



Cool It 96 Plate Mesa Cooler Installation

by David McCutcheon NO_H2O
Dec 07, 2003

Overview

Do you need some extra oil cooling for your air-cooled monster? Or have you converted to a 911-fan shroud that has no provision for a stock oil cooler? Well sit down and strap in while we shoe horn a 96-plate cooler and fan under the package tray of a bug.

It is not easy to get a 96-plate Mesa and fan to fit under the Package tray but it will fit, with a little fabrication, a big shoe horn and some grease you can get it in.

Step 1

The first thing we need to do is fabricate some way to stand the cooler off of the body. I chose some aluminum "C" channel. Cut 2 pieces to the length of each side of the cooler. Then in order to allow airflow we need to lay out a row of holes in the sides of the channel.

Do the math and lay out a row of holes down the center of each channel and drill small pilot holes at each location.

With larger drill bits step the holes up to the maximum diameter. De-bur the holes and knock for the sharp edges, this will reduce the risk of cracking. Next locate the holes to mount the cooler to the stand off rails. Don't forget to start small and step the holes up to size then de-bur and remove the sharp edges. Assemble the cooler and fan onto the rails.

Use suitable hardware and self-locking nuts, we don't want to have the thing fall out and we want to be able to remove it for cleaning and maintenance.



Step 2



The first time you try to shoe horn the assembled cooler into place, you will quickly find out that it will not lay flat and that there are many obstacles that we have to dodge in order to have an operable clutch, cup brace and axle.

Think ahead about the routing of oil lines and wires when choosing the location for your cooler. I chose some 1/8 x 1/2 galvanized steel flat stock to make a bracket that we will bend to the proper angels so that we get a nice flat contact area to rivet to the body. Cut 2 lengths of flat stock and allow a couple inches on each end of the stand off rails for riveting to the body and mount the cooler assembly to the flat stock.

Again use suitable hardware and self-locking nuts. Bend the approximate angels need to mount the cooler and have the ends of the flat stock lay flat to the body.

Step 3

With the cooler held in place and all 4 ends of the flat stock flat to the body (no rocking), mark the location of each of the 4 contact areas on the body. Then remove the cooler and drill/de-bur a hole at each contact area. Have a helper hold the cooler assembly back into place with a good bit of pressure while you back-drill hole thru the flat stock on the cooler bracket and install a rivet.

Do this one location at a time. When all 4 contact areas have a rivet installed you can give your helper a break. You can now drill and secure each

contact area with 2-3 more rivets. After the cooler assembly is securely mounted, seal all the holes and rivets with some silicone sealant.

There, it's in.

Step 4

Route and secure all your oil lines and wire the fan using the instructions the come with the cooler. Pay attention to the location of the lines and be sure they will not be pinched or rub on anything while the car is operated. Use clamps and hardware to keep all lines and wire away from the axel, clutch cable, trailing arms and exhaust.

Check and recheck the routing of your lines (we don't want to starve the engine for oil or send oil all over the floor. Make sure that all connections are properly torqued and add oil to engine so that the proper level is maintained with the new added capacity of the cooler and lines.

Step 5

After it is plumbed, wired and ready to go, have a helper watch for leaks while you fire up the engine and verify oil pressure. After it is running and warmed up (not leaking and oil pressure is maintained) test-drive it and verify operation of the fan thermostat (if installed). Put it thru its paces and then jack it back up and verify that there is no chaffing of lines or wires. When you have done this and there are no leaks or rubbing, you can call it done.

David McCutcheon (NO_H2O)

[Print this article \(pdf\)](#)