



CA30D

Acoustic Amplifier



User's Guide



CA30D Acoustic Amplifier

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CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPARATUS TO RAIN OR MOISTURE. TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER. NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

PRECAUCION
RIESGO DE CORRIENTAZO
NO ABRA

PRECAUCION: PARA REDUCIR EL RIESGO DE INCENDIOS O DESCARGAS ELECTRICAS, NO PERMITA QUE ESTE APARATO QUEDA EXPUESTO A LA LLUVIA O LA HUMEDAD. PARA DISMINUIR EL RIESGO DE CORRIENTAZO, NO ABRA LA CUBIERTA. NO HAY PIEZAS ADETRON QUE EL USARIO PUEDE REPARAR DEJE TODO MANTENIMIENTO A LOS TECNICOS CALIFICADOS.

ATTENTION
RISQUE D'ELECTROCUTION
NE PAS OUVRIR

ATTENTION: PROTEGEZ CET APPAREIL DE LA PLUIE ET DE L'HUMIDITE AFIN D'EVITER TOUT RISQUE D'INCENDIE OU D'ELECTROCUTION. POUR REDUIRE D'ELECTROCUTION NE PAS ENLEVER LE COUVERCLE. AUCUNE PIECE INTERNE N'EST REPARABLE PAR L'UTILISATEUR. POUR TOUTE REPARATION, S'ADRESSEZ A UN TECHNICIEN QUALIFIE.

IMPORTANT SAFETY INSTRUCTIONS

- READ, FOLLOW, HEED, AND KEEP ALL INSTRUCTIONS AND WARNINGS.
- DO NOT OPERATE NEAR ANY HEAT SOURCE AND DO NOT BLOCK ANY VENTILATION OPENINGS ON THIS APPARATUS. FOR PROPER OPERATION, THIS UNIT REQUIRES 3" (75mm) OF WELL VENTILATED SPACE AROUND HEATSINKS AND OTHER AIR FLOW PROVISIONS IN THE CABINET.
- DO NOT USE THIS APPARATUS NEAR SPLASHING, FALLING, SPRAYING, OR STANDING LIQUIDS.
- CLEAN ONLY WITH LINT-FREE DAMP CLOTH AND DO NOT USE CLEANING AGENTS.
- ONLY CONNECT POWER CORD TO A POLARIZED, SAFETY GROUNDED OUTLET WIRED TO CURRENT ELECTRICAL CODES AND COMPATIBLE WITH VOLTAGE, POWER, AND FREQUENCY REQUIREMENTS STATED ON THE REAR PANEL OF THE APPARATUS.
- PROTECT THE POWER CORD FROM DAMAGE DUE TO BEING WALKED ON, PINCHED, OR STRAINED.
- UNPLUG THE APPARATUS DURING LIGHTNING STORMS OR WHEN UNUSED FOR LONG PERIODS OF TIME.
- ONLY USE ATTACHMENTS, ACCESSORIES, STANDS, OR BRACKETS SPECIFIED BY THE MANUFACTURER FOR SAFE OPERATION AND TO AVOID INJURY.
- WARNING: TO REDUCE THE RISK OF ELECTRIC SHOCK OR FIRE, DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE.
- SERVICE MUST BE PERFORMED BY QUALIFIED PERSONNEL.
- OUR AMPLIFIERS ARE CAPABLE OF PRODUCING HIGH SOUND PRESSURE LEVELS. CONTINUED EXPOSURE TO HIGH SOUND PRESSURE LEVELS CAN CAUSE PERMANENT HEARING IMPAIRMENT OR LOSS. USER CAUTION IS ADVISED AND EAR PROTECTION IS RECOMMENDED IF UNIT IS OPERATED AT HIGH VOLUME.



EXPLANATION OF GRAPHICAL SYMBOLS:

EXPLICACION DE SIMBOLOS GRAFICOS:

EXPLICATION DES SYMBOLES GRAPHIQUES:



"DANGEROUS VOLTAGE"

"VOLTAJE PELIGROSO"

"DANGER HAUTE TENSION"



"IT IS NECESSARY FOR THE USER TO REFER TO THE INSTRUCTION MANUAL"

"ES NECESARIO QUE EL USUARIO SE REFIERA AL MANUAL DE INSTRUCCIONES."

"REFERREZ-VOUS AU MANUAL D'UTILISATION"



CA30D Acoustic Amplifier

Introduction:

Congratulations!

You are now the proud owner of one of Crate's latest contributions to the world of acoustic amplification, the CA30D. This compact amplifier delivers a strong 30 watts of clear musical power and incorporates two inputs (each with a gain control), three bands of equalization, plus Crate's Contour control for added tonal flexibility. The CA30D features Crate's DSP digital reverb and effects, a front panel Insert (effects loop), and a Line Out jack. An 8" Polypropylene cone coaxial speaker delivers smooth clear sound with excellent projection and fidelity.

The CA30D features a flip-out locking bar underneath the cabinet which allows you to tilt the amplifier back for increased coverage and projection.

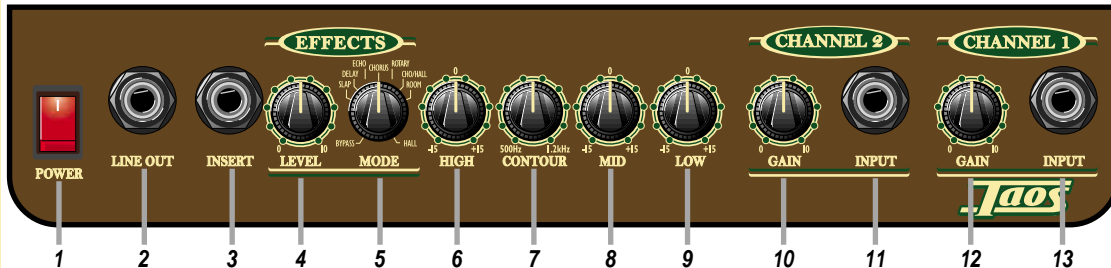
Your CA30D was designed by musicians and built using only the best components. Extensive testing at the hands (and ears) of skilled technicians and musicians insures you that this amplifier is the absolute best it can be.

In order to get the most out of your new amplifier, we strongly urge you to go over the information contained in this manual before you begin playing.

And thank you for choosing CRATE.

To keep this amplifier looking its best, avoid abrasive cleansers. Wipe the cabinet clean using a slightly dampened cloth. Never use brass cleaners on the hardware since they could damage their protective coatings.

The Front Panel:



- 1: **Power.** Use this switch to apply power to the amplifier: the amp is on when the top of the switch is depressed, off when the bottom of the switch is depressed. The switch illuminates when the amp is on.
- 2: **Line Out.** Use this jack to connect a high impedance, unbalanced line level signal to a house sound board, a recording console or another amplifier.
- 3: **Insert.** Use this jack to add external effects to the signal. The ring = send (line out), tip = return (line in), sleeve = ground. This jack can also be used to “chain” multiple amplifiers together, since connecting to this jack does not interrupt the signal going to the amplifier. (See the illustrations on page 5 for more information.)
- 4: **Effects Level.** Use this control to adjust the amount of digital signal processing applied to the output signal.
- 5: **Effects Mode.** Use this control to select the type of digital signal processing applied to the output signal. (See the section entitled “The DSP Section” on page 6 for more information.)
- 6: **High.** This serves as the treble control for both channels. Adjust this control so your high notes and harmonic overtones are lively but not overpowering.
- 7: **Contour.** Use this control to set the center point of the mid control. This control should be set at the frequency which gives you the most natural midrange tones.
- 8: **Mid.** This serves as the midrange control for both channels. Adjust this control to get the best projection and midrange tones for your instrument. The center point of the mid control is chosen by the setting of the contour control (#7).
- 9: **Low.** This serves as the bass control for both channels. Adjust this control to get the best sounding bass response for your instrument. Excessive boost of the low control can cause an unnatural howling (acoustic feedback from your instrument) and should be avoided.
- 10,11,12,13: **Gain 2, Gain 1, Input 2, Input 1.** The signal output from your acoustic instrument, tape player, rhythm machine, high-Z microphone or other source may be connected to either or both of these jacks by means of a shielded signal cable. Each of the input jacks is governed by its corresponding gain control (#10 for Input 2, #12 for Input 1). The signals from these two jacks are summed together after their gain stages.
- 10,12: **Gain 2, Gain 1.** Use these controls to set the input gain level for the corresponding input jack. These controls set the level of the input signal and serve as the amplifier’s volume controls.
- 14: **AC Line Cord. (Rear panel, not shown)** The grounded power cord should only be plugged into a grounded power outlet that meets all applicable electrical codes and is compatible with the voltage, power, and frequency requirements stated on the rear panel. **Do not attempt to defeat the safety ground connection.**

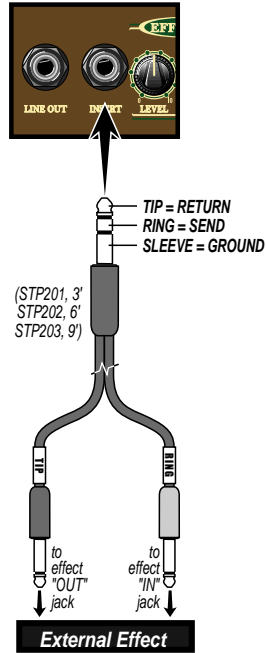


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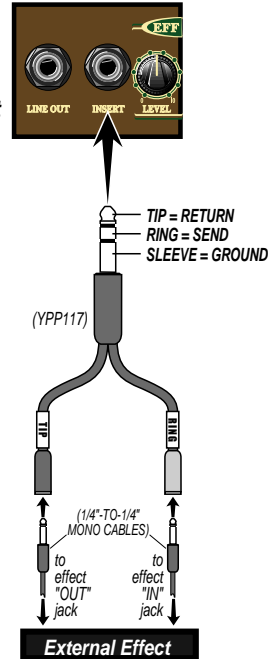
Connecting to the Insert Jack:

The Insert jack (#3) allows you to patch external effects into the amplifier just prior to its power amp stage. To connect the effect to the Insert jack use Crate's STP201, STP202, or STP203 stereo-to-mono Y-cord, or an adapter such as Crate's YPP117 and two shielded signal cables terminated with 1/4" tip/sleeve connectors as shown below.

For short runs, use Crate's STP201, STP202 or STP203 adapter to connect an effects device to the Insert jack:

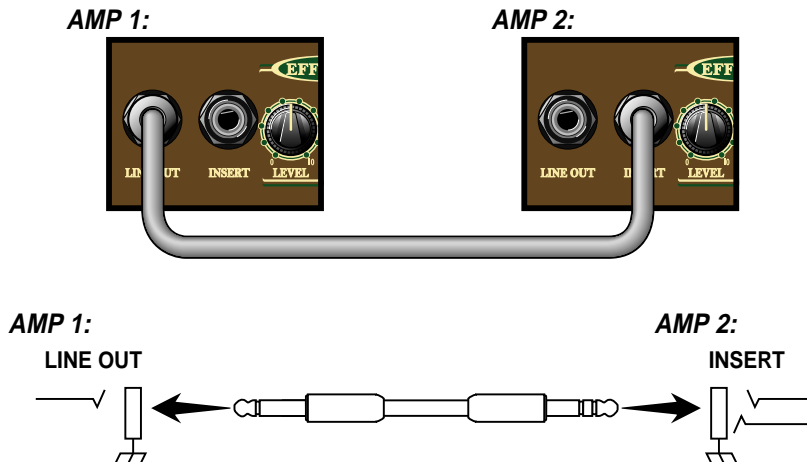


For longer runs, use Crate's YPP117 stereo-to-mono 1/4" adapter and two mono 1/4" signal cables to connect an effects device to the Insert jack:



"Chaining" Amplifiers:

The Line Out jack (#2) on one CA30D can be connected to the Insert jack of another, to chain the amps together as shown below. (This frees up the Input jacks of the second amplifier.) Use a shielded cable terminated with 1/4" tip/sleeve connectors as shown.

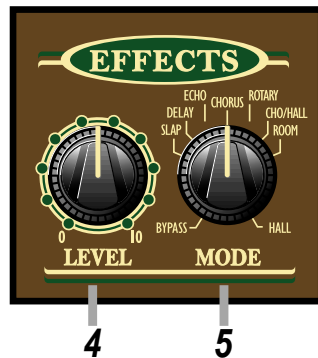




CA30D Acoustic Amplifier

The DSP Section:

The CA30D features Crate's DSP Digital Signal Processing. Use the Effects Mode control (#5) to select which type of effect will be applied to the amp's output signal. Use the Effects Level control (#4) to adjust the level of the effect.



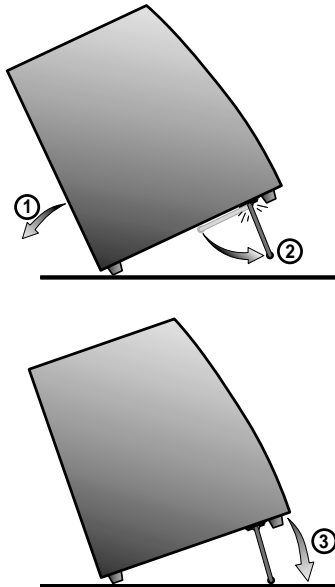
The chart below lists the names of the effects as they appear on the amplifier and a description of their settings:

<i>Effect Name</i>	<i>Description</i>
Bypass	Signal processing is turned off
Slap	Short slapback, without regeneration
Delay	Medium slapback, with regeneration
Echo	Long delay, with regeneration
Chorus	Light chorus effect - medium-slow speed
Rotary	Simulated "Leslie Speaker" tremolo
Cho/Hall	Light chorus, with moderate reverberation
Room	Moderate reverberation
Hall	Heavy reverberation

The Tilt Back Feature:

There are instances when you may need to tilt the amplifier back to better project its sound towards your ears (as a near-field monitor) or towards your audience (for better coverage). The CA15 features a tilt back device underneath its cabinet for this purpose. To utilize this tilt back feature, refer to the illustration below and follow these simple steps:

- ① Carefully lean the cabinet back - until the front of the cabinet is several inches off the floor.
- ② Pull the tilt back bar down (to unlock it from its holder) and swing it forward until it locks into place.
- ③ Lower the front of the amplifier until it rests on the tilt back bar.
(To return the bar to its traveling position, reverse these steps)



CAUTIONS:

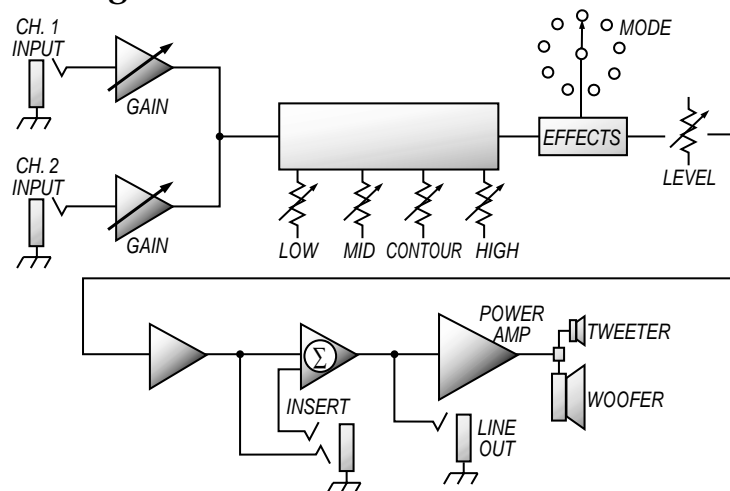
Avoid trapping your hand under the tilt back bar.



Always make sure the bar is securely locked in place before lowering the amplifier.

Do not sit on or rest your foot on the amplifier when it is in the tilt back position.

System Block Diagram:





CA30D Acoustic Amplifier

Technical Specifications:

Output Power Rating:	30 watts RMS @ 1% distortion
High:	+/-15dB @ 10kHz
Mid:	+/-15dB @ 400-1.2kHz (Contour)
Low:	+/-15dB @ 80Hz
Input Impedance:	1.5M ohm
Input Sensitivity:	20mV RMS
Sens. to Line out:	20mV
Max Input Signal:	10v RMS (28v peak to peak)
Insert Jack:	Line Out .7v RMS, Line In .7v RMS
Insert Jack Input Impedance:	44k ohm
Insert Jack Output Impedance:	2.2k ohm
Line Out Output Impedance:	2.2k ohm (Lo-Z), 2.2k ohm (Hi-Z)
Internal Speaker:	8" Poly cone coaxial with dome tweeter; 4 ohms; 50 watts; 1" voice coil
Power Requirements:	120VAC, 60Hz, 50VA 100/115VAC, 50/60Hz, 50VA 230VAC, 50/60Hz, 50VA
Size and Weight:	13"H x 15"W x 12"D, 30 lbs.

Specifications and information in this manual are subject to change without notice.

Declaration of Conformity

Manufacturer's Name: SLM Electronics
Corporate Headquarters: 1901 Congressional Drive, St. Louis, Missouri 63146
Primary Production Facility: 700 Hwy 202 W, Yellville, Arkansas, 72687

Product Type: Audio Amplifier

Products meet the regulations for compliance marking under:

ETL standards UL6500 of UL813
CSA standards E60065 or C22.2 No.1-M90
CE safety standard EN60065
CE EMC standards EN55103 or EN55013 and EN61000
FCC standards 47CFR 15.107 and 15.109 Class A
C-tick designation Level 2, ABN #56748810738, ARBN# N222
KETI standard K60065 (limited model approval)

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