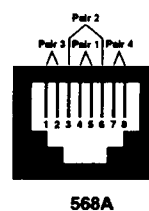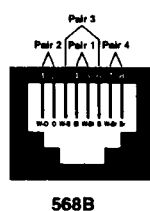1 5 JUN 2000

CAT5 Patchless Patch Panels
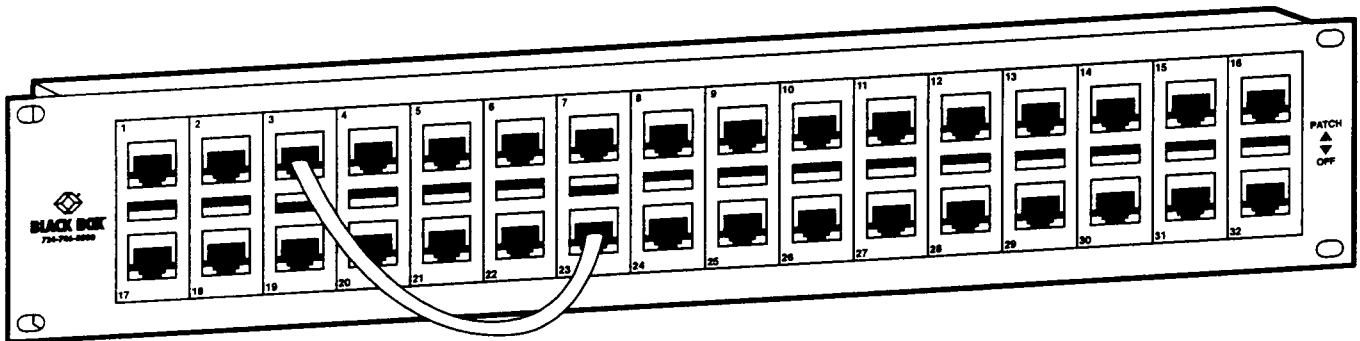
1. Specifications

Compliance—FCC Part 15, Subpart J, Class A (USA); EN-55022, Class B (Europe)

Termination Type—568B/568A

Standards—ANSI, TIA/EIA-568

Connectors—Front: (32) shielded or unshielded RJ-45; Rear: (32) shielded or unshielded RJ-45 or 110 IDC; RJ-45 connectors pinned as shown below

568B

568A

Bandwidth Support—100 MHz

Material—Aluminum

Temperature Tolerance— 32 to 185°F (0 to 85°C)

Relative Humidity—Up to 90%, noncondensing

Size—3.5"H x 19"W x 2.6"D (8.9 x 48.3 x 6.6 cm)

Weight—2.9 lb. (1.3 kg)

TRADEMARKS

Any trademarks mentioned in this manual are acknowledged to be the property of the trademark owners.

2. Introduction

2.1 Description

The CAT5 Patchless Patch Panels are designed to support all wiring centers. The panels use Switching Patch Panels (SPPs) technology: it lets you flip a switch instead of moving patch cords. Models are available for unshielded or shielded twisted pair (UTP or STP) with TIA/EIA-568B 110, TIA/EIA-568A 110, or RJ-RJ connectors. See **Figure 1** for an illustration of the 32-Port CAT5 Patchless Patch Panel.
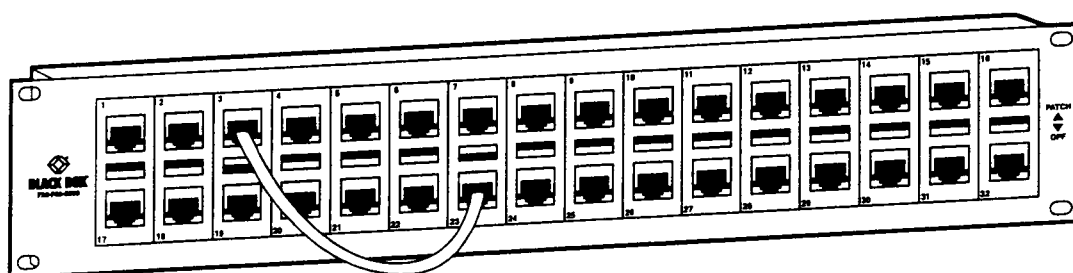

Figure 1. CAT5 Patchless Patch Panel.

The Panel supports all applications operating on bandwidths up to 100 MHz, including TP-PMD and ATM. The panel exceeds all Category 5 channel requirements for NEXT, attenuation, and return loss.

Six CAT5 Patchless Patch Panels are available, as shown in **Table 1**, below.

Table 1. Available CAT5 Patchless Patch Panels

Description	Product Code
Patchless Patch Panel, 32 port, UTP 110, 568B	JPM650A
Patchless Patch Panel, 32 port, STP 110, 568B	JPS200A
Patchless Patch Panel, 32 port, UTP RJ-RJ, 568B	JPM651A
Patchless Patch Panel, 32 port, STP RJ-RJ, 568B	JPS201A
Patchless Patch Panel, 32 port, UTP 110, 568A	JPM652A
Patchless Patch Panel, 32 port, STP 110, 568A	JPS202A

2.2 Features

• Flip a switch instead of fumbling with patch cords.

• Increases signal strength by eliminating connector loss.

• Cuts maintenance and equipment expenses in the wiring closet.

• Improves reliability by eliminating patching errors.

• Supports all wiring centers.

- Supports CAT5 and CAT5E requirements.

- Saves rack space in wiring centers.

3. Installation and Operation

3.1 Installing the Patch Panel

Determine the appropriate mounting location for the patch panel. Insert screws (not supplied) through the keyholes in the rear panel and fasten the patch panel securely to the wall.

Figure 3 shows how to install the CAT5 Patchless Panels in a traditional interconnect arrangement. Figure 4 shows how to install the panels in a cross-connect arrangement.

NOTE

Since NEXT electrical performance is affected by wiring practices, TIA/EIA 568 specifies "preserving wiring twist as closely as possible to the point of mechanical termination." In addition, TSB-40 states "the amount of untwisting in a pair as a result of termination to connector hardware shall be no greater than 13 mm (0.5 inches) for Category 5 and shall be no greater than 24 mm (1 inch) for Category 4."

3.2 Recommended Instructions for Installing the Cable and Operating the Patch Panel

1. Run horizontal cabling to the rear (top) 110 punch or RJ-45 jack.

2. Run cable from the rear (bottom) 110 punch or RJ-45 jack to the hub.

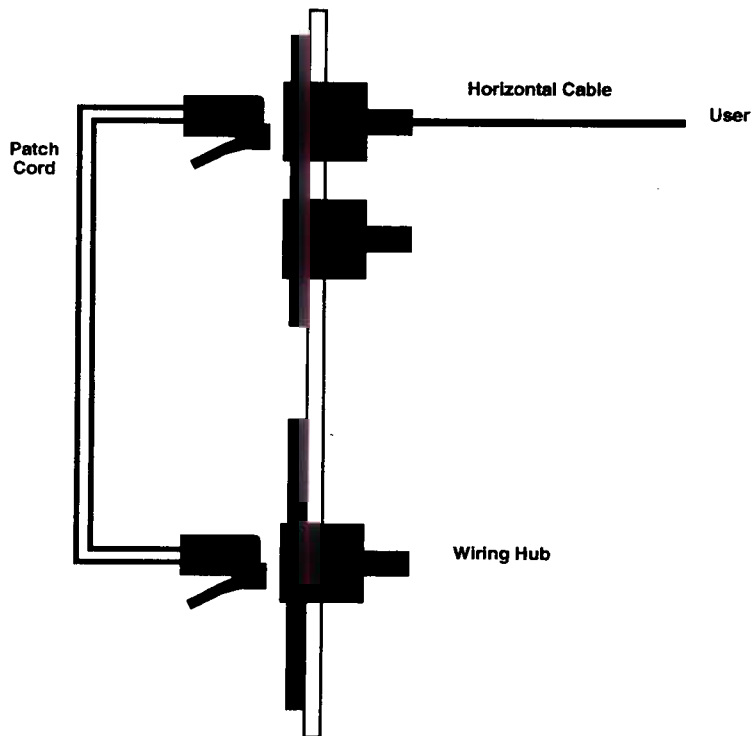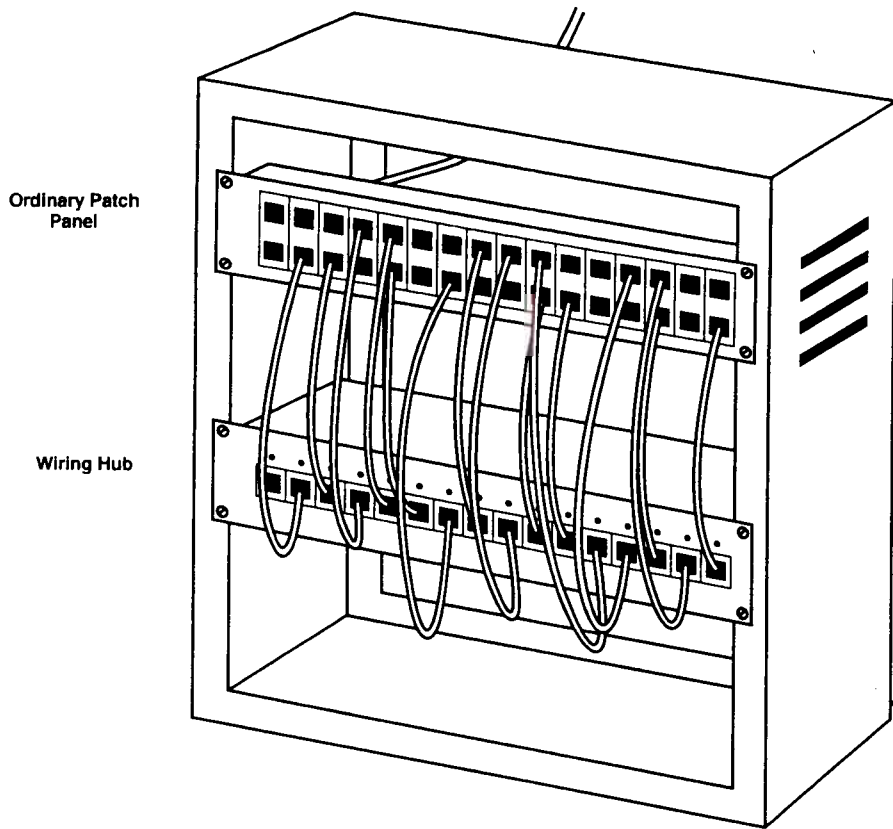3. Move the switch to the up position (red) to join the two ports together.

Ordinary Patch
Panel

Wiring Hub

Horizontal Cable

User

Patch
Cord

Wiring Hub

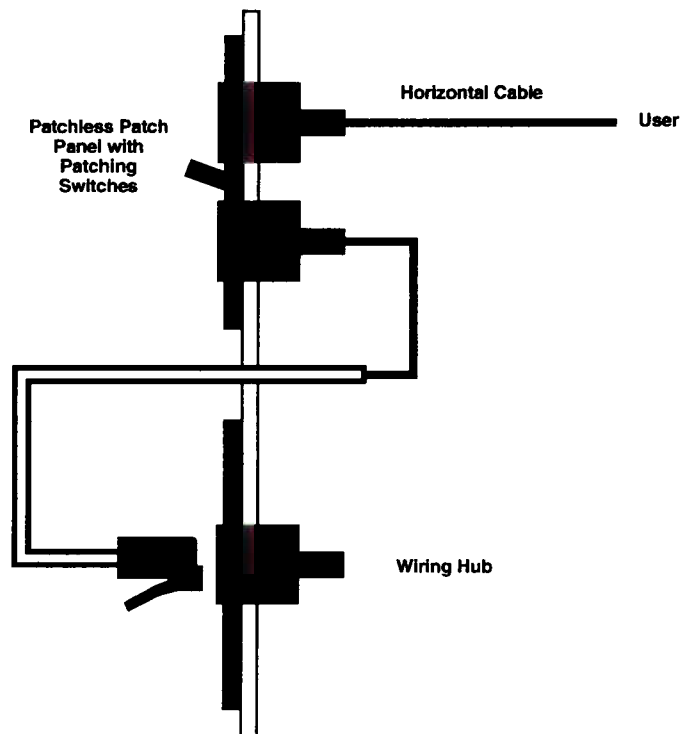Figure 3. Interconnect Arrangement with Patch Cords.

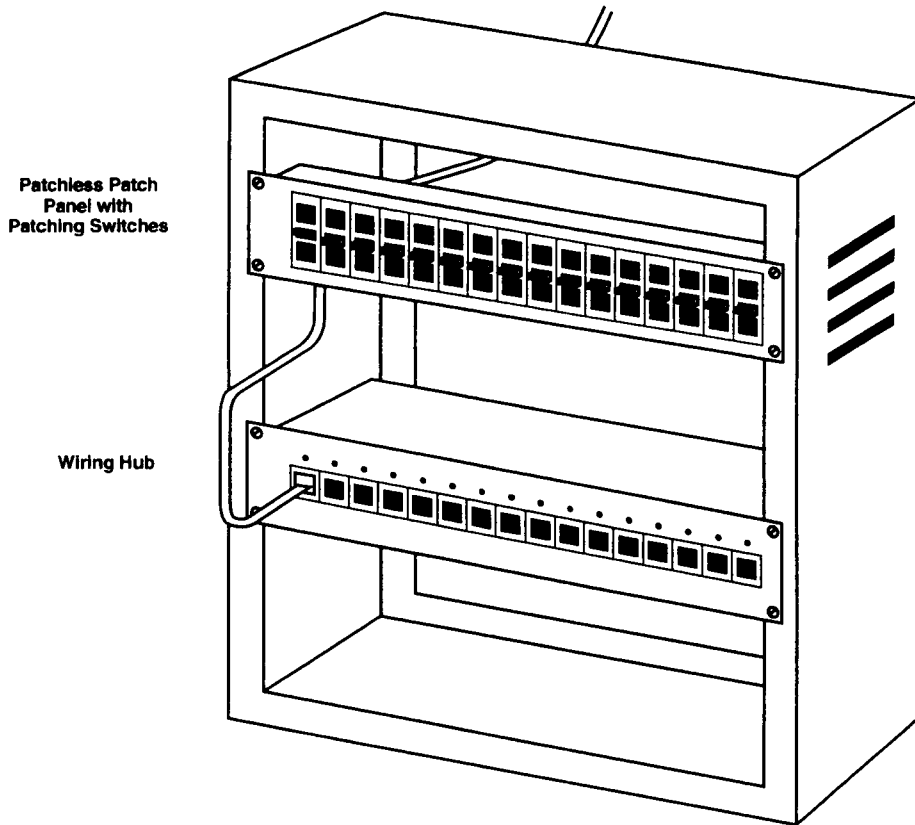Figure 4. Cross-Connect Arrangement with Patching Switches.

NOTE
The arrangement shown in Figure 4 eliminates Near-End Crosstalk (NEXT).