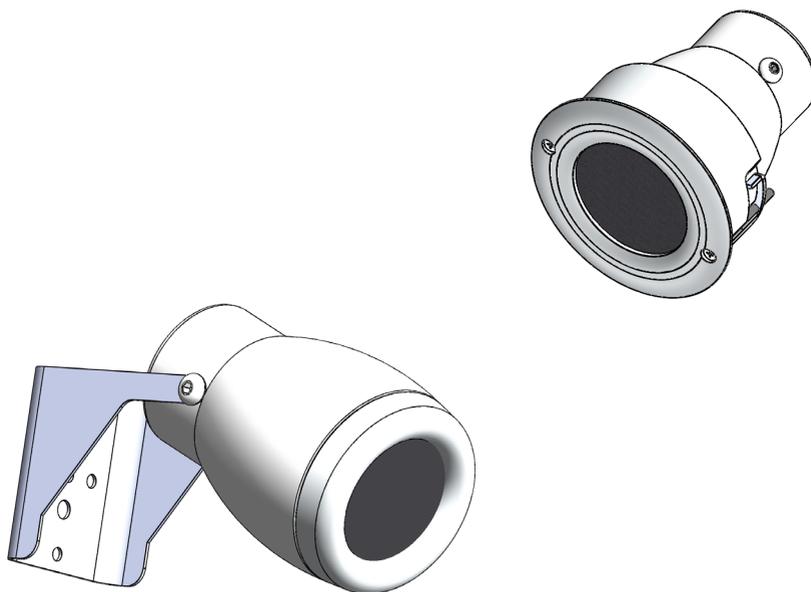




KT20 - KT22 ***KT20c - KT22c***

USER MANUAL - *english version*



SYMBOLS



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



WEEE

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



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



Warning! Dangerous voltages: RISK of electric shock.



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



This device complies with Restriction of Hazardous Substances Directive.



// CONTENTS

1. INTRODUCTION	7
2. UN PACKING	7
3. SAFETY	8
4. WARRANTY	9
5. KEY FEATURES	9
6. APPLICATIONS	9
7. PHYSICAL	10
8. INSTALLATION (KT20C - KT22C)	11
POLAR RESPONSE	14
KT20C - KT22C TECHNICAL DETAILS	15
KT20 - KT22 TECHNICAL DETAILS	16

KT20 - KT22 ***KT20c - KT22c***

2" point source compact speaker

1. INTRODUCTION

K-array Tornado KT20 miniature sound source is a passive loudspeaker designed for high-quality distributed systems. Housed in a compact aluminum enclosure, the KT20 is especially suitable for installations involving space limitations and visibility concerns.

The KT20 has flexible and easy-to-configure mounting options.

With its ability to effortlessly reproduce both speech and music, it makes an excellent choice for fixed applications such as theatre, museum displays, restaurants, portable systems for corporate AV presentations, department stores, and in hidden locations such as chancel steps in houses of worship; the applications are endless.

The KT20 has a proprietary 2" high efficiency drive unit with a neodymium magnet structure and a suspension engineered for maximum linear excursion and minimum residual transducer interference. The cone transducer delivers an impressive maximum peak SPL of 107dB, and has a wide operating frequency range from 150 Hz to 18 kHz with very low distortion.

All the components are designed in-house at our Florence based R&D department. They are custom manufactured to our exacting standards and quality control.

2. UN PACKING

Each K-array loudspeaker is built to the highest standard and thoroughly inspected before leaving the factory. Carefully inspect the shipping carton, then examine and test your new loudspeaker. If you find any damage immediately notify the shipping company. Only the consignee may institute a claim for damages incurred in shipping. It is suggested that you retain the original packaging so that the system can be repacked at a future date if necessary. Please note that K-array and its distributors can not accept any responsibility for damage to any returned product through the use of non-approved packaging.

3. SAFETY



WARNING



- Install the speaker only in a location that can structurally support the weight of the unit. Doing otherwise may result in the unit falling down and causing personal injury and property damage.
- Avoid installing the unit in humid or dusty locations, in locations exposed to the direct sunlight, near the heaters, or in locations generating sooty smoke or steam as doing otherwise may result in fire or electric shock.
- Do not operate the speaker for an extended period of time with the sound distorting. This is an indication of malfunction, which in turn can cause heat to generate and result in a fire.

4. WARRANTY

K-array KT20ma are warranted against manufacturing defects in materials or craftsmanship over a period of **2 years** from the date of original purchase. During the warranty period K-array will, at its discretion, either repair or replace products which prove to be defective provided that the product is returned in its original packaging, shipping prepaid, to an authorized K-array service agent or distributor. K-array cannot be held responsible for defects caused by unauthorized modifications, improper use, negligence, exposure to inclement weather conditions, act of God or accident, or any use of this product that is not in accordance with the instructions provided by K-array.

K-array is not liable for consequential damages.

This warranty is exclusive and no other warranty is expressed or implied.

This warranty does not affect your statutory rights.

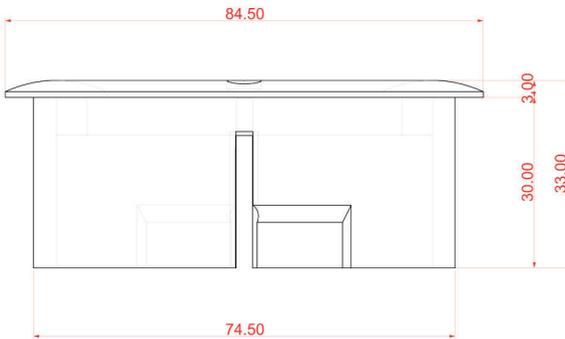
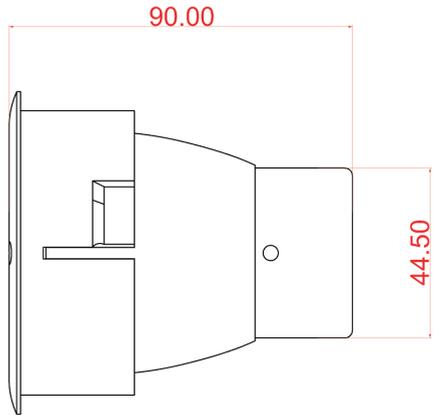
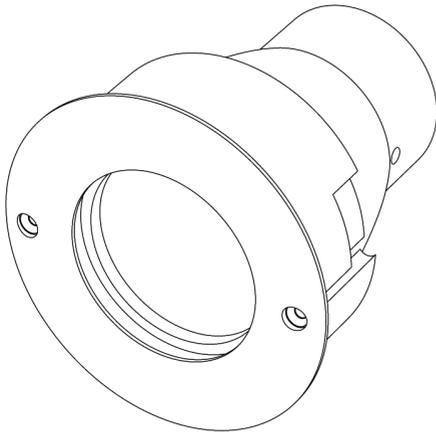
5. KEY FEATURES

- Unique performance-to-size ratio
- Single 2" long excursion full range driver
- Wide-range frequency response
- High speech intelligibility and high dynamic range for music applications
- Integrated Speakon connector (option) for mobile or installed application
- Full Aluminum ultra strong frame
- Available in Black or Aluminum
- Integrated connection points for accessories
- Only 350g of weight

6. APPLICATIONS

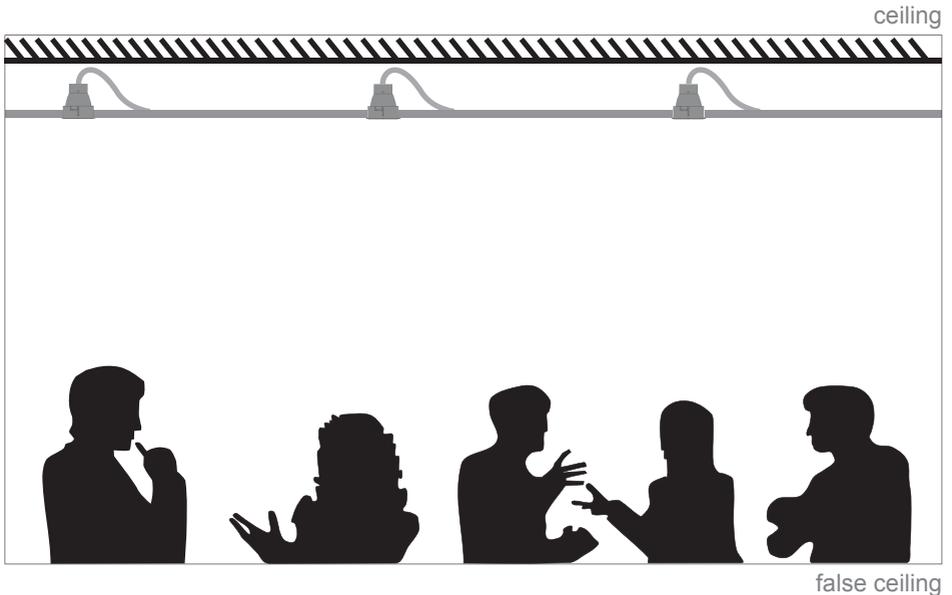
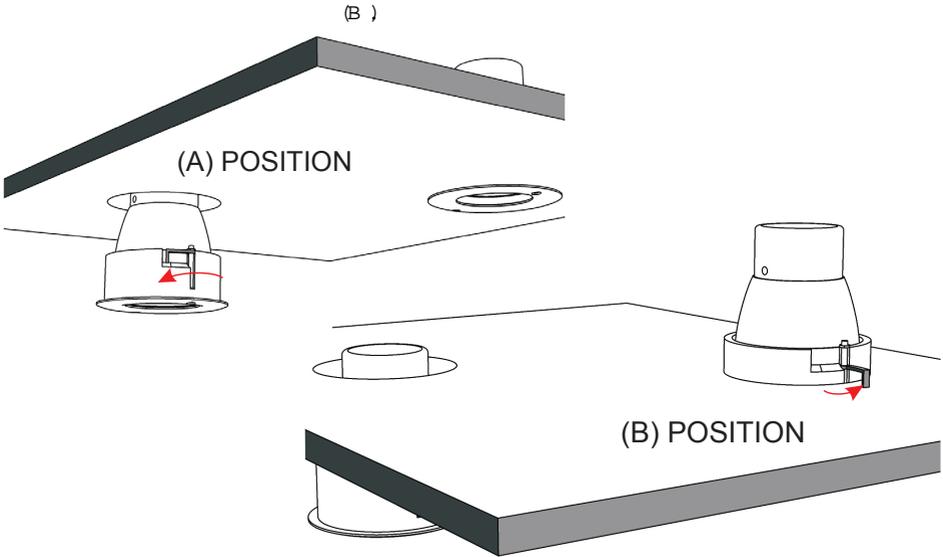
- High-quality distributed systems for paging and music
- Exhibit audio for museum displays
- Space-sensitive fill for theatres

7. PHYSICAL (KT20C - KT22C)



Weight 0.40 kg

3. Insert the speaker in the ceiling hole taking care the stoppers on the sides are in the then, using a screwdriver, tighten two stopper mounting-screws until they will clamp the ceiling panel to (A) position (B) position.



9. SERVICE

To obtain service:

- 1) Contact the official K-array distributor in your country. They will direct you to the service centre.
- 2) If you are calling for service, have the serial number(s) of the unit(s) at hand for reference. Ask for Customer Service, and be prepared to describe the problem clearly and completely.
- 3) If the problem cannot be resolved over the phone, you must return the unit for service.
- 4) You will be given an RA (Return Authorization) number for job tracking. Refer to this number on shipping materials and in all correspondence concerning the repair. Shipping charges are the responsibility of the purchaser.

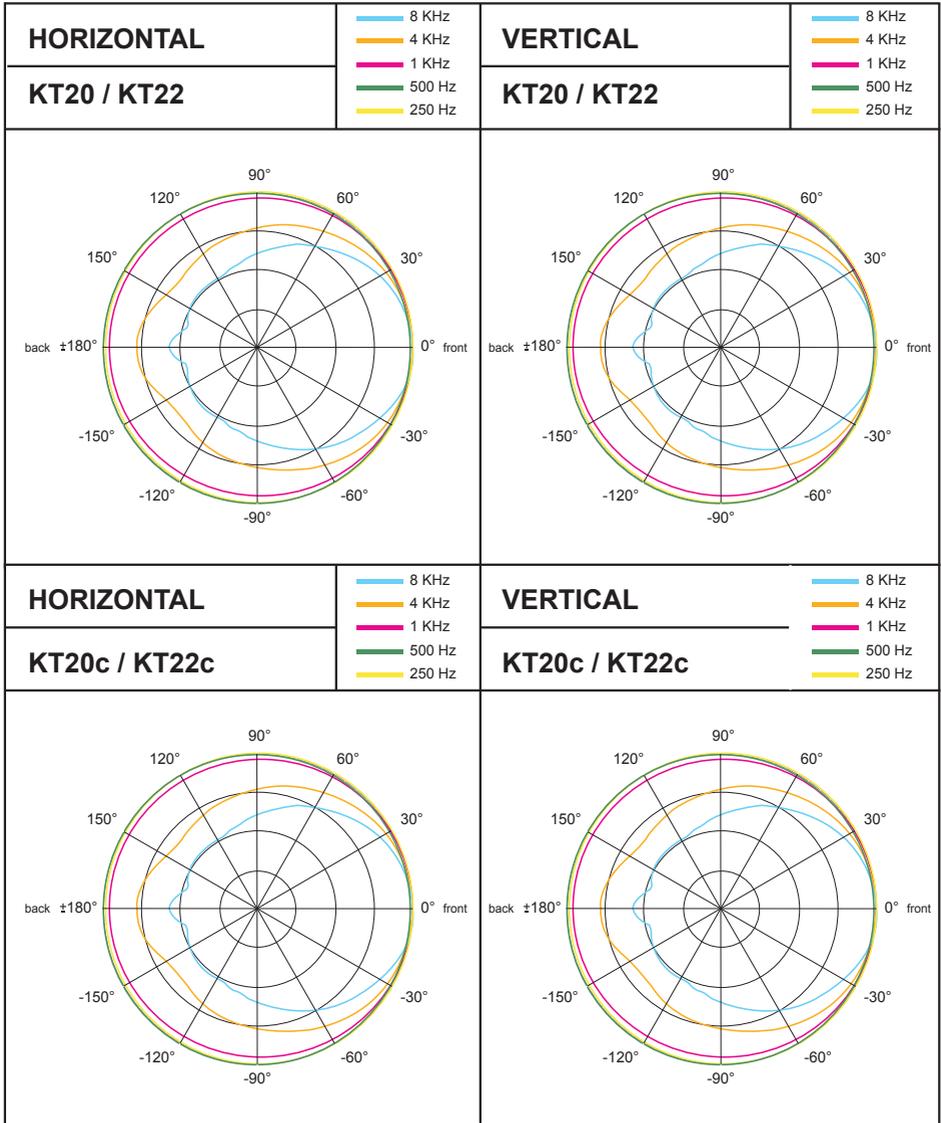
Any attempt to modify or replace components of the device will invalidate your warranty. Service must be performed by an authorized K-array service center.



Cleaning:

- Clean the product enclosures using a soft, dry cloth only.
- 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.

POLAR RESPONSE



KT20c - KT22c TECHNICAL DETAILS

KT20C - KT22C	
Acoustics	
Speaker power handling	18 W ^(AES)
Max power	30 W ¹
Impedance	8 Ω (KT20) - 32 Ω (KT22)
Frequency range	150 HZ - 18 KHz +/- 3dB
SPL 1W/1mt	87 dB ²
Maximum SPL	101 dB continuous - 107 dB peak
Coverage	
Horizontal	90°
Vertical	90°
Crossover	
Type	External cross over required
Frequency	150Hz 24dB/oct minimum suggested
Transducers	
Full-range	2" Neodymium cone driver with 0.75" voice coil
Audio Input	
Connector	2-pin Phoenix connector
Selection Switch	
Channel	-
Vertical dispersion	-
Recommended Amplifiers	
for KT20/KT20C	KA1-1, KA3-3, KA7, KA7-7, KA10, KA10-10 for up to 2 units each channel, with dedicated preset
for KT22/KT22C	KA3-3, KA7, KA7-7, KA10, KA10-10 for up to 8 units each channel, with dedicated preset
Physical	
Dimensions	8.5 cm dia x 9.6 cm deep (3.35" dia x 3.78" deep)
Weight	0.40 Kg (0.88 lbs)
<p><i>Notes for data</i></p> <p>1. Maximum RMS applicable power for a musical signal, the reference signal is the one proposed by EIAJ standard.</p> <p>2. Measured @4 mt then scaled @1 mt</p> <p>New materials and design are introduced into existing products without previous notice. Present systems may differ in some respects from those presented in this brochure.</p>	

KT20 - KT22 TECHNICAL DETAILS

KT20 - KT22	
Acoustics	
Speaker power handling	18 W ^(AES)
Max power	30 W ¹
Impedance	8 Ω (KT20) - 32 Ω (KT22)
Frequency range	150 HZ - 18 KHz +/- 3dB
SPL 1W/1mt	87 dB ²
Maximum SPL	101 dB continuous - 107 dB peak
Coverage	
Horizontal	90°
Vertical	90°
Crossover	
Type	External cross over required
Frequency	150Hz 24dB/oct minimum suggested
Transducers	
Full-range	2" Neodymium cone driver with 0.75" voice coil
Audio Input	
Connector	2-pin Phoenix connector
Selection Switch	
Channel	-
Vertical dispersion	-
Recommended Amplifiers	
for KT20/KT20C	KA1-1, KA3-3, KA7, KA7-7, KA10, KA10-10 for up to 2 units each channel, with dedicated preset
for KT22/KT22C	KA3-3, KA7, KA7-7, KA10, KA10-10 for up to 8 units each channel, with dedicated preset
Physical	
Dimensions	6.4 x 8.3 x 14.3 cm (2.5" x 3.27" x 5.63")
Weight	0.43 Kg (0.95 lbs)
<p><i>Notes for data</i></p> <p>1. Maximum RMS applicable power for a musical signal, the reference signal is the one proposed by EIAJ standard.</p> <p>2. Measured @4 mt then scaled @1 mt</p> <p>New materials and design are introduced into existing products without previous notice. Present systems may differ in some respects from those presented in this brochure.</p>	

APPROVAL



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

WEEE



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

The contents of this manual are furnished for informational purpose only. Hp Sound Equipment s.r.l. assumes no responsibility for any errors or inaccuracies that may appear in this manual. Hp Sound Equipment s.r.l. reserves the right to make modifications without prior notice.

k-array is a brand of
HP Sound Equipment s.r.l.

Viale Roma 7/i - 50037
San Piero a Sieve (Firenze) - Italy
tel. +39 055 8487222 - fax. +39 0558487238
e-mail: info@k-array.com
www.k-array.com

