



A/C System Installation Service Tool

Make the job
Easy
Do it once

Vac Buddy



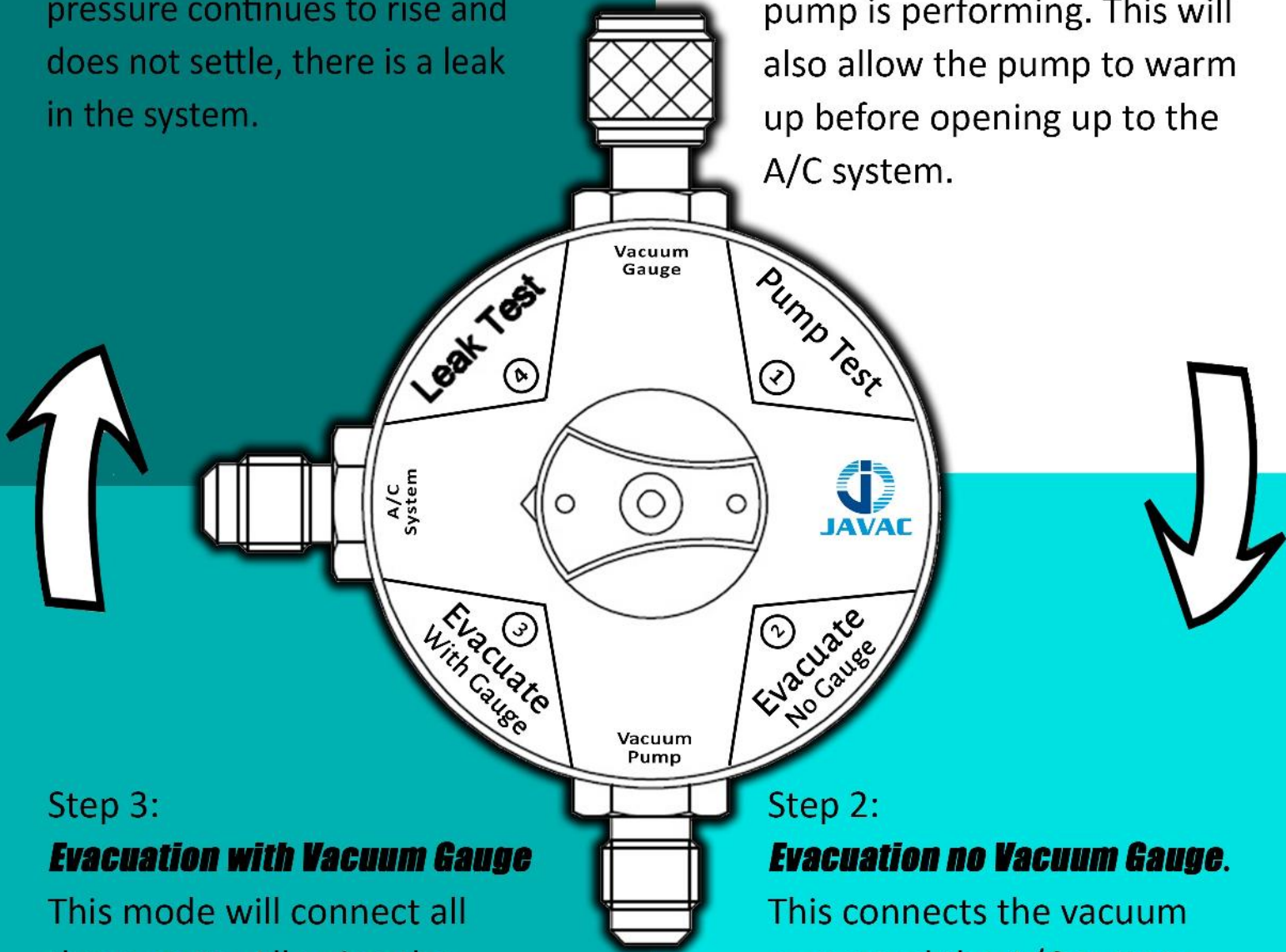
- 4 Simple Settings
- Vacuum Gauge Protection
- System Leak Test Function
- Minimal Leak Points
- Internal 3 Port Design
- Evacuate any A/C System



4**Finish****Start****1**

The final step is the **Leak Test**. This mode closes off the Vacuum Pump and connects the pre-evacuated A/C system and the vacuum gauge. If the pressure continues to rise and does not settle, there is a leak in the system.

The first step is the **Pump Test**. This connects the Vacuum Pump and the vacuum gauge. You will get a direct reading on the gauge indicating how the pump is performing. This will also allow the pump to warm up before opening up to the A/C system.



Step 3:
Evacuation with Vacuum Gauge

This mode will connect all three ports. Allowing the vacuum pump to evacuate the A/C system whilst showing the performance on the vacuum gauge. Recommended 30min.

Step 2:
Evacuation no Vacuum Gauge.

This connects the vacuum pump and the A/C system. Any moisture is removed. This will protect the vacuum gauge from any damage or contamination.

3**2**



Vacuum Gauge

Connection Size: 1/4 inch
 Connection Type: Female Swivel
 Sealing Face: Double O-ring
Direct Connection

A/C System

Connection Size: 1/4 inch
 Connection Type: Male
 Sealing Face: SAE 45 Degree
Connect Via Hose



Vacuum Pump

Connection Size: 1/4 inch
 Connection Type: Male
 Sealing Face: SAE 45 Degree
Connect Via Hose



Step 1

Prior to starting, turn the manifold to Number 1: Test Pump

This will ensure the A/C system can not release pressure through the manifold in case of an emergency.



Step 2

Hose
1/4" FSAE

Manifold
1/4" MSAE

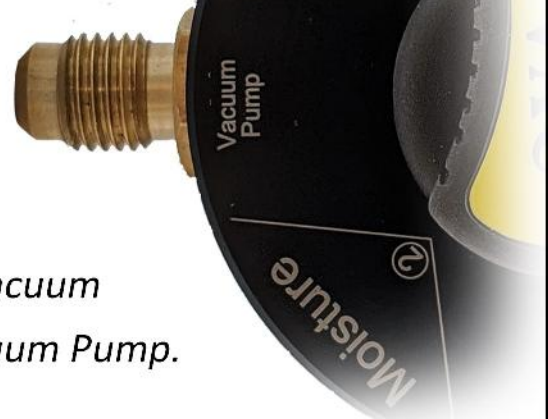


Connect the correct size hose from the A/C unit to the manifold fitting labeled A/C system.

Step 3

Hose
1/4" FSAE

Manifold
1/4" MSAE



Connect the correct size hose from the vacuum pump to the manifold fitting labeled Vacuum Pump.

Step 4



Attach your vacuum gauge to the manifold.
The manifold connection is 1/4 inch Female SAE

Your vacuum gauge will need to have a fitting of this size: 1/4 inch Male SAE.

If your vacuum gauge has a female connection you will need to use an adapter.

Adapter Size: 1/4" MSAE x 1/4" MSAE



Step 5

Now that everything is connected you can switch on the vacuum gauge and vacuum pump, and let it run.

Make sure the manifold is still set to number 1 - Test Pump.

As the vacuum pump runs you will see the vacuum gauge start to register a reading.

While waiting you can open your connection on the service port of the A/C system.

Step 6

Once you are satisfied your pump is running to its correct specifications, turn the valve to Number 2 - Evacuate with No Vacuum Gauge.

This mode will temporarily protect the vacuum gauge from any pressure or large amounts of moisture in the A/C system.

Once satisfied the system lines are clean you can turn the valve to number 3 - Evacuate with Vacuum Gauge.

Run for approximately 30 min or until required vacuum is achieved

Step 7

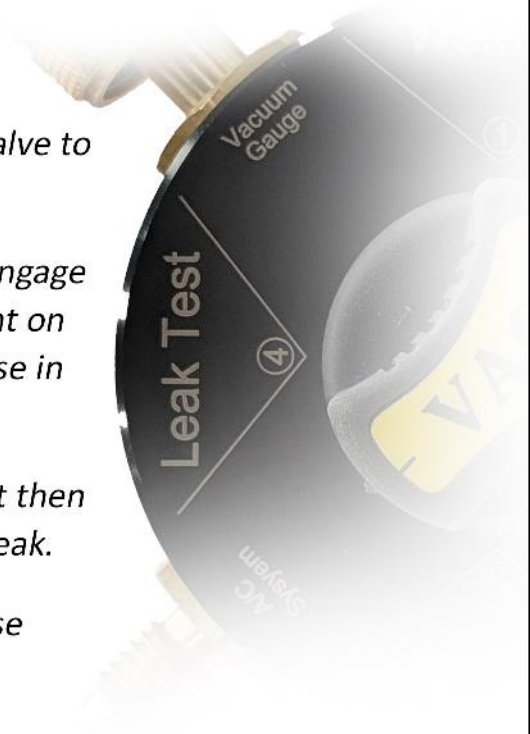
Leak Test:

Once your required vacuum is achieved turn the valve to Number 4 - Leak Test

This function will close off the vacuum pump and engage the vacuum gauge, giving you a direct measurement on the A/C system. This will determine any pressure rise in the system which can be caused by a leak.

If the reading on the vacuum gauge rises at first but then stabilizes it is only a virtual leak, not a A/C system leak.

If the reading on the vacuum gauge continues to rise without stabilizing it could be a A/C system leak



What can cause the pressure to rise?

Bad Connections:

Things such as improperly formed flares, damage to fittings or a bad installation process can cause a leak in the A/C system.

A contractor's tools and equipment can also cause a leak. Rubber seals in hoses and adapters should be checked regularly, and manifold fittings should be protected when not in use to prevent damage.

Degassing:

Due to the manufacturing processes, new refrigeration hoses may initially out-gas. Out gassing is normal and may initially result in showing poor vacuum results and/or the impression that there is a leak while using a digital vacuum gauge.










To avoid further degassing of hoses, it is recommended that all hoses are degassed using a 2 stage vacuum pump for a minimum of 12 hours.

Your hoses should be kept clean, free of any oils and sealed when not in use.

Insufficient Vacuum Pump:

You should always use a 2 stage rotary vane oil vacuum pump when working on A/C systems. Contaminated oil will also affect your vacuum, so change the oil regular.

Regular oil change is recommended to increase the life of the pump, as well as avoiding any contamination of the oil which would affect the vacuum performance of the pump.

JAVAC		Vac Buddy and compatible parts	
Location on Diagram	Item	Description	Part Number
A		Vac Buddy – 3 Port Vacuum Control Valve	JAVVB3P
B		AcraVac Pro – Digital Vacuum Gauge 0-19000 Microns	C12627
		Mechanical Vacuum Gauge	JAVMVG
C		45L Vacuum Pump – R32 Compliant	VCL452
		80L Vacuum Pump – R32 Compliant	VCL822
		140L Vacuum Pump – R32 Compliant	VCL1422
D		¼ inch SAE Refrigeration/Vacuum Hose Yellow 60cm	JAVYH60CM
		¼ inch SAE Refrigeration/Vacuum Hose Yellow 90cm	JAVYH90CM
E		Hose - Red - ¼" FSAE x 5/16" FSAE – 60" Length	JAVRH60IN
A to D		Adaptor – ¼" Male SAE x 5/16" Female SAE	AD14MX516F
A to F		Adaptor – ¼" Female SAE x 5/16" Male SAE	AD14FX516M
B		Adaptor - 1/4" MSAE x 1/4" MSAE	AD14MM
F		¼" Flow control Valve	JAVFCV14
		5/16" Flow control Valve	JAVFCV516
F		Valve Core Removal Kit ¼" and 5/16" Comes with Valves Depressors, Hose Seals	EVCRIPHKIT

A - Vacuum Valve - 3 Port 1/4"SAE
B - Vacuum Gauge - 1/4" SAE Connection
C - Vacuum Pump - 1/4" SAE Connection
G - Split System A/C - 1/4" or 5/16" SAE Connection

D - Hose - 1/4" FSAE x 1/4" FSAE
E - Hose - 1/4" FSAE x 1/4" or 5/16" FSAE
F - Control Valve - 1/4" or 5/16"
H - Adaptor #1 - 1/4" MSAE x 1/4" MSAE
I - Adaptor #2 - 1/4" MSAE x 5/16" FSAE
J - Adaptor #3 - 1/4" FSAE x 5/16" MSAE

