

034EFI RIPCHIP

Contents

Disclaimer:	2
RIP Chip Basic Information	3
What it is:	3
What it can do:	3
What does it come with?	3
RIP System Requirements:.....	3
Using the RIP Chip Software.....	8
Changing the maps:	12
Save your changes!.....	13

034EFI RIPCHIP

Disclaimer:

THIS IS A HIGH PERFORMANCE PRODUCT, USE AT YOUR OWN RISK.

YOU CAN BLOW THINGS UP, PLEASE DON'T.

Please refrain from using this product until you have a good comprehension of intended use, limitations, and requirements, to safely use this product to it's potential.

034Motorsport and it's distributors/resellers are in no way responsible from any damage incurred to property as a result of this products use, or installation. This product is a very advanced, completely re-mappable system that should only be programmed and installed by someone proficient in this type of work.

034EFI RIPCHIP

RIP Chip Basic Information

What it is:

The RIP Chip (Reprogrammable Internal Performance Chip) is a very advanced chip and interface designed to allow any vehicle to be reprogrammed and remapped to optimize it's potential. This chip will not 'make' power, but will allow you to find out how much power you have hidden away in your vehicle.

What it can do:

The RIP Chip is designed to be a direct replacement for the existing memory chip in your stock ecu.

The RIP Chip has 4 completely independent files stored on it at all times, selectable with the included rotary switch.

The RIP Chip is also reprogrammable via any windows XP laptop with a usb port with the included USB cable. This allows you to keep 4 active files on the chip at any time, with an unlimited number of files sitting on your laptop ready to be loaded up as needed. These files are re-mappable with the RIP Chip software interface giving you the freedom to dial in your setup as precisely as you want, how you want it.

What does it come with?

- RIP Chip, pre-loaded with a base map for your ecu
- USB interface cable
- File Selection Cable, allows for selecting any of 4 files loaded on your RIP Chip
- RIP Chip interface software (Free downloaded from website)
- RIP Chip Instruction Manual

RIP System Requirements:

- Compatible ECU, this RIP Chip is a 28PIN DIP format memory replacement chip, there are many vehicles supported, for an up to date list, or to request support for your vehicle please visit our website, or contact us directly.
- Windows based computer with Windows XP(future releases will be fully supported soon)
- Latest version of the Java Runtime Environment (JRE), available for free here: <http://www.java.com/en/download/index.jsp>
- Available USB port on your laptop/pc

034EFI RIPCHIP

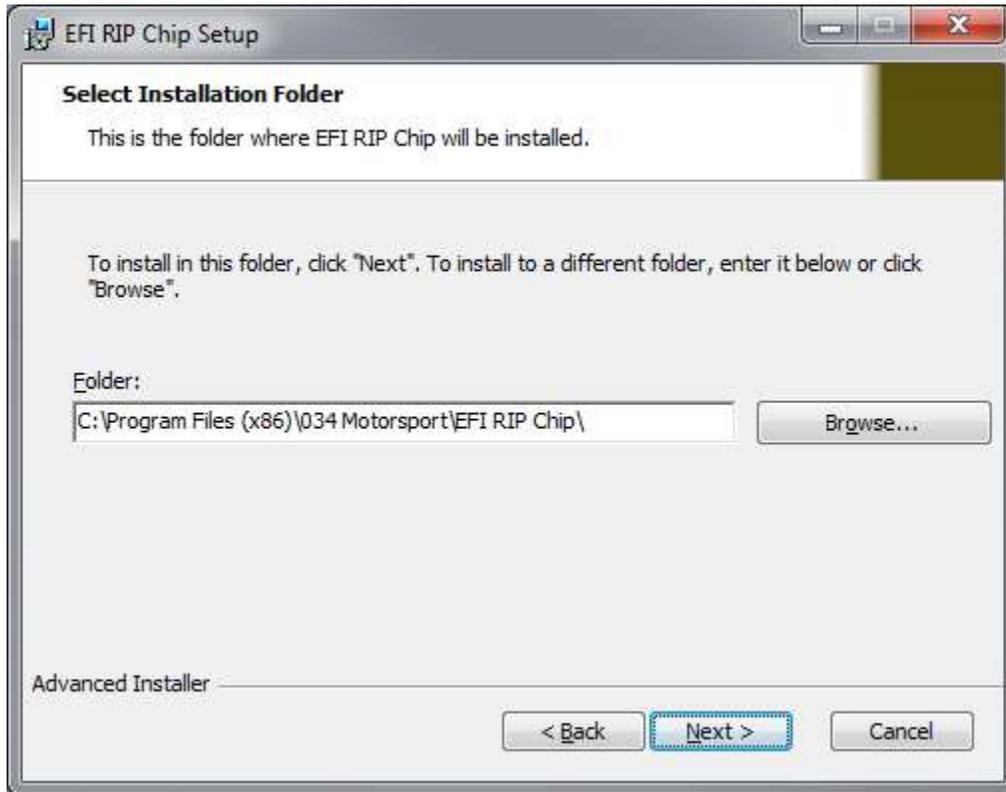
Installing the RIP Chip Software

1. Download the latest RIP Chip software installation package from our website:
<http://www.034motorsport.com/downloads.php>
2. Double click on the installation package you just saved, you will be met with this:



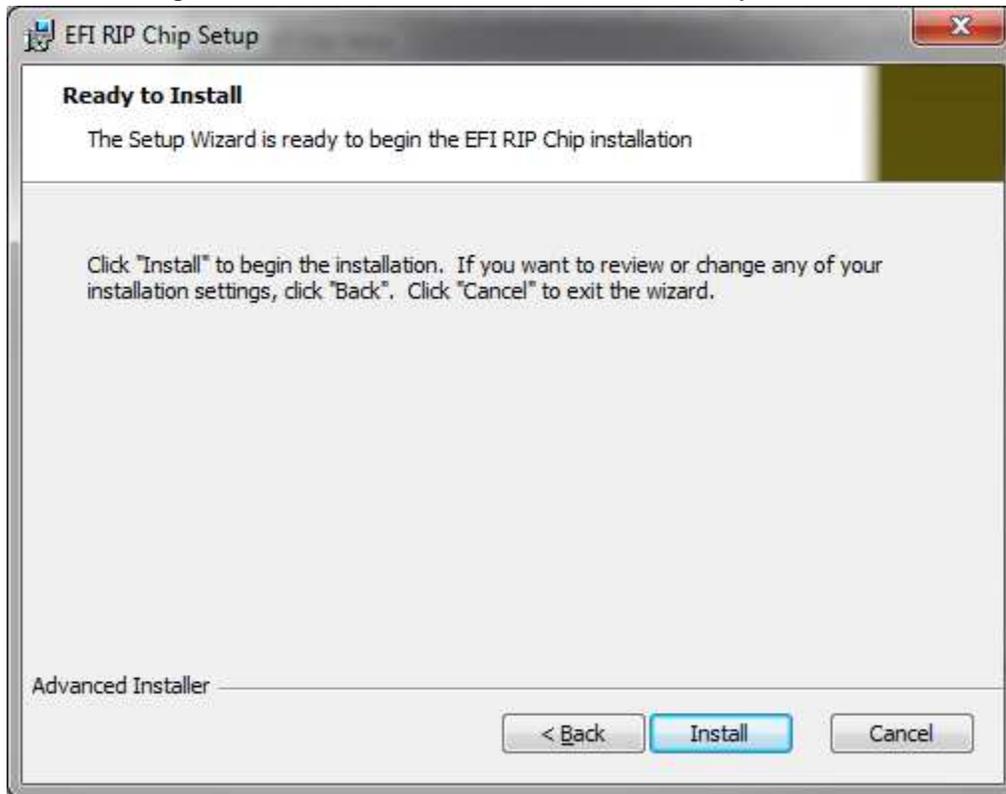
034EFI RIPCHIP

3. Clicking next will allow you to select an installation location (you can generally leave all of these fields alone, and keep clicking next through this installer):



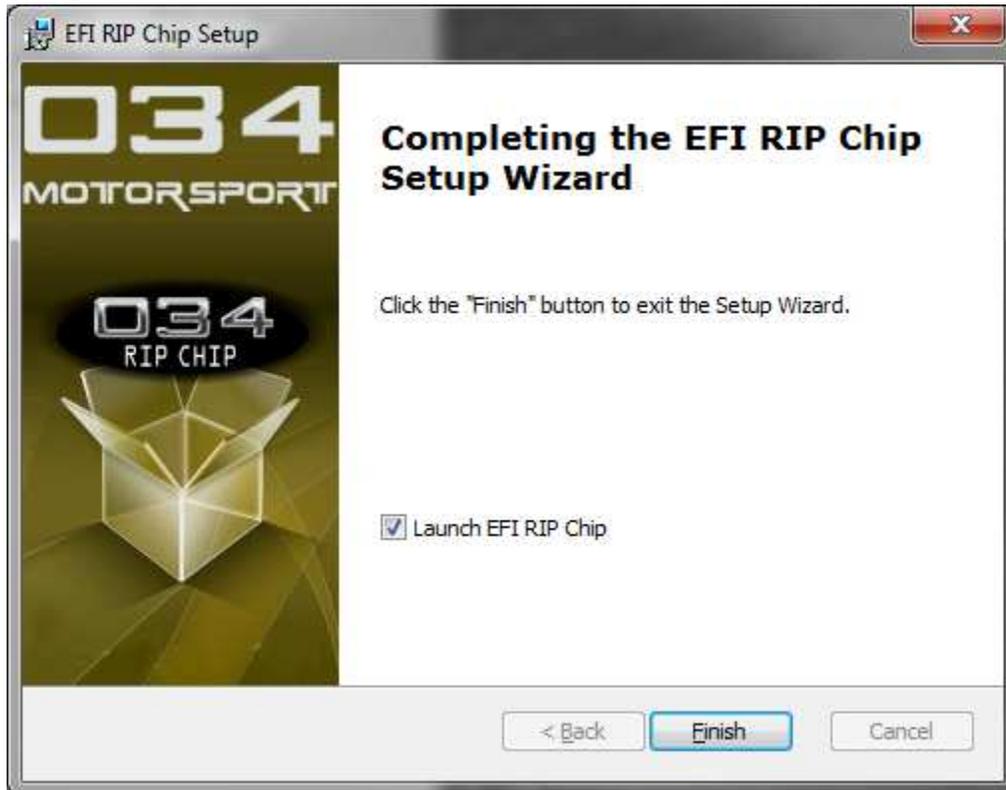
034EFI RIPCHIP

4. After clicking Install the software will be installed on your PC.



034EFI RIPCHIP

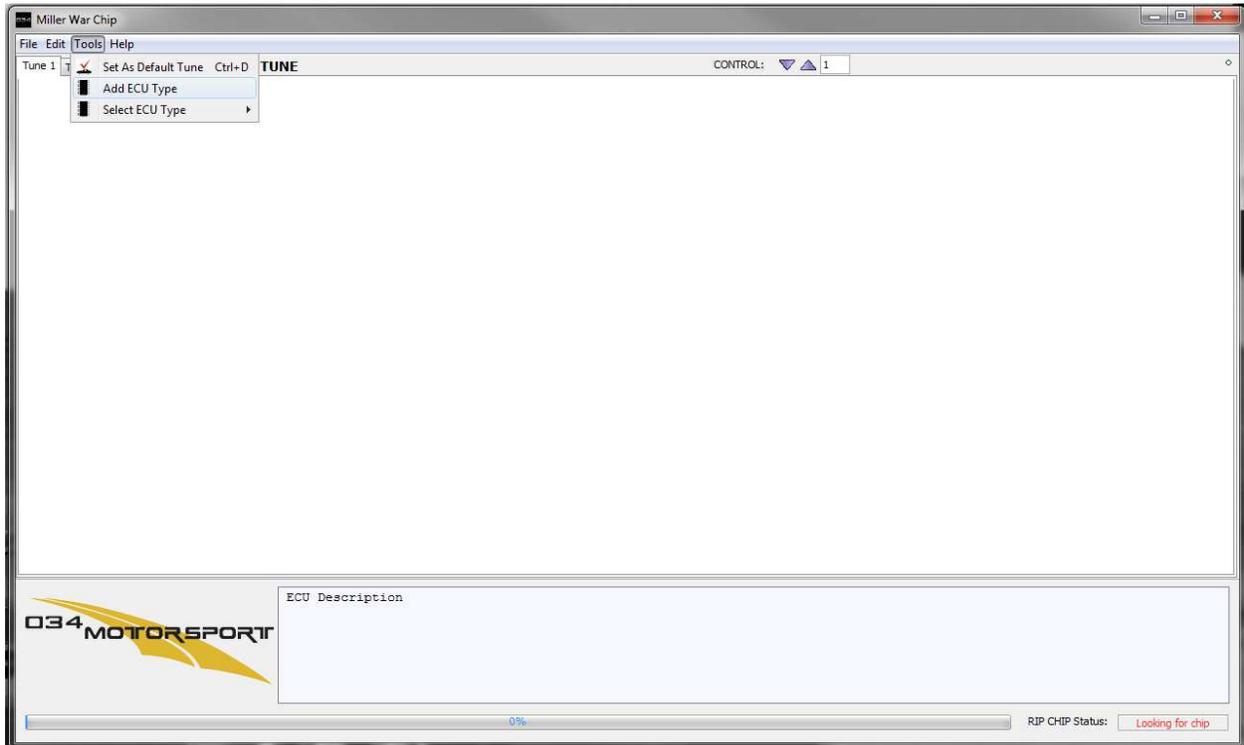
5. Once completed you can run the RIP Chip software right from the installer to get going:



034EFI RIPCHIP

Using the RIP Chip Software

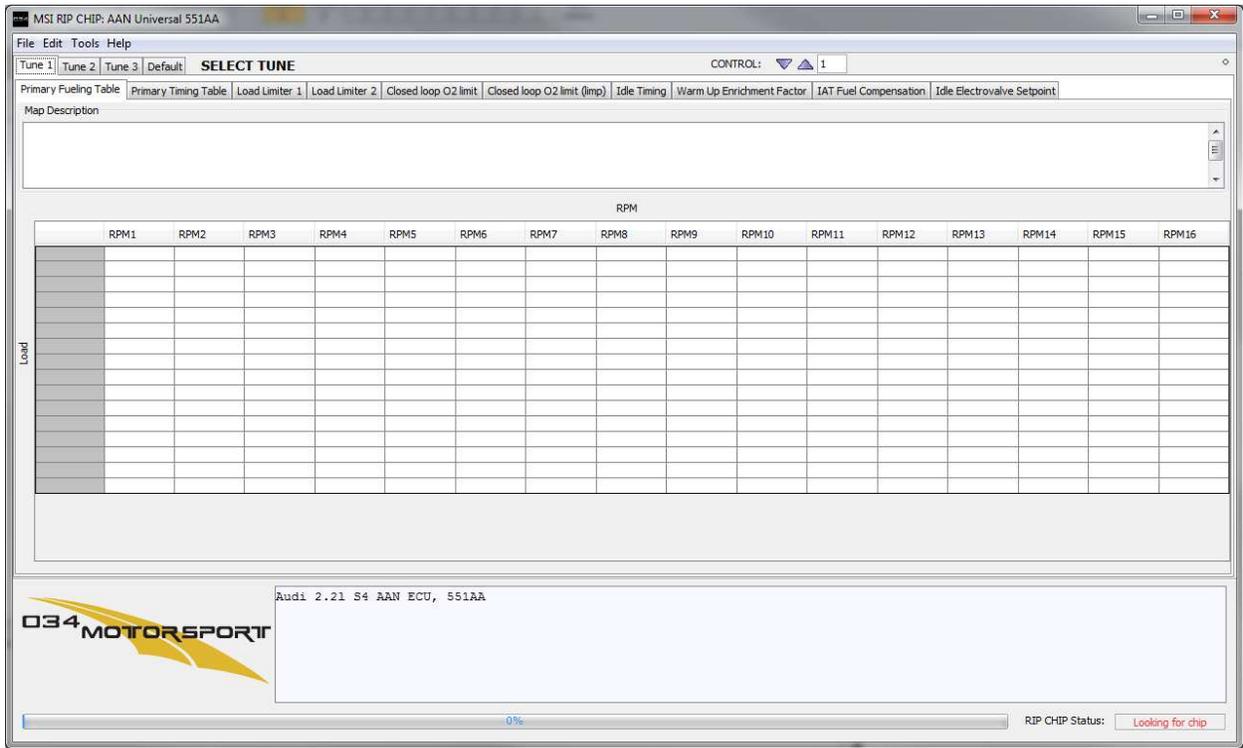
After your installation you can open the RIP Chip software. You will be met with an empty window with 4 tabs. Before you can use this software you must first load a definition file for your ECU. This will be provided to you with the purchase of your RIP Chip. Do this by clicking “Tools->Add ECU Type”.



034EFI RIPCHIP

Once your ECU definition file has been loaded all the maps available to you will be displayed, and will be empty until we load some tuned files in.

This is an example definition file for an Audi S4 with an AAN ECU, the maps in your ecu will likely vary:



Now you're ready to plug in your RIP Chip and load the files from it.

*****The vehicle must be turned off to read/write to the RIP Chip, this is for safety, and technical reasons, the file cannot be modified, or read while the engine is running, and/or the ignition is 'on'.**

Once the RIP Chip is plugged in you will see the status icon in the bottom right of the screen show the chip being 'Ready'. Once that happens select 'File->Read All' from the Rip Chip software to load your current maps into the tuning interface.

034EFI RIPCHIP

Once the maps have loaded your map information is displayed. **We strongly encourage that you save any maps you have before editing them** so you can go back and forth between tunes, should you make modifications that get you into a place you don't want to be you always want backups to revert back to.

MSI RIP CHIP: AAN Universal 551AA

034 (Audi S4 (Original_AA)) Tune 2 | Tune 3 | Default **SELECT TUNE** CONTROL: 1

Primary Fueling Table | Primary Timing Table | Load Limiter 1 | Load Limiter 2 | Closed loop O2 limit | Closed loop O2 limit (limp) | Idle Timing | Warm Up Enrichment Factor | IAT Fuel Compensation | Idle Electrovalve Setpoint

Map Description

	600.0	760.0	1240.0	1520.0	1760.0	2000.0	2520.0	3000.0	3520.0	4000.0	4600.0	5200.0	5720.0	6000.0	6520.0	7000.0
1.0	0.783	0.783	0.804	0.812	0.833	0.869	0.869	0.876	0.869	0.848	0.84	0.833	0.819	0.826	0.819	0.84
1.0	0.804	0.783	0.804	0.804	0.804	0.804	0.804	0.804	0.797	0.797	0.797	0.804	0.804	0.812	0.819	0.826
2.0	0.884	0.833	0.833	0.833	0.833	0.833	0.833	0.833	0.819	0.826	0.826	0.833	0.833	0.84	0.848	0.848
2.0	0.891	0.826	0.848	0.848	0.848	0.855	0.855	0.855	0.855	0.855	0.855	0.855	0.855	0.862	0.869	0.869
3.0	0.898	0.84	0.855	0.855	0.855	0.862	0.869	0.862	0.862	0.862	0.862	0.862	0.869	0.869	0.876	0.876
3.0	0.905	0.869	0.869	0.862	0.862	0.869	0.869	0.862	0.862	0.862	0.869	0.884	0.891	0.891	0.898	0.905
4.0	0.927	0.891	0.876	0.869	0.869	0.876	0.869	0.862	0.869	0.876	0.891	0.898	0.905	0.912	0.919	0.927
5.0	0.991	0.963	0.927	0.891	0.876	0.884	0.876	0.869	0.876	0.884	0.898	0.905	0.912	0.919	0.934	0.948
5.0	0.991	0.998	1.006	0.97	0.898	0.884	0.884	0.884	0.891	0.898	0.912	0.919	0.927	0.934	0.955	0.977
6.0	0.998	1.006	1.013	0.998	0.927	0.891	0.898	0.905	0.912	0.919	0.927	0.941	0.963	0.977	0.998	1.013
6.0	1.006	1.013	1.02	1.02	0.955	0.898	0.912	0.927	0.941	0.948	0.963	0.977	0.998	1.013	1.034	1.056
7.0	1.02	1.027	1.034	1.034	0.998	0.919	0.934	0.955	0.97	0.977	0.991	1.013	1.034	1.049	1.077	1.099
7.0	1.042	1.049	1.056	1.056	1.042	0.941	0.955	0.977	0.991	0.998	1.02	1.042	1.063	1.07	1.106	1.142
8.0	1.042	1.049	1.056	1.056	1.063	0.97	0.977	1.02	1.034	1.049	1.063	1.085	1.106	1.121	1.156	1.185
9.0	1.042	1.049	1.056	1.056	1.063	0.991	1.013	1.049	1.07	1.077	1.099	1.106	1.149	1.156	1.185	1.221
10.0	1.042	1.049	1.056	1.056	1.063	1.07	1.07	1.07	1.085	1.092	1.106	1.128	1.164	1.171	1.207	1.25

Audi 2.2l S4 AAN ECU, 551AA

034 MOTORSPORT

RIP CHIP Status: Looking for chip

After making the modifications to the maps you need to upload the revised files back to the RIP Chip. This is done by selecting "File->Write", or pressing Ctrl-W.

*****DO NOT UNPLUG THE USB CABLE WHILE THE FILES ARE BEING UPLOADED TO THE RIP CHIP!*****

034EFI RIPCHIP

Once the maps have been loaded you can change the name of the maps to something a little more meaningful to you, IE: "100 Octane Race Map", "Valet Mode", etc. This can be done by double clicking the map name tab:

034EFI Rip Chip: AAN Universal 551AA

File Edit Tools Help

RIP CHIP 034 RS2 910c **SELECT TUNE** CONTROL: 1

	Closed loop O2 limit (limp)		Idle Timing	Warm Up Enrichment Factor		IAT Fuel Compensation		Idle Electrovalve Setpoint	
	Primary Fueling Table		Primary Timing Table	Load Limiter 1		Load Limiter 2		Closed loop O2 limit	

Map Description

This is your main fueling map. Increased cell values will result in more fuel.

		RPM															
		600.0	760.0	1240.0	1520.0	1760.0	2000.0	2520.0	3000.0	3520.0	4000.0	4600.0	5200.0	5720.0	6000.0	6520.0	7000.0
7.0	Load %	0.539	0.539	0.532	0.51	0.532	0.539	0.546	0.546	0.546	0.539	0.532	0.553	0.553	0.553	0.567	0.567
12.0		0.539	0.524	0.539	0.524	0.532	0.546	0.546	0.553	0.546	0.539	0.539	0.567	0.56	0.56	0.567	0.575
17.0		0.56	0.51	0.517	0.517	0.532	0.539	0.546	0.546	0.56	0.567	0.567	0.553	0.546	0.532	0.539	0.539
22.0		0.56	0.56	0.567	0.56	0.56	0.56	0.56	0.582	0.56	0.582	0.589	0.582	0.582	0.575	0.582	0.582
27.0		0.582	0.582	0.596	0.596	0.56	0.575	0.625	0.639	0.639	0.639	0.632	0.639	0.639	0.632	0.646	0.639
33.0		0.632	0.596	0.632	0.639	0.582	0.582	0.632	0.639	0.632	0.632	0.639	0.654	0.661	0.675	0.682	0.661
39.0		0.632	0.589	0.611	0.639	0.596	0.596	0.704	0.69	0.682	0.69	0.69	0.704	0.718	0.718	0.704	0.711
45.0		0.675	0.646	0.69	0.69	0.661	0.646	0.754	0.725	0.704	0.711	0.74	0.747	0.761	0.747	0.761	0.761
50.0		0.704	0.711	0.747	0.754	0.747	0.747	0.783	0.769	0.769	0.776	0.754	0.776	0.776	0.79	0.804	0.804
55.0		0.769	0.776	0.783	0.769	0.783	0.804	0.84	0.848	0.84	0.833	0.826	0.84	0.84	0.84	0.833	0.84
60.0		0.797	0.819	0.79	0.79	0.812	0.84	0.876	0.862	0.855	0.855	0.848	0.848	0.848	0.848	0.848	0.84
65.0		0.797	0.804	0.812	0.812	0.826	0.855	0.898	0.898	0.876	0.848	0.855	0.848	0.84	0.833	0.833	0.819
70.0		0.804	0.812	0.819	0.819	0.84	0.862	0.912	0.919	0.884	0.855	0.855	0.848	0.84	0.833	0.826	0.812
77.0		0.819	0.826	0.833	0.833	0.848	0.898	0.919	0.919	0.891	0.869	0.869	0.855	0.84	0.833	0.826	0.819
87.0		0.84	0.848	0.855	0.855	0.862	0.912	0.934	0.927	0.919	0.905	0.884	0.862	0.855	0.848	0.84	0.833
95.0		0.84	0.848	0.855	0.855	0.891	0.941	0.955	0.948	0.927	0.912	0.898	0.869	0.862	0.848	0.855	0.855

Audi 2.2l S4 AAN ECU, 551AA

034 MOTORSPORT

0% RIP CHIP status: Looking for chip

034EFI RIPCHIP

Changing the maps:

The whole reason you're here! It couldn't be simpler to remap your tune. You can simply edit each cell directly by entering new values, or, simply 'bump' the values up and down with the +/- keys, or the control arrows in the upper right of the mapping window.

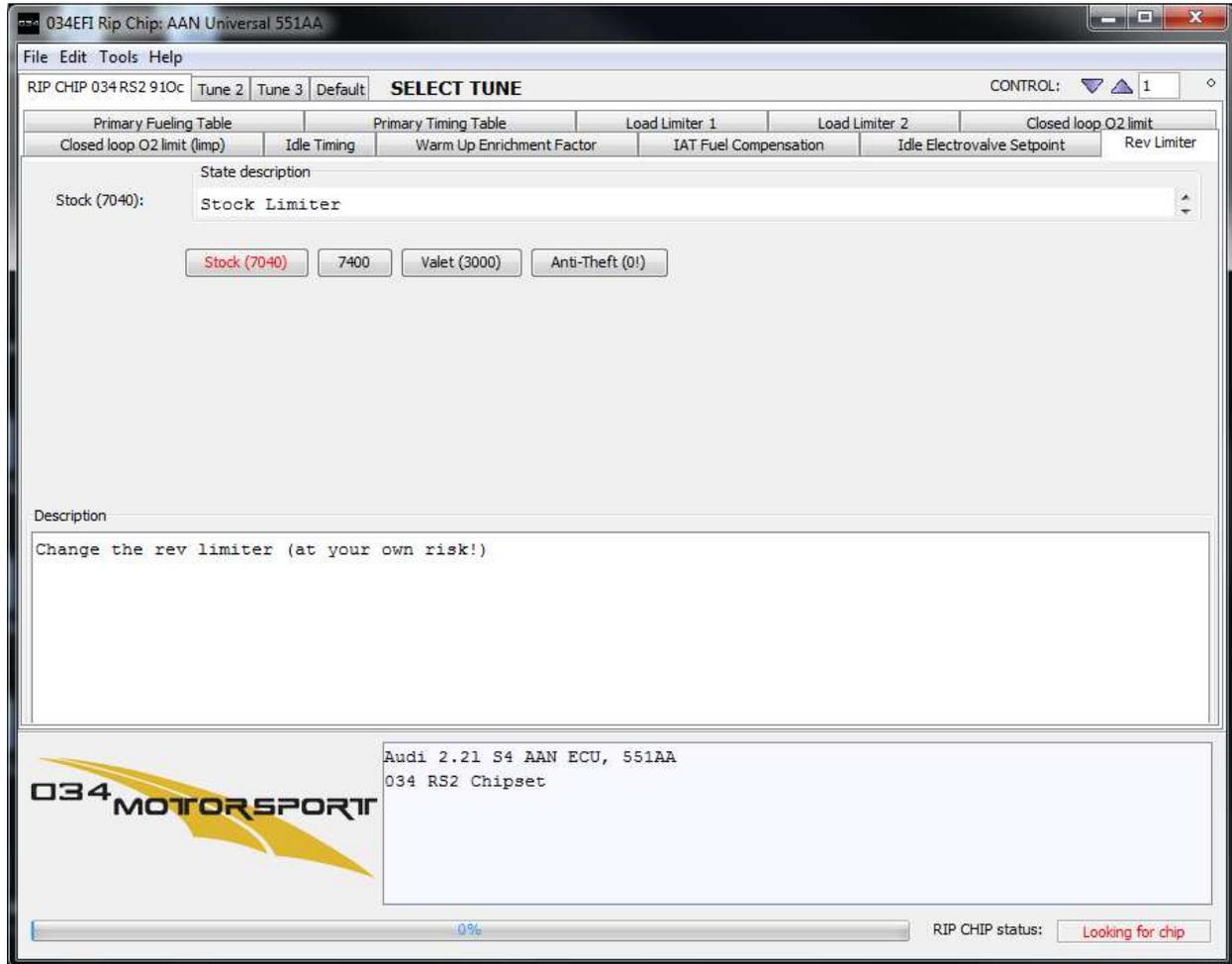
The screenshot shows the '034EFI Rip Chip: AAN Universal 551AA' software window. The main area displays a fueling map for 'Audi 2.2l S4 AAN ECU, 551AA'. The map is a grid with RPM on the x-axis (600.0 to 7000.0) and Load % on the y-axis (7.0 to 95.0). The values in the grid represent fuel mixture ratios. A large portion of the grid is highlighted in green, indicating selected cells. The software interface includes a menu bar (File, Edit, Tools, Help), a 'SELECT TUNE' dropdown, and a 'RIP CHIP status' indicator at the bottom right showing 'Looking for chip'.

	600.0	760.0	1240.0	1520.0	1760.0	2000.0	2520.0	3000.0	3520.0	4000.0	4600.0	5200.0	5720.0	6000.0	6520.0	7000.0
7.0	0.539	0.539	0.532	0.51	0.532	0.539	0.546	0.546	0.546	0.539	0.532	0.553	0.553	0.553	0.567	0.567
12.0	0.539	0.524	0.539	0.524	0.532	0.546	0.546	0.553	0.546	0.539	0.539	0.567	0.56	0.56	0.567	0.575
17.0	0.56	0.51	0.517	0.517	0.532	0.539	0.546	0.546	0.56	0.567	0.567	0.553	0.546	0.532	0.539	0.539
22.0	0.56	0.56	0.567	0.56	0.56	0.56	0.56	0.582	0.56	0.582	0.589	0.582	0.582	0.575	0.582	0.582
27.0	0.582	0.582	0.596	0.596	0.56	0.575	0.625	0.639	0.639	0.639	0.632	0.639	0.639	0.632	0.646	0.639
33.0	0.632	0.596	0.632	0.639	0.582	0.582	0.632	0.639	0.632	0.632	0.639	0.654	0.661	0.675	0.682	0.661
39.0	0.632	0.589	0.611	0.639	0.596	0.596	0.704	0.69	0.682	0.69	0.69	0.704	0.718	0.718	0.704	0.711
45.0	0.675	0.646	0.69	0.69	0.661	0.646	0.754	0.725	0.704	0.711	0.74	0.747	0.761	0.747	0.761	0.761
50.0	0.704	0.711	0.747	0.754	0.747	0.747	0.783	0.769	0.769	0.776	0.754	0.776	0.776	0.79	0.804	0.804
55.0	0.769	0.776	0.783	0.769	0.783	0.804	0.84	0.848	0.84	0.833	0.826	0.84	0.84	0.84	0.833	0.84
60.0	0.797	0.819	0.79	0.79	0.812	0.84	0.876	0.862	0.855	0.855	0.848	0.848	0.848	0.848	0.848	0.84
65.0	0.797	0.804	0.812	0.812	0.826	0.855	0.898	0.898	0.876	0.848	0.855	0.848	0.84	0.833	0.833	0.819
70.0	0.804	0.812	0.819	0.819	0.84	0.862	0.912	0.919	0.884	0.855	0.855	0.848	0.84	0.833	0.826	0.812
77.0	0.819	0.826	0.833	0.833	0.848	0.898	0.919	0.919	0.891	0.869	0.869	0.855	0.84	0.833	0.826	0.819
87.0	0.84	0.848	0.855	0.855	0.862	0.912	0.934	0.927	0.919	0.905	0.884	0.862	0.855	0.848	0.84	0.833
95.0	0.84	0.848	0.855	0.855	0.891	0.941	0.955	0.948	0.927	0.912	0.898	0.869	0.862	0.848	0.855	0.855

This can also be done on large groups of cells by highlighting the cells you want to change you can then bump the values up or down to make large changes evenly and quickly.

034EFI RIPCHIP

Another map alteration method is through pre-defined button states, simply click the button that applies to what you would like to do:



Save your changes!

Once you're done editing the maps remember to save a copy onto your PC in case of any flashing errors, it also gives you a path to go back through your changes if you save the maps with revision numbers in the filename (93Octane Tune-R1.034, 93Octane Tune-R1.034) for example. This is not required before writing the maps to the RIP Chip, but is strongly encouraged.

034EFI RIPCHIP

MAP Selection

Another added bonus when choosing the RIP Chip is the ability to have 4 completely independent maps loaded on the chip that can be quickly accessed at the turn of a knob. An indexed rotary knob is included in the RIP Chip packaging. This knob has 4 positions on it. Starting at full counter clockwise the map selection will be the same as the maps across the top of your screen from left to right.