

one COOL GT



**Air Condition Installation
By: Gerald Medford**

Why would anyone want to install an air conditioning system in a LBC? My answer would have to be.... The challenge of taking an aftermarket product and installing it into an LBC to make it look like a factory installed option and to make my co-pilot more comfortable. My co-pilots comfort probably has more to do with it than anything. After all guys that's what we are here for isn't it? I guess that could be debatable but life is so much better when they are happy. Oh Yea! When they are happy everybody is happy.

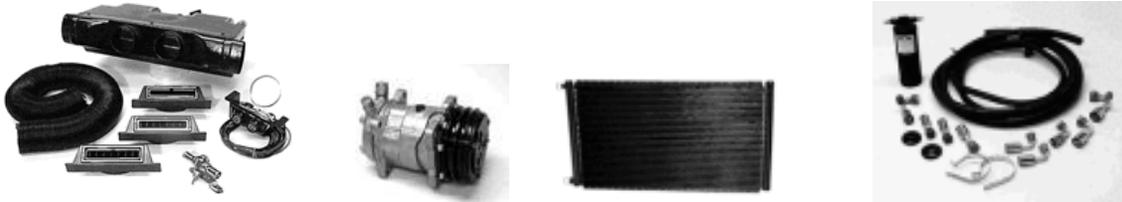
Why did LBC's not have air installed at the factory? Well, from what I hear there was not much of a demand for air over in Brit country. Something about the cool damp weather over there. They did add air to some of the cars back in the 70's. The compressors were about as big as a four cylinder engine. Now the units are much smaller and more compact.

The air condition installation in my 1973 MGBGT restoration project has prompted more questions than anything about the car. The car is equipped with lots of extra add-ons like the Five Speed Ford Sierra transmission, electric windows, and Fiero seats. When I attend car shows around the southeast I am questioned about the air conditioning more than anything. I attended the MG 2006 held in Gatlinburg Tenn. The most rewarding part of that show was not winning 1st place in the GT Division but the response from other "British Car Crazy Guys" about my air condition installation. I came back to my car after viewing other show cars and found cards and notes stuck under my windshield wiper with questions about the system.

Its fun walking up to the car at a show with a group of guy's standing around the GT discussing the air installation.

It's a kit! Simple. Just purchase it, take it home, bolt it on and ride around with cool air going up one britches leg and down the other. Life is good! Well it's not quiet that simple.

Yes it is a kit and can be purchased at Southern Rod www.southernrods.com in Greenville, S.C. for an affordable price of around \$650.00. I noticed that Moss has a new kit in their catalog offered at \$1795.00. You can go on their web site www.mossmotors.com and see their 54 page air conditioning system installation. Included in Southern Rod's Super Frost kit is an air compressor, evaporator, dryer, mounting bracket, hoses and fittings, condenser, and some vents.



The challenging part is taking all these pieces and putting them into an LBC and making it look like it's a factory installation. You've heard the term "10 lbs. of potatoes in a 5 lb. sack". It can be done though. Mounting the compressor is probably the most complicated part of the installation and will vary from car to car. I mounted my compressor just above the right motor mount and used a blank adapter plate mounted to the front of the engine. (see pictures below)



front mounting bracket



compressor mounted



pulley alignment

Mounting the evaporator under the dash is pretty tight but will clear with about 1/4 inch on each side. I used sound deadening material in my GT so it made it a little tighter. Without this material you would have more clearance.



16 inches wide



10 inches deep



fits perfect

Mounting the dryer was pretty simple. I used a fuel pump mounting bracket and installed it on the right side of the wheel well. The hoses went through the right side of the firewall and straight into the AC unit. I used rubber grommets to seal the hoses from the bulkhead.



MG fuel pump bracket



Dryer and hose arrangement



Hoses through bulkhead

The condenser that came with the kit didn't fit my radiator like I wanted so I searched the internet and found one from Vintage Air www.vintageair.com . I made a bracket to bolt the condenser and fan assembly to the front of my radiator. I found a 10 inch 2 fan assembly at Summit Racing www.summitracing.com that was a perfect fit. There was just enough room to tuck the fan and condenser just in front of the oil cooler.



Fan assy. in front of condenser



Bracket's keep condenser off of the radiator



Dual 10 inch fan assembly



Hose arrangement

I felt I needed an idle up solenoid to increase the idle rpm when the air compressor was running and the engine was idling at about 850 to 900 rpm. It probably bumps the rpm up by about 100 rpm with the air on. When traveling down the road I can switch on the air and feel very little power loss. I also gained some power by removing the metal fan and converting to electric fans. I would say I gained back the hp lost to the air conditioning by removing the metal fan. That's just my opinion.

I wired the unit to turn on the electric fans when the AC is on. By doing this I had to install a one way diode between the electric fan and air compressor so it wouldn't feed back from the fans and turn on the compressor. I blew a diode and this happened so I installed a fusible link so I can change it out in case this happens again. This is better than unwrapping the whole harness looking for a little diode (see picture). I also protected my electrical system by adding numerous relays. Relays are like sox, you can never have too many. I have nine on my GT.



idle up solenoid
between SU carb's



Side view



5 of 9 relays



white arrow
inline diode

I used a Moss ABS dash liner #453-863 to cover the evaporator mounted below the right glove box. I routed my a/c duct hose through this liner and routed the other behind my dash mounted CD player and installed another vent to the driver's side. My a/c switches were mounted on the dash panel below the CD player. One is a fan switch the other controls the temperature. I just wanted to throw in a picture of my SB connector. It's so much trouble getting to the battery that is mounted behind the passenger seat in case you need to jump start another LBC. I mounted a SB connector under the hood and have another connector on the end of my jumper cables. This makes life so much better! Do LBC's ever need a jump start?



Evaporator cover
Fuse panel (arrow)



Lower left. Fan switch
Lower right temp.
Driver's side vent



Handy-Dandy SB
connector

Do you really need air on a LBC? No. Is it nice having that option? Oh Yes! Was the dollars and time spent worth it? I didn't think it was too much to spend for the comfort of having it available on these hot South Carolina summer days. The AC installation was the most fun part of my three year restoration on my GT. On a scale of 1 to 10, 10 being the most difficult, I would say this air condition installation project was an 8.

If you happen to see a red 1973 GT going down the road on a hot summer day with the windows rolled up and a happy pilot and co-pilot inside. We're not insane we're just chillin!



THE END
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