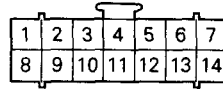


TCS Control Unit Terminal Arrangement

TCS CONTROL UNIT 14P CONNECTOR

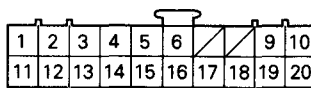


Wire side of female terminals

VB: Battery Voltage

Terminal number	Wire color	Terminal sign (Terminal name)	Description	Voltage		
				Measurement terminals	Conditions (Ignition Switch ON (ID))	Output voltage
1	WHT/GRN	FRP (Front right pulse)	Detects right-front wheel sensor signal	1-GND	Rotate the right-front wheel.	About 2.5 V
2	BLU/GRY	WARN1 (Warning 1)	Drives TCS indicator light (The indicator light comes on by the self-bias)	2-GND	Indicator light ON	About 2 V
					Indicator light OFF	VB
3	WHT/RED	FLP (Front left pulse)	Detects left-front wheel sensor signal	3-GND	Rotate the left-front wheel.	About 2.5 V
4	BRN/BLK	LG1 (Logic ground 1)	Ground for the logic circuit	4-GND		Below 0.3 V
5	GRY/BLK	RRP (Rear right pulse)	Detects right-rear wheel sensor signal	5-GND	Rotate the right-rear wheel.	About 2.5 V
6	RED	θ TCV (θ traction control valve)	Detects TCS control valve sensor signal	6-GND	TCS control valve is fully closed.	About 0.5 V
					TCS control valve is fully open.	About 4.5 V
7	GRY/WHT	RLP (Rear left pulse)	Detects left-rear wheel sensor signal	7-GND	Rotate the right-rear wheel.	About 2.5 V
8	LT GRN/RED	TC-INH (Traction control inhibit)	FI → TCS, TCS operation permission signal	8-GND	Permission (normal)	About 2.5 V (5 V, Duty 50)
					Inhibition (the coolant temperature is 0°C or below)	About 5 V
					Failure (TCS and/or PCM is failure)	About 0 V
9	GRY	STR-B (Steering B)	Detects steering angle sensor signal B	9-GND	Rotate the steering wheel.	5 V ↔ 0 V
10	PNK/BLK	TC-STB (Traction control standby)	TCS → FI, TCS operation start signal	10-GND	TCS is functioning.	0 V
					TCS is not functioning.	About 5 V
11	WHT/BLK	TC-SW (Traction control switch)	Detects TCS switch signal	11-GND	Push the TCS switch.	VB
					Release the TCS switch.	0 V
12	BLU/WHT	VREF (Voltage reference)	Reference voltage for the sensors of the PGM-FI system	12-GND		About 5 V
13	BRN/YEL	STR-A (Steering A)	Detects steering angle sensor signal A	13-GND	Rotate the steering wheel.	5 V ↔ 0 V
14	RED/BLK	TPS (Throttle position sensor)	Detects throttle position sensor signal	14-GND	Throttle valve is fully closed.	About 0.5 V
					Throttle valve is fully open.	About 4.5 V

TCS CONTROL UNIT 20P CONNECTOR



Wire side of female terminals

VB: Battery Voltage

Terminal number	Wire color	Terminal sign (Terminal name)	Description	Voltage		
				Measurement terminals	Conditions (Ignition Switch ON (II))	Output voltage
1	BLK/YEL	IG1 (Ignition 1)	Detects ignition switch IG1 signal	1-GND		VB
2	GRN/RED	PARK (Parking)	Detects parking brake switch signal	2-GND	Depress the parking brake pedal.	Below 0.6 V
					Release the parking brake pedal.	VB
3	RED	SCS (Service check signal)	Detects service check connector signal (Diagnostic trouble code indication)	3-GND	SCS service connector connected.	0V
					SCS service connector disconnected.	5V
4	BLU	STR-GND (Steering ground)	Ground for the steering angle sensor	4-GND		Below 0.3V
5	PNK/BLU	AT-SHIFT (AT shift)	Detects A/T shift position signal	5-GND	Shift the transmission to  position, then start the engine.	About 4V (5V ↔ 0V)
6	BLK/WHT	FSR (Fail-saferelay)	Drives fail-safe relay	6-GND		VB
					Start the engine.	1.5V
9	BLK	PMG (Power motor Ground)	Power ground for the TCS control valve actuator motor	9-GND		Below 0.3 V
10	BRN/WHT	VPM (Voltage power motor)	Power source for the TCS control valve actuator motor	10-GND		0V
					Start the engine.	VB
11	GRN/WHT	STOP (Stop)	Detects brake pedal position switch signal	11-GND	Brake pedal depressed.	VB
					Brake pedal released.	0V
12	BLU	NEP (Engine speed pulse)	Detects engine speed signal	12-GND	Engine idling	About 6V (12V ↔ 0V)
13	GRN/ORN	BARO (Barometric)	Detects barometric sensor signal	13-GND		About 3 V
14	BLK/ORN	TC-FC (Traction control fuel cut)	TCS → FI, Fuel cut (torque down) signal	14-GND	TCS is functioning, (maximum fuel cut)	About 1.5V
					TCS is not functioning.	About 4.5 V (5 V, PWM)
15	BRN/BLK	LG2 (Logic ground 2)	Ground for the logic circuit	15-GND		Below 0.3V
16	WHT/BLU	STR-VCC (Steering power supply)	Power source for the steering angle sensor	16-GND		About 5 V
17	BLU/GRY	WARN2 (Warning 2)	Drives TCS indicator light (The indicator light comes on by the self-bias)	17-GND	Indicator light ON	About 2 V
					Indicator light OFF	VB
18	BLK	SH-MOT (Shield motor)	Shield for the TCS control valve actuator motor	—	—	—
19	GRN	MOT + (Motor +)	Drives TCS control valve actuator motor	19-20	TCS is functioning.	VB
					TCS is not functioning.	0V
20	BRN	MOT- (Motor -)	Drives TCS control valve actuator motor	20-19	TCS is functioning.	VB
					TCS is not functioning.	0V