# C.R. Bass



## SYNAPSE

User's Guide

## **CONGRATULATIONS!**

You are now the owner of a groundbreaking loudspeaker that covers the entire audio spectrum for breathtaking fidelity and clarity of sound. With a unique design that produces 180 degree wide dispersion at all frequencies, the Synapse will clearly project the sound of your voice and instrument so that everyone hears the same balanced sound with incredible impact. The speaker is combined with all-discrete, studio grade preamplifiers and a light-weight, Class-D power amplifier for the best quality signal possible in a portable enclosure.

We trust that you are going to enjoy and come to understand the full capability of the Synapse as you play it. We have also included in this guide some tricks and tips on how to get the most out of this amplification system.

MR BB

## IMPORTANT SAFETY INSTRUCTIONS

- · Read these instructions.
- · Keep these instructions.
- Heed all warnings.
- · Follow all instructions.
- Do not use this apparatus near water.
- · Clean only with dry cloth.
- Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- Do not defeat the safety purpose of the polarized or grounding type plug. A polarized plug has two blades with one wider than the other.
   A grounding type plug has two blades and a third grounding prong.
   The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- Only use attachments/accessories specified by the manufacturer.
- Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
- Unplug this apparatus during lightning storms or when unused for long periods of time.
- Refer all servicing to qualified service personnel. Servicing is required
  when the apparatus has been damaged in any way, such as when the
  power supply cord or plug is damaged, liquid has been spilled or
  objects have fallen into the apparatus, the apparatus has been exposed
  to rain or moisture, does not operate normally, or has been dropped.



Wherever this symbol appears, it alerts you to the presence of un-insulated dangerous voltage inside the enclosure that may be sufficient to constitute a risk of shock.



Whenever this symbol appears, it alerts you to the presence of important operating and maintenance (servicing) instructions in the user's manual for the amplifier.





CONFORMS TO UL STD. 60065 CERTIFIED TO CSA STD. C22.2 NO. 60065



## **CAUTION**RISK OF ELECTRIC SHOCK.

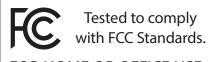
SK OF ELECTRIC SHOO DO NOT OPEN.



RISQUE CHOC ÉLECTRIQUE NE. PAS OUVRIR.

No user serviceable parts inside. Refer servicing to qualified personnel. Do not expose to rain or moisture.

#### L.R. Baggs Synapse Loudspeaker



FOR HOME OR OFFICE USE.

#### WARNING

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPARATUS TO RAIN OR MOISTURE.

#### **AVERTISSEMENT**

POUR ÉVITER LE RISQUE D'INCENDIE OU DE CHOCS ÉLECTRIQUTES, NE PAS EXPOSER CET APPAREIL À LA PLUIE OU À L'HUMIDITÉ.

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and

(2) This device must accept any interference received, including interference that may cause undesired operations.

## **QUICK START**

#### WARNING: Please read the Safety Instructions before using the speaker.

#### 1. MOUNT SPEAKER TO 1 3/8" (35mm) PA SPEAKER STAND (not included)

Use one hand to lift the speaker by the handle and use your other hand to support the speaker as you guide it onto a conventional PA speaker stand.

#### 2. MAKE SURE POWER SWITCH IS OFF

The "O" indicator on the switch is pushed in.

#### 3. PLUG IN THE SPEAKER

Plug the included power cable into the speaker IEC Input Module first and then into the wall outlet.

#### 4. TURN MASTER VOLUME DOWN

Make sure the master volume is turned all the way counter-clockwise.

#### 5. TURN THE SPEAKER ON

The "|" indicator is pushed in. The speaker may take a few seconds to turn on completely.

#### 6. PLUG IN THE INSTRUMENT OR MIC CABLE

Plug your instrument or mic cable into Ch1 or Ch2.

#### 7. ADJUST THE GAIN

Adjust the gain to the appropriate level for your instrument or vocal microphone by turning the control clockwise. An LED will flash red to indicate clipping the input stage. Pushing the input too hard may cause unwanted distortion.

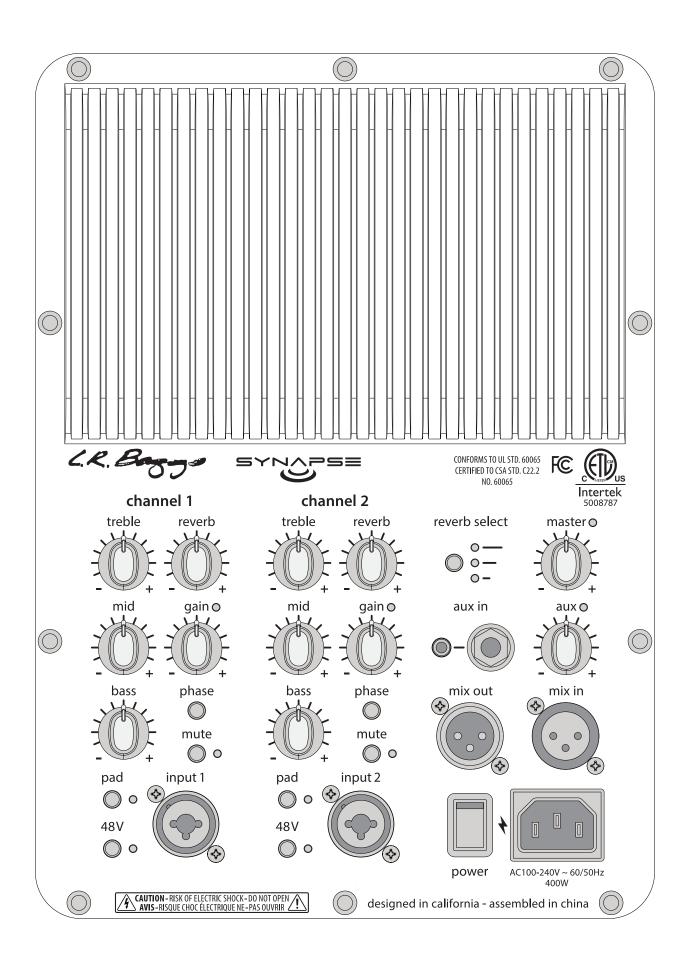
#### **8. UN-MUTE CH1** (or Ch2 if you chose that channel)

Check the mute light. If it is lit, then un-mute the channel by pushing the mute button. The light should now be off.

#### 9. ADJUST THE MASTER VOLUME

Turn the master volume knob clockwise to the desired volume level.

#### 10. ENJOY!



## **CONTROL PANEL**

#### 1. POWER

The universal IEC input will accept any voltage 100VAC – 240VAC. We have supplied the appropriate power cable for your region. There are no user accessible fuses. If you experience a problem, please contact LR Baggs or your regional distributor/dealer.

WARNING: Never use a 3-Prong to 2-Prong adapter on the power plug for any reason. This is very dangerous and can lead to electric shock, injury, or death.

The power switch will turn the unit on and off. The "|" indicator at the top of the switch is on and the "O" indicator at the bottom of the switch is off. You should always have the switch in the "off" position when plugging in and unplugging the power cord.

#### 2. INPUTS

Channels 1 and 2 feature ¼" and XLR combo jacks to accommodate instruments as well as microphones and D.I. systems.

#### 3. PHANTOM POWER

IMPORTANT NOTE: You should always have the channel muted, the gain turned down, or the master volume down when activating or deactivating the phantom power button. This control supplies +48V phantom power on the XLR input for products requiring phantom power, such as a condenser mic.

#### 4. PAD

Adjusts the input between line and mic level to accommodate different signal levels.

#### 5. MUTE

Both channels have a push button for muting the signal. Push this button and an LED light will indicate that the channel is muted. Because it is a channel mute, this function will not mute the speaker, only the incoming signal of Ch1 or Ch2. The aux input will NOT be muted using the mute functions so that you may play background music.

#### 6. PHASE

Press this button to invert the phase. Usually one phase will sound better and/or provide better feedback resistance. We recommend trying both phases each time you set up.

#### 7. GAIN

This control combines the gain and individual channel level of both the XLR and the 1/4" input onto one control. Turn clockwise to increase the gain until the LED shows slight clipping at your loudest playing level and then back it off a little until the clipping light goes away. You will need the appropriate amount of gain to get the best sound and signal-to-noise ratio, but too much gain can cause unwanted distortion.

#### 8. REVERB

Both channels have individual reverb level controls. The reverb select button adjusts the decay between short, medium, and long. Select a decay length and adjust the reverb level control on each channel to your desired level.

#### 9. THREE BAND EQ

The universal EQ section on each channel consists of bass, mid, and treble controls that help balance a wide variety of instruments and vocal mics for the mix.

#### 10. MASTER VOLUME

The master volume sets the level of the sound coming out of the speaker. The main output also has a limiter on it. The clip LED will light as the limiter begins to engage. There should not be much of a sonic change caused by the limiter. It simply limits the volume to keep from overheating the speaker driver.

#### 11. AUX INPUTS AND VOLUME

These auxiliary inputs accommodate both 1/4" (TRS summed stereo) and 1/8" for an MP3 player. The aux volume control sets the level of the auxiliary input. A clip light will flash when the input reaches the maximum possible level.

#### 12. MIX IN AND OUT

The mix input and output provide a way to daisy chain additional speakers or allow you to connect an external mixing console with an XLR cable. The output is a balanced XLR male jack.

### MANUFACTURER'S GUIDELINES

The speakers and electronics in the Synapse have been tested under relentless and grueling conditions beyond the recommended use of the system. This was done in order to ensure that the Synapse will withstand the everyday use and abuse of a roadworthy product.

However, as with all loudspeakers, some care is required:

- 1) Do not play in direct sunlight on very hot days for extended periods of time or the speakers and/or power amp can overheat and be damaged.
- 2) Do not play at volume levels above the maximum specified SPL, when the clip lights or limiter lights are continually lit while playing, or when there is audible distortion.
- 3) The Synapse is a full range PA system. Great care has been taken to add seamless limiting and protection for the speakers so that many types of instruments and music can be played through it. However, the Synapse uses an 8" woofer and may not sustain high peak levels of energy below 75Hz for extended periods of time. Reduce the playing level if playing low frequencies from a keyboard, bass guitar, recorded music, etc. or pair with a subwoofer for low energy support.
- 4) The Synapse can play at high levels and is not as susceptible to hot spots due to its wide dispersion. This helps reduce blaring high SPLs and feedback. However, as with all speakers, be careful to not play at unsafe SPLs for extended periods of time so that hearing loss does not occur. Also, do not bring microphones within range of the speaker where feedback can occur. This can cause hearing loss and potentially damage the Synapse drivers if done excessively.
- 5) The finishing, plastics, wood, and metal in the Synapse housing were selected for strength and durability as well as their aesthetic properties. The provided slip cover will *help* protect it, but is not intended to replace a tour road case if that is needed. Please protect and secure the Synapse appropriately in cargo areas during transportation so that it will continue to look as good as it sounds.

## 1-YEAR LIMITED WARRANTY

#### Register this product at Irbaggs.com/register

LR Baggs Corporation warrants that the LR Baggs Synapse you have purchased shall be free from defects in parts and workmanship if used under normal operating conditions for a period of one year from the date of purchase. Please retain your sales receipt, as it is your proof of purchase covering your limited warranty. This warranty is void without such proof of purchase.

If the product fails to function properly due to defects in materials or workmanship during the applicable warranty period, LR Baggs Corp., at its discretion, will repair or replace it with no charge for labor or materials. This warranty applies only if the product is sold and delivered within the U.S. by an authorized LR Baggs Dealer. Any repair or service performed by a person or entity other than an LR Baggs Dealer is not covered by this limited warranty. Transportation costs are not included in this warranty.

This limited warranty becomes void if the product has been damaged by alteration, misuse, accident, or neglect. The foregoing constitutes the only warranty made by LR Baggs with respect to the product and is made expressly in lieu of all other warranties expressed or implied, including, but not limited to, implied warranties of merchantability or fitness for a particular purpose. In no event shall LR Baggs be liable for property damage or injury resulting from failure of this product, nor any loss of income, satisfaction, or damages arising from the loss of use of same due to defects or availability during service.

#### **To Obtain Warranty Service:**

- 1) Contact the LR Baggs dealer where you purchased the speaker to see if they are an authorized LR Baggs repair center. If you cannot provide the original receipt, the authorized LR Baggs Service Center may charge you for repairs.
- 2) If the LR Baggs dealer cannot service the speaker, contact LR Baggs directly and we can recommend a local service center or you can send the speaker directly back to our factory.
- 3) Receive a Return Authorization number (RA#) from LR Baggs and place the number on the outside of the box before shipping.
- 4) Ship the speaker to the address below and include a copy of your sales receipt and a note explaining the problem along with your shipping address and phone number.
- 5) Speakers repaired under warranty at the LR Baggs factory will be returned to the customer by UPS Ground freight, prepaid by LR Baggs to any location within the continental United States.

#### **LR Baggs**

Attn: Support Department 483 N. Frontage Rd. Nipomo, CA 93444

## **SPECIFICATIONS**

**1/4" INPUT** 

Input Impedance: 10M Ohms Preamp Gain: +2dB to +26dB Input Level: -20dBv to +1dBv

(0.106Vrms to 1.131Vrms)

**XLR INPUT** 

Input Impedance: 68k Ohms Preamp Gain: +1dB to +65dB Input Level: -45dBv to -1dBv

(0.5mVrms to 0.884Vrms)

**AUX INPUT** 

Input Impedance: 3.6k Ohms

Input Level: +3dBv

EQ

**Bass:** ±12dB @ 80Hz **Mid:** ±12dB @ 1kHz **Treble:** ±12dB @ 10kHz

MIX IN

Input Impedance: 68k Ohms Input Level: +1.87dBv (1.237Vrms) **MIX OUT** 

Output Impedance: 100 Ohms Output Level: -2.18dBv (0.778Vrms)

**OUTPUT SPL MAX** 

117dB Peak, 115dB Continuous

**FREQUENCY RESPONSE** 

65Hz to 18kHz (-3dB)

**POWER** 

**AC Power Consumption: 220W Max** 

AC Current Draw: 230V = 1A, 110V = 2A Max

Voltage Range: 100V to 240V

PHYSICAL CHARACTERISTICS

38 lbs, 15.25" Width x 21.75" Depth x 24" Height

Pole Mount Size: 1 3/8" (35mm)

<sup>\*</sup> These specifications may change without notice

REGISTER THIS PRODUCT online at Irbaggs.com/register

C.R. Boss