Before you set up and operate your BlackStorm Server, see the Dell Safety instructions booklet in the box.

**CAUTION**

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**Technical Support:**

(1) 613 • 652 • 4886

techsupport@rossvideo.com

**Need Help?**

Technical Support: (+1) 613 • 652 • 4886
techsupport@rossvideo.com

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**Breakout Panel Rack Mounting**

Unpack and mount your BlackStorm Server Breakout Panel at the back of a 19" wide equipment rack above or below the BlackStorm Server.

**Video Out & Reference**

- **2 Channel Video Output**
  - a. Fasten the small connector of a 1.0/2.3-to-BNC adapter cable to the OUT 1 Mini-Din on the server. Fasten the large connector of the adapter cable to the rear of the VIDEO 1 BNC connector on the Breakout Panel.
  - b. Fasten the small connector of an adapter cable to the OUT 2 Mini-Din on the server. Fasten the large connector of the adapter cable to the rear of the VIDEO 2 BNC connector on the Breakout Panel.

For information about cabling your breakout panel to a 4 channel BlackStorm Server, refer to the reverse side of this page.

**Reference**

Fasten the small connector of a 1.0/2.3-to-BNC adapter cable to the REF Mini-Din on the server. Fasten the large connector of the adapter cable to the rear of the REF BNC connector on the Breakout Panel.

---

**2 Channel Video Output**

- a. Connect your Video Output cables to the VIDEO BNC connectors on the Breakout Panel as follows:
  - Channel 1 ➔ VIDEO 1
  - Channel 2 ➔ VIDEO 2

- b. Connect your house reference GenLock signal to the REF BNC on the Breakout Panel.

- c. Connect your linear time code input cable for channel 1 to the LTC 1 IN BNC on the Breakout Panel.

- d. Connect your linear time code input cable for channel 2 to the LTC 2 IN BNC on the Breakout Panel.

- e. Connect your linear time code output cable for channel 1 to the LTC 1 OUT BNC on the Breakout Panel.

- f. Connect your linear time code output cable for channel 2 to the LTC 2 OUT BNC on the Breakout Panel.

- g. Connect your channel 1 RS-422 control cable to the COM3 DB9 port on the Breakout Panel.

- h. Connect your channel 2 RS-422 control cable to the COM4 DB9 port on the Breakout Panel.

---

**Breakout Cable**

Connect the Breakout cable to the breakout port on the server.

**Linear Time Code (LTC) In**

- a. From the Breakout cable, fasten the LTC 1 IN BNC to the rear of the VIDEO 1 BNC connector on the Breakout Panel.

- b. From the Breakout cable, fasten the LTC 2 IN BNC to the rear of the VIDEO 2 BNC connector on the Breakout Panel.

**Linear Time Code (LTC) Out**

- a. From the Breakout cable, fasten the LTC 1 OUT BNC to the rear of the VIDEO OUT 1 BNC connector on the Breakout Panel.

- b. From the Breakout cable, fasten the LTC 2 OUT BNC to the rear of the VIDEO OUT 2 BNC connector on the Breakout Panel.

**Remote Control**

- a. From the Breakout cable, fasten the RS-422 No. 1 plug to the rear of the COM3 DB9 port on the Breakout Panel.

- b. From the Breakout cable, fasten the RS-422 No. 2 plug to the rear of the COM4 DB9 port on the Breakout Panel.

---

**Time Code & Remote**

**Breakout Panel Front View**

**Breakout Panel DB9 Female Connector Pin Number Signal**

<table>
<thead>
<tr>
<th>Pin Number</th>
<th>Signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>RefD-</td>
</tr>
<tr>
<td>2</td>
<td>RefD+</td>
</tr>
<tr>
<td>3</td>
<td>TxD-</td>
</tr>
<tr>
<td>4</td>
<td>TxD+</td>
</tr>
<tr>
<td>5</td>
<td>Not Connected</td>
</tr>
<tr>
<td>6</td>
<td>RxD+</td>
</tr>
<tr>
<td>7</td>
<td>RxD-</td>
</tr>
<tr>
<td>8</td>
<td>Ground</td>
</tr>
</tbody>
</table>

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Cabling a Breakout Panel to a 4 Channel BlackStorm Server

**Rack Mounting**

Unpack and mount your BlackStorm Server Breakout Panel at the back of a 19" wide equipment rack above or below the BlackStorm Server.

**Video Out & Reference**

**Video Output**

a. Fasten the small connector of a 1.0/2.3-to-BNC adapter cable to the SDI 1 Mini-Din on the server. Fasten the large connector of the adapter cable to the rear of the VIDEO 1 BNC connector on the Breakout Panel.

b. Fasten the small connector of an adapter cable to the SDI 2 Mini-Din on the server. Fasten the large connector of the adapter cable to the rear of the VIDEO 2 BNC connector on the Breakout Panel.

c. Fasten the small connector of an adapter cable to the SDI 3 Mini-Din on the server. Fasten the large connector of the adapter cable to the rear of the VIDEO 3 BNC connector on the Breakout Panel.

d. Fasten the small connector of an adapter cable to the SDI 4 Mini-Din on the server. Fasten the large connector of the adapter cable to the rear of the VIDEO 4 BNC connector on the Breakout Panel.

**Reference**

Fasten the small connector of a 1.0/2.3-to-BNC adapter cable to the REF Mini-Din on the server. Fasten the large connector of the adapter cable to the rear of the REF BNC connector on the Breakout Panel.

**Breakout Cable**

Connect the Breakout cable to the breakout port on the server.

**Linear Time Code (LTC) In**

a. From the Breakout cable, fasten the LTC 1 IN BNC to the rear of the LTC IN 1 BNC connector on the Breakout Panel.

b. From the Breakout cable, fasten the LTC 2 IN BNC to the rear of the LTC IN 2 BNC connector on the Breakout Panel.

**Linear Time Code (LTC) Out**

a. From the Breakout cable, fasten the LTC 1 OUT BNC to the rear of the LTC OUT 1 BNC connector on the Breakout Panel.

b. From the Breakout cable, fasten the LTC 2 OUT BNC to the rear of the LTC OUT 2 BNC connector on the Breakout Panel.

**Remote Control**

a. From the Breakout cable, fasten the RS-422 No. 1 plug to the rear of the COM3 DB9 port on the Breakout Panel.

b. From the Breakout cable, fasten the RS-422 No. 2 plug to the rear of the COM4 DB9 port on the Breakout Panel.

**Front Connectors**

a. Connect your Video Output cables to the VIDEO BNC connectors on the Breakout Panel as follows:

   - Channel 1: VIDEO 1
   - Channel 2: VIDEO 2
   - Channel 3: VIDEO 3
   - Channel 4: VIDEO 4

b. Connect your house reference GenLock signal to the REF BNC on the Breakout Panel.

c. Connect your linear time code input cable for channel 1 to the LTC 1 IN BNC on the Breakout Panel.

d. Connect your linear time code input cable for channel 2 to the LTC 2 IN BNC on the Breakout Panel.

e. Connect your linear time code output cable for channel 1 to the LTC 1 OUT BNC on the Breakout Panel.

f. Connect your linear time code output cable for channel 2 to the LTC 2 OUT BNC on the Breakout Panel.

g. Connect your channel 1 RS-422 control cable to the COM3 DB9 port on the Breakout Panel.

h. Connect your channel 2 RS-422 control cable to the COM4 DB9 port on the Breakout Panel.

**Bulkhead Connections**

- **Fasten to Rear Connectors**
- **Fasten to Front Connectors**

**Breakout Panel DB9 Female Connector Pin Number Signal**

- 1: RxD-
- 2: RxD+
- 3: TxD-
- 4: TxD+
- 5: Not Connected
- 6: Not Connected
- 7: Not Connected
- 8: Ground
- 9: Ground