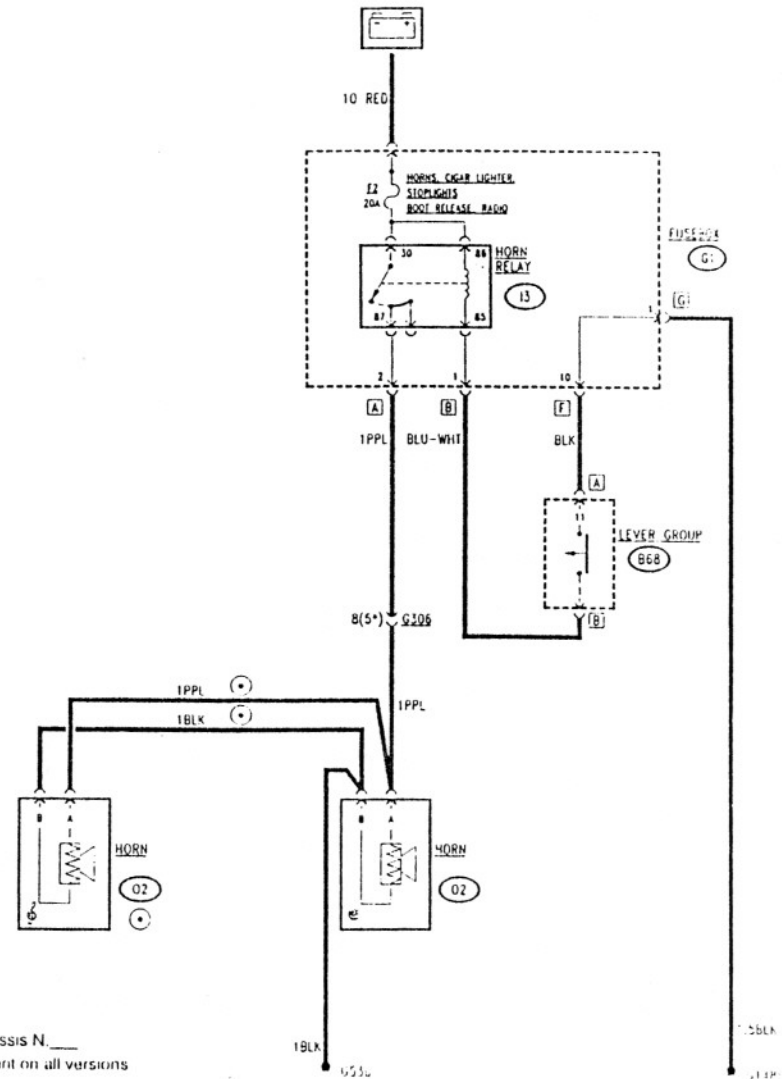


HORNS

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WIRING DIAGRAM



(*) from chassis N.____
 (•) no present on all versions

GENERAL DESCRIPTION

The vehicle is equipped with an acoustic warning system formed by two horns of different tone, one with a high tone and one with a low tone. The two horns are activated simultaneously. For some versions a simplified system is used with a single horn.

The horns are activated in the traditional way by pressing the button located in the centre of the steering wheel.

For obvious reasons of safety, the horns can be sounded at any moment, even when the ignition key is disengaged.

FUNCTIONAL DESCRIPTION

The horn relay I3, located in fusebox G1, is supplied by battery voltage through fuse F2 (20A), in G1.

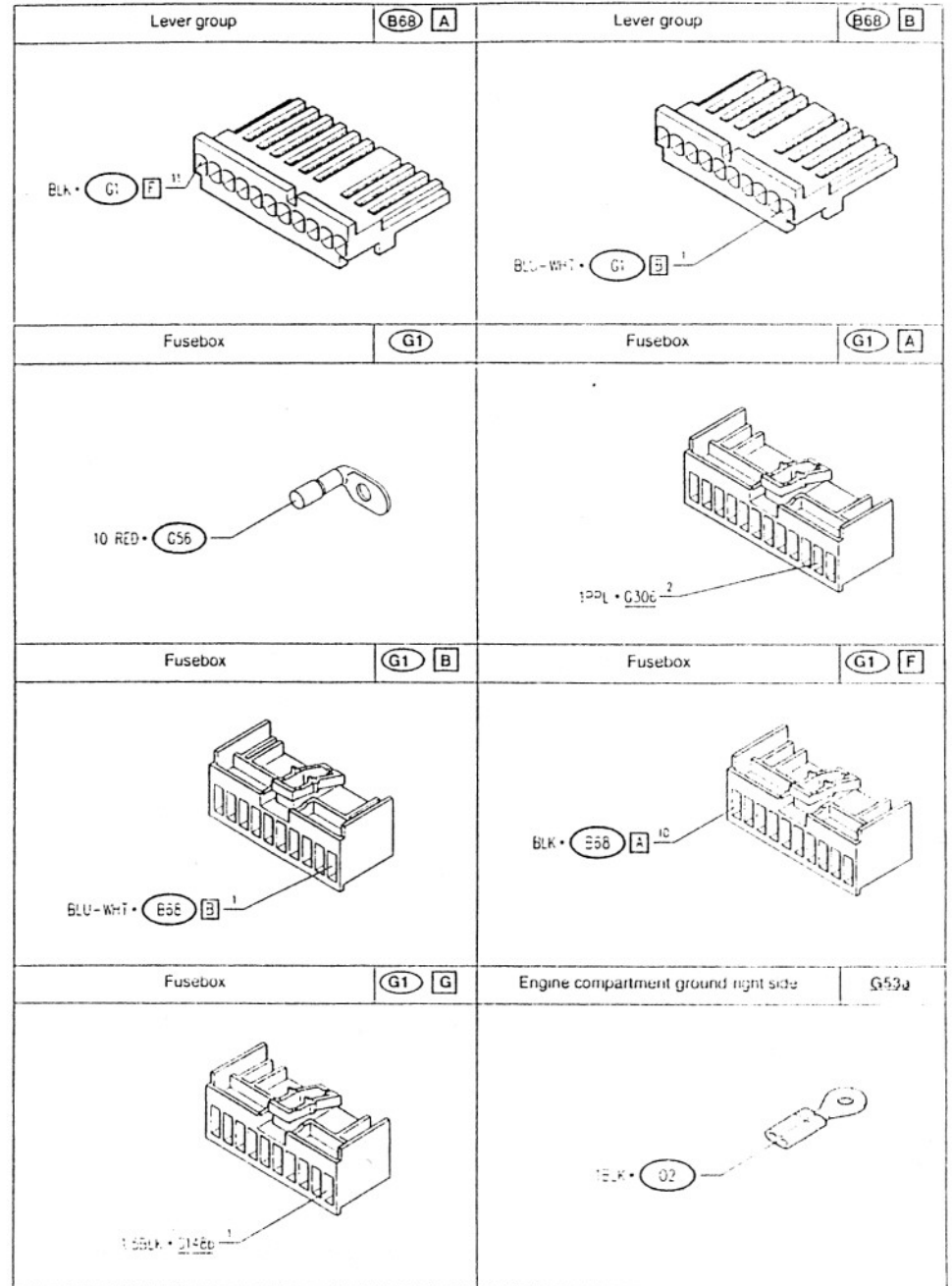
The coil of the relay I3 is excited by an ground signal originating from the switch connected to the lever group B68.

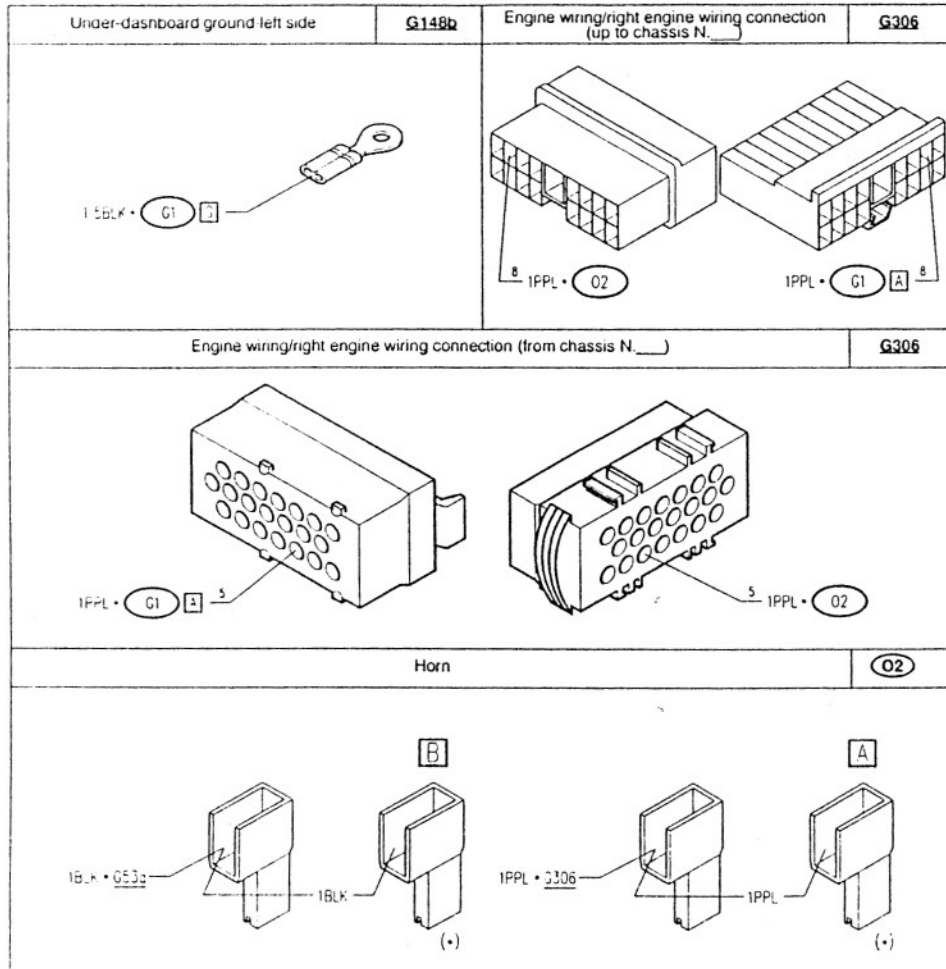
In this way the supply is sent from the relay to the horns O2, which are already grounded.

TROUBLESHOOTING TABLE

| Malfunction | Component | | | | Test |
|-----------------------------------|-----------|----|----|-----|------|
| | F2 | O2 | I3 | B68 | |
| Horns not working | • | • | • | • | A |
| Horns working badly (out of tune) | | • | | | B |

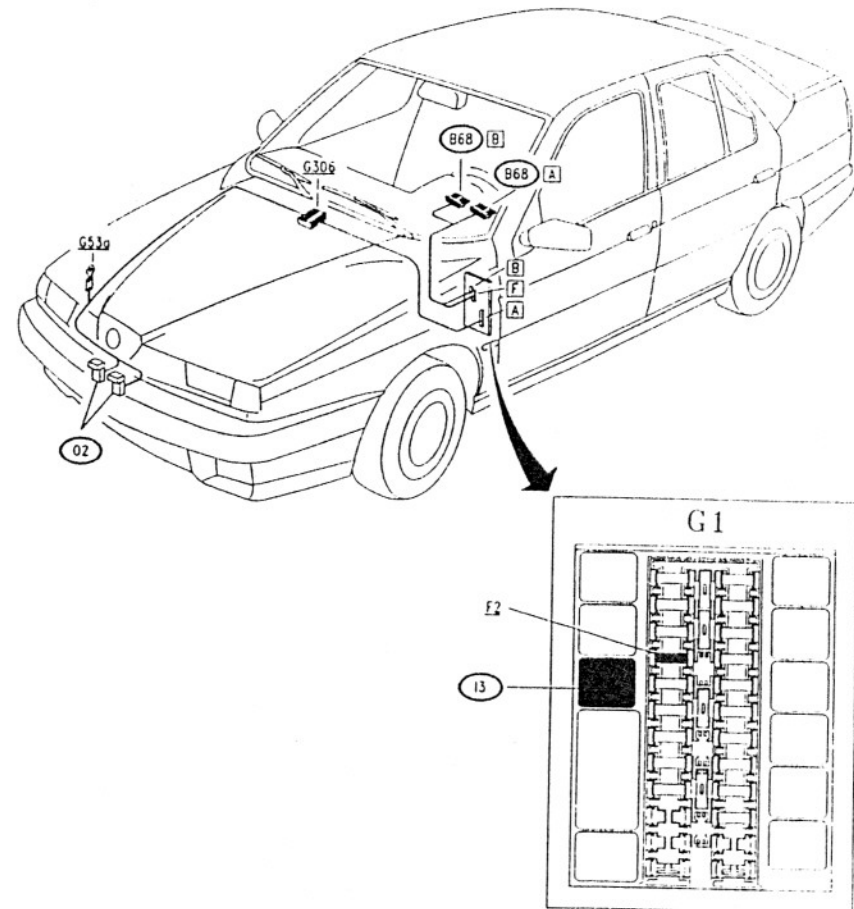
COMPONENTS AND CONNECTORS





(*) not present on all versions

LOCATION OF COMPONENTS



TROUBLESHOOTING

HORNS NOT WORKING

TEST A

| TEST PROCEDURE | RESULT | CORRECTIVE ACTION |
|---|---------------------------------------|--|
| A1 CHECK FUSE - Check for damage of fuse F2 of fusebox G1 | <input checked="" type="radio"/> OK ▶ | Carry out step A2 |
| | <input type="radio"/> OK ▶ | Replace fuse (20A) |
| A2 CHECK RELAY - Check for correct functioning of horns relay I3 | <input checked="" type="radio"/> OK ▶ | Carry out step A3 |
| | <input type="radio"/> OK ▶ | Replace relay I3 |
| A3 CHECK VOLTAGE - Actuating horns, verify 12V between pins A and B of the two horns O2 | <input checked="" type="radio"/> OK ▶ | Replace defective horns |
| | <input type="radio"/> OK ▶ | Carry out step A4 |
| A4 CHECK VOLTAGE - Actuating the horns, verify 12V at pin A of the two horns O2 | <input checked="" type="radio"/> OK ▶ | Carry out step A5 |
| | <input type="radio"/> OK ▶ | Restore wiring between pin A2 of G1 and pin B(5*) of G306, and between pin B(5*) of G306 and pin A of the two horns O2 (PPL) |
| A5 CHECK GROUND - Check that pins B of the two horns O2 are grounded (0V) | <input checked="" type="radio"/> OK ▶ | Carry out step A6 |
| | <input type="radio"/> OK ▶ | Restore wiring between pins B of O2 and ground G53a (BLK) |
| A6 CHECK SWITCH - Pressing the horn button, located in the centre of the steering wheel, check continuity between pin A11 and B1 of the lever group B68 | <input checked="" type="radio"/> OK ▶ | Carry out step A7 |
| | <input type="radio"/> OK ▶ | Replace central part of lever group B68 |
| A7 CHECK GROUND - Verify 0V at pin A11 of B68 | <input checked="" type="radio"/> OK ▶ | Restore wiring between pin B1 of B68 and pin B1 of G1 (BLU-WHT) |
| | <input type="radio"/> OK ▶ | Restore wiring between pin A11 of B68 and pin F10 of G1 (BLK) |

(*) from chassis N.____

HORNS WORKING BADLY (out of tune)

TEST B

NOTE: if the horns are "out of tune", one of the two horns (either the higher or lower tone) is not working correctly
N.B. SOME VERSIONS HAVE ONLY A SINGLE HORN.

| TEST PROCEDURE | RESULT | CORRECTIVE ACTION |
|--|---------------------------------------|---|
| B1 CHECK VOLTAGE - Actuating the horns, verify 12V between pins A and B of both horns O2 | <input checked="" type="radio"/> OK ▶ | Replace defective horn |
| | <input type="radio"/> OK ▶ | Carry out step B2 |
| B2 CHECK VOLTAGE - Actuating the horns, verify 12V at pin A of both horns O2 | <input checked="" type="radio"/> OK ▶ | Restore wiring between pins B of O2 and the ground G53a (BLK) |
| | <input type="radio"/> OK ▶ | Restore wiring between pins A of the two horns O2 (PPL) |