

C.A.T.S. Tuner ECM 8D Parameter List

(ECM Configuration File Version BS)

ECM Switch Parameters

VATS Select
Manual/Auto Trans. (X = Man.)
Open Loop Purge
4th Gear Switch N.O.
Cansiter Purge when Output Energized
Magnetic Speed Sensor Installed
Power Steering Switch Installed
N.O. Fan Request Input
TCC Control, (X = RPM else MPH)
Unlock TCC in Decel Fuel C/O
TCC Locked Highway Spark Enable Check
4th Gear Highway Mode Spark Check
Single/Dual Air Valve (X = Dual)
Enable Inv. MAT Term Lookup Table
Inj. Offset Volt. Select (X = Battery)
Reset Integrator when A.E. in Progress
O2 Sensor Diagnostic (Error 13)
MAT Sensor Low Diagnostic (Error 23)
Vehicle Speed Diagnostic (Error 24)
MAT Sensor High Diagnostic (Error 25)
EGR Diagnostic (Error 32)
MAP Sensor High Diagnostic (Error 33)
MAP Sensor Low Diagnostic (Error 34)
Cylinder Select Diagnostic (Error 41)
EST Monitor Diagnostic (Error 42)
Knock Diagnostic (Error 43)
O2 Sensor Lean Diagnostic (Error 44)
O2 Sensor Rich Diagnostic (Error 45)
VATS Diagnostic (Error 46)
Oil Temp Sensor Low Diag. (Error 52)
Fuel Pump Voltage Diagnostic (Error 54)
Oil Temp Sensor High Diag. (Error 62)

ECM Constants

Fuel Cut Off Speed
Fuel Resume Speed
Fuel Cut Off Engine Speed
Fuel Resume Engine Speed
Shift Light On RPM Threshold
Shift Light Enable RPM Threshold
Shift Light Off RPM Threshold
Shift Light Disable RPM Threshold
Fan 1 Disable Speed
Fan 2 Disable Speed
Fan 2 Disable Speed w/ High A/C Pres Sw
Cylinder Volume
Number of Cylinders
Initial Spark Advance
Maximum Spark Advance
Min. Coolant Temp for Highway Spark Adv.
Min. RPM for Highway Spark Advance

Max MAP for Highway Spark Advance
Highway Spark Advance Delay Timer
Knock Retard Enable RPM
Knock Retard Enable Speed
Knock Retard Enable Coolant Temp.
Knock Retard Enable Cool. Temp. Change
Cold Spark Disable Coolant Temp.
Add to Idle In Park/Neut
Add To Idle A/C On, (Eng. Speed)
IAC Command Speed Open Loop Offset
Maximum %TPS for Idle
Maximum Vehicle Speed for Idle
IAC Park Position
IAC Learn - Min Coolant Temp
IAC Learn - Max Coolant Temp
IAC Learn Timer
Idle Deadband Max RPM Error (in P/N)
Idle Deadband Max RPM Error (in Drive)
IAC Underspeed Error Proportional Gain
IAC Overspeed Error Proportional Gain
Throt Follower Extend Decay Timer Adder
Injector Flow Rate
Stoichiometric Air Fuel Ratio
Min Coolant Temp. For Closed Loop Fuel
Open Loop %Change Fuel/Air Ratio at Idle
Minimum BLM Value
Maximum BLM Value
BLM Update Cell Amount
BLM Update - Min Pos. Integrator Error
BLM Update - Min Neg. Integrator Error
BLM - Update Rate
Force BLM Idle Cell CCP %D.C. Threshold
Minimum Integrator Value
Maximum Integrator Value
Min Coolant Temp. For High Temp P.E. AFR
Minimum MAP for Power Enrich
Min. Coolant Temp. for Highway Mode Fuel
Maximum MAP for Highway Mode Fuel
Min. Vehicle Speed for Highway Mode Fuel
Highway Mode Fuel Delay Timer
Maximum Time in Highway Fuel Mode
Accel Enrich Delta TPS Scale Factor
Accel Enrich Delta TPS PW Scale Factor
Max. Accel Enrich Pulse Width
EGR %TPS Enable Threshold
EGR %TPS Disable Threshold
Minimum MAT for EGR Enable
EGR Diagnostic Minimum Vehicle Speed
TCC Lock Speed (Low Gears)
TCC Unlock Speed (Low Gears)
TCC Lock Speed (Not Low gears)
TCC Unlock Speed (Not Low Gears)
TCC Unlock Prevention Speed Threshold
TCC Enable Coolant Temp. Threshold
Low Octane Retard MAP Threshold
Low Octane Retard Diff MAP Threshold
Low Octane Knock Retard Increase Amount
Low Octane Knock Retard Decrease Amount
Low Octane Knock Retard Amount
Decel Fuel C/O RPM Enable
Decel Fuel C/O Disable RPM
Decel Fuel C/O MAP Enable
Decel Fuel C/O Disable MAP

Decel Fuel C/O Min Time Between C/O's
Canister Purge - Coolant Temp. Enable
Canister Purge - MAP Enable
Canister Purge - MAP Disable
Canister Purge - TPS Enable
Canister Purge - TPS Disable
Min Canister Purge Duty Cycle (Low TPS)
Fast O2 R/L Voltage Hysteresis
Fast O2 R/L Voltage Hysteresis - A.I.R.
Fast O2 Rich/Lean Threshold at Idle
Fast O2 R/L Threshold Hysteresis at Idle
Upper Zero Error Ref Slow O2 R/L at Idle
Lower Zero Error Ref Slow O2 R/L at Idle
AIR Divert Enable Coolant Temp.
AIR Divert O2 mV Rich/Lean Thresh Reduc.
Road Speed Constant
Instrument Panel VSS Pulse Divisor
C.A.R.S. Enable Coolant Temp.
MAP Too High Error (DTC 33) Enable TPS

Tables

ECM Switch Table
ECM Constant Table
Main Spark Advance Vs. RPM Vs. Load
Main Spark Advance Vs. RPM Vs. Load (EXT)
Base Cool. Adv. Correction Vs. Load Vs. Cool. Temp
Start Up Spark Advance Vs. Coolant Temp.
Power Enrich. Spark Advance Vs. RPM
Closed TPS Spark Advance Vs. RPM
Highway Mode Spark Advance Vs. MAP
Spark Latency Time Correction Vs. RPM
Knock Attack Rate Vs. RPM (Deg/msec)
Knock Recovery Rate Vs. RPM (%/sec)
Low Octane Knock Retard Mult. Vs RPM
Low Octane Knock Retard Mult. Vs MAP
Maximum Knock Retard Vs. RPM (in P.E.)
Maximum Knock Retard Vs. MAP
Startup Spark Decay Delay Vs. Startup Cool. Temp.
Startup Spark Advance Decay Vs. Startup Cool. Temp
Volumetric Efficiency Vs. RPM Vs. MAP
Volumetric Efficiency Vs. RPM Vs. MAP , (EXT)
Volumetric Efficiency Multiplier Vs. Baro
TPS Threshold For Power Enrich. Vs RPM
TPS Threshold For PE Vs RPM, (High Coolant Temp.)
P.E. %Change to Fuel/Air Ratio Vs. Coolant Temp.
P.E. %Change to Fuel/Air Ratio Vs. RPM
Accel Enrich. Delta TPS Multiplier Vs. Delta TPS
Accel Enrich Delta TPS PW Factor Vs Async Pulse
Accel Enrich Delta TPS PW Factor Vs Coolant Temp.
Accel Enrich Delta MAP PW Multiplier Vs. Delta MAP
Accel Enrich Delta MAP PW Mult. Vs. Coolant Temp.
Accel Enrich Delta MAP PW Decay Factor Vs. Coolant
Accel Enrich Delta MAP Factor Multiplier Vs. TPS
Accel Enrich Delta MAP Enable Threshold Vs TPS
Accel Enrich TPS Filter Coefficient Vs. RPM
Decel Enlean Factor Vs. Injects in DE
Decel Enlean Factor Vs. Delta MAP
Decel Enlean Term Multiplier Vs. Coolant Temp.
Open Loop Change to Fuel/Air Vs. Coolant Temp.
Open Loop Change to Fuel/Air Vs. MAP

Highway Mode Air/Fuel Ratio Vs. MAP
Injector PW Correction Vs. Battery Voltage
Low Pulse Width Injector Offset Vs. BPW
MAT Compensation Counts Vs. MAT
Inv. MAT Term Lookup Delta Multiplier Vs Airflow
Start Up Enrichment Vs. Coolant Temp.
Start Up Enrich Decay Amount Vs. Coolant Temp.
Start Up Enrich Decay Delay Vs. Coolant Temp.
Crank Fuel PW Multiplier Vs. Ref. Pulses (1-16)
Crank Fuel PW Multiplier Vs. Ref. Pulses (>17)
Crank Fuel Pulse Width Vs. Coolant Temp.
Crank Fuel Delivery Delay Vs. MAT
Startup Enrichment Offset Vs. MAT
DFCO Enable TPS Threshold Vs. RPM
BLM Cell RPM Boundaries
BLM Cell MAP Boundaries
O2 Closed Loop Time Delay Vs. Coolant Temp.
Fast O2 Rich/Lean Threshold Vs. MAP
Rich/Lean Offset Vs. Coolant Temp.
Upper Zero Error Reference for Slow O2 R/L Vs. MAP
Lower Zero Error Reference for Slow O2 R/L Vs. MAP
Closed Loop Fuel Integrator Delay Vs. AirFlow
Slow O2 Filter Coefficient Vs. AirFlow
Proportional Step Size Gain Vs. AirFlow
Proportional Step Duration Offset Vs. RPM
Proportional Step Size Vs. Error
Proportional Step Duration Vs. Error
Integrator Delay Multiplier Vs. Error
Target Idle RPM Vs. Coolant Temp.
IAC Warm Park Position Vs. Coolant Temp.
IAC Warm Park Position Multiplier Vs. Baro
Idle Speed Timeout Steps vs Coolant Temp.
Idle Spark Retard Vs. Idle Speed Error
Idle Spark Advance Vs. Idle Speed Error
Stall Saver Spark Advance RPM Thresholds
IAC Manual Throttle Follower Offset Vs. MPH
Idle Spark Retard Multiplier Vs. MAP
Idle Spark Advance Multiplier Vs. MAP
Idle Deadband Max RPM Error Vs. Gear
Throt. Follow Extend Decay Timer Vs. Gear
Hot Restart Command Speed Offset Vs. MAT
EGR % Duty Cycle Vs. Vacuum Vs. RPM
EGR Duty Cycle Multiplier Vs. Coolant Temp.
TCC Unlock %TPS Vs. Speed (Low Gears)
TCC Lock %TPS Vs. Speed (Low Gears)
TCC Unlock %TPS Vs. Speed (High Gear)
TCC Lock %TPS Vs. Speed (High Gear)
E-Light On %TPS Threshold Vs. RPM
E-Light Off %TPS Threshold Vs. RPM
E-Light On Delay Modifier Vs. %TPS
Fan On/Off Coolant Temp Thresholds
High RPM DRPs for Engine Run Vs. Cool. Temp.
Barometric Pressure Offset Vs. RPM Vs. TPS