# C.A.T.S. Tuner PCM_EE Parameter List

**(ECM Configuration File Version DO)**

## ECM Switch Parameters

VATS Select (F+B-Body) (X = Enabled)
VATS Select (Y-Body) (X = Enabled)
Transient Fuel Logic Enable (X=Enabled)
BLM Blend (X = Enabled)
CCP Disabled on Low TPS (X = Enabled)
Traction Control (X = Enabled)
C.A.R.S. Select (X = Enabled)
Speed Density Mode (X= Enabled)
Crank AIR Select (X = Enabled)
TCC Off at Low TPS (X=Enabled)
TCC Off at Very Low TPS (X=Enabled)
TCC Release with Rapid TPS Decrease
Gradual TCC Release (X=Enabled)
Downshift Turns TCC Off (X = Enabled)
Upshift Turns TCC Off (X = Enabled)
Turn Off TCC if ASR On (X = Enabled)
TCC Off at Large Neg. Slip (X=Enabled)
Automatic Trans. Option (X = Enabled)
Force Manual Mode in D2 (X = Enabled)
ASR Downshift Inhibit (X = Enabled)
ASR Upshift Inhibit (X = Enabled)
Shift Solenoid A - 1st Gear (X=Enabled)
Shift Solenoid A - 2nd Gear (X=Enabled)
Shift Solenoid A - 3rd Gear (X=Enabled)
Shift Solenoid A - 4th Gear (X=Enabled)
Shift Solenoid B - 1st Gear (X=Enabled)
Shift Solenoid B - 2nd Gear (X=Enabled)
Shift Solenoid B - 3rd Gear (X=Enabled)
Shift Solenoid B - 4th Gear (X=Enabled)
Injector Fault, Cylinder 1, Error 1
Injector Fault, Cylinder 2, Error 2
Injector Fault, Cylinder 3, Error 3
Injector Fault, Cylinder 4, Error 4
Injector Fault, Cylinder 5, Error 5
Injector Fault, Cylinder 6, Error 6
Injector Fault, Cylinder 7, Error 7
Injector Fault, Cylinder 8, Error 8
MALF Indicator Lamp Fault, Error 11
No DRP Fault, Error 12
Left O2 Sensor Failure, Error 13
Low Res. DRP Failure, Error 16
Injector Intermittent Fault, Error 18
Injector Failure, Error 19
TPS Sensor High, Error 21
TPS Sensor Low, Error 22
MAT Sensor Low Failure, Error 23
Vehicle Speed Diagnostic, Error 24
MAT Sensor High Failure, Error 25
CCP Electrical Failure, Error 26
EGR Electrical Failure, Error 27
Trans. Range Control Circuit, Error 28
Air Pump Diagnostic, Error 29
EGR Diagnostic, Error 32
High MAP Diagnostic, Error 33
Low MAP Diagnostic, Error 34
Hi Res DRP Diagnostic, Error 36
Brake Switch Shorted Diag, Error 37
Brake Switch Open Diag, Error 38
Spark System Open Diagnostic, Error 41

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Knock Sensor Diagnostic, Error 43
Left O2 Sensor Lean, Error 44
Left O2 Sensor Rich, Error 45
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Missing Spark Module, Error 47
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Oil Temp. Low Diag - Error 52
System Voltage High, Error 53
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Trans. Temperature High Diag, Error 58
Trans. Temperature Low Diag, Error 59
A/C Low Charge Diagnostic, Error 61
Oil Temp. High Diag - Error 62
Right O2 Sensor Fail, Error 63
Right O2 Sensor Lean, Error 64
Right O2 Sensor Rich, Error 65
A/C Press Sensor Diagnostic, Error 66
A/C Press Sensor Diagnostic, Error 67
A/C Relay Diagnostic, Error 68
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A/C Clutch Relay Diagnostic, Error 70
A/C Evap. Temp. Diagnostic, Error 71
No Vss Signal Diagnostic, Error 72
Force Motor Current Diag, Error 73
Traction Control Diagnostic, Error 74
Trans System Voltage Diag, Error 75
Fan 1 Diagnostic, Error 77
Fan 2 Diagnostic, Error 78
Trans Fluid Temp. High Diag, Error 79
Transmission Slip, Error 80
Trans Shift 'B' Diag, Error 81
Trans Shift 'A' Diag, Error 82
TCC Control Feedback Diag, Error 83
3->2 Downshift Feedback Diag, Error 84
TCC Stuck On Diagnostic, Error 85
TCC Enable Error Diagnostic, Error 90
Shift Light Diagnostic (Error 91)
Oil Level Diagnostic, Error 96
Vss Signal Diagnostic, Error 97

## ECM Constants

Cylinder Volume
Injector Flow Rate
MAP Threshold To Enable WOT
Cool Thresh For TPS For WOT (HighTemp)
Min. Cool. Temp. for Closed Loop
Min Cool Temp for Closed Loop, Cold MAT
Cold Closed Loop Timer Threshold
Hot Closed Loop Timer Threshold
Minimum BLM
Maximum BLM
Minimum Keep-Alive BLM
Maximum Keep-Alive BLM
BLM Cell MAP Boundary Hysteresis
BLM Cell RPM Boundary Hysteresis
Max Integrator
Min. Integrator
Individual Cyl. Fuel Trim Disable %TPS
Minimum Injector Pulse Width
Hi Temp Enrich Enable Coolant Temp.
Hi Temp Enrich Disable Coolant Temp.
High Coolant Temp. Min. Enrich AFR
High Temp. Enrich Enable Delay
Baro Update RPM Threshold
EGR Enable, Min. MAP
EGR Enable, Min RPM

EGR Enable, Max RPM
EGR Enable Cool. Temp (Hi Startup MAT)
EGR Enable Cool. Temp (Low Startup MAT)
Fan Temp. Hysteresis - Low Vehicle Speed
Fan Temp Hysteresis - High Vehicle Speed
Fan High/Low Vehicle Speed Threshold
Fan 1 On, Oil Temp, (Low RPM)
Fan 1 On, Oil Temp , (High RPM)
Fan 2 On, Oil Temp, (Low RPM)
Fan 2 On, Oil Temp, (High RPM)
Fan Enable, (High RPM, High Oil Temp)
Fan 1 On High A/C Pressure Threshold
Fan 1 Off High A/C Pressure Threshold
Fan 1 Disable MPH, High A/C Pressure
Fan 1 Enable MPH, High A/C Pressure
Fan 2 On High A/C Pressure Threshold
Fan 2 Off High A/C Pressure Threshold
Fan 2 Disable MPH, High A/C Pressure
Fan 2 Enable MPH, High A/C Pressure
Fuel Cutoff Speed
Fuel Resume Speed
Fuel Cutoff RPM, 1st Gear
Fuel Cutoff RPM, 2nd - 6th Gear
Fuel Resume RPM, 1st Gear
Fuel Resume RPM, 2nd - 6th Gear
Error 32, Min Diff. MAP Test Value
Speedometer Scalar
Speedometer Scalar, Fraction
Speedometer Scalar, (Scan Tool)
Speed Pulses Per Driveshaft Revolution
Time Between Pulses For 'Stop'
Canister Purge Enable Cool. Temp.
Min. Coolant Temp. For CAT Protect
Min. Coolant Temp. To Enable C.A.R.S.
RPM Threshold To Disable C.A.R.S.
%TPS Threshold To Disable C.A.R.S.
Low PRNDL Upshift Speed Threshold
Low PRNDL Downshift Speed Threshold
Maximum Line Pressure
Kickdown Mode Enable TPS Threshold
Kickdown Mode Disable TPS Threshold
DFCO Enable RPM Threshold
DFCO Disable RPM Threshold
DFCO Enable MAP Threshold
DFCO Disable MAP Threshold
DFCO Disable RPM Decrease Threshold
DFCO Enable Coolant Temp. Threshold
DFCO Enable MPH Threshold
DFCO Enable Delay Timer
DFCO Spark Retard
Knock Retard Enable Coolant Temp.
Burst Knock Enable %Diff Air Flow Thresh
Burst Knock Enable Coolant Temp. Thresh.
Low Octane Comp. Attack Gain MAP Enable
Low Octane Attack Gain Delta MAP Disable
Low Octane Compensation Decay Gain
Spark Advance Table Bias
Spark Coolant Temp Correction Bias
Spark Reference Angle
Maximum Spark Advance
Min. Coolant Temp. To Enable Air Pump
Closed Loop Idle Enable Vehicle Speed
IAC Power Steering Anticipate Correction
A/C Clutch Disable %TPS Threshold
A/C Enable Evap. Temperature
A/C Disable Evap. Temperature
CAT Overtemp Threshold (Low Baro)
CAT Overtemp Threshold (Mid Baro)
CAT Overtemp Threshold (High Baro)
CAT Overtemp AFR

TCC Upshift Off Time
TCC Downshift Off Time
Vss Diagnostic Enable Min RPM
Tach Signal High Period

## Tables

ECM Switch Table
ECM Constant Table
Main Spark Advance Vs. RPM Vs. MAP
Extended Spark Advance Vs. RPM Vs. MAP
Spark Correction Vs. MAP Vs. Coolant Temp.
Closed TPS Spark Advance Vs. RPM
Minimum Spark Advance Vs. RPM
Crank Spark Advance Vs. Coolant Temp.
Knock Fast Attack Rate Vs. RPM
Knock Retard Recovery Rate Vs. RPM
Max. Knock Retard Vs. RPM (in P.E.)
Max. Knock Retard Vs. MAP (not in P.E.)
Burst Knock Retard Vs. Coolant Temp.
Low Octane Compensation Attack Gain Vs. RPM
Low Octane Knock Retard Multiplier Vs. RPM
Low Octane Knock Retard Multiplier Vs. MAP
Low Octane Knock Retard Multiplier Vs. Cool. Temp.
Traction Control Spark Retard Vs. RPM
EGR Spark Advance Correction Vs Vacuum Vs RPM
%TPS Threshold For WOT Vs. RPM Vs. Cool Temp
Volumetric Efficiency Vs. RPM Vs. MAP
Volumetric Efficiency Vs. RPM Vs. MAP (Ext.)
Inverse Temperature Correction Term Vs. MAT
Crank Volumetric Efficiency Vs. %TPS Vs. RPM
Injector Offset Vs. Battery Voltage
End of Injection Target Location Vs. Cool. Temp.
Low Pulse Width Injector Offset Adder Vs. BPW
%Change To Fuel/Air Ratio Vs. Cool. Temp. at WOT
%Change To Fuel/Air Ratio Vs. RPM at WOT
Open Loop AFR Vs Coolant Temp. Vs. MAP
Closed Loop Fuel Timer Vs Coolant Temp.
BLM Cell RPM Boundaries
BLM Cell MAP Boundaries
Individual Cylinder Fuel Trim Multiplier
Fast O2 Rich/Lean Threshold Vs. CL Mode
Base O2 Integrator Delay Vs. CL Mode
CL Mode Value Vs. AirFlow
DFCO Enable %TPS Threshold Vs. RPM
IAC Target RPM Vs. Coolant Temp Vs. Gear
IAC Park Position Vs. Coolant Temperature
IAC Offset for A/C Anticipate Vs. A/C Pressure
Idle Overspeed Spark Retard Vs. RPM Error
Idle Underspeed Spark Advance Vs. RPM Error
Throttle Follower IAC Offset Vs. MPH
Crank AFR Vs Distrib. Refer. Pulse Vs Cool. Temp.
Extended Crank AFR Vs DRP Vs Cool. Temp.
Prime Pulse Width Vs. Coolant Temp.
Added Prime Pulse Width Vs. Coolant Temp.
Added Prime Pulse Enable Crank Time Vs. Cool. Temp
Initial Startup AFR Enrichment Vs. Coolant Temp.
Fan Enable Coolant Temp Vs. Speed
Normal Mode Up/Down Shift Points
Performance Up/Down Shift Points
Manual Mode Up/Down Shift Points
Cruise Mode Up/Down Shift Points
Kickdown Mode Up/Down Shift Points
Cold Mode Upshift Speed Modifier Vs. %TPS
Kickdown Mode Shift RPM Thresholds Vs. Mode
Main Line Pressure 0 - 64 MPH
Main Line Pressure 64 - 128 MPH
Line Pressure Modifier In WOT Vs RPM

Line Pressure Offset Vs %TPS  Vs Gear (Norm Mode)
Line Pressure Offset Vs. %TPS Vs. Gear (Perf Mode)
Line Pressure Offset Vs %TPS Vs Gear (Manual Mode)
Line Press Mod Vs. %TPS Vs. Trans. Temp, 2nd Gear
Line Press Mod Vs. %TPS Vs. Trans. Temp, 3rd Gear
Line Press Mod Vs. %TPS Vs. Trans. Temp, 4th Gear
Down Shift Pressure Modifier 2 -> 1 Vs MPH
Down Shift Pressure Modifier 3 -> 2 Vs MPH
Down Shift Pressure Modifier 4 -> 3 Vs MPH
Garage Shift Press Vs Trans Temp Vs RPM - Drive
Garage Shift Press Vs Trans Temp Vs RPM - Reverse
Force Motor Current Vs Press Vs Trans Temp, + Chng
Force Motor Current Vs Press Vs Trans Temp, - Chng
Shift Time Vs. %TPS Vs. Shift, Normal, Low Alt.
Shift Time Vs. %TPS Vs. Shift, Normal, High Alt.
Shift Time Vs. %TPS Vs. Shift, Perform., Low Alt.
Shift Time Vs. %TPS Vs. Shift, Perform., High Alt.
Reverse Lockout Enable/Disable Speeds
TCC Normal Mode Engage MPH Vs. Gear Vs. %TPS
TCC Normal Mode Release MPH Vs. Gear Vs. %TPS
TCC Manual Mode Engage MPH Vs. Gear Vs. %TPS
TCC Manual Mode Release MPH Vs. Gear Vs. %TPS
TCC Hot Mode Engage MPH Vs. Gear Vs. %TPS
TCC Hot Mode Release MPH Vs. Gear Vs. %TPS
TCC Performance Mode Engage MPH Vs. Gear Vs. %TPS
TCC Performance Mode Release MPH Vs. Gear Vs. %TPS
TCC Cruise Mode Engage MPH Vs. Gear Vs. %TPS
TCC Cruise Mode Release MPH Vs. Gear Vs. %TPS
TCC WOT Forced Lock Speed Threshold Vs. Gear
TCC Off Time For Shift Vs Shift
TCC Apply Operating Point Vs. %TPS Vs. Gear
TCC Apply Rate Vs. Gear Vs. %TPS
TCC Release Operating Point Vs. %TPS Vs. Gear
TCC Release Rate Vs. Gear Vs. %TPS
MAF Sensor Calibration Table 1
MAF Sensor Calibration Table 2
MAF Sensor Calibration Table 3
MAF Sensor Calibration Table 4