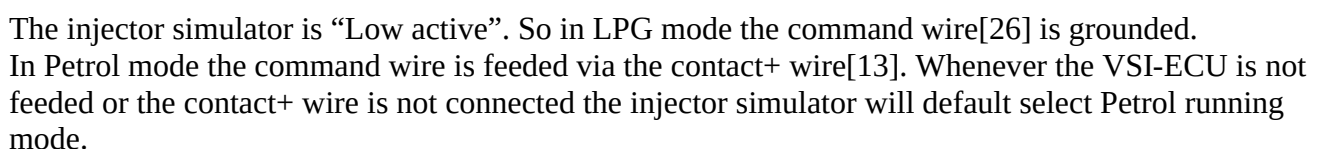


- Injector simulator integrated in wiring loom.
- Soldering or Bosch connector type interruption.
- Only Petrol minus wires interruption, plus wires stay alive in LPG mode.
- Petrol injector signal wires to VSI input already integrated in wiring loom.

This simulator will replace the 091/145 (4Cyl) and 091/155 (6Cyl) module. The injector simulator principle is based on current reduction. The advantage is that the petrol injector circuit stays alive when running on LPG. In this way there is no need to cut the power supply of the petrol injectors.



**Wiring loom/ Injector simulator**

16-Jun-05

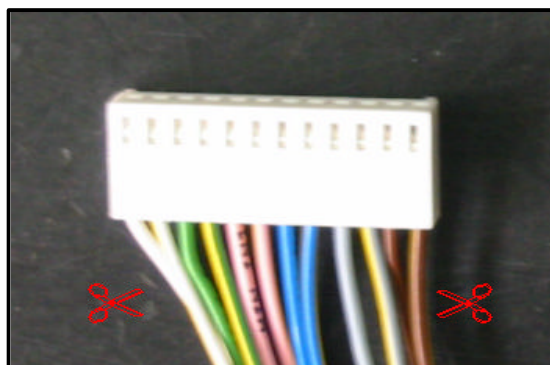
**Types**

Two kind of versions for the 4, 6 and 8 cylinder engines will be supplied for this new wiring loom. One type with “**soldering interruption**” and one type with “**connector interruption**”.

For the soldering interruption type the minus wire from each petrol injector has to be cut and soldered together with the 2 interruption wires from the module.

For “connector interruption” the wiring loom will be equipped with the male and female Bosch connector type and can only be applied when the plus and minus location on the petrol injector is similar like the left injector in the picture. If not, the injector minus wires must be interrupted with the “soldering interruption” version!

Connector type: Always check polarity!



Soldering type: Cut Production Test connector!

**Tips and Facts**

| Description                                                      | Symptoms                                                                                                                                  | Solution                                                                            |
|------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Contact+[13] is interrupted during start of the engine           | In this situation the engine will not start on Petrol. This could be caused by a wrong contact+ signal, like from accessories as a radio. | Find the right contact+ or connect wire 13 with petrol injector +.                  |
| Contact+ is not connected                                        | The system will always start and run only on Petrol                                                                                       | Connect contact+[13]                                                                |
| Check Engine after shutting off the engine                       | Check engines related to power circuits like petrol pump, motor fan or contact+ circuit.                                                  | Cut wire 27 in the main connector of VSI and connect this wire to petrol injector+. |
| Reversed polarity of the minus wires on one or more cylinder(s). | Engine won't run or missing cylinders on both petrol and LPG mode. Inj_in and Inj_out times in the diagnostic program are 0ms.            | Check and correct the minus interruption wires for polarity.                        |

**Part Numbers**

| Part No   | Description                         | Part No   | Description                         |
|-----------|-------------------------------------|-----------|-------------------------------------|
| 180/70004 | 4 Cyl. Soldering type harness       | 180/70016 | 6 Cyl. Bosch connector type harness |
| 180/70006 | 6 Cyl. Soldering type harness       | 180/70018 | 8 Cyl. Bosch connector type harness |
| 180/70008 | 8 Cyl. Soldering type harness       | 180/70024 | 4 Cyl repair module                 |
| 180/70014 | 4 Cyl. Bosch connector type harness | 180/70026 | 6 Cyl repair module                 |

**More Info**

[http://www.prins-lpg.com/en/technical/diagrams\\_vsi/index.html](http://www.prins-lpg.com/en/technical/diagrams_vsi/index.html)

<http://www.prins-lpg.com/en/products/vsi/components/index.html>

**6-CYLINDER SOLDER INJECTION MODULE VSI 1 REV.B**

06-06-2005

**injection module**  
6 cylinder  
180/70026

**VSI-8 computer**

**PETROL INJECTORS** (1 to 6)

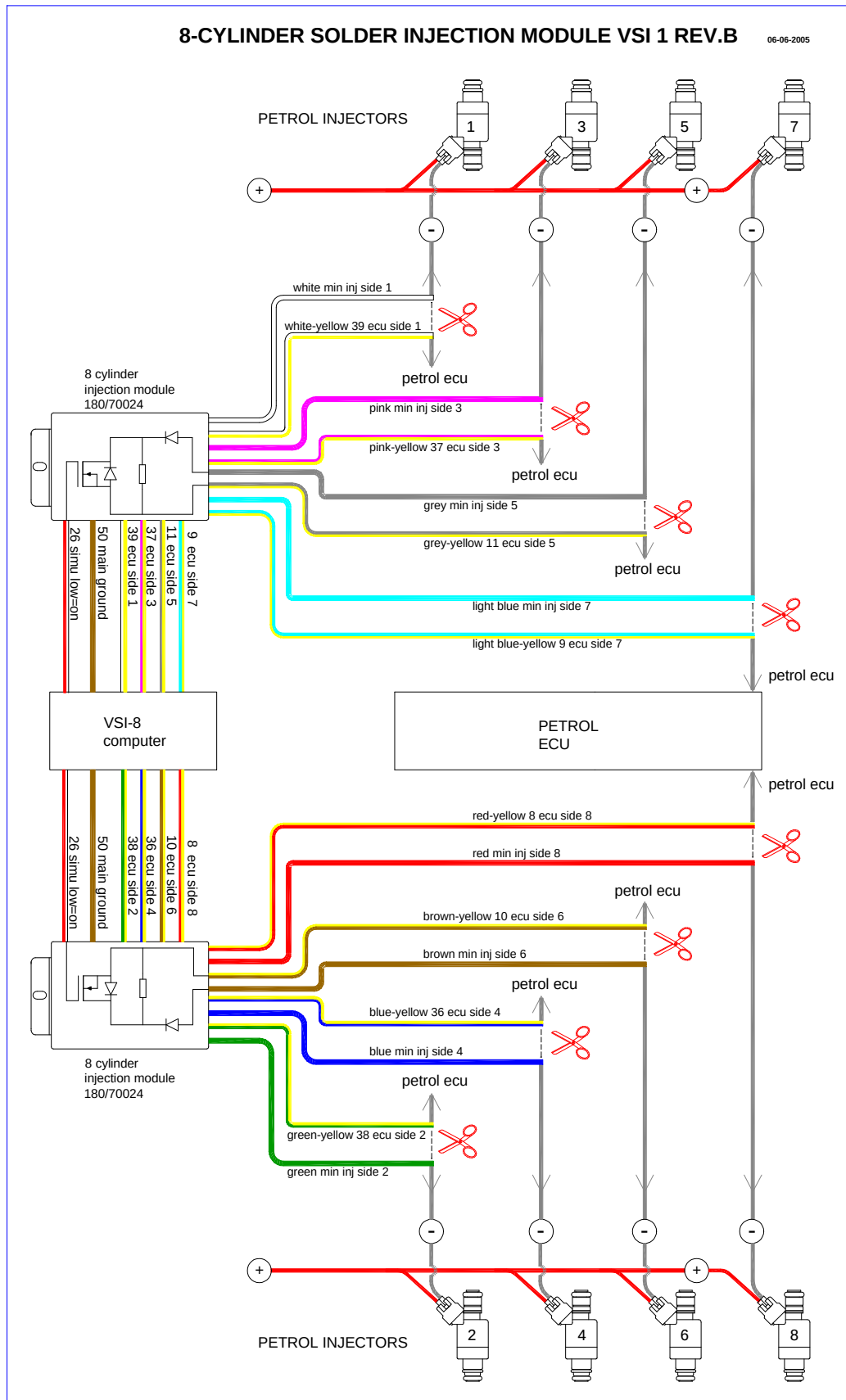
**petrol ecu** (6 lines)

**Wiring Connections:**

- Injection Module to VSI-8 computer:**
  - 10 ecu side 6 (yellow)
  - 11 ecu side 5 (grey)
  - 36 ecu side 4 (blue)
  - 37 ecu side 3 (pink)
  - 38 ecu side 2 (green)
  - 39 ecu side 1 (white)
- Injection Module to Petrol Injectors:**
  - 10 ecu side 6 (yellow) to injector 6
  - 11 ecu side 5 (grey) to injector 5
  - 36 ecu side 4 (blue) to injector 4
  - 37 ecu side 3 (pink) to injector 3
  - 38 ecu side 2 (green) to injector 2
  - 39 ecu side 1 (white) to injector 1
- Injection Module to Petrol ECU:**
  - 10 ecu side 6 (yellow) to petrol ecu
  - 11 ecu side 5 (grey) to petrol ecu
  - 36 ecu side 4 (blue) to petrol ecu
  - 37 ecu side 3 (pink) to petrol ecu
  - 38 ecu side 2 (green) to petrol ecu
  - 39 ecu side 1 (white) to petrol ecu

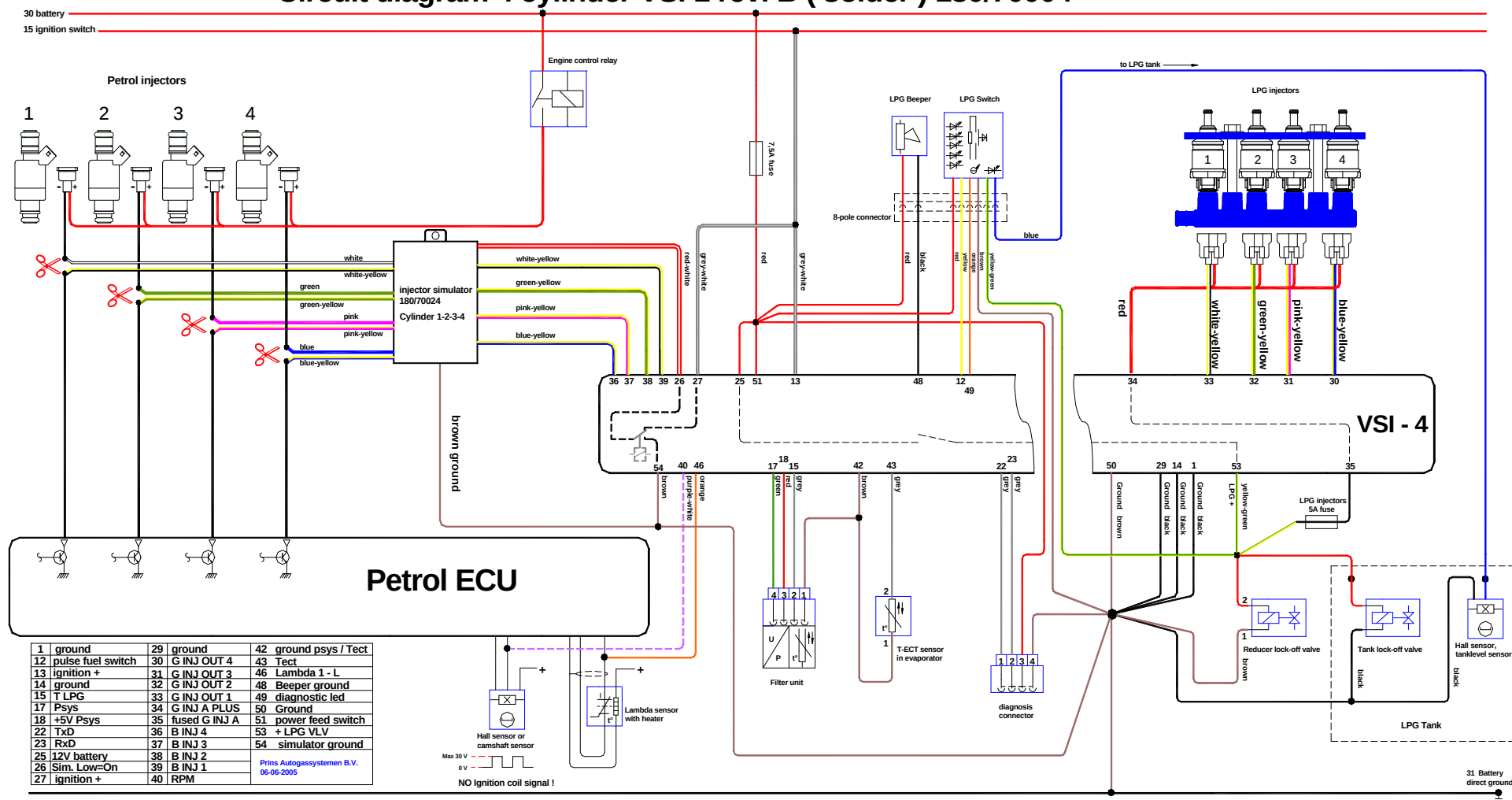
**Legend:**

- 10 ecu side 6** (yellow)
- 11 ecu side 5** (grey)
- 36 ecu side 4** (blue)
- 37 ecu side 3** (pink)
- 38 ecu side 2** (green)
- 39 ecu side 1** (white)

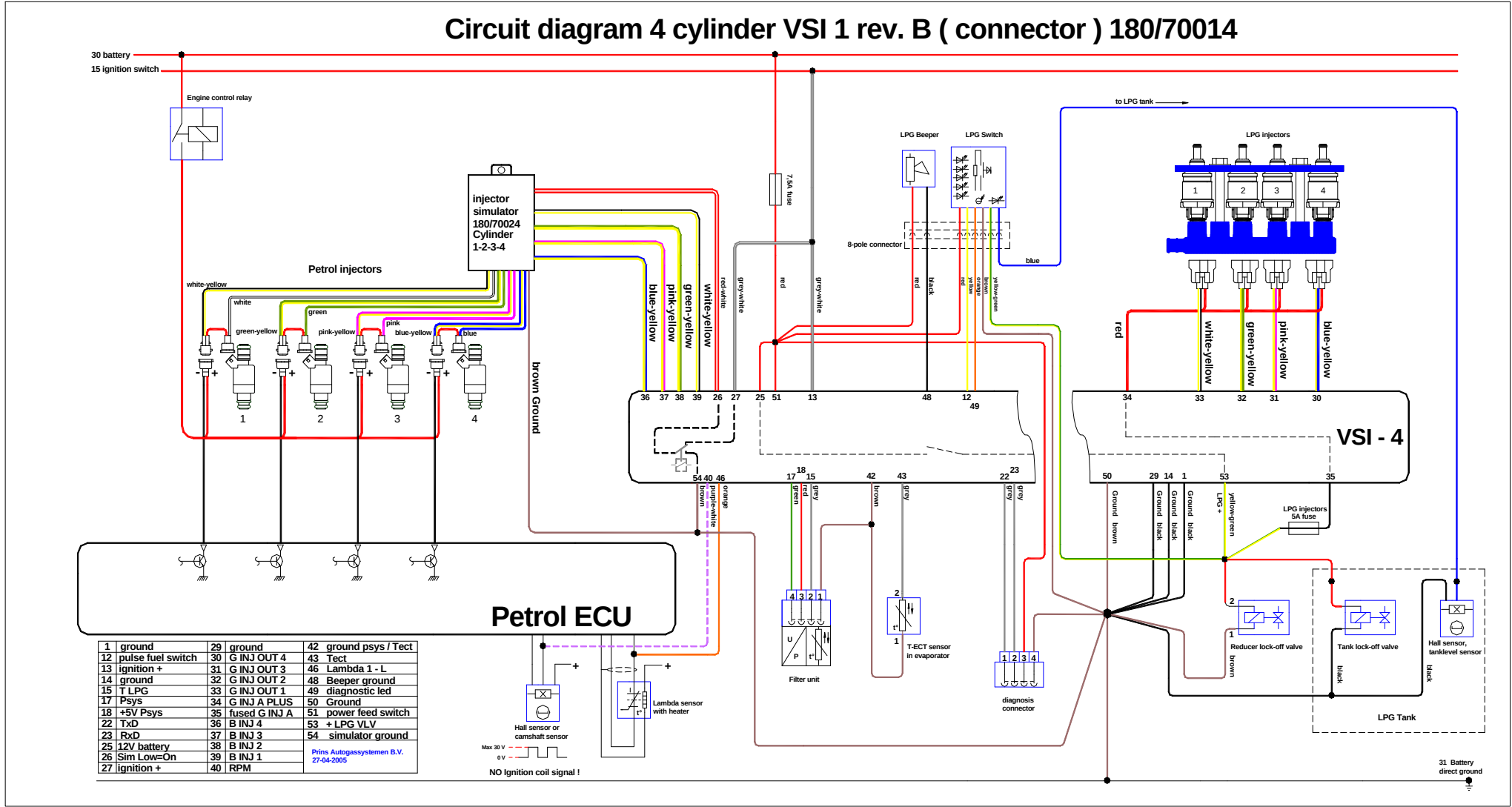


## Wiring loom/ Injection simulator

Circuit diagram 4 cylinder VSI 1 rev. B ( solder ) 180/70004



Wiring loom/ Injection simulator



### Circuit diagram 6 cylinder VSI 1 rev. B ( solder ) 180/70006

30 battery  
15 ignition switch

Engine control relay

Injection module  
180/70006  
Cylinder 1-2-3-4-5-6

7.5A fuse

LPG Beeper

LPG Switch

8-pole connector

LPG injectors (BANK 1)

LPG injectors (BANK 2)

VSI - 8

Petrol ECU

31 Battery direct ground

Legend:

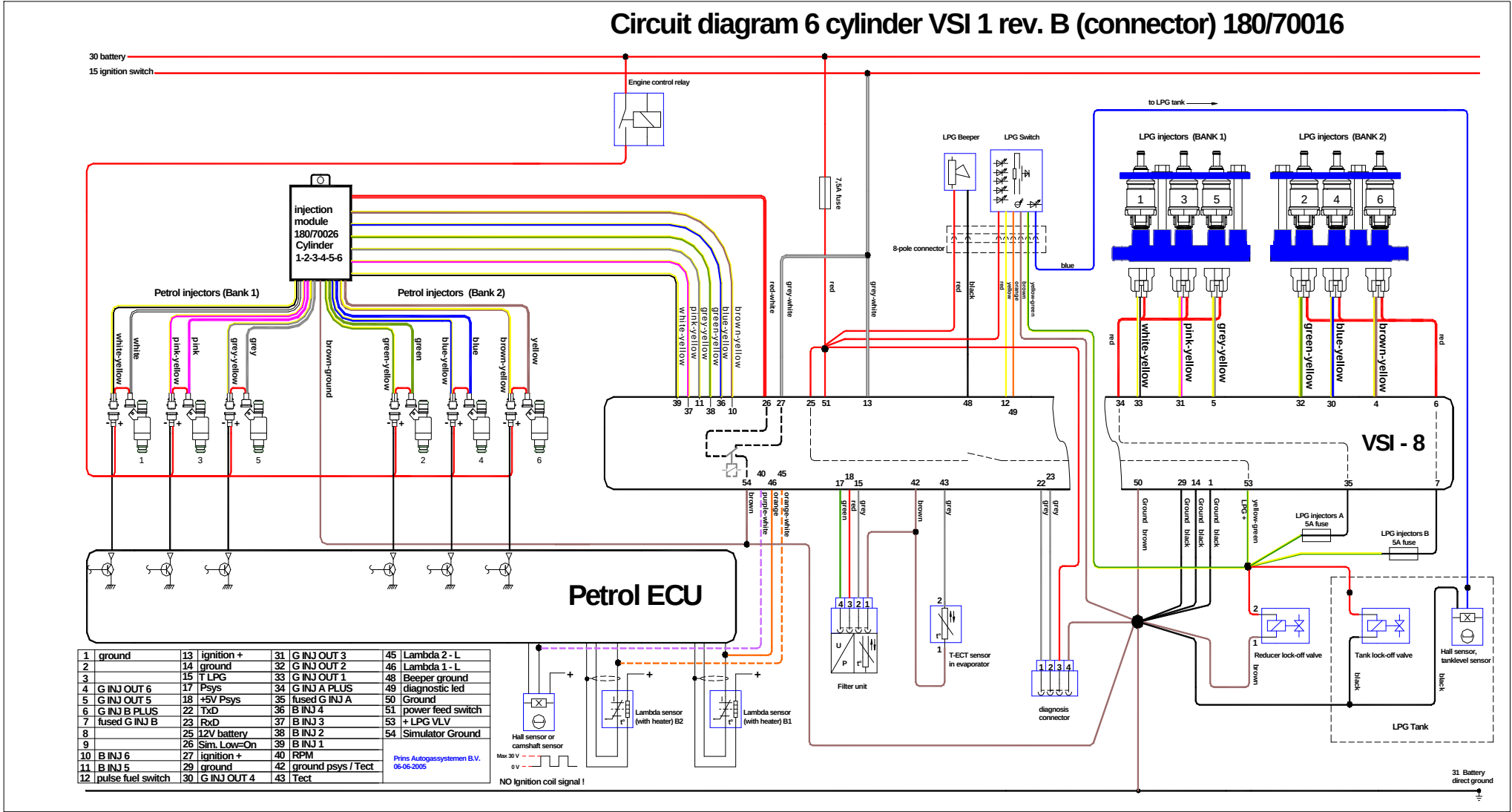
| Color        | Wiring       |
|--------------|--------------|
| White        | White-yellow |
| Green        | Green-yellow |
| Pink         | Pink-yellow  |
| Blue         | Blue-yellow  |
| Grey         | Grey-yellow  |
| Brown        | Brown-yellow |
| White-yellow | White-yellow |
| Green-yellow | Green-yellow |
| Pink-yellow  | Pink-yellow  |
| Blue-yellow  | Blue-yellow  |
| Grey-yellow  | Grey-yellow  |
| Brown-yellow | Brown-yellow |
| White-yellow | White-yellow |
| Green-yellow | Green-yellow |
| Pink-yellow  | Pink-yellow  |
| Blue-yellow  | Blue-yellow  |
| Grey-yellow  | Grey-yellow  |
| Brown-yellow | Brown-yellow |

Prins Autogassystemen B.V.  
06-06-2005

Max 30 V  
0 V

NO Ignition coil signal !

Wiring loom/ Injection simulator

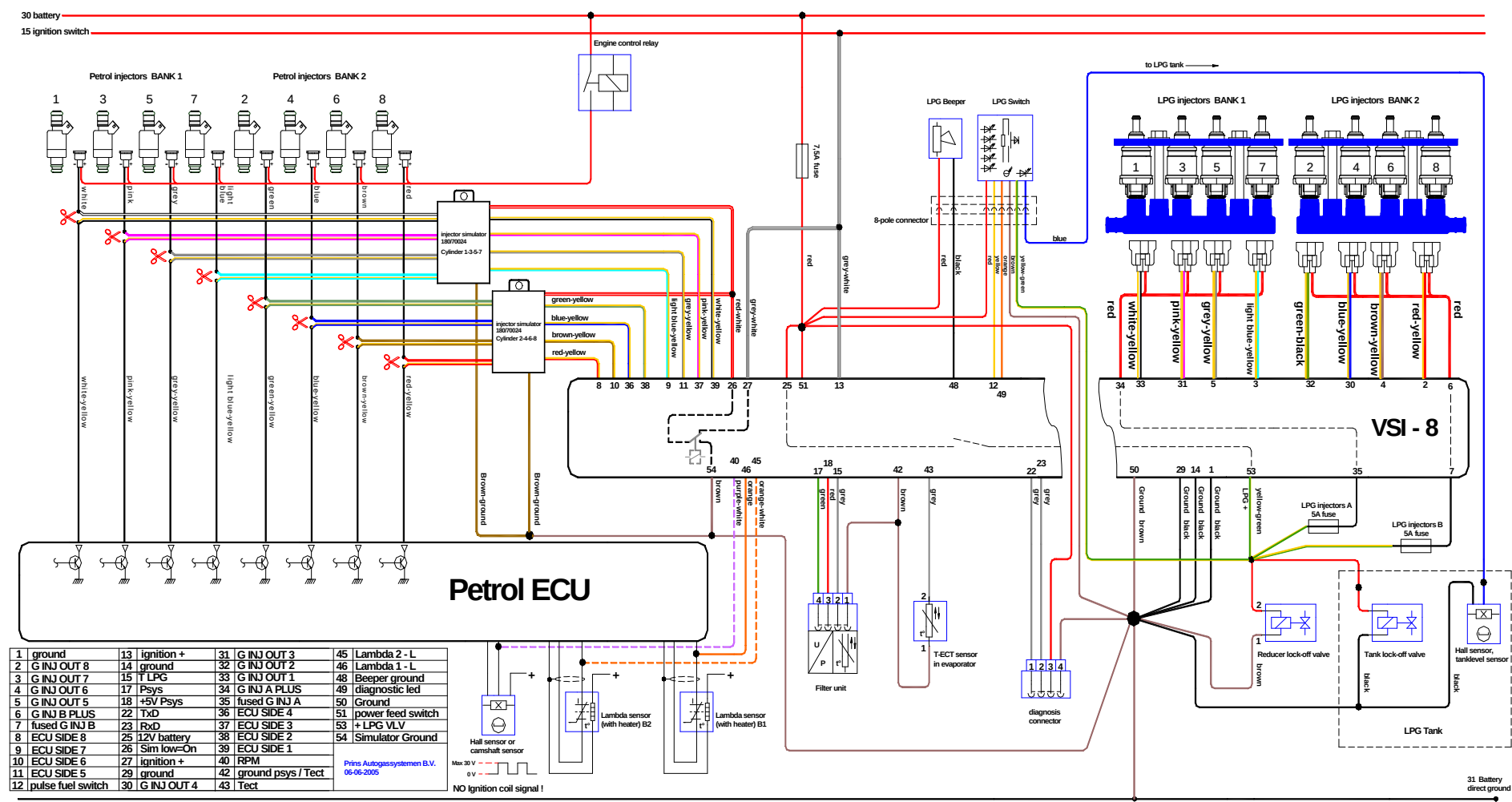






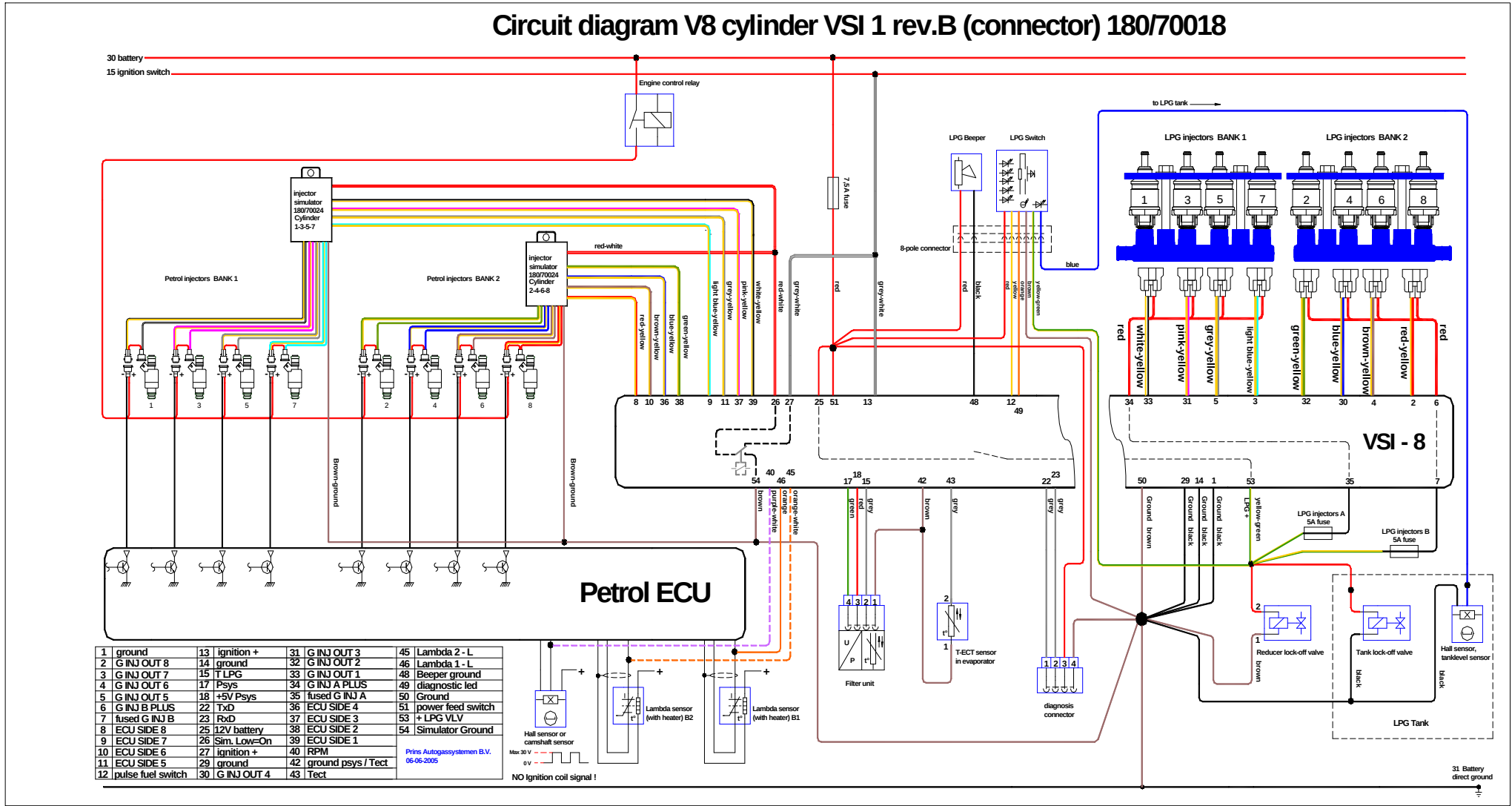
Wiring loom/ Injection simulator

Circuit diagram V8 cylinder VSI 1 rev.B ( solder ) 180/7008





Wiring loom/ Injection simulator



## Wiring loom/ Injection simulator

### REPLACING THE INJECTION MODULE VSI 1 REV.B BY OLD TYPE 06-06-2005

