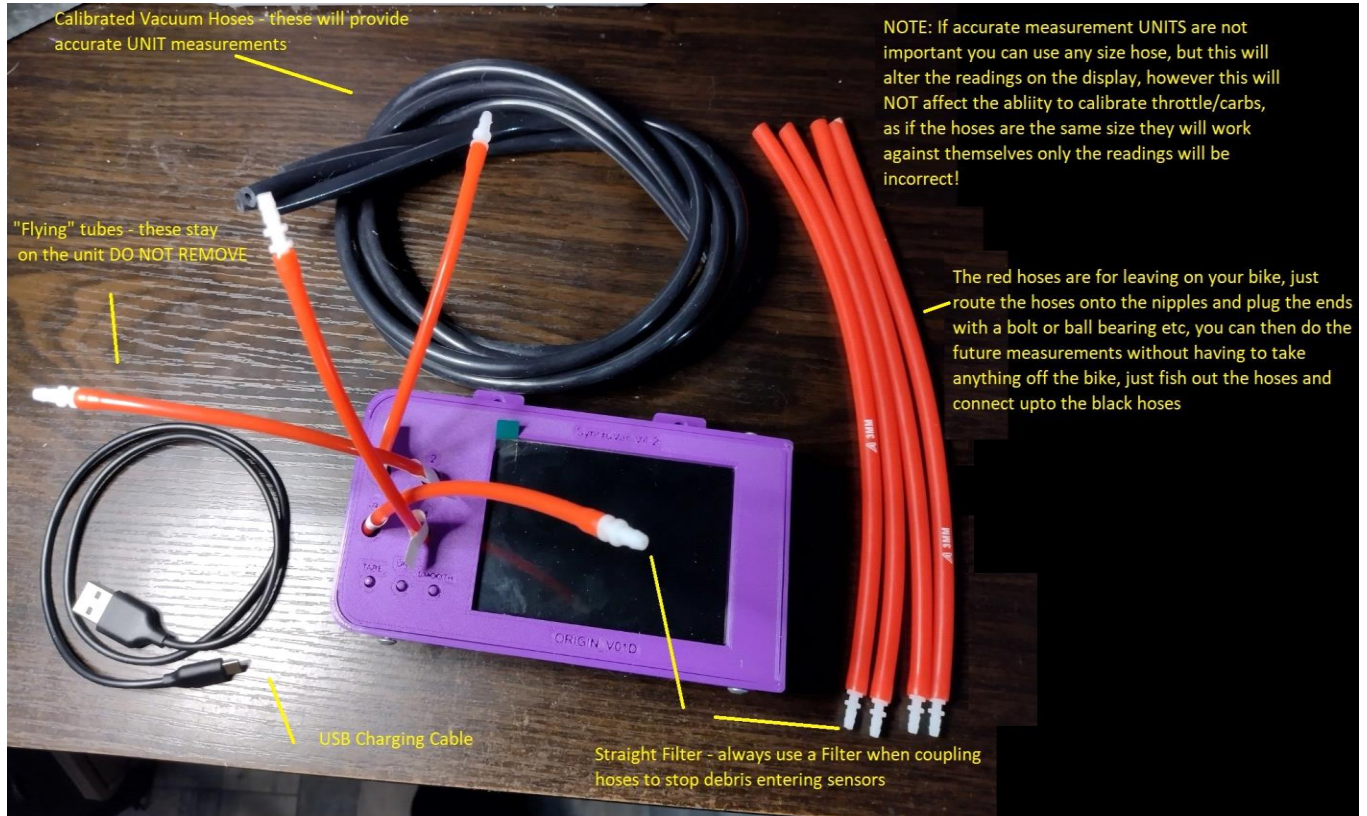


SyncroVac v4.3 TURBO EDITION

Step 1:

identify parts



Step 2:

consult your motorcycle manual or maintenance guide for how to prepare the bike for a throttle/carb sync some modern bikes are best put into "Dealer" or "Service" mode etc

things to consider:

Engine Temp - needs to be at running operating temp

Carbs - should be clean and setup correctly

Air filter - should be clean

good charged battery - Lead acid should be charged at around 12.6v fully charged

disconnect IAP sensor - depending on your instructions this is usually removed when performing a throttle sync (consult manual)

TPS adjustment - needs to be setup correctly

Valve adjustment - Throttle/Carb sync cannot compensate for valves out of spec but can help you narrow down bad shims for example, if you sync and all cylinders are close to equal and the bike is still running rough, may indicate valve/carb issue!

Low compression - if one cylinder is very different from another or any cylinder is less than 1psi after sync then consider compression test (some bikes especially turbo bikes may provide less than 1psi vacuum readings depending on engine/setup)

hoses secure / no leaks - no bends or kinks, nothing pinching the tubes as this will affect results

Step 3:

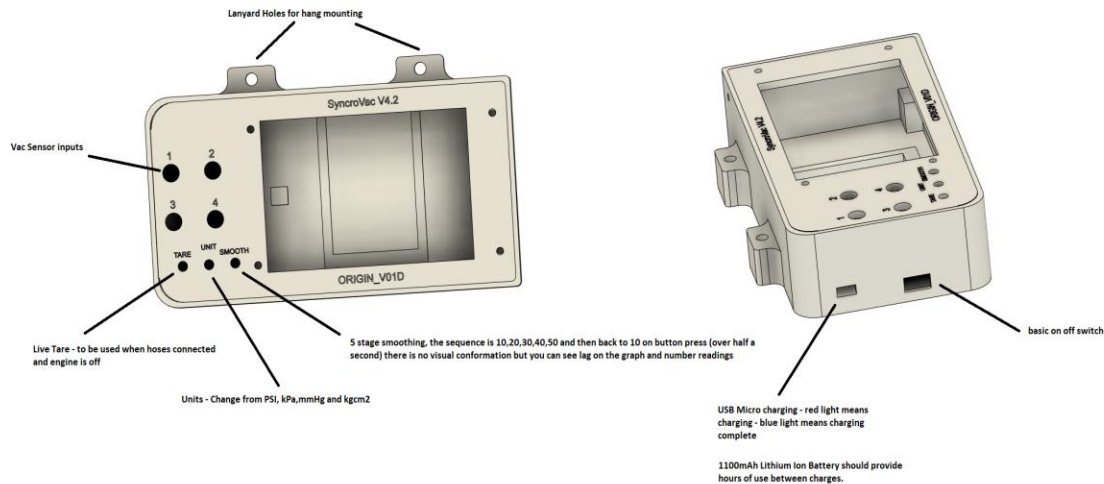
Setup

with the unit there are 4 **RED** "flying" tubes, that you can use to test upto 4 cylinders/vacuum ports on your engine

to this you connect the **BLACK** calibrated hoses, these provide the correct measurement UNITS on the display itself

(optional- you can install the **RED** short hoses onto your bike, for easier future sync, just fit them over the nipples on your vacuum ports and plug them with an m4 bolt or a ball bearing, most of the time you can route these to either side of the engine so you can access them through the frame, without having to take the bike apart)

the ports and buttons are marked on the Syncrovac, but it can be sometimes hard to see, so below is a diagram to help identify



Step 4:

Testing

make sure the unit not being moved when you turn the unit on, as this can affect the calibration

whatever orientation the unit is in, do not move it once calibrated otherwise this can also affect the readings(dont rotate it or turn it over etc, always calibrate right before you use it in that orientation for best results)

when turning on the unit it will appear with a white screen, this indicates it is calibrating, only when the graph and values are displayed is when calibration is complete, this is automatic, just hook up your hoses position/mount the syncrovac in place and turn on, wait until the unit has calibrated and then you are ready to test

on the unit you have 3 buttons

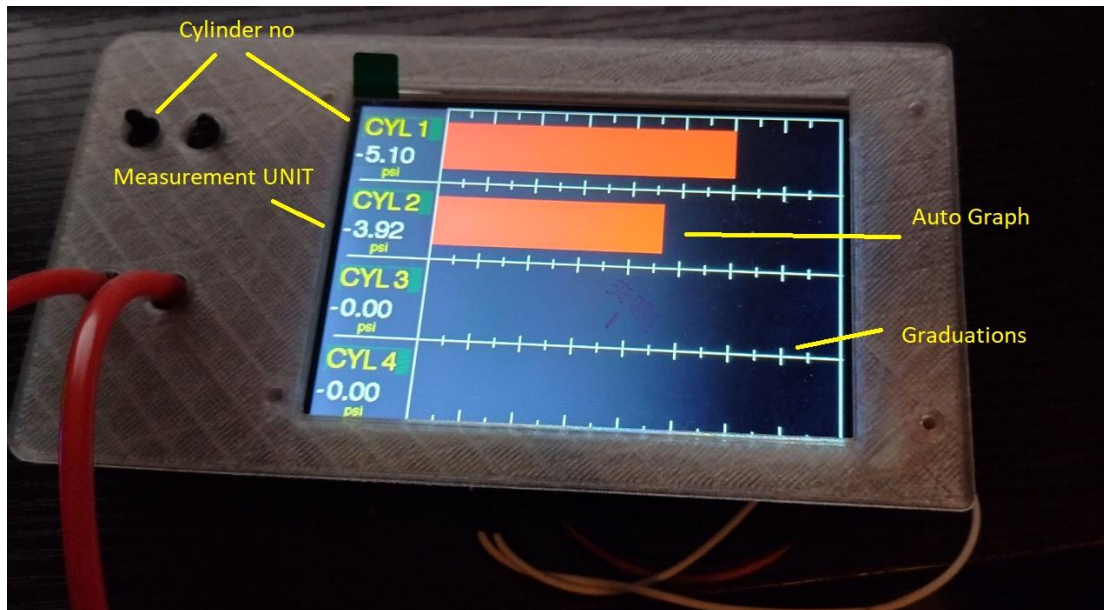
TARE is a live tare, which can reset the sensors to each other if there is some issues with your setup (only use this when engine is off otherwise it can affect readings)

UNIT - you can select any unit live, so you can cycle through different pressure measurements even when the engine is on and reading data

SMOOTH - more for odd firing engines, this increases the smoothing, there are 3 levels but it wont notify you, if the readings seem very sluggish its probably got too much smoothing, with the engine off you can press this and check the data, dont try to press the smoothing button when the engine is running!

Step 5:

reading the display



Semi autotune is very simple, as you get two adjacent values closer together (1,2 - 2,3 - 3,4 for example) the software will notify you by changing the colour of the bar to green, this will start slowly flashing as you approach near perfect synchronisation, eventually you want the bars to be SOLID green, this will mean that the values are extremely close together

step 6:

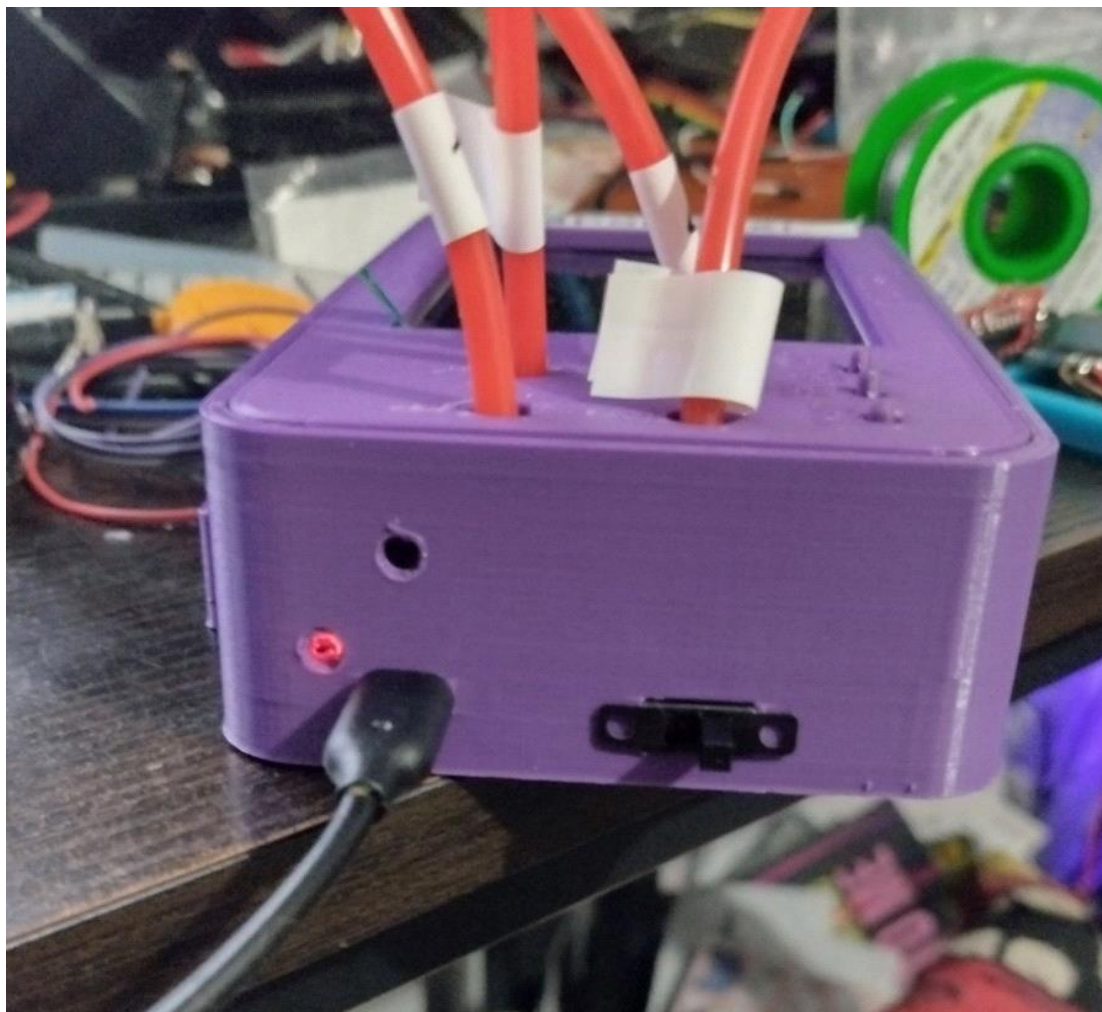
charging

below you can see the power button on the right and the USB micro charging on the left, any USB 5v charger should work with this unit

below you can see the red light, this indicates the battery is charging, when fully charged it will turn to a blue light

please keep the unit charged every few weeks or so to preserve the life of the battery

a single charge should last many hours calibrating



thank you again for your purchase! I will be making more tools/accessories for motorcycles cars and racing and appreciate any honest feedback you may have, if you have any issues in the future I will be of course happy to help resolve them

all the best,

Origin_V01D

