TOSHIBA

TOSHIBA Label Printer

B-EX Series

B-EX Setting Tool Operation Manual

Second Edition: January 25, 2012

TOSHIBA TEC CORPORATION

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1. Introduction

Thank you for purchasing the "B-EX Setting Tool", a setting tool for the label printers of TOSHIBA TEC Corporation (hereinafter referred to as "TOSHIBA TEC").
This document gives you a general description of the "B-EX Setting Tool" (hereinafter referred to as "the Product") including the installation procedure and features.

Supported Printers

The Product supports the following printers:
- B-EX4T1-G
- B-EX4T1-T
- B-EX4T2-G
- B-EX4T2-T
- B-EX4T2-H

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Features

The Product is software, which allows you to configure, download files to, and perform maintenance of the supported TOSHIBA TEC Label Printers under a Windows XP/Vista/7 environment.
Please note the Product is targeted for a user who is familiar with the Supported Printers.

Outline of the Functions

The Product provides the following functions.
There are some restrictions depending on the communication method.

Function	Description	Communication method	
		One-to-one	Collective
Displaying the parameters	Obtains and displays the current parameter settings.	Enabled	Disabled
Setting the parameters	Changes the specified parameter settings.	Enabled	Enabled
Saving the parameter settings for backup	Saves parameter settings in a file. When this file is opened, the saved settings are retrieved.	Enabled	Enabled
Downloading ROM files	Sends printer firmware to the printer for upgrading the program.	Enabled	Enabled
Downloading BASIC files	Sends BASIC files to the printer for upgrading the BASIC program.	Enabled	Enabled
Downloading HTML/XML ROM files	Generates ROM files for HTML/XML data. Generated files are updated by downloading ROM files.	Enabled	Enabled
Displaying the maintenance information	Obtains the self-diagnostic result from the printer including the firmware version, maintenance counter and parameter setting values, and displays such information.	Enabled	Disabled
Saving the maintenance information	Obtains the self-diagnostic result from the printer including the firmware version, maintenance counter and parameter setting values, and saves such information in a file.	Enabled	Enabled
Obtaining the log	Obtains dump data for error analysis from the printer, and saves it in a file.	Enabled	Enabled
Maintenance counter clear	Clears the maintenance counter data such as the running distance and print distance.	Enabled	Enabled
Parameter clear	Initializes the parameter settings to the values for the specified destination.	Enabled	Enabled
Print head check	Sends a head broken dots check command to the printer to check for any abnormality on the print head.	Enabled	Enabled
Reset	Sends a reset command to the printer for rebooting the printer.	Enabled	Enabled
Displaying stored data	Obtains and displays the internal information of the memory.	Enabled	Disabled
Setup of the data storage area	Allocates or formats the storage areas for external characters, printer commands and BASIC files.	Enabled	Enabled
File transmission	Sends a selected file to the printer as a binary file.	Enabled	Enabled
Registering external characters	Creates an external character command file from a bitmap file. The created file is sent to the printer and registered as an external character.	Enabled	Enabled
Print test	Performs print tests to check the communication or print quality.	Enabled	Enabled

Notation

- Names of menus, screens, icons, buttons, tabs, and items are enclosed in square brackets ([ ]).
  For example: Click the [OK] button.
- Wordings shown on the computer monitor and the LCD message display of your printer are enclosed in double quotation marks (" ").
  For example: "ON LINE".
- Titles of the chapters and sections to be referred to are enclosed in single quotation marks (' ').
  For example: Please refer to 'Introduction'.

Screens Used in This Document

Screens shown in this document are examples used for explaining operations.   Unless otherwise specified, an operation system used in this document is Windows 7.   Please note that the screens shown may differ depending on your usage environment and conditions.

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This document uses the following abbreviations.

- ➢ Microsoft$^®$ Windows$^®$ XP Home Edition and Microsoft$^®$ Windows$^®$ XP Professional: Windows XP
- ➢ Microsoft$^®$ Windows$^®$ Vista Ultimate and Microsoft$^®$ Windows$^®$ Vista Enterprise and Microsoft$^®$ Windows$^®$ Vista Business and Microsoft$^®$ Windows$^®$ Vista Home Premium and Microsoft$^®$ Windows$^®$ Vista Home Basic: Windows Vista
- ➢ Microsoft$^®$ Windows$^®$ 7 Ultimate and Microsoft$^®$ Windows$^®$ 7 Enterprise and Microsoft$^®$ Windows$^®$ 7 Professional and Microsoft$^®$ Windows$^®$ 7 Home Premium: Windows 7

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Operational Conditions

The Product can be used under the following system and environmental requirements.

Software (Operation System)

English operation systems of:

- Windows XP (Service Pack 3 or later), Windows Vista, Windows 7 (32-bit / 64-bit)

  Note: 64-bit operating systems except Windows 7 are not applicable.

Hardware

A DOS/V (IBM AT compatible) machine must be used under the above Windows operation system and recommended conditions explained in the table below.

	Recommended Conditions
CPU	Intel$^®$ Pentium$^®$ 4 1.5 GHz or higher
Memory	256 MB or more
HDD	Free space of 1 GB or more
Display size	1024 x 768 pixels or more

Interface

Connections are made through the following interface.

- Parallel
- Serial
- USB
- Wired LAN
- Wireless LAN

When the parallel or serial interface is used, please assign the installed printer driver port to a port other than the selected port.

Please note that some functions are disabled by using the parallel interface.

When USB is used, Plug and Play requests printer driver installation.   The Product does not need any printer driver.   However, printer driver installation is requested in every connection.   If you use the Product frequently, it is recommended to install a printer driver.   For information about printer driver installation, please refer to our web site.

When wired LAN or wireless LAN is used, it is possible to collectively send files to multiple printers connected to the network.

Before executing any processing, please confirm there is no access to the printer from the other tools.   If unrelated data is sent to the printer while the processing is executed, an error may occur.

Disclaimer

The Product allows the Administrator/User to monitor printer statuses, check/change printer setting, and download a setting file on the computer monitor for the Supported Printers.   When an invalid setting is made for the Supported Printers using the Product, they may malfunction and may not be used afterwards.

The Product is intended to be used by the Administrator who is familiar with the Supported Printers. The Setting Tool and Downloader must be used by the Administrator or under instructions of the Administrator.

TOSHIBA TEC shall not be liable for any outcome resulted from a failure to follow the above instructions (both the Product and the Supported Printers).

2. Installation

Installation Procedure

1. Double-click the setup program (BEXToolSetup.exe) of the Product.

   Note: With Windows Vista/7, the User Account Control dialog box may appear.   In that case, click [Allow] to continue.

2. The InstallShield Wizard starts.   Click [Next].
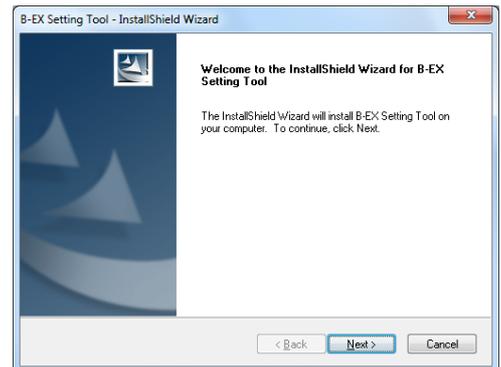
3. The [License Agreement] screen appears.
When you agree, click [I accept the terms of the license agreement] and click [Next].
➜ 'Software License Agreement'

4. The [Choose Destination Location] screen appears.
Check the folder where the Product is going to be installed, and click [Next].
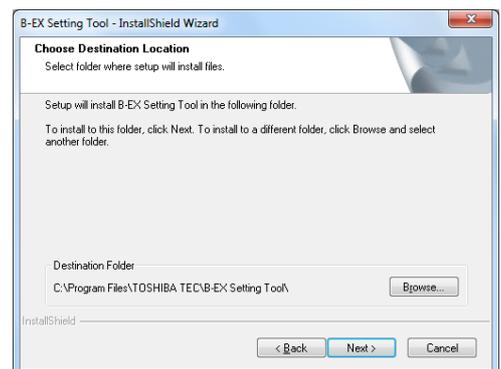
        When you want to change the location, click [Browse...].   On the [Choose Folder] screen, select a desired folder.
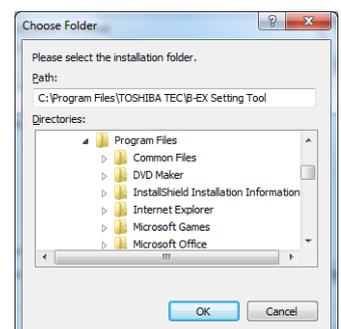
5. The [Selection of Initial Setting] screen appears.
Select a language used for the Product, a printer model to be connected and its destination from the pull down menus.
These are changeable after installation.

6. The [Start Copying Files] screen appears.
Check the descriptions under [Current Settings] and click [Next] when the descriptions are correct. Then, the installation starts.
When you want to change the setting, click [Back] until the applicable screen appears, then make the change.
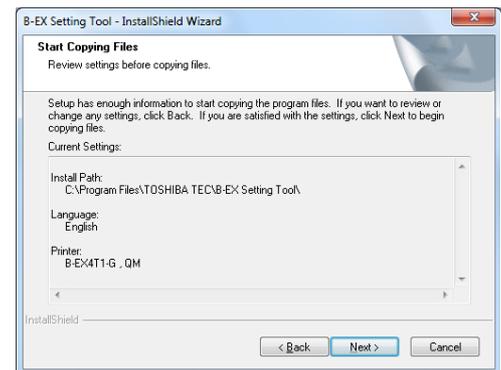
7. The installation is being performed.
Click [Cancel] to stop the installation.
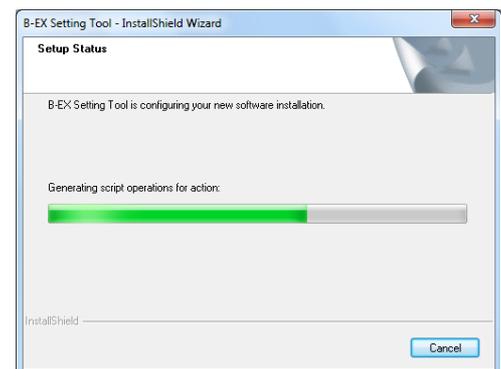
8. The [InstallShield Wizard Complete] screen appears when the installation is completed.
Click [Finish] to complete the operation.
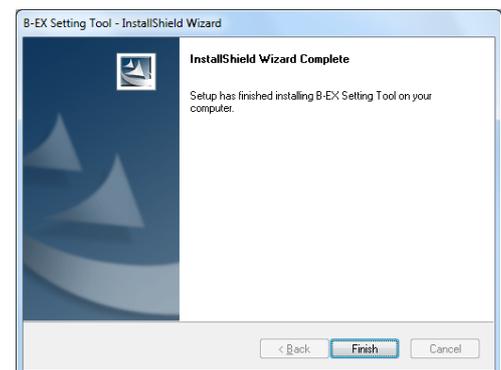
Uninstallation

1. Select [Start] - [Control Panel] - [Programs and Features].

 Note: With Windows Vista/7, the User Account Control dialog box may appear. In that case, click [Allow] to continue.

2. Choose the Product on [Uninstall or change a program] screen, then click [Uninstall].

3. The dialog box appears to confirm the removal of the Product.
Clicking [OK] starts uninstallation.
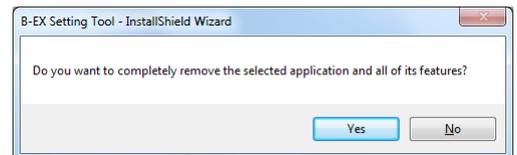
4. The screen which shows a progress bar appears.
Clicking [Cancel] stops the operation.
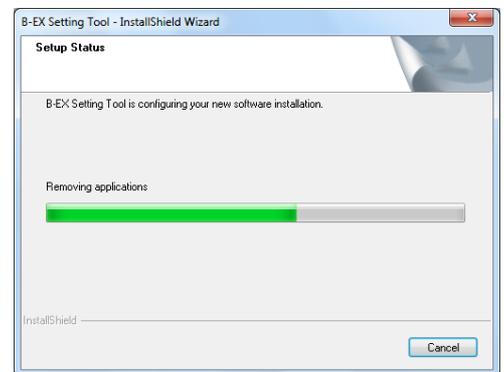
5. The [Uninstall Complete] screen appears when uninstallation is completed.
Click [Finish] to complete the operation.
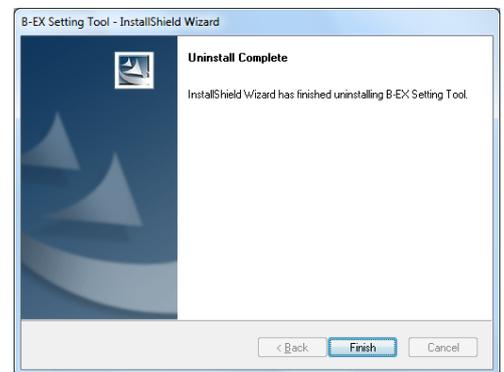
3. Start-up

Printer

The printer shall be idle in online mode which accepts print jobs (hereinafter referred to as "online mode") to communicate with the Product.
The functions of the Product are not executed unless the printer is in online mode or idle state.
Exceptionally, file transmissions and reset function are accepted regardless of the printer status when the interface type is other than the parallel.   Some functions may not be enabled depending on the printer status.
In this case, turn off the printer and back to on.

Changes in the parameter settings take effect upon completion of the setting.   Depending on the changed parameters, printer configurations need to be changed accordingly.
In the case the security settings for the wireless LAN are changed, change the security settings for the computer, too.
When IP address, port number, or host name for LAN is changed, the setting on the printer will be automatically changed properly.
When the USB serial number is changed, the setting on the printer will be automatically changed properly.
When the command control code is changed, the environment setting will be automatically changed accordingly.

PC

1. Select [Start] - [All Programs] - [TOSHIBA TEC] - [B-EX Setting Tool] - [B-EX Setting Tool] and click [B-EX Setting Tool].
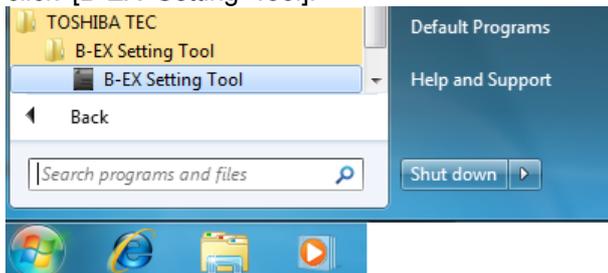
2. The [Login] screen is displayed when the log-in password has been set.
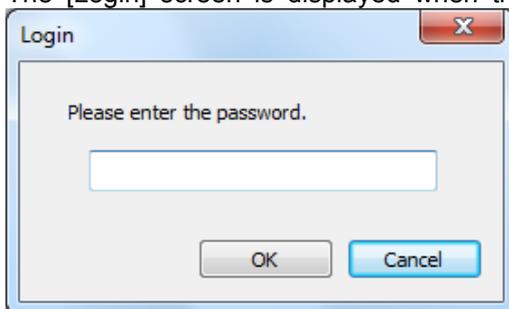
Enter the password, then click [OK].
When [Cancel] is clicked, the [Login] screen is closed.
The entered password is displayed with hidden characters.
When the password matched, the Product starts.
If a wrong password is entered, the error message is displayed.

3. When the Product is started, the [Printer Setting] screen is displayed.
Select the printer model to be connected and the interface used for communication.

4. Preparation

Main Screen

When the Product is started, the [Printer Setting] screen is displayed.
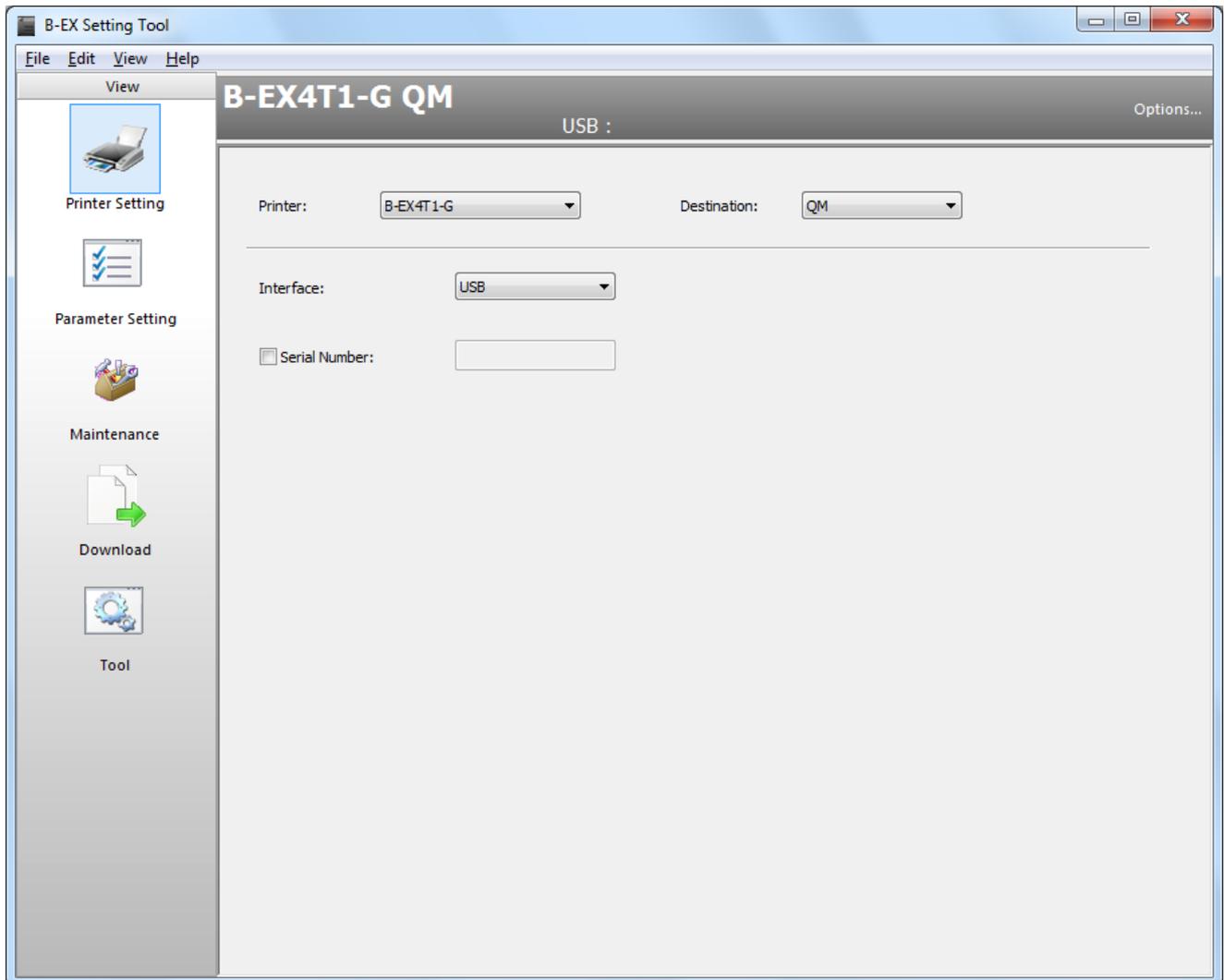
Menu bar
    Menus to support each function are provided.

Menu icon
    Menu icons are placed in this area.
    When an icon is clicked, the corresponding menu screen appears on the main view area.
    The icon being selected is highlighted.

Printer Setting:	Enables selecting the printer model to be connected and configuring the interface used.
Parameter Setting:	Obtains or changes the parameter settings.

        ▪ General Tab, General (2) Tab: Settings related to basic printer behaviors and fine adjustment
        ▪ Device Tab: Settings related to the device including the interface
        ▪ LAN Tab: Settings related to the network
        ▪ WLAN Tab, WLAN (2) Tab: Settings related to wireless LAN
        ▪ RFID Tab: Settings related to RFID encoding

        Maintenance: Obtains or initializes the printer maintenance information.
                ▪ Self Diagnosis Tab: Processing related to self-diagnosis

	▪ Memory Management Tab:	Processing related to the memory
Download:	Downloads the printer firmware or BASIC program.	
	▪ Firmware Download Tab:	Downloads printer firmware
	▪ BASIC Download Tab:	Downloads the BASIC program
	▪ Create HTML/XML ROM Tab:	Creates HTML/XML ROM file
Tool:	Other functions	
	▪ Tool Tab:	Sends a selected file in binary format.
	▪ Create External Character Tab:	Creates external character files to be stored in the printer.
	▪ Test Print Tab:	Performs a test print for checking the communication and print quality.

Header view

    Displays the conditions for communication with the printer.

    The settings specified in the [Printer Setting] screen are reflected.

[Options...] button

    Displays the [Environment] screen which allows changing the operating conditions for the Product.

    The Product needs to be restarted for the changed language take effect.

Main view

    Displays the setting screen of the selected menu icon.

    The functions of the selected menu are executed on this area.

Menus

File
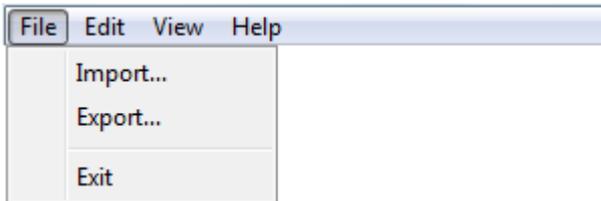
[Import...]

    This menu is used to retrieve setup information from a specified file.

    This menu is selectable only when the [Parameter Setting] screen is activated.

    When this menu is clicked, the [Import] screen is displayed. Specify a setup information file, click [Open], and the file import is started.

    When a file other than the setup information file is specified, the error message is displayed

    When the setup information file is not for the printer model selected on the [Printer Setting] screen, the following confirmation message appears.
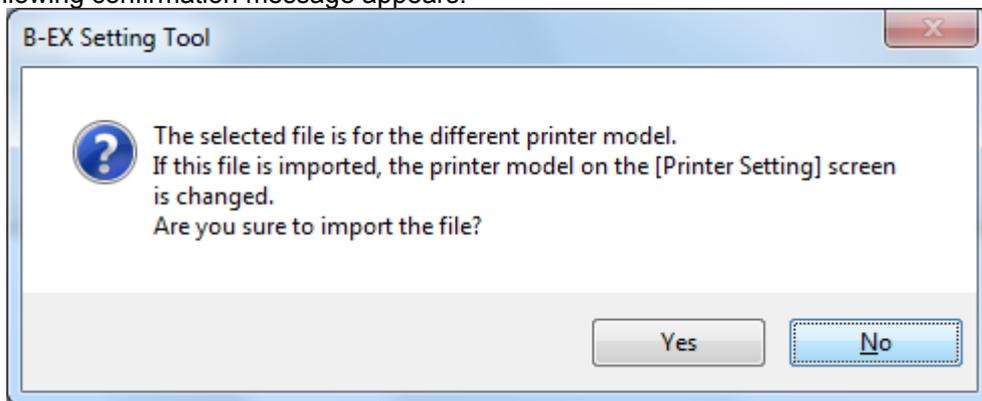
    When [Yes] is clicked, the printer model selected on the [Printer Setting] screen is changed and a file import is executed.

    When [No] is clicked, the file import is canceled.

    The setup screen status at storage can be reproduced.

    In addition to parameters, the checkbox settings for groups are reproduced.

    When no security information is found in the specified file, the following message is displayed.
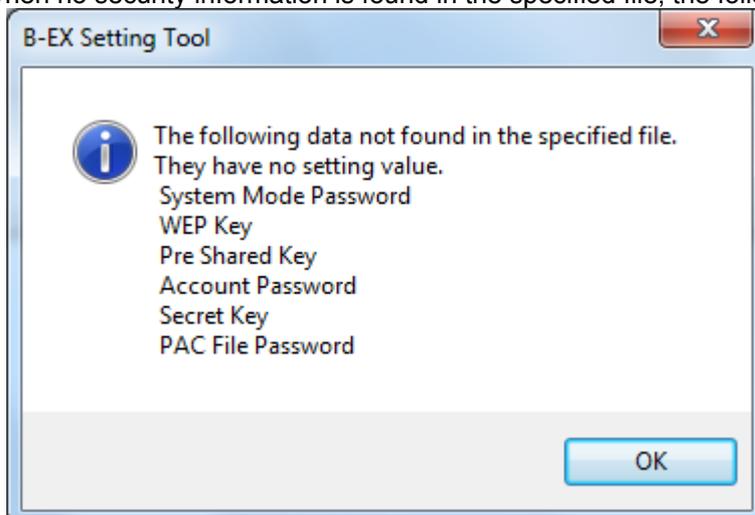
    When the specified file contains security information, imported security information is displayed with hidden characters.

[Export...]
> This menu is used to store setup information in a specified file.
> This menu is selectable only when the [Parameter Setting] screen is activated.
> When this menu is clicked, the [Export] screen is displayed. Specify a file where the setup information is saved, click [Save], then the file export is started.
> It also stores the status of the current setup screen.
> In addition to parameters, the checkbox settings for groups are reproduced.
> Before storage, the following message is displayed.
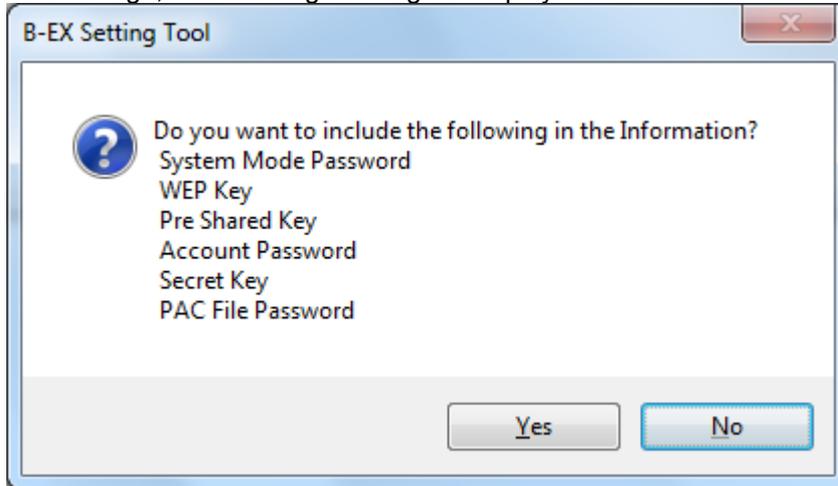
> When you want to store security information contained in the setup information, click [Yes]. Since security information is important, be careful before storing files.
> When you do not want to store security information, click [No].

[Exit]
> When this menu is clicked, the Product exits without saving the current settings.
> However, the settings on the [Printer Setting] screen and [Environment] screen remain effective.
> When the Product is started next time, the settings in the all pages except the [Printer Setting] screen and [Environment] screen are initialized.

Edit
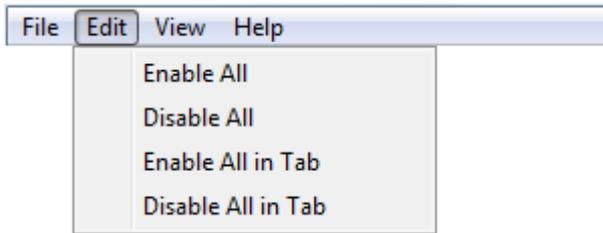
[Enable All]
    This menu is used to check all checkboxes on all tabs.
    This menu is selectable only when the [Parameter Setting] screen is activated.

[Disable All]
    This menu is used to uncheck all checkboxes on all tabs.
    This menu is selectable only when the [Parameter Setting] screen is activated.

[Enable All in Tab]
    This menu is used to check all checkboxes on the tab.
    This menu is selectable only when the [Parameter Setting] screen is activated.

[Disable All in Tab]
    This menu is used to uncheck all checkboxes on the tab.
    This menu is selectable only when the [Parameter Setting] screen is activated.

View
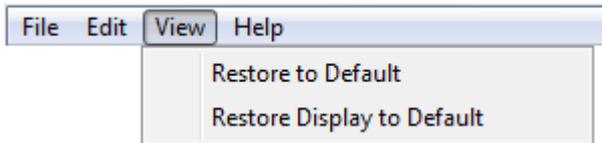
[Restore to Default]
    This menu is used to restore the all setting values on the all tab pages to the default.
    This menu is selectable only when the [Parameter Setting] screen is activated.

[Restore Display to Default]
    This menu is used to restore all setting values on the selected tab page to the default.
    While the [Parameter setting] screen is activated, the setting values only on the displayed tab page are restored to the default.

Help
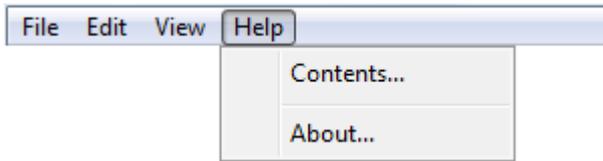
[Contents...]
    This menu is used to display the main screen for Help.

[About...]
    This menu is used to display version information.

Printer Setting

The printer setting menu enables selecting a printer model to be connected and configuring the interface used.
When the [Printer Setting] icon on the menu icon area is clicked, and the following screen is displayed.
The setting is not saved by a member of the Users.
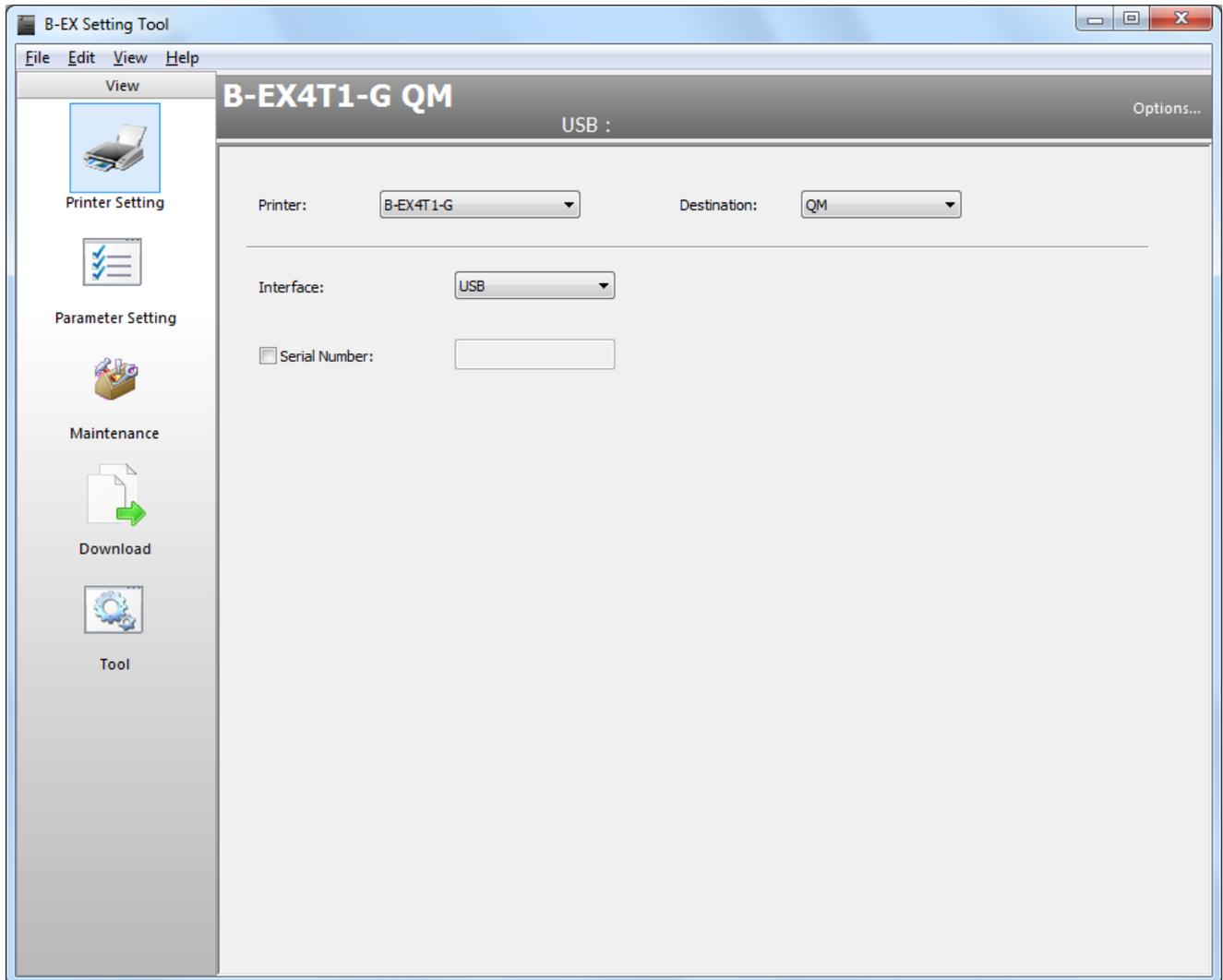
[Printer]
  Select a printer model to be connected.
  The default is the printer model selected during the installation.
  The setting is saved upon changed, and reflected in the header view.
  When the specified printer model is different from the actually connected one, the Product does not work properly.
  Be sure to select the same printer model with the one to be connected.
  When the printer model is changed, the all setting values on the all menu screens except the [Printer Setting] screen are restored to the initial values.
  At this time, the confirmation message is displayed.
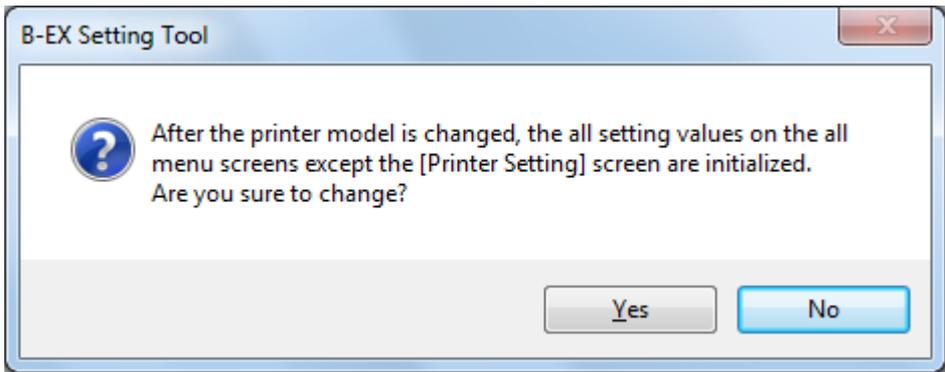
When [Yes] is clicked, the printer model is changed.
When [No] is clicked, the printer model remains unchanged.

Options	B-EX4T1-G, B-EX4T1-T, B-EX4T2-G, B-EX4T2-T, B-EX4T2-H, B-EX6T2-G, B-EX6T2-T * B-EX6T2-G and B-EX6T2-T are not approved at present.

[Destination]
Select the destination of the printer to be connected.
The default is the destination selected during the installation.
The setting is saved upon changed, and reflected in the header view.
The initial values for the parameter settings differ depending on the destination.
When the destination is changed, the all setting values on the all menu screens except the [Printer Setting] screen are restored to the initial values.
At this time, the confirmation message is displayed.
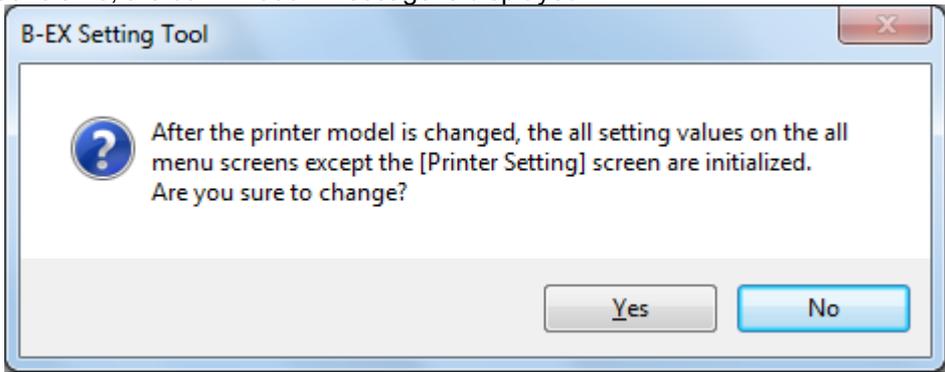
When [Yes] is clicked, the destination is changed.
When [No] is clicked, the destination remains unchanged.

Options	JP, QM, CN

Depending on the destination, the default for the following settings varies.

	JA	QM	CN
Ribbon Save	Tag	Disable	Disable
LCD Language	Japanese	English	English
RS-232C - Parity	Even	None	None

[Interface]
Select an interface to be used.
The default right after the installation is "USB".
The setting is saved upon changed, and reflected in the header view.
When USB, LAN, Multi LAN, or COM is selected, the communication parameters are displayed.
Communication with the printer is performed with the selected interface and communication parameter settings.
Multi LAN enables collective processing for multiple printers connected to the network. Up to 50 printers can be registered.

Options	USB, LAN, Multi LAN, COM, LPT1, LPT2, LPT3

Note: When COM, LPT1, LPT2 or LPT3 is used, assign the installed printer driver port to a port other than the selected port. If the same interface is specified for both the printer driver and the Product, proper communication with the printer may not be established.

USB
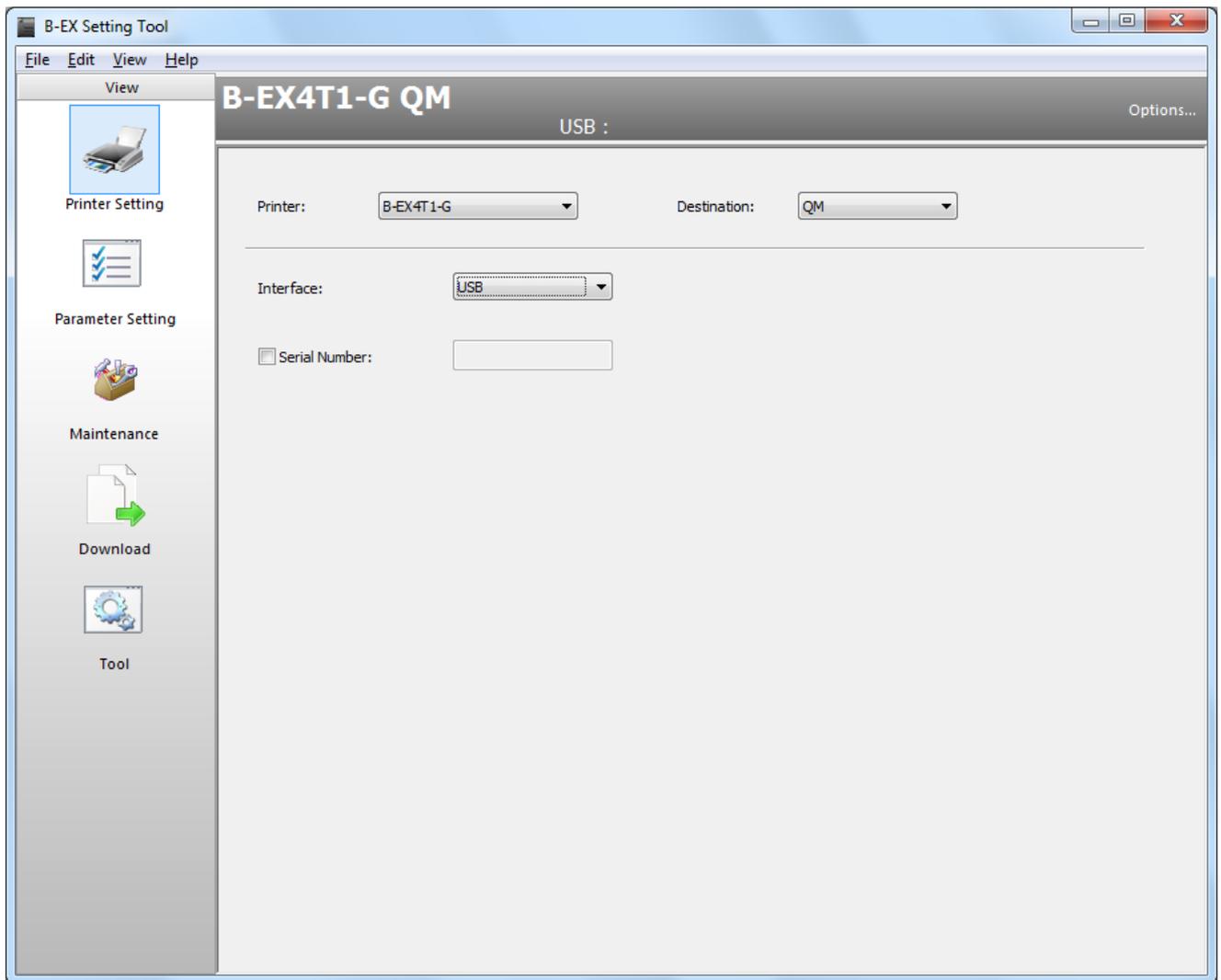
[Serial Number]

Enter the USB serial number assigned to the connected printer.

If this is not entered, the printer to be connected is automatically selected.

The Serial number checkbox is unchecked as default.

When checked, an entry of the serial number is enabled.

Enter 12 one-byte characters using "0" to "F". The serial number is not case-sensitive.

The Product is connected to the printer with the specified serial number.

When no serial number is set, the Product is connected to the only B-EX printer connected to the PC.

Connection of more than one B-EX printer results in an error.

LAN
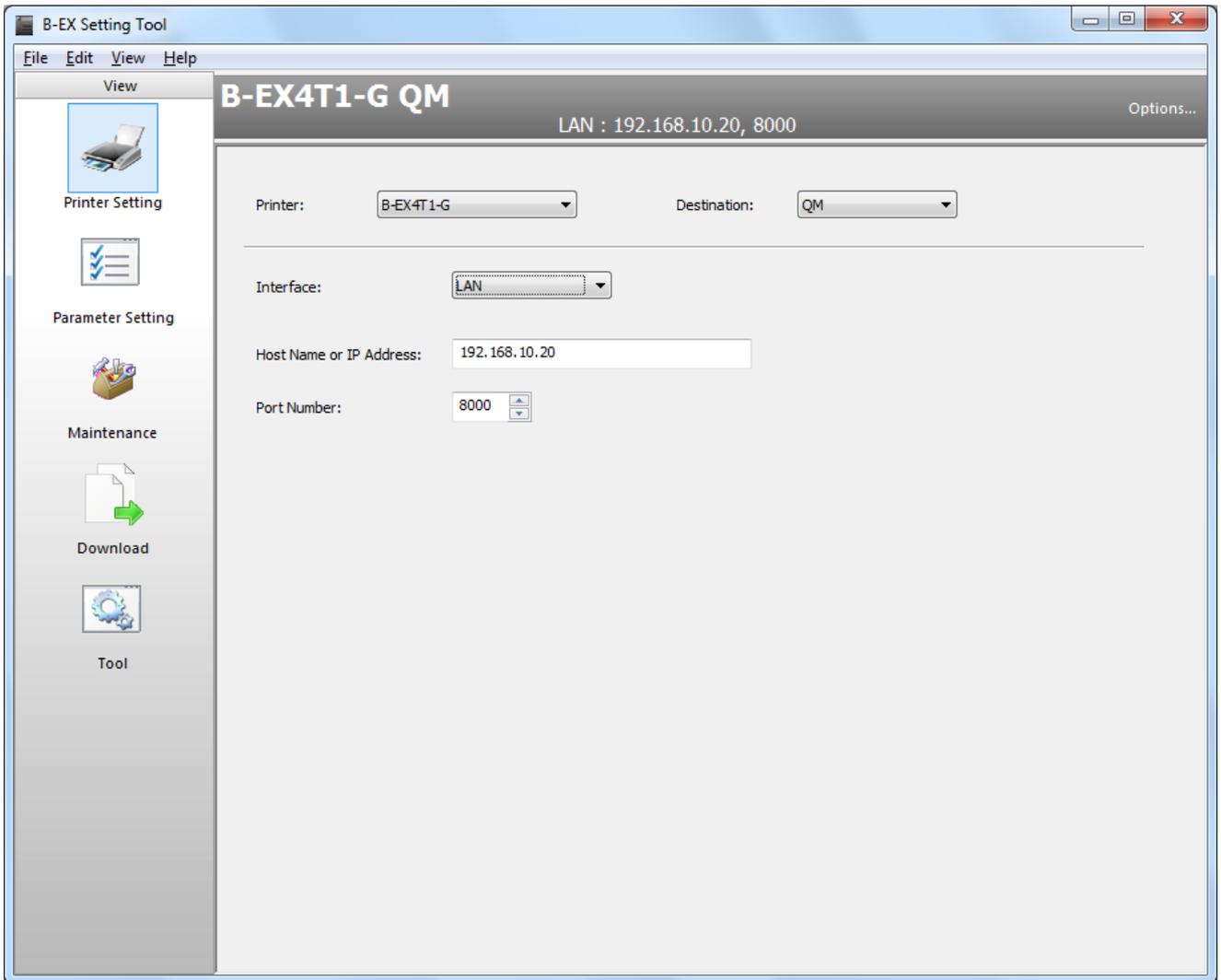
[Host Name or IP Address]
>   Enter the host name or IP address set for the connected printer.
>   The default right after the installation is "192.168.10.20".
>   When specifying the printer with the IP address, use "X.X.X.X" format.
>   When specifying the printer with the host name, enter up to 32 alphanumeric characters.
>   The setting is saved upon changed, and reflected in the header view.
>   When the other menu is selected without entering the IP address or host name, the value is automatically restored to the default.

[Port Number]
>   Set the port number that has been set for the connected printer.
>   The default right after the installation is "8000".
>   The setting is saved upon changed, and reflected in the header view.

Range	0 to 65535

Multi LAN
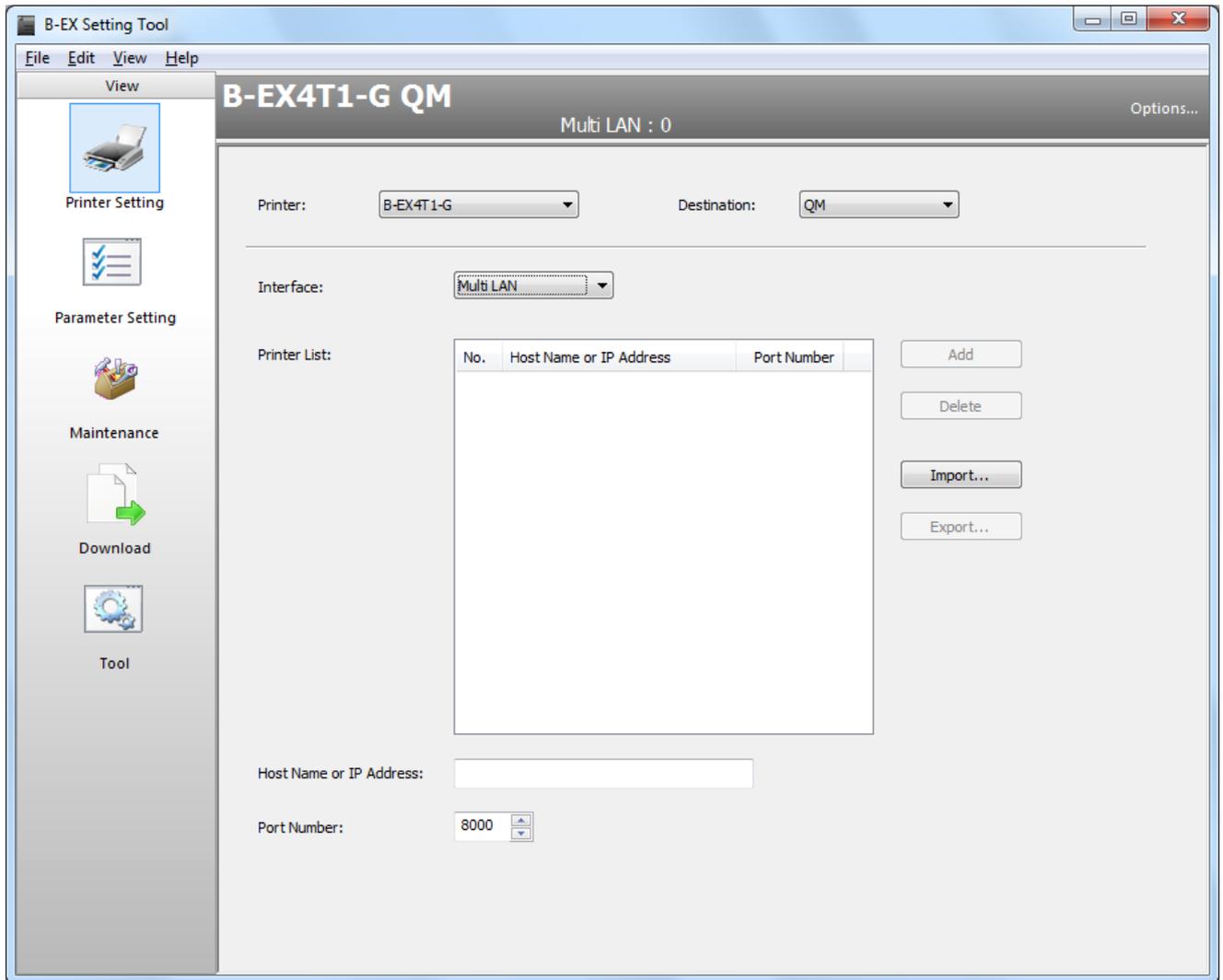
[Printer List]
  Multiple printers on the network to access at one time are displayed.
  No printer is specified as default right after the installation.
  Changes are saved upon changed.
  Collective processing is executed in ascending order of the number.
  When no printer is registered in the list, an error occurs at the start of communication with the printer.

[Host Name or IP Address]
  Enter the host name or IP address set for the connected printer.
  Nothing is specified as default.
  When a printer is selected from the [Printer List], its host name or IP address is displayed.
  When specifying the printer with the IP address, use "X.X.X.X" format.
  When specifying the printer with the host name, enter up to 32 alphanumeric characters.

[Port Number]
  Set the port number that has been set for the connected printer.
  The default is "8000".
  When a printer is selected from the [Printer List], its port number is displayed.

Range	0 to 65535

[Add]
  When this button is clicked, the printer, of which [Host Name or IP Address] and [Port Number] are specified, is added to the [Printer List].
  This button is grayed out unless a value is correctly set for the [Host Name or IP Address] and the [Port Number].

However, when 50 printers have been registered in the list, the [Add] button becomes disabled.
The maximum number of registrable printers in the list is 50.
If a printer having the same [Host Name or IP Address] already exists, the addition of a new printer is not allowed.
An added printer is inserted under the currently selected printer.
Clicking this button while selecting no printer on the [Printer List] causes a printer to be added to the bottom of the list.

[Delete]
When this button is clicked, a selected printer is deleted from the [Printer List].
This button becomes effective when a printer is selected from the [Printer List].

[Import...]
A printer list is imported from the specified Multi LAN configuration file.
When this button is clicked, the [Import] screen is displayed. Specify a Multi LAN configuration file, click [Open], and the file import is started.
The imported printer list is shown in the [Printer List].
If the specified file is not a Multi LAN configuration file, the error message is displayed.
It is possible to create a Multi LAN configuration file when collective processing failed.   This printer list can be loaded later.
The printers registered prior to a file import are discarded.

[Export...]
The currently displayed printer list is saved in a specified file as a Multi LAN configuration file.
When this button is clicked, the [Export] screen is displayed. Specify a file where the printer list is saved, click [Save], and the file export is started.
The currently displayed printer list is saved.
When the export failed, the error message is displayed.

COM
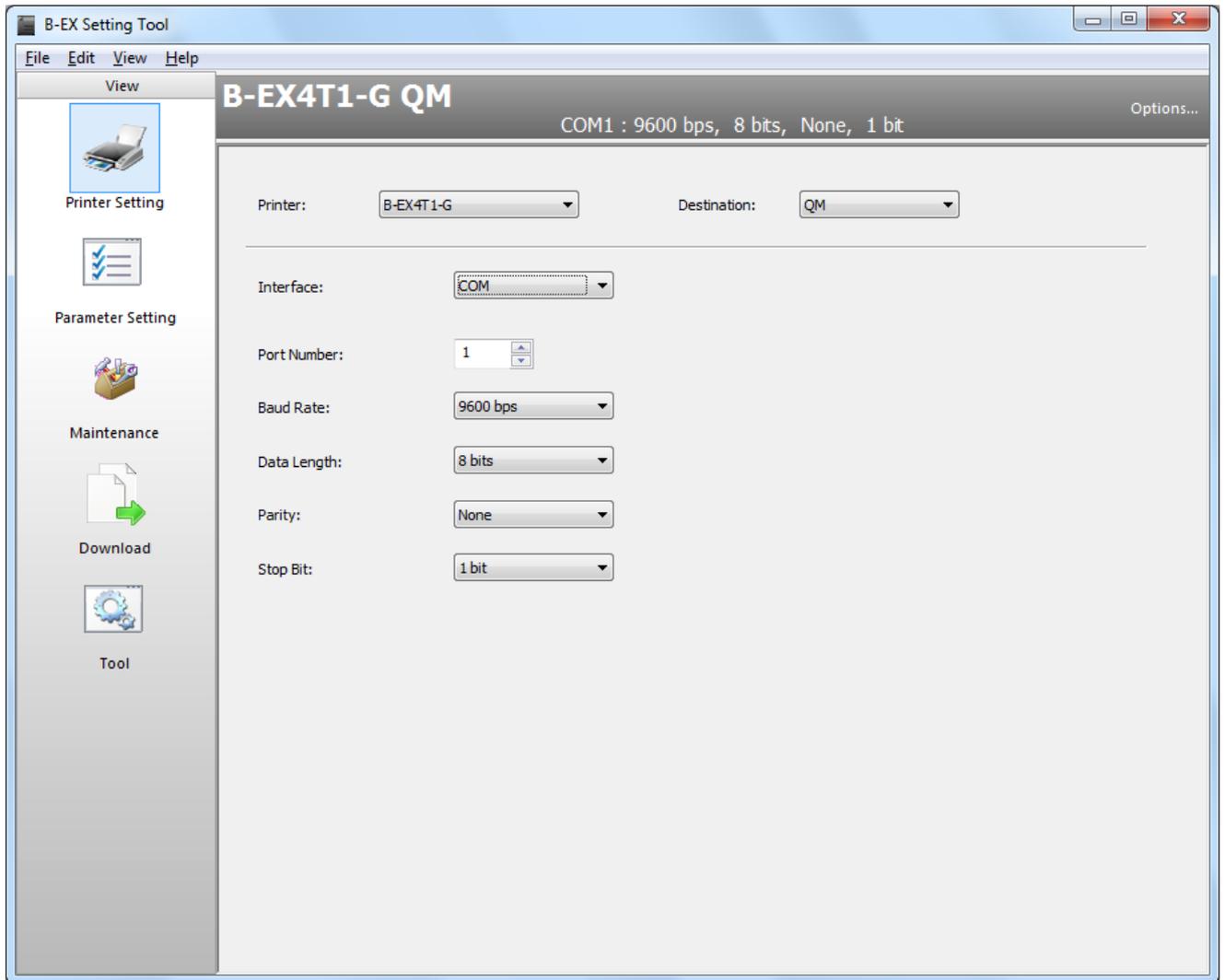
[Port Number]
> Select the COM port number used for communication.
> The default right after the installation is "1".
> The setting is saved upon changed, and reflected in the header view.

Range	1 to 99

[Baud Rate]
> Select the baud rate for the RS-232C port that has been set for the connected printer.
> The default right after the installation is "9600 bps".
> The setting is saved upon changed, and reflected in the header view.

| Options	2400 bps, 4800bps, 9600 bps, 19200 bps, 38400 bps, 115200 bps

[Data Length]
> Select the data length for the RS-232C port that has been set for the connected printer.
> The default right after the installation is "8 bits".
> The setting is saved upon changed, and reflected in the header view.

Options	7 bits, 8 bits

[Parity]
> Select the parity for the RS-232C port that has been set for the connected printer.
> When the destination is JP, The default right after the installation is "Even".
> When the destination is QM or CN, The default right after the installation is "None".
> The setting is saved upon changed, and reflected in the header view.

Options	None, Even, Odd

[Stop Bit]

Select the stop bit for the RS-232C port that has been set for the connected printer.

The default right after the installation is "1 bit".

The setting is saved upon changed, and reflected in the header view.

Options	1 bit, 2 bits

Environment

Set the operating environment for the Product.
When [Options] at the right end on the header view is clicked, the [Environment] screen appears.
The setting is not saved by a member of the Users.
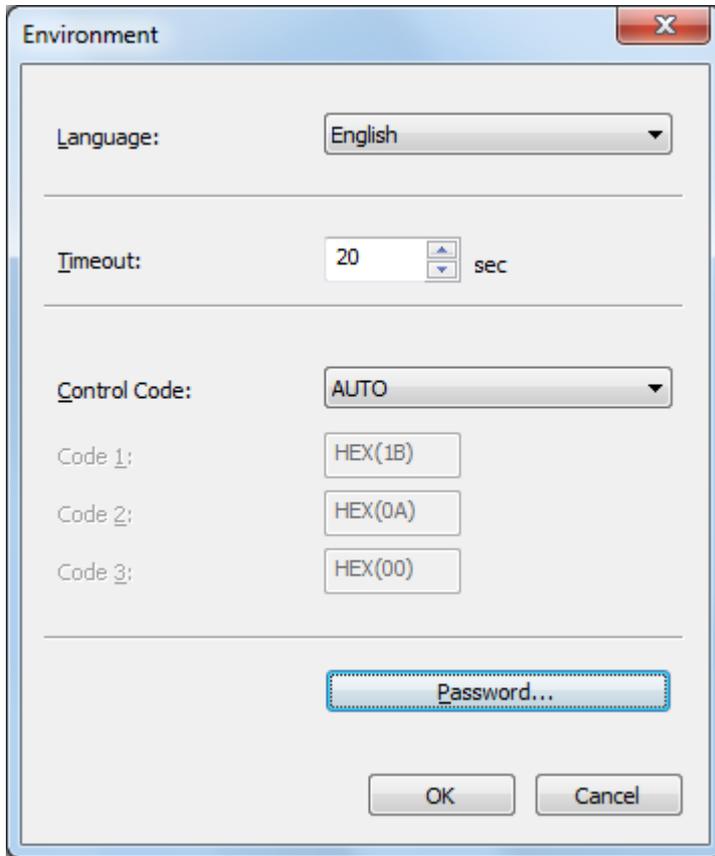
[Language]
    Select a language used to display the Product.
    The language selected during the installation has been set as default.
    Restart the Product for the changed language to take effect.
    After the Product is restarted, the all values on the all screens, except the [Printer Setting] and [Environment], are initialized.

Options	Japanese, English

[Timeout]
    Set the timeout period for the printer update after downloading, in units of seconds.
    The default right after the installation is "20".
    Basically, it is not necessary to change this value as an appropriate value has been set for the printer.

Range	1 to 600 sec

[Control Code]
    Select the same control code that is set for the connected printer.
    The default right after the installation is "AUTO".
    Basically, it is not necessary to change this value as the default for the printer has been selected.
    Entering the same value for all of the [Code 1], [Code 2], and [Code 3] results in an error.
    If a value improper for the control code is entered, the Product does not work properly.

Options	AUTO, [ESC] [LF] [NUL], {	}, Manual

[Code 1]
    Enter the same value in hex. format that is set for the connected printer.
    The default right after the installation is "1B".
    [Code 1] is editable only when "Manual" is selected for the [Control Code].

Change the value when the control code is set to "Manual" for the printer.

Range	00 to FF

[Code 2]

Enter the same value in hex. format that is set for the connected printer.
The default right after the installation is "0A".
[Code 2] is editable only when "Manual" is selected for the [Control Code].
Change the value when the control code is set to "Manual" for the printer.

Range	00 to FF

[Code 3]

Enter the same value in hex. format that is set for the connected printer.
The default right after the installation is "00".
[Code 3] is editable only when "Manual" is selected for the [Control Code].
Change the value when the control code is set to "Manual" for the printer.

Range	00 to FF

[Password...]

Set a password to log in the Product.
No password is set right after the installation.
When you want to protect the Product from unauthorized use, set a password.
When this button is clicked, the [Password Change] screen is displayed.
Once the password is set, the [Login] screen appears at a start-up of the Product and entry of the password is requested.
Up to 16 one-byte alphanumeric characters can be used for the password.
The password is case-sensitive.
The password cannot be set when the Product is started by a user without administrative authority.

[OK]

When this button is clicked, the [Environment] screen is closed saving the changes.
When the same value is set for all of the [Code 1], [Code 2] and [Code 3], the error message appears.
The Restart confirmation message is displayed only when the [Language] is changed.
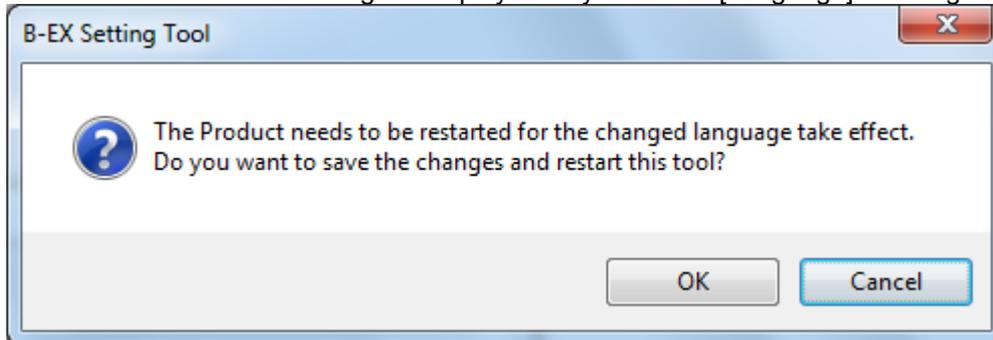
When [Yes] is clicked, the Product is restarted after saving the changes.
When [No] is clicked, the screen returns to the [Environment] screen without saving the changes.

[Cancel]

When this button is clicked, the [Environment] screen is closed without saving any changes.
However, the password set on the [Password Change] screen remains effective.

Password Change
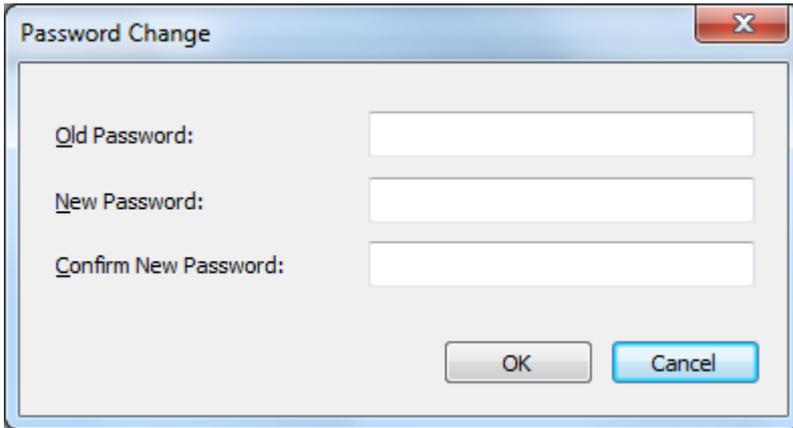
[Old Password]
    When the password has been set, enter the current password.
    It is not necessary to enter a password when this is the first time to set the password.
    The entered password is displayed with hidden characters.

[New Password]
    Enter a new password.
    It is not necessary to enter a password when you want to invalidate the current password.
    The entered password is displayed with hidden characters.

[Confirm New Password]
    Re-enter the new password to confirm it.
    It is not necessary to enter a password when you want to invalidate the current password.
    The entered password is displayed with hidden characters.

[OK]
    When this button is clicked, the [Password Change] screen is closed saving the new password.
    Clicking [Cancel] on the [Environment] screen does not affect password saving.
    If the [Old Password] is incorrect, or if the [New Password] and the [Confirm New Password] do not match,
    the error message appears.
    Entering only the [Old Password] invalidates the password.

[Cancel]
    When this button is clicked, the [Password Change] screen is closed without saving any changes.

Processing Screen

When processing involving communication between the printer and the Product is executed, the processing screen is displayed.
The progress bar screen is displayed during the processing, and the completion screen appears when the processing is completed.

Progress Bar Screen
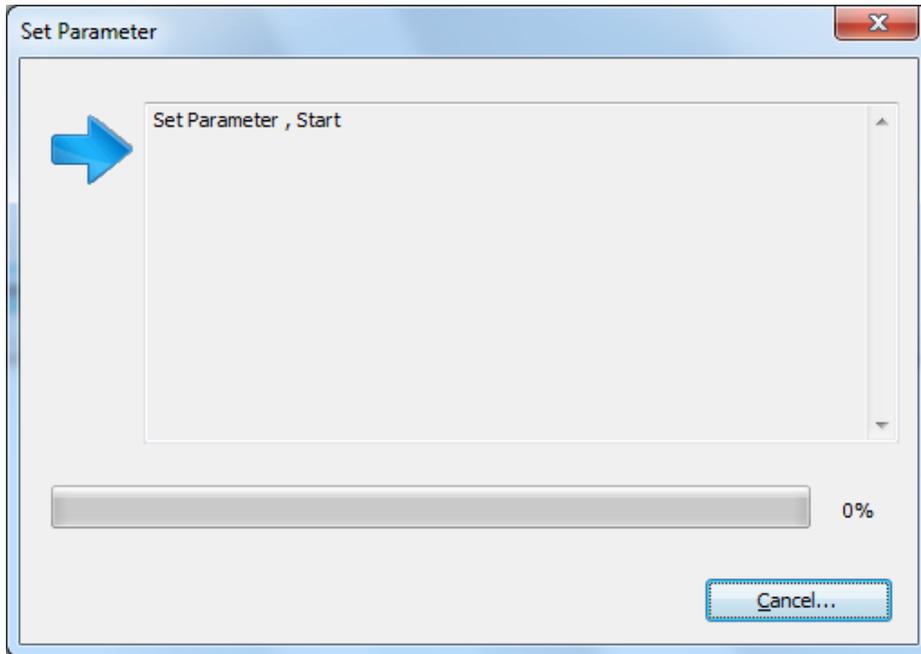
Title
    Processing being executed is displayed.

Progress status
    The current status is indicated by an icon, text and progress bar, and updated as needed.
    While the processing is in progress, the corresponding icon is displayed.
    In the case an error occurs, the processing is stopped.
    However, processing that has been completed before the occurrence of an error becomes effective.
    When Multi LAN is selected for the interface, the processing is executed to the all selected printers regardless of their status.

[Cancel...]
    The processing is stopped.
    When this button is clicked, the following confirmation message is displayed.
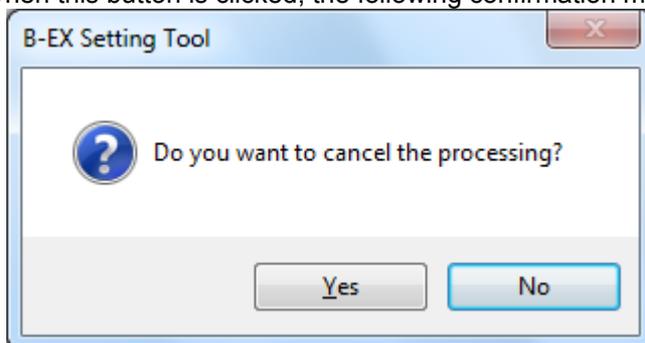
    When [Yes] is clicked, the processing is canceled.   However, the processing that has been completed before the cancellation becomes effective.
    When [No] is clicked, the processing is continued.
    Even while the confirmation message is displayed, the processing is executed.

Completion Screen
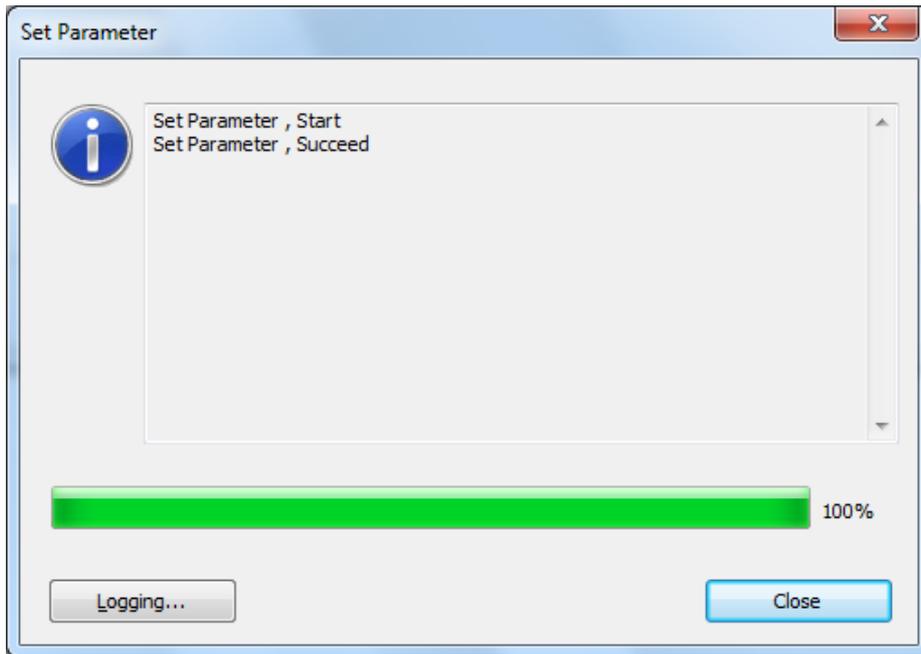
Title
  Processing executed is displayed.　The same title shown on the progress bar screen is taken over.

Progress status
  When the progress bar reaches 100% and the final result is indicated by text.
  In the case of normal end, the normal end icon is displayed.
  If the processing does not end normally due to an error, the abnormal end icon is displayed.
  When the processing is canceled, the cancellation icon is displayed.
  When Multi LAN is used, the abnormal end icon is displayed if even one of the connected printers abnormally ends.

[Logging...]
  The result indicated by text is saved in the specified file in CSV format.
  When this button is clicked, the file selection screen is displayed.　Specify the file where the log data is stored, click [Save], and the data is saved.
  The specified file is initialized and the log data is saved.
  When writing data to the specified file failed, the error message is displayed.

[Error List...]
  A list of printers which resulted in an abnormal end is saved as the Multi LAN configuration file.
  When this button is clicked, the [Export] screen is displayed.　Specify the file where the list is stored, click [Save], and the data is saved.
  This button becomes active only when the processing abnormally ended via Multi LAN.
  When writing data to the specified file failed, the error message is displayed.

[Retry]
  The same processing is retried for the printers which resulted in an abnormal end.
  When this button is clicked, a retry of the processing is started.
  This button becomes active only when the processing abnormally ended.

[Close]
  When this button is clicked, the completion screen is closed.

Progress Status

Textual information about the processing in progress is added to the progress status as needed.

Progress status format:

["Host Name or IP Address"], "Processing", "Process", " Detailed status" ("Error code")

Host Name or IP Address
> When the Multi LAN is selected for the interface, the host name or IP address of the connected printers is displayed.
> When it exceeds 16 characters, only the first 16 characters are displayed.

Processing
> Processing in progress is displayed.

Processing	Description
Get Parameter	Obtains the parameter setting values from the connected printer on the [Parameter Setting] screen.
Set Parameter	Downloads the parameter setting values to the connected printer on the [Parameter Setting] screen.
Firmware Download	Downloads the firmware to the connected printer on the [Firmware Download] tab page in the [Download] screen.
BASIC Download	Downloads the BASIC program to the connected printer on the [BASIC Download] tab page in the [Download] screen.
Get Printer Info	Obtains the latest self-diagnosis results from the printer on the Self Diagnosis tab page in the [Maintenance] screen.
Printer Reset	Resets the printer on the [Self Diagnosis] tab page in the [Maintenance] screen.
Head Check	Performs a print head check on the [Self Diagnosis] tab page in the [Maintenance] screen.
Save Printer Info	Saves the printer information in a file on the [Self Diagnosis] tab page in the [Maintenance] screen.
Data Logging	Takes the log on the [Self Diagnosis] tab page in the [Maintenance] screen.
Maintenance Counter Clear	Performs a maintenance counter clear on the [Self Diagnosis] tab page in the [Maintenance] screen.
Parameter Clear	Performs a parameter clear on the [Self Diagnosis] tab page in the [Maintenance] screen.
Memory Allocate	Performs a memory allocation on the [Memory Management] tab page in the [Maintenance] screen.
Memory Format	Formats the memory on the [Memory Management] tab page in the [Maintenance] screen.
Send File	Sends a specified file to the printer on the [Tool] tab page in the [Tool] screen.
Test Print	Performs a test print on the [Test Print] tab page in the [Tool] screen.
Restore to Online	Restores the printer from the setting mode to online mode.

Process
> Process in progress is displayed.

Process	Description
Start	Processing is started.
Succeed	Processing normally ends.
Fail	Processing abnormally ends.
Cancel	Processing ends due to cancellation.
Preparing for downloading...	Preparing for download.
Updating the printer...	The firmware is being updated on the printer. The parameter setting values are being updated on the printer.
Sending "section name" firmware to the printer...	ROM file is being sent to the printer in the Firmware Download processing.
Memory is being allocated...	Memory is being allocated in the BASIC Download processing.

Updating the main program...	BASIC main program is being sent to the printer in the BASIC Download processing. Transmission and update of the main program are in progress.
Updating the system mode program...	BASIC system mode program is being sent to the printer in the BASIC Download processing. Transmission and update of the system mode program are in progress.
Updating the data file...	BASIC data file is being sent to the printer in the BASIC Download processing. Transmission and update of the data file are in progress.

Detailed status
Detailed status at the end of processing is displayed.

Message	Description
No printer connection is detected.	No printer connected via the specified interface was found. Check the communication conditions, then retry the operation. If the same message is displayed again, restart the printer.
Cannot confirm the printer is in online mode.	The processing was not executed as whether or not the printer is in online mode could not be confirmed. Check the communication conditions, then retry the operation. If the same message is displayed again, restart the printer.
The printer is not in idle state.	The processing could not be executed since the printer has an error. Clear the printer error, then retry the operation.
An error ("status code") occurred on the printer.	An error occurred on the printer while processing is in progress. Clear the printer error, then retry the operation.
The print head has a broken element.	A broken element was detected during the print head check.
No data can be saved in the specified file.	Printer information or print log data obtained from the connected printer could not be saved in the specified file. Check if the file is writable.
Obtaining the printer settings failed. ("Tab name"/"Group name")	Obtaining the setup information from the printer failed. "Tab name"/"Group name" indicates the location where the error occurred. Check the communication conditions, then retry the operation. If the same message is displayed again, restart the printer.
Updating the printer settings failed. ("Tab name"/"Group name"/"Control name")	Updating the setup information on the printer failed. "Tab name"/"Group name"/"Control name" indicates the location where the error occurred. Correct the setting value for the "control name" if necessary, then retry the operation. If the same message is displayed again, restart the printer.
Processing error	Firmware downloading failed in upgrading the firmware version. The maintenance counter could not be cleared. The parameter clear failed in initialization. Check the communication conditions, then retry the operation. If the same message is displayed again, restart the printer.
Mode shift error	Whether or not the printer successfully shifted from the setting mode to the online mode could not be confirmed. Whether or not the printer successfully shifted from the online mode to the setting mode could not be confirmed. Restart the printer, then retry the operation.
Timeout error	A response from the printer resulted in timeout. Check the communication conditions, then retry the operation. If the same message is displayed again, restart the printer.
Communication error	An error occurred with the communication processing via the specified interface. Check the communication conditions, then retry the operation. If the same message is displayed again, restart the printer.
System error	An error occurred in the internal processing of the Product. Restart the Product, then retry the operation. If the same message is displayed again, restart the PC.

Printer List Screen

The following screen appears when collective processing is executed for multiple printers connected to the network.
You can check the applicable printers and exclude unnecessary printers on this screen.
This screen is displayed only when Multi LAN is used.
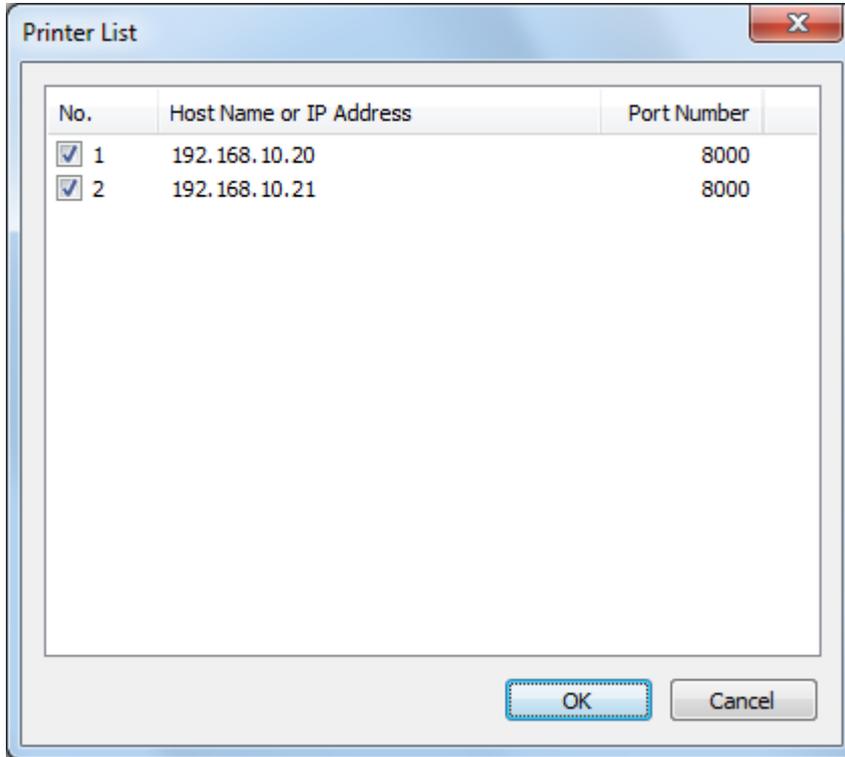
List
> The printers registered to the [Printer List] for the Multi LAN are displayed.
> A printer is included in the printer group to which collective processing is applied by checking the checkbox.
> The all checkboxes have been checked as default.
> Remove the check from the checkbox of the printer to be excluded from the group.

[OK]
> When this button is clicked, processing is performed collectively for the printers with the checkbox checked.
> When the processing starts, the progress status screen is displayed.   When the processing is completed, the completion screen is displayed.
> When all checkboxes are unchecked, collective processing becomes invalid.
> Collective processing is performed in ascending order.

[Cancel]
> When this button is clicked, this screen is closed without saving the changes.

5. Functions

Parameter Setting

The parameter setting menu enables configuring or obtaining the printer parameter settings.
When the [Parameter Setting] icon on the menu icon area is clicked, the [Parameter Setting] screen is displayed.
Once the processing is executed, the printer enters the parameter setting mode.   Restore the printer to the online mode after the all processing is completed.
When the interface type is LPT1, LPT2 or LPT3, this menu cannot be used.
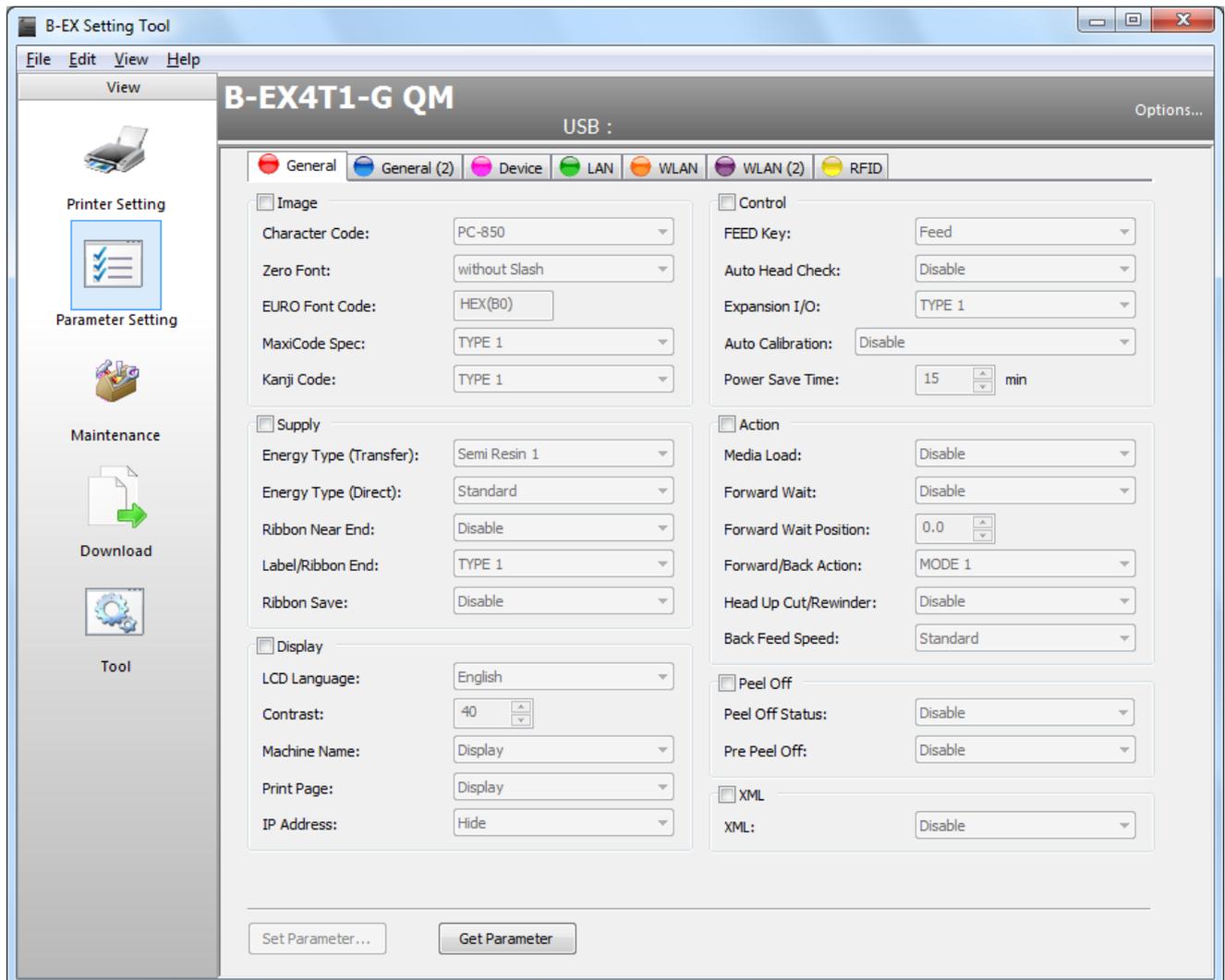
Control
Parameters are classified, grouped and placed depending on their types and purposes to allow for easy check or update of parameter values.
Each control becomes active and editable when the group checkbox is checked.
The parameter setting values are obtained from the printer for the all controls.
However, only active controls are reflected in the printer when the printer settings are updated.
In the case of the Multi LAN, the controls of which values are unique to individual printer will not become active. (e.g. IP Address, DHCP Host Name, DHCP Client ID)

Group
Each control is grouped according to the types, such as [Image], [Notice] and [Command].
When the checkbox of a group is checked, the controls in that group become active.
The parameter setting values are obtained from the printer for the all controls, regardless of whether the checkbox is checked or not.
However, only active controls are reflected in the printer when the printer settings are updated.

Tab
   The [Parameter Setting] screen has [General], [General (2)], [Device], [LAN], [WLAN], [WLAN (2)] and
   [RFID] tabs.
   When any of these tabs is clicked, the selected tab page is displayed to allow setting the related parameters.
   The parameter setting values are obtained from the printer at one time for the all controls in the all tab
   pages.
   However, only active controls are reflected in the printer when the printer settings are updated.

[Set Parameter...]
   The parameter setting values displayed on the screen are downloaded to the printer to update the printer
   settings.
   If an improper value is included in the downloaded data, the error message is displayed.
   When there is no group to be downloaded, this button is grayed out.
   When this button is clicked, the following message is displayed.
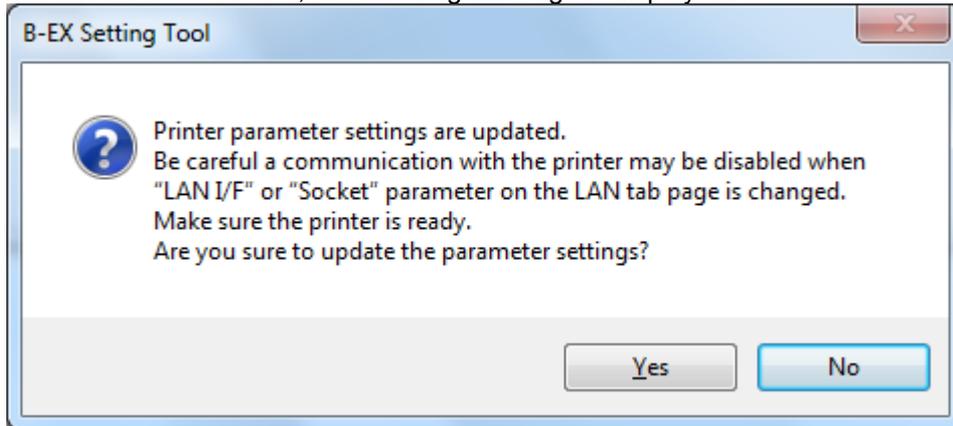
      When [Yes] is clicked, the parameter settings are downloaded to the printer.
      When [No] is clicked, the processing is canceled.

   A communication with the printer may be disabled when any parameter on the [WLAN] / [WLAN (2)] tab
   page is changed.
   If a communication is disabled after changing the WLAN parameters, check the network environment.

   When Multi LAN is selected for the interface, the [Printer List] screen is displayed to allow choosing the
   printers to be updated.
   When the processing starts, the progress status screen is displayed.   When the processing is completed,
   the completion screen is displayed.
   This function is executed only when the printer is in online mode and idle state.
   After downloading the setting values for the all active controls to the printer, obtain the setting values from
   the printer to check if the update succeeded or not.

[Get Parameter]
   Currently set parameter setting values are obtained from the printer, and displayed.
   When this button is clicked, the processing starts.
   When the processing starts, the progress status screen is displayed.   When the processing is completed,
   the completion screen is displayed.
   This function is executed only when the printer is in online mode and idle state.
   The obtained values are reflected in each control on the [Parameter Setting] screen.
   The currently set values are obtained from the printer for the all controls in the all tab pages except for a part
   of the objects (File information of supplicant).
   When Multi LAN is selected for the interface, this function is disabled.

[Restore to Online]
   The printer mode is changed from the parameter setting to online.
   Once the parameter settings are downloaded to or obtained from the printer, this button becomes visible.
   When this button is active, you need to click it after the processing is completed.
   After the printer mode normally shifts to online, the button is hidden.
   When Multi LAN is selected for the interface, the printer will automatically return to online mode.

   The printer mode needs to be restored to online each time the parameter settings are obtained.

When this button is clicked after getting the printer settings, the progress status screen is displayed.　When the printer returns to online mode, the screen is closed.　The completion screen appears in the case of an abnormal end.
Mode shift is automatically executed when another menu screen is opened or the Product is terminated with this button displayed.

After downloading the parameter settings, the printer needs to be restarted in order for the updated settings to take effect.
When this button is clicked, the confirmation message is displayed.
A similar message also appears when another menu screen is opened or the Product is terminated with this button displayed.
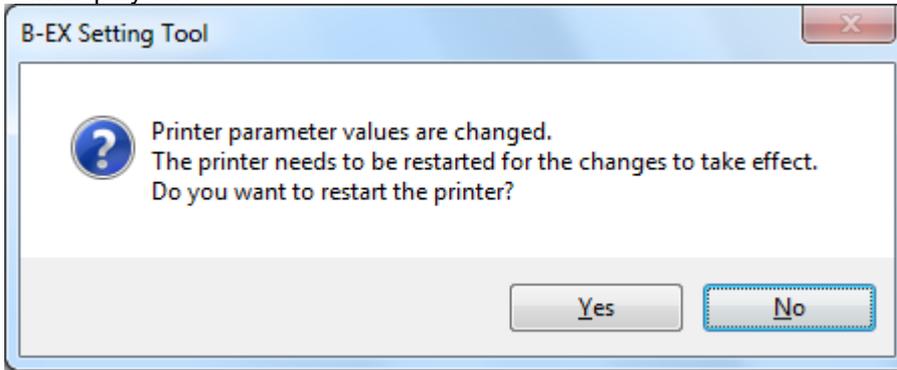
When [Yes] is clicked, the progress status screen is displayed.　When the printer enters the online mode after restarted, the screen is closed.　The completion screen appears in the case of an abnormal end.
When [No] is clicked, the screen returns to the [Parameter Setting] screen.

General Tab

[Image] Group

    [Character Code]:

        Select a character code table to be applied to the printer font.

Default	PC-850
Options	PC-850, PC-8, PC-852, PC-857, PC-851, PC-855, PC-1250, PC-1251, PC-1252, PC-1253, PC-1254, PC-1257, LATIN9, Arabic, PC-866, UTF-8

    [Zero Font]:

        Select whether or not a slash is attached to the printer font character "0".

        Note that the no slash is attached for the following fonts, regardless of settings.

        <Bitmap fonts>   OCR-A, OCR-B, Gothic 725 Black, Kanji, Chinese

        <Outline fonts>   Price Font 1, Price Font 2, Price Font 3, Dutch 801, Brush 738, Gothic 725, True Type Font

Default	without Slash
Options	without Slash, with Slash

    [EURO Font Code]:

        Set printer font characters you want to assign to EURO fonts.

        Enter two alphanumeric characters from "0" to "F".

        Entries are not case-sensitive.

        Two characters indicate one HEX character.   (Example: "0" -> "30" or "A" -> "41")

Default	B0
Range	20 to FF

[MaxiCode Spec]:
Select a type of barcode font to create a MaxiCode.

Default	TYPE 1
Options	TYPE 1 (Compatible with current version), TYPE 2 (Special specification)

[Kanji Code]:
Select a type of Kanji font code.

Default	TYPE 1
Options	TYPE 1 (Windows code), TYPE 2 (Original code)

[Supply] Group
[Energy Type (Transfer)]:
Select a print head energy control type for thermal transfer printing.

B-EX4T1-G / B-EX4T1-T:	
Default	Semi Resin 1
Options	Semi Resin 1, Semi Resin 2, Resin 1, Resin 2, Resin 3, Reserve 2, Reserve 3, Reserve 4, Reserve 5, Reserve 6,
B-EX4T2-G / B-EX4T2-T:	
Default	Wax 1
Options	Wax 1, Wax 2, Semi Resin 1, Semi Resin 2, Resin 1, Wax 3, Semi Resin 3, Resin 2, Reserve 1, Reserve 2
B-EX4T1-H:	
Default	Resin 1
Options	Resin 1, Resin 2, Reserve 1, Reserve 2, Reserve 3, Reserve 4, Reserve 5, Reserve 6, Reserve 7, Reserve 8
B-EX6T2-G / B-EX6T2-T:	
Default	Wax 1
Options	Wax 1, Wax 2, Semi Resin 1, Semi Resin 2, Resin 1, Reserve 1, Reserve 2, Reserve 3, Reserve 4, Reserve 5,

[Energy Type (Direct)]:
Select a print head energy control type for direct thermal printing.

Default	Standard
Options	Standard, Reserve 1, Reserve 2, Reserve 3, Reserve 4, Reserve 5, Reserve 6, Reserve 7, Reserve 8, Reserve9

[Ribbon Near End]:
Select the condition for ribbon near end detection.

Default	Disable
Options	Disable, 30 m, 70 m

[Label/Ribbon End]:
Specify how the printer behaves when a label end or ribbon end is detected.

Default	TYPE 1
Options	TYPE 1 (Immediately stops), TYPE 2 (Stops when the next label is at home position.)

[Ribbon Save]:
Select whether to enable or disable the ribbon saving function.
This parameter is fixed to "Disable" for other than B-EX4T1-G and B-EX4T1-T.

Default	JA:　Tag
	Other than JA:　Disable
Options	Disable, Tag, Label

[Type Of Ribbon]:
Select the ribbon roll direction.
This parameter is fixed to "Coated Side Out" for the B-EX4T1-G and B-EX4T1-T.

Default	Coated Side Out
Options	Coated Side Out, Coated Side In

[Display] Group
    [LCD Language]:
        Select a language of messages to be displayed on the LCD.

Default	JA: Japanese
	Other than JA: English
Options	English, German, French, Dutch, Spanish, Japanese, Italian, Portuguese, Simplified Chinese

    [Contrast]:
        Set an even number for the LCD contrast fine adjustment.
        When an odd number is set, it will be automatically corrected to an even number.

Default	40
Range	24 to 50

    [Machine Name]:
        Select whether or not to display the printer model name on the LCD.

Default	Display
Options	Hide, Display

    [Print Page]:
        Select whether or not to display the number of copies on the LCD.

Default	Display
Options	Hide, Display

    [IP Address]:
        Select whether or not to display the IP address on the LCD.

Default	Hide
Options	Hide, Display

[Control] Group
    [FEED Key]:
        Specify how the printer behaves when the [FEED] key is pressed.

Default	Feed
Options	Feed, Print

    [Auto Head Check]:
        Select whether or not an automatic head broken dots check is performed when the power is turned on.

Default	Disable
Options	Disable, Enable

    [Expansion I/O]:
        Select the expansion I/O specification.

Default	TYPE 1
Options	TYPE 1 (Standard), TYPE 2 (In-line)

    [Auto Calibration]:
        Select whether to enable or disable the auto calibration feature.

Default	Disable
Options	B-EX4T1-G / B-EX4T1-T: Disable, Transmissive Sensor, Reflective Sensor, All Sensor, Transmissive Sensor (with Back Feed), Reflective Sensor (with Back Feed), All Sensor (with Back Feed)
	Other than B-EX4T1-G / B-EX4T1-T: Disable, Transmissive Sensor, Reflective Sensor, All Sensor

    [Power Save Time]:
        Set a period of time from when the printer ceases to be used until it enters power save mode.
        Enter a number.

Default	15 min
Range	1 to 240 min

[Action] Group
    [Media Load]:
        Select whether or not to feed media to the home position.

Default	Disable
Options	B-EX4T1-G / B-EX4T1-T: Disable, Standard, ECO, ECO (with Back Feed)
	Other than B-EX4T1-G / B-EX4T1-T: Disable, Standard, ECO

    [Forward Wait]:
        Select whether an automatic forward feed is performed after an issue is enabled or disabled.
        If "Enable" is selected, the printer will automatically feed the media forward by 13.7 mm when the printer
        is idle for one sec. or more after printing.

Default	Disable
Options	Disable, Enable

    [Forward Wait Position]:
        When the [Forward Wait] is enabled, it is possible to make fine adjustments to the standard feed
        distance of 13.7 mm, in units of 0.1mm.

Default	0.0 mm
Range	-5.0 to +5.0 mm

    [Forward/Back Action]:
        Specify how the printer behaves when the [Forward Wait] is enabled.

Default	MODE 1
Options	MODE 1 (13.7 mm forward feed), MODE 2 (6 mm back feed & 3 mm forward feed)

    [Head Up Cut/Rewinder]:
        Select whether or not head-up cut is performed in cut issue mode, or whether or not the rewinder is
        used.
        The head-up function is available only to the B-EX4T1-G and B-EX4T1-T.

Default	Disable
Options	Disable, Enable

    [Back Feed Speed]:
        Select the back feed speed.

Default	Standard
Options	Standard (3 inch/sec), Low (2 inch/sec)

[Peel Off] Group
    [Peel Off STATUS]:
        Select whether or not a peel-off waiting status is generated and sent in strip issue mode.

Default	Disable
Options	Disable, Enable

    [Pre Peel Off]:
        Select whether or not a pre-peel feed is performed in strip issue mode before printing.

Default	Disable
Options	Disable, Enable

[XML] Group
    [XML]:
        Select whether or not XML is enabled.

Default	Standard
Options	Disable, Standard, Oracle, SAP, Standard (External memory), Oracle (External memory), SAP (External memory)

General (2) Tab

[Position Adjustment] Group
    [Feed]:
        Set a fine adjustment value for the stop position in units of 0.1 mm.
        When the value is negative (-), the feed length becomes longer.
        The fine adjustment value set by the Position Fine Adjust command [AX] is displayed in the left box.
        When the parameter is not retrieved, the value in the left box becomes zero (0).

Default	0.0 mm
Range	-50.0 to +50.0 mm

    [Cut/Peel Off]:
        Set a fine adjustment value for a cut (strip) position in units of 0.1 mm.
        When the value is negative (-), the feed length to the cut (strip) position becomes longer.
        The fine adjustment value set by the Position Fine Adjust command [AX] is displayed in the left box.
        When the parameter is not retrieved, the value in the left box becomes zero (0).

Default	0.0 mm
Range	-50.0 to +50.0 mm

    [Back Feed]:
        Set a fine adjustment value for the back feed length in units of 0.1 mm.
        When the value is negative (-), the back feed length becomes shorter.
        The fine adjustment value set by the Position Fine Adjust command [AX] is displayed in the left box.
        When the parameter is not retrieved, the value in the left box becomes zero (0).

Default	0.0 mm
Range	-9.9 to +9.9 mm

[X-coordinate]:
Set a fine adjustment value to offset the print position perpendicular to the paper feed direction in units of 0.1 mm.
When the value is negative (-), the upper right reference coordinate shifts to the left from the zero point.

Default	0.0 mm
Range	-99.5 to +99.5 mm

[Tone Adjustment] Group
[Thermal Transfer]:
Set a fine adjustment value for print density in thermal transfer print mode.
The fine adjustment value set by the Print Density Fine Adjust command [AY] is displayed in the left box.
When the parameter is not retrieved, the value in the left box becomes zero (0).

Default	0
Range	-20 to +10

[Direct Thermal]:
Set a fine adjustment value for print density in direct thermal print mode.
The fine adjustment value set by the Print Density Fine Adjust command [AY] is displayed in the left box.
When the parameter is not retrieved, the value in the left box becomes zero (0).

Default	0
Range	-20 to +10

[Command] Group
[Control Code]:
Select a control code used for command analysis.

Default	AUTO
Options	AUTO, [ESC] [LF] [NUL], {	}, Manual

[Code 1]:
When "Manual" is selected for the [Control Code], set a code for the first byte in hex. format.
Enter two alphanumeric characters from "0" to "F".
Entries are not case-sensitive.
Two characters indicate one HEX character.   (Example: "0" -> "30" or "A" -> "41")

Default	1B
Range	20 to FF

[Code 2]:
When "Manual" is selected for the [Control Code], set a code for the second byte in hex. format.
Enter two alphanumeric characters from "0" to "F".
Entries are not case-sensitive.
Two characters indicate one HEX character.   (Example: "0" -> "30" or "A" -> "41")

Default	0A
Range	20 to FF

[Code 3]:
When "Manual" is selected for the [Control Code], set a code for the third byte in hex. format.
Enter two alphanumeric characters from "0" to "F".
Entries are not case-sensitive.
Two characters indicate one HEX character.   (Example: "0" -> "30" or "A" -> "41")

Default	00
Range	20 to FF

[BASIC] Group
[Basic Interpreter]:
Select whether or not the basic interpreter is enabled.

Default	Disable
Options	Disable, Enable

[Basic Trace]:
Select whether or not the basic trace is enabled.

Default	Disable
Options	Disable, Enable

[Product] Group
    [Printer Serial No.]:
        The serial number specific to the printer is displayed.
        This setting cannot be changed.

    [SHELL]:
        The status of the SHELL function is displayed.
        This setting cannot be changed.

[Sensor] Group
    [Reflective Sensor Threshold Select]:
        Select how to set the threshold for the reflective sensor.

Default	Command Set
Options	Manual Set, Command Set

    [Reflective Sensor Threshold]:
        Set a fine adjustment value for threshold to the reflective sensor output in units of 0.1 V.

Default	1.0 V
Range	0.1 to 4.0 V

    [Transmissive Sensor Threshold Select]:
        Select how to set the threshold for the transmissive sensor.

Default	Command Set
Options	Manual Set, Command Set

    [Transmissive Sensor Threshold]:
        Set a fine adjustment value for threshold to the transmissive sensor output in units of 0.1 V.

Default	1.4 V
Range	0.1 to 4.0 V

[Ribbon Adjustment] Group
    [Drive Voltage (Take-up)]:
        Fine adjust the ribbon take-up motor voltage (torque).
        The fine adjustment value set by the Ribbon Motor Drive Voltage Fine Adjust command [RM] is displayed in the left box.
        When the parameter is not retrieved, the value in the left box becomes zero (0).

Default	0
Range	-15 to +10

    [Drive Voltage (Feed)]:
        Fine adjust the ribbon feed motor voltage (torque).
        The fine adjustment value set by the Ribbon Motor Drive Voltage Fine Adjust command [RM] is displayed in the left box.
        When the parameter is not retrieved, the value in the left box becomes zero (0).

Default	0
Range	-15 to +10

[RTC] Group
    [Date Time]:
        The current date and time programmed for the RTC module are displayed.
        This setting cannot be changed.

    [Battery Check]:
        Select whether to enable or disable the battery check function.

Default	Disable
Options	Disable, Enable

    [Renewal]:
        Select the timing when the date and time are updated during printing.

Default	Batch
Options	Batch, Page

[Password] Group

    [System Mode Password]:

        Select whether or not the password used for entering SYSTEM mode is enabled.

        To set this field, the old password is required.

        When you enter an incorrect old password, you cannot change the password.

    [New Password]:

        Set a password to be used for entering SYSTEM mode.

        To set the password, the old password is required.

        When you enter an incorrect old password, you cannot change the password.

        This field is effective only when SYSTEM mode password is enabled.

        Enter four characters from "0" to "F".

        Entries are not case-sensitive.

        Since passwords are security information, they are displayed with hidden characters except when they are being entered.

Default	0000
Range	0000 to FFFF

    [Old Password]:

        Enter the password currently set on the printer.

        This password is set to cancel a password for entering SYSTEM mode.

        Enter four characters from "0" to "F".

        Entries are not case-sensitive.

        Since passwords are security information, they are displayed with hidden characters except when they are being entered.

        To enable the new password, enter "0000".

Default	0000
Range	0000 to FFFF

Device Tab

[RS-232C] Group
    [Baud Rate]:
        Set a communication baud rate for the RS-232C port.

Default	9600 bps
Options	2400 bps, 4800bps, 9600 bps, 19200 bps, 38400 bps, 115200 bps

    [Data Length]:
        Select the data length for the RS-232C port.

Default	8 bits
Options	7 bits, 8 bits

    [Parity]:
        Select the parity checking to be used by the RS-232C.

Default	JA:　Even
	Other than JA:　None
Options	None, Even, Odd

    [Stop Bit]:
        Select the stop bit length for the RS-232C port.

Default	1 bit
Options	1 bit, 2 bits

[Control]:
　　Select the method of flow control to be used by the RS-232C port.

Default	QQ:　READY/BUSY
	Other than QQ:　XON+READY AUTO
Options	XON+READY AUTO, XON/XOFF AUTO, READY/BUSY RTS, XON+XOFF, READY/BUSY

[Centro.] Group
　　[ACK/BUSY]:
　　　　Select Centronics ACK /BUSY signal timing.

Default	TYPE 1
Options	TYPE 1 (BUSY goes LOW at the same time as ACK goes HIGH.), TYPE 2 (BUSY goes LOW at the same time as ACK goes LOW.)

　　[Input Prime]:
　　　　Select whether or not a reset is performed when the Centronics nInit signal is ON.

Default	Enable
Options	Disable, Enable

　　[Plug & Play]:
　　　　Select whether or not the plug-and-play function is active on the centronics port.
　　　　Plug & Play cannot be disabled for USB interface.

Default	Disable
Options	Disable, Enable

[USB] Group
　　[USB Serial Number]:
　　　　Select whether or not USB serial numbers are enabled.
　　　　When the numbers are disabled, connection to the USB port is established.
　　　　Whenever the USB port is changed, printer driver installation is required.
　　　　When the numbers are enabled, connection to the displayed serial number is established.
　　　　Printer driver installation is required for each serial number.

Default	Disable
Options	Disable, Enable

　　　　A serial number is a number specific to the printer.
　　　　This setting cannot be changed.

　　[Auto Status Response]:
　　　　Select whether to enable or disable the auto status response for the communication via USB.

Default	Disable
Options	Disable, Enable

LAN Tab

[TCP/IP] Group
    [LAN I/F]:
        Select whether to enable or disable the communication via wired LAN or wireless LAN.

Default	Enable (AUTO)
Options	Disable, Enable (AUTO), Enable (Wired LAN), Enable (Wireless LAN)

    [IP Address]:
        Set an IP address.

Default	192.168.10.20
Range	0.0.0.0 to 255.255.255.255

    [Subnet Mask]:
        Set a subnet mask.

Default	255.255.255.0
Range	0.0.0.0 to 255.255.255.255

    [Default Gateway]:
        Set an address of the default gateway.

Default	0.0.0.0
Range	0.0.0.0 to 255.255.255.255

[Protocol] Group
    [LPR]:
        Select whether or not communication according to the LPR protocol is enabled.

Default	Enable
Options	Disable, Enable

[Socket]:
Select whether or not socket communication is enabled.

Default	Enable
Options	Disable, Enable

[Port Number]:
Set a port number used for socket communication.

Default	8000
Range	0 to 65535

[WEB Printer]:
Select whether or not the Web server function is enabled.

Default	Disable
Options	Disable, Enable, Enable (External Memory)

[SNMP]:
Select whether to enable or disable the SNMP feature.

Default	Enable
Options	Disable, Enable

[SNMP Trap] Group
[1] [2] [3] [4] [5] [6] [7] [8] [9] [10]:
Select whether to enable or disable the SNMP trap.

Default	Disable
Options	Disable, Error, Job End, Error & Job End

When enabled, set the IP address of the terminals that monitors the SNMP trap.
When this parameter is set to other than "Disable", entry of IP address becomes enabled.
When "Disable" is selected, the IP address returns to the default.

Default	0.0.0.0
Range	0.0.0.0 to 255.255.255.255

[Server] Group
[DHCP]:
Select whether or not DHCP clients are enabled.

Default	Disable
Options	Disable, Enable

[DHCP Host Name]:
Set a host name.
When no name is entered, the printer's MAC address is used.
Use up to 32 alphanumeric characters to enter a name.

[DHCP Client ID]:
Set a DHCP Client ID.
When "HEX" is selected for the [Input Type], set the ID using up to 128 characters ranging from "0" to "F".
Enter two alphanumeric characters from "0" to "F".
Entries are not case-sensitive.
Two characters indicate one HEX character.   (Example: "0" -> "30" or "A" -> "41")
Entering an odd number of characters results in an error.
When "ASCII" is selected for the [Input Type], set the ID using up to 64 alphanumeric characters.

[Input Type]:
Select a code used for entering a DHCP client ID.
When the code is changed, the currently set DHCP client ID is cleared.

Default	HEX
Options	HEX, ASCII

[WINS]:

  Select whether or not the WINS protocol is enabled.

  When "Enable (STATIC)" is selected, [WINS Server Address] is used.

  When "Enable (DHCP)" is selected, [DHCP] is used.

Default	Disable
Options	Disable, Enable (STATIC), Enable (DHCP)

[WINS Server Address]:

  Set the IP address of the WINS server.

Default	0.0.0.0
Range	0.0.0.0 to 255.255.255.255

WLAN Tab

[WLAN Basic] Group
    [Communication Standard]:
        Select the wireless LAN standard.

Default	802.11b/g
Options	802.11b, 802.11g, 802.11b/g

[WLAN Detail] Group
    [ESS ID]:
        Set an ESS ID, using up to 32 alphanumeric characters.

Default	TOSHIBATEC

    [Beacon Transmitting Interval]:
        Select an interval between transmissions to the beacon.

Default	1000 msec
Range	1 to 65535 msec

    [Roaming Threshold]:
        Select a threshold of roaming sensitivity.

Default	70
Range	0 to 99

    [Country Code]:
        The country code is displayed.
        This setting cannot be changed.

[802.11b] Group
    [Channel]:
        Set a channel for IEEE 802.11b.
        The printer corrects channels that cannot be used due to country code settings.

Default	1
Range	1 to 14

    [Baud Rate]:
        Select the maximum transmission rate for IEEE 802.11b.
        The transmission rate is adjusted to a value enabling communication by the communicating device.

Default	11 Mbps
Options	11 Mbps, 5.5 Mbps, 2 Mbps, 1 Mbps

[802.11g] Group
    [Channel]:
        Set a channel for IEEE 802.11g.
        The printer corrects channels that cannot be used due to country code settings.

Default	1
Range	1 to 13

    [Baud Rate]:
        Select the maximum transmission rate for IEEE 802.11g.
        The transmission rate is adjusted to a value enabling communication by the communicating device.

Default	11 Mbps
Options	54 Mbps, 48 Mbps, 36 Mbps, 24 Mbps, 18 Mbps, 12 Mbps, 9 Mbps, 6 Mbps, 11 Mbps, 5.5 Mbps, 2 Mbps, 1 Mbps

[Priority AP] Group
    [Property]:
        Select ANY SSID/priority AP.

Default	11 Mbps
Options	ANY SSID OFF, ANY SSID ON / Priority AP OFF, ANY SSID ON / Priority AP ON / Other AP OFF, ANY SSID ON / Priority AP ON / Other AP ON

    [MAC Address 1] [MAC Address 2] [MAC Address 3] [MAC Address 4] [MAC Address 5]:
        Set MAC addresses for access points that you want to connect preferentially.
        The numbers indicate order of priority.
        Connection to the MAC addresses is made in the order of descending priorities.
        Use 12 characters from "0" to "F" to enter addresses.
        Entries are not case-sensitive.
        When no address is entered, you can disable the current settings.

[Authentication] Group
    [(1) Connection Mode]:
        Select the connection mode.

Default	Infrastructure
Options	Adhoc, Infrastructure

    [(2) Encryption]:
        Select the encryption scheme.
        Displayed options depend on the [(1) Connection Mode] settings.

Default	Disable
Options	Disable, WEP40, WEP104, TKIP, AES

    [(3) Network Authentication]:
        Select the network authentication system.
        Displayed options depend on the [(1) Connection Mode] and [(2) Encryption] settings.

Default	Open System
Options	Open System, Shared Key, WPA-EAP, WPA-PSK, WPA2-EAP, WPA2-PSK

[(4) EAP Method]:
Select the EAP method.
Displayed options depend on the [(1) Connection Mode], [(2) Encryption] and [(3) Network Authentication] settings.

Default	Disable
Options	Disable, EAP-MD5, EAP-TLS, EAP-TTLS, LEAP, LEAP (NetworkEAP), PEAP, PEAP (w/o Cert.), EAP-FAST

< Authentication System Settings >

(1) Connection Mode	(2) Encryption	(3) Network Authentication	(4) EAP Method
Adhoc	Disable	Open System	Disable
	WEP40	Open System	Disable
	WEP104	Open System	Disable
Infrastructure	Disable	Open System	Disable
	WEP40	Open System	Disable
			EAP-MD5
			EAP-TLS
			EAP-TTLS
			LEAP
			LEAP (NetworkEAP)
			PEAP
			PEAP (w/o Cert.)
			EAP-FAST
		Shared Key	Disable
			EAP-MD5
	WEP104	Open System	Disable
			EAP-MD5
			EAP-TLS
			EAP-TTLS
			LEAP
			LEAP (NetworkEAP)
			PEAP
			PEAP (w/o Cert.)
			EAP-FAST
		Shared Key	Disable
			EAP-MD5
	TKIP	WPA-EAP	EAP-TLS
			EAP-TTLS
			LEAP
			LEAP (NetworkEAP)
			PEAP
			PEAP (w/o Cert.)
			EAP-FAST
		WPA-PSK	Disable
	AES	WPA2-EAP	EAP-TLS
			EAP-TTLS
			LEAP
			LEAP (NetworkEAP)
			PEAP
			PEAP (w/o Cert.)
			EAP-FAST
		WPA2-PSK	Disable

[WEP] Group
[Default Key]:
Set a WEP key used by default.

Default	1
Range	1 to 4

[Input Type]:
Select the code for entering a WEP key.
When the code is changed, the WEP key is cleared.

Default	HEX
Options	HEX, ASCII

[WEP Key #1] [WEP Key #2] [WEP Key #3] [WEP Key #4]:
Select the WEP key used for encrypting the authentication system.
Select the WEP key size and enter the WEP key.
When the WEP key size is changed, the WEP key is cleared.

<40 bits>
When HEX mode is used for entries, use ten characters from "0" to "F".
Entries are not case-sensitive.
When ASCII mode is used for entries, use five alphanumeric characters.

<104 bits>
When HEX mode is used for entries, use 26 characters from "0" to "F".
Entries are not case-sensitive.
When ASCII mode is used for entries, use 13 alphanumeric characters.

Since WEP keys are security information, they are displayed with hidden characters except when they are being entered.

Default	Disable
Options	Disable, 40 bits (64 bits), 104 bits (128 bits)

WLAN (2) Tab

[WPA-PSK] Group
    [Pre Shared Key]:
        Set a key to be used for WPA encryption in network authentication, using 8 to 64 alphanumeric characters.
        Since the key is security information, it is displayed with hidden characters except when it is being entered.

Default	00000000

[Account] Group
    [User Name]:
        Set a username to authenticate the supplicant.
        Use up to 32 alphanumeric characters.

    [Password]:
        Set a password to authenticate the supplicant.
        Use up to 32 alphanumeric characters.
        Since the password is security information, it is displayed with hidden characters except when it is being entered.

[802.1X] Group
    [Reauthentication Interval]:
        Set an interval between reauthentications.

Default	2 min
Range	2 to 4320 min

[Supplicant] Group
    [Server Certificate]:
        Set an absolute path to the server certificate file to be transmitted.

        The   button is used to select the path on the file selection screen.
        When no path is entered, data transmission is not performed.
        When entering a path to a blank file without data, you can disable the current settings.
        Setting a non-existent file results in an error.

    [Client Certificate]:
        Set an absolute path to the client certificate file to be transmitted.

        The   button is used to select a path on the file selection screen.
        When no path is entered, data transmission is not performed.
        When entering a path to a blank file without data, you can disable the current settings.
        Setting a non-existent file results in an error.

    [Key File]:
        Set an absolute path to the key file for client certificate to be transmitted.

        The   button is used to select a path on the file selection screen.
        When no path is entered, data transmission is not performed.
        When entering a path to a blank file without data, you can disable the current settings.
        Setting a non-existent file results in an error.

    [Secret Key]:
        Set a secret key passphrase, using up to 64 alphanumeric characters.
        Since the passphrase is security information, it is displayed with hidden characters except when it is being entered.

    [Random Seed]:
        Set an absolute path to a SEED file for creating random values to be transmitted.

        The   button is used to select a path on the file selection screen.
        When no path is entered, data transmission is not performed.
        When entering a path to a blank file without data, you can disable the current settings.
        Setting a non-existent file results in an error.

[EAP-FAST] Group
    [Provisioning Method]:
        Select a Provisioning method.

Default	Auto Provisioning
Options	Auto Provisioning, Manual Provisioning

    [Internal Authentication]:
        Select an internal authentication method.

Default	MSCHAPV2
Options	MSCHAPV2, GTC

    [PAC File]:
        Select whether to send or delete the PAC file.

Default	No change
Options	No change, Send the PAC file for Manual Provisioning, Delete the PAC file for Manual Provisioning, Delete the PAC file for Auto Provisioning, Delete the PAC files for Manual Provisioning and Auto Provisioning

    [PAC File Path]:
        Specify the PAC file for Manual Provisioning with absolute path.
        This is available only when the "Send the PAC file for Manual Provisioning" is selected.

        The   button is used to select a path on the file selection screen.
        If the path is not selected, data transmission will not be performed.
        If the specified file is not found, an error results.

[PAC File Password]:
    Set the password for the PAC file used for the Manual Provisioning.
    Up to 32 digits of 1-byte alphanumeric characters can be set.

[CCX] Group
[CCX Options]:
    Select whether to enable or disable the CCX options.

Default	Disable
Options	Disable, Enable

[CCKM Mode]:
    Select whether to enable or disable the CCKM mode setting.

Default	Disable
Options	Disable, Enable

[CAC Mode]:
    Select whether to enable or disable the CAC mode setting.

Default	Disable
Options	Disable, Enable

[RM Mode]:
    Select whether to enable or disable the RM (Radio Measurement) mode setting.

Default	Disable
Options	Disable, Enable

[U-APSD Mode]:
    Select whether to enable or disable the U-APSD mode setting.

Default	Disable
Options	Disable, Enable

[Station Name]:
    Configured station name is displayed.
    This setting cannot be changed.

RFID Tab
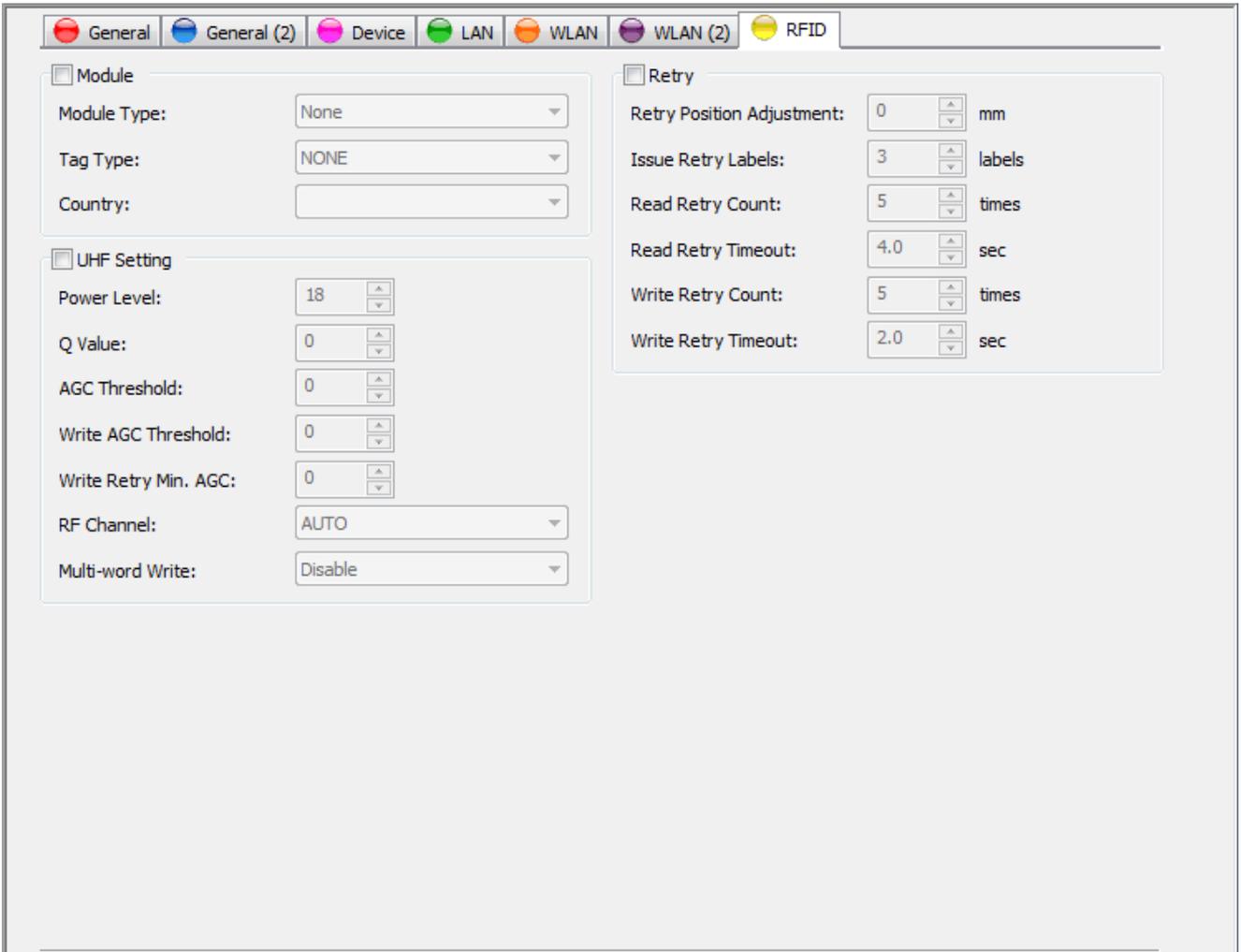
[Module] Group

    [Module Type]:

        RFID module type installed in the printer is displayed.

Default	None
Options	None, H1 (HF Band), H2 (HF Band), U2 (UHF Band)

    [Tag Type]:

        Select the RFID tag type.

        The displayed options differ depending on the RFID module type.

Default	NONE	
Options	None:	NONE, I-Code, Tag-It, C220, IOS15693, C210, C240, C320, EPC C1 Gen2
	H1:	NONE, I-Code, Tag-It, C220, IOS15693, C210, C240, C320
	H2:	NONE, IOS156930
	U2:	NONE, EPC C1 Gen2

    [Country]:

        The country where the RFID module can be used is displayed.

        This setting cannot be changed.

[UHF] Group

    [Power Level]:

        Set the power output level for UHF band.

Default	18
Range	0 to 255

[Q Value]:
    Set the sensitivity for detecting RFID tags.

Default	0
Range	0 to 15

[AGC Threshold]:
    Set the threshold value used to determine an RFID tag is defective or not.

Default	0
Range	0 to 15

[Write AGC Threshold]:
    Set the threshold value used to determine whether or not to write data to RFID tags.

Default	0
Range	0 to 15

[Write Retry Min. AGC]:
    Set the lower limit value used to determine whether or not to retry a data write.

Default	0
Range	0 to 15

[RF Channel]:
    Set a channel used for data write.

Default	AUTO
Options	AUTO, 2 CH, 3 CH, 4 CH, 5 CH, 6 CH, 7 CH, 8 CH

[Multi-word Write]:
    Select whether or not to enable the multi-word write function for Gen2-compatible Hibiki tag.
    When this function is used, the data write efficiency is increased.

Default	Disable
Options	Disable, Enable

[Retry] Group
    [Retry Position Adjustment]:
    Set the amount the printer feeds the RFID label forward or backward to retry a data write.

Default	0 mm
Range	-99 to 99 mm

[Issue Retry Labels]:
    Set the number of RFID labels to be issued for retry.

Default	3 labels
Range	0 to 255 labels

[Read Retry Count]:
    Set the max. number of times reading one RFID tag is retried.

Default	5 times
Range	0 to 255 times

[Read Retry Timeout]:
    Set the timeout value for retry to read one RFID tag.

Default	4.0 sec
Range	0.0 to 9.9 sec

[Write Retry Count]:
    Set the number of times writing data to one RFID tag is retried.

Default	5 times
Range	0 to 255 times

[Write Retry Timeout]:
    Set the timeout value for retry to write data to one RFID tag.

Default	2.0 sec
Range	0.0 to 9.9 sec

Maintenance

The Maintenance menu enables the self diagnosis and memory management.
When the [Maintenance] icon on the menu icon area is clicked, the [Maintenance] screen is displayed.
When the interface type is LPT1, LPT2 or LPT3, this menu cannot be used.

Self Diagnosis Tab

[Maintenance Counter Info]
    The maintenance counter values are displayed.
    Refreshing the display or performing a maintenance counter clear causes the latest data to be shown.
    When Multi LAN is selected for the interface, this function is disabled.

[Firmware Info]
    Printer firmware information is displayed.
    Refreshing the display causes the latest data to be shown.
    When Multi LAN is selected for the interface, this function is disabled.

[Parameter Info]
    Printer parameter setting values are displayed.
    However, "ZERO FONT" is not displayed.
    Refreshing the display or performing a parameter clear causes the latest data to be shown.
    When Multi LAN is selected for the interface, this function is disabled.
    Obtained parameter setting values are classified into the following categories, and it is possible to select the
    category to be displayed.

After refreshing the display, "ALL" is selected.

Options	ALL, ADJUST, PARAMETER SETTING, PANEL, STRAGE AREA, USB, RS-232C, CENTRO, LAN/WLAN, RFID, RTC

[Refresh]
Current printer information is obtained, and the displayed maintenance counter, firmware information and parameter setting values are updated.
When this button is clicked, the processing starts.
When the processing starts, the progress status screen is displayed.   When the processing is completed, the completion screen is displayed.
This function is executed only when the printer is in online mode and idle state.
When Multi LAN is selected for the interface, this function is disabled.

[Head Check...]
A print head broken element check is performed.
When this button is clicked, the following confirmation message is displayed.
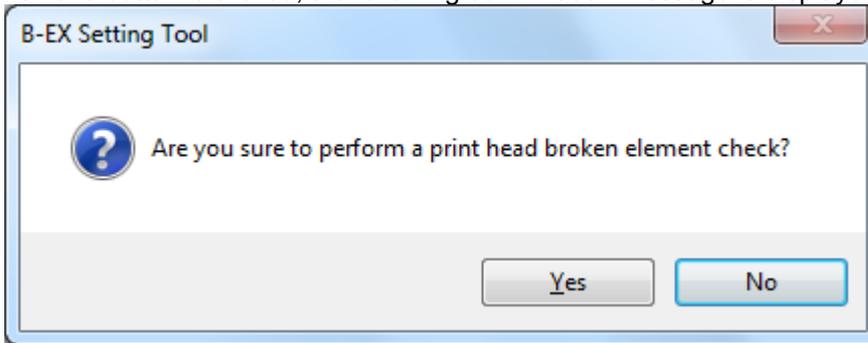
When [Yes] is clicked, the processing starts.
When [No] is clicked, the processing is canceled.

When Multi LAN is selected for the interface, the [Printer List] screen is displayed to allow choosing the printers on which the head check is performed.
When the processing starts, the progress status screen is displayed.   When the processing is completed, the completion screen is displayed.
This function is executed only when the printer is in online mode and idle state.
If a broken element is detected, the printer results in an error after the head check finished.   Clicking [Printer Reset] restores the printer to the idle state.

[Printer Reset...]
The printer is reset.
When this button is clicked, the following confirmation message is displayed.
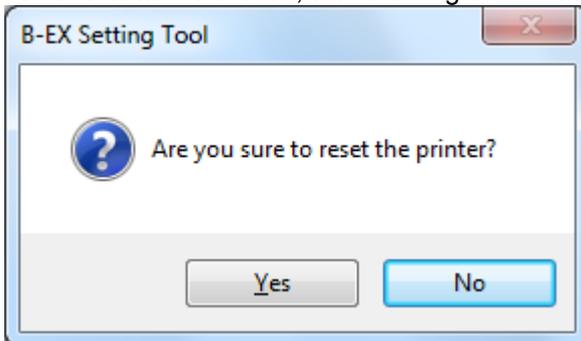
When [Yes] is clicked, the processing starts.
When [No] is clicked, the processing is canceled.

When Multi LAN is selected for the interface, the [Printer List] screen is displayed to allow choosing the printers to be reset.
When the processing starts, the progress status screen is displayed.   When the processing is completed, the completion screen is displayed.
A reset will be executed regardless of the printer status.
However, the printer reset may not succeed depending on the printer status.

[Save Printer Info...]

Current printer information is obtained, and saved in a file.

When this button is clicked, the file selection screen is displayed.   Select a file where the printer information is stored, click [Save], then the processing is started.   When Multi LAN is selected for the interface, a file is created for each of the connected printers.   The file name includes the address information in addition to the specified file name.

When Multi LAN is selected for the interface, the [Printer List] screen is displayed to allow choosing the printers of which information is obtained.

When the processing starts, the progress status screen is displayed.   When the processing is completed, the completion screen is displayed.

This function is executed only when the printer is in online mode and idle state.

The printer information is saved in one file, in the order of the maintenance counter, firmware version, and parameter settings.

However, "ZERO FONT" is not saved.

[Data Logging...]

The print log is obtained from the printer, and saved in a file.

When this button is clicked, the file selection screen is displayed.   Select a file where the print log is stored, click [Save], then the processing is started.   When Multi LAN is selected for the interface, a file is created for each of the connected printers.   The file name includes the address information in addition to the specified file name.

When Multi LAN is selected for the interface, the [Printer List] screen is displayed to allow choosing the printers of which print log is obtained.

When the processing starts, the progress status screen is displayed.   When the processing is completed, the completion screen is displayed.

This function is executed only when the printer is in online mode and idle state.

The print log is used for examining the commands when an error occurred.

[Maintenance Counter Clear]

Select the option to clear maintenance counter.

Default	All Counter
Options	All Counter, Feed Distance (FEED), Print Distance (PRINT), Cut Count (CUT), Others (other than FEED, PRINT, CUT)

[Clear...]

Selected maintenance counter is cleared to zero.

When this button is clicked, the following confirmation message is displayed.
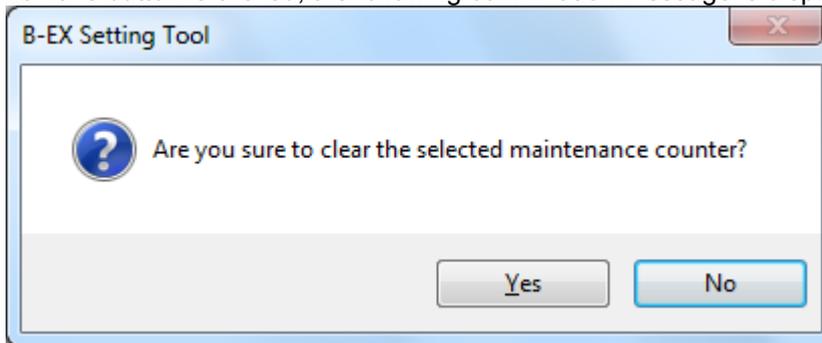
When [Yes] is clicked, the processing starts.

When [No] is clicked, the processing is canceled.

When Multi LAN is selected for the interface, the [Printer List] screen is displayed to allow choosing the printers of which maintenance counter is cleared.

When the processing starts, the progress status screen is displayed.   When the processing is completed, the completion screen is displayed.

The maintenance counter data display is updated after the maintenance counter clear is completed.

This function is executed only when the printer is in online mode and idle state.

[Parameter Clear]

[Destination]

Select the destination used after the parameter clear is performed.

Default	Destination specified on the Printer Setting screen
Options	JA, QM, CN

[Initialize...]
    A RAM clear is performed to initialize to the parameter setting values for the selected destination.
    When this button is clicked, the following confirmation message is displayed.
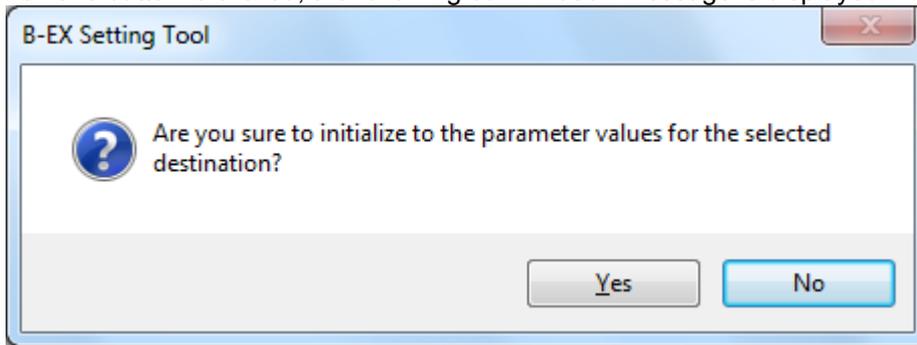
    When [Yes] is clicked, the processing starts.
    When [No] is clicked, the processing is canceled.

When Multi LAN is selected for the interface, the [Printer List] screen is displayed to allow choosing the printers on which the parameter clear is performed.
When the processing starts, the progress status screen is displayed. When the processing is completed, the completion screen is displayed.
The parameter setting data display is updated after the parameter clear is completed.
This function is executed only when the printer is in online mode and idle state.

Memory Management Tab

[Memory Info]
       The printer memory information is displayed.
       Refreshing the display causes the latest data to be shown.
       When Multi LAN is selected for the interface, this function is disabled.

[Refresh]
       The current information of the printer memory is obtained and the display is updated.
       When this button is clicked, the processing starts.
       When the processing starts, the progress status screen is displayed.   When the processing is completed, the completion screen is displayed.
       This function is executed only when the printer is in online mode and idle state.
       When Multi LAN is selected for the interface, this function is disabled.

[Memory Allocate]
       The specified size of onboard flash memory is allocated to each storage area.
       The sum of the memory size for each storage area shall be equal to the total onboard memory size.
       If they do not match, the printer automatically adjusts the size.
       Priority of allocation: TrueType Font > Bitmap External Character > BASIC File > PC Save

       [True Type Font Storage Area]
              Set the area size for storing TrueType fonts.

Default	0 KB
Options	0 to 3072 KB (in units of 128KB)

[Bitmap External Character Storage Area]
Set the area size for storing bitmap external characters.

Default	1792 KB
Options	0 to 3072 KB (in units of 128KB)

[BASIC File Storage Area]
Set the area size for storing the BASIC program.
When "No Change" is selected, existing data is retained without allocating the BASIC file storage area.

Default	0 KB
Options	No Change, 0 to 3072 KB (in units of 128KB)

[PC Save Storage Area]
The storage area size for printer commands is displayed.
After the memory is allocated to the above three, the rest of the memory is automatically allocated to the PC Save storage area.
It is required to adjust the storage area size for True type fonts, bitmap external characters and BASIC files so that the PC Save storage area size does not become a negative value.
When "No Change" is selected for the [BASIC File Storage Area], no memory size is displayed.

[Allocate...]
The specified size of memory is allocated to each storage area.
When this button is clicked, the following confirmation message is displayed.
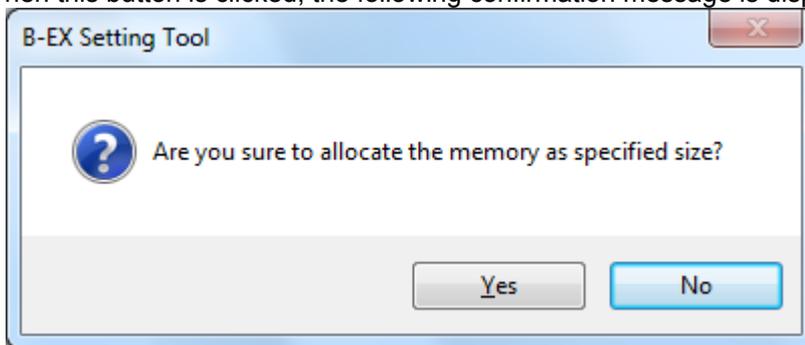
When [Yes] is clicked, the processing starts.
When [No] is clicked, the processing is canceled.

When Multi LAN is selected for the interface, the [Printer List] screen is displayed to allow choosing the printers on which the memory allocation is performed.
When the processing starts, the progress status screen is displayed. When the processing is completed, the completion screen is displayed.
The memory information display is updated after the memory allocation is completed.
This function is executed only when the printer is in online mode and idle state.
The Product waits for the end of memory allocation after sending a Storage Area Allocate command to the printer.
A memory allocation causes the existing data to be deleted even if the allocated memory size is unchanged.

[Memory Format]
Currently stored data in the specified memory is deleted.

[Location]
Select the memory to be formatted.

Default	Onboard Flash Memory
Options	Onboard Flash Memory, USB Memory

[Area]
Select the area to be formatted.

Default	PC Save & Bitmap External Character
Options	PC Save & Bitmap External Character, PC Save, Bitmap External Character

[Format...]
The specified range of the specified memory is formatted.
When this button is clicked, the following message is displayed.
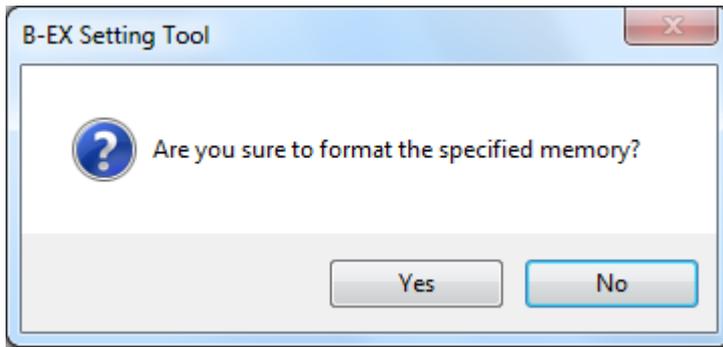
When [Yes] is clicked, the processing starts.
When [No] is clicked, the processing is canceled.

When Multi LAN is selected for the interface, the [Printer List] screen is displayed to allow choosing the printers of which memory is formatted.
When the processing starts, the progress status screen is displayed. When the processing is completed, the completion screen is displayed.
This function is executed only when the printer is in online mode and idle state.
The Product waits for the end of memory format after sending a Flash Memory Format command to the printer.

Download

The Download menu enables downloading the printer firmware and BASIC program.
When the [Download] icon on the menu icon area is clicked, the [Download] screen is displayed.

Firmware Download
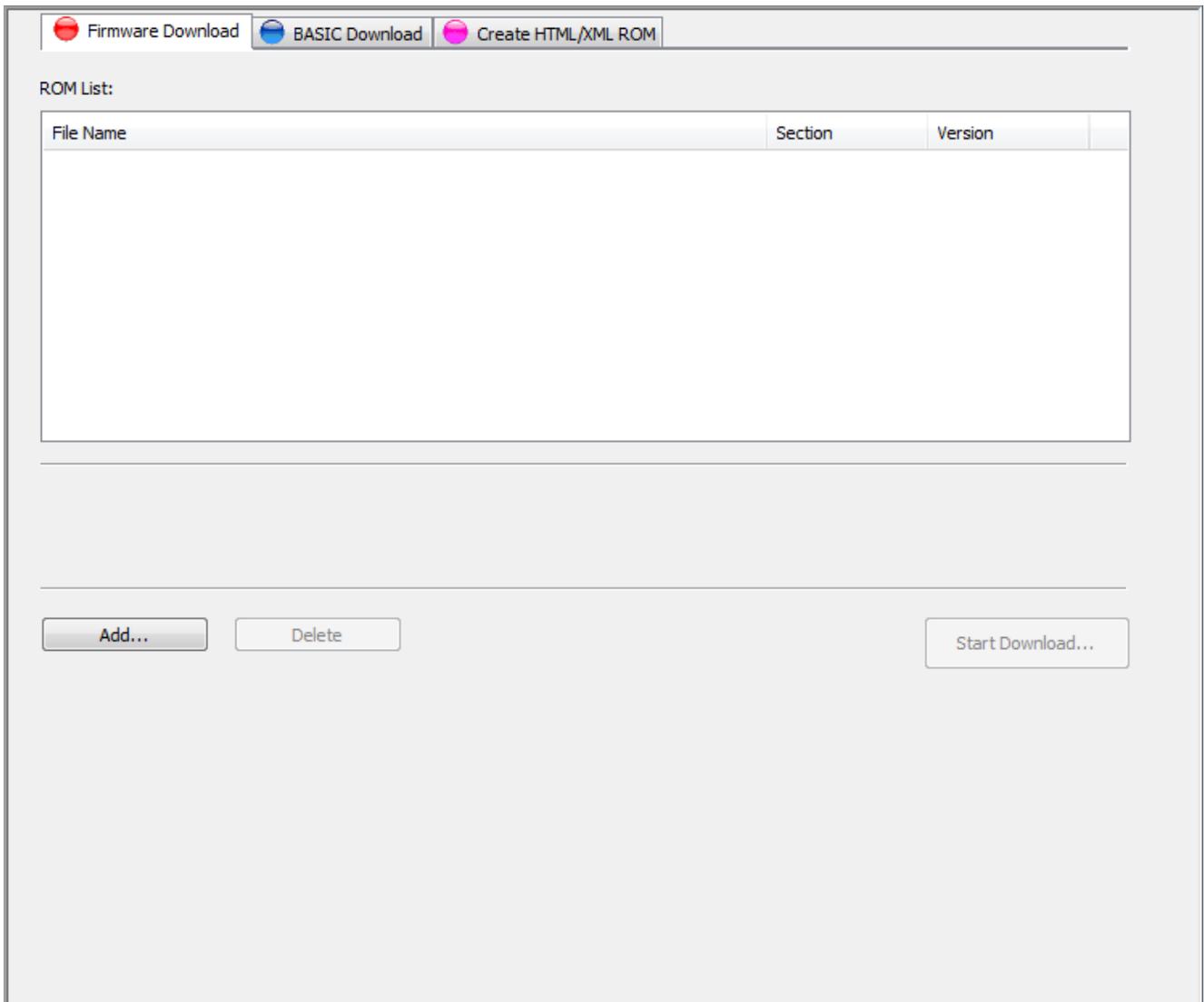
Be sure to avoid the environment where a power failure may occur in the middle of the downloading.
If a power failure occurs during a firmware updating, the printer may not start up.
Even when the printer can normally start up, download the firmware again.
If cannot, please contact TOSHIBA TEC sales representative.

[ROM List]
ROM files of the firmware to be downloaded to the printer are displayed.
No file has been displayed as default.
ROM files are listed by program section, rather than in chronological order.   The program sections are sorted in the order of BOOT, MAIN, C/G, XML, WMON, KANJI, and CHINESE.
Downloading is performed from the top of the list.
When a ROM file is selected, the firmware information is displayed under the list.

[Add...]
Specified ROM files are added to the [ROM List].
When this button is clicked, the file selection screen appears.   Choose a ROM file, click [Open], and this ROM file is added to the [ROM List].

If the specified file is not a ROM file, or if the specified ROM file is not for the printer model selected for the Product, the error message is displayed.
Up to eight ROM files can be added.
One file per program section is accepted.   In the case second file is chosen for a program section, the following confirmation message is displayed.
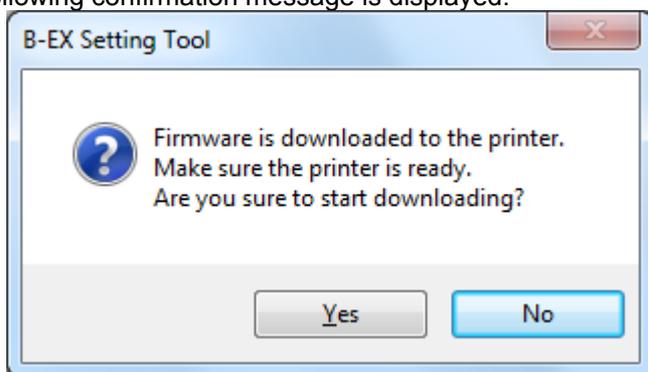
When [Yes] is clicked, the existing file is replaced.
When [No] is clicked, the processing is canceled.

[Delete]
When this button is clicked, selected ROM files in the [ROM List] are deleted.
This button becomes active when a ROM file is selected in the [ROM List].

[Start Download...]
The ROM files in the [ROM List] are downloaded to the printer.
When this button is clicked, the following confirmation message is displayed.
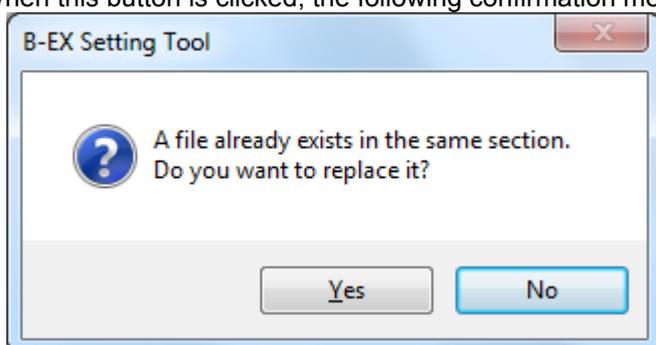
When [Yes] is clicked, the processing starts.
When [No] is clicked, the processing is canceled.

When reading the ROM file or creating download data failed, the error message is displayed.
When Multi LAN is selected for the interface, the [Printer List] screen is displayed to allow choosing the printers to which the files are downloaded.
When the processing starts, the progress status screen is displayed.   When the processing is completed, the completion screen is displayed.
This function is executed only when the printer is in online mode and idle state.
When no file is listed in the [ROM List], this button is grayed out.
After the ROM files are sent to the printer, the Product waits for the end of the printer update.   Regarding the Main and Boot programs, whether or not the firmware version has been updated is confirmed at the completion of the download.
When multiple files are downloaded, the processing is repeated one by one.
The printer firmware is replaced with the specified ROM files regardless of the current printer version.

BASIC Download

Be sure to avoid the environment where a power failure may occur in the middle of the downloading.
If a power failure occurs during a downloading, retry the operation.

[Memory Allocate]
    Select whether or not the on-board flash memory is divided and allocated to different types of data.
    The checkbox has not been checked as default.
    When checked, the memory allocation is enabled.
    The specified memory size of the on-board flash memory is allocated to each storage area when downloading is executed.
    The sum of the memory size for each storage area shall be equal to the total onboard memory size.
    If they do not match, the printer automatically adjusts the size.
    Priority of allocation: TrueType Font > Bitmap External Character > BASIC File > PC Save

    [True Type Font Storage Area]
        Set the area size for storing TrueType fonts.

Default	0 KB
Options	0 to 3072 KB (in units of 128KB)

    [Bitmap External Character Storage Area]
        Set the area size for storing bitmap external characters.

Default	1792 KB
Options	0 to 3072 KB (in units of 128KB)

[BASIC File Storage Area]
Set the area size for storing the BASIC program.
When "No Change" is selected, existing data is retained without allocating the BASIC file storage area.
Set 512KB (4 blocks) or more.

Default	512 KB
Options	No Change, 0 to 3072 KB (in units of 128KB)

[PC Save Storage Area]
The storage area size for printer commands is displayed.
After the memory is allocated to the above three, the rest of the memory is automatically allocated to the PC Save storage area.
It is required to adjust the storage area size for True type fonts, bitmap external characters and BASIC files so that the PC Save storage area size does not become a negative value.
When "No Change" is selected for the [BASIC File Storage Area], no memory size is displayed.

[BASIC Main Program]
Select whether or not to download the BASIC main program.
The checkbox has not been checked as default.
When checked, the starting block and the program file can be selected.
The specified file is downloaded to the specified block of the printer memory.

Starting block
Specify the area where the program is stored.
Set a value so that the area does not overlap the other blocks.

Default	0
Range	0 to 23

Program file
Click the ⬚ button to open the file selection screen.   Select a BASIC main program, click [Open], then the full path of the file is displayed.
The [BASIC Main Program] does not become effective unless a file is selected.
When reading a file or creating download data failed, the error message is displayed.

[BASIC System Mode Program]
Select whether or not to download the BASIC system mode program.
The checkbox has not been checked as default.
When checked, the starting block and the program file can be selected.
The specified file is downloaded to the specified block of the printer memory.

Starting block
Specify the area where the program is stored.
Set a value so that the area does not overlap the other blocks.

Default	1
Range	0 to 23

Program file
Click the ⬚ button to open the file selection screen.   Select a BASIC system mode program, click [Open], then the full path of the file is displayed.
The [BASIC System Mode Program] does not become effective unless a file is selected.
When reading a file or creating download data failed, the error message is displayed.

[BASIC Data File]
Select whether or not to download the BASIC data file.
The checkbox has not been checked as default.
When checked, the start block and data file setting become editable.
The specified file is downloaded to the specified block of the printer memory.

Starting block
Specify the area where the program is stored.
Set a value so that the area does not overlap the other blocks.

Default	2
Range	0 to 23

Data file

Click the [folder icon] button to open the file selection screen.   Select a BASIC data file, click [Open], then the full path of the file is displayed.
The [BASIC Data File] does not become effective unless a file is selected.
When reading a file or creating download data failed, the error message is displayed.

[Start Download...]
Download of the effective programs or update of parameter settings is executed.
When this button is clicked, the following confirmation message is displayed.
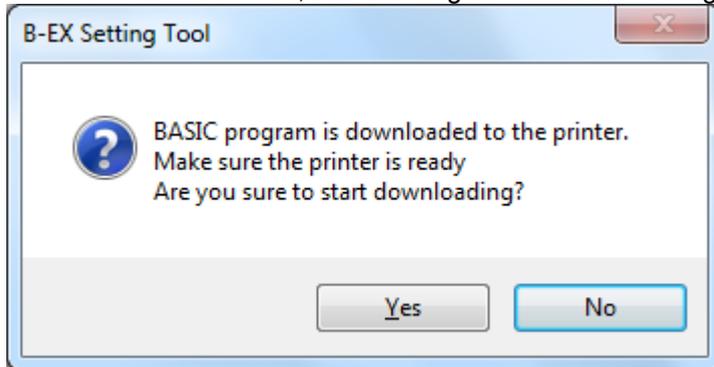
```
┌─────────────────────────────────────────────────┐
│ B-EX Setting Tool                            x    │
├─────────────────────────────────────────────────┤
│                                                   │
│    (?)   BASIC program is downloaded to the printer. │
│          Make sure the printer is ready           │
│          Are you sure to start downloading?       │
│                                                   │
│                   ┌─────────┐   ┌─────────┐       │
│                   │   Yes   │   │   No    │       │
│                   └─────────┘   └─────────┘       │
└─────────────────────────────────────────────────┘
```

When [Yes] is clicked, the processing starts.
When [No] is clicked, the processing is canceled.

When Multi LAN is selected for the interface, the [Printer List] screen is displayed to allow choosing the printers to which the files are downloaded.
When the processing starts, the progress status screen is displayed.   When the processing is completed, the completion screen is displayed.
This function is executed only when the printer is in online mode and idle state.
This button is grayed out unless the above settings are properly configured.
After the program or data is sent to the printer, the Product waits for the end of the printer update.
When multiple BASIC files are effective, the processing is executed from the top, one by one.
Download of the program or update of parameter settings are performed regardless of the current printer program.

Create HTML/XML ROM

[ROM Type]
    Select a ROM file type to be created.
    The "Load Address" and "Size" differ depending on the ROM file type.

Default	HTML/XML
Options	HTML/XML

[Source Path]
    Specify the location where the HTML/XML files are stored.

    Click the   button, and the folder selection screen is displayed.   Select the folder where HTML/XML files are stored, click [OK], then the full path of the file is displayed.
    When "HTML/XML" is set for the [ROM Type], the source files in the specified folder are displayed in the [Source List].
    If there is no file in the specified folder, the error message appears.   A blank file or a file with the name including 24 characters or more is excluded.

[Source List]
    When "HTML/XML" is set for the [ROM Type], the files in the specific path under the specified folder is shown.
    ROM files for XML are created from the displayed files.

        \XML folder: File for XML
        \GRP_DATA folder: File for graphics
        \ENG\HTML folder: File for English language
        \ENG\PASS folder File for English language

\JPN\HTML folder: File for Japanese language
\JPN\PASS folder: File for Japanese language
\MAIL folder: File for emails
\MAIL\TEXT folder: File for emails

The file size and the ratio to the maximum size in percentage are displayed under the [Source List].

[ROM List]
    Data configuration of the created ROM file is displayed.
    When creation of a ROM file is started, the display is cleared and the status of file conversion into ROM file is shown.
    In the case the same file name is assigned to both the file for English language and the file for Japanese language, they are handled as one common file.

[Output File]
    Specify a file where ROM data is saved.

    Click the   button, and the file selection screen is displayed.   Specify a file, click [Save], and the full path is displayed in the file name.
    The specified file is initialized, and the created ROM data is saved.

[Create]
    A ROM file is created from the files in the file list on the specified conditions.
    When this button is clicked, the processing starts.
    The progress status is indicated with the progress bar and in the [ROM List].   Cancellation is not acceptable during the creation of the ROM file.
    The result of the conversion is displayed in the [ROM List].
    This button is grayed out unless the file list and the output file are configured.
    Download the created ROM files to the printer using [Start Download...] on the [Firmware Download] tab page.
    When the number of files exceeds 128 or the total file size in the ROM list exceeds the value shown at the "Size", the error message is displayed.
    When reading the file, creating or saving ROM files failed, the error message is also displayed.

Tool

The functions useful for operating the printer are provided.
When the [Tool] icon on the menu icon area is clicked, the [Tool] screen is displayed.

Tool Tab
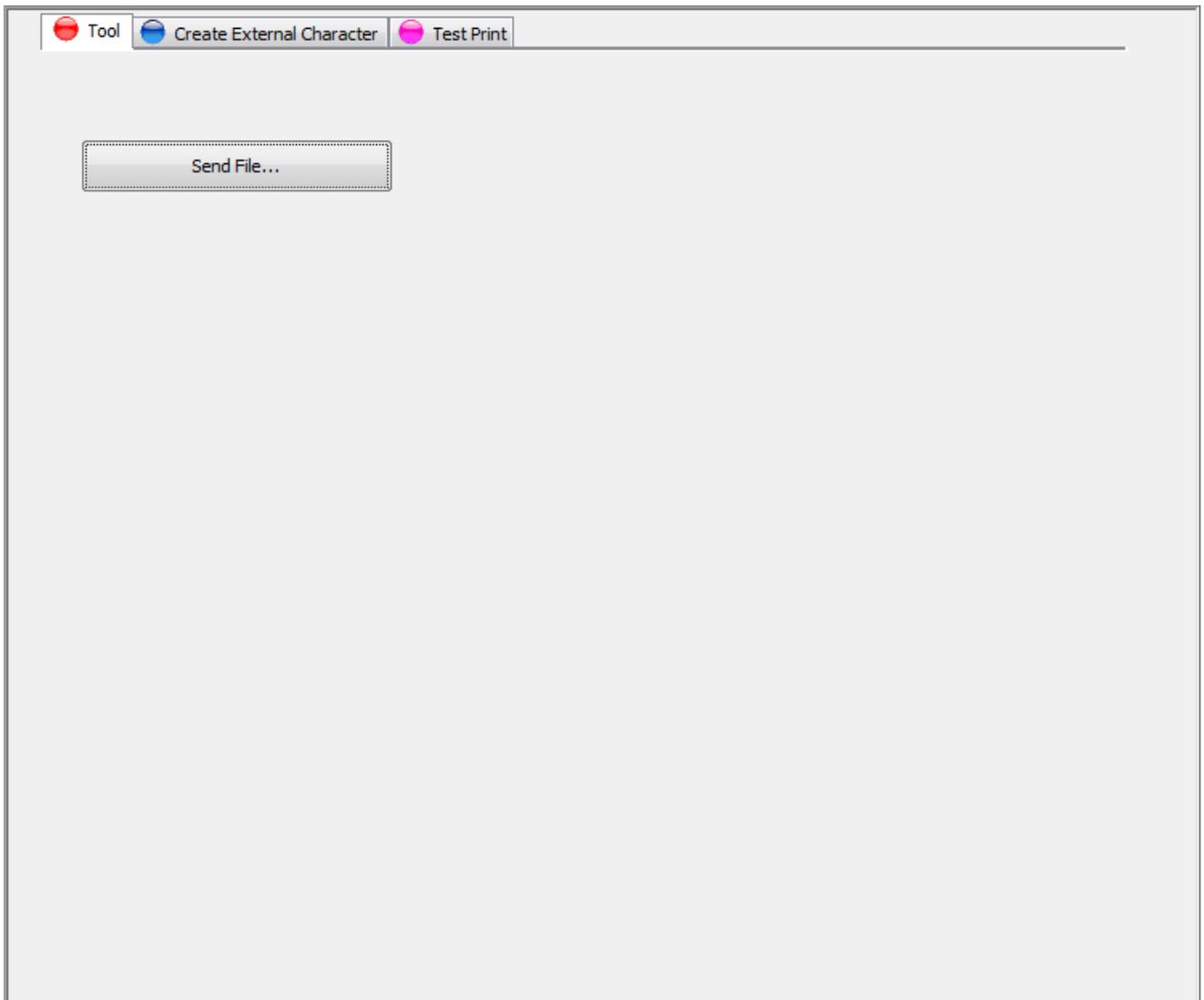
[Send File...]

    A specified file is sent to the printer in binary format.
    When this button is clicked, the file selection screen is displayed. Select a desired file, click the [Open], and the file transmission is started.
    As soon as the processing starts, the progress status is displayed. When the file transmission is completed, the completion screen is displayed.
    When Multi LAN is selected for the interface, the [Printer List] screen appears to allow choosing the applicable printers.
    This function is used for sending the files such as external characters and printer commands to the printer.
    A file transmission is executed regardless of the printer status.

[Start TrueType Font Tool]

    When this button is clicked, the "True Type Font Tool" is started.
    The "True Type Font Tool" is independent from the Product. Therefore, care must be taken not to access the printer from both tools at the same time.
    This button is displayed only when the "True Type Font Tool" is installed.

Create External Character Tab

[Specification Method]
How to specify the bitmap file path is selectable.
Select the "File" when an external character is created from one bitmap file.
Select the "Folder" when an external character is created from more than one bitmap file.

Default	File
Options	File, Folder

[Location]
Select the type of memory where the files are stored.

Default	Onboard Flash Memory
Options	Onboard Flash Memory, USB Memory

[Bitmap Path]
Specify the location where the bitmap file is stored.

Click the button to show the full path of the specified location.
Only monochrome (black and white) bitmaps are acceptable. One dot of a bitmap is equivalent to one pixel specified in Paint.
When the "File" is selected for the [Specification Method], specify one bitmap file from the screen.
If the selected file is not a monochrome bitmap, the error message is displayed.
If the selected file exceeds the acceptable upper limit of the width or height, the error message is displayed.
When the "Folder" is selected for the [Specification Method], specify a folder in which more than one bitmap file is stored.   The bitmap files in the specified folder are displayed in the [Bitmap List] as long as their file names conform to the format described below.

When no monochrome bitmap file with proper name is found in the specified folder, the error message is displayed.

◆Bitmap file name format
G_"Type""Code" (_"Left Offset"_"Top Offset"_"Character Spacing").bmp
<Example>　When Type = 01, Code = 20: G_0120.bmp or G_0120_0_0_0.bmp
　　　　　　　When Type = 51, Code = FFFF: G_51FFFF.bmp or G_51FFF_0_0_0.bmp

◆Restriction on the bitmap file
When [Type] = "41", the size shall be 16 x 16 dots.
When [Type] = "42", the size shall be 24 x 24 dots.
When [Type] = "43", the size shall be 32 x 32 dots.
When [Type] = "44", the size shall be 48 x 48 dots.
When [Type] = other value than above:
▪ When [Location] = "Onboard Flash Memory", the size shall be 720 x 720 dots or less.
▪ When [Location] = "USB Memory" and [Printer] = "B-EX4T1-G" or "B-EX4T2-G", the size shall be 832 x 5460 dots or less.
▪ When [Location] = "USB Memory" and [Printer] = "B-EX4T1-T", the size shall be 1248 x 5460 dots or less.
▪ When [Location] = "USB Memory" and [Printer] = "B-EX4T2-T", the size shall be 1228 x 5460 dots or less.
▪ When [Location] = "USB Memory" and [Printer] = "B-EX4T2-H", the size shall be 2455 x 5460 dots or less.
▪ When [Location] = "USB Memory" and [Printer] = "B-EX6T2-G", the size shall be 1216 x 5460 dots or less.
▪ When [Location] = "USB Memory" and [Printer] = "B-EX6T2-T", the size shall be 1794 x 5460 dots or less.

[Bitmap List]
Bitmap files in the location specified for the [Bitmap path] are displayed.
Displayed files are original files used for creating an external character file.

[Size]
The size and image of the selected bitmap file is displayed.

[Type]
Specify a type number used for storing the file as an external character.
When the "Folder" is selected for the [Specification Method], this becomes invalid.

Default	01
Range	When [Location] = "Onboard Flash Memory": 01 to 44, 51
	When [Location] = "USB Memory": 01 to 44, 51 to 55

[Code]
Set the character code in hex. format for storing the file as an external character.
One hexadecimal code is expressed with two characters. (Example: "0" -> "30", "A" -> "41")
When the "Folder" is selected for the [Specification Method], this becomes invalid.

Default	20
Range	When [Type] = any of "01" to "40": 20 to FF
	When [Type] = any of "41" to "44": 40 to 7E, 80 to FC
	When [Type] = any of "51" to "55": 2020 to FFFF

[Left Offset]
Set a value for the left offset from the reference coordinate.
When any of "41" to "44" is set for the [Type], this becomes invalid.
When the "Folder" is selected for the [Specification Method], this becomes invalid.

Default	0 dot
Range	When [Location] = "Onboard Flash Memory": 0 to 719 dots
	When [Location] = "USB Memory" and [Printer] = "B-EX4T1-G" or "B-EX4T2-G": 0 to 831 dots
	When [Location] = "USB Memory" and [Printer] = "B-EX4T1-T": 0 to 1247 dots
	When [Location] = "USB Memory" and [Printer] = "B-EX4T2-T": 0 to 1227 dots
	When [Location] = "USB Memory" and [Printer] = "B-EX4T2-H": 0 to 2454 dots
	When [Location] = "USB Memory" and [Printer] = "B-EX6T2-G": 0 to 1215 dots
	When [Location] = "USB Memory" and [Printer] = "B-EX6T2-T": 0 to 1793 dots

[Top Offset]
　　　Set a value for the top offset from the reference coordinate.
　　　When any of "41" to "44" is set for the [Type], this becomes invalid.
　　　When the "Folder" is selected for the [Specification Method], this becomes invalid.

Default	0 dot	
Range	When [Location] = "Onboard Flash Memory":　0 to 719 dots
	When [Location] = "USB Memory":　0 to 5460 dots

[Character Spacing]
　　　Set a fine adjustment value for the space between characters.
　　　When any of "41" to "44" is set for the [Type], this becomes invalid.
　　　When the "Folder " is selected for the [Specification Method], this becomes invalid.

Default	0 dot
Range	When [Location] = "Onboard Flash Memory":　0 to 999 dots
	When [Location] = "USB Memory" and [Printer] = "B-EX4T1-G" or "B-EX4T2-G": 0 to 832 dots
	When [Location] = "USB Memory" and [Printer] = "B-EX4T1-T":　0 to 1248 dots
	When [Location] = "USB Memory" and [Printer] = "B-EX4T2-T":　0 to 1228 dots
	When [Location] = "USB Memory" and [Printer] = "B-EX4T2-H":　0 to 2455 dots
	When [Location] = "USB Memory" and [Printer] = "B-EX6T2-G":　0 to 1216 dots
	When [Location] = "USB Memory" and [Printer] = "B-EX6T2-T":　0 to 1794 dots

[Confirmation File]
　　　Select whether or not to generate a print command file for checking the created external characters.
　　　When the checkbox is checked, a print command will be created in accordance with the specified [Magnification], [Print Method], [Label Length], and [Label Width].　The [Print Speed], [Sensor] and [Issue Mode] are fixed to "3inch/sec.", "None", and "Batch", respectively.
　　　By sending the created print command to the printer in which the external character file is stored, you can print the external characters for check.
　　　The file extension is "prn" and the file name is the same as the output file name.
　　　When the "Folder" is selected for the [Specification Method], this becomes invalid.

[Magnification]
　　　Select a magnification of the external character for test print.

Default	1.0 x 1.0
Options	0.5 x 0.5, 1.0 x 1.0, 2.0 x 2.0, 3.0 x 3.0, 1.0 x 2.0, 2.0 x 1.0

[Print Method]
　　　Select the print method.

Default	Thermal Transfer
Options	B-EX4T1-G / B-EX4T1-T: Thermal Transfer, Thermal Transfer (Ribbon Saving), Direct Thermal, Direct Thermal (Head Up)
	Other than B-EX4T1-G / B-EX4T1-T: Thermal Transfer, Direct Thermal

[Label Length]
　　　Set the effective print length of media. The label gap is fixed to 2 mm.

Default	74 mm
Range	Other than B-EX4T2-H:　8 to 1500 mm
	B-EX4T2-H:　8 to 500 mm

[Label Width]
　　　Set the effective print width of media.

Other than B-EX6T2-G / B-EX6T2-T:	
Default	104 mm
Range	10 to 104 mm
B-EX6T2-G / B-EX6T2-T:	
Default	152 mm
Range	10 to 152 mm

[Output File]
      Specify the file where the external character is stored.

      Click the button, and the file selection screen is displayed.　Specify a file, click [Save], and the full path is displayed in the file name.
      The file extension is "gai".
      After the specified file is initialized, the external character is stored in it.

[Create]
      A Bitmap External Character Command is created from the bitmap on the specified conditions.
      When this button is clicked, the processing starts.
      The progress status is indicated with the progress bar.　Cancellation is not acceptable during the creation of the command.
      This button is grayed out unless data is set for the [Bitmap Path] and [Output File].
      When the "File" is selected for the [Specification Method], an external character file is created from the specified bitmap file.
      When the "Folder" is selected for the [Specification Method], an external character file is created from the bitmap file in the Bitmap list.
      A Bitmap External Character Command is created with nibble data.
      Send the created external character files to the printer using [Send File] on the [Tool] tab page.
      When reading, creating or saving the external character files failed, the error message is displayed.

Test Print Tab

[Print Pattern]
    Select a print pattern for the test print.

Default	Slant Lines (1 dot)
Options	Slant Lines (1 dot), Slant Lines (3 dots), Characters, Barcodes

[Print Condition]
    [Issue Count]
        Set the print count.

Default	1
Range	1 to 9999

    [Print Speed]
        Select a print speed.

Default	B-EX4T1-G / B-EX4T2-G / B-EX6T2-G:　6 inch/sec
	B-EX4T1-T / B-EX4T2-T / B-EX6T2-T:　5 inch/sec
	B-EX4T2-H:　3 inch/sec
Options	B-EX4T1-G:　3 inch/sec, 6 inch/sec, 10 inch/sec, 12 inch/sec, 14 inch/sec
	B-EX4T1-T:　3 inch/sec, 5 inch/sec, 8 inch/sec, 10 inch/sec, 12 inch/sec, 14 inch/sec
	B-EX4T2-G:　3 inch/sec, 6 inch/sec, 10 inch/sec, 12 inch/sec
	B-EX4T2-T:　3 inch/sec, 5 inch/sec, 8 inch/sec, 10 inch/sec, 12 inch/sec
	B-EX4T2-H:　2 inch/sec, 3 inch/sec, 4 inch/sec, 5 inch/sec, 6 inch/sec
	B-EX6T2-G:　3 inch/sec, 6 inch/sec, 10 inch/sec
	B-EX6T2-T:　3 inch/sec, 5 inch/sec, 8 inch/sec, 10 inch/sec

[Sensor]
    Select a sensor to be used.

Default	None
Options	None, Reflective, Transmissive, Transmissive (Preprinted Labels), Reflective (Manual)

[Issue Mode]
    Select an issue mode.

Default	Batch
Options	Batch, Cut After Every Page, Peel-off

[Print Method]
    Select a print method.

Default	Thermal Transfer
Options	B-EX4T1-G / B-EX4T1-T: Thermal Transfer, Thermal Transfer (Ribbon Saving), Direct Thermal, Direct Thermal (Head Up)
	Other than B-EX4T1-G / B-EX4T1-T: Thermal Transfer, Direct Thermal

[Label Length]
    Set the effective print length of media.

Default	74 mm
Range	Other than B-EX4T2-H:　8 to 1500 mm
	B-EX4T2-H:　8 to 500 mm

[Label Gap]
    Set the length of the gap between labels.

Default	2 mm
Range	0 to 20 mm

[Label Width]
    Set the effective print width of media.

Other than B-EX6T2-G / B-EX6T2-T:	
Default	104 mm
Range	10 to 104 mm
B-EX6T2-G / B-EX6T2-T:	
Default	152 mm
Range	10 to 152 mm

[Tone Adjustment]
    Set a fine adjustment value for the print tone.
    A Print Density Fine Adjust command only for the selected print method is transmitted. The fine adjustment value set in the Print Density Fine Adjust command will be effective until it is changed.

Default	0
Range	-20 to +10

[Test Print]
    The printer performs a test print on the specified conditions.
    When this button is clicked, the processing starts.
    When Multi LAN is selected for the interface, the [Printer List] screen is displayed to allow choosing the printers on which the test print is performed.
    When the processing starts, the progress status screen is displayed.　When the processing is completed, the completion screen is displayed.
    This function is executed only when the printer is in online mode and idle state.
    When reading the file or creating an image data failed, the error message is displayed.
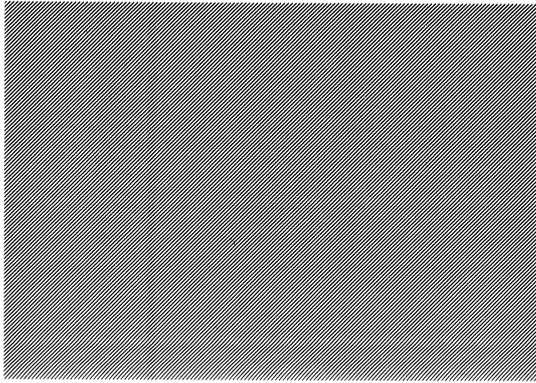
Slant Lines (1 dot)	Slant Lines (3 dot)
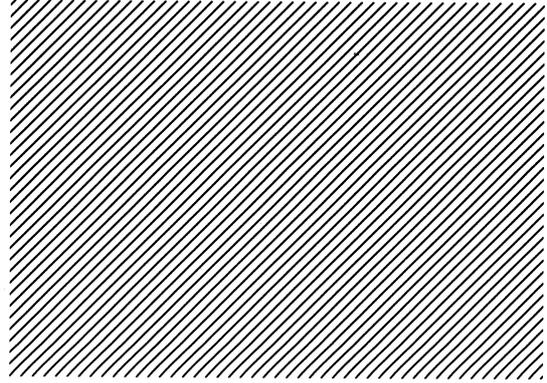
Characters

A/ 0123ABCDEFGHIJ
B/ 0123ABCDEFG
C/ 0123ABCDEFG
D/ 0123ABCDEF
E/ 0123ABCDE
F/ 0123ABCDEF

G/ 0123ABCDEFGHIJKLMNOP
H/ 0123ABCDEFGHIJ
I/ 0123ABCDEFG
J/ 0123ABCDEFG
K/ 0123ABCDE
L/ 0123ABCDEFG

M/ 0123ABCDEFGHIJKL
N/ 0123ABCDEFG
O/ 0123ABCDEFG
P/ 0123ABCD
Q/ 0123ABCD
R/ 0123ABC
S/ 0123ABC
T/ 0123ABC

0123456
0123456
0123456
AB
ABCDEF
ABCDEFG

Barcodes

ABCDE1234R

0:JAN8,EAN8
4940 0458

4:NW7
a1234567890a

2:ITF
012345678905

5:JAN13,EAN13
4 901480 079516

3:CODE39(Standard)
ABC123

9,A:CODE128
ABCDEFGHI

6. Appendix

Error Message List

Message	Explanation
Login Dialog	
The password is not correct. Enter a correct password. The password is case-sensitive.	The entered password is incorrect.
Environment Dialog	
The same value is set for all of "Code 1", "Code 2" and "Code 3". Set a different value for each.	The same value is set for all of "Code 1", "Code 2" and "Code 3".
Password Change Dialog	
The old password is not correct. Enter a correct password. The password is case-sensitive.	The entered password and the currently effective password do not match.
The new password and the confirmation password do not match. Enter a correct password. The password is case-sensitive.	The new password and the password entered for confirmation do not match.
Printer Setting Screen	
The specified file is not the Multi-LAN configuration file. Select a file in the correct format.	The specified file cannot be read. The format of the specified file is different from that of the Multi LAN configuration file.
Saving data in the specified file failed. Check if the file is writable.	Data cannot be saved in the specified file.
Parallel interface does not support this function. Use other interface.	When "LPT1", "LPT2" or "LPT3" is selected for the interface type, the functions on the Parameter Setting screen or Maintenance screen cannot be used.
Parameter Setting Screen	
The configuration file for a wrong printer was specified. Select a file in the correct format.	The specified file cannot be read. The format of specified file is different from that of the printer configuration file.
Saving data in the specified file failed. Check if the file is writable.	Data cannot be saved in the specified file.
The same value is set for all of "Code 1", "Code 2" and "Code 3" on the General (2) tab page. Set a different value for each.	The same value is set for all of "Code 1", "Code 2" and "Code 3".
The entered value for "DHCP Client ID" on the LAN tab page is incorrect. When using hex. format, enter an even-digit code.	An odd-digit character was entered for "DHCP Client ID".
The entered value for "MAC Address 'number'" on the WLAN tab page is incorrect. Enter a 12-digit hex. code.	The number of characters entered for "MAC Address 'number'" is insufficient. ('number': 1 to 5)

The entered value for "WEP Key #'number'" on the WLAN tab page is incorrect. When using hex. format, enter a 10-digit or 26-digit hex. code. When using ASCII, enter a 5-digit or 13-digit character string.	The number of characters entered for "WEP Key #'number'" is insufficient. ('number': 1 to 4)

Firmware Download Tab

The specified file is not a ROM file for the printer. Select the file in the proper format.	The specified file cannot be read. The format of the specified file is different from that of the ROM file for the printer.
The specified file is the ROM file for the printer model different from the specified one on the Printer Setting screen. Select the proper ROM file.	The specified ROM file is not for the printer model specified on the Printer Setting screen.

BASIC Download Tab

Reading the specified file failed. Check if the file is readable.	The specified file cannot be read. Encoding the BASIC program failed.
The BASIC program has an error. ("Message") Check the program code.	BASIC program has incorrect codes. Detailed information is displayed in "Message".
The BASIC program does not conform to the defined specification. ("Message") Check the program code.	The BASIC program codes do not conform to the defined specification. Detailed information is displayed in "Message".

Create HTML/XML ROM Tab

No file is found in the specified file. Select the folder containing a file in the correct format.	Effective files like the following are not found in the folder. ▪ Up to 24-character file name ▪ No blank file
The max. acceptable size for the HTML/XML ROM files is exceeded. Check the file size in the folder.	The maximum acceptable size was exceeded while creating HTML/XML ROM files.
The max. acceptable number of files for HTML/XML ROM files is exceeded. Check the number of files in the file.	The maximum acceptable number of files (128) was exceeded while creating HTML/XML ROM files.
Creating an HTML/XML ROM file failed. Check if the file in the list is readable.	The file in the list cannot be read. Creating an HTML/XML ROM file failed.
Saving data in the specified file failed. Check if the file is writable.	Data cannot be saved in the specified file.

Tool Tab

Reading the specified file failed. Check if the file is readable.	The specified file cannot be read.

Create External Character Tab

No registrable monochrome bitmap file is found in the specified folder. Choose the folder containing a proper file.	No effective monochrome bitmap file is found in the specified folder. ▪ File name ▪ Bitmap format ▪ Bitmap size

Selected file is not a monochrome bitmap file. Select a file in the correct format.	The specified file is not a monochrome bitmap file.
The specified file exceeds the maximum width or height of the external character. Specify the file with the proper size.	The width or height of the bitmap exceeds the maximum number of dots as an external character.
Creating an external character file failed. Check if the bitmap file in the bitmap list is readable.	Bitmap file in the bitmap list cannot be read. Creating an External Character command failed.
Saving data in the specified file failed. Check if the file is writable.	Data cannot be saved in the specified file.
Test Print Tab	
Generation of print data failed. Restart the Product, and retry the operation. If printing cannot be performed, re-install the Product.	The file where the image to be printed is stored cannot be read. Generating a print command failed.
Completion Screen	
Saving data in the specified file failed. Check if the file is writable.	Data cannot be saved in the specified file.
Communication	
No printer has been registered to the Printer list for Multi LAN. Check the settings for the Interface on the Printer Setting screen.	No printer has been registered to the Printer list for the Multi LAN on the Printer Setting screen.
No printer is connected to the USB port. Connect a printer to the USB port.	No communicable printer is connected to the USB port.
More than one printer is connected to the USB port. Connect only one printer to the USB port.	More than one communicable printer is connected to the USB port.

Setup Items List

General Tab

Setup group	Setup item	Options or range	Default
Image	Character Code	PC-850	PC-850
		PC-8	
		PC-852	
		PC-857	
		PC-851	
		PC-855	
		PC-1250	
		PC-1251	
		PC-1252	
		PC-1253	
		PC-1254	
		PC-1257	
		LATIN9	
		Arabic	
		PC-866	
		UTF-8	
	Zero Font	without Slash	without Slash
		with Slash	
	EURO Font Code	20 to FF	B0
	MaxiCode Spec	TYPE 1	TYPE 1
		TYPE 2	
	Kanji Code	TYPE 1	TYPE 1
		TYPE 2	
Supply	B-EX4T1-G / B-EX4T1-T: Energy Type (Transfer)	Semi Resin 1	Semi Resin 1
		Semi Resin 2	
		Resin 1	
		Resin 2	
		Resin 3	
		Reserve 2	
		Reserve 3	
		Reserve 4	
		Reserve 5	
		Reserve 6	
	B-EX4T2-G / B-EX4T2-T: Energy Type (Transfer)	Wax 1	Wax 1
		Wax 2	
		Semi Resin 1	
		Semi Resin 2	
		Resin 1	
		Wax 3	
		Semi Resin 3	
		Resin 2	
		Reserve 1	
		Reserve 2	
	B-EX4T2-H: Energy Type (Transfer)	Resin 1	Resin 1
		Resin 2	
		Reserve 1	
		Reserve 2	
		Reserve 3	
		Reserve 4	
		Reserve 5	
		Reserve 6	
		Reserve 7	
		Reserve 8	
	B-EX6T2-G / B-EX6T2-T: Energy Type (Transfer)	Wax 1	Wax 1
		Wax 2	
		Semi Resin 1	
		Semi Resin 2	
		Resin 1	
		Reserve 1	
		Reserve 2	
		Reserve 3	
		Reserve 4	
		Reserve 5	

	Energy Type (Direct)	Standard	Standard
		Reserve 1	
		Reserve 2	
		Reserve 3	
		Reserve 4	
		Reserve 5	
		Reserve 6	
		Reserve 7	
		Reserve 8	
		Reserve 9	
	Ribbon Near End	Disable	Disable
		30 m	
		70 m	
	Label/Ribbon End	TYPE 1	TYPE 1
		TYPE 2	
	B-EX4T1-G / B-EX4T1-T: Ribbon Save	Disable	JA:　Tag Other than JA: Disable
		Tag	
		Label	
	Other than B-EX4T1-G / B-EX4T1-T: Ribbon Save	Disable	Disable
	B-EX4T1-G / B-EX4T1-T: Type Of Ribbon	Coated Side Out	Coated Side Out
	Other than B-EX4T1-G / B-EX4T1-T: Type Of Ribbon	Coated Side Out	Coated Side Out
		Coated Side In	
Display	LCD Language	English	JA:　Japanese Other than JA: English
		German	
		French	
		Dutch	
		Spanish	
		Japanese	
		Italian	
		Portuguese	
		Simplified Chinese	
	Contrast	24 to 50 (Even number only)	40
	Machine Name	Hide	Display
		Display	
	Print Page	Hide	Display
		Display	
	IP Address	Hide	Hide
		Display	
Control	FEED Key	Feed	Feed
		Print	
	Auto Head Check	Disable	Disable
		Enable	
	Expansion I/O	TYPE 1	TYPE 1
		TYPE 2	
	B-EX4T1-G / B-EX4T1-T: Auto Calibration	Disable	Disable
		Transmissive Sensor	
		Reflective Sensor	
		All Sensor	
		Transmissive Sensor (with Back Feed)	
		Reflective Sensor (with Back Feed)	
		All Sensor (with Back Feed)	
	Other than B-EX4T1-G / B-EX4T1-T: Auto Calibration	Disable	Disable
		Transmissive Sensor	
		Reflective Sensor	
		All Sensor	
	Power Save Time	1 to 240 (min)	15
Action	B-EX4T1-G / B-EX4T1-T: Media Load	Disable	Disable
		Standard	
		ECO	
		ECO (with Back Feed)	
	Other than B-EX4T1-G / B-EX4T1-T: Media Load	Disable	Disable
		Standard	
		ECO	
	Forward Wait	Disable	Disable
		Enable	
	Forward Wait Position	-5.0 to +5.0 (mm)	0.0
	Forward/Back Action	MODE 1	MODE1
		MODE 2	

	Head Up Cut/Rewinder	Disable	Disable
		Enable	
	Back Feed Speed	Standard	Standard
		Low	
Peel Off	Peel Off Status	Disable	Disable
		Enable	
	Pre Peel Off	Disable	Disable
		Enable	
XML	XML	Disable	Standard
		Standard	
		Oracle	
		SAP	
		Standard (External Memory)	
		Oracle (External Memory)	
		SAP (External Memory)	

General (2) Tab

Setup group	Setup item	Options or range	Default
Position Adjustment	Feed	-50.0 to +50.0 (mm)	0.0
	Cut/Peef Off	-50.0 to +50.0 (mm)	0.0
	Back Feed	-9.9 to +9.9 (mm)	0.0
	X-coordinate	-99.5 to +99.5 (mm)	0.0
Tone Adjustment	Thermal Transfer	-20 to +10	0
	Direct Thermal	-20 to +10	0
Command	Control Code	AUTO	AUTO
		[ESC] [LF] [NUL]	
		{ | }	
		Manual	
	Code 1	00～FF	1B
	Code 2	00～FF	0A
	Code 3	00～FF	00
BASIC	Basic Interpreter	Disable	Disable
		Enable	
	Basic Trace	Disable	Disable
		Enable	
Product	Printer Serial No.	Displayed only when obtained.	Blank
	SHELL	Disable	Disable
Sensor Adjustment	Reflective Sensor Threshold Select	Manual Set	Command Set
		Command Set	
	Reflective Sensor Threshold	0.1 to 4.0 (V)	1.0
	Transmissive Sensor Threshold Select	Manual Set	Command Set
		Command Set	
	Transmissive Sensor Threshold	0.1 to4.0 (V)	1.4
Ribbon Adjustment	Drive Voltage (Take-up)	-15 to 10	0
	Drive Voltage (Feed)	-15 to 10	0
RTC	Date Time	Displayed only when obtained.	Blank
	Battery Check	Disable	Disable
		Enable	
	Renewal	Batch	Batch
		Page	
Password	System Mode Password	Disable	Disable
		Enable	
	New Password	0000 to FFFF	0000
	Old Password	0000 to FFFF	0000

Device Tab

Setup group	Setup item	Options or range	Default
RS-232C	Baud Rate	2400 bps	9600 bps
		4800 bps	
		9600 bps	
		19200 bps	
		38400 bps	
		115200 bps	
	Data Length	7 bits	8 bits
		8 bits	
	Parity	None	JA: Even
		Even	Other than JA:
		Odd	None
	Stop Bit	1 bit	1 bit
		2 bits	
	Control	XON+READY AUTO	QQ:
		XON+XOFF AUTO	READY/BUSY
		READY/BUSY RTS	Other than QQ:
		XON+XOFF	XON+READY AUTO
		READY/BUSY	
CENTRO.	ACK/BUSY	TYPE 1	TYPE1
		TYPE 2	
	Input Prime	Disable	Enable
		Enable	
	Plug & Play	Disable	Disable
		Enable	
USB	USB Serial Number	Disable	Disable
		Enable	
		Displayed only when obtained.	Blank
	Auto Status Response	Disable	Disable
		Enable	

LAN Tab

Setup group	Setup item	Options or range	Default
TCP/IP	LAN I/F	Disable	Enable (AUTO)
		Enable (AUTO)	
		Enable (Wired LAN)	
		Enable (Wireless LAN)	
	IP Address	0.0.0.0 to255.255.255.255	192.168.10.20
	Subnet Mask	0.0.0.0 to 255.255.255.255	255.255.255.0
	Default Gateway	0.0.0.0 to255.255.255.255	0.0.0.0
Protocol	LPR	Disable	Enable
		Enable	
	Socket	Disable	Enable
		Enable	
	Port Number	0 to 65535	8000
	WEB Printer	Disable	Disable
		Enable	
		Enable (External Memory)	
	SNMP	Disable	Enable
		Enable	
SNMP Trap	[*] (*: 1 to10)	Disable	Disable
		Error	
		Job End	
		Error & Job End	
		0.0.0.0 to 255.255.255.255	0.0.0.0
Server	DHCP	Disable	Disable
		Enable	
	DHCP Host Name	0 to 32 characters	Blank
	DHCP Client ID	HEX: 0 to 64 characters	Blank
		ASCII: 0 to 32 characters	
	Input Type	HEX	HEX
		ASCII	
	WINS	Disable	Disable
		Enable (STATIC)	
		Enable (DHCP)	
	WINS Server Address	0.0.0.0 to 255.255.255.255	0.0.0.0

WLAN Tab

Setup group	Setup item	Options or range	Default
WLAN Basic	Communication Standard	802.11b	802.11b/g
		802.11g	
		802.11b/g	
WLAN Detail	ESS ID	0 to 32 characters	TOSHIBATEC
	Beacon Transmitting Interval	1 to 65535 (msec)	1000
	Roaming Threshold	0 to 99	70
	Country Code	Displayed only when obtained.	Blank
802.11b	Channel	1 to 14	1
	Baud Rate	11 Mbps	11 Mbps
		5.5 Mbps	
		2 Mbps	
		1 Mbps	
802.11g	Channel	1 to 13	1
	Baud Rate	54 Mbps	54 Mbps
		48 Mbps	
		36 Mbps	
		24 Mbps	
		18 Mbps	
		12 Mbps	
		9 Mbps	
		6 Mbps	
		11 Mbps	
		5.5 Mbps	
		2 Mbps	
		1 Mbps	
Priority AP	Property	ANY SSID OFF	ANY SSID OFF
		ANY SSID ON / Priority AP OFF	
		ANY SSID ON / Priority AP ON / Other AP OFF	
		ANY SSID ON / Priority AP ON / Other AP ON	
	MAC Address 1	Fixed at 12 characters	Blank
	MAC Address 2	Fixed at 12 characters	Blank
	MAC Address 3	Fixed at 12 characters	Blank
	MAC Address 4	Fixed at 12 characters	Blank
	MAC Address 5	Fixed at 12 characters	Blank
Authentication	(1) Connection Mode	Infrastructure	Infrastructure
		Adhoc	
	(2) Encryption	Disable	Disable
		WEP40	
		WEP104	
		TKIP	
		AES	
	(3) Network Authentication	Open System	Open System
		Shared Key	
		WPA-EAP	
		WPA-PSK	
		WPA2-EAP	
		WPA2-PSK	
	(4) EAP Method	Disable	Disable
		EAP-MD5	
		EAP-TLS	
		EAP-TTLS	
		LEAP	
		LEAP (NetworkEAP)	
		PEAP	
		PEAP (w/o Cert.)	
		EAP-FAST	

WEP	Default Key	1		1
		2		
		3		
		4		
	Input Type	HEX		HEX
		ASCII		
	WEP Key #1	Disable		Disable
		40 bits	ASCII: Fixed at 5 chars. HEX: Fixed at 10 chars.	
		104 bits	ASCII: Fixed at 5 chars. HEX: Fixed at 10 chars.	
	WEP Key #2	Disable		Disable
		40 bits	ASCII: Fixed at 5 chars. HEX: Fixed at 10 chars.	
		104 bits	ASCII: Fixed at 5 chars. HEX: Fixed at 10 chars.	
	WEP Key #3	Disable		Disable
		40 bits	ASCII: Fixed at 5 chars. HEX: Fixed at 10 chars.	
		104 bits	ASCII: Fixed at 5 chars. HEX: Fixed at 10 chars.	
	WEP Key #4	Disable		Disable
		40 bits	ASCII: Fixed at 5 chars. HEX: Fixed at 10 chars.	
		104 bits	ASCII: Fixed at 5 chars. HEX: Fixed at 10 chars.	

WLAN (2) Tab

Setup group	Setup item	Options or range	Default
WPA-PSK	Pre Shared Key	8 to 64 characters	00000000
Account	User Name	0 to 32 characters	Blank
	Password	0 to 32 characters	Blank
802.1X	Reauthentication Interval	2 to 4320 (min)	2
Supplicant	Server Certificate	Filename: MAX_PATH character	Blank
	Client Certificate	Filename: MAX_PATH character	Blank
	Key File	Filename: MAX_PATH character	Blank
	Secret Key	0 to 64 characters	Blank
	Random Seed	Filename: MAX_PATH character	Blank
EAP-FAST	Provisioning Method	Auto Provisioning	Auto Provisioning
		Manual Provisioning	
	Internal Authentication	MSCHAPV2	MSCHAPV2
		GTC	
	PAC File	No Change	No change
		Send the PAC file for Manual Provisioning	
		Delete the PAC file for Manual Provisioning	
		Delete the PAC file for Auto Provisioning	
		Delete the PAC files for Manual Provisioning and Auto Provisioning	
	PAC File Path	File name: MAX_PATH character	Non-entered
	PAC File Password	0 to 32 characters	Non-entered
CCX	CCX Options	Disable	Disable
		Enable	
	CCKM Mode	Disable	Disable
		Enable	
	CAC Mode	Disable	Disable
		Enable	
	RM Mode	Disable	Disable
		Enable	
	U-APSD Mode	Disable	Disable
		Enable	
	Station Name	Displayed only when obtained.	Blank

RFID Tab

Setup group	Setup item	Options or range	Default
Module	Module Type	None	None
		H1 (HF Band)	
		H2 (HF Band)	
		U2 (UHF Band)	
	Tag Type	NONE	NONE
		I-Code	
		Tag-It	
		C220	
		ISO15693	
		C210	
		C240	
		C320	
		EPC C1 Gen2	
	Country	Displayed only when obtained.	Blank
UHF Setting	Power Level	0 to 255	18
	Q Value	0 to 15	0
	AGC Threshold	0 to 15	0
	Write AGC Threshold	0 to 15	0
	Write Retry Min. AGC	0 to 15	0
	RF Channel	AUTO	AUTO
		2 CH	
		3 CH	
		4 CH	
		5 CH	
		6 CH	
		7 CH	
		8 CH	
	Multi-word Write	Disable	Disable
		Enable	
Retry	Retry Position Adjustment	-99 to +99 (mm)	0
	Issue Retry Labels	0 to 255 (labels)	3
	Read Retry Count	0 to 255 (times)	5
	Read Retry Timeout	0.0 to 9.9 (sec)	4.0
	Write Retry Count	0 to 255 (times)	5
	Write Retry Timeout	0.0 to 9.9 (sec)	2.0

TOSHIBA TEC CORPORATION