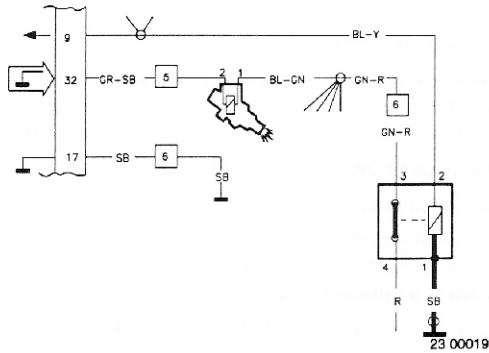


## EQ. Fault code 3-2-1 Regina

### 3-2-1 Signal to cold start injector missing or short circuit to ground



**Conditions for fault code:**

When the temperature is below -18°C and the ignition is switched on, the control unit measures the current consumption of the valve. If #32 is short circuited to ground, current consumption will be too high. If current consumption is abnormally low then the control unit interprets this as a break in the circuit.

The fault code is set in both cases.

**Causes of faults:**

- Break or short circuit to ground in the wires.
- Break in cold start injector.

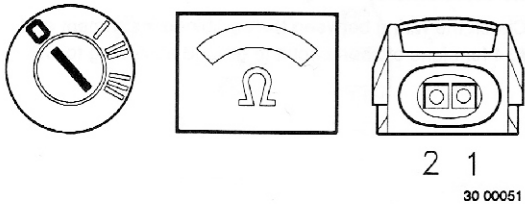
**Fault symptoms:**

Difficult to start when cold.

**Important!**

If the cold start injector is connected to the starter motor as in the Service Bulletin, the code will be set even if no fault is present. Return to A. Troubleshooting Layout.

EQ1



**Checking of resistance to ground**

- Ignition off.
  - Disconnect the cold start injector.
- Connect an ohmmeter between 1 on the connector and ground.

The ohmmeter should show infinite resistance.

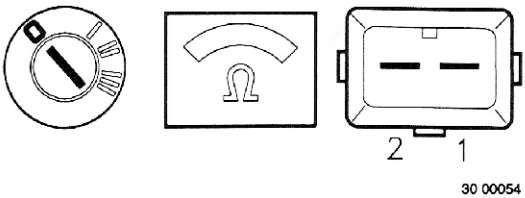
**If the value is OK:**

- Checking of cold start injector resistance EQ2.

**If the value differs:**

- Check the wiring for signs of short circuiting to ground according to CD.

EQ2



**Checking of cold start injector resistance**

- Ignition off.
  - Sensor disconnected.
- Connect an ohmmeter between 1 and 2 on the cold start injector.

The ohmmeter should show approx. 10 Ω.

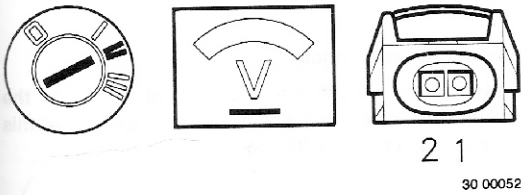
**If the value is OK:**

- Checking of voltage supply EQ3.

**If the value differs:**

- Test with a new cold start injector.

EQ3



#### Checking of voltage supply

– Ignition on.

– Sensor disconnected.

Connect a voltmeter between 1 on the connector and ground.

The voltmeter should show battery voltage.

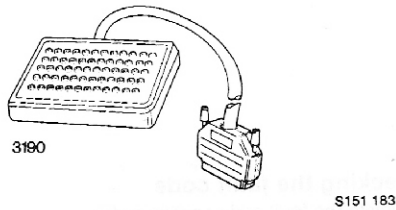
**If the value is OK:**

- Connection of measurement box EQ4

**If the value differs:**

- Check the wiring between the injectors and the cold start injector for breakage according to CD.

EQ4

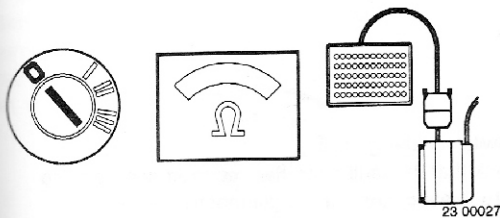


#### Connection of measurement box

Connect the measurement box to Regina and check the chassis connections according to N1-N2.

- Continue with Checking of wires and valve resistance EQ5.

EQ5



#### Checking of wires and valve resistance

– Ignition off.

– Remove auxiliary relay and bridge connections 2 and 3.

Connect an ohmmeter between #9 and #32.

The ohmmeter should show approx. 10  $\Omega$ .

**If the value is OK:**

Intermittent fault.

- Check the connectors for loose connections according to CD.

**If the value differs:**

- Check the wires for breakage and check the connector resistance at the connections according to CD.