



# SYSTEM STATUS PRINTERS

INSTALLATION & OPERATION

Supersedes: See Back Cover

Form 160.00-NO8 (1100)

## MICROCOMPUTER CONTROL CENTER WITH MICROBOARD 031-00940-000/-001 OR 031-01065-000/-001/-002

USED WITH YST, YPC, YIA, YG/YB,  
YS STYLE D,  
YT (STYLES E, F, G, & H), AND  
YK (STYLES A, B, C, & D) CHILLERS



23887A

OKIDATA  
MICROLINE 182



00085VIP

SEIKO DPU-414-30B



23884A

EPSON LX-86



WEIGH-TRONIX IMP-24

23889A

# TABLE OF CONTENTS

SECTION	<b>1</b>	Introduction .....	3
SECTION	<b>2</b>	Types of Printers .....	3
		Table 1 - Printers .....	3
		Printer Uses .....	3
		Printer Comparisons .....	4
SECTION	<b>3</b>	Installation .....	5
		MicroComputer Control Center with Microboard 031-00940-000/-001 .....	5
		Figure 1 - Printer Interface Adapter No. 031-00910-000 .....	5
		Table 2 - Parts Supplied for Part No. 031-00910-000 .....	6
		Figure 2 - Printer Interface Adapter Installation into MicroComputer Control Center 031-00940-000/-001 .....	6
		Figure 3 - Microboard (031-00940-001) .....	7
		Figure 4 - Printer Interface Adapter for Weigh-Tronix Printer .....	8
		Figure 5 - Printer Interface Adapter for Okidata Printer .....	8
		Figure 6 - Printer Interface Adapter for Texas Instrument Printer .....	8
		Figure 7 - Printer Interface Adapter for Epson Printer .....	9
		Figure 8 - Printer Interface Adapter for Seiko Printer .....	9
		MicroComputer Control Center with Microboard 031-01065-000/-001/-002 .....	10
		Figure 9 - Microboard (031-01065-000, -001, -002) .....	10
		Figure 10 - Printer Interface Adapter for Weigh-Tronix Printer .....	11
		Figure 11 - Printer Interface Adapter for Okidata Printer .....	11
		Figure 12 - Printer Interface Adapter for Texas Instrument Printer .....	11
		Figure 13 - Printer Interface Adapter for Epson Printer .....	12
		Figure 14 - Printer Interface Adapter for Seiko Printer .....	12
SECTION	<b>4</b>	Printer Operation .....	13
		Table 3 - Printer Switch Configurations .....	15
		Figure 15 - Operator Initiated Print or Data Logging Print Example .....	17
		Figure 16 - Shutdown Initiated Print Example .....	18
		Figure 17 - History Print Example .....	18
SECTION	<b>5</b>	MicroComputer Control Center .....	19
		Figure 18 - MicroComputer Control Center (Keypad Example) .....	19

## SECTION 1 INTRODUCTION

The purpose of this instruction is to describe the application, the installation, and operation of printers to be used in conjunction with the designated MicroComputer Control Centers.

## SECTION 2 TYPES OF PRINTERS

The applicable printers are the **Weigh-Tronix**, **Seiko**, **Okidata**, **Texas Instruments**, and **Epson** as listed in Table 1.

**TABLE 1 – PRINTERS**

MANUFACTURER	MODEL	PURCHASE
Weigh-Tronix (Max. Distance = 25 ft.)	IMP-24 2600 or 1220*	Contact your local YORK Service Office
Okidata Microline (Max. Distance = 50 ft.)	182 or 184**	Contact your local YORK Service Office
Texas Instruments (Max. Distance = 50 ft.)	TI-OMNI 800/820 KSR	Discontinued
Epson (Max. Distance = 50 ft.)	LX-86	Contact your local YORK Service Office
Seiko (Max. Distance = 50 ft.)	DPU-414-30B	Contact your local YORK Service Office

The Weigh-Tronix printer uses desk top calculator paper 2.25" wide, the Seiko uses 3.50" wide paper, and the other three printers standard 8-1/2" wide printout paper.

\* Model 1220 replaced Model 2600 approximately December 1996 (See Page 14).

\*\* Model 184 replaced Model 182 approximately December 1992 (No change in operation).

### PRINTER USES

#### Customer

- Data Logging – Instead of manually completing a daily or hourly chiller log, the customer can use the printer to provide hard-copy records.
- History Print – A history of the last four cycling or safety shutdowns can be printed.
- System Status – Can provide remote indication of system status up to maximum cable run of 25 ft. or 50 ft. depending on the printer.

#### YORK Service

- Data Logging – Service technician can track the operation of the chiller over periods of time when not at the jobsite.
- Shutdown Recording – Service technician can record the chiller operating parameters at the time of any cycling or safety shutdown. This can be accomplished while the service technician is not at the jobsite.

## PRINTER COMPARISONS

The MicroComputer Control Center software has been written to accommodate those printers listed in Table 1.

The **Weigh-Tronix** printer is a compact, portable and cost-effective printer that is ideal for field service work. It prints on 2.25" wide desktop calculator paper that can be purchased at most stationery stores. An example of the printouts is given in Figs. 15, 16, and 17.

The **Seiko** printer is a compact, portable and cost effective printer that is perfect for field service work. It prints out a large 3.50" wide, easy to read strip chart.

The **Okidata** and **Epson** printers are full size printers that print on 8-1/2" wide paper.

The printers listed in Table 1 are recommended for use with the MicroComputer Control Center. However, it does not represent a complete list of printers that are compatible with the MicroComputer Control Center. Proceed with caution and use the following guidelines if an unlisted printer is selected:

1. All must be capable of 1200 baud serial communications rate with 8 bit data, 1 stop bit, no parity, with handshake (asserted low when busy).
2. Primary differences involve control codes for special formatting. For example, Weigh-Tronix printers require a special control code to select 40 column printout, which we require for readability. This same code is interpreted by the Okidata as an instruction to print wide characters. In order to print the entire message dump onto one page, the 8 line/inch option must be selected (for Okidata printers). The code to perform this interpreted by the Weigh-Tronix as the number 8, and is printed as such. Often a printer will simply ignore a code it cannot interpret.
3. Software cannot be included to allow selection of all printers, through front panel keys. However, a few of the most popular printer models have been accommodated.
4. Though control codes may differ in many printers, any printer meeting the serial communications requirements may return a meaningful hard-copy, even if the control codes don't match that printer. However, unusual formatting can be expected, such as spacing and character size variations.
5. Not all printers use the same lines for handshaking. As a consequence, care should be taken when connecting the cable to the printer end of the link so that proper handshaking occurs. The printer manual should be consulted for this information.
6. The following connections in the MicroComputer Control Center must be matched to those pins on the printer which will produce the desired operation. The pin numbers at the printer end may vary with the printer chosen. All lines are RS-232C compatible.

Microboard		
031-00940-000/ -001	031-01065-000/ -001/ -002	
J11-1	TB8-3	(TXD) – serial data to printer
J11-4	TB8-2	(DSR) – busy signal from printer asserted low (–) when busy
J11-5	TB8-5	(GND) – ground to printer

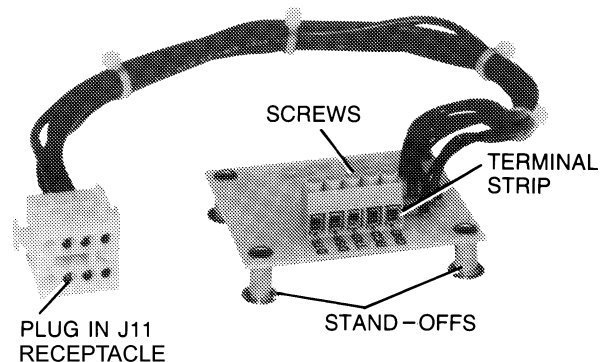
The remainder connections of these terminals are not used for printer applications.

## SECTION 3 INSTALLATION

### MICROCOMPUTER CONTROL CENTER WITH MICROBOARD 031-00940-000/-001

If control center is equipped with Microboard 031-00940-000 or 031-00940-001, proceed as follows:

1. Order printer interface adapter (031-00910-000) (Fig. 1) from YORK Parts Distribution Center and install in MicroComputer Control Center per Fig. 2.
2. Fabricate printer interface cable per Figs. 4 thru 8.
3. Connect printer interface cable to the printer interface adapter by stripping 1/4" insulation from wires and inserting under screws. Tighten screws. Connect per Figs. 4 thru 8.
4. If printers are being installed on several chillers at one jobsite, it is advantageous to assign an identification number to each chiller. Refer to Fig. 3 and locate switch S1 on the Microboard. Using a small screwdriver, turn switch S1 to desired number. The selected number will be printed at the top of each printout.
5. Verify that Microboard program jumper J56 is in the **MODEM** position. If not, move to **MODEM** position.



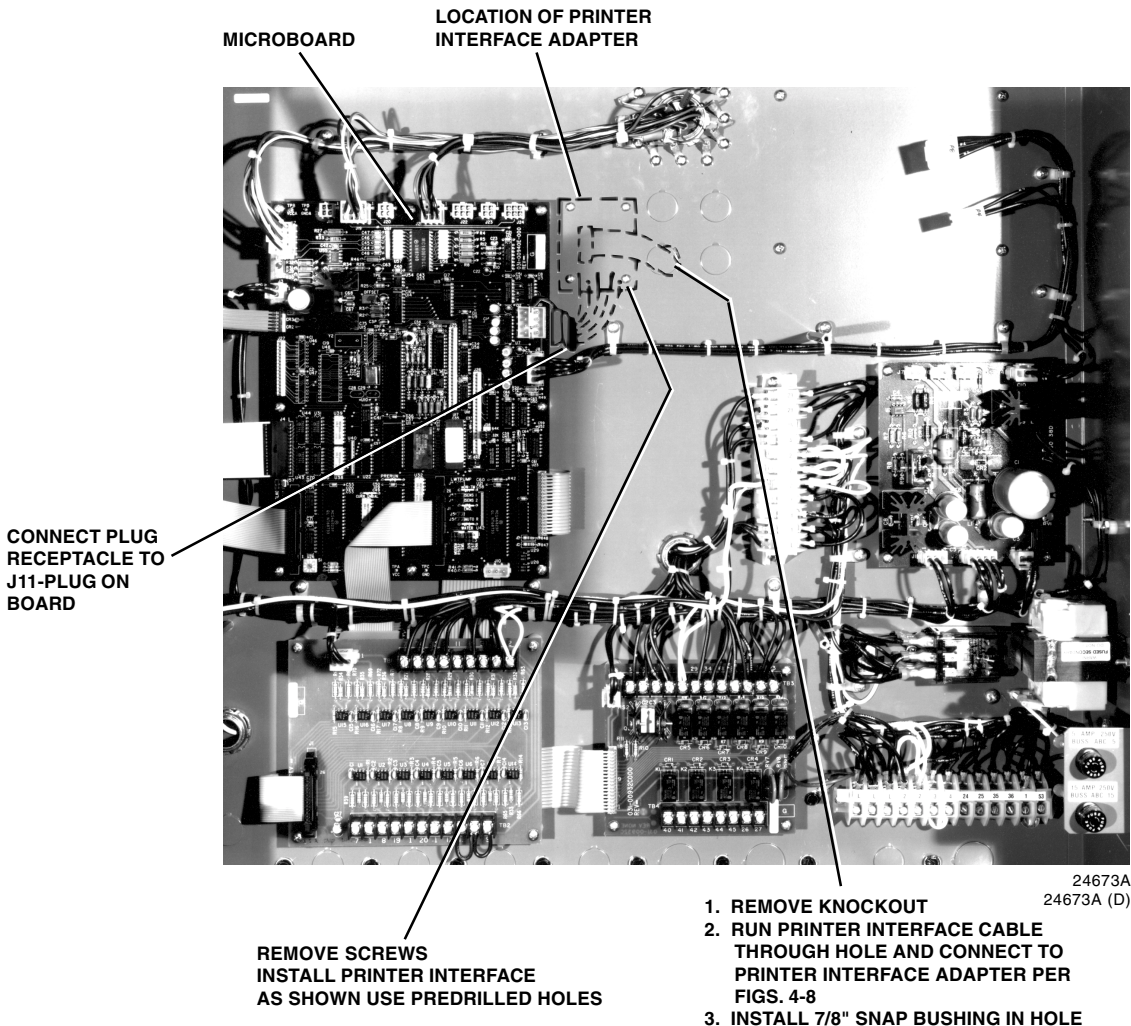
00003TG

**FIG. 1 – PRINTER INTERFACE ADAPTER –  
PART NO. 031-00910-000**

**TABLE 2 – PARTS SUPPLIED FOR PART NO. 031-00910-000 (SUPPLIED BY YORK)**

YORK PART NUMBER	QUAN.	DESCRIPTION
031-00910-000	1	Printer Interface Adapter (See Fig. 1)
	4	Screws, No. 6-32 x 3/4 (self-tapping)
	1	7/8" snap bushing
	6	Wire Ties

All items listed above are supplied under YORK p/n 031-00910-000.



**FIG. 2 – PRINTER INTERFACE ADAPTER INSTALLATION INTO MICROCOMPUTER CONTROL CENTER  
(MICROBOARD 031-00940-000 OR 031-00940-001 ONLY)**

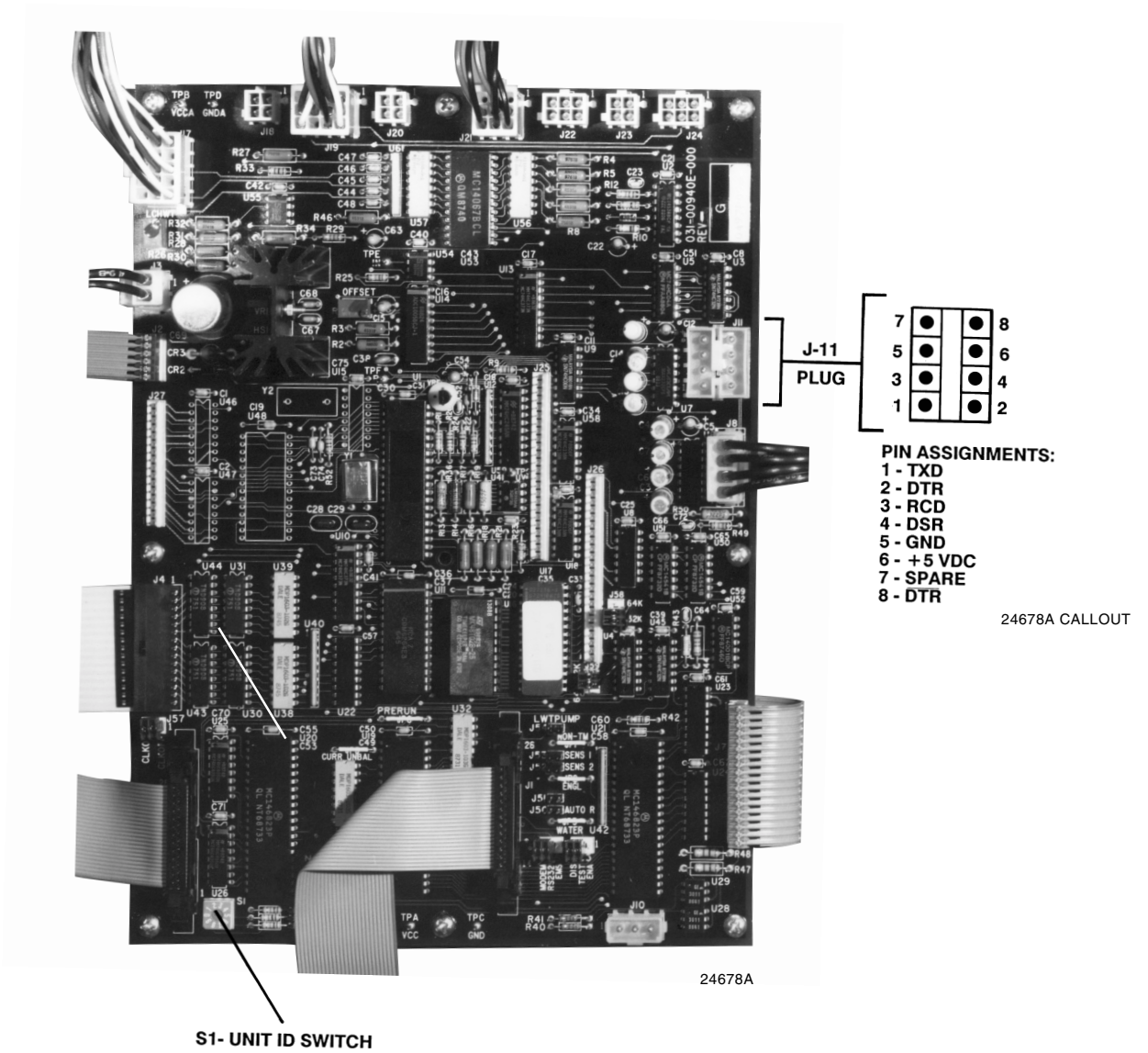
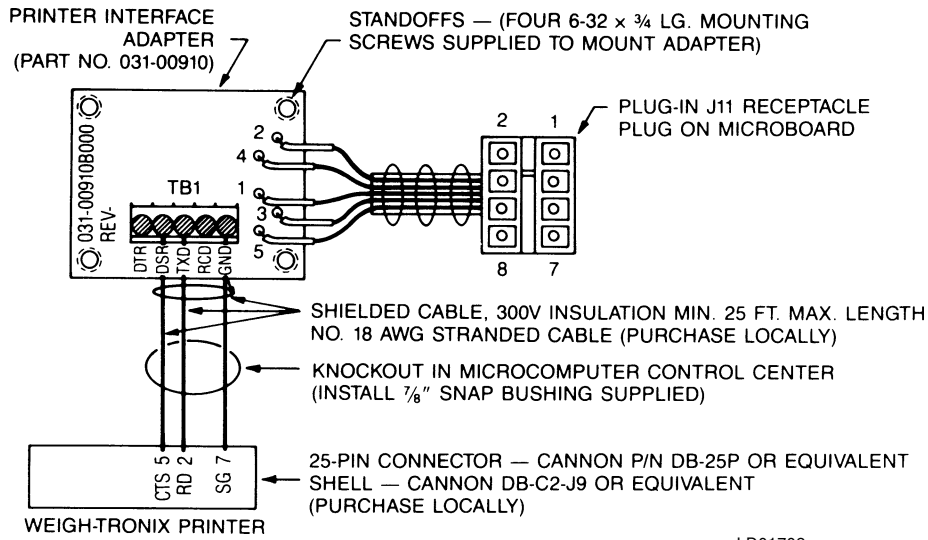
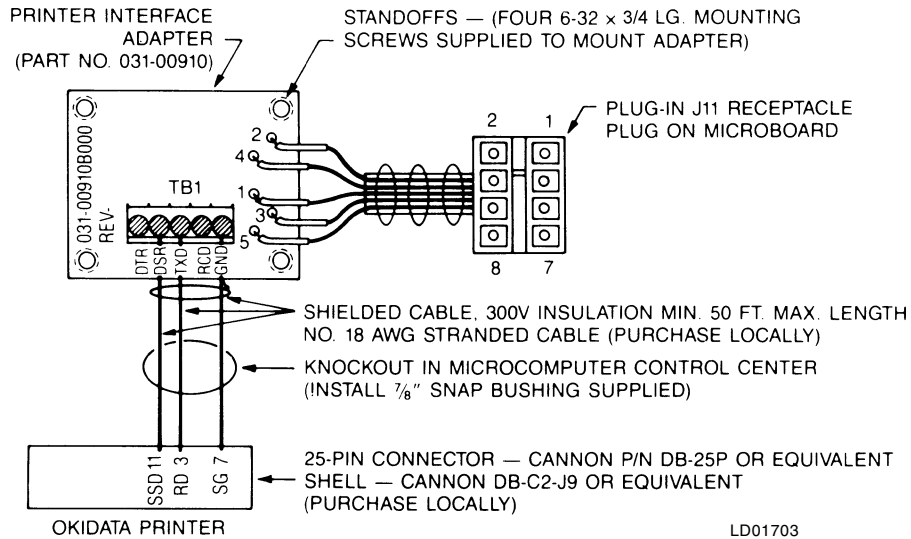


FIG. 3 – MICROBOARD (031-00940-000, -001)



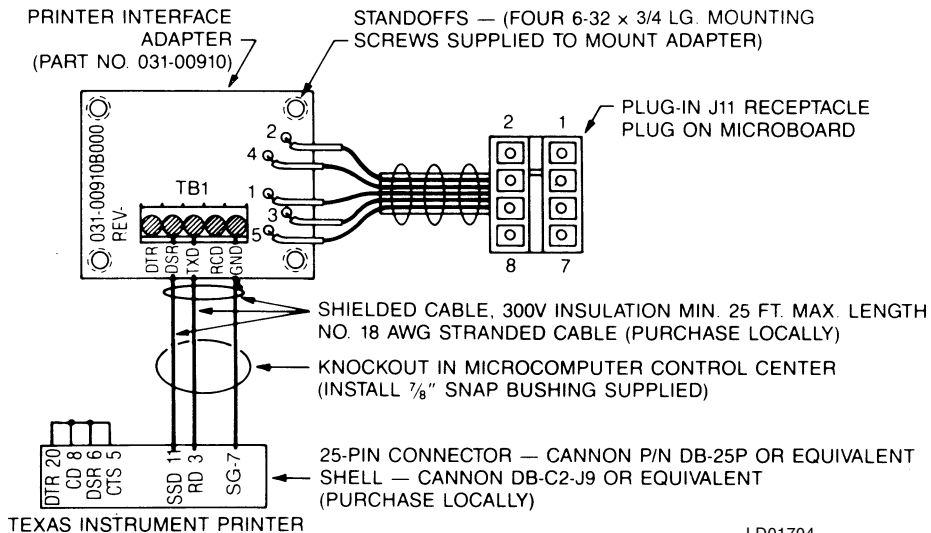
LD01702

**FIG. 4 – PRINTER INTERFACE ADAPTER FOR WEIGH-TRONIX PRINTER**



LD01703

**FIG. 5 – PRINTER INTERFACE ADAPTER FOR OKIDATA PRINTER**



LD01704

**FIG. 6 – PRINTER INTERFACE ADAPTER FOR TEXAS INSTRUMENT PRINTER**

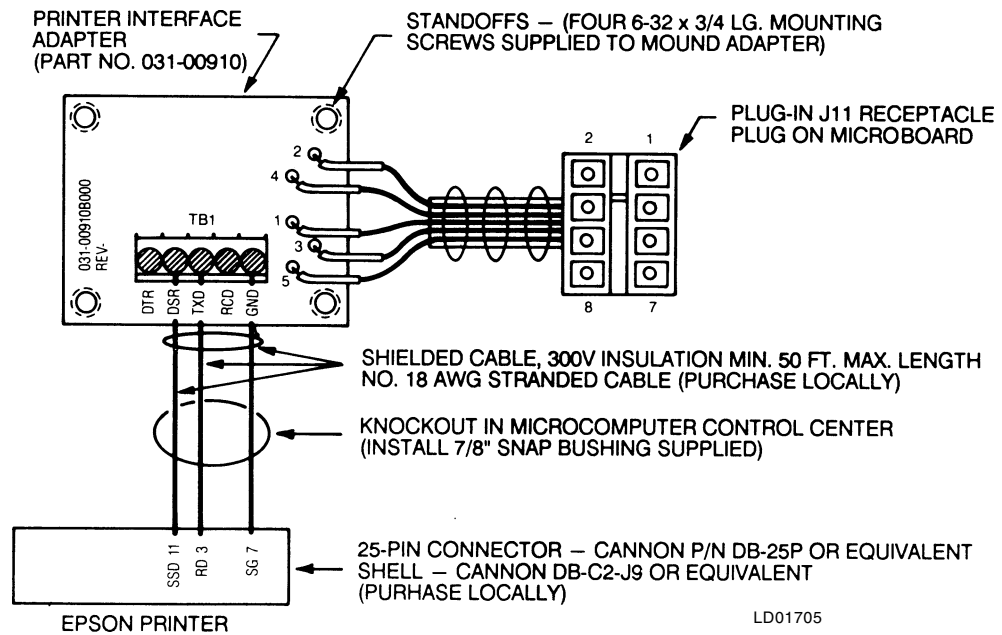


FIG. 7 – PRINTER INTERFACE ADAPTER FOR EPSON PRINTER

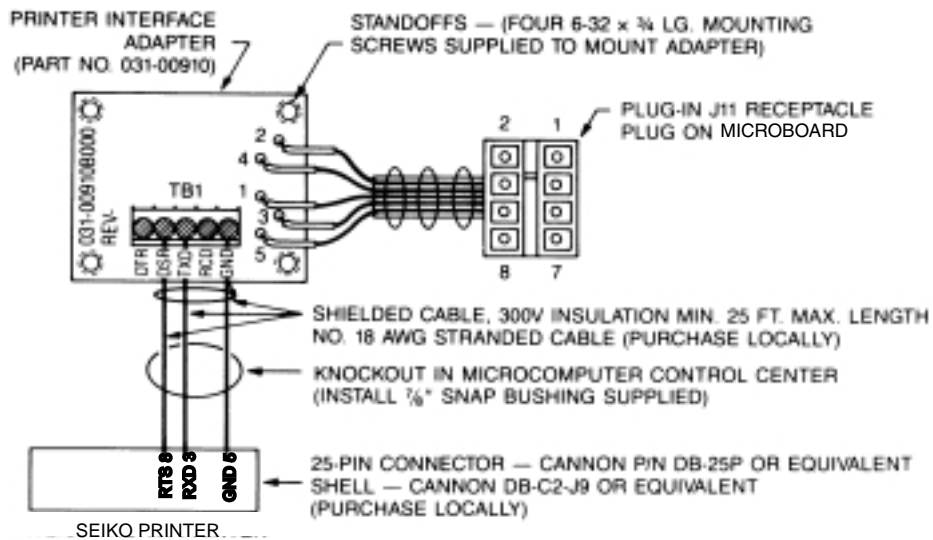


FIG. 8 – PRINTER INTERFACE ADAPTER FOR SEIKO PRINTER

## MICROCOMPUTER CONTROL CENTER WITH MICROBOARD 031-01065-000/-001/-002

If control center is equipped with Microboard 031-01065-000, 031-01065-001 or 031-01065-002, proceed as follows:

1. Fabricate printer interface cable per Figs. 10 thru 14.
2. Connect printer interface cable to the Microboard by stripping 1/4" insulation from wires and inserting under screws of TB8 of Microboard. Tighten screws. Connect per Figs. 10 through 14.
3. Verify that Microboard program jumper J58 is in the **RS-232** position. If not, move to **RS-232** position.
4. Verify that Microboard program jumper J56 is in the **MODEM** position. If not, move to **MODEM** position.
5. If printers are being installed on several chillers at one job site, it is advantageous to assign an identification number to each chiller. Refer to Fig. 9 and locate S1 on the Microboard. Using a small screwdriver, turn switch S1 to desired number. The selected number will be printed at the top of each printout.

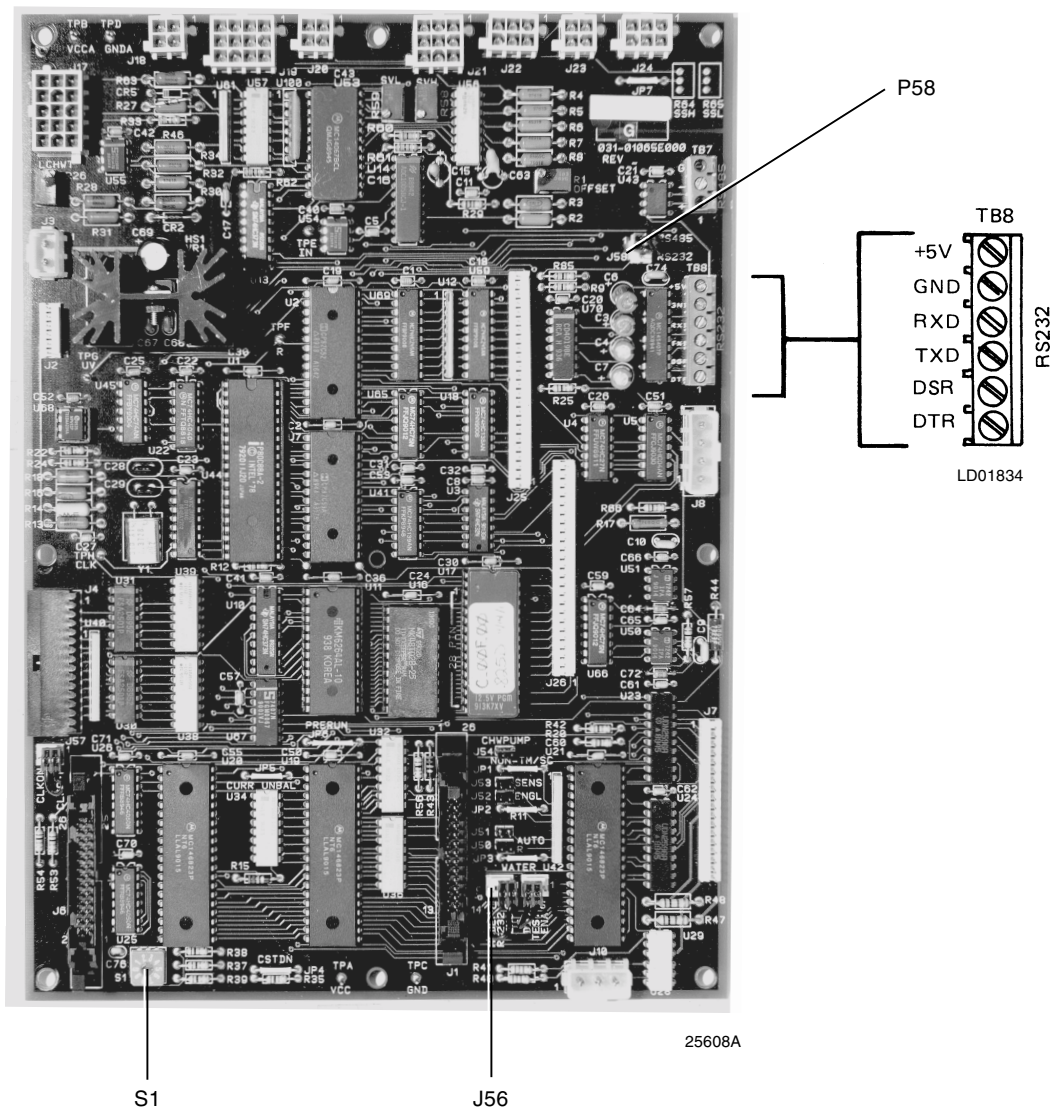
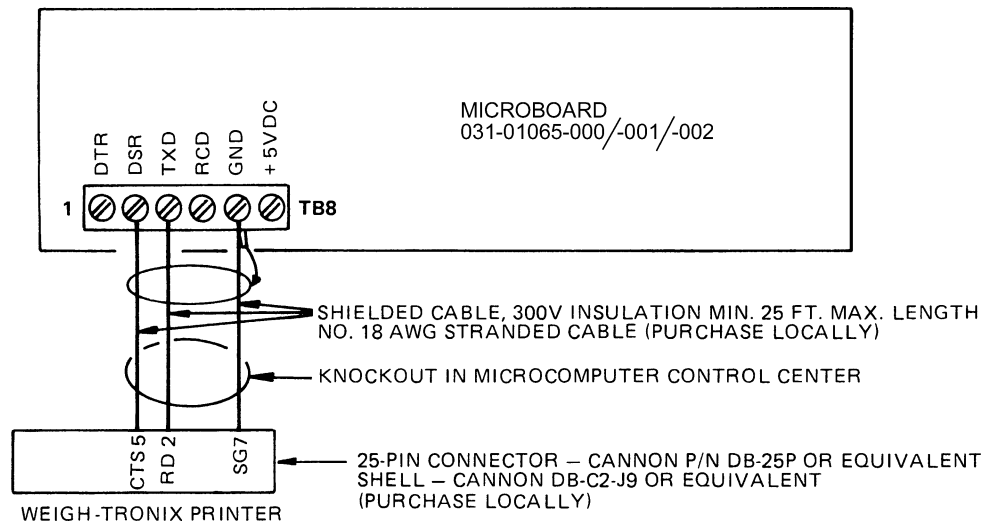
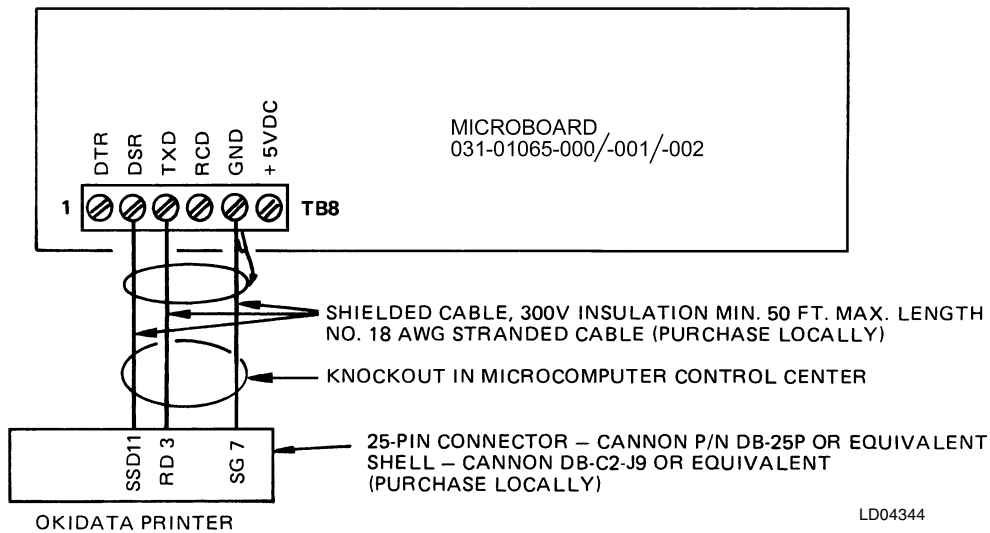


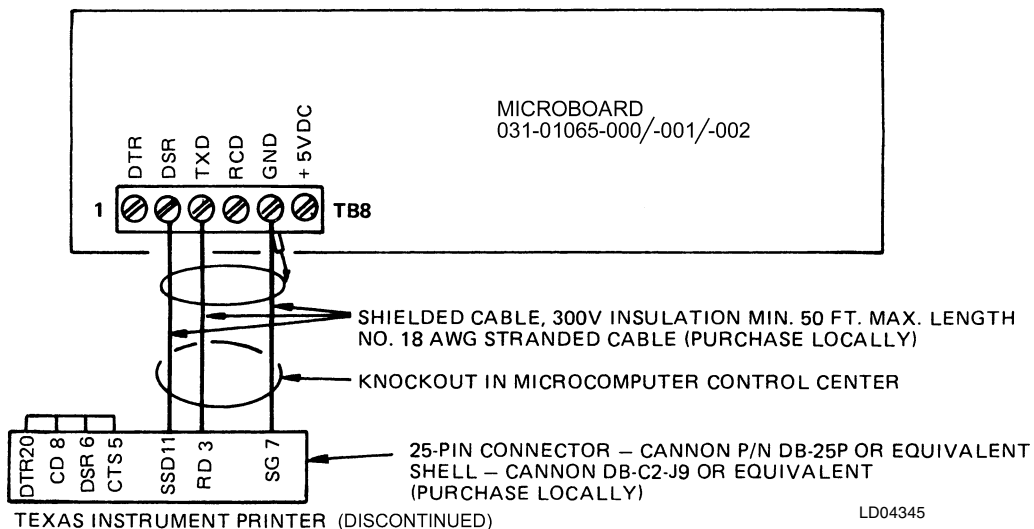
FIG. 9 – MICROBOARD (031-01065-000, -001, -002)



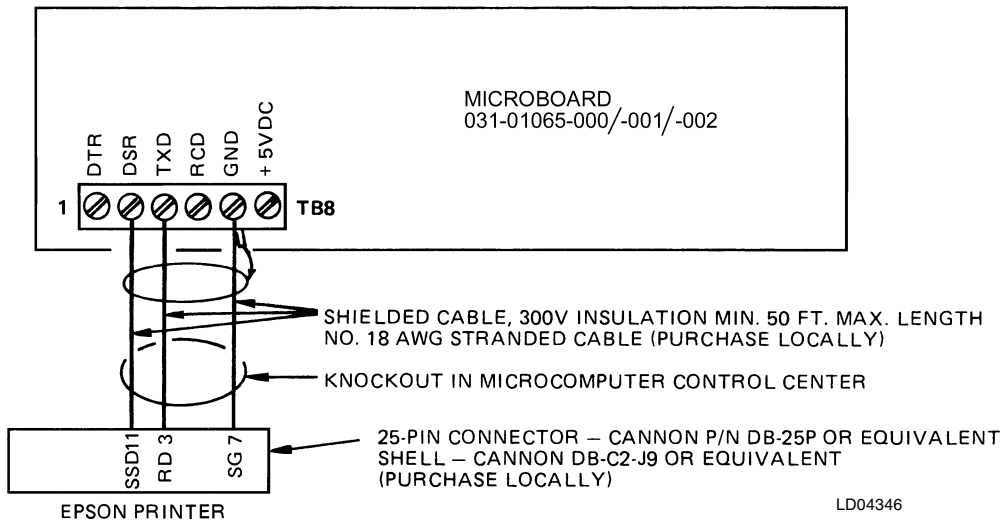
**FIG. 10 – PRINTER INTERFACE ADAPTER FOR WEIGH-TRONIX PRINTER**



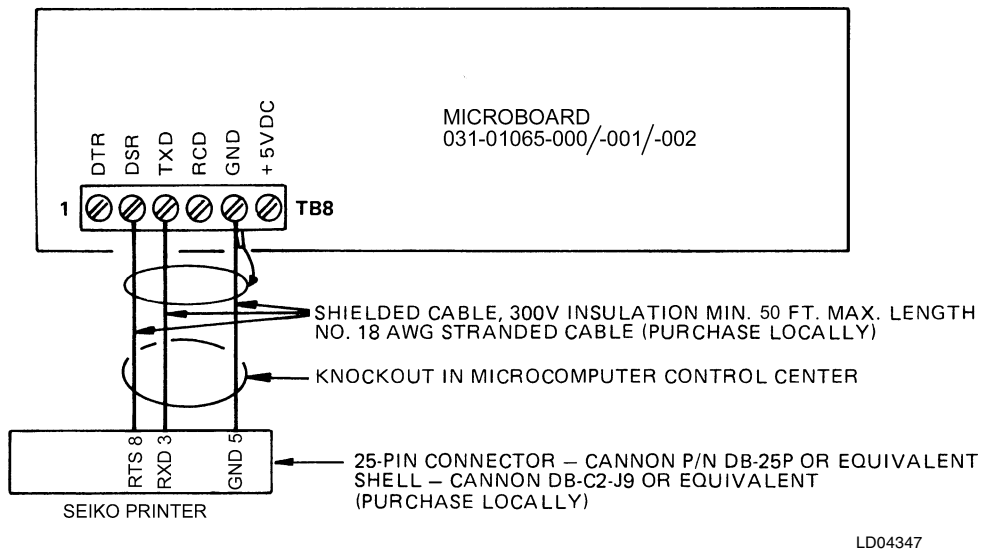
**FIG. 11 – PRINTER INTERFACE ADAPTER FOR OKIDATA PRINTER**



**FIG. 12 – PRINTER INTERFACE ADAPTER FOR TEXAS INSTRUMENT PRINTER**



**FIG. 13 – PRINTER INTERFACE ADAPTER FOR EPSON PRINTER**



**FIG. 14 – PRINTER INTERFACE ADAPTER FOR SEIKO PRINTER**

## SECTION 4

# PRINTER OPERATION

Depending on the type of chiller, the following chiller operating data is printed: Reference Fig. 15.

### Printed Data

- Unit Identification Number
- EPROM (software) Revision Level
- Day-of-Week, Time-of-Day, Date
- Chilled Leaving and Entering Temperatures
- Evaporator and Condenser Pressures
- Differential Oil Pressure (if YS, YB, YG)
- Oil Pressure (Input to Compressor) (if YST, YT "F"- "H")
- Filter Differential Pressure (Pressure Drop Across Oil Filter) (if YS "D")
- Oil Filter Pressure (Input to Oil Filter) (if YS "D")
- 3-Phase Motor Current (Liquid Cooled Solid State Starter Only)
- 3-Phase Power Line Voltage (Liquid Cooled Solid State Starter Only)
- Condenser Leaving and Entering Water Temperatures (optional\*)
- Motor Current (expressed as % FLA)
- Accumulated Running Hours; Starts
- Supply Voltage Range Setpoint (Liquid Cooled Solid State Starter Only)
- Leaving Chilled Water Temperature Setpoint
- Current Limit Setpoint
- Current Limit Setpoint; Compressor FLA (Liquid Cooled Solid State Starter Only)
- Pulldown Demand Limit Setpoint
- Holiday Schedule Setpoint
- Remote Reset Temperatures Setpoint Range (not YST)
- Evaporator and Condenser Saturation Temperatures
- Discharge and Oil Temperatures
- Slide Valve Position (if YS)
- Engine Speed (RPM) (if YB, YG)
- Engine RPMS Target (if YB, YG)
- Engine Load Limit (%) (if YB, YG)
- Engine Loading (%) (if YB, YG)
- Percent Vanes Open (if YB, YG)
- Percent DAC Output (if YB, YG)
- Engine Oil Pressure (if YB, YG)
- Engine Manifold Pressure (if YB, YG)
- Engine Jacket Water Temp. (if YB, YG)
- Engine SCAC Temperature (if YB, YG)
- Engine Mach Number (if YB, YG)
- Pressure Ratio (DP/P) (if YB, YG)
- Engine Load (Hrs)->(30-39%) (if YB, YG)
- Engine Load (Hrs)->(40-49%) (if YB, YG)
- Engine Load (Hrs)->(50-59%) (if YB, YG)
- Engine Load (Hrs)->(60-69%) (if YB, YG)
- Engine Load (Hrs)->(70-79%) (if YB, YG)
- Engine Load (Hrs)->(80-89%) (if YB, YG)
- Engine Load (Hrs)->(90-100%) (if YB, YG)
- Engine Model (if YB, YG)
- Compressor Model (if YB, YG)
- Compressor Gear Code (if YB, YG)
- Pulldown Limit Time Setpoint (if YB, YG)
- Pulldown Limit Time Left (if YB, YG)
- Level Control Position (if YB)
- Level Control Setpoint (if YB)
- Surface Speed Control (if YB)
- Purge Pressure (if YT "E"- "H")
- High and Low Side Oil Pressure (if YB, YG, or YK "A"- "D", YST)
- High Speed Drain Temp (if YK "A"- "D", YB, YG, YST)
- Proximity Sensor Position (if YK "A"- "D", YB, YG, YST)
- Proximity Sensor Reference (if YK "A"- "D", YB, YG, YST)
- Turbine Speed (if YST)
- Turbine Oil PRS Pressure and Temperature (if YST)
- Steam Temps - In and Out (if YST)
- Steam PRS - In and Out (if YST)
- Daily Schedule Setpoints
- State of Relay Output Board Relays (on = closed, off = open)
  - Comp Motor Starter (on/off) (if YS "D", YK "A"- "D", YT "E"- "H")
  - Purge Air Valve (on/off) (if YT "E"- "H")
  - Purge Oil Valve (on/off) (if YT "E"- "H")
  - Vent Line Valve (on/off) (if YB, YG, YT "E"- "H", YK "A"- "D")
  - Oil Pump (on/off) (YK "A"- "D", YT "E"- "H", YST)
  - High Speed Thrust Valve (on/off) (YB, YG)
  - High Speed Thrust Solenoid (on/off) (if YK "A"- "D")
  - Remote Mode Ready to Start Delay (on/off) (YB, YG, YS "D", YT "F"- "H", YK "A"- "D")
  - Chilled Water Pump (on/off) (if YT "E"- "H", YB, YG, YS "D", YK "A"- "D")
  - Slide Valve Unload (on/off) (if YS "D")
  - Separator Oil Level Switch (on/off) (if YS "D")

- Oil Line SOL (on/off) (if YS “D”)
- Return Oil Solenoid Valve (on/off) (if YK “A”-“D”, YB, YG, YST)
- PRV Close (on/off) (if YK “A”-“D”, YT “F-H”, YST)
- State of Status Relays (on = closed, off = open)
  - Safety Shutdown Relay (on/off) (all)
  - Cycling Shutdown Relay (on/off) (all)
- Printer Programmed Auto-print Start Time, Auto-print Interval and Time Remaining Until Next Auto-print
- System Run
- Display Background Message
  - Day, Time, and Cause of Shutdown (if applicable)

\* This feature can be added to your system with a retrofit sensor kit.

### Modes of Operation

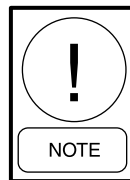
- **Operator Initiated Print** – An operator can locally command the Control Panel to initiate a print (Fig. 15). The operator initiated print will occur only if the chiller **COMPRESSOR** switch is in the **RUN** position. If the chiller is running, the data will be that which is valid at the instant the print is requested. If the chiller is not running, the day-time and data will be that which was valid when the chiller last ran. If the **COMPRESSOR** switch is in the **STOP-RESET** position the print-out is inhibited.
- **Data Logging (Auto-Interval) Print** – The control panel can be programmed to automatically print at an operator specified interval (0.1-25.5 hrs) beginning at an operator specified time. For example, if the operator programs a 24 hr. interval to start at 9:00 AM, the control panel would automatically initiate a print every day at 9:00 AM. The automatic print will occur only if the chiller is running. (Ref. Fig. 15)
- **Shutdown Initiated Print (See Note)** – Anytime the chiller is running and shuts down on a cycling or safety shutdown, the Control Center will automatically initiate a print (Fig. 16). The day-time and cause of shutdown are printed at the bottom of

the printout. The data is that which was valid at the instant of shutdown.

If a cycling or safety shutdown occurs and the operator presses the **COMPRESSOR** switch to the **STOP-RESET** position while the printer is printing, the printout will terminate. The operator can retrieve this data by pressing the **PRINT** key prior to restarting the chiller.

If a cycling or safety shutdown occurs when the chiller is not running and the **COMPRESSOR** switch is in the **RUN** position, a printout is initiated. The day-time at the top of the printout is the time the shutdown occurred. The day-time and cause of shutdown are printed at the bottom of the printout. However, the data printed is that which was valid when the chiller last ran except for the parameter that caused the shutdown.

If the chiller **COMPRESSOR** switch is in the **STOP-RESET** position the “shutdown initiated print” will be inhibited.



*If the Micro Panel is configured for auto-restart after power failure, a “shutdown initiated print” will not occur when power is restored following a power failure.*

- **History Print** – A history of the last four cycling or safety shutdowns is stored in memory. The last four “shutdown initiated print” data is stored. This data can be retrieved by pressing the **HISTORY PRINT** key on the keypad. (Ref. Fig. 17). The **HISTORY PRINT** will occur if the chiller is running or not running, regardless of the position of the **COMPRESSOR** switch. Only valid history data will be printed. If there were no cycling or safety shutdowns experienced by the chiller, no history data will be printed. For example, if only one cycling or safety event has occurred, only one history log would be printed, etc.

### PRINTER SWITCH CONFIGURATIONS

The printer switch configurations are the same as those shown in Table 3.

**TABLE 3 – PRINTER SWITCH CONFIGURATIONS**

**OKIDATA Microline 182, 182 Plus, 182 Turbo or 184 Turbo**

Control Circuit Board Switch Settings:

SW	Position	
1	on	] Unslashed 0
2	off	
3	off	
4	off	] Form Length - 11"
5	on	
6	off	- Auto Line Feed Off
7	on	- 8 Bit Data
8	off	- Enable Front Panel

If equipped with **Super Speed** Serial Board:

SW	Position	
1-1	on	- Odd or Even Parity
1-2	on	- No parity
1-3	on	- 8 Bit Data
1-4	on	- Protocol – Ready/Busy
1-5	on	- Test Select – Circuit/Monitor
1-6	on	- Print Mode
1-7	off	] SSD (-) Pin 11
1-8	on	
2-1	on	] 1200 Baud
2-2	on	
2-3	off	
2-4	off	- DSR Active
2-5	on	- Buffer Threshold = 32 bytes
2-6	on	- Busy Signal = 200 ms
2-7	on	- DTR Space After Power On
2-8	not used	

If equipped with **High Speed** Serial Board:

SW	Position	
1	off	- (-) Low When Busy
2	off	] 1200 Baud
3	off	
4	on	
5	not used	
6	off	- No Parity
7	off	- Pin 20 & Pin 11 Act as "BUSY LINE"

**WEIGH-TRONIX IMP – 24 Model 2600**

Baud switch – Baud Rate = 1200

Switch 1	Switch 2
Off	On

**WEIGH-TRONIX IMP – Model 1220**

Weigh-Tronix has replaced the previous model 2600 printer with a new model 1220 printer. This new model is the same physical size, has the same appearance and produces the same printout on 2.25 inch wide paper as the previous model.

Instead of using switch settings to configure the printer, this new model requires using the ON / OFF rocker switch to select the appropriate value while stepping through setup menus. The actual procedure and a description of each selection is detailed in the manual supplied with the printer. There are two setup menus. One is called "CONFIGURATION MENU" and the other is called "CUSTOM MENU." Additional selectable functions "SET CLOCK" and "RESET SEQ" are not applicable. The correct configuration for proper operation with the MicroComputer Control Center is as follows:

**CONFIGURATION MENU**

- BAUD = 1200
- DATA BITS = 8
- STOP BITS = 1
- HSHAKE = BUSY-LINE
- COLS = 32
- INVERT = NO
- FONT = 5 x 8
- MAG = NONE

**CUSTOM MENU**

- AUTO SEQ = NO
- ZERO = 0
- POUND SIGN = #
- \_ (UNDERSCORE)
- BUSY INVERT = NO
- ON-LINE/OFF-LINE = YES
- EXT CH SET = NO
- PRINT READY = YES

**TABLE 3 – CONTINUED**

**EPSON LX-86**

8148 Intelligent Serial Interface Board

SW1 - 1 = Off	SW2 - 1 = On
2 = Off	2 = On
3 = Off	3 = Off
4 = Off	4 = Off
5 = Off	5 = Off
6 = Off	6 = Off
7 = Off	
8 = Off	

Dip SW 1-1 = off	Input - Serial
1-2 = on	Printing Speed High
1-3 = on	Auto Loading - on
1-4 = off	Auto LF - off
1-5 = on	Setting Command - Enable
1-6 = off	Printing Density - 100%
1-7 = on	Printing Density - 100%
1-8 = on	Printing Density - 100%

**SEIKO DPU-414-30B**

**Note:** When setting up the micro panel for the new SEIKO printer you **must** select OKIDATA (SEIKO is not one of these selections, OKIDATA selection will work when using the new SEIKO printer.

**Note:** See SEIKO Instruction Book on how to access / set up dip switches.

Dip SW 2-1 = on	Printing Columns - 40
2-2 = on	User Font Back-Up - On
2-3 = on	Character Select - Normal
2-4 = off	Zero - slash
2-5 = on	Int'l Character Set - American
2-6 = on	Int'l Character Set - American
2-7 = on	Int'l Character Set - American
2-8 = off	Int'l Character Set - American

**SEIKO**

Microboard	Printer	Function
TB8-3	pin 3	Tx (data to printer)
TB8-2	pin 8	DSR (busy signal from printer)
TB8-5	pin 5	Gnd
Cabinet		Shield

Dip SW 3-1 = on	Data Length - 8 bits
3-2 = on	Parity Setting - no
3-3 = on	Parity Condition - odd
3-4 = on	Busy Control - H/W busy
3-5 = on	Baud Rate select - 1200
3-6 = off	Baud Rate select - 1200
3-7 = on	Baud Rate select - 1200
3-8 = off	Baud Rate select - 1200

**YORK SYSTEM 1 UPDATE**

c1990 YORK INTERNATIONAL CORP.

VERSION C.01S.01

TODAY IS THU 9:20AM 02/28/91

CHILLED LEAVING = 42.9°F; RETURN = 50.8°F

EVAP = 6.9 PSIA; COND = 23.0 PSIA

OIL PRESSURE = 34.9 PSID

NO OPTIONS INSTALLED

A AMPS = 126; B AMPS = 134; C AMPS = 127

V A-B = 483; V B-C = 484; V C-A = 477

COND LEAVING = 83.1°F; RETURN 73.8°F

MOTOR CURRENT = 67% FLA

OPER. HOURS = 2; START COUNTER = 4

LEAVING SETPOINT = 42.5°F

CURRENT LIMIT = 100% FLA; MTR CUR = 200 FLA

SETPOINT = 30 MIN @ 99% FLA, 0 MIN LEFT

S M T W T F S HOLIDAY NOTED BY \*

REMOTE TEMP SETPOINT RANGE = 20°F

SAT TEMPS EVAP = 39.2°F, COND 98.9°F

DISCHARGE TEMP = 146.8°F, OIL TEMP = 124.6°F

PURGE PRESSURE = 27.8 PSIA

SUN START = 00:00 AM, STOP = 00:00 AM

MON START = 00:00 AM, STOP = 00:00 AM

TUE START = 00:00 AM, STOP = 00:00 AM

WED START = 00:00 AM, STOP = 00:00 AM

THU START = 00:00 AM, STOP = 00:00 AM

FRI START = 00:00 AM, STOP = 00:00 AM

SAT START = 00:00 AM, STOP = 00:00 AM

HOL START = 00:00 AM, STOP = 00:00 AM

COMP MOTOR STARTER – ON

PRV CLOSE – OFF

REMOTE MODE READY TO START DELAY – OFF

VENT LINE VALVE – ON

PURGE AIR VALVE – OFF

PURGE OIL VALVE – ON

OIL PUMP – ON

CHILLED WATER PUMP – ON

OKI STRT = 8:00 AM INT = 24.0 HRS 24.0 HRS LFT

SYSTEM RUN – LEAVING TEMP CONTROL

SAFETY SHUTDOWN RELAY – OFF

CYCLING SHUTDOWN RELAY – OFF

**FIG. 15 – OPERATOR INITIATED PRINT-OR-DATA LOGGING PRINT EXAMPLE (YT CHILLER)**

## YORK SYSTEM 1 UPDATE

c1990 YORK INTERNATIONAL CORP.  
VERSION C.01S.01  
TODAY IS THU 9:31AM 02/28/91  
CHILLED LEAVING = 42.8°F; RETURN = 50.8°F  
EVAP = 5.4 PSIA; COND = 22.9 PSIA  
OIL PRESSURE = 35.2 PSID  
NO OPTIONS INSTALLED  
A AMPS = 126; B AMPS = 134; C AMPS = 127  
V A-B = 484; V B-C = 483; V C-A = 478  
COND LEAVING = 83.1°F; RETURN 73.7°F  
MOTOR CURRENT = 67% FLA  
OPER. HOURS = 2; START COUNTER = 4  
LEAVING SETPOINT = 42.5°F  
CURRENT LIMIT = 100% FLA; MTR CUR = 200 FLA  
SETPOINT = 30 MIN @ 99% FLA, 0 MIN LEFT  
S M T W T F S HOLIDAY NOTED BY \*  
REMOTE TEMP SETPOINT RANGE = 20°F  
SAT TEMPS EVAP = 28.8°F, COND 98.8°F  
DISCHARGE TEMP = 146.8°F, OIL TEMP = 124.6°F  
PURGE PRESSURE = 27.7 PSIA  
SUN START = 00:00 AM, STOP = 00:00 AM  
MON START = 00:00 AM, STOP = 00:00 AM  
TUE START = 00:00 AM, STOP = 00:00 AM  
WED START = 00:00 AM, STOP = 00:00 AM  
THU START = 00:00 AM, STOP = 00:00 AM  
FRI START = 00:00 AM, STOP = 00:00 AM  
SAT START = 00:00 AM, STOP = 00:00 AM  
HOL START = 00:00 AM, STOP = 00:00 AM  
COMP MOTOR STARTER – ON  
PRV CLOSE – OFF  
REMOTE MODE READY TO START DELAY – OFF  
VENT LINE VALVE – ON  
PURGE AIR VALVE – OFF  
PURGE OIL VALVE – ON  
OIL PUMP – ON  
CHILLED WATER PUMP – ON  
OKI STRT = 8:00 AM INT = 24.0 HRS 24.0 HRS LFT  
SYSTEM RUN – LEAVING TEMP CONTROL  
  
SAFETY SHUTDOWN RELAY – ON  
CYCLING SHUTDOWN RELAY – OFF  
THU 9:31 AM LOW EVAP PRESSURE

DAY, TIME  
AND CAUSE  
OF  
SHUTDOWN

## HISTORY LOG 1; SYS 1

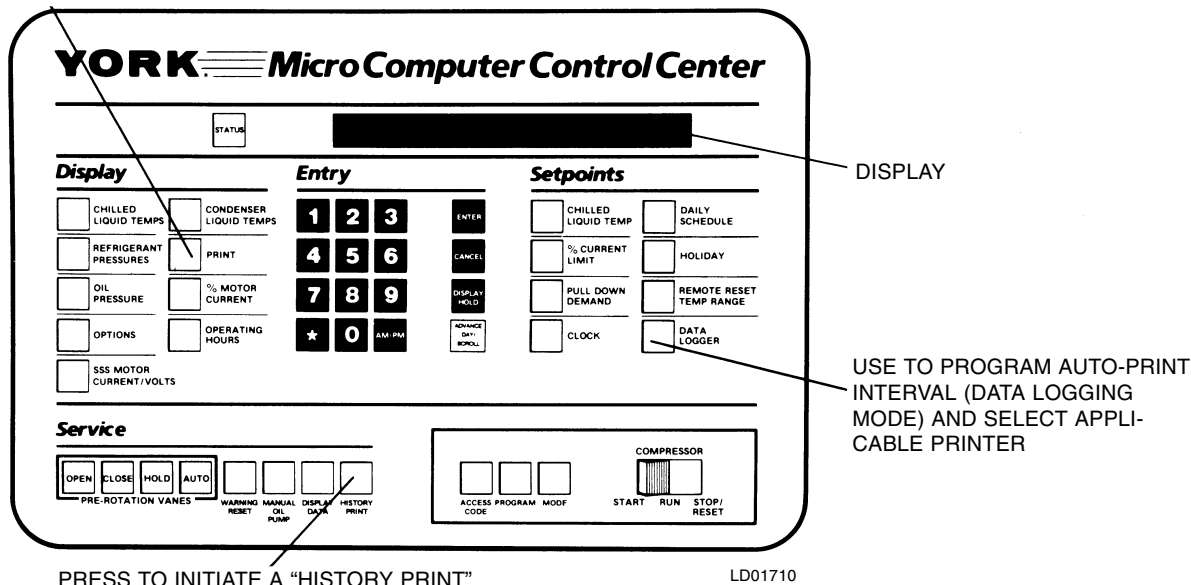
c1990 YORK INTERNATIONAL CORP.  
VERSION C.01S.01  
TODAY IS THU 9:31AM 02/28/91  
CHILLED LEAVING = 42.8°F; RETURN = 50.8°F  
EVAP = 5.4 PSIA; COND = 22.9 PSIA  
OIL PRESSURE = 35.2 PSID  
NO OPTIONS INSTALLED  
A AMPS = 126; B AMPS = 134; C AMPS = 127  
V A-B = 484; V B-C = 483; V C-A = 478  
COND LEAVING = 83.1°F; RETURN 73.7°F  
MOTOR CURRENT = 67% FLA  
OPER. HOURS = 2; START COUNTER = 4  
LEAVING SETPOINT = 42.5°F  
CURRENT LIMIT = 100% FLA; MTR CUR = 200 FLA  
SETPOINT = 30 MIN @ 99% FLA, 0 MIN LEFT  
S M T W T F S HOLIDAY NOTED BY \*  
REMOTE TEMP SETPOINT RANGE = 20°F  
SAT TEMPS EVAP = 28.8°F, COND 98.8°F  
DISCHARGE TEMP = 146.8°F, OIL TEMP = 124.6°F  
PURGE PRESSURE = 27.7 PSIA  
SUN START = 00:00 AM, STOP = 00:00 AM  
MON START = 00:00 AM, STOP = 00:00 AM  
TUE START = 00:00 AM, STOP = 00:00 AM  
WED START = 00:00 AM, STOP = 00:00 AM  
THU START = 00:00 AM, STOP = 00:00 AM  
FRI START = 00:00 AM, STOP = 00:00 AM  
SAT START = 00:00 AM, STOP = 00:00 AM  
HOL START = 00:00 AM, STOP = 00:00 AM  
COMP MOTOR STARTER – ON  
PRV CLOSE – OFF  
REMOTE MODE READY TO START DELAY – OFF  
VENT LINE VALVE – ON  
PURGE AIR VALVE – OFF  
PURGE OIL VALVE – ON  
OIL PUMP – ON  
CHILLED WATER PUMP – ON  
OKI STRT = 8:00 AM INT = 24.0 HRS 24.0 HRS LFT  
SYSTEM RUN – LEAVING TEMP CONTROL  
  
SAFETY SHUTDOWN RELAY – ON  
CYCLING SHUTDOWN RELAY – OFF  
THU 9:31 AM LOW EVAP PRESSURE

FIG. 16 – SHUTDOWN INITIATED PRINT EXAMPLE  
(YT CHILLER)

FIG. 17 – HISTORY PRINT EXAMPLE  
(YT CHILLER)

# SECTION 5 MICROCOMPUTER CONTROL CENTER

USE FOR OPERATOR INITIATED PRINT



**FIG. 18 – MICROCOMPUTER CONTROL CENTER (KEYPAD EXAMPLE)**

### KEYPAD OPERATION FOR PRINTER (REF. FIG. 19)

**PRINT** key – Press and release this key to initiate an “operator initiated print.” **PRINT ENABLE** is displayed.

**DATA LOGGER** Setpoint Key – This key is used to program the auto-print start time, auto-print interval and select the applicable printer as follows:

1. Select **PROGRAM** mode at keypad. (Refer to the Appropriate Operation Manual Form)
2. Press **DATA LOGGER** Key.
3. The following is displayed.

PRT START = 12:00 PM; INT \_\_.0 HRS., PRT = WTO

- OKI
- TI2
- EP3

4. Press **ADVANCE DAY/SCROLL** Key to scroll to applicable printer. Each time the key is pressed in program mode a different printer is displayed: **WTO** = Weigh-Tronix, **OKI** = OKIDATA 182A\*, **TI2** = Texas Instruments 800 / 820 KSR, **EP3** = Epson.
5. Use the **ENTRY** keys to enter the desired interval start time.

\* Also use this selection for Seiko printer.

6. Use the **ENTRY** keys to enter the desired auto-print interval (0.1 – 25.5 hrs.). The interval counter will begin decrementing at the start time entered in Step 5. If an AC power failure occurs, the decremented interval resets to the original value and will begin decrementing at the programmed start time. Therefore, a power failure can cause a loss of printouts until the next elapsed interval from the programmed start time.
7. Press **ENTER** Key.
8. Return keypad to desired operating mode (local, service, remote).

The selected printer (W-T, OKI, T-I, EPS), programmed start time, auto print interval and time remaining until the next auto-print can be viewed in local, remote, or service mode by pressing the **DATA LOGGER** Key. The following is displayed:

WTO-STRT = 10:00 AM INT = 24.0 HRS. 10.5 HRS. LFT

**HISTORY PRINT** – Press and release this key to initiate a history print.

**HISTORY PRINT ENABLED** is enabled.

**INVALID HISTORY DATA WILL NOT BE PRINTED**

will be displayed if there were no cycling or safety shutdowns experienced by the chiller. If only one cycling or safety event has occurred, only one history log would be printed, etc.



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160.47-NO1.2 (SB4) (599), 160.48-NO1.2 (599), 160.49-N2 (599), 160.60-N2 (599), and 160.67-N2 (599)