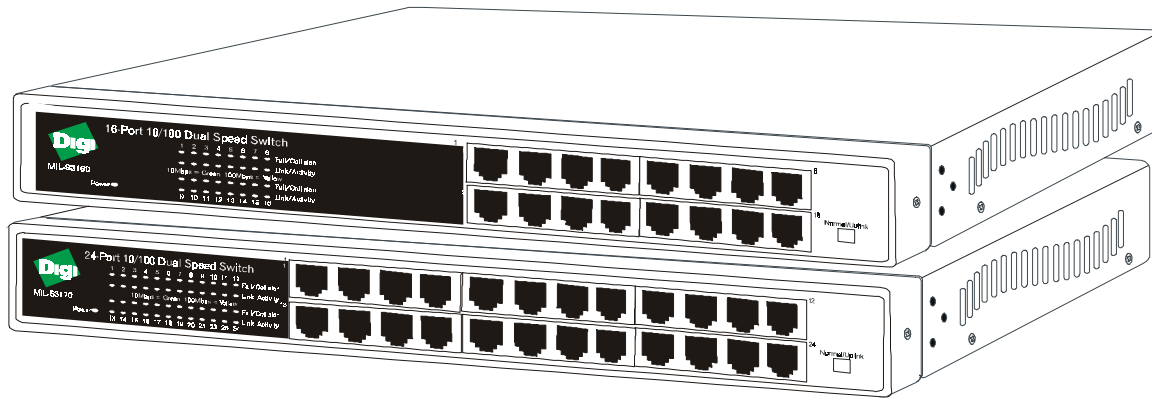# *InstallationGuide*
MIL-S3160 16-port 10/100 Dual Speed Switch

MIL-S3170 24-port 10/100 Dual Speed Switch

INTRODUCTION

Thanks for purchasing one of the MIL-S3100 family of dual speed switches. They provide dedicated bandwidths of 10/100 Mbps throughput per port to the desktop. With features such as auto-negotiation and half/full-duplex, these switches offer smooth network migrations and easy upgrades to network capacity.

The MIL-S3100 family of 16 or 24 port 10/100 dual speed switches has the following features:

- Complies with IEEE802.3, IEEE802.3U, and IEEE802.3X standards
- 16 or 24 10/100 Mbps auto-negotiation switch ports
- Back pressure (collision based) flow control in half-duplex operation

- IEEE802.3X flow control in full-duplex operation
- One uplink push button is provided for cascading
- Auto-negotiation supported for each port
- Visual diagnostic LED's supported
- 13-inch rack-mount width
- Standard IU chassis height
- Internal switching power supply

MS61624V01ADS

PACKAGE CONTENTS

Before you begin, verify that your package contains the following items:
- 16 or 24-port 10/100 dual speed switch
- Self-adhesive rubber pads for desktop installation
- AC Power cord
- Rack Mounting kit for rack installation
- Installation guide

24-Port 10/100 Dual Speed Switch

Inner box   Installation Guide
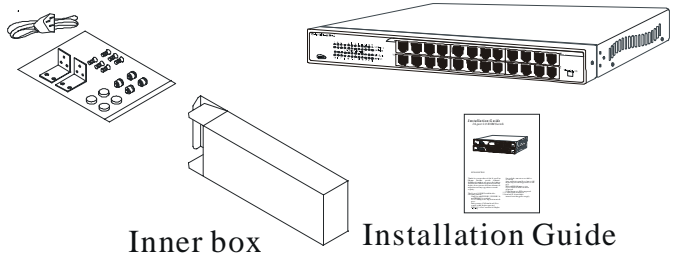
HOW TO USE THE 16 OR 24-PORT 10/100 DUAL SPEED SWITCH

LED Display   Uplink push button
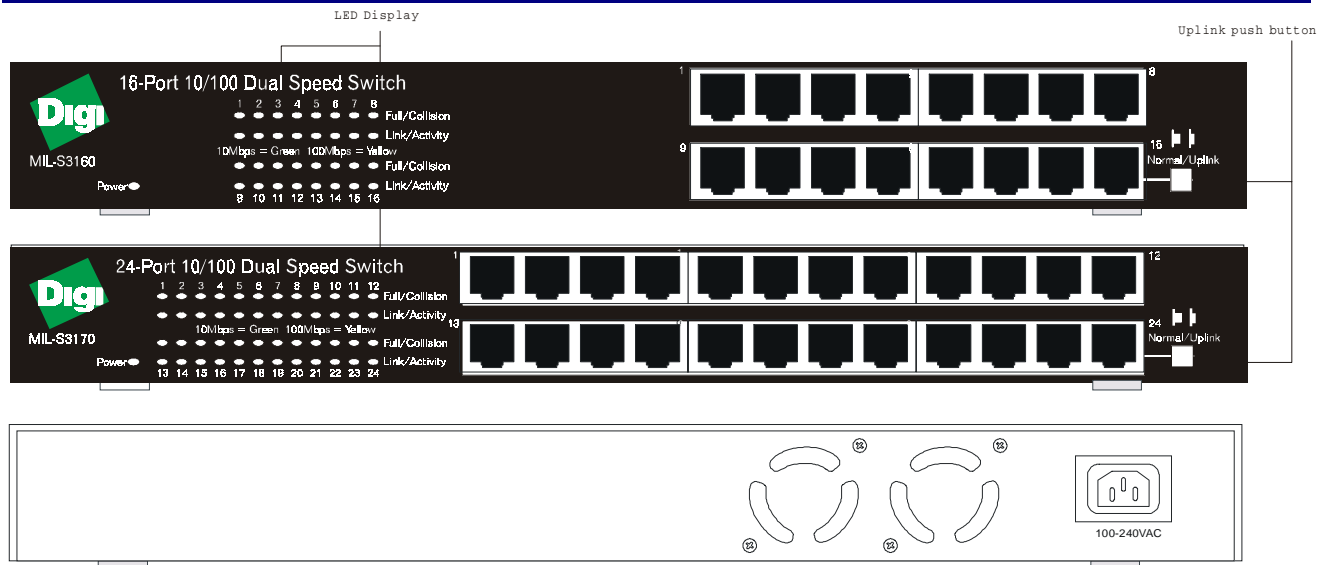
LED's

The LED's on the front panel provide visual presentation to show the following status:
- Status of the switch's power supply
- Connection speed of 10 Mbps or 100 Mbps
- Data activity on the segment
- Full or half-duplex operation mode

Power

Green	The power is on.
Off	Power is off.

Full/Col

Off	There is no link or half-duplex operation mode established and no collision occurs.
Yellow	Operation mode is full-duplex.

Flashing Yellow	The port is in half-duplex mode and collisions occur.

Link Activity

Off	A link is not established on the port.
Green	A 10 Mbps link is successfully established on the port.
Flashing Green	A 10 Mbps link is established and data transmission or receive activity occurs on the port.
Yellow	A 100 Mbps link is established on the port.
Flashing Yellow	A 100 Mbps link is established and data is transmitted or received.

2

16 or 24 RJ-45 10/100 Dual Speed Switching Ports

There are 16 or 24 RJ-45 ports on the front panel. The speed and full or half-duplex modes of the ports are automatically determined when users connect the switch to 10Base-T and 100Base-TX devices.

The 16 or 24 RJ-45 auto-negotiation ports simplify migration of 10 Mbps Ethernet to 100 Mbps Fast Ethernet.

Normal/Uplink Push Button

One normal/uplink push button on the front panel allows users to select the 16th or 24th port to connect to a PC or a hub or switch. With this normal/uplink push button feature, users can connect with network devices.

A link LED is lit when there is a successful connection.

The default setting is in the normal (MDI-X) position, i.e. the long button position. The port is configured to connect with a PC using a straight through twisted pair cable.

When the push button is pressed (MDI), i.e., the short button position, connection is made with a hub or a switch using a straight through twisted pair cable.
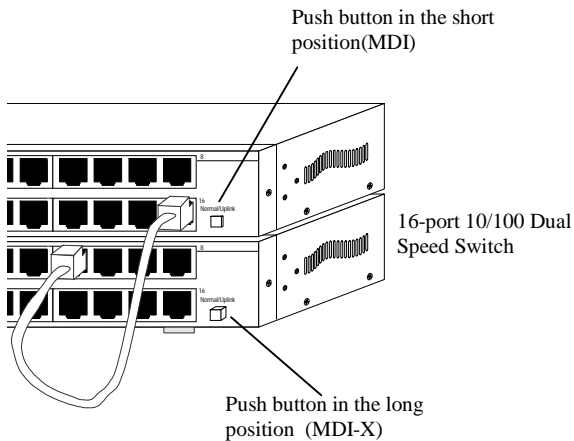
Connecting to a Desktop

The switch is connected to the desktop, to form a small network. You can build the network as shown in the figure.
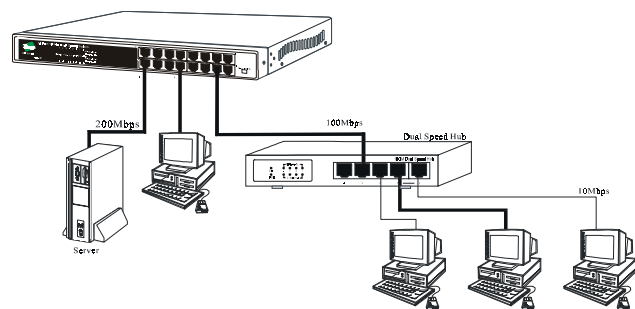
To improve the network efficiency, it is better to have 200 Mbps full-duplex operation between the server and switch, if the LAN adapter on the server can operate in full-duplex mode.
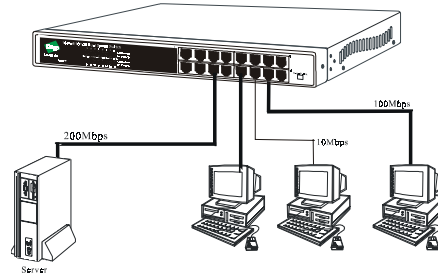
Connecting to a Switch or a Hub

Switch-to-switch or switch-to-hub connections are made by connecting the 16th or 24th port to a port or to the other hub or switch with the normal/uplink push button pressed in.
With 100Base-TX, the maximum network length is approximately 205 meters with UTP cable. The maximum length between hubs or switch-to-hub is 100 meters.

Push button in the short position(MDI)

16-port 10/100 Dual Speed Switch

Push button in the long position (MDI-X)

MOUNTING KIT INSTRUCTION

The 16 or 24-port 10/100 Dual Speed Switch is supplied with two mounting brackets, six screws, and four rubber feet for mounting the rack or putting it on a flat surface.

On a flat surface
- Apply four rubber pads to the bottom of the unit.
- Put the switch on the flat surface.

Rack mounting in a rack
- Locate the mounting bracket over the mounting holes.
- Insert the screw through the bracket and into the bracket mounting holes in the switch
- Insert the unit into the 19-inch rack
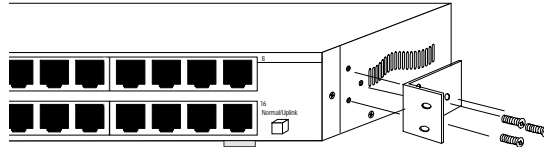
FCC COMPLIANCE STATEMENT

This equipment generates and uses radio frequency energy and if not installed and used properly, that is, in strict accordance with the instructions provided with the equipment, may cause interference to radio and TV reception. The equipment has been tested and found to comply with the limits for a Class A computing device in accordance with the specifications in Subpart B of Part 15 of FCC rules, which are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation. If you suspect this equipment is causing interference, turn your switch on and off while your radio or TV is showing interference. If the interference disappears when you turn the switch off and reappears when you turn the switch on, something in the switch is causing interference.

You can try to correct the interference by one or more of the following measures:
- Plug the computer which has the equipment installed into a different power outlet so that the equipment and the receiver are on different branch circuits.
- Reorient the receiving radio or TV antenna where this may be done safely.
- If necessary, you should consult the place of purchase or an experienced radio/television technician for additional suggestions.

SAFETY INSTRUTIONS

1. This product should be operated from the type of power source indicated on the marking label. If you are not sure of the type of power available, consult your dealer or local power company.
2. This product is equipped with a three-wire grounding type plug, a plug having a third (grounding) pin. This plug will only fit into a grounding type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. Do not defeat the purpose of the grounding type plug.
3. Do not allow anything to rest on the power cord. Do not locate this product where persons will walk on the cord.
4. If an extension cord is used with this product, make sure that the total ampere ratings on the products plugged into the extension cord do not exceed the extension cord ampere rating. Also make sure that the total of all products plugged into the wall outlet does not exceed 15 amperes.
5. Never push objects of any kind into this product through cabinet slots as they may touch dangerous voltage points or short out parts that could result in a risk of fire or electric shock. Never spill liquid of any kind on the product.
6. Do not attempt to service this product yourself, as opening or removing covers may expose you to dangerous voltage points or other risks. Refer all servicing to servicing to service personnel's.

TECHNICAL INFORMATION

Standards Compatibility
ISO/IEC 802.2-3
IEEE 802.3
IEEE 802.3U
IEEE 802.3X
Interfaces
RJ-45 fully-shielded connectors for 10Base-T and
100Base-TX Fast Ethernet
Physical

Length	330mm (13 in.)
Height	43mm (1.69 in.)
Depth	230mm (9.06 in.)
Weight	2.6Kg (5.69lb)

16-port 10/100 Dual Speed Switch

Input Ratings	100 to 240 VAC
	50 to 60 Hz
Power consumption	23.8 W

24-port 10/100 Dual Speed Switch

Input Ratings	100 to 240 VAC
	50 to 60 Hz
Power consumption	33.3 W

Environmental Specifications

Operating temperature	0° to 40°C
Storage temperature	-20° to 70°C
Operating Humidity	10% to 90% RH
Storage Humidity	10% to 95% RH

Electromagnetic Emission
FCC Class A, CE Class A, VCCI Class A
Safety Approval
UL, CUL, TUV

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