

Quick Start Guide

Version: V1.0

Model: DAP640-RW

Contacting

Website: www.belden.com

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Quick Start Guide

This Quick Start Guide assists you in quickly connecting to and configuring DAP. To learn more please refer to the DAP User Manual. DAP can be also managed by DAC platform, please refer to the DAC User Manual.

Note

- To keep DAP working in Cluster mode, please ensure there is no DHCP option 43 and 138 in the network. With DHCP option 43 or 138, the DAP comes up in DAC mode.

1. Typical topology

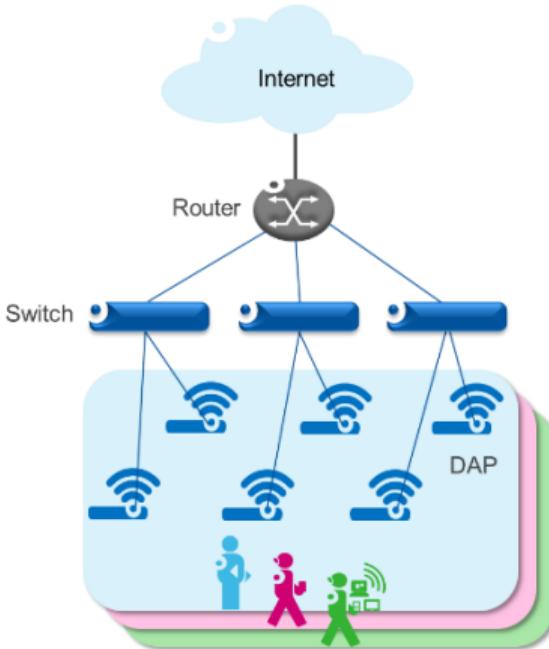


Figure 1: Wi-Fi Network Topology

1. All APs connect to a PoE switch and the PoE switch connect to a router which provides DHCP service for APs and Wi-Fi users.

2. If AP receives option 43 or option 138 from the DHCP server specifying the management IP, the AP will boot up and enter to DAC mode. Else the AP will enter Cluster mode.
3. APs in one cluster should be in the same Layer 2 network. (Tip: You can firstly config one AP then power on others to join the cluster automatically.)
4. If DAP couldn't finish initialization, please check
 - Ethernet cable status
 - POE is enabled on the switch port that AP connected.

2. AP Initialization

Step 1: How to Access AP Web Page

By default, DAP will broadcast the WLAN 'mywifi-xxxx' (xxxx = the last two bytes of the AP MAC address). You can connect to 'mywifi-xxxx' and browse <http://find.dragonflyap.com:8080> to access the AP web page.

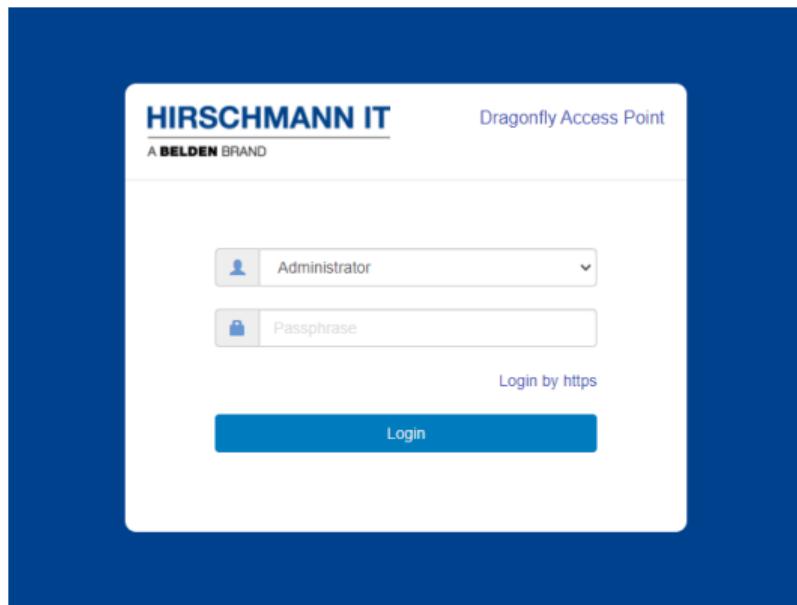


Figure 2: AP Login Page

Recommend to access AP web Page by Chrome Browser for best user experience.

Step 2: About Login Accounts

Choose Administrator and default password is admin. Login AP web page, and you can access Figure 3. Select “Cluster” to cluster mode, or you can select “DAC” to DAC mode.

Setup Wizard

Please select management mode of the AP:

Cluster DAC

Next

Figure 3: AP Wizard - Mode Selection

There are three pre-configured login accounts: Administrator, Viewer and GuestOperator. You may modify the account password, but the account name isn't modifiable. Administrator can configure and check the AP status, Viewer can check the AP status ONLY, while GuestOperator can check the AP status and register accounts for portal authentication. By default, the password for all accounts is ‘admin’ and the wizard will guide you to modify the Administrator password upon AP login.

More detailed configuration guide, please refer to DAP User Manual.

Step 3: Welcome Page

When initially logging into an AP from Figure 3, a configuration wizard will pop up. The following steps show how to use the setup wizard to modify the Administrator password and create a WLAN.

Setup Wizard

Welcome to the AP Cluster Web Manager

--The AP Cluster Management System

Prev

Next

Figure 4: AP Wizard - Welcome Page

Step 4: Modify Administrator Password

The password must be composed of numbers and capital or lower-case letters of the English alphabet and with a length of 4-16 characters.

Setup Wizard

Step 1/3 Change your administrator password

Password: *****

Confirm: *****

Prev Next

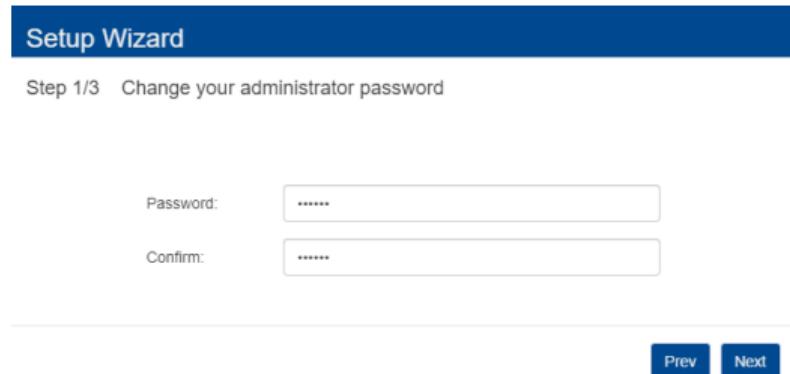


Figure 5: AP Wizard - Modify Admin Password

Note: The page below will be displayed to select the country or region.

Setup Wizard

Step 2/3 Choose your Country or Region

Country/Region: ▼

Time Zone: ▼

Prev Next

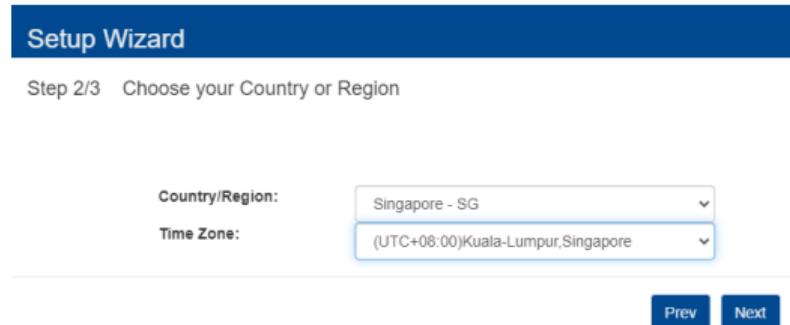


Figure 6: AP Wizard - County/Region Page

Step 5: Create New WLAN

For example, create a WLAN, “DAP_MGMT” for network management purpose, select ‘Both (WPA&WPA2)’ security method and set the password to be ‘abc123!#’. By default, portal authentication is disabled when creating a WLAN. If you want to enable the portal page authentication, please refer to the User Manual for details.

Setup Wizard

Step 3/3 Create New WLAN

WLAN Name:	<input type="text" value="DAP_MGMT"/>
Band:	<input checked="" type="checkbox"/> 2.4GHz <input checked="" type="checkbox"/> 5GHz
Security Level:	<input type="text" value="Personal"/>
Key Management:	<input type="text" value="Both(wpa &wpa2)"/>
PMF:	<input type="text" value="Disabled"/>
Password Format:	<input type="text" value="8-63 chars"/>
Password:	<input type="password" value="*****"/>
Confirm:	<input type="password" value="*****"/>

[Prev](#) [Save](#)

Figure 7: AP Wizard - Create WLAN

Step 6: Confirmation Page

After you complete AP initialization with the Wizard, the WLAN “mywifi-xxxx” will be deleted. You can then connect to the “DAP_MGMT” WLAN to continue with other configuration tasks.

Notice

The setup wizard has completed. You can create more WLANs and perform other configurations in main page.

Please connect to the WLAN **DAP_MGMT**.

and login to the main page with your new administrator password.

[OK](#)

Figure 8: AP Wizard - Notice

Installation Guide

The document describes the product package, hardware overview, installation steps and precautions. Please read the complete document before installation.

Summary of Installation Steps

- WLAN Planning. Usually, a comprehensive site survey is required before installation, such as installation location, brackets, cables, power source, etc.
- Unpack the AP box and check all contents
- Install the AP bracket on ceiling or wall
- Installing the AP
- Connecting required cables
- Power connection
- Verifying post-installation connectivity
- AP provisioning

Package Contents

Item	Name	Qty	Unit
1	Access Point	1	Pcs
2	Manual	1	Pcs
3	Indoor mounting kit, Type W wall and ceiling mounting with screws.	1	Set

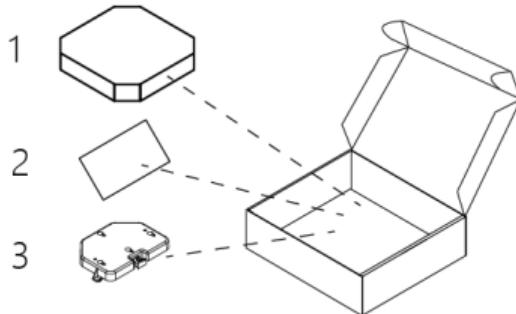


Figure1: Product Packing

Inform your sales representative of incorrect, missing, or damaged parts. If possible, retain the carton, including the original packing materials. Use these materials to repack and return the unit to the supplier if needed

Hardware Overview

◆ Front View

The access point is equipped with hidden LED display that indicates different status with different color

Hidden LED Location

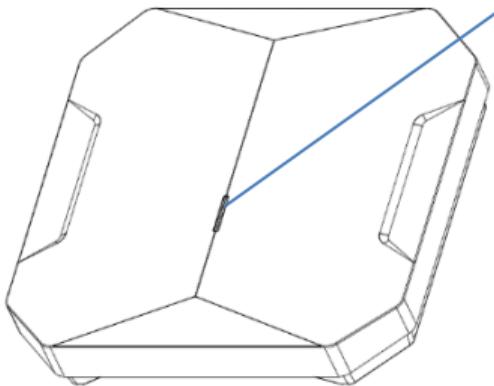
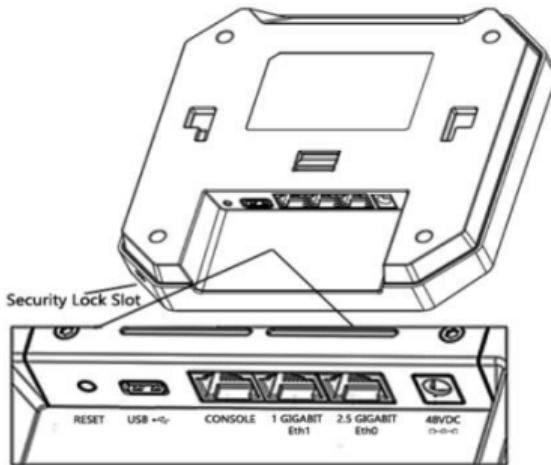


Figure 2

◆ Back View



◆ External Interfaces

Interfaces	Specifications
DC Power Socket	The AP has a single 48V DC power jack socket to support powering through an AC-to-DC power adapter. If PoE is not available, an optional AC-DC adapter kit (sold separately) can be used to power the AP.
2.5 Gigabit Eth0	1x 100/1000/2.5GBASE-T autosensing (RJ-45) port, Power over Ethernet (PoE).
1 Gigabit Eth1	1x 10/100/1000BASE-T autosensing (RJ-45) port, Power over Ethernet (PoE).
Console	The console port is an RJ-45 female connector and can be used to connect to a terminal for direct local management. Note: Currently for use by Service & Support only.
USB	USB 2.0 host interface (Type A, output current 0.5A)
Reset	Factory reset. Press reset button for 5s, AP LEDs will quickly flash for 3s, then AP will restart and restore factory configurations.
Security	The AP is equipped with a security lock slot for additional

Table 1

- ◆ Size and Weight
 - 180mm (W)×180mm (D)×36mm(H)
 - Weight 740g.

- ◆ Power
 - 24.8W (802.3at)
 - 11W(802.3af)

- ◆ Environmental

- Operating :
 - Temperature: 0°C to +50°C (+32°F to +113°F)
 - Humidity: 5% to 95% non-condensing
- Storage and transportation :
 - Temperature: -40°C to +70°C(-40°F to +158°F)

Before You Begin

Before installing your access point, be sure that you have the following items:

- 8-conductor, CAT5e or better UTP cable of required length.
- One of the following power sources:
 - IEEE 802.3at or IEEE802.3af compliant Power over Ethernet (PoE) source (PoE switch or PoE injector).
 - AC-DC adapter (sold separately), output voltage DC 48V, output current $\geq 0.5A$
- A terminal or a notebook
- Tools: Cross screwdriver, impact drill (drill $\Phi 6$)

Identifying Specific Installation Locations

You can mount the AP on a ceiling rail or on a wall. You should first determine the location of the installation. The installation position is located at the center of the required coverage area and should be free from obstructions or obvious sources of interference.

- Minimize the number of obstructions (such as walls) between the AP and user terminals.

- Electronic equipment or devices (such as microwave ovens) which may produce radio frequency noise should be away from the installation position of the AP.

It is strictly prohibited to install around stagnant water, water seepage, leakage or condensation. Avoid cable condensation or water seepage along the cables connecting to the AP.

AP Installation

Follow the steps below for all new AP installations:

1. Mark two drilling hole center marks on the wall at a proper location. Make sure they are of the same height to the ground and have a distance of 100mm between them, equivalent to that between the holes of the AP (see Figure 4).
2. Drill two holes at the center marks about 6mm in diameter and 25mm in depth. This is approximately the same size as the wall anchors (see Figure 5).

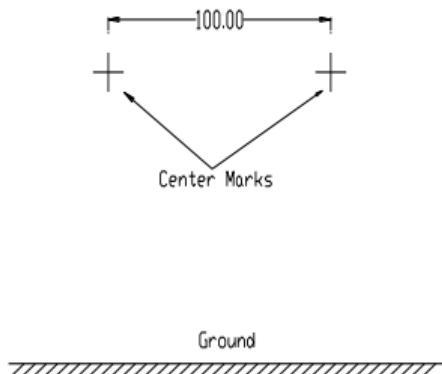


Figure 4

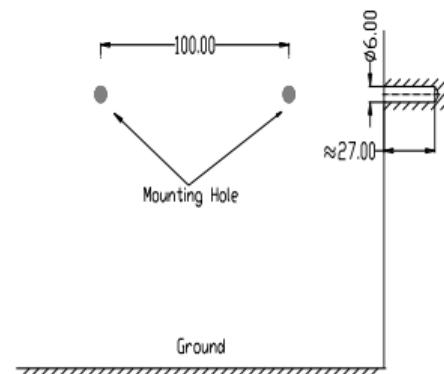


Figure 5

3. Insert two wall anchors and tap them into the holes (see Figure 6).
4. Insert two screws into the wall anchors with 2mm length left remaining (see Figure 7).

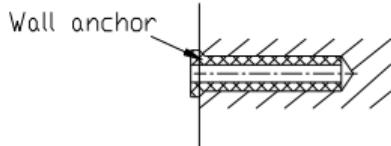


Figure 6

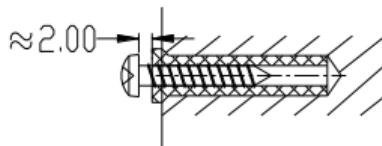


Figure 7

5. Push the mounting bracket along the direction of the arrows until it locks in the slot (see Figure 8-10).

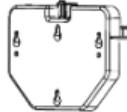


Figure 8

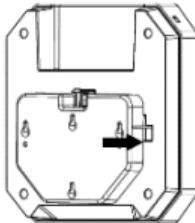
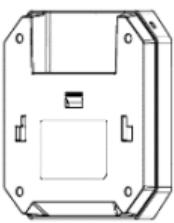


Figure 9

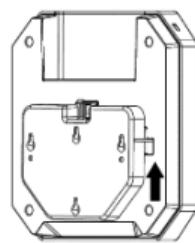


Figure 10

6. Connect the cable to the port on the AP.
7. Align the bottom holes of mounting bracket with the mounting screws (see Figure 11). After inserting push down on the AP until it is secure (see Figure 12). The installation is complete.

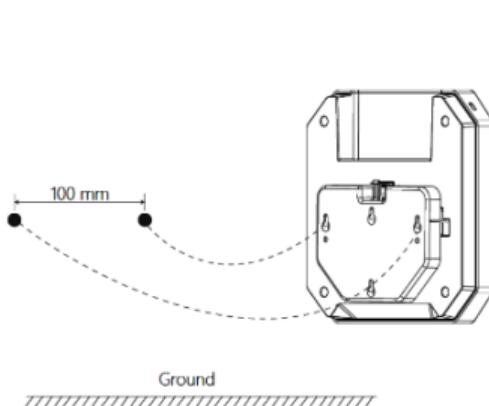


Figure 11

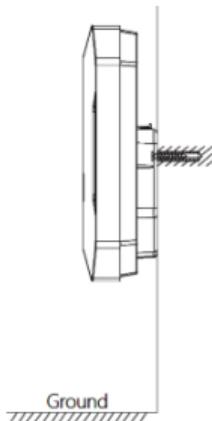


Figure 12

Ethernet Port Pinout

Connect the Ethernet port of the device using a network cable.

Pin assignments for the device port connector are shown in Table 2.

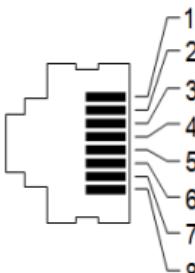
Connector	Pin	Signal Name	PoE
	1	RJ45_DA+	PoE-
	2	RJ45_DA-	PoE-
	3	RJ45_DB+	PoE+
	4	RJ45_DC+	PoE+
	5	RJ45_DC-	PoE+
	6	RJ45_DB-	PoE+
	7	RJ45_DD+	PoE-
	8	RJ45_DD-	PoE-

Table 2

Power

The access point supports IEEE 802.3at or IEEE802.3af compliant Power over Ethernet (PoE) source (PoE switch or PoE injector). If the PoE power supply is not available onsite, an AC/DC power adapter (purchased separately) is recommended.

If IEEE 802.3af PoE is used for power supply, USB and Bluetooth will be disabled and 5GHz will be limited to 2*2:2.

LED Status

The running state of the equipment is confirmed by the LED indicator on the equipment (see Table 3).

Red	Blue	Green	Status
ON			AP is powered, start up
Flash			Network abnormal (WAN link down)
		Flash	Network normal, without SSID created.
		ON	Network normal, single band working, either 2.4 GHz or 5GHz working.
	ON		Network normal, 2.4GHz and 5GHz dual bands working.
Flash	Flash		OS is upgrading.
Flash	Flash	Flash	Used for locating AP.

Table 3

Console Port Pinout

The serial console port allows you to connect the AP to a serial terminal or a laptop for direct local management. This port is an RJ-45 female connector with the pinouts described in Table 4.

Currently for use by Service & Support only.

Connector	Pin	Signal Name	Function
	3	TXD	Transmit
	4	GND	Ground
	5	GND	Ground
	6	RXD	Receive
	Pins not listed must be not connected.		

Table 4

For additional specifications on this product, please refer to the Data Sheet.

FCC Part 15:

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 and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does 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 to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into 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.

This device 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.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

RF exposure warning

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment.

This product may not be collocated or operated in conjunction with any other antenna or transmitter

This equipment must be installed and operated in accordance with provided instructions and the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be collocated or operating in conjunction with any other antenna or transmitter.

For EU

Belden Hirschmann Industries (Suzhou) Ltd. hereby declares that these models are compliant with the essential requirements and other provisions of Directive 2014/53/EU. For the complete CE DoC, please access the website below to get more information:
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■ CE RF health information:

RF Radiation Exposure Statement: This equipment complies with CE RF radiation exposure limits. This equipment should be installed and operated with a minimum distance of 20 cm between the equipment and a human's body for 2.4 GHz and 5 GHz operations. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.