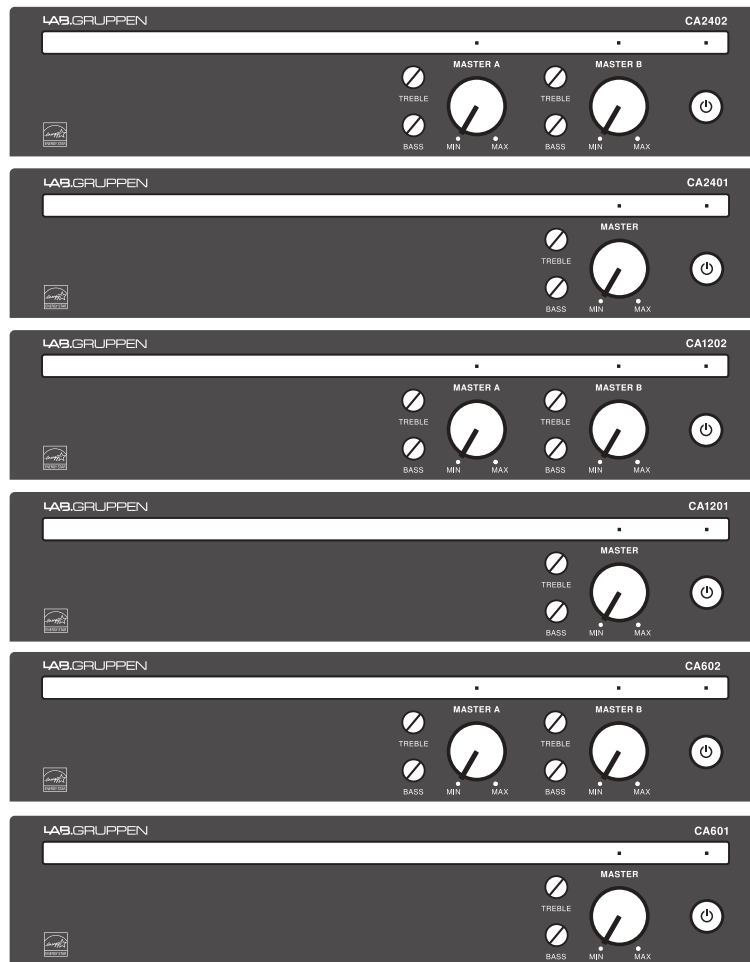


Quick Start Guide



CA Series CA2402/CA2401/CA1202/CA1201/CA602/CA601

Commercial Amplifier with Energy Star Certification

LAB.GRUPPEN

EN

EN Important Safety Instructions



Terminals marked with this symbol carry electrical current of sufficient magnitude to constitute risk of electric shock.

Use only high-quality professional speaker cables with ¼" TS or twist-locking plugs pre-installed. All other installation or modification should be performed only by qualified personnel.



This symbol, wherever it appears, alerts you to the presence of uninsulated dangerous voltage inside the enclosure - voltage that may be sufficient to constitute a risk of shock.



This symbol, wherever it appears, alerts you to important operating and maintenance instructions in the accompanying literature. Please read the manual.



Caution

To reduce the risk of electric shock, do not remove the top cover (or the rear section). No user serviceable parts inside. Refer servicing to qualified personnel.



Caution

To reduce the risk of fire or electric shock, do not expose this appliance to rain and moisture. The apparatus shall not be exposed to dripping or splashing liquids and no objects filled with liquids, such as vases, shall be placed on the apparatus.



Caution

These service instructions are for use by qualified service personnel only. To reduce the risk of electric shock do not perform any servicing other than that contained in the operation instructions. Repairs have to be performed by qualified service personnel.

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. 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.

10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

11. Use only attachments/accessories specified by the manufacturer.



12. 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.

13. Unplug this apparatus during lightning storms or when unused for long periods of time.

14. Refer all servicing to qualified service personnel. Servicing 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, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

15. The apparatus shall be connected to a MAINS socket outlet with a protective earthing connection.

16. Where the MAINS plug or an appliance coupler is used as the disconnect device, the disconnect device shall remain readily operable.



17. Correct disposal of this product: This symbol indicates that this product must not be disposed of with household waste, according to the WEEE Directive (2012/19/EU) and your national law. This product should be taken

to a collection center licensed for the recycling of waste electrical and electronic equipment (EEE). The mishandling of this type of waste could have a possible negative impact on the environment and human health due to potentially hazardous substances that are generally associated with EEE. At the same time, your cooperation in the correct disposal of this product will contribute to the efficient use of natural resources. For more information about where you can take your waste equipment for recycling, please contact your local city office, or your household waste collection service.

18. Do not install in a confined space, such as a book case or similar unit.

19. Do not place naked flame sources, such as lighted candles, on the apparatus.

20. Please keep the environmental aspects of battery disposal in mind. Batteries must be disposed-of at a battery collection point.

21. Use this apparatus in tropical and/or moderate climates.

LEGAL DISCLAIMER

Music Tribe accepts no liability for any loss which may be suffered by any person who relies either wholly or in part upon any description, photograph, or statement contained herein. Technical specifications, appearances and other information are subject to change without notice. All trademarks are the property of their respective owners. Midas, Klark Teknik, Lab Gruppen, Lake, Tannoy, Turbosound, TC Electronic, TC Helicon, Behringer, Bugera, Auratone and Coolaudio are trademarks or registered trademarks of Music Tribe Global Brands Ltd. © Music Tribe Global Brands Ltd. 2019 All rights reserved.

LIMITED WARRANTY

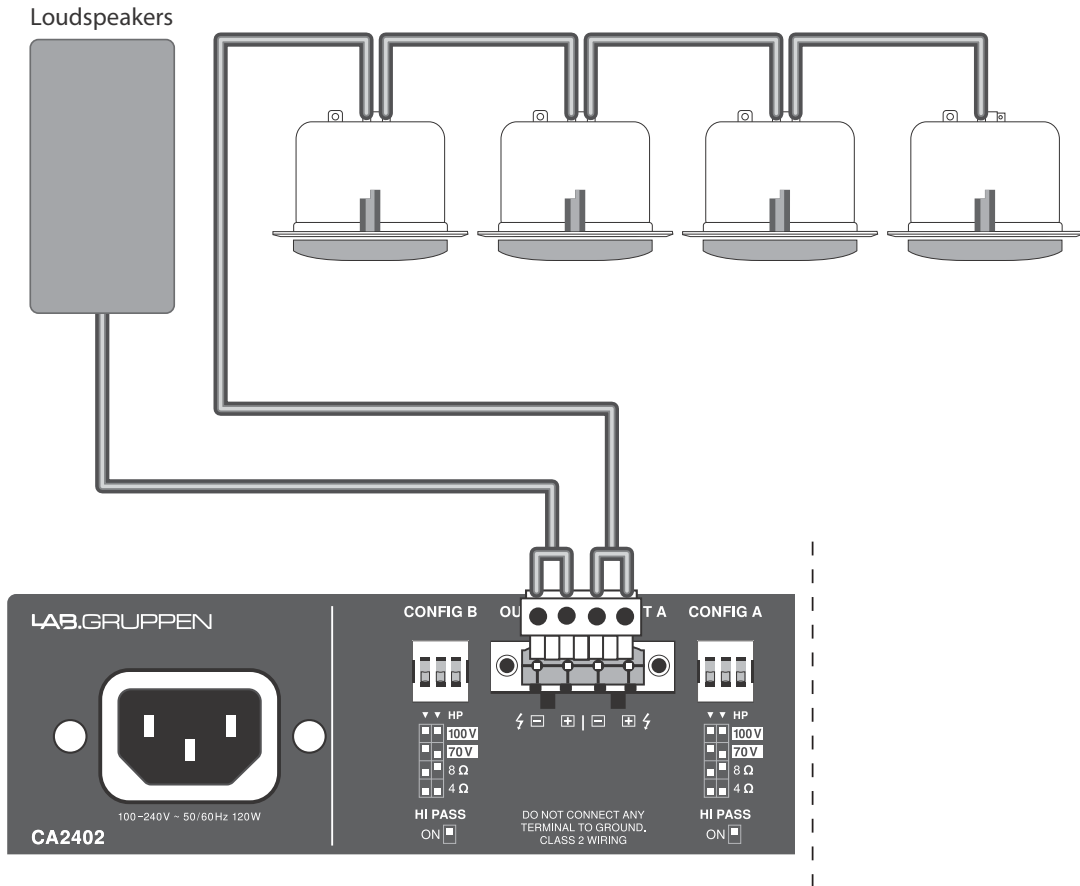
For the applicable warranty terms and conditions and additional information regarding Music Tribe's Limited Warranty, please see complete details online at musictribe.com/warranty.

Zhongshan Eurotec Electronics Limited

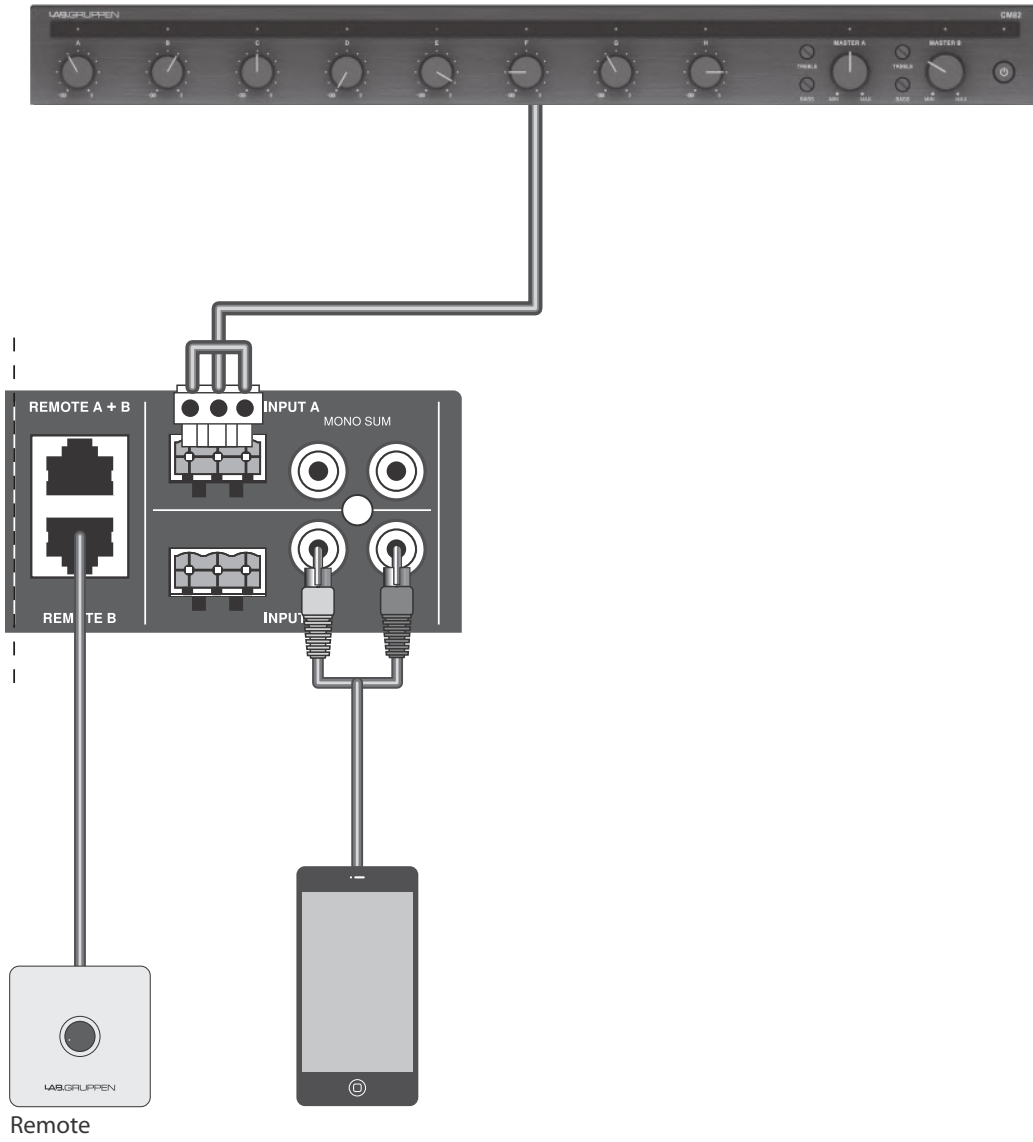
No. 10 Wanmei Road, South China Modern Chinese Medicine Park, Nanlang Town, 528451, Zhongshan City, Guangdong Province, China

CA Series Hook-up

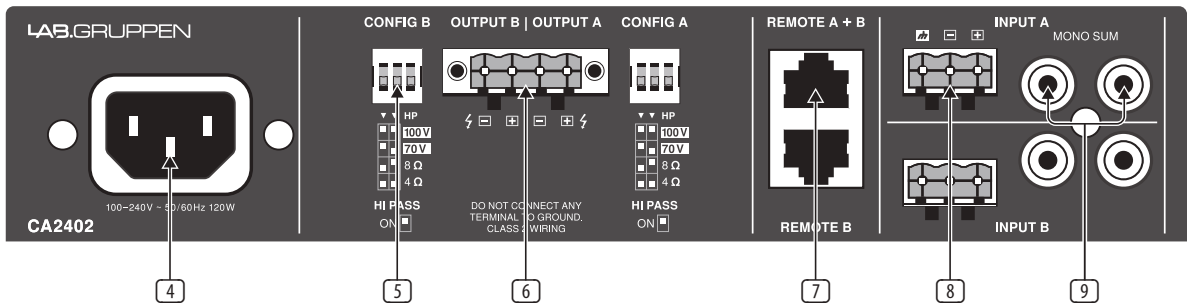
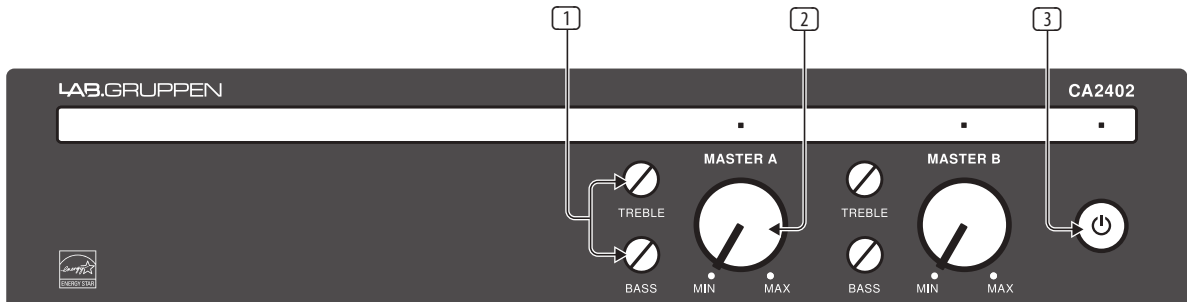
Hook-Up



CM Series Mixer



CA Series Controls



Controls

- 1 **EQ knobs** – Adjusts the bass and treble for the master output(s).
- 2 **Master volume** – Controls the overall output level. The associated LED(s) will light green to indicate active signal, and light red to indicate limiting/protection.
- 3 **Power button** – Turns the unit on, force it to stand by. The LED will indicate power status.
- 4 **Mains connector** – Connect the IEC cable to a mains outlet.
- 5 **Config switches** – Configure the output channel for the connected load type. See 'Getting Started' section for details.
- 6 **Output** – Connect your speaker(s).
- 7 **Remote** – Allows the connection of an external volume control module per channel. CRC-V available as a separate accessory.
- 8 **Euroblock input** – Accepts 3-pin Euroblock connectors for balanced line-level sources. For the 2-channel models, Input A is routed to Output A only, and Input B is routed to Output B.
- 9 **RCA inputs** – Allows the connection of stereo unbalanced sources, which will be summed to mono and routed to the associated output (Input A to Output A). For the 2-channel models, stereo operation can be achieved by connecting the left signal to Input A and the right signal to Input B.

CA Series Getting started

Welcome to the CA series Quick Start Guide and thank you for purchasing one of these amplifiers. The following accessories should be included with your product:

- Euroblock input connector(s)
- Euroblock output connector
- Coupling plate (x2) with necessary screws
- Long angle bracket
- Front angle bracket (x2)
- Rear flat bracket
- Rear angle bracket with shoulder screw
- Power cable with mains plug corresponding to the specified country version
- Quick Start Guide (this document)

Rack Mounting

The CA series amplifiers come with rubber feet that enable the amps to be placed on a clear surface without an additional installation. However, optional rack mounting hardware is also supplied, allowing several models to be housed and protected inside an enclosure. Follow these steps to attach the mounting hardware.

A pair of CA units can be mounted side-by-side to occupy a single rack space. Attach the coupling plate to the underside of 2 CA units using the included screws.

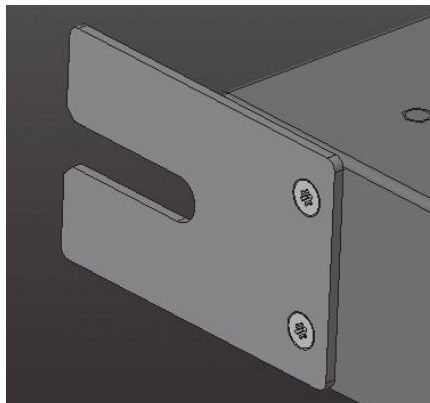


Attach the front angle brackets to either side of a pair of CA units that have been coupled. Alternatively, a single CA unit can be installed in a 19" rack using the long angle bracket, or in a half 19" rack using the short angled brackets.

Attach the angled brackets, by unscrewing the chassis side front screws and attach again together with the brackets.



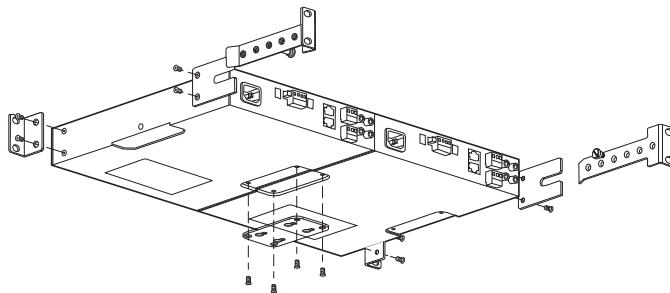
If your rack has rear rails, attach the rear flat brackets by reusing the screws from the chassis.



Mount the CA units into the rack by attaching 4 rack screws through the front angle brackets and rack rails.

Hold one of the rear angle brackets up to the rear rack rails so that it lines up next to the rear flat bracket. Do not attach it to the rear rails yet.

Insert the included shoulder screw through the slot in the rear flat bracket and into one of the threaded holes in the rear angle bracket. The screw should allow the rear angle bracket to slide forward and back within the flat bracket's slot.



Repeat the process for the other rear angle bracket.

Mount the rear angle brackets to the rear rack rails using 4 standard rack screws.

Tighten the shoulder screw if necessary.

The standard rack screw is M4 x 8mm.

The CA series amplifiers are convection cooled and primarily use the top surface to dissipate heat. For demanding applications, it is recommended to have sufficient space (1 RU) above the amplifier to reduce the risk of limiting due to overheating.

Table/Wall Mounting

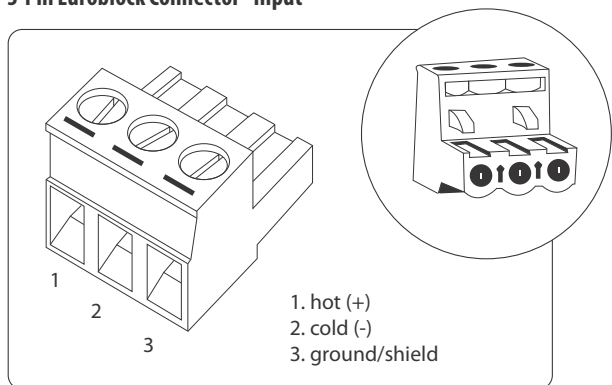
Connect a pair of coupling plates to either side of a CA series amplifier, then mount screws through the remaining holes in the plates to secure the unit to a wall or table.



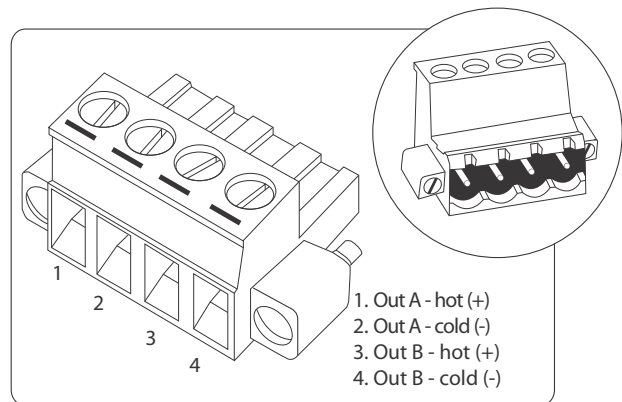
Connections

For balanced input connections, use a 3-pole cable (hot, cold, ground) wired to a Euroblock connector. Alternatively, RCA cables can be connected for unbalanced stereo sources, but the RCA and Euroblock inputs should not be used together on the same input. Note that stereo RCA signals will be summed to mono.

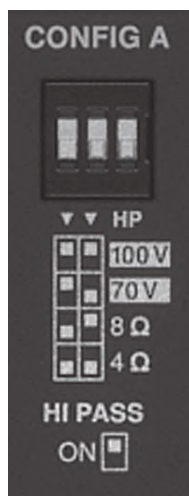
3-Pin Euroblock Connector - Input



For output signals, connect a 4-pole (2-pole for CA601/1201/2401) Euroblock connector to the main output connector. Do NOT connect any terminal to ground. Do NOT connect the cold (-) terminals together for common returns. Make sure to set the Config switches in the correct position to match your intended use. Speaker wire of 14-18 AWG (0.8 to 2.5 mm) is recommended for connections up to 50 feet.



Config



The first 2 Config dipswitches allow the output to be configured for 100 V, 70 V, 8 Ω, or 4 Ω operation. Always use the correct configuration for the speakers being driven! The mode of operation configures both the maximum voltage of the output and the gain through the device.

The 8 Ω setting should be used for a pair of 16 Ω speakers or a single 8 Ω speaker. The 4 Ω setting should be used for 4 x 16 Ω, 2 x 8 Ω, or a single 4 Ω speaker. Use 70 or 100V setting for Constant Voltage high impedance speaker systems. Make sure the sum of the power tapping on the speakers plus margin does not exceed the amplifier's maximum power rating.

The 3rd dipswitch engages a high-pass filter at 80 Hz, which should be used on all Constant Voltage systems to avoid saturation on the transformer-enabled speakers, but can also be used to help maintain clear sound from small speakers or bass-heavy audio.

Remote

RJ-45 Pin	Color (T568B)	Remote (1 channel products)	Remote A+B	Remote B
1	White/Orange	VCC 10V	VCC 10V	VCC 10V
2	Orange	Volume Control	Volume Control Channel A	Volume Control Channel B
3	White/Green	N/A	Volume Control Channel B	N/A
8	Brown	Ground	Ground	Ground

RJ45 receptacle to connect an optional remote volume control per channel. Use a standard cable to connect the CRC-V accessory. Or connect a custom potentiometer with the pinout information. Cable length above 305m (1000ft) is not recommended.

Signal Wake-up

If the amps are powered on, but do not receive any input signal (below signal present level) for 20 minutes, the system will enter standby mode to save power consumption. As soon as a signal is detected at any input, the unit will exit standby mode and resume normal function.

EN Specifications

	CA24 02	CA2401	CA1202	CA1201	CA602	CA601
Maximum Output Power						
4 or 8 Ω per channel	240 W		120 W		60 W	
Number of Output Channels						
Number	2	1	2	1	2	1
Minimum Load Impedance						
4 Ω mode	4 Ω					
8 Ω mode	8 Ω					
70 V output mode	20 Ω		41 Ω		82 Ω	
100 V output mode	41 Ω		82 Ω		166 Ω	
Controls						
Front	Power standby button, gain control, tone controls - bass and treble					
Rear	Load config - (4 Ω / 8 Ω / 70 V / 100 V), switchable 80 Hz high-pass filter					
Tone Controls						
Bass	± 10 dB @ 100 Hz					
Treble	± 10 dB @ 10 kHz					
Indicators						
Power	On (blue), force standby (red), sleep (yellow)					
Master						
Signal (green LED)	>12.3 mV (-36 dBu)					
Limit (red LED)	Input clip, output limit					
Fault (red LED)	Overheat, DC fault, over current, etc					
System						
Inputs	2 x 3-pin 5.08 mm Euroblock connector 2 x RCA stereo summed	1 x 3-pin 5.08 mm Euroblock connector 1 x RCA stereo summed	2 x 3-pin 5.08 mm Euroblock connector 2 x RCA stereo summed	1 x 3-pin 5.08 mm Euroblock connector 1 x RCA stereo summed	2 x 3-pin 5.08 mm Euroblock connector 2 x RCA stereo summed	1 x 3-pin 5.08 mm Euroblock connector 1 x RCA stereo summed
Input impedance	10 k Ω unbalanced and RCA, 20 k Ω balanced					
Input sensitivity	Balanced: 1.23 V (+4 dBu) RCA: 0.62 V (-2 dBu) each for mono sum RCA					
Maximum input level	9.75 V (+22 dBu)					
Outputs	1 x 4-pin 5.08 mm Euroblock connector	1 x 2-pin 5.08 mm Euroblock connector	1 x 4-pin 5.08 mm Euroblock connector	1 x 2-pin 5.08 mm Euroblock connector	1 x 4-pin 5.08 mm Euroblock connector	1 x 2-pin 5.08 mm Euroblock connector
Output circuit type	Class D					
Remote connector	2 x RJ45 connector	1 x RJ45 connector	2 x RJ45 connector	1 x RJ45 connector	2 x RJ45 connector	1 x RJ45 connector

	CA24 02	CA2401	CA1202	CA1201	CA602	CA601
Performance						
Distortion, 1/8 rated power	<0.05%					
Frequency response	20 Hz to 20 kHz, +0.5 / -1 dB					
Crosstalk (2 channel models)	>85 dB					
Signal-to-noise	>97 dBA					
High-pass filter	80 Hz HPF					
Circuit Protection						
Cooling	Convection-cooled, fanless					
Amplifier protection	Thermal protection, over current protection, DC protection, high frequency protection					
Load protection	Controlled start and shutdown behaviour, DC-fault protection					
Power Supply, Voltage (Fuse)						
Main voltage	100-240 V~, 50/60 Hz with active power factor correction			100-240 V~, 50/60 Hz		
Fuse	T 6.3 A L 250 V			T 3.15 A L 250 V		
Power consumption 1/8th rated power @ 4 Ω	120 W	70 W	50 W	60 W	40 W	
Mains connector	Standard IEC connector					
Dimensions / Weight						
Dimensions (H x W x D)	44 x 218 x 299 mm (1.7 x 8.6 x 11.8")					
Weight	2.6 kg (5.8 lbs)	2.4 kg (5.3 lbs)	2.6 kg (5.8 lbs)	2.3 kg (5.1 lbs)	2.4 kg (5.3 lbs)	2.2 kg (4.9 lbs)
Finish	Brushed black anodized aluminum chassis with black painted steel bottom					
Approvals	CE, cTUVus, PSE, CCC, RoHS, FCC part 15 Class B and Energy Star 3.0					

Other important information

EN Important information

1. Register online. Please register your new Music Tribe equipment right after you purchase it by visiting labgruppen.com. Registering your purchase using our simple online form helps us to process your repair claims more quickly and efficiently. Also, read the terms and conditions of our warranty, if applicable.

2. Malfunction. Should your Music Tribe Authorized Reseller not be located in your vicinity, you may contact the Music Tribe Authorized Fulfiller for your country listed under "Support" at labgruppen.com. Should your country not be listed, please check if your problem can be dealt with by our "Online Support" which may also be found under "Support" at labgruppen.com. Alternatively, please submit an online warranty claim at labgruppen.com BEFORE returning the product.

3. Power Connections. Before plugging the unit into a power socket, please make sure you are using the correct mains voltage for your particular model. Faulty fuses must be replaced with fuses of the same type and rating without exception.

FEDERAL COMMUNICATIONS COMMISSION COMPLIANCE INFORMATION



Responsible Party Name: **Music Tribe Commercial NV Inc.**
Address: **5270 Procyon Street
Las Vegas, NV 89118**
Phone Number: **+1 702 800 8290**

CA SERIES

This equipment has been tested and found to comply with the limits for a ClassB 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.

This equipment 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.

Caution!

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

LAB.GRUPPEN