

THE MICRO BOARD MUST BE EQUIPPED WITH EPROM VERSION C.02F.12 (OR LATER) OR C.02T.12 (OR LATER) TO ENABLE OPERATION OF THE CHINESE DISPLAY. CHINESE DISPLAY OPERATION IS ENABLED BY PERFORMING THE SPECIAL PROGRAMMING PROCEDURE DESCRIBED BELOW.

PROGRAM JUMPERS

PROGRAM JUMPERS, LOCATED ON THE CHINESE DISPLAY PRINTED CIRCUIT BOARD, ARE USED AS FOLLOWS:

<u>JUMPER</u>	<u>POSITION</u>	<u>FUNCTION</u>
PT0	SHUNT ON PINS 1 & 2	SIMPLIFIED CHINESE
	SHUNT ON PINS 2 & 3	TRADITIONAL CHINESE
PT1	NOT USED	
PT2	NOT USED	
PT3	NOT USED	
PT4	SHUNT ON	NORMAL OPERATION
	SHUNT OFF	DISPLAY TEST MODE (SEE BELOW)
PT5	NOT USED	
PT6	NOT USED	
PT7	NOT USED	
DS1	SHUNT ON PINS 1 & 2	CONTRAST - VL ELECTRONICS LCD DISPLAY
	SHUNT ON PINS 2 & 3	CONTRAST - OPTREX LCD DISPLAY

CHINESE DISPLAY ENABLE

THE MICRO BOARD MUST BE EQUIPPED WITH EPROM VERSION C.02F.12 (OR LATER) OR C.02T.12 (OR LATER). IF THE CHINESE LANGUAGE DISPLAY IS PRESENT, "CHINESE DISPLAY SELECTED" MUST BE PROGRAMMED. OTHERWISE, "CHINESE DISPLAY NOT SELECTED" MUST BE PROGRAMMED IN THE PROCEDURE BELOW:

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

- 1.) ENTER "PROGRAM" MODE USING ACCESS CODE 1-3-8-0.
- 2.) PRESS THE HIDDEN UNEMBOSSED, UNLABELED KEYPAD LOCATED DIRECTLY BELOW THE CLOCK SETPOINT KEY. "CHINESE DISPLAY NOT SELECTED" OR "CHINESE DISPLAY SELECTED" IS DISPLAYED.
- 3.) USE ADVANCE DAY/SCROLL KEY TO SELECT CHINESE DISPLAY IF CHINESE DISPLAY IS PRESENT. 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.

TESTING

THE FOLLOWING TESTING PROCEDURES CAN BE USED TO VERIFY OPERATION OF THE CHINESE LANGUAGE DISPLAY.

SIMPLIFIED CHINESE CHARACTER TEST

- 1.) REMOVE PROGRAM JUMPER PT4 FROM CHINESE DISPLAY PRINTED CIRCUIT BOARD.
- 2.) PLACE PROGRAM JUMPER PT0 ON PINS 1 & 2 OF PT0.
- 3.) PRESS **CHILLED LIQUID TEMPS** KEYPAD KEY.
- 4.) VERIFY THAT ENTERING & LEAVING CHILLED WATER TEMPERATURES ARE DISPLAYED ON BOTH THE ENGLISH AND CHINESE DISPLAY AND THAT ENGLISH LETTERS "SIMP" ARE DISPLAYED IN THE UPPER RIGHT CORNER OF THE CHINESE DISPLAY.
- 5.) REPLACE PROGRAM JUMPER PT4, REMOVED IN STEP 1.

TRADITIONAL CHINESE CHARACTER TEST

- 1.) REMOVE PROGRAM JUMPER PT4 FROM CHINESE DISPLAY PRINTED CIRCUIT BOARD.
- 2.) PLACE PROGRAM JUMPER PT0 ON PINS 2 & 3 OF PT0.
- 3.) PRESS **CHILLED LIQUID TEMPS** KEYPAD KEY.
- 4.) VERIFY THAT ENTERING & LEAVING CHILLED WATER TEMPERATURES ARE DISPLAYED ON BOTH THE ENGLISH AND CHINESE DISPLAY AND THAT ENGLISH LETTERS "TRAD" ARE DISPLAYED IN THE UPPER RIGHT CORNER OF THE CHINESE DISPLAY.
- 5.) REPLACE PROGRAM JUMPER JP4, REMOVED IN STEP 1.

CHINESE LCD DISPLAY TEST

- 1.) REMOVE PROGRAM JUMPER PT4 FROM CHINESE DISPLAY PRINTED CIRCUIT BOARD.
- 2.) PRESS **HOLIDAY** KEYPAD KEY. VERIFY ALL PIXELS OF CHINESE DISPLAY ILLUMINATE AND THE ENGLISH DISPLAY SHOWS NORMAL HOLIDAY DISPLAY.
- 3.) PRESS **DAILY SCHEDULE** KEYPAD KEY. VERIFY "YORK LOGO" APPEARS ON THE CHINESE DISPLAY AND NORMAL DAILY SCHEDULE DATA APPEARS ON THE ENGLISH DISPLAY.
- 4.) REPLACE PROGRAM JUMPER JP4, REMOVED IN STEP 1.

SERVICE REPLACEMENT & DISPLAY ADJUSTMENT

THERE ARE TWO DIFFERENT LCD DISPLAYS THAT COULD BE SUPPLIED UNDER YORK PART NUMBER 031-01653-000: "OPTREX" P/N DMF5005NY-LY OR "VL ELECTRONICS" P/N MGLS-24064-TC-HV-G-LED4G. THESE DISPLAYS REQUIRE DIFFERENT CONTRAST BIAS VOLTAGES. THIS VOLTAGE CAN BE READ AT TEST POINT **TPC** ON THE CHINESE DISPLAY PRINTED CIRCUIT BOARD. THE POSITION OF PROGRAM JUMPER **DS1** AND SETTING OF POT "R7" ON THE CHINESE DISPLAY PRINTED CIRCUIT BOARD DETERMINES THIS VOLTAGE. THEREFORE, ANYTIME THE DISPLAY IS REPLACED, **DS1** MUST BE PLACED IN THE CORRECT POSITION AND "R7" MAY HAVE TO BE ADJUSTED TO ACHIEVE THE APPROPRIATE VOLTAGE AT **TPC** AS FOLLOWS:

4.

<u>DS1</u>	<u>DISPLAY</u>	<u>TPC</u>
SHUNT ON PINS 1 & 2	VL ELECTRONICS	-9.5 VDC
SHUNT ON PINS 2 & 3	OPTREX	-7.8 VDC

INPUTS/OUTPUTS & TEST POINTS

J1 - ENGLISH DATA INPUT TO CHINESE DISPLAY PRINTED CIRCUIT BOARD.

J2 - ENGLISH DATA OUTPUT TO VACUUM FLOURESCENT DISPLAY.

J3 - CHINESE DATA TO CHINESE LCD DISPLAY.

J4-1 - +8 VDC BACKLIGHT POWER TO CHINESE LCD DISPLAY.

J4-2 - GND.

J5-1 - 24 VAC POWER SUPPLY INPUT TO CHINESE DISPLAY PRINTED CIRCUIT BOARD.

J5-2 - 24 VAC RETURN.

J5-3 - GND.


TPA - +5 VDC

TPB - GND

TPC - CONTRAST VOLTAGE OUTPUT TO CHINESE LCD DISPLAY. -9.5VDC WITH SHUNT ON PINS 1 & 2. -7.8VDC WITH DS1 SHUNT ON PINS 2 & 3. ADJUSTED WITH POT R7.

RETROFIT KIT

THE CHINESE LANGUAGE DISPLAY CAN BE RETROFIT TO EXISTING CHILLERS. RETROFIT KIT P/N 371-01708-004 CONTAINS A COMPLETE MICROCOMPUTER CONTROL CENTER DOOR. MOUNTED ON THE DOOR IS A KEYPAD, ROCKER SWITCH, LOCK, RIBBON CABLES, DECALS, VACUUM FLOURESCENT ENGLISH LANGUAGE DISPLAY AND CHINESE LANGUAGE DISPLAY, THE APPROPRIATE EPROM FOR THE MICRO BOARD IS SUPPLIED. ALSO, INSTALLATION INSTRUCTIONS ARE INCLUDED. THIS KIT CAN BE ORDERED FROM THE SERVICE PARTS DISTRIBUTION CENTER.



S.L. BAER
ELECTRONICS PRODUCTS
SERVICE ENGINEER

SSP 3M 895 .20
CODE: SJ