

2007-2010 ENGINE PERFORMANCE

Mode \$06 - Chrysler (Dodge) Courtesy of CHRYSLER CORP.

INTRODUCTION

Mode 6 is designed to allow access to the results of onboard diagnostic monitoring tests of specific components/systems that are not continuously monitored.

These systems include the catalytic converter, EVAP system, oxygen sensor, oxygen sensor heater, EGR system, secondary AIR system, and sometimes misfire.

Mode 6 data is output from the PCM/ECM in hexadecimal form. The \$ sign indicates a hexadecimal number. Depending on the software in the scanner, the output

could be displayed in hexadecimal numbers (no conversion), raw data (conversion to decimal numbers), or measurable values (applying conversion factor to raw data).

Before reading mode 6 information, ensure that the monitor for the information you are accessing has run to completion. If the monitor is not complete,

the mode 6 data will not be accurate. 1996

2007 All I4 Engines'

This application chart provides documentation for what Service IDs, PIDS, OBDMIDs, TIDs, and INFOTYPEs that are implemented in the GPECI DaimlerChrysler ECU.

The following defines the convention used to determine the required level of support, with the following appreciation being used:

Mandatory (M) 'M' in the column under Service ID \$06 indicates that this PID is supported for all applications.

Conditional (C) 'C' indicates that this PID is application-specific and applies only to certain conditional packages such as dual-bank O2 systems, CNG/LPG fuels, charge temp equipped packages, etc.

User-Defined (U) 'U' indicates that this PID is user-defined and optionally supported. GPECI VEHICLES WITH CAN

OBDMID (Hex)	OBDMID Description	Test ID (TID)	Scaling ID	Service ID \$06
				All I4 Engines'
00	OBDMIDs supported (\$01 - \$20)	-	-	M
01	Oxygen Sensor Monitor Bank 1 - Sensor 1			
	• O2 Sensor Final Ratio Result (new monitor)	91	2F	M
02	Oxygen Sensor Monitor Bank 1 - Sensor 2			
	• Mean value of ratio between the monitor sensor switching time and the threshold value - rich to lean	81	05	M
	• Sum of voltage change over test time for lean to rich	82	24	M
20	OBDMIDs supported (\$21 - \$40)	-	-	M
21	Catalyst Monitor Bank 1			
	• O2 Sensor Test Ratio Result (new monitor)	92	2F	M
39	EVAP Monitor (Cap Off)			
	• Leak Test Time	87	35	M
3A	EVAP Monitor (0.090")			

OBDMID (Hex)	OBDMID Description	Test ID (TID)	Scaling ID	Service ID \$06
				All I4 Engines'
	Leak Test Time	87	35	M
3C	EVAP Monitor (0.020")			
	Small Leak Accumulated Engine 'ON' Time	85	34	M
	Small Leak Accumulated Engine 'OFF' Time	86	34	M
	Leak Detection Switch Time to Close	90	34	M
3D	Purge Flow Monitor			
	Leak Detection Switch Input	83	2E	M
	Purge Valve Fraction	84	30	M
	Purge Flow Error	85	84	M
	Purge O2Factor Shift	86	84	M
	Leak Detection Switch - Ratio - closed to open	87	04	M
40	OBDMIDs supported (\$41 - \$60)	-	-	M
41	Oxygen Sensor Heater Monitor Bank 1 - Sensor 1			
	O₂ Heater Temperature Error	97	16	M
	O₂ Heater Temperature Error In-Control Time	98	24	M
42	Oxygen Sensor Heater Monitor Bank 1 - Sensor 2			
	O₂ Heater Temperature Error	97	16	M
	O₂ Heater Temperature Error In-Control Time	98	24	M
60	OBDMIDs supported (\$61 - \$80)	-	-	M
80	OBDMIDs supported (\$81 - \$A0)	-	-	M
A0	OBDMIDs supported (\$A1 - \$C0)	-	-	M
A2	Misfire Cylinder 1 Data			
	EWMA (Exponential Weighted Moving Average)	0B	24	M
	Misfire counts for last/current driving cycles	0C	24	M
A3	Misfire Cylinder 2 Data			
	EWMA (Exponential Weighted Moving Average)	0B	24	M
	Misfire counts for last/current driving cycles	0C	24	M
A4	Misfire Cylinder 3 Data			
	EWMA (Exponential Weighted Moving Average)	0B	24	M
	Misfire counts for last/current driving cycles	0C	24	M
A5	Misfire Cylinder 4 Data			
	EWMA (Exponential Weighted Moving Average)	0B	24	M
	Misfire counts for last/current driving cycles	0C	24	M
C0	OBDMIDs supported (\$C1 - \$E0)	-	-	M
E0	OBDMIDs supported (\$E1 - \$FF)	-	-	M

OBDMID (Hex)	OBDMID Description	Test ID (TID)	Scaling ID	Service ID \$06
				All I4 Engines'
E1	EVAP Monitor (General)			
	General Evap Test Time	87	35	M
(1) The test result under MID E1 TID 87 is moving to MID 3D TID 89 as new software is released for 2008 and 2009 models.				

2008 GPECI VEHICLES WITH CAN - ISO 15765-4 PROTOCOL

Caliber(PM), Compass(MK), Patriot(MK74), Sebring/Avenger(JS) with 4 cylinder engines, and Journey(JC) with 4 cylinder engines

This application chart provides documentation for what Service IDs, PIDS, OBDMIDs, TIDs, and INFOTYPEs that are implemented in the GPECI DaimlerChrysler ECU.

The following defines the convention used to determine the required level of support, with the following appreciation being used:

Mandatory (M) 'M' in the column under Service ID \$06 indicates that this PID is supported for all applications.

Conditional (C) 'C' indicates that this PID is application-specific and applies only to certain conditional packages such as dual-bank O2 systems, CNG/LPG fuels, charge temp equipped packages, etc.

User-Defined (U) 'U' indicates that this PID is user-defined and optionally supported. GPECI VEHICLES WITH CAN

OBDMID (Hex)	OBDMID Description	Test ID (TID)	Scaling ID	Service ID \$06
				All I4 Engines'
00	OBDMIDs supported (\$01 - \$20)	-	-	M
01	Oxygen Sensor Monitor Bank 1 - Sensor 1			
	O2 Sensor Final Ratio Result (new monitor)	91	2F	M
02	Oxygen Sensor Monitor Bank 1 - Sensor 2			
	Mean value of ratio between the monitor sensor switching time and the threshold value - rich to lean	81	05	M
	Sum of voltage change over test time for lean to rich	82	24	M
20	OBDMIDs supported (\$21 - \$40)	-	-	M
21	Catalyst Monitor Bank 1			
	O2 Sensor Test Ratio Result (new monitor)	92	2F	M
39	EVAP Monitor (Cap Off)			
	Leak Test Time	87	35	M
3A	EVAP Monitor (0.090")			
	Leak Test Time	87	35	M
3B	EVAP Monitor (0.040")			
3C	EVAP Monitor (0.020")			
	Small Leak Accumulated Engine 'ON' Time	85	34	M

OBDMID (Hex)	OBDMID Description	Test ID (TID)	Scaling ID	Service ID \$06
				All I4 Engines'
	Small Leak Accumulated Engine 'OFF' Time	86	34	M
	Leak Detection Switch Time to Close	90	34	M
3D	Purge Flow Monitor			
	Leak Detection Switch Input	83	2E	M
	Purge Valve Fraction	84	30	M
	Purge Flow Error	85	84	M
	Purge O2Factor Shift	86	84	M
	Leak Detection Switch - Ratio - closed to open	87	04	M
	Natural Vacuum Leak Detection (NVLD) Test Time	89	35	M ⁽¹⁾
40	OBDMIDs supported (\$41 - \$60)	-	-	M
41	Oxygen Sensor Heater Monitor Bank 1 - Sensor 1			
	O₂ Heater Temperature Error	97	16	M
	O₂ Heater Temperature Error In-Control Time	98	24	M
42	Oxygen Sensor Heater Monitor Bank 1 - Sensor 2			
	O2 Heater Temperature Error	97	16	M
	O2 Heater Temperature Error In-Control Time	98	24	M
60	OBDMIDs supported (\$61 - \$80)	-	-	M
71	Secondary Air Monitor 1			
	Air Flow - Too Low	81	2A	C
72	Secondary Air Monitor 2			
	Air Flow - Too High	81	2A	C
80	OBDMIDs supported (\$81 - \$A0)	-	-	M
A0	OBDMIDs supported (\$A1 - \$C0)	-	-	M
A2	Misfire Cylinder 1 Data			
	EWMA (Exponential Weighted Moving Average)	0B	24	M
	Misfire counts for last/current driving cycles	0C	24	M
A3	Misfire Cylinder 2 Data			
	EWMA (Exponential Weighted Moving Average)	0B	24	M
	Misfire counts for last/current driving cycles	0C	24	M
A4	Misfire Cylinder 3 Data			
	EWMA (Exponential Weighted Moving Average)	0B	24	M
	Misfire counts for last/current driving cycles	0C	24	M
A5	Misfire Cylinder 4 Data			
	EWMA (Exponential Weighted Moving Average)	0B	24	M
	Misfire counts for last/current driving cycles	0C	24	M
C0	OBDMIDs supported (\$C1 - \$E0)	-	-	M

OBDMID (Hex)	OBDMID Description	Test ID (TID)	Scaling ID	Service ID \$06
				All I4 Engines'
E0	OBDMIDs supported (\$E1 - \$FF)	-	-	M
E1	EVAP Monitor (General)			
	General Evap Test Time	87	35	M
(1) The test result under MID E1 TID 87 is moving to MID 3D TID 89 as new software is released for 2008 and 2009 models.				

2008 NGCIII VEHICLES WITH CAN - ISO 15765-4 PROTOCOL

PT Cruiser(PT)

This application chart provides documentation for what Service ID \$06 OBDMIDs, TIDs, and scaling IDs are implemented in the NGCIII DaimlerChrysler ECU.

The following defines the convention used to determine the required level of support, with the following appreciation being used:

- a) Mandatory (M) 'M' in the column under Service ID \$06 indicates that this PID is supported for all applications.
- b) Conditional (C) 'C' indicates that this PID is application-specific and applies only to certain conditional packages such as dual-bank O2 systems,
CNG/LPG fuels, charge temp equipped packages, etc.
- c) User-Defined (U) 'U' indicates that this PID is user-defined and optionally supported.

OBDMID (Hex)	OBDMID Description	Test ID (TID)	Scaling ID	Service ID \$06
				PT' All I4 Engines
00	OBDMIDs supported (\$01 - \$20)	-	-	M
01	Oxygen Sensor Monitor Bank 1 - Sensor 1			
	O2 Sensor Full Cycle Switch Counter (old monitor, data always = 0)	81	24	M
	O2 Sensor Final Ratio Result (new monitor)	91	2F	M
02	Oxygen Sensor Monitor Bank 1 - Sensor 2			
	Minimum sensor voltage for test cycle	07	0B	M
	Maximum sensor voltage for test cycle	08	0B	M
20	OBDMIDs supported (\$21 - \$40)	-	-	M
21	Catalyst Monitor Bank 1			
	O2 Sensor Switch Frequency Ratio (old monitor, data always = 0)	80	2F	M
	O2 Sensor Test Ratio Result (new monitor)	92	2F	M
39	EVAP Monitor (Cap Off)			
	Natural Vacuum Leak Detection (NVLD) Test Time	87	35	M
3A	EVAP Monitor (0.090")			
	Natural Vacuum Leak Detection (NVLD) Test Time	87	35	M
3C	EVAP Monitor (0.020")			
	Natural Vacuum Leak Detection (NVLD) Accumulated Engine 'ON' Time	85	34	M
	Natural Vacuum Leak Detection (NVLD) Accumulated Engine 'OFF' Time	86	34	M

OBDMID (Hex)	OBDMID Description	Test ID (TID)	Scaling ID	Service ID \$06
				PT' All I4 Engines
	Switch Time to Close	90	34	M
3D	Purge Flow Monitor			
	Natural Vacuum Leak Detection Switch Input	83	2E	M
	Purge Valve Fraction	84	30	M
40	OBDMIDs supported (\$41 - \$60)	-	-	M
41	Oxygen Sensor Heater Monitor Bank 1 - Sensor 1			
	O₂ Heater Temperature Error	97	16	M
	O₂ Heater Temperature Error In-Control Time	98	35	M
42	Oxygen Sensor Heater Monitor Bank 1 - Sensor 2			
	O₂ Heater Temperature Error	97	16	M
	O₂ Heater Temperature Error In-Control Time	98	35	M
60	OBDMIDs supported (\$61 - \$80)	-	-	M
80	OBDMIDs supported (\$81 - \$A0)	-	-	M
A0	OBDMIDs supported (\$A1 - \$C0)	-	-	M
A2	Misfire Cylinder 1 Data			
	EWMA (Exponential Weighted Moving Average)	0B	24	M
	Misfire counts for last/current driving cycles	0C	24	M
A3	Misfire Cylinder 2 Data			
	EWMA (Exponential Weighted Moving Average)	0B	24	M
	Misfire counts for last/current driving cycles	0C	24	M
A4	Misfire Cylinder 3 Data			
	EWMA (Exponential Weighted Moving Average)	0B	24	M
	Misfire counts for last/current driving cycles	0C	24	M
A5	Misfire Cylinder 4 Data			
	EWMA (Exponential Weighted Moving Average)	0B	24	M
	Misfire counts for last/current driving cycles	0C	24	M
C0	OBDMIDs supported (\$C1 - \$E0)	-	-	M
E0	OBDMIDs supported (\$E1 - \$FF)	-	-	M
E1	EVAP Monitor (General)			
	Natural Vacuum Leak Detection (NVLD) Test Time	87	35	M

2008/2009/2010 Viper, 8.4L V10 Engine

This application chart provides documentation for what Service ID \$06 OBDMIDs, TIDs, and scaling IDs are implemented in the 2008, 2009, and 2010 Dodge Viper "Venom" engine controller.

VIPER, 8.4L V10 ENGINE

OBDMID (Hex)	OBDMID Description	Test ID (TID) (hex)	Scaling ID (hex)
00	OBDMIDs supported (\$01 - \$20)	-	-
01	Oxygen Sensor Monitor Bank 1 - Sensor 1		
	• Rich to lean sensor switch time	5	10
	• Lean to rich sensor switch time	6	10
	• Response time (Lean to Rich)	A0	10
	• Response time (Rich to Lean)	A1	10
	• Response time ratio	A2	20
02	Oxygen Sensor Monitor Bank 1 - Sensor 2		
	• Rich to lean sensor switch time	5	10
	• Lean to rich sensor switch time	6	10
05	Oxygen Sensor Monitor Bank 2 - Sensor 1		
	• Rich to lean sensor switch time	5	10
	• Lean to rich sensor switch time	6	10
	• Response time (Lean to Rich)	A3	10
	• Response time (Rich to Lean)	A4	10
	• Response time ratio	A5	20
06	Oxygen Sensor Monitor Bank 2 - Sensor 2		
	• Rich to lean sensor switch time	5	10
	• Lean to rich sensor switch time	6	10
20	OBDMIDs supported (\$21 - \$40)	-	-
21	Catalyst Monitor Bank 1		
	• Catalyst oxygen storage metric	AD	10
22	Catalyst Monitor Bank 2		
	• Catalyst oxygen storage metric	AE	10
3A	EVAP Monitor (0.090")		
	• Leak Test Time	AA	10
3B	EVAP Monitor (0.040")		
	• Leak Test Time	AB	10
3C	EVAP Monitor (0.020")		
	• Leak Test Time	AC	10
3D	Purge Valve Diagnostic		
	Purge Valve Diagnostic off idle test fuelling deviation	B0	39
	Purge Valve Diagnostic idle test torque deviation	B1	82
	Purge Valve Diagnostic idle test fuelling deviation	B2	39
	Purge Valve Diagnostic idle stability test idle speed error differential	B3	81
	Purge Valve Diagnostic idle stability test idle speed error	B4	82
40	OBDMIDs supported (\$41 - \$60)	-	-
41	Oxygen Sensor Heater Monitor Bank 1 - Sensor 1		

OBDMID (Hex)	OBDMID Description	Test ID (TID) (hex)	Scaling ID (hex)
	O₂ Sensor Heater Resistance	A6	13
42	Oxygen Sensor Heater Monitor Bank 1 - Sensor 2		
	O₂ Sensor Heater Resistance	A7	13
45	Oxygen Sensor Heater Monitor Bank 2 - Sensor 1		
	O₂ Sensor Heater Resistance	A8	13
46	Oxygen Sensor Heater Monitor Bank 2 - Sensor 2		
	O₂ Sensor Heater Resistance	A9	13
60	OBDMIDs supported (\$61 - \$80)	-	-
80	OBDMIDs supported (\$81 - \$A0)	-	-
81	Fuel System Monitor Bank 1		
	Fuel Shift Trim Percent of Bank 1	95	39
82	Fuel System Monitor Bank 2		
	Fuel Shift Trim Percent of Bank 2	96	39
A0	OBDMIDs supported (\$A1 - \$C0)	-	-
A2	Misfire Cylinder 1 Data		
	EWMA (Exponential Weighted Moving Average)	0B	24
	Misfire counts for last/current driving cycles	0C	24
A3	Misfire Cylinder 2 Data		
	EWMA (Exponential Weighted Moving Average)	0B	24
	Misfire counts for last/current driving cycles	0C	24
A4	Misfire Cylinder 3 Data		
	EWMA (Exponential Weighted Moving Average)	0B	24
	Misfire counts for last/current driving cycles	0C	24
A5	Misfire Cylinder 4 Data		
	EWMA (Exponential Weighted Moving Average)	0B	24
	Misfire counts for last/current driving cycles	0C	24
A6	Misfire Cylinder 5 Data		
	EWMA (Exponential Weighted Moving Average)	0B	24
	Misfire counts for last/current driving cycles	0C	24
A7	Misfire Cylinder 6 Data		
	EWMA (Exponential Weighted Moving Average)	0B	24
	Misfire counts for last/current driving cycles	0C	24
A8	Misfire Cylinder 7 Data		
	EWMA (Exponential Weighted Moving Average)	0B	24
	Misfire counts for last/current driving cycles	0C	24
A9	Misfire Cylinder 8 Data		

OBDMID (Hex)	OBDMID Description	Test ID (TID) (hex)	Scaling ID (hex)
	EWMA (Exponential Weighted Moving Average)	0B	24
	Misfire counts for last/current driving cycles	0C	24
AA	Misfire Cylinder 9 Data		
	EWMA (Exponential Weighted Moving Average)	0B	24
	Misfire counts for last/current driving cycles	0C	24
AB	Misfire Cylinder 10 Data		
	EWMA (Exponential Weighted Moving Average)	0B	24
	Misfire counts for last/current driving cycles	0C	24

2009/2010 PT Cruiser(PT)

This application chart provides documentation for what Service ID \$06 OBDMIDs, TIDs, and scaling IDs are implemented in the NGCIII Chrysler ECU.

The following defines the convention used to determine the required level of support, with the following appreciation being used:

Mandatory (M) 'M' in the column under Service ID \$06 indicates that this PID is supported for all applications.

Conditional (C) 'C' indicates that this PID is application-specific and applies only to certain conditional packages such as dual-bank O2 systems,

CNG/LPG fuels, charge temp equipped packages, etc.PT CRUISER

OBDMID (Hex)	OBDMID Description	Test ID (TID)	Scaling ID	Service ID \$06
				All I4 Engines
00	OBDMIDs supported (\$01 - \$20)	-	-	M
01	Oxygen Sensor Monitor Bank 1 - Sensor 1			
	O2 Sensor Full Cycle Switch Counter (old monitor, data always = 0)	81	24	M
	O2 Sensor Final Ratio Result (new monitor)	91	2F	M
02	Oxygen Sensor Monitor Bank 1 - Sensor 2			
	Minimum sensor voltage for test cycle	07	0B	M
	Maximum sensor voltage for test cycle	08	0B	M
20	OBDMIDs supported (\$21 - \$40)	-	-	M
21	Catalyst Monitor Bank 1			
	O2 Sensor Switch Frequency Ratio (old monitor, data always = 0)	80	2F	M
	O2 Sensor Test Ratio Result (new monitor)	92	2F	M
39	EVAP Monitor (Cap Off)			
	Natural Vacuum Leak Detection (NVL D) Test Time	87	35	M
3A	EVAP Monitor (0.090")			
	Natural Vacuum Leak Detection (NVL D) Test Time	87	35	M
3C	EVAP Monitor (0.020")			
	Natural Vacuum Leak Detection (NVL D) Accumulated Engine 'ON' Time	85	34	M

OBDMID (Hex)	OBDMID Description	Test ID (TID)	Scaling ID	Service ID \$06
				All I4 Engines
	Natural Vacuum Leak Detection (NVLD) Accumulated Engine 'OFF' Time	86	34	M
	Switch Time to Close	90	34	M
3D	Purge Flow Monitor			
	Natural Vacuum Leak Detection Switch Input	83	2E	M
	Purge Valve Fraction	84	30	M
40	OBDMIDs supported (\$41 - \$60)	-	-	M
41	Oxygen Sensor Heater Monitor Bank 1 - Sensor 1			
	O₂ Heater Temperature Error	97	16	M
	O₂ Heater Temperature Error In-Control Time	98	35	M
42	Oxygen Sensor Heater Monitor Bank 1 - Sensor 2			
	O₂ Heater Temperature Error	97	16	M
	O₂ Heater Temperature Error In-Control Time	98	35	M
60	OBDMIDs supported (\$61 - \$80)	-	-	M
80	OBDMIDs supported (\$81 - \$A0)	-	-	M
A0	OBDMIDs supported (\$A1 - \$C0)	-	-	M
A2	Misfire Cylinder 1 Data			
	EWMA (Exponential Weighted Moving Average)	0B	24	M
	Misfire counts for last/current driving cycles	0C	24	M
A3	Misfire Cylinder 2 Data			
	EWMA (Exponential Weighted Moving Average)	0B	24	M
	Misfire counts for last/current driving cycles	0C	24	M
A4	Misfire Cylinder 3 Data			
	EWMA (Exponential Weighted Moving Average)	0B	24	M
	Misfire counts for last/current driving cycles	0C	24	M
A5	Misfire Cylinder 4 Data			
	EWMA (Exponential Weighted Moving Average)	0B	24	M
	Misfire counts for last/current driving cycles	0C	24	M
C0	OBDMIDs supported (\$C1 - \$E0)	-	-	M
E0	OBDMIDs supported (\$E1 - \$FF)	-	-	M
E1	EVAP Monitor (General)			
	Natural Vacuum Leak Detection (NVLD) Test Time	87	35	M

2009 - ALL VEHICLES WITH V6 OR V8 ENGINES

Aspen (HG), Durango (HB), Caravan (RT), Challenger (LC), Charger (LX), Commander (XK),

Chrysler 300/300C (LX), Dakota (ND), Grand Cherokee (WK), Journey(JC), Liberty (KK), Nitro (KA), Raider (NM), Ram Pickup (DS, DC, DH), Sebring/Avenger (JS), Wrangler (JK),

Town and Country (RT), Routan (RM) This application chart provides documentation for what Service ID \$06 OBDMIDs, TIDs, and scaling IDs are implemented in the NGC4 and NGC4A Chrysler ECU. The following defines the convention used to determine the required level of support, with the following appreciation being used:

Mandatory (M) 'M' in the column under Service ID \$06 indicates that this PID is supported for all applications.

Conditional (C) 'C' indicates that this PID is application-specific and applies only to certain conditional packages such as dual-bank O2 systems, CNG/LPG fuels, charge temp equipped packages, etc.

VEHICLES WITH V6 OR V8 ENGINES

OBDMID (Hex)	OBDMID Description	Test ID (TID)	Scaling ID	Service ID \$06
				All v6/v8 Gasoline Engines
00	OBDMIDs supported (\$01 - \$20)	-	-	M
01	Oxygen Sensor Monitor Bank 1 - Sensor 1			
	• O2 Sensor Final Ratio Result	91	2F	M
02	Oxygen Sensor Monitor Bank 1 - Sensor 2			
	• Minimum sensor voltage for test cycle	07	0B	M
	• Maximum sensor voltage for test cycle	08	0B	M
	• Slow Response Rich to Lean Result	81	04	M
	• Signal Biased Rich Mass Flow Result	82	01	M
	• Signal Biased Rich Voltage Result	83	8A	M
05	Oxygen Sensor Monitor Bank 2 - Sensor 1			
	• O2 Sensor Final Ratio Result	91	2F	M
06	Oxygen Sensor Monitor Bank 2 - Sensor 2			
	• Minimum sensor voltage for test cycle	07	0B	M
	• Maximum sensor voltage for test cycle	08	0B	M
	• Slow Response Rich to Lean Result	81	04	M
	• Signal Biased Rich Mass Flow Result	82	01	M
	• Signal Biased Rich Voltage Result	83	8A	M
20	OBDMIDs supported (\$21 - \$40)	-	-	M
21	Catalyst Monitor Bank 1			
	• O2 Sensor Test Ratio Result	92	2F	M
22	Catalyst Monitor Bank 2			
	• O2 Sensor Test Ratio Result	92	2F	M
31	EGR Monitor Bank 1			

OBDMID (Hex)	OBDMID Description	Test ID (TID)	Scaling ID	Service ID \$06
				All v6/v8 Gasoline Engines
	• Fuel Shift Above Threshold Counter	93	24	C
	• Fuel Shift Below Threshold Counter	94	24	C
	• Fuel Shift Trim Percent of Bank 1	95	39	C
	• Fuel Shift Trim Percent of Bank 2	96	39	C
35	VVT/VCT Monitor Bank 1			
	• Exhaust CAM Slow Response	82	1C	C
	• Exhaust CAM Target Error	84	1C	C
39	EVAP Monitor (Cap Off)			
	• Natural Vacuum Leak Detection (NVLD) Test Time	87	35	M
3A	EVAP Monitor (0.090")			
	• Natural Vacuum Leak Detection (NVLD) Test Time	87	35	M
3C	EVAP Monitor (0.020")			
	• Natural Vacuum Leak Detection (NVLD) Accumulated Engine 'ON' Time	85	34	M
	• Natural Vacuum Leak Detection (NVLD) Accumulated Engine 'OFF' Time	86	34	M
	• Switch Time to Close	90	34	M
3D	Purge Flow Monitor			
	• Natural Vacuum Leak Detection Switch Input	83	2E	M
	• Purge Valve Fraction	84	30	M
	• Flow Error Result	85	83	M
	• O2 Factor Shift Result	86	05	M
	• Switch Ratio Result	87	04	M
	• Gas Flow Average Ratio Result	88	04	M
	• Natural Vacuum Leak Detection (NVLD) Test Time	89	35	M(1)
40	OBDMIDs supported (\$41 - \$60)	-	-	M
41	Oxygen Sensor Heater Monitor Bank 1 - Sensor 1			
	• O ₂ Heater Temperature Error	97	16	M
	• O ₂ Heater Temperature Error In-Control Time	98	35	M
42	Oxygen Sensor Heater Monitor Bank 1 - Sensor 2			
	• O ₂ Heater Temperature Error	97	16	M
	• O ₂ Heater Temperature Error In-Control Time	98	35	M
45	Oxygen Sensor Heater Monitor Bank 2 - Sensor 1			
	• O ₂ Heater Temperature Error	97	16	M

OBDMID (Hex)	OBDMID Description	Test ID (TID)	Scaling ID	Service ID \$06
				All v6/v8 Gasoline Engines
	O₂ Heater Temperature Error In-Control Time	98	35	M
46	Oxygen Sensor Heater Monitor Bank 2 - Sensor 2			
	O₂ Heater Temperature Error	97	16	M
	O₂ Heater Temperature Error In-Control Time	98	35	M
60	OBDMIDs supported (\$61 - \$80)	-	-	M
80	OBDMIDs supported (\$81 - \$A0)	-	-	M
A0	OBDMIDs supported (\$A1 - \$C0)	-	-	M
A2	Misfire Cylinder 1 Data			
	EWMA (Exponential Weighted Moving Average)	0B	24	M
	Misfire counts for last/current driving cycles	0C	24	M
A3	Misfire Cylinder 2 Data			
	EWMA (Exponential Weighted Moving Average)	0B	24	M
	Misfire counts for last/current driving cycles	0C	24	M
A4	Misfire Cylinder 3 Data			
	EWMA (Exponential Weighted Moving Average)	0B	24	M
	Misfire counts for last/current driving cycles	0C	24	M
A5	Misfire Cylinder 4 Data			
	EWMA (Exponential Weighted Moving Average)	0B	24	M
	Misfire counts for last/current driving cycles	0C	24	M
A6	Misfire Cylinder 5 Data			
	EWMA (Exponential Weighted Moving Average)	0B	24	M
	Misfire counts for last/current driving cycles	0C	24	M
A7	Misfire Cylinder 6 Data			
	EWMA (Exponential Weighted Moving Average)	0B	24	M
	Misfire counts for last/current driving cycles	0C	24	M
A8	Misfire Cylinder 7 Data			
	EWMA (Exponential Weighted Moving Average)	0B	24	C
	Misfire counts for last/current driving cycles	0C	24	C
A9	Misfire Cylinder 8 Data			
	EWMA (Exponential Weighted Moving Average)	0B	24	C
	Misfire counts for last/current driving cycles	0C	24	C

2009 VEHICLES WITH THE "WORLD I4" 4 CYLINDER ENGINE

Caliber (PM), Compass (MK), Patriot (MK74), Sebring/Avenger (JS) and Journey (JC) with 4 cylinder engines

This application chart provides documentation for what Service IDs, PIDS, OBDMIDs, TIDs, and INFOTYPEs that are implemented in the GPECI Chrysler ECU.

The following defines the convention used to determine the required level of support, with the following appreciation being used:

Mandatory (M) 'M' in the column under Service ID \$06 indicates that this PID is supported for all applications.

Conditional (C) 'C' indicates that this PID is application-specific and applies only to certain conditional packages such as dual-bank O2 systems, CNG/LPG fuels, charge temp equipped packages, etc.

"WORLD I4" 4 CYLINDER ENGINE

OBDMID (Hex)	OBDMID Description	Test ID (TID)	Scaling ID	Service ID \$06
				All I4 Engines
00	OBDMIDs supported (\$01 - \$20)	-	-	M
01	Oxygen Sensor Monitor Bank 1 - Sensor 1			
	• O2 Sensor Final Ratio Result (new monitor)	91	2F	M
02	Oxygen Sensor Monitor Bank 1 - Sensor 2			
	• Mean value of ratio between the monitor sensor switching time and the threshold value - rich to lean	81	05	M
	• Sum of voltage change over test time for lean to rich	82	24	M
20	OBDMIDs supported (\$21 - \$40)	-	-	M
21	Catalyst Monitor Bank 1			
	• O2 Sensor Test Ratio Result (new monitor)	92	2F	M
39	EVAP Monitor (Cap Off)			
	• Leak Test Time	87	35	M
3A	EVAP Monitor (0.090")			
	• Leak Test Time	87	35	M
3B	EVAP Monitor (0.040")			
3C	EVAP Monitor (0.020")			
	• Small Leak Accumulated Engine 'ON' Time	85	34	M
	• Small Leak Accumulated Engine 'OFF' Time	86	34	M
	• Leak Detection Switch Time to Close	90	34	M
3D	Purge Flow Monitor			
	• Leak Detection Switch Input	83	2E	M
	• Purge Valve Fraction	84	30	M
	• Purge Flow Error	85	84	M
	• Purge O2Factor Shift	86	84	M
	• Leak Detection Switch - Ratio - closed to open	87	04	M
	• Natural Vacuum Leak Detection (NVLD) Test Time	89	35	M

OBDMID (Hex)	OBDMID Description	Test ID (TID)	Scaling ID	Service ID \$06
				All I4 Engines
40	OBDMIDs supported (\$41 - \$60)	-	-	M
41	Oxygen Sensor Heater Monitor Bank 1 - Sensor 1			
	• O ₂ Heater Temperature Error	97	16	M
	• O ₂ Heater Temperature Error In-Control Time	98	24	M
42	Oxygen Sensor Heater Monitor Bank 1 - Sensor 2			
	• O ₂ Heater Temperature Error	97	16	M
	• O ₂ Heater Temperature Error In-Control Time	98	24	M
60	OBDMIDs supported (\$61 - \$80)	-	-	M
71	Secondary Air Monitor 1			
	Air Flow - Too Low	81	2A	C
72	Secondary Air Monitor 2			
	Air Flow - Too High	81	2A	C
80	OBDMIDs supported (\$81 - \$A0)	-	-	M
A0	OBDMIDs supported (\$A1 - \$C0)	-	-	M
A2	Misfire Cylinder 1 Data			
	• EWMA (Exponential Weighted Moving Average)	0B	24	M
	• Misfire counts for last/current driving cycles	0C	24	M
A3	Misfire Cylinder 2 Data			
	• EWMA (Exponential Weighted Moving Average)	0B	24	M
	• Misfire counts for last/current driving cycles	0C	24	M
A4	Misfire Cylinder 3 Data			
	• EWMA (Exponential Weighted Moving Average)	0B	24	M
	• Misfire counts for last/current driving cycles	0C	24	M
A5	Misfire Cylinder 4 Data			
	• EWMA (Exponential Weighted Moving Average)	0B	24	M
	• Misfire counts for last/current driving cycles	0C	24	M

2010 - ALL VEHICLES WITH V6 OR V8 ENGINES

Caravan(RT), Challenger(LC), Charger(LX), Commander(XK), Chrysler 300/300C(LX), Dakota(ND), Grand Cherokee(WK), Journey(JC), Liberty(KK), Nitro(KA), Raider(NM), Ram Pickup(DS, DC, DH), Sebring/Avenger(JS), Wrangler(JK), Town and Country(RT), Routan(RM)

This application chart provides documentation for what Service ID \$06 OBDMIDs, TIDs, and scaling IDs are implemented in the NGC4 and NGC4A

Chrysler ECU. The following defines the convention used to determine the required level of support, with the following appreciation being used:

Mandatory (M) 'M' in the column under Service ID \$06 indicates that this PID is supported for all applications.

Conditional (C) 'C' indicates that this PID is application-specific and applies only to certain conditional packages such as dual-bank O2 systems,

CNG/LPG fuels, charge temp equipped packages, etc.

VEHICLES WITH V6 OR V8 ENGINES

OBDMID (Hex)	OBDMID Description	Test ID (TID)	Scaling ID	Service ID \$06
				All v6/v8 Gasoline Engines
00	OBDMIDs supported (\$01 - \$20)	-	-	M
01	Oxygen Sensor Monitor Bank 1 - Sensor 1			
	• O2 Sensor Final Ratio Result	91	2F	M
02	Oxygen Sensor Monitor Bank 1 - Sensor 2			
	• Minimum sensor voltage for test cycle	07	0B	M
	• Maximum sensor voltage for test cycle	08	0B	M
	• Slow Response Rich to Lean Result	81	04	M
	• Signal Biased Rich Mass Flow Result	82	01	M
	• Signal Biased Rich Voltage Result	83	8A	M
05	Oxygen Sensor Monitor Bank 2 - Sensor 1			
	• O2 Sensor Final Ratio Result	91	2F	M
06	Oxygen Sensor Monitor Bank 2 - Sensor 2			
	• Minimum sensor voltage for test cycle	07	0B	M
	• Maximum sensor voltage for test cycle	08	0B	M
	• Slow Response Rich to Lean Result	81	04	M
	• Signal Biased Rich Mass Flow Result	82	01	M
	• Signal Biased Rich Voltage Result	83	8A	M
20	OBDMIDs supported (\$21 - \$40)	-	-	M
21	Catalyst Monitor Bank 1			
	• O2 Sensor Test Ratio Result	92	2F	M
22	Catalyst Monitor Bank 2			
	• O2 Sensor Test Ratio Result	92	2F	M
31	EGR Monitor Bank 1			
	• Fuel Shift Above Threshold Counter	93	24	C
	• Fuel Shift Below Threshold Counter	94	24	C
	• Fuel Shift Trim Percent of Bank 1	95	39	C
	• Fuel Shift Trim Percent of Bank 2	96	39	C
35	VVT/VCT Monitor Bank 1			

OBDMID (Hex)	OBDMID Description	Test ID (TID)	Scaling ID	Service ID \$06
				All v6/v8 Gasoline Engines
	Exhaust CAM Slow Response/Target Error	82	1C	C
39	EVAP Monitor (Cap Off)			
	Natural Vacuum Leak Detection (NVLD) Test Time	87	35	M
3A	EVAP Monitor (0.090")			
	Natural Vacuum Leak Detection (NVLD) Test Time	87	35	M
3C	EVAP Monitor (0.020")			
	Natural Vacuum Leak Detection (NVLD) Accumulated Engine 'ON' Time	85	34	M
	Natural Vacuum Leak Detection (NVLD) Accumulated Engine 'OFF' Time	86	34	M
	Switch Time to Close	90	34	M
3D	Purge Flow Monitor			
	Natural Vacuum Leak Detection Switch Input	83	2E	M
	Purge Valve Fraction	84	30	M
	Flow Error Result	85	83	M
	O2 Factor Shift Result	86	05	M
	Switch Ratio Result	87	04	M
	Gas Flow Average Ratio Result	88	04	M
	Natural Vacuum Leak Detection (NVLD) Test Time	89	35	M
40	OBDMIDs supported (\$41 - \$60)	-	-	M
41	Oxygen Sensor Heater Monitor Bank 1 - Sensor 1			
	O₂ Heater Temperature Error	97	16	M
	O₂ Heater Temperature Error In-Control Time	98	35	M
42	Oxygen Sensor Heater Monitor Bank 1 - Sensor 2			
	O₂ Heater Temperature Error	97	16	M
	O₂ Heater Temperature Error In-Control Time	98	35	M
45	Oxygen Sensor Heater Monitor Bank 2 - Sensor 1			
	O₂ Heater Temperature Error	97	16	M
	O₂ Heater Temperature Error In-Control Time	98	35	M
46	Oxygen Sensor Heater Monitor Bank 2 - Sensor 2			
	O₂ Heater Temperature Error	97	16	M
	O₂ Heater Temperature Error In-Control Time	98	35	M
60	OBDMIDs supported (\$61 - \$80)	-	-	M
80	OBDMIDs supported (\$81 - \$A0)	-	-	M
A0	OBDMIDs supported (\$A1 - \$C0)	-	-	M

OBDMID (Hex)	OBDMID Description	Test ID (TID)	Scaling ID	Service ID \$06
				All v6/v8 Gasoline Engines
A2	Misfire Cylinder 1 Data			
	• EWMA (Exponential Weighted Moving Average)	0B	24	M
	• Misfire counts for last/current driving cycles	0C	24	M
A3	Misfire Cylinder 2 Data			
	• EWMA (Exponential Weighted Moving Average)	0B	24	M
	• Misfire counts for last/current driving cycles	0C	24	M
A4	Misfire Cylinder 3 Data			
	• EWMA (Exponential Weighted Moving Average)	0B	24	M
	• Misfire counts for last/current driving cycles	0C	24	M
A5	Misfire Cylinder 4 Data			
	• EWMA (Exponential Weighted Moving Average)	0B	24	M
	• Misfire counts for last/current driving cycles	0C	24	M
A6	Misfire Cylinder 5 Data			
	• EWMA (Exponential Weighted Moving Average)	0B	24	M
	• Misfire counts for last/current driving cycles	0C	24	M
A7	Misfire Cylinder 6 Data			
	• EWMA (Exponential Weighted Moving Average)	0B	24	M
	• Misfire counts for last/current driving cycles	0C	24	M
A8	Misfire Cylinder 7 Data			
	• EWMA (Exponential Weighted Moving Average)	0B	24	C
	• Misfire counts for last/current driving cycles	0C	24	C
A9	Misfire Cylinder 8 Data			
	• EWMA (Exponential Weighted Moving Average)	0B	24	C
	• Misfire counts for last/current driving cycles	0C	24	C

2010 VEHICLES WITH THE "WORLD I4" 4 CYLINDER ENGINE

Caliber(PM), Compass(MK), Patriot(MK74), Sebring/Avenger(JS) with 4 cylinder engines, and Journey(JC) with 4 cylinder engines

This application chart provides documentation for what Service IDs, PIDS, OBDMIDs, TIDs, and INFOTYPEs that are implemented in the GPECI Chrysler ECU.

The following defines the convention used to determine the required level of support, with the following appreciation being used:

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Conditional (C) 'C' indicates that this PID is application-specific and applies only to certain conditional packages such as dual-bank O₂ systems,

CNG/LPG fuels, charge temp equipped packages, etc.

"WORLD I4" 4 CYLINDER ENGINE

OBDMID (Hex)	OBDMID Description	Test ID (TID)	Scaling ID	Service ID \$06
				All I4 Engines
00	OBDMIDs supported (\$01 - \$20)	-	-	M
01	Oxygen Sensor Monitor Bank 1 - Sensor 1			
	O2 Sensor Final Ratio Result (new monitor)	91	2F	M
02	Oxygen Sensor Monitor Bank 1 - Sensor 2			
	Mean value of ratio between the monitor sensor switching time and the threshold value - rich to lean	81	05	M
	Sum of voltage change over test time for lean to rich	82	24	M
20	OBDMIDs supported (\$21 - \$40)	-	-	M
21	Catalyst Monitor Bank 1			
	O2 Sensor Test Ratio Result (new monitor)	92	2F	M
39	EVAP Monitor (Cap Off)			
	Leak Test Time	87	35	M
3A	EVAP Monitor (0.090")			
	Leak Test Time	87	35	M
3B	EVAP Monitor (0.040")			
3C	EVAP Monitor (0.020")			
	Small Leak Accumulated Engine 'ON' Time	85	34	M
	Small Leak Accumulated Engine 'OFF' Time	86	34	M
	Leak Detection Switch Time to Close	90	34	M
3D	Purge Flow Monitor			
	Leak Detection Switch Input	83	2E	M
	Purge Valve Fraction	84	30	M
	Purge Flow Error	85	84	M
	Purge O2Factor Shift	86	84	M
	Leak Detection Switch - Ratio - closed to open	87	04	M
	Natural Vacuum Leak Detection (NVLD) Test Time	89	35	M
40	OBDMIDs supported (\$41 - \$60)	-	-	M
41	Oxygen Sensor Heater Monitor Bank 1 - Sensor 1			
	O₂ Heater Temperature Error	97	16	M
	O₂ Heater Temperature Error In-Control Time	98	24	M
42	Oxygen Sensor Heater Monitor Bank 1 - Sensor 2			
	O₂ Heater Temperature Error	97	16	M

OBDMID (Hex)	OBDMID Description	Test ID (TID)	Scaling ID	Service ID \$06
				All I4 Engines
	O₂ Heater Temperature Error In-Control Time	98	24	M
60	OBDMIDs supported (\$61 - \$80)	-	-	M
71	Secondary Air Monitor 1			
	Air Flow - Too Low	81	2A	C
72	Secondary Air Monitor 2			
	Air Flow - Too High	81	2A	C
80	OBDMIDs supported (\$81 - \$A0)	-	-	M
A0	OBDMIDs supported (\$A1 - \$C0)	-	-	M
A2	Misfire Cylinder 1 Data			
	EWMA (Exponential Weighted Moving Average)	0B	24	M
	Misfire counts for last/current driving cycles	0C	24	M
A3	Misfire Cylinder 2 Data			
	EWMA (Exponential Weighted Moving Average)	0B	24	M
	Misfire counts for last/current driving cycles	0C	24	M
A4	Misfire Cylinder 3 Data			
	EWMA (Exponential Weighted Moving Average)	0B	24	M
	Misfire counts for last/current driving cycles	0C	24	M
A5	Misfire Cylinder 4 Data			
	EWMA (Exponential Weighted Moving Average)	0B	24	M
	Misfire counts for last/current driving cycles	0C	24	M

by eclipse95