

FIA CROSS CAR CHAMPIONSHIP	
Engine type	Suzuki GSX-R
Map name	SZ11AE03
Firmware version	1.18.XX
Fuel type	ETS IRF 102
Fuel pressure	3,4 bar

Follow this document and apply the changes to the throttle body before starting the engine

To obtain the maximum benefits from the ECU, a reconfiguration of the hoses mounted on the throttle bodies is necessary.

Specifically, the standard configuration has a MAP (manifold air pressure) sensor that measures pressure from pipes connected to all 4 cylinders.

The race ECU, is able to read pressure with angle base sample (every 5 crank shaft degrees). By using this type of sampling, it is possible to more accurately measure and calculate the intake air quantity.

At the same time, the ECU uses this signal to detect the Intake Stroke for cylinder 1 (for synchronization).

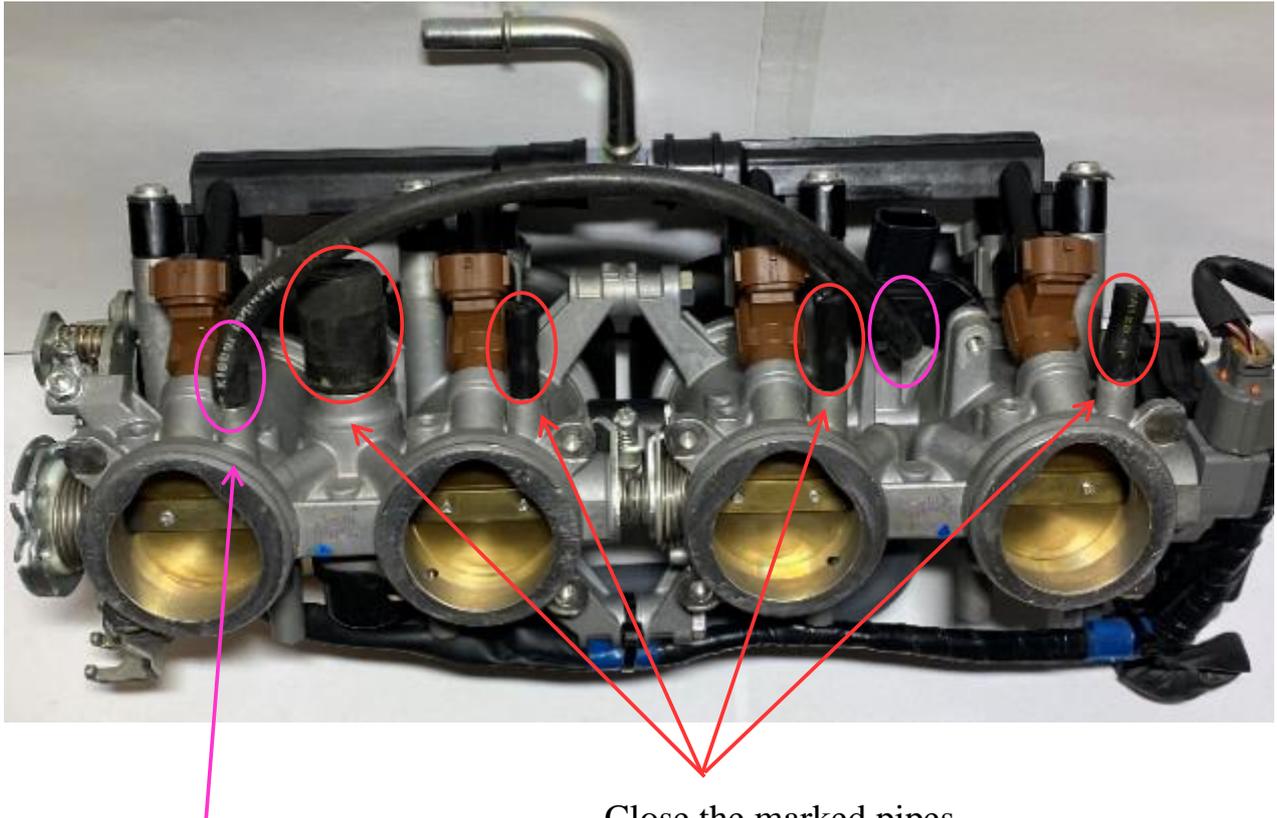
Below is an image of original configuration of the (EU) throttle bodies

Step number one :



Remove the marked pipes

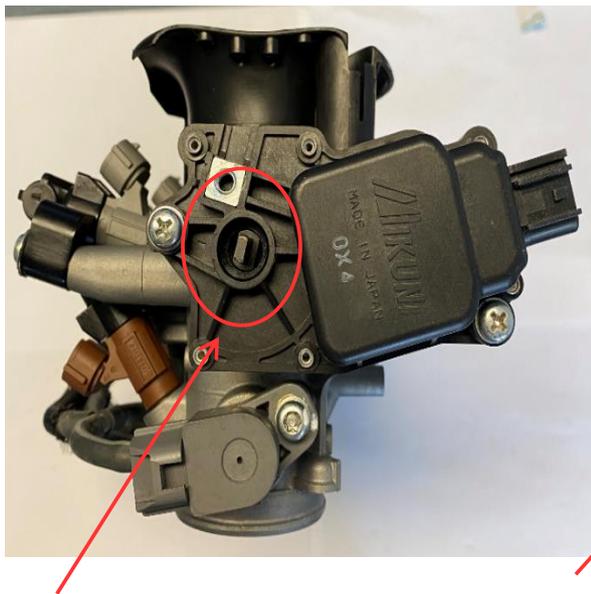
Step number two :



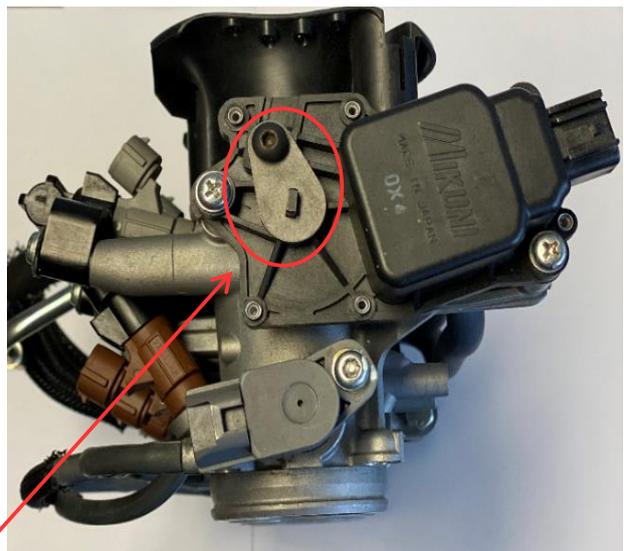
Close the marked pipes

Connect this pipe to the map sensor
cyl number one (the length of the pipe must be not more than 24 cm)

Step number three :

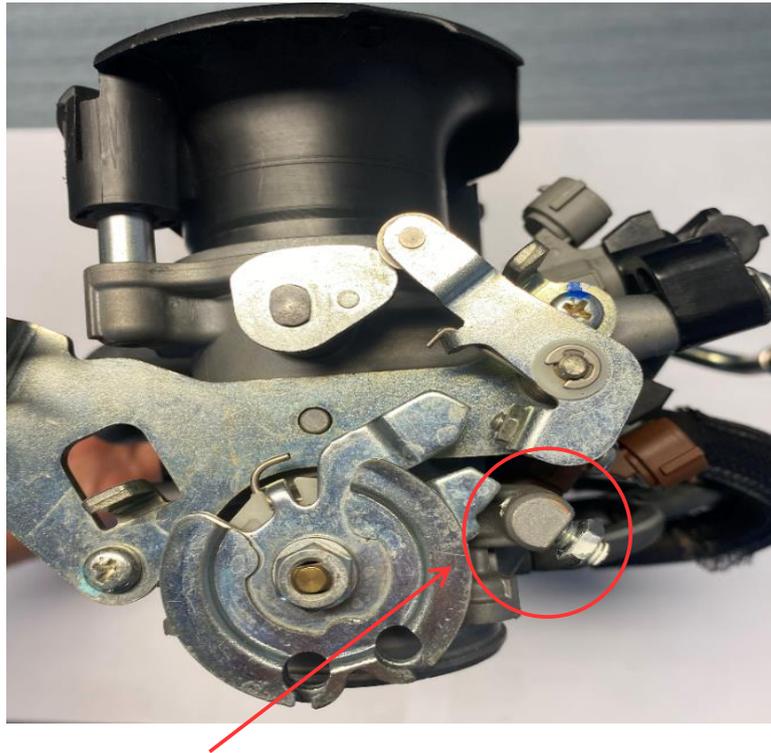


Remove the sensor



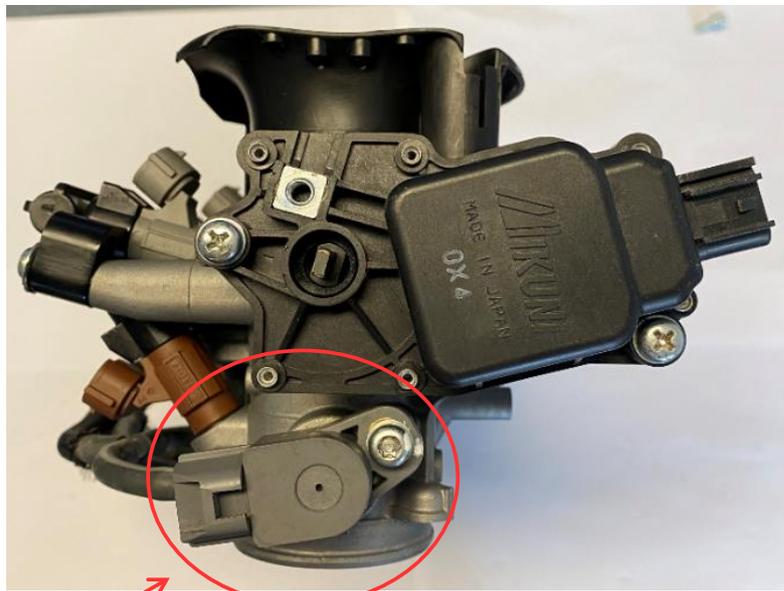
Fix the second throttle to the maximum opening

Step number four:



Turn the screw until the throttle is completely closed

Step number five:

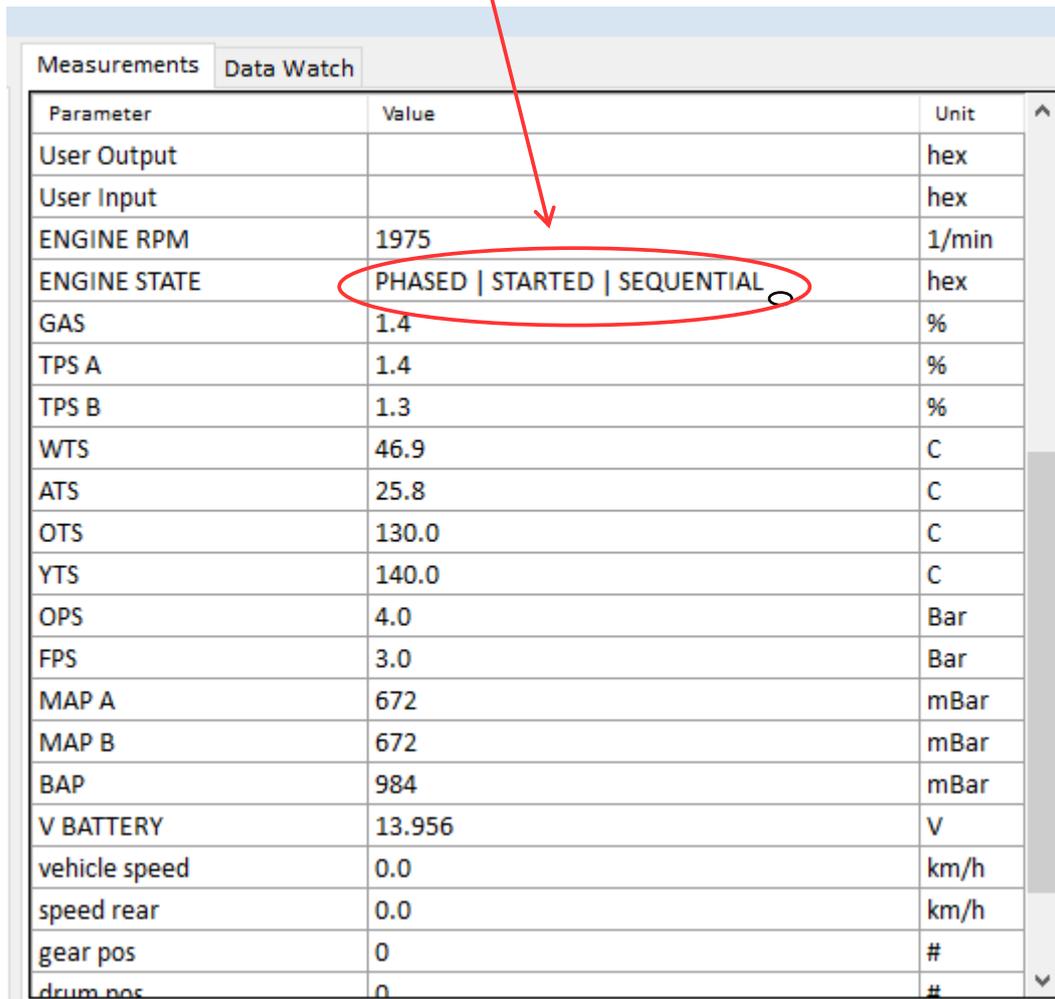


Check in the Mecal software that the TPS value is equal to zero, if different, loosen the screw and turn the sensor until the zero value is obtained.

After that, fix the sensor and turn the idle screw until to obtain a TPS value of 1,5/1,8 degrees. The engine speed value, in the idle, should be around 2000 rpm.

Step number six:

Open the Mecal software and check in the ENGINE STATE parameter that the value is
PHASED/STARTED/SEQUENTIAL



Parameter	Value	Unit
User Output		hex
User Input		hex
ENGINE RPM	1975	1/min
ENGINE STATE	PHASED STARTED SEQUENTIAL	hex
GAS	1.4	%
TPS A	1.4	%
TPS B	1.3	%
WTS	46.9	C
ATS	25.8	C
OTS	130.0	C
YTS	140.0	C
OPS	4.0	Bar
FPS	3.0	Bar
MAP A	672	mBar
MAP B	672	mBar
BAP	984	mBar
V BATTERY	13.956	V
vehicle speed	0.0	km/h
speed rear	0.0	km/h
gear pos	0	#
drum pos	0	#

If the value in the ENGINE STATE is STARTED , there is something wrong in the system, check the sensor value and the correct connection.