

# C.A.T.S. Tuner ECM 99 Parameter List

## (ECM Configuration File Version V)

### ECM Switch Parameters

Manual/Auto Transmission (X=Manual)  
Open Loop Decel AFR Option (X=Enabled)  
EGR System Type (X = Back Pressure)  
O2 Sensor Diagnostic (Error 13)  
ECT Sensor Hi Diagnostic (Error 14)  
ECT Sensor Low Diagnostic (Error 15)  
TPS Sensor Hi Diagnostic (Error 21)  
TPS Sensor Low Diagnostic (Error 22)  
MAT Sensor Low Diagnostic (Error 23)  
Vehicle Speed Sensor Failure (Error 24)  
MAT Sensor Hi Diagnostic (Error 25)  
MAP Sensor Low Diagnostic (Error 31)  
EGR Diagnostic (Error 32)  
MAP Sensor Hi Diagnostic (Error 33)  
MAP Sensor Hi Diagnostic (Error 34)  
IAC Diagnostic (Error 35)  
DRP Diagnostic (Error 41)  
EST Monitor Diagnostic (Error 42)  
Knock Diagnostic (Error 43)  
O2 Sensor Lean Diagnostic (Error 44)  
O2 Sensor Rich Diagnostic (Error 45)  
EPROM Diagnostic (Error 51)  
Cal-Pack Diagnostic (Error 52)  
VATS Diagnostic (Error 53)  
Fuel Pump Relay Diag. (Error 54)  
ADU Diagnostic (Error 55)

### ECM Constants

Initial Spark Advance (at Distributor)  
Main Spark Bias  
Cool. Temp. Compensation Spark Adv. Bias  
Max Spark Advance  
Knock Retard Enable Coolant Temp  
Spark Advance Added, in ALDL Mode  
Base Pulse Width Constant  
Bypass Power Enrich Delay RPM  
Power Enrich Enable Delay  
Accel Enrich TPS Diff Thresh  
Accel Enrich MAP Diff Thresh  
Min. Coolant Temp for Closed Loop Fuel  
Open Loop Idle Fuel Enable Speed  
Open Loop Idle Fuel Enable TPS  
Minimum AFR for Open Loop Idle  
Lean Idle AFR for Open Loop  
Maximum AFR for Open Loop (Non-idle)  
Cold Closed Loop Timer  
Warm Closed Loop Timer  
Open Loop Idle AFR Enable Delay  
Stoichiometric AFR  
BLM Update Disable RPM  
BLM Update Enable MAP Threshold  
BLM Update Disable MAP Threshold  
Maximum BLM Value  
Minimum BLM Value  
Minimum BLM Value at Idle  
Maximum Integrator Value  
Minimum Integrator Value

Integrator to BLM, Error Corr Thresh  
CL -> OL Fuel Upper O2 Threshold  
CL -> OL Fuel Lower O2 Threshold  
OL -> CL Fuel Upper O2 Threshold  
OL -> CL Fuel Lower O2 Threshold  
CL -> OL Idle Fuel Upper O2 Threshold  
CL -> OL Idle Fuel Lower O2 Threshold  
OL -> CL Idle Fuel Upper O2 Threshold  
OL -> CL Idle Fuel Lower O2 Threshold  
Slow o2, Low o2 Limit, at Idle  
Slow o2, High o2 Limit, at Idle  
Slow o2 Filter Coef, at Idle  
o2 Window, for Fast o2 Rich-Lean  
Prop Term Duration, at Idle  
Sync Inj. Mode Disable Pulse Width  
Sync Inj. Mode Enable Pulse Width  
Async->Sync Fuel MAP Threshold  
Async->Sync Fuel RPM Threshold  
Sync->Async Fuel MAP Threshold  
Sync->Async Fuel RPM Threshold  
Min. Async Injector Pulse Width  
Max. Async Injector Pulse Width  
Injector Pulse Width Offset  
DFCO Upper RPM Boundary  
DFCO Lower RPM Boundary  
DFCO Upper Speed Boundary  
DFCO Lower Speed Boundary  
DFCO Disable MAP Threshold (Max)  
DFCO Enable MAP Threshold (Min)  
Exit DFCO, Fuel Pulse Width added to BPW  
Exit DFCO Fuel Pulse Width Delay  
DFCO TPS Threshold, Disable if GT  
DFCO Enable Coolant Temp  
Decel Enlean Enable MAP Threshold  
Decel Enlean Enable below this RPM  
Decel Enlean Disable below this RPM  
Decel Enlean Minimum Speed  
IAC Deadband  
IAC Max Step Limit  
IAC Park Position  
Throttle Follower Bias, TPS Threshold  
IAC Throttle Follower Bias  
IAC Throttle Follower, in P/N  
IAC Throttle Follower, in Gear  
IAC Min Steps, in motion ( > 13 mph)  
Pump Shot, added to BPW when IAC opening  
Idle RPM, in ALDL Mode  
EGR Enable Coolant Temp  
EGR Enable TPS  
EGR Disable TPS  
EGR Enable RPM  
EGR Disable RPM  
EGR Enable MAP  
EGR Disable MAP  
Hi MAP Error Code 33 MAP Threshold  
Baro Update Enable Coolant Temp  
Scaler for MAP Load Factor in Flow (0-1)  
TCC Lock, (Low Gears)  
TCC Unlock, (Low Gears)  
TCC Lock, (High Gear)  
TCC Unlock, (High Gear)  
PROM ID

## **Tables**

ECM Switch Table  
ECM Constant Table  
Main Spark Advance Vs RPM Vs. Load

EGR Spark Advance Vs. % EGR  
Cool Compensation Spark Vs. load  
Power Enrichment Spark Advance Vs. RPM  
Idle Overspeed Spark Retard Vs. RPM  
Idle Overspeed Spark Adjust Factor Vs. MAP  
Idle Underspeed Spark Advance Vs. RPM  
Idle Underspeed Spark Adjust Factor Vs. MAP  
Start-up Spark Timeout Vs. Coolant Temp  
Start-up Spark Timeout Decay Delay Vs. Cool Temp  
Maximim Knock Retard Vs. RPM (in WOT)  
Maximim Knock Retard Vs. MAP  
Knock Attack Rate Vs. RPM  
Knock Recovery Rate Vs. RPM  
Main Fuel Table (%VE) Vs. RPM Vs. MAP  
BPW Constant Vs. %EGR  
TPS Threshold Vs. RPM For PE Mode (Fast)  
TPS Threshold Vs. RPM For PE Mode  
Power Enrich AFR Vs. RPM  
Accel Enrich Vs. Differential TPS  
Accel Enrich Vs. Differential MAP  
Accel Enrich Multiplier Vs. Baro  
Accel Enrich Diff. TPS Coefficient Vs. Cool Temp  
Open Loop AFR Vs. Coolant Temp  
Open Loop AFR Vs. MAP  
Mean/Rich/Lean O2 Voltage Threshold Vs. Air Flow  
Slow o2 Filter Time Constant Vs. Air Flow  
Prop Gain Flow Factor Vs. Air Flow  
Prop Duration Offset Vs. Air Flow  
Prop Term Duration Vs. Slow o2 Filtered  
Proportional Error Vs. Slow o2 Error Filtered  
BLM Cell RPM Boundaries  
BLM Cell MAP Boundaries  
Crank AFR Correction Vs. Coolant Temp  
Choke AFR Decay Multiplier Vs. Coolant Temp  
IAC Steps Vs. Coolant  
Target Idle RPM Vs. Coolant (In gear)  
Target Idle RPM Vs. Coolant (out of gear)  
TCC Upper Load Limit Vs. MPH (Low Gears)  
TCC Lower Load Limit Vs. MPH (Low Gears)  
TCC Upper Load Limit Vs. MPH (High Gear)  
TCC Lower Load Limit Vs. MPH (High Gear)