

Cognitive SOLUTIONS INC.

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CRx PRINTER SPECIFICATIONS

Specifications are provided for reference and are based on printer tests using Cognitive brand labels. Results may vary in actual application settings or when using products other than recommended Cognitive supplies. Cognitive recommends always qualifying any new application with thorough testing.

Standard Features

- ✓ Compact Industrial™ printer design, small footprint high performance
- ✓ Administrator Configuration Software
- ✓ Ethernet 10/100 Base-T interface
- ✓ Bi-directional USB Drivers
- ✓ LCD control panel: Back-lit, 2 line, 16 characters (CRx w/LCD only)
- ✓ Easy to navigate user setup menus (CRx w/LCD only)
- ✓ 200 MIPS, 180MHz, 32 bit RISC Processor for fast printing
- ✓ 16 MB SDRAM memory
- ✓ 8 MB flash memory for firmware and stored objects
- ✓ Real Time Clock
- ✓ Hinged media cover to accommodate large capacity rolls
- ✓ Double clamshell design for simple media loading
- ✓ Rugged die-cast metal user interface
- ✓ Audible indicator for error warning or document alert
- ✓ 203 dpi print resolution (8 dots/mm)
- ✓ Upgradeable firmware and stored objects
- ✓ Direct thermal printing
- ✓ Parallel, Serial, USB-A, USB-B, and Ethernet communication ports
- ✓ USB-A Host Control
- ✓ Adjustable position transmissive and reflective index sensing technology to accommodate a wide path indexing sensor range.
- ✓ Cognitive® printer driver for Windows™ XP & 2000 operating systems.
- ✓ NiceLabel® SE - Windows™ based WYSIWYG on-screen label design and print application demo software.

Optional Features

- 300 dpi print resolution (12 dots/mm)
- PCL Programming Language
- Thermal Transfer Printing

Printing Specifications

Nominal Printer Size	4" with or without LCD	
Print Resolutions	203 dpi Standard	300 dpi Optional
Max Print width	4.094" (104.0mm)	4.153" (105.5mm)
Print Speeds	4-6 ips Ci 4-8 ips Cxi	2-6 ips Ci 2-6 ips Cxi
Max Print Lengths	322" (8179 mm)	153" (3886 mm)
Print Position Tolerance	±0.0625" (1.6mm) Left and right	

Media Specifications

Media Types: Direct thermal and/or thermal transfer prescription labels, tags, wristbands, static labels, patient education, and receipt paper.

Media Thickness: 0.010" thickness max.

Index types:

Reflective and transmissive sensors to detect gaps between labels, die-cuts, black-marks, notches, and holes.

Media Format: Continuous fanfold (external) or roll with optional inter-sheet perforations for easy media separation.

Media Web Width (label and liner):

4" Printer: 2.4" (60.96mm) to 4.63" (117.6mm)

Minimum label length: 0.375" (9.5mm) with .125" gap

Maximum media roll size:

7.750" (194mm) O.D. on a 1.5" (38.1mm) ID. Core

Media Indexing

Indexing Sensing Methods: Continuous, gap, bar, notch, hole, and no index mode.

Gap and notch sensing standards: Minimum Inter-label gap: 0.125" (3.18mm)

Gap Sensing Width Range:

4" Printer: User adjustable from center to 2.2" left of center.

Black mark sensing standards: Black mark length (parallel to inside media edge) 0.125"(3.18mm)- 1.0"(2.54mm)

Black Mark Sensing Range: User adjustable in increments of 0.2" left and right to within 0.5" of edge of the maximum media web width.

Ribbon Specifications

Ribbon width:

4" Printer: 4.25" (108mm) Max.

4" Nominal Length: 5500' (140m) Max.

Ribbon Types: Wax, Wax/Resin, and Premium Resin varieties

Label Roll Changes per Ribbon

Label Roll OD	Label Roll ID	4" Label Rolls per Ribbon Roll
5"	1.5"	2
7"	1.5"	.85

Note: 7 inch Label Roll OD = equivalent to standard 8" Label Roll

CPL Standard Font Specifications

- **Bitmapped:** 7 styles with up to 10x10 magnification, variable boldness and spacing.
- **International AGFA Fonts:** Sans-serif font in 7 pt. sizes, up to 4x4 magnification, variable boldness and spacing.
- **Scalable Vector Fonts:** 3 ultra font styles for smooth characters in any size and boldness.
- **Rotations:** 0, 90, 180, 270 degrees

PCL Font Specifications

- Cognitive offers standard True Type fonts to meet general pharmacy application requirements. Additional true type, proprietary, and HP PCL5 compatible fonts may be integrated.
 - **Standard:** Courier, Universe, Arial, and Times New typefaces. Bold and italic are supplied.
 - **Optional:** Proprietary or existing HP PCL 5 font sets as required for customer specific application(s)

Bar Code Symbolologies & Specifications

CPL Barcodes

UPCA	ADD 2	EAN 8	128C
UPCE	ADD 5	EAN 13	CODE128
UPCE1	CODE 39	PLESSEY	EAN128
POSTNET	I 2OF5	128A	CODABAR
Maxicode mode 0	CODE 93	128B	MSI
PDF417	DataMatrix	QR Code	Aztec
UPCA+	MSI1	S20F5	D20F5

PCL Programming Language

- Conforms to HP PCL5e Language Standards. with limitations specific to thermal printing.

Communications Specifications

Parallel Interface:

- Centronics compatible parallel interface (requires parallel cable).

High-speed serial interfaces:

- Serial RS-232 (requires serial cable)
- Configurable baud rate (1,200 – 115,200 baud)
- Software (XON/XOFF) or hardware (DTR/DSR) communication handshake protocols

USB 2.0 compatible interface

Ethernet 10/100 Base-T interface

Electrical Specifications

Auto-detectable 90-264VAC, 24VDC 150W power supply

International Environment Compliance

Compliant with the following international environmental directives:

- Directive 2002/95/EC on the restriction of Use of certain Hazardous Substances in Electrical and Electronic Components (RoHS)
- Directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE)

International Regulatory Compliance

- **Printer and Power Supply:** UL, FCC Class A, CCC, CE, CISPR22/CB.
- **Power Supply Only:** CSA GS/TUV/VDE/PSE

Environmental Specifications

Operating environment:

41° to 104°F (5° to 40°C)
20% to 85% non-condensing R.H.

Physical Specifications

Characteristic	4" Printer
Height	7.1" (181mm)
Width	6.9" (175mm)
Depth	10.04" (255mm)
DT Weight	5.91 lbs (Cxi) 5.88 lbs (Ci)
TT Weight	6.10 lbs (Cxi) 6.00 lbs (Ci)

Software

- **C Series Administrator:** Printer with USB/Serial bi-directional configuration software, included with printer requires Windows driver installation.
- **C Clean Driver Utility:** Self contained driver cleanup utility that entirely removes old drivers.
- **Windows™ OS Drivers:** Printer drivers that allow applications running on Windows operating systems to print to Cognitive printers.

Preventative Maintenance

Cognitive recommends cleaning the printer on a regular basis using standard Cognitive cleaning supplies. Consult the User's Guide for further details.

Cleaning Method

It is recommended that interior components are cleaned with the authorized cleaning supplies listed below every 20,000 inches (508 m) or blown air to remove any particles. The printhead should be cleaned every 5000 inches if preprinted labels are used. The platen should be cleaned at the same interval, using the same cleaning materials as applied to the printhead.

Cleaning Supplies

- Cleaning Pen (12 ea), p/n: 14-00-0002
- 4-inch Cleaning Card (25 box) p/n: 14-00-0001

Warranty

Printer: 24 months from date of purchase. (Requires registration & excludes printheads)

Print head: 12 months or 1,000,000 inches using Cognitive's approved media

MTBF (Mean time between failures)

2,000,000 inches (Does not include printhead dots out condition)

Support

- World Wide Web: www.compactindustrial.com
- File Transfer Protocol (ftp): <ftp://ftp.cognitive.com/pub/Products/>
- E-Mail: Pharmacy@cognitive.com
- Telephone: 1.888.632.8292
1.720.221.9459