SERVICE BULLETIN

Title: RCD PIC R-134A Retrofit Kit
Models Affected: 17/19 Series with R-134a without PIC Controls

Number: C9810
Date: 4/27/98
Supersedes: New
Date: N/A

Purpose:

This bulletin is to inform the field of an RCD Product Integrated Control (PIC) Retrofit kit for R-134a systems, to upgrade older control systems to CCN compatible controls. This kit was designed for comfort cooling applications only. For machines in use in non-comfort cooling applications, contact the area/regional operations/service engineers for assistance.

Information:

RCD has set-up two separate packages for conversions to PIC controls from any control system.

File: Controls, Wiring

Prepared By: Tom Pietrowicz **Approved By:** Alan M. Johnson

If the compressor sump is vented to the cooler, such that the oil sump is at cooler pressure, use the hermetic conversion kit. If this is not the case, the open-drive retrofit kit will be required. The hermetic conversion kit, 19EX660003 has all of the required items to convert a machine similar to the current 19EX. The open-drive conversion kit, 17EX660001 has all of the required items to convert a machine similar to the current 17EX. The control system logic operates for machines using R-134a only.

Part Number	Description	17EX660001	19EX660003
HF26BB025	Actuator Motor	1	1
HH79NZ047	Temperature Sensor	6	6
HK05YZ002	Pressure Transducer	4	3
HH79NZ073	Thrust Sensor	1	1
19EX04002601	High Pressure Switch	1	1
AT-225	Temperature Sensor Well	4	4
17EX54001702	PIC Control Panel	1	-
19EX54005002	PIC Control Panel	-	1
19EX54000302	PIC Power Panel	1	-
19EX04000202	PIC Power Panel	-	1
E950705-2	PIC Starter Conversion Panel with SMM	1	1
06DA403844	Valve Assembly	5	4
32MP500354	Motor Sensor	-	2
17/19-1SI	Installation, Service, Operation & Maintenance Instructions	1	1

The above list assumes the original control panel is a 32SM. If the original control panel is a 32MP, the motor (32MP500354) and thrust bearing sensor (HH79NZ073) are not required.

Additional Items required:

- Job/machine “as built” wiring diagrams including chiller and starter data from the local Carrier Office
- Electric drill, bits, and taps for installing sensors
- Standard refrigeration tools
- Touch-up paint, as required

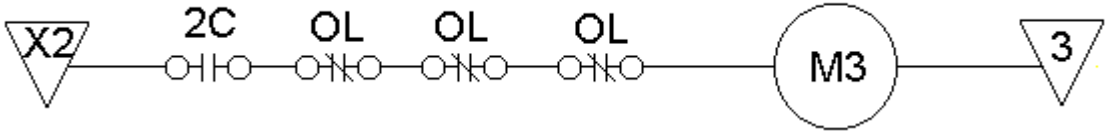
The following hardware is required for mounting the inlet guide vane actuator:

- (3) 1/4-20 x 1-3/4 long hex head bolts (use longer ones if required.)
- (6) 1/4-20 hex nuts
- (3) 1/4" washers
- bushings, if needed

In addition to the above list, the inlet guide vane actuator linkage must be determined based on the application. The guide vane actuator converts a 4 to 20 mA signal sent by the PSIO to a rotational position. Full rotation of the actuator is 308 degrees. It has a rated torque value of 400 in-lbs. (45.1N-m) at 103.5 VAC.

The PIC Starter Conversion Panel with the SMM is a separate enclosure to convert the existing starter to the current Z-375 specification. The panel can be mounted inside, if space is available or outside of the starter. The panel enclosure currently measures 24.38 x 20.38 x 6.75 inches (619 x 518 x 171 mm). It is supplied with its own power supply and pilot relays.

In some cases, the oil pump overloads in older machines are in the 115 volt control circuit. If this is the case, use the contactor 2C in the power panel as a pilot relay. Wire one of the terminals of the contactor in series with the overloads and oil pump contactor, M3 in the existing oil pump contactor coil circuit. This will keep the overloads in the circuit.



The PIC Retrofit kit is currently available through RCD. Contact your RCD Order Correspondent for price information.

Mail Keys: 2.33A, 2.33B, 2.33D, 2.40, 2.40A, 2.40B, 2.40D, 2.40M, 2.46A, 5.25G