

## Twingo GT Tuning guide

I thought I would write this up as a lot of people send messages asking about how to get more power or just more noise from their Twingo GT, I'd class this info relevant for any Renault with the 1149cc tce engine (1.2TCE)

Before doing anything to the car I would recommend that everything is in good working order, increasing the output of the engine will quickly highlight any parts that are worn or requiring replacement. The TCE engine is quite sensitive to the correct spark plugs and will commonly run lumpy and not pull cleanly when the incorrect ones are fitted. Also due to a design fault the scuttle tray can drip water on the cylinder number ones HT Lead and sometimes the coil pack. If left too long you can potentially have a spark plug corroded into the head.....

So there are a few things you can do. If you have a standard 1.2 TCE and want a little more go you can head off for a remap as is. This will gain you some more low and mid-range grunt, a tiny bit of top end power. The standard injectors limit this, as far as I am aware they are near their limits on a stock engine. This should net you a possible 115-125bhp. I'm basing this info on reputable dynos btw and not generic reflash company quotes which are usually inflated for sales. At this point you can fit air filters and exhausts but it won't gain you much due to the injector size. Efi Parts and RS Tuning can both accommodate you for Custom/Live mapping.

**Air filter** wise you can buy replacement panel filters but no one currently sells an "induction kit". It's not hard to make one yourself using some ali pipe and a decent cone filter connected on to the stock turbo inlet pipe. On the Twingo this points back over the top of the engine to the left on the Clio it points to the right behind the battery. You could relocate the battery as I have done and gain a lot of space on the right of the engine for a big airfilter.

If you want a nice chatter noise delete the standard Dump Valve and blank all the pipe work off. You can fit an atmospheric dump valve if you like the sound and want to impress people in McDonalds car park.

**Exhausts** are generally custom made, k-tec racing used to sell one for a GT but no longer list it and there was talk of cobra designing one but again I am yet to see it. Most stay as a cat back system due to the fact the catalytic convertor is located in the downpipe. Not too hard to swap out but protoxide in Italy were the only people currently selling one of those.

**Intercooling** will help keep air temps down and keep them lower for longer than the standard side mount. If you arnt planning to swap out to a front mount get the arch liner and bumper off your car and inspect the oem item, They fill with road dirt and crap, become inefficient and even rot out. Most of these are 10+ years old now and the thin ali the core is made of easily gets holes in. This will cause the turbo to over spin to maintain boost pressure and cause premature wear along with lower performance. The easiest thing to do currently is grab a small ebay front mount intercooler and add some pipework. Don't believe the internet crap about increase in lag time, trust me you won't notice it if there is any, I doubt you could even properly measure the difference. A decent front mount intercooler will now give you scope to push the little turbo to its limits without a massive increase in intake temps. I personally run a very large front mount and generally don't see more than 5deg more than ambient intake temps when on a run.

**Fueling** will now need some attention if you've done most if not all of the above and want to get more power, you WILL need some clio 172 injectors. These will require fitting at the time of mapping. Its possible your old fuel pump will also be tired, there are many pumps on the market that will fit the standard housing if required. The walbro 255ltr pump will be plenty for the little engine. They along with the above modifications will net you a good 140-145bhp give or take a little. This is along with a huge jump in torque, circa 145ftlb. At this level you wont be far off the heels of a clio 172 and for not much outlay. Not many have pushed passed this power so I would class this as your basic tuning guide. After this you are into the realms of custom/hybrid turbos, cams and possibly internals and gearbox changes. Remember though you are pushing a 100bhp engine 50% passed its original design at this point, things will probably start to fall apart.

The stock clutch is known to slip with just hard driving, again they are getting on abit now. CG Motorsport list uprated items on the shelf for the D4FT so worth a look if yours lets go. Mine is still on the stock clutch though and it gets a good beating on the road and track.