

Unified Label Utility-II PV3/PV4

BARCODE PRINTER Ver. 1.01

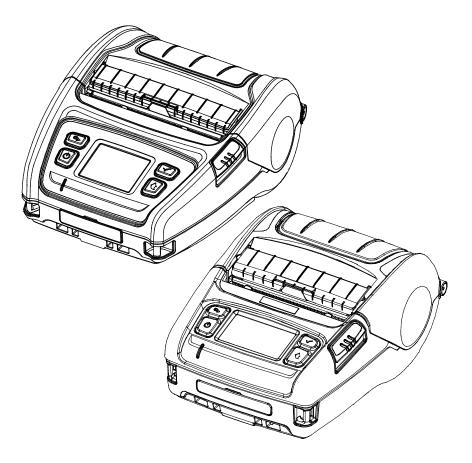


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1. Manual guide

The Unified Label Utility-II can be used for various purposes.

It is advisable to read the contents of this manual carefully before using

"Unified Label Utility-II" utility for the first time.

1) User Setting Manager

This is for changing the printer's default settings such as serial settings, paper size, and print density according to the user's environment.

2) Configure Print Quality This is used to check and set print quality by printing sample labels by the print quality.

Manual Calibration
 This is for manual calibration of gap sensor.

4) PCX File Downloader This manages the images stored in flash memory.

5) File transfer This sends the command file to the printer.

6) Printer Tools This checks the information of a printer or performs the specified function.

7) Communication Window This tests the commands for printing and checks the printer's response data.

8) SLCS Test Tool This tests the SLCS command and creates a simple label.

2. Operating System(OS) Environment

The following operating systems are supported for usage.

Microsoft® Windows XP SP3 (32bit) Microsoft® Windows XP SP1 or later (64bit) Microsoft Windows Server 2003 SP1 or later (32bit/64bit) Microsoft Windows VISTA (32bit/64bit) Microsoft Windows Server 2008 (32bit/64bit) Microsoft Windows Server 2008R2 (64bit) Microsoft Windows 7 (32bit/64bit) Microsoft Windows 8 (32bit/64bit) Microsoft Windows 8 (32bit/64bit) Microsoft Windows 10 (32bit/64bit)

3. Supported models

| Model | X Coor | dinates | Y Coordinates |
|-------|---------|---------|---------------|
| WOder | Minimum | Maximum | Minimum |
| PV3 | 0 | 576 | 0 |
| PV4 | 0 | 832 | 0 |

* The maximum Y Coordinate is dependent on paper length

4. Usage Preparation

1) Connection of Printer with PC

Connect the interface cable between the printer and the PC. (The available interfaces are Serial, Parallel, USB, Ethernet, and Bluetooth.)

2) Select the interface type and configure communication setting.

3) Click the "Connect" button.

If the connection is successful, the message "Success open port" appears and the buttons are activated. If a printer is not connected, the error message "Cannot open port! Please check printer and cable" appears.

| terface Type | 2 | User Setting |
|--------------|-------------------|--------------------------------------|
| 🔘 Serial | Parallel O USB | Configure Printer Setting |
| 🗇 Ethernet | Bluetooth | Configure Print Quality |
| ommunication | n Setting | Calibration Setting Manager |
| PT Port | LPT1: T | File Transfer |
| OM Port | COM6: | PCX File Downloader |
| aud Rate | 115200 👻 | File Transfer |
| ata Bits | 8 | Printer Tool |
| arity | None 🔻 | Printer Tool |
| op Bits | 1 | Communication Tool |
| , | 192 . 168 . 0 . 4 | SLCS Test Tool |
| ort | 9100 | RFID Set Configuration Write/Read |
| Connec | ct Disconnect | EXIT |

5. Usage Method

5-1 User Setting Manager

• This is used to change the default settings of the printer, such as serial / Bluetooth settings, paper size, print density, and media processing method, according to the user's environment.

Click the button "Configure Printer Setting."

5-1-1 Serial/Bluetooth Communication Setting

1) Click the "Interface" tab.

2) Select the checkbox of the interface to be configured between serial and Bluetooth.

| terface Basic | Advanced | Real-Time Clock | Language | Other |
|--|--------------------------|-----------------|-------------|--------|
| Serial Com | munication Se | etting | | |
| Baudrate : | [| | | - |
| Data Length | : [| | | - |
| Parity : | | | | - |
| Stop Bit : | [| | | - |
| Protocol mod | le: | | | - |
| Bluetooth | Communicati | on Setting | USB Dongle | Type |
| | | | obb bongic | Type |
| Device Name | | | oob bongio | Туре |
| Device Name Encryption : | | | obb bollgio | - Type |
| | : [| | | |
| Encryption : | : [| | | |
| Encryption : Connection M | : [| | | |
| Encryption : Connection M SSP Mode : | : [(Mode: [[| | | |

- 3) Click the "Get" button and check the printer settings.
- 4) After changing each set value, click the "Set" button.
- 5) After clicking the "Default Setting" button, click the "Set" button to set to default.

5-1-2 Basic Setting

1) By clicking the "Basic" tab, check the settings of label parameters, speed, print density, and media.

| | anced | Real-Time Clock | Language | Others |
|----------------------|-------|-----------------|------------|--------|
| Label Parameters | | | | Lock |
| Label Width (dots): | | 0 | | |
| Label Height (dots): | | 0 | | |
| Orientation: | | | - | |
| Speed and Darkness | | | | Lock |
| Speed (inch/s): | | | - | |
| Darkness: | | | - | |
| Media | | | | Lock |
| Print Mode: | | | - | |
| Media Type: | | | - | |
| Tear off adjust (dot | s): 📃 | 0 | | |
| Print Offset (dots): | | 0 | | |
| Get From Print | ter | Set | to Printer | |
| UNIT: | | - | | |

- 2) Click the "Get" button to check the printer settings.
- 3) Label Width, Label Height, Tear off adjust, Print Offset units can be changed in dots, inch, mm by changing "UNIT".
- 4) Change the values as desired.
- 5) Select the Lock Checkbox to lock the setting.
- 6) After changing each value, click the "Set to Printer" button to apply it to the printer.

5-1-3 Advanced Settings

1) By clicking the "Advanced" tab, check the current settings of the media processing method.

| User Setting Manager |
|--|
| Interface Basic Advanced Real-Time Clock Language Others |
| Advanced settings |
| Media Handling 🗌 Tear Off 👻 |
| Media feed options 🗌 No feed 👻 |
| Backfeed 🗸 Default settings 👻 |
| Mirror Image |
| Get From Printer Set to Printer |
| |
| |
| |
| Close |

- 2) Click the "Get" button to check the printer settings.
- 3) Change the values as desired.
- 4) After changing each value, click the "Set to Printer" button to apply it to the printer.

5-1-4 Real-time Clock

1) By clicking the "Real-time Clock" tab, check the current settings of the real-time clock.

| User Setting Manager | × |
|---|-------------------|
| Interface Basic Advanced Real-Time Cloc | k Language Others |
| Real Time Clock | |
| Set Real Time Clock | |
| Set Real Time Clock To Computers | s Clock |
| Set Real Time Clock To: | |
| 2014-10-06 💷 오크 | ≅ 2:08:36 |
| | |
| Set | to Printer |
| | |
| | |
| | |
| | |
| | |
| | Close |
| | |

2) Click the "Set to Printer" button to apply the specified time to the printer.

5-1-5 Language

1) Click the "Language" tab to display the values of the default codepage and the default international character set.

| Jser Setting Manager | | | | × |
|----------------------|---------------|-----------------|----------|--------|
| Interface Basic | | | Language | Others |
| -Default CodePa | | tting | | |
| Default CodeP | age : | | Lock : | |
| | | | | - |
| | | | | |
| Default Intern | ational Chara | cter Set(ICS) : | | |
| | | | | _ |
| | | | | |
| | | Get | Set | |
| | | () | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| L | | | | ose |
| | | | | |

- 2) Click the "Get" button to check the printer settings.
- 3) After changing each value, click the "Set" button to apply it to the printer.

5-1-6 Others

1) Click the "Other" tab to display the printer information, information initialization button, and USB serial number setting screen.

| User Setting Manager |
|--|
| Interface Basic Advanced Real-Time Clock Language Others |
| Printer Information |
| Model Name : |
| Firmware Version : |
| Motor Feeding History : |
| Permanent Motor History : |
| TPH Energizing History : |
| Permanent TPH History : |
| Auto-Cutter History : |
| Permanent Cutter History : |
| Get |
| Initialize Statistics Init Motor Stat Init TPH Stat Init Cutter Stat |
| USB Serial Number SET |
| |
| Close |

- 2) Click the "Get" button of the "Printer Information" to display the printer settings.
- 3) Click the "Init Motor Stat," "Init TPH Stat," "Init Cutter Stat" buttons to initialize each value.
- 4) After entering 16 characters in USB serial number, click the "Set" button.

5-1-7 Power

- 1) The "Power" Tap is for mobile label printer only.
- 2) Click the "Power" tab to display the Power Off, Power Off Time, Power Save, Save Time setting screen.

| Interface Basic Advanced Lang | juage Others Power |
|-------------------------------|--------------------|
| Power settings | |
| Power Off | |
| Power Off Time(1~90min) | 0 |
| Power Save | |
| Power Save Time(10~255sec) | 0 |
| | |
| Get From Printer | Set to Printer |
| Get From Printer | Set to Printer |
| Get From Printer | Set to Printer |
| Get From Printer | Set to Printer |

- 3) Click the "Get From Printer" button to check the printer settings.
- 4) After changing each value, click the "Set to Printer" button to apply it to the printer.

5-2 Configure Print Quality

• This is used for printing sample labels by the print quality to check and set print quality.

| Configure Print Quality | x |
|--|---|
| Automatic or Manual Setting Print sample labels and choose pri Manually select Speed and Darkne | |
| Select number of labels Number of labels to print : | Select Speed and Darkness Speed : 2.0 - inch/s Darkness : 8 - |
| Print Sam Label Identifier Speed : Darkness : | ple label(s) Save settings to File Set to Printer |
| | Close |

- Printing of sample label and selecting of speed and print density
- 1) Select the desired number from "Select number of labels."
- 2) Click the "Print Sample label(s)" button, and sample labels will be printed at random speed and print density (darkness).
- After checking the printing result, select the desired setting from "Label Identifier" and click the "Set to Printer" button to apply it to the printer.
- Selecting of manual speed and print density
- 1) Select the desired speed and print density (darkness).
- 2) Click the "Print Sample label(s)" button to check the print of the selected setting.
- 3) "Click the "Set to Printer" button to apply the settings to the printer.

5-3 Manual Calibration

• The manual calibration function of gap sensor is used when the printer cannot sense the gap (or black mark) of the label paper even after using the automatic calibration function.

Click the "Calibration Setting Manager" button.

| Sensing Value | Distribution | STEP 1 : Start |
|---------------|--------------|---------------------|
| 0 32 : | 0000 | Sensing Type : |
| 64 : | 0000 | |
| 0 96 : | 0000 | 🖲 G 🔊 🔘 B |
| 0 128 : | 0000 | |
| 0 160 : | 0000 | Label Length : (mm) |
| 0 192 : | 0000 | 150 |
| 0 224 : | 0000 | |
| 0 256 : | 0000 | |
| 0 288 : | 0000 | Check Sensing Value |
| 0 320 : | 0000 | |
| 0 352 : | 0000 | |
| 0 384 : | 0000 | |
| 0 416 : | 0000 | STEP 2 : Save |
| 0 448 : | 0000 | |
| 0 480 : | 0000 | Middle Gap Value : |
| 512 : | 0000 | |
| 544 : | 0000 | 0 |
| 576 : | 0000 | |
| 640 : | 0000 | Gap Count : |
| 672 : | 0000 | 7 - |
| 072: | 0000 | |
| 0 736 : | 0000 | |
| 0 768 : | 0000 | Save Calibration |
| 0 800 : | 0000 | L |
| 0 832 : | 0000 | |
| 0 864 : | 0000 | |
| 896 : | 0000 | |
| 0 928 : | 0000 | Cancel |
| © 960 : | 0000 | Cancer |
| © 900 : | 0000 | |
| 0 992 . | 0000 | Cancel Calibration |

- 1) After selecting Sensing Type and entering Label Length(mm), click the "Check Sensing Value" button.
- 2) Select the desired value among the values on the left and click the "Save Calibration" button.
- 3) If sensing is not performed normally, select another value and click again the "Save Calibration" button.
- 4) Click the "Cancel Calibration" button to reset to the default value.

5-4 PCX File Downloader

• Manage the images stored in flash memory.

| PCX File Downloader |
|--------------------------------|
| Image Store (IS) |
| |
| Image Name : |
| Image File Information |
| File Name: None |
| File Size: 0 Byte |
| DownLoad |
| Image Delete (ID) |
| Image Name : |
| Delete Image Delete All Images |
| Image Information (II) |
| Image Information |
| Image Recall (IR) |
| Image Name : |
| X Position : 0 Y Position : 0 |
| Image Recall CLOSE |
| |

5-4-1 Image Store (IS command)

- 1) Select the image file (*.pcx, *.bmp, *.jpg).
- 2) Enter "Image Name" and click the "DownLoad" button to start the download. The entered Image Name is used to retrieve (IR) or delete (ID) the image.

5-4-2 Image Information (II command)

Prints the information of the image stored in the printer.

5-4-3 Image Delete (ID command)

- 1) Deletion of a specific image Enter the image name to be deleted and click the "Delete Image" button.
- Deletion of all images Click the "Delete All Images" button.

5-4-4 Image Recall (IR command)

In order to output the stored image, enter the image name and click the "Image Recall" button.

5-5 File Transfer

• It transfers the file to the printer.

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Caution Th
```

The contents of the file should consist of commands supported by the printer.

1) Select the "Select File" button to choose the file.

| File Transfer | | × |
|---------------|--------|----------------|
| | | Select File |
| File Informat | ion | |
| File Name: | None | |
| File Size: | 0 Byte | |
| | | DownLoad Close |

2) Click the "Download" button.

5-6 Printer Tools

• It checks the printer information, or performs the specified function.

| Printer Tools | × |
|---------------|------------------------|
| Print | Action |
| Configuration | Calibrate media |
| Object list | Factory reset |
| | Enter diagnostics mode |
| | Exit diagnostics mode |
| | Close |
| | |

- 1) Print
 - Configuration: Prints the printer settings.
 - Object list: Prints the object information (barcode, image, font, etc.) registered in the printer.
- 2) Action
 - Calibration media : Adjusts the sensor value by the label size and type.
 - Factory reset : Sets the printer to factory default.
 - Enter diagnostics mode: Runs in Diagnostics Mode (all data received by the printer is printed in ASCII characters and Hexadecimal).
 - Exit diagnostics mode: Switches to normal mode from diagnostics mode.

5-7 Communication Window

- This tests the commands for printing and checks the response data of the printer.
- 1) Click the "Communication Tool" button.

| Communication Window | | × |
|--------------------------------|---|------------------|
| Send command data | | |
| | * | File Open |
| | | Save to File |
| | | Clear Data |
| | | Copy (Ctrl+C) |
| | | Cut (Ctrl+X) |
| | | Paste (Ctrl+V) |
| | | Replace (Ctrl+H) |
| | - | Send |
| | | |
| Data received from the printer | | 1 |
| | * | Read |
| | | Clear |
| | | Data Type |
| | | ASCII |
| | Ŧ | Close |

- 2) Command transmission: 2 ways of command transmission.
 - Manual input: Manually input the command in the Send Command Data window.
 - File selection: Click the File Open button to choose the file.
- 3) "Send" button: Transmits the input command.
- 4) "Read" button: Displays response data.
- 5) "Clear" button: Clears the displayed response data.

5-8 SLCS Test Tool

- This tests the SLCS command and creates a simple label.
- 1) Click the "SLCS Tester" button.

| BPL(SLCS) Command Tester | | | | × |
|--------------------------------|-----------------|-------------|---------------|------------|
| BPL(SLCS) Command | | | | |
| | | | × (| Сору |
| | | | [| Cut |
| | | | [| Paste |
| | | | (| Clean |
| | | | | 1 |
| | | | ſ | |
| | | | * | Multi Send |
| Data received from the printer | | | | |
| | | | ^ I | Read |
| | | | | Clear |
| | | | CI | Data Type |
| | | | Ŧ | ○ HEX |
| Printing Setting | Printing Module | | | |
| Speed & Density & Direction | Line & Box | 1D Barcode | 2D Barcode | Copies |
| Margin & Width & Length | Bitmap Text | Vector Text | Character Set | : |
| Printer Status | 2Byte Code F | file | | |
| Check Printer Status | Print Codes | Load | Save | Convert |
| RFID Write and Read | | | | |
| Write Read | Password | ecurity | Kill | Close |

- 2) "Multi Send" button: Transmits the input command for a specified number of times.
- 3) "Read" button: Displays response data.
- 4) "Clear" button: Clears the displayed response data.

5) The function of each button is as follows.

| Item | Button | Description |
|---------------------------|-----------------------------|--|
| | Line & Box | Generating commands to draw lines and boxes |
| | 1D barcode | Generating one-dimensional barcode command |
| | 2D barcode | Generating two-dimensional barcode command |
| Printing Module | Copies | Number of copies |
| | Bitmap Text | Generating bitmap image string recognition command |
| | Vector Text | Generating vector image string recognition command |
| | Character Set | Generating code page and ICS configuration command |
| Printing Setting | Speed & Density & Direction | Generating configuration command for speed, print density, and print direction |
| | Margin & Width & Length | Generating configuration command for margin and print paper width and length |
| Printer Status | Check Printer Status | Function to check printer cover, paper, and error status |
| | Write | Writing data to RFID tags |
| | Read | Retrieving data from RFID tag |
| RFID Write and Read | Password | Setting a password on RFID tag |
| Rodu | Security | Setting the security code on the RFID tag |
| | Kill | Disabling RFID Tags |
| 2Byte Code | Print Codes | Printing double-byte characters (Korean, Chinese, Japanese) |
| File | Load | Loading the file in which the command was saved |
| | Save | Saving the generated command as a file |
| Convert | Convert | Converter of each unit (inch, mm, cm) |
| Close | Close | Closing SCLC test program |

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In the following, product specifications and/or user manual content may be changed without prior notice.

Caution

Some semiconductor devices are easily damaged by static electricity. You should turn the printer "OFF", before you connect or remove the cables on the rear side, in order to guard the printer against the static electricity. If the printer is damaged by the static electricity, you should turn the printer "OFF".

Revision history

| Rev. | Date | Page | Description |
|------|----------|------|-------------|
| 1.00 | 20.09.19 | - | New |
| 1.01 | 16.04.20 | - | Added PV4 |
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