

C.A.T.S. Tuner ECM NS4 Parameter List

(ECM Configuration File Version F)

ECM Switch Parameters

VATS Option (X = Enabled)
No Distributor Signal (Error 12)
Right O2 Sensor Not Ready (Error 13)
Shorted Coolant Sensor (Error 14)
Open Coolant Sensor (Error 15)
Generator Volt. Out of Range (Error 16)
Left O2 Sensor Not Ready (Error 17)
Executive Loop Overrun (Error 18)
Shorted Fuel Pump Circuit (Error 19)
Open Fuel Pump Circuit (Error 20)
Shorted TPS Circuit (Error 21)
Open TPS Circuit (Error 22)
EST/Bypass Circuit (Error 23)
Speed Sensor Circuit (Error 24)
Shorted Throttle Switch (Error 26)
Open Throttle Switch (Error 27)
Open 3rd/4th Gear Discrete (Error 28)
Shorted 3rd/4th Gear Switch (Error 29)
Idle Speed Control Circuit (Error 30)
Shorted MAP Sensor (Error 31)
Open MAP Sensor (Error 32)
MAP Sensor Signal High (Error 34)
Shorted MAT Sensor (Error 37)
Open MAT Sensor (Error 38)
TCC Engagement Problem (Error 39)
Open P/S Pressure Switch (Error 40)
CAM Sensor Circuit (Error 41)
Left O2 Sensor Lean (Error 42)
Left O2 Sensor Rich (Error 43)
Right O2 Sensor Lean (Error 44)
Right O2 Sensor Rich (Error 45)
Right to Left Fuel Imbalance (Error 46)
BCM-ECM Data Problem (Error 47)
EGR System Fault (Error 48)
A.I.R. Management System (Error 49)
2nd Gear Pressure Disc. (Error 50)
EPROM Checksum (Error 51)
ECM Memory Reset (Error 52)
Dist. Signal Interrupt (Error 53)
ISC System Problem (Error 54)
TPS Out of Adjustment (Error 55)
VATS Malfunction (Error 58)
C/C Trans. Not in Drive (Error 60)
C/C Vent Solenoid (Error 61)
C/C Vacuum Solenoid (Error 62)
C/C Speed/Set Speed Error (Error 63)
C/C Vehicle Accel High (Error 64)
C/C Servo Position Sensor (Error 65)
C/C Engine RPM High (Error 66)
C/C Switch Enabled Too Long (Error 67)
C/C Servo Stroke Too Large (Error 68)
T/C Active in Cruise (Error 69)
Intermittent Throttle Pos. (Error 70)

Intermittent MAP (Error 71)
Intermittent MAT (Error 74)
Intermittent Vehicle Speed (Error 75)
Fuel System Rich (Error 80)
Brake Input Problem (Error 90)
PRNDL Input Problem (Error 91)
Heated W/S Request Too Long (Error 92)
Engien Stall Detected (Error 95)
Torque Conv. Overstress (Error 96)
P/N - Drive at High Throttle (Error 97)
P/N - Drive at High RPM (Error 98)
C/C Servo Stroke High (Error 99)

ECM Constants

Low Fan On Coolant Temp.
Low Fan Off Coolant Temp.
High Fan On Coolant Temp.
High Fan Off Coolant Temp.
Min. Low Fan On Time
Warm Start Spark Adv. Enable Cool Temp
Fuel Cutoff RPM
Fuel Resume RPM
Fuel Cutoff Vehicle Speed
Fuel Resume RPM After MPH Cutoff
MAT Spark Comp. Enable Throttle Angle
Altitude Spark Enable Baro Threshold
EGR Spark Ramp-in Delay
EGR Spark Ramp-out Delay
EGR Spark Ramp-in Update Period
EGR Spark Ramp-Out Update Period
Heavy Load Spark Retard Enable MAP
Base Pulse Constant
Stoichiometric AFR
Power Enrich. Enable RPM
Low Throttle Angle P.E. Disable RPM
Low Throttle Angle P.E. Enable RPM
Low Throttle Angle P.E. Enable Throt.
Sync. A.E. Enable Delta MAP Threshold
Sync. A.E. Disable Delta MAP Threshold
Time-out AFR Decay Multiplier
Warm Start AFR Baro High/Low Threshold
Key-on Prime Pulse Disable Cool. Temp.
Maximum Allowable Open Loop AFR
Engine Cooling Enrich Enable Cool Temp.
Engine Cooling Enrichment Factor
Block Learn Low MAP Enable Threshold
Block Learn High MAP Disable Threshold
Block Learn Low RPM Enable Threshold
Block Learn High RPM Disable Threshold
BLM Step Size
BLM MAP Boundary Hysteresis
BLM RPM Boundary Hysteresis
Minimum Closed Loop BLM
Minimum Open Loop BLM
Minimum BLM - Partial CCP
Maximum Closed Loop BLM
Maximum Open Loop BLM
Decel Enlean Enable Vehicle Speed
Decel Enlean Disable Vehicle Speed
Decel Enlean Disable RPM

DFCO Enable Delay - High MPH
DFCO Enable RPM Threshold
DFCO Disable RPM Threshold
DFCO Disable MAP Threshold
DFCO High/Low Vehicle Speed Threshold
CCP Enable Coolant Temp.
CCP Enable Vehicle Speed
EGR Disable Low RPM Threshold
EGR Enable Low RPM Threshold
EGR Disable High RPM Threshold
EGR Enable High RPM Threshold
EGR Disable High MAP Threshold
EGR Enable High MAP Threshold
Baro Update Enable Throttle Angle
Part Throttle Baro Update Enable T. A.
A/C Anticipate Extend/Retract P. W. Mult
P/N -> Gear Anticipate Max. MPH
Gear -> P/N Anticipate Max. MPH
P/N -> Gear Anticip. Extend - A/C - P/S
P/N -> Gear Anticip. Extend - A/C
P/N -> Gear Anticip. Extend - P/S
P/N -> Gear Anticip. Extend
P/N -> Gear Anticip. Extend - HEL
Gear -> P/N Anticip. Retract - A/C - P/S
Gear -> P/N Anticip. Retract - A/C
Gear -> P/N Anticip. Retract - P/S
Gear -> P/N Anticip. Retract
Gear -> P/N Anticip. Retract - HEL
Speed Pulses Per Mile
1 -> 2 Shift RPM
2 -> 3 Shift RPM
3 -> 4 Shift RPM

Tables

ECM Switch Table
ECM Constant Table
Main Spark Advance Vs. RPM Vs. MAP - EGR Off
Main Spark Advance Vs. RPM Vs. MAP - EGR On
Warm Start Spark Advance Vs. RPM
Warm Start Spark Altitude Multiplier Vs. Baro
Coolant Temp Spark Compensation Vs, Cool. Temp.
Cool Temp Spark Comp. Vs, Cool. Temp. at Idle
MAT Spark Advance Correction Factor Vs. MAT
MAT Spark Advance Compensation Vs. MAT at Idle
Altitude Spark Retard Vs. RPM - EGR Off
Alt. Spark Retard Multiplier Vs. Baro - EGR Off
Altitude Spark Advance Vs. RPM Vs. MAP - EGR On
Alt. Spark Retard Multiplier Vs. Baro - EGR On
Maximum Idle Spark Advance Vs. Baro - In P/N
Maximum Idle Spark Advance Vs. Baro - In Drive
Idle Under-speed Spark Vs. RPM Error - In Drive
Idle Under-speed Spark Vs. RPM Error - In P/N
Idle Over-speed Spark Vs. RPM Error - In Drive
Idle Over-speed Spark Vs. RPM Error - In P/N
Heavy Load Spark Retard Vs. RPM
Heavy Load Spark Retard Factor Vs. MAT- Low Gears
Heavy Load Spark Retard Factor Vs. MAT- High Gear
Base Pulse Compensation Vs. MAT
Volumetric Efficiency Vs. RPM Vs. MAP
EGR V.E. Correction Vs. RPM Vs. MAP

P. E. Enable Throttle Angle Vs. Baro Vs. MPH
Minimum P.E. AFR Vs. Coolant Temp.
Sync. A.E. Pulse Width Vs. MAP
Sync. A.E. MAT Correction Vs. MAT
Sync. A.E. Time-out Multiplier Vs. Coolant Temp.
Sync. A.E. Time-out Mult. Decay Step Vs. Cool Temp
Altitude Fuel Compensation at Idle Vs. Baro
BLM RPM Cell Boundaries
BLM MAP Cell Boundaries
Unfiltered O2 Rich Threshold Vs. MAP
Unfiltered O2 Lean Threshold Vs. MAP
Filtered O2 Rich Threshold Vs. MAP
Filtered O2 Lean Threshold Vs. MAP
Decel Enlean Delta MAP Multiplier Vs. Delta Map
D.E. Delta Throttle Angle Mult. Vs. Delta T. A.
P.W. Decel Enlean Multiplier Vs. Time in D.E.
Decel. Enlean Coolant Comp. Factor Vs. Cool. Temp.
Injector Offset Vs. Battery Voltage
Crank AFR Vs. Coolant Temp.
Initial Time-out AFR Vs. Coolant Temp.
Time-out AFR Decay Delay Vs. Coolant Temp.
Hot/Cold Start AFR Vs. Coolant Temp.
Time-out AFR Decay Step Period Vs. Coolant Temp.
Warm Start AFR Vs. Coolant Temp.
Hot/Cold Start AFR Correction Vs. MAP
Warm Start AFR Correction Vs. MAP - High Baro
Warm Start AFR Correction Vs. MAP - Low Baro
Cold Prime Pulse Width Vs. Cool. Temp.
Hot Prime Pulse Width Vs. Cool. Temp.
DFCO Enable Delay Vs. RPM - Low MPH
Desired Idle Speed Vs. Cool. Temp. - in P/N
Desired Idle Speed Vs. Cool. Temp. - in Gear
Minimum Desired RPM Vs Vehicle Speed
Desired Idle RPM Altitude Multiplier Vs Baro
Maximum Idle RPM Limit Vs. Coolant Temp.
RPM Error Extend P. W. Vs. RPM Error - In Gear
RPM Error Extend P. W. Vs. RPM Error - In P/N
RPM Error Extended Correction Vs. Cool Temp.
RPM Error Retract Correction Vs. Cool Temp.
RPM Error Retract P. W. Vs. RPM Error - In Gear
RPM Error Retract P. W. Vs. RPM Error - In P/N
RPM Rate Extend Pulse Width Vs. RPM Rate
Over-speed RPM Rate Extend Pulse Width Vs RPM Rate
Under-speed RPM Rate Extend P. W. Vs. RPM Rate
P/N -> Gear Anticip. Extend Comp. Vs. Trans. Temp.
Gear -> P/N Anticip. Retract Comp. Vs Trans. Temp.
TCC Apply MPH Vs. Throttle Angle - 3rd Gear
TCC Release MPH Vs. Throttle Angle - 3rd Gear
TCC Apply MPH Vs. Throttle Angle - 4th Gear
TCC Release MPH Vs. Throttle Angle - 4th Gear
1->2 Normal Shift Vehicle Speed Vs. Throttle Angle
2->1 Normal Shift Vehicle Speed Vs. Throttle Angle
1->2 Hot Shift Vehicle Speed Vs. Throttle Angle
2->1 Hot Shift Vehicle Speed Vs. Throttle Angle
1->2 Shift Speed Correction Vs. Cool. Temp.
1->2 Shift Speed Alt. Offset Vs. Throttle Angle
1->2 Shift Speed Alt. Offset Correction Vs. Baro
1->2 Shift RPM Correction Vs. Coolant Temp.
2->3 Normal Shift Vehicle Speed Vs. Throttle Angle
3->2 Normal Shift Vehicle Speed Vs. Throttle Angle
2->3 Hot Shift Vehicle Speed Vs. Throttle Angle
3->2 Hot Shift Vehicle Speed Vs. Throttle Angle
2->3 Shift Speed Correction Vs. Cool. Temp.

2->3 Shift Speed Alt. Offset Vs. Throttle Angle
2->3 Shift Speed Alt. Offset Correction Vs. Baro
2->3 Shift RPM Correction Vs. Coolant Temp.
3->4 Normal Shift Vehicle Speed Vs. Throttle Angle
4->3 Normal Shift Vehicle Speed Vs. Throttle Angle
4->3 Hot Shift Vehicle Speed Vs. Throttle Angle
3->4 Hot Shift Vehicle Speed Vs. Throttle Angle
3->4 Shift Speed Alt. Offset Vs. Throttle Angle
3->4 Shift Speed Alt. Offset Correction Vs. Baro