



INSTALLATION MANUAL

COMPRESSOR KITS (CONVERT FROM HP-81 OR R-502 TO R-404A REFRIGERANT) ON FCB POST-MIX DISPENSERS

The following is a list of the compressor kits that will replace Compressor Kit (PIN 326000000) and (PIN 324233000) which utilize Bristol compressors.

Kit Part No.	Description
560004336	Compressor Kit, 50 Hz, V1 FCB
560004338	Compressor Kit, 50 Hz, V2 FCB
560004340	Compressor Kit, 50 Hz, V3/V3+Floor Dispenser
560004342	Compressor Kit, 50 Hz, V3+FCB OC2
560004346	Compressor Kit, 50 Hz, V3/V3+FCB OC2R
560004337	Compressor Kit, 60 Hz, V1 FCB
560004339	Compressor Kit, 60 Hz, V2 FCB
560004341	Compressor Kit, 60 Hz, V3/V3+Floor Dispenser
560004343	Compressor Kit, 60 Hz, V3+FCB OC2
560004345	Compressor Kit, 60 Hz, V3/V3+FCB OC2R

These Compressor Kits are intended to convert the FCB Post-Mix Dispensers refrigeration systems from HCFC R402B (HP-81) or CFC R-502 to HFC R-404A refrigerant. Read and understand these instructions thoroughly before installing this kit. Retain these instructions as part of your equipment manual.

FLUSHING REFRIGERATION SYSTEM

When converting R-402B or R-502 refrigerants (compressors utilize mineral oil) to R-404A refrigerants (compressors utilize polyol ester oil), it is important that the R-404A refrigeration system contain no more than 5% residual mineral oil. More than 5% may contribute to premature compressor failure and or system capacity shortfall. To ensure an adequate system flush, use one of the following procedures.

Refrigerant Reclaim Flush Procedure

1. Shut the FCB Dispenser down to stop the refrigeration system.
2. Hook up a reclaim/recycle unit to the access valves on the refrigeration system. Hook up the suction side of the reclaim/recycle unit system to the access valve on the compressor.
3. Pump/circulate the existing refrigerant around/through the refrigeration system to flush any oil and contaminants that may be left in the evaporator and condenser. Be sure to open each pulse valve and defrost valve individually using the DIAGNOSTICS mode for a minimum of 3 minutes each.
4. Remove old compressor, accumulator, receiver and drier from the refrigeration system.

Nitrogen Purge Procedure

1. Disconnect electrical power to the dispenser.
2. Reclaim/recycle refrigerant.
3. Hook up a reclaim/recycle unit to the access valves on the refrigeration system. Hook up the suction side of the reclaim/recycle unit system to the access valve on the compressor.

4. Remove old compressor.
5. Hook up dry nitrogen at a minimum of 60-psig to the access valve on the receiver.
6. Open the defrost valve on barrel No. 1 using the DIAGNOSTICS mode.
7. Turn on the nitrogen and purge the condenser and evaporator.
8. Cover the accumulator outlet tube with a shop towel to avoid the mist of oil that should come out of the accumulator outlet. Purge until the system is clean.
9. Open defrost valve on barrel No. 2 using DIAGNOSTICS mode.
10. Repeat steps 7 and 8 to nitrogen purge barrel No. 2.
11. Remove old accumulator, receiver and drier.

Components Replacement Procedure

IMPORTANT: The technician is advised that the R-404A compressor contains POE (polyol ester oil) which is very hygroscopic (absorbs moisture from the air very quickly). Once the accumulator, driers, receiver and the compressor tubing plugs have been removed, brazing must follow immediately. *All parts must be installed within a 10-minute time frame.*

The Service Contractor *must* provide the copper tubing to be used for this conversion.

1. Install new accumulator, receiver, compressor, filter drier and suction drier.
NOTE: READ THE MOUNTING INSTRUCTIONS ON THE NEW COPELAND COMPRESSOR RELAY. BE AWARE THAT TERMINALS 1 AND 2 ON THE NEW RELAY ARE IN DIFFERENT POSITIONS FROM WHERE THEY WERE ON THE OLD RELAY. MAKE SURE THE NEW COPELAND COMPRESSOR RELAY IS WIRED AS SHOWN IN THE COPELAND WIRING DIAGRAM. (See Figure 2.)
2. Leak check the refrigeration system.
3. Evacuate the refrigeration to at least 200-microns.
4. Charge the system with R-404A refrigerant. Charge the system to 90% by weight of the original equipment serial plate charge.
5. Clean up and properly dispose of the lubricant. Recycle removed refrigerant.
6. Properly label the compressor with the refrigerant type and the amount of refrigerant used to charge the system.
7. For V1 and V2 Units only, replace boards with new V3 boards supplied in the kit. Set all electrical settings appropriately for V3/V3+ applications. Replace E-PROM on the board. Set refrigerant selection to 404A2HP.
8. Check all other electronic settings and set appropriately.

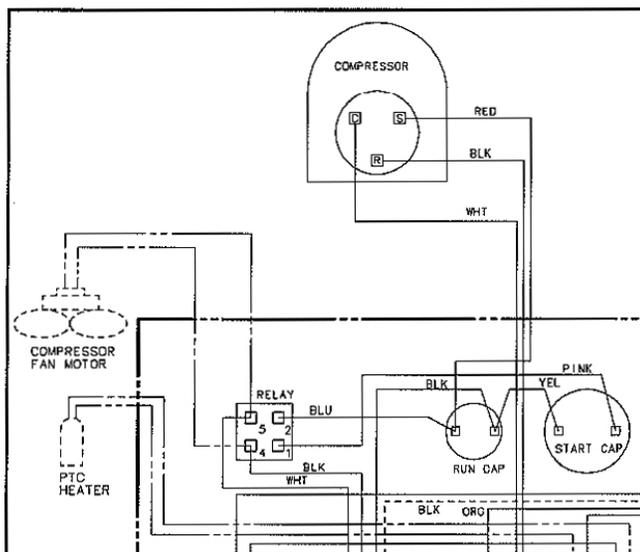


Figure 1. Bristol Compressor

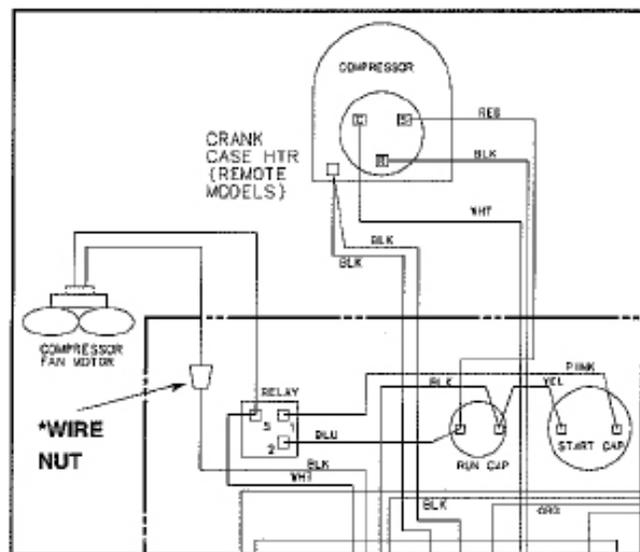


Figure 2. Copeland Compressor