



PRODUCT
MARKETING
NEWS



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To: Goodman® Brand Distribution, Amana® Brand Distribution, Goodman Manufacturing Company, L.P. Sales, Logistics and Marketing Personnel, Goodman Distribution, Inc., Regional Vice Presidents, Regional Managers, and Staff

From: Andrew Karl - Product Manager, Split-Systems

Subject: Application of R-410A Split System Air Conditioner with Existing R-22 Indoor Unit

We have received many questions on whether it is acceptable to apply a 13 SEER R-410A split system air conditioner with an existing R-22 indoor coil or air handler, to reuse an existing R-22 line-set, and to use a flushing agent in existing line-sets.

With the transition from R-22 to R-410A, we understand there may be situations that preclude the removal of installed line-sets or indoor coils. Outlined below are guidelines and estimated outcomes of such a transition. Please keep in mind that these guidelines only apply to air conditioning systems and do not apply to heat pumps systems. In heat pump applications, existing R-22 indoor units should not be used with 13 SEER R-410A heat pumps.

Replacing an R-22 air conditioner with a 13 SEER R-410A air conditioner using an existing R-22 indoor unit:

- 1) Goodman always recommends the installation of an AHRI certified and matched system.
- 2) System mix-matches of 13 SEER R-410A outdoor units and existing R-22 indoor units may experience reduced capacity. AHRI testing procedures do not provide a means for these combinations to be rated, and no AHRI rating will be available.
- 3) System mix-matches between SEER levels should be avoided whenever possible.
- 4) If a system mix-match cannot be avoided, the units must be properly charged in accordance with the manufacturer's installation procedures. Units with fixed orifice expansion devices are charged by the system's superheat and units with thermal expansion valves are to be charged by the system's sub-cooling.

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- 5) It is acceptable to install a 13 SEER R-410A split system air conditioner to an existing coil or air handler if the following conditions are met:
- a. The indoor coil or air handler was produced after 1992.
 - b. The indoor coil or air handler has a piston or TXV.
 - c. The indoor coil or air handler does not have capillary tube style refrigerant metering.
 - d. In a system mix-match whether the indoor coil expansion device is a fixed orifice or a thermal expansion valve, that expansion device must be of a capacity that is specified by the outdoor unit manufacturer.
 - e. For piston style coils, the R-22 piston must be replaced with the piston that is shipped with the new R-410A 13 SEER split system air conditioner.
 - f. For TXV style coils, the old R-22 TXV must be replaced with the appropriate R-410A TXV:
 - i. GSX130181 - 0241 → TX2N4
 - ii. GSX130301 - 0361 → TX3N4
 - iii. GSX130421 - 0601 → TX5N4
 - g. The system is charged using the information provided in the installation instructions for the new R-410A 13 SEER split system air conditioner.
- 6) It is acceptable to utilize an existing R-22 line-set for a new R-410A split system unit if the following conditions are met:
- a. The line-set sizes are correct for the new R-410A unit per the installation and operation manual.
 - b. Reasonable effort is made to remove remaining R-22 mineral oil.
 - i. Small amounts (less than 5%) of R-22 mineral oil will not be detrimental to the new system's performance.
 - c. If the previous system experienced a compressor burnout, the remaining components should be cleaned using generally accepted practices.

Please note that there are many flushing agents currently available in the marketplace. Goodman has not tested any of these products, and therefore, can not provide recommendations as to any benefits or detriments from using them.

Please also note that federal law prohibits the venting of HCFCs and requires that they be recovered, and then, recycled, reclaimed or destroyed in accordance with the law.

As we continue to transition away from old R-22 systems to new R-410A systems, we hope that these answers will make the process as smooth as possible.

Good Selling!

Andrew Karl
Product Manager - Split-Systems

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