

Installing the Mustang pedal set in a Bricklin

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This is not a task that should be attempted unless you have some fabricating, welding and problem solving skills. The only reason that I have done this Installation is that the transmission (T56) that I have for use in my 75 brick is set up for a cable operated clutch by the manufacturer (Tremec Borg Warner). I was also told that it couldn't be done, so I had to do it.

Can it be done, YES, is it easy, NO!
The first thing to do is remove the dash (ED. See the article on our web page under the technical section or it was published in the April 1995 issue of The Brickline), keep it handy as you will set it in place a couple of times to check fit. I also removed the windshield, this wasn't absolutely necessary but since I was changing the roof and A pillars it had to be removed anyway and it made life easier as I could reach both the inside and outside at the same time by reaching thru the windshield hole. The next task was removing the steering column. To start you remove the 2 bolts on the rag joint.



factory booster & master

This is located at the steering box and is hard to see as it is under the A/C compressor and a bunch of other stuff. Next you have to remove the steel plate on the inside of the firewall at the base of the steering column, this is pretty easy as it is two pieces and held on with a couple of bolts. If you left the windshield in you will need 2 people to do this as the neither the bolts or nuts are captured so everything turns, if the windshield is out you can reach both sides by yourself. Now undo the wiring to the column and remove the 2 bolts that hold the column to the support and snake the column out of the car. Keep this handy, as you will probably put it in and out a dozen or so times before you are done.

Your next step is removing the brake pedal as well as the master

and booster assembly. First remove the lines from the master then go inside the car and remove the 4 bolts on the firewall that hold the booster to the car. These bolts also attach the pedal set to the firewall. While you are under there remove the rod from the brake pedal. You may have to remove the rod as you remove the master/booster. All you have left to do to remove the pedal set is to remove the 2 bolts holding it up to the plenum, and



Belcrank booster - The standard booster and belcrank assembly

the bolt holding the brace to the door jamb. Now the whole thing can come out and be put in a box for future use or sale.



Brake assembly out of the car

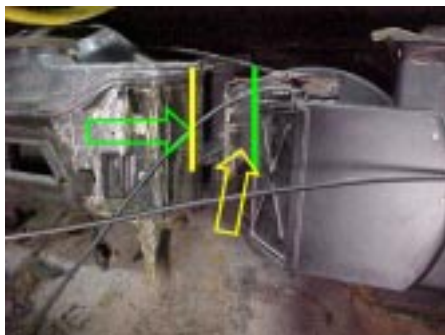


Complete steering column out of the car

You should now remove the evaporator box from the car to give you the room you need to work. Carefully remove the A/C hoses; once you have had the system properly evacuated, mine was empty due to leakage. Make sure



that you hold the evaporator lines with a wrench (when disconnecting them) so that you don't crack or twist them, as that will cause leaks and problems later in life. Then remove the bolts that hold it to the brackets on the firewall. Check out that misalignment before you remove it, it's wonder we get any air conditioning at all. Now you have a nice big hole to work with.



Standard A/C box mis-alignment

Time to start assembly. Start by holding the Mustang pedal assembly in place, an extra set of hands comes in real handy here. I aligned it up on the 2 top holes then marked where to drill the 2 new bottom holes. While you are there you have to mark the big center hole, as it needs to be slightly enlarged. Now you can fit the mustang master/booster in the car. Don't force it if it doesn't fit

the holes just use a die grind and burr to open then up. If you force the booster you may crack the stem on the end and you brakes will not work properly. It is better for the hole to be too big than too little.



new big bore custom master cylinder and new (used) booster in place.

You can now do some preliminary trimming on your new pedal



Shows where to cut to clear the ignition switch

bracket. Start by cutting some clearance for the Ignition. Then cut the mounting ears off, reserve the pieces as some can be reused later to mount the bracket. Slide the pedal assembly in the car and over the studs and snug them up. Slide in the steering column and see how everything fits

together, mark the interference and remove, trim, repeat, repeat...

Once you get everything to fit in place it is time to start welding the pieces back together. I used the ear I cut off the left side of the bracket, turned it around and tacked it back on to mount the column. Then I cut a piece of 1X 3 rectangular tubing to mount the right side, drilled and tacked it in place, fit, trim repeat.

Now is time to reinstall the lower dash for reference, once everything lines up you can weld the tacks. I had to fabricate a bracket to tie the top of the new pedal assembly to the plenum. I use a piece of 1x3 again (only because it was handy) and welded it to the top of the bracket. I then welded the appropriate nuts in place so the disassembly and reassembly would be easy. I discarded the factory plastic self-adjusting quadrant and replaced it with a billet aluminum one. Those plastic ones have a nasty habit of stripping the teeth and then not working. The quadrant is the curved thing that the pedal wraps the cable around to give you smooth clutch action. To use the



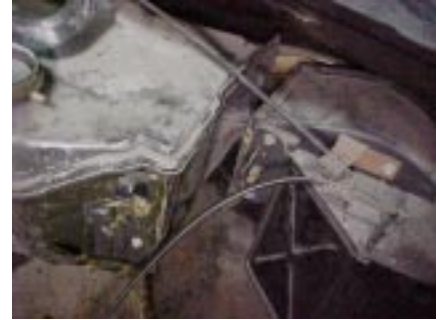
Cut the steering column tabs off the new pedal assembly

billet quadrant you will have to use an adjustable cable or a firewall adjuster, I have both to



Quadrant next to evaporator box and expansion valve

some cut and paste. This bracket mounts to the firewall and the plenum to offer support; you will see in the picture that I did a bit of extra clearancing here to the fiberglass. This isn't required but was part of the learning curve. Now you should have the pedals mounted and you sit in the car and pretend you have a c c o m p l i s h e d something. You should count on at least one solid or 2-3 part days to get this



Misallined heater and evaporator boxes

in good shape there will be a major restriction here, if not just major air loss. I started here by using a cut off wheel in a die grinder to remove the end of the heater box as shown then trial fitting the

make clutch adjustment easy. I also fabricated a little bracket to run the clutch cable through and correct the angle of the cable, just some 16-gauge sheet steel and

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Clutch cable bracket ~ to hold the fire wall adjuster and cable.



As seen from the inside of the car, note the extra trimming on the firewall, this was excessive but part of the cut and paste trial and error

evaporator box, fit trim repeat (sound familiar). You will see that the Fan speed c o n t r o l resistors were removed from the airflow and will be relocated in the evaporator box in the airflow at the top. You will have to trim a bit of the evaporator box as well to get



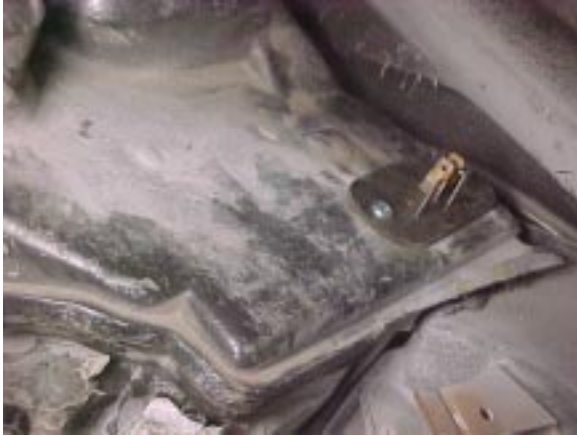
Clutch cable bracket sitting in place on cowl and firewall

far once you have the dash and windshield out. Those fit, trim, repeats take time and patience.

Next on the agenda is the relocation and realignment of the evaporator box. You can see in the picture that there is a major misalignment of the heater and evaporator boxes, if the seals are



Cutting the fan box



Fan speed control resistor relocated to the evaporator box

enough clearance for the quadrant. I actually moved mine about 2.5 inches. I bolted the box to the firewall in the new location and fabricated a new bracket or 2 to hold it in place. (ED. Terry Tanner sells 3 brackets for the relocation modification which doesn't require any modifications to the heater or evaporator boxes. The new brackets bolt to the original brackets on the firewall, and don't



Heater and evaporator boxes aligned

require you to cut on the evaporator and heater boxes. Once this relocation modification is made, the A/C works a lot better, but the biggest complaint is that the defroster doesn't work due to the misalignment of the defroster duct

and the vents on the upper dash panel. Rick is working on making a mold to reproduce the modified defroster ducts, which he plans to market.)

Now comes the time to start modifying the defroster duct so it lines up with the dash, I simply cut 2 apart and plastic welded then back together once I had



An original and the modified defroster duct

the fit to the box and dash. Then you have to do the same with the center duct, same thing cut and paste 2 pieces together. Just a note I used 2 defroster ducts and 2 center ducts to make the new one. I have a few of each of these ducts if you are brave (spelled d u m b) enough to tackle this modification. Now check all the cables cut some clearance as needed. One last thing the air door no longer opens so you will have to cut



Cutting the air door for clearance

about an inch off of it and attach the cut off piece to the box for the door to close against. Oh Yeah don't forget to drill a drain hole in the transmission tunnel for the condensate to drain. You can count on another full day here for the heater A/C assembly. This will also fix that mis-alignment problem and increase the airflow over the evaporator. This means better a/c (theoretically).

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An easier method that modifying the A/C system would be to buy an aftermarket system from Vintage or Hot Rod Air or the likes, but for one that will do the job will cost about \$900 not including hoses, compressor, condenser or brackets. That means for \$900 you get the



Completed new clutch and brake pedal assembly

box with evaporator, heater core, fan and controls. If the Bricklin system still isn't up to snuff I will bite the bullet and install one of these systems that is designed for "large sedans and wagons".

Now you get to put everything back together and move under the car to install the transmission. I will start that part of the job once I have a few free days and my new hoist installed. I'm getting too old (spelled f a t) to crawl around on the floor under a car.

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