

## 1: Install unit in accordance with included guide

Familiarise yourself with the install guide. The product is aimed at vehicle enthusiasts and must be installed by a competent installer. Be careful not to plug the unit into any location that is not clearly marked in the instructions. If in doubt please contact our Support team or use a qualified Auto Electrician. You risk damaging the tuning module by plugging it into the wrong location. The device can be temporarily installed for times when you need additional power or economy (such as track days etc). When you no longer need the device or you are passing the vehicle on to someone else it should be removed.

## 2: Check connector orientation

If your vehicle has Bosch connectors as pictured below, they can be pushed into the tuning box connector incorrectly if not done with care. Please double check that you have plugged the connectors in the correct orientation as shown below (shark fin engages with clip, not the cut-out on the underside) or the car will not start:



## 3: Locking clips

When the vehicle has a **coloured locking tab** on its clip, you must first pull this clip backwards, and then press down the button and remove the original connector. To install the tuning box connector, make sure the yellow tab is still pulled fully back, depress the button and push the connectors fully together. You can now click the yellow tab forwards. To check this has been done correctly, **try pulling the connectors apart, if installed properly they will be locked together.**

## 4: Status lights



When the device has been fitted, turn the ignition key to the ON position, but do not start the engine. There should be a **Blue** light on the back of the unit which is now flashing. Once the engine is started (depending on idle rpm) the **Blue** light will continue to flash or turn steady.

The **Green** and **Red** lights will flash in accordance with rpm when the engine is revved. These lights may only be seen when the vehicle is being driven as most engines have limited rpm in neutral.

If the **Blue** and **Green** lights are flashing, this means that the box has been programmed with a warm up timer. This will run for 2 minutes after the accelerator pedal has been pressed. The **Blue** light will then flash or go solid after the timer has elapsed. A warm up timer is programmed for engines that need to warm up before applying tune, such as Ford Ranger and Transit engines. This will occur every time the engine is started.

If no lights or all 3 lights are illuminated, the device may have been fitted incorrectly. Please contact Bluespark support if this cannot be resolved.

*N.B. On some Denso fuel systems (fitted to Japanese vehicles, Ford Transits and some Vauxhall 1.7 CDTi models) the **Blue** light will not flash and will turn steady immediately when the ignition is turned on.*

## Fuel economy improvements

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The tuning box improves the amount of torque that the engine produces over the entire rev range. One of the major fuel economy benefits comes from the ability of the driver to drive in a higher gear than previously, thus reducing losses. For example, the tuning box may allow the car to pull up a hill in 5<sup>th</sup> gear, where it used to require 3<sup>rd</sup> or 4<sup>th</sup>. If you are looking to mainly improve economy, bearing this in mind and adjusting your driving style accordingly can improve your MPG further.

## Troubleshooting

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The tuning box will not cause any engine problems or errors to be present if fitted and set up correctly. If you have problems please follow this guide.



If your car displays an engine management fault, do not panic!! These situations are usually very easily resolved. Most engine management lights will usually turn off as soon as the fault has been rectified and the ignition is switched back on. On rare occasions the car may take 3 warmup cycles to clear the light (this means taking the vehicle up to operating temperature and leaving it to cool down completely, 3 times).

### Problems:

- ***The vehicle will not start***
  - Connection issue
- ***Engine management light came on immediately and vehicle is in restricted performance mode***
  - Connection issue
- ***Engine management light came on immediately but vehicle drives perfectly***
  - This is usually due to the car detecting the plugs being disconnected. This could be due to the box being fitted too soon after removing the keys from the ignition, or simply just that some vehicles turn on the ECU at random times. You do not need to do anything if the car drives fine and the box lights up correctly. The fault will correct itself in 3 warmup cycles.
- ***Engine management light came on whilst driving or vehicle power was reduced***
  - Vehicle tolerances or condition cannot support the requested level of power. Reduce setting level.
- ***Vehicle emits black smoke when accelerating hard***
  - Tuning box setting is too high

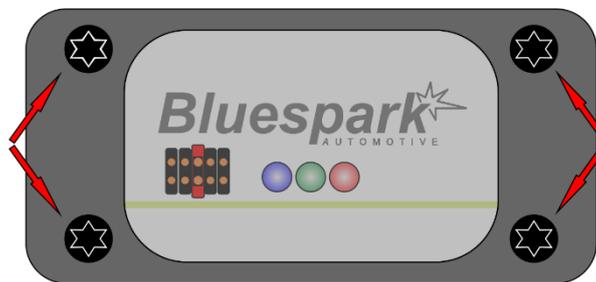
### Resolutions:

- ***Connection issue***
  - Check connector location against instructions
  - Check connector orientation and try pulling connectors apart to see if they are properly engaged
  - If problem persists contact our support team and if possible take a picture of the installation location & connectors and email them to [support@bluesparkautomotive.com](mailto:support@bluesparkautomotive.com)
- ***Tuning box setting is too high***
  - Move the fine tune adjuster to the left to reduce the tune level. If the problem persists try the alternative map or call our support team for advice.

## User adjustment

The tuning box comes pre-configured from the factory for the best compromise between power and fuel efficiency. Although we recommend lower settings for economy, in some instances increasing power output can have a positive effect on fuel efficiency due to the increased torque at low revs, however accelerating harder than usual with the extra power will negate these gains.

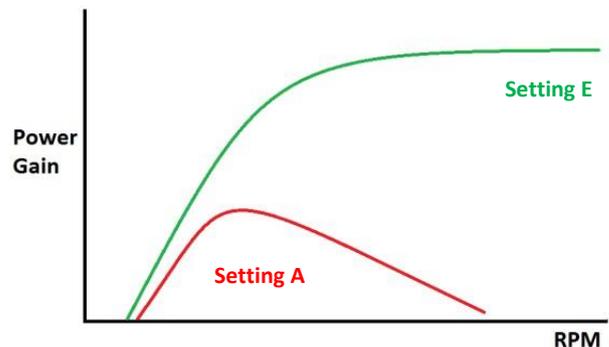
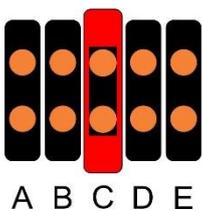
**We recommend that the device is left at its default setting (usually setting B or C depending on vehicle),** if you are changing this please make a note of your original setting. User adjustment is only intended if the device does not perform as you wish. The adjustment function is located behind the back panel of the unit. Remove the 4 screws using a T10 Torx as shown below.



Remove screws using a **T10 Torx** key

To increase performance move the red jumper to an alternative pin set to the right. To decrease performance (reduce any **visible smoke**, or if the current state of tune has **caused an engine management light** to appear when driving) move the jumper to an alternative pin set to the left until the problem is resolved. Starting problems are often down to a connection issue as the box setting does not affect engine idle.

### Map Setting – (Red Jumper)



Changing this setting allows you to select from five distinctly different levels of tune. Setting A is biased more towards mild gains in the lower part of the rev range. Setting E is biased towards all out performance. Maps B, C and D are a progression between these two.

**When adjusting the unit you should adjust it one setting at a time. For example, move from setting B to setting C then test the car and see how it drives, if you need more performance move on to the next setting. It is not sensible to move to a high power setting (E) without testing the intermediate settings first.**

Users of cars with an exhaust particulate filter (DPF or FAP) should be aware that the filter may regenerate more frequently than normal if the car is used for a lot of short, start and stop journeys or town driving. If this is the case it is recommended that the adjuster is left at its default setting or lower. When the DPF regenerates (cleans) it will cause a temporary drop in fuel consumption.



# Money back guarantee

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Bluespark provides a 28 day money back guarantee on all products if you are not satisfied. To qualify for this, until you are sure that you wish to keep the device please look after it, as cosmetic damage may result in a restocking fee. If you do wish to return the unit, please contact us first and we will process your request. If you purchased via eBay please do not open a return case yourself.

**Product warranty:** Your Bluespark tuning box comes with a 24 month non-transferable product warranty. In order to claim on the product warranty, an original invoice for the tuning box must be provided along with the tuning box and components. The product warranty will be void if it is found that the tuning box has been altered in any way or if it is found that the tuning box has been incorrectly installed or mistreated. If you find a fault with our products please notify us immediately. The product should be installed by a qualified auto electrician. The product warranty does not extend to any form of warranty related to your engine or engine components.

**Replacement policy:** If within the first 28 days of receiving your tuning box it is found to have a defect, is damaged in transit or does not correspond to your vehicle, it will be replaced with a new unit. A replacement unit will be sent out to you once the original tuning box is returned with all the included components in the same condition as they were supplied.

**Right of return:** Each tuning box comes with a 28 day money-back guarantee. If claiming on the 28 day money-back guarantee, please allow up to 7 days to be refunded once we have received the original tuning box and package components in the same condition as they were supplied. You will be refunded the full purchase price less a restocking fee of up to £20 if the item is not returned in satisfactory condition (minor wear and tear is to be accepted). Refunds will be made using the same transaction method used during your original purchase.

**Returns policy:** The customer is responsible for the cost of all returns unless otherwise agreed between yourself and the supplier. Goods which are returned must be packed correctly to avoid any damage and contain the original invoice. All returns must be sent by registered delivery which provides a parcel tracking system.

Only within the first 28 days will a full refund be given for a faulty unit, otherwise the unit will be repaired or replaced as set out in the Warranty conditions above. Strictly no refunds if the unit is no longer needed after purchase and the 28 day return period has expired.

**Product disclaimer:** It is the responsibility of the customer to ensure that the vehicle and vehicle components are in good condition and have been serviced and maintained in accordance with the manufacturers guidelines. The product can increase the vehicles power output above standard by an amount selectable by the user, the fitment and adjustment of this device is strictly at your own risk. We will accept no responsibility for the failure of any engine or vehicle components which may arise during or after the installation of our product.

**Insurance:** You (the customer) are responsible for notifying your insurance company about any modifications you make to your vehicle.

**Personal data:** Any personal data requested will be treated with strict confidence and will not be passed onto any third party apart from our payment processing partner.

**Liability limitations:** Our liability is limited to the products sold on this website and to the value of your purchase.

**Power and fuel economy:** Fuel consumption is fully dependant on the users driving style, and so an increase in economy cannot be guaranteed. Power and Torque figures cannot be guaranteed to be exactly the same as stated as it will vary from vehicle to vehicle depending on tolerances and condition, but the figures should be similar. Please be aware that there may be discrepancies with vehicles fuel computer.