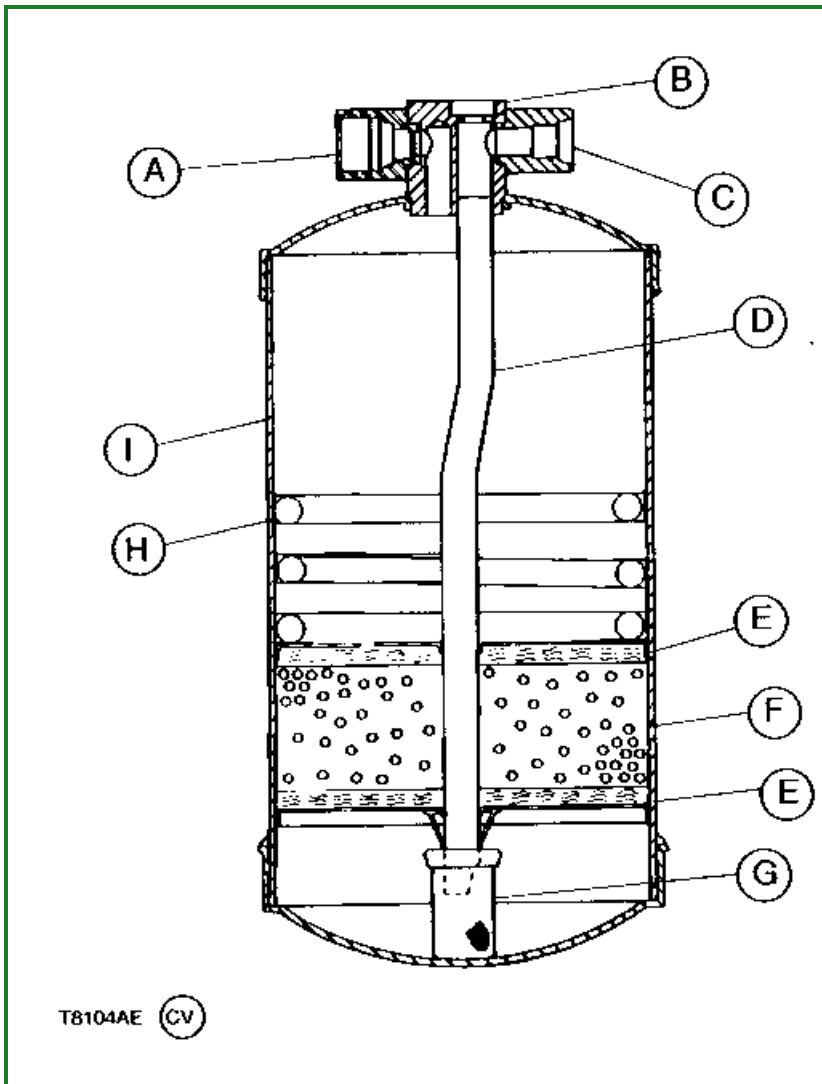
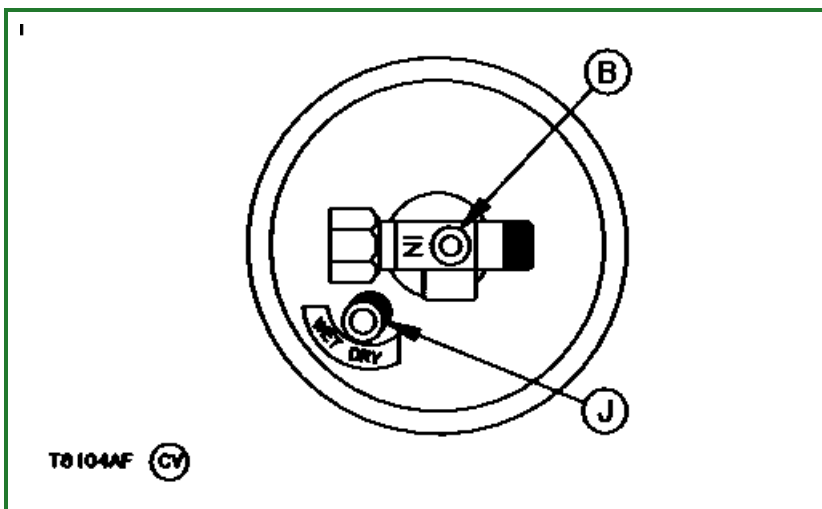


Receiver/Dryer Operation



T8104AE-UN: Receiver/Dryer Operation



T8104AF-UN: Slight Glass and Wet/Dry Indicator

LEGEND:

- A - Inlet Port
- B - Sight Glass
- C - Outlet Port
- D - Pickup Tube
- E - Filter

- F - Desiccant
- G - Strainer
- H - Spring
- I - Receiver/Dryer
- J - Wet/Dry Indicator

The receiver/dryer is a reservoir to store excess liquid refrigerant in the system. Excess refrigerant is required for two reasons:

Outside air temperature and humidity have an effect on the minimum quantity of refrigerant required in the system for the air conditioner to operate at maximum efficiency. The higher the temperature and humidity, the more refrigerant required in the system. More refrigerant is required due to the expansion valve opening farther allowing more refrigerant into the low pressure side of the system.

Refrigerant hoses allow a small amount of refrigerant to migrate through their walls. Extra refrigerant stored in the system allows for a longer period of time before additional refrigerant is needed.

The receiver/dryer also contains two filters (E) and desiccant (F) between the filters. The filters remove solid materials which could be generated by a compressor problem, debris left in the system due to improper service procedures, or particles caused by corrosion of metal parts due to moisture and acids in the system (also caused by improper service procedures).

Desiccant is used to absorb moisture. If too much moisture gets into the system, the desiccant may not be able to absorb it all. When moisture is combined with refrigerant oil, a sludge is formed. This sludge does not permit moving parts to be adequately lubricated. When moisture is combined with refrigerant, hydrofluoric and hydrochloric acids are formed. These acids are very corrosive to metal surfaces and leakage will eventually develop. If the air conditioning system is left open for a period of time or if the plugs are removed from the receiver/dryer, the desiccant will also absorb moisture from the air. The receiver/dryer contains a color moisture indicator. (Blue) indicates dryer is dry. (Pink) indicates moisture in the desiccant. Evacuating the system will not remove moisture from the desiccant. You must replace the receiver/dryer.

A sight glass is installed in the receiver/dryer outlet port. If the refrigerant level is low, a steady stream of gas bubbles will be present in the liquid flowing from the receiver/dryer. These gas bubbles can be seen in the sight glass and are an indication that the system needs charging. However, bubbles may be present when the compressor clutch first engages but must disappear after a few seconds. If the sight glass is clear, the system either has a sufficient charge or is completely discharged.

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