



Tech Article: How to Setup and Burn SST Chips with Crome Tuning Software

First, make sure you have the Moates BURN1 or BURN2 Chip Burner as pictured here:



Next, download the FREE VERSION of Crome PRO from www.tunewithcrom.com and install it on the computer you plan to use.

The current version at the time of writing this is available at the following link:

<http://www.tunewithcrome.com/download/crome1.5.3.zip>

Next Download and Install the FTDI Drivers for your computer from this link:

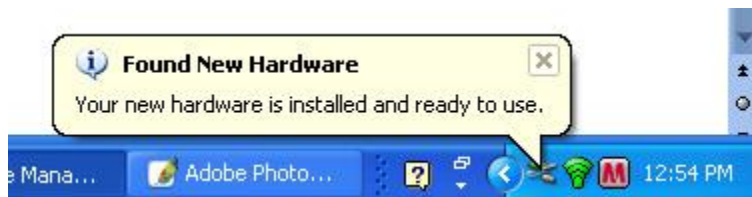
http://www.moates.net/cd/USB%20Device%20Drivers/CDM_Setup%20Auto-Installer.exe

These are AUTO INSTALLING Drivers so that when you plug in the HARDWARE for the first time, the drivers will install themselves if using XP or Vista.

There is a VISTA SPECIFIC GUIDE that may be helpful for VISTA Users here:

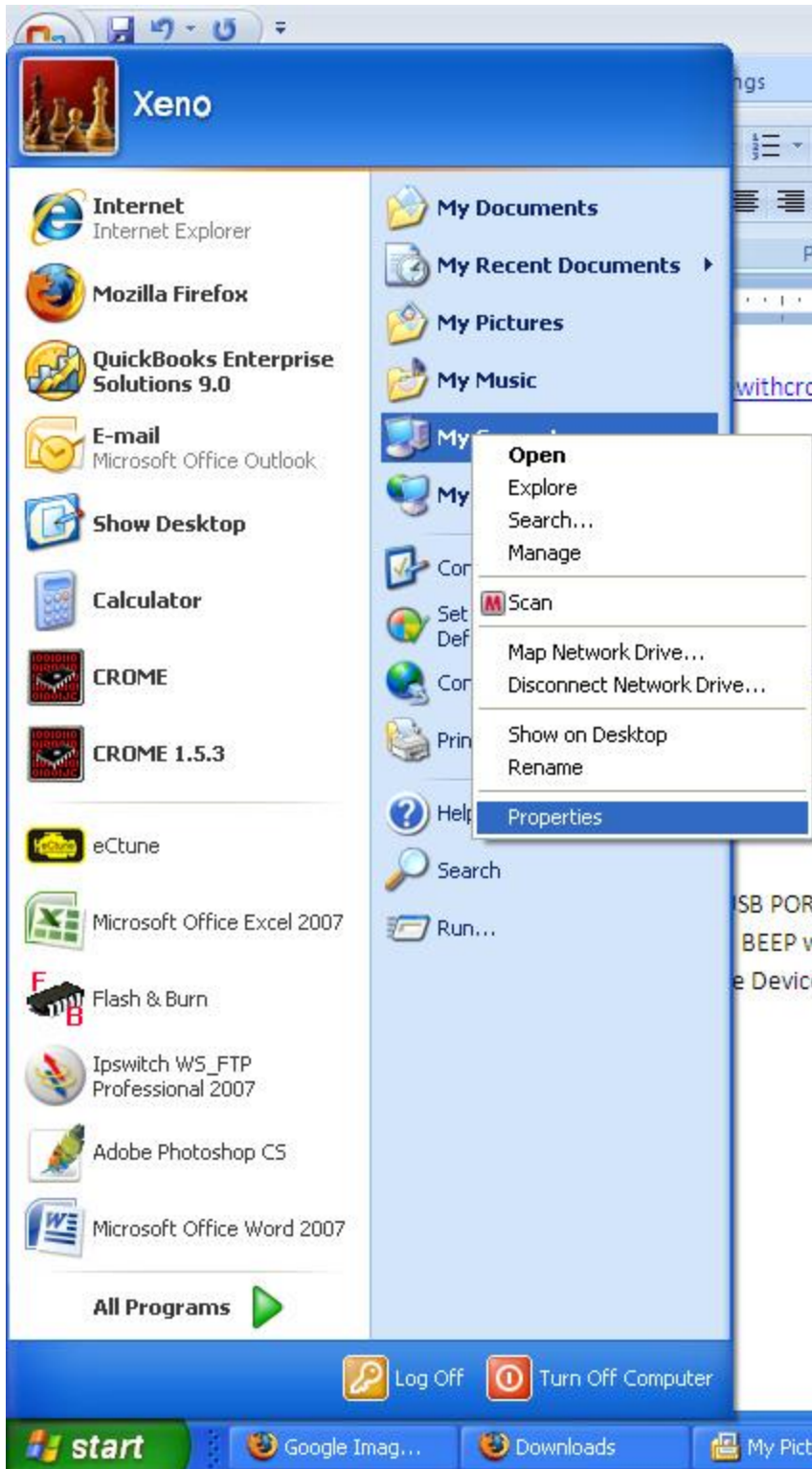
<http://www.moates.net/manuals/DriverInstallationVista.pdf>

After you have installed the Drivers, plug in the Chip Burner to a USB PORT on your computer. The cable should be plugged into both the chip burner and the laptop or desktop you are using. You should hear (if your volume is up) the Windows BEEP when it recognizes there is a piece of hardware plugged in and you should see a notification that your drivers are being installed and then another notifications when the Device is ready to use.



Once you see these notifications, go into your DEVICE MANAGER.

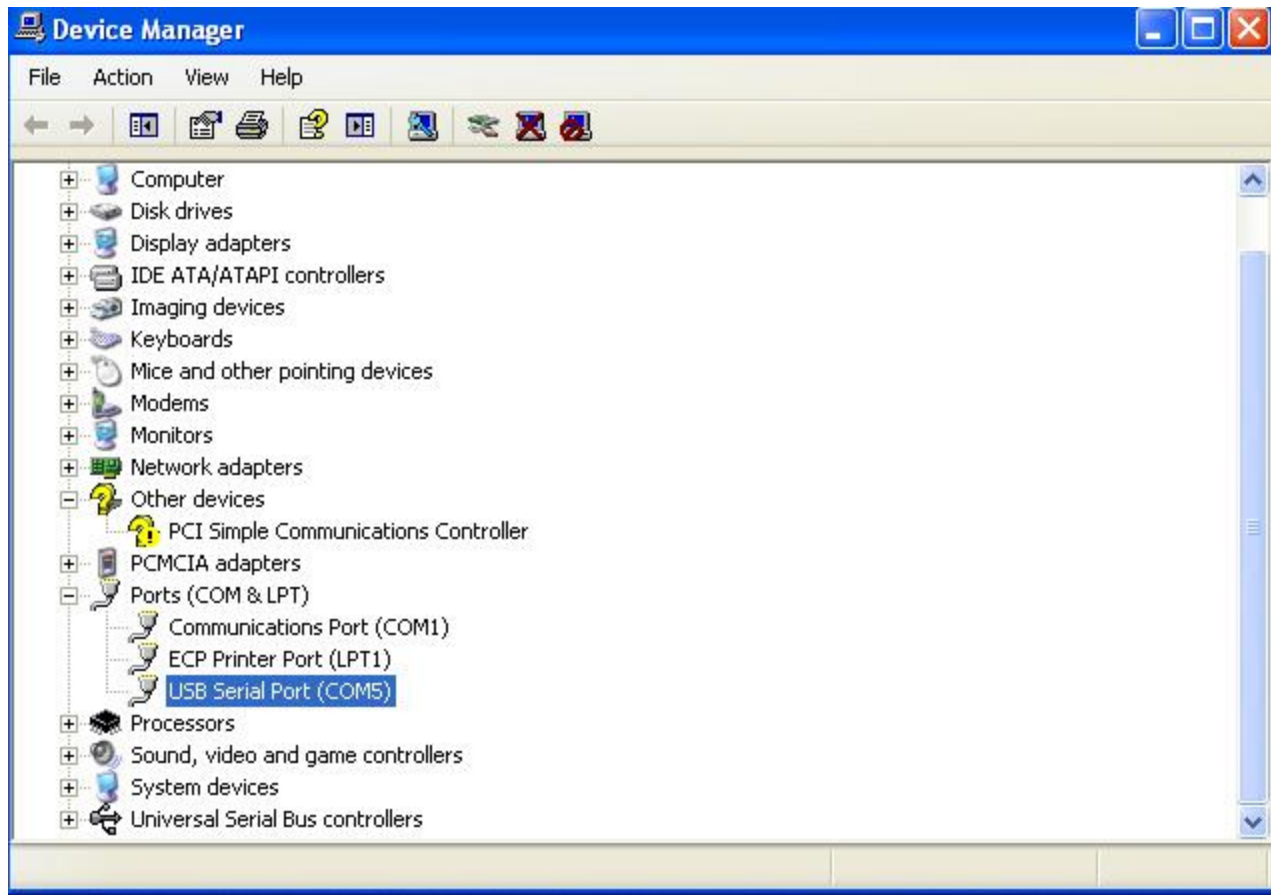
Goto START, Right Click on MY COMPUTER and Choose Properties



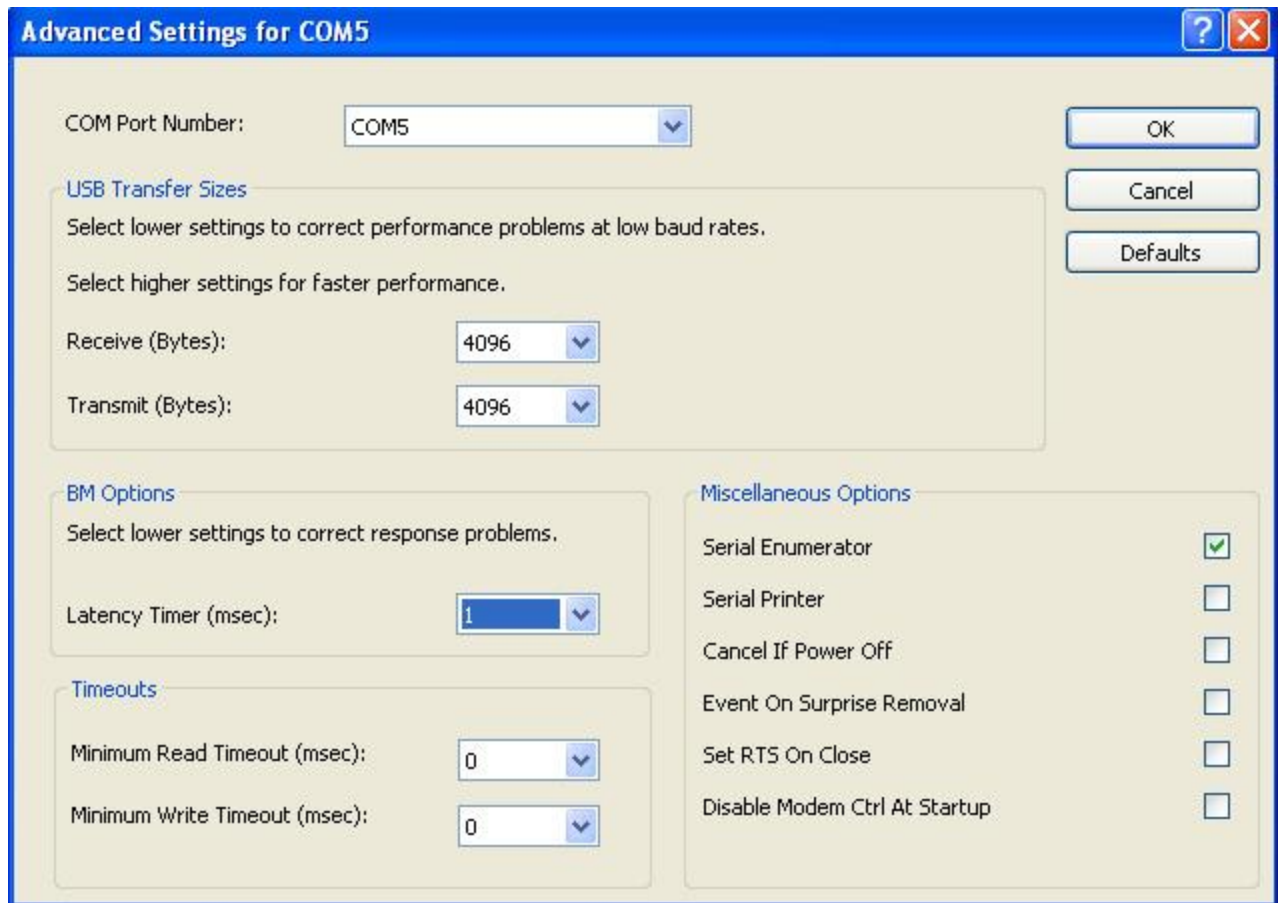
In the PROPERTIES Screen, Click on the HARDWARE tab and then click on Device Manager



This will then show you what COM PORT # your Burner has been Assigned. You can see on my computer it is COM5



Right Click on the COM, and choose PROPERTIES. Click on the PORT SETTINGS Tab and choose ADVANCED which opens this screen.



Make sure the LATENCY TIMER is set to “1” instead of 16 which is the default value.

Now, ok or close all of those windows and unplug the device and then plug it back in. This resets everything and as long as you plug it back into the same USB spot, it will always assign the same COM Port #

Next open up the Crome Software and choose the file you want to burn. If you don't have a file already create a new (covered in a different write-up).

Crome should look like this:

- CROME - Untitled

File Edit View Plugins Tools Help

Tables Graphs Options Ignition/Fuel Tables Injector Duty Cycle

Col	1	2	3	4	5	6	7	8	9	B10
mbar	114	288	403	519	634	750	865	923	981	1035
vacfbst	26.48"	21.35"	17.98"	14.55"	11.16"	7.75"	4.36"	2.65"	0.94"	0.3
500	10	92	150	204	255	312	368	402	439	473
602	10	92	150	204	255	312	368	402	439	475
703	12	95	153	208	258	312	370	398	446	477
797	12	96	153	209	258	313	370	404	448	482
1000	12	103	161	214	266	320	378	412	443	473
1250	17	108	169	225	281	333	390	420	459	484
1500	17	113	169	228	282	336	394	424	466	497
1750	17	110	168	226	282	341	400	432	464	497
2000	17	113	171	230	287	347	408	438	477	502
2248	17	113	171	231	288	343	404	436	468	502
2500	15	110	167	226	285	341	402	436	473	506
3000	20	121	186	248	309	369	430	466	504	536
3188	20	120	184	249	311	371	436	468	504	533
3500	21	116	180	240	302	362	424	456	504	533
4000	18	113	179	240	303	368	442	474	509	529
4496	21	118	181	245	309	371	436	476	506	536
5000	25	129	198	264	327	396	460	498	529	554
6000	27	140	208	274	351	417	482	510	549	572
7000	27	140	208	274	351	417	482	510	549	572
7936	27	140	208	274	351	417	482	510	549	572

Live Tuning... Smart Tracking Live Auto-Adjustments Auto-Adjust Maps Clear Recordings

Base P30

Next, go into
Crome
SETTINGS

- CROME - Untitled

File Edit View Plugins Tools Help

New Ctrl+N
Open Ctrl+O
ReOpen
Save Ctrl+S
Quick Save Alt+S
SaveAs... Shift+Ctrl+S
Reload
Close Ctrl+W
Import Tables
Export Tables
Settings
Exit

Options Ignition/Fuel Tables Injector Duty Cycle

	4	5	6	7	8	9	B10
103	519	634	750	865	923	981	1035
96"	14.55"	11.16"	7.75"	4.36"	2.65"	0.94"	0.3
150	204	255	312	368	402	439	473
150	204	255	312	368	402	439	475
153	208	258	312	370	398	446	477
153	209	258	313	370	404	448	482
161	214	266	320	378	412	443	473
169	225	281	333	390	420	459	484
169	228	282	336	394	424	466	497
168	226	282	341	400	432	464	497
171	230	287	347	408	438	477	502
2248	17	113	171	231	288	343	404
2500	15	110	167	226	285	341	402
3000	20	121	186	248	309	369	430
3188	20	120	184	249	311	371	436
3500	21	116	180	240	302	362	424
4000	18	113	179	240	303	368	442
4496	21	118	181	245	309	371	436
5000	25	129	198	264	327	396	460
6000	27	140	208	274	351	417	482
7000	27	140	208	274	351	417	482
7936	27	140	208	274	351	417	482

Live Tuning... Smart Tracking Live Auto-Adjustments Auto-Adjust Maps Clear Recordings

Base P30

Click on the Real Time Programming Tab, and your settings should resemble mine here:

The screenshot shows the CROME software interface. The main window displays a table with columns labeled 'Col', '1', '2', '3', '4', '5', '6', '7', '8', '9', and 'B10'. The rows represent various engine parameters, with the 'vac/bst' row highlighted in cyan. A 'Settings' dialog box is open, showing the 'Real Time Programming' tab. The 'Hardware Type' is set to 'Moates Ostrich/BURN1/APU1' and is checked for 'Used for 27SF512'. The 'Serial Com Settings' are configured as follows: Port: COM5, Baud: 115200, Data Bits: 8, Parity: None, Stop Bits: 1. The 'Connection Settings' are: Timeout: 250 milliseconds, Max Tries: 3. The 'Base P30' is visible at the bottom of the interface.

Col	1	2	3	4	5	6	7	8	9	B10
mbar	114	288	403	519	634	750	865	923	981	1035
vac/bst	26.48"	21.35"	17.96"	14.55"	11.16"	7.75"	4.36"	2.65"	0.94"	0.3
500	10	92	150	204	255	312	368	402	439	473
602	10	92	150	204	255	312	368	402	439	473
703	12	95	153	207	258	315	371	405	442	477
797	12	96	153	207	258	315	371	405	442	477
1000	12	103	161	215	266	323	379	413	450	485
1250	17	108	169	223	274	331	387	421	458	493
1500	17	113	169	223	274	331	387	421	458	493
1750	17	110	168	222	273	330	386	420	457	492
2000	17	113	171	225	276	333	389	423	460	495
2248	17	113	171	225	276	333	389	423	460	495
2500	15	110	167	222	273	330	386	420	457	492
3000	20	121	186	237	288	345	401	435	472	507
3188	20	120	184	235	286	343	399	433	470	505
3500	21	116	180	231	282	339	395	429	466	501
4000	18	113	179	229	280	337	393	427	464	499
4496	21	118	181	231	282	339	395	429	466	501
5000	25	129	198	248	299	356	412	446	483	518
6000	27	140	208	258	309	366	422	456	493	528
7000	27	140	208	258	309	366	422	456	493	528
7936	27	140	208	258	309	366	422	456	493	528

Settings

General | Options | Real Time Programming | Tuner Comm | Tuner Logging | Tuner | Data Graph

Hardware Type

Moates Ostrich/BURN1/APU1 Used for 27SF512 Detect Connected

Serial Com Settings

Port: COM5
Baud: 115200
Data Bits: 8
Parity: None
Stop Bits: 1

Connection Settings

Timeout: 250 milliseconds
Max Tries: 3

Defaults OK

Base P30

I use a BURN1, so my BAUD is 115200, if you are using a BURN2, your Baud should be 920000. You can also click on DETECT CONNECTION, and Crome should automatically set these values for you but it is best to know how to set them yourself in case. Once Detect Connection shows "SUCCESSFULLY CONNECTED TO ECU" you are good to go. Close that window and go to the main page.

< CROME > - Untitled

File Edit View Plugins Tools Help

Tables Graphs Options Ignition/Fuel Tables Injector Duty Cycle

Col	1	2	3	4	5	6	7	8	9	B10
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602	10	92	150	204	255	312	368	402	439	473
703	12	95	153	204	255	312	368	402	439	473
797	12	96	153	204	255	312	368	402	439	473
1000	12	103	161	211	262	313	364	402	439	473
1250	17	108	169	219	270	321	364	402	439	473
1500	17	113	169	219	270	321	364	402	439	473
1750	17	110	168	218	269	320	363	401	438	472
2000	17	113	171	221	272	323	366	404	441	475
2248	17	113	171	221	272	323	366	404	441	475
2500	15	110	167	217	268	319	362	400	437	471
3000	20	121	186	242	293	344	387	424	461	495
3188	20	120	184	240	291	342	385	422	459	493
3500	21	116	180	236	287	338	381	418	455	489
4000	18	113	179	235	286	337	380	417	454	488
4496	21	118	181	237	288	339	382	419	456	490
5000	25	129	198	254	305	356	399	436	473	507
6000	27	140	208	264	315	366	409	446	483	517
7000	27	140	208	264	315	366	409	446	483	517
7936	27	140	208	264	315	366	409	446	483	517

Settings

General Options Real Time Programming Tuner Comm Tuner Logging Tuner Data Graph

Hardware Type

Moates Ostrich/BURN1/APU1 Used for 27SF512 Detect Connected

Serial Com Settings

Port: COM5
 Baud: 115200
 Data Bits: 8
 Parity: None
 Stop Bits: 1

Connected

Successfully connected to the ECU.

OK

milliseconds

Defaults OK

Live Tuning... Smart Tracking Live Auto-Adjustments Auto-Adjust Maps Clear

Base P30

Next, click on the little CHIP in the top right corner.

< CROME > - Untitled

File Edit View Plugins Tools Help

Grab Burn **SST**

Col	1	2	3	4	5	6	7	8	9	B10
mbar	114	288	403	519	634	750	865	923	981	1035
vac/bst	26.48"	21.35"	17.96"	14.55"	11.16"	7.75"	4.36"	2.65"	0.94"	0.3
500	10	92	150	204	255	312	368	402	439	473
602	10	92	150	204	255	312	368	402	439	475
703	12	95	153	208	258	312	370	398	446	477
797	12	96	153	209	258	313	370	404	448	482
1000	12	103	161	214	266	320	378	412	443	473
1250	17	108	169	225	281	333	390	420	459	484
1500	17	113	169	228	282	336	394	424	466	497
1750	17	110	168	226	282	341	400	432	464	497
2000	17	113	171	230	287	347	408	438	477	502
2248	17	113	171	231	288	343	404	436	468	502
2500	15	110	167	226	285	341	402	436	473	506
3000	20	121	186	248	309	369	430	466	504	536
3188	20	120	184	249	311	371	436	468	504	533
3500	21	116	180	240	302	362	424	456	504	533
4000	18	113	179	240	303	368	442	474	509	529
4496	21	118	181	245	309	371	436	476	506	536
5000	25	129	198	264	327	396	460	498	529	554
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7000	27	140	208	274	351	417	482	510	549	572
7936	27	140	208	274	351	417	482	510	549	572

Live Tuning... Smart Tracking Live Auto-Adjustments Auto-Adjust Maps Clear

Base P30

And it drops down the area where you See Above as GRAB, BURN, and the SST icon. If you are using SST chips, make sure the SST ICON is depressed like it shows on my screen captures.

To burn the chip, simply click on the BURN Icon and watch it scroll across the screen.

The screenshot shows the CROME software interface with a data table and a 'Real-Time Programming' dialog box. The dialog box indicates that data is being written to ROM, with a progress bar and a 'Press ESC key to cancel' instruction.

Col	1	2	3	4	5	6	7	8	9	B10
mbar	114	288	403	519	634	750	865	923	981	1035
vac/bst	26.48"	21.35"	17.96"	14.55"	11.16"	7.75"	4.36"	2.65"	0.94"	0.3
500	10	92	150	204	255	312	368	402	439	473
602	10	92	150	204	255	312	368	402	439	475
703	12	95	153	208	258	312	370	398	446	477
797	12	96	153	209	258	313	370	404	448	482
1000	12	103	161	214	266	320	378	412	443	473
1250	17	108	169	225	281	333	390	420	459	484
1500	17	113	169	228	282	336	394	424	466	497
1750	17	110	168	226	282	336	394	424	466	497
2000	17	113	171	230	287	340	398	428	470	501
2248	17	113	171	231	288	341	399	429	471	502
2500	15	110	167	226	286	339	397	427	469	500
3000	20	121	186	248	309	370	428	458	500	531
3188	20	120	184	249	311	371	429	459	501	532
3500	21	116	180	240	302	363	421	451	493	524
4000	18	113	179	240	303	368	442	474	509	529
4496	21	118	181	245	309	371	436	476	506	536
5000	25	129	198	264	327	396	460	498	529	554
6000	27	140	208	274	351	417	482	510	549	572
7000	27	140	208	274	351	417	482	510	549	572
7936	27	140	208	274	351	417	482	510	549	572

Real-Time Programming
 Writing data to ROM...
 Press ESC key to cancel.

Once it is done burning, it will verify and tell you that your chip has burned successfully.

The screenshot shows the CROME software interface with a data table and a 'Burning Success' dialog box. The table contains engine parameters for various RPM and load conditions. The dialog box indicates that the ROM data has been successfully written.

Col	1	2	3	4	5	6	7	8	9	B10
mbar	114	288	403	519	634	750	865	923	981	1035
vac/bst	26.48"	21.35"	17.96"	14.55"	11.16"	7.75"	4.36"	2.65"	0.94"	0.3
500	10	92	150	204	255	312	368	402	439	473
602	10	92	150	204	255	312	368	402	439	475
703	12	95	153	208	258	312	370	398	446	477
797	12	96	153	209	258	313	370	404	448	482
1000	12	103	161	214	266	320	378	412	443	473
1250	17	108	169	225	281	333	390	420	459	484
1500	17	113	169	228	282	336	394	424	466	497
1750	17	110	168	226	282	341	400			
2000	17	113	171	230	287	347	408			
2248	17	113	171	231	288	343	404			
2500	15	110	167	226	285	341	402			
3000	20	121	186	248	309	369	430			
3188	20	120	184	249	311	371	436			
3500	21	116	180	240	302	362	424			
4000	18	113	179	240	303	368	442	474	509	529
4496	21	118	181	245	309	371	436	476	506	536
5000	25	129	198	264	327	396	460	498	529	554
6000	27	140	208	274	351	417	482	510	549	572
7000	27	140	208	274	351	417	482	510	549	572
7936	27	140	208	274	351	417	482	510	549	572

Burning Success
 ROM data successfully written.
 OK

Base P30

You are DONE!

Happy Tuning,

Chris