

## J - PIN VOLTAGE CHARTS

**TKD Electronics**  
INGENIO, INNOVACION Y SERVICIO

**Fig. 2: 323 ECU Terminal Voltage & Sensor Range (2 of 3)**

**Courtesy of Mazda Motors Corp.**  
1989 Mazda 323

Terminal	Connected to	Voltage	Condition	Remark
1J (Input)	Brake light switch	Approx. 12V	Brake pedal depressed	
		Below 1.5V	Brake pedal released	
1K (Input)	Power steering switch	Approx. 12V	Power steering switch OFF	
		Below 1.5V	Power steering switch ON	
1L (Input)	A/C switch	Approx. 12V	A/C switch OFF	Blower motor ON
		Below 2.5V	A/C switch ON	
1M (Input)	Ignition coil	Approx. 12V	Ignition switch ON	(When engine running) Engine Signal Monitor: Green and red light flash
		Approx. 12V	At idle	
1N	—	—	—	—
1O	—	—	—	—
1P	—	—	—	—
1Q	—	—	—	—
1R	—	—	—	—
1S	—	—	—	—
1T	—	—	—	—
1U (Output)	Igniter	Below 1.5V	Ignition switch ON	
		Approx. 12V	At idle	
1V (Input)	MT switch (ground)	Below 1.5V	—	AT constant 12V
1W (Input)	Test connector	Below 1.5V	Test connector grounded	
		Approx. 12V	Test connector not grounded	
1X	—	—	—	—
2A (Output)	Vref	4.5—5.5V	—	—
2B (Input)	Air flow meter (Vc)	7—9V	—	—
2C	Ground (E2)	Below 1.5V	—	—
2D (Input)	Oxygen sensor	0.3—0.7V	At idle	
		More than 0.45V	During acceleration	
		Less than 0.45V	During acceleration	
2E (Input)	Air flow meter (Vs)	Approx. 2V	Ignition switch ON	
		4—5V	At idle	
2F	—	—	—	—
2G (Input)	Throttle sensor (PSW switch)	Approx. 12V	Accelerator pedal released	
		Below 1.5V	Accelerator pedal depressed (fully open throttle)	
2H (Input)	Atmospheric pressure sensor	Approx. 4V	—	At sea level
2I (Input)	Water thermo sensor	Approx. 0.5V	Normal operating temperature	
2J (Input)	Intake air thermo sensor (Air flow meter)	2—3V	Intake air temperature: 20°C (68°F)	
2K (Output)	Pressure regulator control valve (PRCV) solenoid	Below 1.5V	Intake air temp. more than 58°C (136°F) Water temp. more than 90°C (194°F)	If PRCV solenoid is equipped.
		Approx. 12V	Other	
2L	—	—	—	—
2M	—	—	—	—
2N	—	—	—	—
2O	No.2 purge control solenoid	Approx. 12V	Less than 1,500 rpm	
		Below 1.5V	More than 1,500 rpm	
2P	No.1 purge control valve solenoid	Below 1.5V	Intake air temp. more than 50°C (122°F) Water temp. more than 50°C (122°F)	In-gear condition. • Jumper wire connect to the Neutral switch (MTX) • Disconnect the inhibitor switch connector (ATV)
		Approx. 12V	Other	
2Q	Idle speed control (ISC) valve	1.5—11.6V	At idle	Engine Signal Monitor: Green and red light flash
2R	Ground	Below 1.5V	—	—
3A	Ground	Below 1.5V	—	—