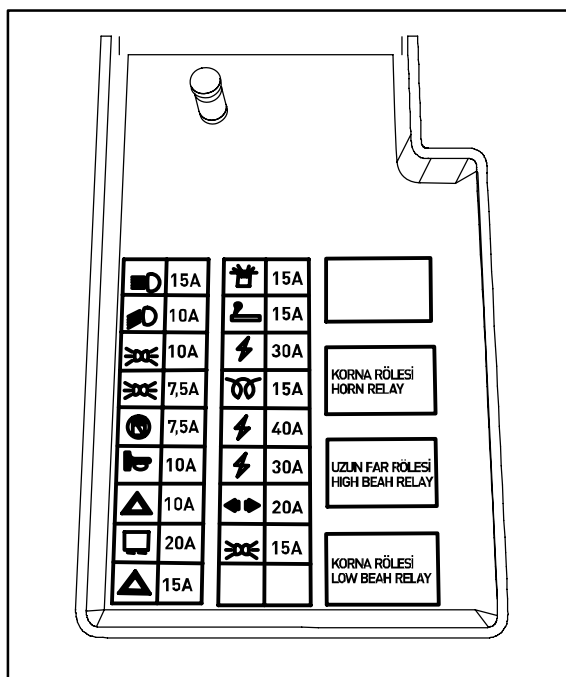


SECTION 55 – ELECTRICAL SYSTEM**Chapter 6 – ELECTRICAL CIRCUITS****CONTENTS**

Section	Description	Page
55 100	Contents	1
	Fuses (all versions)	2
	Symbols used in electrical circuits	4
	Electrical wire colour coding	5
	Ground locations	5
	Electrical diagrams	
	– General diagrams (W/Cab)	9
	– General diagrams (W/Out Cab)	15
	– Analogue instrument circuit and connector overview	19
	– Start–up circuit and connector overview	21
	– Direction indicator & hazard warning light circuit and connector overview	25
	– Windscreen and rear window wiper/washer circuit and connector overview ...	31
	– Brake light circuit and connector overview	35
	– Heating and air–conditioning system circuit and connector overview	41
	– Work lamp (without cab circuit and connector overview)	45
	– Work lamp (without cab circuit and connector overview)	49
	– Side lights,main and dipped headlights, parking light circuit and connector overview	53

FUSES AND RELAYS MAIN BOX

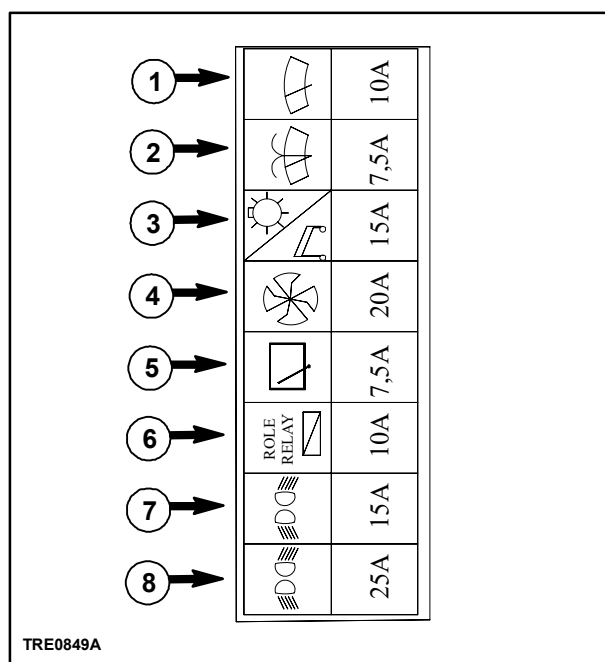


47

Fuses	PROTECTED CIRCUITS	Amps
1	Main beam headlights	15
2	Dipped beam headlights	10
3	Front right and rear left side lights	10
4	Front left and rear right side lights	7,5
5	Engine shut-down solenoid	7.5
6	Instruments, turn signal switch, horn	10
7	Hazard warning switch, fuel sedimentor	10
8	Relays	20
9	Hazard warning switch	15
10	Beacon lamp, (radio, interior lamps– with cab models)	15
11	Cigarette lighter	15
12	Power for cab (with cab models)	30
13	Thermostart	15
14	Power socket (with cab models)	40
15	Power for cab (with cab models)	30
16	Turn signal switch	20
17	Brake lights	15
I	Dipped beam relay	–
II	Main beam relay	–
III	Horn relay	–
IV	Brake relay	–

FUSES AND RELAY BOX (INSIDE CAB) **FIG– 48 – 49**

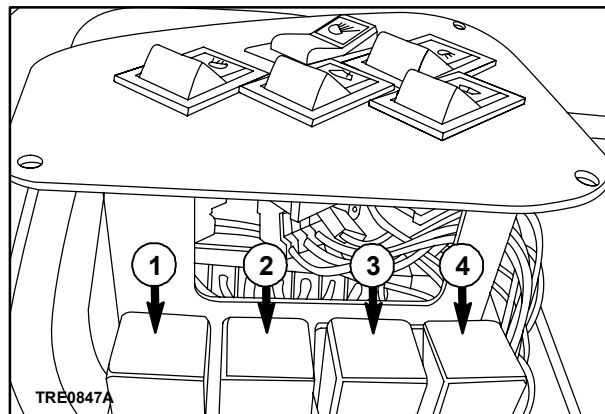
Fuses and protected circuits are listed below:



48

Fuses	PROTECTED CIRCUITS	Amps
1.	Front wiper	10
2.	Washer	7.5
3.	Beacon lamp, interior lamps, radio	15
4.	Heater/Air Conditioning	20
5.	Rear wiper	7.5
6.	Working lamps switches	10
7.	Front working lamps	15
8.	Rear working lamps	25

Relays and related circuits are listed below:



49

Relays	CIRCUITS
1.	Front work lights
2.	Rear work lights
3.	Power supply
4.	Power supply

SYMBOLS

	HEADLAMPS		THERMOSTARTER SWITCH		WATER TEMP. GAUGE SENDING UNIT
	FRONT SIGNAL AND PARKING LIGHT		BRAKE SWITCH		ENGINE OIL PRESSURE SWITCH
	REAR INDICATOR LIGHT		HANDBRAKE SWITCH		SOLENOID
	BEACON LAMP		STARTER SWITCH		SPEAKER
	NUMBER PLATE LAMP		FUEL SEDIMENT		LIGHTER
	RELAY		INTERIOR LIGHTS (LAMPS)		SWITCHES
	STARTER SWITCH		COMPRESSOR		WORKLAMPS
	STARTER		GROUND		MAIN FUSE
	ALTERNATOR		REAR WIPER		HORN
	DIODE		WASHER		THERMOSTARTER
	BATTERY		FUEL LEVEL SENSOR		
			HEATER		
			FRONT BRAKE OIL UNIT		
			AIR FILTER RESTRICTION SWITCH		

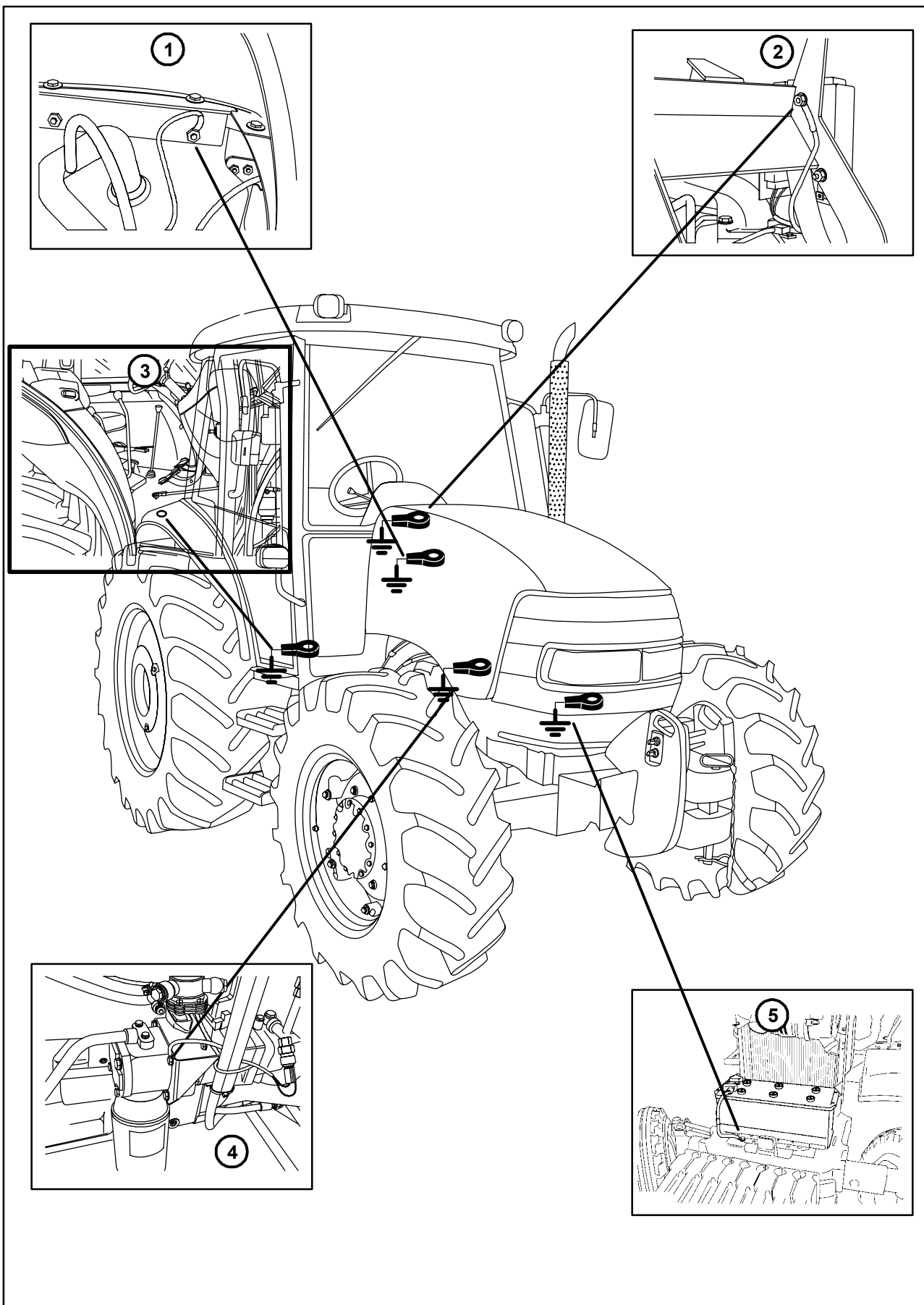
ELECTRICAL WIRE COLOUR CODING

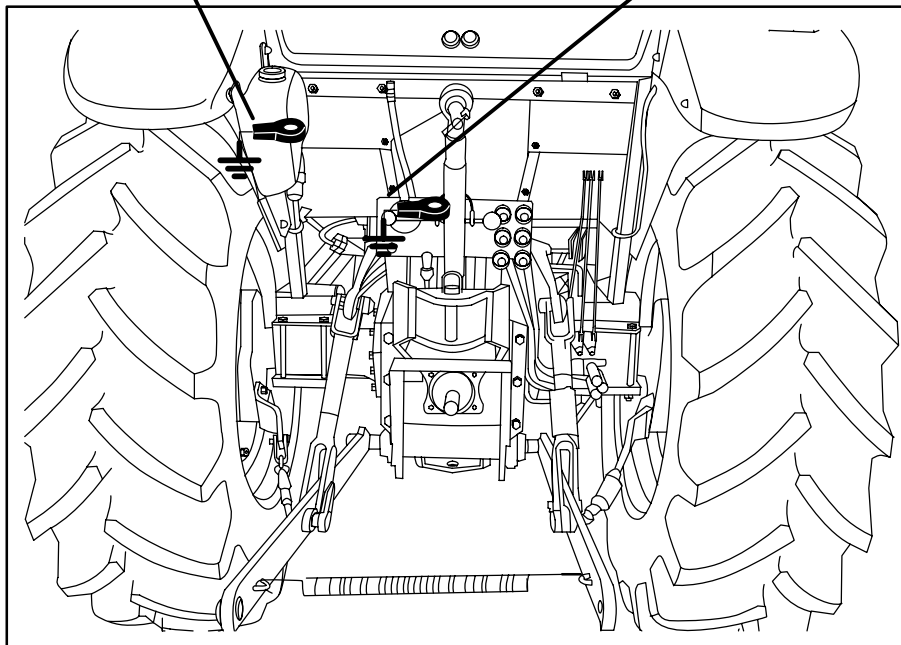
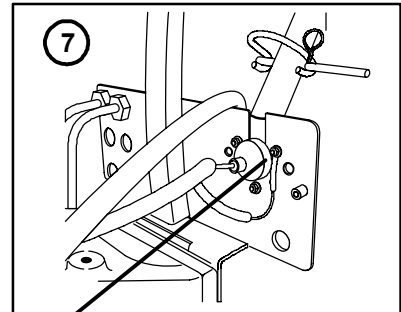
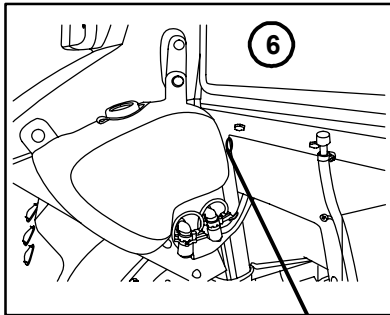
B	Black
G	Green
K	Pink
LG	Light green
LN	Tan
N	Brown
O	Orange
P	Purple
R	Red
S	Grey
TQ	Turquoise
U	Blue
W	White
Y	Yellow

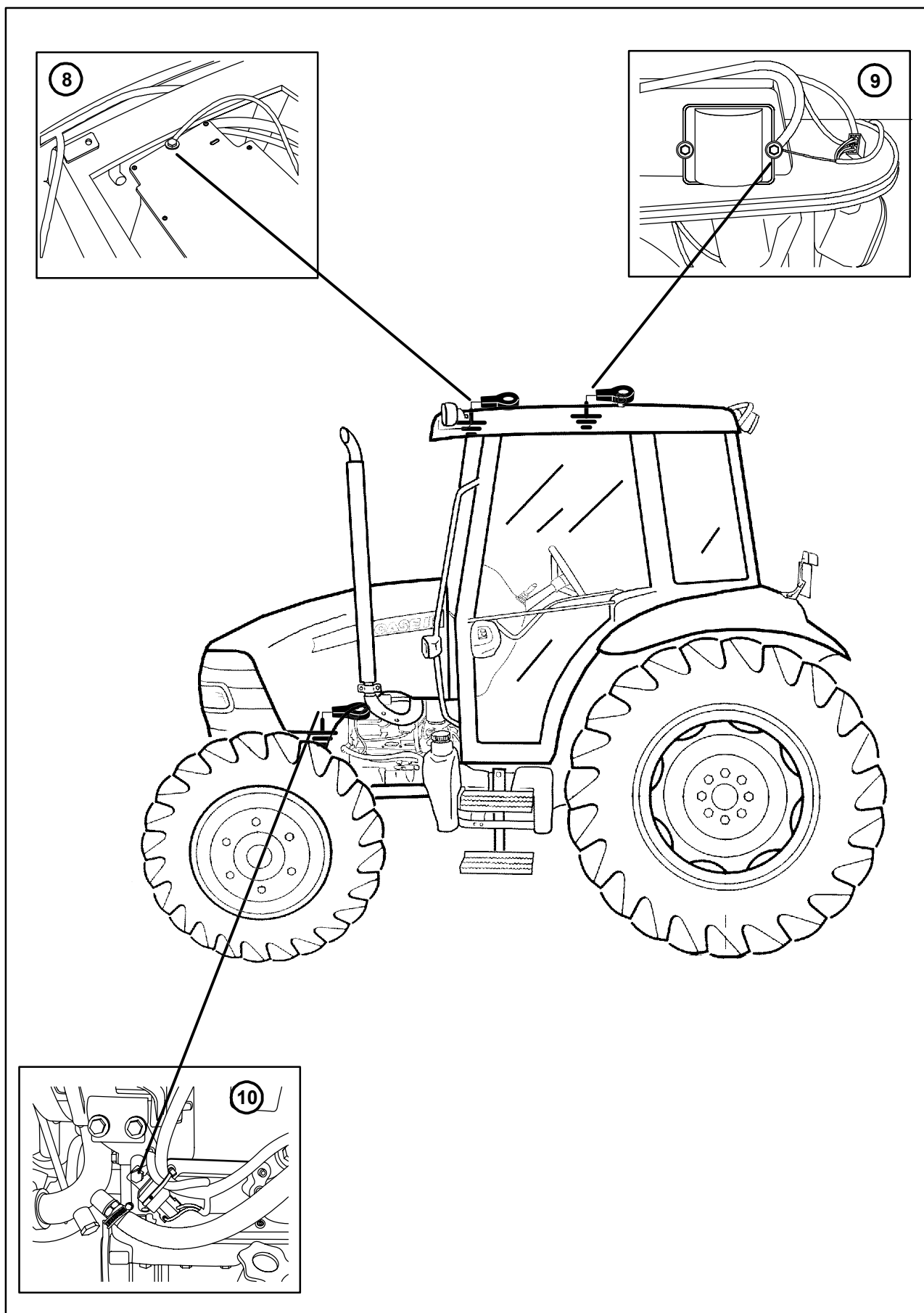
GROUND LOCATIONS (Pages 6 – 8)

1. Instrument cluster ground point
2. Fuse box ground point
3. Cab floor ground point
4. Steering pump pressure sensor ground point
5. Battery ground point
6. Windscreen washer pump ground point.
7. 7 pin trailer connector ground point
8. Evaporator top ground point
9. Upper cab ground point
10. Protective diode ground point

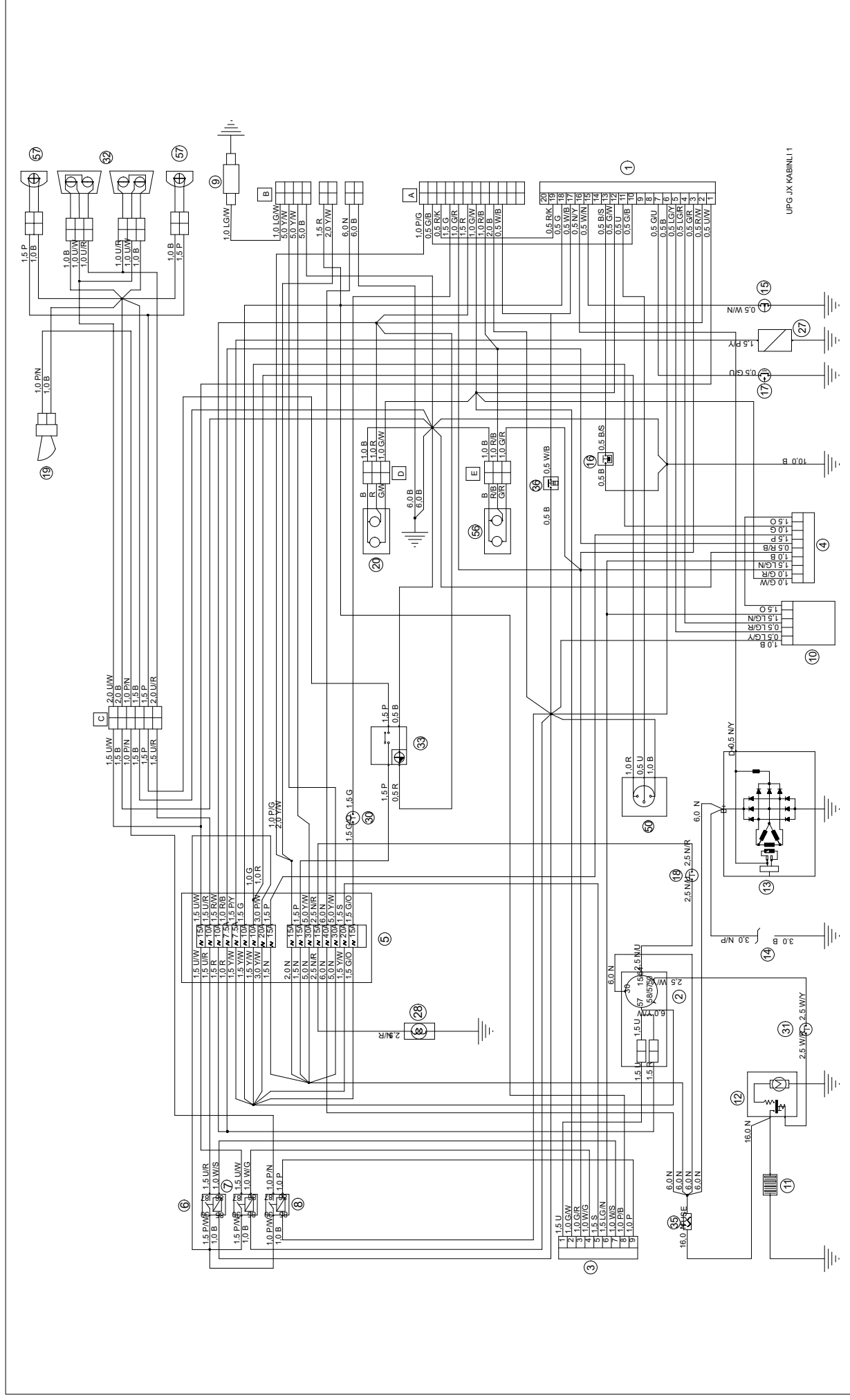
GROUND LOCATIONS



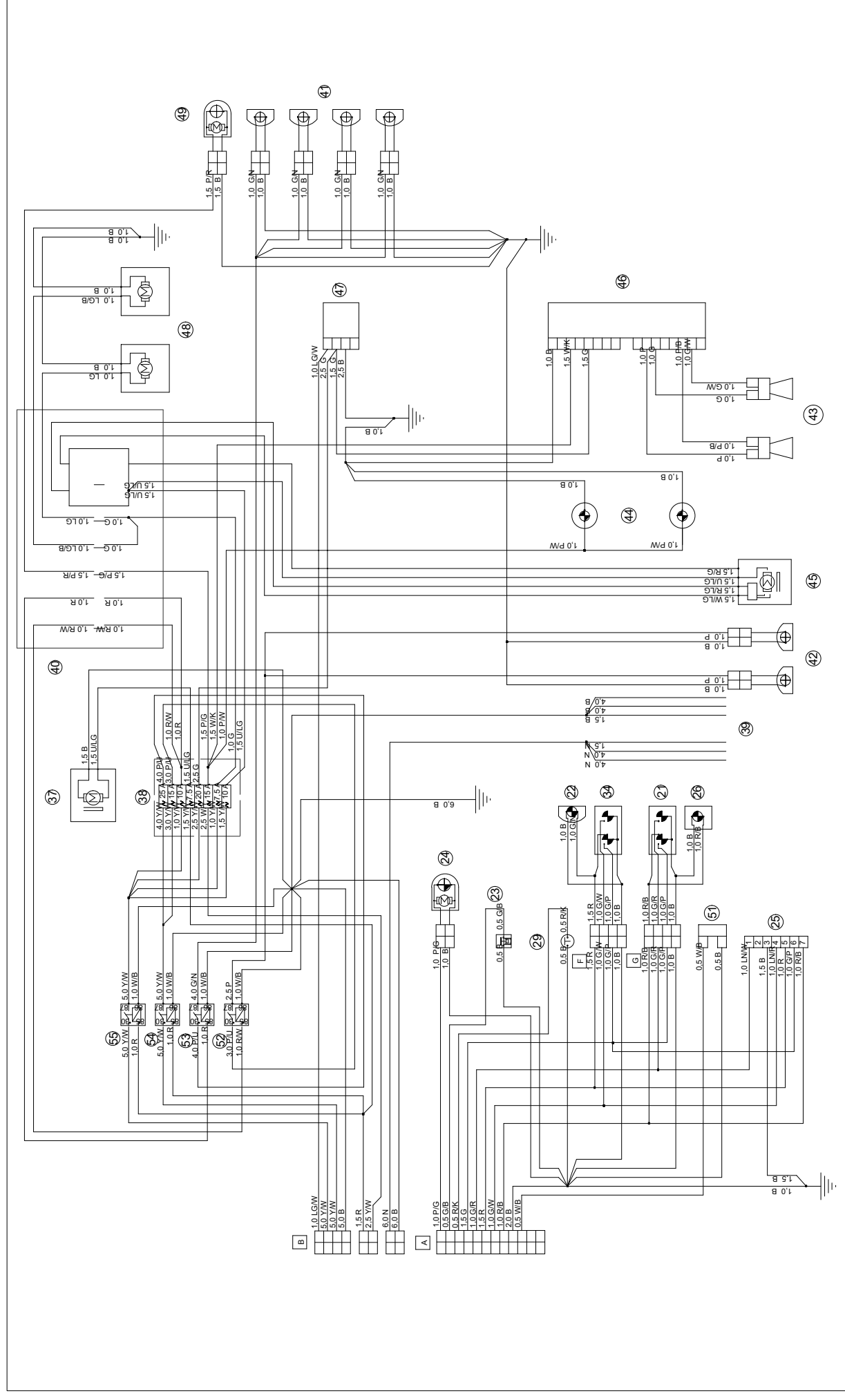




GENERAL DIAGRAM –CENTRE(WITH CAB)



GENERAL DIAGRAM –CENTRE(WITH CAB)



GENERAL DIAGRAM –CENTRE(WITH CAB)

- 1– Instrument panel

2– Park

3– Left signal

4– 2 nd trailer

5– 1 st trailer

6– Earth

7– Fuel gauge

10– Engine water temperature gauge

12– Right signal

13– Air filter

15– Oil pressure

18– Battery charge indicator

19– Parking brake
- 2– Starter switch

3– Turn signal switch

4– Hazard warning lights indicator sending unit

5– Fuse Box

6– Low beam relay

7– High beam relay

8– Horn relay

9– Compressor

10– Flasher

11– Battery

12– Starter

13– Alternator

14– Over voltage circuit breaker (DIODE)

15– Engine oil pressure switch

16– Air cleaner restriction indicator sending unit

17– Water temperature gauge sending unit

18– Thermostat button

19– Horn

20– Right front parking and turn signal lights

21– Rear left parking,turn signal and stop lights

22– Working lamp

23– Fuel level sensor

24– Beacon lamp

25– Trailer plug

26– Number plate lamp

27– Engine shut off solenoid
- 28– Thermostarter

29– Hand brake switch

30– Brake stop light switch

31– Starter inhibitor unit

32– Headlamps

33– Worklights switch

34– Rear right parking,turn signal and stop lights

35– Main fuse20

36– Front brake oil unit

37– Rear wiper

38– Cabin fuse box

39– Canin plug

40– Switches

41– Rear work lamps

42– Front work lamps

43– Speaker

44– Interior lamps

45– Wiper

46– Radio

47– Heater

48– Washer

49– Beacon lamp

50– Fuel sedimenter

51– Brake disc

52– Front working lamp relay

53– Rear working lamp relay

54– Front and rear working lamp relay

55– Power relay

56– Front left signal and parking light

57– Front left signal and parking light
- A–Main and chassis harness connector

B–Main and cab harness connector

C–Main and headlamp connector

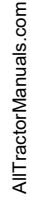
D–Main and right front signal connector

E–Main and left front signal connector

F–Chassis and rear right indicator connector

G–Chassis and rear left indicator connector

UPG JX ROPS 1



GENERAL DIAGRAM –CENTRE(WITHOUT CAB)

- 1– Instrument panel

1– High beam

2– Park

3– Left signal

4– 2 nd trailer

5– 1 st trailer

6– Earth

7– Fuel gauge

10– Engine water temperature gauge

12– Right signal

13– Air filter

15– Oil pressure

18– Battery charge indicator

19– Parking brake
- 2– Starter switch

3– Turn signal switch

4– Hazard warning lights indicator sending unit

5– Fuse Box

6– Low beam relay

7– High beam relay

8– Horn relay

9– Fuel sedimenter

10– Flasher

11– Battery

12– Starter

13– Alternator

14– Over voltage circuit breaker (DIODE)

15– Engine oil pressure switch

16– Air cleaner restriction indicator sending unit

17– Water temperature gauge sending unit

18– Thermostarter button
- 19– Horn

20– Right front parking and turn signal lights

21– Rear left parking,turn signal and stop lights

22– Working lamp

23– Fuel level sensor

24– Beacon lamp

25– Trailer plug

26– Number plate lamp

27– Engine shut off solenoid

28– Thermostarter

29– Hand brake switch

30– Brake stop light switch

31– Starter inhibitor unit

32– Headlamps

33– Worklights switch

34– Rear right parking,turn signal and stop lights

35– Main fuse

36– Front brake oil unit

37– Brake disc

38– Front left signal and parking light
- A– Main and chassis harness connector

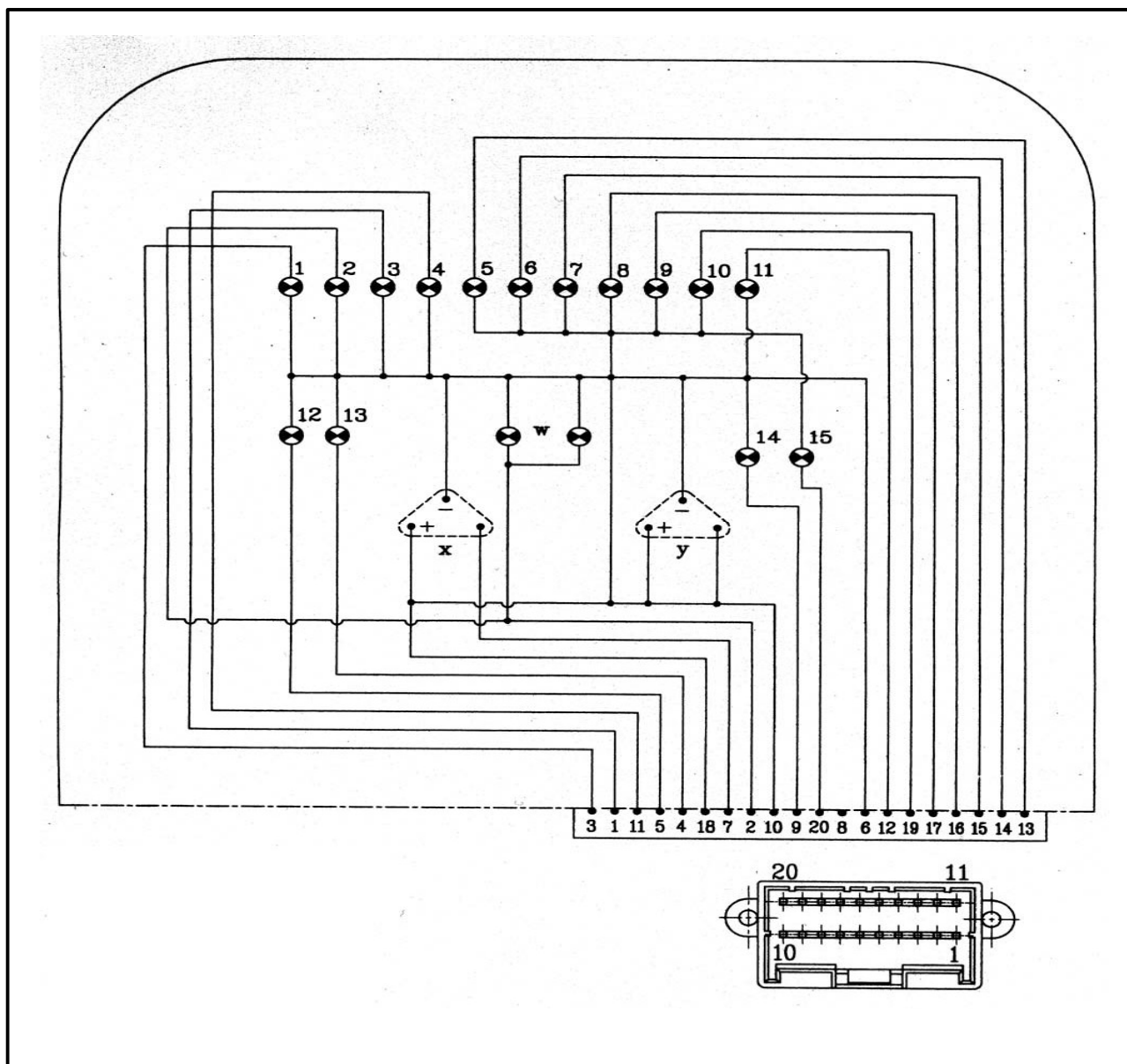
C– Main and headlamp connector

D– Main and right front signal connector

E– Main and left front signal connector

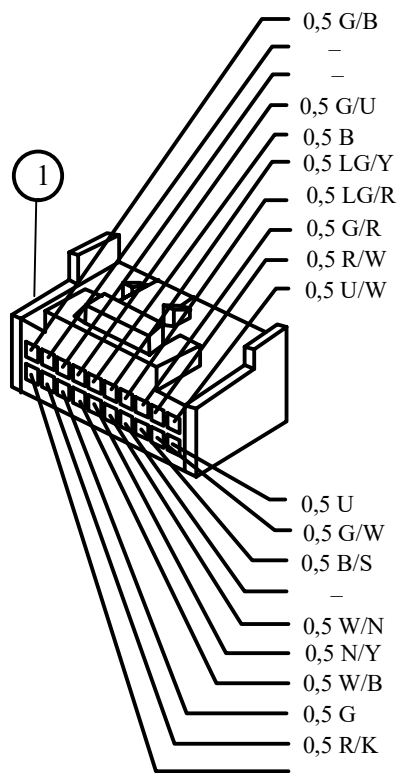
F– Chassis and rear right indicator connector

G– Chassis and rear left indicator connector

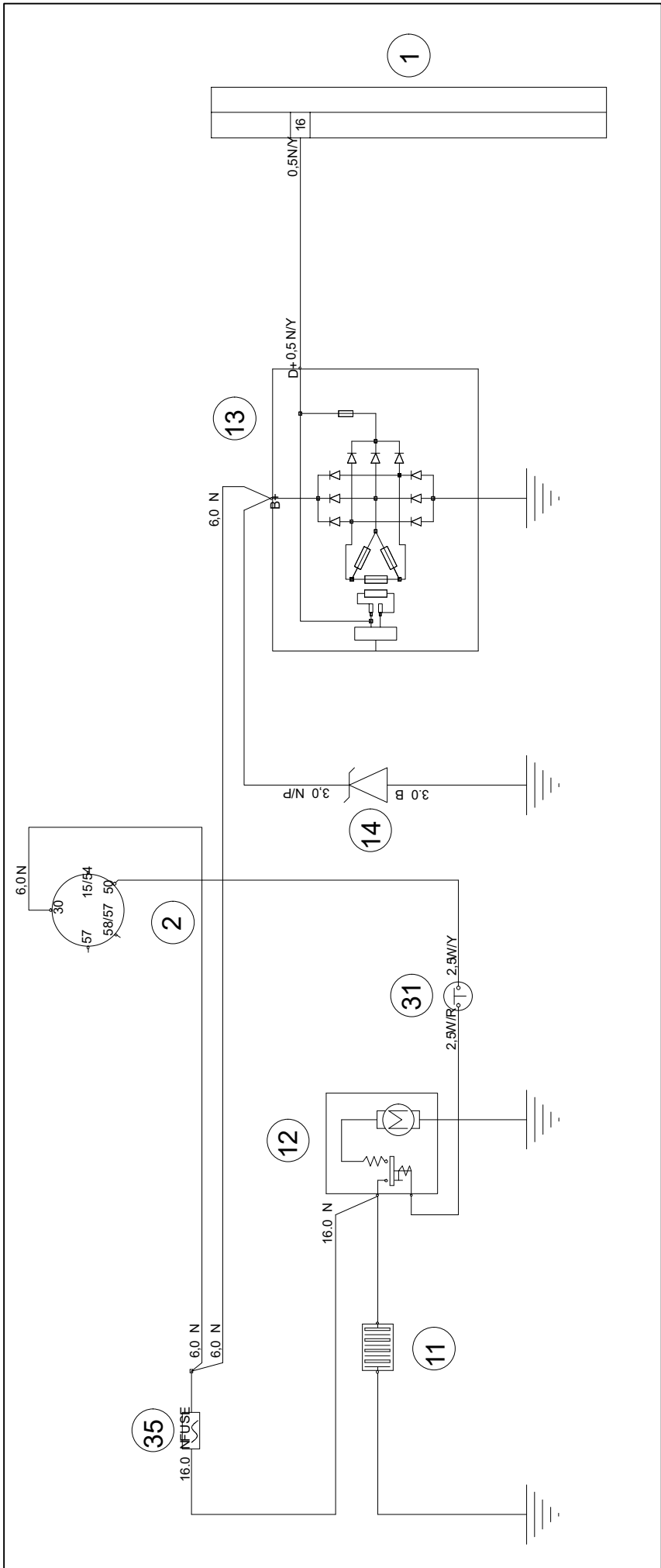


ANALOGUE INSTRUMENT CIRCUIT

- | | |
|-------------------------|-------------------------------|
| 1 – Left turn indicator | 9 – Brake oil level low |
| 2 – Side lamps | 10 – Parking brake |
| 3 – Headlamp main beam | 11 – Right turn indicator |
| 4 – Water in fuel | 12 – 1st. trailer turn signal |
| 5 – Air filter blocked | 13 – 2nd. trailer turn signal |
| 6 – Unused | 14 – Unused |
| 7 – Engine oil pressure | 15 – Unused |
| 8 – Battery charger | |



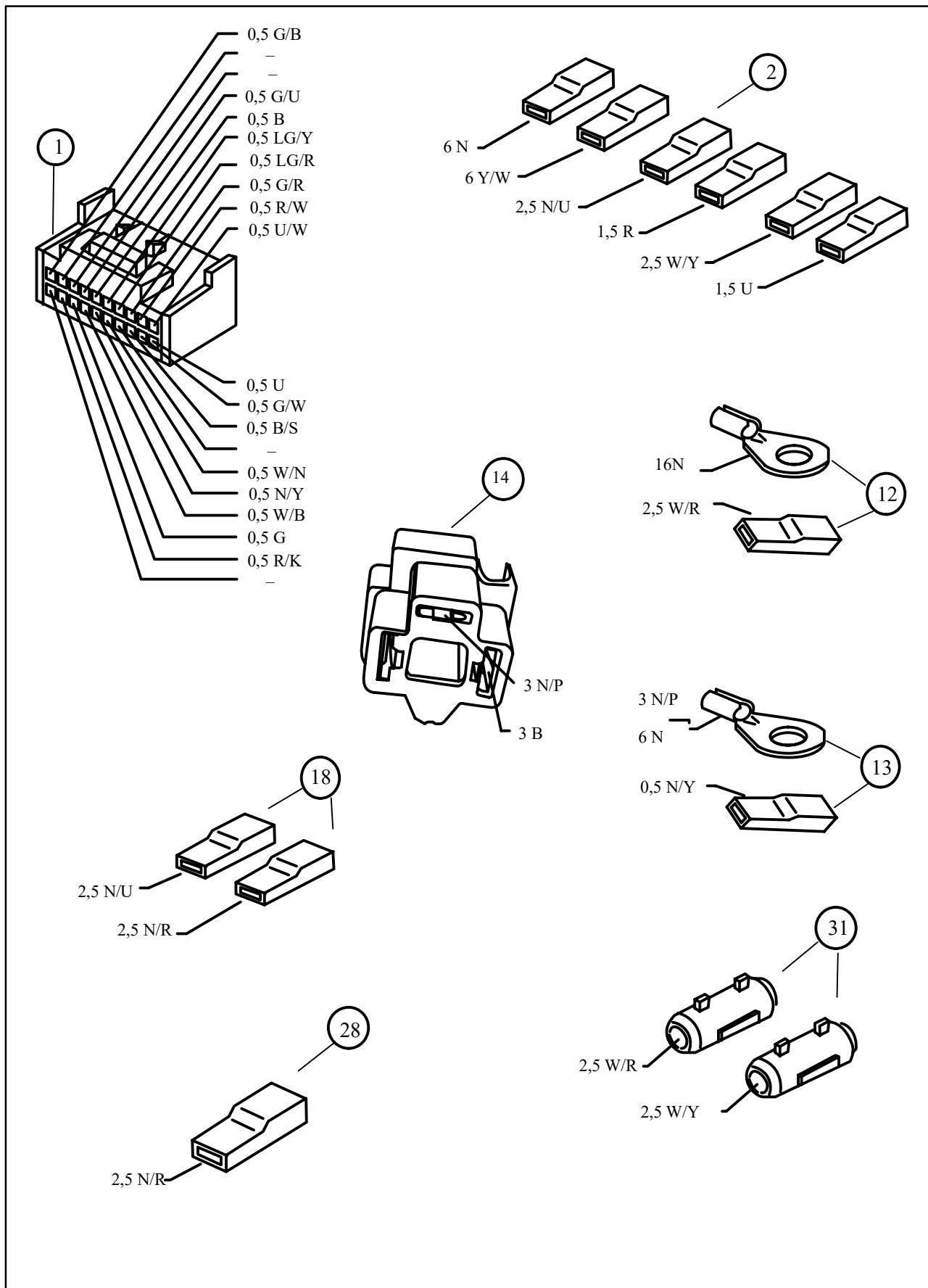
STARTING CIRCUIT



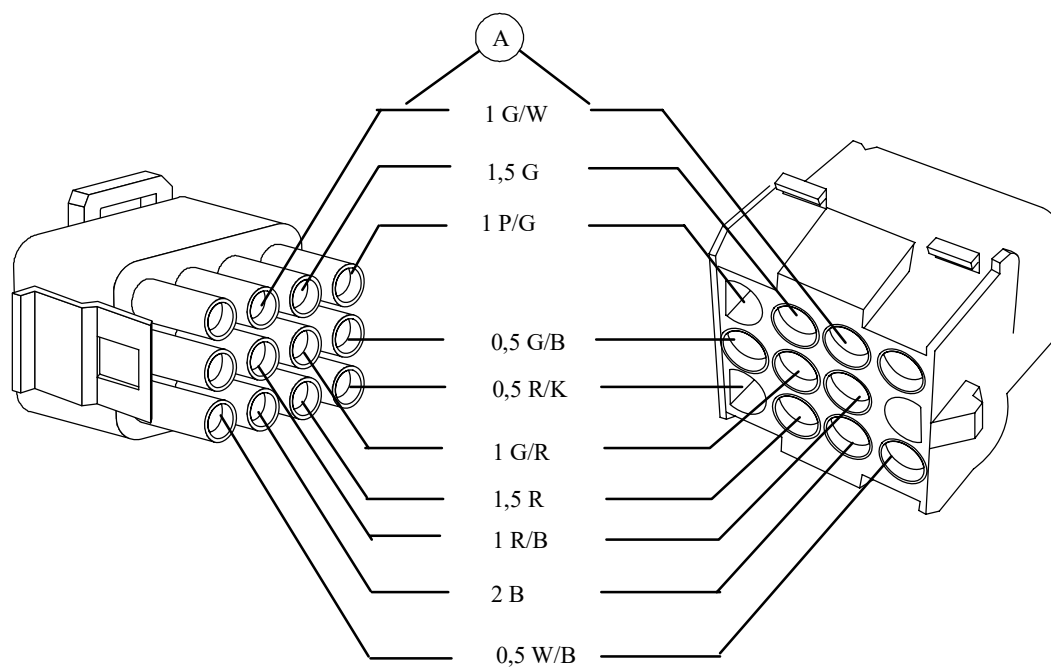
STARTING CIRCUIT

- 1 - Instrument panel
- 2 - Starter switch
- 11 - Battery
- 12 - Starter
- 13 - Alternator
- 14 - Over voltage circuit breaker (DIODE)
- 31 - Starter inhibitor unit
- 35 - Main Fuse

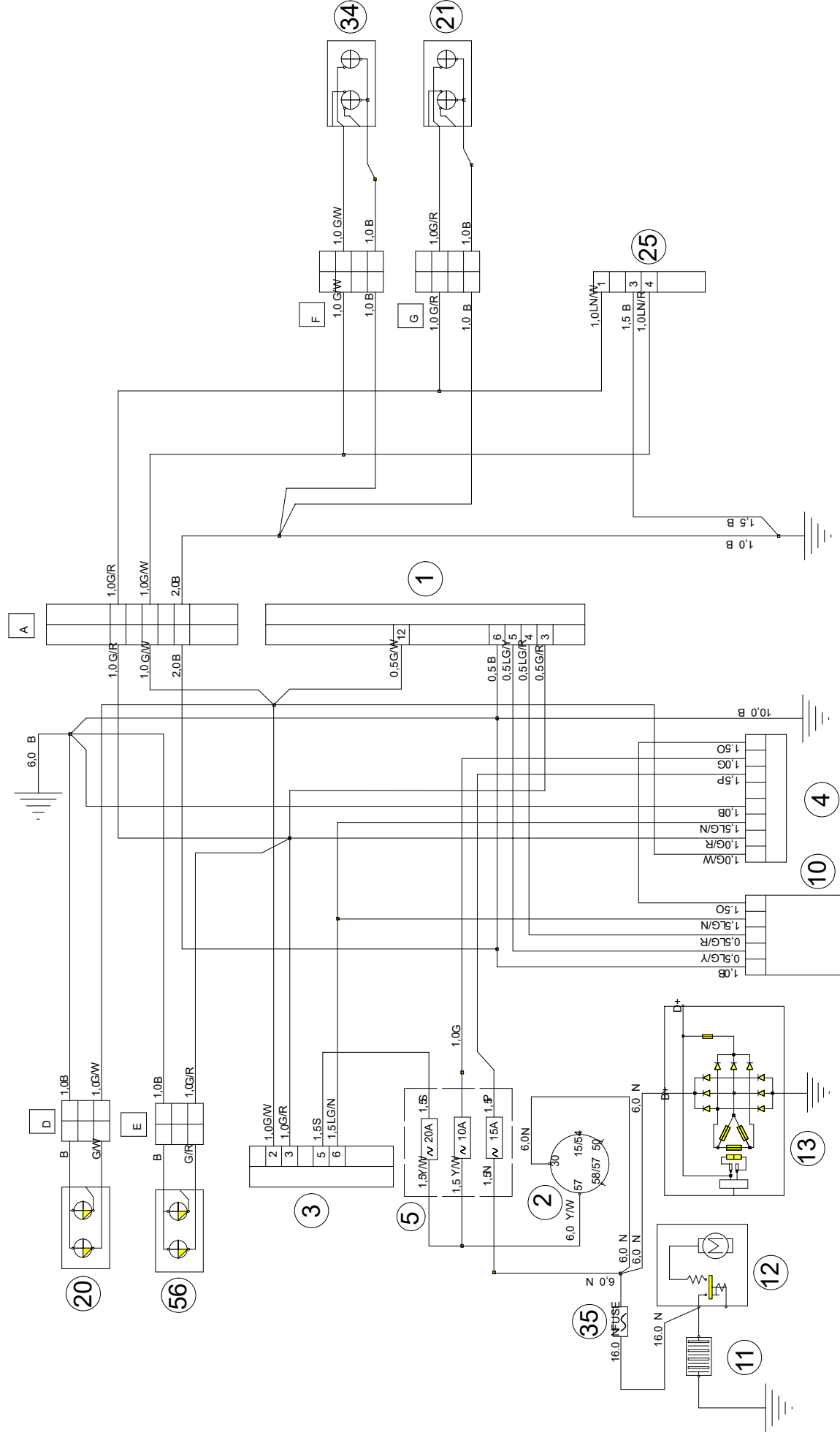
CONNECTOR OVERVIEW



CONNECTOR OVERVIEW



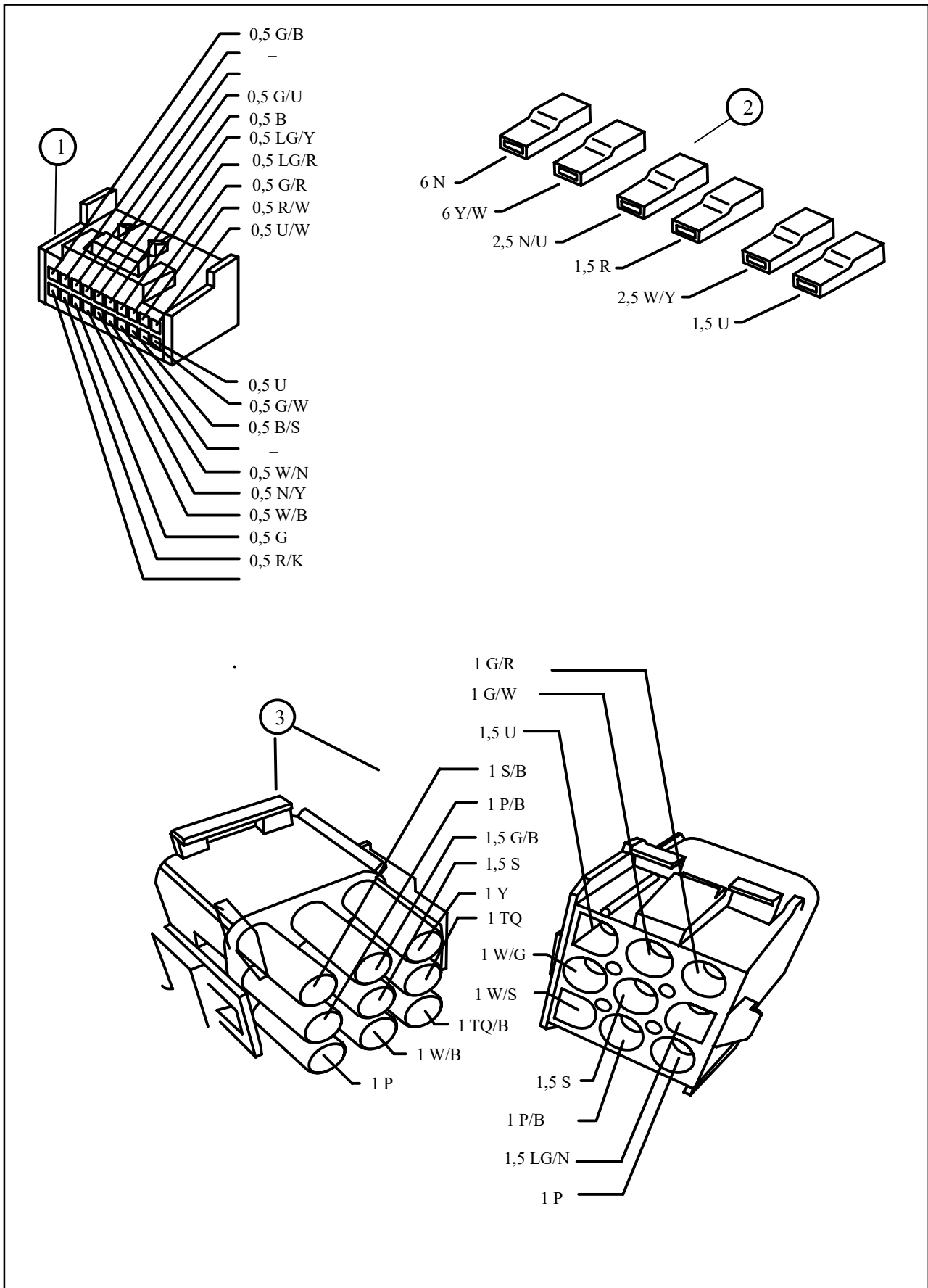
- DIRECTION INDICATOR AND HAZARD WARNING LIGHT CIRCUIT



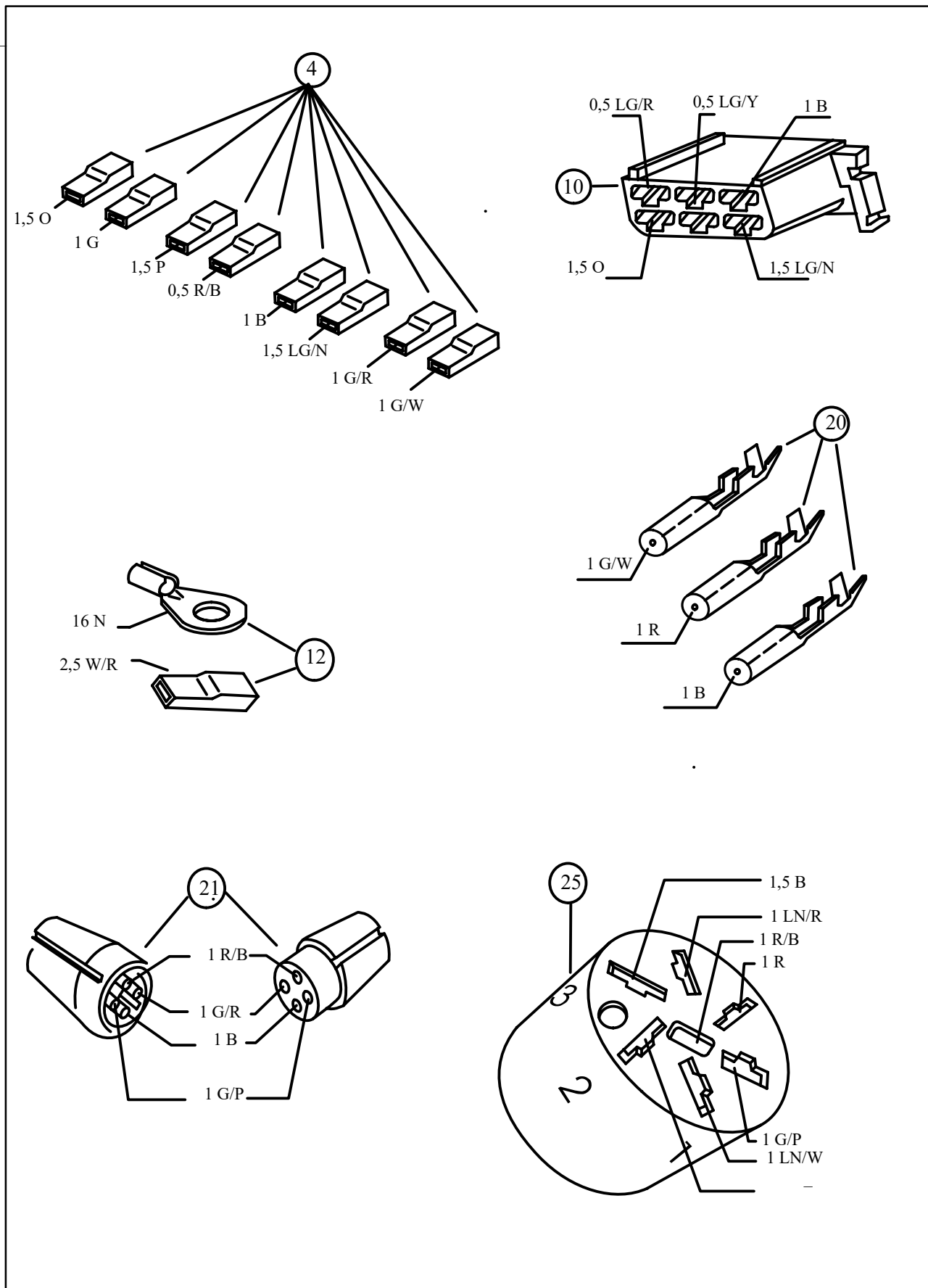
- DIRECTION INDICATOR AND HAZARD WARNING LIGHT CIRCUIT

- 1- Instrument panel
- 2- Starter switch
- 3- Turn signal switch
- 4- Hazard warning lights indicator sending unit
- 5- Fuse Box
- 10- Flasher
- 11- Battery
- 12- Starter
- 13- Alternator
- 20- Right front parking and turn signal lights
- 21- Rear left parking,turn signal and stop lights
- 25- Trailer plug
- 34- Rear right parking,turn signal and stop lights
- 35- Main fuse20- Right front parking and turn signal lights
- 56- Front left signal and parking light
- A- Main and chassis harness connector
- D- Main and right front signal connector
- E- Main and left connector
- F- Chassis and rear right indicator connector
- G- Chassis and rear left indicator connector

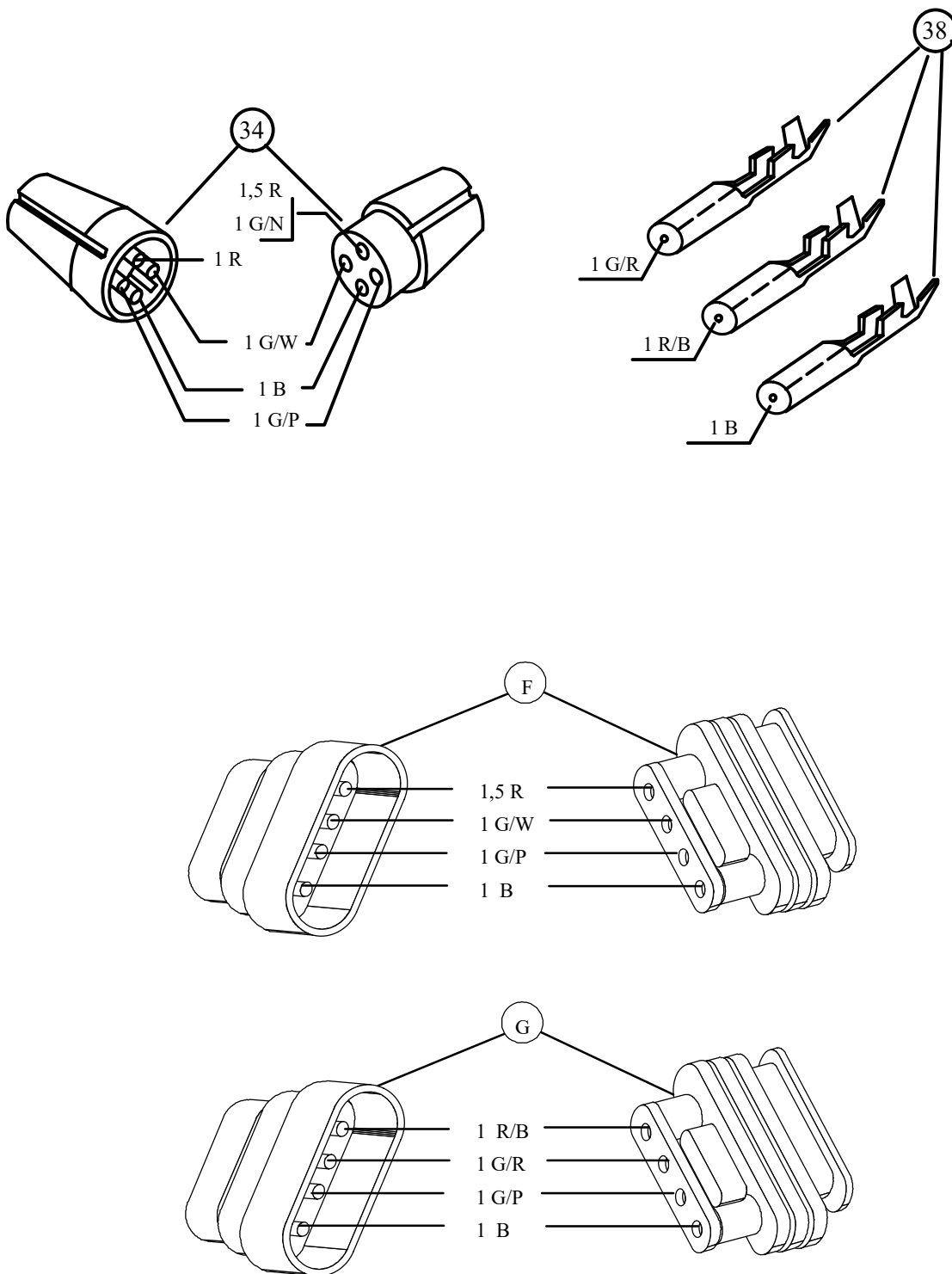
CONNECTOR OVERVIEW

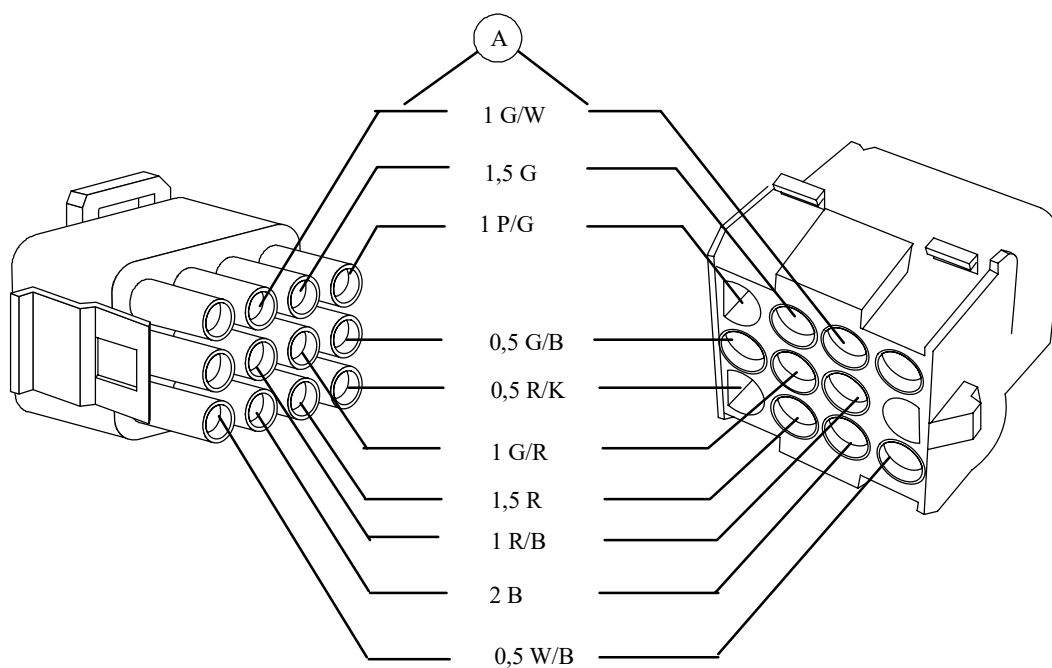


CONNECTOR OVERVIEW

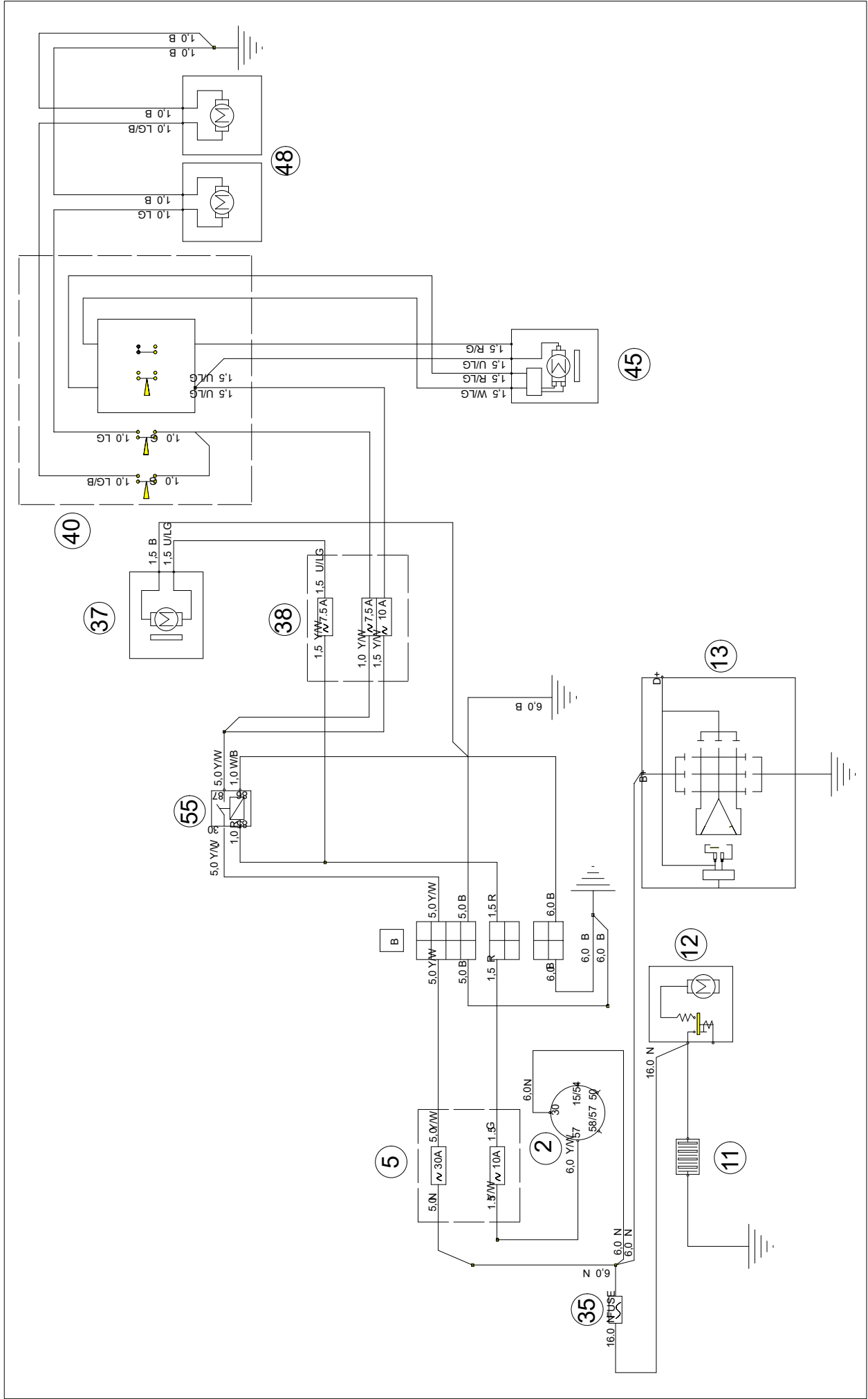


CONNECTOR OVERVIEW



CONNECTOR OVERVIEW

– WINDSCREEN AND REAR WINDOW WIPER/WASHER CIRCUIT

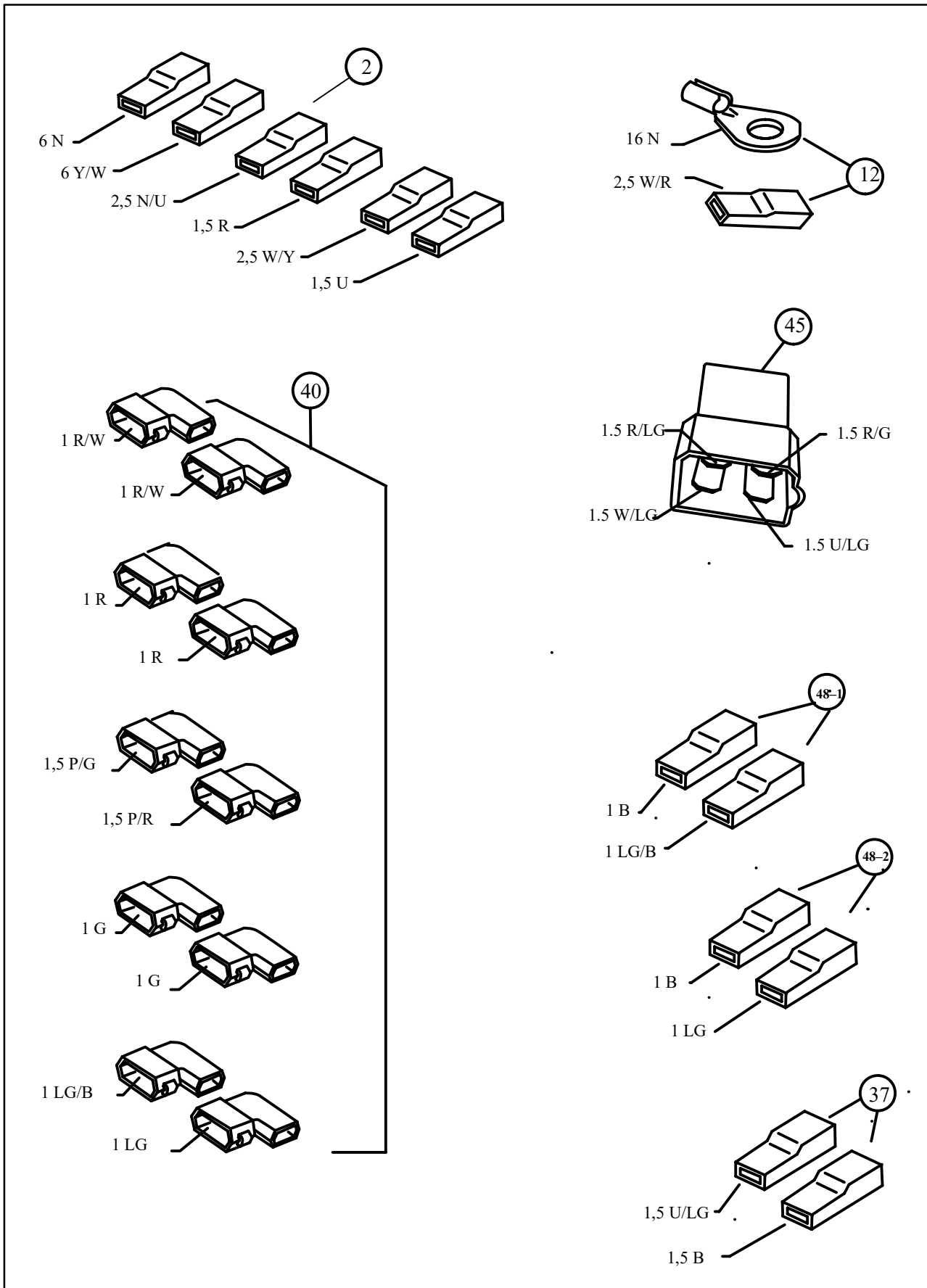


– WINDSCREEN AND REAR WINDOW WIPER/WASHER CIRCUIT

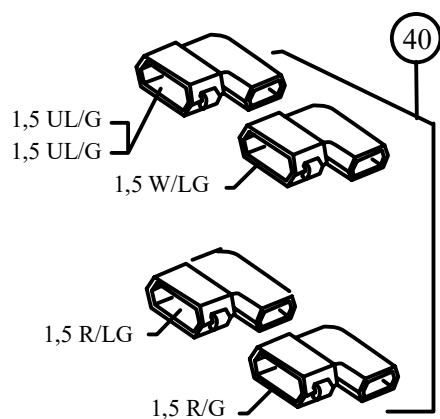
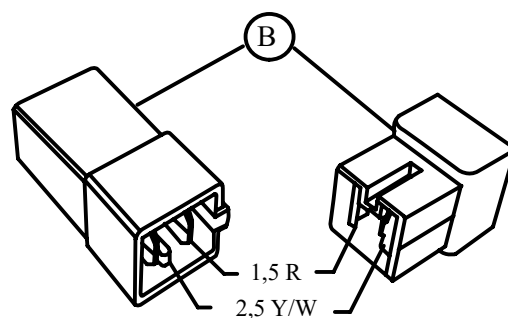
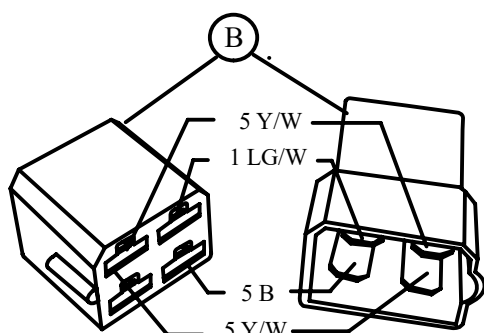
2– Starter switch
5– Fuse Box
11– Battery
12– Starter
13– Alternator
35– Main Fuse
37– Rear wiper
38– Cabin fuse box
40– Switches
45– Wiper
48– Washer

55– Power relay
B– Main and cabin harness connector

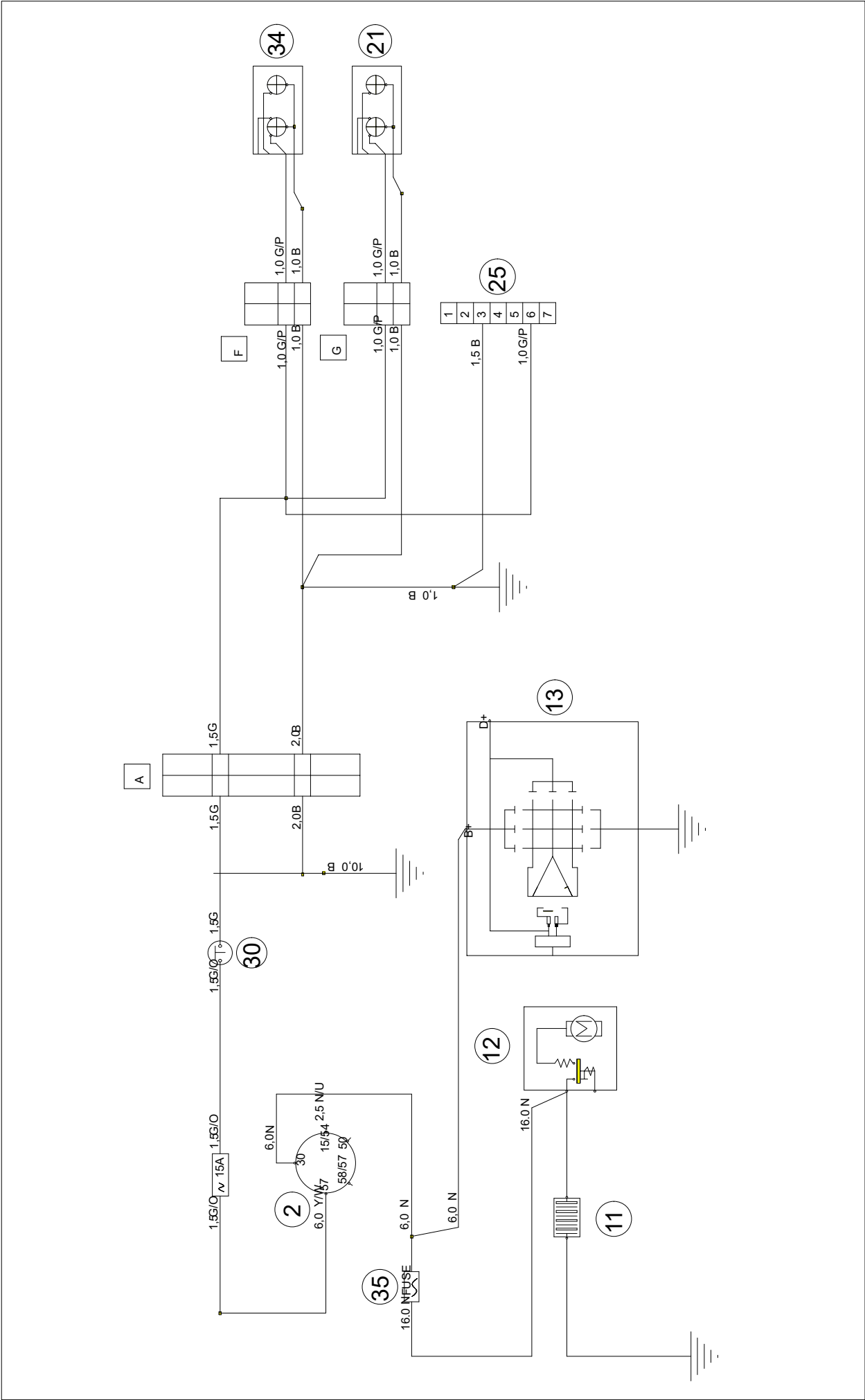
CONNECTOR OVERVIEW



CONNECTOR OVERVIEW



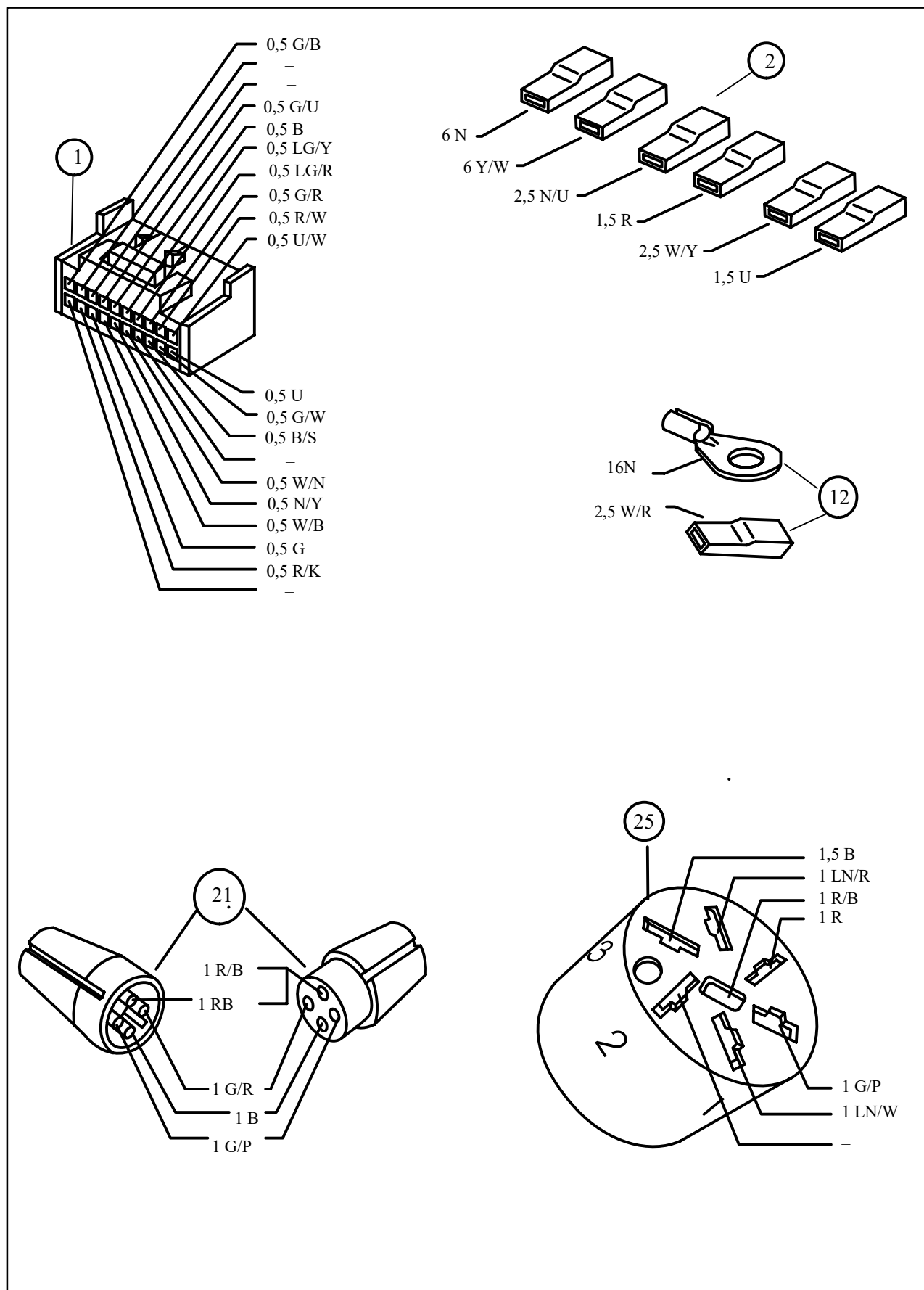
– BRAKE LIGHT CIRCUIT



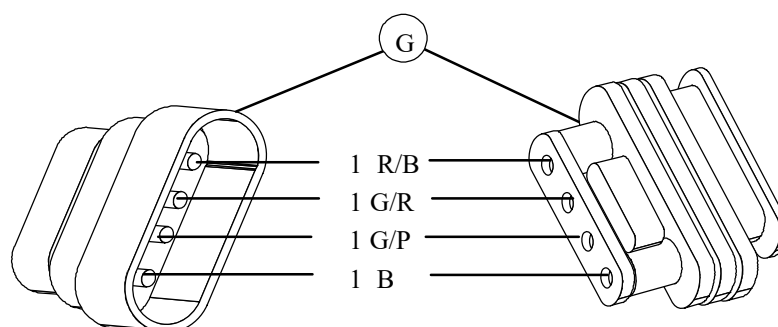
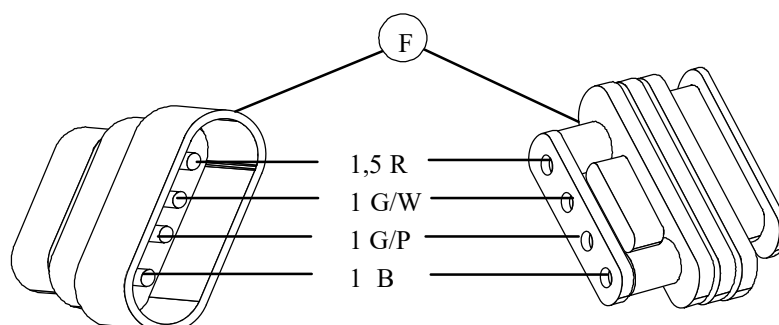
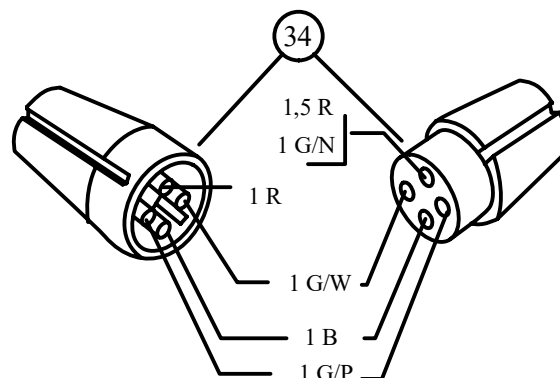
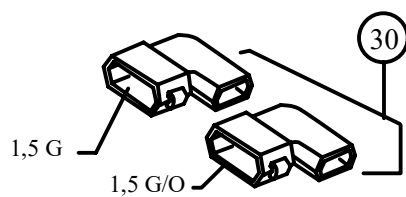
– BRAKE LIGHT CIRCUIT

- 2– Starter switch
- 11– Battery
- 12– Starter
- 13– Alternator
- 21– Rear left parking, turn signal and stop lights
- 25– Trailer plug
- 30– Stop light switch
- 34– Rear right parking turn signal and stop light
- 35– Main Fuse
- A– Main and chassis harness connector
- F– Chassis and rear right indicator connector
- G– Chassis and rear left indicator connector

CONNECTOR OVERVIEW



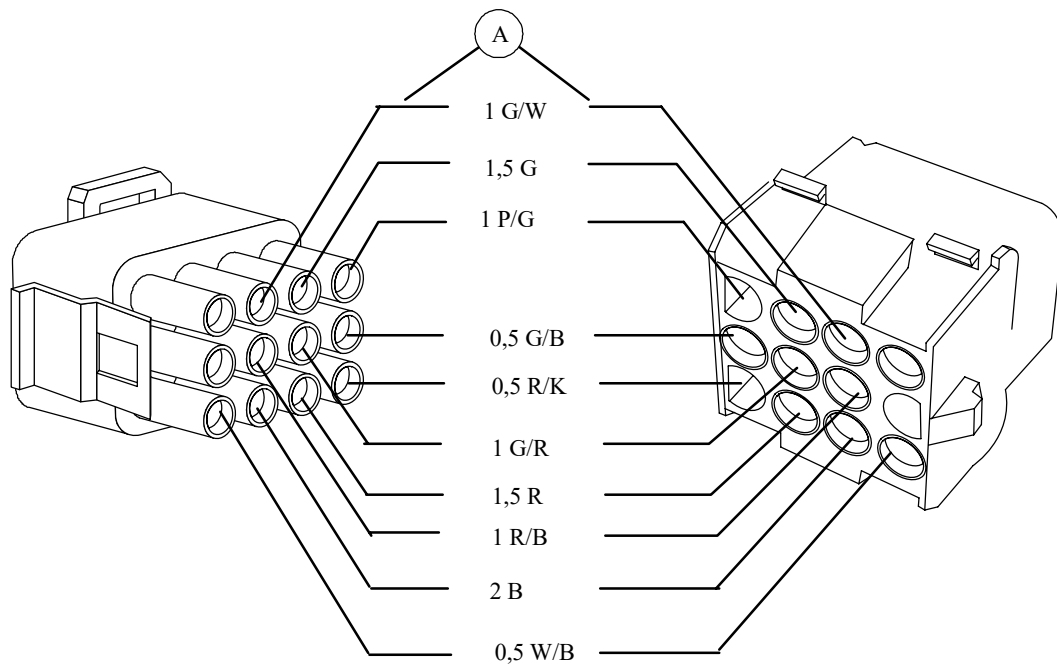
CONNECTOR OVERVIEW



3 – Turn signal switch

603.54.331.00 – 12 – 1996

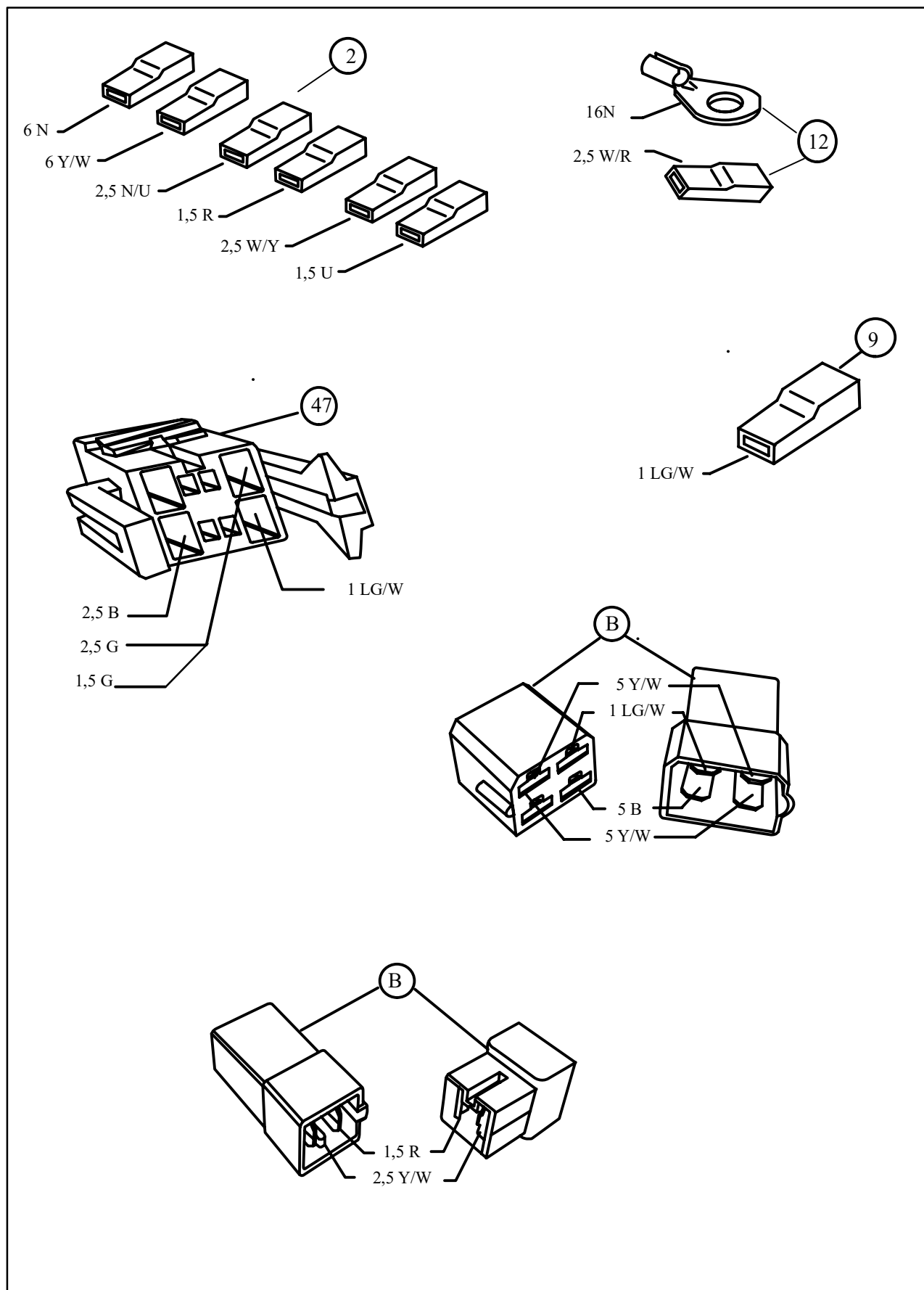
CONNECTOR OVERVIEW



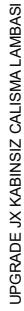
– HEATING AND AIR-CONDITIONING SYSTEM CIRCUIT

- 2– Starter switch
- 5– Fuse Box
- 9– Compressor
- 11– Battery
- 12– Starter
- 13– Alternator
- 35– Main Fuse
- 38– Cab fuse box
- 47– Heater
- 54– Compressor
- 55– Power relay
- B– Main and cab harness connector
- I– Electrical fans
- II– Air conditioning–thermostat
- III–Air–conditioning pressure switch
- IV– Electric fan control switch
- V– Air–conditioning control switch
- VI– Heating control
- VII– Air–conditioning control switch connection

CONNECTOR OVERVIEW



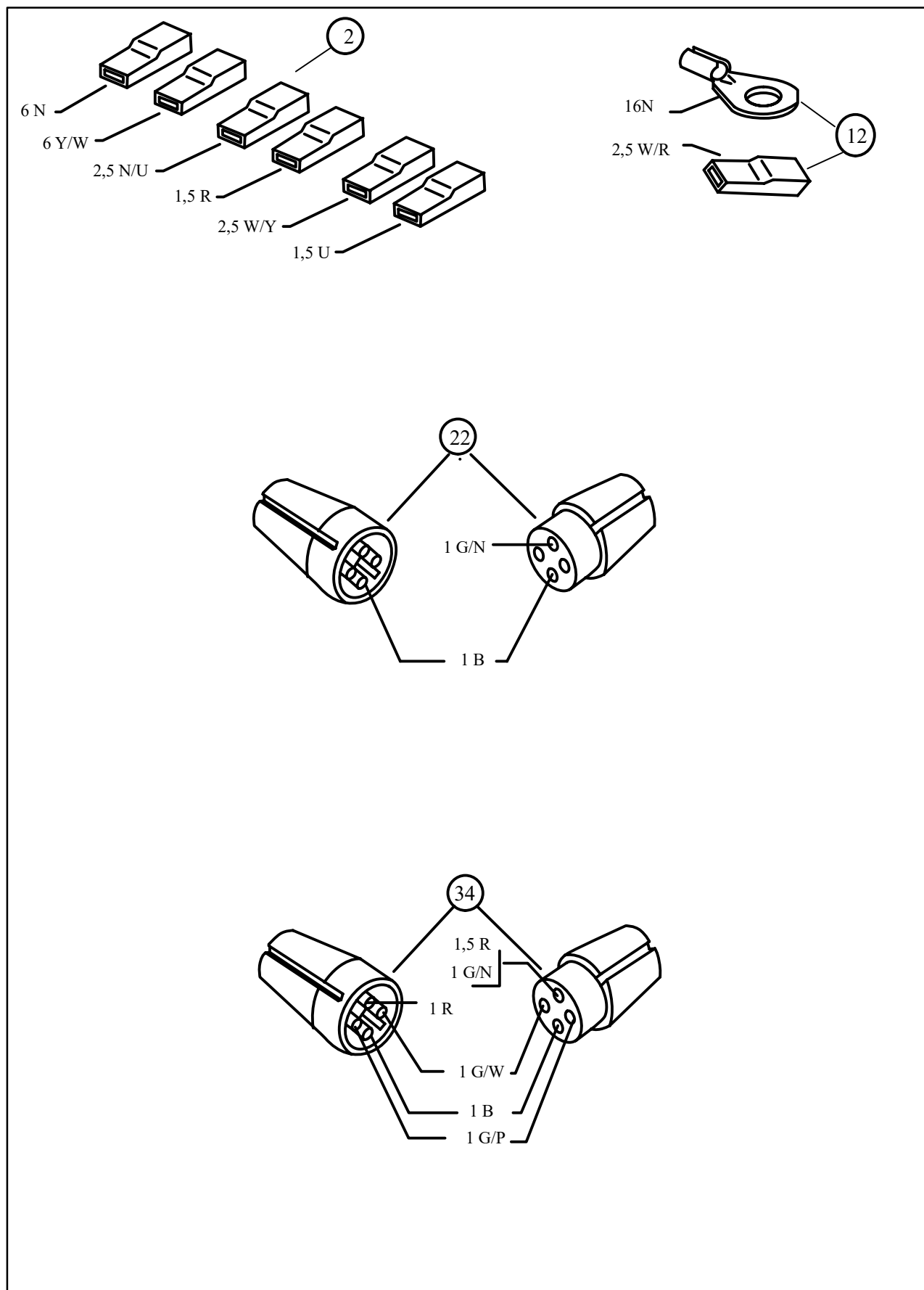
- **WORK LAMP (WITHOUT CAB) CIRCUIT**



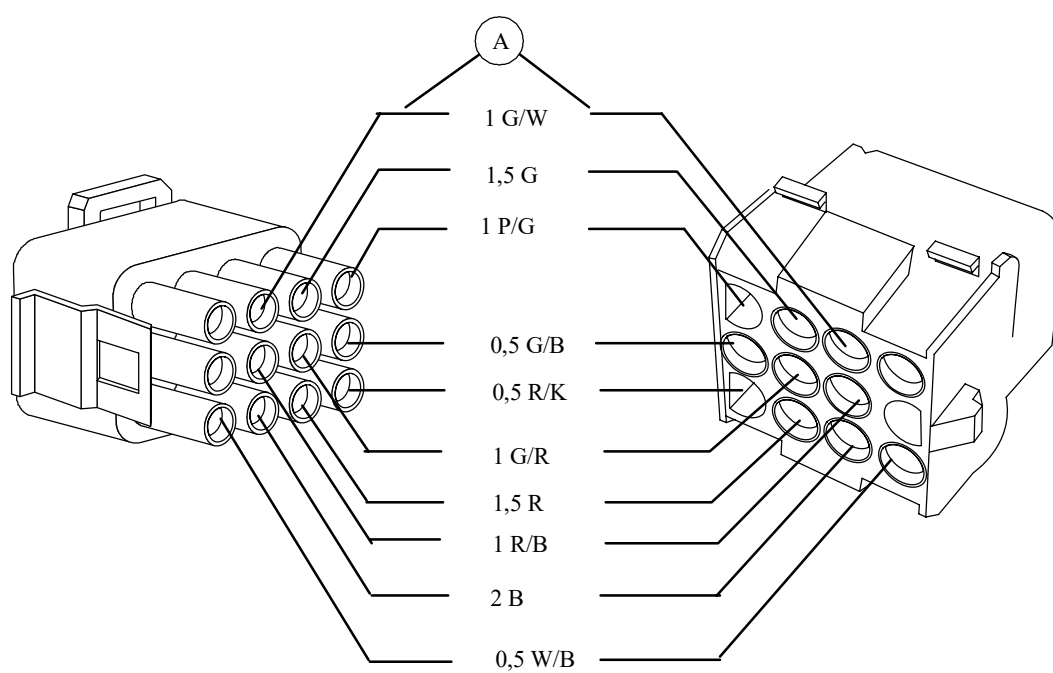
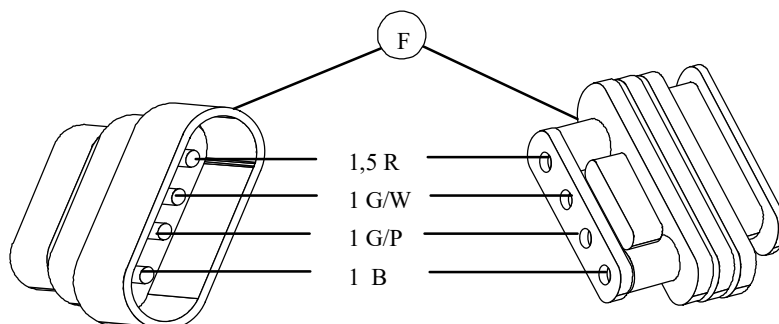
– WORK LAMP (WITHOUT CAB) CIRCUIT

- 2– Starter switch
- 3– Turn signal switch
- 5– Fuse Box
- 11– Battery
- 12– Starter
- 13– Alternator
- 22– Work lamp
- 33– Worklight switch
- 34– Rear right parking, turn signal and stop lights
- 35– Main Fuse
- 57– Work lamp
- A– Main and chassis harness connector
- C– Main and headlamp connector
- F– Chassis and rear right indicator connector

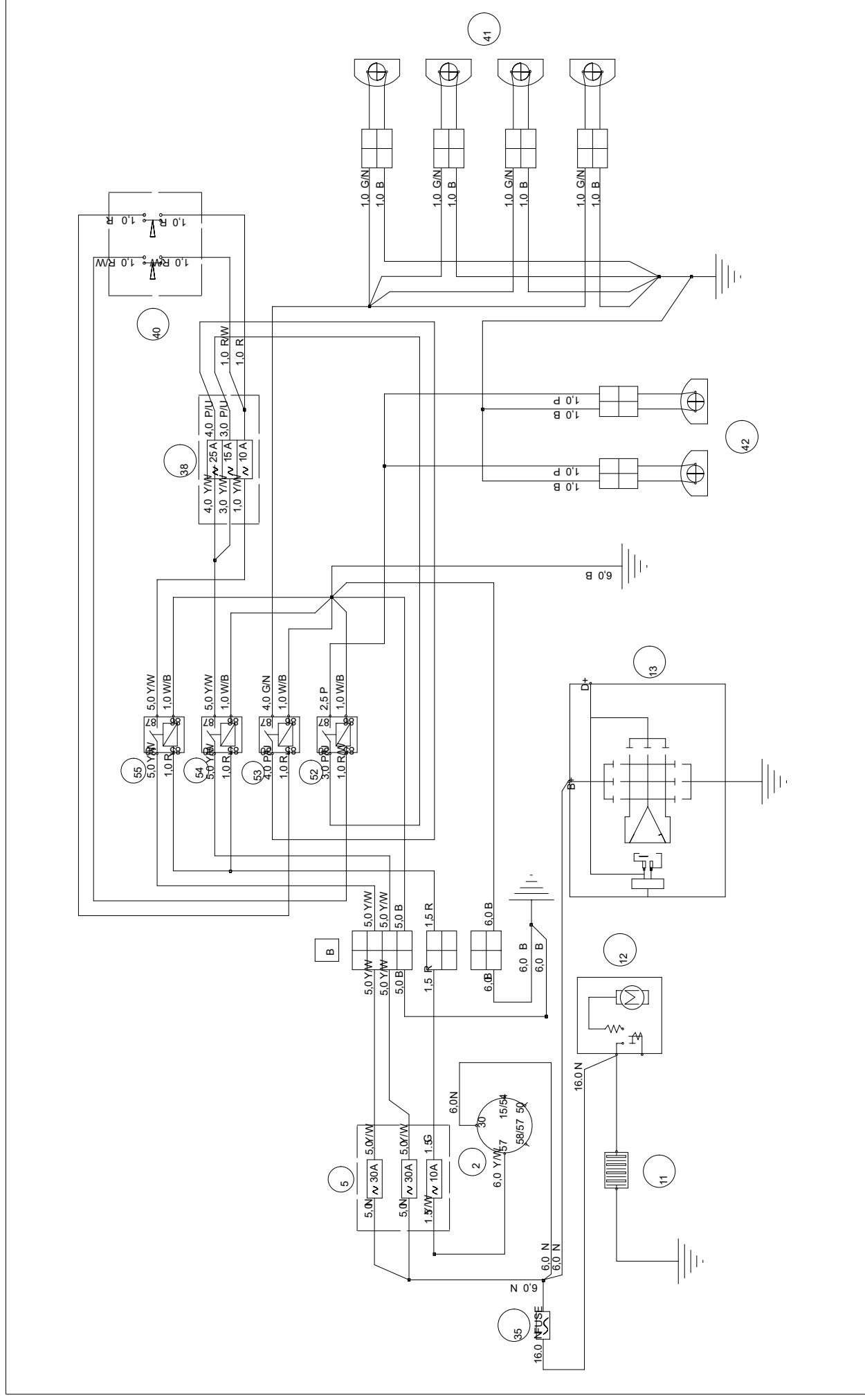
CONNECTOR OVERVIEW



CONNECTOR OVERVIEW



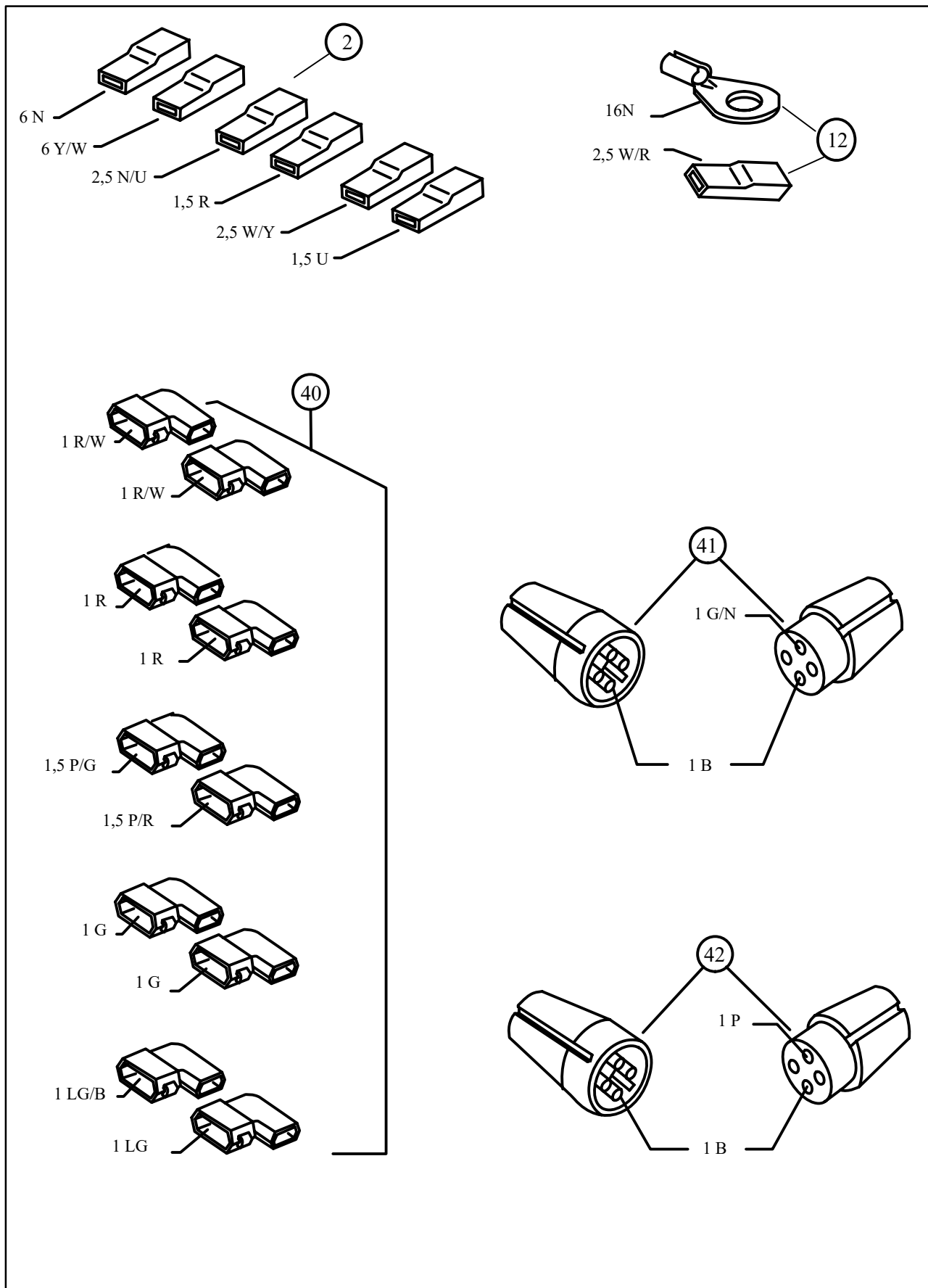
- **WORK LAMP (WITH CAB) CIRCUIT**

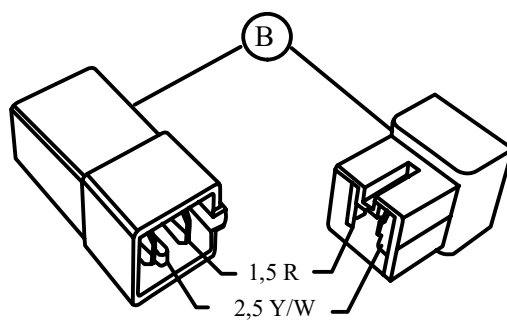
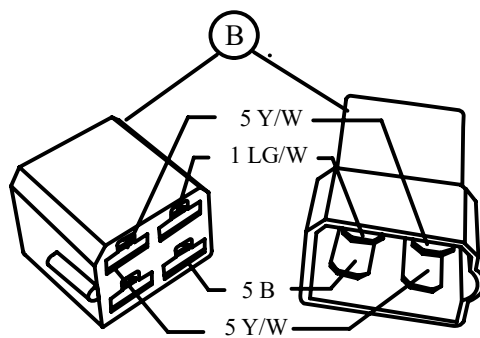


– WORK LAMP (WITH CAB) CIRCUIT

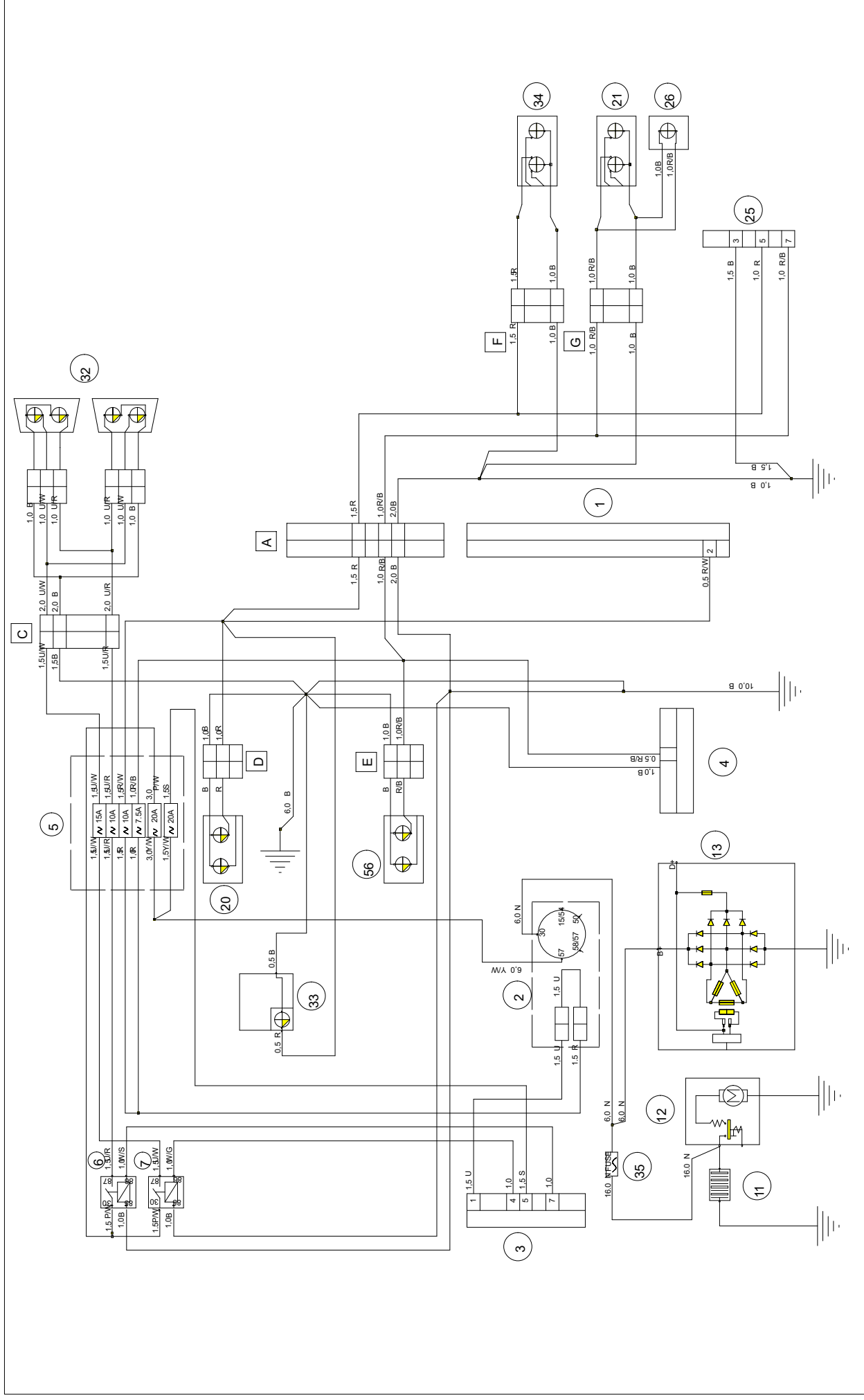
- 2– Starter switch
- 5– Fuse Box
- 11– Battery
- 12– Starter
- 13– Alternator
- 35– Main Fuse
- 38– Cab fuse box
- 40– Switches
- 41– Rear work lamps
- 42– Front work lamps
- 52– Front work lamps relay
- 53– Rear work lamps relay
- 54– Front and rear work lamps relay
- 55– Power relay
- B– Main and cab harness connector

CONNECTOR OVERVIEW





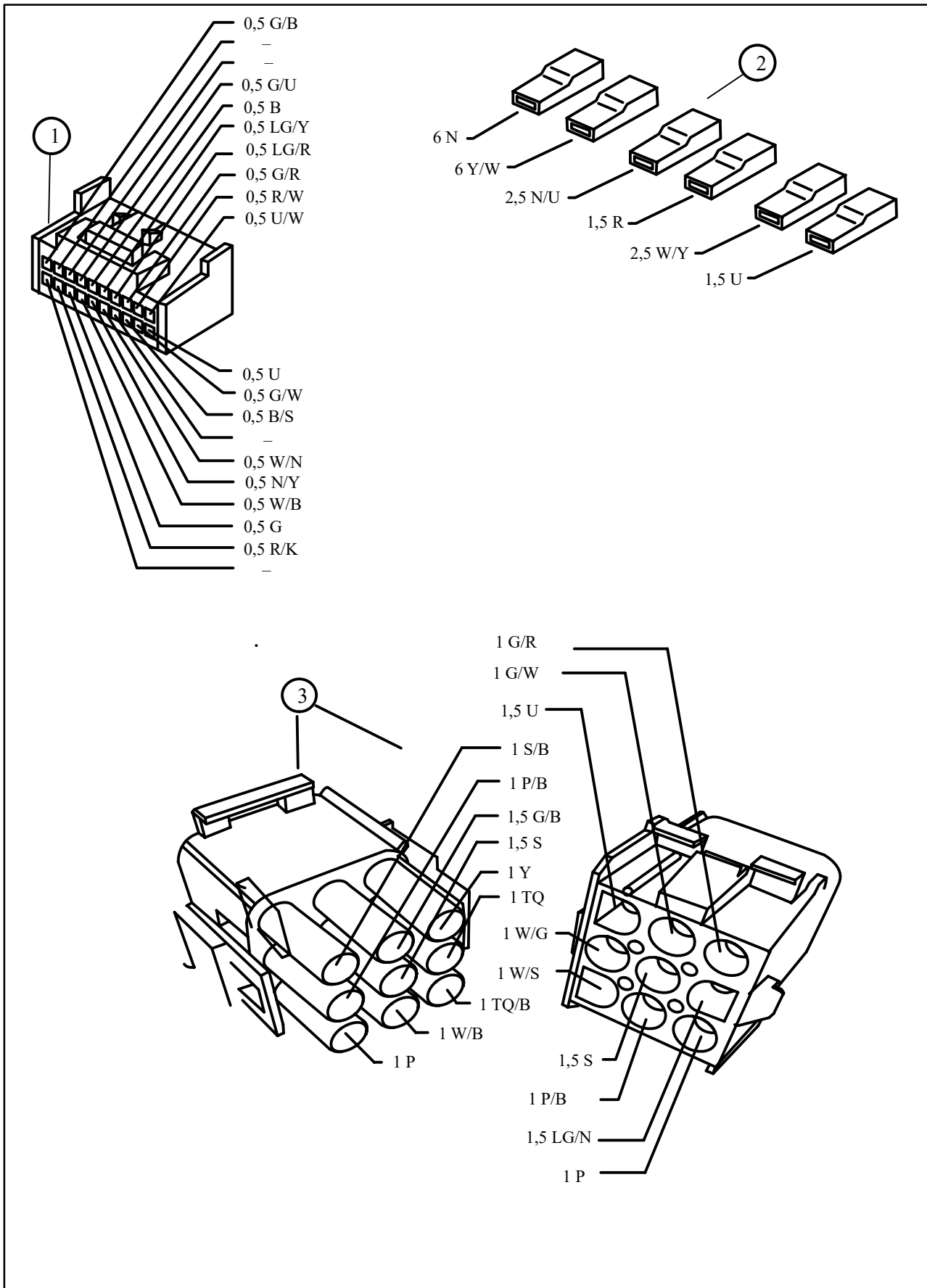
- SIDE LIGHTS, MAIN AND DIPPED HEADLIGHTS, PARKING LIGHT CIRCUIT



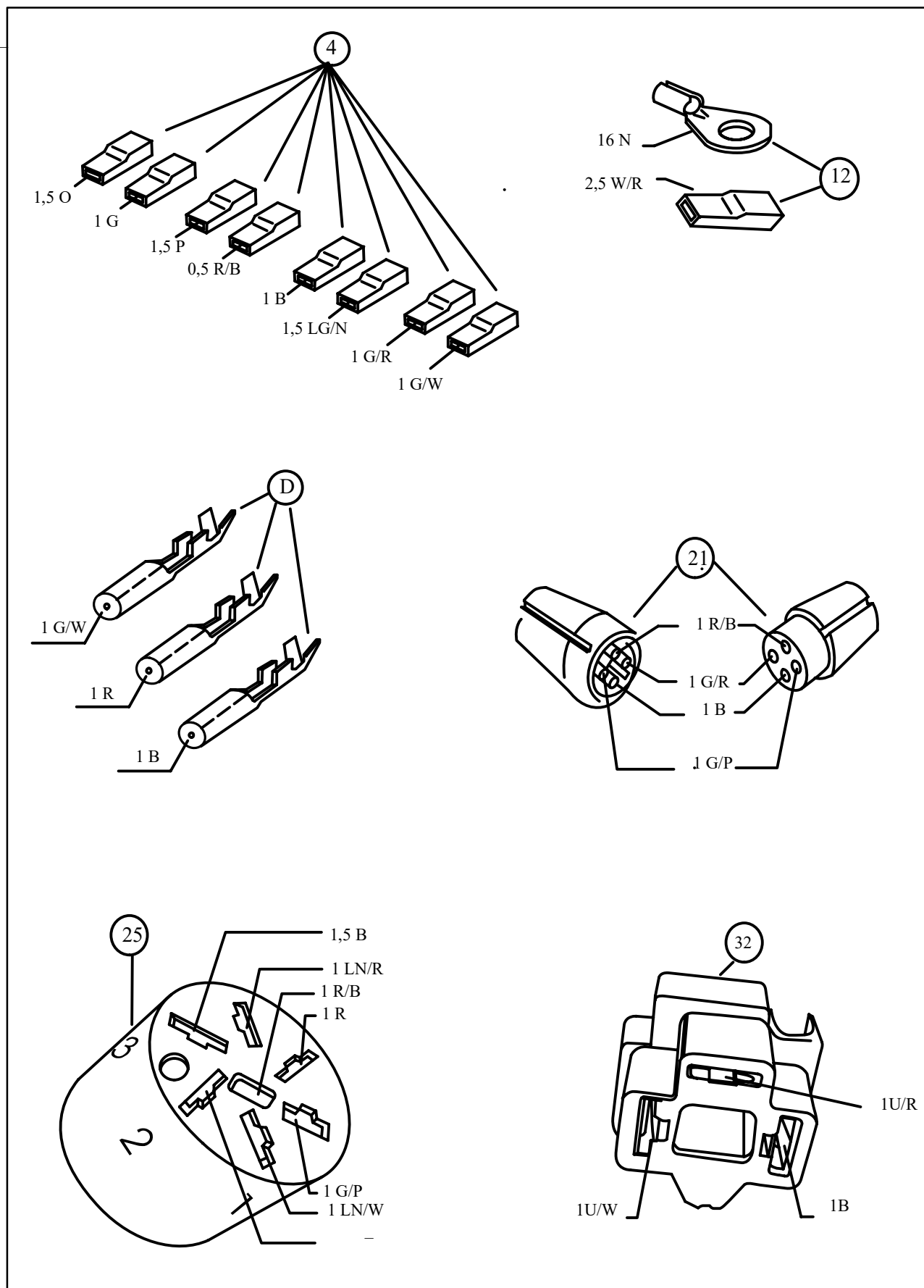
– SIDE LIGHTS, MAIN AND DIPPED HEADLIGHTS, PARKING LIGHT CIRCUIT

- 1– Instrument panel
- 2– Starter switch
- 3– Turn signal switch
- 4– Hazard warning lights indicator sending unit
- 5– Fuse Box
- 6– Low Beam Relay
- 7– High beam relay
- 11– Battery
- 12– Starter
- 13– Alternator
- 20– Right front parking and turn signal lights
- 21– Rear left parking,turn signal and stop lights
- 25– Trailer plug
- 26– Number plate lamp
- 33– Worklight switch
- 34– Rear right parking, turn signal and stop lights
- 35– Main Fuse
- 56– Front left signal and park lights
- A– Main and chassis harness connector
- C– Main and headlamp connector
- D– Main and right front signal connector
- E– Main and left connector
- F– Chassis and rear right indicator connector
- G– Chassis and rear left indicator connector

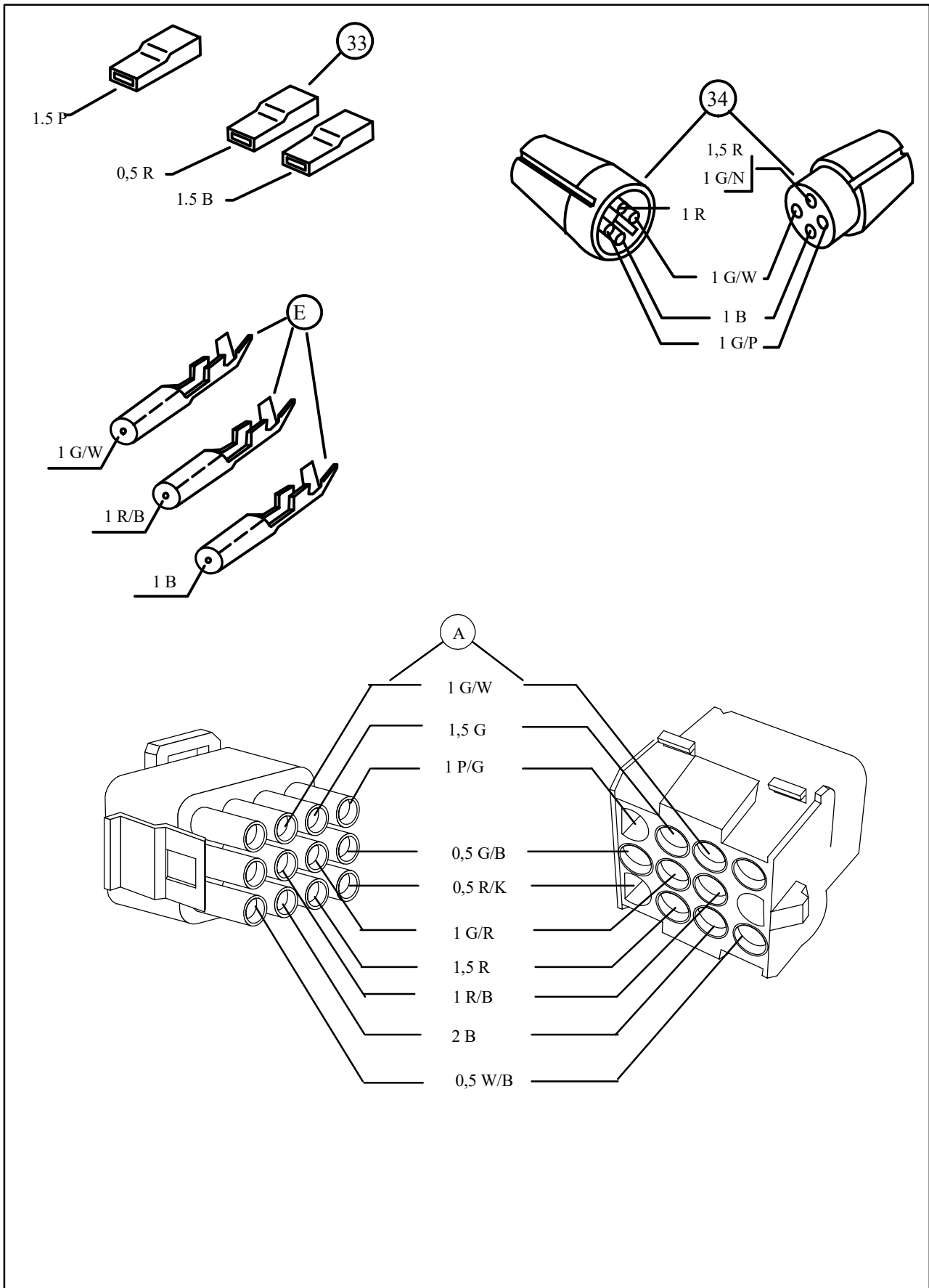
CONNECTOR OVERVIEW



CONNECTOR OVERVIEW



CONNECTOR OVERVIEW



CONNECTOR OVERVIEW

