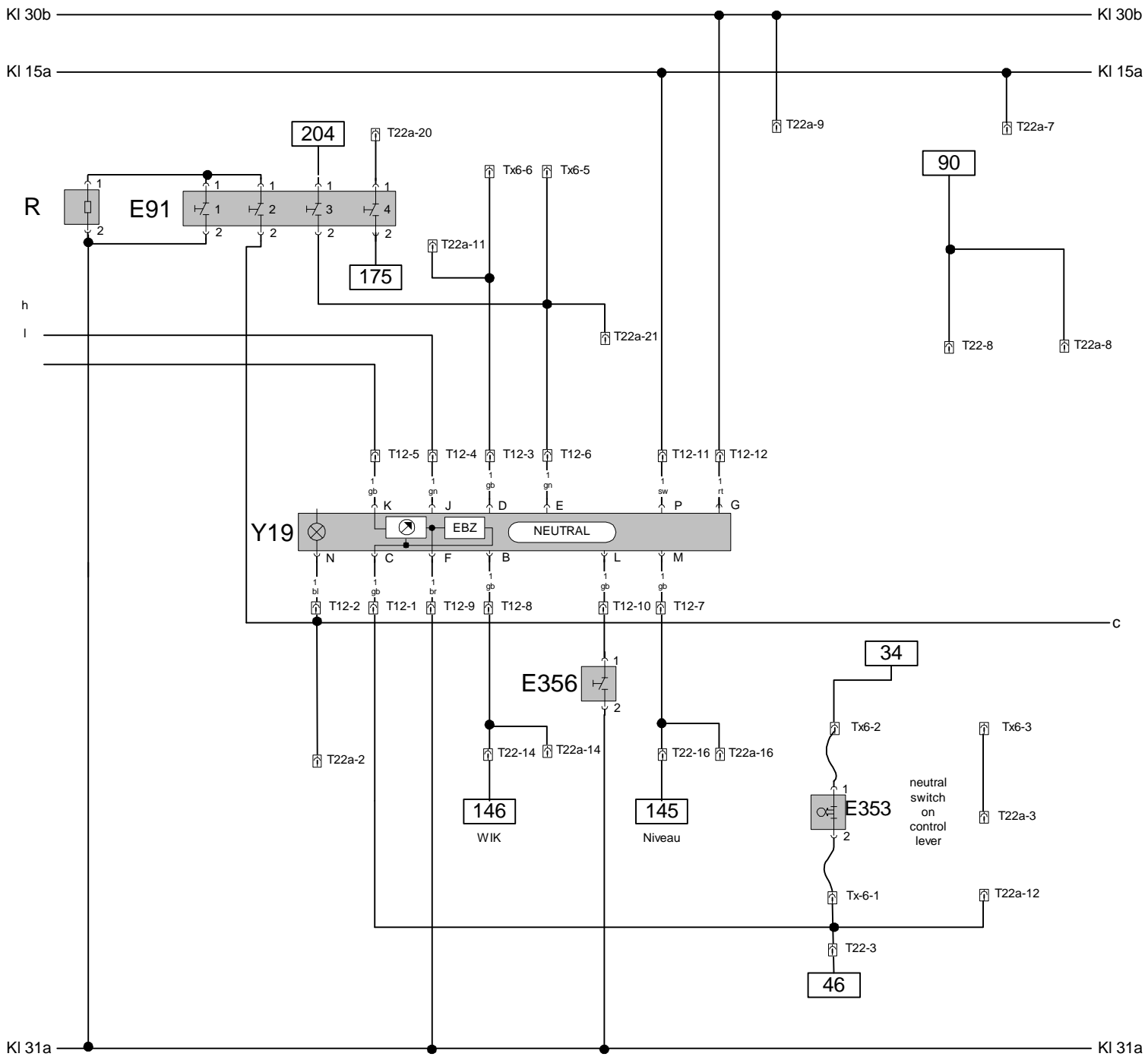
158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175

- D ignition key
- H3 buzzer
- E71 key alert acknowledge
- K29 system light
- T6x 6pin connector
- T37 37pin connector at central electric
- T22 22pin connector at panel
- T22a 22pin connector to flybridge
- E378 start key

- T5 5pin connector at panel
- h, l connection in harness

Colors:

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- li = violet



176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193

h, l, c connection in harness

- E356 mdf key
- Y19 tacho, multi function display
- T12 12pin connector at tacho
- Tx6 6pin connector
- E353 neutral switch at control lever
- T22 22pin connector at panel
- T22a 22pin connector to flybridge
- E91 dip switch

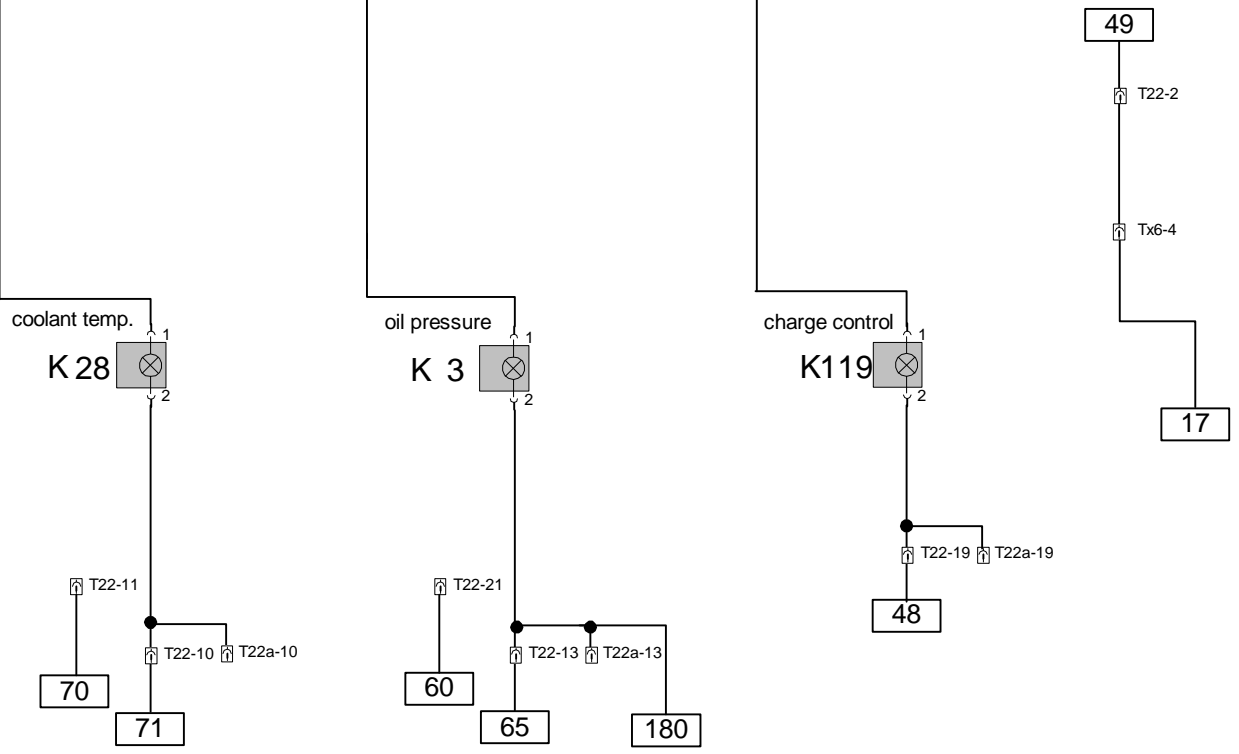
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KI 30b ————— KI 30b

KI 15a ————— KI 15a

c



KI 31a ————— KI 31a

194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211

T22 22pin connector at panel
T22a 22pin connector to flybridge

K28 coolant warn light
K3 oil pressure warn light
K119 charge control light

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