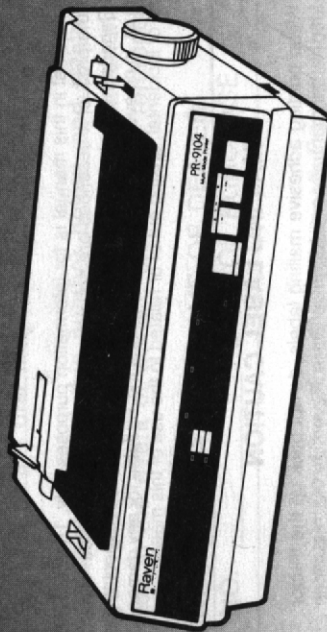


# Operating Instructions

Impact Dot Matrix Printer

PR-9104



**Raven**  
Roland Digital Group

Before operating this unit, please read these instructions completely.

## Roland DG Canada Inc.

### Vancouver:

13880 Mayfield Place  
Richmond, B.C. V6V 2E4  
(604)273-4453

### Toronto:

346 Watline Avenue  
Mississauga, Ontario L4Z 1X2  
(416)890-7568

### Montreal:

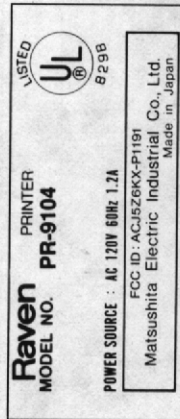
9425 Trans Canada  
St-Laurent, Quebec H4S 1V3  
(514)332-6371

## FOR USERS IN UNITED STATES ONLY

This equipment has been tested and found to comply with the limits for a Class B computing device in accordance with the specifications set forth in Subpart J of Part 15 of FCC Rules. If this equipment does cause interference to radio or television reception which can be determined by turning the equipment on and off, use the equipment in another location and/or utilize and electrical outlet from that used by receiver. The user should use special accessories, such as shielded cable, as recommended in these operating instructions, in order to continue to meet FCC emission limits and not possibly interfere with nearby radio and television reception.

The equipment should FCC ID No. on the nameplate.

### Nameplate



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### MAILING LABEL CAUTION

When printing adhesive mailing labels, do not back up the tractor feed, either manually or through software. Reversing the tractor can cause a label to detach and adhere to the paper guide, requiring dismantling of the printer to correct. This problem is not covered by warranty.

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## FOR USE IN AUSTRALIA

### FOR YOUR SAFETY

To ensure safe operation the three-pin plug supplied must be inserted only into a standard three-pin power point which is effectively earthed through the normal household wiring.

Extension cords used with the equipment must be three-core and be correctly wired to provide connection to earth. Wrongly wired extension cords are a major cause of fatalities.

The fact that the equipment operates satisfactorily does not imply that the power point is earthed and that the installation is completely safe. For your safety, if in any doubt about the effective earthing of the power point, consult a qualified electrician.

### WARNING

- Power source voltage of this unit is listed on the nameplate. Do not fail to plug into the right voltage.
- To prevent fire or shock hazard, do not expose this product to any type of moisture.

The serial number of the unit may be found on the label on the rear of the unit.

For your convenience, note this number below, and retain this book, along with your proof of purchase, to serve as a permanent record of your purchase in the event of a theft, or for future reference.

MODEL NO. **PR-9104** NAME OF DEALER \_\_\_\_\_  
SERIAL NO. \_\_\_\_\_ DATE OF PURCHASE \_\_\_\_\_

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IBM and IBM-PC are registered trademarks of International Business Machines Corporation.  
IBM Proprinter II and IBM NLQ II are trademarks of International Business Machines Corporation.  
Apple is a registered trademark of Apple Computer, Inc.  
FX-86e/FX-800 is a trademark of Seiko Epson Corporation.

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# 1. Introduction

## 1.1 Product Overview

This printer is a durable, highly reliable dot matrix printer. In addition, it has a small footprint, making it ideal for a compact workstation.

This printer uses a nine pin print head to form a 9x9 dot matrix character in Draft mode. In Near Letter Quality mode, the matrix for Courier, Prestige and Bold PS is 18x18; Sans Serif 18x9. Available are the complete Epson and IBM character sets as well as 13 international character sets.

In addition to Pica (10 characters per inch) and Elite (12 characters per inch) printing, this printer can print in Micron mode of 15 characters per inch, Compressed mode of 17 characters per inch and Elite Compressed mode of 20 characters per inch. Elite Compressed mode yields a total of 160 characters per line.

In addition to the five print pitches mentioned above, this printer has proportional spacing thus, six basic printing pitches are available.

The printer has an EZ-Set Operator Panel through which the user can select the most commonly used features and functions. A helpful feature is the QUIET mode which reduces printing noise. As convenience features, the printer has MEMO LOAD, PERFORATION CUT and MICRO LINE FEED. By using the MEMO LOAD, you can print a single sheet or envelope without removing or wasting the continuous fanfold paper. PERFORATION CUT gives you the ability to tear off a form without wasting paper. By using MICRO LINE FEED you can easily feed the paper to the exact printing position needed for preprinted forms. Section 3 in this manual explains these functions.

The high speed printing is done at 240 characters per second (cps) in Draft-Elite (12 cpi) pitch. In Draft-Pica (10 cpi) pitch, the printing speed is 200 cps. Processing speed is increased by Bi-directional printing. That is, the printer prints right-to-left as well as in the normal left-to-right manner. A logic seeking technique is also used, giving the printer a look-ahead capability which allows it to skip blank spaces at the beginning and the end of a line and the blank lines between paragraphs.

## Introduction

A wide variety of printing styles allows the user to create unique documents and drawings. You can print characters in double width, double height or compressed, emphasized or underlined and print super or subscripts, etc. Using Bit-mapped graphics, the printer can produce special effects ranging from company logos to photo-like images.

The printer has friction and tractor feed capabilities as standard features and handles continuous fanfold and single sheet paper as well as envelopes. This enables the user to create letters on company letterhead or print reports from the computer. It also allows continuous fanfold paper to be fed from beneath the printer in the tractor feed position.

The printhead life is designed for 100 million characters. The seamless ribbon can print up to four million characters and the cassette design makes changing the ribbon quick, easy and clean.

This printer comes with a Centronics parallel interface. An RS-232C serial interface which supports the XON/XOFF and DTR handshaking protocols at baud rates up to 9,600 bps is available as an option.

The printer also comes equipped with an internal standard 6K buffer. An additional 32K buffer is available as an option. This expands the total buffer size to 38K. The entire buffer area can be used as a receiving buffer or a portion can be used as a download font area. When the 32K buffer option is installed, the buffer area assignment is automatically selected.

Some software for your computer requires you to select a specific printer for the output. You should select Panasonic if it is listed. If Panasonic is not listed in the software, you may select one of the following:

- Epson FX-86e/FX-800...(DIP switch 1=OFF)
- IBM Proprinter II\*...(DIP switch 1=ON)

Please check your DIP switches after making selection. Refer to Section 2.10.

\* See Appendix A for applicable code



## 1.2 Specifications

Power requirements: } Refer to the nameplate located on the rear  
 Frequency: } of the printer.  
 Current: }

Interface:

Centronics parallel, RS-232C serial  
 (option)

Printing fonts:

Draft (Pica&Elite), Near Letter Quality  
 (Courier, Bold PS, Prestige, Sans Serif\*),  
 Dot Graphics

Software emulation:

Epson FX-86e/FX-800 (Standard Mode),  
 IBM Proprinter II (IBM Mode)

Character set:

96 ASCII characters,  
 96 Italic ASCII characters,  
 32 International characters (13 countries),  
 32 Italic International characters  
 (13 countries),  
 158 IBM special characters

Dot configuration:

3/254 inch (0.3 mm) dot diameter  
 Draft (Pica) NLQ Sans Serif\*  
 Dot alignment 9x9 18x18 18x9  
 Dot pitch (Hor.) 1/120" (0.21 mm) 1/240" (0.11 mm)  
 (Ver.) 1/72" (0.35 mm) 1/144" (0.18 mm)

Maximum number of  
 characters per line  
 (cpl)

Pica (10 cpl) 80 cpl  
 Elite (12 cpl) 96 cpl  
 Micron (15 cpl) 120 cpl  
 Compressed (17 cpl) 137 cpl  
 Elite compressed (20 cpl) 160 cpl  
 Pica elongated (5 cpl) 40 cpl  
 Elite elongated (6 cpl) 48 cpl  
 Semi Compressed  
 elongated (7.5 cpl) 60 cpl  
 Compressed elongated (8.5 cpl) 68 cpl

Sans Serif\* is IBM NLQ.

Printing speed: Draft-Elite 240 cps  
 Draft-Pica 200 cps  
 NLQ-Elite 48 cps  
 NLQ-Pica 40 cps

Printing direction:

Text printing (Draft., NLQ): Bidirectional  
 Bit Image printing: Unidirectional  
 (left to right)

Line feed time:

Approx. 100 msec  
 [with 1/6 inch (4.2 mm) line feeding]

Paper feed:

Tractor feed (with continuous fanfold  
 paper)  
 Friction feed (with single sheet or en-  
 velopes)

Paper used:

Continuous fanfold paper:  
 Width: 4~10 inches (102~254 mm)  
 Single sheet:  
 Width: 4~11.7 inches (102~297 mm)  
 Height: 5~14.3 inches (127~363 mm)  
 Thickness (paper weight in pound and  
 g/m<sup>2</sup>): 14~24 pounds/53~90 g/m<sup>2</sup>  
 (only 1 sheet)  
 Envelopes:  
 Standard business envelope  
 ie: # 10 size  
 (Refer to Appendix D.)

Copies:

Original plus 3 non-carbon copies

Paper thickness:

Total thickness of sheets must be less  
 than 0.013 inch (0.32 mm)

Operating  
 environment:

50°F (10°C) to 95°F (35°C) temperature,  
 30~80% humidity  
 (Please allow the printer to stabilize at  
 room temperature within the operating  
 temperature range before operation.)

Storage environment:

-4°F (-20°C) to 140°F (60°C) temperature,  
 10~90% humidity

**Head life:** Approx. 100 million characters in draft mode

**Ribbon:** Specially designed cassette seamless ribbon

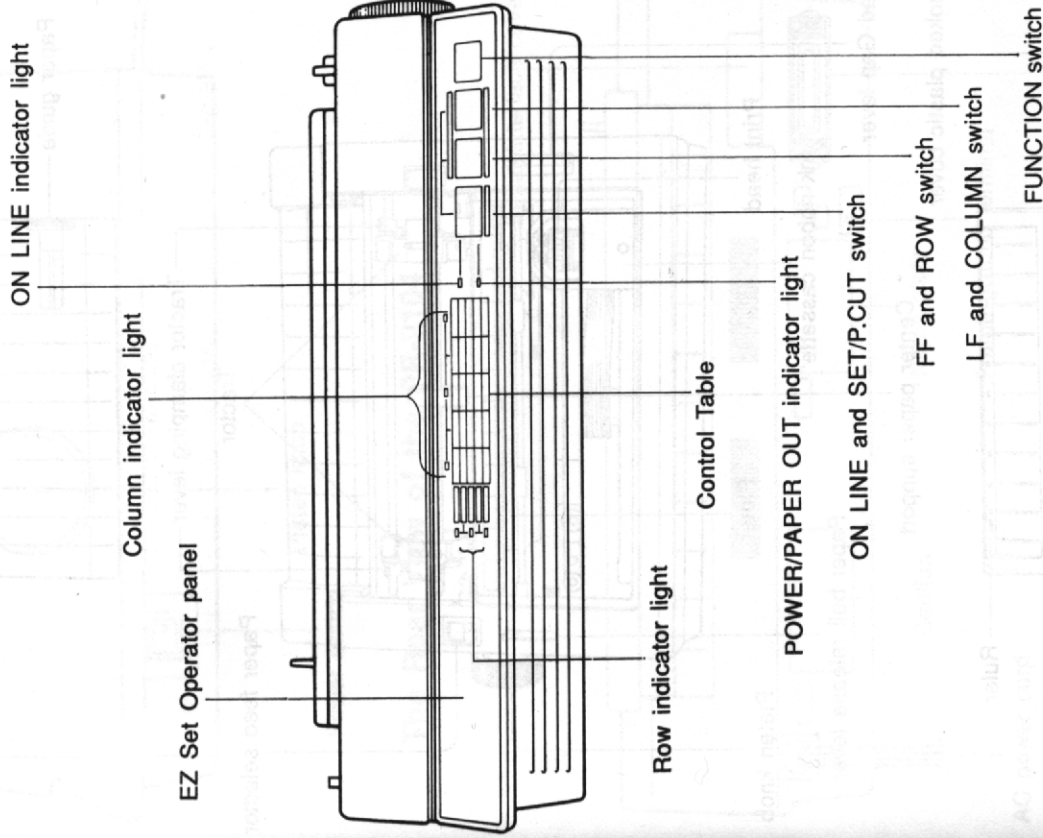
**Ink color:** Black

**Life:** Approx. 4 million characters in draft mode

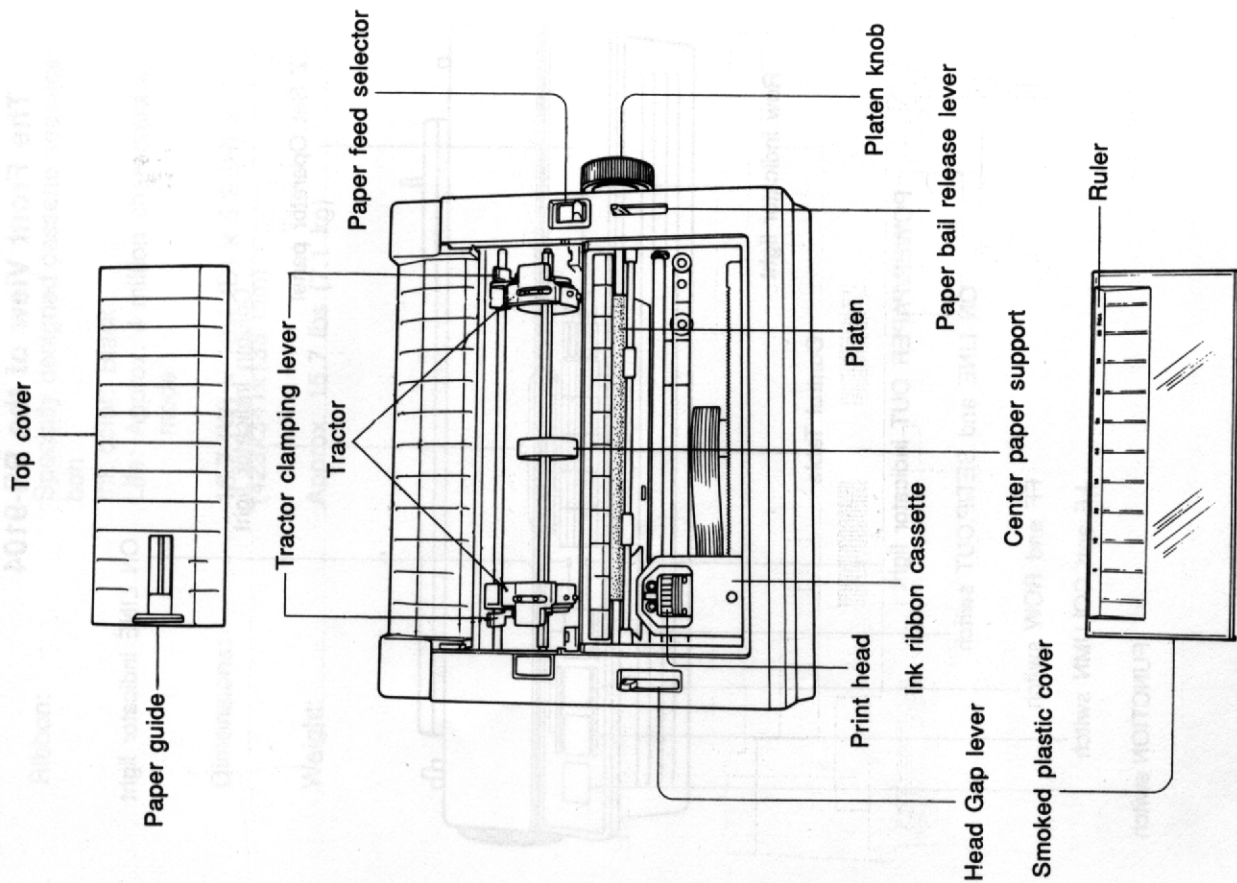
**Dimensions:** 16.7 (W) x 13.4 (D) x 5.2 (H) in.  
(423x341x133 mm)

**Weight:** Approx. 15.7 lbs (7.1 kg)

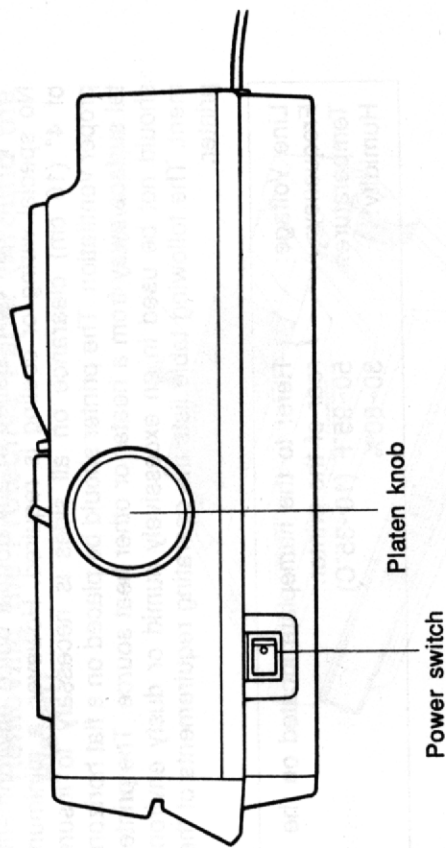
## 1.3 Names of the Parts The Front View of the PR-9104



## The Top View of the PR-9104



## The Right View of the PR-9104



## The Rear View of the PR-9104

