

# C.A.T.S. Tuner ECM 83 Parameter List

## (ECM Configuration File Version J)

### ECM Switch Parameters

Stoichiometric AFR/AFR Table (X = Table)  
Two Speed Fan Option (X = Enabled)  
VE Learn Option (X = Enabled)  
Single/Double Fire Option (X = Single)  
Reset Integrator in A. E. (X = Enabled)  
Reset Int. if New BLM Cell (X = Enabled)  
Reset Integrator in D. E. (X = Enabled)  
MAP/TPS BLM Load Criteria (X = MAP)  
VATS Option (X = Disabled)  
Closed Loop AFR Check (X = Enabled)  
Lean Cruise Option (X = Enabled)  
O2 Sensor Open (Error 13)  
High Engine Temp. (Error 14)  
Low Engine Temp. (Error 15)  
ECT Sensor Unstable (Error 16)  
ECT Sensor Resistor (Error 17)  
TPS Sensor Stuck (Error 19)  
TPS Sensor High (Error 21)  
TPS Sensor Low (Error 22)  
MAT Sensor Low (Error 23)  
Vss Diagnostic (Error 24)  
MAT Sensor High (Error 25)  
MAT Sensor Unstable (Error 26)  
Manifold Pressure Switch (Error 27)  
Manifold Pressure Switch (Error 28)  
VATS Diagnostic (Error 31)  
MAP Sensor High (Error 33)  
MAP Sensor Low (Error 34)  
IAC Motor Error (Error 35)  
Vacuum Leak (Error 36)  
EST Failure (Error 41)  
Bypass Circuit Failure (Error 42)  
Knock Sensor Diag. (Error 43)  
O2 Sensor Lean Diag. (Error 44)  
O2 Sensor Rich Diag. (Error 45)  
No Reference Pulses (Error 46)  
No 18X Input (Error 47)  
CAM Sensor Failure (Error 48)  
CAM/Crank Signal (Error 49)  
System Voltage High (Error 52)  
System Voltage High (Error 53)  
Battery Voltage Unstable (Error 54)  
A/D Conversion Error (Error 55)  
Lean Under Load (Error 56)  
Injector Monitor Failure (Error 57)  
Trans Temp High (Error 58)  
Trans Temp Low (Error 59)  
Baro High (Error 63)  
Baro Low (Error 64)  
3-2 Solenoid Failure (Error 66)  
TCC Solenoid Failure (Error 67)  
Overdrive (Error 68)  
TCC On (Error 69)

Engine RPM Low (Error 71)  
No Output Speed (Error 72)  
Force Motor Current (Error 73)  
System Voltage Low (Error 75)  
MNP Switch Failure (Error 77)  
Hot Transmission (Error 79)  
QDM1/Shift B Failure (Error 81)  
QDM1/Shift A Failure (Error 82)  
QDM1 Failure (Error 83)  
Undefined Ratio (Error 85)  
Solenoid B Stuck On (Error 86)  
Solenoid B Stuck Off (Error 87)  
Max Adaptive Shift (Error 89)  
QDSM Failure (Error 91)

## **ECM Constants**

Fuel Cutoff RPM  
Fuel Resume RPM  
Spark Reference Angle  
Maximum Spark Advance  
Main Spark Extended Slope (Deg/1000 RPM)  
Coolant Temp Compensation Spark Bias  
Max Knock Spark Retard  
Knock Retard Enable RPM  
Knock Retard Disable RPM  
Knock Retard Enable Coolant Temp.  
Burst Knock Retard Enable Coolant Temp.  
Burst Knock Retard Enable RPM  
Burst Knock Retard Delta TPS Enable  
Burst Knock Retard  
Maximum Spark Retard  
Max %TPS for Closed Throttle  
Torque Management RPM Threshold  
Torque Management Forced Spark Advance  
VE Table Filter Coefficient (At Idle)  
RPM Threshold For VE Filtering  
Max. Cool. Temp. For Cold AFR Table  
Base Pulse Constant  
Minimum Allowable BLM  
Maximum Allowable BLM  
Stoichiometric AFR  
Open Loop Fuel Enable Cool. Temp.  
Open Loop Fuel Enable Cool. Temp. (Idle)  
Min Sync Injector Pulse Width  
Min Async Injector Pulse Width  
Max Async Injector Pulse Width  
Lean Cruise Enable Coolant Temp  
Lean Cruise Enable Vehicle Speed  
Idle AFR Disable Vehicle Speed  
Idle AFR Delay Time (In Drive)  
Idle AFR Delay Time (In P/N)  
Crank AFR Decay Delay #1  
Crank AFR Decay Delay #2  
Crank AFR Decay Step Period  
Crank AFR Decay Factor  
Clear Flood %TPS Threshold  
Accel Enrich Enable Delta %TPS  
Decel Enlean Enable Delta %TPS  
DFCO Enable RPM  
DFCO Disable RPM

DFCO Disable MAP (Auto Trans)  
DFCO Disable MAP (Man Trans)  
DFCO Enable Vehicle Speed  
DFCO Enable %TPS Threshold  
DFCO Enable Coolant Temp Threshold  
Initial IAC Motor Position (A/C Off)  
Added Initial IAC Position Steps, A/C On  
IAC Increase for Closed Loop Fuel  
IAC Transient Increase - High Fan On  
IAC Increase - High Speed Fan On  
IAC Transient Increase - Low Fan On  
IAC Increase - Low Speed Fan On  
Desired RPM Increase for A/C On  
Maximum TPS for Idle  
Stall Saver Enable RPM Threshold  
Stall Save IAC Increase  
High Speed Fan On Coolant Temp. Thresh.  
High Speed Fan Off Vehicle Speed Thresh  
Low Speed Fan On Coolant Temp. Thresh.  
Low Speed Fan Off Vehicle Speed Thresh  
Number of Cylinders  
A/C Disable %TPS Threshhold  
A/C Disable RPM Threshold  
A/C Re-enable RPM Threshold  
PROM ID

## **Tables**

ECM Switch Table  
ECM Constant Table  
Main Spark Advance Vs. RPM Vs. MAP  
Idle Spark Advance Vs. MAP  
Coolant Temp. Compensation Spark Advance  
Knock Attack Rate Vs. RPM (Deg/msec)  
Knock Recovery Rate Vs. RPM (%/sec)  
Altitude Spark Adv. Correction Vs. RPM Vs. Vacuum  
Volumetric Efficiency Vs. RPM Vs. MAP (Low RPM)  
Volumetric Efficiency Vs. RPM Vs. MAP (High RPM)  
Cold Engine AFR Vs Coolant Temp. Vs MAP  
Air Fuel Ratio Vs. RPM Vs. MAP  
Injector Offset Vs. Battery Voltage  
Idle AFR Vs. Coolant Temperature  
Low Pulse Width Injector Offset Vs. BPW  
Accel Enrich Multiplier Vs. RPM  
Accel Enrich Correction Vs Coolant Temp.  
Delta MAP A.E. Decay Factor Vs. Coolant Temp  
Decel Enlean Correction Factor Vs. Coolant Temp  
Delta MAP D.E. Decay Factor Vs. Coolant Temp  
Startup Fuel Enrichment Vs. Coolant Temp.  
Startup Enrich. Decay Interval Vs. Coolant Temp.  
Initial Crank BPW Table 1 Vs. Coolant Temp.  
Initial Crank BPW Table 2 Vs. Coolant Temp.  
Lean Cruise AFR Correction Vs. RPM Vs. MAP  
Injector Delay (% Ref. Period) Vs. RPM Vs. TPS  
% Cool Contribution for Charge Temp Vs. RPM Vs MAP  
Desired Idle RPM Vs. Battery Voltage (In Drive)  
Desired Idle RPM Vs. Battery Voltage (In P/N)  
Desired Idle RPM Vs. Battery Voltage (Man. Trans.)  
IAC Warmup Motor Position Offset Vs. Coolant Temp.  
IAC Warmup Decay Rate Vs Coolant Temp.  
Fast Idle Offset Vs Coolant Temp.

Normal Mode Line Press Vs. KPH Vs TPS (0 - 64 KPH)  
Normal Mode Line Press Vs. KPH Vs TPS (64-128 KPH)  
Normal Mode Pressure Offset (psi) Vs. TPS Vs. Gear  
Perf. Mode Pressure Offset (psi) Vs. TPS Vs. Gear  
2->1 Downshift Pressure Modifier Vs. Speed  
3->2 Downshift Pressure Modifier Vs. Speed  
4->3 Downshift Pressure Modifier Vs. Speed  
Normal Mode Shift Speed (KPH) Vs. TPS Vs. Shift  
Perf. Mode Shift Speed (KPH) Vs. TPS Vs. Shift  
Cruise Mode Shift Speed (KPH) Vs. TPS Vs. Shift  
Manual Mode Shift Speed (KPH) Vs. TPS Vs. Shift  
Normal Kickdown Mode Shift Speed Vs. Shift  
Hot Kickdown Mode Shift Speed Vs. Shift  
Cold Kickdown Mode Shift Speed Vs. Shift  
Kickdown Mode Upshift RPM Threshold Vs. Shift  
Hot Kickdown Mode Upshift RPM Threshold Vs. Shift