

# C.A.T.S. Tuner ECM 5C Parameter List

## (ECM Configuration File Version C)

### ECM Switch Parameters

Magnetic Speed Sensor Installed  
Transmission Type (X = Manual)  
Launch Mode Spark Option (X = Enabled)  
Idle Spark if TCC Locked (X=Disabled)  
Use BLM in PE Mode if > 128  
O2 Sensor Diagnostic (Error 13)  
Vehicle Speed Diagnostic (Error 24)  
MAT Sensor Low Diagnostic (Error 23)  
MAT Sensor High Diagnostic (Error 25)  
EGR Diagnostic (Error 32)  
MAP Sensor High Diagnostic (Error 33)  
MAP Sensor Low Diagnostic (Error 34)  
EST Monitor Diagnostic (Error 42)  
O2 Sensor Lean Diagnostic (Error 44)  
O2 Sensor Rich Diagnostic (Error 45)

### ECM Constants

Spark Reference Angle  
Max Spark Advance Relative to TDC  
Max Spark Retard Rel. to TDC (no knock)  
Max Spark Retard Rel. to TDC (Knock)  
Launch Mode Spark Disable Speed  
Burst Knock Retard Enable Cool Temp  
Burst Knock Retard Max TPS  
Max Knock Retard in Power Enrich.  
Knock Retard Enable Coolant Temp.  
WOT Knock Retard %TPS Threshold  
Base Cool. Adv. Correction Table Bias  
MAT Spark Advance Table Bias  
TCC/Launch Mode Spark Bias  
Accel Enrich Enable Delta MAP Threshold  
AE TPS Theshold for 2X Delta MAP Thres.  
Accel Enrich Enable Delta TPS Threshold  
Closed Loop Enable Coolant Temp.  
Warm/Cold C/L Timer Threshold  
Cold Closed Loop Timer  
Warm Closed Loop Timer  
Open Loop To Closed Loop Upper O2 Thresh  
Open Loop To Closed Loop Lower O2 Thresh  
Closed Loop To Open Loop Upper O2 Thresh  
Closed Loop To Open Loop Lower O2 Thresh  
BLM Cell RPM Boundary Hysteresis  
BLM Cell MAP Boundary Hysteresis  
BLM Learn Enable Coolant Temp Threshold  
Maximum BLM Value  
Minimum BLM Value  
Base Pulse Constant  
Sync Fuel Injector Delay Factor  
Maximum Async Injector Pulse Width  
Minimum Async Injector Pulse Width  
Clear Flood %TPS Threshold

Decel Fuel C/O RPM Enable  
Decel Fuel C/O Disable RPM  
Decel Fuel C/O MAP Enable  
Decel Fuel C/O Disable MAP  
DFCO Disable MPH Threshold  
DFCO Enable MPH Threshold  
Decel Enlean Enable RPM Threshold  
Decel Enlean Enable Delta %TPS Threshold  
Decel Enlean Enable Delta MAP Threshold  
Decel Enlean Decay Rate  
Fuel Cutoff Vehicle Speed  
Fuel Resume Vehicle Speed  
Fuel Cut Off Engine Speed  
Fuel Resume Engine Speed  
Stoichiometric Air Fuel Ratio  
PE Delay Hi/Lo Baro. Threshold  
PE Delay Bypass RPM Threshold  
High RPM Open Loop Enable RPM  
Low RPM Open Loop Enable RPM  
Min Cool Temp for Stoichiometric AFR  
Max Startup Temp for Crank AFR 2X Mod  
Max Startup Temp for Crank AFR Lean Bias  
A/C Disable %TPS Threshold  
A/C Disable Coolant Temp.  
Low Fan On Coolant Temp.  
Low Fan Off Coolant Temp.  
High Fan On Coolant Temp.  
High Fan Off Coolant Temp.  
TCC Force Lock Vehicle Speed  
TCC Unlock Negative Delta %TPS Threshold  
TCC Enable Speed, A/C Off  
TCC Enable Speed, A/C On  
TCC Unlock Positive Delta %TPS Threshold  
TCC Disable Speed  
TCC Unlock Prevent RPM  
Shift Light Enable Cool. Temp. Threshold  
Shift Light On RPM Threshold  
Shift Light On Delay Time  
Shift Light Max On Time  
IAC Park Position  
P/N to Drive Anticipate IAC Steps (Hot)  
P/N to Drive Anticipate IAC Steps (Cold)  
Fan Anticipate IAC Step Adder  
Instrument Panel VSS Pulse Divisor  
Road Speed Constant

## **Tables**

ECM Switch Table  
ECM Constant Table  
Main Spark Advance Vs. RPM Vs. Load  
Power Enrich Spark Advance Vs. RPM Vs. Load  
Base Cool. Adv. Correction Vs. Load Vs. Cool. Temp  
Idle Base Cool. Adv. Correction Vs. Cool. Temp.  
MAT Spark Adv. Correction Vs. MAT Vs. MAP  
TCC/Launch Mode Spark Correction Vs. RPM Vs. MAP  
Burst Knock Retard Enable Delta TPS Vs. BKR Level  
Burst Knock Retard Multiplier Vs. Cool. Temp.  
Burst Knock Retard Vs. BKR Level  
Burst Knock Retard Recovery Time Vs. BKR Level  
Knock Retard Attack Rate Vs. RPM

Knock Retard Recovery Rate Vs. RPM  
Max Knock Retard Vs. Vacuum (not in P.E.)  
Volumetric Efficiency Vs. RPM Vs. MAP  
Volumetric Efficiency Vs. RPM Vs. MAP, Ext. RPM  
Idle Volumetric Efficiency Vs. RPM Vs. MAP  
Delta MAP Accel Enrich Multiplier Vs. %TPS  
Accel Enrich Delta MAP Pulse Width Vs. Delta MAP  
Accel Enrich Delta TPS Pulse Width Vs Delta TPS  
Accel Enrich Multiplier Vs. Speed  
Accel Enrich Temperature Correction Vs. Cool. Temp  
Accel Enrich MAT Correction Vs. MAT  
O2 Sensor Rich/Lean Threshold Vs. BLM Cell  
BLM Cell RPM Boundaries  
BLM Cell MAP Boundaries  
Injector PW Offset Vs. Battery Voltage  
Injector PW Correction Vs. Battery Voltage  
Decel. Enlean Factor Vs. Coolant Temp.  
Decel Enlean Disable High TPS Threshold Vs. RPM  
Decel Enlean BPW % Reduction Vs. Delta %TPS  
Crank AFR Multiplier Vs. Startup MAT  
Crank AFR Multiplier Vs. No. 2X Pulses  
Crank AFR Vs. Startup Coolant Temp.  
Crank AFR Multiplier Vs. Crank RPM  
Crank AFR TPS Mult. Correction Vs. Startup Cool.  
Crank AFR Multiplier Vs. TPS  
Cold AFR Vs Coolant Temp. (at Idle)  
Cold AFR Vs Coolant Temp.  
Power Enrich Mode Delay Time Vs. Baro  
Power Enrich Delay Bypass TPS Vs. Baro  
Power Enrich Mode Enable TPS Vs. RPM  
Power Enrich. AFR Vs. Coolant Temp.  
Power Enrich AFR Multiplier Vs. RPM  
Eng Runtime for Choke AFR Mod Vs Start Cool-Drive  
Eng Runtime for Choke AFR Mod Vs Startup Cool-P/N  
Choke AFR Mod Vs. Startup Cool Vs Stage-Drive  
Choke AFR Mod Vs. Startup Cool Vs Stage-P/N  
Target Idle RPM Vs. Coolant Temp.  
Target Idle Adder Vs. Coolant Temp (in P/N)  
Max Throttle Follower Bias Vs. RPM  
IAC Position Temperature Offset Vs. Cool. Temp.  
IAC Kickdown Steps Vs. Startup Cool Vs Eng Runtime  
TCC Lower Load Limit Vs. Speed  
TCC Upper Load Limit Vs. Speed  
Shift Light RPM/MPH Ratio Vs. Gear  
Shift Light Enable RPM Vs. Gear Vs. Cool Temp  
Cold AFR Correction Vs. MAP  
IAC Position Modifier Vs. Idle RPM Error - A/C Off  
IAC Position Modifier Vs. Idle RPM Error - A/C On