

TECH TIP

ACCUMULATOR STUD BREAKAGE

It has been brought to our attention that some customers are experiencing failures of the stud where the suction line is held to the accumulator on some Ford applications. In response to this situation, Factory Air by Four Seasons asked the Manufacturer the hardness of their studs. We also conducted hardness tests of our own at our lab in Grapevine.



The tests show that there is very little difference (within 3%) in the Hardness of the studs.

Ford publishes a torque specification of 71 in/lbs for this nut and stud configuration. As a reference, we found that after hand tightening the nut until contact and using an in/lb torque wrench, 71 in/lbs was attained after 10° rotation of the torque wrench. Factory Air by Four Seasons tested the manufacturer's product to a torque of 270 in/lbs and did not break the stud. The manufacturer tested the nut and stud configuration to a breaking point of 283 in/lbs.

In conclusion, Factory Air by Four Seasons recommends the use of hand tools only when attaching the suction line to the accumulator with this stud and nut configuration. Use of power tools may weaken or break the stud due to excessive torque and void the warranty. The following is a chart showing the O.E. specifications of all of the accumulator/driers that Factory Air by Four Seasons currently offers with a stud and nut configuration.

P.N.	Application	Accumulator/Drier Line Torque Spec
83001	Hyundai Accent 97-95	35 - 52 in/lbs
83002	Hyundai Elantra 97-96	35 - 52 in/lbs
83016	Ford Freestyle	71 in/lbs
83023	Ford Windstar	71 in/lbs
83041	Ford T-bird Lincoln LS 05-00	71 in/lbs
83043	Ford Super Duty P.U. 05-99	71 in/lbs
83046	Chev/GMC Lt. Trucks	145 in/lbs (12 ft/lbs)
83096	Ford Explorer/Mercury Mountaineer	71 in/lbs
83106	Jeep Liberty 03-02	80 in/lbs
83109	PT Cruiser 03-01	80 in/lbs
83115	Dodge Dakota 07-05	181 in/lbs (15 ft.lbs)
83127	Dodge Dakota 04-02	230 in/lbs + or - 30 in/lbs
83163	Kia Sedona 05-02	35 - 52 in/lbs
83222	Trailblazer-Bravada-Ascender	145 in/lbs (12 ft/lbs)
83239	Chevrolet Avalanche 07-06	145 in/lbs (12 ft/lbs)
83270	Jeep Grand Cherokee/Comander 5.7L	181 in/lbs (15 ft.lbs)
83290	Chevrolet /GMC Yukon-Tahoe 02-00	145 in/lbs (12 ft/lbs)