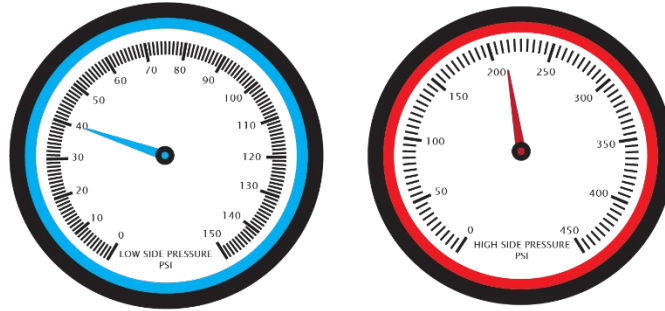


Compressor Diagnosis using Pressure Gauges

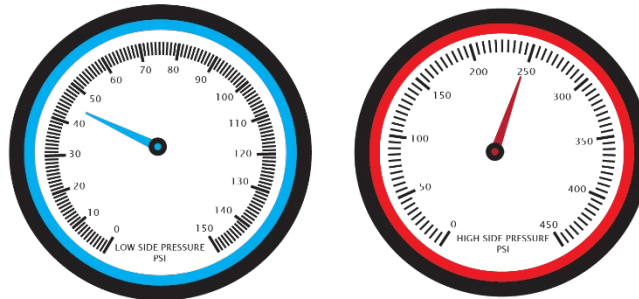


The A/C pressure gauge illustrations below represent typical readings for common compressor problems. Please note that gauge readings may vary due to humidity and location of the service valve (in some cases, the gauges may only be reading a small part of the system). If you are unsure of the readings you see, please consult a licensed air conditioning professional. While pressure gauge readings may be useful in compressor diagnosis, it is highly recommended to use temperature testing for correct diagnosis of the A/C system.



Normal Readings

These readings would be considered normal for a correctly operating system.



Overcharged

Possible reasons for an overcharged system:

- Too much refrigerant in the system
 - Refer to gpd Tech Tip #66, “Can you Charge by Cans Correctly?”
- Insufficient air flow across the condenser
 - If fitted with a mechanical fan clutch, check to make sure it is operating correctly.
 - If fitted with an electric fan, make sure it is operating correctly. Refer to gpd Tech Tip #56, “Electric Cooling Fan Assemblies”.
 - Check for debris blocking the condenser and radiator as well as excess debris from a previously failed component in the system.
 - Check if a component has been replaced that is different from the OE design. For example, change in design on some condensers can lead to an overcharge. Refer to gpd Tech Tip #6, “3011C on Ford E-350 and E-450”.

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Compressor Diagnosis using Pressure Gauges

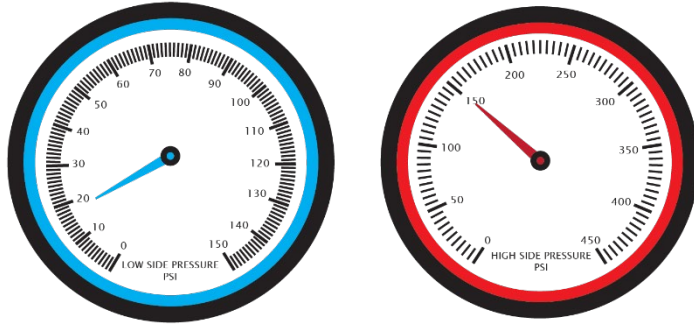


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TECH TIP

#150

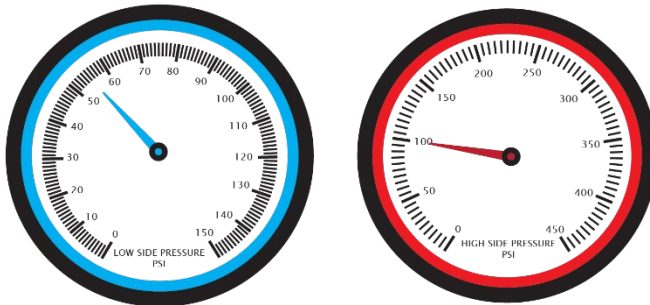
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Low Charge

Possible reasons for an under charged system:

- Not enough refrigerant in the system
- A leak in the system
 - Check if the valves in the charge port are tight and in good service.
 - Check if there are caps on the ports before charging. Missing caps can lead to an open valve due to dirt/debris.
 - Check the connections throughout the A/C system to make sure they are tight.
 - Check if the O-rings are leaking.



Weak Compressor

Possible reasons for a weak compressor:

- If the compressor is fitted with a control valve, refer to gpd Tech Tip #9, “Clutch-less Compressors”.
- The reed valve may need to be replaced if the high side gauge is bouncing.