

# **Boost Graphic**

## **SUPERCHIPS, INC.**

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The Boost Graphic was discontinued several years ago and Superchips does not warrant the Boost Graphic in any way.

The following instructions are provided as a courtesy to anyone attempting to install one of these units. Because of the age of these units the installer assumes all liability and risks. The instructions may or may not be complete as listed below.

### **Boost Graphic Fitting instructions**

#### **1) Selecting a location for your Boost Graphic.**

You can locate your Boost Graphic in any location that is not subject to damp, dirt or extremes of temperature, you can have it in full view, well hidden or mounted inside consoles or gloveboxes. This allows easy access when needed but keeps it out of the way of button pushers.

Our suggested location for Mitsubishi cars is in the centre console, the dimensions of the box fit perfectly. On the 3000/Stealth, remove the passenger side lid stop by removing the two screws in the lid, this allows the wires to be routed very neatly out of sight. To remove the console and run the wires, gently prise out the small plastic strip between the console and the gear shifter and remove the screws that are underneath. Remove the other screws in the bottom of the tray and the console will come free, also remove the carpeted panel to the right of the shifter and this will give you access to the wiring of the cigarette lighter and to a handy earth screw. Installation on the Eclipse is similar but trim details vary.

#### **2) Wiring the Boost Graphic**

There is a full explanation of the wiring on page 2. You should first remove the circuit board from the Boost Graphic box and drill a hole for the wires to exit. There are holes in the circuit board that allow you to route the wires to exit the box at any point you choose. A little time spent at this stage makes for a much neater installation. Do not put the screws in at this time as you may need to make adjustments inside the box.

#### **3) Fitting the Boost valve.**

For most cars, follow the diagram on page 3. For the 3000/Stealth see page 4. In most cases we are removing the stock boost controls and pushing them to one side and using our boost control valve instead. Boost must enter the valve at the Metal inlet and the plastic exit with the bump must go to the actuator. The straight plastic pipe (the exhaust) must either be left completely open or be connected to the airbox (i.e. a return line). The wiring has connectors ready fitted, simply plug it in.

#### **4) Setting up**

Once you have finished all the above steps take a moment to check everything, If you have the Graphic wired incorrectly damage will occur instantly it is powered up. Set the

switches as described on page 2 if you have not already done so, if you are unsure call us or simply try it, no harm will be done if you have them set wrongly. Turn on your ignition, the first yellow LED should be on, if not, you have a power problem and either the Red or Black wire will be at fault. If the LED is on, start your engine, rev it up and check that the lights track your engine speed. If they do not move at all then the Green wire will be at fault, check connections and try again. If the lights track incorrectly then the switches need adjustment, turn off and check your settings on page 2.

5) Setting the internal maximum boost pot and your Boost Curve.

Set all the controls on the Graphic to 100%, and turn the internal pot fully counter-clockwise. Drive the car in 3rd or 4th gear and check maximum boost. This should not be above the maximum for your engine, in fact it will be too low at first. Turn the pot clockwise a little at a time and re-test, let the car cool between tests. Once maximum boost is achieved stop adjusting the internal pot. This maximum boost is set by the strength of your engine/head gasket, at low revs there will be plenty of fuel but you still need to be careful. Call us for a max on your car, On the Mitsubishi 3000/Stealth and Eclipse the max is 19psi and you will only be able to reach this at low revs. ie under 4500 RPM. As you rev the engine up towards max there will not be time left to inject the fuel so you need to reduce boost at the 5000 and 6000 settings to a safe level. (For Mitsubishi cars drop the boost to 15psi). This would mean setting the controls at 100 for the 2500 3000 3500 and 4000 sliders. then set the 4500 to 90, 5000 to 80 and 5500 to 70. Finally set the 6000 to 60. These will make good starting points but you can fine tune them by increasing the boost until the engine cuts out under the control of the management computer. If you get to 100 on the slider, you have got to 19 psi which is the safe maximum for your car. You can profile your boost curve quite finely on the Graphic, as long as you do not exceed the two maximums we have defined you can adjust the boost as much as you wish. If you need to lower the boost temporarily then use the master control, this will reduce the boost throughout the entire range without disturbing your boost curve.

6) Reassembly and final installation.

The Boost Graphic can now be assembled, re-fit the four screws that hold the circuit in the box, put the lid on and check cable entry is tidy. There is a black sleeve provided to cover the exposed wires and this is heat-shrinkable. you can use a hairdryer or other heat source to shrink the tubing but be careful not to overheat it as it will burn. Replace the circuit board into the box and ensure all of the LEDs have come through their holes. Replace the four screws that hold the lid on and put the knobs on. Use the double sided velcro provided to secure the Boost Graphic in your chosen location.

### Boost Graphic Wiring detail

1) RED Wire - 12V

Connect this wire to a switched 12 volt power source that can supply 3amps for the Boost Graphic. Make sure that this power source does not drop below 9 volts while the engine is cranking. On Mitsubishi cars the cigarette lighter is ideal. This wire is usually Blue, test with ignition on and lights OFF. On other cars you must check that this feed is interrupted when the ignition is off.

NOTE: On Mitsubishi cars you can also take a feed for the valve from the existing boost

valve, on the 3000 it is the right solenoid on the firewall with the black pipe with a white dotted line, the 12V feed is usually Black, unplug the original valve, turn on the ignition and test for 12V. On the Eclipse the valve is on the air box, unplug and test as above. Many other cars that have existing Valves can be wired in this way, always test the feed and ensure it goes off with the ignition.

2) (Blue) Valve #2

This terminal is exclusively for a second boost valve, it will not power the valve in single valve applications and should be left empty.

3) YELLOW Valve #1

Connect the Yellow wire (pre-wired from the valve) to this terminal. The Red wire from the valve should go to the switched 12V source terminal at the boost graphic. This will give you two red wires connected to this terminal.

4) GREEN Tacho wire.

This wire needs to be connected to a signal that pulses, i.e the negative side of a coil, or crank/cam pickups if they give the right number of pulses. On Mitsubishi cars see the separate diagrams enclosed to connect this wire. The switches must be set to the right number of pulses/rev for the signal you choose, the switches must only be changed when the power is off. Changes made with the power on are ignored until the power is turned off and on.

5) BLACK Ground wire.

connect this wire to any good chassis ground point. If it is not a good ground the unit will not function and damage may occur.