5. Installation
5.1 Configuration
Place the repeater with the CATx/fiber connectors on the left and the fiber connectors on the right. The main printed circuit board will look like Figure 5.

5.1.1 Operating Mode, Repeater or Cross Repeater
To change the operating mode from repeater to cross repeater or vice versa, install optical transceivers and reconfigure the repeater.

Table 2. Repeater or cross repeater configuration.

<table>
<thead>
<tr>
<th>Operating Mode</th>
<th>JP1</th>
<th>JP A B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Repeater or cross repeater</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CATx/fiber cross repeater</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5.1.2 Operating Mode, Dual-Head Cross Repeater
Table 3. Dual-head cross repeater configuration.

<table>
<thead>
<tr>
<th>Operating Mode</th>
<th>JP1</th>
<th>JP A B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Repeater or cross repeater</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CATx/fiber cross repeater</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5.2 Installation Instructions
Attach connectors marked with “A” to cables that link to a local unit. Attach connectors marked with “B” to cables that link to a remote unit.

5.2.1 CATx or Fiber Repeater, Multimode/Single-Mode Cross Repeater
Connect the local device via CATx (or fiber) Connector A and connect the remote device via CATx (or fiber) Connector B.

Figure 6. Cross repeater example.

5.2.2 CATx/Cross Repeater
Connect the local device via CATx (or fiber) Connector A. Connect Fiber Connector B to Fiber Connector A on the second repeater. Connect the remote device via CATx (or fiber) Connector B.

Figure 7. CATx/Cross repeater sample.

5.2.3 Dual-Head Cross-Repeater
Connect the local device’s CATx port via the connector marked “Cross Repeater Local CATx.” Connect the remote device’s CATx port via the connector marked “Cross Repeater Remote CATx.”

Figure 8. Dual-head cross repeater application.
1. Quick Setup
This section briefly describes how to install your Repeater or Cross Repeater. Unless you are an experienced user, we recommend that you follow the procedures described in the rest of this guide.

**Install System**
1. Connect local device to CPU or switch.
2. Connect local device to Repeater and Repeater to remote device using matching interconnection cable (CATx or fiber).
3. Connect remote device to KVM.
4. Power up the system.

<table>
<thead>
<tr>
<th>Power LED illuminated?</th>
<th>NO</th>
<th>YES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Check PSUs and connection to power outlet.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Link LED illuminated?</th>
<th>NO</th>
<th>YES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Check the CATx/fiber cable and CATx/fiber connectors.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**2. Installation**
For first-time users, we recommend that you carry out a test placement, confined to a single room, before installing it fully. This will enable you to identify and solve any cabling problems, and experiment with the Repeater/Cross Repeater more conveniently.

**2.1 What's Included**
Your package should include the following items. If anything is missing or damaged, contact Black Box Technical Support at 724-746-5500 or info@blackbox.com.

- Repeater/Cross Repeater
- 5-VDC universal power supply
- U.S. power cord
- This Quick Start Guide

2.2 System Setup
To install your Repeater/Cross Repeater:
1. Switch off all devices.
2. Connect the interconnect cable to the local device’s interconnect socket and the repeater/cross repeater.
3. Connect the interconnect cable to the remote device’s interconnect socket and the repeater/cross repeater.
4. Connect the 5-VDC power supply to the repeater.

**NOTE:** Use only the power supply that you received with this unit or a manufacturer-approved replacement.

3. Hardware Description
3.1 Device Views

![Figure 1. Repeater/cross repeater CATx view.](image)

**LED Setting**

<table>
<thead>
<tr>
<th>LED Setting</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power (red)</td>
<td>Off: Device not ready; On: Device ready</td>
</tr>
<tr>
<td>Link Status (green)</td>
<td>Blinking: No interconnect connection via CATx or fiber cable; On: Device ready</td>
</tr>
<tr>
<td>Data Error (green)</td>
<td>Not used</td>
</tr>
</tbody>
</table>

3.2 Diagnostics
Each repeater/cross repeater has three LED indicators: Power, Data Error, and Link Status. The Power LED is next to the power socket.

![Figure 2. Repeater/cross repeater fiber view.](image)

4. Service Setup
For most applications, you won’t need to make any adjustments to set up your repeater/cross repeater.

For some applications, you may need to open the repeater. Unscrew the UNC-type screws on both sides of the monitor connections. Put the lower and upper shells of the case aside.

![Figure 3. Diagnostic LEDs on the repeater/cross repeater.](image)

![Figure 4. Removing the screws.](image)