

**Industrial 4-port Coax + 2-port 10/100/1000T
+ 2-port 100/1000X SFP
Long Reach PoE over Coaxial Managed Switch**

LRP-422CST

Quick Installation Guide

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1. Package Contents

Thank you for purchasing PLANET Industrial 4-port Coax + 2-port 10/100/1000T + 2-port 100/1000X SFP Long Reach PoE over Coaxial Managed Switch.

“**LRP Managed Switch**” is used as an alternative name in this Quick Installation Guide.

Open the box of the LRP Managed Switch and carefully unpack it. The box should contain the following items:

- The LRP Managed Switch x 1
- Quick Installation Guide x 1
- RS232 to RJ45 Console Cable x 1
- SFP Dust Cap x 2
- BNC Female Dust Cap x 4
- Warning Sticker x 4
- DIN-rail Kit x 1
- Wall Mounting Kit x 1

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

2. Requirements

- Workstations running Windows XP/2003/Vista/7/8/2008, MAC OS X or later, Linux, UNIX, or other platforms are compatible with TCP/IP protocols.
- Workstations are installed with Ethernet NIC (Network Interface Card)
- Serial Port Connection (Terminal)
 - The above Workstations come with COM Port (DB9) or USB-to-RS232 converter.
 - The above Workstations have been installed with terminal emulator, such as Hyper Terminal included in Windows XP/2003.
 - Serial cable -- one end is attached to the RS232 serial port, while the other end to the console port of the LRP Managed Switch.
- Ethernet Port Connection
 - Network cables -- Use standard network (UTP) cables with RJ45 connectors.
 - The above PC is installed with Web browser and JAVA runtime environment plug-in.



Note

It is recommended to use Internet Explorer 8.0 or above to access the LRP Managed Switch. If the Web interface of the LRP Managed Switch is not accessible, please turn off the anti-virus software or firewall and then try it again.

3. Wiring the Power Inputs

The Upper Panel of the **LRP Managed Switch** indicates a DC inlet power socket and consists of one terminal block connector within 6 contacts. Please follow the steps below to insert the power wire.

1. Insert positive/negative DC power wires into contacts 1 and 2 for Power 1 or 5, and 6 for Power 2.

LRP-422CST: DC 48~56V

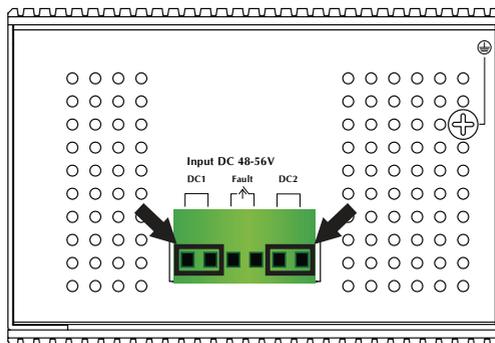
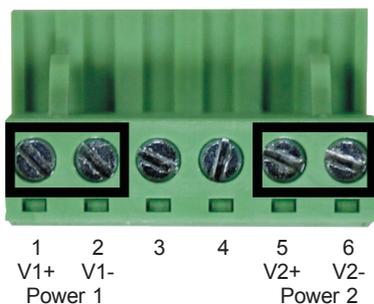


Figure 3-1: LRP-422CST Upper Panel

2. Tighten the wire-clamp screws for preventing the wires from loosening.



	Positive (+) Pin	Negative (-) Pin
LRP-422CST	Pin 1/5	Pin 2/6



Note

The wire gauge for the terminal block should be in the range from 12 to 24 AWG.

4. Terminal Setup

To configure the system, connect a serial cable to a **COM port** on a PC or notebook computer and to the RJ45 type of the console port of the LRP Managed Switch.

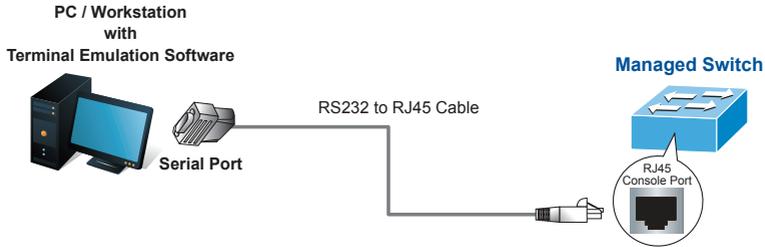


Figure 4-1: LRP Managed Switch Console Connectivity

A terminal program is required to make the software connection to the LRP Managed Switch.

1. Run terminal program on the OS.
2. When the following screen appears, make sure that the COM port should be configured as:

- Baud : 115200
- Data bits : 8
- Parity : None
- Stop bits : 1
- Flow control : None

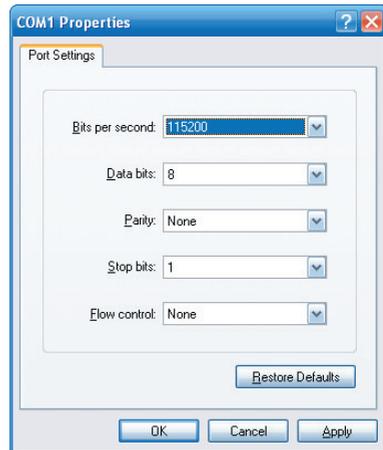


Figure 4-2: COM Port Configuration

5. Logon to the Console

Once the terminal is connected to the device, power on the LRP Managed Switch, and the terminal will display “running testing procedures”. Then, the following message asks to log-in user name and password. The factory default user name and password are shown as follows, and the login screen in Figure 5-1 appears.

```
Username: admin  
Password: admin
```

```
Press any key to continue  
Username: admin  
Password: *****  
LRP-series#
```

Figure 5-1: LRP Managed Switch Console Login Screen

The user can now enter commands to manage the LRP Managed Switch. For a detailed description of the commands, please refer to the following chapters.



Note

1. For security reason, please change and memorize the new password after this first setup.
2. Only accept command in lowercase letter under console interface.

6. Configuring IP Address via the Console

The LRP Managed Switch is shipped with default IP address as follows:

```
IP Address: 192.168.0.100
Subnet Mask: 255.255.255.0
```

To check the current IP address or modify a new IP address for the Switch, please use the procedures as follows:

■ Show the current IP address

1. At the "LRP-series#" prompt, enter "show ip".
2. The screen displays the current IP address, Subnet Mask and Gateway as shown in Figure 6-1.

```
Press any key to continue
Username: admin
Password: *****
LRP-series# show ip
IP Address: 192.168.0.100
Subnet Netmask: 255.255.255.0
Default Gateway: 192.168.0.254
```

Figure 6-1: IP Information Screen

■ Configuring IP address

3. At the "LRP-series#" prompt, enter "configure".
4. At the "LRP-series (config)#" prompt, enter the following command and press <Enter> as shown in Figure 6-2.

```
LRP-series (config)# ip address 192.168.1.100 mask 255.255.255.0
LRP-series (config)# ip default-gateway 192.168.1.254
```

The previous command would apply the following settings for the Switch.

IP Address: 192.168.1.100
Subnet Mask: 255.255.255.0
Gateway: 192.168.1.254

```
Press any key to continue
Username: admin
Password: *****
LRP-series# configure
LRP-series(config)# ip address 192.168.1.100 mask 255.255.255.0
LRP-series(config)# ip default-gateway 192.168.1.254
```

Figure 6-2: IP Address Screen

5. Repeat Step 1 to check if the IP address is changed.

If the IP is successfully configured, the LRP Managed Switch will apply the new IP address setting immediately. You can access the Web interface of the LRP Managed Switch through the new IP address.



Note

If you are not familiar with console command or the related parameter, enter "?" anytime in console to get the help description.

7. Saving the Configuration via the Console

In the switch, the running configuration file stores in the RAM. In the current version, the running configuration sequence running-config can be saved from the RAM to FLASH by **copying** the **running-config startup-config** command, so that the running configuration sequence becomes the startup configuration file, which is called configuration save.

1. At the "LRP-series#" prompt, enter "copy running-config startup-config" as shown in Figure 7-1.

```
Press any key to continue
Username: admin
Password: *****
LRP-series# copy running-config startup-config
Success
```

Figure 7-1: The Configuration Screen

8. Starting Web Management

The following shows how to start up the **Web Management** of the LRP Managed Switch. Note the LRP Managed Switch is configured through an Ethernet connection. Please make sure the manager PC must be set on the same **IP subnet address**.

For example, the default IP address of the LRP Managed Switch is **192.168.0.100**, then the manager PC should be set at **192.168.0.x** (where x is a number between 1 and 254, except 100), and the default subnet mask is 255.255.255.0.

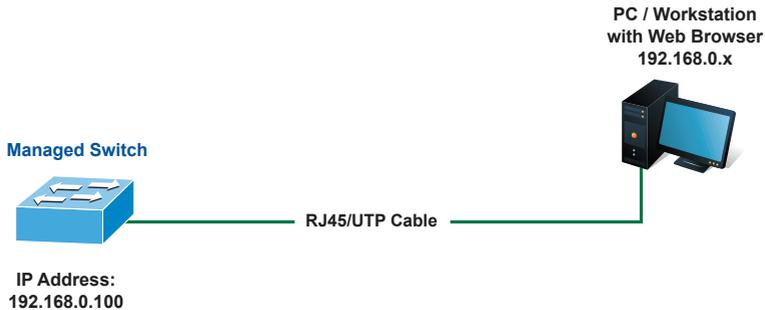


Figure 8-1: IP Management Diagram

Logging in to the LRP Managed Switch

1. Use Internet Explorer 8.0 or above Web browser and enter IP address **<http://192.168.0.100>** to access the Web interface.
2. When the following dialog box appears, please enter the default user name and password "**admin**". The login screen in Figure 8-2 appears.

Default Username: **admin**

Default Password: **admin**

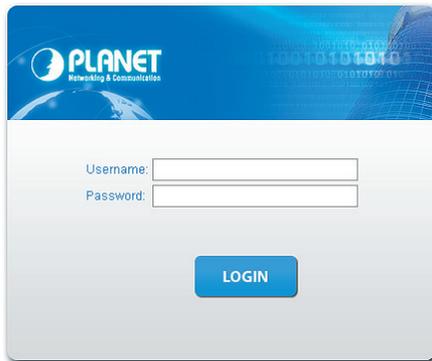


Figure 8-2: Login Screen

3. After entering the password, the main screen appears as Figure 8-3 shows.



Figure 8-3: Web Main Screen of LRP Managed Switch

The Switch Menu on the left of the Web page lets you access all the commands and statistics the LRP Managed Switch provides.



Figure 8-4: Switch Menu

Now, you can use the Web management interface to continue the Switch management.

Please refer to the user's manual for more.

9. Starting Long Reach PoE Communication

The following shows how to start up the **Long Reach PoE Communication** of the LRP Managed Switch from Web Management.

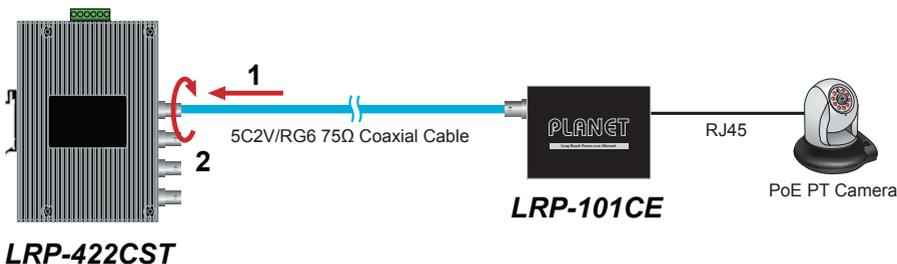


Note

The LRP Managed Switch is configured **DISABLED** Long Reach PoE function as default.

■ Connect the Coaxial Cable

1. Insert the coaxial cable with one side being the 75ΩBNC plug connector into the Long Reach Ethernet coaxial interface.
2. Connect the other end of the cable to a device with **Long Reach Ethernet coaxial extender** installed.
3. Tighten the BNC male connector gently.



4. Enable Long Reach Power over Ethernet function for the all LRP ports from WebUI.

PoE Configuration

PoE Configuration

System PoE Admin Mode	Enable 2
PoE Management Mode	Consumption
Temperature Threshold	68 Degrees C
PoE Temperature	40°C / 104°F
Power Budget	150 W

Power Allocation: 0 W / 150 W

Port	PoE Mode	Schedule	Priority	Current Used [mA]	Power Used [W]	Power Allocation [W]
1	Enable	Profile 1	Critical	0	0	36
2	Enable	Profile 1	Critical	0	0	36
3	Enable	Profile 1	Critical	0	0	36
4	Enable	Profile 1	Critical	0	0	36
Total				0	0	144

Apply **3**

5. Check the LNK LED of the Long Reach Power over Ethernet interface on the front of the LRP Managed Switch. Ensure that the Long Reach Power over Ethernet interface is operating correctly.



Note

1. Before installation, please consider the distance and watts value demand for PD devices. The LRP Managed Switch and LRP Extender PoE output capacity and upload/download performance depend on the length of coaxial cable. You can refer to user's manual in chapter 1.5 for the information.
2. As there are various resistance values in the category of RG-59/U or RG-6/U cable, the actual data rate will vary on the quality of the copper wire and environmental factors.

■ Remove the connected Coaxial Cable

1. Make sure there is no network activity anymore.
2. Disable Long Reach Power over Ethernet function for all the LRP ports from WebUI.

PoE Configuration

PoE Configuration

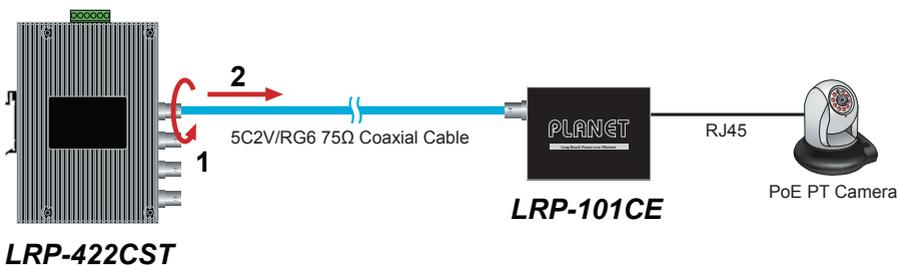
System PoE Admin Mode	Enable
PoE Management Mode	Consumption
Temperature Threshold	68 Degrees C
PoE Temperature	52°C / 125°F
Power Budget	150 W

Power Allocation: 0 W / 150 W

Port	PoE Mode	Schedule	Priority	Current Used [mA]	Power Used [W]	Power Allocation [W]
1	Disable	Profile 1	Critical	0	0	36
2	Enable	Profile 1	Critical	0	0	36
3	Enable	Profile 1	Critical	0	0	36
4	Enable	Profile 2	Critical	0	0	36
Total				0	0	144

Apply

3. Loosen the BNC male connector gently.
4. Pull out the coaxial cable gently.





Note

Never pull out the coaxial cable without disabling Long Reach Power over Ethernet function for the port from WebUI. Directly pulling out the coaxial cable could damage the Long Reach Ethernet coaxial extender and the BNC female connector of the LRP Managed Switch.

1. The package contains warning stickers, which should be stuck on the coaxial cable connector before using PLANET LRP-422CST and LRP extender. If connected with a Non-PLANET LRP extender, it might cause damage to the equipment.

Please stick the sticker on the connector going to the LRP Extender

 **Warning:** This side of connector contains electric power. Please be careful before plugging into the device.

 **Warning:** This side of connector contains electric power. Please be careful before plugging into the device.



Caution

2. After the LRP PoE port is enabled, the center pin of the coaxial cable is with electricity. Do not touch center pin or connect this end to any non- PLANET LRP equipment.



10. Saving Configuration via the Web

In the LRP Managed Switch, the running configuration file stores in the RAM. In the current version, the running configuration sequence of running-config can be saved from the RAM to FLASH by **"Save Configurations to FLASH"** function, so that the running configuration sequence becomes the startup configuration file, which is called configuration save.

To save all applied changes and set the current configuration as a startup configuration, the startup-configuration file will be loaded automatically across a system reboot.

1. Click **"Save > Save Configurations to FLASH"** to log in to the "Configuration Manager" page.



2. Press the **"Apply"** button to save running configuration to start up configuration.

Configuration Manager

Save Configuration

Source File	<input checked="" type="radio"/> Running configuration <input type="radio"/> Startup configuration <input type="radio"/> Backup configuration
Destination File	<input checked="" type="radio"/> Startup configuration <input type="radio"/> Backup configuration

11. Recovering Back to Default Configuration

- IP Address has been changed or admin password has been forgotten –

To reset the IP address to the default IP Address **“192.168.0.100”** or reset the login password to default value, press the hardware **reset button** on the front panel for about **10 seconds**. After the device is rebooted, you can log in the management Web interface within the same subnet of 192.168.0.xx.



Figure 11-1: LRP-422CST Reset Button

12. Customer Support

Thank you for purchasing PLANET products. You can browse our online FAQ resource and User's Manual on PLANET Web site first to check if it could solve your issue. If you need more support information, please contact PLANET switch support team.

PLANET online FAQ:

<http://www.planet.com.tw/en/support/faq.php?type=1>

Switch support team mail address:

support_switch@planet.com.tw

LRP-422CST User's Manual:

<http://www.planet.com.tw/en/support/download.php?type1=1&model=&type=3>



(Please select your switch model name from the Product Model drop-down menu)

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