Diagnostic Report

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VIN: [redacted]
Manufacturer: BMW
Model: X5
Year: 2007

Monitor Status Report

Name	Continuous	Available	Complete
Misfire	Yes	Yes	Yes
Fuel System	Yes	Yes	Yes
Components	Yes	Yes	Yes
Catalyst	No	Yes	Yes
Heated Catalyst	No	No	No
Evap System	No	Yes	No
Secondary Air System	No	No	No
AC Refrigerant	No	No	No
Oxygen Sensor	No	Yes	Yes
Oxygen Sensor Heater	No	Yes	Yes
EGR System	No	Yes	Yes

MIL Off
Number of Confirmed Codes: 0
Readiness Standard: PA - 2001 and newer

This vehicle is ready for emissions testing.

Trouble Code Report

ECU	Code	Type	Status	Description
ECM-EngineControl ($7E0)	P0420	PowerTrain	Permanent	Catalyst System Efficiency Below Threshold
ECM-EngineControl ($7E0)	P0430	PowerTrain	Permanent	Catalyst System Efficiency Below Threshold

Additional Information

PID	Description	Value	Units
SAE 0x21	Distance traveled while MIL is activated	0	miles
SAE 0x30	Number of warm-ups since DTCs cleared	1	
SAE 0x31	Distance traveled since DTCs cleared	14.91	miles

Mode $01 - Powertrain Diagnostic Data

PID	Description	Value	Units
SAE 0x03	Fuel system 1 status	2	
SAE 0x03	Fuel system 2 status	2	
SAE 0x04	Calculated load value	22.35	%
SAE 0x05	Engine coolant temperature	212	F
SAE 0x06	Short term fuel % trim - Bank 1	0	%
SAE 0x07	Long term fuel % trim - Bank 1	3.12	%
SAE 0x08	Short term fuel % trim - Bank 2	1.56	%
SAE 0x09	Long term fuel % trim - Bank 2	1.56	%
SAE 0x0C	Engine RPM	666	RPM
SAE 0x0D	Vehicle speed	0	MPH
SAE 0x0E	Ignition timing advance for #1 cylinder	0	deg
SAE 0x0F	Intake air temperature	77	F
SAE 0x10	Mass air flow rate	3.66	g/s
SAE 0x11	Absolute throttle position	12.94	%
SAE 0x13	Location of oxygen sensors	51	
SAE 0x15	O2 voltage (Bank 1, Sensor 2)	0.715	V
SAE 0x15	Short term fuel trim (Bank 1, Sensor 2)	99.219	%
SAE 0x19	O2 voltage (Bank 2, Sensor 2)	0.745	V
SAE 0x19	Short term fuel trim (Bank 2, Sensor 2)	99.219	%
SAE 0x1C	OBD requirements to which vehicle or engine is certified	1	
SAE 0x1F	Time since engine start	2124	sec
SAE 0x21	Distance traveled while MIL is activated	0	miles
SAE 0x2E	Commanded evaporative purge	39.22	%
SAE 0x2F	Fuel level input	23.14	%
SAE 0x30	Number of warm-ups since DTCs cleared	1	
SAE 0x31	Distance traveled since DTCs cleared	14.91	miles
SAE 0x33	Barometric pressure	29.23	inHg
SAE 0x34	O2 sensor lambda wide range (current probe) (Bank 1, Sensor 1)	0.994	
SAE 0x34	O2 sensor current wide range (Bank 1, Sensor 1)	-0.035	mA
SAE 0x38	O2 sensor lambda wide range (current probe) (Bank 2, Sensor 1)	0.996	
SAE 0x38	O2 sensor current wide range (Bank 2, Sensor 1)	-0.031	mA
SAE 0x3C	Catalyst temperature (Bank 1 Sensor 1)	803.48	F
SAE 0x3D	Catalyst temperature (Bank 2 Sensor 1)	798.8	F
SAE 0x42	Control module voltage	14.42	V
SAE 0x43	Absolute load value	19.61	%
SAE 0x44	Fuel/Air commanded equivalence ratio	1	
SAE 0x45	Relative throttle position	3.53	%
SAE 0x46	Ambient air temperature	66.2	F
SAE 0x47	Absolute throttle position B	13.33	%
SAE 0x49	Accelerator pedal position D	13.73	%
SAE 0x4A	Accelerator pedal position E	13.73	%
SAE 0x4C	Commanded throttle actuator control	3.92	%

SAE 0x56	Long term secondary oxygen sensor trim bank 1	0	%
SAE 0x58	Long term secondary oxygen sensor trim bank 2	0.78	%
Aux 0x00	Input voltage read by the scan tool	14.1	V

Mode $02 - Freeze Frame

Freeze Frame data is not available.

Mode $05 - Oxygen Sensors

Sensor	Available
Bank 1 - Sensor 1	**Yes**
Bank 1 - Sensor 2	**Yes**
Bank 1 - Sensor 3	**No**
Bank 1 - Sensor 4	**No**
Bank 2 - Sensor 1	**Yes**
Bank 2 - Sensor 2	**Yes**
Bank 2 - Sensor 3	**No**
Bank 2 - Sensor 4	**No**

Mode $06 - On-Board Monitoring

Component	Description	Value	Minimum	Maximum	Units	Result
$01 - Exhaust Gas Sensor Monitor Bank 1 – Sensor 1	TID $83 - Manufacturer Defined	0.048	0	0.9		**Pass**
$02 - Exhaust Gas Sensor Monitor Bank 1 – Sensor 2	TID $01 - Rich to lean sensor threshold voltage (constant)	0	0	1.1	V	**Pass**
$02 - Exhaust Gas Sensor Monitor Bank 1 – Sensor 2	TID $02 - Lean to rich sensor threshold voltage (constant)	0	0	1.1	V	**Pass**
$02 - Exhaust Gas Sensor Monitor Bank 1 – Sensor 2	TID $07 - Minimum sensor voltage for test cycle (calculated)	0	0	1.1	V	**Pass**
$02 - Exhaust Gas Sensor Monitor Bank 1 – Sensor 2	TID $08 - Maximum sensor voltage for test cycle (calculated)	0.8898	0	1.1	V	**Pass**
$02 - Exhaust Gas Sensor Monitor Bank 1 – Sensor 2	TID $91 - Manufacturer Defined	0.039	0	0.9999		**Pass**
$02 - Exhaust Gas Sensor Monitor Bank 1 – Sensor 2	TID $86 - Manufacturer Defined	0	0	0.1514	V	**Pass**
$05 - Exhaust Gas Sensor Monitor Bank 2 – Sensor 1	TID $83 - Manufacturer Defined	0.075	0	0.9		**Pass**
$06 - Exhaust Gas Sensor Monitor Bank 2 – Sensor 2	TID $01 - Rich to lean sensor threshold voltage (constant)	0	0	1.1	V	**Pass**
$06 - Exhaust Gas Sensor Monitor Bank 2 – Sensor 2	TID $02 - Lean to rich sensor threshold voltage (constant)	0	0	1.1	V	**Pass**
$06 - Exhaust Gas Sensor Monitor Bank 2 – Sensor 2	TID $07 - Minimum sensor voltage for test cycle (calculated)	0	0	1.1	V	**Pass**
$06 - Exhaust Gas Sensor Monitor Bank 2 – Sensor 2	TID $08 - Maximum sensor voltage for test cycle (calculated)	0.8702	0	1.1	V	**Pass**
$06 - Exhaust Gas Sensor	TID $91 - Manufacturer Defined	0.039	0	0.9999		**Pass**

Monitor Bank 2 – Sensor 2						
$06 - Exhaust Gas Sensor Monitor Bank 2 – Sensor 2	TID $86 - Manufacturer Defined	0	0	0.1514	V	**Pass**
$21 - Catalyst Monitor Bank 1	TID $81 - Manufacturer Defined	0.5625	0	0.9218		**Pass**
$22 - Catalyst Monitor Bank 2	TID $81 - Manufacturer Defined	0.5625	0	0.9218		**Pass**
$35 - VVT Monitor Bank 1	TID $84 - Manufacturer Defined	0.1	0	10	deg	**Pass**
$36 - VVT Monitor Bank 2	TID $85 - Manufacturer Defined	3.6	0	10	deg	**Pass**
$3B - EVAP Monitor (0.040”)	TID $81 - Manufacturer Defined	0	0	0	mA	**Pass**
$3B - EVAP Monitor (0.040”)	TID $82 - Manufacturer Defined	0	0	0	mA	**Pass**
$3C - EVAP Monitor (0.020”)	TID $81 - Manufacturer Defined	0	0	0	mA	**Pass**
$3D - Purge Flow Monitor	TID $81 - Manufacturer Defined	0	0	0		**Pass**
$3D - Purge Flow Monitor	TID $82 - Manufacturer Defined	0	0	2		**Pass**
$3D - Purge Flow Monitor	TID $83 - Manufacturer Defined	0	0	0	mg/stroke	**Pass**
$41 - Exhaust Gas Sensor Heater Monitor Bank 1 – Sensor 1	TID $85 - Manufacturer Defined	779.8	680	2047.9	C	**Pass**
$42 - Exhaust Gas Sensor Heater Monitor Bank 1 – Sensor 2	TID $81 - Manufacturer Defined	340	0	5000		**Pass**
$45 - Exhaust Gas Sensor Heater Monitor Bank 2 – Sensor 1	TID $85 - Manufacturer Defined	779.8	680	2047.9	C	**Pass**
$46 - Exhaust Gas Sensor Heater Monitor Bank 2 – Sensor 2	TID $81 - Manufacturer Defined	303	0	5000		**Pass**
$A2 - Misfire Cylinder 1 Data	TID $0C - Misfire counts for last/current driving cycles (calculated, rounded to an integer value)	13	0	65535	counts	**Pass**
$A2 - Misfire Cylinder 1 Data	TID $0B - EWMA (Exponential Weighted Moving Average) misfire counts for last ten (10) driving cycles	5	0	65535	counts	**Pass**
$A3 - Misfire Cylinder 2 Data	TID $0C - Misfire counts for last/current driving cycles (calculated, rounded to an integer value)	1	0	65535	counts	**Pass**
$A3 - Misfire Cylinder 2 Data	TID $0B - EWMA (Exponential Weighted Moving Average) misfire counts for last ten (10) driving cycles	0	0	65535	counts	**Pass**
$A4 - Misfire Cylinder 3 Data	TID $0C - Misfire counts for last/current driving cycles (calculated, rounded to an integer value)	4	0	65535	counts	**Pass**
$A4 - Misfire Cylinder 3 Data	TID $0B - EWMA (Exponential Weighted Moving Average) misfire counts for last ten (10) driving cycles	0	0	65535	counts	**Pass**
$A5 - Misfire Cylinder 4 Data	TID $0C - Misfire counts for last/current driving cycles (calculated, rounded to an integer value)	2	0	65535	counts	**Pass**
$A5 - Misfire Cylinder 4 Data	TID $0B - EWMA (Exponential Weighted Moving Average) misfire counts for last ten (10) driving cycles	0	0	65535	counts	**Pass**
$A6 - Misfire Cylinder 5 Data	TID $0C - Misfire counts for last/current driving cycles (calculated, rounded to an integer value)	6	0	65535	counts	**Pass**
$A6 - Misfire Cylinder 5 Data	TID $0B - EWMA (Exponential Weighted Moving Average) misfire counts for last ten (10) driving cycles	0	0	65535	counts	**Pass**
$A7 - Misfire Cylinder 6 Data	TID $0C - Misfire counts for last/current driving cycles (calculated, rounded to an integer value)	4	0	65535	counts	**Pass**
$A7 - Misfire Cylinder 6 Data	TID $0B - EWMA (Exponential Weighted Moving Average) misfire counts for last ten (10) driving cycles	0	0	65535	counts	**Pass**

Mode $09 - Vehicle Information

General Information

Description	Value
Vehicle Identification Number	4USFE43527LY77490
Calibration ID - $7E0	7602220
Calibration ID - $7E0	7617313
Calibration ID - $7E4	7607116
Calibration ID - $7E4	7572734
Calibration Verification Number - $7E0	F72C8FB0
Calibration Verification Number - $7E0	4B8684DE
Calibration Verification Number - $7E4	61164542
Calibration Verification Number - $7E4	0000390D

In-Performance Tracking

Counter	Description	Value
0x00	OBD Monitoring Conditions Encountered Counts	6112
0x01	Ignition Cycle Counter	19034
0x02	Catalyst Monitor Completion Counts Bank 1	4167
0x03	Catalyst Monitor Conditions Encountered Counts Bank 1	5957
0x04	Catalyst Monitor Completion Counts Bank 2	4437
0x05	Catalyst Monitor Conditions Encountered Counts Bank 2	5957
0x06	O2 Sensor Monitor Completion Counts Bank 1	5794
0x07	O2 Sensor Monitor Conditions Encountered Counts Bank 1	5957
0x08	O2 Sensor Monitor Completion Counts Bank 2	5413
0x09	O2 Sensor Monitor Conditions Encountered Counts Bank 2	5957
0x0A	EGR and/or VVT Monitor Completion Condition Counts	16271
0x0B	EGR and/or VVT Monitor Conditions Encountered Counts	6107
0x0E	EVAP Monitor Completion Condition Counts	1141
0x0F	EVAP Monitor Conditions Encountered Counts	1318
0x10	Secondary O2 Sensor Monitor Completion Counts Bank 1	9893
0x11	Secondary O2 Sensor Monitor Conditions Encountered Counts Bank 1	5957
0x12	Secondary O2 Sensor Monitor Completion Counts Bank 2	9602
0x13	Secondary O2 Sensor Monitor Conditions Encountered Counts Bank 2	5957