

*Rosewill*<sup>®</sup>

**Networking RC-415/RC-416  
USER'S Manual**



## FCC Certifications



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 when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.

Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received; including interference that may cause undesired operation.



## CE Mark Warning

This equipment complies with the requirements relating to electromagnetic compatibility, EN 55022 class A for ITE, the essential protection requirement of Council Directive 89/336/EEC on the approximation of the laws of the Member States relating to electromagnetic compatibility.

Company has an on-going policy of upgrading its products and it may be possible that information in this document is not up-to-date. Please check with your local distributors for the latest information. No part of this document can be copied or reproduced in any form without written consent from the company.

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## Introduction

The device is a powerful, high-performance Gigabit Ethernet switch, with all ports capable of 10, 100 or 1000Mbps auto-negotiation operation (NWay), which means the switch could automatically negotiate with the connected partners on the network speed and duplex mode. It is ideal for micro-segmenting large networks into smaller, connected subnets for improved performance, enabling the bandwidth demanding multimedia and imaging applications. Moreover, the 10/100/1000Mbps auto-sensing ability provides an easy way to migrate 10/100Mbps to 1000Mbps network with no pain. Compared to the shared 10Mbps or 100Mbps networks, the switch delivers a dedicated 10/100/1000Mbps connection to every attached client with no bandwidth congestion issue. This switch also supports auto MDI / MDI-X function. Each port could be used to connect to another switch or hub with no crossover RJ-45 cable.

Store-and-forward switching mode promises the low latency plus eliminates all the network errors, including runt and CRC error packets. To work under full-duplex mode, transmission and reception of the frames can occur simultaneously without causing collisions as well as double the network bandwidth.

The switch provides 9K bytes jumbo frames. With the Jumbo frame function, you can get better network performance, because the switch can send more data at the same time.

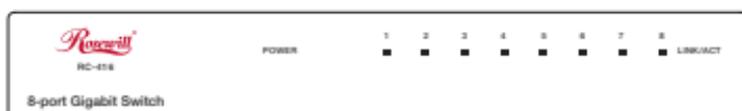
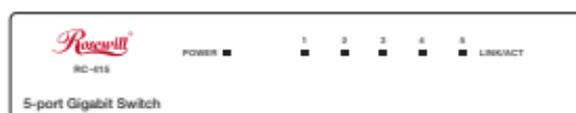
The switch is plug-n-play without any software to configure and also fully compliant with all kinds of network protocols.

Before you start to install the switch, check the following contents in this package :

- One Gigabit Ethernet switch (RC-415 5 port gigabit switch/ RC-416 8 port gigabit switch)
- One power adapter
- User's manual

## LED Definition

Please refer to the following table for LED definition:



| LED      | Status         | Operation                               |
|----------|----------------|---|
| Power    | Steady Green   | Power is on                             |
|          | Off            | Power is off                            |
| Link/ACT | Steady Green   | Port connected                          |
|          | Blinking Green | The port is transmitting/receiving data |

## Stations Connection

Connect each station to the switch by twisted-pair cable. Plug one RJ-45 connector into a RJ-45 port of the switch, and plug the other RJ-45 connector into the station's network adapter. Power on the switch and then system is ready.

For cable selection, refer to the following table.

## Switches Connection

In making a switch interconnection, you could use any port to connect another switch with straight or crossover cable. As all the ports support auto MDI / MDI-X function, using a straight cable to make a switch-to-switch connection is allowed.

For cable selection, refer to the following table :

| Network Speed | Cable Type           | Max.Length |
|---------------|----------------------|------------|
| 10Mbps        | Cat. 3, 4, 5 UTP/STP | 100 meters |
| 100Mbps       | Cat. 5 UTP/STP       | 100 meters |
| 1000Mbps      | Cat. 5 UTP/STP       | 100 meters |

|                        |  |
|------------------------|--|
| <b>Standard</b>        | IEEE 802.3 10BASE-T<br>IEEE 802.3u 100BASE-TX<br>IEEE 802.3ab 1000BASE-T<br>IEEE 802.3x full duplex operation and flow control<br>IEEE 802.3az Draft Energy Efficient Ethernet |
| <b>Interface</b>       | RC-415 - 5* 10/100/1000Mbps RJ-45 Gigabit Ethernet ports<br>RC-416 - 8* 10/100/1000Mbps RJ-45 Gigabit Ethernet ports   |
| <b>Uplink</b>          | Auto MDI/MDI-X (Auto crossover)  |
| <b>Network Speed</b>   | 10/100/1000Mbps & Full/Half duplex mode auto detection (1000Mbps for Full duplex only)   |
| <b>MAC Addr. Table</b> | RC-415 - 8K MAC entries<br>RC-416 - 8K MAC entries   |
| <b>Buffer Memory</b>   | RC-415 - 1M bits<br>RC-416 - 1M bits   |
| <b>Jumbo Frame</b>     | 9K bytes   |
| <b>Power Supply</b>    | RC-415: External Power Adapter 5V 1A<br>RC-416: External Power Adapter 5V 1A   |
| <b>EMI</b>             | CE, FCC and VCCI class A   |

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