# Hard Plug Loopback Test for E1 Lines Flowchart

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## Contents

## Introduction

This document provides a troubleshooting flowchart for the Hard Plug Loopback test for E1 lines. To see more infomation on the commands below, refer to Hard Plug Loopback Tests for E1 Lines.

## Prerequisites

### Requirements

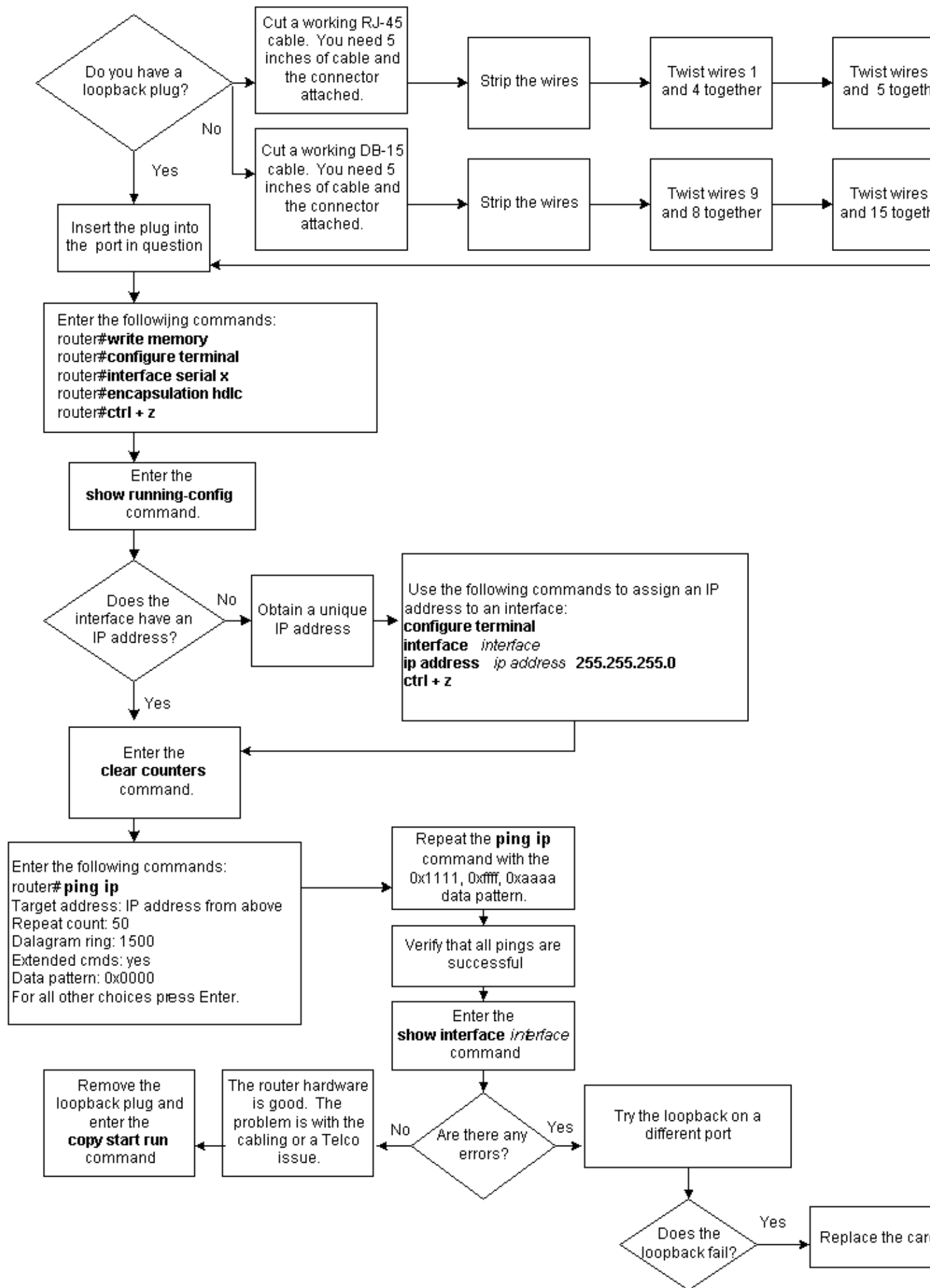There are no specific prerequisites for this document.

### Components Used

This document is not restricted to specific software and hardware versions.

### Conventions

For more information on document conventions, see the Cisco Technical Tips Conventions.

## Troubleshooting Flowchart

```
Do you have a          Cut a working RJ-45         Strip the wires      Twist wires 1        Twist wires
loopback plug?         cable. You need 5                               and 4 together       and 5 togeth
                       inches of cable and
        No             the connector
                       attached.

  Yes
                       Cut a working DB-15         Strip the wires      Twist wires 9        Twist wires
                       cable. You need 5                               and 8 together       and 15 togeth
Insert the plug into   inches of cable and
the port in question   the connector
                       attached.

Enter the followijng commands:
router#write memory
router#configure terminal
router#interface serial x
router#encapsulation hdlc
router#ctrl + z

Enter the
show running-config
command.

                    No      Obtain a unique       Use the following commands to assign an IP
Does the                    IP address            address to an interface:
interface have an                                 configure terminal
IP address?                                       interface   interface
                                                  ip address   ip address  255.255.255.0
                                                  ctrl + z
      Yes

Enter the
clear counters
command.

Enter the following commands:       Repeat the ping ip
router#ping ip                      command with the
Target address: IP address from above   0x1111, 0xffff, 0xaaaa
Repeat count: 50                    data pattern.
Dalagram ring: 1500
Extended cmds: yes                  Verify that all pings are
Data pattern: 0x0000                successful
For all other choices press Enter.
                                    Enter the
                                    show interface interface
                                    command

Remove the        The router hardware
loopback plug and is good. The                      Try the loopback on a
enter the         problem is with the   No    Yes   different port
copy start run    cabling or a Telco  Are there any
command           issue.              errors?

                                                          Does the            Yes
                                                          loopback fail?            Replace the car
```

# Related Information

- **E1 Troubleshooting**
- **E1 Layer 1 Troubleshooting**
- **E1 Alarm Troubleshooting**
- **E1 Error Event Troubleshooting**
- **E1 PRI Troubleshooting**
- **Access Technology Support Pages**
- **Technical Support – Cisco Systems**

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