INFINITE PERIPHERALS
PROVIDER OF CUSTOM RECEIPT PRINTING SOLUTIONS

IP-BC-BT *Scanner*

User's Manual

Bluetooth®

Infinite Peripherals, Inc.
www.ipcprint.com
IP-BC-BT User's Manual v1.01

Contents

Technical Data

Item	Specifications
Bar Codes Supported	UPC/EAN/JAN, Code 128, Code 39
Maximum X Dimension	10 mil
Depth of Field	2.5 in to 5.5 in for 10 mil 2.5 in to 6.0 in for 13 mil 3.0 in to 7.0 in for 17 mil
Memory Capacity	Approximately 500 UPC bar codes
Interface	Bluetooth 1.1
Radio Specifications	Radio: Bluetooth class 2, 1.1 compliant Range: 10 m., 33 ft., line-of-sight
Cable (Optional)	RS-232 compliant, DB9 to Stereo plug
Indicators	LED and Audible
Operating Temperature	5° to 35° C
Storage Temperature	-40° to 70° C
Power	3 AAA Alkaline Batteries
Safety	EN60950-1:2002, IEC 60825-1:1993 +A1(1997) +A2(221)
EMC	EN300328-1:1997, EN301489-1:2000, EN3011489-17:2000, EN55022:1989, EN55024:1998, EN61000-4-2:1995, EN61000-4-3:1997, FCC 47 CFR, Part 15 Class B

Table 1

About Your Scanner

The IP-BC-BT scanner is a breakthrough in affordable wireless laser scanning. The scanner has the scanning performance of more expensive laser scanners, the convenience of hand-held portability, and the advantage of Bluetooth® wireless technology.

Figure 1

Installing & Replacing Batteries

Use only Alkaline batteries in your scanner. Be sure to remove the batteries from the scanner when storing the scanner for more than 30 days.

Installation Steps:

1. Turn the scanner over so that the back faces up.
2. Remove the battery cover by pressing the button at the top of the cover, and moving the cover down.
3. If there are batteries in the scanner, remove them.
4. Insert the new batteries so that the positive end (+) is up on the outside batteries, and down on the middle battery.
5. Replace the battery cover by inserting the tabs at the top of the cover into the slots in the back of the scanner. Slide the cover up.

Figure 2

Status Indicators

Scanner status:

The scanner uses the visual and audible status indicators to signal various conditions.

The following table explains the different visual and audible indicators.

Event	Green LED	Beeper
Good Scan	On for 200 msec	Single beep, higher pitch and shorter than the Invalid Command beep
Memory Full	Blinks 3 times	Beeps three times
Downloading	Blinks 2 times per second while the data is downloading	None
Download Complete	On for 300 msec	Three beeps that descend in pitch
Invalid Command	None	Single beep, lower pitch and longer than the Good Scan beep
System Error	None	Beeps five times. This cannot be disabled

Table 2

Bar Code Symbologies Supported

The IP-BC-BT scanner support a number of different bar code symbologies and it can return a code indicating the type of symbology that was scanned (either AIM Code or NCR Identifier). Different symbologies are often used for different purposes. For example, most retail products use a UPC code. The case containing that same product probably uses an ITF (Interleaved 2 of 5) bar code. Knowing which type of symbology was scanned can be used to determine if the data is from a case or an individual product. The Flic supports the following barcode symbologies and options:

EAN / UPC

These are the mostly commonly used bar code symbologies. UPC and EAN are used to identify nearly all retail products. The Flic supports EAN-13, EAN-8, UPC-A, UPC-E, and add-on symbols (both 2 and 5-digit add-ons). The Flic can also combine the add-on symbols with the base barcodes.

CODE 128

The name CODE 128 derives from its ability to encode 128 different data characters at a high density. The Flic supports Function Code 1 and 2 options, but does not support the concatenation feature (pad character).

Code-39

Code-39, or Code 3 of 9, is used extensively in military and medical applications. The Flic supports Code-39 standard and checksum options (including stripping the checksum character). Full ASCII conversion and concatenation features are not supported.

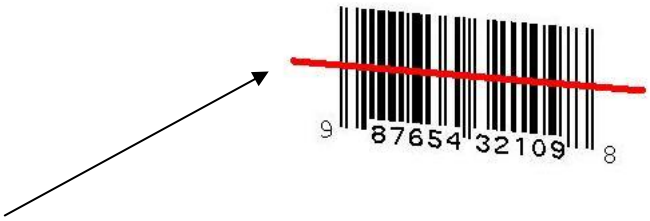
ITF (Interleaved 2 of 5)

ITF is used extensively in warehousing applications and many retail products use ITF bar codes on product cases (individual items use UPC but ITF is often used on the case). The Flic supports standard and checksum options (including stripping the checksum character). Minimum and Maximum decode lengths are also supported. Note that Maximum decode length does not provide any additional barcode decoding integrity. Full ASCII conversion and concatenation features are not supported.

Scanning Operation

The IP-BC-BT Cordless Bluetooth® Scanner operates from 3 AAA batteries that will supply over 76,000 continuous scans or 100 scans/day for 8 months (16,000 scans). In order to conserve power the scanner enters standby mode after a programmable a connect time of no activity and drops the Bluetooth® connection. The default connect time is 60 seconds. When scanning, the device wakes up and the Bluetooth® radio enters Discovery mode and waits for the host to reconnect. When using the host detects the scanner in discovery mode it quickly re-connects and transmits the data.

Proper scanning of barcodes is shown in the figure below. Note that the scan beam crosses the width of the barcode.



Scan beam crosses the width of the barcode and extends beyond the barcode left and right edges.

Setting Up Scanner

The IP-BC-BT scanner requires Bluetooth® enabled PDA or Smartphone to communicate using Bluetooth® technology.

Depending on your device type the steps for setting up or pairing your device to the IP-BC-BT scanner will vary slightly but the overall process should be similar to the steps below.

1. First step is to pair IP-BC-BT to your PDA or Smartphone. This is usually done using the device's Bluetooth® Manager.

2. When ready, place the scanner in discovery mode by pressing the scan button.

3. On your PDA or Smartphone, select the option to add new Bluetooth® devices. The actual command option will depend on your device type and could be one of the following:

   a. BlackBerry OS: [Add Device]
   b. Pocket PC OS: [Explore a Bluetooth® device]
   c. Palm OS: [Add Device]
   d. Windows Mobile: [New Partnership]

   Or it could be something similar to one of the above options. Refer to your device user manual for details on pairing Bluetooth® devices.

4. Select device named "Cordless".

5. Use **0000** as the Bluetooth® Passkey when requested.

6. Save and exit.

If the steps above have been successful, the scanner and your PDA or Smartphone are now paired with each other and ready to use Bluetooth® communications.

Developing Solutions

The IP-BC-BT scanner currently supports Bluetooth® enabled devices using SPP Profile (Serial Port Profile). However, software that runs on the handset and interacts with the scanner is required to actually scan barcodes.

Integrating the Scanner into your mobile solution requires the use of the scanner's Bluetooth® SDK. The SDK incorporates API specific to developing application and integrated the IP-BC-BT barcode scanner into your application.

The table below shows the SDKs currently available for Bluetooth® devices.

Driver / SDK	Language	IDE
IPCFlicDriver	Java	BlackBerry Java JDE 4.0 - RIM
-	Palm	Please contact Infinite Peripherals
-	Pocket PC	Please contact Infinite Peripherals
-	Windows Mobile	Please contact Infinite Peripherals

Table 3

For the latest IP-BC-BT Scanner SDK's, visit our developer web site at:

http://www.ipcprint.com/support/default.asp

Troubleshooting

If you're having problems refer to the table below for possible causes.

Problem	Possible Cause
Scanner will not turn On.	1. Replace batteries if using Alkaline.
Scanner turns On but turns Off immediately within seconds of being turned On.	1. Replace batteries if using Alkaline.
Application indicates scanner not connected.	1. Verify that the handset is properly paired to Bluetooth® scanner. 2. Verify that the handset Bluetooth® is turned On. 3. Reset the handset and try again.

Table 4

Contact Information

National Sales Headquarters:

Infinite Peripherals, Inc.
1340 Reynolds Avenue
Suite 101
Irvine, CA 92614
Toll Free: 866-278-7860
Phone: 949-222-0300
Fax: 949-222-0375
www.ipcprint.com
MobileSales@ipcprint.com

Midwest Sales Office:

Infinite Peripherals, Inc.
3104 N. Arlington Heights Road
Arlington Heights, IL 60004
Phone: 847-818-1260
Fax: 847-818-1287
www.ipcprint.com
MobileSales@ipcprint.com

East Coast Sales Office

Infinite Peripherals, Inc.
700-76 Broadway, #136
Westwood, NJ 07675
Phone: 201-647-3025
Fax: 866-247-1935
www.ipcprint.com
MobileSales@ipcprint.com

Technical Support:

Infinite Peripherals, Inc.
1340 Reynolds Avenue
Suite 101
Irvine, CA 92614
Phone: 949-222-0300
Fax: 949-222-0375
www.ipcprint.com
MobileSupport@ipcprint.com