



JX62™

GUITAR AND AMP A/B SWITCHER



USER GUIDE

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Radial JX62

6x2 Guitar and Amp Switcher

User Guide

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Thank you for choosing the Radial JX62 Guitar Switcher. The JX62 is a powerful instrument selector that works with wired and wireless guitars, acoustic, bass and just about any other instrument you can think of. The 100% discrete class-A circuit has been carefully crafted to ensure the natural tone of the instrument is maintained and delivered without distortion, coloration or artifact. This makes it well suited for both studio recording and live performance.

As with all Radial products, the JX62 is designed to be intuitive and easy to use. However, as we tried to expand the feature set to address all types of players, you can be certain that some of the functions may not prove to be as obvious as they could be. Therefore, we kindly ask that you take a few minutes to read the user guide and follow the power-up and connecting steps. This will help explain many of the functions, why they are there and, of course, open the door to creative uses. If you find yourself asking questions after reading the guide we suggest you visit the JX62 FAQ page on the Radial web site. This is where we post questions from users and inform you of updates. If you still do not find what you are looking for, we invite you to send us an email at info@radialeng.com and we will do our very best to answer you in short order.

Now get ready to switch guitars with lightning fast speed!

Note: The Radial JX62 is solely intended for use by audio professionals. These professionals are expected to be familiar with safety issues regarding electrical systems and sound pressure levels that could cause ear damage after extended exposure. If you are not familiar with these, please contact your local electrical and health authorities as Radial has no means to ensure products like the JX62 are being used according to local rules and regulations.

JX62 OVERVIEW

The Radial JX62 can be broken down into three basic sections:

1. Instrument channels:

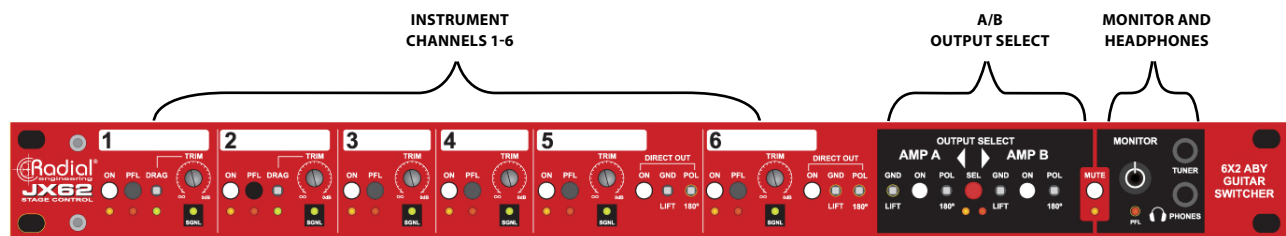
There are six high-impedance input channels each equipped with a $\frac{1}{4}$ " input for the instrument or wireless system, a $\frac{1}{4}$ " thru-put for connecting a dedicated stage amp or external direct box, a trim (level) control and a PFL (pre-fader listen) switch that routes the selected channel to the headphones. The channels may be used independently with their own amps or routed to the master A/B amp bus. Any or all channels may be active at one time. Channels-5 and 6 are equipped with dedicated direct boxes that allow acoustic instruments or bass guitar to connect directly to professional PA and recording systems.

2. A/B Output select:

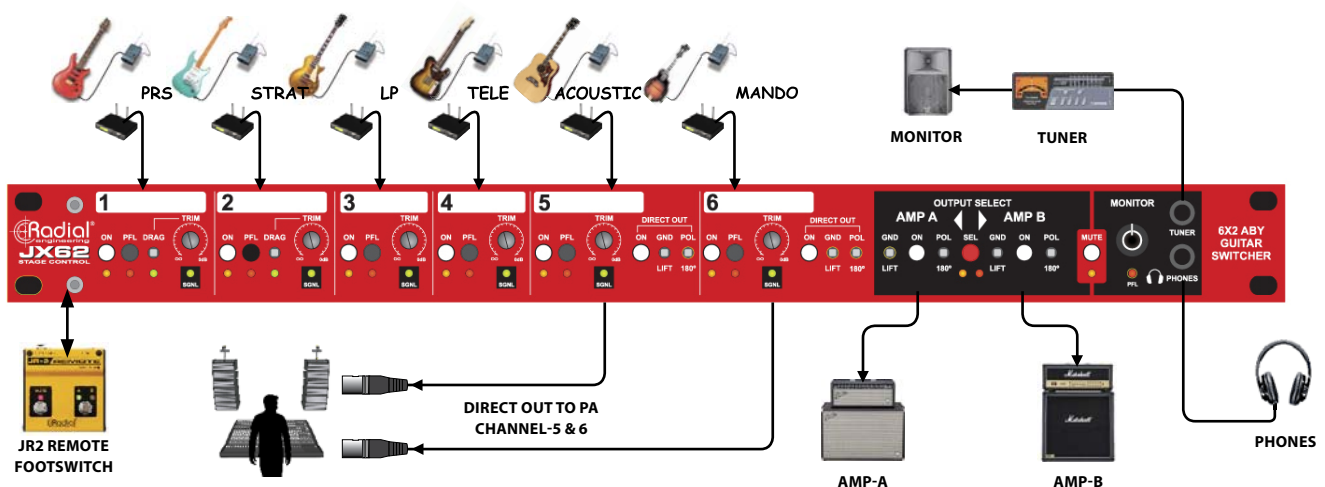
The output select section lets you control the A/B amps outputs. The front panel SEL switch is used to select the active amp while two LEDs display which output is active. You can also use the ON buttons to manually turn the A/B outputs on and off. At the rear panel, each A/B output features two $\frac{1}{4}$ " outputs for guitar or bass amps plus parallel lo-Z balanced XLR outs for connecting to digital processors, PA and recording systems. All outputs are transformer isolated to prevent noise from ground loops and feature ground lift and 180° polarity reverse switches.

3. Monitor and Headphones:

The monitor section works with the channel PFL switches and allows the stage technician to listen to, trouble shoot and tune instruments on or off-line. The monitor section consists of a MONITOR level control, $\frac{1}{4}$ " headphone output (see warning on page 2), front and rear $\frac{1}{4}$ " outputs for electronic tuners and powered monitors, and a bright LED indicator that illuminates when a channel PFL switch is depressed. When no PFL switches are used the headphones monitor the A/B amp bus.

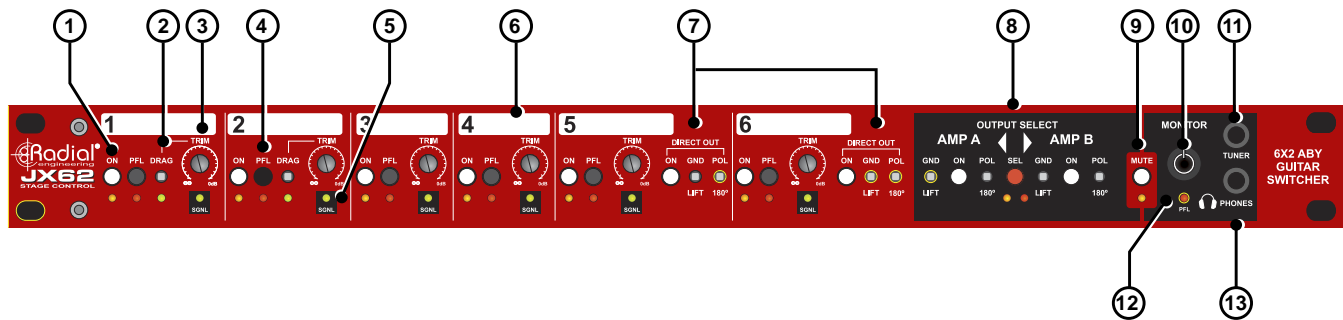


A typical setup could be using four wireless electric guitars and two acoustics. The electric guitars are sent to the A/B amp bus which feeds two on-stage amps for rhythm and lead. The acoustics are sent direct to the PA system via the built-in Radial direct boxes. The guitar tech would handle exchanging the guitars for the artist while the artist could use the optional JR2 footswitch to select between rhythm and lead amps. The tech could use the PFL system with a set of headphones or monitor speakers to pre-check guitars and connect an electronic tuner for quick adjustments.



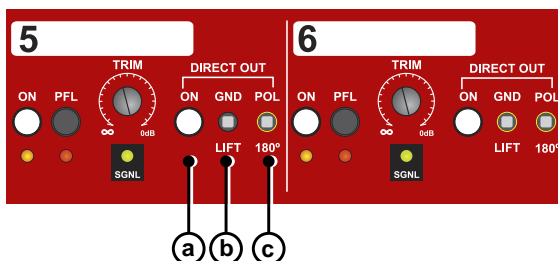
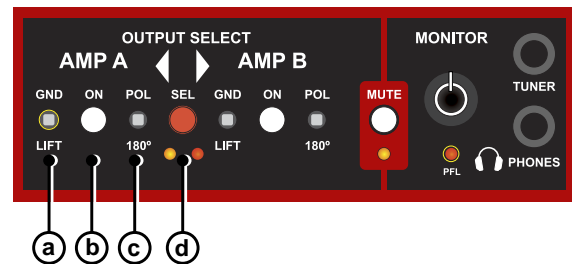
The JX62 is the ultimate instrument and amp selector for a busy rock star! Connect four wireless guitars and then switch between two amps using the optional JR2 footswitch. Add a couple of acoustics with direct outs to the PA system.

FEATURE SET OVERVIEW



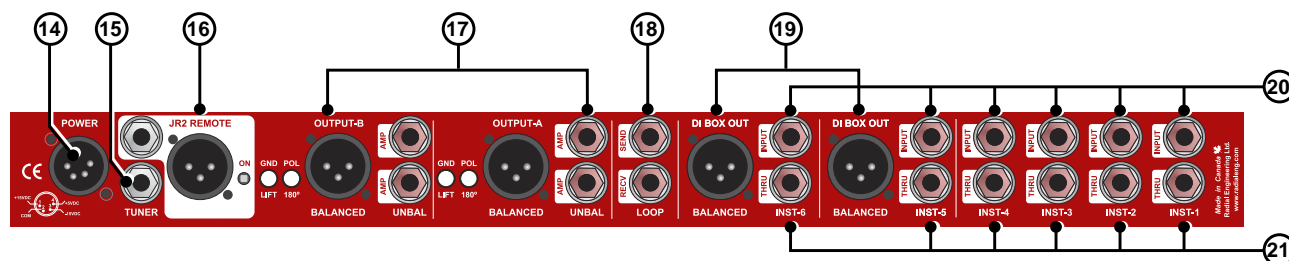
FRONT PANEL

1. **ON:** Routes the input channel to the A/B amp outputs. The LED indicator illuminates when a channel is active.
2. **DRAG** Available on inputs 1 and 2: Turns the TRIM into a DRAG Control™ for wired guitar or bass with passive pickups. Drag lets you adjust the load on the pickup to optimize the tone. The LED illuminates when Drag is active.
3. **TRIM:** Used to match the input level so that all channels produce the same relative output. On channels-1 and 2 this can be converted to a DRAG Control. Recessed to prevent accidental use. Use a small screw driver to make adjustments.
4. **PFL:** Sends the instrument input signal to the headphones and tuner outputs for monitoring and tuning. An LED indicator illuminates when the channel PFL is active.
5. **SGNL LED:** An LED indicator under each trim control illuminates when signal is detected at the input. Used to confirm the source devices are connected and working.
6. **WRITE ON TABS:** Lets you identify the channels using a wax pencil for quick reference.
7. **DIRECT OUT:** These controls apply to the direct box outputs on channels-5 and 6.
 - a. **ON:** Turns on/off the balanced direct box output.
 - b. **GND LIFT:** Disconnects the pin-1 ground from the direct box XLR output to eliminate hum and buzz caused by ground loops.
 - c. **POL 180°:** Inverts the signal polarity by flipping pins-2 and pin-3 on the XLR output. Used to reduce resonant peaks that can cause acoustic instruments to feedback.
8. **AMP/A/B OUTPUT SELECT:** This section applies to the A/B amp outputs.
 - a. **GND LIFT:** Isolates the ¼" amp outputs to help eliminate hum and buzz caused by ground loops.
 - b. **ON:** Turns on the amplifier output and over rides the SEL switch and JR2 footswitch. Allows both amps to stay on.
 - c. **POL 180°:** Reverses the polarity of the ¼" amp output to solve phase cancellation problems between amps.
 - d. **SEL:** Output select switch used to select the active amp output. The LEDs indicate which output is active.
9. **MUTE:** Mutes the A/B amp outputs and channel-5/6 direct outputs. *Note: this function may be bypassed on channels-5 and 6 using the top panel selector switch. See feature #22. An LED indicator illuminates when the mute function is active. The function can also be activated via the optional JR2 footswitch.*
10. **MONITOR:** Controls the headphone volume and the level of the rear panel TUNER output.
11. **TUNER:** Buffered ¼" front panel output for rack tuners, amplifiers and active monitor speakers. *Note: this output is controlled by the MONITOR headphones level control.*
12. **PFL:** This LED illuminates when a channel PFL switch is depressed. Both the headphone and tuner outputs monitor the PFL system.
13. **PHONES:** TRS ¼" output for the built-in headphone amplifier. Used to listen to the A/B bus and the PFL system.



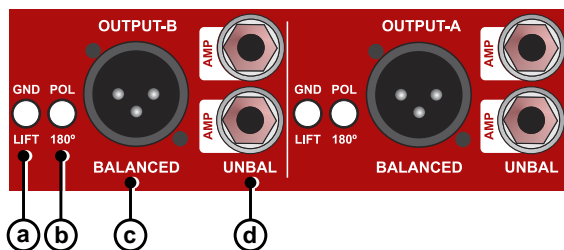
CAUTION: The JX62 headphone output is able to play very loud in order to provide enough level to monitor when on stage during loud concerts. Extended exposure to high sound pressure levels can cause permanent hearing damage. As the Radial JX62 is intended for professional use, the user should be well aware of the exposure limits and safety requirements. Please consult your local health agency for details.

FEATURE SET OVERVIEW

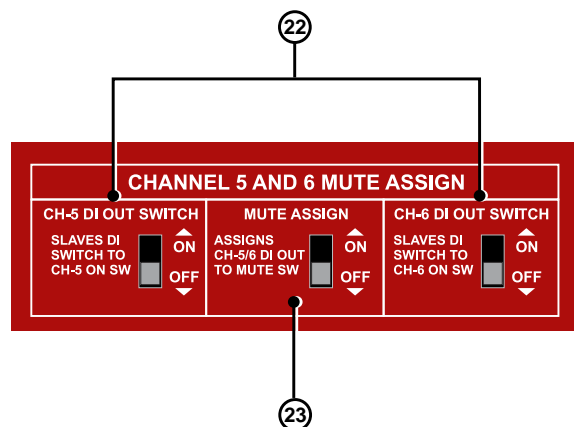


REAR PANEL

14. **POWER SUPPLY:** External power supply is secured with a locking 4-pin XLR connector for reliable power.
15. **TUNER:** Buffered hi-Z ¼" rear panel output for connecting an electronic tuner. This output works at a fixed level, is always on and monitors the A/B bus or PFL system.
16. **JR2 REMOTE:** Connection for optional JR2 remote footswitch with ¼" TRS or XLR jacks.
17. **OUTPUTS A/B:** The A and B outputs are identical. Each feature dual ¼" outs, balanced XLR outs with ground lift and polarity switches;
 - a. **GND LIFT:** Disconnects the signal ground (XLR pin-1) to further reduce hum and buzz caused by ground loops.
 - b. **POL 180°:** Inverts the signal polarity by flipping pin-2 and pin-3 on the XLR output. Used to reduce resonant peaks that can cause feedback or phase align the output with the various amps on stage.
 - c. **BALANCED OUTPUT:** XLR-male connects the A/B bus to digital amp modeler, mixing console or recorder. Transformer isolated to eliminate hum and buzz when connecting to remote systems.
 - d. ¼" **AMP OUT:** Two unbalanced ¼" outputs are wired in parallel and used to feed guitar or bass amps. Transformer isolated to eliminate hum and buzz caused by ground loops.
18. **LOOP:** Send and Receive ¼" jacks allow you to insert effects or a pedalboard before the A/B amp outputs. *Note: the headphones monitor the A/B bus pre-loop so no effects will be present in the headphones or tuner outputs.*
19. **DI BOX OUT:** Channels-5 and 6 are equipped with Lo-Z balanced XLR direct outputs. Used to feed acoustic guitar or bass direct to the PA or recording system.
20. **INST. INPUT:** Standard ¼" guitar input used to connect instruments or wireless systems.
21. **INST. THRU:** Parallel ¼" thru-put on each instrument input is used to connect guitar amps, direct box or electronic tuners.



TOP PANEL



22. **CH-5/6 DI OUT SWITCH:** Recessed 'set-and-forget' switch allows you to turn the direct box outputs on and off using the channel ON switches. When this switch is set to OFF, the direct outputs can be turned on and off independently. When set to ON, the direct outputs will turn on and off with the channel ON switch.
23. **MUTE ASSIGN:** When set to OFF, the direct box outputs remains active while the amp bus outputs are muted. When set to ON, the mute function will turn off the direct box outputs along with the A/B amp bus outputs.

GETTING STARTED

Make sure you turn your amplifiers, audio system and PA levels down before making connections. This will help avoid turn-on or power-up transients that could damage more sensitive components such as tweeters.

Connect the universal power supply using the locking 4-pin XLR connector on the rear panel. The power supply handles any AC voltage from 100V to 240. Simply change the IEC cable to suit your country. There is no power switch on the JX62. As soon as you connect the power supply, it will spring to life ready to use.



Before making connections, follow these steps to pre-set the controls to a starting position. Some push button switches are recessed to prevent accidental use. Use a small screwdriver to access the recessed switches.

1. Start by turning all TRIM controls to their maximum clockwise position.



2. Set all the push button switches to their outward positions.



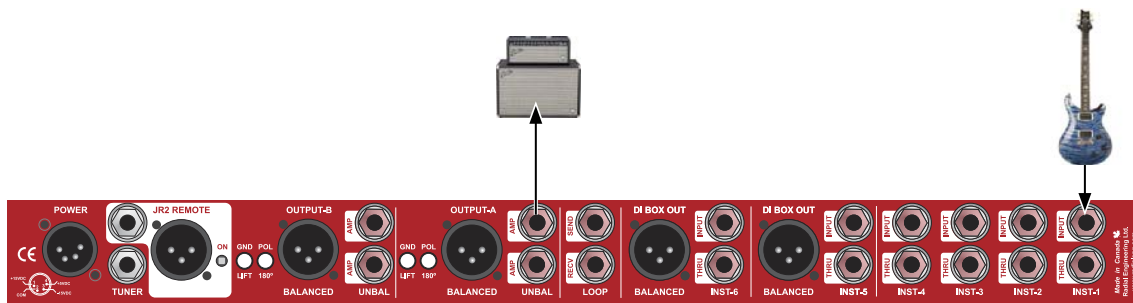
3. Set the three top panel switches to their OFF positions.



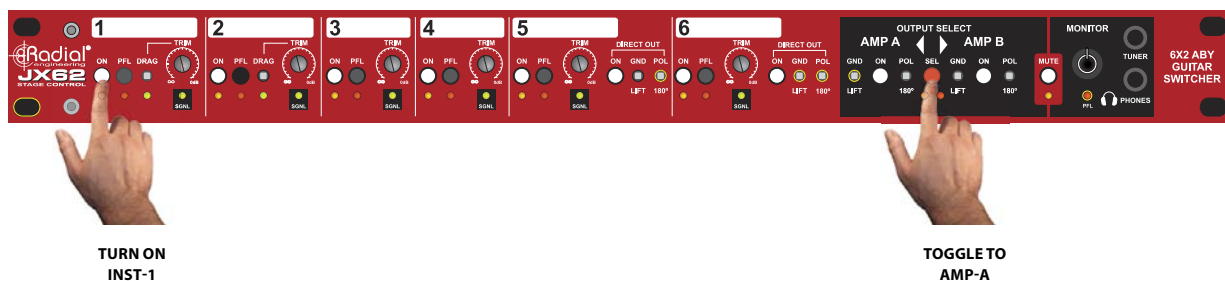
MAKING CONNECTIONS

The cool thing about the JX62 is that it can be configured in various ways, depending on your desired setup. However, we suggest starting with one instrument and one amp before adding additional instruments and electronics. This way troubleshooting is kept to a minimum. If you start by connecting everything at once it can be very hard to figure things out should you run into a problem.

First, connect a guitar or wireless system to the INST-1 INPUT. Next, connect your amp to OUTPUT-A. The amp outputs feature two parallel 1/4" jacks for connecting one or two guitar or bass amplifiers.



Activate channel-1 by depressing its ON switch. The LED below the switch will illuminate indicating the channel is routed to the A/B amp bus. In the OUTPUT SELECT section, press the SEL switch to ensure output-A is active. One of the two LEDs below the SEL switch will illuminate to indicate the active output. Bring up the level on your guitar amp to a comfortable listening level.



ADDING MORE GUITARS

After you have your first guitar and amp working, connect your second guitar (or wireless system) to the INST-2 INPUT. Use the channel ON buttons to turn off channel-1 and turn on channel-2. *Note: as many channels as you like may be routed to the A/B amp bus at the same time by pressing the channel ON buttons.* Continue connecting instruments to the remaining channels until done.

The TRIM controls let you reduce the input sensitivity on a particular channel. If you notice one instrument or wireless system is louder than another, you can reduce the TRIM to even the levels out between instruments. Start with all TRIM controls rotated fully clockwise. If an instrument seems much louder than the others reduce its input sensitivity by rotating the control counter clockwise.

ADDING A SECOND AMP

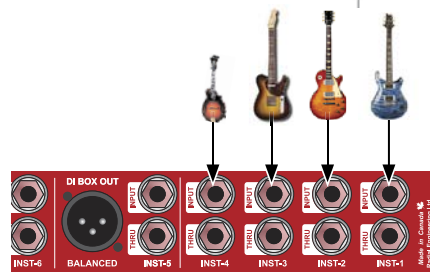
Connect your second amp to OUTPUT-B. The two 1/4" jacks are wired in parallel to make connecting more than one amp to output-B easy. Turn on your second amp and set it to a low listening level to test. Press the SEL switch to toggle the amp outputs. The LED indicator will change to amp-B.

A common problem when using two amps is hum and buzz. The A/B amp outputs are transformer isolated to help eliminate noise caused by ground loops. If however, you hear noise after connecting your second amp try pushing in the amp-A and amp-B GND LIFT switches located on the front panel. This will float the signal grounds and further reduce noise. The switches are recessed to prevent accidental use. Use a small screwdriver to push the GND LIFT switch inward.

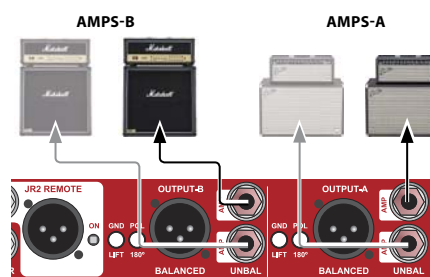
The next problem you may encounter when using two amps is phase cancellation that can cause the tone to seem 'thin' or 'distant' when both amps are on at the same time. Cancellation occurs when one amp is 'out of phase' and its speakers are moving in the opposite direction compared to the other amp.

To test for proper phase, turn on both amp outputs by pressing in the amp-A and amp-B ON buttons in the OUTPUT SELECT section. Set the amps to the same approximate loudness. Now try inverting the polarity by pushing in the POL 180° button **on output-B only**. Compare the instruments tone with the switch set to the outward position and then the inward position. Use the setting that sounds the fullest especially in the lower bass notes. If you can see the speaker cones of both amps you can visually confirm the speakers are moving in the same direction and thus in phase. Even if you are not planning on using the amps at the same time it's a good idea to set the amps in phase when sending signals to the PA or recording consoles.

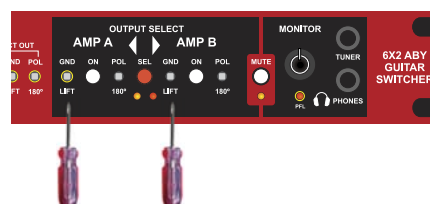
The JX62 gives you two ways to control the amps. You can toggle between the two amps, one for rhythm and the other for soloing, using the front panel SEL switch or the optional JR2 footswitch. You can also bypass the A/B SEL switch function and manually control the amps by depressing either the amp-A or B ON switches, located in the OUTPUT SELECT section. When either ON switch is depressed, its LED illuminates and the SEL switch is disabled.



A guitar pickup makes a handy tool for using the TRIM and DRAG dials.

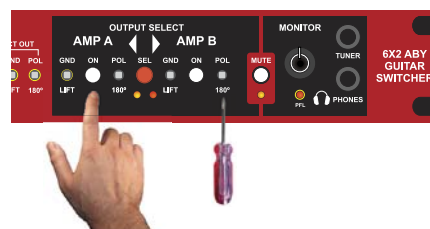


Connecting amps: Each output has a pair of 1/4" jacks for doubling up amps.



GROUND LIFT SWITCHES

Eliminating hum and buzz: Push the front GND LIFT switches in to eliminate hum and buzz at the 1/4" amps outputs.



**TURNES ON
AMP OUT** **POLARITY
FOR AMP-B**

Testing for phase: Turn on both amps and toggle the amp-B POL 180° switch.

USING THE CHANNEL THRU-PUT

Each input channel is equipped with a parallel ¼" THRU-put. This can be used to feed a dedicated guitar amp, tuner or direct box. For instance, you may be a multi-instrumentalist that occasionally plays an instrument that requires a special kind of amp. In this case, you could connect the THRU output to an amp dedicated to this instrument. *Note: the THRU jack is a wired in parallel with the input jack and therefore will not be effected by the MUTE function.*

DRAG CONTROL

There are purists that do not like the sound of wireless systems and thus prefer to connect their guitars directly to their amps using a standard guitar cable. The primary reason is that they do not like the sound of the buffer and the load that is applied on the pickup.

The JX62 is equipped with Drag Control™ load correction that works with cabled guitars and passive magnetic pickups. Drag Control allows the player to adjust the load (impedance) applied to the pickup and smooths out the response for a more natural sound. After the DRAG circuit, the instrument signal is then buffered by a 100% discrete class-A circuit that will not color the tone before routing to the master A/B amp bus.

Drag Control is available on channels-1 and 2 by depressing the recessed DRAG switch. This converts the TRIM control into a Drag Control. Since most wireless or active instruments are often louder than passive electric guitar pickups, the trim is usually not needed. Use a guitar pick to set the DRAG control to 12 o'clock and then rotate to where it sounds best to you. Turning control counter-clockwise will apply more DRAG and darken the tone while turning it clockwise will brighten the sound.

ADDING EFFECTS

The JX62 is equipped with an effects loop that lets you route all instruments to an effect processor or pedalboard. Simply connect the ¼" SEND jack to your effect pedals and back to the JX62 via the ¼" RECV jack. Connecting your effects here enables you to share them with all the input channels and both amps. Once connected the loop will be active and you can use your effects as normal.

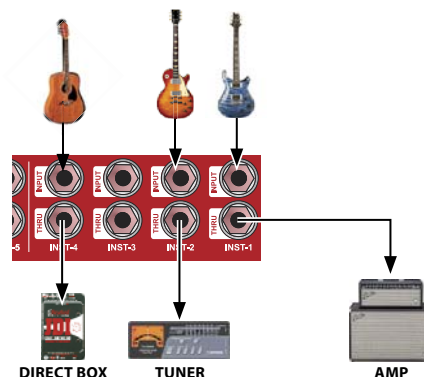
USING DIRECT BOX OUTPUTS

Channels-5 and 6 feature dedicated direct boxes equipped with lo-Z balanced XLR outputs, ground lift and polarity reverse controls. These mic-level outputs can be used to send acoustic instruments like guitar, mandolin or bass direct to the PA or recording consoles. Use standard balanced XLR microphone cable to connect the direct box outputs to the mic/line inputs of a mixing console.

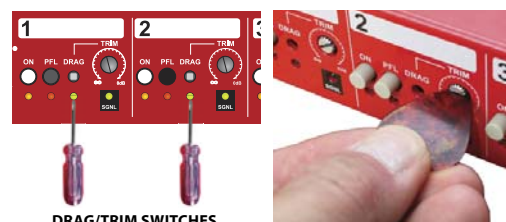
The direct box outputs are controlled using the front panel DIRECT OUT switches. The direct box ON switch works independently from the channel ON button. This way you can route the signal from an acoustic instrument to the direct box output only and not the electric guitar amp unless you want to.

The direct box output is transformer isolated to reduces hum and buzz caused by ground loops. The GND LIFT switch adds a further level of noise reduction. If you hear noise after connecting the direct box output to the PA system try pushing the GND LIFT switch inward. This will disconnect pin-1 on the XLR output and further eliminate noise.

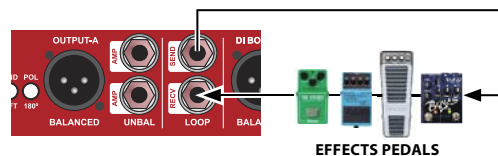
The direct box POL 180° polarity reverse switch can often help tame low frequency resonant feedback that can be a problem with acoustic instruments. When frequency waves from the PA, monitors, side fills and stage amp collide they can reinforce each other or cancel each other out, depending on where you are standing on stage and their relative phase and intensity. The polarity reverse switch essentially 'moves' the problem out of the way. Try the switch in both positions and use the setting that works best.



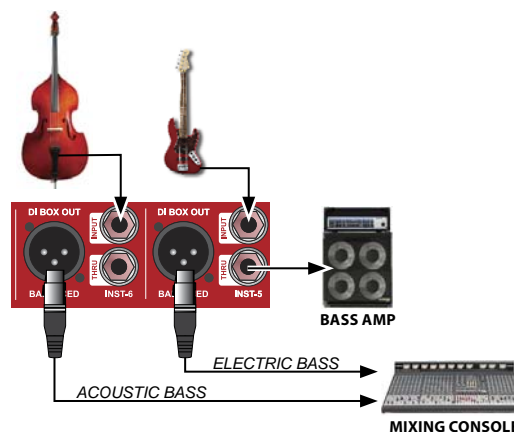
The ¼" THRU jack may be used to pass individual instrument signals on to additional devices like amps and tuners and direct boxes.



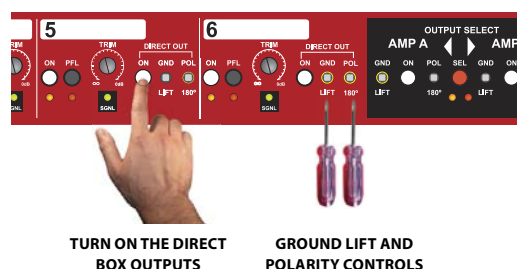
To use the DRAG control on channels-1 and 2 push the recessed switch in and use the TRIM dial to set the amount of drag. The LED illuminates when DRAG CONTROL is active.



The effect LOOP jacks are used to integrate digital processor and effect pedalboards.



Channel-5 and 6 DI outputs connect directly to the PA or recording consoles.



USING THE A/B XLR OUTPUTS

As an added convenience, the JX62 is equipped with two balanced XLR outputs that are wired in parallel to the A/B amp outputs. These can be used to feed mic inputs on a mixing console when using the JX62 as a giant DI box. They can also be used to feed digital modeling amplifiers or effect processors for those that prefer to perform in the digital domain.

Each XLR output is transformer isolated and features a ground lift switch to further reduce hum and buzz caused by ground loops. If you hear noise after connecting, push in the GND LIFT switch. A polarity reverse switch is also provided that inverts the signal phase 180 degrees.

USING THE PFL SYSTEM

Pre-fader-listen or PFL is a term used on mixing consoles to describe monitoring a signal that is not live. Each input channel features a PFL switch that lets you listen to the instrument signal via headphones or send the signal to a tuner or powered monitor speaker.

For instance, the artist on stage may be using channel-1 but you want to check the instrument on channel-2 to make sure everything is working and in tune before handing off the guitar. By depressing the channel-2 PFL switch you can listen to the instrument using the built-in headphone amplifier or send the signal to an electronic tuner or backstage amp. When the instrument is set to go, the tech can hand it off to the artist and turn on the channel.

Each channel has a PFL switch with an LED indicator that illuminates when pushed in. An LED indicator in the MONITOR section also illuminates when the PFL system is active. When one or more of the PFL switches are on, the headphones and tuner outputs will monitor the PFL bus. When all of the PFL switches are off, the headphones and tuner outputs will automatically revert to monitoring the A/B amp bus.

Note: As some guitar techs will use the PFL and others may not feel the need, we chose to equip the function with black capped switches. These can be removed by gently pulling on the black cap using a set of needle nose pliers. This opens up more space on the front panel and reduces switching errors. After the tour, you simply replace the switch caps by pushing them back on.

CONNECTING A TUNER AND MONITOR SPEAKER

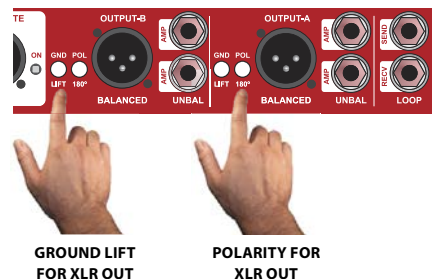
The JX62 features two ¼" TUNER jacks that output a line level signal of the headphone mix. You can connect electronic tuners or other devices like guitar amps or monitor speakers using standard ¼" guitar cables.

The ¼" TUNER jack on the rear panel produces a fixed level making it well suited for connecting electronic tuners because the output is always on and the level remains stable. The second ¼" TUNER out is located on the front panel. Here the level is controlled by the MONITOR knob. This ¼" output is good for connecting amps or monitor speakers because you can adjust the volume using the MONITOR level control.

USING THE MUTE

The JX62 includes a mute function that makes it easy to change instruments or put the system in 'standby' mode. Pressing the front panel MUTE button turns off the A/B amps outputs but leaves the direct box outputs, headphones and tuner outputs on. *Note: There is an option to also mute the direct box outputs described in the next section of this user guide.* The LED indicator illuminates when the mute function is active. You can continue to use the PFL system via the headphone and tuner outputs while the MUTE function is on.

Note: the ¼" THRU jacks on each channel are wired in parallel with the input jacks and therefore will not be effected by the MUTE function.



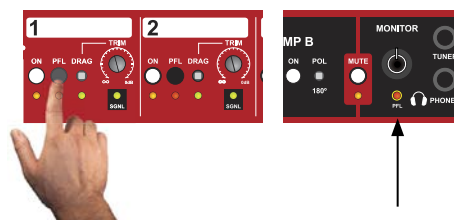
GROUND LIFT
FOR XLR OUT

POLARITY FOR
XLR OUT

Each A/B amp output bus includes a balanced XLR output with its own ground lift and polarity reverse.

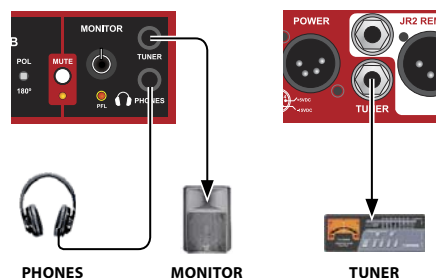


The PFL switch features a black cap that can be removed if not used. Channel-5 is shown with the cap removed.



TURN ON CHANNEL
PFL TO LISTEN TO
THE INST.

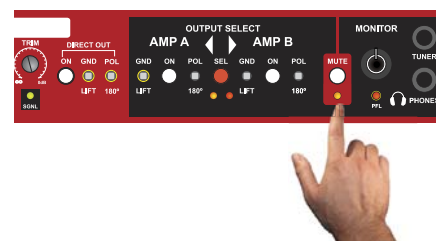
PFL
INDICATOR
LIGHT



PHONES

MONITOR

TUNER



A bright LED under the MUTE switch indicates the function is active.

TOP PANEL CONTROLS FOR CHANNELS-5 AND 6

Three 'set-and-forget' controls, located on the top panel, offer additional options for channels-5 and 6. The center switch labeled MUTE ASSIGN allows you to control how the JX62's mute function works with the channel-5 and 6 direct box outputs. When set to OFF the direct box outs are not effected by the mute function and will remain on while the amp outputs are muted. With this setting you can mute the amps (electric guitars) while playing an acoustic instrument through the PA system via the direct box outputs.

When the MUTE ASSIGN is set to ON, the direct box outputs will also be turned off (muted) along with the guitar amp outs. This setting lets you use the mute function to put the system in standby mode where the amps and acoustic instruments are off. The tech can still monitor input channels and tune the instruments using the PFL system.

The two switches labeled DI OUT SWITCH allow you to link the channel and direct box ON buttons. When set to OFF the channel and direct box ON buttons work independently. Used this way you can choose to send channels-5 and 6 to the direct box outputs but not the amp outputs.

When the DI OUT SWITCH is set to the ON position, the direct box outputs will turn on/off in sync with the channel ON buttons. Used this way, one button turns on/off both the channel and the direct box output. Choose a setting that works best with your set up. The top switches are recessed to prevent accidental use. Use a small screwdriver to change setting.

USING THE JR2 REMOTE CONTROL

For artists that prefer to control A/B amp switching for solos, an optional JR2 remote footswitch may be connected using a standard balanced cable up to 30 meters (100') long. The rear panel connection features an XLR jack and a 1/4" TRS jack. The JR2 works with both cable types allowing you to use whatever cable you have at hand.

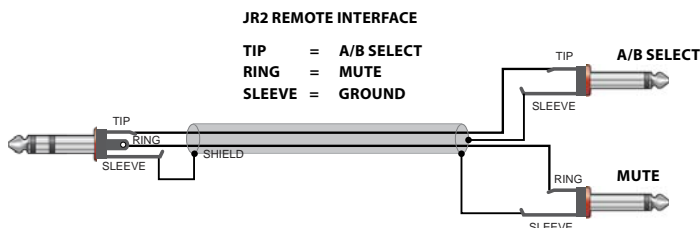
After connecting the JR2, push the recessed ON button located next to the XLR jack inward. This activates the JR2 remote connection and disables the front panel A/B SEL and MUTE switches. The A/B amp ON switches will still be available for manual control of the amp outputs.

The JR2 features two footswitches that duplicate the A/B SEL and MUTE controls. Depressing the A/B footswitch will toggle the JX62 A/B outputs allowing the artist to control the amps. The MUTE footswitch activates the JX62 mute function. Because the TUNER outs and headphones remain active the artist can quietly tune between songs or turn off the guitar outputs in between sets without the aide of a technician. The JR2 derives its power from the JX62 to perform the switching and illuminates its LED indicators.

MIDI INTEGRATION

You can use a MIDI controller or sequencer to trigger the A/B switching and mute functions by connecting a MIDI controlled contact closure to the JR2 interface. One contact closure is used for the A/B switching and another for the mute.

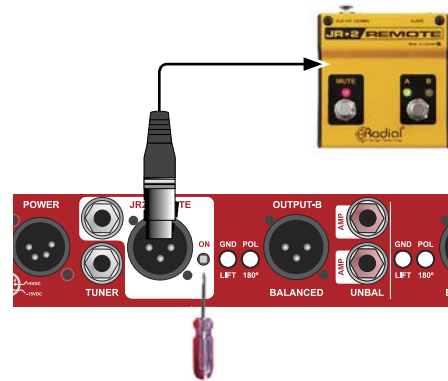
To access the JR2 interface, use the 1/4" TRS jack on the rear panel and patch it to two MIDI contact closures using an 'insert' type cable. The following diagram shows the wiring for an insert cable that breaks out the 1/4" TRS jack into individual plugs that can connect two MIDI contact closures.



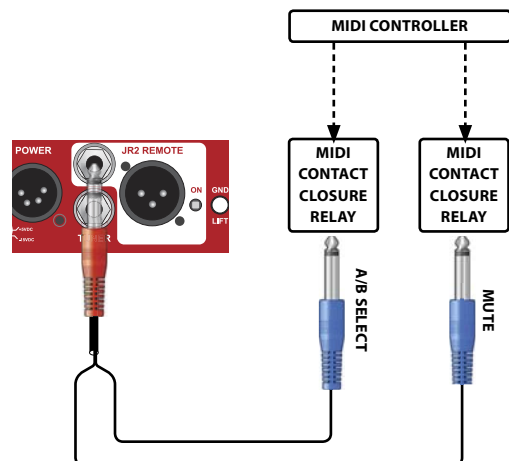
An insert cable can be used to break out the switching and mute functions.



Use a small screwdriver to change setting.



After connecting the JR2, push the recessed button to turn the remote on.



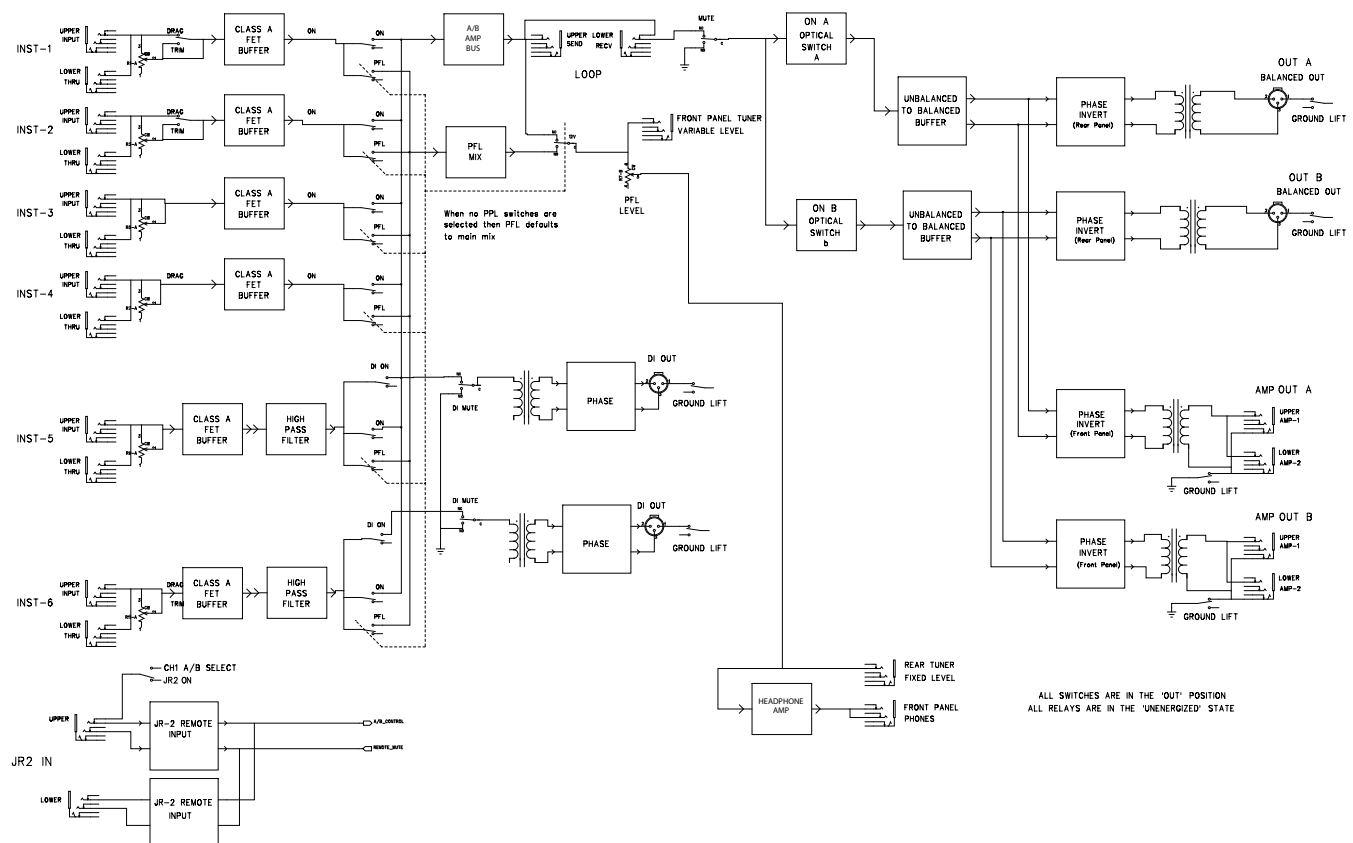
MIDI integration using the 1/4" JR2 remote interface.

JX62 SPECIFICATIONS*

Audio circuit type:class-A BiFET buffers with optical output switching
 Number of channels:6 x 1/4" instrument channels with 1/4" thru-puts
 Number of outputs:2 x direct outs; 2 x 1/4" amplifiers outs; 2 x bal. XLR outs; effect loop send and receive
 Frequency response:20Hz - 20kHz ± 1 dB XLR out - 10k load
 Total harmonic distortion (THD+ N):0.007% At guitar input level of -10dBu
 Dynamic range:120dB
 Input impedance:1 megaohms fixed in trim mode; 22k to 1megaohms variable in Drag mode
 Maximum input:+18dBu
 Clip level headphone output:will vary with headphone impedance
 Gain (channel input to XLR output):+5dB 10k load trim control at maximum
 Clip level front panel tuner out:+22dBu level varies with monitor control setting
 Gain (channel input to phone output):+5dB 10k load trim control at maximum
 Clip level front panel tuner out:+17dBu 100k load
 Clip level channel output:+22.5dBu 10k load
 XLR output impedance:680 ohms
 Phone output impedance:3500 ohms
 Equivalent input noise:-94.7dBu below test equipment noise floor
 Noise floor:-89.7dBu
 Intermodulation distortion:0.027% At guitar input level of -10dBu
 Phase deviation: $\pm 15^\circ$ due to output transformers
 Power:Radial 100v to 240v universal power adapter with locking four pin XLR
 Construction:steel 19" rack mount enclosure with powder coat finish
 XLR configuration:AES standard pin-1 ground, pin-2 (+), pin-3 (-)
 Size (L x W x D):1 rack unit; 19" x 6" x 1.75" (48 X 15.2 X 1.7cm)
 Shipping size (L x W x D):22" x 10" x 4.5" (55.9 X 25.4 X 11.4cm)
 Conditions:for use in dry locations only between 5°C and 40°C
 Warranty:Radial 3-year, transferable

*Specifications are subject to change without notice.

JX62 BLOCK DIAGRAM



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3 YEAR TRANSFERABLE WARRANTY**

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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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