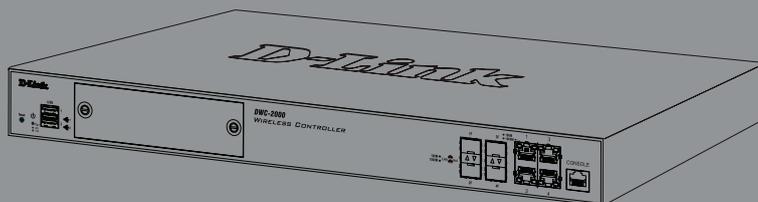




# Quick Installation Guide Wireless Controller

This document will guide you through the basic installation process for your new D-Link Wireless Controller.

## DWC-2000



## Quick Installation Guide

Documentation is also available on  
CD and the D-Link website

## About This Guide

This guide gives step-by-step instructions for setting up your D-Link DWC-2000 Wireless Controller. Please note that the model you have purchased may appear slightly different from those shown in the illustrations.

The DWC-2000 Wireless Controller is a full-featured wireless LAN controller designed for medium to large network environments. The controller has a range of network and access point management functions, can control up to 64 access points by default, and up to 256 with license pack upgrades.

The DWC-2000 can be upgraded with three optional license packs:

- The DWC-2000-AP32/DWC-2000-AP32-LIC License Packs allow management of up to 32 additional access points.
- The DWC-2000-AP64/DWC-2000-AP64-LIC License Packs allow management of up to 64 additional access points.
- The DWC-2000-AP128/DWC-2000-AP128-LIC License Packs allow management of up to 128 additional access points.

The DWC-2000 can be upgraded multiple times with license packs, enabling support for up to a maximum of 256 access points.

## Product Overview



Figure 1. Front Panel



Figure 2. Rear Panel

Item	Part	Description
A	Reset button	System reset
B	Power LED	Indicates if the wireless controller is powered on
C	Fan LED	Indicates the fan status on the wireless controller
D	USB ports (1-2)	These ports can support various USB 1.1 or 2.0 devices
E	Hard disk drive module slot	Slot for the hard disk drive module
F	Gigabit LAN SFP ports (1-4)	Connect to Ethernet devices such as computers, switches, and hubs
G	Gigabit LAN RJ-45 ports (1-4)	Connect to Ethernet devices such as computers, switches, and hubs
H	Console port	Used to access the Command Line Interface (CLI) via an RJ-45 to DB-9 console cable
I	Power switch	Powers On/Off the device
J	Power outlet	Connects to the power cord

## Status LEDs and Ethernet Port LEDs



Figure 3. Ethernet RJ-45 Port LEDs

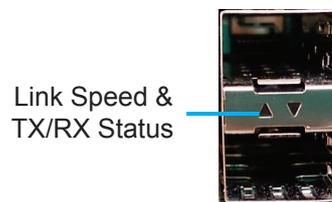


Figure 4. Ethernet SFP Port LEDs

The following table lists the name, color, status, and description of each device LED.

LED Indicator	Color	Status	Description
Power/ Status	Orange/ Green	Solid Orange	Power-on process in progress.
		Solid Green	Power-on process complete.
		Blinking Orange	Device has crashed and is in recovery mode.
		Light Off	The device is powered off.
Fan	Green/ Red	Solid Green	The fan is operating normally.
		Solid Red	The fan has failed.
USB	Green	Solid Green	The link is good.
		Blinking Green	There is activity on this port.
		Light Off	No link.
Tx/Rx Status of RJ-45 Port	Green	Solid Green	Link is present.
		Blinking Green	Port is sending or receiving data.
		Link Off	No link.
Link Speed of RJ-45 Port	Green/ Orange	Solid Green	Port is operating at 100 Mbps.
		Solid Orange	Port is operating at 1000 Mbps.
		Light Off	Port is operating at 10 Mbps.
Link and TX/RX of SFP Port	Green/ Orange	Solid Green	Port is operating at 100 Mbps.
		Blinking Green	Port is sending or receiving data at 100 Mbps.
		Solid Orange	Port is operating at 1000 Mbps.
		Blinking Orange	Port is sending or receiving data at 1000 Mbps.

### Default Interface Settings

Ethernet Interface	Interface Type	IP Address	Web-Based Management
LAN (1-4)	Static IP	192.168.10.1/24	Enabled

## Installation and Connection

This section describes how to install a DWC-2000 in a standard 19-inch equipment rack and how to connect cables and power to the device.

## Before You Begin

Observe the following precautions to help prevent shutdowns, equipment failures, and injuries:

- Before installation, always check that the power supply is disconnected.
- Ensure that the room in which you are operating the device has adequate air circulation and that the room temperature does not exceed 40 °C (104 °F).
- Ensure there is at least one meter (three feet) of clear space in front and back of the device.
- Do not place the device in an equipment rack frame that blocks the air vents on the sides of the chassis. Ensure that enclosed racks have fans and louvred sides.
- Ensure that none of these hazardous conditions exist before installation: moist or wet floors, leaks, ungrounded or frayed power cables, or missing safety grounds.

## Step 1 – Unpacking

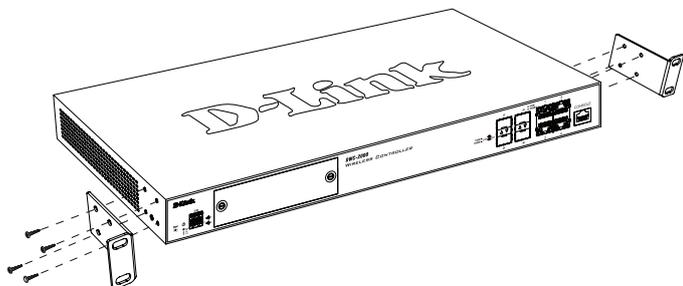
Open the shipping carton and carefully unpack its contents. Please consult the following packing list to make sure that all items are present and undamaged. If any item is missing or damaged, please contact your local D-Link reseller for a replacement.

Package Contents	
DWC-2000 Wireless Controller	1
Power Cord	1
Console Cable (RJ-45 to DB-9 Cable)	1
Ethernet Cable (CAT5 UTP/Straight Through)	1
Reference CD	1
Rack Mounting Brackets	2
Screws Pack	1
QIG	1

## Step 2 – Installation

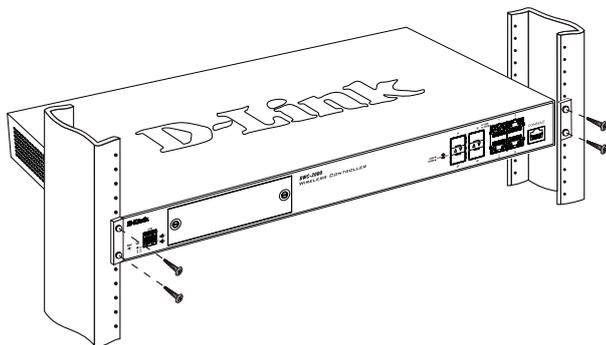
You can mount the DWC-2000 into a standard 19-inch equipment rack. To install the DWC-2000 into a rack:

1. Attach the mounting brackets to each side of the chassis as shown in **Figure 5** and secure them with the screws provided.



**Figure 5. Mounting Brackets**

2. Use the screws provided with the equipment rack to mount the device in the rack as shown in **Figure 6**.

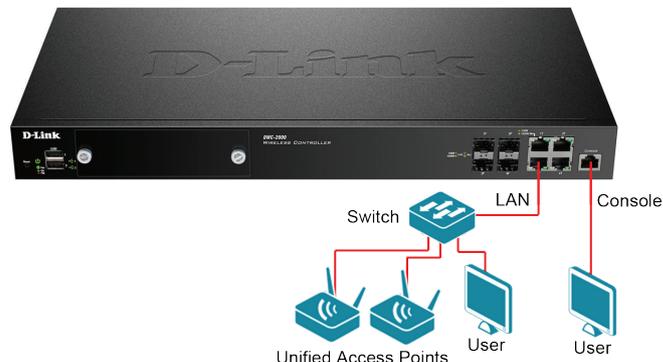


**Figure 6. Mount into the Rack**

## Step 3 – Connecting the Device to a Network

This section provides basic information about physically connecting the DWC-2000 to a network.

Connect the necessary cables as shown in **Figure 7**.



**Figure 7. Connecting to Your Network**

1. Connect an RJ-45 cable from one of the ports labelled LAN (1-4) to a switch in the LAN network segment.
2. Connect an RJ-45 to DB-9 cable from the console port to a workstation to use the CLI (Command Line Interface) for management.

## Step 4 – Powering on the Device

The AC power cord shipped with the device connects the device to earth ground when plugged into a grounded AC power outlet. The device must be grounded during normal operation.

To connect the device to a power source, plug one end of the AC power cord into the AC power connector on the back panel of the device. Plug the other end into an electrical outlet and switch ON the power switch.

**Note:** We recommend using a surge protector for the power connection.

## Initial Configuration

The wireless controller software is preinstalled on the DWC-2000. When the device is powered on, it is ready to be configured. It comes with a default factory configuration that allows you to connect to it, but you should configure the controller for your specific network requirements.

## Discovering the Wireless Controller

### Using the Web UI

To use the Web UI, the workstation from which you are managing the device must initially be on the same subnet as the device. You will also need a compatible browser:

Browser	Minimum Version
 Microsoft Internet Explorer	9, 10
 Mozilla Firefox	23
 Apple Safari	iOS: 6.1.3 Windows: 5.1.7
 Google Chrome	26

To access the device's Web UI:

1. Connect your workstation to one of the ports labelled LAN (1-4).
2. Ensure your workstation is configured with a static IP address in the 192.168.10.0/24 subnet.

**Note:** To avoid issues, disable any pop-up blocking software or add the management IP address `http://192.168.10.1` to your pop-up blocker's allow list.

3. Launch your browser and enter the IP address for the LAN interface (The default IP address is `http://192.168.10.1`), then press Enter.



Figure 8. Using the Browser

4. Log into the wireless controller Web interface. The default login information is:

- Username: **admin**
- Password: **admin**

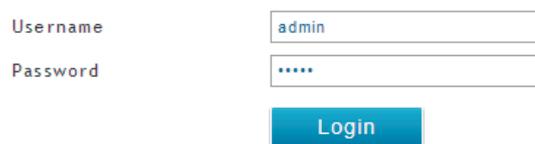


Figure 9. Login Page

### Connecting via Console (RJ-45 to DB-9 DCE)

The DWC-2000 Wireless Controller provides a serial port that allows you to connect to a computer or terminal for monitoring and configuring the device. This port is an RJ-45 connector, and is implemented as a data communication terminal equipment (DCE) connection.

**To use the console port connection, you need the following equipment:**

1. A terminal or a computer with both a serial port and the ability to emulate a terminal.
2. The included RJ-45 to DB-9 cable.
3. If your laptop or PC does not have an RS-232 connector, a converter (not included) is required.

**To establish a console connection:**

1. Plug the RJ-45 connector end of the supplied RJ-45 to DB-9 cable directly into the console port on the wireless controller.
2. Connect the other end of the cable to a terminal or to the serial connector of a computer running terminal emulation software. Set the terminal emulation software values as follows:
  - Baud rate: 115200
  - Data bits: 8
  - Parity: None
  - Stop bits: 1
  - Flow control: None

3. Connect the wireless controller following the instructions in the “Powering on the Device” section in this guide. The boot sequence will be displayed on the terminal.
4. Once the boot sequence is completed, the command prompt will be displayed and the device is ready to be configured.

## Discovering and Managing the Unified AP

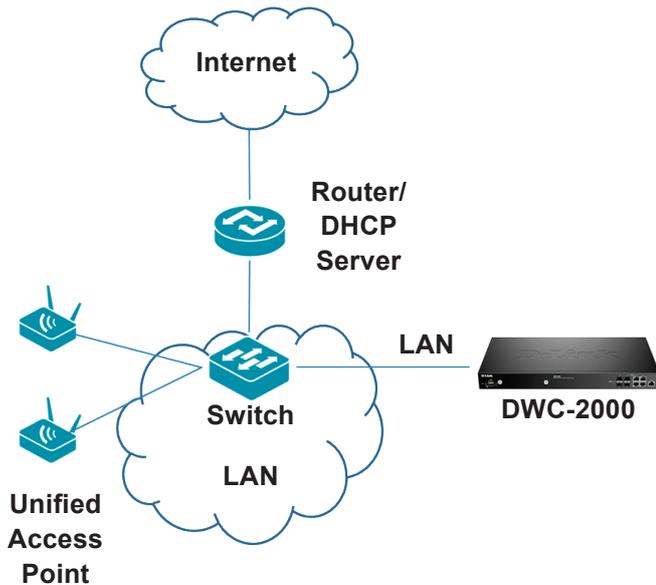


Figure 10. Network Topology

### To discover and manage the Unified AP:

1. Record the MAC address of each Unified AP on the network.
2. Connect the Unified AP you want to configure to the local area Ethernet network.
3. Log into the DWC-2000 and set the LAN IP address to be in the subnet of the local area Ethernet network.
4. Go through the Wizard to manage your access points. Click “Wizard” at the top right corner.



Figure 11. Wizard

5. Click the “Run...” button to run the WLAN Wizard.



Figure 12. Run WLAN Wizard

1. Enter the following information to complete the WLAN Setup Wizard:

- Wireless Global Configuration: Choose the country code.
- Wireless Default Radio Configuration: Create an AP Profile for the radio setting of the wireless network. Set the radio mode for each radio.
- Wireless Default VAP Configuration: Enter the SSID network name, and then select a security method. If you select Static WEP or WPA Personal, enter a secure passphrase for your WLAN.

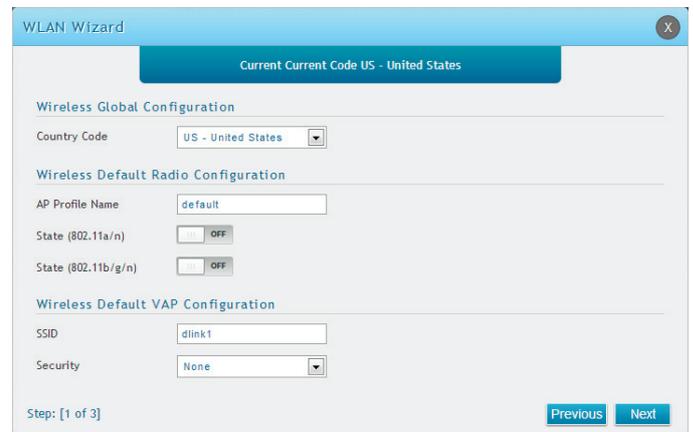


Figure 13. WLAN Wizard

2. Below are two methods to add access points in the managed AP list:

- a. List of APs Awaiting to be Configured: Select the access points which are discovered automatically by the wireless controller.
- b. Valid Access Point Summary: Enter access point MAC address manually.

List of APs Awaiting to be Configured: This is a list of discovered access points. Switch the Status of the access point you want to manage to ON.

## Additional Information

You can refer to the additional documentation on the accompanying master CD or you can visit <http://support.dlink.com> online for more support on how to configure your DWC-2000.

- **D-Link Wireless Controller User Manual**

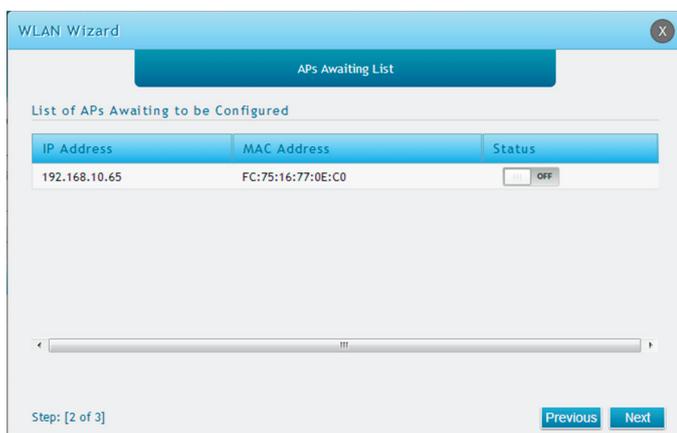
This manual describes the general operation and control of the wireless controller firmware which drives and controls the wireless controller hardware. It includes examples of how to carry out typical administrative tasks such as setting up Rogue AP detection and how to use the wireless controller in various scenarios.

- **D-Link Wireless Controller CLI Reference Guide**

This document describes all available text-based commands that can be used on an RJ-45 to DB-9 Console or SSH interface to configure the wireless controller.

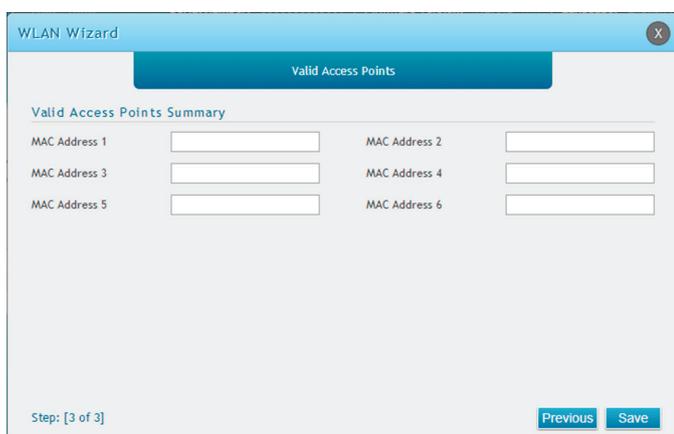
### Online Support

If there are any issues which are not in the user manual, please visit <http://support.dlink.com>, which will direct you to your appropriate local D-Link support website.



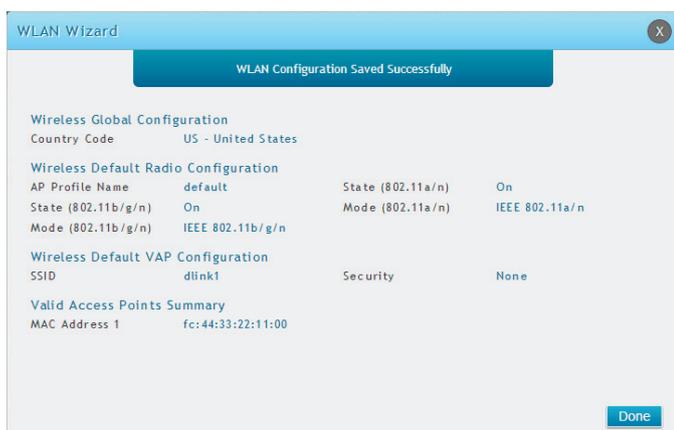
**Figure 14. Configure AP**

**Valid Access Point Summary:** Enter the MAC address of the AP you want to manage.



**Figure 15. Enter MAC addresses**

3. **Save Settings and Connect** - When the WLAN Connection Setup Wizard has been completed, click the Connect button to save your settings and connect your APs.



**Figure 16. Summary**

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