*Controlled Documentation*

| *Part Number:*60386 | *Revision:* G | *Effective Date:* 7/30/20 | *By:* J. INGERSLEV |
|---|---|---|---|

# Gen 3 Coupe A/C

INSTALLATION INSTRUCTIONS

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## Tools required

- 🛠 Philips head screwdriver, 3/8", 7/16", ¾", 1 1/16" wrench, 8mm, 5/16", 1 1/8" socket, ratchet, drill, 7/8" hole saw, 3/16", 13/64", ¼" drill bits, 1/8", 5/32" hex keys, rivet tool, large clamps, 5/16" nut drive, razor knife, bucket, pliers, wire strippers, wire crimpers, soldering iron, solder, marker, masking tape, tape measure.

Retrofit – ruler, tin snips

## Supplies needed

50/50 Coolant, (2) 12oz 134a Refigerant cans, (1) 12oz 1st charge (has oil in it), blue Loctite, silicone

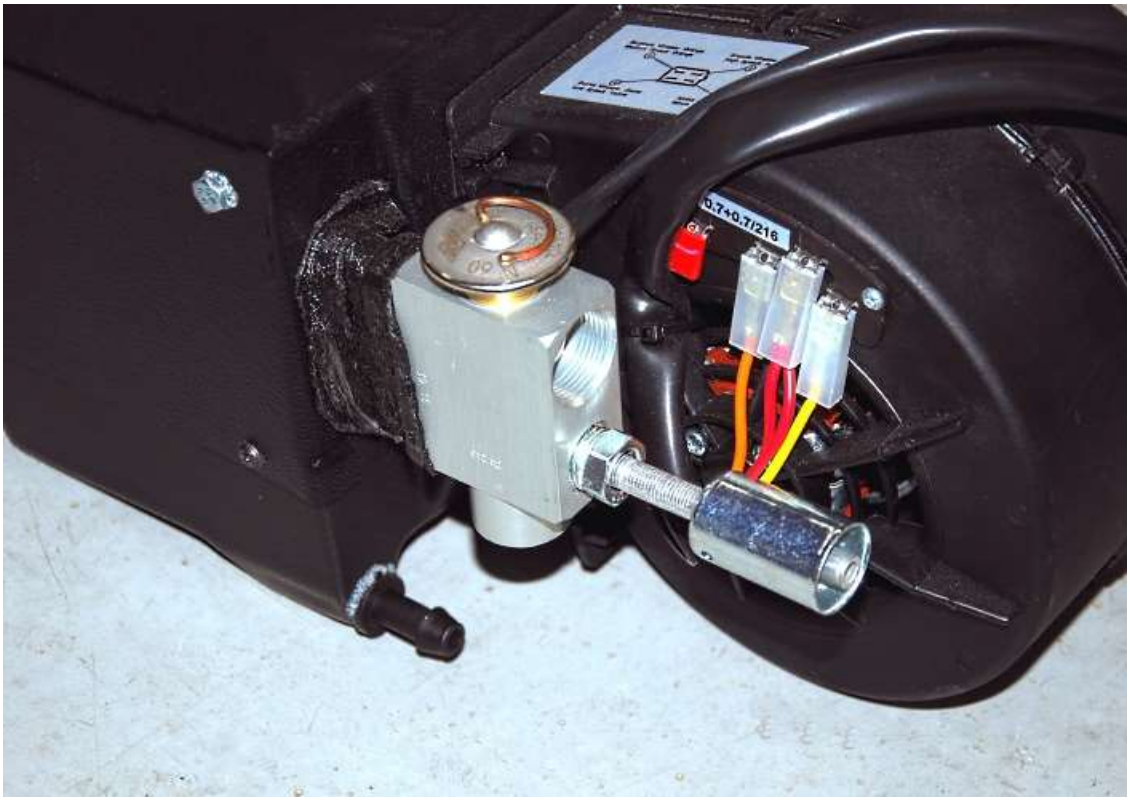
## Parts preparation

### Evaporator


Attach two of the mounting brackets to the A/C evaporator as shown using an 8mm socket on the side and Philips head screwdriver on the top.

Back out the remaining side screw a few threads and put a dap of silicone on the threads then screw the bolts into the unit. If there are any other openings in the unit seal them with silicone as well.

Silicone around the gap where the duct end cap attaches to the evaporator



Screw the small #6 male fitting into the lower hole on the regulator block.

## Car

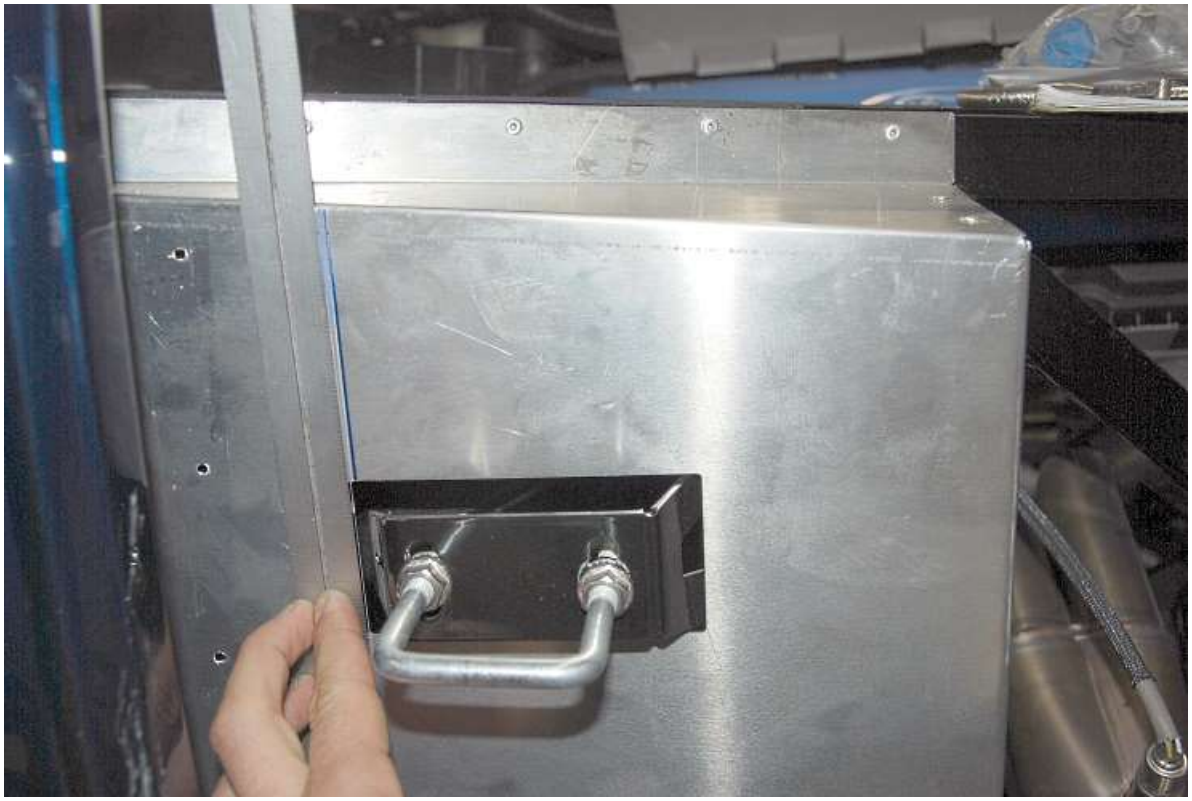
If installed, remove the top of the right footbox.

## Retrofit install prep

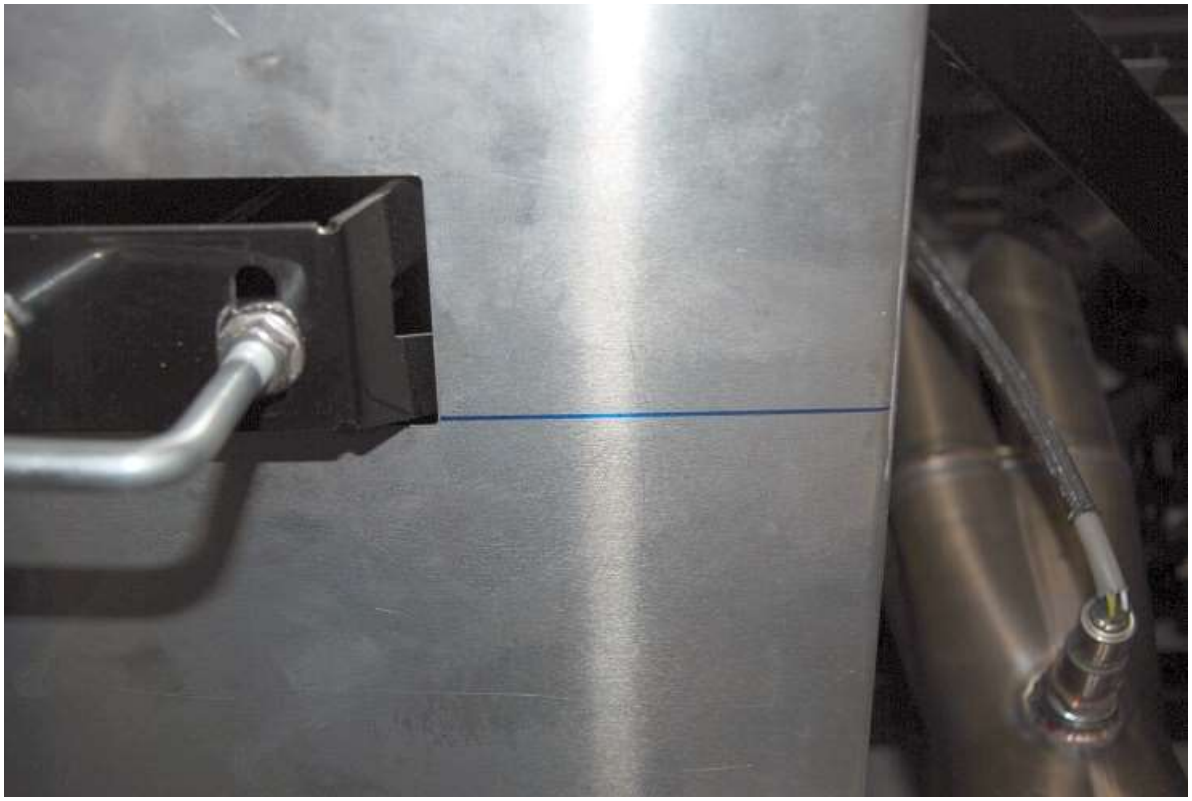
🛠 Ruler, marker, tin snips

🖐 These instructions are for retrofitting the A/C into a car without the access panel on the outside of the footbox.

🖐 Some of these pictures show the evaporator installed, disregard this.



Align a ruler with the rear of the cut-out in the outside panel of the right footbox and mark the footbox.



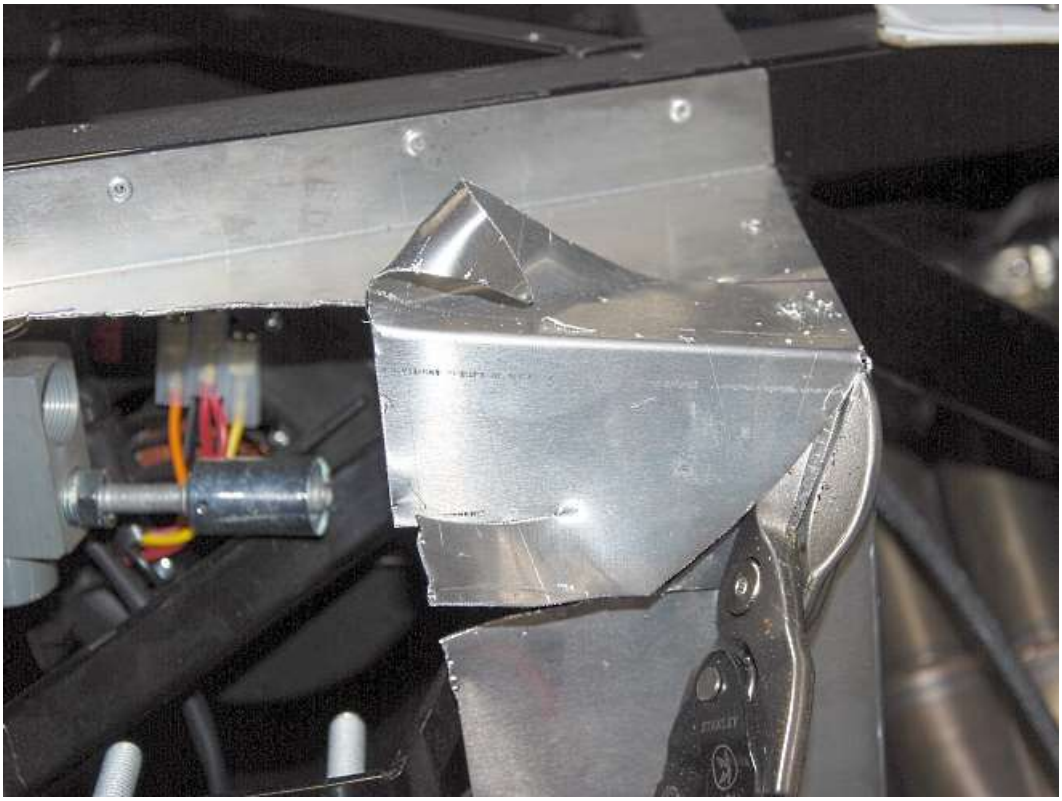
Align a ruler with the bottom edge of the same cut-out and mark to the front of the footbox.

On the top of the outside panel, draw a line parallel to the frame tube ¾” in from the tube, draw a line 1.50” in from the side starting at the angled line running to the front of the footbox. At the back, continue the side line in to the angled line.

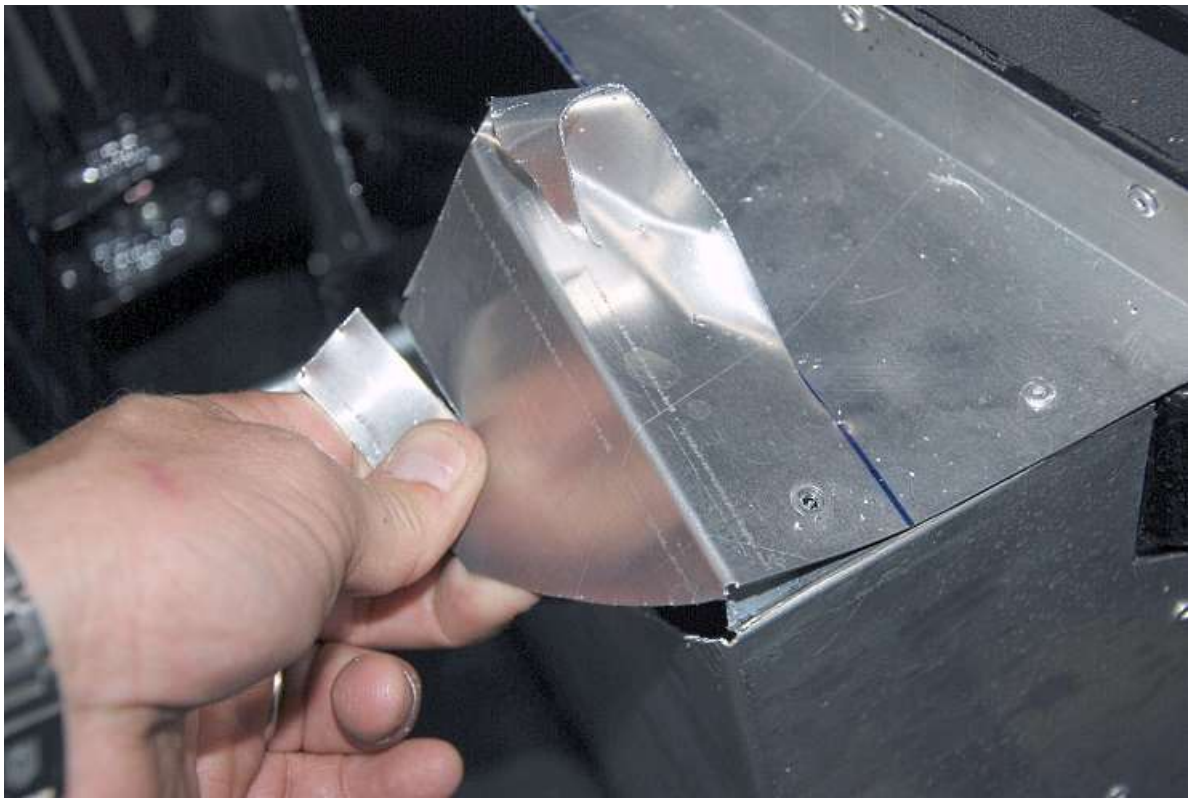
Use tin snips to cut the side panel up from the opening.

Cut the piece off to give easier access for the tin snips.

Cut forward to the front of the panel drill any rivets out as needed.



Trim up to the front corner of the panel.



Remove the piece.

Cut down and into the side mount hole.

Cut the last corner off.

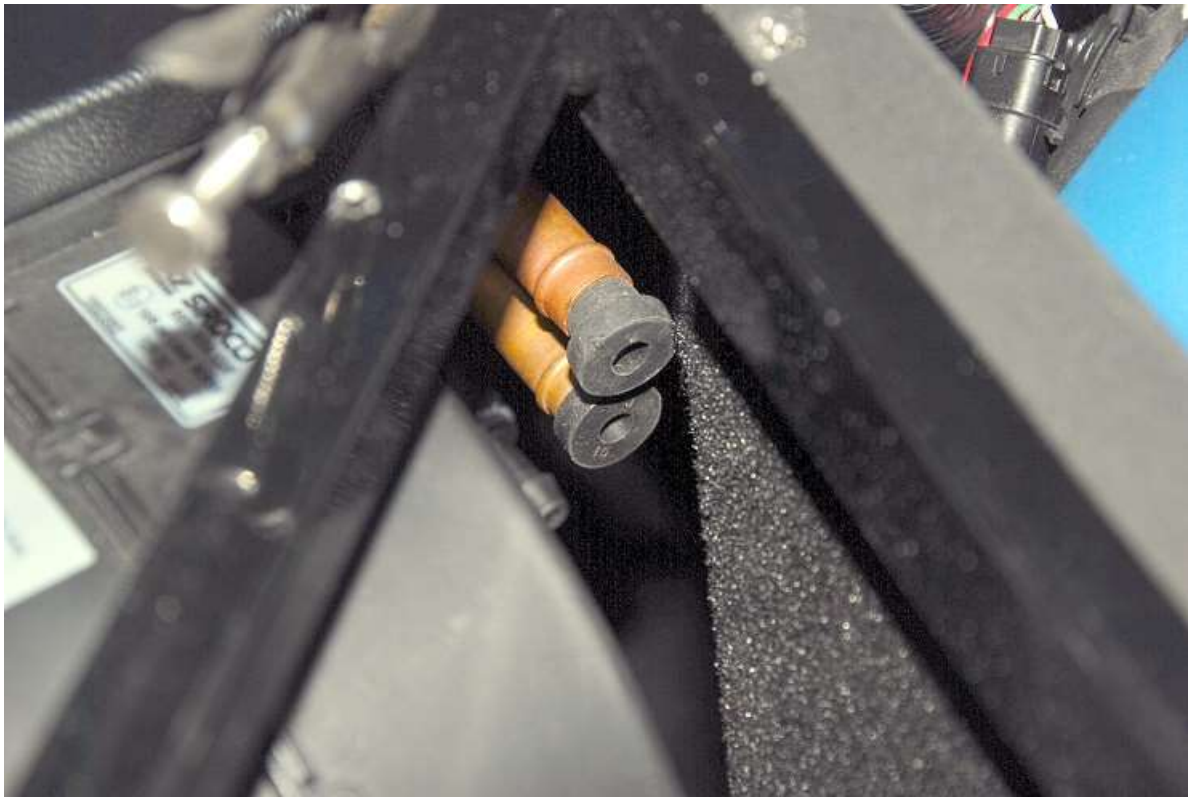
Test fit the patch cover, the front flange goes behind the front and the side of the cover goes on top of the side and top areas as shown.  Trim around the nose mount if necessary.

## Installation

### Evaporator

Put the evaporator on the floor in the right side of the cockpit with the fan at the front.

Lift and clamp the evaporator to the frame so that the outside bracket near the face of the unit is on the backside of the cockpit cross tube;

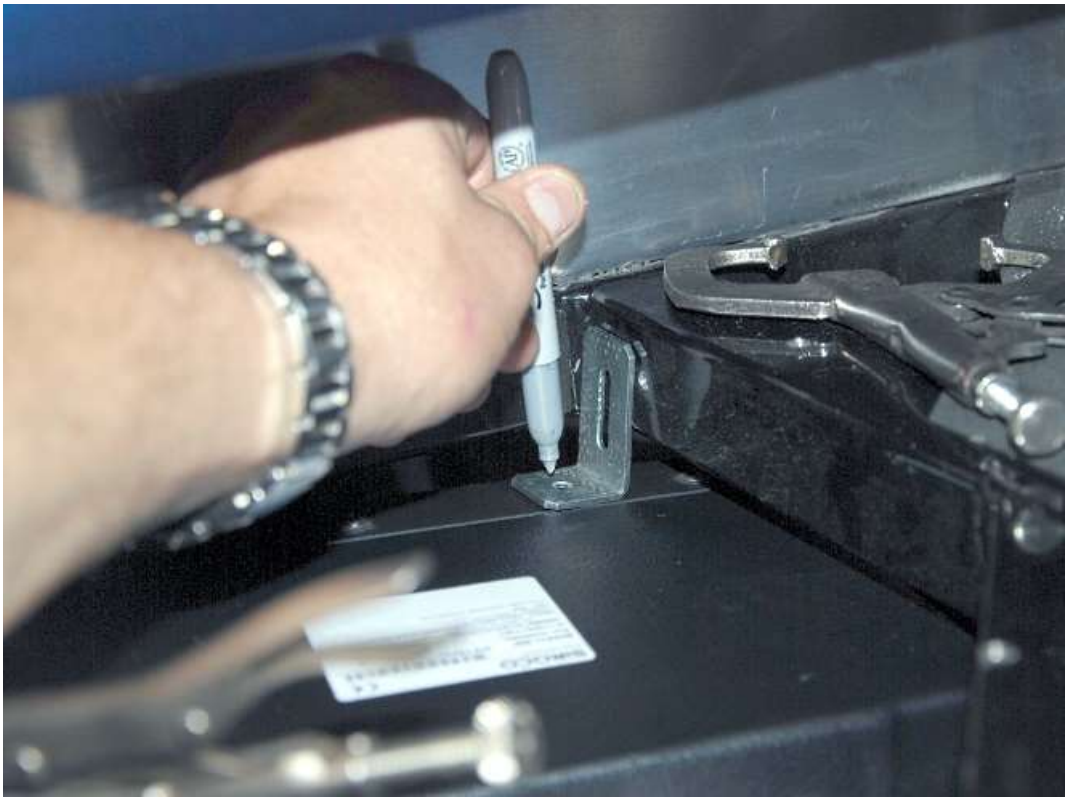


The outside bracket is under the 1.50” tube running to the front of the engine bay; there is clearance around the heater connections for the heater hose to attach;

the A/C lower #6 hose fitting clears the frame tubes;

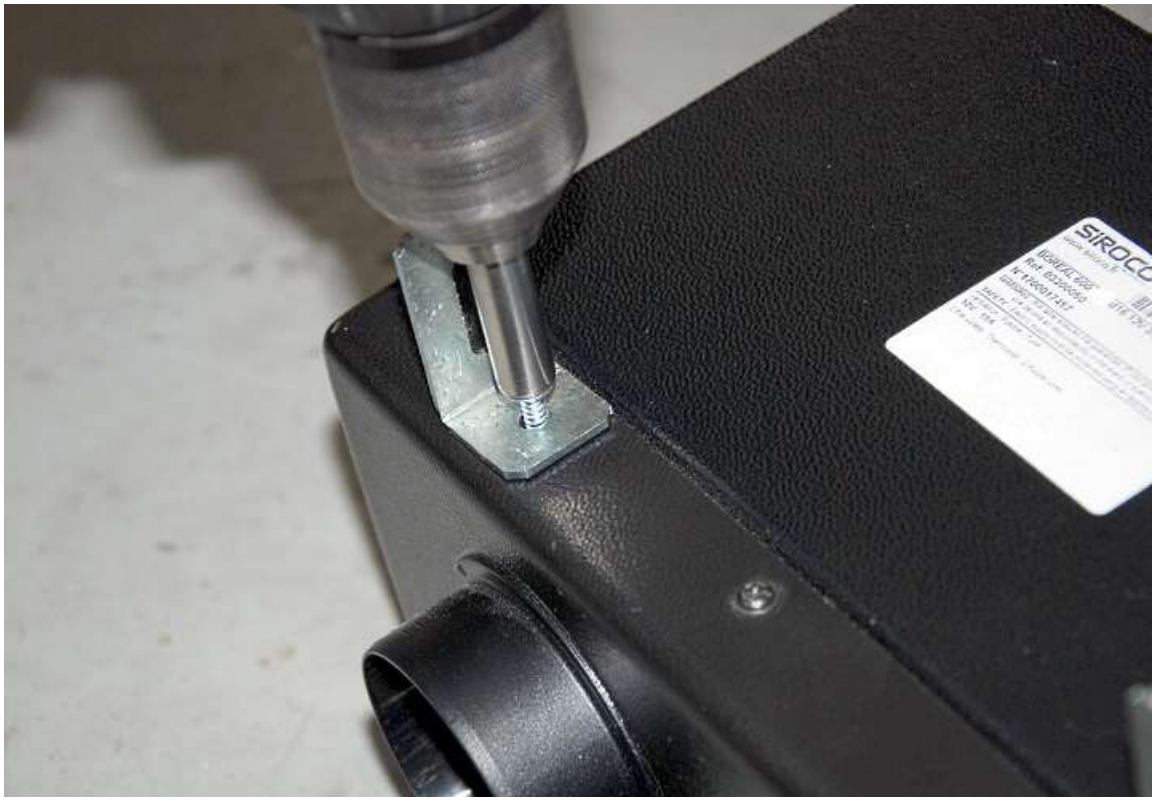
And the outside drain fitting.

With the unit held in place, position the inside mount bracket on top of the unit against the 1.50” tube on the inside of the footbox as shown.



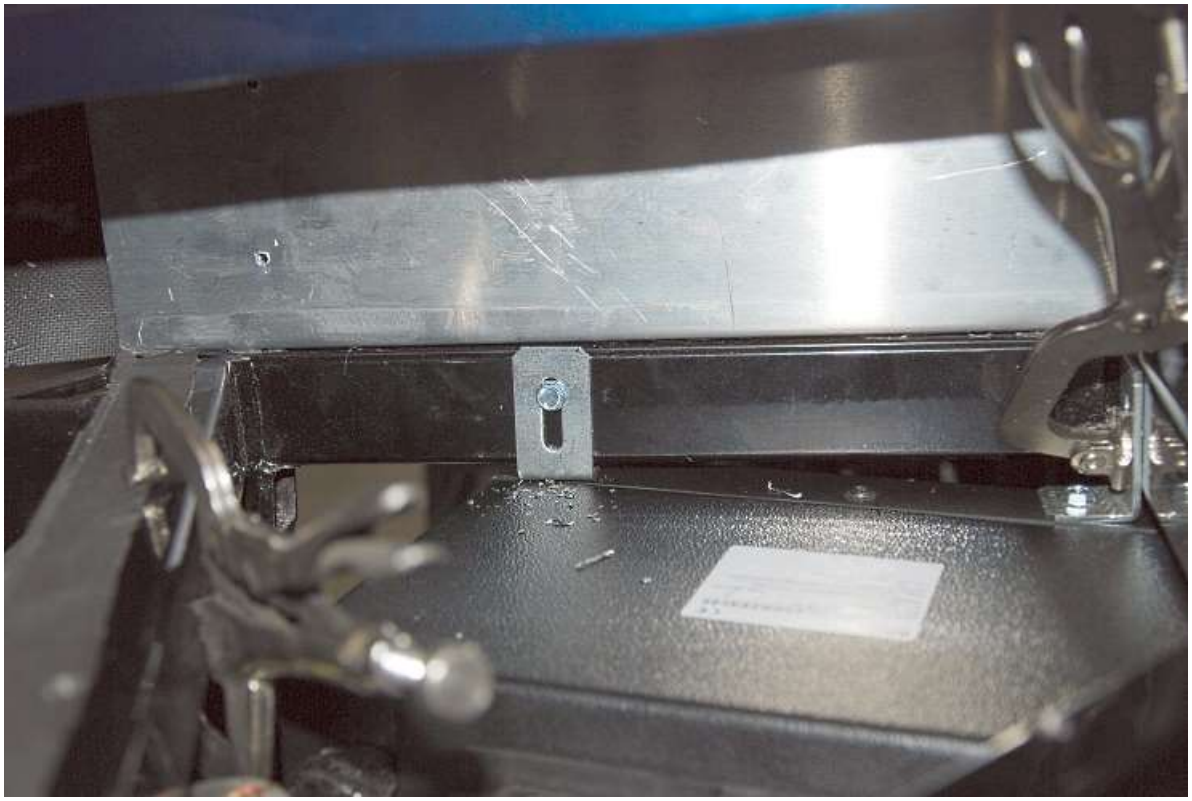
Mark the hole on the evaporator.

Remove the evaporator from the car.

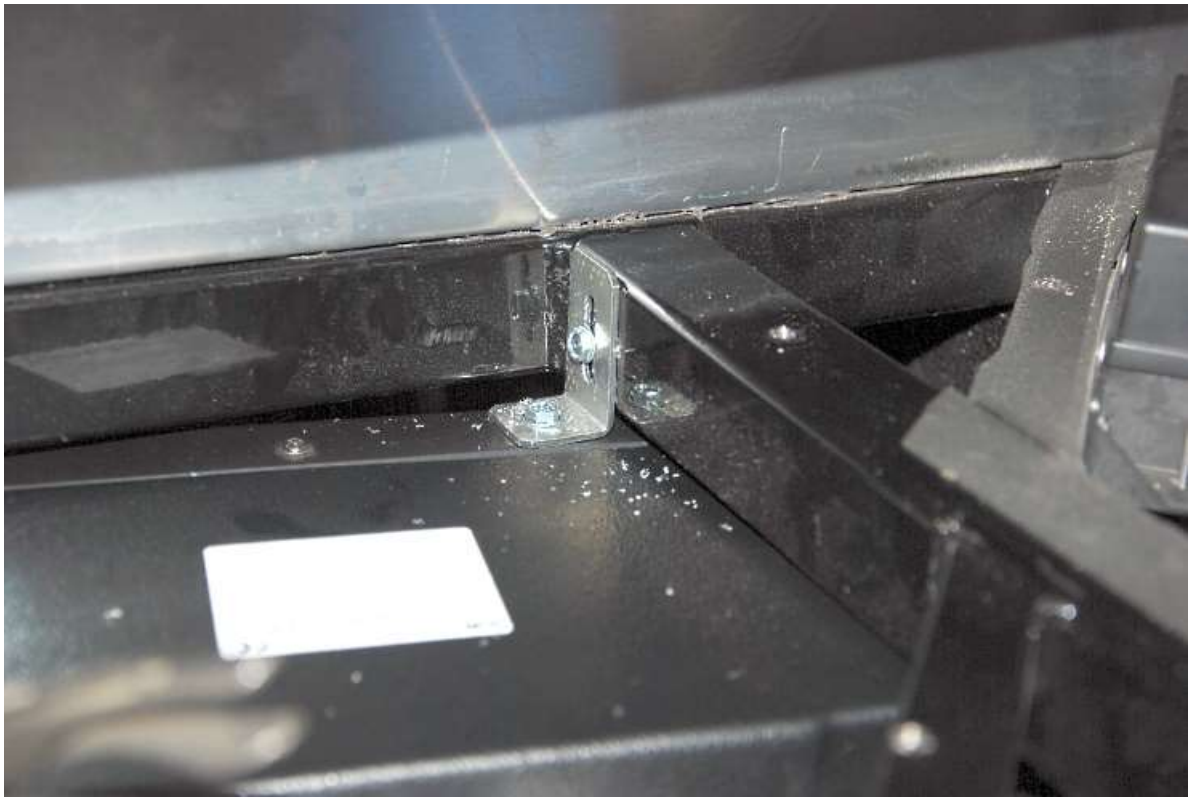



Screw the third bracket to the top front of the evaporator using one of the #10 x 1” self-tapping screws and a $^{5}/_{16}$” nut driver.

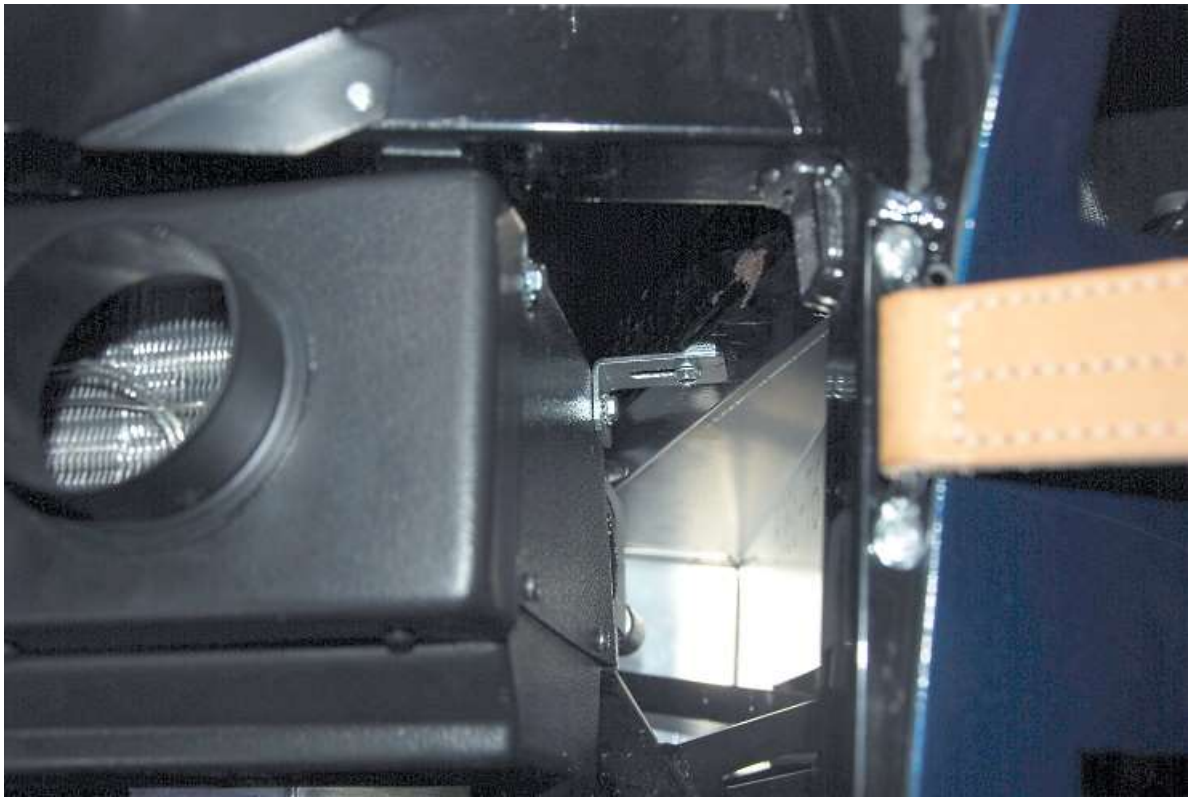
Clamp the evaporator back into the car checking the clearance of the #6 A/C hose, heater hose and drain.



Screw the heater mount tab to the frame using a $^{5}/_{16}$" nut driver and the #10 x 1" screws starting with the outside mount.



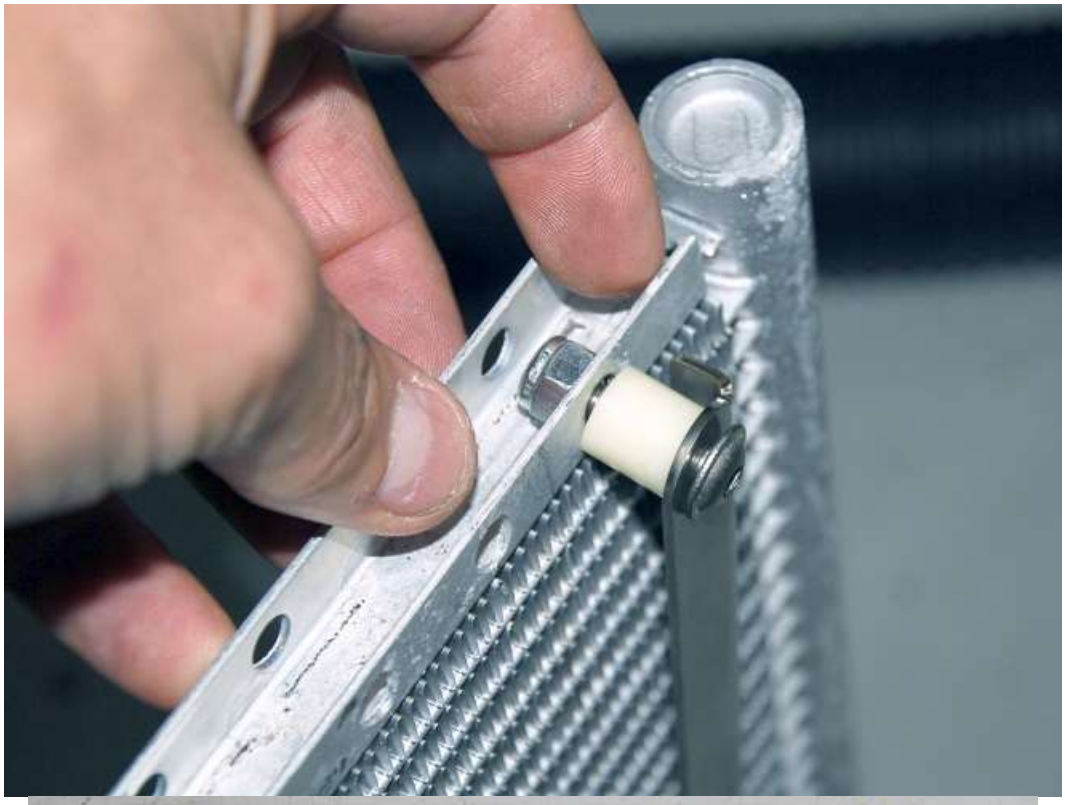
Attach the inside mount.



Attach the front mount to the underside of the frame tube.

## Condenser

- The larger #8 fitting should be located at the top of the Condenser.
- 1/8", 5/32" hex keys, 3/8", 7/16" wrenches, drill, 13/64", ¼" drill bits.
- A/C Condenser components



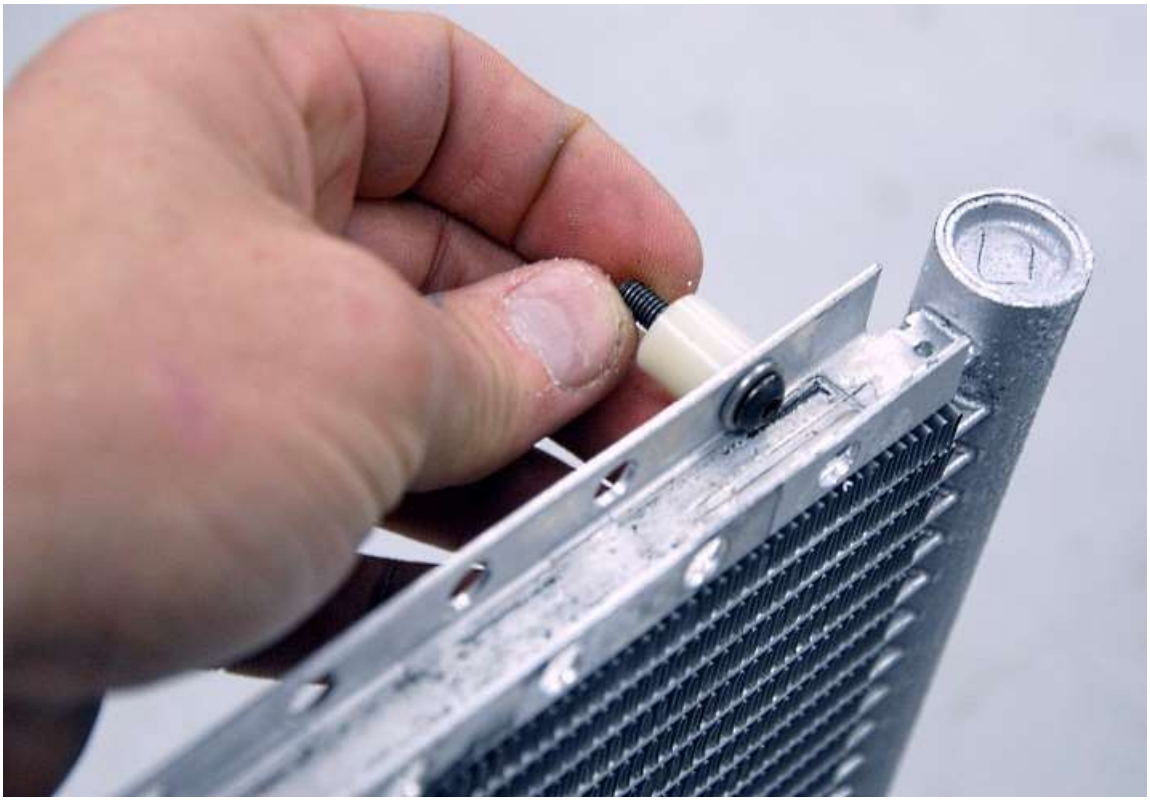
Attach the lower mounts to the backside of the condenser on the outside most hole using the ½" Nylon spacer, ¼" x 1" stainless screws, $^{5}/_{32}$" hex key and $^{7}/_{16}$" wrench. The condenser will mount with the fittings on the right side of the car as shown. The large fitting is at the top.

Loosly screw the #8 45° fitting onto the top and a #6 90° fitting onto the bottom of the Condenser.

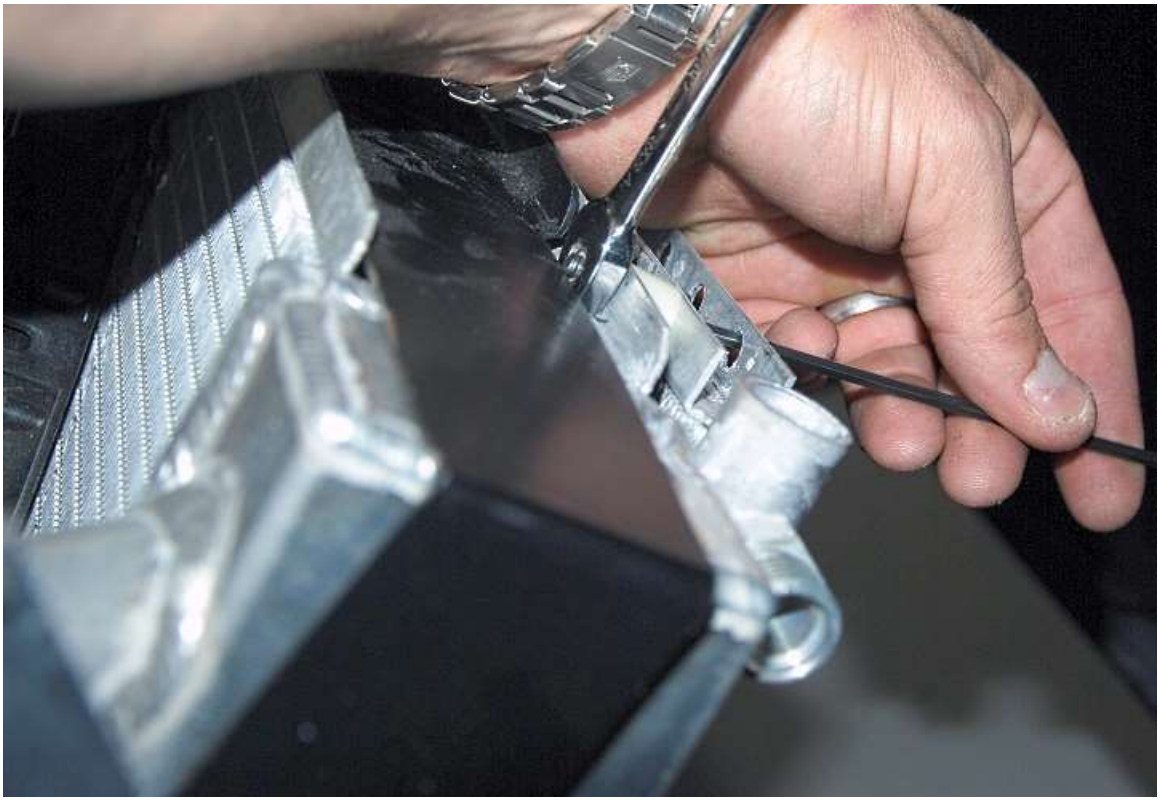
From the front of the car, lift the condenser up from the bottom in front of the radiator.

Position the condenser so that the top fitting goes around the side radiator and bottom goes either between the frame and the radiator or on the right side of the frame and the top is even with the top of the radiator.

Use a $^{13}/_{64}$" drill bit in the left and right top outer hole in the condenser and drill through the middle of the top radiator front flange.



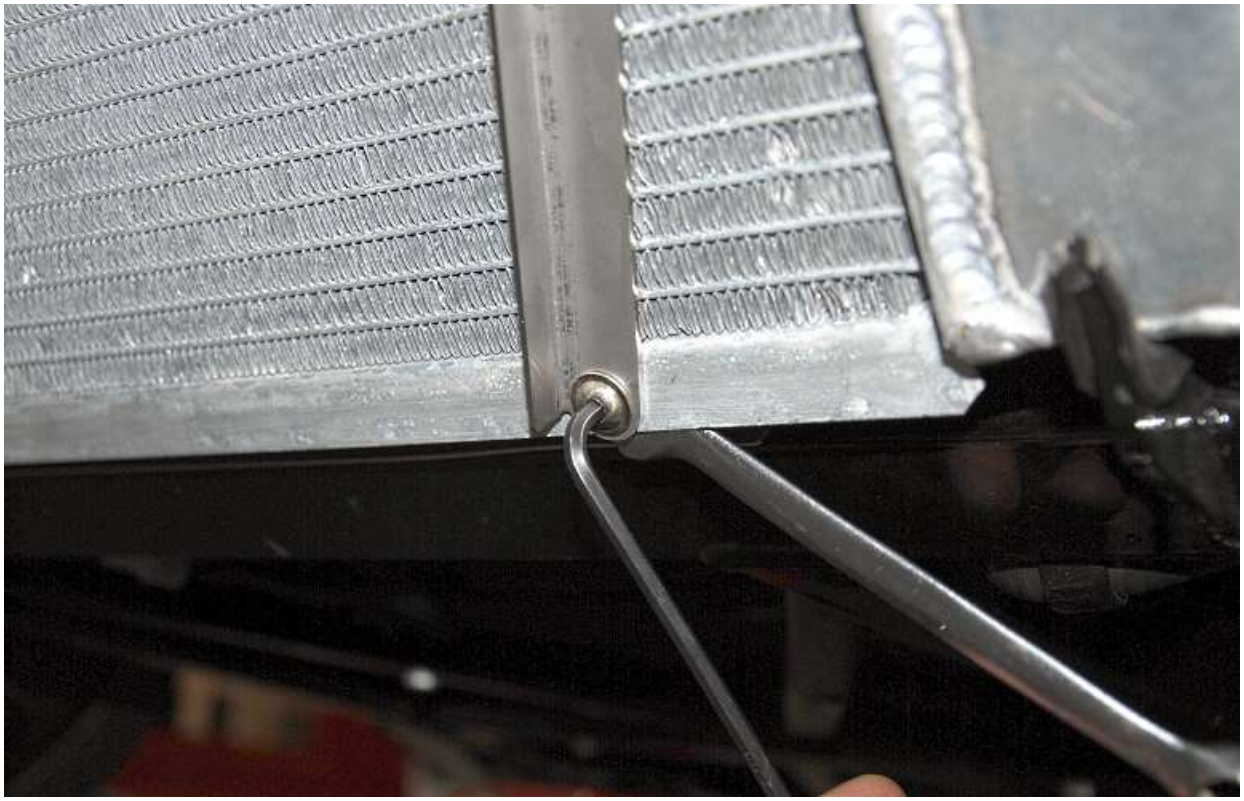
Put the washer on the screw then pass it through the back of the condenser followed by the nylon spacer.



Attach the top of the Condenser to the radiator using the black #10 x 1 screws, washers, locknuts, 1/8" hex key and 3/8" wrench.

Rotate the lower Condenser mounts so that the bottom of the mount is flush with the bottom of the radiator flange.  This will put the mounting hole in the center of the flange.

Drill a ¼” hole through the front radiator flange using the mount as a guide.



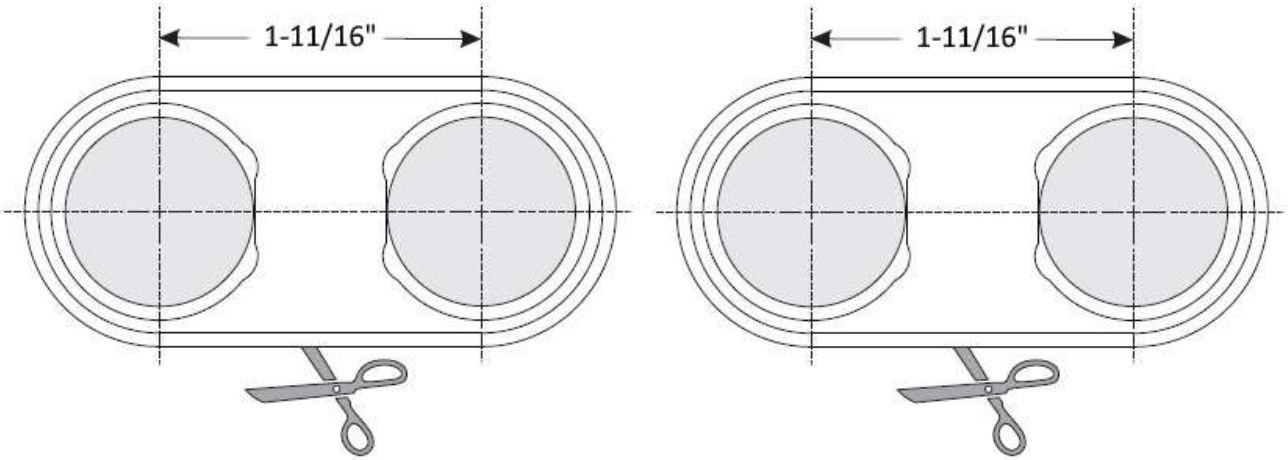
Attach the Condenser to the radiator using the ¼" x 0.50" screws, locknuts, $^{5}/_{32}$" hex key and $^{7}/_{16}$" wrench.

Repeat for the other lower mount.

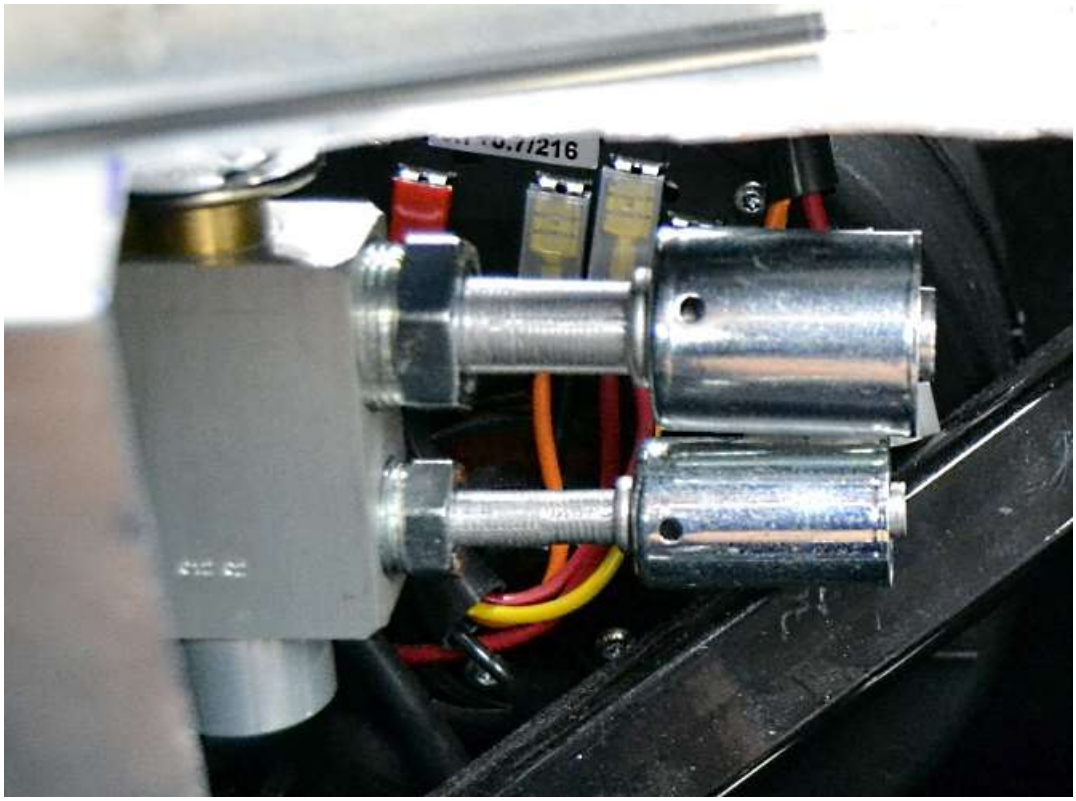
## Bulkhead fittings

🛠 $^{7}/_{8}$" hole saw, $^{3}/_{16}$" drill bit, drill, scissors, tape, $1^{1}/_{8}$" socket or wrench, locktite.
🚘 Bulkhead mounts, bulkhead fittings.

Cut out the bulkhead templates from the instructions if included with them.




If **not** included, check the center to center measurements with the templates above. If the same use cut these templates.



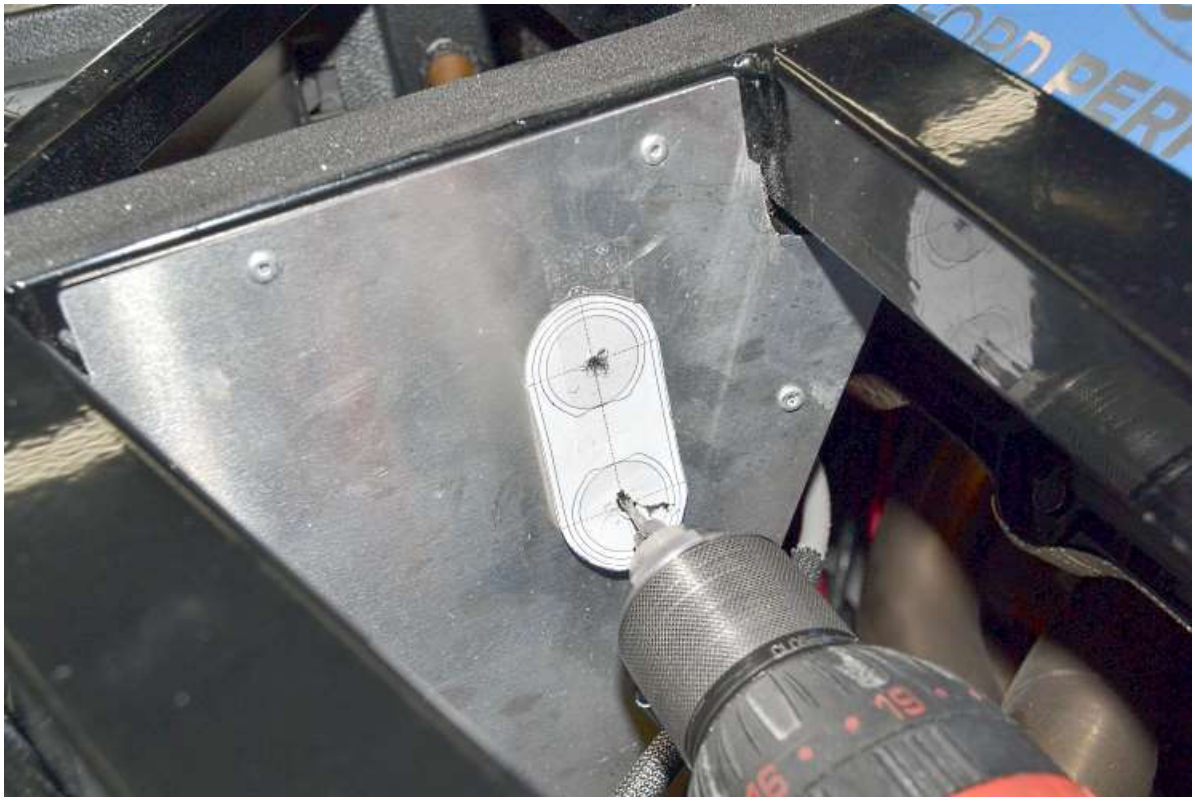
Screw the male #10 fitting into the top of the regulator block on the evaporator.

Hold a large #10 straight fitting up to the inside of the front of the footbox so that it is in line with the top fitting on the evaporator.  Make the line as straight as possible.

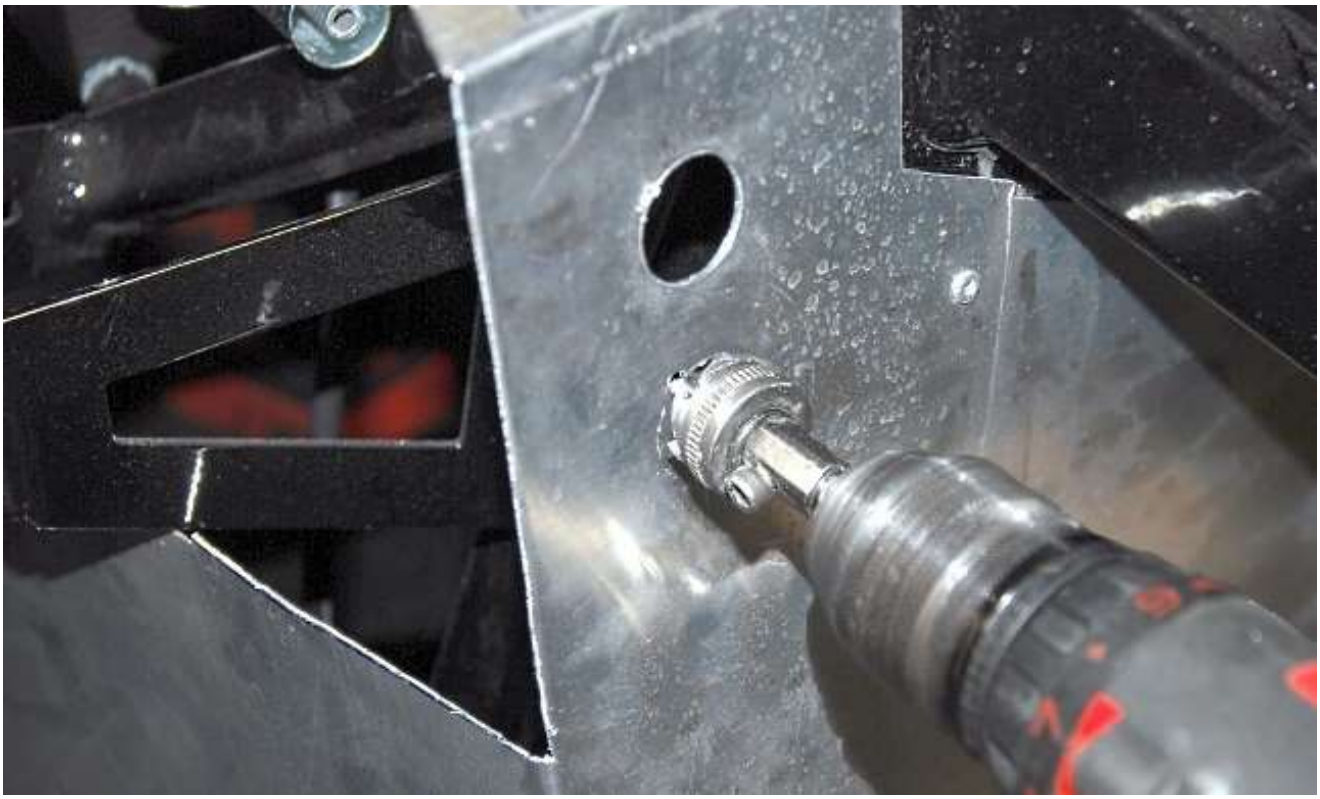
Locate the template on the front of the footbox so that it is in the same spot as the fitting inside then tape in place.  Double check by aligning the lower fitting.

Hold one of the straight heater hose fittings on the inside of the footbox and align with the heater fittings.

Locate the template on the front of the footbox so that it is in the same spot as the fitting inside then tape in place.  Double check by aligning the lower fitting.

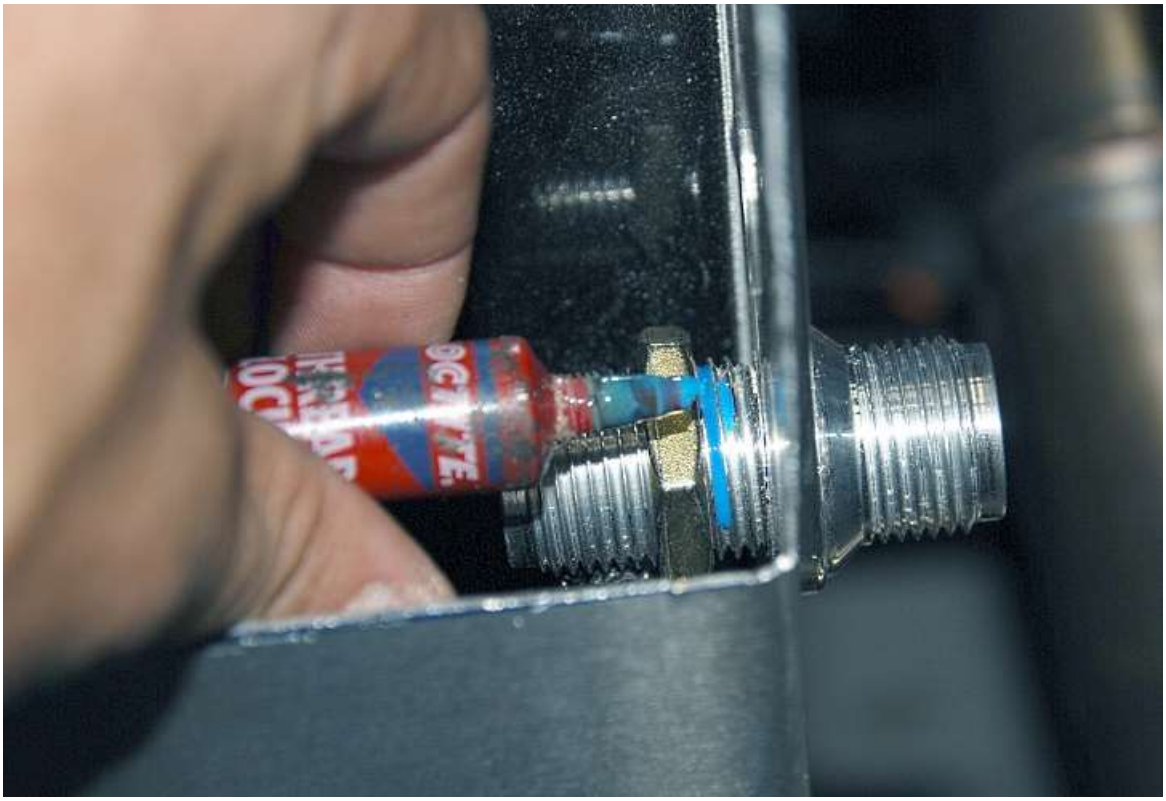


Drill the centers of the templates with a 3/16" drill bit.



Use a 7/8" holesaw in the holes just drilled.

At the heater location, use the two #10 fittings in the holes.



Put a drop of blue Loctite on the threads before screwing on the nuts using a 1⅛” socket  or wrench.

For the A/C fitting location, use the #10 bulkhead fitting on the top and the #6 on the bottom.

Screw the upper straight A/C fitting hand tight onto the inside of the bulkhead.

Screw the two 90° heater hose fittings hand tight to the outside of the heater bulkhead and two straight fittings to the inside.

## Heater hoses - inside

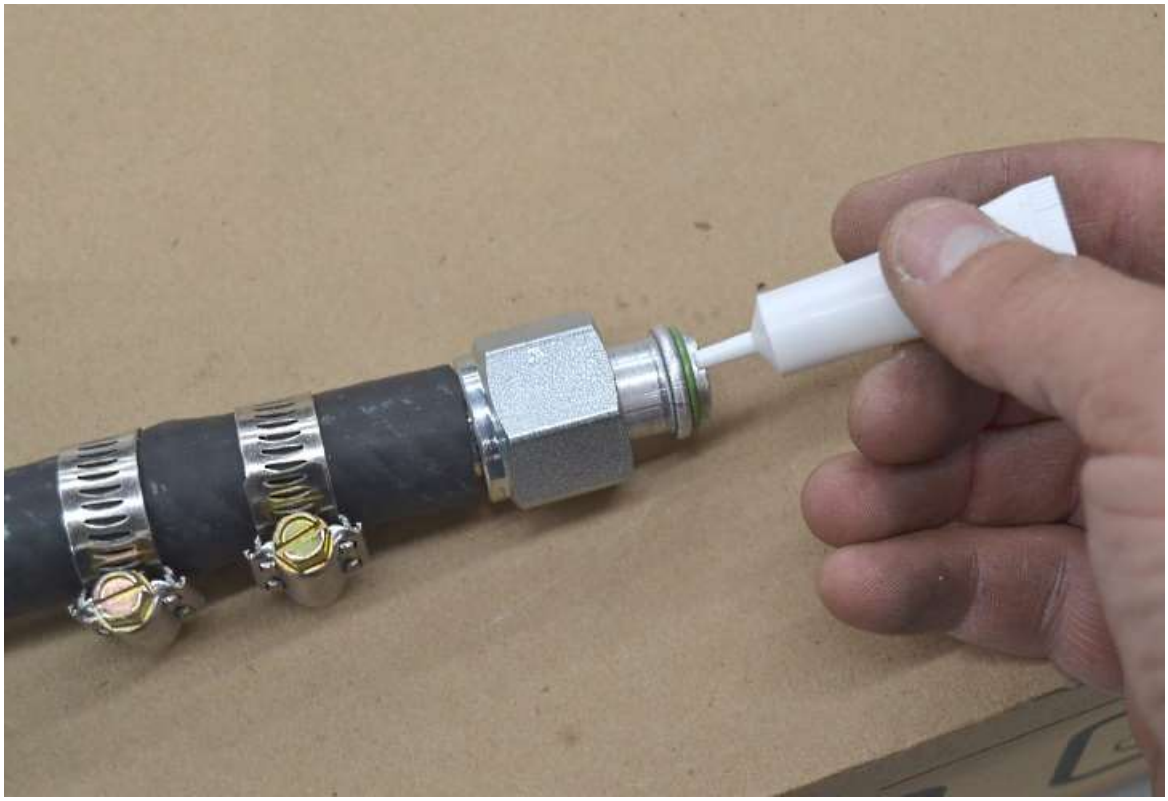
- $^{5}/_{8}$" heater hose, hose clamps
- $^{5}/_{16}$" socket, ratchet, razor knife, $1^{1}/_{16}$" wrench
- See hose diagram at end of instructions

Take the 5/8" heater hose and put it on top of the heater fittings inside the footbox and measure the length needed.

Remove the hose and cut it to length with a razor knife.
Cut another piece of hose the same legth for the other fitting.

Push the heater hose onto the straight fitting along with two hose clamps but do not tighten them yet.

Put the hose clamps on each hose in opposite directions so that once assembled it is possible to see and reach all four hose clamps as shown.



Put a drop of the o-ring lubricant on the green o-rings and spread it with your finger so they are covered.

Starting with the lower heater fitting, push the hose onto the evaporator lower fitting, making sure the hose clamps on this hose are in the lower position as shown.

Screw the hose onto the bulkhead.

Tighten the bulkhead fitting with a $1^{1}/_{16}$" wrench.

Make sure the hose is on the barbs correctly then tighten the hose clamps so that they are accessible later.

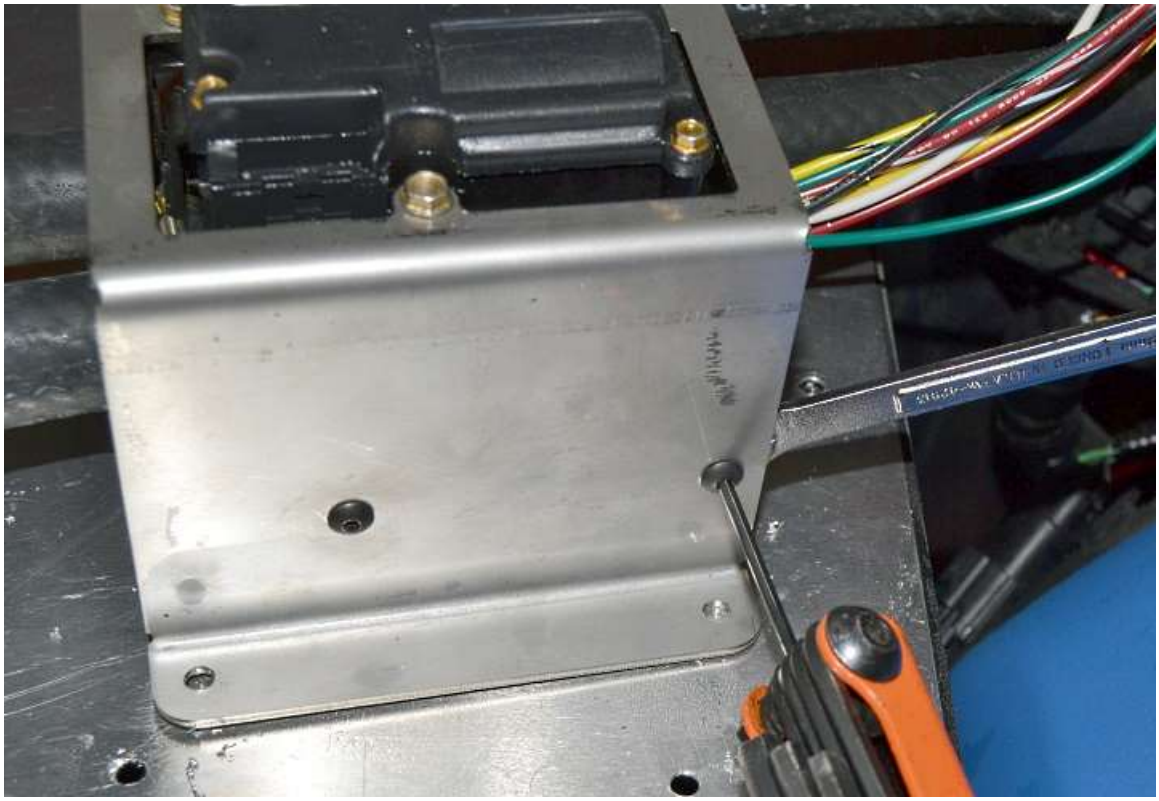
Repeat the last few steps with the top hose.

## Heater Control valve

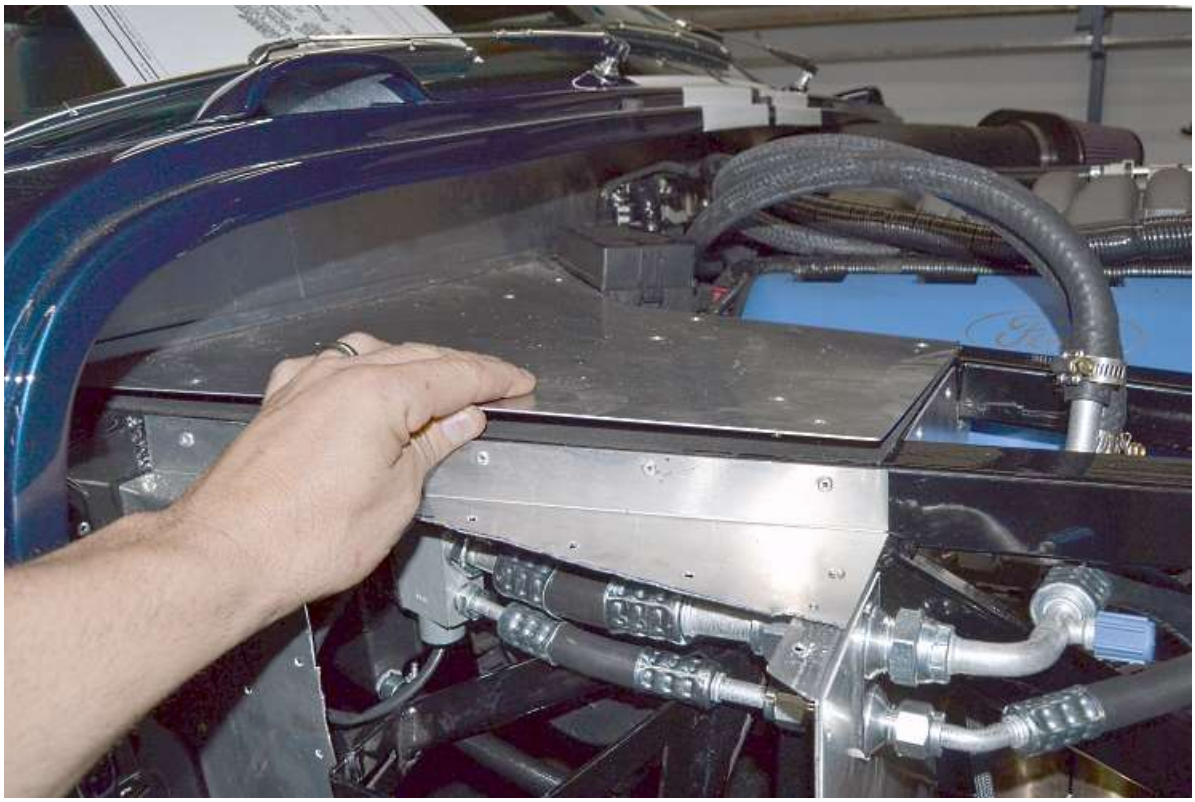
🛠 ¼” socket, ratchet
🚘 Heater control components

Remove the three screws holding the black bracket to the plastic box using a ¼” socket.

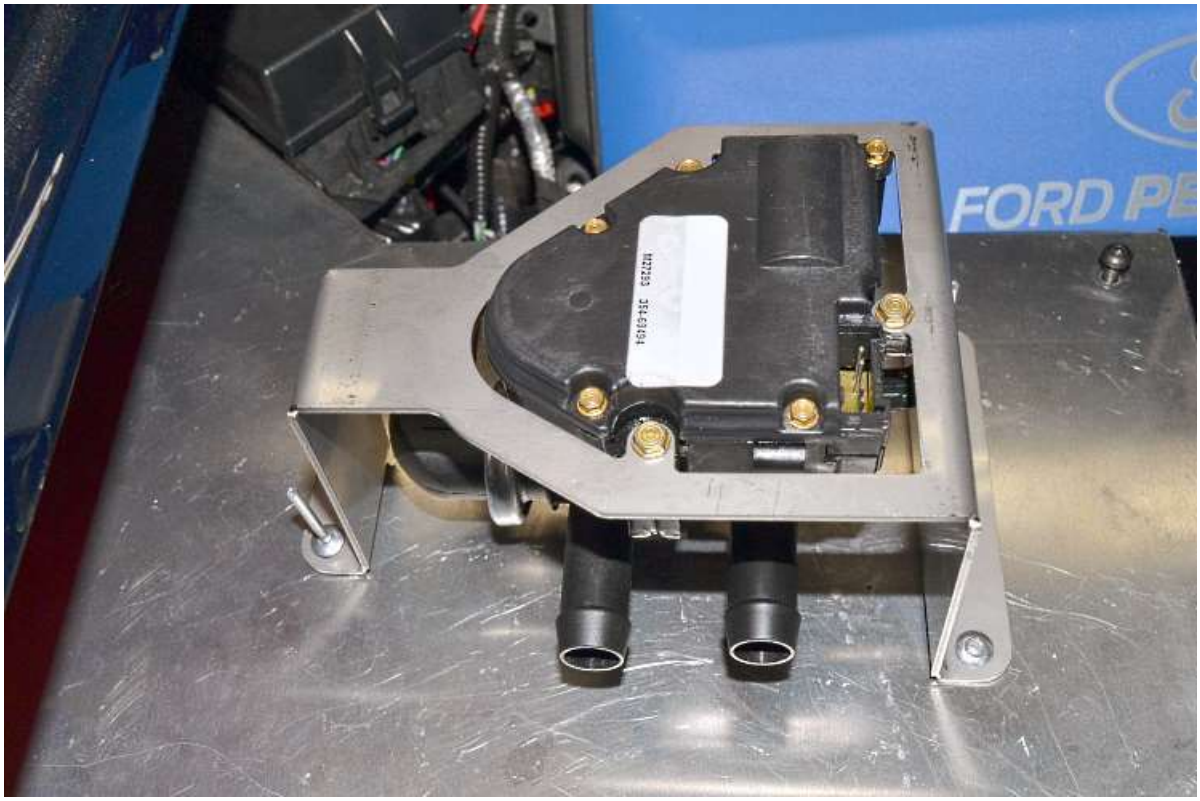
Put the control valve bracket over the plastic box and reattach the screws through the stainless bracket, black box and into the threaded black bracket.



Attach the controller to the inside of the front side of the control valve bracket.



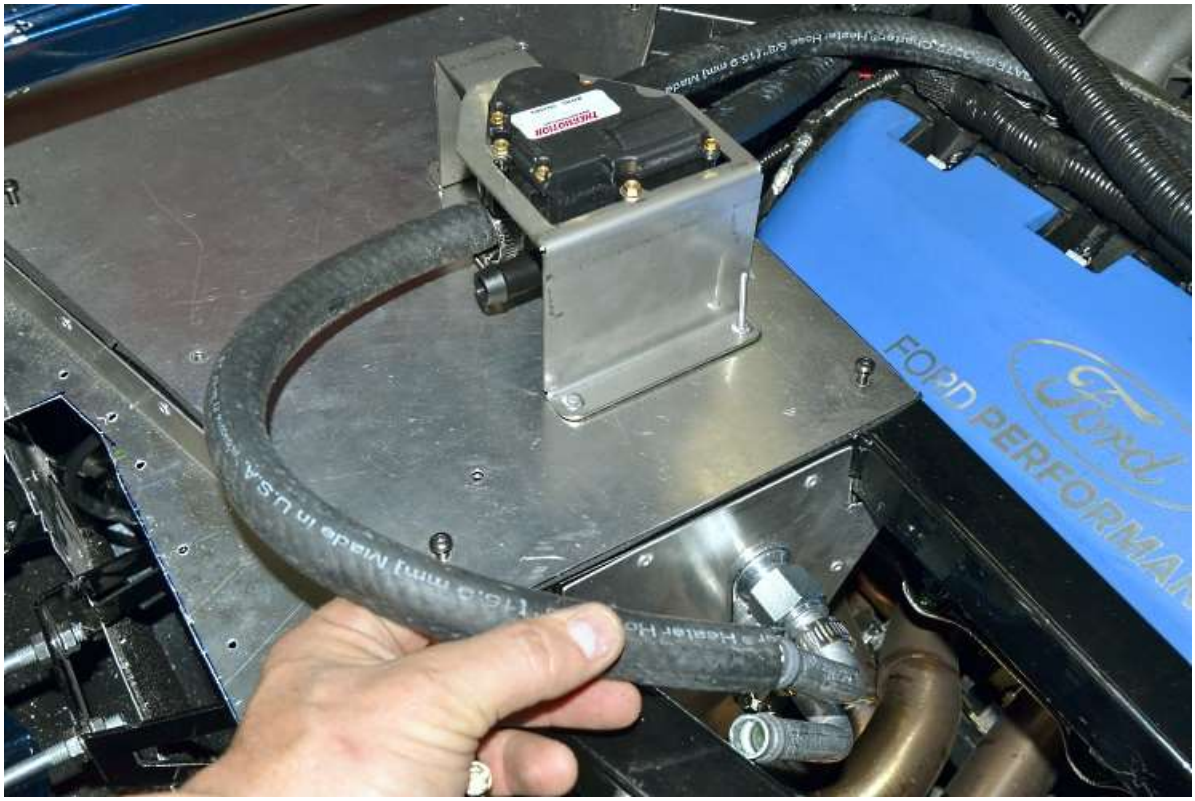
Position the footbox top back on the frame using a couple screws or rivets to hold it in place.



Position the control valve as shown on the top of the footbox so that the rivets fastening it only go through the top panel and not into the frame.  Attach the control valve to the footbox top panel.

## Heater hoses – Engine bay

- Heater control components
- Razor knife, $^{5}/_{16}$" socket, ratchet, drain pan, pliers.
- See hose diagram at end of instructions




From the right side of the heater control valve run and cut to length $^{5}/_{8}$" heater hose from the valve to the footbox fittings. The hoses can go on either fitting.


Put hose clamps on the hoses before doing final assembly.

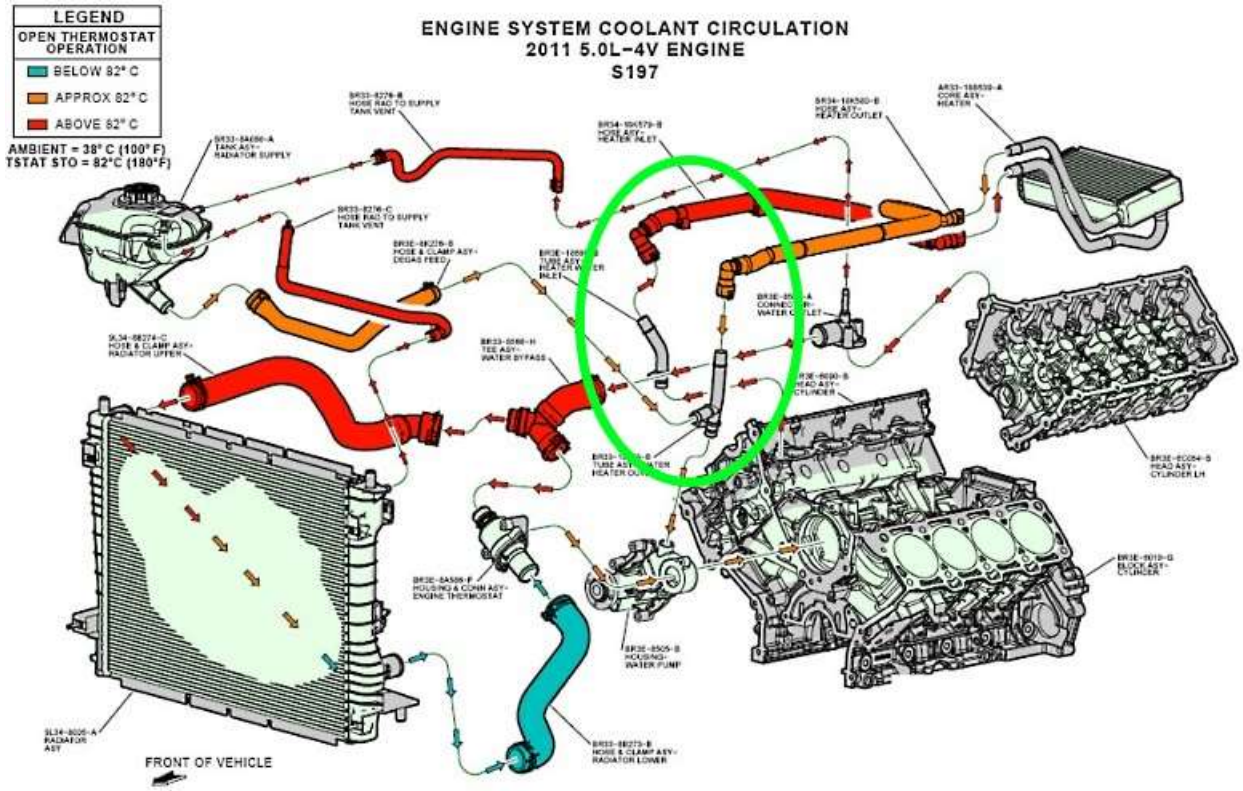

Position the hose clamps so that they can both be tightened after assembly if necessary. Tighten the hose clamps on the control valve using a $^{5}/_{16}$" socket.

Tighten the hose clamps on front of the footbox.


Make sure there are o-rings on the 90° fittings then tighten the fittings to the bulkhead fitting using a $1^{1}/_{16}$" wrench.

- The next steps will depend on the engine being used. The engine heater hose outlet and inlet need to get attached to the control valve in the correct locations. For this install we used a Coyote engine.

If coolant is already in the engine, drain some out of the radiator so that it will not leak out of the heater hose outlets on the engine.




Heater connections circled.


On the left side of the engine near the throttle body remove the heater return connector if already installed.

On the right side of the throttle body remove the heater send connector if already installed.

Connect $^{5}/_{8}$" heater hose and a hose clamp to one of the fittings.

Reattach the connector to the send (right) fitting on the engine.

- If the Coyote engine was already running and driving, make sure to take the restrictor out of the hose if reusing a hose.


Slide a hose clamp on the end of the hose and run the heater hose to the bottom left connection on the heater control valve.

Reattach the connector to the return (left) fitting on the engine.


Run the heater hose along the fuel rail and around the back of the intake.

Slide a hose clamp on the end of the hose and connect the hose to the top left connection on the control valve.

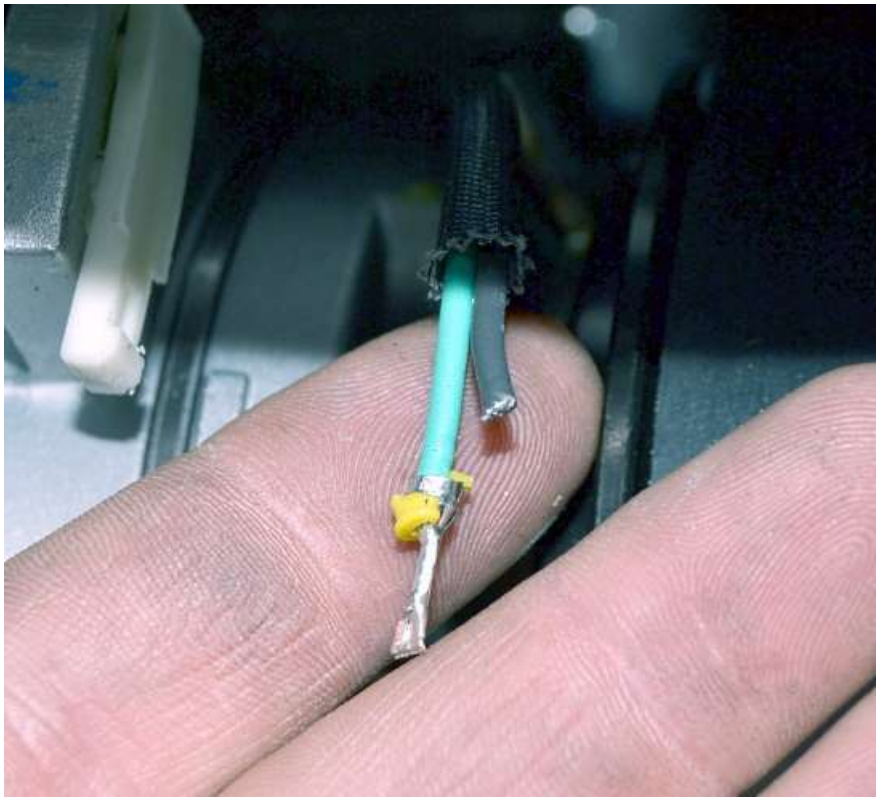
## Coyote Compressor

Cable tie, belt

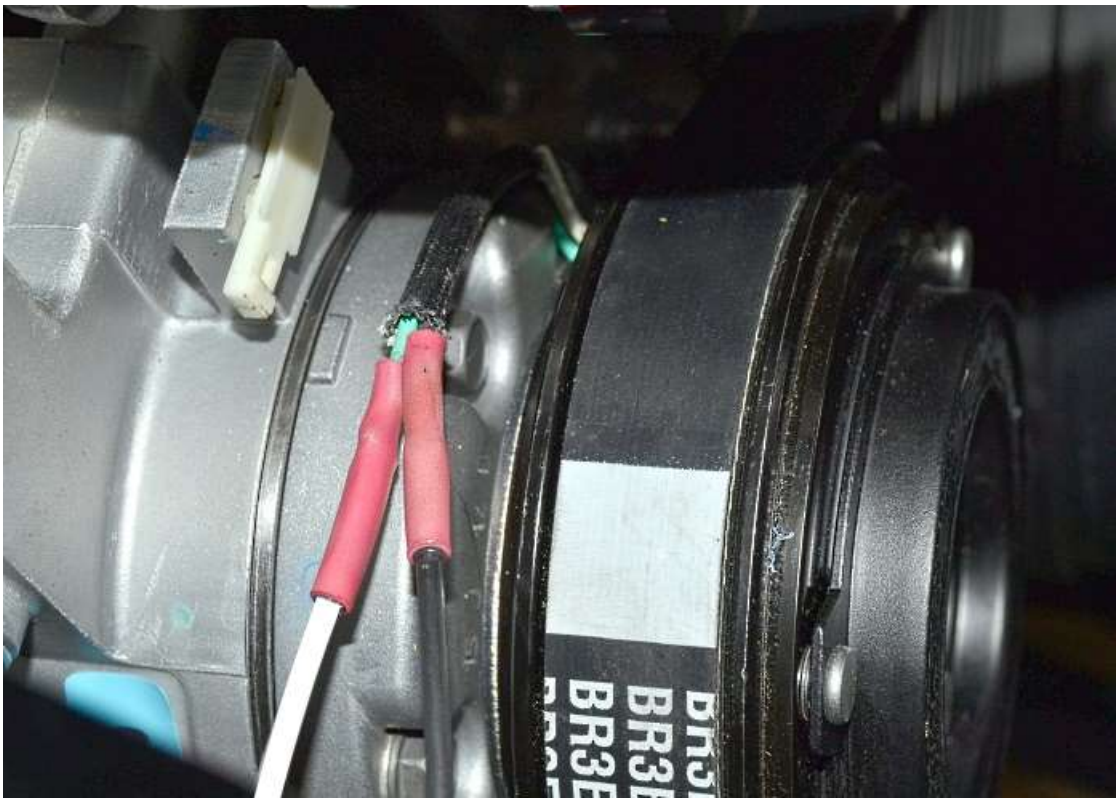
ratchet, 13mm, 18mm socket, extension, wire cutter.

The belt used is a special elastic belt that is designed to stretch for install and then keep the correct tension which is why Ford does not use a belt tensioner on the A/C belt.

Use a 15mm socket and ratchet to loosen the belt tensioner and remove the belt from the tensioner.



Cut the connector off the compressor.

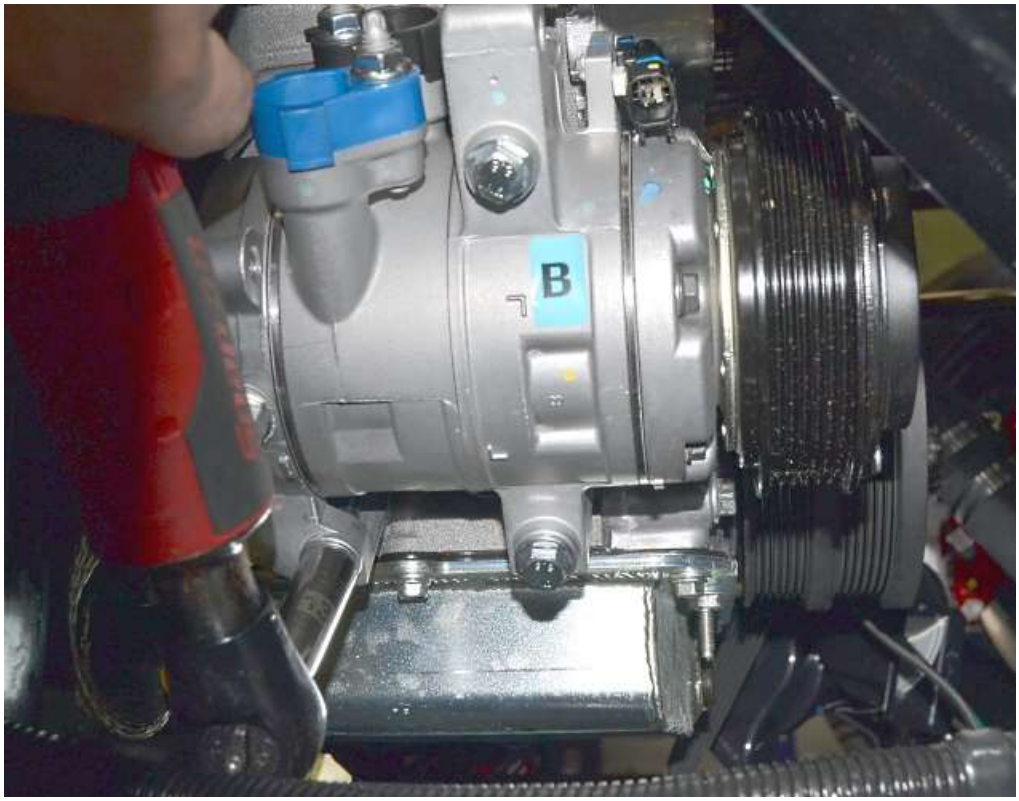


Connect the white wire to the green compressor wire and the black wire to the black compressor wire. The best way is with sealed heat shrink tubing and solder or butt connectors with electrical tape will work

Put the long bolts an washers in the lower compressor mounting holes.

Cover the bolts with masking tape so they stay in.


Install the compressor on the lower right side of the engine attaching it to the block using the top mounting hole; a long bolt and washer.  Make sure the plug and wires stick up and are not pinched by the engine.

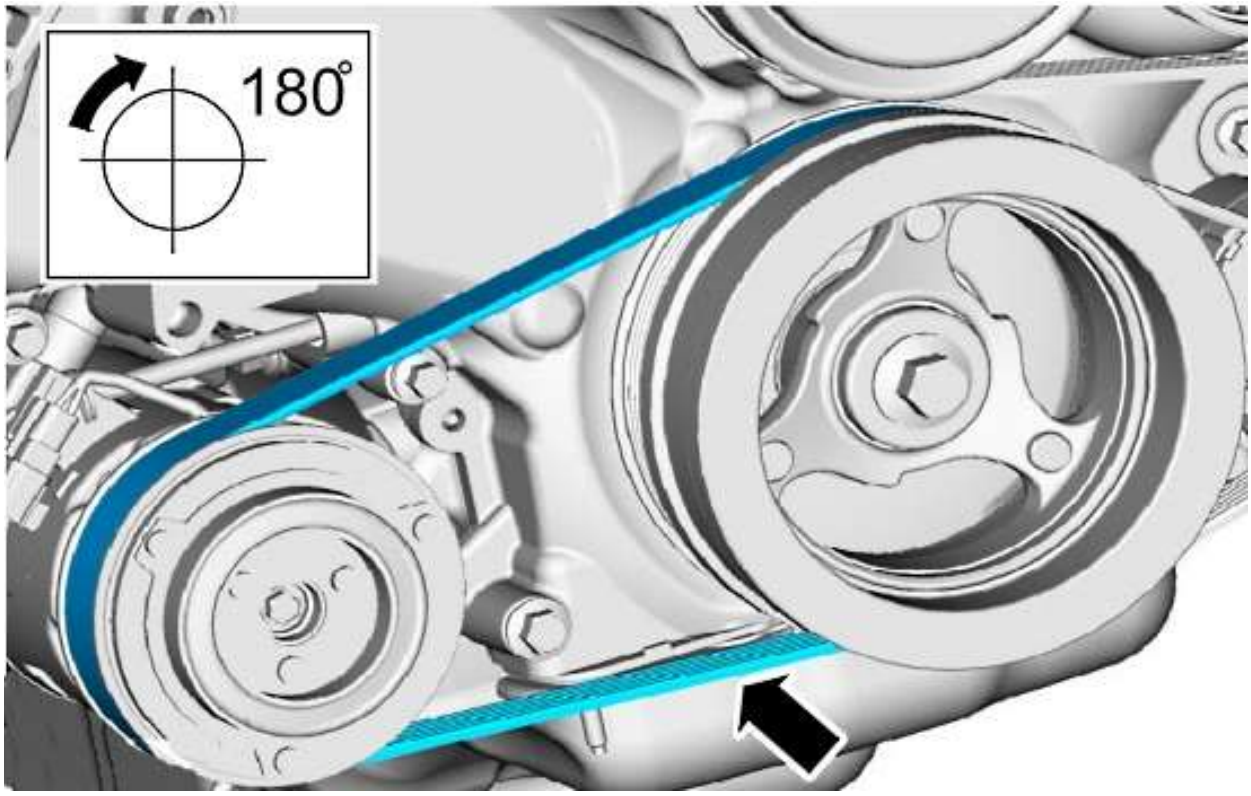



Attach the lower two mounting bolts then torque the bolts to **15Nm (11lbft)**.

Put the A/C belt behind the crankshaft pulley with the accessory drive belt ribs facing towards the front of the vehicle and the belt on the A/C compressor.

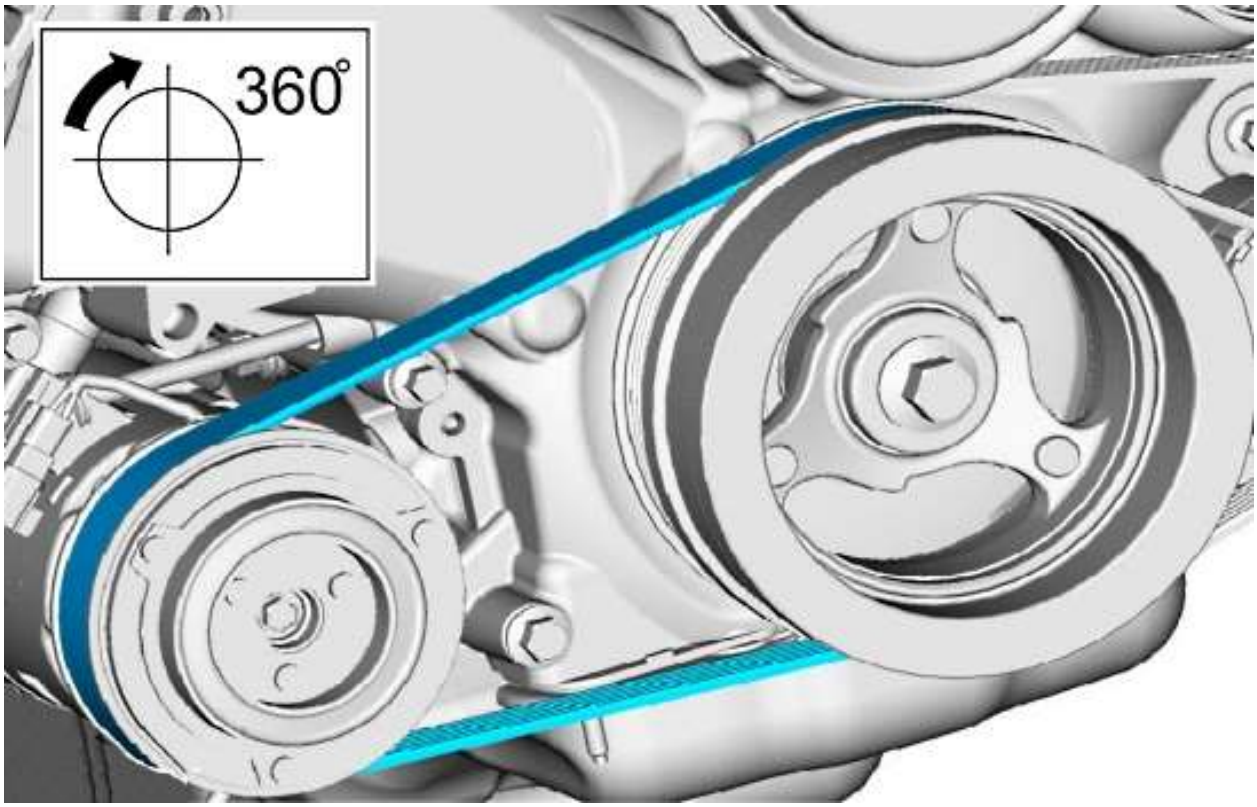
Feed a cable tie through the crankshaft pulley spokes, up and over the A/C belt and tighten the cable tie.

Make sure the belt is above the oil pan flange otherwise the belt or engine could get damaged.



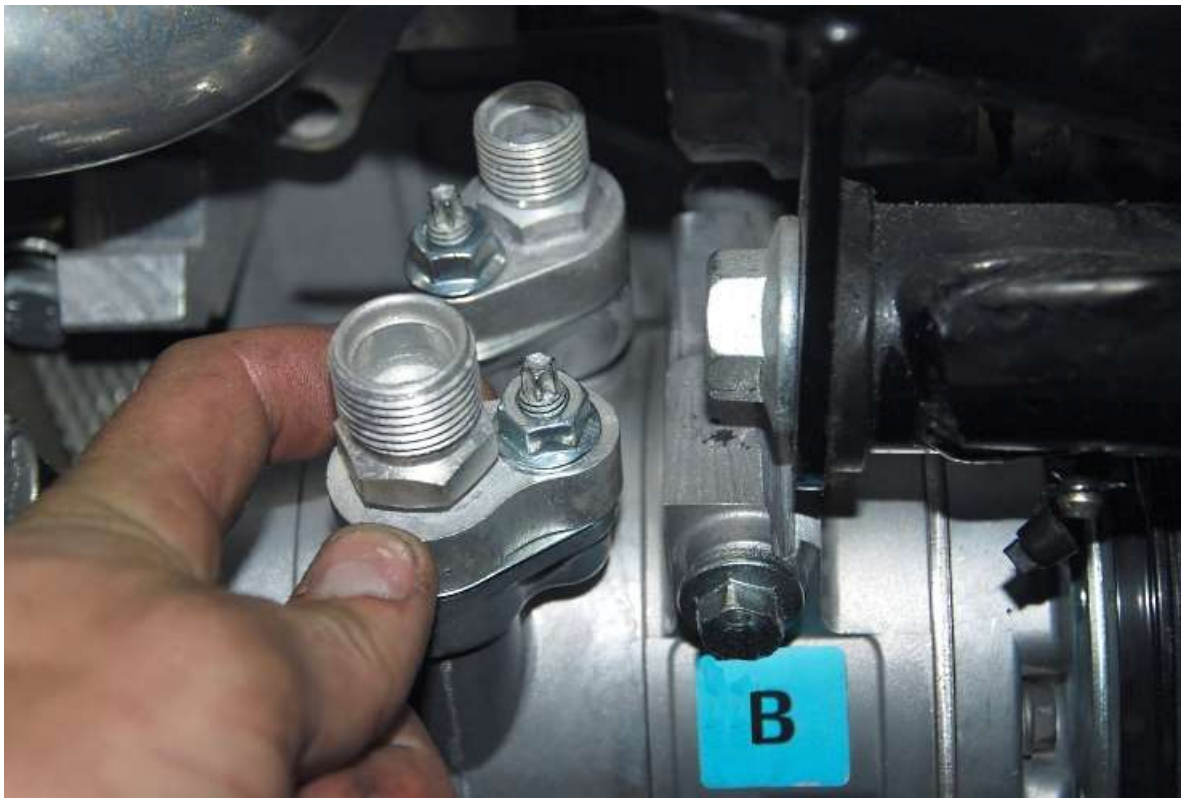

Use an 18mm socket and ratchet to turn the crank over 180° so the belt is seated on top of the crank pulley.

Cut and remove the cable tie.




Rotate the engine 360° to make sure that the belt is fulley seated all the way around the crank pulley.

Lubricate the green O-ring and surface of the adapter blocks.

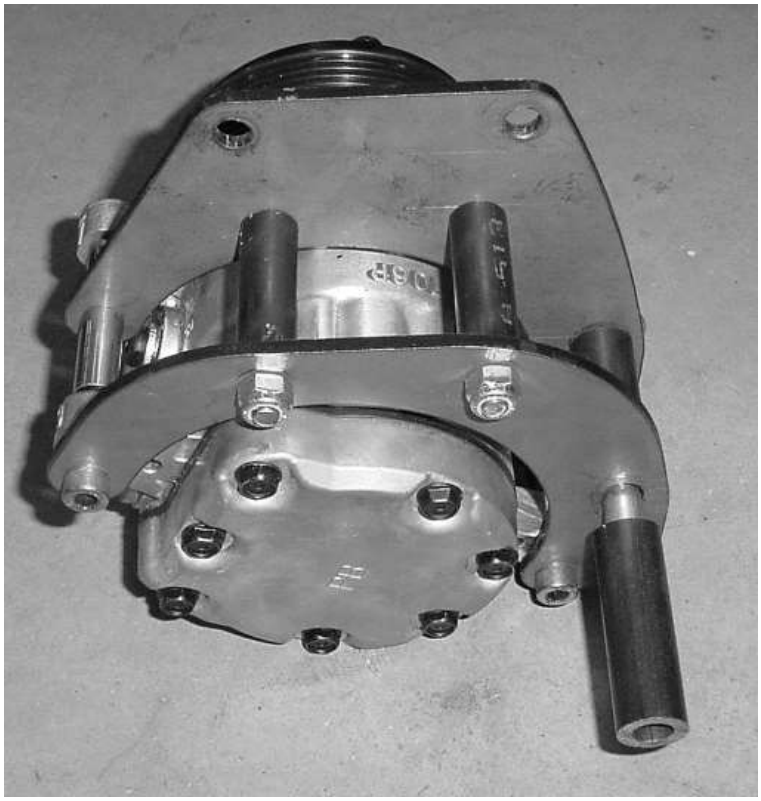



Use a 13mm socket and ratchet to tighten the blocks to the compressor.

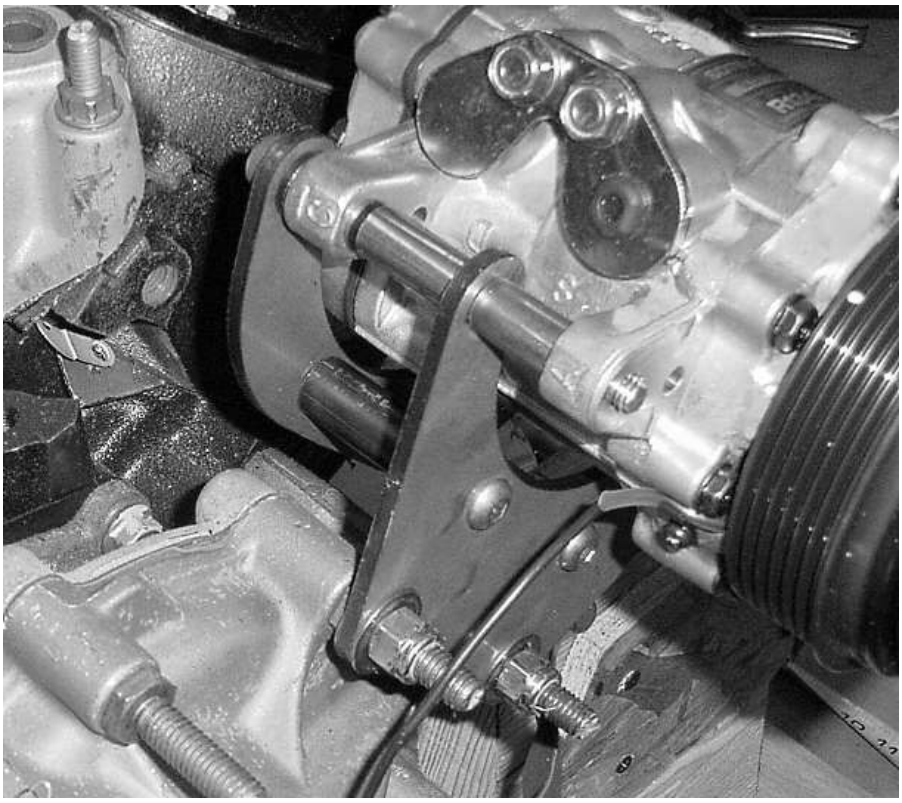
Reinstall the main serpentine belt.

## 302/351 Compressor

Pull the compressor clutch wire out from behind the clutch on the compressor.

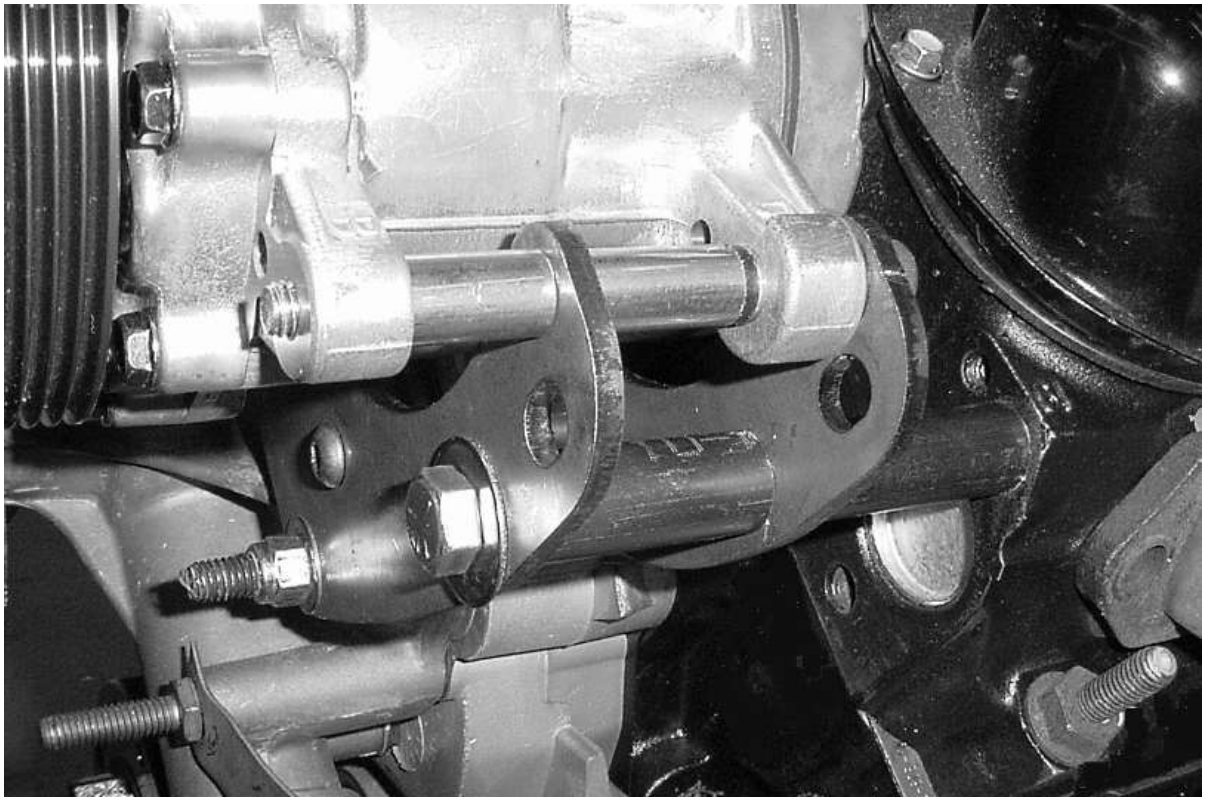


Assemble the compressor brackets, use the 5/16" bolts and the narrow 2" spacers to attach to the brackets together. The larger bracket is the front bracket. Do not tighten the locknuts completely until the assembly is attached to the engine.

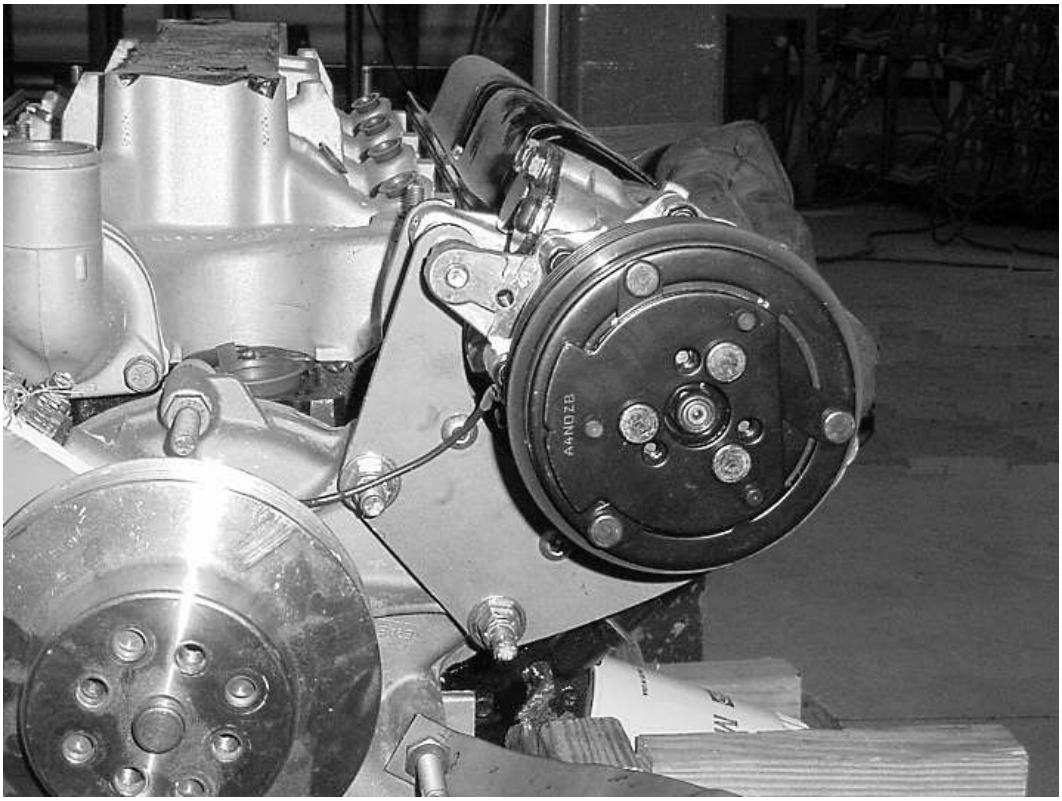


Attach the compressor to the brackets with the inlet/outlet on top, the long bolts go from back to front. The compressor mounts to the front side of both brackets.

The 1.08” spacer goes between the brackets and the 0.9” spacer goes between the front side of the front bracket and the front compressor ear. Put one of the smaller washers on each of the water pump mount bolts and slide the assembly on followed by the remaining small washer and locknut. Do not tighten down all the way.



Pass the 7/16” bolt through the appopriate slotted hole (upper for 351, lower for 302) with the 2” spacer between the brackets and the other spacer between the bracket and head.

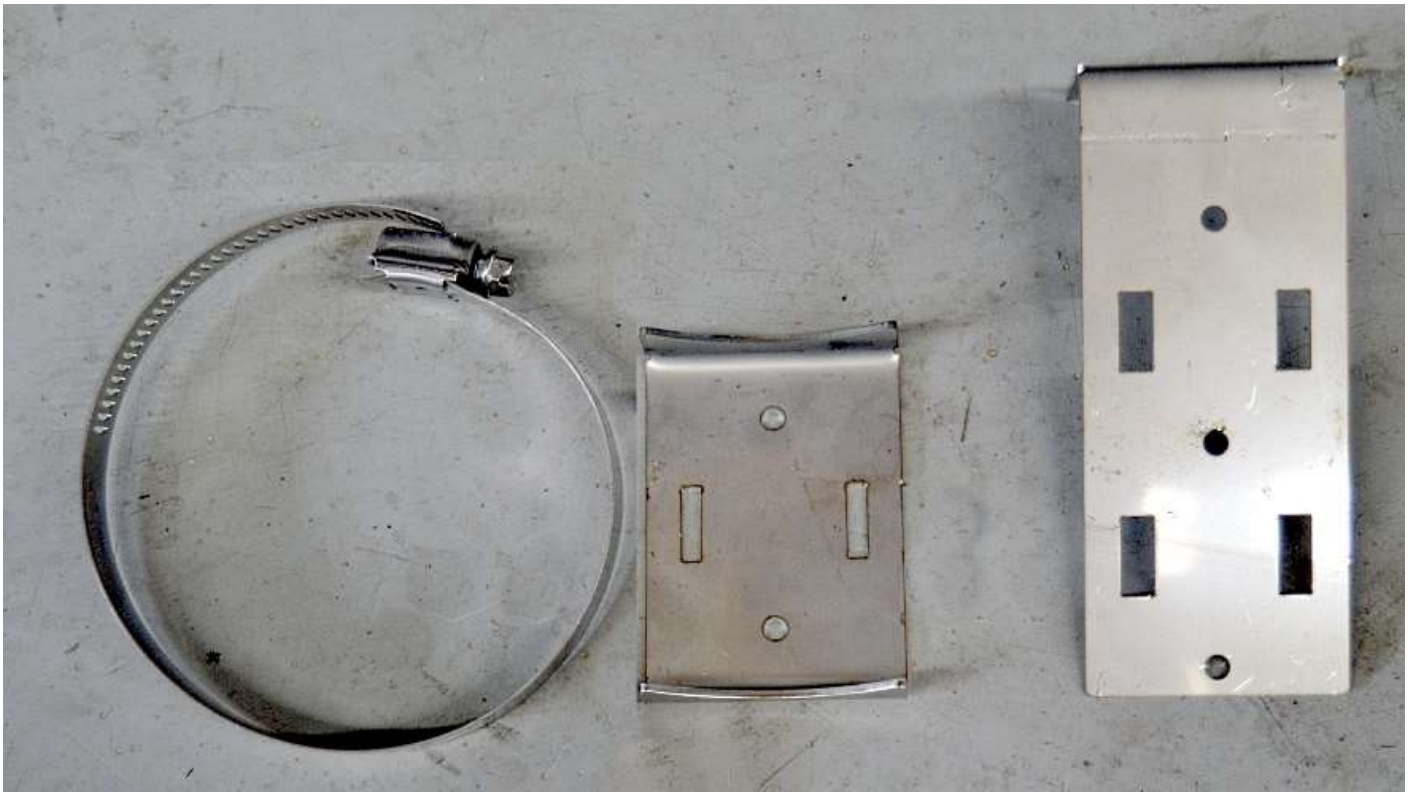


Tighten all of the bolts down, compressor first then the two brackets then the head bolt and then the water pump mount.

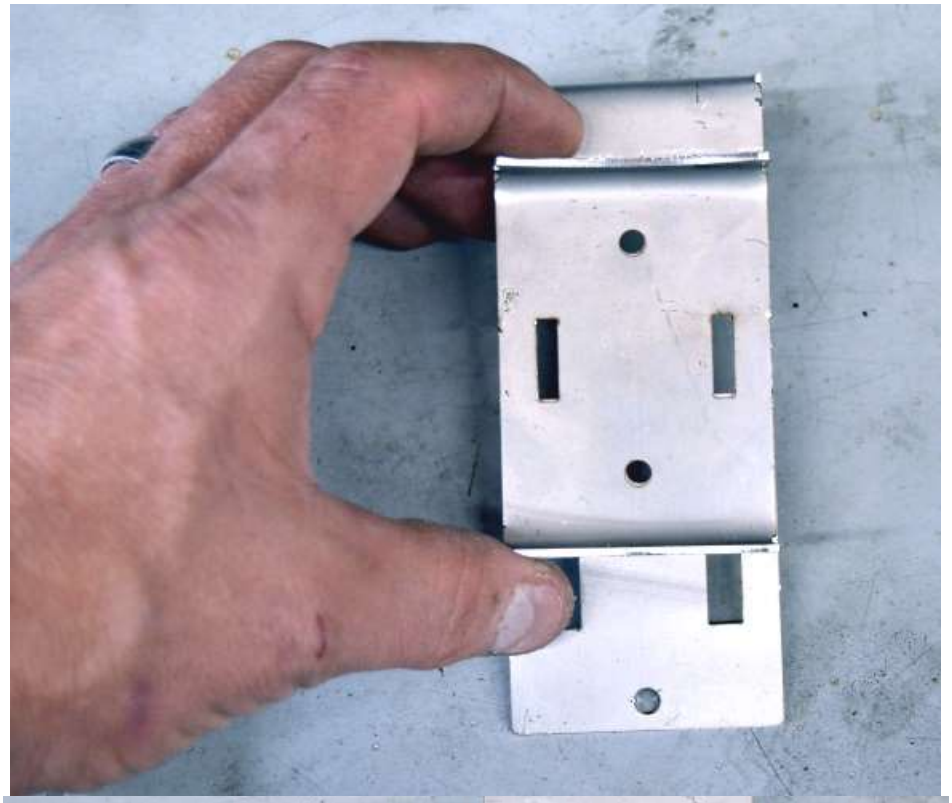
Check the alignment of the pulleys. If necessary, move the small washers either all behind or all infront of the water pump mount and add a washer next to the head inorder to align the pulleys.

## A/C Drier

- A/C Drier components, A/C hoses and Fittings, kit $^{3}/_{16}$" rivets.
- $^{5}/_{16}$" socket, ratchet, $1^{1}/_{16}$" wrench, clamp, $^{3}/_{16}$" drill bit, drill, rivet tool



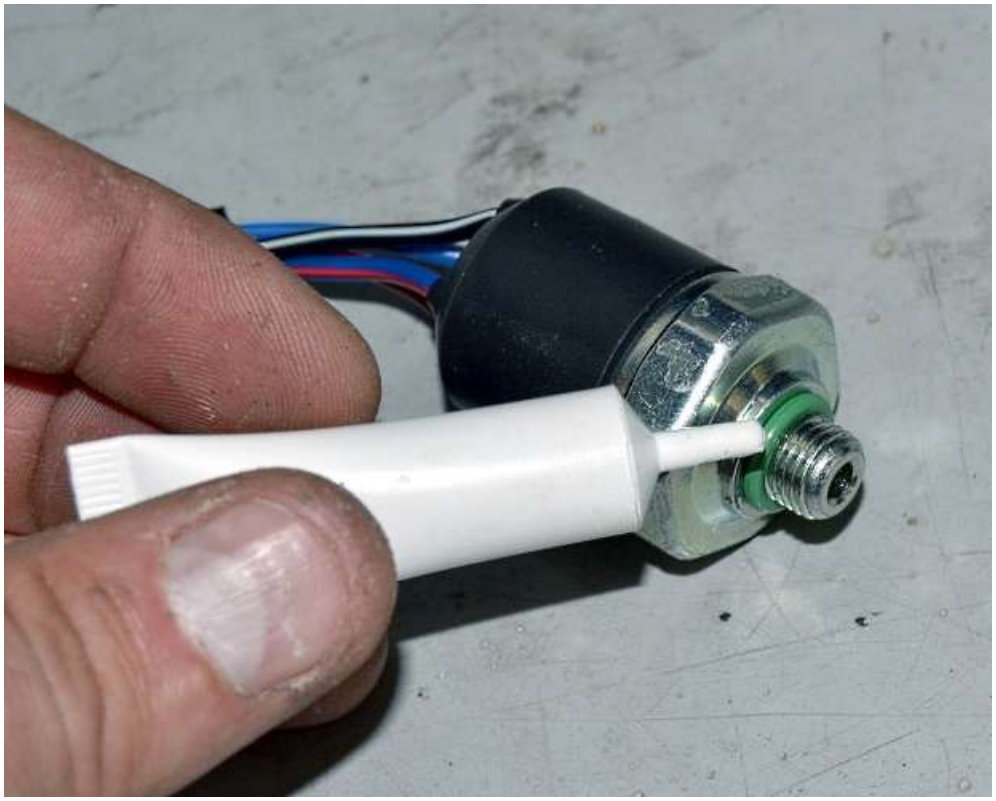
Locate the drier mounting brackets and large hose clamp.



There are two mounting locations for the drier bracket on the frame bracket if the frame bracket is going to be used.

If the frame mounting bracket is going to be used, run the hose clamp through both brackets as shown.

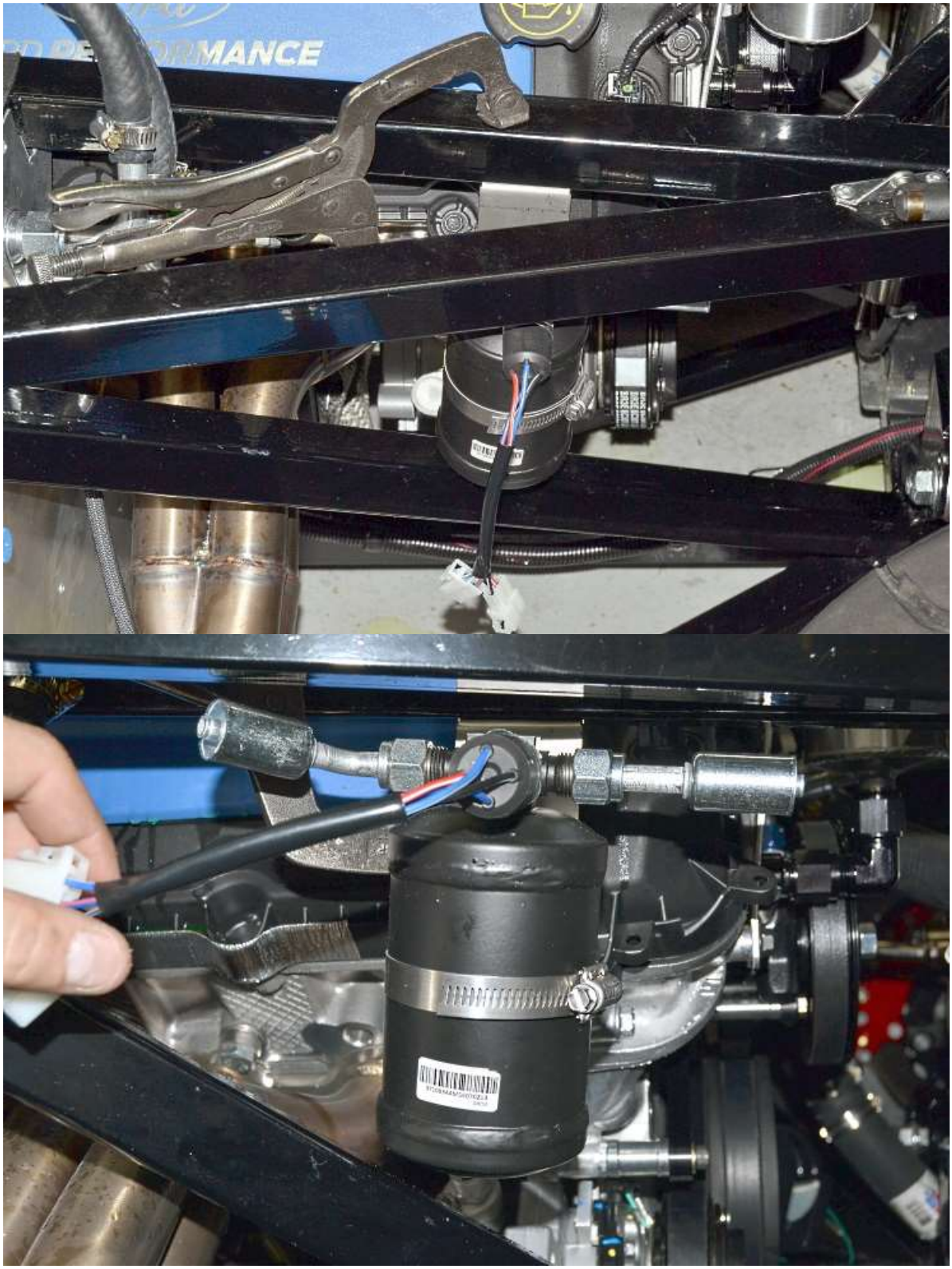
Put a straight #6 line on the right side of the drier and a 45° #6 line on the left side as shown.



Put some o-ring oil on the Trinary switch o-ring.


Use a $1^{1}/_{16}$" wrench to tighten the trinary switch onto the Drier.

Insert the drier into the hose clamp on the mounting bracket and snug the hose clamp up so the Drier just cannot move.



Locate the Drier and bracket on the frame in the engine bay.  We put it under the 1.50” tube to the right of the engine so that the drier just does not hit the angled tube.

Drill and rivet the mounting bracket to the frame using a 3/16" drill bit and long 3/16" rivets from the car kit.

## A/C hoses - Inside

- A/C hoses and fittings
- A/C hose fitting crimping tool, razor knife, silver/white marker, adjustable wrench, 5/8", ¾", 7/8", 1 1/16" wrenches
- It is highly recommended that all of the fittings get crimped by an A/C shop that makes refrigerant lines with a hose crimping machine instead of buying your own crimping tool if at all possible. This will reduce the possibilities of any leaks because of the crimps.
- See hose diagram at end of instructions

- If you must buy a tool use one like Mastercool 71550.
- These instructions were written using the Mastercool tool. We had one #8 fitting we had to recrimp due to a leak.

- If taking the hoses to a shop, mark the orientation and end location of each fitting as shown.

Screw the #10 straight fittings onto the inside of the bulkhead and evaporator thermal expansion valve block by hand.

Hold the #10 hose up to the fittings and hold the cut location with your thumb.

Cut the hose at the location using a razor knife.

Insert the hose into the bulkhead fitting.

Crimp the fitting on then put the evaporator fitting on.

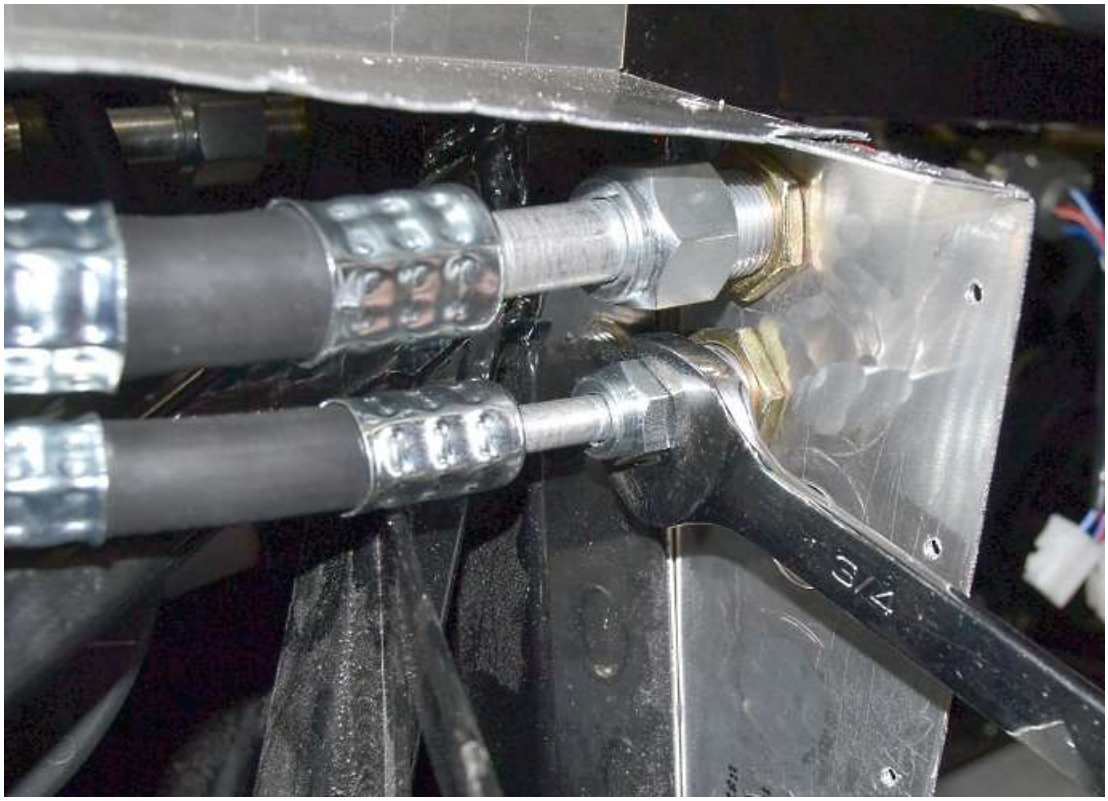
Test fit the hose before crimping the second end.  To install, bend and insert the hose into both fittings at the same time.  Cut the hose more if necessary.

Remove and crimp the second fitting.

Oil the o-rings, reinstall the hose then use an adjustable wrench to hold the thermal expansion valve block and a $^{7}/_{8}$" wrench to tighten the nut.

Tighten the Bulkhead fitting with a $1^{1}/_{16}$" wrench.

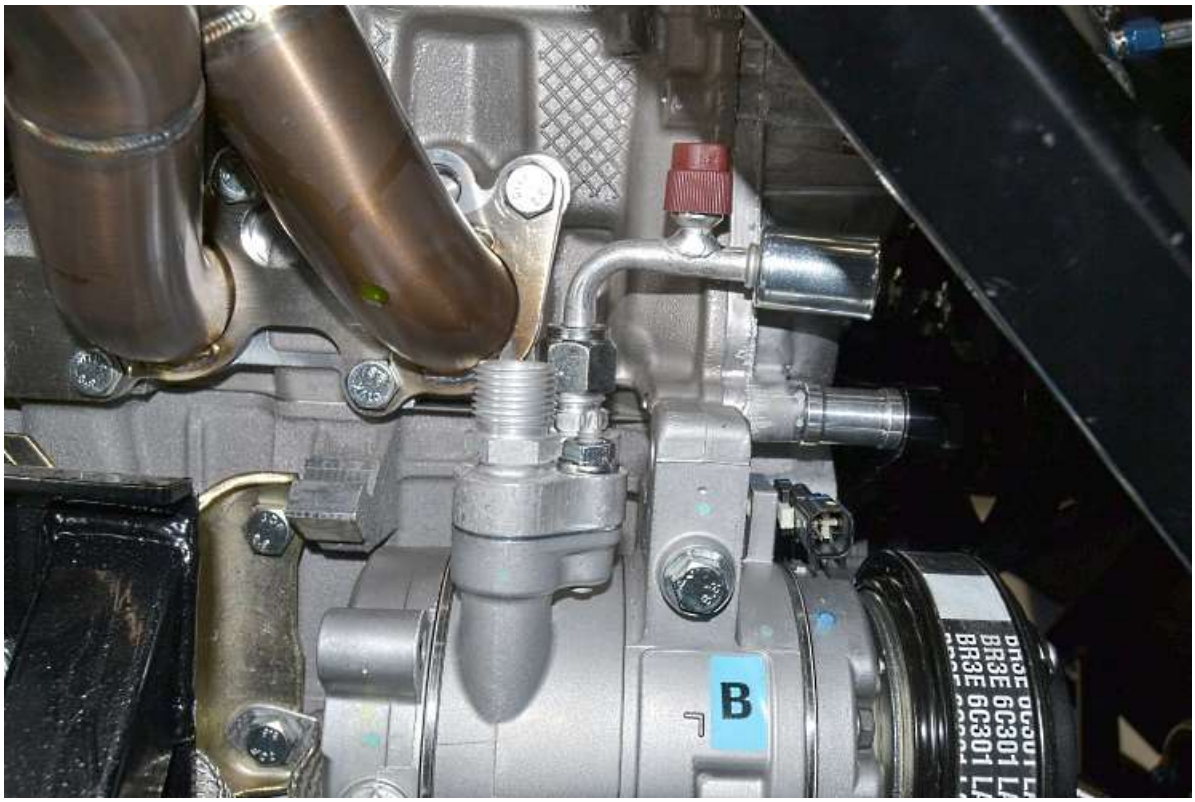
Repeat the steps to fit the lower #6 hose.




Use a ¾” wrench for the bulkhead fitting.

## A/C hoses – Engine bay

- Coyote compressor shown
- A/C hoses and fittings, insulated line clips, $^{3}/_{16}$” rivets, zip ties.
- ¾”, $^{7}/_{8}$”, $1^{1}/_{8}$” wrenches, razor knife, silver or white marker, drill, rivet tool, $^{3}/_{16}$” drill bit.
- See hose diagram at end of instructions




Put the 90° #8 fitting with the valve on the compressor.


Insert the #8 hose into the compressor fitting.

Run the hose up through the triangle at the front right of the engine bay.

Run the hose along the top of the nose support tube to the 45° at the top of the condenser and cut to length.

Mark the orientation of the hose in the compressor fitting.


Mark the orientation of the condenser fitting.

Remove the hose and crimp the fittings.

Oil the o-ring and reinstall the compressor fitting tightening the fitting using a $^{7}/_{8}$" wrench.


Fasten the hose to the nose support tubes using a small insulated clip, $^{3}/_{16}$" rivet and a zip tie from the kit.

Oil the o-ring and reinstall the condenser fitting tightening the fitting using a 7/8" wrench.

Put a straight #10 fitting on the compressor.

Put the 90° #10 fitting with the valve on the footbox bulkhead fitting.

Push #10 hose into the compressor fitting.

Run the #10 hose up to the bulkhead fitting; measure and cut the hose to length.

Mark the orientation of the fittings on the hose.
Remove and crimp the fittings onto the hose.

Put a 45° #6 fitting on the footbox bulkhead fitting.


Insert #6 hose into the Drier and run it over to the lower bulkhead fitting and cut the hose to length.

Mark the orientation of the fittings on the hose.
Remove and crimp the fittings onto the hose.


Oil the o-ring and reinstall the bulkhead fitting tightening the fitting using a ¾" wrench.


Oil the o-ring and reinstall the Drier fitting tightening the fitting using a ¾” wrench.


Insert #6 hose into the front side of the Drier and run it over to the radiator hose opening for the radiator.

Run the hose down to the lower #6 Condenser fitting and cut the hose to length.

Remove and crimp the fittings to the hose.

Oil the o-ring and reattach the lower condenser fitting using a ¾” wrench.

Route the hose up to the radiator opening attaching the hose ot the aluminum using large insulated line clips and $^{3}/_{16}$" rivets.

Oil the o-ring and reattach to the Drier using a ¾" wrench.

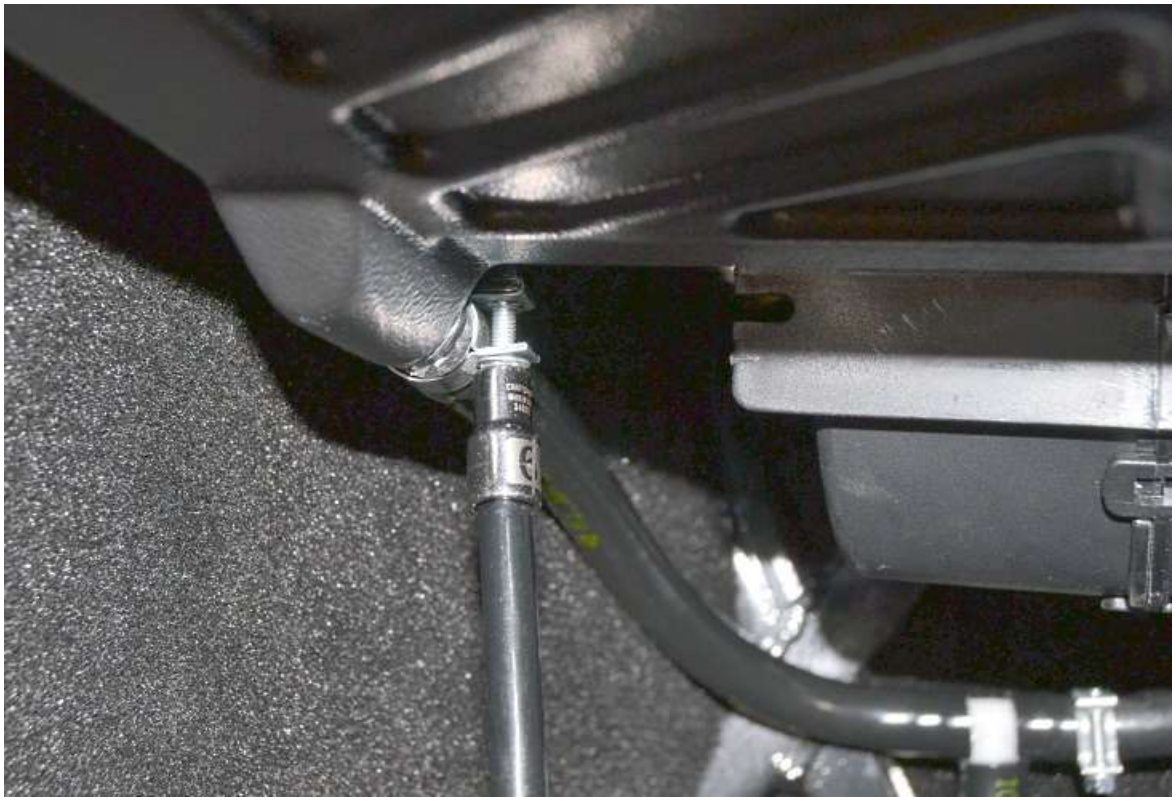
## Evaporator drain hose

Drain hose, hose clamps

Razor knife, 6mm socket, ratchet, drill, 3/16", 3/8" drill bit, ruler.

Create a "T" with the drain hose making the upper legs 8.50" long to start with. Cut and attach the hose to the T using the hose clamps included.

Push the legs of the T hose onto the drain outlets on the bottom rear corners of the evaporator.



Tighten the hose clamps using a 6mm socket.


In the outside corner of the footbox drill the $^{5}/_{8}$" drain hose hole starting with a $^{3}/_{16}$" hole stepping up to $^{5}/_{8}$".

Run the drain hose out the drain hole.

Attach the hose to the front footbox tubes using the kit $^{5}/_{8}$" hose clamps and $^{3}/_{16}$" rivets. Make sure the drain hose is pitched down.

Cut the hose about ½" below the floor so that the drain hose cannot go up into the car.  Silicone around the hose opening.

## Air duct-dash

🚘 A/C duct components
🛠 Razor knife, wire cutter, tape measure, drill, 2.50" hole saw.

Cut a 16” piece of the 2.50” air hose with a  razor knife.

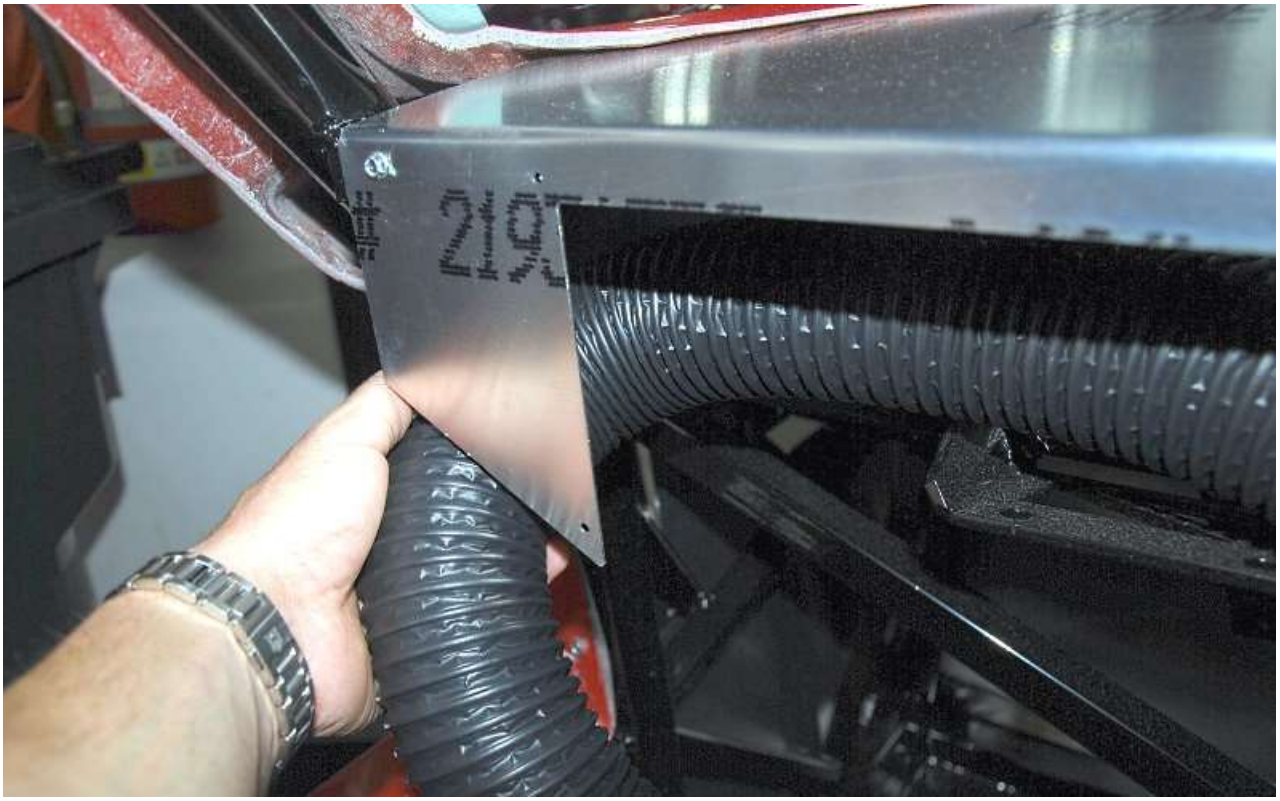
Use wire cutters to cut the hard wire.

Push the hose on the right evaporator hose connector.

Use a cable tie around the hose and connector so that the duct stays in place.

Push the other end of the hose into one of the Y connectors and zip tie the hose on.

Push the end of the long 2.50” hose onto one of the other Y connections and zip tie the end to the Y.



Position the dash on the frame and run the long 2.50” over to the left side of the frame. Pull the hose so the Y curls up over the other evaporator duct outlet and is located nearer the middle of the car.

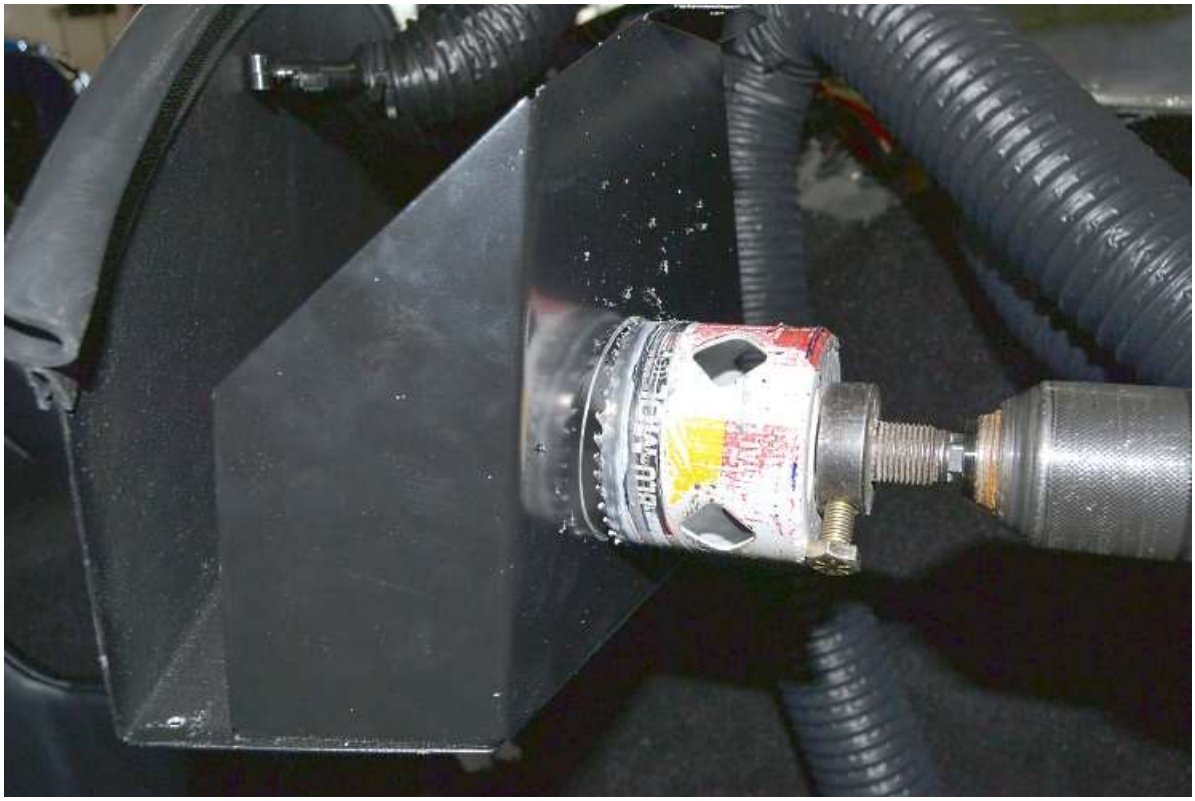
Cut the hose and stick one of the dash vents in the end.

Rivet a small insulated clip from the car kit to the firewall then use a zip tie to hold the hose in place.


Put the remaining hose on the last Y connection and zip tie.


Pull the hose to the right side of the dash.

Cut the hose and put a dash vent in the end.



Drill 2.50” holes in the lower dash side pieces where the dash vents will mount.

Put the dash vent in the hole drilled from the front.

On the back side of the dash, start with one aluminum spacer on the vent.

Screw the vent hose connection onto the vent.  If necessary add an additional aluminum ring to build up the thickness.

Push the vent hose onto the dash vent and zip tie.

## Air duct-Defroster

🛠 Razor knife, wire cutters, tape measure.
🚘 Defroster ducts, trim, 2.25”, 2.50” vent hoses, 2.50” Y, 2.50”-2.25” vent reducers.

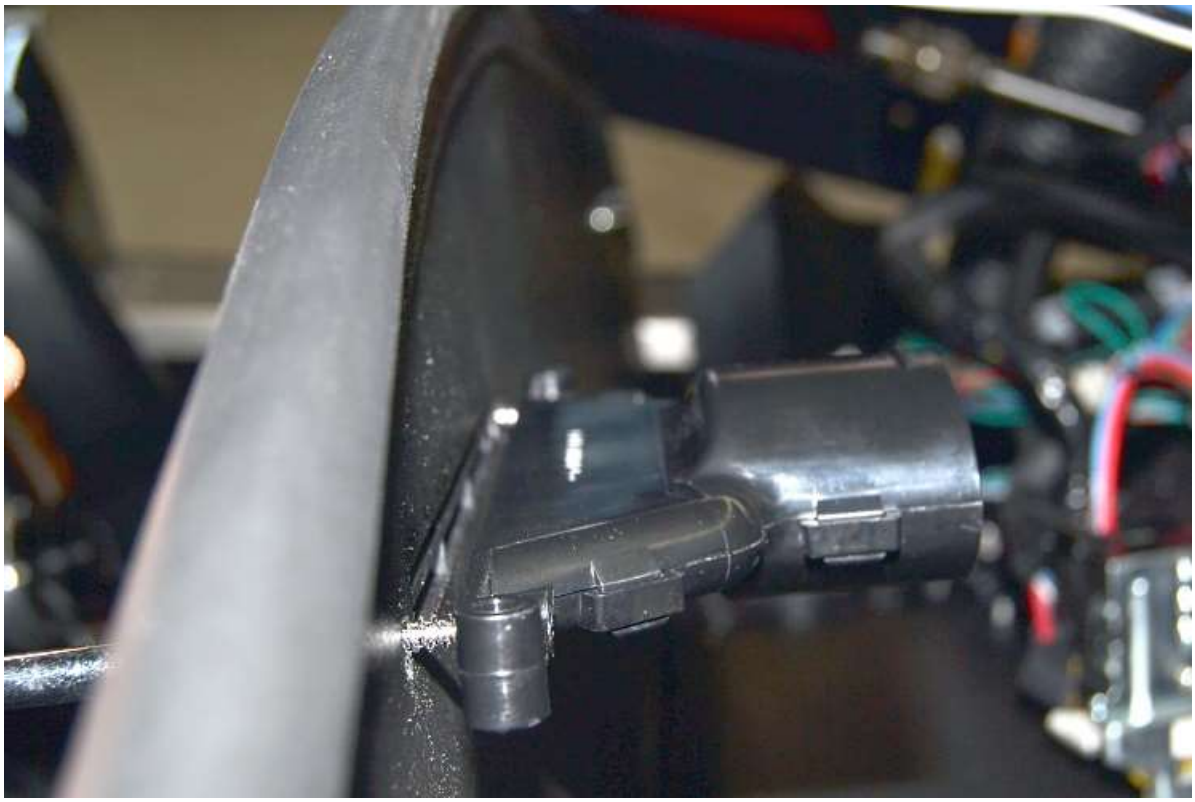
Push the two reducers onto the Y connector.

Measure and cut 16” of 2.50” vent hose.

Push the vent hose onto the large vent connection on the reducing Y.

Push the other end of the hose onto the evaporator and zip tie.

Place the vent trim on the top of the dash.



Screw the defroster vent to the bottom of the dash.

Cut the 2.25” vent duct in half.

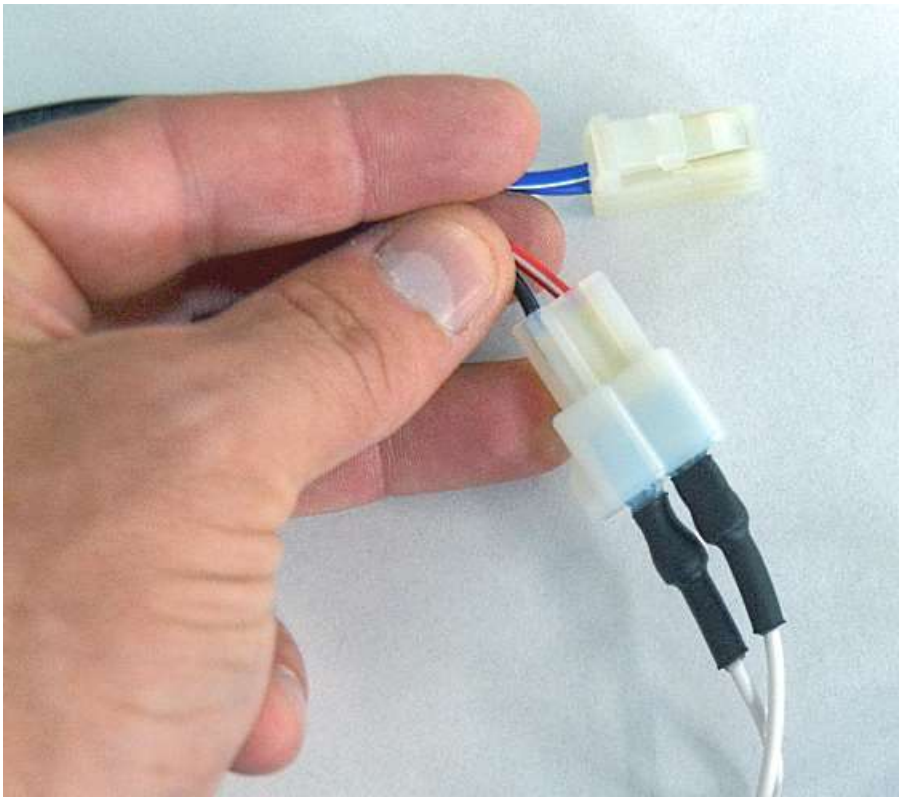
Push each of the 2.25” vent hoses onto the defroster vents and zip tie.

Bring the Y to the center of the dash area and attach the 2.25” vent hoses and zip tie.

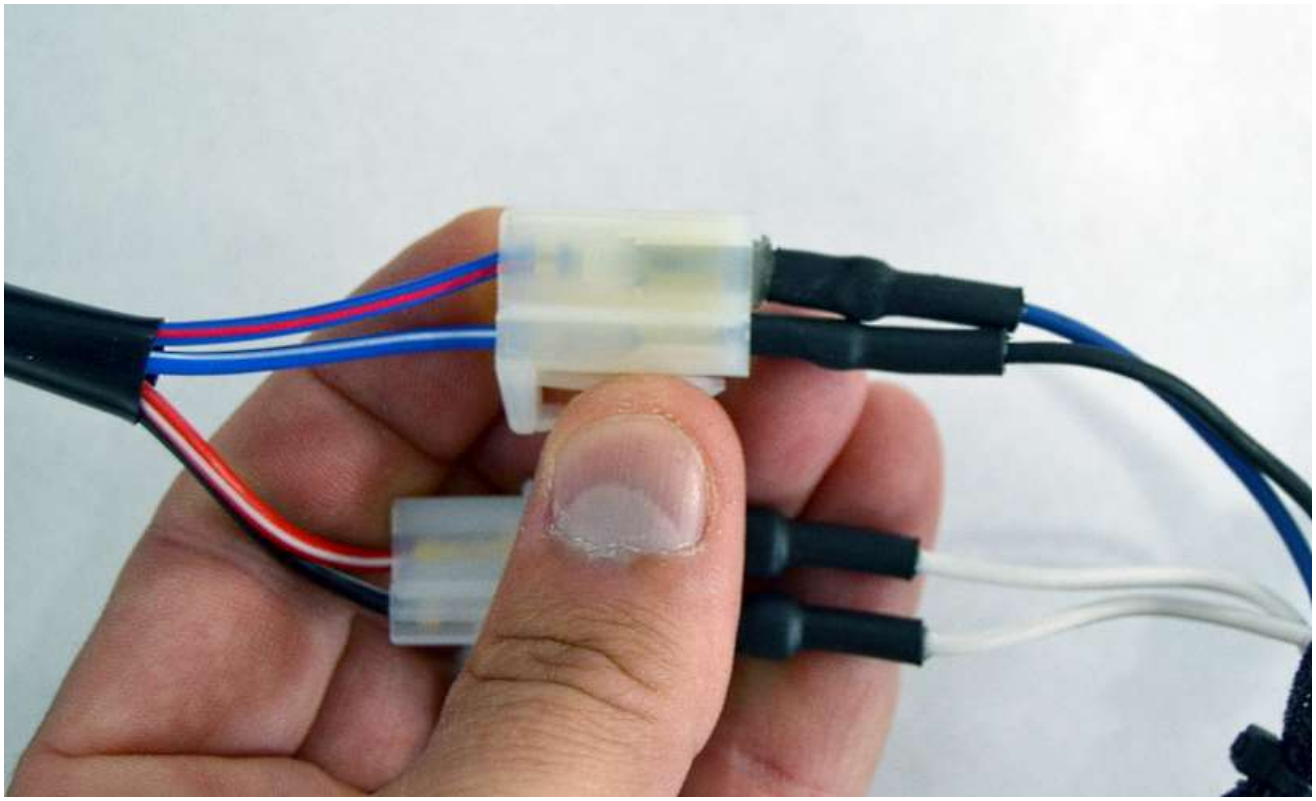
## Wiring

🛠 Wire crimper, masking tape, small zip ties, wire cutters, wire crimpers
🚘 Heater control components, A/C electrical components
✋ See wiring diagram at end of instructions

### Trinary switch



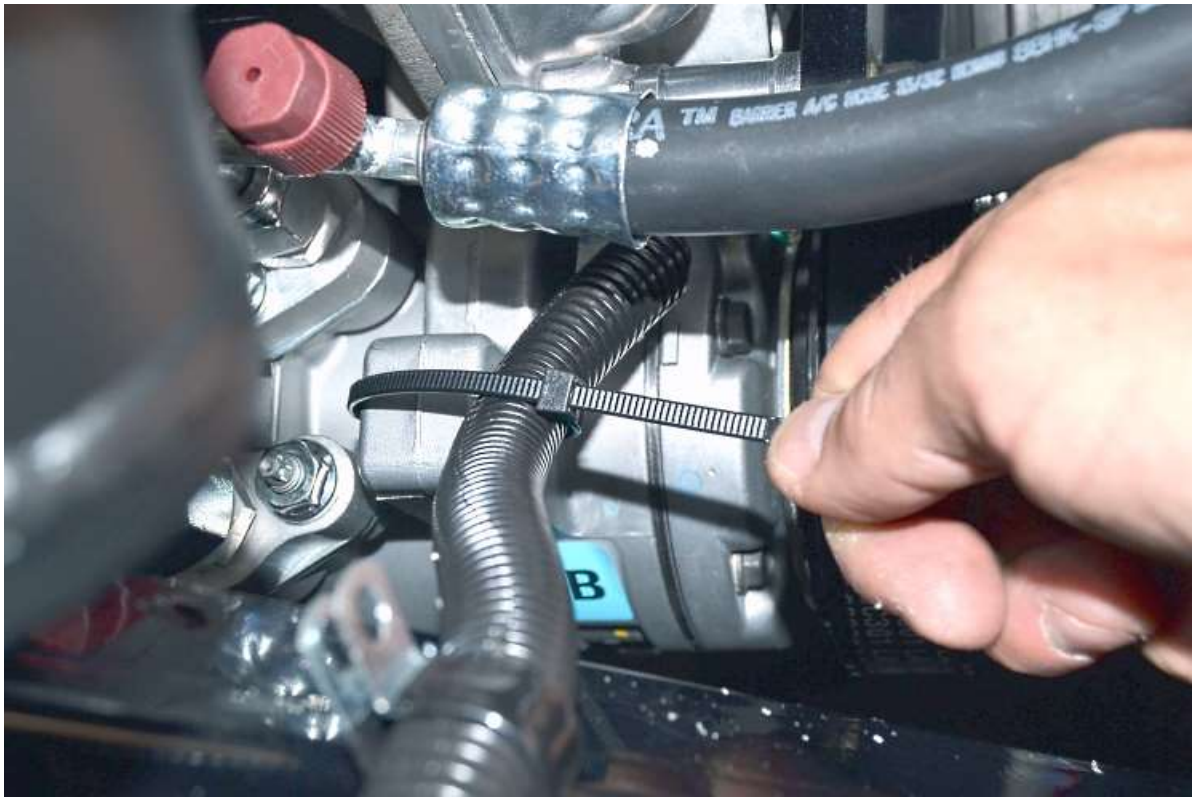
Attach the white wires with the ¼” female connectors to the red/white wire and the black/white wire. It doesn’t matter which wire goes to what color.



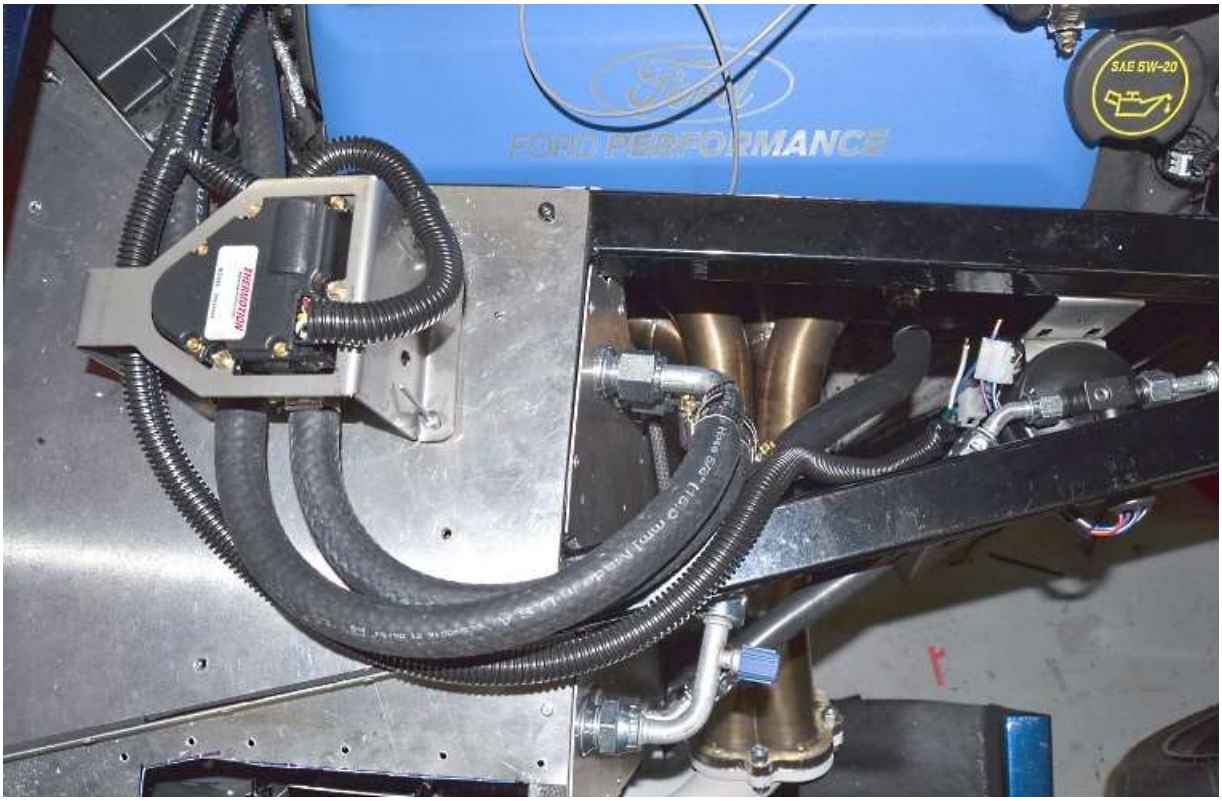
Attach the black wire with the male connector to the blue/white wire connector and the blue wire to the blue/red wire connector.

### Compressor

Attach the white harness compressor wire to the wire on the compressor.
If your compressor has a ground wire, connect the black wire to the compressor ground wire. If your compressor does not have a ground wire, it is grounded through the engine and the black wire can be cut back to the harness exit point.

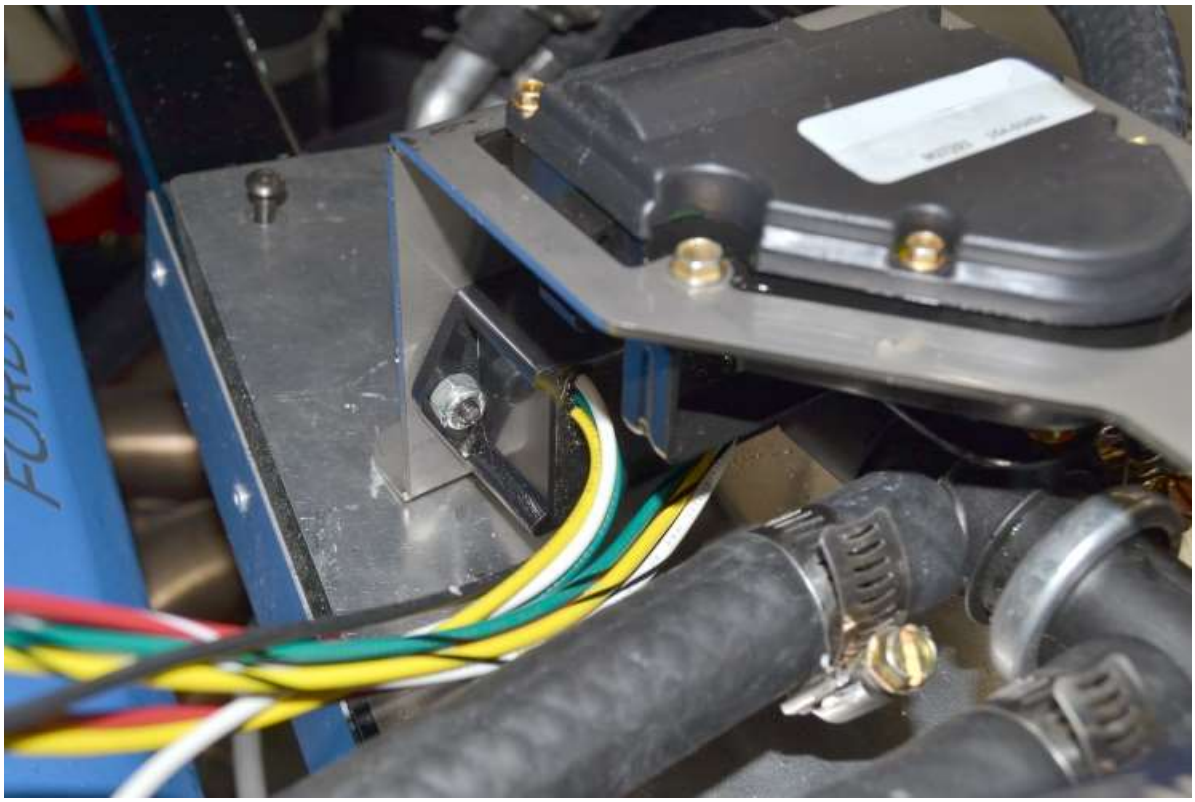



Zip tie the harness to the compressor so that it will not swing into the belt.

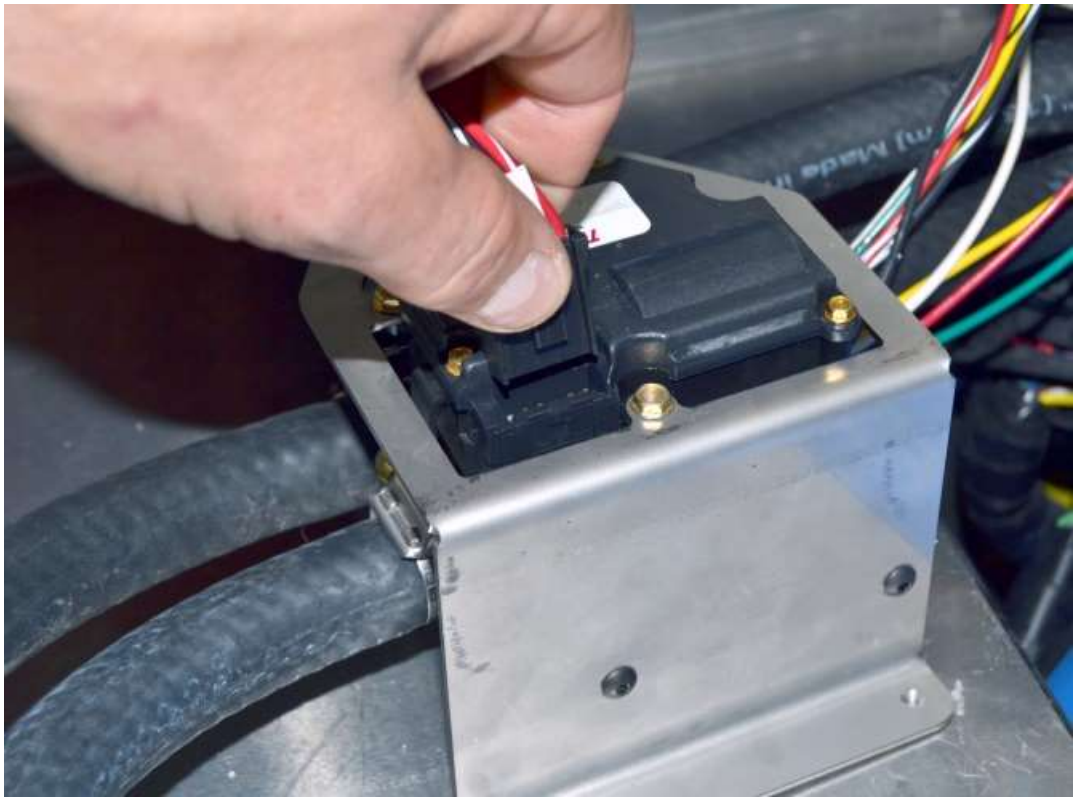



Run the harness back up to the heater control valve.

## Heater control valve

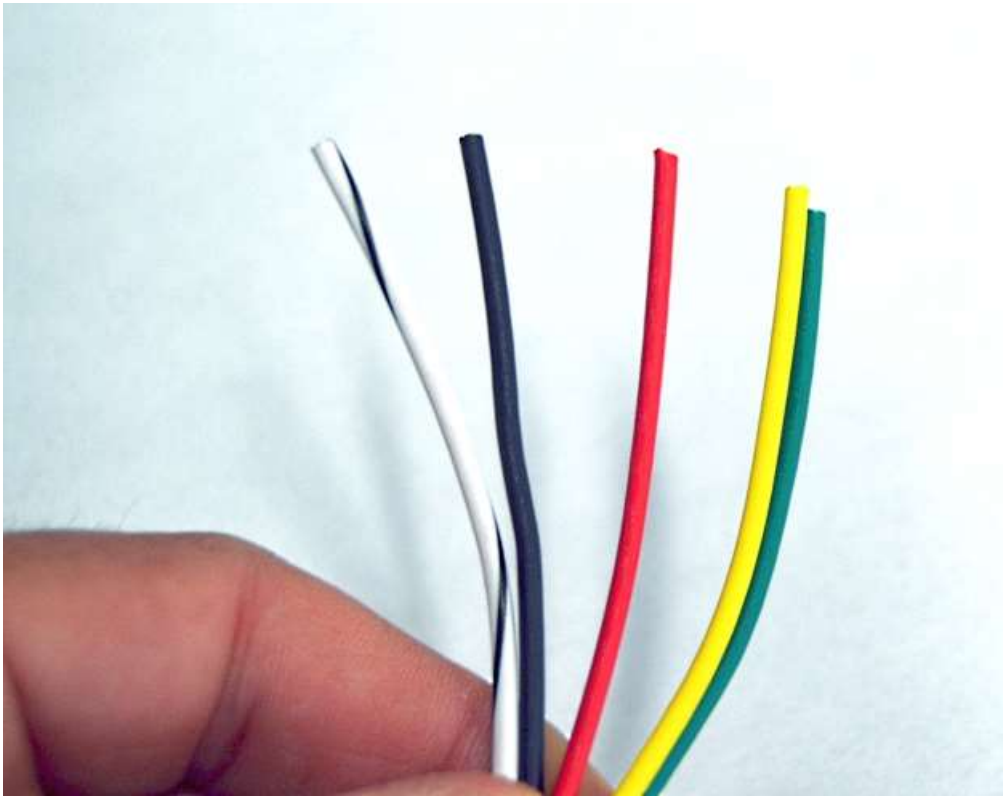


Run the wires from the heater control valve controller out the side near the engine.

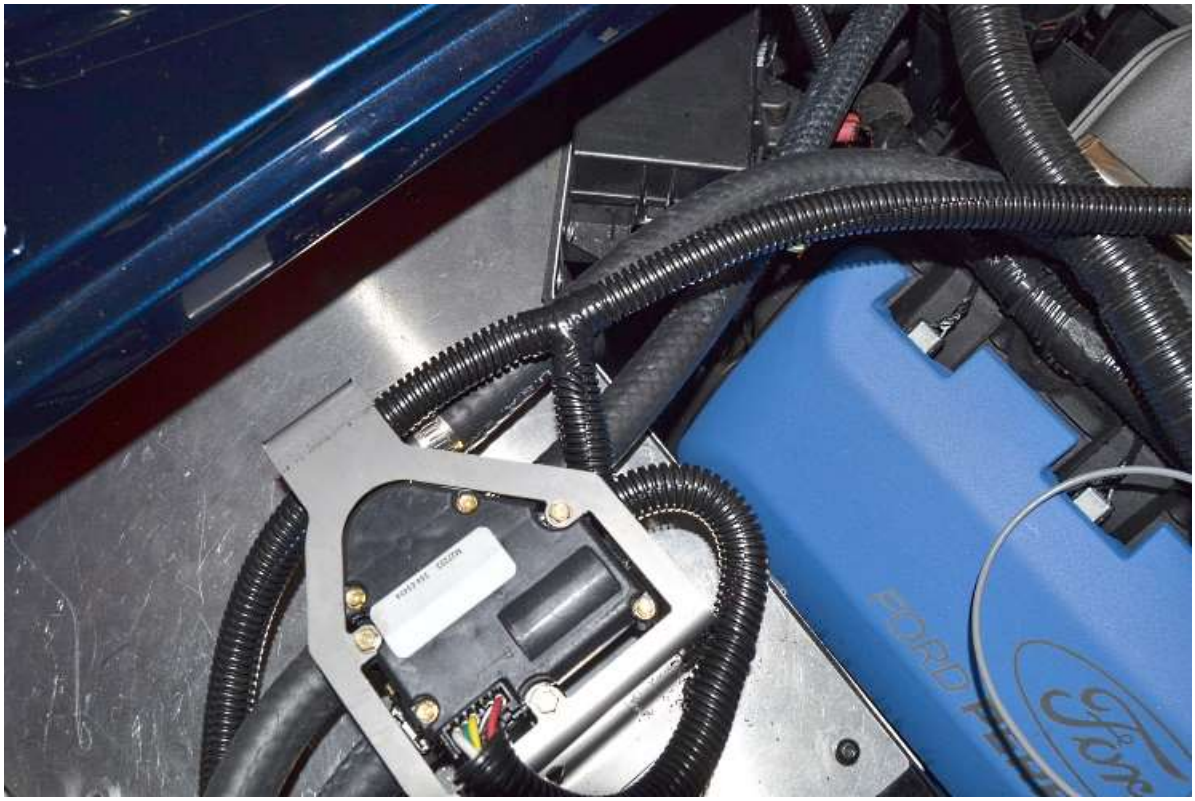


Plug the connector into the heater control valve.

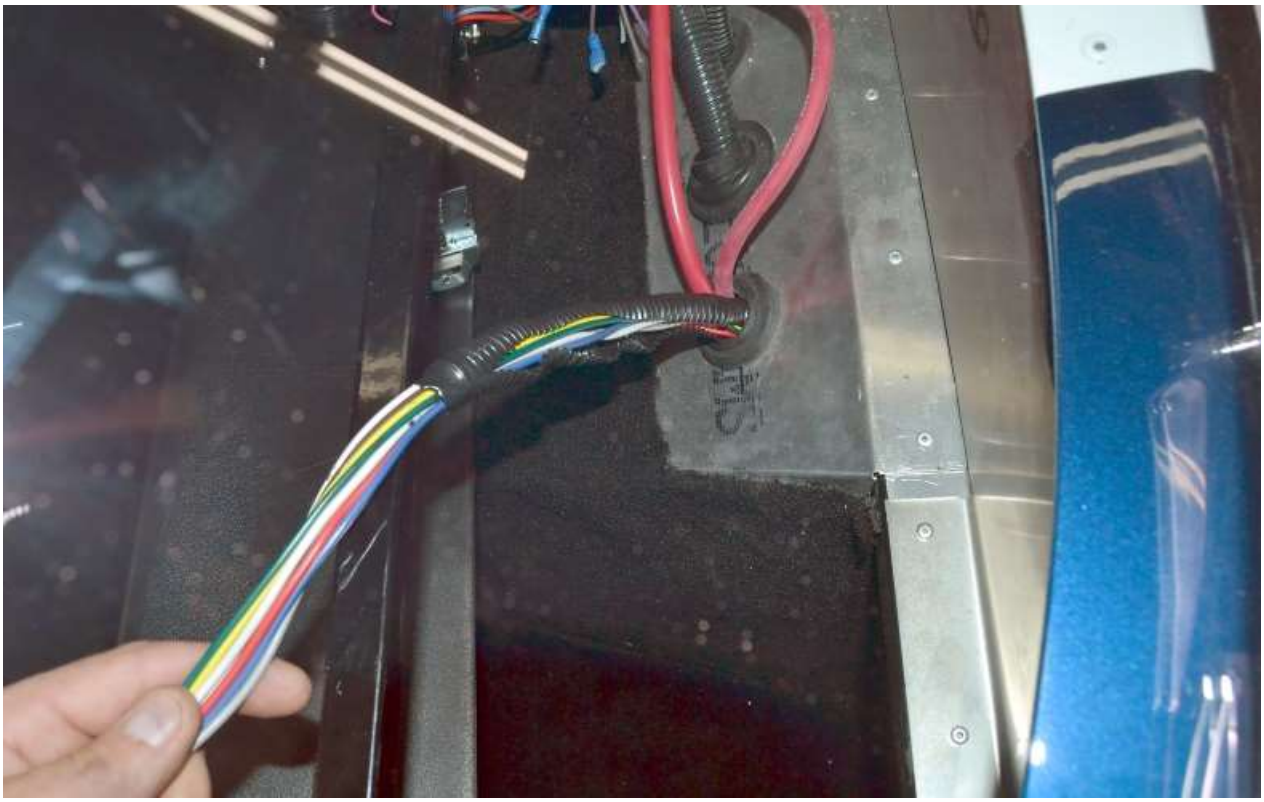

Zip tie the wires going to the plug together to shorten them up.



Connect the red, black, green, white and yellow wires from the controller to the corresponding wires in the harness. The white wire will go to the white wire with black stripe in the harness.



Run the harness to the transmission tunnel.



Pass the wires into the cockpit in the battery cable grommet.

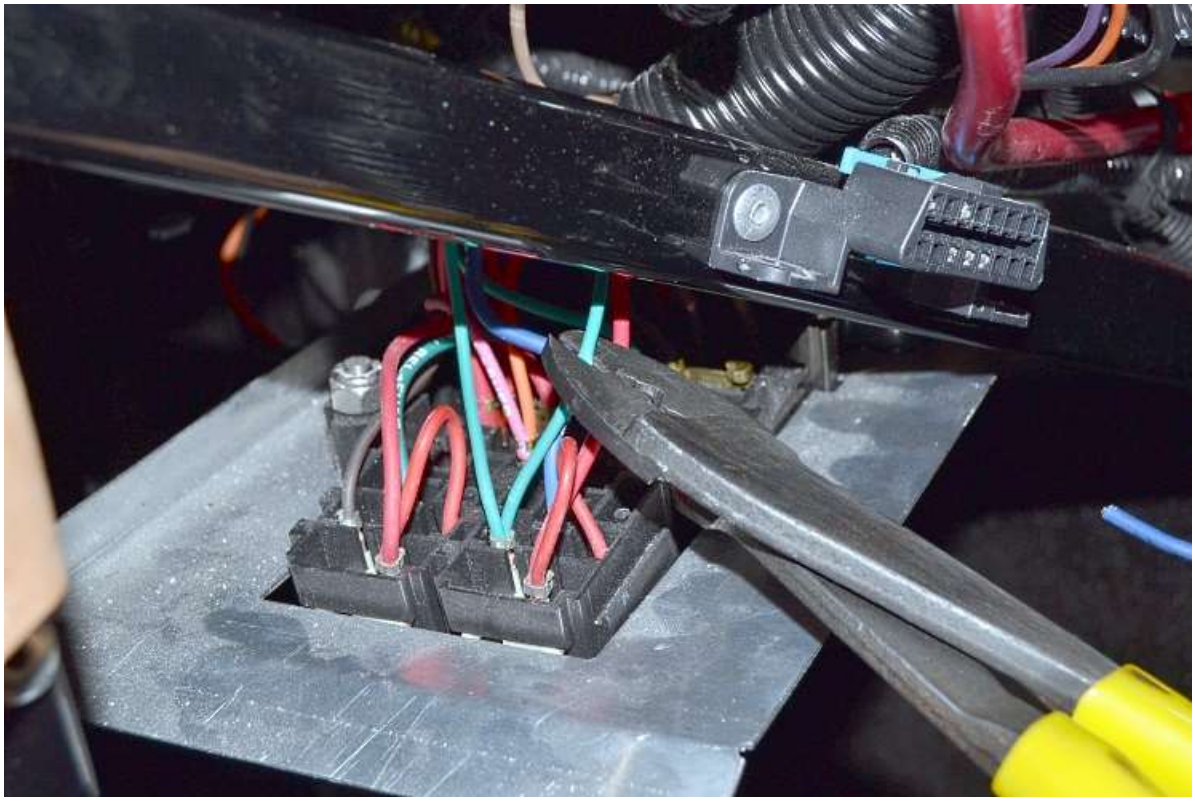
Locate the ground ring terminal in the harness “power/fan” location.
Locate a frame ground in the dash area and attach the ground ring to the frame.


Locate the chassis harness "**Heater**" wire.

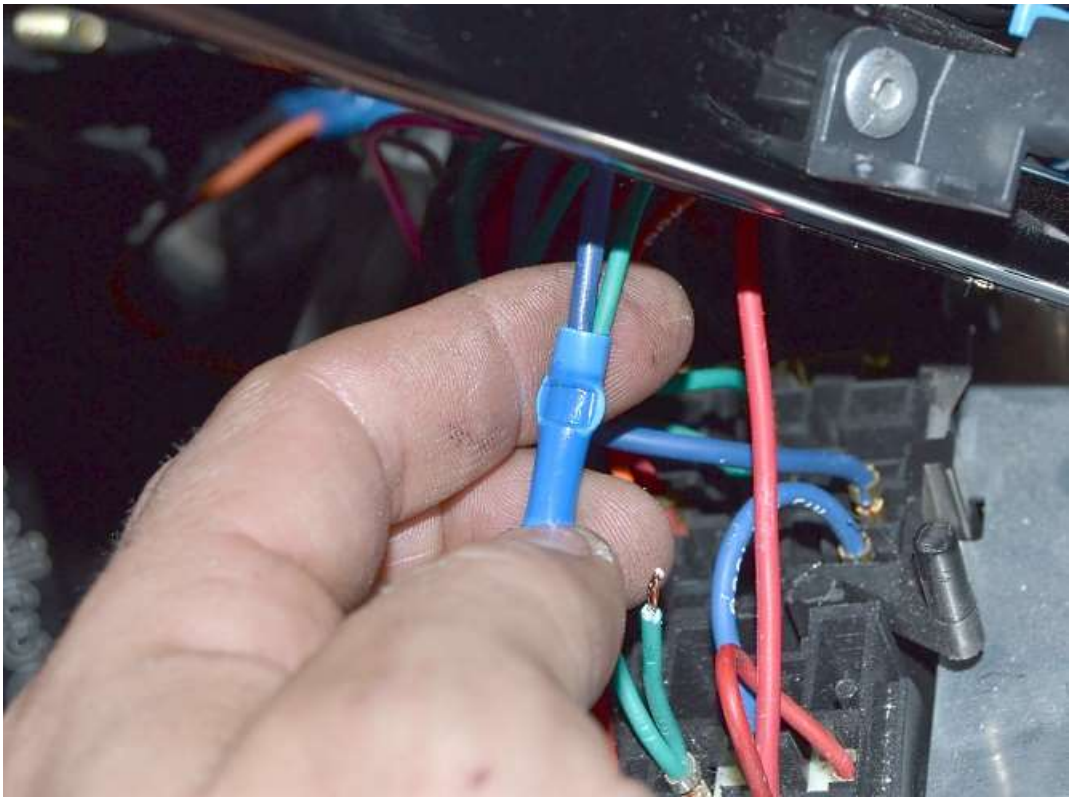
Connect the chassis harness "Heater" wire and the red wire from the A/C harness "power/fan" location using a blue butt connector.

## Fan

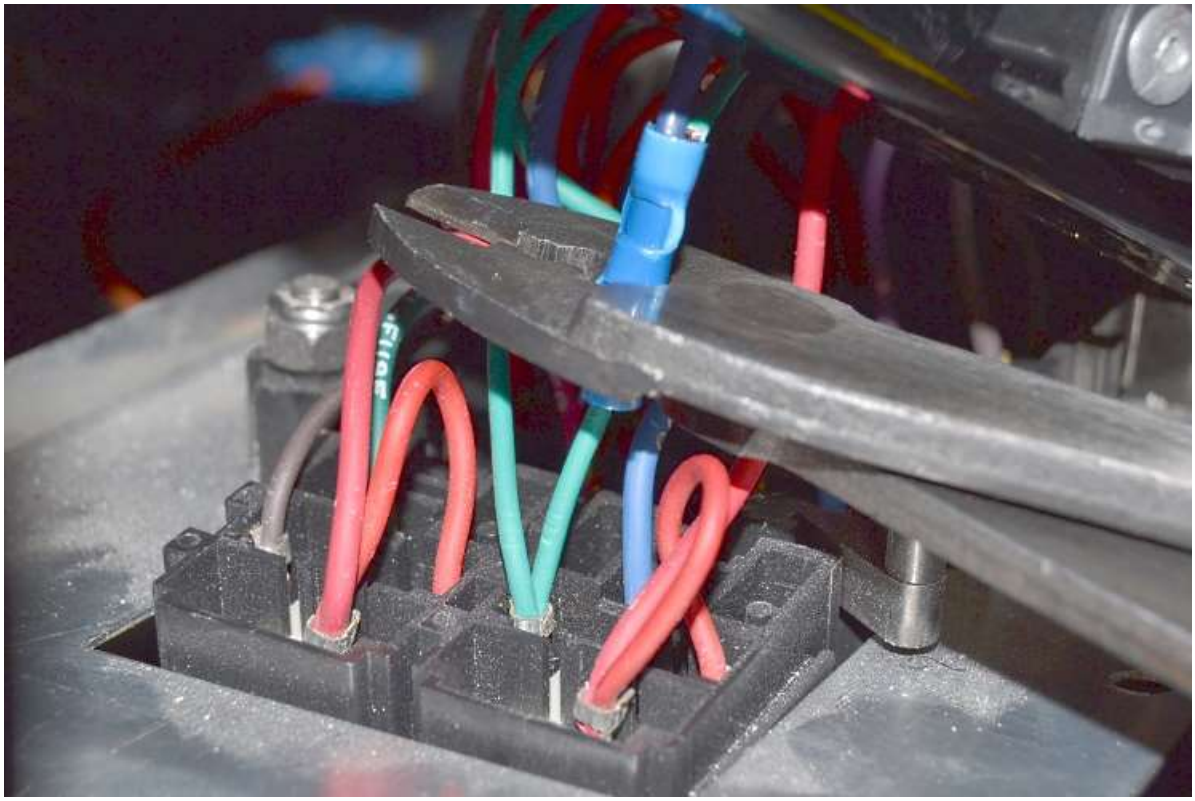
The following install uses the Factory Five chassis harness wiring and Coyote engine controls controlling the fan. Using the Fan thermostat switch is the same.



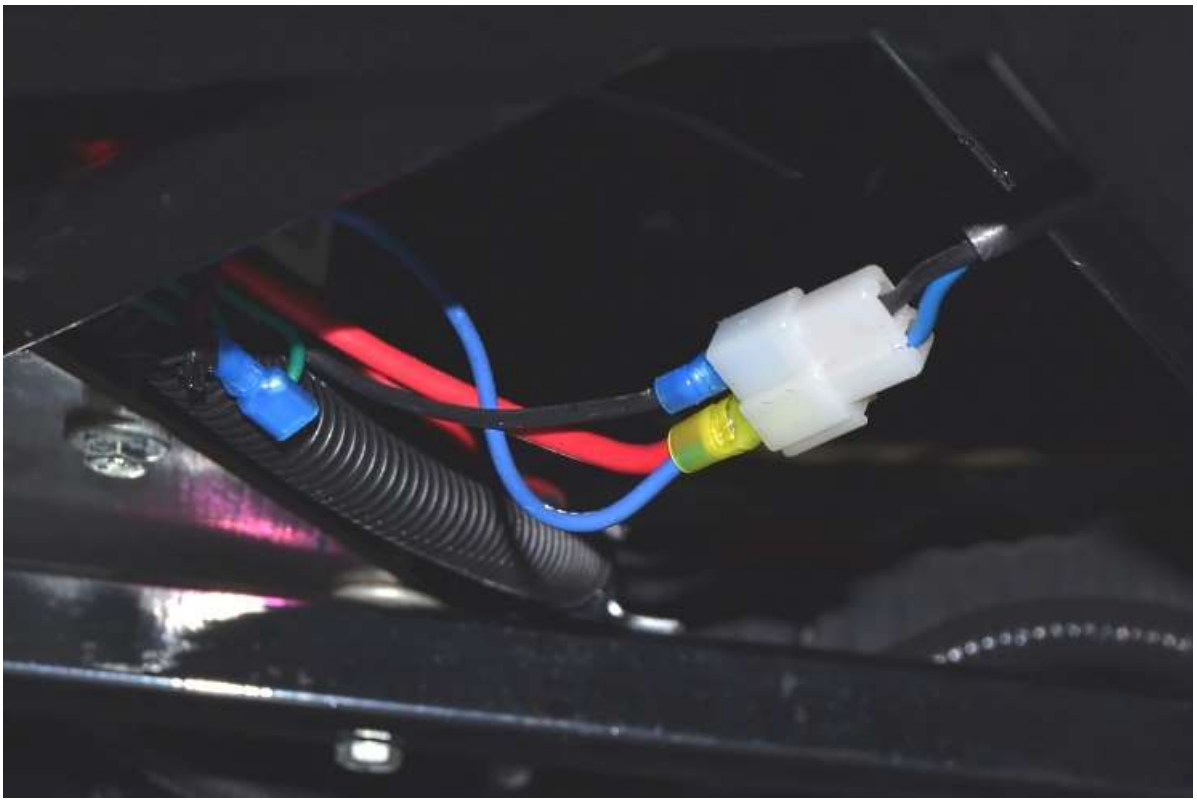
On the back of the fuse panel, cut one of the green thermostat switch wires on the fan relay long enough so that it can be used still.



Connect the blue wire in harness at the “Power/Fan” location and green thermo wire just cut in the same end of one of the blue butt connectors.

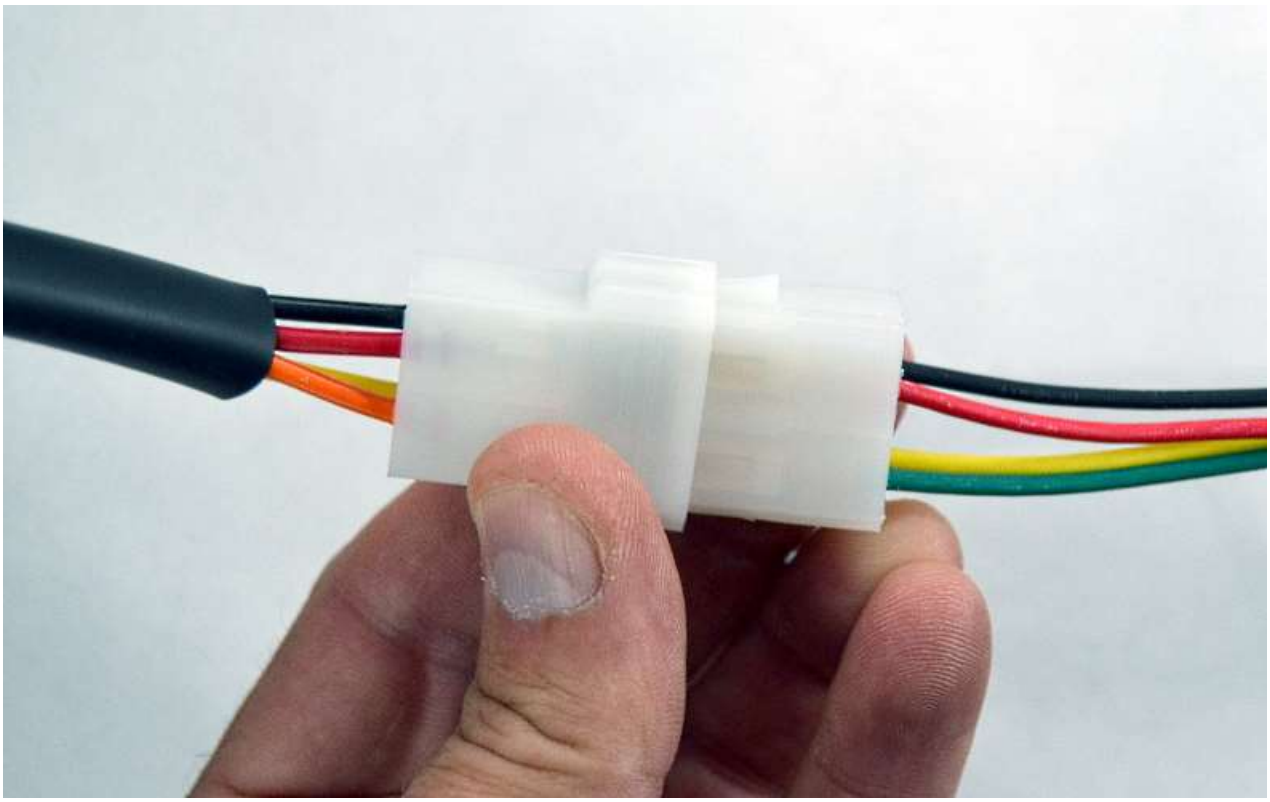


Reconnect the other end of the butt connector to the green wire stub on the relay.

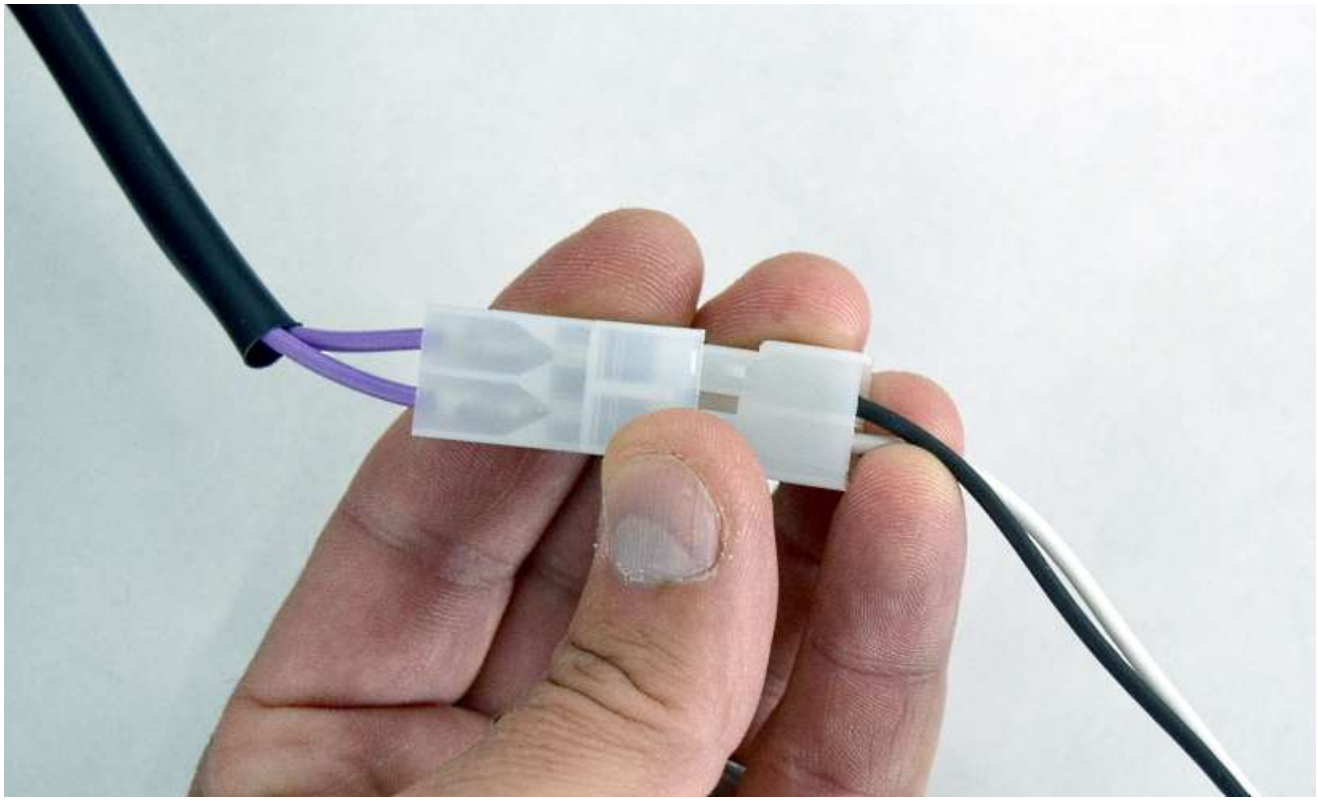


At the front of the car at the fan wiring location, if using an engine controlled fan, use the included yellow ¼" female connector to connect both the chassis harness blue fan wire and the engine control fan wire and attach to the fan power. If not engine controlled, just make sure the blue fan wire is connected.

## Evaporator motor



Locate the motor plug on the evaporator and connect the harness plug to it.

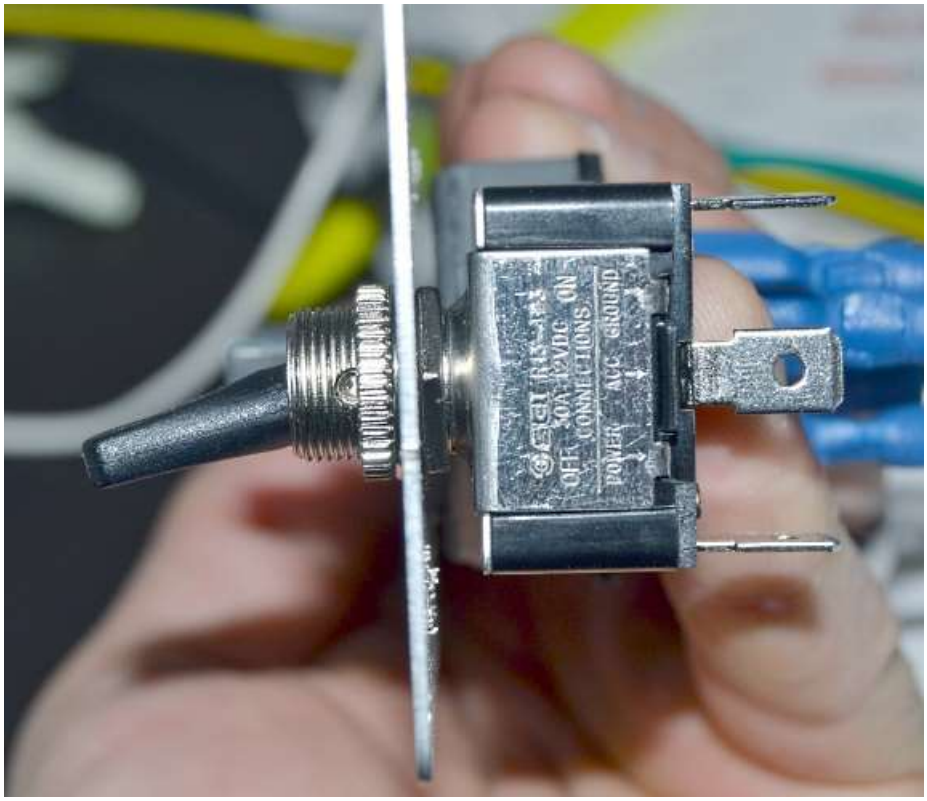


Locate the thermostat plug coming off the evaporator and plug the harness into it.

## Control panel

🛠 ½”, 9/16” wrenches, 1/8”, 3/16” drill bit, drill, marker, 1/16” hex key, wire cutters, wire crimpers, rivet tool, soldering iron, solder.

🚘 Heater control components, A/C electrical components.

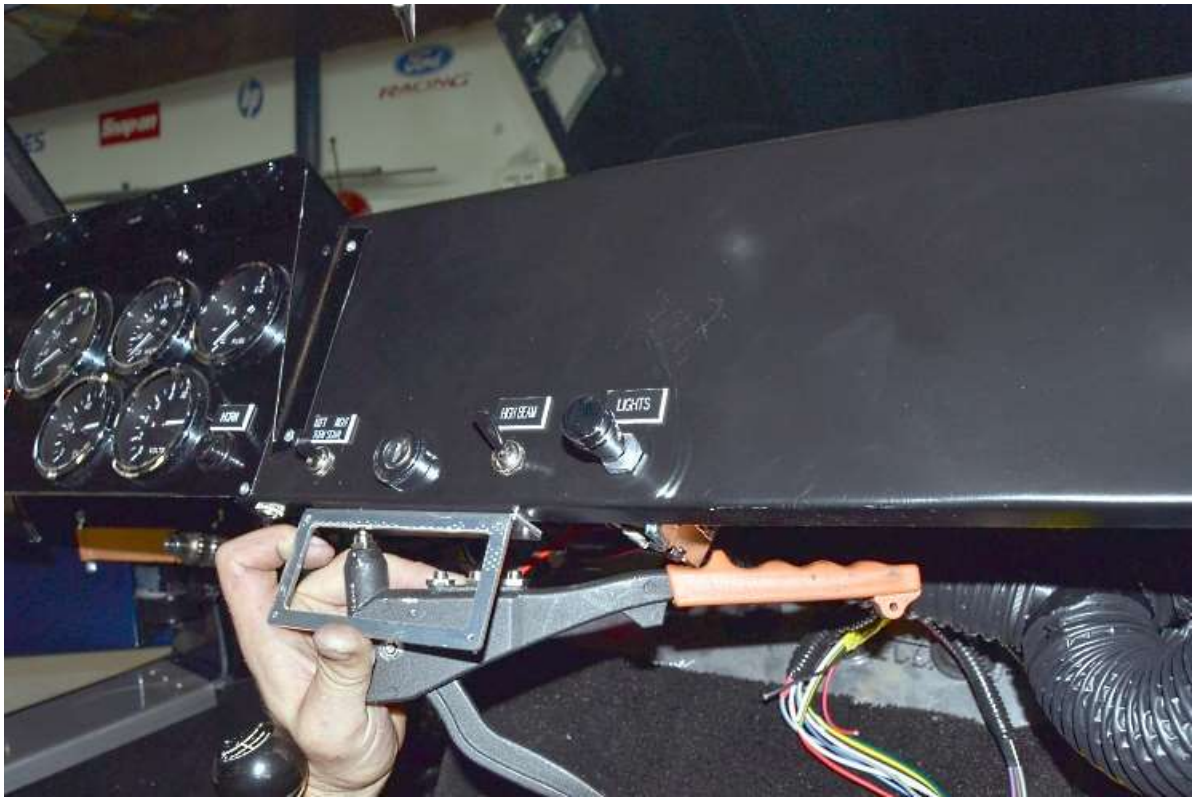


Attach the A/C on-off switch to the faceplate so that the ground is at the top and power is at the bottom.

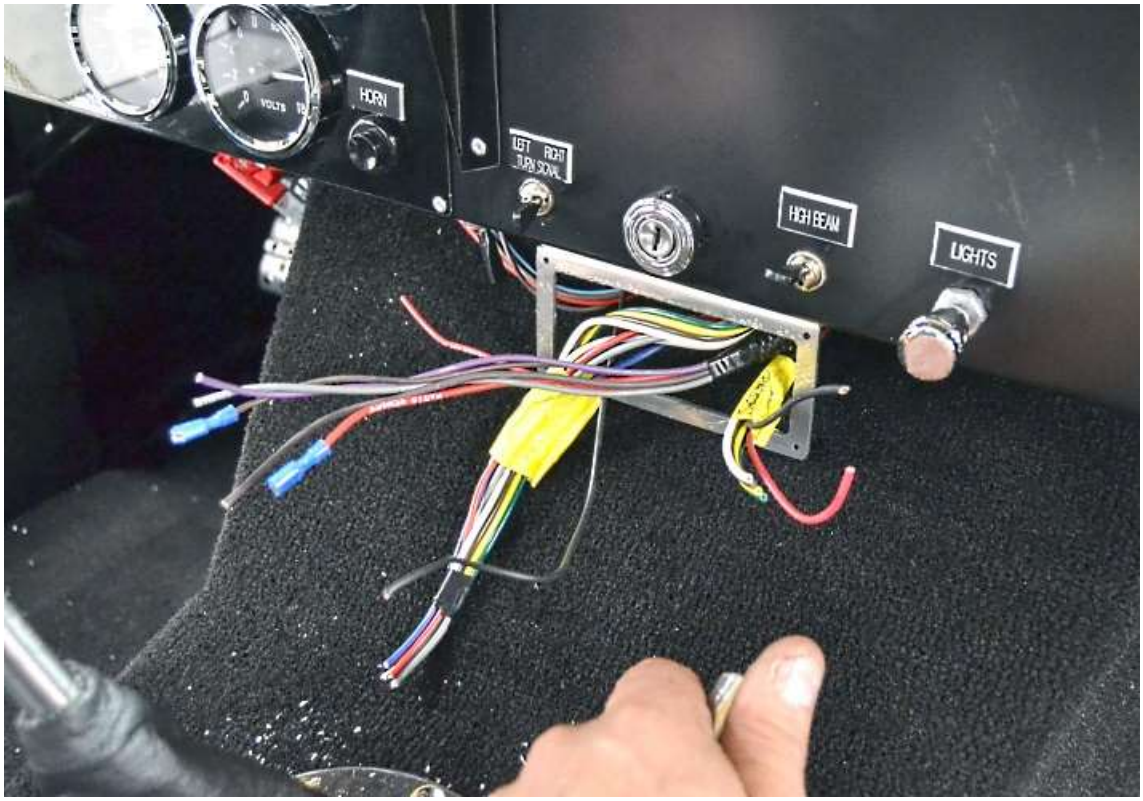

Attach the rotary switches to the dash faceplate. The fan switch has four positions and needs a 9/16” wrench. The heat control switch is smooth and needs a ½” wrench.


Atach the fan and heat knobs using a $^{1}/_{16}$" Hex key.


Locate the faceplate mount under the dash where you can reach it and the wires reach.

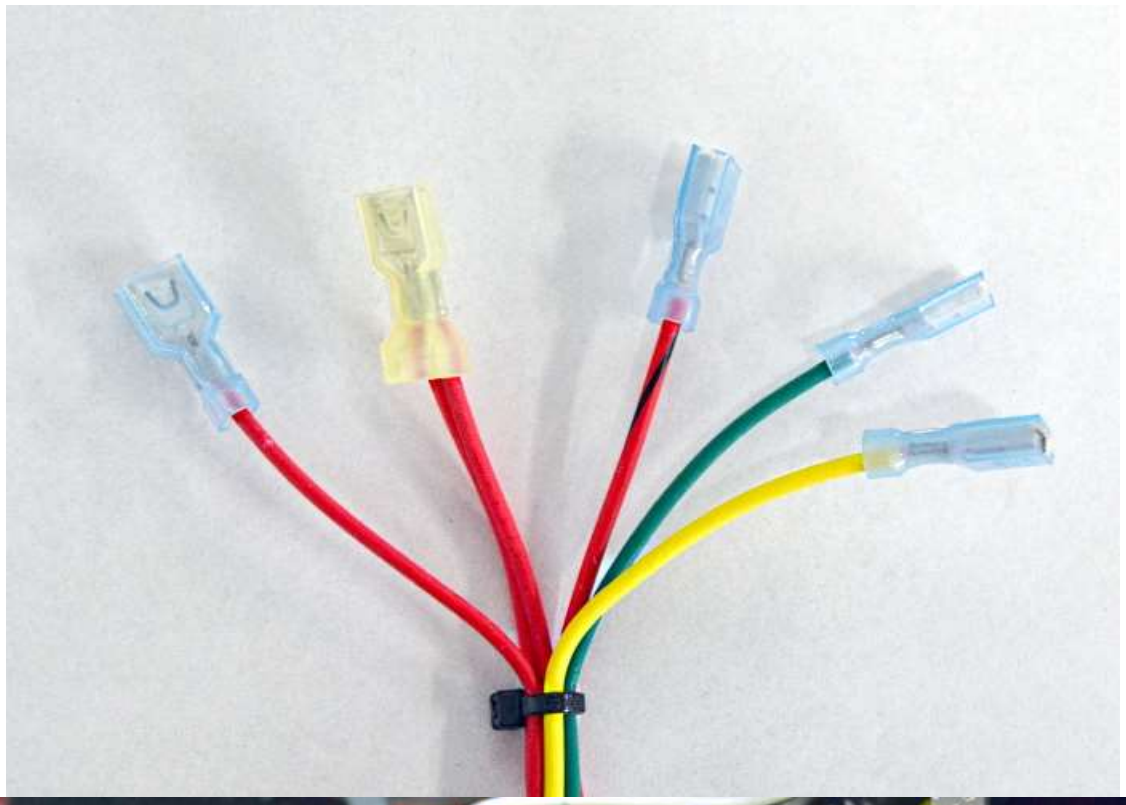


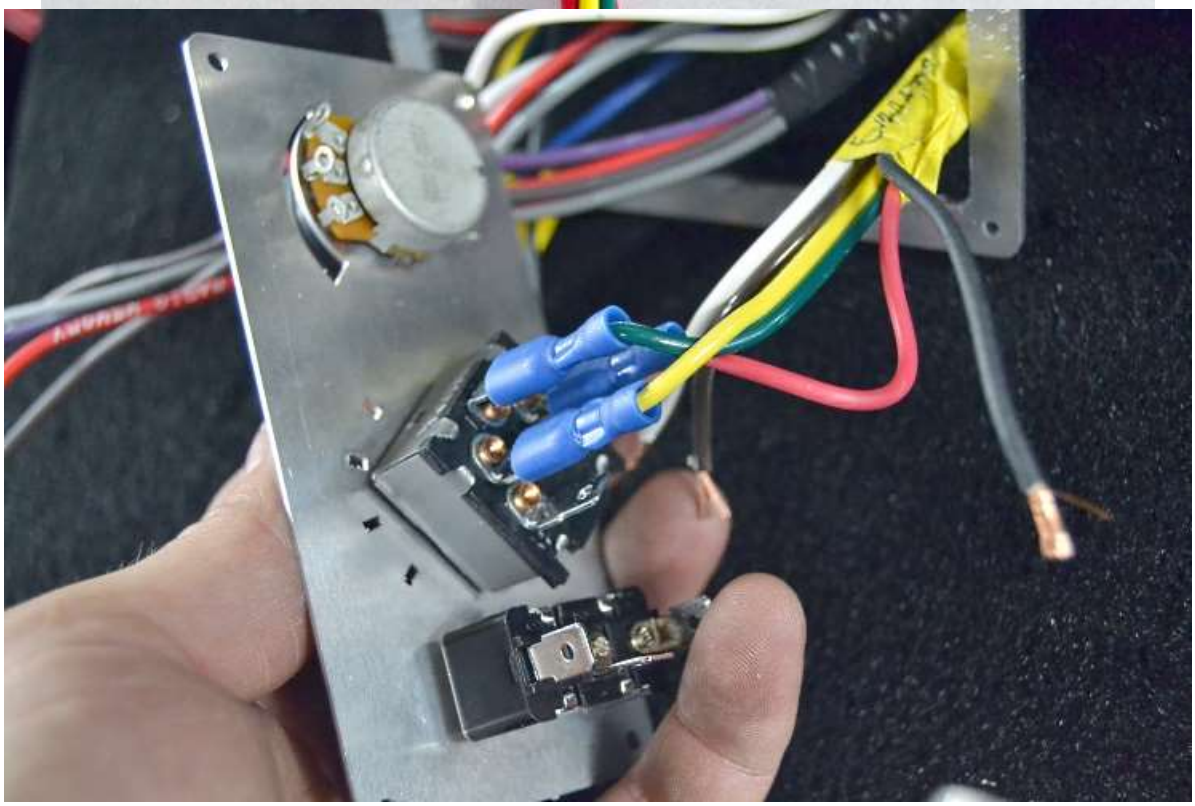

Use the bracket holes as a template to drill $^{3}/_{16}$" mounting holes and rivet the mounting bracket flange to the dash flange.




Pull the wires through the mounting bracket.

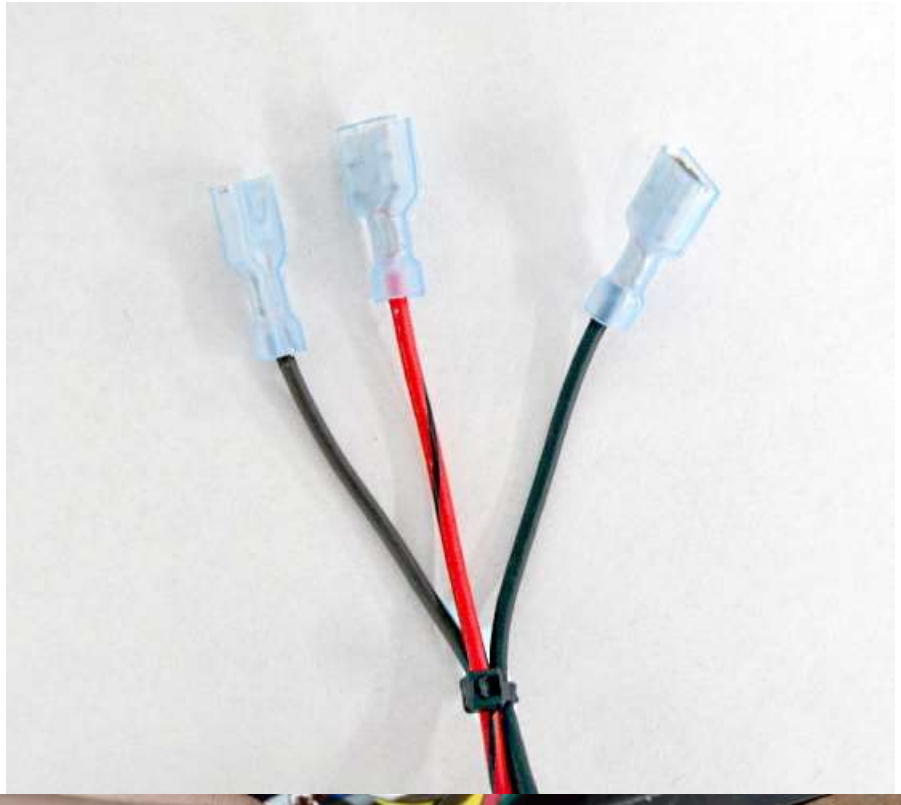
## Fan Switch

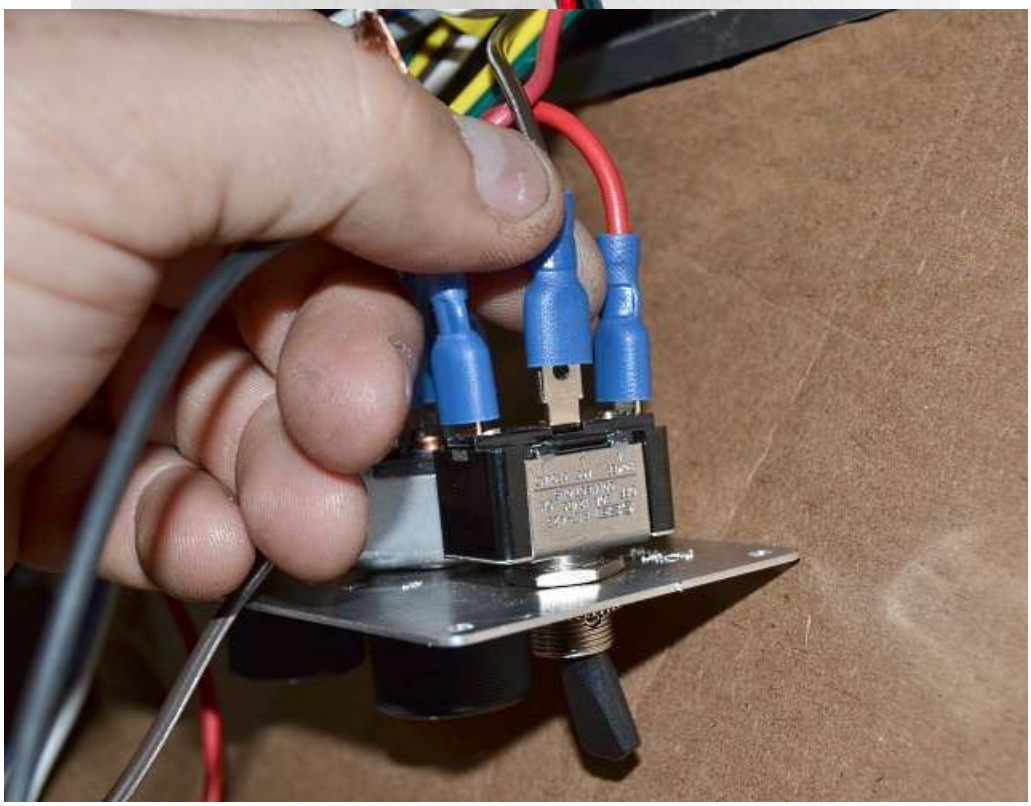




Locate the five Evaporator wires at the harness “controls location” and attach them to the rotary fan switch; **Green** on the top center “M” location, **Yellow** on the top left “L” location, **Red with black stripe** on the lower right “C” position, **double red wire** in the yellow female connector to the lower left “B” location and the **single red** on the top right location “H”.

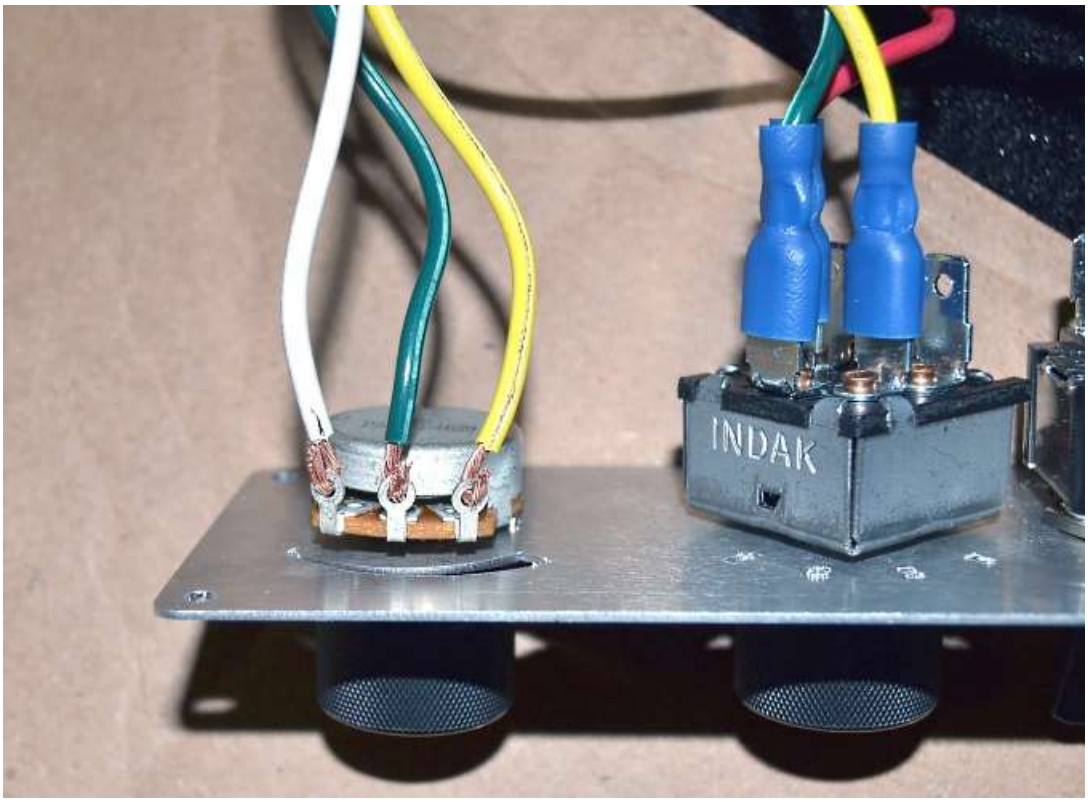
## A/C Switch



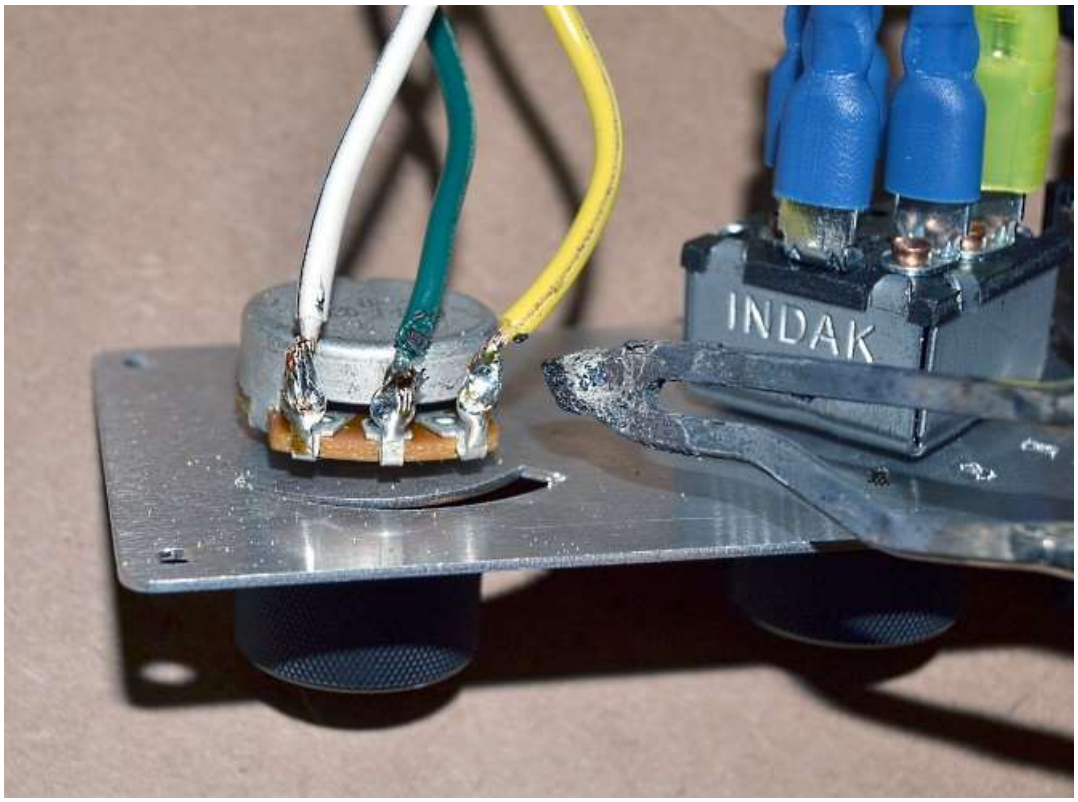


Locate the three A/C switch wires at the harness “controls location” and attach them to the A/C switch. **Brown** in the middle, **black** wire to the “ground” and **red** wire over next to the lower “Power” location.

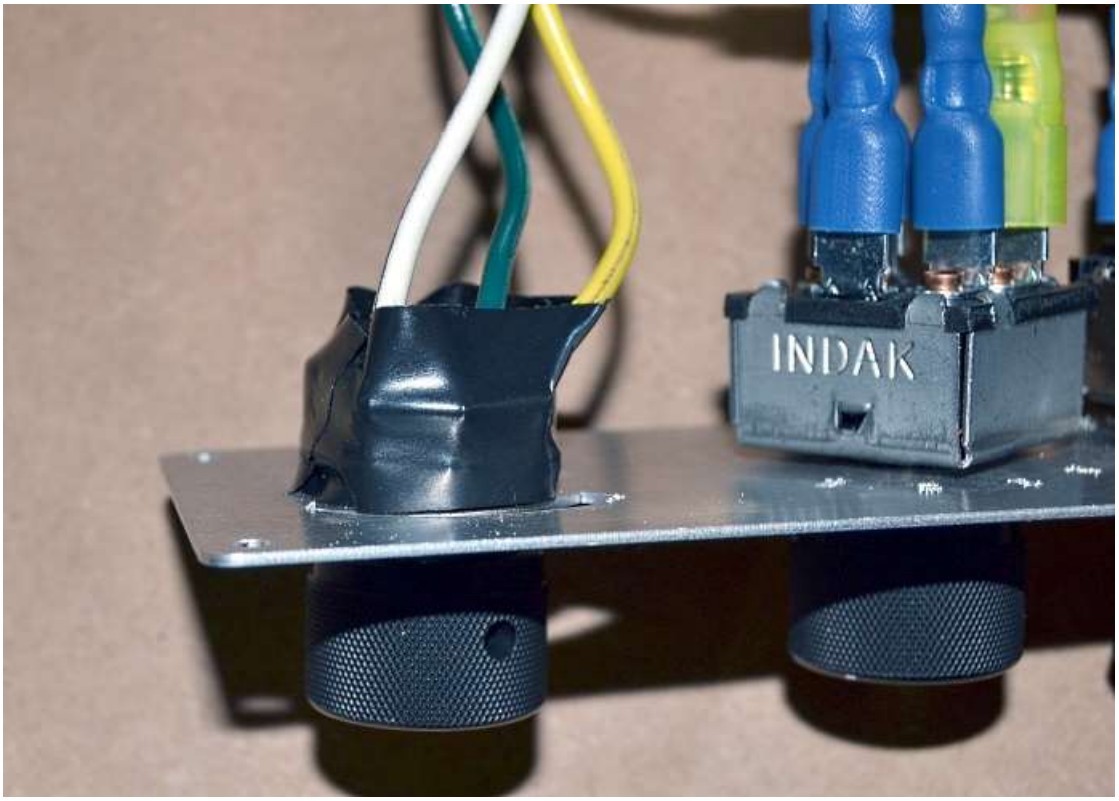
## Temperature control knob




Connect the white/black stripe, green and yellow wires from the “Drier” to the rotary temperature control loop terminals as shown.




Solder the wires to the temperature switch.




Wrap the temperature switch with electrical tape to prevent any accidental electrical contact.


Screw the faceplate to the mounting bracket.

## Testing


🛠 50/50 Coolant, (2) 12oz 134a Refigerant cans, (1) 12oz 1st charge (has oil in it)

Make sure the A/C switch is off and the fan switch is off.

If possible top up the coolant in the engine at its highest point.

Fill the coolant overflow with 50/50 engine coolant.

Start the car and get it up to operating temperature, over 185°F so the engine thermostat opens.

Turn the A/C heat temperature knob all the way up so the coolant runs through the evaporator heater core.

Shut the engine off and let it cool so coolant will get sucked in from the overflow.

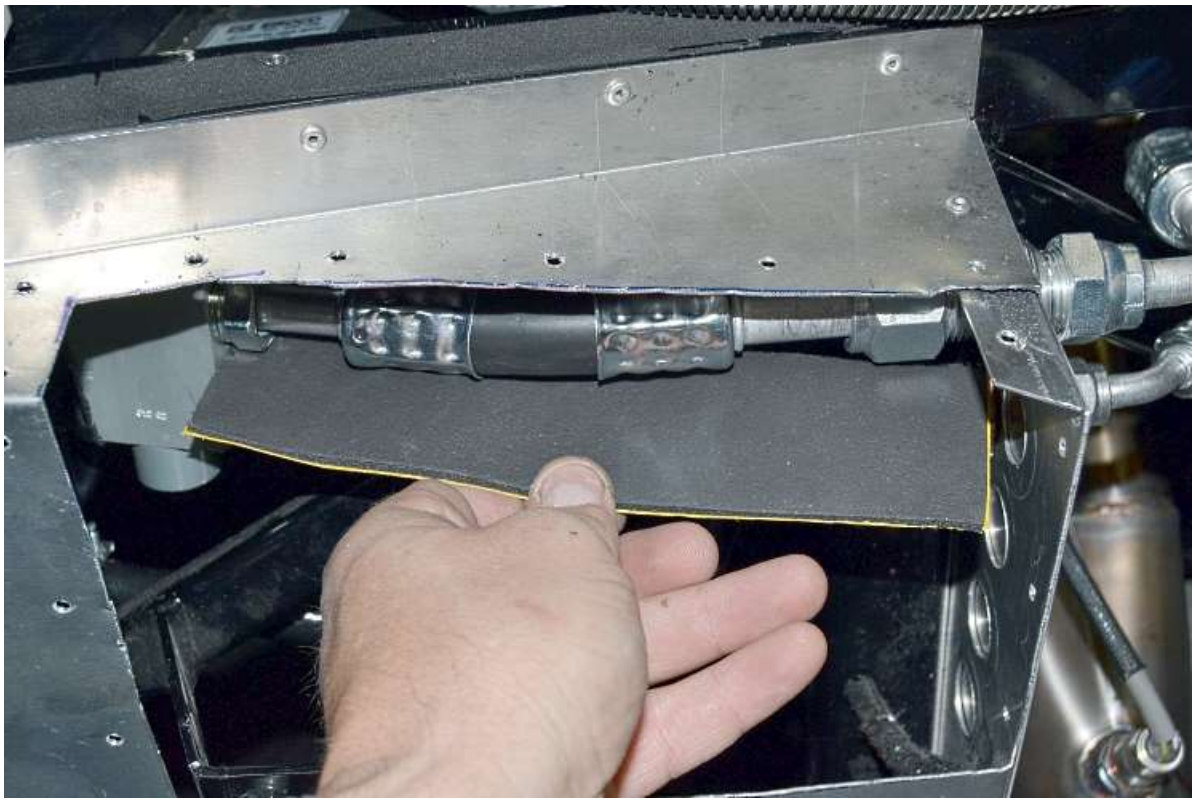
Once the engine has cooled, check the overflow. If empty refill and cycle the engine again. If there is coolant left, fill half way and continue.

Charge the A/C system and check for leaks.

### A/C HOSE INSULATION

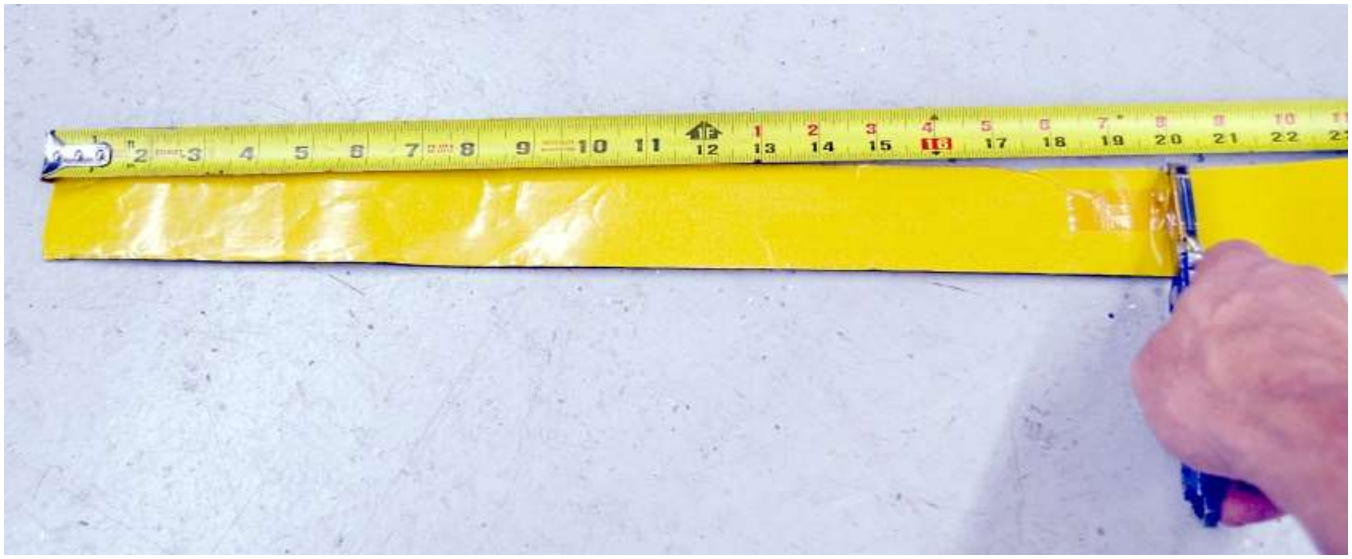
🚗 Rubber insulation
🛠 Razor knife, tape measure


Use a razor knife to cut 8” of the 1/8” pipe insulation.

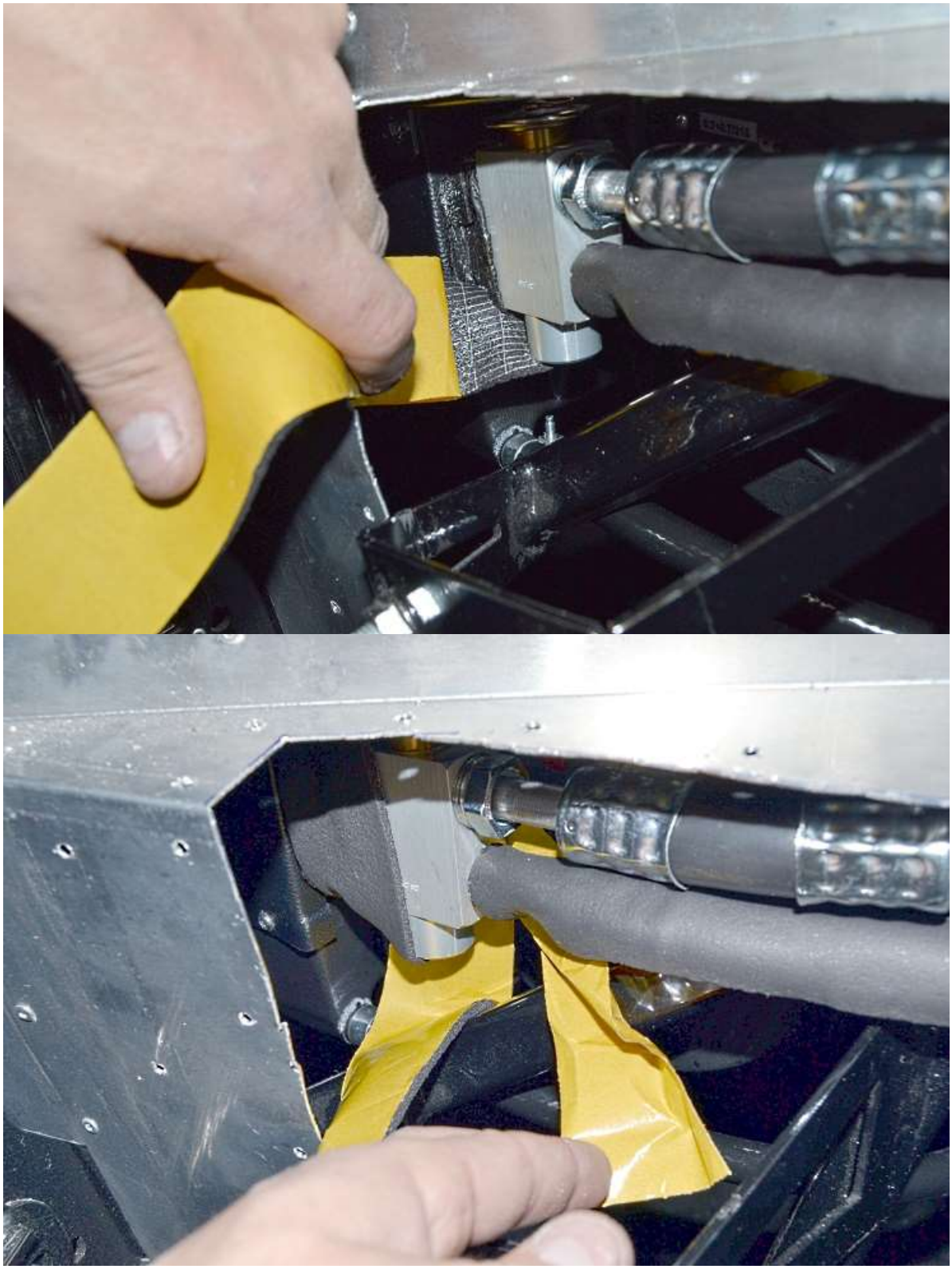


Insert the insulation between the tubes inside the footbox with the adhesive down.

Peal back the insulation and attach it to the lower tube.



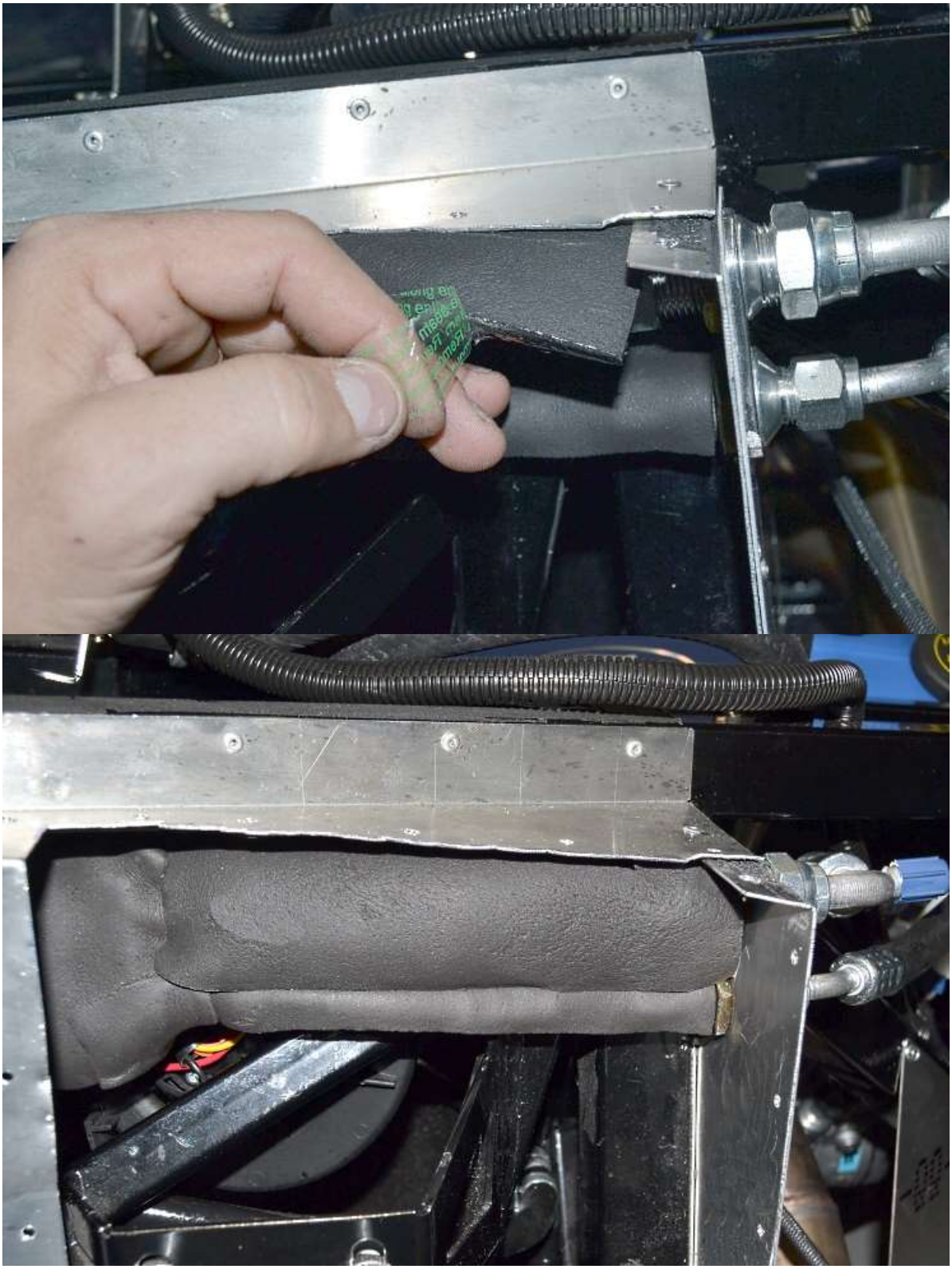
Cut a 20” piece of the 1/8” insulation.



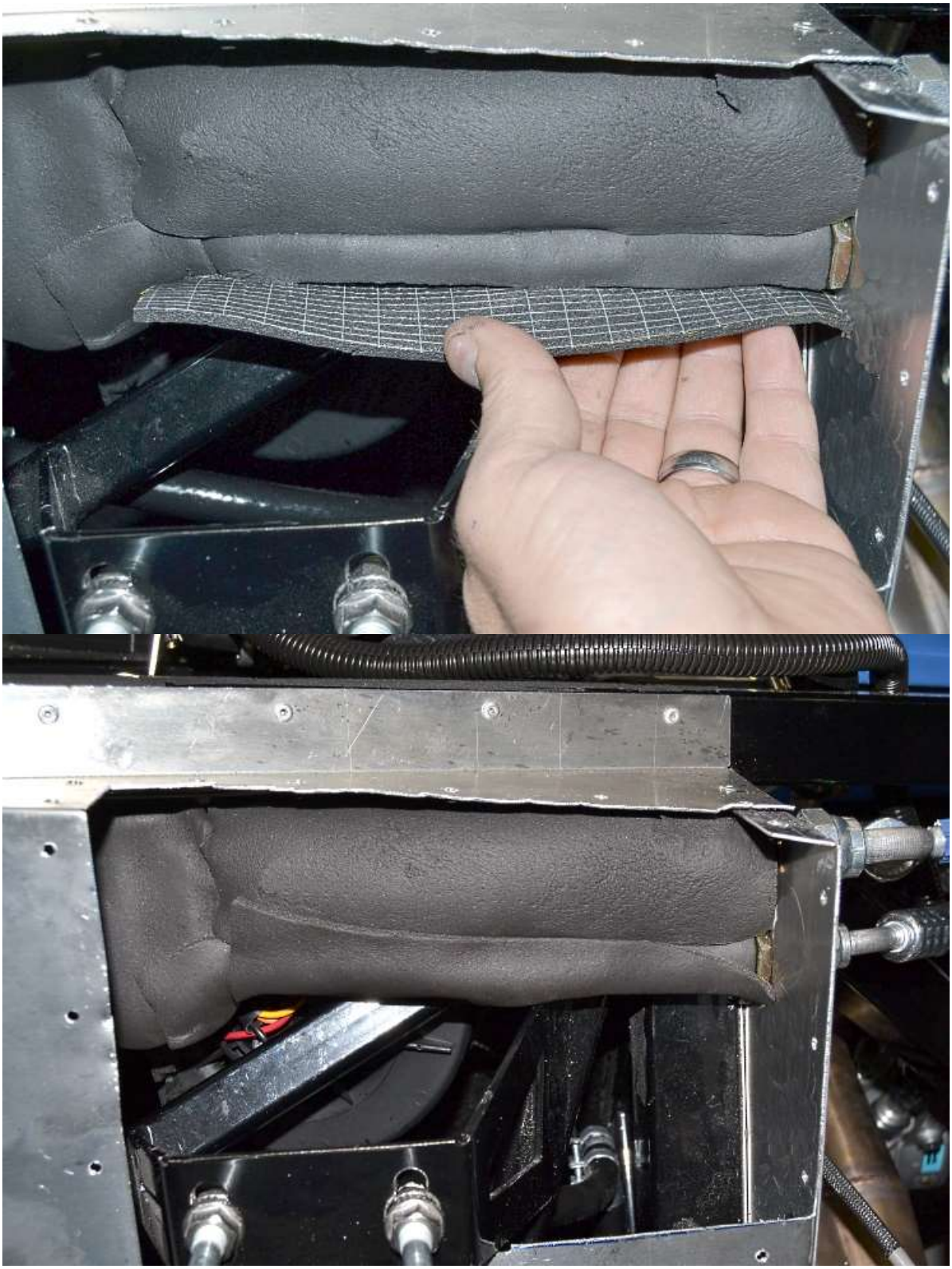
Start wrapping the thermal expansion valve block from the bottom and go up and over the top.

Wrap the lower fitting that is connected to the valve block.

Pass the ¾” hose insulation over the top of the top tube in the footbox.



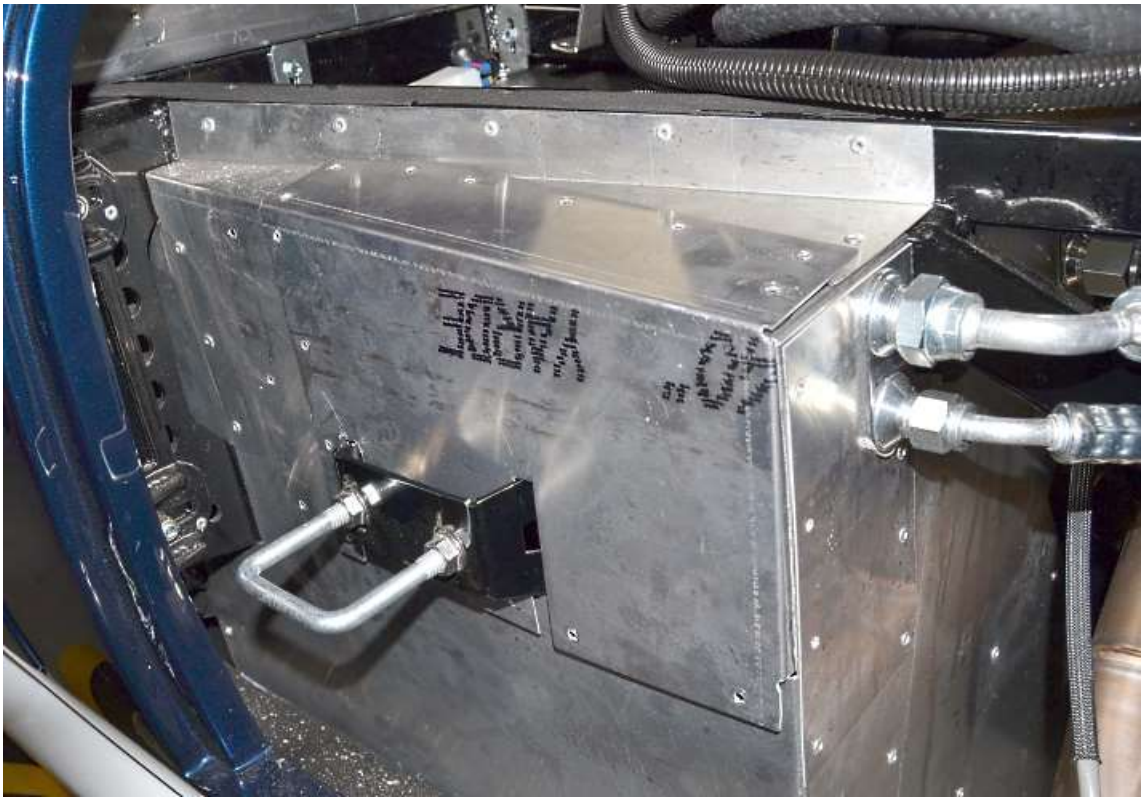
Pull the adhesive protector off and attach the insulation to the lower pipe insulation.



Wrap the remaining 1/8" thick insulation around the bottom tube onto the upper tube insulation if possible.

## Footbox panels

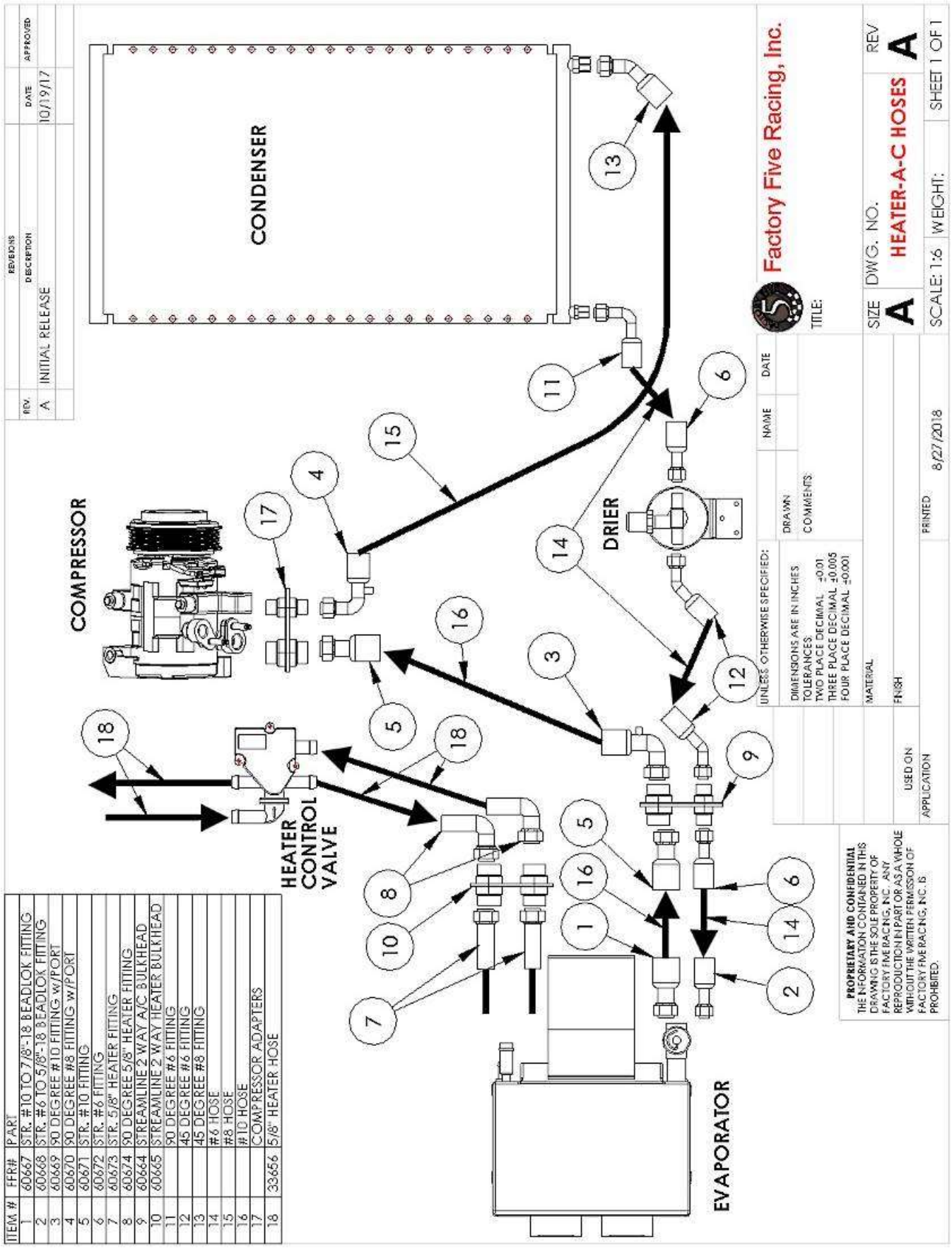
- 1/8" rivets
- Rivet tool, drill, 1/8" drill bit



Reattach the footbox access panel using the kit 1/8" short rivets.

Reattach the footbox top panel.

# Hose Diagram



Wiring diagram