K&N Filters For Your Alfa Romeo MiTo



The MiTo engine, like all combustion engines, needs air as part of the combustion process. And it needs clean air, free of dust, bugs and other particles for optimum performance. That's why you have an air filter which is designed to allow the right level of air through whilst blocking anything that can cause abrasion or corrosion to your engine.

But air filtration is a tricky business. Standard air filters don't last long before they are full of dirt and hinder air flow, needing to be replaced as they are manufactured from paper.

K&N have been developing air filters since 1969 and are rightly one of the World leaders in this technology. Their filters aim to find the optimal blend of high air flow, filtration efficiency, durability and dust capacity. And unlike normal air filters they can be washed out and reused, not thrown away, as instead of being made of paper, they are made with layers of cotton gauze pleated between coated wire mesh. K&N are so confident in their filters that they offer a ten year/million mile warranty, so although the price is initially considerably more than a standard air filter, you'll never need to buy another one. And that's why I've been using K&F filters on every car I've owned for the last decade or more.

Of course, other manufac-

turers have pretty much caught up with K&N these days and offer similar benefits, but let's be clear about K&N and all air filtration solutions - none really add much bhp to your MiTo. K&N claim between 1 and 4bhp, but in reality what they are really talking about is not losing between 1 and 4bhp through poor filtration. That's not a gain as such, just "reduction avoidance", if such a phrase exists. What you will typically experience with different air filtration though is a change in noise or tone which, depending on your preference, can be a good or bad thing.



Induction Kit or Panel Filter?

An induction kit (or open-air conical filter) takes the airflow out of the standard airbox and instead passes through a larger open-air conical filter. The reason for this is that the design of the conical filter has significantly more surface area to create more airflow. Thus the result of this is that it creates less air restriction. And that's a good thing. The K&N induction kit for



With the cone filters, you get a particular whooshing sounds as it gulps air as you change gear or lift-off the accelerator. With panel filters you still get the same type of noise but it's much more reserved. Initially, the conical filter sound is very addictive and fun, but if you use your MiTo for longer journevs it can become a little tedious. So bear this in mind when choosing.

avoidance of between 1 and

4bhp for the MiTo.

In terms of performance, both cone filters and panel filters (which are a direct replacement of your existing paper air filter) are extremely effective and offer less restriction and far more longevity than the standard filters for the MiTo.

Panel filters are available for all models of MiTo, whether you have a turbo or not or whether you have petrol or diesel, so they are a very effective upgrade for both performance and longevity. standard paper filters may cost a quarter of a K&N replacement, but they should be changed annually whereas a

But there is a third option, or compromise, which K&N call the 57S. This is a performance airbox housing a conical filter which directly replaces the MiTo airbox for turbo models, including the 1.6 diesel. The same quality and performance, similar noise to the 57i but less noticeably as it is housed in an airbox. Though it is quite expensive.





Choosing Your K&N

The table on the next page lists the K&N filters available for each MiTo.

There are a few points worth mentioning. Firstly, for the normally-aspirated (non-turbo) 1.4 MiTo, you only have the choice of the panel filter which is behind the airbox at the front of the engine. The 1.3 JTDM has two types depending on which engine you have. The simple rule is that if you have an earlier 1.3 with the Euro 4 engine you will have the Variant of AXH1B in Section 4 of vour DVLA vehicle document, the V5. The Euro 4 engine needs the



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K&N panel filter 33-2932. All other Euro 5 and Euro 6 1.3 engines need the later filter, the 33-2984.

The 1.4 turbo and the 1.6 diesel both share the same panel filter, but the 57S enclosed cone options have different part numbers, so ensure you select the correct version for your MiTo.

It is certainly also worth pointing out that there are sev-

eral manufacturers of performance filters these days, many or all of which will offer similar benefits to the K&N filters, though guarantees vary. Companies such as Ramair and BMC manufacture highly regarded filter solutions for the MiTo and Punto Abarth which are definitely worth considering. I personally choose K&N based on years of experience I have had with them, but I appreciate this might ap-

pear biased, so please do your own investigation. All filters follow broadly the same formats as the K&N table below.

Fitting

For either a panel filter or an induction kit/cone, fitting is not complex, though replacing your panel filter with a like-for-like size K&N (or similar) panel filter is certainly simpler and can typically be done within ten

minutes or so on any MiTo.

The following are guides for replacing your standard panel filter with the appropriate K&N panel filter, and for installing an induction kit on a petrol turbo MiTo which is the same process as the 1.6 diesel.

Non-turbo and 1.3 diesel versions only accept a flat-panel filter, though follow the same principles (I just don't have either MiTo to hand to show you).

Engine	Years	Туре	Part #	Notes
0.9	All Years	Panel	33-2981	
1.4 Non Turbo	All Years	Panel	33-2842	
1.4 Turbo	All Years	Panel	33-2935	Same as 1.6 JTDM
1.4 Turbo	2008-2012	Cone	57-0679	Fits later years but not recommended by K&N
1.4 Turbo	All Years	Enclosed Cone	57S-3300	Not recommended for 1.6 JTDM
1.3 JTDM	2008-2011 Euro 4	Panel	33-2932	Early 1.3 diesel Euro 4 engine with Variant AXH1B on your V5
1.3 JTDM	2011 on Euro 5/6	Panel	33-2984	Later 1.3 diesel Euro 5/6 engine with Variant AXP1A, AXT1A or AYC1A on your V5
16. JTDM	All Years	Panel	33-2935	Same as 1.4 Turbo
1.6 JTDM	All Years	Enclosed Cone	57S-4902	Not recommended for 1.4 Turbo

Replace Panel Filter (1.4 TB / 1.6 JTD)



As the diagrams at the top of this show, the four engine types of the MiTo vary: the 0.9 TwinAir has a panel filter on the top of the engine, as does the 1.3 diesel. The normally aspirated (non-turbo) has a panel filter at the front of the engine, whereas the 1.4/1.6 turbo engines have a separate airbox. Whilst this guide is for the 1.4/1.6 turbo engines, if your MiTo is one of the other engines then replacing the air filter is broadly the same process: you need to unscrew the air filter cover to access the filter underneath.

The MiTo 1.4 turbo and 1.6 diesel has a peculiar airbox which, as you will know if you have changed an air filter, makes for a very difficult closing of the airbox lid once you have fitted a new filter. But hopefully you can follow these steps and, with a little gentle persuasion of the airbox lid, the task can be done in around ten minutes or so.

1. Loosen the jubilee clip or CLIC-R clamp on the air pipe

Depending on your MiTo, you may have a jubilee clip or a CLIC-R hose clamp holding your air intake pipe to you airbox. If it's a jubilee clip, simply undo this with a screwdriver. If you have a CLIC-R clamp like the pictures, you can ease the clip off by lifting with a flat-bladed screwdriver.



2. Prise off the air pipe

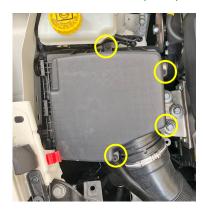
Gently prise away the air pipe from the airbox. This can be a little fiddly but do not be tempted to use force – just ease it off by pulling in different directions and up and down. If it really will not come away,

wait until after step 3.



Step 3: Remove Airbox Lid

The airbox has four screws (circled) which all need to be removed, enabling you to remove the airbox lid completely.

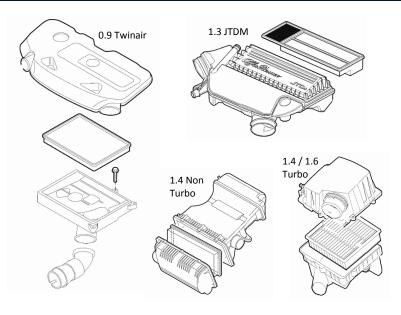


Note how the side of the lid has three small plastic hinge-type parts which feed under the gaps of the airbox. This is the part which is difficult to replace with a new filter installed.



4. Fit new filter

The existing air filter can be withdrawn from the airbox and replaced with the new filter. Ensure the lips of the new filter are pushed down and sit snug on the surface of the airbox opening





5. Refit Airbox Lid

You need to gently push the three hinge parts of the airbox lid into the gaps of the airbox and push down the airbox lid. This may be a struggle but this is only because the rubber of the new air filter is new and needs to be pushed down. Have the first airbox screw and your screwdriver ready as you need to get one in whilst holding the lid down, ensuring the side hinges are in place.



Get your first screw in but do not fully tighten yet as you will need to make adjustments to get all screws in. Once your first screw is in place (but not fully tight), the further screws are relatively easy to get in, but make small adjustments to the angle of the lid until you are happy that the hinge parts of the lid are securely in and all screws can be done up tightly.

6. Re-attach Air Pipe

Position the air pipe back on the airbox but do not fit fully yet, just ensure it is in place.



The final step is to tighten the jubilee clip or CLIC-R clamp in place to fix the air pipe to the airbox inlet. There is a knack to this, holding the pipe fully in place against the airbox with one hand whilst you tighten the clip with the other. If you have the CLIC-R clamp, this is easy with the correct clamp pliers, but it is possible with a screwdriver and a bit of strength. Try to focus less on pushing the top metal over the bottom, but focus on pulling the bottom metal under by pushing the small clip with a screwdriver whilst easing the top clip over with your thumb.

Fit K&N Cone Filter



1. Loosen the jubilee clip or CLIC-R clamp on the air pipe

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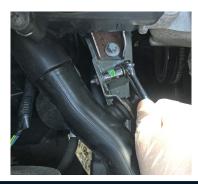
2. Prise off the air pipe

Gently prise away the air pipe from the airbox. This can be a little fiddly but do not be tempted to use force – just ease it off by pulling in different directions and up and down. If it really will not come away, wait until step 4.



3. Remove Intake Pipe Bolt

Tucked down between the air intake pipe and the engine is a small bolt which holds the intake pipe fitting to a mounting bracket. Using a 10mm socket, loosen the bolt then undo it by hand so you don't drop it to allow the brack-



et to be removed along with the air pipe.

4. Remove Airbox

The airbox is held in place with three lugs attached to the airbox itself so can be removed by hand. There is a lug underneath towards the rear and two to the side which go into holes in the wing (shown in the picture below). Pull the airbox up to release the lower lug, then pull away from the wing to release it. You can now take the airbox out of the engine bay and set it aside.



5. Position Cone Filter

The K&N 57i kit includes a new, slightly larger, jubilee clip for the air intake pipe. So remove the old one and place the new one over the pipe and slide the new cone filter into the pipe. Do not fasten the jubilee clip yet.



6. Remove Engine Mount Bolt

The K&N 57i utilises the front engine mount bolt to attach the cone bracket, so undo and remove the front-most bolt of the engine mount as per the picture below. A 14mm socket will fit.



7. Loosely Fit K&N Bracket

Loosely attach the supplied bracket by hand-tightening the engine mount bolt through the bracket, ensuring it is the correct way round to ensure the pipe bracket fits around the intake pipe. This part of the bracket will have the jubilee clip tightened around it to hold the pipe and the cone filter tight.



8. Apply/Fasten Jubilee Clip

When you are happy with the position of the mounting bracket, slide up the jubilee clip so that it is positioned to tighten *over* the bracket, then tighten the jubilee clip around both the intake pipe *and* the bracket so it is tight.



8. Fasten Engine Mount Bolt

With the bracket attached to the pipework, now adjust the bracket to ensure it is lined up then tighten the engine mount bolt. The K&N filter is now installed, but the kit also comes with a cold-air pipe which should be fitted.

9. Attach Top of Cold Air Pipe

The kit is supplied with a length of cold-air pipe which should be installed to enable cold air from the front of the car to directly reach the cone filter for optimal performance. The pipe is simply attached in two places using cable ties.

With the original airbox removed, you will see there are plenty of points to attach a cable tie to under the new cone filter, so spend a few minutes deciding where to attach the top of the pipe before settling on a location that enables the pipe to directly point at the cone filter and be held securely with a cable tie.



10. Attach Bottom of Cold Air Pipe

Attaching the bottom of the cold air pipe is a little less prescribed in terms of where you want to attach it. My personal choice is that there are several holes in the undertray which are ideal to attach the cable tie to around the pipe. This is sufficiently placed to get a good flow of cold air whilst not being too much lower such that it grounds out on speed humps.



The key points to consider are ground clearance and cold air positioning - you need a practical location that will suck up cold air to the new cone filter.

Finally, trim both cable ties so there is no excess, and check all connections and the jubilee clip again for tightness.

You can now take your MiTo for a run and hear the difference a performance cone air filter makes to your MiTo.