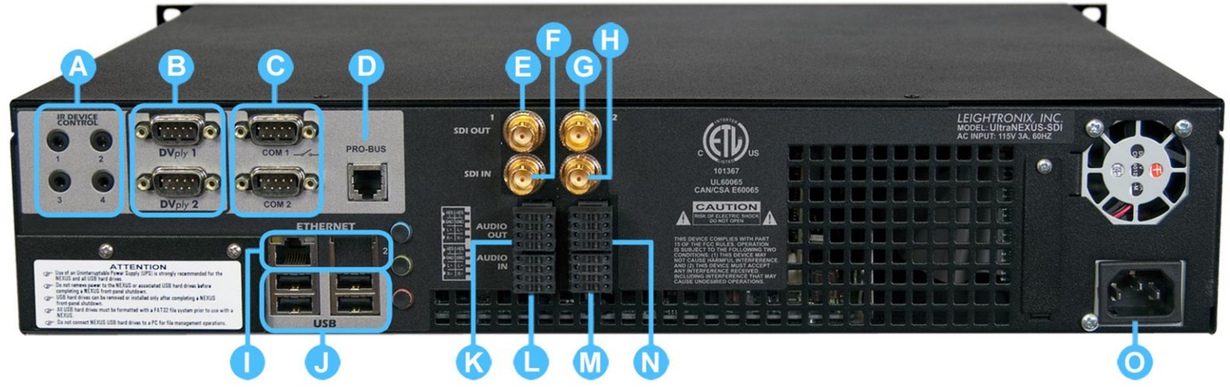
- Refer to the labeled "UltraNEXUS-SDI Rear Panel" illustration below while installing your server/controller.
- For additional information on LEIGHTRONIX-approved USB hard drives and VCRs/DVD players compatible with the IR ports, contact LEIGHTRONIX.

ULTRANEXUS-SDI REAR PANEL



ULTRANEXUS-SDI REAR PANEL CONNECTORS

A * **IR Ports**: using the supplied IR transmitter cables, connect up to four, LEIGHTRONIX-approved VCRs and/or DVD players

B * **DVply Ports**: connect up to two, supported devices with title:chapter access

C
- * "**COM 1**": connect a switcher with inputs/outputs of up to 250x250
- "**COM 2**": if using, connect a LEITCH CSD-5300 or ESE Master Clock time source

D * "**PRO-BUS**" **Port**: attach up to 16 PRO-BUS device interfaces in a daisy chain to the PRO-BUS jack and connect each interface to the corresponding VCRs and/or DVD players. Perform the following steps (see PRO-BUS Manuals for more information):

1. Set each PRO-BUS interface's dip switches to assign each interface an address #. Number the interfaces consecutively, starting with "01" at the interface connected to the UltraNEXUS-SDI.
2. Set control mode dip switches on each interface.
3. If possible, ensure each device's switcher input numbers correspond to its PRO-BUS address #.
4. Document your PRO-BUS/device setup.

E **MPEG Player 1 Video Output**

F **Broadcast Recorder Video Input**

G **MPEG Player 2 Video Output**

H **VOD Recorder Video Input**

I
- **Ethernet Port 1**: connect a straight-through or cross-over cable (see page 4 of this document)
- **Ethernet Port 2**: reserved for the LEIGHTRONIX *TOTAL* SHARE™ network option

J **USB Drive Ports**: connect up to four, LEIGHTRONIX-approved USB drives

NOTES
- **LEIGHTRONIX requires the use of 2 USB drives when the UltraNEXUS-SDI is combined with a LEIGHTRONIX streaming VOD service.**
- Remove/install USB drives **only** after shutting down the UltraNEXUS-SDI its front panel. **Do not connect the drives to a PC for file management operations.**

O **Power Cord Connector**

* Only available for use when UltraNEXUS-SDI is connected to an external switcher.

ULTRANEXUS-SDI AUDIO INPUTS/OUTPUTS

The UltraNEXUS-SDI supports embedded AES (SMPTE 272M) audio signals as well as non-embedded AES (IEC 60958 type 1 balanced) and balanced, two-channel analog audio. To wire your system for non-embedded audio, use the four audio terminal blocks on the rear panel, represented as follows:

K **MPEG Player 1 Audio Output**

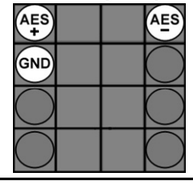
L **Broadcast Recorder Audio Input**

M **VOD Recorder Audio Input**

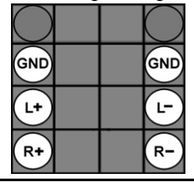
N **MPEG Player 2 Audio Output**

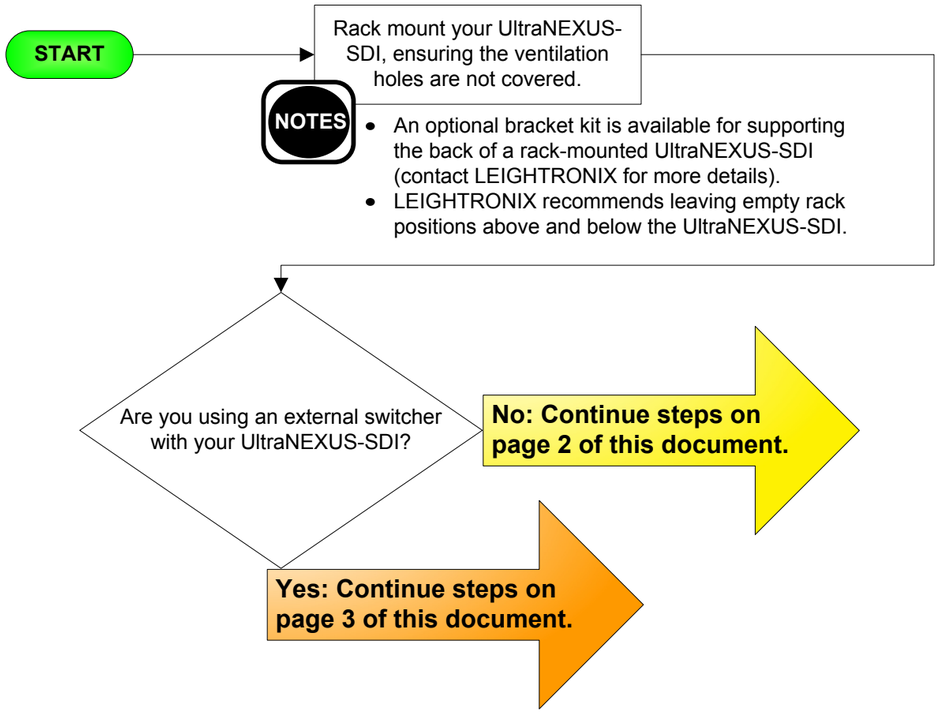
Applicable to each terminal block, connect your non-embedded AES and analog audio signal wiring according to the diagrams below.

AES3 Wiring Diagram



2-Channel Analog Wiring Diagram





ULTRANEXUS-SDI CONFIGURATION *WITHOUT* AN EXTERNAL SWITCHER

CONTINUE

Connect the video inputs on your video source equipment to UltraNEXUS-SDI MPEG player video Outputs 1 (**E**) and 2 (**G**).

Is your audio (SMPTE 272M) embedded within the SD-SDI digital video playback signal (SMPTE 259M)?

Yes

No

Connect the corresponding audio inputs on your video source equipment to the analog or AES3 audio Outputs 1 (**K**) and 2 (**N**) on the UltraNEXUS-SDI rear panel.

Will you be using one of the LEIGHTRONIX streaming video-on-demand (VOD) services with your UltraNEXUS-SDI?

No

Yes

Connect a 1 input x 2 output distribution amp between an output on your video source equipment and UltraNEXUS-SDI MPEG recorder video Inputs 1 (**F**) and 2 (**H**).

Connect the UltraNEXUS-SDI's MPEG broadcast recorder video Input 1 (**F**) to one of your source's video equipment outputs.

Will you be recording sources that do not have embedded audio (SMPTE 272M) in their video signals?

No

Yes

Connect the audio outputs on your video source equipment to the analog or AES3 audio broadcast Input 1 (**L**) and, if using, VOD Input 2 (**M**) on the UltraNEXUS-SDI rear panel.

Will you be recording sources that do not have embedded audio (SMPTE 272M) in their video signals?

Yes

No

Connect a distribution amp between the audio outputs on your video source equipment and the analog or AES3 MPEG recorder audio Inputs 1 (**L**) and 2 (**M**) on the UltraNEXUS-SDI rear panel.

NOTES

If the 1x2 distribution amp splitting your digital equipment's video signal does not support your audio signal, you may use a separate audio distribution amp.

If using, connect a LEITCH CSD-5300 or ESE Master Clock time source to the "COM 2" port (**C**) on the UltraNEXUS-SDI rear panel.

Connect your USB hard drive(s) to the UltraNEXUS-SDI rear panel (**J**).

Attach the included power cord to the power supply connector on the rear panel of the UltraNEXUS-SDI (**O**), and then plug it into an AC power source.

CAUTION

LEIGHTRONIX strongly recommends the use of an Uninterruptable Power Supply (UPS) with the UltraNEXUS-SDI and all associated USB drives. Damage from power loss or spikes is not covered under warranty.

Turn on the UltraNEXUS-SDI by simultaneously pressing the right and left arrows on the front panel for one second.

NOTE

Do not remove power to the UltraNEXUS-SDI or associated USB drives before turning it off.

Continue steps on page 4 of this document.

ULTRANEXUS-SDI CONFIGURATION *WITH* AN EXTERNAL SWITCHER

CONTINUE

Connect your switcher (4x4 minimum, 250x250 maximum) to the "COM 1" port (**C**) on the UltraNEXUS-SDI rear panel.

Connect your video source equipment (VCRs, DVD players, studio/satellite feeds, character generator, etc.) to your external switcher's input connectors.

Connect the device control wiring between your UltraNEXUS-SDI rear panel ports and corresponding video sources, as applicable (**A**, **B**, **D**).

Connect your switcher's output connectors to the your destinations (such as modulators or TV monitors).

Connect your switcher video inputs to UltraNEXUS-SDI MPEG player video Ouputs 1 (**E**) and 2 (**G**).

NOTE

The UltraNEXUS-SDI is compatible with any all-digital models (SDI video/AES audio) from the LEIGHTRONIX-supported external routing switcher series listed in the *NEXUS Series Manual*. Contact the manufacturers for help in selecting specific models.

Is your audio (SMPTE 272M) embedded within the SD-SDI digital video playback signal (SMPTE 259M)?

Yes

No

Connect the audio outputs on your switcher to the analog or AES3 audio Outputs 1 (**K**) and 2 (**N**) on the UltraNEXUS-SDI rear panel.

Will you be using one of the LEIGHTRONIX streaming video-on-demand (VOD) services with your UltraNEXUS-SDI?

Yes

No

Connect the UltraNEXUS-SDI's MPEG broadcast recorder video Input 1 (**F**) to one of your source's video equipment outputs.

Do you want the broadcast and VOD recorders to automatically record the same content?

Yes

No

Connect the UltraNEXUS-SDI's MPEG broadcast recorder video Input 1 (**F**) and VOD recorder video Input 2 (**H**) to separate switcher outputs.

Connect a 1 input x 2 output distribution amp between an output on your switcher and UltraNEXUS-SDI MPEG recorder video Inputs 1 (**F**) and 2 (**H**).

Will you be recording sources that do not have embedded audio (SMPTE 272M) in their video signals?

No

Yes

Connect the audio outputs on your video equipment to the analog or AES3 audio broadcast Input 1 (**L**) and, if using, VOD Input 2 (**M**) on the UltraNEXUS-SDI rear panel.

Will you be recording sources that do not have embedded audio (SMPTE 272M) in their video signals?

No

Yes

Connect a distribution amp between the audio outputs on your switcher and the analog or AES3 audio MPEG recorder Inputs 1 (**L**) and 2 (**M**) on the UltraNEXUS-SDI rear panel.

NOTES

If the 1x2 distribution amp splitting your digital equipment's video signal does not support your audio signal, you may use a separate audio distribution amp.

If using, connect a LEITCH CSD-5300 or ESE Master Clock time source to the "COM 2" port (**C**) on the UltraNEXUS-SDI rear panel.

Connect your USB hard drive(s) to the UltraNEXUS-SDI rear panel (**J**).

Attach the included power cord to the power supply connector on the rear panel of the UltraNEXUS-SDI (**O**), and then plug it into an AC power source.

! CAUTION

LEIGHTRONIX strongly recommends the use of an Uninterruptable Power Supply (UPS) with the UltraNEXUS-SDI and all associated USB drives. Damage from power loss or spikes is not covered under warranty.

Turn on the UltraNEXUS-SDI by simultaneously pressing the right and left arrows on the front panel for one second.

NOTE

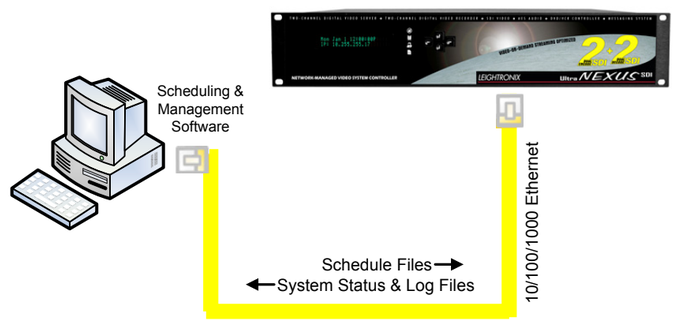
Do not remove power to the UltraNEXUS-SDI or associated USB drives before turning it off.

Continue steps on page 4 of this document.

NOTE To access a remote UltraNEXUS-SDI through the Internet, contact your ISP service provider and network administrator for more information.

CONTINUE → Configure your UltraNEXUS-SDI for Ethernet network access. Two of the most common Ethernet connection scenarios are described on this page. → **END**

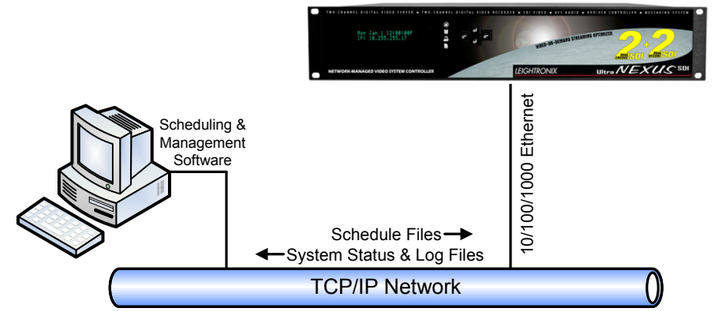
DIRECT ETHERNET CONNECTION



Connect UltraNEXUS-SDI directly to a PC per the following steps:

1. If necessary, install and configure a 10/100/1000 BASE-T Ethernet Network Interface Card (NIC) on the PC. Refer to the NIC documentation and technical support for further instructions.
2. **PC NETWORKING ADDRESSES**: obtain your PC's TCP/IP networking IP address and subnet mask from Windows (see your computer manual for more detailed instructions).
3. **UltraNEXUS-SDI NETWORKING ADDRESSES**: Enter the following IP and subnet mask addresses into the front panel of your UltraNEXUS-SDI (refer to "Entering TCP/IP Addresses into UltraNEXUS-SDI Front Panel" at right):
   - IP address: one number above your PC's IP address (for ex., if your PC's IP address is 10.255.9.15, set your Controller to 10.255.9.16)
   - Subnet mask: your PC's subnet mask address
4. Using a cross-over RJ-45 Ethernet cable, connect the UltraNEXUS-SDI Ethernet Port 1 (**I**) to the PC's NIC.
5. Ensure the UltraNEXUS-SDI and PC have been properly configured for Ethernet network access by checking to see that the yellow LED above the Ethernet port is on. If the yellow LED does not turn on, check the following:
   - Proper addresses have been entered into the UltraNEXUS-SDI front panel
   - Crossover cable was used to attach UltraNEXUS-SDI to PC

NETWORK ETHERNET CONNECTION



Connect UltraNEXUS-SDI to an existing Ethernet TCP/IP Network per the following steps:

1. Obtain the following from your technical support personnel or network administrator and enter into the front panel of your UltraNEXUS-SDI (refer to "Entering TCP/IP Addresses into UltraNEXUS-SDI Front Panel" below):
   - IP address
   - Subnet mask
   - Gateway address
2. Using a straight-through RJ-45 Ethernet cable, connect the UltraNEXUS-SDI's Ethernet Port 1 (**I**) to a 10/100/1000 BASE-T hub or switch on the TCP/IP network.
3. Ensure the UltraNEXUS-SDI and PC have been properly configured for Ethernet network access by checking to see that the yellow LED above the Ethernet port is on. If the yellow LED does not turn on, check the following:
   - Proper addresses have been entered into the UltraNEXUS-SDI front panel
   - Straight-through cable was used to attach UltraNEXUS-SDI to the network

ENTERING TCP/IP ADDRESSES INTO ULTRANEXUS-SDI FRONT PANEL

1. Enter front panel password according to the following steps:
   a. Press the → key to display the password entry screen.
   b. Press the → key 5 times to enter the factory-default password and display the "CONFIG MENU" screen.
2. Enter each address into its corresponding entry screen:
   - IP address: "Edit unit IP Address" screen
   - Subnet mask address: "Edit unit Subnet Mask" screen
   - Gateway address: "Edit unit Gateway Addr" screen
3. The UltraNEXUS-SDI must be powered down and then powered back up to apply any address changes (simultaneously press ← and → for one second to turn off and repeat to turn back on).