

Dragon-KX2

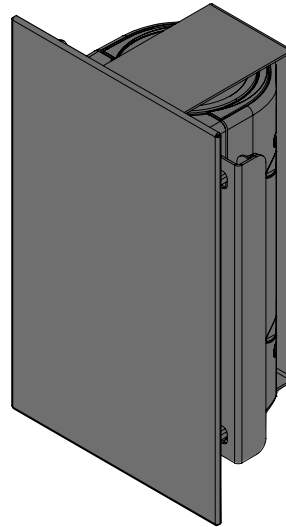
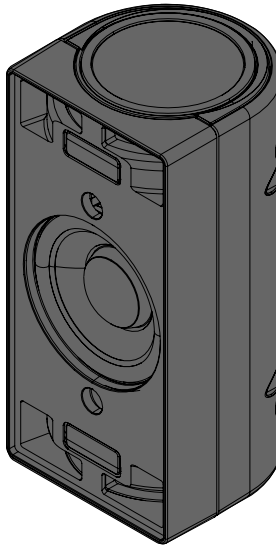
Ultra-compact architectural point source speaker with Spixel Technology

PRELIMINARY

QUICK GUIDE



Preliminary



K-ARRAY
Unique Audio Solutions

Preliminary

IMPORTANT SAFETY INSTRUCTIONS



CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN



ATTENTION : RISQUE DE CHOC ELECTRIQUE NE PAS OUVRIR

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

- 

This symbol alerts the user to the presence of recommendations about the product's use and maintenance.
- 

The lightning flash with arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of uninsulated, dangerous voltage within the product enclosure that may be of magnitude to constitute a risk of electrical shock.
- 

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

Operator's manual; operating instructions
This symbol identifies the operator's manual that relates to the operating instructions and indicates that the operating instructions should be considered when operating the device or control close to where the symbol is placed.
- 

For indoor use only
This electrical equipment is designed primarily for indoor use.
- 

WEEE
Please dispose of this product at the end of its operational lifetime by bringing it to your local collection point or recycling center for such equipment.
- 

This device complies with Restriction of Hazardous Substances Directive.



WARNING
Failure to follow these safety instructions could result in fire, shock or other injury or damage to the device or other property.

General heed and warnings

- Read these instructions.
- Keep these instructions.
- Heed all warnings.
- Follow all instructions.
- Do not use this apparatus near water.
- Clean only with dry cloth.
- Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat
- 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 electrician for replacement of the obsolete outlet.
- Only use attachments/accessories specified by the manufacturer.
- 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.
- Clean the product only with a soft and dry fabric. Never use liquid cleaning products, as this may damage the products cosmetic surfaces.
- 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.
- Unplug this apparatus during lightning storms or when unused for long periods of time.
- Avoid placing the product in a location under direct sunlight or near any appliance that generates UV (Ultra Violet) light, as this may change the product surface finishing and cause a change in color.
- 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.
- CAUTION: These servicing 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 operating instructions unless you are qualified to do so.
- WARNING: Only use attachments/accessories specified or provided by the manufacturer (such as the exclusive supply adapter, battery, etc.).
- Before turning the power on or off for all devices, set all volume levels to minimum.
- Use only speaker cables for connecting speakers to the speaker terminals.

This apparatus is intended for professional use.

Installation and commissioning may only be carried out by qualified and authorized personnel.

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Quick Guide

Be sure to observe the amplifier's rated load impedance particularly when connecting speakers in parallel. Connecting an impedance load outside the amplifier's rated range can damage the apparatus.

- K-array cannot be held responsible for damage caused by improper use of the loudspeakers.
- K-array will not shoulder any responsibilities for products modified without prior authorization.

CE Statement

K-array declares that this device is in compliance with applicable CE standards and regulations. Before putting the device into operation, please observe the respective country-specific regulations!

Trademark Notice

All trademarks are the property of their respective owners.

Preliminary

Index

Key Features	7
Applications	7
Product Overview	8
Upacking	8
Spixel™ Technology by Powersoft	8
Getting Started	9
Quick Installation & Setup Guide	9
Loudspeaker positioning	10
Subwoofer integration	10
Connections	11
Rear Panel	11
Wiring	11
Impedance and Connections	12
Amplifier Channel Matching	12
Service	13
Cleaning	13
Mechanical Drawings	14
Technical Specifications	15

Quick Guide

Preliminary

Thank you for choosing this K-array products!

To ensure proper operation, please carefully read the owner's manuals and safety instruction before using the products.
After reading this manual, be sure to keep it for future reference.

If you have any questions about your new device please contact K-array customer service at support@k-array.com or contact the official K-array distributor in your country.

This Quick Guide provides essential information for the safe installation, operation and maintenance of Dragon-KX2. Additional technical information, advanced system configurations and application-specific guidelines will be included in the complete User Guide and related documentation.

The new Dragon-KX2 passive 2.5" aluminum speaker for architectural installation, integrates innovative Spixel technology by Powersoft, based on an advanced high motor strength transducer architecture. By combining a lightweight moving assembly with a powerful magnetic system, the transducer achieves exceptional control, efficiency and low-frequency accuracy from an extremely compact format.

The result is a remarkably powerful point source loudspeaker capable of delivering extended mid-low frequency response, high intelligibility and impressive SPL performance while maintaining a compact and discreet enclosure. The wide and consistent coverage ensures excellent speech and music reproduction across a broad listening area, making Dragon-KX2 suitable for a wide range of professional audio applications. Designed for scalable array configurations and integration with Electronic Beam Steering, Dragon-KX2 maintains precise directivity and consistent coverage even across long distances.

Key Features

- Point source loudspeaker
- Powersoft Spixel technology with:
 - 2.5" neodymium magnet transducer
 - 2 × 2.5" passive radiators
- 100 W of rated power
- Presets:
 - Full Range preset: 110 Hz – 20 kHz (-6 dB)
 - Natural preset: 195 Hz – 20 kHz (-6 dB)
- Max SPL:
 - Maximum SPL: 110 dB peak (Full Range)
 - Maximum SPL: 119 dB peak (Natural)
- 100° horizontal × 100° vertical coverage
- Electronic Beam Steering compatible
- Suitable for scalable array configurations with dedicated joining and flying hardware
- 2-pin Euroblock connector
- Available in 4 Ω and high-impedance versions
- Available in on-wall Dragon-KX2 and in-wall recessed version Dragon-KX2R for architectural installation.
- Weight: 0.92 kg

Applications

- Main system LR configuration in:
Boardrooms and meeting spaces

General applications:

- Hospitality venues
- Premium residential environments
- Houses of worship
- Museums and exhibition spaces
- Retail environments
- Electronic Beam Steering systems and array configurations*

Dragon-KX2 supports uniform sound distribution across near and far-field listening areas while maintaining high speech intelligibility and a discreet visual footprint.

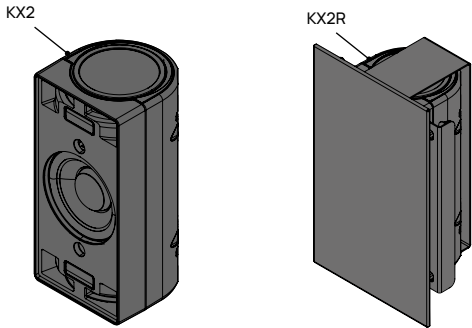
* The configurations described above require dedicated Electronic Beam Steering (EBS) processing via K-framework 3 or other compatible software, and dedicated joining and flying hardware. Accessories are sold separately.

Product Overview

Unpacking

Each K-array loudspeaker is built to the highest standard and thoroughly inspected before leaving the factory. Upon arrival, carefully inspect the shipping carton, then examine and test your new amplifier. If you find any damage, immediately notify the shipping company. Check that the following parts are supplied with the product.

Dragon-KX2 features a sealed aluminum enclosure with IP65 protection, designed for architectural integration in indoor and outdoor environments. The product is available in multiple finishes and supports both on-wall and recessed installation with the Dragon-KX2R model



Preliminary

Spixel® Technology by Powersoft

Dragon-KX2 incorporates a Spixel transducer based on a high motor force architecture. By combining a powerful magnetic system with a lightweight moving assembly, the transducer achieves a high force factor (BL) relative to its size.

This design improves control of the moving assembly and allows the transducer to respond rapidly to signal variations, contributing to enhanced transient response, speech intelligibility and accurate reproduction of music and speech content.

The Dragon-KX2 integrates a 2.5" active transducer coupled with two 2.5" passive radiators. The passive radiators extend low-frequency reproduction without increasing enclosure size, allowing the system to achieve a wider operating bandwidth while maintaining a compact form factor.

The combination of high motor force, low moving mass and passive radiator loading enables Dragon-KX2 to deliver wide bandwidth reproduction and high acoustic performance from an ultra-compact enclosure.

Preliminary

Getting Started

Quick Installation & Setup Guide

Follow these instructions to properly install and configure Dragon-KX2:

1. Unpack the Dragon-KX2 and any purchased accessories required for your intended configuration. Verify that all components are intact and that the mounting surface or structure can safely support the loudspeaker and all associated hardware.
2. Choose the appropriate installation setup for your application:
 - **On-Wall Installation:**

Install the loudspeaker using the dedicated mounting accessories and compatible k-array accessories like the [K-WALL2LMINI](#)

Verify that the wall structure can safely support the loudspeaker and complies with local safety regulations. In-Wall Installation

- **In-wall recessed installation:**

Install the loudspeaker using the Dragon-KX2R recessed version, featuring an integrated mounting frame for in-wall installation.

Verify that the installation location provides adequate structural support and clearance.

3. Distributed Audio Systems.

For distributed audio applications and standalone installations, the Full Range preset is recommended to provide extended low-frequency performance without requiring subwoofers.

4. Speech Reinforcement and L-R Systems

For speech reinforcement applications and left-right systems used in combination with subwoofers, the Natural preset is recommended to maximize acoustic output and system integration.

5. Vertical Array Configurations.

Build multi-unit vertical arrays using the dedicated joining hardware [K-JOINTKX2](#)

Fly the array using the dedicated flying hardware [K-FLYKX2](#)

- Ensure rigging safety, load capacity and compliance with local regulations.
6. **Connect the loudspeaker to the amplifier.**
Wire the loudspeaker using the supplied 2-pin Euroblock connector. Before powering the system, verify correct polarity, system impedance and amplifier compatibility.
 7. **Load the appropriate Dragon-KX2 preset.**
 - **Full Range Preset** recommended for:
 - Distributed audio systems single elements, point source
 - High voltage line
 - Standalone loudspeaker installations
 - Applications without subwoofers
 - Background music and speech applications requiring extended low-frequency response
 - **Natural Preset** recommended for:
 - Speech reinforcement systems line array configurations
 - L-R systems with subwoofers
 - Vertical array configurations
 - Electronic Beam Steering applications
 8. **Power on the system and verify correct operation.**
 - Confirm correct polarity, impedance and signal distribution across all connected loudspeakers.
 - Complete the setup with system alignment and tuning.
 - Adjust level, equalization, delay and coverage parameters as required by the application and acoustic environment.

Note

- Electronic Beam Steering applications require dedicated EBS processing via K-framework 3 or other compatible software.
- In-wall installations required dedicated wall-mount accessories sold separately.
- Vertical array configurations require dedicated joining and flying hardware. Accessories are sold separately.

Loudspeaker positioning

Position Dragon-KX2 to provide uniform coverage of the intended listening area while maintaining a clear acoustic path between the loudspeaker and the audience.

The 100° × 100° nominal coverage allows a single loudspeaker to cover a wide listening area, making Dragon-KX2 particularly suitable for near-field applications, distributed audio systems and architectural installations.

When used in left-right (L-R) configurations with subwoofers, Dragon-KX2 loudspeakers should be positioned symmetrically on either side of the subwoofer or listening area to achieve balanced coverage and stereo imaging.

For applications requiring increased control of vertical coverage, multiple Dragon-KX2 loudspeakers can be assembled in vertical arrays and configured through [Electronic Beam Steering \(EBS\)](#). In these cases, loudspeaker positioning, array geometry and aiming should be defined during the system design phase using K-framework3 or other compatible software.

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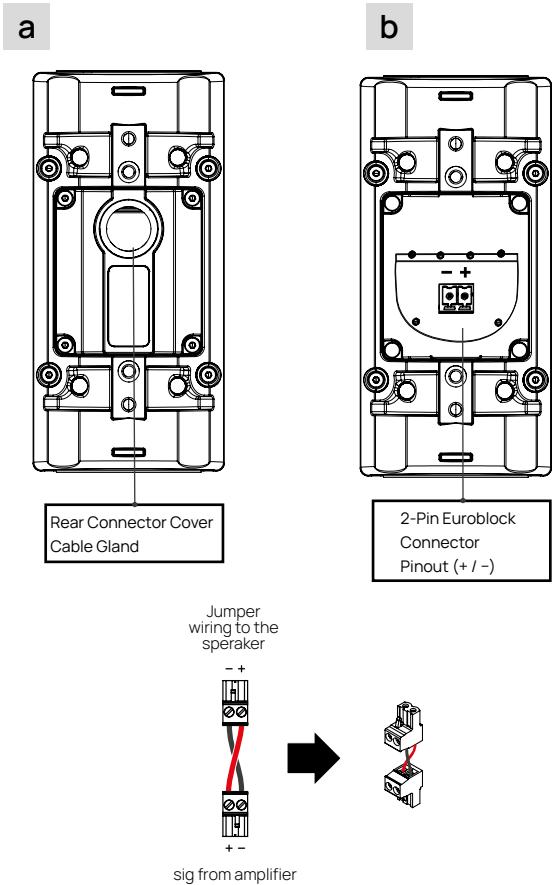
Subwoofer integration

Dragon-KX2 is compatible with Keystone-KST110 subwoofers through the dedicated Natural preset, enabling the creation of compact full-range audio systems. Detailed amplifier recommendations and system configuration guidelines will be provided in future revisions of this manual.

Connections

Rear Panel

Dragon-KX2 and Dragon-KX2R are equipped with a 2-pin Euroblock connector located inside the enclosure and accessible from the rear panel. To perform the wiring, remove the rear protective cover, connect the speaker cable to the Euroblock connector and reinstall the cover before operating the loudspeaker.

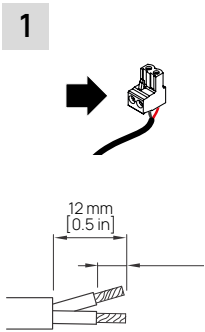


Preliminary

Wiring

For easy connectivity and link, the Dragon-KX2 point source loudspeaker features Euroblock 2 pin inlets, namely for Phoenix 2,5/ 2-ST-5,08 flying plug.

- A. Connect the speaker cable to the terminals Euroblock 2,5/ 2-ST-5,08 connector,
- B. Ensure correct polarity:
 - + (positive)
 - - (negative)
- C. Set the proper speaker cable length for connecting the loudspeaker to the amplifier;
- D. Plug the speaker cable to the signal connector on one loudspeaker end;
- E. Set the proper speaker cable length for connecting the loudspeaker to the amplifier;
- F. Set the loudspeaker load impedance with respect to the amplifier in use;
- G. Connect the speaker to the amplifier (switch the amplifier on only at the end).



Impedance and Connections

- Nominal impedance KX2: 4 Ω
 - Standard connection: single amplifier channel required
- Multiple speakers in parallel:
 - Total impedance decreases as more loudspeakers are added
 - Ensure the amplifier can handle the resulting load safely
 - Amplifier selection: refer to the [Amplifier Matching Table](#) on the K-array website.
- High-Impedance Version
 - Available for 100 V distributed audio systems
 - Multiple loudspeakers can be connected on the same speaker line
 - Simplifies system wiring in large-scale installations
 - Suitable for distributed audio applications requiring long cable runs and multiple loudspeakers
 - Verify total line power and amplifier capacity before installation



Always check the loudspeaker impedance before connecting the amplifier.

Before driving the loudspeakers ensure to load the proper loudspeaker factory preset on Kommander-KA amplifier

Amplifier Channel Matching

When connecting multiple loudspeakers in parallel, the total system impedance decreases as more units are added. Always ensure that the amplifier can safely drive the resulting load according to its specifications.

For proper amplifier selection based on the loudspeaker model, please refer to the Amplifier Matching Table available on the K-array website.

Before connecting the loudspeaker cable to the amplifier:

- ensure the loudspeaker impedance matches the amplifier channel rated load impedance, especially when connecting multiple loudspeakers in parallel;
- load the dedicated loudspeaker factory preset on the amplifier DSP.



Dragon-KX2 amplifier compatibility information may not yet be available in the Amplifier Matching Table at the time of publication. Please refer to the latest product documentation or contact K-array technical support for assistance.

Service

To obtain service:

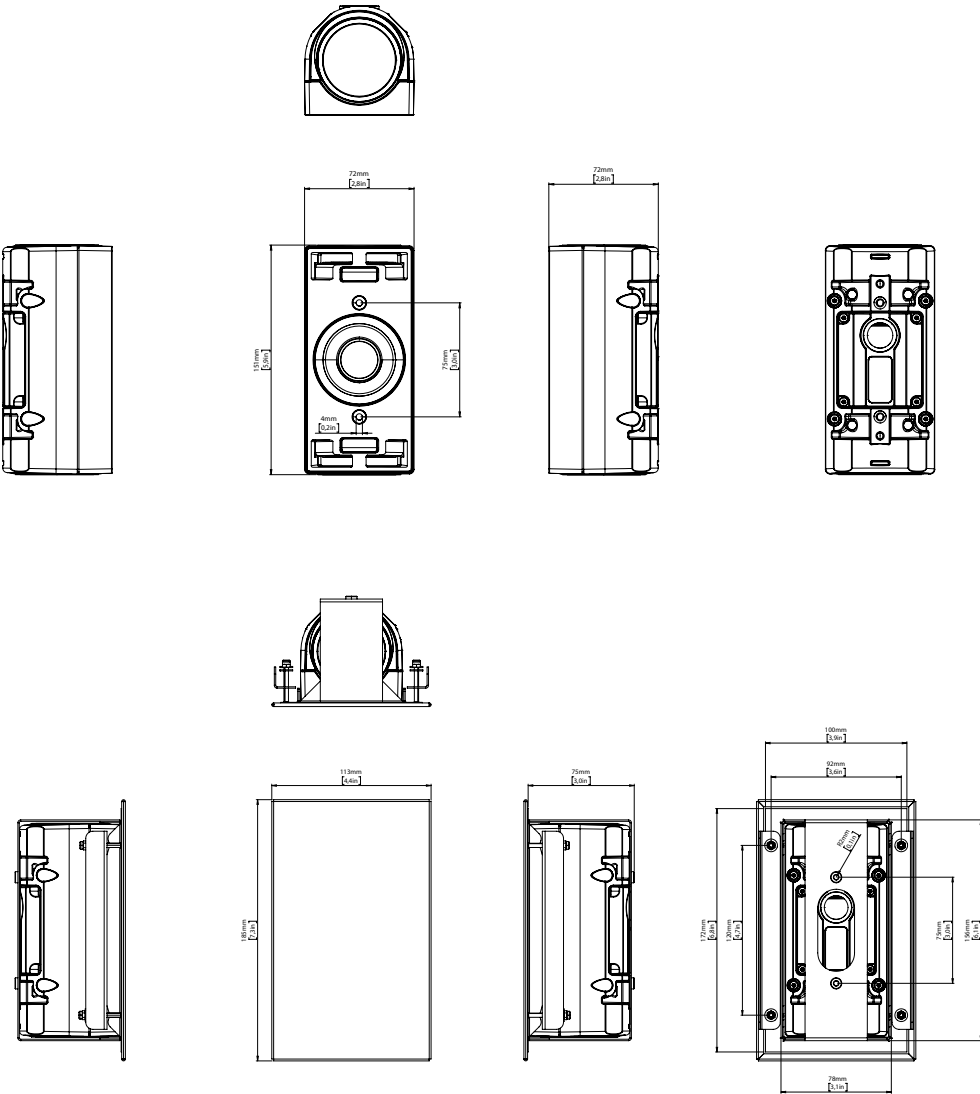
1. Please have the serial number(s) of the unit(s) available for reference.
2. Contact the official K-array distributor in your country: find the Distributors and Dealers list on K-array website. Please describe the problem clearly and completely to the Customer Service.
3. You will be contacted back for on line servicing.
4. If the problem cannot be resolved over the phone, you may be required to send the unit in for service. In this instance, you will be provided with an RA (Return Authorization) number which should be included on all shipping documents and correspondence regarding the repair. Shipping charges are the responsibility of the purchaser.

Any attempt to modify or replace components of the device will invalidate your warranty. Service must be performed by an authorized K-array service center.

Cleaning

Use only a soft, dry cloth to clean the housing. Do not use any solvents, chemicals, or cleaning solutions containing alcohol, ammonia, or abrasives. Do not use any sprays near the product or allow liquids to spill into any openings.

Mechanical Drawings



Technical Specifications

Table with 2 columns: Specification Name, Value. Rows include Type (Point source), Transducers (2.5" neodymium magnet woofer + 2x 2.5" passive radiators), Frequency Response (195 Hz - 20 kHz), Max SPL (110 dB), Rated Power (100 W), Nominal Impedance (4 Ohm), Coverage (V. 100° - H. 100°), Connectors (2-pin Euroblock connector).

Table with 2 columns: Specification Name, Value. Rows include Material (Aluminum), Colors (Black, White, Custom RAL), IP Rating (IP65), Dimensions (Dragon-KX2: 72 x 151 x 72 mm, Dragon-KX2R: 112.5 x 185 x 79 mm), Weight (0,920 Kg).

1 Spixel technology (Powersoft) transducer architecture by with high motor strenght
2 With dedicated Natural and Full-range preset.
3 Maximum SPL is calculated using a signal with crest factor 4 (12dB) measured at 8 m then scaled at 1 m.
4 In case of permanent, long lasting outdoor installation, we recommend to further protect the speaker. Contact K-array directly to discuss best protection practices.



Designed and Made in Italy

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