



Dear Goodman Dealer,

As a customer service, we would like to offer a brief Service Tip that will ensure your new Goodman/GMC installation will be successful from the first day on! This involves verification of a proper charge after equipment start-up. Keep in mind, there are two factors that we have control over and fall within our responsibility:

1. Airflow
2. Refrigerant Charge

Equipment is shipped with a factory charge and in most cases this is what the manufacture has determined is necessary for proper operation. We have the ability to make adjustments for refrigerant lineset length and oversized coils. These are called “adders”. **It has come to our attention that in some cases, the factory charge could actually be too much.** Please follow this procedure as you commission your new Goodman/GMC units.

1. Adjust airflow according to the speed selection method available on your furnace/air handler based on 400 cfm/ton. Be sure to factor external static pressure on PSC and X-13 motors. For ECM motors, use the correct jumper/dip switch combination to achieve this goal. (example: 3-ton system = 1,200 cfm)
2. Determine and install your correct indoor metering device, either a numbered orifice or a TXV.
3. Pressure-test all welded and mechanical connections with at least 300 psi dry nitrogen.
4. Evacuate system and ensure bounce-back remains below $\leq 500\mu$ using a vacuum pump and micron gauge.
5. Release charge BEFORE installing adder charge and observe operation for 15-30 minutes. System must be stabilized before you make any adjustments to the refrigeration charge. Proceed to step 6 or step 7 depending on which type of metering device installed in your system.
6. **With TXV**, determine your target sub-cooling number based on the manufacturer’s recommendation. Carefully add refrigerant if sub-cooling is smaller than your target. Remove refrigerant if sub-cooling is above your target. Allow system to stabilize for 10 minutes to conclude results.
7. **With numbered orifice**, determine your target superheat based on the manufacturer’s recommendation using the indoor wet-bulb (return air WB °F) and outdoor dry bulb °F temperatures. If you do not have that information available, follow PTCS standards or the Johnstone Supply Generic Charging chart. Carefully add refrigerant if superheat is greater than your target. Remove refrigerant if superheat is smaller than your target. Allow system to stabilize for 10 minutes to conclude results.

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