

DSS-24+ 10/100 Fast Ethernet Switch

Manual

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Limited Warranty

Subject to the terms and conditions set forth herein, D-Link Systems, Inc. ("D-Link") provides this Limited warranty for its product only to the person or entity that originally purchased the product from:

- D-Link or its authorized reseller or distributor and
- Products purchased and delivered within the fifty states of the United States, the District of Columbia, U.S. Possessions or Protectorates, U.S. Military Installations, addresses with an APO or FPO.

Limited Warranty: D-Link warrants that the hardware portion of the D-Link products described below will be free from material defects in workmanship and materials from the date of original retail purchase of the product, for the period set forth below applicable to the product type ("Warranty Period"), except as otherwise stated herein.

5-Year Limited Warranty for the Product(s) is defined as follows:

- Hardware (excluding power supplies and fans) Five (5) Years
- Power Supplies and Fans Three (3) Year
- Spare parts and spare kits Ninety (90) days

D-Link's sole obligation shall be to repair or replace the defective Hardware during the Warranty Period at no charge to the original owner or to refund at D-Link's sole discretion. Such repair or replacement will be rendered by D-Link at an Authorized D-Link Service Office. The replacement Hardware need not be new or have an identical make, model or part. D-Link may in its sole discretion replace the defective Hardware (or any part thereof) with any reconditioned product that D-Link reasonably determines is substantially equivalent (or superior) in all material respects to the defective Hardware. Repaired or replacement Hardware will be warranted for the remainder of the original Warranty Period from the date of original retail purchase. If a material defect is incapable of correction, or if D-Link determines in its sole discretion that it is not practical to repair or replace the defective Hardware. All Hardware will be refunded by D-Link upon return to D-Link of the defective Hardware. All Hardware (or part thereof) that is replaced by D-Link, or for which the purchase price is refunded, shall become the property of D-Link upon replacement or refund.

Limited Software Warranty: D-Link warrants that the software portion of the product ("Software") will substantially conform to D-Link's then current functional specifications for the Software, as set forth in the applicable documentation, from the date of original retail purchase of the Software for a period of ninety (90) days ("Warranty Period"), provided that the Software is properly installed on approved hardware and operated as contemplated in its documentation. D-Link further warrants that, during the Warranty Period, the magnetic media on which D-Link delivers the Software will be free of physical defects. D-Link's sole obligation shall be to replace the non-conforming Software (or defective media) with software that substantially conforms to D-Link's functional specifications for the Software or to refund at D-Link's sole discretion. Except as otherwise agreed by D-Link in writing, the replacement Software is provided only to the original licensee, and is subject to the terms and conditions of the license granted by D-Link for the Software. Software will be warranted for the remainder of the original Warranty Period from the date or original retail purchase. If a material non-conformance is incapable of correction, or if D-Link determines in its sole discretion that it is not practical to replace the non-conforming Software, the price paid by the original licensee for the non-conforming Software will be refunded by D-Link; provided that the non-conforming Software (and all copies thereof) is first returned to D-The license granted respecting any Software for which a refund is given Link. automatically terminates.

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- The customer must submit with the product as part of the claim a written description
 of the Hardware defect or Software nonconformance in sufficient detail to allow D-Link
 to confirm the same.
 - The original product owner must obtain a Return Material Authorization ("RMA") number from the Authorized D-Link Service Office and, if requested, provide written proof of purchase of the product (such as a copy of the dated purchase invoice for the product) before the warranty service is provided.
 - After an RMA number is issued, the defective product must be packaged securely in the original or other suitable shipping package to ensure that it will not be damaged in transit, and the RMA number must be prominently marked on the outside of the package. Do not include any manuals or accessories in the shipping package. D-Link will only replace the defective portion of the Product and will not ship back any accessories.
 - The customer is responsible for all in-bound shipping charges to D-Link. No Cash on Delivery ("COD") is allowed. Products sent COD will either be rejected by D-Link or become the property of D-Link. Products shall be fully insured by the customer and shipped to D-Link Systems, 17595 Mt. Herrman Street, Fountain Valley, CA. 92708. D-Link will not be held responsible for any packages that are lost in transit to D-Link. The repaired or replaced packages will be shipped to the customer via UPS Ground or any common carrier selected by D-Link, with shipping charges prepaid. Expedited shipping is available if shipping charges are prepaid by the customer and upon request.

D-Link may reject or return any product that is not packaged and shipped in strict compliance with the foregoing requirements, or for which an RMA number is not visible from the outside of the package. The product owner agrees to pay D-Link's reasonable handling and return shipping charges for any product that is not packaged and shipped in accordance with the foregoing requirements, or that is determined by D-Link not to be defective or non-conforming.

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CE Mark Warning: This is a Class A product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.

FCC Statement: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communication. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

Consult the dealer or an experienced radio/TV technician for help.

For detailed warranty outside the United States, please contact corresponding local D-Link office.

Register your D-Link product online at <u>http://support.dlink.com/register/</u>

D-Link Offices for Registration and Warranty Service

The product's Registration Card, provided at the back of this manual, must be sent to a D-Link office. To obtain an RMA number for warranty service as to a hardware product, or to obtain warranty service as to a software product, contact the D-Link office nearest you. An address/telephone/fax/e-mail/Web site list of D-Link offices is provided in the back of this manual.

Warnung!

Dies ist ein Produkt der Klasse A. Im Wohnbereich kann dieses Produkt Funkstoerungen verursachen. In diesem Fall kann vom Benutzer verlangt werden, angemessene Massnahmen zu ergreifen.

Precaución!

Este es un producto de Clase A. En un entorno doméstico, puede causar interferencias de radio, en cuyo case, puede requerirse al usuario para que adopte las medidas adecuadas.

Attention!

Ceci est un produit de classe A. Dans un environnement domestique, ce produit pourrait causer des interférences radio, auquel cas l'utilisateur devrait prendre les mesures adéquates.

Attenzione!

Il presente prodotto appartiene alla classe A. Se utilizzato in ambiente domestico il prodotto può causare interferenze radio, nel cui caso è possibile che l'utente debba assumere provvedimenti adeguati.

VCCI Warning

注意

この装置は、情報処理装置等電波障害自主規制協議会(VCCI)の基準に基づく第一種情報技術装置です。この装置を家庭環境で使用 すると電波妨害を引き起こすことがあります。この場合には使用者が適切な対策を講ずるよう要求されることがあります。

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1

FEATURES

- ♦ 24 UTP ports all come with NWay auto-negotiation and operate at 10/100 Mbps for connection to servers and hubs. All ports can auto-negotiate for full- or half-duplex operation.
- All ports support auto MDI/MDIX, so there is no need to use crossover cables When connecting to another switch.
- Store-and-forward switching scheme capability to support rate adaptation and ensure data integrity.
- Auto-polarity detection for correction of incorrect polarity on the receive twisted pair at each port.
- Data forwarding rate 148,800 pps per port at 100% of wire-speed for 100Mbps speed.
- Data forwarding rate 14,880 pps per port at 100% of wire-speed for 10Mbps speed.
- Data filtering rate eliminates all error packets, runts, etc. at 148,800 pps per port at 100% of wire-speed for 100Mbps speed.
- Data filtering rate eliminates all error packets, runts, etc. at 14,880 pps per port at 100% of wire-speed for 10Mbps speed.
- Up to 4K unicast address entities per device, self-learning, and table aging.
- Embedded 1.5Mbits packet buffer.
- All 24 UTP ports support IEEE802.3x flow control for full-duplex and backpressure flow control for half-duplex.
- Optional two-port Fiber module (SC type connector) in the front panel for length extension. These two ports operate at 100M full-duplex. Please see Chapter Two for additional information about module settings.

2

UNPACKING AND SETUP

Unpacking

Open the shipping carton of the Switch and carefully unpack its contents. The carton should contain the following items:

- One DSS-24+ 10/100 Fast Ethernet Switch
- One AC power cord
- Four rubber feet with adhesive backing
- Screws and two L-type brackets for rack mounting
- This Manual

If any item is found missing or damaged, please contact your local D-Link reseller for replacement.

Setup

The setup of the Switch can be performed using the following steps:

- The surface must support at least 3 kg (6.61 lb) for the Switch.
- The power outlet should be within 1.82 meters (6 feet) of the device.
- Visually inspect the power cord and see that it is fully secured to the AC power connector.

• Make sure that there is proper heat dissipation from and adequate ventilation around the Switch. Do not place heavy objects on the Switch.

Desktop or Shelf Installation

When installing the Switch on a desktop or shelf, the rubber feet included with the device must be first attached. Attach these cushioning feet on the bottom at each corner of the device. Allow enough ventilation space between the device and the objects around it.

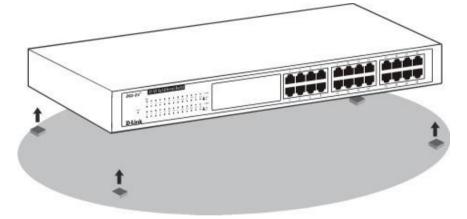


Figure 2.1 10/100 Fast Ethernet Switch installed on a Desktop or Shelf

Rack Installation

The Switch can be mounted in an EIA standard size, 19-inch rack, which can be placed in a wiring closet with other equipment. To install, attach the mounting brackets on the Switch's front panel (one on each side) and secure them with the screws provided.

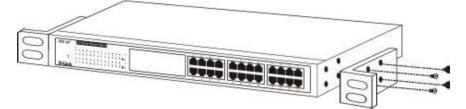


Figure 2.2 Attaching the mounting brackets to the 10/100 Fast Ethernet Switch

Then, use the screws provided with the equipment rack to mount the Switch in the rack.

Module Installation

An optional two-port fiber module (SC type connector) can be installed in the front panel. Follow these steps:

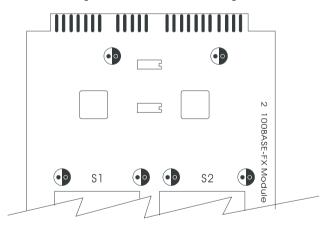


Figure 2.3 Jumper settings on the module

First, make sure that the device is powered off and then remove the plain bracket on the front of the Switch.

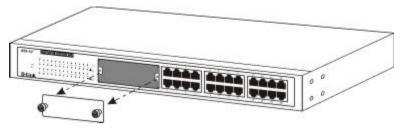


Figure 2.4 Removing the plain bracket

After removing the plain bracket, slide the module in the guide rails all the way into the slot and secure the screws.

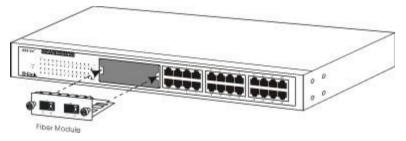


Figure 2.5 Sliding the module into position

When properly installed, the Slot LED will be lit after powering on the Switch (see Chapter 3 for more information about LEDs, including a diagram).

Note: Always remember to turn off the power before a module is inserted or removed.

3

IDENTIFYING EXTERNAL COMPONENTS

Front Panel

The front panel of the Switch consists of 24 (DSS-24+) 10/100 Mbps MDI/MDI-X ports and LED indicators.

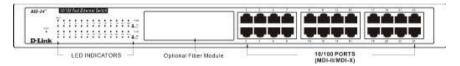


Figure 3.1 Front panel view of the DSS-24+ Switch

Rear Panel

The rear panel of the Switch consists of an AC power connector.



Figure 3.2 Rear panel view of the DSS-24+ switch

 ◆ AC Power Connector This is a three-pronged connector that supports the power cord. Plug in the female connector of the provided power cord into this connector, and the male connector into a power outlet. Supported input voltages range from 100 ~ 240 VAC at 50 ~ 60 Hz.

LED Indicators

The LED indicators of the Switch include Power, 100M, Link/Act (Link/Activity), and Slot. The LED indicators are used to facilitate monitoring and troubleshooting of the Switch. The following shows the LED indicators for the Switch along with an explanation of each indicator.

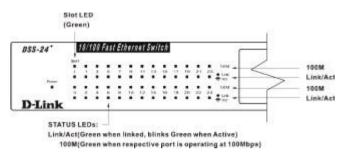


Figure 3.3 The DSS-24+ Switch LED indicators

- Power This indicator operates when the Switch is turned on. If this indicator is not lit, check the AC power connector to ensure proper insertion of the power cord.
- 100M The LED indicator lights green when a 100 Mbps device is connected to a respective port. If a 10 Mbps device is connected to a respective port, the LED indicator is OFF.
- Link/Act These LED indicators are lighted green when there is a secure connection (or link) to a device at any of the ports. The LED indicators blink green whenever there is reception or transmission (i.e. Activity—Act) of data occurring at a port.
- Slot This LED indicator is lighted green when there is a secure connection (or link) to an optional two-port 100BASE-FX (SC type) module installed in the front panel. Each port has its own LED, designated as I and II. See 100M and Link/Act indicator descriptions above for further information.

Α

TECHNICAL SPECIFICATIONS

| | General | |
|----------------------------|--|--|
| Network Cabling: | 10BASE-T: | |
| | 2-pair UTP Cat. 3, 4, 5 (100m) | |
| | EIA/TIA- 568 100-ohm STP (100m) | |
| | 100BASE-TX: | |
| | 2-pair UTP Cat. 5 (100m) | |
| | EIA/TIA-568 100-ohm STP (100m) | |
| | 100BASE-FX: | |
| | Multi-mode (62.5/125 μm or 50/125 μm) fiber cabling with SC connector | |
| Number of Ports: | DSS-24R+: 24 x 10/100 Mbps ports | |
| | DES-102F: 2 x 100BASE-FX ports | |
| Physical and Environmental | | |
| AC Inputs: | 100 - 240 VAC, 50/60 Hz (internal universal power supply) | |
| Power Consumption: | 19 watts maximum | |
| Operating Temperature: | 0 ° ~ 40 °C (32° ~ 104°F) | |
| Storage Temperature: | -40 ° ~ 70 °C (-40° ~ 158°F) | |
| Humidity: | 5% ~ 95% non-condensing | |
| EMI: | FCC Class A, CE Mark Class A, VCCI Class A | |
| Safety: | CSA International | |
| Dimensions: | 441 x 207 x 44 mm (IU), 19-inch rack-mount width | |
| Weight: | 2.1 kg (4.63 lb) | |

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