

TOSHIBA

TOSHIBA Barcode Printer

B-FV Series

B-FV Setting Tool Operation Manual

1st Edition: April 16, 2015

TOSHIBA TEC CORPORATION

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1. SCOPE

Thank you for using the "B-FV Setting Tool", a setting tool for the barcode printers of TOSHIBA TEC Corporation (hereinafter referred to as "TOSHIBA TEC").

This document gives you a general description of the "B-FV Setting Tool" (hereinafter referred to as "the Product") including the installation procedure and features.

1.1 Supported Printers

The Product supports the following printers:

- B-FV4T-GS series
- B-FV4T-TS series
- B-FV4D-GS series
- B-FV4D-TS series

1.2 Software License Agreement

Please read the following terms and conditions of this Agreement carefully before using this Software. This is a legal agreement between you and TOSHIBA TEC. By installing this Software on your computer, you are agreeing to be bound by the terms and conditions of this Agreement.

1. You may use this Software on a single TOSHIBA TEC barcode printer acquainted from affiliated company, dealer or distributor of TOSHIBA TEC.
2. You shall not grant a sub-license, distribute, transfer, lend or otherwise dispose of this Software, in whole or in part, for the use of any third party other than you except as otherwise expressly provided herein.
3. You shall not modify, reverse engineering, reverse compile or reverse disassemble this Software, in whole or in part, except as otherwise expressly provided herein.
4. You shall not copy or make a duplicate (or backup copy) of this Software, in whole or in part, except as otherwise expressly provided herein.
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6. TOSHIBA TEC or its licensor makes no representation or warranty, expressed or implied, including but not limited to the correction of any error or failure, maintenance and support relating to this Software.
7. IN NO EVENT SHALL TOSHIBA TEC OR ITS LICENSOR BE LIABLE TO YOU OR ANY THIRD PARTIES FOR ANY DAMAGES, INCLUDING ANY LOST PROFITS, LOST SAVINGS OR OTHER INCIDENTAL OR CONSEQUENTIAL DAMAGE ARISING OUT OF THE USE OR INABILITY TO USE THIS PROGRAMS, EVEN IF TOSHIBA TEC HAS ADVISED OF THE POSSIBILITY OF SUCH DAMAGES, NOR FOR ANY CLAIMS BY A THIRD PARTY.
8. TOSHIBA TEC or its licensor will terminate this Agreement if you fail to comply with any of this terms and conditions. Upon the termination of this Agreement, you agree to uninstall the Software and return it to TOSHIBA TEC.
9. This Agreement shall become effective upon the installation or use of this Software by You. By installing or using this Software you hereby indicate your acceptance of these terms and conditions.

1.3 Features

The Product is software, which allows you to configure, download files to, and perform maintenance of the supported TOSHIBA TEC Barcode Printers under a Microsoft Windows Vista / 7 / 8 / 8.1 environment.

Please note the Product is targeted for a user who is familiar with the Supported Printers.

1.4 Trademark and Copyright

Microsoft and Windows are trademarks of Microsoft Corporation in the United States and other countries.

Bluetooth® is a registered trademark owned by Bluetooth SIG, Inc.

Other company and product names may be registered trademarks or trademarks of others.

Each company's registered trademarks and trademarks are not marked with ™ or ®.

All technologies other than the above are exclusive property of TOSHIBA TEC.

Copyright of TOSHIBA TEC in Japan and other countries is expressed as:

Copyright© 2015 TOSHIBA TEC CORPORATION. All Rights Reserved.

1.5 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.

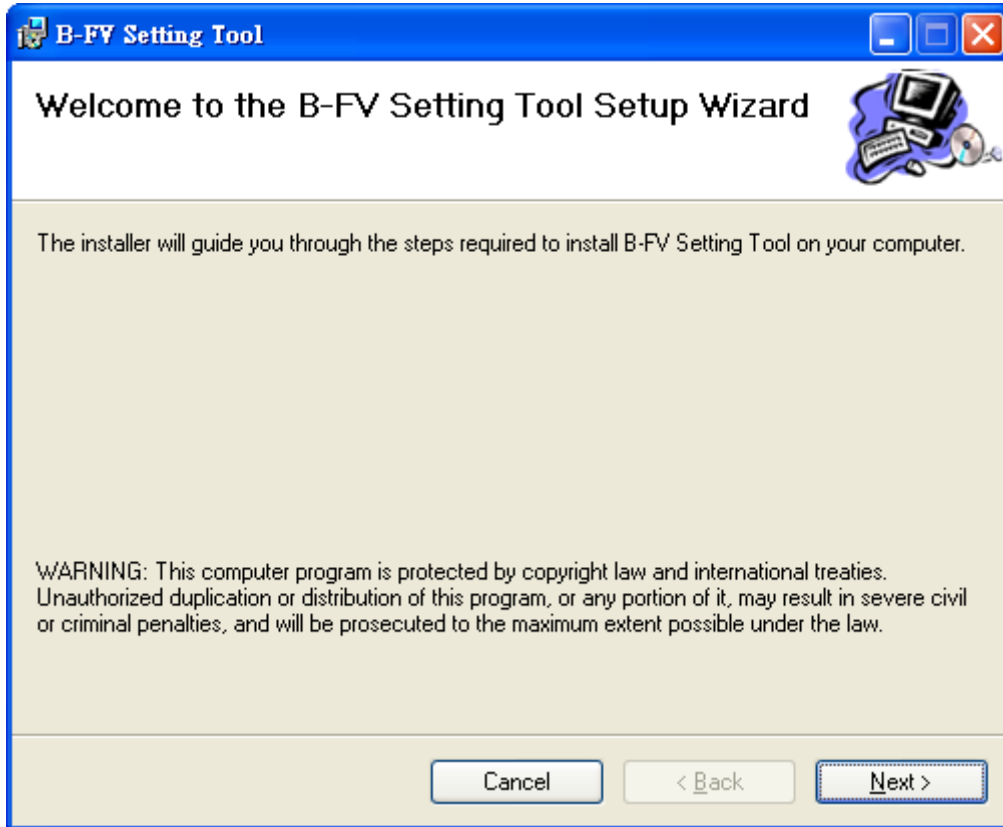
The Product is intended to be used by the Administrator who is familiar with the Supported Printers. The Setting Tool and Downloader must be used by the Administrator or under instructions of the Administrator.

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).

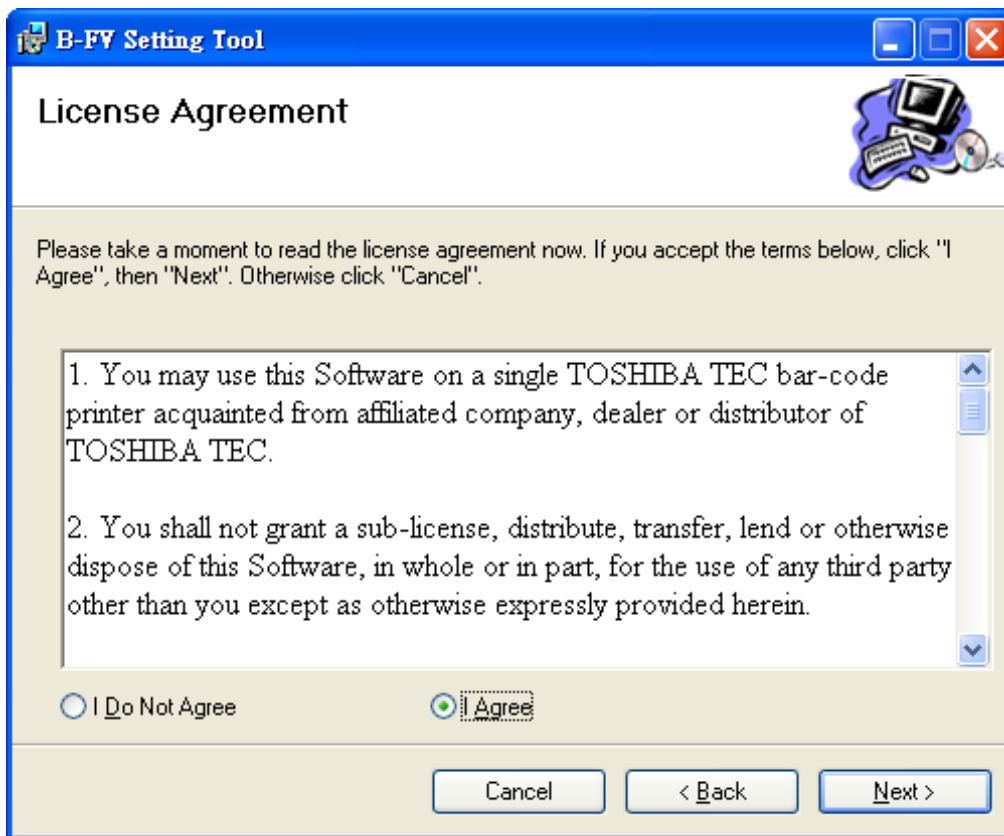
2. INSTALLATION

2.1 Installation Procedure

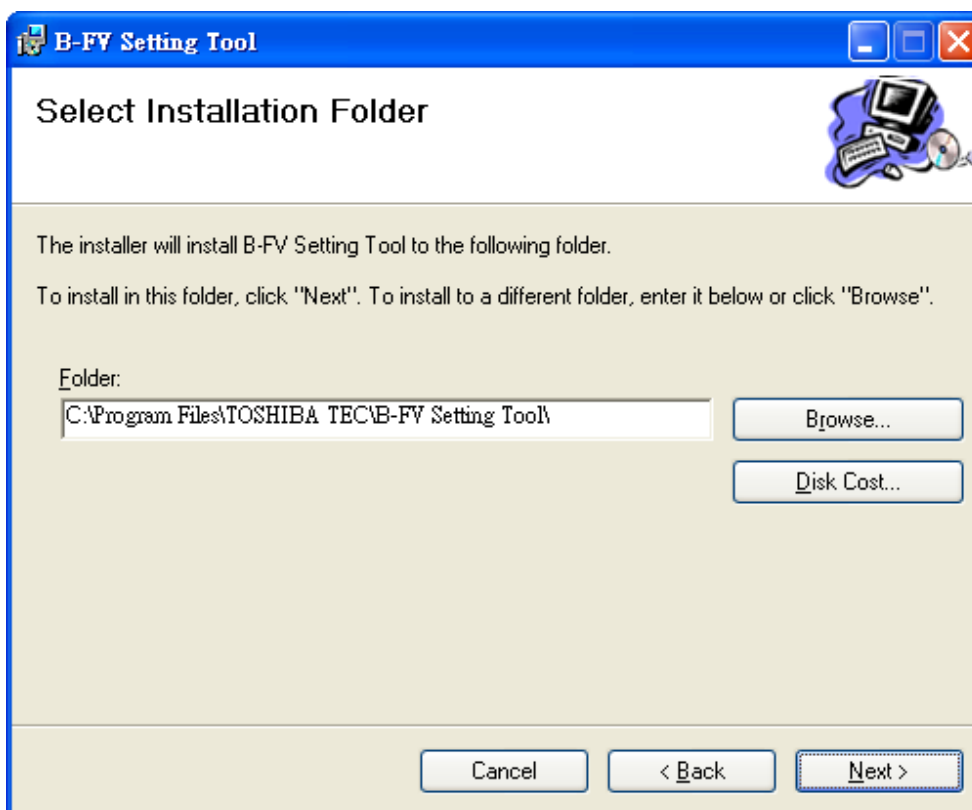
1. Double-click the setup program (B-FV_SettingTool_Vx.x.x.x.msi).
2. In the B-FV Setting Tool dialog box, click [**Next**].



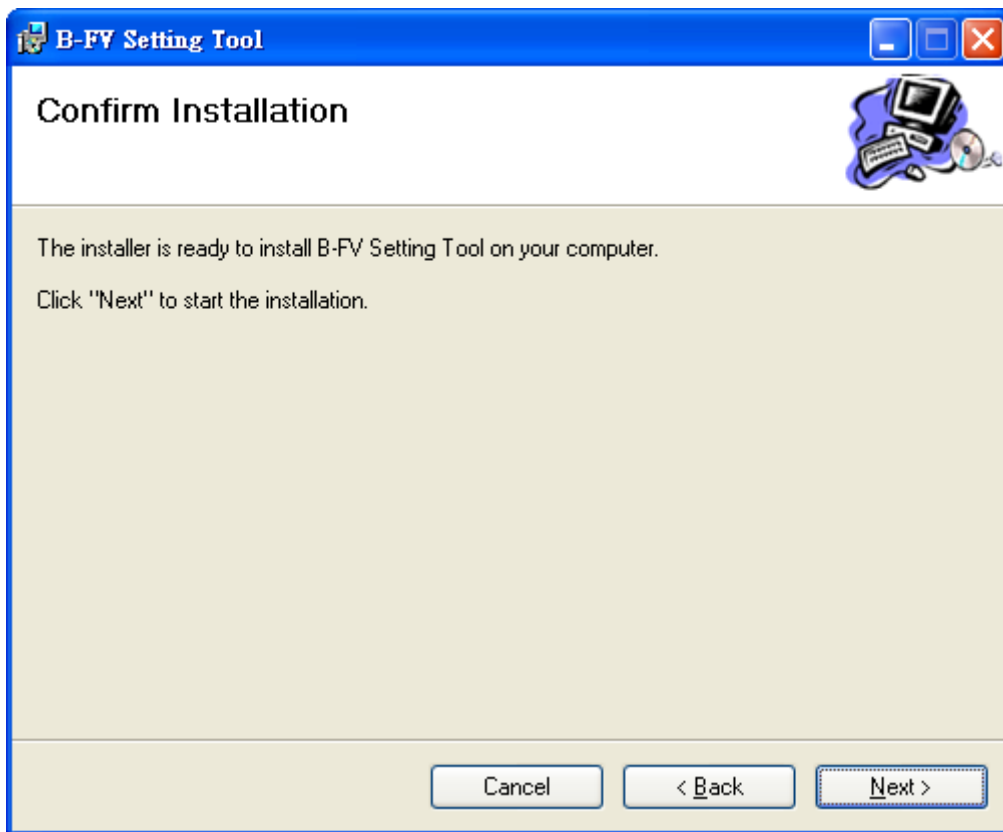
3. In the next dialog box, click [**I Agree**] after you read and accept the license agreement, and click [**Next**].



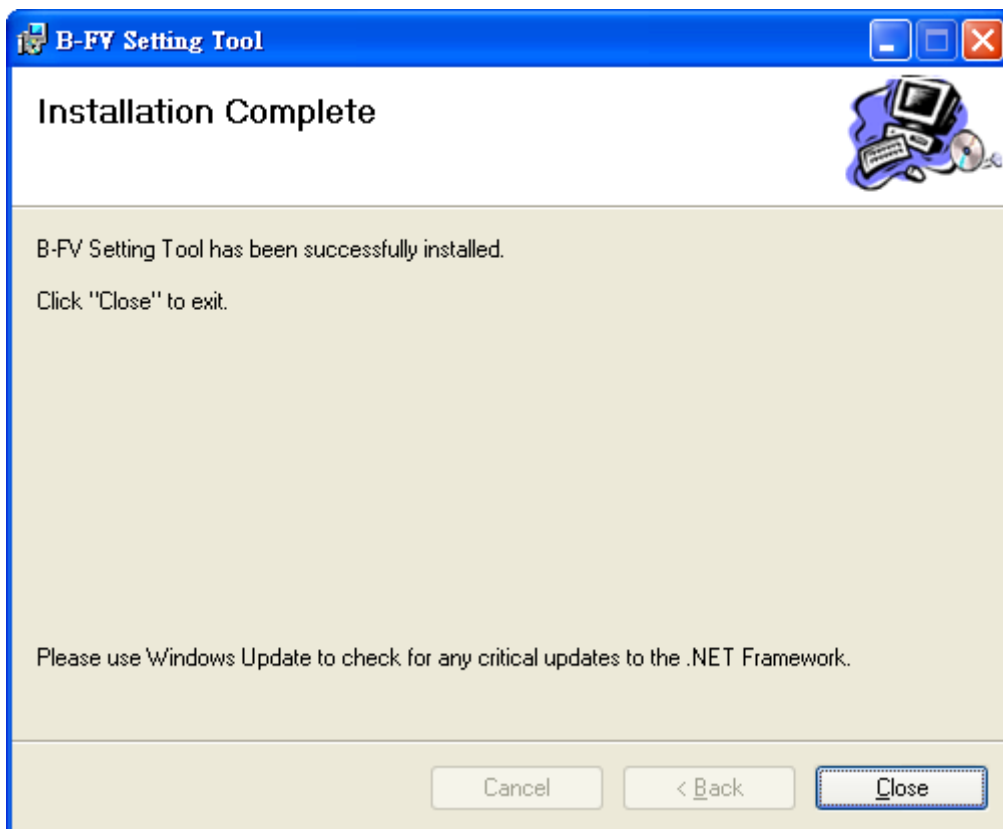
4. In the next dialog box, follow the instructions to choose the installation path, and then click **[Next]**.



5. In the next dialog box, click **[Next]**.

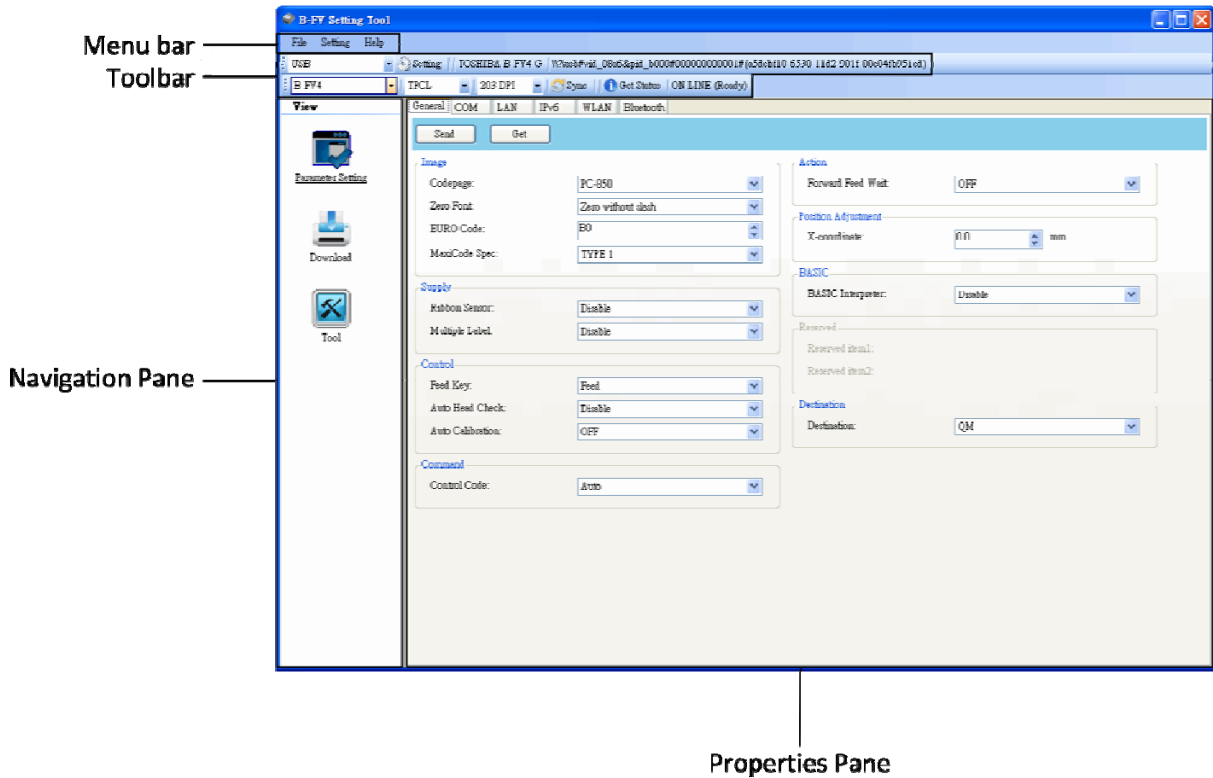


6. After the installation of B-FV Setting Tool is complete, click [**C**lose].



3. WORK WITH B-FV SETTING TOOL

Start B-FV Setting Tool. Its interface looks like this:



- **Menu bar:** It includes B-FV Setting Tool menus.
- **Toolbar:** It provides ports, port settings, emulation languages, printer dpi and printer status.
- **Navigation Pane:** You can switch between the listed items to view their tabs.
- **Properties Pane:** You can view and manage printer properties or perform tasks.

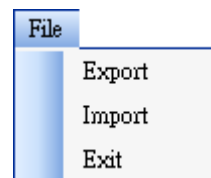
3.1 Menu bar

File Setting Help

There are three menus in the menu bar: <File>, <Setting> and <Help>.

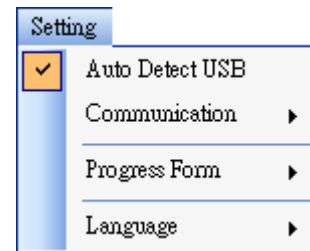
<File>

- **Export:** Export your printer settings to an XML file, including all parameters, port settings and firmware information.
- **Import:** Import the printer settings file from an XML file.
- **Exit:** Exit Print Utility.

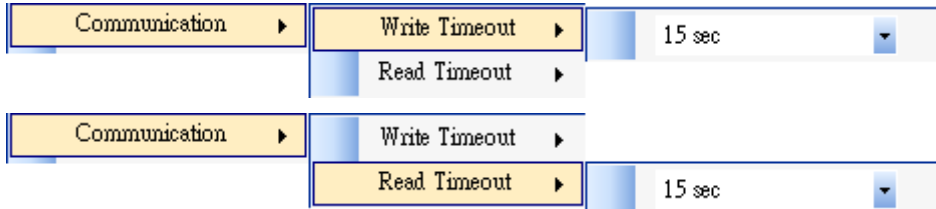


<Setting>

- **Auto Detect USB:** When you connect your printer to a computer with a USB cable, B-FV Setting Tool automatically detects it and shows the USB information in the **Status Bar**. By default, it is enabled.



- **Communication**



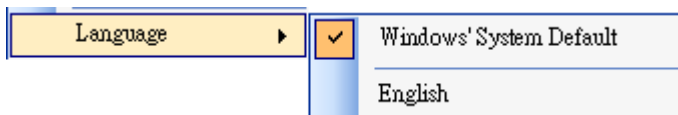
It includes **Write Timeout** and **Read Timeout**. They determine how long your computer (or other devices) waits printer's response when it attempts to write or read data to your printer. The default value is 15 seconds, meaning that the computer waits 15 seconds, and displays an error message if it doesn't receive any response.

- **Progress Form**



When **Add Date/Time information** is enabled, the current date and time are added into the message in the **Download Firmware** dialog box.

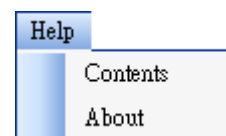
- **Language**



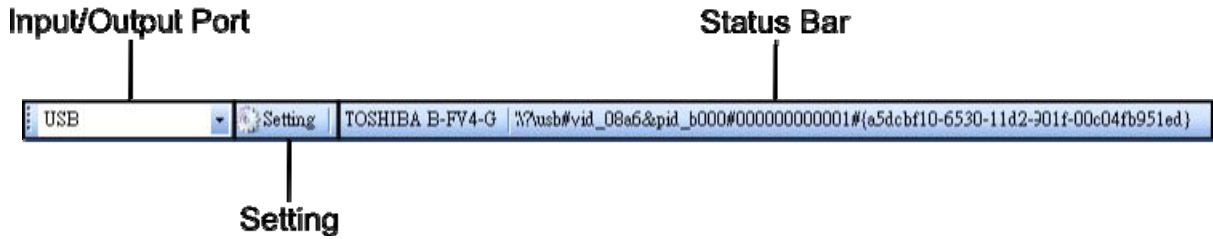
It is the language of B-FV Setting Tool interface. You can select **Windows's System Default** and **English**. By default, it uses your system default.

<Help>

- **Contents:** The help content of B-FV Setting Tool. You can press F1 to display it.
- **About:** The version and copyright information about B-FV Setting Tool.



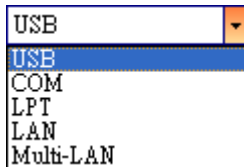
3.2 Tool bar



The toolbar has two rows. The first row includes three items.

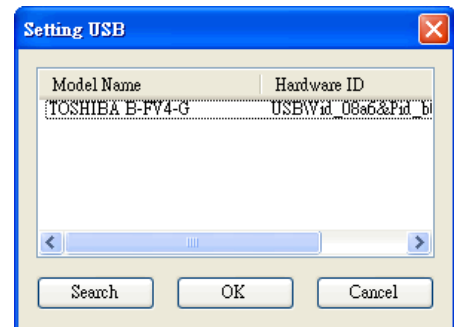
- **Input/Output Port:** The port you use for the data transmission between the computer and your printer.
- **Setting:** You can click it to configure the port settings.
- **Status Bar:** It shows the port information.

B-FV Setting Tool provides five ports for data transmission.



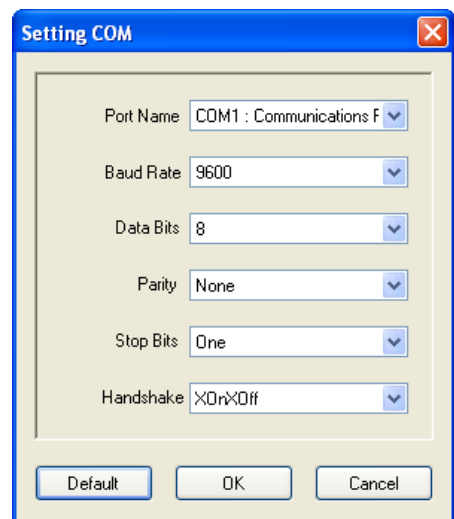
- **USB**

It shows the USB information in the **Status Bar** as soon as the computer detects your printer. By default, the computer automatically detects the **USB** port. You can select the printer you want if your computer is connected to multiple printers via USB. Click **Search** to search the hot-plugging USB printer.



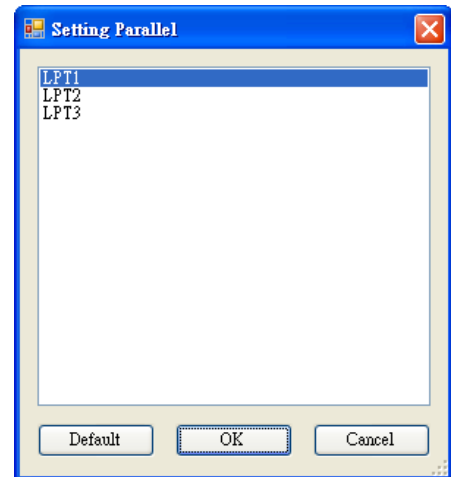
- **COM**

It is the serial port and related to the **COM** tab in **Parameter Setting**. The settings of the **COM** port need to be the same as those in the **COM** tab, except for **Port Name**, which lets you select the **COM** port you want if your computer is connected to multiple printers via COM. If you want to reset all of COM settings, click **Default**.



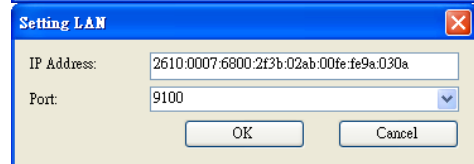
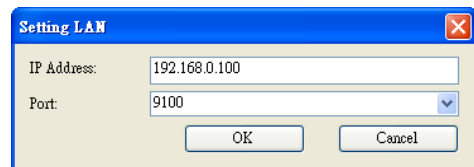
- **LPT**

It is the parallel port and only supports simplex communication. That is, the computer can send data to your printer, but your printer can't send data back. You can select the printer you want if your computer is connected to multiple printers via LPT. The default **LPT** port is **LPT1**. If you want to reset the port, click **Default**.



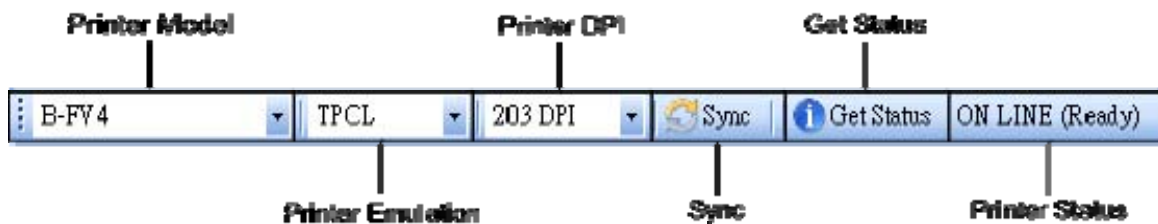
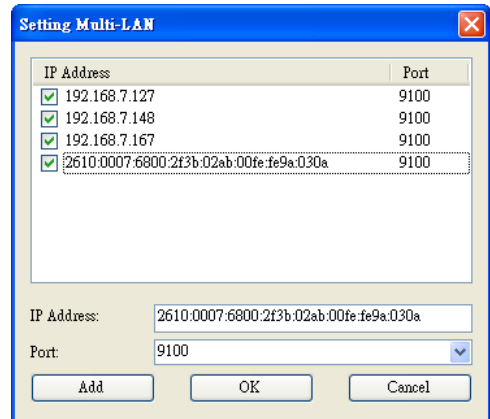
- **LAN**

It is the Ethernet port and related to the **LAN** tab in **Parameter Setting**. It supports an IPv4 or IPv6 address. For more information about Set Up a network connection, see [Set up LAN connection](#), [Set up IPv6 connection](#) and [Set up WLAN connection](#).



- **Multi-LAN**

It allows you to perform tasks on network printers. For example, you can add other printers' IP addresses in Multi-LAN setting, and update firmware for all printers at once. If any error has occurred during the connection, B-FV Setting Tool skips that IP address and tries the next one. Before you use the **Multi-LAN** port, you need to set up a network connection. For details, see [Set up LAN connection](#), [Set up IPv6 connection](#) and [Set up WLAN connection](#).



The second row of the toolbar includes six items.

- **Printer Model:** B-FV4 printer models.
- **Printer Emulation:** The emulation language of your printer. It provides ZPL and TPCL. The

emulation you choose affects the tabs displayed in the **Properties** pane.

- **Printer DPI:** The print resolution of your printer. It provides 203 dpi and 300 dpi.
- **Sync:** Get the current settings of **Printer Model**, **Printer Emulation** and **Printer DPI** from your printer.
- **Get Status:** Detect if your printer is ready for use.
- **Printer Status:** It shows the result of **Get Status**.

Status	Description
ON LINE (Ready)	The top cover (head) was closed in the online mode.
HEAD OPEN	The top cover (head) was opened in the online mode.
ON LINE (Operating)	The printer is operating.
ACCESSED BY OTHER	Exclusively accessed by other host.
PAUSE	In pause.
ON LINE (Waiting for Stripping)	Waiting for stripping.
COMMAND ERROR	A command error was found while analyzing the command.
COMMS ERROR	A parity error, overrun error or framing error occurred during the RS-232C transmission.
PAPER JAM	A paper jam occurred during paper feed.
CUTTER ERROR	The cutter is experiencing issues.
NO PAPER	The label has run out.
HEAD OPEN ERROR	Attempt to feed or issue the label with the top cover (head) open.
HEAD ERROR	A broken pin has been found on the thermal head.
EXCESS HEAD TEMP	The thermal head temperature has become excessively high.
NO PAPER (Last label has been issued)	The last label has been issued properly and the label has run out.
LOW BATTERY	RTC battery is low (future option).
MEMORY WRITE ERROR	An error has occurred while writing data into the flash ROM or USB memory.
FORMAT ERROR	An erase error has occurred in formatting the flash ROM or USB memory.
MEMORY FULL	Saving failed because of the insufficient capacity of the flash ROM or USB memory.
SAVING	In font or PC command save mode. (to flash ROM or to USB memory)
	The flash ROM or USB memory is being initialized.
	An EEPROM for backup cannot be read or written properly.
UPDATING FIRMWARE NOW	The printer is updating firmware.
BLUETOOTH ERROR	Bluetooth initialization error.
	Bluetooth setting parameter error.
WIRELESS LAN ERROR	Wireless LAN initialization error.
	Wireless LAN setting parameter error.
UPDATING FIRMWARE ERROR	An error occurred during the firmware update.
UNKNOWN	The status is unknown.

3.3 Navigation pane

The **Navigation** pane includes three items: **Parameter Setting**, **Download** and **Tool**. Each item has its own tabs, and each tab has a **Send** or **Get** button. **Send** is to send your settings to your printer; **Get** is to get the current settings of your printer. You can also right-click in the **Properties** pane and select **Send** or **Get** in the shortcut menu. Each time you click **Send**, your printer restarts to apply the change.



Important: You can send data via all ports, but can only get data via the **USB, COM** and **LAN** ports.

<Parameter Setting>

Parameter Setting is used to configure printer settings. It includes three tabs: **General**, **COM** and **LAN**.

[General]

The **General** tab provides general printer settings. It is related to the emulation language you choose. Each language provides its own properties.

- TPCL

TPCL provides various printing settings, including **Image**, **Supply**, **Control**, **Command**, **Action**, **Position Adjustment**, **BASIC** and **Destination**.

Property Name	Description
Codepage	A code page is a character set table used to map the characters input from the keyboard. Each type of code page has its encoding scheme, and some code pages can describe characters in specific language. For example, PC-857 supports Turkish; PC-1250 supports most central European and eastern European languages.
Zero Font	Display a zero with or without a slash through it.

Property Name	Description
EURO Code	Set the hexadecimal code of the euro sign (€) in the code page.
MaxiCode Spec	TYPE 1: The standard type, in which the default is QM and CGE printer models. TYPE 2: The custom type, in which the default is QQ-US printer models.
Ribbon Sensor	Enable: Your printer uses the ribbon sensor to detect the ribbon. Disable: Disable the ribbon sensor.
Multiple Label	It decides how you want to print the image when you use non-continuous media. Enable: If the printing image is larger than one label, your printer prints the image on multiple labels across gaps. Disable: If the printing image is larger than one label, your printer only prints the part one label can contain.
Feed Key	It defines the action of the FEED button. Feed: Your printer feeds a blank label each time the button is pressed. Print: Your printer reprints the last label each time the button is pressed.
Auto Head Check	Enable: Your printer checks broken pins on the printhead automatically once your printer is turned on. Disable: Disable the auto head check.
Auto Calibration	ON (Power on): Your printer calibrates the media sensor automatically once your printer restarts or is turned on. ON (Power on and Head close): Your printer calibrates the media sensor automatically every time you close the print module when your printer is turned on. OFF: You need to calibrate the media sensor manually as you change the media, or your printer won't work properly.
Control Code	It is the control code used by Toshiba Printer Control Language (TPCL). Auto: B-FV Setting Tool detects the control code automatically. [ESC] [LF] [NUL] or {} You need to use either one of them as the control code when inputting commands, or your printer won't process them properly.
Forward Feed Wait	ON: Your printer moves the paper forward in a predefined length 1 second after printing, and pulls the paper back in a predefined length once the printing begins again. OFF: Your printer won't move the paper at all.
X-coordinate	Move the print position horizontally. The positive number is right, and the negative number is left. The range is -99.5 ~ +99.5, and the value is adjustable in increments of ± 0.5 mm.
BASIC interpreter	Enable: Your printer can convert BASIC programs to TPCL commands. Disable: Disable the BASIC interpreter.
Destination	The region code of your printer model.

■ ZPL

ZPL provides two properties grouped in the **Supply** area.

The screenshot shows a configuration window with tabs for General, COM, LAN, IPv6, WLAN, and Bluetooth. The 'Supply' section contains two dropdown menus: 'Sensor Type' set to 'Transmissive(Centralized)' and 'Print Method' set to 'Direct Thermal'. The 'Position Adjustment' section contains two spinners: 'X-coordinate' and 'Y-coordinate', both set to '0' dots.

Property Name	Description
Sensor Type	It is the media sensor you are using. It includes Reflective (Black Mark) , Transmissive (Edge) and Transmissive (Centralized) . When you perform media calibration, the sensor is set to the one you select.
Print Method	It is either Thermal Transfer (TT) or Direct Thermal (DT) . TT requires ribbons and DT doesn't.
X-coordinate	Move the print position horizontally. The positive number is right, and the negative number is left. The range is -800 ~ +800, and the value is adjustable in increments of ± 1 dot.
Y-coordinate	Move the print position vertically. The positive number is forward, and the negative number is backward. The range is -800 ~ +800, and the value is adjustable in increments of ± 1 dot.

[COM]

The **COM** tab provides the settings of the RS-232C port. When you use COM as your port, make sure the settings in the **COM** tab are the same as the port settings, or your printer won't work properly.

The screenshot shows the 'COM' tab selected in the configuration window. The 'RS-232C' section contains five dropdown menus: 'Baud Rate' set to '9600', 'Data Length' set to '8', 'Parity' set to 'None', 'Stop Bit' set to '1', and 'Flow Control' set to 'XON/XOFF(DC1/DC3)'.

Property Name	Description
Baud Rate	The rate of signals transmitted per second. The larger the number, the faster the data transmission.
Data Length	The length of the data transmitted. It can be set to 7 or 8 bits.
Parity	<p>It can be set to Odd, Even or None. A parity bit is added to a string of data bits to check if the data is correct.</p> <p>Odd: The total number of “ones” in the data plus the parity bit is an odd number.</p> <p>Even: The total number of “ones” in the data plus parity bit is an even number.</p> <p>None: No parity check is used.</p>
Stop Bit	The stop bit is at the end of a string of data bits. It is used in asynchronous transmission to let the receiver know that the string of data bits being transmitted is end.
Flow Control	<p>Flow control is used to control the data flow between the computer and your printer.</p> <p>XON/XOFF (DC1/DC3): It is software flow control that uses control characters to handle data transmission. When your printer is unable to process the data the computer send, it sends an XOFF signal to tell the computer to stop sending data; once your printer is able to accept data, it sends an XON signal to notify the computer to resume sending data.</p> <p>RTS: It is hardware flow control that uses dedicated wires to handle data transmission. When the computer is ready to send data to your printer, it sends a Request to Send (RTS) signal to your printer. If your printer is able to accept the data, it sends a Clear to Send (CTS) signal to the computer. That is, the computer starts sending data when it sees CTS on; it stops sending when it sees CTS off.</p>

[LAN]

The **LAN** tab provides network settings, including **TCP/IP**, **Current TCP/IP**, **Protocol**, **Server** and **SNMP Trap**.

The screenshot shows a network configuration window with the following sections:

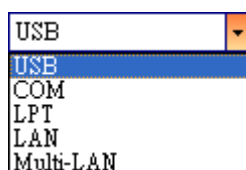
- Tabs:** General, COM, LAN (selected), IPv6, WLAN, Bluetooth.
- Buttons:** Send, Get.
- TCP/IP:**
 - IP Address: 192 . 168 . 10 . 20
 - Subnet Mask: 255 . 255 . 255 . 0
 - Gateway: 0 . 0 . 0 . 0
- Protocol:**
 - Socket: Enable
 - Port Number: 9100
 - SNMP: Enable
- Current TCP/IP:**
 - IP Address: [Empty]
 - Subnet Mask: [Empty]
 - Gateway: [Empty]
- Server:**
 - DHCP: Enable
 - Host Name: [Empty]
 - Client ID: FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF
- SNMP Trap:**
 - Trap1: Disable, 0 . 0 . 0 . 0
 - Trap2: Disable, 0 . 0 . 0 . 0

Property Name	Description
IP Address (TCP/IP)	The static IP address of your printer.
Subnet Mask (TCP/IP)	The manually specified subnet mask of your printer.
Gateway (TCP/IP)	The manually specified gateway of your printer.
IP Address (Current TCP/IP)	The current IP address of your printer.
Subnet Mask (Current TCP/IP)	The current subnet mask of your printer.
Gateway (Current TCP/IP)	The current gateway of your printer.
Socket	Enable: The host communicates with your printer via the socket. Disable: Disable the socket.
Port Number	The LAN port number of your printer.
SNMP	Enable: The host gets or sets parameters registered as SNMP entities. Disable: Disable SNMP.
DHCP	Enable: The DHCP server assigns the IP address, the subnet mask and the gateway to your printer automatically. By default, it is enabled. Disable: You need to specify the IP address, the subnet mask and the gateway to your printer manually.
Host Name	It is the name of a DHCP client. The host name allows up to 32 alphanumeric characters. You can leave it blank or type a name you want. By default, there is no host name.
Client ID	It is an arbitrary value sent to the DHCP server to reserve an IP address for your printer. Client ID allows up to 32 hexadecimal characters. If you leave it blank, your printer automatically assigns "FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF" as the client ID.
Trap 1	Trap is a message type of SNMP. When Trap 1 is enabled and its IP address is set correctly, your printer alerts the computer of the specified IP address as your printer is experiencing problems.
Trap 2	Same as Trap 1.

Set up LAN connection:

If you want to use the **LAN** or **Multi-LAN** port to transfer data, you need to set up the network connection in the **LAN** tab.

1. Connect your printer and computer to a network device (hub, switch or router) with Ethernet cables.
2. In the **Input/Output Port** list, click **USB** or **COM**.



3. In the **Navigation** pane, click **Parameter Setting**, and click the **LAN** tab.

The screenshot shows the LAN configuration interface with the following sections:

- TCP/IP:** IP Address: 192 . 168 . 10 . 20; Subnet Mask: 255 . 255 . 255 . 0; Gateway: 0 . 0 . 0 . 0
- Protocol:** Socket: Enable; Port Number: 9100; SNMP: Enable
- Current TCP/IP:** IP Address, Subnet Mask, and Gateway fields are empty.
- Server:** DHCP: Enable; Host Name: ; Client ID: FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF
- SNMP Trap:** Trap1: Disable; Trap2: Disable

4. Do one of the following to configure your TCP/IP settings:

If you have a static IP address, fill the **IP Address**, **Subnet Mask** and **Gateway** box under **TCP/IP** according to your network settings and click **Send**.

The close-up shows the **TCP/IP** section with the following values:

- IP Address:** 155 . 181 . 255 . 28
- Subnet Mask:** 79 . 210 . 220 . 8
- Gateway:** 255 . 252 . 234 . 220

If you don't have a static IP address, make sure **DHCP** is enabled and click **Send**.

The close-up shows the **Server** section with the following settings:

- DHCP:** Enable
- Host Name:**
- Client ID:** FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF

- After your printer restarts, click **Get** to get the TCP/IP information of your printer. If you are using a static IP address, you'll get the same TCP/IP settings as it is in step 3; if you are using DHCP, The DHCP server will automatically populate the **IP Address**, **Subnet Mask** and **Gateway** boxes under **Current TCP/IP**.

- In the **Input/Output Port** list, click **LAN**, and click **Setting**.



- In the **Setting LAN** dialog box, do one of the following to configure your IP address:

If you are using a static IP address, in the **IP Address** box, enter the IP address under **TCP/IP** in the **LAN** tab, and then click **OK**.

If you are using a dynamic IP address provided by DHCP, in the **IP Address** box, enter the IP address under **Current TCP/IP** in the **LAN** tab, and then click **OK**.



Note: When DHCP is enabled and your printer is idle for a long time, the IP address of your printer may change. Click **Get** to get the new IP address if you find the current IP address is not working.

[IPv6]



Note: B-FV4T series do not support this function.

The **IPv6** tab provides IPv6 settings, including **IPv6** and **Current IPv6**.

Property Name	Description
Mode	It determines how you get the IPv6 address of your printer. MANUAL: Specify an IPv6 address manually. DHCPv6: An IPv6 address is assigned by a Dynamic Host Configuration Protocol for IPv6 (DHCPv6) server. AUTO: It uses a stateless address that doesn't require a DHCPv6 server to allocate an IP address. A host generates an IPv6 address from router advertisements and a MAC address. Stateless auto-configuration supports plug and play functionality, which allows the printer to generate an IPv6 address by itself once it connects to an IPv6 network.
Address Type	It is the IPv6 address type of your printer. NONE: The system won't use the address you specify to generate an IP address. It sets 0000::0000 as the IPv6 address. NORMAL: It uses a 128-bit unicast address that you specify. EUI: It is 64-bit Extended Unique Identifier (EUI-64) that generates the second half of a unicast IPv6 address (last 64 bits) from a MAC address. You can also specify the second half of the address by entering the interface ID. ANY: It uses a 128-bit anycast address that you specify. The printer needs to remember that the current address is an anycast address, since its format is the same as a unicast address.
IP Address (IPv6)	The static IPv6 address of your printer.
Interface ID	Short for interface identifier. It is used to identify the network interface of a host. You can specify the interface ID here.
IP Address (Current IPv6)	The current IPv6 address of your printer.

Property Name	Description
Link-Local Address	It is used for communications on a local network. The address always starts with FE80.

Set up IPv6 connection:

Before you set up IPv6, make sure you have IPv6 connectivity.

1. Do one of the following to configure your IPv6 settings:

If you have a static IPv6 address, in the **Mode** list, click **MANUAL**; in the **IP Address** box, enter your IPv6 address, and click **Send**.

The screenshot shows the IPv6 configuration window with the following settings:

- Mode: MANUAL
- Address Type: NORMAL
- IP Address: 2610:0008:6800:2f3b:02ab:00fe:fe9a:030a
- Interface ID: 0000 : 0000 : 0000 : 0000

If you don't have a static IP address, in the **Mode** list, click **DHCPv6**; in the **Address Type** list, click **Normal**, and click **Send**.

The screenshot shows the IPv6 configuration window with the following settings:

- Mode: DHCPv6
- Address Type: NORMAL
- IP Address: 0000:0000:0000:0000:0000:0000:0000:0000
- Interface ID: 0000 : 0000 : 0000 : 0000

- After your printer restarts, click **Get** to get its IPv6 information. If you are using a static IP address, you'll get the same TCP/IP settings as it is in the previous step; if you are using DHCP, the DHCP server will automatically populate the **IP Address** and **Link-Local Address** boxes under **Current IPv6**.

- In the **Input/Output Port** list, click **LAN**, and click **Setting**.



- In the **Setting LAN** dialog box, do one of the following to configure your IP address:

If you are using a static IP address, in the **IP Address** box, enter the IP address under **IPv6** in the **IPv6** tab and click **OK**.

If you are using a dynamic IP address provided by DHCP, in the **IP Address** box, enter the IP address under **Current IPv6** in the **IPv6** tab and click **OK**.



Note: If your IPv6 address has consecutive zeros, you can use a double-colon to compress them. For example, if your address is 2607:f0d0:1002:0051:0000:0000:0000:0006, you can shorten it like this: 2607:f0d0:1002:0051::0006. Remember that the double-colon can appear only once in the address. The leading zeros in a section can also be removed, so the shortest version of your address can be written as 2607:f0d0:1002:51::6.

[WLAN]



Note: This function is not available now, and to be determined near future

The **WLAN** tab provides wireless network settings, including **IPv4**, **Current IPv4**, **Information**, **Protocol**, **Server** and **Security**.

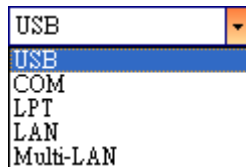
Property Name	Description
IP Address (IPv4)	The static IP address of your printer.
Subnet Mask (IPv4)	The manually specified subnet mask of your printer.
Gateway (IPv4)	The manually specified gateway of your printer.
IP Address (Current IPv4)	The current IP address of your printer.
Subnet Mask (Current IPv4)	The current subnet mask of your printer.
RSSI	Short for received signal strength indicator. It measures your Wi-Fi signal strength. The bigger the number, the stronger the signal.
Gateway (Current IPv4)	The current gateway of your printer.
Network Type	It determines how you connect your printer to a network. Infrastructure: If you connect through an access point, select this. Ad hoc: If you connect through a device which has connected to a network, select this.
Region	The country. If you use Infrastructure , you can ignore it; if you use Ad hoc , you need to specify the country from the list.
Channel	The Wi-Fi channel. In Infrastructure mode, it is set to AUTO automatically; in Ad hoc mode, you need to specify the channel.
SSID	Short for service set identifier. It is the name of a wireless local

Property Name	Description
	area network.
Port Number	The wireless LAN port number of your printer.
DHCP	<p>Enable: The DHCP server assigns the IP address, the subnet mask and the gateway to your printer automatically. By default, it is enabled.</p> <p>Disable: You need to specify the IP address, the subnet mask and the gateway to your printer manually.</p>
Host Name	It is the name of a DHCP client. The host name allows up to 32 alphanumeric characters. You can leave it blank or type a name you want. By default, there is no host name.
WPA/WPA2	Wi-Fi Protected Access. If the wireless network is encrypted with a WPA/WPA2 password, you need to enter it here.
WEP Input Type	<p>The type of your WEP password.</p> <p>ASCII: If your code is generated in ASCII, select this. ASCII includes the English alphabet, numbers and punctuation symbols.</p> <p>HEX: If your code is generated in hexadecimal (HEX), select this. HEX includes the numbers 0 to 9 and the letters A to F.</p>
WEP-128	Wired Equivalent Privacy. If the wireless network is encrypted with a WEP-128 password, you need to enter it here.

Set up WLAN connection:

Before you set up a wireless LAN connection, make sure your computer has connected to a wireless network.

1. In the **Input/Output Port** list, click **USB** or **COM**.



- In the **Navigation** pane, click **Parameter Setting**, and click the **WLAN** tab.

The screenshot shows the WLAN configuration window with the following settings:

- General:** Send, Get buttons.
- IPv4:** IP Address: 192 . 168 . 10 . 200; Subnet Mask: 255 . 255 . 255 . 0; Gateway: 0 . 0 . 0 . 0.
- Current IPv4:** IP Address, Subnet Mask, Gateway fields.
- Information:** RSSI: 0 dBm.
- Protocol:** Network Type: Infrastructure; Region: U.S.A.; Channel: AUTO; SSID: TOSHIBA B-FV4; Port Number: 9100.
- Server:** DHCP: Enable; Host Name: (empty).
- Security:** WPA/WPA2: 00000000; WEP Input Type: ASCII; WEP-128: (empty).

- In the **SSID** box, enter the network name you've connected. If your network has a password, in the **WPA/WPA2** box or in the **WEP-128** box, enter the password the network you've connected, otherwise ignore it.

The close-up shows the following configuration details:

- SSID:** dlink
- Security:** WPA/WPA2: 12345; WEP Input Type: ASCII; WEP-128: (empty).

- Do one of the following to configure your IPv4 settings:

If you have a static IP address, fill the **IP Address**, **Subnet Mask** and **Gateway** box under **IPv4** according to your network settings, and click **Send**.

The close-up shows the TCP/IP configuration section with the following settings:

- TCP/IP:** IP Address: 155 . 181 . 255 . 28; Subnet Mask: 79 . 210 . 220 . 8; Gateway: 255 . 252 . 234 . 220.

If you don't have a static IP address, make sure **DHCP** is enabled and click **Send**.

Server

DHCP: Enable

Host Name:

5. After your printer restarts, click **Get** to get the IPv4 information of your printer. If you are using a static IP address, you'll get the same TCP/IP settings as it is in step 4; if you are using DHCP, the DHCP server will automatically populate the **IP Address**, **Subnet Mask** and **Gateway** boxes under **Current IPv4**.

Current IPv4

IP Address: 192 . 168 . 0 . 120

Subnet Mask: 255 . 255 . 255 . 0

Gateway: 192 . 168 . 0 . 1

6. In the **Input/Output Port** list, click **LAN**, and click **Setting**.

LAN Setting LAN 192.168.10.20:9100

7. In the **Setting LAN** dialog box, do one of the following to configure your IP address:

If you are using a static IP address, in the **IP Address** box, enter the IP address under **IPv4** in the **WLAN** tab and click **OK**.

Setting LAN

IP Address: 155.181.255.28

Port: 9100

OK Cancel

If you are using a dynamic IP address provided by DHCP, in the **IP Address** box, enter the IP address under **Current IPv4** in the **WLAN** tab and click **OK**.

Setting LAN

IP Address: 192.168.0.120

Port: 9100

OK Cancel

[Bluetooth]



Note: This function is not available now, and to be determined near future

The **Bluetooth** tab provides Bluetooth settings.

General COM LAN IPv6 WLAN **Bluetooth**

Send Get

Setting

Pincode: 0000

Device Name: TOSHIBA E-FV4

BD Address:

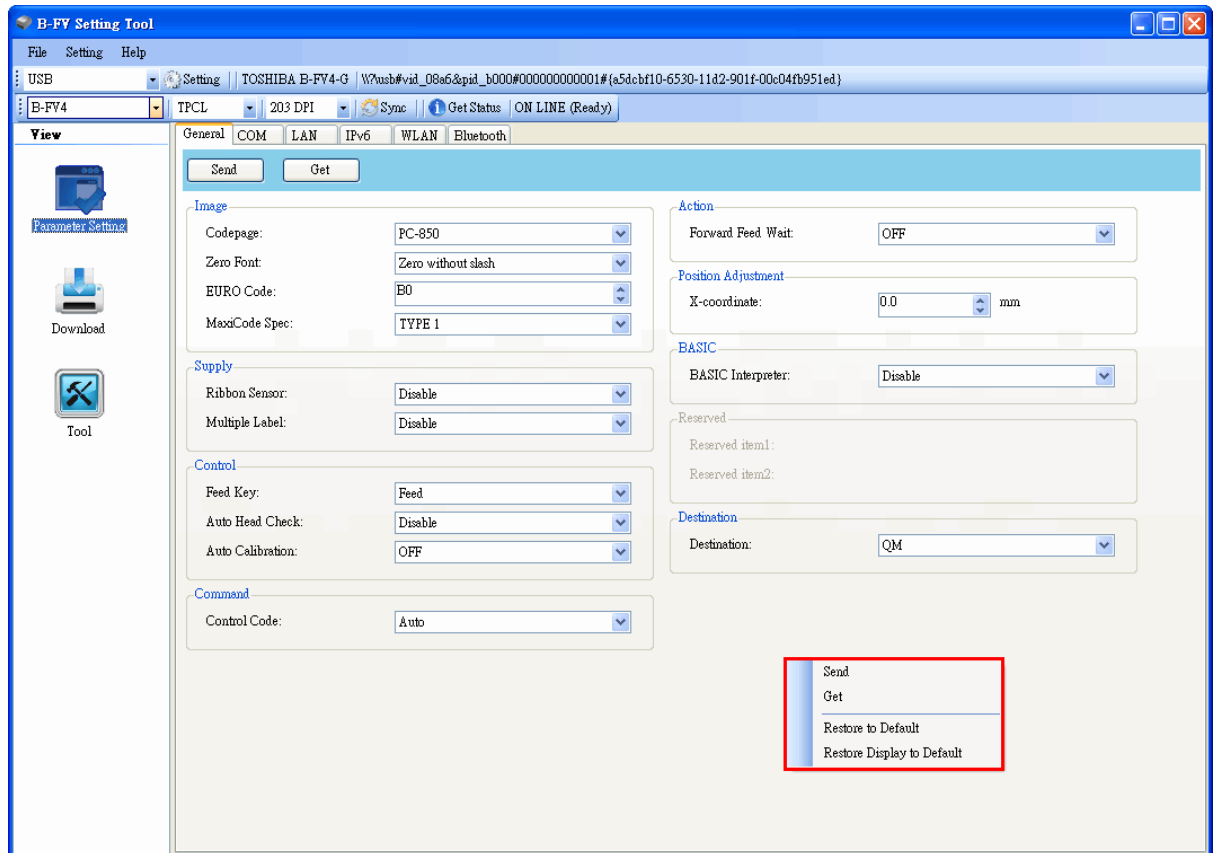
Inquiry Control: Response is made at any time

Property Name	Description
Pincode	The Bluetooth PIN code of your printer. The new PIN code takes effect when you reconnect your printer to your computer.
Device Name	The Bluetooth device name of your printer. The new device name takes effect after you reconnect your printer to your computer.
BD Address	The Bluetooth MAC address of your printer.
Inquiry Control	It determines how your printer is detected by other Bluetooth devices. Response is made at any time: Your printer is always detectable. No response: Your printer is not detectable. Response only within 60sec after a power on: Your printer is detectable in 60 seconds after it is turned on.

Reset parameter setting

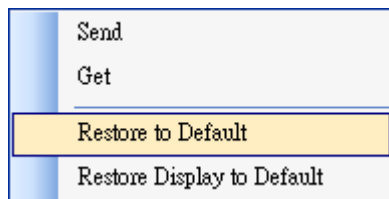
If you want to reset **Parameter Setting**, do this:

1. In **Parameter Setting**, right-click in the blank area in any tab.

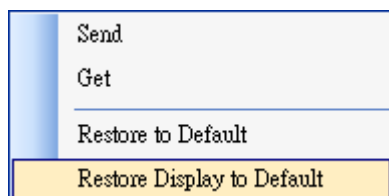


2. In the shortcut menu, do one of the following to reset **Parameter Setting**:

If you want to restore all of the settings to their default values, click **Restore to Default**.



If you want to restore the settings of the current tab to their default values, click **Restore Display to Default**.



<Download>

Download is used to download files to your printer. Tabs in **Download** are related to the emulation language you choose. In ZPL mode it has two tabs, and in TPCL mode it has four tabs. Remember that you need to set up a network connection before you use the **LAN** or **Multi-LAN** port for the data transfer. For details, see [Set up LAN connection](#), [Set up IPv6 connection](#) and [Set up WLAN connection](#).

[Firmware]

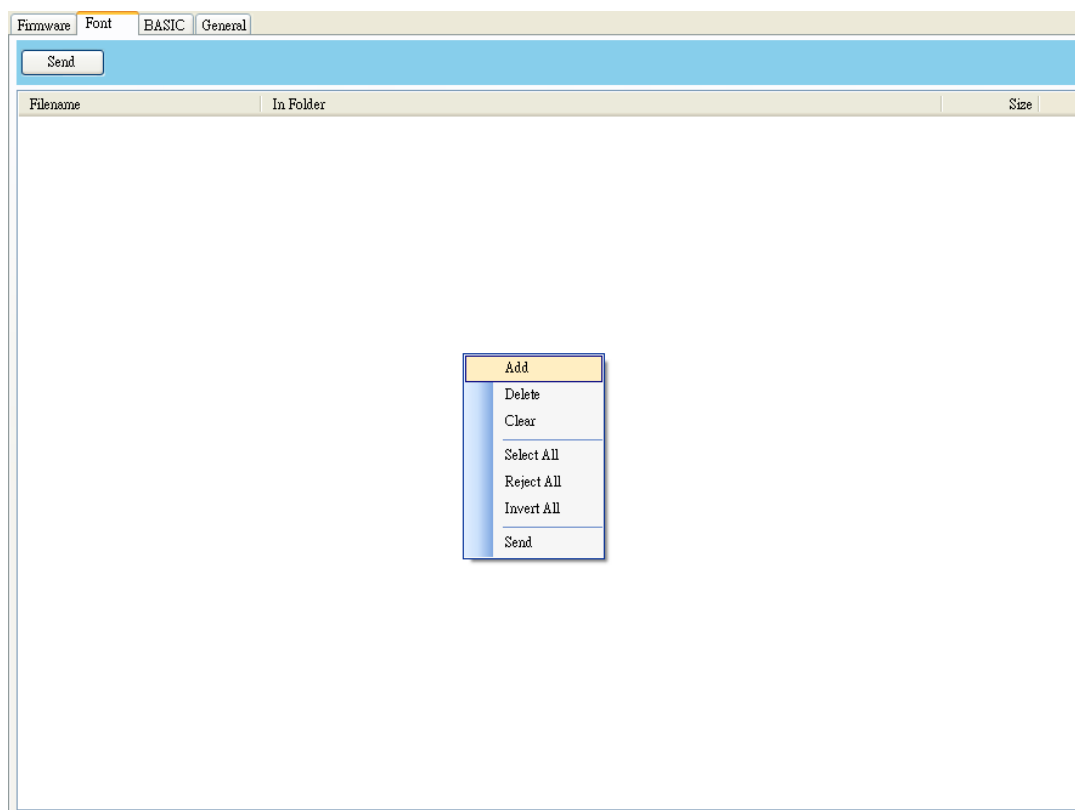
The **Firmware** tab displays in both ZPL and TPCL mode. It is used to update firmware. For information about update firmware in B-FV Setting Tool, see [Update firmware in B-FV Setting Tool](#).

[Font]

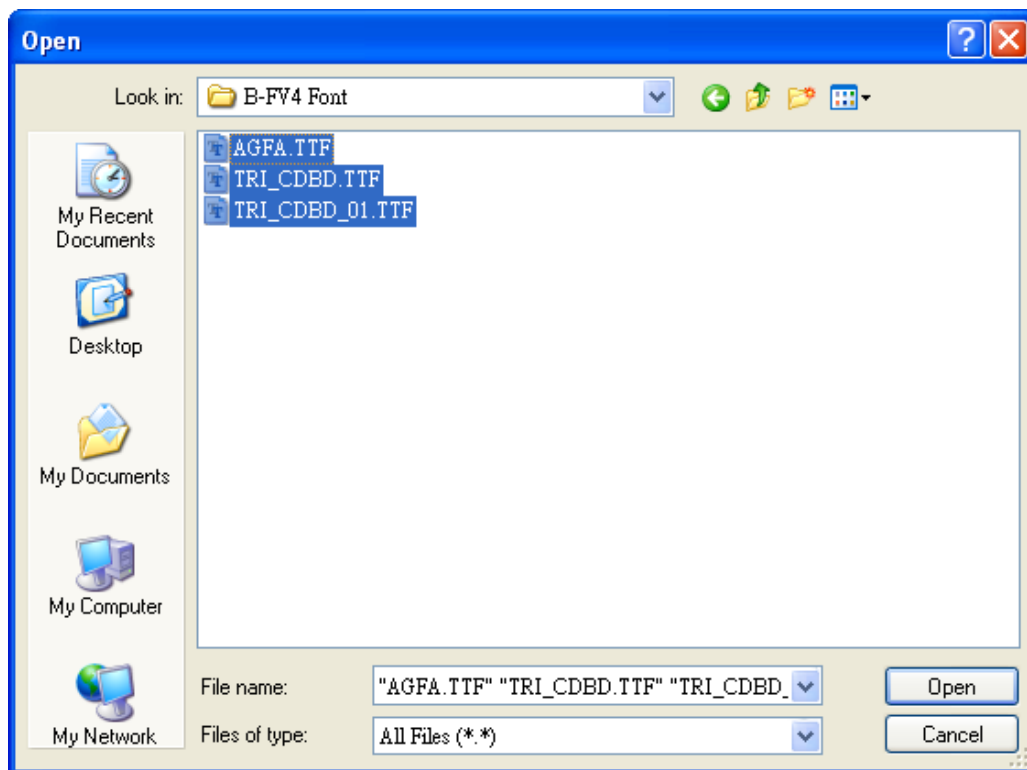
The **Font** tab only displays in TPCL mode. It accepts TrueType fonts. You can send fonts to your printer and store them in your printer's flash memory.

To send fonts to your printer:

1. Right-click in the blank **Font** list and click **Add**.



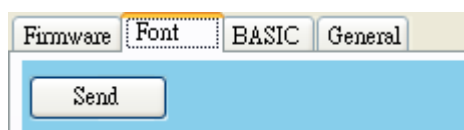
2. In the **Open** dialog box, browse to the folder that contains font files. Select all of them and click **Open**.



3. In the **Font** list, select the font you want to use. You can select multiple fonts at a time.

Filename	In Folder	Size
File		
<input checked="" type="checkbox"/> TRI_CDBD_01.TTF	D:\B-FV4B-FV4 Font	124304 B
<input checked="" type="checkbox"/> AGFA.TTF	D:\B-FV4B-FV4 Font	60984 B
<input checked="" type="checkbox"/> TRI_CDBD.TTF	D:\B-FV4B-FV4 Font	66660 B

4. Click **Send** to send the fonts to your printer.

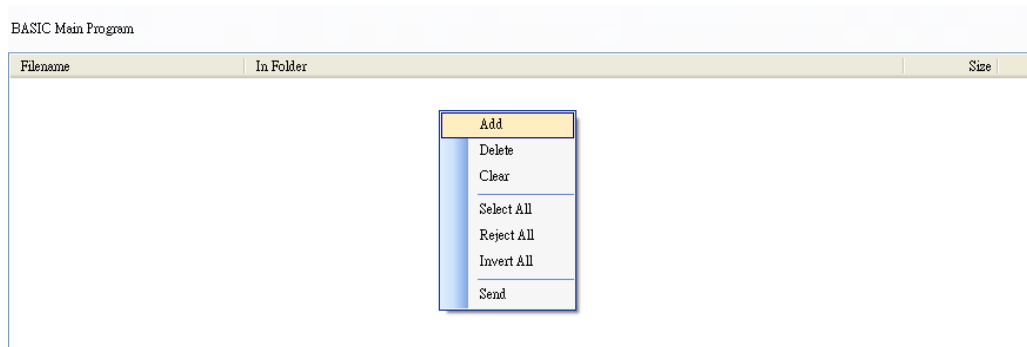


[BASIC]

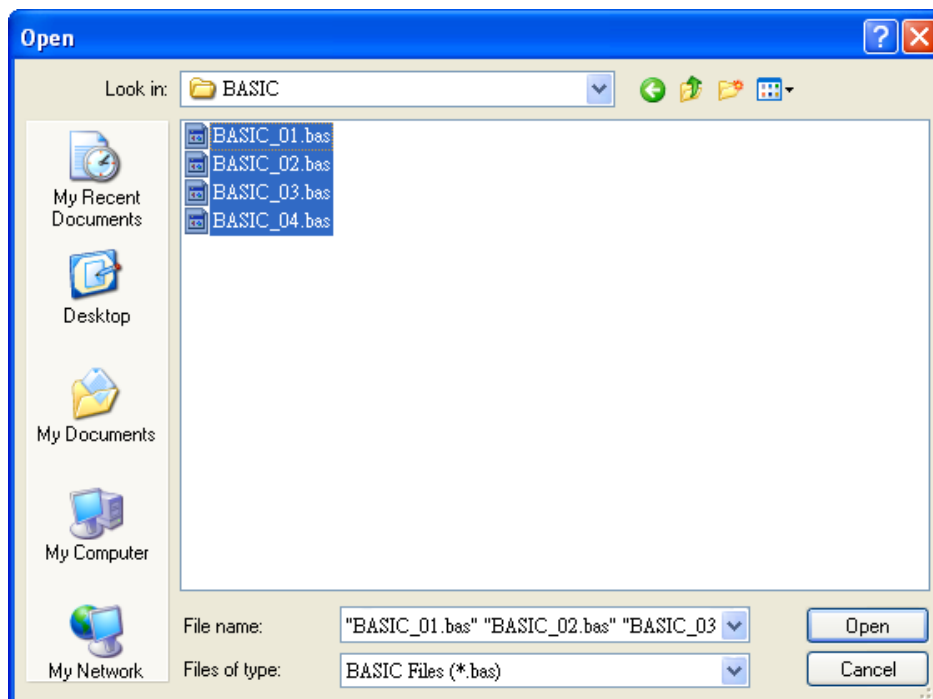
The **BASIC** tab only displays in TPCL mode. It allows you to store BASIC files in your printer's flash memory. The **BASIC Main Program** list loads the BASIC main program, and the **BASIC Data File** list loads the database files you create for the main program.

To store the BASIC main program:

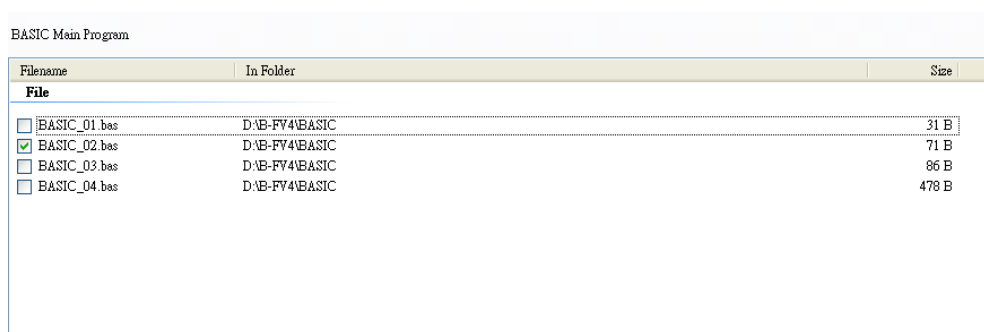
1. Right-click in the blank **BASIC Main Program** list and click **Add**.



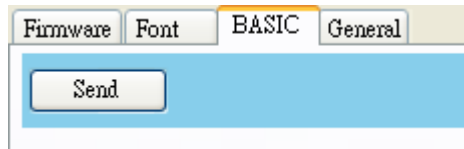
2. In the **Open** dialog box, browse to the folder that contains BASIC main programs (.bas). Select all of them and click **Open**.



3. In the **BASIC Main Program** list, select the program you want to use. You can only select one program at a time.

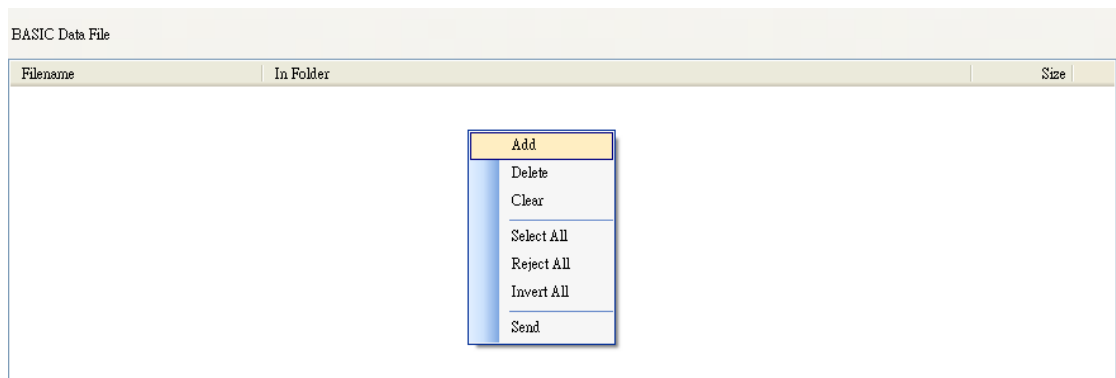


4. Click **Send** to store the program.

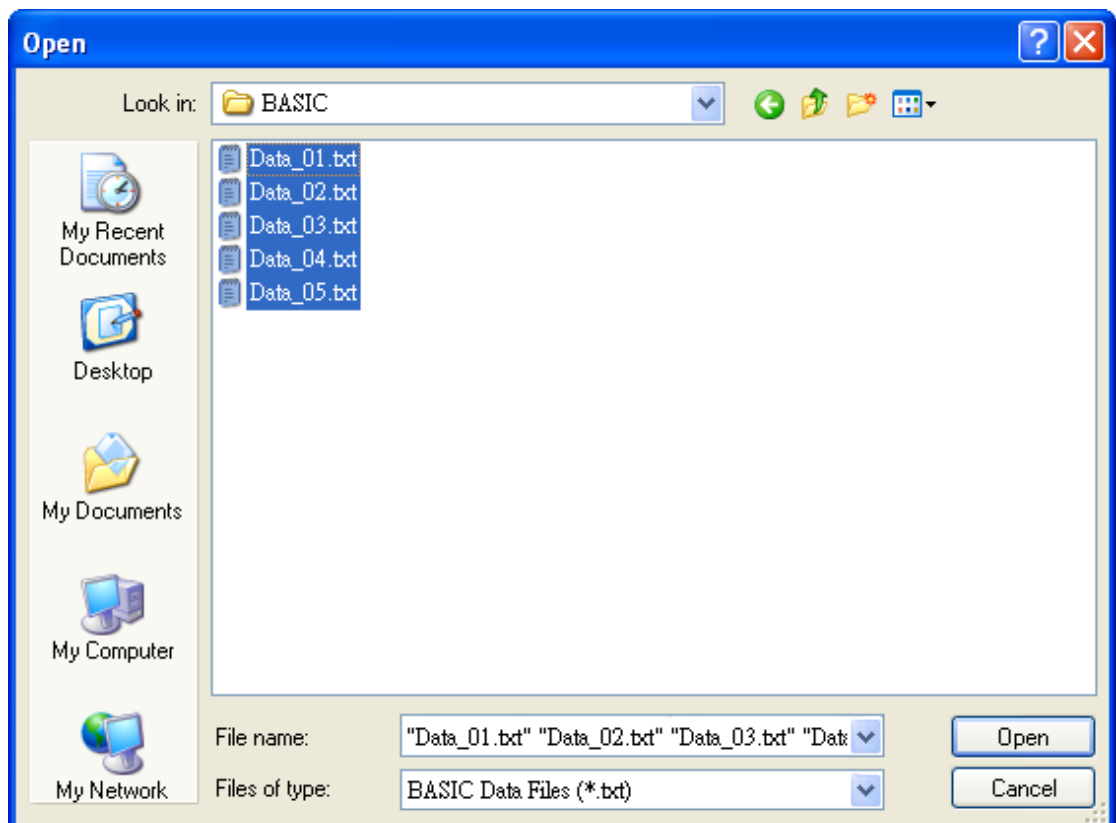


To store the BASIC data file:

1. Right-click in the blank **BASIC Data File** list and click **Add**.



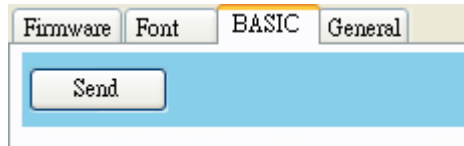
2. In the **Open** dialog box, browse to the folder that contains BASIC data files. Select all of them and click **Open**.



3. In the **BASIC Data File** list, select the file you want to use. You can select multiple files at a time.

Filename	In Folder	Size
File		
<input checked="" type="checkbox"/> Data_01.txt	D:\B-FV4\BASIC	485 B
<input checked="" type="checkbox"/> Data_02.txt	D:\B-FV4\BASIC	546 B
<input checked="" type="checkbox"/> Data_03.txt	D:\B-FV4\BASIC	7853 B
<input type="checkbox"/> Data_04.txt	D:\B-FV4\BASIC	336 B
<input type="checkbox"/> Data_05.txt	D:\B-FV4\BASIC	392 B

4. Click **Send** to store the files.



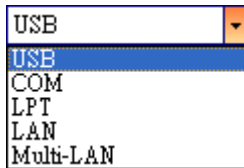
Important: Only one BASIC main program can be stored in your printer. Each time you store a main program, it overwrites the previous one.

[General]

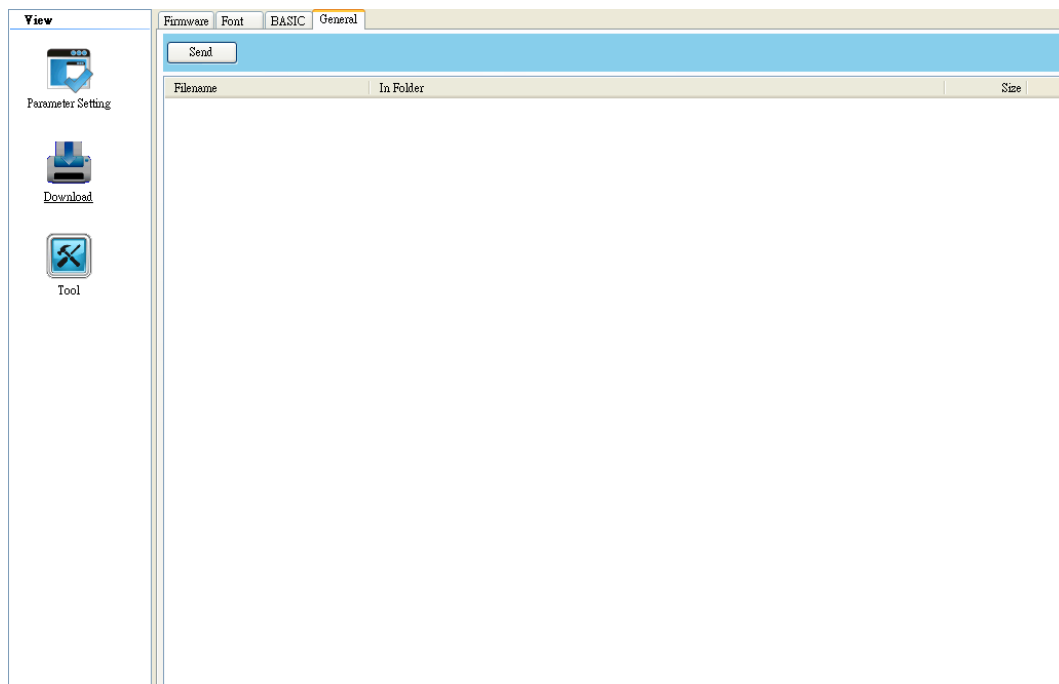
The **General** tab displays in both ZPL and TPCL mode. It is used to send command files to your printer and perform tasks. Remember that ZPL commands only run in ZPL mode, and TPCL commands only run in TPCL mode.

To print the output of the command:

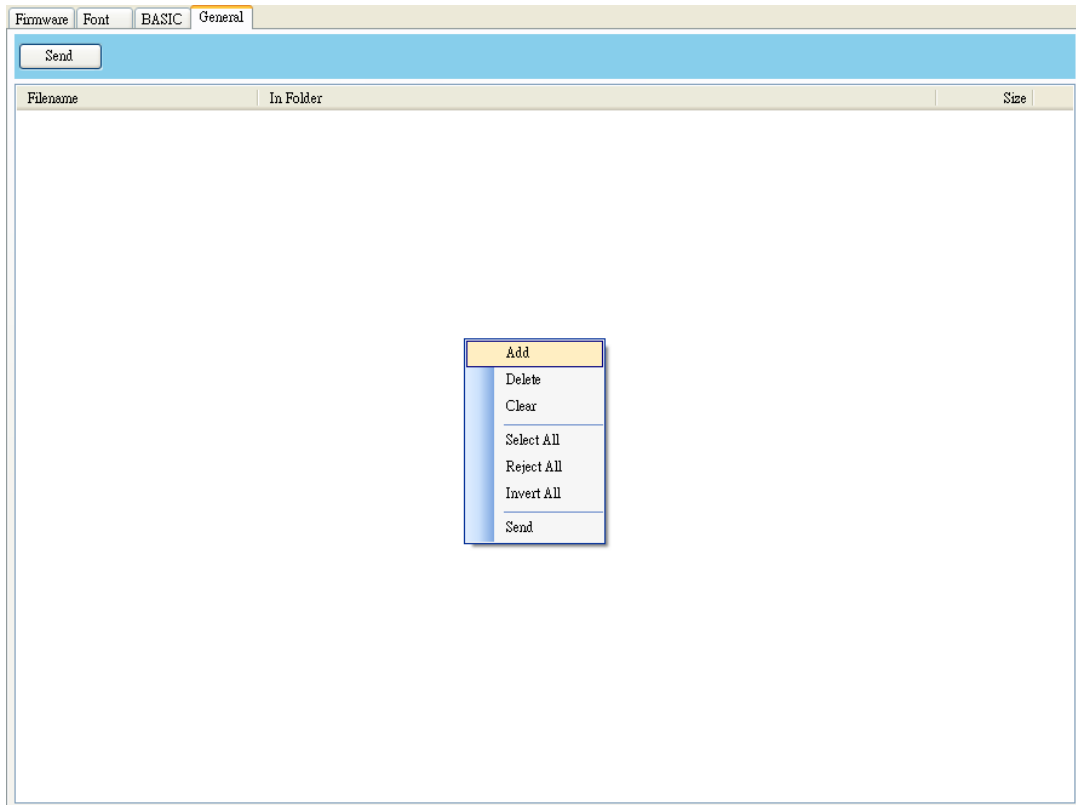
1. Type your commands in any text editor, such as Notepad or Wordpad.
2. Save your commands as text files (.txt).
3. In the **Input/Output Port** list, click the port you want to use.



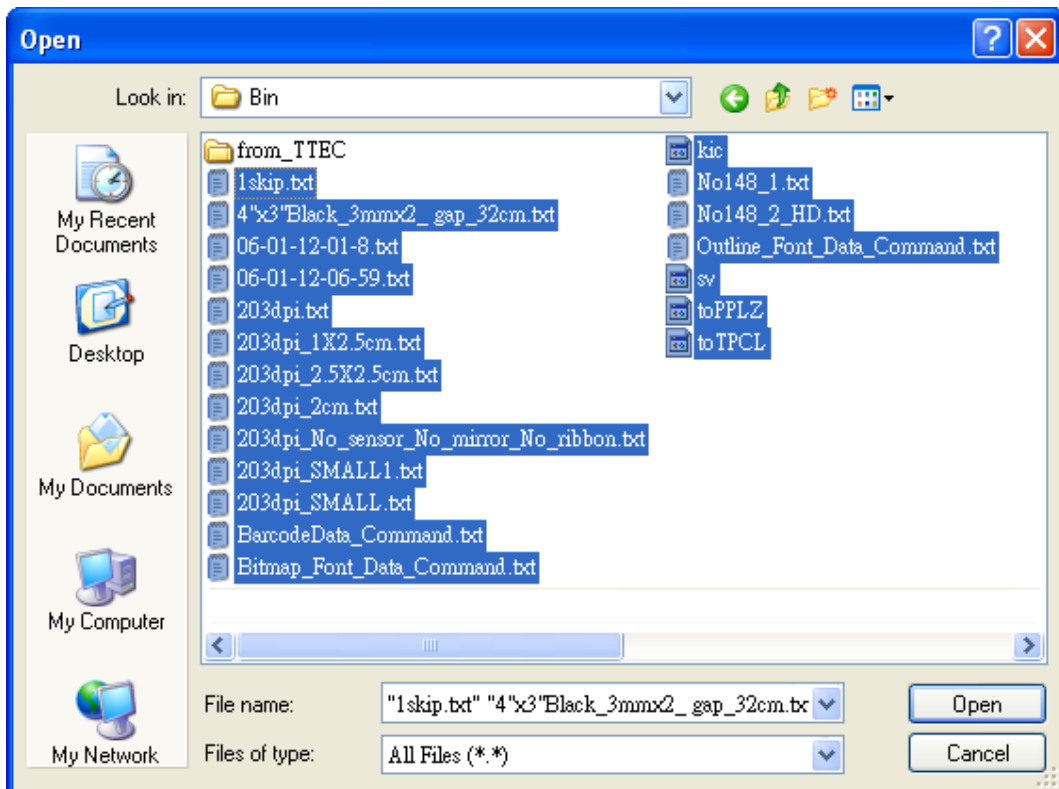
4. Click **Download** in the **Navigation** pane.



5. Under the **General** tab, right-click in the blank list and click **Add**.



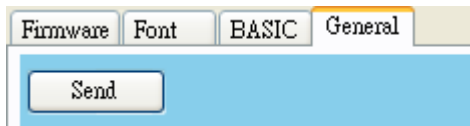
6. In the **Open** dialog box, browse to the folder that contains command files, select them and click **Open**. The command files you select must correspond to the emulation language you use.



7. In the list, select the file you want to use. You can only select one file at a time.

Filename	In Folder	Size
File		
<input type="checkbox"/> 1skip.txt	D:\B-FV4\B-FV4_Commands	131 B
<input type="checkbox"/> 4"x3"Black_3mmx2_gap_32cm.txt	D:\B-FV4\B-FV4_Commands	131 B
<input type="checkbox"/> 06-01-12-01-8.txt	D:\B-FV4\B-FV4_Commands	251 B
<input type="checkbox"/> 06-01-12-06-59.txt	D:\B-FV4\B-FV4_Commands	2547 B
<input type="checkbox"/> 203dpi.txt	D:\B-FV4\B-FV4_Commands	2350 B
<input type="checkbox"/> 203dpi_1X2.5cm.txt	D:\B-FV4\B-FV4_Commands	368 B
<input type="checkbox"/> 203dpi_2.5X2.5cm.txt	D:\B-FV4\B-FV4_Commands	368 B
<input checked="" type="checkbox"/> 203dpi_2cm.txt	D:\B-FV4\B-FV4_Commands	368 B
<input type="checkbox"/> 203dpi_No_sensor_No_mirror_No...	D:\B-FV4\B-FV4_Commands	2346 B
<input type="checkbox"/> 203dpi_SMALL1.txt	D:\B-FV4\B-FV4_Commands	697 B
<input type="checkbox"/> 203dpi_SMALL.txt	D:\B-FV4\B-FV4_Commands	168 B
<input type="checkbox"/> BarcodeData_Command.txt	D:\B-FV4\B-FV4_Commands	171 B
<input type="checkbox"/> Bitmap_Font_Data_Command.txt	D:\B-FV4\B-FV4_Commands	133 B
<input type="checkbox"/> kic	D:\B-FV4\B-FV4_Commands	19 B
<input type="checkbox"/> No148_1.txt	D:\B-FV4\B-FV4_Commands	30 B
<input type="checkbox"/> No148_2_HD.txt	D:\B-FV4\B-FV4_Commands	12 B
<input type="checkbox"/> Outline_Font_Data_Command.txt	D:\B-FV4\B-FV4_Commands	141 B
<input type="checkbox"/> sv	D:\B-FV4\B-FV4_Commands	18 B
<input type="checkbox"/> toPPLZ	D:\B-FV4\B-FV4_Commands	26 B
<input type="checkbox"/> toTPCL	D:\B-FV4\B-FV4_Commands	26 B

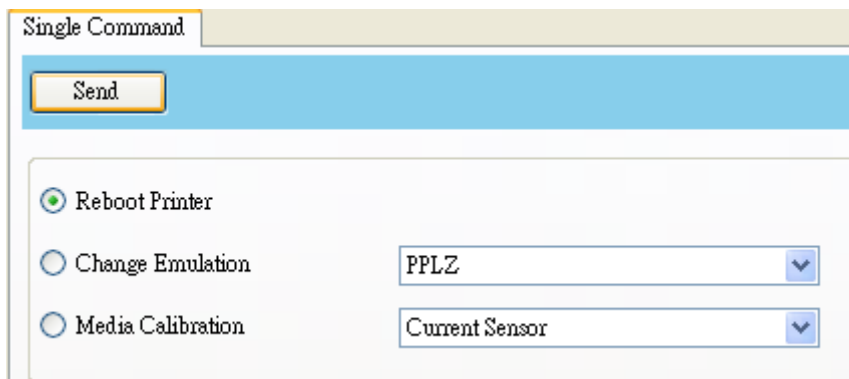
8. Click **Send** to print the output of the command.



Note: If you send command files and your printer doesn't print, it is possible that the emulation language is not set correctly. Click **Sync** to get the current setting of **Printer Emulation**.

<Tool>

Tool is used to send specific commands to your printer. It has the **Single Command** tab, which provides three commands.



The screenshot shows a software interface for sending commands to a printer. At the top, there is a tab labeled "Single Command". Below the tab is a blue bar containing a "Send" button. Underneath this bar is a white panel with three radio button options: "Reboot Printer" (which is selected), "Change Emulation", and "Media Calibration". To the right of "Change Emulation" is a dropdown menu showing "PPLZ". To the right of "Media Calibration" is a dropdown menu showing "Current Sensor".

- **Reboot Printer:** Restart your printer.
- **Change Emulation:** Change the emulation language for your printer.
- **Media Calibration:** Change the media sensor for your printer.

4. UPDATE FIRMWARE

Firmware is the code stored permanently in hardware. It instructs your printer to do its tasks. Benefits of updating firmware include new features, enhanced functionality and improved performance.

This section describes how to update printer firmware in B-FV Setting Tool.



Caution: Do not open the print module, disconnect your printer from the computer or cut your printer power during the firmware update.

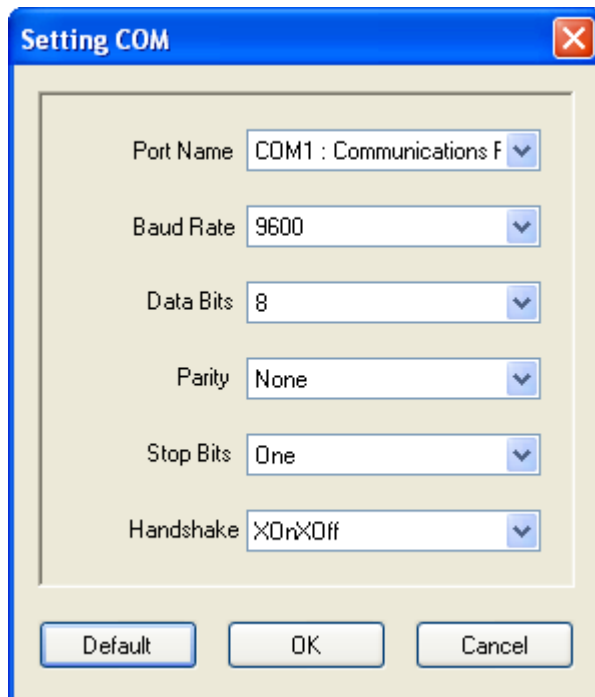
4.1 Update firmware via USB or COM port

1. Connect your printer and the computer with a USB or a serial cable.
2. Make sure the print module is closed.
3. Turn on your printer, and start B-FV Setting Tool.
4. In the **Input/Output Port** list, click **USB** or **COM**, and do one of the following:

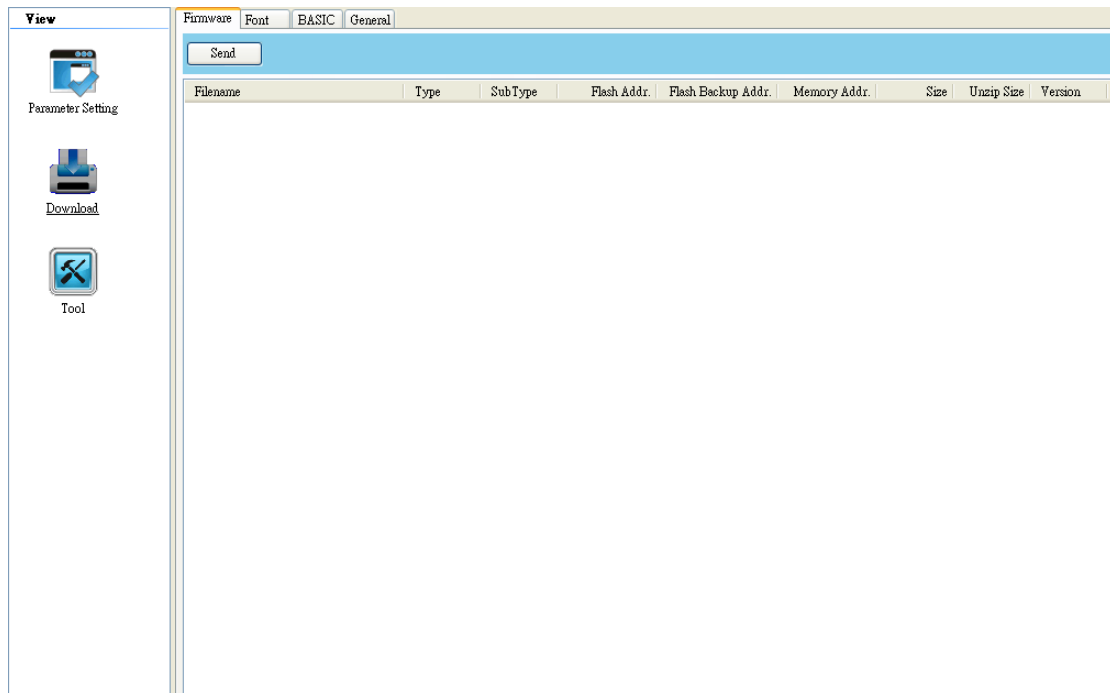
If you are using the **USB** port, the **Status Bar** automatically shows the USB information. You don't need to do anything.



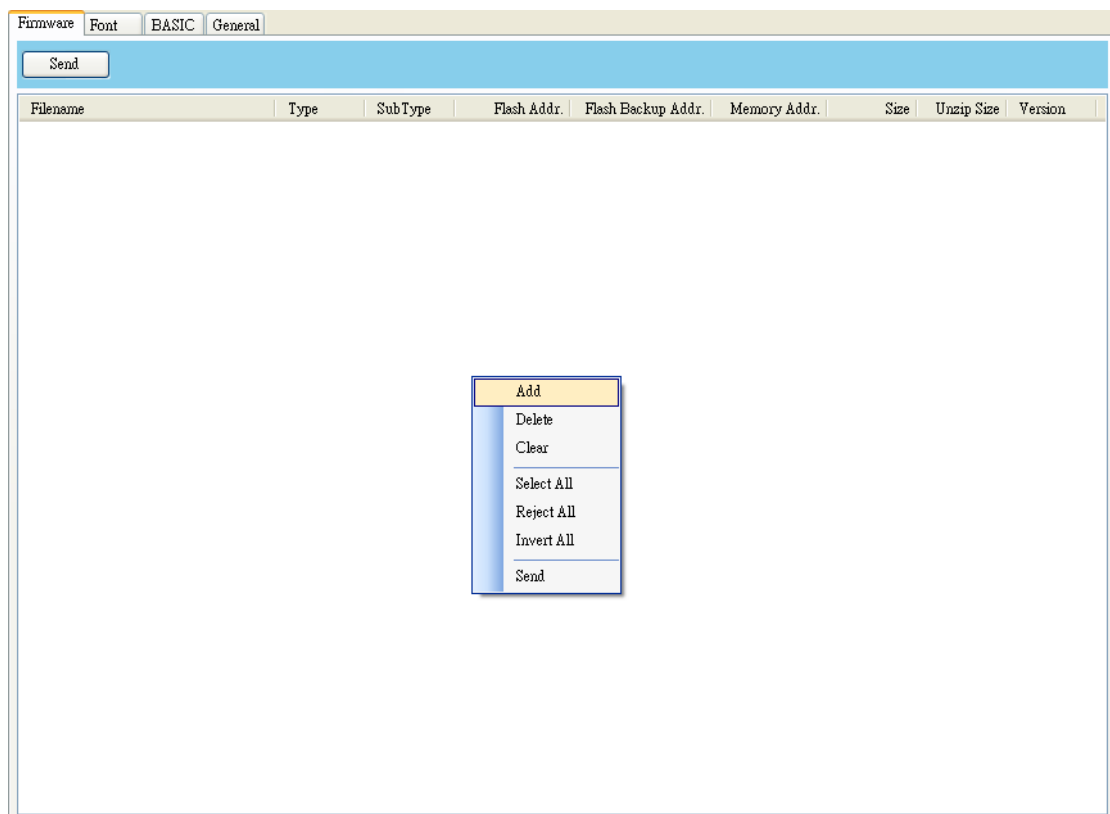
If you are using the **COM** port, click **Setting**, and change the settings as you want. For example, you can change **Baud Rate** to a higher value to speed up the data transmission. Make sure the port settings are the same as those in the **COM** tab in **Parameter Setting**, or your printer won't work properly.



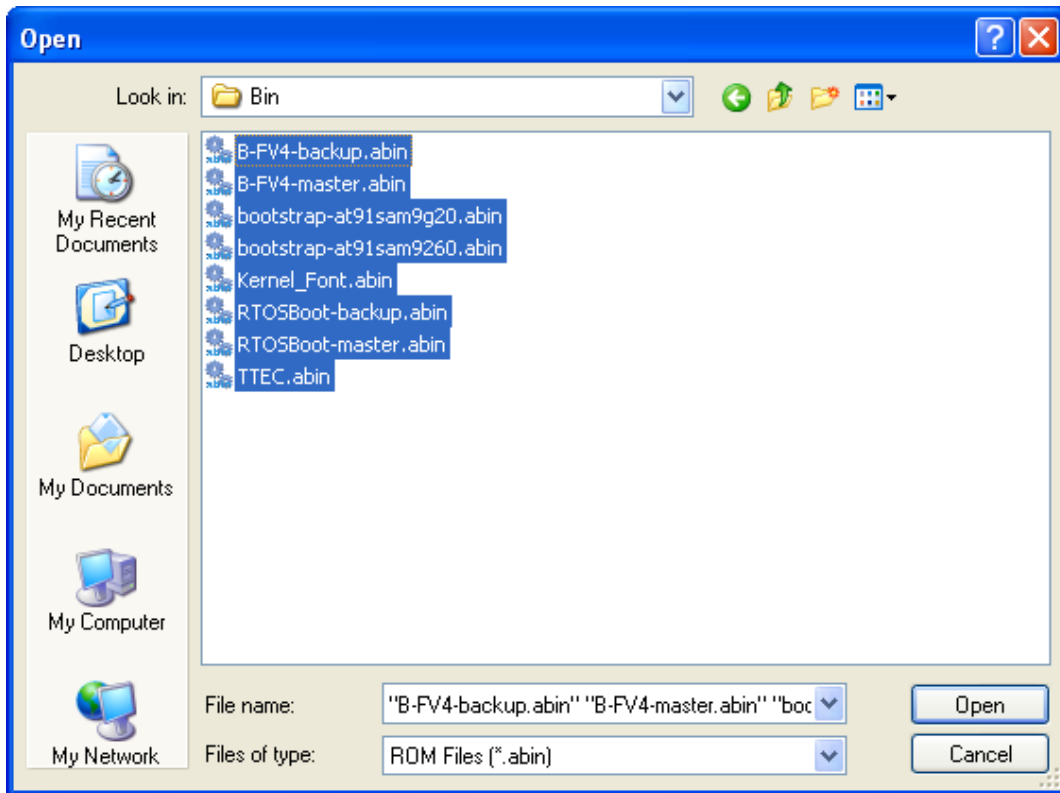
5. In the **Navigation** pane, click **Download**, and click the **Firmware** tab.



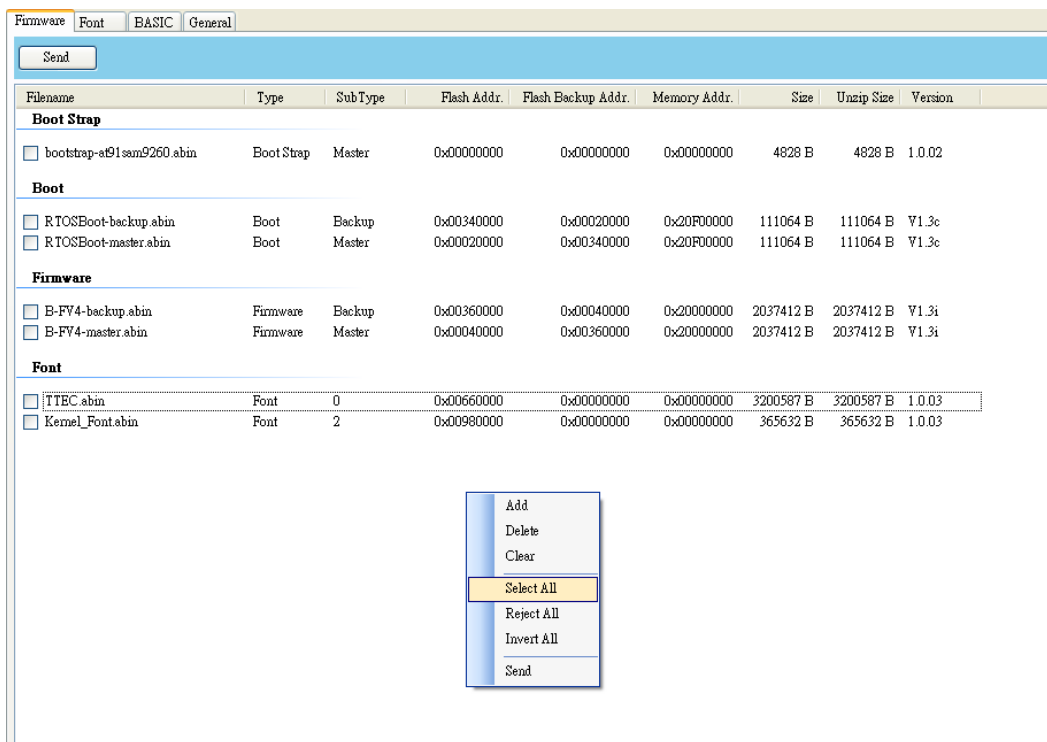
6. Right-click in the blank list and click **Add**.



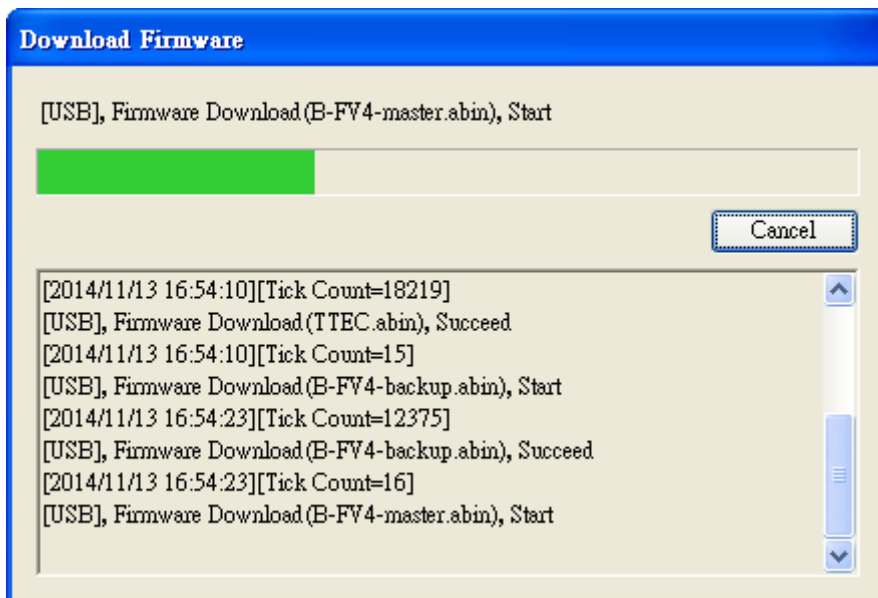
- In the **Open** dialog box, browse to the folder that contains B-FV4 firmware files. Select all of them and click **Open**.



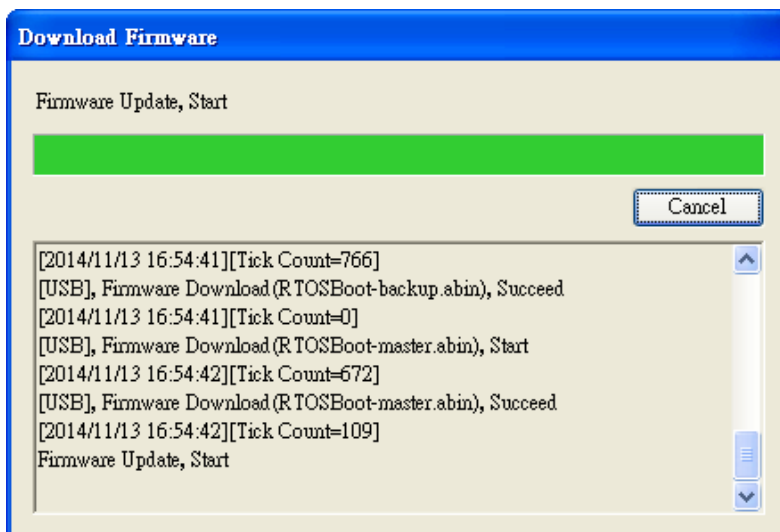
- If you want to update specific files, select the check boxes of those files; if you want to update all of the firmware files, right-click in the blank area in the list, and click **Select All**.



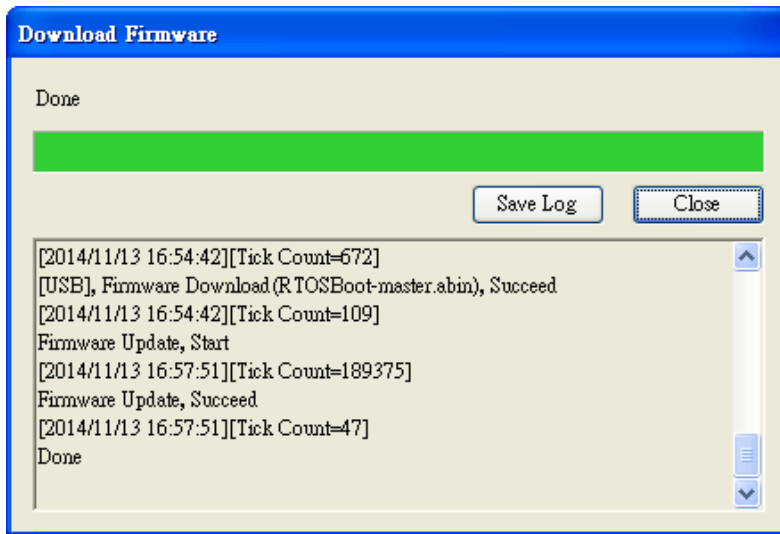
9. Click **Send** to send the firmware files to your printer. During the transmission LED 1 blinks green. In the **Download Firmware** dialog box, the message shows the file your printer is downloading, and the progress bar indicates the progress of downloading.



10. When the data transmission is complete, your printer starts to update its firmware. During the update LED 2 turns to red and orange alternatively, while LED 1 turns to solid green. In the **Download Firmware** dialog box, the message shows that your printer is updating the firmware.



- When the update is complete, the message “Done” appears. At the same time, your printer restarts itself. Click **Close** to close the dialog box, or click **Save Log** to save the firmware update log.



Note: Sometimes you’ll find LED 2 keeps turning to red and orange alternatively after the message “Done” appears. It means your printer is updating the other copy of firmware. There are two copies of firmware stored in your printer: master and backup. They are used to restore each other in case the firmware is lost or corrupted. By default, the master is the primary copy. Your printer uses the backup if the master doesn’t work.

4.2 Update firmware via LAN or Multi-LAN port

Before you update the firmware via the **LAN** or **Multi-LAN** port, you need to set up a network connection. For details, see [Set up LAN connection](#), [Set up IPv6 connection](#) and [Set up WLAN connection](#).

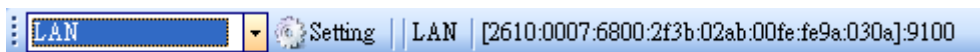
- Make sure the print module is closed.
- Turn on your printer, and start B-FV Setting Tool.
- In the **Input/Output Port** list, click **LAN** or **Multi-LAN**, and do one of the following:

If you are using the **LAN** port, the **Status Bar** will show the LAN settings after you set up a network connection.

- LAN



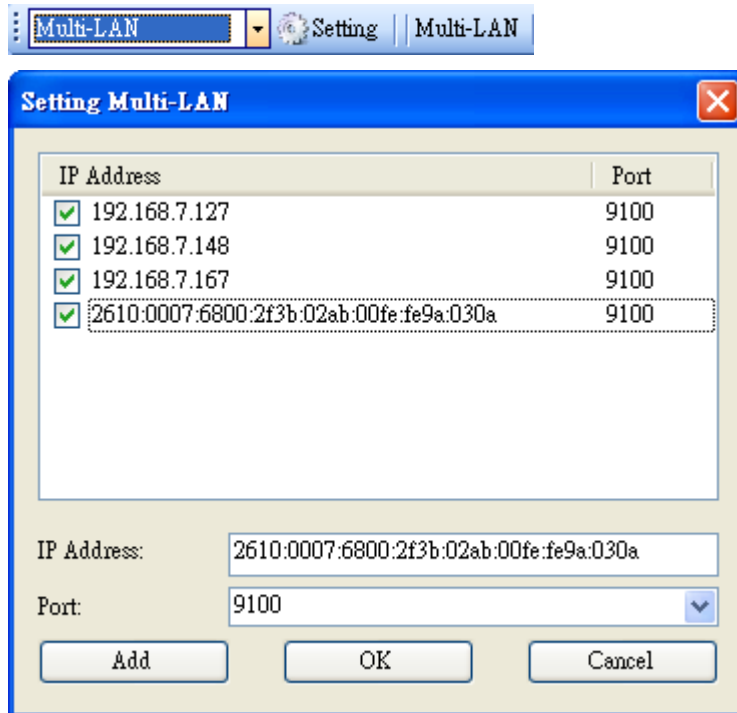
- IPv6



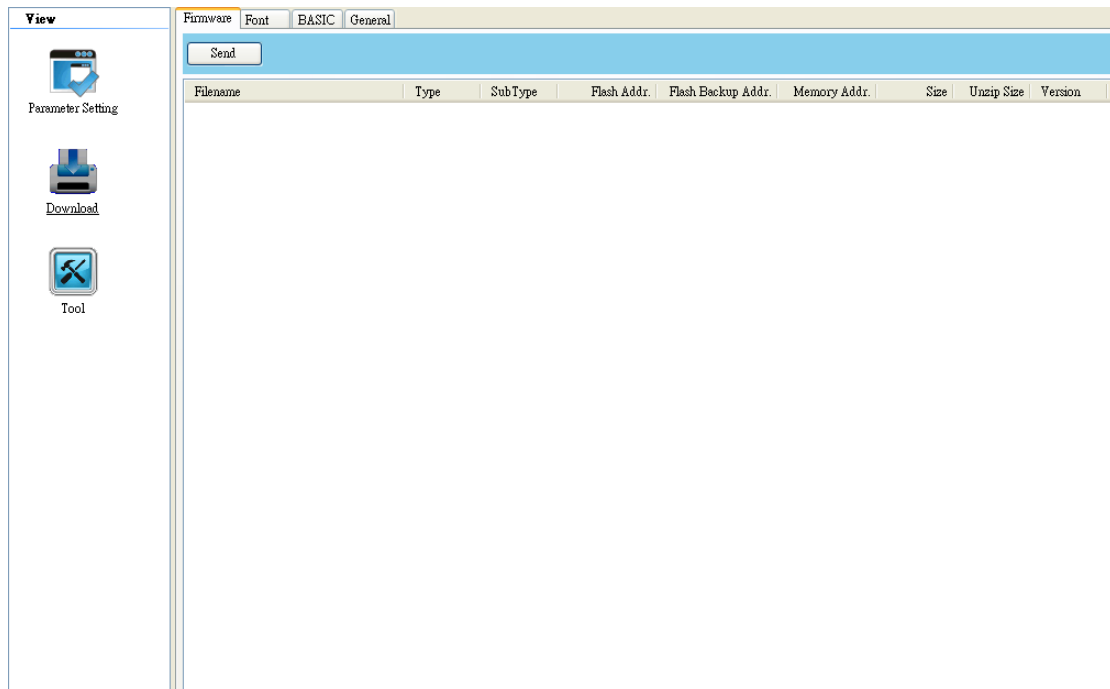
- WLAN



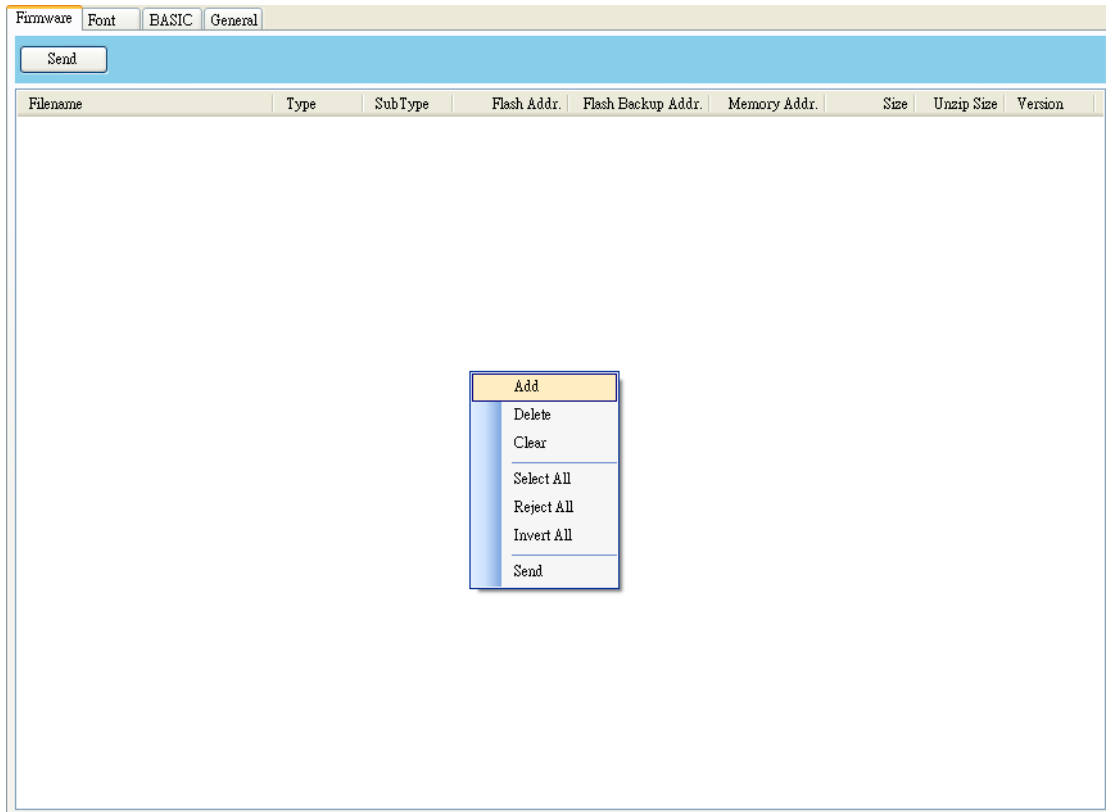
If you are using the **Multi-LAN** port, click **Setting**. In the **Setting Multi-LAN** dialog box, in the **IP Address** box, enter your printer's IP address and click **Add**. If you want to update the firmware of multiple printers, keep adding their IP addresses, and then click **OK**.



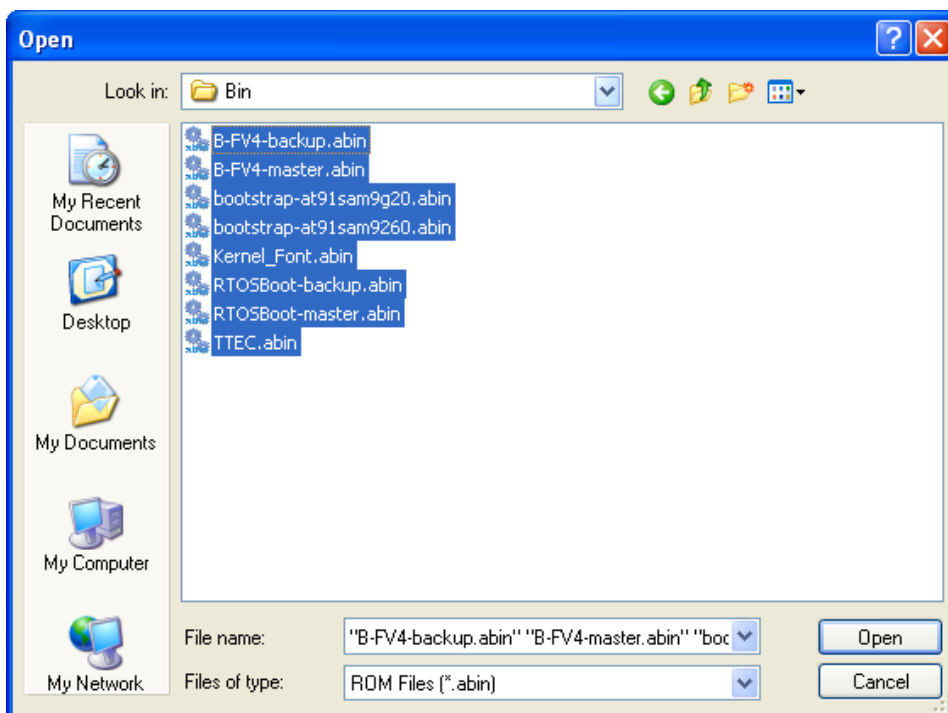
4. In the **Navigation** pane, click **Download**, and click the **Firmware** tab.



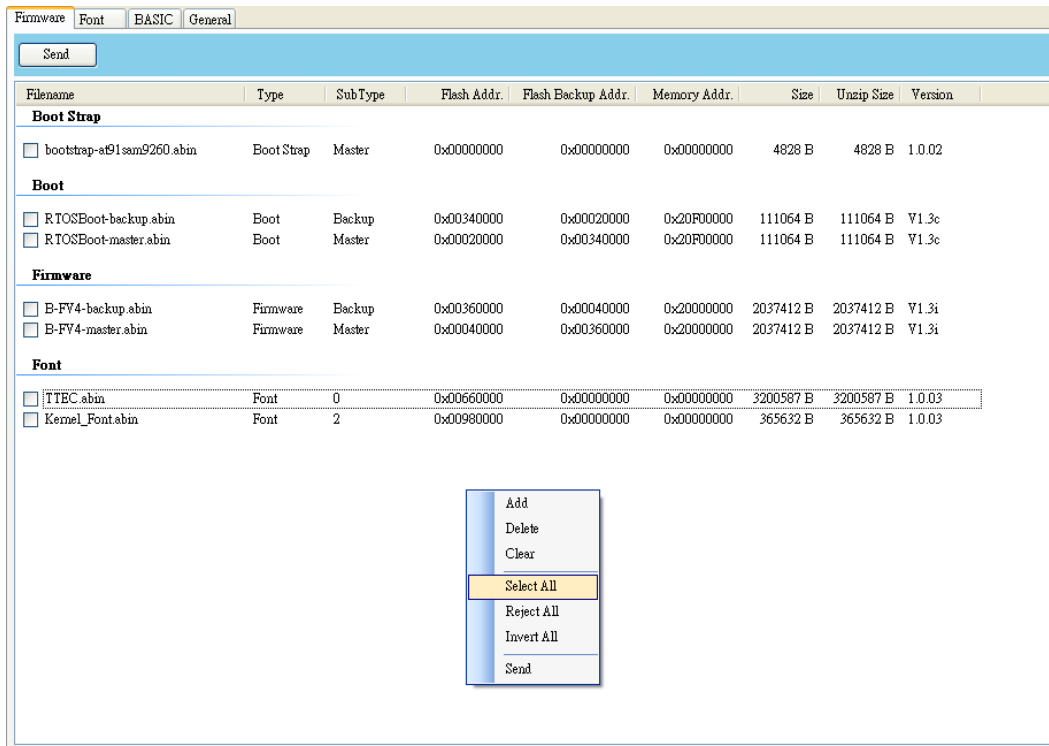
5. Right-click in the blank list and click **Add**.



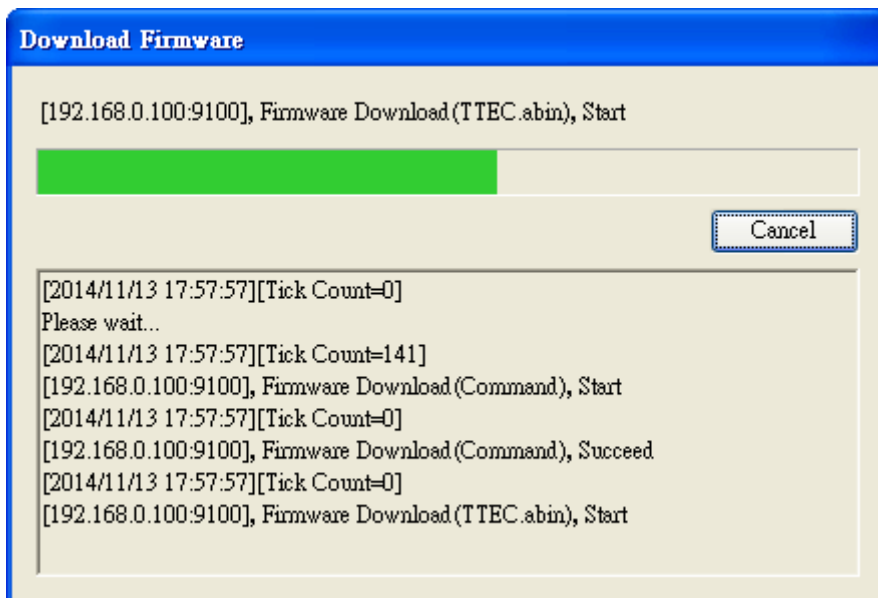
6. In the **Open** dialog box, browse to the folder that contains B-FV4 firmware files. Select all of them and click **Open**.



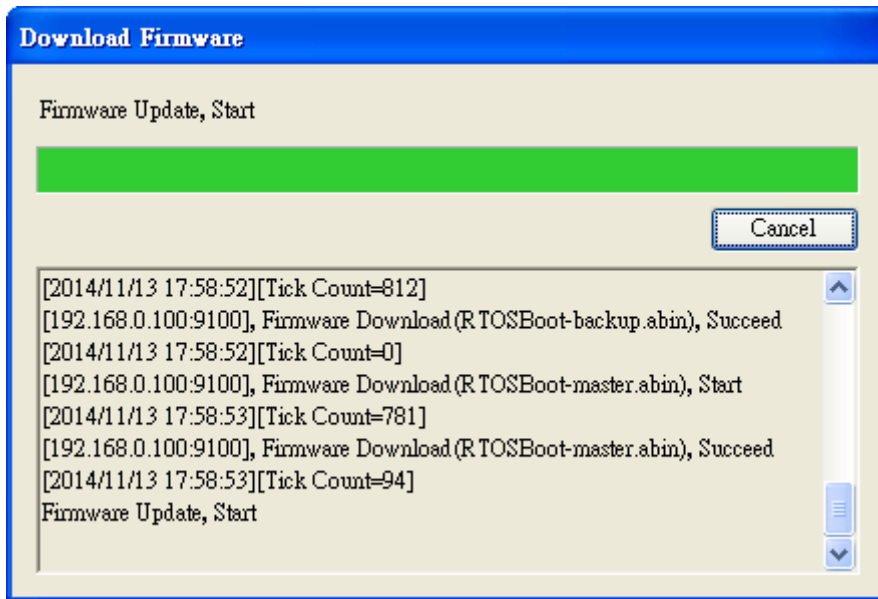
- If you want to update specific files, select the check boxes of those files; if you want to update all of the firmware files, right-click in the blank area in the list, and click **Select All**.



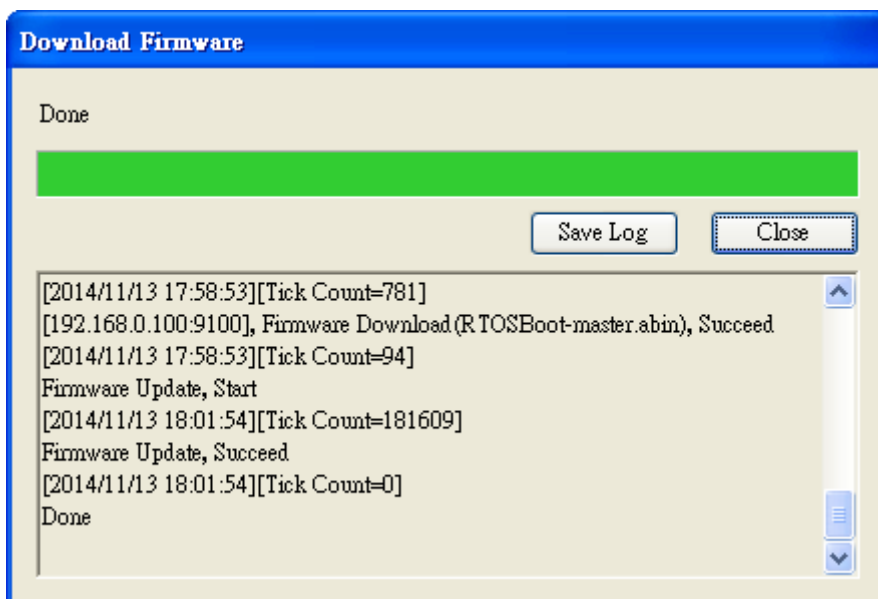
- Click **Send** to send the firmware files to your printer. During the transmission LED 1 blinks green. In the **Download Firmware** dialog box, the message shows the file your printer is downloading, and the progress bar indicates the progress of downloading.



9. When the data transmission is complete, your printer starts to update its firmware. During the update LED 2 turns to red and orange alternatively, while LED 1 turns to solid green. In the **Download Firmware** dialog box, the message shows that your printer is updating the firmware.



10. When the update is complete, the message “Done” appears. At the same time, your printer restarts itself. Click **Close** to close the dialog box, or click **Save Log** to save the firmware update log.



4.3 Update firmware via USB host

The USB host is a USB type A port for a USB flash drive, which can be used to quickly update the firmware.

1. Create a folder named "Firmware" in your USB flash drive, and copy the firmware files to it. The file "B-FV4-master.abin" needs to be in the folder.
2. Make sure the print module is closed, and turn off your printer.
3. Turn ON the printer power (or reboot the printer) after insert your USB flash drive to the printer. The printer starts to update the firmware.

Note: You cannot update firmware even if insert your USB flash drive to the printer after turn ON the printer power (or reboot the printer).

4. During the update LED 2 blinks green a few times, and turns to red and orange alternatively. When the update is complete, LED 2 goes out.



Caution: Do not remove the USB flash drive during the update.

4.4 Update firmware in Atmel mode

for Service staff only

Typically, firmware can be updated in B-FV Setting Tool without problems, but there are rare cases B-FV Setting Tool cannot handle. If any unexpected conditions keep you from update firmware in B-FV Setting Tool, you need to update it in Atmel mode.

Step 1: Enter Atmel mode

This part describes how to enter Atmel mode.

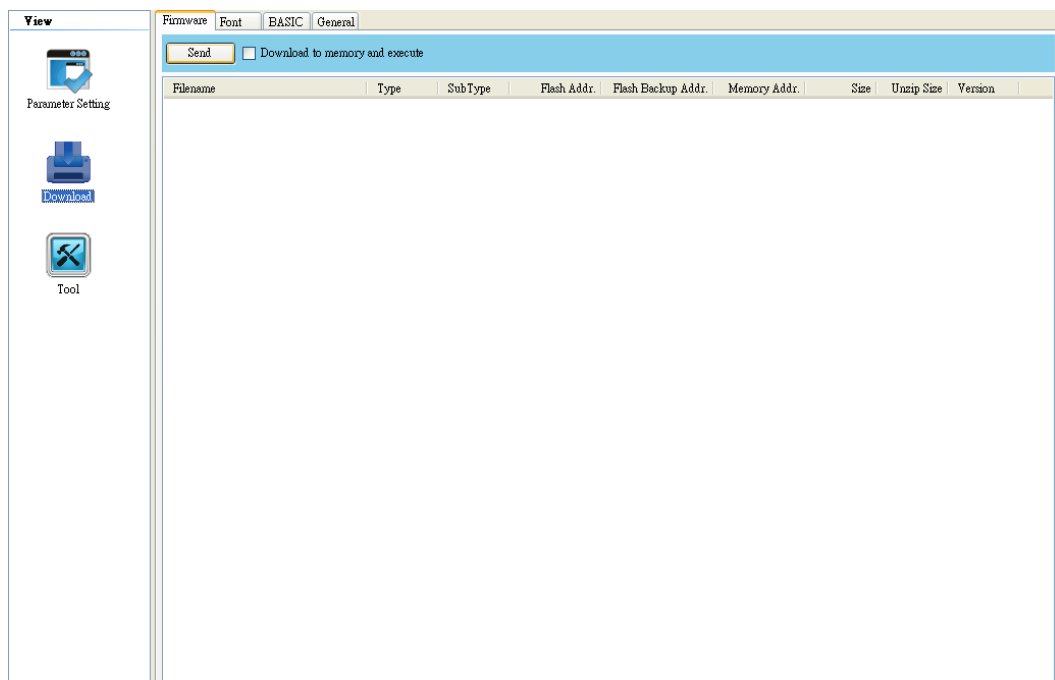
1. Turn off your printer.
2. Turn over your printer.
3. Loosen and remove four screws from the base.
4. Lift the base and unplug all the cables.
5. Locate the DIP switch on the main board. Set Switch 1 and 2 to the **OFF** position (down).



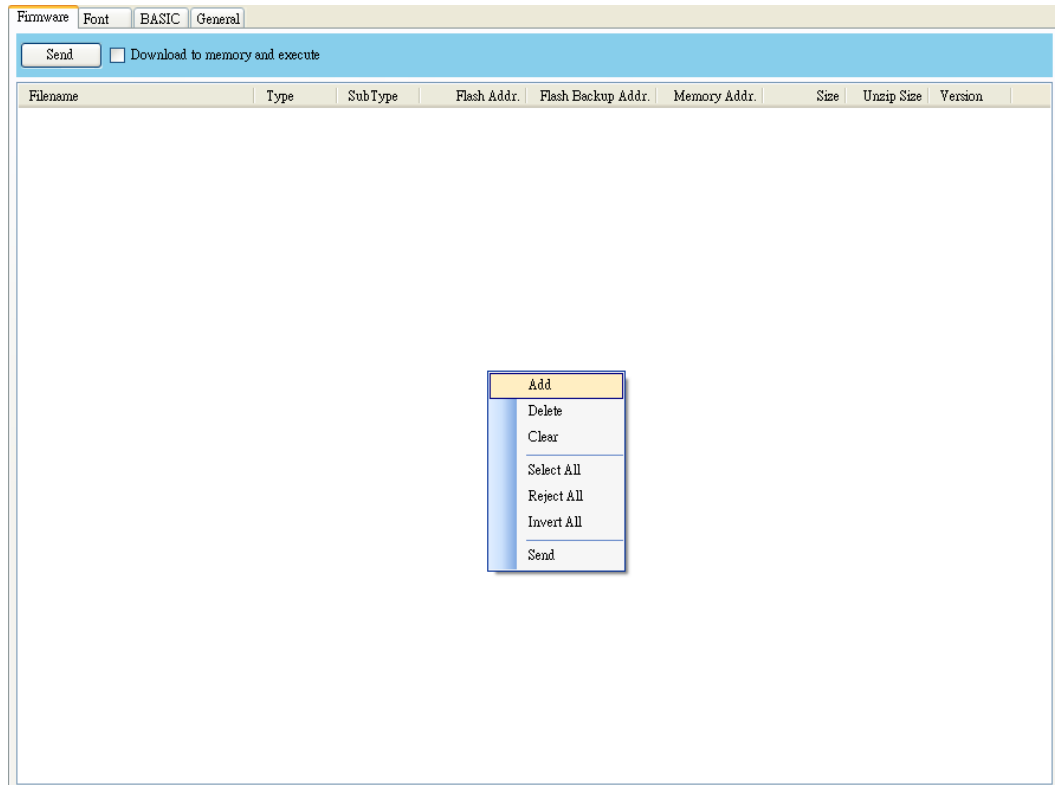
Step 2: Update your firmware

This part describes how to update your firmware in Atmel mode.

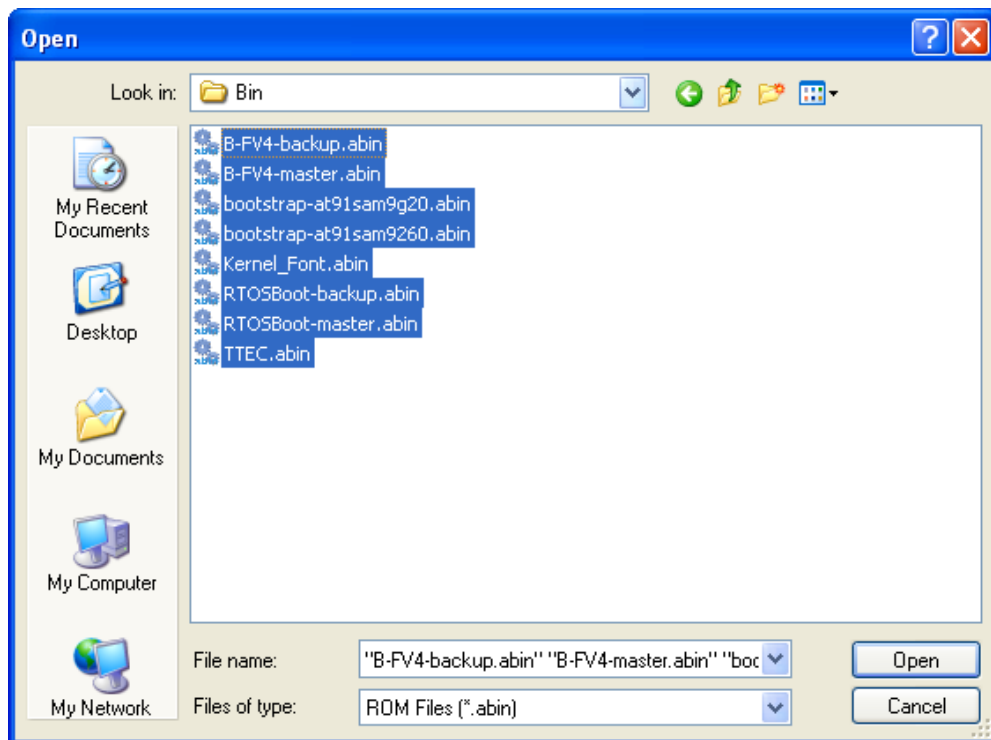
1. Plug all the cables back into the main board.
2. Turn on your printer. Both LEDs won't glow. This is normal.
3. Start B-FV Setting Tool. In the **Navigation** pane, click **Download**, and click the **Firmware** tab.



4. Right-click in the blank list and click **Add**.



5. In the **Open** dialog box, browse to the folder that contains B-FV4 firmware files. Select all of them and click **Open**.



- Right-click in the blank area in the list, and click **Select All** to select all of the check boxes.

Note: If you want to execute a firmware file without saving it into the flash memory, select the **Download to memory and execute** check box and click **Send**.

The screenshot shows a software interface with a table of files and a context menu. At the top, there is a 'Send' button and a checkbox for 'Download to memory and execute'. The table lists files categorized into 'Boot Strap', 'Boot', 'Firmware', and 'Font'. A context menu is open over the table, with 'Select All' highlighted.

Filename	Type	SubType	Flash Addr.	Flash Backup Addr.	Memory Addr.	Size	Unzip Size	Version	
Boot Strap									
<input checked="" type="checkbox"/> bootstrap-at91sam9260.abin	Boot Strap	Master	0x00000000	0x00000000	0x00000000	4828 B	4828 B	1.0.02	
Boot									
<input checked="" type="checkbox"/> RTOSBoot-backup.abin	Boot	Backup	0x00340000	0x00020000	0x20F00000	111064 B	111064 B	V1.3c	
<input checked="" type="checkbox"/> RTOSBoot-master.abin	Boot	Master	0x00020000	0x00340000	0x20F00000	111064 B	111064 B	V1.3c	
Firmware									
<input checked="" type="checkbox"/> B-FV4-backup.abin	Firmware	Backup	0x00360000	0x00040000	0x20000000	2037412 B	2037412 B	V1.3i	
<input checked="" type="checkbox"/> B-FV4-master.abin	Firmware	Master	0x00040000	0x00360000	0x20000000	2037412 B	2037412 B	V1.3i	
Font									
<input checked="" type="checkbox"/> ITEC.abin	Font	0	0x00660000	0x00000000	0x00000000	3200587 B	3200587 B	1.0.03	
<input checked="" type="checkbox"/> Kernel_Font.abin	Font	2	0x00980000	0x00000000	0x00000000	365632 B	365632 B	1.0.03	

Context Menu Options:

- Add
- Delete
- Clear
- Select All**
- Reject All
- Invert All
- Send

- Click **Send** to send the firmware files to your printer. When the update is complete, the message "Done" appears. Click **Close** to close the dialog box, or click **Save Log** to save the firmware update log.

The screenshot shows a 'Download Firmware' dialog box. At the top, it says 'Done' next to a green progress bar. There are 'Save Log' and 'Close' buttons. Below is a scrollable log window showing the following text:

```
[2014/11/14 10:25:59][Tick Count=16]
Write Flash, Start
[2014/11/14 10:26:01][Tick Count=2234]
Write Flash, Succeed
[2014/11/14 10:26:01][Tick Count=16]
[USB], Firmware Download(RTOSBoot-master.abin), Succeed
[2014/11/14 10:26:01][Tick Count=31]
Done
```

Step 3: Exit Atmel mode

This part describes how to exit Atmel mode.

1. Turn off your printer.
2. Set **DIP Switch** 1 and 2 to the **ON** position (up). If it's inconvenient to set **DIP Switch** while cables are connected, unplug all the cables to do this.



3. Reinstall the base and the secure it with four screws.
4. Turn over your printer.
5. Turn on your printer.



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