

# Using the Cisco 2524–2525 Back-to-Back

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## Back-to-Back Setup

The Cisco 2524–2525 can be used in back-to-back configurations with the T1 CSU/DSU and the four-wire 56k CSU/DSU using a cross-over cable between the CSU/DSUs. The two-wire CSU/DSU cannot be configured for back-to-back operation in this manner. Back-to-back configuration of the 4-wire CSU/DSU has the following restrictions:

- You cannot use a **clock rate of auto** on either side of the back-to-back setup
- You cannot use a **clock rate of 64** .
- You cannot use **switched-56 operation** .

## Before You Begin

### Conventions

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

### Prerequisites

There are no specific prerequisites for this document.

## Constructing a Cross-Over Cable

The T1 CSU/DSU has a different pinout than the four-wire 56k CSU/DSU. The connector for the T1 CSU/DSU is an RJ-48C. The connector for the four-wire 56k CSU/DSU is an RJ-48S. Both connectors are compatible with RJ-45 plugs.

### T1 CSU/DSU Cross-Over Pinout

From RJ 48C Pin	To RJ-48C Pin
1	4
2	5
4	1

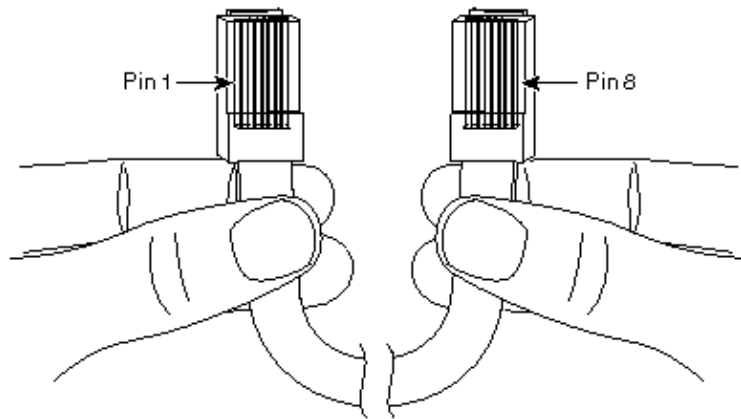
5	2
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## 56k CSU/DSU Cross-Over Pinout

From RJ 48S Pin	To RJ-48S Pin
1	7
2	8
7	1
8	2

**Tip:** You can actually use a Cisco rolled RJ-45 cable (CAB-500RJ=) as a four-wire 56k cross-over cable. Even though the polarity is wrong, the bi-polar signal will be interpreted correctly by the CSU/DSU.

**Tip:** Make sure you count the RJ-45 pins as shown in the illustration below:



## T1 CSU/DSU Configuration

Set one CSU/DSU to clock source internal, and the other CSU/DSU to clock source line. The linecode, framing, data-coding, and timeslots must be set the same on both CSU/DSUs.

## Four-Wire 56k CSU/DSU Configuration

Set one CSU/DSU to clock source internal, and the other CSU/DSU to clock source line. On the CSU/DSU with internal clock, the clock rate must not be auto. Both CSU/DSUs must be set for service-module 56k network-type dds.

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