HD(I)-XSPA

4K Ultra High-Definition 7.1 Surround Sound AV Receiver

Supplemental Guide
Crestron Electronics, Inc.

Contents

HD(I)-XSPA: 4K Ultra High-Definition 7.1 Surround Sound AV Receiver

Introduction

The Crestron® HD-XSPA and HDI-XSPA make it easy and affordable to put great surround sound in any room of the house as part of a complete home automation and entertainment system.
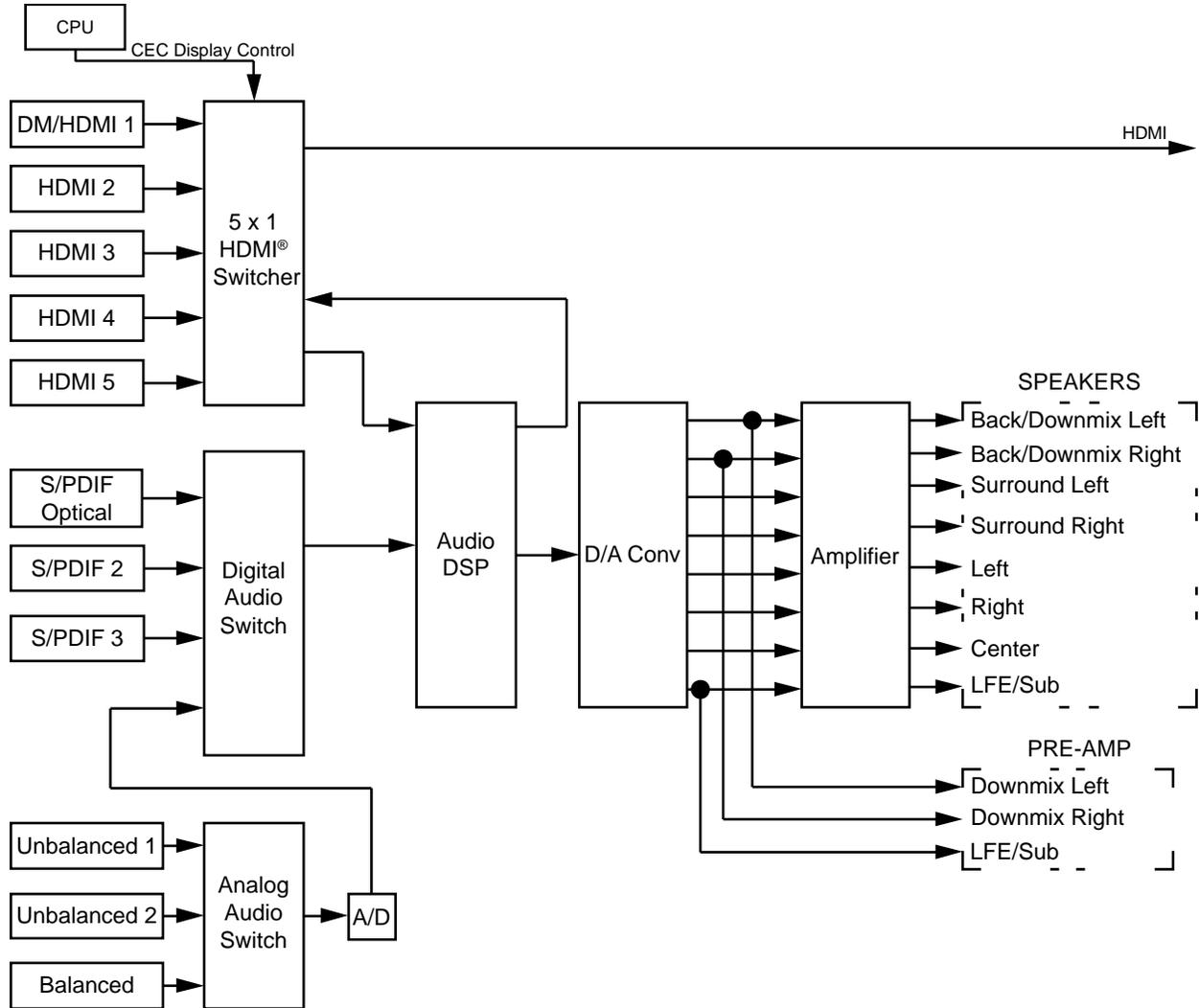
The HD-XSPA and HDI-XSPA are functionally identical. For simplicity within this guide, the term "HD-XSPA" is used except where noted.

For more information, refer to the HD(I)-XSPA DO Guide (Doc. 7730) at www.crestron.com/manuals.

Internal Block Diagrams

The following diagrams represent the switching and DSP capabilities of the HD-XSPA.

Internal Block Diagram of the HD-XSPA

HD-XSPA DSP Detail

```
┌─────────────────┐      2-Channel
│    Decoding     │──────Downmix──────┐
│ (7.1 and Downmix)│                   │
└─────────────────┘                   ▼
         │                   ┌─────────────────┐
         │                   │  Volume/Tone/   │
         ▼                   │    Loudness     │
┌─────────────────┐          └─────────────────┘
│      Bass       │                   │
│   Management    │                   │
└─────────────────┘               2-Channel
         │                        Downmix
         │                            │
         ▼                            │
┌─────────────────┐                   │
│     Volume      │                   ▼
│      Trim       │          ┌──────────────┐
└─────────────────┘          │    4 x 2     │──Back/Downmix L/R──▶
         │               ───▶│    Switch    │
         │                   └──────────────┘
         ▼                        ▲
┌─────────────────┐               │
│     Delay       │               │
│(Up To 100 ms Per Channel)│      │
└─────────────────┘               │
         │                        │
         ▼          Back L/R      │
┌──────────┐ ───────────────────┘
│    EQ    │          Front L/R, Center, Surround L/R ──────▶
└──────────┘
```
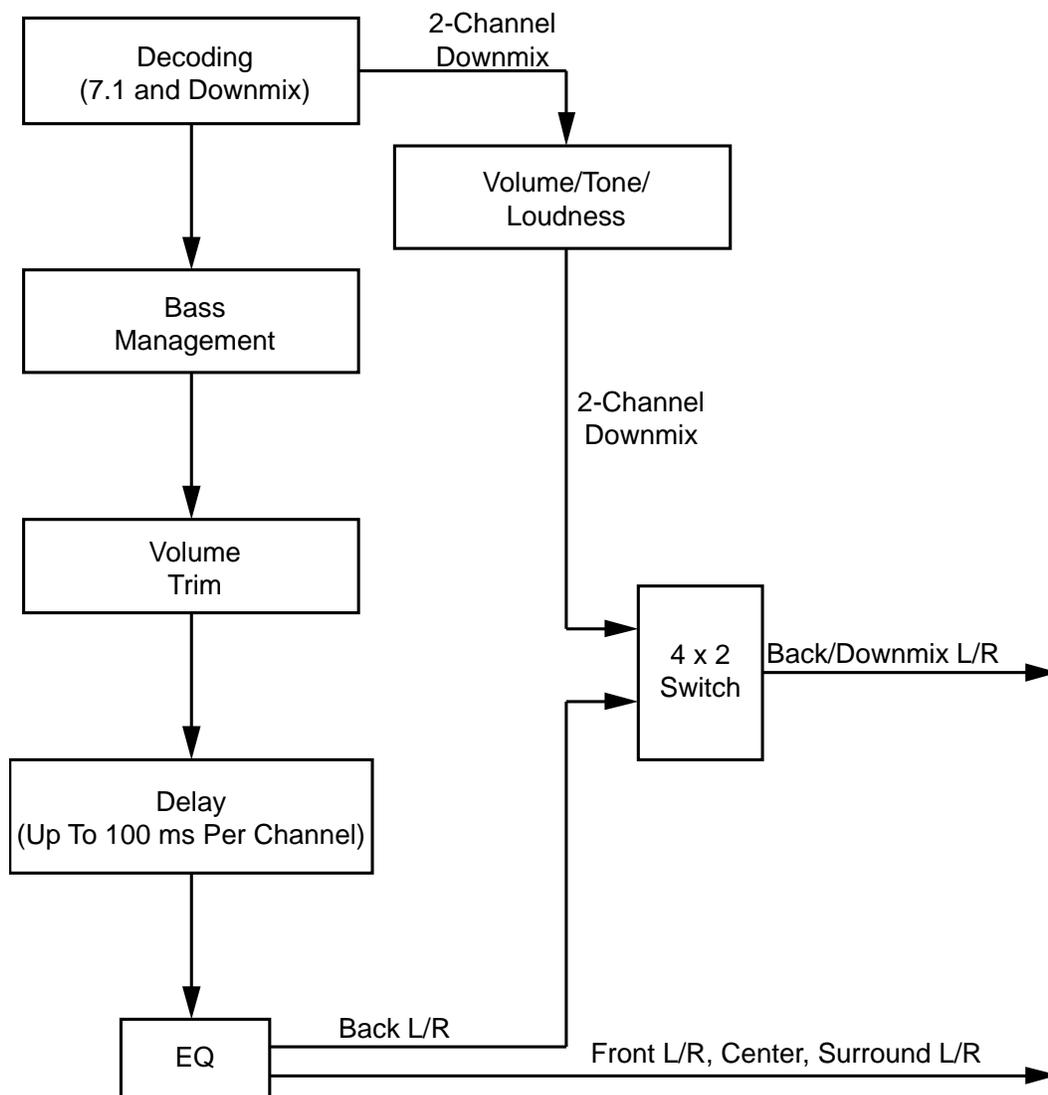
Fuse Replacement

If the HD-XSPA does not power up when it is plugged into an ac outlet, the fuse may need to be replaced. The fuse holder is located on the rear panel, next to the IEC socket assembly. To replace the fuse, perform the following procedure:

1. Unplug the HD-XSPA.

2. Using a flat-head screwdriver, push in the fuse holder while turning the screwdriver counterclockwise until the fuse holder pops out.

3. Remove the fuse from the fuse holder and insert a new fuse.

> **CAUTION:** Use only the type of fuse specified in the table below. Failure to do so may cause damage to the HD-XSPA.

> **NOTE:** One spare fuse is included.

MODEL	REQUIRED FUSE TYPE
HD-XSPA (US/North America)	T10AH (1/4" x 1 1/4", 250 V, 10 A, time-lag, high-rupture rated)
HDI-XSPA (International/220-240 Vac)	T5AH (1/4" x 1 1/4", 250 V, 5 A, time-lag, high-rupture rated)

4. Insert the fuse holder into the HD-XSPA.

5. Push in the fuse holder with a flat-head screwdriver while turning the screwdriver clockwise until the fuse holder sets further into the HD-XSPA.

6. Push in the fuse holder a little further, and then turn the screwdriver clockwise until the fuse holder locks into place.

7. Plug in the HD-XSPA.

Configuration

The HD-XSPA can be configured with the front panel controls or with Crestron Toolbox™ software. For details on using Crestron Toolbox, please refer to the Crestron Toolbox help file.

Using the Installer Menu

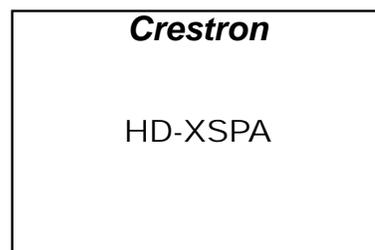The **Installer** menu is used to configure the HD-XSPA.

Open the Installer Menu

To configure the HD-XSPA using the front panel controls, display the **Installer** menu. Perform the following to open the **Installer** menu:
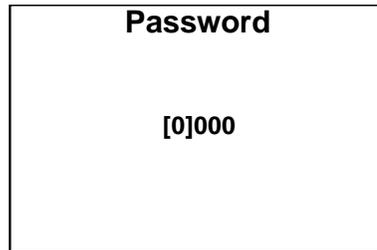
1. Press **HOME** to display the **Crestron HD-XSPA** screen.

Crestron HD-XSPA Screen

> **Crestron**
>
> **HD-XSPA**

2. Press **BACK** to display the **Password** screen.

Password Screen

```
┌──────────────────────────┐
│        Password          │
│                          │
│                          │
│         [0]000           │
│                          │
│                          │
│                          │
└──────────────────────────┘
```
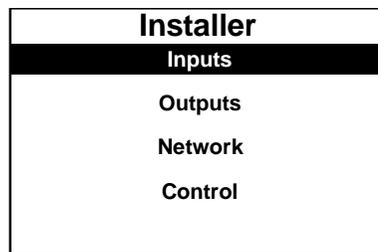
3. Use the Nav Pad to enter the password.

    o   To select a number, press up or down on the Nav Pad.

    o   To move the cursor left or right, press left or right on the Nav Pad.

    When the password is displayed, move the cursor to the rightmost digit, and then press the center button of the Nav Pad. The **Installer** menu is displayed.

    NOTE: The default password is 0000. For instructions on changing the password, refer to "Password" on page 16.

Installer Menu

```
┌──────────────────────────┐
│        Installer         │
│████████ Inputs ██████████│
│                          │
│         Outputs          │
│                          │
│         Network          │
│                          │
│         Control          │
│                          │
└──────────────────────────┘
```

The **Installer** menu is divided into four sections:

*   **Inputs** sets the name and compensation level of each input.
*   **Outputs** sets the audio parameters for the theater and downmix outputs.
*   **Network** configures and displays the HD-XSPA's Ethernet settings.
*   **Control** configures and displays the HD-XSPA's front panel settings.

Exit the Installer Menu

To exit the **Installer** menu, press **HOME**.

Configure the Inputs

The name and compensation level for each input are set from the **Inputs** section of the **Installer** menu. Perform the following to configure an input:

1. Open the **Installer** menu as described in "Open the Installer Menu" on page 4.

2. Press up or down on the Nav Pad to highlight **Inputs**, and then press the center button of the Nav Pad. The **Inputs** menu is displayed.

Inputs Menu

Inputs
DM
HDMI 1
HDMI 2
HDMI 3

3. Press up or down on the Nav Pad to highlight the input to be configured, and then press the center button of the Nav Pad. The selected input's menu is displayed.

Input Menu (DM Shown)

DM
Name
Compensation

Rename the Input

The inputs of the HD-XSPA are assigned default names from the factory. However, a new name can be assigned to an input. Perform the following to change the name of an input:

1. Press up or down on the Nav Pad to highlight **Name**, and then press the center button of the Nav Pad. A list of names is displayed.

DM Screen

DM
CAMERA
DVD
GAME CONSOLE
HDMI

2. Press up or down on the Nav Pad to highlight the desired name, and then press the center button of the Nav Pad. The display returns to the previous menu.
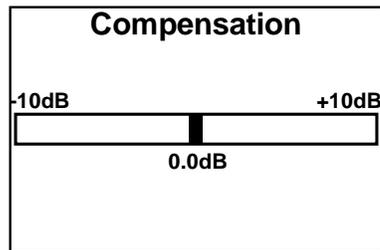
   To cancel and return to the previous menu, press **BACK**.

Adjust the Compensation Level

The compensation level of each input can be adjusted. Perform the following to adjust an input's compensation level:

1. Press up or down on the Nav Pad to highlight **Compensation**, and then press the center button of the Nav Pad. The **Compensation** screen is displayed.

Compensation Screen

```
        Compensation


-10dB                      +10dB
  ┌─────────────█──────────────┐
  └─────────────────────────────┘
            0.0dB


```

2. Press right or left on the Nav Pad to select the amount of compensation to be applied, and then press the center button of the Nav Pad. The display returns to the previous menu.

   To cancel and return to the previous menu, press BACK.

Configure the Outputs

Audio settings for the theater output and downmix output are set from the **Outputs** section of the **Installer** menu. Perform the following to configure an output:
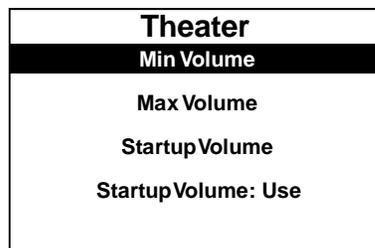
1. Open the **Installer** menu as described in "Open the Installer Menu" on page 4.

2. Press up or down on the Nav Pad to highlight **Outputs**, and then press the center button of the Nav Pad. The **Outputs** menu is displayed.

Outputs Menu

```
           Outputs
      ┌───────────────────┐
      │      Theater      │
      └───────────────────┘
           Downmix



```
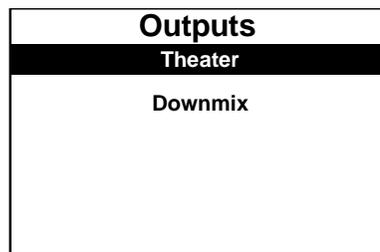
3. Press up or down on the Nav Pad to highlight the output to be configured, and then press the center button of the Nav Pad. The selected output's menu is displayed.

Output Menu (Theater Shown)

```
           Theater
      ┌───────────────────┐
      │    Min Volume     │
      └───────────────────┘
         Max Volume

        Startup Volume

      Startup Volume: Use

```
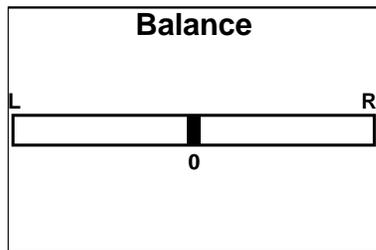
Balance (Downmix Output Only)

The balance of the downmix output can be adjusted. Perform the following to adjust the balance:

1. Select the "Downmix" output as described in "Configure the Outputs" above.

2. Press up or down on the Nav Pad to highlight **Balance**, and then press the center button of the Nav Pad. The **Balance** screen is displayed.

Balance Screen

Balance

L   R

0

3. Press right or left on the Nav Pad to adjust the balance, and then press the center button of the Nav Pad. The display returns to the previous menu.

To cancel and return to the previous menu, press **BACK**.

Stereo or Mono (Downmix Output Only)

The output of the downmix output can be set for stereo or mono sound. Perform the following to set the output for stereo or mono sound:
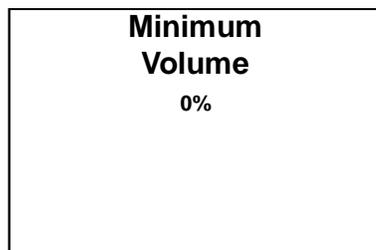
1. Select the "Downmix" output as described in "Configure the Outputs" on page 7.

2. Press up or down on the Nav Pad to highlight **Stereo** or **Mono**, and then press the center button of the Nav Pad. The setting toggles between **Stereo** and **Mono**.

Minimum Volume (Theater and Downmix Outputs)

The minimum volume setting is the lowest volume setting to which an output can be set. Perform the following to adjust the minimum volume:

1. Select the output to be configured as described in "Configure the Outputs" on page 7.

2. Press up or down on the Nav Pad to highlight **Min Volume**, and then press the center button of the Nav Pad. The **Minimum Volume** screen is displayed.

Minimum Volume Screen

Minimum Volume

0%

3. Press up or down on the Nav Pad to adjust the minimum volume level, and then press the center button of the Nav Pad. The display returns to the previous menu.

To cancel and return to the previous menu, press **BACK**.

Maximum Volume (Theater and Downmix Outputs)

The maximum volume setting is the highest volume setting to which an output can be set. Perform the following to adjust the maximum volume:

1. Select the output to be configured as described in "Configure the Outputs" on page 7.

2. Press up or down on the Nav Pad to highlight **Max Volume**, and then press the center button of the Nav Pad. The **Maximum Volume** screen is displayed.

Maximum Volume Screen

**Maximum
Volume**
100%

3. Press up or down on the Nav Pad to adjust the maximum volume level, and then press the center button of the Nav Pad. The display returns to the previous menu.
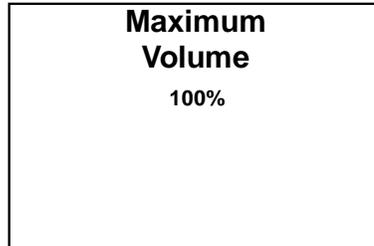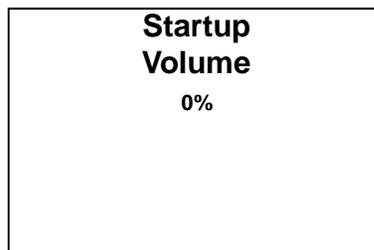
To cancel and return to the previous menu, press **BACK**.

Startup Volume (Theater and Downmix Outputs)

The startup volume setting specifies the volume level that is used when the theater or downmix output is turned on. Perform the following to adjust the startup volume:

1. Select the output to be configured as described in "Configure the Outputs" on page 7.

2. Press up or down on the Nav Pad to highlight **Startup Volume**, and then press the center button of the Nav Pad. The **Startup Volume** screen is displayed.

Startup Volume Screen

**Startup
Volume**
0%

3. Press up or down on the Nav Pad to adjust the minimum volume level, and then press the center button of the Nav Pad. The display returns to the previous menu.

To cancel and return to the previous menu, press **BACK**.

To enable or disable the startup volume setting, refer to "Use or Ignore the Startup Volume (Theater and Downmix Outputs)" on page 10.

Use or Ignore the Startup Volume (Theater and Downmix Outputs)

The startup volume setting can be enabled or disabled. When the startup volume setting is ignored, the last volume setting is used. Perform the following to set the output to use or ignore the startup volume setting:

1. Select the output to be configured as described in "Configure the Outputs" on page 7.

2. Press up or down on the Nav Pad to highlight **Startup Volume: Use** or **Startup Volume: Ignore**, and then press the center button of the Nav Pad. The setting toggles between **Use** and **Ignore**.

Configure the Network

Ethernet settings for the HD-XSPA are set from the **Network** section of the **Installer** menu.

NOTE: If the DM port is connected to a DM® switch, the DM switch can be used to configure the network settings. Refer to the DigitalMedia™ Design Guide (Doc. 4546) at www.crestron.com/manuals for details.

Perform the following to configure the Ethernet settings:

1. Open the **Installer** menu as described in "Open the Installer Menu" on page 4.

2. Press up or down on the Nav Pad to highlight **Network**, and then press the center button of the Nav Pad. The **Network** menu is displayed.

   Network Menu

Network
Status
DHCP: On
IP Address
Subnet Mask

3. Press up or down on the Nav Pad to highlight the parameter to be viewed or configured, and then press the center button of the Nav Pad.

Status

Details of the HD-XSPA's Ethernet connection can be viewed from the **Status** section of the **Network** menu. Perform the following to view this information:

1. Open the **Network** menu as described in "Configure the Network" above.

2. Press up or down on the Nav Pad to highlight **Status**, and then press the center button of the Nav Pad. The **Network Status** menu is displayed.

Network Status Menu

```
        Network Status
              Basic

            Advanced



```
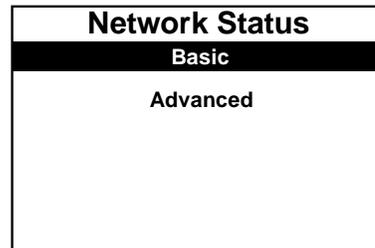
3. Press up or down on the Nav Pad to highlight the desired level of detail to be displayed (**Basic** or **Advanced**), and then press the center button of the Nav Pad.

   o **Basic** shows the status of the Ethernet link, the HD-XSPA's IP address, and the hostname of the master control system.

   o **Advanced** shows the status of the Ethernet link, the HD-XSPA's MAC address, the HD-XSPA's IP address, the subnet mask, the default router, the DHCP setting, the hostname, the domain name, and the IP addresses of the DNS servers.

4. Press up or down on the Nav Pad to scroll through the Ethernet details.

5. Press the center button of the Nav Pad to return to the previous menu.

Enable or Disable DHCP

The HD-XSPA can obtain an IP address, a subnet mask, and the default router information from a DHCP server. Perform the following to enable or disable DHCP:

1. Open the **Network** menu as described in "Configure the Network" on page 10.

2. Press up or down on the Nav Pad to highlight **DHCP: On** or **DHCP: Off**, and then press the center button of the Nav Pad. The setting toggles between **On** and **Off**.

   If any changes were made, the HD-XSPA reboots upon exiting the **Installer** menu.

IP Address

The HD-XSPA uses TCP/IP to communicate with a control system. The IP address can be manually set or obtained from a DHCP server. For information on enabling DHCP to obtain an IP address, refer to "Enable or Disable DHCP" above.

NOTE: If DHCP is enabled, any changes made to the IP address do not take effect.

Perform the following to manually set an IP address:

1. Open the **Network** menu as described in "Configure the Network" on page 10.

2. Press up or down on the Nav Pad to highlight **IP Address**, and then press the center button of the Nav Pad.

   If DHCP is enabled, an IP address and a message stating "DHCP On: Address Invalid" is displayed. Otherwise, controls for setting the IP address are displayed in the **IP Address** screen.

IP Address Screen

```
┌─────────────────────────────────┐
│           IP Address            │
│           [10].0.0.111          │
│                                 │
│                                 │
│                                 │
│                                 │
└─────────────────────────────────┘
```

3. Press up or down on the Nav Pad to set the first octet of the IP address.

4. Press left or right on the Nav Pad to move the cursor between octets (or press the center button of the Nav Pad to move to the next octet) and select one for editing.

5. Set each octet until the correct IP address is displayed.

6. To save the IP address and return to the **Network** menu, move the cursor to the rightmost octet, and then press the center button of the Nav Pad. To cancel the operation and return to the previous screen, press **BACK**.

   If any changes were made, the HD-XSPA reboots upon exiting the **Installer** menu.

Subnet Mask

The subnet mask can be manually set or obtained from a DHCP server. For information on enabling DHCP to obtain a subnet mask, refer to "Enable or Disable DHCP" on page 11.
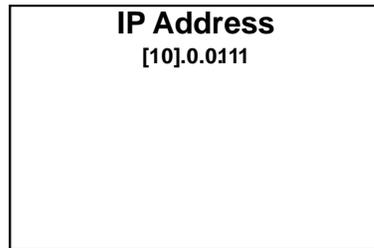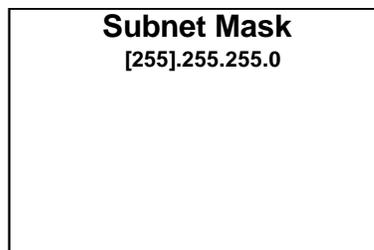
NOTE: If DHCP is enabled, any changes made do not take effect.

Perform the following to manually set the subnet mask:

1. Open the **Network** menu as described in "Configure the Network" on page 10.

2. Press up or down on the Nav Pad to highlight **Subnet Mask**, and then press the center button of the Nav Pad.

   If DHCP is enabled, the subnet mask and a message stating "DHCP On: Address Invalid" is displayed. Otherwise, controls for setting the subnet mask are displayed in the **Subnet Mask** screen.

Subnet Mask Screen

```
┌─────────────────────────────────┐
│          Subnet Mask            │
│         [255].255.255.0         │
│                                 │
│                                 │
│                                 │
│                                 │
└─────────────────────────────────┘
```

3. Press up or down on the Nav Pad to set the first octet of the subnet mask.

4. Press left or right on the Nav Pad to move the cursor between octets (or press the center button of the Nav Pad to move to the next octet) and select one for editing.

5. Set each octet until the correct subnet mask is displayed.

6. To save the subnet mask and return to the **Network** menu, move the cursor to the rightmost octet, and then press the center button of the Nav Pad. To cancel the operation and return to the previous screen, press **BACK**.

    If any changes were made, the HD-XSPA reboots upon exiting the **Installer** menu.

Default Router

The default router can be manually set or obtained from a DHCP server. For information on enabling DHCP to obtain a default router, refer to "Enable or Disable DHCP" on page 11.
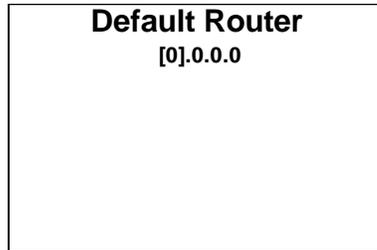
NOTE: If DHCP is enabled, any changes made do not take effect.

Perform the following to manually set the default router:

1. Open the **Network** menu as described in "Configure the Network" on page 10.

2. Press up or down on the Nav Pad to highlight **Default Router**, and then press the center button of the Nav Pad.

    If DHCP is enabled, the default router and a message stating "DHCP On: Address Invalid" is displayed. Otherwise, controls for setting the default router are displayed in the **Default Router** screen.

    Default Router Screen

    ```
    ┌──────────────────────────────┐
    │      Default Router          │
    │          [0].0.0.0           │
    │                              │
    │                              │
    │                              │
    │                              │
    └──────────────────────────────┘
    ```

3. Press up or down on the Nav Pad to set the first octet of the default router.

4. Press left or right on the Nav Pad to move the cursor between octets (or press the center button of the Nav Pad to move to the next octet) and select one for editing.

5. Set each octet until the correct default router is displayed.

6. To save the default router and return to the **Network** menu, move the cursor to the rightmost octet, and then press the center button of the Nav Pad. To cancel the operation and return to the previous screen, press **BACK**.
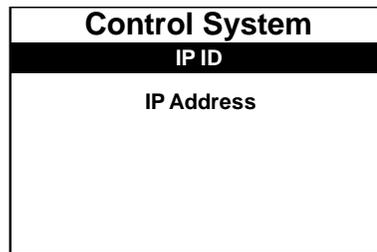
    If any changes were made, the HD-XSPA reboots upon exiting the **Installer** menu.

Control System

The **Control System** menu is used to specify the HD-XSPA's IP ID and the IP address of the control system. Perform the following to specify the IP ID and the control system's IP address:
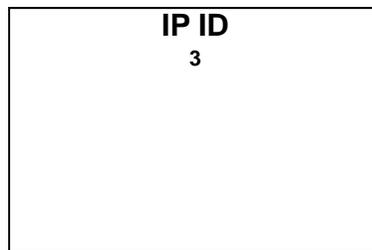
1. Open the **Network** menu as described in "Configure the Network" on page 10.

2. Press up or down on the Nav Pad to highlight **Control System**, and then press the center button of the Nav Pad. The **Control System** menu is displayed.

Control System Menu

```
┌─────────────────────────────────┐
│        Control System           │
├─────────────────────────────────┤
│             IP ID               │
│                                 │
│           IP Address            │
│                                 │
│                                 │
│                                 │
│                                 │
└─────────────────────────────────┘
```

3. Set the IP ID that identifies the HD-XSPA in the Crestron Studio® (or SIMPL Windows) program:

    a. Press up or down on the Nav Pad to highlight **IP ID**, and then press the center button of the Nav Pad. The **IP ID** screen is displayed.

    IP ID Screen

```
┌─────────────────────────────────┐
│             IP ID               │
│               3                 │
│                                 │
│                                 │
│                                 │
│                                 │
│                                 │
│                                 │
└─────────────────────────────────┘
```
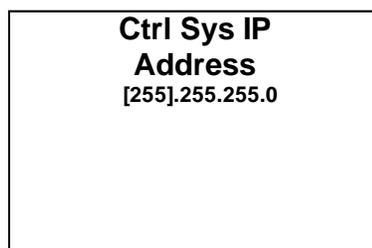
    b. Press up or down on the Nav Pad to display the desired IP ID, and then press the center button of the Nav Pad. The display returns to the previous screen.

    > **NOTE:** The IP ID must match the IP ID in the Crestron Studio (or SIMPL Windows) program.

    If any changes were made, the HD-XSPA reboots upon exiting the **Installer** menu.

4. Set the master control system's IP address:

    a. Press up or down on the Nav Pad to highlight **IP Address**, and then press the center button of the Nav Pad. The **Ctrl Sys IP Address** screen is displayed.

    Ctrl Sys IP Address Screen

```
┌─────────────────────────────────┐
│          Ctrl Sys IP            │
│            Address              │
│         [255].255.255.0         │
│                                 │
│                                 │
│                                 │
│                                 │
│                                 │
└─────────────────────────────────┘
```

    b. Press up or down on the Nav Pad to set the first octet of the IP address.

    c. Press left or right to move the cursor between octets (or press the center button of the Nav Pad to move to the next octet) and select one for editing.

d. Set each octet until the correct IP address is displayed.

e. To save the IP address and return to the **Control System** menu, move the cursor to the rightmost octet, and then press the center button of the Nav Pad. To cancel the operation and return to the previous screen, press **BACK**.

If any changes were made, the HD-XSPA reboots upon exiting the **Installer** menu.

Configure the Front Panel

The HD-XSPA's front panel controls are configured from the **Control** section of the **Installer** menu. Perform the following to configure the front panel controls:

1. Open the **Installer** menu as described in "Open the Installer Menu" on page 4.

2. Press up or down on the Nav Pad to highlight **Control**, and then press the center button of the Nav Pad. The **Control** menu is displayed.

Control Menu
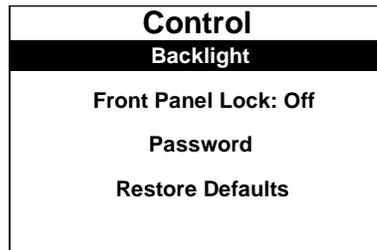
Control
Backlight
Front Panel Lock: Off
Password
Restore Defaults

3. Press up or down on the Nav Pad to highlight the parameter to be viewed or configured, and then press the center button of the Nav Pad.

Backlight

The backlight of the LCD display can be adjusted. Perform the following to adjust the backlight:

1. Open the **Control** menu as described in "Configure the Front Panel" above.

2. Press up or down on the Nav Pad to highlight **Backlight**, and then press the center button of the Nav Pad. The backlight switches between the different lighting levels.

Front Panel Lock

The front panel user controls can be locked or unlocked for operation.

NOTE: The **Installer** menu can still be opened when the front panel is locked.

Perform the following to lock or unlock the front panel controls:

1. Open the **Control** menu as described in "Configure the Front Panel" above.

2. Press up or down on the Nav Pad to highlight **Front Panel Lock: On** or **Front Panel Lock: Off** , and then press the center button of the Nav Pad. The setting toggles between **On** and **Off**.

> NOTE: When the front panel is locked, only the **BACK** button can be used to access the **Installer** menu.

Password

The password for opening the **Installer** menu can be changed. Perform the following to change the password:

1. Open the **Control** menu as described in "Configure the Front Panel" on page 15.

2. Press up or down on the Nav Pad to highlight **Password**, and then press the center button of the Nav Pad. The **Password** screen is displayed.

Password Screen

Password

[0]000
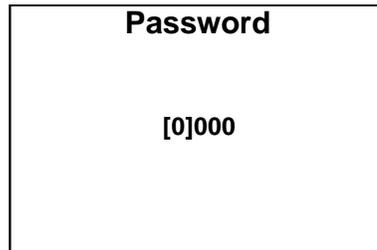
3. Use the up, down, left, right, and **SELECT** buttons to enter the password.

   o   To select a number, press up or down on the Nav Pad.

   o   To move the cursor left or right, press left or right on the Nav Pad.

   Once the password is displayed, move the cursor to the rightmost digit, and then press the center button of the Nav Pad to save the password. The **Control** menu is displayed.

Restore Defaults

Perform the following to restore the HD-XSPA to the factory default settings:

1. Open the **Control** menu as described in "Configure the Front Panel" on page 15.

2. Press up or down on the Nav Pad to highlight **Restore Defaults**, and then press the center button of the Nav Pad. The **Restore Defaults** menu is displayed.
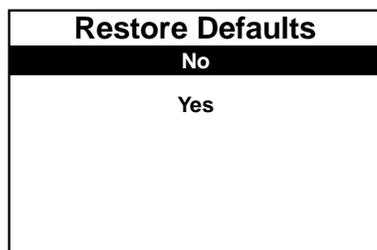
Restore Defaults Menu

Restore Defaults
No
Yes

3. Press up or down on the Nav Pad to highlight **Yes**, and then press the center button of the Nav Pad. The **Are You Sure** menu is displayed.

4. Press up or down on the Nav Pad to highlight **Yes**, and then press the center button of the Nav Pad. The factory default settings are restored.

To cancel at any point, press up or down on the Nav Pad to highlight **No**, and then press the center button of the Nav Pad.

Operation

Controls for the theater output, downmix output, and display are available from the **HD-XSPA** menu. Perform the following to display the **HD-XSPA** menu:

1. Press **HOME**.

2. Press the center button of the Nav Pad. The **HD-XSPA** menu is displayed.

HD-XSPA Menu

```
        HD-XSPA
        Source

        Theater

        Downmix

        Display Off
```

Source

To select a source and decoding mode, press up or down on the Nav Pad to highlight **Source**, and then press the center button of the Nav Pad. The **Current Source** menu is displayed.

Theater

The **Theater** section of the **HD-XSPA** menu provides controls for managing the audio settings for the theater output. To open the **Theater** menu, press up or down on the Nav Pad to highlight **Theater**, and then press the center button of the Nav Pad. The **Theater** menu is displayed.

Theater Menu

```
        Theater
        Bass

        Treble

        DRC

        Loudness: Off
```
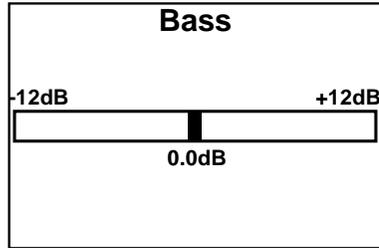
Bass

The bass level for the theater output can be adjusted. Perform the following to adjust the bass level:

1. Open the **Theater** menu as described in "Theater" above.

2. Press up or down on the Nav Pad to highlight **Bass**, and then press the center button of the Nav Pad. The **Bass** screen is displayed.

Bass Screen

Bass

-12dB   +12dB

0.0dB

3. Press left or right to adjust the bass level, and then press the center button of the Nav Pad. The display returns to the previous menu.
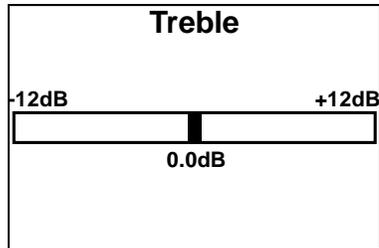
   To cancel and return to the previous menu, press **BACK**.

Treble

The treble level for the theater output can be adjusted. Perform the following to adjust the treble level:

1. Open the **Theater** menu as described in "Theater" on page 17.

2. Press up or down on the Nav Pad to highlight **Treble**, and then press the center button of the Nav Pad. The **Treble** screen is displayed.

Treble Screen

Treble

-12dB   +12dB

0.0dB

3. Press left or right to adjust the treble level, and then press the center button of the Nav Pad. The display returns to the previous menu.

   To cancel and return to the previous menu, press **BACK**.

Dynamic Range Control (DRC)

The theater output features dynamic range control (DRC). Perform the following to configure the DRC:
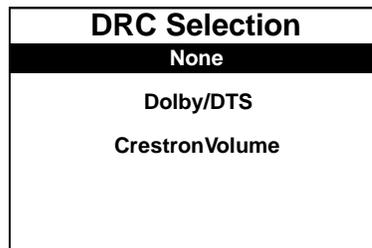
1. Open the **Theater** menu as described in "Theater" on page 17.

2. Press up or down on the Nav Pad to highlight **DRC**, and then press the center button of the Nav Pad. The **DRC** menu is displayed.

DRC Menu

DRC
Selection
Level
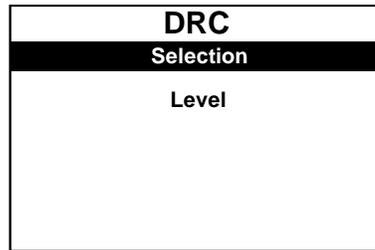
3. Perform the following to customize the DRC:

    o   **Selection** sets the DRC type.

        a. Press up or down on the Nav Pad to highlight **Selection**, and then press the center button of the Nav Pad. The **DRC Selection** menu is displayed.

        DRC Selection Menu

DRC Selection
None
Dolby/DTS
Crestron Volume

        b. Press up or down on the Nav Pad to highlight the desired type of DRC to be used, and then press the center button of the Nav Pad. The display returns to the previous screen.

    o   **Level** sets the DRC level.

        a. Press up or down on the Nav Pad to highlight **Level**, and then press the center button of the Nav Pad. The **DRC Level** menu is displayed.

        DRC Level Menu

DRC Level
Light
Medium
Heavy
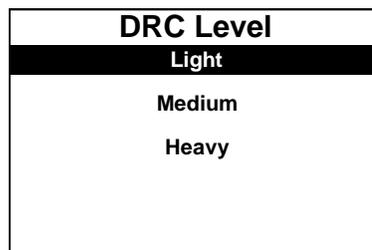
        b. Press up or down on the Nav Pad to highlight the desired level of DRC to be applied, and then press the center button of the Nav Pad. The display returns to the previous screen.

4. Press **BACK** to return to the previous screen.

Loudness

The loudness feature can be set from the **Theater** menu. Perform the following to set loudness:
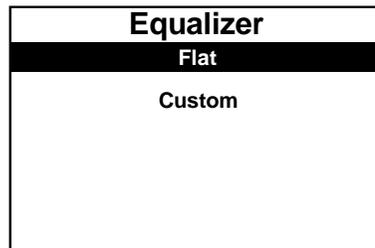
1. Open the **Theater** menu as described in "Theater" on page 17.

2. Press up or down on the Nav Pad to highlight **Loudness: On** or **Loudness: Off**, and then press the center button of the Nav Pad. The setting toggles between **On** and **Off**.

Equalizer

The HD-XSPA can use a custom equalization setting that is created in Crestron Toolbox. Perform the following to set the equalization:

1. Open the **Theater** menu as described in "Theater" on page 17.

2. Press up or down on the Nav Pad to highlight **EQ**, and then press the center button of the Nav Pad. The **Equalizer** screen is displayed.

Equalizer Screen

Equalizer
Flat
Custom

3. Press up or down on the Nav Pad to highlight the desired setting, and then press the center button of the Nav Pad. The display returns to the previous screen.

NOTE: The **Custom** setting can only be configured with Crestron Toolbox.

Direct Mode

Direct mode is used to bypass any signal processing.

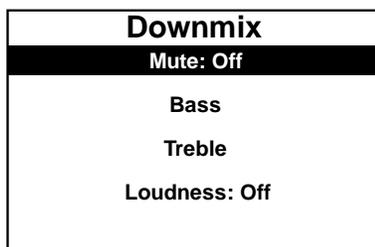NOTE: When the device is operating in Direct mode, speaker protection is disabled.

Perform the following to set Direct mode:

1. Open the **Theater** menu as described in "Theater" on page 17.

2. Press up or down on the Nav Pad to highlight **Direct Mode: On** or **Direct Mode: Off**, and then press the center button of the Nav Pad. The setting toggles between **On** and **Off**.

Downmix

The **Downmix** section of the **HD-XSPA** menu provides controls for managing the audio settings for the downmix output. To open the **Downmix** menu, press up or down on the Nav Pad to highlight **Downmix**, and then press the center button of the Nav Pad. The **Downmix** menu is displayed.

Downmix Menu

```
┌─────────────────────────────┐
│          Downmix            │
│  ███████████████████████    │
│         Mute: Off           │
│                             │
│            Bass             │
│                             │
│           Treble            │
│                             │
│        Loudness: Off        │
│                             │
│                             │
└─────────────────────────────┘
```

Mute

The mute function for the downmix output is set from the **Downmix** menu.

NOTE: While the theater output can be muted with the **MUTE** button, the downmix output can be muted only with this method or with a control system program.

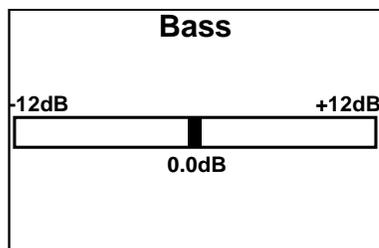Perform the following to mute or unmute the downmix output:

1. Open the **Downmix** menu as described in "Downmix" on page 20.

2. Press up or down on the Nav Pad to highlight **Mute: Off** or **Mute: On**, and then press the center button of the Nav Pad. The setting toggles between **On** and **Off**.

Bass

The bass level for the downmix output can be adjusted. Perform the following to adjust the bass level:

1. Open the **Downmix** menu as described in "Downmix" on page 20.

2. Press up or down on the Nav Pad to highlight **Bass**, and then press the center button of the Nav Pad. The **Bass** screen is displayed.

Bass Screen

```
┌─────────────────────────────┐
│            Bass             │
│                             │
│  -12dB              +12dB   │
│  ┌────────────┬──────────┐  │
│  │            █          │  │
│  └────────────┴──────────┘  │
│            0.0dB            │
│                             │
│                             │
└─────────────────────────────┘
```

3. Press left or right on the Nav Pad to adjust the bass level, and then press the center button of the Nav Pad. The display returns to the previous menu.

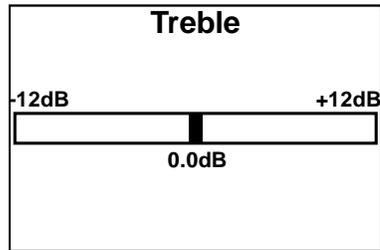   To cancel and return to the previous menu, press **BACK**.

Treble

The treble level for the downmix output can be adjusted. Perform the following to adjust the treble level:

1. Open the **Downmix** menu as described in "Downmix" on page 20.

2. Press up or down on the Nav Pad to highlight **Treble**, and then press the center button of the Nav Pad. The **Treble** screen is displayed.

Treble Screen

Treble

-12dB   +12dB

0.0dB

3. Press left or right on the Nav Pad to adjust the treble level, and then press the center button of the Nav Pad. The display returns to the previous menu.

   To cancel and return to the previous menu, press **BACK**.

Loudness

The loudness feature can be set from the **Downmix** menu. Perform the following to set loudness:

1. Open the **Downmix** menu as described in "Downmix" on page 20.

2. Press up or down on the Nav Pad to highlight **Loudness: On** or **Loudness: Off**, and then press the center button of the Nav Pad. The setting toggles between **On** and **Off**.

Display

The device's display can be turned on or off during operation. To switch the display on or off during operation, press up or down on the Nav Pad to highlight **Display Off**, and then press the center button of the Nav Pad. The display goes dark.

To turn the display on again, press the center button of the Nav Pad.

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