



File in SJ Manual(s).

SERVICE BULLETIN

95-3

Supersedes: *Nothing*

695

Form 160.49-M2 (SB7)

File with Form: 160.48-M2

"SUBJECT: MICROCOMPUTER CONTROL CENTER (YK CENTRIFUGAL CHILLER) - EPROM VERSION C.02F.12 & C.02T.12

ON/ABOUT JULY 1995, THE SUBJECT CHILLERS WILL BE SHIPPED WITH EPROM VERSION C.02F.12 (P/N 031-01431-002). ALSO, VERSION C.02T.12 (P/N 031-01431-003) WILL BE AVAILABLE FOR REMOTE CHILLER COMMUNICATIONS APPLICATIONS. THESE EPROMS HAVE THE FOLLOWING ENHANCEMENTS:

STEAM TURBINE APPLICATIONS

ON STEAM TURBINE APPLICATIONS (MICRO BOARD PROGRAM JUMPER JP4 REMOVED), THE "DAY-TIME-EVAPORATOR TRANSDUCER OR PROBE ERROR" SAFETY SHUTDOWN CHECK IS NOW BYPASSED FOR THE FIRST 20 MINUTES OF CHILLER RUN TIME AND THEN PERFORMED AT THE REGULAR 10 MINUTE INTERVALS THEREAFTER. THIS IS TO ALLOW FOR THE ADDITIONAL TIME REQUIRED TO DECREASE THE EVAPORATOR PRESSURE DUE TO THE LONGER ACCELERATION TIME OF THE STEAM TURBINE.

ALSO, WITH PROGRAM JUMPER JP4 REMOVED, THE COASTDOWN DURATION HAS BEEN EXTENDED TO 10 MINUTES. PREVIOUSLY, IT WAS 6 MINUTES.

"DAY-TIME-PROX SENSOR SAFETY SHUTDOWN"

DUE TO MACHINING CHANGES, THE THRESHOLDS THAT PRODUCE THIS MESSAGE HAVE CHANGED. THIS SAFETY SHUTDOWN IS NOW INITIATED IF THE DISTANCE BETWEEN THE HIGH SPEED THRUST COLLAR AND THE SENSOR PROBE INCREASES ≥ 10 MILS OR DECREASES ≥ 25 MILS (PREVIOUSLY, ≥ 20 MILS) FROM THE "REFERENCE POSITION". IF THE "REFERENCE POSITION" IS 37 TO 43 MILS, THE MINIMUM ALLOWED DISTANCE IS 19 MILS.

ALSO, THE PROXIMITY DETECTOR EQUATIONS THAT ARE USED TO CALCULATE THE DETECTOR OUTPUTS HAVE CHANGED AS FOLLOWS:

WITH THIS EPROM:

$$V = \frac{D - 8.14}{20.86}$$

$$D = 20.86 \times V + 8.14$$

WHERE D = DISTANCE IN MILS
V = VOLTS DC

ALL PREVIOUS EPROMS:

$$V = \frac{D - 4.14}{20.86}$$

$$D = 20.86 \times V + 4.14$$

CHINESE LANGUAGE DISPLAY

WITH THIS EPROM, THE CONTROL CENTER CAN BE EQUIPPED WITH AN OPTIONAL CHINESE DISPLAY, EITHER AS A FIELD RETROFIT OR FACTORY SUPPLIED OPTION ON NEW UNITS. THIS DISPLAY MOUNTS ON THE CONTROL CENTER DOOR, DIRECTLY ABOVE THE STANDARD DISPLAY. BOTH THE STANDARD AND CHINESE DISPLAY WILL BE PRESENT, PROVIDING DISPLAY MESSAGES SIMULTANEOUSLY IN BOTH ENGLISH AND CHINESE LANGUAGE.

THE CONTROL CENTER MUST BE CONFIGURED FOR THE DISPLAYS THAT ARE PRESENT, USING THE PROCEDURE BELOW. IF THE CHINESE DISPLAY IS PRESENT, "CHINESE DISPLAY SELECTED" MUST BE PROGRAMMED. OTHERWISE, "CHINESE DISPLAY NOT SELECTED" MUST BE PROGRAMMED.

IMPORTANT!!!! - IF THE CHINESE DISPLAY IS NOT PRESENT AND "CHINESE DISPLAY SELECTED" IS PROGRAMMED, THE STANDARD DISPLAY WILL NOT OPERATE PROPERLY.

TO SELECT STANDARD DISPLAY OR CHINESE DISPLAY, PROCEED AS FOLLOWS: (ADD THESE INSTRUCTIONS TO THE "SPECIAL SETPOINTS AND RESET PROCEDURES" SECTION OF FORM 160.49-M2)

- 1.) ENTER "PROGRAM" MODE USING ACCESS CODE 1-3-8-0.
- 2.) PRESS THE HIDDEN UNEMBOSSED, UNLABELED KEY LOCATED BELOW THE **CLOCK** SETPOINT KEY. "CHINESE DISPLAY NOT SELECTED" OR "CHINESE DISPLAY SELECTED" IS DISPLAYED.
- 3.) USE **ADVANCE DAY/SCROLL** KEY TO SELECT DESIRED DISPLAY. EACH TIME THE KEY IS PRESSED, THE DISPLAY ALTERNATES.
- 4.) PRESS **ENTER** KEY.
"PROGRAM MODE, SELECT SETPOINT" IS DISPLAYED.
- 5.) PRESS **PROGRAM** KEY TO EXIT.

SYSTEM START-UP CHECKLIST

ADD THE FOLLOWING TO THE "SYSTEM START-UP CHECK LIST" SECTION OF SERVICE MANUAL 160.49-M2:

- * CONFIGURE CONTROL CENTER FOR EITHER STANDARD OR CHINESE DISPLAY.
- * SELECT STANDARD OR CHINESE DISPLAY (REFER TO "SYSTEM CALIBRATION, SPECIAL SETPOINTS AND RESET PROCEDURES SECTION OF THIS BOOK.



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