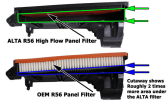




## 07+ Cooper S Panel [Filter Tech](#)

As with many of our ALTA products we start out simple and build upon them until they meet our customers' demands and our own internal goals. With any new vehicle we start with the things we know customer are going to want. The obvious things like exhaust, swaybars and of course the intake! When the first 07+ Cooper S was released we started with the intake system first to see what we could gain from it.

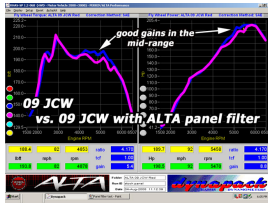
The first thing we start with is making a high flow replacement drop in air filter. Typically we just replicate the stock part but of course use foam as our media. Typically this results in a little more HP but mainly the benefit is re-usability. When looking at the 07+ Cooper S we found we had the ability to actually go beyond it like the stock part.



### Thinner than OEM for more flow

The lower portion of the OEM filter is very tall making for very little room for air to travel across the entire filter and making for less overall volume in the air box. We saw huge room for improvement in this filter by making it slightly offset and slightly thinner. This simple change allows for more air to be drawn across the entire filter. This makes the filter more useful and collecting dirt while opening up the door for higher flow rates. Then add to that the high flow nature of our foam media and you get a HP and a filter that can be reused over and over again!

From the diagram you can see how much thicker the OEM filter is and how far it hangs down. The ALTA filter provides roughly 2 times the volume of air under the filter. Dyno results will follow very soon! Installation of this filter can be done in 5 minutes of work!



### DYNO PROVEN HORSEPOWER

The ALTA Drop in filter makes a few extra HP but where it really shines is when it gets dirty. OEM and K&N filters get clogged the more dirt gets in them and loose horsepower. The ALTA Foam media keeps flowing even after its full of dirt providing you with maximum horsepower between filter servicing.

HP results for all this work was ok in that we see a decent gain in midrange HP. On the dyno we consistently saw about 4 WHP. Overall the ALTA panel filter fits the needs of the typical customer wanting a little more performance without having to purchase expensive OEM filters over the life of the car. But we knew for the more performance oriented customer we would need something more! A complete Cold Air intake was going to be what our Mini customers are going to want.