

## Installation Instructions

### Exhaust Block-Off Plates Toyota 4.6L (1UR-FE) Engines

#### Tools Needed:

10 mm combination wrench, ratchet with 10 mm standard and or deep-well socket, large flat head screwdriver or pry tool, PB Blaster or equivalent

Installation: The exhaust block-off plates are **only** to be installed with the SAIS Bypass Module. On the 4.6L engine the block off plates install between the Air Switching Valves (ASV) and the Stainless Air Tubes that run down to the exhaust manifold. The ASVs are located on the top of valve covers as shown in Figure 1.

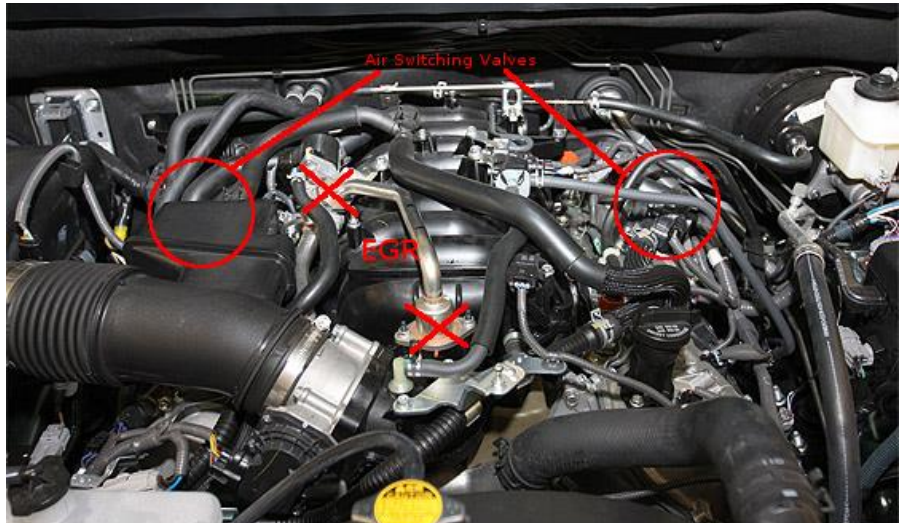


Figure 1 - Air Switching Valve Locations

1) With the engine cool, locate the Secondary Air Injection Air Switching Valves on the top of the valve covers, on each side of the intake manifold. These steps are duplicated one Bank1 and Bank 2.

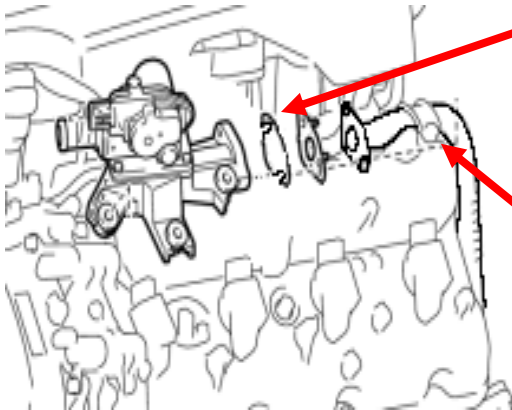


Figure 2 - Driver Side ASV showing block off plate and gasket.  
(mirrored on passenger side)

2) Loosen and back out the two bolts holding the air tube flanges to the ASVs about 1/4"-1/3" of an inch but do not remove them. If the bolts will not break free, liberally apply penetrating fluid (PB Blaster or equivalent) to the threads and let soak before trying again.

3) Remove any bolts holding the air tubes to the engine. Once the block off plate is installed you will likely not be able to reinstall this bolt without slotting the bracket hole. It can safely be permanently removed and not reinstalled.

4) Use a pry tool and carefully pry the air tube towards the firewall to open a gap between the flange and the ASV. It is a fairly rigid pipe and may take considerable force to get the flange open enough so be careful what you are prying against.

4) While holding the air tube connection open, insert the plate so it is against the valve body and the metal gasket remains on the air tube flange as shown in Figure-2 (the gaps are exaggerated to show how the plates insert). Make sure the plates are inserted all the way up against the bolts. There should be a tiny lip of the plate showing equally all the way around the flange.

5) Release the air tube and tighten the air flange bolts to 10 N-m or 7 ft-lbs. Duplicate the steps for the other bank.

6) Start the engine and check for exhaust leaks at the ASV.