



Release Notes for the Cisco 575 LRE CPE

July 2001

This document provides corrections to the *Cisco 575 LRE CPE Hardware Installation Guide* and includes new information about connecting a telephone to the CPE. Use this document with the *Cisco 575 LRE CPE Hardware Installation Guide*.

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Clarifications and Corrections to Hardware Installation Guide

This section provides corrections to the *Cisco 575 LRE CPE Hardware Installation Guide*.

Interoperability Between Cisco 575 LRE CPE Devices and Telephones

Cisco Long-Reach Ethernet (LRE) products are designed to share lines with analog, integrated services digital network (ISDN), and digital private branch exchange (PBX) switch telephones that use the 0 to 700 kHz frequency range. Due to the proprietary nature of digital PBX switches, some digital PBX switch services use frequencies above 700 kHz.



Note

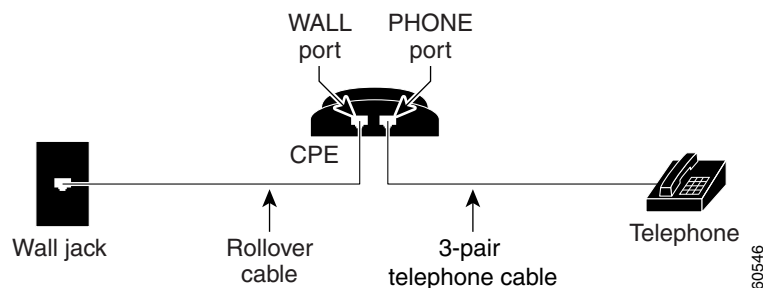
Digital telephones connected to digital PBX switches that use frequencies above 700 kHz will not work when sharing a line with LRE signals. [CSCdu73260]

Connecting to the CPE WALL and PHONE Ports

The “Installation” chapter of the *Cisco 575 LRE CPE Hardware Installation Guide* describes connecting the CPE WALL port to a telephone wall jack by using a standard RJ-11 telephone cable. We recommend using a telephone cable that has a three-pair, rollover configuration. [CSCdu55940]

To connect the CPE PHONE port to your telephone, use the telephone cable supplied with your telephone. (See [Figure 1](#).)

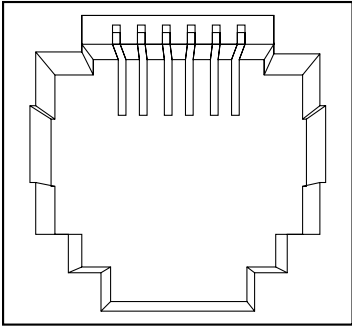
Figure 1 Wall Jack to Telephone Connection



CPE WALL and CPE PHONE Port Pinouts

Figure B-3 and Figure B-4 in the “Cables and Connectors” appendix of the *Cisco 575 LRE CPE Hardware Installation Guide* incorrectly describe the CPE pinouts for the WALL and PHONE ports. [Figure 2](#) and [Figure 3](#) show the correct pinouts. [CSCdu55948]

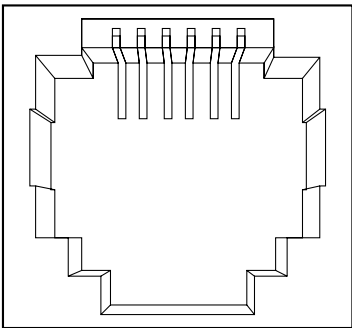
Figure 2 Correct CPE WALL Port Connector Pinouts

Pin	Label	1 2 3 4 5 6
1	Pass-through 6	
2	Pass-through 5	
3	LRE and phone ring	
4	LRE and phone tip	
5	Pass-through 2	
6	Pass-through 1	

**Note**

Figure 2 pinouts are correct when you use a rollover cable between the wall jack and the CPE WALL port. For a complete list of pinouts between the wall jack and CPE, see [Table 1](#).

Figure 3 Correct CPE PHONE Port Connector Pinouts

Pin	Label	1 2 3 4 5 6
1	Pass-through 6	
2	Pass-through 5	
3	Phone tip	
4	Phone ring	
5	Pass-through 2	
6	Pass-through 1	

**Note**

Figure 3 pinouts are correct when you use a rollover cable between the wall jack and the CPE WALL port. For a complete list of pinouts between the wall jack and CPE, see [Table 1](#).

Pinouts Between the Wall Jack and CPE Ports

Long-Reach Ethernet (LRE) operation only requires one wire pair (pins 3 and 4) to carry LRE traffic. Therefore, you can use one-, two-, or three-pair telephone cable. However, you must use two- or three-pair cable for telephones that carry power or other services.

**Note**

We recommend using three-pair telephone cable to connect a telephone to the CPE.

Some single-line or multiline telephones are sensitive to the polarity inversion between pins 3 and 4 of the CPE WALL port and the CPE PHONE port. In these cases, pay special attention to the CPE PHONE port pinouts. (See [Table 1](#).)

Table 1 *Pinouts For Wall Jack and CPE Ports*

Pin	Wall Jack	CPE WALL Port	CPE PHONE Port
1	Pass-through 1	Pass-through 6	Pass-through 6
2	Pass-through 2	Pass-through 5	Pass-through 5
3	Tip	LRE and telephone ring	Phone tip
4	Ring	LRE and telephone tip	Phone ring
5	Pass-through 5	Pass-through 2	Pass-through 2
6	Pass-through 6	Pass-through 1	Pass-through 1



Note

Pins 3 and 4 are crossed internally between the CPE WALL port and the CPE PHONE port. Installing a rollover cable between the wall jack and CPE WALL port corrects the polarity so that the tip and ring connections on the CPE PHONE port are the same as the wall jack pins.



Note

The CPE WALL port pins in [Table 1](#) are correct when you use a rollover cable between the wall jack and the CPE WALL port and an ordinary (straight-through) telephone cord between the CPE PHONE port and the telephone.

Troubleshooting

[Table 2](#) lists the problems that you might encounter and their solutions.

Table 2 Common Problems and Their Solutions

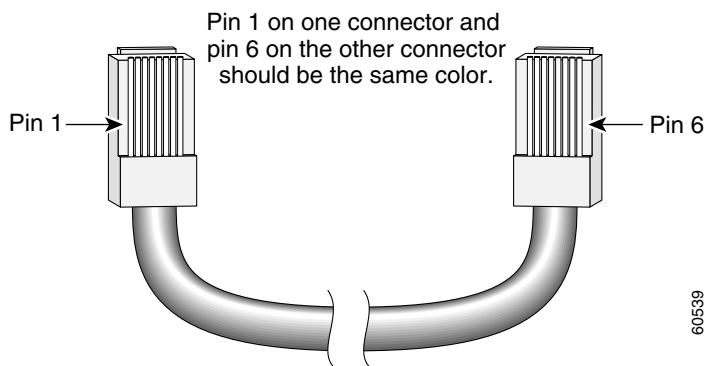
Symptom	Possible Cause	Resolution
No connection to telephone	Incorrect or bad cable. - Incorrect or defective rollover or straight-through telephone cable. - A rollover cable was used when a straight-through cable was required or vice-versa.	- Replace with a tested good cable. - For the correct pinouts and the proper use of rollover and straight-through telephone cables, see the “Telephone Straight-Through and Rollover Cable Pinouts” section on page 6.
	Telephone is sensitive to polarity inversion.	Ensure that the CPE PHONE jack pinouts match the wall jack pinouts.
	Telephone uses signals above 700 kHz.	Verify that telephone requires frequencies above 700 kHz. If so, there is no resolution. Contact the Cisco Technical Assistance Center (TAC).

Connectors and Cables

This section describes the CPE connectors and the cables that you use to connect the CPE to other devices.

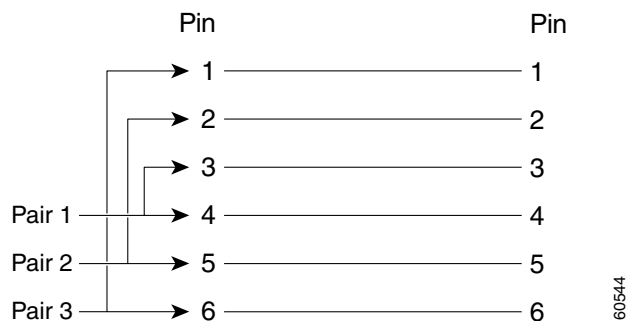
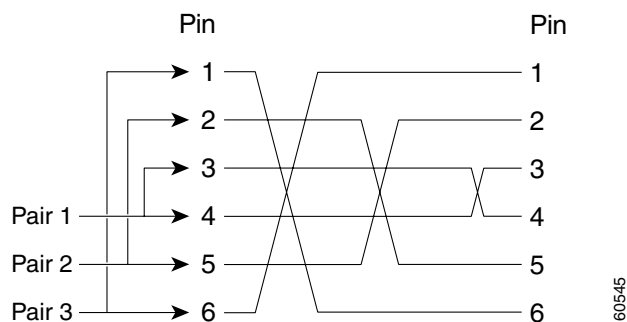
Identifying a Telephone Rollover Cable

You can identify a telephone rollover cable by comparing the two RJ-21 connectors at each end of the cable. Hold the cable ends side-by-side, with the tab facing away from you. The wire connected to the pin on the outside of the left RJ-21 connector should be the same color as the wire connected to the point on the outside of the right RJ-21 connector. (See [Figure 4](#).)

Figure 4 *Identifying a Telephone Rollover Cable*

Telephone Straight-Through and Rollover Cable Pinouts

The schematics of straight-through and rollover telephone cables are shown in [Figure 5](#) and [Figure 6](#).

Figure 5 *Telephone Straight-Through Cable Schematic***Figure 6** *Telephone Rollover Cable Schematic*

Related Documentation

The following publications provide more information about the Cisco 575 LRE CPE, the Catalyst 2900 LRE XL switches, and the LRE switch software:

- *Cisco 575 LRE CPE Hardware Installation Guide*
- *Release Notes for the Catalyst 2900 Series XL and Catalyst 3500 Series XL, Cisco IOS Release 12.0(5.4)WC(1)*
- *Release Notes for the Catalyst 2900 LRE XL Switches*
- *Catalyst 2900 Series XL and Catalyst 3500 Series XL Software Configuration Guide*
- *Catalyst 2900 Series XL and Catalyst 3500 Series XL Command Reference*
- *Catalyst 2900 Series XL Hardware Installation Guide*

Obtaining Documentation

The following sections provide sources for obtaining documentation from Cisco Systems.

World Wide Web

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- <http://www.cisco.com>
- <http://www-china.cisco.com>
- <http://www-europe.cisco.com>

Cisco Documentation CD-ROM

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http://www.cisco.com/cgi-bin/order/order_root.pl
- Registered Cisco.com users can order the Documentation CD-ROM through the online Subscription Store:
<http://www.cisco.com/go/subscription>
- Nonregistered Cisco.com users can order documentation through a local account representative by calling Cisco corporate headquarters (California, USA) at 408 526-7208 or, in North America, by calling 800 553-NETS(6387).

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To access Cisco.com, go to the following website:

<http://www.cisco.com>

Technical Assistance Center

The Cisco TAC website is available to all customers who need technical assistance with a Cisco product or technology that is under warranty or covered by a maintenance contract.

Contacting TAC by Using the Cisco TAC Website

If you have a priority level 3 (P3) or priority level 4 (P4) problem, contact TAC by going to the TAC website:

<http://www.cisco.com/tac>

P3 and P4 level problems are defined as follows:

- P3—Your network performance is degraded. Network functionality is noticeably impaired, but most business operations continue.
- P4—You need information or assistance on Cisco product capabilities, product installation, or basic product configuration.

In each of the above cases, use the Cisco TAC website to quickly find answers to your questions.

To register for Cisco.com, go to the following website:

<http://www.cisco.com/register/>

If you cannot resolve your technical issue by using the TAC online resources, Cisco.com registered users can open a case online by using the TAC Case Open tool at the following website:

<http://www.cisco.com/tac/caseopen>

Contacting TAC by Telephone

If you have a priority level 1 (P1) or priority level 2 (P2) problem, contact TAC by telephone and immediately open a case. To obtain a directory of toll-free numbers for your country, go to the following website:

<http://www.cisco.com/warp/public/687/Directory/DirTAC.shtml>

P1 and P2 level problems are defined as follows:

- P1—Your production network is down, causing a critical impact to business operations if service is not restored quickly. No workaround is available.
- P2—Your production network is severely degraded, affecting significant aspects of your business operations. No workaround is available.

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