

CR-158 COUPON PRINTER MANUAL

PRINTER INNOVATIONS

InnoPrint Limited assume no responsibility for errors, omissions, or damages resulting from the use of information contained within this manual.



MANUAL AMENDMENTS

| Rev. | Date | Amendment Details | Issued by |
|-------------|-------------|-------------------------------|------------------|
| 1.0 | 01-11-13 | First Issue | IF |
| 2.0 | 28.04.14 | Updated to include new bezels | IF |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

CR-158 COUPON PRINTER MANUAL

| | |
|--|----|
| MANUAL AMENDMENTS | 2 |
| COPYRIGHT | 4 |
| LIMITED WARRANTY | 4 |
| PRODUCT SAFETY INFORMATION | 4 |
| 1. INTRODUCTION | 5 |
| 2. CONNECTING THE PRINTER | |
| 2.1. Power & pulse connection | 5 |
| 2.2. USB data connection | 6 |
| 2.3. Serial connection | 6 |
| 3. DIP SWITCHES, BUTTONS & STATUS LEDES | |
| 3.1. Dip switches | 6 |
| 3.2. Buttons | 6 |
| 3.3. LED status lights | 6 |
| 3.4. LED error status lights | 7 |
| 4. BEZEL OPTIONS | |
| 4.1. US Bezel | 7 |
| 4.2. EUR Bezel | 7 |
| 5. TECHNICAL SPECIFICATIONS | |
| DC Voltage | 8 |
| Supply current | 8 |
| Interface logic levels | 8 |
| Functionality | 8 |
| Performance | 8 |
| Environment | 9 |
| 6. FIELD SERVICE | |
| 6.1 Inserting a role of paper | 9 |
| 6.2 Removing the paper guide | 9 |
| 6.3 Removing the print head roller assembly | 10 |
| 6.4 Micro SD card slot and battery compartment | 10 |
| 7. CREATING TEMPLATES & TESTING | |
| 7.1 Ticket Template Manger | 11 |
| 8. DIAGRAM | |
| 8.1 CR-158 with US bezel | 12 |
| 8.2 CR-158 with EUR bezel | 13 |

COPYRIGHT

This manual set is Copyright © InnoPrint Limited 2014. No part of this publication may be reproduced in any form or by any means or used to make any derivative such as translation, transformation, or adaptation without permission from InnoPrint Limited. The contents of this manual set may be subject to change without prior notice.

LIMITED WARRANTY

InnoPrint Limited warrants each of its hardware products to be free from defects in workmanship and materials under normal use and service for a period commencing on the date of purchase from InnoPrint Limited or its Authorized Reseller, and extending for the length of time stipulated by InnoPrint Limited.

A list of InnoPrint Limited offices can be found in every section of this manual set. If the product proves defective within the applicable warranty period, InnoPrint Limited will repair or replace the product. InnoPrint Limited shall have the sole discretion whether to repair or replace, and any replacement product supplied may be new or reconditioned.

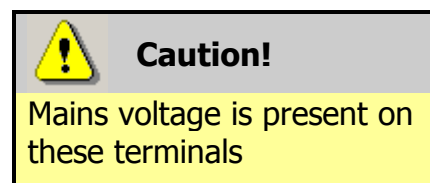
The foregoing warranties and remedies are exclusive and are in lieu of all other warranties, expressed or implied, either in fact or by operation of law, statutory or otherwise, including warranties of merchantability and fitness for a particular purpose.

InnoPrint Limited shall not be liable under this warranty if it's testing and examination disclose that the alleged defect in the product does not exist or was caused by the customer's or any third person's misuse, neglect, improper installation or testing, unauthorized attempts to repair, or any other cause beyond the range of the intended use. In no event will InnoPrint Limited be liable for any damages, including loss of profits, cost of cover or other incidental, consequential or indirect damages arising out the installation, maintenance, use, performance, failure or interruption of an InnoPrint Limited product, however caused.

PRODUCT SAFETY INFORMATION

Throughout this manual set, we may draw your attention to key safety points that you should be aware of when using or maintaining the product.

These safety points will be highlighted in a box, like this:



This manual set and the information it contains is only applicable to the model stated on the front cover, and must not be used with any other make or model.

1. INTRODUCTION

Purpose of this document

The purpose of this document is to aid in the set-up of, and software integration for the InnoPrint CR-158 Printer.

2. CONNECTING THE PRINTER

The printer has three available connections, either via the 7 pin connector, USB or RJ45 socket.



2.1 Power and Pulse Connection

The large, 7-pin connector at the centre of the rear of the device is used for power and to control the device via a pulse interface. On the female side of the connector (i.e. on the device itself) from left to right, the pins are:

- 1 – Red – +12-24V DC
- 2 – Black – Ground
- 3 – Brown – Coin In Pulse Signal
- 4 – Orange – Note In Pulse Signal
- 5 – Yellow – Pay out Trigger Pulse Signal
- 6 – Green – Ticket Out Output (currently unused)
- 7 – Blue – Error Out Output (currently unused)

2.2 USB Data Connection

The USB connection is used to host a COM port on a connected PC, allowing the device to be communicated with through the SSP protocol. Information on this protocol can be found in a separate document (Innovative Technology manual GA138.) SSP can be used to configure and control the device, as well as to download certain files onto the device via the SSP update process. The device is connected in this way like any other USB peripheral, and no special cables should be required

2.3 Serial connection (RJ45 like connection)

This connector is used for Pot o' Gold communications

3. DIP SWITCHES, BUTTONS & STATUS LEDS



3.1 Dip Switches

Currently dip switches 1-3 are unused.

Dipswitch 4 controls the cut mode of the printer guillotine. If the dip switch is in the down (off) the printer will perform a half cut. This will leave a small tab attached to the rest of the roll, and requiring a small amount of force to pull the coupon away. In the up (on) position, the printer performs a full cut and fully detaches the printed coupon from the rest of the roll.

3.2 Buttons

Button 1 (left) is used to test the printer. Holding the button 1 down for 4 seconds will cause the device to print a test ticket. As well as testing the print head, the test ticket also includes a report containing some basic configuration information about the device. Button 2 (right) is not currently used.

3.3 LED Status Lights

The device has 3 LEDs - green, yellow and red - which are used to display the status of the device. The standard statuses are displayed as follows:

| | |
|-----------------------------------|--|
| Slow pulsing yellow | Printer idle |
| Slow pulsing yellow and solid red | Printer idle, paper low |
| Slow pulsing green | Printer idle, SSP enabled |
| Slow pulsing green and solid red | Printer idle, SSP enabled, paper low |
| Fast pulsing green | Printing |
| Fast pulsing green, yellow, red | Printer initialising after power off/reset |

3.4 LED Error Status Lights

The LEDs are also used to display error states. These are shown by a number of slow red flashes, followed by a number of yellow flashes. The number of each colour of flash indicates the error as shown in the table below:

| | | Red | | | |
|--------|---|---------------------|-----------|-------------|---------------|
| | | 1 | 2 | 3 | 4 |
| Yellow | 1 | - | No Paper | - | Unknown Error |
| | 2 | Initialisation Fail | - | - | - |
| | 3 | No Print Head | Load Fail | - | - |
| | 4 | - | - | Cut Fail | - |
| | 5 | - | - | Unknown Jam | - |

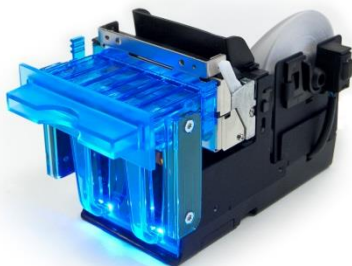
4. BEZEL OPTIONS

There are currently two types of bezel available, see below;

4.1 US Bezel:



4.2 EURO: Bezel:



Note: When ordering the CR-158 printer, ensure you indicate which bezel you require, i.e. for the US bezel, please order as CR-158/U and CR-158/E for the EURO bezel.

5. TECHNICAL SPECIFICATIONS

CR-158

| DC Voltage | Minimum | Nominal | Maximum |
|----------------------------------|------------------|-----------------------------------|----------------|
| Absolute limits | 11 V | 12 V | 26 V |
| Supply ripple voltage | 0 V | 0V | 0.5 V @ 100 Hz |
| Supply Current | | | |
| Standby | 100 mA | | |
| Printing | 2 A | | |
| Peak | 4.8 A | | |
| Interface Logic Levels | Logic Low | Logic High | |
| Inputs | 0 V to 0.5 V | +3.7 V to +12 V | |
| Outputs (2.2 k Ω pull-up) | 0.6 V | Pull-up voltage of host interface | |
| Maximum current sink | 50 mA per output | | |

| Functionality | Printing Method | Direct Thermal Printing |
|---------------|--------------------------|---|
| | Dot Pitch | 0.125 mm |
| | Resolution | 384 dots per line |
| | Print Width | 48mm |
| | Print Speed | 100mm/s |
| | Ticket Print and Present | < 3 Seconds |
| | Barcode Types | Interleaved 2 of 5, others by request |
| | Graphic resources | 2MB on-board SPI Flash. An micro SD card slot is available for storage of extra fonts and images |
| | Interface: User | Ticket print button, Feed button, 4 dip-switches. LEDs: Ready, Paper, Fault |
| | Interface: Protocols | eSSP, Pot o' Gold |
| | Interface: Electrical | Open collector, True RS232, USB |
| | Interface: Physical | USB (direct to printer) 7 – way power, pulse and "Pot O Gold" RJ45 serial connector |
| | Support tools | The firmware and interface protocol are upgradeable via USB. Ticket Template Manager software allows design of own ticket templates |

| Environment | Parameter | Min | Max (Design Guide) |
|--------------------|--|------------|---------------------------|
| | Operating temperature (Ambient) | +5°C | +60°C |
| | Humidity | 5% | 95% Non Condensing |

6. FIELD SERVICE

6.1 Inserting A New Roll Of Paper

To insert a new roll of paper, remove the roll mandrel from the printer, insert into the roll core and place into the holder on the printer so the paper comes off the role and into the printer mechanism as shown in the below images.

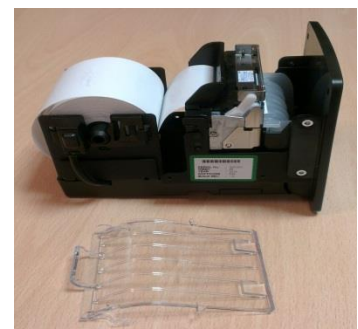
Feed the paper into the mechanism with the unit powered on, when the paper triggers the sensor the unit will auto-feed the paper. Remove the excess paper when the unit has completed the paper feed.

If required, you can now do a test print, by holding the left hand button for 4 seconds.



6.2 Removing The Paper Guide

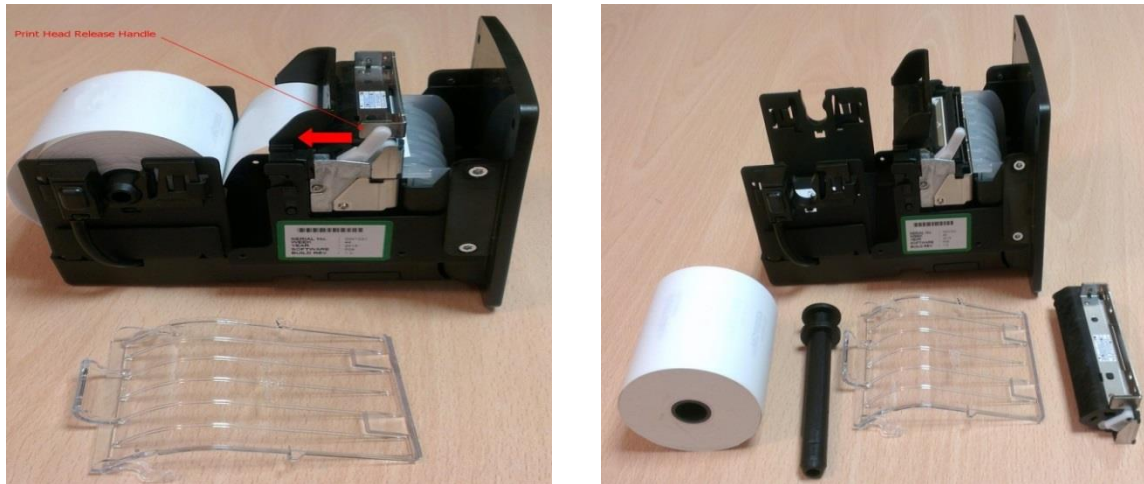
The paper guide can easily be removed by pulling up on the guide using the tab at the top of the guide. With the guide removed, this allows easy access to remove paper that has become jammed, or for access for cleaning.



6.3 Removing The Print Head Roller Assembly

The print head roller assembly can easily be removed to allow easy access for cleaning and removal of jammed paper. Firstly remove the paper guide, as detailed in 6.2, then pull the release handle in the direction shown in the picture. This will also release the paper from the mechanism. To reinsert the roller assembly just click back into place.

Note: Fit the roller assembly before reinserting the paper guide and paper roll.



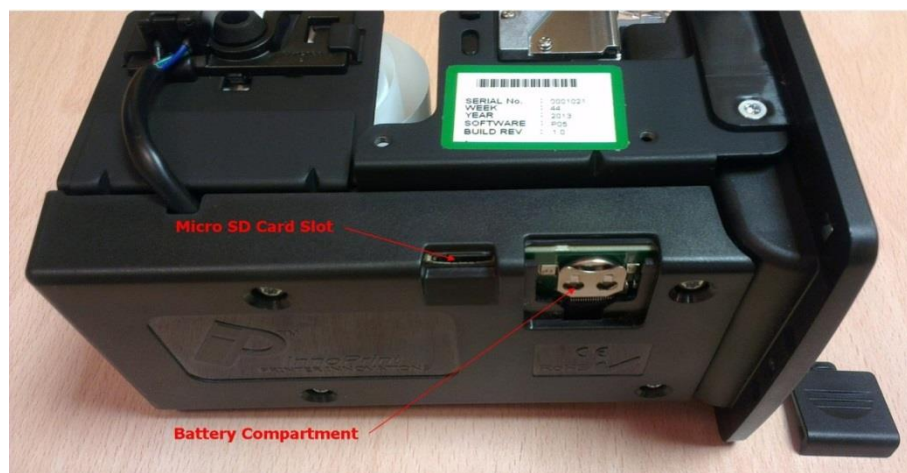
6.4 Micro SD Card Slot & Battery Compartment

The micro SD card slot and battery compartment are located on the left hand side of the unit. The battery is accessed via the removable cover.

Inserting a micro SD card expands the memory of the printer, allowing extra fonts, images and coupon templates to be stored.

The battery powers the units internal real time clock, which can be used to provide and date and time stamp on coupons.

Note: Battery Type: CR1225, 3 Volt, 50mAh (BA00100)



7. CREATING TEMPLATES & TESTING

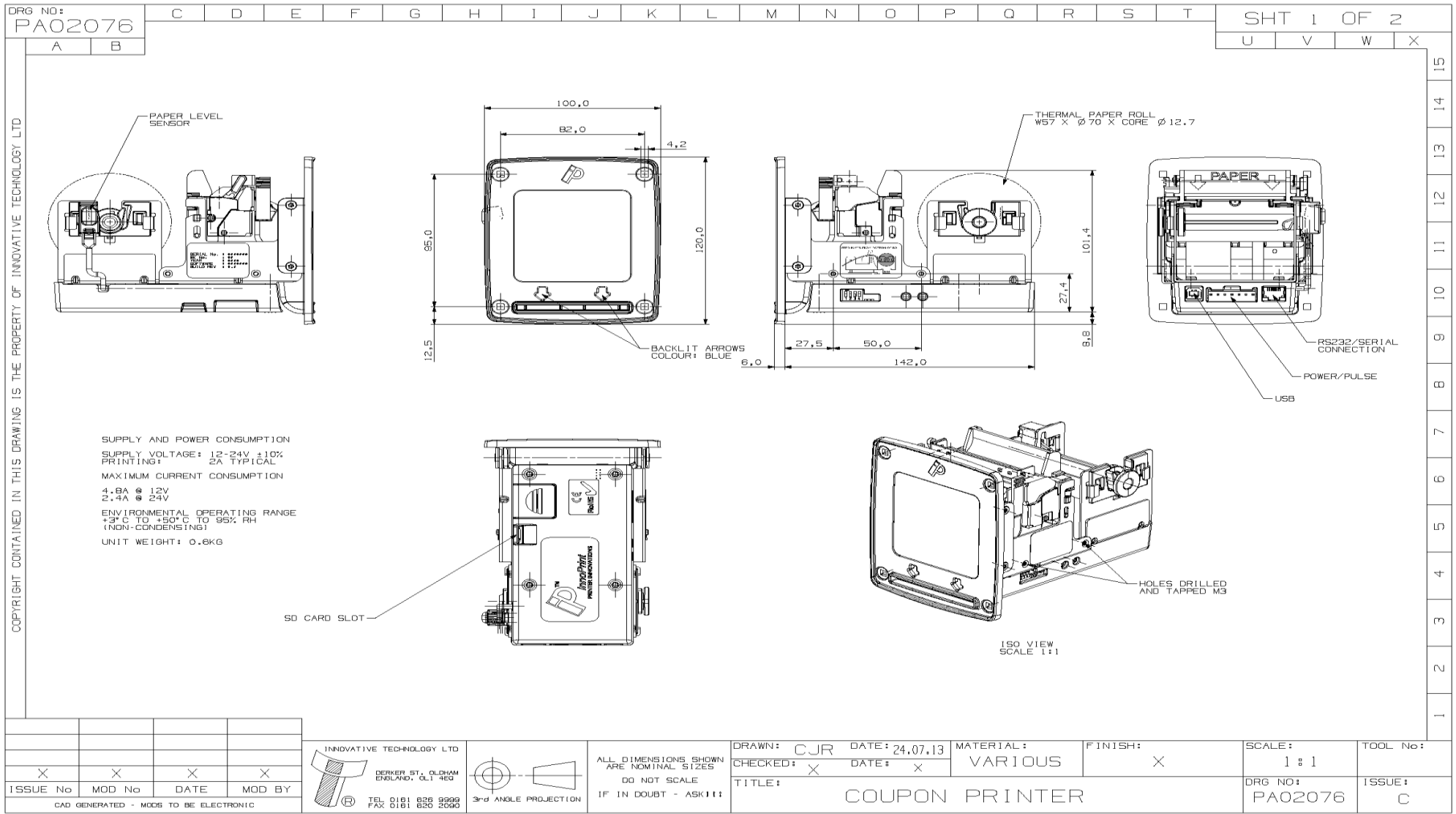
7.1 Ticket Template Manager

To fully maximise the potential of the CR-158 printer and its printing capabilities, and to test the unit fully, we recommend you install Ticket Template Manager.

Ticket Template Manager is a software tool that allows users to create and edit ticket/receipt designs, and upload them to InnoPrint printer products.

The software and manual (INN001) are include in the Development Kit.

8.1 CR-158 with US bezel



| | | | |
|---------------------------------------|--------|------|--------|
| X | X | X | X |
| ISSUE No | MOD No | DATE | MOD BY |
| CAD GENERATED - MODS TO BE ELECTRONIC | | | |

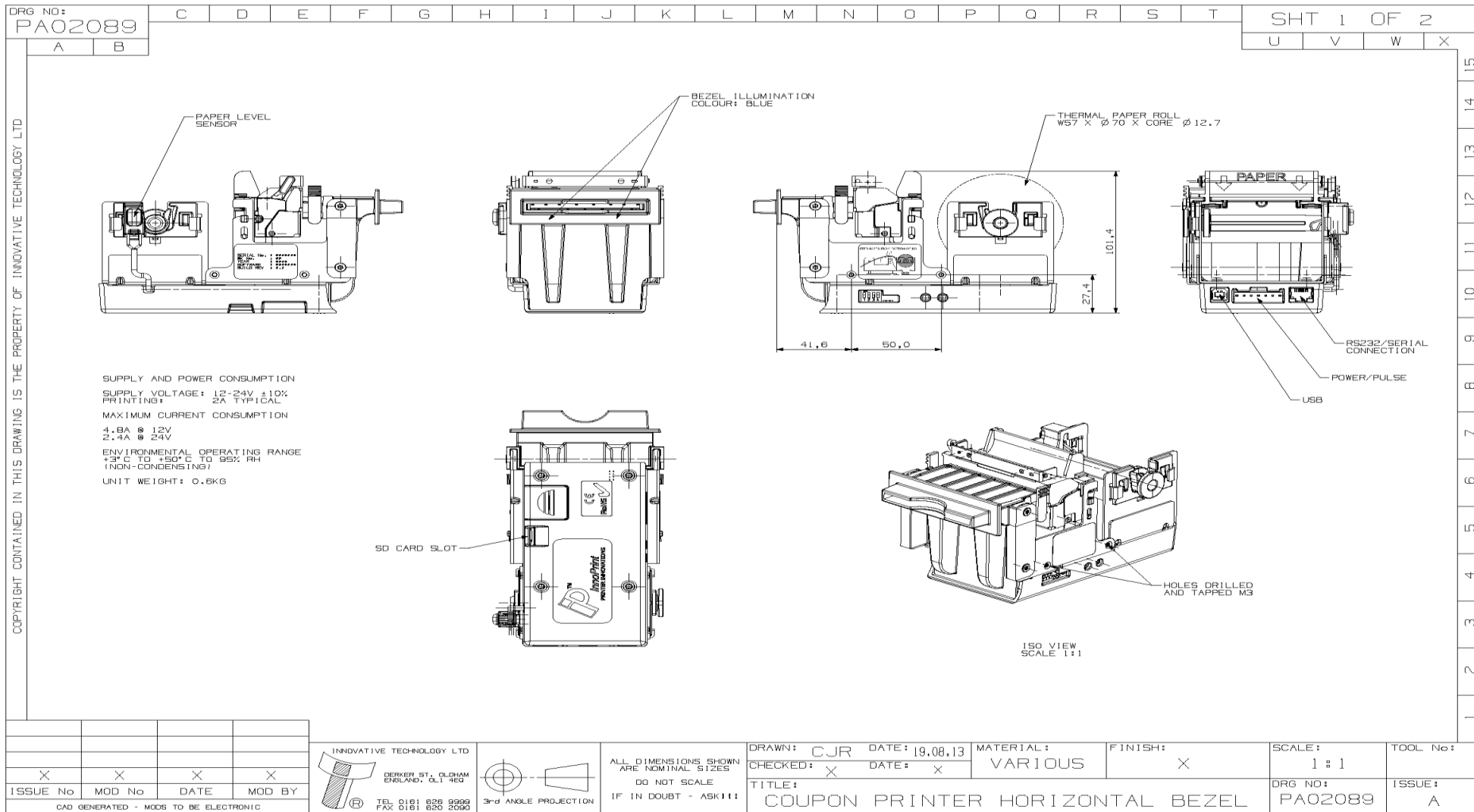
INNOVATIVE TECHNOLOGY LTD
DERKER ST. OLDHAM
ENGLAND, OL1 4EG

3rd ANGLE PROJECTION

ALL DIMENSIONS SHOWN ARE NOMINAL SIZES
DO NOT SCALE
IF IN DOUBT - ASK!!!

| | | | | | |
|------------|----------------|-----------------------|-----------|-----------------|----------|
| DRAWN: CJR | DATE: 24.07.13 | MATERIAL: VARIOUS | FINISH: X | SCALE: 1:1 | TOOL No: |
| CHECKED: X | DATE: X | TITLE: COUPON PRINTER | | DRG NO: PA02076 | ISSUE: C |

8.2 CR-158 with US bezel



INNOPRINT

Innovative Business Park
Derker Street – Oldham – England - OL1 4EQ
Tel: +44 161 626 9999 Fax: +44 161 620 2090
E-mail: sales@innoprint.co.uk
Web site: www.innoprint.co.uk

**InnoPrint Limited**

Part of Innovative Technology Ltd

Brazil

suporte@bellis-technology.com.br

China

support@innovative-technology.co.uk

Germany

supportDE@innovative-technology.eu

Spain

supportES@innovative-technology.eu

UK

support@innovative-technology.co.uk

Rest of the World

support@innovative-technology.co.uk

