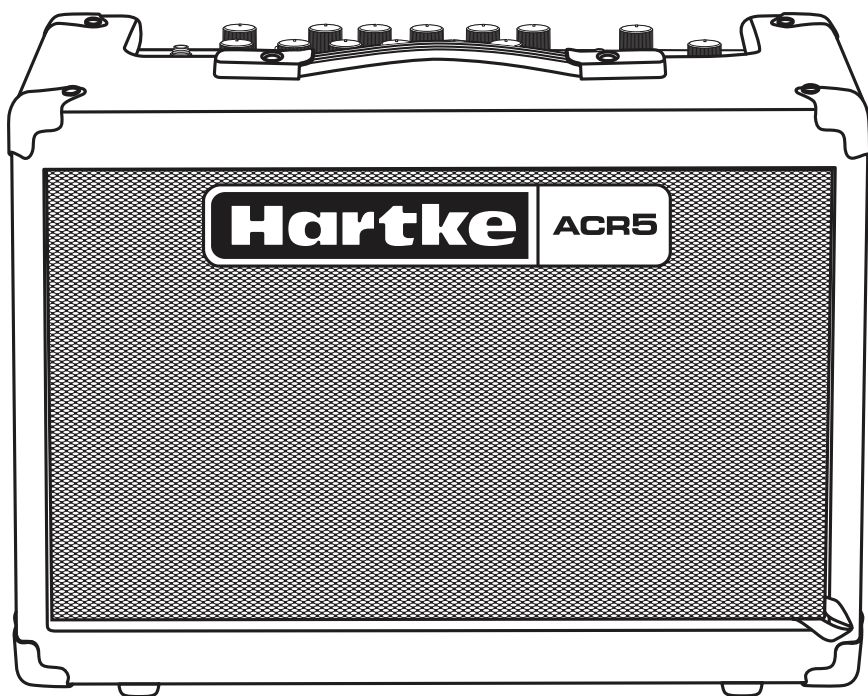


Hartke

ACR5 Acoustic Guitar Amplifier



Owner's Manual

Important Safety Information



ATTENTION
RISQUE DE CHOC ÉLECTRONIQUE -
NE PAS OUVRIR

WARNING: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK) AS THERE ARE NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



CAUTION

To prevent electric shock hazard, do not connect to mains power supply while grille is removed.



This lightning flash with arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of non-insulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance instructions in the literature accompanying the appliance.

FCC Notice

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 operation. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

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Important Safety Information

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. The apparatus shall be connected to a mains socket outlet with a protective earthing connection.
10. The mains plug or an appliance coupler is used as the disconnect device, the disconnect device shall remain readily operable.
11. 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 are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
12. Protect the power cord from being walked on or pinched particularly at the plugs, convenience receptacles, and at the point where they exit from the apparatus.
13. Only use attachments/accessories specified by the manufacturer.
14. 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.
15. Unplug the apparatus during lightening storms or when unused for long periods of time.
16. Refer all servicing to qualified personnel. Service is required when the apparatus has been damaged in any way, such as power supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
17. This appliance shall not be exposed to dripping or splashing water and that no object filled with liquid such as vases shall be placed on the apparatus.
18. Caution-to prevent electrical shock, match wide blade plug wide slot fully insert.
19. Please keep a good ventilation environment around the entire unit.
20. To prevent injury, this apparatus must be securely attached to the stand in accordance with the installation instructions.
21. **WARNING:** The battery (battery or batteries or battery pack) shall not be exposed to excessive heat such as sunshine, fire or the like.
22. **CAUTION:** Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type.



If you want to dispose this product, do not mix it with general household waste. There is a separate collection system for used electronic products in accordance with legislation that requires proper treatment, recovery and recycling.

Private household in the 28 member states of the EU, in Switzerland and Norway may return their used electronic products free of charge to designated collection facilities or to a retailer (if you purchase a similar new one).

For Countries not mentioned above, please contact your local authorities for a correct method of disposal.

By doing so you will ensure that your disposed product undergoes the necessary treatment, recovery and recycling and thus prevent potential negative effects on the environment and human health.

Introduction

Congratulations on your purchase of the Hartke ACR5 Acoustic Guitar Amplifier. The Hartke ACR5 series faithfully reproduces the natural sound of the any acoustic instrument, while providing versatility for practice and performance. The ACR5 is a lightweight combo featuring a 50 watt power amplifier section with a 6.5" woofer and 1" soft dome tweeter. The ACR5 has two independent channels, each with a 3-band EQ, independent reverb and chorus controls, for connecting acoustic electric instruments, microphones or line level devices. Additionally, the ACR5 has a variable notch filter to help reduce feedback, a built-in tuner, and an XLR direct out to connect to the front of house for larger performances.

The ACR5 is the perfect solution for electric acoustic guitars, and also, for multi instrumentalists who play electric violin, mandolin, Dobro and other acoustic electric instruments too. While the ACR5 is packed with all the features demanded by the most discerning acoustic artists, what makes the amplifier special is the unmatched sonic performance. The result is sound reproduction that is totally true to the sound of the instrument it is amplifying. Simply put, the amp sound like your instrument, only louder.

In these pages, you'll find a description of the many features of your ACR5 Acoustic Guitar Amplifier, instructions for setting up and using the amp, plus full specifications. If you purchased the amplifier in the United States you will also find a warranty card enclosed—please follow the instructions so that you can receive technical support and so we can send you updated information about this and other Hartke products in the future. Also, be sure to check out our website

(www.hartke.com) for complete information about our full product line.

We recommend you keep the following records for reference, as well as a copy of your sales receipt.

Serial number: _____

Date of purchase: _____

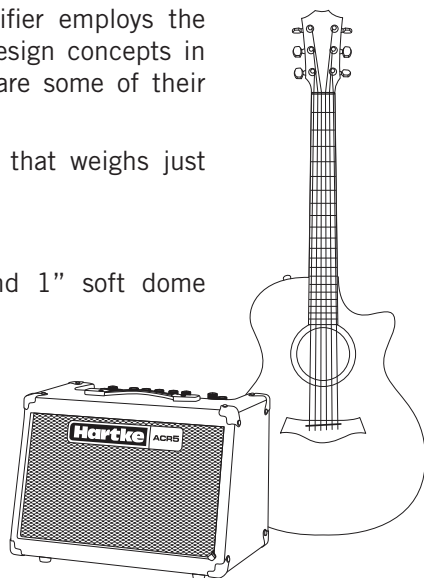
Dealer name: _____

With proper care and maintenance, your ACR5 Acoustic Guitar Amplifier will operate trouble-free for many years. Should the product ever require servicing, a Return Authorization (RA) number must be obtained before shipping your unit to Samson. Without this number, the unit will not be accepted. Please call Samson at 1-800-3SAMSON for an RA number prior to shipping your unit. Please retain the original packing materials and, if possible, return the unit in its original carton. If your ACR5 was purchased outside of the United States, contact your local distributor for warranty details and service information.

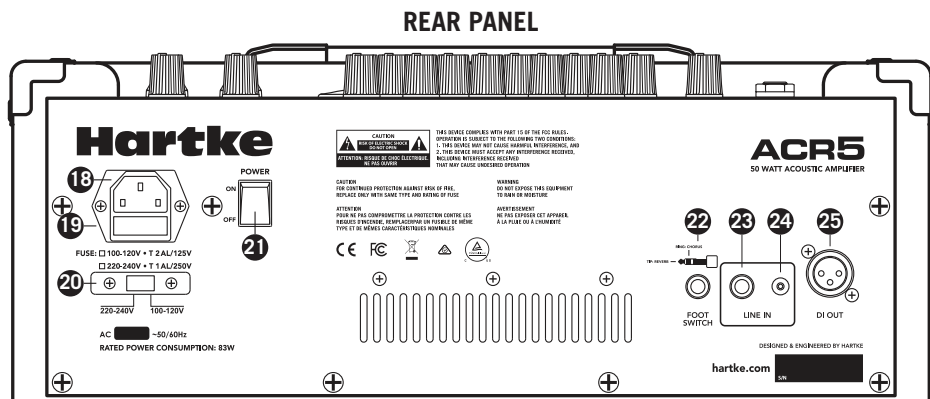
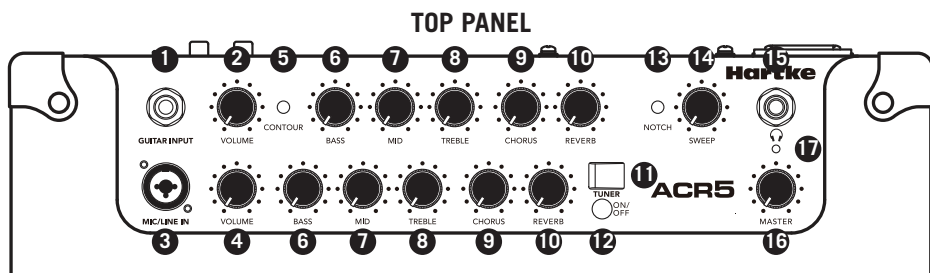
Features

The Hartke ACR5 Acoustic Guitar Amplifier employs the most advanced electronic and speaker design concepts in acoustic instrument amplification. Here are some of their main features:

- Lightweight acoustic guitar amplifier that weighs just under 25lb
- 50 watts of power
- 6.5" woofer with butyl surround and 1" soft dome tweeter
- Dual-channel design ideal for singer-songwriters
- 3-band EQ with chorus and reverb effects on each channel
- Variable Notch filter for feedback control
- Contour EQ circuit for using the ACR5 with electric guitars and basses
- Balanced XLR direct output for recording 1/4" (Guitar) and XLR/1/4" (Mic/Line) combo inputs
- Stereo 1/4" and 1/8" Aux inputs for line level devices 1/4" headphone output
- Chromatic tuner mutes the outputs for silent tuning
- Footswitch jack for controlling the reverb and chorus effects
- Molded strap carry handle



ACR5 Callouts



- 1. GUITAR INPUT** - 1/4" phone jack for connecting instruments with passive or active pickups.
- 2. Guitar VOLUME** - Control knob is used to control the overall level of the GUITAR INPUT channel.
- 3. MIC/LINE IN** - XLR+1/4" combo input connector for connecting a low impedance microphone or line level device.
- 4. MIC/LINE VOLUME** - Control knob is used to control the overall level of the MIC/LINE IN channel.
- 5. CONTOUR Switch** - Pressing this switch engages a mid scoop curve to the Guitar channel which makes the amplifier sound more natural when plugging an electric instrument to the ACR5, or allows an acoustic guitar to cut through the mix by suppressing the mids and accentuating the highs.
- 6. BASS Control** - This control is used to adjust the low frequency response. As it is turned clockwise the frequency area is boosted; as it is turned counterclockwise the frequency area is attenuated.
- 7. MID Control** - This control is used to adjust the mid frequency response.
- 8. TREBLE Control** - This control is used to adjust the high frequency response. As it is turned clockwise the frequency area is boosted; as it is turned counterclockwise the frequency area is attenuated.
- 9. CHORUS Send** - Control knob used to set the amount of chorus effect on a channel that is mixed with the channel's input signal. As the control is rotated clockwise, the amount of the effect is increased.

ACR5 Callouts

10. **REVERB Send** - Control knob used to set the amount of reverb effect on a channel that is mixed with the channel's input signal. As the control is rotated clockwise, the amount of the effect is increased.
11. **TUNER** - Chromatic tuner for tuning your instrument connected to the GUITAR INPUT channel. When the tuner is engaged, all of the outputs are muted.
12. **Tuner ON/OFF Button** - Press and hold to activate the tuner. A short press with turn the tuner off and pass signal to the ACR5 outputs.
13. **NOTCH Switch** - Pressing this switch engages the Notch Filter.
14. **SWEEP** - Used to set the center frequency for the Notch Filter.
15. **Headphone Output** - Connect any standard headphones to this 1/4" jack. When a plug is inserted into the headphone jack, the speaker output is disconnected, allowing you to use your ACR5 as a practice amplifier. The level of the signal sent to the headphones is determined by the setting of the VOLUME knob.
Note: Because the amplifier is capable of generating extremely high headphone signal levels, always start with the Volume knob at minimum and then slowly turn it up.
16. **MASTER Volume** - Control knob used to control the overall level of the ACR5.
17. **Power Indicator** - This red LED illuminates when the ACR5 is powered on.
18. **AC Inlet** - Attach the grounded AC power cord here to connect your amplifier to mains power. This cord comes supplied with the appropriate plug for your geographic area.
CAUTION: Do not use an adapter to defeat the third grounding pin on this plug or severe electric shock may result!
19. **Fuse Holder** - The fuse holder comes from the factory with the appropriately rated fuse for your model. If you need to change this fuse for any reason, replace it with one that has the same exact rating.
20. **Voltage Selection Switch** - This switch is used to select the amplifiers operating voltage
NOTE: Before using your speaker, be sure the voltage selection switch is set to the correct voltage for your country. Be sure to install the properly rated fuse when changing the operating voltage.
21. **Power Switch** - Use this to power the amplifier on or off.
22. **FOOTSWITCH Jack** - Connect a two button momentary footswitch to switch the reverb and chorus effects on and off. The tip controls the reverb effect and the ring controls the chorus effect.
23. **1/4" Line Input** - 1/4" input for connecting an external line level signal like that from a Drum Machine, CD or MP3 player.
24. **1/8" Line Input** - 1/8" input for connecting an external line level signal like that from a Drum Machine, CD or MP3 player.
25. **DI OUT** - This connector carries the Balanced signal from the ACR5's main output and can be used to connect to the input of a PA mixer.

Quick Start

Here are some basic steps for setting up and get started playing your Hartke ACR5 Acoustic Guitar Amplifier. Setting up your amplifier is a simple procedure which takes only a few minutes:

1. Remove all packing materials (save them in case of need for future service) and decide where the amplifier is to be physically placed. To avoid potential overheating problems, be sure that the rear panel is unobstructed and that there is good ventilation around the entire unit.
2. Connect the 3-pin AC plug into any grounded AC socket. Don't turn the amplifier on just yet, though.
3. Use a standard 1/4" instrument cable to connect your acoustic guitar, or other electric acoustic instrument to the GUITAR Input jack on the top panel.
4. Before turning the amplifier on turn, set the ACR5 controls to the default setting for getting good sound quickly. On the Guitar Input channel set the VOLUME knob to the nine o'clock position and set BASS, MID and TREBLE controls to the twelve o'clock position. On the MIC/LINE IN channel, set the GAIN knob to the fully counter-clockwise position. Set the MASTER volume control to the fully counterclockwise position.
5. Press the rear panel POWER switch to the ON position in order to turn on the amplifier.
6. Set the output of your acoustic to about 3/4's the way up and then, while playing, slowly turn the master VOLUME control up until the desired level is achieved. If you hear distortion even at low MASTER volume settings, back off the output of your acoustic guitar (or check for a faulty cable).
Note: As a "rule of thumb", always try to keep the MASTER volume control to a higher setting than the input channel VOLUME controls in order to get the cleanest output.
7. For tonal control, the ACR5 features BASS, MID and TREBLE equalizer controls. The BASS control is a shelving EQ, affecting low frequencies around 80Hz, is used to fill out the sound of guitar when playing solo or thin it up when playing with an ensemble. The MID control is a peaking EQ, affecting frequencies around 1.8kHz, which when boosted can help the guitar to cut through to the front of the mix. The TREBLE control is a shelving EQ affecting high frequencies around 15kHz, which can bring out the air or sparkle of the guitar. Setting the BASS, MID and TREBLE knobs to the twelve o'clock position produces a flat frequency response.
8. You can add a splash of chorus or gallons of lush reverb to either input channel using the ACR5's on-board, 24-bit digital effects, by rotating the CHORUS and REVERB send knobs on each input channel clockwise.

Quick Start

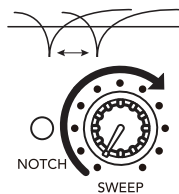
Using the Mic Input

The second channel includes an XLR microphone input that you can use for miking your acoustic instrument, or for connecting a low impedance vocal microphone. The ACR5 is great for using as a small PA or can make a great vocal monitor thanks to the flat and natural response of its built-in speaker system. Follow these steps for connecting a microphone to the ACR5:

1. Start by turning the MASTER volume all the way down. Connect a low impedance microphone to the MIC/LINE IN jack with a standard XLR mic.
2. Next, raise the MASTER volume to the 12 o'clock position.
3. Now, slowly raise the microphone channel VOLUME control until you add the desired amount of the microphone with your acoustic guitar. Keep in mind that you may need to adjust the acoustic guitar and microphone VOLUME controls to get the best blend between the two channels.
4. For tonal control, the ACR5 features BASS, MID and TREBLE equalizer controls. The BASS control is a shelving EQ, affecting low frequencies around 80Hz, is used to fill out the sound of guitar when playing solo or thin it up when playing with an ensemble. The MID control is a peaking EQ, affecting frequencies around 1.8kHz, which when boosted can help the guitar to cut through to the front of the mix. The TREBLE control is a shelving EQ affecting high frequencies around 15kHz, which can bring out the air or sparkle of the guitar. Setting the BASS, MID and TREBLE knobs to the twelve o'clock position produces a flat frequency response.
5. You can add a splash of chorus or gallons of lush reverb to either input channel using the ACR5's on-board, 24-bit digital effects, by rotating the CHORUS and REVERB send knobs on each input channel clockwise.

Setting the Notch Filter

The ACR5 Notch Filter is a tool to help you remove feedback. Feedback is that annoying howling sound that you get when the sound from a loudspeaker is picked up by a microphone connected to the speaker, re-amplified, pick-up again, re-amplified... and so on, so that an acoustical loop is created. The same phenomenon can happen with your electric acoustic since the pick-up system and wood of the instrument become a transducer themselves like a microphone.



The Notch Filter is a “cut only” equalizer that attenuates a narrow band of frequencies. When you set the Notch Filter to the feedback frequency, you can cut that frequency to eliminate the feedback. And, since the bandwidth is narrow, the cut has little effect on the tone of your instrument. By using the Notch Filter you can get the maximum level out of your amplifier without feedback.

The SWEEP control is used to set the specific frequency that the filter will cut from 50Hz to 720Hz.

To set the Notch Filter, connect your acoustic electric guitar to the GUITAR INPUT, turn the amplifier up by raising the MASTER volume and the channel VOLUME control to a level right as feedback just occurs.

Now, turn the Notch filter on by pressing the NOTCH button. Turn the Notch Filter FREQUENCY knob slowly and stop as soon as you dial in the feedback frequency.

If you hear the feedback get lower in volume but not go all the way off, lower the volume of the acoustic guitar. If the amplifier isn't feeding-back and you have enough volume, you're done.

Specifications

Rated Output Power	50Watts
SPL @ 1 watt/1 meter	106dB SPL
Frequency Response	50-20kHz (-3dB)
Power Consumption	88Watts max
Woofers	6.5" paper cone with butyl surround
Tweeter	1" soft dome

Input impedance

Guitar Channel	2.2M Ω
MIC IN Channel	2k Ω
Line IN Channel	20k Ω
1/4" Aux Input	14.3k Ω
1/8" Aux Input	21k Ω

Tone Controls

Low	± 10 dB @ 80Hz (shelving)
Mid	± 10 dB @ 1.8kHz (peaking)
High	± 10 dB @ 15kHz (shelving)

DI Output	Balanced XLR
Direct Output Impedance	100 Ω balanced, line level Phantom power tolerant, ground isolated
Dimensions (LxWxH)	9.8" x 16.5" x 12" 250mm x 420mm x 306mm
Weight	24.9lb 11.27kg

At Hartke, we are continually improving our products, therefore specifications and images are subject to change without notice.

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