I've read poor quality/old spark plugs, bad fuel, ignition wires, etc are all potential sources of cylinder misfires. Before running out to replace things with no method to my madness, I'm hoping to get some guidance on the highest probability cause(s) at lowest cost and start from there.

Recommendations on particular brands (or ones to avoid) as also much appreciated.

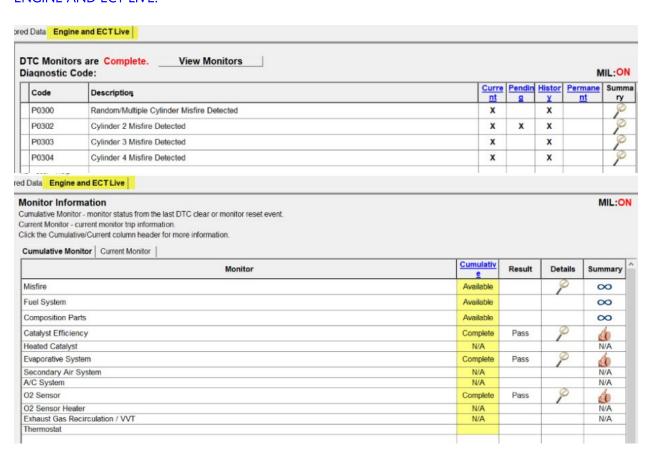
I sat in the car, at 2006 Prius with unknown mileage on the engine for 15-20 minutes with the car intermittently idling and there were no problems. Also, kept foot on accelerator to keep it humming around 2,000 RPM and everything was fine. On other hand, the engine sounded awful after putting the car reverse and then pulling forward into the parking space.

Not sure if this rules out bad fuel as the source of the problem, but thought information worth passing along.

Techstream generates the following codes: P0300, P0302, P0303, P0304, C1241, B1421 and B1271.

Below I've provided additional data from Techstream that may be helpful. Thank you in advance for any help you can offer.

#### **FNGINE AND FCT LIVE:**



# P0300

# Freeze Frame Data P0300 Random/Multiple Cylinder Misfire Detected



Current FFD | Pending FFD |

7 1308 72.1	MPH rpm	Knock Feedback Value	-3.0	deg
72.1	rpm	THIOUR I GOULDON TOIGE	0.0	
				(CA
	%	Knock Correct Learn Value	21.7	deg
42.7	%			(CA
8.32	gm/sec	VVT Control Status #1	ON	
-1	psi(gau	Catalyst Temp B1S1	455.5	F
	-			F
	-			
				min
				mile
	V			
	96			
ON		All Cylinders Misfire Count		
OFF		Misfire RPM	2175	rpm
OFF		Misfire Load	0.46	g/re
1.0	V	Misfire Margin	-71.10	96
	%	Electric Fan Motor	OFF	
		Idle Fuel Cut		
2.7	V	FC TAU	OFF	
1.0	V	Requested Engine Torque	4.75	kW
0.7	V	HV Target Engine Speed	1300	rpm
1.8	V	Actual Engine Torque	30	Nm
1.0	V	Estimated Engine Torque	56	Nm
ON		Engine Run Time	45	S
0.6	Α	Request Engine Run Time	7.7	5
21.5	%	Judge Time Engine Ignition	2.9	S
8	%	Judge Time Engine Output	0.0	S
0	96	Estimated Intake Port Temp	172	F
0.6	V	Fuel Level	Not Emp	
ON	1000	ISC Learning	Incmpl	
13.9		F/C for Engine Stop Req	OFF	
ON		Engine Independent	Not Opr	
OFF		Racing Operation	Not Opr	
OFF		Request Warm-up	Request	
OFF		Engine Independent Control	Not Opr	
5.50	ms	Tank Outlet Water Temp	118	E
0.183	ml	Water Flow Valve	4.49	V
ON		ISC Learning Value	3.12	L/s
OFF		Direction Value 1	4.499	V
0.0	%	Direction Value 2	0.000	٧
0.0	%			
0.000				
OFF				
OFF				
OFF				
	V			
	-			
0.00	100			-
7.13	90			
	172 73 54 44 1861.2 74.7 13.8 OFF 21.5 55.2 OFF ON OFF 1.0 4.3 1.0 0.7 1.8 1.0 0.7 1.8 1.0 0.6 21.5 8 0 0.6 0.1 3.9 0N OFF OFF OFF 5.50 0.183 ON OFF OFF 0.0 0.0 0.0 0.00 0.00 0.00 0.00	99) 172 F 73 F 54 F 44 S 161.2 F 74.7 F 13.8 V OFF 21.5 % 55.2 % OFF ON OFF OFF 1.0 V 4.3 % 1.0 V 2.7 V 1.0 V 0.7 V 1.8 V 1.0 V 0.7 V 1.8 V 1.0 V 0.7 S 0.6 A 221.5 % 8 % 0 % 0 % 0 % 0 % 0 % 0 % 0 % 0 % 0 % 0	172	172   F   Closed Throttle Position SW   OFF

				*N/A=	HOL W	allab
Parameter	Unit	-3	-2	-1	0	1
Catalyst Temp B1S1	F	988.0	993.0	993.0	993.0	997.7
Catalyst Temp B1S2	F	639.0	640.2	640.2	640.2	641.5
Closed Throttle Position SW		OFF	OFF	OFF	OFF	OFF
Engine Oil Pressure SW		OFF	OFF	OFF	OFF	OFF
Time after DTC Cleared	min	7042	7042	7042	7042	7042
Distance from DTC Cleared	mile	2574	2574	2574	2574	2574
Warmup Cycle Cleared DTC		104	104	104	104	104
TC and TE1		OFF	OFF	OFF	OFF	OFF
Ignition Trig. Count		0	0	0	0	0
Cylinder #1 Misfire Count		0	0	0	0	0
Cylinder #2 Misfire Count		78	86	94	0	4
Cylinder #3 Misfire Count		0	0	0	0	0
Cylinder #4 Misfire Count		0	0	0	0	0
All Cylinders Misfire Count		148	156	164	166	170
Misfire RPM	rpm	2175	2175	2175	2175	2175
Misfire Load Misfire Margin	g/rev	0.46 -100.0				
Electric Fan Motor		0 OFF	0 OFF	0 OFF	0 OFF	0 OFF
Idle Fuel Cut		OFF	OFF	OFF	OFF	OFF
FC TAU		OFF	OFF	OFF	OFF	OFF
Requested Engine Torque	kW	14.00	14.25	13.75	13.75	13.75
HV Target Engine Speed	rpm	1800	1800	1800	1800	1800
Actual Engine Torque	Nm	58	53	53	52	57
Estimated Engine Torque	Nm	70	68	66	66	66
Engine Run Time	S	255	255	255	255	255
Request Engine Run Time	s	9.0	9.0	9.0	9.0	9.0
Judge Time Engine Ignition	s	3.0	3.0	3.0	3.0	3.0
Judge Time Engine Output	s	0.0	0.0	0.0	0.0	0.0
Estimated Intake Port Temp	F	181	181	181	181	181
Fuel Level		Not	Not	Not	Not	Not
ISC Learning		Emp	Emp	Emp	Emp	Comp
F/C for Engine Stop Req		OFF	OFF	OFF	OFF	OFF
Engine Independent		Not Opr	Not Opr	Not Opr	Not Opr	Not Opr
Racing Operation		Not Opr	Not Opr	Not Opr	Not Opr	Not Opr
Request Warm-up		Not	Not	Not	Not	Not
Engine Independent Control		Not	Not Oor	Not	Not Oor	Req Not
	F	Opr	Opr	Opr	Opr	Opr
Tank Outlet Water Temp		136	136	136	136	136
Water Flow Valve ISC Learning Value	V Us	4.49 3.12	4.49 3.12	4.49 3.12	4.49 3.12	3.12
Direction Value 1	V	4.499	4.499	4.499	4.499	4.499
Direction Value 2	V	0.000			0.000	0.000

# CONTINUED



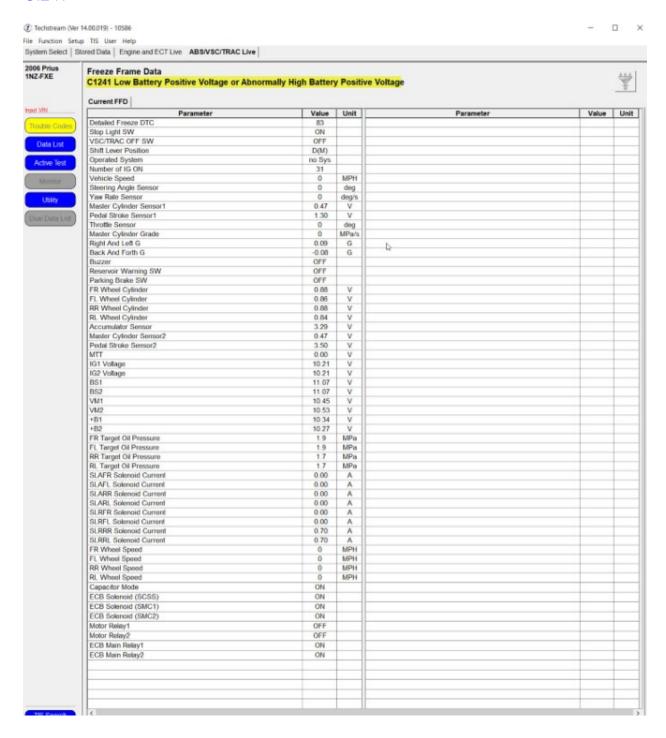
Parameter	Unit	-3	-2	-1	0	1
Injector (Port)	ms	6.78	6.40	6.40	6.40	6.27
Injection Volum (Cylinder1)	ml	0.228	0.228	0.220	0.217	0.217
Fuel Pump/Speed Status		ON	ON	ON	ON	ON
Vacuum Pump		OFF	OFF	OFF	OFF	OFF
EVAP (Purge) VSV	96	94.5	100.0	100.0	100.0	100.0
Evap Purge Flow	96	1.7	1.9	2.0	2.0	2.1
Purge Density Learn Value		1.000	1.000	1.000	1.000	1.000
EVAP System Vent Valve		OFF	OFF	OFF	OFF	OFF
		OFF	OFF	OFF	OFF	OFF
Tank Bypass VSV		ON	ON	ON	ON	ON
EVAP Purge VSV			0.992	0.992	0.992	0.992
Target Air-Fuel Ratio		0.992	202072	1000	0.992	0.992
AF Lambda B1S1	V	0.996	0.996	0.988		
AFS Voltage B1S1		3.34	3.35	3.31	3.31	3.36
02S B1S2	V	0.89	0.89	0.89	0.89	0.89
O2S Impedance B1S2	ohm	187.0	186.7 5	186.1	185.1	184.8
Short FT B1S1	96	1.5	0.0	0.7	0.7	0.0
Long FT B1S1	96	2.3	2.3	2.3	2.3	2.3
Total FT #1		0.042	0.042	0.042	0.042	0.042
Fuel System Status #1		CL	CL	CL	CL	CL
Fuel System Status #2	-	Unuse	Unuse	Unuse	Unuse	
IGN Advance	deg	18.5	19.0	19.0	19.0	19.0
Knock Feedback Value	deg (CA)	-3.0	-3.0	-3.0	-3.0	-3.3
Knock Correct Learn Value	deg (CA)	24.8	24.8	24.8	24.8	24.8
VVT Control Status #1	(0.0)	ON	ON	ON	ON	ON
Cetalyst Temp B1S1	F	988.0	993.0	993.0	993.0	997.7
Catalyst Temp B1S2	F	639.0	640.2	640.2	640.2	641.5
Closed Throttle Position SW		OFF	OFF	OFF	OFF	OFF
Engine Oil Pressure SW		OFF	OFF	OFF	OFF	OFF
Time after DTC Cleared	min	7042	7042	7042	7042	7042
Distance from DTC Cleared	mile	2574	2574	2574	2574	2574
Warmup Cycle Cleared DTC		104	104	104	104	104
TC and TE1		OFF	OFF	OFF	OFF	OFF
Ignition Trig. Count		0	0	0	0	0
Cylinder #1 Misfire Count		0	0	0	0	0
Cylinder #2 Misfire Count		78	86	94	0	4
Cylinder #3 Misfire Count		0	0	0	0	0
Cylinder #4 Misfire Count		0	0	0	0	0
All Cylinders Misfire Count		148	156	164	166	170
Misfire RPM	rpm	2175	2175	2175	2175	2175
Misfire Load	g/rev	0.46	0.46	0.46	0.46	0.46
Misfire Margin	96	-100.0 0	-100.0 0	-100.0 0	-100.0 0	-100.0 0
Electric Fan Motor		OFF	OFF	OFF	OFF	OFF
Idle Fuel Cut		OFF	OFF	OFF	OFF	OFF
FC TAU	3	OFF	OFF	OFF	OFF	OFF

# **CONTINUED**

#### Freeze Frame Data 4 P0302 Cylinder 2 Misfire Detected \*N/A=Not Available Parameter Unit -3 -2 -1 Vehicle Speed MPH 39 39 Engine Speed rpm 1790 1785 1807 1787 1850 Calculate Load Vehicle Load MAF gm/sec 13.26 13.26 13.10 13.00 13.14 psi(gau Atmosphere Pressure -1 -1 -1 -1 -1 ge) 181 181 Coolant Temp 181 181 181 Intake Air 73 73 73 73 73 Ambient Temperature F 61 61 61 61 61 Engine Run Time 240 240 241 241 241 5 Initial Engine Coolant Temp F 136.6 136.6 136.6 136.6 136.6 Initial Intake Air Temp 102.7 F 102.7 102.7 102.7 102.7 Battery Voltage ν 13.8 13.8 13.8 13.8 13.8 Accelerator Idle Position OFF OFF OFF OFF OFF Throttle Sensor Volt % 27.0 27.0 26.6 26.6 26.6 Throttle Sensor #2 Volt % 96 61.9 61.9 61.5 61.5 61.5 OFF OFF OFF OFF OFF System Guard ON ON ON ON ON OFF Open Side Malfunction OFF OFF OFF OFF OFF OFF OFF OFF Throttle Idle Position OFF Throttle Require Position V 1.3 1.3 1.3 1.3 1.3 Throttle Sensor Position 96 10.9 10.9 10.5 10.5 10.5 Throttle Position No.1 ٧ 1.3 1.3 1.3 1.3 1.3 Throttle Position No 2 V 3.0 3.0 3.0 3.0 3.0 Throttle Position Command 1.3 1.3 1.3 1.3 1.3 V 0.7 0.7 0.7 0.7 0.7 Throttle Sens Open Pos #1 Throttle Sens Open Pos #2 V 1.8 1.8 1.8 1.8 1.8 Throttle Sens Open #1(AD) V 1.3 1.3 1.3 1.3 1.3 Throttle Motor ON ON ON ON ON Throttle Motor Current 0.7 0.7 A 0.9 0.3 0.8 Throttle Motor DUTY 96 27.0 27.0 26.6 26.2 26.2 Throttle Motor Duty (Open) 96 8 15 12 11 Throttle Motor Duty (Close) 96 0 0 0 0 0 Throttle Fully Close Learn 0.6 0.6 0.6 0.6 0.6 ETCS Actuator Power ON ON ON ON ON +BM Voltage 13.9 13.9 13.9 13.9 13.9 Actuator Power Supply ON ON ON ON ON OFF Electromagnetic Clutch OFF OFF OFF OFF OFF OFF OFF OFF Fail Safe Drive OFF Fail Safe Drive (Main CPU) OFF OFF OFF OFF OFF Injector (Port) ms 6.78 6.40 6.40 6.40 6.27 0.217 Injection Volum (Cylinder1) 0.228 0.228 0.220 0.217 ml

Can anyone tell from the data below if the 12V battery needs to be replaced? I read elsewhere in these reports it shows BM Voltage at 13.9

# C1241



Thank you, particularly if you made it this far through the post! I really appreciate

it.

A	System Co.									
System	Monito r Status	DTC	Curr Conf	Pend	Hist	Test Faile d	SB	Ro B	Calibration	Update
		P0300	X		X		?		34709000	Yes
Engine and ECT	Com	P0302	X	X	X		2			
	Com	P0303	X		X		?	-		
		P0304	X		X		?			
ABS/VSC/TRAC	- 6	C1241	X				?	-		
Air Conditioner		B1421	X				?	-	-	
Gateway	2	B1271			X		?	-	-	
HV Battery								-	898904709000	No

 Techstream (Ver 14.00.019) - 10586 □ ×

File Function Setup TIS User Help
System Select | Stored Data | Engine and ECT Live | ABSIVSC/TRAC Live |

# 2006 Prius 1NZ-FXE

# Freeze Frame Data C1241 Low Battery Positive Voltage or Abnormally High Battery Positive Voltage



hput VIN

Parameter	Value	Unit	Parameter	Value	Uni
Detailed Freeze DTC	83				
Stop Light SW	ON				
VSC/TRAC OFF SW	OFF				
Shift Lever Position	D(M)				
Operated System	no Sys				
Number of IG ON	31				
Vehicle Speed	0	MPH			
Steering Angle Sensor	0	deg			-
Yaw Rate Sensor	0	deg/s			
Master Cylinder Sensor1	0.47	V			_
Pedal Stroke Sensor1	1.30	V			
Throttle Sensor	0	deg			-
Master Cylinder Grade	0	MPa/s			-
Right And Left G	0.09	G	1927		-
Back And Forth G	-0.08	G	4		-
	-0.08 OFF	G			-
Buzzer					-
Reservoir Warning SW	OFF				-
Parking Brake SW	OFF				
FR Wheel Cylinder	0.88	V			_
Fl. Wheel Cylinder	0.86	V			
RR Wheel Cylinder	0.88	V			
Rl. Wheel Cylinder	0.84	V			
Accumulator Sensor	3.29	V			
Master Cylinder Sensor2	0.47	V			
Pedal Stroke Sensor2	3.50	V			
MTT	0.00	V			
IG1 Voltage	10.21	V			
IG2 Voltage	10.21	V			
BS1	11.07	V			-
BS2	11.07	V			-
VM1	10.45	v			-
VM2	10.53	v			-
+R1	10.33				-
+B2		V			-
	10.27	V			-
FR Target Oil Pressure	1.9	MPa			-
FL Target Oil Pressure	1.9	MPa			_
RR Target Oil Pressure	1.7	MPa			_
RI. Target Oil Pressure	1.7	MPa			
SLAFR Solenoid Current	0.00	A			
SLAFL Solenoid Current	0.00	A			
SLARR Solenoid Current	0.00	A			
SLARI. Solenoid Current	0.00	A			
SLRFR Solenoid Current	0.00	A			
SLRFL Solenoid Current	0.00	A			
SLRRR Solenoid Current	0.70	A			
SLRRL Solenoid Current	0.70	Α			
FR Wheel Speed	0	MPH			
FL Wheel Speed	0	MPH			-
RR Wheel Speed	0	MPH			-
RI, Wheel Speed	0	MPH			-
Capacitor Mode	ON	307-11			-
					-
ECB Solenoid (SCSS)	ON				-
ECB Solenoid (SMC1)	ON				
ECB Solenoid (SMC2)	ON				
Motor Relay1	OFF				
Motor Relay2	OFF				
ECB Main Relay1	ON				
ECB Main Relay2	ON				
non-many					
					-
					-

P0300 Random/Multiple Cylinder Misfire Detected

# Freeze Frame Data P0300 Random/Multiple Cylinder Misfire Detected



### Current FFD | Pending FFD |

Parameter	Value	Unit	Parameter	Value	Unit
Vehicle Speed	7	MPH	Knock Feedback Value	-3.0	deg
Engine Speed	1308	rpm	NIOCK P BOUDACK VAIUE	-3.0	(CA
Caltyliate Load	72.1	96	Knock Correct Learn Value	21.7	deg
Vehicle Load	42.7	96		1 22.00	(CA
MAF	8.32	gm/sec	VVT Control Status #1	ON	827
Atmosphere Pressure	-1	psi(gau		455.5	F
		ge)	Catalyst Temp B1S2	198.3	F
Coolant Temp	172	F	Closed Throttle Position SW	OFF	
Intake Air	73	F	Engine Oil Pressure SW	OFF	
Ambient Temperature	54	F	Time after DTC Cleared	7063	min
Engine Run Time	44	S	Distance from DTC Cleared	2579	mile
Initial Engine Coolant Temp	161.2	F	Warmup Cycle Cleared DTC	105	
Initial Intake Air Temp	74.7	F	TC and TE1	OFF	
Battery Voltage	13.8	V	Ignition Trig. Count	0	
Accelerator Idle Position	OFF		Cylinder #1 Misfire Count	0	
Throttle Sensor Volt %	21.5	96	Cylinder #2 Misfire Count	0	
Throttle Sensor #2 Volt %	55.2	%	Cylinder #3 Misfire Count	0	
ST1	OFF		Cylinder #4 Misfire Count	0	
System Guard	ON		All Cylinders Misfire Count	0	
Open Side Malfunction	OFF		Misfire RPM	2175	rpm
Throttle Idle Position	OFF		Misfire Load	0.46	g/re
Throttle Require Position	1.0	ν	Misfire Margin	-71.10	96
Throttle Sensor Position	4.3	96	Electric Fan Motor	OFF	
Throttle Position No.1	1.0	V	Idle Fuel Cut	OFF	
Throttle Position No.2	2.7	V	FC TAU	OFF	
Throttle Position Command	1.0	V	Requested Engine Torque	4.75	kW
Throttle Sens Open Pos #1	0.7	V	HV Target Engine Speed	1300	rpm
Throttle Sens Open Pos #2	1.8	V	Actual Engine Torque	30	Nm
Throttle Sens Open #1(AD)	1.0	V	Estimated Engine Torque	56	Nm
Throttle Motor	ON	1 100	Engine Run Time	45	5
Throttle Motor Current	0.6	Α	Request Engine Run Time	7.7	9
Throttle Motor DUTY	21.5	96	Judge Time Engine Ignition	2.9	5
Throttle Motor Duty (Open)	8	%	Judge Time Engine Output	0.0	S
Throttle Motor Duty (Close)	0	%	Estimated Intake Port Temp	172	F
Throttle Fully Close Learn	0.6	V	Fuel Level	Not Emp	
ETCS Actuator Power	ON		ISC Learning	Inempl	
+BM Voltage	13.9		F/C for Engine Stop Req	OFF	
Actuator Power Supply	ON		Engine Independent	Not Opr	
Electromagnetic Clutch	OFF		Racing Operation	Not Opr	
Fail Safe Drive	OFF		Request Warm-up	Request	
Fail Safe Drive (Main CPU)	OFF		Engine Independent Control	Not Opr	-
Injector (Port)	5.50	ms	Tank Outlet Water Temp	118	F
Injection Valum (Cylinder1)	0.183	ml	Water Flow Valve	4.49	٧
Fuel Pump/Speed Status	ON		ISC Learning Value	3.12	L/s
Vacuum Pump	OFF		Direction Value 1	4.499	٧
EVAP (Purge) VSV	0.0	96	Direction Value 2	0.000	٧
Evap Purge Flow	0.0	96			
Purge Density Learn Value	0.000				
EVAP System Vent Valve	OFF				
Tank Bypass VSV	OFF				
EVAP Purge VSV	OFF				
Target Air-Fuel Ratio	0.992				
AF Lambda B1S1	0.997				
AFS Voltage B1S1	3.28	V			
02S B1S2	0.68	V			
02S Impedance B1S2	1753.69	ohm			
Short FT B1S1	1.5	96			
Long FT B1S1	0.7	96			
Total FT #1	0.000	700			
Fuel System Status #1	CL				
Fuel System Status #2	Unused				
	-10.5	deg			
IGN Advance					

		4	p
*N/A	Not	Availa	ble
-1	0	4	

Parameter	Unit	-3	-2	-1	0	1
Catalyst Temp B1S1	F	988.0	993.0	993.0	993.0	997.7
Catalyst Temp B1S2	F	639.0	640.2	640.2	640.2	641.5
Closed Throttle Position SW		OFF	OFF	OFF	OFF	OFF
Engine Oil Pressure SW		OFF	OFF	OFF	OFF	OFF
Time after DTC Cleared	min	7042	7042	7042	7042	7042
Distance from DTC Cleared	mie	2574	2574	2574	2574	2574
Warmup Cycle Cleared DTC		104	104	104	104	104
TC and TE1		OFF	OFF	OFF	OFF	OFF
Ignition Trig. Count		0	0	0	0	0
Cylinder #1 Misfire Count		0	0	0	0	0
Cylinder #2 Misfire Count		78	86	94	0	4
Cylinder #3 Misfire Count		0	0	0	0	0
Cylinder #4 Misfire Count		0	0	0	0	0
All Cylinders Misfire Count		148	156	164	166	170
Misfire RPM	rpm	2175	2175	2175	2175	2175
Misfire Load	g/rev	0.46	0.46	0.46	0.46	0.46
Misfire Margin	96	-100.0 0	-100.0 0	-100.0 0	-100.0 0	-100.0 0
Electric Fan Motor		OFF	OFF	OFF	OFF	OFF
Idle Fuel Cut		OFF	OFF	OFF	OFF	OFF
FC TAU		OFF	OFF	OFF	OFF	OFF
Requested Engine Torque	kW	14.00	14.25	13.75	13.75	13.75
HV Target Engine Speed	rpm	1800	1800	1800	1800	1800
Actual Engine Torque	Nm	58	53	53	52	57
Estimated Engine Torque	Nm	70	68	66	66	66
Engine Run Time	9	255	255	255	255	255
Request Engine Run Time	s	9.0	9.0	9.0	9.0	9.0
Judge Time Engine Ignition	5	3.0	3.0	3.0	3.0	3.0
Judge Time Engine Output	s	0.0	0.0	0.0	0.0	0.0
Estimated Intake Port Temp	F	181	181	181	181	181
Fuel Level		Not	Not	Not	Not	Not
		Emp	Emp	Emp	Emp	Emp
ISC Learning F/C for Engine Stop Req		OFF	OFF	OFF	OFF	Compl
		Not	Not	Not	Not	Not
Engine Independent		Opr Not	Opr Not	Opr Not	Opr Not	Opr Not
Racing Operation		Орг	Opr	Opr	Opr	Opr
Request Warm-up		Not Req	Not Req	Not Req	Not Req	Not Req
Engine Independent Control		Not Opr	Not Opr	Not Opr	Not Opr	Not Opr
Tank Outlet Water Temp	F	136	136	136	136	136
Water Flow Valve	V	4.49	4.49	4.49	4.49	4.49
ISC Learning Value	L/s	3.12	3.12	3.12	3.12	3.12
	V	4.499	4.499	4.499	4.499	4.499
Direction Value 1		4,400	4,499	4,433	4.499	41.400

# Continued



20302 Cylinder 2 Misfire Detected	Continued			*N/A=	Not Av	ailabl
Parameter	Unit	-3	-2	-1	0	1
njector (Port)	ms	6.78	6.40	6.40	6.40	6.27
njection Volum (Cylinder1)	mi	0.228	0.228	0.220	0.217	0.217
Fuel Pump/Speed Status		ON	ON	ON	ON	ON
Vacuum Pump		OFF	OFF	OFF	OFF	OFF
EVAP (Purge) VSV	96	94.5	100.0	100.0	100.0	100.0
Evap Purge Flow	96	1.7	1.9	2.0	2.0	2.1
Purge Density Learn Value		1.000	1.000	1.000	1.000	1.000
EVAP System Vent Valve		OFF	OFF	OFF	OFF	OFF
Tank Bypass VSV		OFF	OFF	OFF	OFF	OFF
EVAP Purge VSV		ON	ON	ON	ON	ON
Target Air-Fuel Ratio		0.992	0.992	0.992	0.992	0.992
AF Lambda B1S1		0.996	0.996	0.988	0.993	0.997
AFS Voltage B1S1	V	3.34	3.35	3.31	3.31	3.36
02S B1S2	V	0.89	0.89	0.89	0.89	0.89
O2S Impedance B1S2	ohm	187.0	186.7 5	186.1	185.1	184.8
Short FT B1S1	46	1.5	0.0	0.7	0.7	0.0
Long FT B1S1	16	2.3	2.3	2.3	2.3	2.3
Total FT #1		0.042	0.042	0.042	0.042	0.042
Fuel System Status #1		CL	CL	CL	CL	CL
Fuel System Status #2		Unuse	Unuse	Unuse	Unuse	Unuse
IGN Advance	deg	18.5	19.0	19.0	19.0	19.0
Knock Feedback Value	deg (CA)	-3.0	-3.0	-3.0	-3.0	-3.3
Knock Correct Learn Value	deg (CA)	24.8	24.8	24.8	24.8	24.8
VVT Control Status #1	(04)	ON	ON	ON	ON	ON
Catalyst Temp B1S1	F	988.0	993.0	993.0	993.0	997.7
Catalyst Temp B1S2	F	639.0	640.2	640.2	640.2	641.5
Closed Throttle Position SW		OFF	OFF	OFF	OFF	OFF
Engine Oil Pressure SW		OFF	OFF	OFF	OFF	OFF
Time after DTC Cleared	min	7042	7042	7042	7042	7042
Distance from DTC Cleared	mie	2574	2574	2574	2574	2574
Warmup Cycle Cleared DTC	niio ii		104	104	104	104
		104				-
TC and TE1		OFF	OFF	OFF	OFF	OFF
Ignition Trig. Count		0	0	0	0	0
Cylinder #1 Misfire Count				0.235	22	0
Cylinder #2 Misfire Count		78	86	94	0	4
Cylinder #3 Misfire Count		0	0	0	0	0
Cylinder #4 Misfire Count		0	0	0	0	0
All Cylinders Misfire Count		148	156	164	166	170
Misfire RPM	rpm	2175	2175	2175	2175	2175
Misfire Load	g/rev	0.46	0.46	0.46	0.46	0.46
Misfire Margin	16	-100.0 0	-100.0 0	0	0	0
Electric Fan Motor		OFF	OFF	OFF	OFF	OFF
Idle Fuel Cut FC TAU		OFF	OFF	OFF	OFF	OFF
		OFF	OFF	OFF	OFF	OFF



			4
	*N/A=	Not Av	railabl
2	-1	0	1
8	39	39	39
85	1807	1787	1850
8.1	87.0	87.0	86.2
8.6	48.6	49.0	47.8
26	13.10	13.00	13.14

				*N/A=	*N/A=Not Ava				
Parameter	Unit	-3	-2	-1	0	1			
Vehicle Speed	MPH	39	38	39	39	39			
Engine Speed	rpm 96	1790	1785	1807	1787	1850			
Calculate Load  Vehicle Load	%	90.1	87.8 49.8	87.0 48.6	87.0 49.0	86.2 47.8			
MAF	gm/sec		13.26	13.10	13.00	13.14			
Atmosphere Pressure	psi(gau ge)	-1	-1	-1	-1	-1			
Coolant Temp	F	181	181	181	181	181			
ntake Air	F	73	73	73	73	73			
Ambient Temperature	F	61	61	61	61	61			
Engine Run Time	5	240	240	241	241	241			
Initial Engine Coolant Temp	F	136.6	136.6	136.6	136.6	136			
Initial Intake Air Temp	F	102.7	102.7	102.7	102.7	102			
Battery Voltage	V	13.8	13.8	13.8	13.8	13.			
Accelerator Idle Position		OFF	OFF	OFF	OFF	OFF			
Throttle Sensor Volt %	96	27.0	27.0	26.6	26.6	26.			
Throttle Sensor #2 Volt %	96	61.9	61.9	61.5	61.5	61.			
ST1		OFF	OFF	OFF	OFF	OFF			
System Guard		ON	ON	ON	ON	ON			
Open Side Malfunction		OFF	OFF	OFF	OFF	OFF			
Throttle Idle Position		OFF	OFF	OFF	OFF	OFF			
Throttle Require Position	V	1.3	1.3	1.3	1.3	1.3			
Throttle Sensor Position	96	10.9	10.9	10.5	10.5	10.			
Throttle Position No.1	V	1.3	1.3	1.3	1.3	1.3			
Throttle Position No.2	V	3.0	3.0	3.0	3.0	3.0			
Throttle Position Command	V	1.3	1.3	1.3	1.3	1.3			
Throttle Sens Open Pos #1	V	0.7	0.7	0.7	0.7	0.7			
Throttle Sens Open Pos #2	V	1.8	1.8	1.8	1.8	1.8			
Throttle Sens Open #1(AD)	V	1.3	1.3	1.3	1.3	1.3			
Throttle Motor		ON	ON	ON	ON	ON			
Throttle Motor Current	A	0.7	0.7	0.9	0.3	0.6			
Throttle Motor DUTY	96	27.0	27.0	26.6	26.2	26.			
Throttle Motor Duty (Open)	96	8	11	15	5	12			
Throttle Motor Duty (Close)	96	0	0	0	0	0			
Throttle Fully Close Learn	V	0.6	0.6	0.6	0.6	0.6			
ETCS Actuator Power		ON	ON	ON	ON	ON			
+BM Voltage		13.9	13.9	13.9	13.9	13.			
Actuator Power Supply		ON	ON	ON	ON	ON			
Electromagnetic Clutch		OFF	OFF	OFF	OFF	OF			
Fail Safe Drive		OFF	OFF	OFF	OFF	OF			
Fail Safe Drive (Main CPU)		OFF	OFF	OFF	OFF	OFF			
Injector (Port)	ms	6.78	6.40	6.40	6.40	6.2			
Injection Volum (Cylinder1)		0.228	0.228	0.220	0.217	0.21			

# Freeze Frame Data P0300 Random/Multiple Cylinder Misfire Detected



# Current FFD Pending FFD

7 1308 72.1	MPH rpm	Knock Feedback Value	-3.0	deg
	rpm	THIOUR I GOGGOOK TOIGG	0.0	
72.1				(CA
	%	Knock Correct Learn Value	21.7	deg
42.7	96		100000000000000000000000000000000000000	(CA)
8.32	gm/sec	VVT Control Status #1	ON	1777
-1	psi(gau	Catalyst Temp B1S1	455.5	F
				F
	_			
73	F	Engine Oil Pressure SW	OFF	
54	F	Time after DTC Cleared	7063	min
44	5	Distance from DTC Cleared	2579	mile
161.2	F	Warmup Cycle Cleared DTC	105	
74.7	F	TC and TE1	OFF	
13.8	V	Ignition Trig. Count	0	
OFF		Cylinder #1 Misfire Count	0	
21.5	96	Cylinder #2 Misfire Count	0	
55.2	96	Cylinder #3 Misfire Count	0	
OFF		Cylinder #4 Misfire Count	0	
ON		All Cylinders Misfire Count	0	
OFF		Misfire RPM	2175	rpm
OFF		Misfire Load	0.46	g/rev
1.0	V	Misfire Margin	-71.10	96
4.3	96	Electric Fan Motor	OFF	
1.0	V	Idle Fuel Cut	OFF	
2.7	V	FC TAU	OFF	
1.0	V	Requested Engine Torque	4.75	kW
0.7	V		1300	rpm
1.8	V	Actual Engine Torque	30	Nm
1.0	V		56	Nm
ON			45	S
0.6	Α		7.7	s
21.5	96		2.9	S
8	%		0.0	S
0	96		172	F
0.6	V			
	-			_
13.9			OFF	
ON			Not Opr	
OFF				
OFF				
OFF				
5.50	ms			E
		The state of the s		V
			7 70 700	L/s
				V
	96			V
	100		0.000	-
	,,,			_
				_
				_
				_
				_
				-
	17			-
		-		-
	-			-
Contract of the Contract of th				
7.11	96			
***************************************				
CL				
Unused				
	172 73 54 44 1861.2 74.7 13.8 OFF 21.5 55.2 OFF ON OFF OFF 1.0 4.3 1.0 0.7 1.8 1.0 0.7 1.8 1.0 0.6 21.5 8 0.6 0.6 ON 13.9 ON OFF OFF OFF 0.0 0.183 ON OFF 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	172 F 73 F 54 F 44 S 161.2 F 74.7 F 13.8 V OFF 21.5 % 55.2 % OFF ON OFF OFF ON OFF 1.0 V 4.3 % 1.0 V 2.7 V 1.0 V 0.7 V 1.8 V 1.0 V 0.6 A 221.5 % 8 % 0 % 0 % 0 % 0 % 0 % 0 % 0 % 0 % 0 % 0	172	172   F   Closed Throttle Position SW   OFF

	#
*N/A=Not Avai	lable

				*N/A=	/ailabl	
Parameter	Unit	-3	-2	-1	0	1
Catalyst Temp B1S1	F	988.0	993.0	993.0	993.0	997.7
Catalyst Temp B1S2	F	639.0	640.2	640.2	640.2	641.5
Closed Throttle Position SW		OFF	OFF	OFF	OFF	OFF
Engine Oil Pressure SW		OFF	OFF	OFF	OFF	OFF
Time after DTC Cleared	min	7042	7042	7042	7042	7042
Distance from DTC Cleared	mile	2574	2574	2574	2574	2574
Warmup Cycle Cleared DTC		104	104	104	104	104
TC and TE1		OFF	OFF	OFF	OFF	OFF
Ignition Trig. Count		0	0	0	0	0
Cylinder #1 Misfire Count		0	0	0	0	0
Cylinder #2 Misfire Count		78	86	94	0	4
Cylinder #3 Misfire Count		0	0	0	0	0
Cylinder #4 Misfire Count		0	0	0	0	0
All Cylinders Misfire Count		148	156	164	166	170
Misfire RPM	rpm	2175	2175	2175	2175	2175
Misfire Load	g/rev	0.46	0.46	0.46	0.46	0.46
Misfire Margin	96	-100.0 0	-100.0 0	-100.0 0	-100.0 0	-100.0
Electric Fan Motor		OFF	OFF	OFF	OFF	OFF
Idle Fuel Cut		OFF	OFF	OFF	OFF	OFF
FC TAU		OFF	OFF	OFF	OFF	OFF
Requested Engine Torque	kW	14.00	14.25	13.75	13.75	13.75
HV Target Engine Speed	rpm	1800	1800	1800	1800	1800
Actual Engine Torque	Nm	58	53	53	52	57
Estimated Engine Torque	Nm	70	68	66	66	66
Engine Run Time	S	255	255	255	255	255
Request Engine Run Time	s	9.0	9.0	9.0	9.0	9.0
Judge Time Engine Ignition	s	3.0	3.0	3.0	3.0	3.0
Judge Time Engine Output	s	0.0	0.0	0.0	0.0	0.0
Estimated Intake Port Temp	F	181	181	181	181	181
Fuel Level		Not Emp	Not Emp	Not Emp	Not Emp	Not Emp
ISC Learning		Compl	Compl	Compl	Compl	Comp
F/C for Engine Stop Req		OFF	OFF	OFF	OFF	OFF
Engine Independent		Not Opr	Not Opr	Not Opr	Not Opr	Not Opr
Racing Operation		Not Opr	Not Opr	Not Opr	Not Opr	Not Opr
Request Warm-up		Not Req	Not Req	Not Req	Not Req	Not Req
Engine Independent Control		Not Opr	Not Opr	Not Opr	Not Opr	Not Opr
Tank Outlet Water Temp	F	136	136	136	136	136
Water Flow Valve	V	4.49	4.49	4.49	4.49	4.49
ISC Learning Value	L/s	3.12	3.12	3.12	3.12	3.12
Direction Value 1	V	4.499	4.499	4.499	4.499	4.499
Direction Value 2	V	0.000	0.000	0.000	0.000	0.000



\*N/A=Not Available

					*N/A=Not Available					
Parameter	Unit	-3	-2	-1	0	1				
Injector (Port)	ms	6.78	6.40	6.40	6.40	6.27				
Injection Volum (Cylinder1)	ml	0.228	0.228	0.220	0.217	0.217				
Fuel Pump/Speed Status		ON	ON	ON	ON	ON				
Vacuum Pump		OFF	OFF	OFF	OFF	OFF				
EVAP (Purge) VSV	96	94.5	100.0	100.0	100.0	100.0				
Evap Purge Flow	%	1.7	1.9	2.0	2.0	2.1				
Purge Density Learn Value		1.000	1.000	1.000	1.000	1.000				
EVAP System Vent Valve		OFF	OFF	OFF	OFF	OFF				
Tank Bypass VSV		OFF	OFF	OFF	OFF	OFF				
EVAP Purge VSV		ON	ON	ON	ON	ON				
Target Air-Fuel Ratio		0.992	0.992	0.992	0.992	0.992				
AF Lambda B1S1		0.996	0.996	0.988	0.993	0.997				
AFS Voltage B1S1	V	3.34	3.35	3.31	3.31	3.36				
02S B1S2	V	0.89	0.89	0.89	0.89	0.89				
02S Impedance B1S2	ohm	187.0	186.7 5	186.1	185.1	184.8				
Short FT B1S1	96	1.5	0.0	0.7	0.7	0.0				
Long FT B1S1	96	2.3	2.3	2.3	2.3	2.3				
Total FT #1		0.042	0.042	0.042	0.042	0.042				
Fuel System Status #1		CL	CL	CL	CL	CL				
Fuel System Status #2	-	Unuse	Unuse	Unuse	Unuse	Unuse				
ION Advance	dan	d 18.5	d 19.0	19.0	d 19.0	d				
IGN Advance	deg deg			19.0	19.0	19.0				
Knock Feedback Value	(CA)	-3.0	-3.0	-3.0	-3.0	-3.3				
Knock Correct Learn Value	deg (CA)	24.8	24.8	24.8	24.8	24.8				
VVT Control Status #1		ON	ON	ON	ON	ON				
Cetalyst Temp B1S1	F	988.0	993.0	993.0	993.0	997.7				
Catalyst Temp B1S2	F	639.0	640.2	640.2	640.2	641.5				
Closed Throttle Position SW		OFF	OFF	OFF	OFF	OFF				
Engine Oil Pressure SW		OFF	OFF	OFF	OFF	OFF				
Time after DTC Cleared	min	7042	7042	7042	7042	7042				
Distance from DTC Cleared	mile	2574	2574	2574	2574	2574				
Warmup Cycle Cleared DTC		104	104	104	104	104				
TC and TE1		OFF	OFF	OFF	OFF	OFF				
Ignition Trig. Count		0	0	0	0	0				
Cylinder #1 Misfire Count		0	0	0	0	0				
Cylinder #2 Misfire Count		78	86	94	0	4				
Cylinder #3 Misfire Count		0	0	0	0	0				
Cylinder #4 Misfire Count		0	0	0	0	0				
All Cylinders Misfire Count		148	156	164	166	170				
Misfire RPM	rpm	2175	2175	2175	2175	2175				
Misfire Load	g/rev	0.46	0.46	0.46	0.46	0.46				
Misfire Margin	%	-100.0 0		-100.0 0		-100.0 0				
Electric Fan Motor		OFF	OFF	OFF	OFF	OFF				
Idle Fuel Cut		OFF	OFF	OFF	OFF	OFF				
FC TAU		OFF	OFF	OFF	OFF	OFF				



agnostic (	Code:				N	IIL:ON
Code	Description:	Curre	Pendin	Histor	Permane	Summ
P0300	Random/Multiple Cylinder Misfire Detected	X	я	X	ш	ry
P0302	Cylinder 2 Misfire Detected	x	X	X		0
P0303	Cylinder 3 Misfire Detected	X		X		9
P0304	Cylinder 4 Misfire Detected	х		X		0

MIL:ON

red Data Engine and ECT Live

### **Monitor Information**

Cumulative Monitor - monitor status from the last DTC clear or monitor reset event.

Current Monitor - current monitor trip information.

Click the Cumulative/Current column header for more information.

Cumulative Monitor | Current Monitor |

Monitor	Cumulativ e	Result	Details	Summary
Misfire	Available		9	$\infty$
Fuel System	Available			$\infty$
Composition Parts	Available			$\infty$
Catalyst Efficiency	Complete	Pass	9	6
Heated Catalyst	N/A		-	N/A
Evaporative System	Complete	Pass	9	60
Secondary Air System	N/A		-	N/A
A/C System	N/A			N/A
O2 Sensor	Complete	Pass	9	60
O2 Sensor Heater	N/A		-	N/A
Exhaust Gas Recirculation / VVT	N/A			N/A
Thermostat				



	DTC Related Information									
System	Monito r Status	DTC	<u>Curr</u> <u>Conf</u>	Pend	<u>Hist</u>	Test Faile	SB	Ro B	Calibration	Update
		P0300	X		X		?		34709000	Yes
Familia and ECT	C	P0302	X	X	X		2			
Engine and ECT	Com	P0303	X		X		?	-		
		P0304	X		X		?			
ABS/VSC/TRAC	- 8	C1241	X				?	-	-	
Air Conditioner		B1421	X				?	-	-	
Gateway		B1271			X		?	-	-	
HV Battery								-	898904709000	No

 Techstream (Ver 14.00.019) - 10586 □ ×

File Function Setup TIS User Help
System Select | Stored Data | Engine and ECT Live | ABSIVSC/TRAC Live |

# 2006 Prius 1NZ-FXE

# Freeze Frame Data C1241 Low Battery Positive Voltage or Abnormally High Battery Positive Voltage



hput VIN

Parameter	Value	Unit	Parameter	Value	Uni
Detailed Freeze DTC	83				
Stop Light SW	ON				
VSC/TRAC OFF SW	OFF				
Shift Lever Position	D(M)				
Operated System	no Sys				
Number of IG ON	31				
Vehicle Speed	0	MPH			
Steering Angle Sensor	0	deg			-
Yaw Rate Sensor	0	deg/s			
Master Cylinder Sensor1	0.47	V			_
Pedal Stroke Sensor1	1.30	V			
Throttle Sensor	0	deg			-
Master Cylinder Grade	0	MPa/s			-
Right And Left G	0.09	G	1927		-
Back And Forth G	-0.08	G	4		-
	-0.08 OFF	G			-
Buzzer					-
Reservoir Warning SW	OFF				-
Parking Brake SW	OFF				
FR Wheel Cylinder	0.88	V			_
Fl. Wheel Cylinder	0.86	V			
RR Wheel Cylinder	0.88	V			
Rl. Wheel Cylinder	0.84	V			
Accumulator Sensor	3.29	V			
Master Cylinder Sensor2	0.47	V			
Pedal Stroke Sensor2	3.50	V			
MTT	0.00	V			
IG1 Voltage	10.21	V			
IG2 Voltage	10.21	V			
BS1	11.07	V			-
BS2	11.07	V			-
VM1	10.45	v			-
VM2	10.53	v			-
+R1	10.33				-
+B2		V			-
	10.27	V			-
FR Target Oil Pressure	1.9	MPa			-
FL Target Oil Pressure	1.9	MPa			_
RR Target Oil Pressure	1.7	MPa			_
RI. Target Oil Pressure	1.7	MPa			_
SLAFR Solenoid Current	0.00	A			
SLAFL Solenoid Current	0.00	A			
SLARR Solenoid Current	0.00	A			
SLARI. Solenoid Current	0.00	A			
SLRFR Solenoid Current	0.00	A			
SLRFL Solenoid Current	0.00	A			
SLRRR Solenoid Current	0.70	A			
SLRRL Solenoid Current	0.70	Α			
FR Wheel Speed	0	MPH			
FL Wheel Speed	0	MPH			-
RR Wheel Speed	0	MPH			-
RI, Wheel Speed	0	MPH			-
Capacitor Mode	ON	307-11			-
					-
ECB Solenoid (SCSS)	ON				-
ECB Solenoid (SMC1)	ON				
ECB Solenoid (SMC2)	ON				
Motor Relay1	OFF				
Motor Relay2	OFF				
ECB Main Relay1	ON				
ECB Main Relay2	ON				
non-many					
					-
		-			
					-

P0300 Random/Multiple Cylinder Misfire Detected

# Freeze Frame Data P0300 Random/Multiple Cylinder Misfire Detected



### Current FFD | Pending FFD |

Parameter	Value	Unit	Parameter	Value	Unit
Vehicle Speed	7	MPH	Knock Feedback Value	-3.0	deg
Engine Speed	1308	rpm	NIOCK P BOUDACK VAIUE	-3.0	(CA
Caltyliate Load	72.1	96	Knock Correct Learn Value	21.7	deg
Vehicle Load	42.7	96		1 22.00	(CA
MAF	8.32	gm/sec	VVT Control Status #1	ON	827
Atmosphere Pressure	-1	psi(gau		455.5	F
		ge)	Catalyst Temp B1S2	198.3	F
Coolant Temp	172	F	Closed Throttle Position SW	OFF	
Intake Air	73	F	Engine Oil Pressure SW	OFF	
Ambient Temperature	54	F	Time after DTC Cleared	7063	min
Engine Run Time	44	S	Distance from DTC Cleared	2579	mile
Initial Engine Coolant Temp	161.2	F	Warmup Cycle Cleared DTC	105	
Initial Intake Air Temp	74.7	F	TC and TE1	OFF	
Battery Voltage	13.8	V	Ignition Trig. Count	0	
Accelerator Idle Position	OFF		Cylinder #1 Misfire Count	0	
Throttle Sensor Volt %	21.5	96	Cylinder #2 Misfire Count	0	
Throttle Sensor #2 Volt %	55.2	%	Cylinder #3 Misfire Count	0	
ST1	OFF		Cylinder #4 Misfire Count	0	
System Guard	ON		All Cylinders Misfire Count	0	
Open Side Malfunction	OFF		Misfire RPM	2175	rpm
Throttle Idle Position	OFF		Misfire Load	0.46	g/re
Throttle Require Position	1.0	ν	Misfire Margin	-71.10	96
Throttle Sensor Position	4.3	96	Electric Fan Motor	OFF	
Throttle Position No.1	1.0	V	Idle Fuel Cut	OFF	
Throttle Position No.2	2.7	V	FC TAU	OFF	
Throttle Position Command	1.0	V	Requested Engine Torque	4.75	kW
Throttle Sens Open Pos #1	0.7	V	HV Target Engine Speed	1300	rpm
Throttle Sens Open Pos #2	1.8	V	Actual Engine Torque	30	Nm
Throttle Sens Open #1(AD)	1.0	V	Estimated Engine Torque	56	Nm
Throttle Motor	ON	1 100	Engine Run Time	45	5
Throttle Motor Current	0.6	Α	Request Engine Run Time	7.7	9
Throttle Motor DUTY	21.5	96	Judge Time Engine Ignition	2.9	5
Throttle Motor Duty (Open)	8	%	Judge Time Engine Output	0.0	S
Throttle Motor Duty (Close)	0	%	Estimated Intake Port Temp	172	F
Throttle Fully Close Learn	0.6	V	Fuel Level	Not Emp	
ETCS Actuator Power	ON		ISC Learning	Inempl	
+BM Voltage	13.9		F/C for Engine Stop Req	OFF	
Actuator Power Supply	ON		Engine Independent	Not Opr	
Electromagnetic Clutch	OFF		Racing Operation	Not Opr	
Fail Safe Drive	OFF		Request Warm-up	Request	
Fail Safe Drive (Main CPU)	OFF		Engine Independent Control	Not Opr	-
Injector (Port)	5.50	ms	Tank Outlet Water Temp	118	F
Injection Valum (Cylinder1)	0.183	ml	Water Flow Valve	4.49	٧
Fuel Pump/Speed Status	ON		ISC Learning Value	3.12	L/s
Vacuum Pump	OFF		Direction Value 1	4.499	٧
EVAP (Purge) VSV	0.0	96	Direction Value 2	0.000	٧
Evap Purge Flow	0.0	96			
Purge Density Learn Value	0.000				
EVAP System Vent Valve	OFF				
Tank Bypass VSV	OFF				
EVAP Purge VSV	OFF				
Target Air-Fuel Ratio	0.992				
AF Lambda B1S1	0.997				
AFS Voltage B1S1	3.28	V			
02S B1S2	0.68	V			
02S Impedance B1S2	1753.69	ohm			
Short FT B1S1	1.5	96			
Long FT B1S1	0.7	96			
Total FT #1	0.000	700			
Fuel System Status #1	CL				
Fuel System Status #2	Unused				
	-10.5	deg			
IGN Advance					

		4	p
*N/A	Not	Availa	ble
-1	0	4	

Parameter	Unit	-3	-2	-1	0	1
Catalyst Temp B1S1	F	988.0	993.0	993.0	993.0	997.7
Catalyst Temp B1S2	F	639.0	640.2	640.2	640.2	641.5
Closed Throttle Position SW		OFF	OFF	OFF	OFF	OFF
Engine Oil Pressure SW		OFF	OFF	OFF	OFF	OFF
Time after DTC Cleared	min	7042	7042	7042	7042	7042
Distance from DTC Cleared	mie	2574	2574	2574	2574	2574
Warmup Cycle Cleared DTC		104	104	104	104	104
TC and TE1		OFF	OFF	OFF	OFF	OFF
Ignition Trig. Count		0	0	0	0	0
Cylinder #1 Misfire Count		0	0	0	0	0
Cylinder #2 Misfire Count		78	86	94	0	4
Cylinder #3 Misfire Count		0	0	0	0	0
Cylinder #4 Misfire Count		0	0	0	0	0
All Cylinders Misfire Count		148	156	164	166	170
Misfire RPM	rpm	2175	2175	2175	2175	2175
Misfire Load	g/rev	0.46	0.46	0.46	0.46	0.46
Misfire Margin	96	-100.0 0	-100.0 0	-100.0 0	-100.0 0	-100.0 0
Electric Fan Motor		OFF	OFF	OFF	OFF	OFF
Idle Fuel Cut		OFF	OFF	OFF	OFF	OFF
FC TAU		OFF	OFF	OFF	OFF	OFF
Requested Engine Torque	kW	14.00	14.25	13.75	13.75	13.75
HV Target Engine Speed	rpm	1800	1800	1800	1800	1800
Actual Engine Torque	Nm	58	53	53	52	57
Estimated Engine Torque	Nm	70	68	66	66	66
Engine Run Time	9	255	255	255	255	255
Request Engine Run Time	s	9.0	9.0	9.0	9.0	9.0
Judge Time Engine Ignition	5	3.0	3.0	3.0	3.0	3.0
Judge Time Engine Output	s	0.0	0.0	0.0	0.0	0.0
Estimated Intake Port Temp	F	181	181	181	181	181
Fuel Level		Not	Not	Not	Not	Not
		Emp	Emp	Emp	Emp	Emp
ISC Learning F/C for Engine Stop Req		OFF	OFF	OFF	OFF	Compl
		Not	Not	Not	Not	Not
Engine Independent		Opr Not	Opr Not	Opr Not	Opr Not	Opr Not
Racing Operation		Орг	Opr	Opr	Opr	Opr
Request Warm-up		Not Req	Not Req	Not Req	Not Req	Not Req
Engine Independent Control		Not Opr	Not Opr	Not Opr	Not Opr	Not Opr
Tank Outlet Water Temp	F	136	136	136	136	136
Water Flow Valve	V	4.49	4.49	4.49	4.49	4.49
ISC Learning Value	L/s	3.12	3.12	3.12	3.12	3.12
	V	4.499	4.499	4.499	4.499	4.499
Direction Value 1		4,400	4,499	4,433	4.499	41.400

# Continued



20302 Cylinder 2 Misfire Detected	Continued			*N/A=	Not Av	ailabl
Parameter	Unit	-3	-2	-1	0	1
njector (Port)	ms	6.78	6.40	6.40	6.40	6.27
njection Volum (Cylinder1)	mi	0.228	0.228	0.220	0.217	0.217
Fuel Pump/Speed Status		ON	ON	ON	ON	ON
Vacuum Pump		OFF	OFF	OFF	OFF	OFF
EVAP (Purge) VSV	96	94.5	100.0	100.0	100.0	100.0
Evap Purge Flow	96	1.7	1.9	2.0	2.0	2.1
Purge Density Learn Value		1.000	1.000	1.000	1.000	1.000
EVAP System Vent Valve		OFF	OFF	OFF	OFF	OFF
Tank Bypass VSV		OFF	OFF	OFF	OFF	OFF
EVAP Purge VSV		ON	ON	ON	ON	ON
Target Air-Fuel Ratio		0.992	0.992	0.992	0.992	0.992
AF Lambda B1S1		0.996	0.996	0.988	0.993	0.997
AFS Voltage B1S1	V	3.34	3.35	3.31	3.31	3.36
02S B1S2	V	0.89	0.89	0.89	0.89	0.89
O2S Impedance B1S2	ohm	187.0	186.7 5	186.1	185.1	184.8
Short FT B1S1	46	1.5	0.0	0.7	0.7	0.0
Long FT B1S1	16	2.3	2.3	2.3	2.3	2.3
Total FT #1		0.042	0.042	0.042	0.042	0.042
Fuel System Status #1		CL	CL	CL	CL	CL
Fuel System Status #2		Unuse	Unuse	Unuse	Unuse	Unuse
IGN Advance	deg	18.5	19.0	19.0	19.0	19.0
Knock Feedback Value	deg (CA)	-3.0	-3.0	-3.0	-3.0	-3.3
Knock Correct Learn Value	deg (CA)	24.8	24.8	24.8	24.8	24.8
VVT Control Status #1	(04)	ON	ON	ON	ON	ON
Catalyst Temp B1S1	F	988.0	993.0	993.0	993.0	997.7
Catalyst Temp B1S2	F	639.0	640.2	640.2	640.2	641.5
Closed Throttle Position SW		OFF	OFF	OFF	OFF	OFF
Engine Oil Pressure SW		OFF	OFF	OFF	OFF	OFF
Time after DTC Cleared	min	7042	7042	7042	7042	7042
Distance from DTC Cleared	mie	2574	2574	2574	2574	2574
Warmup Cycle Cleared DTC	niio ii		104	104	104	104
		104				-
TC and TE1		OFF	OFF	OFF	OFF	OFF
Ignition Trig. Count		0	0	0	0	0
Cylinder #1 Misfire Count				0.235	22	0
Cylinder #2 Misfire Count		78	86	94	0	4
Cylinder #3 Misfire Count		0	0	0	0	0
Cylinder #4 Misfire Count		0	0	0	0	0
All Cylinders Misfire Count		148	156	164	166	170
Misfire RPM	rpm	2175	2175	2175	2175	2175
Misfire Load	g/rev	0.46	0.46	0.46	0.46	0.46
Misfire Margin	16	-100.0 0	-100.0 0	0	0	0
Electric Fan Motor		OFF	OFF	OFF	OFF	OFF
Idle Fuel Cut FC TAU		OFF	OFF	OFF	OFF	OFF
		OFF	OFF	OFF	OFF	OFF



			4								
*N/A=Not Availab											
2	-1	0	1								
8	39	39	39								
85	1807	1787	1850								
8.1	87.0	87.0	86.2								
8.6	48.6	49.0	47.8								
26	13.10	13.00	13.14								

Parameter	Unit	-3	-2	-1	0	1
Vehicle Speed	MPH	39	38	39	39	39
Engine Speed	rpm %	1790	1785	1807	1787	1850
Calculate Load  Vehicle Load	%	90.1	87.8 49.8	87.0 48.6	87.0 49.0	86.2 47.8
MAF	gm/sec		13.26	13.10	13.00	13.14
Atmosphere Pressure	psi(gau ge)		-1	-1	-1	-1
Coolant Temp	F	181	181	181	181	181
ntake Air	F	73	73	73	73	73
Ambient Temperature	F	61	61	61	61	61
Engine Run Time	5	240	240	241	241	241
Initial Engine Coolant Temp	F	136.6	136.6	136.6	136.6	136
Initial Intake Air Temp	F	102.7	102.7	102.7	102.7	102
Battery Voltage	V	13.8	13.8	13.8	13.8	13.
Accelerator Idle Position		OFF	OFF	OFF	OFF	OFF
Throttle Sensor Volt %	96	27.0	27.0	26.6	26.6	26.
Throttle Sensor #2 Volt %	96	61.9	61.9	61.5	61.5	61.
ST1		OFF	OFF	OFF	OFF	OFF
System Guard		ON	ON	ON	ON	ON
Open Side Malfunction		OFF	OFF	OFF	OFF	OFF
Throttle Idle Position		OFF	OFF	OFF	OFF	OFF
Throttle Require Position	v	1.3	1.3	1.3	1.3	1.3
Throttle Sensor Position	96	10.9	10.9	10.5	10.5	10.
Throttle Position No.1	V	1.3	1.3	1.3	1.3	1.3
Throttle Position No.2	V	3.0	3.0	3.0	3.0	3.0
Throttle Position Command	V	1.3	1.3	1.3	1.3	1.3
Throttle Sens Open Pos #1	v	0.7	0.7	0.7	0.7	0.7
Throttle Sens Open Pos #2	V	1.8	1.8	1.8	1.8	1.8
Throttle Sens Open #1(AD)	V	1.3	1.3	1.3	1.3	1.3
Throttle Motor		ON	ON	ON	ON	ON
Throttle Motor Current	A	0.7	0.7	0.9	0.3	0.6
Throttle Motor DUTY	96	27.0	27.0	26.6	26.2	26.
Throttle Motor Duty (Open)	96	8	11	15	5	12
Throttle Motor Duty (Close)	96	0	0	0	0	0
Throttle Fully Close Learn	V	0.6	0.6	0.6	0.6	0.6
ETCS Actuator Power		ON	ON	ON	ON	ON
+BM Voltage		13.9	13.9	13.9	13.9	13.
Actuator Power Supply		ON	ON	ON	ON	ON
Electromagnetic Clutch		OFF	OFF	OFF	OFF	OF
Fail Safe Drive		OFF	OFF	OFF	OFF	OF
Fail Safe Drive (Main CPU)		OFF	OFF	OFF	OFF	OFF
Injector (Port)	ms	6.78	6.40	6.40	6.40	6.2
Injection Volum (Cylinder1)	mi	0.228	0.228	0.220	0.217	0.21

# Freeze Frame Data P0300 Random/Multiple Cylinder Misfire Detected



# Current FFD Pending FFD

7 1308 72.1 42.7 8.32 -1 172 73 54 44 161.2 74.7 13.8 OFF	MPH rpm % gm/sec psi(gau ge) F F F F F	Knock Feedback Value  Knock Correct Learn Value  VVT Control Status #1 Catalyst Temp B1S1 Catalyst Temp B1S2 Closed Throttle Position SW Engine Oil Pressure SW Time after DTC Cleared Distance from DTC Cleared Warmup Cycle Cleared DTC	-3.0 21.7 ON 455.5 198.3 OFF OFF 7063 2579	
72.1 42.7 8.32 -1 172 73 54 44 161.2 74.7 13.8 OFF	96 96 gm/sec psi(gau ge) F F F F F F	Knock Correct Learn Value  VVT Control Status #1  Catalyst Temp B1S1  Catalyst Temp B1S2  Closed Throttle Position SW  Engine Oil Pressure SW  Time after DTC Cleared  Distance from DTC Cleared	21.7 ON 455.5 198.3 OFF OFF 7063	deg (CA)
42.7 8.32 -1 172 73 54 44 161.2 74.7 13.8 OFF	96 gm/sec psi(gau ge) F F F F S F	VVT Control Status #1 Catalyst Temp B1S1 Catalyst Temp B1S2 Closed Throttle Position SW Engine Oil Pressure SW Time after DTC Cleared Distance from DTC Cleared	ON 455.5 198.3 OFF OFF 7063	
8.32 -1 172 73 54 44 161.2 74.7 13.8 OFF	gm/sec psi(gau ge) F F F F F	VVT Control Status #1 Catalyst Temp B1S1 Catalyst Temp B1S2 Closed Throttle Position SW Engine Oil Pressure SW Time after DTC Cleared Distance from DTC Cleared	ON 455.5 198.3 OFF OFF 7063	F
-1 172 73 54 44 161.2 74.7 13.8 OFF	psi(gau ge) F F F F S F	Catalyst Temp B1S1 Catalyst Temp B1S2 Closed Throttle Position SW Engine Oil Pressure SW Time after DTC Cleared Distance from DTC Cleared	455.5 198.3 OFF OFF 7063	
172 73 54 44 161.2 74.7 13.8 OFF	ge) F F F F S F	Catalyst Temp B1S2 Closed Throttle Position SW Engine Oil Pressure SW Time after DTC Cleared Distance from DTC Cleared	198.3 OFF OFF 7063	
172 73 54 44 161.2 74.7 13.8 OFF	F F S F	Closed Throttle Position SW Engine Oil Pressure SW Time after DTC Cleared Distance from DTC Cleared	OFF OFF 7063	F
73 54 44 161.2 74.7 13.8 OFF	F F S F	Engine Oil Pressure SW Time after DTC Cleared Distance from DTC Cleared	OFF 7063	
54 44 161.2 74.7 13.8 OFF	F S F	Time after DTC Cleared Distance from DTC Cleared	7063	_
44 161.2 74.7 13.8 OFF	s F F	Distance from DTC Cleared		
161.2 74.7 13.8 OFF	F		2579	min
74.7 13.8 OFF	F	Warmup Cycle Cleared DTC		mile
13.8 OFF			105	
OFF		TC and TE1	OFF	
	V	Ignition Trig. Count	0	
21.5		Cylinder #1 Misfire Count	0	
21.3	96	Cylinder #2 Misfire Count	0	
55.2	96	Cylinder #3 Misfire Count	0	
OFF		Cylinder #4 Misfire Count	0	
ON		All Cylinders Misfire Count	0	
OFF		Misfire RPM	2175	rpm
OFF		Misfire Load	0.46	g/rev
1.0	V	Misfire Margin	-71.10	96
4.3	96	Electric Fan Motor	OFF	
1.0	V	Idle Fuel Cut	OFF	
2.7	V	FC TAU	OFF	
1.0	V	Requested Engine Torque	4.75	kW
0.7	V		1300	rpm
1.8	V	Actual Engine Torque	30	Nm
1.0	V		56	Nm
ON			45	S
0.6	Α		7.7	s
21.5	96		2.9	S
8	%		0.0	S
0	96		172	F
0.6	V			
	-			_
13.9			OFF	
ON			Not Opr	
OFF				
OFF				
OFF				
5.50	ms			E
		The state of the s		V
			7.70	L/s
				V
	96			V
	100		0.000	-
	,,,			_
				_
				_
				_
				_
				-
	17			-
		-		-
	-			-
0.00				
7.13	96			
The second secon				
CL				
Unused				
	21.5 55.2 OFF ON OFF 1.0 4.3 1.0 2.7 1.0 0.7 1.8 1.0 ON 0.6 21.5 8 0 0.6 ON 13.9 ON OFF OFF OFF 5.50 0.183 ON OFF 0.0 0.000 OFF 0.7 0.902 0.992 0.997 3.28 0.68 1753.69 1.5 0.7 0.000 CL	21.5	21.5	21.5   %   Cylinder #2 Misfire Count   0

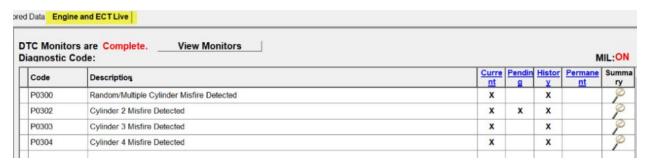
	#
*N/A=Not Avai	lable

				*N/A=Not Availa		
Parameter	Unit	-3	-2	-1	0	1
Catalyst Temp B1S1	F	988.0	993.0	993.0	993.0	997.7
Catalyst Temp B1S2	F	639.0	640.2	640.2	640.2	641.5
Closed Throttle Position SW		OFF	OFF	OFF	OFF	OFF
Engine Oil Pressure SW		OFF	OFF	OFF	OFF	OFF
Time after DTC Cleared	min	7042	7042	7042	7042	7042
Distance from DTC Cleared	mile	2574	2574	2574	2574	2574
Warmup Cycle Cleared DTC		104	104	104	104	104
TC and TE1		OFF	OFF	OFF	OFF	OFF
Ignition Trig. Count		0	0	0	0	0
Cylinder #1 Misfire Count		0	0	0	0	0
Cylinder #2 Misfire Count		78	86	94	0	4
Cylinder #3 Misfire Count		0	0	0	0	0
Cylinder #4 Misfire Count		0	0	0	0	0
All Cylinders Misfire Count		148	156	164	166	170
Misfire RPM	rpm	2175	2175	2175	2175	2175
Misfire Load	g/rev	0.46	0.46	0.46	0.46	0.46
Misfire Margin	96	-100.0	-100.0 0	-100.0 0	-100.0 0	-100.0
Electric Fan Motor		OFF	OFF	OFF	OFF	OFF
Idle Fuel Cut		OFF	OFF	OFF	OFF	OFF
FC TAU		OFF	OFF	OFF	OFF	OFF
Requested Engine Torque	kW	14.00	14.25	13.75	13.75	13.75
HV Target Engine Speed	rpm	1800	1800	1800	1800	1800
Actual Engine Torque	Nm	58	53	53	52	57
Estimated Engine Torque	Nm	70	68	66	66	66
Engine Run Time	S	255	255	255	255	255
Request Engine Run Time	s	9.0	9.0	9.0	9.0	9.0
Judge Time Engine Ignition	s	3.0	3.0	3.0	3.0	3.0
Judge Time Engine Output	s	0.0	0.0	0.0	0.0	0.0
Estimated Intake Port Temp	F	181	181	181	181	181
Fuel Level		Not Emp	Not Emp	Not Emp	Not Emp	Not Emp
ISC Learning		Compl	Compl	Compl	Compl	Comp
F/C for Engine Stop Req		OFF	OFF	OFF	OFF	OFF
Engine Independent		Not Opr	Not Opr	Not Opr	Not Opr	Not Opr
Racing Operation		Not Opr	Not Opr	Not Opr	Not Opr	Not Opr
Request Warm-up		Not Req	Not Req	Not Req	Not Req	Not Req
Engine Independent Control		Not Opr	Not Opr	Not Opr	Not Opr	Not Opr
Tank Outlet Water Temp	F	136	136	136	136	136
Water Flow Valve	V	4.49	4.49	4.49	4.49	4.49
ISC Learning Value	L/s	3.12	3.12	3.12	3.12	3.12
Direction Value 1	V	4.499	4.499	4.499	4.499	4.499
Direction Value 2	V	0.000	0.000	0.000	0.000	0.000



\*N/A=Not Available

	*N/A=N					ot Available		
Parameter	Unit	-3	-2	-1	0	1		
Injector (Port)	ms	6.78	6.40	6.40	6.40	6.27		
Injection Volum (Cylinder1)	ml	0.228	0.228	0.220	0.217	0.217		
Fuel Pump/Speed Status		ON	ON	ON	ON	ON		
Vacuum Pump		OFF	OFF	OFF	OFF	OFF		
EVAP (Purge) VSV	96	94.5	100.0	100.0	100.0	100.0		
Evap Purge Flow	%	1.7	1.9	2.0	2.0	2.1		
Purge Density Learn Value		1.000	1.000	1.000	1.000	1.000		
EVAP System Vent Valve		OFF	OFF	OFF	OFF	OFF		
Tank Bypass VSV		OFF	OFF	OFF	OFF	OFF		
EVAP Purge VSV		ON	ON	ON	ON	ON		
Target Air-Fuel Ratio		0.992	0.992	0.992	0.992	0.992		
AF Lambda B1S1		0.996	0.996	0.988	0.993	0.997		
AFS Voltage B1S1	V	3.34	3.35	3.31	3.31	3.36		
02S B1S2	V	0.89	0.89	0.89	0.89	0.89		
O2S Impedance B1S2	ohm	187.0	186.7	186.1	185.1	184.8		
Short FT B1S1	96	1.5	0.0	0.7	0.7	0.0		
Long FT B1S1	96	2.3	2.3	2.3	2.3	2.3		
Total FT #1		0.042	0.042	0.042	0.042	0.042		
Fuel System Status #1		CL	CL	CL	CL	CL		
Fuel System Status #2		Unuse	Unuse	Unuse	Unuse	Unuse		
IGN Advance	don	18.5	19.0	19.0	19.0	19.0		
	deg deg			19.0	19.0	19.0		
Knock Feedback Value	(CA)	-3.0	-3.0	-3.0	-3.0	-3.3		
Knock Correct Learn Value	deg (CA)	24.8	24.8	24.8	24.8	24.8		
VVT Control Status #1		ON	ON	ON	ON	ON		
Catalyst Temp B1S1	F	988.0	993.0	993.0	993.0	997.7		
Catalyst Temp B1S2	F	639.0	640.2	640.2	640.2	641.5		
Closed Throttle Position SW		OFF	OFF	OFF	OFF	OFF		
Engine Oil Pressure SW		OFF	OFF	OFF	OFF	OFF		
Time after DTC Cleared	min	7042	7042	7042	7042	7042		
Distance from DTC Cleared	mile	2574	2574	2574	2574	2574		
Warmup Cycle Cleared DTC		104	104	104	104	104		
TC and TE1		OFF	OFF	OFF	OFF	OFF		
Ignition Trig. Count		0	0	0	0	0		
Cylinder #1 Misfire Count		0	0	0	0	0		
Cylinder #2 Misfire Count		78	86	94	0	4		
Cylinder #3 Misfire Count		0	0	0	0	0		
Cylinder #4 Misfire Count		0	0	0	0	0		
All Cylinders Misfire Count	14	148	156	164	166	170		
Misfire RPM	rpm	2175	2175	2175	2175	2175		
Misfire Load	g/rev	0.46	0.46	0.46	0.46	0.46		
Misfire Margin	96	-100.0	-100.0	-100.0	-100.0	-100.0		
Electric Fan Motor		0 OFF	0 OFF	0 OFF	0 OFF	0 OFF		
Idle Fuel Cut		OFF	OFF	OFF	OFF	OFF		
FC TAU		OFF	OFF	OFF	OFF	OFF		



Monitor Information  Cumulative Monitor - monitor status from the last DTC clear or monitor reset event.  Current Monitor - current monitor trip information.  Click the Cumulative/Current column header for more information.					
Cumulative Monitor   Current Monitor					
Monitor	Cumulativ	Result	Details	Summary	
Misfire	Available		9	$\infty$	
Fuel System	Available		-	$\infty$	
Composition Parts	Available			$\infty$	
Catalyst Efficiency	Complete	Pass	9	60	
Heated Catalyst	N/A		-	N/A	
Evaporative System	Complete	Pass	9	60	
Secondary Air System	N/A		-	N/A	
A/C System	N/A			N/A	
O2 Sensor	Complete	Pass	9	6	
02 Sensor Heater	N/A		-	N/A	
Exhaust Gas Recirculation / VVT	N/A			N/A	

Life's given me a swift kick in the balls and I really appreciate any help you can offer. House and all personal belongings destroyed by fire Feb. 8, 2015; Had to fight USAA insurance company for almost four years to get personal property benefits (still haven't received all home benefits); loan mortgage servicer, LoanCare, who holds \*more\* money in an escrow account from insurance loss proceeds than I owe on the mortgage - is wrongfully withholding money to rebuild our home despite sending over 2,500 pages of requested documentation (contractor invoices, lien waivers, etc,), - so house still not rebuilt.

Now LoanCare is trying to foreclose on our "lot" - even though they technically can't since they already have more than enough money to pay off the mortgage with escrow funds, since I stopped payments; Paid over \$120K to rent a cockroach-infested apartment so cramped our two teenage daughters share a bed and, adding insult to injury, I paid over \$50K in mortgage interest over past five years for money I'm *not* borrowing since the loan servicers not releasing funds for rebuild.

Oh, and getting back to the Prius, the mechanic who replaced the engine this summer after I failed to check the oil regularly (every 5,000 miles is a bad rule of thumb, especially for older vehicles) **installed** an engine without a VIN or serial, which is illegal in Georgia, and means it's likely stolen. I've contacted the police and they aren't doing anything about it. So

Apologies for the rant...