

TOSHIBA TEC Bar Code Printer

Wireless LAN Configuration Tool Specification

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TOSHIBA TEC CORPORATION

TABLE OF CONTENTS

F	⊃age
1. SCOPE	1
2. GENERAL DESCRIPTION	1
3. HOW TO CONNECT PRINTER TO PC	2
3.1 CONNECTION WITH SERIAL INTERFACE (RS-232C)	2
3.2 CONNECTION WITH PARALLEL INTERFACE (CENTRONICS)	2
3.3 REQUIREMENTS	2
4. WIRELESS LAN CONFIGURATION TOOL FLOPPY DISK	3
5. OPERATION PROCEDURE	4
5. OPERATION PROCEDURE	
	4
5.1 STARTUP OF PROGRAM	4 5
5.1 STARTUP OF PROGRAM	4 5 6
5.1 STARTUP OF PROGRAM	4 5 6 7
5.1 STARTUP OF PROGRAM	4 5 6 7 8
5.1 STARTUP OF PROGRAM	4 5 6 7 8
5.1 STARTUP OF PROGRAM	4 5 6 7 8

1. SCOPE

This specification applies to the wireless LAN configuration tool for the bar code printer.

2. GENERAL DESCRIPTION

The tool for making the required settings to use the wireless LAN interface on the bar code printer, is provided.

Wireless LAN configuration tool:

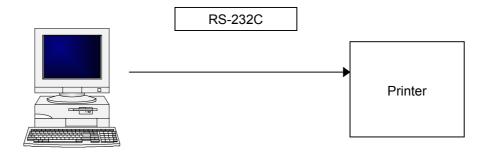
- Sets the parameters for the wireless LAN interface.
- Supports both serial and parallel interfaces.

3. HOW TO CONNECT PRINTER TO PC

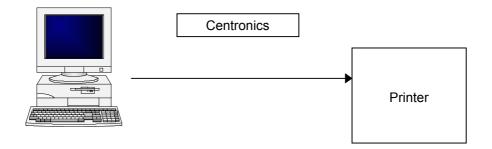
3.1 CONNECTION WITH SERIAL INTERFACE (RS-232C)

The tool's communication settings must conform to those of the printer. Below are the default values for the serial settings for the tool.

Communication port: COM1:
Communication speed: 9600 bps
Data length: 8 bits
Parity: NONE
Stop bit: 1 bit



3.2 CONNECTION WITH PARALLEL INTERFACE (CENTRONICS)



NOTE: If port LPT1 on the PC is assigned to the local printer, the assignment must be cleared.

3.3 REQUIREMENTS

System

DOS/V compatible with Windows 95 or Windows 98 (This software is unavailable in Windows 3.1)

Interface

Centronics or RS-232C

Memory

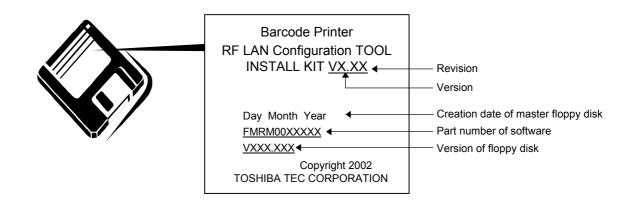
16 MB or more (32 MB or more recommended)

· Hard-disk free space

10 MB or more

4. WIRELESS LAN CONFIGURATION TOOL FLOPPY DISK

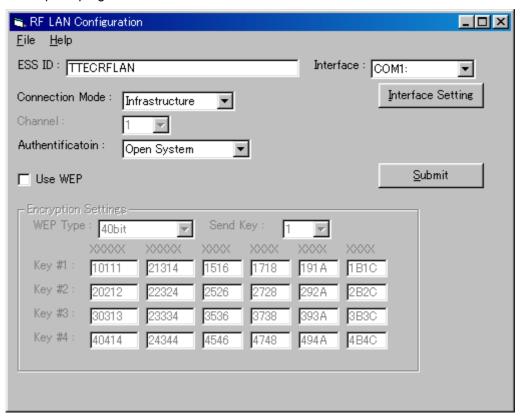
(3.5" 2HD 2 disks)



5. OPERATION PROCEDURE

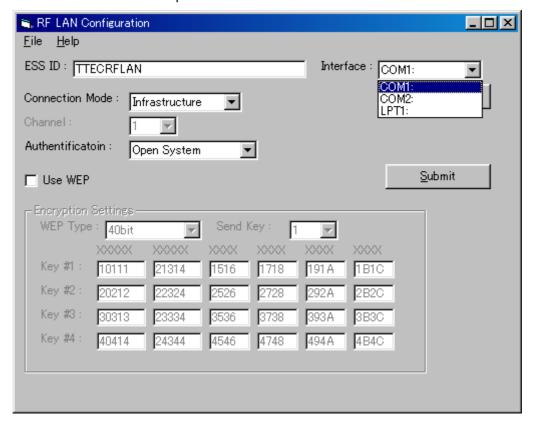
5.1 STARTUP OF PROGRAM

(1) Start up the program.



5.2 SELECTING INTERFACE

(1) Select the communications port to be used from the interface box.

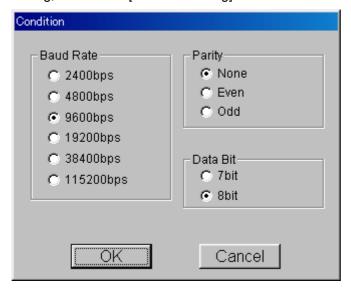


COM1: COM1 port is used.
COM2: COM2 port is used.
LPT1: The parallel port is used.

When the tool is started up, the initial value for the interface is "COM1:".

5.3 SELECTING COMMUNICATION PROTOCOL

(1) When "COM1:" or "COM2:" is selected for the interface, the tool's communication protocol settings must conform to those of the printer. To open the "Condition" dialog for the protocol setting, click on the [Interface Setting] button.



When the tool is started up, the initial values for the communication protocol are "9600 bps" for Baud Rate, "None" for Parity, and "8bit" for Data Bit.

5.4 PARAMETER SETTINGS

Each parameter should be set by entering a value in the text box, or selecting a value from the drop-down list.

(1) ESS ID:

Enter up to 32 bytes of characters.

(2) Connection Mode

Select "Infrastructure" or "Adhoc".

(3) Channel:

When "Adhoc" is selected, set a channel to be used for the connection.

(4) Authentication:

Authentication method; select "Open System" or "Shared Key".

(5) Use WEP:

To perform WEP encryption, check the checkbox.

(6) WEP Type:

Select the WEP encryption type, "40bit" or "128bit".

(7) Send Key:

To set the key number to be used for transmission, select the key number from 1 to 4.

(8) Key #1 to #4:

Set the key in hexadecimal. When the WEP type "40bit" or "128bit" is selected, set the "5-byte key" or the "13-byte key", respectively.

Each parameter should be set, according to access points or the wireless LAN card to be connected.

5.5 SUBMITTING PARAMETERS

Set parameters are sent to the printer by clicking on the [Submit] button. When data can be sent from the specified port, the tool displays the "Parameter Submitted" dialog.

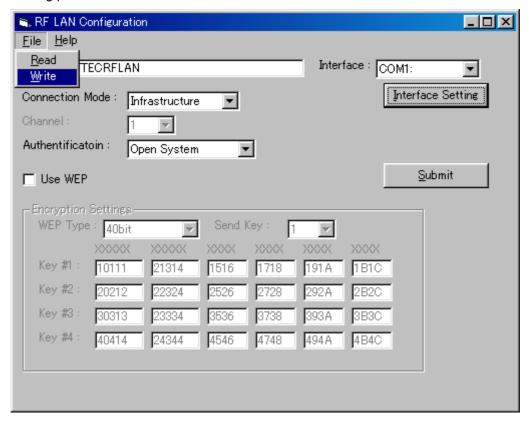


The tool cannot check whether or not parameters sent are properly set on the printer. If the parameters sent are properly set on the printer, the printer is automatically reset, then the parameters take effect. Details on the parameters set on the printer can be checked on the printer's self-test printout.

5.6 STORING/READING PARAMETERS

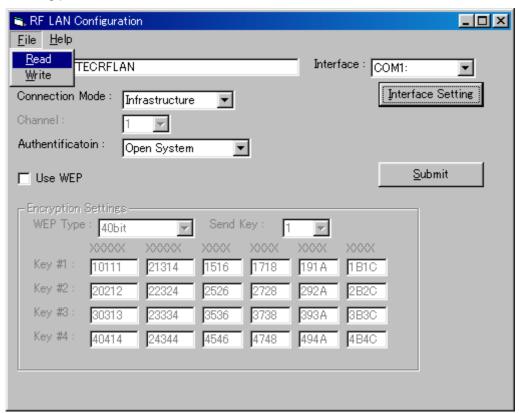
Set parameters can be stored in a file. Set parameters can be read from the file.

(1) Storing parameters



When "Write" is selected from the "File" menu, the "Save as..." dialog is displayed. The parameters can be stored in a file with any given name.

(2) Reading parameters



When "Read" is selected from the "File" menu, the "Open..." dialog is displayed. The file with any given name can be opened and the stored parameters can be read.

6. WIRELESS LAN CONFIGURATION COMMAND

When the [Submit] button is clicked after parameters are set by the tool, the Wireless LAN Configuration Command is sent to the printer. Details on this command are described below.

Wireless LAN Configuration Command [ESC] IL

Function

Configures parameters for the wireless LAN interface.

Format

Term

- b: Connection mode
 - 0: Adhoc mode
 - 1: Infrastructure mode
- cc: Channel

01 to 14

- d: Authentication method
 - 0: Open system
 - 1: Shared key
- e: WEP encryption
 - 0: OFF (Disabled)
 - 1: ON (Enabled)
- f: WEP type:
 - 0: 40bit
 - 1: 128bit
- g: Send key

1 to 4

Specifies the 13-byte encryption key in 26-byte fixed length in hex. When the WEP type "40bit" is selected, only the first 5 bytes take effect.

However, the 13-byte WEP encryption key should be sent by the command.

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jjjjjjjjjjjjjjjj; WEP encryption key #3

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WEP type "40bit" is selected, only the first 5 bytes take effect.

However, the 13-byte WEP encryption key should be sent by the command.

Example

ESS ID: "TOSHIBA TEC" (54 4F 53 48 49 42 41 20 54 45 43) (in hex)

Connection mode: Infrastructure

Channel: 5

Authentication: Open system

WEP encryption: ON

WEP type: 128bit

Send key: 2

Key #1: 1112131415161718191A1B1C1D (in hex)
Key #2: 2122232425262728292A2B2C2D (in hex)
Key #3: 3132333435363738393A3B3C3D (in hex)
Key #4: 4142434445464748494A4B4C4D (in hex)

7. SELF-TEST PRINTING

The parameters for the wireless LAN set on the printer can be checked on the maintenance counter/various parameters printout. The maintenance counter/various parameters can be printed out in the self-test process.

(1) Self-test printing: Example of maintenance counter/various parameters printout (excerpted)

SUBNET MASK [255.255.255.000] TTF AREA [704KB] EXT CHR AREA [128KB] BASIC AREA [64KB] PC SAVE AREA [64KB] SOCKET PORT [OFF] [08000] BASIC [OFF] BASIC TRACE [OFF] DHCP [OFF] DHCP ID [FFFFFFFFFFF] ESS ID [TTECRFLAN 1 [CONNECTION [INFRASTRUCTURE] CHANNEL [01] [OPEN SYSTEM] AUTH WEP [OFF] WEP TYPE [40bit] SEND KEY [1] WEP KEY #1 [101112131415161718191A1B1C] WEP KEY #2 [202122232425262728292A2B2C] WEP KEY #3 [303132333435363738393A3B3C] WEP KEY #4 [404142434445464748494A4B4C]