LOADRITE

LP950
Data Printer

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Model LP950

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Distributed Worldwide by:

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Contents

1 General Description

The LOADRITE LP950 printer is an accessory to the Loadrite weighing system and is used to provide a permanent record of the weighing operations as they are performed.

A detailed description of the 'print-outs' available is given in the Loadrite Operating Manual.

The LP950 printer is supplied complete with:

- a fully adjustable mounting bracket
- a cable which may be plugged between the LP950 and the PRINTER/EDP socket at the rear of the Loadrite Weigh Indicator.
- a spare ink-ribbon cartridge

Printing is performed by the dot-matrix impact method, utilising a replaceable ink-ribbon cartridge, on to either:

- standard 57mm calculator plain paper or
- 2 layer NCR paper, (if a duplicate copy is required).

2 Installation

Printer

The LP950 printer should be installed at the appropriate mounting angle, orientation and location to provide optimal conditions of use by the operator.

The following important rules should be observed:

1. The printer should not be located in direct sunlight or near any engine compartments which can become excessively hot. (If necessary a screen should be provided to shade the unit from direct heat and sunlight).

2. To reduce the risk of entry of dust or moisture into the printer case -

   - The unit should be mounted with the mouth of the paper exit slot in a downwards direction.

   - Care should be taken that externally accumulated dust, water and oil etc. does not enter when the lid is opened to replace the paper roll.

3. The printer should be located in such a way that it does not hinder the normal operation of the machine controls or the visibility of the operator.

4. The printer should be located in a position where:

   - The hinged lid can be opened without restriction, for replacement of the paper roll or ribbon cartridge. [The lid is secured with a sprung (not hinged) plastic clip. Bending this clip back too far may result in its breakage.]

   - The operator has easy access to the printer to operate the printer controls.

Electrical Connection

All power supply and signal connections to the printer are contained within the cable and connector assembly. No other connections are required.

Connection is made by plugging the cable between the socket located at the rear of the LP950 and the PRINTER/EDP socket located at the rear of the Loadrite Weigh Indicator. The power supply to the printer is switched ON and OFF by the main power ON/OFF switch on the side of the Loadrite indicator.

Ensure that the printer and cable are securely fastened and the cable routed to avoid accidental physical damage. Special care is needed when routing cable to avoid physical damage.

Use with Data Capture System

The Loadrite weighing system may be operated with both an LP950 Printer and a Data Capture System.

Please consult your local LOADRITE dealer for the supply of the Data Capture System.

3 Printer Controls and Indicators

The LP950 printer has two control buttons and three associated indicator lights on the operator control panel.

Function Of Buttons

Paper Feed

This button is used to fast feed the paper out of the printer. It may be used when required during paper loading.

On Line

The printer can be switched 'ON LINE' and 'OFF LINE' (i.e. print data or don't print data) by successively pressing the ON LINE button. When the printer is 'ON LINE' the associated indicator light will be on.

Test

If the PAPER FEED button is momentarily depressed while holding the ON LINE button, the printer will print a test print. After printing, the printer will be left in the OFF LINE state and the ON LINE button must be pressed before the printer will operate.

Function Of Indicators

On Line

Indicates when the printer is 'ON LINE' and able to accept data for printing.

Ready

Indicates that the printer is ready to accept data for printing.

This indicator goes off when:

The printer is out of paper

The printer is 'OFF LINE'

The printer is busy printing and is unable temporarily to accept any more data.

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Paper

When the paper roll in the printer runs out, this indicator will flash on and off. The 'READY' and 'ON LINE' indicators will go off. When the paper roll is replaced, the 'PAPER' light will go out, but the ON LINE button must be pressed to put the printer back 'ON LINE'.

Paper Roll Replacement

IMPORTANT

Do not pull the paper roll backwards through the printer mechanism as this will cause irrepairable damage!

The **LP950** printer uses standard 57mm wide paper; either plain or 2-layer NCR - if a duplicate copy is required.

The maximum roll diameter in either case is 57mm.

To replace the paper roll -

1. Open the hinged lid by springing the plastic clip and lift the lid wide open.

2. Remove the short length of paper remaining in the printing mechanism by:

    i)   Using the PAPER FEED button, or

    ii) Using the manual paper feed wheel, or

    iii) Gently pulling the paper through the mechanism by hand, in the NORMAL direction.

3. Remove the old roll core from the holding fingers and insert the new roll with the paper direction as shown in the diagram.
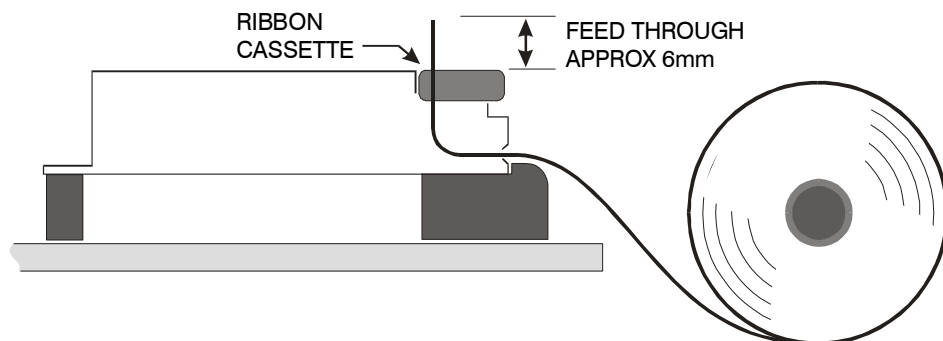
PAPER LOADING PATH

4. Free the end of the new paper roll, checking that the end is cut reasonably square and is free from irregular or jagged tears. If needed, trim the end with scissors.

5. Take the free end of the paper and gently push it over the plastic ramp and into the mouth of the printer.

6. By using the manual feed knob (or the PAPER FEED button - if power is connected), feed the paper through the mechanism and leave approximately 6mm (1/4") of paper protruding from the mechanism. Ensure that the paper lies between the ink ribbon and the cassette housing.

7. Tighten the ink ribbon in its cassette by turning the star-shaped disc (on right-hand end of cassette) two or three turns clockwise.

8. Close the case and secure the lid catch.

9. Press the PAPER FEED button until the paper emerges past the tear-off edge.

10. Press the ON LINE button and the printer is now ready for operation.

Ribbon Casette Replacement

Printing on plain paper in the LP950 printer is achieved by use of an inked ribbon which is contained in a replaceable cassette.

The ribbon will normally last for 2 to 3 rolls of paper.

To Replace the Cassette -

1. Open the lid of the printer. If there is paper in the mechanism, remove it by cutting the paper close to the exit slot of the mechanism.

> ### IMPORTANT
>
> ***Do not pull the paper roll backwards through the printer mechanism as this will cause irreparable damage!***

2. Press down on the left-hand end of the cassette to pop the right-hand end up. The cassette can now be lifted out.

3. The new cassette is fitted in the reverse order to removal, i.e. position the right-hand end of the new cassette in the mechanism and gently push the left-hand end home.

4. Ensure that the paper lies between the ink ribbon and the cassette housing.

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Baud Rate

The LP950 printer communicates with the Loadrite weigh indicator at a communication speed of 9600 baud. Earlier printers communicated at the slower speed of 1200 baud.

If the LP950 printer is used with an LR810 indicator, the LR810 should have the Baud Rate setting changed to 9600 baud. (Ask your Loadrite dealer for details).

If the Baud Rate of the printer needs to be changed, your Loadrite dealer can provide an instruction sheet.

4 Specifications

Case -	Injection moulded polycarbonate. Silicon rubber 'O' ring sealed. UV resistant polyester front panel membrane pushbuttons.
Environmental -	Operating ambient temp. -10°C to +50°C. The unit must not be operated in direct sunlight. Relative humidity 20% to 90% Splashproof to IP52 (water from above only).
Weight -	With mounting bracket : 1.6kg
Print Method -	Dot matrix impact on plain paper. Inking by auto-feed, replaceable, ribbon cassette.
Paper -	Standard plain calculator paper, 57mm wide, up to 57mm diameter roll. Optional - 2 layer NCR paper for duplicate copy.
Print Format -	24 columns, 5 x 8 dot matrix characters, 1.7 x 2.7mm with one dot (0.37mm) descender.
Printable Characters -	Full ASCII character set, plus extended set.
Print Speed -	1.7 lines/second typical
Paper Feed -	4.0 lines/second typical
Test Print -	All printable alpha-numeric characters are printed.
Indicator Lamps -	LED type; On Line, Out of Paper, and Ready.
Control Buttons -	On front panel - On/Off Line, Paper Feed, Test Print Facility
Data Input -	Serial ASCII, RS232 protocol with 'printer ready' handshake. (Ready line goes 'low' when buffer full or printer printing).
Baud Rate -	1200 or 9600 Baud set by internal jumper.
Data Buffer -	1 line (24 character) Printing of line initiated when buffer full (24 char.) or LF, CR, CRLF received. CR and LF are treated as a CRLF pair.

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**Power
Requirements -**

11.2 to 32V DC.
Average Current when Printing:
0.75A @ 12V DC input
0.4 A @ 24V DC input

Peak Current when Printing:
3.0A @ 12V DC input
1.3A @ 24V DC input

Standby Current:
100mA max
40mA typ. @ 24V

**Power Input
Protection -**

Series diode to protect against reverse
voltage. Input filter and high voltage pre-
regulator into switch-mode main regulator to
protect against "load-dump" and automotive
transients.

Notes

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