

Vehicle Information Input Data Record Layout

Field Name	Record Type	Transaction Type						Position	Length	Data Type	Valid Range/Entry Criteria
		Add	Modify	Delete	Change	Report	Carry Over				
Input Record Type	V1	R	R	R	R	R	R	1-2	2	A	V1
Process Code	V1	R	R	R	R	R	R	3-3	1	A	For Add: 'A' or blank - '' For Modify: 'M' For Delete: 'D' For Change: 'N' For Report: 'P' For Carry Over: 'C' For Carry Across: 'N'
Manufacturer Code	V1	R	R	R	R	R	R	5-8	4	I	Valid MANUFACTURER CODE
Division Code	V1	R	R	R	R	R	R	10-11	2	I	Note: Must be associated with a MANUFACTURER CODE. Valid DIVISION CODE
Car Line Code	V1	R	X		X		X	13-15	3	I	Valid CAR LINE CODE
Vehicle Id	V1	R	R	R	R	R	R	17-36	20	A	Text
Vehicle Configuration Number	V1		R	R	R	R	R	38-39	2	I	Note: MANUFACTURER CODE, VEHICLE ID, VEHICLE CONFIGURATION NUMBER, and CERTIFICATION MODEL YEAR combination must already exist in the data base. Must be a valid VEHICLE CONFIGURATION NUMBER for this MANUFACTURER CODE/VEHICLE ID combination.
Actual Vehicle Model	V1	X						41-60	20	A	Text
Drive Code	V1	R	X		X			62-62	1	A	1 - Rear Drive, Left-hand Steering 2 - Rear Drive, Right-hand Steering 3 - Front Drive, Left-hand Steering 4 - Front Drive, Right-hand Steering 5 - 4-Wheel Drive, Left-hand Steering 6 - 4-Wheel Drive, Right-hand Steering
Certification Model Year	V1	R	R	R	R	X	R	64-67	4	I	Note: Certification Model Year serves as FROM year for Carry Over 1970-2100
Certification Model To Year	V1						R	69-72	4	I	Note: For Carry Over only. 1970-2100

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Data Type: A = Alphanumeric D = Date I = Integer R = Real

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	R	A	M	D	C	R	C				
Record Type											
Source Code	V1	R						74-75	2	A	<i>Note:</i> Default value is '01'. 01 - Manufacturer
Vehicle Purpose	V1	R	X		R		X	77-78	2	A	<i>Note:</i> The Change Transaction is not allowed for '02' - Cert Durability Data Vehicles. 01 - Cert Emission Data 02 - Cert Durability Data (Obsolete) 03 - Cert Fuel Economy Data 05 - Cert Development 09 - Interim 1994 Cert 22 - ICI Cert
Turbocharger/ Supercharger	V1	R						80-80	1	A	New field (required) T - Turbocharger S - Supercharger N - None
Catalyst	V1	R						82-83	2	I	New field (required) 1 - Oxygen Catalyst Only 2 - Reduction Catalyst 3 - 3-Way Catalyst 4 - 3-Way + Oxygen Catalyst 5 - 3-Way + Oxygen Catalyst (Light-Off/ Close Coupled) 6 - Heated Catalyst 7 - Heated Catalyst (Light-Off/ Close Coupled) 8 - No Catalyst 99 - Other (Contact EPA Prior to Use)
Input Record Type	V2	R	R		R			1-2	2	A	V2
Design Curb Weight	V2	R	X		X			4-9	6	I	001000 # WEIGHT # 010000
Design Equivalent Test Weight	V2	R	X		X			11-16	6	I	001000 # WEIGHT# 010000
MFR ETW Units Code	V2	R	X		X			18-18	1	A	P - Pounds K - Kilograms
Design Gross Vehicle Weight	V2	R	X		X			20-25	6	I	<i>Note:</i> Not required for LDV. 000000 - 20000

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Field Name	Record Type	Transaction Type							Position	Length	Data Type	Valid Range/Entry Criteria
		A	M	D	C	R	C	O				
Displacement	V2	R	X		X				27-33	7 (6,1)	R	Note: If reported in Cubic Inches, 40 # DISPL # 500. Convert to Cubic Centimeters. 00000.0 # DISPL # 08193.5
Displacement Units	V2	R	X		X				35-37	3	A	E - Cubic Inches or Inches M - Cubic Centimeters or Millimeters CID - Cubic Inches Displacement CC - Cubic Centimeters CMM - Cubic Millimeters L - Liters
Rated Horsepower	V2	R	X		X				39-42	4	I	0025 # RTD HP # 1000
Engine Type Code	V2	R	X		X				44-45	2	A	Note: Must be 01-03 for Cert vehicles, 01-99 for Non-cert vehicles. 01 - Otto Spark 02 - Stratified Charge 03 - Diesel 04 - Gas Turbine 05 - Rankine 06 - Stirling 07 - Hybrid 99 - Other E - Electric
Number Of Cylinders	V2	R	X		X				47-48	2	I	02 # CYLINDERS # 12
Number of Valves per Cylinder	V2	R	X		X				50-51	2	I	00 - 09
Compression Ratio	V2	R	X		X				53-57	5 (4,1)	R	006.0 # RATIO # 025.0
Ignition Timing #1	V2	X	X		X				59-62	4 (3,1)	R	00.0 - 99.0
Ignition Timing #1 Before/After Code	V2	X	X		X				64-64	1	A	Note: Required if IGNITION TIMING #1 has been entered. A - After B - Before
Ignition Timing RPM	V2	X	X		X				66-70	5	I	Note: Required if IGNITION TIMING #1 has been entered. 00200 # ITR # 03200

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		Add	Modify	Delete	Change	Report	Carry Over				
Ignition Timing RPM Tolerance	V2	X	X		X			72-75	4	I	<i>Note:</i> Required if IGNITION TIMING #1 has been entered. If the tolerance is asymmetrical around the specification, leave the field blank and indicate the tolerances in comments. 0 - 200
Running Change Number Text	V2	X	X		X			77-87	11	A	Text
Input Record Type	V3	R	R		R		R	1-2	2	A	V3
Ignition Timing Degree Tolerance	V3	X	X		X			3-5	3	I	<i>Note:</i> Enter only if IGNITION TIMING #1 is not blank. If the tolerance is asymmetrical around the specification, leave the field blank and indicate the tolerances in comments. 0 - 10
Ignition Timing Gear Code	V3	X	X		X			7-7	1	A	<i>Note:</i> Entered only if IGNITION TIMING #1 is not blank. N - Neutral D - Drive P - Park
Idle RPM	V3	X	X		X			9-13	5	I	<i>Note:</i> Value must be taken from tune-up specifications. 00200 # IDLE RPM # 03200
Idle RPM Tolerance	V3	X	X		X			15-18	4	I	<i>Note:</i> Enter when IDLE RPM > 0. IDLE RPM TOL # 0200
Idle Gear Code	V3	X	X		X			19-19	1	A	<i>Note:</i> Enter when IDLE RPM > 0. N - Neutral D - Drive P - Park E - Either Neutral or Drive
A/C Installed	V3	R	X		X			21-21	1	A	Y - Yes N - No
Engine Code	V3	R	X		X		X	23-36	14	A	<i>Note:</i> May be left blank on VI submissions describing Durability-data vehicles. Text

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Field Name	Transaction Type							Position	Length	Data Type	Valid Range/Entry Criteria
	R	A	M	D	C	R	C				
Engine Family/ Test Group Name	V3	R	X		X		R	38-49	12	A	Valid ENGINE FAMILY/TEST GROUP NAME
Engine System Number	V3	R	X		X		R	51-52	2	I	<i>Note:</i> DF Type must be identified in the engine family information. This field is required to process Engine Family and System information. The system shall assign a value of '01' as a default if Engine Family Name is correct and the value of Engine System Number is null, invalid on input, or incorrect. A null value shall be assigned if Engine Family Name is incorrect. Valid ENGINE SYSTEM NUMBER from ESL.
Emission Control System - Exhaust OBSOLETE	V3	X	X		X			54-56	3	I	OBSOLETE
Emission Control System - Exhaust OBSOLETE	V3	X	X		X			58-60	3	I	OBSOLETE
Emission Control System - Exhaust OBSOLETE	V3	X	X		X			62-64	3	I	OBSOLETE
Emission Control System - Exhaust OBSOLETE	V3	X	X		X			66-68	3	I	OBSOLETE
Emission Control System - Exhaust OBSOLETE	V3	X	X		X			70-72	3	I	OBSOLETE
Emission Control System - Evaporative	V3	R	X		X			74-76	3	A	Evaporative: 101 - Crankcase 102 - Canister 103 - Tank 104 - None 105 - Canister and Charcoal Air Cleaner 199 - Other

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		Add	Modify	Delete	Change	Report	Carrier Over				
Input Record Type	V4	R	R		R		R	1-2	2	A	V4
Evaporative/Refueling Family Name	V4	R	X		X		R	3-14	12	A	<i>Note:</i> May Not Be Required for 'Diesel'. Valid EVAPORATIVE/REFUELING FAMILY NAME
Evaporative System Number	V4	R	X		X		R	16-17	2	I	<i>Note 1:</i> Not Required for 'Diesel'. <i>Note 2:</i> DF Type must be identified in the evaporative family information. If DF Type is missing, an error or warning condition shall be generated, however this shall not prevent processing of the VI data. This field is required to process Evaporative Family and System information. The system shall assign a value of '01' as a default if Evaporative Family Name is correct and the value of Evaporative System Number is null, invalid on input, or incorrect. A null value shall be assigned if Evaporative Family Name is incorrect. Valid EVAPORATIVE SYSTEM NUMBER from ESI file.
Design Full Tank Drive Axle Weight	V4	R	X		X			19-24	6	I	000250 # WEIGHT # 008000
Design Empty Tank Drive Axle Weight	V4	R	X		X			26-31	6	I	000200 # WEIGHT # 008000
Design 40% Drive Axle Weight	V4	R	X		X			33-38	6	I	000000 - 999999
MFR Weight Unit Code	V4	R	X		X			40-40	1	A	P - Pounds K - Kilograms

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Field Name	Transaction Type							Position	Length	Data Type	Valid Range/Entry Criteria
	R	A	M	D	C	R	C				
	ecord Type	ddify	odel	elent	hange	eport	arryover				
Sales Area Code	V4	R	X		X		X	42-43	2	A	CA - California + 177 States (includes California Tier 1, TLEV-I, LEV-I, ULEV-I, SULEV-I, LEV-II, LEV-II Opt I, ULEV-II, SULEV-II and ZEV vehicles) FA - Federal Tier 2 (Bins 1-11); Federal Interim Non-Tier 2 (Bins 1-11); Federal All Altitude (Tier 1 for LDV, LLDT; Tier 1, LEV or ULEV, for HLDT, which becomes obsolete in 2004 for all except small volume hardship vehicles and HLDTs certified via 86.1811-04(l)(2)(vii); obsolete in 2005 for all vehicles). NL - NLEV - All States Trading Region (TLEV, LEV, ULEV, ZEV). May be used in combination with FA Tier 2 (Bins 1-11) for early Tier 2 credits or with FA Interim Non-Tier 2 (Bin 1-11); obsolete in 2004. CF - Federal Clean Fueled Fleet Areas (LEV, ULEV, ILEV, ZEV) If Certified to Same Standards: CL - CA + NL (Obsolete in 2004) NF - CA + NL + CF (Obsolete in 2004) FC - Federal and California - Tier 2 only

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Field Name	Transaction Type							Position	Length	Data Type	Valid Range/Entry Criteria
	R e c o r d T y p e	A d d	M o d i f y	D e l e t e	C h a n g e	R e p o r t	C a r r y O v e r				
Sales Area Code	V4	X	X		X		X	45-46	2	A	CA - California + 177 States (includes California Tier 1, TLEV-I, LEV-I, ULEV-I, SULEV-I, LEV-II, LEV-II Opt I, ULEV-II, SULEV-II and ZEV vehicles) FA - Federal Tier 2 (Bins 1-11); Federal Interim Non-Tier 2 (Bins 1-11); Federal All Altitude (Tier 1 for LDV, LLDT; Tier 1, LEV or ULEV, for HLDT, which becomes obsolete in 2004 for all except small volume hardship vehicles and HLDTs certified via 86.1811-04(l)(2)(vii); obsolete in 2005 for all vehicles). NL - NLEV - All States Trading Region (TLEV, LEV, ULEV, ZEV). May be used in combination with FA Tier 2 (Bins 1-11) for early Tier 2 credits or with FA Interim Non-Tier 2 (Bin 1-11); obsolete in 2004. CF - Federal Clean Fueled Fleet Areas (LEV, ULEV, ILEV, ZEV) If Certified to Same Standards: CL - CA + NL (Obsolete in 2004) NF - CA + NL + CF (Obsolete in 2004) FC - Federal and California - Tier 2 only

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	R e c o r d T y p e	A d d	M o d i f y	D e l e t e	C h a n g e	R e p o r t	C a r r y O v e r				
Sales Area Code	V4	X	X		X		X	48-49	2	A	CA - California + 177 States (includes California Tier 1, TLEV-I, LEV-I, ULEV-I, SULEV-I, LEV-II, LEV-II Opt I, ULEV-II, SULEV-II and ZEV vehicles) FA - Federal Tier 2 (Bins 1-11); Federal Interim Non-Tier 2 (Bins 1-11); Federal All Altitude (Tier 1 for LDV, LLDT; Tier 1, LEV or ULEV, for HLDT, which becomes obsolete in 2004 for all except small volume hardship vehicles and HLDTs certified via 86.1811-04(l)(2)(vii); obsolete in 2005 for all vehicles). NL - NLEV - All States Trading Region (TLEV, LEV, ULEV, ZEV). May be used in combination with FA Tier 2 (Bins 1-11) for early Tier 2 credits or with FA Interim Non-Tier 2 (Bin 1-11); obsolete in 2004. CF - Federal Clean Fueled Fleet Areas (LEV, ULEV, ILEV, ZEV) If Certified to Same Standards: CL - CA + NL (Obsolete in 2004) NF - CA + NL + CF (Obsolete in 2004) FC - Federal and California - Tier 2 only

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Field Name	R e c o r d T y p e	Transaction Type						P o s i t i o n	L e n g t h	D a t a T y p e	Valid Range/Entry Criteria
		A d d	M o d i f y	D e l e t e	C h a n g e	R e p o r t	C a r r y O v e r				
Sales Area Code	V4	X	X		X		X	51-52	2	A	CA - California + 177 States (includes California Tier 1, TLEV-I, LEV-I, ULEV-I, SULEV-I, LEV-II, LEV-II Opt I, ULEV-II, SULEV-II and ZEV vehicles) FA - Federal Tier 2 (Bins 1-11); Federal Interim Non-Tier 2 (Bins 1-11); Federal All Altitude (Tier 1 for LDV, LLDT; Tier 1, LEV or ULEV, for HLDT, which becomes obsolete in 2004 for all except small volume hardship vehicles and HLDTs certified via 86.1811-04(l)(2)(vii); obsolete in 2005 for all vehicles). NL - NLEV - All States Trading Region (TLEV, LEV, ULEV, ZEV). May be used in combination with FA Tier 2 (Bins 1-11) for early Tier 2 credits or with FA Interim Non-Tier 2 (Bin 1-11); obsolete in 2004. CF - Federal Clean Fueled Fleet Areas (LEV, ULEV, ILEV, ZEV) If Certified to Same Standards: CL - CA + NL (Obsolete in 2004) NF - CA + NL + CF (Obsolete in 2004) FC - Federal and California - Tier 2 only
Input Record Type	V5	R	R		R			1-2	2	A	V5
Tire Manufacturer	V5	R	X		X			3-13	11	A	Text
Tire Construction Code	V5	R	X		X			15-15	1	A	1 - Bias Belted 2 - Radial 3 - Bias
Recommended In-Use Front Tire Pressure	V5	R	X		X			17-19	3	I	000 - 999
Recommended In-Use Rear Tire Pressure	V5	R	X		X			21-23	3	I	000 - 999
Tire Pressure Units	V5	R	X		X			25-28	4	A	PSI - Pounds per Square Inch
Axle Ratio	V5	R	X		X			30-33	4 (3,2)	R	2.00 # RATIO # 6.00
N/V Ratio	V5	R	X		X			35-39	5 (4,1)	R	020.0 # RATIO # 095.0
Tire and Rim Size	V5	R	X		X			41-50	10	A	<i>Note:</i> Must be the tire and rim diameter imprinted on the sidewall. Text

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Field Name	Transaction Type							P o s i t i o n	L e n g t h	D a t a T y p e	Valid Range/Entry Criteria
	R e c o r d T y p e	A d d	M o d i f y	D e l e t e	C h a n g e	R e p o r t	C a r r y O v e r				
Transmission Configuration	V5	R	X		X			52-53	2		00 - C-4 (Creeper) (M-4) Manual 4-speed 01 - Auto Automatic 02 - M-3 Manual 3-speed 03 - M-4 (No Creeper) Manual 4-speed 04 - M-5 Manual 5-speed 05 - S-A Semi-Automatic 06 - A-3 (No Lock-up) Automatic/3-speed 07 - L-3 Lock-up/Automatic/3-speed 08 - A-4 (No Lock-up) Automatic/4-Speed 09 - L-4 Lock-up/Automatic/4-speed 10 - C-5 (Creeper) (M-5) Manual 5-speed 15 - S-2 Semi-Automatic 2-speed 16 - S-3 Semi-Automatic 3-speed 17 - S-4 Semi-Automatic 4-speed 18 - S-5 Semi-Automatic 5-speed 19 - A-V Automatic Variable Gear Ratios 20 - M-6 Manual 6-speed 21 - A-5 (No Lock-up) Automatic/5-speed 22 - L-5 Lock-up/Automatic/5-speed 23 - C-6 (Creeper) (M-6) Manual 6-speed 24 - A-6 (No Lock-up) Automatic/6-speed 25 - S-6 Semi-Automatic/6-speed 26 - L-6 Lock-up/Automatic/6-speed

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		A d d	M o d i f y	D e l e t e	C h a n g e	R e p o r t	C a r r y O v e r				
Multi-Mode Position Code	V5	X	X		X			55-55	1	A	P - Power E - Economy M - Mid-range O - Other
Odometer Units Code	V5	R	X		X			57-57	1	A	M - Miles K - Kilometers
Odometer Correction Sign	V5	R	X		X			59-59	1	A	'+' - System Miles = (Test Odometer Reading * Correction Factor) + Initial System Miles '-' - System Miles = (Test Odometer Reading - Initial System Miles) * Correction Factor
Odometer Correction Initial	V5	R	X		X			61-68	8 (7,1)	R	000000.0 - 999999.9
Odometer Correction Factor	V5	R	X		X			70-75	6 (5,4)	R	0.0000 - 9.9999
Input Record Type	VP	R	R	R	X			1-2	2	A	VP
Evaporative System Information Process Code	VP	X	R	R	R			3-3	1	A	For Add: 'A' or blank - '' For Modify: 'M' For Delete: 'D'
Evaporative Emission Code	VP	R	X		X			5-20	16	A	Text <i>Note:</i> Required if test vehicle is gasoline fueled. Leave blank if the vehicle is diesel-powered or if submission describes a gasoline-fueled durability-data vehicle. A value can be entered for each combination of CANISTER TYPE CODE, BED VOLUME PER CANISTER, and WORKING CAPACITY PER CANISTER.
Canister Type Code	VP	R	R	R	R			22-22	1	A	<i>Note:</i> This field can have multiple values. E - Evaporative R - Refueling B - Evaporative and Refueling N - None

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		Add	Modify	Delete	Change	Report	Carry Over					
Bed Volume Per Canister	VP	R	R	R	X			24-28	5	I	<i>Note:</i> Value reported must be in Cubic Centimeters. This field can have multiple values. 00000 - 99999	
Working Capacity Per Canister	VP	R	R	R	X			30-33	4	I	<i>Note:</i> Value reported must be in Grams. This field can have multiple values. 0000 - 9999	
Total Number of Canisters	VP	R	R	R	X			35-36	2	I	<i>Note:</i> A value can be entered for each combination of CANISTER TYPE CODE, BED VOLUME PER CANISTER, and WORKING CAPACITY PER CANISTER. 00-99	
Alternate Canister Loading Rate For The 3-Diurnal Test	VP	X	X		X			38-42	5 (4,1)	R	<i>Note:</i> Enter if loading rate is other than 15 grams butane per hour. Value reported must be in Grams. A value can be entered for each combination of CANISTER TYPE CODE, BED VOLUME PER CANISTER, and WORKING CAPACITY PER CANISTER. 000.0 - 999.9	
Catalyst Preheating Method Code	VP	R	X		X			44-44	1	I	0 - None 1 - Electric-metallic 2 - Electric Non-metallic 3 - Non-electric Metallic 4 - Non-electric Non-metallic 5 - Super Insulation (with heat retention)	
Input Record Type	VE	R						1-2	2	A	VE (New record) For 2001 or later only	
EERC Process Code	VE	X						3	1	A	For <i>Add:</i> 'A' or blank For <i>Delete:</i> 'D'	

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	R e c o r d T y p e	A d d	M o d i f y	D e l e t e	C h a n g e	R e p o r t	C a r r y O v e r				
EERC Code	VE	R						5-6	2	I	01 - Combination Chamber / Non-Conventional Valve Train 02 - Engine Modification (Diesel Only) 05 - Thermal Reactor 10 - Air Pump 11 - Pulsating Air System (Pulsating Air Injecton) 14 - Closed Loop (Heated O ² Sensor) 15 - 3-Way + CL (Heated O ² Sensor + Feedback) 16 - Oxidation Catalyst 17 - Reduction Catalyst 18 - 3-Way Catalyst 19 - Closed-Loop (Non-Heated O ² Sensor) 20 - 3-Way Catalyst + Closed Loop (Non-Heated O ² Sensor and Feedback Loop) 21 - Closed Loop Air Injection 31 - Ported EGR 32 - Back Pressure EGR 33 - Venture Vacuum Amplified EGR 34 - Direct Throttle Activated EGR 35 - Other Activated EGR 41 - Multiple Point Fuel Injection 42 - Throttle Body Fuel Injection 50 - Turbocharger 52 - Supercharger 60 - Detonation Sensor 61 - Electronic Controls - Analog 62 - Electronic Controls - Digital 91 - HC Adsorber 92 - NOX Adsorber 93 - Electrically Heated Catalyst 94 - Fuel Heated Catalyst 95 - Energy Storage Device (e.g.: Hybrid Vehicle) 96 - Regenerative Brakes 97 - Super Insulated Catalyst 98 - Catalytic Radiator (e.g. PremAir system) 99 - Other
Input Record Type	VF	R	R	R	R			1-2	2	A	VF

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	R	A	M	D	C	R	C				
	ecord Type	dd	odify	delete	hange	report	carry over				
Fuel Systems Information Process Code	VF	X	R	R	X			3-3	1	A	For Add: 'A' or blank - '' For Modify: 'M' For Delete: 'D'
Emission Standards Fuel Type Code	VF	R	R	R	R			5-7	3	A	Note: A minimum of one code is required for entry. G - Gasoline GM - Gasoline/Methanol GE - Gasoline/Ethanol D - Diesel M - Methanol E - Ethanol CD - CNG/Diesel L - Liquid Petroleum Gas (1994-1997) CNG - Compressed Natural Gas LNG - Liquefied Natural Gas LPG - Liquid Petroleum Gas (1998 & later) N - Not Applicable EL - Electric
Fuel System MFR/Model	VF	R	X		X			9-18	10	A	Note: A value can be entered for each emission standards fuel type. Text
MFR Nominal Main Fuel Tank Capacity	VF	R	X		X			20-25	6 (5,1)	R	Note: Enter volume in the units specified in tank capacity units code. A value can be entered for each Emission Standards Fuel Type Code entered. 0005.0 # MNMTC # 0099.0
MFR Nominal Auxiliary Fuel Tank Capacity	VF	X	X		X			27-31	5 (4,1)	R	Note: Must be blank if vehicle has no auxiliary fuel tank. Enter volume in the units specified in MFR FUEL TANK CAPACITY UNITS CODE. A value can be entered for each Emission Standards Fuel Type Code entered. 005.0 # MNATC # 050.0
MFR Fuel Tank Capacity Units Code	VF	R	X		X			33-34	2	A	Note: Required if MFR NOMINAL AUXILIARY TANK CAPACITY or MFR NOMINAL MAIN FUEL TANK CAPACITY is entered. A value can be entered for each Emission Standards Fuel Type Code entered. G - Gallons L - Liters

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Vehicle Information Input Data Record Layout

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	R e c o r d T y p e	A d d	M o d i f y	D e l e t e	C h a n g e	R e p o r t	C a r r y O v e r				
Fuel System (For 2001 or later only)	VF	R	X		X			36-37	2	I	New field (required) 0 - Multiple Carburetors 1 - 1 BBL 2 - 2 BBL 3 - 3 BBL 4 - 4 BBL 5 - TBI 6 - Mechanical MPI 7 - Elec. MPI - Simultaneous 8 - Elec. MPI - Sequential 9 - Central Port Injection 10 - Elec. CPI - Simultaneous 11 - Elec. CPI - Sequential 14 - CNG Mixer Unit 15 - Bifuel - (Two separate fuel systems) 16 - Direct Fuel Injection 17 - LPG Mixer Unit 98 - None (Electric) 99 - Other (Contact EPA Prior to Use)
Input Record Type	VT	R	R	R	X			1-2	2	A	VT
Test Information Process Code	VT	X	R	R	R			3-3	1	A	For Add: 'A' or blank - '' For Modify: 'M' For Delete: 'D'
Test Procedure Code	VT	R	R	R	R			5-6	2	I	Note: See description for Test Procedure in MTDS section of this Appendix. Multiple combinations of TEST PROCEDURE CODE and VI FUEL TYPE code can be entered.

Transaction Type: R = Required M = Required X = Optional “ ” = Not Available
Data Type: A = Alphanumeric D = Date I = Integer R = Real

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Field Name	Record Type	Transaction Type						Position	Length	Data Type	Valid Range/Entry Criteria
		Add	Modify	Delete	Change	Report	Carry Over				
VI Fuel Type Code	VT	R	R	R	R			8-9	2	I	<p><i>Note:</i> This field may not be altered once EPA tests have been conducted using this specification. Multiple combinations of TEST PROCEDURE CODE and VI FUEL TYPE code can be entered.</p> <ul style="list-style-type: none"> 03 - LPG 06 - Unleaded (at EPA-96 RON) 09 - Diesel (at EPA-#2 Diesel) 17 - Leaded (at EPA-Ind 15) 22 - Special Unleaded 91 RON 23 - Carb Phase II Gasoline (Cert) 24 - Cold CO Regular (Cert) 25 - Cold CO Premium (Cert) 26 - Cold CO Regular (Tier 2) 27 - Cold CO Premium (Tier 2) 31 - Methanol (Cert M10) 33 - Methanol (Cert M85) 37 - E10 (10% Ethanol 90% EPA Unleaded Gasoline) 38 - E85 (85% Ethanol 15% EPA Unleaded Gasoline) 41 - CNG (Cert) 43 - E10 (10% Ethanol 90% CAL Phase II Gasoline) 44 - E85 (85% Ethanol 15% CAL Phase II Gasoline) 61 - Tier 2 Unleaded (at EPA - 96 RON and 15-45 ppm Sulfur)
Shift Schedule Database Code	VT	R	X		X			11-11	1m	A	<p><i>Note:</i> The value must be entered if this is a Certification or Fuel Economy vehicle. This field may not be altered once EPA tests have been conducted using this specification. This information must be entered for each combination of TEST PROCEDURE CODE and VI FUEL TYPE CODE.</p> <ul style="list-style-type: none"> A - Manufacturers (for Cert) B - EPA VPCD (prev. CD) C - EPA TSD (prev. EOD) D - EPA MOD E - EPA FED (prev. FOSD) F - EPA ECTD G - EPA RDSO H - EPA AMD (prev. EPSD)

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Field Name	Record Type	Transaction Type						Position	Length	Data Type	Valid Range/Entry Criteria																					
		Add	Modify	Delete	Change	Report	Carry Over																									
Shift Schedule Id	VT	R	X		X			13-16	4	A	<p><i>Note:</i> This field may not be altered once EPA tests have been conducted using this specification. This information must be entered for TEST PROCEDURE CODES 02, 03, 11, 21, 25, 31, 35, 41, 45, 51, 52 and 90.</p> <p>Valid SHIFT SCHEDULE ID</p> <table border="0"> <tr> <td><u>Transmission Configuration</u></td> <td><u>EPA Standard</u></td> <td><u>Shift Schedule Id No.</u></td> </tr> <tr> <td>0 (C-4)</td> <td>FT3 (City)</td> <td>HW3 (Hwy)</td> </tr> <tr> <td>2 (M-3)</td> <td>FT3 (City)</td> <td>HW3 (Hwy)</td> </tr> <tr> <td>3 (M-4)</td> <td>FT4 (City)</td> <td>HW4 (Hwy)</td> </tr> <tr> <td>4 (M-5)</td> <td>FT5 (City)</td> <td>HW5 (Hwy)</td> </tr> <tr> <td>10 (C-5)</td> <td>FT4 (City)</td> <td>HW4 (Hwy)</td> </tr> <tr> <td>20 (M-6)</td> <td>FT6 (City)</td> <td>HW6 (Hwy)</td> </tr> </table> <p>0, 2, 3, 4, 10, 20 w/SIL FTS (City) HWS (Hwy) (C or M designator)</p> <p>6, 7, 8, 9, 21, 22 FTA (City) HWA (Hwy) (Automatic)</p> <p>New EPA standard shift schedule ID applicable to SFTP for automatic transmissions: US6A - for US06 (No standard SFTP shift schedules are available for manual transmissions.)</p>	<u>Transmission Configuration</u>	<u>EPA Standard</u>	<u>Shift Schedule Id No.</u>	0 (C-4)	FT3 (City)	HW3 (Hwy)	2 (M-3)	FT3 (City)	HW3 (Hwy)	3 (M-4)	FT4 (City)	HW4 (Hwy)	4 (M-5)	FT5 (City)	HW5 (Hwy)	10 (C-5)	FT4 (City)	HW4 (Hwy)	20 (M-6)	FT6 (City)	HW6 (Hwy)
<u>Transmission Configuration</u>	<u>EPA Standard</u>	<u>Shift Schedule Id No.</u>																														
0 (C-4)	FT3 (City)	HW3 (Hwy)																														
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3 (M-4)	FT4 (City)	HW4 (Hwy)																														
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10 (C-5)	FT4 (City)	HW4 (Hwy)																														
20 (M-6)	FT6 (City)	HW6 (Hwy)																														
Shift Indicator Light	VT	R	X		X			18-18	1	A	<p><i>Note:</i> This information can be entered for each combination of TEST PROCEDURE CODE and VI FUEL TYPE CODE.</p> <p>1 - Not Equipped 2 - Equipped, not shifted by SIL 3 - Equipped, shifted by SIL 5 - Equipped, shifted by Survey Schedule</p>																					
Side Fan Cooling Code	VT	R	X		X			27-27	1	A	<p><i>Note:</i> This information can be entered for each combination of TEST PROCEDURE CODE and VI FUEL TYPE CODE.</p> <p>Y - Yes, equipped with side fan N - No, not equipped with side fan</p>																					

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Vehicle Information Input Data Record Layout

Field Name	R e c o r d T y p e	Transaction Type						P o s i t i o n	L e n g t h	D a t a T y p e	Valid Range/Entry Criteria
		A d d	M o d i f y	D e l e t e	C h a n g e	R e p o r t	C a r r y O v e r				
ACHP Code (For tests on twin roll dynamometers)	VT	R	X		X			29-29	1	A	<i>Note:</i> This information can be entered for each combination of TEST PROCEDURE CODE and VI FUEL TYPE CODE. Y - Yes (Simulate Air Conditioning Horse Power) N - No (Do not Simulate Air Conditioning Horse Power)
Equivalent Test Weight Coastdown Vehicle	VT	X	X		X			31-35	5	I	<i>Note:</i> This information can be entered for each combination of TEST PROCEDURE CODE and VI FUEL TYPE CODE. 00000 - 99999
MFR Coastdown Time (Target Time of Test Vehicle)	VT	X	X		X			37-41	5 (4,2)	R	<i>Note:</i> This information can be entered for each combination of TEST PROCEDURE CODE and VI FUEL TYPE CODE. 00.00 - 99.99
Actual Dyno H.P.	VT	X	X		X			43-47	5 (4,1)	R	<i>Note:</i> This information must be entered for each combination of TEST PROCEDURE CODE and VI FUEL TYPE CODE which is tested on twin roll dynamometers. 004.0 # ACT DYNO HP # 055.0
Dynamometer Equation Type Code OBSOLETE	VT	X	X		X			49-49	1	A	OBSOLETE
Electric Dynamometer Target Coefficient A	VT	X	X		X			51-57	7 (6,3)	R	<i>Note:</i> Value can be negative or positive; sign bit is required. This information must be entered for each combination of TEST PROCEDURE CODE and VI FUEL TYPE CODE which is tested on single roll electric dynamometers. 000.000 - 999.999 lb _f
Electric Dynamometer Target Coefficient B	VT	X	X		X			59-65	7 (6,5)	R	<i>Note:</i> Value can be negative or positive; sign bit is required. This information must be entered for each combination of TEST PROCEDURE CODE and VI FUEL TYPE CODE which is tested on single roll electric dynamometers. 0.00000 - 9.99999 lb _f /mph

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Field Name	Transaction Type							Position	Length	Data Type	Valid Range/Entry Criteria
	Record	Add	Modify	Delete	Change	Report	Carry Over				
Electric Dynamometer Target Coefficient C	VT	X	X		X			67-74	8 (7,6)	R	<i>Note:</i> Value can be negative or positive; sign bit is required. This information must be entered for each combination of TEST PROCEDURE CODE and VI FUEL TYPE CODE which is tested on single roll electric dynamometers. 9.9999 - 9.999999 lb _f /(mph) ²
Electric Dynamometer Set Coefficient A	VT	X	X		X			76-82	7 (6,3)	R	<i>Note:</i> Value can be negative or positive; sign bit is required. This information must be entered for each combination of TEST PROCEDURE CODE and VI FUEL TYPE CODE which is tested on single roll electric dynamometers. 000.000 - 999.999 lb _f
Electric Dynamometer Set Coefficient B	VT	X	X		X			84-90	7 (6,5)	R	<i>Note:</i> Value can be negative or positive; sign bit is required. This information must be entered for each combination of TEST PROCEDURE CODE and VI FUEL TYPE CODE which is tested on single roll electric dynamometers. 0.00000 - 9.99999 lb _f /mph
Electric Dynamometer Set Coefficient C	VT	X	X		X			92-99	8 (7,6)	R	<i>Note:</i> Value can be negative or positive; sign bit is required. This information must be entered for each combination of TEST PROCEDURE CODE and VI FUEL TYPE CODE which is tested on single roll electric dynamometers. 0.000000 - 9.999999 lb _f /(mph) ²
Input Record Type	VC	R	R		R	R		1-2	2	A	VC
VI Comments	VC	X	X		X	X		3-80	78	A	<i>Note:</i> Multiple comment input records permitted. 'Modify' adds additional input comments to previously stored comments if any. Text
EOT Input Record Type Code	ZZ	R	R	R	R	R	R	1-2	2	A	ZZ - End of Transaction

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Data Type: A = Alphanumeric D = Date I = Integer R = Real