# **D-Link**<sup>®</sup>

Long Distance Wireless Outdoor Bridge



- Quick Installation Guide+
- Руководство по быстрой установке+
  - Guía de Instalación Rápida+
  - Guia de Instalação Rápida+
    - 快速安裝指南+
  - Petunjuk Pemasangan Cepat+







# Quick Install Guide

DAP-3760 Long Distance Wireless Outdoor Bridge

# Copyright

Copyright © 2009 all rights reserved. No part of this publication may be reproduced, adapted, stored in a retrieval system, translated into any language, or transmitted in any form or by any means without the written permission of the supplier.

## About the Installation Guide

This Installation Guide is intended to guide professional installer to install the DAP-3760. It includes procedures to assist you in avoiding unforeseen problems.

## Conventions

▲ Warning:

• This indicates a warning or caution that you have to abide.

Note:

• This indicates an important note that you must pay attention to.

# Introduction

The DAP-3760 is a high-performance outdoor-deployable wireless bridge that provides wireless connectivity among multiple network locations. It supports PTP and PTMP connectivity. Moreover, the DAP-3760 has a built-in 23dBi planar antenna that can deliver up to a 40Km connection. With high throughput and long-distance transmission, the DAP-3760 is an ideal backhaul solution for Carriers, Service Providers and Enterprises!



# **Before Installation**

This chapter describes safety precautions and product information you have to know and check before installing DAP-3760.

# **Professional Installation Required**

- 1. Please seek assistance from a professional installer who is well trained in the RF installation and knowledgeable in the local regulations.
- 2. The DAP-3760 is distributed through distributor and system installer with professional technicians and will not be sold directly through retail store.

# **Safety Precautions**

To keep you safe and install the hardware properly, please read and follow these safety precautions.

- 1. If you are installing an DAP-3760 for the first time, for your safety as well as others', please seek assistance from a professional installer who has received safety training on the hazards involved.
- 2. Keep safety as well as performance in mind when selecting your installation site, especially where there are electric power and phone lines.
- 3. When installing your antenna, note the following:
  - Do not use a metal ladder;
  - Do not work on a wet or windy day;
  - Wear shoes with rubber soles and heels, rubber gloves, long sleeved shirt or jacket.
- 4. When the system is operational, avoid standing directly in front of the antenna. Strong RF fields are present when the transmitter is on.

# **Product Package**

The product package you have received should contain the following items. If any of them are not included or damaged, please contact your local vendor for support.

DAP-3760 with integrated 23dBi antenna ×1 Mounting Kit ×1 • • PoE Injector & Power cord  $\times 1$ Grounding Wire with Screw  $\times 1$ • Water Proof RJ-45 Connector Kit ×1 **Quick Installation Guide**  $\times 1$ Product CD ×1

Note:

 Product CD contains Management Tool, Quick Installation Guide and User Manual!

# **Mounting Kit**

- Wall/Pole Mounting Bracket
- 1. T-Form Bracket ×1
- 2. Articulation Pole ×1
- 3. Pole Mount Bar ×1
- Fasteners
- 4. M8×80 Screw ×2 M8×90 Screw ×1
- 5. M8 Washer
- 6. M8 Spring Washer ×3
- 7. M8 Nut
- 8. M5×16 Screw
- 9. M5 Washer
- 10. Wood Screw ×4 (for Wall Mount)

×3

×1

×4

 $\times 4$ 

11. Wall/Gyprock Plug ×4 (for Wall Mount)



# Waterproof RJ-45 Connector Kit

- 1. Gland
- 2. Sealing Nut ×1

×1

3. Sealing ×1



## System Installation

## Assemble the Mounting Bracket

1. Place the main bracket into the seating and use a spanner to fasten the bracket to the DAP-3760 with M5×16 screws ⑧ and M5 washers ⑨ provided in the hardware packets;



 Assemble the main bracket by placing articulation pole ② to the T-form bracket ① via a M8×90 ④ screw through the insertion axe and fix with the M8 washer ⑤, spring washer ⑥ and M8 nut ⑦;



# **Pole Mounting**

- 1. Install the main bracket and the pole mount bar ③ over the top of the pole by securing the drill holes of the pole mount bar to the main bracket ones and insert two M8×80 ④ screws, spring washers
  - (5) and washers (6) through the drill holes and main bracket;



2. Fasten two M8×80 screws ④ and washers ⑤ through the drill holes and main bracket with a spanner;



3. Adjust the antenna for appropriate tilt / vertical orientation.



# Connect Up

Before installing the Ethernet cable with a waterproof RJ-45 connector, it is recommended that the Cat-5 RJ-45 coaxial cable be used for the bridge to power injector connections.

1. To connect to the hole labeled PoE+Data, open the black cover in advance by using a coin or a slotted screwdriver and then screw in the body of the gland and tighten.



2. Slide the sealing nut to the RJ-45 cable from its middle breach and then insert the sealing into the cable.





3. Insert the RJ-45 connector and make sure that the locking tab snaps home.



4. Screw the sealing on the gland and tighten.



## Ground the wire

The DAP-3760 is shipped with a grounding wire. The unit must be properly grounded to protect against power surges. The grounding point can be found on the bottom of the unit. It is supplied with an appropriate grounding lug for attachment to the ODU.



### Power On

To power up the DAP-3760, follow the steps bellow:

- 1. Plug a user-supplied Cat-5 Ethernet cable from your wired LAN (or a computer) into the power injector RJ-45 jack (DATA IN);
- 2. Plug a user-supplied Cat-5 Ethernet cable from the DAP-3760 into the power injector RJ-45 jack (P+DATA OUT);
- 3. Connect the power module to the power injector and plug the AC cord into an AC power receptacle.
- 4. After being powered on, the device will send out the beep sound lasting about 1.5 seconds, informing you that the DAP-3760 powered up! Wait for about 60 seconds the system will be initialized and start working.



### \Lambda Warning:

 Make sure PoE is correctly connected to the RJ-45 port on the DAP-3760 labeled PoE+Data. DO NOT connect to the port labeled "Warning!! No POE", otherwise the extender will be severely damaged!



## Configuration

### **Connect the DAP-3760 to a Local Computer**

If you are configuring the DAP-3760 locally (without connecting its power injector to a wired LAN), connect a PC to the power injector's Ethernet port using a Category 5 Ethernet cable.

1. Assign a static IP address to your PC which is in the same network segment with the DAP-3760. As the default IP address of this unit is 192.168.0.50, you may choose from 192.168.0.1 to 192.168.0.254, except 192.168.0.50.

You can get IP settings assigned his capability. Otherwise, you nee he appropriate IP settings.	automatically if your network supports ad to ask your network administrator for
Obtain an IP address autom	atically
• Use the following IP address	5:
IP address:	192.168.0.1
Subnet mask:	255 . 255 . 255 . 0
Default gateway:	
O Obtain DNS server address	automatically
Set the following DNS serve	er addresses:
Preferred DNS server:	1
Alternate DNS server:	
	Advanced

2. Test the link status between your PC and the DAP-3760. Start a command prompt and execute a continuous ping command "ping 192.168.0.50 –t". If ping to the wireless bridge is successful (as shown below), open Internet browser and enter the bridge's IP address in the address filed and press Enter.

C:\WINDOWS\system32\cmd.exe	- 🗆 🗙
C:\Documents and Settings\Alex>ping 192.168.0.50 -t	<b>_</b>
Pinging 192.168.0.50 with 32 bytes of data:	
Request timed out.	
Reply from 192.168.0.50: bytes=32 time=4ms TTL=64	
Reply from 192.168.0.50: bytes=32 time<1ms TTL=64	
Reply from 192.168.0.50: bytes=32 time<1ms TTL=64	
Reply from 192.168.0.50: bytes=32 time<1ms IIL=64	
Reply from 192.168.0.50: bytes=32 time<1ms IIL=64	
Reply from 192.168.0.50: bytes=32 time(ins IIL=64	
Reply from 192.168.0.50: bytes=32 time(1ms IIL=64	
Reply from 192.168.0.50: bytes=32 time(1ms IIL=64	
Reply from 192.168.0.50: bytes=32 time(ims IIL=64	
Reply from 192.168.0.50: bytes=32 time(ins IIL=64	
Reply from $192.168.0.50$ : by $cs=32$ time(ins IIL=64	
Kepiy from 192.168.0.50: bytes=32 time<1ms IIL=64	
Kepiy from 192.168.0.50: bytes=32 time<1ms IIL=64	
Reply From 172.168.0.50: Dytes=32 time(1ms IIL=64	
Reply from 172.168.0.50. Dytes-52 time(1ms 11L=64	

Note:

- Considering convenient configuration, it is recommended to configure local and remote DAP-3760 respectively on two computers.
- TTL time may vary depending on the operating system.

## How to Establish Wireless Bridge Mode

The DAP-3760 supports Bridge (CSMA) and Bridge (TDMA) modes. Normally. Here we will illustrate how to establish wireless bridge connectivity with DAP-3760.

• Enter the user name (admin) and password (Null) to login and make configurations.

D-Link	DAP-3760
Hame Password	Login now Reset

Note:

• Due to browser's security trusted sites, 192.168.0.50 might not able to be opened. You may choose to continue to the website.

<del></del>	
The	security certificate presented by this website has errors, and should not be trusted.
Secu	rity certificate problems may indicate an attempt to fool you or intercept any data you send to the
serv	er.
We	recommend that you close this webpage and do not continue to this website.
00	Click here to close this webpage.
8	Continue to this website (not recommended).

• Open "Basic Setup" in "System", set the IP address of two DAP-3760s in the same network segment. e.g. local DAP-3760 as 192.168.0.50 and remote DAP-3760 as 192.168.0.51 and set the IP Subnet Mask on both as 255.255.255.0

System         Wireless         Status         Administrator Setting           System Information         Basic Setup	D-Link			Logout DAP-3760
System Information         Basic Setup           Device Name         DAP-3780           Ethernet Data Rate         Auto           Spanning Tree Protocol (37FP)         Denable           STP Forward Delay         Turbo (default 1 sec)           Normal         sec (standard 4-30 sec)           LAN settings         Optimum (DHCP)           P Address         192 168 0.50           IP Subnet Mask         255 255 256 0           Default Getway         0.0.0           Primary DNS Bener         0.0.0           SHTP Information SNIP Setting         0.0.0	System	Wireless	Status	Administrator Settings
Binaid     Device Name     DAP-3780       Ethermet Data Rate     Auto     ✓       Ethermet Data Rate     Auto     ✓       Systemming Tree Protocol (STP)     Ethable     O Enable       STF Forward Oblay     Turbo (default 1 sep)     Normal 4 sec (standard 4-30 sec)       LAN Settings         Oct IP From     © Istable        IP Address     192, 180,050        IP Subnet Mask     256,256,260        Default Gatway     0.0.0        Phinary DNS Server     0.0.0        SHTP Information SNIP Setting	System Information	Basic Setup		
Ethemet Data Rate     Auto       Ethemet Data Rate     Otrable       Star Frown Oblew     Ethable       Star Forward Delay     Turbo (default 1 sec)       UMS Settings     Otrable       Oct IP From     State(Manual)       DP Address     192 1680.05       IP Subnet Mask     255 255.25       Default Getwary     0.0.0       Primary DNS Server     0.0.0       SHIP Enformation SHIP Setting	Basic	Device Name	DAP-3760	
Spanning Tree Product (STP)       O Enable       O Enable         STP Forward Debaty       Turbu (offeault see)       Normal         LAN Settings         Det IP From       O State(Annual)       Omamint(DHCP)         IP Address       122, 188,050         IP Subnet Wask       255,255,250         Default Gateway       0,0,0         Prinary DNS Server       0,0,0,0         SNIP Information SNIP Setting		Ethernet Data Rate	Auto 🖌	
STP forward Delay     ** Turbo (default 1 sep)     Nama       EAN Settings     ************************************		Spanning Tree Protocol (STP)	O Enable 💿 Disable	
LAIS Settings Get IP From © Static(Manual) © Dynamic(DHCP) IP Address 152.150.050 IP Subnet Mask 255.255.05 Default Getivrwy 0.0.0.0 Primary DNS Server 0.0.0 Secondary DNS Gener 0.0.0		STP Forward Delay	• Turbo (default 1 sec) O Normal 4 sec (standa)	ard 4-30 sec)
0419 From         OS Bata(SMusua) () Doynamic(DHCP)           1P Address         192.168.0.50           1P Submet Mask         255.555.250           Default Osleway         0.0.0           Primary DNS Bener         0.0.0           Secondary DNS Bener         0.0.0           Skitt Photomation SNTP Setting		LAN Settings		
IP Address         192.168.0.50           IP Submet Mask         256.256.255.0           Default Gateway         0.0.0           Primary DNS Server         0.0.0           Secondary DNS Server         0.0.0           SMTP Information SNTP Setting		Get IP From	<ul> <li>Static(Manual) Opmamic(DHCP)</li> </ul>	
IP Subnet Mask         265.255.05           Default Geterwy         0.0.0           Primary DNS Gener         0.0.0           Secondary DNS Gener         0.0.0           SWIP Information SKIP Setting		IP Address	192.168.0.50	
Default Sateway         0.0.0.0           Permang DNS Server         0.0.0.0           Secondary DNS Server         0.0.0.0           SMIP Information SMIP Setting		IP Subnet Mask	255.255.255.0	
Primary DNS Server 0.0.0.0 Secondary DNS Server 0.0.0.0 SMTP Information SMTP Setting		Default Gateway	0.0.0.0	
Secondary DNS Server 0.0.0.0 SHTP Information SNTP Setting		Primary DNS Server	0.0.0.0	
SNTP Information/SNTP Setting		Secondary DNS Server	0.0.0.0	
		SNTP Information/SNTP Setting		
SNTPINTP Server IP		SNTP/NTP Server IP		
<		<		

\Lambda Warning:

- Each IP address is unique within a LAN, otherwise IP collision may occur!
- Open "Radio" in "Wireless" and you will find the default Mode is Bridge (CSMA). Select to use the Bridge (CSMA) mode and keep the Channel/Frequency and Bandwidth on both DAP-3760s identical. Click "Apply" to save settings.

D-Link			Logout DAP-3760
System	Wireless	Status	Administrator Settings
Radio	Radio Settings		
Bridge Links Setup	Mode	Bridge(CSMA)	
Security	Wireless Band	IEEE802.11a ¥	
Security	Channel	149 / 5.745GHz 🖌	
Link Test	Data Rate	Auto 💌	
	Output Power	100% 💌	
	Band Width	20MHz 🛩	
	WMM Mode	Enable O Disable	
	Super Mode	CEnable  Olisable	
	Advanced Parameters		
	RTS Threshold (0-2346)	2346	
	Fragmentation Length (256-2346)	2346	
	Distance In Meters (0-100000)	10000 m	
	<	Apply Cancel	>

 Login the Web-based interface of remote DAP-3760, open "System Information" in "System" and record the wireless MAC address of it.

System         Wireless         Status         Administrator Settings           System Information         DAP-3780         DAP-3780           Basic         DAP-3780 001970105116         DAP-3780           Fit MAC Address         001970147207         Fitmmare Version	D-Link			Logout DAP-3760
System Information           Basic         Dx4*3780           ETH WC Address         00197010171e           WLAV MC/Address         001970141207           Firmware Version         v1.80	System	Wireless	Status	Administrator Settings
Basic Device Name DAP-3780 ETH MAC Address 001970110716 WAAN MAC Address 001970114207 Firmware Version v1.50	System Information	System Information		1
	Basic	Derke Name ETH MC-Address WLAN M/C Address Firmware Verson	D4-3760 00197010ffte 00197014/12/07 v1.00	

 Login the Web-based interface of local DAP-3760 and open "Bridge Links Setup" in "Wireless", input the WLAN MAC address of the remote one to "Remote MAC Address 1" field and click "Apply";

D-Link			Logout DAP-3760
System	Wireless	Status	Administrator Settings
Radio	Bridge Links		
Bridge Links Setup	Local MAC Address	00; 19; 70; 14; ±2; 07 Align Anten	ina
Security	Remote MAC Address 1		
Link Test	Remote MAC Address 2		
	Remote MAC Address 3 Remote MAC Address 4		
		Apply Cancel	
	<u> </u>		

\Lambda Warning:

- The MAC address on the housing of DAP-3760 is the ETH MAC address; therefore it can not be used in Bridge Links.
- The IP address of your PC should be in the same network segment to the one of bridges.
- Use ping to check whether the link between the two DAP-3760 is OK.



 To get a better wireless connectivity, antenna alignment is strongly recommended after both DAP-3760s are installed long distance apart.

Login the Web-based interface of the local DAP-3760 and open "Bridge Links Setup" in "Wireless". Hit "Align Antenna" button, an antenna alignment tool will popup. Specify the Target RSSI and click "Start" to begin the antenna alignment.

- Fix the local antenna and adjust the remote antenna elevation and horizontal direction. During the adjustment, observe "Current RSSI" in local DAP-3760. Fix the remote antenna when it reaches your expectation. Usually, RSSI between -60 and -70dBm indicates rather good signal strength.
- Adjust the local antenna after fixing the remote one. During the adjustment, observe "Current RSSI" in the remote DAP-3760. Fix the local antenna when it reaches your expectation.
- Congratulations! You have primarily completed configuration on DAP-3760 and they can be put into operation. For more advanced configurations, please refer to the User manual.

# Troubleshooting

This chapter provides troubleshooting procedures for basic problems with the DAP-3760.

### Q 1. What if my DAP-3760 fails to connect to the remote one?

- Ethernet Link: Check the availability of power to the bridge by observing the LED status on the power injector.
- Green: The DAP-3760 is connecting to the backhaul network.
- Off: The DAP-3760 disconnects from the wired network, check whether the power cord and Ethernet cables to the network and bridge are correctly connected.
- Basic Configurations: Mismatched basic settings among bridges are the most common cause of connectivity fail. If the bridge does not associate with a remote bridge, check whether options in each device are identical.
- Security Settings: Remote bridges attempting to authenticate to your DAP-3760 must support the same security options configured in your bridge, such as WEP and WPA (2)-PSK. If your bridge fails to associate with others, check whether the security settings are the same as your bridge settings.
- Antenna Alignment: If the methods above are all checked to be correct, you can observe and verify antenna alignment with RSSI value.

### Q 2. What if I would like to reset the unit to default settings?

You may restore factory default settings in "Configuration File" from "Administrator Settings"

# Q 3. What if I would like to download and restore my configuration settings?

You may download by generating a configuration file or upload the settings you have backed up previously in "Configuration File" from "Administrator Settings".

### **Technical Support**

You can find software updates and user documentation on the D-Link website.

### Tech Support for customers in

### Australia:

Tel: 1300-766-868 24/7(24Hrs, 7days a week) technical support http://www.dlink.com.au e-mail: support@dlink.com.au

### India:

Customer Support: - 1800-233-0000 (MTNL & BSNL Toll Free) or +91-832-2885700 (GSM, CDMS & Others) E-Mail Address: - helpdesk@dlink.co.in, techsupport@dlink.co.in Website: - www.dlink.co.in

### Indonesia, Malaysia, Singapore and Thailand:

Tel: +62-21-5731610 Tel: 1800-882-880 Tel: +65 6501 4200 Tel: +66-2-719-8978/9 24/7, for English Suppo http://www.dlink.com.sg

(Malaysia) (Singapore) (Thailand)

(Indonesia)

24/7, for English Support Only http://www.dlink.com.sg/support/ e-mail: support@dlink.com.sg

### Korea:

Tel: +82-2-2028-1815 Monday to Friday 9:00am to 6:00pm http://www.d-link.co.kr e-mail: arthur@d-link.co.kr

### New Zealand:

Tel: 0800-900-900 24/7(24Hrs, 7days a week) technical support http://www.dlink.co.nz e-mail: support@dlink.co.nz



### **Technical Support**

You can find software updates and user documentation on the D-Link website.

### Tech Support for customers in

#### Egypt:

Tel: +202-2919035 or +202-2919047 Sunday to Thursday 9:00am to 5:00pm http://support.dlink-me.com Email: support.eg@dlink-me.com

#### Iran:

Te: +98-21-88880918,19 Saturday to Thursday 9:00am to 5:00pm http://support.dlink-me.com Email : support.ir@dlink-me.com & support@dlink.ir

#### Israel:

Magshimim 20, Petach Tikva 49348 Website: www.dlink.co.il Main Tel: 972-3-9215173 Customer Support Tel: 972-3-9212886

#### Pakistan:

Tel: +92-21-4548158 or +92-21-4548310 Monday to Friday 10:00am to 6:00pm http://support.dlink-me.com E-mail: zkashif@dlink-me.com

#### South Africa and Sub Sahara Region:

Tel: +27-12-661-2025 08600 DLINK (for South Africa only) Monday to Friday 8:30am to 9:00pm South Africa Time http://www.d-link.co.za

#### **Turkey:**

Tel: +90-212-2895659 Monday to Friday 9:00am to 6:00pm http://www.dlink.com.tr e-mail: turkiye@dlink.me.com e-mail: support@d-link.co.za

#### U.A.E and North Africa:

Tel: +971-4-4278127 (U.A.E) Sunday to Thursday 9.00AM to 6.00PM GMT+4 Web: http://www.dlink-me.com E-mail: support.me@dlink-me.com

#### Saudi ARABIA (KSA):

Telephone : +966 01 217 0008 Facsimile : +966 01 217 0009 e-mail: Support.sa@dlink-me.com Saturday to Wednesday 9.30AM to 6.30PM Thursdays 9.30AM to 2.00 PM



# Notes





# Руководство по быстрой установке

DAP-3760 Беспроводная внешняя точка доступа для передачи данных на дальние расстояния

### Авторские права

Copyright © 2009 все права защищены. Никакая часть этого документа не может быть воспроизведена, изменена, сохранена в поисковых системах, переведена на любой другой язык или передана в любой другой форме или другими средствами без письменного разрешения производителя.

## О Руководстве по установке

Это Руководство пользователя предназначено для профессиональной установки DAP-3760. Оно содержит инструкции, которые позволят избежать нежелательных проблем.

### Условные обозначения

\Lambda Предупреждение:

• Указывает на предупреждение или предостережение.

Примечание:

• Содержит важные замечания, на которые следует обратить внимание.

# Введение

DAP-3760 — высокопроизводительная беспроводная точка доступа для внешнего использования, которая обеспечивает беспроводное соединение между различными точками сети. Устройство поддерживает соединения PTP и PTMP. Более того, точка доступа DAP-3760 оснащена плоской антенной с коэффициентом усиления 23dBi, обеспечивающей дальность передачи до 40км. Благодаря широкой полосе пропускания и передаче данных на дальние расстояния, DAP-3760 идеально подходит для использования на транспортной сети (backhaul network) для провайдеров и крупных предприятий.



## Перед установкой

В этой главе приводятся инструкции по безопасности и информация о продукте, которую необходимо знать/проверить перед установкой DAP-3760.

### Необходима профессиональная установка

- 1. Пожалуйста, обратитесь за помощью к хорошо обученному и знакомому с требованиями местного законодательства специалисту по установке радиооборудования.
- 2. DAP-3760 распространяется через дистрибьюторов и системных интеграторов, в штате которых есть профессиональные технические специалисты. Эти устройства не будут продаваться напрямую через розничные магазины.

# Предостережения безопасности

Для обеспечения надлежащей безопасности и установки аппаратного обеспечения необходимо следовать следующим инструкциям безопасности.

- 1. При установке DAP-3760 в первый раз обратитесь, пожалуйста, в целях безопасности к квалифицированному специалисту, прошедшему обучение по технике безопасности.
- При выборе места установки устройства учитывайте помимо производительности, безопасность системы, особенно при использовании кабелей питания и телефонных линий.
- 3. При установке антенны учитывайте следующее:
  - Не используйте металлической лестницы;
  - Не работайте в условиях повышенной влажности и в ветреную погоду;
  - Используйте обувь с резиновыми подошвами и шипами, резиновые перчатки, рубашки или куртки с длинными рукавами.
- 4. При работе системы избегайте вставать прямо перед антенной. При включенном передатчике существуют сильные радиоизлучения.

### Комплект поставки

В комплекте поставки должно содержаться следующее. Если чтолибо из перечисленного отсутствует или повреждено, обратитесь к поставщику.

•	DAP-3760 со встроенной антенной 23dBi	×1
•	Монтажный комплект	×1
•	Адаптер РоЕ и шнур питания	×1
•	Кабель заземления с винтом	×1
•	Комплект для защиты от влаги разъема RJ-45	×1
•	Руководство по быстрой установке	×1
•	CD-диск с документацией по продукту	×1

Примечание:

 СD-диск с документацией по продукту содержит средства управления, Руководство по быстрой установке и Руководство пользователя!

### Монтажный комплект

- Кронштейны для крепления к стене / мачте
- 1. Кронштейн для крепления к мачте ×1
- 2. Кронштейн для крепления к устройству ×1
- 3. Крепежная скоба
- Крепежный материал
- 4. Винт М8×80 ×2 Винт M8×90 ×1
- Шайба М8
- 6. Предохранительная шайба М8 ×3
- Гайка М8
- 8. Винт M5×16
- Шайба М5
- 10. Винт для дерева

×4 (для настенного монтажа)

×1

11. Дюбель для стены / гипсокартона ×4 (для настенного монтажа)

×3

×1

×4 ×4



### Комплект для защиты от влаги разъема RJ-45

- 1. Уплотнительная шайба ×1
- 2. Уплотнительная манжета ×1
- 3. Уплотнительная гайка ×1



### Установка

## Прикрепление кронштейнов

1. С помощью гаечного ключа, винтов M5×16 ⑧ и гаек M5 ⑨ , входящих в комплект поставки, прикрепите кронштейн ② к DAP-3760;



2. Затем прикрепите кронштейн ② к кронштейну ① с помощью винта M8×90 ④, шайбы M8 ⑤, предохранительной шайбы ⑥ и гайки M8 ⑦, как показано на рисунке;



### Монтаж устройства на мачте

 Используя крепежную скобу ③, прикрепите кронштейн ④ к мачте с помощью винтов M8×80 ④, предохранительных шайб ⑤ и шайб ⑥, как показано на рисунке;



2. Прикрутите винты M8×80 ④, используя гаечный ключ;



3. Выберите положение антенны для оптимального приема.



### Подключение

Рекомендуется использовать коаксиальный кабель кат. 5 с разъемом RJ-45 для подключения к адаптеру PoE.

1. Для подключения к разъему, отмеченному PoE+Data, снимите заблаговременно черное покрытие с помощью монетки или крестовой отвертки и прикрутите уплотнительную шайбу.



2. Наденьте на кабель RJ-45 уплотнительную манжету и уплотнительную гайку.





3. Вставьте разъем RJ-45 в гнездо и убедитесь в его надежном креплении.



4. Прикрутите уплотнительную гайку к уплотнительной шайбе.



### Заземление

В комплект поставки DAP-3760 входит провод заземления. Устройство должно быть заземлено надлежащим образом для защиты от скачков напряжения. Точка заземления находится на нижней панели устройства. Устройство поставляется с выводом для подключения заземления.



### Включение питания

Для включения питания DAP-3760 следуйте приведенным ниже шагам:

- Подключите кабель Ethernet Кат.5 (предоставляется пользователем) от проводной сети LAN (компьютера) к разъему питания RJ-45 (DATA IN);
- 2. Подключите кабель Ethernet Кат.5 (предоставляется пользователем) от DAP-3760 к разъему питания RJ-45 (P+DATA OUT);
- 3. Подключите шнур питания к адаптеру РоЕ и к розетке.
- После включения устройство будет издавать звуковой сигнал в течение 1,5 секунд, информируя о включенном питании DAP-3760! Подождите 60 секунд, пока система будет инициализирована и начнет работу.



### Предупреждение:

 Убедитесь, что питание РоЕ корректно подключено к порту RJ-45 на DAP-3760, отмеченному PoE+Data. НЕ подключайте питание РоЕ к порту с отметкой "Warning!! No POE", в противном случае это может привести к серьезному повреждению устройства!



## Настройка

### Подключение DAP-3760 к локальному компьютеру

Для настройки DAP-3760 локально (без подключения к сети LAN) подключите компьютер к порту Ethernet адаптера PoE с помощью кабеля Ethernet кат.5.

 Назначьте компьютеру IP-адрес, который принадлежит тому же сегменту сети, что и DAP-3760. IP-адрес данного устройства по умолчанию - 192.168.0.50, кроме него, можно выбрать другой адрес из диапазона от 192.168.0.1 до 192.168.0.254.

eneral You can get IP settings assigned this capability. Otherwise, you ne the appropriate IP settings.	automatically if your network supports ed to ask your network administrator for
O Obtain an IP address autom	atically
OUse the following IP addres	s:
IP address:	192.168.0.1
Subnet mask:	255 . 255 . 255 . 0
Default gateway:	11 12 13
Obtain DNS server address	automatically
• Use the following DNS serv	er addresses:
Preferred DNS server:	
Alternate DNS server:	
	Advanced

 Проверьте статус канала между компьютером и DAP-3760. Запустите командную строку и выполните команду ping "ping 192.168.0.50 –t". Если пингование прошло успешно (как показано ниже), откройте Интернет-браузер, введите IP-адрес устройства в адресную строку и нажмите Enter.

C:\WINDOWS\system32\cmd.exe	- 🗆 🗙
C:\Documents and Settings\Alex>ping 192.168.0.50 -t	<b>_</b>
Pinging 192.168.0.50 with 32 bytes of data:	
Request timed out.	
Reply from 192.168.0.50: bytes=32 time=4ms TTL=64	
Reply from 192.168.0.50: bytes=32 time<1ms TTL=64	
Reply from 192.168.0.50: bytes=32 time<1ms TTL=64	
Reply from 192.168.0.50: bytes=32 time<1ms TTL=64	
Reply from 192.168.0.50: bytes=32 time<1ms TTL=64 System ready	
Reply from 192.168.0.50: bytes=32 time<1ms TTL=64	
Reply from 192.168.0.50: bytes=32 time<1ms TTL=64	
Reply from 192.168.0.50: bytes=32 time<1ms TTL=64	
Reply from 192.168.0.50: bytes=32 time<1ms TTL=64	
Reply from 192.168.0.50: bytes=32 time<1ms TTL=64	
Reply from 192.168.0.50: bytes=32 time<1ms TTL=64	
Reply from 192.168.0.50: bytes=32 time<1ms TTL=64	
Reply from 192.168.0.50: bytes=32 time<1ms TTL=64	
Reply from 192.168.0.50: bytes=32 time<1ms TTL=64	
Reply from 192.168.0.50: bytes=32 time<1ms TTL=64	-

Примечание:

- В целях удобства настройки рекомендуется осуществлять локальную и удаленную настройку DAP-3760 на двух компьютерах соответственно.
- Время TTL может меняться в зависимости от операционной системы.
# Как установить режим Wireless Bridge (Беспроводной мост)

DAP-3760 поддерживает режимы Bridge (CSMA) и Bridge (TDMA). Здесь будет проиллюстрировано, как установить соединение wireless bridge с DAP-3760.

• Введите имя пользователя (admin) и пароль (отсутствует) для регистрации и выполнения настроек.

D-Link	DAP-3760
Name Password	Login now Reset

Примечание:

 Из-за политик безопасности Web-браузера может не получиться сразу открыть 192.168.0.50. Для снятия ограничений нужно выбрать опцию Continue to this website.

<del>8</del>	
The sec	urity certificate presented by this website has errors, and should not be trusted.
Security server.	y certificate problems may indicate an attempt to fool you or intercept any data you send to th
We rec	commend that you close this webpage and do not continue to this website.
Click	k here to close this webpage.
😵 Con	tinue to this website (not recommended).

 Откройте "Basic Setup" в "System", установите IP-адреса обоих DAP-3760 в одном сегменте сети. Например, локальная точка доступа DAP-3760 - 192.168.0.50, удаленная точка доступа DAP-3760 - 192.168.0.51, Маска подсети для обоих устройств -255.255.255.0

D-Link			Logout DAP-3760
System	Wireless	Status	Administrator Settings
System Information	Basic Setup		
Banic	Device Name Ethemet Data Rate Spanning Tree Protocol (STP) STP Forward Dolay LAN Settings Of the From IP Address IP Subnet Mask Default Gateway Primary DNS Server Secondary DNS Server	DAP-3760 Auto ♥ Catable Obsable Turbo (default 1 sec) Normal sec (stan O state(Manual) Opmamic(DHOP) 192:180.050 265.255.256.0 0.0.00 0.0.00	dard 4-30 sec)
	SNTP Information/SNTP Setting		
	SNTP/NTP Server IP		
	<u>s</u>		

Предупреждение:

- IP-адрес в сети LAN должен быть уникальным, в противном случае может возникнуть конфликт IP-адресов!
- Откройте "Radio" в "Wireless", по умолчанию установлен режим Bridge (CSMA). Выберите использование режима Bridge (CSMA) и установите идентичные настройки канала/частоты и полосы пропускания на обоих устройствах DAP-3760. Нажмите "Apply" для сохранения настроек.

D-Link			DAP-3
System	Wireless	Status	Administrator Se
Radio	Radio Settings		
Bridge Links Setup	Mode	Bridge(CSMA)	
Coourity.	Wireless Band	IEEE802.11a 💙	
Security	Channel	149 / 5.745GHz 💌	
Link Test	Data Rate	Auto 💌	
	Output Power	100% 💌	
	Band Width	20MHz 🖌	
	WMM Mode	Enable      Disable	
	Super Mode	O Enable	
	Advanced Parameters		
	RTS Threshold (0-2346)	2346	
	Fragmentation Length (256-2346)	2346	
	Distance In Meters (0-100000)	10000 m	
	1	Apply Cancel	

 Зарегистрируйтесь в Web-интерфейсе удаленной точки доступа DAP-3760, откройте "System Information" в "System" и запишите MAC-адрес беспроводного устройства.

D-Link			Logout DAP-3760
System	Wireless	Status	Administrator Settings
System Information	System Information		lî î
Basic	Derice Name ETT MC-Address WLAN MC Address Firmware Version	D4-3760 00197010ffte 00197014/12/07 v1.00	

 Зарегистрируйтесь в Web-интерфейсе удаленной точки доступа DAP-3760 и откройте "Bridge Links Setup" в "Wireless", введите MAC-адрес WLAN удаленного устройства в поле "Remote MAC Address 1" и нажмите "Apply";

D-Link			Logout DAP-3760
System	Wireless	Status	Administrator Settings
Radio	Bridge Links		1
Bridge Links Setup	Local MAC Address	00 ; 19 ; 70 ; 14 ; £2 ; 07 Align Anti	enna
Security	Remote MAC Address 1		
	Remote MAC Address 2		
Link Test	Remote MAC Address 3		=
	Remote MAC Address 4		
		Apply Cancel	
	<		>

Предупреждение:

- МАС-адрес на корпусе DAP-3760 является MACадресом ETH; поэтому он не может использоваться при организации каналов Bridge.
- IP-адрес компьютера должен принадлежать тому же сегменту, что и любой из мостов.
- Используйте команду ping для проверки наличия канала между двумя DAP-3760.



- Для обеспечения лучшего беспроводного соединения, когда точки доступа находятся на большом расстоянии друг от друга, необходимо установить антенны DAP-3760 на одной линии.
- Зарегистрируйтесь в Web-интерфейсе локальной точки доступа DAP-3760 и откройте "Bridge Links Setup" в "Wireless". Нажмите кнопку "Align Antenna", и появится инструмент настройки антенны. Определите Target RSSI и нажмите "Start", чтобы начать настройку антенны.

ocal MAC: 00:19:70:14:f	2:07
Remote MAC: 00:60:b3:3	5d:c2
Signal Strength:	
Current RSSI (dBm):	0
Target RSSI (dBm) :	
Transmit Packets:	0
Receive Packets:	0
	Start

- Зафиксируйте локальную антенну и выберите ориентацию удаленной антенны. В течение настроек следите за изменениями "Current RSSI" на локальной DAP-3760. По достижению желаемого результат зафиксируйте удаленную антенну. Как правило, RSSI от -60 до -70dBm указывает на достаточно хорошую длину сигнала.
- Настройте локальную антенну, зафиксировав предварительно удаленную. В процессе настройки следите за изменениями "Current RSSI" на удаленной DAP-3760. По достижении желаемого результата зафиксируйте локальную антенну.
- Примите поздравления! Настройка DAP-3760 завершена. Инструкции по расширенным настройкам приведены в Руководстве пользователя.

#### Поиск и устранение неисправностей

Эта глава содержит описание процессов поиска и устранения основных неисправностей, возникающих при работе с DAP-3760.

#### Q 1. Что делать, если не получается подключить локальное устройство DAP-3760 к удаленному устройству DAP-3760?

- Канал Ethernet: Проверьте подключение питания по статусу индикатора.
  - Зеленый: DAP-3760 подключен к транспортной сети.
  - Не горит: DAP-3760 отключен от проводной сети. Удостоверьтесь, что шнур питания и кабели Ethernet для подключения к сети корректно подключены.
- Основные настройки: несовпадение базовых настроек двух устройств является наиболее частой причиной ошибки соединения. Если устройства не подключаются друг к другу, проверьте, идентичны ли их настройки.
- Настройки безопасности: Удаленное устройство, пытающееся пройти аутентификацию DAP-3760, должно поддерживать те же опции безопасности, что настроены на локальном устройстве, например, WEP или WPA (2)-PSK. При ошибке подключения моста к другим устройствам, убедитесь, что настройки безопасности совпадают с настройками устройства.
- Выравнивание антенны: Если приведенные выше методы не дали результата, можно менять ориентацию антенны, отслеживая значение RSSI.

#### Q 2. Как сбросить настройки устройства к заводским?

Восстановить заводские настройки устройства можно в "Configuration File" из "Administrator Settings"

### Q 3. Что делать, чтобы загрузить и восстановить настройки конфигурации?

Можно сохранить настройки в виде конфигурационного файла на компьютере или загрузить сохраненные ранее настройки в "Configuration File" из "Administrator Settings".

#### Техническая поддержка

Обновления программного обеспечения и документация доступны на Интернет-сайте D-Link.

D-Link предоставляет бесплатную поддержку для клиентов в течение гарантийного срока.

Клиенты могут обратиться в группу технической поддержки D-Link по телефону или через Интернет.

> Техническая поддержка D-Link: +7(495) 744-00-99

#### Техническая поддержка через Интернет

http://www.dlink.ru e-mail: support@dlink.ru







# Guía de Instalación Rápida

#### DAP-3760 Long Distance Wireless Outdoor Bridge

# Copyright

Copyright © 2009 Todos los derechos reservados. Ninguna parte de esta publicación puede ser reproducida, adaptada, almacenada en un sistema de recuperación, traducido a cualquier idioma, o transmitida en cualquier forma o por cualquier medio sin el permiso escrito del proveedor.

#### Acerca de la Guía de Instalación

Esta Guía de Instalación está destinada a orientar a un profesional en la instalación del DAP-3760. Incluye procedimientos para ayudarle a evitar problemas e imprevistos.

#### Convenciones

Advertencia:

• Esto indica una advertencia o precaución que usted tiene que respetar.

Nota:

• Esto indica una nota importante a la cual usted debe prestar atención.

# Introducción

El DAP-3760 es un puente inalámbrico (Wireless Bridge) de exterior, de alto rendimiento que proporciona conectividad inalámbrica de red entre múltiples ubicaciones. Soporta conectividad PTP y PTMP. Por otra parte, el DAP-3760 tiene incorporada una antena plana de 23dBi que puede lograr hasta 40 kilómetros de conexión. Con alto rendimiento y de larga distancia de transmisión, el DAP-3760 es una solución ideal para operadores, proveedores de servicios y empresas.



#### Antes de Instalar

Este capítulo describe las medidas de seguridad e información del producto que debe saber antes de instalar DAP-3760.

#### **Requiere Instalación Profesional**

- 1. Por favor solicite la asistencia de un instalador profesional que esté entrenado en la instalación de RF y que tenga conocimiento de las normativas locales.
- El DAP-3760 se comercializa a través de distribuidores con profesionales técnicos. Este equipo no se venderá directamente a través de tiendas retail.

#### Medidas de Seguridad

Para mantenerse seguro e instalar el hardware correctamente, por favor, lea y siga estas medidas de seguridad.

- 1. Si va a instalar una DAP-3760 por primera vez, para su seguridad, y la de los demás, por favor busque ayuda de un instalador profesional que haya recibido formación en materia de seguridad sobre los riesgos involucrados.
- 2. Tenga en cuenta la seguridad, como el rendimiento a la hora de elegir el lugar de instalación, especialmente cuando hay energía eléctrica y líneas telefónicas.
- 3. Cuando instale su antena, considere lo siguiente:
  - No use una escalera metálica;
  - No trabajar en un día ventoso o húmedo;
  - Use zapatos con tacos y suelas de goma, guantes de goma, camisa o chaquetas de manga larga.
- 4. Cuando el sistema esté en funcionamiento, no se pare directamente en frente de la antena. Hay fuerte presencia de los campos RF cuando el transmisor está encendido.

# Contenido del Paquete

El producto que ha recibido debe contener los siguientes elementos. Si alguno de ellos no están incluidos o dañados, por favor, póngase en contacto con su proveedor para recibir apoyo.

- DAP-3760 con una antena integrada de 23dBi ×1
- Kit de Montaje ×1
  Conector PoE y cable de energía ×1
  Cable a tierra con tornillos ×1
  Kit de conector RJ-45 a prueba de agua ×1
  Guía de instalación Rápida ×1
- CD del producto
   ×1

Nota:

• El CD del producto contiene Herramienta de Administración, Guía de Instalación Rápida y Manual de Usuario

#### Kit de Montaje

×2

×1

×3

×3

×1

×4

×4

- Soporte de montaje Pared/Poste
- 1. Soporte Forma T ×1
- 2. Articulación de Poste ×1
- 3. Abrazadera de Poste ×1
- Sujetadores
- 4. Tornillos M8×80 Tornillos M8×90
- 5. Argolla M8
- 6.Argolla delgada M8
- 7. Tuerca M8
- 8. Tornillo M5×16
- 9. Argolla M5
- 10. Tornillo de Madera
- 11.Tarugos

- ×4 (Para montar en Muro)
- ×4 (Para montar en Muro)

#### Kit de conector RJ-45 a prueba de agua

- 1. Contra Tuerca ×1
- 2. Tuerca de sellado ×1
- 3. Sellado ×1



### Instalación del Sistema

#### Montaje del Soporte

1. Coloque el soporte principal en la base y utilice una llave inglesa para sujetar el soporte al DAP-3760 con los tornillos M5 × 16 (8) y argollas M5 (9) entregados en el paquetes del hardware;



 Monte el soporte principal colocando la contratuerca ② al soporte de forma T ① con los tornillos M8 × 90 ④ a través de la inserción y fíjelo con la argolla M8 ⑤, argolla delgada ⑥ tuerca M8 ⑦;



#### Montaje en el Poste

 Instale el soporte principal y la abrazadera del poste ③ sobre la parte superior del poste asegurando taladrar los agujeros de la barra de montaje del poste al soporte principal e inserte los dos tornillos M8 × 80 ④ , argollas delgadas ⑤ y argollas ⑥ a través de los agujeros de la abrazadera principal;



2. Conecte los dos tornillos M8×80 ④ y argollas ⑤ a través de los agujeros de la abrazadera principal con una llave inglesa;



3. Ajuste la antena para una apropiada orientación (inclinación) vertical.



### Conectando

Antes de instalar el cable Ethernet con el conector RJ-45 a prueba de agua, se recomienda un cable coaxial Cat-5 RJ-45 para ser usado por el Bridge (puente) en las conexiones del inyector de energía.

1. Para conectar en el agujero marcado PoE + DATA, abra la tapa negra con antelación utilizando una moneda o un destornillador y luego atornille en el cuerpo de la contratuerca y apriete.



2. Deslice la tuerca de cierre por el cable RJ-45 hasta su abertura media y luego, inserte el sellado en el cable.

Deslice la tuerca de sellado por su abertura



3. Inserte el conector RJ-45 y asegúrese de que la pestaña de bloqueo encaje.



Puerto RJ-45 DAP-3760

4. Atornille el sellado en la contratuerca y apriete.



### Cable de Tierra

El DAP-3760 es suministrado con un cable a tierra. La unidad debe estar correctamente conectada a tierra para proteger contra rayos. El punto de tierra se puede encontrar en la parte inferior de la unidad. Es suministrado con un conector de tierra para la conexión al ODU.



#### Encendido

Para encender el DAP-3760, siga los siguientes pasos:

- 1. Enchufe un cable Cat-5 Ethernet de su LAN (o un ordenador) en el enchufe RJ-45 del inyector de energía (DATA IN);
- Enchufe un cable Cat-5 Ethernet desde DAP-3760 al inyector de energía en el enchufe RJ-45 (P + Data Out));
- 3. Conecte el módulo de energía al inyector de energía y enchufe el cable de AC en un enchufe de alimentación de AC.
- 4. Después de haberlo encendido, el dispositivo emitirá un sonido aproximadamente de 1,5 segundos, que le informará que el DAP-3760 enciende. Espere unos 60 segundos para que el sistema se inicialice y comience a trabajar.



#### Advertencia:

 "Asegúrese que el PoE esté correctamente conectado al puerto RJ-45 en el conector del DAP-3760 etiquetado como PoE + Data. NO conecte al puerto etiquetado como "Warning!! No POE", de lo contrario el extensor será gravemente dañado.



#### Configuración

#### Conecte el DAP-3760 a un Computador Local

Si está configurando el DAP-3760 localmente, (sin conectar su inyector de energía a una LAN cableada), conecte un PC al puerto Ethernet del inyector de energía utilizando un cable Ethernet de categoría 5.

1. Asigne una dirección IP estática a su PC que se encuentre en el mismo segmento de red del DAP-3760. Como la dirección IP por defecto de esta unidad es 192.168.0.50, usted puede escoger desde 192.168.0.1 a 192.168.0.254, excepto 192.168.0.50

ou can get IP settings assigned automatically if your ne is capability. Otherwise, you need to ask your network e appropriate IP settings.	twork supports administrator fo
🔿 Obtain an IP address automatically	
Use the following IP address:	
IP address: 192 . 168 . 0	0.1
Subnet mask: 255 . 255 . 25	55.0
Default gateway:	-
O Obtain DMC conversionality	
Use the following DNS server addresses:	
Preferred DNS server:	
Alternate DNS server:	
Ubtain DNS server address automatically Obtain DNS server address automatically Preferred DNS server: Atternate DNS server:	1

Pruebe el status del link entre su PC y el DAP-3760. Inicie la consola de comandos y ejecute un ping a la dirección IP del DAP-3760, de la siguiente forma: "ping 192.168.01.50-t". Si el ping para el Bridge Wireless es exitoso (como se muestra a continuación), abra el navegador de Internet e ingrese la dirección IP del bridge en la barra de direcciones y pulse Intro(Enter).

en C:\WINDOWS\system32\cmd.exe	X
C:\Documents and Settings\Alex>ping 192.168.0.50 -t	-
Pinging 192.168.0.50 with 32 bytes of data:	
Request timed out.	
Reply from 192.168.0.50: bytes=32 time=4ms ITL=64	
Reply from 192.168.0.50: bytes=32 time<1ms ITL=64	
Reply from 192.168.0.50: bytes=32 time<1ms TTL=64	
Reply from 192.168.0.50: bytes=32 time<1ms ITL=64	
Reply from 192.168.0.50: bytes=32 time(ins IIL=54 Sistema Listo	
Reply from 192.168.0.50: bytes=32 time(1ms 11L=54	
Reply from $192.168.0.50$ : bytes=32 time(ins 11L=64	
Reply from 192.168.0.50: Dyces=32 time(ins llL=64	
Reply from 172.106.0.30. $Bytes=32$ time ins 111-64	
Reply from 172.168.0.50: $Dyces=32$ time(ins ill=64) Dash, from 102.168.0.60: $butco=22$ time(ins ill=64)	
$\frac{1}{100} \frac{1}{100} \frac{1}$	
$\frac{1}{100} \frac{1}{100} \frac{1}$	
$\frac{1}{100} \frac{1}{100} \frac{1}$	
Ren]u from 192.168.0.50: bytes=32 time<1ms TTL=64	-

Nota:

Consideraciones de Configuración. Es recomendable configurar el DAP-3760 local y remoto, en dos computadores respectivamente.

• El tiempo TTL puede variar dependiendo del sistema operativo.

#### Como establecer el Modo Wireless Bridge

El DAP-3760 soporta el modo Bridge (CSMA) y Bridge (TDMA). Aquí ilustraremos como se establece la configuración de Bridge Wireless en el DAP-3760.

• Ingrese el nombre de usuario (admin) y la contraseña (en blanco) para ingresar y realizar las configuraciones.

D-Link	DAP-3760
Name Password	Login now Reset

Nota:

 Debido a la seguridad implementada en los navegadores para los sitios de confianza, puede ser que la dirección 192.168.0.50 no esté habilitada para ser abierta. Usted puede escoger continuar para ir a la página web.

The	security certificate presented by this website has errors, and should not be trusted.
Secu	urity certificate problems may indicate an attempt to fool you or intercept any data you send to the
serv	er.
We	recommend that you close this webpage and do not continue to this website.
00	Click here to close this webpage.
	Continue to this website (not recommended).

 Diríjase a "Basic Setup" en "System" y establezca la dirección IP de dos DAP-3760 en el mismo segmento de red. por ejemplo, DAP-3760 local como 192.168.0.50 y DAP-3760 remoto como 192.168.0.51 y defina la máscara de subred en ambos como 255.255.255.0

D-Link			Logo DAP-3760
System	Wireless	Status	Administrator Settin
System Information	Basic Setup		
Basic	Device Name Ethernet Data Rate Spanning Tree Protocol (STP)	DAP-3760	
	STP Forward Delay	Turbo (default 1 sec) O Normal 4 sec (sec )	tandard 4-30 sec)
	LAN Settings		
	Get IP From	<ul> <li>Static(Manual) Opmamic(DHCP)</li> </ul>	
	IP Address	192.168.0.50	
	IP Subnet Mask	255.255.255.0	
	Default Gateway	0.0.0.0	
	Primary DNS Server	0.0.0.0	
	Secondary DNS Server	0.0.0.0	
	SNTP Information/SNTP Setting		
	SNTP/NTP Server IP		
	<		)

Advertencia:

- Cada dirección IP es única en una LAN, una misma dirección IP configurada en dos equipos diferente puede causar colisión.
- Diríjase a "Radio" en "Wireless" y encontrará el modo por defecto Bridge (CSMA). Seleccione el modo Bridge (CSMA) y mantenga Channel/ Frequency y Bandwidth en ambos DAP-3760 idénticas. Haga click en "Apply" para guardar los cambios.

System	Wireless	Status	Administrator
Radio	Radio Settings		
Bridge Links Setup	Mode	Bridge(CSMA)	
	Wireless Band	IEEE802.11a 🖌	
Security	Channel	149 / 5.745GHz 🛩	
Link Test	Data Rate	Auto 🔽	
	Output Power	100% 🛩	
	Band Width	20MHz 💙	
	WMM Mode	Enable      Disable	
	Super Mode	O Enable 💿 Disable	
	Advanced Parameters		
	RTS Threshold (0-2346)	2346	
	Fragmentation Length (256-2346)	2346	
	Distance In Meters (0-100000)	10000 m	
		Apply Cancel	

 Ingrese a la interfaz Web del DAP-3760 remoto, abra "System Information" en "System" y grave la dirección MAC WLAN de éste.

D-Link			Logout DAP-3760
System	Wireless	Status	Administrator Settings
System Information	System Information		Î
Basic	Device Name ETH MaC Address WLAN MCC Address Filmware Version	04-3760 00197010116 001970147207 v100	

 Ingrese a la interfaz Web del DAP-3760 local y abra Bridge Links Setup" en "Wireless", ingrese la dirección MAC WLAN del DAP-3760 remoto en "Remote MAC Address 1" y haga click en "Apply";

D-Link			DAP-3760
System	Wireless	Status	Administrator Settings
Radio	Bridge Links		
Bridge Links Setup	Local MAC Address	00; 19; 70; 14; ±2; 07 Align A	ntenna
Security	Remote MAC Address 1		
Link Test	Remote MAC Address 2		
LIIKTESL	Remote MAC Address 3		
	Remote MAC Address 4		
		Apply Cancel	
	<		>

Advertencia:

- La dirección MAC en el housing del DAP-3760 es la dirección MAC ETH; por lo tanto no puede ser utilizada en la configuración del Bridge Wireless.
- La dirección IP de su PC debe estar en el mismo segmento de red que uno de los Bridges.

Use ping para revisar que el enlace entre los dos DAP-3760 sea correcto.



- Para tener una mejor conectividad inalámbrica, es altamente recomendable realizar la alineación de las antenas después de que se hayan instalado ambos DAP-3760 en larga distancia.
- Ingrese a la interfaz Web del DAP-3760 local y abra "Bridge Links Setup" en "Wireless". Presione el botón "Align Antenna", una herramienta de alineación de antena se desplegará en una ventana. Especifique el destino RSSI y haga click en "Start" para iniciar la alineación de la antena.

ocal MAC: 00:19:70:14:f	::07	
Remote MAC: 00:60:b3:3	5d:c2	
Signal Strength:		
Current RSSI (dBm):	0	
Target RSSI (dBm) :		
Transmit Packets:	0	
Receive Packets:	0	
	Start	

- Fije la antena local y ajuste la elevación y dirección horizontal de la antena remota. Durante el ajuste, observe "Current RSSI" en el DAP-3760 local. Fije la antena remota hasta alcanzar sus expectativas. Por lo general, un RSSI entre -60 y-70dBm indica una buena señal.
- Ajuste la antena local después de la fijación de la antena remota. Durante el ajuste, observe "Current RSSI" en el DAP-3760 remoto. Fije la antena cuando alcance sus expectativas.
- Felicitaciones! Usted ha completado la configuración principal del DAP-3760 y puede ser puesto en servicio. Para configuraciones más avanzadas, por favor consulte el Manual de Usuario.

### Solución de problemas

Este capítulo proporciona procedimientos para la solución de problemas básicos con el DAP-3760.

# P1 ¿Qué pasa si mi DAP-3760 no puede conectarse al equipo remoto?

- Link Ethernet: Compruebe la disponibilidad de energía para el Bridge observando el estatus en el LED del inyector de energía.
  - Verde: El DAP-3760 está conectado a la Red.
  - Apagado: El DAP-3760 está desconectado de la red cableada, revise si el cable de energía, cables Ethernet a la red y Bridges están conectados correctamente.
- Configuraciones Básicas: Problemas asociados a la configuración básica en los Bridges son las causas más comunes de fallas en la conectividad, compruebe si las opciones en cada uno de los dispositivos son idénticos.
- Configuración de Seguridad: Los Bridges remotos que se intentan autenticar con su DAP-3760 deben admitir las mismas opciones de seguridad configuradas en su Bridge, tales, como WEP y WPA(2)-PSK. Si su Bridge falla en asociarse con el otro, compruebe que la configuración de seguridad sean las mismas que las configuradas en su Bridge.
- Alineación de Antena: Si los métodos anteriores son revisados y son correctos, usted puede observar y verificar la alineación de la antena con valor RSSI.

# P2. ¿Qué pasa si quiero restaurar la unidad a la configuración de fábrica?

Usted puede restaurar la configuración a los valores de fábrica en "Configuration File" desde "Administrator Settings"

#### P3. ¿Qué pasa si quiero descargar y restaurar la configuración?

Usted puede descargar mediante la generación de un archivo de configuración o cargar las configuraciones que usted ha respaldado anteriormente en "Configuration File" desde "Administrator Settings".

#### SOPORTE TÉCNICO

Usted puede encontrar actualizaciones de softwares o firmwares y documentación para usuarios a través de nuestro sitio www.dlinkla.com

#### SOPORTE TÉCNICO PARA USUARIOS EN LATINO AMERICA

PAIS	NUMERO	HORARIO
Argentina	0800 - 12235465	Lunes a Viernes 08:00am a 21:00pm
Chile	800 - 835465 ó (02) 5941520	Lunes a Viernes 08:00am a 21:00pm
Colombia	01800 - 9525465	Lunes a Viernes 06:00am a 19:00pm
Costa Rica	0800 - 0521478	Lunes a Viernes 05:00am a 18:00pm
Ecuador	1800 - 035465	Lunes a Viernes 06:00am a 19:00pm
El Salvador	800 - 6335	Lunes a Viernes 05:00am a 18:00pm
Guatemala	1800 - 8350255	Lunes a Viernes 05:00am a 18:00pm
México	01800 - 1233201	Lunes a Viernes 06:00am a 19:00pm
Panamá	011 008000525465	Lunes a Viernes 05:00am a 18:00pm
Perú	0800 - 00968	Lunes a Viernes 06:00am a 19:00pm
Venezuela	0800 - 1005767	Lunes a Viernes 06:30am a 19:30pm

Soporte técnico a través de los siguientes teléfonos de D-Link

#### Soporte Técnico de D-Link a través de Internet

e-mail: soporte@dlinkla.com & consultas@dlinkla.com







### Guia de Instalação Rápida

#### DAP-3760 Long Distance Wireless Outdoor Bridge

### Copyright

Copyright © 2009 todos os direitos reservados. Nenhuma parte desta publicação pode ser reproduzida, adaptada, armazenada em um sistema de recuperação, traduzida para qualquer idioma ou transmitida de qualquer forma ou por qualquer meio sem a autorização por escrito do fornecedor.

#### Sobre o Guia de Instalação

Este Guia de Instalação visa orientar o instalador profissional na instalação do DAP-3760. Ele inclui procedimentos para ajudá-lo a evitar problemas inesperados.

#### Convenções

#### \Lambda Atenção:

 Isso indica uma advertência ou precaução que você deve obedecer.

Observação:

 Isto indica uma observação importante que você deve prestar atenção.

# Introdução

O DAP-3760 é um bridge wireless implementável externamente de alto desempenho que fornece conectividade wireless entre múltiplos locais de rede. Ele suporta conectividade PTP e PTMP. Além disso, o DAP-3760 possui uma antena plana incorporada de 23dBi que pode oferecer uma conexão de até 40Km. Com throughput elevado e transmissão de longa distância, o DAP-3760 é uma solução de backhaul ideal para Portadoras, Provedores de Serviços e Empresas!



### Antes da Instalação

Este capítulo descreve as medidas de segurança e informações do produto que você deve saber e verificar antes de instalar o DAP-3760.

### Instalação Profissional Necessária

- 1. Favor procurar ajuda de um instalador profissional bem treinado na instalação de RF e conhecedor das regulamentações locais.
- O DAP-3760 é distribuído via distribuidores e instaladores de sistemas com técnicos profissionais e não será vendido diretamente em lojas de varejo.

#### Medidas de Segurança

Para mantê-lo seguro e instalar o hardware adequadamente, favor ler e seguir essas medidas de segurança.

- 1. Se você está instalando uma DAP-3760 pela primeira vez, para a sua segurança e a de terceiros, favor buscar ajuda de um instalador profissional que recebeu treinamento de segurança sobre os perigos envolvidos.
- Tenha a segurança e o desempenho em mente ao selecionar seu local de instalação, especialmente onde há energia elétrica e linhas telefônicas.
- 3. Ao instalar sua antena, observar o seguinte:
  - Não utilize uma escada de metal;
  - Não trabalhe em dias úmidos ou com vento;
  - Utilize sapatos com solas de borracha e saltos, luvas de borracha, camisetas de mangas compridas ou macacão.
- Quando o sistema estiver operacional, evite permanecer diretamente na frente da antena. Fortes de RF fortes estão presentes quando o transmissor está ligado.

### Embalagem do Produto

A embalagem do produto que você recebeu deve conter os seguintes itens. Se qualquer um deles não estiver incluído ou estiver danificado, favor entrar em contato com o seu fornecedor local para suporte.

- DAP-3760 com antena 23dBi integrada ×1 •
- Kit de Montagem ×1 • Injetor PoE e Cabo de Alimentação • ×1
- Cabo de aterramento com Parafuso ×1
- Kit de Conexão RJ45 A Prova D'Água . ×1
- Guia de Instalação Rápida ×1 •
- CD do Produto ×1

Observação:

· O CD do produto contém o Kit de Gerenciamento, Guia de Instalação Rápida e Manual do Usuário!

#### Kit de Montagem

×2

×1

× 1

×4

- Braçadeira de Montagem na Parede/Poste
- 1. Bracadeira em T ×1
- 2. Haste de Articulação ×1
- 3. Barra de Montagem em Poste ×1
- Prendedores
- 4.Parafuso 80xM8 Parafuso M8x90
- 5.Arruela M8
- 6. Arruela de Pressão M8
- 7.Porca M8
- 8.Parafuso M5×16
- 9.Arruela M5
- 10. Parafuso de Madeira
- 11.Plugue de Parede/Gesso

×3 ×3 ×4

×4 (para Instalação na Parede) ×4 (para montagem na parede)

#### A Prova D'água RJ-45 Kit Conector

- 1. Anel
- ×1
- 2. Porca de Vedação ×1 ×1
- 3. Vedação



### Instalação do Sistema

#### Prenda a Braçadeira de Montagem

1. Coloque a braçadeira principal na base e utilize uma chave inglesa para apertar a braçadeira no DAP-3760 com parafusos M5×16 ⑧ e arruelas M5 ⑨ fornecidas nos pacotes de acessórios;



 Monte a braçadeira principal colocando a haste de articulação 2 na braçadeira em T 1 por meio de um parafuso M8×90 4 através do eixo de inserção e fixe a arruela M8 5, arruela de pressão 6 e porca M8 7;



#### Montagem em Poste

 Instale a braçadeira principal e a barra de montagem em poste

 sobre o topo do poste prendendo os parafusos da barra de montagem em poste aos da braçadeira principal e insira dois parafusos M8×80 ④, arruelas de pressão ⑤ e arruelas ⑥ nos orifícios e braçadeira principal:



2. Aperte os dois parafusos M8×80 ④ e arruelas ⑤ nos orifícios e braçadeira principal com uma chave inglesa;



3. Ajuste a antena na inclinação apropriada/orientação vertical.



### Conexão

Antes de instalar o cabo Ethernet ao um conector RJ-45 a prova d'água, recomenda-se que o cabo coaxial Cat-5 RJ-45 seja usado para o bridge para alimentar as conexões do injetor.

1. Para conexão ao orifício rotulado PoE+Data, abra a tampa preta antecipadamente utilizando uma moeda ou uma chave de fenda com ranhuras e então parafuse no corpo do anel e aperte.



2. Deslize a porca de vedação para o cabo RJ-45 a partir da sua ranhura central e então insira a vedação no cabo.

Deslize a porca de vedação do seu orifício



3. Insira o conector RJ-45 e certifique-se de que a lingüeta de travamento se encaixe no lugar.



Porta RJ-45 do DAP-3760

4. Parafuse a vedação no anel e aperte.


## Aterre o cabo de terra

O DAP-3760 é fornecido com um cabo de aterramento. A unidade deve estar aterrada apropriadamente para protegê-la contra picos de energia. O ponto de aterramento pode ser encontrado na parte inferior da unidade. Ele é fornecido com um borne de aterramento apropriado para ser fixado ao ODU.



## Energia Ligada

Para ligar o DAP-3760, siga as etapas abaixo:

- Conecte um cabo Ethernet Cat-5 fornecido pelo usuário da sua LAN cabeada (ou um computador) na entrada RJ-45 do injetor de energia (DATA IN);
- Conecte um cabo Ethernet Cat-5 fornecido pelo usuário do DAP-3760 na entrada RJ-45 do injetor de energia (P+DATA OUT);
- 3. Conecte o módulo de energia ao injetor de energia e conecte o cabo AC a uma tomada de energia AC.
- Depois de ligado, o dispositivo emitirá um som do bipe com duração de aproximadamente 1,5 segundos, informando-o de que o DAP-3760 foi ligado! Aguarde cerca de 60 segundos para o sistema ser reinicializado e começar a funcionar.



#### Atenção:

 Certifique-se de que o PoE está conectado corretamente à porta RJ-45 no DAP-3760 intitulada PoE+Data. NÃO conecte à porta rotulada "Warning!! No POE", caso contrário o extensor será seriamente danificado!



## Configuração

#### Conecte o DAP-3760 a um Computador Local

Caso você esteja configurando o DAP-3760 localmente (sem conectar seu injetor de energia a uma LAN cabeada), conecte um PC à porta Ethernet do injetor de energia utilizando um cabo Ethernet de Categoria 5.

1. Atribua um endereço IP estático ao seu PC, que está no mesmo segmento de rede do DAP-3760. Como o endereço IP padrão dessa unidade é 192.168.0.50, você pode escolher de 192.168.0.1 a 192.168.0.254, exceto 192.168.0.50.

neral	
'ou can get IP settings assigned a his capability. Otherwise, you nee he appropriate IP settings.	automatically if your network support d to ask your network administrator f
Obtain an IP address automa	tically
Use the following IP address:	
IP address:	192.168.0.1
Subnet mask:	255 . 255 . 255 . 0
Default gateway:	
O Obtain DNC annuar address a	u tomatio allu
<ul> <li>Use the following DNS serve</li> </ul>	r addresses:
Preferred DNS server:	
Alternate DNS server:	
	Advanced

2. Teste o status do link entre o seu PC e o DAP-3760. Inicie um prompt do comando e execute um comando ping contínuo "ping 192.168.0.50-t". Se o ping para o bridge wireless é bem sucedido (conforme mostrado abaixo), abra o navegador de Internet e insira o endereço IP do bridge no campo de endereço e pressione Enter.

C:\WINDOWS\system32\cmd.exe	- 🗆 🗙
C:\Documents and Settings\Alex>ping 192.168.0.50 -t	
Pinging 192.168.0.50 with 32 bytes of data:	
Request timed out.	
Request timed out.	
Request timed out. O DAP-3760 ainda está sendo inicializado	
Request timed out.	
Request timed out.	
Request timed out.	
Reply from 192.168.0.50: bytes=32 time=4ms TTL=64	
Reply from 192.168.0.50: bytes=32 time<1ms TTL=64	
Reply from 192.168.0.50: bytes=32 time<1ms TTL=64	
Reply from 192.168.0.50: bytes=32 time<1ms IIL=64	
Reply from 192.168.0.50: bytes=32 time<1ms IIL=64	
Reply from 192.168.0.50: bytes=32 time(1ms IIL=64	
Reply from 192.168.0.50: bytes=32 time(1ms IIL=64	
Reply from 192.168.0.50: bytes=32 time(1ms IIL=64	
Reply from 192.168.0.50: bytes=32 time(ims IIL=64	
Reply from 192.168.0.50: bytes=32 time(ins IIL=64	
Reply from $192.168.0.50$ : by $cs=32$ time(ins IIL=64	
Reply from 192.168.0.50: $bytes=32$ time(ins 111=64	
Kepiy from 192.168.0.50: bytes=32 time<1ms IIL=64	
Reply From 172.168.0.50: Dytes=32 time(1ms IIL=64	
Reply from 172.168.0.50. Dytes-52 time(1ms 11L=64	

Observação:

- Considerando a configuração conveniente, recomenda-se configurar DAP-3760 local e remoto respectivamente em dois computadores.
- O tempo TTL pode variar dependendo do sistema operacional.

### Como estabelecer Modo Wireless Bridge

O DAP-3760 suporta os modos Bridge (CSMA) e Bridge (TDMA). Normalmente. Aqui nós vamos ilustrar como estabelecer conectividade bridge wireless com o DAP-3760.

 Insira o nome de usuário (admin) e senha (Null) para fazer o login e realizar as configurações.

D-Link	DAP-3760
Name Password	Login now Reset

Observação:

 Devido aos sites seguros do navegador, pode ser que o endereço 192.168.0.50 não possa ser aberto. Você pode escolher continuar para o website.

e security certificate presented by this website has e	rors, and should not be trusted.
curity certificate problems may indicate an attempt t	o fool you or intercept any data you send to th
rver.	
e recommend that you close this webpage and	to not continue to this website.
Click here to close this webpage.	
Continue to this website (not recommended).	
Continue to this website (not recommended).	

 Abra "Basic Setup" em "System", defina o endereço IP de dois DAP-3760s no mesmo segmento de rede, por exemplo. DAP-3760 local como 192.168.0.50 e DAP-3760 remoto como 192.168.0.51 e defina o IP da Máscara de sub-rede em ambos como 255.255.255.0.

System         Wireless         Status         Administrator Setting           System Information         Basic Setup	D-Link			Logout DAP-3760
System Information         Basic Setup           Device Name         DAP-3780           Ethernet Data Rate         Auto           Spanning Tree Protocol (37FP)         Denable           STP Forward Delay         Turbo (default 1 sec)           Normal         sec (standard 4-30 sec)           LAN settings         Optimum (DHCP)           P Address         192 168 0.50           IP Subnet Mask         255 255 256 0           Default Getway         0.0.0           Primary DNS Bener         0.0.0           SHTP Information SNIP Setting         0.0.0	System	Wireless	Status	Administrator Settings
Binaid     Device Name     DAP-3780       Ethermet Data Rate     Auto     ✓       Ethermet Data Rate     Auto     ✓       Systemming Tree Protocol (STP)     Ethable     O Enable       STF Forward Oblay     Turbo (default 1 sep)     Normal 4 sec (standard 4-30 sec)       LAN Settings         Oct IP From     © Istable        IP Address     192, 180,050        IP Subnet Mask     256,256,260        Default Gatway     0.0.0        Phinary DNS Server     0.0.0        SHTP Information SNIP Setting	System Information	Basic Setup		
Ethemet Data Rate     Auto       Ethemet Data Rate     Otrable       Star Frown Oblew     Ethable       Star Forward Delay     Turbo (default 1 sec)       UMS Settings     Otrable       Oct IP From     State(Manual)       DP Address     192 1680.05       IP Subnet Mask     255 255.25       Default Getwary     0.0.0       Primary DNS Server     0.0.0       SHIP Enformation SHIP Setting	Basic	Device Name	DAP-3760	
Spanning Tree Product (STP)       O Enable       O Enable         STP Forward Debaty       Turbu (offeault see)       Normal         LAN Settings         Det IP From       O State(Annual)       Omamint(DHCP)         IP Address       122, 188,050         IP Subnet Wask       255,255,250         Default Gateway       0,0,0         Prinary DNS Server       0,0,0,0         SNIP Information SNIP Setting		Ethernet Data Rate	Auto 🖌	
STP forward Delay     ** Turbo (default 1 sep)     Nama       EAN Settings     ************************************		Spanning Tree Protocol (STP)	O Enable 💿 Disable	
LAIS Settings Get IP From © Static(Manual) © Dynamic(DHCP) IP Address 152.150.050 IP Subnet Mask 255.255.05 Default Getivrwy 0.0.0.0 Primary DNS Server 0.0.0 Secondary DNS Gener 0.0.0		STP Forward Delay	• Turbo (default 1 sec) O Normal 4 sec (standa)	ard 4-30 sec)
0419 From         OS Bata(SMusua) () Doynamic(DHCP)           1P Address         192.168.0.50           1P Submet Mask         255.555.250           Default Osleway         0.0.0           Primary DNS Bener         0.0.0           Secondary DNS Bener         0.0.0           Skitt Photomation SNTP Setting		LAN Settings		
IP Address         192.168.0.50           IP Submet Mask         256.256.255.0           Default Gateway         0.0.0           Primary DNS Server         0.0.0           Secondary DNS Server         0.0.0           SMTP Information SNTP Setting		Get IP From	<ul> <li>Static(Manual) Opmamic(DHCP)</li> </ul>	
IP Subnet Mask         265.255.05           Default Geterwy         0.0.0           Primary DNS Gener         0.0.0           Secondary DNS Gener         0.0.0           SWIP Information SKIP Setting		IP Address	192.168.0.50	
Default Sateway         0.0.0.0           Permang DNS Server         0.0.0.0           Secondary DNS Server         0.0.0.0           SMIP Information SMIP Setting		IP Subnet Mask	255.255.255.0	
Primary DNS Server 0.0.0.0 Secondary DNS Server 0.0.0.0 SMTP Information SMTP Setting		Default Gateway	0.0.0.0	
Secondary DNS Server 0.0.0.0 SHTP Information SNTP Setting		Primary DNS Server	0.0.0.0	
SNTP Information/SNTP Setting		Secondary DNS Server	0.0.0.0	
		SNTP Information/SNTP Setting		
SNTPINTP Server IP		SNTP/NTP Server IP		
<		<		

\Lambda Atenção:

- Cada endereço IP é único em uma LAN, caso contrário pode ocorrer conflito de IPs
- Abra "Radio" em "Wireless" e você descobrirá que o "Mode" padrão é Bridge (CSMA). Selecione para utilizar o modo Bridge (CSMA) e mantenha o Canal/Freqüência e Largura de Banca em ambos os DAP-3760s idênticos. Clique em "Apply" para salvar as configurações.

FRICK			DAF
System	Wireless	Status	Administrator
Radio	Radio Settings		
Bridge Links Setup	Mode	Bridge(CSMA)	
	Wireless Band	IEEE802.11a 🛩	
Security	Channel	149 / 5.745GHz 🗹	
Link Test	Data Rate	Auto 💌	
	Output Power	100% 🛩	
	Band Width	20MHz 🛩	
	WMM Mode	Enable O Disable	
	Super Mode	O Enable  O Disable	
	Advanced Parameters		
	RTS Threshold (0-2346)	2346	
	Fragmentation Length (256-2346)	2346	
	Distance In Meters (0-100000)	10000 m	
		Apply Cancel	

 Conecte a interface baseada na web do DAP-3760 remoto, abra "System Information" em "System" e grave o endereço MAC wireless dele.

D-Link				Logout DAP-3760
System	Wireless	S	tatus	Administrator Settings
System Information	System Information			1
Basic	Cherken Name ETH MAC Address WLAN MAC Address Fittmware Version	D42-3760 D1137/D10ff16 D01372/D1412.07 v1.00		

 Conecte a interface baseada na web do DAP-3760 local e abra "Bridge Links Setup" em "Wireless", insira o endereço WLAN MAC do remoto para o campo "Remote MAC Address 1" e clique em "Apply".

D-Link			Logout DAP-3760
System	Wireless	Status	Administrator Settings
Radio	Bridge Links		
Bridge Links Setup	Local MAC Address	00 19 70 14 ±2 07 Air	n Antenna
Security	Remote MAC Address 1		
Link Test	Remote MAC Address 2		
	Remote MAC Address 3		
	itemate wito rudicos a		
		Apply Cancel	
	<		>

\Lambda Atenção:

- O endereço MACno gabinete do DAP-3760 é o endereço MAC ETH; portanto, ele não pode ser utilizado em "Bridge Links."
- O endereço IP do seu PC deve estar no mesmo segmento de rede que o do bridges.
- Utilize o ping para verificar que o link entre os dois DAP-3760s está OK.



 Para obter uma conectividade wireless superior, é fortemente recomendável um alinhamento da antena depois que ambos os DAP-3760s estão instalados a uma longa distância.

Faça o login na interface baseada na Web do DAP-3760 local e abra o "Bridge Links Setup" em "Wireless". Aperte o botão "Align Antenna", uma ferramenta de alinhamento de antena surgirá. Especifique o Target RSSI e clique em "Start" para iniciar o alinhamento da antena.

- Corrija a antena local e ajuste a elevação e direção horizontal da antena remota. Durante o ajuste, observe "Current RSSI" no DAP-3760 local. Corrija a antena remota até atingir sua expectativa. Geralmente, o RSSI entre -60 e -70dBm indica um boa intensidade do sinal.
- Ajuste a antena local após corrigir a remota. Durante o ajuste observe "Current RSSI" no DAP-3760 remoto. Corrija a antena local quando atingir sua expectativa.

Parabéns! Você completou a configuração principal no DAP-3760 e eles podem ser colocados em operação. Para configurações mais avançadas, favor consultar o Manual do Usuário.

## Resolução de Problemas

Este capítulo fornece procedimentos para resolução de problemas básicos com o DAP-3760.

#### Q 1. E se meu DAP-3760 não conseguir se conectar ao remoto?

- Ethernet Link: Verifique a disponibilidade de energia para o bridge observando o status LED no injetor de energia.
  - Verde: O DAP-3760 está conectado à rede backhaul.
  - Desligado: O DAP-3760 desconecta-se da rede cabeada, verifique se o cabo de energia e cabos Ethernet para a rede e o bridge estão conectados corretamente.
- Configurações Básicas: Configurações básicas incompatíveis entre bridges são a causa mais comum de falha de conectividade. Se o bridge não se associar com um bridge remoto, verifique se as opções de cada dispositivo são idênticas.
- Configurações de Segurança: Bridges remotos tentando se autenticar ao seu DAP-3760 devem suportar as mesmas opções de segurança configuradas em seu bridge, como WEP e WPA (2)-PSK. Caso seu bridge não consiga se associar com outros, verifique se as configurações de segurança são as mesmas que as configurações de seu bridge.
- Alinhamento de Antena: Se os métodos acima estão todos corretos, você pode observar e verificar o alinhamento da antena com o valor RSSI.

## Q 2. E se eu quisesse reiniciar a unidade para as configurações padrão de fábrica?

Você pode fazer a reinicialização para os valores padrão de fábrica em "Configuration File" a partir de "Administrator Settings"

#### Q 3. E se eu quiser baixar e restabelecer minhas configurações?

Você pode fazer o download gerando um arquivo de configuração ou fazendo o upload das configurações que você copiou anteriormente em "Configuration File" a partir de "Administrator Settings".

### Suporte Técnico

Você pode encontrar atualizações de software e documentação de usuário no site da D-Link Brasil.

A D-Link fornece suporte técnico gratuito para clientes no Brasil durante o período de vigência da garantia deste produto.

#### Suporte Técnico para clientes no Brasil:

#### Horários de atendimento:

Segunda à Sexta-feira, das 8:00h às 21:00h, Sábado, das 8:00h às 20:00h

Website para suporte: www.dlink.com.br/suporte

e-mail: suporte@dlink.com.br

#### Telefones para contato:

Clientes de São Paulo: 2185-9301 Clientes das demais regiões: 0800 70-24-104







## ■ 快速安裝手冊

#### DAP-3760 Long Distance Wireless Outdoor Bridge

#### 版權

Copyright © 2009 版權所有。本文件為專有財產,請勿在未經許可的 狀況下以任何形式進行複製、改作、編輯、散佈、傳輸、公開發表、 進行還原工程及其他任何侵害智慧財產權人合法權益之行為。

#### 關於本安裝手冊

本安裝手冊是要導引專業安裝人員安裝DAP-3760,包括協助您避免 無法預料問題的程序。

#### 本手冊使用的特殊符號

#### ⚠ 警告:

此表示您必須遵守的警告或小心事項。

注意:

· 此表示您必須特別注意的重要事項

# 介紹

DAP-3760 是高性能戶外使用的無線橋接器,可在多個網路位置中提供無線連接。 本系統支援 PTP 和 PTMP 連接。而且,DAP-3760 具有內建 23dBi 平面天線,連 接範圍可達 40 公里。藉由高產量和長途傳輸,DAP-3760 是營運商、服務提供者和 企業的理想回程鏈路解決方案!



### 安裝前的準備

本章描述安裝DAP-3760 前您必須知道及檢查的安全預防措施和產品 資訊。

### 需要專業的安裝

- 1. 請由受過 RF 安裝訓練及具備充份當地法規專業人員的協助。
- DAP-3760 是透過擁有專業技術人員的經銷商和系統安裝單位進行配置,而不是透過零售商直接銷售。

### 安全預防措施

如要保持您安全及正確安裝硬體,請閱讀及遵從以下安全預防措施。

- 1. 如果您首次安裝DAP-3760,為了您的安全及其他因素,請由接受過 處置危險安全訓練的專業安裝人員進行協助。
- 選擇您的安裝地點時,請隨時注意安全和性能,尤其是在電力和電 話線附近。
- 3. 安裝天線時,請注意以下各項:
  - 勿使用金屬梯;
  - 勿在潮濕或多風的日子施工;
  - 請穿著帶有橡膠腳底和鞋跟的鞋子、橡膠手套、長袖襯衫或夾 克。
- 系統操作時,避免直接站立在天線前。發射器工作時,會造成強烈的RF磁場。

### 產品套件

您收到的產品套件應該包含以下項目。如有任何項目缺失或損壞,請 **聯絡當地代理商求助。** 

- 含整合 23dBi 天線的DAP-3760 X1 固定架  $\times 1$
- 乙太網電源供電器(PoEInjector)和電源線 X1
- 地線和螺絲 X 1 • 防水 RJ-45 連接器 X 1
- 快速安裝手冊 X 1 X1
- 產品 CD •

#### 注意:

產品 CD 包含管理工具、快速安裝手冊和使用手冊! .

固定架

- 牆壁/桿架設支架
- 1. T形支架 ×1
- 2. 關節桿  $\times 1$
- 3. 桿架設條 ×1
- 固定配件
- 4. M8×80 螺絲
- M8×90 螺絲 5. M8 墊圈
- $\times 3$ 6. M8 彈筆墊圈
- $\times 3$ 7. M8 螺帽 X1
- 8. M5×16 螺絲
- 9. M5 墊圈
- 10. 木製螺絲

 $\times 4$ ×4 (供牆壁安裝使用)

11. 牆壁/Gyprock Plug ×4 (供牆壁安裝使用)

 $\times 2$ 

X1

 $\times 4$ 

#### 防水 RJ-45 連接器

- 1. 連接器
- 2. 密封螺帽

 $\times 1$ 

 $\times 1$ 

 $\times 1$ 

3. 密封套件



#### 系統安裝

### 組裝安裝支架

1. 將主支架放入底座,並使用扳手將 M5×16 螺絲 ⑧ 和 M5 墊圈 ⑨ 將支架固定在DAP-3760;



 2. 透過將 M8×90 ② 穿過插入軸心,使關節桿 ① 放置在T形支架 ④, 並使用 M8 墊圈 ⑤、彈簧墊圈 ⑥、和 M8 ⑦ 螺帽予以固定, 進行主支架組裝;



### 桿架設

 透過將桿架設條的鑽孔固定至主支架孔,將主支架和桿架設條 ③ 安裝在桿頂部,並經由鑽孔和主支架,插入兩根 M8 × 80 ④ 螺 絲、彈簧墊圈 ⑤ 和墊圈 ⑥;



2. 使用扳手,經由鑽孔和主支架將兩根 M8 × 80 螺絲 ④ 和墊圈 ⑤ 固定;



3. 將天線調整至適當傾斜/垂直方位。



### 連接

使用防水 RJ-45 連接器安裝乙太網路電纜前,建議將 Cat-5 RJ-45 同 軸電纜用為電源裝置連接的橋接器。

 如要連接標示 PoE+Data 的孔口,可使用硬幣或一字型螺絲起子將 黑色蓋預先打開,連接器主體使用螺絲鎖緊。



 將密封螺帽從中央裂口滑至 RJ-45 電纜,然後將密封套件插入電 纜。

從裂口滑動密封螺帽



3. 插入 RJ-45 連接器,並確保凸片鎖回原地。



DAP-3760 RJ-45 埠

4. 將密封套件鎖緊在連接器。



#### 連接地線

DAP-3760 出貨時附有地線。本系統必須適當接地以保護不受電湧的影響。接地點可在本系統的底部,可使用適當的接地垂片固定至 ODU。



### 啟動電源

如要啟動DAP-3760,請遵從以下步驟:

- 1. 將來自有線 LAN 或一部電腦)的使用者供應Cat-5 乙太網路電纜插 入電源裝置 RJ-45 插座 (DATA IN);
- 2. 將來自DAP-3760 的使用者供應Cat-5 乙太網路電纜插入電源裝置 RJ-45 插座 (P+DATA OUT);
- 3. 將電源模組連接至電源裝置,並將 AC 電源線插入 AC 電源插座。
- 4.電源啟動後,本裝置會發出嗶聲持續約 1.5 秒,告知您DAP-3760 電源已啟動!等待約 60 秒後,系統會初始化並開始工作。



#### ⚠ 警告:

 確保 PoE 正確連接至在DAP-3760 標示 PoE+Data 的 RJ-45 埠。請 勿連接至標示「"警告!! 沒有 POE」的連接埠,否則延伸器會 嚴重受損!



### 系統組態

#### 將 DAP-3760 連接至本地電腦

如果您進行本地 DAP-3760 組態 (未將其電源裝置連接至有線 LAN) ,可使用 category 5 乙太網路電纜將個人電腦連接至電源裝置的乙 太網路埠。

 請將您的個人電腦分配和DAP-3760 相同網路區段的靜態 IP 位址。 如果此系統的預設 IP 位址是 192.168.0.50,除了 192.168.0.50之 外,您可從 192.168.0.1 至 192.168.0.254 範圍之中選擇適當的 IP 位址。

eneral You can get IP settings assigned this capability. Otherwise, you ne the appropriate IP settings.	d automatically if your network supports eed to ask your network administrator for
Obtain an IP address autor	matically
Use the following IP addres	\$8:
IP address:	192.168.0.1
Subnet mask:	255 . 255 . 255 . 0
Default gateway:	
Obtain DNS server address	s automatically
O Use the following DNS service	ver addresses:
Preferred DNS server:	- I
Alternate DNS server:	2 6 13
	Advanced

 測試您個人電腦和DAP-3760 間的連線狀態。開始指令提示及執行 連續的 PING 命令「ping 192.168.0.50 - t」。如果成功 PING 至 無線橋接器 (如下圖所示),開啟網際網路瀏覽器,並輸入橋接器的 IP 位址,並按下 [Enter] 鍵。

C:\WINDOWS\system32\cmd.exe	- 🗆 🗙
C:\Documents and Settings\Alex>ping 192.168.0.50 -t	<b>_</b>
Pinging 192.168.0.50 with 32 bytes of data:	
Request timed out.	
Request timed out.	
Request timed out DAP-3760 is still initializing	
Request timed out.	
Request timed out.	
Request timed out.	
Reply from 192.168.0.50: bytes=32 time=4ms TTL=64	
Reply from 192.168.0.50: bytes=32 time<1ms TTL=64	
Reply from 192.168.0.50: bytes=32 time<1ms TTL=64	
Reply from 192.168.0.50: bytes=32 time<1ms TTL=64	
Reply from 192.168.0.50: bytes=32 time<1ms TTL=64	
Reply from 192.168.0.50: bytes=32 time<1ms TTL=64	
Reply from 192.168.0.50: bytes=32 time<1ms TTL=64	
Reply from 192.168.0.50: bytes=32 time<1ms TTL=64	
Reply from 192.168.0.50: bytes=32 time<1ms TTL=64	
Reply from 192.168.0.50: bytes=32 time<1ms TTL=64	
Reply from 192.168.0.50: bytes=32 time<1ms TTL=64	
Reply from 192.168.0.50: bytes=32 time<1ms TIL=64	
Reply from 192.168.0.50: bytes=32 time<1ms TTL=64	
Reply from 192.168.0.50: bytes=32 time<1ms TTL=64	
Reply from 192.168.0.50: bytes=32 time<1ms TIL=64	-

注意:

- 儘可能考慮方便的組態,建議在兩部電腦上分別指定本地和 遠端 DAP-3760。
- TTL 時間是隨著作業系統變化。

### 如何建立無線橋接模態

DAP-3760 支援橋接(CSMA)和橋接(TDMA)模式。通常, 在此我們將說明如何用建立和 DAP-3760 的無線橋接。

輸入使用者名稱 (admin) 和密碼 (空白),以登入及進行組態工作。

D-Link		DAP-3760
Pa	Name ssword Login now Reset	

#### 注意:

 由於瀏覽器的安全信賴位置192.168.0.50可能無法開啟,所以 您可以選擇繼續至網站。

	here is a problem with this website's security certificate.
T	he security certificate presented by this website has errors, and should not be trusted.
Se	ecurity certificate problems may indicate an attempt to fool you or intercept any data you send to the erver.
N	Ve recommend that you close this webpage and do not continue to this website.
	Click here to close this webpage.
8	Continue to this website (not recommended).
6	More information

在 [系統] 中,開啟 [基本設定],在相同網路區段中設定兩DAP-3760 的 IP 位址。例如,將本地 DAP-3760 指定為 192.168.0.50 ,將遠端 DAP-3760 指定為 192.168.0.51,並將兩DAP-3760 的 IP 子網路遮罩指定為 255.255.255.0。

D-Link			Logout DAP-3760
System	Wireless	Status	Administrator Settings
System Information	Basic Setup		1
Basic	Device Name Ethernet Data Rate Spanning Tree Protocol (STP) STP Forward Delay LAN Settings Get IP From IP Address	DAP-3760 Auto  Canable Disable Turbo (diffault 1 set) State(Manua) Dynamic(DHCP) 122 1680 D	ard 4-30 sec) =
	IP Subnet Mask Default Gateway Primary DNS Server Secondary DNS Server	265 285 285 0 0 0 0 0 0 0 0 0 0 0 0 0	
	SNTP Information/SNTP Setting SNTP/NTP Server IP		

⚠ 警告:

- 每個 IP 位址在 LAN 中是唯一的,否則會發生 IP 碰撞!
- 在[無線]中,開啟[無線],且您會發現預設模式為「橋接(CSMA)」。選擇使用橋接(CSMA)模式,並使兩部 DAP-3760 保持相同的頻道/頻率和頻寬。如要儲存設定,請按一下[套用]。

			DA
System	Wireless	Status	Administrator
Radio	Radio Settings		
Bridge Links Setup	Mode	Bridge(CSMA)	
	Wireless Band	IEEE802.11a 💙	
Security	Channel	149 / 5.745GHz 🖌	
Link Test	Data Rate	Auto 💌	
	Output Power	100% 🛩	
	Band Width	20MHz 💌	
	WMM Mode	Enable ODisable	
	Super Mode	O Enable 💿 Disable	
	Advanced Parameters		
	RTS Threshold (0-2346)	2346	
	Fragmentation Length (256-2346)	2346	
	Distance In Meters (0-100000)	10000 m	
		Apply Cancel	

登入遠端DAP-3760 的網路界面,開啟在 [系統]中的 [系統資訊],並記錄其無線 MAC 位址。

D-Link				Logout DAP-3760
System	Wireless		Status	Administrator Settings
System Information	System Information			(^
Basic	Derke Name ETH MAC-Address WLAN MAC Address Firmware Version	D4-3780 00197010616 001970147207 v1.00	11	

登入本地 DAP-3760 的網路界面,並開啟在 [無線] 中的 [橋接設定],將遠端裝置的 WLAN MAC 位址輸入「遠端 MAC 位址 1」欄位,並按一下 [套用];

System         Wireless         Status         Administrator Settings           Radio         Bridge Links   <	D-Link			Logout DAP-3760
Bridge Links       Bridge Links Setup       Bridge Links Setup       Security       Link Test       Remote MAC Address 3       Remote MAC Address 4       Apply       Cancel	System	Wireless	Status	Administrator Settings
Bridge Links Setup     Local MAC Address     District To To Table To Tabl	Radio	Bridge Links		
Security Remote MAC Address 1	Bridge Links Setup	Local MAC Address	00; 19; 70; 14; ±2; 07 Align Ante	anna
Link Test Link Address 2  Apply Cancel	Security	Remote MAC Address 1		
Remote MAC Address 4	Link Test	Remote MAC Address 2		
Apply Cancel	Link Fox	Remote MAC Address 3		
Apply Cancel		Remote who Address 4		
			Apply Cancel	
				~
	l	(		>

.



- DAP-3760 的 MAC 位址是 ETH MAC 位址;因此不能夠使用在 橋接。
- 您個人電腦的 IP 位址和橋接裝置應該是在相同的網路區段。
- 使用 PING 檢查在兩部DAP-3760 之間的連接是否正常。



如要獲得較佳的無線連接,在遠距安裝兩部DAP-3760之後, 強烈建議進行天線對準。

登入本地 DAP-3760 的網路界面,並在 [無線] 中開啟 [橋接 設定]。按一下 [對準天線] 按鈕,將會彈出天線對準工具。指 定目標 RSSI 並按一下 [開始] 以開始天線對準。

Antenna Alignment To	ol
Local MAC: 00:19:70:14:0	2.07
Remote MAC: 00:60:b3:3	5d:c2
Signal Strength:	
Current RSSI (dBm):	0
Target RSSI (dBm) :	
Transmit Packets:	0
Receive Packets:	0
	Start

固定本地天線及調整遠端天線仰角和水平方向。調整時,觀察本地 DAP-3760 的「目前 RSSI」。當遠端天線達成期待時,將 遠端天線固定。通常,在-60和-70dBm 之間的RSSI 表示相當 好的信號強度。

固 定 遠 端 裝 置 後 調 整 本 地 天 線 。 調 整 時 , 觀察遠端DAP-3760 的「目前 RSSI」。當遠 端 裝 置 達 成 您 的 期 待 時 , 將 本 地 天 線 固 定 。

恭喜!您已完成 DAP-3760 的組態工作,且這些裝置可進行操作。如要更多有關進階設定,請參見使用手冊。

### 故障排除

#### 本章提供有關 DAP-3760 的基本問題故障排除程序。

- Q 1. 如果我的DAP-3760 無法連接至遠端裝置?
  - 乙太網路連結:藉由觀察電源裝置的 LED 狀態檢查橋接器的電源狀態。
    - 綠色:代表 DAP-3760 正連接至後置網路。
    - 熄滅:代表 DAP-3760 未和有線網路連接,請檢查電源線及連接網路和橋接器的乙太網路電纜是否正確連接。
  - 基本組態:橋接器中的錯誤基本設定是最普通造成連接失敗的 原因。如果橋接器未和遠端橋接器連接,請檢查每部裝置中的 選項是否相同。
  - 安全設定:嘗試認證您DAP-3760 的遠端橋接器必須支援在您 橋接器中指定的安全選項,例如 WEP 和 WPA (2)-PSK。如果您 的橋接器未能連接其它橋接器,請檢查安全設定是否和您的橋 接器設定相同。
  - 天線對準:如果上述方法全部檢查皆正確,您可觀察及確認天線和 RSSI 值是否匹配。
- Q 2. 如果我想要重新設定裝置成預設值? 您可從[管理員設定]復原在[組態檔案]中的出廠預設值。
- Q 3. 如果我想要下載及復原我的組態設定? 您可可從[管理員設定],藉由產生組態檔案下載或上傳您先前已在 [組態檔案] 中備份的設定。

### D-Link 友訊科技 台灣分公司 技術支援資訊

如果您還有任何本使用手冊無法協助您解決的產品相關問題,台灣 地區用戶可以透過我們的網站、電子郵件或電話等方式與D-Link台灣 地區技術支援工程師聯絡。

D-Link 免付費技術諮詢專線

0800-002-615 服務時間:週一至週五,早上9:00到晚上9:00 (不含周六、日及國定假日)

> 網 站:http://www.dlink.com.tw 電子郵件:dssqa\_service@dlink.com.tw

如果您是台灣地區以外的用戶,請參考D-Link網站,全球各地 分公司的聯絡資訊以取得相關支援服務。

產品保固期限、台灣區維修據點查詢,請參考以下網頁說明: http://www.dlink.com.tw

產品維修:

使用者可直接送至全省聯強直營維修站或請洽您的原購買經銷商。







# Petunjuk Pemasangan Cepat

DAP-3760 Long Distance Wireless Outdoor Bridge

## Hak Cipta

Hak Cipta © 2009 dilindungi oleh undang-undang. Tidak ada bagian dari dokumen ini yang diproduksi ulang, diadaptasi, disimpan dalam sistem media, diterjemahkan ke bahasa lain, atau dikirim dalam segala bentuk atau dengan segala tujuan tanpa ijin tertulis dari pembuat.

## Mengenai Petunjuk Pemasangan

Petunjuk Pemasangan ini ditujukan untuk memandu teknisi profesional untuk memasang DAP-3760. Termasuk didalamnya beberapa prosedur yang akan membantu anda untuk menghindari masalah-masalah yang tidak diinginkan.

## Konvensi

#### ▲ Peringatan:

• Ini menandakan sebuah peringatan atau perhatian yang anda harus perhatikan.

#### Catatan:

• Ini menandakan sebuah catatan penting yang anda harus beri perhatian.

# Pengenalan

DAP-3760 adalah bridge nirkabel berkinerja tinggi untuk aplikasi luar ruangan yang menyediakan koneksi nirkabel antara beberapa lokasi jaringan. DAP-3760 mendukung koneksi PTP dan PTMP. Lebih jauh, DAP-3760 mempunyai antena planar 23 dBi terintegrasi yang dapat menyediakan koneksi sampai dengan 40 km. Dengan throughput yang tinggi dan transmisi jarak jauh, DAP3760 adalah solusi backhaul yang ideal untuk Operator, Penyedia Jasa dan Perusahaan.



## Sebelum Pemasangan

Bab ini menjelaskan pencegahan untuk keamanan dan informasi produk yang anda harus tahu dan periksa sebelum memasang DAP-3760.

### Dibutuhkan Pemasangan yang Profesional

- 1. Silahkan cari bantuan dari teknisi professional yang sudah terlatih dalam pemasangan RF dan mempunyai pengetahuan terhadap regulasi lokal.
- DAP-3760 didistribusikan melalui distributor dan Pemasang Sistem dengan teknisi professional dan tidak akan dijual melalui toko retail.

## Pencegahan untuk Keamanan

Untuk memastikan anda aman dan memasang perangkat keras dengan baik, silahkan baca dan ikuti pencegahan untuk keamanan berikut.

- 1. Jika anda memasang sebuah DAP-3760 untuk pertama kali, untuk keamanan anda dan yang lainnya, Silahkan cari bantuan dari teknisi professional yang sudah menerima pelatihan keamanan dalam situasi bahaya.
- 2. Perhatikan keamanan dan juga performa ketika memilih tempat pemasangan, terutama dimana terdapat sumber listrik dan sambungan telepon.
- 3. Ketika memasang antena anda, catat hal-hal berikut:
  - Jangan menggunakan tangga besi
  - Jangan bekerja pada hari dimana cuaca basah atau berangin
  - Kenakan sepatu dengan dasar dan hak dari karet, sarung tangan karet dan baju lengan panjang atau jaket.
- 4. Ketika sistem sudah berjalan, hindari berdiri tepat didepan antena. RF yang kuat ada ketika pengirim dalam posisi hidup.

## **Paket Produk**

Paket produk yang anda terima harus terdiri dari item-item berikut. Jika ada dari item-item berikut yang tidak ada atau rusak, silahkan hubungi penjual anda untuk dukungan.

rinteorasi x1
×1
×1
×1
×1
×1
×1

Catatan:

CD Produk berisi Alat Pengaturan, Petunjuk Pemasangan Cepat dan Petunjuk Penggunaan.

## Kit Pemasangan

Braket Pemasangan di Dinding atau Tiang

×3

×4

- 1. Braket Bentuk-T ×1
- 2. Tiang Artikulasi ×1
- 3. Kait Tiang ×1
- Pengikat
- 4. Baut M8x80 ×2 Baut M8x90 ×1
- 5. M8 Washer
- 6. M8 Spring Washer ×3 ×1
- 7. M8 Nut
- 8. Baut M5x16 ×4
- 9. M5 Washer



- 10. Baut Kayu ×4 (Untuk pemasangan di dinding)
- 11. Lubang Dinding/Gyprock ×4 (Untuk pemasangan di dinding)
## Kit Konektor RJ-45 yang Tahan Air

- 1. Gland
- 2. Sealing Nut ×1

×1

3. Sealing ×1



## Pemasangan Sistem

## Merangkai Braket Pemasangan

 Tempatkan braket utama pada dudukan dan gunakan kunci pas untuk mengencangkan braket ke DAP-3760 dengan baut M5x16
 (8) dan M5 washers (9) yang disediakan dalam paket perangkat keras.



 Rangkai braket utama dengan menempatkan tiang artikulasi (2) ke braket bentuk-T (1) menggunakan sebuah baut M8x9 (4) melalui sebuah poros untuk memasukkan dan kencangkan dengan M8 washer (5), spring washer (6) dan M8 nut (7);



## Pemasangan di Tiang

1. Pasang braket utama dan kait tiang ③ pada bagian atas tiang dengan menjepit kait tiang dengan braket utama dan masukkan 2 buah baut M8x80 ④ , spring washers ⑤ dan washers ⑥ ke lubang yang ada di braket utama.



2. Eratkan 2 unit baut M8x80 ④ dan washers ⑤ ke lubang pada braket utama dengan sebuah kunci pas.



3. Sesuaikan antena untuk arah atas/bawah yang tepat.



## Menghubungkan

Sebelum memasang kabel Ethernet dengan konektor RJ-45 yang tahan air, direkomendasikan menggunakan kabel CAT-5 RJ-45 dengan pelindung untuk dihubungkan ke koneksi injektor power.

1. Untuk terhubung ke lubang dengan label PoE+Data, buka penutup hitam dengan menggunakan koin atau obeng dan masukkan gland ke unit dan kencangkan.



2. Geser sealing nut ke tengah-tengah kabel UTP lalu masukkan sealing.

Geser Sealing Nut dari lubang tengahnya



3. Masukkan konektor RJ-45 dan pastikan dipasang dengan baik.



4. Putar sealing yang ada diatas gland lalu kencangkan.



## Ground kabel

DAP-3760 dijual dengan sebuah kabel grounding. Unit harus digrounding secara benar untuk melindungi dari kejutan tegangan listrik. Titik grounding dapat ditemukan pada bagian bawah unit. Juga disediakan sebuah kait grounding untuk dikaitkan ke ODU.



## Menghidupkan

Untuk menghidupkan DAP-3760, ikuti langkah-langkah berikut:

- Hubungkan kabel Cat-5 Ethernet yang anda sediakan sendiri dari jaringan LAN (atau sebuah komputer) ke port RJ-45 (DATA IN) pada injektor power.
- 2. Hubungkan kabel Cat-5 Ethernet yang anda sediakan sendiri dari DAP-3760 ke port RJ-45 (P+DATA OUT) pada injektor power.
- 3. Hubungkan kabel power ke injektor power dan colok ke colokan listrik AC.
- 4. Setelah dicolok, perangkat akan mengeluarkan bunyi beep sekitar 1.5 detik, ini memberitahukan bahwa DAP-3760 sudah hidup. Tunggu selama 60 detik untuk inisialisasi sistem dan mulai bekerja.



#### A Peringatan:

 Pastikan PoE terhubung ke port RJ-45 pada DAP-3760 dengan label PoE+Data. JANGAN hubungkan ke port dengan label "Warning !! No POE", karena perangkat bisa rusak.



### Pengaturan

#### Menghubungkan DAP-3760 ke komputer lokal

Jika anda mengatur DAP-3760 secara lokal (tanpa menghubungkan injektor power ke sebuah jaringan LAN), hubungkan sebuah PC ke port Ethernet dari injektor power menggunakan kabel Ethernet kategori 5.

 Berikan sebuah alamat IP statis ke PC anda dimana satu segmen jaringan dengan DAP-3760. Alamat IP default dari unit ini adalah 192.168.0.50, anda bisa memilih alamat IP antara 192.168.0.1 sampai 192.168.0.254, kecuali 192.168.0.50

neral	automatically if your network supports
is capability. Otherwise, you ne e appropriate IP settings.	ed to ask your network administrator for
🔿 Obtain an IP address autom	natically
Use the following IP addres	s:
IP address:	192.168.0.1
Subnet mask:	255 . 255 . 255 . 0
Default gateway:	
Obtain DNS server address	automatically
Use the following DNS serv	er addresses:
Preferred DNS server:	
Alternate DNS server:	x 6 3
	Advanced

2. Tes sambungan antara PC anda dengan DAP-3760. Mulai sebuah command prompt dan lakukan ping secara terus menerus dengan perintah "ping 192.168.0.50 –t". Jika ping ke bridge nirkabel sukses (seperti yang diperlihatkan dibawah), buka browser internet dan masukkan alamat IP bridge pada bagian kotak alamat dan tekan Enter.

C:\WINDOWS\system32\cmd.exe	- 🗆 🗙
C:\Documents and Settings\Alex>ping 192.168.0.50 -t	<b>_</b>
Pinging 192.168.0.50 with 32 bytes of data:	
Request timed out.	
Request timed out.	
Request timed out.   A DAP-3760 sedang inisialisasi	
Request timed out.	
Request timed out.	
Request timed out.	
Reply from 192.168.0.50: bytes=32 time=4ms TTL=64	
Reply from 192.168.0.50: bytes=32 time<1ms TTL=64	
Reply from 192.168.0.50: bytes=32 time<1ms TTL=64	
Reply from 192.168.0.50: bytes=32 time<1ms TTL=64	
Reply from 192.168.0.50: bytes=32 time(ims IIL=64	
Reply from 192.168.0.50: bytes=32 time(ins IIL=64	
Reply from 192.168.0.50: bytes=32 time(ins IIL=64	
Keply from $192.168.0.50$ : bytes=32 time(ins IIL=64	
Reply from 192.168.0.50: Dytes=32 time(ins IIL=64	
Reply from 192.168.0.50: bytes=32 time(ins $111=64$	
Reply from 192.168.0.50: bytes=32 time(ins IIL=64	
Neply From 172.106.0.50- Dytes-32 time(1MS 111-64	
Neply from 172.100.0.50- Dytes-32 time(1MS 111-64	
Poply from 172.166.0.50. Dytes-32 time(INS 111-64	-
Reply from 172.168.0.50: Dyces-32 time(ins 11L-64	

Catatan:

- Untuk kenyamanan pengaturan, direkomendasikan untuk mengatur lokal dan remote DAP-3760 menggunakan 2 buah komputer.
- Waktu TTL mungkin bervariasi tergantung dari sistem operasi.

#### Bagaimana cara membuat mode Bridge Nirkabel

DAP-3760 mendukung mode Bridge (CSMA) dan Bridge (TDMA). Disini kami akan menggambarkan bagiaman cara membuat koneksi bridge nirkabel dengan DAP-3760.

• Masukkan username (admin) dan password (kosong) untuk login dan membuat pengaturan.

D-Link		DAP-3760
Pas	Name   sword	

Catatan:

 Dikarenakan keamanan website terpercaya browser, 192.168.0.50 mungkin tidak bisa dibuka. Anda bisa memilih "continue to this website (not recommended)".

The security	certificate presented by this website has errors, and should not be trusted.
Security cert	ificate problems may indicate an attempt to fool you or intercept any data you send to the
server.	
We recomm	nend that you close this webpage and do not continue to this website.
Click her	e to close this webpage.
Continue	to this website (not recommanded)

 Buka "Basic Setup" yang ada pada "System", masukkan alamat IP untuk masing-masing DAP-3760 dalam segmen jaringan yang sama, contoh, lokal DAP-3760 alamat IP-nya 192.168.0.50 dan remote DAP-3760 alamat IP-nya 192.168.0.51 dan atur Subnet Mask keduanya ke 255.255.255.0

D-Link				Logout DAP-3760
System	Wireless	Sta	itus	Administrator Settings
System Information	Basic Setup			î
Basic	Device Name	DAP-3760		
·/	Ethernet Data Rate	Auto 💌		
	Spanning Tree Protocol (STP)	O Enable 💿 Disable		
	STP Forward Delay	💿 Turbo (default 1 sec) 🔵 N	lormal 4 sec (stand	ard 4-30 sec)
	LAN Settings			
	Get IP From	💿 Static (Manual) 🔘 Dynami	c(DHCP)	
	IP Address	192.168.0.50		
	IP Subnet Mask	255.255.255.0		
	Default Gateway	0.0.0.0		
	Primary DNS Server	0.0.0.0		
	Secondary DNS Server	0.0.0.0		
	SNTP Information/SNTP Setting			
	SNTP/NTP Server IP			
	<			

A Peringatan:

- Setiap alamat IP harus unik pada sebuah LAN, jika tidak bentrokan IP akan terjadi!
- Buka "Radio" yang ada pada bagian "Wireless" dan anda akan menemukan mode default yaitu Bridge (CSMA). Pilih untuk menggunakan mode Bridge (CSMA) dan atur Channel/Frekuensi dan Bandwith yang sama pada kedua DAP-3760. Klik "Apply" untuk menyimpan konfigurasi.

D-Link			Logout DAP-3760
System	Wireless	Status	Administrator Settings
Radio	Radio Settings		
Bridge Links Setup	Mode	Bridge(CSMA)	
	Wireless Band	IEEE802.11a 💙	
Security	Channel	149 / 5.745GHz 🖌	
Link Test	Data Rate	Auto 💌	
	Output Power	100% 💌	
	Band Width	20MHz 💙	
	WMM Mode	Enable O Disable	
	Super Mode	O Enable 💿 Disable	
	Advanced Parameters		
	RTS Threshold (0-2346)	2346	
	Fragmentation Length (256-2346)	2346	
	Distance in Meters (0-100000)	10000 m	
	<	Apply    Cancel	>

 Masuk ke antar muka berbasiskan Web pada remote DAP-3760 dan buka "System Information" pada bagian "System" dan catat alamat MAC nirkabel-nya.

D-Link				Logout DAP-3760
System	Wireless		Status	Administrator Settings
System Information	System Information			
Basic	Derice Name ETH Mac Address WLAN MaC Address Pilmware Version	D49-3760 0011970100716 0011970147207 v1.00		
	<			>

 Masuk ke antar muka berbasiskan Web pada lokal DAP-3760 dan buka "Bridge Links Setup" pada bagian "Wireless", masukkan alamat MAC WLAN dari remote DAP-3760 pada kotak "Remote MAC Address 1" dan klik "Apply"

D-Link			Logout DAP-3760
System	Wireless	Status	Administrator Settings
Radio	Bridge Links		Î
Bridge Links Setup	Local MAC Address	00; 19; 70; 14; £2; 07 Alig	n Antenna
Security	Remote MAC Address 1		
Link Test	Remote MAC Address 2 Remote MAC Address 3		-
	Remote MAC Address 4		
		Apply Cancel	
	<		>

\Lambda Peringatan:

- Alamat MAC pada unit DAP-3760 adalah alamat MAC ETH jadi tidak bisa digunakan untuk sambungan Bridge.
- Alamat IP dari PC anda harus berada dalam segmen jaringan yang sama dengan bridge.
- Gunakan ping untuk memeriksa apakah sambungan antara kedua DAP-3760 sudah OK.



 Untuk mendapatkan koneksi nirkabel yang lebih baik, pengaturan antena sangat direkomendasikan setelah kedua DAP-3760 terpasang dengan jarak yang jauh.

Masuk ke antar muka berbasiskan Web pada lokal DAP-3760 dan buka "Bridge Links Setup" yang pada bagian "Wireless". Tekan tombol "Align Antenna", sebuah jendela alat pengaturan antena akan muncul. Masukkan target RSSI dan klik "Start" untuk memulai pengaturan antena.

Local MAC: 00:19:70:14:f2:07	
Remote MAC: 00:60:b3:3f.5d:c2	
Signal Strength:	
Current RSSI (dBm): 0	
Target RSSI (dBm) :	
Transmit Packets: 0	
Receive Packets: 0	
Start	

- Perbaiki posisi lokal antena dan sesuaikan ketinggian antena remote serta arah-nya. Selama penyesuaian, lihat "Current RSSI" pada lokal DAP-3760. Perbaiki antena remote sampai mencapai harapan anda. Umumnya, nilai RSSI antara -60 dan -70 dBm mengindikasikan kekuatan sinyal yang baik.
- Sesuaikan lokal antena setelah memperbaiki sisi remote. Selama penyesuaian, lihat "Current RSSI" pada remote DAP-3760. Perbaiki antena lokal sampai mencapai harapan anda.

Selamat ! Anda sudah menyelesaikan pengaturan DAP-3760 dan mereka dapat digunakan untuk operasional. Untuk pengaturan tingkat lanjut, silahkan mengacu pada Petunjuk Penggunaan

### Penyelesaian Masalah Umum Yang Ditemui

Bab ini menjelaskan penyelesaian masalah yang umum ditemui pada DAP-3760.

- Q1, Apa yang menyebabkan DAP-3760 saya gagal terhubung ke sisi remote?
  - Sambungan Ethernet : Periksa ketersediaan dari tenaga untuk bridge dengan melihat status lampu LED pada injektor power.
  - Hijau : DAP-3760 terhubung ke jaringan backhaul.
  - Off : DAP-3760 tidak terhubung ke jaringan kabel, periksa apakah kabel power dan kabel Ethernet yang ke jaringan dan bridge sudah terhubung dengan baik.
  - Pengaturan Dasar : konfigurasi dasar yang beda antara bridge adalah hal yang paling sering yang menyebabkan koneksi gagal. Jika bridge tidak terhubung ke bridge remote, periksa apakah pilihan pada masing-masing perangkat sudah sama.
  - Konfigurasi Keamanan : bridge remote mencoba autentikasi dengan DAP-3760 anda harus mendukung pilihan keamanan yang sama, seperti WEP dan WPA (2)-PSK. Jika bridge anda gagal untuk terhubung satu sama lain, periksa apakah konfigurasi keamanan sudah sama.
  - Pengaturan Antena : jika hal-hal diatas sudah dipastikan benar, anda dapat meninjau dan melihat pengaturan antena dengan melihat nilai RSSI.

## Q2. Apakah yang harus lakukan jika saya ingin mengembalikan unit ke setingan default?

Anda dapat mengembalikan setingan ke default pada bagian "Configuration File" dari menu "Administrator Settings"

## Q3. Apakah yang saya harus lakukan jika saya ingin menyimpan dan mengembalikan seting konfigurasi saya?

Anda dapat mengunduh dengan membuat sebuah file konfigurasi atau memunggah seting yang sudah anda simpan sebelumnya pada bagian "Configuration File" dari menu "Administrator Settings"

### **Dukungan Teknis**

Update perangkat lunak dan dokumentasi pengguna dapat diperoleh pada situs web D-Link.

#### Dukungan Teknis untuk pelanggan:

Dukungan Teknis D-Link melalui telepon: Tel: +62-21-5731610

Dukungan Teknis D-Link melalui Internet: Email : support@dlink.co.id Website : http://support.dlink.co.id



