UNITED TECHNOLOGIES CARRIER

SERVICE BULLETIN

Title: ESP CONFIGURATION AND OPERATING PARAMETERS

Number: C8715-A
Date: SEPTEMBER 25, 198
Supersedes: C8715
Date: AUGUST 26, 1987

Models Affected: SINGLE COMPRESSOR CHILLERS WITH ESP

PURPOSE:

This bulletin provides information for ESP configuration and operation, to reduce confusion related to operating parameter display with new software.

BACKGROUND:

An ESP allows the display of several operating parameters such as bearing and motor temperature, which can't be displayed on the basic set-point and display panel. The lag chiller parameters have been available, but only when the lead/lag function has been activated. With the recent release of the new 19DM diffuser wall algorithm in the HK98EZ006, 015 and 023 EPROMS as described in Service Bulletins C8707 and C8708, the parameters of both chillers can be displayed even if the lead/lag feature is deactivated.

PROBLEM DEFINITION:

While the availability of operating parameters has been improved, the configuration requirements and data access procedures are now different for the single chiller and lead/lag arrangements, so the operator must be aware of his software part numbers and the procedure below.

PROCEDURE:

The configuration and display logic reside in the ESP EPROM, but since that number is difficult to read, we will use the MX EPROM as the key. The table below summarizes the configuration requirements and the parameter codes.

The essential differences when using the new (015, 023) software are:

Single Chillers - Repeat chiller I.D. in address 1 and address 3.

Single & Lead/lag Chillers - Parameter codes 0-9 are not used.

MAIL KEYS: 2.33D, 2.40B, 2.45, and 2.53

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SINGLE COMPRESSOR CHILLERS
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ESP ADDRESS CONFIGURATION

ADDRESS	PRE 015	015
1 (ONE CHILLER I.D.)	CHILLER I.D.	CHILLER I.D.
2 (OTHER CHILLER I.D.)	BLANK	BLANK
3 (LEAD CHILLER I.D.)	BLANK	CHILLER I.D.

PARAMETER CODES

PRE 015	015
0 - 8	10 - 18

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TWO CHILLERS
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ESP ADDRESS CONFIGURATION

ADDRESS	PRE 015	015
1 (ONE CHILLER I.D.)	CHILLER I.D.	CHILLER I.D.
2 (OTHER CHILLER I.D.)	CHILLER I.D.	CHILLER I.D.
3 (LEAD CHILLER I.D.)	CHILLER I.D.	CHILLER I.D.

PARAMETER CODES

PRE 015				015	
LEAD LAG ACTIVATED		LEAD LAG DE-ACTIVATED		LEAD LAG ACTIVATED OR DE-ACTIVATED	
Lead	Lag	Address #1 Chiller	Address #2 Chiller	Lead	Lag
10 - 19	20 - 29	0 - 9	UNAVAILABLE	10 - 19	20 - 29

CHILLER I.D.'s ARE THOSE DIPPED ON THE BASIC PROCESSOR SWITCH BANK 2. POSITIONS 1,2,3

MACHINE OPERATING PARAMETERS

PARAMETER CODE			PARAMETER TO BE DISPLAYED
0	10	20	Leaving Chilled Water Temperature
1	11	21	Motor Current % RLA
2	12	22	Evaporator Refrigerant Temperature
3	13	23	Condenser Refrigerant Temperature
4	14	24	Bearing Temperature
5	15	25	Motor Winding Temperature
6	16	26	Compressor Discharge Temperature
7	17	27	Line Voltage
8	18	28	Spare Sensor #1 Temperature
9	19	29	Temperature at Common Point (Mixed)