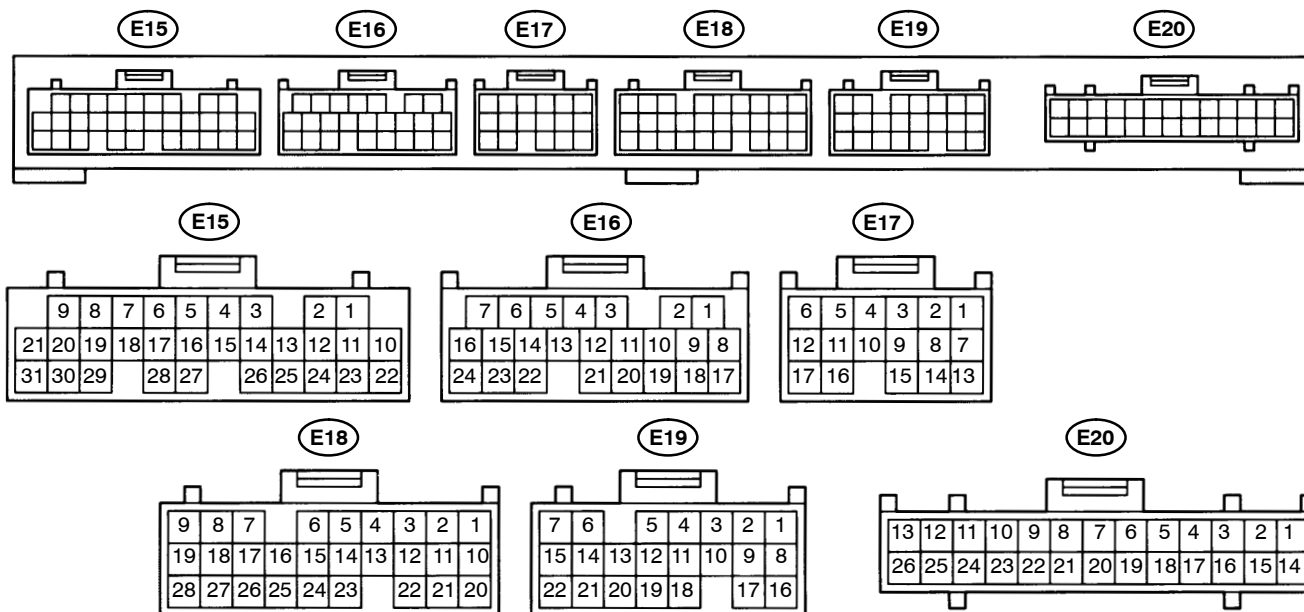


## TERMINALS OF ECM

### ECM Terminals



A01888

Symbols (Terminals No.)	Wiring Color	Condition	STD Voltage (V)
BATT (E19-1) - E1 (E16-17)	B-W ↔ W-R	Always	9 ~ 14
+BM (E19-7) - E1 (E16-17)	L-R ↔ W-R		
IGSW (E19-9) - E1 (E16-17)	B-O ↔ W-R	IG switch ON	9 ~ 14
+B (E19-16) - E1 (E16-17)	B-R ↔ W-R		
+B1 (E19-8) - E1 (E16-17)	B-R ↔ W-R		
VC (E16-2) - E2 (E16-18)	L-B ↔ BR	IG switch ON	4.5 ~ 5.5
VTA (E16-13) - E2 (E16-18)	Y ↔ BR	IG switch ON Accelerator pedal released	0.4 ~ 1.0
		IG switch ON Accelerator pedal depressed	3.2 ~ 4.8
VTA2 (E16-20) - E2 (E16-18)	R-Y ↔ BR	IG switch ON Accelerator pedal released	2.0 ~ 2.9
		IG switch ON Accelerator pedal depressed	4.6 ~ 5.1
VPA (E16-21) - E2 (E16-18)	Y-R ↔ BR	IG switch ON Accelerator pedal released	0.3 ~ 0.9
		IG switch ON Accelerator pedal depressed	3.2 ~ 4.8
VPA2 (E16-9) - E2 (E16-18)	R-L ↔ BR	IG switch ON Accelerator pedal released	1.8 ~ 2.7
		IG switch ON Accelerator pedal depressed	4.7 ~ 5.1
VG (E16-10) - EVG (E16-19)	L-W ↔ G-W	Idling, P or N position, A/C switch OFF	0.5 ~ 3.0
THA (E16-22) - E2 (E16-18)	Y-G ↔ BR	Idling, Intake air temp. 20°C (68°F)	0.5 ~ 3.4
THW (E16-14) - E2 (E16-18)	LG ↔ BR	Idling, Engine coolant temp. 80°C (176°F)	0.2 ~ 1.0
STA (E18-17) - E1 (E16-17)	G-R ↔ W-R	Shift lever position P or N position, ignition switch START	6.0 or more

Symbols (Terminals No.)	Wiring Color	Condition	STD Voltage (V)
#1 (E16-5) – E01 (E15-21)	Y ↔ W-B	IG switch ON	9 ~ 14
#2 (E16-6) – E01 (E15-21)	R ↔ W-B		
#3 (E15-1) – E01 (E15-21)	B ↔ W-B		
#4 (E15-2) – E01 (E15-21)	B-R ↔ W-B	Idling	Pulse generation (See page <a href="#">DI-221</a> )
#5 (E15-3) – E01 (E15-21)	W-L ↔ W-B		
#6 (E15-4) – E01 (E15-21)	R-W ↔ W-B		
#7 (E15-5) – E01 (E15-21)	L-R ↔ W-B		
#8 (E15-6) – E01 (E15-21)	G ↔ W-B		
IGT1 (E15-11) – E1 (E16-17)	R-W ↔ W-R	Idling	Pulse generation (See page <a href="#">DI-287</a> )
IGT2 (E15-12) – E1 (E16-17)	W-R ↔ W-R		
IGT3 (E15-13) – E1 (E16-17)	Y-G ↔ W-R		
IGT4 (E15-14) – E1 (E16-17)	R-Y ↔ W-R		
IGT5 (E15-15) – E1 (E16-17)	P ↔ W-R		
IGT6 (E15-16) – E1 (E16-17)	G-R ↔ W-R		
IGT7 (E15-25) – E1 (E16-17)	LG ↔ W-R		
IGT8 (E15-26) – E1 (E16-17)	L-B ↔ W-R		
IGF1 (E15-27) – E1 (E16-17)	G-B ↔ W-R	IG switch ON	4.5 ~ 5.5
IGF2 (E15-28) – E1 (E16-17)	L-R ↔ W-R	Idling	Pulse generation (See page <a href="#">DI-287</a> )
G2 (E15-10) – NE- (E15-22)	L ↔ W	Idling	Pulse generation (See page <a href="#">DI-231</a> )
NE+ (E15-23) – NE- (E15-22)	B ↔ W		
MREL (E19-10) – E1 (E16-17)	B-Y ↔ W-R	IG switch ON	9 ~ 14
DI (E19-4) – E1 (E16-17)	P ↔ W-R	IG switch ON	0 ~ 3.0
FPC (E19-5) – E1 (E16-17)	R-W ↔ W-R	IG switch ON	9 ~ 14
STP (E18-6) – E1 (E16-17)	G-W ↔ W-R	Brake pedal is depressed	7.5 ~ 14
		Brake pedal is released	Below 1.5
PRG (E16-7) – E1 (E16-17)	G-R ↔ W-R	IG switch ON	9 ~ 14
TPC (E18-10) – E1 (E16-17)	W-L ↔ W-R	IG switch ON	9 ~ 14
PTNK (E18-22) – E2 (E16-18)	R ↔ BR	Ignition switch ON	2.9 ~ 3.7
		Apply vacuum 4.0 kPa (30 mmHg, 1.2 in. Hg)	Below 0.5
OXL1 (E16-12) – E1 (E16-17)	W ↔ W-R	Maintain engine speed at 2,500 rpm for 2 minutes after warming up	Pulse generation (See page <a href="#">DI-236</a> )
OXL2 (E18-18) – E1 (E16-17)	R-L ↔ W-R		
OXR1 (E16-11) – E1 (E16-17)	B ↔ W-R		
OXR2 (E18-27) – E1 (E16-17)	G ↔ W-R		
HTL (E16-4) – E1 (E16-17)	L ↔ W-R	Idling	Below 3.0
HTL2 (E18-8) – E1 (E16-17)	BR-W ↔ W-R		
HTR (E16-3) – E1 (E16-17)	R-W ↔ W-R	IG switch ON	9 ~ 14
HTR2 (E18-7) – E1 (E16-17)	R-Y ↔ W-R		
KNKL (E15-18) – E1 (E16-17)	W ↔ W-R	Maintain engine speed at 4,000 rpm after warming up	Pulse generation (See page <a href="#">DI-227</a> )
KNKR (E15-17) – E1 (E16-17)	W ↔ W-R		
TC (E18-5) – E1 (E16-17)	Y ↔ W-R	IG switch ON	9 ~ 14
W (E19-6) – E1 (E16-17)	L-Y ↔ W-R	Idling	9 ~ 14
		IG switch ON	Below 3.0
ACMG (E18-13) – E1 (E16-17)	W ↔ W-R	A/C switch ON (At Idling)	Below 3.0
		A/C switch OFF	9 ~ 14
ENG+ (E19-14) – ENG- (E19-21)	B ↔ W	Idling	Pulse generation
TRC+ (E19-13) – TRC- (E19-20)	BR ↔ Y		

## DIAGNOSTICS - ENGINE (1UZ-FE)

Symbols (Terminals No.)	Wiring Color	Condition	STD Voltage (V)
VVL+ (E16-16) - VVL- (E16-24)	R ↔ G	Idling	Pulse generation (See page <a href="#">DI-295</a> )
VVR+ (E16-15) - VVR- (E16-23)	B-R ↔ BR		
OCV+ (E15-20) - OCV- (E15-19)	B-W ↔ R-B	IG switch ON	Pulse generation (See page <a href="#">DI-298</a> )
OCR+ (E18-19) - OCR- (E18-28)	W-R ↔ G-Y		
ACIS (E15-29) - E01 (E15-21)	L-W ↔ W-B	IG switch ON	9 ~ 14
		Engine speed between 2,500 rpm and 4,000 rpm	Below 3.0
CL+ (E17-12) - CL- (E16-8)	L-B ↔ L-Y	Idling	Pulse generation (See page <a href="#">DI-275</a> )
M+ (E15-8) - E1 (E16-17) M- (E15-7) - E1 (E16-17)	R ↔ W-R G ↔ W-R	Idling	Pulse generation (See page <a href="#">DI-272</a> )
SIL (E19-11) - E1 (E16-17)	B ↔ W-R	During transmission	Pulse generation
SP2+ (E17-5) - SP2- (E17-11)	P ↔ V	Vehicle is driving	Pulse generation (See page <a href="#">DI-261</a> )