



## **PowerTRONIC Maps**

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Application information	Generic
Vehicle	Not Applicable
Model	Not Applicable
Year of manufacture	Not Applicable
PowerTRONIC application	All PowerTRONIC ECUs, from firmware version F.3.x onward

#### Note:

- Read through all instructions before installation and use
- Ensure the bike is switched off and the key is out of the ignition before proceeding with the installation
- Some parts of the bike may be hot and will cause burns. Proceed with caution or wait for the bike to cool down.
- Once the installation is complete, make sure to secure the wiring loom away from the movable parts or components which tend to heat up during the normal operation of the vehicle.
- PowerTRONIC is intended for motorsport use on a closed course, please check with your local laws before using this product. Race Dynamics / PowerTRONIC is not liable for consequences that may arise out of using the product.

Support

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### 1. Maps

A map file is the program containing values that determine the ignition, fuel injection and other vehicle-related settings (Traction control, quick shift etc) intended for engine operation. A map file contains 2 maps and other necessary settings.

A PowerTRONIC map file has 3 parts:

- 1. Pre-tuned map 1 (Fuel 1 and Ignition 1)
- 2. Pre-tuned map 2 (Fuel 2 and Ignition 2)
- 3. Other settings (QS, traction control, configuration...)

A schematic representation of a map file is given below.

MAPFILE

	Fuel 1+ Ignition 1 = <mark>Map 1</mark>
	(Race mode)
	Fuel 2 + Ignition 2 = <mark>Map 2</mark>
	(Race+ mode)
	Other Settings
	(Includes Traction control,
th	rottle calibration, Quickshifter
са	libration, and a Configuration
	tab)

The PowerTRONIC ECU can store a map file that contains two maps. When you load a map file, you are loading both map 1 and map 2 simultaneously.





Refer to the R-Tune user interface below. There are 12 tabs present and each tab directs to each parameter of the map file.

PowerTRO	NIC R-Turn	e 3.0.5.5																		
File Tool	s Help											Map Des	cription		COM	18		0		
Powe	<del>e</del> rTF	aonic	2				Active I	Map	2						0	Discor	nnect		Conne	cted
Fuel	l Ig	nition1	Fuel	2	Ignition2	Trn S	ien Tr	n Attck	Quick S	Shift	Config	Calib	Tab	Graph	Dia	s Fi	rmware			
	12	1500	2500	350	4500	5500	6500	7500	8500	9000	950	10000	10500	11000	11500	12000	12500	13000	13500	14000
▷ 100%	v 🗋	0		2	2						2	1			0	-3	-3	-3	-1	-5
93%	0	0	0	2	2	2	5	5	5	3	2	1	11	10	0	-3	-3	-3		-5
	ap	1	0	la	p 2	2			Ot	he	r s	etti	ing	S				-3 -3	-1 -1	-5 -5
7.376		0	0	5	9	3	3	5	5	3	2	1	1	0	0	-3	-3	0	-1	-5
66%	0	0	0	3	2	2	2	1	1	2	2			0	0	-3	-3	-4	-6	-6
60%	0					0														0
53%	0																			0
46%	0	0	0	0	0	0	0	0	0	0		0	0	0	0		0	0		0
40%	0	0	0	0	0	0	0	0		0	0		0	0	0		0		0	0
33%	0	0	0		0	0	0	0	0	0		0	0	0	0	0	0	0	0	0
26%	0	0	0	0	0	0	0	0				0	0	0	0			0	0	0
20%	0	0			0	0	0	0	0	0		0	0	0	0	0	0	0	0	0
13%	0	0	U	U	0	0	0	0	0	0	0		0	0	0		0	0	0	0
6%	-			0		0		0	0	0		0	0		0	0	0	0	0	0
0%		10		0	0		0	U	U	0	0	U	U	0	V	U	U	U	U	0
FTC [%] :		1. 0.0	•	2.0	0 🗘	3. [	0.0	4. [	0.0 🜻		ITC [dg] :		0		0 🗄		3. 0			÷
		c	Driginal Inj	PW	Fuel Trim	(%) k	nition Adv	(deg)		Injector I	Duty (%)		Injecto	or Status	Ignition	Status	Traction	Status	TrcRPM	/ Status
Cyli	inder-1		2.489				5	1					(	DK	0	к	122		1	00
Cyli	Cylinder-2		0.000				5						NO	SIG	NO_	SIG		-		0

The order of the tabs are as following

Fuel 1 Tab	Map 1	Fuel table of Map 1				
Ignition 1 Tab		Ignition table of Map 1				
Fuel 2 Tab	Мар 2	Fuel table of Map 2				
Ignition 2 Tab		Ignition table of Map 2				
Trn Sen Tab		Traction control settings				
TRN Attack Tab		Traction control settings				
Quick shift Tab		Quick shifter settings				
Config Tab	Other settings	Configuration settings				
Calib Tab		Calibration settings				
Graph Tab		Graphs				
Dials Tab		Dials				
Firmware Tab		Firmware Tab				



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### 2. Switching between maps

PowerTRONIC is shipped with two pre-tuned maps. (Map 1- Race mode, Map 2- Race+ mode).

Map 1 or Race mode offers performance gains starting from lower to mid-range RPMs, whereas Map 2 or Race+ mode is a more aggressive map offering performance gains starting from lower to top-range RPMs.

You can switch between the 2 onboard maps **by connecting (map 2) or disconnecting (map 1) the map switch connector on the PowerTRONIC wiring harness (Fig A)** or by using the handlebar map switch (**Fig B)** sold separately.



Disconnected - Map1 Connected - Map 2

Fig A



Fig B

The chosen map will be active and the other map in the ECU will be inactive.





### Active Map

When you read a map file in R-Tune software, all the data in the maps will be present in the tabs, which contains parameters. The active map section in R-Tune will tell you at which map (Fuel and ignition parameters) the ECU is working, whether it is Map 1 or Map 2. It may be either Map 1 or Map 2. The other settings are common for both Map 1 and Map2

	File Tools	Help											
1	Powe	rTA	onic	7		Active Map 1							
	Fuel1	Igni	ition1	Fuel2	lgn	ition2	Trn Se	nift. C	onfig				
I	Ma	n 1 i	<b>,</b> )	🧕 Ma	ap 2 i	s <sup>10</sup>	1600	2000	2500	2000	2500	4000	
I		·P I I.	,	4			5	4 A	ctive	мар		5	
I	s cur	rentl	y 📃	4 CUI	renti	y 📃	5	4	4	4	5	5	
I	8 0	CTIVE		4 10	activ		5	4	4	4	5	5	
I	8 A	CIIVE		4	activ	2	5	4	4	4	5	5	
I	73%	4	6	4	5	6	6	5	4	4	5	5	
I	D 66%	4	6	4	5	5	5	4	4	4	5	5	
I	60%	4	6	4	5	5	5	4	4	5	7	7	
I	53%	4	6	5	6.6	6.6	4	4	4	5	7	7	
	46%	4	6	6	6.6	6.6	4	4	4	5	7	7	
	40%	7	5	5	5	5	5	5	4	5	7	7	
	33%	7	5	5	5	5	5	5	4	5	7	6	
	26%	7	5	5	5	5	5	5	4	5	7	6	

The map currently running in the ECU is 1.

File Tool	s Help										
Powe	erTA	onic	7		A	ctive N	lap	2			
Fuel	l Ign	ition1	Fuel2	lgn	ition2	Trn Se	n Trr	Attck (	Quick of	nift. C	onfig
	lan 1 i	D	25 M	an 2 i	<b>c</b> 0	5500	6500	7500	8500	0000	9500
D 10		3	0	ap 2 i	3	2	5 A	ctive	Мар	2	2
93 CU	irrent	ly 📃	o cu	rrent	ly 📃	2	5	5	5	3	2
86	a a ctiv		0	CTIV	-	2	5	5	5	3	2
80	lactiv	e	0	CIIV		2	5	5	5	3	2
73%	0	0	0	3	3	3	3	5	5	3	2
66%	0	0	0	3	2	2	2	1	1	2	2
60%	0	0	0	3	0	0	0	0	0	0	0
53%	0	0	0	0	0	0	0	0	0	0	0
46%	0	0	0	0	0	0	0	0	0	0	0
40%	0	0	0	0	0	0	0	0	0	0	0
33%	0	0	0	0	0	0	0	0	0	0	0
26%	0	0	0	0	0	0	0	0	0	0	0

The map currently running in the ECU is 2.

Also, when you save a map file from the ECU or Load a map file to the ECU, it saves/loads both map 1 as well as Map 2 regardless of which map is active.

To verify which map is currently selected, you can also observe the *green LED* on the PowerTRONIC ECU.

One Blink = Map 1, Two Blinks = Map 2





## 3. Reading the Map from the ECU

To read the map from PowerTRONIC ECU, use the R-Tune software. (Refer the R-tune Installation and connecting to the ECU manual)

- 1. Connect PowerTRONIC ECU to the PC using USB data cable provided in the kit.
- 2. Open the R-Tune software.
- 3. Select *com port* number.

															- 🗖 🗙
					200 0110	Map Des	cription		COM4			~ 0			RPM
A	ctive M	lap	1	NW W	ithout QUIC	bike - map KSHIFTER	<u>!</u>						D sconn	ected	500
n Se	n Trn	Attck	Quick S	hift. C	Config	Calib	Tab (	Graph	Dia	, <u>Fi</u>	mare				Throttle Position
00	6500	7500	8500	9000	9500	10000	10500	11000	11500	12000	12500	13000	13500	14000	10
	6	6	5	3.6	2.200	1.6	1	0	0	-1	-2	-2	0	-5	
	6	6	5	3.6	2.200	1.6	1	0	0	-1	-2	-2	0	-5	Injector Ref Load
	6	6	5	3.6	2.200	1.6	1	0	0	-1	-2	-2	0	-5	0
	6	6	5	3.6	2.200	1.6	1	0	0	-1	-2	-2	0	-5	· · · · · · · · · · · · · · · · · · ·
	5	7	5	3	2	1	1	0	0	-1	0	0	-1	-5	Load Input
	4	3	1	2	2	1	1	0	0	0	0	0	0	-6	Throttle Position
	2	2	0	0	0	0	0	0	0	0	0	0	0	0	moderositon
	2	2	0	0	0	0	0	0	0	0	0	0	0	0	Load Input %
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	RPM Extend
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	No

NOTE: (To confirm PowerTRONIC com port number, Right click on *My Computer* >> Right Click on *Properties* >> *Device Manager* >> Double click on *Ports (COM & LPT)* and note the COM number within the braces on *Silicon labs CP210x USB to UART Bridge*. Refer to the image below





4. On the R-tune software, click on *Connect* and then *Receive*. Look for the values of fuel and ignition on a table as below.

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[The Active Map tells you the current map running on the ECU]





## 4. Editing a Map on the ECU

# Warning: improper or a faulty map value can result in poor performance of the bike and can even cause damage to the engine.

You can edit the maps either by changing the values of the map on the R-Tune interface or by directly downloading a map from our website. A brief description of editing the map is given below. (Refer the detailed manual of R-tune before editing the maps)

### a) Fuel mapping.

Click on the Fuel tab. (Refer figure below). The table is used to control fuel delivery through map 1 where you can increase or decrease the quantity of fuel delivered to the engine. The fuel tables denote RPM vs Load and spans between min load at the bottom to the maximum load at the top, also minimum RPM on the left and maximum RPM on the right.

The value '0' represents no changes to the fuel injection which is basically the factory settings. Fuel injection is always measured in terms of percentage. The positive value here indicates going richer than stock ECU. In contrast, a negative value indicates going leaner than stock ECU.

PowerTRON	IC R-Tune	9.0.5.3																		- a ×
File Tools	Help										Map De	scription		COM	4		~ O			RPM
Powe	rTF	aonic	7		)	Active N	Мар	1		TM 390 - CUP Without QUIC	bike - ma KSHIFTE	R		<b>~</b>	Disco	onnect		Conn	nected	500
Fuel1	lg	nition1	Fuel2	Ignition2	Trn S	en Tri	n Attck	Quick S	Shift.	Config	Calib	Tab	Graph	Dia	ls F	irmware				Throttle Position
	500	1500	2500	3500 4500	5500	6500	7500	8500	900	9500	10000	1050	0 11000	11500	12000	12500	13000	13500	14000	10
▷ 100%	0	1	2	3 5	5	6	6	5	3.6	2.200	1.6		0	0	-1	-2 -	2	0	-5	
86%	0			3 4	4	6	6		3.6	2.200	1.6		0	0	-1	-2 -2 -	2	0	-5	Injector Ref Load
80%	0								3.6	2.200	1.6					-2 -	2		-5	0
73%	0	0	2	3 5	5	5		5	3	2			0	0	-1	0 0	)	-1	-5	Load Input
66%																			-6	Throttle Position
60%	0	0	0	3 2	2	2	2	0	0	0	0	0	0	0	0	0 0	)	0	0	Load Input %
46%	0	0	0	0 0	0	0	0	0	0	0	0	0	0	0	0	0 0	)	0	0	Load Input 76
40%	0		0																	
33%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 0	)	0	0	RPM Extend
26%	0			0												0 0				No
20%	0		0		0	0		0	0	0	0	0	0	0	0	0 0	)	0	0	CoProcessor Present
6%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 0	, )	0	0	CKP Decode
0%			0		0		0	0			0	0		0	0	0 0	)			
																				Crank Signal Type
							. [		_						6			. –		Not Present
FTC [%] :		1. 0.0	2	0.0	3. 0.	.0 🗧	4. [	0.0		ITC [dg] :		0	2	0		3. 0		4. 📋	0	Noise Capture
		Or	riginal Inj PV	V Fuel Trir	n (%) Igi	nition Adv	(deg)		Injector	Duty (%)		Inject	or Status	Ignition	Status	Traction S	Status	TrcRI	PM Status	0
Cylin	der-1		0.000	0		0						N	O SIG	NO					0	Stock Fuel Cut
0.5			0.000			0								NO				_	0	ON
Cylin	ider-2		0.000	0		0						IN N		NO_	SIG		-	_	0	Stock Ign Cut
Cylin	ider-3		0.000	0		U						IN	0_51G				_	_	U	ON
Cylin	ider-4		0.000	0		0						N	o_sig	NO_	SIG					Traction Counter
Send	Re	ceive	Burn	Lock + Burr	Statu	ıs:Conne	ected to	ECU											<b>↓</b> ♠	0





### b) Ignition Mapping

Click on the ignition tab. (refer figure below). The table contains the values to control ignition timing. The value '0' represents no changes to the ignition timing/spark which is basically the factory settings. Ignition timing/spark is always measured in terms of degrees. The positive value here indicates advancing the ignition timing than stock ECU. In contrast, a negative value indicates retarding the ignition timing than stock ECU.

PowerTRON	IIC R-Tune	3.0.5.3																	- ø ×
File Tools	Help									10711-000	Map De	scription	(	CON	14	×.	0		RPM
Powe	er T'A	onic	2			Ac	tive Map	1		** Without QUI	CKSHIFTE	R		Ŷ	Disc	onnect	Co	nnected	500
Fuel1	lgr	nition1	Fuel2	lgn	ition2	Trn Sen	Trn Atto	k Quick	Shift.	Config	Calib	Tab	Graph	Dia	ıls	Firmware			Throttle Position
	500	1500	2500	3500	4500	5500	6500 750	0 8500	900	00 9500	10000	1050	0 11000	11500	12000	0 12500 130	00 13	500 14000	10
P 100%	0	0	0	0	2	5 5	5	5	5	5	5	5	5	5	5	5 5	5	5	Injector Ref Load
86%	0				4														
80%	0																		U
73%	0	0		3	5	5 5	5	5	5	5	5	5	5	5	5	5 5	5	5	Load Input
60%	0	0	3	5	6	6 6	6	6	6	6	6	6	6	6	6	6 6	6	6	Throttle Position
53%	0	0	4	6	6	6 6	6	6	6	6	6	6	6	6	6	6 6	6	6	Load Input %
46%	0			6		6 6													0
40%	0	0	4	6	6	6 6		6	6	6	6	6	6	6	6	6 6	6	6	RPM Extend
26%	0			6		6 6		6			6			6	6		6	6	No
20%	0	0		3	6	6 6	8	8	8	8	8	8	8	8	8	8 8	8	8	
13%	0	0																	CoProcessor Present
6%	0		0	3		3 3	8	8	8	8	8	8	8	8	8	8 8	8	8	CKP Decode
0%																			Crank Signal Type
								<u></u>					_						Not Present
FTC [%] :		. 0.0	2	0.0	•	3. 0.0	<del>\$</del> 4.	0.0 ≑		ITC [dg] :		0	2	. 0 🗧		3. 0 🌻		0 ≑	Noise Capture
		o	riginal Inj P\	N Fu	uel Trim (9	%) Igniti	on Adv(deg)		Injecto	or Duty (%)		Injec	tor Status	Ignition	n Status	Traction State	ıs Tro	RPM Status	0
Cylin	nder-1		0.000		n		0					N	o sig	NO	SIG			0	Stock Fuel Cut
0,1			0.000		0		0					N		NO	-010			0	ON
Cylin	ider-2		0.000		0		0					N	0_314	NO	_310		_	0	Stock Ign Cut
Cylii	nder-3		0.000		U		U					N	U_SIG	NO	_51G		-	0	ON
Cylin	nder-4		0.000		0		0					N	o_sig	NO	_SIG			0	Traction Counter
Send	Ree	eive	Burn	Lock	+ Burn	Status:	Connected	to ECU										<b>₩</b>	0





## 5. Saving the map to file folder of your PC/Laptop

- 1. Connect the ECU to the R-Tune software
- 2. Click on File Save As

л т ЛТ	PowerTRONIC R-Tune 3.0.5.5													
		Tools	Help	_										
1		Open Open N	Iultiple Files	=	7			Å	ctive M	ар				
		Save As Exit			Fuel2	lgni	ition2	Trn Ser	n Trn	Attck				
	1		500	1000	1500	2000	2500	3000	3500	4000				
I	D	100%	5	5	5	4	4	4	3	3				
l		93%	5	5	5	4	4	4	3	3				
l		86%	5	5	5	4	4	4	3	3				
l		80%	5	5	5	4	4	4	3	3				
		73%	5	5	5	4	4	4	3	3				
		66%	5	5	5	4	4	4	3	3				

3. Choose the location you want to save and add file name in the File name tab and click on Save







### 6. Downloading a map from the website

1. Go to <u>www.powertronicecu.com</u>



2. Click on Downloads







3. Scroll down and click on the Download Maps option below the PowerTRONIC maps section.



4. Select the Make and model of your bike from the list.

	Roval Enfield Maps
	Suzuki Maps
Þ	Honda Maps
	Husqvarna Maps
•	Bajaj Maps
	Benelli Maps
	Kawasaki Maps
•	Yamaha Maps
Þ	Hero Maps

5. Click on the Download option under the make

🔺 KTM Maps	
Download	





6. Select the model and download the appropriate map.







## 7. Burning a map to ECU

To load a new map file:

- 1. Connect the PowerTRONIC ECU to your Windows PC using the USB cable.
- 2. Open the R-Tune software.
- 3. Select the appropriate *COM port* number.
- 4. Click on *Connect*.
- 5. Click on *File* then *Open* (Refer the figure below)

Tim P	owerTRON	NIC R-Tune	e 3.0.5.3										
	Tool	s Help											Мар
	Open			_							к	TM390 - stock	k bike
1	Open I	Multiple Fi	iles	- /			1	Active N	Лар	1		Without Quic	:kshift
	Save A	s											
	Exit			Fuel	2 Igr	hition2	Trn Se	en Tri	n Attck	Quick S	hift.	Config	Ca
		500	1500	2500	3500	4500	5500	6500	7500	8500	9000	9500	10
D	100%	0	0	0	2	2	2	5	5	5	3	2	1
	93%	0	0	0	2	2	2	5	5	5	3	2	1
	86%	0	0	0	2	2	2	5	5	5	3	2	1
	80%	0	0	0	2	2	2	5	5	5	3	2	1
	73%	0	0	0	3	3	3	3	5	5	3	2	1
	66%	0	0	0	3	2	2	2	1	1	2	2	1
	60%	0	0	0	3	0	0	0	0	0	0	0	0
	53%	0	0	0	0	0	0	0	0	0	0	0	0
	46%	0	0	0	0	0	0	0	0	0	0	0	0
	40%	0	0	0	0	0	0	0	0	0	0	0	0
	33%	0	0	0	0	0	0	0	0	0	0	0	0
	26%	0	0	0	0	0	0	0	0	0	0	0	0
	20%	0	0	0	0	0	0	0	0	0	0	0	0

6. Select the downloaded map file from the file manager.

					KTM	390 - stock bike - map	1	^		_			
we	rteon			Active Map	<u>1</u>	thout Quickshifter **		~	- 0	Connect		Disconnec	cted
uel1	Ignition	1 Fuel2	Ignition2 Tr	n Sen 🛛 Trn Atto	k Quick Shift C	onfig Calib 1	lab Graph	D	Dials	Firmwar	e		i
	500 150	0 2500	📅 Open							000 1250	13000	13500 1	4000
0%		0		This PC > Downloads		× 6	Search Downloads		0	-3		-1 -	5
6	0 0	0		more r bonnoud		+ 0	Scaren D'omniouus		~	-3	-3	-1 -{	5
6	0 0	0	Organize   New fo	lder					0	-3	-3	-1 -	5
		0	G OneDrive	<ul> <li>Name</li> </ul>	^	Date modified	Туре	Size		-3	-3	-1 -	
•		0		KTM390 - Cup	bike - without quickshifter	05-03-2019 02:39	R2MAP File		3 KB	-0	-4	-1 -3	2
	0 0	0	This PC	KTM390 - stoc	k without quickshifter	05-03-2019 02:39	R2MAP File		3 KB	0		0 0	
6	0 0	0	3D Objects							0		0 0	
6	0 0	0	Desktop							0			
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	0 0	0	New Volume (D:							0			
			- Mak	~ <					,				
	4 0		File	name: \RD-Adarsh\Do	wnloads\KTM390 - stock w	ithout quickshifter 🛩	PowerTRONIC map		~	0 0			
0	1. 0.0	· • 4					Open	Cancel	1	3. U		4. 0	
		Original Inj PW	Fuel Trim (%)	Ignition Adv(deg)	Injector Du	ıty (%)	Injector Status	Igniti	on Sta	tus Tracti	on Status	TrcRPM S	Status
												_	
Cylin	der-1	0.000	0	0			NO_SIG	N	o_sig			0	
ylin	der-2	0.000					NO_SIG	N	O_SIG			0	
Cylin	der-3	0.000					NO_SIG	N	O_SIG			0	
Cylin	der-4	0.000					NO_SIG	N	O SIG			0	

- 7. Click **Open.**
- 8. Click on Send and then Burn. [Make sure the bike is off before clicking Burn]





### 8. Map Mixing

You can develop a custom map file using the R-Tune software by combining the modes from different maps based on your requirements. (Refer schematics given below)



- 1. Open the R-Tune Software.
- 2. Click on *Connect* and then *Receive*
- 3. Go to File, Select Open Multiple Files

ATTAN F	PowerTRON	NIC R-Tune	3.0.5.3				
Г	Tool	s Help					
	Open		_	_			
	Open	Multiple Fi	les	7/			A
	Save A	s					
	Exit			Fuel	2 Igi	nition2	Trn Se
		500	1000	1500	2000	2500	3000
⊳	100%	0	0	0	0	0	0
	93%	0	0	0	0	0	0
	86%	0	0	0	0	0	0
	80%	0	0	0	0	0	0
	73%	0	0	0	0	0	0
	66%	0	0	0	0	0	0
	O ACARES .	12	-	125		120	1242 ·····





Note: 'Use Current Data' section contains the 2 maps that are pre-loaded to the ECU.

PowerTRONIC	R-Tune 3.0.5.3												- a ×
File Tools	Help						-	Map Description	í .	COM4		l	RPM
Power	TRONIC	7		Activ	ve Map	1				Disco	onnect	Connected	500
Fuel1	Ignition1	Fuel2	Ignition2	Trn Sen	Trn Attc	k Quick Shift.	Config	Calib Tab	Graph	Dials	Firmware		Throttle Position
	500 1000	1500 20	2500	3000 35	00 4000	4500 50	00 5500	6000 6500	7000	7500 8000	8500 9000	9500 100	00 10
93%	) () () () () () () () () () () () () () () (												Injector Ref Load
86%	0		0	<u> 0  0</u>	- 0		-			مام		0 0	0
73%			- 0 M	ap Mixer							X	0 0	Load Input
66% 0	0	0 0	0	Salast	File	Salar	t File	Sala	ot Filo	Line Cu	urront Data	0 0	Throttle Position
53% C			0	Select	File	Selec	a File	Sele	ct File	Use Cl	Intent Data	0 0	Load Input %
46%	0		0 0	Fuel and Igr	nition-1	O Fuel and	gnition- 1	O Fuel and	Ignition- 1	O Fuel an	d Ignition- 1	0 0	0
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26%	0	0 0	0	·		<ul> <li>Other Settings</li> </ul>						0 0	No
20%	) () ) ()		0	Other Settin	gs			O Other Se	ettings	O Other S	iettings	0 0	CoProcessor Present
6%			0									0 0	CKP Decode
0%		0 0	0 Fil	eName		FileName		FileName		FileName		0 0	Crank Signal Type
-													Not Present
FTC [%] :	1. 0.0	2.	0.0 ≑									4. 0 韋	Noise Capture
	о	riginal Inj PW	Fuel Trim (	%) Ignition	Adv(deg)	Injecto	or Duty (%)	Injec	tor Status	Ignition Status	Traction Status	TrcRPM Stat	tus 0
Cylind	ler-1	0.000	0		0				O SIG	NO SIG		0	Stock Fuel Cut
Cylind	ler-2	0.000	0		0					NO SIG		0	ON
Cylind	ler-3	0.000	0		0					NO SIG		0	Stock Ign Cut
Cylind	lor-4	0.000	0		0					NO SIG		0	ON
Cyillio		0.000								NO_SIG			Traction Counter
Send	Receive	Burn	Lock + Burn	Status:Co	onnected	to ECU							0

PowerTRONIC

 Click on Select File option and select the map stored on your PC. (You can choose multiple maps for the 3 sections except for Use Current Data section). You can select any map by clicking on the Fuel and Ignition -1/ Fuel and Ignition -2 depends on your preference.

Ignition 1 Fuel 2 Ignition 2 Tro San Tro Attaly Quick Shift Config Calib Tab Graph Dials Firmware	
ignition ruleiz ignitionz in sen in Attick Quick sint. Conig Calib lab Graph Dials Firmware	Throttle Posi
500 1500 2500 3500 4500 5500 6500 7500 8500 9000 9500 10000 11000 11500 12000 12500 13000 13600 14	4000 10
<b>u u u u z b b b b b b b b b b</b>	Injector Ref I
o o o i arrecte la	
0 0 2 5 k 2000 X 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	
0 0 1 3 5 ← → · ↑ ↓ · This PC > Downloads	Load Inpu
0 0 3 5 6 Organize - New folder BE - 0 0 rata 6 6	Throttle Pos
0 0 4 6 7 Organize this folder's contents. Date modified Type Size 6 6 6	Load Input
0 0 4 6 7 This PC This	0
0 0 4 6 7 30 Objects 3 KB 0 0	RPM Exter
0 0 2 6 7 Desktop	No
0 0 3 5 🖹 Documents 8 8	
0 0 0 3 3 4 Downloads 8 8	CoProcessor P
	CKP Deco
Fricures	Crank Signal
The second bisk (C)	Not Prese
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Opininal Ini DW Evel To Antonio V K	tatue 0
File name	Stock Fuel (
der-1 0.000 0 Cancel - 0	SIUCK FUEL
der-2 0.000 0 u 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
	Stock Ign C
	ON

6. If you would like to choose between one of map that is preloaded on the ECU and one map of your choice, you can decide from the dialog box shown below

**Note: Other settings** contains data from other tabs of R-Tune. Ex: Config, Quick-Shifter, Traction Sensitivity, and Traction Attack.





PowerTRONIC R-Tune	3.0.5.3																				- 0
File Tools Help											Map Des	cription		COM4			~ 0				RPM
PowerTF	ionic)				4	Active N	/lap	1						÷	Discor	nnect		Conne	cted		500
Fuel1 Ig	nition1	Fuel2	Ignitio	on2	Trn Se	en Trr	h Attck	Quick S	hift. (	Config	Calib	Tab (	Graph	Dials	s Fi	rmware					Throttle Position
500	1500	2500 3	500 4	500	5500	6500	7500	8500	9000	9500	10000	10500	11000	11500	12000	12500	13000	13500	14000		10
<u>100%</u> 93% 0	0 0																				Injector Ref Load
86% 0	0 0	) 1	4	-	E.	5	5	5	5	5	5	5	5		6	5	<u></u>	5	5		0
80% 0 73% 0	0 0	2	5	Ma	p Mix	er											X	5	5		Load Input
66% 0					_	_	_	-	_	_		_	_		_						Throttle Position
60% 0	0 3	3 5			Sele	ect File	•	S	elect F	ile		Select	File	U	se Cu	rrent D	ata	6	6		Load Input %
46% 0	0 4	6 I	7	۲	Fuel an	d lanitior	1-1	O Fuel	and Igni	tion- 1	O Fu	el and lo	nition- 1	OF	uel and	Ignition-	1	6	6		0
40% 0	0 4				_	9															PDM Extend
26% 0	0 4	2 6		0	Fuel an	d Ignitior	1-2	<ul> <li>Fuel</li> </ul>	and Igni	tion-2	O Fu	el and Ig	nition-2	• F	uel and	Ignition-	2	6	6		No
20% 0	0 C	) 3	5	0	Other S	ettings		O Othe	er Setting	s	O Ot	her Setti	ngs	• 0	Other Se	ttings		8	8		CoDrocencer Drecent
13% 0 6% 0	0 0	3																8	8		CKP Decode
0% 0				C:\L ds\l	Jsers\RD KTM390 -	-Adarsh\D Cup bike	- without	FileNam	e		FileNa	ime		Load	ded from l	JI					Orank Simul Tree
				quid	ckshifter.r.	2map															Not Present
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									IVITX 8		au io	n- i u	le								Noise Capture
	Origi	nal Inj PW	Fuel	Trim (9	6) Igr	nition Adv	(deg)		Injector D	uty (%)		Injector	Status	Ignition §	Status	Traction	n Status	TrcRPI	M Status		U
Cylinder-1		0.000											SIG	NO_S	SIG				0		Stock Fuel Cut
Cylinder-2		0.000										NO_	SIG	NO_S	SIG				0		ON
Cylinder-3		0.000											SIG	NO_S	SIG				0		Stock Ign Cut
Cylinder-4		0.000										NO_	SIG	NO_S	SIG				0		ON
						-															Traction Counter
Send Re	ceive E	Burn	Lock + I	Burn	Statu	s:Read	succes	sfull													0
. 🦻 🗖 🌖	o 😨 😁																			۱.	荒 中) ENG 02:45 PM

- 7. Click on Mix and load to R-Tune.
- 8. Click on Send and then Burn. [Make sure the bike is off before clicking Burn]

---/End of Document/---