BELKIN

Bluetooth™ Access Point

with USB Print Server

*Access your network and USB
printers through Bluetooth devices*

❀ Bluetooth™

User Manual
F8T030

TABLE OF CONTENTS

Congratulations on your purchase of this *Bluetooth* Access Point with USB Print Server (the AP) from Belkin. The AP adds the convenience of wireless *Bluetooth* technology and LAN printing to a USB printer. Print jobs can be sent to the connected USB printers from a computer or PDA via *Bluetooth* and the wired LAN. To print from the LAN, simply connect a USB printer to the AP and run the included printer utility on your Windows® or Mac® operating system. Your computers enabled with *Bluetooth* technology will be able to directly print to the USB printer through the AP.

This User Manual will provide details about your new AP, from installation and operation to troubleshooting in the unlikely event of a problem. For quick and easy installation, please refer to the Quick Installation Guide included in the packaging.

Package Contents

- *Bluetooth* Access Point with USB Print Server
- Print Server Utility CD-Rom
- User Manual
- Quick Installation Guide
- Registration Card

System Requirements

- At least one computing device equipped with *Bluetooth* wireless technology
- TCP/IP networking protocol installed in each wired computer connected to the LAN

Key Features and Benefits

- Offers compatibility with any *Bluetooth* v1.1-compliant device

- Allows you to work at distances of up to 100 meters

- Features flash-upgrade support

- Offers built-in security using 128-bit encryption and authentication, allowing you to securely access any *Bluetooth* device without wires

- Offers true Plug-and-Play convenience

- Supports up to 7 simultaneous users

- Provides easy management with built in web server

- Delivers manageability from a desktop or PDA

- Supports Microsoft® Windows® 98 SE, Me, 2000, and XP

*100m range is dependent upon environment, number of users, and other wireless devices within immediate proximity.

Applications

SOHO (Small Office/Home Office)

- SOHO users who need easy and quick setup

Wireless roaming with a PDA or laptop around the home or office

- Gain the freedom you need to access the Web, and e-mail around the home and office without cables

Wireless printing with your PDA or laptop

- Print wirelessly to a USB printer from your PDA, notebook, or desktop computers

Frequently changing environments

- Take your personal area network with you when you change locations or rearrange your workplace

Temporary LAN access

- Create a personal area network for your PDAs and computers at tradeshows, exhibitions, conference rooms, and other sites that may require a network on a temporary basis
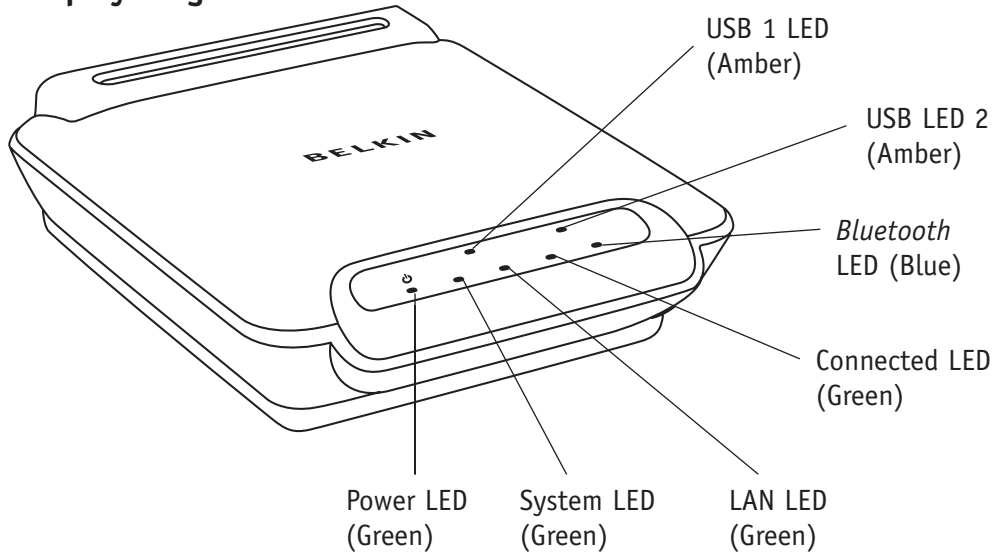
Product Specifications

Bluetooth Compliance	Version 1.1
Physical Interfaces	2 USB A Connectors, RJ45 Connector
Operating Frequency	2.4 to 2.4835GHz
Output Power	0 to 20 dBm, Class 1
Sensitivity	< 0.1% BER at -70 dBm
Data Rate	723/56Kbps Asynchronous, 400/400Kbps Synchronous
Operation Range	100-meter (333 ft.) radius indoors
Network Topology	Point-to-multipoint, up to 7 slaves
Packet Support	1/3/5 slot packets
Frequency Stability Antenna	Integrated
Dimensions	4.7 (W) x 5 (L) x 1.75 (H) in.
Weight	5.0oz.
Operating Temp	0 to 50 degrees Celsius
Storage Temp	10 to 70 degrees Celsius
Humidity	5~90% non-condensing
Supply Voltage	5VDC
Nominal Current	1 Amp
Supported Profiles	GAP, SDP, LAN Access, Serial, PAN (Q1 2003)
Management with SSI	Embedded web server
Network	DHCP, NAT via *Bluetooth*
Wireless Security	Firewall for wireless devices 128-bit encryption CHAP or PAP authentication
USB Printing	Line-printing protocol, TCP/IP
Mounting	Desktop or wall-mount

Unit Display Diagrams:

USB 1 LED
(Amber)

USB LED 2
(Amber)

Bluetooth
LED (Blue)

Connected LED
(Green)

LAN LED
(Green)

System LED
(Green)

Power LED
(Green)

OVERVIEW

Front Panel:

Power LED (Green)

On: Indicates that the AP is receiving power

System LED (Green)

Blinks once per second: AP has obtained a valid IP address or has a pre-configured IP address
Blinks 3 times per second: AP has not obtained a valid IP Address

LAN LED (Green)

On: AP is connected to an Ethernet network
Off: No network connection (such as a cable connection to a hub, switch, or Ethernet)
Blinks: Traffic occurring on the wired LAN

Connected LED (Green)

On: AP is connected to the Internet
Off: AP is not connected to the Internet (or has not been able to contact any of the common Internet sites)

***Bluetooth* LED (Blue)**

On: At least one *Bluetooth* device is connected to the AP
Off: No *Bluetooth* devices are connected to the AP
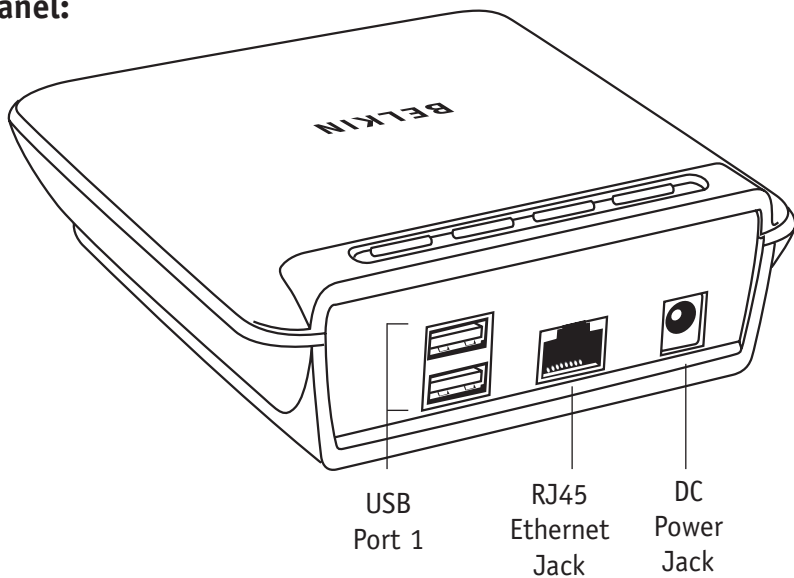Blinking: Indicates *Bluetooth* radio activity

USB 1 LED (Amber)

Blinking: Indicates data traffic to the device connected to the first USB port

USB LED 2 (Amber)

Blinking: Indicates data traffic to the device connected to the second USB port
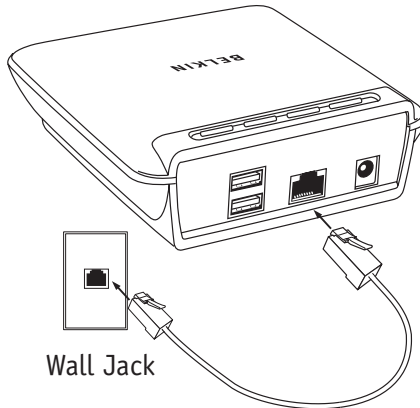
Rear Panel:

USB
Port 1

RJ45
Ethernet
Jack

DC
Power
Jack

Connecting Network Cables and Powering On

Connect one end of a standard CAT5 twisted-pair cable to the RJ45 connector on the AP and connect the other end to a 10Base-T or 100Base-T Ethernet router/switch or wall drop jack.

Wall Jack

Connect the included power adapter into an available power outlet. Attach the barrel plug into the power jack of the AP. You should see the power LED light turn on, the system light blink a few times, and then the system, LAN, USB 1, USB 2, and *Bluetooth* lights will blink repeatedly as the AP initiates itself. The initiation process will take approximately 20 seconds.
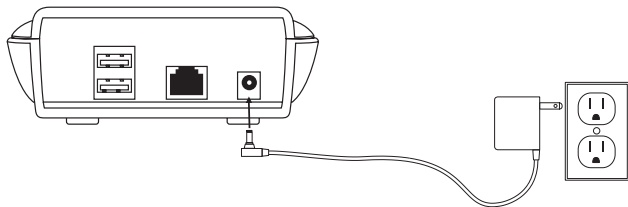

TIP: The system LED blinks once per second indicating that the AP is functioning properly. The system light will blink three times per second if the IP address has not been set. If any lights other than the power light remain solid, there is some problem with the unit. Consult the troubleshooting guide at the end of your User Manual.

Connecting USB Printers (optional)

The AP supports up to two USB printers. Please do not connect any devices other than a USB printer directly to these ports.

1. Attach one end of a USB cable to one of the USB ports on the AP.
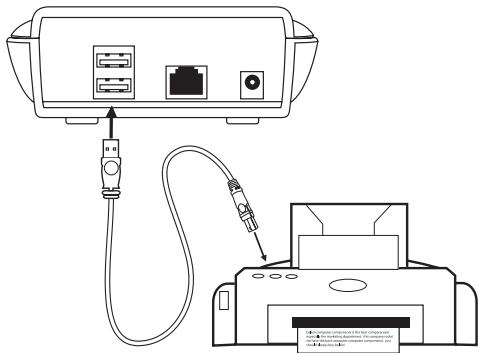
2. Connect the other end to an available USB printer.

3. Repeat steps 1 and 2 above for a second printer.

Note: You must have the printer driver installed in each computer you wish to print from prior to use.

DHCP SETUP

The IP address will automatically be set if your network has DHCP.
Once the AP is connected to the network, it will attempt to get an address from a DHCP server upon power up.

Note: The AP will use the stored address and will not try DHCP if an IP address has been manually stored via the web manager.

Once the AP obtains an address from DHCP, it will not be stored. The AP will use DHCP each time it boots or the IP lease expires.

TIP: A quick way to tell if the AP has an IP address is to monitor the system LED. After power up, the system LED will blink three times per second if the AP does not yet have an IP address. Once an address is obtained, the system LED will blink once per second.

To have an IP address permanently stored, you must use the web manager.
Generally, if you use DHCP, your IP address, netmask, and router will automatically be set. In some cases, your DNS servers will also be set. Be sure to set these settings manually if they are not provided by DHCP.

Connecting Is as Easy as 1.2.3.4

It's easy to connect to the AP and manage it. You can connect to the AP using *Bluetooth* technology, and a browser to connect to: http://1.2.3.4. This is the address of every AP as seen from *Bluetooth* clients, making managing it as easy as 1-2-3-4.

Viewing Network Parameters

The current IP address used by the AP can be viewed on the main page of the web manager from a PDA or computer. A key feature of the AP is its ability to be managed by any *Bluetooth* client, even when not yet connected to an Ethernet LAN.

Once the IP address of the unit is known, you can also access the web manager by browsing the units' IP address via any network-connected computer. Browsing 1.2.3.4 can only be done from a locally connected *Bluetooth* client. The AP includes a built-in NAT router on the *Bluetooth* interface.

Bluetooth **Client Connectivity**

The current firmware release supports general AP functionality. From a *Bluetooth* client, you can perform Device Discovery and Service Discovery on the AP, and attach to the network via LAN access over PPP profile. The AP has a built-in NAT router that supplies clients with internal IP addresses and routes *Bluetooth* clients over the LAN interface to network resources and the Internet.

The AP will use its host name (name) when discovered by clients. The default name for a unit is Belkin_XYZ, where XYZ is the last three bytes of the Ethernet (MAC) address printed on the unit's label. For example, if the unit's address is 00:06:66:00:12:34, then the *Bluetooth* name for the unit will be Belkin_1234.

You can change the host name via the web manager to any name you prefer, just remember to use unique names for multiple units in proximity of each other on your network.

The AP is shipped without any requirements for name and password for connecting from a *Bluetooth* client (such as a PC). However, this can be changed such that the AP will require a username and password. The only settings required by PPP are a login

user name and password. When the client prompts for a PPP connection user name and password, use user name "guest" and password "guest" (without the quotes).

Some clients also require link-key establishment before connecting. If a dialog box appears asking for a *Bluetooth* Passkey, enter "belkin".

For more information on Passkey, refer to the Security section of this manual.

Connecting to the AP

The AP can communicate to most clients enabled with *Bluetooth* technology, including laptops/desktops with a PC card or USB adapter, a Palm™ handheld with SDIO card, or a Microsoft® Pocket PC with a CF card or built-in.

Using the *Bluetooth* PC Card (part number F8T002) or USB Adapter (part number F8T001 or F8T003) from Belkin (WIDCOMM stack):

1. Click on "My *Bluetooth* Places" on your Windows desktop.
2. Click on "View Devices Within Range". The client will search for devices. You should see "Belkin_xxx [y]" (y is the network address of the unit) as a Network AP.
3. Double-click on the device icon.

4. You should see "discovering services", and then three icons will appear. Double-click on the "LAN access using PPP" icon.

5. You will see "connecting, status" and then a *Bluetooth* Null Connection box will appear. Type in "guest" as the user name and "guest" as the password. Click on "CONNECT".

Your AP should now be connected. If in the future you do not want to see the dialog box, you can edit the *Bluetooth* Null Connection icon found in your Network Connections area under Windows. There should be a box under options checked stating "prompt for name, password, etc." if you uncheck the box then connection will occur automatically the next time you double-click on the LAN access icon for the unit.

You may also add up to eight user accounts. For more information on user accounts, refer to the Security section of this manual.

Using a *Bluetooth* PDA Adapter Card (part number F8T020) or Pocket PC PDAs with WIDCOMM stack such as HP/Compaq iPAQ:

1. Tap on the *Bluetooth* icon at the bottom right of the screen (icon is blue with two opposing arrows).
2. Select "*Bluetooth* Manager".
3. Tap "Search" in the bottom tool bar.
4. When the AP is found, select it in the check box and tap "Save".
5. Tap "OK" to exit this screen.
6. Tap "OK" (top right) to exit the Search screen.
7. Tap the Belkin icon on the *Bluetooth* Manager screen to select it.
8. After it connects to the AP to discover the services, tap "Actions" and select "Connect to LAN Access using..."

You are now connected to the network and may use the programs such as Microsoft Internet Explorer for retrieving information.

Using Pocket PC PDAs with Socket CF Cards

First go to the "Today" page of the Pocket PC. If the Socket software is properly installed, and a working CF card exists in the slot, you should see a *Bluetooth* icon in the lower right-hand corner.

1. Tap the icon.
2. Tap "*Bluetooth* LAN Access".
3. Tap the "Find" button at the bottom.
4. Discovery will look and find all APs within range.
5. Tap the name of the AP you wish to connect to.
6. Tap the "Select" button, and tap the box marked "save selection for future use".

You should then automatically be connected.

To auto-connect to this AP in the future, tap the *Bluetooth* icon, then "Advanced Features", "*Bluetooth* Devices", "Tools", "My Favorites", "LAN Access". Select the AP in the "My Favorite LAP" box and check the button "Use the favorite selected above". The

Socket application will then always connect to this AP. In addition, certain applications, such as Pocket Explorer, can be setup to automatically connect to the AP when pages are requested.

Using Palm Handheld with SDIO Card

Find the *Bluetooth* icon and click on it. (You may need to have the "ALL" or "Unfiled" category set.)

Under "Setup new connection", click on "LAN" and follow the steps.

Step 1: Use "*Bluetooth* LAN" as the name or change it

Step 2: A search should come back with "Belkin_xxx".

Step 3: Choose the AP you would like to connect to.

Step 4: Enter user name "guest" and password "guest".

To connect, simply run an application that uses LAN access, such as Eudora e-mail, web browser, or a network. HotSync and the Palm will automatically connect to the AP.

Using PC Cards with Digianswer stacks (Toshiba, IBM, Motorola)

1. Set up virtual COM. ports on the laptop.
2. Setup direct cable connection on the laptop to use this COM port.
3. Run the program "*Bluetooth* Neighborhood" from the Digianswer Programs folder.
4. Discover all *Bluetooth* devices.
5. Double-click on the "Belkin" AP (to display services).
6. Double-click on "LAN Access using PPP".
7. You may be prompted for a password, which is "roving".
8. From the Start button, find the direct cable connection and run this program (usually in "Accessories" or "Communications").
9. Click on "Connect".

This should establish a network connection using *Bluetooth*. For further information, please refer to the Digianswer manual.

Using 3Com PC Cards

Connecting to the AP using the 3COM client on a laptop involves first setting up the client (please refer to the 3COM *Bluetooth* manual for this). The AP uses the "3COM LAN Access Client".

1. Run the "*Bluetooth* Connection Manager" from the 3COM *Bluetooth* folder.
2. Start the device discovery in this program. You should get a list of available *Bluetooth* devices.
3. From the 3COM *Bluetooth* folder, select "3COM LAN Access Client".
4. Use the user name "guest" and password "guest".
5. Click on "Connect".
6. Select the AP when you get a list of devices and click on "Connect".

This should establish a connection with the AP and LAN connectivity to the laptop.

Ethernet LAN Connectivity
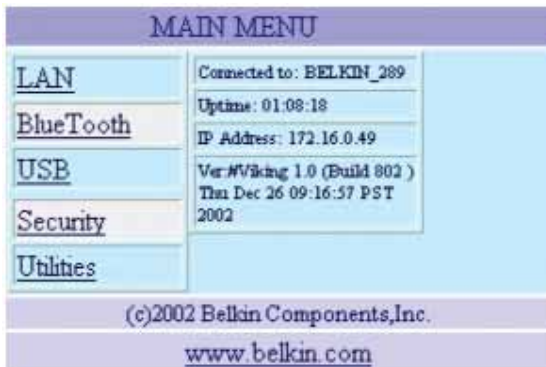
The AP appears as a typical IP node on the network, with support for ping, telnet, FTP file service, and http file service.
To test the IP address setting, you can browse or ping the IP address.

To browse the AP, use the following URL: "http://x.x.x.x/" where "x.x.x.x" is the IP address either set manually or assigned by the DHCP server.

The AP can be easily managed using any web browser, including a *Bluetooth* connected client browser. To access the web manager, simply browse the IP address of the unit, or if connected via a Bluetooth client, you can alternately browse http://1.2.3.4/. The main page appears as follows:

MAIN MENU	
LAN	Connected to: BELKIN_289
	Uptime: 01:08:18
BlueTooth	IP Address: 172.16.0.49
USB	Ver:#Viking 1.0 (Build 802)
	Thu Dec 26 09:16:57 PST
Security	2002
Utilities	
(c)2002 Belkin Components,Inc.	
www.belkin.com	

On the main page you will see some useful information, such as

- Connected to: Name of the AP.

- Uptime: How long the unit has been operational since the last reboot.

- IP address: IP address of the AP that was obtained automatically via DHCP or set manually.

- Ver: Version and date code.

The five main sections of the web manager are:

LAN: View/change network information, change and reset stored network LAN.

*Bluetooth***:** View/change current *Bluetooth* settings.

USB: View USB port status, print test page.

Security: Administer *Bluetooth* users, set passkey, set web manager password.

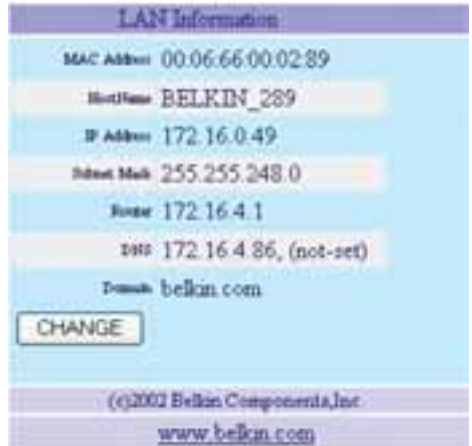**Utilities:** Upgrade, reboot, and restore factory settings, connectivity via ping.

LAN

The Belkin AP allows you to automatically obtain an IP address or set one manually.

From this page you can access TCP/IP settings

- Host Name
- IP Address
- Subnet Mask
- Router/Gateway
- DNS
- Domain

LAN Information

MAC Address 00:06:66:00:02:89

Host Name BELKIN_289

IP Address 172.16.0.49

Subnet Mask 255.255.248.0

Router 172.16.4.1

DNS 172.16.4.86, (not-set)

Domain belkin.com

CHANGE

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To change network settings, click or tap on the "CHANGE" button.

Use this page to view/change permanent stored settings of the unit. You can also reset all settings to factory default values by clicking on the "RESET" button. Reset will enable the AP to obtain an IP address automatically from the network.

IMPORTANT NOTE: Changes to these settings will not take effect until a reboot has occurred.

Network Settings	
IP Address	0.0.0.0
Subnet Mask	0.0.0.0
Router	0.0.0.0
DNS Server	0.0.0.0
Hostname (FriendlyName)	BELKIN_289
Domain	(empty)
	UPDATE
	RESET

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Bluetooth

From this page you can view and change *Bluetooth* settings.

- *Bluetooth* Name

- *Bluetooth* Connections

- Data Activity

Bluetooth **Status**

Address: Indicates the *Bluetooth* device address of the AP. Every *Bluetooth* device has a unique *Bluetooth* Device Address (BDA).

Connections: Indicates the total number of *Bluetooth* devices that are currently connected to the AP.

Link Status: Indicates the type of connection.

Packets IN: Indicates the total number of data packets that have been received via *Bluetooth*.

Packets Out: Indicates the total number of data packets that have been transmitted via *Bluetooth*.

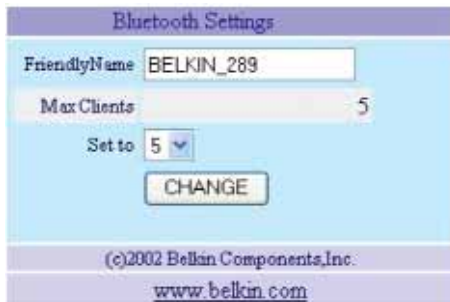Click or tap on the "SETTINGS" button to access the *Bluetooth* Settings page.

Bluetooth **Settings**

Friendly Name: Here you may change the *Bluetooth* name of your AP. The *Bluetooth* name is what appears when a *Bluetooth* client discovers the AP.

Max Clients: Here you may specify the maximum number of *Bluetooth* clients that can be connected to the AP at one time. The AP supports up to seven simultaneous connections. It is recommended that you leave two *Bluetooth* connections open to allow *Bluetooth* printing to an attached USB printer.

Bluetooth Settings
FriendlyName BELKIN_289
Max Clients   5
Set to 5 ▾
CHANGE
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Click or tap the "CHANGE" button to apply changes.

NOTE: Changes to these settings will not take effect until a power cycle or reboot has occurred.

USB

You can connect up to two USB printers and print to them via *Bluetooth* or the (wired) LAN. If you have two USB printers connected to the AP, both may be accessed via *Bluetooth* only. The wired LAN will only have access to the USB printer connected to the lower USB port.

From this page you can view the current status of your USB port.

• Device Type

• Active State

Click or tap on printer test page to print a test page from the connected USB printer. You will be prompted to select a printer type. Select the printer type for your specific printer. Consult your printer's user manual if you do not know the printer type.

USB Status				
	PORT	ACTIVE	DEVICE TYPE	STATUS
	LOWER	(empty)	(empty)	(empty)
	UPPER	(empty)	(empty)	(empty)
PRINTER TEST PAGE				

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## Security

The AP can be configured as an open box, whereby all users have access with a common user name and password. The default user name is "guest" and the default password is "guest". Stronger security can also be implemented where users and their unique passwords are created. In addition, *Bluetooth* devices can utilize the passkey mechanism, which is an additional password that must be used each time a connection is made. This passkey defaults to "belkin" but can be changed as required.
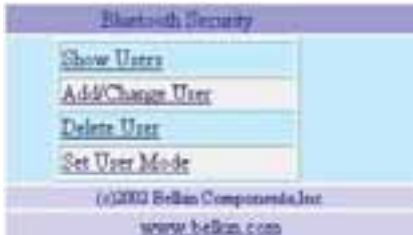
From the security page you can manage security settings for the following:

- *Bluetooth* Users

- *Bluetooth* Passkey

- Web Manager (Administrator) Password

Security
BlueTooth Users
BlueTooth Passkey
Web Manager

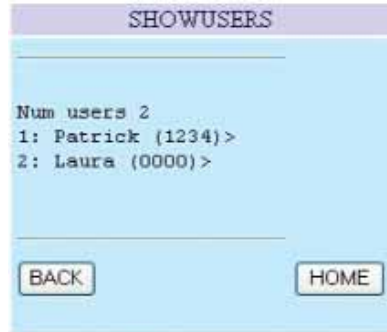(c)2002 Belkin Components,Inc.

www.belkin.com
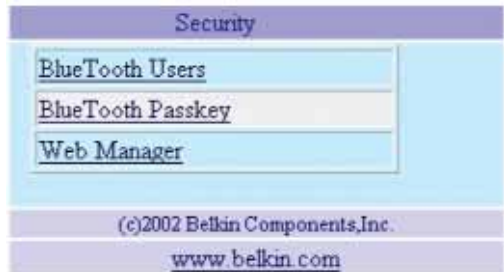
Bluetooth **Users**

You may create up to eight users with individual passwords. This feature is disabled by default.

- Show Users

- Add/Change User

- Delete User

- Set User Mode

Show Users: Lists the users name and password for each created user account.

Add/Change User: Use this to add a new user or to edit a user name and password.

Delete User: Delete a user account.

Type the user name and password in the provided text box. Click or tap on the "UPDATE" button to submit changes.
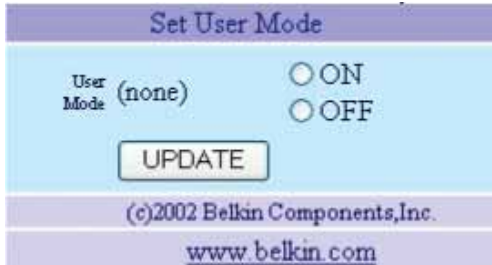
Type the name of the user you wish to delete in the user name text box. Click or tap on the "DELETE" button.

Set User Mode: This feature allows you to enable or disable user mode.
By default, this feature is set to "OFF".
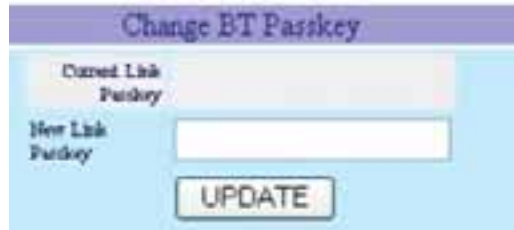
Click or tap on the "ON" radio button to enable this feature. Click or tap on the "OFF" radio button to disable.
NOTE: Changes to these settings will not take effect until a reboot has occurred.

Passkey:

Some *Bluetooth* clients require the use of a passkey to establish a bond to the connected device. The default passkey for the AP is "belkin". You may use the "Change BT Passkey" page to enter a new *Bluetooth* passkey.

Web Manager
You may enable the web manager authentication to provide protection against unwanted access to the web interface on the address http://1.2.3.4. When enabled, the user attempting to access the web manager will be prompted to enter a user name and password before you can access the web manager interface. Use the field provided to specify a password.

Note: You are not required to enter a user name. The default setting for this feature is "OFF".

Note: Once you change the password (and enable the web manager security), you will need to remember this password before accessing the web manager in the future. Please DO NOT FORGET this password.

Utilities

Upgrading The AP Firmware: Web Manager

The AP supports firmware update via http from any web server. Browse the IP address, then select "Utilities", then "Upgrade" pages. You should see a page showing the current release in the unit and a URL pointing to www.belkin.com/support/F8T030.sw. This location contains the most recent firmware. To upgrade, click on the "UPGRADE" button. This may take a few minutes depending on the speed of your Internet/LAN connection. When upgrade is finished, a screen will display status.

VERY IMPORTANT NOTE: Do not interrupt the upgrade process or reboot the AP. Interruption may cause irreparable damage to the AP. Wait until you see a status page appear that confirms the upgrade was successful.

Click on the "Special" button to choose an upgrade file from a different location.

Rebooting the AP

After an upgrade completes, you will need to reboot the unit by cycling power or clicking the "REBOOT" button.

NOTE: Once the REBOOT button is clicked, you will lose all network and Bluetooth connections, including the web manager. Some clients may require a reset.

REBOOT: BELKIN_289, IP: 172.16.0.49

*** WARNING *** This will reset the system, all connections will be lost, proceed?

[Cancel] [REBOOT]

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Factory Reset

Use this option to revert all settings of your AP back to the factory presets. See the "Default Settings" section for a complete list of default values.

Reset to Factory Defaults

Reset to factory defaults, proceed?

Cancel   RESET

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Net Ping Test

You may check network connections manually by "pinging" a known server or IP address. You may ping a host to verify network connections and network speed.

Ping A Host

128.9.0.107   A Known Root Server

www.belkin.com   By DNS lookup

ENTER IP AND CLICK HERE

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www.belkin.com

BLUETOOTH TO USB PRINTING

The AP contains two external USB host ports. A USB-enabled printer can be attached to either port and serviced from the AP.

Note: You must add a printer, as a "Local Printer" (NOT Network Printer), and select the "Bluetooth Serial PORT" as its port.

The method of connecting to the printer is to use Serial Port Profile. For example, if using a *Bluetooth* PC Card from Belkin (part number F8T002) (WIDCOMM stack) on Windows, simply:

1. Browse the device under "My *Bluetooth* Places" and you should see an icon titled "Virtual [USB Printer]".

2. Double-click on this icon. A connection via Serial Port Profile over the virtual COM port will be created. This is usually "COM3" or "COM4" but can be configured to another port.

3. Go to "Control Panel" and open the "Printers" folder.

Connecting...

Status:
Connecting Virtual [USB Printer]
on BELKIN_2891[172.16.0.49]...

4. Select the printer you have pre-installed that matches the printer that is connected to the AP.

5. Under the "Ports" section, attach the printer to the virtual COM port created.
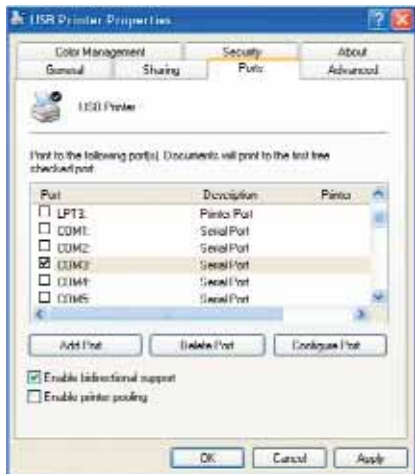
6. You should now be ready to print to your USB printer that is connected to the AP via *Bluetooth*.

NOTE: Each time you would like to print via the AP, you will have to double-click on the "Virtual [USB Printer]" icon first to make a connection, unless you set the printer you created above to be your default printer. In that case, the PC stack will automatically send the print job via the virtual COM port.

Configuring your Network Settings

In order to connect to the Internet, your AP needs an IP address. Typically these are provided to the AP by a DHCP server.

The AP is set to obtain an IP address from the Ethernet via DHCP. However, it is possible for you to pre-configure a fixed IP address into the AP. This can be done via the web manager using the *Bluetooth* interface (refer to the user manual for more information).

Software Installation

Requirements:

- Windows 98 SE, Me, 2000, XP

- Computer must be connected to the same Local Area Network as the AP

- Computer must have the appropriate printer driver installed

Installing the Software

1. Insert the USB Print Server Utility CD-ROM in the computer you wish to print from.
2. Click on the "Setup.exe" file.
3. You should see the following appear on your screen. Click on the "Next" button to begin the installation process.

4. Once the software installation is complete, you will receive a message confirming the installation process.
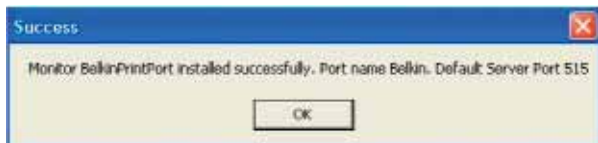
CONFIGURING YOUR PRINTER

Note: You must add a printer, as a Local Printer (NOT a Network Printer), and select the port "Belkin" as its port.

1. Go to the Control Panel and open the "Printers" folder.
2. Select the printer that is connected to the AP.
3. Select "File" then "Properties" from the menu. (You may also right-click on the printer and select "Properties").
4. Under the Ports tab, you will see a list of ports that are installed on your computer. Highlight the port named "Belkin" and click on "Configure Port".

5. Click on "Locate Servers".

6. You will see the server "BELKIN_xxx". Select it by clicking on it.
7. Click "OK", and then close the "Print Server Properties" window.
8. Your networked computer is now ready to print.

DEFAULT SETTINGS

The following are the default settings for the device:

- *Bluetooth* – Enabled

- USB – Enabled

- IP Address – Obtained via DHCP (not static)

- *Bluetooth* Passkey – Belkin

- *Bluetooth* first client address assigned: 192.168.222.222

- Number of PPP sessions: 5

- Serial Port Profile: Data sent to printer

- Admin Password – Belkin

- Guest Login for LAN Access over PPP – No security

- SNMP – Disabled

I can connect to the AP but I cannot connect to external web pages.

Verify the following:

1. The Ethernet cable is properly connected to the AP unit. The LAN LED of the AP should be on. If it is not on, then the device is not properly connected to the hub. Please get a proper cable and plug it into a hub port.

2. Connect to the AP home page (http://1.2.3.4) and go to the status page where you should see the following information:

   a) IP address
   b) Default Router/Gateway
   c) DNS server

All these need to be something other than 0.0.0.0. Otherwise, you need to set these either manually or using DHCP.

3. Check how fast the system LED is blinking. If it is blinking rapidly (three times per second), then the AP unit has not acquired its IP address.

TROUBLESHOOTING

If you have set the IP address manually:

- You may not have a set a default router (default gateway).

- You may not have set a DNS server.

Go back to the AP home page (http://1.2.3.4 if using *Bluetooth* client to configure) and select the Configuration page. On this page, set the default router and the DNS server(s).

If you have a DHCP server [such as a NAT box] on your network to give the AP an IP address, then you may have one of these problems:

- The DHCP server is not responding to the AP's requests.

- The DHCP server is not supplying the DNS server or the default router.

What devices can I connect to the USB?
The currently supported devices are USB printers.

I get disconnected from the AP after a while.
Some clients such as PDAs and laptops disconnect automatically if the connection is idle for a while. You will need to change the dial-up networking settings on your PDA or laptop.

The system LED on the AP stopped flashing.
This is due to some internal errors in the AP. The AP is designed to clear many of these errors and reset itself. However, it may need to be reset (by a power cycle).

When using *Bluetooth*, I cannot discover the AP from a client.
Sometimes you have to try discovery multiple times if the time period for the discovery is too short. If you have a changeable device discovery time, try to use at least a 10-second discovery period.

I can browse IP addresses (such as the built-in 1.2.3.4) but cannot access web pages using "www" address names.
The DNS is probably not being set properly. Perhaps the DNS server address entered is not valid, or one was not received if DHCP was used. One way to guarantee DNS will work is to enter an address manually into the AP. For testing, use the Belkin DNS server address, this server is generally available. The address is 207.217.126.81.

COMPATIBILITY LIST

Belkin has tested the AP and found it to be compatible with these *Bluetooth* clients/products:

USB Adapters
Bluetooth USB Adapter from Belkin, Class 1, part number F8T001
Bluetooth USB Adapter from Belkin, Class 2, part number F8T003

PC Cards
Bluetooth PC Card from Belkin, part number F8T002
Digianswer stack Release 1.09 on Windows 2000, 98, 95, Me, XP, Toshiba, Motorola, and IBM *Bluetooth* cards
3Com *Bluetooth* PC card
PC cards and USB adapters with WIDCOMM stack 1.2 and higher

COMPATIBILITY LIST

Pocket PC 2000 PDAs
Compaq iPAQ with *Bluetooth* PDA Adapter Card from Belkin (part number F8T020)
Compaq iPAQ with Socket CompactFlash *Bluetooth* card

Pocket PC 2002 PDA
Compaq iPAQ H3800 with built-in *Bluetooth*
HP Jornada with Socket CompactFlash *Bluetooth* card
Casio Pocket PC
Toshiba 570 with Socket CompactFlash *Bluetooth* card

Laptops with Integrated *Bluetooth*
Toshiba Protégé

Palm Devices
All Palm OS version 4.1 or greater with SDIO card

CONFIGURATION NOTES

BDA Address _____

IP Address _____

Netmask _____

Router _____

DNS _____

Host Name _____

Passkey _____

DECLARATION OF CONFORMITY WITH FCC RULES FOR ELECTROMAGNETIC COMPATIBILITY

We, Belkin Corporation, of 501 West Walnut Street, Compton, CA 90220, declare under our sole responsibility that the product,

F8T030

to which this declaration relates, complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Caution: Exposure to Radio Frequency Radiation.

The radiated output power of this device is far below the FCC radio frequency exposure limits. Nevertheless, the device shall be used in such manner that the potential for human contact normal operation is minimized.

When connecting an external antenna to the device, the antenna shall be placed in such a manner to minimize the potential for human contact during normal operation. In order to avoid the possibility of exceeding the FCC radio frequency exposure limits, human proximity to the antenna shall not be less than 20cm (8 inches) during normal operation.

Federal Communications Commission Notice

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses, and can radiate radio frequency energy. If not installed and used in accordance with the instructions, it may cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try and correct the interference by one or more of the following measures:

• Reorient or relocate the receiving antenna.
• Increase the distance between the equipment and the receiver.
• Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
• Consult the dealer or an experienced radio/TV technician for help.

Modifications

The FCC requires the user to be notified that any changes or modifications to this device that are not expressly approved by Belkin Corporation may void the users authority to operate the equipment.

Canada-Industry Canada (IC)

The wireless radio of this device complies with RSS 139 & RSS 210 Industry Canada. This Class B digital complies with Canadian ICES-003.
Cet appareil numérique de la classe B conforme á la norme NMB-003 du Canada.

Europe-European Union Notice

Radio products with the CE 0560 or CE alert marking comply with the R&TTE Directive (1995/5/EC) issued by the Commission of the European Community.

$$CE\ 0560\ ①$$

Compliance with this directive implies conformity to the following European Norms (in brackets are the equivalent international standards).

CE 0560 ①

• EN 60950 (IEC60950) – Product Safety
• EN 300 328 Technical requirement for radio equipment
• ETS 300 826 General EMC requirements for radio equipment.

To determine the type of transmitter, check the identification label on your Belkin product.

Products with the CE marking comply with the EMC Directive (89/336/EEC) and the Low Voltage Directive (72/23/EEC) issued by the Commission of the European Community. Compliance with these directives implies conformity to the following European Norms (in brackets are the equivalent international standards).

CE

• EN 55022 (CISPR 22) – Electromagnetic Interference
• EN 55024 (IEC61000-4-2,3,4,5,6,8,11)- Electromagnetic Immunity
• EN 61000-3-2 (IEC610000-3-2) - Power Line Harmonics
• EN 61000-3-3 (IEC610000) – Power Line Flicker
• EN 60950 (IEC60950) – Product Safety

Products that contain the radio transmitter are labeled with CE 0560 or CE alert marking and may also carry the CE logo.

Belkin Corporation Limited One-Year Product Warranty

Belkin Corporation warrants this product against defects in materials and workmanship for its warranty period. If a defect is discovered, Belkin will, at its option, repair or replace the product at no charge provided it is returned during the warranty period, with transportation charges prepaid, to the authorized Belkin dealer from whom you purchased the product. Proof of purchase may be required.

This warranty does not apply if the product has been damaged by accident, abuse, misuse, or misapplication; if the product has been modified without the written permission of Belkin; or if any Belkin serial number has been removed or defaced.

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No Belkin dealer, agent, or employee is authorized to make any modification, extension, or addition to this warranty.

BELKIN IS NOT RESPONSIBLE FOR SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES RESULTING FROM ANY BREACH OF WARRANTY, OR UNDER ANY OTHER LEGAL THEORY, INCLUDING BUT NOT LIMITED TO, LOST PROFITS, DOWNTIME, GOODWILL, DAMAGE TO OR REPROGRAMMING, OR REPRODUCING ANY PROGRAM OR DATA STORED IN, OR USED WITH, BELKIN PRODUCTS.

Some states do not allow the exclusion or limitation of incidental or consequential damages or exclusions of implied warranties, so the above limitations of exclusions may not apply to you. This warranty gives you specific legal rights, and you may also have other rights that vary from state to state.

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