

# TOSHIBA

TOSHIBA Bar Code Printer

## B-EV4 Series

### Printer Setting Tool Operating Specification

1st edition:	January 5, 2009
2nd edition:	May 29, 2009
3rd edition:	June 18, 2009
4th edition:	July 22, 2009
5th edition:	August 21, 2009
6th edition:	February 4, 2010
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**TOSHIBA TEC CORPORATION**

## TABLE OF CONTENTS

1. SCOPE .....	1
2. GENERAL DESCRIPTION .....	1
3. SYSTEM REQUIREMENT .....	1
4. SETTING TOOL MAIN SCREEN .....	2
5. PARAMETER SETTING PAGE .....	7
6. MAINTENANCE MODE PAGE .....	11
7. EXTRA SETTING PAGE.....	12
8. FACTORY DEFAULT SETTING BY FIRMWARE VERSIONS.....	14

## 1. SCOPE

This specification applies to the operations of the software for setting the printer parameters, communication conditions, and performing a sensor calibration of the B-EV4 series general-purpose bar code printer.

## 2. GENERAL DESCRIPTION

Since the B-EV4 series has no LCD, it does not support the system mode equivalent to the one provided for the other TOSHIBA TEC bar code printers. Accordingly, setting the printer parameters, implementing the maintenance features, and downloading these settings to the printer are executed on a PC by using a setting tool.

This specification describes the functions and operation of the setting tool.

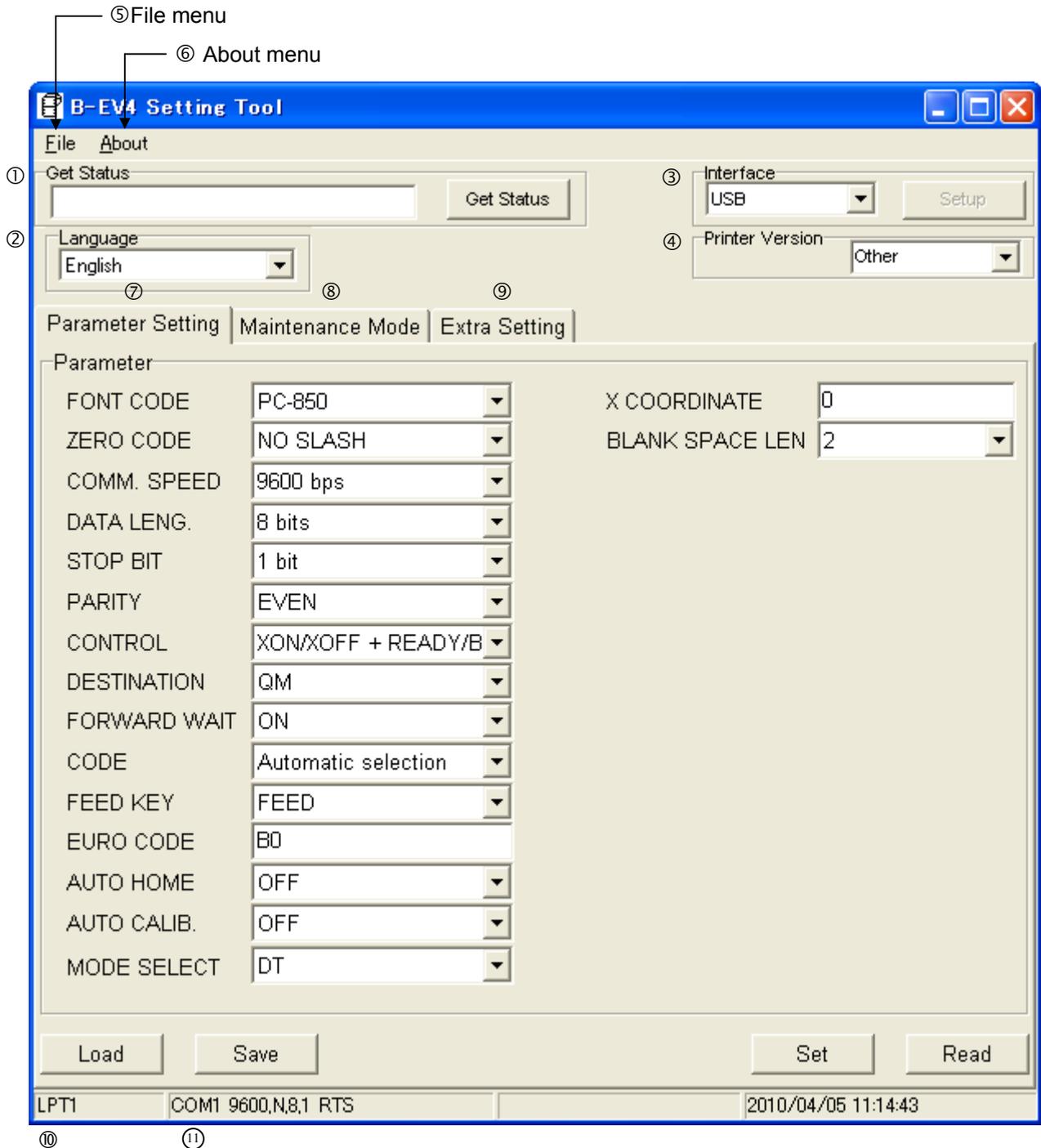
## 3. SYSTEM REQUIREMENT

- System: DOS/V computer running Windows 2000, Windows XP, or Windows Vista (Operations under the other OS are not guaranteed.)
- Interface: USB, RS232C, Centronics, or LAN
- Memory: 128 MB or more
- Hard disk free space: 10MB or more

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## 4. SETTING TOOL MAIN SCREEN

**DO NOT** get the printer status ([Get Status]), upload ([Read]) or download ([Set]) the settings from/to the printer while the printer is in operation (during printing or communicating with the host).



**Note:** The values shown in the initial screens displayed when the setting tool is started are not the factory default settings. For the factory default settings, see Section 8 Factory Default Setting by Firmware Versions.

## ① Get Status

When the [Get Status] button is clicked, the current printer status is obtained via the selected interface. The printer status is indicated by the following message and displayed in the box of the main screen.

**Note:** This function cannot be used with the parallel interface.

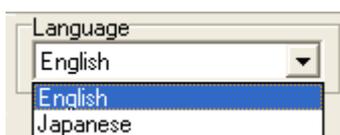
### Status Message List

Message	Printer status
ON LINE	Online mode
HEAD OPEN	The top cover is opened in the online mode.
PAUSE	Pause state
COMMS ERROR	A parity, overrun, or framing error has occurred during communication through the RS-232C.
PAPER JAM	The media was jammed during paper feed.
CUTTER ERROR	A problem has occurred with the cutter module.
NO PAPER	The media has run out.
HEAD OPEN	Feed or printing was attempted with the top cover opened.
EXCESS MOTOR TEMP	The stepping motor temperature has become excessively high.
EXCESS HEAD TEMP	The print head is overheated.
RIBBON ERROR	The ribbon has run out. Ribbon motor sensor detected an abnormal state.
SAVING	Writable character or PC command save mode
FLASH WRITE ERR.	An error has occurred while writing data to the SD card.
FORMAT ERROR	An error has occurred in formatting the SD card.
FLASH CARD FULL	Data cannot be stored because the SD card is full.
COMMAND ERROR	A command error has occurred in analyzing the command.

## ② Language

Select a language to show the setting tool screen.

The default language is depending on the OS.



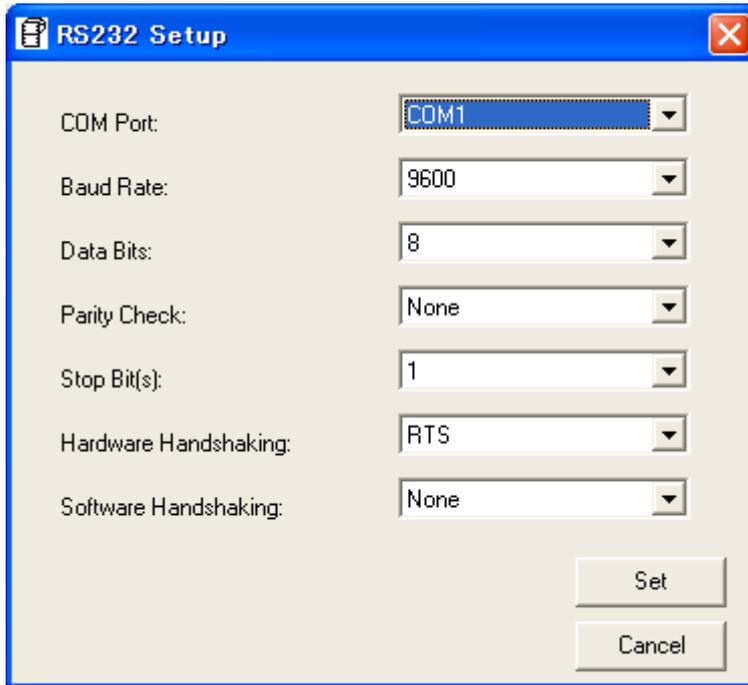
## ③ Interface

Select a type of interface to be used for downloading or uploading the printer settings between the PC (printer setting tool) and the printer.

USB, COM (Serial), LPT (Parallel), or ETHERNET (LAN) can be selected.

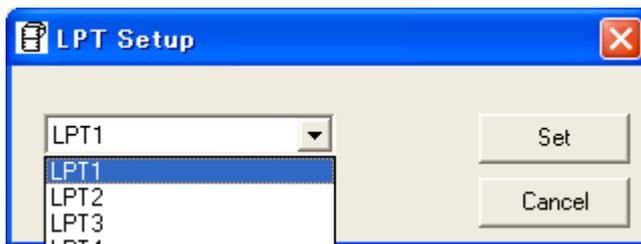


- When the COM (Serial) is selected, click on the [Setup] button and configure the communication settings in accordance with the printer's communication conditions.

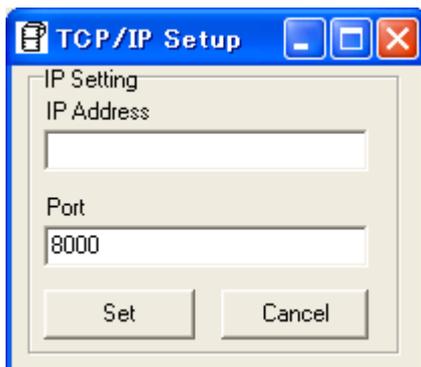


COM Port:	COM 1 to COM 30
Baud Rate:	2400, 4800, 9600, 19200, 38400, 57600, or 115200
Data Bits:	7 or 8
Parity Check:	None, Odd, Even
Stop Bit(s):	1, 1.5, or 2
Hardware Handshaking:	None, RTS, or RTS/CTS
Software Handshaking:	None or Xon/Xoff

- When the LPT (Parallel) is selected, click on the [Setup] button and select an LPT port No.



- When the ETHERNET (LAN) is selected, click on the [Setup] button and set a printer IP address and a socket port number.

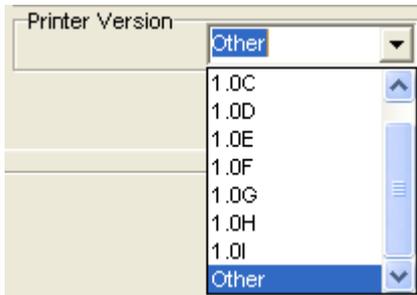


④ **Printer Version**

Select a printer firmware version. According to the selected printer version, the non-programmable parameters are grayed out.

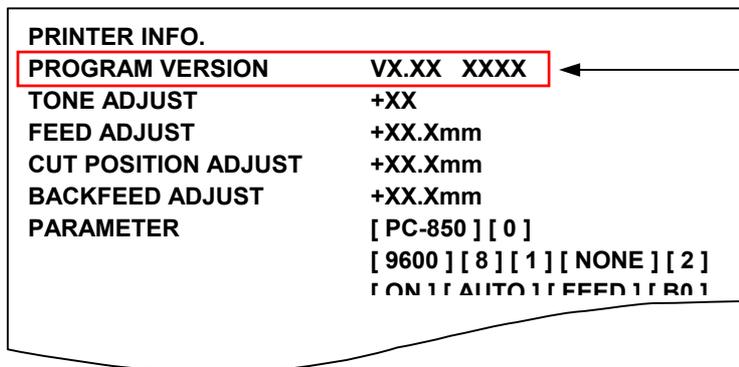
When the printer is connected via USB, the firmware version is automatically read and displayed at a power on time.

When any other interface than USB is selected, manually select the firmware version of the connected printer.



■ How to check the printer firmware version (Diag. test print)

1. Turn off the printer power and install a media roll (and ribbon) on the printer.
2. Press and hold down the **[FEED]** button while turning on the printer. The Indicator Lamp will light up in the following order:  
Green (Flashing) → Red (Flashing) → Orange (Flashing) → Orange → RED → Green
3. Release the **[FEED]** button when the Indicator Lamp lights up in green.
4. The printer automatically performs a diag. test printing, and then enters the Dump Mode.



Firmware version and checksum

5. To start the Online operation, turn the printer off, then on again.

⑤ **File menu**

Only the Exit menu is provided.



**⑥ About menu**

The version of the printer setting tool is displayed.

**⑦ Parameter Setting tab**

When the Parameter Setting tab is clicked, the Parameter Setting page is displayed.  
For details of the Parameter Setting page, refer to Section 5.

**⑧ Maintenance Mode tab**

When the Maintenance Mode tab is clicked, the Maintenance Mode page is displayed.  
For details of the Maintenance Mode page, refer to Section 6.

**⑨ Extra Setting tab**

When the Extra Setting tab is clicked, the Extra Setting page is displayed.  
For details of the Extra Setting page, refer to Section 7.

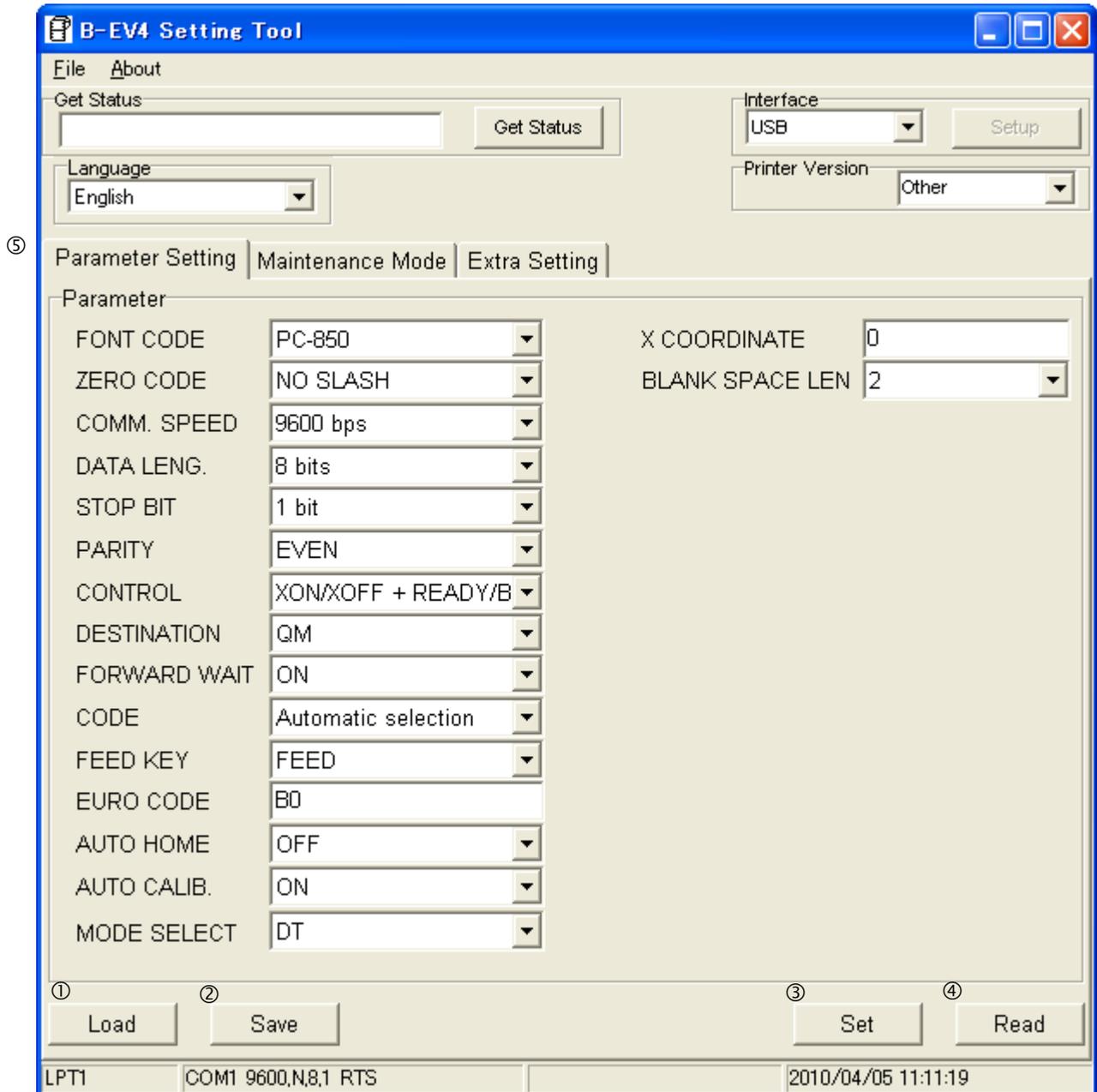
**⑩ LPT port No.**

The currently selected LPT port No. is displayed.

**⑪ Serial interface settings**

The currently selected serial interface settings are displayed.

## 5. PARAMETER SETTING PAGE



**Note:** According to the selected printer version, the non-programmable parameters are grayed out.

### ① Load

When the [Load] button is clicked, the parameter settings and fine adjustment value are loaded from a specified setup file.

**Note:** This function is used to download the same settings to other printers.

### ② Save

When the [Save] button is clicked, the configured parameter settings and fine adjustment value, displayed on the screen, are saved in a file under a specified name.

**Note:** This function is used to download the same settings to other printers.

### ③ Set

When the [Set] button is clicked, the parameter settings and fine adjustment value displayed on the screen are downloaded to the printer.

### ④ Read

When the [Read] button is clicked, the parameter settings and fine adjustment value currently programmed for the printer are read and displayed on the screen.

**Note:** *This function cannot be used with the parallel interface.*

### ⑤ Parameter

#### (1) Character code selection (FONT CODE)

- PC-850
- PC-852
- PC-857
- PC-8
- PC-851
- PC-855
- PC-1250
- PC-1251
- PC-1252
- PC-1253
- PC-1254
- PC-1257
- LATIN9
- Arabic

#### (2) Character zero selection (ZERO CODE)

- NO SLASH (0: without slash)
- WITH SLASH (Ø: with slash)

**Note:** *The following fonts do not support a zero with slash (Ø). Even if a zero with a slash is selected, a zero without slash is used.*

[Bitmap font]	OCR-A, OCR-B, Japanese Kanji
[Outline font]	TrueTypeFont

#### (3) Baud rate selection (COMM. SPEED)

- 2400 bps
- 4800 bps
- 9600 bps
- 19200 bps
- 38400 bps
- 57600 bps
- 115200 bps

#### (4) Data bit length selection (DATA LENG.)

- 7 bits
- 8 bits

## (5) Parity selection (PARITY)

- NONE
- EVEN
- ODD

## (6) Stop bit length selection (STOP BIT)

- 1 bit
- 1.5 bits
- 2 bits

## (7) Flow control code selection (CONTROL)

- XON/XOFF: XON/XOFF mode  
The printer does not output XON at the power on time or XOFF at the power off time.
- READ/BUSY: READY/BUSY (DTR) mode  
The printer does not output XON at the power on time or XOFF at the power off time.
- XON+READY AUTO: XON/XOFF+READY/BUSY (DTR) mode  
The printer outputs XON at the power on time and XOFF at the power off time.
- XON/XOFF AUTO: XON/XOFF mode  
The printer outputs XON at the power on time and XOFF at the power off time.
- READY/BUSY RTS: RTS mode  
The printer does not output XON at the power on time or XOFF at the power off time.

## (8) Destination selection (DESTINATION) \* Supported from V1.0D.

**Note:** No specific default setting is fixed for the destination selection. Choose one of the following options correctly depending on your printer model.

If the QM is mistaken for JA or CSG, a character “\” will be replaced with “¥”, and if the JA or CSG is mistaken for QM, a character “¥” will be replaced with “\”.

- QM (Global model)
- JA (Japanese model)
- CSG (Japanese custom model)
- JA-R (Simplified receipt mode for the Japanese model)
- QM-R (Simplified receipt mode for the global model)

## (9) Auto forward wait selection (FORWARD WAIT)

- OFF: Auto forward wait function is inactivated.
- ON: Auto forward wait function is activated.

## (10) Control code selection (CODE)

- Automatic selection
- ESC LF NUL mode
- { | } mode

## (11) FEED key function selection (FEED KEY)

- FEED: When the FEED key is pressed, one media is fed.
- PRINT: When the FEED key is pressed, one-label data in the image buffer is printed.

## (12) Euro code selection (EURO CODE)

20H to FFH

## (13) Automatic home position detection selection (AUTO HOME)

- OFF: Automatic home position detection is not performed.
- ON: Automatic home position detection is performed.

## (14) Automatic sensor calibration selection (AUTO CALIB.)

- OFF: Automatic calibration is not performed.
- ON: Automatic calibration is performed.

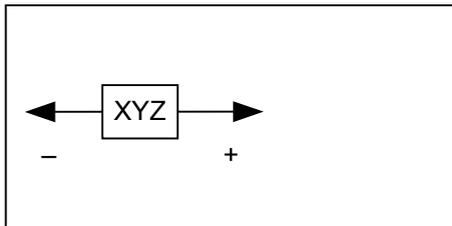
## (15) Model type selection (MODEL SELECT) \* Supported from V1.0F.

**Note:** When the printer to be used is the B-EV4D, be sure to choose "DT". If "TT" is selected, a ribbon error occurs.

When the printer to be used is the B-EV4T, be sure to choose "TT". If "DT" is selected, ribbon error detection is not performed.

- DT (Direct thermal model)
- TT (Thermal transfer model)

## (16) X Coordinate Fine Adjustment (X COORDINATE)

-995 to +995: -99.5 mm to +99.5 mm (in units of 0.5 mm <sup>Note</sup>)

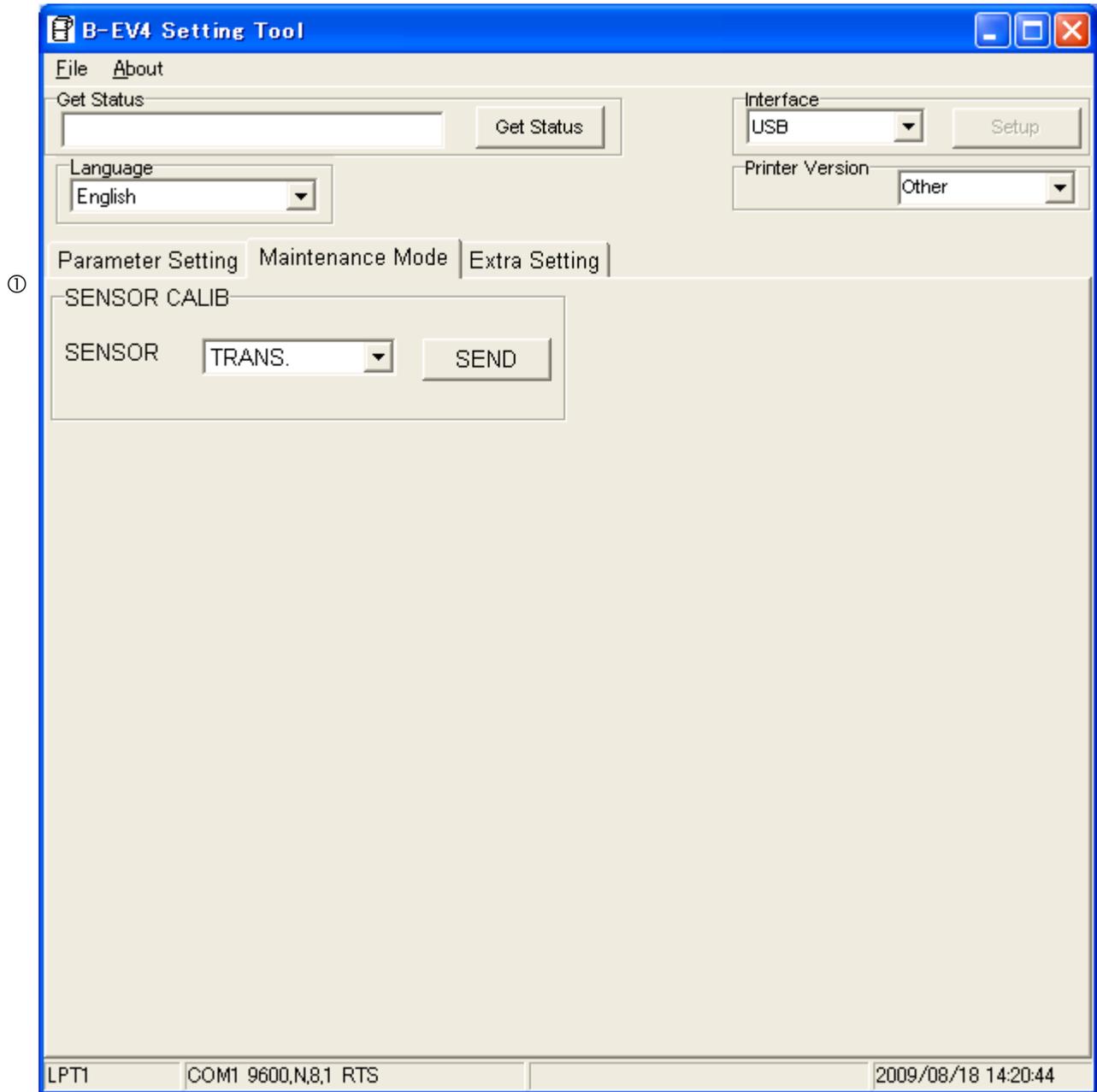
**Note:** The value can be set in units of 0.1 mm. However, the value which is actually set on the printer is in units of 0.5 mm. When a value from 0.0 mm to 0.4 mm is set, it is actually set on the printer as 0.0 mm. Also when a value from 0.5 mm to 0.9 mm is set, it is actually set on the printer as 0.5 mm.

## (17) Receipt bottom margin setting (BLANK SPACE LEN.) \* Supported from V1.0P.

**Note:** Be sure to read the parameter settings before setting the bottom margin of the receipt. To enable this setting, choose "QM-R" for the DESTINATION parameter.

2 to 99: 2 mm to 99 mm

## 6. MAINTENANCE MODE PAGE



### ① SENSOR CALIB

This function makes the printer perform an automatic sensor calibration. Load the media which is suitable for the selected sensor in advance.

#### (1) Sensor selection (SENSOR)

- REFLECT.: Reflective sensor
- TRANS.: Transmissive sensor
- NONE: No sensor

#### (2) SEND button

When the [SEND] button is clicked, a sensor calibration with the selected sensor is performed.

## 7. EXTRA SETTING PAGE

⑤

LAN

IP ADDRESS	192	168	10	20
SUBNET MASK	255	255	255	0
DEFAULT GATEWAY	0	0	0	0
SOCKET PORT	ON	8000		
DHCP	OFF			
DHCP ID	FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF			

① Load      ③ Save  
② Set      ④ Read

LPT1      COM1 9600,N,8,1 RTS      2009/08/11 11:15:02

### ① Load

When the [Load] button is clicked, the network settings are loaded from a specified setup file.

**Note:** This function is used to download the same settings to other printers.

### ② Set

When the [Set] button is clicked, the network settings displayed on the screen are downloaded to the printer.

### ③ Save

When the [Save] button is clicked, the configured network settings, displayed on the screen, are saved in a file under a specified name.

**Note:** This function is used to download the same settings to other printers.

**④ Read**

When the [Read] button is clicked, the network settings currently programmed for the printer are read and displayed on the screen.

**⑤ LAN****(1) IP address setting (IP ADDRESS)**

000.000.000.000 to 255.255.255.255

**(2) Subnet mask setting (SUBNET MASK)**

000.000.000.000 to 255.255.255.255

**(3) Default gate way setting (DEFAULT GATEWAY)**

000.000.000.000 to 255.255.255.255

**(4) Socket port setting (SOCKET PORT)**

- OFF
- ON

**(5) Socket port number setting**

0 to 65535

**(6) DHCP setting (DHCP)**

- OFF
- ON

**(7) DHCP host name setting (DHCP ID)**

Up to 16 characters (ASCII)

## 8. FACTORY DEFAULT SETTING BY FIRMWARE VERSIONS

Parameter	Factory default				
	V1.0C	V1.0D/V1.0E	V1.0F	V1.0G	V1.0P
FONT CODD	PC-850				
ZERO CODE	No slash				
COMM. SPEED	9600 bps				
DATA LENG.	8 bits				
STOP BIT	1 bit				
PARITY	None				
CONTROL	XON/XOFF+READY/BUSY (DTR)				
DESTINATION	----	QM			
FORWARD WAIT	ON				
CODE	Automatic selection				
FEED KEY	FEED				
EURO CODE	B0H				
AUTO HOME	----	OFF			
AUTO CALIB.	----	ON			
MODEL SELECT	----	-----	B-EV4D: DT B-EV4T: TT		
X COORDINATE	0 mm				
BLANK SPACE LEN.	----				2
SENSOR	Transmissive				
IP ADDRESS	192.168.010.020				
SUBNET MASK	255.255.255.000				
DEFAULT GATEWAY	000.000.000.000				
SOCKET PORT	ON				
SOCKET PORT NO.	8000				
DHCP	OFF				
DHCP ID	FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF				