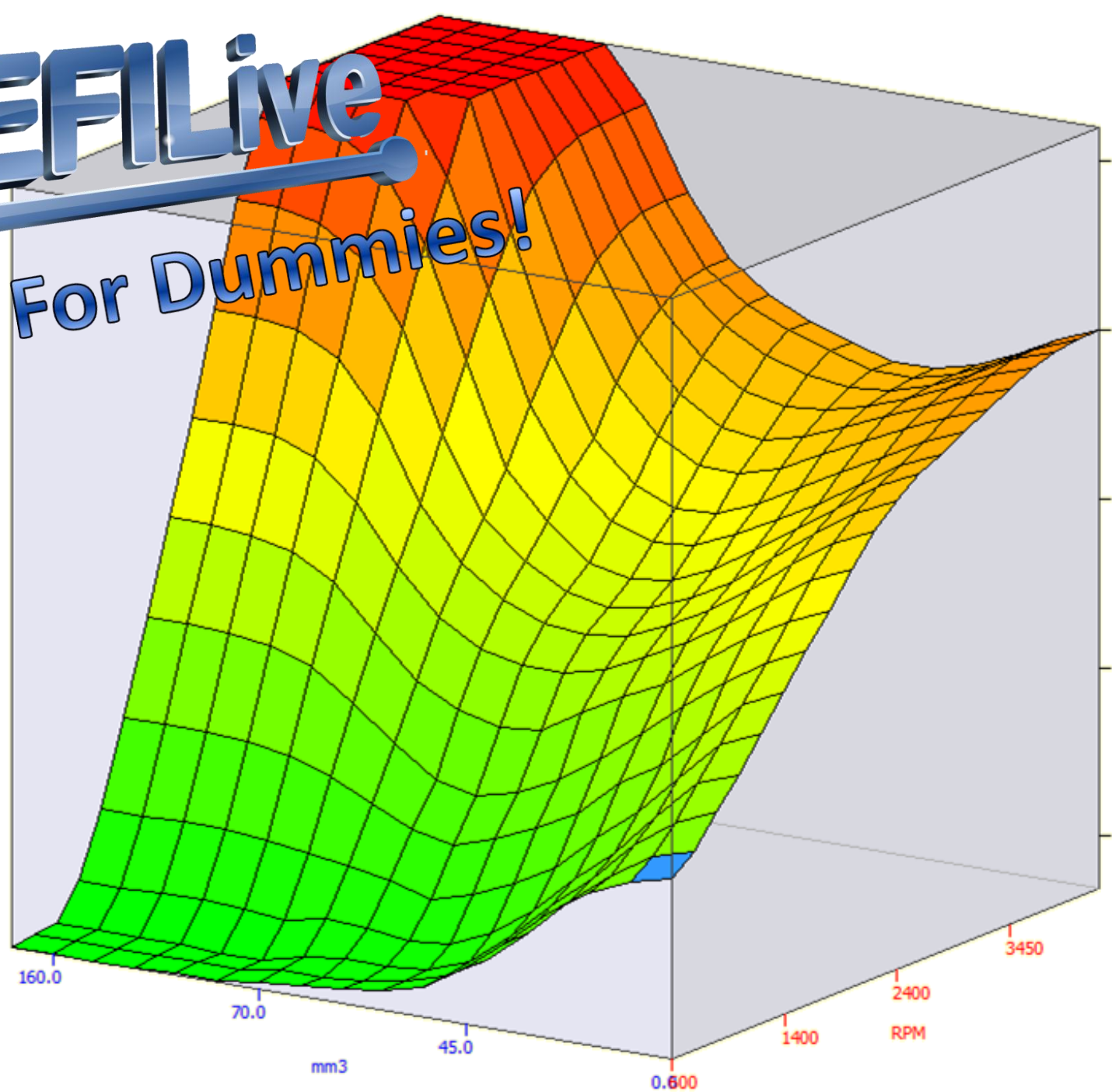
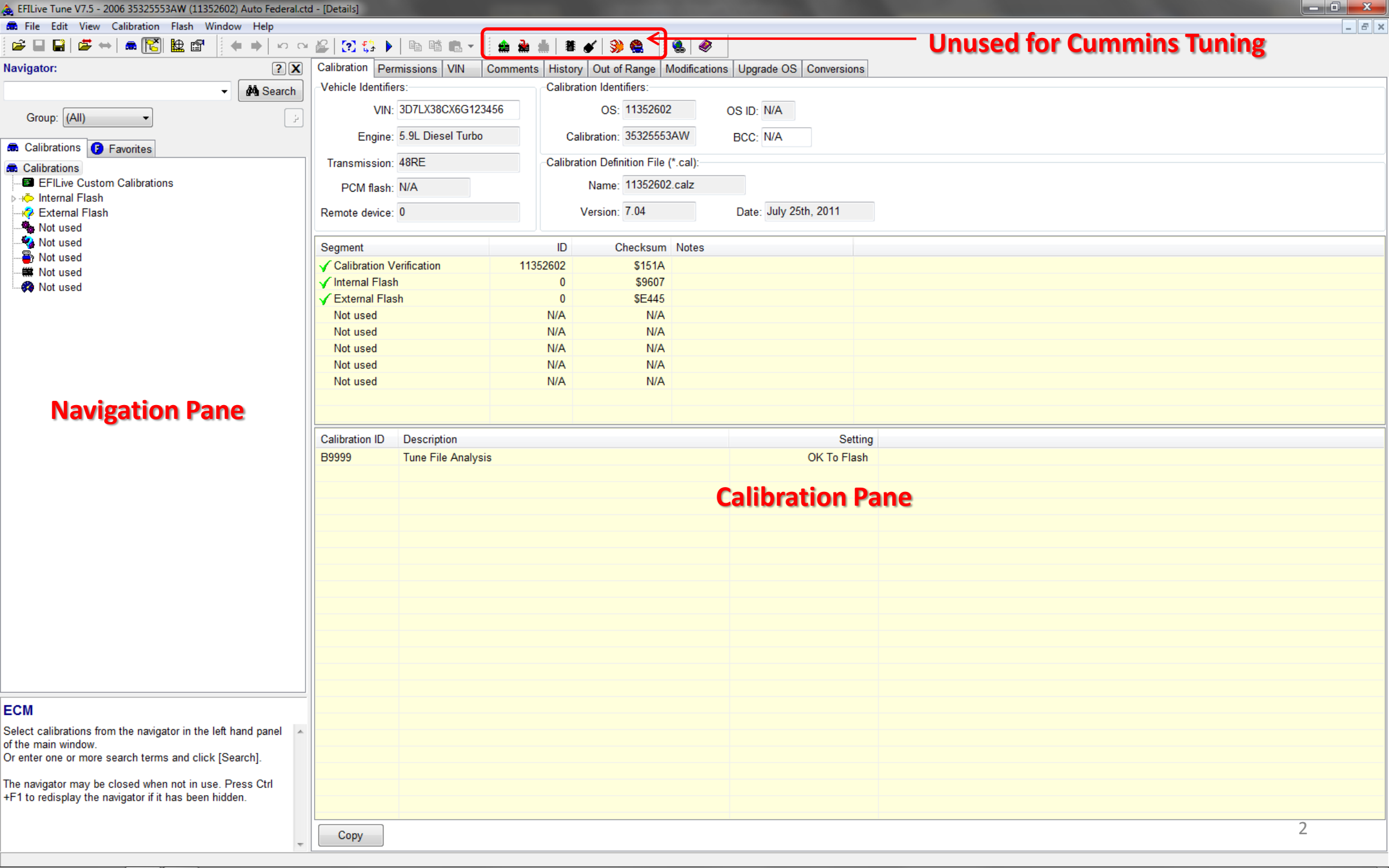
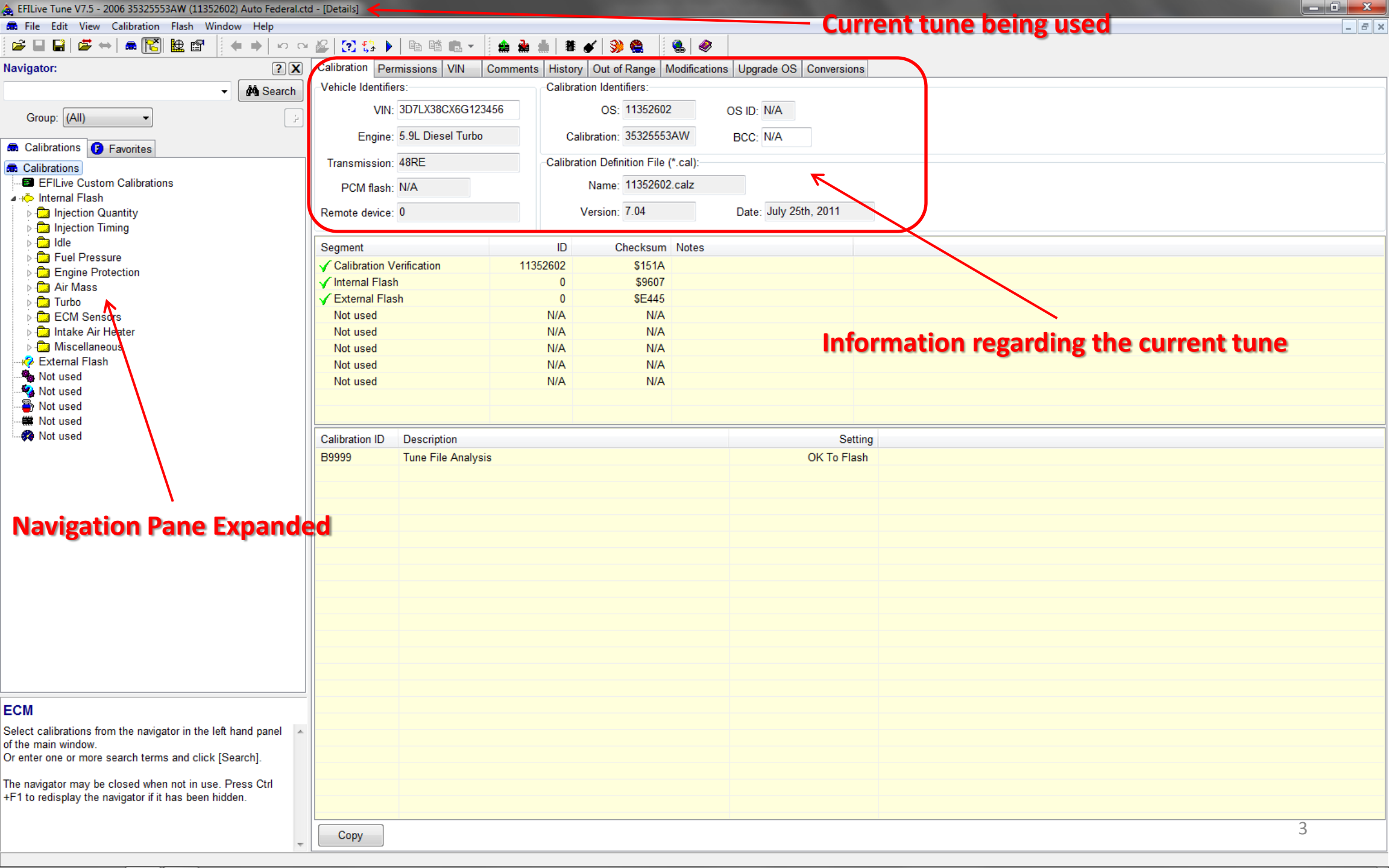


NEFILive

For Dummies!







Current tune being used

Information regarding the current tune

Navigation Pane Expanded

ECM

Select calibrations from the navigator in the left hand panel of the main window.
Or enter one or more search terms and click [Search].

The navigator may be closed when not in use. Press Ctrl +F1 to redisplay the navigator if it has been hidden.

Copy

EFILive Tune V7.5 - 2006 3532553AW (11352602) Auto Federal.ctd - [{E2503} Internal Flash, Injection Timing, Main Injection, Timing, Base Table]

File Edit View Calibration Flash Window Help

Adjust: # % / * ^ v

mm3 {link: CM.CMDFUELB} (0.0)

Search

Group: (All)

Calibrations Favorites

Calibrations

EFILive Custom Calibration

Internal Flash

Injection Quantity

Injection Timing

Main Injection, Axis Define

Main Injection

Parameters

Timing, Base Table

Timing, Base Table, Air Density Adjust 1

Timing, Base Table, Air Density Adjust 2

Timing, Base Table, Air Density Adjust 3

Timing, Base Table, Air Density Adjust 4

Timing, Intake Air Temp Adjust

Timing, Intake Air Temp Adjust Multiplier

Timing, Barometric Pressure Adjust

Timing, Barometric Pressure Multiplier

Timing, Boost Adjust Multiplier

Timing, Cranking

Timing, Minimum

Timing, Maximum

Injection Shutoff vs RPM

Pilot Injection, Axis Define

Pilot Injection

Post Injection, Axis Define

Post Injection

Idle

Fuel Pressure

Engine Protection

Air Mass

Turbo

ECM Sensors

Intake Air Heater

Miscellaneous

External Flash

Not used

3D Surface Plot

mm3 {link: CM.CMDFUELB} (0.0)

High Med Low

140.0 110.0 55.0 0.020

3000 2200 1400 RPM

Rotate using right mouse button

Units: Degrees Minimum: -25.0 Maximum: 60.0 EFLive limits.

Description RTACS User notes

Start of Main Injection base table. These values will then be further adjusted by the air density adjustment tables.

Axis tables:

- {E2525} Timing, Base Table

- {E2526} Timing, Base Table, RPM Axis

Any changes made to the values in the axis values will not be seen in the associated tune until the file is saved, closed, then re-opened.

{E2503} Timing, Base Table

Start of Main Injection base table. These values will then be further adjusted by the air density adjustment tables.

Axis tables:

- {E2525} Timing, Base Table, Fuel Axis

- {E2526} Timing, Base Table, RPM Axis

Any changes made to the values in the axis values will not be seen in the associated tune until the file is saved,

mm3 {link: CM.CMDFUELB}

	0.0	10.0	20.0	30.0	45.0	55.0	65.0	75.0	85.0	95.0	110.0	120.0	125.0	130.0	135.0	140.0
620	17.0	17.0	17.0	17.0	15.0	11.1	8.0	8.0	8.0	8.0	12.0	20.0	20.0	20.0	20.0	20.0
650	16.1	15.5	15.5	15.0	11.5	10.1	8.9	8.6	7.7	7.3	7.3	7.3	7.3	7.3	7.3	7.3
800	16.1	16.1	16.1	16.1	13.0	10.0	9.3	8.6	7.7	7.3	7.3	7.3	7.3	7.3	7.3	7.3
1000	22.5	22.5	22.0	21.0	16.1	11.0	10.1	10.0	9.8	9.6	9.4	9.3	9.1	9.1	9.0	8.9
1200	28.0	27.9	27.2	25.0	18.3	15.0	13.5	13.2	12.8	12.1	11.6	11.4	11.1	11.0	10.8	
1400	28.0	27.9	27.2	27.0	22.0	17.5	15.0	15.4	15.4	15.4	15.8	15.8	15.7	15.7	15.7	15.7
1550	28.0	27.9	27.2	27.0	21.7	19.7	17.0	15.2	15.4	15.6	15.1	14.5	15.7	15.7	15.7	15.7
1700	28.0	27.9	28.5	28.9	24.0	19.5	18.5	15.7	15.1	14.5	13.6	12.9	13.9	14.3	14.3	14.3
1800	28.0	27.9	28.5	28.9	25.5	20.0	18.5	16.5	15.4	14.8	13.5	12.7	13.7	13.7	13.7	13.7
2000	25.0	25.0	27.0	28.9	25.5	20.5	20.0	18.0	15.6	13.0	12.8	12.8	12.9	12.9	13.7	14.2
2200	24.5	22.0	21.0	20.0	17.8	16.8	15.0	13.9	12.0	12.0	13.0	13.9	14.4	15.7	16.2	
2400	24.0	20.0	17.0	14.5	13.0	12.2	11.0	10.5	10.5	11.0	12.0	13.0	14.2	15.0	16.9	17.6
2600	23.0	19.0	16.1	14.3	14.4	13.2	13.5	11.0	11.0	12.0	13.0	13.5	16.1	18.0	20.2	20.7
2800	23.0	19.0	16.3	14.2	13.9	13.4	13.8	11.5	13.0	13.0	13.9	15.5	18.0	22.0	25.4	26.0
2900	18.0	17.0	16.5	15.7	15.6	14.4	14.5	13.5	13.9	13.9	15.2	18.5	22.0	25.3	28.2	29.2
3000	19.0	19.0	19.0	17.0	16.5	15.6	14.9	13.9	13.9	14.5	16.1	20.5	22.0	24.3	27.5	28.0
3200	25.0	22.0	20.0	17.9	16.1	16.1	16.1	16.3	16.3	16.5	19.5	22.5	21.0	21.0	22.0	22.0
3300	25.0	22.0	20.0	17.9	16.1	16.1	16.1	16.1	16.1	16.1	19.5	20.0	20.5	21.0	22.0	22.0
3500	25.0	22.0	20.0	17.9	16.1	16.2	16.2	16.2	16.2	16.2	19.5	20.0	20.5	21.0	22.0	22.0

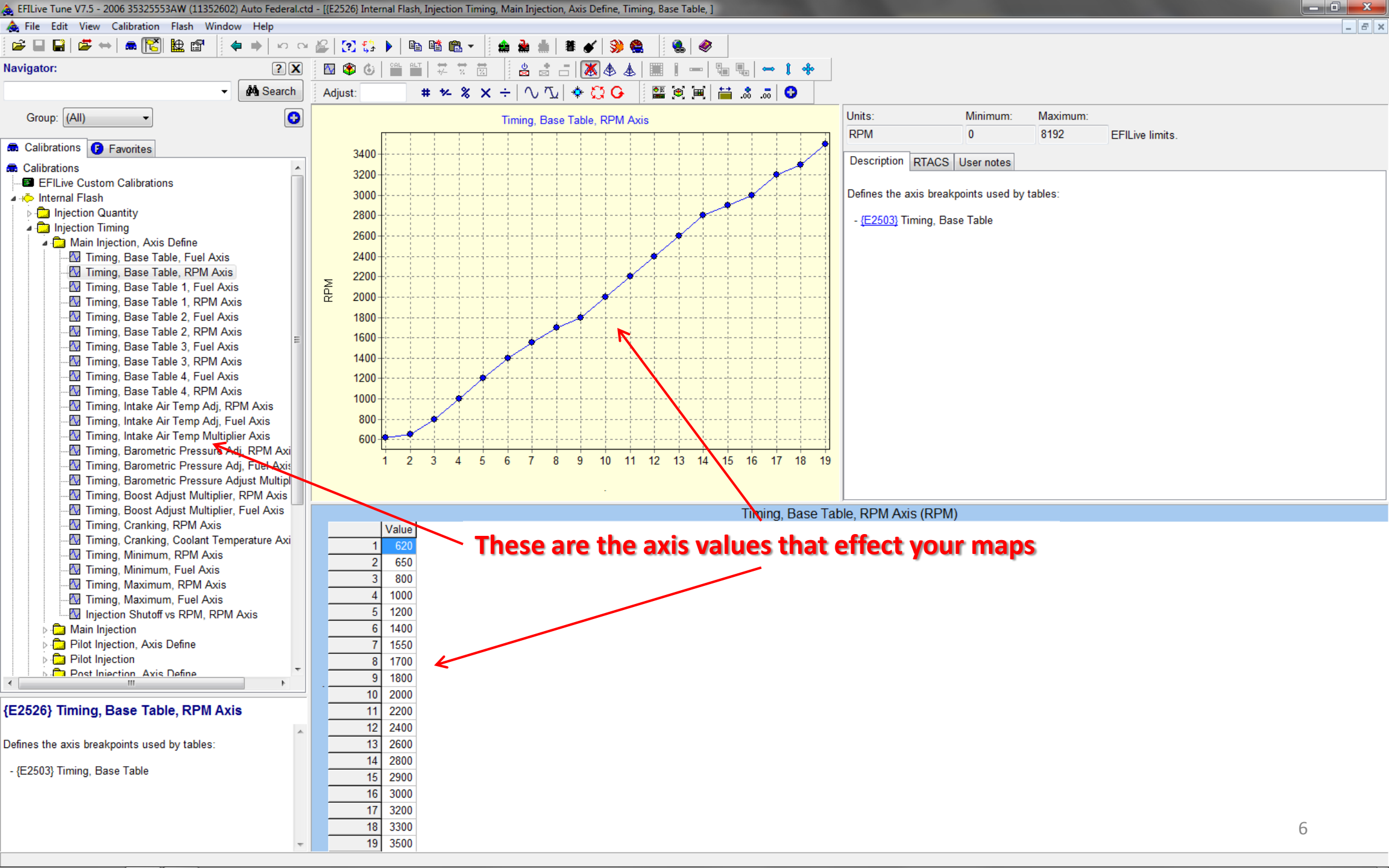
Modify selected values

Smooth selected values

Change views in the calibration pane

Make values linear from left to right, top to bottom or from corner to corner

5



EFILive Tune V7.5 - 2006 3532553AW (11352602) Auto Federal.ctd - [{E6501} Internal Flash, Engine Protection, RPM Limiters: RPM Soft Limiter, Neutral]

File Edit View Calibration Flash Window Help

Group: (All)

Calibrations Favorites

EFILive Custom Calibrations

Internal Flash

Injection Quantity

Injection Timing

Main Injection, Axis Define

Main Injection

Pilot Injection, Axis Define

Pilot Injection

Post Injection, Axis Define

Post Injection

Idle

Fuel Pressure

Engine Protection

RPM Limiters

Parameters

Air Mass

Turbo

ECM Sensors

Intake Air Heater

Miscellaneous

External Flash

Not used

Not used

Not used

Not used

Not used

Adjust: # % X ÷

Units: RPM

Minimum: 0

Maximum: 6500

EFILive limits.

Description User notes

Upper RPM soft limiter when in neutral or stationary.

RPM Soft Limiter, Neutral (RPM)

Description	Value
{E6501} RPM Soft Limiter, Neutral	3500
{E6502} RPM Soft Limiter, In Gear, Ref 1	3750
{E6503} RPM Soft Limiter, In Gear, Ref 2	3750
{E6504} RPM Soft Limiter, In Gear, Ref 3	3750
{E6505} RPM Soft Limiter, In Gear, Ref 4	3750
{E6511} RPM Soft Limiter, Manual, Ref 1	4650
{E6512} RPM Soft Limiter, Manual, Ref 2	4650
{E6513} RPM Soft Limiter, Manual, Ref 3	4650
{B9902} RPM Soft Limiter, Maximum Limit 1	4500
{B9903} RPM Soft Limiter, Maximum Limit 2	4500
{D1000} RPM Hard Limiter, Software Limit	4200
{C5754} RPM Hard Limiter, Hardware Limit	4200
{C5750} RPM Hard Limiter, Fuel Pump Limit, Upper	5200
{C5751} RPM Hard Limiter, Fuel Pump Limit, Lower	5000
{C5752} RPM Hard Limiter, Injector Limit, Upper	5200
{C5753} RPM Hard Limiter, Injector Limit, Lower	5400

Parameters

Parameters

{E6501} RPM Soft Limiter, Neutral

{E6502} RPM Soft Limiter, In Gear, Ref 1

{E6503} RPM Soft Limiter, In Gear, Ref 2

{E6504} RPM Soft Limiter, In Gear, Ref 3

{E6505} RPM Soft Limiter, In Gear, Ref 4

{E6511} RPM Soft Limiter, Manual, Ref 1

{E6512} RPM Soft Limiter, Manual, Ref 2

{E6513} RPM Soft Limiter, Manual, Ref 3

{B9902} RPM Soft Limiter, Maximum Limit 1

Limiters that are not necessarily used in tables, but do limit quantities and values

7

EFILive Tune V7.5 - 2006 3532553AW (11352602) Auto Federal.ctd - [{D0782}] Internal Flash, Fuel Pressure, Fuel Pressure, Base Table

File Edit View Calibration Flash Window Help

Group: (All)

Calibrations Favorites

Calibrations

EFILive Custom Calibrations

Internal Flash

Injection Quantity

Injection Timing

Main Injection, Axis Define

Main Injection

Pilot Injection, Axis Define

Pilot Injection

Post Injection, Axis Define

Post Injection

Idle

Fuel Pressure

Parameters

Axis Define

Fuel Pressure, Base Table

Fuel Pressure, Air Density Adjust 1

Fuel Pressure, Air Density Adjust 2

Fuel Pressure, Air Density Adjust 3

Fuel Pressure, Air Density Adjust 4

Fuel Pressure Reg, Base Duty Cycle

Fuel Pressure Reg, Max Duty Cycle

Fuel Pressure Reg, Current Conversion

P.I.D Control

Diagnostics

Engine Protection

Air Mass

Turbo

ECM Sensors

Intake Air Heater

Miscellaneous

External Flash

Not used

Not used

Not used

Not used

[?] X

Adjust: # % / * X ÷ ~

mm3 (link: CM.CMDFUELB) (0.0)

mm3 (link: CM.CMDFUELB) (0.0)

Search

+

3D Surface Plot

High Med Low

140.0 110.0 55.0 2900 2200 1200

mm3

RPM

Rotate using mouse button

Units: MPa Minimum: 0 Maximum: 250 EFILive limits.

Description RTACS User notes

This table defines the base commanded fuel pressures which will then be further adjusted by the air density adjustment tables.

Axis tables:

- {D0753} Fuel Pressure Base Table, RPM Axis

- {D0754} Fuel Pressure Base Table, Fuel Axis

[?] X

mm3 (link: CM.CMDFUELB)

mm3 (link: CM.CMDFUELB)

0.0 10.0 20.0 30.0 45.0 55.0 65.0 75.0 85.0 95.0 110.0 120.0 125.0 130.0 135.0 140.0

400 35 35 40 40 50 50 55 60 61 65 70 70 70 71 80 80

600 35 35 40 45 60 60 65 70 71 75 80 80 80 80 80 80

650 43 43 43 50 65 70 75 75 80 80 100 100 100 100 100 100

800 45 48 48 60 64 71 76 81 86 91 98 103 105 108 110 113

1000 50 58 55 68 85 85 87 91 95 99 105 108 110 112 114 116

1200 54 54 66 80 105 102 88 87 88 89 91 92 93 93 94 94

1400 58 58 77 90 123 120 107 104 103 101 99 98 97 96 96 95

1600 65 70 86 104 128 128 118 102 100 99 103 107 115 118 120 125

1800 80 90 96 105 132 122 112 110 109 108 113 119 122 126 139 143

2000 95 97 110 116 135 135 130 127 125 115 110 110 110 135 140 144

2200 100 105 116 125 135 135 130 127 122 115 123 127 136 142 145

2400 105 110 116 135 127 120 120 120 115 118 120 135 136 143 152 154

2600 110 115 115 124 127 121 120 120 120 119 125 140 145 150 160 160

2700 115 120 114 123 133 131 128 125 125 130 145 152 154 160 160

2800 120 120 135 121 136 143 140 135 135 138 140 155 155 160 160 160

2900 115 115 120 130 140 155 150 150 155 160 160 160 160 160 160

3000 110 110 140 140 150 160 160 160 160 160 160 160 160 160 160

3200 110 110 140 140 155 160 160 160 160 160 160 160 160 160 160

3500 110 110 130 140 150 150 150 150 150 150 150 150 150 150 150

RPM (link: SAE.RPM) (400,3500)

mm3 (link: CM.CMDFUELB) (0.0)

Using linear functions to equalize effects from L to R, T to B or corner to corner

-Select values to be modified

-Right-click desired linear function

{D0782} Fuel Pressure, Base Table

This table defines the base commanded fuel pressures which will then be further adjusted by the air density adjustment tables.

Axis tables:

- {D0753} Fuel Pressure Base Table, RPM Axis

- {D0754} Fuel Pressure Base Table, Fuel Axis

11

FileEditViewCalibrationFlashWindowHelp

Search

Adjust: # % < > + - ~

Display the EFLive web site (requires Internet connection)

Group: (All)

CalibrationsFavorites

Calibrations

EFILive Custom Calibrations

Internal Flash

Injection Quantity

Injection Timing

Main Injection, Axis Define

Main Injection

Pilot Injection, Axis Define

Pilot Injection

Post Injection, Axis Define

Post Injection

Idle

Fuel Pressure

Parameters

Axis Define

Fuel Pressure, Base Table

Fuel Pressure, Air Density Adjust 1

Fuel Pressure, Air Density Adjust 2

Fuel Pressure, Air Density Adjust 3

Fuel Pressure, Air Density Adjust 4

Fuel Pressure Reg, Base Duty Cycle

Fuel Pressure Reg, Max Duty Cycle

Fuel Pressure Reg, Current Conversion

P.I.D Control

Diagnostics

Engine Protection

Air Mass

Turbo

ECM Sensors

Intake Air Heater

Miscellaneous

External Flash

Not used

Not used

Not used

Not used

RPM {link: SAE.RPM} (1000)

mm3 {link: CM.CMDFUELB} (130.0)

Data: 112 MPa

Units: MPa Minimum: 0 Maximum: 250 EFLive limits.

DescriptionRTACSTablesUser notes

This table defines the base commanded fuel pressures which will then be further adjusted by the air density adjustment tables.

Axis tables:

- {D0753} Fuel Pressure Base Table, RPM Axis

- {D0754} Fuel Pressure Base Table, Fuel Axis

High

Med

Low

140.0

110.0

55.0

mm3

2900

2200

1200

RPM

Rotate using mouse button

mm3 {link: CM.CMDFUELB}

	0.0	10.0	20.0	30.0	45.0	55.0	65.0	75.0	85.0	95.0	110.0	120.0	125.0	130.0	135.0	140.0
400	35	35	40	40	50	50	55	60	61	65	70	70	70	71	80	80
600	39	35	40	45	60	60	65	70	71	75	80	80	80	80	80	80
650	43	43	43	50	65	70	75	75	80	80	100	100	100	100	100	100
800	47	48	48	60	64	71	76	81	86	91	98	103	105	108	110	113
1000	52	58	55	68	85	85	87	91	95	99	105	108	110	112	114	116
1200	56	54	66	80	105	102	88	87	88	89	91	92	93	93	94	94
1400	60	58	77	90	123	120	107	104	103	101	99	98	97	96	96	95
1600	64	70	86	104	128	128	118	102	100	99	103	107	115	118	120	125
1800	68	90	96	105	132	122	112	110	109	108	113	119	122	126	139	143
2000	72	97	110	116	135	135	130	127	125	115	110	110	110	135	140	144
2200	77	105	116	125	135	135	130	127	122	115	115	123	127	136	142	145
2400	81	110	116	135	127	120	120	120	115	118	120	135	136	143	152	154
2600	85	115	115	124	127	121	120	120	120	119	125	140	145	150	160	160
2700	89	120	114	123	133	131	128	125	125	128	130	145	152	154	160	160
2800	93	120	135	121	136	143	140	135	135	138	140	155	155	160	160	160
2900	97	115	120	130	140	155	150	150	150	155	160	160	160	160	160	160
3000	102	110	140	140	150	160	160	160	160	160	160	160	160	160	160	160
3200	106	110	140	140	155	160	160	160	160	160	160	160	160	160	160	160
3500	110	110	130	140	150	150	150	150	150	150	150	150	150	150	150	150

{D0782} Fuel Pressure, Base Table

This table defines the base commanded fuel pressures which will then be further adjusted by the air density adjustment tables.

Axis tables:

- {D0753} Fuel Pressure Base Table, RPM Axis

- {D0754} Fuel Pressure Base Table, Fuel Axis

Selected values were made linear from top to bottom.

Same applies for left to right.

Display the EFLive web site (requires Internet connection)

12

EFILive Tune V7.5 - 2006 3532553AW (11352602) Auto Federal.ctd - [{D0782}] Internal Flash, Fuel Pressure, Fuel Pressure, Base Table

FileEditViewCalibrationFlashWindowHelp

Group: (All)

CalibrationsFavorites

Calibrations

- EFILive Custom Calibrations
 - Internal Flash
 - Injection Quantity
 - Injection Timing
 - Main Injection, Axis Define
 - Main Injection
 - Pilot Injection, Axis Define
 - Pilot Injection
 - Post Injection, Axis Define
 - Post Injection
 - Idle
 - Fuel Pressure
 - Parameters
 - Axis Define
 - Fuel Pressure, Base Table
 - Fuel Pressure, Air Density Adjust 1
 - Fuel Pressure, Air Density Adjust 2
 - Fuel Pressure, Air Density Adjust 3
 - Fuel Pressure, Air Density Adjust 4
 - Fuel Pressure Reg, Base Duty Cycle
 - Fuel Pressure Reg, Max Duty Cycle
 - Fuel Pressure Reg, Current Conversion
 - P.I.D Control
 - Diagnostics
 - Engine Protection
 - Air Mass
 - Turbo
 - ECM Sensors
 - Intake Air Heater
 - Miscellaneous
 - External Flash
 - Not used
 - Not used
 - Not used

Search

Adjust: # % X ÷ ~ Use linear blending between edited and non edited cells (Ctrl+L)

RPM {link: SAE.RPM} (1600,2800)
mm3 {link: CM.CMDFUELB} (65.0,135.0)

Data: 118 MPa

Units: MPa Minimum: 0 Maximum: 250 EFILive limits.

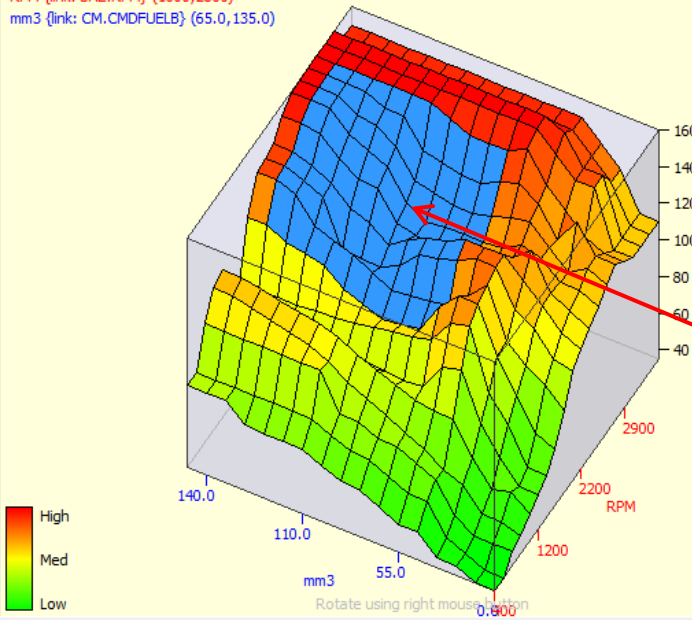
DescriptionRTACSUser notes

This table defines the base commanded fuel pressures which will then be further adjusted by the air density adjustment tables.

Axis tables:

- [{D0753}] Fuel Pressure Base Table, RPM Axis
- [{D0754}] Fuel Pressure Base Table, Fuel Axis

High
Med
Low



mm3 {link: CM.CMDFUELB}

RPM {link: SAE.RPM}

	0.0	10.0	20.0	30.0	45.0	55.0	65.0	75.0	85.0	95.0	110.0	120.0	125.0	130.0	135.0	140.0
400	35	35	40	40	50	50	55	60	61	65	70	70	70	71	80	80
600	35	35	40	45	60	60	65	70	71	75	80	80	80	80	88	80
650	43	43	43	50	65	70	75	75	80	80	100	100	100	100	100	100
800	45	48	48	60	64	71	76	81	86	91	98	103	105	108	110	113
1000	50	58	55	68	85	85	87	91	95	99	105	108	110	112	114	116
1200	54	54	66	80	105	102	88	87	88	89	91	92	93	93	94	94
1400	58	58	77	90	123	120	107	104	103	101	99	98	97	96	96	95
1600	65	70	86	104	128	128	118	102	100	99	103	107	115	118	120	125
1800	80	90	96	105	132	122	112	110	109	108	113	119	122	126	139	143
2000	95	97	110	116	135	135	130	127	125	115	110	110	110	135	140	144
2200	100	105	116	125	135	135	130	127	122	115	115	123	127	136	142	145
2400	105	110	116	135	127	120	120	120	115	118	120	135	136	143	152	154
2600	110	115	115	124	127	121	120	120	120	119	125	140	145	150	160	160
2700	115	120	114	123	133	131	128	125	125	128	130	145	152	154	160	160
2800	120	120	135	121	136	143	140	135	135	138	140	155	155	160	160	160
2900	115	115	120	130	140	155	150	150	150	155	160	160	160	160	160	160
3000	110	110	140	140	150	160	160	160	160	160	160	160	160	160	160	160
3200	110	110	140	140	155	160	160	160	160	160	160	160	160	160	160	160
3500	110	110	130	140	150	150	150	150	150	150	150	150	150	150	150	150

Using the linear function to modify a group of cells.
Used when a particular section has undesired high or low spots .

{D0782} Fuel Pressure, Base Table

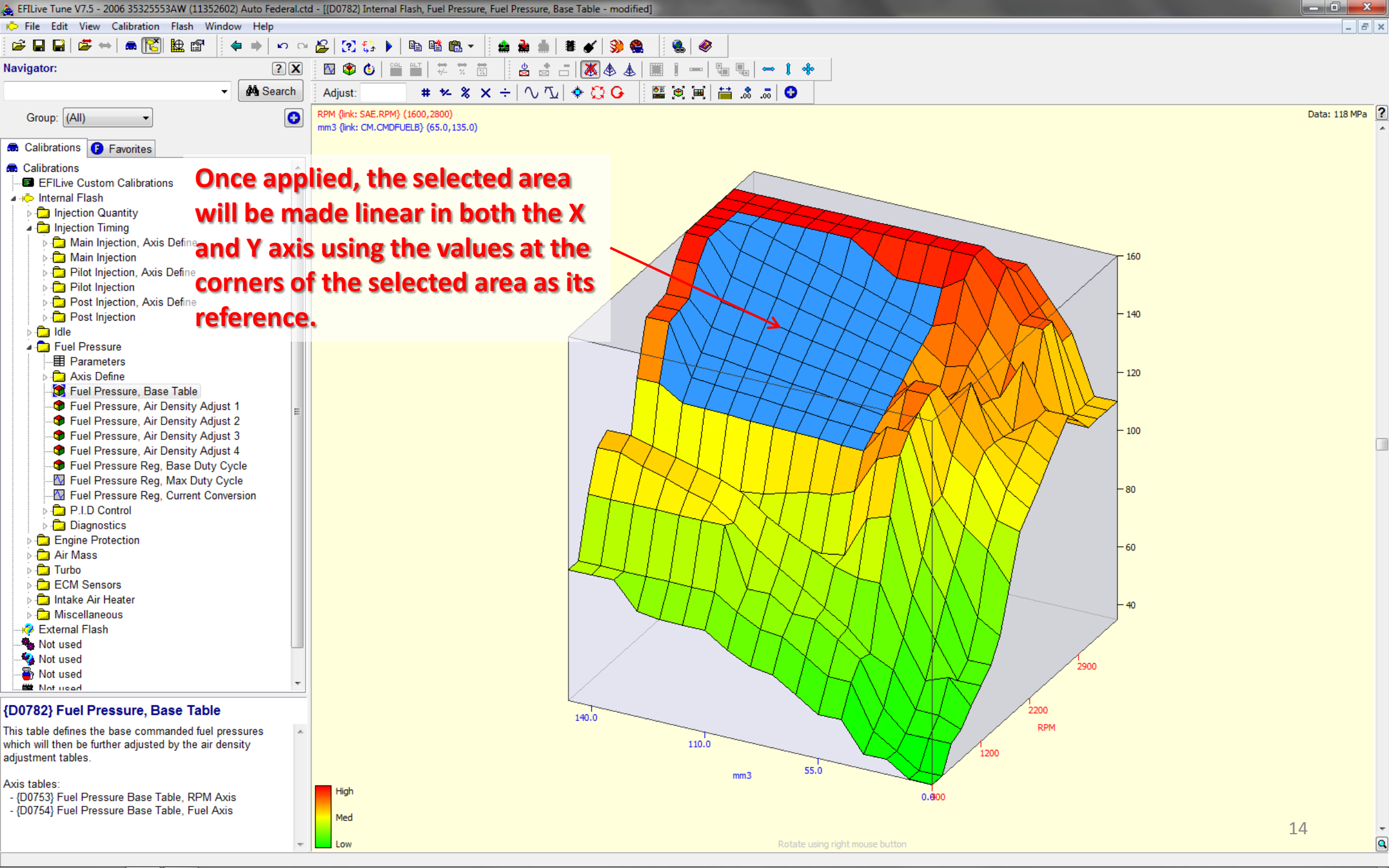
This table defines the base commanded fuel pressures which will then be further adjusted by the air density adjustment tables.

Axis tables:

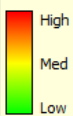
- [{D0753}] Fuel Pressure Base Table, RPM Axis
- [{D0754}] Fuel Pressure Base Table, Fuel Axis

Use linear blending between edited and non edited cells

13



- {D0754} Fuel Pressure Base Table, Fuel Axis



mm3 {link: CM.CMDFUELB}

Smoothing an entire table
-This is the same map after using the smoothing function 5 times

EFILive Tune V7.5 - 2006 3532553AW (11352602) Auto Federal.ctd - [{D0782} Internal Flash, Fuel Pressure, Fuel Pressure, Base Table]

File Edit View Calibration Flash Window Help

Adjust: # % * / ~

Search

Group: (All)

Calibrations

EFILive Custom Calibrations

Internal Flash

Injection Quantity

Injection Timing

Main Injection, Axis Define

Main Injection

Pilot Injection, Axis Define

Pilot Injection

Post Injection, Axis Define

Post Injection

Idle

Fuel Pressure

Parameters

Axis Define

Fuel Pressure, Base Table

Fuel Pressure, Air Density Adjust 1

Fuel Pressure, Air Density Adjust 2

Fuel Pressure, Air Density Adjust 3

Fuel Pressure, Air Density Adjust 4

Fuel Pressure Reg, Base Duty Cycle

Fuel Pressure Reg, Max Duty Cycle

Fuel Pressure Reg, Current Conversion

P.I.D Control

Diagnostics

Engine Protection

Air Mass

Turbo

ECM Sensors

Intake Air Heater

Miscellaneous

External Flash

Not used

Not used

Not used

Not used

RPM {link: SAE.RPM} (650,2000)

mm3 {link: CM.CMDFUELB} (20.0, 110.0)

Data: 43 MPa

Units: MPa Minimum: 0 Maximum: 250 EFILive limits.

Description RTACS User notes

This table defines the base commanded fuel pressures which will then be further adjusted by the air density adjustment tables.

Axis tables:

- {D0753} Fuel Pressure Base Table, RPM Axis
- {D0754} Fuel Pressure Base Table, Fuel Axis

High

Med

Low

140.0 110.0 55.0 0.000 1200 2200 2900

mm3

RPM

Rotate using right mouse button

	0.0	10.0	20.0	30.0	45.0	55.0	65.0	75.0	85.0	95.0	110.0	120.0	125.0	130.0	135.0	140.0
400	35	35	40	40	50	50	55	60	61	65	70	70	70	71	80	80
600	35	35	40	45	60	60	65	70	71	75	80	80	80	80	80	80
650	43	43	43	50	65	70	75	75	80	80	100	100	100	100	100	100
800	45	48	48	60	64	71	76	81	86	91	98	103	105	108	110	113
1000	50	58	55	68	85	85	87	91	95	99	105	108	110	112	114	116
1200	54	54	66	80	105	102	88	87	88	89	91	92	93	93	94	94
1400	58	58	77	90	123	120	107	104	103	101	99	98	97	96	96	95
1600	65	70	86	104	128	128	118	102	100	99	103	107	115	118	120	125
1800	80	90	96	105	132	122	112	110	109	108	113	119	122	126	139	143
2000	95	97	110	116	135	135	130	127	125	115	110	110	110	135	140	144
2200	100	105	116	125	135	135	130	127	122	115	123	127	136	142	145	
2400	105	110	116	135	127	120	120	120	115	118	120	135	136	143	152	154
2600	110	115	115	124	127	121	120	120	120	119	125	140	145	150	160	160
2700	115	120	114	123	133	131	128	125	125	128	130	145	152	154	160	160
2800	120	120	135	121	136	143	140	135	135	138	140	155	155	160	160	160
2900	115	115	120	130	140	155	150	150	150	155	160	160	160	160	160	160
3000	110	110	140	140	150	160	160	160	160	160	160	160	160	160	160	160
3200	110	110	140	140	155	160	160	160	160	160	160	160	160	160	160	160
3500	110	110	130	140	150	150	150	150	150	150	150	150	150	150	150	150

{D0782} Fuel Pressure, Base Table

This table defines the base commanded fuel pressures which will then be further adjusted by the air density adjustment tables.

Axis tables:

- {D0753} Fuel Pressure Base Table, RPM Axis
- {D0754} Fuel Pressure Base Table, Fuel Axis

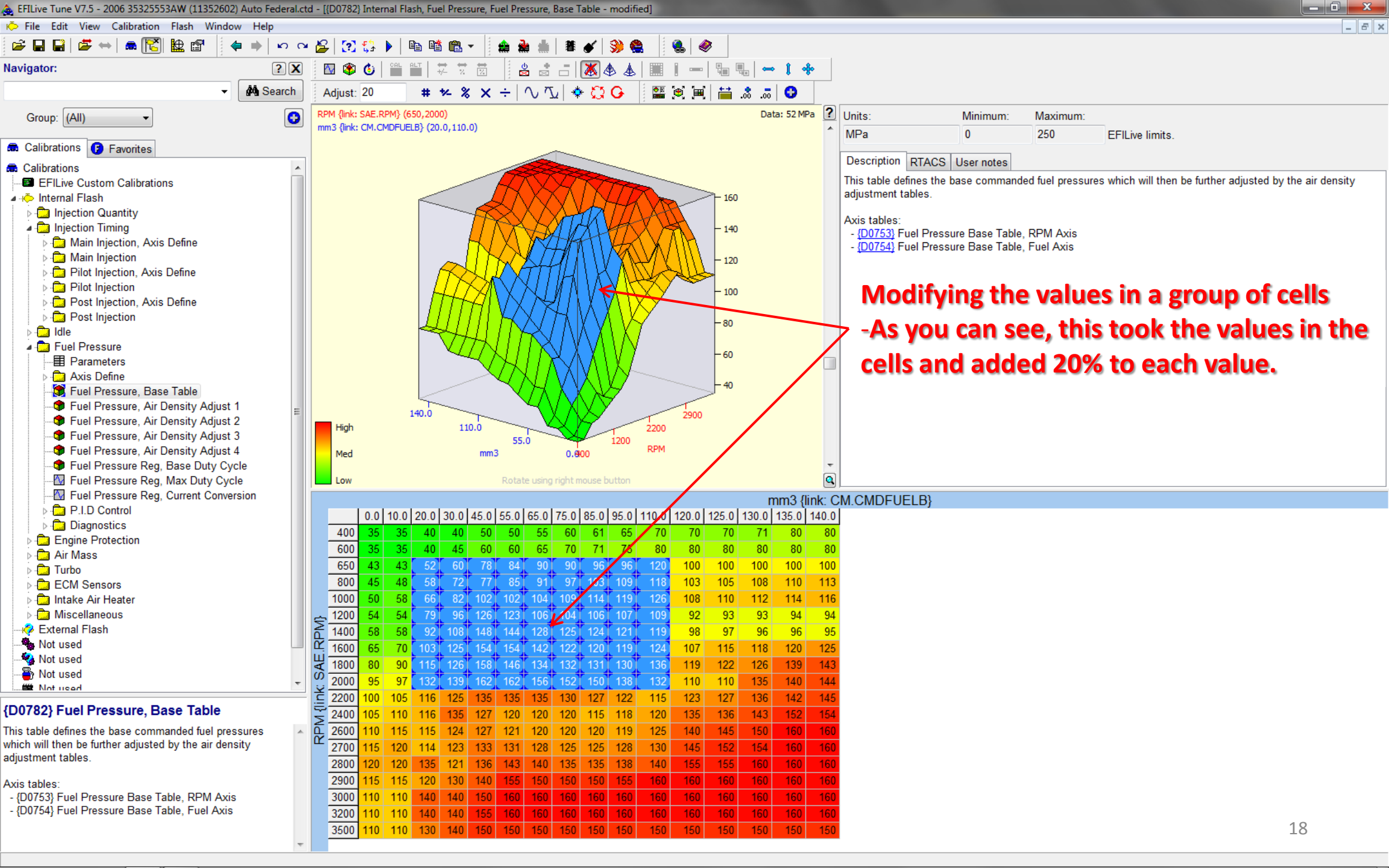
Modifying the values in a group of cells

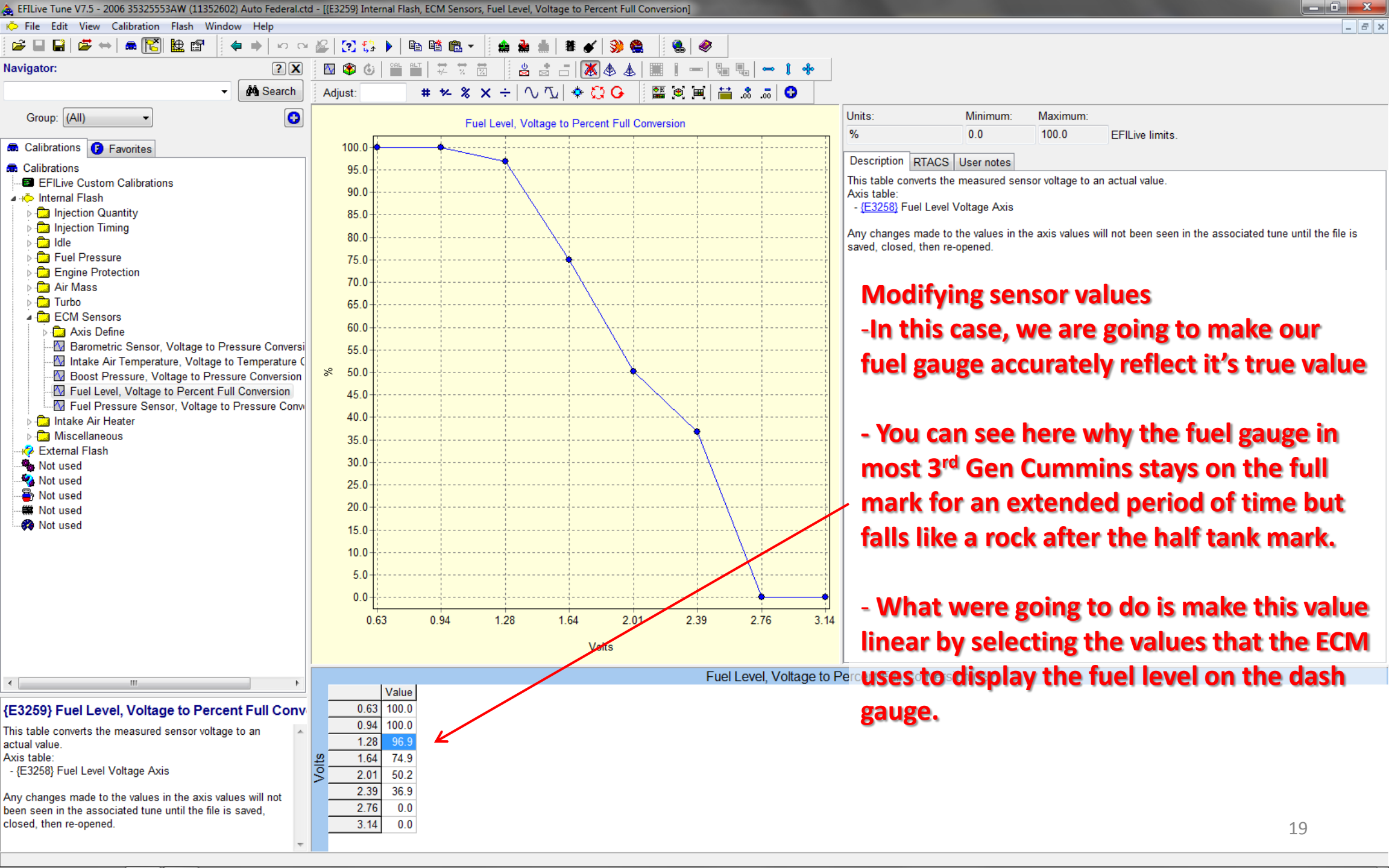
-You can changes to the values of a group of cells by selecting the cells you wish to change and using the adjust functions.

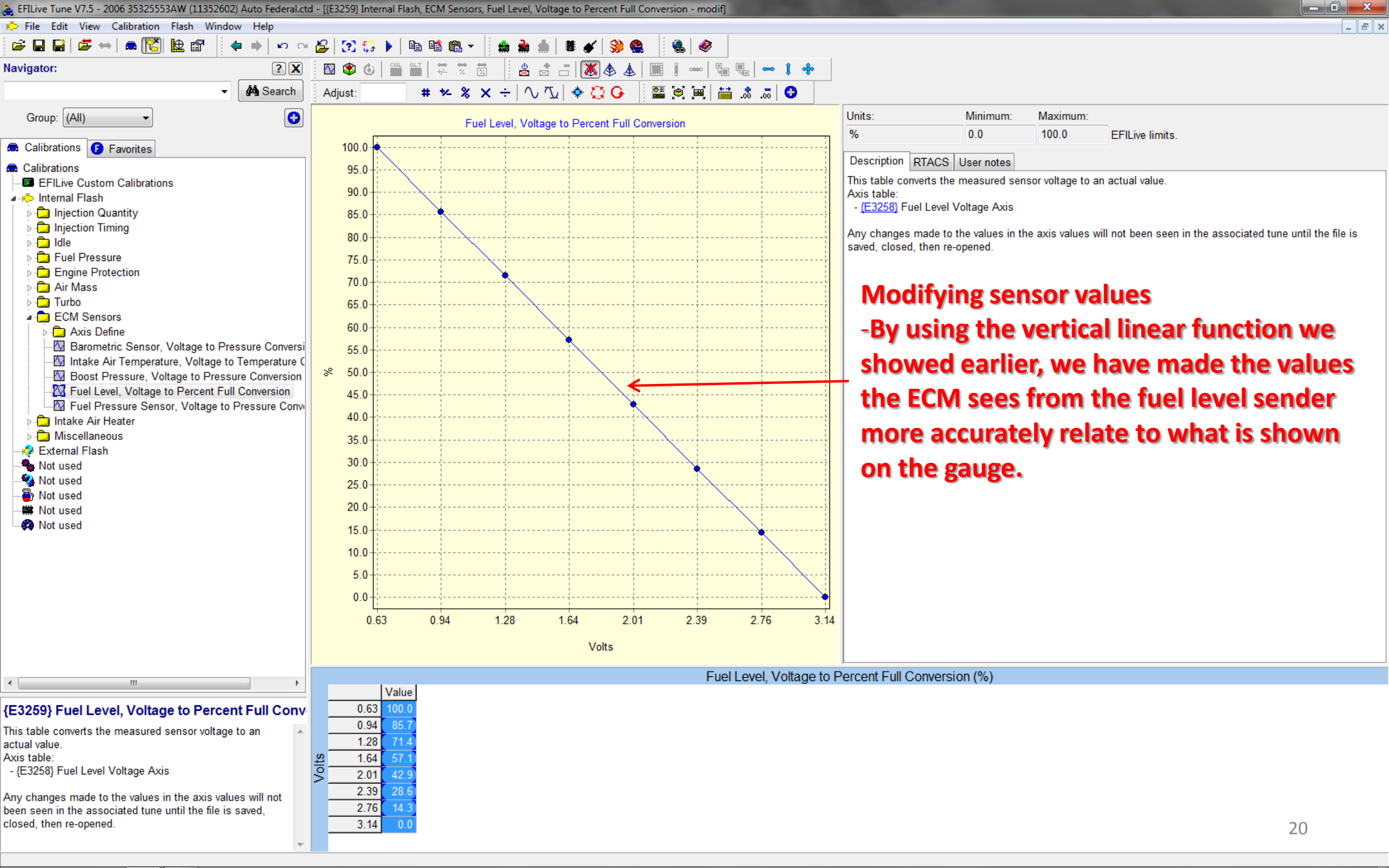
-You can add/subtract a specific number, apply a percentage or multiply or divide by a given value.

-For this, we're going to apply a 20% gain to the selected values

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EFILive Tune V7.5 - 2006 3532553AW (11352602) Auto Federal.ctd - [{D0502}] Internal Flash, Injection Quantity, Main Injection, Main Injection Pulse

File Edit View Calibration Flash Window Help

mm3 {link: CM.CMDFUEL} (12.0,60.0)

MPa {link: CM.FPD} (30.0,70.0)

Adjust: # % X ÷ ~

mm3 {link: CM.CMDFUEL} (12.0,60.0)

MPa {link: CM.FPD} (30.0,70.0)

Units: Minimum: Maximum: Microseconds 0 10000 EFILive limits.

Description RTACS User notes

This table defines the Main Injection Pulse width (injector opening time). The ECM selects the value from this table based on fuel delivery per stroke (mm3) and Commanded Fuel Pressure (MPa).

Axis tables:

- {D0500} Main Injection Pulse Fuel Axis
- {D0501} Main Injection Pulse Fuel Pressure Axis

Calibrations Favorites

Calibrations

- EFILive Custom Calibrations
 - Internal Flash
 - Injection Quantity
 - Main Injection, Axis Define
 - Main Injection
 - Pedal Position to Desired Fuel (Normal)
 - Pedal Position to Desired Fuel (Transient)
 - Main Injection Pulse
 - Pilot Injection, Axis Define
 - Pilot Injection
 - Post Injection, Axis Define
 - Post Injection
 - Limiters, Axis Define
 - Limiters
 - Injection Timing
 - Idle
 - Fuel Pressure
 - Engine Protection
 - Air Mass
 - Turbo
 - ECM Sensors
 - Intake Air Heater
 - Miscellaneous
 - External Flash
 - Not used
 - Not used
 - Not used
 - Not used
 - Not used

mm3 {link: CM.CMDFUEL} (12.0,60.0)

MPa {link: CM.FPD} (30.0,70.0)

High Med Low

Rotate using right mouse button

MPa {link: CM.FPD}

	9.0	15.0	20.0	25.0	30.0	40.0	50.0	60.0	70.0	80.0	100.0	110.0	120.0	140.0	160.0	180.0
0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1.0	0	590	407	287	259	160	160	160	160	160	160	160	160	160	160	160
2.0	0	784	513	378	333	264	213	200	186	160	160	160	160	160	160	160
5.0	0	1092	732	581	482	373	312	284	263	243	227	226	222	215	213	200
8.0	0	1289	883	704	595	457	383	351	313	289	261	257	248	235	231	218
12.0	0	1496	1050	837	712	560	460	398	369	351	315	301	288	265	258	243
15.0	0	1615	1159	929	790	621	526	455	398	374	348	342	321	290	280	264
20.0	0	1819	1323	1063	911	720	604	539	490	426	381	381	366	345	329	310
25.0	0	2038	1477	1195	1023	817	690	602	544	501	424	415	396	377	364	344
30.0	0	2244	1646	1359	1165	935	775	686	608	552	489	451	432	407	386	364
33.0	0	2385	1766	1481	1284	1037	870	742	657	580	517	486	456	425	399	376
35.0	0	2479	1858	1555	1359	1102	933	817	694	599	534	507	480	437	409	386
38.0	0	2617	1997	1668	1468	1199	1019	887	803	725	566	532	511	461	426	401
40.0	0	2709	2087	1745	1542	1257	1086	946	853	758	593	549	527	489	437	412
41.0	0	2754	2133	1786	1579	1285	1116	978	879	778	649	569	534	502	442	417
44.0	0	2892	2268	1912	1691	1387	1197	1054	947	840	721	666	603	533	469	442
46.0	0	2983	2360	1996	1751	1451	1256	1100	990	900	753	707	670	564	493	464
48.0	0	3074	2451	2077	1825	1513	1314	1159	1047	939	800	741	706	646	527	497
51.0	0	3212	2589	2198	1936	1606	1397	1242	1128	1000	852	803	764	694	615	580
60.0	3000	3623	3000	2568	2262	1885	1651	1471	1344	1218	1054	982	930	836	766	722
80.0	4750	4538	3915	3392	2983	2505	2210	1989	1811	1656	1459	1371	1304	1175	1088	1026
100.0	5500	5453	4830	4216	3705	3125	2768	2508	2290	2103	1840	1740	1654	1508	1396	1316
120.0	6300	6367	5744	5039	4426	3745	3327	3028	2759	2545	2238	2102	2001	1831	1701	1604
140.0	7400	7282	6659	5863	5148	4365	3885	3547	3228	2987	2626	2468	2350	2156	2005	1890

{D0502} Main Injection Pulse

This table defines the Main Injection Pulse width (injector opening time). The ECM selects the value from this table based on fuel delivery per stroke (mm3) and Commanded Fuel Pressure (MPa).

Axis tables:

- {D0500} Main Injection Pulse Fuel Axis
- {D0501} Main Injection Pulse Fuel Pressure Axis

Compensating for larger injectors to improve streetability

-In this case, were going to reduce the amount of duration to compensate for installing injectors that flow 20% more than stock

-What we do is take the data we see in the logs and see what amount of fuel is being commanded and at what pressure.

-We select those cells and use the adjust function as described earlier to reduce our duration in the selected range

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EFILive Tune V7.5 - 2006 3532553AW (11352602) Auto Federal.ctd - [D0502] Internal Flash, Injection Quantity, Main Injection, Main Injection Pulse - modified

File Edit View Calibration Flash Window Help

Adjust: -20

% < > X ÷

Navigator:

Group: (All)

Search

Calibrations

EFILive Custom Calibrations

Internal Flash

Injection Quantity

Main Injection, Axis Define

Main Injection

Pedal Position to Desired Fuel (Normal)

Pedal Position to Desired Fuel (Transient)

Main Injection Pulse

Pilot Injection, Axis Define

Pilot Injection

Post Injection, Axis Define

Post Injection

Limiters, Axis Define

Limiters

Injection Timing

Idle

Fuel Pressure

Engine Protection

Air Mass

Turbo

ECM Sensors

Intake Air Heater

Miscellaneous

External Flash

Not used

Not used

Not used

Not used

Not used

mm3 {link: CM.CMDFUELB} (12.0,60.0)

MPa {link: CM.FPD} (30.0,70.0)

Data: 570 Microseconds

High

Med

Low

Rotate using right mouse button

Units: Minimum: Maximum:

Microseconds 0 10000 EFILive limits.

Description RTACS User notes

This table defines the Main Injection Pulse width (injector opening time). The ECM selects the value from this table based on fuel delivery per stroke (mm3) and Commanded Fuel Pressure (MPa).

Axis tables:

{D0502} Main Injection Pulse

This table defines the Main Injection Pulse width (injector opening time). The ECM selects the value from this table based on fuel delivery per stroke (mm3) and Commanded Fuel Pressure (MPa).

Axis tables:

- {D0500} Main Injection Pulse Fuel Axis

- {D0501} Main Injection Pulse Fuel Pressure Axis

	9.0	15.0	20.0	25.0	30.0	40.0	50.0	60.0	70.0	80.0	100.0	110.0	120.0	140.0	160.0	180.0
0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1.0	0	590	407	287	259	160	160	160	160	160	160	160	160	160	160	160
2.0	0	784	513	378	333	264	213	200	186	160	160	160	160	160	160	160
5.0	0	1092	732	581	482	373	312	284	263	243	227	226	222	215	213	200
8.0	0	1289	883	704	595	457	383	351	313	289	261	257	248	235	231	218
12.0	0	1496	1050	837	570	448	368	318	295	351	315	301	288	265	258	243
15.0	0	1615	1159	929	632	497	421	364	318	374	348	342	321	290	280	261
20.0	0	1819	1323	1063	729	576	483	431	392	426	381	381	366	345	329	310
25.0	0	2038	1477	1195	819	654	552	482	435	501	424	415	396	377	364	344
30.0	0	2244	1646	1359	932	748	620	549	486	552	486	451	432	407	386	364
33.0	0	2385	1766	1481	1027	830	696	594	526	580	517	486	456	425	399	376
35.0	0	2479	1858	1555	1087	882	747	654	565	599	534	507	480	437	409	386
38.0	0	2617	1997	1668	1174	959	817	710	643	725	566	532	511	461	426	401
40.0	0	2709	2087	1745	1234	1006	869	757	683	758	593	549	527	489	437	412
41.0	0	2754	2133	1786	1263	1028	893	782	703	778	649	569	534	502	442	417
44.0	0	2892	2268	1912	1353	1110	958	843	758	840	721	666	603	533	469	442
46.0	0	2983	2360	1996	1401	1161	1005	880	792	900	753	707	670	564	493	464
48.0	0	3074	2451	2077	1460	1211	1051	927	838	939	800	741	706	646	527	497
51.0	0	3212	2589	2198	1549	1285	1118	994	902	1000	852	803	764	694	615	580
60.0	3000	3623	3000	2568	1810	1508	1321	1177	1075	1218	1054	982	930	836	766	722
80.0	4750	4538	3915	3392	2983	2505	2210	1989	1811	1656	1459	1371	1304	1175	1088	1026
100.0	5500	5453	4830	4216	3705	3125	2768	2508	2290	2103	1840	1740	1654	1508	1396	1316
120.0	6300	6367	5744	5039	4426	3745	3327	3028	2759	2545	2238	2102	2001	1831	1701	1604
140.0	7400	7282	6659	5863	5148	4365	3885	3547	3228	2987	2626	2468	2350	2156	2005	1890

Compensating for larger injectors to improve streetability

-What we've done is reduced the total duration period within this specific operating range

-Continue to make this adjustment until you achieve the desired level of smoke reduction

-You can also add duration to simulate installing larger injectors.

-Remember! Duration is limited to a specific period of time. Asking for more than you physically have will produce no further gains

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EFILive Tune V7.5 - 2006 3532553AW (11352602) Auto Federal.ctd - [[E2503] Internal Flash, Timing, Main Injection, Timing, Base Table - modified]

File Edit View Calibration Flash Window Help

Adjust: # % / * X ÷ ~

Units: Degrees Minimum: -25.0 Maximum: 60.0 EFLive limits.

Navigator

Group: (All)

Calibrations Favorites

Calibrations

EFILive Custom Calibrations

Internal Flash

Injection Quantity

Injection Timing

Main Injection, Axis Define

Main Injection

Parameters

Timing, Base Table

Timing, Base Table, Air Density Adjust 1

Timing, Base Table, Air Density Adjust 2

Timing, Base Table, Air Density Adjust 3

Timing, Base Table, Air Density Adjust 4

Timing, Intake Air Temp Adjust

Timing, Intake Air Temp Adjust Multiplier

Timing, Barometric Pressure Adjust

Timing, Barometric Pressure Multiplier

Timing, Boost Adjust Multiplier

Timing, Cranking

Timing, Minimum

Timing, Maximum

Injection Shutoff vs RPM

Pilot Injection, Axis Define

Pilot Injection

Post Injection, Axis Define

Post Injection

Idle

Fuel Pressure

Engine Protection

Air Mass

Turbo

ECM Sensors

Intake Air Heater

Miscellaneous

External Flash

Not used

EFILive Custom Calibrations

Internal Flash

Injection Quantity

Injection Timing

Main Injection, Axis Define

Main Injection

Parameters

Timing, Base Table

Timing, Base Table, Air Density Adjust 1

Timing, Base Table, Air Density Adjust 2

Timing, Base Table, Air Density Adjust 3

Timing, Base Table, Air Density Adjust 4

Timing, Intake Air Temp Adjust

Timing, Intake Air Temp Adjust Multiplier

Timing, Barometric Pressure Adjust

Timing, Barometric Pressure Multiplier

Timing, Boost Adjust Multiplier

Timing, Cranking

Timing, Minimum

Timing, Maximum

Injection Shutoff vs RPM

Pilot Injection, Axis Define

Pilot Injection

Post Injection, Axis Define

Post Injection

Idle

Fuel Pressure

Engine Protection

Air Mass

Turbo

ECM Sensors

Intake Air Heater

Miscellaneous

External Flash

Not used

3D Surface Plot

mm3 (link: CM.CMDFUEL) (95.0, 140.0)

High Med Low

140.0 110.0 55.0 0.620

25.0 20.0 15.0 10.0

3000 2200 1400 RPM

Rotate using right mouse button

RTACS User notes

Start of Main Injection base table. These values will then be further adjusted by the air density adjustment tables.

Axis tables:

- [E2525] Timing, Base Table, Fuel Axis

- [E2526] Timing, Base Table, RPM Axis

Let's add some power!

Any changes made to the values in the axis values will not be seen in the associated tune until the file is saved, closed, then re-opened.

Timing, Base Table

Start of Main Injection base table. These values will then be further adjusted by the air density adjustment tables.

Axis tables:

- [E2525] Timing, Base Table, Fuel Axis

- [E2526] Timing, Base Table, RPM Axis

Any changes made to the values in the axis values will not be seen in the associated tune until the file is saved, closed, then re-opened.

	0.0	10.0	20.0	30.0	45.0	55.0	65.0	75.0	85.0	95.0	110.0	120.0	125.0	130.0	135.0	140.0
620	17.0	17.0	17.0	17.0	15.0	11.1	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
650	16.1	15.5	15.5	15.0	11.5	10.1	8.9	8.6	7.7	7.3	7.3	7.3	7.3	7.3	7.3	7.3
800	16.1	16.1	16.1	16.1	13.0	10.0	9.3	8.6	7.7	7.3	7.3	7.3	7.3	7.3	7.3	7.3
1000	22.5	22.5	22.0	21.0	16.1	11.0	10.1	10.0	9.8	9.6	9.4	9.3	9.1	9.1	9.0	8.9
1200	28.0	27.9	27.2	25.0	18.3	15.0	13.5	13.2	13.2	12.8	12.1	11.6	11.4	11.1	11.0	10.8
1400	28.0	27.9	27.2	27.0	22.0	17.5	15.0	15.4	15.4	15.4	15.8	15.8	15.7	15.7	15.7	15.7
1550	28.0	27.9	27.2	27.0	21.7	19.7	17.0	15.2	15.4	15.6	15.1	14.5	15.7	15.7	15.7	15.7
1700	28.0	27.9	28.5	28.9	24.0	19.5	18.5	15.7	15.1	14.5	13.6	12.9	13.9	14.3	14.3	14.3
1800	28.0	27.9	28.5	28.9	25.5	20.0	18.5	16.5	15.4	14.8	13.5	12.7	13.7	13.7	13.7	13.7
2000	25.0	25.0	27.0	28.9	25.5	20.5	20.0	18.0	15.6	13.0	12.8	12.8	12.9	12.9	13.7	14.2
2200	24.5	22.0	21.0	20.0	17.8	16.8	15.0	13.9	12.0	12.0	13.0	13.9	14.4	15.7	16.2	
2400	24.0	20.0	17.0	14.5	13.0	12.2	11.0	10.5	10.5	11.0	12.0	13.0	14.2	15.0	16.9	17.6
2600	23.0	19.0	16.1	14.3	14.4	13.2	13.5	11.0	11.0	12.0	13.0	13.5	16.1	18.0	20.2	20.7
2800	23.0	19.0	16.3	14.2	13.9	13.4	13.8	11.5	13.0	13.0	13.9	15.5	18.0	22.0	25.4	26.0
2900	18.0	17.0	16.5	15.7	15.6	14.4	14.5	13.5	13.9	13.9	15.2	18.5	22.0	25.3	28.2	29.2
3000	19.0	19.0	19.0	17.0	16.5	15.6	14.9	13.9	13.9	14.5	16.1	20.5	22.0	24.3	27.5	28.0
3200	25.0	22.0	20.0	17.9	16.1	16.1	16.1	16.3	16.3	16.5	19.5	22.5	21.0	21.0	22.0	22.0
3300	25.0	22.0	20.0	17.9	16.1	16.1	16.1	16.1	16.1	16.1	19.5	20.0	20.5	21.0	22.0	22.0
3500	25.0	22.0	20.0	17.9	16.1	16.2	16.2	16.2	16.2	16.2	19.5	20.0	20.5	21.0	22.0	22.0

-Adding power on a diesel is easily done by adjusting the timing.

-For every 3 degrees that you can advance the timing, you can expect a 10 – 40 hp gain. This varies based on the vehicles actual modifications.

-What we're going to do here is add some power in the upper RPM range once we're asking for approx 60% throttle.

-Select the values and apply 3* to each cell by using the +/- function to apply it as a set value

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NEFILive

For Dummies!

