

AVANEIGH

COMMERCIAL SCALES

USER MANUAL



Thermal Label Printer for Price Computing Scales

334PRINTER

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FCC COMPLIANCE STATEMENT

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that the interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into a different outlet on a different circuit.
- Consult the dealer or an experienced Radio/TV technician for help.

This unit was tested with shielded cables on the peripheral devices. Shielded cables must be used with the unit to insure compliance. The user is cautioned that any changes or modifications not expressly approved by Avaweigh could void the user's authority to operate the equipment.

SAFETY



Supplemental Information: This device complies with the requirement of FCC Part 15 Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, this device must accept and (2) any interference received, including interference that may cause undesired operation.

INDUSTRY CANADA NOTICE:

This device complies with Industry Canada ICES-003 class A requirements.
Cet équipement est conforme à ICES-003 classe A de la norme Industrielle Canadienne.



Please only use adapters with the following electrical characteristics that are certified by current legislation. Using other adapters may damage the device, void the warranty, and cause risks to the user.

Features Output: 24VDC, 2.4A



The manufacturer declares under sole responsibility that this product conforms to the following standards or other normative documents:

EMC: EN 55022:2010 class A
EN55024:2010



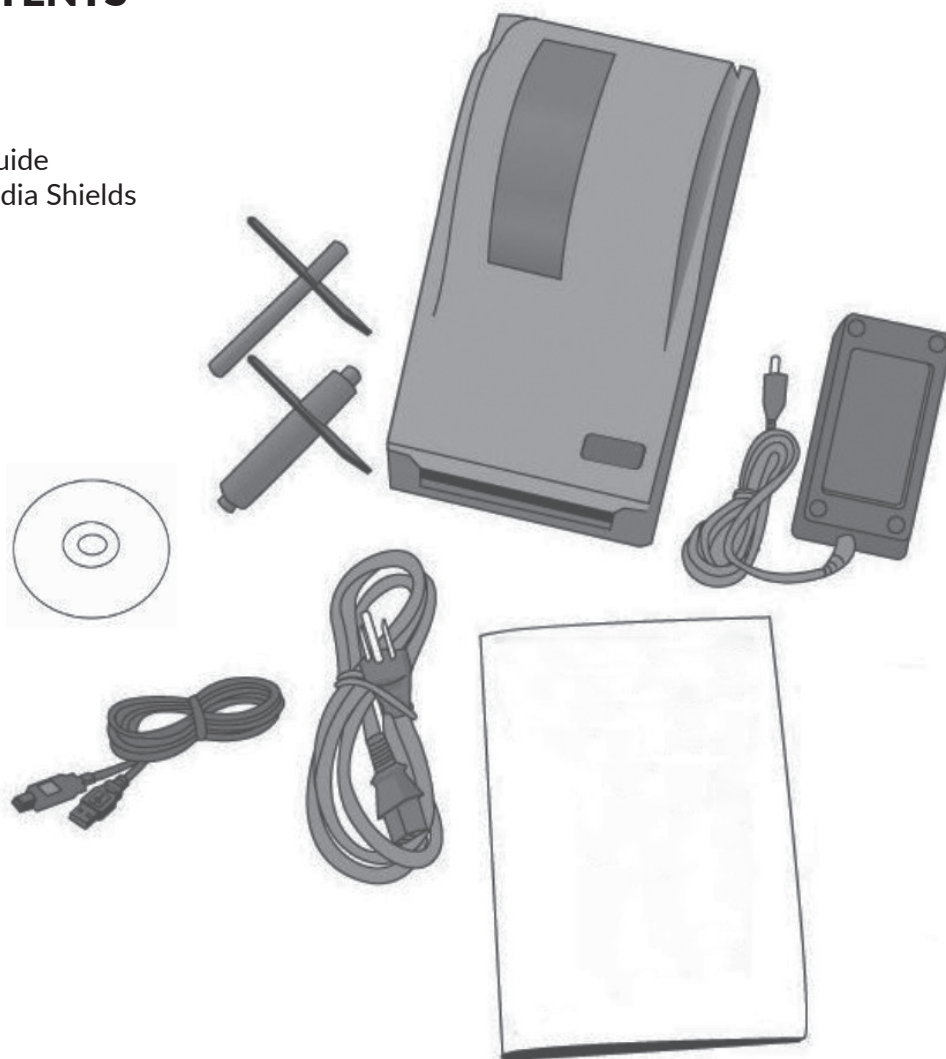
Avaweigh certifies that the following products and/or components are compliant with the current requirements of the European Union Restriction on the use of Hazardous Substances (RoHS) Directive, 2011/65/EC.

UNPACKING

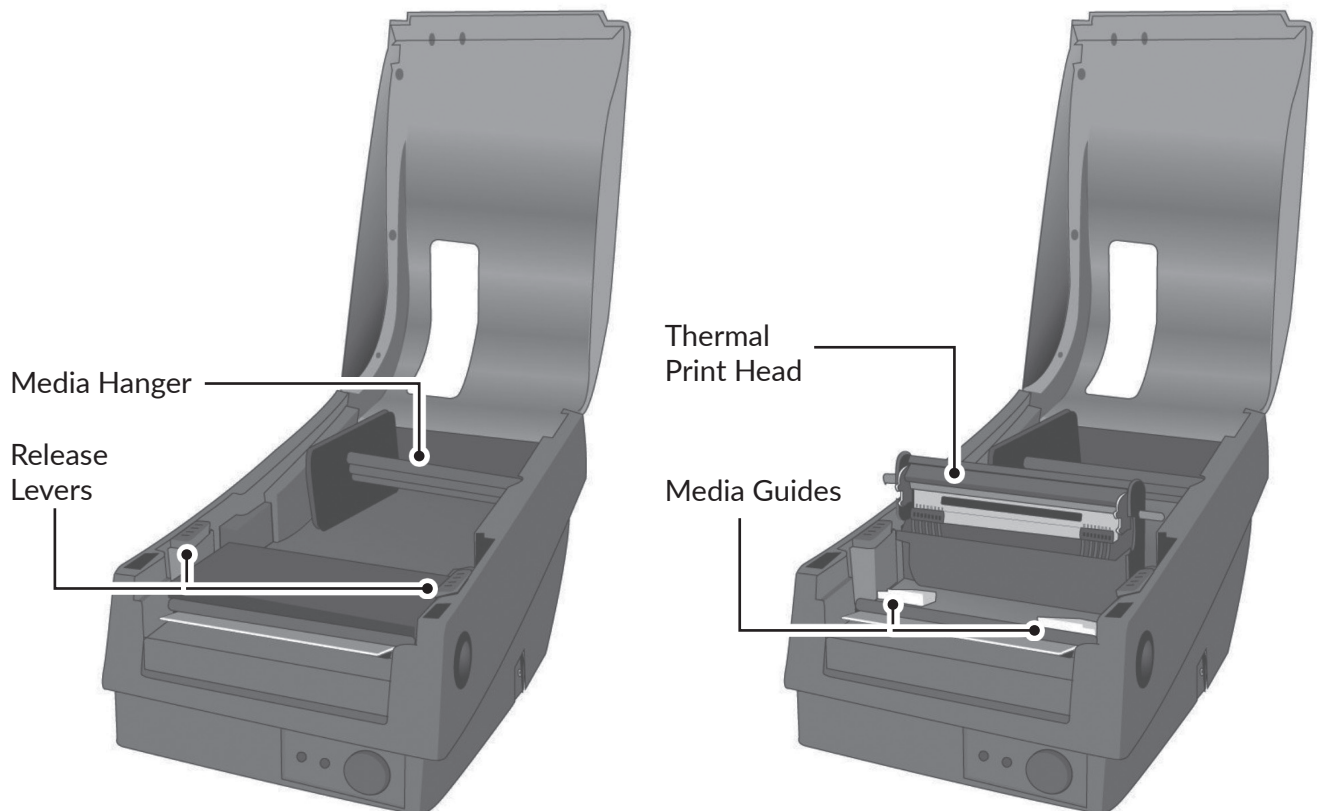
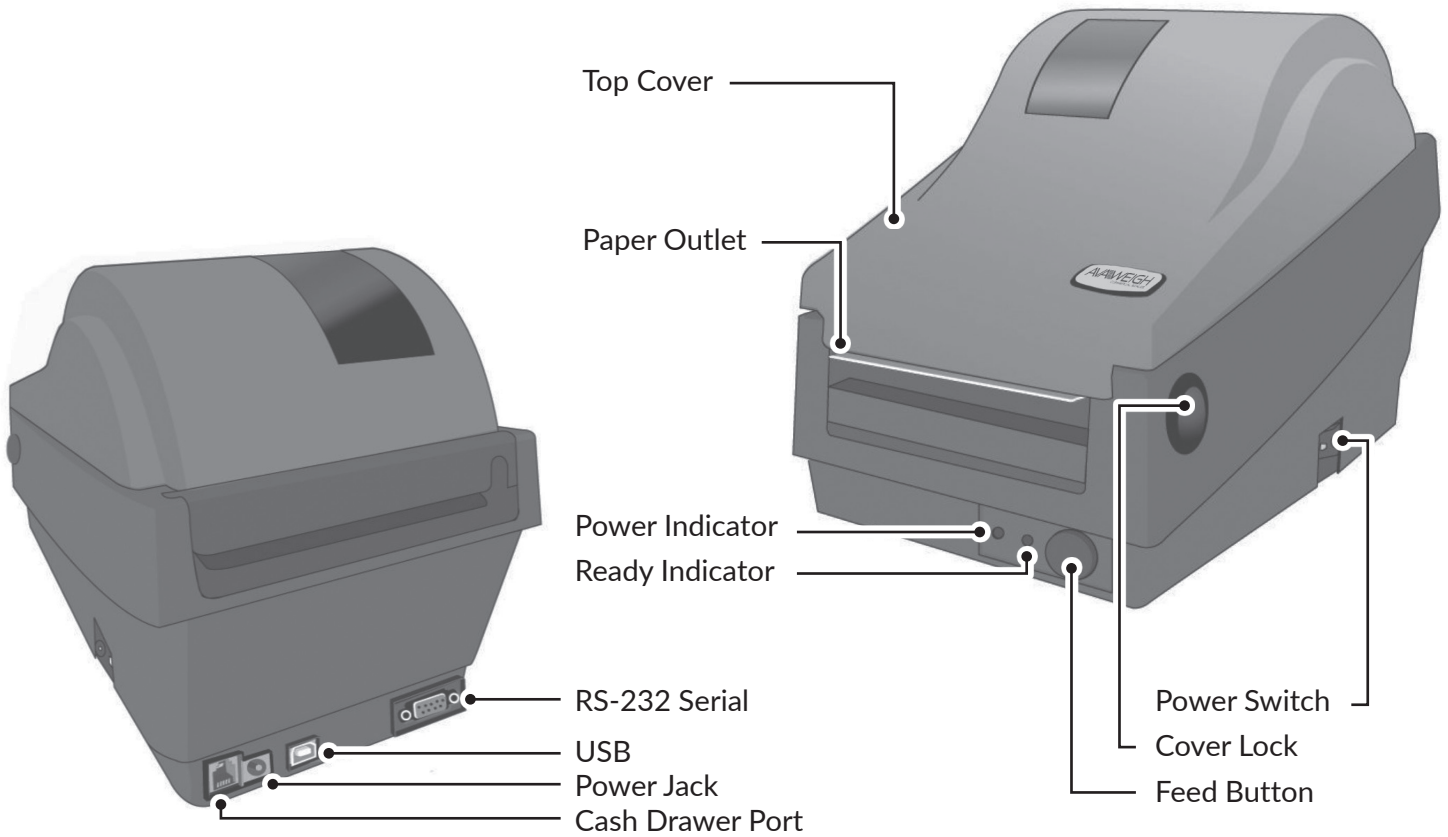
- After receiving your printer, please check for possible shipping damage. Inspect both the box and the printer.
- Open the top cover of the printer to see if all parts are in order.
- Check whether you have received the following accessories together with the printer. If there are any items missing, please contact your local dealer.

PACKAGE CONTENTS

- Printer
- Power Cord
- Power Supply
- Quick Installation Guide
- Media Hanger & Media Shields
- USB Cable
- DVD
- RS232 Cable



OVERVIEW



QUICK SETUP GUIDE

CONNECTING YOUR AVAWEIGH PRINTER (OS-2130D) TO THE AVAWEIGH PCS40/PCS40T SCALE

- This Quick Set-Up Guide will connect the Avaweigh (PCS40/PCS40T) to the Avaweigh Printer (OS-2130D) using default settings, allowing for quick set-up and printing. Additional set-up options can be found on pages 11-13 in the scale manual.

SCALE CONNECTION

1. Connect RS232 to scale and printer:

Use the RS232 cable that came with the printer and connect it to the RS232 inserts that are located on the back of the printer and the left side of the scale.

2. Power on the scale:

Locate the power switch on the right side of the machine and toggle it to the on position. Wait about 5 seconds for the scale to load and calibrate.

3. Getting to setup mode:

Press the red power button and the number 4 simultaneously for a few seconds until the machine beeps. You are now in setup mode.

4. Label Length:

Unit price screen should read '232.oUt.' Once you have confirmed you are on the label length screen please select the number associated with the length and type of label you will be using.

- Press 1: 40mm length/ date will print on label
- Press 2: 60mm length/ date will print on label
- Press 3: 40mm length/ NO DATE will print on label
- Press 4: 60mm length/ NO DATE will print on label
- Press Enter to confirm your selection.

5. Bits Per Second Connection:

Unit price screen should read '232.bPs,' confirming that you are on the BPS screen.

- Press 4: (9600bps)
- Press Enter to confirm your selection.

6. Data Type:

Unit price screen should read '232.dFt,' confirming that you are on the data type screen.

- Press 1: (8N1 8 bits data)
- Press Enter to confirm your selection

7. Date Format:

Unit price screen should read 'Prtd.dt,' confirming that you are on the date format screen.

- Press 1: (DD-MM-YY)
- Press Enter to confirm your selection

PRINTER CONNECTION

8. Printer Connection:

Unit price screen should read 'USb.oUt' total price screen will read 'HOST,' confirming you are on the printer connection screen.

- Press Enter to confirm your selection

9. Bits Per Second Connection:

Unit price screen should read 'USb.bPs,' confirming you are on the BPS screen.

- Press 4: (9600bps)
- Press Enter to confirm your selection

10. Data Type:

Unit price screen should read 'USb.dFt,' confirming you are on the data type screen.

- Press 1: (8N1 8 bits data)
- Press Enter to confirm your selection

11. Department Code:

Unit price screen will read 'd.CodE' confirming you are on the department code screen.

- Choose a desired two-digit department code between (00-99). (Example: 08)
This will show as the prefix of barcodes.
- Press Enter to confirm your selection

12. Barcode Format:

Unit price screen will read 'b.Prt.FE,' confirming you are on the barcode format screen.

- Press any two digits between 00-13 to select a barcode format.
05 is the recommended barcode format.
- Press Enter to confirm your selection

13. Finish:

Unit price screen will read 'Urt.CFt' confirming that you are on the final screen.

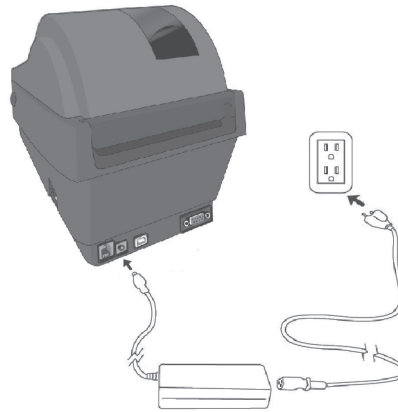
- Press 2 to finish
 - Press Enter to confirm your selection
-
- Once this process has been completed the scale will reset itself and will now be connected to the printer. For more detailed information about connection options such as barcode formats, date layouts and bps communications please refer to pp. 11-13 in the scale manual.

POWERING ON



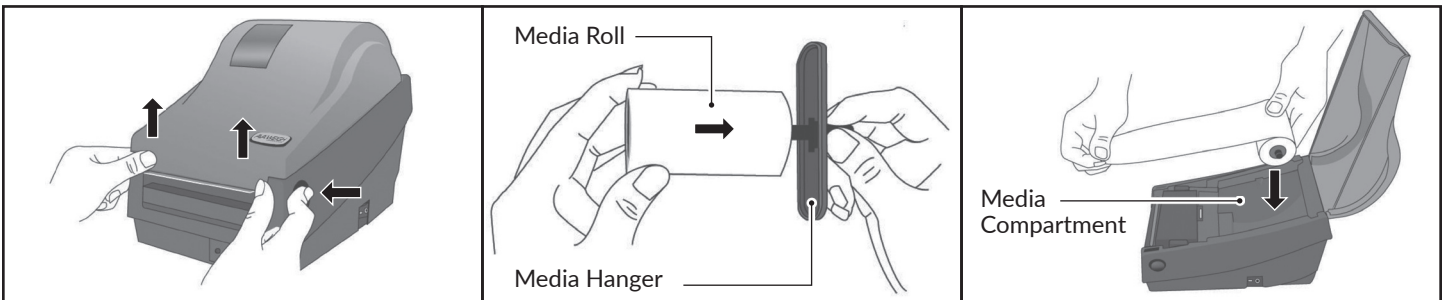
- **Do not operate the printer and power supply in an area where they might get wet.**

1. Make sure the printer's power switch is in the OFF position.
2. Insert the AC power cord into the power supply.
3. Insert the power supply's power connector into the printer's power jack.
4. Plug the other end of the power cord into an appropriate grounded AC electrical outlet.

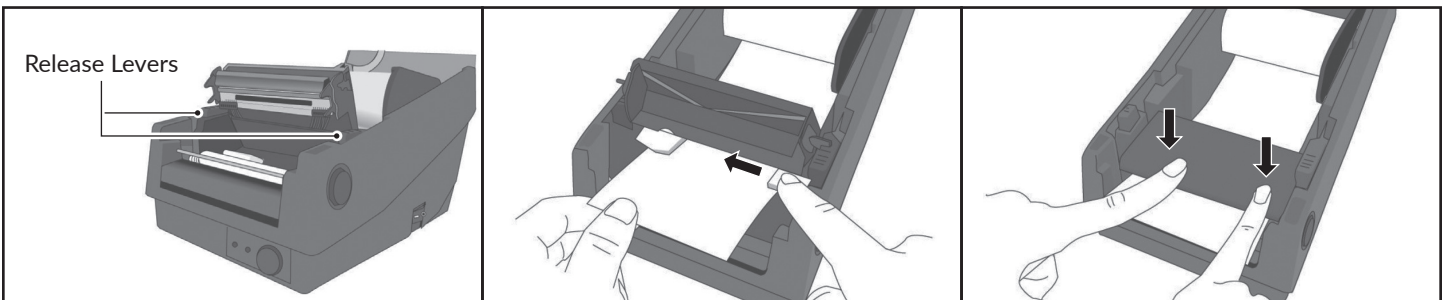


LOADING MEDIA

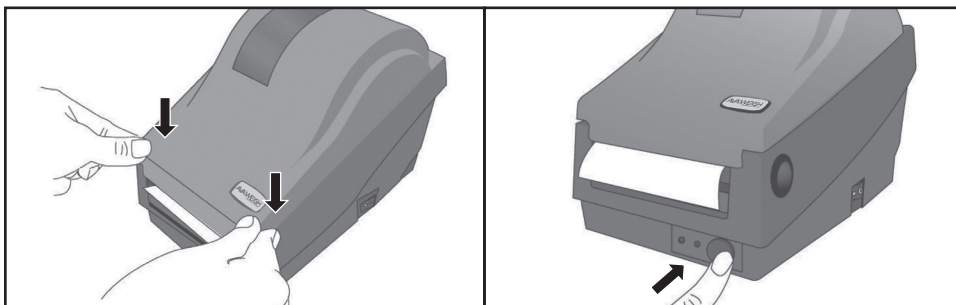
In case the paper roll becomes dirty during shipment, handling, or storage, begin by removing the outside length of media, which helps prevent dirt from coming in contact with the print head and platen roller. Load the media by placing onto the media hangers.



1. Open top cover of the printer.
2. Put the Media Hanger through Media Supply Roll, then centrally align with the (2) Media Shields so they lean against the roll.
3. Place the Media Supply Roll into the Media Compartment of the printer.



4. Push the Release Levers to open the Printer Module.
5. Pull a short length of media until it reaches the Platen Roll of the printer. Adjust the Media Guide on the right so the roll is left-aligned.
6. Close the Printer Module, then press both sides firmly until you hear a click.



7. Close the Top Cover and turn on the printer.
8. Press the Feed Button to feed labels out of the printer.

PRINTER OPERATIONS

PRINTING MEDIA CALIBRATION CONFIGURATION

Before connecting the printer to your computer, to make sure that the printer works properly, conduct media calibration and print a self-test/configuration label.

1. Make sure the media is properly loaded and the top cover of the printer is closed.
2. Turn off the printer power.
3. Press and hold the FEED button while turning on the power, until print motor is activated.
4. Media is calibrated while the printer automatically feeds the label stock for a certain length; then the printer motor suspends for one second, then prints out the configuration profile. Release the FEED button as soon as the printer starts to print.

NOTE: If printer is set up with PPLB printer language, printer will enter Dump mode after printing configuration. In Dump mode, all characters will be printed in 2 columns: the right shows characters received from you system, and the left are the corresponding hexadecimal values of the characters. This allows users or engineers to verify and debug the program.

To return to normal operation mode from Dump mode, press the FEED button again, or turn off printer power and then restart the printer.

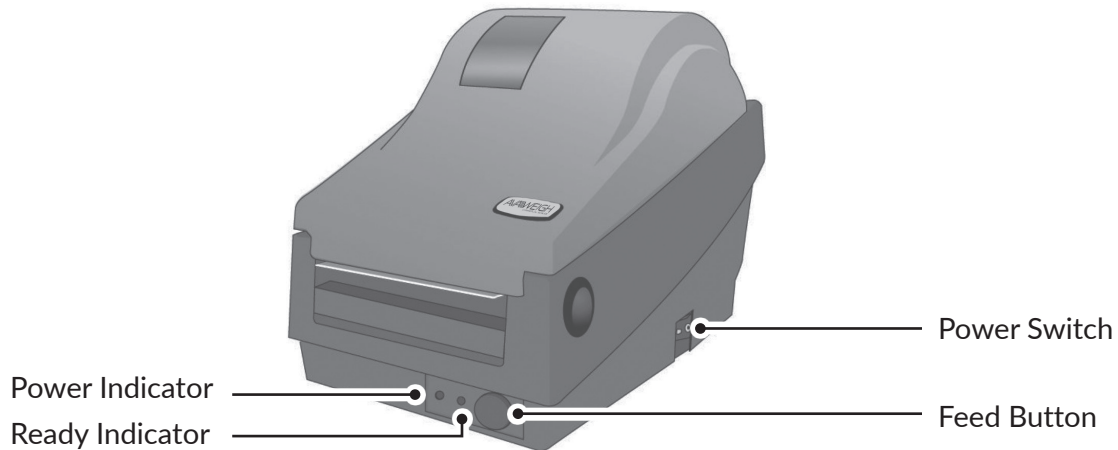
Print Head Test Patterns															
Fonts	<p>R8/E94/PC/PCA/PCB Courier Fonts: ASD font 18 points ASD font 14 points - 01 ASD font 12 points - 012345 ASD font 10 points - 0123456789 ASD font 8 points - 0123456789 ABCDEF ASD font 6 points - 0123456789 ABCDEFGHIJ 0123456789 INT. FONT 7 01234567 INT. FONT 6 INT. FONT 5 0123456 INT. FONT 4 0123456 INT. FONT 3 0123456789 AB INT. FONT 2 0123456789 ABCDEFGHIJ INT. FONT 1 0123456789 ABCDEFGHIJ INT. FONT 0 0123456789 ABCDEFGHIJ</p>														
Main Board DIP Switch Settings	<table border="1"> <tr> <td>ON</td> <td>OFF</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> </tr> <tr> <td>SW2</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> <td></td> </tr> </table> <p>1.1.1.1.1.1.1.1.1.1.1. U32.0.6.0.0.51520 e(0.0.0) M(0.0.0.0) CALIBRATION TYPE: MODE 1 R(X,Y) = R(0.0) CUTTER/PEELER OFFSET: 0 PEELER DISABLE CUTTER DISABLE BACKFEED DISABLE LABEL LENGTH: 00 MEDIA TYPE: CONTINUOUS SPEED: 2IPS DARKNESS: 10 CHECKSUM : 0000 RS232 : 9600, 8, N, 1P PRINT LENGTH METER: 43 M CUT COUNT: 0 Int. fonts: NO ANY INTERNAL FONTS BUZZER ENABLE RTC TIME: 23/45/2160 165:165:52 RTC CHIP INSTALL NO. OF DL SOFT FONTS : 0 REF: 5F19 SENSOR INTENSITY: NORMAL STD CTRL CODES DIRECT THERMAL USASCII AVAILABLE FLASH: 2047K BYTES FLASH TYPE: ON BOARD 4M BYTES AVAILABLE RAM: 6506K BYTES STANDARD RAM: 8M BYTES OS21300-A01.00 071210 00 Label Printer with Firmware</p>	ON	OFF	0	0	0	0	0	SW2	1	2	3	4	5	
ON	OFF	0	0	0	0	0									
SW2	1	2	3	4	5										
Calibration Type	CALIBRATION TYPE: MODE 1														
Cutter/Peeler Setting Offset	CUTTER/PEELER OFFSET: 0														
Peeler Setting	PEELER DISABLE														
Cutter Setting	CUTTER DISABLE														
Backfeed Setting	BACKFEED DISABLE														
Media Type Setting	MEDIA TYPE: CONTINUOUS														
Print Speed & Darkness	SPEED: 2IPS DARKNESS: 10														
Serial Port Settings	RS232 : 9600, 8, N, 1P														
Printed Label Length	PRINT LENGTH METER: 43 M														
Internal Fonts	Int. fonts: NO ANY INTERNAL FONTS														
Real Time Clock (RTC) Setup	RTC TIME: 23/45/2160 165:165:52														
Print Method	STD CTRL CODES DIRECT THERMAL USASCII														
Memory Capacity	AVAILABLE FLASH: 2047K BYTES FLASH TYPE: ON BOARD 4M BYTES AVAILABLE RAM: 6506K BYTES STANDARD RAM: 8M BYTES														
Firmware Version & Date Code	OS21300-A01.00 071210 00 Label Printer with Firmware														

RESETTING PRINTER TO FACTORY DEFAULTS

The printer factory default settings are stored in the printer's flash. These settings remain stored, without being erased even if the printer power is disconnected.

1. Turn on the printer and wait until both the "Ready" and "Power" indicators are solid green.
2. Press the FEED button for 5 seconds. The "Ready" and "Power" indicators will go off in order.
NOTE: If the FEED button is held for 10 seconds; Printer will reset, feed blank labels as media calibration, then print configuration/self-test labels.
3. Once "Power" indicator becomes lit again, release the FEED button.
4. Once "Ready" indicator becomes lit again, the printer has resumed its factory default settings.

PRINTER CONTROLS & INDICATORS



CONTROL/INDICATOR	FUNCTION
POWER SWITCH	ON: Turns on normal operation (I Position) OFF: Turns power off (O Position) NOTE: Turn power OFF before connecting or disconnecting cables
POWER INDICATOR	OFF: Printer power OFF GREEN: Printer power ON BLINKING: "Media Out" or "Media Gap Not Found" error BLINKING: Cutter is jammed with paper or not installed BLINKING: RS-232 communication error
READY INDICATOR	OFF: Printer is not ready for printing GREEN: Printer is ready for printing BLINKING: Printer starting up BLINKING: Receiving data from host PC BLINKING: Printing is paused BLINKING: "Media Out" or "Media Gap Not Found" error BLINKING: Printer Module is opened BLINKING: Print Head is overheated and printer's thermal protection function has put the unit into PAUSE status. Printing will resume automatically when Print Head cools down.
FEED BUTTON	BEFORE PRINTING: Press to advance label media to printing position. DURING PRINTING: Press to pause. DURING START UP: Press and hold to conduct media calibration and print a configuration profile. DURING PAUSE: Press to resume printing after "Media Out" errors have been resolved.

TROUBLESHOOTING LED & BUZZER INDICATORS

The printer has built-in monitors for the status. The status and error indications will be displayed via the front panel LED indicators and the alert buzzer. Generally, when a malfunction or an abnormal condition is detected, the alert buzzer will beep three times, and the ERROR LED INDICATOR will also blink. The list below shows the buzzer and LED indicators and their corresponding errors.

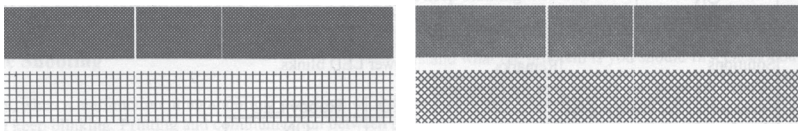
POWER	READY	PROBLEM	SOLUTION	BUZZER*
BLINK	BLINK	Media sensor cannot index label gaps	Check the label path and label sensor. NOTE: If a continuous label roll is in use, set "continuous media" printing in driver settings or commands.	NO
		Media out	Install a new label roll.	YES
		Paper jam	Recover the jam.	NO
BLINK	ON	Serial IO error	Check the serial baud rate in both the system and printer. NOTE: For serial interface only.	NO
		Cutter has failed, or there is a paper jam inside the cutter	Check the cutter or recover paper jam. NOTE: Only applicable when cutter mod is enabled.	YES
		Memory full	Check the format of loaded soft fonts, graphics, or forms. Contact vendor for service.	YES
		Other possible hardware errors	Contact vendor for service.	NO
ON	BLINK	Print head needs to cool down	Printing will stop until the print head cools to normal printing temperature. Once it completes, the printer will automatically resume printing.	NO
		Printer is in PAUSE status	Press FEED button to resume printing.	NO
		Printer is receiving data	As soon as all data has been received, "Ready" LED indicator will stay solid green and automatically resume normal operation.	NO

*Buzzer can be disabled by Printer Utility.

MISCELLANEOUS

- If the host shows "Printer Time Out":
 1. Check if the communication cable (serial) is connected securely to your serial port on the PC and to the connector on the printer.
 2. Check if the printer power is turned on.
- If the data has been sent, but there is no output from the printer:
 1. Check the active printer driver.
 2. Verify Seagull driver for your Windows system and label printer has been selected.

- Vertical streaks in the printout usually indicate a dirty or faulty print head.



1. Clean the print head.
 2. If the problem persists, replace the print head.
- Poor printout quality:
 1. The media may not be qualified.
 2. Adjust the darkness (heat temperature).
 3. Slow down the print speed.
 4. Refer to the next chapter and clean the related spare parts.

RECOVERY

After correcting problems:

- Simply press the panel button or restart the printer to continue your print jobs.
- Make sure the LEDs are not blinking and remember to resend your files.

COMMUNICATIONS

INTERFACES AND REQUIREMENTS

Your Avaweigh printer comes with a nine-pin Electronics Industries Association (EIA) RS-232 serial data interface, a USB interface, and Cash drawer interface. A variety of interface options are suitable for versatile applications:

334PRINTER: Cash drawer, USB, and Serial interfaces

NOTE:

- You must insert the power supply's barrel connector into the power jack on the back of the printer before connecting communication cables.
- This printer complies with FCC Rules and Regulations, Part 15, for Class A Equipment, for use with fully shielded six-foot data cables. Use of longer cables or unshielded cables may increase radiated emissions above Class A limits.

USB INTERFACE REQUIREMENTS

The Universal Serial Bus (USB) interface is version 2.0 and 1.1 compliant and provides a full-speed (12Mb/s) interface that is compatible with your existing PC hardware. The USB's "plug and play" design makes installation easy. Multiple printers can share a single USB port/hub.

SERIAL (RS-232) INTERFACE REQUIREMENTS

The required cable must have a nine-pin "D" type male connector on one end, which is plugged into the mating serial port located on the back of the printer. The other end of the signal interface cable connects to a serial port on the host computer.

COMMUNICATING WITH THE PRINTER ON A COMPUTER

The bundled printer driver can be applied to applications under Windows XP/Vista/Windows 7/8 & 10, supporting 32-bit/64-bit operating systems. With this driver you can operate any popular Windows software applications including Argox Bartender UL label editing software or MS Word, etc. to print to this printer.

When communicating with Argox Drivers, use Argox OS-2130D PPLB

Drivers can be downloaded from www.Argox.com/product/os-2130d/

ARGOX SEAGULL DRIVER 2019.2 M-2

Windows Vista, Windows 7, Windows 8 and 8.1, and Windows 10. Windows Server 2008, 2008 R2, 2012, 2012 R2, and 2016. 32-bit and 64-bit (x64) editions.

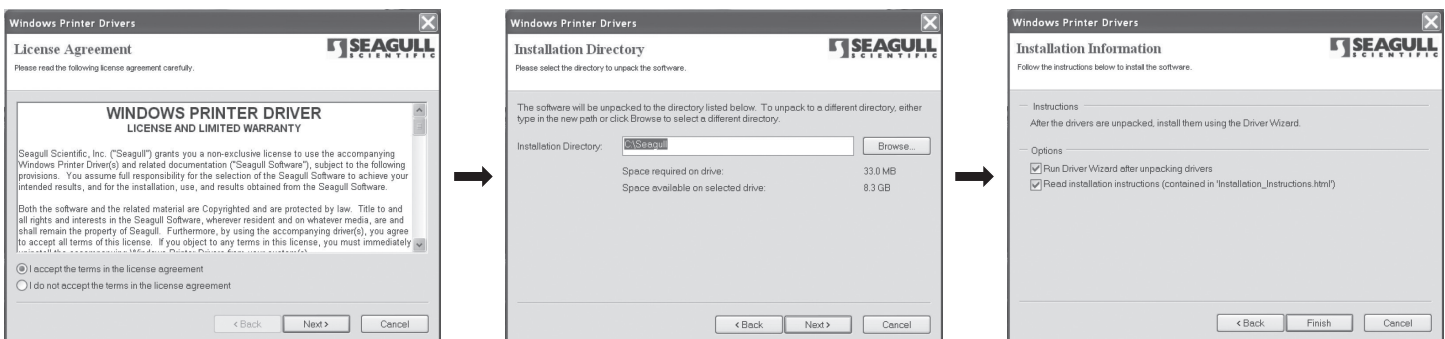
ARGOBAR PRO V2.08

Windows Vista, Windows 7, Windows 8.1, Windows 10 (32-bit or 64-bit) Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2 (32-bit or 64-bit).
Support languages: English, Simplified Chinese, Traditional Chinese

INSTALLING A PLUG AND PLAY PRINTER DRIVER

NOTE: We strongly recommend that you use the Seagull Driver Wizard instead of the Microsoft Windows Add Printer Wizard when installing and updating your Drivers by Seagull.
(Even though the "Add Printer Wizard" is from Microsoft, it too easily performs a number of tasks incorrectly when updating.

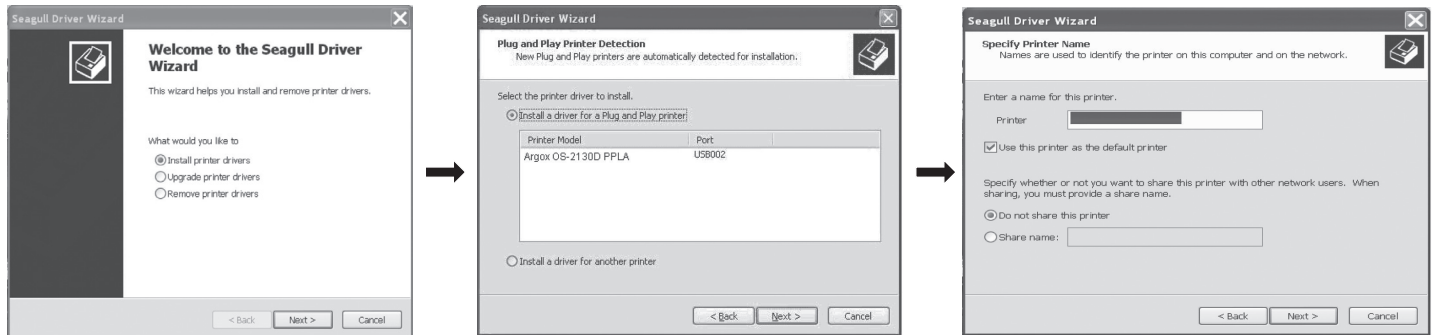
1. Turn off the printer.
2. Plug the power cable into the power socket on the wall.
3. Connect the other end of the power cable to the printer's power socket.
4. Connect the USB cable to the USB port on the printer and on the PC.
5. Turn on the printer.
6. If the printer supports Plug-and-Play, and you have successfully connected it using a USB cable, the Windows Add Hardware Wizard will automatically detect the printer and display a dialog that allows you to install a driver. Click Cancel and DO NOT INSTALL the driver using this wizard.
7. Run the driver from Argox website (www.Argox.com/product/os-2130d/).
On the prompt, Windows Printer Driver, select "I Accept..." and click "Next".
8. Assign the directory to keep Seagull driver, and click "Next".
9. Click Finish.



10. Select "Install printer drivers" and Click "Next"

11. On the Seagull Driver Wizard prompt, select the first radio button to "Install a driver for a Plug and Play printer", then click "Next"

12. Enter Printer name (Avaweigh 334PRINTER) and select "do not share this printer", click "Next".



13. Check all the data on the showing screen, if it is correct, click "Finish".

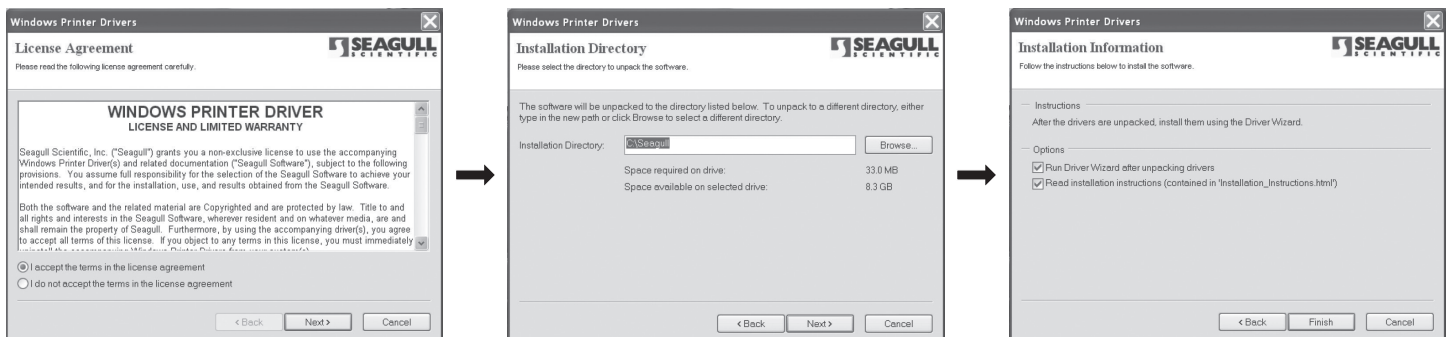
14. After the related files have been copied to your system, click "Finish".

15. After driver installation is complete, click "Close". The driver should now be installed.

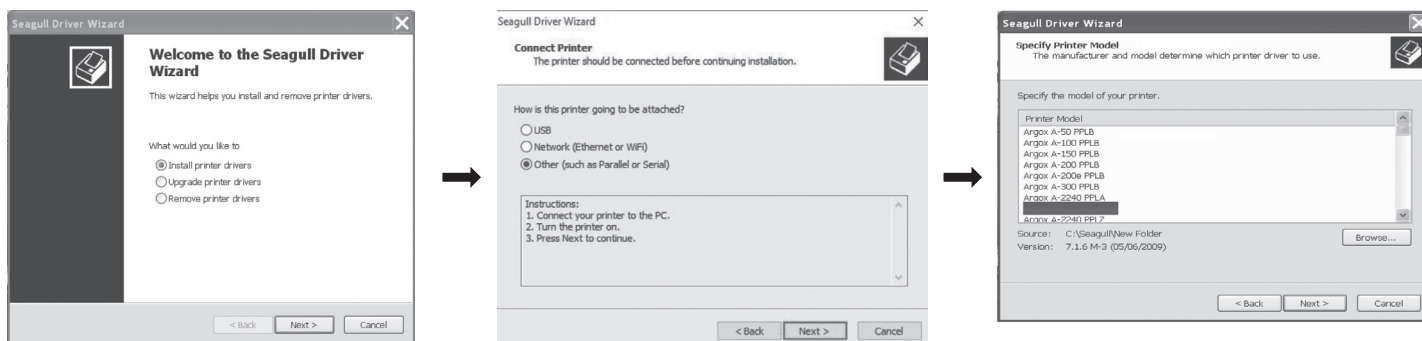


INSTALLING A PRINTER DRIVER (FOR OTHER INTERFACES EXCEPT USB)

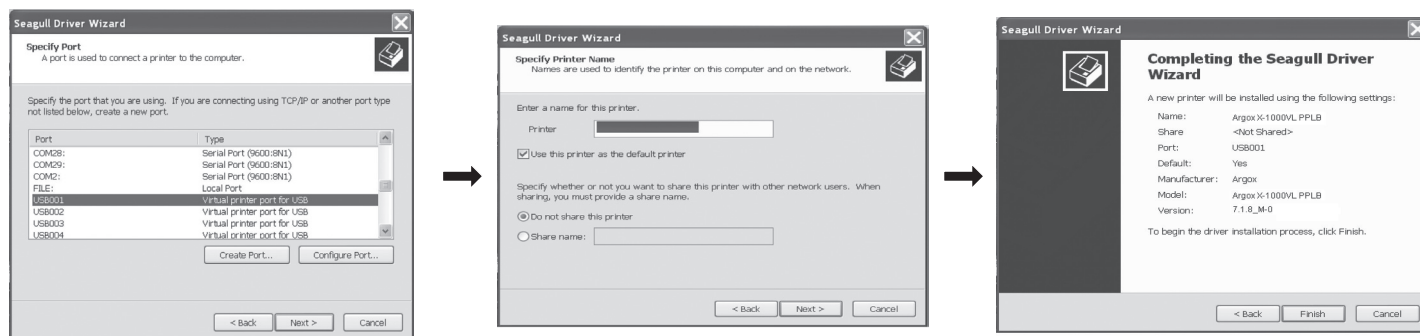
1. Turn off the printer.
2. Plug the power cable into the power socket on the wall.
3. Connect the other end of the power cable to the printer's power socket.
4. Connect the Parallel or serial cable to the port on the printer and on the PC.
5. Turn on the printer.
6. Run the driver from Argox website (www.Argox.com/product/os-2130d/).
7. On the prompt, Windows Printer Driver, select "I Accept..." and click "Next".
8. Assign the directory to keep Seagull driver, and click "Next".
8. Click Finish.



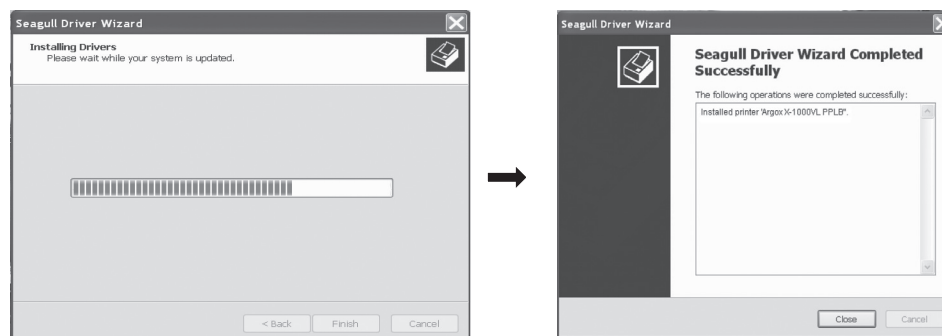
9. Select Install printer drivers and click "Next".
10. Make sure printer is connected to PC, select "Other" and click "Next".
11. Select model & emulation - OS-2130D PPLA



12. Select the port of the printer and click "Next".
13. Enter printer name (Avaweigh 334PRINTER) and select "Do not share this printer", click "Next".
14. Check all the data on the showing screen, if it is correct, click "Finish".



15. After the related files have been copied to your system, click "Finish".
16. After driver installation is complete, click "Close". The driver should now be installed.



CARING FOR YOUR PRINTER

PRINT HEAD MAINTENANCE GUIDE

To keep the Print Head running efficiently, and to extend the life of the printer, regular cleaning is needed.

NOTE: Always switch off printer power before cleaning.

CLEANING INTERVAL

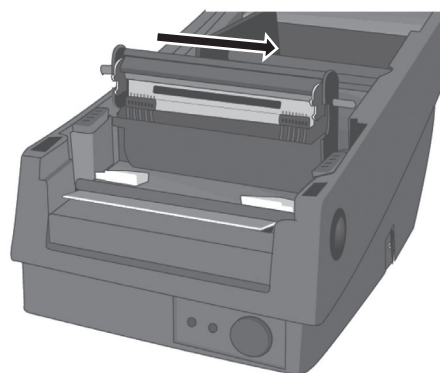
It's recommended to clean Print Heads regularly, at least when changing label rolls (in direct thermal printing mode). In addition, if printers are operated under critical applications and environments, or if it's found that print quality is degraded, please clean print heads more frequently.

CLEANING MATERIAL

- Surface of Print Head's heating element is very fragile.
- To prevent any possible damage, please use the Print Head Cleaning Pen or soft cloth/cotton buds with Ethanol or Industry Alcohol to clean Print Head surface.
- It's strongly recommended to wear gloves during cleaning.
- DO NOT touch print head surface with bare hands or with any hard equipment
- Water should be kept away in case of corrosion on heating elements.

CLEANING DIRECTION

- When cleaning the Print Head, always wipe in one direction - from left to right only or right to left only - to prevent excessive stress to the Print Head.
- DO NOT WIPE BACK AND FORTH - to prevent dust and dirt on cleaning cloth from being redeposited on the Print Head.



PRODUCT SPECIFICATIONS

GENERAL

SPECIFICATION	
DIMENSIONS	8.98 in. L x 5.28 in. W x 6.42 in. H (228mm L x 134mm W x 163mm H)
WEIGHT	2.65 lb. (1.2 kgs)
PRINT METHOD	Direct Thermal
PRINTING RESOLUTION	203 DIP (8 dots/mm)
PRINTING SPEED	2ips - up to 4ips (51-102mm/s)
PRINTING LENGTH	Max. 100 in. (2540mm)
PRINTING WIDTH	Max. 2.83 in. (72mm), Min. 1 in. (25.4mm)

SPECIFICATION	
MEMORY	8MB SDRAM (6MB user available) 4MB Flash ROM (2MB user available)
CPU TYPE	32-bit RISC microprocessor 100MHz
SENSORS	Reflective (Left Side)
OPERATION INTERFACE	Button (Feed) x 1
COMMUNICATION INTERFACE	RS-232, USB, Cash Drawer
FONTS	PPLA: Internal Fonts: 9 fonts with different point size 6 fonts with ASD smooth font Courier font with different symbol sets PPLB: Internal Fonts: 5 fonts with different point size Soft fonts and 2-byte Asian fonts are downloadable Ability to print any Windows True Type font easily
1D BARCODES	PPLA: Code 39, UPC-A, UPC-E, Code 128 subset A/B/C, EAN-13, EAN-8, HBIC, Codabar, Plessey, UPC2, UPC5, Code 93, Postnet, UCC/EAN-128, UCC/EAN-128 K-MART, UCC/EAN-128 Random, Weight, Telepen, FIM, Interleave 2 of 5 (Standard/with modula 10 checksum/with human readable check digit/with modula 10 checksum & shipping bearer bars), GS1 Data bar (RSS) PPLB: Code 39 Std. & Extended, UPC-A, UPC-E, UPC-interleaved 2 of 5, Code 39 with check sum digit, Code 93, EAN-13, EAN-8 (Standard, 2/5 digit add-on), Codabar, Postnet, Code 128 subset A/B/C, Code 128 UCC (shipping container code), Code 128 auto, UCC/EAN code 128 (GS1-128), interleave 2 of 5, interleaved 2 of 5 with check sum, interleaved 2 of 5 with human readable check digit, German Postcode, Matrix 2 of 5, UPC interleaved 2 of 5, EAN-13 2/5 digit andd-on, UPCA 2/5 digit add-on, UPCE 2/5 digit add-on, GS1 Data bar (RSS)
2D BARCODES	PPLA/PPLB: MaxiCode, PDF417, Data Matrix (ECC 200 only), QR code, Composite codes
GRAPHICS	PPLA/PPLB: PCX, BMP, IMG, HEX, GDI, Binary raster (PPLB Only)
EMULATION	PPLA, PPLB
SOFTWARE-LABEL EDITING	Windows Driver (Win XP/Vista/7/8/10), BarTender
SOFTWARE UTILITY	Printer Utility, Font Utility
MEDIA TYPE	Roll-feed, Die-cut, Continuous, Fan-fold, Tags, Ticket in Thermal Paper
MEDIA	Max Width: 3.14 in. (79.8mm) Min Width: 1 in. (25.4mm) Max Length: 100 in. (2540mm) Min Length: 0.196 in. (5mm) Thickness: 0.0025-0.01 in. (0.0635-0.254mm) Max Capacity Core 0.5 in.: OD 4.3 in. (109mm) Max Capacity Core 1 in.: OD 4 in. (102mm) Max Capacity Core 1 in.: ID 1 in. (25.4mm)

SPECIFICATION	
POWER SOURCE	100-240V, 1.8A, 50-60Hz Input 24V, 2.5A Typical Output
OPERATION ENVIRONMENT	Operation Temperature: 40-100°F (4-38°C), 10-80% non-condensing Storage Temperature: (-4)-122°F ((-20)-50°C)
OTHER	Buzzer Internal RTC Internal Note: RTC Lithium Battery Specification CR2032, +3V, 225mAh CAUTION: Risk of explosion if battery is replaced by an incorrect type. Dispose of used batteries according to the instructions.
OPTIONAL ITEMS	Guillotine Cutter Peeler External 8" OD Media Stacker

FONTS, BARCODES & GRAPHICS

The specifications of fonts, barcodes, and graphics depends on the printer emulation. The emulations PPLA and PPLB are printer programming languages, through which the host can communicate with your printer.

PROGRAMMING LANGUAGE	PPLA	PPLB
INTERNAL FONTS	9 fonts with different point size 6 fonts with ASD smooth font Courier font with different symbol sets	5 fonts with different point size
SYMBOL SETS (CODE PAGES)	Courier font symbol set: Roman-8, ECMA-94, PC, PC-A, PC-B, Legal, and PC437 (Greek), Russian	8 bits code page: 437,850, 852, 860, 863, 865, 857, 861, 862, 855, 866, 737, 851, 869, 1252, 1250, 1251, 1253, 1254, 1255 7 bits code page: USA, BRITISH, GERMAN, FRENCH, DANISH, ITALIAN, SPANISH, SWEDISH, and SWISS
SOFT FONTS	Downloadable soft fonts	Downloadable soft fonts
FONT SIZE	1x1 to 24x24 times	1x1 to 24x24 times
CHARACTER ROTATION	0°, 90°, 180°, 270°, 4 direction rotation	0°, 90°, 180°, 270°, 4 direction rotation
GRAPHICS	PCX, BMP, IMG, HEX, GDI	PCX, BMP, IMG, HEX, GDI, Binary Raster
BARCODE TYPES	Code 39, UPC-A, UPC-E, Code 128 subset A/B/C, EAN-13, EAN-8, HBIC, Codabar, Plessey, UPC2, UPC5, Code 93, Postnet, UCC/ EAN-128, UCC/EAN-128 K-MART, UCC/EAN-128 Random Weight, Telepen, FIM, Interleave 2 of 5 (Standard/with modulo 10 checksum/ with human readable check digit/with modulo 10 checksum & shipping bearer bars), GS1 Data bar (RSS), MaxiCode, PDF417, Data Matrix (ECC 200 only), QR code, Composite codes	Code 39 Std. & Extended, UPC-A, UPC-E, UPC-interleaved 2 of 5, Code 39 with check sum digit, Code 93, EAN-13, EAN-8 (Standard, 2/5 digit add-on), Codabar, Postnet, Code128 subset A/B/C, Code 128 UCC (shipping container code), Code 128 auto, UCC/ EAN code 128 (GS1-128), Interleave 2 of 5, interleaved 2 of 5 with check sum, interleaved 2 of 5 with human readable check digit, German Postcode, Matrix 2 of 5, UPC interleaved 2 of 5, EAN-13 2/5 digit add-on, UPCA 2/5 digit add-on, UPCE 2/5 digit add-on GS1 Data bar (RSS), MaxiCode, PDF417, Data Matrix (ECC 200 only), QR code, Composite codes

INTERFACE SPECIFICATIONS

CASH DRAWER

PIN	SIGNAL
1	Ground
2	-
3	Drawer_Back
4	+24V
5	Drawer_KICK2
6	Ground

USB

PIN	SIGNAL	DESCRIPTION
1	VBUS	5V
2	D -	Differential data signaling pair -
3	D +	Differential data signaling pair +
4	GND	Ground

RS232

The RS232 connector on the printer side is a female, DB-9 and pin to pin standard type.

Baud rate: 2400, 4800, 9600 (default), 19200, 38400, 57600, 115200 bauds.

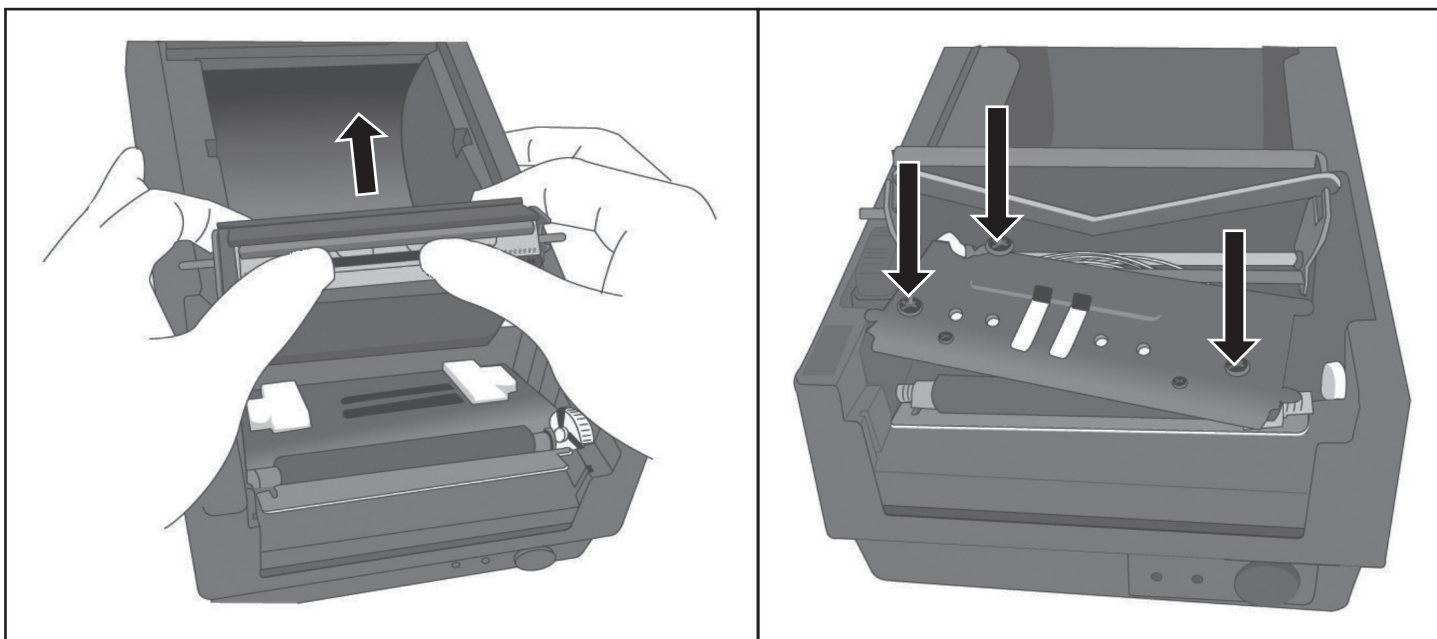
(Programmable by command)

NOTE: Pin 9 is reserved for KDU (Keyboard Device Unit), therefore do not connect these pins if you are using a general host like a PC.

PIN	DIRECTION	DEFINITION
1	-	Shorted to Pin 4,6
2	Output	TX
3	Input	RX
4	-	Shorted to Pin 1,6
5	-	Ground
6	-	Shorted to Pin 1,4
7	Input	CTS
8	Output	RTS
9	Output	+5V

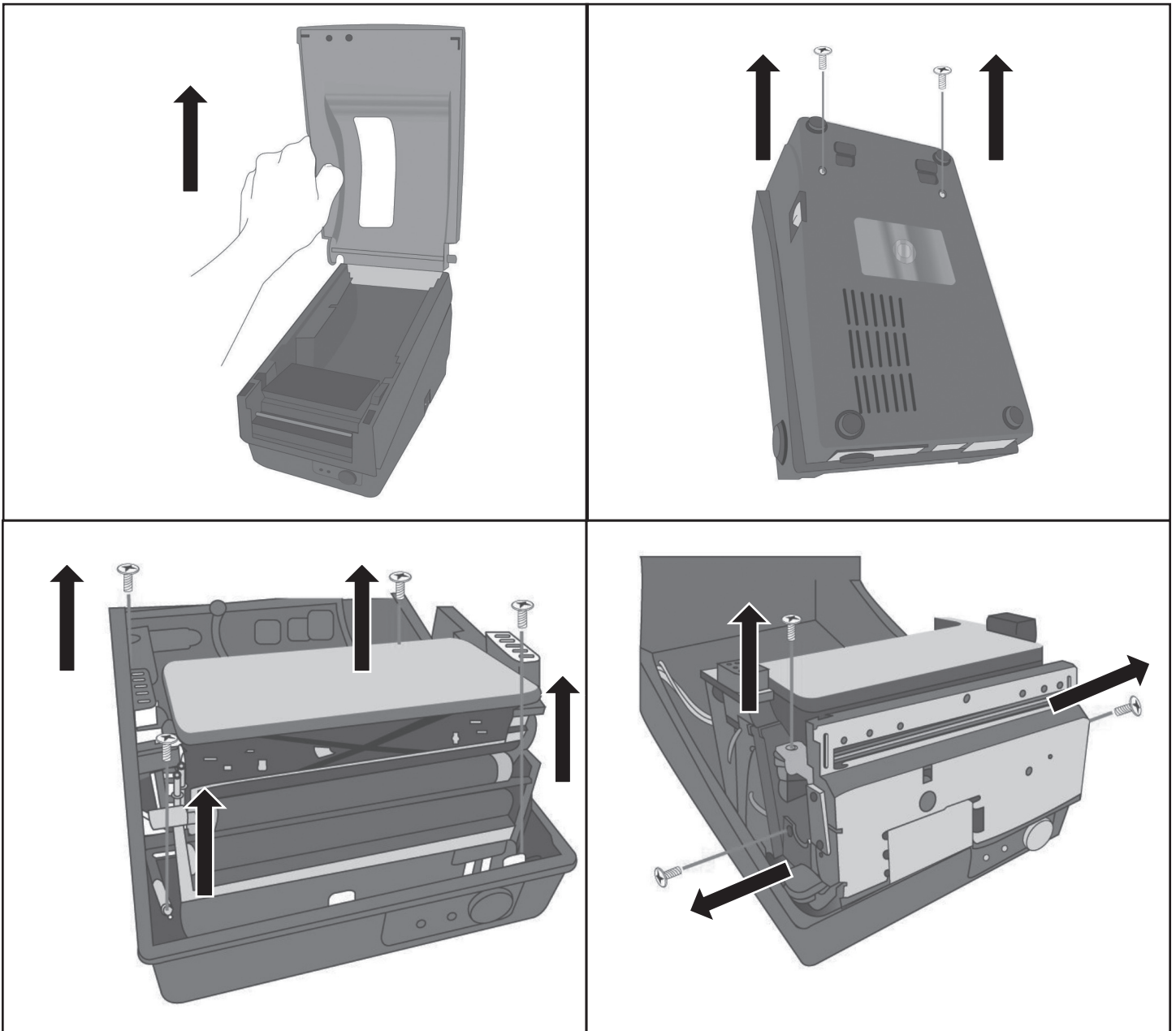
THERMAL PRINT HEAD REPLACEMENT

1. Turn the printer off and wait for both LEDs to go off.
2. Open the top cover.
3. Unlatch the Print Head Module and swing it up to open.
4. Push the Thermal Print Head firmly into the mounting bracket to release it from the Module.
5. Disassemble the Thermal Print Head and the metal plate by removing the screws.
6. Unplug the 2 print head cables from the connectors on the old Thermal Print Head Module.
7. Replace the Thermal Print Head.
8. Plug the 2 print head cables into the new Thermal Print Head.
9. Put the new Print Head Module onto Printer Chassis.



CUTTER INSTALLATION

1. Turn off the printer power, unplug the power cable and USB/Serial cable.
2. Remove the top cover.
3. Remove (2) screws at base housing.
4. Remove the whole Print Head Assembly by releasing (4) screws at its feet.
5. Add a cutter baby board on J5 on the main board.
6. Secure (3) attached screws for the cutter.
7. Plug the cutter's connector into the PCB's header connector (J3).
8. Reinstall the Print Head Assembly by securing the (4) screws.
9. Click back the middle cover.
10. Secure (2) screws back at base housing.
11. Install the top cover.



PEELER INSTALLATION

1. Turn off the power switch.
2. Unwrap the PC bag of the peeler to take out the screw, the shaft, the plastic roller, the peeler bar, the direction label, and the peeler sensor cable.
3. Take off the top cover of the printer.
4. Fix the sensor board on the top left cover and secure the screw.
Keep the cable to the left.
5. Rout the peeler sensor cable through the guides along the left side of the top cover.
6. Release the (2) screws at the bottom of the base housing.
7. Remove the middle cover.
8. Take off the H Cover.
9. Tape the direction label on top of the H Cover with the arrow sign facing away from you.
10. Release the screw on the left bracket of the chassis.
11. Unlatch the Print Head Module. Hook the white roller on the brackets of the chassis, ensuring the long thin end is to the left side.
12. Guide the shaft and go through the respective holes on the left bracket, the white roller, and the right bracket in order.
13. Secure the attached screw at right bracket of the chassis to fix the shaft.
14. Hook the peeler bar on the brackets of the chassis, positioning it above the white roller. Ensure that the peeler bar is paralleled with the black platen roller and its long thin end is to the left.
15. Plug the sensor board's connector into the PCB's header connector (J2).
16. Secure the screw on the left bracket of the chassis.
17. Guide the sensor cable connector through the hole on the upper left corner of the middle cover.
18. Click the top cover back to the middle cover.
19. Insert the sensor connector into its receptacle on the main logic board of the base housing.
20. Click the middle cover back to the base housing. First click in the front part, then the rear.
21. Secure the (2) screws at the bottom of the base housing.

