

# CITIZEN

## **JavaPOS DRIVER 1.14** **for 64bit**

### **Setup Guide**

**For Ver. 1.14.0.3**

**CITIZEN SYSTEMS JAPAN CO., LTD.**

**Revision Record**

| Date         | Version   | Description  |
|--------------|-----------|--|
| Dec 25, 2012 | 1.11.2.7a | New release for Ethernet of Linux 64bit OS.  |
| Mar 11, 2013 | 1.11.2.8  | - Changed the installation files of this product.<br>- Changed the jpos.xml setting example.   |
| Jan 17, 2014 | 1.11.3.0  | Updated the version number only.   |
| Feb 16, 2015 | 1.11.3.2  | - The CT-S251, CT-S601II/651II/801II/851II model was added to each item.   |
| Sep 30, 2015 | 1.11.3.3  | - Added Windows to the supported OS.<br>- Added USB to the supported interface.<br>- Added CT-S281, CT-S310II to the supported models.   |
| Nov 28, 2016 | 1.11.3.4  | - Added CT-D150/CT-E351 to the supported models.   |
| Jun 13, 2017 | 1.11.3.5  | - Added CT-D151/CT-E651 to the supported models.   |
| Jan 7, 2019  | 1.14.0.1  | - Supported JavaPOS1.14<br>- Added CT-S751, PMU2300III to the supported models.  |
| Feb 12, 2019 | 1.14.0.2  | - Added CT-S4500 to the supported models.  |
| Dec 9, 2020  | 1.14.0.3  | - Added OpenJDK to the tested version of Java virtual machines. (Page 5)<br>- Added CT-D151-L/CT-E651-L/PMU3300 to the supported models. (Page 5,6,7,30)<br>- Changed the installation configuration on Linux. (Page 13) |

**Notes**

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## 1. About the Product

This driver provides an open device driver architecture that can easily integrate the CITIZEN POS printer and the cash drawer connected to it by the POS system based on Java.

## 2. Operating Environments

### 2.1. Operating System

This driver supports the following operating systems.

- Windows7, Windows8, Windows8.1, Windows10 (64bit)
- Linux (64bit)

\* Tested Linux OS: CentOS7, Ubuntu18.04

### 2.2. Java Virtual Machine

This driver supports the following 64bit Java Virtual Machine.

- Version 5 and higher

\* Tested version

Oracle Java : Version 6 Update 45, Version 7 Update 72, Version 8 update 201

OpenJDK : Version 11 (Linux)

### 2.3. Supported Models

Supported models of this product and the corresponding interface are as shown below.

For details of each model, refer to the Printer User's Guide.

#### Windows environment

| Series of Model     | Supported Model     | Interface      | Printer Functions   |
|---------------------|---------------------|----------------|---|
| CT-D150             | CT-D150             | USB, Ethernet  | Standard  |
| CT-D151             | CT-D151             | USB, Ethernet  | Standard  |
|                     | CT-D151-L           |                | Blackmark/Label paper is supported                          |
| CT-E351             | CT-E351             | USB, Ethernet  | Standard  |
| CT-E651             | CT-E651             | USB, Ethernet  | Standard  |
|                     | CT-E651-L           |                | Blackmark/Label paper is supported                          |
| CT-S251             | CT-S251             | USB, Ethernet  | Standard  |
| CT-S281             | CT-S281/281BT/281BD | USB, Bluetooth | Standard  |
|                     | CT-S281-XL-M1       |                | Blackmark paper is supported                                |
|                     | CT-S281-XL          |                | Label paper is supported.                                   |
| CT-S310             | CT-S310             | USB, Ethernet  | Standard (Paper with blackmark on front side is supported.) |
|                     | CT-S310-M1/M2       |                | Paper with blackmark on back side is supported.             |
| CT-S310II           | CT-S310II           | USB, Ethernet  | Standard  |
| CT-S601/651/801/851 | CT-S601/651/801/851 | USB, Ethernet  | Standard  |
|                     | CT-S801/851-M       |                | Blackmark paper is supported                                |
|                     | CT-S801-L           |                | Label paper is supported.                                   |

|                                 |                                 |               |   |
|---------------------------------|---------------------------------|---------------|---|
| CT-S601II/651II/<br>801II/851II | CT-S601II/651II/801II<br>/851II | USB, Ethernet | Standard  |
|                                 | CT-S801II/851II-M               |               | Blackmark paper is supported                                |
|                                 | CT-S801II-L                     |               | Label paper is supported.                                   |
| CT-S751                         | CT-S751                         | USB, Ethernet | Standard  |
| CT-S2000                        | CT-S2000                        | USB, Ethernet | Standard  |
|                                 | CT-S2000-M                      |               | Blackmark paper is supported                                |
|                                 | CT-S2000-L                      |               | Label paper is supported.                                   |
| CT-S4000                        | CT-S4000                        | USB, Ethernet | Standard (Paper with blackmark on front side is supported.) |
|                                 | CT-S4000-M                      |               | Paper with blackmark on back side is supported.             |
|                                 | CT-S4000-L                      |               | Label paper is supported.                                   |
| CT-S4500                        | CT-S4500                        | USB, Ethernet | Standard (Blackmark/Label paper is supported)               |
| PMU2300III                      | PMU2300III                      | USB           | Standard (With presenter)                                   |
| PMU3300                         | PMU3300                         | USB           | Standard (With paper exit sensor)                           |

### Linux environment

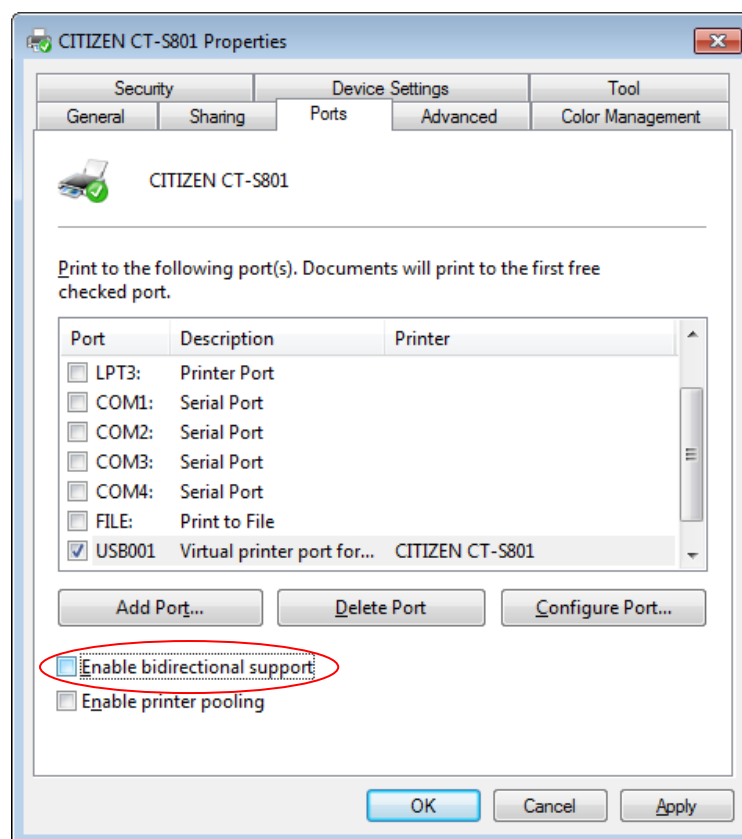
| Series of Model                 | Supported Model                 | Interface     | Printer Functions   |
|---------------------------------|---------------------------------|---------------|---|
| CT-D150                         | CT-D150                         | USB, Ethernet | Standard  |
| CT-D151                         | CT-D151                         | USB, Ethernet | Standard  |
|                                 | CT-D151-L                       |               | Blackmark/Label paper is supported                          |
| CT-E351                         | CT-E351                         | USB, Ethernet | Standard  |
| CT-E651                         | CT-E651                         | USB, Ethernet | Standard  |
|                                 | CT-E651-L                       |               | Blackmark/Label paper is supported                          |
| CT-S251                         | CT-S251                         | USB, Ethernet | Standard  |
| CT-S281                         | CT-S281/281BT/281BD             | USB           | Standard  |
|                                 | CT-S281-XL-M1                   |               | Blackmark paper is supported                                |
|                                 | CT-S281-XL                      |               | Label paper is supported.                                   |
| CT-S310                         | CT-S310                         | USB, Ethernet | Standard (Paper with blackmark on front side is supported.) |
|                                 | CT-S310-M1/M2                   |               | Paper with blackmark on back side is supported.             |
| CT-S310II                       | CT-S310II                       | USB, Ethernet | Standard  |
| CT-S601/651/801/<br>851         | CT-S601/651/801/851             | USB, Ethernet | Standard  |
|                                 | CT-S801/851-M                   |               | Blackmark paper is supported                                |
|                                 | CT-S801-L                       |               | Label paper is supported.                                   |
| CT-S601II/651II/<br>801II/851II | CT-S601II/651II/801II<br>/851II | USB, Ethernet | Standard  |
|                                 | CT-S801II/851II-M               |               | Blackmark paper is supported                                |
|                                 | CT-S801II-L                     |               | Label paper is supported.                                   |
| CT-S751                         | CT-S751                         | USB, Ethernet | Standard  |
| CT-S2000                        | CT-S2000                        | USB, Ethernet | Standard  |
|                                 | CT-S2000-M                      |               | Blackmark paper is supported                                |
|                                 | CT-S2000-L                      |               | Label paper is supported.                                   |
| CT-S4000                        | CT-S4000                        | USB, Ethernet | Standard (Paper with blackmark on front side is supported.) |
|                                 | CT-S4000-M                      |               | Paper with blackmark on back side                           |

|            |            |               |   |
|------------|------------|---------------|---|
|            |            |               | is supported.                                 |
|            | CT-S4000-L |               | Label paper is supported.                     |
| CT-S4500   | CT-S4500   | USB, Ethernet | Standard (Blackmark/Label paper is supported) |
| PMU2300III | PMU2300III | USB           | Standard (With presenter)                     |
| PMU3300    | PMU3300    | USB           | Standard (With paper exit sensor)             |

## 2.4. USB Interface Connection of the Windows environment

Installation of printer driver is required when using this product with USB connection of the Windows environment. Perform the installation of Windows Driver. Designate USB Interface Port (Virtual Printer Port for USB) which is designated by the Windows Driver at JavaPOS Driver side.

This driver cannot be used with the status function (language monitor) of the Windows driver that shows the printer status. When using this driver, **install the Windows driver without the status function, or uncheck the "Enable bidirectional support" option under the Ports setting of the Windows driver.** (Need to reboot the computer in order for the changes to take effect.)



### 3. Installation

#### 3.1. Pre-Installation Instructions

Please download the file according to your operating system from the URL below to get the latest Java for your computer and install the Java run time environment in your system.

Note that Java version 5 or higher is required.

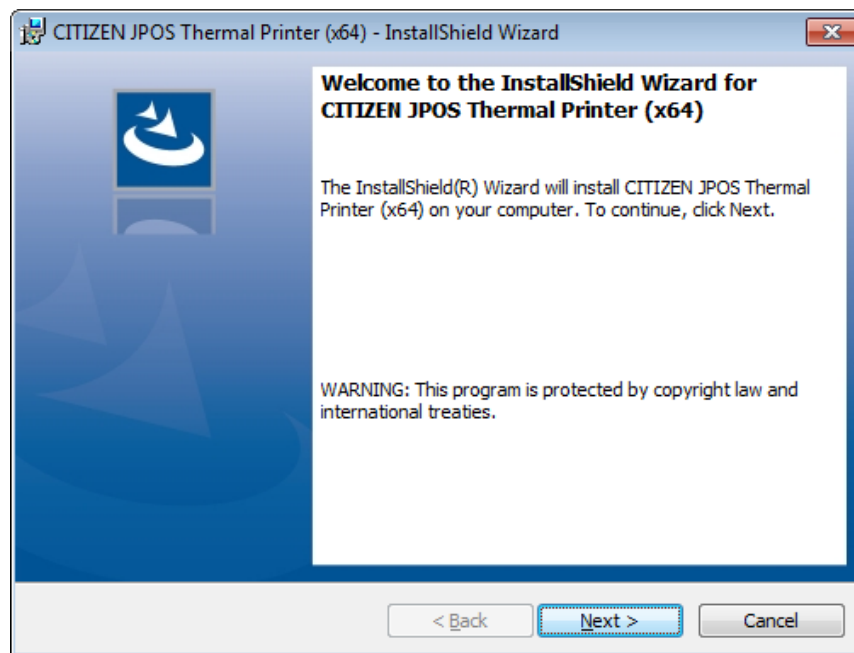
<http://www.java.com/> or <http://jdk.java.net/>

Before installation, shut down all applications in operation.

The installer should be run with Administrator (Windows) or root (Linux) privileges.

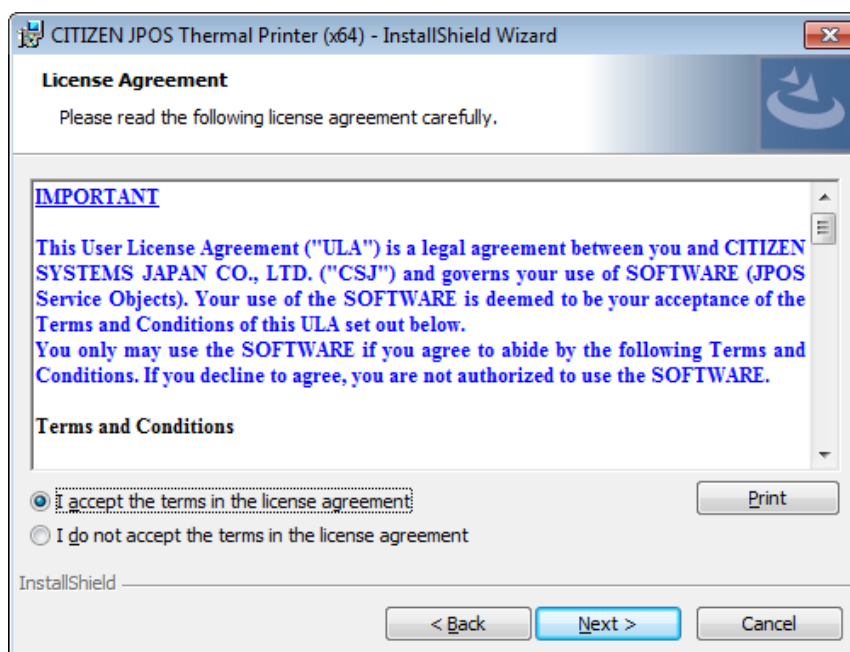
#### 3.2. Installation Steps for Windows

- 1) The installer for Windows is "CSJ\_JPOSxxxxx\_setup64EN.exe" (xxxxx is version number).  
To run the installer, double click on it. After starting, follow the installation procedure in accordance with the dialog.
- 2) Setup wizard starts. Click [Next].

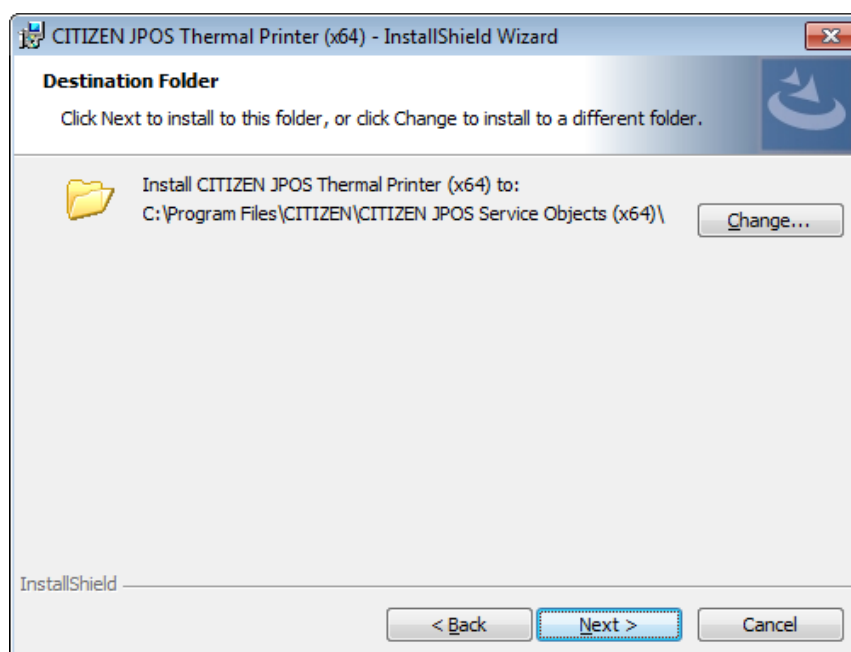




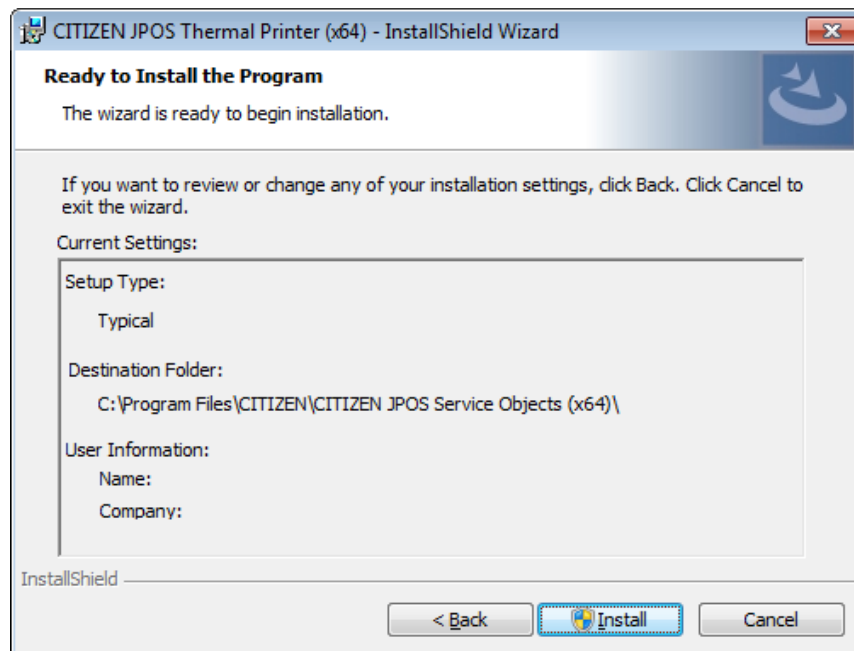
- 3) "License Agreement" window is displayed. If you agree with the product license agreement, select "I accept the terms in the license agreement" and click [Next]. If you do not agree with the product license agreement, select "I do not accept the terms in the agreement" and click [Next] to exit the wizard.



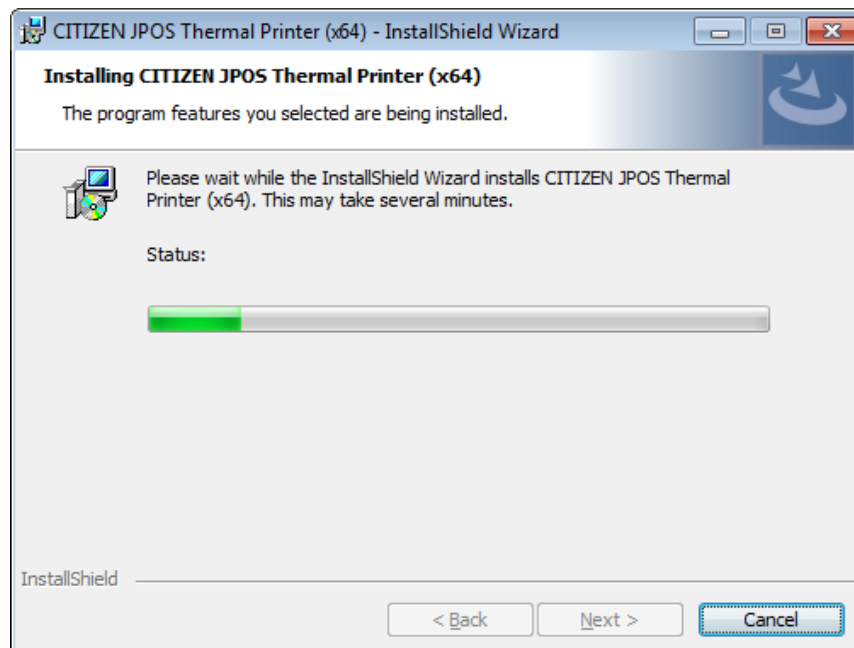
- 4) "Destination Folder" window is displayed. Specify the folder to install. If you use a default folder, click [Next]. If you want to change the folder, change the folder you want to install.



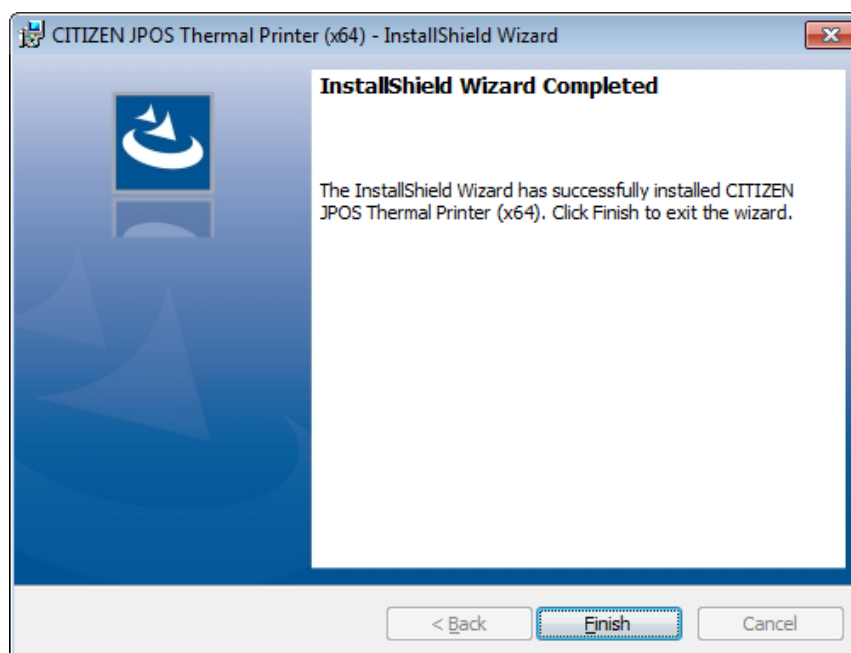
- 5) Click [Install] to begin the installation.



- 6) The installation progress status window is displayed. (It may take longer time to install depending on the environment or specifications of the terminal.)



- 7) When the installation is successful, "Installation Completed" window is displayed. Click [Close].



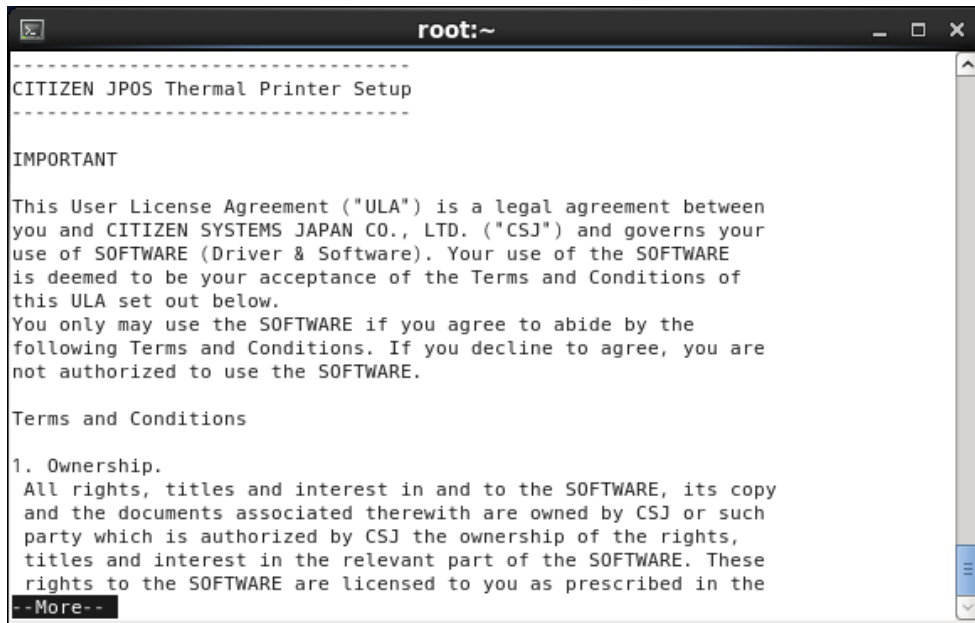
- 8) The following provides the description on the installation files of this product.

c:\program files\CITIZEN\CITIZEN JPOS Service Object (64bit) (default)

|                          |                                    |
|--------------------------|------------------------------------|
| JPOSApplication.bat      | : Test application execute file    |
| JPOSConfig.bat           | : Configuration (JCL) execute file |
| jpos.xml                 | : JavaPOS configuration file       |
| CBMjpos.jar              | : CITIZEN JavaPOS driver library   |
| JPOSApplication.jar      | : Test application library         |
| jcl.jar                  | : jpos.config/loader (JCL) library |
| javapos-1.14.1.jar       | : JavaPOS service object library   |
| lib\comm.jar             | : Library for driver               |
| lib\jna.jar              | : Library for driver               |
| lib\xerces2.jar          | : Library for driver               |
| lib\xerces-2.6.0.jar     | : Library for driver               |
| lib\swing-layout-1.0.jar | : Library for test application     |
| CSJjposBcw.dll           | : Expansion library for driver     |
| CSJjposCom.dll           | : Expansion library for driver     |
| ReleaseNotes_EN.txt      | : Release Notes file               |
| Log                      | : Work folder for test application |
| Macro                    | : Work folder for test application |
| Sample                   | : Sample code folder               |

### 3.3. Installation Steps for Linux

- 1) The installer for Linux is "CSJ\_JPOSxxxxx\_setup64EN.bin" (xxxxx is version number, self-extracting file). To run the installer, open the terminal window, change to the directory in which the installer is located, and type `./CSJ_JPOSxxxxx_setpu64EN.bin` (xxxxx is version number). After starting, follow the installation procedure in accordance with the dialog.
- 2) Installer starts. Type the space key.



```

root:~
-----
CITIZEN JPOS Thermal Printer Setup
-----

IMPORTANT

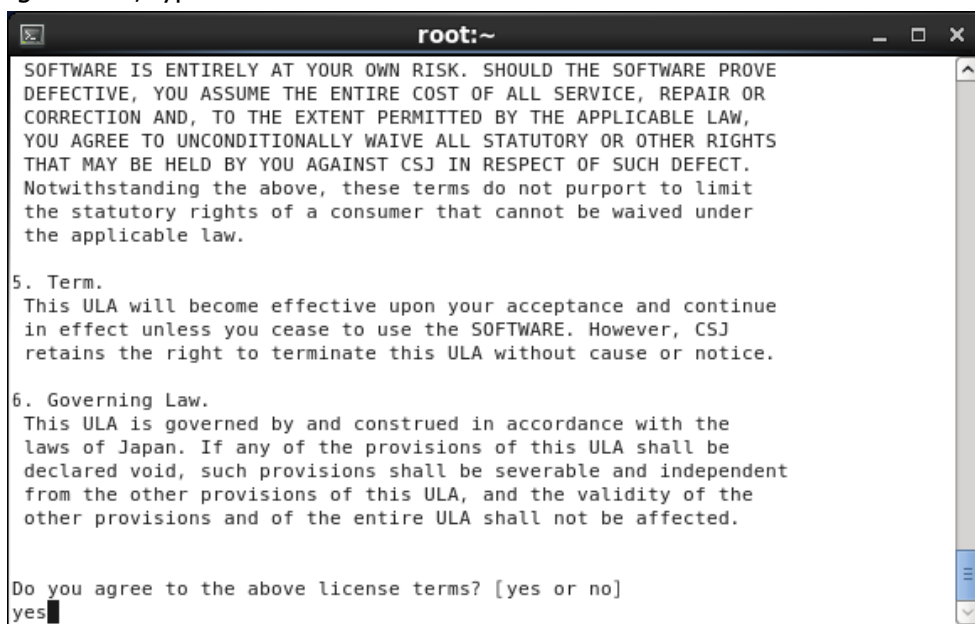
This User License Agreement ("ULA") is a legal agreement between
you and CITIZEN SYSTEMS JAPAN CO., LTD. ("CSJ") and governs your
use of the SOFTWARE (Driver & Software). Your use of the SOFTWARE
is deemed to be your acceptance of the Terms and Conditions of
this ULA set out below.
You only may use the SOFTWARE if you agree to abide by the
following Terms and Conditions. If you decline to agree, you are
not authorized to use the SOFTWARE.

Terms and Conditions

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and the documents associated therewith are owned by CSJ or such
party which is authorized by CSJ the ownership of the rights,
titles and interest in the relevant part of the SOFTWARE. These
rights to the SOFTWARE are licensed to you as prescribed in the
--More--

```

- 3) If you agree with the product license agreement, type "yes". If you do not agree with the product license agreement, type "no" to exit.



```

root:~
SOFTWARE IS ENTIRELY AT YOUR OWN RISK. SHOULD THE SOFTWARE PROVE
DEFECTIVE, YOU ASSUME THE ENTIRE COST OF ALL SERVICE, REPAIR OR
CORRECTION AND, TO THE EXTENT PERMITTED BY THE APPLICABLE LAW,
YOU AGREE TO UNCONDITIONALLY WAIVE ALL STATUTORY OR OTHER RIGHTS
THAT MAY BE HELD BY YOU AGAINST CSJ IN RESPECT OF SUCH DEFECT.
Notwithstanding the above, these terms do not purport to limit
the statutory rights of a consumer that cannot be waived under
the applicable law.

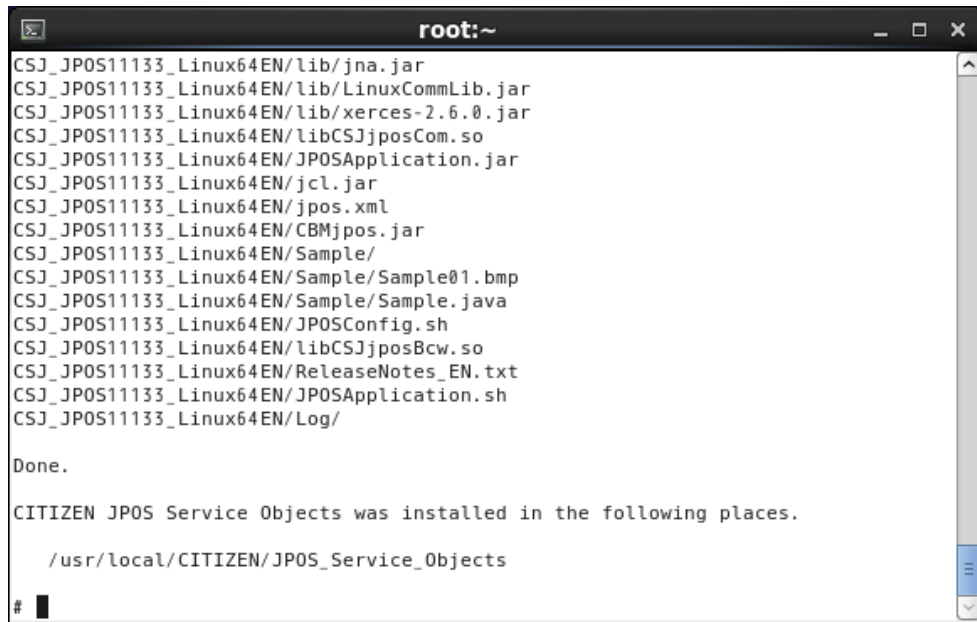
5. Term.
This ULA will become effective upon your acceptance and continue
in effect unless you cease to use the SOFTWARE. However, CSJ
retains the right to terminate this ULA without cause or notice.

6. Governing Law.
This ULA is governed by and construed in accordance with the
laws of Japan. If any of the provisions of this ULA shall be
declared void, such provisions shall be severable and independent
from the other provisions of this ULA, and the validity of the
other provisions and of the entire ULA shall not be affected.

Do you agree to the above license terms? [yes or no]
yes

```

- 4) When the installation is successful, installed places is displayed.



```

root:~
CSJ_JP0S11133_Linux64EN/lib/jna.jar
CSJ_JP0S11133_Linux64EN/lib/LinuxCommLib.jar
CSJ_JP0S11133_Linux64EN/lib/xerces-2.6.0.jar
CSJ_JP0S11133_Linux64EN/libCSJjposCom.so
CSJ_JP0S11133_Linux64EN/JPOSApplication.jar
CSJ_JP0S11133_Linux64EN/jcl.jar
CSJ_JP0S11133_Linux64EN/jpos.xml
CSJ_JP0S11133_Linux64EN/CBMjpos.jar
CSJ_JP0S11133_Linux64EN/Sample/
CSJ_JP0S11133_Linux64EN/Sample/Sample01.bmp
CSJ_JP0S11133_Linux64EN/Sample/Sample.java
CSJ_JP0S11133_Linux64EN/JPOSConfig.sh
CSJ_JP0S11133_Linux64EN/libCSJjposBcw.so
CSJ_JP0S11133_Linux64EN/ReleaseNotes_EN.txt
CSJ_JP0S11133_Linux64EN/JPOSApplication.sh
CSJ_JP0S11133_Linux64EN/Log/

Done.

CITIZEN JP0S Service Objects was installed in the following places.

  /usr/local/CITIZEN/JP0S_Service_Objects

#

```

5) The following provides the description on the installation files of this product.

|  |                                       |
|--|---------------------------------------|
| /usr/local/CITIZEN/JP0S_Service_Object |                                       |
| JPOSApplication.sh                     | : test application execute file       |
| JPOSConfig.sh                          | : configuration (JCL) execute file    |
| jpos.xml                               | : JavaPOS configuration file          |
| CBMjpos.jar                            | : CITIZEN JavaPOS driver library      |
| JPOSApplication.jar                    | : Test application library            |
| jcl.jar                                | : jpos.config/loader (JCL) library    |
| javapos-1.14.1.jar                     | : JavaPOS service object library      |
| lib/LinuxCommAPI.jar                   | : Library for driver                  |
| lib/LinuxCommLib.jar                   | : Library for driver                  |
| lib/comm.jar                           | : Library for driver                  |
| lib/jna.jar                            | : Library for driver                  |
| lib/xerces2.jar                        | : Library for driver                  |
| lib/xerces-2.6.0.jar                   | : Library for driver                  |
| lib/swing-layout-1.0.jar               | : Library for test application        |
| libCSJjposBcw.so                       | : Expansion library for driver        |
| libCSJjposCom.so                       | : Expansion library for driver        |
| ReleaseNotes_EN.txt                    | : Release Notes file                  |
| Log                                    | : work directory for test application |
| Macro                                  | : work directory for test application |
| Sample                                 | : sample code directory               |

\* The installation directory structure has changed from version 1.14.0.3. If you have updated from an earlier version, delete the extension library file for the driver from the folder where the Java runtime environment is installed.

### 3.4. How to use the Driver for windows

Change to the Windows installation folder and double clicking the following file.

For starting the test application

JPOSApplication.bat

For starting the JPOS entry editor

JPOSConfig.bat

### 3.5. How to use the Driver for Linux

Open the terminal window and change to the Linux installation directory and type the following command on the command prompt.

For starting the test application

./JPOSApplication.sh

For starting the JPOS entry editor

./JPOSConfig.sh

### 3.6. Setting of JavaPOS entry

In order for Control Object to be connected to Service Object exactly and initialize the corresponding device, the JavaPOS control requires data of the jpos.xml file.

The following is the jpos.xml setting when it connects CT-S801II (printer) by USB as an example. It is necessary to revise a value of "PortName".

```
<JposEntry logicalName="CITIZEN S801II USB Windows">
  <creation factoryClass="jpos.loader.simple.SimpleJPOSServiceInstanceFactory"
    serviceClass="jpos.services.Citizen801IIPrinterServices"/>
  <vendor name="CITIZEN" url="http://www.citizen-systems.co.jp"/>
  <jpos category="POSPrinter" version="1.14"/>
  <product description="Jpos printer driver" name="CITIZEN CT-S801II POS printer"
    url="http://www.citizen-systems.co.jp"/>

  <prop name="WriteTimeout" type="String" value="5000"/>
  <prop name="PhysicalDevice" type="String" value="CITIZEN CT-S801II POS Printer"/>
  <prop name="PortName" type="String" value="USB001"/>
  <prop name="PrinterLanguage" type="String" value="0"/>
  <prop name="ResponseCheck" type="String" value="1"/>
  <prop name="Columns" type="String" value="48"/>
  <prop name="CharacterSet" type="String" value="437"/>
  <prop name="UseNVRAM" type="String" value="0"/>
  <prop name="Grayscale" type="String" value="0"/>
  <prop name="PaperModel" type="String" value="80mm"/>
  <prop name="deviceBus" type="String" value="USB"/>
</JposEntry>
```

The following is the jpos.xml setting when it connects CT-S801II (printer) by Ethernet as an example. It is necessary to revise a value of "PortName" and "IPAddress".

```
<JposEntry logicalName="CITIZEN S801II Ethernet Windows">
  <creation factoryClass="jpos.loader.simple.SimpleJPOSServiceInstanceFactory"
    serviceClass="jpos.services.Citizen801IIPrinterServices"/>
  <vendor name="CITIZEN" url="http://www.citizen-systems.co.jp"/>
  <jpos category="POSPrinter" version="1.14"/>
  <product description="Jpos printer driver" name="CITIZEN CT-S801II POS printer"
    url="http://www.citizen-systems.co.jp"/>

  <prop name="WriteTimeout" type="String" value="5000"/>
  <prop name="PhysicalDevice" type="String" value="CITIZEN CT-S801II POS Printer"/>
  <prop name="PortName" type="String" value="IP_192.168.82.21"/>
  <prop name="PrinterLanguage" type="String" value="0"/>
  <prop name="PortNumber" type="String" value="9100"/>
  <prop name="ResponseCheck" type="String" value="1"/>
  <prop name="CharacterSet" type="String" value="437"/>
  <prop name="Columns" type="String" value="48"/>
  <prop name="UseNVRAM" type="String" value="0"/>
  <prop name="Grayscale" type="String" value="0"/>
  <prop name="PaperModel" type="String" value="80mm"/>
  <prop name="deviceBus" type="String" value="Ethernet"/>
  <prop name="IPAddress" type="String" value="192.168.82.21"/>
</JposEntry>
```

## 4. Printer Setting

Using this product assumes that the DIP switch and memory switch of the printer are set as shown below. For the details of the method of operating each switch and the content of setting, refer to User's Guide of each model.

### 4.1. CT-D150 Series

#### Memory Switch Setting

| MSW No. | Function                                      | Setting         | Description |
|---------|---|-----------------|-------------|
| 1-1     | Power ON Info                                 | Valid           | -           |
| 1-2     | Buffer Size                                   | 4K bytes        | -           |
| 1-3     | Busy Condition                                | Full            | -           |
| 1-4     | Receiving Error                               | Print ?         | -           |
| 1-5     | CR Mode                                       | Ignored         | -           |
| 1-7     | DSR Signal<br>(when serial interface is used) | Invalid         | -           |
| 2-2     | Auto Cutter                                   | Valid           | -           |
| 2-4     | Full Col Print                                | WaitData        | -           |
| 3-1     | Resume Ctrr Err                               | Valid           | -           |
| 3-7     | CBM1000 Mode                                  | Valid           | -           |
| 3-8     | Resume Open Err                               | Close           | -           |
| 4-8     | Partial Only                                  | Invalid         | -           |
| 5-2     | Line Pitch                                    | 1/360           | -           |
| 6-1     | Act. For Driver                               | Valid           | -           |
| 7-6     | DMA Control                                   | Valid           | -           |
| 8-4     | Line Gap Reduce                               | Invalid         | -           |
| 8-5     | Reduced Char V/H                              | 100% / 100%     | -           |
| 9-1     | Code Page                                     | Katakana        | -           |
| 9-2     | Int'Char Set                                  | Japan           | -           |
| 9-4     | Multi-Byte Char                               | SJIS:CP932(JPN) | -           |



## 4.2. CT-D151 Series

### Memory Switch Setting

| MSW No. | Function                                       | Setting         | Description |
|---------|--|-----------------|-------------|
| 1-1     | Power ON Info                                  | Valid           | -           |
| 1-2     | Buffer Size                                    | 4K bytes        | -           |
| 1-3     | Busy Condition                                 | Full            | -           |
| 1-4     | Receiving Error                                | Print ?         | -           |
| 1-5     | CR Mode  | Ignored         | -           |
| 1-7     | DSR Signal<br>(when serial interface is used)  | Invalid         | -           |
| 1-8     | INIT Signal<br>(when serial interface is used) | Invalid         | -           |
| 2-2     | Auto Cutter                                    | Valid           | -           |
| 2-4     | Full Col Print                                 | WaitData        | -           |
| 3-1     | Resume Ctrr Err                                | Valid           | -           |
| 3-7     | CBM1000 Mode                                   | Valid           | -           |
| 3-8     | Resume Open Err                                | Close           | -           |
| 4-8     | Partial Only                                   | Invalid         | -           |
| 5-2     | Line Pitch                                     | 1/360           | -           |
| 6-1     | Act. For Driver                                | Valid           | -           |
| 7-6     | DMA Control                                    | Valid           | -           |
| 8-4     | Line Gap Reduce                                | Invalid         | -           |
| 8-5     | Reduced Char V/H                               | 100% / 100%     | -           |
| 9-1     | Code Page                                      | Katakana        | -           |
| 9-2     | Int'Char Set                                   | Japan           | -           |
| 9-4     | Multi-Byte Char                                | SJIS:CP932(JPN) | -           |
| 13-6    | Auto Reconnect<br>(when Bluetooth I/F is used) | Invalid         | -           |

### 4.3. CT-E351 Series

#### Memory Switch Setting

| MSW No. | Function                                      | Setting         | Description |
|---------|---|-----------------|-------------|
| 1-1     | Power ON Info                                 | Valid           | -           |
| 1-2     | Buffer Size                                   | 4K bytes        | -           |
| 1-3     | Busy Condition                                | Full            | -           |
| 1-4     | Receiving Error                               | Print ?         | -           |
| 1-5     | CR Mode                                       | Ignored         | -           |
| 1-7     | DSR Signal<br>(when serial interface is used) | Invalid         | -           |
| 2-2     | Auto Cutter                                   | Valid           | -           |
| 2-4     | Full Col Print                                | WaitData        | -           |
| 3-1     | Resume Cttr Err                               | Valid           | -           |
| 3-7     | CBM1000 Mode                                  | Valid           | -           |
| 3-8     | Resume Open Err                               | Close           | -           |
| 4-8     | Partial Only                                  | Invalid         | -           |
| 5-2     | Line Pitch                                    | 1/360           | -           |
| 6-1     | Act. For Driver                               | Valid           | -           |
| 7-6     | DMA Control                                   | Valid           | -           |
| 8-4     | Line Gap Reduce                               | Invalid         | -           |
| 8-5     | Reduced Char V/H                              | 100% / 100%     | -           |
| 9-1     | Code Page                                     | Katakana        | -           |
| 9-2     | Int'Char Set                                  | Japan           | -           |
| 9-4     | Multi-Byte Char                               | SJIS:CP932(JPN) | -           |

## 4.4. CT-E651 Series

### Memory Switch Setting

| MSW No. | Function                                       | Setting         | Description |
|---------|--|-----------------|-------------|
| 1-1     | Power ON Info                                  | Valid           | -           |
| 1-2     | Buffer Size                                    | 4K bytes        | -           |
| 1-3     | Busy Condition                                 | Full            | -           |
| 1-4     | Receiving Error                                | Print ?         | -           |
| 1-5     | CR Mode  | Ignored         | -           |
| 1-7     | DSR Signal<br>(when serial interface is used)  | Invalid         | -           |
| 1-8     | INIT Signal<br>(when serial interface is used) | Invalid         | -           |
| 2-2     | Auto Cutter                                    | Valid           | -           |
| 2-4     | Full Col Print                                 | WaitData        | -           |
| 3-1     | Resume Ctrr Err                                | Valid           | -           |
| 3-7     | CBM1000 Mode                                   | Valid           | -           |
| 3-8     | Resume Open Err                                | Close           | -           |
| 4-8     | Partial Only                                   | Invalid         | -           |
| 5-2     | Line Pitch                                     | 1/360           | -           |
| 6-1     | Act. For Driver                                | Valid           | -           |
| 7-6     | DMA Control                                    | Valid           | -           |
| 8-4     | Line Gap Reduce                                | Invalid         | -           |
| 8-5     | Reduced Char V/H                               | 100% / 100%     | -           |
| 9-1     | Code Page                                      | Katakana        | -           |
| 9-2     | Int'Char Set                                   | Japan           | -           |
| 9-4     | Multi-Byte Char                                | SJIS:CP932(JPN) | -           |
| 13-6    | Auto Reconnect<br>(when Bluetooth I/F is used) | Invalid         | -           |

## 4.5. CT-S251 Series

### Memory Switch Setting

| MSW No. | Function   | Setting     | Description |
|---------|--|-------------|-------------|
| 1-1     | Power ON Info  | Valid       | -           |
| 1-2     | Buffer Size  | 4K bytes    | -           |
| 1-3     | Busy Condition                                       | Full        | -           |
| 1-4     | Receiving Error                                      | Print ?     | -           |
| 1-5     | CR Mode  | Ignored     | -           |
| 1-7     | DSR Signal<br>(when serial interface is used)        | Invalid     | -           |
| 1-8     | INIT Signal<br>(when serial interface is used)       | Invalid     | -           |
| 2-2     | Auto Cutter  | Valid       | -           |
| 2-4     | Full Col Print                                       | WaitData    | -           |
| 3-1     | Auto cutter restore                                  | Valid       | -           |
| 3-7     | CBM1000 Mode   | Valid       | -           |
| 3-8     | Resume Open Err                                      | Close       | -           |
| 4-8     | Partial Only   | Invalid     | -           |
| 5-2     | Line Pitch   | 1/360       | -           |
| 6-1     | Act. For Driver                                      | Valid       | -           |
| 7-6     | DMA Control  | Valid       | -           |
| 8-4     | Line Gap Reduce                                      | Invalid     | -           |
| 8-5     | Reduced Char   | 100% / 100% | -           |
| 8-6     | Auto Side Shift                                      | Invalid     | -           |
| 9-1     | Code Page  | Katakana    | -           |
| 9-2     | Int'Char Set   | Japan       | -           |
| 9-3     | Kanji  | ON          | -           |
| 9-4     | JIS/Shift-JIS  | SJIS(CP932) | -           |
| 13-6    | Auto Reconnect<br>(when Bluetooth interface is used) | Invalid     | -           |

## 4.6. CT-S281 Series

### **DIP Switch Setting**

| <b>DSW No.</b> | <b>Function</b>                         | <b>Setting</b> | <b>Description</b> |
|----------------|---|----------------|--------------------|
| 8              | INIT<br>(when serial interface is used) | OFF            | Disabled           |

### **Memory Switch Setting**

| <b>MSW No.</b> | <b>Function</b>                                      | <b>Setting</b> | <b>Description</b> |
|----------------|--|----------------|--------------------|
| 1-1            | Power ON Info  | Valid          | -                  |
| 1-2            | Buffer Size  | 4K bytes       | -                  |
| 1-3            | Busy Condition                                       | Full           | -                  |
| 1-4            | Receiving Error                                      | Print ?        | -                  |
| 1-5            | CR Mode  | Ignored        | -                  |
| 1-7            | DSR Signal<br>(when serial interface is used)        | Invalid        | -                  |
| 2-2            | Auto Cutter  | Valid          | -                  |
| 2-4            | Full column print                                    | WaitData       | -                  |
| 3-1            | Auto cutter restore                                  | Valid          | -                  |
| 3-7            | CBM270 Mode  | Valid          | -                  |
| 3-8            | Resume Open Err                                      | Close          | -                  |
| 4-8            | Partial Only   | Invalid        | -                  |
| 9-1            | Code Page  | Katakana       | -                  |
| 9-2            | Int'Char Set   | Japan          | -                  |
| 9-3            | Kanji  | ON             | -                  |
| 9-4            | JIS/Shift-JIS  | Shift-JIS      | -                  |
| 13-6           | Auto Reconnect<br>(when Bluetooth interface is used) | Invalid        | -                  |

## 4.7. CT-S310 Series

### DIP Switch Setting

| DSW No. | Function                                | Setting | Description |
|---------|---|---------|-------------|
| 8       | INIT<br>(when serial interface is used) | OFF     | Disabled    |

### Memory Switch Setting

| MSW No. | Function  | Setting   | Description |
|---------|---|-----------|-------------|
| 1-1     | Power ON Info   | Valid     | -           |
| 1-2     | Buffer Size   | 4K bytes  | -           |
| 1-3     | Busy Condition  | Full      | -           |
| 1-4     | Receiving Error                                       | Print ?   | -           |
| 1-5     | CR Mode   | Ignored   | -           |
| 1-7     | DSR Signal<br>(when serial interface is used)         | Invalid   | -           |
| 1-8     | INIT Signal<br>(when serial interface is used)        | Invalid   | -           |
| 2-2     | Auto Cutter   | Valid     | -           |
| 2-4     | Full Col Print  | WaitData  | -           |
| 3-1     | Auto cutter restore                                   | Close     | -           |
| 3-2     | PE output at PNE<br>(when parallel IF are used)       | Invalid   | -           |
| 3-3     | Parallel 31Pin<br>(when USB and parallel IF are used) | Valid     | -           |
| 3-7     | CBM1000 Mode  | Valid     | -           |
| 3-8     | Resume Open Err                                       | Close     | -           |
| 4-8     | Forced partial  | Invalid   | -           |
| 9-1     | Code Page   | Katakana  | -           |
| 9-2     | Int'Char Set  | Japan     | -           |
| 9-3     | Kanji   | Enable    | -           |
| 9-4     | JIS/Shift-JIS   | Shift JIS | -           |

## 4.8. CT-S310II Series

### Memory Switch Setting

| MSW No. | Function                                      | Setting     | Description |
|---------|---|-------------|-------------|
| 1-1     | Power ON Info                                 | Valid       | -           |
| 1-2     | Buffer Size                                   | 4K bytes    | -           |
| 1-3     | Busy Condition                                | Full        | -           |
| 1-4     | Receiving Error                               | Print ?     | -           |
| 1-5     | CR Mode                                       | Ignored     | -           |
| 1-7     | DSR Signal<br>(when serial interface is used) | Invalid     | -           |
| 2-2     | Auto cutter operation                         | Valid       | -           |
| 2-4     | Full Col Print                                | WaitData    | -           |
| 3-1     | Auto Cutter                                   | Valid       | -           |
| 3-7     | CBM1000 Mode                                  | Valid       | -           |
| 3-8     | Resume Open Err                               | Close       | -           |
| 4-8     | Forced partial                                | Invalid     | -           |
| 5-2     | Line Pitch                                    | 1/360       | -           |
| 6-1     | Act. For Driver                               | Valid       | -           |
| 7-6     | DMA Control                                   | Valid       | -           |
| 8-4     | Line Gap Reduce                               | Invalid     | -           |
| 8-5     | Reduced Char                                  | 100% / 100% | -           |
| 9-1     | Code Page                                     | Katakana    | -           |
| 9-2     | Int'Char Set                                  | Japan       | -           |
| 9-3     | Kanji   | ON          | -           |
| 9-4     | JIS/Shift-JIS                                 | Shift JIS   | -           |

## 4.9. CT-S601/651/801/851 Series

### DIP Switch Setting

| DSW No. | Function                                | Setting | Description |
|---------|---|---------|-------------|
| 8       | INIT<br>(when serial interface is used) | OFF     | Disabled    |

### Memory Switch Setting

| MSW No. | Function  | Setting     | Description |
|---------|---|-------------|-------------|
| 1-1     | Power ON Info   | Valid       | -           |
| 1-2     | Buffer Size   | 4K bytes    | -           |
| 1-3     | Busy Condition  | Full        | -           |
| 1-4     | Receiving Error                                       | Print ?     | -           |
| 1-5     | CR Mode   | Ignored     | -           |
| 1-7     | DSR Signal<br>(when serial interface is used)         | Invalid     | -           |
| 1-8     | INIT Signal<br>(when serial interface is used)        | Invalid     | -           |
| 2-2     | Auto Cutter   | Valid       | -           |
| 2-4     | Full Col Print  | WaitData    | -           |
| 3-1     | Auto cutter restore                                   | Close       | -           |
| 3-2     | PE output at PNE<br>(when parallel IF are used)       | Invalid     | -           |
| 3-3     | Parallel 31Pin<br>(when USB and parallel IF are used) | Valid       | -           |
| 3-7     | CBM1000 Mode  | Valid       | -           |
| 3-8     | Resume Open Err                                       | Close       | -           |
| 4-8     | Forced partial  | Invalid     | -           |
| 5-2     | Line Pitch  | 1/360       | -           |
| 6-1     | Act. For Driver                                       | Valid       | -           |
| 7-6     | DMA Control   | Valid       | -           |
| 9-1     | Code Page   | Katakana    | -           |
| 9-2     | Int'Char Set  | Japan       | -           |
| 9-3     | Kanji   | Enable      | -           |
| 9-4     | JIS/Shift-JIS   | Shift JIS   | -           |
| 10-3    | ACK Timing<br>(when USB and parallel IF are used)     | Before BUSY | -           |



## 4.10. CT-S601II/651II/801II/851II Series

### DIP Switch Setting

| DSW No. | Function                                | Setting | Description |
|---------|---|---------|-------------|
| 8       | INIT<br>(when serial interface is used) | OFF     | Disabled    |

### Memory Switch Setting

| MSW No. | Function  | Setting         | Description |
|---------|---|-----------------|-------------|
| 1-1     | Power ON Info   | Valid           | -           |
| 1-2     | Buffer Size   | 4K bytes        | -           |
| 1-3     | Busy Condition  | Full            | -           |
| 1-4     | Receiving Error                                       | Print ?         | -           |
| 1-5     | CR Mode   | Ignored         | -           |
| 1-7     | DSR Signal<br>(when serial interface is used)         | Invalid         | -           |
| 1-8     | INIT Signal<br>(when serial interface is used)        | Invalid         | -           |
| 2-2     | Auto cutter operation                                 | Valid           | -           |
| 2-4     | Full Col Print  | WaitData        | -           |
| 3-1     | Auto Cutter   | Valid           | -           |
| 3-2     | PE output at PNE<br>(when parallel IF are used)       | Invalid         | -           |
| 3-3     | Parallel 31Pin<br>(when USB and parallel IF are used) | Valid           | -           |
| 3-7     | CBM1000 Mode  | Valid           | -           |
| 3-8     | Resume Open Err                                       | Close           | -           |
| 4-8     | Forced partial  | Invalid         | -           |
| 5-2     | Line Pitch  | 1/360           | -           |
| 6-1     | Act. For Driver                                       | Valid           | -           |
| 7-6     | DMA Control   | Valid           | -           |
| 8-4     | Line Gap Reduce                                       | Invalid         | -           |
| 8-5     | Reduced Char  | 100% / 100%     | -           |
| 9-1     | Code Page   | Katakana        | -           |
| 9-2     | Int'Char Set  | Japan           | -           |
| 9-4     | Multi-byte Char                                       | SJIS:CP932(JPN) | -           |
| 10-3    | ACK Timing<br>(when USB and parallel IF are used)     | Before BUSY     | -           |
| 13-6    | Auto Reconnect<br>(when Bluetooth interface is used)  | Invalid         | -           |

## 4.11. CT-S751

### Memory Switch Setting

| MSW No. | Function                                       | Setting         | Description |
|---------|--|-----------------|-------------|
| 1-1     | Power ON Info                                  | Valid           | -           |
| 1-2     | Buffer Size                                    | 4K bytes        | -           |
| 1-3     | Busy Condition                                 | Full            | -           |
| 1-4     | Receiving Error                                | Print ?         | -           |
| 1-5     | CR Mode  | Ignored         | -           |
| 1-7     | DSR Signal<br>(when serial interface is used)  | Invalid         | -           |
| 1-8     | INIT Signal<br>(when serial interface is used) | Invalid         | -           |
| 2-2     | Auto Cutter                                    | Valid           | -           |
| 2-4     | Full Col Print                                 | WaitData        | -           |
| 3-1     | Resume Ctrr Err                                | Valid           | -           |
| 3-7     | CBM1000 Mode                                   | Valid           | -           |
| 3-8     | Resume Open Err                                | Close           | -           |
| 4-8     | Partial Only                                   | Invalid         | -           |
| 5-2     | Line Pitch                                     | 1/360           | -           |
| 6-1     | Act. For Driver                                | Valid           | -           |
| 7-6     | DMA Control                                    | Valid           | -           |
| 8-4     | Line Gap Reduce                                | Invalid         | -           |
| 8-5     | Reduced Char V/H                               | 100% / 100%     | -           |
| 9-1     | Code Page                                      | Katakana        | -           |
| 9-2     | Int'Char Set                                   | Japan           | -           |
| 9-4     | Multi-Byte Char                                | SJIS:CP932(JPN) | -           |
| 13-6    | Auto Reconnect<br>(when Bluetooth I/F is used) | Invalid         | -           |

## 4.12. CT-S2000 Series

### DIP Switch Setting

| DSW No. | Function                                | Setting | Description |
|---------|---|---------|-------------|
| 8       | INIT<br>(when serial interface is used) | OFF     | Disabled    |

### Memory Switch Setting

| MSW No. | Function  | Setting     | Description |
|---------|---|-------------|-------------|
| 1-1     | Power ON Info   | Valid       | -           |
| 1-2     | Buffer Size   | 4K bytes    | -           |
| 1-3     | Busy Condition  | Full        | -           |
| 1-4     | Receiving Error                                       | Print ?     | -           |
| 1-5     | CR Mode   | Ignored     | -           |
| 1-7     | DSR Signal<br>(when serial interface is used)         | Invalid     | -           |
| 1-8     | INIT Signal<br>(when serial interface is used)        | Invalid     | -           |
| 2-2     | Auto cutter operation                                 | Valid       | -           |
| 2-4     | Full Col Print  | WaitData    | -           |
| 3-1     | Auto Cutter   | Valid       | -           |
| 3-3     | Parallel 31Pin<br>(when USB and parallel IF are used) | Valid       | -           |
| 3-7     | CBM1000 Mode  | Valid       | -           |
| 3-8     | Resume Open Err                                       | Close       | -           |
| 4-8     | Forced partial  | Invalid     | -           |
| 5-2     | Line Pitch  | 1/360       | -           |
| 7-6     | DMA Control   | Valid       | -           |
| 9-1     | Code Page   | Katakana    | -           |
| 9-2     | Int'Char Set  | Japan       | -           |
| 9-3     | Kanji   | ON          | -           |
| 9-4     | JIS/Shift-JIS   | Shift JIS   | -           |
| 10-3    | ACK Timing<br>(when USB and parallel IF are used)     | Before BUSY | -           |

### 4.13. CT-S4000 Series

#### DIP Switch Setting

| DSW No. | Function                                | Setting | Description |
|---------|---|---------|-------------|
| 8       | INIT<br>(when serial interface is used) | OFF     | Disabled    |

#### Memory Switch Setting

| MSW No. | Function   | Setting     | Description |
|---------|--|-------------|-------------|
| 1-1     | Power ON Info  | Valid       | -           |
| 1-2     | Buffer Size  | 4K bytes    | -           |
| 1-3     | Busy Condition   | Full        | -           |
| 1-4     | Receiving Error  | Print ?     | -           |
| 1-5     | CR Mode  | Ignored     | -           |
| 1-7     | DSR Signal<br>(when serial interface is used)            | Invalid     | -           |
| 1-8     | INIT Signal<br>(when serial interface is used)           | Invalid     | -           |
| 2-2     | Auto cutter operation                                    | Valid       | -           |
| 2-4     | Full column print  | WaitData    | -           |
| 3-1     | Auto Cutter  | Valid       | -           |
| 3-3     | Parallel 31Pin<br>(when USB and parallel IF are used)    | Valid       | -           |
| 3-7     | CBM1000 Mode   | Valid       | -           |
| 3-8     | Resume Open Err  | Close       | -           |
| 4-8     | Forced partial   | Invalid     | -           |
| 5-2     | Line Pitch   | 1/360       | -           |
| 5-5     | Power OFF notify   | Not send    | -           |
| 7-6     | DMA Control  | Valid       | -           |
| 9-1     | Code Page  | Katakana    | -           |
| 9-2     | Int'Char Set   | Japan       | -           |
| 9-3     | Kanji  | Enabled     | -           |
| 9-4     | JIS/Shift-JIS  | Shift JIS   | -           |
| 10-3    | ACK output timing<br>(when USB and parallel IF are used) | Before BUSY | -           |

## 4.14. CT-S4500 Series

### Memory Switch Setting

| MSW No. | Function                                       | Setting         | Description |
|---------|--|-----------------|-------------|
| 1-1     | Power ON Info                                  | Valid           | -           |
| 1-2     | Buffer Size                                    | 4K bytes        | -           |
| 1-3     | Busy Condition                                 | Full            | -           |
| 1-4     | Receiving Error                                | Print ?         | -           |
| 1-5     | CR Mode  | Ignored         | -           |
| 1-7     | DSR Signal<br>(when serial interface is used)  | Invalid         | -           |
| 1-8     | INIT Signal<br>(when serial interface is used) | Invalid         | -           |
| 2-2     | Auto Cutter                                    | Valid           | -           |
| 2-4     | Full Col Print                                 | WaitData        | -           |
| 3-1     | Resume Ctrr Err                                | Valid           | -           |
| 3-7     | CBM1000 Mode                                   | Valid           | -           |
| 3-8     | Resume Open Err                                | Close           | -           |
| 4-8     | Partial Only                                   | Invalid         | -           |
| 5-2     | Line Pitch                                     | 1/360           | -           |
| 6-1     | Act. For Driver                                | Valid           | -           |
| 7-6     | DMA Control                                    | Valid           | -           |
| 8-4     | Line Gap Reduce                                | Invalid         | -           |
| 8-5     | Reduced Char V/H                               | 100% / 100%     | -           |
| 9-1     | Code Page                                      | Katakana        | -           |
| 9-2     | Int'Char Set                                   | Japan           | -           |
| 9-4     | Multi-Byte Char                                | SJIS:CP932(JPN) | -           |
| 13-6    | Auto Reconnect<br>(when Bluetooth I/F is used) | Invalid         | -           |

## 4.15. PMU3300 Series

### Memory Switch Setting

| MSW No. | Function                                      | Setting   | Description |
|---------|---|-----------|-------------|
| 1-1     | Power ON Info                                 | Valid     | -           |
| 1-2     | Buffer Size                                   | 4K bytes  | -           |
| 1-3     | Busy Condition                                | Full      | -           |
| 1-4     | Receiving Error                               | Print ?   | -           |
| 1-5     | CR Mode                                       | Ignored   | -           |
| 1-7     | DSR signal<br>(when serial interface is used) | Invalid   | -           |
| 2-2     | Auto Cutter                                   | Valid     | -           |
| 2-4     | Full Col Print                                | WaitData  | -           |
| 3-1     | Resume Ctrr Err                               | Valid     | -           |
| 3-7     | CBM1000 Mode                                  | Valid     | -           |
| 3-8     | Resume Open Err                               | Close     | -           |
| 4-8     | Partial Only                                  | Invalid   | -           |
| 5-2     | Line Pitch                                    | 1/360     | -           |
| 6-1     | Act. For Driver                               | Valid     | -           |
| 9-1     | Code page                                     | Katakana  | -           |
| 9-2     | Int'Char Set                                  | Japan     | -           |
| 9-4     | JIS/Shift JIS                                 | Shift JIS | -           |

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