

EZ Switch 10/100/1000

Web-Managed Smart Switch

- ◆ User friendly web management interface
- ◆ Supports QoS, VLANs and Trunk configuration
- ◆ Automatic MDI/MDI-X operation
- ◆ Store-and-forward switching ensures error-free transmission
- ◆ Half- and full-duplex flow control prevents packets from being dropped under heavy loading
- ◆ Plug-and-play—Optional configuration using web interface
- ◆ “At-a-glance” LEDs for port and system status monitoring
- ◆ Desktop or rack installation



EZ Switch 10/100/1000 Installation Guide

From SMC's EZ line of low-cost workgroup LAN solutions

SMC[®]

Networks

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COMPLIANCES

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- Increase the separation between the equipment and receiver
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SMC Networks Europe,
Edificio Conata II,
Calle Fructuós Gelabert 6-8, 2º, 4ª,
08970 - Sant Joan Despí,
Barcelona, Spain.

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- RFI Emission:
- Limit class A according to EN 55022:1998, IEC 60601-1-2 (EMC, medical)
 - Limit class A for harmonic current emission according to EN 61000-3-2/1995
 - Limitation of voltage fluctuation and flicker in low-voltage supply system according to EN 61000-3-3/1995
- Immunity:
- Product family standard according to EN 55024:1998
 - Electrostatic Discharge according to EN 61000-4-2:1995 (Contact Discharge: ± 4 kV, Air Discharge: ± 8 kV)

- Radio-frequency electromagnetic field according to EN 61000-4-3:1996 (80 - 1000 MHz with 1 kHz AM 80% Modulation: 3 V/m)
 - Electrical fast transient/burst according to EN 61000-4-4:1995 (AC/DC power supply: ± 1 kV, Data/Signal lines: ± 0.5 kV)
 - Surge immunity test according to EN 61000-4-5:1995 (AC/DC Line to Line: ± 1 kV, AC/DC Line to Earth: ± 2 kV)
 - Immunity to conducted disturbances, Induced by radio-frequency fields: EN 61000-4-6:1996 (0.15 - 80 MHz with 1 kHz AM 80% Modulation: 3 V/m)
 - Power frequency magnetic field immunity test according to EN 61000-4-8:1993 (1 A/m at frequency 50 Hz)
 - Voltage dips, short interruptions and voltage variations immunity test according to EN 61000-4-11:1994 (>95% Reduction @10 ms, 30% Reduction @500 ms, >95% Reduction @5000 ms)
- LVD:
- EN 60950-1:2001

Industry Canada - Class A

This digital apparatus does not exceed the Class A limits for radio noise emissions from digital apparatus as set out in the interference-causing equipment standard entitled "Digital Apparatus," ICES-003 of the Department of Communications.

Cet appareil numérique respecte les limites de bruits radioélectriques applicables aux appareils numériques de Classe A prescrites dans la norme sur le matériel brouilleur: "Appareils Numériques," NMB-003 édictée par le ministère des Communications.

Japan VCCI Class A

この装置は、情報処理装置等電波障害自主規制協議会（VCCI）の基準に基づくクラスA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。

Power Cord Safety

Please read the following safety information carefully before installing the switch:

Warning: Installation and removal of the unit must be carried out by qualified personnel only.

- The unit must be connected to an earthed (grounded) outlet to comply with international safety standards.
- Do not connect the unit to an A.C. outlet (power supply) without an earth (ground) connection.
- The appliance coupler (the connector to the unit and not the wall plug) must have a configuration for mating with an EN 60320/IEC 320 appliance inlet.
- The socket outlet must be near to the unit and easily accessible. You can only remove power from the unit by disconnecting the power cord from the outlet.
- This unit operates under SELV (Safety Extra Low Voltage) conditions according to IEC 60950. The conditions are only maintained if the equipment to which it is connected also operates under SELV conditions

France and Peru only

This unit cannot be powered from IT[†] supplies. If your supplies are of IT type, this unit must be powered by 230 V (2P+T) via an isolation transformer ratio 1:1, with the secondary connection point labelled Neutral, connected directly to earth (ground).

† Impédance à la terre

Power Cord Set	
U.S.A. and Canada	The cord set must be UL-approved and CSA certified.
	The minimum specifications for the flexible cord are: - No. 18 AWG - not longer than 2 meters, or 16 AWG. - Type SV or SJ - 3-conductor
	The cord set must have a rated current capacity of at least 10 A.
	The attachment plug must be an earth-grounding type with NEMA 5-15P (15 A, 125 V) or NEMA 6-15P (15 A, 250 V) configuration.
Denmark	The supply plug must comply with Section 107-2-D1, Standard DK2-1a or DK2-5a.
Switzerland	The supply plug must comply with SEV/ASE 1011.
U.K.	The supply plug must comply with BS1363 (3-pin 13 A) and be fitted with a 5 A fuse which complies with BS1362.
	The mains cord must be <HAR> or <BASEC> marked and be of type HO3VVF3GO.75 (minimum).

Power Cord Set	
Europe	The supply plug must comply with CEE7/7 (“SCHUKO”).
	The mains cord must be <HAR> or <BASEC> marked and be of type HO3VVH3GO.75 (minimum).
	IEC-320 receptacle.

Veuillez lire à fond l'information de la sécurité suivante avant d'installer le Switch:

AVERTISSEMENT: L'installation et la dépose de ce groupe doivent être confiés à un personnel qualifié.

- Ne branchez pas votre appareil sur une prise secteur (alimentation électrique) lorsqu'il n'y a pas de connexion de mise à la terre (mise à la masse).
- Vous devez raccorder ce groupe à une sortie mise à la terre (mise à la masse) afin de respecter les normes internationales de sécurité.
- Le coupleur d'appareil (le connecteur du groupe et non pas la prise murale) doit respecter une configuration qui permet un branchement sur une entrée d'appareil EN 60320/IEC 320.
- La prise secteur doit se trouver à proximité de l'appareil et son accès doit être facile. Vous ne pouvez mettre l'appareil hors circuit qu'en débranchant son cordon électrique au niveau de cette prise.
- L'appareil fonctionne à une tension extrêmement basse de sécurité qui est conforme à la norme IEC 60950. Ces conditions ne sont maintenues que si l'équipement auquel il est raccordé fonctionne dans les mêmes conditions.

France et Pérou uniquement:

Ce groupe ne peut pas être alimenté par un dispositif à impédance à la terre. Si vos alimentations sont du type impédance à la terre, ce groupe doit être alimenté par une tension de 230 V (2 P+I) par le biais d'un transformateur d'isolement à rapport 1:1, avec un point secondaire de connexion portant l'appellation Neutre et avec raccordement direct à la terre (masse).

Cordon électrique - Il doit être agréé dans le pays d'utilisation	
Etats-Unis et Canada:	Le cordon doit avoir reçu l'homologation des UL et un certificat de la CSA.
	Les spécifications minimales pour la corde flexible sont AWG No. 18, ou AWG No. 16 pour une longueur inférieure à 2 mètres: - type SV ou SJ - 3 conducteurs
	Le cordon doit être en mesure d'acheminer un courant nominal d'au moins 10 A.
	La prise femelle de branchement doit être du type à mise à la terre (mise à la masse) et respecter la configuration NEMA 5-15P (15 A, 125 V) ou NEMA 6-15P (15 A, 250 V).
Danemark:	La prise mâle d'alimentation doit respecter la section 107-2 D1 de la norme DK2 1a ou DK2 5a.
Suisse:	La prise mâle d'alimentation doit respecter la norme SEV/ASE 1011.
Europe	La prise secteur doit être conforme aux normes CEE 7/7 ("SCHUKO") LE cordon secteur doit porter la mention <HAR> ou <BASEC> et doit être de type HO3VVF3GO.75 (minimum).

Bitte unbedingt vor dem Einbauen des Switches die folgenden Sicherheitsanweisungen durchlesen:

WARNUNG: Die Installation und der Ausbau des Geräts darf nur durch Fachpersonal erfolgen.

- Das Gerät sollte nicht an eine ungeerdete Wechselstromsteckdose angeschlossen werden.
- Das Gerät muß an eine geerdete Steckdose angeschlossen werden, welche die internationalen Sicherheitsnormen erfüllt.
- Der Gerätestecker (der Anschluß an das Gerät, nicht der Wandsteckdosenstecker) muß einen gemäß EN 60320/IEC 320 konfigurierten Geräteeingang haben.
- Die Netzsteckdose muß in der Nähe des Geräts und leicht zugänglich sein. Die Stromversorgung des Geräts kann nur durch Herausziehen des Gerätenetzkabels aus der Netzsteckdose unterbrochen werden.
- Der Betrieb dieses Geräts erfolgt unter den SELV-Bedingungen (Sicherheitskleinstspannung) gemäß IEC 60950. Diese Bedingungen sind nur gegeben, wenn auch die an das Gerät angeschlossenen Geräte unter SELV-Bedingungen betrieben werden

Stromkabel. Dies muss von dem Land, in dem es benutzt wird geprüft werden:	
Schweiz	Dieser Stromstecker muß die SEV/ASE 1011 Bestimmungen einhalten.
Europe	Das Netzkabel muß vom Typ HO3VVF3GO.75 (Mindestanforderung) sein und die Aufschrift <HAR> oder <BASEC> tragen. Der Netzstecker muß die Norm CEE 7/7 erfüllen ("SCHUKO").

Warnings and Cautionary Messages

- Warning:** This product does not contain any serviceable user parts.
- Warning:** Installation and removal of the unit must be carried out by qualified personnel only.
- Warning:** When connecting this device to a power outlet, connect the field ground lead on the tri-pole power plug to a valid earth ground line to prevent electrical hazards.
- Caution:** Wear an anti-static wrist strap or take other suitable measures to prevent electrostatic discharge when handling this equipment.
- Caution:** Do not plug a phone jack connector in the RJ-45 port. This may damage this device. Les raccordeurs ne sont pas utilisé pour le système téléphonique!
- Caution:** Use only twisted-pair cables with RJ-45 connectors that conform to FCC standards.

Warnings (in German)

- Achtung:** Dieses Produkt enthält keine Teile, die eine Wartung vom Benutzer benötigen.
- Achtung:** Installation und Deinstallation des Gerätes müssen von qualifiziertem Servicepersonal durchgeführt werden.
- Achtung:** Wenn das Gerät an eine Steckdose angeschlossen wird, muß der Masseanschluß am dreipoligen Netzstecker mit Schutzterde verbunden werden, um elektrische Gefahren zu vermeiden.

Environmental Statement

The manufacturer of this product endeavours to sustain an environmentally-friendly policy throughout the entire production process. This is achieved through the following means:

- Adherence to national legislation and regulations on environmental production standards.
- Conservation of operational resources.
- Waste reduction and safe disposal of all harmful un-recyclable by-products.
- Recycling of all reusable waste content.
- Design of products to maximize recyclables at the end of the product's life span.
- Continual monitoring of safety standards.

End of Product Life Span

This product is manufactured in such a way as to allow for the recovery and disposal of all included electrical components once the product has reached the end of its life.

Manufacturing Materials

There are no hazardous nor ozone-depleting materials in this product.

Documentation

All printed documentation for this product uses biodegradable paper that originates from sustained and managed forests. The inks used in the printing process are non-toxic.

Purpose

This guide details the hardware features of the switch, including its physical and performance-related characteristics, and how to install the switch.

Audience

The guide is intended for use by network administrators who are responsible for installing and setting up network equipment; consequently, it assumes a basic working knowledge of LANs (Local Area Networks).

Diese Anleitung ist für die Benutzung durch Netzwerkadministratoren vorgesehen, die für die Installation und das Einstellen von Netzwerkkomponenten verantwortlich sind; sie setzt Erfahrung bei der Arbeit mit LANs (Local Area Networks) voraus.

COMPLIANCES

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INTRODUCTION

The EZ Switch 10/100/1000, SMCGS16-Smart and SMCGS24-Smart, are high performance web managed smart switches for delivering performance and control to your network. They provide 16/24 full-duplex 1000BASE-T ports that significantly improve network performance and boost throughput using Smart features configured on the web interface. With 32/48 Gigabits of throughput bandwidth, these switches provide the quickest solution to meeting the growing demands on your network.

Features and Benefits

- User friendly web management interface
- Supports QoS, VLANs and Trunk configuration
- Store-and-forward switching ensures error-free transmission
- Half- and full-duplex flow control prevents packets from being dropped under heavy loading
- Plug-and-play—Optional configuration using web interface
- “At-a-glance” LEDs for port and system status monitoring
- Desktop or rack installation

Front Panel RJ-45 Ports

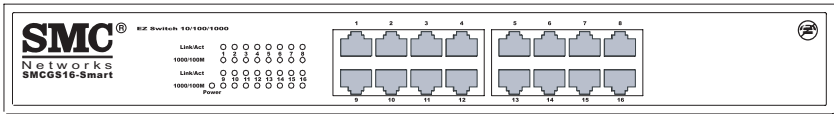
The EZ Switch 10/100/1000 features 16/24 1000BASE-T ports with RJ-45 connectors located on the front panel of the switch. Because all ports support automatic MDI/MDI-X operation, you can use straight-through cables for all network connections to PCs or servers, or to other switches or hubs.

Front Panel LEDs

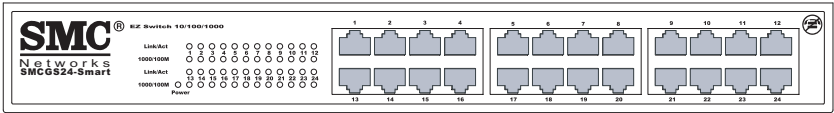
The front panel of the switch provides status LEDs for “at-a-glance” system monitoring. The following table details the functions of the various indicators.

Port and System Status LEDs		
LED	Condition	Status
Power	On	The switch is receiving power.
	Off	The switch is not receiving power.
Ports		
Link/Act	On	The port has established a valid network connection.
	Off	The port has not established a network connection.
	Flashing	Traffic is passing through the port.
100/ 1000M	On Green	Indicates the port is operating at 1000 Mbps.
	On Yellow	Indicates the port is operating at 100 Mbps.
	Off	Indicates the port is operating at 10 Mbps.

SMCGS16-Smart



SMCGS24-Smart



Rear Panel

The AC power connector is located on the rear panel of the switch.

INSTALLING THE SWITCH

Before installing the switch, verify that you have all the items listed under “Package Contents.” Note that the switch can be installed on any suitably large flat surface or in a standard EIA 19-inch rack.

Package Contents

The EZ Switch 10/100/1000 includes:

- EZ Switch 10/100/1000 (SMCGS16-Smart or SMCGS24-Smart)
- Four rubber foot pads
- Rack-mount bracket kit
- Appropriate AC power cord
- This Installation Guide
- Management Guide and Installation Guide CD
- SMC Warranty Registration Card

Initial Configuration

To make use of the management features of your SMC Smart Switch you must first give it an IP address. For simplicity, this should be done before you permanently install the switch in the network.

The following procedure is recommended:

1. Place your Smart Switch close to the PC that you will use to configure it. It will help if you can see the front panel of the switch while working on your PC.

2. Connect the Ethernet port of your PC to any port on the front panel of your Smart Switch, start your PC (if it is not already running), connect power to the switch and, when your PC has finished its start-up sequence, verify that you have a link by checking the LEDs on the front-panel of the switch (see the Hardware Description for more information).
3. The default IP address of the switch is 192.168.2.10 and the subnet mask is 255.255.255.0. If your PC has a different address from the switch but is on the same subnet (i.e. the PC and switch both have addresses that start 192.168.2.x but are different thereafter) you can skip directly to step 4. Otherwise you will have to set your PC's IP address manually. If you are unfamiliar with this process, please refer to the "Changing PC's IP Address" on page 7.
4. After changing your PC's IP address, open your web browser and enter the address <http://192.168.2.10>. If your PC is properly configured, you will see the login page of your Smart Switch. If you do not see the login page, please check your settings and repeat step 3.
5. Enter the password (the default is "smcadmin") and click on the Login button.
6. Click on the SYSTEM menu-choice then click on LAN Settings when it appears. On the LAN Settings page, enter the IP address, Subnet Mask and Gateway IP Address for the switch then click on the APPLY button.

No other configuration changes are required at this stage but it is recommended that you change the administrator's password before logging out. To change the password click on the SYSTEM ▾ Password menu-choice and fill in all the fields on the Password Settings page before clicking on the APPLY button.

Selecting a Site

Be sure to follow the site selection guidelines below when choosing a location:

- Select a suitable location for the switch:
- It should be accessible for installing, cabling and maintaining the switch.
- The temperature and humidity should be within the ranges listed in the specifications.
- The status LEDs should be clearly visible.
- There should be adequate space (approximately two inches) on all sides for proper air flow.
- Make sure twisted-pair cable is always routed away from power lines, fluorescent lighting fixtures and other sources of electrical interference such as radios, transmitters, etc.
- Make sure that a properly grounded power outlet is within 2.44 meters (8 feet) of the switch and is powered from an independent circuit breaker. As with any equipment, using a filter or surge suppressor is recommended.

Instructions

1. **Positioning the Switch:** For desktop or shelf mounting, attach the four adhesive feet to the bottom of the switch. For rack mounting, install into a standard EIA 19-inch rack using the included brackets.
2. **Applying Power:** Plug one end of the power adapter into the socket on the switch's rear panel, and the other end into an appropriate electrical outlet. Check the Power LED to be sure power is on.

Note: It is not necessary to power off the switch before connecting or disconnecting any UTP cables, as these actions will not disrupt the operation of other devices attached to the switch.

3. **Connecting PCs:** Connect each PC to an RJ-45 port on the switch using Category 5 or 5e shielded or unshielded twisted-pair (UTP or STP) cable, maximum length 100 meters (328 ft). The EZ Switch 10/100/1000 will support up to 16/24 PCs. All ports on the switch support automatic MDI/MDI-X operation, so you can use straight-through cables for all network connections to PCs or servers, or to other switches or hubs.
4. **Cascading Switches and Other Network Devices:** All the ports on the switch support automatic MDI/MDI-X configuration for cable connections. This allows you to use straight-through cable to connect to other switches or hubs from any port on the switch. No crossover cables or other device settings are needed. See the “Cable Specifications” on page 11 of this guide for further information.

Caution: Do not plug a phone jack connector into any RJ-45 port. This may damage the switch. Instead, use only twisted-pair cables with RJ-45 connectors that conform with FCC standards.

Changing PC’s IP Address

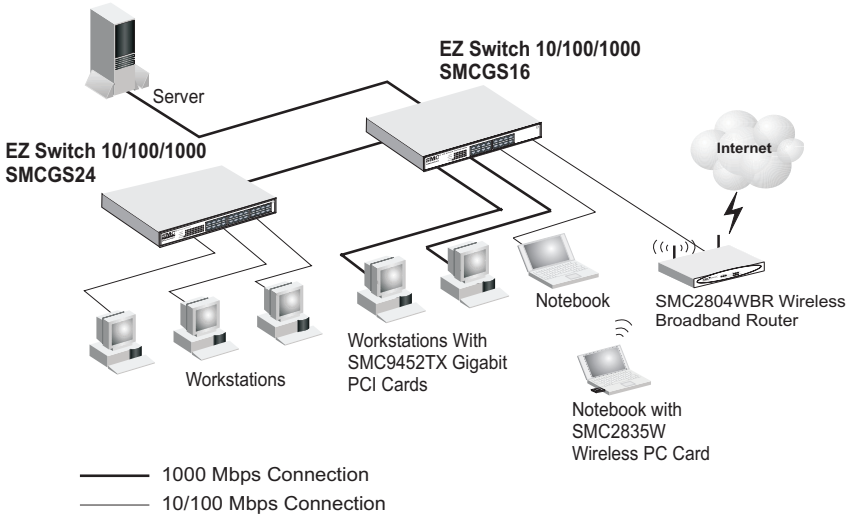
To change the IP address of your PC:

1. On Windows, go to **Start, Settings, Network and Dial-up Connections**.
2. Right-click the connectin icon of which the IP address you want to change, and then click **properties**.
3. In **General** tab, under **Components checked are used by this connection**, click to select **Internet Protocol (TCP/IP)**, and then click **Properties** to open **Internet Protocol (TCP/IP) Properties dialog box**.
4. In **Internet Protocol (TCP/IP) Properties** dialog box, click to select **Use the following IP address**.

5. In **IP address**, **Subnet mask**, and **Default gateway**, type your intended information.
6. Click **OK** to save the changes and quit.

APPLICATION EXAMPLE

A typical application for the SMC GS16/24-Smart is illustrated below.



TRUBLESHOOTING

Diagnosing Switch Indicators

1. Symptom

Power LED does not light after power on.

Probable Causes

- AC power cord may be defective.

Possible Solutions

- Check for loose connections.
- Check the power outlet by using it for another device.
- Replace the AC power cord.

2. Symptom

Link LED does not light after connection is made.

Probable Causes

- Switch port, network card or cable may be defective.

Possible Solutions

- Check that the switch and attached device are both powered on.
- Be sure the network cable is connected to both devices.
- Verify that Category 5 or better cable is used for 10/100 Mbps connections, Category 5 or 5e cable for 1000 Mbps connections, and that the length of any cable does not exceed 100 meters (328 feet).
- Check the network card and cable connections for defects.
- Replace the defective card or cable if necessary.

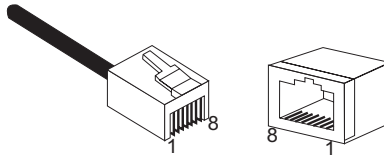
CABLES

Cable Specifications

Cable Types and Specifications			
Cable	Type	Max. Length	Connector
10BASE-T	2-pair Cat. 3 or better 100-ohm UTP	100 m (328 ft)	RJ-45
100BASE-TX	2-pair Cat. 5 or better 100-ohm UTP	100 m (328 ft)	RJ-45
1000BASE-T	4-pair Cat. 5 or better 100-ohm UTP	100 m (328 ft)	RJ-45

1000BASE-T Pin Assignments

Caution: **DO NOT** plug a phone jack connector into any RJ-45 port. Use only twisted-pair cables with RJ-45 connectors that conform with FCC standards.



The table below shows the 1000BASE-T MDI and MDI-X port pinouts. These ports require that all four pairs of wires be connected. Note that for 1000BASE-T operation, all four pairs of wires are used for both transmit and receive.

Use 100-ohm Category 5 or 5e unshielded twisted-pair (UTP) or shielded twisted-pair (STP) cable for 1000BASE-T connections. Also be sure that the length of any twisted-pair connection does not exceed 100 meters (328 feet).

Pin	MDI-X	MDI
1	Bi-directional Data Two Plus (BI_D2+)	Bi-directional Data One Plus (BI_D1+)
2	Bi-directional Data Two Minus (BI_D2-)	Bi-directional Data One Minus (BI_D1-)
3	Bi-directional Data One Plus (BI_D1+)	Bi-directional Data Two Plus (BI_D2+)
4	Bi-directional Data Four Plus (BI_D4+)	Bi-directional Data Three Plus (BI_D3+)
5	Bi-directional Data Four Minus (BI_D4-)	Bi-directional Data Three Minus (BI_D3-)
6	Bi-directional Data One Minus (BI_D1-)	Bi-directional Data Two Minus (BI_D2-)
7	Bi-directional Data Three Plus (BI_D3+)	Bi-directional Data Four Plus (BI_D4+)
8	Bi-directional Data Three Minus (BI_D3-)	Bi-directional Data Four Minus (BI_D4-)

1000BASE-T Cable Requirements

All Category 5 UTP cables that are used for 100BASE-TX connections should also work for 1000BASE-T, providing that all four wire pairs are connected. However, it is recommended that for all critical connections, or any new cable installations, 4-pair Category 5e (enhanced Category 5) cable should be used. The Category 5e specifications include test parameters that are only recommendations for Category 5. Therefore, the first step in preparing existing Category 5 cabling for running 1000BASE-T is a simple test of the cable installation to be sure that it complies with the IEEE 802.3ab standards.

Cable Testing for Existing Category 5 Cable

Installed Category 5 cabling must pass tests for Attenuation, Near-End Crosstalk (NEXT), and Far-End Crosstalk (FEXT). This cable testing information is specified in the ANSI/TIA/EIA-TSB-67 standard. Additionally, cables must also pass test parameters for Return Loss and Equal-Level Far-End Crosstalk (ELFEXT). These tests are specified in the ANSI/TIA/EIA-TSB-95 Bulletin, "The Additional Transmission Performance Guidelines for 100 Ohm 4-Pair Category 5 Cabling."

Note that when testing your cable installation, be sure to include all patch cables between switches and end devices.

Adjusting Existing Category 5 Cabling

If your existing Category 5 installation does not meet one of the test parameters for 1000BASE-T, there are basically three measures that can be applied to try to correct the problem:

1. Replace any Category 5 patch cables with high-performance Category 5e or 6 cables.
2. Reduce the number of connectors used in the link.
3. Reconnect some of the connectors in the link.

PRODUCT SPECIFICATIONS

EZ Switch 10/100/1000

Standards Conformance

IEEE 802.3-2002

Ethernet, Fast Ethernet, Gigabit Ethernet

Full-duplex flow control

Communication Rate

10, 100, and 1000 Mbps

Communication Mode

Full or half duplex at 10/100 Mbps

Full duplex at 1000 Mbps

Media Supported

10BASE-T: 100-ohm Category 3 or better twisted-pair

100BASE-TX: 100-ohm Category 5 or better twisted pair

1000BASE-T: 100-ohm Category 5, 5e, or 6 twisted-pair

Number of Ports

SMCGS16-Smart: 16 RJ-45 1000BASE-T ports

SMCGS24-Smart: 24 RJ-45 1000BASE-T ports

Indicator Panel

Power

Ports: Link/Act, 100/1000M

Dimensions

33 x 20.4 x 4.4 cm (12.99 x 8.04 x 1.73 in.)

Weight

SMCGS16-Smart: 2.0 kg (4.04 lbs)

SMCGS24-Smart: 2.2 kg (4.85 lbs)

MAC Address Table

8 K entries

Memory Buffer

SMCGS16-Smart: 272 Kbits on-chip frame buffer

SMCGS24-Smart: 400 Kbits on-chip frame buffer

Power Consumption

SMCGS16-Smart: 15.8 Watts

SMCGS24-Smart: 24.2 Watts

Heat Dissipation

130 BTU/hr maximum

Power Requirement

Input Voltage: 100 - 240 VAC@50-60 Hz

Temperature

Operating: 0 ~ 40 °C / 32 ~ 104 °F

Storage: -40 ~ 70 °C / -40 ~ 158 °F

Humidity

5% to 95% non-condensing

EMC/Safety Compliances

CE Mark

Immunity

EN 61000-4-2/3/4/5/6/8/11

Emissions

FCC Class A, CISPR Class A, EN 61000-3-2/3

Safety

CSA/CUS (CSA60950-1 & UL60950-1)

TUV / GS EN60950-1

CB IEC60950-1

PRODUCT SPECIFICATIONS

FOR TECHNICAL SUPPORT, CALL:

From U.S.A. and Canada (24 hours a day, 7 days a week)
(800) SMC-4-YOU; Phn: (949) 679-8000; Fax: (949) 679-1481

From Europe: Contact details can be found on www.smc.com

INTERNET

E-mail addresses:
techsupport@smc.com

Driver updates:
[http://www.smc.com/index.cfm?action=tech support drivers downloads](http://www.smc.com/index.cfm?action=tech%20support%20drivers%20downloads)

World Wide Web:
<http://www.smc.com/>

FOR LITERATURE OR ADVERTISING RESPONSE, CALL:

U.S.A. and Canada:	(800) SMC-4-YOU	Fax (949) 679-1481
Spain:	34-91-352-00-40	Fax 34-93-477-3774
UK:	44 (0) 871 277 98 02	Fax 44 (0) 1234 831 413
France:	33 (0) 1 55 64 04 55	Fax 33 (0) 45 34 68 58
Italy:	39 02 739 12 68	Fax 39 02 739 14 17
Benelux:	31 (0) 654 776 790	Fax 31 (0) 172 242 393
Central Europe:	49 (0) 89 92861-0	Fax 49 (0) 89 92861-230
Nordic and Baltics:	46 (0) 566 622 83	Fax 45 (0) 566 622 86
Eastern Europe:	420 266 794 421	Fax 420 266 794 423
Sub-Saharan Africa:	27 012 661 0232	Fax 34 93 471 3374
North West Africa:	34 93 477 4920	Fax 34 93 477 3774
CIS:	34 93 477 4920	Fax 34 93 477 3774
PRC:	86-10-6235-4958	Fax 86-10-6235-4962
Taiwan:	886-2-8797-8006	Fax 886-2-8797-6288
Asia Pacific:	(65) 238 6556	Fax (65) 238 6466
Korea:	82-2-553-0860	Fax 82-2-553-7202
Japan:	81-45-224-2332	Fax 81-45-224-2331
Australia:	61-2-8875-7887	Fax 61-2-8875-7777
India:	91-22-8204437	Fax 91-22-8204443

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