

## Deceptor Pro II (part # T9520)

Thank you for purchasing the GFB Deceptor Pro II blow off valve. We **highly** recommend that you familiarize yourself with the operation and adjustments of the Deceptor Pro II before installing it.

### Installing and wiring the in-car volume controller

Connect the red wire to a switched 12V power supply inside the cabin – make sure this power supply is off when the key is turned off, otherwise the unit will be permanently powered.

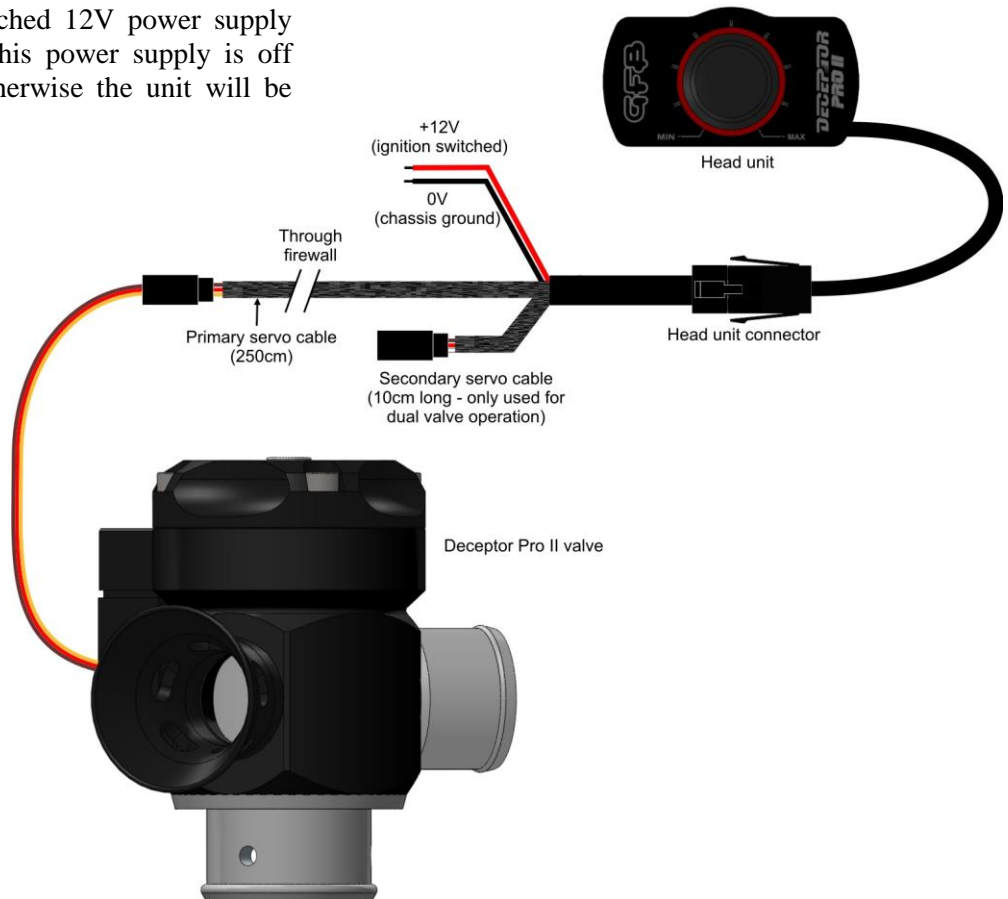
Connect the black wire to ground, most commonly this is a bolt on the chassis.

Find a suitable mounting location for the head unit. Clean both mating surfaces with methylated spirits or similar cleaner and secure the controller using the supplied double-sided tape. Press hard and hold the unit for 30 seconds. Note that it takes up to 24 hours for the tape to develop a strong bond.

Plug the head unit into the wiring harness connector.

Feed the primary servo cable (250cm section, covered with black mesh sleeve) through the firewall into the engine bay.

Often there is an existing grommet that can be used for this purpose. In any case, it is important to ensure that the lead is protected where it passes through the firewall to prevent wear or damage.



### Basic Head Unit Operation



Push to activate,  
turn to adjust

The head unit features a “sleep” mode that dims the dial lighting and reduces power to the servo motor after approximately 10 seconds.

When the unit is “sleeping” (i.e. dim lighting), press the dial briefly to wake it up, and then make position adjustments by rotating the dial. The unit will return to sleep mode after 10 seconds.

**WARNING: Do not attempt to manually rotate the noise adjustment, always apply power and use the controller to change the venting bias. When testing your Deceptor Pro II, DO NOT put fingers or foreign objects through the trumpet or plumb back ports. Doing so may result in personal injury or damage to the blow-off valve.**

## Installing the blow-off valve

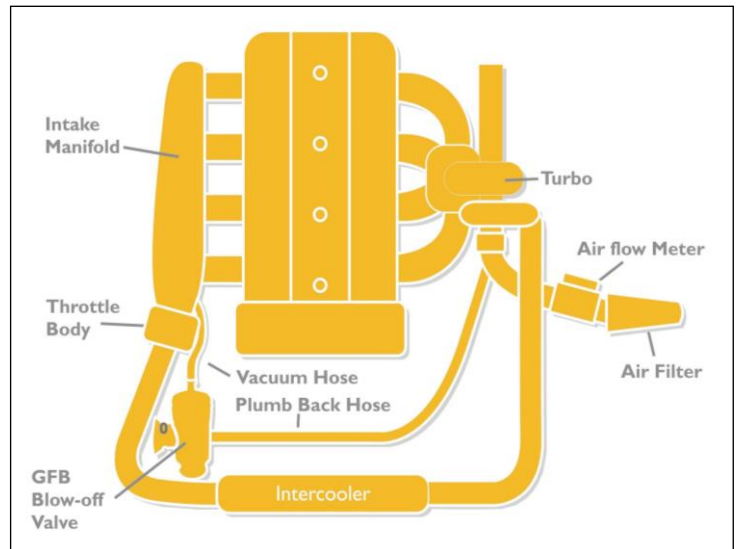
The standard inlet and outlet of the GFB Deceptor Pro II T9520 are 20mm in diameter, which is a suitable size for fitting into 3/4" (19mm) I.D. hose. For different mounting options, a list of the adaptors available is shown below, but if in doubt, check out the adaptors page on our website [www.gfb.com.au](http://www.gfb.com.au), or consult your local dealer.

T9520 is suitable for custom installations, and also has the same size fittings as the factory valves on the following vehicles (some applications may require the factory hoses to be extended or modified):

- Subaru WRX/STi MY94-96
- Subaru Legacy RS Turbo MY89-93
- Ford Laser TX3 KC-KH
- Mazdaspeed Miata SE
- Mazda RX7 Series 4-6
- Toyota Supra JZA80

For cars without a factory fitted bypass valve, a location for the Deceptor Pro II must be found on the piping between the turbo outlet and the throttle body, and a suitable adaptor must be welded in that location to which a 3/4" hose can be connected. A hose to connect the Deceptor Pro II recirc outlet must also be fitted to the piping before the turbo (after the airflow meter, if one is installed).

NOTE: GFB recommends mounting the BOV closer to the throttle body rather than the turbo, since some factory turbo piping can cause pressure drops which may affect the performance of the valve. If an intercooler is used, it is preferable to mount the valve after the intercooler, before the throttle.



- 1) Push the base inlet of the Deceptor Pro II into the boost pressure source hose (i.e. from between the turbo and throttle body), and secure with a hose clamp.
- 2) Connect the recirc outlet on the side of the Deceptor Pro II (opposite the trumpet) to the recirc hose that leads back to the turbo intake and secure with another hose clamp.
- 3) Connect the vacuum nipple on the top of the Deceptor Pro II to a suitable manifold vacuum source (after the throttle body), using rubber or silicone vacuum hose of at least 4mm I.D. Try to avoid attaching any other hoses and t-pieces to the vacuum hose and keep it as short as possible, as this will ensure rapid response from your GFB valve. **DO NOT CONNECT THE VACUUM HOSE TO BOOST CONTROL, FUEL PRESSURE REGULATOR OR BRAKE BOOSTER HOSES.**

## Adaptors Available

### Base (inlet) adaptors:

- 5325 – 25mm hose inlet
- 5330 – 30mm hose inlet
- 5333 – 33mm hose inlet
- 5335 – 35mm hose/1" pipe mount base
- 5338 – 38mm (1.5") pipe mount base

### Recirc (outlet) adaptors:

- 5225 – 25mm
- 5230 – 30mm
- 5233 – 33mm
- 5238 – 38mm

## Adjusting the spring pre-load

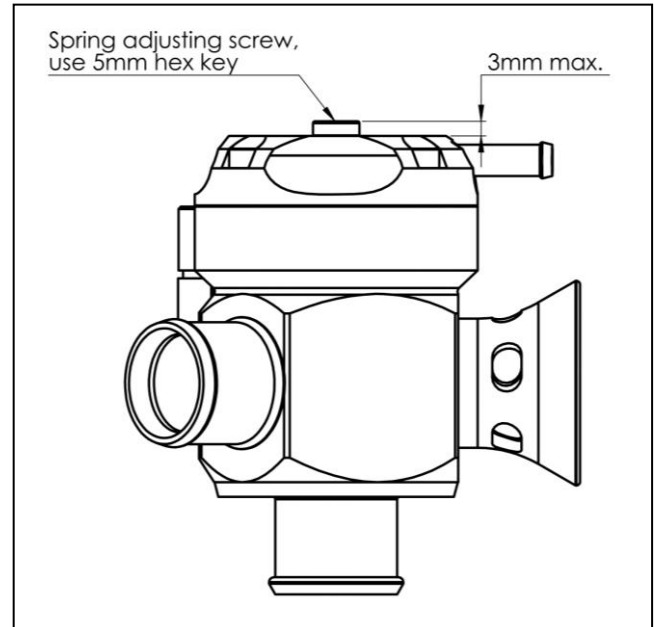
Contrary to popular belief, the spring pre-load **DOES NOT** need to be adjusted to suit different boost levels. **Unlike other valve types on the market, the Deceptor Pro II will stay shut under full throttle conditions regardless of boost pressure or spring pre-load.**

The spring pre-load affects how easily the valve opens when you lift off the throttle, and how long it stays open when it vents.

Note that there is no substitute for experimentation with the spring setting, because different cars in different climates and with different mods will unsurprisingly respond differently. Do NOT be afraid to experiment to find the optimum setting, you can't hurt the engine or turbo by doing so. The guide below will walk you through the steps involved.

The screw in the centre of the head is the spring pre-load adjuster - use the supplied 5mm hex key for this screw.

The softest spring setting is achieved when the top of the adjustment screw is 3mm above the head of the valve. Do not set the screw more than 3mm above the head.



- Set the spring to the softest setting, and set the volume control to at least 50% atmosphere venting so you can see the piston through the trumpet
- Start the car and let it warm up to normal operating temperature. Make sure the A/C is off
- Look at the piston through the trumpet. If it is hovering open, wind the adjustment screw in the “+” direction until the piston closes fully. If it is already closed, proceed to the next step
- Give the engine a good hard rev and snap the throttle shut quickly. The piston should lift and vent, then close slowly and smoothly. The harder you stab the throttle, the further the piston will open (note: it will only open fully when driving, as the turbo does not generate boost until the engine is under load). **WARNING:** Keep your face away from the trumpet opening when revving the engine. View the piston from an angle away from the blast of air
- If the piston stays open too long, and is not closed when the revs drop back to idle, the engine will “stumble”, or the revs will dip below idle. If this happens, wind the adjustment screw in the “+” direction one turn at a time until the engine returns smoothly to idle after revving
- For the final fine-tune, take the car for a drive. Watch the tacho as you pull up to a stop - if the revs dip below idle, tighten the spring 1-2 turns
- If a loud flutter is heard when lifting off sharply from full boost, wind the adjustment screw in the “-“ direction one turn at a time until the noise disappears. Note that it is not uncommon to hear a slight fluttering at low RPM under certain conditions. This is a result of the different way in which this valve operates compared to the factory unit, and is perfectly normal

A video example of setting up the spring pre-load can be seen by scanning the QR code, or visiting: <http://www.gfb.com.au/downloads/gfb-tv?video=KgGRfR6jt-c>

**NOTE:** There is usually a range of around 4-5 turns within which your valve will operate properly, and if it is outside this range it will be immediately noticeable in the symptoms described above. If you notice none of the symptoms mentioned above, then simply leave it where it is.



## Using the In-Car Head Unit

---

When powered up the dial backlight will glow bright red, and will then automatically dim 10 seconds later to reduce unnecessary glare, and will also reduce power to the motor – this is the “sleep” mode. To wake the unit up, simply press the dial briefly before making adjustments.

The position of the dial is directly proportional the venting bias - turning the dial fully anti-clockwise sets the valve to 100% recirc, fully clockwise results in 100% atmosphere venting, and any ratio is possible between these limits.

The head unit also has a range limiting feature. This can be used to limit the maximum atmosphere-venting bias of the Deceptor Pro II. For example, if you prefer that the maximum atmosphere venting bias is 60%, you can program the controller so that full travel on the dial gives you only 60% movement at the valve. This is particularly useful on cars that, through experimentation, find that full atmosphere venting does not agree with them.

To use this feature, set the dial in a position that you want as your maximum atmosphere-venting limit, then press and hold the dial until the lights flash. The unit will record this new position as the maximum atmosphere-venting limit. Now when you turn the dial fully clockwise, the Deceptor Pro II will only open as far as the point which you have just set. For example, if you pushed the button with the dial set in the middle (50% atmosphere venting), full travel of the dial will now move the valve from full recirc to 50% atmosphere-venting only.

Every time the button is pushed, the position of the dial will determine the maximum venting bias of your Deceptor Pro. So to re-set the range to maximum again, simply turn the dial fully clockwise, then press and hold the dial.

## Maintenance

---

All GFB valves are designed to be as maintenance free as possible. In most cars the small amount of crankcase and rocker-cover blow-by oil that is directed into the intake system is enough to keep the piston well lubricated. However, in some cases oil deposits or dirt can dry out and create a build-up on the piston that causes erratic operation or sticking. If you notice a grey film on the piston or erratic venting behavior, it is a good idea to clean the valve.

This is best done with the valve removed from the car. Flush out the piston with a penetrating spray such as WD40, whilst working the piston up and down. Using a rag, wipe off as much of the grime and build-up as possible. Re-lubricate the valve by applying a small amount of engine oil to the piston through the side outlets and the underside of the valve, and working the piston up and down by hand. It is a good idea to keep the trumpet area clean and free from oil, as it attracts dirt which can result in damage to the piston.

## Customer Support

---

GFB's engineers are always available to help with any enquiries or issues you may have with the installation or use of your GFB products. Simply email [support@gfb.com.au](mailto:support@gfb.com.au) or phone:

Within Australia: 02 9534 0099  
International: +612 9534 0099

**This product is intended for racing use only, and it is the owner's responsibility to be aware of the legalities of fitting this product in his or her state/territory regarding noise, emissions and vehicle modifications.**

**GFB products are engineered for best performance, however incorrect use or modification of factory systems may cause damage to or reduce the longevity of the engine/drivetrain components.**

**GFB recommends that only qualified motor engineers fit this product. Warranty is for the period of one year from the date of purchase and is limited only to the repair or replacement of GFB products provided they are used as intended and in accordance with all appropriate warnings and limitations. No other warranty is expressed or implied.**