
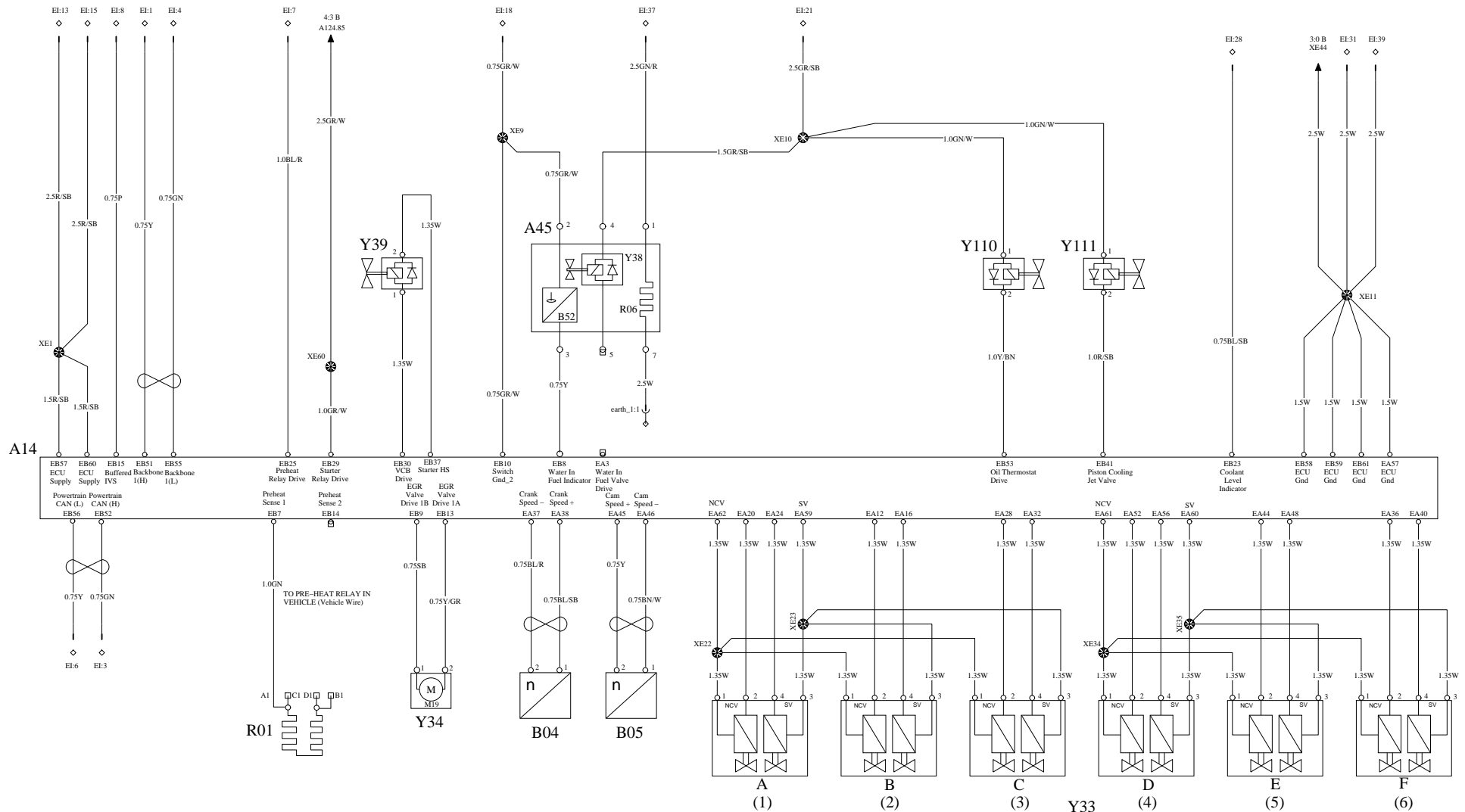


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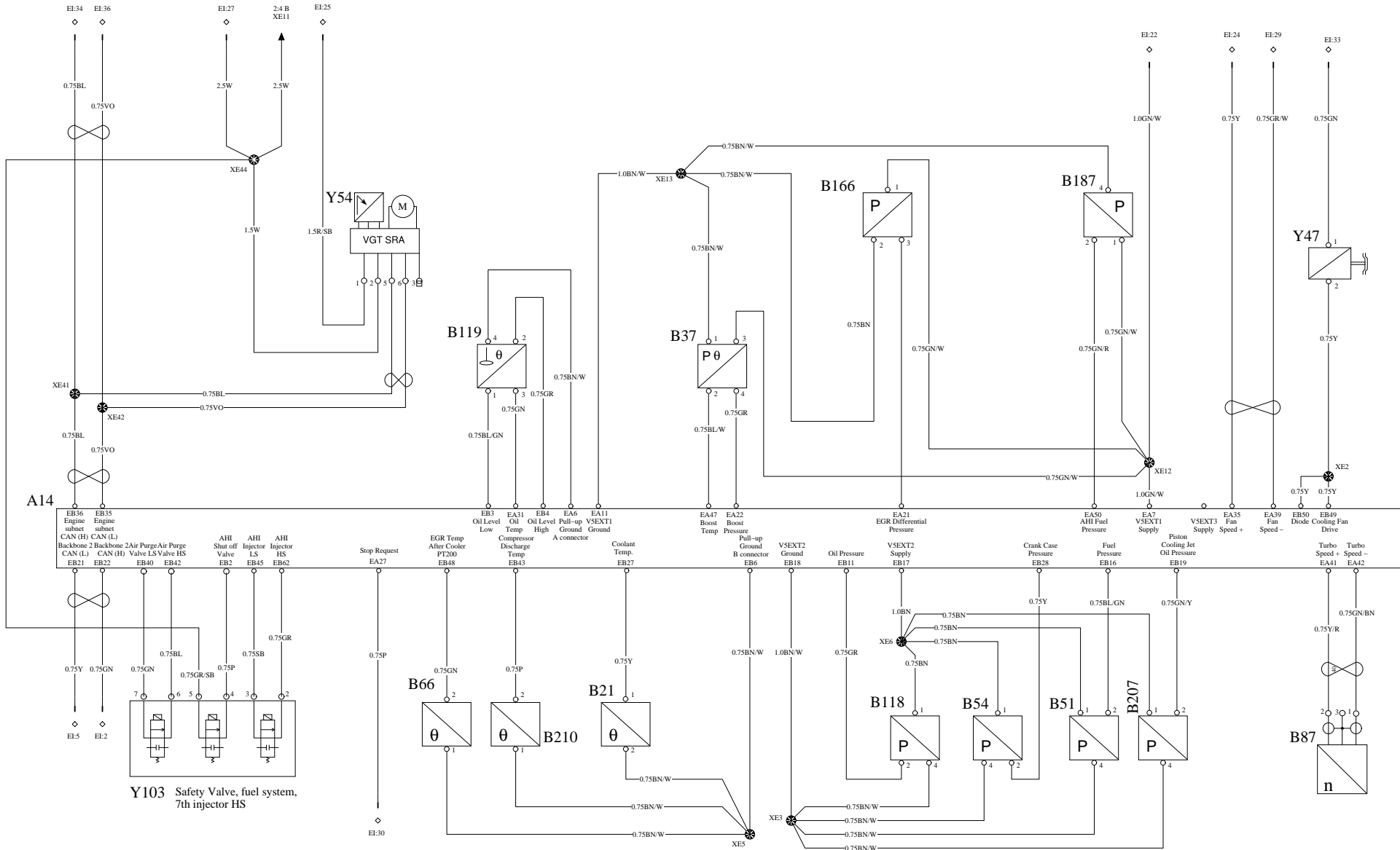
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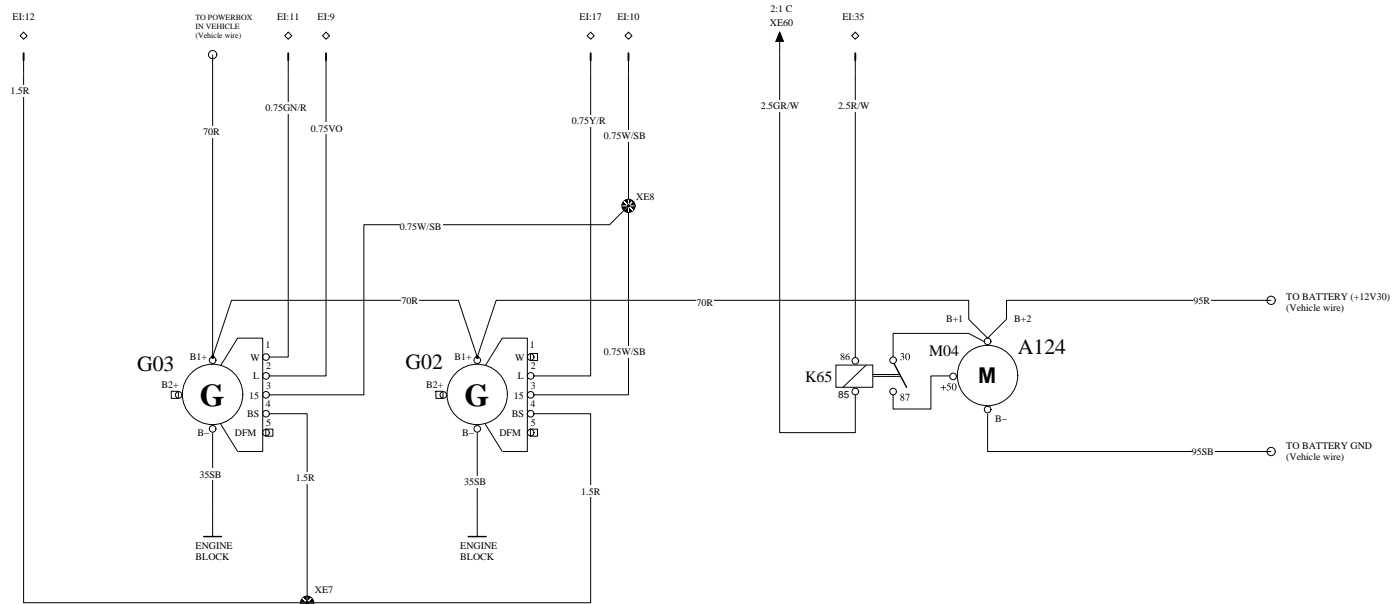
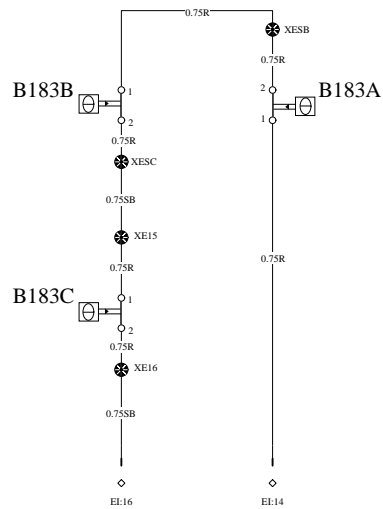


ENGINE

US14 VBC

WIRING DIAGRAM





| Symbol | Description |
|---------------|---|
| A14 | Control unit, EMS (Engine Management System) |
| A43 | Electronic fan control (Incl. B32, Y35) |
| A45 | Fuel conditioner (Incl. R10, B52, Y38) |
| A124 | Comp. group starter motor. Contains M04 and K65 |
| B04 | Sensor, engine speed, crankshaft |
| B05 | Sensor, engine speed, camshaft |
| B187 | Sensor, after treatment fuel pressure |
| B118 | Sensor, oil pressure |
| B119 | Sensor, oil level and oil temp |
| B21 | Sensor, coolant temperature, engine |
| B37 | Sensor, boost temperature, boost pressure (EGR Mixer position) |
| B51 | Sensor, fuel pressure |
| B54 | Sensor, crank case pressure |
| B66 | Sensor, EGR temperature |
| B87 | Sensor, turbo speed |
| B207 | Sensor, oil cooling jet pressure |
| B210 | Sensor, compressor discharge temp |
| B166 | Sensor, EGR Differential pressure |
| G02 | Alternator |
| M04 | Starter motor (Included in A124) |
| K65 | Starter motor relay (Included in A124) |
| R01 | Heater, engine preheat |
| R10 | Heater, fuel pre filter (Included in A45) |
| RLY42 | Relay, pre heater |
| Y103 | Safety Valve, fuel system, AT1 |
| Y33 | Solenoid valves UI (Unit Injector) |
| Y34 | Actuator, EGR system (Lisk) |
| Y35 | Solenoid valve, engine cooling fan (Included in A43) |
| G03 | Alternator |
| Y38 | Solenoid valve, WIF, fuel pre filter water draining ((Included in A45)) |
| Y39 | Solenoid valve, VCB (Volvo Compression Brake) |
| Y42 | Clutch, magnetic air conditioning compressor |
| Y54 | Control unit, Volvo geometric turbo, Can based |
| B183 | Fire sensors |
| Y110 | Solenoid valve, oil thermostat |
| Y111 | Solenoid valve, oil piston cooing jet |
| X71 | GND Stud, Engine block (close to alternator) |
| B32 | Sensor, engine cooling fan speed (included in A43) |
| B52 | Sensor, water level in fuel pre filter (included in A45) |

Vehicle interface EI

| Pin | Function |
|-------|---|
| EI:1 | Backbone1-CAN (H) |
| EI:2 | Backbone2-CAN(H) |
| EI:3 | Powertrain subnet CAN(H) |
| EI:4 | Backbone1-CAN (L) |
| EI:5 | Backbone2-CAN(L) |
| EI:6 | Powertrain subnet CAN(L) |
| EI:8 | IVS |
| EI:9 | Alternator- I-engine-running-1 |
| EI:11 | Alternator R-speed-1 |
| EI:13 | Power supply for EMS |
| EI:15 | Power supply for EMS |
| EI:18 | Switch ground, coolant level |
| EI:21 | Power supply for Y37, Y38, Y39 & A43 |
| EI:22 | Power supply for external sensors (+5V) |
| EI:23 | AC compressor control |
| EI:25 | Power supply VGT & Pre heat relay |
| EI:26 | GND for external sensors (c/o EI:22) |
| EI:27 | GND-EMS-extra |
| EI:28 | Signal, coolant level |
| EI:31 | GND-EMS-2 |
| EI:33 | EMS Loads Power Supply 1 |
| EI:35 | Starter control-HS |
| EI:37 | EMS loads power supply-3 for R10 |
| EI:39 | GND-EMS-1 |
| EI:7 | VBC - Preheat drive |
| EI:10 | VBC - Alternator control 1 |
| EI:12 | VBC - Alternator |
| EI:14 | VBC - switches, heat sensor |
| EI:16 | VBC - switches, heat sensor feedback |
| EI:17 | VBC - Alternator |
| EI:19 | Not used |
| EI:20 | Not used |
| EI:24 | VBC - Fan Speed + |
| EI:29 | VBC - Fan Speed - |
| EI:30 | VBC - Stop Request |
| EI:32 | Not used |
| EI:34 | Engine subnet CAN H |
| EI:36 | Engine subnet CAN L |
| EI:38 | Prevost - Preheat drive |

VOLVO

Group Trucks Technology

Document Title

WIRING DIAGRAM

Document Type

INSTALLATION REQUIREMENT

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03

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01

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