

| Pin | Connection | Test condition | Volts/ Duty Cycle etc |
|-----|---|---|-----------------------------------|
| 1 | ignition coil driver (cyl 1) : t1 | ignition on engine running: dynamic volt drop primary switching | nbv 2.0 V (max) 300 V (min) |
| 2 | ignition coil driver (cyl 3) : t1 | ignition on engine running: dynamic volt drop primary switching | nbv 2.0 V (max) 300 V (min) |
| 3 | ignition coil driver (cyl 5) : t1 | ignition on engine running: dynamic volt drop primary switching | nbv 2.0 V (max) 300 V (min) |
| 4 | earth | ignition on/engine running | 0.25 V (max) |
| 5 | injector driver (cyl 6) : t1 | ignition on engine running | nbv 4.1 ± 0.5 ms |
| 6 | injector driver (cyl 4) : t1 | ignition on engine running | nbv 4.1 ± 0.5 ms |
| 7 | -- | | |
| 8 | P/N switch : | ignition on transmission in neutral transmission out of neutral | 1.25 V (max) nbv |
| 9 | A/C compressor : t2 | | data not available |
| 10 | A/C pressure switch | | data not available |
| 11 | -- | | |
| 12 | VSS (instrument panel) : t2 | engine running, drive wheels turning (limit speed to 18 mph if the drive wheels are raised from the ground) | 0 to 12 V (switching) |
| 13 | -- | | |
| 14 | ignition timing intervention : t35 (Electronic transmission control) | on during AT downshifts | 1.25 V (max) |
| 15 | anti-theft module : t3 | alarm armed | 10 V (min) |
| 16 | -- | | |
| 17 | fuel consumption signal : t21 | | data not available |
| 18 | Engine speed signal output to instrument cluster | engine running | 0 to 12 V (switching) |
| 19 | -- | | |
| 20 | Throttle position signal to AT | engine running | 0 to 12 V (switching) |
| 21 | -- | | |
| 22 | injector driver (cyl 3) : t1 | ignition on engine running | nbv 4.1 ± 0.5 ms |
| 23 | injector driver (cyl 1) : t1 | ignition on engine running | nbv 4.1 ± 0.5 ms |
| 24 | A/C compressor relay driver : t85 | ignition on engine running | nbv 1.25 V (max) |
| 25 | camshaft control driver : t1 | ignition on engine running non-active active | nbv 1.25 V (max) |

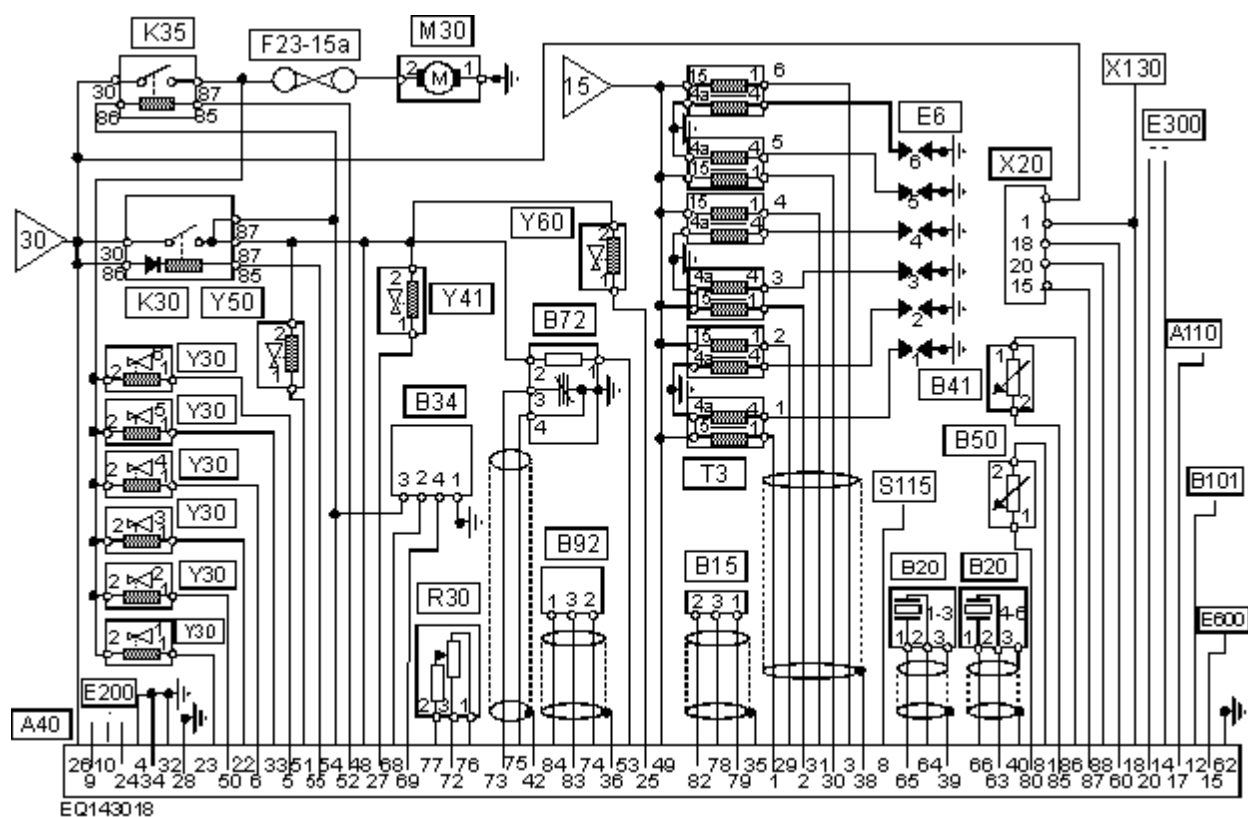
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| | | | |
|----|--|---|---|
| 26 | supply from battery : t30 | ignition off/on/engine running | nbv |
| 27 | ISCV driver : t1 | ignition on engine running duty cycle | nbv 9.2 V (approx) 30 to 60% |
| 28 | earth | ignition on/engine running | 0.25 V (max) |
| 29 | ignition coil driver (cyl 2) : t1 | ignition on engine running: dynamic volt drop primary switching | nbv 2.0 V (max) 300 V (min) |
| 30 | ignition coil driver (cyl 4) : t1 | ignition on engine running: dynamic volt drop primary switching | nbv 2.0 V (max) 300 V (min) |
| 31 | ignition coil driver (cyl 6) : t1 | ignition on engine running: dynamic volt drop primary switching | nbv 2.0 V (max) 300 V (min) |
| 32 | earth | ignition on/engine running | 0.25 V (max) |
| 33 | injector driver (cyl 5) : t1 | ignition on engine running | nbv 4.1 ± 0.5 ms |
| 34 | earth | ignition on/engine running | 0.25 V (max) |
| 35 | shield, CAS | ignition on/engine running | 0.25 V (max) |
| 36 | shield, camshaft sensor | ignition on/engine running | 0.25 V (max) |
| 37 | -- | | |
| 38 | -- | | |
| 39 | shield, KS 1 | ignition on/engine running | 0.25 V (max) |
| 40 | shield, KS 2 | ignition on/engine running | 0.25 V (max) |
| 41 | -- | | |
| 42 | shield, OS signal | ignition on/engine running | 0.25 V (max) |
| 43 | -- | | |
| 44 | -- | | |
| 45 | -- | | |
| 46 | -- | | |
| 47 | -- | | |
| 48 | supply from main relay : t87 | ignition on/engine running | nbv |
| 49 | supply from ignition switch : t15 | ignition on/engine running | nbv |
| 50 | injector driver (cyl 2) : t1 | ignition on engine running | nbv 4.1 ± 0.5 ms |
| 51 | CFSV driver : t1 | ignition on engine running CFSV inactive CFSV active duty cycle | nbv nbv 1.25 V (max) 0 to 99% |
| 52 | FP relay driver : t85 | ignition on cranking/running | nbv 1.25 V (max) |
| 53 | OS heater driver : t1 | ignition on engine running inactive active duty cycle | nbv nbv 1.25 V (max) 0 to 100% |
| 54 | supply from main relay : t87 | ignition on/engine running | nbv |
| 55 | main relay driver : t85 | ignition off ignition on/engine running | nbv 1.25 V (max) |
| 56 | -- | | |
| 57 | -- | | |
| 58 | -- | | |
| 59 | -- | | |
| 60 | programming voltage, SD connector : t18 | only active during programming | nbv |
| 61 | -- | | |
| 62 | earth | ignition on/engine running | 0.25 V (max) |
| 63 | KS2 signal (cyl 4, 5 and 6) : t2 | engine running, KS active | 1.0 V AC (approx) (peak to peak) |
| 64 | KS1 signal (cyl 1, 2 and 3) : t2 | engine running, KS active | 1.0 V AC (approx) (peak to peak) |
| 65 | KS1 return (cyl 1, 2 and 3) : t1 | ignition on/engine running | 0.25 V (max) |

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| | | | |
|----|---------------------------------|---|---|
| 66 | KS2 return cyl 4, 5 and 6) : t1 | ignition on/engine running | 0.25 V (max) |
| 67 | -- | | |
| 68 | AFS signal : t2 | idle speed idle output range volume | 0.5 to 5.0 V (switching) 14 to 22 kg/h |
| 69 | AFS earth : t4 | ignition on/engine running | 0.25 V (max) |
| 70 | -- | | |
| 71 | -- | | |
| 72 | TPS supply : t3 | ignition on/engine running | 5.0 V \pm 0.1 |
| 73 | OS return : t4 | ignition on/engine running | 0.25 V (max) |
| 74 | camshaft sensor oscillator : t2 | ignition on/engine running frequency | 0 to 5.0 V (switching) 110 kHz |
| 75 | OS signal : t3 | engine running, hot | 0.4 to 4.7 V (switching) |
| 76 | TPS return : t1 | ignition on/engine running | 0.25 V (max) |
| 77 | TPS signal : t2 | ignition on/engine running throttle closed fully open | 0.5 \pm 0.2 V 4.5 \pm 0.2 V |
| 78 | CAS return : t3 | ignition on/engine running | 0.25 V (max) |
| 79 | CAS signal : t1 | engine running | 0 to 5 V (switching) |
| 80 | CTS return : t1 | ignition on/engine running | 0.25 V (max) |
| 81 | CTS signal : t2 | ignition on/engine running | 20°C: 3.7 V 80°C: 1.0 V |
| 82 | CAS oscillator : t2 | ignition on/engine running frequency | 0 to 5.0 V (switching) 150 kHz |
| 83 | camshaft sensor return : t3 | ignition on/engine running | 0.25 V (max) |
| 84 | camshaft sensor signal : t1 | engine running | 0 to 5 V (switching) |
| 85 | ATS signal : t2 | engine running | 20°C 3.0 |
| 86 | ATS return : t1 | ignition on/engine running | 0.25 V (max) |
| 87 | SD connector RxD : | SD connector cover closed | nbv |
| 88 | SD connector TxD | | data not available |

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Component codes

| Code | description |
|-------------|--|
| 15 | Ignition switch supply |
| 30 | Battery supply |
| A40 | Engine management control unit (ECM) |
| A110 | Trip computer |
| B15 | Crank Angle Sensor (CAS), frequency based |
| B20 | Knock Sensor (KS) |
| B32 | Mass Air Flow (MAF) Sensor |
| B41 | Air Temperature Sensor (ATS) |
| B50 | Coolant Temperature Sensor (CTS) |
| B72 | Heated Oxygen Sensor (OS) (Titanium) |
| B92 | Camshaft Sensor (frequency based) |
| B101 | Vehicle Speed Signal (VSS), instrument panel |
| E6 | Spark plugs |
| E200 | A/C component |
| E300 | AT component |
| E400 | ABS component |
| E600 | Anti-theft |
| E900 | Airbag Component |
| F1 | Fuse (control unit) |
| F2 | Fuse (fuel pump) |
| F3 | Fuse (general) |
| F4 | Fuse (Oxygen sensor) |
| K30 | Main relay |
| K35 | Fuel Pump Relay |
| M30 | Fuel Pump |
| R30 | Throttle Position Sensor (TPS) |
| S115 | P/N Switch |
| T3 | Distributorless ignition coil (single sparkplug) |
| X1 | SD Connector |
| Y30 | Fuel injector (Multi point) |
| Y41 | Idle Speed Control Valve (ISCV) (2-wire) |
| Y50 | Purge Valve (CFSV) |
| Y60 | Camshaft Control Valve |

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