

USING THE MONITOR CONTROL SECTION



The SRC 1 and SRC 2 buttons on the Nuance top panel are used to determine the active input source for the Speaker and Subwoofer outputs. One of these outputs will always be active, and you can toggle between the two as necessary.

We recommend connecting your main mix to Source 1, and using Source 2 for an alternate mix, reference track, or a cue mix.

The Mono, Mute, and Dim switches will only affect the Speaker and Subwoofer outputs. Mono sums the left and right channels together so you can check for phase correlation within the mix, and Mute cuts the signal entirely to the speakers and sub.

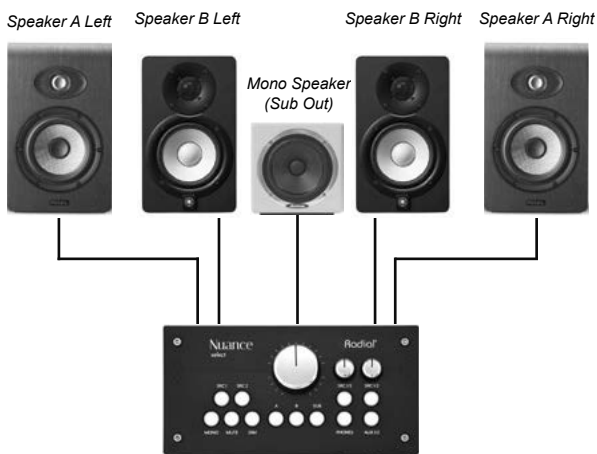
The Dim switch lowers the output level to the Speakers and Sub by -15dB, so you can listen at a lower volume or speak with someone in the control room without having to alter the setting of the main level control.

The A, B, and SUB switches allow you to choose which speaker combination you are monitoring at any given moment. The A and B switches toggle between the two sets of speaker outputs (only one set can be active at a time), while the SUB switch operates independently, so it can be active with either speaker pair.

You can also turn off the active set of speakers by pressing their respective switch while it is illuminated - this gives you the opportunity to monitor the Subwoofer output on its own.



Since the Sub out is a full bandwidth output that can be independently monitored, you can use it to connect to a mono speaker instead of a subwoofer. This can be useful if you wish to use two sets of stereo speakers along with an additional 'sound cube' style mono speaker for checking midrange balance or translation on mass-market speakers.



Using the Sub output to feed an additional speaker

With this setup, whenever you need to check your mix on the additional mono speaker simply press the illuminated A or B switch to turn off the main set of speakers. Then activate the Sub output. When you are ready to switch back to your stereo speaker outputs, first deactivate the Sub and then press either of the A or B switches to feed the desired speaker set.



The Nuance Select uses a customized 21-position pot for the main level control, with individual resistors to provide left-right level matching within 0.1dB at all steps. Unity gain is achieved when the pot is turned fully clockwise, and attenuation is provided in approximately 2dB increments.

When setting up the Nuance Select with your monitors for the first time, start with the Level control turned fully counter clockwise and slowly bring up the volume once playback begins.

Once you've reached the desired output level through your speakers, you can use the Dim and Mute switches to lower or cut the volume as needed without having to readjust the Level control.

When you are ready to power down the Nuance between sessions, you can leave the Level control where it is and simply activate the Mute switch before disconnecting the Nuance from power. Whenever the Nuance is powered on again, the Mute switch will automatically activate for five seconds, preventing any unwanted noise through the connected speakers.

USING THE HEADPHONE SECTION

The Nuance Select features two built in headphone amplifiers, each with their own independent level controls and source select switches to provide added flexibility for recording overdubs in the control room.

The two ¼" headphone outputs are located on the front panel of the Nuance, with the left output corresponding to the left set of controls on the top panel.

The SRC 1/2 switch selects which input source feeds each set of headphones.



When this switch is unlit, the headphone output associated with it will be monitoring Source 1. When the switch is illuminated, Source 2 will feed that headphone output.

These individual controls allow for easy overdub recording with an artist in the control room. For example, the engineer can monitor the main mix on a pair of headphones set to Source 1, while the artist can hear their own cue mix while tracking by setting their input select switch to monitor Source 2.



Two sets of headphones can be independently paired with either input source

We recommend turning the headphone level all the way down before beginning playback to protect your hearing. Then activate the PHONES switch to turn on both headphone outputs and slowly increase the level using the control knob.

Whenever you aren't listening through headphones, you can use the PHONES switch to mute the headphone outputs and avoid having to readjust the headphone level controls.

THE AUX OUTPUT

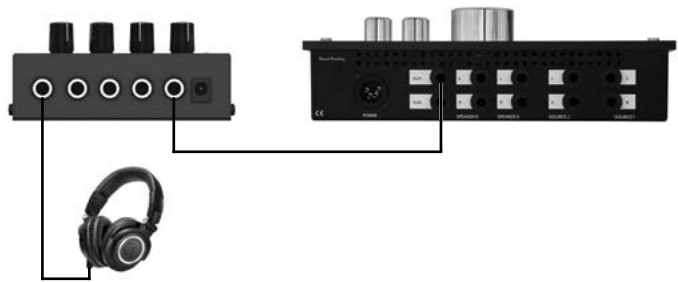


The Aux output on the Nuance allows you to feed either input source through to another audio device, such as a headphone amplifier located in a separate live room.

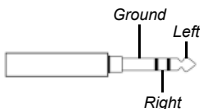
The AUX 1/2 switch selects which input source feeds the Aux output. This switch works the same way as the headphone SRC 1/2 switches function – when unlit, Source 1 will feed the Aux. Once this switch is pressed and illuminated, Source 2 will feed the Aux output.

The Aux output is unaffected by any of the other controls on the Nuance Select, so it will continue to pass signal even if the speaker outputs are muted and the headphone outputs are turned off. Whichever source is selected using the AUX 1/2 switch will pass directly to the Aux output jack at a fixed level -6dB lower than the original input source.

The rear panel Aux output jack is a stereo unbalanced output, where the Left channel is carried on the tip of the TRS jack, and the right channel is carried on the ring. If your destination device has a 1/4" TRS stereo input like many headphone amplifiers, you can use a standard TRS cable to connect the Nuance directly to it. For other devices with discrete left and right input jacks, use a 1/4" TRS to dual 1/4" TS stereo insert cable.



Using the Aux Out to feed a remote headphone amp



The Aux Out is wired as Tip = Left, Ring = Right, and Sleeve = Ground

WIRING GUIDE FOR THE SPEAKER OUTPUTS

The Nuance Speaker Outputs are 1/4" TRS connections that are optimized for feeding balanced TRS or XLR inputs on a pair of powered monitors or power amplifiers. When connecting to balanced devices, your cables should be wired Tip = Hot (+), Ring = Cold (-), and Sleeve = Ground (see Fig. 1 below). Should you encounter a ground loop that causes humming through your speakers, you can disconnect the ground at the destination end of the cable (Fig. 2).

However, there may be certain instances where you would like to connect the Nuance to devices with unbalanced inputs, such as 1/4" TS connectors.

In these cases you should avoid connecting unbalanced TS connectors to the Nuance Speaker Outputs. Doing so will short out the signal on the Ring of the TRS jack, which could result in increased distortion. Instead, you can use TRS jacks with the Ring conductor disconnected, as shown in Fig. 3 below. TRS to TS adaptor cables should also be avoided unless you can confirm that the Ring on the TRS is disconnected.

Note that these instructions apply to the Speaker Outputs only. The Nuance Source Inputs can accept both TRS or TS jacks without issue, though we recommend using balanced cabling where possible for best results.

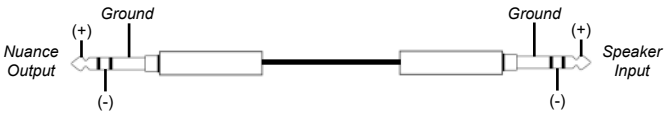


Fig. 1: Typical wiring between the Nuance Outputs and balanced inputs

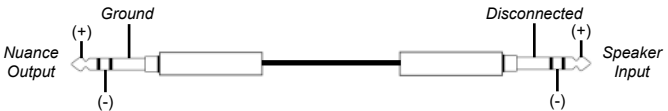


Fig. 2: Optional wiring between the Nuance Outputs and balanced inputs if a ground loop is encountered

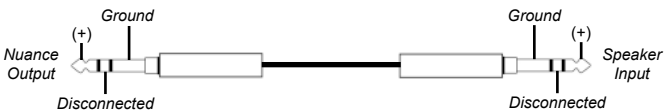


Fig. 3: Wiring for connecting the Nuance Outputs to unbalanced inputs

SPECIFICATIONS

Frequency Response:	2Hz - 200kHz $\pm 0.25\text{dB}$ @ +4dBu
Maximum Input:	+27dBu
Maximum Output:	+26dBu
Input Impedance:	20k Ω
Output Impedance:	112 Ω
Total Harmonic Distortion:	<0.00001%, -140dB, balanced outputs 1kHz @ +18dBu
Total Harmonic Distortion + Noise:	0.00012%, -118dB
Intermodulation Distortion:	0.00007%, -123dB
Signal to Noise Ratio:	125dB, 127dB A Weighted
Crosstalk:	-125dB @ 1kHz, -110dB @ 10kHz

Headphone Amplifier

Total Harmonic Distortion:	0.00012%, -118dB
Total Harmonic Distortion + Noise:	0.0003%, -110dB
Signal to Noise Ratio:	112dB
Output Impedance:	2.5 Ω
Output Power:	33mW x 2 @ 22 Ω , THD+N<1%
	100mW x 2 @ 68 Ω , THD+N<1%

General

Construction:	Milled Aluminum faceplate, 18-gauge steel chassis
Size:	10" x 5.25" x 3" (254 x 133 x 76mm)
Power:	+15V, +5VDC, 29W max (included)
Conditions:	For indoor use at temperatures between +5°C and +40°C
Warranty:	Radial 3-year, transferable

Specifications are subject to change without notice

Please record the serial number for your Nuance Select here for future reference. Serial #: _____

In order to meet Electromagnetic and Safety Compliance requirements Radial Engineering is recommending to use the Nuance Select product with the provided R800 9414 00 power adapter, Model: GPSN25A - 14E, Input: 100-240V, 50/60Hz, 0.8A, Output 5V, 2.5A, Elgintek Power Supply, considering all Electromagnetic and Safety compliance was performed using only this power adapter. The R800 9414 00 power adapter features a universal power cord input for ease of use in any region worldwide, CE, FCC, PSE, cULus E206808 listed.

THREE YEAR TRANSFERABLE LIMITED WARRANTY

RADIAL ENGINEERING LTD. ("Radial") warrants this product to be free from defects in material and workmanship and will remedy any such defects free of charge according to the terms of this warranty. Radial will repair or replace (at its option) any defective component(s) of this product (excluding finish and wear and tear on components under normal use) for a period of three (3) years from the original date of purchase. In the event that a particular product is no longer available, Radial reserves the right to replace the product with a similar product of equal or greater value. In the unlikely event that a defect is uncovered, please call 1-800-939-1001 or email service@radialeng.com to obtain a RA number (Return Authorization number) before the 3 year warranty period expires. The product must be returned prepaid in the original shipping container (or equivalent) to Radial or to an authorized Radial repair center and you must assume the risk of loss or damage. A copy of the original invoice showing date of purchase and the dealer name must accompany any request for work to be performed under this limited and transferable warranty. This warranty shall not apply if the product has been damaged due to abuse, misuse, misapplication, accident or as a result of service or modification by any other than an authorized Radial repair center.

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To meet the requirements of California Proposition 65, it is our responsibility to inform you of the following:

WARNING: This product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

Please take proper care when handling and consult local government regulations before discarding.



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Appearance and specifications subject to change without notice.

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