

Moto-Tech *Diagnostics*

BikeTech Suzuki EFI Tuning Tool Operating Instructions

Connection:

1. Locate the Suzuki Access Port connector. It is an 8-pin connector, usually found on the upper rear of the bike, below the seat on one side or the other.
2. Remove the connector blanking cover.
3. Connect the BikeTech Suzuki interface box to the PC using the supplied A-B USB cable. If necessary, a USB extension cable can be used as well.
4. Connect the BikeTech interface box to the Suzuki connector.
5. Turn on ignition and make sure that the Engine Stop switch is set in "Run" position.
6. Double-click on the programme icon to run the program. NB - the word "Demo" appears in the title bar if the PC cannot see the interface module - e.g. if is not connected.
7. If the programme returns an error message on start-up saying the ECU is not connected, cycle the "Engine Stop" switch to wake it up.

Zeroing the ECU -

* When the programme starts, all settings are at zero. To ensure the ECU settings are all at zero, click on the "SET" button while all settings are at zero. Alternatively load a default factory settings file from the database.

TUNING (NB Tune small throttle openings first as the smaller openings affect the larger openings)

IDLE MIXTURE:

1. Warm up the bike before any adjustments.
2. Set idle speed as low as possible without causing stalling or uneven running.
3. The top 4 sliders adjust idle mixture. Either select all cylinders to be adjusted together by clicking on the "LOCK" button, or alternatively, adjust each one individually. (Clicking on the "LOCK" button repeatedly toggles the action from being locked together to individual operation). Using your mouse, you can lean the mixture (slider to the left) or richen it (slider to the right).
4. Usually you will want to adjust all cylinders equally except in certain circumstances - e.g. with V-twins where the front cylinder (cyl 1) may require a different setting to the rear one (cyl 2). It is only recommended to adjust cylinders individually if you are technically competent and are using individual gas analysis from each cylinder's exhaust manifold take off point. Otherwise you will find it virtually impossible to know what the effects of the adjustments are without a long and painstaking trial & error program.
5. Most times, you will need to richen the mixture - e.g. where free-flowing exhaust pipes or air filters have been fitted.
6. Adjust for best idle quality/highest rpm.
7. Often, the Suzuki 600, 750 and 1000's can end up from +5 to +10 or more.
8. A richer idle mixture can help the transition from a closed throttle to a slightly open throttle, preventing sudden "surging".
9. To apply the changes, click on "SET" and wait for the settings to be uploaded to the ECU - the red indicator bar will turn green once the settings have been uploaded to the ECU.

10% THROTTLE: (affects high rpm/part throttle as in entering a tight corner)

1. With engine fully warmed, with coolant temperature around 180f/82c - 190f/88c, use the horizontal slider for the 10% throttle range to richen or lean out the mixture.
2. To apply the changes, click on "SET" and wait for the settings to be uploaded to the ECU. The red bar will show the uploading taking place.
3. While doing this, do not let the coolant temperature exceed the recommended temperature, as the ECU will then be compensating for high coolant temperature which affects the mixture. Likewise, avoid the cooling fan switching on and lowering the temperature too far, for the same (inverse) reason.
4. With the bike in neutral, bring the rpm up to 5,000-7,000 rpm for a street bike (or 9,000 rpm for a race bike) and use RH/LH slider to make the bike run smoothest with no load. (It can help to hold the throttle perfectly still by holding your thumb across the throttle grip and the throttle housing. When the mixture is better, the rpm will increase and get smoother).
5. It is recommended to go back to the idle settings at the end, to make sure that the optimum idle settings haven't changed, as the 0-10% and idle settings can affect each other.
6. If you are using a dyno, put the bike in top gear and perform a standard test at 10% throttle. Look for a smooth curve. Bear in mind an Oxygen or "Lambda" sensor can often mislead, so only use it to get a general trend (do not try to get a 'perfect' air/fuel ratio).

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BikeTech Suzuki EFi Tuning Software System – Application List Software Version 2.00 November 2007.

MAKE	MODEL	TYPE	From	To	CC	NOTES
CAGIVA	Raptor 650	650	2004		645	Adaptor cable required
CAGIVA	Raptor 1000	1000	2000	2007	996	Adaptor cable required
KAWASAKI	KLV1000	KLV1000	2004		996	
SUZUKI	AN250 Burgman	AN250	2003		250	
SUZUKI	AN400 Burgman	AN400	2003		385	
SUZUKI	GSR600	GSR600	2006		599	
SUZUKI	GSX-R600	GSX-R600	2004		599	
SUZUKI	AN650 Burgman	AN650	2003		638	
SUZUKI	DL650 V-Strom	DL650	2003		645	
SUZUKI	SV650	SV650K3	2003		645	
SUZUKI	GSF650	Bandit GSF650	2007		656	
SUZUKI	GSX650F	GSX650F	2007		656	
SUZUKI	GSX-R750	GSX-R750	2003		749	
SUZUKI	VZ800K5 Intruder	VZ800	2005		805	
SUZUKI	DL1000 V-Strom	DL1000	2004		996	
SUZUKI	SV1000/S	SV1000/S	2003		996	
SUZUKI	GSX-R1000	GSX-R1000	2003		999	
SUZUKI	GSF1250 Bandit	GSF1250	2007		1255	
SUZUKI	B-King 1340	B-King 1340	2008		1340	
SUZUKI	GSX-R1300R Hyabusa	GSX-R1300R	2008		1340	
SUZUKI	GSX1400	GSX1400	2004		1402	
SUZUKI	VL1500K5 Intruder	VL1500	2005		1462	
SUZUKI	VZ1600 Marauder	VZ1600	2004		1552	
SUZUKI	VZ1800 Intruder	VZ1800	2007		1783	
SUZUKI	ATV LT-R450	Quad LT-R450	2006		450	
SUZUKI	ATV LT-A700	King Quad LT-A700	2005		695	

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SMALL PRINT:

For competition use only.

This unit affects exhaust emission levels.

Check before use that local laws are not broken by use of this tool.

This tool should only be operated by a technically competent person.

The tool and connection cable are covered by a 12-month limited liability warranty against manufacturing defects only. In the event of a defect within 12 months from purchase, please return to the point of purchase together with a copy of your invoice/receipt and a written description of the fault.

No liability is accepted for any consequential losses whatsoever.