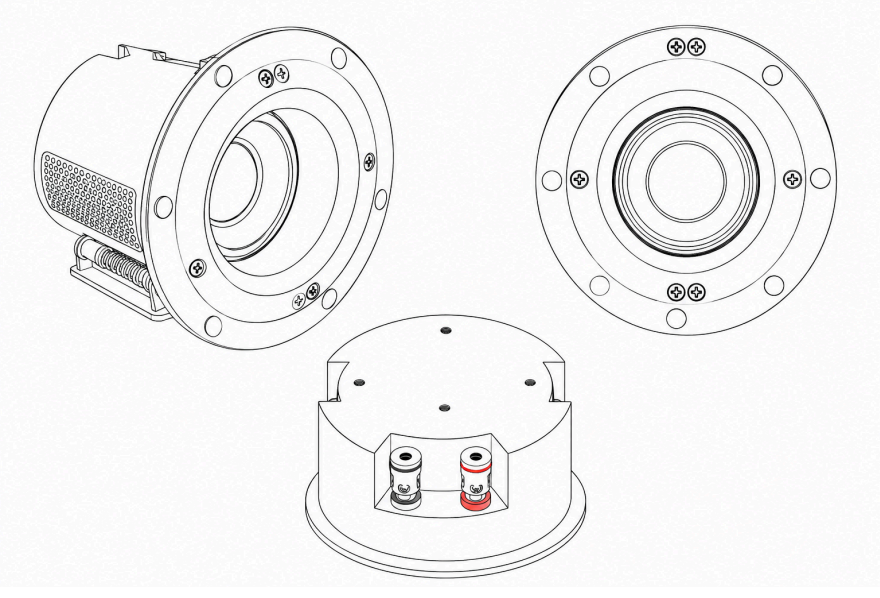
KamoGa

Starlet Sol

In-Ceiling Speaker



Thank you for choosing the KamoGa Starlet Sol. This user manual covers the safety information, installation and wiring instructions, and technical specifications of the Starlet Sol in-ceiling speaker. Please read it carefully before installing the product, observe the safety precautions, and keep it for future reference.

User Manual

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Safety Information

Thank you for purchasing this ceiling speaker system. Please read the following safety information carefully before using this product. It is intended to draw your attention to certain operations and precautions. Failure to follow it correctly may result in injury or safety hazards.

Warning:

- This product is intended for indoor use and is not suitable for outdoor environments;
- Do not place open flame sources (such as lit candles) on or near this product;
- When using this product, comply with local and industry regulations. The installer is responsible for ensuring that the speaker installation and the system installation comply with applicable building codes or regulations;
- Unsafe installation or suspension of heavy objects may cause serious personal injury and equipment damage. The installer is responsible for assessing the reliability of the installation method used;
- Do not install this product near any heat source, such as radiators, heat regulators, stoves, or other equipment that produces heat (including amplifiers);
- This product contains small parts that may pose a choking hazard and is not suitable for children under 3 years of age;
- This product contains magnetic materials. If you suspect that it may affect an implanted medical device, consult your doctor or the device manufacturer in advance;
- Do not modify the speaker or its accessories. Unauthorized modifications may adversely affect the safety, compliance and performance of the system;
- The Company accepts no liability arising from improper installation of this product, nor for personal injury or product damage caused by improper installation or by the speaker falling. Cables connected to this product and their routing must comply with local building and safety regulations;
- If water enters the product by accident or any other abnormal condition occurs during use, immediately disconnect the cables connected to the unit and contact your local dealer for advice on how to proceed. Do not disassemble this product yourself; doing so may damage it.

Note: The Company reserves the right to change the design and specifications in the course of product improvement, without further notice.

Warranty Card **QC Passed**

Serial No.:

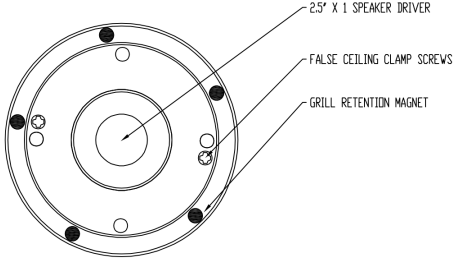
Product: _____ Model: _____

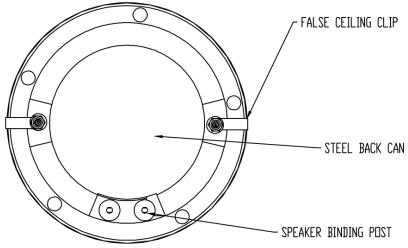
Sold on: _____ Y ____ M ____ D Invoice no.: _____

Customer: _____ Tel.: _____

Address (ZIP): _____

Function Description





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Front

- 2" speaker driver, tilted inside a machined circular throat to aim the voice at the listening area.
- False-ceiling clamp screws: tightening them swings the ceiling clips out to grip the ceiling board.
- Grille retention magnets hold the perforated grille in place.

Rear

- False-ceiling clips (×3) lock the speaker into the ceiling.
- Steel back can encloses the driver.
- Speaker binding posts: red (+) and black (−).

Important: Starlet Sol is a 4 Ω speaker. Connect it only to the KamoGa main module or another amplifier output rated for 4 Ω loads. Do not connect it to a 70 V / 100 V line.

Ceiling Speaker Cable Specifications

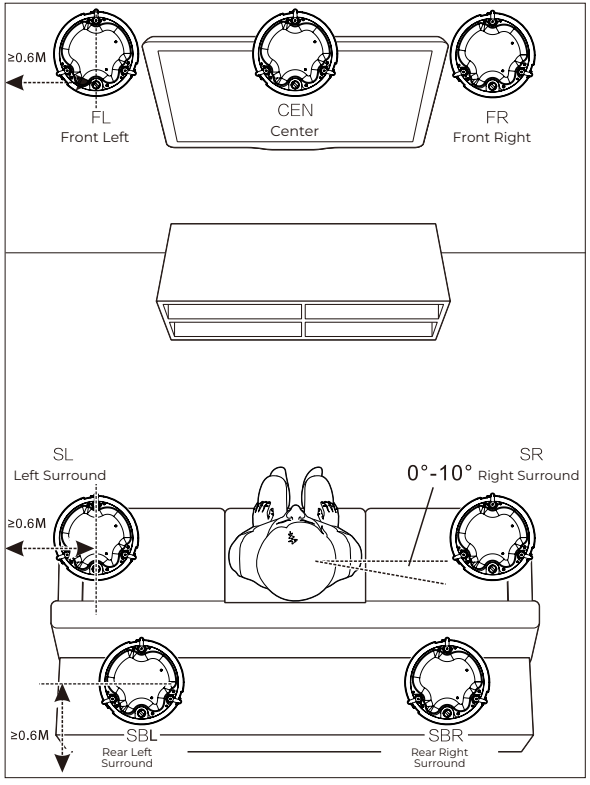
Cable gauge	Recommended length
18AWG (0.82 mm²)	≤ 6 m
16AWG (1.3 mm²)	6 – 9 m
14AWG (2.1 mm²)	9 – 15 m
12AWG (3.3 mm²)	15 – 30 m
10AWG (5.26 mm²)	≥ 30 m

1. Before laying the ceiling speaker cables, select high-quality dedicated speaker cable of the gauge listed in the table above according to the cable length.
2. The selected cables and cable routing method must comply with local building, fire protection and other safety regulations.
3. Leave 600–800 mm of cable at each ceiling speaker installation point so that the installer can make the connections later.
4. Strip 10 mm of insulation from both ends of the cable.

Ceiling Speaker Placement

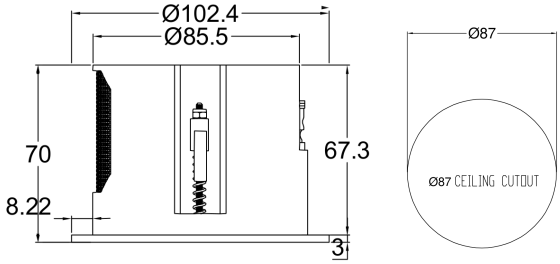
For the best listening experience, reserve the ceiling speaker positions according to the locations shown in the figure and the recommended minimum distances:

1. In a 7.1-channel system, the left surround (SL) and right surround (SR) speakers should be placed on either side of the main listening area, or up to 10 degrees behind it.
2. Keep the ceiling speakers at least 0.6 m away from side walls and the rear wall.
3. Aim the speaker's horn angle toward the main listening area.



Precautions for Installing the Ceiling Speaker

1. Product outer dimensions and cut-out size



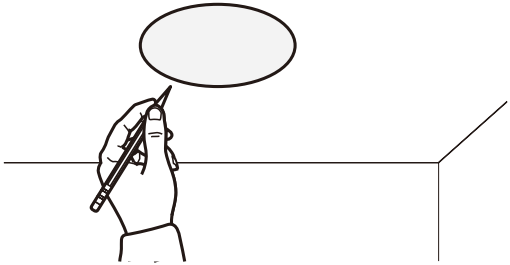
Cut-out size: Ø87 mm. Product dimensions: Ø104 × 74 mm (grille diameter Ø103 mm).

2. Before installing the ceiling speaker, check the following:

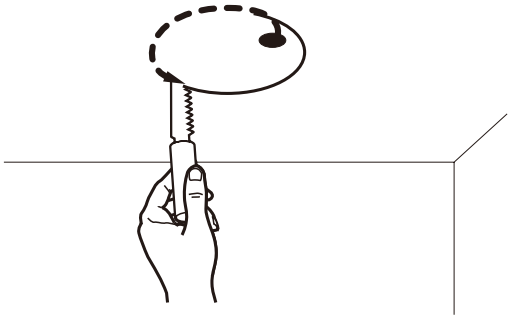
- Check the ceiling material. Gypsum board, composite board and solid wood board are suitable for cutting a hole and fitting the speaker with its ceiling clips.
- Make sure the ceiling board is strong enough to support the speaker (1 kg).
- Make sure there is at least 80 mm of clear space above the ceiling for the speaker body.
- Make sure there are no joists, cable trays or pipes directly above the cut-out, so the clips can open fully and lock in place.
- Keep the speakers at least 0.6 m away from side walls and the rear wall.

Cutting the Mounting Hole

1. If the precautions above are satisfied, draw the outline of a hole 87 mm in diameter at the speaker installation position.



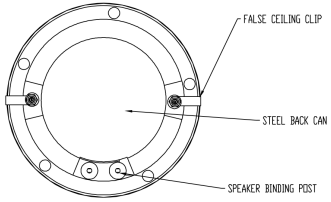
2. Cut the hole along the outline.



Note: cutting tools are not supplied. Remove the cut-out piece and clear away any rough material around the hole.

Connecting the Speaker Cables

1. Pull out the speaker cable left in place beforehand and check that it is intact.
2. Switch off all audio equipment before connecting the speaker.
3. Connect the cable from the amplifier channel's positive (+) terminal to the red (+) binding post, and the negative (−) terminal to the black (−) binding post. Tighten the posts firmly.
4. Make sure the polarity matches at both ends; otherwise sound localisation will be poor and the sound pressure level reduced.



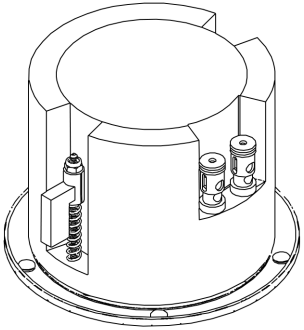
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Tip:
Make sure the bare wires do not touch each other or any metal parts around the speaker, to avoid damage or noise caused by short circuits.

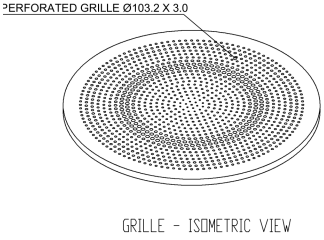
Mounting the Speaker and Grille

5. Turn the three false-ceiling clamp screws anticlockwise so the clips sit flat against the speaker body.
6. Insert the speaker vertically into the cut-out and rotate it so the tilted driver faces the listening area.
7. Using a Phillips screwdriver, tighten the clamp screws clockwise in turn. The clips swing out and pull the speaker up against the ceiling. When you feel resistance and the flange sits flush with the ceiling, the speaker is secured.
8. Place the perforated grille over the front of the speaker; it is held in place by the grille retention magnets.

Tip:
If using an electric screwdriver, use a low-torque setting. Do not overtighten the screws, or the clips may lose their holding force or damage the ceiling board. Where local regulations require it, also secure the speaker with a safety wire to a ceiling joint.

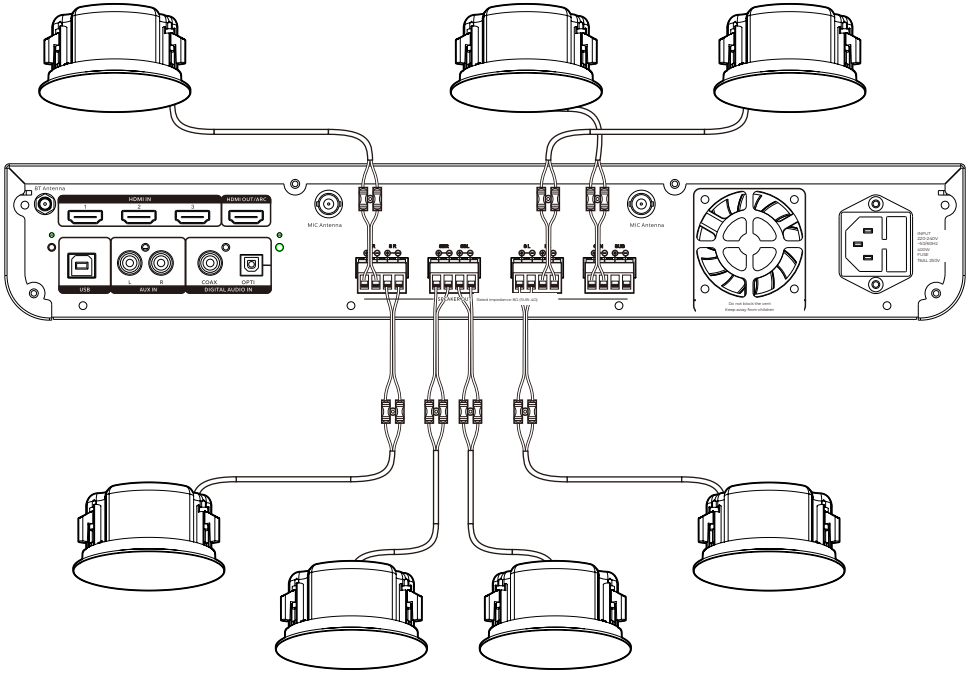


Speaker with false-ceiling clips



Magnetic perforated grille

9. Wire and secure the other Starlet Sol speakers to the KamoGa main module in the same way, as shown below.



KamoGa 12-Month Warranty

Your KamoGa Starlet Sol is covered by a 12-month warranty from the date of purchase, provided by Thunderstone Technology (S) Pte Ltd, Singapore.

- Within 12 months of purchase, if a performance fault occurs and is confirmed by our service centre, the product will be repaired free of charge.
- Please keep your proof of purchase and the warranty card stamped by your dealer; they are required for warranty service.
- This warranty card must not be altered; otherwise it will be treated as invalid.
- We recommend keeping the original packaging for at least 30 days to protect the product if it needs to be returned for service.

Service & Support

For warranty claims, technical support or installation advice, please contact your KamoGa dealer or:

Thunderstone Technology (S) Pte Ltd

61 Ubi Road 1, Oxley Bizhub 1, #01-15/16, Singapore 408727

+65 6702 6577 · +65 8101 1688 · sales@thunderstonektv.com

www.thunderstonektv.com

Not Covered by Warranty

- Products outside the 12-month warranty period.
- Faults caused by unauthorised repair, misuse, collision, negligence, abuse, liquid ingress, accident, alteration, disassembly or the use of non-original accessories.
- Products whose labels, serial numbers or anti-counterfeiting marks have been removed or altered.
- Damage caused by installation, use, maintenance or storage that does not follow this manual.
- Damage caused by force majeure.
- Products whose model does not match the model on the warranty card, or where the card has been altered.

Basic Troubleshooting

Common Faults and Remedies

This unit is simple and easy to operate, but faults can occasionally occur because of improper use. If you encounter a fault during use, first refer to the table below to resolve it; if that does not help, please consult your local distributor or an authorized service point. Do not open the unit yourself! Doing so will void the warranty!

If the fault is	Please check whether
Speaker produces no sound	1. Check whether the cables connecting the ceiling speaker and the amplifier have come off or are loose. 2. Check the settings on your amplifier; see the amplifier user guide for setup instructions. 3. Check whether the audio source has no output. 4. Check whether the cable between the amplifier and the audio source device is damaged, or whether the cables connecting the two are disconnected or loose.
Only one speaker produces sound	1. Check that the cables connecting the other ceiling speakers and the amplifier have not come off or become loose. 2. Disconnect the cable of the speaker that is producing sound from the amplifier, and connect the other speakers to the working amplifier output terminal one by one. If the other speakers sound OK, your amplifier needs servicing; please contact the amplifier service provider. 3. Disconnect the cable of the speaker that is producing sound from the amplifier, and connect the other speakers to the working amplifier output terminal one by one. If none of the other speakers produce sound, your speakers need servicing; please contact the speaker service provider. 4. Check whether the audio source is mono. 5. If these diagnostic methods do not solve the problem, replace the speaker wiring and reinstall it.
Speaker emits noise or abnormal sound	1. Make sure the selected cables meet the installation specifications, and that the cable routing complies with local building, fire protection and other safety regulations. 2. Make sure the speaker and amplifier wiring is good and secure, and that the wire harness does not touch other nearby components. 3. Rule out noise in the audio source. 4. Make sure the cable between the amplifier and the audio source device is of good quality and not loose.

Technical Specifications

Model	KamoGa Starlet Sol
Type	In-ceiling speaker, tilted driver
Driver unit	1 × 2"
Frequency response	300 Hz – 20 kHz
Sensitivity (SPL / 1 W / 1 m)	88 dB ± 2 dB
Rated / peak power	20 W / 40 W
Nominal impedance	4 Ω
Dispersion	45°
Product dimensions	Ø104 × 74 mm
Cut-out size	Ø87 mm
Net weight	995 g / pc
Housing	Aluminium body, steel back can
Grille	Perforated, magnetic, white (paintable)
Mounting	Ceiling, false-ceiling clips
Accessories	User manual × 1

Environmental Information

This product must not be disposed of as household waste. Please take it to an appropriate collection point for the recycling of electrical and electronic equipment.

Proper disposal and recycling help protect the natural environment and human health. For more information, contact your local authority or your KamoGa dealer.

Thunderstone Technology reserves the right to change the design and specifications in the course of product improvement, without further notice.

Systems distributed by Thunderstone Technology (S) Pte Ltd · 61 Ubi Road 1 #01-15/16 Singapore 408727 · +65 6702 6577 · www.thunderstonektv.com

KamoGa

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