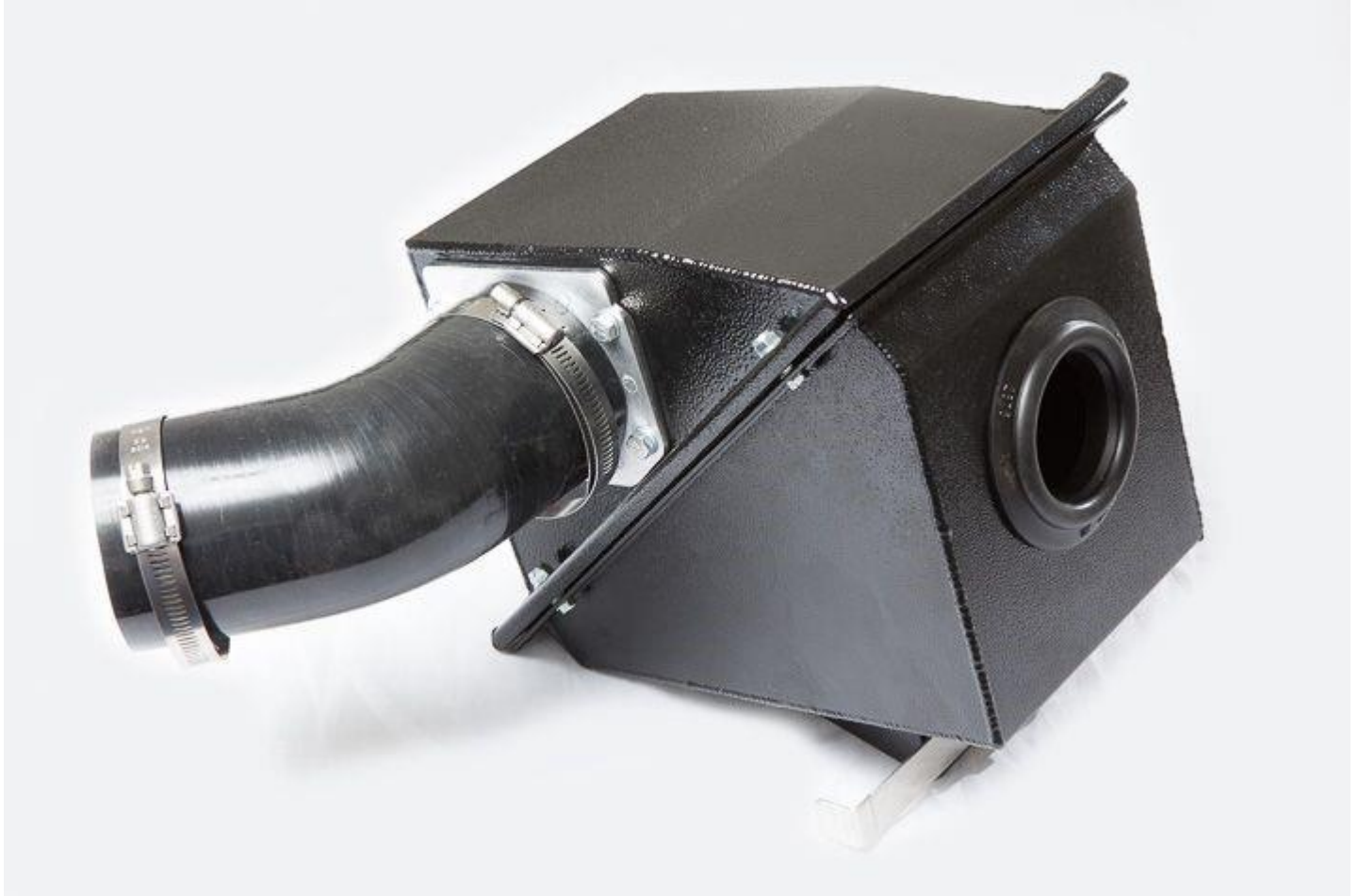


# Subaru Conversion Airbox

## Installation Instructions

---



### Introduction

Thank you for purchasing the Rocky Mountain Westy **Subaru Conversion Airbox**. We pride ourselves in the products we develop and would not bring an item to market that we did not fully believe in. This **Subaru Conversion Airbox** has been in development for some time and has been installed and tested on many of our Subaru Conversions.

---

The **Subaru Conversion Airbox** allows you to replace the cone style air filter and housing with a sleek powder coated aluminum housing that accepts the stock Subaru style rectangle drop in air filters. Our exclusive design works on Vanagons with or without an Air Flow Meter (AFM) which makes this product very versatile.

## Before You Get Started

It is recommended that you read through these instructions fully before beginning the installation process. This step will help you understand the entire process beforehand which will make the installation go smoothly. The Vanagon depicted in this installation is a 1985 Vanagon Westfalia with a Subaru 2.5L conversion using the Rocky Mountain Westy Conversion Kit.

### Tools Required:

- 10mm Socket & Wrench
- 12mm Socket
- 5/16" Socket
- 3/8" Socket
- 1/2" Socket
- Ratchet
- Drill (Short Bodied)
- Utility Knife
- 8" Drive Extension
- 7/16" Drill Bit (For '80-'84 Vans)
- Center Punch (For '80-'84 Vans)

### Parts Included:

- Aluminum Airbox
- Air Filter
- Air Intake Adapter
- Support Bracket
- Backing Bracket
- 3" Silicone Hose 45° Elbow
- 3" Hose Clamps (Qty 2)

## Air Box Installation (Without AFM)

The **Subaru Conversion Airbox** drops into the driver's side rear portion of the engine bay. Position the **Air Box** as shown in order to easily guide it into place.



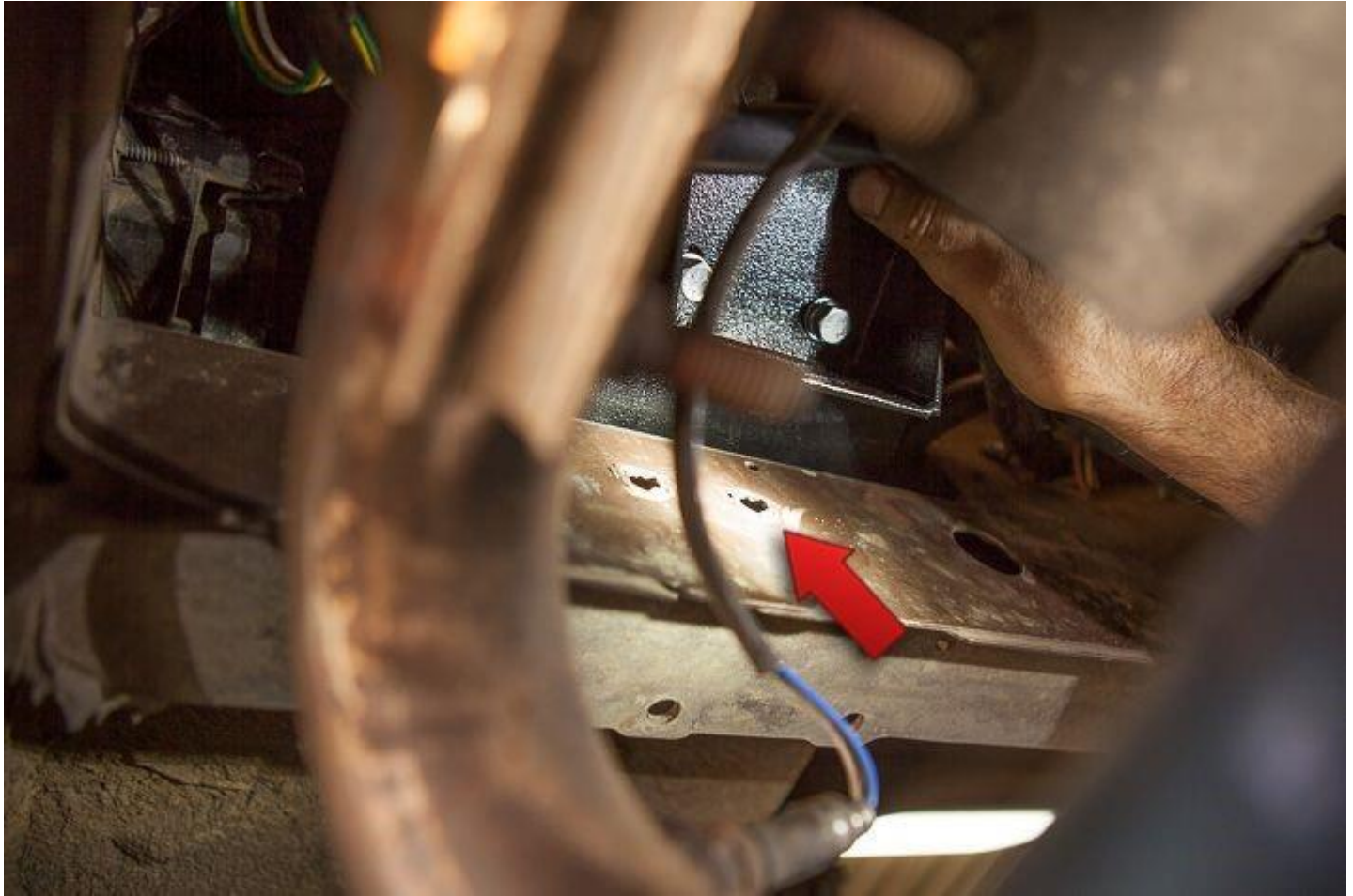
Once the **Air Box** is in place, it should rest on the base of the engine compartment.



From underneath the van you'll notice there are two existing holes in the frame rail. The **Air Box** utilizes these two existing holes in order to mount to the van. If your van is older than an '85 year model you may not have these two



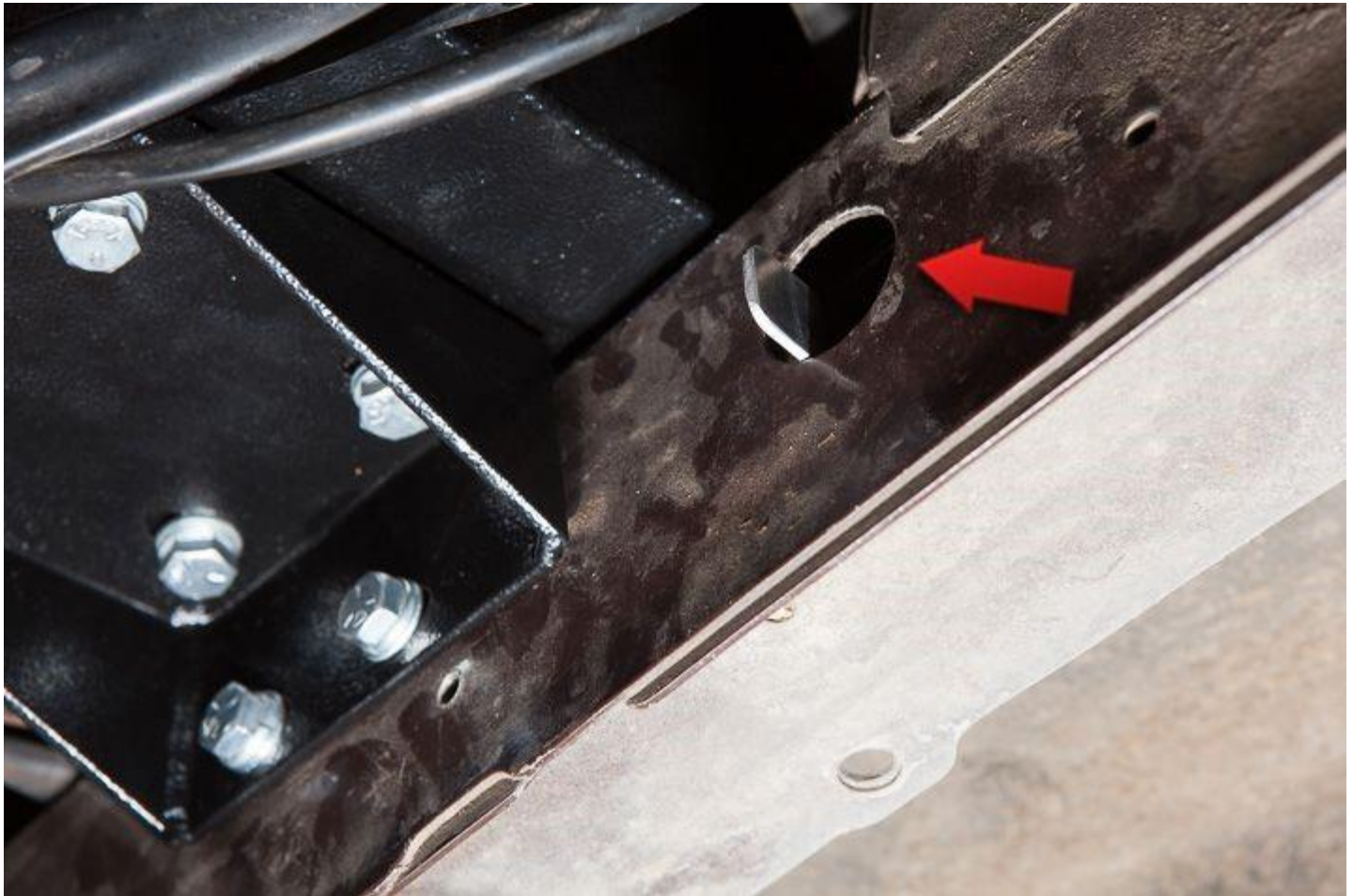
holes. In that case you will need to use the **Air Box** base bracket as a guide in order to locate the holes that need to be drilled into the frame. Drill these holes using a **7/16" Drill Bit** in order to accept the mounting bolts.



This **Backing Plate** has two hex head nuts attached to the plate in order to lock them in place while you tighten down the bolts of the support bracket.



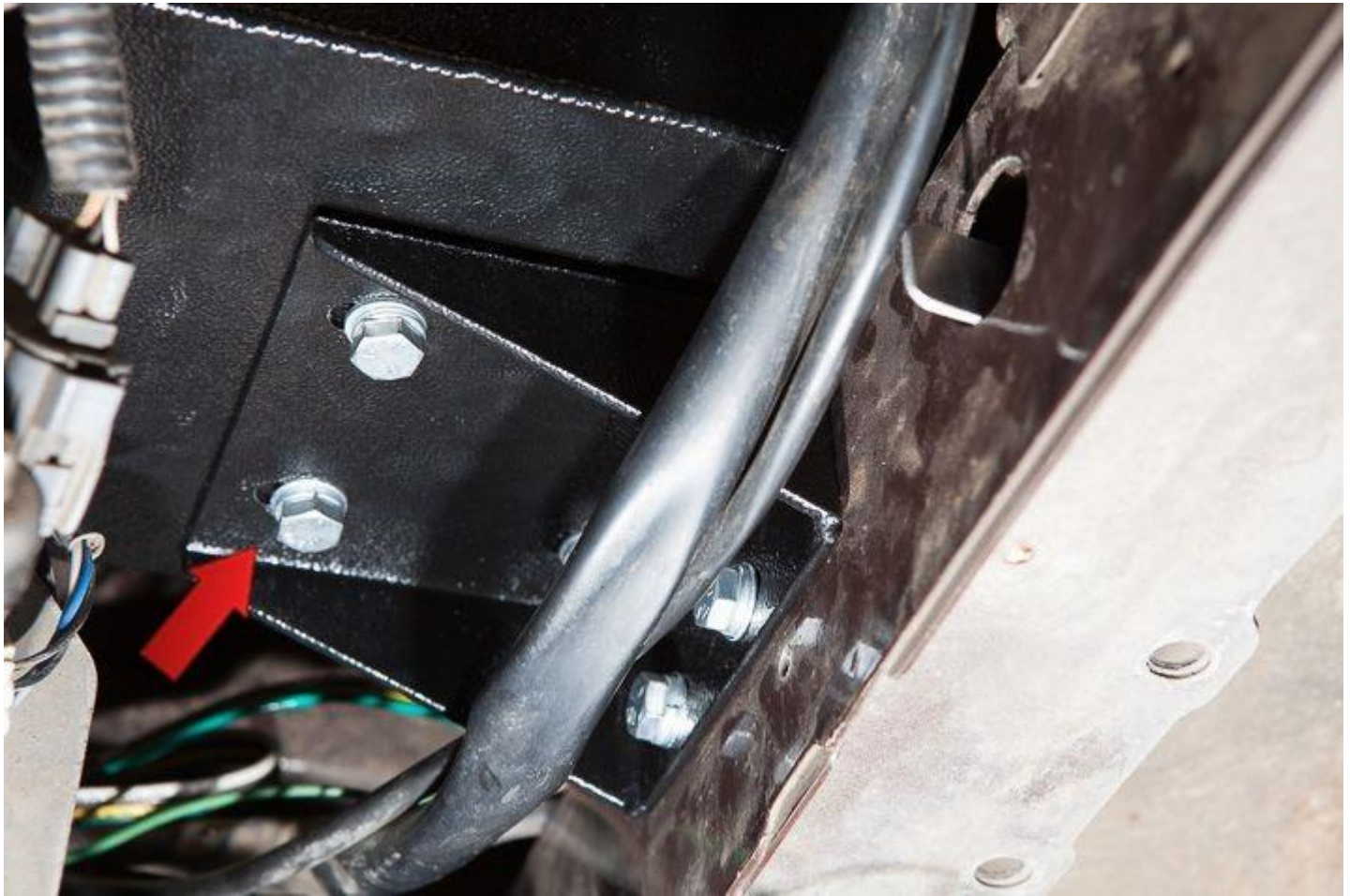
The **Backing Plate** is inserted into the larger hole next to the smaller two holes mentioned earlier. The 90° tab on the **Backing Plate** allows you to hold the plate and assist in lining up the bolts with the hex head nuts.



The four vertical bolts that mount the **Support Bracket** to the **Air Box** have slotted holes which will allow for some lateral, left to right adjustment. These slots come in handy in case you need to shift the **Air Box** a bit in order to work with your Subaru conversion installation.



All six bolts need to be tighten down with a **1/2" Socket**. Each bolt comes equipped with a lock washer and flat washer to insure that they don't loosen over time from engine vibrations.



Once the **Air Box** is mounted to the chassis, there's one item that needs to be removed from your Subaru engine if it is indeed present. In this case we're installing the **Air Box** in a van with a 2.5L engine and need to remove the metal shroud that protects the fuel injectors. This metal protective shroud interferes with the aluminum intake pipe. Use a **12mm Socket** to remove the three mounting bolts in order to remove the shroud





Slide the included **3" Silicone Hose 45° Elbow** onto your aluminum intake piping. Don't tighten the **3" Hose Clamps** at this time. You will want to "dry fit" everything in place prior to the final tightening of the clamps.



Fit the **3" Silicone Hose 45° Elbow** onto the **Air Intake Adapter** that's bolted to the **Air Box** . Fit your existing silicone elbow onto the throttle body and attach any of the remaining fittings, hoses and/or plugs to the air intake pipe.



Use a **5/16" Socket** to tighten all of the  
**Conversion Air Box**.

**3" Hose Clamps** finalizing the installation of your

**Subaru**



## Airbox Installation (With AFM)

If you're using an **Air Flow Meter** (AFM) in your Subaru conversion there's one minor modification to be done prior to the installation of your **Air Box**.

Use a **10mm Socket** to remove the 4 nylon lock nuts from the frame of the **Air Box**. This will remove the top portion which houses the **Air Intake Adapter**.





Use a **10mm Socket & Wrench** to remove the 4 bolts that are used to mount the **Air Intake Adapter** to the **Air Box** .



Your AFM should have a rubber seal on the base of the meter itself. Lightly grease this o-ring before bolting to the box. NOTE: the flat gasket in the photo is no longer used.

Bolt the AFM to the **Air Box** using a **10mm Socket & Wrench** and the 4 bolts that were removed earlier.



Now that you have a longer AFM mounted to the **Air Box** as opposed to the **Air Intake Adapter** you have to modify the **3" Silicone Hose 45° Elbow** that was included in this kit. You need to shorten one end of the **3" Silicone Hose 45° Elbow** by 1-1/2" total.

The easiest way to do this is to place the **3" Silicone Hose 45° Elbow** onto your aluminum intake pipe then place one of the **3" Hose Clamps** on it. Space the **3" Hose Clamp** exactly 1-1/2" from the end of the **3" Silicone Hose 45° Elbow**.





Check all around the intake pipe as well in order to make sure the **3" Hose Clamp** is exactly 1-1/2" from the end. Once you're certain the **3" Hose Clamp** is positioned correctly use a **5/16" Socket** to tighten down the **3" Hose Clamp** in place.



Using a **Utility Knife**, carefully cut into the **3" Silicone Hose 45° Elbow** using the **3" Hose Clamp** you've just located as a guide in order to follow around the intake pipe. This will insure that you've cut a nice square end off of the **3" Silicone Hose 45° Elbow** so that it'll mate up to your AFM perfectly.

Once the cut is completed remove the **3" Hose Clamp** and the **3" Silicone Hose 45° Elbow** from the intake pipe.



Here's the final modified **3" Silicone Hose 45° Elbow** sitting on top of an unmodified **3" Silicone Hose 45° Elbow**. The modified piece has one end of the elbow exactly 1-1/2" shorter than the other. It's this shortened end of the **3" Silicone Hose 45° Elbow** that will mount to the AFM.





Fit the shortened end of the modified **3" Silicone Hose 45° Elbow** onto the AFM that's bolted to the **Air Box**. Fit your existing silicone elbow onto the throttle body and attach any of the remaining fittings, hoses and/or plugs to the air intake pipe.

Use a **5/16" Socket** to tighten all of the  
**Conversion Air Box.**

**3" Hose Clamps** finalizing the installation of your

**Subaru**



## **Airbox Filter Change Procedure (With or Without AFM)**

Use a **5/16" Socket** to loosen the **3" Hose Clamp** fitted to the **Air Intake Adapter** (or AFM) that's mounted to the **Air Box** . Using a **10mm Socket** with an **8" Drive Extension** to remove the 4 nylon lock

nuts on the **Air Box** . The top of cover of the **Air Box** can now be removed exposing the air filter for easy replacing.

**Air Filters We Recommend:**

- K&N Filter Model 33-2232
- Subaru Filter Model 16546AA020
- NPN Filter Model A242781

