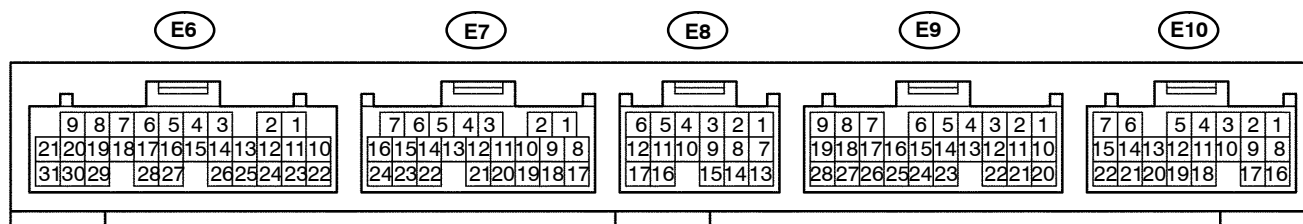


# TERMINALS OF ECM

## ECM Terminals



A02508

A04997

| Symbols (Terminal No.)     | Wiring Color | Condition                                                       | STD Voltage (V)                                       |
|----------------------------|--------------|-----------------------------------------------------------------|-------------------------------------------------------|
| BATT (E10-1) - E1 (E7-17)  | B-R ↔ BR     | Always                                                          | 9 - 14                                                |
| +BM (E10-7) - E1 (E7-17)   | Y-B ↔ BR     |                                                                 |                                                       |
| IGSW (E10-9) - E1 (E7-17)  | B-R ↔ BR     | IG switch ON                                                    | 9 - 14                                                |
| +B (E10-16) - E1 (E7-17)   | B-Y ↔ BR     |                                                                 |                                                       |
| +B1 (E10-8) - E1 (E7-17)   | B-Y ↔ BR     |                                                                 |                                                       |
| MREL (E10-10) - E1 (E7-17) | B ↔ BR       | IG switch ON                                                    | 9 - 14                                                |
| VC (E7-2) - E2 (E7-18)     | L-R ↔ BR-W   | IG switch ON                                                    | 4.5 - 5.5                                             |
| VG (E7-10) - EVG (E7-19)   | L-Y ↔ G-W    | Idling, P or N position, A/C switch OFF                         | 0.5 - 3.0                                             |
| THA (E7-22) - E2 (E7-18)   | Y-B ↔ BR-W   | Idling, Intake air temp. 20°C (68°F)                            | 0.5 - 3.4                                             |
| THW (E7-14) - E2 (E7-18)   | G-B ↔ BR-W   | Idling, Engine coolant temp. 80°C (176°F)                       | 0.2 - 1.0                                             |
| VTA (E7-13) - E2 (E7-18)   | R-Y ↔ BR-W   | IG switch ON, Accelerator pedal released                        | 0.4 - 1.0                                             |
|                            |              | IG switch ON, Accelerator pedal depressed                       | 3.2 - 4.8                                             |
| VTA2 (E7-20) - E2 (E7-18)  | Y-B ↔ BR-W   | IG switch ON, Accelerator pedal released                        | 2.0 - 2.9                                             |
|                            |              | IG switch ON, Accelerator pedal depressed                       | 4.7 - 5.1                                             |
| VPA (E7-21) - E2 (E7-18)   | R ↔ BR-W     | IG switch ON, Accelerator pedal released                        | 0.3 - 0.9                                             |
|                            |              | IG switch ON, Accelerator pedal depressed                       | 3.2 - 4.8                                             |
| VPA2 (E7-9) - E2 (E7-18)   | R-B ↔ BR-W   | IG switch ON, Accelerator pedal released                        | 1.8 - 2.7                                             |
|                            |              | IG switch ON, Accelerator pedal depressed                       | 4.7 - 5.1                                             |
| OXL1 (E7-12) - E1 (E7-17)  | B ↔ BR       | Maintain engine speed at 2,500 rpm for 90 sec. after warming up | Pulse generation<br>(See page <a href="#">DI-77</a> ) |
| OXL2 (E9-18) - E1 (E7-17)  | B ↔ BR       |                                                                 |                                                       |
| OXR1 (E7-11) - E1 (E7-17)  | W ↔ BR       | Maintain engine speed at 2,500 rpm for 3 min. after warming up  | Pulse generation<br>(See page <a href="#">DI-77</a> ) |
| OXR2 (E9-27) - E1 (E7-17)  | W ↔ BR       |                                                                 |                                                       |
| HTL (E7-4) - E1 (E7-17)    | R ↔ BR       | Idling                                                          | Below 3.0                                             |
| HTL2 (E9-8) - E1 (E7-17)   | L ↔ BR       | IG switch ON                                                    | 9 - 14                                                |
| HTR (E7-3) - E1 (E7-17)    | Y ↔ BR       |                                                                 |                                                       |
| HTR2 (E9-7) - E1 (E7-17)   | R-B ↔ BR     |                                                                 |                                                       |
| #1 (E7-5) - E01 (E6-21)    | Y ↔ W-B      |                                                                 |                                                       |
| #2 (E7-6) - E01 (E6-21)    | B ↔ W-B      | IG switch ON                                                    | 9 - 14                                                |
| #3 (E6-1) - E01 (E6-21)    | L ↔ W-B      |                                                                 |                                                       |
| #4 (E6-2) - E01 (E6-21)    | R ↔ W-B      |                                                                 |                                                       |
| #5 (E6-3) - E01 (E6-21)    | G ↔ W-B      |                                                                 |                                                       |
| #6 (E6-4) - E01 (E6-21)    | R-L ↔ W-B    |                                                                 |                                                       |
| #7 (E6-5) - E01 (E6-21)    | W ↔ W-B      |                                                                 |                                                       |
| #8 (E6-6) - E01 (E6-21)    | B-W ↔ W-B    |                                                                 |                                                       |
| KNKL (E6-18) - E1 (E7-17)  | B ↔ BR       | Maintain engine speed at 4,000 rpm after warming up             | Pulse generation<br>(See page <a href="#">DI-70</a> ) |
| KNKR (E6-17) - E1 (E7-17)  | W ↔ BR       |                                                                 |                                                       |
| G2 (E6-10) - NE- (E6-22)   | R ↔ G        | Idling                                                          | Pulse generation<br>(See page <a href="#">DI-73</a> ) |
| NE+ (E6-23) - NE- (E6-22)  | L ↔ G        |                                                                 |                                                       |

2000 LEXUS LX470 (RM745U)

## DIAGNOSTICS – ENGINE

|                                                                                                                                                                                                                                      |                                                                                    |                                                    |                                                        |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|----------------------------------------------------|--------------------------------------------------------|
| PRG (E7-7) – E1 (E7-17)                                                                                                                                                                                                              | L-B ↔ BR                                                                           | IG switch ON                                       | 9 – 14                                                 |
| TPC (E9-10) – E1 (E7-17)                                                                                                                                                                                                             | L ↔ BR                                                                             | IG switch ON                                       | 9 – 14                                                 |
| PTNK (E9-22) – E2 (E7-18)                                                                                                                                                                                                            | L-B ↔ BR-W                                                                         | Ignition switch ON                                 | 2.9 – 3.7                                              |
|                                                                                                                                                                                                                                      |                                                                                    | Apply vacuum 4.0 kPa (30 mmHg, 1.18 in.Hg)         | Below 0.5                                              |
| SPD (E9-15) – E1 (E7-17)                                                                                                                                                                                                             | V ↔ BR                                                                             | IG switch ON, Rotate driving wheel slowly          | Pulse generation<br>(See page <a href="#">DI-100</a> ) |
| CL+ (E6-29) – CL- (E6-24)                                                                                                                                                                                                            | G ↔ L                                                                              | Idling                                             | Pulse generation<br>(See page <a href="#">DI-112</a> ) |
| M+ (E6-8) – E1 (E7-17)<br>M- (E6-7) – E1 (E7-17)                                                                                                                                                                                     | R ↔ BR<br>W ↔ BR                                                                   | Idling                                             | Pulse generation<br>(See page <a href="#">DI-109</a> ) |
| DI (E10-4) – E1 (E7-17)                                                                                                                                                                                                              | G-R ↔ BR                                                                           | IG switch ON                                       | 9 – 14                                                 |
| FPC (E10-5) – E1 (E7-17)                                                                                                                                                                                                             | G-W ↔ BR                                                                           | IG switch ON                                       | 0 – 3.0                                                |
| IGT1 (E6-11) – E1 (E7-17)<br>IGT2 (E6-12) – E1 (E7-17)<br>IGT3 (E6-13) – E1 (E7-17)<br>IGT4 (E6-14) – E1 (E7-17)<br>IGT5 (E6-15) – E1 (E7-17)<br>IGT6 (E6-16) – E1 (E7-17)<br>IGT7 (E6-25) – E1 (E7-17)<br>IGT8 (E6-26) – E1 (E7-17) | B ↔ BR<br>R ↔ BR<br>L ↔ BR<br>G ↔ BR<br>Y ↔ BR<br>B-Y ↔ BR<br>B-L ↔ BR<br>L-B ↔ BR | Idling                                             | Pulse generation<br>(See page <a href="#">DI-123</a> ) |
| IGF1 (E6-27) – E1 (E7-17)<br>IGF2 (E6-28) – E1 (E7-17)                                                                                                                                                                               | B-W ↔ BR<br>B-R ↔ BR                                                               | IG switch ON                                       | 4.5 – 5.5                                              |
|                                                                                                                                                                                                                                      |                                                                                    | Idling                                             | Pulse generation<br>(See page <a href="#">DI-123</a> ) |
| STP (E9-6) – E1 (E7-17)                                                                                                                                                                                                              | G-W ↔ BR                                                                           | Brake pedal is depressed                           | 7.5 – 14                                               |
|                                                                                                                                                                                                                                      |                                                                                    | Brake pedal is released                            | Below 1.5                                              |
| STA (E9-17) – E1 (E7-17)                                                                                                                                                                                                             | B-R ↔ BR                                                                           | Shift lever position P or N, Ignition switch START | 6.0 or more                                            |
| NSW (E9-20) – E1 (E7-17)                                                                                                                                                                                                             | B-W ↔ BR                                                                           | IG switch ON, Other shift position in P, N         | 9 – 14                                                 |
|                                                                                                                                                                                                                                      |                                                                                    | IG switch ON, Shift position in P, N               | 0 – 3.0                                                |
| W (E10-6) – E1 (E7-17)                                                                                                                                                                                                               | W ↔ BR                                                                             | Idling                                             | 9 – 14                                                 |
|                                                                                                                                                                                                                                      |                                                                                    | IG switch ON                                       | Below 3.0                                              |
| ACT (E9-13) – E1 (E7-17)                                                                                                                                                                                                             | L-B ↔ BR                                                                           | A/C switch OFF                                     | Below 3.0                                              |
|                                                                                                                                                                                                                                      |                                                                                    | A/C switch ON at idling                            | 9 – 14                                                 |
| A/C (E9-25) – E1 (E7-17)                                                                                                                                                                                                             | W-G ↔ BR                                                                           | A/C switch ON at idling                            | Below 3.0                                              |
|                                                                                                                                                                                                                                      |                                                                                    | A/C switch OFF                                     | 7.5 – 14                                               |
| ST1- (E10-19) – E1 (E7-17)                                                                                                                                                                                                           | R-G ↔ BR                                                                           | IG switch ON, Brake pedal is depressed             | Below 1.5                                              |
|                                                                                                                                                                                                                                      |                                                                                    | IG switch ON, Brake pedal is released              | 7.5 – 14                                               |
| SIL (E10-11) – E1 (E7-17)                                                                                                                                                                                                            | V-W ↔ BR                                                                           | During transmission                                | Pulse generation                                       |
| ELS (E9-12) – E1 (E7-17)                                                                                                                                                                                                             | G-W ↔ BR                                                                           | Taillight switch ON, Defogger switch ON            | 7.5 – 14                                               |
|                                                                                                                                                                                                                                      |                                                                                    | Taillight switch OFF, Defogger switch OFF          | 0 – 1.5                                                |
| TACH (E9-16) – E1 (E7-17)                                                                                                                                                                                                            | B ↔ BR                                                                             | Idling                                             | Pulse generation                                       |
| KSW (E10-20) – E1 (E7-17)                                                                                                                                                                                                            | R-B ↔ BR                                                                           | At time of inserting key                           | Below 1.5                                              |
|                                                                                                                                                                                                                                      |                                                                                    | In condition without key inserted                  | 4 – 5                                                  |
| RXCK (E10-13) – E1 (E7-17)                                                                                                                                                                                                           | V-G ↔ BR                                                                           | At time of inserting key                           | Pulse generation                                       |
| CODE (E10-12) – E1 (E7-17)                                                                                                                                                                                                           | L-B ↔ BR                                                                           | At time of inserting key                           | Pulse generation                                       |
| TXCT (E10-14) – E1 (E7-17)                                                                                                                                                                                                           | R-Y ↔ BR                                                                           | At time of inserting key                           | Pulse                                                  |