VACUUMING DOWN AND RECHARGING THE AC SYSTEM AFTER INSTALLATION

After vacuuming down for 30 minutes we recommend waiting 30 minutes to an hour to verify there are no leaks in the system. Once this is done you can begin recharging the AC system with 1234yf or R134a (runs colder than the oem 1234yf). Consult your automotive AC professional if switching to R134a as you will need adapters likely to recharge the system since you are using a different refrigerant. We can also walk you through recharging the system if you are doing it at home with an aftermarket AC manifold system and 12 oz. cans.

IMPORTANT! Make sure when hooking up the yellow refrigerant line that you purge any air out of the line before allowing refrigerant to flow into the system. If you are using 12 oz. cans you need to do this in between each can to ensure you do not introduce any air into the system. If you introduce air into the system you will need to recover the refrigerant and vacuum down again then start over. Introducing air into the system can cause the AC system to not operate properly and can cause the pressure relief on the compressor to discharge refrigerant.

When you recharge the car the system must be with the cabin AC and the chiller unit on. **BLUE LED ON** at the drag mode rocker switch. **DO NOT RECHARGE THE SYSTEM WITH DRAG MODE ON** blue LED in the off position.

You should start with 24 oz. of **PURE** refrigerant. Verify the cabin AC is working properly. Putting a thermometer in one of the center dash vents with AC on dash you should see the temperature drop to approx. 48-50 degrees at the vent with car sitting at idle. Driving around at cruising speeds your cabin AC should read closer to 40-42 degrees in the center dash vents. This is a good indication that the AC in cabin is working properly. Now add another 4 oz. of refrigerant for a **total of 28 oz**. Once the engine is at operating temperature you can activate drag mode (BLUE LED SWITCH OFF) You may need to add or remove some to get the system working to its maximum cooling efficiency. Peak performance can literally be +/- .5 to 1 oz. The hotter the weather the more accurate your results will be when recharging the system. On an average 80 to 90-degree day you should see a difference in IC coolant temperatures of approx. 15 degrees from street mode (cabin AC on BLUE LED SWITCH ON) and "Drag mode" (BLUE LED SWITCH OFF).

Lastly insulating all of the IC coolant lines and the suction lines for the AC (do not insulate the AC liquid lines) will help drop the IC coolant temperatures even more. Adding an additional coolant reservoir of 1.5 to 2 gallons will also give you increased coolant capacity and in our testing is about the perfect additional amount for the drag strip.

THINGS TO NOTE DURING INSTALLATION OF CHILLER AND PLUMBING INSTALLATION

AC SIDE:

Use the provided clip locators on all fittings to locate the crimps correctly on the fittings themselves. We have provided 1 clip locator each for the -12 (5/8") suction fittings and -6 (5/16) liquid fittings. They are cut with a slot in them so you can easily remove them from each fitting and use on the next.

Make sure you have the entire system installed including all plumbing of the AC system and IC system plus wiring harnesses before vacuuming down the AC and recharging it.

Ensure all of the fittings are tight including the AC fitting coming off of the Chiller brick and the fitting from the brick to the TXV valve that was pre-installed. Those two fittings are not tight in case they need to be removed to clock the coolant elbows which are also not tight and need to have Teflon tape applied to them so they seal properly.

Be careful when working with the TX Valve. The copper coil is fragile do not bend it back and forth much if it breaks the valve will fail and close. If you do damage it and need a replacement, we have them on the shelf ready to ship and can walk you through how to replace it if needed.

IC COOLANT SIDE:

Use a 50/50 mix ratio of anti-freeze for the intercooler. We typically run the factory (OEM) coolant from Mopar. Make sure you are using distilled water if possible.

When plumbing in the 3-way bypass valve make sure that the center port is always the one being fed (INLET) coolant according to the coolant flow regardless of where in the system you install it. The left and right ports will always be the OUT ports. With no power to the 3 way bypass you want the plumbing to be for normal operation that the IN port (Center port) and OUT port are plumbed to flow through the Chiller brick. The other port that is normally closed with no power to the valve is to be plumbed to the inlet side of your factory air to liquid heat exchanger so that it is always being bypassed with the red LED switch in the off position.

IMPORTANT DRAG MODE INFORMATION!!

STANDARD HELLCAT

CHARGER/CHALLENGER/TRACKHAWK/TRX/DURANGO

DON'T RUN IN DRAG MODE WHEN CAR IS STARTED FROM A COLD START. You must start and run the car with both cabin and chiller running until the engine is up to operating temperature. To ensure this is the state the car is in the **BLUE LED SHOULD BE LIT** at all times. Because our power cable in our wiring harness kit taps into the "Ignition on" in the fuse panel you won't risk the chance of draining your battery but will ensure that the solenoid is open every time you start the vehicle. Once the vehicle is warmed up you may use drag mode.

On the street you will be running the chiller and cabin AC all the time unless you plan to do a hard pull (such as a race in Mexico) Remember normal driving conditions the **BLUE LED SHOULD BE LIT** keeping cabin AC and chiller both running.

You will notice that under 60 degrees Fahrenheit the AC will shut off. This is nothing to be alarmed about. It is normal. You can get the chiller to work below these temperatures you just need to turn on your **DEFROST**. Defrost turns your AC on below 60 degrees to dry the air from the windshield. This in turn allows refrigerant to flow through your chiller as well. If you don't want to do that you still won't typically see IC temps go much above 80 to 90 degrees Fahrenheit when it's that cold out. If you are running our 3-way bypass valve option to keep the primary factory intercooler (IC radiator) you also have the option to simply turn the red led rocker switch to on and the 3-way bypass valve will switch from the chiller to the factory intercooler. You will almost immediately see your IC temps start to drop towards the ambient temperature.

We do not recommend using the red switch unless the temperatures are below 60 degrees or in an emergency if your AC system fails or stops running due to low refrigerant.

ON A SIDE NOTE. YOU CAN RUN YOUR AC ON ALL YEAR ROUND. THERE IS NO NEED TO EVER TURN IT OFF. IT IS AN "AIR CONDITIONER" NOT JUST USED TO KEEP YOU COOL ON A HOT DAY. IT DRIES THE AIR AS WELL. THE AC COMPRESSOR WILL CYCLE AND RUN AS NEEDED SO ITS NOT NECESSARLIY RUNNING 100% OF THE TIME. BAGS NUMBERED 1 THROUGH 6 WILL BE USED IN THIS ASSEMBLY OF THE AC PLUMBING. PAY CLOSE ATTENTION TO THE FLOW DIRECTION OF THE DRAG VALVE IT MUST MATCH THE FLOW IN THIS DIAGRAM. YOU WILL NEED A PEX CINCH TOOL TO INSTALL THE CLAMPS ON THE HOSES. THEY CAN BE PURCHASED AT YOUR LOCAL HARDWARE/PLUMBING STORE OR THEY CAN BE PURCHASE ON AMAZON.

AC PLUMBING DIAGRAM



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Step 1: Main power supply cable from trunk fuse panel ignition switch to dash.



Step 2: Dash switches harness. Use 3/8 drill bit first as step hole then 25/32 drill bit for holes to mount each switch if mounting in lower dash panel.



Pay attention to color code changes. Red and black stay red and black but blue and black switch to green and white



