

K - SENSOR RANGE CHARTS

1998 Mitsubishi Montero

1998 ENGINE PERFORMANCE

Mitsubishi - Sensor Operating Range Charts

Diamante, Eclipse, Galant, Mirage, Montero, Montero Sport, 3000GT

INTRODUCTION

Sensor operating range information can help determine if a sensor is out of calibration. An out-of-calibration sensor may not set a diagnostic trouble code, but it may cause driveability problems. For sensors not listed in this article, see G - TESTS W/CODES article.

NOTE: Unless stated otherwise in test procedure, perform all voltage tests using a Digital Volt-Ohmmeter (DVOM) with a minimum 10-megohm input impedance. For connector terminal identification, see TERMINAL IDENTIFICATION in G - TESTS W/CODES article.

ENGINE COOLANT TEMPERATURE (ECT) SENSOR RESISTANCE TABLE (1)

Application & Temperature °F (°C)	Ohms
Diamante, & Eclipse Turbo & 2.4L	
32 (0)	5100-6500
68 (20)	2100-2700
104 (40)	900-1300
176 (80)	260-360
Eclipse 2.0L Non-Turbo	
77 (25)	9000-11,000
212 (100)	600-800
Galant, Mirage & Montero Sport	
68 (20)	2100-2700
176 (80)	260-360
Montero & 3000GT	
32 (0)	5800
68 (20)	2400
104 (40)	1100
176 (80)	300

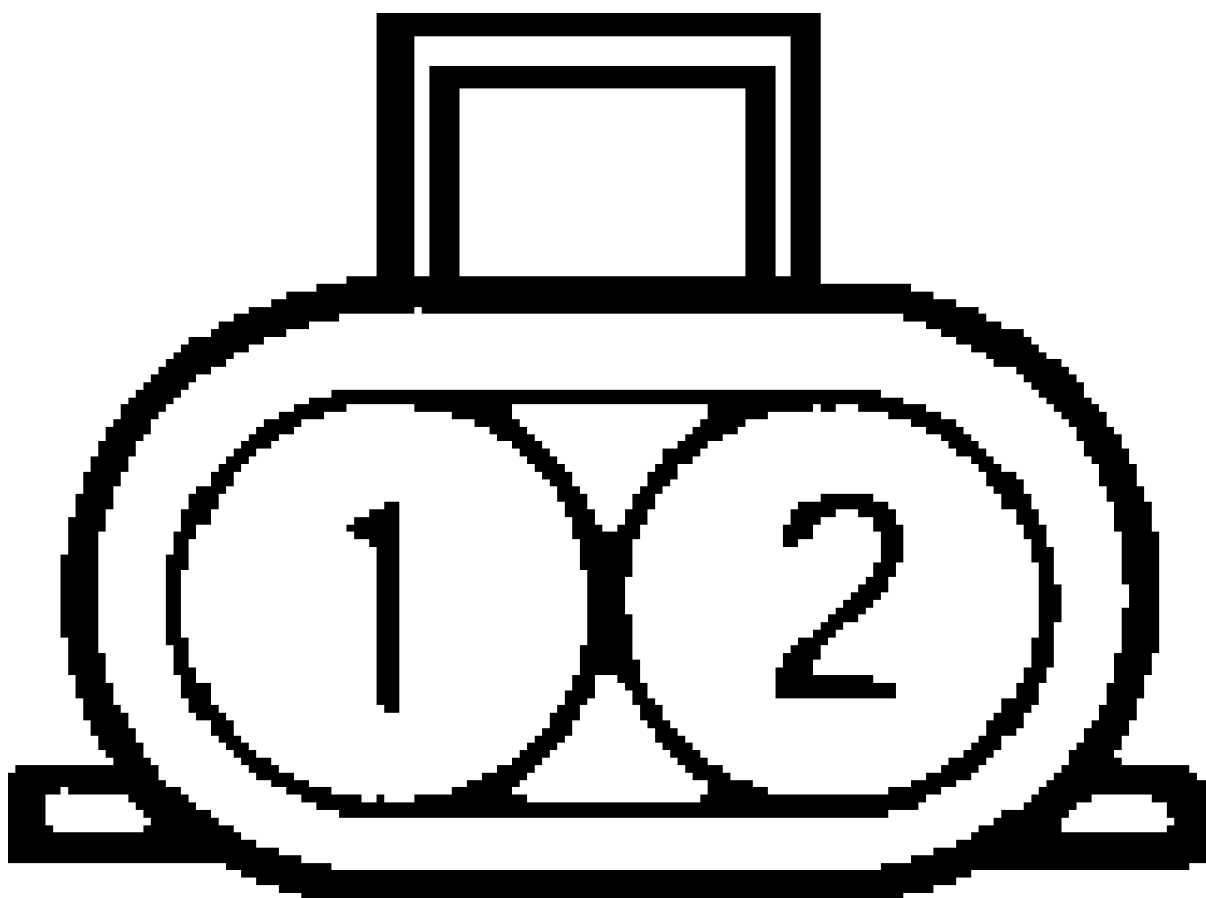
(1) - Check resistance across ECT sensor terminals.

INTAKE AIR TEMPERATURE (IAT) SENSOR RESISTANCE TABLE

Application & Temperature °F (°C)	Ohms
Diamante, & Eclipse Turbo & 2.4L (1)	
32 (0)	5300-6700
68 (20)	2300-3000
104 (40)	1000-1500
176 (80)	300-420
Eclipse 2.0L Non-Turbo (2)	
77 (25)	9000-11,000
212 (100)	600-800
Galant, Mirage 1.8L & Montero Sport (1)	
68 (20)	2300-3000
176 (80)	300-420
Mirage 1.5L (2)	
68 (20)	2300-3000

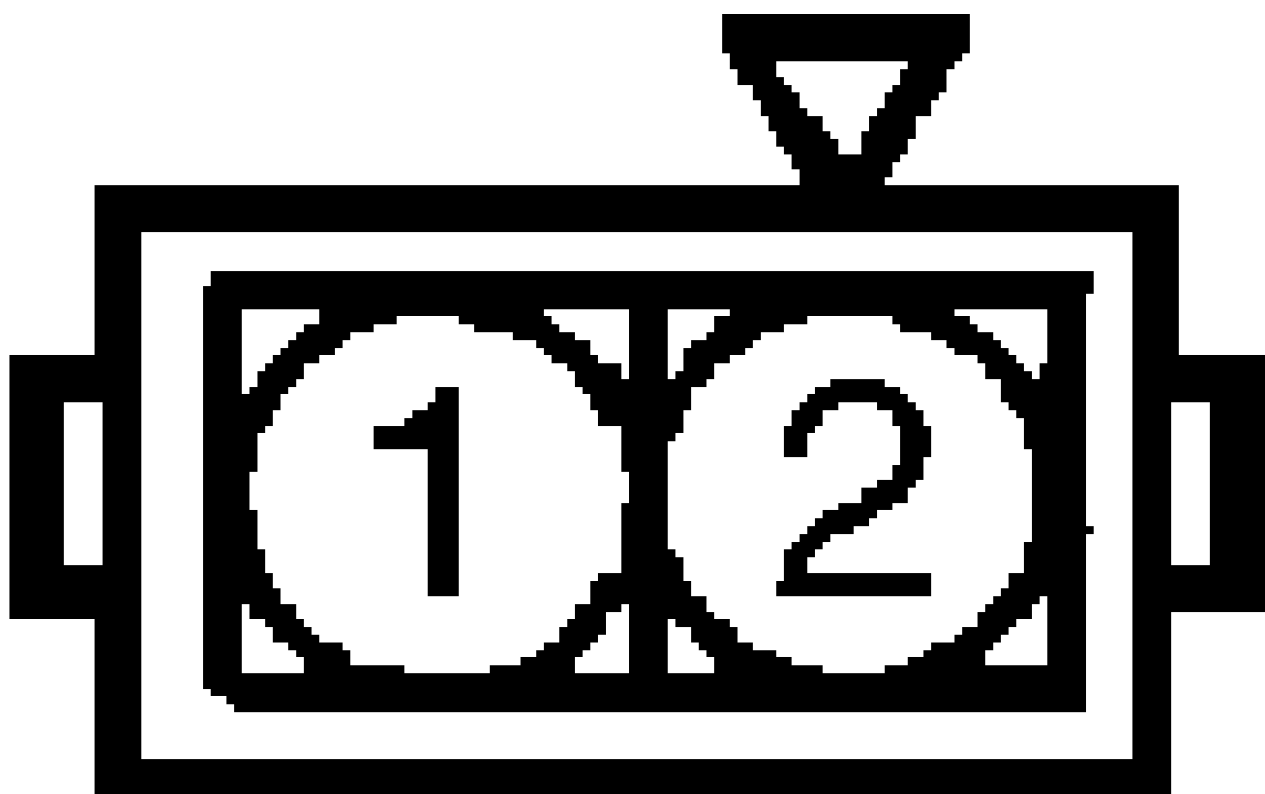
176 (80)		300-420
Montero & 3000GT (1)		
32 (0)		6000
68 (20)		2700
176 (80)		400

- (1) - IAT sensor is incorporated in airflow sensor assembly.
Check resistance between IAT sensor terminals No. 5
and 6. See Figs. 1-4.
 - (2) - Check resistance across IAT sensor terminals No. 1
and 2. See Figs. 1-4.
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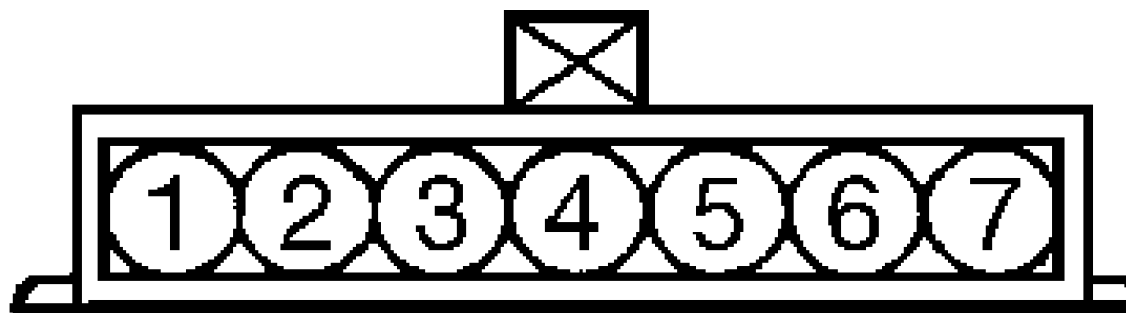
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Fig. 1: IAT Sensor Terminals (Eclipse 2.0L Non-Turbo)
Courtesy of Mitsubishi Motor Sales of America



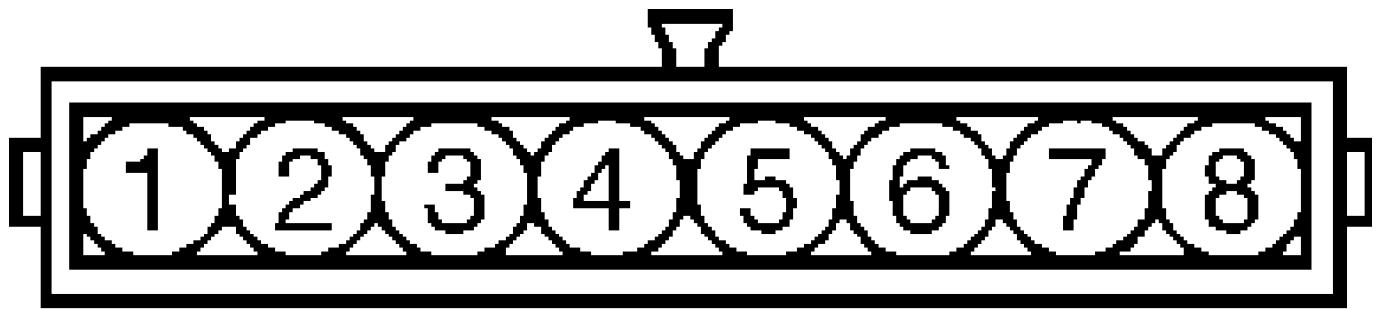
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Fig. 2: IAT Sensor Terminals (Mirage 1.5L)
 Courtesy of Mitsubishi Motor Sales of America



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Fig. 3: IAT Sensor Terminals (Mirage 1.8L & Montero Sport 2.4L)
 Courtesy of Mitsubishi Motor Sales of America



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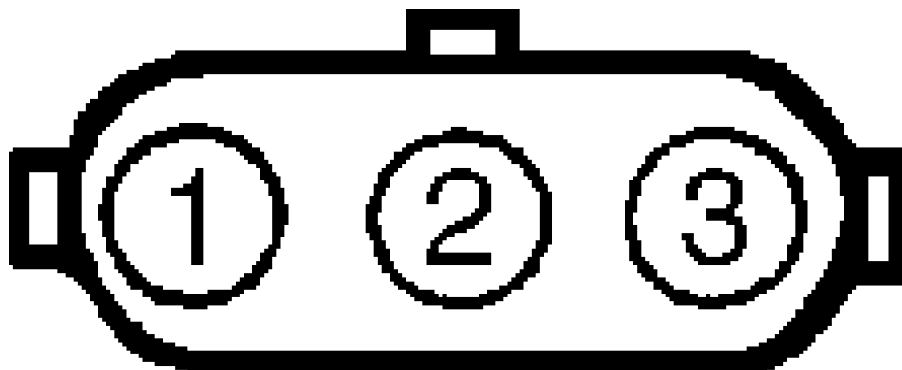
Fig. 4: IAT Sensor Terminals (All Other Models)
Courtesy of Mitsubishi Motor Sales of America

Throttle Position (TP) Sensor

Measure total and variable resistance between specified TP sensor terminals. See Fig. 5 or 6. See TP SENSOR TEST TERMINAL IDENTIFICATION table. Total resistance should be 3500-6500 ohms. Variable resistance should change smoothly between 3500 and 6500 ohms as throttle valve is moved from closed to wide open throttle.

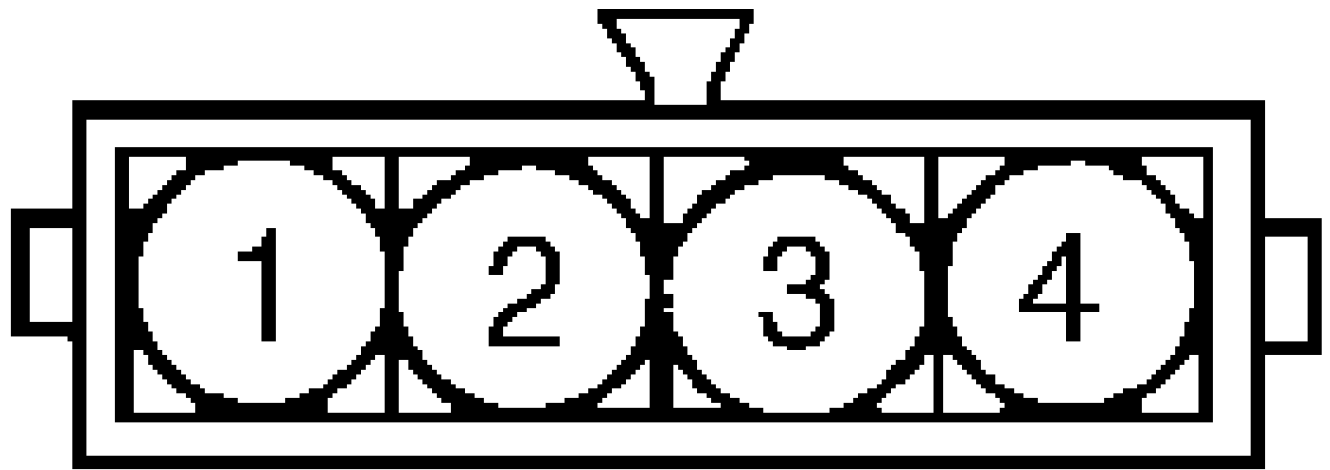
TP SENSOR TEST TERMINAL IDENTIFICATION TABLE

Application	Terminals No.
Total Resistance	
Eclipse 2.0L Non-Turbo	1 & 3
All Other Models	1 & 4
Variable Resistance	
Eclipse 2.0L Non-Turbo	2 & 3
Diamante, Montero & Montero Sport 3.0L	1 & 3
All Other Models	2 & 4



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Fig. 5: Identifying TP Sensor Terminals (Eclipse 2.0L Non-Turbo)
Courtesy of Mitsubishi Motor Sales of America



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Fig. 6: Identifying TP Sensor Terminals (All Other Models)
Courtesy of Mitsubishi Motor Sales of America

VOLUME AIRFLOW (VAF) HERTZ TEST TABLE (1)

Application	Hz @ 700 RPM	Hz @ 2500 RPM
Eclipse 2.0L Non-Turbo & Mirage 1.5L	(2)	(2)
Montero 3000GT	25-51	80-120
DOHC		
Non-Turbo	24-50	71-111
Turbo	26-52	93-133
SOHC	21-47	57-97
All Other Models	(3)	(3)

- (1) - Measure Hertz frequency using a scan tool.
(2) - Vehicle is not equipped with VAF sensor.
(3) - See G - TESTS W/CODES article.