

Shift Schedule 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	R e p l a c e	D e l e t e	C h a n g e	R e p o r t	S u m m a r y R e p o r t				
Input Record Type	S1	R	R	R	R	R	R	R	1-2	2	A	S1
Process Code	S1	X	R	R	R	R	R	R	6-6	1	A	For Add: 'A' or blank - '' For Modify: 'M' For Replace: 'R' For Delete: 'D' For Change: 'N' For Report: 'P' For Summary Report: 'Y'
Data Base Code	S1	R	R	X	R	R	R		11-11	1	A	Note: Default = "A" A-Manufacturers B-EPA VPCD (prev. CD) C-EPA TSD (prev. EOD) D-EPA MOD E-EPA FED (prev. FOSD) F-EPA ECTD G-EPA RDSD H-EPA AMD (prev. EPSD)
Manufacturer Code	S1	R	R	R	R	R	R	R	12-15	4	I	Valid MANUFACTURER CODE
Shift Schedule Id	S1		R	R	R	R	R		16-19	4	A	Valid SHIFT SCHEDULE ID
Shift Schedule Description	S1	X	X	X		X			21-48	28	A	Text
Input Record Type	S2	R	R	R		R			1-2	2	A	S2
Data Set Originator Code	S2	R	X	X		X			18-19	2	A	01-Manufacturer 10-EPA VPCD (prev. CERT) 11-EPA TSD (prev. EOD) 12-EPA MOD 13-EPA FED (prev. FOSD) 14-EPA ECTD 15-EPA RDSD 16-EPA AMD (prev. EPSD) 99-Other

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	Replace	Delete	Change	Report	Summary Report				
LNS Error Severity Code	S2			X					21-21	1	I	<i>Note:</i> For EPA use only. 0 - 5
Input Record Type	S3	R	R	R		R			1-2	2	A	S3
Non-Cruise Declutch Speed	S3	R	X	R		X			5-9	5 (4,1)	R	000.0-200.0
Non-Cruise 1-2 Gear SS	S3	R	X	R		X			11-15	5 (4,1)	R	000.0-200.0
Non-Cruise 2-3 Gear SS	S3	X	X	X		X			17-21	5 (4,1)	R	000.0-200.0
Non-Cruise 3-4 Gear SS	S3	X	X	X		X			23-27	5 (4,1)	R	000.0-200.0
Non-Cruise 4-5 Gear SS	S3	X	X	X		X			29-33	5 (4,1)	R	000.0-200.0
Non-Cruise 5-6 Gear SS	S3	X	X	X		X			35-39	5 (4,1)	R	000.0-200.0
Input Record Type	S4	R	R	R		R			1-2	2	A	S4
Cruise Declutch Speed	S4	R	X	R		X			5-9	5 (4,1)	R	000.0-200.0
Cruise 1-2 Gear SS	S4	R	X	R		X			11-15	5 (4,1)	R	000.0-200.0
Cruise 2-3 Gear SS	S4	X	X	X		X			17-21	5 (4,1)	R	000.0-200.0
Cruise 3-4 Gear SS	S4	X	X	X		X			23-27	5 (4,1)	R	000.0-200.0

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		A d d	M o d i f y	R e p l a c e	D e l e t e	C h a n g e	R e p o r t	S u m m a r y R e p o r t				
Cruise 4-5 Gear SS	S4	X	X	X		X			29-33	5 (4,1)	R	000.0-200.0
Cruise 5-6 Gear SS	S4	X	X	X		X			35-39	5 (4,1)	R	000.0-200.0
Input Record Type	S5			R					1-2	2	A	S5
Mean Calculated Non-Cruise Declutch Speed	S5			R					5-9	5 (4,1)	R	<i>Note:</i> Field used by EPA Test Lab software. Manufacturer should not enter data. 000.0-200.0, <i>asterisk</i>
Mean Calculated Non-Cruise 1-2 Gear SS	S5			R					11-15	5 (4,1)	R	<i>Note:</i> Field used by EPA Test Lab software. Manufacturer should not enter data. 000.0-200.0, <i>asterisk</i>
Mean Calculated Non-Cruise 2-3 Gear SS	S5			R					17-21	5 (4,1)	R	<i>Note:</i> Field used by EPA Test Lab software. Manufacturer should not enter data. 000.0-200.0, <i>asterisk</i>
Mean Calculated Non-Cruise 3-4 Gear SS	S5			R					23-27	5 (4,1)	R	<i>Note:</i> Field used by EPA Test Lab software. Manufacturer should not enter data. 000.0-200.0, <i>asterisk</i>
Mean Calculated Non-Cruise 4-5 Gear SS	S5			R					29-33	5 (4,1)	R	<i>Note:</i> Field used by EPA Test Lab software. Manufacturer should not enter data. 000.0-200.0, <i>asterisk</i>
Mean Calculated Non-Cruise 5-6 Gear SS	S5			R					35-39	5 (4,1)	R	<i>Note:</i> Field used by EPA Test Lab software. Manufacturer should not enter data. 000.0-200.0, <i>asterisk</i>

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		A d d	M o d i f y	R e p l a c e	D e l e t e	C h a n g e	R e p o r t	S u m m a r y R e p o r t				
Minimum Calculated Non-Cruise Declutch Speed	S5			R					41-45	5 (4,1)	R	<i>Note:</i> Field used by EPA Test Lab software. Manufacturer should not enter data. 000.0-200.0, <i>asterisk</i>
Minimum Calculated Non-Cruise 1-2 Gear SS	S5			R					47-51	5 (4,1)	R	<i>Note:</i> Field used by EPA Test Lab software. Manufacturer should not enter data. 000.0-200.0, <i>asterisk</i>
Minimum Calculated Non-Cruise 2-3 Gear SS	S5			R					53-57	5 (4,1)	R	<i>Note:</i> Field used by EPA Test Lab software. Manufacturer should not enter data. 000.0-200.0, <i>asterisk</i>
Minimum Calculated Non-Cruise 3-4 Gear SS	S5			R					59-63	5 (4,1)	R	<i>Note:</i> Field used by EPA Test Lab software. Manufacturer should not enter data. 000.0-200.0, <i>asterisk</i>
Minimum Calculated Non-Cruise 4-5 Gear SS	S5			R					65-69	5 (4,1)	R	<i>Note:</i> Field used by EPA Test Lab software. Manufacturer should not enter data. 000.0-200.0, <i>asterisk</i>
Minimum Calculated Non-Cruise 5-6 Gear SS	S5			R					71-75	5 (4,1)	R	<i>Note:</i> Field used by EPA Test Lab software. Manufacturer should not enter data. 000.0-200.0, <i>asterisk</i>
Input Record Type	S6			R					1-2	2	A	S6
Mean Calculated Cruise Declutch Speed	S6			R					5-9	5 (4,1)	R	<i>Note:</i> Field used by EPA Test Lab software. Manufacturer should not enter data. 000.0-200.0, <i>asterisk</i>

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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	R e p l a c e	D e l e t e	C h a n g e	R e p o r t	S u m m a r y R e p o r t				
Mean Calculated Cruise 1-2 Gear SS	S6			R					11-15	5 (4,1)	R	<i>Note:</i> Field used by EPA Test Lab software. Manufacturer should not enter data. 000.0-200.0, <i>asterisk</i>
Mean Calculated Cruise 2-3 Gear SS	S6			R					17-21	5 (4,1)	R	<i>Note:</i> Field used by EPA Test Lab software. Manufacturer should not enter data. 000.0-200.0, <i>asterisk</i>
Mean Calculated Cruise 3-4 Gear SS	S6			R					23-27	5 (4,1)	R	<i>Note:</i> Field used by EPA Test Lab software. Manufacturer should not enter data. 000.0-200.0, <i>asterisk</i>
Mean Calculated Cruise 4-5 Gear SS	S6			R					29-33	5 (4,1)	R	<i>Note:</i> Field used by EPA Test Lab software. Manufacturer should not enter data. 000.0-200.0, <i>asterisk</i>
Mean Calculated Cruise 5-6 Gear SS	S6			R					35-39	5 (4,1)	R	<i>Note:</i> Field used by EPA Test Lab software. Manufacturer should not enter data. 000.0-200.0, <i>asterisk</i>
Minimum Calculated Cruise Declutch Speed	S6			R					41-45	5 (4,1)	R	<i>Note:</i> Field used by EPA Test Lab software. Manufacturer should not enter data. 000.0-200.0
Minimum Calculated Cruise 1-2 Gear SS	S6			R					47-51	5 (4,1)	R	<i>Note:</i> Field used by EPA Test Lab software. Manufacturer should not enter data. 000.0-200.0
Minimum Calculated Cruise 2-3 Gear SS	S6			R					53-57	5 (4,1)	R	<i>Note:</i> Field used by EPA Test Lab software. Manufacturer should not enter data. 000.0-200.0

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Field Name	Transaction Type								Position	Length	Data Type	Valid Range/Entry Criteria
	R	A	M	R	D	C	R	S				
Record Type												
Minimum Calculated Cruise 3-4 Gear SS	S6			R					59-63	5 (4,1)	R	<i>Note:</i> Field used by EPA Test Lab software. Manufacturer should not enter data. 000.0-200.0
Minimum Calculated Cruise 4-5 Gear SS	S6			R					65-69	5 (4,1)	R	<i>Note:</i> Field used by EPA Test Lab software. Manufacturer should not enter data. 000.0-200.0
Minimum Calculated Cruise 5-6 Gear SS	S6			R					71-75	5 (4,1)	R	<i>Note:</i> Field used by EPA Test Lab software. Manufacturer should not enter data. 000.0-200.0
Input Record Type	S7	R	R	R		R			1-2	2	A	S7
Drive Schedule Name Code	S7	R	X	X		X			4-6	3	A	<i>Note:</i> "Prep" shift schedule data must be included when '002' is entered. "Warm-up" shift schedule data must be included when '003' is entered. 002 - FTP (Cert) 003 - HWFE (Cert) 004 - US06 (Cert) 005 - SC03 (Cert) 021 - LA4 (prep only) 022 - LA4 023 - 505 031 - HWFE (no warmup) 101 - SCC#1 102 - SCC#2 103 - BIH (Auto) 104 - BIH (Manual) 111 - 3BagHWFE 112 - 3Bag505 121 - LA4 (perturbed1.5)
Input Record Type	S8	R	R	R		R			1-2	2	A	S8

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Field Name	Transaction Type									Valid Range/Entry Criteria		
	R e c o r d T y p e	A d d	M o d i f y	R e p l a c e	D e l e t e	C h a n g e	R e p o r t	S u m m a r y R e p o r t	P o s i t i o n		L e n g t h	D a t a T y p e
Model Year	S8	R	R	R		R			4-7	4	I	<i>Note:</i> Initial Entry Only. 1970-2100
Deletion Code	S8					X			9-9	1	A	<i>Note:</i> Entering a 'D' in this field requires the entry of one or more model year(s) which had previously been entered for this Shift Schedule. D
Input Record Type	SC	R	R	R		R			1-2	2	A	SC
Comments	SC	X	X	X		X			3-80	78	A	<i>Note:</i> Multiple comment input records permitted. 'Replace' deletes old comments and adds new comments, while 'Modify' adds additional input comments to previously stored comments, if any. Text
Input Record Type	SP	R	R	R		R			1-2	2	A	SP
Shift Point Number	SP		R			X			3-5	3	I	<i>Note:</i> Modifying a shift point requires a matching SHIFT TIME for the Shift Schedule. The new number is system generated. ¹ 0-160

¹ For the insertion of a new shift point, submit the SHIFT TIME but not SHIFT POINT NUMBER. The system will automatically generate and assign the SHIFT POINT NUMBER.

Shift Time (Time in seconds from beginning of test driving cycle.)	SP	R	R	R		R			7-12	6 (5,1)	R	<i>Note:</i> Modifying a shift point requires a matching SHIFT POINT NUMBER for the Shift Schedule. The new number is system generated. 0000.0-2500.0
Shift Speed	SP	X	X	X		X			14-18	5 (4, 1)	R	<i>Note:</i> MPH only. 000.0-200.0

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Field Name	Record Type	Transaction Type							Position	Length	Data Type	Valid Range/Entry Criteria
		Add	Modify	Replace	Delete	Change	Report	Summary Report				
Shift Action Code	SP	R	R	R		R			20-21	2	A	00 - Declutch 10 - Declutch 20 - Declutch 30 - Declutch 40 - Declutch 50 - Declutch 60 - Declutch 12 - Upshift 1 to 2 23 - Upshift 2 to 3 34 - Upshift 3 to 4 45 - Upshift 4 to 5 56 - Upshift 5 to 6 65 - Downshift 6 to 5 54 - Downshift 5 to 4 43 - Downshift 4 to 3 32 - Downshift 3 to 2 21 - Downshift 2 to 1 64 - Down-skipshift 6 to 4 63 - Down-skipshift 6 to 3 62 - Down-skipshift 6 to 2 61 - Down-skipshift 6 to 1 53 - Down-skipshift 5 to 3 52 - Down-skipshift 5 to 2 51 - Down-skipshift 5 to 1 42 - Down-skipshift 4 to 2 41 - Down-skipshift 4 to 1 31 - Down-skipshift 3 to 1 97 - Use shift indicator light 98 - Creeper gear 99 - Alternative shift action ** - delete shift point.
Shift Point Screen Text	SP	X	X	X		X			23-31	9	A	<i>Note:</i> Enter only if SHIFT ACTION CODE is equal to '99'. Text (Enter special shift event description)
Shift Point H/V Indicator	SP			X					33-33	1	A	<i>Note:</i> For EPA use only. 'H' or 'V'
Shift Point L/R Indicator	SP			X					35-35	1	A	<i>Note:</i> For EPA use only. 'L' or 'R'

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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	R e p l a c e	D e l e t e	C h a n g e	R e p o r t	S u m m a r y R e p o r t				
Exception Point Code	SP	X	X	X		X			37-37	1	A	<i>asterisk</i> N or blank - Y or X - Include this shift point speed in the VDA shift pattern calculations. Do not include this shift point speed in the VDA shift pattern calculations.
Cruise Point	SP			X					39-39	1	A	<i>Note:</i> For EPA use only. 'Y'
EOT Input Record Type Code	ZZ	R	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