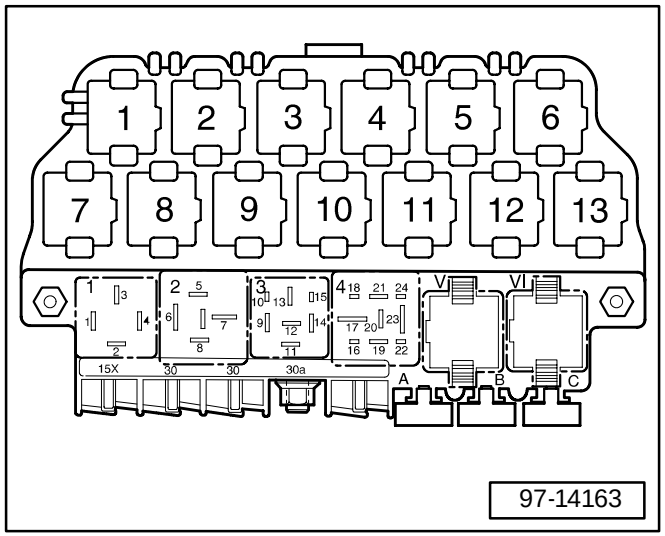
Direct manual gearbox 02E,

from June 2003

● 3.2 l/177 kW Motronic, engine codes BFH

For alternatives to relay and fuse locations as well as assignment of multi-pin connector wiring see ”Fitting locations” section.



Relay locations on the 13 position additional relay carrier above the relay plate:

5 - J219 - Reversing light relay (53)

12 - J207- Starter inhibitor relay (126)

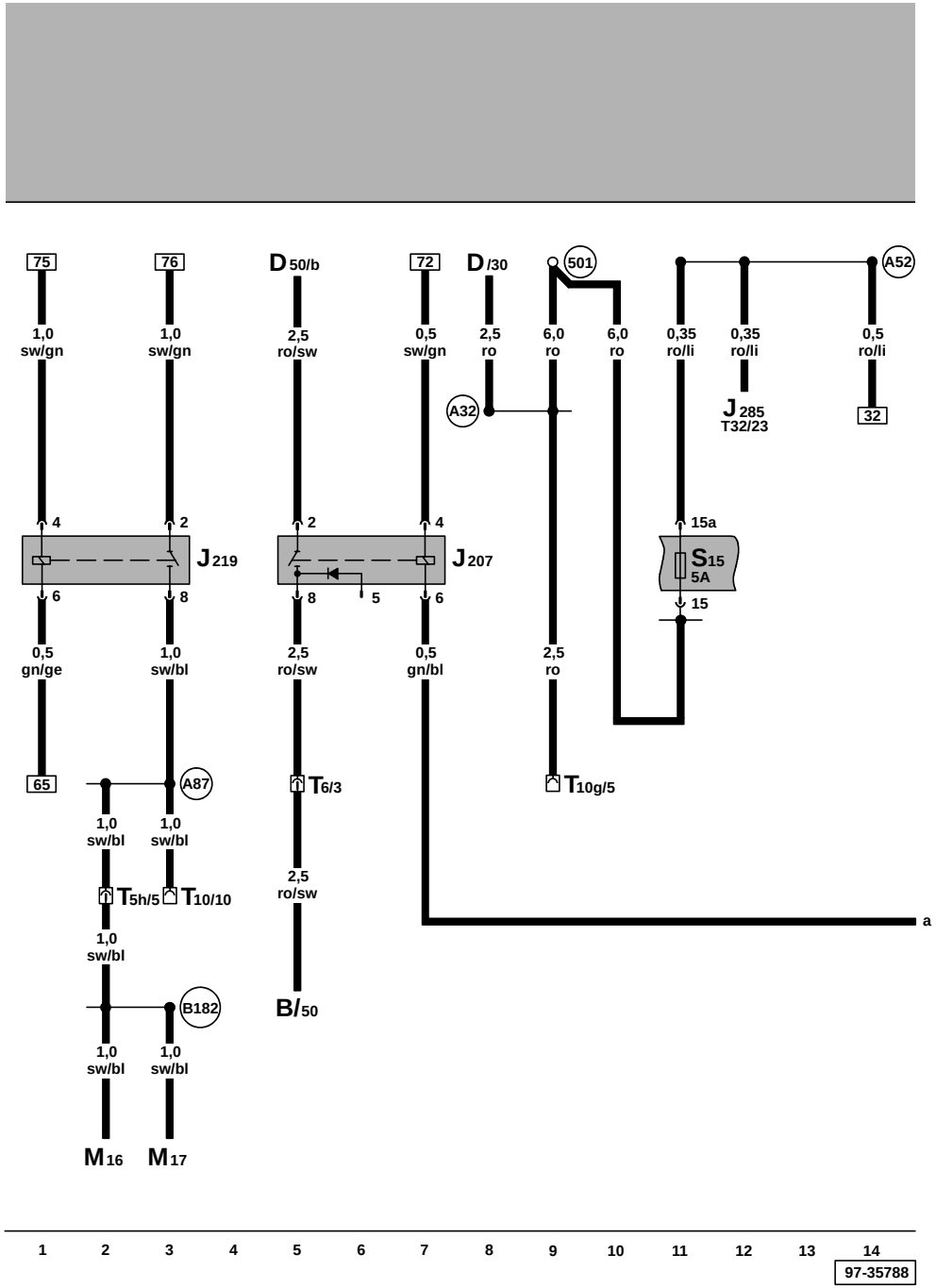
Relay locations on relay plate:

Note:

The number in brackets behind the part designation denotes the control number on the housing.

Fuse colours

30 A - green
25 A - white
20 A - yellow
15 A - blue
10 A - red
7.5 A - brown
5 A - beige
3 A - lilac

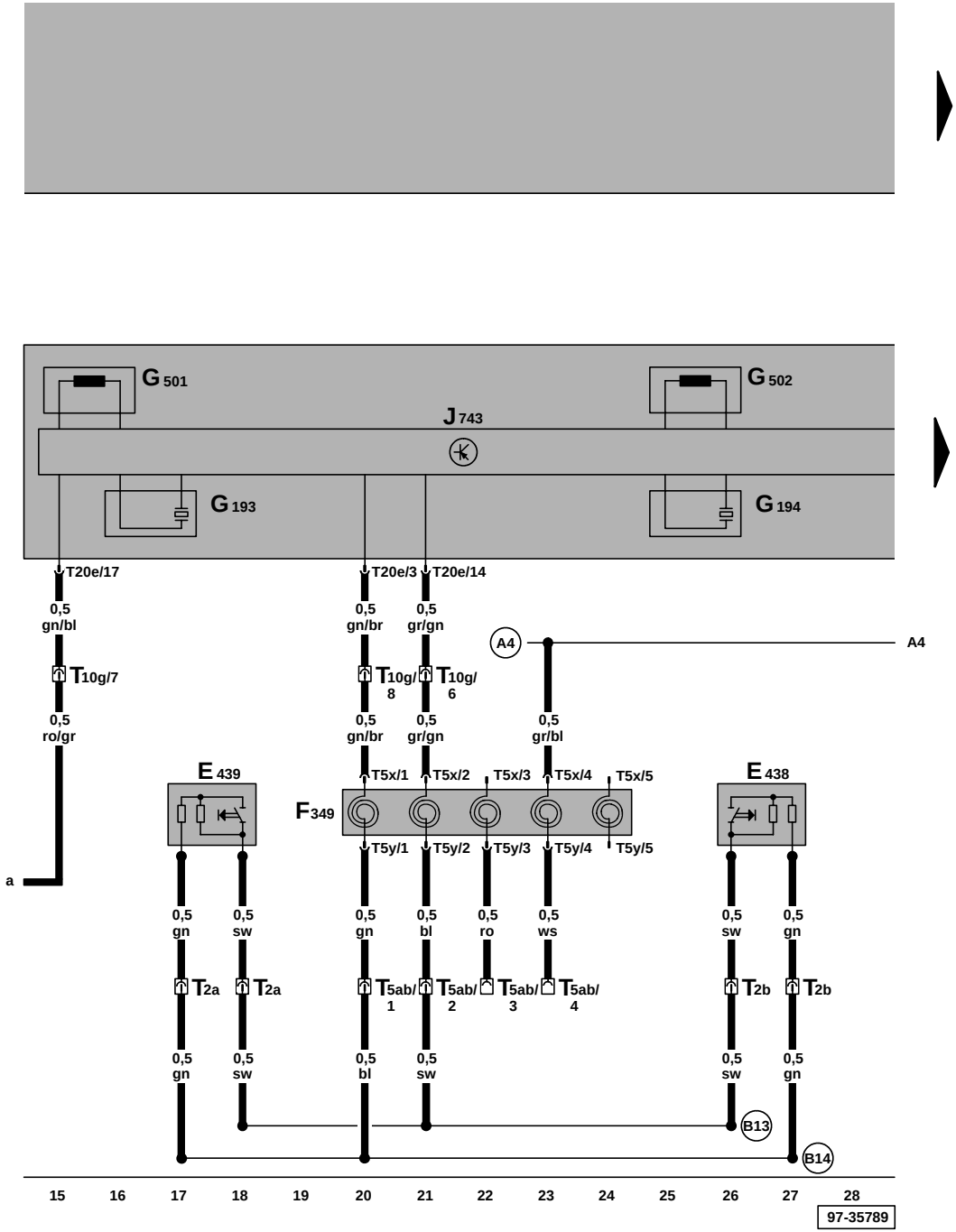


Starter inhibitor relay, reversing light relay

- B - Starter
- D - Ignition/starter switch
- J207 - Starter inhibitor relay
- J219 - Reversing light relay
- J285 - Control unit with display in dash panel insert
- M16 - Left reversing light bulb
- M17 - Right reversing light bulb
- S15 - Fuse 15 in fuse holder
- T5h - 5-pin connector, near lower part of left A- pillar, entwined in wiring harness
- T6 - 6-pin connector, brown, in protective housing for connectors, in plenum chamber, left
- T10 - 10-pin connector, orange, in protective housing for connectors, in plenum chamber, left
- T10g - 10-pin connector, grey, in protective housing for connectors, in plenum chamber, left
- T32 - 32-pin connector, blue

- 501 - Screw connection -2- (30), on relay plate
- A32 - Positive connection (30), in dash panel wiring harness
- A52 - Positive connection (30a), in dash panel wiring harness
- A87 - Connection (RF (reversing light)), in dash panel wiring harness
- B182 - Connection (reversing light), in interior wiring harness

ws = white
sw = black
ro = red
br = brown
gn = green
bl = blue
gr = grey
li = lilac
ge = yellow
or = orange

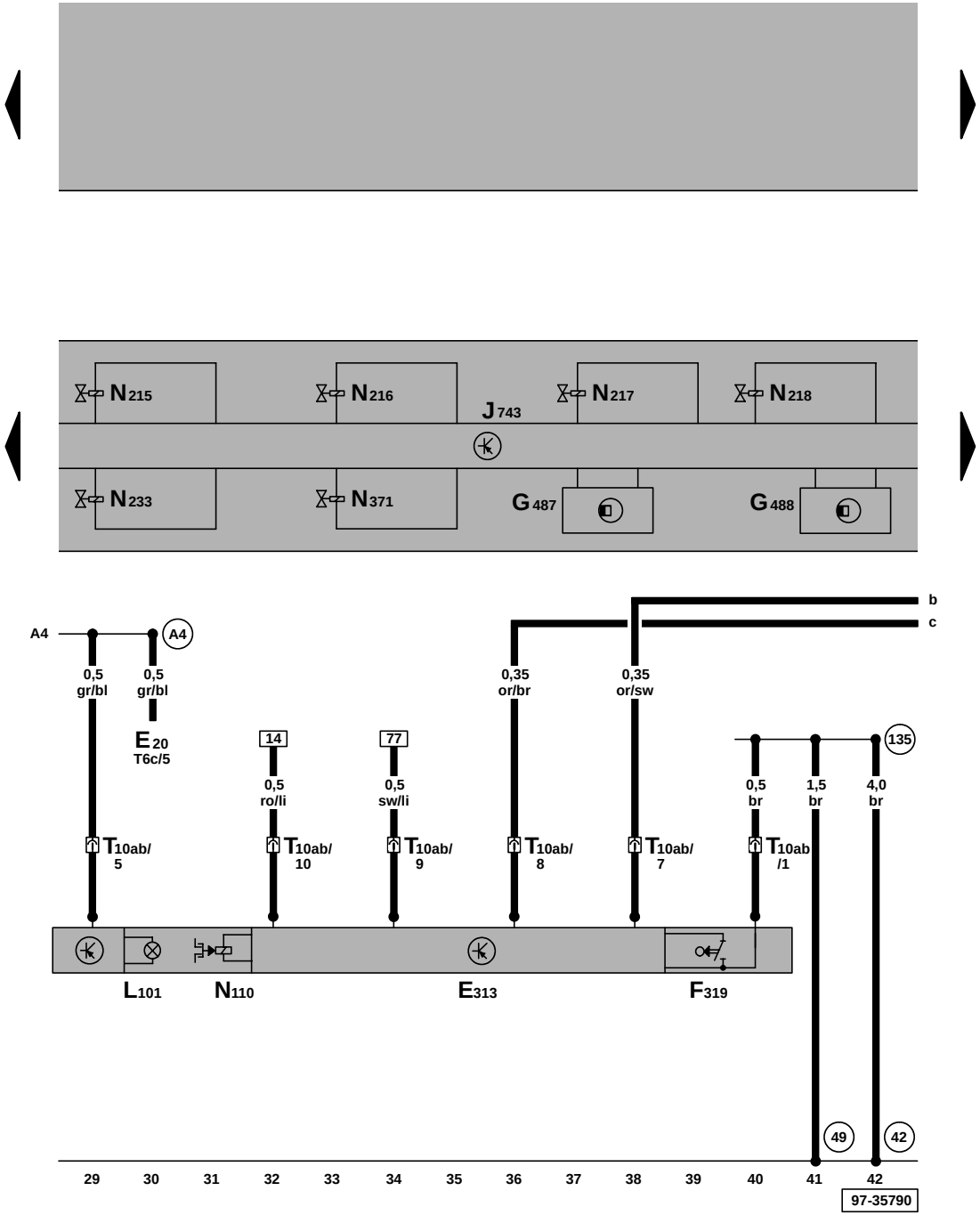


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Mechatronic for direct manual gearbox, input shaft speed sender, hydraulic pressure sender, Tiptronic switch in steering wheel

- E438 - Tiptronic switch (up) in steering wheel
- E439 - Tiptronic switch (down) in steering wheel
- F350 - Coil connector
- G193 - Hydraulic pressure sender -1-
- G194 - Hydraulic pressure sender -2-
- G501 - Input shaft speed sender -1-
- G502 - Input shaft speed sender -2-
- J743 - Mechatronic for direct manual gearbox, in gearbox
- T2a - 2-pin connector, in steering wheel
- T2b - 2-pin connector, in steering wheel
- T5x - 5-pin connector
- T5y - 5-pin connector
- T5ab - 5-pin connector, in steering wheel
- T10g - 10-pin connector, grey, in protective housing for connectors, on left in plenum chamber
- T20e - 20-pin connector

- (A4) - Positive connection (58b), in dash panel wiring harness
- (B13) - Connection -1-(15), in steering wheel wiring harness
- (B14) - Connection -2-(15), in steering wheel wiring harness

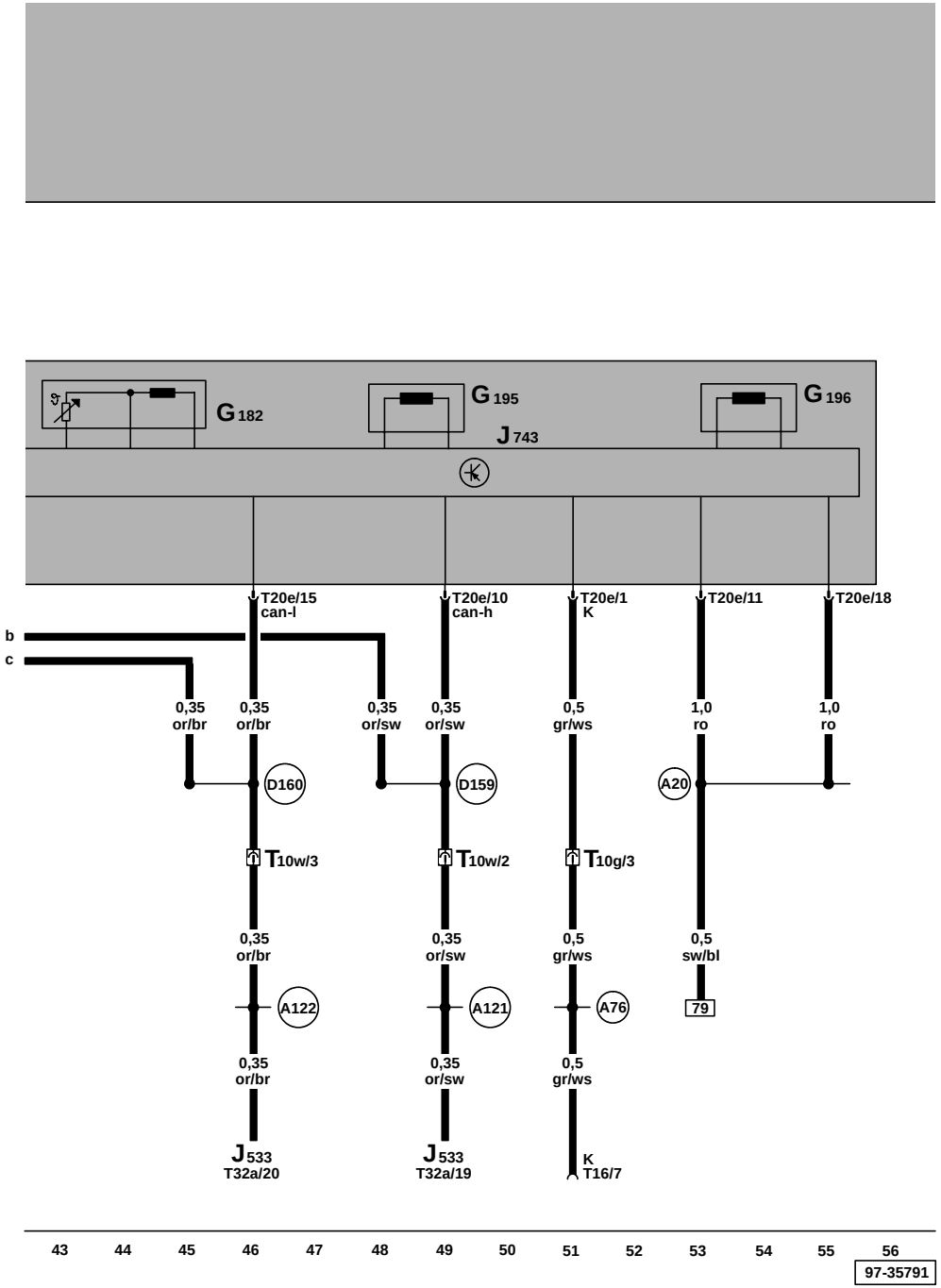


Mechatronic for direct manual gearbox, selector lever, switch to lock selector lever in position P, selector lever lock solenoid, pressure regulating valve, movement sensors for gear actuator

E20 - Switches and instruments lighting regulator
E313 - Selector lever
F319 - Switch to lock selector lever in position P
G487 - Movement sensor -1- for gear actuator
G488 - Movement sensor -2- for gear actuator
J743 - Mechatronic for direct manual gearbox, in gearbox
L101 - Selector lever display illumination
N110 - Selector lever lock solenoid
N215 - Automatic gearbox pressure control valve -1-
N216 - Automatic gearbox pressure control valve -2-
N217 - Automatic gearbox pressure control valve -3-
N218 - Automatic gearbox pressure control valve -4-
N233 - Automatic gearbox pressure control valve -5-
N371 - Automatic gearbox pressure control valve -6-
T10ab- 10-pin connector, under selector lever cover

(42) - Earth point, next to steering column
(49) - Earth point, on steering column
(135) - Earth connection -2-, in dash panel wiring harness
(A4) - Positive connection (58b), in dash panel wiring harness

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or = orange

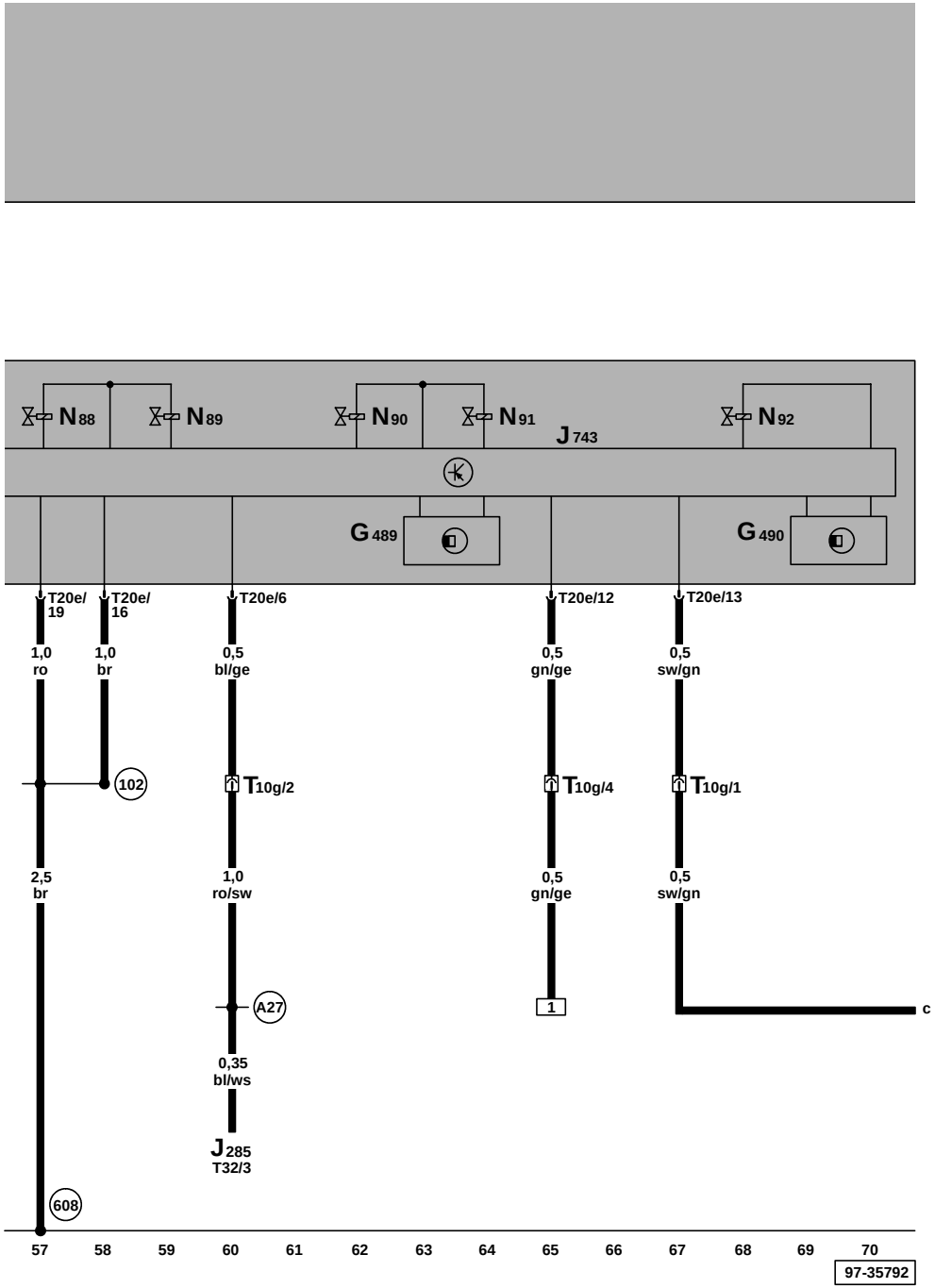


Mechatronic for direct manual gearbox, gearbox input speed sender, gearbox output speed sender

- G182 - Gearbox input speed sender
- G195 - Gearbox output speed sender
- G196 - Gearbox input speed sender -2-
- J533 - Data bus diagnostic interface
- J743 - Mechatronic for direct manual gearbox, in gearbox
- T10g - 10-pin connector, grey, in protective housing for connectors, in plenum chamber, left
- T10w - 10-pin connector, white, in protective housing for connectors, in plenum chamber, left
- T16 - 16-pin connector, in dash panel centre, self-diagnosis connection
- T20e - 20-pin connector
- T32a - 32-pin connector, green

- (A20) - Positive connection (15a), in dash panel wiring harness
- (A76) - Connection (diagnosis wire K), in dash panel wiring harness
- (A121) - Connection (high bus), in dash panel wiring harness
- (A122) - Connection (low bus), in dash panel wiring harness
- (D159) - Connection (high bus), in engine compartment wiring harness
- (D160) - Connection (low bus), in engine compartment wiring harness

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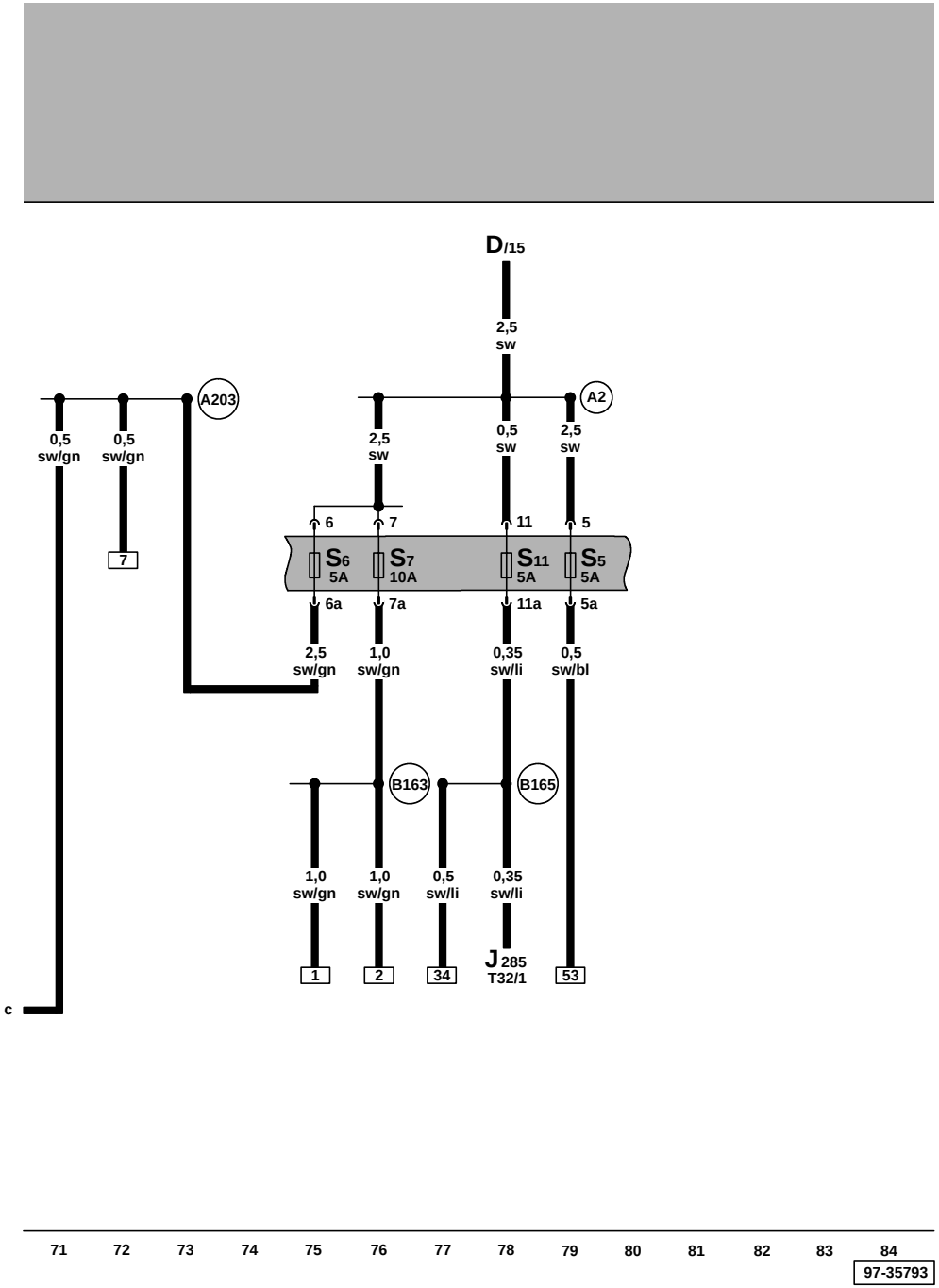


Mechatronic for direct manual gearbox, movement sensors for gear actuator, solenoid valves

- G489 - Movement sensor -3- for gear actuator
- G490 - Movement sensor -4- for gear actuator
- J285 - Control unit with display in dash panel insert
- J743 - Mechatronic for direct manual gearbox, in gearbox
- N88 - Solenoid valve 1
- N89 - Solenoid valve 2
- N90 - Solenoid valve 3
- N91 - Solenoid valve 4
- N92 - Solenoid valve 5
- T10g - 10-pin connector, grey, in protective housing for connectors, in plenum chamber, left
- T20e - 20-pin connector
- T32 - 32-pin connector, blue

- (102) - Earth connection, in gearbox wiring harness
- (608) - Earth point, in centre of plenum chamber
- (A27) - Connection (speed signal), in dash panel wiring harness

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ro = red
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gn = green
bl = blue
gr = grey
li = lilac
ge = yellow
or = orange



Fuse assignment

D - Ignition/starter switch
J285 - Control unit with display in dash panel insert
S5 - Fuse 5 in fuse holder
S6 - Fuse 6 in fuse holder
S7 - Fuse 7 in fuse holder
S11 - Fuse 11 in fuse holder
T32 - 32-pin connector, blue

A2 - Positive (+) connection (15), in dash panel wiring harness
A203 - Positive connection -3- (15a), in dash panel wiring harness
B163 - Positive connection -1- (15), in interior wiring harness
B165 - Positive connection -2- (15), in interior wiring harness

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ge = yellow
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