

Print Speed Micron Draft Mode @ 240 cps and LQ @ 53 cps
 Elite Draft Mode @ 192 cps and LQ @ 63 cps
 Pica Mode @ 160 cps and LQ @ 53 cps

Ribbon Black ink color cassette seamless fabric

Ribbon Life Approximately 3 million characters in draft mode

Printer Head Life Approximately 100 million characters and 200 million in draft mode

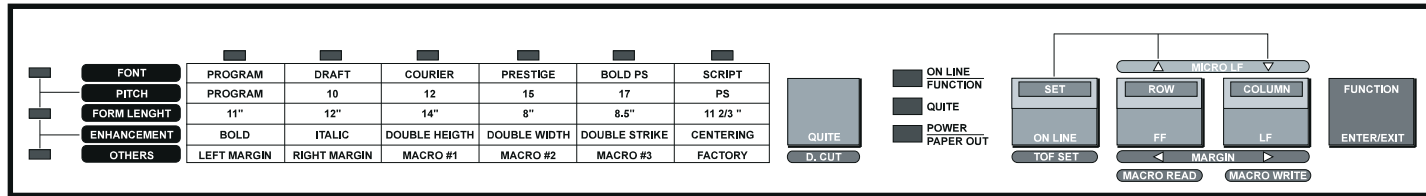
Interfaces Centronics parallel
 RS-232C/Serial interface board
 KX-PS10, KX-P19 (Optional)

Emulations: Epson LQ-850
 IBM Proprinter

Paper Handling Fan fold, Single sheet, Envelopes

Print Method User selectable bidirectional or unidirectional dot matrix

Control Panel



Buttons/Keys

FUNCTION: Toggles printer in and out of printer mode.

QUIET/P. CUT: The **QUIET** button establishes a quieter printing condition when printer is offline. The **P. CUT** button advances or reverses paper to the line of perforation.

ON LINE/TOF:

In ONLINE mode allows communication between printer and computer. In FUNCTION mode activates selections chosen on the Control Table and establishes Top of Form.

FF/ROW: In OFFLINE mode advances paper to the top of next form. In FUNCTION mode advances row positions on the Control Table.

LF/COLUMN: In OFFLINE mode this button advances paper one line at a time. In FUNCTION mode this button reflects column position as follows:

A lit indicator shows the current position.

A blinking indicator selects position that is not in use.

When C1 in the first column is on for **FONT** or **PITCH** the printer is in PROGRAM mode which will then allow software to determine font and pitch selections.

LEDs/Lights

ON LINE/FUNCTION: Indicates printer is online (on) or in FUNCTION mode (blinking).

QUIET: Indicates printer is in QUIET mode.

POWER/PAPER OUT: Indicates printer is receiving power (on) or out of paper (blinking).

ROW lights: Indicates the current selection.

COLUMN lights: Indicate the current selection.

Self-test

1. Turn on power while simultaneously pressing LF button.

Cover Removal

1. Remove smoked plastic cover and top cover.
2. Remove platen knob.
3. Raise printer so that bottom is facing you. Insert a screwdriver into bottom openings located on top left and right edge corners. Pry screwdriver to release hook, then separate upper unit from lower unit.
4. Remove front panel by first releasing connector cable, then pull panel straight out towards you.

Configuration

Entering initial SETUP mode/Print out current settings:

1. Ensure printer has paper installed and power is turned off.
2. Turn power on while simultaneously pressing **FUNCTION** button.
3. Ensure all row indicators are lit or blinking.
4. Press **SET** button and the printer will print out matrix condition of printer.

Resetting printer to factory default setting:

1. Press **QUIET** button. A beep will sound.
2. Press the **SET** button. A beep will sound.
3. Press **FUNCTION** button to exit initial SETUP mode.

Functions of Row and Indicator lights for Control Panel

Use the **ROW/FF** and **COLUMN/LF** buttons to move around in selections.

ROW Indicator (R)			COLUMN Indicator (C)					
R1	R2	R3	C1	C2	C3	C4	C5	C6
ON	ON	ON	Print current matrix					
ON	OFF	OFF	A.Epson Italic	Epson Graphic	IBM GI	IBM G2		
ON	ON	OFF	B.Draft	Courier	Prestige	Bold PS	Script	
OFF	ON	OFF	C.USA	France	Germany	England	Denmark 1	Sweden
OFF	ON	ON	Italy	Spain I	Japan	Norway	Denmark 2	Spain 2
OFF	OFF	ON	Latin America	Legal				
BLK	BLK	BLK	Print Current Condition					
	BLK	OFF	D.Buffer	E.Cut Sheet Feeder	F.Buzzer	G.Zero Slash	H.A.G.M.	I.Date Length
OFF	BLK	OFF	J.150	300	600	1200	2400	4800
OFF	BLK	BLK	9600		K.No Parity	Ignore Parity	Odd Parity	Even Parity
OFF	OFF	BLK	L.Pro-tocol	M.S.D.T.	N.R.D.T.	O.Signal Polarity		

The following are definitions for table letterings:

1. Printer emulation and CHARACTER SET mode:
 LQ-850 Italic (Epson LQ-850 emulation, Italic character set)
 LQ-850 Graphic (Epson LQ-850 emulation, Graphic Character set 1)
 Proprinter X24G1 (IBM Proprinter X24 emulation, Graphic character set 2)
2. This determines print font mode. Printer has to be in PROGRAM mode in Control Table to establish default font settings.
 Five different fonts are possible: Draft, Courier, Prestige, Bold PS, and Script.
3. Selects one of the international character sets listed in table.
4. Establishes Download Buffer Control Mode (Individual) (KX-P43 must be installed).
 ON - (Download is available)
 OFF - (Download is not available)
5. Cut Sheet Feeder Mode (Individual) (KX-P37 must be installed and Paper Feed Selector in the "F" position).
 ON - C.S.F. installed
 OFF - C.S.F. not installed
6. Buzzer sound control mode (Individual) (Only available in BEL command).
 ON - Buzzer sounds
 OFF - Buzzer will not sound
7. Zero Font Mode
 ON - Zero
 OFF - Zero slash
8. Alternate Graphic Mode (AGM) (Individual)(Only available when in IBM Proprinter X24 mode).
 ON - Alternate Graphic mode ON
 OFF - Alternate Graphic mode OFF
9. Data length (Individual)
 ON - 7 bit data
 OFF - 8 bit data
10. Print Direction (Image Print) Mode (Individual)
 ON - Unidirectional printing
 OFF - Bidirectional printing
11. Skip perforation (Individual)
 ON - Skip perforation 1 inch
 OFF - No skip
12. Automatic Line Feed Mode (Individual) (Status can also be changed thru software commands).
 ON - CR + LF
 OFF - CR only
13. Paper Out Detector Mode (Individual) (If using Cut Sheet Feeder this selection must be ON).
 ON - Detector is active
 OFF - Detector is disabled
14. Automatic CR Mode (Individual) (Only available when in IBM Proprinter X24 Mode).
 ON - Allows automatic CR on LF, VT, ESC+ "J"
 OFF - Prevents automatic CR on LF, VT, ESC+ "J"
15. Baud Rate (KX-PS10 with RS-232C serial interface board must be used).
 Establishes one of seven baud rates listed in table.
16. Parity Control Mode (Group) (KX-PS10 with RS-232C serial interface board must be used).
 Establishes one of four parity control selections listed in table.

- Check motor
- Check carriage drive system
- Check CPU periphery
- LF and FF buttons will not function properly
- Check LF and FF buttons
- Check paper feed drive circuit
- Check CPU periphery
- Check stepping motor

Problem with paper feed:

- Check voltage of Q4. Should be around +36V (if not replace F3)
 If CPU 69 "L" at FF button is OFF do the following:
- Ensure IC11 is normal
 - Replace ROM and RAM
 - Check and replace CPU if above steps produce no results
- If CPU 69 "L" at FF button is ON do the following:
- Ensure IC11 is normal
 - Ensure Q13 is normal
 - Ensure Q14 is normal
 - Ensure CPU 63 - 69 is normal

Field Replaceable Units (FRUs)

Description	OEM P/N	IBM P/N
PAR, 240 CPS, 24 Pin Matrix	KX-P1123	22H1161

Service Documentation

There is no service documentation available to be ordered at this time.

Common Problems and Fixes

Power supply malfunctioning:

- Check AC voltage output connector at CN1
- Check resistance values of transformer
- Check both fuse and coil on primary board
- Check diode (+36 VDC) D1 - D4
 - May need to also check +5 VDC
 - Ensure R21, 22 and Q21 are normal
 - Check for correct voltage of D6
 - Check voltage output at IC3
 - Check coil at L4
- Check waveforms at power ON from CT(pin 3), E(pin 9) and Vref(pin2) of IC3
- Check waveform at power ON from connection of Q3
- Check waveform at base of Q2 (Replace Q1 and Q2)
- Ensure D23 and L2 are normal (Replace R20)
- Check voltage of D31 (Replace IC3)

Carriage malfunctioning:

- Carriage gets stuck in left position
 - Check control P.C.B.
- Carriage gets stuck in right position
 - Check mechanism
 - Check motor
 - Readjust carriage belt
 - Check CPU periphery
- Carriage will not move at all
 - Check mechanism
 - Check motor
 - Check carriage drive system
 - Check CPU periphery

Problem with control panel:

- Will not go into online condition
 - Check **ON LINE** button

IBM machine type: 1515-P85

Tech Support 800-877-7764