

61 Electrical system – general

Specifications and wiring diagrams	Page 61-0/3
61 13 001 Replacement of fuse box	13/1
61 31 000 Removal and fitting of headlight dip switch	31/1
010 Removal and fitting of turn indicator switch	31/2
015 Removal and fitting of turn indicator/dip witch	31/4
020 Removal and fitting of steering lock/ignition switch	31/5
030 Removal and fitting of light pull switch	31/5
040 Removal and fitting of wiper switch	31/5
360 Removal and fitting of hazard warning flasher switch	31/6
040 Removal and fitting of screenwasher/wiper retard relay	31/7
61 61 250 Removal and fitting of wiper motor	61/1
Trouble shooting – electrical system	64-21/3

Specifications

Vehicle — electrical (general)

Model	1502	1602	1802	2002	2002 A	2002 Ti	2002 tii
Fuse box	12 poles, 8 x 8 A, 6 x 16 A, 2 x 25 A ¹⁾⁴⁾						12 poles, 8x8A, 6x16A, 2x25A ⁴⁾
Battery:							
Voltage	V	12					
Capacity	Amp/hr	36 ²⁾			44 ²⁾		
Earthing (ground)		negative					
Lowest starting voltage	V	9			8.5		
Hazard warning flasher relay:							
a) hazard warning function:							
Rated voltage	V	12					
Operating voltage	V	9 ... 15					
Test voltage	V	13					
b) turn indicator function:							
Rated voltage	V	12					
Operating voltage	V	11 ... 15					
Test voltage	V	13					
Wiper/washer unit ³⁾							
Rated voltage	V	12					
Operating voltage	V	10.5 ... 15					
Test voltage	V	13					
Foglamp relay							
Rated voltage	V	12					
Operating voltage	V	9 ... 15					
Test voltage	V	13					

¹⁾ BMW 1600-2, 2002, 2002 A up to 71 models: 6 poles, 5 x 8 Amp, 1 x 16 Amp.

²⁾ 55 Amp./hr on 1600-2, 2002 and 2002 and 2002 A USA version

³⁾ Previously retard relay for windshield washer

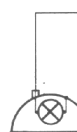
⁴⁾ On BMW 1602, 1802, 2002, 2002 A and 2002 tii previously 4 x 5 A, 4 x 8 A, 4 x 16 A.

Specifications

Vehicle — electrical (general)

Model	1502	1602	1802	2002	2002 A	2002 T1	2002 tii
Wiper motor:							
Rated voltage	V		12				
Operating voltage	V		9.6 ... 14.4				
Test voltage	V		13				
Windshield washer pump							
Rated voltage	V		12				
Operating voltage	V		10 ... 16				
Test voltage	V		13				
Current consumption	V		app. 2.5				

Electrical wiring diagram



BMW 1600-2 USA (12 Volt)

Key to Electrical wiring diagram

- 1 Turn indicator, front RH with parking light
- 2 Headlight, RH
- 3 Horn
- 4 Headlight, LH
- 5 Turn indicator, front LH with parking light
- 6 Alternator
- 7 Regulator
- 8 Distributor
- 9 Starter
- 10 Battery
- 11 Stop light switch
- 12 Ignition coil
- 13 Oil pressure switch
- 14 Remote thermometer sensor
- 15 Fuse box
- 16 Windshield washer pump
- 17 Windshield wiper motor
- 18 Delay relay
- 19 Heater blower

20 Ignition/starter switch
Switch positions:

- I Stop
- II' Garage
- III Drive
- IV Start
- 21 Light switch
- 22 Cigar lighter
- 23 Windshield wiper switch
- 24 Heater switch
- 25 Turn indicator and windshield washer switch
- 26 Dipswitch with flasher unit
- 27 Horn ring
- 28 Instrument panel
 - a) Instrument lighting
 - b) Charge telltale (red)
 - c) Oil pressure telltale (orange)
 - d) Main beam telltale (blue)
 - e) Turn indicator telltale (green)
 - f) Water temperature gauge
 - g) Fuel gauge
 - h) 12-pole plug
 - k) 3-pole plug for clock
 - l) 3-pole plug for revolution counter

m) Speedometer
n) Clock

- p) Brake telltale with test switch
- 29 12-pole round plug for instrument panel (seen from cable side)
- 30 Reversing light switch
- 31 Switch for warning flasher unit
- 32 Warning flasher sensor
- 33 Door switch, RH
- 34 Interior light
- 35 Door switch, LH
- 36 Fuel gauge sensor
- 37 Rear lights, RH -
 - A Reversing light
 - B Rear light
 - C Turn indicator
 - D Stop light
- 38 Rear lights, LH
 - A Reversing light
 - B Rear light
 - C Turn indicator
 - D Stop light
- 39 Number plate light
- 40 Warning buzzer
- 41 Warning buzzer contact
- X Flat pin connector

Firing Order: 1 - 3 - 4 - 2

Cable coding:

1.5 GN - BL

Cross section mm²

Basic colour

BL = blue
 BR = brown
 GE = yellow
 GN = green
 GR = grey
 RT = red
 SW = black
 VI = violet
 WS = white

Clip terminal

Screw terminal
(cable shoe)

Plug terminal

Code spiral

Flat pin sleeve

Round pin sleeve

00-2 USA (12 Volt)

Electrical wiring diagram

Indicator, front RH with
light
ht, RH

ht, LH
Indicator, front LH with
light
tor
or
tor

ht switch
coil
sure switch
e thermometer sensor
x
ield washer pump
ield wiper motor
elay
lower

20 Ignition/starter switch

Switch positions:

I Stop

II Garage

I III Drive

IV Start

21 Light switch

22 Cigar lighter

23 Windshield wiper switch

24 Heater switch

25 Turn indicator and windshield
washer switch

26 Dipswitch with flasher unit

27 Horn ring

28 Instrument panel

a) Instrument lighting

b) Charge telltale (red)

c) Oil pressure telltale (orange)

d) Main beam telltale (blue)

e) Turn indicator telltale (green)

f) Water temperature gauge

g) Fuel gauge

h) 12-pole plug

k) 3-pole plug for clock

l) 3-pole plug for revolution
counter

m) Speedometer

n) Clock

p) Brake telltale with test switch

29 12-pole round plug for instrument
panel (seen from cable side)

30 Reversing light switch

31 Switch for warning flasher unit

32 Warning flasher sensor

33 Door switch, RH

34 Interior light

35 Door switch, LH

36 Fuel gauge sensor

37 Rear lights, RH -

A Reversing light

B Rear light

C Turn indicator

D Stop light

38 Rear lights, LH

A Reversing light

B Rear light

C Turn indicator

D Stop light

39 Number plate light

40 Warning buzzer

41 Warning buzzer contact

X Flat pin connector

Cable coding:

1.5 GN - BL

Cross section mm²

Basic colour

Code spiral

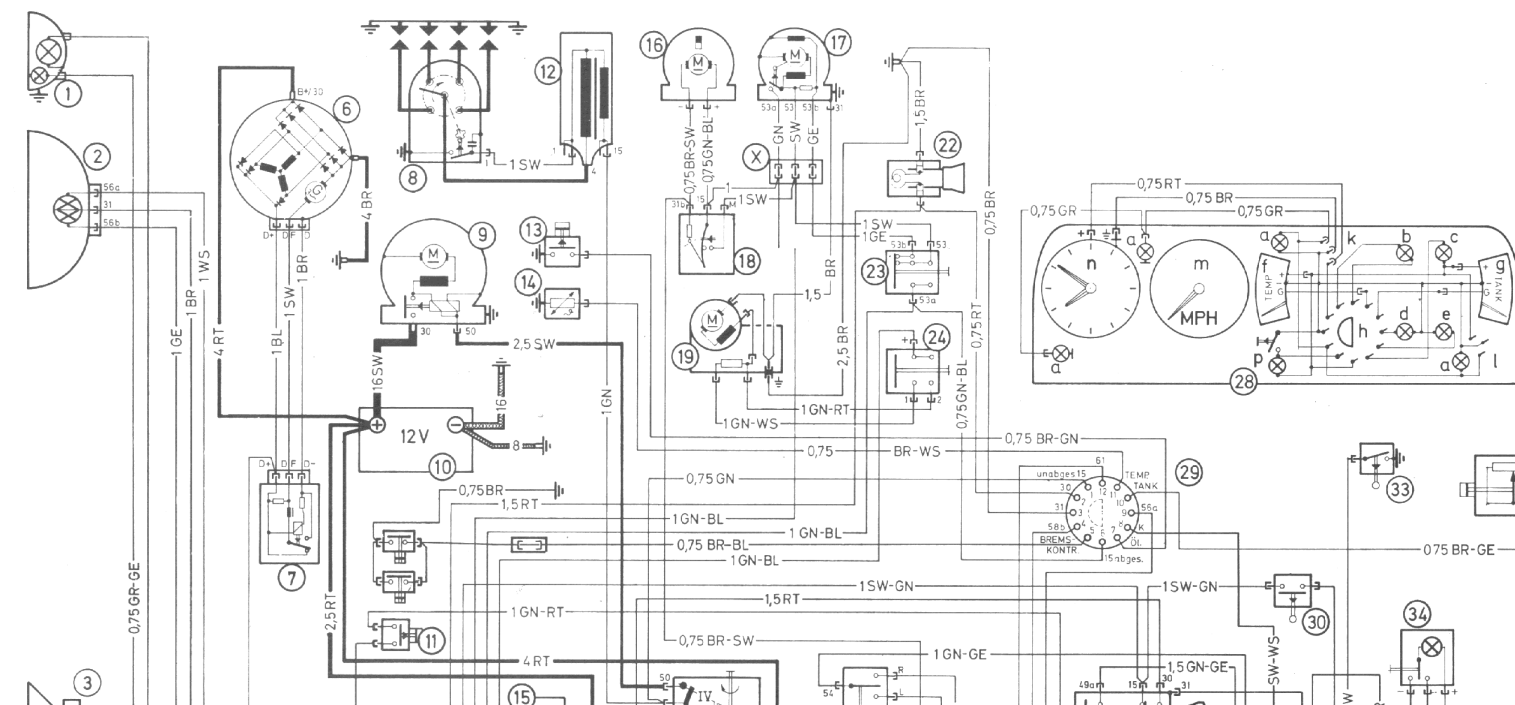
Flat pin sleeve

Round pin sleeve

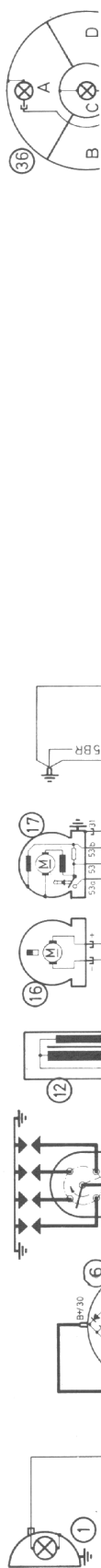
BL = blue
BR = brown
GE = yellow
GN = green
GR = grey
RT = red
SW = black
VI = violet
WS = white

Firing Order: 1 - 3 - 4 - 2

Electrical wiring diagram



Electrical wiring diagram



BMW 2002 USA (12 Volt)

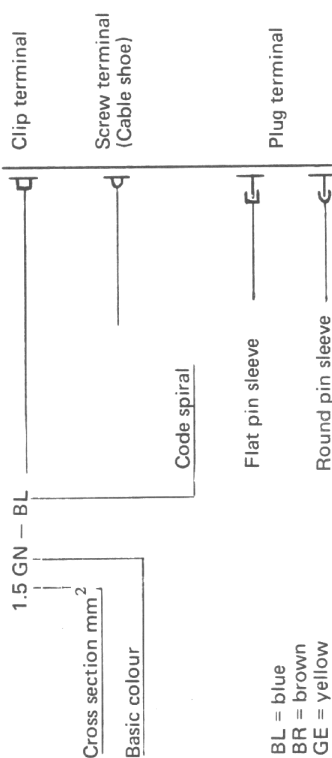
Key to electrical wiring diagram

- 1 Turn indicator, front RH with parking light
 - 2 Headlight, RH
 - 4 Headlight, LH
 - 5 Turn indicator, LH with parking light
 - 6 Alternator
 - 7 Regulator
 - 8 Distributor
 - 9 Starter
 - 10 Battery
 - 11 Stop light switch
 - 12 Ignition coil
 - 13 Oil pressure switch
 - 14 Remote thermometer sensor
 - 15 Fuse box
 - 16 Windshield washer pump
 - 17 Windshield wiper motor
 - 18 Delay relay
 - 19 Heater blower
 - 20 Ignition/starter switch
- Switch positions:
- I Stop
 - II Garage
 - III Drive
 - IV Start

- 21 Light switch
- 22 Cigar lighter
- 23 Windshield wiper switch
- 24 Heater switch
- 25 Turn indicator/windshield washer switch
- 26 Dipswitch with flasher unit
- 27 Horn ring
- 28 Instrument panel
 - a) Instrument lighting
 - b) Charge telltale (red)
 - c) Oil pressure telltale (orange)
 - d) Main beam telltale (blue)
 - e) Turn indicator telltale (green)
 - f) Water temperature gauge
 - g) Fuel gauge
 - h) 12-pole plug
 - k) 3-pole plug for clock
 - l) 3-pole plug for revolution counter
 - m) Speedometer
 - n) Clock
 - p) Brake telltale with test switch
- 29 12-pole round plug for instrument panel (seen from cable side)
- 30 Reversing light switch
- 31 Switch for warning flasher unit
- 32 Warning flasher sensor
- 33 Door switch, RH
- 34 Interior light
- 35 Door switch, LH
- 36 Fuel gauge sensor
- 37 Rear lights, RH
 - A Reversing light
 - B Rear light
 - C Turn indicator
 - D Stop light
- 38 Rear lights, LH
 - A Reversing light
 - B Rear light
 - C Turn indicator
 - D Stop light
- 39 Number plate light
- 40 Horn, RH
- 41 Horn, LH
- 42 Horn relay
- 43 Warning buzzer
- 44 Warning buzzer contact
- X Flat pin connector

Firing order: 1 - 3 - 4 - 2

Cable coding:



BL = blue
 BR = brown
 GE = yellow
 GN = green
 GR = grey
 RT = red
 SW = black
 VI = violet
 WS = white



Electrical wiring diagram

BMW 2002 TI (12 Volt)

Key to Electrical wiring diagram

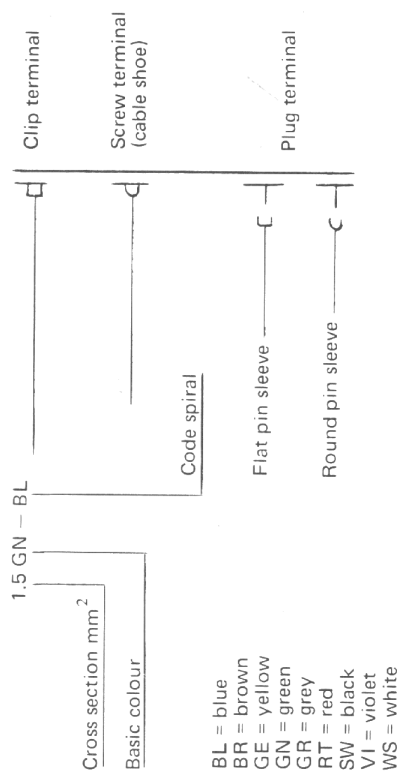
- 1 Turn indicator, front RH
 - 2 Headlight, RH with parking light
 - 3 Horn RH
 - 4 Horn LH
 - 5 Headlight, LH with parking light
 - 6 Turn indicator, front LH
 - 7 Alternator
 - 8 Regulator
 - 9 Horn relay
 - 10 Distributor
 - 11 Starter
 - 12 Battery
 - 13 Stop light switch
 - 14 Ignition coil
 - 15 Oil pressure switch
 - 16 Remote thermometer sensor
 - 17 Fuse box
 - 18 Windshield washer pump
 - 19 Windshield wiper motor
 - 20 Delay relay
 - 21 Heater blower
 - 22 Ignition/starter switch
- Switch positions:
- I Stop
 - II Garage
 - III Drive
 - IV Start
- 23 Light switch
 - 24 Cigar lighter
 - 25 Windshield wiper switch
 - 26 Blower switch
 - 27 Turn indicator/parking light/windshield washer switch
 - 28 Dipswitch with flasher unit
 - 29 Horn ring
 - 30 Instrument panel
- a) Instrument lighting
 - b) Charge telltale (red)
 - c) Oil pressure telltale (orange)
 - d) Main beam telltale (blue)
 - e) Turn indicator telltale (green)
 - f) Water temperature gauge
 - g) Fuel gauge
 - h) 12-pole plug
 - k) 3-pole plug for clock
 - l) 3-pole plug for revolution counter
 - m) Speedometer
 - n) Clock

- p) Revolution counter
- 31 12-pole round plug for instrument panel (seen from cable side)
- 32 Reversing light switch
- 33 Flasher unit
- 34 Cable for heated back light (special equipment)
- 35 Door switch, RH
- 36 Interior light
- 37 Door switch, LH
- 38 Fuel gauge sensor
- 39 Rear lights, RH

- A Reversing light
- B Rear light
- C Turn indicator
- D Stop light
- 40 Rear lights, RH
- A Reversing light
- B Rear light
- C Turn indicator
- D Stop light
- 41 Number plate light
- X Flat pin connector

Firing order: 1 - 3 - 4 - 2

Cable coding:





Plug term

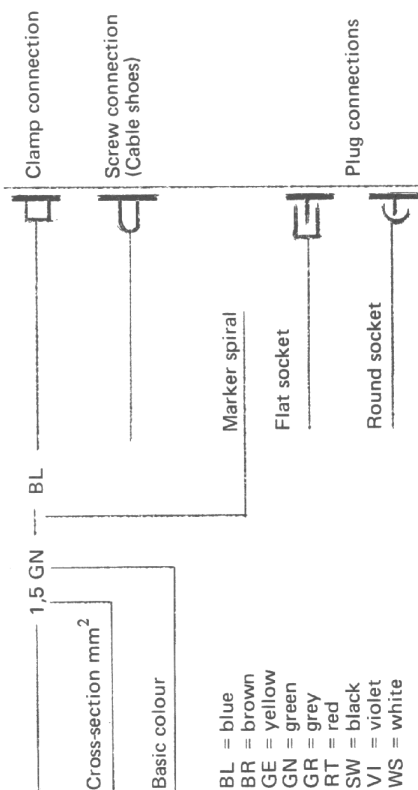
Wiring diagram BMW 1600-2 from chassis No. 2 658 815

- 1 Front right-hand flasher
- 2 R.H. Headlamp with parking light
- 3
- 4 Horn
- 5 Solder point (56a)
- 6 L.H. Headlamp with parking light
- 7 Front left-hand flasher
- 8 Earth (ground)
- 9
- 10 Solder point (56b)
- 11 Test equipment connection
- 12 Regulator
- 13 Battery
- 14
- 15 Generator
- 16 Starter
- 17 Connection for test equipment with lead and pick-up
- 18 Distributor
- 19 Ignition coil
- 20 Windshield washer pump
- 21 Windscreen wiper motor
- 22 Blower motor
- 23 3-pin plug connection to wiper motor
- 24 Retard relay
- 25 Oil pressure switch
- 26 Remote thermometer transmitter
- 27
- 28
- 29 Reversing light switch
- 30
- 31
- 32 Floating fuse
- 33 Fuse box
- 34
- 35 Earth (ground)
- 36 Blower switch
- 37 Cigar lighter
- 38 Wiper switch
- 39
- 40 Brake light switch

- 41 Instrument cluster
 - a = Dial illumination
 - b = Clock
 - c = Speedometer
 - d = Coolant temp. gauge
 - e = Fuel gauge
 - f = Charging lamp (red)
 - g = Oil pressure warning light (orange)
 - h = Headlight beam control (blue)
 - i = Flasher telltale (green)
 - k = 12 pin plug connection
 - m = 3 pin plug connection (clock)
 - n = 3 pin plug connection (rev. counter)
- 42 5 pin plug connection
- 43
- 44 Ignition switch
 - I = off; II = 0; III = on; IV = start
- 45 Light switch
- 46 Hazard flasher switch
- 47 4 pin plug connection
- 48 Traffic indicator switch
- 49
- 50 Horn button
- 51 Dip switch
- 52 Earth (ground)
- 53 Left hand door contact
- 54 Hazard flasher unit
- 55 Interior light
- 56
- 57
- 58 12 pin plug connect. to Instrument cluster
- 59 Rev. counter connection
- 60
- 61 Fuel gauge level transmitter
- 62 Right hand door contact
- 63 Right hand rear light
 - A = Reversing light
 - B = Brake light
 - C = Flasher
 - D = Tail lamp

- 64 Number-plate light
- 65 Earth (ground)
- 66 Left hand rear light
 - A = Reversing light
 - B = Brake light
 - C = Flasher
 - D = Tail lamp

Wiring Identification:

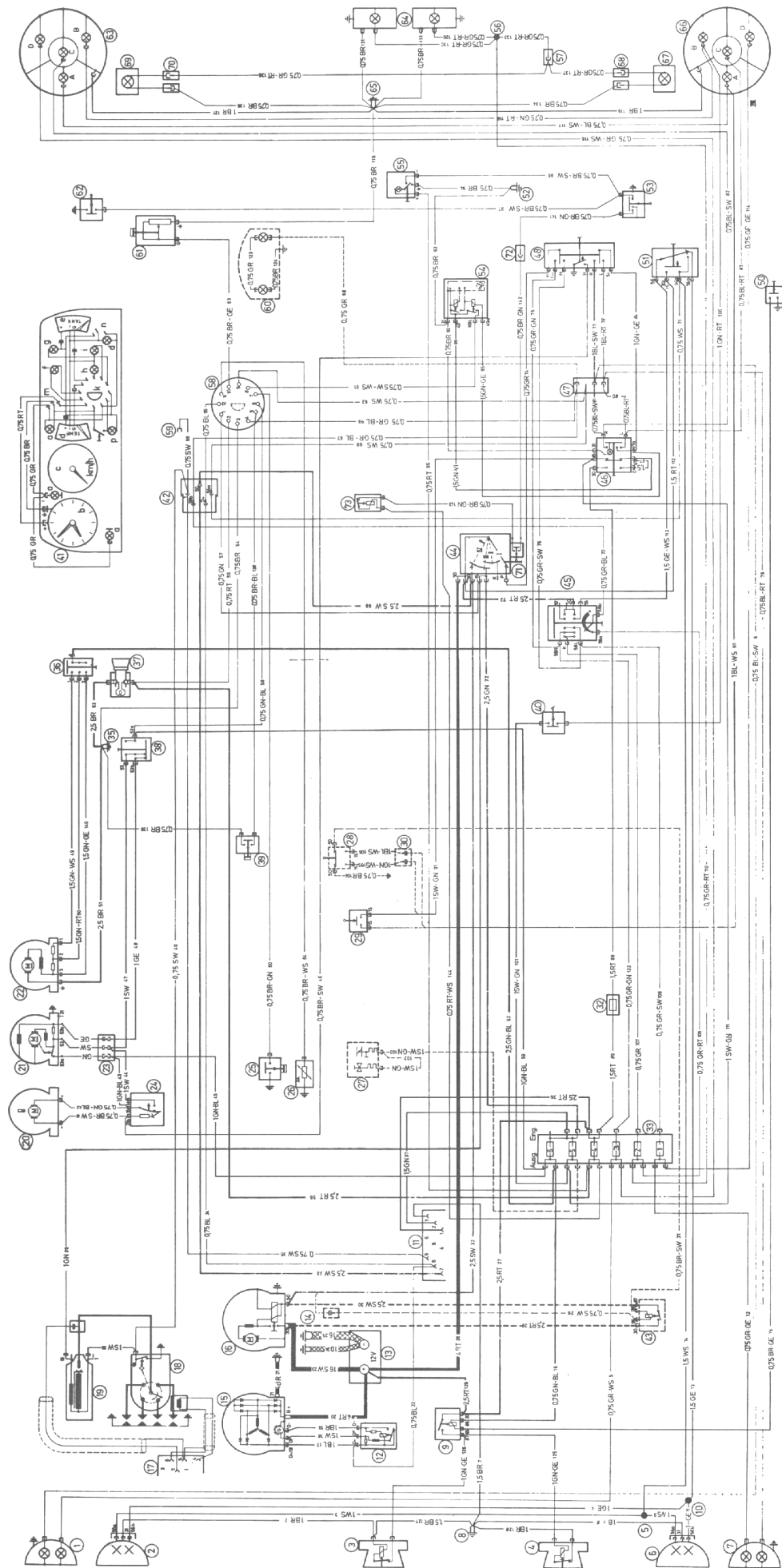


Lead No.	from	Part No.	to	Part No.	Cross-section	Colour	
						Basic	Marker
1	Right hand headlight 31	(2) —	Right hand headlight parking light 31	(2)	0.75	brown	
2	Right hand headlight 31	(2) —	Earth (ground)	(8)	1.0	brown	
3	Right hand headlight 56 a	(2) —	Solder point	(5)	1.0	white	
4	Right hand headlight 56 b	(2) —	Solder point	(10)	1.0	yellow	
5	R.H. headlight parking light 58	(2) —	Fuse box outlet 3	(33)	0.75	grey	white
6	Front right hand flasher	(1) —	4 pin plug connection	(47)	0.75	blue	black
7	Earth (ground)	(8) —	Test equipment connection plug	(11)	1.5	brown	
8	Left hand headlight 31	(6) —	Earth (ground)	(8)	1.0	brown	
9	Left hand headlight 56 a	(6) —	Solder point	(5)	1.0	white	
10	Left hand headlight 31	(6) —	L.H. headlight parking light 31	(6)	0.75	brown	
11	Left hand headlight 56b	(6) —	Solder point	(10)	1.0	yellow	
12	L.H. headlight parking light 58	(6) —	Fuse box outlet 1	(33)	0.75	grey	yellow
13	Solder point	(10) —	Dip switch 56 b	(51)	1.5	yellow	
14	Solder point	(5) —	Dip switch 56 a	(51)	1.5	white	
15	Horn	(4) —	Horn button	(50)	1.0	brown	
16	Horn	(4)	Fuse box outlet 6	(33)	1.0	green	
17	Generator D +	(15) —	Regulator D +	(12)	1.0	blue	
18	Generator DF	(15) —	Regulator DF	(12)	1.0	black	
19	Generator D —	(15) —	Regulator D —	(12)	1.0	brown	
20	Generator B +	(15) —	Battery +	(13)	4.0	red	
21	Generator 31	(15) —	Earth (ground)	(11)	4.0	brown	
22	Regulator D +	(12) —	Test equipment connection	(13)	0.75	blue	
23	Starter 30	(16) —	Battery +		16.0	black	
24	Battery —	(13) —	Earth (ground)		10.0		
25	Battery —	(13) —	Earth (ground)		16.0		
26	Battery +	(13) —	Ignition switch 30	(44)	4.0	red	
27	Battery +	(13) —	Fuse box inlet 4	(33)	2.5	red	
28		() —		()			
29		() —		()			
30		() —		()			
31		() —		()			
32	Starter 50	(16) —	Ignition switch 50	(44)	2.5	black	
33	Test equipment connection plug 7	(11) —	5 pin plug connection 50	(42)	2.5	black	
34	Test equipment connection plug 8	(11) —	5 pin plug connection D +	(42)	0.75	blue	
35	Test equipment connection plug 9	(11) —	5 pin plug connection 1	(42)	0.75	black	
36	Test equipment connection plug 1	(11) —	Fuse box inlet 4	(33)	2.5	red	
37	Test equipment connection plug 2	(11) —	Fuse box inlet 5	(33)	1.5	green	
38	Ignition coil 1	(19) —	Distributor 1	(18)	1.0	black	
39	Ignition coil 15	(19) —	Ignition switch 15	(44)	1.0	green	
40	Distributor	(18) —	5 pin plug connection 1	(42)	0.75	black	
41	Windshield washer pump	(20) —	Retard relay 31 b	(24)	0.75	brown	black

Wire No.	from	Part No.	to	Part No.	Cross-section	Basic	Colour	Marker
42	Windshield washer pump +	(20) —	Retard relay 15	(24)	0.75	green	green	blue
43	3 pin plug connection	(23) —	Retard relay 15	(24)	1.0	green	green	blue
44	3 pin plug connection	(23) —	Retard relay M	(24)	1.0	black	black	blue
45	3 pin plug connection	(23) —	Fuse box outlet 6	(33)	1.0	green	green	black
46	Supply relay 31 b	(24) —	Turn indicator switch H	(48)	0.75	brown	brown	
47	3 pin plug connection	(23) —	Wiper switch 53	(38)	1.0	black	black	
48	3 pin plug connection	(23) —	Wiper switch 53 b	(38)	1.0	yellow	yellow	
49	Blower motor 1	(22) —	Blower switch 1	(36)	1.0	green	green	white
50	Blower motor 2	(22) —	Blower switch 2	(36)	1.0	green	green	red
51	Blower motor earth	(22) —	Earth (ground)	(35)	2.5	brown	brown	
52	Blower switch +	(36) —	Fuse box outlet 6	(33)	1.0	green	green	blue
53	Cigar lighter	(37) —	Earth (ground)	(35)	2.5	brown	brown	
54	12 pin plug connect. to instrument 3	(58) —	Earth (ground)	(35)	0.75	red	red	
55	12 pin plug connect. to instrument 2	(58) —	Cigar lighter	(37)	0.75	red	red	
56	Fuse box outlet 4	(33) —	Cigar lighter	(37)	2.5	red	red	
57	12 pin plug connect. to instrument 1	(58) —	Ignition switch 15	(44)	0.75	green	green	
58	12 pin plug connect. to instrument 6	(58) —	Wiper switch 53 e	(38)	0.75	green	green	blue
59	Fuse box outlet 6	(33) —	Wiper switch 53 e	(38)	1.0	green	green	blue
60	12 pin plug connect. to instrument 7	(33) —	Oil pressure switch	(25)	0.75	brown	brown	green
61	12 pin plug connect. to instrument 8	(58) —	Hazard flasher KBL	(54)	0.75	black	black	white
62	12 pin plug connect. to instrument 9	(58) —	Plug connection	(47)	0.75	white	white	
63	12 pin plug connect. to instrument 10	(58) —	Fuel gauge level transmitter G	(61)	0.75	brown	brown	yellow
64	12 pin plug connect. to instrument 11	(58) —	Remote thermometer transmitter	(26)	0.75	brown	brown	white
65	12 pin plug connect. to instrument 12	(58) —	5 pin plug connection D +	(42)	0.75	blue	blue	
66	Revolution counter connection	(59) —	5 pin plug connection 1	(42)	0.75	black	black	
67	4 pin plug connection	(47) —	5 pin plug connection 58 b	(42)	0.75	grey	grey	blue
68	Ignition switch 50	(44) —	5 pin plug connection 50	(42)	2.5	black	black	
69	4 pin plug connection	(47) —	5 pin plug connection 56 a	(42)	0.75	white	white	
70	Light switch 58 b	(45) —	5 pin plug connection 58 b	(42)	0.75	grey	grey	blue
71	Dip switch	(51) —	5 pin plug connection 56 a	(42)	0.75	white	white	
72	Fuse box inlet 5	(33) —	Ignition switch	(44)	2.5	green	green	

Wire No.	from	Part No.	to	Part No.	Cross-section	Colour	
						Basic	Marker
73	Light switch 30	(45) —	Ignition switch 30	(44)	2.5	red	
74	Ignition switch P	(44) —	Turn indicator switch P	(48)	0.75	grey	green
75	Light switch 58 R	(45) —	Turn indicator switch PR	(48)	0.75	grey	black
76	Light switch 58 L	(45) —	Turn indicator switch PL	(48)	0.75	grey	black
77	4 pin plug connection	(47) —	Turn indicator switch R	(48)	1.0	blue	black
78	4 pin plug connection	(47) —	Turn indicator switch L	(48)	1.0	blue	red
79	4 pin plug connection	(47) —	Front L.H. flasher	(7)	0.75	blue	red
80	4 pin plug connection	(47) —	Hazard flasher switch L	(46)	0.75	blue	red
81	4 pin plug connection	(47) —	Hazard flasher switch R	(46)	0.75	blue	red
82	R.H. rear flasher	(63) —	Hazard flasher switch R	(46)	0.75	blue	black
83	L.H. rear flasher	(66) —	Hazard flasher switch L	(46)	0.75	blue	black
84	Turn indicator switch 54	(48) —	Hazard flasher switch 49 a	(46)	1.0	green	red
85	Hazard flasher unit 49 a	(54) —	Hazard flasher switch 49 a	(46)	1.5	green	yellow
86	Hazard flasher unit 49	(54) —	Hazard flasher switch 49	(46)	1.5	green	yellow
87	Hazard flasher switch 0	(46) —	Hazard flasher switch 49	(46)	1.5	green	violet
88	Floating fuse	(32) —	Hazard flasher switch 30	(46)	1.5	red	violet
89	Floating fuse	(32) —	Fuse box inlet 4	(33)	1.5	red	
90	Reversing light switch 15	(29) —	L.H. reversing light	(66)	1.0	blue	white
91	Reversing light switch 15	(29) —	Hazard flasher switch 15	(46)	1.0	black	green
92	Hazard flasher 31	(54) —	Hazard flasher switch 31	(46)	0.75	brown	
93	Hazard flasher 31	(54) —	Earth (ground)	(52)	0.75	brown	
94	Inside light	(55) —	Earth (ground)	(52)	0.75	brown	
95	Inside light +	(55) —	Fusebox outlet 4	(33)	0.75	red	
96	Inside light —	(55) —	L. H. door contact	(53)	0.75	brown	black
97	Right hand door contact	(62) —	L. H. door contact	(53)	0.75	brown	black
98		() —		()			
99	4 pin plug connection	(47) —	12 pin plug conn. to instrument 4	(58)	0.75	grey	blue
100	L.H. brake light	(66) —	Brake light switch	(40)	1.0	green	red
101	Fuse box outlet 5	() —	Brake light switch	(40)	1.0	black	green
102		() —		()			
103		() —		()			
104		() —		()			
105		() —		()			
106		() —		()			
107	Fuse box inlet 2	(33) —	Light switch K	(45)	0.75	grey	black
108	Fuse box inlet 1	(33) —	Light switch 58 L	(45)	0.75	grey	red
109	Fuse box outlet 2	(33) —	Light switch 58 a	(45)	0.75	grey	red
110	Fuse box outlet 2	(33) —	L.H. number plate light	(64)	0.75	grey	red
111	Fuse box outlet 5	(33) —	Hazard flasher switch	(46)	1.0	black	green
112	Ignition switch 30	(44) —	Dip switch	(51)	1.5	red	

Wire No.	from	Part No.	to	Part No.	Cross-section	Basic	Colour	Marker
113	Light switch 56	(45)	—	—	1.5	yellow	white	
114	Fuse box outlet 1	(33)	—	—	0.75	grey	yellow	
115	Fuel gauge level transmitter	(61)	—	—	0.75	brown		
116	Fuse box outlet 3	(33)	—	—	0.75	grey	white	
117	L.H. reversing light	(66)	—	—	0.75	blue	white	
118	I H brake light	(66)	—	—	0.75	green	red	



The diagram shows a cable with the following features:

- 1.5 GN - BL**: Cable identification label.
- Cross-section mm²**: Label for the cross-section measurement.
- Basic colour**: Label for the basic color of the cable.
- Marker spiral**: A spiral marker on the cable.
- Flat socket**: A flat socket on the cable.
- Round socket**: A round socket on the cable.

Wire No	from	Part No.	to	Part. No.	Cross-section	Basic	Colour	Marker
1	Right-hand headlight 31	() —	Right-hand fanfare	()	1.0	brown		
2	Right-hand headlight 56 a	(2) —	Solder point	(3)	1.0	white		
3	Right-hand headlight 56 b	(2) —	Solder point	(5)	1.0	yellow		
4	Front right-hand flasher/parking light	(2) —	Fuse box outlet 3	(10)	1.0	grey		white
5	Front right-hand flasher	(1) —	4 pin plug terminal	(33)	0.75	blue		black
6	Front right-hand flasher	(1) —	Test equipment connection 3	(47)	0.75	brown		
7	Earth (ground)	(8) —	Earth (ground)	(11)	1.5	brown		
8	Left-hand headlight 31	(6) —	Solder point	(8)	1.0	brown		
9	Left-hand headlight 56 a	(6) —	Solder point	(5)	1.0	white		
10		() —		()				
11	Left-hand headlight 56 b	(6) —	Solder point	(10)	1.0	yellow		
12	Front L.H. flasher/parking light	(7) —	Fuse box outlet 1	(33)	0.75	grey		yellow
13	Solder point	(10) —	Dip switch 56 b	(51)	1.5	yellow		
14	Solder point	(5) —	Dip switch 56 a	(51)	1.5	white		
15	Fanfare relay 85	(9) —	Horn button	(50)	0.75	brown		yellow
16	Fanfare relay 86	(9) —	Fuse box outlet 6	(33)	0.75	green		blue
17	Generator D +	(15) —	Regulator D +	(12)	1.0	blue		
18	Generator DF	(15) —	Regulator DF	(12)	1.0	black		
19	Generator D —	(15) —	Regulator D —	(12)	1.0	brown		
20	Generator B +	(15) —	Battery +	(13)	4.0	red		
21	Generator 31	(15) —	Earth (ground)		4.0	brown		
22	Regulator D +	(12) —	Test equipment connection	(11)	0.75	blue		
23	Starter 30	(16) —	Battery +	(13)	16.0	black		
24	Battery —	(13) —	Earth (ground)		10.0			
25	Battery —	(13) —	Earth (ground)		16.0			
26	Battery +	(13) —	Ignition switch 30		4.0	red		
27	Fanfare relay 30	(9) —	Fuse box inlet 4	(44)	2.5	red		
28 ¹⁾	Starter 30	(16) —	Starter relay 30	(33)	2.5	red		
29 ¹⁾	Plug connection for starter relay	(14) —	Starter relay 86	(43)	2.5	red		
30 ¹⁾	Starter 50	(16) —	Starter relay 87	(43)	0.75	black		
31 ¹⁾	Reversing light switch 50	(28) —	Starter relay 85	(43)	2.5	black		black
32	Starter 50	(16) —	Ignition switch 50	(44)	0.75	brown		
33	Test equipment connection 7	(11) —	5 pin plug terminal 50	(42)	2.5	black		
34	Test equipment connection 8	(11) —	5 pin plug terminal D +	(42)	0.75	blue		black
35	Test equipment connection 9	(11) —	5 pin plug terminal 1	(42)	0.75	black		
36	Test equipment connection 1	(11) —	Fuse box inlet 4	(33)	2.5	red		
37	Test equipment connection 2	(11) —	Fuse box inlet 5	(33)	1.5	green		
38	Ignition coil	(19) —	Distributor 1	(18)	1.0	black		
39	Ignition coil	(19) —	Ignition switch	(44)	1.0	green		
40	Distributor	(18) —	5 pin plug terminal 1	(42)	0.75	black		

¹⁾ Only with Automatic transmission

Wire No.	from	Part No.	to	Part No.	Cross-section	Colour		Marker
						Basic		
41	Windshield washer pump	(20) —	Retard relay 31 b	(24)	0.75	brown		black
42	Windshield washer pump +	(20) —	Retard relay 15	(24)	0.75	green		blue
43	3 pin plug terminal	(23) —	Retard relay 15	(24)	1.0	green		blue
44	3 pin plug terminal	(23) —	Retard relay M	(24)	1.0	black		
45	3 pin plug terminal	(23) —	Fuse box outlet 6	(33)	1.0	green		blue
46	Retard relay 31 b	(24) —	Turn indicator switch H	(48)	0.75	brown		black
47	3 pin plug terminal	(23) —	Wiper switch	(38)	1.0	black		
48	3 pin plug terminal	(23) —	Wiper switch	(38)	1.0	yellow		
49	Blower motor 1	(22) —	Blower switch 1	(36)	1.5	green		white
50	Blower motor 2	(22) —	Blower switch 2	(36)	1.5	green		red
51	Blower motor earth (ground)	(22) —	Earth (ground)	(35)	2.5	brown		
52	Blower switch +	(36) —	Fuse box outlet 6	(33)	2.5	green		blue
53	Cigar lighter	(37) —	Earth (ground)	(35)	2.5	brown		
54	12 pin plug connection to instrument pole 3	(58) —	Earth (ground)	(35)	0.75	brown		
55	12 pin plug connection to instrument pole 2	(58) —	Cigar lighter	(37)	0.75	red		
56	Fuse box outlet 4	(33) —	Cigar lighter	(37)	2.5	red		
57	12 pin plug connection to instrument pole 1	(58)	Ignition switch 15	(44)	0.75	green		
58	12 pin plug connection to instrument pole 6	(58) —	Wiper switch 53 e	(38)	0.75	green		blue
59	Fusebox outlet 6	(33) —	Wiper switch 53 e	(38)	1.0	green		blue
60	12 pin plug connection to instrument pole 7	(58) —	Oil pressure switch	(25)	0.75	brown		green
61	12 pin plug connection to instrument pole 8	(58) —	Hazard flasher KBL	(54)	0.75	black		white
62	12 pin plug connection to instrument pole 9	(58) —	Plug connection	(47)	0.75	white		
63	12 pin plug connection to instrument pole 10	(58) —	Fuel gauge level transmitter G	(61)	0.75	brown		yellow
64	12 pin plug connection to instrument pole 11	(58) —	Remote thermometer transmitter	(26)	0.75	brown		white
65	12 pin plug connection to instrument pole 12	(58) —	5 pin plug terminal D +	(42)	0.75	blue		
66	Revolution counter connection	(59) —	5 pin plug terminal 1	(42)	0.75	black		
67	4 pin plug terminal	(47) —	5 pin plug terminal 58 b	(42)	0.75	grey		blue
68	Ignition switch	(44) —	5 pin plug terminal 50	(42)	2.5	black		
69	4 pin plug terminal	(47) —	5 pin plug terminal 56 a	(42)	0.75	white		
70	Lightswitch 58 b	(45) —	5 pin plug terminal 58 b	(42)	0.75	grey		blue
71	Dip switch 56 a	(51) —	5 pin plug terminal 56 a	(42)	0.75	white		

Wire No.	from	Part No.	to	Part No.	Cross-section	Basic	Colour	Marker
72	Fuse box inlet 5	(33) —	Ignition switch 15	(44)	2.5	green		
73	Light switch 30	(45) —	Ignition switch 30	(44)	2.5	red		
74	Ignition switch P	(44) —	Turn indicator switch P	(48)	0.75	grey		green
75	Light switch 58 R	(45) —	Turn indicator switch PR	(48)	0.75	grey		black
76	Light switch 58 L	(45) —	Turn indicator switch PL	(48)	0.75	grey		black
77	4 pin plug terminal	(47) —	Turn indicator switch R	(48)	1.0	blue		black
78	4 pin plug terminal	(47) —	Turn indicator switch L	(48)	1.0	blue		red
79	4 pin plug terminal	(47) —	Front left-hand flasher	(7)	0.75	blue		red
80	4 pin plug terminal	(47) —	Hazard flasher switch L	(46)	0.75	blue		red
81	4 pin plug terminal	(47) —	Hazard flasher switch R	(46)	0.75	blue		black
82	Rear R.H. flasher	(63) —	Hazard flasher switch R	(46)	0.75	blue		black
83	Rear L.H. flasher	(66) —	Hazard flasher switch L	(46)	0.75	blue		red
84	Turn indicator switch 54	(48) —	Hazard flasher switch 49 a	(46)	1.0	green		yellow
85	Hazard flasher 49 a	(54) —	Hazard flasher switch 49 a	(46)	1.5	green		yellow
86	Hazard flasher 49	(54) —	Hazard flasher switch 49	(46)	1.5	green		violet
87	Hazard flasher switch 0	(46) —	Hazard flasher switch 49	(46)	1.5	green		violet
88	Floating fuse	(32) —	Hazard flasher switch 30	(46)	1.5	red		
89	Floating fuse	(32) —	Fuse box inlet 4	(33)	1.5	red		
90	Reversing light switch 15	(29) —	Left-hand reversing light	(66)	1.0	blue		white
91	Reversing light switch 15	(29) —	Hazard flasher switch 15	(46)	1.0	black		green
92	Hazard flasher 31	(54) —	Hazard flasher switch 31	(46)	0.75	brown		
93	Hazard flasher 31	(54) —	Earth (ground)	(52)	0.75	brown		
94	Interior light	(55) —	Earth (ground)	(52)	0.75	brown		
95	Interior light +	(55) —	Fuse box outlet 4	(33)	0.75	red		
96	Interior light —	(55) —	Door double contact	(53)	0.75	brown		black
97	Right-hand door contact	(62) —	Door double contact	(53)	0.75	brown		black
98 ¹⁾	4 pin plug terminal	(47) —	Selector gate light	(60)	0.75	grey		
99	4 pin plug terminal	(47) —	12 pin plug connection to instrument pole 4	(58)	0.75	grey		blue
100	Left hand brake light	(66) —	Brake light switch	(40)	1.0	green		red
101	Fuse box outlet 5	(33) —	Brake light switch	(40)	1.0	black		green
102 ¹⁾	Automatic choke carburettor	(27) —	Automatic choke	(27)	1.0	black		green
103 ¹⁾	Automatic choke carburettor	(27) —	Fuse box outlet 5	(33)	1.0	black		green
104 ¹⁾	Reversing light switch 50	(28) —	Earth (ground)	(30)	0.75	brown		
105 ¹⁾	Reversing light switch 15	(28) —	2 pin plug terminal	(30)	1.0	green		white
106 ¹⁾	Reversing light switch 15	(28) —	2 pin plug terminal	(30)	1.0	blue		white
107	Fuse box inlet 2	(33) —	Light switch K	(45)	0.75	grey		
108	Fuse box inlet 1	(33) —	Light switch 58 L	(45)	0.75	grey		black
109	Fuse box outlet 2	(33) —	Light switch 58 a	(45)	0.75	grey		red
110	Fuse box outlet 2	(33) —	Solder point	(56)	0.75	grey		red
111	Fuse box outlet 5	(33) —	Hazard flasher 15	(46)	1.0	black		green

¹⁾ Only with Automatic Transmission

Wire No.	from	Part No.	to	Part No.	Cross-section	Basic	Colour	Marker
112	Ignition switch 30	(44) —	Dip switch 30/15	(51)	1.5	red		
113	Light switch 56	(45) —	Dip switch 56	(51)	1.5	yellow		white
114	Fuse box outlet 1	(33) —	Left-hand tail lamp	(66)	0.75	grey		yellow
115	Fuel tank level transmitter	(61) —	Earth (ground)	(65)	0.75	brown		
116	Fuse box outlet 3	(33) —	Right-hand tail lamp	(63)	0.75	grey		white
117	Left-hand reversing light	(66) —	R.H. reversing light	(63)	0.75	blue		white
118	Left-hand brake light	(66) —	Right-hand brake light	(63)	0.75	green		red
119	Left-hand rear light earth (ground)	(66) —	Earth (ground)	(65)	1.0	brown		
120	Left-hand number plate light	(64) —	Solder point	(56)	0.75	grey		red
121	Right-hand rear light earth (ground)	(63) —	Earth (ground)	(65)	1.0	brown		
122	Fuse box inlet 3	(33) —	Light switch 58 R	(45)	0.75	grey		green
123 ¹⁾	Selector gate lamp 1	(60) —	Selector gate lamp 2	(60)	0.75	grey		
124 ¹⁾	Selector gate lamp 2	(60) —	Earth (ground)	(60)	0.75	brown		
125	Left-hand fanfare	(4) —	Fanfare relay 87	(9)	1.0	green		yellow
126	Right-hand fanfare	(3) —	Fanfare relay 87	(9)	1.0	green		yellow
127	Right-hand fanfare	(3) —	Earth (ground)	(8)	1.5	brown		
128	Left-hand fanfare	(4) —	Earth (ground)		1.0	brown		
129	Fanfare relay 30	(9) —	Battery +	(13)	2.5	red		
130	Right-hand number plate light	(64) —	Solder point	(56)	0.75	grey		red
131	Right-hand number plate light	(64) —	Earth (ground)	(65)	brown			
132	Left-hand number plate light	(64) —	Earth (ground)	(65)	brown			
133	Solder point	(56) —	Plug connection for side marker light	(57)	0.75	grey		red
134	L.H. side marker light	(68) —	Earth (ground)	(65)	0.75	brown		
135	R.H. side marker light	(70) —	Earth (ground)	(65)	0.75	brown		
136	R.H. side marker light	(70) —	Plug connection for side marker light	(57)	0.75	grey		red
137	L.H. side marker light	(68) —	Plug connection for side marker light	(57)	0.75	grey		red
138	Brake fluid level telltale switch	(39) —	12 pin plug connector to instrument pole 5	(58)	0.75	brown		blue
139	Brake fluid level switch	(39) —	Earth (ground)	(35)	0.75	brown		
140	Blower motor 3	(22) —	Blower switch 3	(36)	1.5	green		yellow
141	Door double contact	(53) —	Connection for warning buzzer contact	(72)	0.75	brown		green
142	Warning buzzer contact	(71) —	Warning buzzer	(73)	0.75	brown		green
143	Warning buzzer contact	(71) —	Warning buzzer	(73)	0.75	brown		green
144	Fuse box outlet 4	(33) —	Warning buzzer	(73)	0.75	red		white

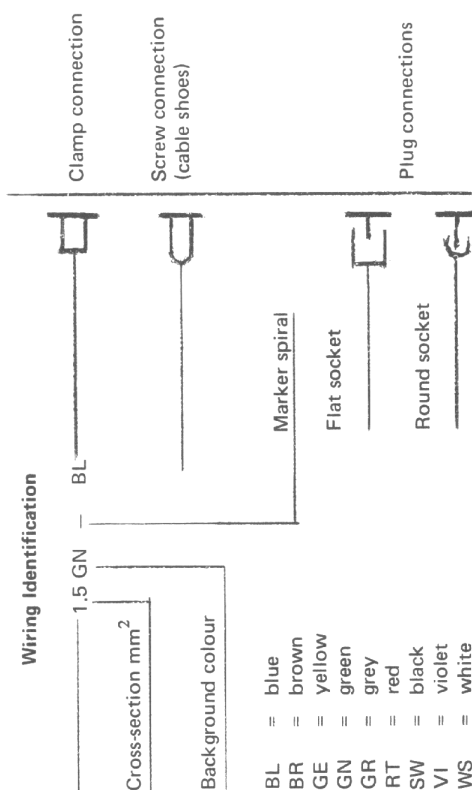
¹⁾ Only with Automatic transmission

Wiring diagram BMW 2002 from chassis No. 2 616 110, 2002 Automatic from chassis No. 2 504 463

- 1 Front right-hand flasher
- 2 R.H. headlight with parking light
- 3 Right-hand fanfare
- 4 Left-hand fanfare
- 5 Solder point (56 a)
- 6 L.H. headlight with parking light
- 7 Front left-hand flasher
- 8 Earth (ground)
- 9 Fanfare relay
- 10 Solder point (56 b)
- 11 Test equipment connection
- 12 Regulator
- 13 Battery
- 14 Starter relay plug connection
- 15 Generator
- 16 Starter
- 17 Connection for test equipment with lead and pick-up
- 18 Distributor
- 19 Ignition coil
- 20 Windshield washer pump
- 21 Windshield wiper motor
- 22 Blower motor
- 23 3 pin plug connection to wiper motor
- 24 Retard relay
- 25 Oil pressure switch
- 26 Remote thermometer transmitter
- 27 Auto. choke carb. (only with auto. transmission)
- 28 Reversing light switch with starter lock
- 29 Reversing light switch
- 30 2 pin plug connection (only with auto. transmission)
- 31 Floating fuse
- 32 Fuse box
- 33 Fuse box
- 34 Earth (ground)
- 35 Cigar lighter
- 36 Wiper switch

- 39 Brake light switch
- 40 Instrument cluster
- 41 a = Dial illumination
- 42 b = Clock
- 43 c = Speedometer
- 44 d = Coolant temperature gauge
- 45 e = Fuel gauge
- 46 f = Charging lamp (red)
- 47 g = Oil pressure (orange)
- 48 h = Headlight high beam telltale (blue)
- 49 i = Flasher telltale (green)
- 50 k = 12 pin plug connection
- 51 m = 3 pin plug connection (clock)
- 52 n = 3 pin plug connection (rev. counter)
- 53 5 pin plug connection
- 54 Starter relay (only with automatic transmission)
- 55 Ignition switch
- 56 I = Stop; II = 0; III = Drive; IV = Start
- 57 Light switch
- 58 Hazard flasher switch
- 59 4 pin plug connection
- 60 Turn indicator switch
- 61 Horn button
- 62 Dip switch
- 63 Earth (ground)
- 64 Left-hand door contact
- 65 Hazard flasher
- 66 Interior light
- 67 12 pin plug connection to instrument cluster
- 68 Rev. counter connection
- 69 Selector gate light (only with automatic transmission)
- 70 Fuel gauge level transmitter
- 71 Right hand door contact

- 63 Right-hand rear light
- 64 A = Reversing light
- 65 B = Brake light
- 66 C = Flasher
- 67 D = Tail light
- 68 Licence plate lights
- 69 Earth (ground)
- 70 Left-hand rear light
- 71 A = Reversing light
- 72 B = Brake light
- 73 C = Flasher
- 74 D = Tail light



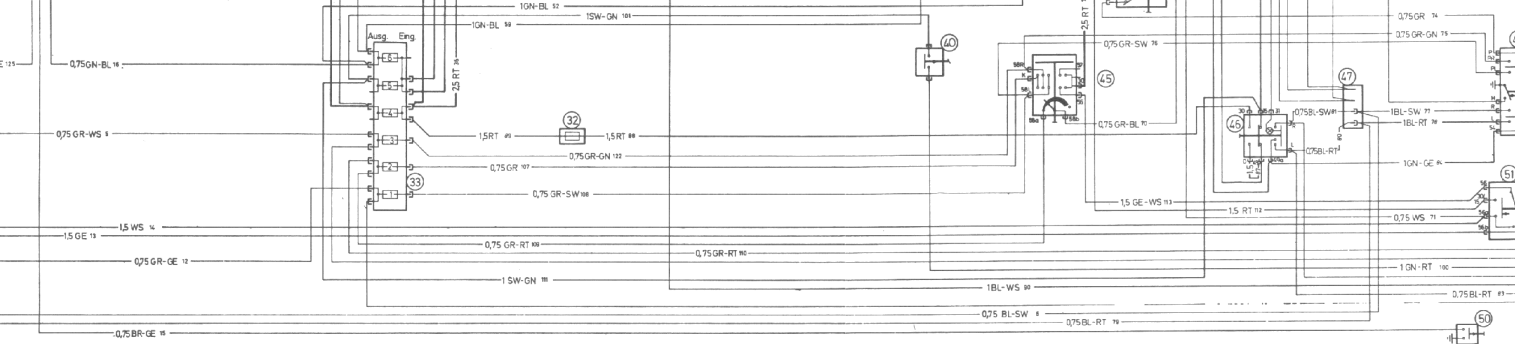
Wire No.	from	Part No.	to	Part No.	Cross-section	Colour	
						Basic	Marker
1	Right-hand headlight 31	(2) —	R.H. headlight parking light 31	(2)	0.75	brown	
2	Right hand headlight 31	(2) —	Right-hand fanfare	(3)	1.0	brown	
3	Right-hand headlight 56 a	(2) —	Solder point	(5)	1.0	white	
4	Right-hand headlight 56 b	(2) —	Solder point	(10)	1.0	yellow	
5	R.H. headlight parking light 58	(2) —	Fuse box outlet 3	(33)	0.75	grey	white
6	Front right hand flasher	(1) —	4 pin plug connection	(47)	0.75	blue	black
7	Earth (ground)	(8) —	Test equipment connection 3	(11)	1.5	brown	
8	Left hand headlight 31	(6) —	Earth (ground)	(8)	1.0	brown	
9	Left hand headlight 56 a	(6) —	Solder position	(5)	1.0	white	
10	Left hand headlight 31	(6) —	Left hand parking light	(6)	0.75	brown	
11	Left hand headlight 56 b	(6) —	Solder position	(10)	1.0	yellow	
12	L.H. headlight parking light 58	(6) —	Fuse box outlet 1	(33)	0.75	grey	yellow
13	Solder position	(10) —	Dip switch 56 b	(51)	1.5	yellow	
14	Solder position	(5) —	Dip switch 56 a	(51)	1.5	white	
15	Fanfare relay 85	(9) —	Horn button	(50)	0.75	brown	
16	Fanfare relay 86	(9) —	Fuse box outlet 6	(33)	0.75	green	yellow
17	Generator D +	(15) —	Regulator D +	(12)	1.0	blue	blue
18	Generator DF	(15) —	Regulator DF	(12)	1.0	black	
19	Generator D —	(15) —	Regulator D —	(12)	1.0	brown	
20	Generator B +	(15) —	Battery +	(13)	4.0	red	
21	Generator 31	(15) —	Earth (ground)		4.0	brown	
22	Regulator D +	(12) —	Test equipment connection	(11)	0.75	blue	
23	Starter 30	(16) —	Battery +	(13)	16.0	black	
24	Batterie —	(13) —	Earth (ground)		10.0		
25	Battery —	(13) —	Earth (ground)		16.0		
26	Battery +	(9) —	Ignition switch 30	(44)	4.0	red	
27	Fanfare relay 30	(9) —	Fuse box inlet 4	(33)	2.5	red	
28 ¹⁾	Starter 30	(16) —	Starter relay 30	(43)	2.5	red	
29 ¹⁾	Plug connection for starter relay	(14) —	Starter relay 86	(43)	0.75	black	
30 ¹⁾	Starter 50	(16) —	Starter relay 87	(43)	2.5	black	
31 ¹⁾	Reversing light switch 50	(28) —	Starter relay 85	(43)	0.75	brown	black
32	Starter 50	(16) —	Ignition switch 50	(44)	2.5	black	
33	Test equipment connection 7	(11) —	5 pin plug terminal 50	(42)	2.5	black	
34	Test equipment connection 8	(11) —	5 pin plug terminal D +	(42)	0.75	blue	
35	Test equipment connection 9	(11) —	5 pin plug terminal 1	(42)	0.75	black	
36	Test equipment connection 1	(11) —	Fuse box inlet 4	(33)	2.5	red	
37	Test equipment connection 2	(11) —	Fuse box inlet 5	(33)	1.5	green	
38	Ignition coil 1	(19) —	Distributor 1	(18)	1.0	black	
39	Ignition coil 15	(19) —	Ignition switch 15	(44)	1.0	green	
40	Distributor	(18) —	5 pin plug terminal 1	(42)	0.75	black	
41	Windshield washer pump	(20) —	Retard relay 31 b	(24)	0.75	brown	black

¹⁾ Only with Automatic Transmission

Wire No.	from	Part No.	to	Part No.	Cross-section	Basic	Colour	Marker
42	Windshield washer pump +	(20) —	Retard relay 15	(24)	0.75	green	green	blue
43	3 pin plug	(23) —	Retard relay 15	(24)	1.0	green	green	blue
44	3 pin plug	(23) —	Retard relay M	(24)	1.0	black	black	blue
45	3 pin plug	(23) —	Fuse box outlet 6	(33)	1.0	green	green	black
46	Retard relay 31 b	(24) —	Turn indicator switch H	(48)	0.75	brown	brown	
47	3 pin plug	(23) —	Wiper switch 53	(38)	1.0	black	black	
48	3 pin plug	(23) —	Wiper switch 53 b	(38)	1.0	yellow	yellow	white
49	Blower motor 1	(22) —	Blower switch 1	(36)	1.0	green	green	red
50	Blower motor 2	(22) —	Blower switch 2	(36)	1.0	green	green	
51	Blower motor earth (ground)	(22) —	Earth (ground)	(35)	2.5	brown	brown	blue
52	Blower switch +	(36) —	Fuse box outlet 6	(33)	1.0	green	green	
53	Cigar lighter	(37) —	Earth (ground)	(35)	2.5	brown	brown	
54	12 pin plug terminal to instrument 3	(58) —	Earth (ground)	(35)	0.75	brown	brown	
55	12 pin plug terminal to instrument 2	(58) —	Cigar lighter	(37)	0.75	red	red	
56	Fusebox outlet 4	(33) —	Cigar lighter	(37)	2.5	red	red	
57	12 pin plug terminal to instrument 1	(58) —	Ignition switch 15	(44)	0.75	green	green	
58	12 pin plug terminal to instrument 6	(58) —	Wiper switch	(38) —	0.75	green	green	blue
59	Fuse box outlet 6	(33) —	Wiper switch 53 e	(38)	1.0	green	green	blue
60	12 pin plug terminal to instrument 7	(58) —	Oil pressure switch	(25)	0.75	brown	brown	green
61	12 pin plug terminal to instrument 8	(58) —	Hazard flasher KBL	(54)	0.75	black	black	white
62	12 pin plug terminal to instrument 9	(58) —	Plug connection	(47)	0.75	white	white	
63	12 pin plug terminal to instrument 10	(58)	Fuel gauge transmitter	(61)	0.75	brown	brown	yellow
64	12 pin plug terminal to instrument 11	(58) —	Remote reading thermometer transmitter	(26)	0.75	brown	brown	white
65	12 pin plug terminal to instrument 12	(58) —	5 pin plug terminal D +	(42)	0.75	blue	blue	
66	Revolution counter connection	(59) —	5 pin plug terminal 1	(42)	0.75	black	black	
67	4 pin plug	(47) —	5 pin plug terminal 58 b	(42)	0.75	grey	grey	blue
68	Ignition switch 50	(44) —	5 pin plug terminal 50	(42)	2.5	black	black	
69	4 pin plug	(47) —	5 pin plug terminal 56 a	(42)	0.75	white	white	
70	Light switch 58 b	(45) —	5 pin plug terminal 58 b	(42)	0.75	grey	grey	blue
71	Dip switch 56 a	(51) —	5 pin plug terminal 56 a	(42)	0.75	white	white	
72	Fuse box inlet 5	(33) —	Ignition switch	(44)	2.5	green	green	
73	Light switch 30	(45) —	Ignition switch	(44)	2.5	red	red	

Wire No.	from	Part No.	to	Part No.	Cross-section	Basic	Colour	Marker
74	Ignition switch P	(44) —	Turn indicator switch P	(48)	0.75	grey		
75	Light switch 58 R	(45) —	Turn indicator switch PR	(48)	0.75	grey		green
76	Light switch 58 L	(45) —	Turn indicator switch PL	(48)	0.75	grey		black
77	4 pin plug	(47) —	Turn indicator switch R	(48)	1.0	blue		black
78	4 pin plug	(47) —	Turn indicator switch L	(48)	1.0	blue		red
79	4 pin plug	(47) —	Front left-hand flasher	(7)	0.75	blue		red
80	4 pin plug	(47) —	Hazard flasher switch L	(46)	0.75	blue		red
81	4 pin plug	(47) —	Hazard flasher switch R	(46)	0.75	blue		black
82	Rear right-hand flasher	(63)	Hazard flasher switch R	(46)	0.75	blue		black
83	Rear left-hand flasher	(66) —	Hazard flasher switch L	(46)	0.75	blue		red
84	Turn indicator switch 54	(48) —	Hazard flasher switch 49 a	(46)	1.0	green		yellow
85	Hazard flasher 49 a	(54) —	Hazard flasher switch 49 a	(46)	1.5	green		yellow
86	Hazard flasher 49	(54) —	Hazard flasher switch 49	(46)	1.5	green		violet
87	Hazard flasher switch / 0	(46) —	Hazard flasher switch 49	(46)	1.5	green		violet
88	Floating fuse	(32) —	Hazard flasher switch 30	(46)	1.5	red		
89	Floating fuse	(32) —	Fuse box inlet 4	(33)	1.5	red		
90	Reversing light switch 15	(29) —	Left-hand reversing light	(66)	1.0	blue		white
91	Reversing light switch 15	(29) —	Hazard flasher switch 15	(46)	1.0	black		green
92	Hazard flasher 31	(54) —	Hazard flasher switch 31	(46)	0.75	brown		
93	Hazard flasher 31	(54) —	Earth (ground)	(52)	0.75	brown		
94	Interior light	(55) —	Earth (ground)	(52)	0.75	brown		
95	Interior light +	(55) —	Fuse box outlet 4	(33)	0.75	red		
96	Interior light —	(55) —	Left-hand door contact	(53)	0.75	brown		black
97	Right-hand door contact	(62) —	Left-hand door contact	(53)	0.75	brown		black
98 ¹⁾	4 pin plug	(47) —	Selector gate light	(60)	0.75	grey		
99	4 pin plug	(47) —	12 pin plug to instrument terminal 4	(58)	0.75	grey		blue
100	Left-hand brake light	(66) —	Brake light switch	(40)	1.0	green		red
101	Fuse box outlet 5	(33) —	Brake light switch	(40)	1.0	black		green
102 ¹⁾	Automatic starter carburettor	(27) —	Automatic choke	(27)	1.0	black		green
103 ¹⁾	Automatic starter carburettor	(27) —	Fusebox outlet 5	(33)	1.0	black		green
104 ¹⁾	Reversing light switch 50	(27) —	Earth (ground)		0.75	brown		
105 ¹⁾	Reversing light switch 15	(28) —	2 pin plug	(30)	1.0	green		white
106 ¹⁾	Reversing light switch 15	(28) —	2 pin plug	(30)	1.0	blue		white
107	Fusebox inlet 2	(33) —	Light switch K	(45)	0.75	grey		
108	Fusebox inlet 1	(33) —	Light switch 58 L	(45)	0.75	grey		black
109	Fusebox outlet 2	(33) —	Light switch 58 a	(45)	0.75	grey		red
110	Fusebox outlet 2	(33) —	Left hand number plate light	(64)	0.75	grey		red
111	Fusebox outlet 5	(33) —	Hazard flasher switch 15	(46)	1.0	black		green
112	Ignition switch 30	(44) —	Dip switch 20/15	(51)	1.5	red		
113	Light switch 56	(45) —	Dip switch 56	(51)	1.5	yellow		white

¹⁾ Only with Automatic transmission



Wiring diagram BMW 2002 TI from chassis No. 1 692 216

Front right-hand flasher
R.H. headlight with parking light
Right-hand fanfare
Left-hand fanfare
Solder point (56 a)
L.H. headlight with parking light
Front left-hand flasher
Earth (ground)
Fanfare relay
Solder point (56 b)
Test equipment connection
Regulator
Battery

Generator
Starter
Connection for test equipment with
lead and pick up
Distributor
Ignition coil
Windshield washer pump
Windshield wiper motor
Blower motor
3 pin plug connection to wiper motor
Retard relay
Oil pressure switch
Remote reading therm. transmitter

Reversing light switch

Floating fuse
Fuse box

Earth (ground)
Blower switch
Cigar lighter
Wiper switch

Brake light switch

- 41 Instrument set
a = Illuminated scale
b = Revolution counter
c = Speedometer
d = Coolant temp. gauge
e = Fuel gauge
f = Charging lamp (red)
g = Oil pressure control (orange)
h = Headlight beam control (blue)
i = Flasher control (green)
k = 12 pin plug connection
m = 3 pin plug connection (clock)
n = 3 pin plug (rev. counter)
42 5 pin plug connection
43
44 Ignition switch
I = Stop; II = 0; III = Drive; IV = Start
45 Light switch
46 Hazard flasher switch
47 4 pin plug connection
48 Turn indicator switch
49
50 Horn button
51 Dip switch
52 Earth (ground)
53 Left-hand door contact
54 Hazard flasher
55 Interior light
56
57
58 12 pin plug connection to
instrument cluster
59 Clock
60
61 Fuel gauge transmitter
62 Right-hand door contact
63 Right-hand rear light
A = Reversing light
B = Brake light
C = Flasher
D = Tail light

- 64 Number plate lights
65 Earth (ground)
66 Left-hand rear light
A = Reversing light
B = Brake light
C = Flasher
D = Tail light

Wire Identification

1.5 GN - BL	
Cross-section mm ²	
Basic colour	
Marker spiral	
Flat socket	
Round socket	
BL = blue	
BR = brown	
GE = yellow	
GN = green	
GR = grey	
RT = red	
SW = black	
VI = violet	
WS = white	

Wire No.	from	Part No.	to	Part No.	Cross-section	Colour		Marker
						Basic		
1	Right-hand headlight 31	(2) —	R.H. headlight parking light 31	(2)	0.75	brown		
2	Right-hand headlight 31	(2) —	Right-hand fanfare	(3)	1.0	brown		
3	Right-hand headlight 56 a	(2) —	Solder point	(5)	1.0	white		
4	Right-hand headlight 56 a	(2) —	Solder point	(10)	1.0	yellow		
5	R.H. headlight parking light	(2) —	Fuse box outlet 3	(33)	0.75	grey		white
6	Front left-hand flasher	(1) —	4 pin plug connection	(47)	0.75	blue		black
7	Earth (ground)	(8) —	Test equipment connection 3	(11)	1.5	brown		
8	Left-hand headlight 31	(6) —	Earth (ground)	(8)	1.0	brown		
9	Left-hand headlight 56 a	(6) —	Solder point	(5)	1.0	white		
10	Left-hand headlight 31	(6) —	L.H. headlight parking light 31	(6)	0.75	brown		
11	Left-hand headlight 56 b	(6) —	Solder point	(10)	1.0	yellow		
12	L.H. headlight parking light 58	(6) —	Fuse box outlet 1	(33)	0.75	grey		yellow
13	Solder point	(10) —	Dip switch 56 b	(51)	1.5	yellow		
14	Solder point	(5) —	Dip switch 56 a	(51)	1.5	white		
15	Fanfare relay 85	(9) —	Signal button	(50)	0.75	brown		yellow
16	Fanfare relay 86	(9) —	Fuse box outlet 6	(33)	0.75	green		blue
17	Generator D +	(15) —	Regulator D +	(12)	1.0	blue		
18	Generator DF	(15) —	Regulator DF	(12)	1.0	black		
19	Generator D —	(15) —	Regulator D —	(12)	1.0	brown		
20	Generator B +	(15) —	Battery +	(13)	4.0	red		
21	Generator 31	(15) —	Earth (ground)	(11)	4.0	brown		
22	Regulator D +	(12) —	Test equipment connection	(13)	0.75	blue		
23	Starter 30	(16) —	Battery +	(13)	16.0	black		
24	Battery —	(13) —	Earth (ground)		10.0			
25	Battery —	(13) —	Earth (ground)		16.0			
26	Battery +	(13) —	Ignition switch 30	(44)	4.0	red		
27	Fanfare relay 30	(9) —	Fuse box inlet 4	(33)	2.5	red		
28		()		()				
29		()		()				
30		()		()				
31		()		()				
32	Starter 50	(16) —	Ignition switch 50	(44)	2.5	black		
33	Test equipment connection 7	(11) —	5 pin plug terminal 50	(42)	2.5	black		
34	Test equipment connection 8	(11) —	5 pin plug terminal D +	(42)	0.75	blue		
35	Test equipment connection 9	(11) —	5 pin plug terminal 1	(42)	0.75	black		
36	Test equipment connection 1	(11) —	Fuse box inlet 4	(33)	2.5	red		
37	Test equipment connection 2	(11) —	Fuse box inlet 5	(33)	1.5	green		
38	Ignition coil 1	(19) —	Distributor	(18)	1.0	black		
39	Ignition coil 15	(19) —	Ignition switch	(44)	1.0	green		
40	Current distributor	(18) —	5 pin plug terminal	(42)	0.75	black		
41	Windshield washer pump	(20) —	Retard relay 31 b	(24)	0.75	brown		black

Wire No.	from	Part No.	to	Part No.	Cross-section	Colour	
						Basic	Marker
42	Windshield washer pump +	(20) ---	Retard relay 15	(24)	0.75	green	blue
43	3 pin plug	(23) ---	Retard relay 15	(24)	1.0	green	blue
44	3 pin plug	(23) ---	Retard relay M	(24)	1.0	black	
45	3 pin plug	(23) ---	Fuse box outlet 6	(33)	1.0	green	blue
46	Retard relay 31 b	(24) ---	Turn indicator switch H	(48)	0.75	brown	black
47	3 pin plug	(23) ---	Wiper switch 53	(38)	1.0	black	
48	3 pin plug	(23) ---	Wiper switch 53 b	(38)	1.0	yellow	
49	Blower motor 1	(22) ---	Blower switch 1	(36)	1.0	green	white
50	Blower motor 2	(22) ---	Blower switch 2	(36)	1.0	green	red
51	Blower motor earth (ground)	(22) ---	Earth (ground)	(35)	2.5	brown	
52	Blower switch +	(36) ---	Fuse box outlet 6	(33)	1.0	green	blue
53	Cigar lighter	(37) ---	Earth (ground)	(35)	2.5	brown	
54	12 pin plug to instrument terminal 3	(58) ---	Earth (ground)	(35)	0.75	brown	
55	12 pin plug to instrument terminal 2	(58) ---	Cigar lighter	(37)	0.75	red	
56	Fuse box outlet 4	(33) ---	Cigar lighter	(37)	2.5	red	
57	12 pin plug to instrument terminal 1	(58) ---	Ignition switch 15	(44)	0.75	green	
58	12 pin plug to instrument terminal 6	(58) ---	Wiper switch 53 e	(38)	0.75	green	blue
59	Fuse box outlet 6	(33) ---	Wiper switch 53 e	(38)	1.0	green	blue
60	12 pin plug to instrument terminal 7	(58) ---	Oil pressure switch	(25)	0.75	brown	green
61	12 pin plug to instrument terminal 8	(58) ---	Hazard flasher KBL	(54)	0.75	black	white
62	12 pin plug to instrument terminal 9	(58) ---	Plug connection	(47)	0.75	white	
63	12 pin plug to instrument terminal 10	(58) ---	Fuel gauge transmitter G	(61)	0.75	brown	yellow
64	12 pin plug to instrument terminal 11	(58) ---	Remote reading thermometer transmitter	(26)	0.75	brown	white
65	12 pin plug to instrument terminal 12	(58) ---	5 pin plug terminal D +	(42)	0.75	blue	
66	Revolution counter 1	(41) ---	5 pin plug terminal 1	(42)	0.75	black	
67	4 pin plug	(47) ---	5 pin plug terminal 58 b	(42)	0.75	grey	blue
68	Ignition switch 50	(44) ---	5 pin plug terminal 50	(42)	2.5	black	
69	4 pin plug	(47) ---	5 pin plug terminal 56 a	(42)	0.75	white	
70	Light switch 58 b	(45) ---	5 pin plug terminal 58 b	(42)	0.75	grey	blue
71	Dip switch 56 a	(51) ---	5 pin plug terminal 56 a	(42)	0.75	white	
72	Fuse box inlet 5	(33) ---	Ignition switch 15	(44)	2.5	green	

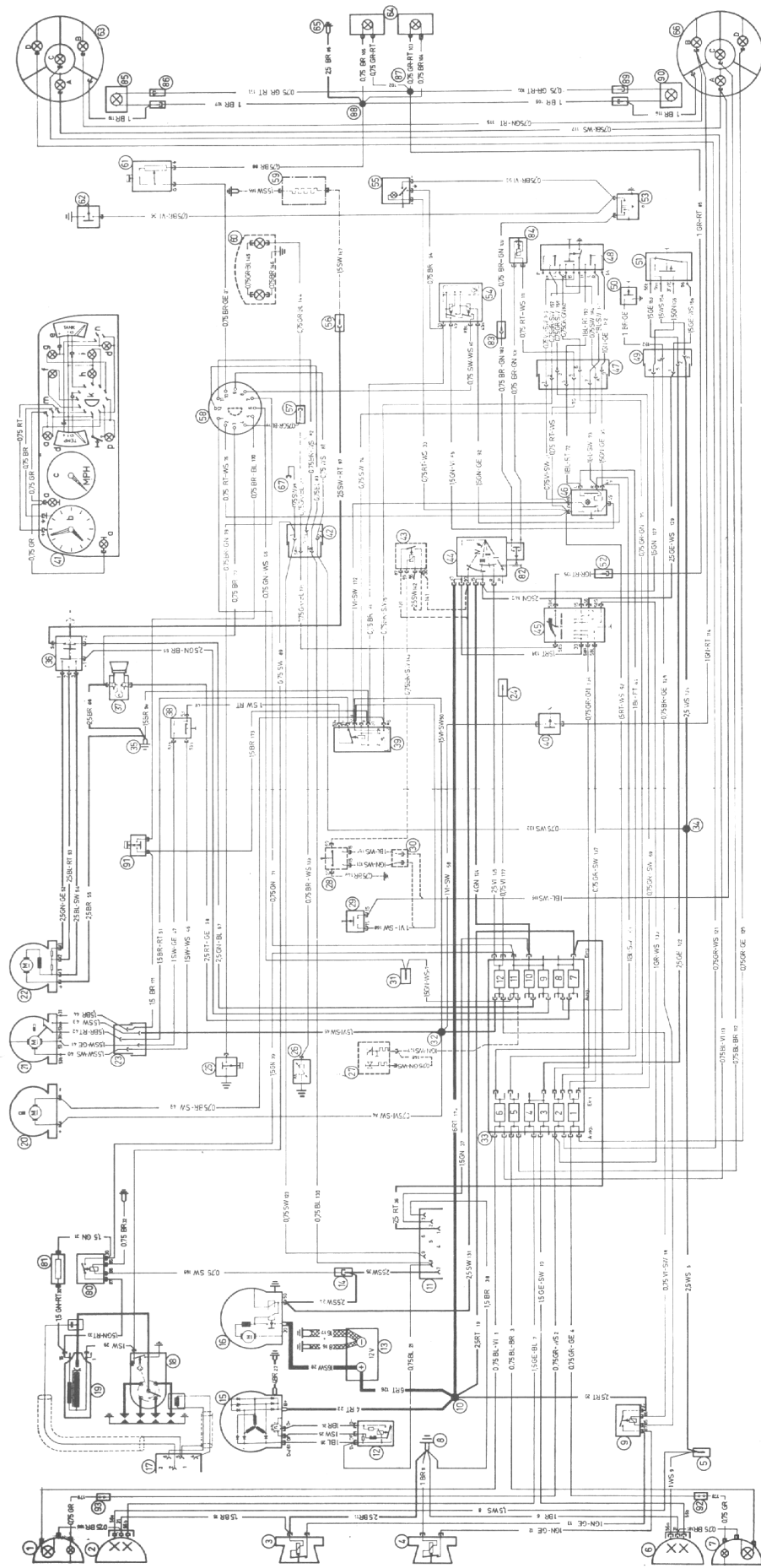
Wire No.	from	Part No.	to	Part No.	Cross-section	Colour		Marker
						Basic		
73	Light switch 30	(45) —	Ignition switch 30	(44)	2.5	red		
74	Ignition switch P	(44) —	Turn indicator switch P	(48)	0.75	grey		green
75	Light switch 58 R	(45) —	Turn indicator switch PR	(48)	0.75	grey		black
76	Light switch 58 L	(45) —	Turn indicator switch PL	(48)	0.75	grey		black
77	4 pin plug	(47) —	Turn indicator switch R	(48)	1.0	blue		black
78	4 pin plug	(47) —	Turn indicator switch L	(48)	1.0	blue		red
79	4 pin plug	(47) —	Front left-hand flasher	(7)	0.75	blue		red
80	4 pin plug	(47) —	Hazard flasher switch L	(46)	0.75	blue		red
81	4 pin plug	(47) —	Hazard flasher switch R	(46)	0.75	blue		black
82	Right-hand rear flasher	(47) —	Hazard flasher switch R	(46)	0.75	blue		black
83	Left-hand rear flasher	(63) —	Hazard flasher switch L	(46)	0.75	blue		red
84	Turn indicator switch	(66) —	Hazard flasher switch L	(46)	1.0	green		yellow
85	Hazard flasher 49 a	(48) —	Hazard flasher switch 49 a	(46)	1.5	green		yellow
86	Hazard flasher 49	(54) —	Hazard flasher switch 49	(46)	1.5	green		violet
87	Hazard flasher switch 0	(54) —	Hazard flasher switch 49	(46)	1.5	green		violet
88	Floating fuse	(46) —	Hazard flasher switch 30	(46)	1.5	red		
89	Floating fuse	(32) —	Fusebox inlet 4	(33)	1.5	red		
90	Reversing light switch 15	(29) —	Left-hand reversing light	(66)	1.0	blue		white
91	Reversing light switch 15	(29) —	Hazard flasher switch 15	(46)	1.0	black		green
92	Hazard flasher 31	(54) —	Hazard flasher switch 31	(46)	0.75	brown		
93	Hazard flasher 31	(54) —	Earth (ground)	(52)	0.75	brown		
94	Interior light	(55) —	Earth (ground)	(52)	0.75	brown		
95	Interior light +	(55) —	Fuse box outlet 4	(33)	0.75	red		
96	Interior light —	(55) —	Left-hand door contact	(53)	0.75	brown		black
97	Right-hand door contact	(62) —	Left-hand door contact	(53)	0.75	brown		black
98		()		()				
99	4 pin plug connection	(47) —	12 pin plug to instrument terminal 4	(58)	0.75	grey		blue
100	Left-hand brake light	(66) —	Brake light switch	(40)	1.0	green		red
101	Fuse box outlet 5	(33) —	Brake light switch	(40)	1.0	black		green
102		()		()				
103		()		()				
104		()		()				
105		()		()				
106		()		()				
107	Fuse box inlet 2	(33)	Light switch K	(45)	0.75	grey		black
108	Fuse box inlet 1	(33) —	Light switch 58 L	(45)	0.75	grey		red
109	Fuse box outlet 2	(33) —	Light switch 58 a	(45)	0.75	grey		red
110	Fuse box outlet 2	(33) —	Left-hand number plate light	(64)	0.75	grey		green
111	Fuse box outlet 5	(33) —	Hazard flasher switch	(46)	1.0	black		
112	Ignition switch 30	(44) —	Dip switch	(51)	1.5	red		

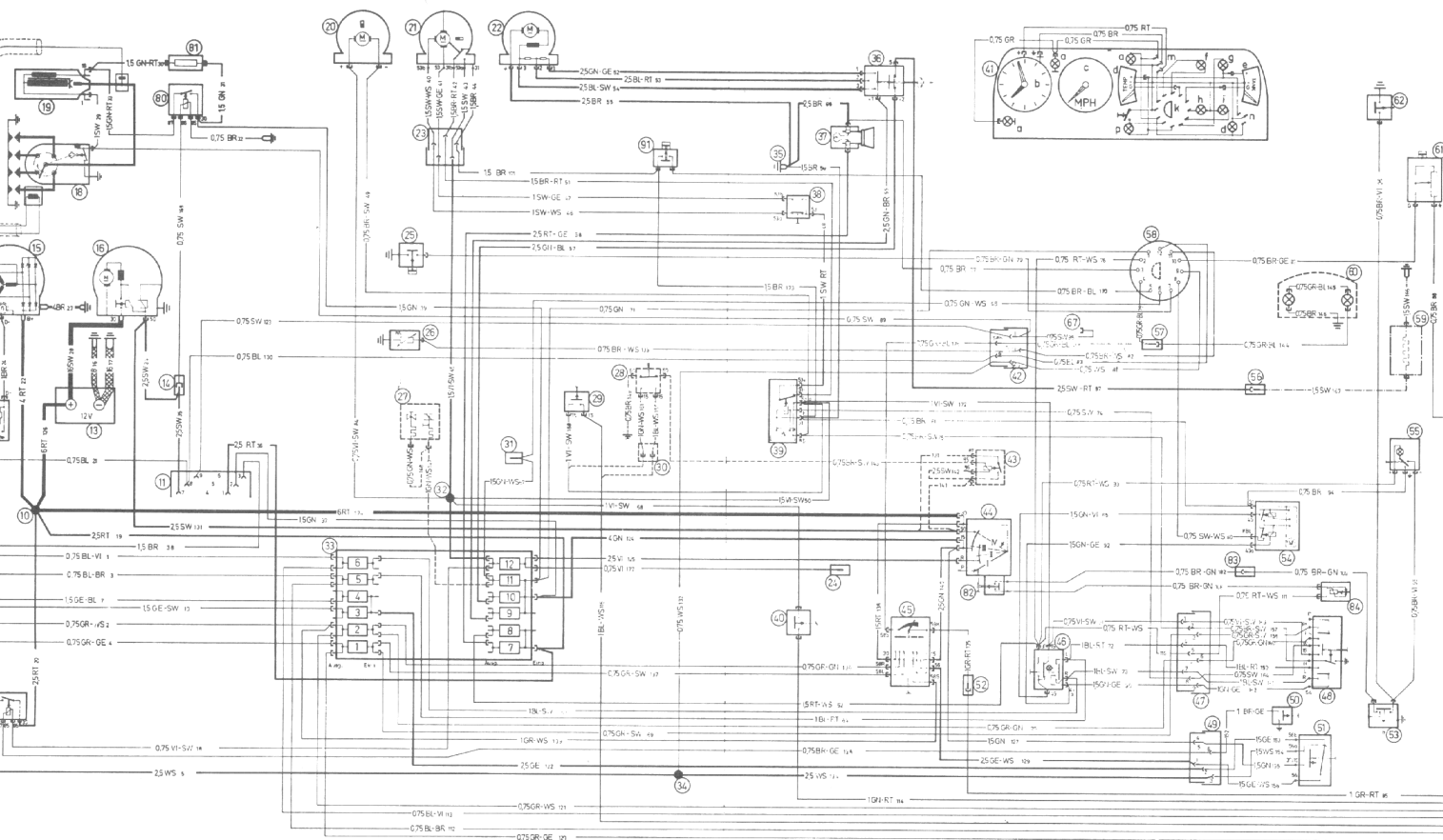
Wire No.	from	Part No.	to	Part No.	Cross-section	Colour Basic	Marker
113	Light switch 56	(45) —	Dip switch 56	(51)	1.5	yellow	white
114	Fuse box outlet 1	(33) —	Left-hand tail light	(66)	0.75	grey	yellow
115	Fuel gauge transmitter	(61) —	Earth (ground)	(65)	0.75	brown	
116	Fuse box outlet 3	(33) —	Right-hand tail light	(63)	0.75	grey	white
117	Left-hand reversing light	(66) —	Right-hand reversing light	(63)	0.75	blue	white
118	Left-hand brake light	(66) —	Right-hand brake light	(63)	0.75	green	red
119	Left-hand rear light earth (ground)	(66) —	Earth (ground)	(65)	1.0	brown	
120	Left-hand number plate light	(64) —	Right-hand number plate light	(64)	0.75	grey	red
121	Right-hand rear light earth (ground)	(63) —	Earth (ground)	(65)	1.0	brown	
122	Fuse box inlet 3	(33) —	Light switch 58 R	(45)	0.75	grey	green
123		() —		()			
123		() —		()			
125	Left-hand fanfare	(4) —	Fanfare relay 87	(9)	1.0	green	yellow
126	Right-hand fanfare	(3) —	Fanfare relay 87	(9)	1.0	green	yellow
127	Right-hand fanfare	(3) —	Earth (ground)	(8)	1.5	brown	
128	Left-hand fanfare	(4) —	Earth (ground)	(8)	1.0	brown	
129	Fanfare relay 30	(9) —	Battery +	(13)	2.5	red	

9 71 Addition

- 38 Wiper speed switch
39 Wiper-Washer transmitter
40 Brake light switch
41 Instrument cluster
a = Illuminated scale
b = Clock

- 60 Selector gate light
61 Fuel gauge transmitter
62 Right-hand door contact
63 Right-hand rear light
A = Reversing light
B = Brake light





Wiring diagram BMW 1602 USA, 2002 USA, 2002 Automatic USA

Front R.H. flasher with parking light
Right-hand headlight
Right-hand fanfare
Left-hand fanfare
Connection for fog lamp relay
Left-hand headlight
Front L.H. flasher with parking light
Earth (ground)
Fanfare relay
Solder point
Test equipment connection
Regulator
Battery
Connection for electrical system
Generator
Starter
Connection for test equipment with lead and pickup
Distributor
Ignition coil
Windshield washer pump
Windshield wiper motor
Blower motor
5 pin plug terminal to wiper motor
Radio connection
Oil pressure switch
Remote reading therm. transmitter
Automatic starter carb.
(only with automatic transmission)

38 Wiper speed switch
39 Wiper washer transmitter
40 Brake light switch
41 Instrument set
a = Illuminated scale
b = Clock
c = Tachometer
d = Coolant temperature gauge
e = Fuel gauge
f = Charging lamp (red)
g = Oil pressure telltale (orange)
h = High beam telltale (blue)
i = Flasher control (green)
k = 12 pin plug
m = 3 pin plug (clock)
n = 3 pin plug (rev. counter)
p = Brake fluid level (red)
42 5 pin plug
43 Starter relay
(only with automatic transmission)
44 Ignition switch
I = Off; II = 0; III = On; IV = Start
45 Light switch
46 Hazard flasher switch
47 9 pin plug terminal to turn indicator switch
48 Turn indicator switch
49 6 pin plug to dip switch
50 Signal button

61 Fuel gauge transmitter
62 Door contact
63 Right-hand rear light
A = Reversing light
B = Brake light
C = Flasher
D = Tail light
64 Number plate light
65 Earth (ground)
66 Left-hand rear light
A = Reversing light
B = Brake light
C = Flasher
D = Tail light
67 Connection for rev. counter
68
69
70
71
72
73
74

75
76
77
78
79
80 HT ignition
81 Series resistor
82 Buzzer connection
83 Connection for test equipment
84 Buzzer
85 R.H. side mirror
86 R.H. side mirror
87 Solder point
88 Solder point
89 L.H. side mirror
90 L.H. side mirror
91 Brake fluid level
92 Cable connection
93 Cable connection

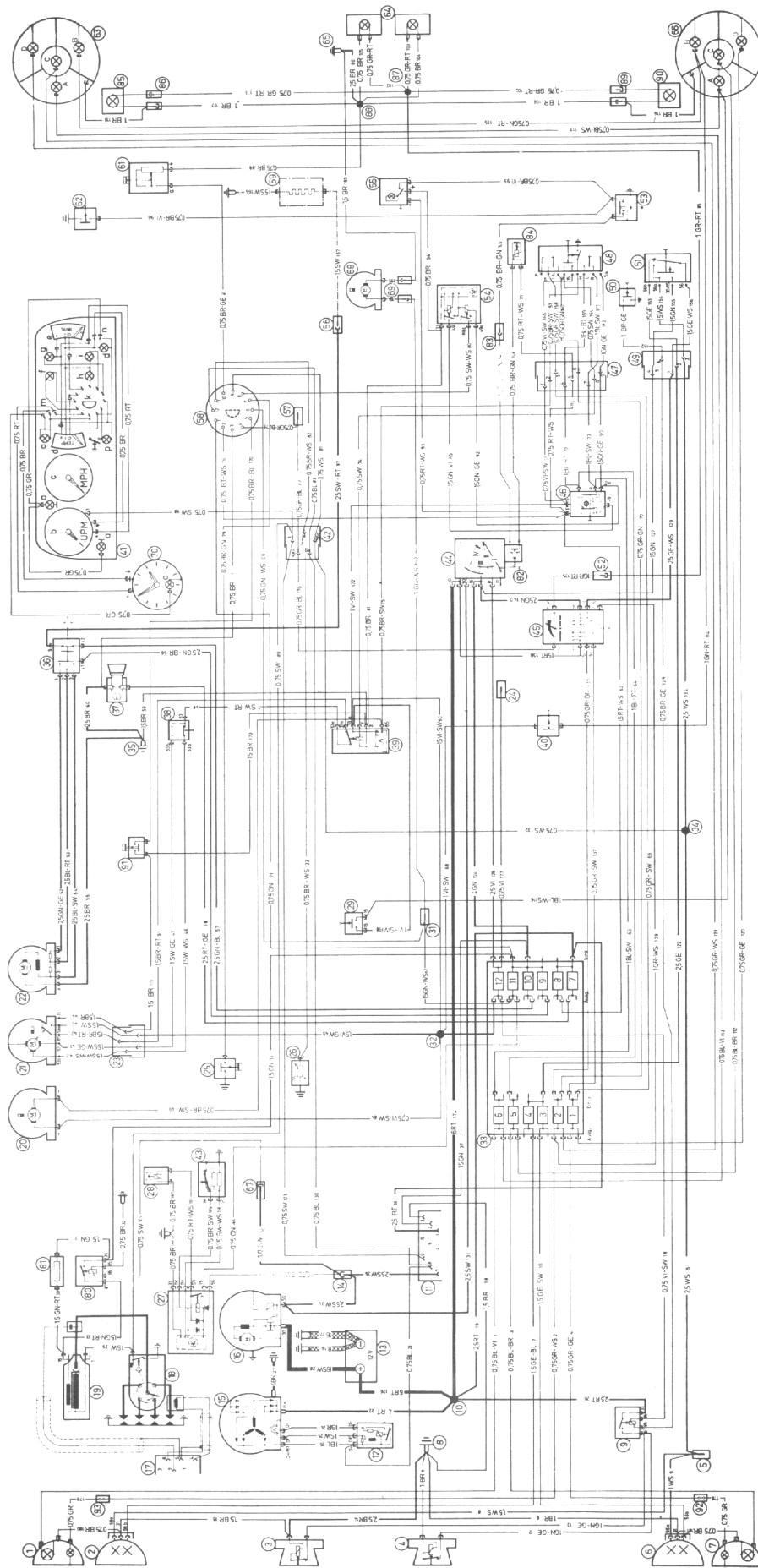
Wire Identification

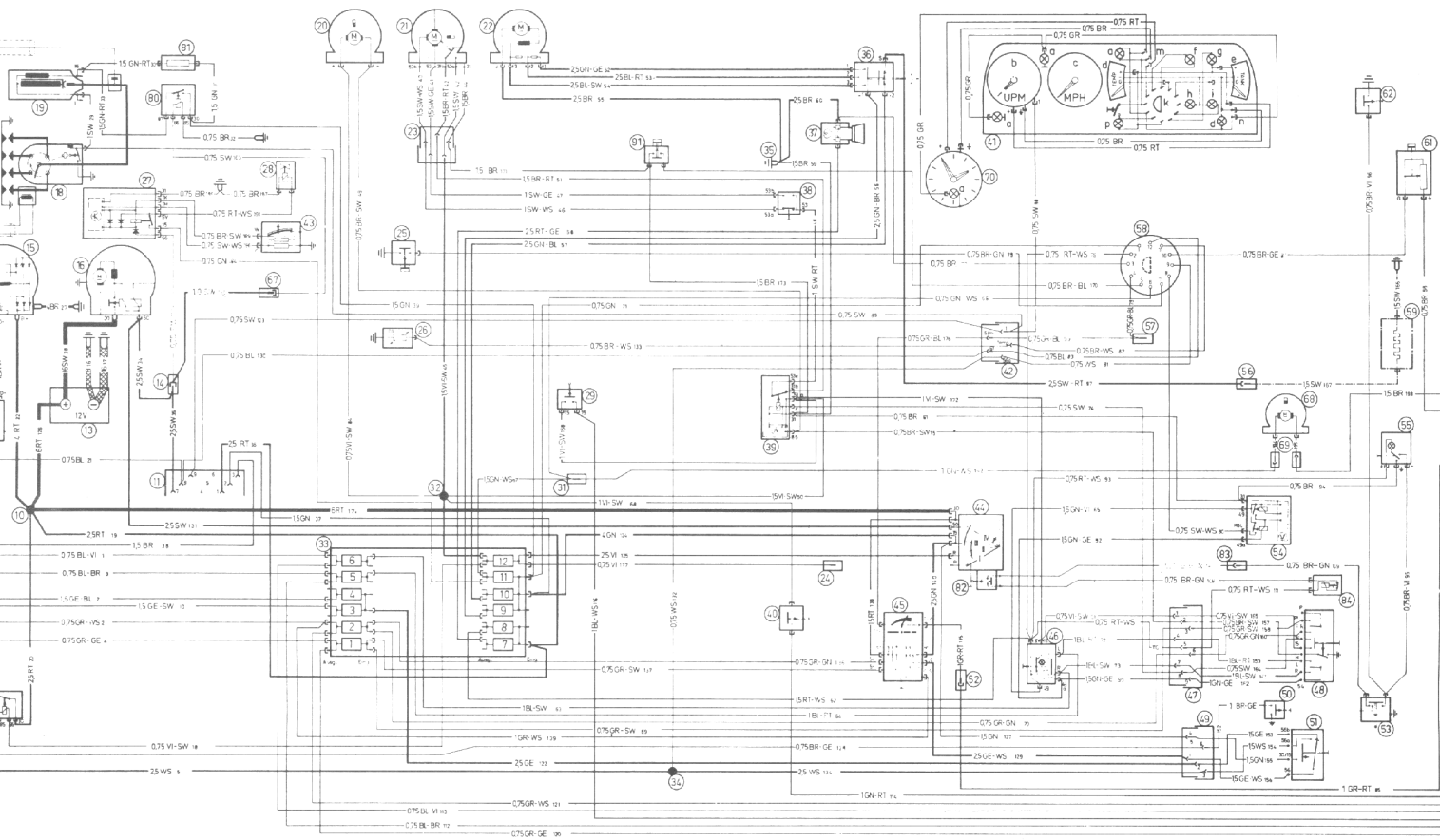
1.5 GN - BL

9.71 Addition

- 41 Instrument cluster
- a = Illuminated scale
 - b = Revolution counter
 - c = Speedometer
 - d = Coolant temperature gauge
 - e = Fuel gauge
 - f = Charging lamp (red)

- 63 Right-hand rear light
A = Reversing light
B = Brake light
C = Flasher
D = Tail light
- 64 Number plate light
- 65 Earth (ground)





g diagram BMW 2002 tii USA

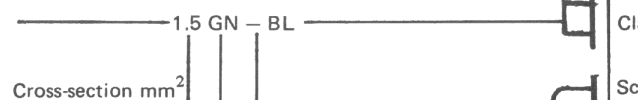
ont R.H. flasher with parking light
 ight-hand headlight
 ight-hand fanfare
 eft-hand fanfare
 og lamp relay connection
 eft-hand headlight
 ont L.H. flasher with parking light
 irth (ground)
 infare relay
 older point
 st equipment connection
 egulator
 attery
 onnection for electrical equipment
 enerator
 arter
 st equipment connection with
 ad and pick up
 istributor
 nition coil
 ndshield washer pump
 ndshield wiper motor
 ower motor
 oin plug terminal to wiper motor
 dio connection
 l pressure switch
 emote reading therm. transmitter
 me switch
 arting valve
 eversing light switch

- 40 Brake light switch
- 41 Instrument cluster
 - a = Illuminated scale
 - b = Revolution counter
 - c = Speedometer
 - d = Coolant temperature gauge
 - e = Fuel gauge
 - f = Charging lamp (red)
 - g = Oil pressure telltale (orange)
 - h = High beam telltale (blue)
 - i = Flasher telltale (green)
 - k = 12 pin plug
 - m = 3 pin plug (clock)
 - n = 3 pin plug (rev. counter)
 - p = Brake fluid control (red)
- 42 5 pin plug terminal
- 43 Temperature time switch
- 44 Ignition switch
 - I = Off; II = 0; III = On; IV = Start
- 45 Light switch
- 46 Hazard flasher switch
- 47 9 pin plug terminal to turn indicator switch
- 48 Turn indicator switch
- 49 6 pin plug terminal to dip switch
- 50 Signal button
- 51 Dip switch
- 52 Number plate light and fog lamp connection
- 53 Door double contactor

- 63 Right hand rear light
 - A = Reversing light
 - B = Brake light
 - C = Flasher
 - D = Tail light
- 64 Number plate lights
- 65 Earth (ground)
- 66 Left-hand rear light
 - A = Reversing light
 - B = Brake light
 - C = Flasher
 - D = Tail light
- 67 HT ignition system connection
- 68 Fuel pump
- 69 Fuel pump plug connection
- 70 Clock
- 71
- 72
- 73
- 74
- 75

- 76
- 77
- 78
- 79
- 80 HT ignition
- 81 Series resi
- 82 Buzzer co
- 83 Buzzer co
- 84 Buzzer
- 85 R.H. side
- 86 R.H. side
- 87 Solder po
- 88 Solder po
- 89 L.H. side
- 90 Left-hand
- 91 Brake fluid
- 92 Cable con
- 93 Cable con

Wire Identification

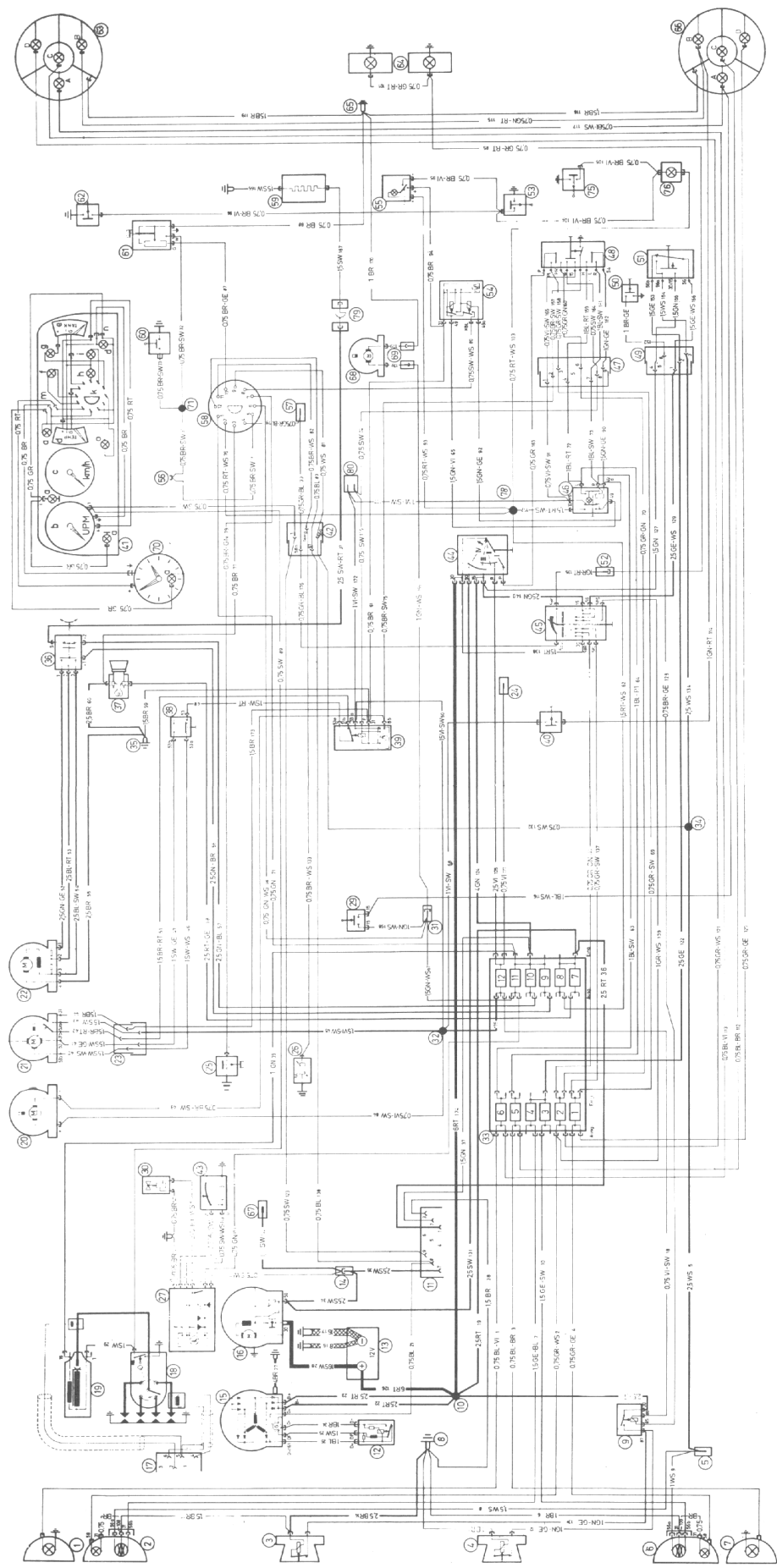


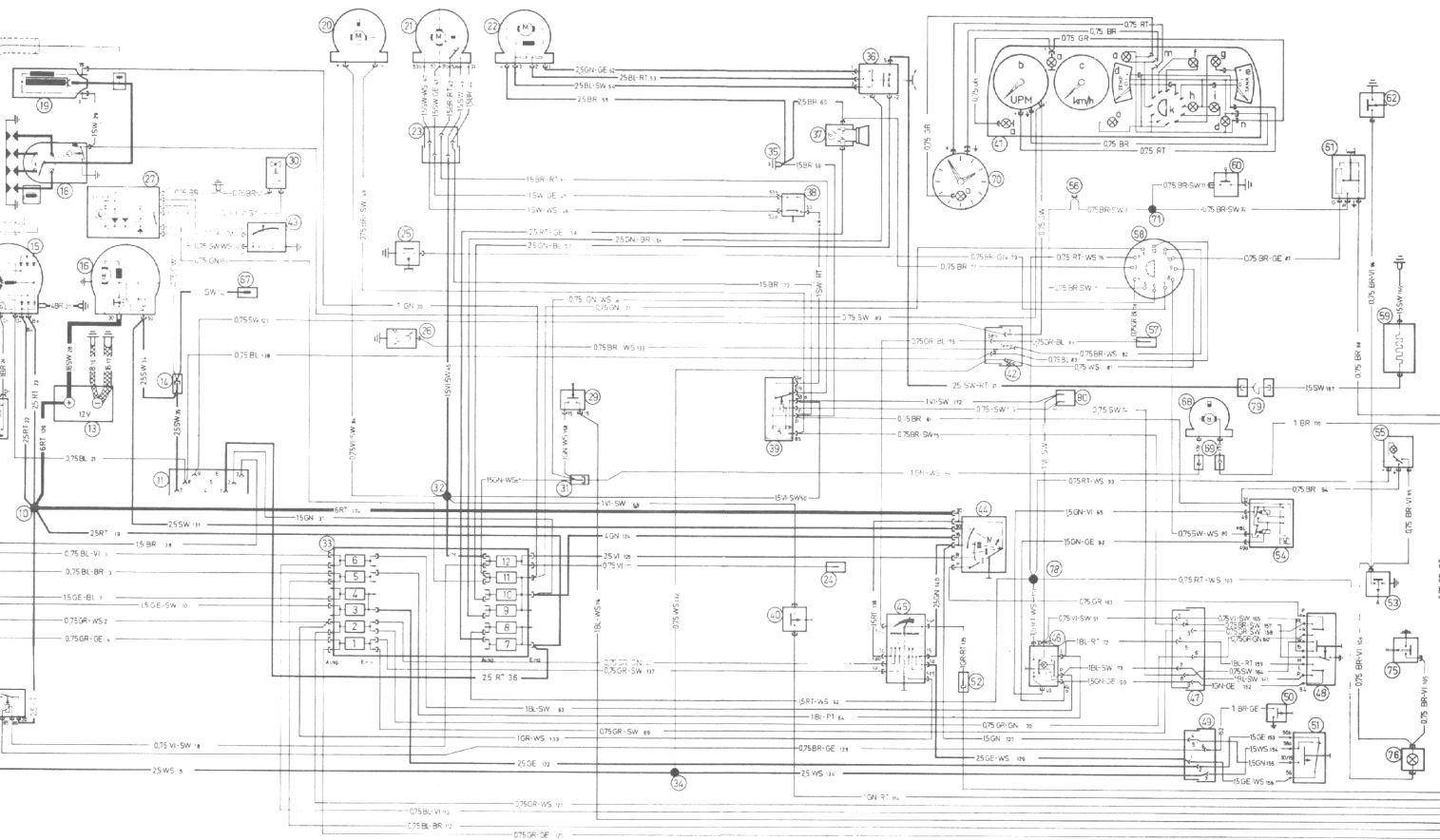
0.71 Addition

- 67 Revolution counter connection
68 Handbrake switch
69 Solder point
70
71
72
73
74

- a = Illuminated scale
b = clock
c = Speedometer

- 67 Revolution counter connection
68 Handbrake switch
69 Solder point
70
71
72
73
74





Wiring diagram BMW touring 2000 tii

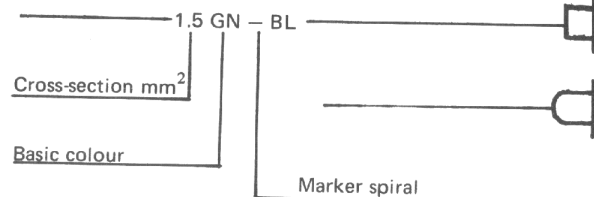
Front right-hand flasher
R.H. headlight with parking light
Right-hand fanfare
Left-hand fanfare
Fog lamp relay connection
L.H. headlight with parking light
Front left-hand flasher
Earth (ground)
Fanfare relay
Solder point
Test equipment connection
Regulator
Battery
Electrical equipment connection
Generator
Starter
Test equipment connection
with lead and pick up
Distributor
Ignition coil
Windshield washer pump
Windshield wiper motor
Blower motor
3 pin plug to wiper motor
Radio connection
Oil pressure switch
Remote reading therm. transmitter
Time switch
Reversing light switch

- 41 Instrument set
a = Illuminated scale
b = Revolution counter
c = Speedometer
d = Coolant temperature gauge
e = Fuel gauge
f = Charging lamp (red)
g = Oil pressure control (orange)
h = Headlight beam telltale (blue)
i = Flasher control (green)
k = 12 pin plug terminal
m = 3 pin plug terminal (clock)
n = 3 pin plug terminal (rev. counter)
o = Central control lamp
(Choke, handbrake, petrol)
- 42 5 pin plug terminal
- 43 Temperature time switch
- 44 Ignition switch
I = Off; II = 0; III = On; IV = Start
- 45 Hazard flasher switch
- 46 Light switch
- 47 9 pin plug to turn indicator switch
- 48 Turn indicator switch
- 49 6 pin plug to dip switch
- 50 Signal horn
- 51 Dip switch
- 52 Number plate light and fog
lamp connection
- 53 Left-hand door contact
- 54 Hazard flasher

- 63 Right-hand rear light
A = Reversing light
B = Brake light
C = Flasher
D = Tail light
- 64 Number plate light
- 65 Earth (ground)
- 66 Left-hand rear light
A = Reversing light
B = Brake light
C = Flasher
D = Tail light
- 67 HT ignition system connection

- 68 Fuel pump
- 69 Plug connection
- 70 Clock
- 71 Solder point
- 72
- 73
- 74
- 75 Rear door contact
- 76 L.H. door contact
- 77
- 78 Solder point
- 79 Contact
- 80 Rear window

Wire Identification



BL = blue
BR = brown

Electrical circuit diagram

BMW 1502, 1502 RHD, 1602, 1602 RHD, 1802, 2002, 2002 RHD, 2002 A, 2002 A RHD, 2002 tii,
2002 tii RHD – from 1973 models on

Key to electrical circuit diagram – BMW 1502, 1502 RHD, 1602, 1602 RHD, 1802, 2002, 2002 RHD, 2002 A, 2002 A RHD, 2002 tii, 2002 tii RHD from 73 models on

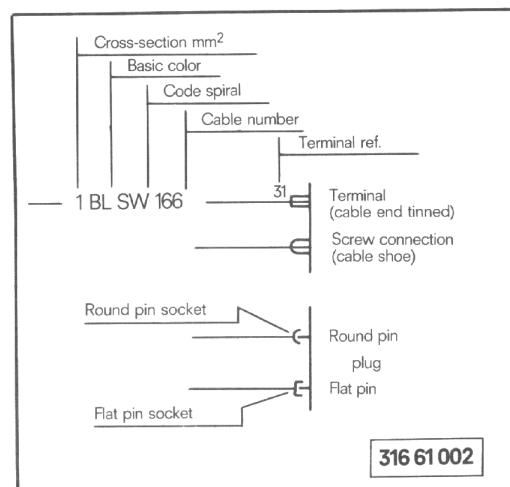
- 1 Front right turn indicator
- 2 Right headlight with parking light
- 3 Connection for headlight cleaning system
- 4 Right horn (special equipment)
- 5 Left horn
- 6 Earth (ground)
- 7 Left headlight with parking light
- 8 Front left turn indicator
- 9 Connection for fog light and long-range driving light relays
- 10 Horn relay
- 11 Low beam relay
- 12 Battery, 12 V
- 13 Distributor
- 14 Connection for diagnosis unit with cable and pick-up
- 15 Coil
- 16 Alternator
- 17 Regulator
- 18 Connection for diagnosis unit
- 19 Solder tag 30
- 20 Single pole plug connection
- 21 Terminal 50
- 22 Coolant thermometer sensor
- 23 Brake fluid level sensor (special equipment)
- 24 Oil pressure sensing switch
- 25 Starter
- 26 Coolant temperature switch (automatic transmission only)
- 27 Air temperature switch (automatic transmission only)
- 28
- 29 Automatic choke (automatic transmission cars only)
- 30 Changeover relay
- 31 Time switch (on tii only)
- 32 Starting valve (tii only)
- 33 Temperature/time switch (tii only)
- 34 Switch for reversing lights with starter inhibit lock (automatic transmission only)
- 35 2-pole plug connection (automatic transmission only)
- 36 Reversing light switch (manual gearbox only)
- 37 5-pole plug connection
- 38 Fusebox
- 39 5-pole plug connection
- 40 Windshield washer pump
- 41 Wiper motor
- 42 5-pole plug connection for wiper motor
- 43 Heater blower motor
- 44 Blower switch
- 45 2-pole plug connection for blower motor
- 46 Starting relay (automatic transmission only)
- 47 Single-pole plug connection
- 48 Brake light switch
- 49 Ignition/starter switch
- 50 Wipe-wash intermittent action control unit
- 51 Earth (ground) point
- 52 Cigar lighter
- 53 Connection for radio
- 54 Hazard warning flasher switch
- 55 Hazard warning flasher unit
- 56 Plug connection for wiper switch
- 57 Wiper switch (intermittent action: special equipment)
- 58 Horn push
- 59 Plug connection for turn indicator and low beam switch
- 60 Turn indicator and low beam switch
- 61 Main light switch
- 62 Solder tag 58 S
- 63 3-pole connection
- 64 Single-pole plug connection for fuel pump

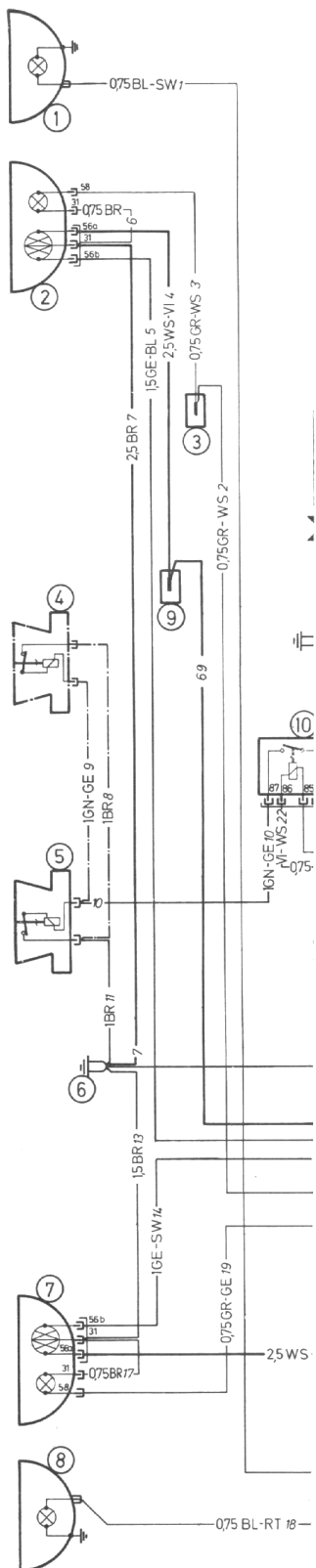
- 65 Single-pole plug connection for fuel pump
- 66 Fuel pump
- 67 Selector lever gate lighting (automatic transmission only)
- 68 Clock (tii only)
- 69 Combined instrument cluster
 - a) Dial illumination
 - b) Revolution counter (on tii and as special equipment, otherwise clock)
 - c) Speedometer
 - d) Coolant thermometer
 - e) Fuel gauge
 - f) Charge telltale (red)
 - g) Oil pressure telltale (on special equipment for Sweden, also brake fluid level telltale)
 - h) Headlight high beam telltale (blue)
 - i) Turn indicator telltale (green)
 - k) Central telltale lamp (choke, handbrake, fuel level)
- m) 3-pole plug connection (clock)
- n) 3-pole plug connection (revolution counter)
- o) 12-pole plug connection
- 70 Choke (not on tii)
- 71 Solder tag
- 72 Handbrake telltale switch
- 73 Right door-operated switch
- 74 Fuel level indicator
- 75 Heated rear window
- 76 Tailgate-operated switch (touring only)
- 77 Interior light
- 78 Left door-operated switch
- 79 Left contact plate (touring only)
- 80 Single-pole plug connection for heated rear window
- 81 Luggage area light (touring only)
- 82 Switch for heated rear window
- 83 Left rear light assembly
 - a) Turn indicator
 - b) Rear light
 - c) Reversing (backup) light
 - d) Brake light
- 84 Left licence plate light
- 85 Right licence plate light
- 86 Earth (ground)
- 87 Right rear light assembly
 - a) Turn indicator
 - b) Rear light
 - c) Reversing (backup) light
 - d) Brake light
- 88 Resistor line for HT ignition system (on turbo and as special equipment only)
- 89 2-pole plug connection

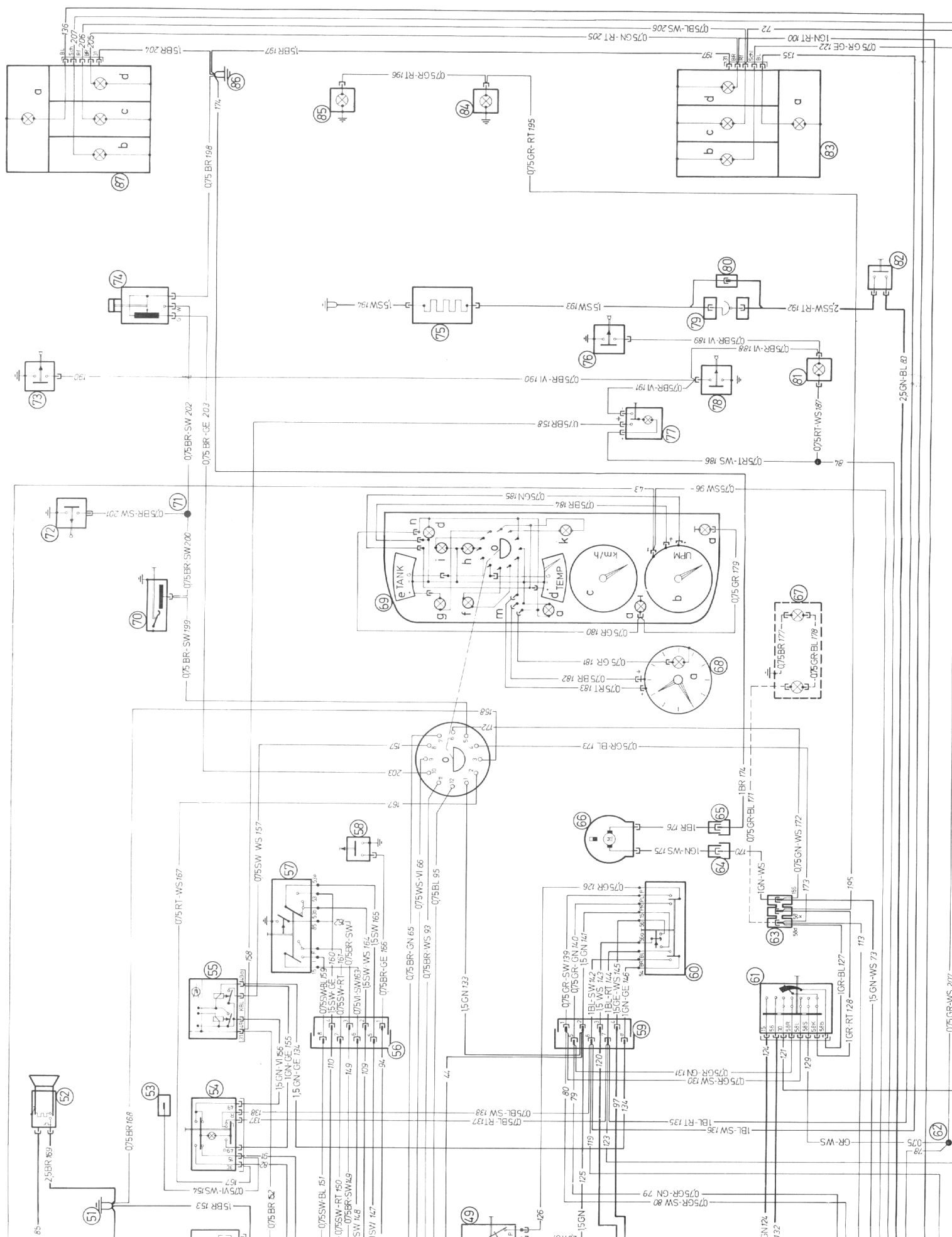
Firing order 1-3-4-2

Wiring color codes:

- BL = blue
BR = brown
GE = yellow
GN = green
GR = grey
RT = red
SW = black
VI = violet
WS = white







61 13 001 Fuse box – renewing

Open engine compartment.

Remove negative connection at battery.

Unscrew fuse box.

List of fuses

Fuse Element No. DIN 72 581	Load unit
1 8 Ampere	Rear, parking and side light – left
2 8 Ampere	Licence plate light, instrument panel light
3 8 Ampere	Rear, parking and side light – right
4 8 Ampere	Interior light, clock, cigar lighter
5 8 Ampere	Brake lights, indicator lights, reversing light
6 16 Ampere	Heater fan, horn, windscreen wiper motor, screen washer system, fuel and temperature gauge, oil pressure telltale light

Remove cable connectors one after the other from the old fuse box and attach to a new fuse box as per the wiring diagram.

Recognition colours of fuse box cables:

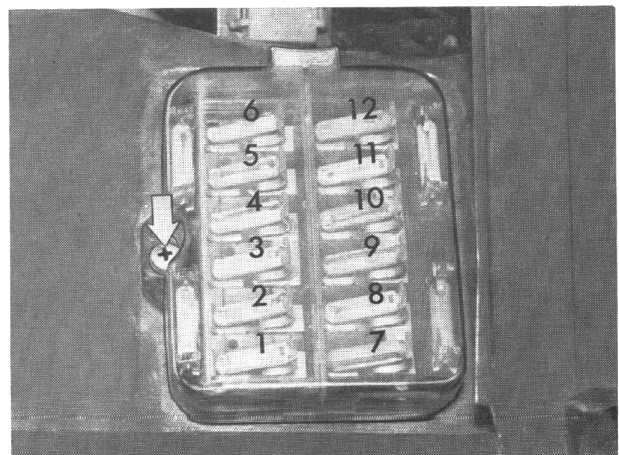
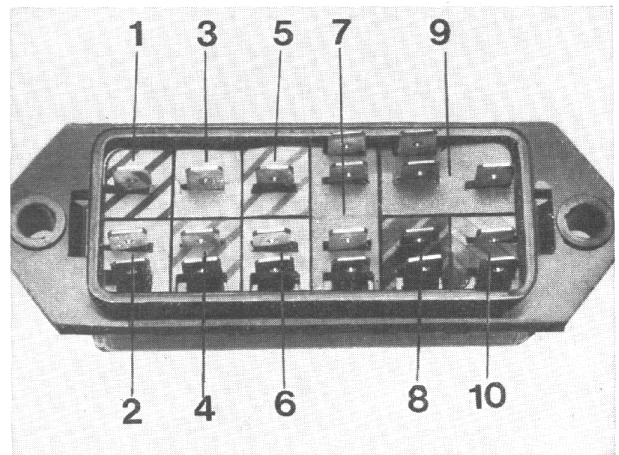
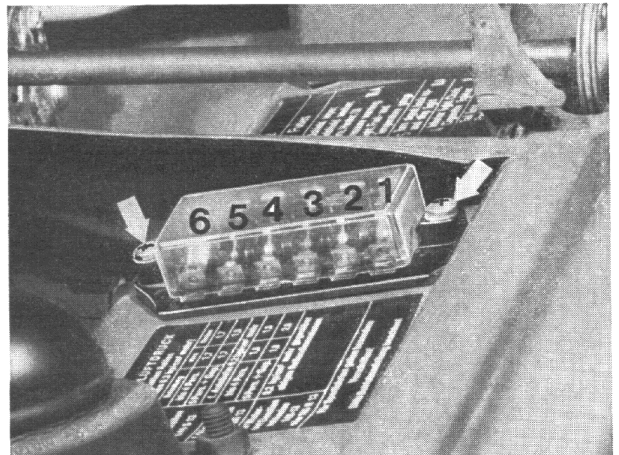
1 grey-black	6 green-white
2 grey-yellow	7 red
3 grey	8 black-green
4 grey-red	9 green
5 grey-green	10 green-blue

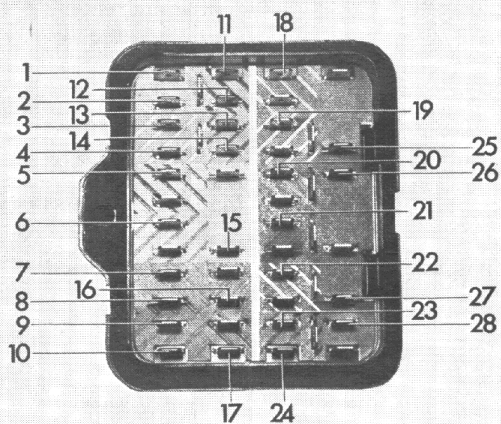
On "touring" and 1971 models:

Loosen retaining screw.

List of fuses

Fuse Element No. DIN 72 581	Load unit
1 5 Ampere	Rear, parking and side light – left
2 5 Ampere	Rear, parking and side light – right, licence plate lights, instrument lighting, rear fog warning light, fog lamp relay
3 8 Ampere	Low beam headlight – left
4 8 Ampere	Low beam headlight – right
5 5 Ampere	Turn indicator flasher – left
6 5 Ampere	Turn indicator flasher – right
7 16 Ampere	Cigar lighter
8 8 Ampere	Clock, interior light, hazard warning flashers, trailing turn indicators
9 16 Ampere	Heater blower
10 16 Ampere	Heated rear window
11 8 Ampere	Fuel pump, automatic choke, fuel gauge, coolant thermometer, oil pressure telltale, revolution counter, handbrake telltale, cold start and fuel level telltale
12 16 Ampere	Stop lights, turn indicator lights, horn relay, wiper motor, washer, reversing lights





Disconnect leads in succession from the defective fusebox, and connect to equivalent terminals on new fusebox or according to the appropriate circuit diagram.

Color codes for cables at fusebox:

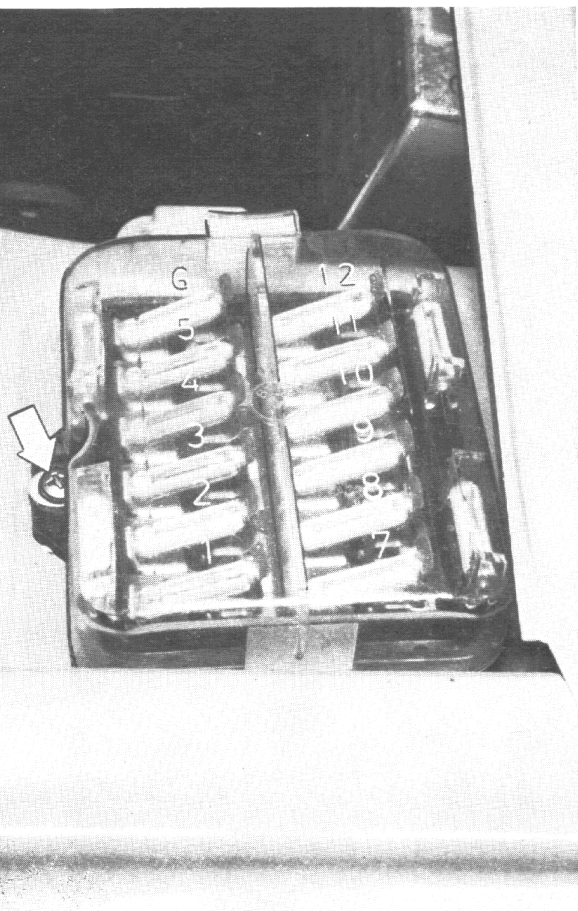
1 grey-yellow	15 yellow
2 grey-yellow	16 blue-red
3 grey-white	17 blue-black
4 grey-white	18 red-yellow
5 yellow-black	19 red-white
6 yellow-blue	20 green-brown
7 blue-brown	21 green-blue
8 blue-brown	22 green-white
9 blue-violet	23 violet-black
10 blue-violet	24 violet-black
11 grey-black	25 red
12 grey-black	26 green
13 grey-green	27 green
14 grey-green	28 violet

From 73 models on:

Loosen the retaining screw.

Layout and rating of fuses:

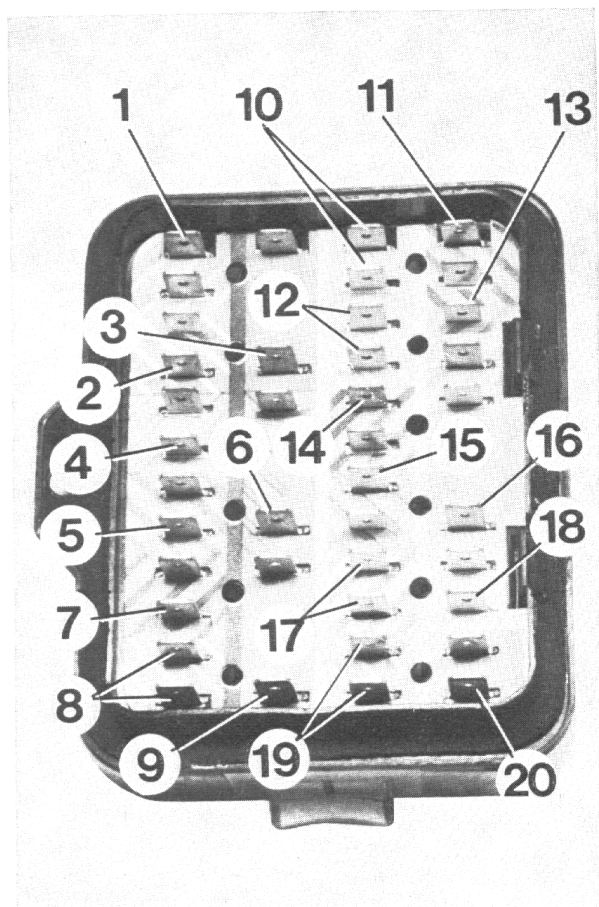
No.	Fuse element (to DIN 72 581)	Item of electrical equipment
1	16 Amp (red)	Cigar lighter (automatic radio antenna)
2	8 Amp (white or black)	Hazard warning flashers, interior light, clock (trailer turn indicators)
3	16 Amp (red)	Heated rear window
4	16 Amp (red)	Heater blower (electric sliding roof)
5	16 Amp (red)	Wipers and windshield washer, brake lights
6	8 Amp (white or black)	Turn indicators, horn, reversing lights (radio)
7	8 Amp (white or black)	Side, rear and parking lights (left)
8	8 Amp (white or black)	Side, rear and parking lights (right), licence plate light, instrument lighting (rear fog warning light, fog light relay)
9	8 Amp (white or black)	Left low beam headlight
10	8 Amp (white or black)	Right low beam headlight
11	16 Amp (red)	High beam headlights
12	8 Amp (white or black)	Automatic choke, fuel and coolant temperature gauges, oil pressure telltale lamp, revolution counter, handbrake telltale, choke knob and fuel level (electric fuel pump)



Disconnect the leads in succession from the defective fusebox and connect as detailed below to the new fusebox, or else as shown in the circuit diagram.

Color codes for leads to fusebox:

Fuse number	Output	Input
1	① red/yellow	
2	② red/white	③ red
3	④ green/blue	
4	⑤ green/brown	⑥ green
5	⑦ violet/black	
6	⑧ violet/white	⑨ violet
7	⑩ grey/yellow	⑪ grey/black
8	⑫ grey/white	⑬ grey/green
9	⑭ yellow/black	
10	⑮ yellow/blue	⑯ yellow
11	⑰ white/violet	⑱ white
12	⑲ green/white	⑳ green



61 31 000 Removing and fitting dipswitch

Disconnect negative lead from battery.

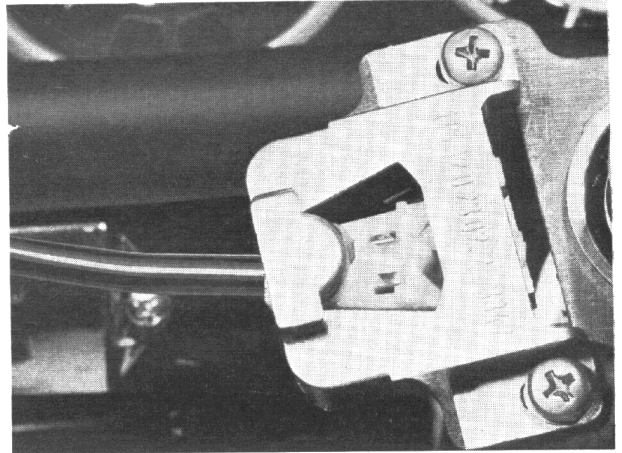
Remove and fit lower section of casting. 32 31 020.

Loosen screws.

Pull of cable.

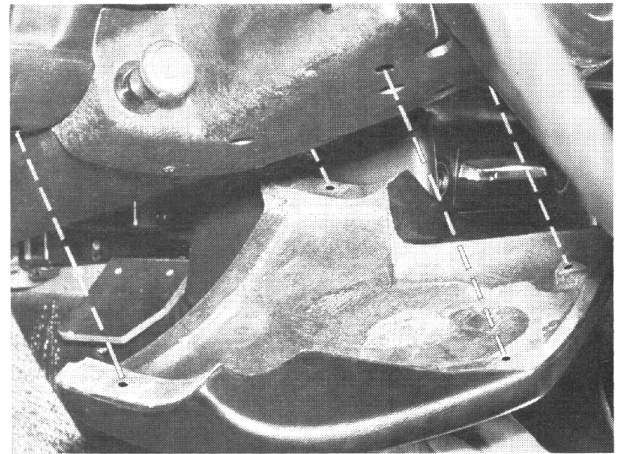
When installing:

Cable colour: white	= 56 a
yellow	= 56 b
yellow/white	= 56
red	= 30

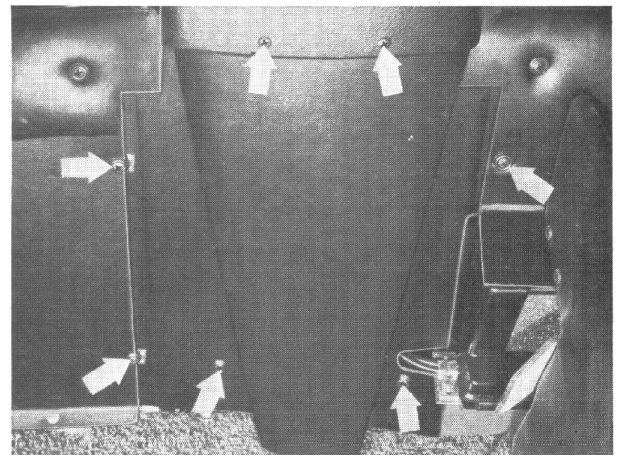


On 'touring' and 1971 models:

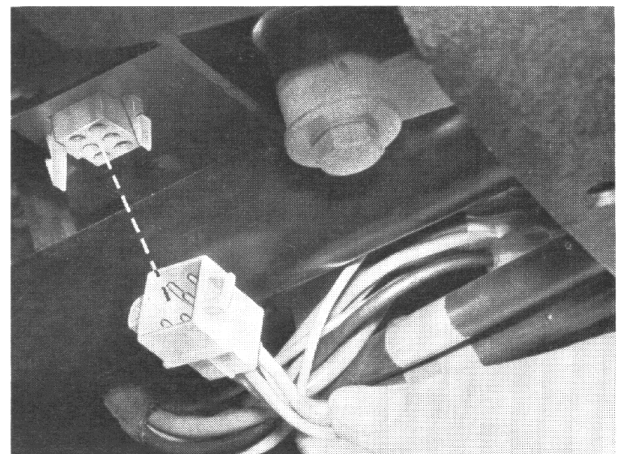
Remove lower section of steering column surround.

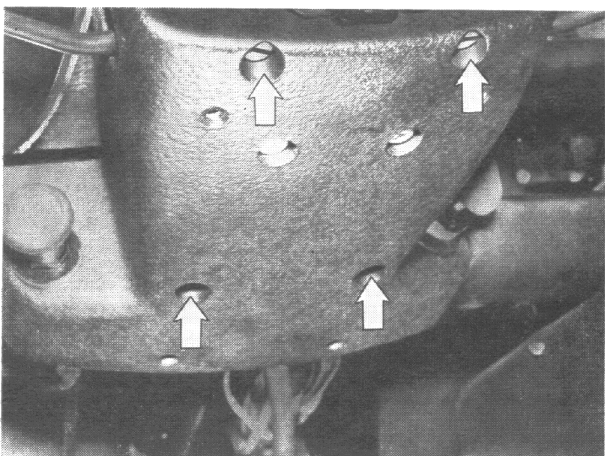


Remove lower center section of instrument panel trim.

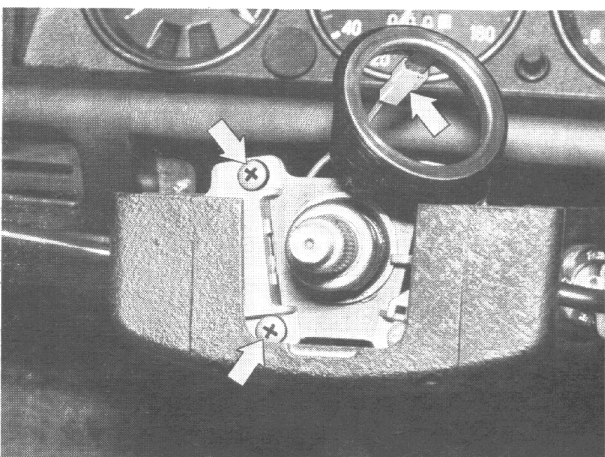


Detach dipswitch plug.

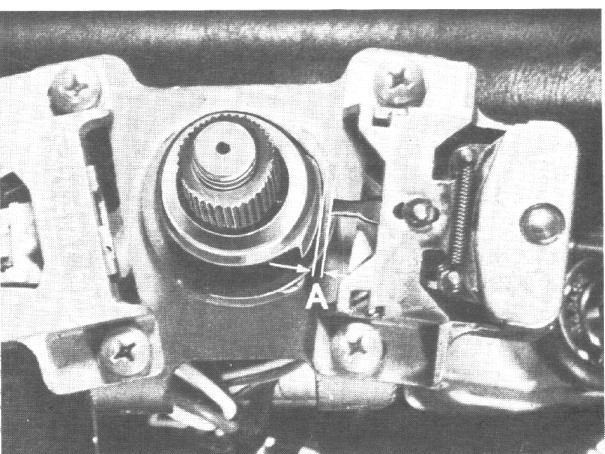




Remove steering wheel 32 33 000.
Remove upper section of surround.

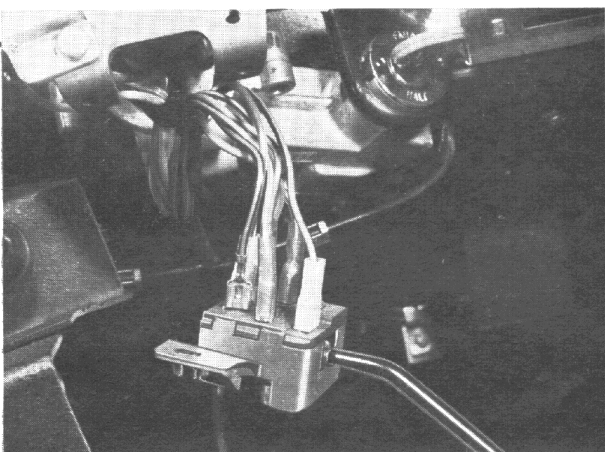


Lift out horn contact ring. Pull away lead.
Detach cable clip.
Remove screws holding dipswitch.
Pull switch out upwards, complete with lead and plug.



61 31 010 Removing and fitting direction indicator switch

Remove and fit lower section of casing 32 31 020.
Mark position of indicator switch and detach switch.
When installing: Play (A) between dog and reset cam is approx. 0.3 mm (0.0118 in.).



Pull off cable.

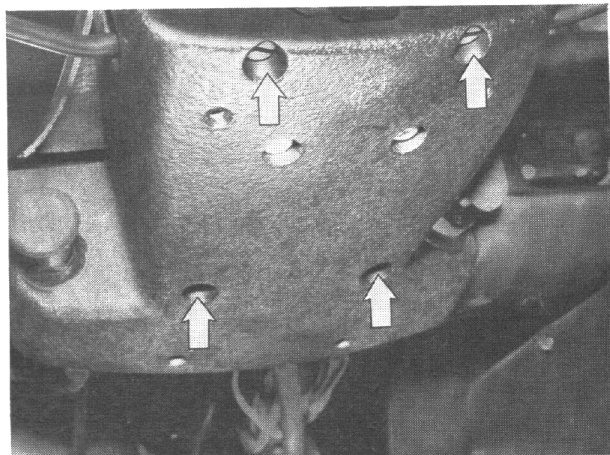
When installing:

Cable colour:	grey	=	P
	green/yellow	=	54
	blue/black	=	R
	blue/red	=	L
	brown/black	=	H
	grey/green	=	PR
	grey/black	=	P1

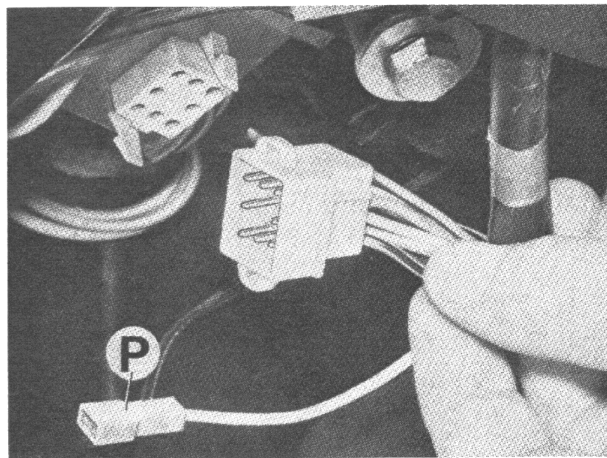


On touring and 71 models:

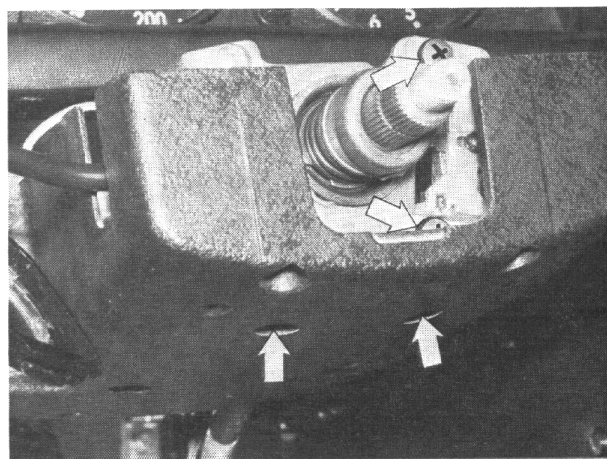
Disconnect the negative lead at the battery.
Detach and attach the lower center facia trim – 51 45 190.
Remove and install the steering wheel – 32 33 000.
Detach the upper section of the surround trim.
Lift out the horn contact ring.



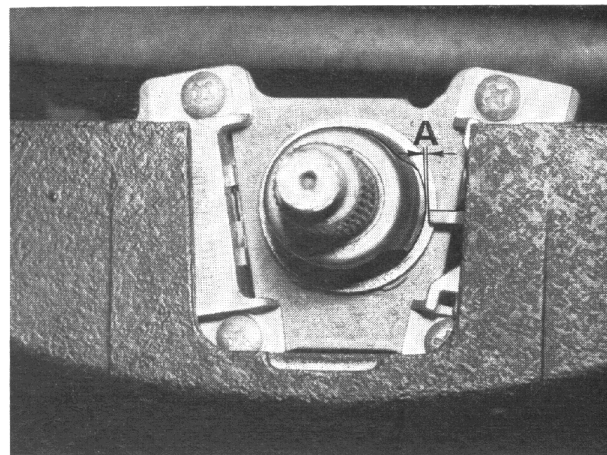
Detach the plug for the turn indicator switch.
Disconnect the lead at terminal P on the ignition/starter switch.

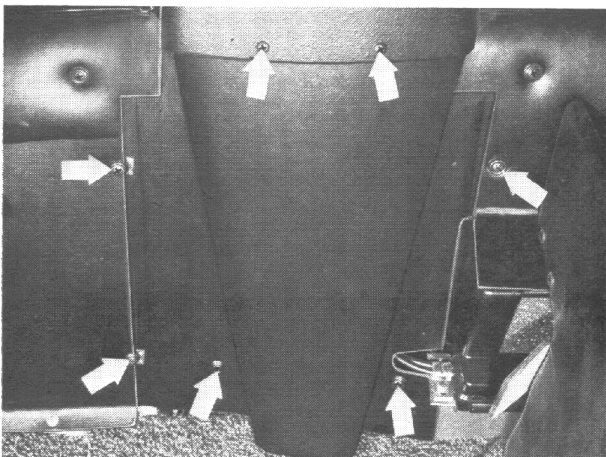


Remove the screws holding the turn indicator switch.
Loosen the screws for the lower steering column surround.
Detach the cable retainer. Pull the turn indicator switch out upwards complete with lead and plug connector.



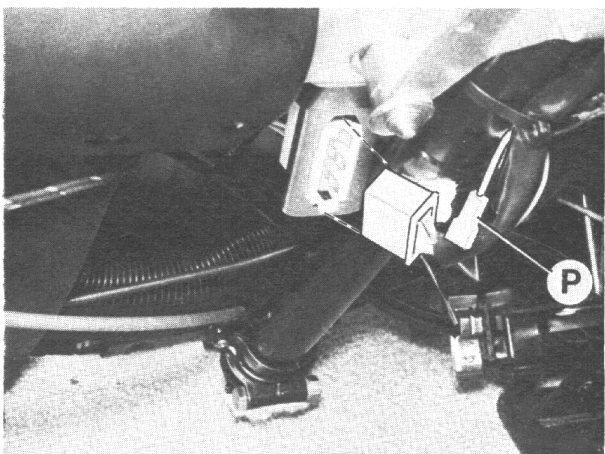
When installing: Adjust clearance (A) between the actuating peg and the cancelling cam to approx. 0.3 mm (0.012 in) with the turn indicator switch.



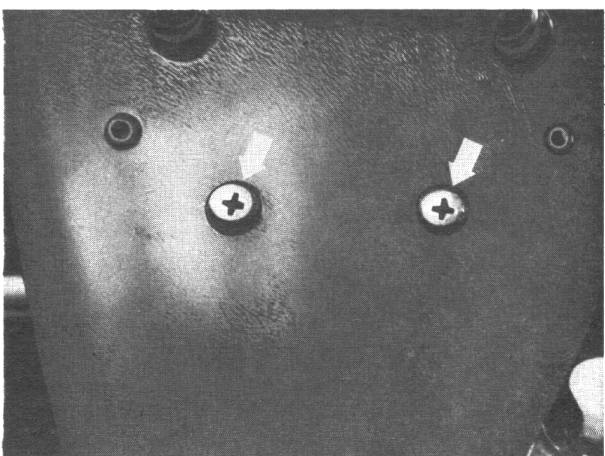


61 31 015 Turn indicator and headlight low beam switch – removing and installing

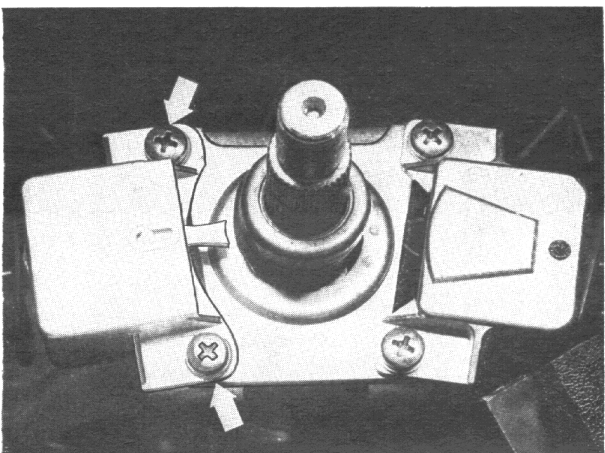
Disconnect the negative lead at the battery.
Remove and install the upper steering column surround – 32 31 000.
Remove the lower center facia trim.



Separate the plug connector and detach the lead from terminal P on the ignition/starter switch.



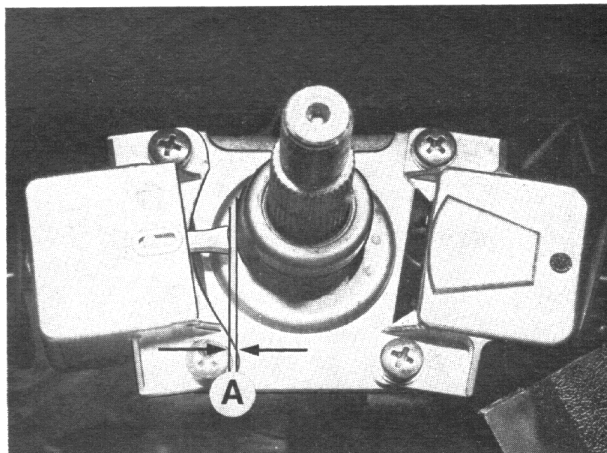
Detach the lower steering column surround and swing over to one side. The choke cable remains attached.



Detach the cable strap from the steering column.
Loosen screws and pull the turn indicator and low beam switch out upwards complete with the plug connector.



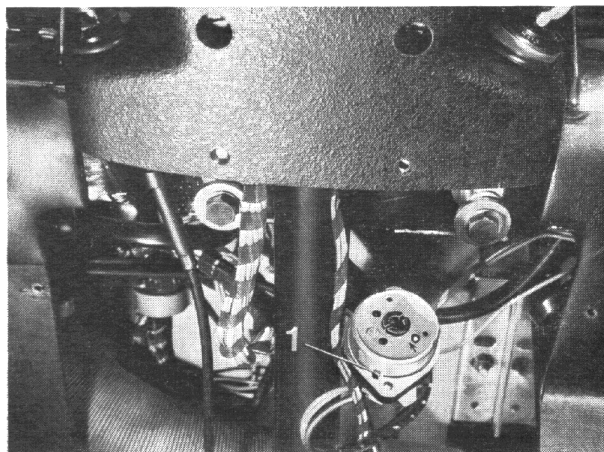
When installing: Adjust clearance (A) between actuating peg and cancelling cam to approx. 0.3 mm (0.012 in) by moving the turn indicator switch.



61 31 020 Steering lock and ignition/starter switch – removing and installing

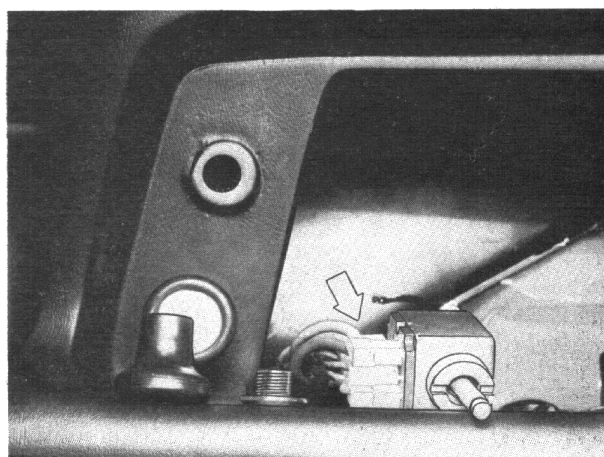
Disconnect negative lead at battery.
Detach and attach lower center facia trim – 51 45 190.
Turn ignition key to “Halt” (Stop) position.
Remove the machine screws from the ignition/starter switch and detach the leads.

When installing: Connect leads as shown in wiring diagram. In the “Halt” position, the arrow must point to the ball. Install the switch with the locating lug (1) in the slot in the steering lock.



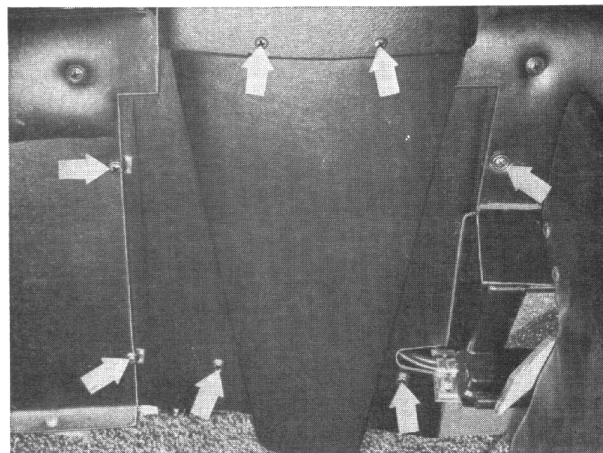
61 31 030 Main light switch – removing and installing

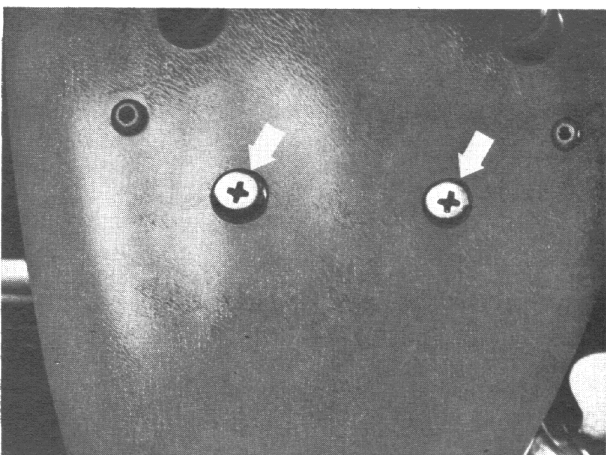
Remove and install the instrument panel carrier – 62 21 000.
Unscrew the switch knob and detach the light switch.
Pull off the multi-pin plug.



61 31 040 Wiper switch – removing and installing

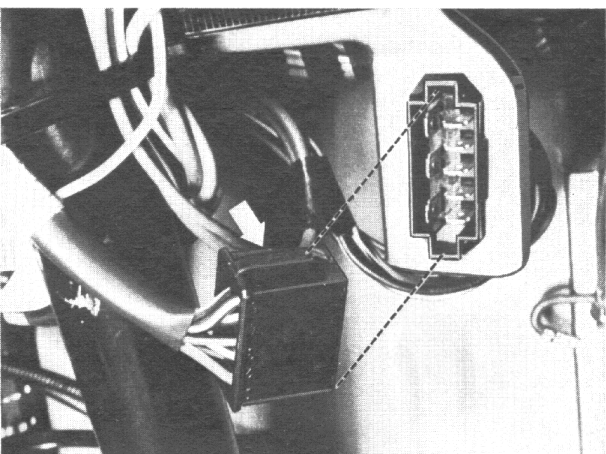
Disconnect negative lead at battery.
Remove and install upper steering column surround – 32 31 000.
Remove the lower center facia trim.



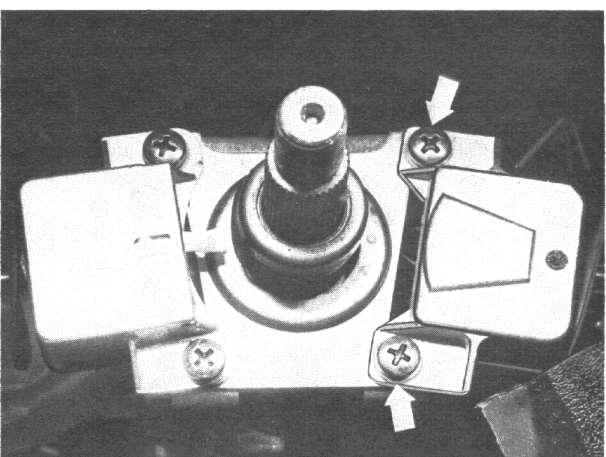


Detach the lower steering column surround and swing to one side.

The choke cable remains attached.



Separate the plug connector.



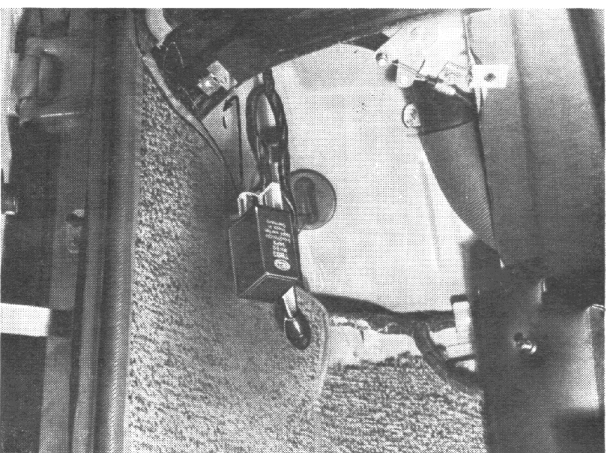
Detach cable strap from steering column.

Pull off lead at horn contact ring.

Loosen screws and pull out wiper switch upwards complete with plug.



61 31 360 Hazard warning flasher unit – removing and installing



Detach and attach lower left facia trim – 51 45 180.

Detach hazard warning flasher unit and pull off multi-pin plug.

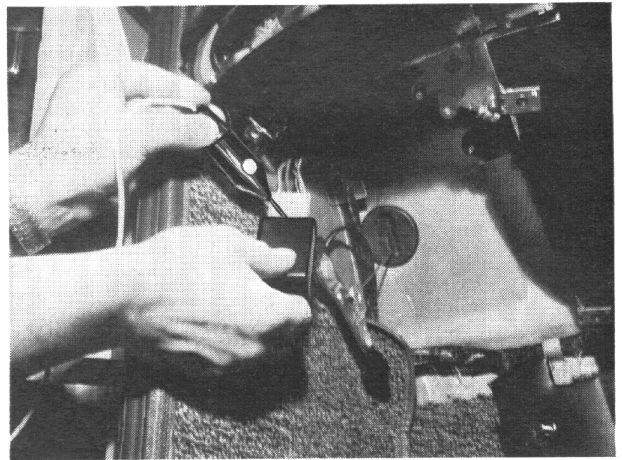


Testing the hazard warning flasher unit:

a) without removing from car:

Switch on the ignition **for a brief period only**.

Apply a test lamp to terminal + 49 (blue / green) and check that supply lead is live. If test lamp lights up, the relay must be defective.

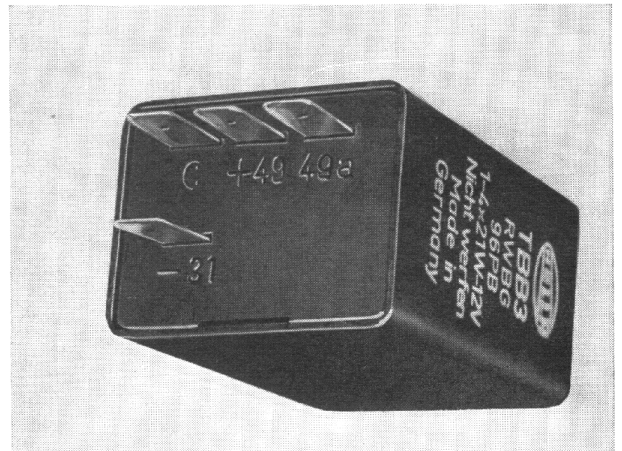


b) After removing from car:

Apply a 12 Volt supply to the + 49 terminal and connect terminal - 31 to earth.

Connect 2 x 21 Watt test lamps to terminal 49a and a 3 Watt test lamp to terminal C.

The lamps should flash in the normal operating rhythm of the unit.



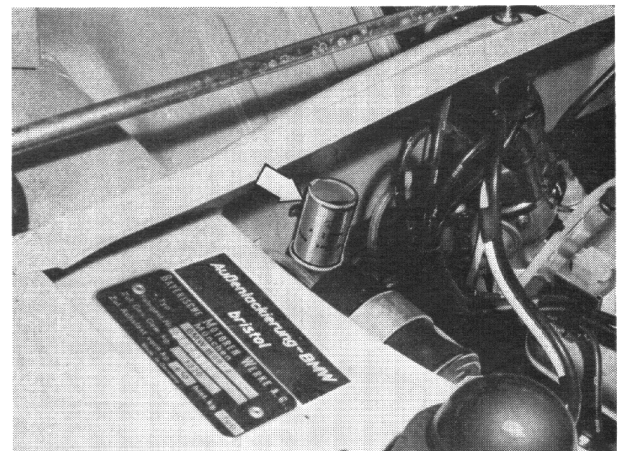
61 31 440 Windshield washer delaying relay – removing and installing

Disconnect the negative lead at the battery.

Detach the delaying relay and pull off the cable.

When installing:

Cable colors green/blue = 15
 brown/black = 31 b
 black = M

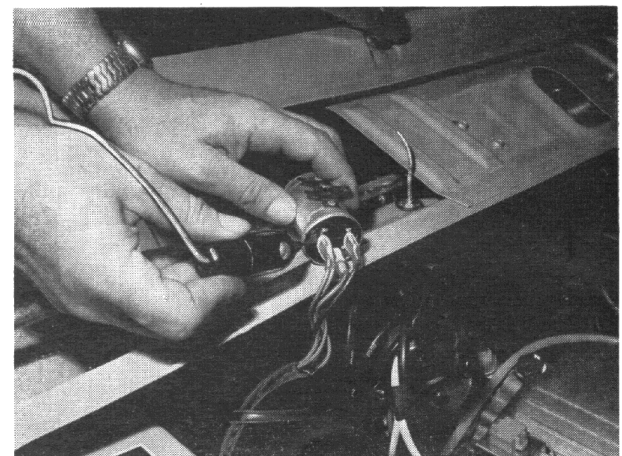


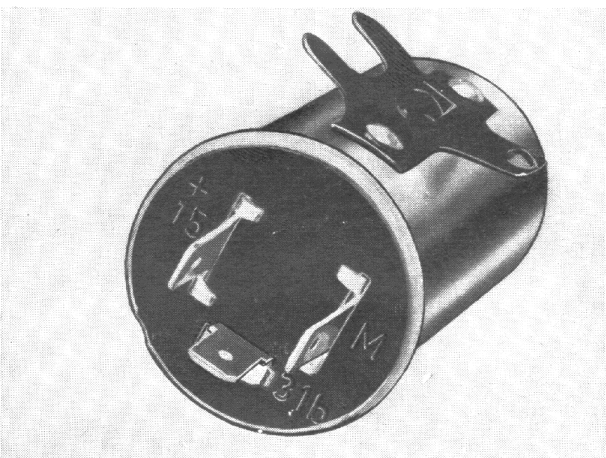
Testing the delaying relay:

a) without removing from car:

Switch on the ignition **for a brief period only**.

Connect a test lamp to terminals 15 and 31 b to determine whether the supply lead is live. If the test lamp lights up, the fault must be in the delaying relay itself.





b) after removing from car:

Apply 12 Volts to terminal 15 and connect terminal 31 b to earth.

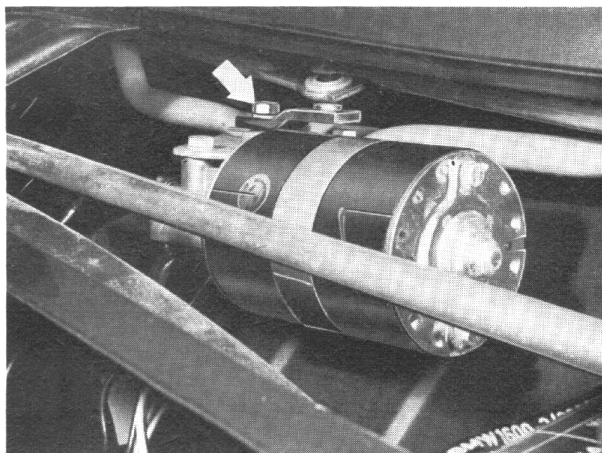
A test lamp at M must come on for approx. 5 seconds, go out briefly and then come on again.



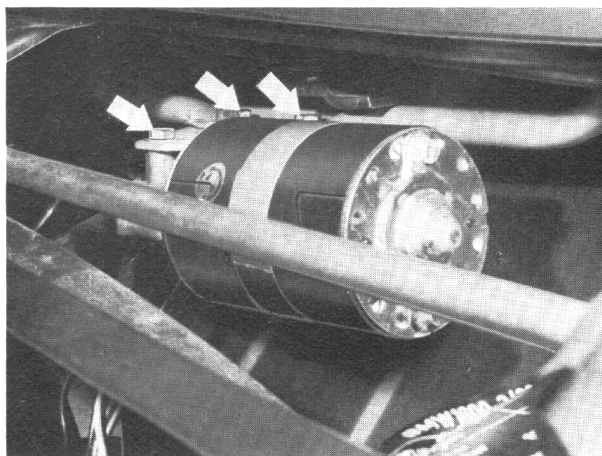
61 61 250 Removing and fitting windshield wiper motor

Unscrew nut and remove drive crank.

Fitting instruction: Fit drive crank in end position.



Unscrew retaining screws.



Pull off cable from contact strip (1)
and detach earth lead (2).

Lift out windshield wiper motor.

