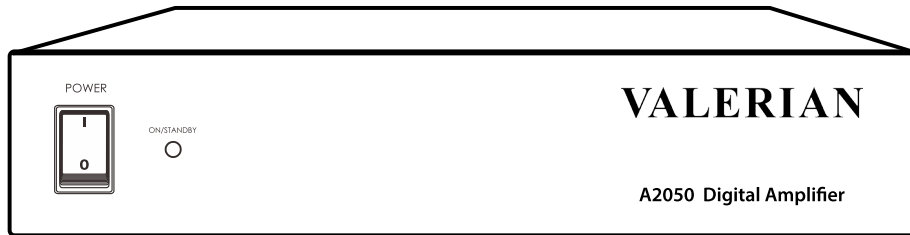


VALERIAN

A2050 Digital Amplifier



Bedienungsanleitung
User`s Manual

SAFETY INSTRUCTIONS



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



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE THE COVER. NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



The lightning lash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated dangerous voltage within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



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

Safety Instructions

1. Read these instructions – All the safety and operating instructions should be read before this product is operated.
2. Keep these instructions – The safety and operating instructions should be retained for future reference.
3. Heed all warnings – All warnings on the appliance and in the operating instructions should be adhered to.
4. Follow all instructions – All operating and use instructions should be followed.
5. Do not use this apparatus near water – The appliance should not be used near water or moisture – for example, in a wet basement or near a swimming pool, and the like.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacture'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 plug. A polarized plug has two blades with one wider than the other. A grounding 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
10. 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.
11. Only use 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 or rack is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13. Unplug the apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified 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 has been exposed to rain or moisture, does not operate normally, or has been dropped.
15. Use only power supplies listed in the user manual / user instruction.
16. Do not install this equipment in a confined or building-in space such as a book case or similar unit, and remain a well ventilation conditions at open site. The ventilation should not be impeded by covering the ventilation openings with items such as newspaper, table-cloths, curtains etc.
17. WARNING : To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture. The apparatus shall not be exposed to dripping or splashing and that objects filled with liquids, such as vases, shall not be placed on apparatus.
18. Correct Disposal of this product. This marking indicates that this product should not be disposed with other household wastes throughout the EU. To prevent possible harm to the environment or human health from uncontrolled waste disposal, recycle it responsibly to promote the sustainable reuse of material resources. To return your used device, please use the return and collection systems or contact the retailer where the product was purchased. They can take this product for environmental safe recycling.



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 of 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, or consult the dealer or an experienced radio/TV technician for help.

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

Einführung

Der A2050 ist ein 2-Kanal digitaler Endverstärker. Er kann als Zusatzverstärker für zusätzliche Lautsprecher in einem grösseren Raum, für eine zweite Zone ab einem AV-Receiver, oder auch standalone eingesetzt werden. Das ½-Racksize Design gibt die Möglichkeit zwei dieser Verstärker nebeneinander zu platzieren, um so Platz im Installationsrack zu sparen.

Der kraftvolle 50 Watt Class D Verstärker kommt mit Eigenschaften wie Audiosensing, 12V Trigger, Pegelregler und einem gebuffertem Line-Ausgang. Dieser ermöglicht mehrere A2050 mit der gleichen Quelle zu bedienen.

Produkteigenschaften

Class D-Verstärker – "cool running", ½-Racksize, Audiosense, Trigger in/out 50/65/130Watt – Genügend Leistung für eine grosse Spanne von Anwendungen an 8Ω, 4Ω, oder 8Ω gebückt.

Line Out – Ein Line-Ausgang ermöglicht einfaches Verbinden von mehreren A2050 mit der gleichen Quelle.

Trigger in/out – Der A2050 kann mit einem Trigger Signal kontrolliert ein-, bzw. ausgeschaltet werden und gibt im eingeschalteten Zustand 12V aus, um weitere Geräte zu steuern.

Power Mode – Das Einschaltverhalten kann mit einem Schiebeschalter gewählt werden:

- On -> Der A2050 wird über den Power-Schalter an der Front ein- und ausgeschaltet.
- Auto -> Der A2050 schaltet ein, sobald ein Signal anliegt. Nach ca.15 Min. ohne Signal schaltet sich der A2050 zurück in Standby.
- Trigger -> 2.7V – 12V am Trigger In schaltet das Gerät aus dem Standby ein.

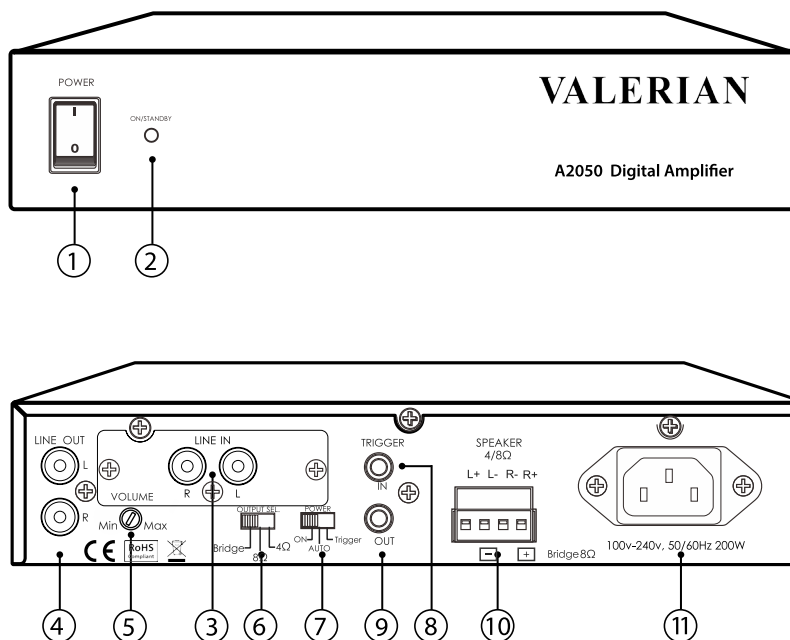
Lautsprecheranpassung (OUTPUT SEL)

- 8Ω - optimiert für 8 Ohm Stereo 50W/Kanal
- 4Ω - optimiert für 4 Ohm Stereo 65W/Kanal
- Bridge – ermöglicht 120W an 8 Ohm Mono im Brückenbetrieb (Line IN L)

Phoenix Anschluss – Der Lautsprecheranschluss ist mit Phoenix Stecker ausgerüstet. Das bietet sicheren und maximalen Installationskomfort mit Lautsprecherkabel bis 2.3mm².

Thermal Protection – Der A2050 ist mit einer speziellen Schaltung ausgerüstet, die das Überhitzen des Gerätes verhindern soll. Diese Schaltung spricht an, wenn das Gerät über eine längere Periode mit hoher Lautstärke ohne adäquate Ventilation betrieben wird und/oder die Impedanzeinstellung nicht den angeschlossenen Lautsprecherwerten entspricht. Sollte sich das Gerät durch Überhitzung ausschalten, schalten Sie das Gerät mit dem Netzschalter aus, kontrollieren die Impedanzeinstellungen und ob das Gerät genügend Ventilation hat. Sobald sich das Gerät abgekühlt hat, sollte es wieder starten.

Sicherheitsschaltung – Der A2050 verfügt über eine spezielle Schutzschaltung, die Lautsprecherverbindungen und Lautsprecher auf Kurzschluss überwacht. Erkennt diese Schaltung einen Kurzschluss, wechselt die Power LED auf Orange. Wenn das auftritt, schalten Sie den Verstärker aus und überprüfen Sie die Lautsprecherleitungen auf Kurzschluss.



- ① **POWER:** Der Powerschalter trennt das Gerät vom Netz.
- ② **ON/STANDBY:** Beim Einschalten leuchtet die LED rot um anzuzeigen, dass der A2050 eingeschaltet ist. Wenn das Gerät in Standby wechselt, leuchtet die LED gelb. Grün zeigt an, dass das Gerät in Betrieb ist.
- ③ **LINE IN:** Analog stereo Eingang für Line Pegel. Im Bridge Betrieb wird der linke Kanal (L) verwendet.
- ④ **LINE OUT:** Line Ausgang gebuffert. Von hier kann das Signal auf weitere Verstärker geschlauft werden.
- ⑤ **VOLUME:** Eingangspegelregler um die Verstärkung einzustellen. Stellen Sie den Regler erst auf Minimum, dann die Quelle auf ca. ½ und regeln dann das Volumen am A2050 auf die maximal notwendige Lautstärke für diese Zone.
- ⑥ **OUTPUT SEL:** Der Output Schalter hat drei Positionen. Bridge (mono/8Ω); 8Ω (stereo); 4Ω (stereo). Voreinstellung 8Ω.
- ⑦ **POWER:** Es stehen drei Einschaltverhalten zu Verfügung. ON - immer Ein. AUTO - schaltet aus Standby ein, wenn ein Audiosignal anliegt. Trigger - schaltet aus Standby ein, wenn eine Triggerspannung von 2.7V -12V anliegt.
- ⑧ **TRIGGER IN:** Schaltet den A2050 aus dem Standby ein, wenn eine Triggerspannung von 2.7V -12V anliegt.
- ⑨ **TRIGGER OUT:** Der Trigger Out gibt 12V mit max. 100mA aus, sobald der A2050 aus dem Standby eingeschaltet hat. Dieser Anschluss kann verwendet werden um weitere Endstufen einzuschalten (Trigger).
- ⑩ **SPEAKER 4/8Ω:** Lautsprecheranschluss mit abnehmbarem Phoenix Stecker für Lautsprecherkabel bis zu 2.3mm² Querschnitt.
- ⑪ **Netzanschluss:** 100V-240V, 50/60Hz Anschluss für 3-polige Kaltgeräte-Anschlusskabel mit C14 Stecker

Mit dem mitgelieferten Rack Mounting Kit kann der A2050 einzeln, oder zu zweit in einer Höheneinheit im Rack installiert werden.

Das Anschlussbeispiel zeigt drei A2050 als zusätzliche Endstufen für eine Multiroom Zentrale.

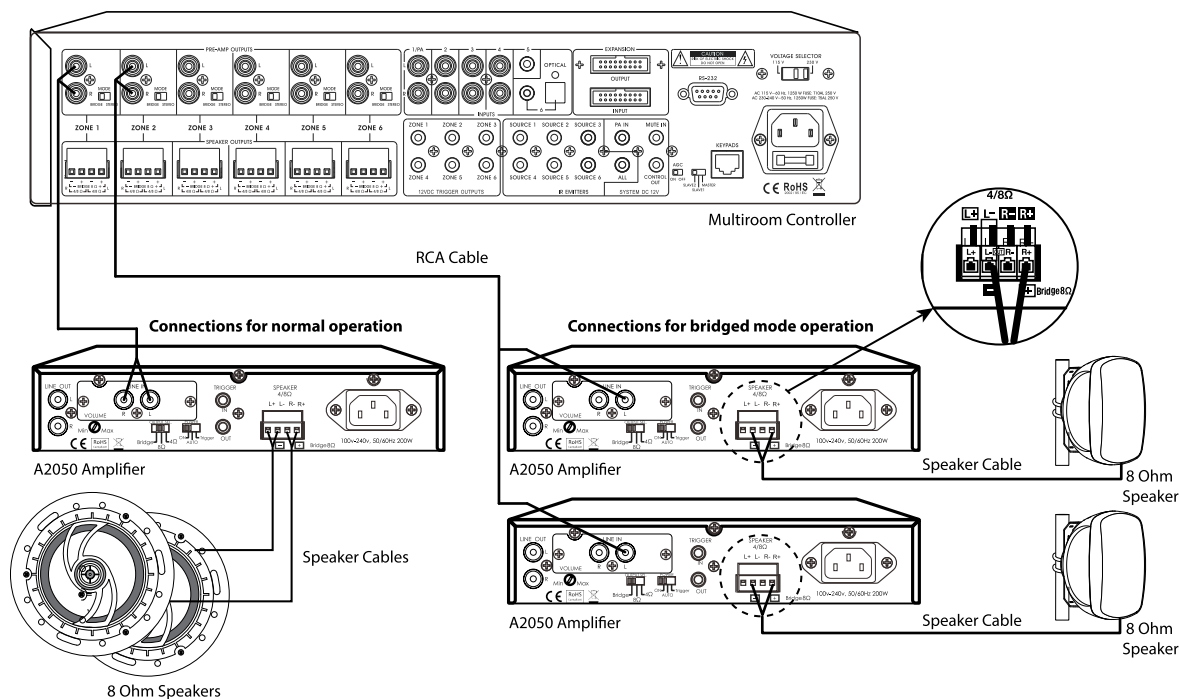
Ein Verstärker wird normal für den Betrieb von einem Paar 8 Ohm Lautsprecher für einen zusätzlichen Raum eingesetzt.

Zwei weitere A2050 werden im Bridge-Modus als leistungsstarke Verstärker für eine Outdoor-Zone eingesetzt.

Im Brückenbetrieb werden die Lautsprecher wie unten dargestellt angeschlossen.

Schalten Sie den Impedanzwahlschalter auf Brückenbetrieb (Bridge).

Im Brückenbetrieb wird der Eingang Links (L) verwendet.



Introduction

The A2050 is a 2-channel digital amplifier designed to be used to boost audio amplification where needed, either as a standalone amplifier, or as an addition to a whole-house distributed audio system in order to provide extra amplifier power in larger rooms or spaces. Its space-saving ½-rack design allows for quick installation and gives flexibility of mixing and matching with other ½-rack products to save valuable equipment rack space.

The powerful 50-Watt class D amplifier in the A2050 is combined with features such as 12v trigger control, audio sensing, volume gain adjustment, and a buffered line output that enables even more amplification of the same audio signal when needed.

Product Features

Class D amplifier—The cool running, low-profile, high efficiency design makes the A2050 the perfect choice for even the most space-conscious system designs

50w per channel – A powerful 50watts per channel are available to provide ample power to even the largest of spaces

Loop Output —A buffered loop output is available for the audio signal, allowing additional amplifiers to be easily driven from the same signal.

Trigger in/out – The A2050 can be activated by a 12v trigger signal, and can activate additional devices at the same time

Multiple Turn-on modes:

Always On - The A2050 is always active and ready for use

Signal-sensing – The A2050 is in a standby mode when no audio signal is present and will turn on when

12V Trigger—Using the 12V trigger allows precise turn on/off when the amplifier is needed, keeping the unit in a power saving standby mode when not in use.

Multiple Output modes:

- 8Ω - optimized mode for 8-ohm stereo output

- 4Ω - optimized mode for 4-ohm stereo output

Bridge—allows the use of the A2050 as a powerful, 8-ohm mono amplifier

Removable speaker connectors – allow for quick, secure installation and accommodate cables of up to 2.3mm²

Cord Lock – Flip-down cord lock keeps the IEC power cord in its place, preventing accidental disconnection when moving gear in a stack or when pivoting a rack for service

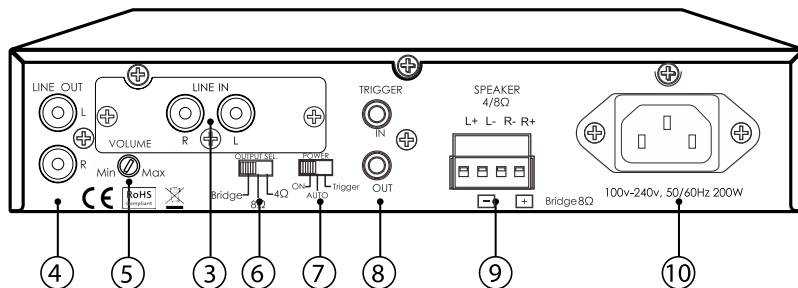
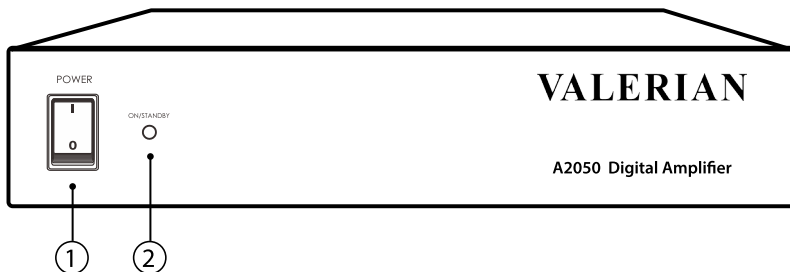
Thermal Protection

The Valerian A2050 amplifier is designed with special circuitry to safeguard the amplifier under a thermal overload condition. Thermal protection mode can only engage when the unit has been run at high volume for extended periods of time without adequate ventilation and/or when speaker impedances are below the minimum levels for the amplifier, if this fault occurs, turn off the amplifier, and check that the speaker impedance rating is above the minimum rating. Also check for adequate ventilation around the amplifier and make adjustments if necessary. Once the unit has cooled to safe operating temperatures, the amplifier may be powered back on.

Protection Circuitry

The Valerian A2050 amplifier is designed with special circuitry to safeguard the amplifier under a short-circuit condition. A fault speaker can also cause a short circuit condition. The front panel LED illuminates orange when the amplifier is in short circuit protection. If this fault condition occurs, turn off the amplifier and check speakers for short circuit conditions when appropriate.

FRONT PANEL CONNECTORS



① **Power Button:** Power - the front panel switch will manually switch the power on or off.

② **Power/Standby LED:** On start-up, the first LED lights red to show power on. When the amplifier goes into standby, the LED will light amber. The LED will light green during normal operation.

③ **Line In:** Analog stereo audio input for a single input source. When in Bridge Mode, use the "L" audio input for the input signal.

④ **Line Out:** A buffered line out is available to extend the audio signal to additional amplifiers as needed.

⑤ **Volume:** Use this gain switch to attenuate the volume level to meet the room's needs.

⑥ **Output:** The output switch has three positions, Bridge (mono), 8Ω (stereo), 4Ω (stereo). The default setting is 8Ω.

⑦ **Turn-On:** There are three turn on-modes: always-on (On), audio sensing (Auto) and activated by the 12v Trigger (2.7V - 12V)

⑧ **12VDC Trigger:** Turns on the A2050 when set to Trigger mode and a 12VDC signal is received. The Trigger Out provides 100mA 12VDC max to drive other 12V triggered devices. When using Trigger mode, the front panel power switch must be ON.

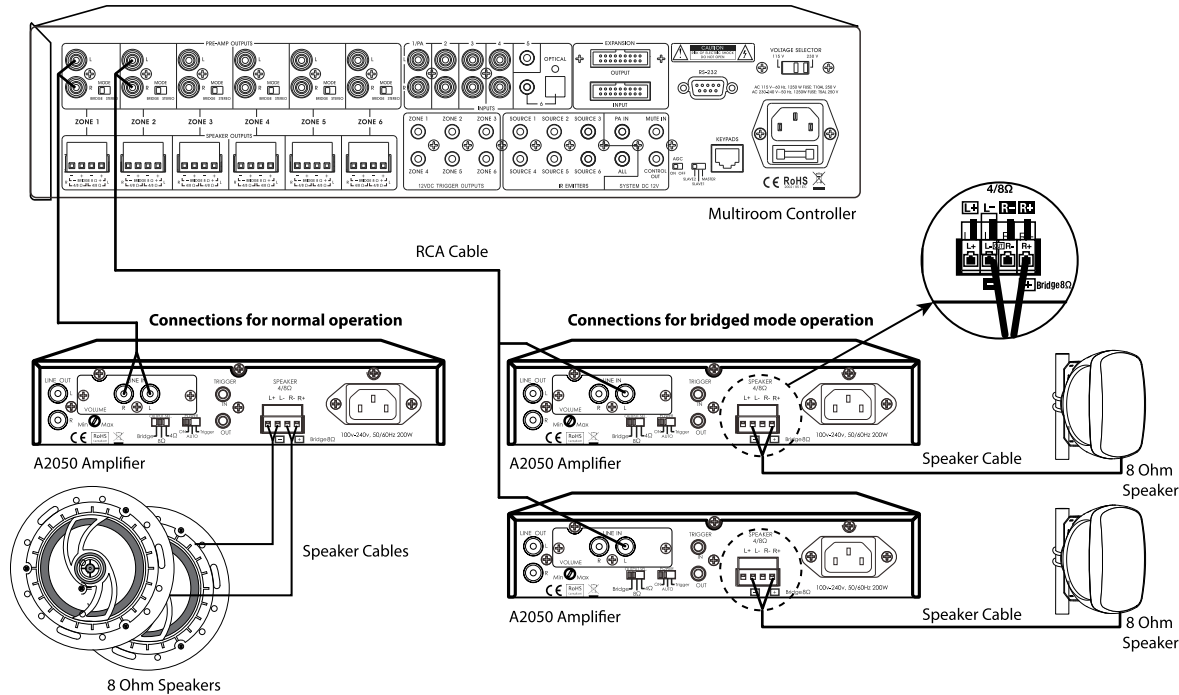
⑨ **Speaker Out:** Connect your loudspeaker(s) here. Up to 2.3mm² wire may be used.

⑩ **AC Input:** Use a 3-prong grounded IEC cord. The locking connector may be engaged to prevent cords from accidental dislodging in an equipment rack.

The A2050 can be used in a side-by-side configuration using the optional rack mounting kit. This feature makes it easy to add amplification to two controllers or two zones.

The example shown shows three A2050 units being used to add amplification to a controller. One unit is connected in normal 8 ohm stereo mode for an additional room and two A2050 units are shown connected in Bridge mode to add a very powerful outdoor stereo zone.

For the Bridge Mode connect the negative lead (-) of the speaker cable to the L- terminal. Connect the positive lead (+) of the speaker cable to the R+ terminal. Set the output switch to Bridge, connect the Line In feed from a source to the left line in connection only and restore power to the amplifier.



TECHNICAL SPECIFICATIONS

Continuous Output Power: 50W @ 8 Ohms < 0.1% THD+N
65W @ 4 Ohms < 0.1% THD +N
120W Bridged @ 8 Ohms < 0.1% THD+N

Input Trigger: 12VDC 10kohms

Output Trigger: 12VDC 100mA max

Power Requirements: *North American and European Models:*
(Autoswitching Power Supply) 100VAC to 240VAC 50/60Hz 2.5A
IEC 320 type connector with 3 terminal
detachable power cord

Standby Power: ≤0.5 Watts

Dimensions: 8.5" W x 10.5" D x 1.75" H
(21.59 x 26.67 x 4.45 cm)

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