## TERMINALS OF ECM



HINT:
The standard voltage of each ECM terminal is shown in the table below.
In the table, first follow the information under "Condition". Look under "Symbols (Terminal No.)" for the terminals to be inspected. The standard voltage between the terminals is shown under "Specified Condition". Use the illustration above as a reference for the ECM terminals.

## Standard voltage:

| Symbols (Terminals No.) | Wiring Color | Terminal Description | Condition | Specified Condition |
| :---: | :---: | :---: | :---: | :---: |
| NSW (E8-30) - E1 (E4-3) | $V-B R$ | Park/neutral switch signal | IG switch ON and shift lever P and N positions | Below 1 V |
| NSW (E8-30) - E1 (E4-3) | $V-B R$ | Park/neutral switch signal | IG switch ON and shift lever other than P and N positions | 10 to 14 V |
| STP (E7-4) - E1 (E4-3) | L - BR | Stop light switch signal | Brake pedal is depressed | 7.5 to 14 V |
| STP (E7-4) - E1 (E4-3) | L-BR | Stop light switch signal | Brake pedal is released | Below 1.5 V |
| L (E7-9) - E1 (E4-3) | G-Y - BR | L shift position switch signal | IG switch ON and shift lever L position | 10 to 14 V |
| L (E7-9) - E1 (E4-3) | G-Y - BR | L shift position switch signal | IG switch ON and shift lever other than L position | Below 1 V |
| 2 (E7-10) - E1 (E4-3) | R-Y - BR | 2 shift position switch signal | IG switch ON and shift lever 2 position | 10 to 14 V |
| 2 (E7-10) - E1 (E4-3) | $\mathrm{R}-\mathrm{Y}-\mathrm{BR}$ | 2 shift position switch signal | IG switch ON and shift lever other than 2 position | Below 1 V |
| $R$ (E7-11) - E1 (E4-3) | R-W - BR | R shift position switch signal | IG switch ON and shift lever $R$ position | 10 to 14 V |
| $R(E 7-11)-E 1(E 4-3)$ | R-W-BR | R shift position switch signal | IG switch ON and shift lever other than R position | Below 1 V |
| 3 (E7-19) - E1 (E4-3) | Y - BR | 3 shift position switch signal | IG switch ON and shift lever 3 position | 10 to 14 V |
| 3 (E7-19) - E1 (E4-3) | Y - BR | 3 shift position switch signal | IG switch ON and shift lever other than 3 position | Below 1 V |
| $D(E 7-21)-E 1(E 4-3)$ | L-B - BR | D shift position switch signal | IG switch ON and shift lever D position | 10 to 14 V |
| $D(E 7-21)-E 1(E 4-3)$ | L-B - BR | D shift position switch signal | IG switch ON and shift lever other than D position | Below 1 V |
| S2 (E5-8) - E1 (E4-3) | L-W - BR | S2 solenoid signal | 2nd or 3rd gear | 10 to 14 V |
| S2 (E5-8) - E1 (E4-3) | L-W - BR | S2 solenoid signal | 1st or 4th gear | Below 1 V |
| S1 (E5-9) - E1 (E4-3) | W-G - BR | S1 solenoid signal | 1st or 2nd gear | 10 to 14 V |
| S1 (E5-9) - E1 (E4-3) | W-G - BR | S1 solenoid signal | 3rd and 4th gears | Below 1 V |
| SLU+ (E5-11) - SLU- (E5-10) | V-LG | SLU solenoid signal | 3rd (lock-up) or 4th (lock-up) gear | Pulse generation (See waveform 2) |
| SLT+ (E5-12) - SLT- (E5-13) | G-B - R-B | SLT solenoid signal | Engine idling speed | Pulse generation (See waveform 1) |


| Symbols (Terminals No.) | Wiring Color | Terminal Description | Condition | Specified Condition |
| :---: | :---: | :--- | :--- | :---: |
| THO1 (E5-24) - E2 (E4-28) | Y-B - BR | ATF temperature sensor <br> signal | ATF temperature: $115^{\circ} \mathrm{C}\left(239^{\circ} \mathrm{F}\right)$ <br> or more | Below 1.5 V |
| NCO+ (E5-34) - NCO- (E5- <br> $26)$ | Y-L | Speed sensor (NCO) <br> signal | Engine idling speed | Pulse generation <br> (See waveform 3) |
| SP2+ (E5-35) - SP2- (E5-27) | G - R | Speed sensor (SP2) <br> signal | Vehicle speed $12 \mathrm{mph}(20 \mathrm{~km} / \mathrm{h})$ | Pulse generation <br> (See waveform 4) |
| THOC (E4-22) - E2 (E4-28) | GR - BR | ATF temperature sensor <br> signal | ATF temperature: $115^{\circ} \mathrm{C}\left(239{ }^{\circ} \mathrm{F}\right)$ <br> or more | Below 1.5 V |



## 1. Waveform 1

| Item | Content |
| :--- | :--- |
| Terminal | SLT+ (E5-12) - SLT- (E5-13) |
| Tool setting | 5V/DIV, 1ms/DIV |
| Vehicle condition | Engine idling speed |

## 2. Waveform 2

| Item | Content |
| :--- | :--- |
| Terminal | SLU+ (E5-11) - SLU- (E5-10) |
| Tool setting | 5V/DIV, 1ms/DIV |
| Vehicle condition | 3rd (lock-up) or 4th (lock-up) gear |

## 3. Waveform 3

| Item | Content |
| :--- | :--- |
| Terminal | NCO+ (E5-34) - NCO- (E5-26) |
| Tool setting | 1V/DIV, 2ms/DIV |
| Vehicle condition | Engine idling speed (P or N position) |

## 4. Waveform 4

| Item | Content |
| :--- | :--- |
| Terminal | SP2+ (E5-35) - SP2- (E5-27) |
| Tool setting | 2V/DIV, 20ms/DIV |
| Vehicle condition | Vehicle speed $12 \mathrm{mph}(20 \mathrm{~km} / \mathrm{h})$ |

