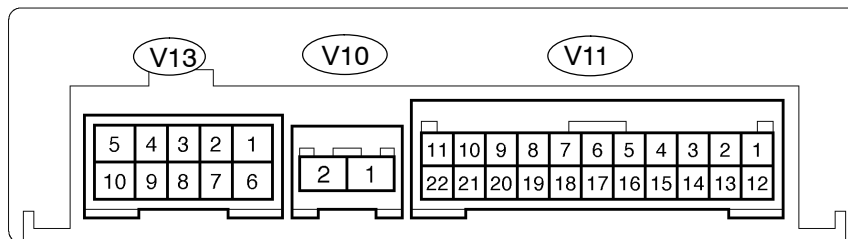


TERMINALS OF ECU



N

F17007

Symbols (Terminals No.)	Wiring Color	Condition	STD Voltage (V)
BMV (V13-1) – BMW (V13-6)	G – L	IG switch ON	0.1 to 1 Ω
MSW (V13-2) – MGND (V13-7)	W – GR	Turn the steering wheel	Repeat below 1 kΩ or Above 100 kΩ
LGND (V13-3) – Body ground	B	IG switch ON	Below 1.0 V
MSU (V13-4) – MGND (V13-7)	Y – GR	Turn the steering wheel	Repeat below 1 kΩ or Above 100 kΩ
BMU (V13-5) – BMW (V13-6)	BR – L	IG switch OFF	0.1 to 1 Ω
BMW (V13-6) – BMV (V13-1)	L – G	IG switch OFF	0.1 to 1 Ω
MGND (V13-7) – Body ground	GR	Always	Continuity
MSV (V13-8) – MGND (V13-7)	G-R – GR	Turn the steering wheel	Repeat below 1 kΩ or Above 100 kΩ
MV (V13-10) – Body ground	R	Always	Continuity
MSW (V13-2) – GND (V11 – 6 or 22)	W – W-B	Turn the steering wheel	Repeat below 1 or Above 4 V
LGND (V13-3) – GND (V11 – 6 or 22)	B – W-B	IG switch ON	Below 1.0 V
MSU (V13-4) – GND (V11 – 6 or 22)	Y – W-B	Turn the steering wheel	Repeat below 1 or Above 4 V
MGND (V13-7) – GND (V11 – 6 or 22)	GR – W-B	Always	Below 1 V
MSV (V13-8) – GND (V11 – 6 or 22)	G-R – W-B	Turn the steering wheel	Repeat below 1 or Above 4 V
PIG (V10 – 1) – PGND (V10 – 2)	W – W-B	Idling	9 to 16 V
PGND (V10 – 2) – Body ground	W-B	Always	Below 1 V
TS (V11 – 1) – GND (V11 – 6 or 22)	W – W-B	IG switch ON	10 to 14 V
+BI (V11 – 2) – GND (V11 – 6 or 22)	LG – W-B	IG switch ON	10 to 14 V
IG (V11 – 3) – GND (V11 – 6 or 22)	B-W – W-B	IG switch ON	10 to 14 V
SS1 (V11 – 4) – GND (V11 – 6 or 22)	B-Y – W-B	Turn the steering wheel	Repeat below 1 or Above 4 V
SS3 (V11 – 5) – GND (V11 – 6 or 22)	B-L – W-B	Turn the steering wheel	Repeat below 1 or Above 4 V
GND (V11 – 6) – Body ground	W-B	Always	Below 1.0 V
AFS+ (V11 – 7) – AFS- (V11 – 17)	LG-R – GR-B	IG switch ON	Pulse generation
VSC+ (V11 – 8) – VSC- (V11 – 18)	V – Y-G	IG switch ON	Pulse generation
TA+ (V11 – 9) – TA- (V11 – 21)	R – G-W	IG switch ON	Pulse generation
FRO (V11 – 11) – GND (V11 – 6 or 22)	R-W – W-B	Vehicle driving at about 20 km/h (12 mph)	Pulse generation
TC (V11 – 12) – GND (V11 – 6 or 22)	P-B – W-B	IG switch ON	10 to 14 V

DIAGNOSTICS – VARIABLE GEAR RATIO STEERING

Symbols (Terminals No.)	Wiring Color	Condition	STD Voltage (V)
+BO (V11 – 13) – GND (V11 – 6 or 22)	L-W – W-B	Always	10 to 14 V
SIL (V11 – 14) – GND (V11 – 6 or 22)	V-W – W-B	IG switch ON	10 to 14 V
SS2 (V11 – 15) – GND (V11 – 6 or 22)	G-W – W-B	Turn the steering wheel	Repeat below 1 or Above 4 V
WL (V11 – 16) – GND (V11 – 6 or 22)	R-B – W-B	After IG switch ON and VGRS warning light turns on for 1.5 sec. then it goes off	Below 1.0 V
FLO (V11 – 20) – GND (V11 – 6 or 22)	R-Y – W-B	Vehicle driving at about 20 km/h (12 mph)	Pulse generation
GND2 (V11 – 22) – Body ground	W-B	Always	Below 1.0 V