

induction technology group ltd Siskin Drive Coventry, CV3 4FJ

Tel: 024 7630 5386 Fax: 024 7630 7999

web: www.itgairfilters.com e mail: sales@itgairfilters.com

<u>ARAB65KES2</u> <u>Lotus Elise S2</u> <u>Maxogen Induction Kit</u>





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Parts List:-

| <u>Qty</u> | | <u>Description</u> |
|------------|---|--|
| 1 | X | ARAB65 Air Box |
| 3 | X | M5 x 10 Stainless Steel Button Head Screws |
| 1 | X | JC65/73R Maxogen Air Filter |
| 1 | X | JDR-2 Dust Retention Spray |
| 1 | X | Black Silicon Hose |
| 1 | X | 60-80mm Stainless Steel Hose Clips |
| 1 | X | 70-90mm Stainless Steel Hose Clips |
| 1 | X | Aluminium Air Box Mounting Bracket |
| 1 | X | M6 x 25 Stainless Steel Hex Head Screw |
| 3 | X | M6 Stainless Steel Penny Washers |
| 2 | X | M6 Stainless Steel Ny-lock Nuts |
| 1 | X | 125mm elasticised strap |
| 1 | X | 500mm x 102mm Cold Air Ducting |
| 1 | X | 90-110mm Stainless Steel Hose Clip |
| 1 | X | 450 x 8mm Cable Ties |

<u>Removal</u>

The quickest and easiest way to work on the airbox is to remove the passenger side (driver's side for non UK users) rear wheel and wheel arch liner. This will involve jacking up and supporting the rear of the car. This can be very difficult with the Elise due to the lack of obvious jacking points, please refer to your user's manual for the specific instructions on how to do this safely.

With the back of the car raised, remove the wheel and the wheel arch liner. The liner is held in place with 5 x Phillips headed screws and 1 x 8mm headed bolt. Before you lift the liner out you will need to disconnect the rear wheel speed sensor and push through the liner, also double check to see if there any other wires or brackets that need to be disconnected before you pull the liner out.

You should now find you have easy access and loads of space to work around the airbox. First, disconnect the intake hose from the throttle body and remove along with the airbox lid. Next lift out the filter which will expose the mounting bolt and plastic pip pin that hold the box in place, undo the bolt and push through the centre of the pip pin to release. The whole lower airbox assembly should now lift out complete with the air intake duct.



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Fitting

The first job when fitting the airbox kit is to fit the mounting bracket in place, this fits onto the original airbox mounting points (please note that the bracket can be fitted either way round, but should have the edge highlighted in the picture below facing the front of the car).



Fit the bracket over the stud and use the original 6mm washer one side of the bracket and a large penny washer on the other, then use an M6 ny-lock nut to hold it all in place. For the second mounting point, fit the M6 x 25mm hex head bolt through from the wheel arch side (using a penny washer on either side of the bracket) and an M6 ny-lock nut. Initially mount the bracket as low as possible and tighten only enough to allow movement of the bracket for later adjustment.

To make fitting the kit even easier, it is recommended that you pre-assemble the airbox kit before fitting it onto the car. First you will need to oil the filter; detailed instructions can be found at the back of this guide. When the airbox is shipped the filter retaining ring will be fitted, remove this by undoing the $4 \times M5 \times 10^{10}$ m screws and lift of the ring.

Now slide the filter into the airbox – please note that there is a small lip around the top of the airbox that the aluminium filter spinning locates onto. Push the filter in quite firmly until you are sure the spinning is correctly located in the box (if the filter is not correctly located you won't be able to fit the retaining ring bolts!). With the filter in place, fit the retaining ring along with the 4 x M5x10mm button head screws to hold everything in place.



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Fitting continued

You can now fit the silicon hose onto the filter neck, push the larger end of the hose (the end WITHOUT the internal step) onto the neck of the filter and tighten in place with the 70-90mm hose clip – when doing this try to line up the ITG logo on the hose with the ITG logo on the airbox (there is no performance or practical advantage to this – it just looks a bit prettier!). Next, fit the cold air ducting onto the other end of the airbox. The internal wire helix will have been cut back by 10-20mm on one end to allow the duct to easily slide over the end of the airbox, once in place tighten up using the 90-110mm hose clip.

You should now be able to drop the entire assembly into position feeding it through the engine hatch. Jiggle things around about a bit until the neck section of the airbox is sitting in the mounting bracket and then push the silicon hose onto the throttle body. Tighten in place using the 60-80mm hose clip (when correctly positioned the ITG logo should face upwards).

Everything should now be roughly in place; all that is left to do is make any final adjustments to ensure the airbox is correctly positioned. In an ideal world the airbox neck will be sitting against the mounting bracket with the bracket at its lowest point – you may need to slacken off the hose clips on the silicon hose a little to achieve this, however bear in mind to keep the filter neck and throttle body adequately inserted into the hose. When you are satisfied everything is sitting correctly fully tighten up the mounting bracket and hose clips, then hook the elasticised strap onto the bracket to hold the airbox down.

The final job is to re-fit the wheel arch liner, reverse the steps given in the Removal section of these instructions, re-fit the wheel and lower the car back to the ground. Double check everything and go for a play!!!



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Instructions For Cleaning ITG Foam Air Filters

For the best cleaning results and longevity of your filter it is recommended that you use ITG's CL-1 cleaning fluid and follow the instructions below.

Please check with ITG or your local dealer for recommended cleaning and oiling products in your territory. Only use recommended cleaning and oiling products on your ITG filter. Always use the products in accordance with instructions. Improper use of cleaning chemicals or use of non-approved chemicals can damage filter materials.

<u>Cleaning</u>

ITG's CL-1 cleaning fluid is intended to be used in a two part cleaning process where the CL-1 breaks down the sticky dust retention oil on the filter, which is then washed off using warm water.

Spray the CL-1 liberally onto the filter and thoroughly massage in. You need to ensure the CL-1 has worked its way through all the layers in the foam and it may be necessary to apply extra CL-1 until you are satisfied the cleaning fluid has fully penetrated the foam. To help the CL-1 to break down the oil, it is advisable to leave the filter for 2-3 minutes and then further massage the CL-1 into the foam.

The next step is to wash the filter out in warm water. Thoroughly wash the filter until you are totally sure that all the cleaning fluid has been removed and the water remains looking clean – it is also advisable to run water through from the clean side outwards to further help the removal of any dust still held within the filter. This stage of the process should take no more than 4 - 5 minutes, leaving the filter submerged in water for a prolonged period of time may cause the glues in the filter to soften and eventually break down.

Now the filter is clean you will need to leave it in a warm, dry place until is fully dried out. Do not use a high pressure air line or heat gun to speed the process up.

Once the filter is dry, re-oil with ITG JDR-1 or JDR-2 dust retention coating. If this is not available, only use specific foam air filter oil. Suitable brands that we are aware of include Silkolene, Motul, Rock Oil, Shell, No-toil or Q8.

Under no circumstances use cotton gauze filter oil, engine oil or any other oil not specifically manufactured for foam air filters.



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Instructions For Oiling ITG Foam Air Filters

If your ITG filter has not been factory pre-oiled then follow the instructions below.

All foam air filters should be oiled to provide the best filtration performance. The recommended oils are specifically formulated for foam air filters. When the oil is correctly applied, it provides a tacky coating over all the surfaces of the structure of the foam filter. As dust particles pass into the filter, they collide with the foam structure and are then retained in the oil coating. The oil coating also flows around the dust particles to continue to present a tacky surface for further dust particles.

If foam air filters are used in a 'dry' or non-oiled state, they still provide filtration of larger dust particles, and they will also retain most smaller dust particles due to an electrostatic effect. Electrostatic dust retention is much less reliable than oil retention, so if a filter is used without oil, it is very important to monitor whether any dust is passing through the filter, and to clean the filter frequently. Some dust, which can potentially damage the engine, may pass through a filter used in dry condition.

ITG will not provide any warranty when a filter is used in dry condition, or has not been maintained according to instructions.

There is a popular misconception that oil from air filters can become detached from the filter, pass through the air, and contaminate a MAF unit (mass air flow meter). Oils designed specifically for foam air filters are too viscous to become airborne and migrate onto MAF units. All pre-oiled ITG Pro-filters have the correct amount of oil applied and will not cause any issues with MAF units.

Under no circumstances use cotton gauze filter oil, engine oil or any other oil not specifically manufactured for foam air filters.

Oiling your filter

Read the label on the can prior to spraying and use in an open, well ventilated area. Holding the aerosol about 25mm/1" from the filter, spray in a circular motion all over the foam surface until the course foam pores just start to fill up with oil. Then, wearing protective gloves use your finger tips to 'massage' the oil deep into the foam.

The aerosol contains a mix of oil concentrate and a thinning agent which helps the oil to penetrate deep into the foam. The thinning agent will evaporate off after around 5-10 minutes, so it is important to massage the oil into the foam as soon as it is applied to ensure the oil works its way through to the fine, inner layer of foam. If you think you have over oiled your filter, you can dab the surface of the foam with a strong absorbent paper tissue/paper kitchen towel, which will remove most of the excess oil.

Your filter is now ready to install.