



LP930 Printer User Manual

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A solution from



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Actronic Ltd assumes no liability in connection with the use of any LOADRITE™ branded product.

The LP930 is fully EMC (Electro-Magnetic Compatibility) compliant and is CE marked accordingly. A Declaration of Conformity, in accordance with the EMC Directive 89/336/EEC (and as amended) is available from Actronic Ltd on request. The LP930 also carries an automotive e-mark that applies, provided the printer is installed in-line with the directive.



1. INTRODUCTION

The LOADRITE™ LP930 is an accessory to the Indicator weighing system and is used to provide a permanent record of the weighing operations as they are performed.

The LOADRITE™ Printer is supplied complete with:

- ▶ A mounting bracket which can be connected to either a mini-swivel mount (MNT-MINI/SWIVEL-1) or tubular mount (MNT-MINI/TUBULAR-1)
- ▶ A cable which connects to the **PRINTER/EDP** socket at the rear of the LOADRITE™ Indicator.
- ▶ Two rolls of thermal printer paper.

2. INSTALLATION

2.1. INSTALLATION REQUIREMENTS

The LOADRITE™ 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) 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 downward 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.
- 2) 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.
- 3) The printer should be located in a position where:
 - ▶ The lid can be opened without restriction for replacement of the paper roll.
 - ▶ The operator has easy access to the printer to operate the printer controls.
- 4) 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.

2.2. MOUNTING BRACKET

The LOADRITE™ LP930 comes with a mounting bracket that slots into the printer on one side and into either a mini-swivel mount (MNT-MINI/SWIVEL-1) or tubular mount (MNT-MINI/TUBULAR-1) on the other side.

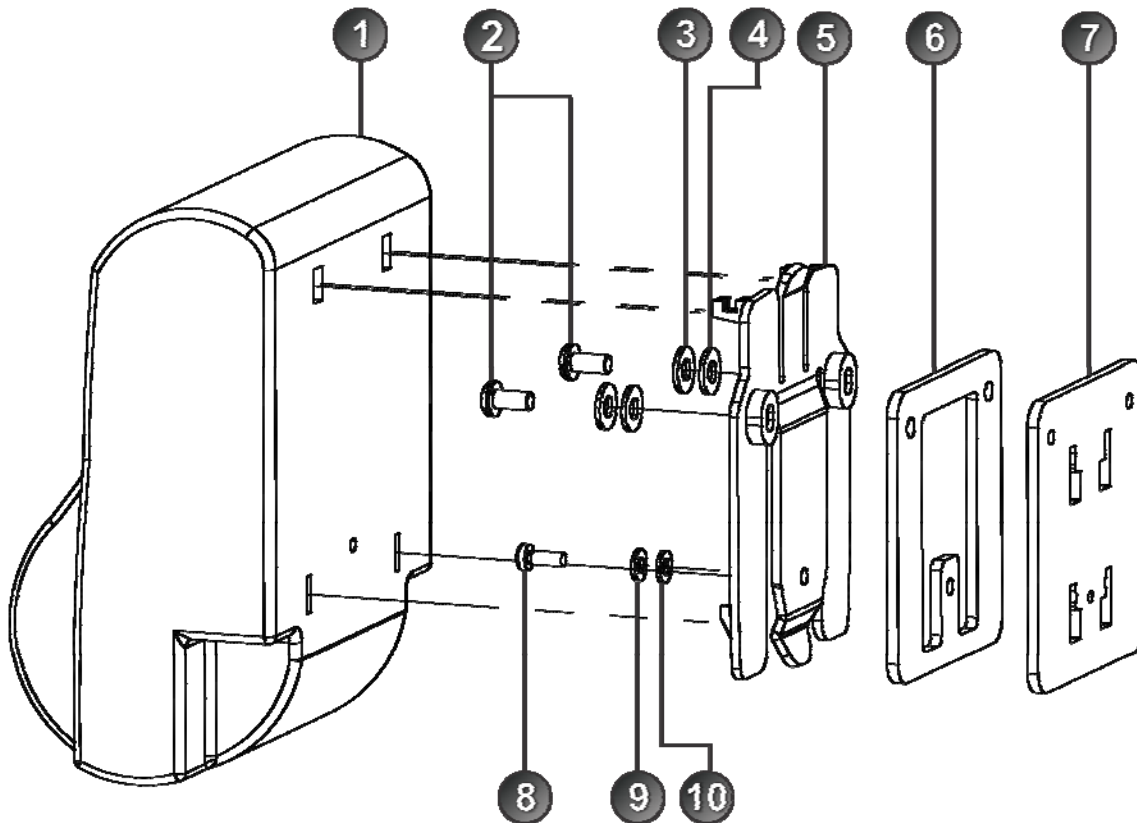
NOTE: MNT-MINI/SWIVEL-1 and MNT-MINI/TUBULAR-1 are available separately.

To mount the printer, complete the following:

- 1) If using the mini-swivel mount (MNT-MINI/SWIVEL-1), the swivel may need tightening. Tighten the adjustment screw from the base of the bracket, but do not over-tighten.
- 2) Push the lugs on the selected mount (MNT-MINI/SWIVEL-1 or MNT-MINI/TUBULAR-1) into the slots on the metal plate (41263), then slide up until it locks into place. The fit is intentionally tight.
- 3) Push the lugs on the Belt Clip (MNT-BELTCLIP/BRKT-1) part of the mounting bracket into the slots on the rear of the printer, then slide up until it locks into place.
- 4) Attach the selected mount to a suitable surface.

To remove the printer from the mounting bracket, press the tab at the top of the Belt Clip (MNT-BELTCLIP/BRKT-1) part of the mounting bracket.

2.2.1. Mounting Bracket Exploded Diagram



Item	Description
1	LOADRITE™ LP930 printer
2	M4x8 screw (x2)
3	M4 spring washer (x2)
4	M4 flat nylon washer (x2)
5	Belt Clip (MNT-BELTCLIP/BRKT-1)
6	Adaptor bracket – spacer (41264)
7	Adaptor bracket – plate (41263)
8	M3x8 screw
9	M3 spring washer
10	M3 flat nylon washer

2.3. CABLE CONNECTION

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

- ▶ Connect the printer cable to the **PRINTER/DATA LOGGER** socket at the rear of the LOADRITE™ Indicator.

The power supply to the printer is switched **On** or **Off** using the main power to 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.

NOTE: A 3 metre extension cable (20938) is available separately.

2.4. CONFIGURATION

Ensure that the following settings are applied to the applicable LOADRITE™ Weighing System Indicator or Integrator that the printer is connected to:

C-Series Integrator

- *User Menu > Setup > Configure > Comms*

Menu Option	Value
Prt Port	LP930

- *User Menu > Setup > Configure > Comms > Prt Menu*

Menu Option	Value
Baud	9600

L-Series Indicator

- *Install Menu > Setup > Configure > Print*

Menu Option	Value
Printer	LP950
Baud	9600

X-Series Indicator

- *Install Menu > Setup > Configure > Print*

Menu Option	Value
Printer	LP950
Baud	9600

3. PRINTER OPERATION

3.1. PRINTER MODES

Idle Mode

The printer is ready to receive data to be printed. When the printer is printing data, the LED light will be lit green.

Spool Mode

The printer will automatically enter *Spool Mode* when the paper has run out, the lid is open or if an error has occurred. When in *Spool Mode*, the LED light will flash and the printer will receive and store data, but not print it. To exit *Spool Mode*, press the **Paper Feed** button twice.

3.2. PRINTER FEATURES

Paper Feed Button

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

- ▶ When in *Idle Mode*, press the **Paper Feed** button twice to print a demonstration message which include the firmware version, encoded calibration data and the supported character set.
- ▶ When in *Spool Mode*, press the **Paper Feed** button to print remaining stored data, then enter *Idle Mode*.

LED Light

The LED light has a number of color combinations to indicate the status of the printer.

Pattern	Power Status	Buffer Mode
Constant Green	Normal	Normal
Fast-Flashing Green	Normal	Spool
Long Green - Short Red	Low voltage	Normal
Short Green - Short Red	Low voltage	Spool
Fast-Flashing Red	Error	Spool (printing prohibited)
No light	Off	-

3.3. PAPER ROLL REPLACEMENT

The LOADRITE™ Printer uses standard 57mm wide thermal paper with a maximum roll diameter of 55mm.

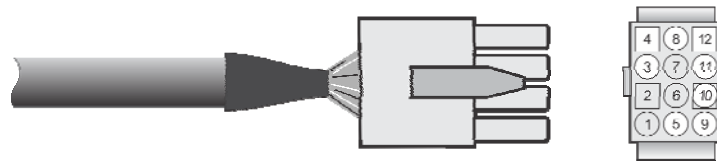
To replace the paper roll, complete the following:

- 1) Slide the **Lid Release** button until the lid springs open.
- 2) Unroll a small amount of paper from the roll, then insert the paper roll into the printer with the unrolled portion close to the serrated metal edge.
- 3) Close the lid ensuring that the unrolled portion of paper protrudes through the slot by the serrated metal edge. The lid will click into place.
- 4) Press the **Paper Feed** button and check that the paper is straight and feeds properly.
- 5) Tear off any excess paper by pulling the paper sharply towards the serrated metal edge.

4. SPECIFICATIONS

Environmental	Operating temperature 0°C to +50°C.
Weight (excluding mounting bracket)	Approx 340g (inc roll of paper).
Print Method	Fixed heated thermal mechanism.
Paper	<ul style="list-style-type: none"> ▶ Width: 57.5mm ▶ Maximum Roll Diameter: 55mm (approx length: 33 meters) ▶ Accepts paper rolls with or without a core.
Print Format	<ul style="list-style-type: none"> ▶ Number of Columns: 24 ▶ Print Width: 48mm ▶ Font (dots): 10 x 24 ▶ Dots Per Line (graphics): 384 ▶ Dot Spacing: 8 dots/mm (vertical and horizontal).
Character Set	IBM® 224 character set, CP437.
Print Speed	50 mm/s.
Test Print	Firmware version, encoded calibration data, supported character set.
Control Buttons	<ul style="list-style-type: none"> ▶ Paper Feed ▶ Lid Release.
Sensors	Paper out (opto reflective) and Head Up (mechanical).
Data Input	RS-232 Serial.
Baud Rate	9600 baud rate.
Data Buffer	20kb.
Power Requirements	<ul style="list-style-type: none"> ▶ Idle Mode: 100mA ▶ Printing Mode Average: 2A ▶ Printing Mode Peak: 7A

4.1. CABLE SPECIFICATIONS



1. GND (Black)	2. +12V (Red)
3. N.C.	4. N.C.
5. N.C.	6. Data Input (Blue)
7. Printer busy input (Green)	8. N.C.
9. N.C.	10. N.C.
11. N.C.	12. N.C.