Gecko beatbox

Technical Integration Guide



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1. **Safety instructions**



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

The lightning flash with the 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 service literature accompanying this appliance.

IMPORTANT SAFETY INSTRUCTIONS:

For your own safety please read the following important safety instructions carefully before attempting to connect this unit to the mains power supply. They will also enable you to get the best performance from and prolong the life of the unit:

* READ THESE INSTRUCTIONS.

* KEEP THESE INSTRUCTIONS.

* HEED ALL WARNINGS.

* FOLLOW ALL INSTRUCTIONS.

* CLEAN ONLY WITH DRY CLOTH. BEWARE THE APPLICATION OF SOME PRODUCTS COMMONLY USED AGAINST CORROSION (SUCH AS WD-40 FAMILY PRODUCTS) AS THEY COULD DAMAGE THE ENCLOSURE, DUE TO A NEGATIVE CHEMICAL REACTION BETWEEN SOME INDUSTRIAL OILS AND ITS PLASTIC ENCLOSURE. ANY OTHER MATERIALS WHICH MAY COME IN CONTACT WITH THE ENCLOSURE MUST BE CAREFULLY EVALUATED UNDER END USE CONDITIONS FOR COMPATIBILITY.

* DO NOT BLOCK ANY VENTILATION OPENINGS. INSTALL IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.

* DO NOT INSTALL NEAR ANY HEAT SOURCES. CLEARANCE AND MINIMUM DISTANCE BETWEEN THE VARIOUS PARTS OF THE APPLIANCE AND THE SURROUNDING STRUCTURE ARE NOT SPECIFIED AS LONG AS THEY ARE SUFFICIENT SO THAT THE AMBIENT TEMPERATURE AROUND THE APPARATUS DOES NOT EXCEED 140°F (60°C).

* THE MODULE INCORPORATES A THERMAL PROTECTION MECHANISM THAT MAY REDUCE AUDIO OUTPUT PERFORMANCE WHEN OPERATING IN HIGH-TEMPERATURE ENVIRONMENTS. THIS BEHAVIOR IS INTENTIONAL AND IS DESIGNED TO PROTECT INTERNAL COMPONENTS FROM OVERHEATING AND ENSURE RELIABLE OPERATION.

* 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 MANUACTURER.

* 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 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.

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2. Warnings

⚠ WARNING

Before installing or connecting the unit, please read the following.

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

* DO NOT DISASSEMBLE OR ALTER THE APPARATUS.

* DO NOT USE FOAM TO ISOLATE THE UNIT.

* TURN POWER OFF BEFORE SERVICING OR MODIFYING ANY CABLE CONNECTIONS IN THIS UNIT.

* TO PREVENT ELECTRIC SHOCK HAZARD AND/OR WATER DAMAGE TO THIS APPARATUS, ALL CONDUITS MUST BE PLUGGED WITH THE ATTACHED GASKET.

* AUDIO/VIDEO COMPONENTS SHALL BE LOCATED ABOVE THE FLOOD ZONE WHERE THEY ARE UNLIKELY TO BE SUBMERGED IN THE EVENT THE SPA IS OVERFILLED (OR SIMILAR ABNORMAL CONDITION OCCURENCE).

* PRODUCT MUST BE DISPOSED OF SEPARATELY IN ACCORDANCE WITH LOCAL WASTE DISPOSAL LEGISLATION



⚠ WARNING

WHEN THIS EQUIPMENT IS PROVIDED AS AN AUDIO/VIDEO COMPONENTS FOR SPAS, U1563 - 6TH EDITION REQUIRES THAT THE FOLLOWING INSTRUCTIONS (OR EQUIVALENT) BE PROVIDED AS PART OF THE INSTRUCTION MANUAL FOR THE SPA EQUIPMENT.

* "CAUTION – RISK OF ELECTRIC SHOCK. DO NOT LEAVE COMPARTMENT DOOR OPEN";

* "CAUTION – RISK OF ELECTRIC SHOCK. REPLACE COMPONENTS ONLY WITH IDENTICAL COMPONENTS";

* "WARNING – PREVENT ELECTROCUTION. DO NOT CONNECT ANY AUXILIARY COMPONENTS (FOR EXAMPLE CABLE, ADDITIONAL SPEAKERS, HEADPHONES, ADDITIONAL AUDIO/VIDEO COMPONENTS, ETC.) TO THE SYSTEM".

* DO NOT SERVICE THIS PRODUCT YOURSELF AS OPENING OR REMOVING COVERS MAY EXPOSE YOU TO DANGEROUS VOLTAGE OR OTHER RISK OF INJURY. REFER ALL SERVICING TO QUALIFIED SERVICE PERSONNEL.

* THE SELECTED SPEAKER MUST BE COMPLIANT WITH THE HEARING RECOMMENDATION TO REDUCE THE HEARING RISK (RECOMMANDATION: SPL <80DB (A) IN PROLONGED EXPOSURE AT 1M ACCORDING TO EN 61672-1).

* HEARING RISK DAMAGE > 100DB (A).

* THIS APPLIANCE IS NOT INTENDED FOR USE BY PERSONS (INCLUDING CHILDREN) WITH REDUCED PHYSICAL, SENSORY OR MENTAL CAPABILITIES, OR LACK OF EXPERIENCE AND KNOWLEDGE, UNLESS THEY HAVE BEEN GIVEN SUPERVISION OR INSTRUCTION CONCERNING USE OF THE APPLIANCE BY A PERSON RESPONSIBLE FOR THEIR SAFETY.

* CHILDREN SHOULD BE SUPERVISED TO ENSURE THAT THEY DO NOT PLAY WITH THE APPLIANCE.

* WHEN THE POWER SUPPLY CONNECTIONS OR POWER SUPPLY CORD(S) ARE DAMAGED; IF WATER IS ENTERING THE AUDIO/VIDEO COMPARTMENT OR ANY ELECTRICAL EQUIPMENT COMPARTMENT AREA; IF THE PROTECTIVE SHIELDS OR BARRIERS ARE SHOWING SIGNS OF DETERIORATION; OR IF THERE ARE SIGNS OF OTHER POTENTIAL DAMAGE TO THE UNIT, TURN OFF THE UNIT AND REFER SERVICING TO A QUALIFIED SERVICE PERSONNEL.

*THIS UNIT SHOULD BE SUBJECTED TO PERIODIC ROUTINE MAINTENANCE (FOR EXAMPLE, ONCE EVERY 3 MONTHS) TO MAKE SURE THAT THE UNIT IS OPERATING PROPERLY.

* PRODUCT MUST BE DISPOSED OF SEPARATELY IN ACCORDANCE WITH LOCAL WASTE DISPOSAL LEGISLATION.

3. Introduction



Gecko beatbox

Spa audio driver

Gecko beatbox brings music to your spa. Simply pair your smart mobile device with Gecko smartbox via Bluetooth and play your music. Depending on the configuration, Gecko beatbox supports up to five audio outputs (four speakers and one subwoofer).

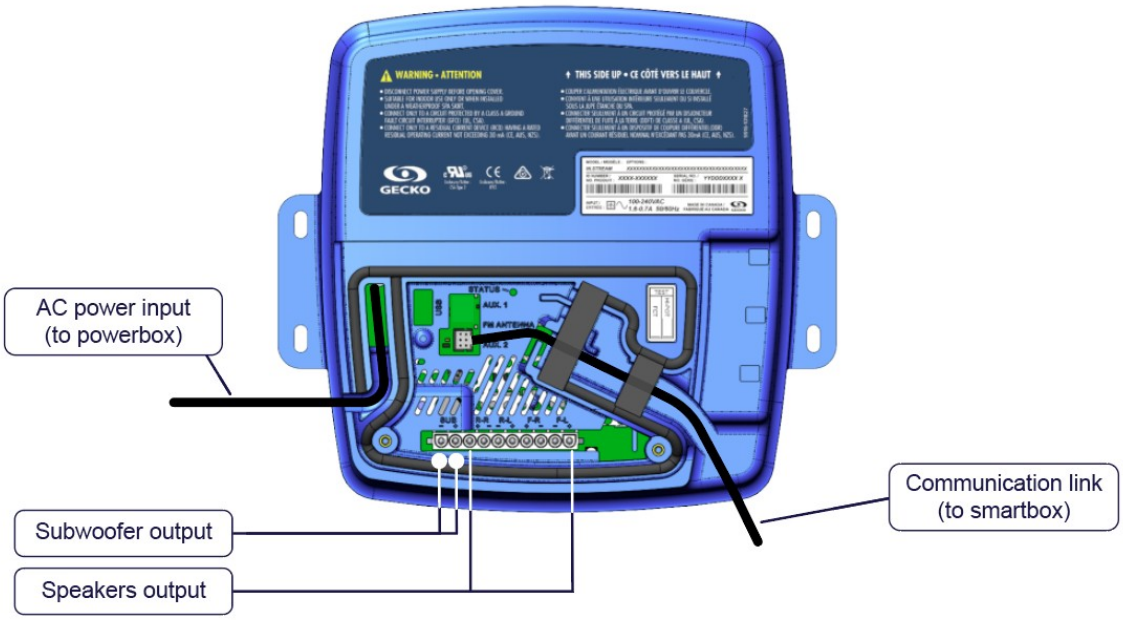
Thanks to its internal universal power supply, Gecko beatbox can be used anywhere in the world. All electronic circuits are housed in an innovatively designed, splashproof plastic enclosure.

Enjoy great sound without the heat. Gecko beatbox uses state-of-the-art class D amplifiers, which are highly power efficient and run much cooler than any comparable spa audio system. The result is reliable, energy-smart performance for your spa.

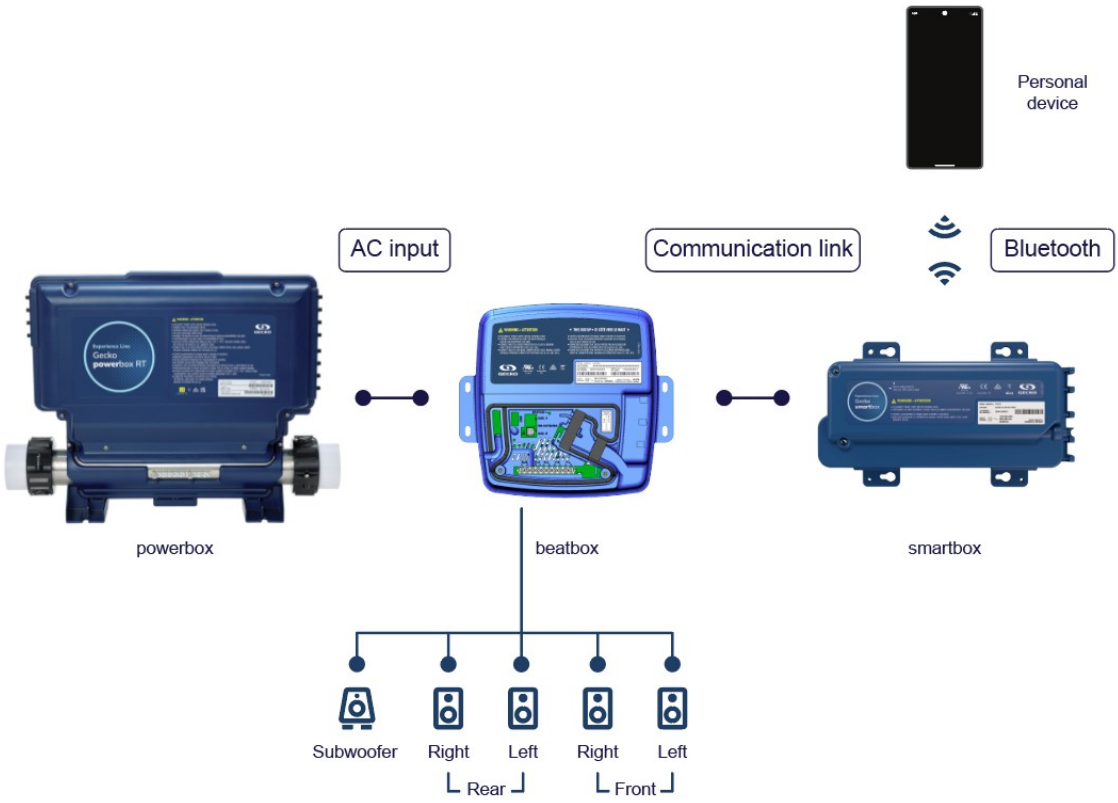
Main characteristics

- Fully splashproof (IPX5)
- Integrated universal power supply
- Powered by the spa pack
- Controlled by the main keypad, a seat control or a mobile device through the Gecko smartbox
- Up to 4 speakers and 1 passive subwoofer

3.1 Gecko beatbox Overview



With a compatible keypad, you will have full control over Gecko beatbox features from inside of your spa.



3.2 Available models

Gecko beatbox

Description	Model	Part Number
Gecko beatbox	AD-SP4-SB1-HS-AMP	2017-2000001

4. Installation

Gecko beatbox positioning

To prevent water from getting inside the device, Gecko beatbox should be installed on a vertical surface as shown below:



Note: Gecko beatbox must be installed at least 4" (100mm) above potential flood level. A clearance of at least 0.75" (19 mm) is required to have a free heat circulation at the back of the unit.

Secure Gecko smartbox onto two wall studs.	**The following materials are recommended:**
Firmly attach upper mounting holes one at a time on each side of the apparatus.	4 # 10 screws of appropriate length with round, truss or pan head.
Repeat the process for lower mounting holes.	4 washers 0.5" OD x .0625” thickness (12 mm OD x 1.5 mm)

Note: Do not use foil insulation in front of the unit.

4.1 Gecko beatbox installation procedure with standard wall mounting bracket

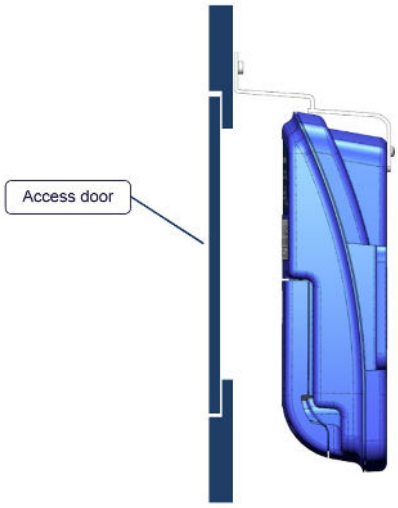




Flat aluminum bracket is designed for back wall mounting. Fasten the mounting bracket to the back of Gecko beatbox with the supplied screws. Part number: Wall mount bracket kit 100 pcs - 9920-101474 (with 200 screws to attach to unit).	Using the bracket, fasten unit to 2" x 4" or 2" x 6" timber wall studs under the spa. We recommend using #10 self threading screws with pan or truss heads and washers 1/2" OD x 1/16" (12 mm OD x 1.5 mm). *Note: Gecko beatbox must be installed at least 4" (100 mm) above potential flood level. If the floor is on ground level, the pack should be raised by at least 4" (100 mm).*

4.2 Gecko beatbox installation procedure with wall mounting Z-bracket





The aluminum Z-bracket is designed for flush-mounting the unit directly on the edge of the access door frame of your spa. Fasten the mounting bracket to the back of Gecko beatbox with the supplied screws. *Part number:* *Z-bracket kit 100 pcs - 9920-101478 (Comes with 200 screws to attach to unit.)*	Depending on your specific needs, you can fasten with two #10-24 screws of your choice.

5. Connections

5.1 Preparation

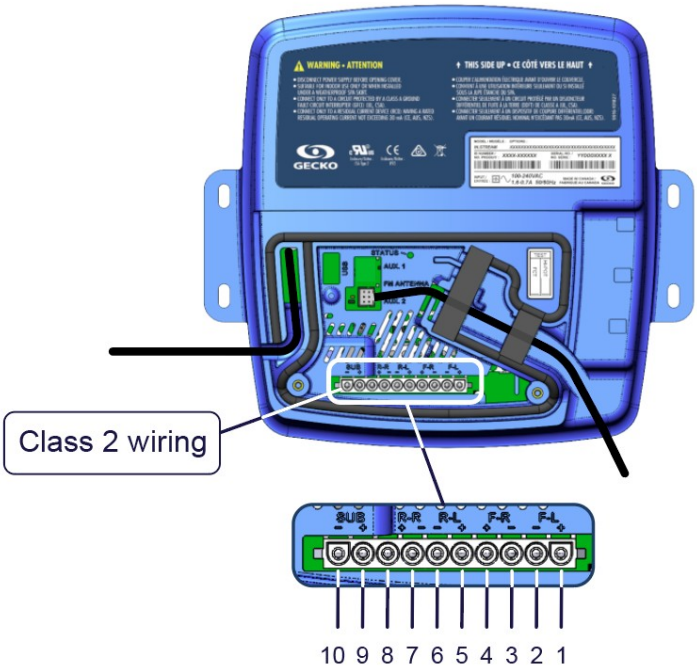
To prevent electric shock hazard, do not connect to main power supply while the cover is removed.





Remove the cover screws from the front of the apparatus with a Phillips screwdriver.	Remove cover and put aside the foam gaskets located in the wire channel

5.2 Connecting the speakers and subwoofer



The speakers and the subwoofer output terminals are located on the 10-pin MATE-N-LOK connector marked "SUB R-R R-L F-R F-L"

⚠ CAUTION

Gecko beatbox does not come with speakers and associated wiring. The interconnection between the audio system and the speakers must be "Class 2 Wiring" and be done by qualified personnel.

Connector pins	Identificaton
1	Front Left speaker (+)
2	Front Left speaker (-)
3	Front Right speaker (-)
4	Front Right speaker (+)
5	Rear Left speaker (+)
6	Rear Left speaker (-)
7	Rear Right speaker (-)
8	Rear Right speaker (+)
9	Subwoofer (+)
10	Subwoofer (-)



To connect the speaker cable or to connect the optional adaptor, insert the 10-pin connector into the appropriate connector. Route the wires through the molded strain relief channel as illustrated.

5.3 Speaker cables

Customer made cable

For customer that want to build their own cable, the following parts can be used.



The required housing connector is a 10-position Universal MATE-N-LOK.
TE CONNECTIVITY: Part number 926302-3

The suggested crimping contacts are for AWG 14-20 TE CONNECTIVITY: Part number 350550-3

5.4 Optional adapter cables

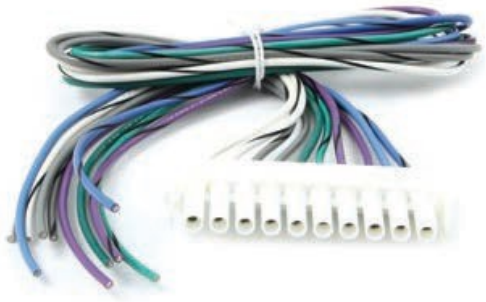
An optional adapter cable allows you to connect the 10-pin connector from Gecko smartbox to the 3x4-pin connector commonly used in spa audio systems. With this adaptor, the subwoofer output is on a separate 1x2-pin connector.



Part number: 9920-401425

3x4-pin

Connector pins	Identificatons	Wire color
1	NC	NC
2	NC	NC
3	Rear Left speaker (+)	Green
4	Rear Left speaker (-)	Green - Black
5	Front Right speaker (+)	Gray
6	Front Right speaker (-)	Gray - Black
7	Rear Right speaker (+)	Purple
8	Rear Right speaker (-)	Purple - Black
9	NC	NC
10	Front Left speaker (+)	White
11	Front Left speaker (-)	White - Black
12	NC	NC



Part number: 9920-401428

10-pin

Connector pins	Identificatons	Wire color
1	Front Left speaker (+)	White
2	Front Left speaker (-)	White - Black
3	Front Right speaker (-)	Gray - Black
4	Front Right speaker (+)	Gray
5	Rear Left speaker (+)	Green
6	Rear Left speaker (-)	Green - Black
7	Rear Right speaker (-)	Purple - Black
8	Rear Right speaker (+)	Purple
9	Subwoofer (+)	Blue
10	Subwoofer (-)	Blue - Black

1x2-pin

Connector pins	Identificatons	Wire color
1	Subwoofer (+)	Blue
2	Subwoofer (-)	Blue - Black



Part number: 9920-401433

10-pin

Connector pins	Identificatons	Wire color
1	Front Left speaker (+)	White
2	Front Left speaker (-)	White - Black
3	Front Right speaker (-)	Gray - Black
4	Front Right speaker (+)	Gray
5	NC	NC
6	NC	NC
7	NC	NC
8	NC	NC
9	Subwoofer (+)	Blue
10	Subwoofer (-)	Blue - Black



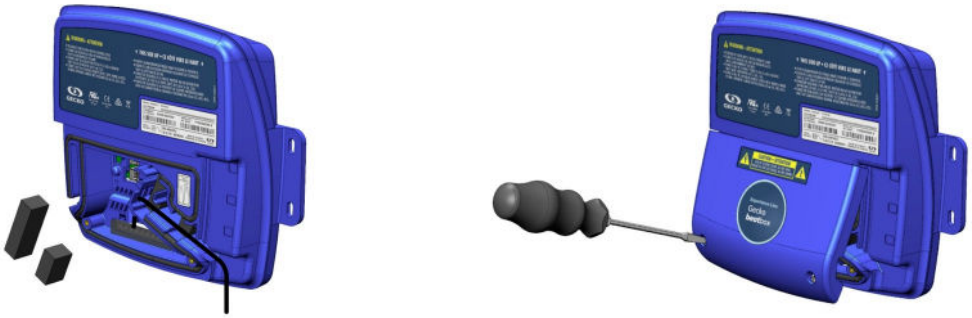
Part number: 9920-401434

10-pin

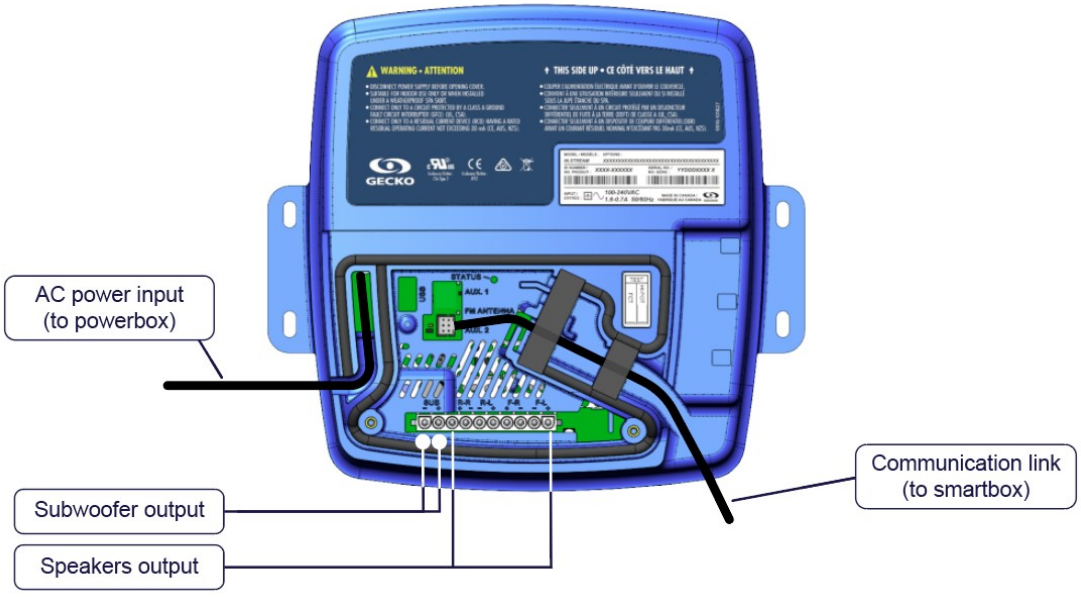
Connector pins	Identificatons	Wire color
1	Front Left speaker (+)	White
2	Front Left speaker (-)	White - Black
3	Front Right speaker (-)	Gray - Black
4	Front Right speaker (+)	Gray
5	NC	NC
6	NC	NC
7	NC	NC
8	NC	NC
9	NC	NC
10	NC	NC

5.5 Completing the cabling

When all the audio cables are connected, put back the foam gaskets and the cover. Tighten the cover screws with the Phillips screwdriver ensuring you do not overtighten them. Recommended tightening torque to apply to the screw: 8 ± 2 lbf*in (0.90 N*m).



Complete the cabling as follow:



Connect the AC power cable of Gecko beatbox to a direct output of the Gecko powerbox.

See the documentation related to your specific pack model for more details on this connection.

Connect the USB cable of Gecko beatbox to a USB connector of the Gecko smartbox. See the documentation related to Gecko smartbox for more details on this connection.

6. Bluetooth overview

Gecko beatbox can play music from any device equipped with Bluetooth wireless technologies, it only needs to be paired with the spa system. **Gecko beatbox** has no wireless communication capacity of its own; it communicates with **Gecko smartbox** over the wired HS bus (USB).

The installation relies on **Gecko smartbox** for Wi-Fi/Bluetooth connectivity and automatic firmware updates, install **Gecko smartbox** with adequate clearance from metal enclosures that could shield its wireless signal.

The system is ready to pair when it is not already connected to another device. To pair your device, make sure that you are close enough to the spa.

Please see the **Gecko smartbox** manual for paring information.

7. Firmware update

The installation relies on **Gecko smartbox** for Wi-Fi/Bluetooth connectivity and automatic firmware updates, install **Gecko smartbox** with adequate clearance from metal enclosures that could shield its wireless signal.

⚠ WARNING

Do not disconnect power during firmware update.

8. Compatible keypads

The Gecko beatbox is compatible with ECO2 Gecko environment.

- Gecko touchpad 550
- Gecko touchpad 935
- Gecko touchpad 1025
- Gecko seatcontrol 7 & 1

10. Specifications

Environmental ratings	
Operating temperature	-4 °F (-20 °C) to 140 °F (60 °C)
Storage temperature	-22 °F (-30 °C) to 185 °F (85 °C)
Humidity	70% max
Level of waterproofing	IPX5

Mechanical	Value
Weight	3.7 lb (1.67 Kg)
Dimensions (W × H × D)	9.81" x 8.88" x 2.58" (249 x 226 x 65 mm)

Line input	
Input voltage:	100-240VAC 50/60 Hz

Audio outputs	
Maximum number of speakers:	4
Maximum number of subwoofer:	1
Audio amplifier type:	Class D
Output power (speaker output):	25 W^{RMS} , 50 W peak
Output power (subwoofer):	50 W^{RMS} , 100 W peak
Output impedance (speaker):	4-8 Ohms
Output impedance (subwoofer):	2-4 Ohms
Harmonic distortion (speaker):	0.015% at 1 W (1 KHz)
Harmonic distortion (subwoofer):	0.015% at 1 W (100 Hz)
Frequency response (speaker):	5 Hz to 20 KHz
Frequency response (subwoofer):	10 Hz to 200 Hz

Regulatory Certifications

Region	Standard(s)
Canada	CSA C22.2 No. 62368-1-14, 2nd Ed. 2014
United States	UL 62368-1, 2nd Ed. 2014
Europe	EN IEC 62368-1:2020 + A11:2020
Australia / New Zealand	AS/NZS 62368.1:2022
EMI / EMC	EN IEC 55014-1:2021 EN IEC 55014-2:2021 EN IEC 61000-3-2:2019 + A1:2021+ A2:2024 EN 61000-3-3:2013 + A1: 2019 + A2:2021



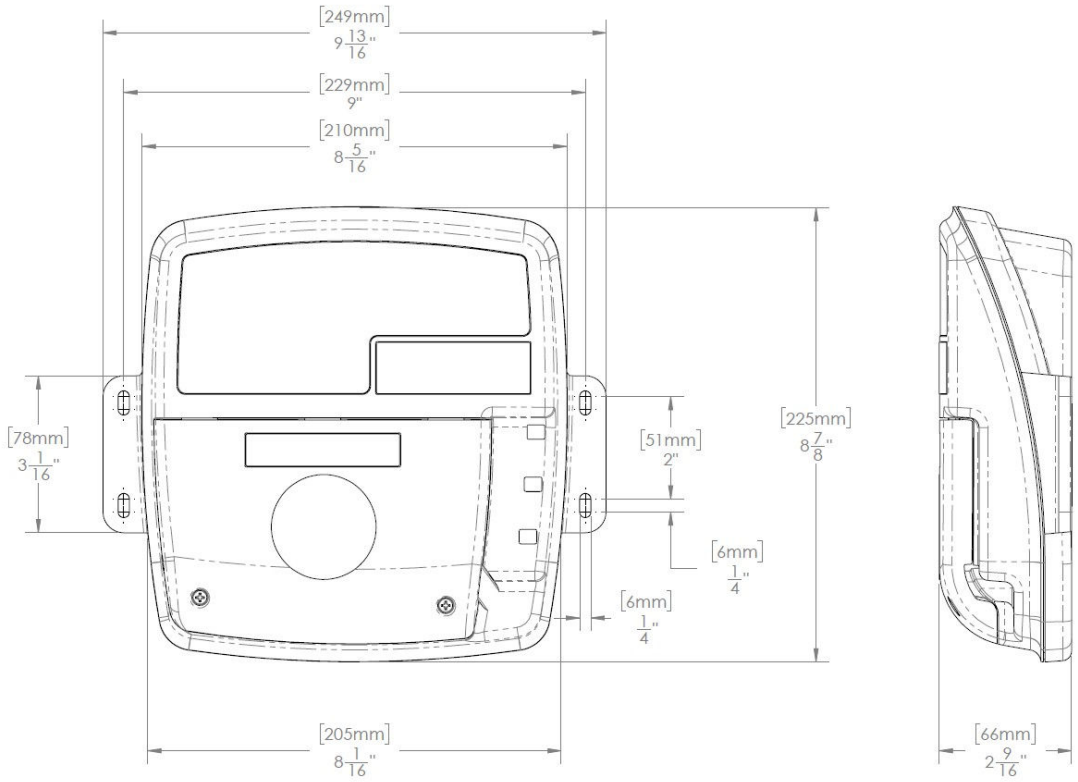




11. Appendices

Appendix A– Mechanical Drawing

The following mechanical drawings provide the overall dimensions and mounting details of **Gecko beatbox**.



Appendix B – CAD Drawings

3D CAD models are available to validate the fit of **Gecko beatbox** within the spa design. The following files are available:

- **Gecko beatbox**

Appendix C – Revision History

This appendix records the revision history of this Technical Integration Guide.

Part number	Version	Date	Details	Author
9919-101ZZZ	A	June 2026	Initial Technical Integration Guide, compiled from the R&D Product Integration Guide (Gecko smartbox, V1b0, May 2025).	Nancy Gagnon
		September 2026	Review V1b1	Mathieu R.