

# 70 117 - AN - 10.2001

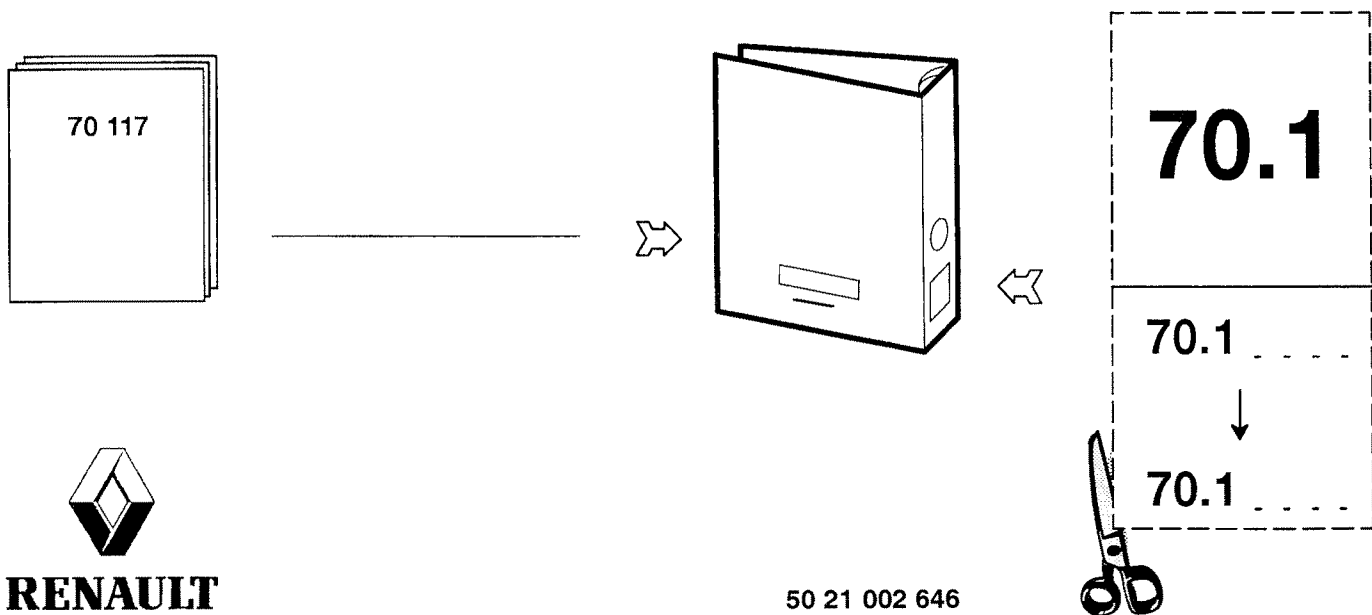
## ELECTRICS

ELECTRICS	VEHICLE
ELECTRICAL EQUIPMENT	RENAULT MASCOTT DCI

**NOTE**

The above information may change in the course of time.

Only the "Consult" section of the workshop manuals repertory in standard N° 10320 serves as reference.



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**GENERALITIES**

## WORKSHOP MANUAL ORGANIZATION PRINCIPLE

This manual is based on technical memos from Renault S.A., and is presented as follows :

- 1) Presentation of the different chapters using examples taken from the manual,
- 2) Repertory of legends,
- 3) Electrical diagrams,
- 4) Location of electrical appliances,
- 5) Description of fuses and relays,
- 6) Presentation of instrument panels,
- 7) Available power supplies,
- 8) Trailer socket,
- 9) Earthing (grounding) diagrams.

## COLOUR EQUIVALENCIES

Colours of wires and connectors

BA .....	White	JA .....	Yellow	RG .....	Red
BE .....	Blue	MA .....	Brown	SA .....	Salmon
BJ .....	Beige	NO .....	Black	VE .....	Green
CY .....	Crystal	OR .....	Orange	VI .....	Violet
GR .....	Grey				

Colours of wires/ electrical function

4 basic colours are used for the identification of wire equipotentials.

- Red .....+ 12 Volts before ignition power supply
- Yellow.....+ 12 Volts after ignition power supply
- Blue.....Lighting and signalling
- Black.....Earth (ground)

The other colours do not correspond to any precise electrical status. They are used for the purpose of better identification in a wiring harness or connector.

## LEGEND

The codification system serves to identify all the electrical units shown in the workshop manual without having any text in the electrical diagrams and the drawings.

In the workshop manual, 5 types of unit are to be distinguished :

- Electrical appliances,
- Electrical connectors between wiring harnesses,
- Instrument panels,
- Earths (grounds),
- Connecting units.

A recap table serves to identify and classify all the code numbers of electrical units in alphanumeric order. A location for each unit refers to the electrical diagrams plate concerned.

Example :

169FAA - "EGR" ECU .....20-21

169FAA: electrical unit item number

"EGR" ECU: electrical unit legend

20-21: location of the electrical unit on the electrical diagram plate.

## ELECTRICAL DIAGRAM

The electrical diagrams are drawn up according to functions or features so as to understand the system better and make for faster diagnostics.

The electrical diagram includes several plates numbered to the bottom right.

A summary of functions, at the beginning of the chapter, serves to identify the corresponding electrical diagram plate.

An electrical plate explains the new representation of the diagrams (see next page).

The new system of symbols for the electrical diagram is described in a table resuming each drawing used and its meaning (see next page).

### Note

A splice is an electrical link between several wires, always with the same potential, soldered to one another. A connecting strip can contain several links with different potentials.

## LOCATION OF APPLIANCES

This chapter situates each electrical appliance on the vehicle (on chassis, in cab and on major unit).

All the electrical units shown in the schematic diagram are pinpointed.

Starting from the item number of the electrical unit concerned, you have to refer to the equivalencies table to find the associated location plate.

### Example :

903FDA - Fast idling control

To locate the "fast idling control", make use of the item number of the unit concerned "903FDA". Using the equivalencies table, at the beginning of the chapter, you will find that item number "903FDA" is shown in plate "10". You look for the plate to locate our appliance bearing the coded item number "903FDA".

## CONNECTION UNIT

The connection unit makes the electrical link between relays, fuses and power supplies.

The vehicle is provided with 2 connection units :

- Box/Fuses/Relays connection unit "BFR" situated under the steering wheel in the cab,
- Engine Insert Box connection unit "BIM" situated on the front end on the chassis.

### Fuses / Relays

This chapter lists all the fuses and relays on the connection units, completed by their symbol and their assignment.

A location for each component (fuses and relays) refers back to the electrical diagrams plate concerned.

A "fuse/relay" label for each connection unit serves for on-vehicle identification.

## **INSTRUMENT PANELS**

This chapter presents the 2 instrument panels for the vehicle (with or without tachograph).  
A location for each component (indicator lights and gauges) refers to the electrical diagrams plate concerned.

## **AVAILABLE POWER SUPPLIES**

This chapter shows the possibilities for making electrical connections to the chassis and in the cab.

## **TRAILER SOCKET**

This chapter gives information on the hook-up of a trailer socket.

## **EARTHING (GROUNDING) DIAGRAM**

This chapter lists all the earths (grounds) of the vehicle and situates them in photographs.  
A location for each earth (ground) refers to the electrical diagrams plate concerned.

REAR RUN-UNDER GUARD-MOUNTED STOP LAMPS

MASCOTT

Symbol for "diagram"

Title of feature represented

Connection unit

Connection identification

Connector colour

Connector number

Wire section  
Wire colour  
Wire number

Splice identification

Connection identification  
Hook-up connector  
support colour

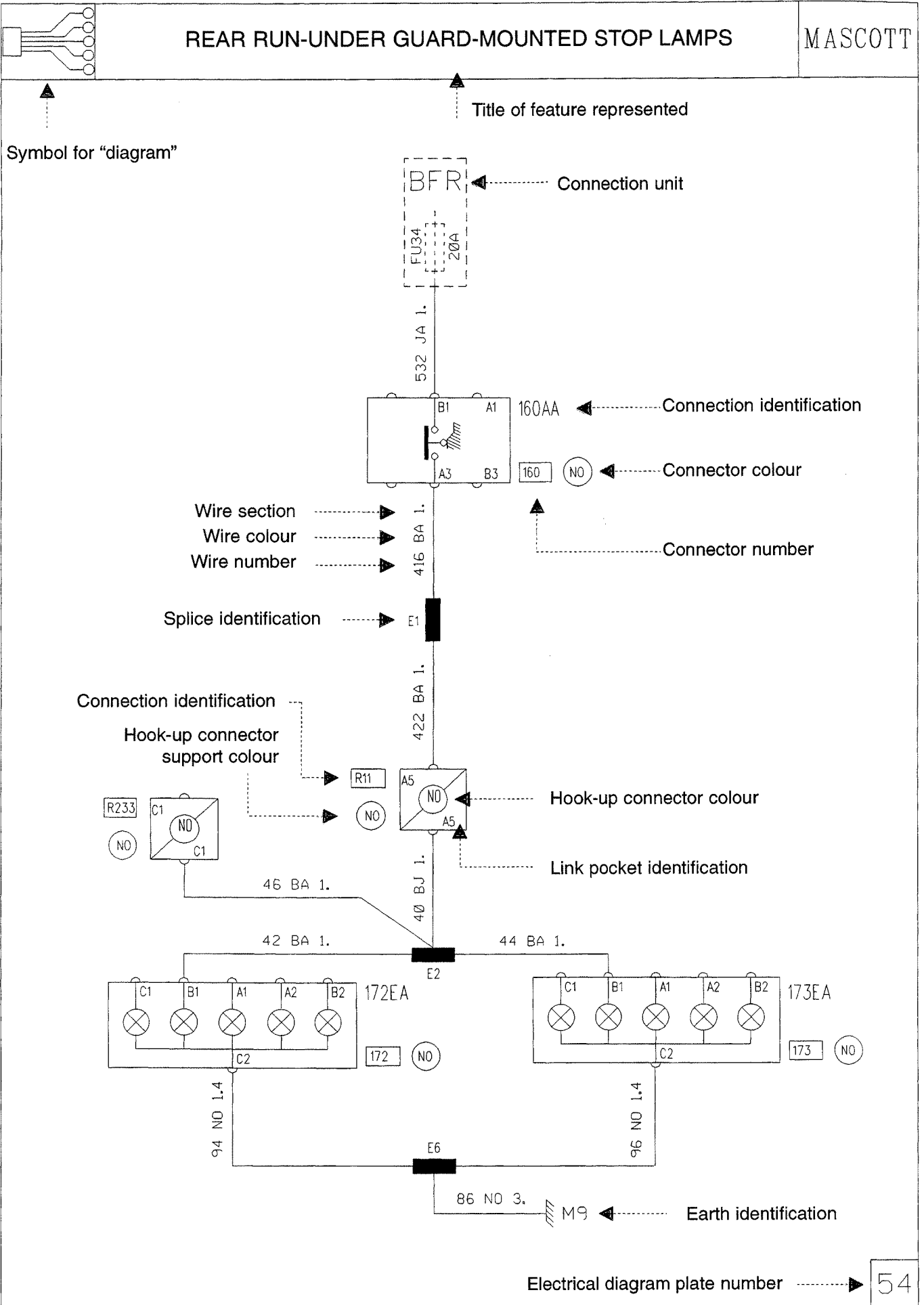
Hook-up connector colour

Link pocket identification


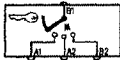






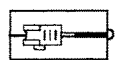







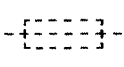

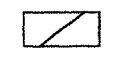



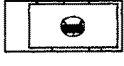





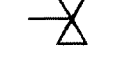



Earth identification

Electrical diagram plate number

54























## ELECTRICAL DIAGRAM SYMBOLS SYSTEM

Symbols	Assignment	Symbols	Assignment
	Connection unit "BFR"		Steering lock and starting control
	Connection unit "BIM"		Closing switch control
	Battery set "+" terminal		Opening switch control
	Battery set "-" terminal		Reversing switch control
	Power supply lug		Multi-position control
	Hook-up connector		Multi-position control
	Connecting strip		Electrical rearview mirrors control
	Splice		Level switch
	Fuse		Thermal switch
	Relay		Pressure switch
	Relay		Pressure controller
	Time-delay relay		Mechanical stop
	Warning bleeper		Diode
	Warning buzzer		Resistor
	Solenoid valve		Resistor
	Electronic injector		Winding



## ELECTRICAL DIAGRAM SYMBOLS SYSTEM

Symbols	Assignment	Symbols	Assignment
	"ABS" sensor		Bulb
	Sensor		Warning lamp
	Level sensor		Tell-tale lamp
	Pressure sensor		Gauge
	Temperature sensor		Engine rev counter
	Speed sensor		Instrument panel
	Electric motor		Radio-frequency receiver
	Ventilation unit		Loudspeaker
	Air conditioning unit		Power take-off
	Electronic box / ECU		Diagnostics socket

**LEGEND TO APPLIANCES**

## LEGEND TO APPLIANCES

Item	Assignment	Plates
101 BA	Cigar lighter	78
103 F A1	Alternator "+"	10
103 FBA	Alternator "W"	10
103 FBB	Alternator "L"	10
104 AA	Steering lock and starting control	3-4-5-6-7-8-9-10
104 DA	Transponder antenna	11
105 AA	Horn	72-73
107 BA	Battery set	10
107 FA1	Battery set	10
107 FAB	Battery set	3-4-5-6
118 FAA	"ABS" solenoid valves	56
118 FAB	"ABS" ECU	56
120 FAA	Engine connector "COMMON RAIL" ECU	18
120 FBA	Cab connector "COMMON RAIL" ECU	15-16-19-32-43-65
123 AA	Doors central locking control	11
128 AA	Rearview mirrors defrosting control	76
132 AA	Driver's window winder control	74
133 BA	Passenger's window winder control (passenger's side)	74
134 AA	Exterior rearview mirrors swivelling control, LH drive	75
138 AA	RH side door electric striker	11
139 AA	LH side door electric striker	11
140 AA	Driver's door electric striker	11
141 AA	Passenger's door electric striker	11
145 BA	Windscreen wipe/wash control	52-53-54
147 FAA	"EGR" atmospheric pressure sensor	13
150 FBA	"ABS" RH rear sensor	56
151 FBA	"ABS" LH rear sensor	56
152 FBA	"ABS" RH front sensor	56
153 FBA	"ABS" LH front sensor	56
154 AA	Rear door switch	50-51
155 FBA	Reversing switch	44-47
156 AA	Parking brake indicator switch	68
160 AA	Stop lights switch	42
160 FAA	Engine stop immobilizer coded solenoid valve	11
160 FAB	"KSB" injection timing anti-stall device	13-14
160 FAC	Engine stop solenoid valve	12
160 FFA	Stop lights switch (pedal position information)	15-16-43
163 FA1	Starter "+"	10
163 FBA	Starter "solenoid"	10
169 FAA	"EGR" ECU	13
169 FBA	"EGR" solenoid valve	13
169 FWA	Variable geometry turbo solenoid valve	17
171 FAA	Air conditioning compressor	31-32

## LEGEND TO APPLIANCES

Item	Assignment	Plates
172 BA	Van RH rear signalling lamp (flashing, stop, parking, fog, reversing)	35-43
172 FFA	RH rear signalling lamp (flashing, stop, parking, fog, reversing)	33-34-40-41-42
173 BA	Van LH rear signalling lamp (flashing, stop, parking, fog, reversing)	35-43
173 FBB	LH rear signalling lamp (flashing, stop, parking, fog, reversing)	33-34-40-41-42
178 AA	RH side door switch	49-50
179 AA	LH side door switch	49
180 AA	Driver's door switch	48
181 AA	Passenger's door switch	48
184 AA	RH front parking lamp	33-34-35
184 FA1	RH marker lamp	46
184 FA2	RH marker lamp	46
184 FA3	RH marker lamp	46
184 FB1	Roof lamps	45
184 FFB	Roof RH lamp hook-up connector	45
185 AA	LH front parking lamp	33-34-35
185 FA1	LH marker lamp	46
185 FA2	LH marker lamp	46
185 FA3	LH marker lamp	46
185 FFB	Roof LH lamp hook-up connector	45
188 FAA	Declutching fan	27-28-31
188 FAB	Declutching fan	29-32
188 FBA	Declutching fan	13
191 AA	RH front loudspeaker	81
192 AA	LH front loudspeaker	81
193 FAA	Electronic injector N° 1	18
194 FAA	Electronic injector N° 2	18
195 FAA	Electronic injector N° 3	18
196 FAA	Electronic injector N° 4	26
199 BA	Fuel level sender	67
203 AA	Passenger's electric window winder motor	74
204 AA	Driver's electric window winder motor	74
205 FAA	Engine oil pressure sensor	66
206 FAA	3-level air conditioning pressure controller	15-16-32
206 FBA	3-level air conditioning pressure controller	31
207 FBA	Brake fluid level switch	69
209 AA	Lighting rotary switch	33-34-35-37-40 41-46-72-73
212 BA	Front windscreen wiper motor	52-53-54
213 BA	Map reader	11-48-50-51
216 FAA	RH front brake pads wear switch	70-71

## LEGEND TO APPLIANCES

Item	Assignment	Plates
217 FAA	LH front brake pads wear switch	70-71
218 FEA	Electric fuel booster pump	15-16
218FFA	Electric fuel booster pump	15-16
219 AA	Headlamp wash pump	55
221 BA	Windscreen wash pump	52-53-54
225 FAA	Diagnostics socket "OBD2"	13-15-16-56-57 58-59-63-85
226 AA	RH main and dipped beam headlamps	36-37-38-39
227 AA	LH main and dipped beam headlamps	36-37-38-39
239 AA	Driver's swivelling defrosting rearview mirror	75-76
240 AA	Passenger's swivelling defrosting rearview mirror	75-76
243 FAA	Engine oil level sensor	66
244 FAA	"EGR engine cooling circuit temperature sensor	13
247 FEA	Instrument panel without tachograph	61
247 FEB	Instrument panel without tachograph	60-61
247 FEC	Instrument panel without tachograph	60-61
247 FED	Instrument panel without tachograph	60
247 FFA	Instrument panel with tachograph	63
247 FFB	Instrument panel with tachograph	63
247 FEC	Instrument panel with tachograph	62
251 FAA	Engine cooling circuit temperature sensor	18
251 FBB	Engine cooling circuit temperature sensor	66
255 AA	RH front flashing lamp	40-41
256 AA	LH front flashing lamp	40-41
257 FAA	"FLAMMSTART" preheating box	4-20
258 FAA	Preheat plugs relay	13
258 FAB	Preheat plugs	13
258 FAC	Battery set	13
259 FAA	Fuel temperature sensor	18
260 AB	Connection unit "BFR"	1-2
260 AC	Connection unit "BFR"	1-2
260 CA	Connection unit "BFR"	1-2
260 FCA	Air conditioning compressor relay	31
260 FCB	Fuel filter preheater relay	24-25
260 FCG	"COMMON RAIL", servo-assisted clutch, booster pump relay	15-16-32
261 AA	Radio (power supply)	81
261 BC	Radio (steering wheel fingertip control)	81
261 FAB	Radio (loudspeakers)	81
267 FAA	RH side flashing lamp	40-41
268 FAA	LH side flashing lamp	40-41
273 FAA	Engine speed sensor	13
273 FAF	Engine flywheel speed sensor	18
298 FAB	Evaporator temperature thermal switch	31
298 FBA	Evaporator temperature thermal switch	31
319 CA	Ventilation and air conditioning with heating control	30

## LEGEND TO APPLIANCES

Item	Assignment	Plates
319 DA	Ventilation and air conditioning with heating control	15-16-31
320 AA	Fan	30
320 AB	Fan	30
320 BA	Condenser fan	31-32
320 BB	Condenser fan	31-32
338 FAA	"RAIL" fuel high-pressure sensor	18
346 FAA	High-pressure pump 3rd element cut-off solenoid valve	18
346 FBA	High-pressure delivery regulation solenoid valve	18
350 FAA	LH rear brake pads wear switch	70-71
351 FAA	RH rear brake pads wear switch	70-71
398 FAA	Variable geometry turbocharger	18
404 FAA	"KSB" temperature sensor	14
406 FAA	Engine cooling circuit temperature sensor	20
414 FAA	Fuel filter clogging sensor	26
414 FBA	Fuel filter water presence sensor	26
439 FAA	"ABS" ECU relay	3-4-5-6-56
451 FAA	Fuel filter preheater	24-25
463 FA1	Available power supply (lighting "+")	33-34
463 FA2	Available power supply (lighting "-")	33-34
483 FBA	Accelerator pedal position sensor	13
483 FCA	Accelerator pedal position sensor	15-16
495 AA	Passenger's heated seat	79
496 AA	Driver's heated seat	79
503 AA	Radio-frequency central locking box (doors)	11
503 AB	Radio-frequency central locking box (doors)	11-50
506 FAD	PTO safety box	82
506 FBE	Power take-off	82
506 FCA	Inter-wheel diff. lock hook-up connector	80
506 FCB	PTO hook-up connector	82
506 FDA	Without inter-wheel diff. lock switch plug	80
506 FEA	Inter-wheel diff. lock switch	80
506 FEB	Inter-wheel diff. lock hook-up connector	80
506 FFA	Trailer LH flashing lamps	83
506 FFB	Trailer fog lamps	83
506 FFC	Trailer earth	83
506 FFD	Trailer RH flashing lamps	83
506 FFE	Trailer RH parking lamps	83
506 FFF	Trailer stop lamps	83
506 FFG	Trailer LH parking lamps	83
506 FGA	PTO hook-up connector	82
506 FHA	PTO switch	82
506 FJA	Reversing buzzer	47
508 CA	Rear door overhead lamp	50-51
518 FAA	Vehicle without tachograph speed sensor	64-65
518 FAB	Vehicle with tachograph speed sensor	62
520 CA	RH & LH side door overhead lamp	50

## LEGEND TO APPLIANCES

Item	Assignment	Plates
529 AA	Overhead lamps	49
529 AC	Overhead lamps	49
532 BA	Passenger's window winder control (driver's side)	74
537 BA	LH headlamp adjusting motor	36-38-39
538 BA	RH headlamp adjusting motor	36-38-39
562 AA	Headlamps adjustment control	36-38-39
586 AA	Hazard lights control	40-41-47
597 AA	Cab power fuse "BIM"	3-4-5-6-7-8-9
597 AB	Windscreen defrosting fuse "BIM"	3-4-5-6
597 FAA	Power supply "+" "BIM"	3-4-5-6
597 FDA	Fuel filter preheater / preheat box fuse "BIM"	3-4-5-6
597 FEB	ABS" ECU fuse "BIM"	3-4-5-6
608 FAA	Engine radiator cooling circuit temperature sensor	27-28-31
608 FAB	Engine radiator cooling circuit temperature sensor	27-28-31
613 BA	Windscreen defrosting control	77
634 FAB	Clutch pedal position sensor	15-16-82
647 AA	Windscreen defrosting resistor	77
653BA	Radio (display)	81
696 FAA	Interior lighting connecting strip	49-50
713 FAA	"COMMON RAIL" engine / cab box connection	15-16-21-32
713 FBA	"COMMON RAIL" cab / engine box connection	15-16-32
713 FDA	Engine box / cab box connection	18
713 FWA	Declutching fan relay	29
721 FAA	"ABS" ECU	56
721 FAB	"ABS" ECU	56
721 FAC	"ABS" ECU	56
743 FAC	Fuel filter temperature sensor	22-23
743 FAD	Fuel filter temperature sensor	22-23
743 FAE	Fuel filter preheater	22-23
746 FAA	Camshaft speed sensor	18
756 BA	"Airbag" ECU	85
757 AA	Driver's pretensioner	85
758 BA	Passenger's pretensioner	85
799 FAA	Turbocharging air pressure and temperature sensor	18
804 FBA	Fast idling and cruise control relay	19
817 BA	Windscreen defrosting resistance relay	3-4-5-6-77
839 FEA	Preheating warning lamp non-return diode	13-15-16-20
839 FEB	Preheating warning lamp non-return diode	13-15-16
861 BA	Passenger's airbag	85
867 FAA	LH rear fog lamp	35
868 FBA	RH reversing lamp(s)	47
884 FA1	Available power supply (chassis/cab link)	84
884 FA2	Available power supply (chassis/cab link)	84
884 FA3	Available power supply (chassis/cab link)	84
884 FB4	Available power supply (chassis)	84
892 FAA	"FLAMMSTART" solenoid valve	20
892 FCA	"FLAMMSTART" solenoid valve	21

## LEGEND TO APPLIANCES

Item	Assignment	Plates
893 FAB	"FLAMMSTART" preheat plugs	21
893 FAC	"FLAMMSTART" preheat plugs	20
903 FDA	Fast idling control	19
903 FDB	Cruise control	19
903 FEA	PTO control with built-in warning light	82
903 FEB	PTO control with built-in warning light	82
903 FFA	Reversing buzzer control	47
980 FAB	"KSB" fuel filter preheater and electrical anti-stall device relay	3-13-22
980 FBB	"FLAMMSTART" preheat plugs relay	5-6-21
980 FCA	Fuel filter preheater and declutching fan relay	4-23-28-31
980 FEA	"FLAMMSTART" solenoid valve and fuel filter water presence relay	5-6-21-47
1030 FA	Resistor	15-16
1030 FB	Resistor	13-15-16
1030 FC	Resistor	15-16
1030 FD	Resistor	13-15-16-20
1030 FE	Resistor	13-20
1030 FF	Resistor	13
1062 FBD	Direction indicator lamps repeater lamp non-return diode	40
1062 FBE	Direction indicator lamps repeater lamp non-return diode	40
1062 FBF	Direction indicator lamps repeater lamp non-return diode	40
1062 FBG	Direction indicator lamps repeater lamp non-return diode	40
1062 AA	Interior lighting diode	50
1249 BA	Driver's airbag	85
PI13 FCA	Cab box / engine box connection	14-24-25-29-32



## LEGEND TO HOOK-UP CONNECTORS

Item	Colours	Assignment	Plates
184 FFB	NO	Roof RH hook-up connector	45
185 FFB	NO	Roof LH hook-up connector	45
506 FCA	NO	Inter-wheel diff. lock hook-up connector	80
506 FCB	NO	PTO hook-up connector	82
506 FEB	NO	Inter-wheel diff. lock hook-up connector	82
506 FGA	NO	PTO hook-up connector	82
713 FAA	NO	Power unit wiring harness → cab connector "COMMON RAIL" ECU wiring harness	15-16-21-32
713 FBA	NO	Cab connector "COMMON RAIL" ECU wiring harness → power unit wiring harness	15-16-32
713 FDA	NO	Engine connector "COMMON RAIL" ECU wiring harness → cab connector "COMMON RAIL" ECU wiring harness	18
817 FGA	NO	Heated windscreen hook-up connector	77
884 FB4	NO	Available power supplies (chassis)	84
PI13 FCA	NO	Cab connector "COMMON RAIL" ECU wiring harness → engine connector "COMMON RAIL" ECU wiring harness	17-24-25-29-32

## LEGEND TO HOOK-UP CONNECTORS

Item	Colours	Assignment	Plates
R3	GR	Dashboard wiring harness → driver's door wiring harness	11-74-75-76
R4	CY	Dashboard wiring harness → passenger's door wiring harness	11-74-76
R11	NO	Dashboard wiring harness → chassis wiring harness	33-40-42-44-46 47-70-71-80
R34	BE	Dashboard wiring harness → engine wiring harness	10-11-12-13-14- 15-16-20-21-22- 23-24-25-26-27- 28-29-31-32-44- 47-66-77
R34	NO	Dashboard wiring harness → cab connector "COMMON RAIL" ECU wiring harness	15-16-17-19-24- 25-29-32-38-39- 43-65
R36	BE	Dashboard wiring harness → "ABS" wiring harness	16-56
R39	NO	Van LH signalling lamp wiring harness and trailer socket	34-35
R40	NO	Van RH signalling lamp wiring harness and trailer socket	34-35-43
R107	GR	Dashboard wiring harness → front end wiring harness	33-34-35-36-37- 38-39-40-41-52- 53-54-55-67-69- 72-73
R136	NO	Van LH rear door hook-up connector	34-35-43
R137	NO	Van RH rear door hook-up connector	11
R158	NO	Roof RH rear wiring harness → dashboard wiring harness	11-34-35-43-47- 49-50-51
R216	NO	Fuel level sender hook-up connector	67
R233	NO	Trailer socket hook-up connector	33-40-42-44-83
R260	BE	Roof LH rear wiring harness → dashboard wiring harness	34-35-43-46-50

## LEGEND TO INSTRUMENT PANEL

Item	Assignment	Plates
<b>T01</b>	PTO "Information" tell-tale lamp	60-61-81
<b>T02</b>	Inter-wheel diff. lock "Information" tell-tale lamp	60-61-80
<b>T03</b>	Fog driving lights warning lamp	-
<b>T04</b>	Windscreen defrosting warning lamp	60-61-77
<b>T05</b>	Engine cooling circuit level "Information" tell-tale lamp	-
<b>T06</b>	Heated seats warning lamp	60-61-79
<b>T07</b>	Rearview mirrors and rear window defrosting warning lamp	60-61-76
<b>T09</b>	Engine cooling circuit temperature "Alert" warning lamp	60-61-66
<b>T10</b>	Parking brake / brake fluid level "Alert" warning lamp	60-61-68
<b>T11</b>	ABS "Alert" warning lamp	56-60-61
<b>T12</b>	Engine cooling circuit temperature gauge	60-61-66
<b>T13</b>	Vehicle electronic defect / preheating "Information" tell-tale lamp	13-15-16-20-60-61
<b>T14</b>	Headlights main beam warning lamp	36-37-60-61
<b>T15</b>	Fuel filter clogging or water presence "Alert" warning lamp	26-61
<b>T16</b>	Engine oil pressure "Alert" warning lamp	60-61-66
<b>T17</b>	Battery charge warning lamp	10-60-61-77
<b>T18</b>	Fog light(s) warning lamp	33-34-35-60-61
<b>T19</b>	Dashboard lighting	33-34-35-60-61
<b>T20</b>	Headlights dipped beam warning lamp	33-34-35-60-61
<b>T23</b>	Fuel level gauge	60-61-67
<b>T25</b>	Brake pads wear warning light	60-61-69-70-71
<b>T26</b>	Engine immobilizer system warning lamp	11-60-61

**LEGEND TO INSTRUMENT PANEL**

<b>Item</b>	<b>Assignment</b>	<b>Plates</b>
<b>T28</b>	Engine rev counter	10-60-61
<b>T31</b>	Vehicle direction indicator lights repeater lamp	40-41-60-61
<b>T32</b>	Airbag warning lamp	60-61-84
<b>T33</b>	Trailer direction indicator lights repeater lamp	40-60-61
<b>T34</b>	Multi-function display	60-61-66
<b>T35</b>	Speedometer	60-61-63-64-65

## LEGEND TO EARTHS

Item	Assignment	Plates
<b>M2</b>	Driver's side front end electrical earth	33-34-35-36-37 40-41-69-72-73
<b>M3</b>	Battery to chassis frame earth	10
<b>M4</b>	ABS electrical earth	56
<b>M5</b>	Engine electrical earth	11-13-20-22-23- 24-25-26-27- 28-31
<b>M6</b>	Driver's side electrical earth	15-16-29-40-41- 45-46-57-58-59- 74-75-76-84
<b>M8</b>	Roof rear end to chassis frame earth	11-35-41-43-47- 50-51
<b>M9</b>	Chassis frame earth	33-34-40-42-44- 46-47-80
<b>M10</b>	Driver's side electrical earth	7-8-9-11-38-39- 60-61-63-64-65- 77-81
<b>M11</b>	Van electrical earth	34-35-41-43
<b>M12</b>	Pedal gear electrical earth	11-46-48-49
<b>M13</b>	Passenger's door electrical earth	13-15-16-19-30- 31-32-47-60-74- 76-78-79-82
<b>M14</b>	Passenger's side front end electrical earth	33-34-35-36-37- 40-41
<b>M15</b>	Windscreen wipers and headlamp washers electrical earth	52-53-54-55
<b>M16</b>	Airbag electrical earth	85

## LEGEND TO "BFR" CONNECTION UNIT RELAYS

Item	Assignment	Plates
<b>C</b>	"Radio-frequency remote control" hazard lights relay	1-2-11
<b>D</b>	Declutching fan relay - 110/130/140/150 electronic fuel-injection	1-2-32
<b>E</b>	Windscreen defrosting time-delay relay	1-2-77
<b>F</b>	Rearview mirrors defrosting resistor relay	1-2-76
<b>G</b>	Rearview mirrors defrosting time-delay relay	1-2-76
<b>H</b>	Lights not switched off warning buzzer	1-2-50
<b>J</b>	Windscreen wiper speed controller	1-2-52-53-54
<b>K</b>	After-ignition power supply relay	1-2-7-8-9
<b>M</b>	Air conditioning compressor relay - 110/130/140/150 electronic fuel-injection	1-2-15-16-32
<b>P</b>	"COMMON RA1L" ECU relay	1-2-5-6-15-16
<b>Q</b>	Flasher unit	1-2-29-40-41
<b>R</b>	Headlamp washer time-delay relay	1-2-55
<b>260FCA</b>	Air conditioning compressor relay - 110 mechanical fuel-injection	31
<b>260FCB</b>	Air conditioning compressor relay - 110/130/140/150 mechanical fuel-injection	24-25
<b>260FCG</b>	"COMMON RAIL", servo-assisted clutch, booster pump relay – 110/130/140/150 electronic fuel-injection	15-16-32

**ELECTRICAL DIAGRAM**

## SUMMARY TO ELECTRICAL DIAGRAM

Plates	Assignment
1	Connection unit "BFR" - 90/110 - mechanical fuel-injection
2	Connection unit "BFR" - 110/130/140/150 - electronic fuel-injection
3	Connection unit "BIM" - 90 - mechanical fuel-injection
4	Connection unit "BIM" - 110 - mechanical fuel-injection
5	Connection unit "BIM" - 110/130/140/150 - electronic fuel-injection (without options)
6	Connection unit "BIM" - 110/130/140/150 - electronic fuel-injection (with options)
7	After-ignition power supply - 90/110 - mechanical fuel-injection
8	After-ignition power supply - 110/130/140/150 - electronic fuel-injection (without options)
9	After-ignition power supply - 110/130/140/150 - electronic fuel-injection (with options)
10	Power supply and starting - 90/110/130/140/150 - mechanical and electronic fuel-injection
11	Engine immobilizer and radio-frequency central locking (doors)
12	Engine stop solenoid valve
13	"EGR" ECU - 90/110 - mechanical fuel-injection
14	"KSB" electrical anti-stall device - 110 mechanical fuel-injection
15	Cab "COMMON RAIL" ECU - 110/130/140/150 - electronic fuel-injection (with options)
16	Cab "COMMON RAIL" ECU - 110/130/140/150 - electronic fuel-injection (without options)
17	Cab "COMMON RAIL" ECU - 110/130/140/150 - electronic fuel-injection (cont.)
18	Engine "COMMON RAIL" ECU
19	Fast idling and cruise control - 110/130/140/150 - electronic fuel-injection
20	"FLAMMSTART" cold starting device - 110 - mechanical fuel-injection
21	"FLAMMSTART" cold starting device - 110/130/140/150 - electronic fuel-injection
22	Fuel filter preheater - 90 - mechanical fuel-injection
23	Fuel filter preheater - 110 - mechanical fuel-injection
24	Fuel filter preheater - 110/130/140/150 - electronic fuel-injection (without options)
25	Fuel filter preheater - 110/130/140/150 - electronic fuel-injection (with options)
26	Fuel filter water presence and clogging 110/130/140/150 - electronic fuel-injection
27	Declutching fan - 110 - mechanical fuel-injection (without options)
28	Declutching fan - 110 - mechanical fuel-injection (with options)
29	Declutching fan - 110/130/140/150 - electronic fuel-injection
30	Cab heating
31	Cab heating with air conditioning - 110- mechanical fuel-injection



## SUMMARY OF ELECTRICAL DIAGRAM

Plates	Assignment
32	Cab heating with air conditioning - 110/130/140/150 - electronic fuel-injection
33	Run-under guard-mounted parking and fog lamps (without options)
34	Run-under guard-mounted parking and fog lamps (with options)
35	Van parking and fog lamps
36	Main beam headlamps (without options)
37	Main beam headlamps (with options)
38	Headlamps adjustment (without options)
39	Headlamps adjustment (with options)
40	Run-under guard-mounted flashing lamps
41	Run-under guard-mounted flashing lamps (van)
42	Run-under guard-mounted stop lamps
43	Van stop lamps
44	Run-under guard-mounted reversing lamps
45	Roof lamps
46	Van marker lamps (with options)
47	Van reversing lamps - reversing buzzer (RH drive)
48	Cab interior lighting
49	Crew cab interior lighting
50	Van interior lighting (with side door)
51	Van interior lighting (without side door)
52	Windscreen wipe / wash - 90/110 - mechanical fuel-injection
53	Windscreen wipe / wash - 110/130/140/450 - electronic fuel-injection (without options)
54	Windscreen wipe / wash - 110/130/140/450 - electronic fuel-injection (with options)
55	Headlamp washer
56	ABS system
57	Diagnostics socket - 90/110 mechanical fuel-injection
58	Diagnostics socket - 110/130/140/150 - electronic fuel-injection (without options)
59	Diagnostics socket - 110/130/140/150 - electronic fuel-injection (with options)
60	Instrument panel - 90/110 mechanical fuel-injection
61	Instrument panel - 110/130/140/150 - electronic fuel-injection
62	Speed sensor with tachograph - 90/110/130/140/150 - mechanical and electronic fuel-injection
63	Tachograph
64	Speed sensor without tachograph - 90/110 - mechanical fuel-injection
65	Speed sensor without tachograph - 110/130/140 - electronic fuel-injection

## SUMMARY OF ELECTRICAL DIAGRAM

Plates	Assignment
66	Engine oil and cooling circuit temperature gauge
67	Fuel level gauge
68	Parking brake indicator
69	Brake fluid level
70	Van brake pads wear
71	Chassis brake pads wear
72	Horn (without options)
73	Horn (with options)
74	Electric window winder
75	Electric rearview mirrors
76	Rearview mirrors defrosting
77	Windscreen defrosting
78	Cigar lighter
79	Heated seats
80	Inter-wheel diff. lock
81	Radio
82	Power take-off
83	Trailer socket
84	Available power supplies
85	Driver's and passenger's airbag with pretensioners

**Note :** (with options) = vehicle with one of the following options:

Air conditioning

Electric window winders

Remote doors opening

ABS

Fast idling

Power take-off

Headlamp washer

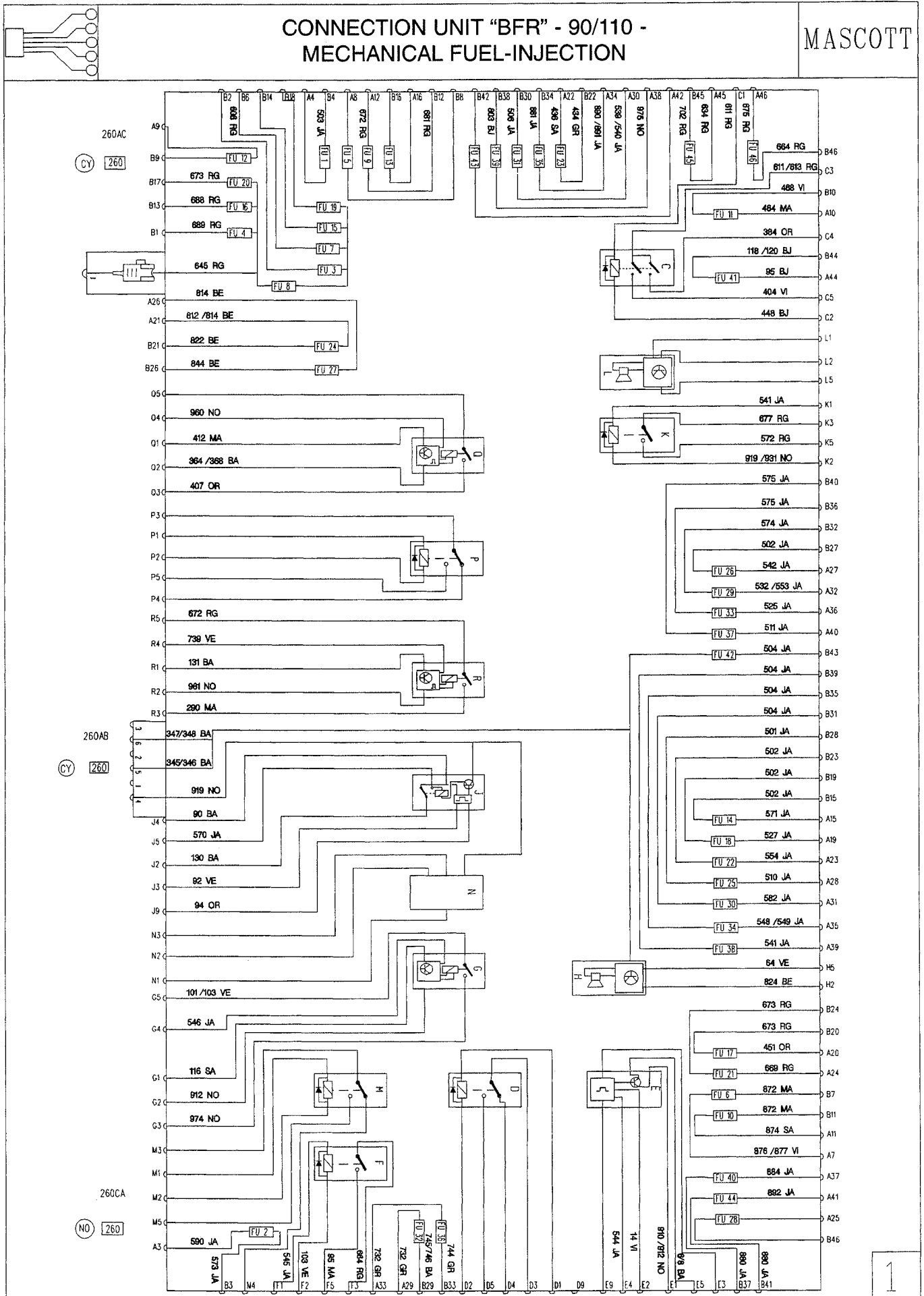
Airbag

Heated seat

Without one of these options, the vehicle is considered as being "without options".

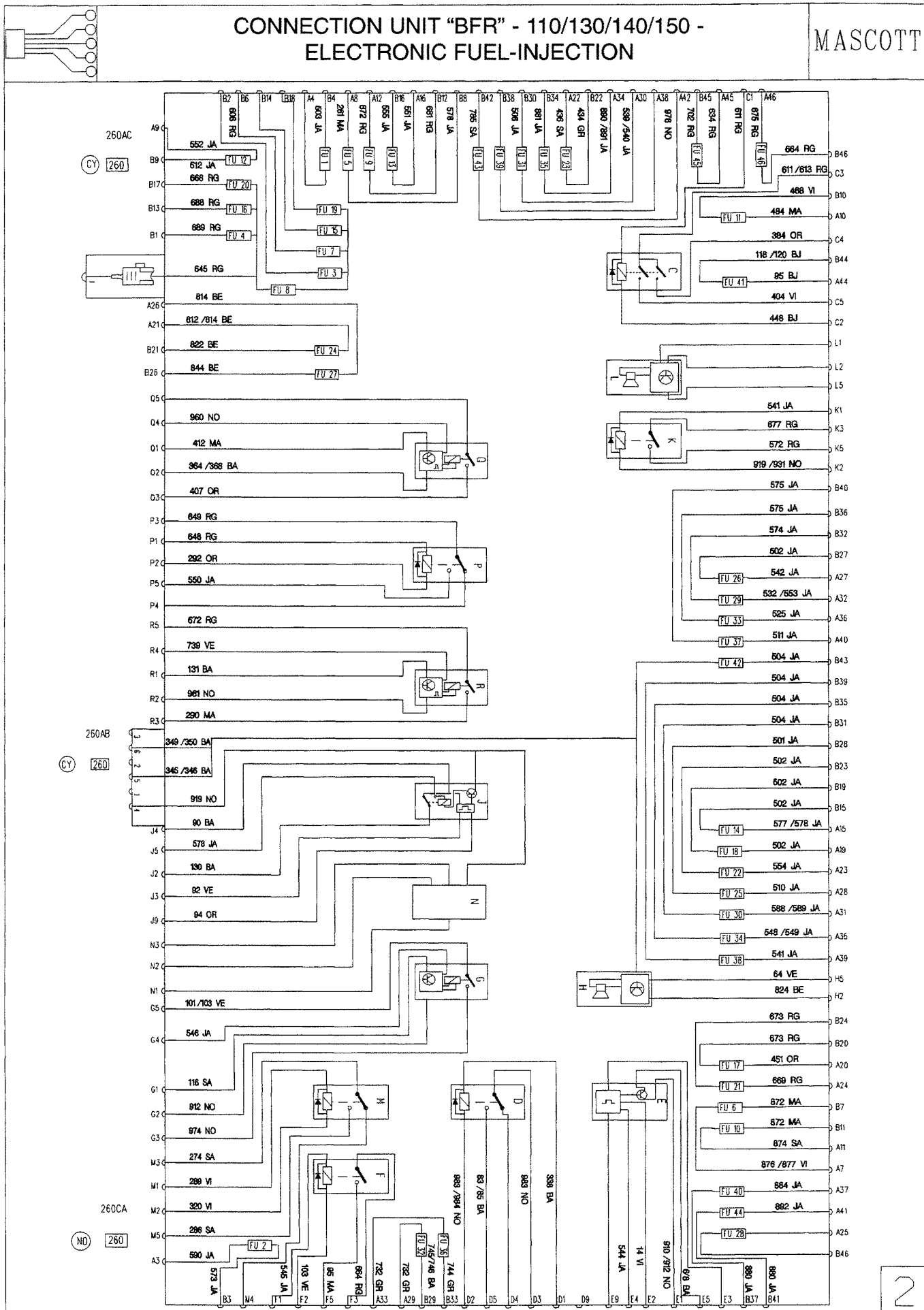
CONNECTION UNIT "BFR" - 90/110 - MECHANICAL FUEL-INJECTION

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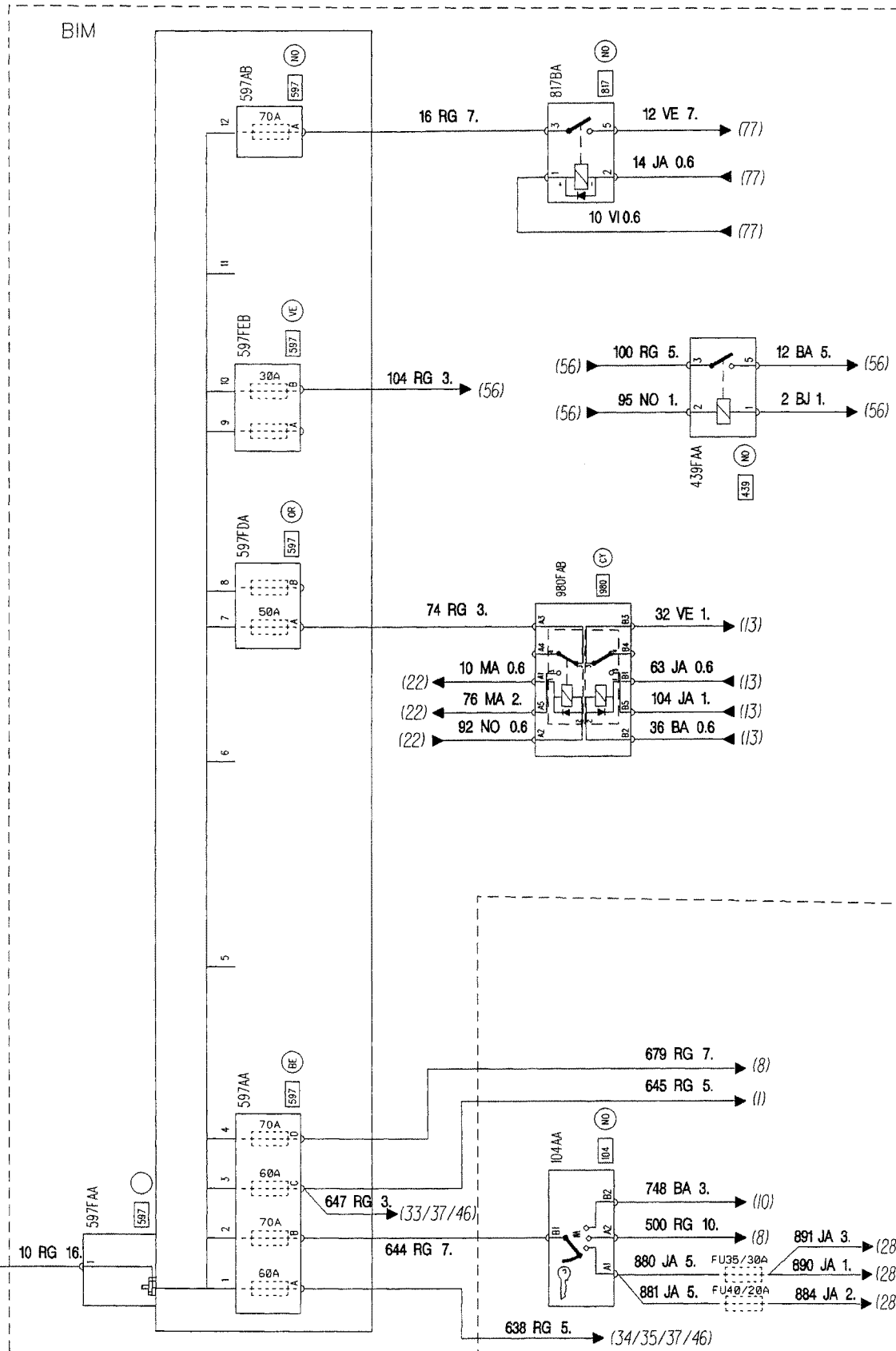
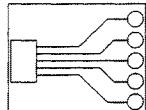
CONNECTION UNIT "BFR" - 110/130/140/150 -  
ELECTRONIC FUEL-INJECTION

MASCOTT



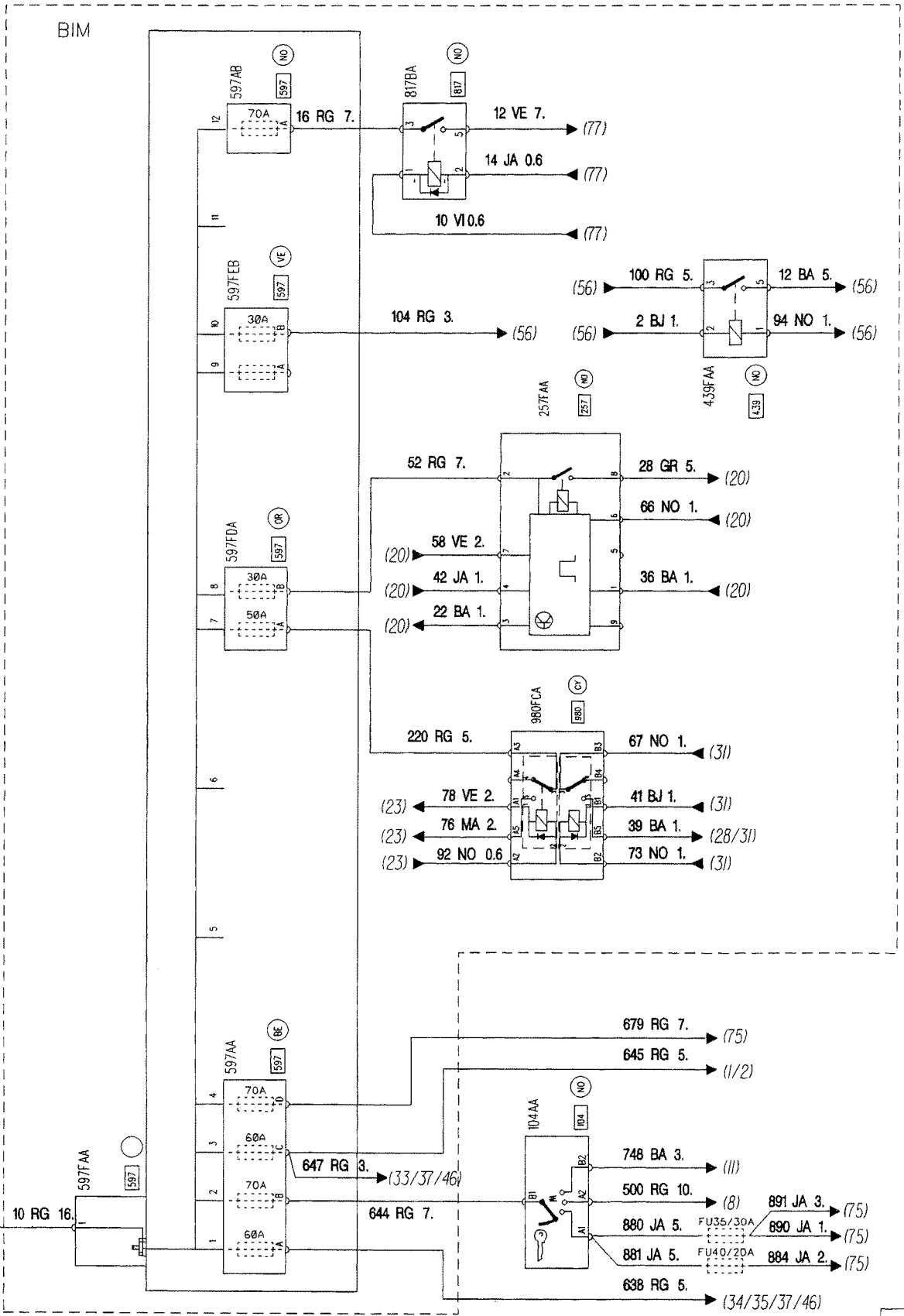
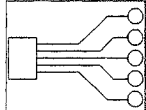
CONNECTION UNIT "BIM" - 90 - MECHANICAL FUEL-INJECTION

MASCOTT



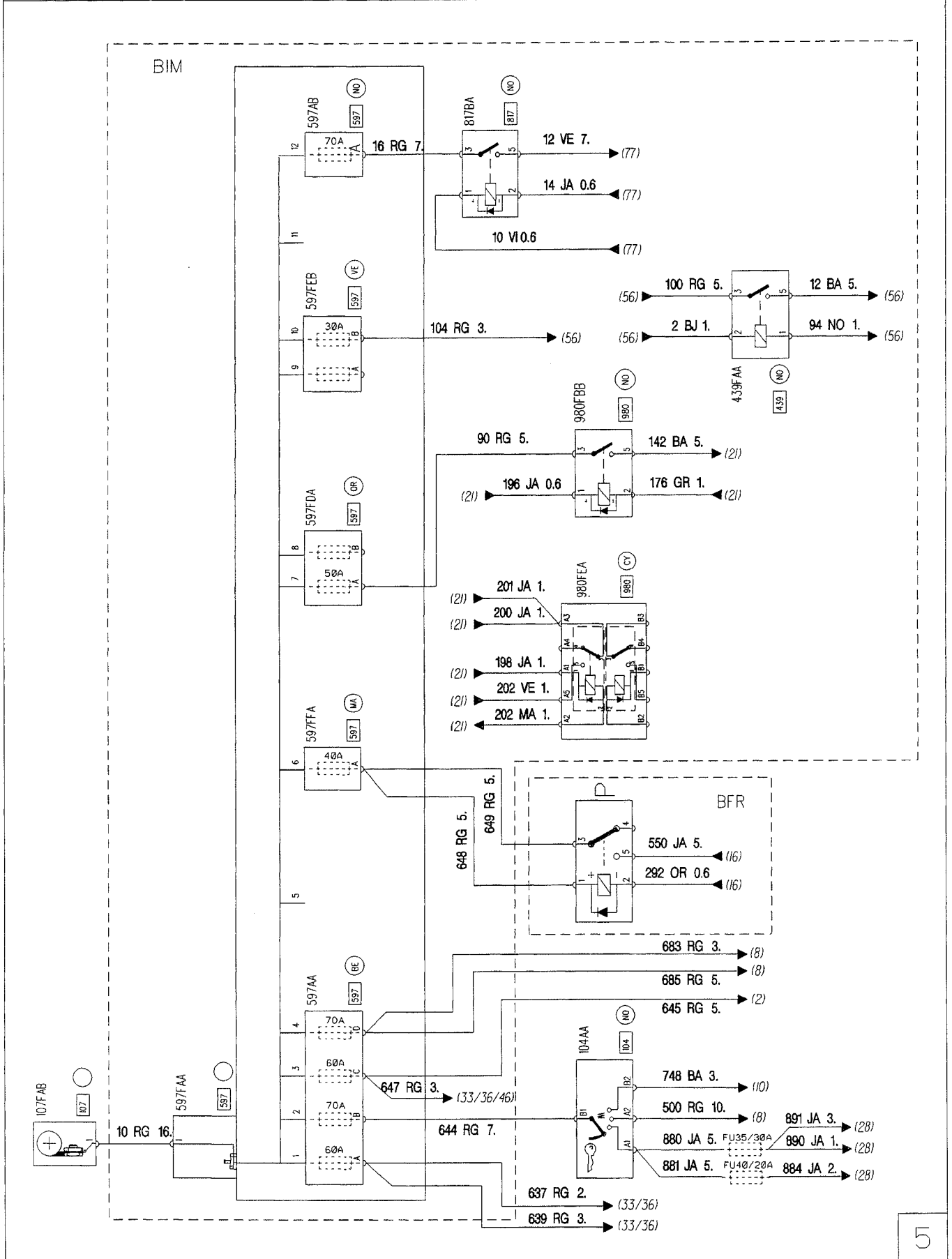
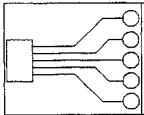
CONNECTION UNIT "BIM" - 110 - MECHANICAL FUEL-INJECTION

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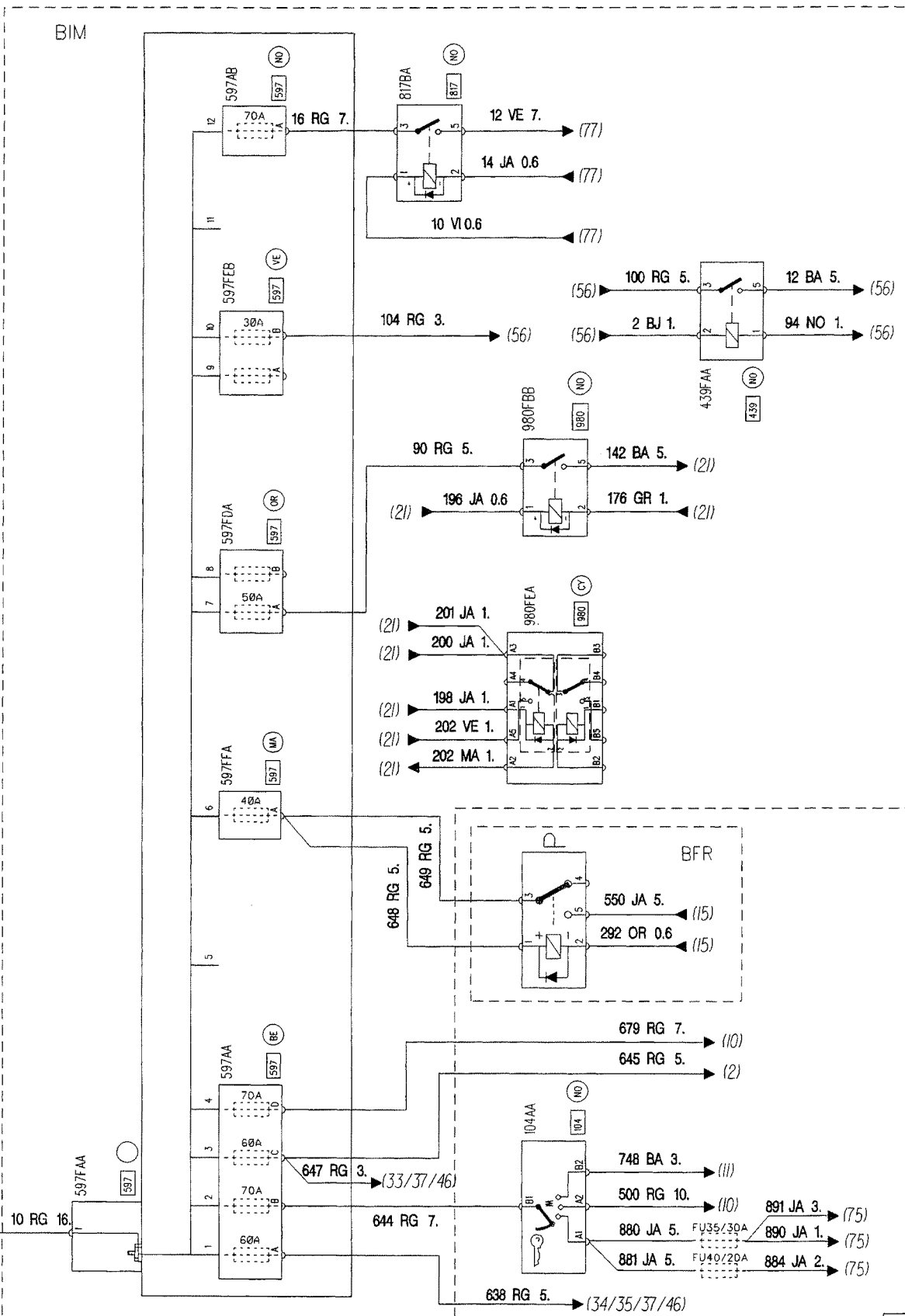
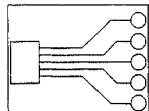
CONNECTION UNIT "BIM" - 110/130/140/150-  
ELECTRONIC FUEL-INJECTION  
(WITHOUT OPTIONS)

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CONNECTION UNIT "BIM" - 110/130/140/150 - ELECTRONIC FUEL-INJECTION (WITH OPTIONS)

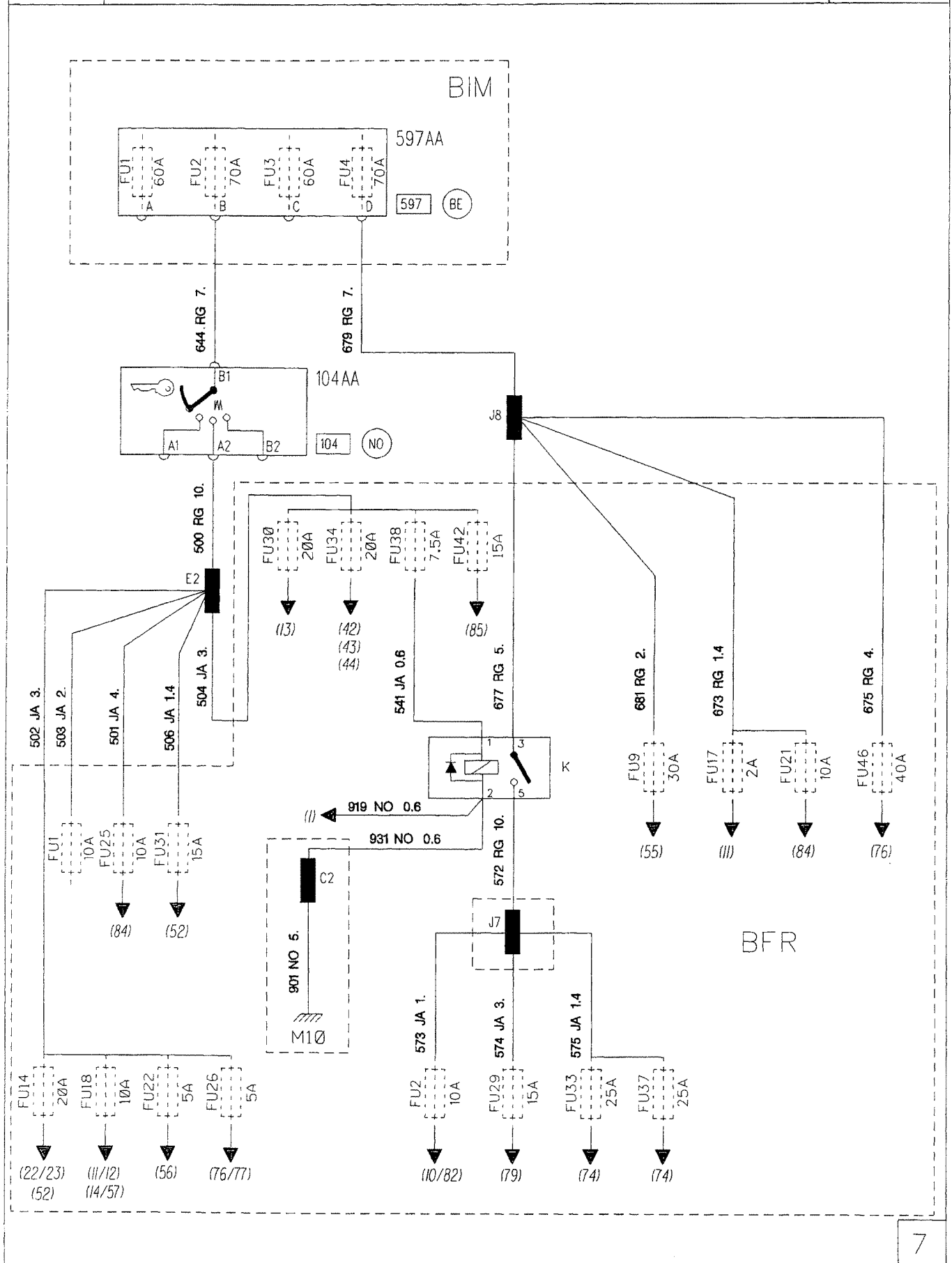
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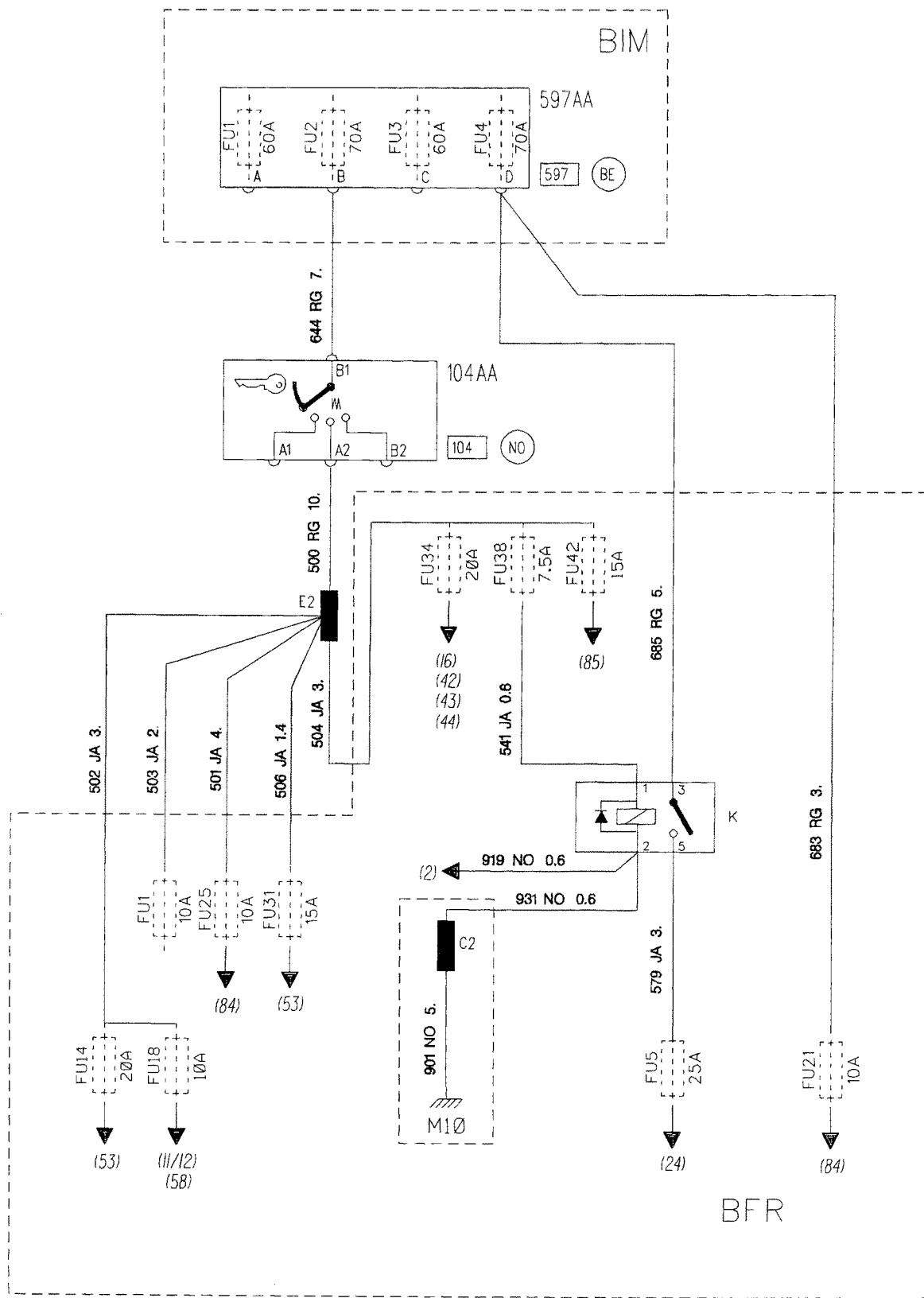
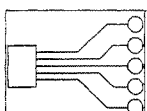
AFTER-IGNITION POWER SUPPLY - 90/110 -  
MECHANICAL FUEL-INJECTION

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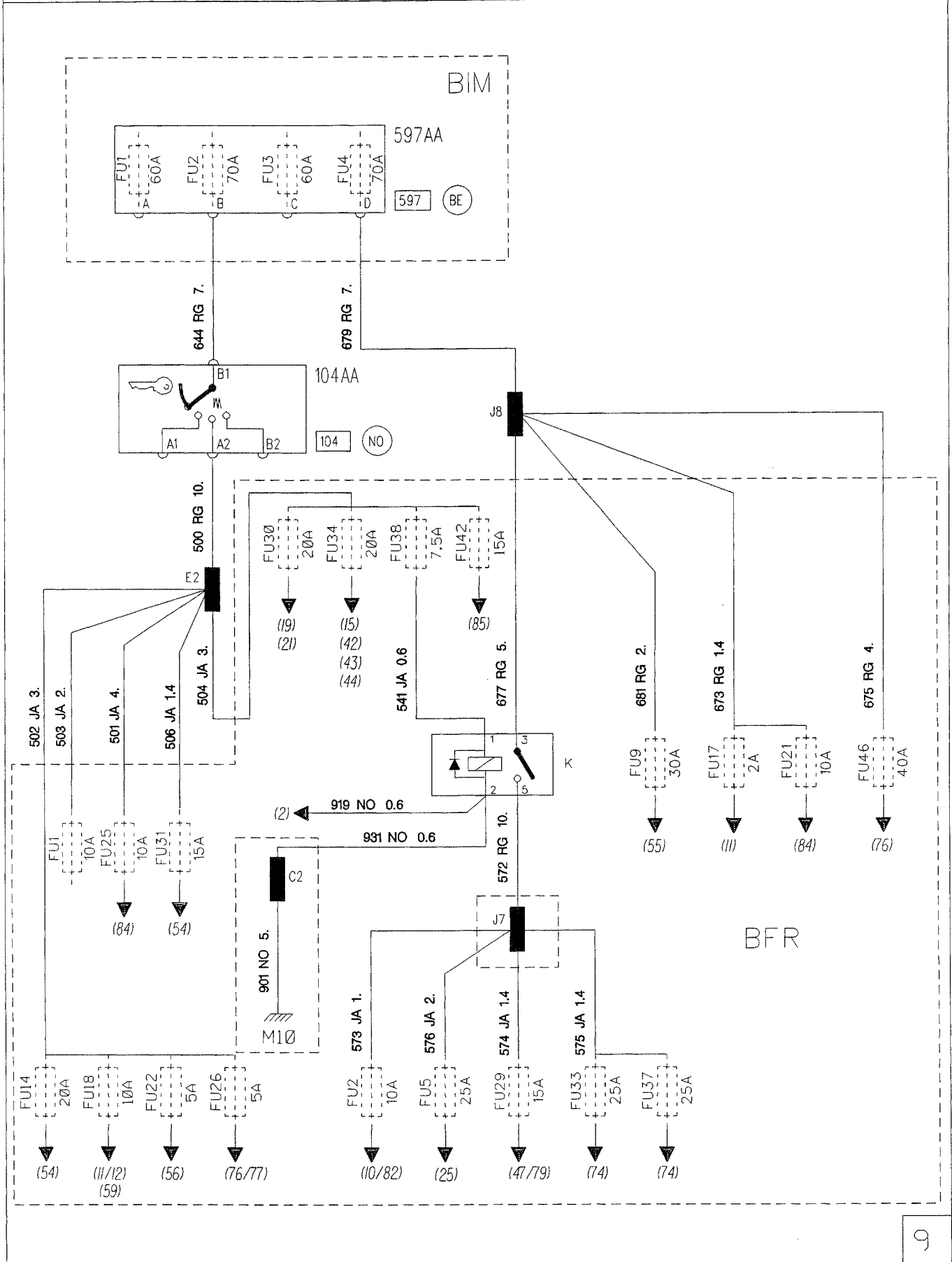
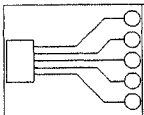
AFTER-IGNITION POWER SUPPLY - 110/130/140/150 - ELECTRONIC FUEL-INJECTION (WITHOUT OPTIONS)

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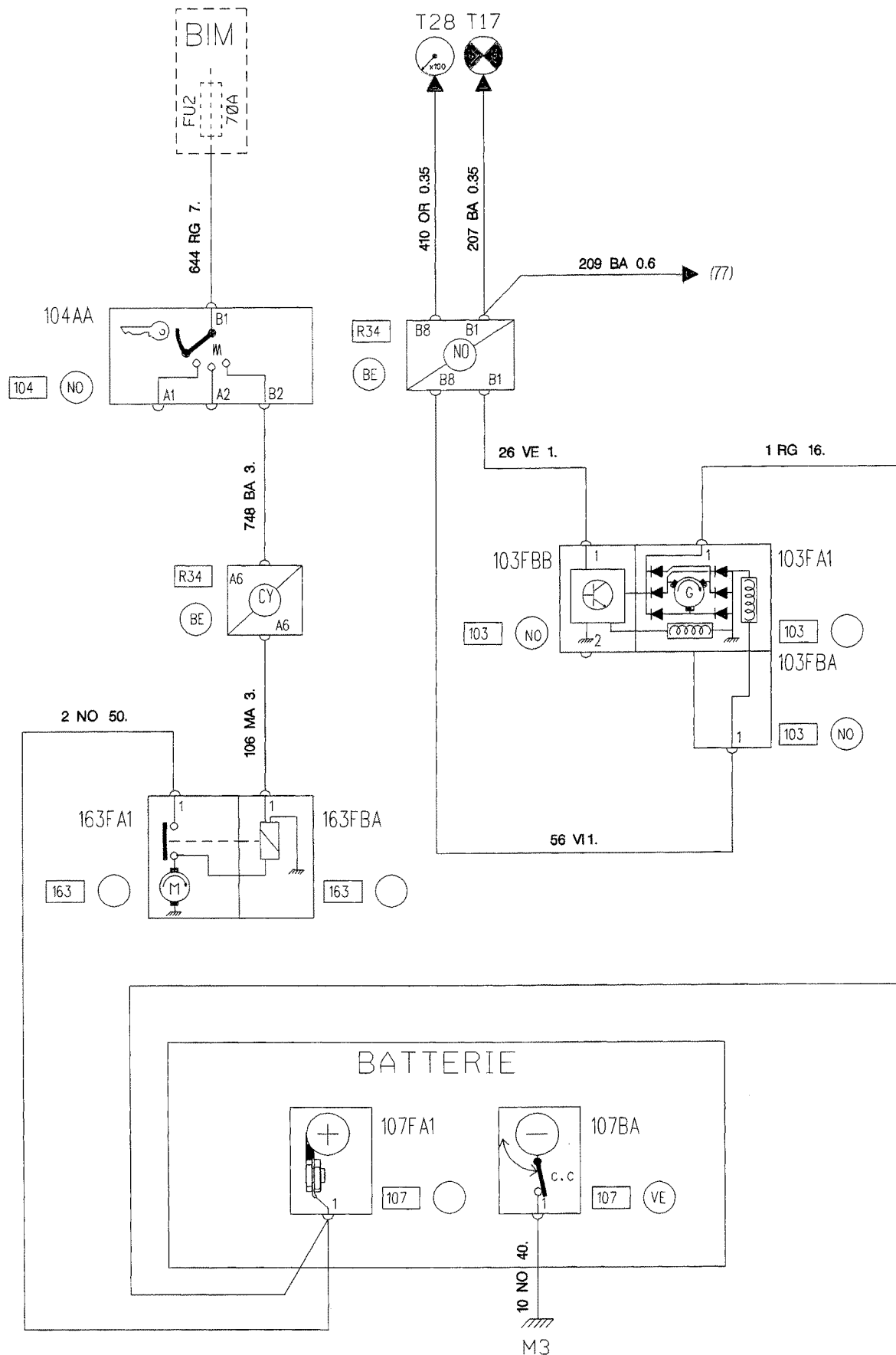
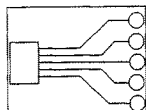
AFTER-IGNITION POWER SUPPLY - 110/130/140/150  
- ELECTRONIC FUEL-INJECTION (WITH OPTIONS)

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POWER SUPPLY AND STARTING -  
90/110/130/140/150 - MECHANICAL AND ELECTRO-  
NIC FUEL-INJECTION

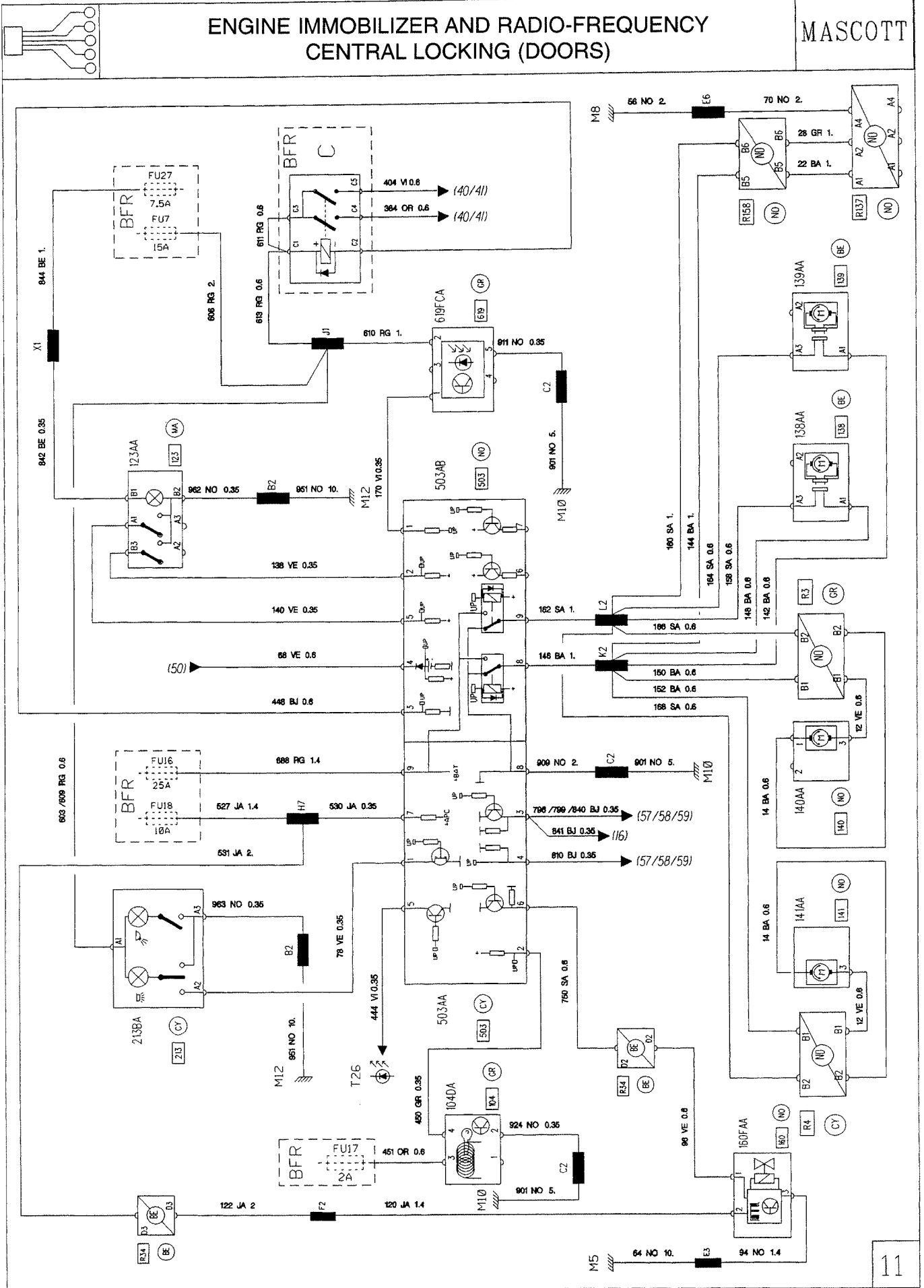
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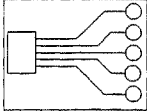


10

ENGINE IMMOBILIZER AND RADIO-FREQUENCY CENTRAL LOCKING (DOORS)

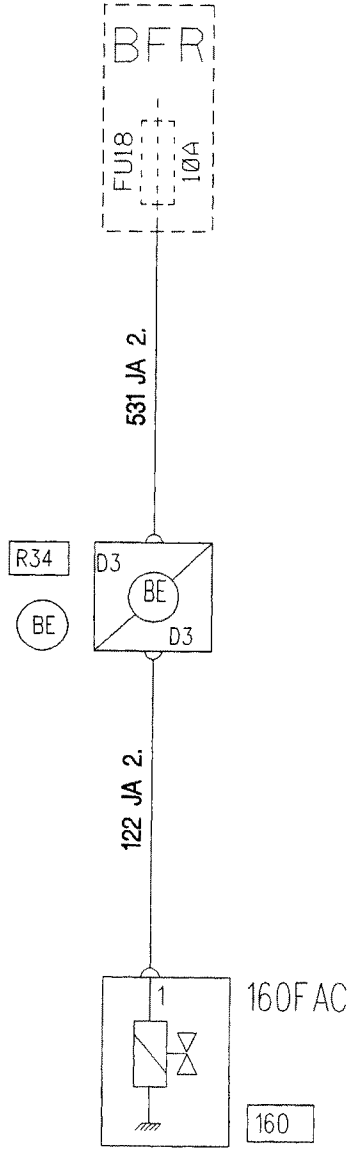
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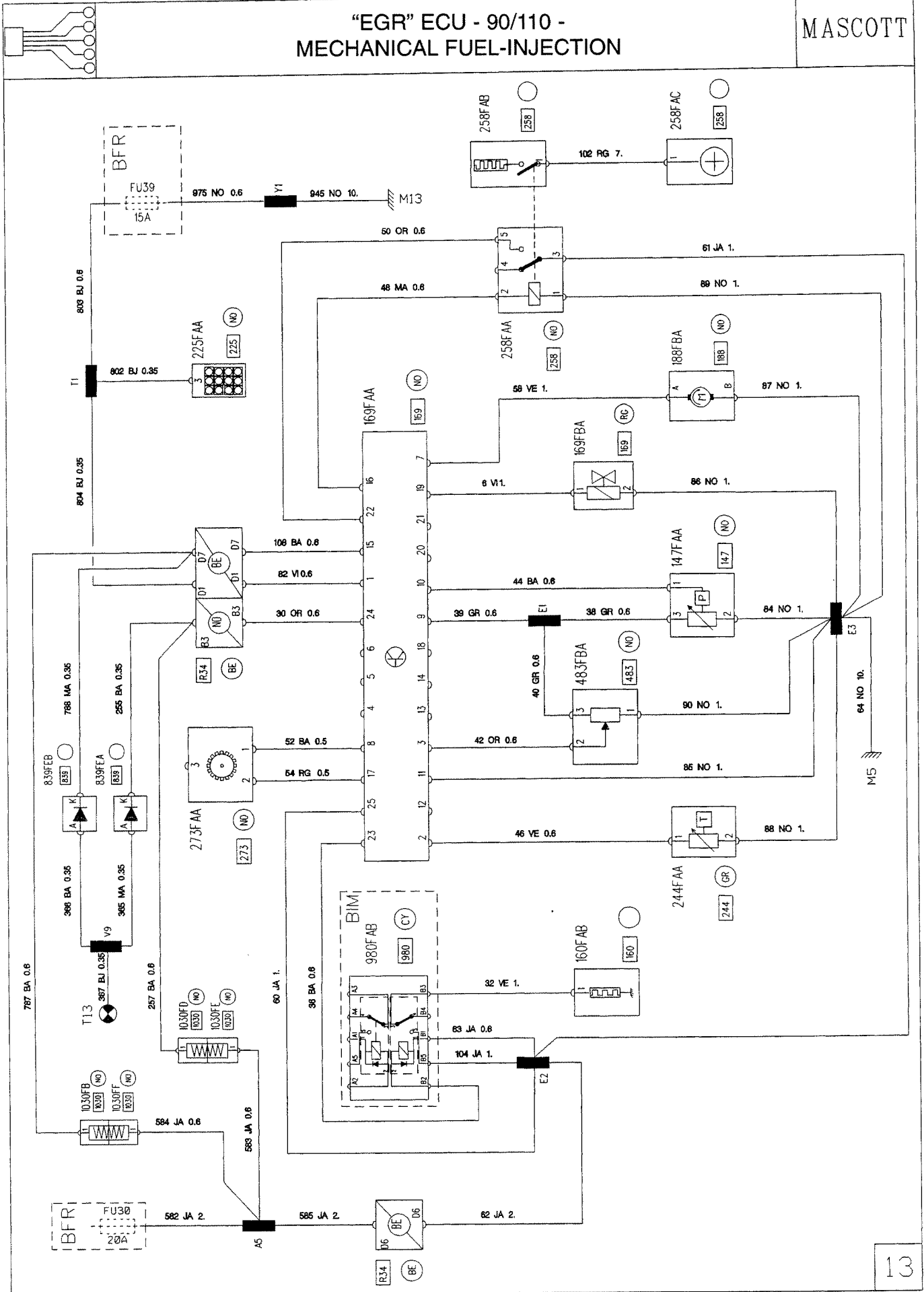
ENGINE STOP SOLENOID VALVE

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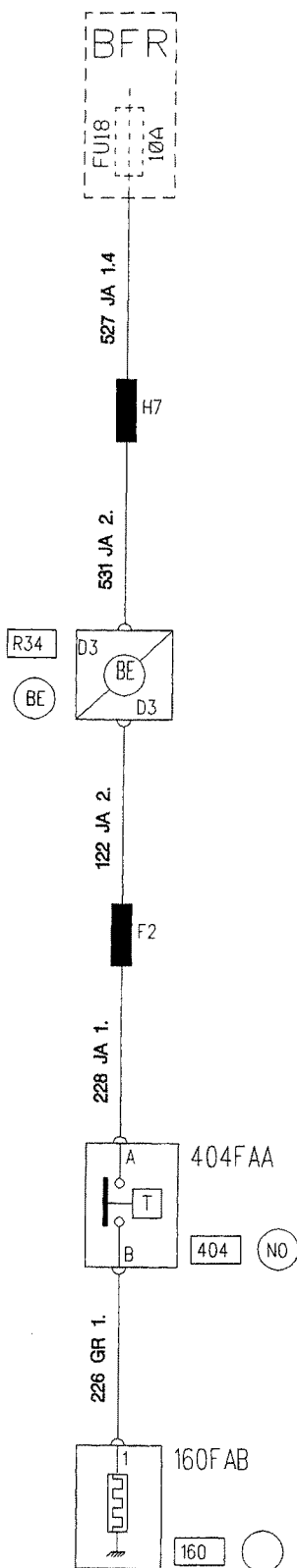
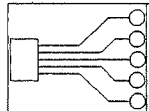
# "EGR" ECU - 90/110 - MECHANICAL FUEL-INJECTION

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"KSB" ELECTRICAL ANTI-STALL DEVICE  
- 110 MECHANICAL FUEL-INJECTION

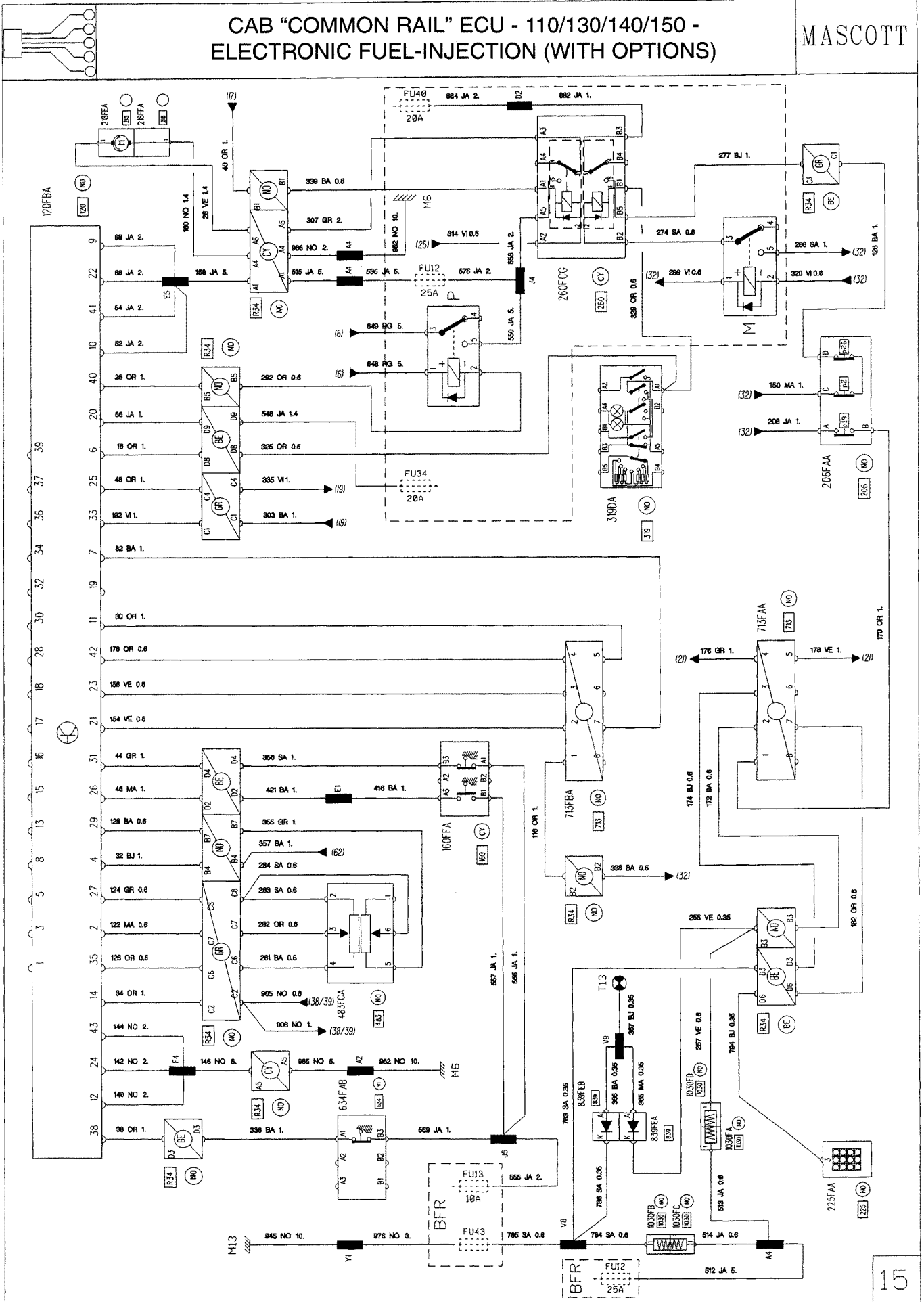
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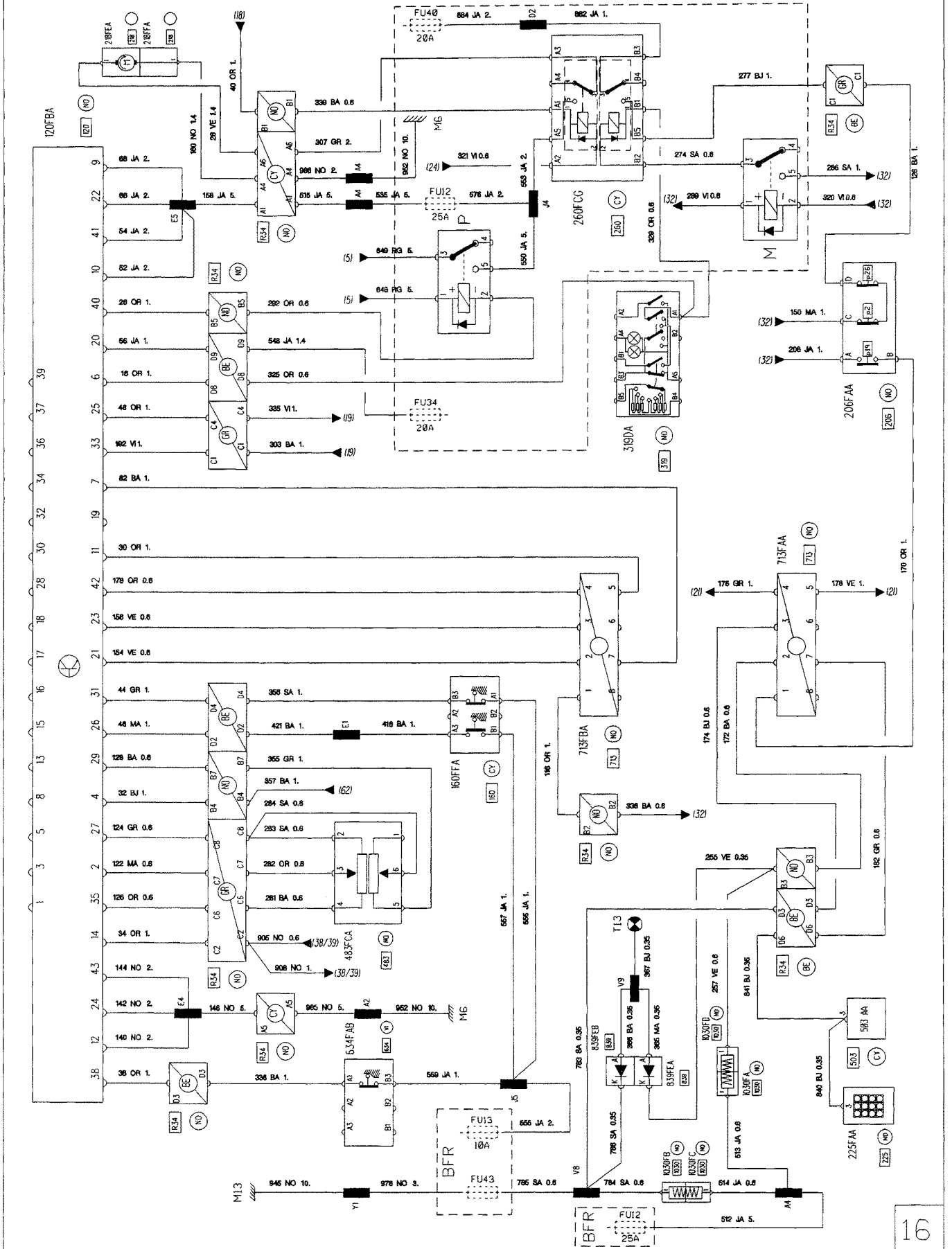
# CAB "COMMON RAIL" ECU - 110/130/140/150 - ELECTRONIC FUEL-INJECTION (WITH OPTIONS)

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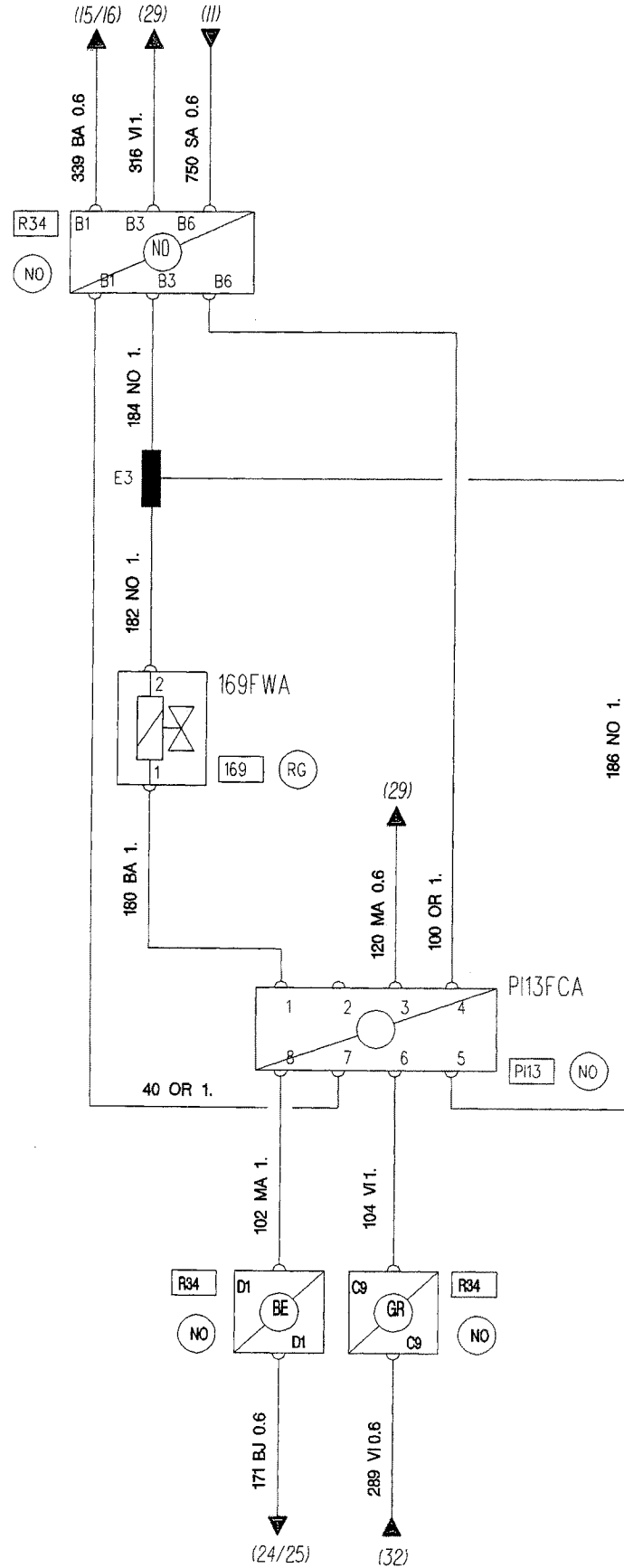
# CAB "COMMON RAIL" ECU - 110/130/140/150 - ELECTRONIC FUEL-INJECTION (WITHOUT OPTIONS)

MASCOTT



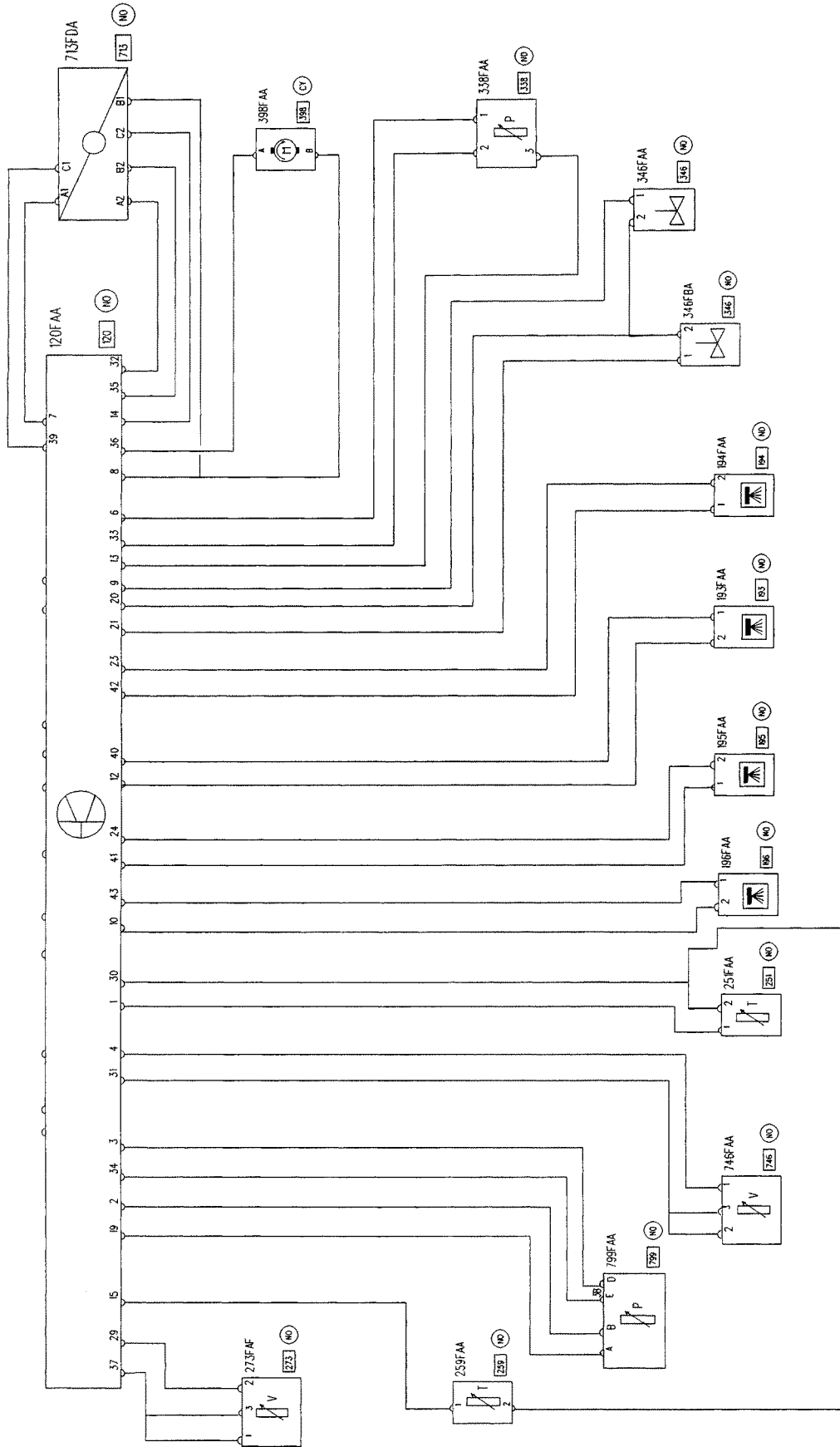
CAB "COMMON RAIL" ECU - 110/130/140/150 -  
ELECTRONIC FUEL-INJECTION (CONT.)

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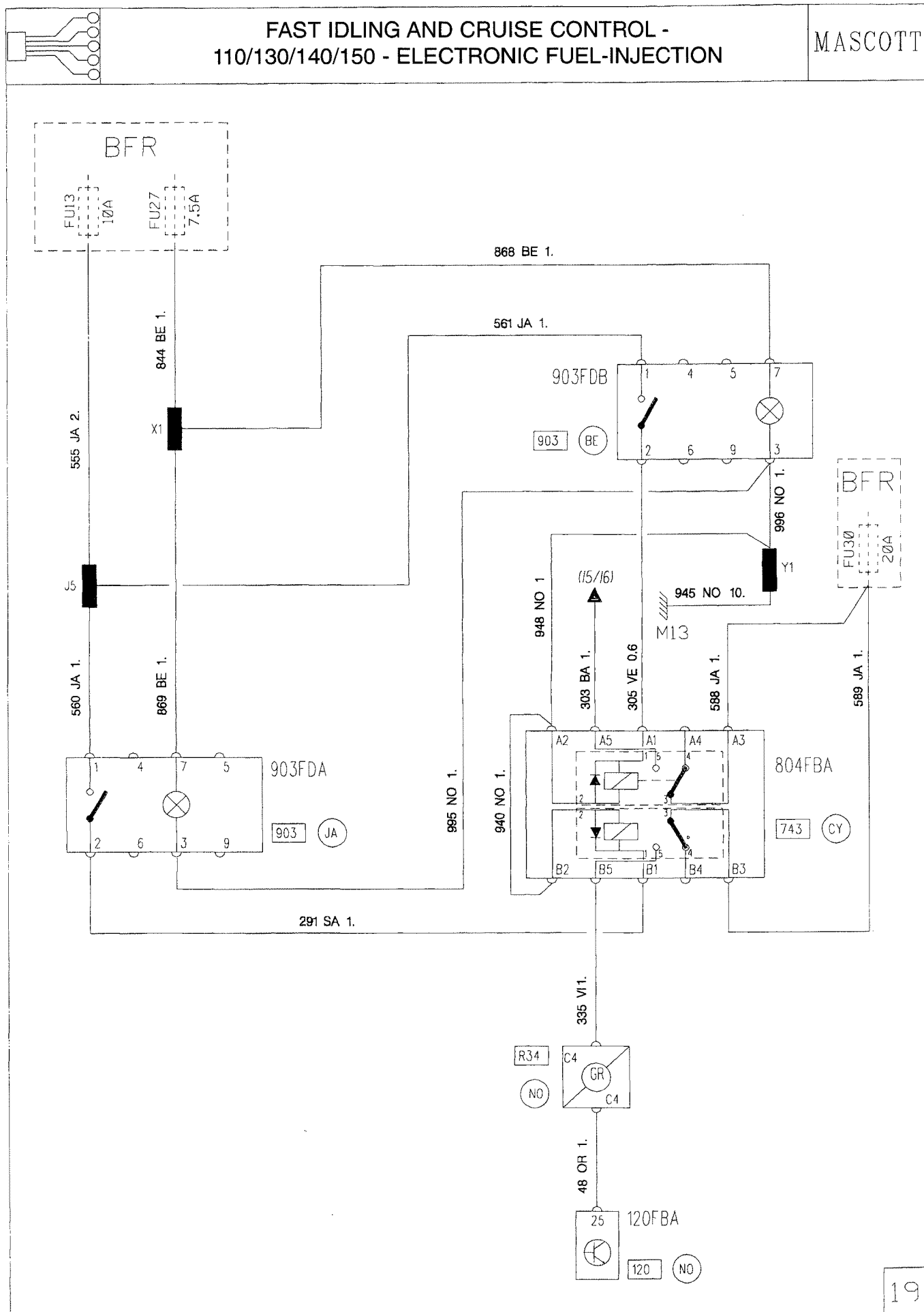
ENGINE "COMMON RAIL" ECU

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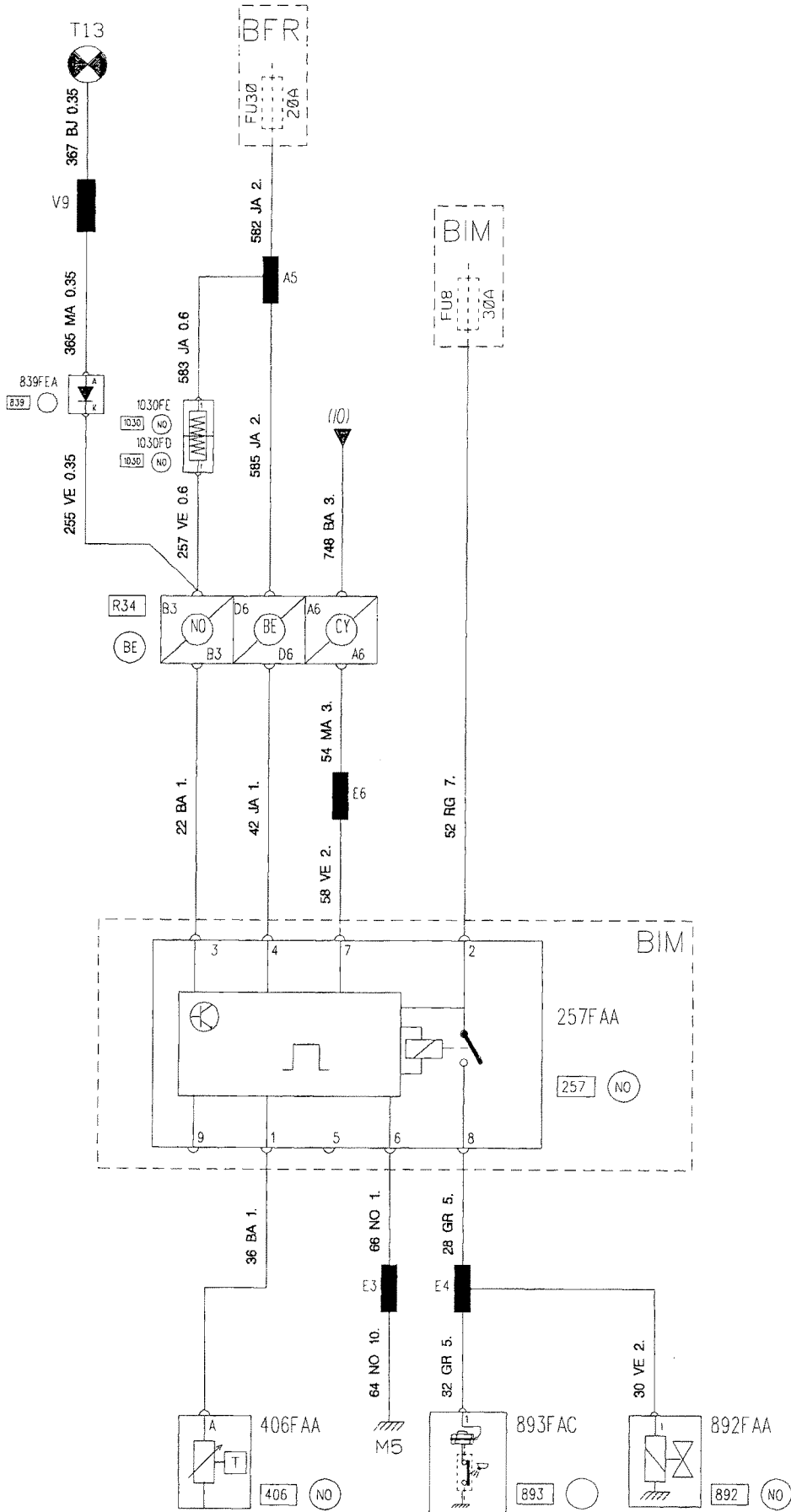
FAST IDLING AND CRUISE CONTROL -  
110/130/140/150 - ELECTRONIC FUEL-INJECTION

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"FLAMMSTART" COLD STARTING DEVICE - 110 - MECHANICAL FUEL-INJECTION

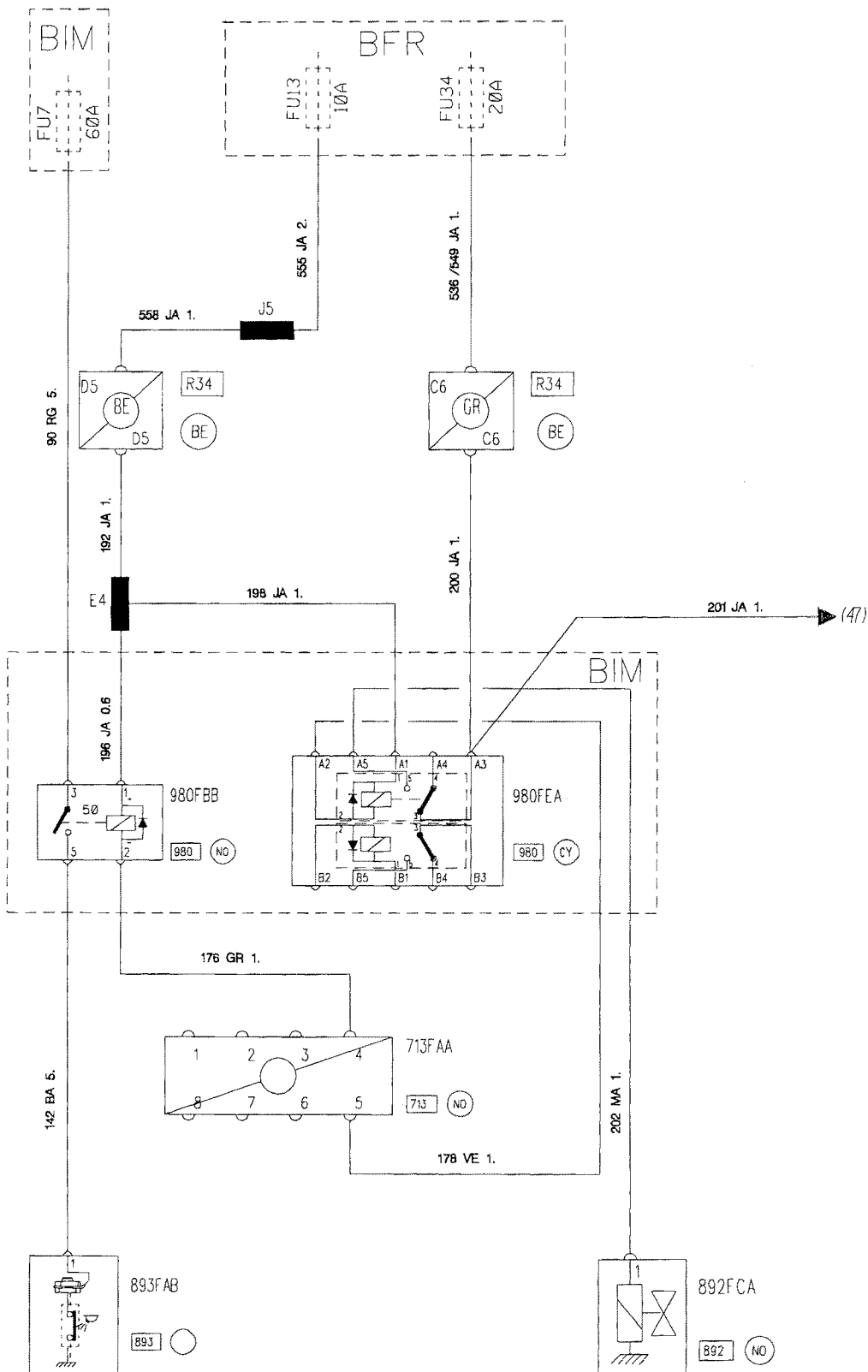
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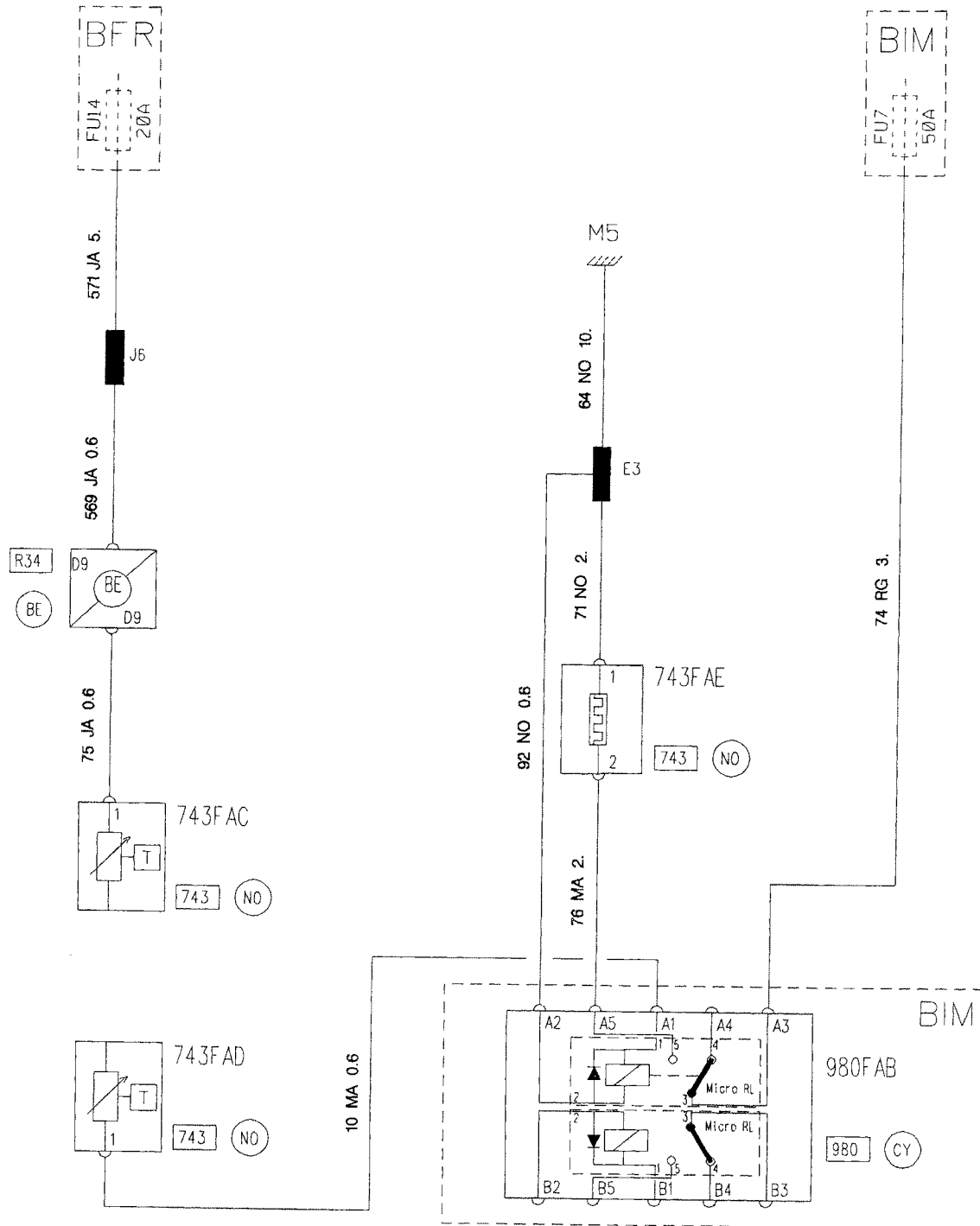
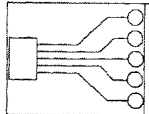
"FLAMMSTART" COLD STARTING DEVICE -  
110/130/140/150 - ELECTRONIC FUEL-INJECTION

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# FUEL FILTER PREHEATER - 90 - MECHANICAL FUEL-INJECTION

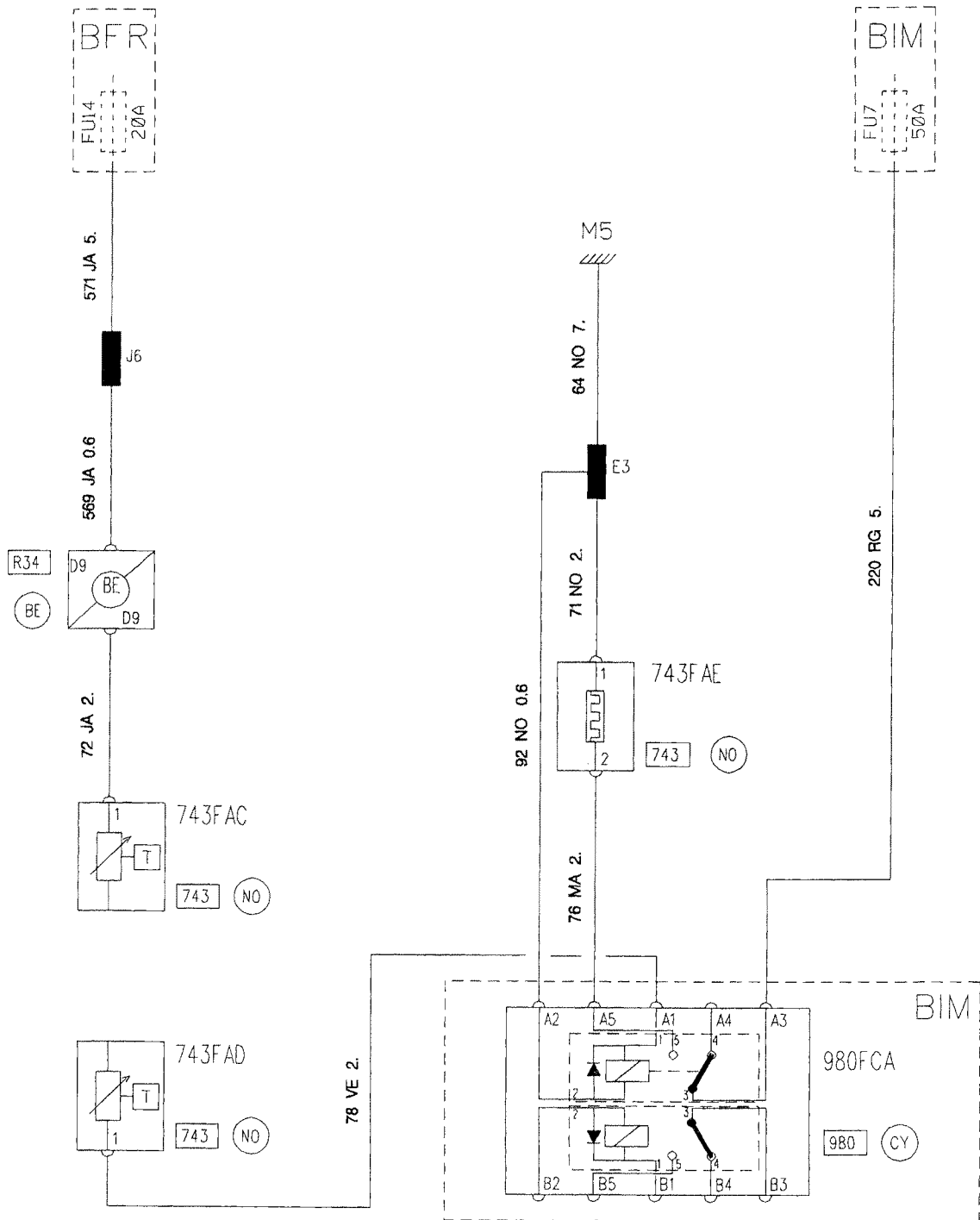
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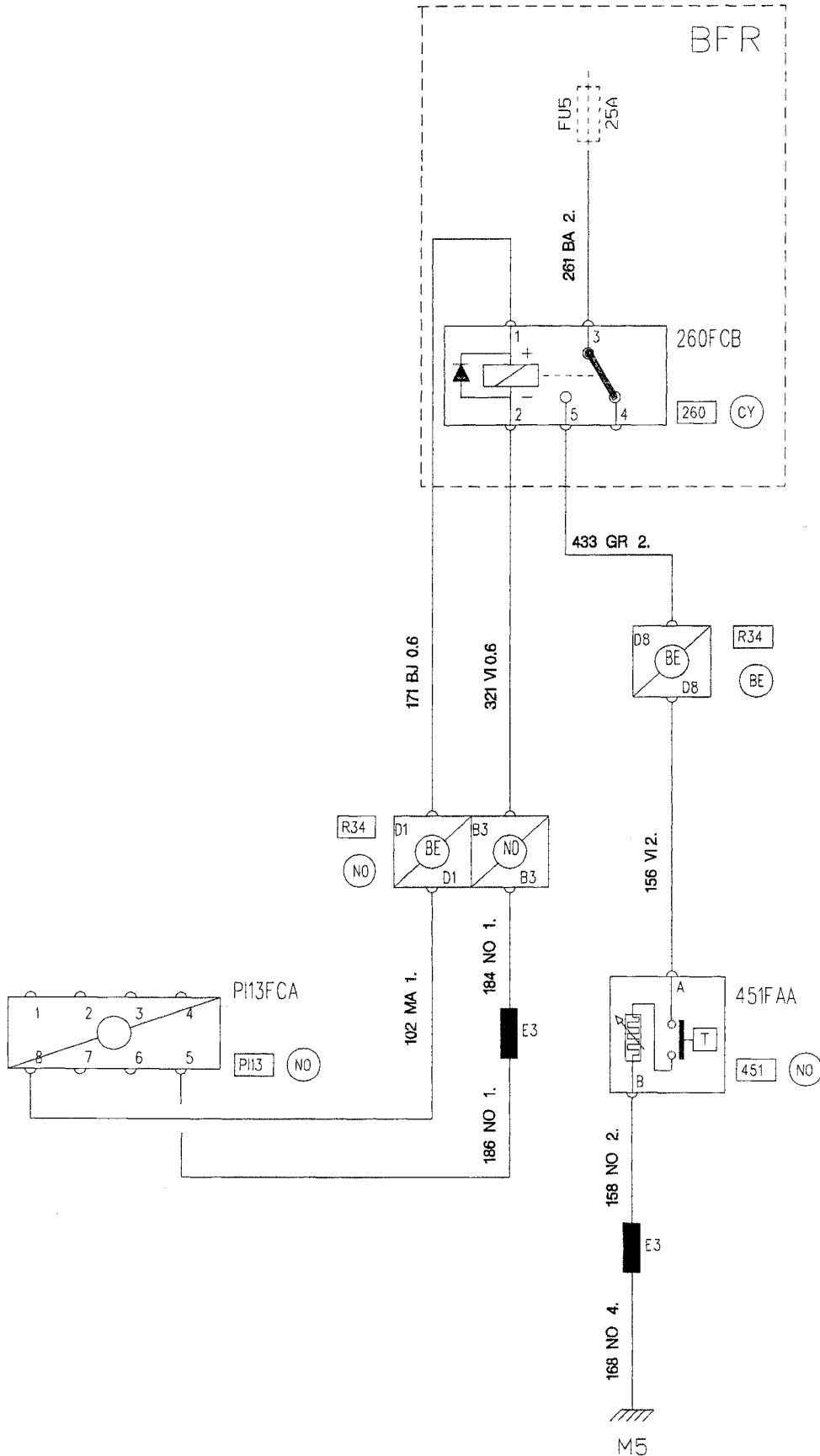
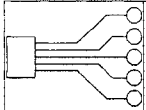
# FUEL FILTER PREHEATER - 110 - MECHANICAL FUEL-INJECTION

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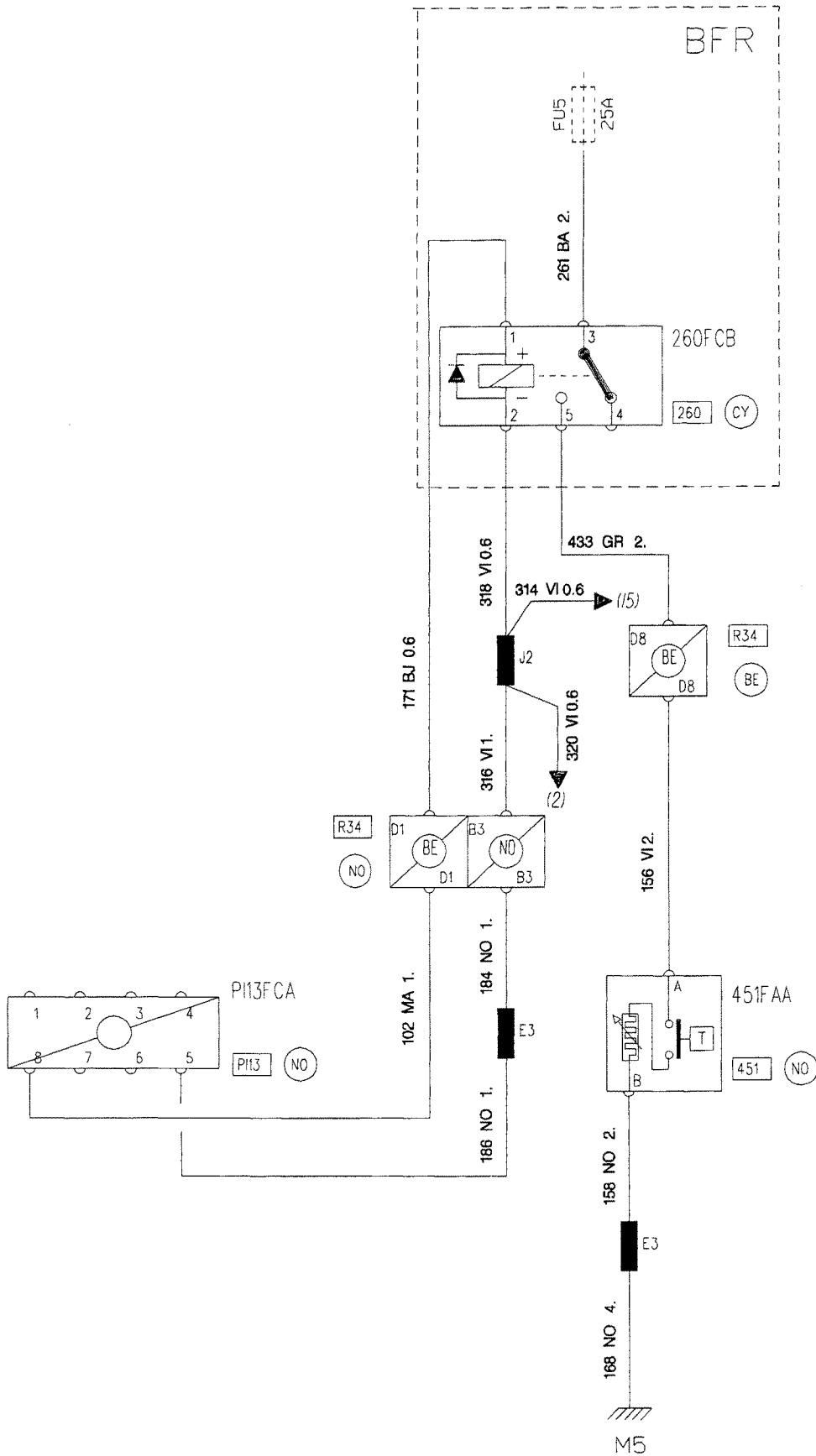
FUEL FILTER PREHEATER - 110/130/140/150 -  
ELECTRONIC FUEL-INJECTION  
(WITHOUT OPTIONS)

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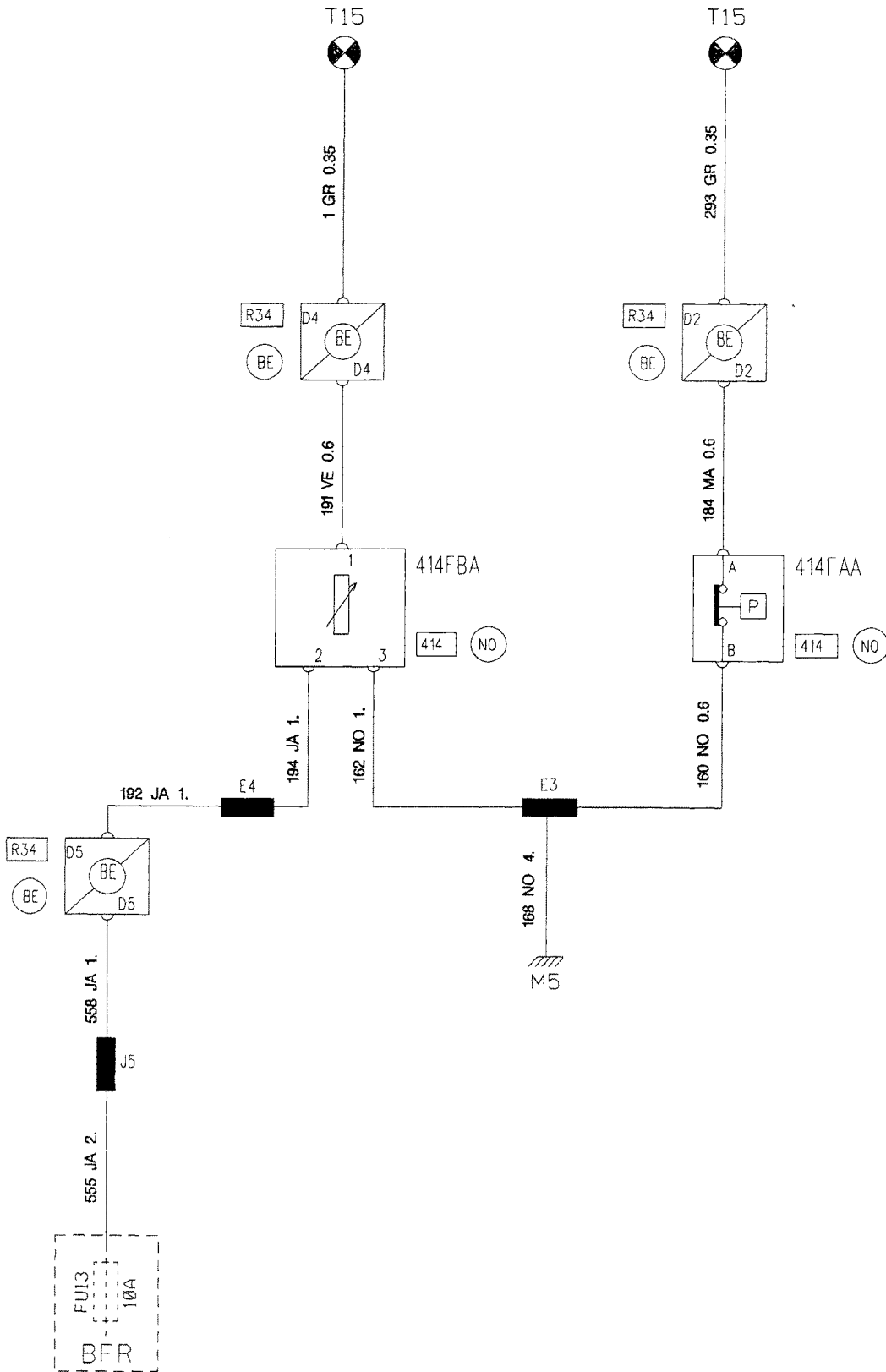
FUEL FILTER PREHEATER - 110/130/140/150 -  
ELECTRONIC FUEL-INJECTION (WITH OPTIONS)

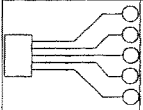
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FUEL FILTER WATER PRESENCE AND CLOGGING  
110/130/140/150 - ELECTRONIC FUEL-INJECTION

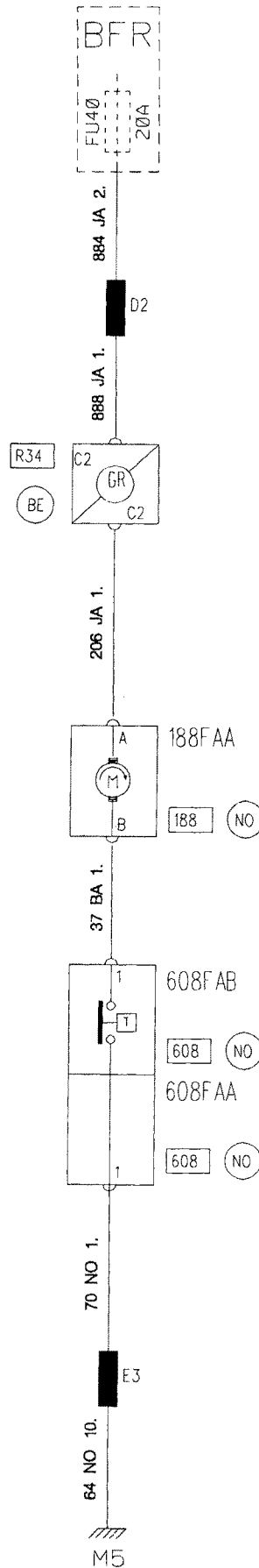
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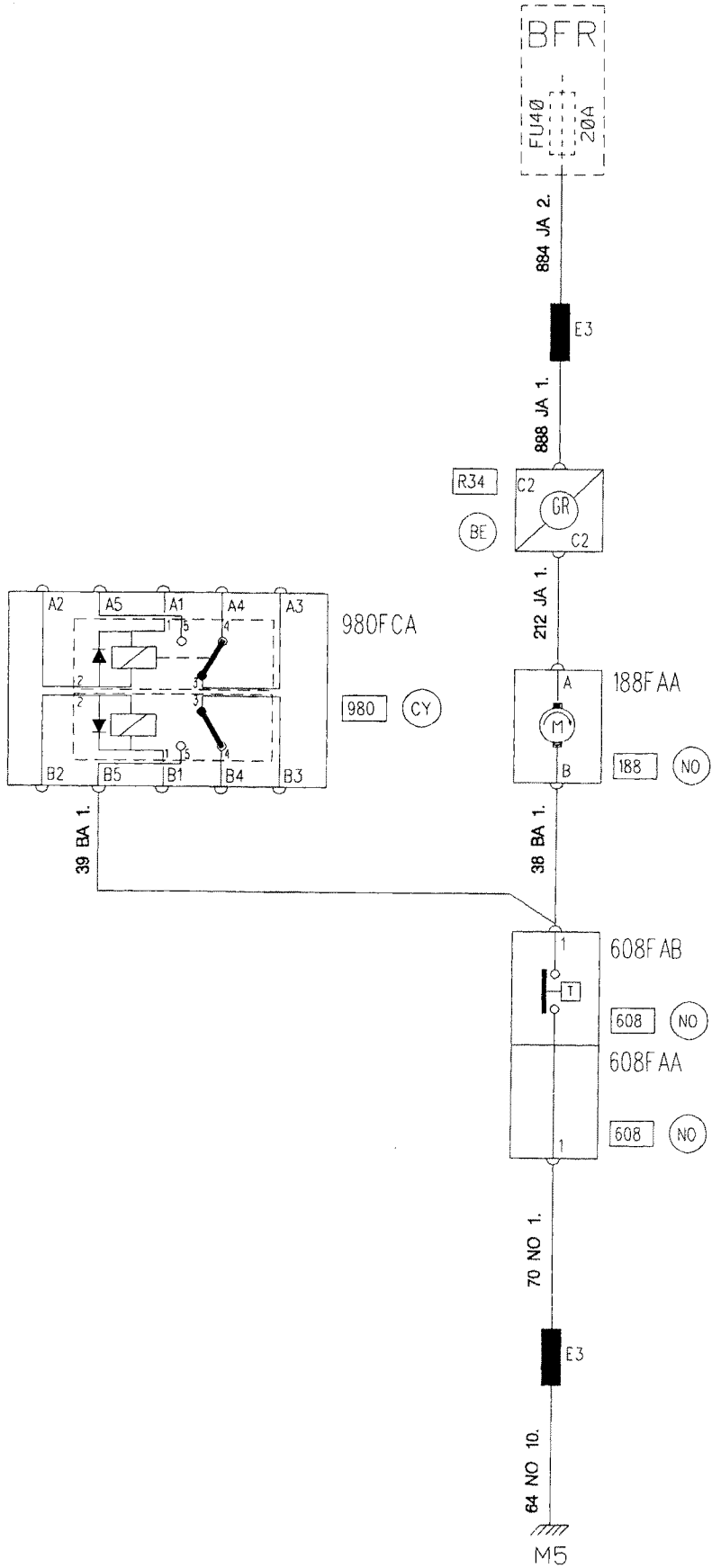
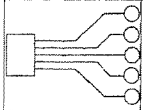
DECLUTCHING FAN - 110 - MECHANICAL FUEL-INJECTION (WITHOUT OPTIONS)

MASCOTT



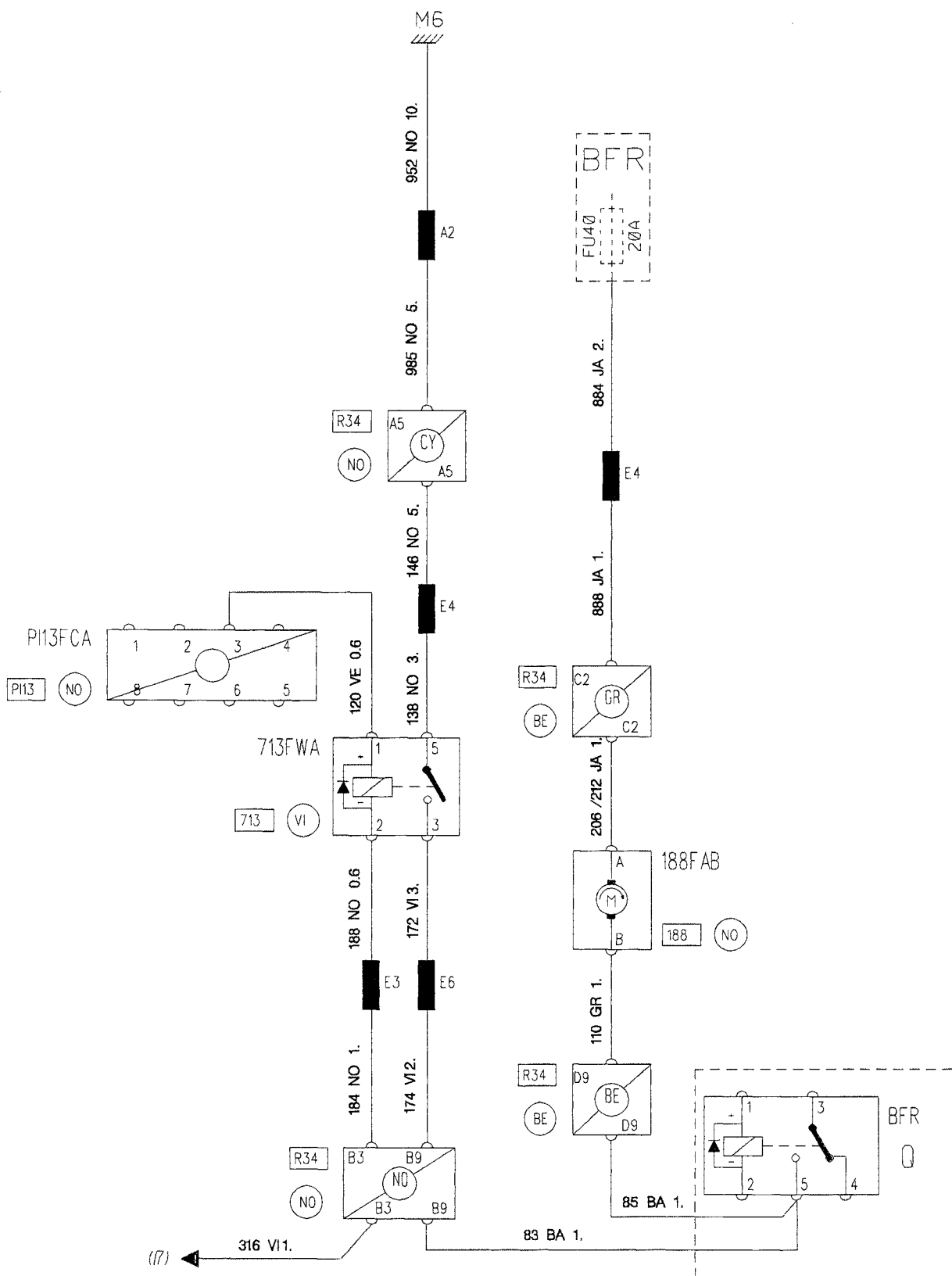
DECLUTCHING FAN - 110 - MECHANICAL FUEL-INJECTION (WITH OPTIONS)

MASCOTT



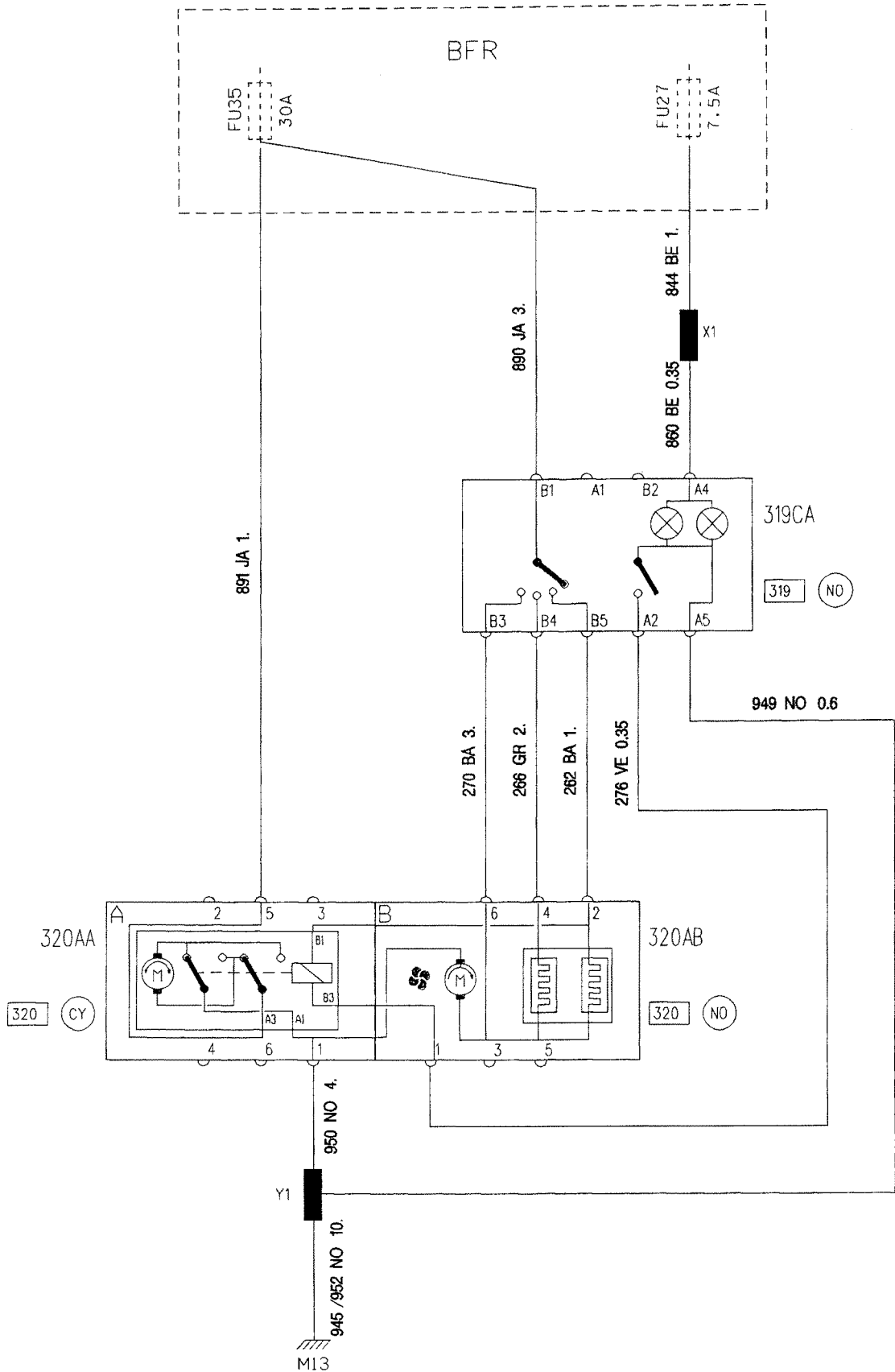
DECLUTCHING FAN - 110/130/140/150 -  
ELECTRONIC FUEL-INJECTION

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CAB HEATING

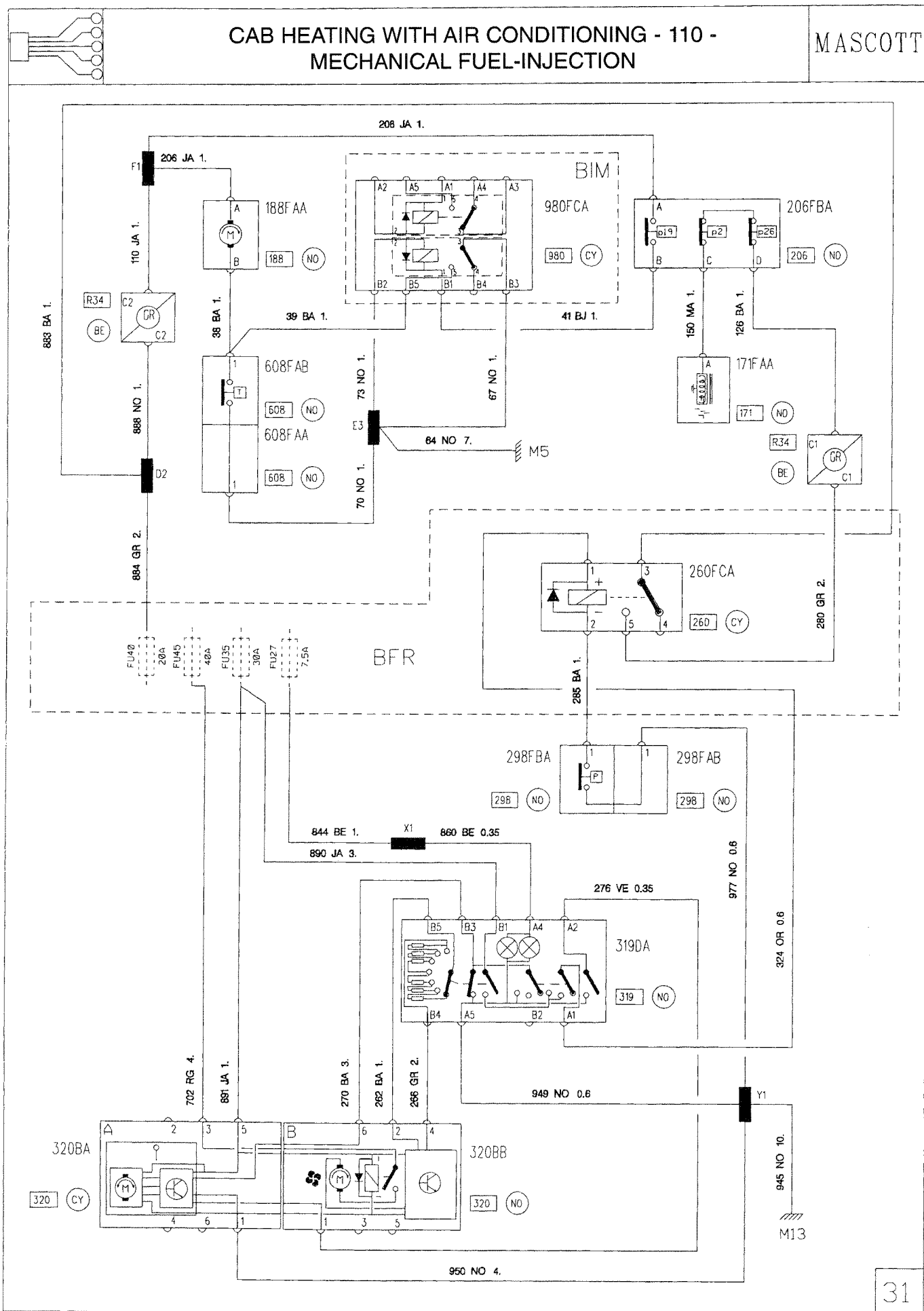
MASCOTT





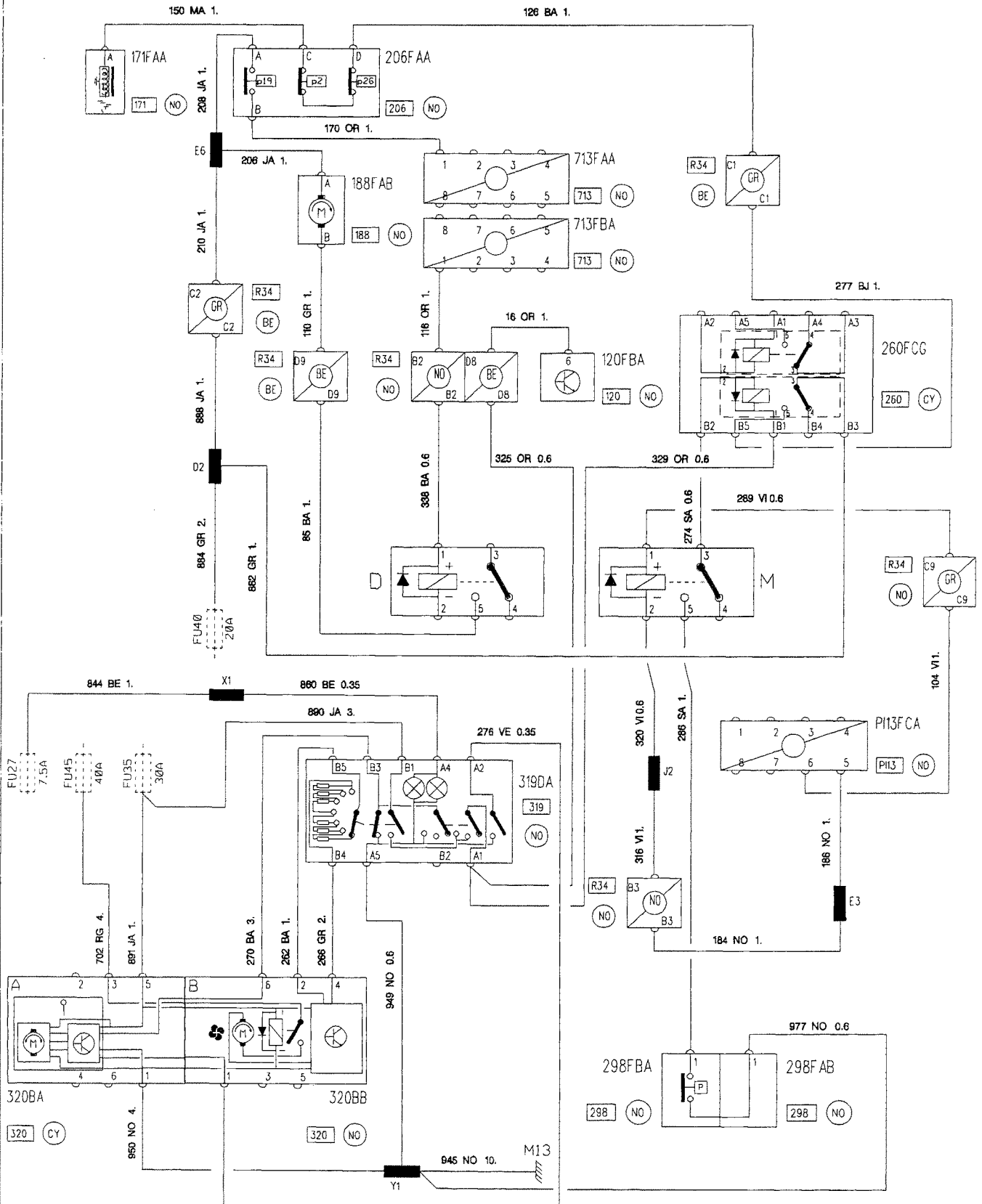
# CAB HEATING WITH AIR CONDITIONING - 110 - MECHANICAL FUEL-INJECTION

MASCOTT



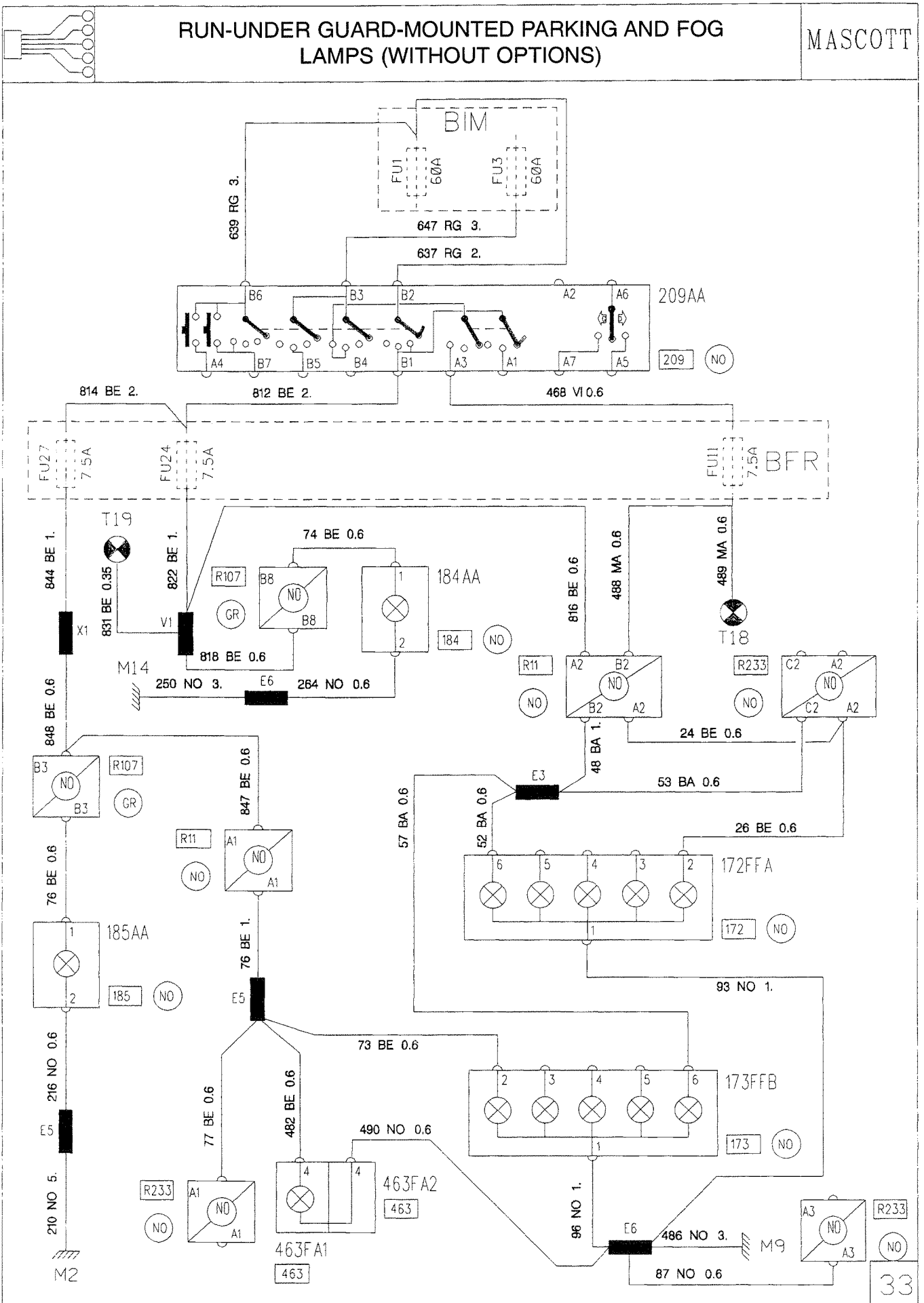
CAB HEATING WITH AIR CONDITIONING - 110/130/140/150  
- ELECTRONIC FUEL-INJECTION

MASCOTT



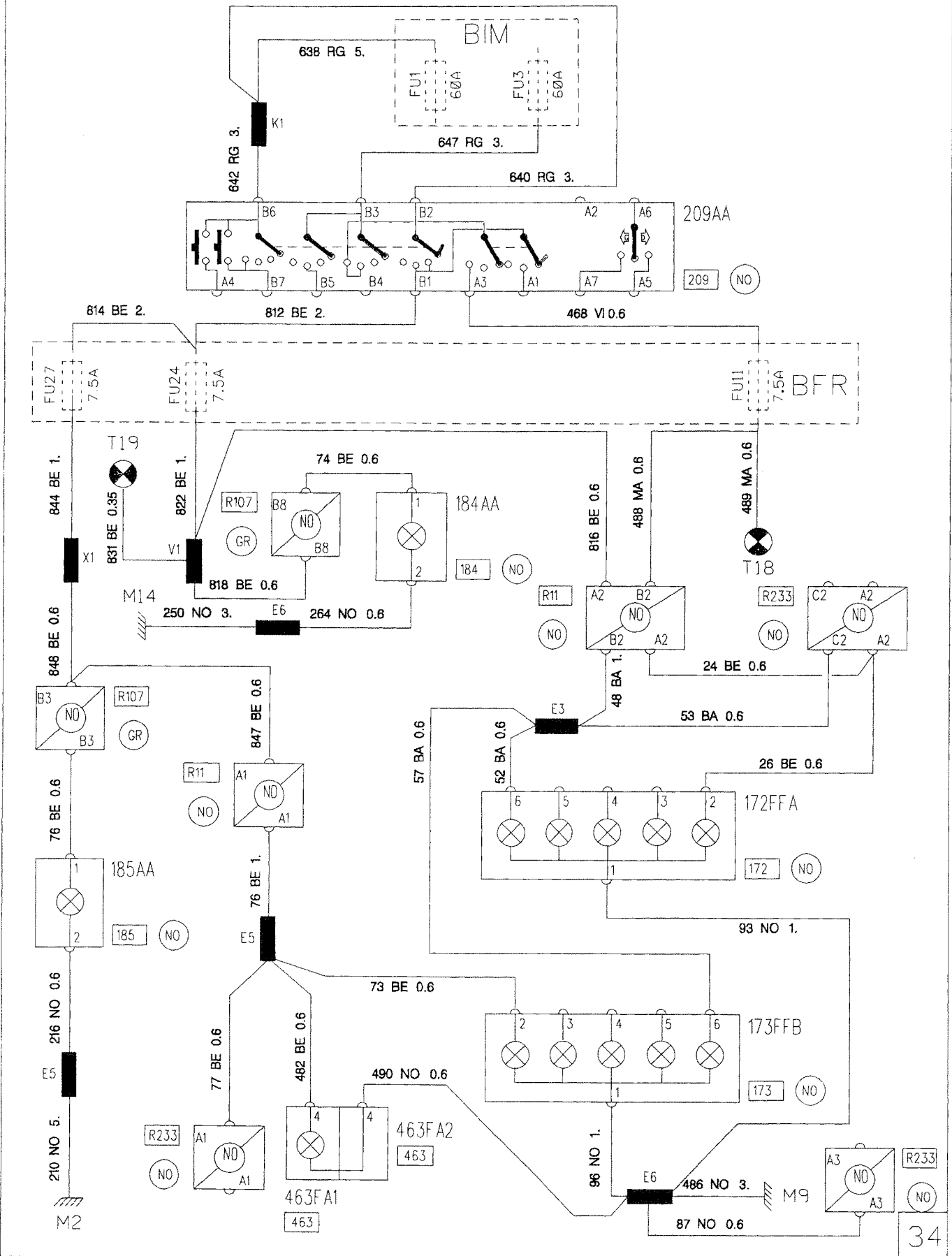
# RUN-UNDER GUARD-MOUNTED PARKING AND FOG LAMPS (WITHOUT OPTIONS)

MASCOTT



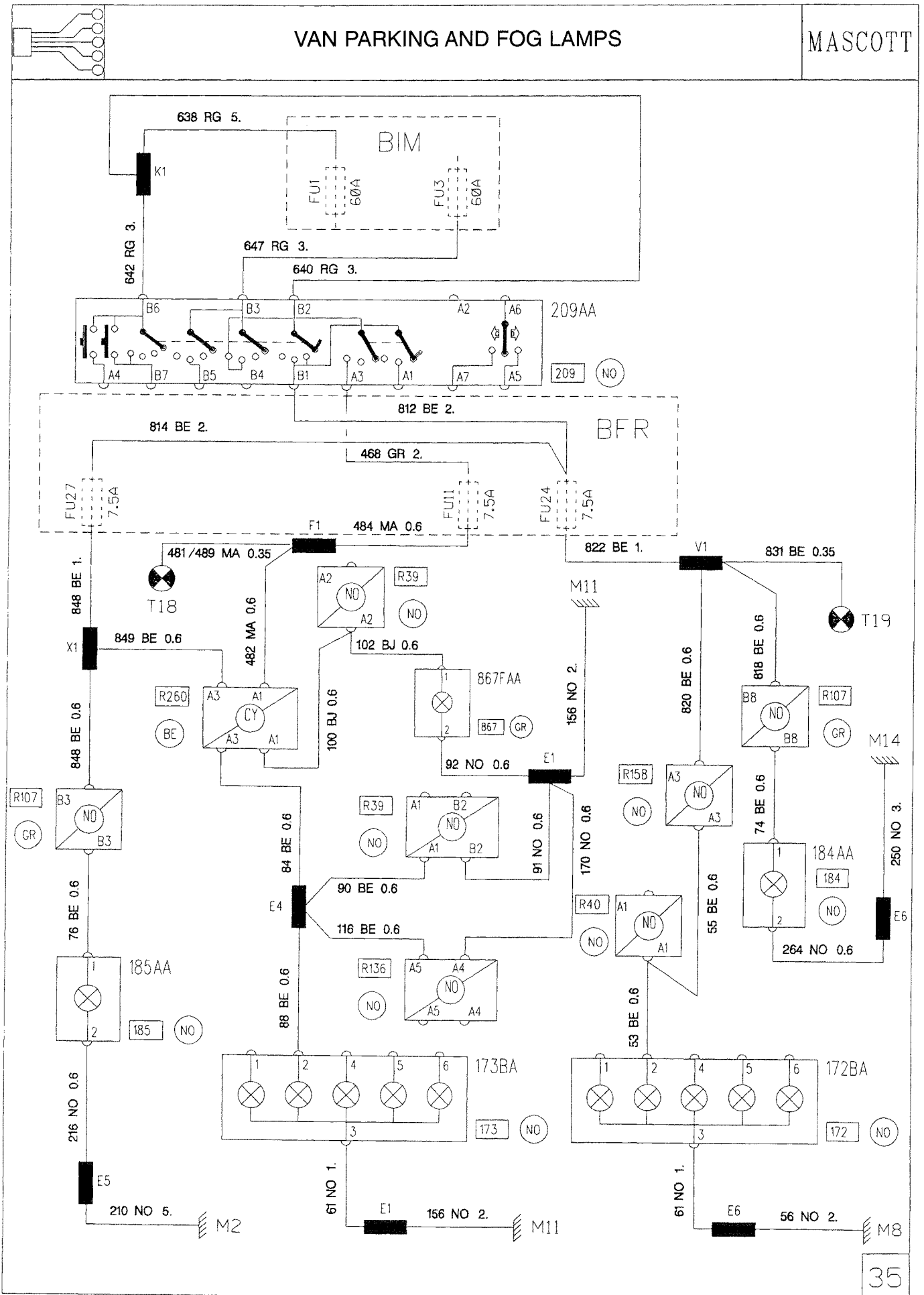
# RUN-UNDER GUARD-MOUNTED PARKING AND FOG LAMPS (WITH OPTIONS)

MASCOTT



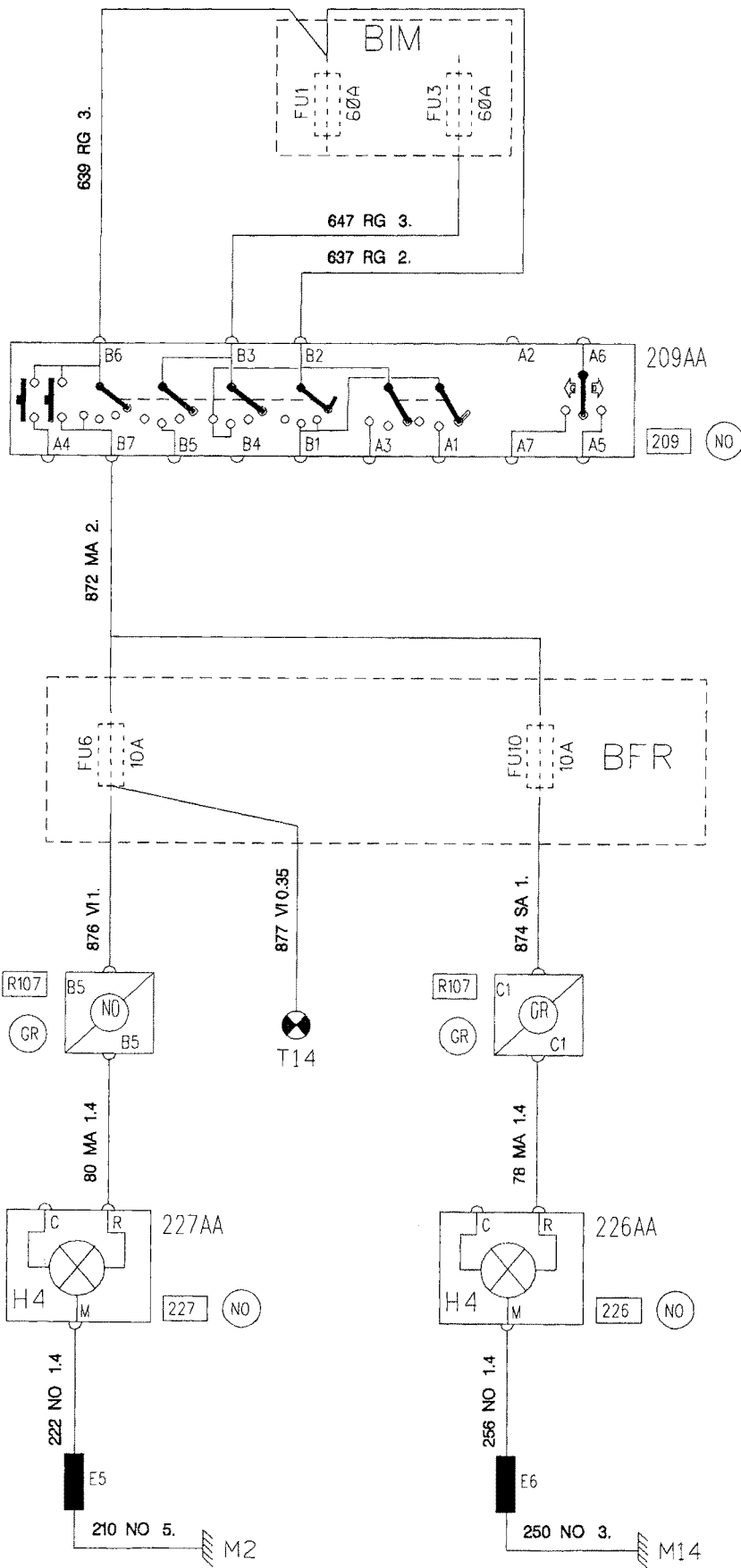
# VAN PARKING AND FOG LAMPS

MASCOTT



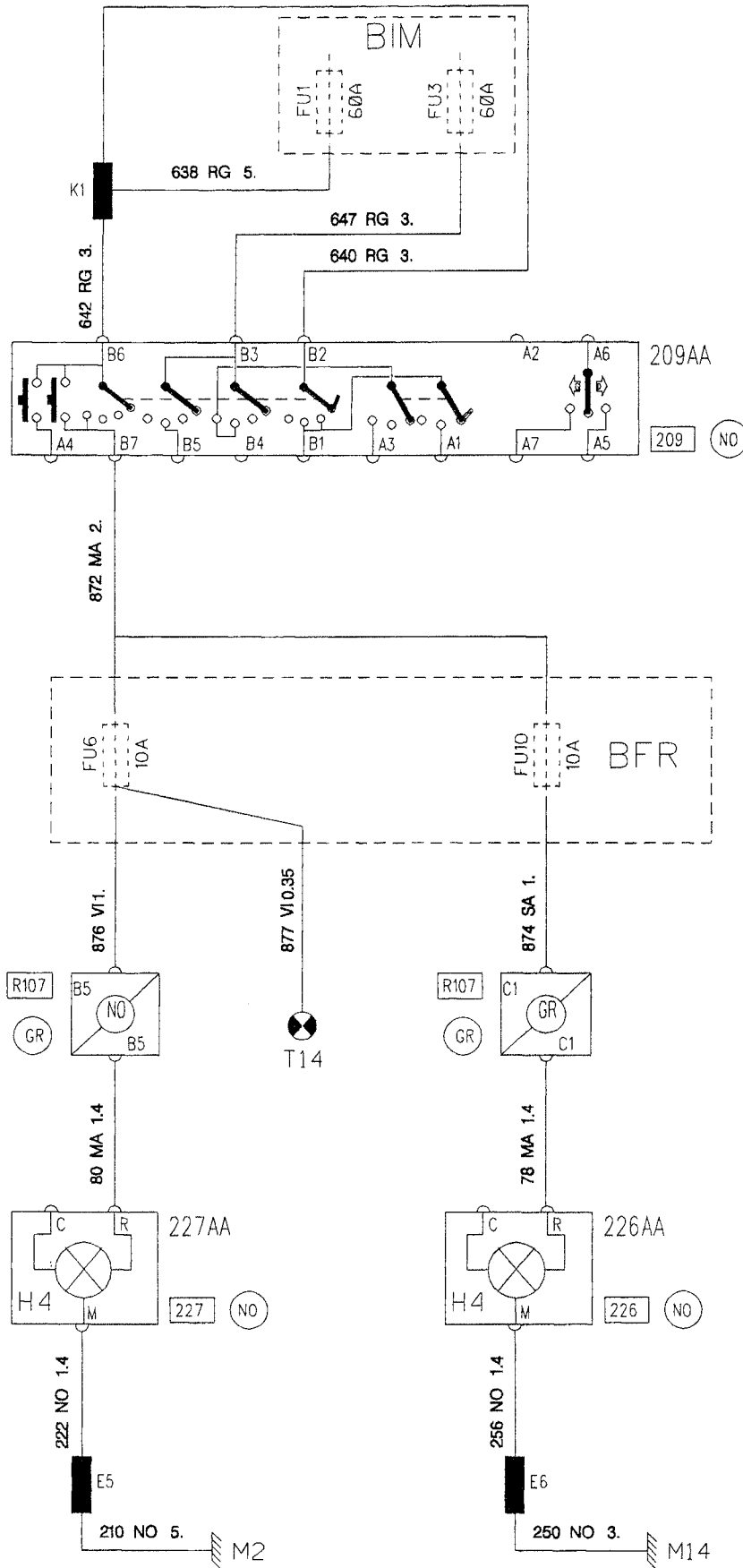
# MAIN BEAM HEADLAMPS (WITH OPTIONS)

MASCOTT



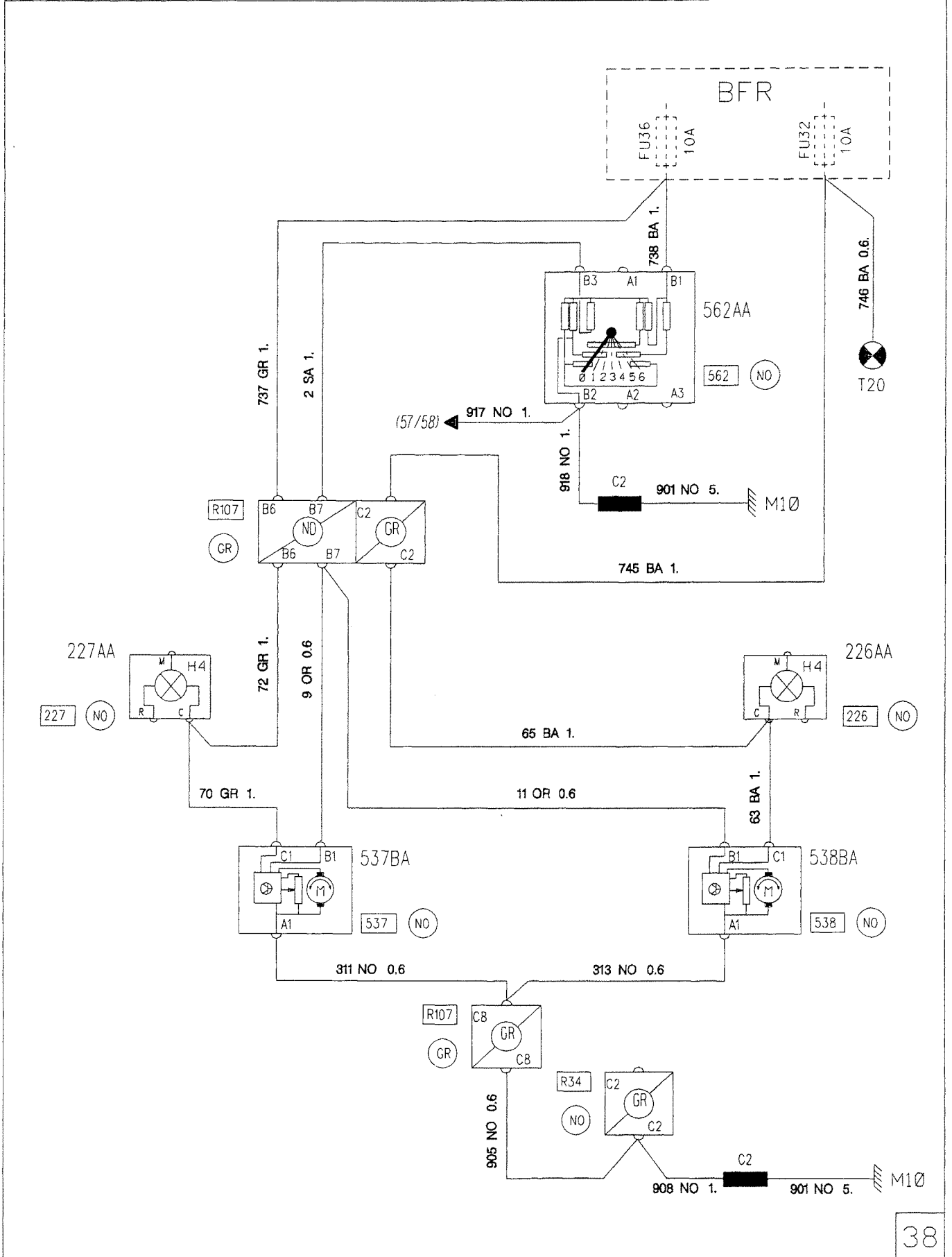
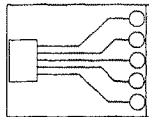
# MAIN BEAM HEADLAMPS (WITHOUT OPTIONS)

MASCOTT



# HEADLAMPS ADJUSTMENT (WITHOUT OPTIONS)

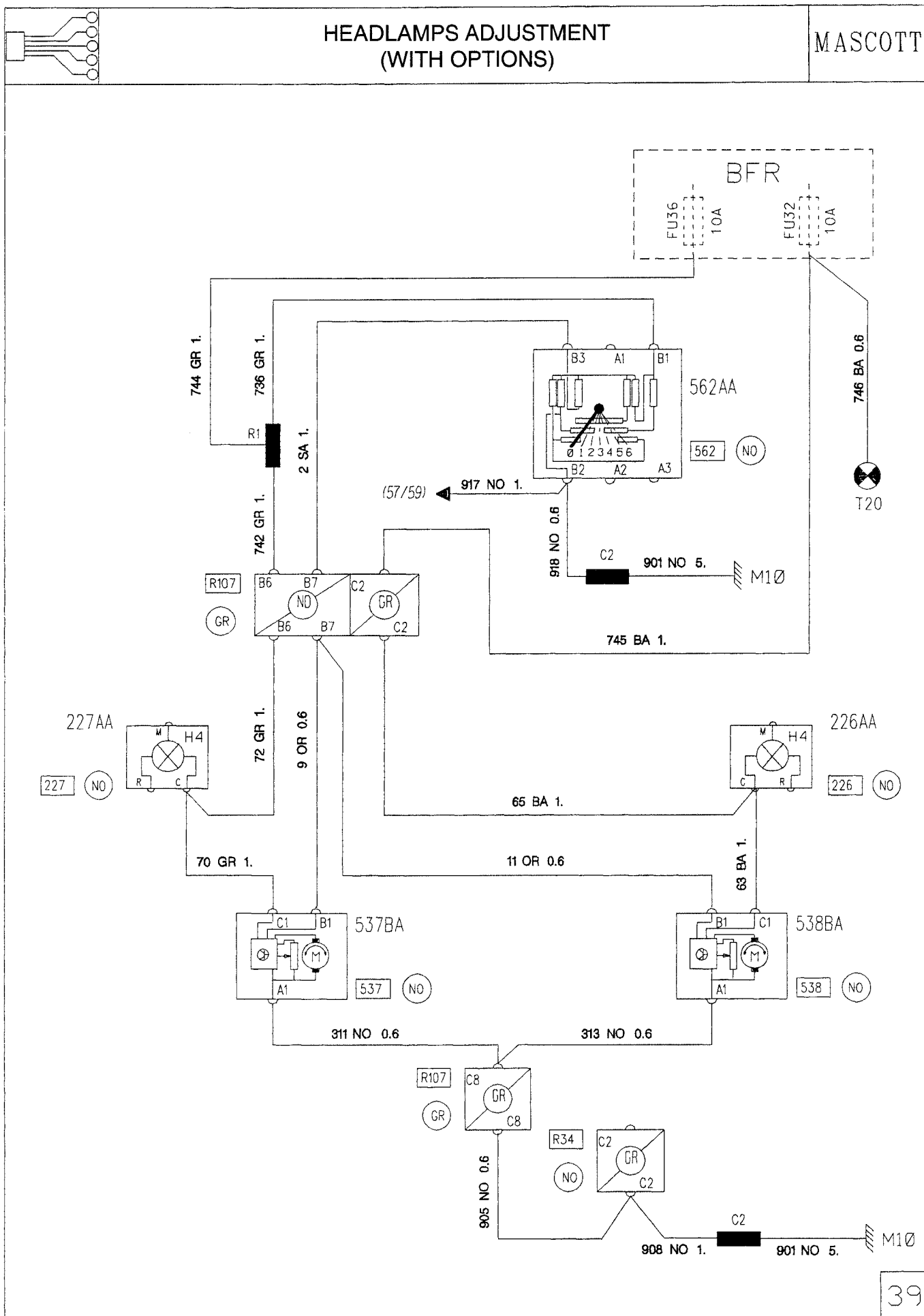
MASCOTT





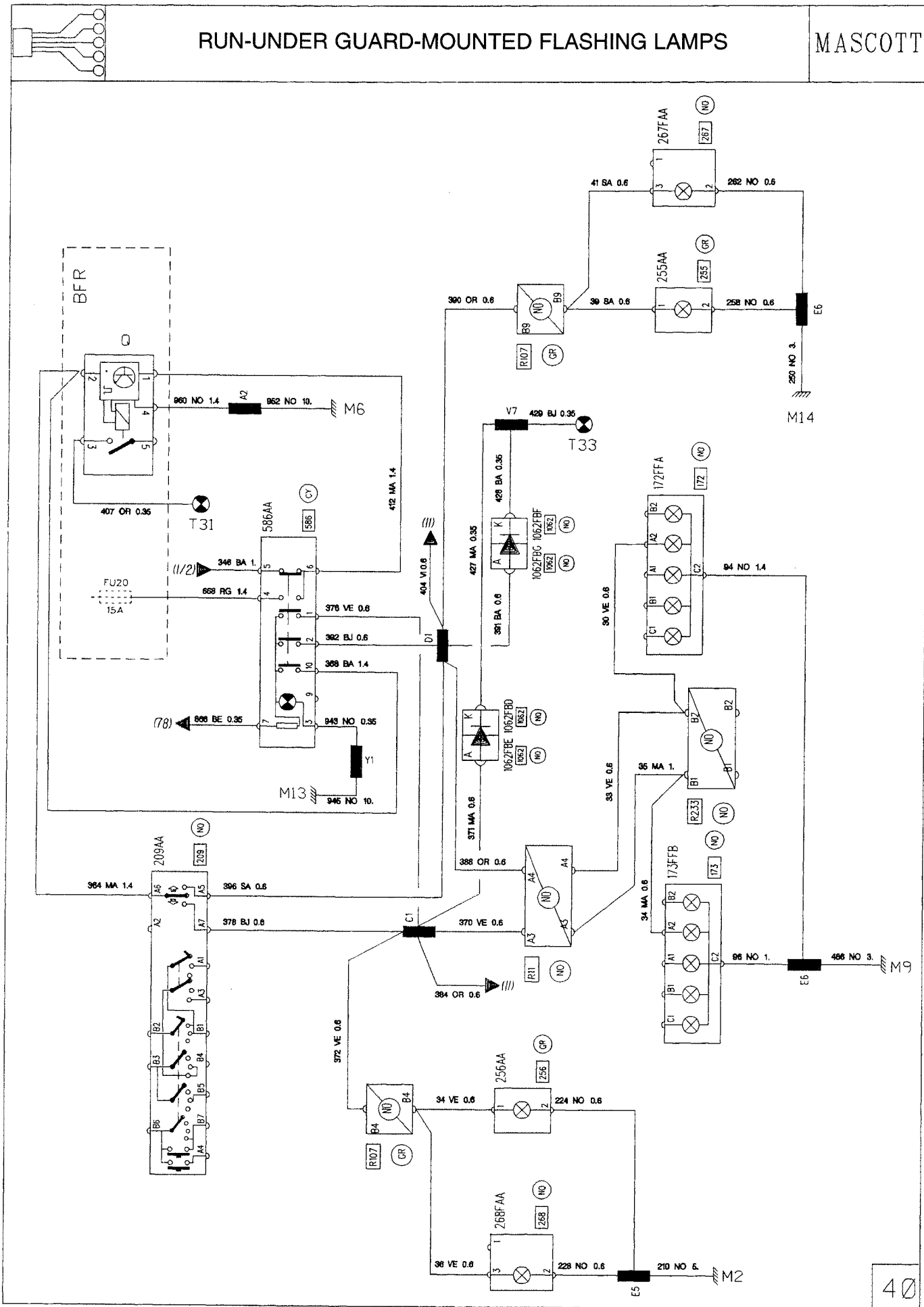
HEADLAMPS ADJUSTMENT  
(WITH OPTIONS)

MASCOTT



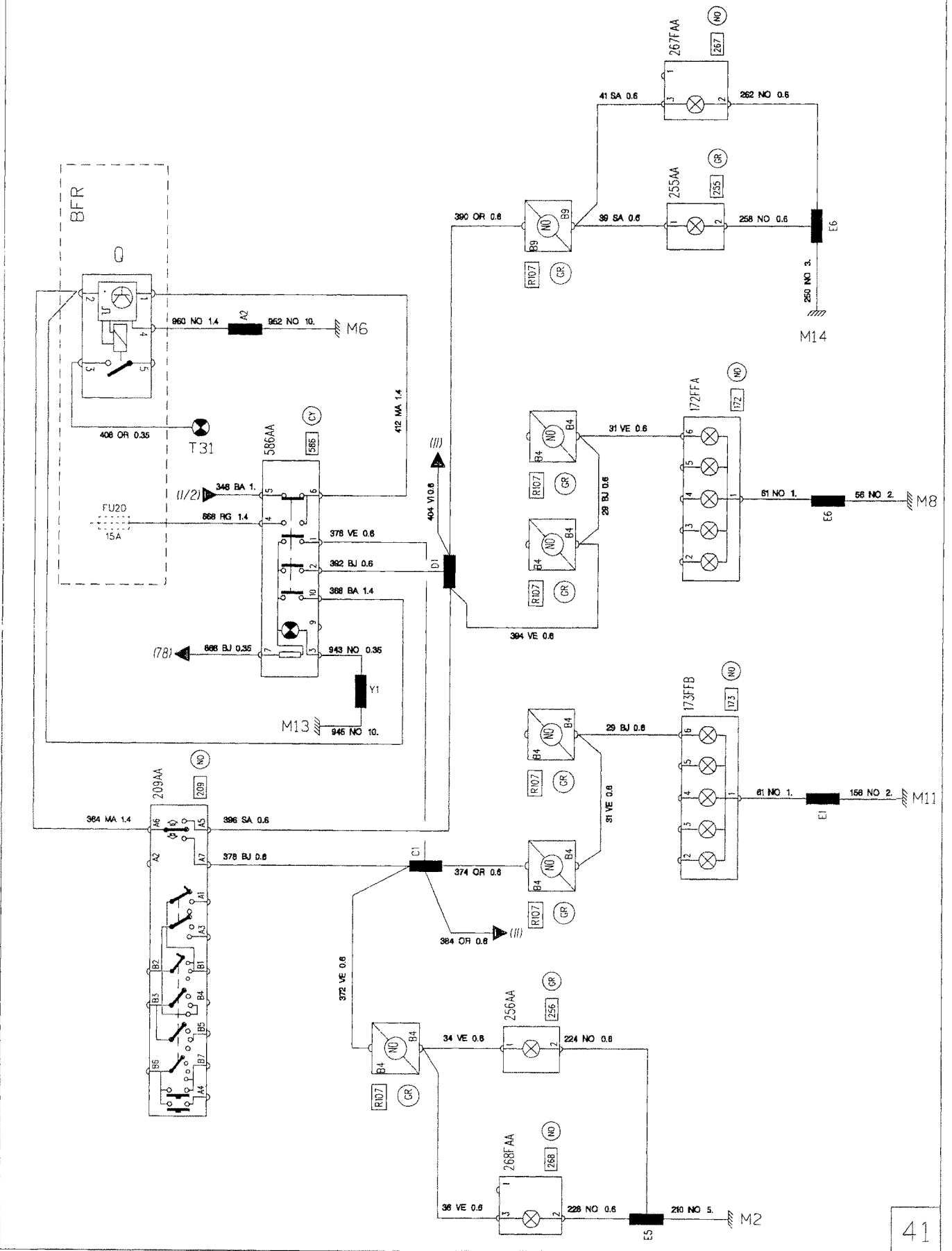
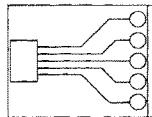
RUN-UNDER GUARD-MOUNTED FLASHING LAMPS

MASCOTT



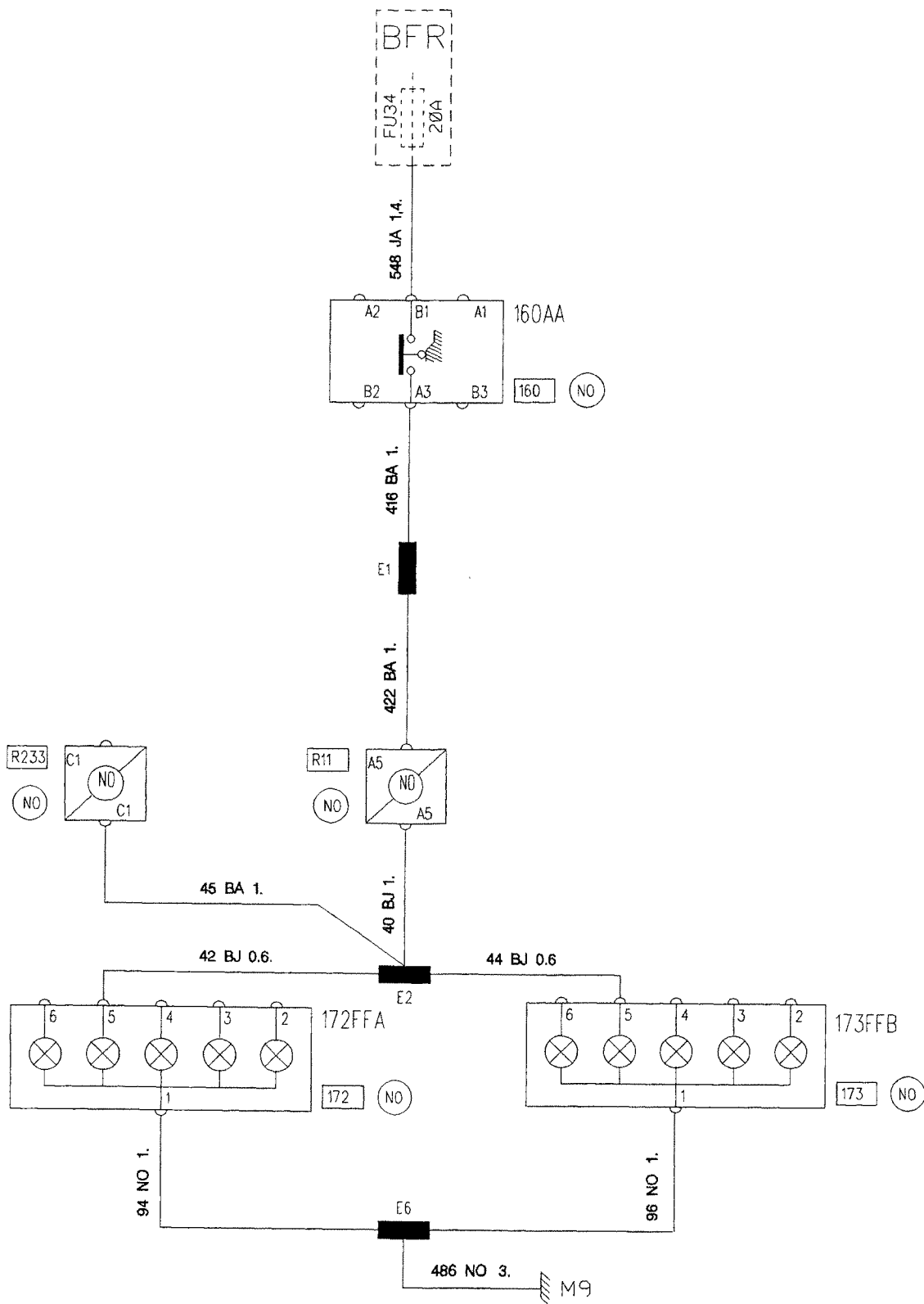
RUN-UNDER GUARD-MOUNTED FLASHING LAMPS (VAN)

MASCOTT



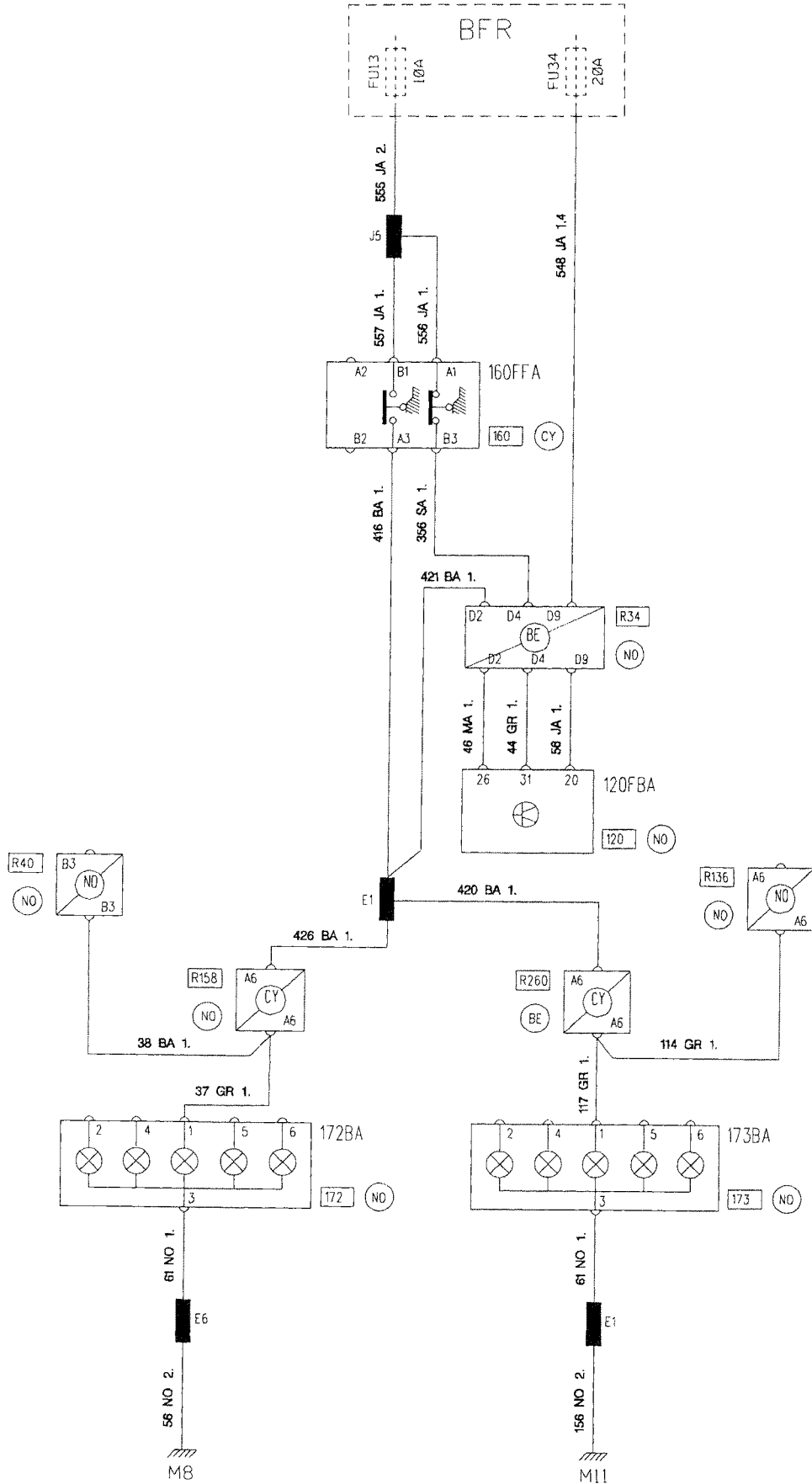
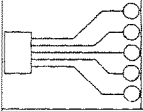
RUN-UNDER GUARD-MOUNTED STOP LAMPS

MASCOTT



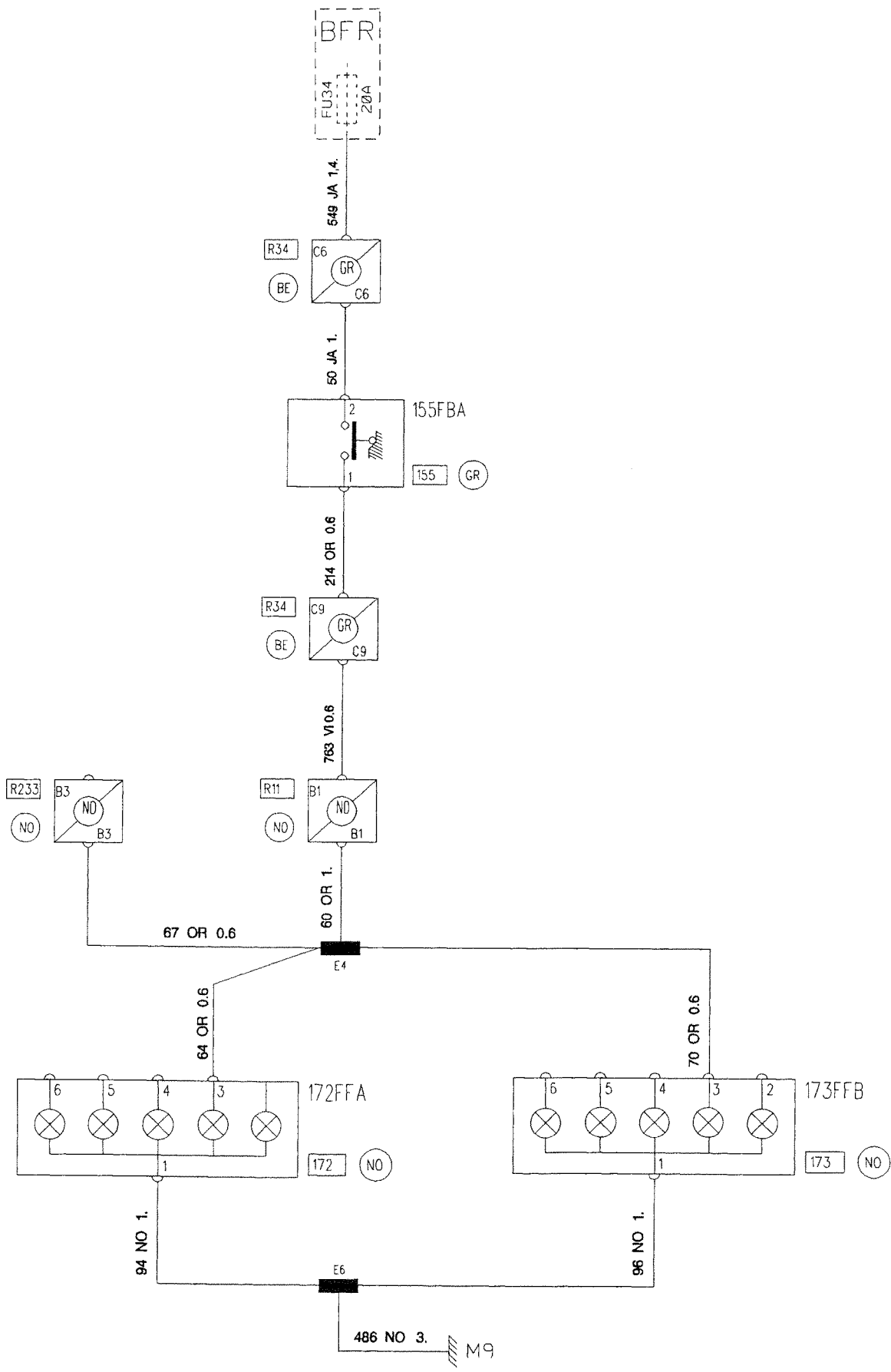
VAN STOP LAMPS

MASCOTT



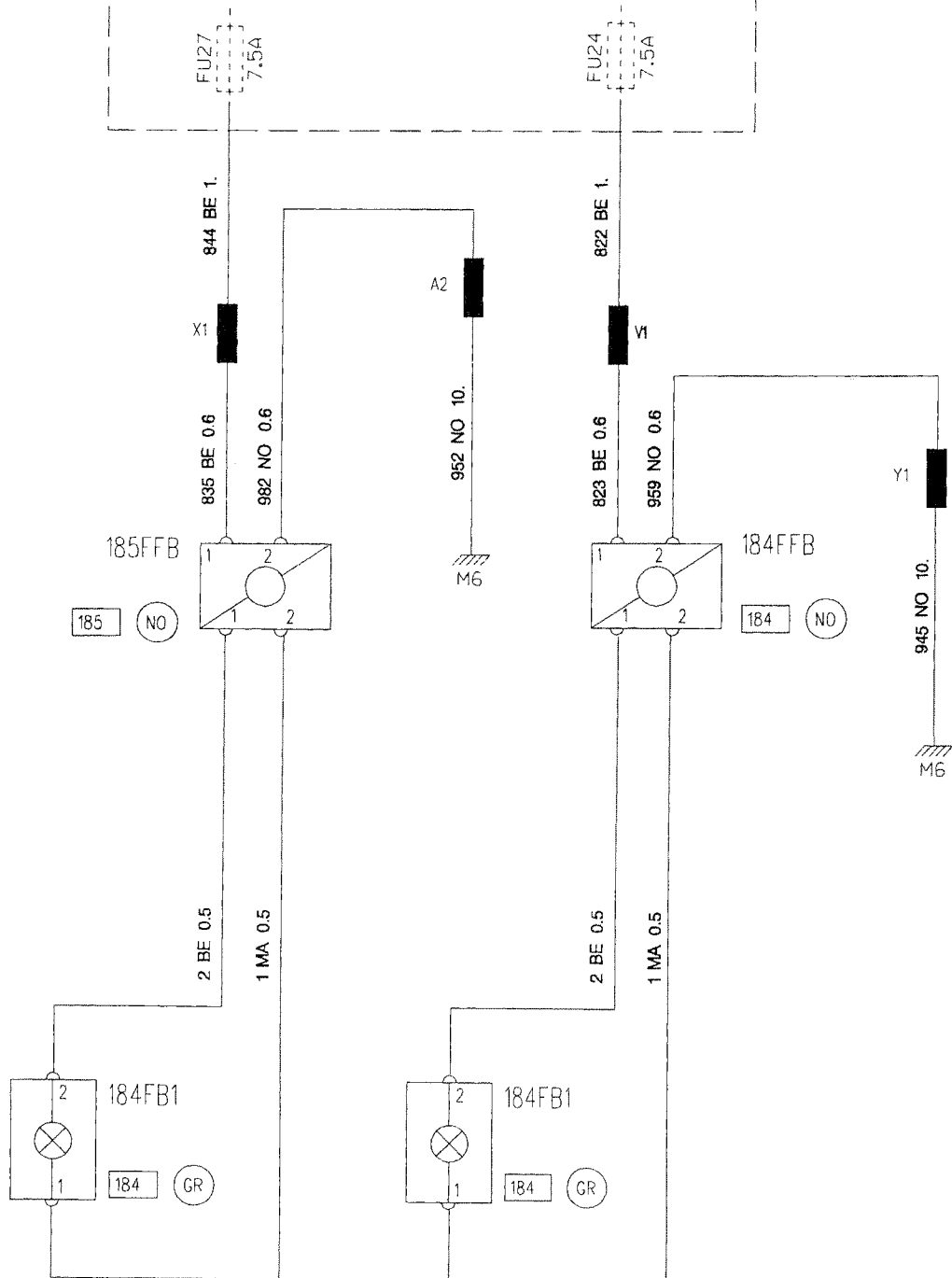
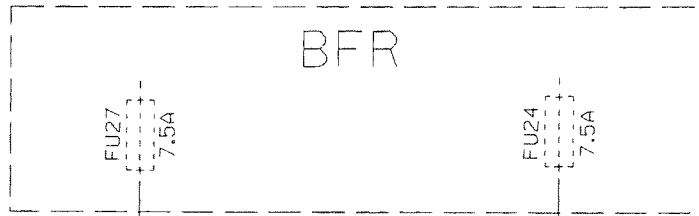
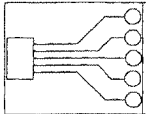
RUN-UNDER GUARD-MOUNTED REVERSING LAMPS

MASCOTT



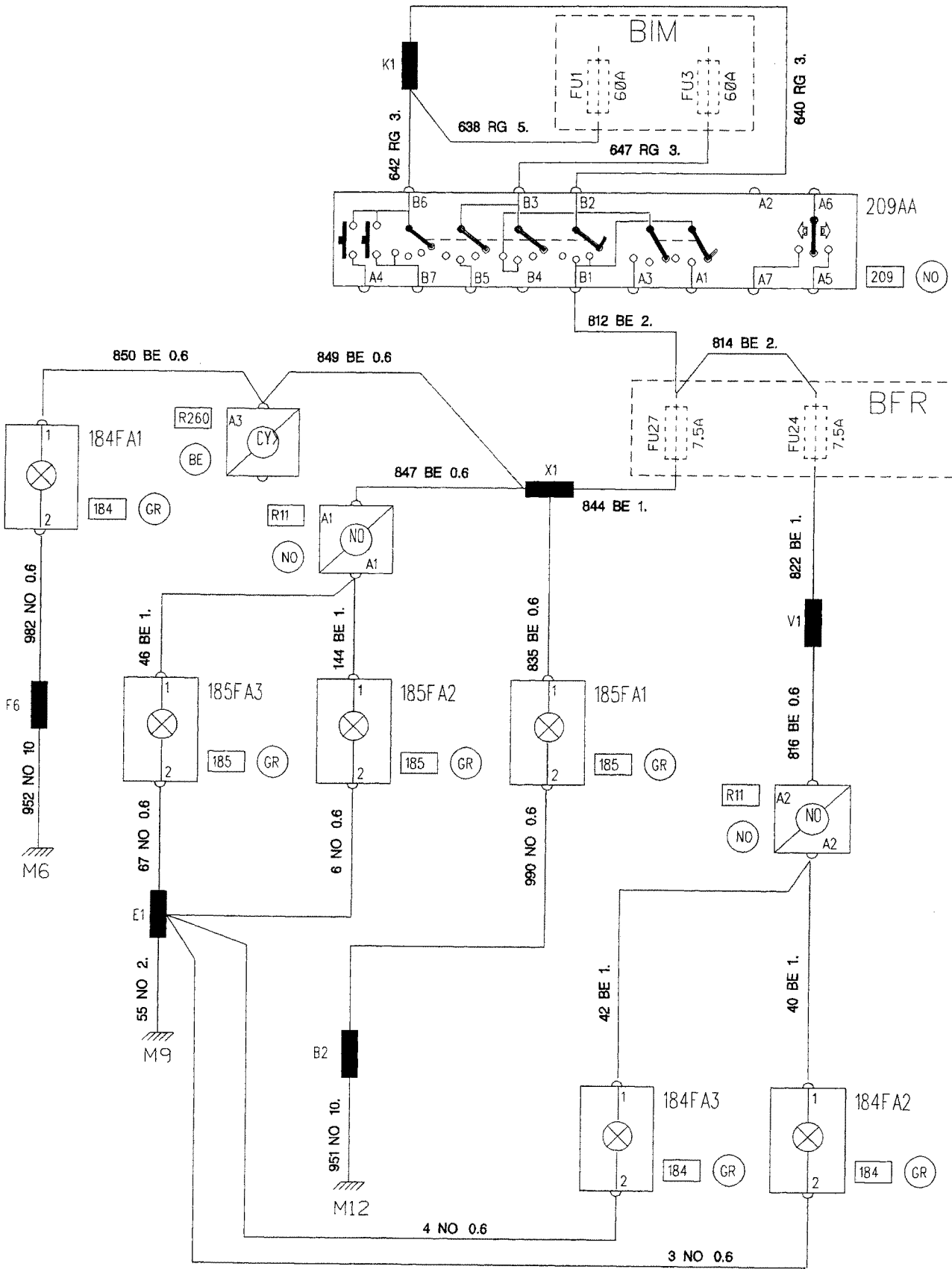
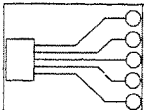
ROOF LAMPS

MASCOTT



VAN MARKER LAMPS (WITH OPTIONS)

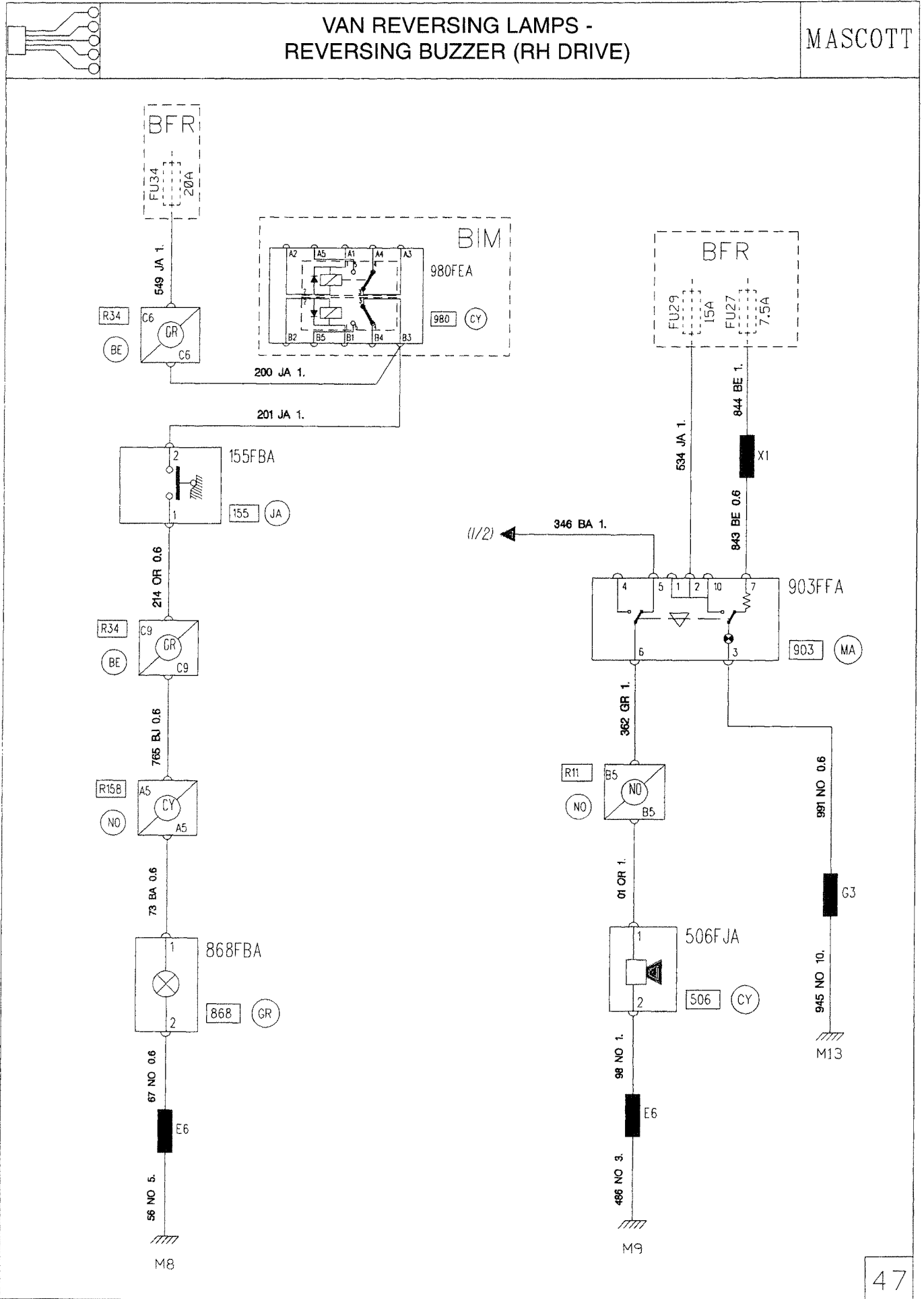
MASCOTT





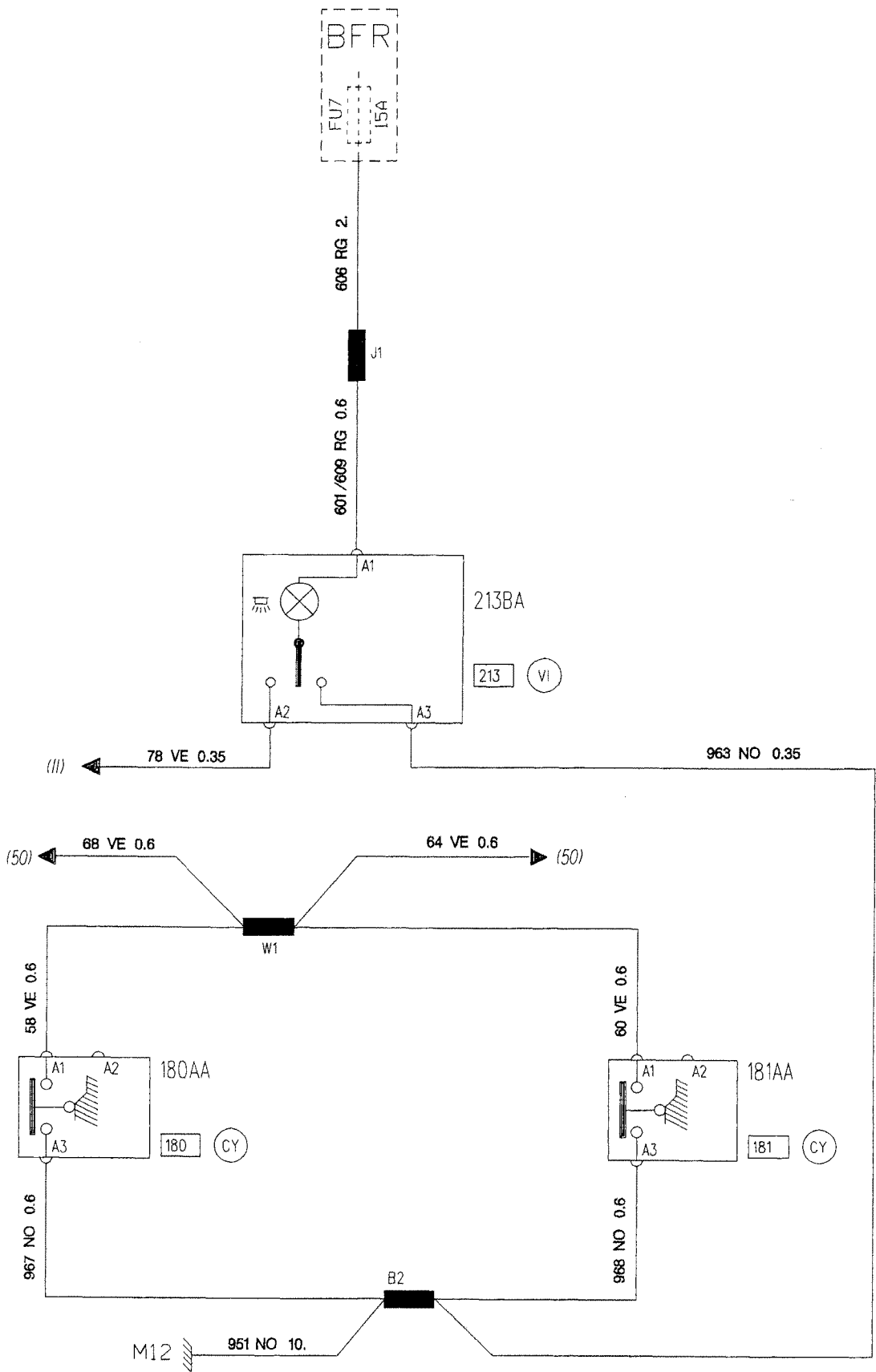
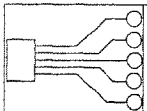
VAN REVERSING LAMPS -  
REVERSING BUZZER (RH DRIVE)

MASCOTT



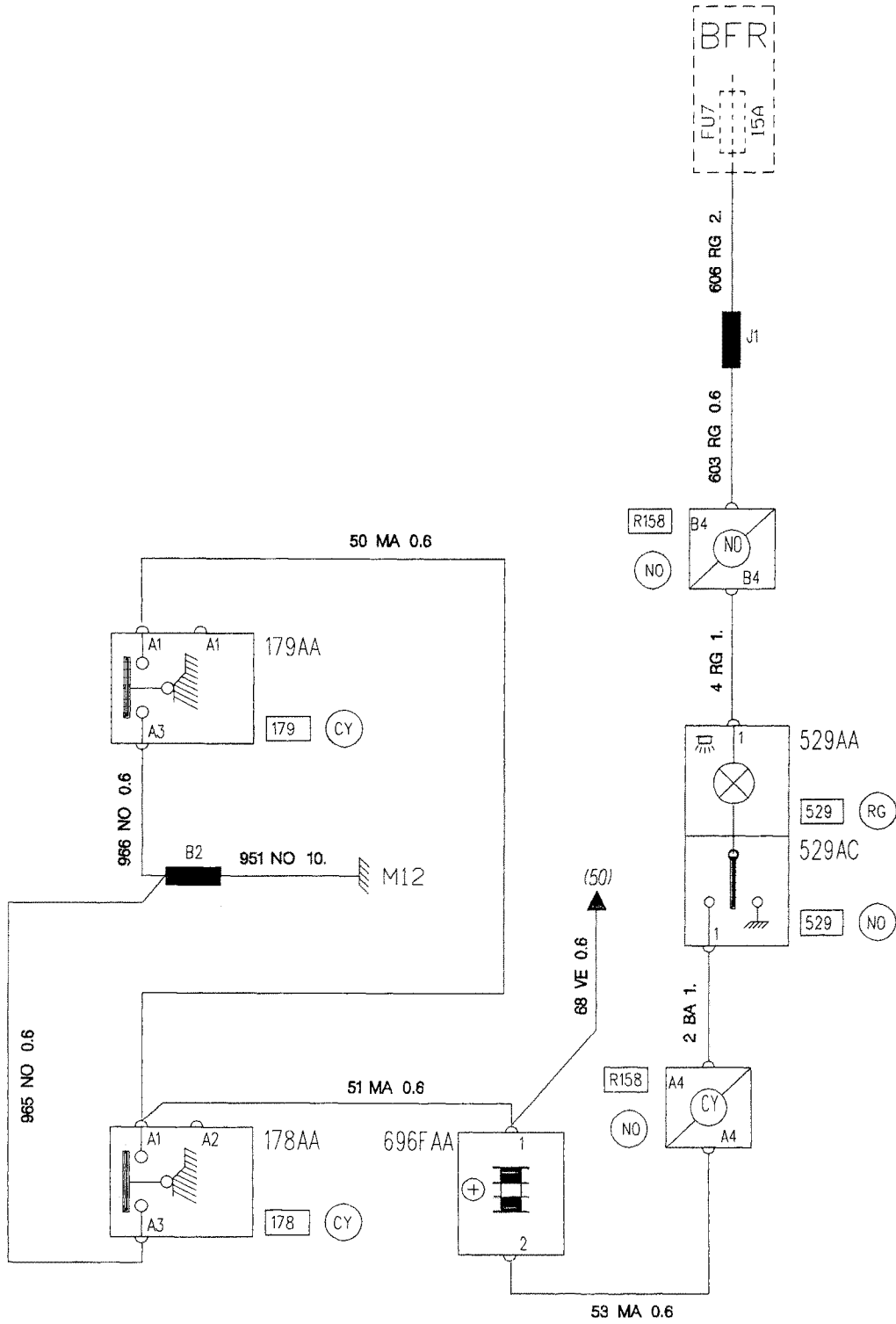
CAB INTERIOR LIGHTING

MASCOTT



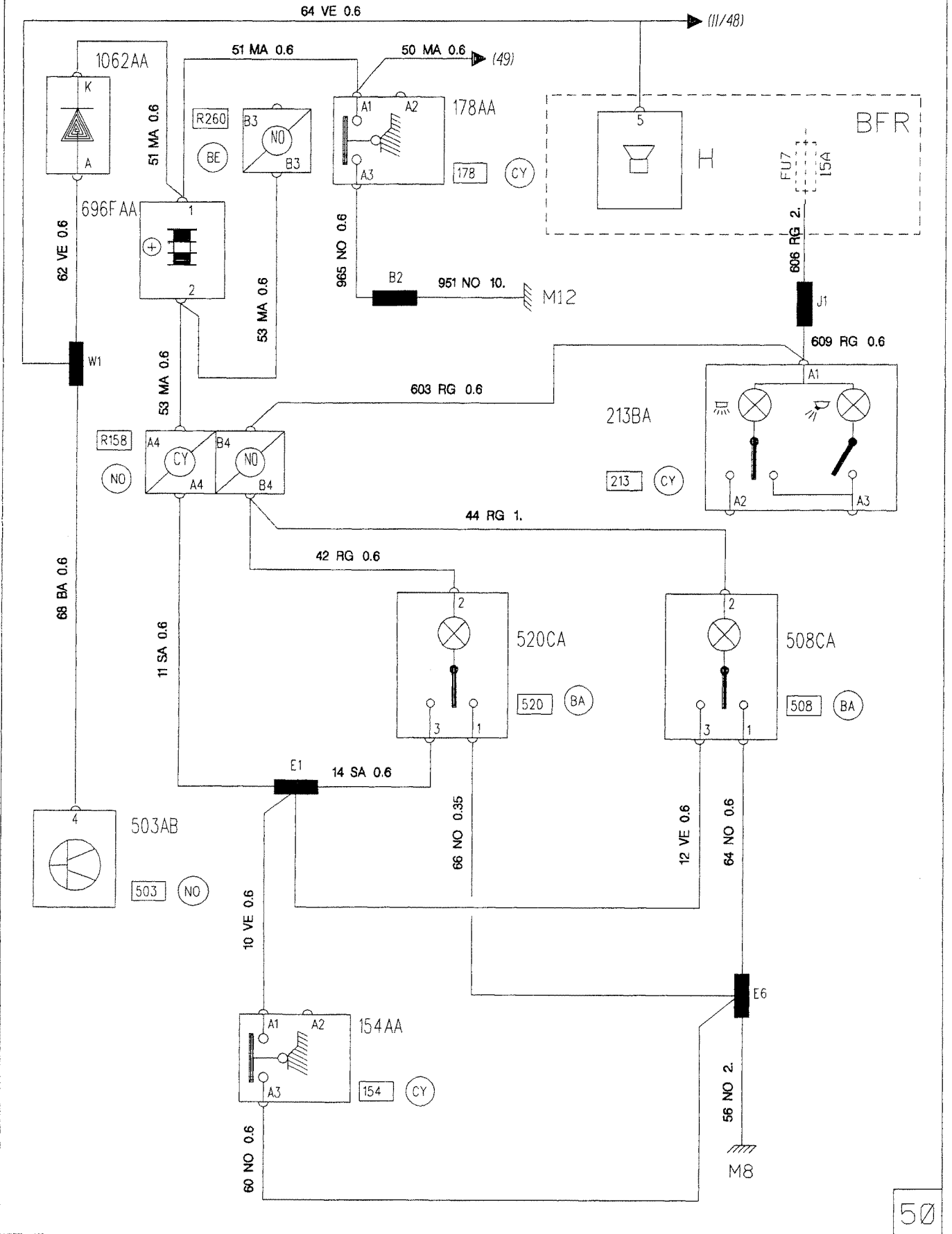
CREW CAB INTERIOR LIGHTING

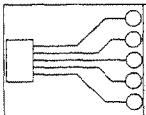
MASCOTT



VAN INTERIOR LIGHTING  
(WITH SIDE DOOR)

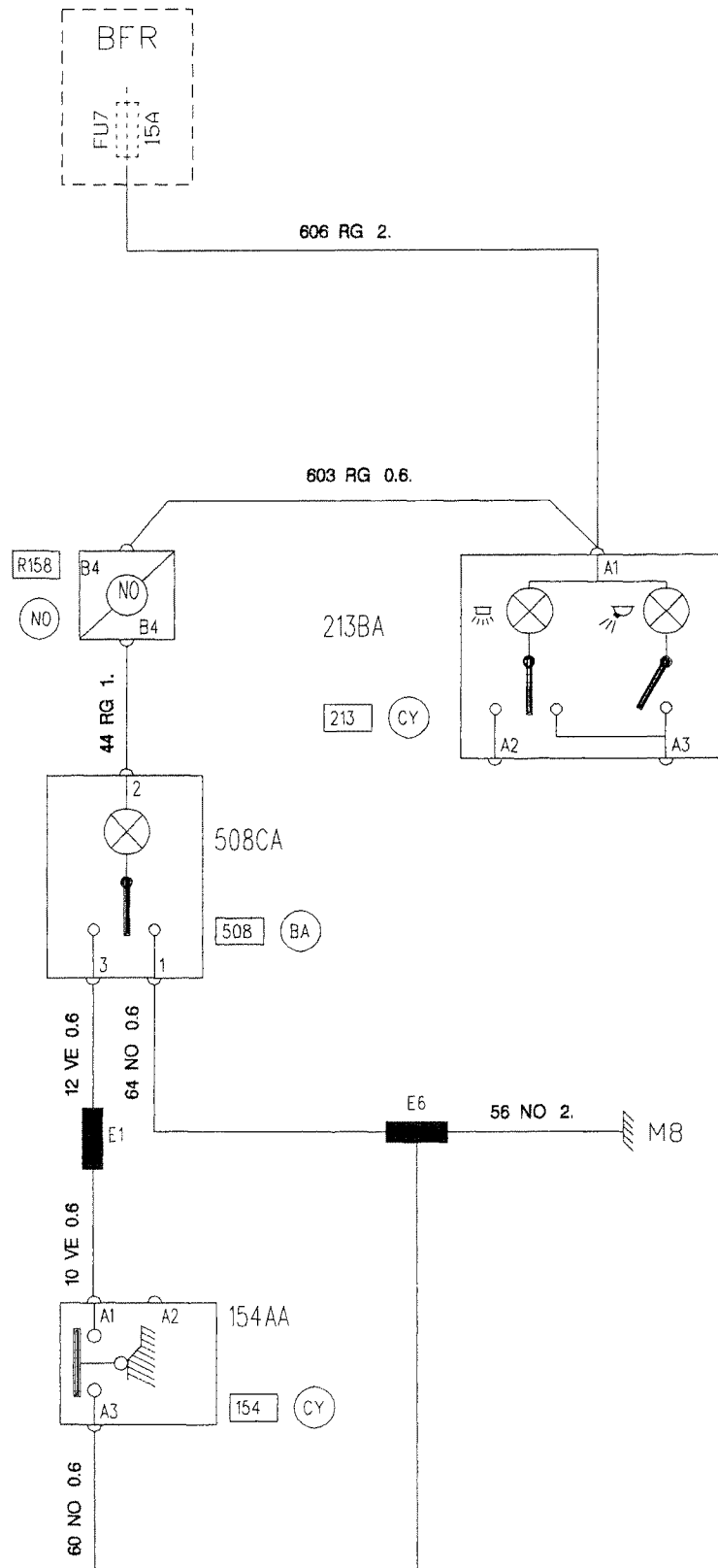
MASCOTT





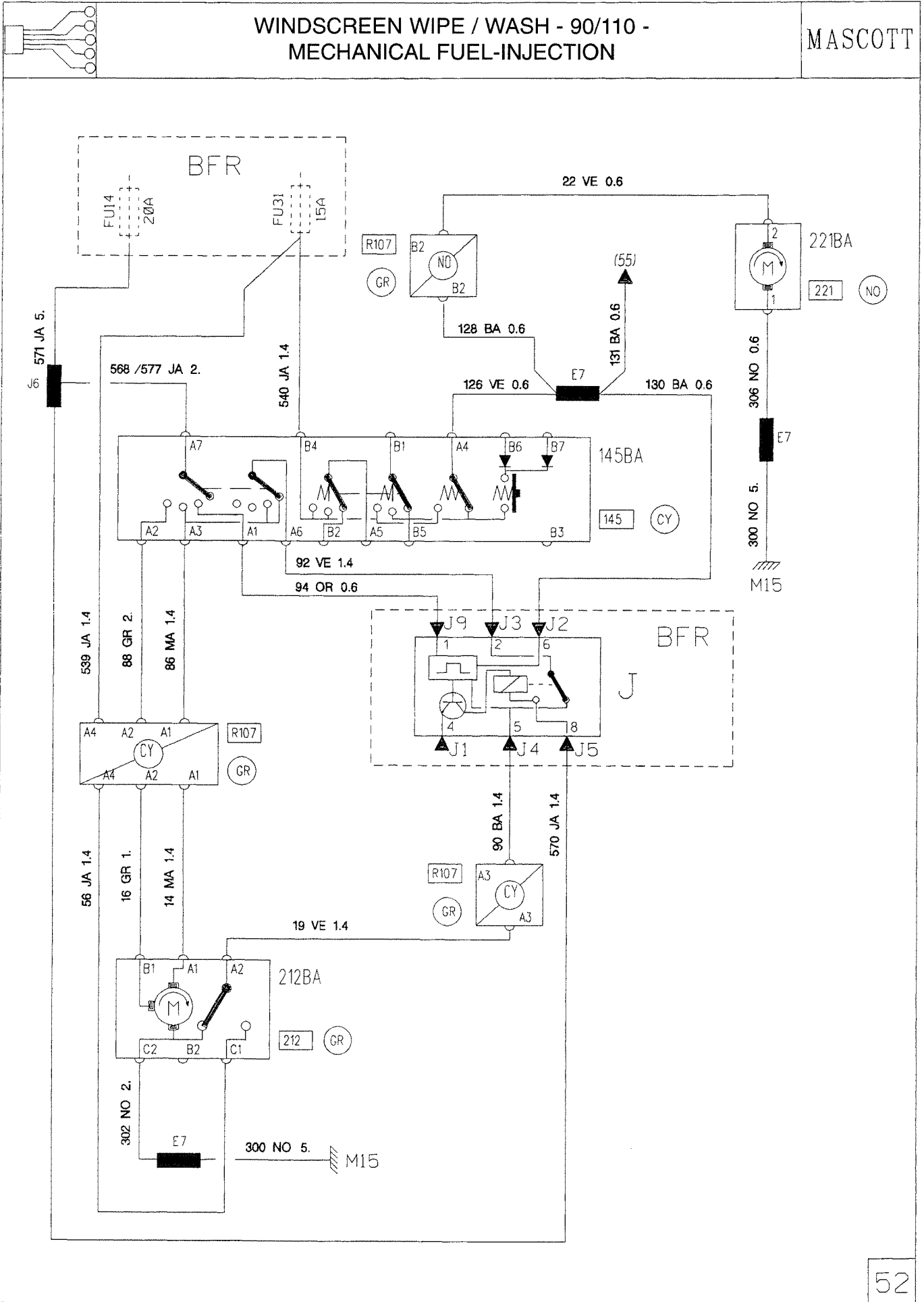
### VAN INTERIOR LIGHTING (WITHOUT SIDE DOOR)

MASCOTT



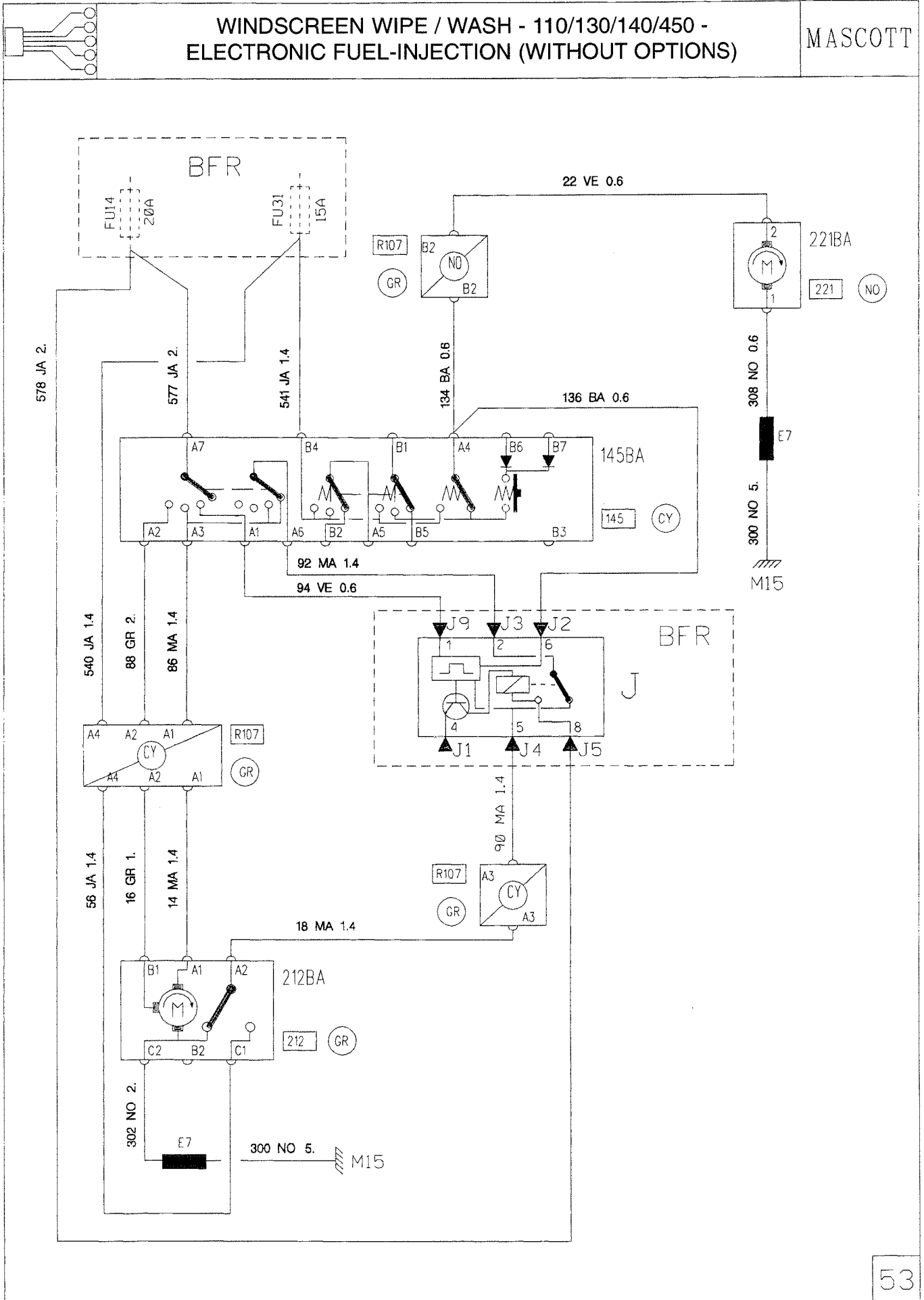
WINDSCREEN WIPE / WASH - 90/110 -  
MECHANICAL FUEL-INJECTION

MASCOTT



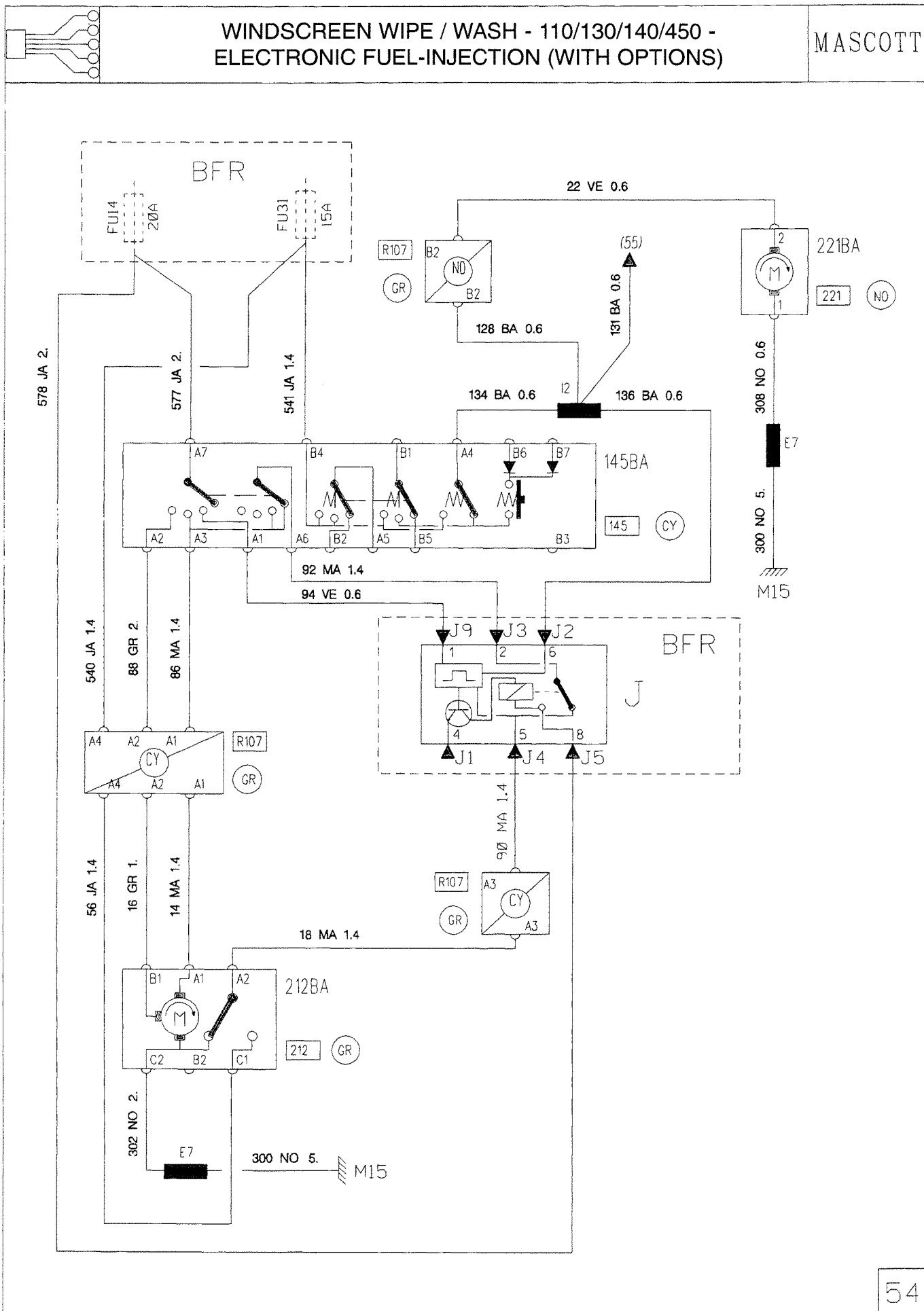
WINDSCREEN WIPE / WASH - 110/130/140/450 -  
ELECTRONIC FUEL-INJECTION (WITHOUT OPTIONS)

MASCOTT

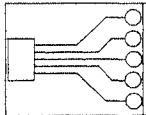


WINDSCREEN WIPE / WASH - 110/130/140/450 - ELECTRONIC FUEL-INJECTION (WITH OPTIONS)

MASCOTT

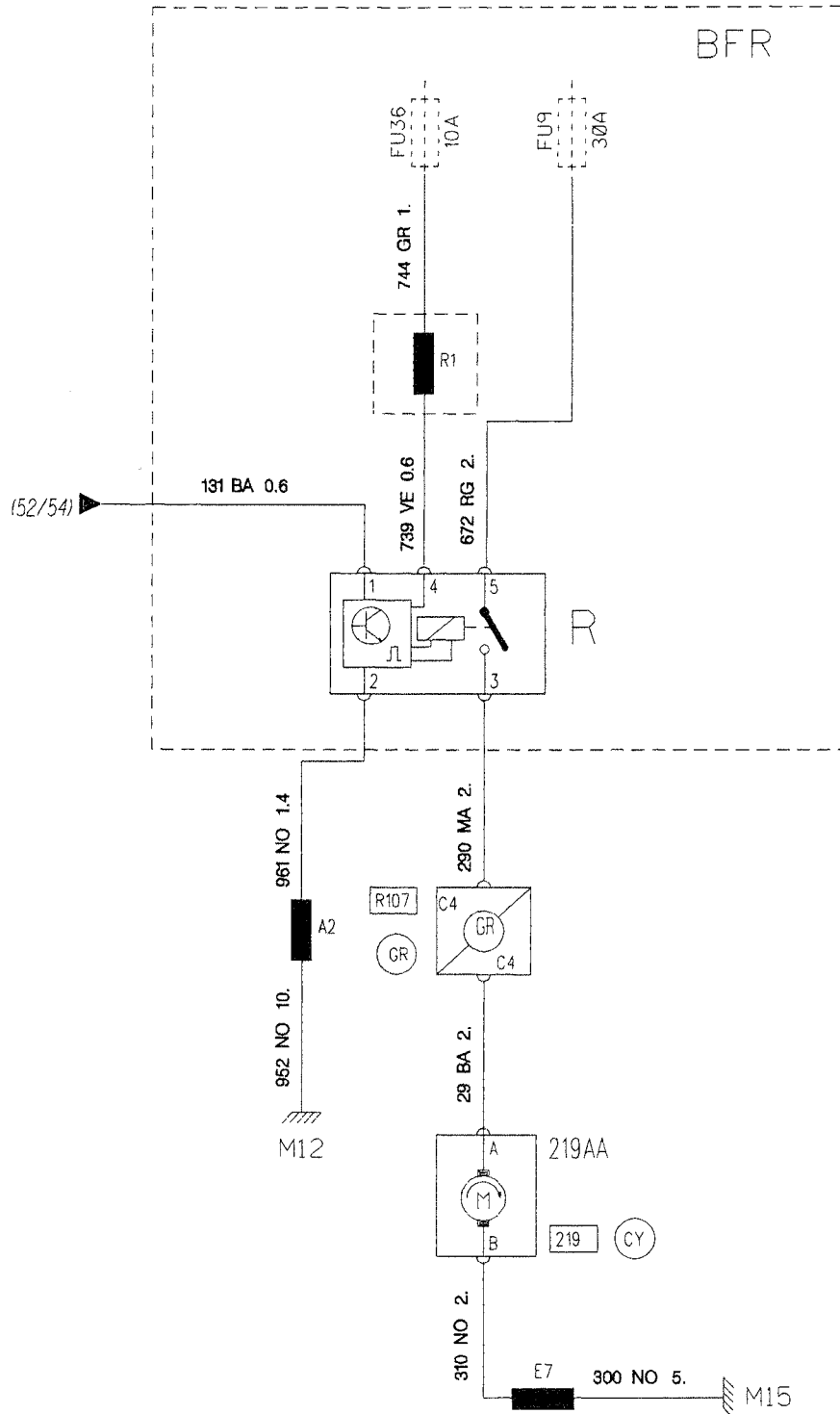






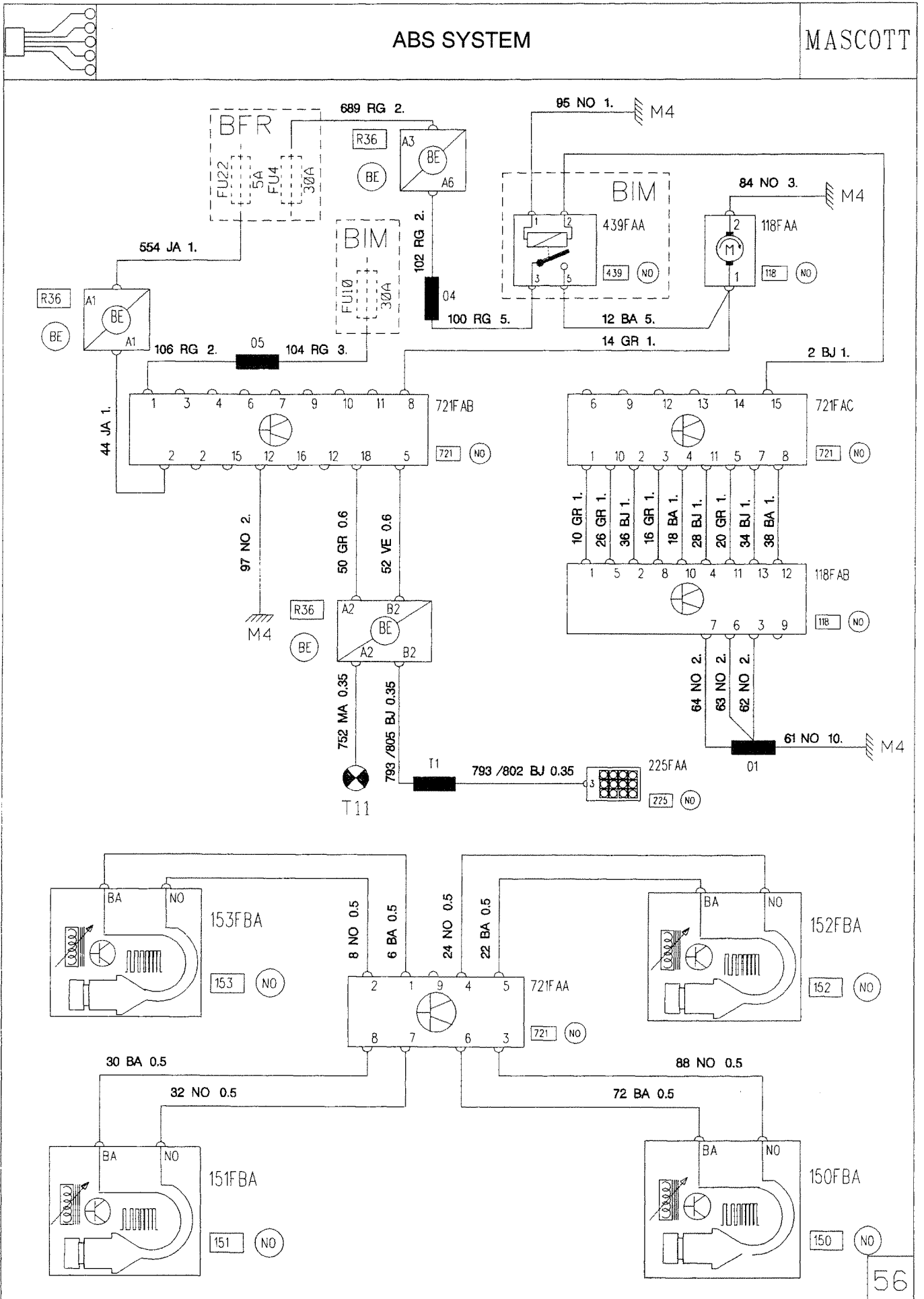
# HEADLAMP WASHER

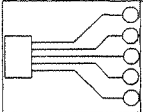
MASCOTT



ABS SYSTEM

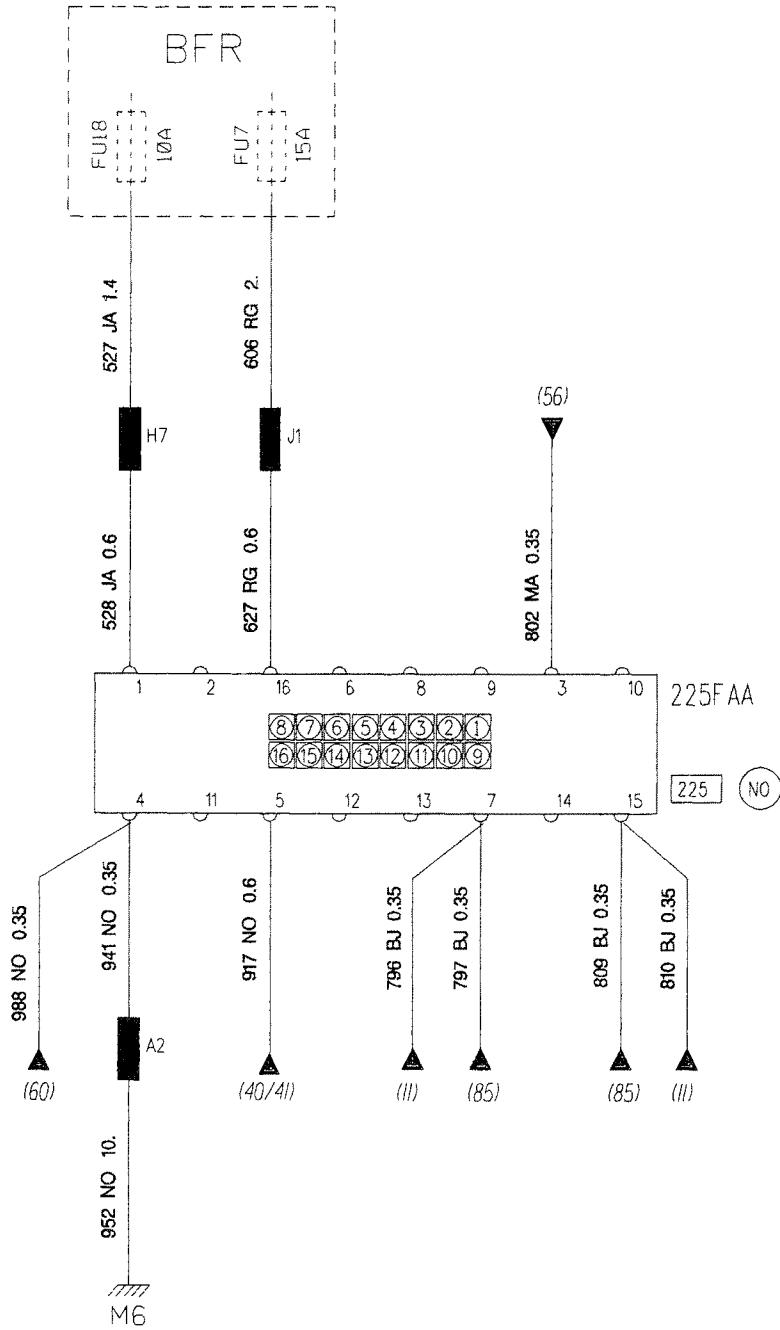
MASCOTT





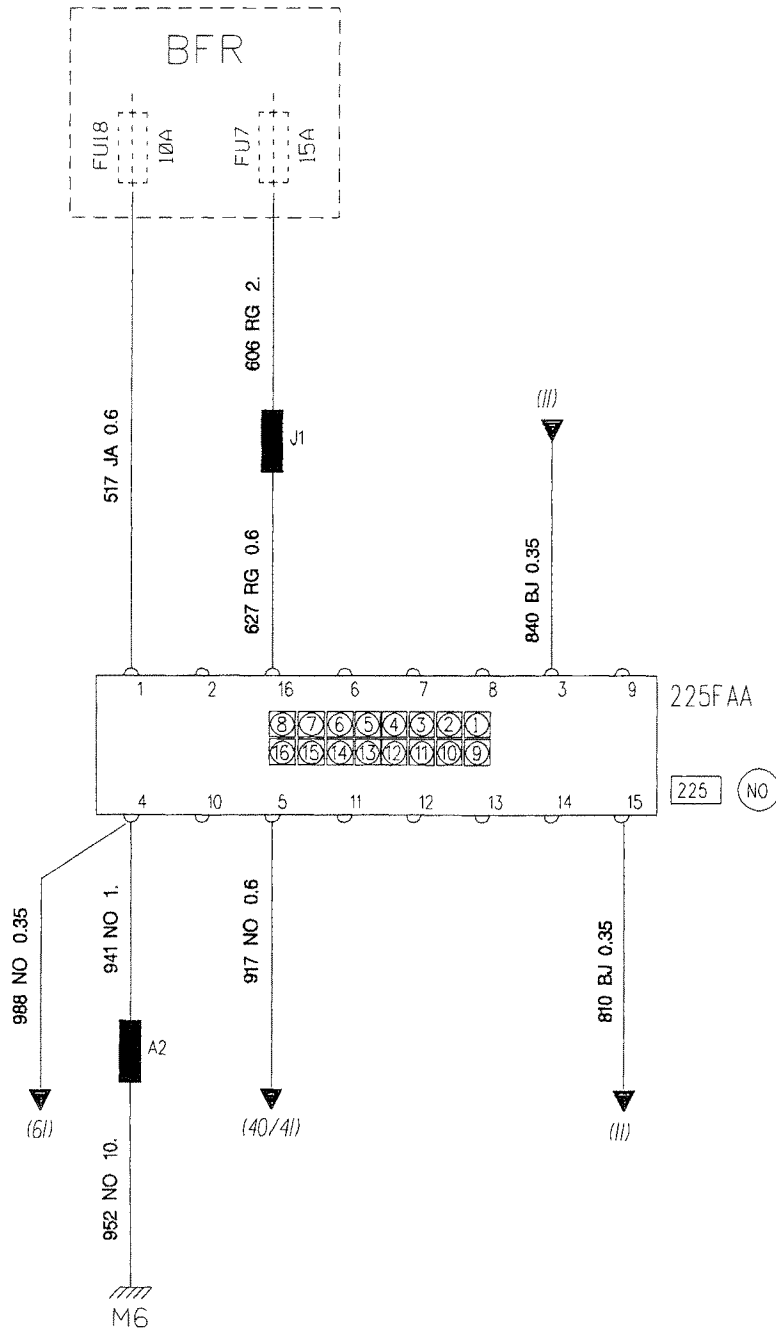
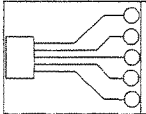
# DIAGNOSTICS SOCKET - 90/110 MECHANICAL FUEL-INJECTION

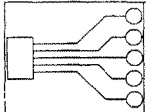
MASCOTT



DIAGNOSTICS SOCKET - 110/130/140/150 -  
ELECTRONIC FUEL-INJECTION  
(WITHOUT OPTIONS)

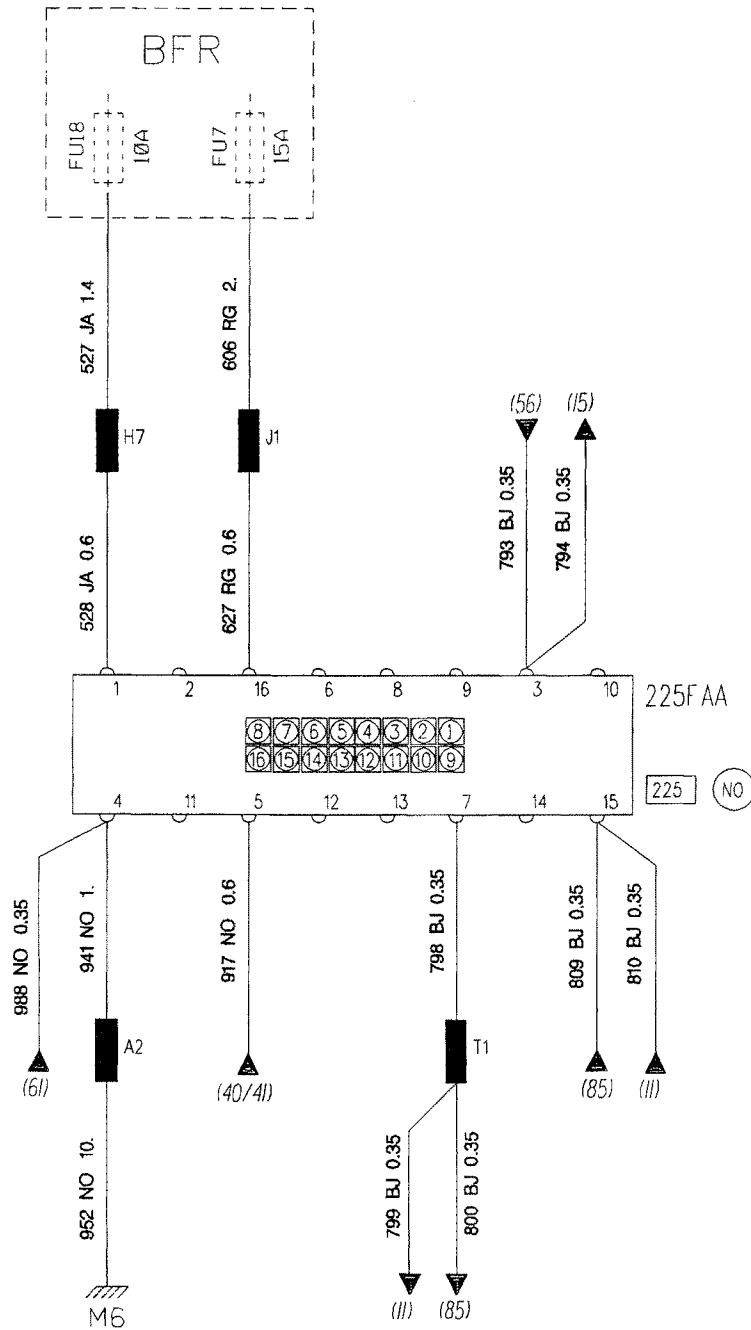
MASCOTT





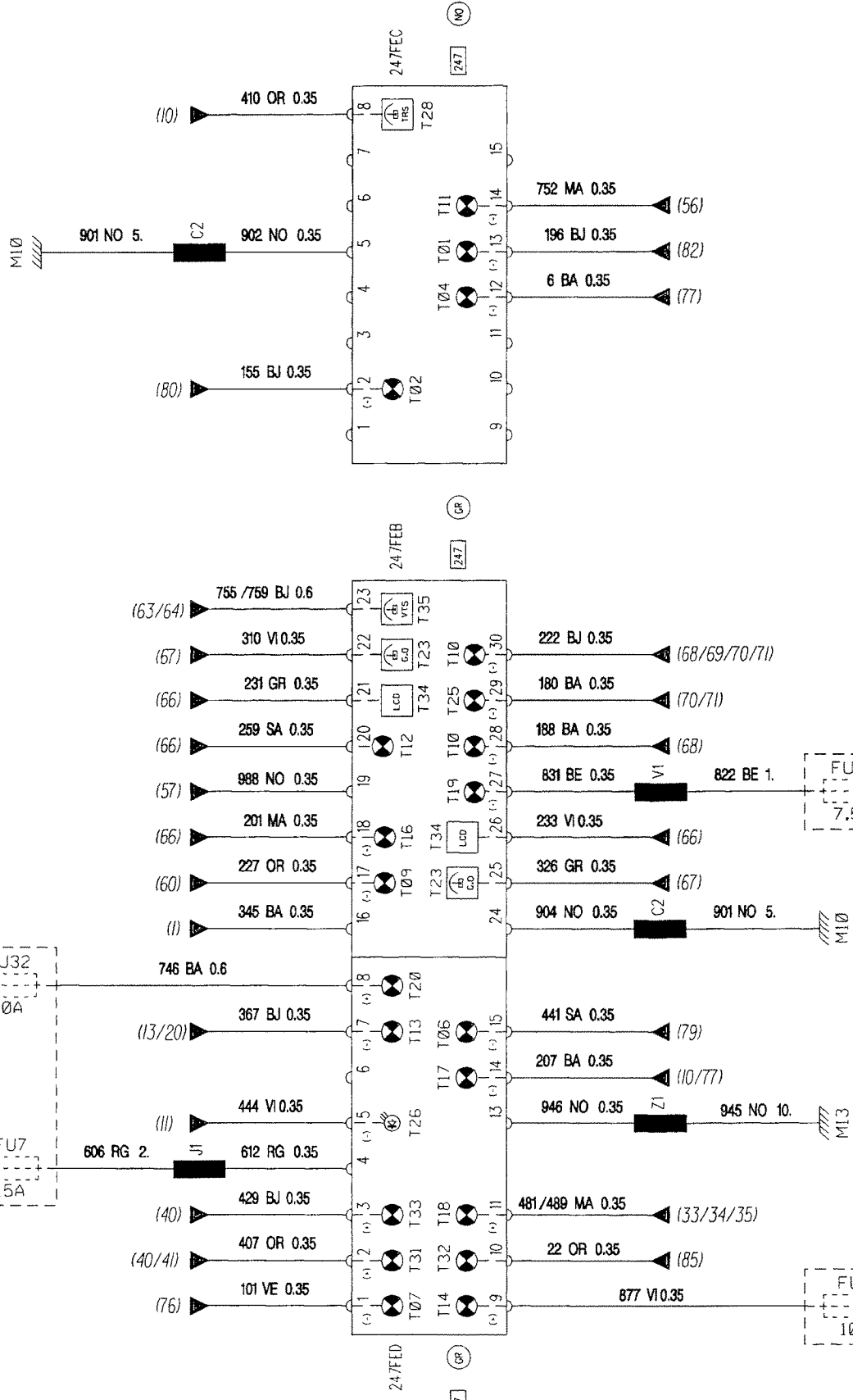
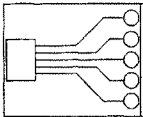
DIAGNOSTICS SOCKET - 110/130/140/150 -  
ELECTRONIC FUEL-INJECTION (WITH OPTIONS)

MASCOTT



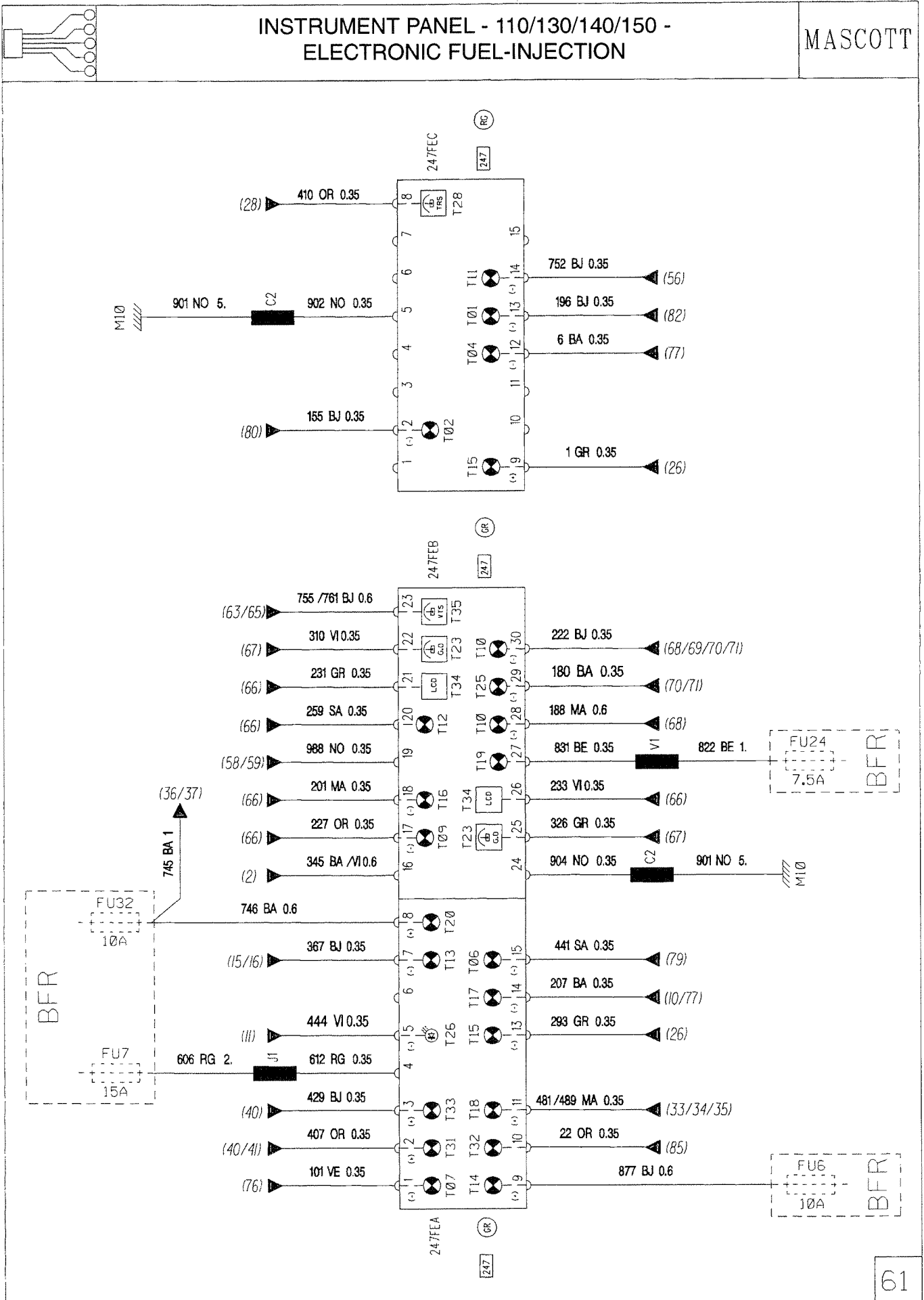
INSTRUMENT PANEL -  
90/110 MECHANICAL FUEL-INJECTION

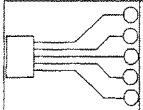
MASCOTT



INSTRUMENT PANEL - 110/130/140/150 -  
ELECTRONIC FUEL-INJECTION

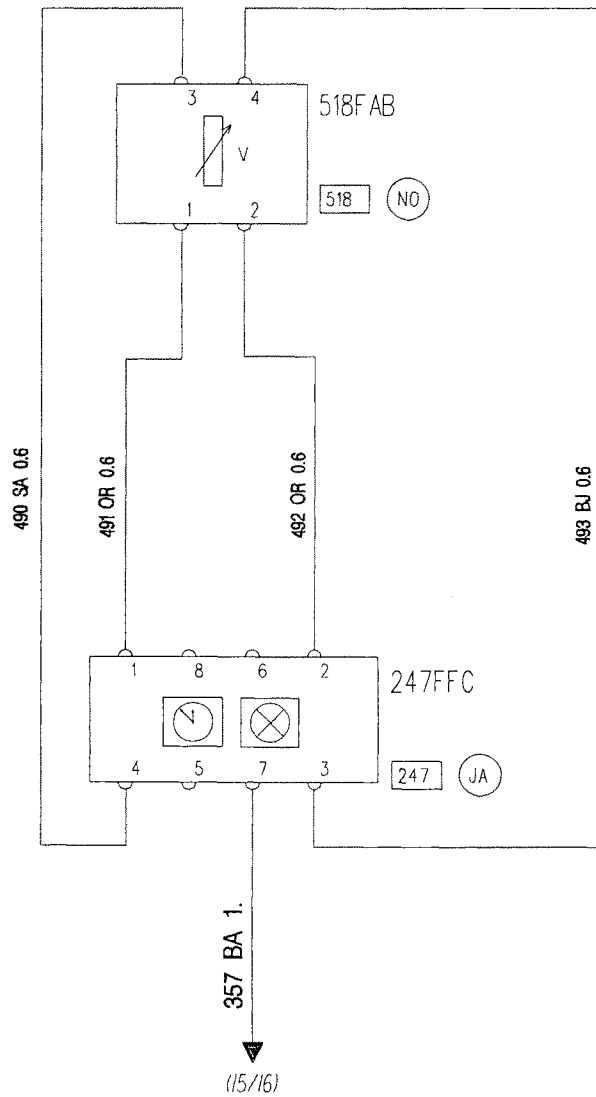
MASCOTT



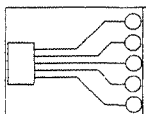


SPEED SENSOR WITH TACHOGRAPH - 90/110/130/140/150 - MECHANICAL AND ELECTRONIC FUEL-INJECTION

MASCOTT

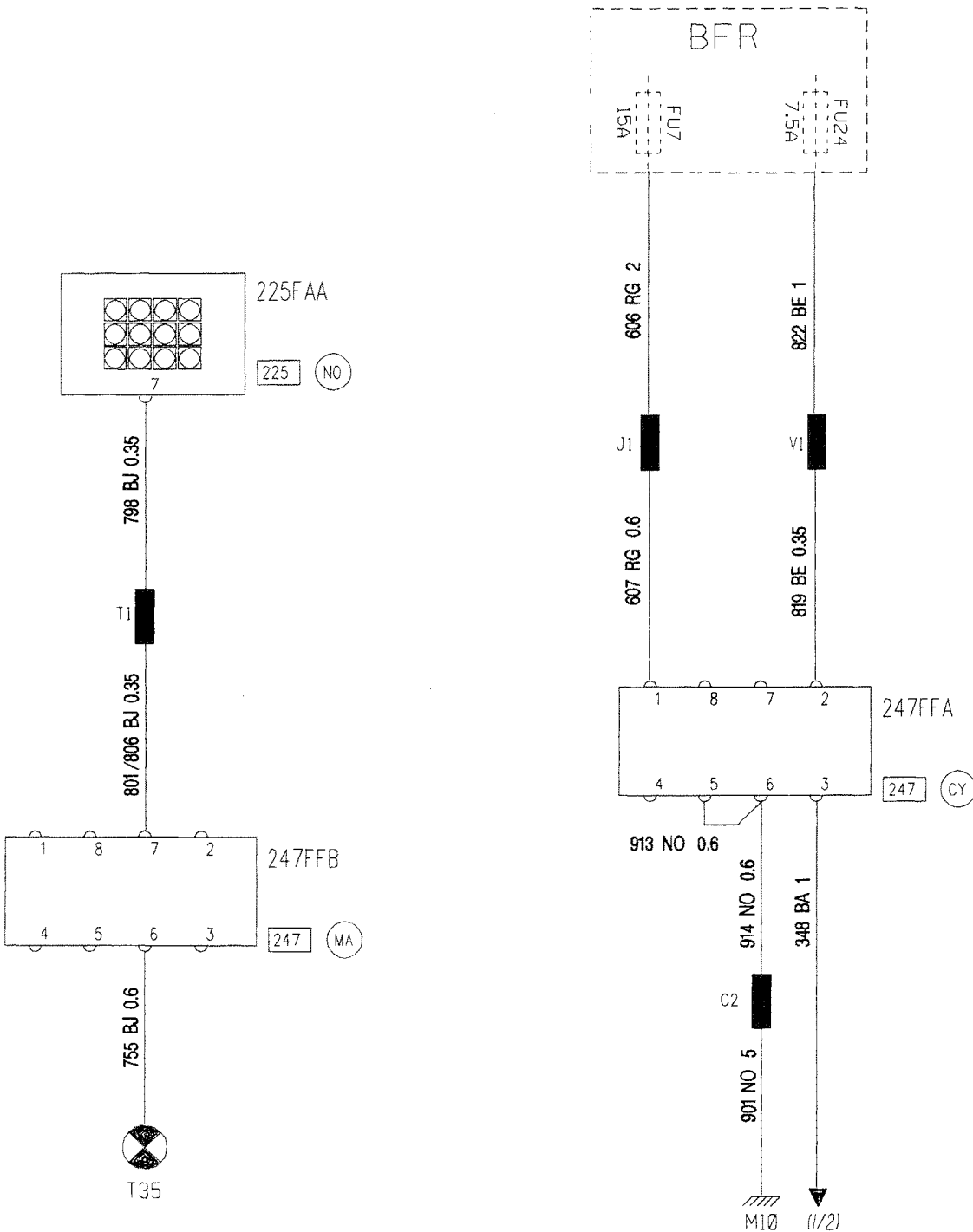


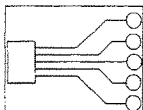




TACHOGRAPH

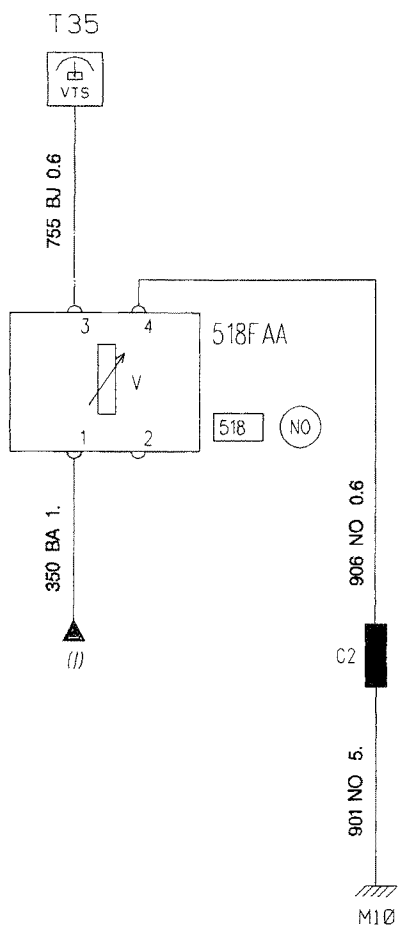
MASCOTT

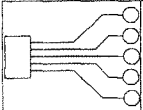




SPEED SENSOR WITHOUT TACHOGRAPH -  
90/110 - MECHANICAL FUEL-INJECTION

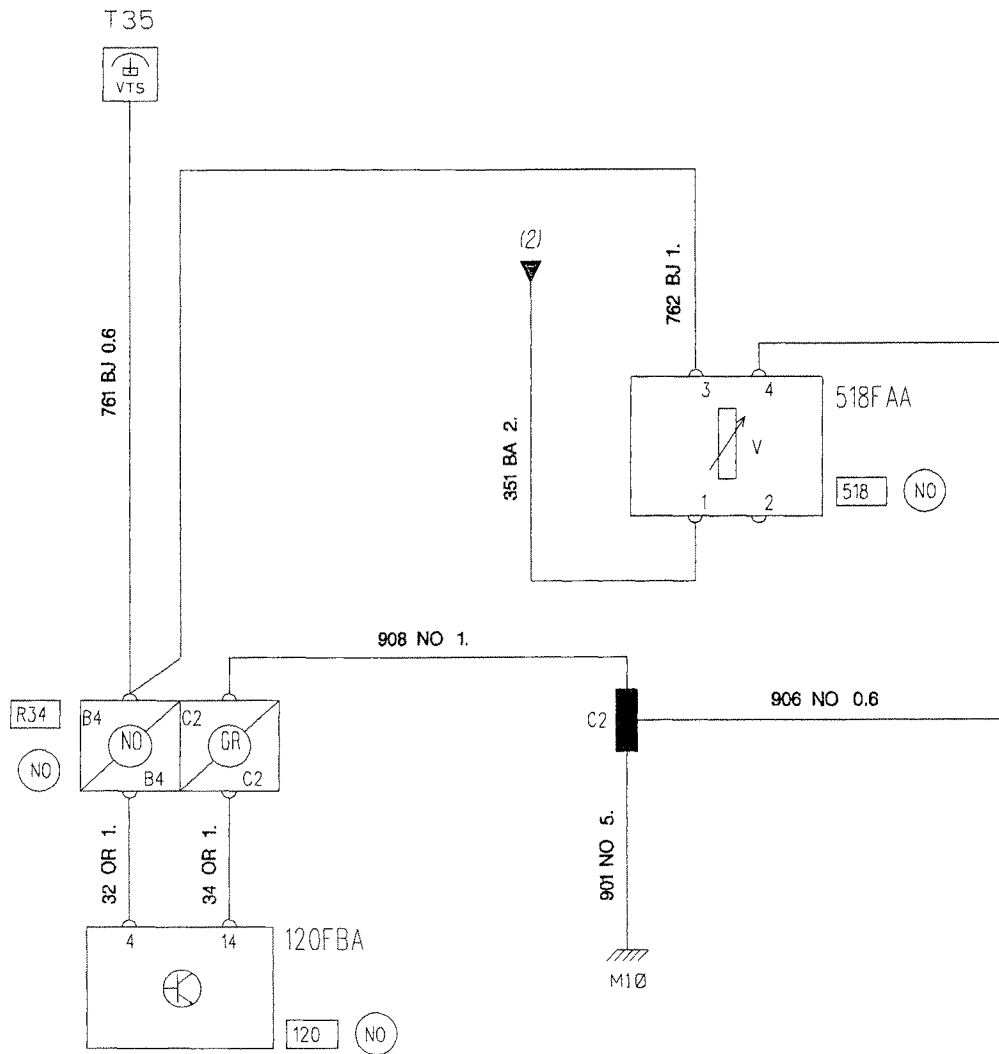
MASCOTT





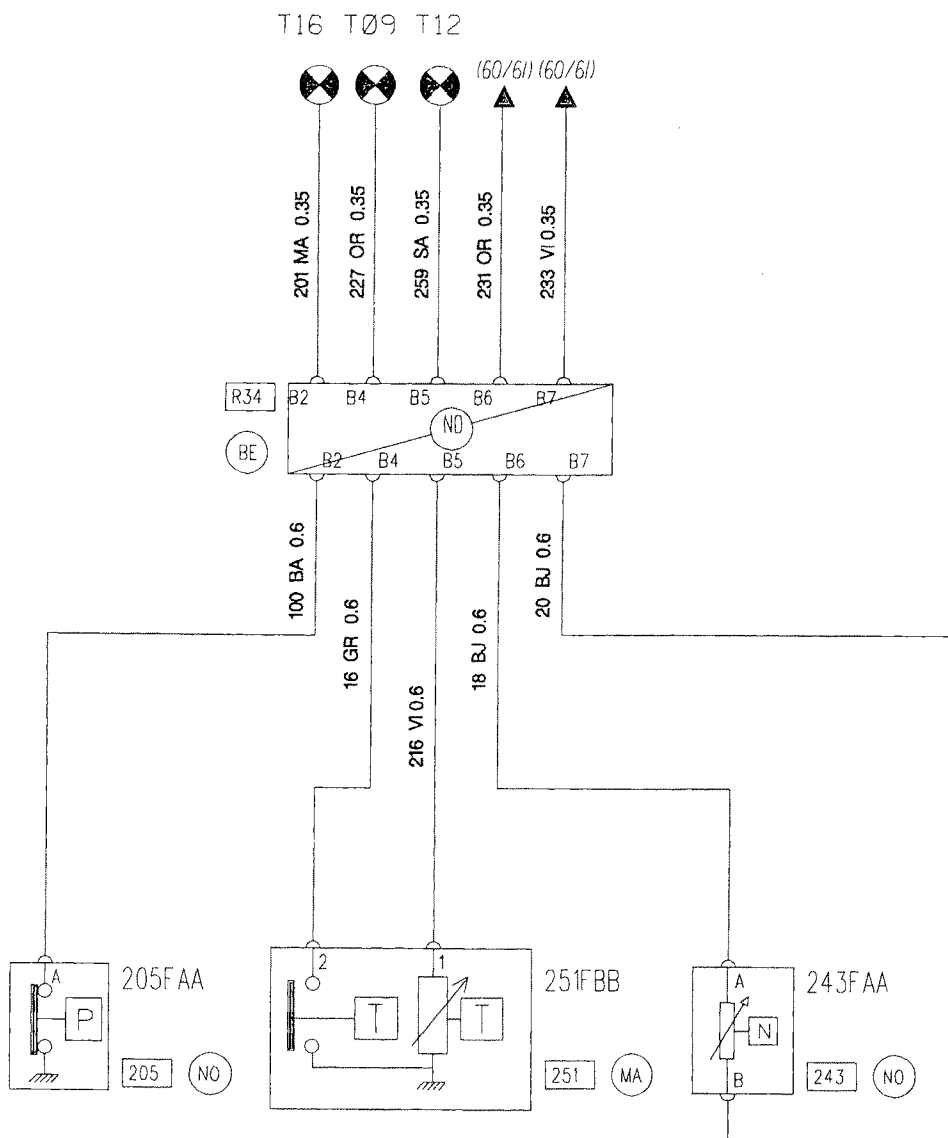
SPEED SENSOR WITHOUT TACHOGRAPH - 110/130/140/150 -  
ELECTRONIC FUEL-INJECTION

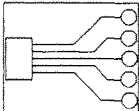
MASCOTT



ENGINE OIL AND COOLING CIRCUIT TEMPERATURE GAUGE

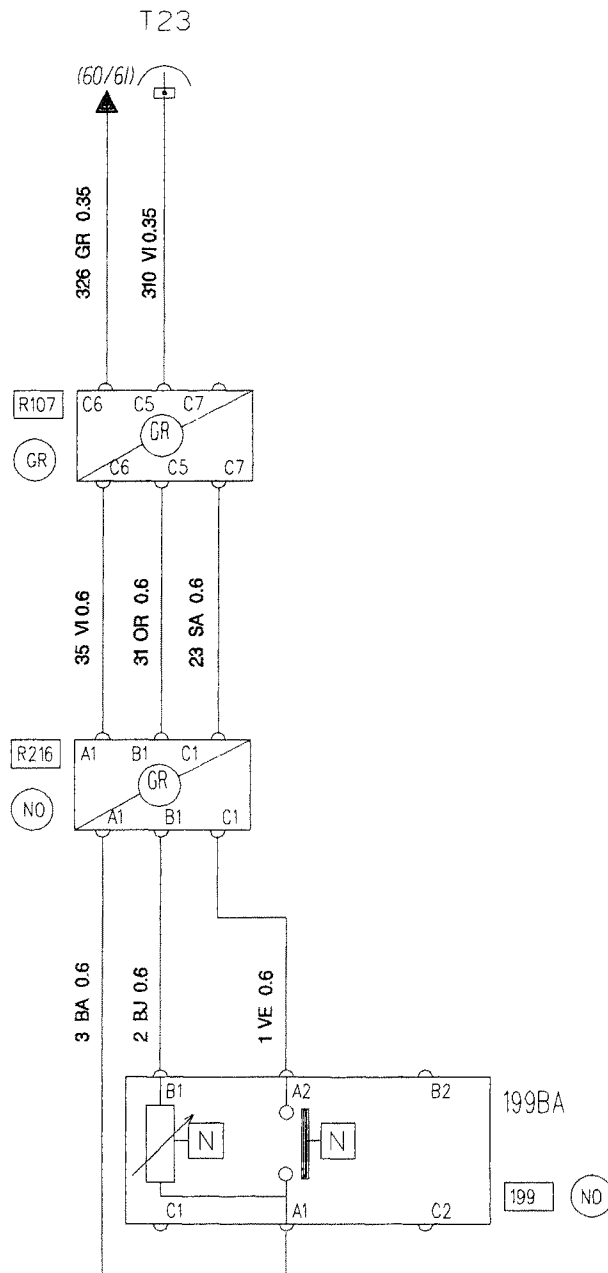
MASCOTT

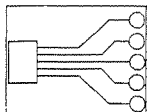




# FUEL LEVEL GAUGE

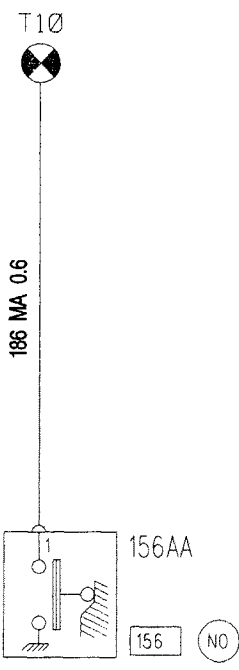
MASCOTT

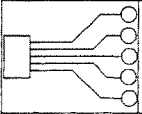




PARKING BRAKE INDICATOR

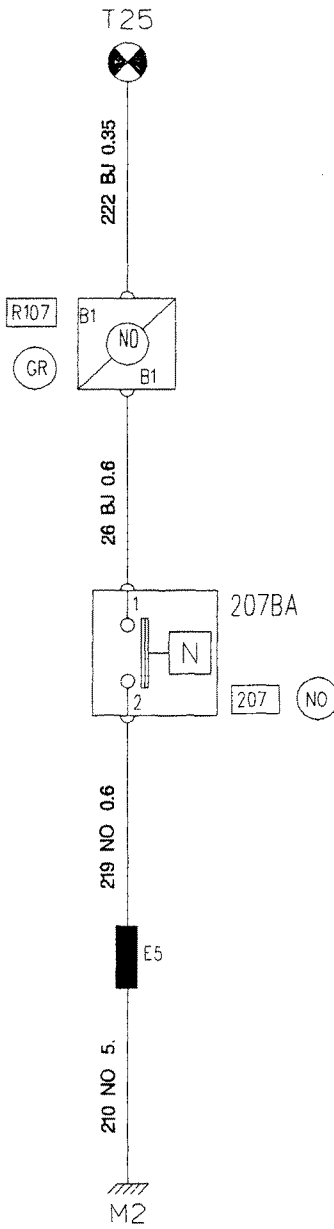
MASCOTT





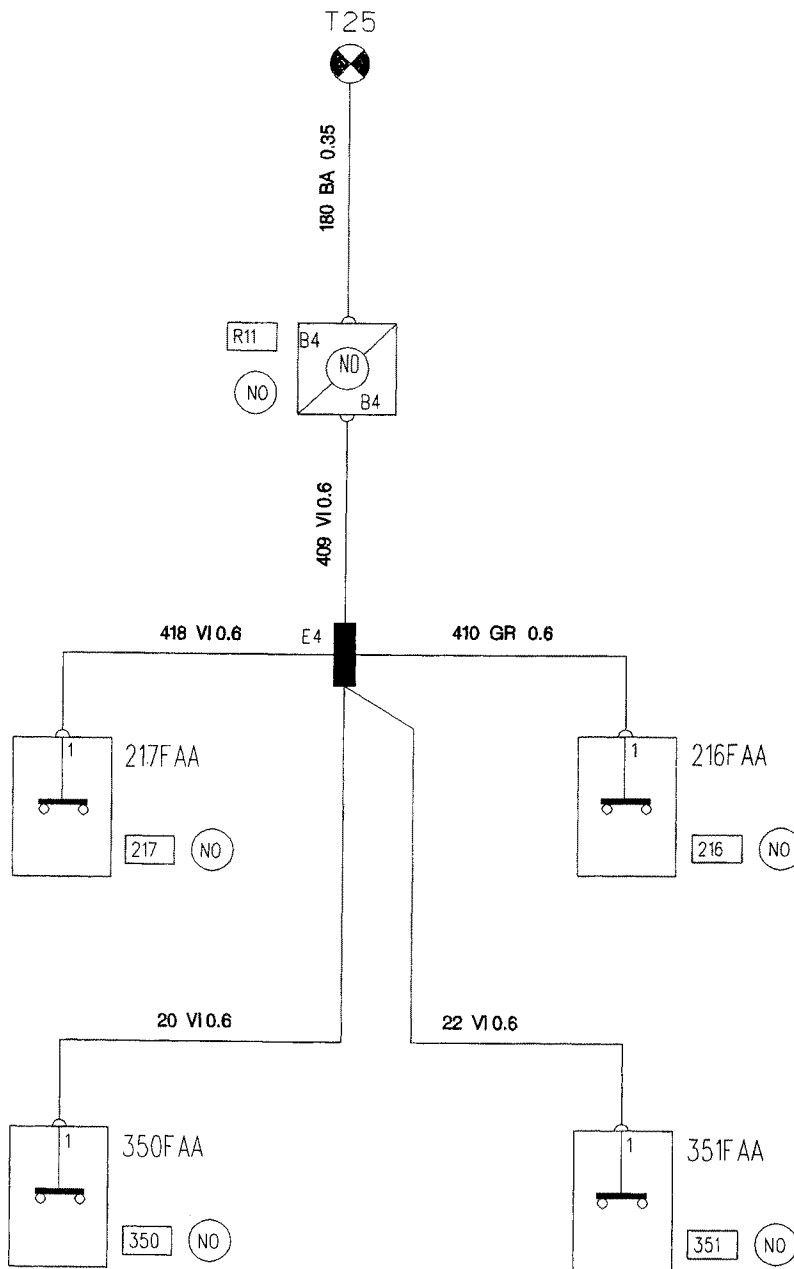
BRAKE FLUID LEVEL

MASCOTT



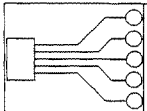
VAN BRAKE PADS WEAR

MASCOTT



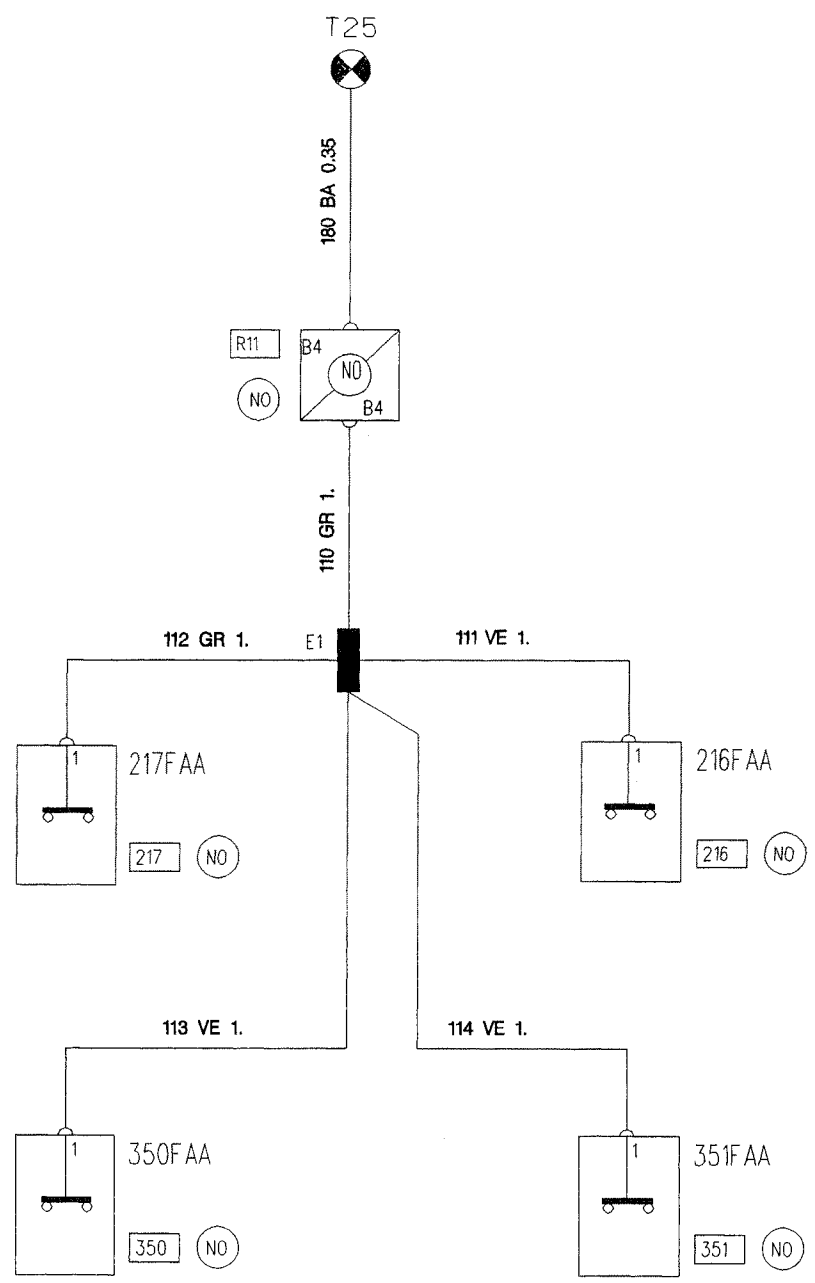
70





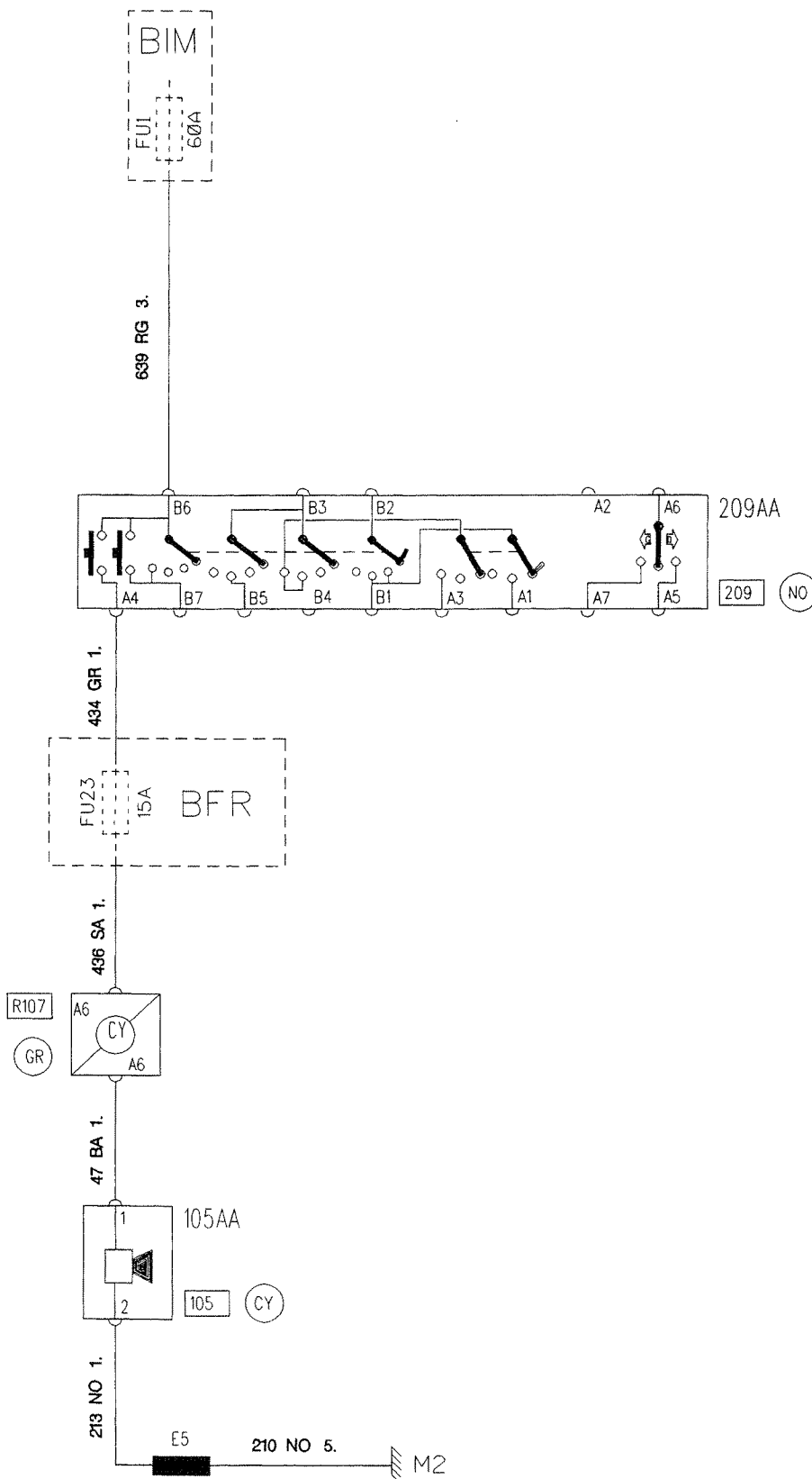
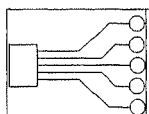
CHASSIS BRAKE PADS WEAR

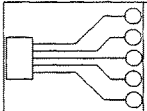
MASCOTT



HORN (WITHOUT OPTIONS)

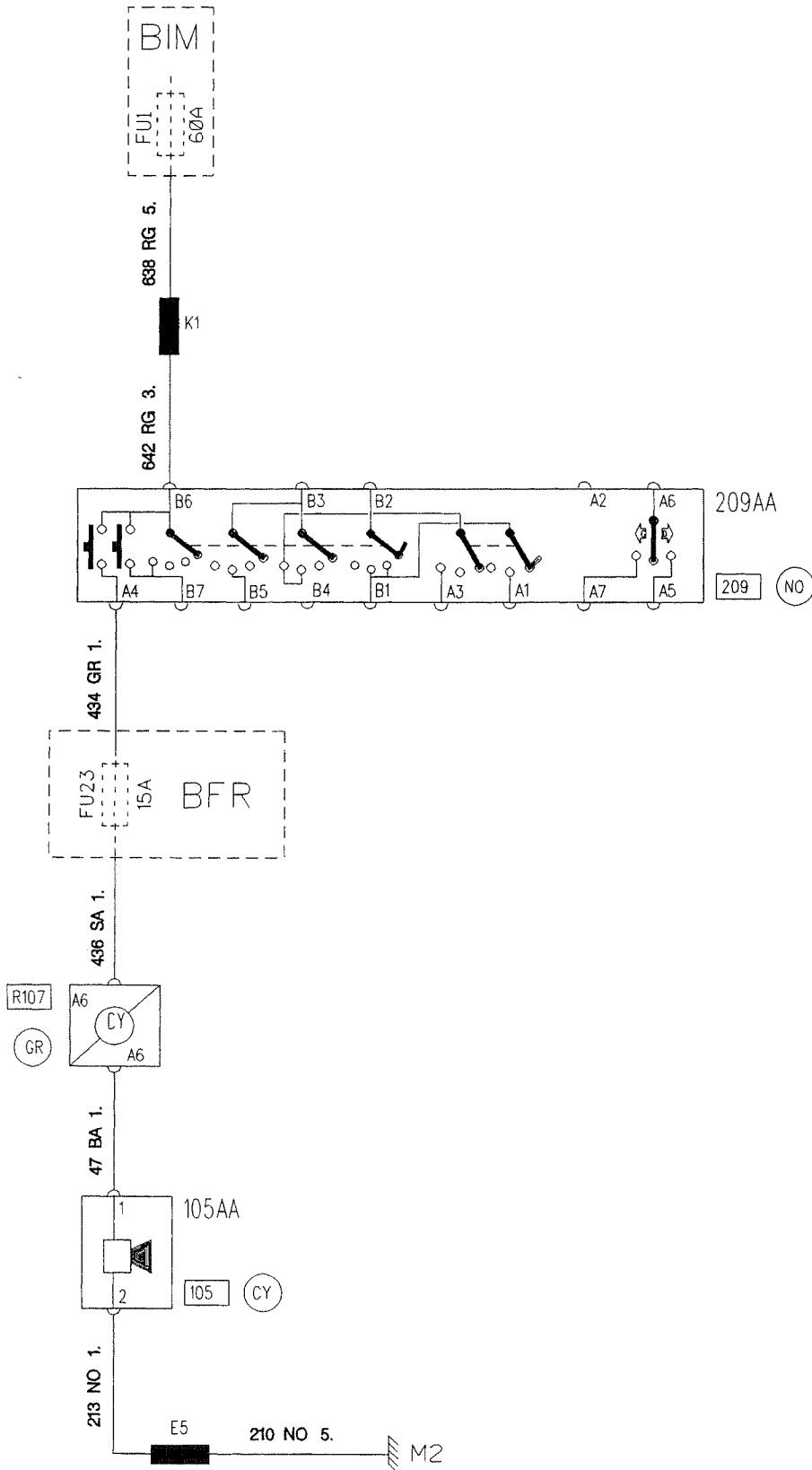
MASCOTT





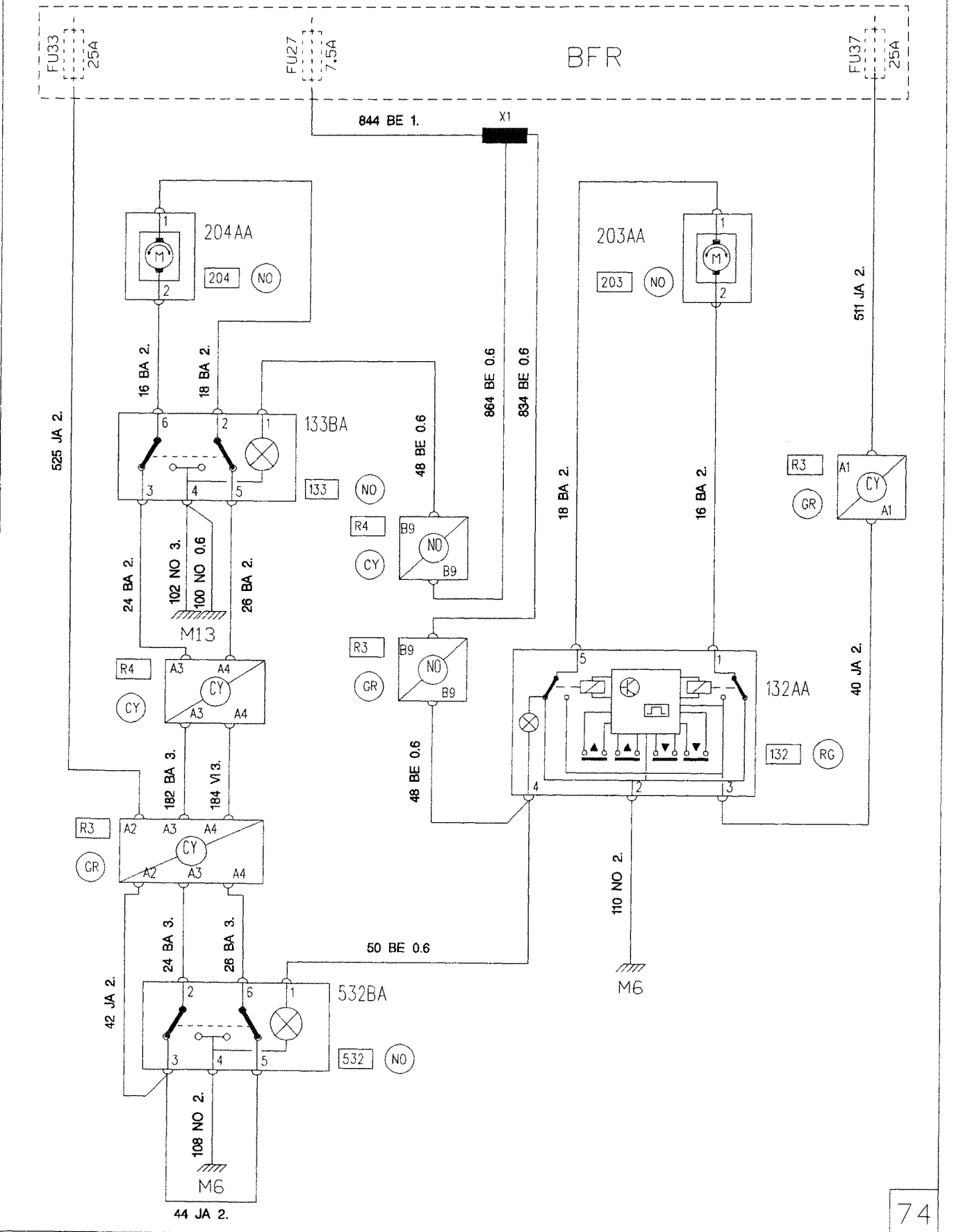
HORN (WITH OPTIONS)

MASCOTT



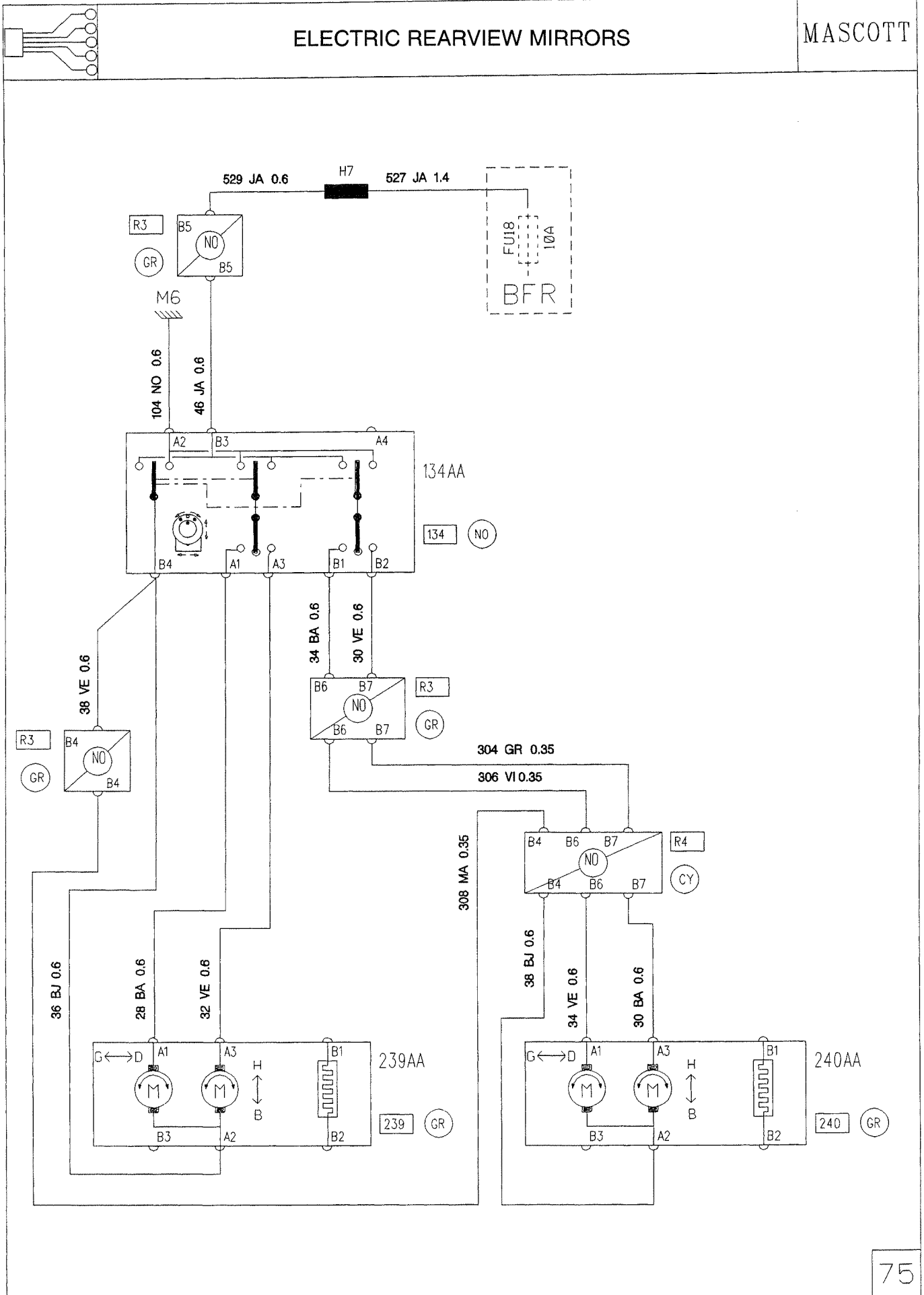
ELECTRIC WINDOW WINDER

MASCOTT



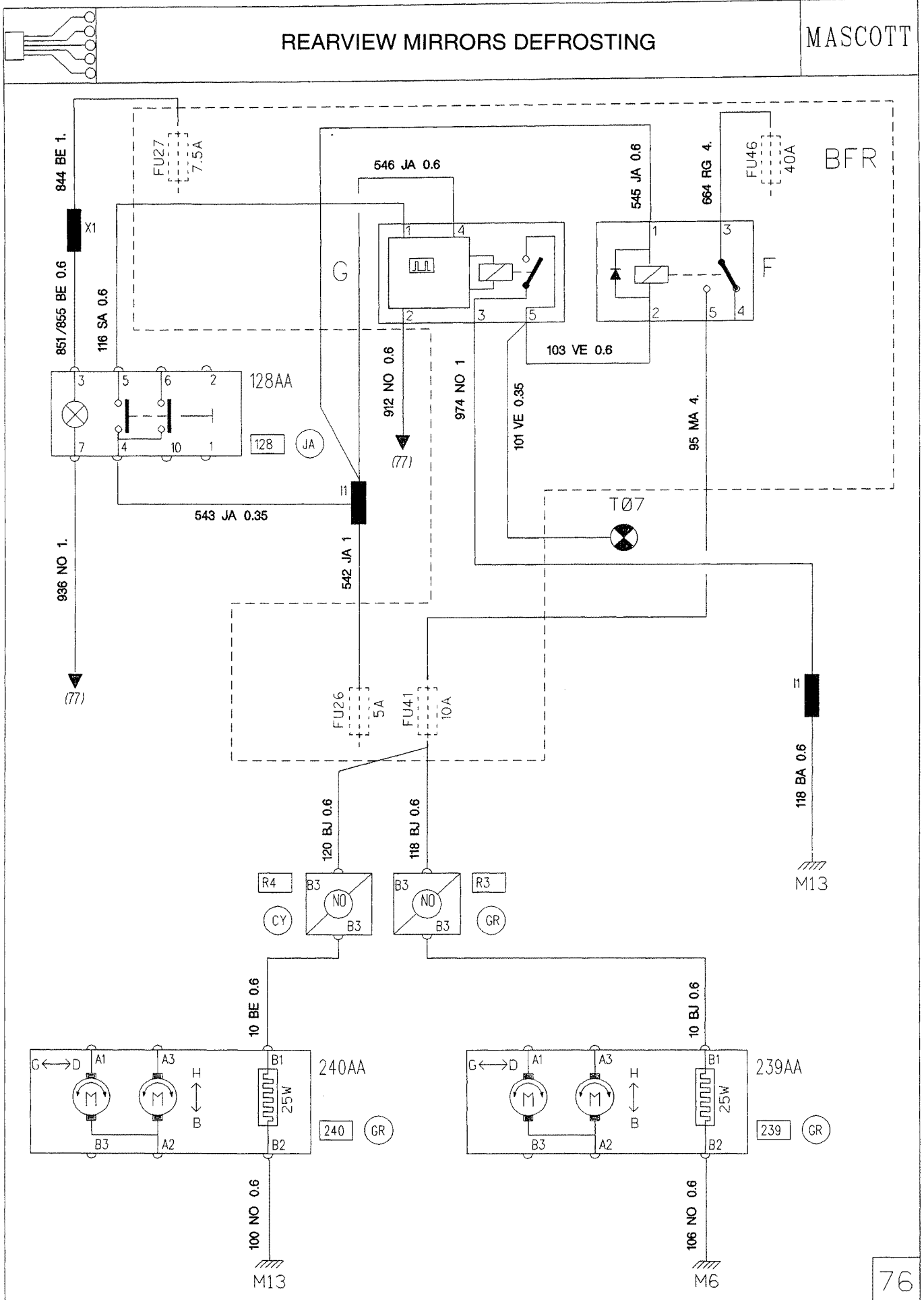
ELECTRIC REARVIEW MIRRORS

MASCOTT



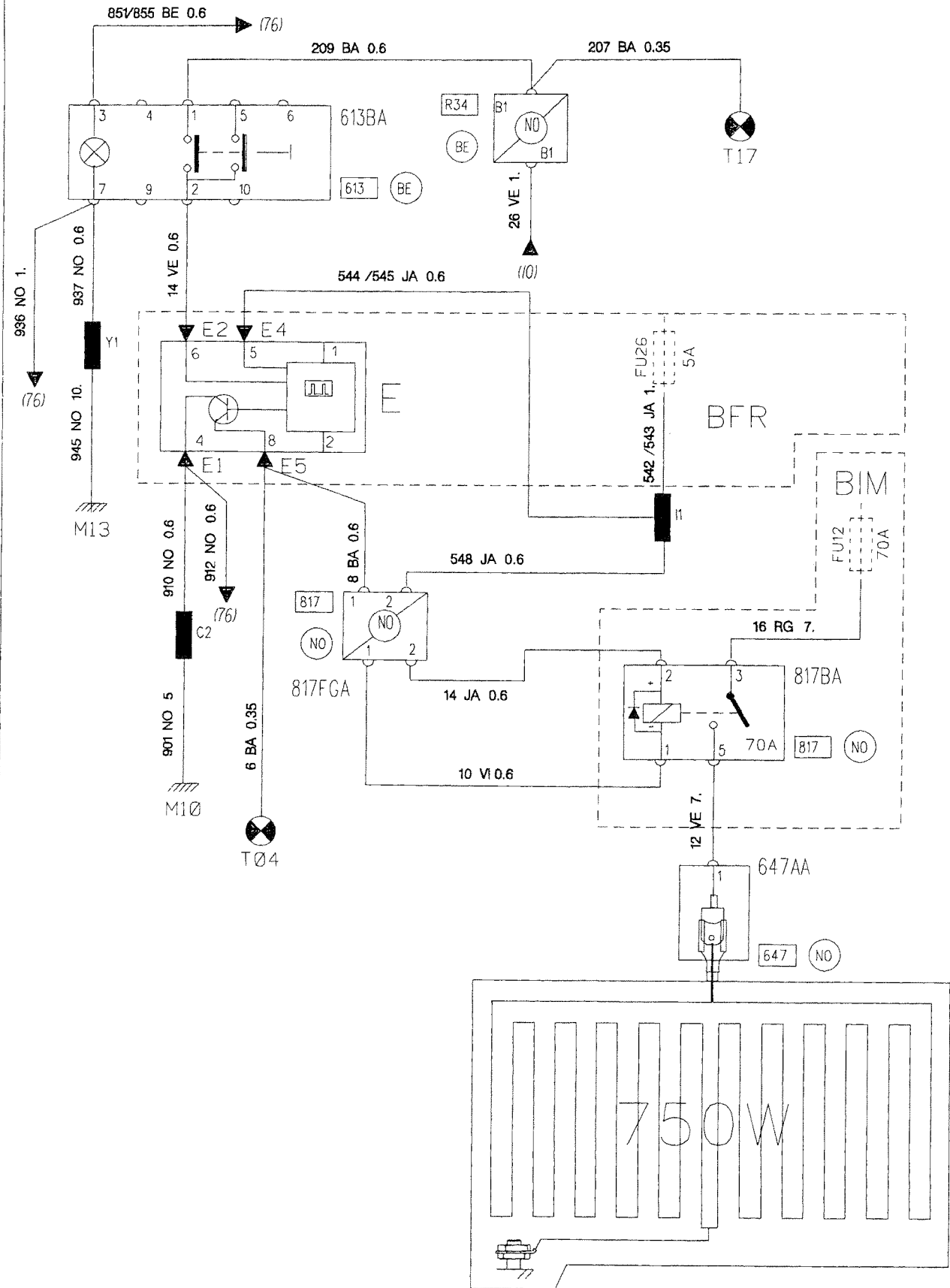
REARVIEW MIRRORS DEFROSTING

MASCOTT



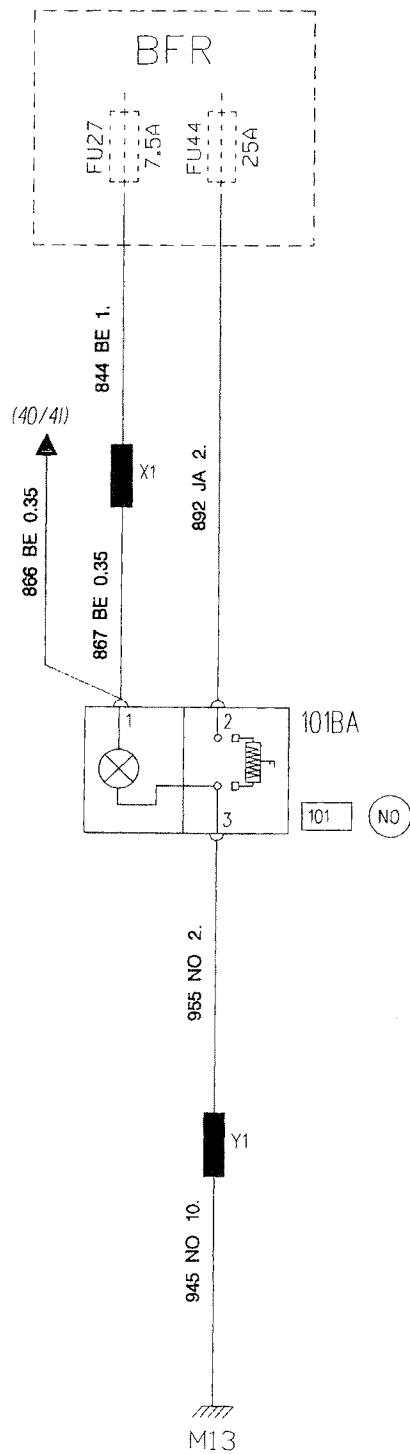
WINDSCREEN DEFROSTING

MASCOTT



CIGAR LIGHTER

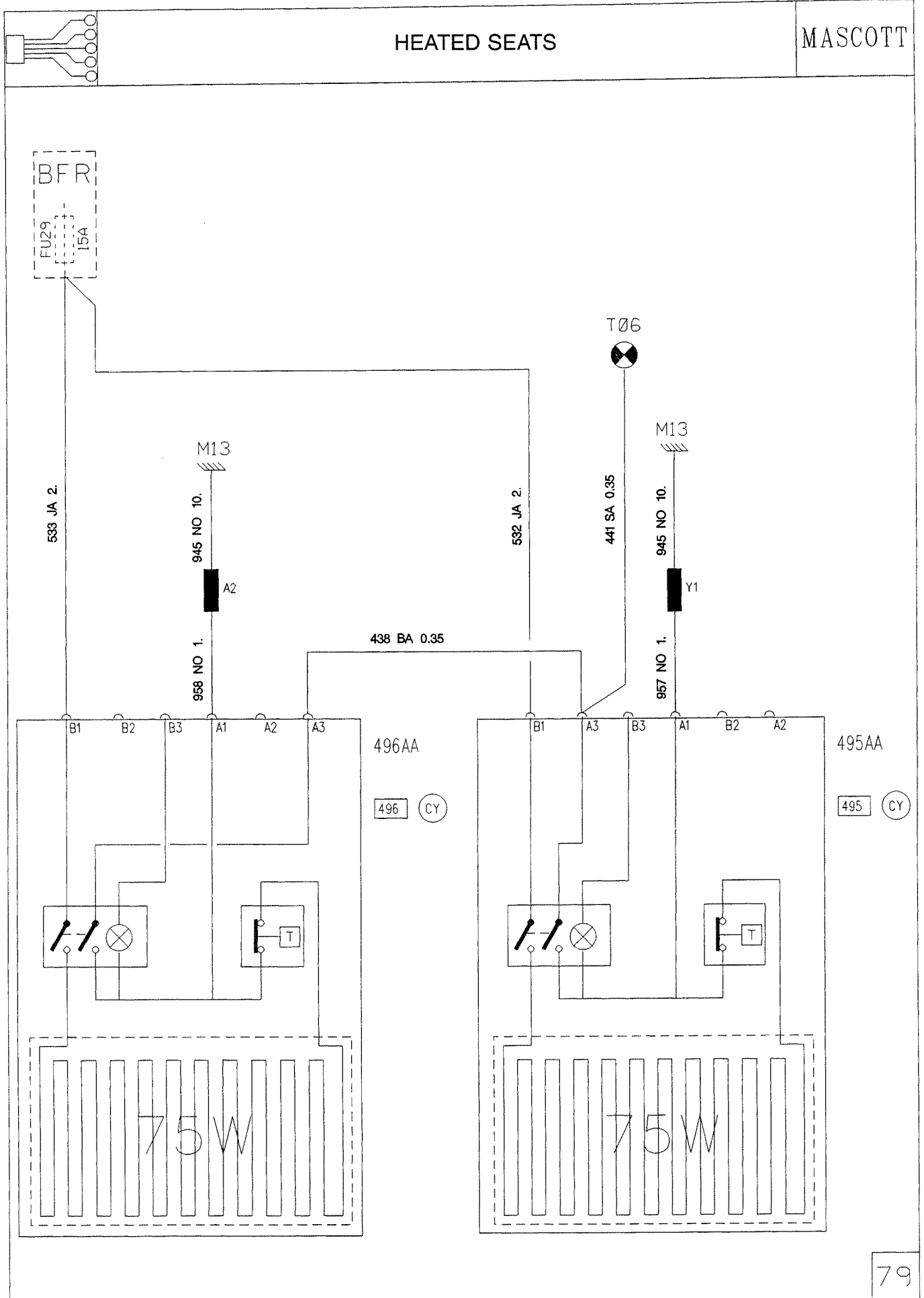
MASCOTT





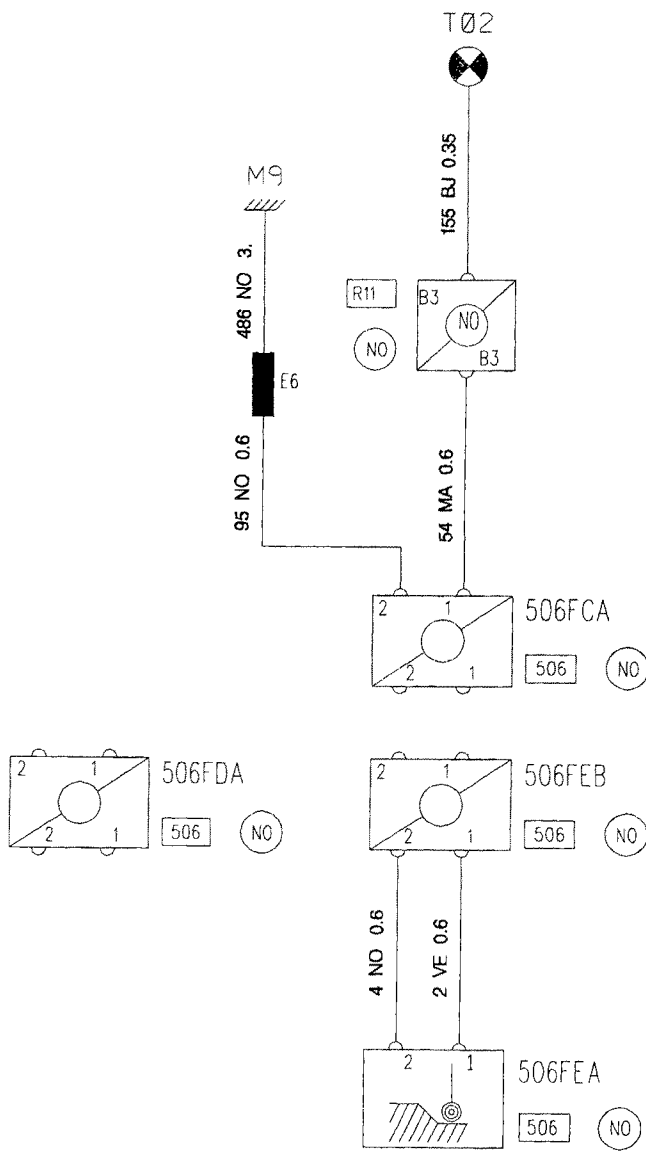
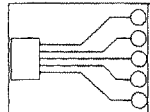
HEATED SEATS

MASCOTT



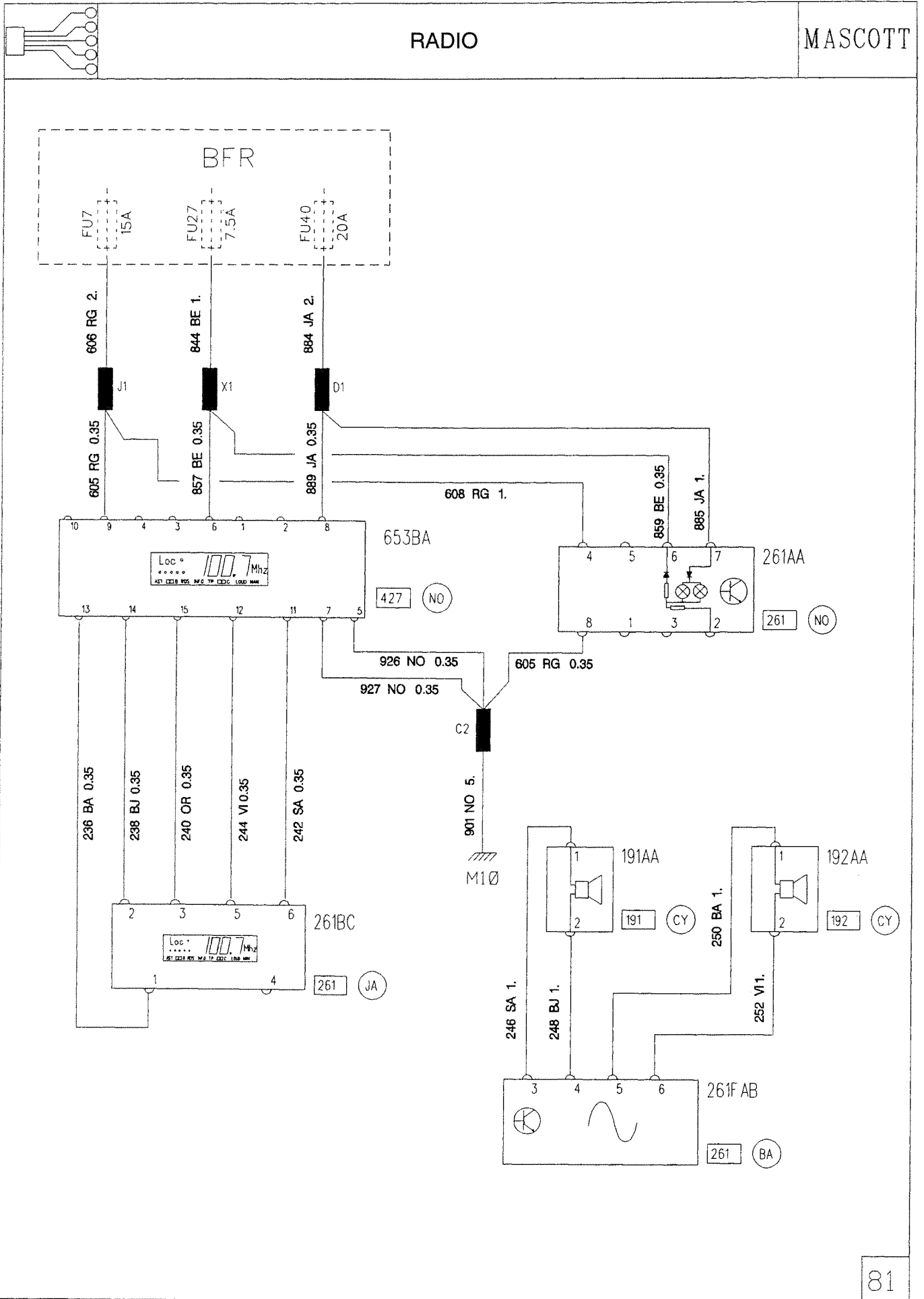
INTER-WHEEL DIFF. LOCK

MASCOTT



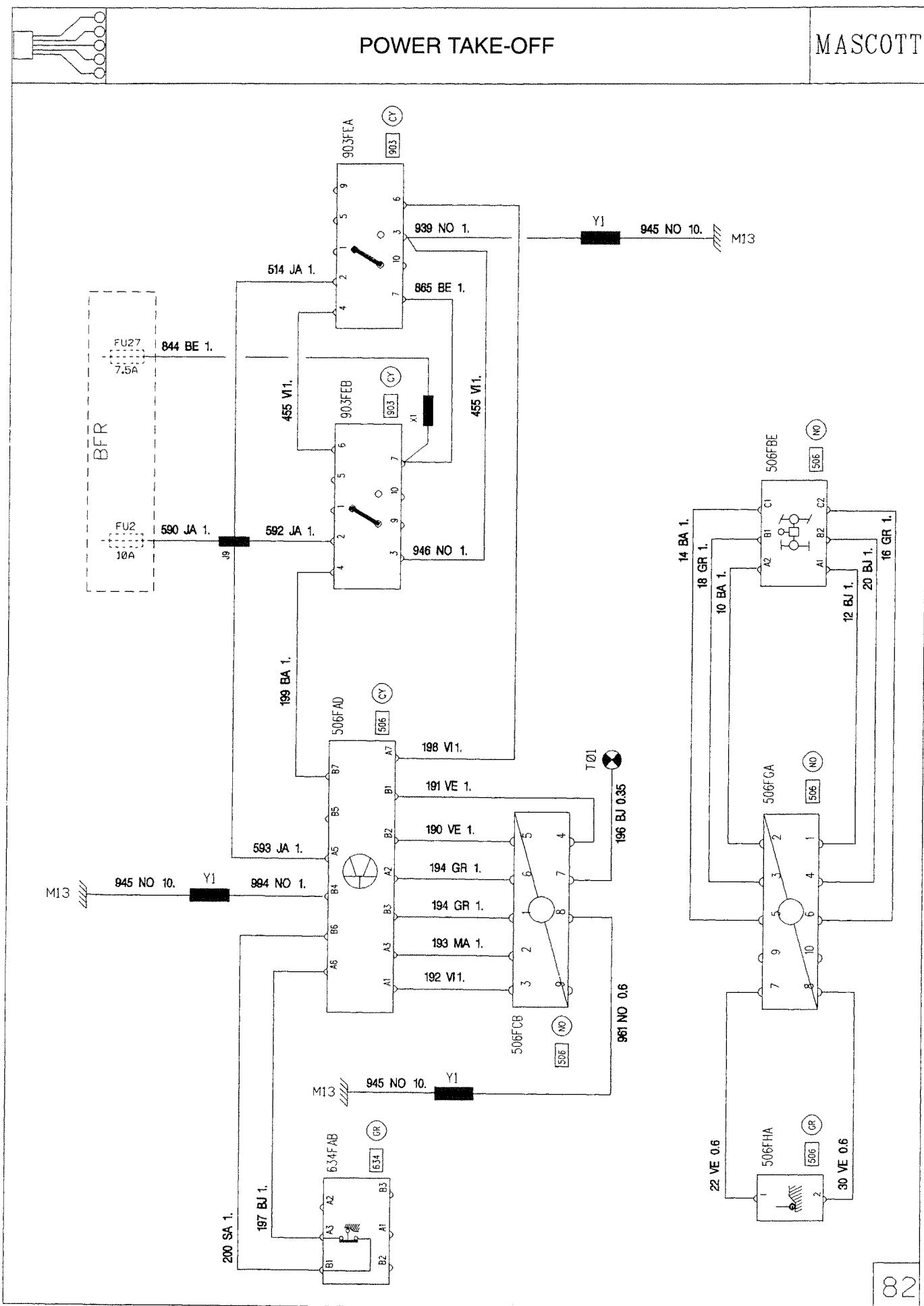
RADIO

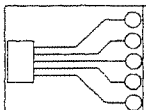
MASCOTT



POWER TAKE-OFF

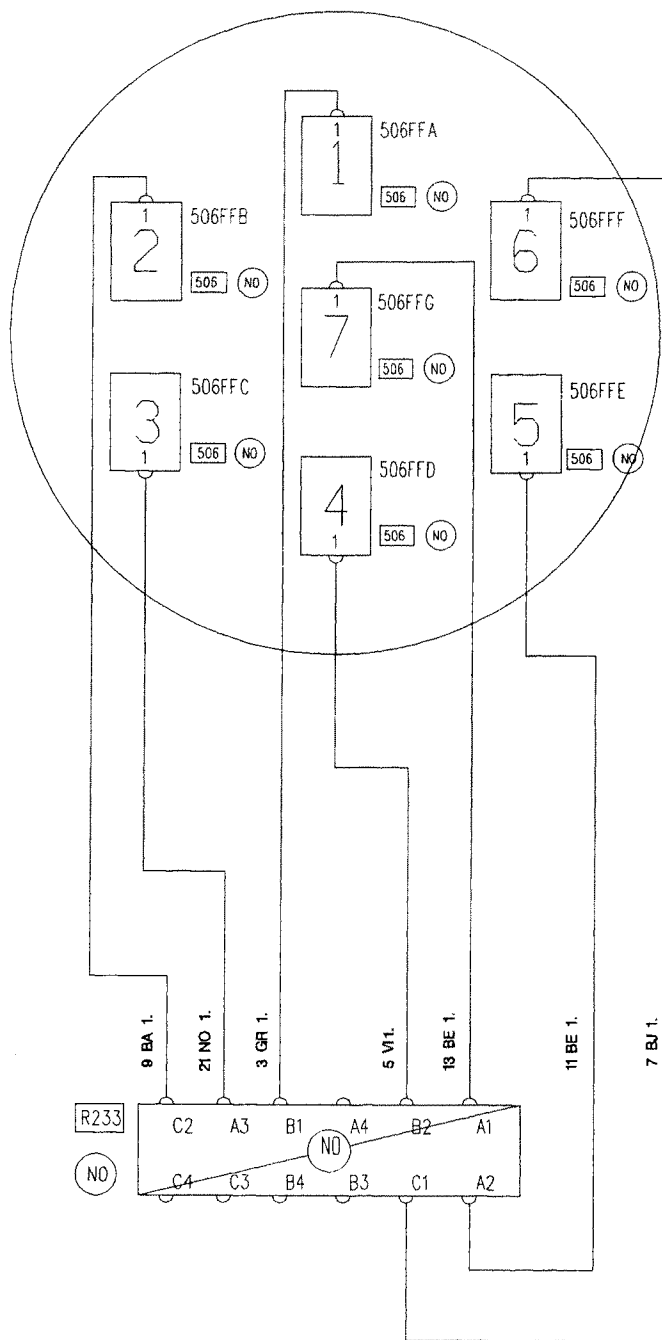
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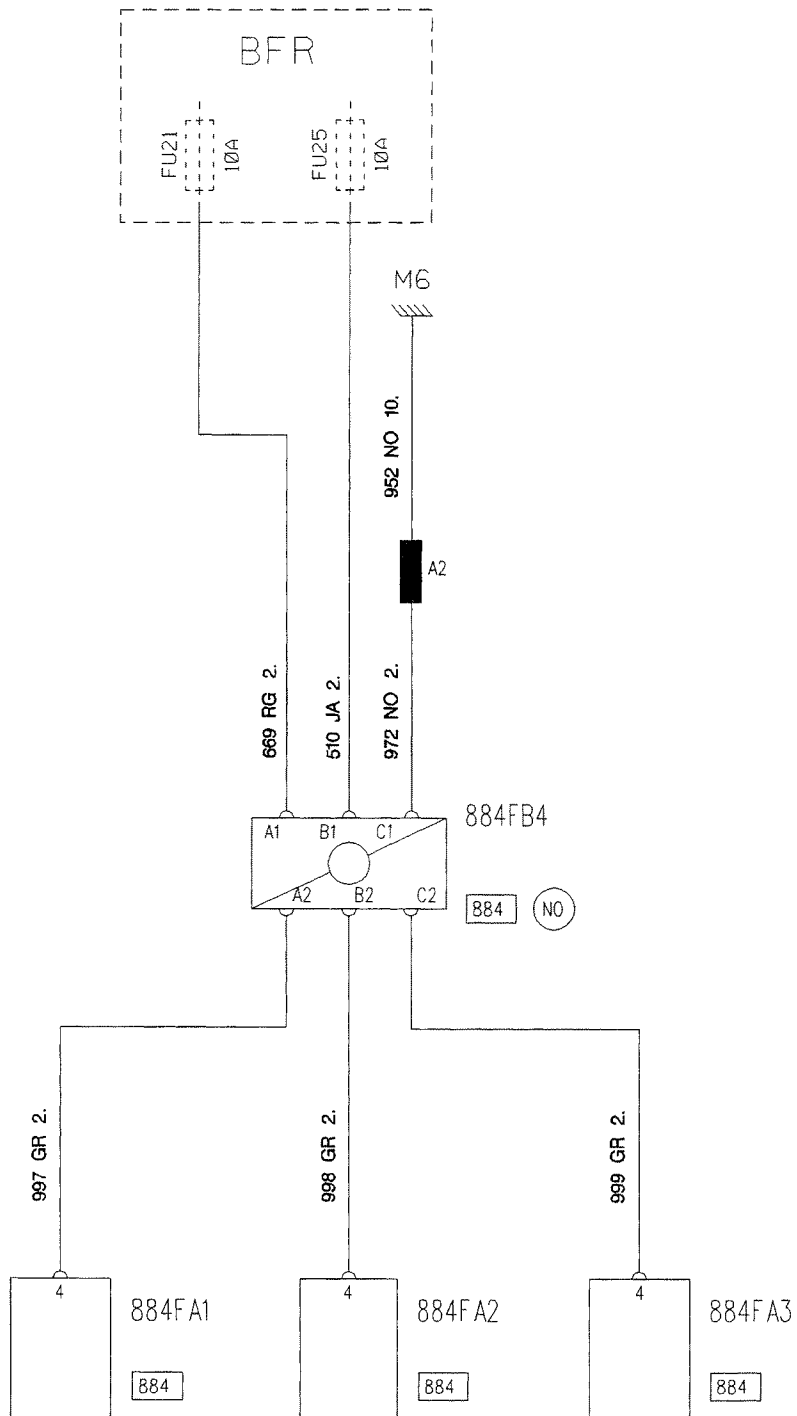
TRAILER SOCKET

MASCOTT



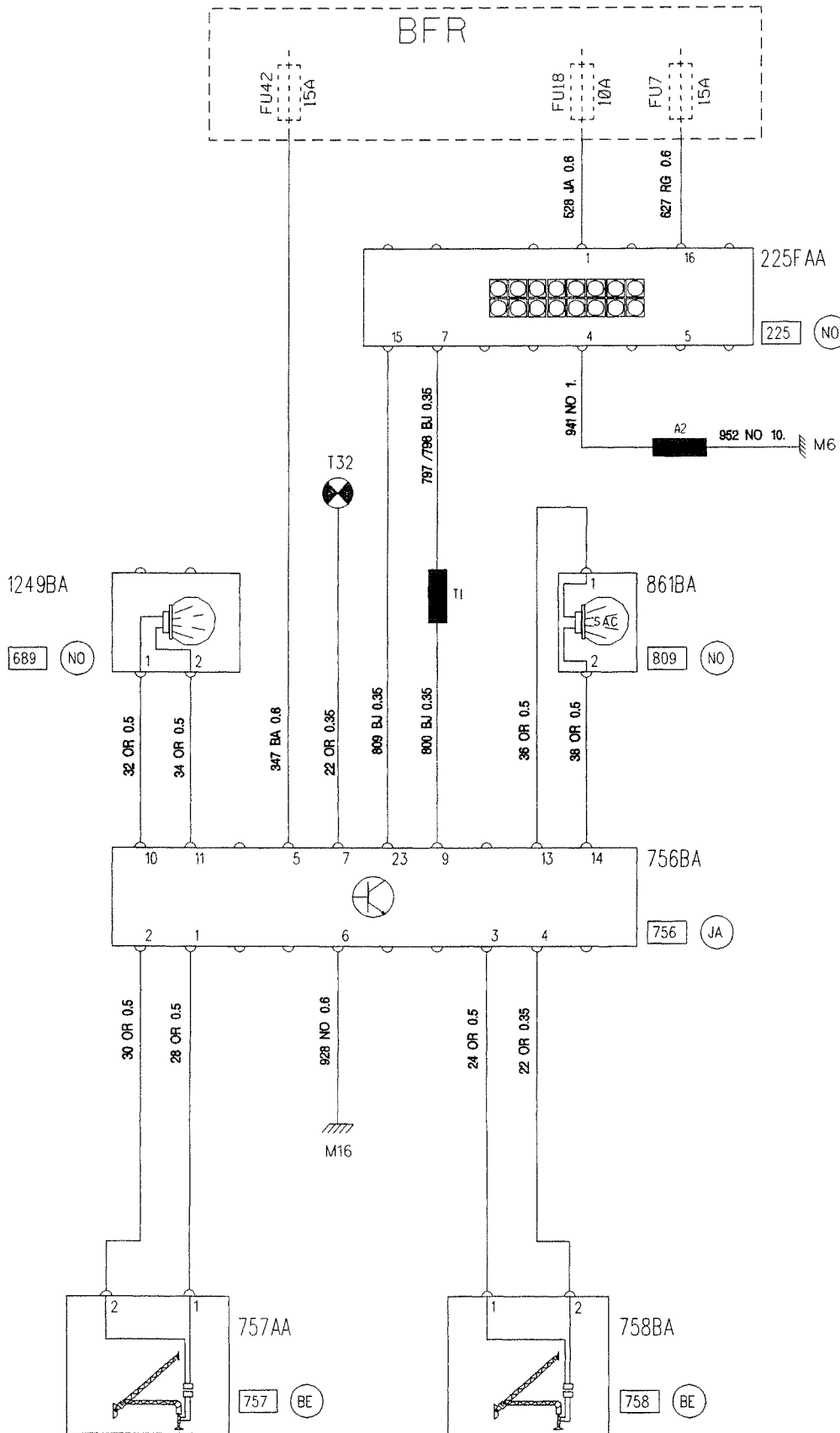
AVAILABLE POWER SUPPLIES

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DRIVER'S AND PASSENGER'S AIRBAG WITH PRETENSIONERS

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**LOCATION OF APPLIANCES**



## LOCATION OF APPLIANCES

### Equivalence table

Items	Plate
101 BA	10
103 FA1	13
103 FBA	13
103 FBB	13
104 AA	10
104 DA	10
105 AA	11
107 BA	11
107 FA1	11
107 FAB	11
118 FAA	11
118 FAB	11
120 FAA	11
120 FBA	11
123 AA	1
128 AA	10
132 AA	10
133 BA	9
134 AA	10
138 AA	18
139 AA	18
140 AA	3
141 AA	4
145 BA	9
147 FAA	13
150 FBA	11
151 FBA	11
152 FBA	11
153 FBA	11
154 AA	2
155 FBA	11
156 AA	9
160 AA	7
160 FAA	13

Items	Plate
160 FAB	12
160 FAC	13
160 FFA	7
163 FA1	13
163 FBA	13
169 FAA	13
169 FBA	13
169 FWA	13
171 FAA	11
172 BA	2
172 FFA	11
172 FFA	12
173 BA	2
173 FFB	11
173 FFB	12
178 AA	18
179 AA	18
180 AA	3
181 AA	4
184 AA	1
184 FA1	18
184 FA2	18
184 FA3	18
184 FB1	1
184 FFB	1
185 AA	1
185 FA1	18
185 FA2	18
185 FA3	18
185 FFB	1
188 FAA	12
188 FAB	12
188 FBA	12
191 AA	8

Items	Plate
192 AA	8
193 FAA	14
194 FAA	14
195 FAA	14
196 FAA	14
199 BA	15
203 AA	4
204 AA	3
205 FAA	14
206 FAA	19
206 FBA	19
207 BA	9
209 AA	9
212 BA	9
213 BA	1
216 FAA	11
217 FAA	11
218 FEA	12
218 FFA	12
219 AA	12
221 BA	12
225 FAA	7
226 AA	1
227 AA	1
239 AA	1
240 AA	1
243 FAA	15
244 FAA	15
247 FFA	8
247 FFB	8
247 FFC	8
247 FEA	8
247 FEB	8
247 FEC	8

Items	Plate
247 FED	8
251 FAA	14
251 FBB	15
255 AA	1
256 AA	1
257 FAA	<i>BIM</i>
258 FAA	16
258 FAB	16
258 FAC	16
259 FAA	16
260 AB	8
260 AC	8
260 CA	8
260 FCA	8
260 FCB	8
260 FCG	8
261 AA	8
261 BC	8
261 FAB	8
267 FAA	9
268 FAA	9
273 FAA	16
273 FAF	14
298 FAB	7
319 CA	8
319 DA	8
320 AA	7
320 AB	7
320 BA	7
320 BB	7
338 FAA	14
346 FAA	14
346 FBA	14
350 FAA	11

## LOCATION OF APPLIANCES

### Equivalence table

Items	Plate
351 FAA	11
398 FAA	15
404 FAA	15
406 FAA	13
319 DA	8
320 AA	7
320 AB	7
320 BA	7
320 BB	7
338 FAA	14
346 FAA	14
346 FBA	14
350 FAA	11
414 FAA	16
414 FBA	16
439 FAA	BIM
451 FAA	12
463 FA1	12
463 FA2	12
483 FBA	10
483 FCA	10
495 AA	7
496 AA	7
503 AA	8
503 AB	8
506 FAD	9
506 FBE	13
506 FCA	13
506 FCB	5
506 FDA	13
506 FEA	13
506 FEB	13
506 FFA	13
506 FFB	13

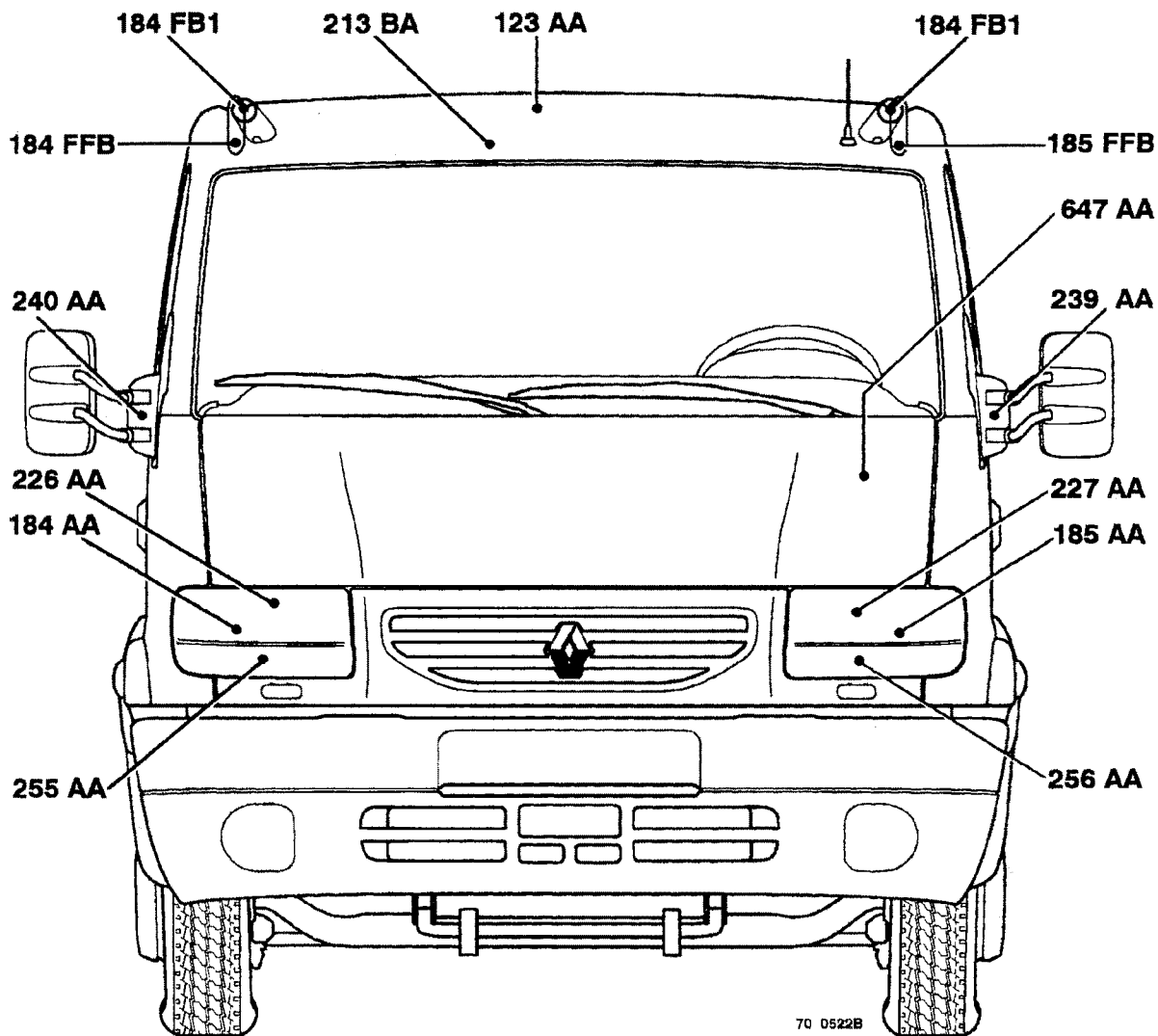
Items	Plate
506 FFC	13
506 FFD	13
506 FFE	13
506 FFF	13
506 FFG	13
506 FGA	5
506 FHA	13
506 FJA	10
508 CA	17
518 FAB	14
518 FAA	14
520 CA	17
529 AA	7
529 AC	7
532 BA	9
537 BA	9
538 BA	9
562 AA	9
586 AA	10
597 AA	BIM
597 AB	BIM
597 FAA	BIM
597 FDA	BIM
597 FEB	BIM
597 FFA	BIM
608 FAA	13
608 FAB	13
613 BA	10
634 FAB	10
647 AA	1
653 BA	8
696 FAA	4
713 FAA	5
713 FBA	5

Items	Plate
713 FDA	5
713 FWA	11
721 FAA	11
721 FAB	11
721 FAC	11
743 FAC	12
743 FAD	12
743 FAE	12
746 FAA	14
756 BA	6
757 AA	6
758 BA	6
799 FAA	14
804 FBA	9
817 BA	BIM
817 FGA	5
839 BA	6
839 FEA	6
839 FEB	6
861 BA	6
867 FAA	2
868 FBA	2
884 FA1	6
884 FA2	6
884 FA3	6
884 FA4	6
892 FAA	16
892 FCA	16
893 FAB	14
893 FAC	15
903 FDA	10
903 FDB	10
903 FEA	10
903 FEB	10

Items	Plate
903 FFA	10
980 FAB	BIM
980 FBB	BIM
980 FCA	BIM
980 FEA	BIM
1030 FEA	6
1030 FB	6
1030 FC	6
1030 FD	6
1030 FE	6
1030 FF	6
1062 AA	4
1249 BA	6
PI3 FCA	13
R3	5
R4	5
R11	5
R34	5
R36	5
R38	5
R39	2
R40	2
R107	5
R136	2
R158	17
R216	15
R233	5
R260	17

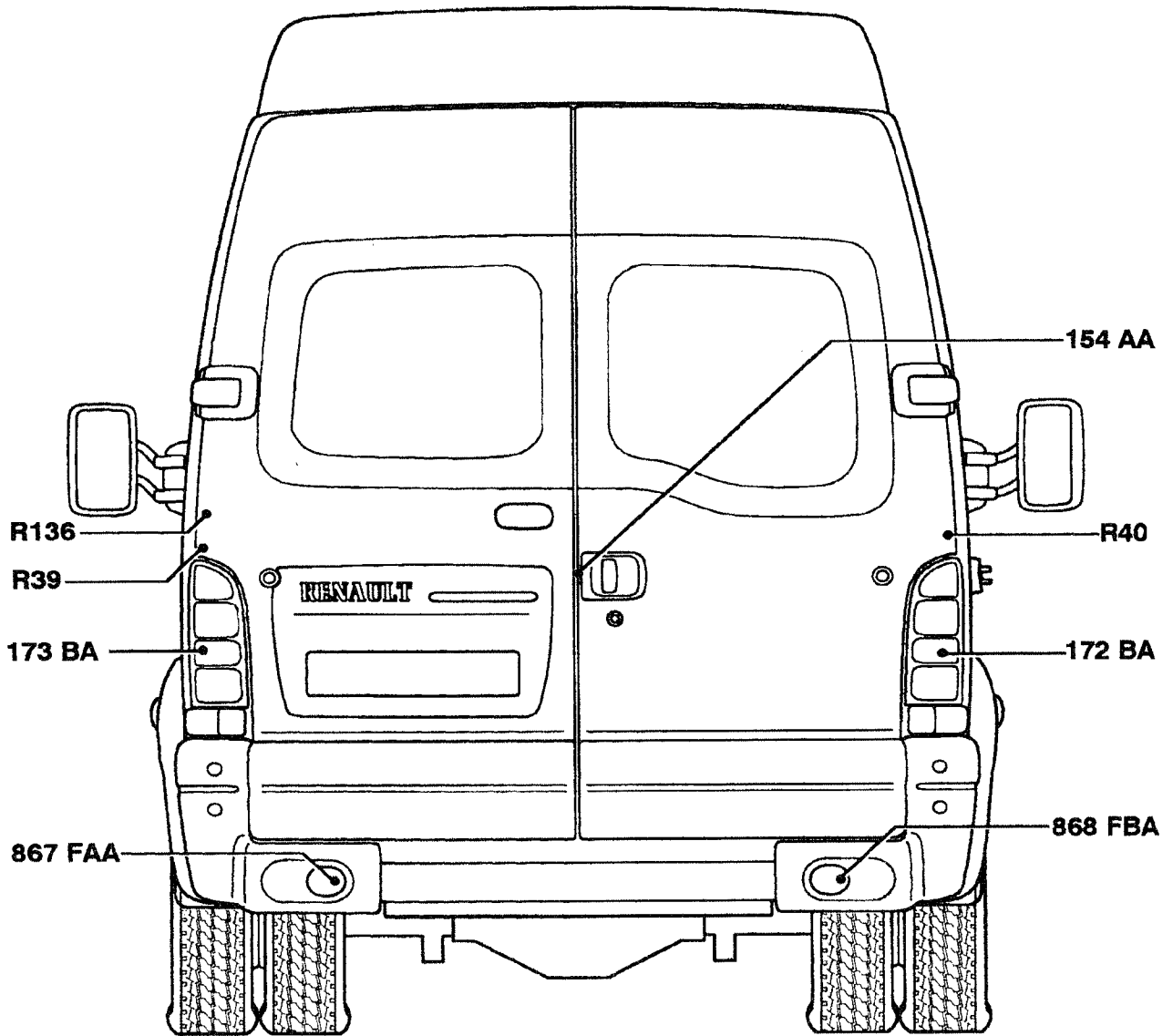
### LOCATION OF APPLIANCES

Plate 1



### LOCATION OF APPLIANCES

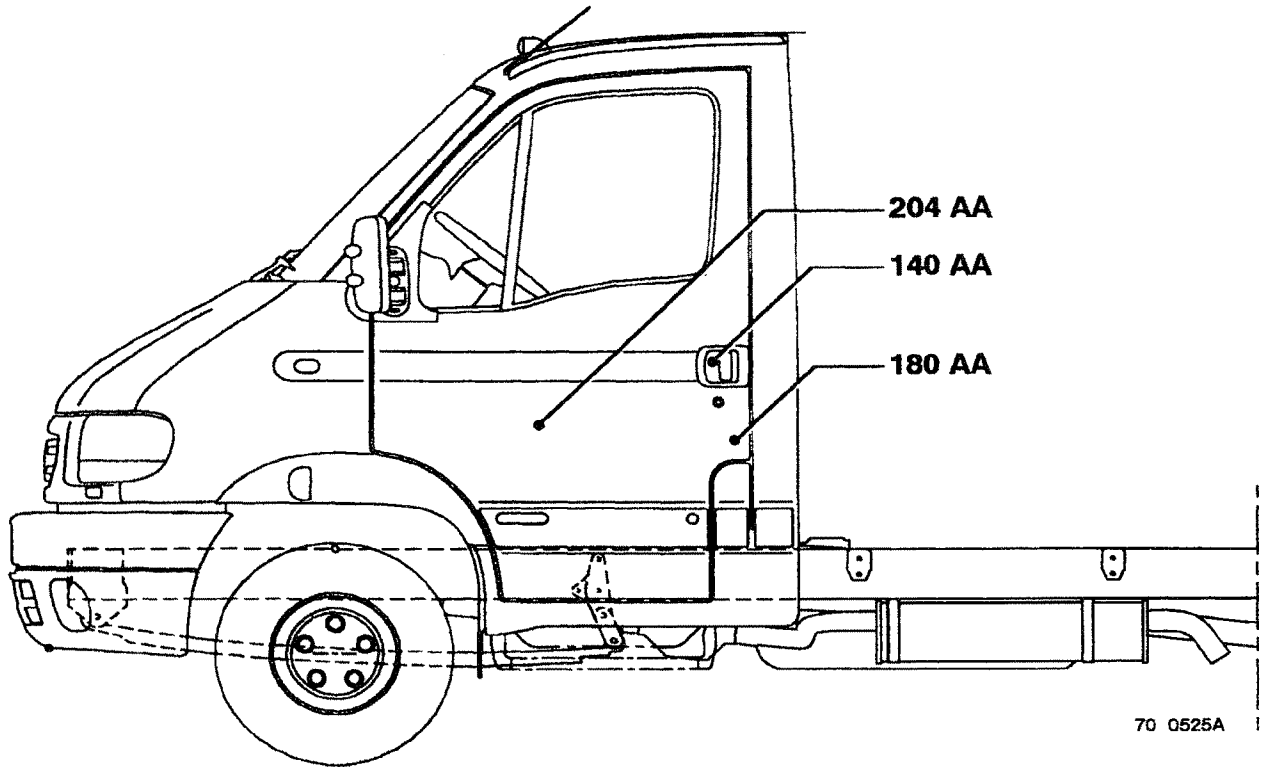
Plate 2



70 0533A

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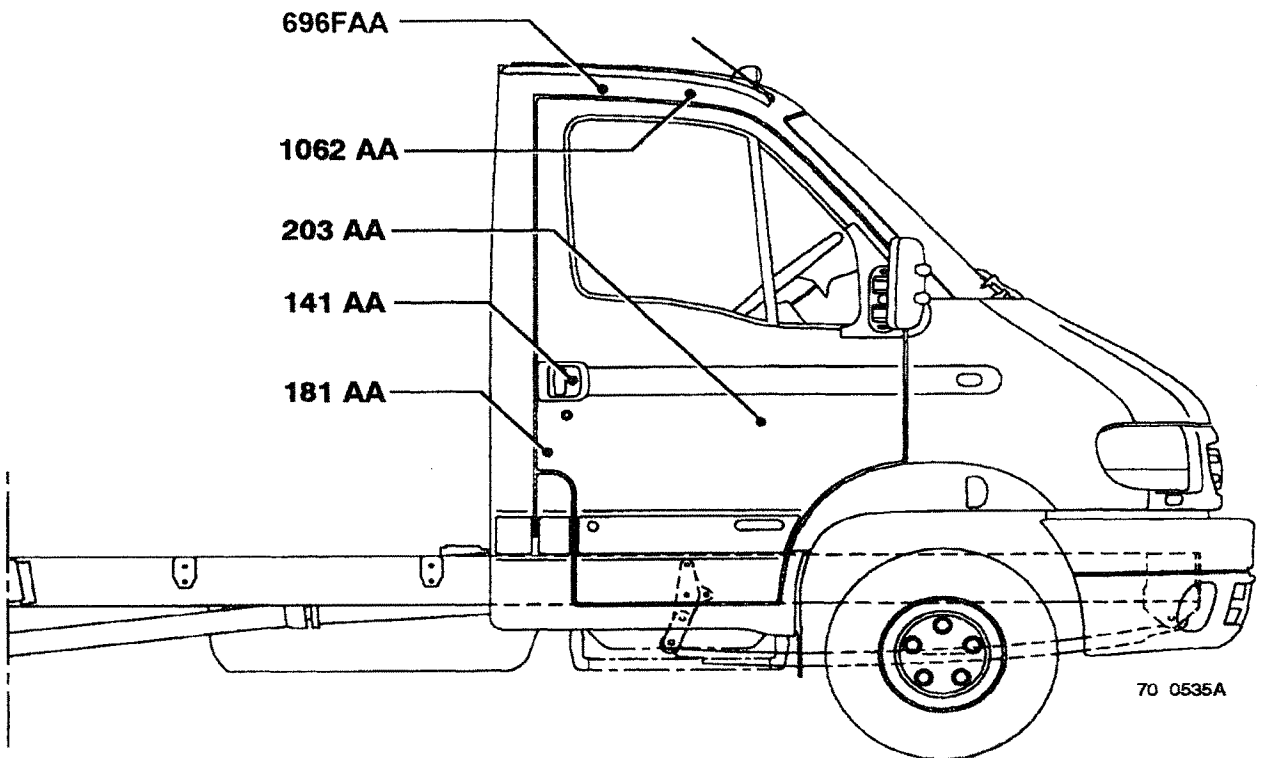
**Plate 3**



70 0525A

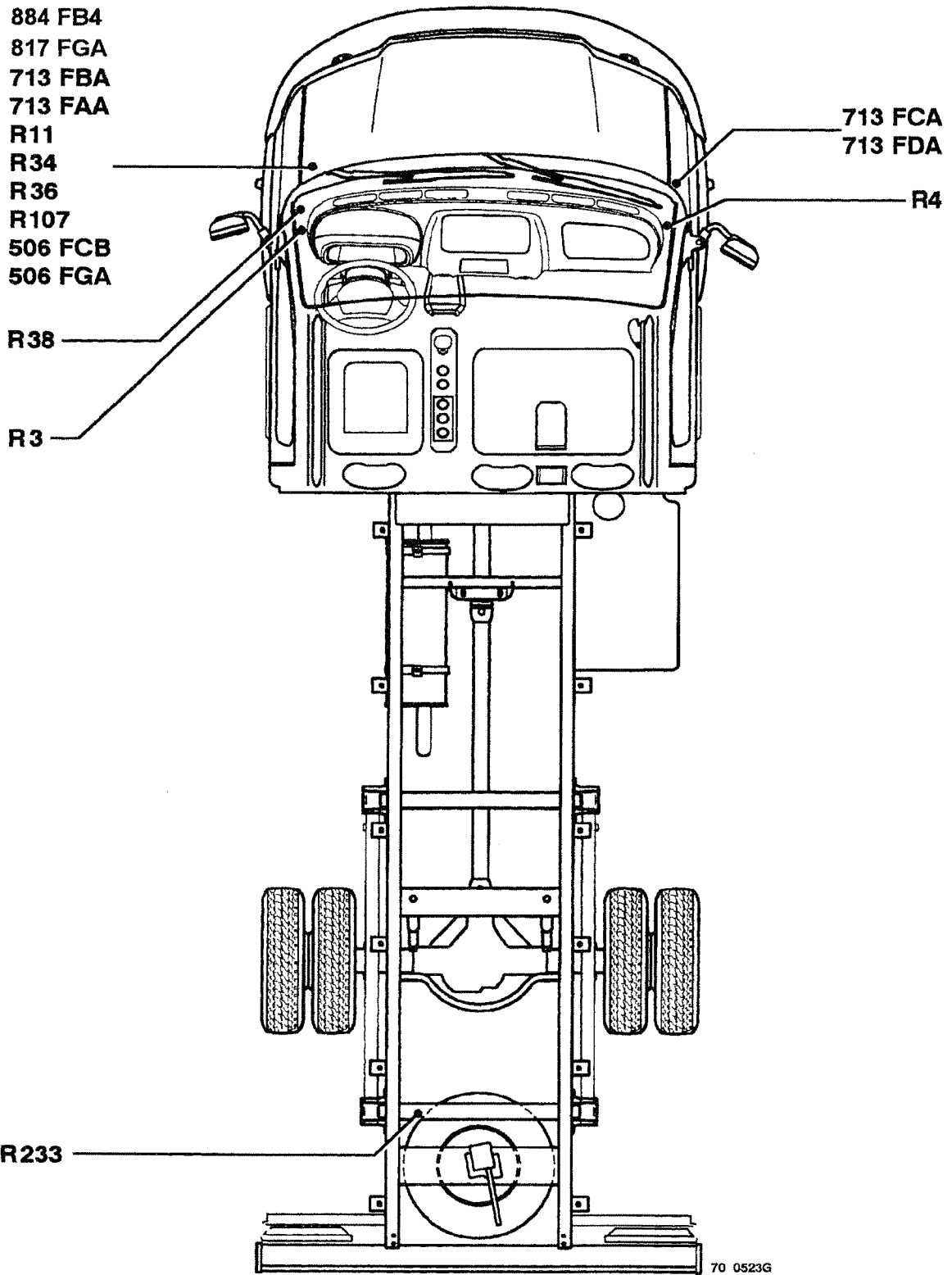
LOCATION OF APPLIANCES

Plate 4



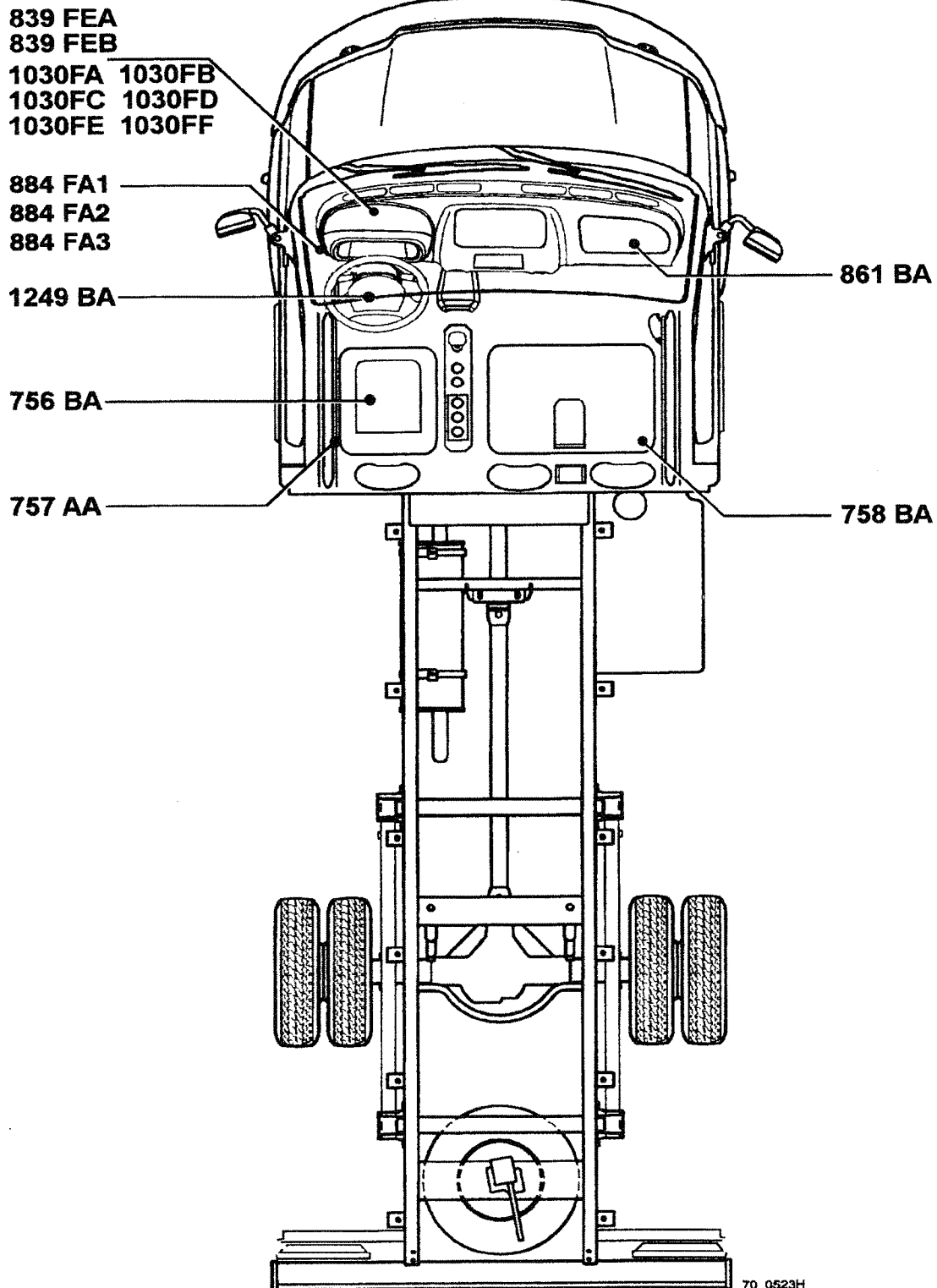
### LOCATION OF APPLIANCES

Plate 5



## LOCATION OF APPLIANCES

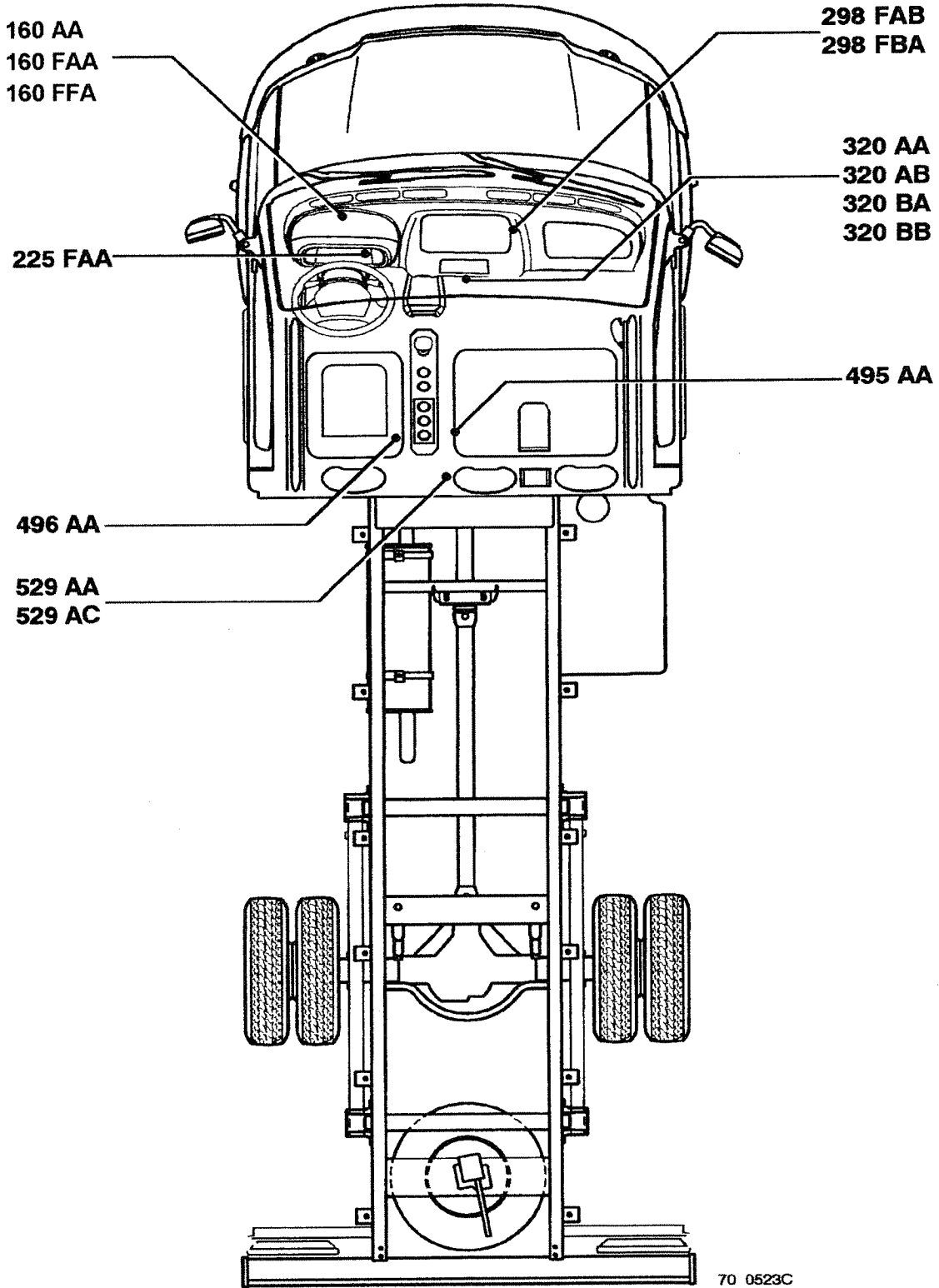
Plate 6





### LOCATION OF APPLIANCES

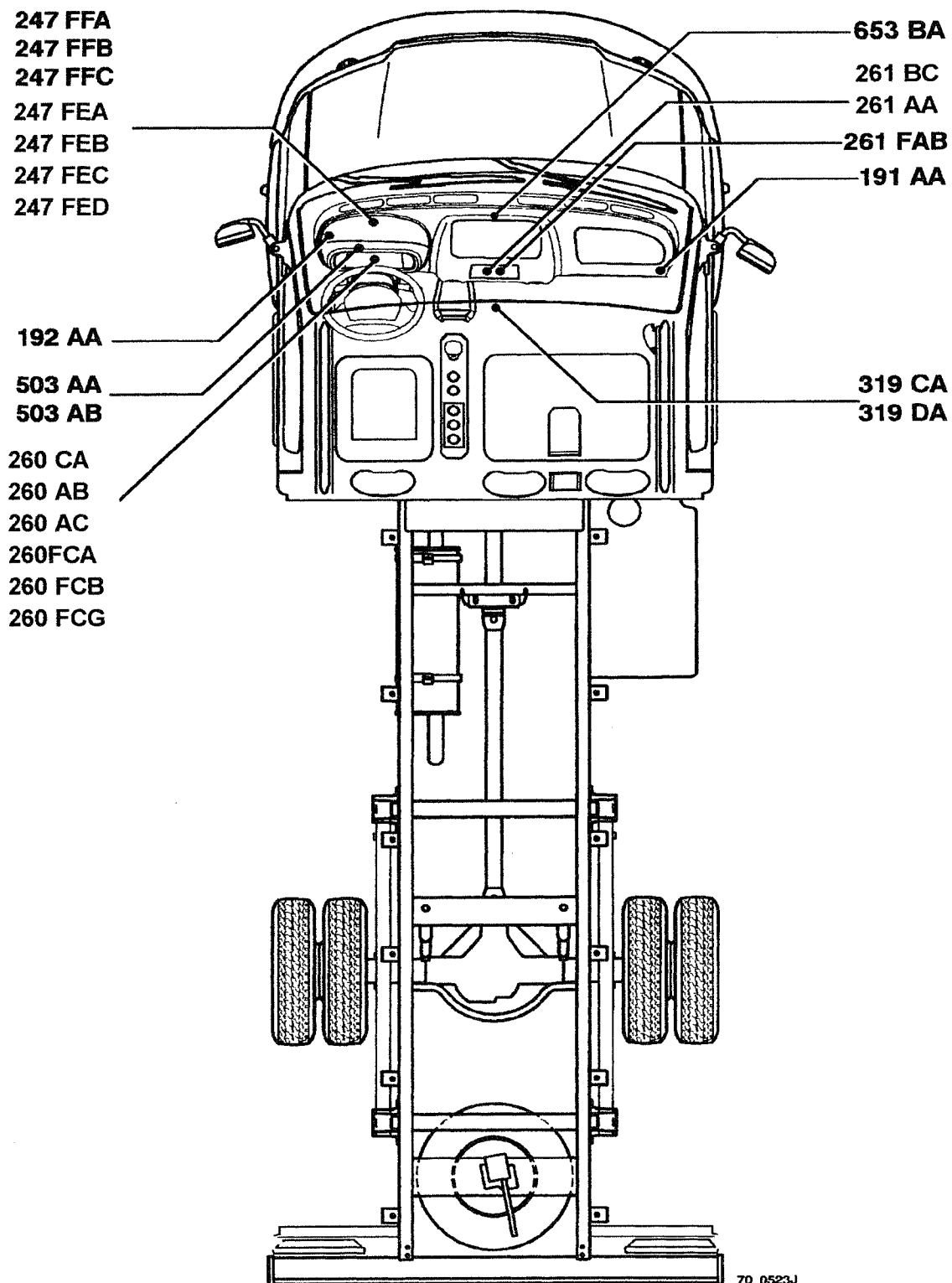
Plate 7



70 0523C

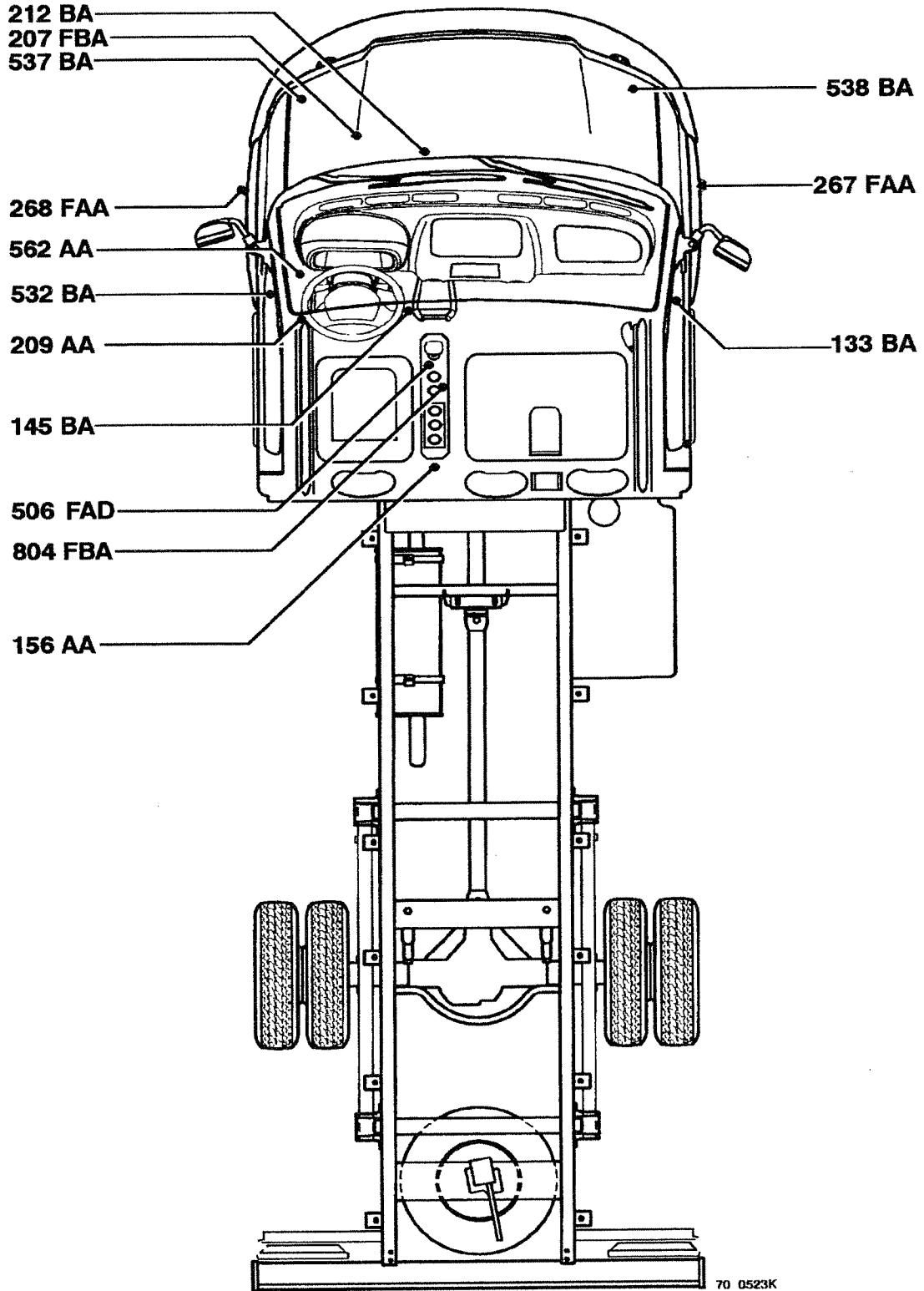
## LOCATION OF APPLIANCES

Plate 8



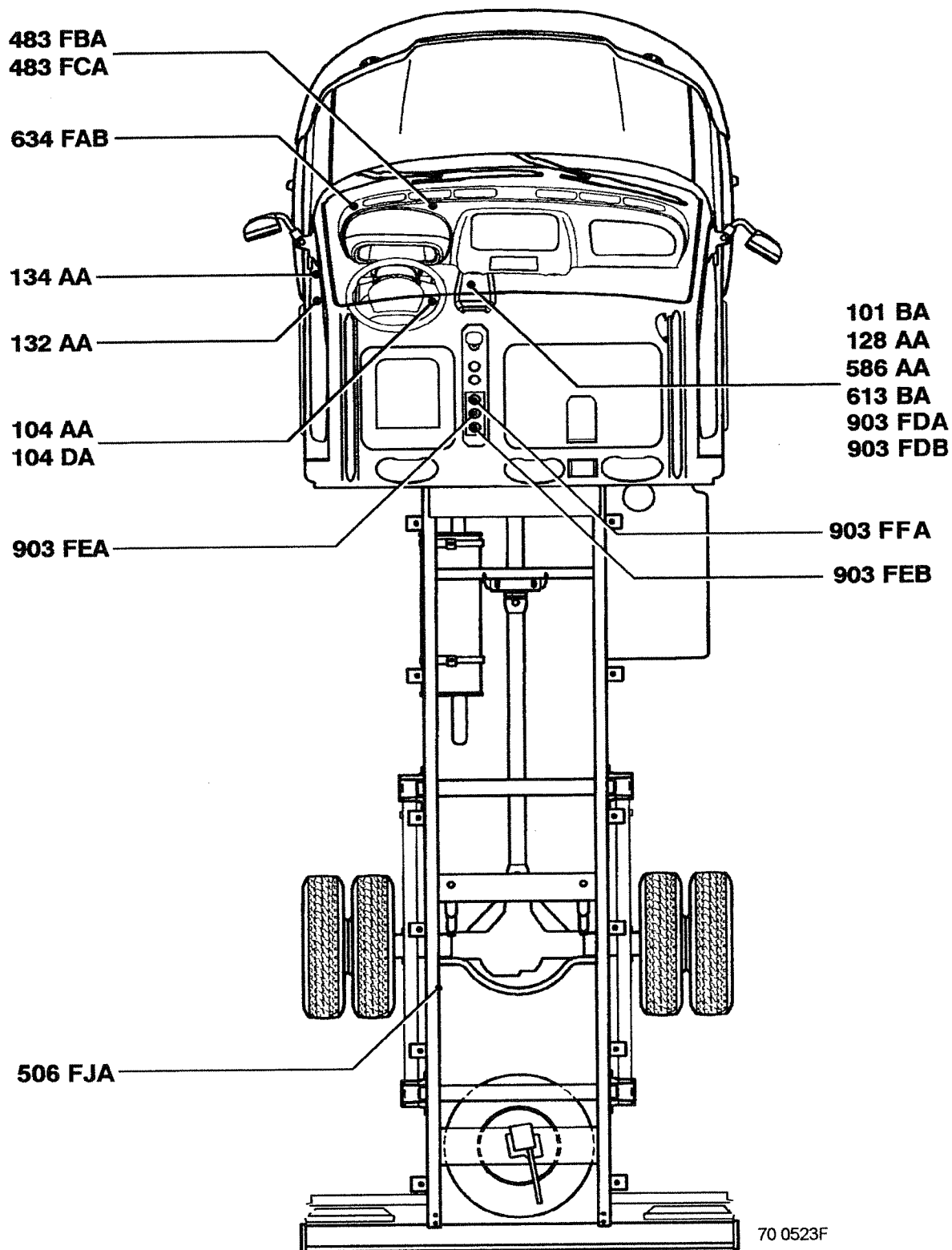
LOCATION OF APPLIANCES

Plate 9



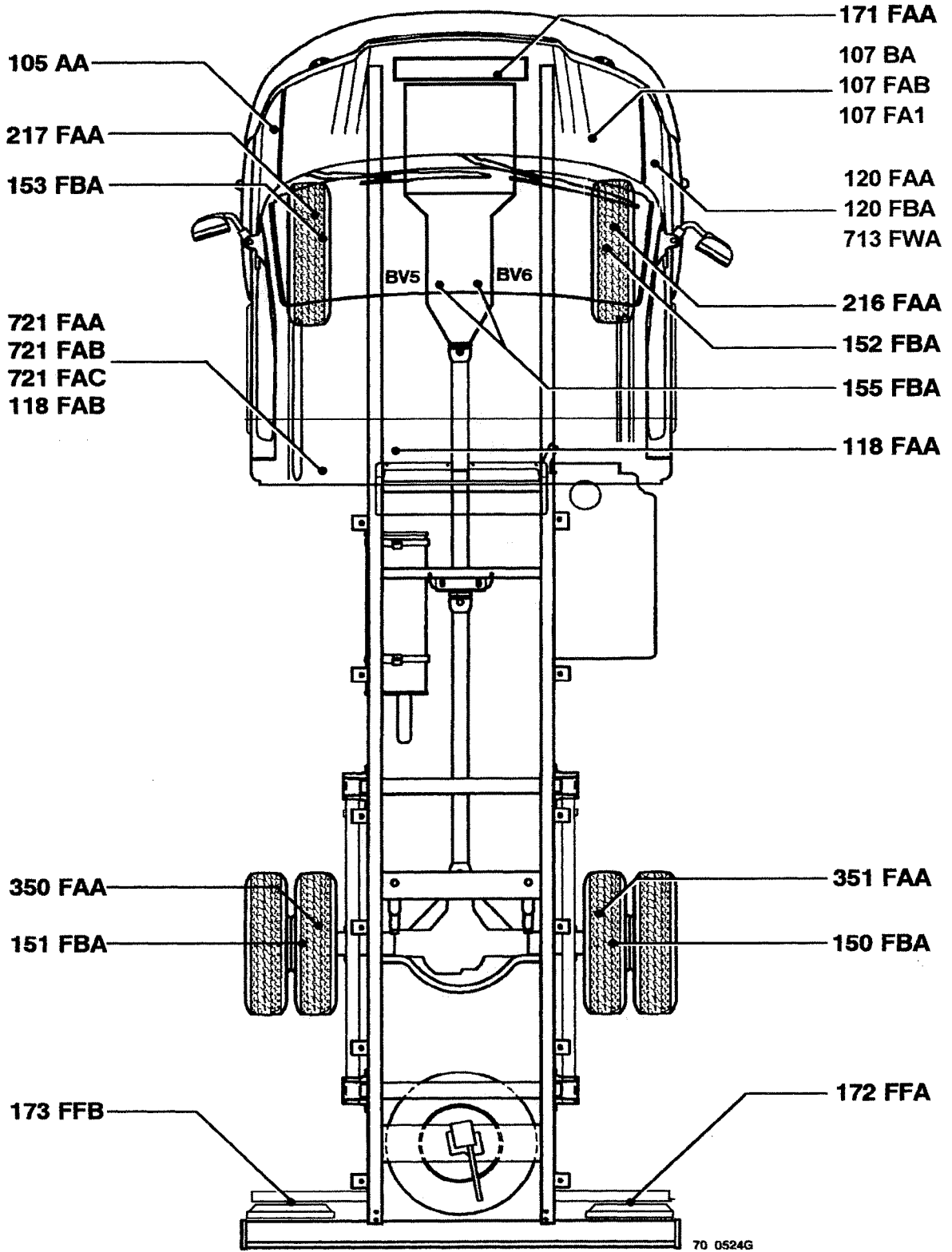
## LOCATION OF APPLIANCES

Plate 10



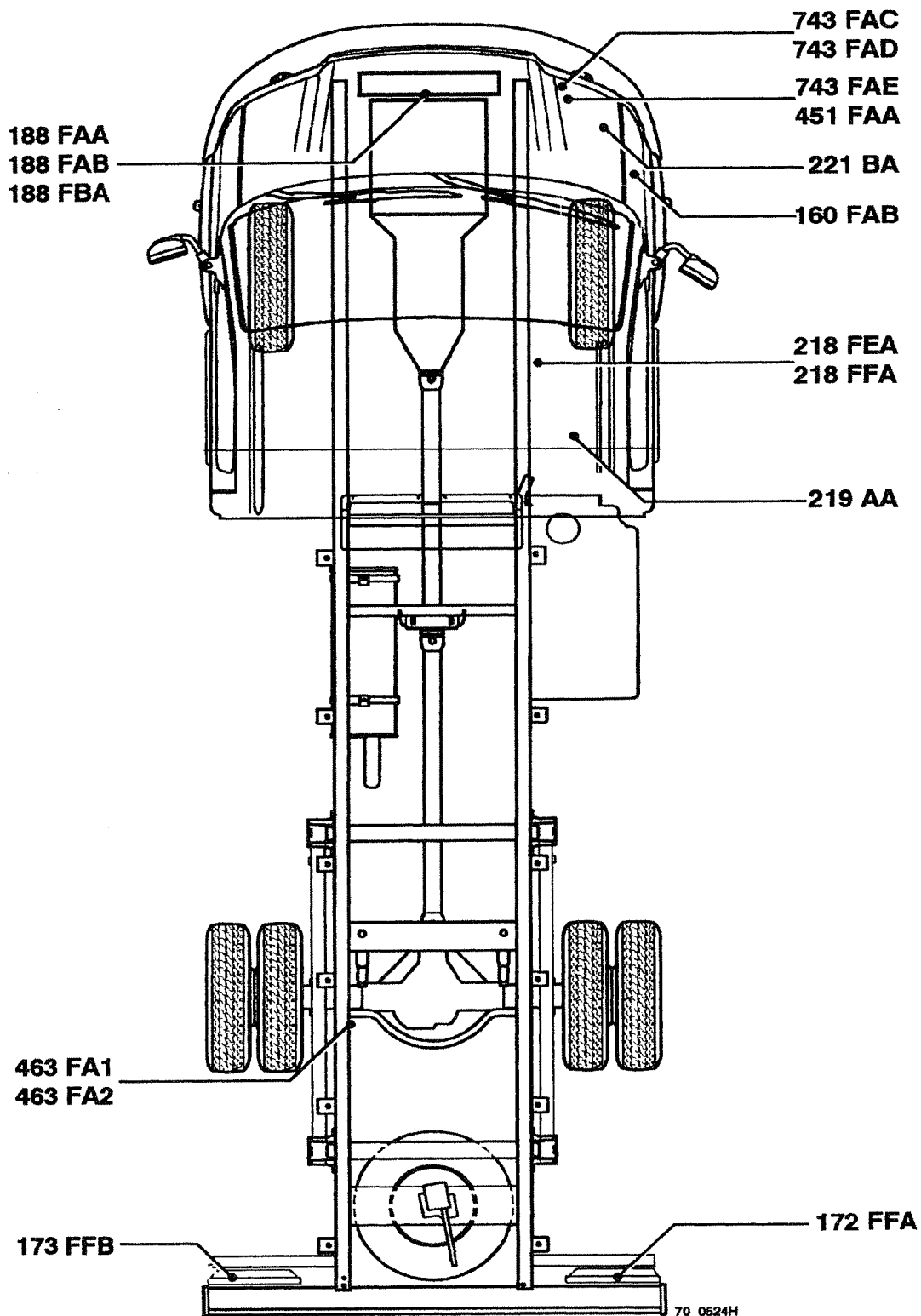
### LOCATION OF APPLIANCES

Plate 11



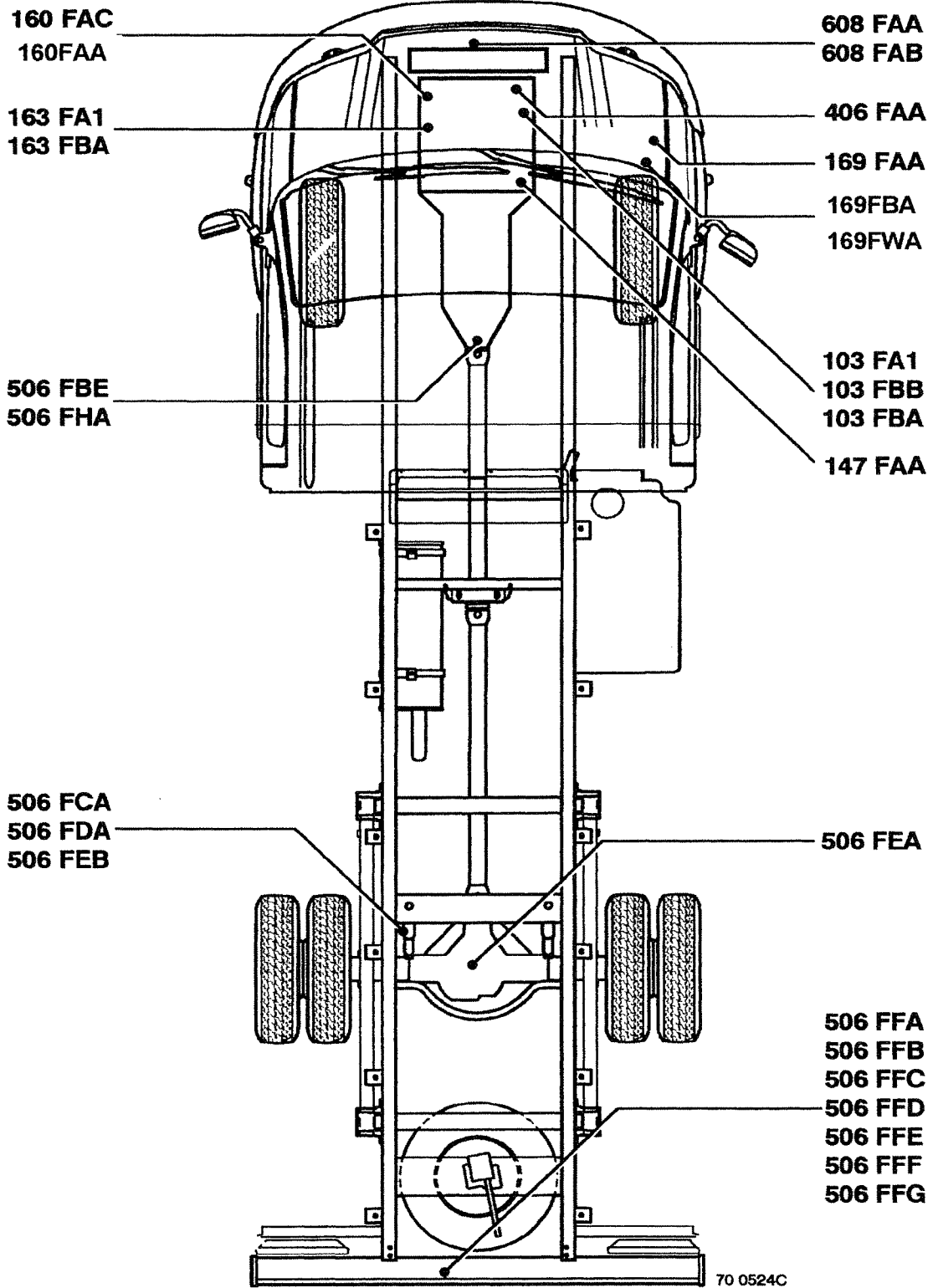
## LOCATION OF APPLIANCES

Plate 12



### LOCATION OF APPLIANCES

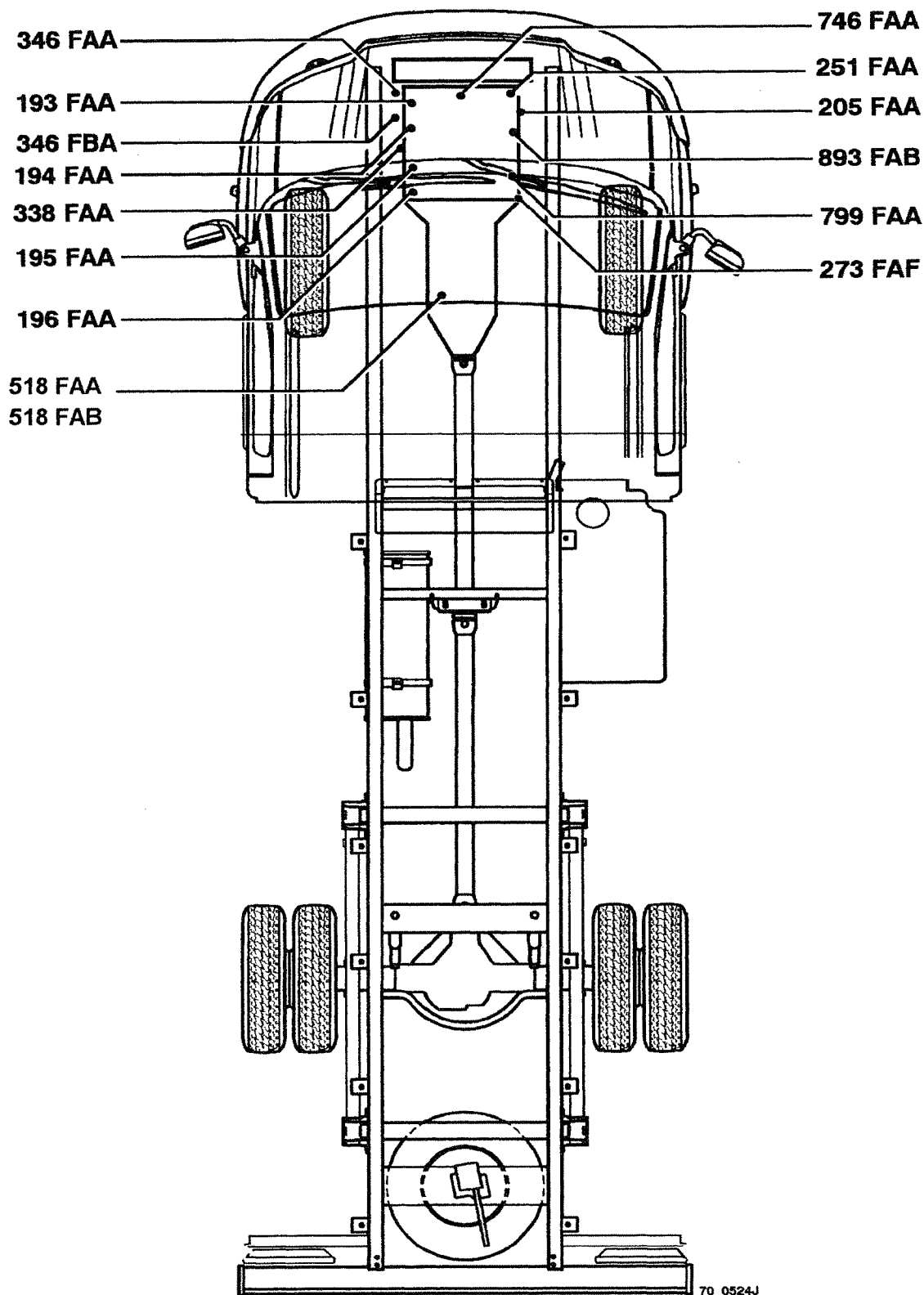
**Plate 13**



70 0524C

## LOCATION OF APPLIANCES

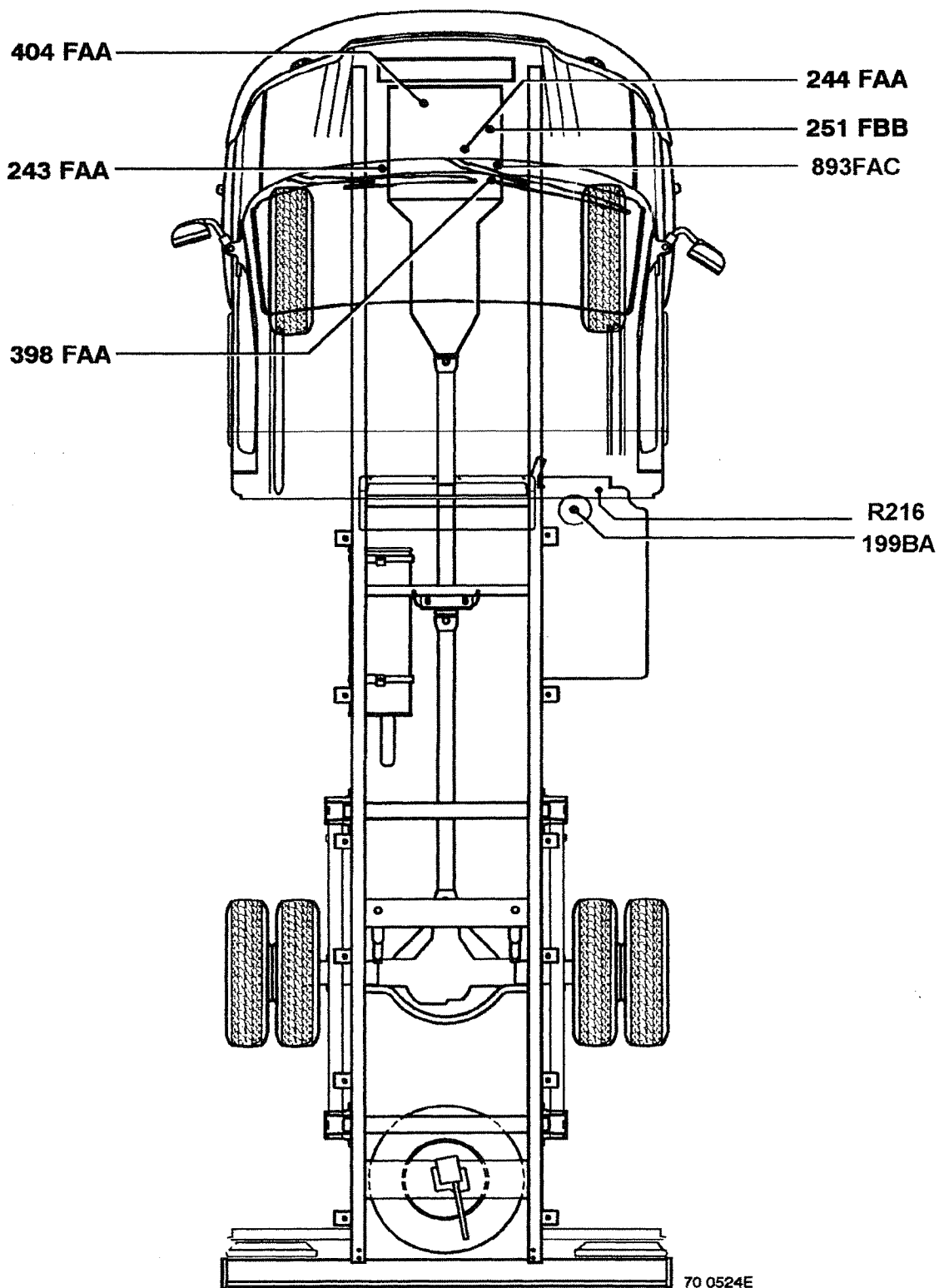
Plate 14





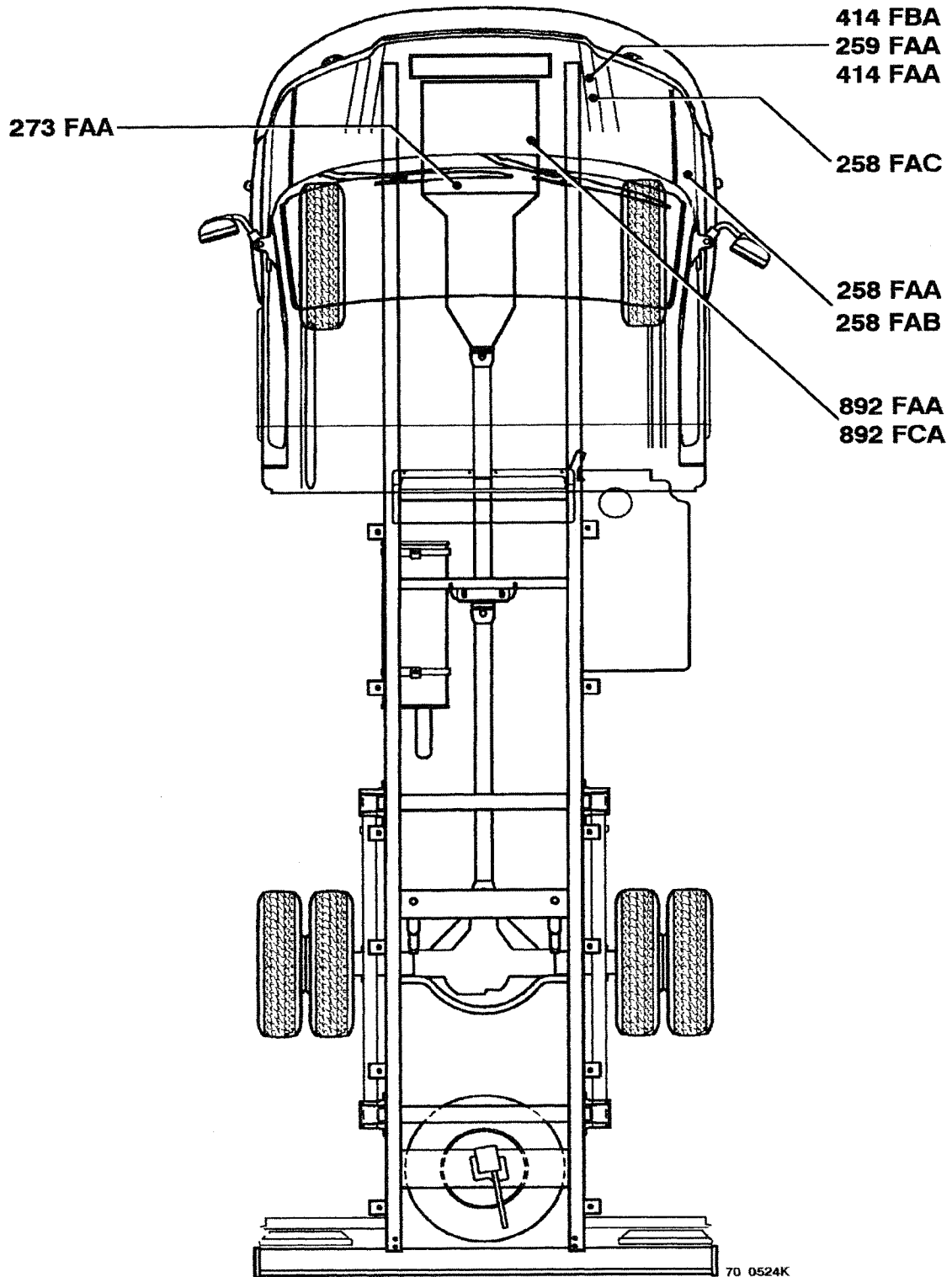
### LOCATION OF APPLIANCES

Plate 15



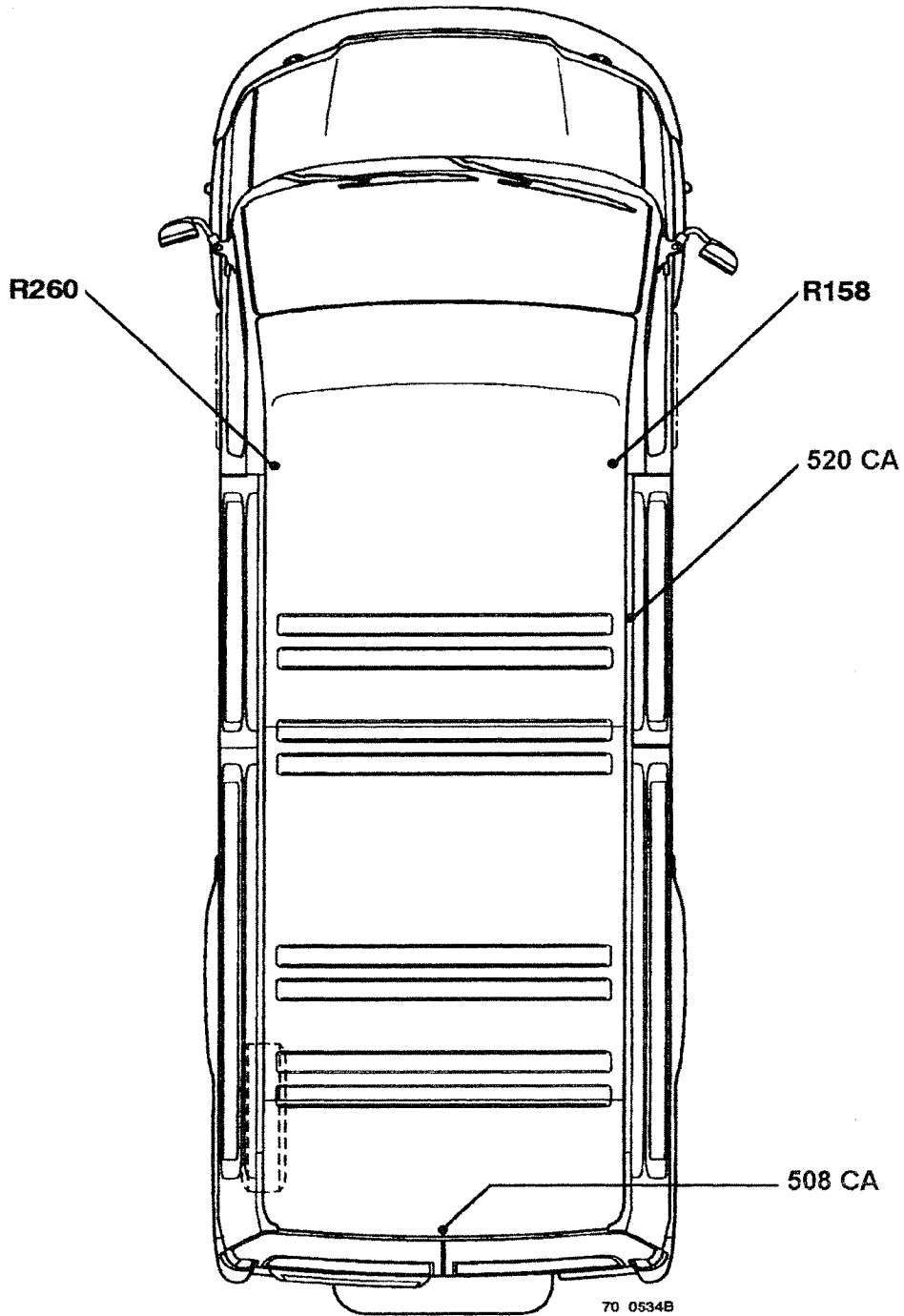
## LOCATION OF APPLIANCES

Plate 16



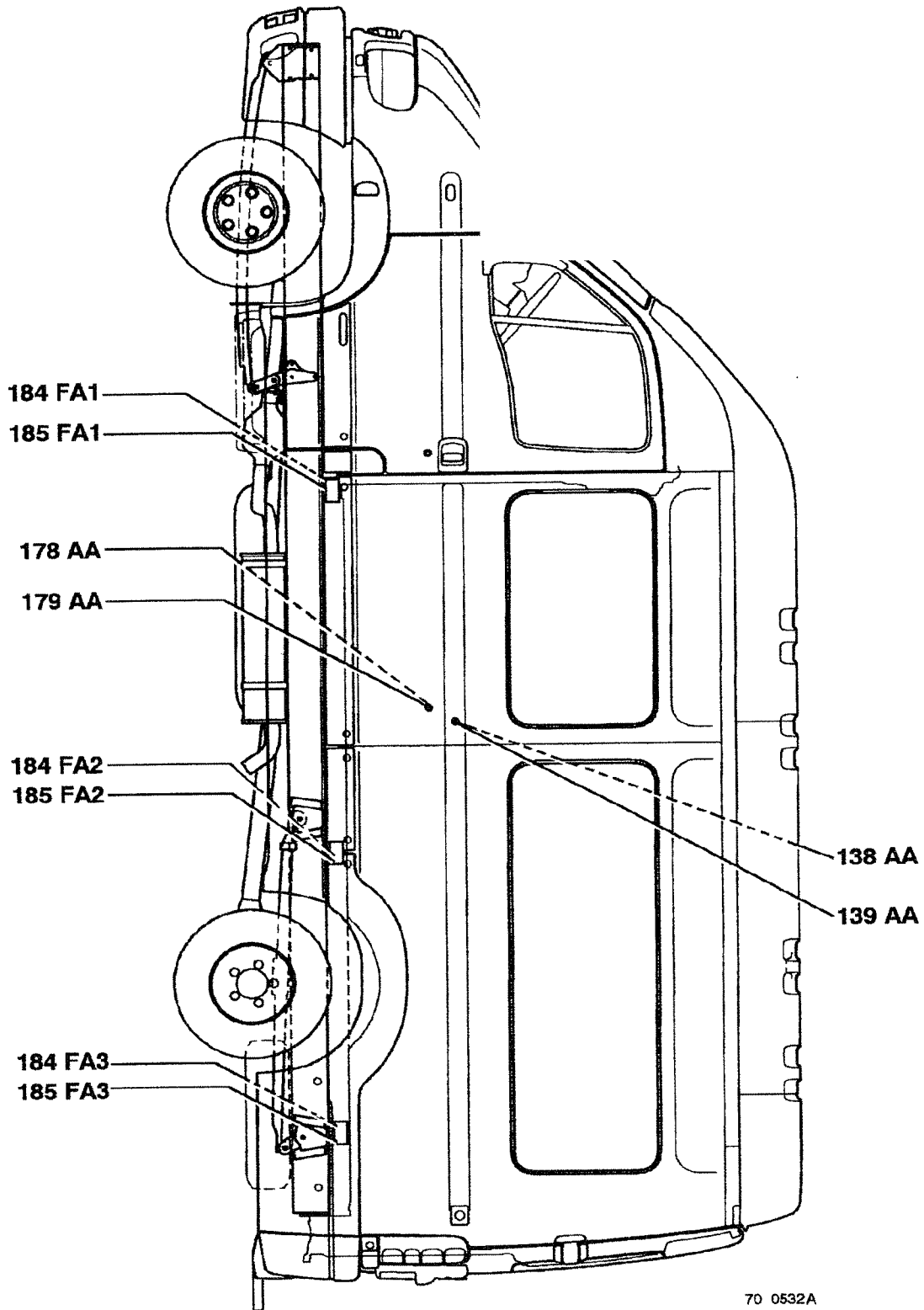
LOCATION OF APPLIANCES

Plate 17



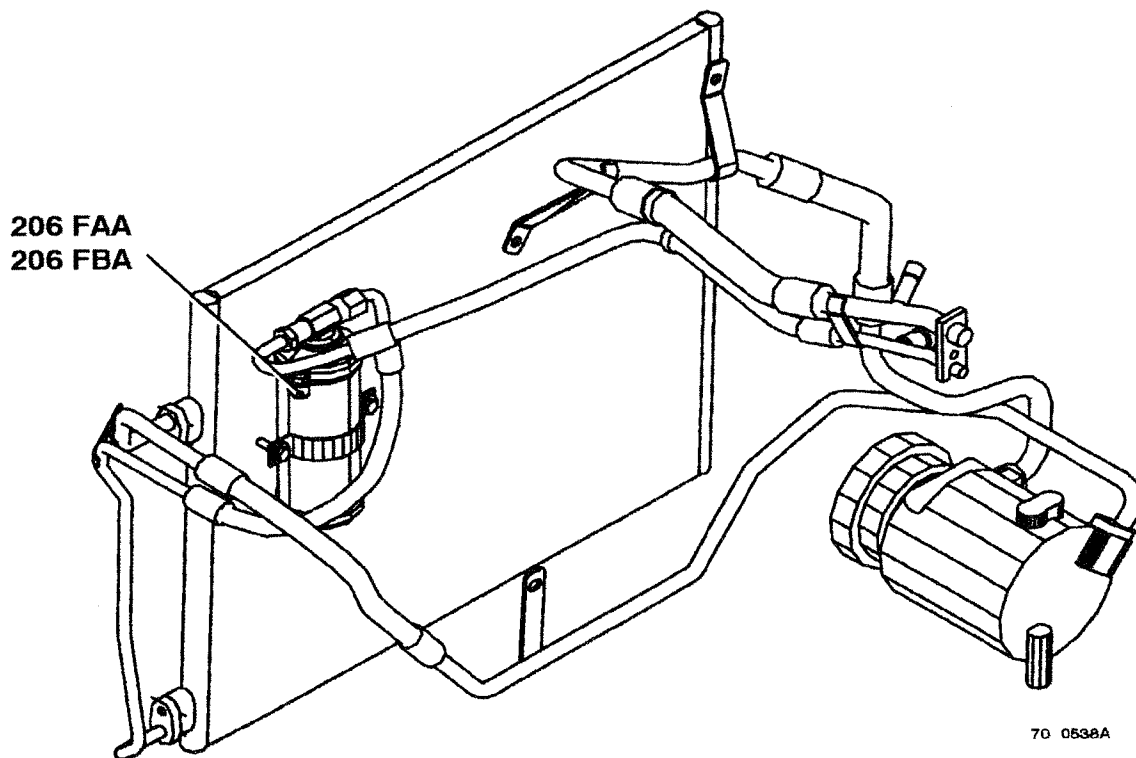
## LOCATION OF APPLIANCES

Plate 18



### LOCATION OF APPLIANCES

**Plate 19**



**FUSES**

	FU1-10A APV	FU2-10A 	FU3-10A APV	FU4-30A (ABS)
	FU5-25A 	FU6-10A 	FU7-15A 	FU8-30A 
	FU9-30A 	FU10-10A 	FU11-7,5A 	FU12-25A 
	FU13-10A 	FU14-20A 	FU15 	FU16-25A 
	FU17-2A 	FU18-10A 	FU19 	FU20-15A 
	FU21-10A 	FU22-5A (ABS)	FU23-15A 	FU24-7,5A 
	FU25-10A 	FU26-5A 	FU27-7,5A 	FU28 
FU45-40A 	FU29-15A ABS +	FU30-20A 	FU31-15A 	FU32-10A 
	FU33-25A 	FU34-20A STOP	FU35-30A 	FU36-10A 
FU46-40A 	FU37-25A 	FU38-7,5A SECURITE	FU39 BLINCK CODE 80CV	FU40-20A 
	FU41-10A 	FU42-15A 	FU43 BLINCK CODE CR	FU44-25A 

01 0265

Relay R

Relay Q

Relay P

Relay C

Relay H

Relay J

Relay E

Relay G

Relay K

Relay N

Relay D

Relay F

Relay L
















Relay M

Relay 260FCG

Relay  
260FCA.260FCB

## FUSES














Table of fuses on connection unit "BFR"

Symbols	Item	Amp.	Assignment	Plates
APV	FU1	10A	Available power supply (12V)	7-8-9
	FU2	10A	PTO electronic box	10-82
APV	FU3	10A	Available power supply (after-ignition)	-
	FU4	30A	"ABS" modulator pump relay	72-73
	FU5	25A	Fuel filter preheater relay - 130 with electronic fuel-ignition	24-25
	FU6	10A	LH main beam headlamp Main beam headlights warning lamp	36-37-60-61-63
	FU7	15A	Overhead lights Tachograph clock	11-22-23-48-49- 50-51-57-58-59- 60-61-63-81-85
	FU8	30A	Power fuse	20
	FU9	30A	Headlamps wash pump	55
	FU10	10A	RH main beam headlamp	36-37
	FU11	7.5A	Fog lamp(s) Fog lights warning lamp Number plate RH lighting	33-34-35
	FU12	25A	"COMMON RAIL" ECU	15-16
	FU13	10A	Clutch pedal position sensor Stop lights - 130 with electronic fuel-ignition "FLAMMSTART" preheat plugs relay Fast idling control	19-21-26-43
	FU14	20A	Fuel filter preheater relay - 90/100 with mechanical fuel-ignition	22-23-52-53-54
	FU15	-	Available	-
	FU16	25A	Doors central locking box	11
	FU17	2A	Electronic anti-theft device	11
	FU18	10A	"KSB" probe	11-12-14-57-58- 59-75-85












## FUSES

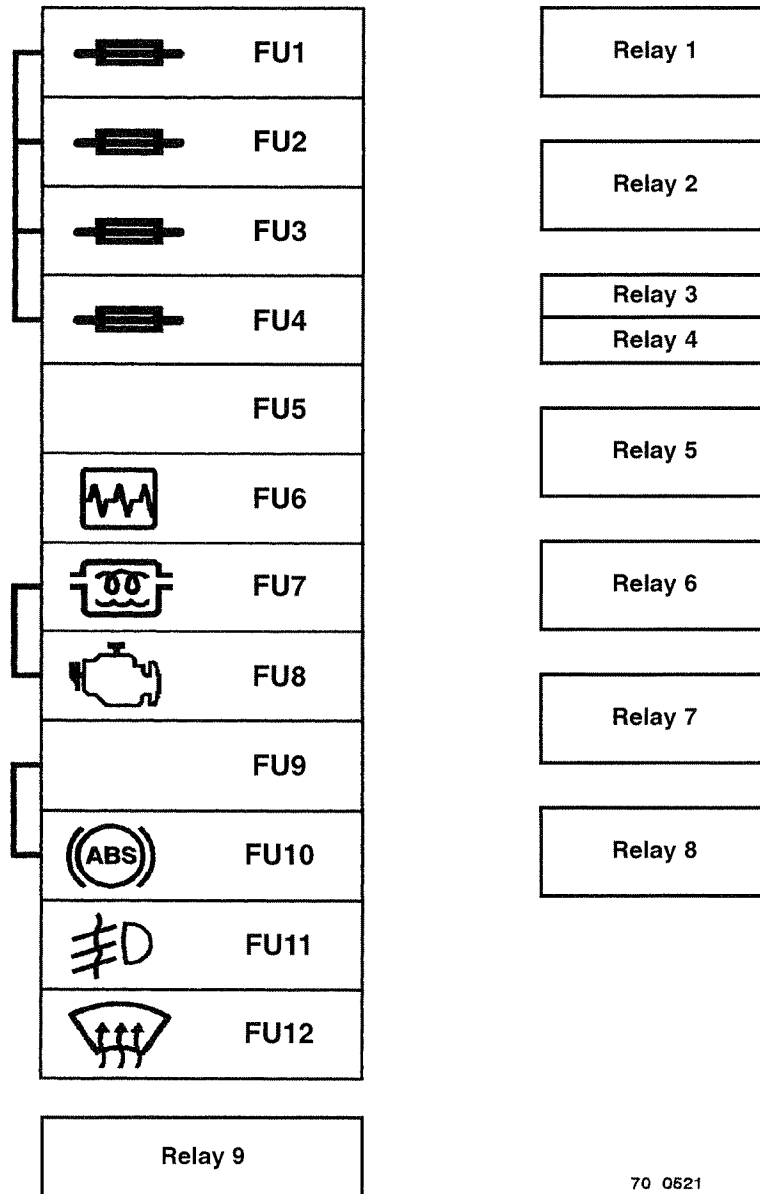
**Table of fuses on connection unit "BFR"**

Symbols	Item	Amp.	Assignment	Plates
	FU19	-	Available	-
	FU20	15A	Hazard lights control	40-41
	FU21	10A	Available power supply (12V)	84
	FU22	5A	"ABS" ECU	56
	FU23	15A	Horn	72-73
	FU24	7.5A	RH parking lights RH side marker lights Dashboard instruments lighting	33-34-35-45-46- 60-61-63
	FU25	10A	Available power supply (after-ignition)	84
	FU26	5A	Windscreen defrosting time-delay relay Rearview mirrors defrosting relay Rearview mirrors and windscreen defrosting warning lamp Rear window defrosting relay	76-77
	FU27	7.5A	Dashboard instruments lighting Number plate LH lighting LH parking lights LH side marker lights Flasher unit	11-19-30-31-32- 33-34-35-45-46- 47-74-76-78-81- 82
	FU28	-	Available	
	FU29	15A	"ABS" safety relay Driver's heated seat Passenger's heated seat	47-79
	FU30	20A	Preheat plugs "EGR" ECU Fast idling relay	13-19-20
	FU31	15A	Windscreen wipe / wash control Windscreen wiper speed controller	52-53-54
	FU32	10A	RH headlamps adjustment motors RH dipped beam headlamp	38-39-60-61
	FU33	25A	Passenger's window winder motor	74

## FUSES

Table of fuses on connection unit "BFR"











Symbols	Item	Amp.	Assignment	Plates
STOP	FU34	20A	"COMMON RAIL" ECU "FLAMMSTART" solenoid valve Reversing lights Stop lights - 90/110 with mechanical fuel-ignition	15-16-21-42-43-44
	FU35	30A	Ventilation control Fan coil heaters	30-31-32
	FU36	10A	Headlamp washers time-delay relay LH headlamps adjustment motors LH dipped beam headlamp Dipped beam headlights warning lamp	38-39-55
	FU37	25A	Driver's window winder motor	74
SECURITE	FU38	7.5A	After-ignition power supply relay	7-8-9
BLINCK CODE 80CV	FU39	-	"EGR" diagnostics shunt	13
	FU40	20A	Radio Declutching fan Air conditioning	15-16-27-28-29-31-32-81
	FU41	10A	Defrosting rearview mirrors	76
	FU42	15A	Power fuse (fog lights / airbag)	85
BLINCK CODE CR	FU43	-	"COMMON RAIL" diagnostics shunt	15-16
	FU44	25A	Cigar lighter	78
	FU45	40A	Available power supply (fog driving lights) Lighting control Fan coil heaters	31-32
	FU46	40A	Rear window defrosting Defrosting rearview mirrors	76



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## FUSES

Table of fuses on connection unit "BIM"

Symbols	Item	Amp.	Assignment	Plates
	FU1	60A	Power fuse	3-4-5-6-33-34-35-36-37-46-72-73
	FU2	70A	Power fuse	3-4-5-6-7-8-9
	FU3	60A	Power fuse	3-4-5-6-33-34-35-36-6-37-46
	FU4	70A	Power fuse	3-4-5-6-7-8-9
	FU5	-	Available	-
	FU6	40A	"COMMON RAIL" ECU	5-6
	FU7	50A	Fuel filter preheater	3-4-5-6-21-22-23
	FU8	30A	Preheating box	20
	FU9	-	Available	-
	FU10	30A	"ABS" ECU	3-4-5-6-56
	FU11	-	Available	-
	FU12	70A	Windscreen defrosting	3-4-5-6-77

### NOTE :

The power fuses for the "BIM" unit supply the fuses for the "BFR" unit situated in the cab:

FU1 → FU6-FU10-FU23-FU24-FU27-FU45

FU2 → FU9-FU14-FU18-FU22-FU26-FU30-FU31-FU34-FU35-FU38-FU39-FU40-FU42-FU43-FU44

FU3 → FU3-FU4-FU7-FU8-FU11-FU12-FU13-FU15-FU16-FU19-FU20-FU32-FU36-FU41

FU4 → FU1-FU2-FU5-FU17-FU21-FU25-FU28-FU29-FU33-FU37-FU46

**RELAYS**

## RELAYS

Table of relays on connection unit "BFR"

Item	Amp.	Assignment	Plates
<b>C</b>	40A	"Radio-frequency remote control" hazard lights relay	1-2-11
<b>D</b>	25A	Declutching fan relay - 130" with electronic fuel-injection	1-2-32
<b>E</b>	-	Windscreen defrosting time-delay relay	1-2-77
<b>F</b>	40A	Rearview mirrors defrosting resistor relay	1-2-76
<b>G</b>	-	Rearview mirrors defrosting time-delay relay	1-2-76
<b>H</b>	-	Lights not switched off warning buzzer	1-2-50
<b>J</b>	-	Windscreen wiper speed controller	1-2-52-53-54
<b>K</b>	50A	After-ignition power supply relay	1-2-7-8-9
<b>M</b>	40A	Air conditioning compressor relay "F2000 - 130" with electronic fuel-injection	1-215-16-32
<b>P</b>	40A	"COMMON RAIL" ECU relay	1-2-5-6-15-16
<b>Q</b>	-	Flasher unit	1-2-29-40-41
<b>R</b>	-	Headlamp washer time-delay relay	1-2-55
<b>260FCA</b>	25A	Air conditioning compressor relay	31
<b>260FCB</b>	25A	Fuel filter preheater relay	24-25
<b>260FCG</b>	25A	"COMMON RAIL", servo-assisted clutch, booster pump relay	15-16-32

## RELAYS

Table of relays on connection unit "BIM" - 90 with mechanical fuel-injection

Item	Amp.	Assignment	Plates
R1	-	Available	-
R2	-	Available	-
R3	20A	Fuel filter preheater relay (980 FAB)	3-13-22
R4	20A	"KSB" electric anti-stall device relay (980 FAB)	3-13-22
R5	-	Available	-
R6	-	Available	-
R7	20A	"ABS" ECU relay (439 FAA)	3-56
R8	-	Available	-
R9	70A	Windscreen defrosting resistor relay (817 BA)	3-77

Table of relays on connection unit "BIM" - 110 with mechanical fuel-injection

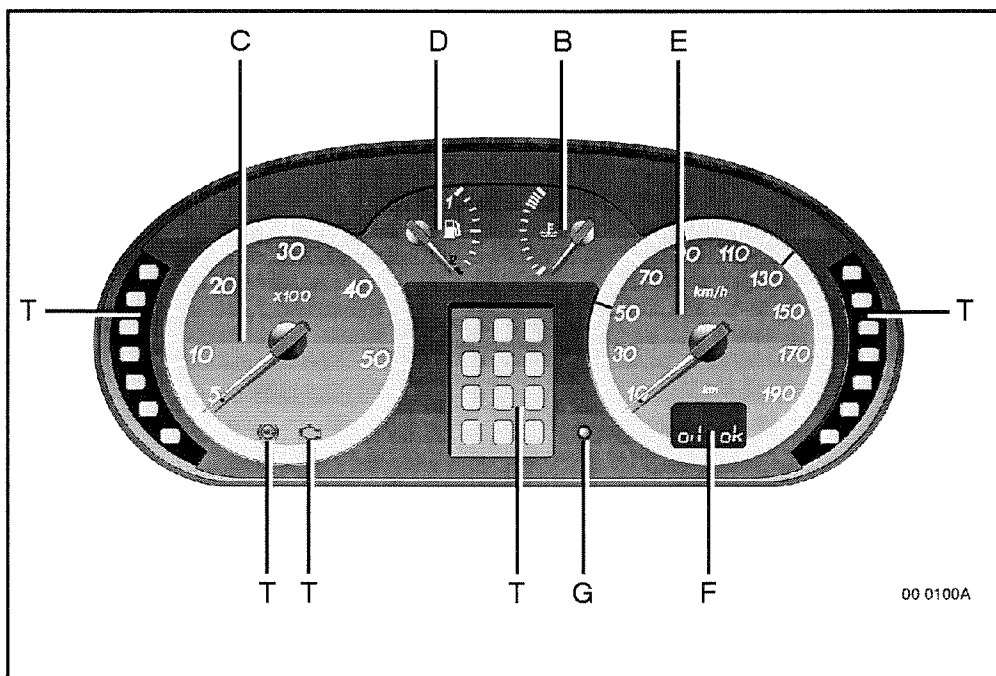
Item	Amp.	Assignment	Plates
R1	50/70A	"FLAMMSTART" preheating box (257 FAA)	4-20
R2	-	Available	-
R3	20A	Fuel filter preheater relay (980 FCA)	4-23-28-31
R4	20A	Declutching fan relay (980 FCA)	4-23-28-31
R5	-	Available	-
R6	-	Available	-
R7	20A	"ABS" ECU relay (439 FAA)	4-56
R8	-	Available	-
R9	70A	Windscreen defrosting resistor relay (817 BA)	4-77

**RELAYS****Table of relays on connection unit "BIM" - 110/130/140/150 with electronic fuel-injection**

<b>Item</b>	<b>Amp.</b>	<b>Assignment</b>	<b>Plates</b>
<b>R1</b>	-	Available	-
<b>R2</b>	25A	"FLAMMSTART" preheat plugs relay (980 FBB)	5-6-21
<b>R3</b>	20A	"FLAMMSTART" solenoid valve relay (980 FEA)	5-6-21-47
<b>R4</b>	-	Available	-
<b>R5</b>	-	Available	-
<b>R6</b>	-	Available	-
<b>R7</b>	20A	"ABS" ECU relay (439 FAA)	5-6-56
<b>R8</b>	-	Available	-
<b>R9</b>	70A	Windscreen defrosting resistor relay (817 BA)	5-6-77



**INSTRUMENT PANEL**



















## INSTRUMENT PANEL

- A Tachograph
- B Engine cooling circuit temperature gauge
- C Rev counter
- D Fuel level gauge
- E Speedometer and mileage counter
- F Multi-function display
- G Multi-function display selection key
- T "Information" and "Alert" tell-tale and warning lights (see legends)







## WARNING LAMPS

**Table of warning lamps on instrument panel**

Symbols	Item	Assignment	Plates
	T01	PTO "Information" tell-tale lamp	60-61-81
	T02	Inter-wheel diff. lock "Information" tell-tale lamp	60-61-81
	T03	Fog driving lights warning lamp	-
	T04	Windscreen defrosting warning lamp	60-61-77
	T05	Engine cooling circuit level "Information" tell-tale lamp	-
	T06	Heated seats warning lamp	60-61-79
	T07	Heated rearview mirrors warning lamp	60-61-76
	T09	Engine cooling circuit temperature "Alert" warning lamp	60-61-66
	T10	Parking brake / brake fluid level "Alert" warning lamp	60-61-68
	T11	ABS "Alert" warning lamp	56-60-61
	T13	Vehicle electronic failure / preheating "Information" tell-tale lamp	13-15-16-20-60-61
	T14	Main beam headlights warning lamp	36-37-60-61
	T15	Fuel filter clogging or water presence "Alert" warning lamp	26-61
	T16	Engine oil pressure "Alert" warning lamp	60-61-66
	T17	Battery charge warning lamp	10-60-61-77
	T18	Fog light(s) warning lamp	33-34-35-60-61

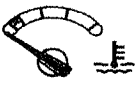



## WARNING LAMPS

Table of warning lamps on instrument panel

Symbols	Item	Assignment	Plates
	T19	Dashboard lighting	33-34-35-30-61
	T20	Dipped beam headlights warning lamp	38-39-60-61
	T25	Brake pads wear warning lamp	60-61-69-70-71
	T26	Engine immobilizer system warning lamp	11-60-61
	T31	Vehicle direction indicator lights repeater lamps	40-41-60-61
	T32	Airbag warning lamp	60-61-84
	T33	Trailer direction indicator lights warning lamp	40-60-61

## GAUGES

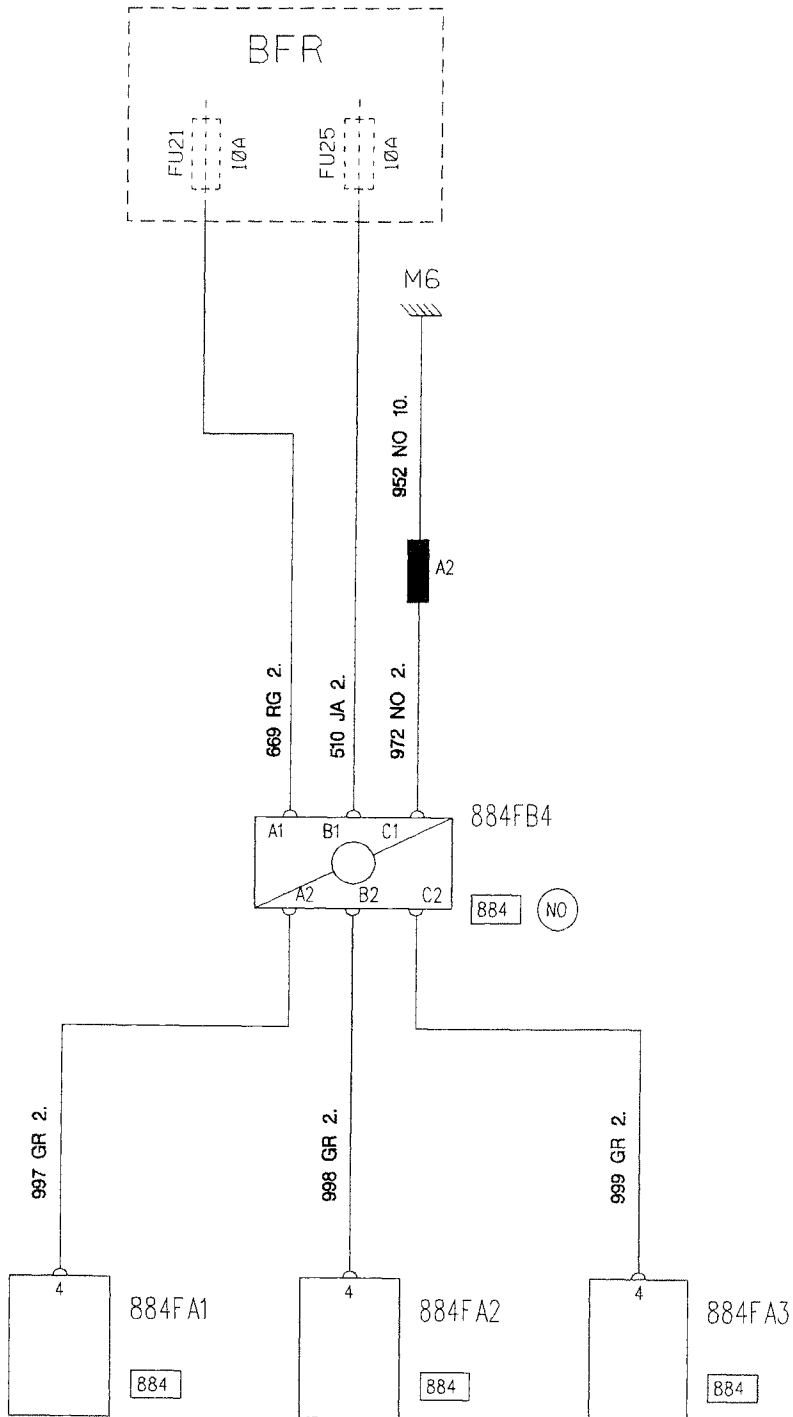
Table of gauges on instrument panel

Symbols	Item	Assignment	Plates
	T12	Engine cooling circuit temperature gauge	60-61-66
	T23	Fuel level gauge	60-61-67
	T28	Engine rev counter	10-60-61
	T35	Speedometer	78-79-82-83

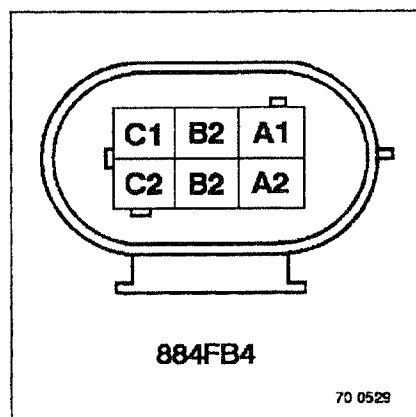
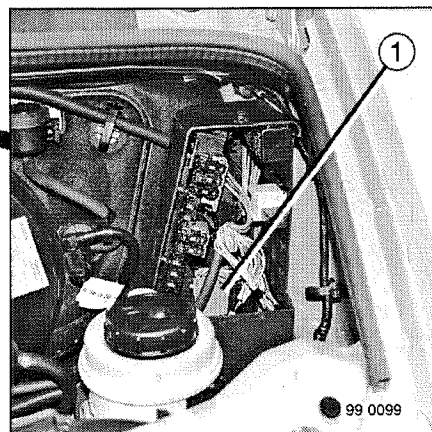
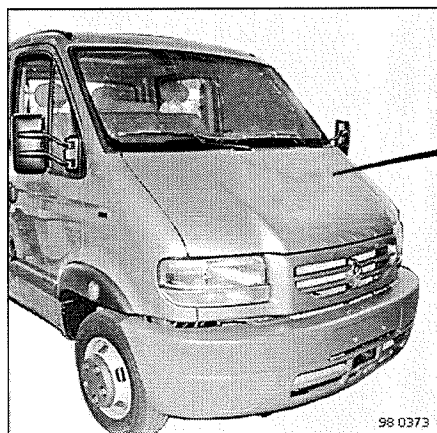
**AVAILABLE POWER SUPPLIES**

AVAILABLE POWER SUPPLIES

MASCOTT



## AVAILABLE POWER SUPPLIES ON CHASSIS



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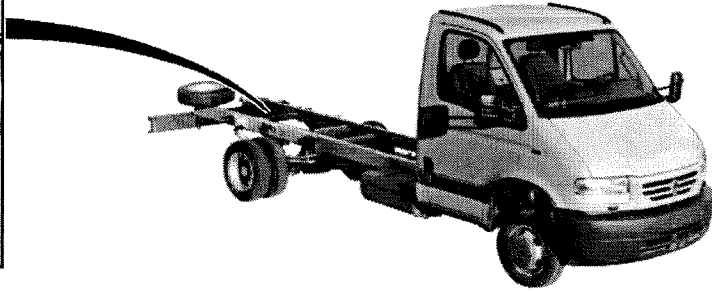
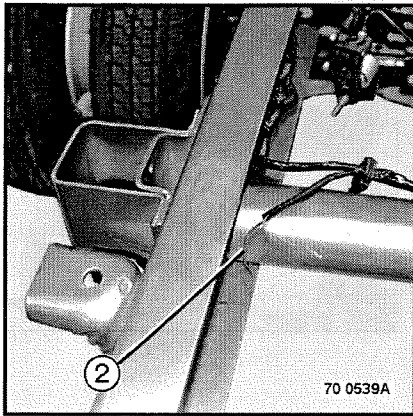
### Location 1

#### Connector "884FB4"

Item	Assignment	Wire	Colour	Fuse
A1	Available power supply (battery)	669	RG	FU21-10A
B1	Available power supply (after-ignition)	510	JA	FU25-10A
C1	Available power supply (earth)	972	NO	-
A2	Available power supply (chassis/cab link)	997	GR	-
B2	Available power supply (chassis/cab link)	998	GR	-
C2	Available power supply (chassis/cab link)	999	GR	-



## AVAILABLE POWER SUPPLIES ON CHASSIS

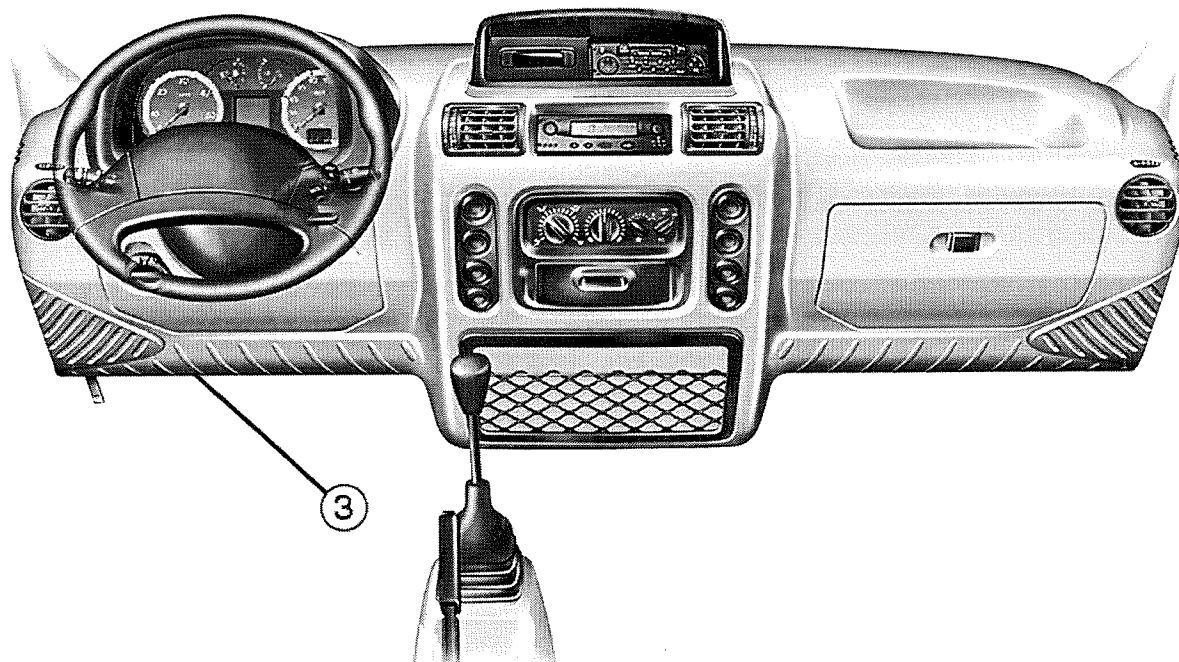


### Location 2

2 insulated, unstripped wires are on stand-by in the LH sidemember (2):

Assignment	Wire	Colour	Fuse
Available power supply (lighting)	82	BE	FU27-7,5A
Available power supply (earth)	89	NO	-

## AVAILABLE POWER SUPPLIES IN CAB



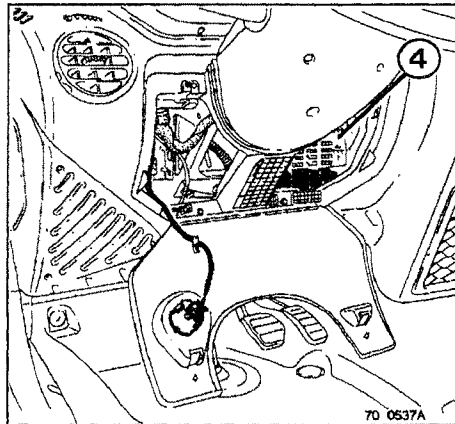
20 0159

### Location 3

3 insulated, unstripped wires are on stand-by around the wiring harness leaving the bulk-head grommet (3):

Assignment	Wire	Colour	Fuse
Available power supply (chassis/cab link)	997	GR	-
Available power supply (chassis/cab link)	998	GR	-
Available power supply (chassis/cab link)	999	GR	-

## AVAILABLE POWER SUPPLIES IN CAB



### Location 4

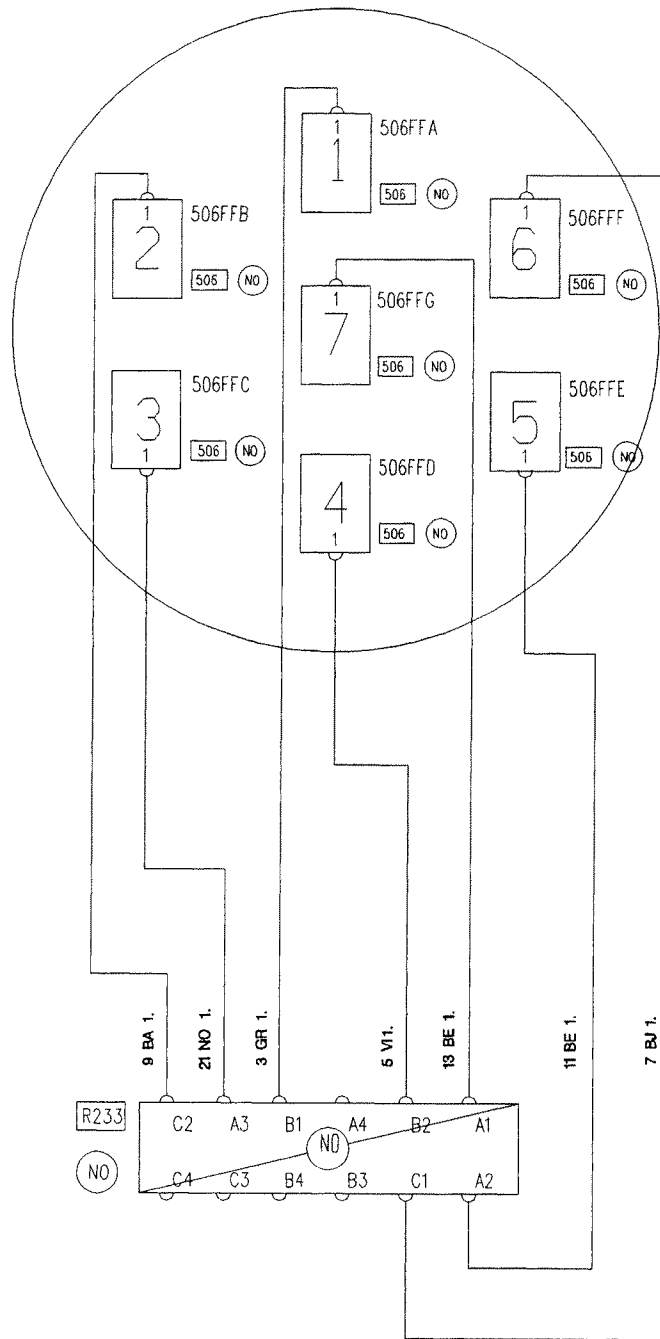
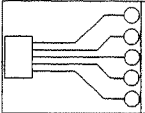
2 fuse locations are pre-arranged on the connection unit "BFR" (4):

Assignment	Wire	Colour	Fuse
Available power supply (battery)	-	RG	FU1-10A
Available power supply (after-ignition)	-	RG	FU3-10A

**TRAILER SOCKET**

TRAILER SOCKET

MASCOTT



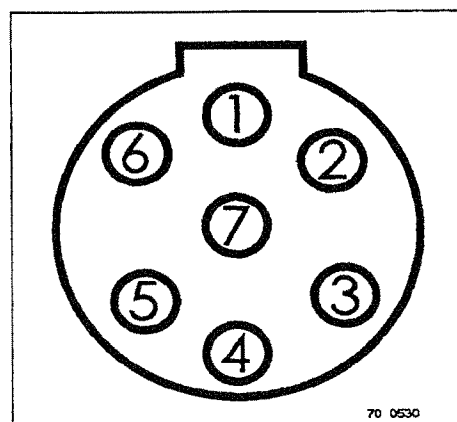
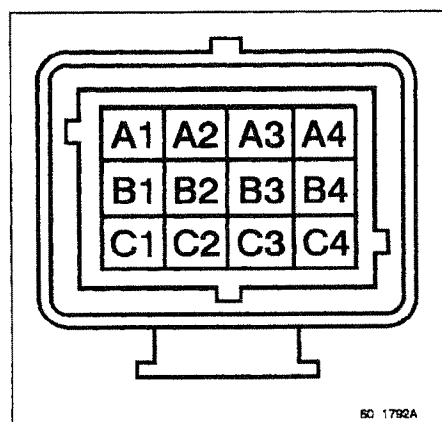
## TRAILER SOCKET

**Table of terminals on trailer socket 12N**

Terminal	Assignment	Wire	Colour	Fuse
1	Trailer LH flashing lights	3	GR	FU42-15A
2	Trailer fog lights	9	BA	FU11-7,5A
3	Earth	21	NO	-
4	Trailer RH flashing lights	5	GR	FU42-15A
5	Trailer RH parking lights	11	BE	FU24-7,5A
6	Trailer stop lights	7	BJ	FU13-10A
7	Trailer LH parking lights	13	BE	FU27-7,5A

**Table of terminals on trailer socket hook-up connector R233**

Terminal	Assignment	Wire	Colour	Fuse
A1	Trailer LH parking lights	13	BE	F27-7,5A
A2	Trailer RH parking lights	11	BE	FU24-7,5A
A3	Earth	21	NO	-
B1	Trailer LH flashing lights	3	GR	FU42-15A
B2	Trailer RH flashing lights	5	GR	FU42-15A
B3	Trailer reversing lights	67	OR	FU34-20A
C1	Trailer stop lights	7	BJ	FU13-20A
C2	Trailer fog lights	9	BA	FU11-7,5A



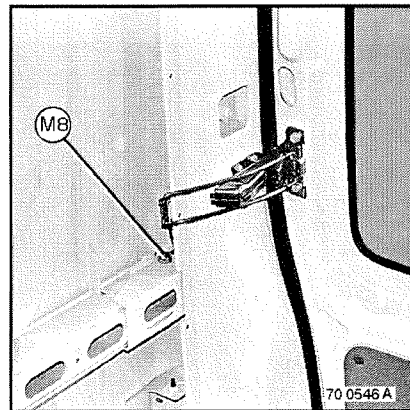
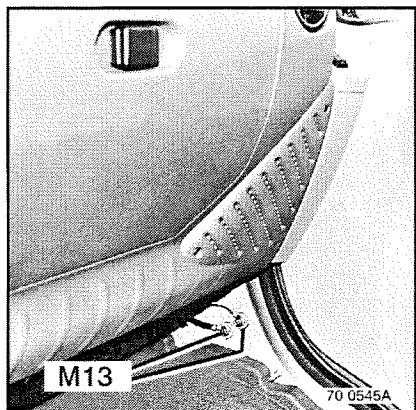
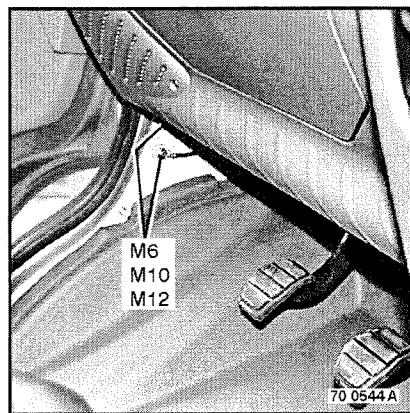
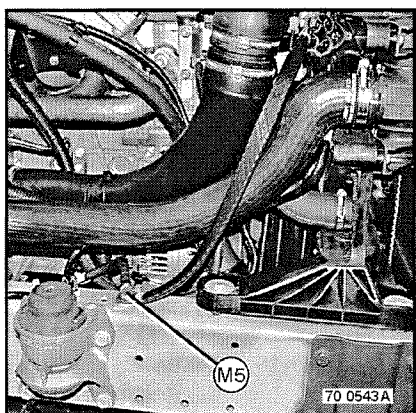
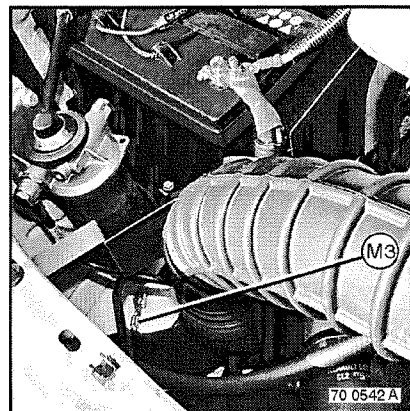
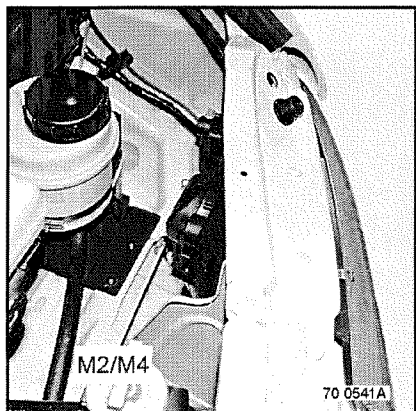
**LOCATION OF EARTHS**

## LEGEND TO EARTHES

Item	Assignment	Plate
<b>M2</b>	Driver's side front end electrical earth	33-34-35-36-37- 40-41
<b>M3</b>	Battery to chassis frame earth	10
<b>M4</b>	"ABS" electrical earth	56
<b>M5</b>	Engine electrical earth	11-13-20-22-23- 24-25-26-27-28- 31
<b>M6</b>	Driver's side electrical earth	15-16-29-40-41- 45-46-57-58-59- 74-75-76-84
<b>M8</b>	Roof rear end to chassis frame earth	11-35-41-43-47- 50-51
<b>M9</b>	Chassis frame earth	33-34-40-42-44- 46-47-80
<b>M10</b>	Driver's side electrical earth	7-8-9-11-38-39- 60-61-63-64-65- 77-81
<b>M11</b>	Van electrical earth	34-35-41-43
<b>M12</b>	Pedal gear electrical earth	11-46-48-49
<b>M13</b>	Passenger's door electrical earth	13-15-16-19-30- 31-32-47-60-74- 76-78-79-82
<b>M14</b>	Passenger's side front end electrical earth	33-34-35-36-37- 40-41
<b>M15</b>	Windscreen wipers and headlamp washers electrical earth	52-53-54-55
<b>M16</b>	Airbag electrical earth	85



### LOCATION OF EARTHS



### LOCATION OF EARTHS

