

# C.A.T.S. Tuner ECM 6D Parameter List

## (ECM Configuration File Version F)

### ECM Switch Parameters

VATS Select (X = active)  
Transmission Type (X = Manual)  
Normally Open Fan 1 Request  
Normally Open Fan 2 Request  
Lean Cruise Option (X = active)  
Highway Mode Fuel (X = enabled)  
O2 Sensor Diagnostic (Error 13)  
Vss Sensor Diagnostic (Error 24)  
EGR Diagnostic (Error 32)  
Knock Sensor Diagnostic (Error 43)  
VATS Diagnostic (Error 46)

### ECM Constants

Initial Spark Advance  
Extended RPM Spark Advance Slope  
Main Spark Extended RPM Limit  
Launch Mode Knock Attack Rate Multiplier  
Launch Mode Vehicle Speed Threshold  
Launch Mode Positive Delta TPS Thresh.  
Launch Mode Disable Neg. Delta TPS  
Launch Mode Enable Delta MAP Thresh.  
Launch Mode Disable Delta MAP Thresh.  
Maximum Time in Launch Mode  
Idle Spark Enable TPS Threshold  
Idle Spark Enable Speed Threshold  
Idle Spark Disable TPS Threshold  
Idle Spark Disable Speed Threshold  
Highway Mode Spark, Max MAP  
Highway Mode Spark, Min Coolant Temp.  
Highway Mode Spark Disable RPM Threshold  
TCC Locked Spark Retard Bias  
Knock Retard Enable RPM Threshold  
Knock Retard Enable Speed Threshold  
Knock Retard Enable Coolant Temp. Thresh  
Fan 1 Low/High MPH Threshold  
Fan 2 Low/High MPH Threshold  
Fan 1 On Time Delay  
Fan 2 On Time Delay  
IAC Steps Added for Fan 1 On  
IAC Steps Added for Fan 2 On  
Max Vehicle Speed for Idle  
Fuel Cutoff RPM  
Fuel Resume RPM  
Fuel Cutoff Vehicle Speed  
Fuel Resume Vehicle Speed  
Minimum RPM for Block Learn  
Maximum RPM for Block Learn  
Maximum RPM for Idle Block Learn  
Minimum BLM Value  
Maximum BLM Value  
Minimum Integrator Value

Maximum Integrator Value  
Stoichiometric AFR  
Maximum Allowable AFR  
Highway Mode Fuel AFR  
Highway Mode Fuel Enable Speed  
Highway Mode Fuel Disable Speed  
Minimum Async Pulse Width  
Maximum Async Pulse Width  
Injector Flow Rate  
Injector Flow Rate (Display)  
Cold Closed Loop Enable Timer  
Warm Closed Loop Enable Timer  
Hot Closed Loop Enable Timer  
Max Coolant Temp for Cold C/L Timer  
Min Coolant Temp for Hot C/L Timer  
Min. Closed Loop Coolant Temp.  
Power Enrich TPS Enable Hysteresis  
Power Enrich Enable MAP Threshold  
Power Enrich Enable MAP Hysteresis  
Accel Enrich Enable Delta TPS Threshold  
Accel Enrich Disable Delta TPS Threshold  
Minimum EGR Duty Cycle  
EGR On VE Compensation Factor  
EGR Enable Min Coolant Temp  
EGR Disable MAP Threshold  
EGR Enable MAP Threshold  
Baro Update Max RPM Threshold  
Baro Update Max. Pos. Delta %TPS  
TCC Lock Delay Time  
Unconditional TCC Lock Vehicle Speed  
TCC Disable TPS Threshold, Low Gears  
TCC Enable TPS Threshold, Low Gears  
TCC Lock Enable MPH Thresh, Low Gears  
TCC Lock Disable MPH Thresh, Low Gears  
TCC Lock Enable MPH Thresh, Low Gr, A/C  
TCC Lock Disable MPH Thresh, Low Gr, A/C  
TCC Disable TPS Threshold, High Gear  
TCC Enable TPS Threshold, High Gear  
TCC Lock Enable MPH Thresh, High Gear  
TCC Lock Disable MPH Thresh, High Gear  
TCC Lock Enable MPH Thresh, Hi Gr, A/C  
TCC Lock Disable MPH Thresh, Hi Gr, A/C  
TCC Lock Enable Coolant Temp Threhold  
TCC Lock Disable Coolant Temp Threhold  
Number of Cylinders  
Road Speed Constant  
Instrument Panel VSS Pulse Divisor  
Max RPM/MPH Ratio - 1st Gear  
Min RPM/MPH Ratio - 1st Gear  
Max RPM/MPH Ratio - 2nd Gear  
Min RPM/MPH Ratio - 2nd Gear  
Max RPM/MPH Ratio - 3rd Gear  
Min RPM/MPH Ratio - 3rd Gear  
Max RPM/MPH Ratio - 4th Gear  
Min RPM/MPH Ratio - 4th Gear  
Max RPM/MPH Ratio - 5th Gear  
Min RPM/MPH Ratio - 5th Gear  
Min RPM for Shift Light On - 1st Gear  
Min RPM for Shift Light On - 2nd Gear  
Min RPM for Shift Light On - 3rd Gear  
Min RPM for Shift Light On - 4th Gear

## Tables

ECM Switch Table  
ECM Constant Table  
Main Spark Advance Vs. MAP Vs. RPM  
Base Cool. Adv. Correction Vs. Load Vs. Cool. Temp  
Launch Mode Spark Advance Vs. RPM Vs. MAP  
PE Spark Advance Correction Vs. AFR  
EGR Spark Advance Correction Vs. % EGR  
TCC Locked Spark Retard Vs. RPM Vs. MAP  
Highway Mode Spark Advance Vs. MAP  
Initial Time Out Spark Vs. Coolant Temp.  
Time Out Spark Decay Vs. Startup Coolant Temp.  
Knock Retard Attack Rate Vs. RPM  
Knock Retard Attack Rate Vs. RPM in PE  
Knock Retard Recovery Rate Vs. RPM  
Knock Retard Recovery Rate Vs. RPM in PE  
Maximum Knock Retard Vs. RPM  
Maximum Knock Retard Vs. RPM in PE  
Idle Spark Multiplier Vs. Coolant Temp.  
Idle Spark Multiplier Vs. MAP  
Idle Overspeed Spark Retard Vs. RPM Error  
Idle Underspeed Spark Advance Vs. RPM Error  
Main Volumetric Efficiency Vs. RPM Vs. MAP  
Volumetric Efficiency Adder Vs. RPM  
Idle Volumetric Efficiency Vs. RPM Vs. MAP  
VE Correction For EGR On Vs. RPM Vs. Vacuum  
VE Correction for EGR Vs. MAP (TCC Locked)  
Base Pulse Constant Vs. Desired % EGR  
Power Enrich Enable TPS Thresh. Vs. Coolant Temp.  
Open Loop Idle AFR Correction Vs. MAP  
Open Loop AFR Vs. Coolant Temp. Vs. Map  
Closed Throttle Open Loop AFR Vs. Coolant Temp.  
BPW Offset Vs. Battery Voltage  
Low BPW Correction Vs. Pulse Width  
Power Enrich Mode AFR Vs. RPM  
Accel Enrich Factor Vs. AE Pulse  
AE Async Pulse Multiplier Vs. Coolant Temp.  
AE Async Pulse Multiplier Vs. Delta TPS  
AE Async Pulse Multiplier Vs. Baro  
AE Async Pulse Multiplier Vs. MAT  
Crank Fuel PW Vs. Coolant Temp.  
Crank PW Multiplier Vs. RPM  
Crank PW Multiplier Vs. Reference Pulse  
Crank PW Multiplier Vs. TPS  
Crank PW Multiplier Vs. Baro  
Desired Idle Speed Vs. Coolant Temp (In Drive)  
Desired Idle Speed Vs. Coolant Temp (In P/N)  
TCC Lower Load Limit Vs. MPH, Low Gear  
TCC Upper Load Limit Vs. MPH, Low Gear  
TCC Lower Load Limit Vs. MPH, High Gear  
TCC Upper Load Limit Vs. MPH, High Gear  
EGR Duty Cycle Vs. MAP Vs. RPM  
EGR Duty Cycle Multiplier Vs. Coolant Temp.  
Fan 1 Coolant Temp Thresholds  
Fan 2 Coolant Temp Thresholds  
Max %TPS For Shift Light On Vs. RPM - 1st Gear  
Max %TPS For Shift Light On Vs. RPM - 2nd Gear  
Max %TPS For Shift Light On Vs. RPM - 3rd Gear  
Max %TPS For Shift Light On Vs. RPM - 4th Gear