

# USER MANUAL

## STAMPEDE

### AND

## STRATA 5

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## WELCOME

Thank you for buying a REL "ST" range Sub-Bass system. This manual contains important safety information as well as helpful advice and should be carefully studied before integrating the sub-bass system with your sound system.

The new 'ST' range of REL sub-bass systems represents a radical advance in technical design. The adjustment of level, phase and crossover is achieved through new microprocessor controlled circuitry, eliminating the need for multiple control knobs. Each model offers the remote control of all calibration adjustments, enabling the user to set-up the sub-bass system easily and more accurately from the listening position. All these settings can be saved into memory and recalled at any time. Most adjustments are available from the remote, but a few adjustments that are normally only set on installation are only available from the front panel.

Reliability, quality of construction and performance of REL products is maintained and enhanced by the innovative design of the latest 'ST' series of REL sub-bass systems.

## STAMPEDE AND STRATA 5

Stampede and Strata 5 are designed as closed box systems. For their cabinet volume and drive unit, this arrangement offers the best compromise between extension and power handling. With smaller cabinets, the addition of a port to make it a reflex design can result in excessive port noise, which manifests itself as 'chuffing' when very low frequencies, such as organ pedal notes, are reproduced. Worse, a small cabinet will not extend down as deeply as its closed box alternative.

The cabinets are manufactured from 30 mm thick MDF (Medium Density Fibreboard). This is the material of choice when the very highest quality is demanded. There can be no substitute for weight and density in the quest for accurate low frequency reproduction.

Stampede and Strata 5 offer microprocessor control of all functions, either via the remote control or the encoder on the front control panel. Remote control makes it easier for the user to set-up the sub-bass system from the listening position.

For optimum performance we believe the electronics, cabinet and the drive unit should all be designed to work together.

All REL amplifiers are fully DC coupled to avoid phase shifts and compromises in their performance. The line level and filter stages are fully regulated to ensure total isolation from the power amp stages. The filter stages are unique, bespoke designs which utilise the highest quality components. The capacitors are high quality nitrogen filled polystyrene types of 1% very close tolerance and indefinite life. The use of very close tolerance components also ensures consistency of performance throughout the life of each model. Although digital control is used, the audio signals only pass through analog circuits, thus ensuring no digital hash is added to the signal.

Great care is taken to star-earth the circuit boards to maximise sound quality.

There is further filtering of the higher frequencies to ensure optimum performance at all settings of the ABC (Active Bass Controller). The built-in power amplifier is uses ultra-rugged audio grade MOSFET output devices. High quality smoothing capacitors offer long life with very low ESR (Equivalent Series Resistance). The transformers are ultra-quiet audio quality low-loss toroids, specially manufactured to REL's strict specifications. Great care has been taken to deliberately over-engineer all REL products to ensure unparalleled reliability.

## **MAIN FEATURES OF THE NEW 'ST' SERIES**

1. Microprocessor control with memory for all functions
2. Dedicated digital readout for all functions
3. All components are of superior quality in order to achieve long life and long term consistency of sound quality
4. All cabinets made from 30mm thick MDF
5. Superior wood veneer finishes are available for all models
6. Set-Safe® circuitry ensures a high standard of protection if the sub-bass system is overloaded

## **IMPORTANT SAFEGUARDS**

1. Read all of these instructions.
2. Save these instructions for future use.
3. Unplug the sub-bass system from the wall socket before cleaning with a damp cloth. Do not use liquid or aerosol cleaners.
4. Do not use near water.
5. Always position the sub-bass system on the floor.
6. The sub-bass system should only be connected to the power source indicated on the panel of the amplifier.
7. Only use the power cord supplied or one of similar quality and construction.
8. Do not allow anything to rest on the power cord. Position the power cord so that it cannot be stepped upon.
9. For added protection during a lightning storm, or for long periods of system inactivity, unplug the sub-bass system from the wall socket.
10. Avoid spilling any kind of liquid on the sub-bass system.
11. Do not attempt to service the sub-bass system yourself. In removing the amplifier, you may be exposed to dangerous voltages. Refer all servicing to your dealer.
12. Unplug the sub-bass system from the wall socket and refer to your dealer under the following conditions:
  - a. When the power cord or plug is damaged.
  - b. If liquid has been spilled on the system.
  - c. If the system does not operate properly after following the operating instructions.
  - d. If the system has been dropped and damaged.
  - e. When the system exhibits a profound change in performance.

## **WARNING**

**This sub-bass system is heavy. To avoid risk of injury, take care when handling.**

## **Worldwide Warranty**

In addition to any local warranty, which may be offered by your Distributor or Retailer, REL offers you a conditional three-year Worldwide Warranty.

The conditions of this warranty are:

1. That the warranty shall be for a term of three years from the date of purchase.
2. That the warranty is ineffective until registration is received by REL.
3. That the product is not exported from the country of purchase for at least eight weeks after purchase.
4. That any claim is accompanied by the necessary proof of purchase.
5. That the product was purchased from an authorised REL dealer.
6. That the product has not been abused or modified in any way.

The Warranty is transferable provided REL has been notified prior to the transfer.

Notification must include the model, serial number, name and address of original purchaser and the name and address of the new owner. The Warranty will be valid for the remainder of the original period of Warranty.

This Warranty is offered in good faith and is in addition to any statutory rights or existing Warranty that may be offered locally.

To register for this Warranty, which is offered at no extra cost to you, please complete and send the card enclosed or complete and send the Warranty card on the REL web-site: [www.rel.net](http://www.rel.net)

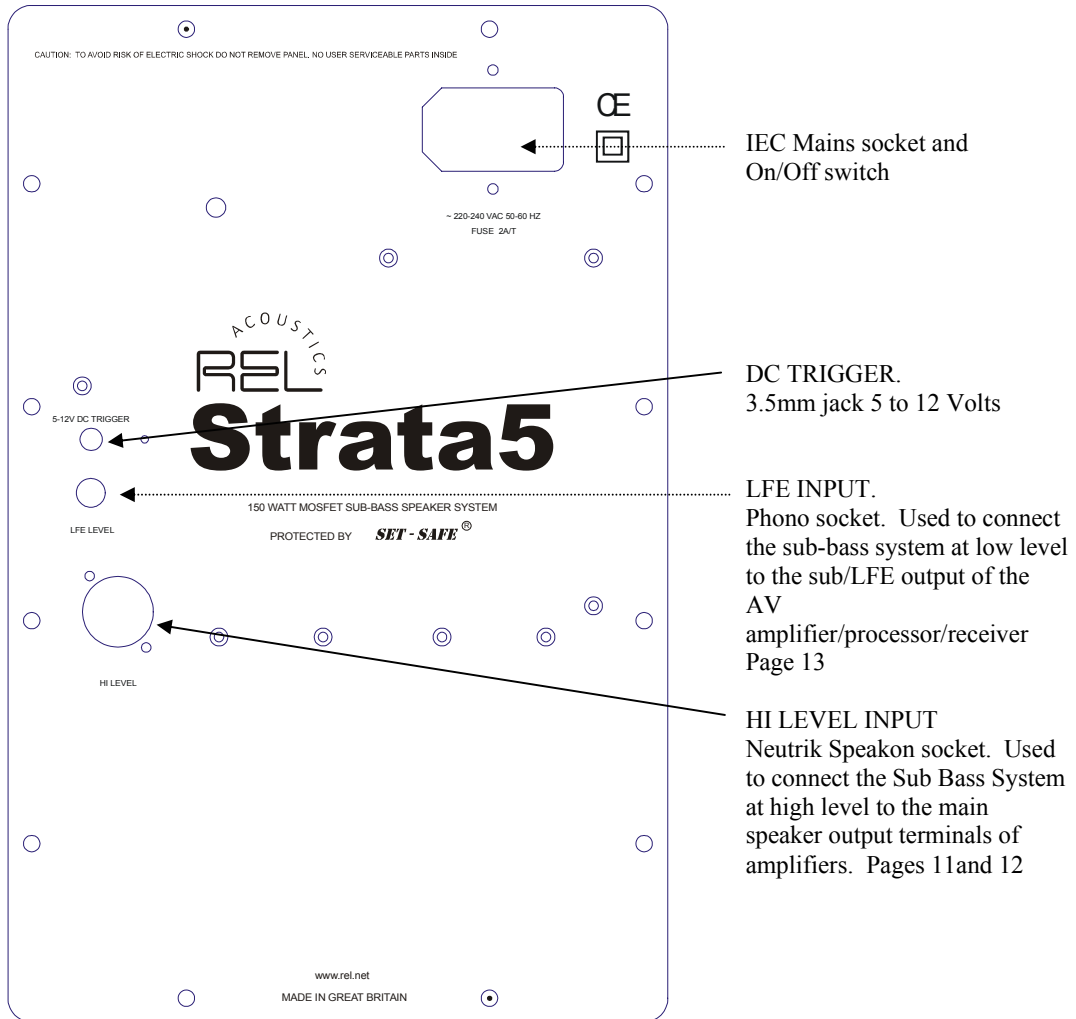
Note: If you have purchased more than one sub-bass system, please send a card for each one.

## **SERVICE AFTER WARRANTY**

**UK customers** please contact your dealer in the first instance before returning any product directly to REL. Should the unit need to be returned for any reason, all carriage costs will be payable by the customer. Losses or damage caused during transit are at the customer's risk.

**Overseas customers** please refer to the list of distributors on REL's website.

## REAR AMPLIFIER PANEL

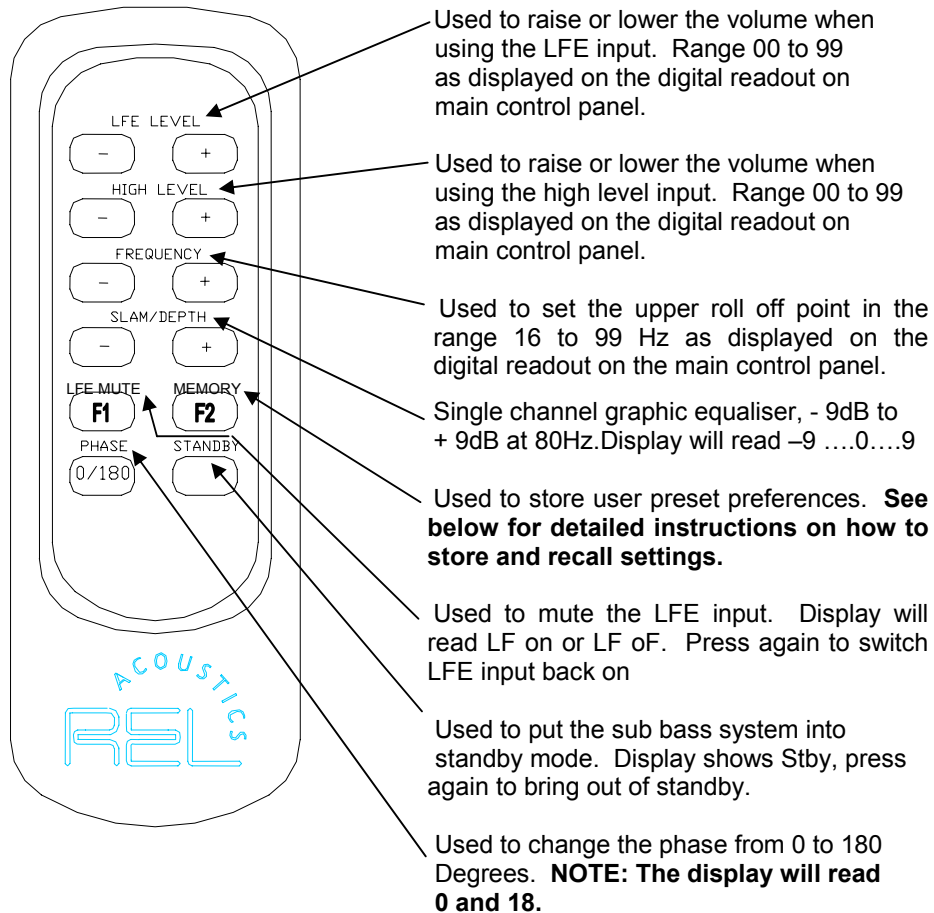


Strata 5 amplifier panel shown, Stampede amplifier panel is the same.

## REMOTE CONTROL

Most functions are accessible via either the remote or the front panel. Standby and the memory are only accessible via the remote. Display timeout, display brightness and DC trigger are only accessible via the front panel.

**To prevent accidental changing of parameters once they have been set, the manual encoder on the front panel can be electronically locked.** To lock the control first press F2 and then F1 in sequence, the display will read FP 0F (front panel off), to reactivate the front panel encoder press F2 and F1 in sequence again, the display will read FP on (front panel on).



## Memory Functions

There are four memory locations for the user to store preferred settings, these are:

- Position 1 Using the MEMORY button in conjunction with the LFE + and – buttons
- Position 2 Using the MEMORY button in conjunction with the HIGH LEVEL + and – buttons
- Position 3 Using the MEMORY button in conjunction with the FREQUENCY + and – buttons
- Position 4 Using the MEMORY button in conjunction with the SLAM/DEPTH + and – buttons

### To Store User Settings

First select the settings for each function which satisfy your particular requirements, for example you may wish to store the settings for two channel use and another set for 5.1 home cinema use. When the correct settings are chosen then press the MEMORY button, and one of the four memory location + buttons, the settings are now stored in this memory position. To recall these settings press the memory button and the relevant memory location – button in sequence. The above procedure can be repeated for the other memory locations. All settings can be stored in memory, including those accessible only via the front panel.

## Display of Memory Function

- 1<sup>st</sup>. memory position store. Press MEMORY the display will show Pr – (Profile)  
Press LFE + button, the display will show Pr –1 and the settings will be stored.
- 1<sup>st</sup>. memory position recall. Press MEMORY the display will show Pr – (Profile)  
Press LFE - button, the display will show Pr 1 and the settings will be recalled.

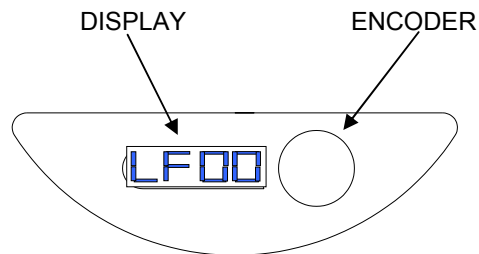
Repeat the above procedure for memory positions 2,3 and 4 using the HIGH LEVEL, FREQUENCY and SLAM/DEPTH + and – buttons.

For memory position 2 display will show Pr –2 to store and Pr 2 to recall

For memory position 3 display will show Pr –3 to store and Pr 3 to recall

For memory position 4 display will show Pr –4 to store and Pr 4 to recall

## CONTROL PANEL



All the functions shown on page 9 and 10 are available via the remote control and the encoder on the front control panel.

When using the front control panel, the functions are accessed by sequential presses of the control knob, the function being displayed on the two left hand digits of the seven-segment display. When the required function is accessed, the value can be adjusted by rotating the control knob, the value being displayed on the two right hand digits of the seven-segment display.

## FACTORY DEFAULT SETTINGS

Before the MEMORY positions are programmed with the user's preferences they are all pre programmed with factory defaults as follows:-

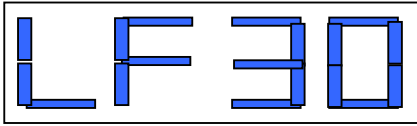
LFE	30
HIGH LEVEL	30
FREQUENCY	30
SLAM/DEPTH	0
LFE MUTE	Off
PHASE	0
DISPLAY TIMEOUT	Off
DISPLAY BRIGHTNESS	Max (10)
DC TRIGGER	Hi

To reset factory defaults, switch off the unit by means of the rear mains ON/OFF switch. Then switch back ON as you hold in the encoder knob on the control panel, continue to hold the knob in until the decimal point on the right hand digit appears. You will now have reset to the original factory defaults.

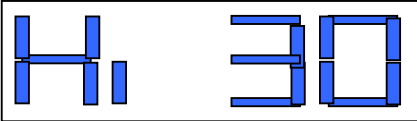


## CONTROL PANEL DISPLAY

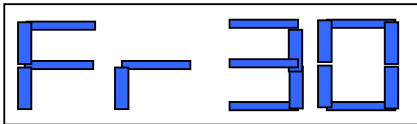
The following options are available via the remote control and the encoder on the control panel.



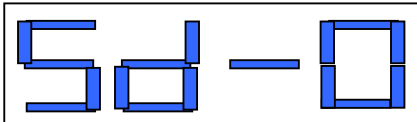
**LFE input volume.** Select by pressing LFE + or – buttons on the remote control or pressing the control knob on the control panel until 'LF' shows on the display. Adjust level by pressing the + or – buttons on the remote control or rotating the control knob on the control panel. Level will show in the range 00 to 99



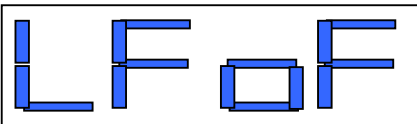
**High Level input volume.** Select by pressing + or – buttons on the remote control or by pressing the control knob on the control panel until 'Hi' shows on the display. Adjust level by pressing the + or – buttons on the remote control or by rotating the control knob on the control panel. Level will show in the range 00 to 99



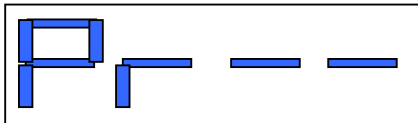
**Frequency.** Select the roll-off frequency by pressing the + or – buttons on the remote control or by pressing the control knob on the control panel until 'Fr' shows on display. Adjust cut-off point by pressing the + or – buttons on the remote control or by rotating the control knob on the control panel.



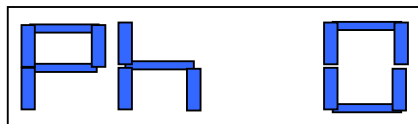
**Slam/Depth.** Select the Slam/Depth option by pressing the + or – buttons on the remote control or by pressing the control knob on the control panel until 'Sd' appears on display. Adjust level of Slam/Depth by pressing the + or – buttons on the remote or by rotating the control knob on the control panel.



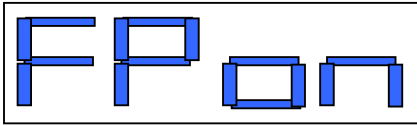
**LFE MUTE.** Select the LFE MUTE option by pressing the LFE mute button on the remote control or by pressing the control knob on the control panel until LF appears on the display. Change the state to on or off by pressing the LFE MUTE button on the remote control again or rotating the control knob. the display will read LF on or LF oF.



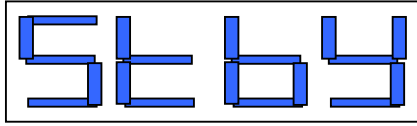
**MEMORY.** This function is only available via the remote control.  
**For operation see pages 7 and 8**



**Phase.** Phase is selected by pressing the button labelled PHASE on the remote control, display will read Ph 0 or Ph 18 representing 0 degrees or 180 degrees. Phase can also be selected by pressing the knob on the control panel until Ph is displayed, the 0 degrees or 180 degrees is selected by rotating the control knob.



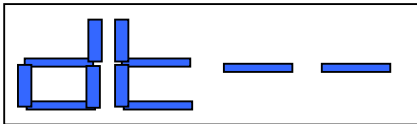
Use this function to lock the control panel encoder, this will prevent user settings being changed accidentally. Press MEMORY and then LFE MUTE buttons, display will read FP on or FP oF. FP on means front panel control active, FP oF means front panel control locked.



Pressing the standby button on the remote control switches the sub bass unit in or out of standby mode. Press the STANDBY button and the display will read Stby briefly and then default to just four flashing dots. Another press of the STANDBY button will bring it back to life.

## ADDITIONAL FUNCTIONS

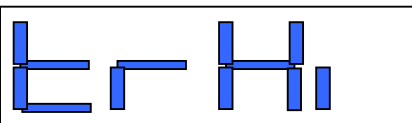
(Only available via the encoder on main control panel)



**Display Time Out.** Enables the display to be turned off after a pre-set time or left on continually. - - indicates 'always on' or select 1 to 59 seconds for display off. Select by pressing the control knob until 'dt' appears on the two left hand digits, rotate knob to set value as displayed on the two right hand digits.



**Display Brightness.** Adjusts the display brightness from 01 'dim' to 10 'full brightness'. Select by pressing the control knob until 'br' appears on the two left hand digits, rotate knob to set value as displayed on the two right hand digits.



**DC TRIGGER. Custom install feature. Used for remote control of sub by other equipment.** Select by pressing the control knob until 'tr' appears on the two left hand digits. Rotate knob to select value Hi or Lo. Please consult your dealer on use of this feature.

## CONNECTING UP

### Always switch off your system before disconnecting any wires

To enhance connection versatility, the “St” range has a range of separate inputs depending on the model, **see page 8**.

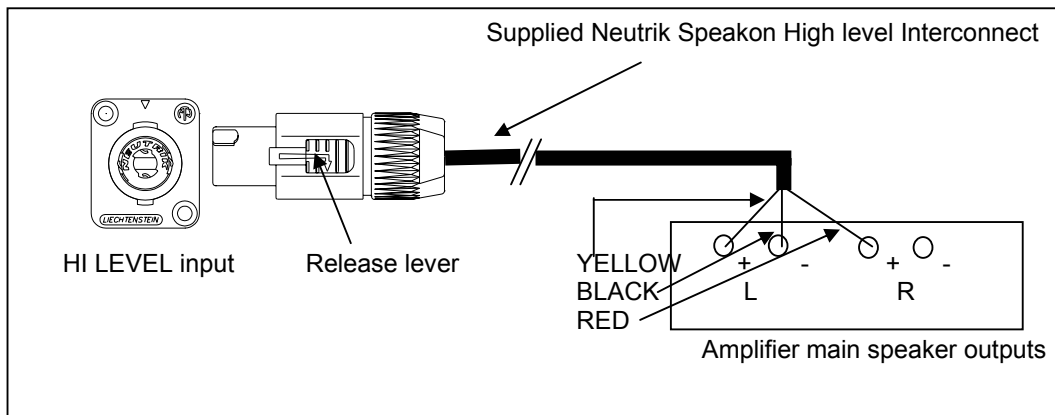
### To connect to the power amplifier using the UNBALANCED Neutrik high level input.

To engage the Neutrik Speakon plug, insert fully into socket and rotate clockwise until locked.

To remove the Neutrik Speakon plug, grip body of plug, place thumb on chrome lever, move lever backwards and rotate plug anti-clockwise (counter-clockwise in the US) a quarter turn and withdraw.

The high level input\* is designed to accept the stereo (two channel) signals from the speaker terminals of your receiver, integrated amplifier, or power amplifiers. This has the advantage of ensuring that your sub-bass system receives exactly the same signal as the main speakers, and ensures that the character of the bass from the main system is carried forward into the sub-bass. This is a very important factor in the successful integration of your sub-bass with the main system and works with the REL’s ABC circuitry to ensure a superior result.

**\*This input is labeled “Hi LEVEL”. This is the recommended means of connecting the sub for two-channel use.**



High Level connections should be made to the same binding posts as the main speakers. Connect as shown above. Red to the amplifier’s primary right speaker red terminal, yellow to the amplifier’s primary left speaker red terminal and black to one of amplifier’s primary speaker black terminals (not both).

Plug the Neutrik Speakon plug into the **HI LEVEL** Neutrik socket.

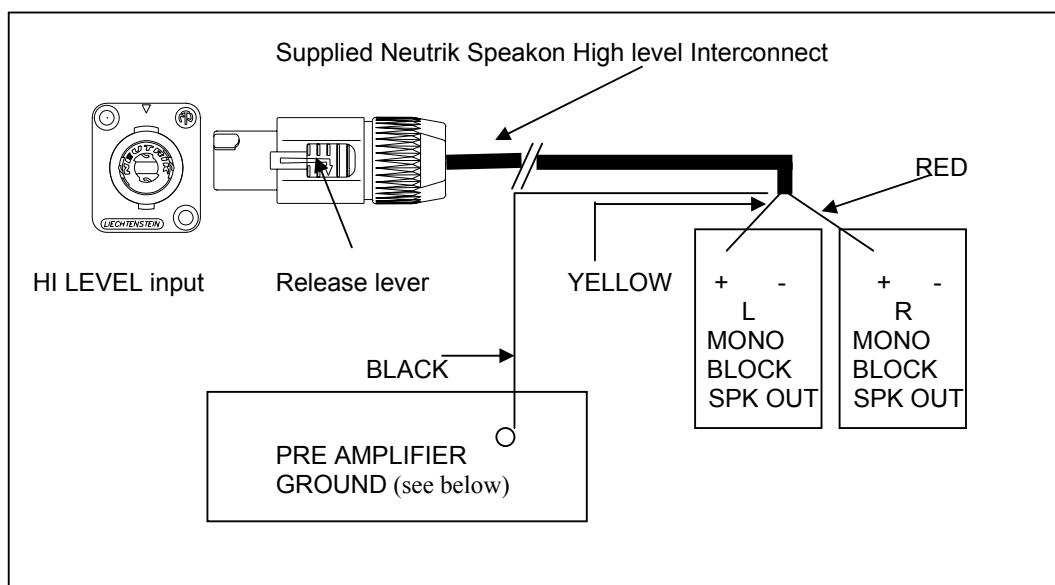
The output level can be adjusted by one of two methods:

1. By using the remote control: press the buttons marked HIGH LEVEL ‘+’ or ‘-’. The front control panel will show ‘Hi’ on the two left hand digits. The volume level can be adjusted up or down by pressing the + or – buttons. The display will show 00 to 99 on the two right hand digits.
2. By using the encoder control on the front control panel: press the control knob to select ‘Hi’ on the two left hand digits, rotate control knob to select the value in the range 00 to 99 on the two right hand digits.

## To connect to MONO BLOCK power amplifiers using the High Level Neutrik UNBALANCED input

To engage the Neutrik Speakon plug, insert fully into socket and rotate clockwise until locked.

To remove the Neutrik Speakon plug, grip body of plug, place thumb on chrome lever, move lever backwards rotate the plug anti-clockwise (counter-clockwise in the US) a quarter turn and withdraw.



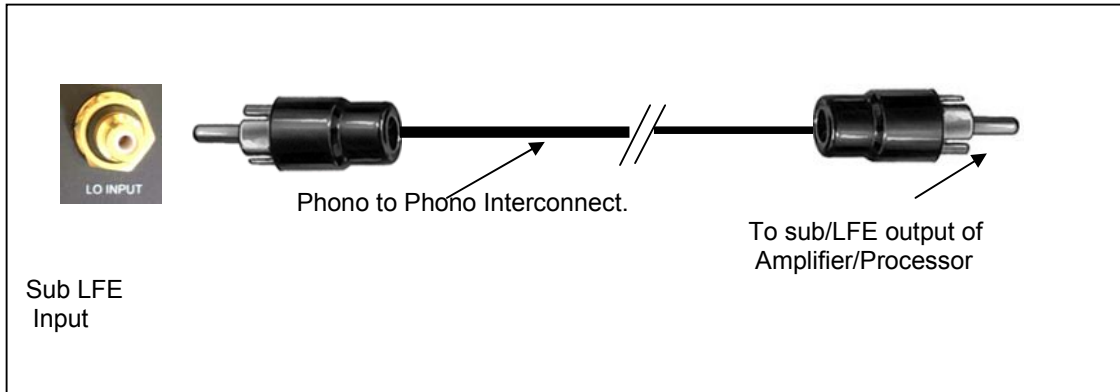
### High Level connections should be made to the same binding posts as the main speakers

Using a single sub-bass system, connect as shown above. Connect RED to right monoblock speaker positive (red) terminal, connect YELLOW to left monoblock speaker positive (red) terminal. The BLACK should be connected to ground at the pre amplifier. If the pre amplifier does not have a dedicated ground terminal, then use one of the chassis screws at the rear of the pre amplifier.

**NOTE: MAKE SURE THAT ANY CHASSIS SCREW THAT IS CHOSEN IS NOT CAPTURED ON THE INSIDE WITH A NUT AS THE NUT COULD DROP INSIDE THE UNIT.**

The output level can be adjusted by using one of the two methods described in the last section.

## To connect to the amplifier/processor/receiver using the phono to phono LFE interconnect



Connect as shown above using a phono to phono interconnect. Plug one end into the sub/LFE output on the amplifier/processor and the other end into the LFE LEVEL input on the sub-bass system.

The output level can be adjusted by one of two methods.

1. By using the remote control: press the buttons marked LFE LEVEL '+' or '-'. The front control panel will show 'Hi' on the two left hand digits. The volume level can be adjusted up or down by pressing the '+' or '-' buttons and the display will show 00 to 99 on the two right hand digits.
2. By using the encoder control on the front control panel: press the control knob to select 'LF' on the two left hand digits, rotate control knob to select the value in the range 00 to 99 on the two right hand digits.

## REL SET-UP MADE SIMPLE

REL designs are not traditional subwoofers, but true sub-bass systems. A REL is designed to augment the performance of “full range” speaker systems, to provide linear response down to below 12 Hz (Studio III, -6 dB down at 9 Hz). Therefore, for the moment, set aside everything you’ve been taught about subwoofers and how they are integrated into a stereo or theatre system. REL’s set-up and positioning differs from other subwoofers. A REL will take advantage of physics and room acoustics to provide deep pressurisation of the kind no ordinary sub-woofer can deliver. It’s important that you bring to the set-up process a willingness to do things a little differently in order to obtain these superior results. The result of your labours will be an utterly seamless integration of genuine sub-bass to a sound system, regardless of the main speaker’s low bass capability.

### Two Things Before You Begin

- A. It is helpful to know that you will almost always connect the REL to the input on the rear panel labelled “Hi Level.” This connection is made using the supplied cable, the bare leads of which connect to the speaker output terminals of the power amplifier. The easy connection at the REL is completed with a Neutrik Speakon connector. The purpose of connecting to the speaker output terminals is one of the unique secrets of REL’s success. By connecting to the REL’s High Level input from the amplifier, you build forward the sonic signature of your main system, including the tonal balance and timing cues. In this way, the REL shares the signal that is fed to the main speakers.
- B. When possible, the REL should be placed in one of the corners behind the speakers. A REL sub-bass system will deliver true LOW bass pressurisation, not the mid-bass that most competitors settle for. Low bass pressurisation below 30Hz is best derived from corner placement, where the most linear and efficient low bass can be generated.

Basic set-up should take no more than ten to fifteen minutes to accomplish once connected.

### Connecting

**High Level connection: using the enclosed cable with the Neutrik Speakon connector is always the first choice. By connecting to the amplifier’s speaker outputs the sonic signature of the entire amplification chain is folded into the signal for the sub, thereby keeping timing and timbre cues consistent. This connection can be made without affecting the performance of the amplifier because the sub-bass system’s amplifier input impedance is 10,000 ohms. This method also avoids the detrimental effects of additional electronics in the amplification chain.**

The High Level hook up procedure is explained above.

### Positioning

The optimal position for a REL is in one of the corners behind the main speakers. This position provides 9 dB of acoustic amplification and allows for the most linear true low bass wave generation.

### The Process

To begin the set-up process, choose a piece of music that has a repetitive bass line, which is very low in frequency. Cut 4 from the soundtrack to Sneakers (Columbia CK 53146) has a repetitive bass drum throughout, which gives you plenty of time to move the woofer around. The recording venue was quite large for this recording, and therefore it has a very deep and large-scale bass signature. This type of recording is perfect for the set-up process, and should be played at the highest reasonable level expected for system playback.

With the REL remote control, adjustment of each stage is simplicity itself to achieve.

Trying to ignore all other music in the cut, listen for the bass drum and its effect on the listening room.

1. Phase Orientation: Once in the corner we need to adjust for phase. This may be the single most critical step, and because it really is quite simple, it is often overlooked by even the most experienced audiophiles. The right phase is whichever position is the loudest or fullest. While playing music with true low bass, adjust the crossover to a point where the sub and the speaker are sure to share frequencies (40Hz for big speakers or 60Hz for smaller speakers). At this point turn the gain so that both sub and speaker are roughly equal in volume and then, using the "Phase" button on the remote control, change from 0 to 180 degrees (this shows as 0 and 18 in the display). Select the option that sounds loudest or fullest from the listening position. At this setting, the sub-bass system is working in harmony with your main speakers, reinforcing bass, and not cancelling it. Don't be surprised if the chosen position shows as 180 degrees "out" of phase. Within your room/system it is IN phase.

Alternatively the phase can be changed using the control knob on the front of the cabinet. Although perfectly feasible, the remote is the preferred method as the assessment can be done from the usual listening position and is the more accurate way of achieving the best result.

2. Room Orientation: Next, if space allows, try two different orientations of the woofer relative to the wall. First, while playing the set-up cut, place the REL with the connection panel parallel with the rear wall. Second, place the REL with the connection panel parallel with the sidewall. As with phase, the orientation which yields the most output is the best position for that room. This process simply positions the driver to most efficiently drive the room. In some instances there may be little difference, at which point aesthetic concerns may override performance concerns.
3. Placement: The next step is to determine precisely how far out from the corner of the room the sub should be placed to achieve the most efficient output, as well as the lowest frequency extension. With the sub fully into the corner and continuing to play the music, slowly pull the sub from the corner on the diagonal, equidistant from both side and rear walls. Do this a couple of centimetres (an inch) at a time. At a certain point (sometimes a matter of only a few centimetres, in rare cases up to 25 centimetres or more) the sub will audibly go lower, play louder, and if it truly locks on to the room and is fully pressurising it, the air around the sub will seem to be energised, stop right there! This is the correct position for the sub.

#### Crossover and gain settings

The last stage of the set up is crossover and gain. You will require an acoustically recorded track preferably with bass instruments and vocal. What we are looking for here is a seamless crossover and integration between your main speakers and the sub-bass system. Firstly you will need to set a rough volume level. To do this leave the crossover where it is and simply play the system varying the volume until you have a happy medium between the speakers and sub, the sub will sound obvious still but this is just the start.

Next reduce the frequency to minimum (16Hz). Using the same track, gently increase the frequency 1 Hz at a time. What you are listening for is the point where the sub begins to sound obvious within the system (usually somewhere between 20Hz and 33Hz with most loudspeakers). Once you find the point where you can hear the sub over the response of the speakers reduce the setting by 1 to 3 Hz. This is not an exact science, but what we want is the sub to be invisible within the system sonically. In short we increase the REL until you can hear it and then reduce until you cannot.

Finally adjust the volume to taste. This generally will be by 1 or 2 positions. And that's it. All that's left is to open a good bottle of wine, relax and enjoy.

Hint: There is a tendency among audiophiles to set the crossover point too high and the gain too low when first learning how to integrate a REL with the system, the fear being one of overwhelming the main speakers with bass. But in doing so, the resulting set-up will be lacking in bass depth and dynamics. The proper crossover point and gain setting will increase overall dynamics, allow for extended bass frequencies, and improve soundstage properties. Please note: gain must be adjusted in conjunction with crossover changes. In general, when selecting a lower crossover point, more gain may need to be applied.

Theatre and Film Applications: For Dolby®Digital or other surround sound theatre systems, once the standard set-up for two-channel outlined above is complete, the LFE output from the processor or receiver should be connected to the low-level input and appropriate gain adjustments made. Keep phase consistent with what was selected during high-level set-up. For this configuration, you must set the processor to the “large” or “full range” setting for the left and right speakers in order for the REL to receive the bass signal via the high-level cable. In this setting, the REL provides support for both the left and right speakers for two-channel listening, and support for the LFE when movies are playing. Most processors will allow you to defeat the subwoofer output when listening in the two-channel mode, however, if this is not the case, simply press LFE Mute on the remote (or via the control panel) and save the setting to memory for future stereo use. The effect of this set-up is one of greatly increased dynamics in the mid-bass range; no bass bloat; and a greater degree of space and timing from the Foley effects. For an even greater sense of space and impact, a second woofer connected in parallel to the centre channel will prove to be a dramatic improvement as well. And if that is not enough for you, a rear sub, both to support the rear channel speakers as well as to evenly distribute LFE through the room, truly completes the full-range sonic picture for state-of-the-art film reproduction.

Some rooms, notably in houses of wooden construction, can sound bass “light”. To overcome this disadvantage, the new RELs offer variable Slam and Depth. Simply adjust the + and – buttons marked Slam and Depth on the remote, or navigate to the display using the front panel encoder and adjust to compensate for the room. Of course, some rooms, especially smaller brick built ones, may be bass heavy at around the mid bass area, in which case reduce this effect by again using the Slam and Depth control.

Remember that all these settings can be saved into memory.

Note: Some processors output a signal from their LFE socket, even when playing a CD in Stereo mode. In the past little could be done, now using the remote, simply mute the LFE. This is recommended for Stereo mode listening and can be saved along with the other options.

Other Tips: Generally speaking, do not use the supplied spikes. RELs work on the principle of the driver being in a high-pressure zone relative to the floor. Spiking the REL will decouple the woofer from the floor, which will lean out the bass response. If the floor is an older, very “springy” floor, spikes can be useful in reducing the influence of the REL on the floor. A heavy stone slab under the REL will further improve performance. Even if you intend to use the spikes, do NOT insert them until completion of the set-up process. After which, subtle adjustments to crossover and gain may be necessary



## RUNNING IN

Care taken over running in will be rewarded by many years of pleasurable use. Both the electronics and the drive unit will benefit from an initial period of carefully controlled use. Possible damage may be sustained by running in the unit at too high a volume setting over an extended period. On the other hand, by taking a little care over this initial period - about 24 hours of actual use - a longer life with a higher potential eventual performance is assured.

## OVERLOAD PROTECTION

REL sub-bass systems are designed as true sub-bass generators. They are designed to reproduce those exceptionally deep notes that are felt rather than heard. They will attempt to do this at whatever volume level you set. If the volume is set too high, no damage should result because the built-in electronics will limit the cone movement. This electronic control is called *Set-Safe*®. It constantly and instantaneously monitors the output from the power amplifier and is totally transparent in operation until required. This means it has absolutely no effect on the sound quality of any REL Sub-Bass System until an overload is detected. Ordinarily an overload would cause the power amplifier to go into clipping with resultant loss of control over the drive unit. Apart from being sonically offensive, this can cause drive unit damage. *Set-Safe*® detects the point of incipient clipping and reduces the signal level to ensure actual clipping does not occur.

Even without *Set-Safe*®, overload would be a difficult thing to achieve because REL sub-bass systems have particularly high current amplifiers and very powerful drive units specifically designed for high sound pressure levels.

From our tests, we believe it would be very difficult to deliberately damage a REL sub-bass system. Nevertheless, anything can be damaged if sufficient effort is made. Although everything possible has been done to minimise damage from moderate attempts at overloading, there can be no defence against those individuals who deliberately and perversely abuse the device. Such damage is NOT covered by Warranty. Please remember, a REL sub-bass system is there to supplement your main system, not to overwhelm it!

## CARE AND POLISHING

Brittlex (sprayed) finishes:

These are best maintained by careful dusting with a lint free cloth. Alternatively, a soft bristled brush may be used to sweep off any dust falling on the surface. If objects are to be placed upon the top, it is advisable to use a small mat to protect the surface and to avoid the risk of rattles.

Wood veneer finishes:

Dusting as above, plus the occasional polishing with a good quality furniture polish for the wood veneers. Treat the finish as you would any other piece of quality furniture in your home.

## **POWER SAVING EFFICIENCY**

All REL sub-bass systems are designed for maximum power efficiency, when operational and also when at rest.

REL circuitry is designed for “power starvation” operation when no signal is present. However it remains at maximum readiness to respond immediately to a sudden transient signal, such as an explosion in a movie, even after an extended period of rest and at whatever level.

REL’s maximum power efficiency should not be likened to ‘auto power on/off’ systems, which ‘power-down’ after a set period of rest (up to 10-15 minutes) and which need time to power-up again when required to reproduce a sudden transient. They invariably fail to respond to the leading edge of that transient. There is also the possibility of ‘auto power on/off’ systems remaining inoperative during quiet listening sessions.

It is not necessary to switch the REL sub-bass system off between listening sessions; leaving it switched on will not significantly shorten its life. On the other hand, sound quality will not be affected if the system is always switched off. Power consumption in the quiescent (no signal) state is negligible. REL’s power starvation technology uses less than 4W when idle (less than 1/25th the power of a standard light bulb).

The system is perfectly safe under all normal domestic circumstances as it is fully protected by internal fuses and an external mains fuse, located in the sliding drawer of the mains input socket. There is also a spare fuse inside this drawer.

## SPECIFICATIONS

MODEL	STAMPEDE	STRATA 5
TYPE	Closed box loading	Closed box loading
ROLL OFF	16Hz to 99Hz	16Hz to 99Hz
IN ROOM RESPONSE	-3dB 18Hz	-3dB 18Hz
INPUT CONNECTORS	Neutrik Speakon – High Level Phono - LFE	Neutrik Speakon – High Level Phono - LFE
GAIN CONTROL RANGE	80dB	80dB
AMPLIFIER TYPE	DC Coupled Mosfet Microprocessor Controlled	DC Coupled Mosfet Microprocessor Controlled
	Digital readout for all functions	
	Electronic lock for manual encoder to prevent accidental changes	
<b>INPUT IMPEDANCE</b>		
HIGH LEVEL TWO CHANNEL UNBALANCED	100K Ohms	100K Ohms
LOW LEVEL (LFE) UNBALANCED	10K Ohms	10K Ohms
<b>INPUT SENSITIVITY</b>		
LOW LEVEL	50mV	50mV
HIGH LEVEL	500mV	500mV
SLAM AND DEPTH	-9dB to +9dB at 80Hz	-9dB to +9dB at 80Hz
DRIVE UNIT	8" Heavy Duty Long Throw	10" Heavy Duty Long Throw
POWER OUTPUT WATTS	100 Watts RMS	150 Watts RMS
PHASE	0 and 180 Degrees	0 and 180 Degrees
MAINS INPUT VOLTS (COUNTRY SPECIFIC)	110 Volts or 230 Volts Depending on country	110 Volts or 230 Volts Depending on country
PROTECTION	Set – Safe for driver protection	Set – Safe for driver protection
MAINS FUSES	2 Amp semi delay for 230Volts 4 Amp semi delay for 110 Volts	2 Amp semi delay for 230Volts 4 Amp semi delay for 110 Volts
DIMENSIONS WxHxD INC. FEET AND COINTROL	280 x 400 x 290	324 x 464 x 334
NETT WEIGHT KGS	13.4	23.2
GROSS WEIGHT KGS	15.4	26.1
<b>SUPPLIED ACCESSORIES</b>		
MAINS LEAD	Yes	Yes
NEUTRIK SPEAKON INTERCONNECT (HIGH LEVEL)	Yes	Yes
PHONO TO PHONO INTERCONNECT (LFE)	Yes	Yes
SPIKES	Yes	Yes
USER MANUAL	Yes	Yes
REMOTE CONTROL (WITH BATTERIES)	Yes	Yes

