



Mounting Instructions for HELLA Intermittent Control Switch

11/27-1-6/12 V 11/27-1-24 V with ready-for-mounting Cable Kit
(Ord.-No. 5WA 001 871-04) (Ord. No. 5WA 001 871-05)

The HELLA intermittent control switch can be installed in all vehicles (also those with positive-to-earth system), which have a windscreen wiper with automatic return of the wiper blades. One unit only for both 6V and 12V vehicles.

For the following vehicles, please note the special hints and instructions given at the end of this instruction leaflet:

- Opel Diplomat, Kapitän, Admiral. Ford Capri, Escort, Saab 96 and other vehicles with negative connection between screenwiper switch and screenwiper motor.
- Renault R 4, R 8, R 10, R 16. British vehicles with positive to earth system.
- Daimler-Benz - all models.

A. Mounting

1. The intermittent control switch can be mounted either in the dashboard (up to $\frac{3}{16}$ " (4,5 mm) with hole $\frac{19}{64}$ " (7,5 mm) for switch) or, with the mounting panel, below the dashboard and within easy reach of the driver (2 fixing holes $\frac{1}{8}$ " (3 mm) in dia.).
2. Remove the knob from the switch rod, unscrew the hexagonal nut and remove the dial.
3. Mount the switch.

B. Wiring (see also wiring diagram 1).

1. Disconnect the earth lead from the battery.
2. Disconnect terminal 53 (other possible designations for this terminal are: BE 11, H, 54 d, 54 b, 3, 1, A, 28, INT*) on screenwiper switch and connect to duplicating flat plug of cable 53 (intermittent control switch). Reconnect duplicating flat plug to terminal 53 of screenwiper switch.
3. If there is a cable connection 31 b between screenwiper switch and screenwiper motor (other possible designations are: F, C 2, 31 b 1, 62*), this cable should be cut at a suitable point. Connect one end of this cable to 31 b 1 of intermittent control switch and the other end to 31 b 2 of intermittent control switch (use cable connectors).

Please note

If there is no connection 31 b between screenwiper switch and motor, remove the cables 31 b 1 and 31 b 2 from the intermittent control switch. In the case of vehicles where, for reasons of space, no connection can be made to the wiper switch, the connection can be made to the wiper motor as described in B 2 and B 3.

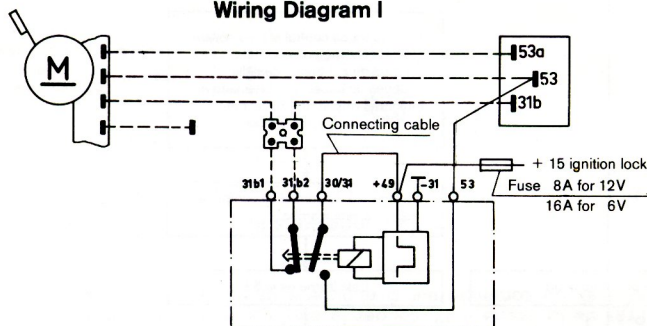
4. Disconnect terminal +15 (fuse box) and connect to duplicating flat plug of cable +49 from intermittent control switch. Reconnect duplicating flat plug to terminal +15 (fuse box).
5. Connect brown cable — 31 of intermittent control switch to earth.
6. Having completed the wiring, reconnect the battery earth lead.

C. Functional Check

The intermittent control switch is switched on in the direction indicated by the arrow. In this position the wiper blades operate with the shortest interval between sweeps. By turning the knob further to the right, variable adjustment of the wiping frequency is possible. A time lag up to 30 seconds between sweeps is possible according to the position of the knob.

* If none of these terminal designations are given, the correct terminals and correct wiring diagram can be established by an electrician with the aid of the supplementary instructions for tracing terminals given herewith.

Wiring Diagram I



Special Instructions for:

I. Opel

Intermittent control of the screenwipers is not possible on the Kapitän, Diplomat and Admiral (model 1968 on) as these vehicles are equipped with screenwipers which sink into the vehicle body.

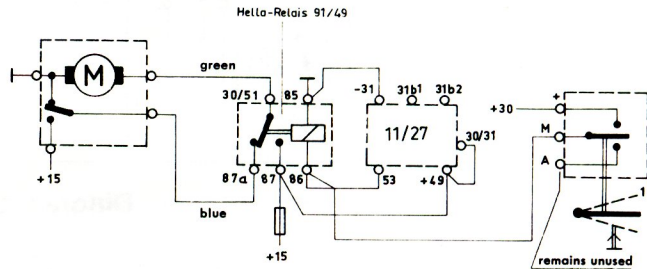
II. Renault

1. R 16 up to model June 1966.

The screenwiper on these vehicles is not suitable for intermittent control.

2. R 16 from July 1966 to June 1968.

Install and wire according to general instructions A, B-1, 4, 5 and C. Fit a supplementary HELLA change-over relay 91/49 and connect according to the following wiring diagram:



3. R 16 — July 1968 on.

Install and wire according to general instructions A — C.

4. R 4, R 8, R 10.

Install and wire according to general instructions A — C. However the following point should be observed when making the electrical connections:

Disconnect cable from terminal A of screenwiper switch and connect to positive terminal of screenwiper switch.

III. Daimler-Benz - all models

Install according to general instructions A and C. Wire as follows:

We recommend that all connections be made to the foot pump of windscreen wash-wipe appliance.

1. Unscrew the foot pump from the splash board. Uncover the cables of the cable harness slightly near the foot pump. Pull out the foot-pump plug slightly, so that the pins are visible, ensuring that the electrical connection is not interrupted.
2. Use a test lamp for determining the individual contacts of the foot pump.
3. Connect one terminal of test lamp to earth at a suitable point. Switch on the ignition. With the other terminal determine the foot pump contact at which the test lamp lights up continuously when the wiper motor is switched off. Mark this cable +49.
4. Switch on the screenwiper by means of the pump switch and determine the contact at which the test lamp lights up continuously while the motor is running. Mark this cable 53.
5. With the screenwiper switched on, determine the contact at which the test lamp flashes. Mark this cable 31 b.

NB. If no contact 31 b is found when performing this test, the cable connection between 31 b 1 and 31 b 2 of intermittent control switch can be dispensed with.

6. Switch off ignition and screenwiper, disconnect battery earth lead.
7. Connect the intermittent control switch leads to the correspondingly marked connecting leads of the foot pump as shown below (use suitable connectors — HELLA crimped connectors).

Terminal designations of intermittent control switch		Marked cables of foot pump
+ 49	to	+ 49
53	to	53
31 b 1, 31 b 2	to	31 b
		Cut cable 31 b of foot pump. Connect one end of the cable to 31 b 1 and the other end to 31 b 2 of intermittent control switch.

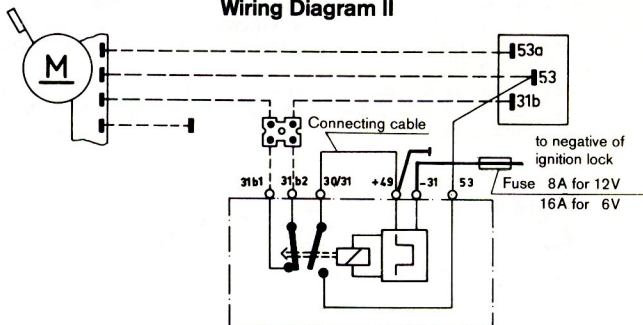
8. Having completed the electrical connections, recover the cable harness where exposed. Replace foot pump and plug.
9. Reconnect the battery earth lead.

IV. British vehicles with positive return to earth.

Install and wire according to general instructions A—C. When making the electrical connections, the following additional points should also be observed in connection with item B.3. (see also wiring diagram 2):

Connect cable +49 of intermittent control switch to earth. Connect brown cable —31 of intermittent control switch to negative pole (behind ignition lock).

Wiring Diagram II

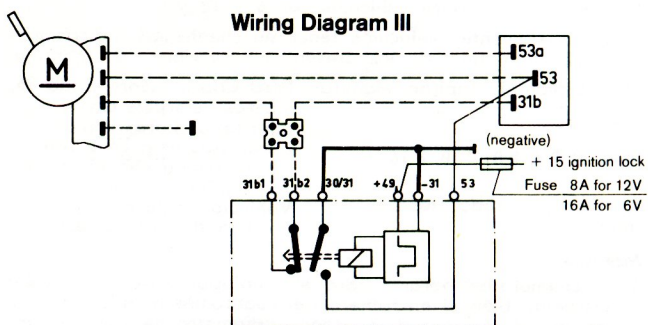


V. Ford Capri, Escort, Saab 96 and other vehicles with negative connection between screenwiper switch and motor.

Install and wire according to general instructions A—C. When making the electrical connections, the following additional points should be observed in connection with item B.5. (see also following wiring diagram 3).

Cut the cable between terminals 30/31 and +49 of intermittent control switch close to terminal +49 and run to earth.

Wiring Diagram III



Instructions for tracing Terminals

