








KENWOOD  
eXcelon



**2000 product catalog**

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# Excelon

## WHAT CAR AUDIO SYSTEMS SHOULD BE

Excelon components are designed to be "Excellent." And they are. There's D MASK+, the world's only self-hiding, revolving, removable faceplate. PowerSlide amps that combine more power, sound control, and circuit protection than you'll find anywhere else. Our new dB+ full range speakers with the PBO advanced fiber woofer cone (the fiber that's superior to any other speaker material). And KEX Sound Control, an incredibly sophisticated technology that gives you complete audio control at your fingertips. Put everything together in a system with Kenenergy, and the only thing left to say is, "Excellent."



## WE DO IT WITH KENERGY

Kenergy is the ability of our components to interact – to talk to, react to, and perform together as a total system. Kenwood eXcelon products with Kenergy include: HEAD UNITS that control amplifiers, AMPLIFIERS that precisely tune woofers, and WOOFERS that rock hard and are controlled by our amplifier's special circuits. Kenergy gives you what you want when you want it with BMS, PowerSlide, Sigma Servo, and other unique technologies. Listen for yourself – this is what car audio should be!

### HEAD UNITS WITH UNHEARD-OF CONTROL

KEX & System E's+ work together to provide frequency control never before available in a head unit. With KEX you can boost or cut precise frequencies. With System E's+ crossover filters you control which frequency range is sent to which speakers. Together, these exclusive technologies let you play music louder than ever before with perfect clarity – and customized to your tastes.



### WOOFERS

Our subs have special terminals that link to an Excelon amp's Sigma Servo circuit. That lets the amp actually sense and control the subwoofer, giving it more punch than a SWAT team.

### FULL RANGE SPEAKERS

PBO advanced fiber woofer cone provides the strength and stiffness. An aluminum voice coil is used to provide higher sensitivity. And bi-wiring lets you power the woofer and tweeter separately for extremely low distortion and clarity that is unmatched.



### AMPS WITH BMS AND POWERSLIDE

Bass Management System (BMS) lets you pump up the amp's bass output 6 or 12 dB from the head unit, while the PowerSlide door opens to cool things off under heavy demands.



# mobile video



## L2-700W: LARGE, HIGH-REZ SCREEN... WITH TOUCH-PANEL CONTROL

Our 7" diagonal, 16:9 format LCD screen is one of the largest and highest resolution screens available for in-vehicle use. It can show widescreen format movies across the entire screen, and allows you to choose from normal, full, and zoom viewing modes. The screen itself is also a touchscreen, with complete video source switching controls.

## P907: FLIP-UP VIDEO MONITOR AND CD PLAYER— IN THE SPACE OF A RADIO

At first glance, the Kenwood Excelon Mobile Monitor/CD Player appears to be a normal in-dash CD player, with convenient CD controls along the unit's bottom. Push a button, though, and a high-definition screen slides smoothly out. Flip it up, tilt it to the left or right for a perfect viewing angle, and enjoy virtually any video source: TV (with its built-in tuner) or an optional VCR, DVD player, or game system. Or use the complete set of CD controls, including advanced features such as disc and track naming. When you're done, flip the screen down, and it automatically retracts.

## P907

IN-DASH MOBILE MONITOR/CD PLAYER WITH TV TUNER

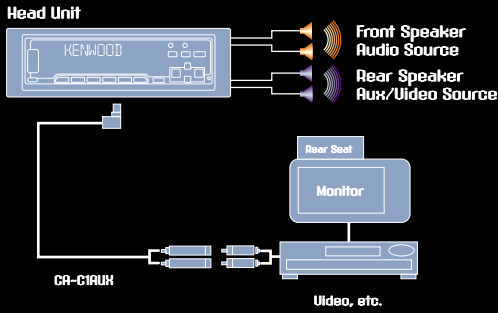


### Key Features

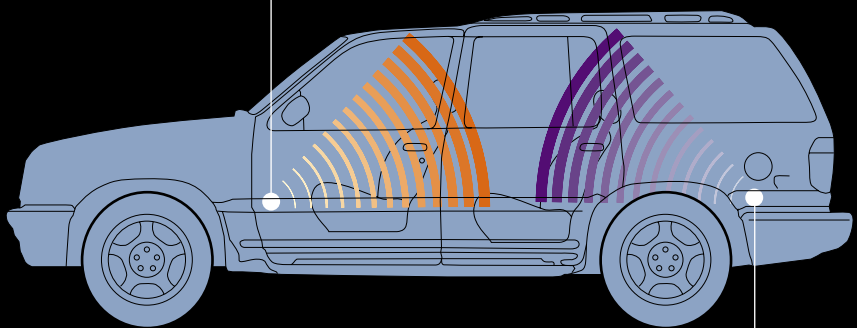
- Touch Screen GUI Control
- DIN-Size In Dash Mounting
- 5.8" Wide Retractable LCD Screen
- Widescreen (16:9) Aspect Ratio
- Adjustable Video Screen Viewing Angle
- Selectable Screen Viewing Modes
- Built-In TV Tuner
- Built-In Single Disc CD Player with Changer Control
- System E's+ Crossover System
- 4U Preamp Output
- Front and Rear Preamp Outputs
- Grip-Type Full-Function Remote
- RDS
- Maximum Power: 40 Watts x 4
- Full Bandwidth Power (less than 1% THD): 22 Watts x 4
- 2 Audio/Video Inputs
- 1 Audio/Video Output

## DUAL ZONE HEAD UNIT CONTROL

### SYSTEM 1

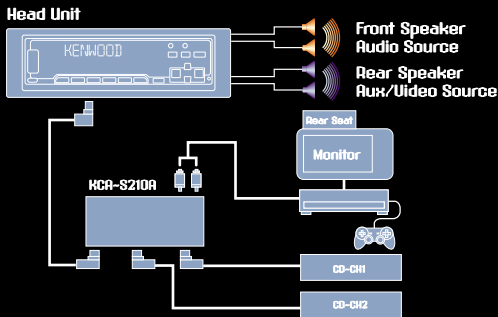


### FRONT SPEAKER: AUDIO SOURCE



### REAR SPEAKER: AUX SOURCE

### SYSTEM 2



The Dual Zone feature allows separate audio sources to play in the front and rear of a vehicle, and is excellent for mobile video. An additional audio source, such as the audio output of a video unit, can be connected to the head unit's auxiliary input and played through the rear speaker outputs or preouts—perfect for entertaining passengers in the back with a movie while the driver and front passenger listen to music.

## VIDEO SYSTEMS

### LZ-700W

WIDESCREEN MOBILE TELEVISION



#### Key Features

- 7" Wide LCD Screen
- Widescreen (16:9) Aspect Ratio
- High Resolution (336,960 Pixels)
- Selectable Screen Viewing Modes
- Optical Touch Screen Control
- Built-In TV Tuner
- 2 Audio/Video Inputs
- 1 Audio/Video Output

### KCA-RC800AV

AUDIO/VIDEO REMOTE

#### Key Features

- Pre-programmed to control other manufacturer's video products
- Learning Capable
- Compact size, easy to hold and use
- Easy to set up
- Controls any combination of up to four components:
  - Audio
  - UCR
  - DVD
  - Monitor/TU
- Controls all Kenwood remote-capable products



# head units



## KEK

KEK is our way of saying Sophisticated Total Sound Control. To fine tune your system just right you can choose any one of four treble centerpoints, and five bass centerpoints, and then adjust the level as much as +/- 12dB. You can also adjust the bass Q (the range of frequencies affected by the bass control) by four steps. When you find a setting you like, you can save it for instant recall in one of the six user presets.

## D MASK + AND D MASK

Choice is a good thing. (Our engineers think so.) So we improved on the basic concept of MASK and made the faceplate detachable.

Introducing D MASK + and D MASK. When your car's ignition is turned off, you have a choice. The faceplate revolves 90° (automatically or manually) and pauses. Remove the faceplate and take it with you, or have the faceplate continue its rotation, showing only a black panel that hides any trace of your sophisticated car stereo. D MASK + and D MASK let you choose the best option for whatever the situation, be it the valet parking lot or your garage.

## FLUORESCENT DISPLAYS

Many of our head units feature a bright multi-color fluorescent display, active graphics, and a 10 step brightness adjustment.

## WHITE LED DISPLAY

Other white displays use phosphor sheets that can fade, becoming unreadable. Ours use phosphor-coated LEDs—they're brighter, easier to read from different angles, and last up to twenty-five times longer. They also feature a 10 step contrast adjustment and 2-step dimmer.

## MENU SYSTEM

Accessing all the features on our head units is easy, thanks to a simple menu system. Hold down the AUDIO button for a few seconds and the menu will appear offering adjustments and options for everything from System E's+ frequencies to display options.

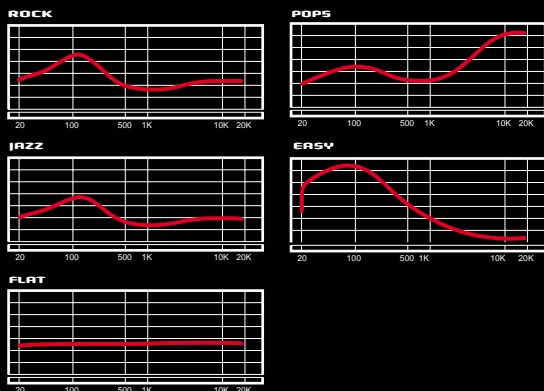
## D MASK+

Should it stay or should it go? (The faceplate, that is.) Kenwood gives you the choice. Introducing D MASK+ - an advancement of our revolutionary MASK fully automatic revolving, self-hiding faceplate. This year, Kenwood engineers have added a removable faceplate to MASK. When the power is turned off, the D MASK+ faceplate revolves to a standby position and remains there for a few seconds (you decide how long). If you wish, you can detach it. Otherwise, D MASK+ continues revolving, until it shows only a blank panel. D MASK+ models also include the MASK angle adjustment, which lets you choose the angle that maximizes visibility in your installation (particularly if the unit is mounted low in the dashboard).



## D MASK

Kenwood also introduces D MASK, which combines a manual MASK mechanism with a removable faceplate. Like D MASK+, you choose whether to remove the faceplate or not. The D MASK faceplate flips down at the touch of a button, allowing you to remove it or manually flip the whole faceplate over so that it shows only a blank panel. When it comes to D MASK+ and D MASK faceplates, you can take them or leave them. It's your choice.



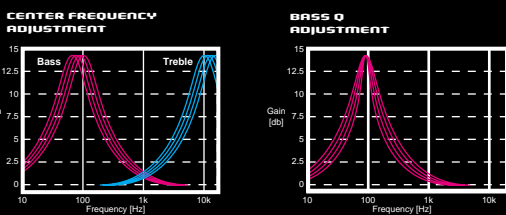
## KEK SOUND CONTROL

Kenwood gives you the control you need to make any car or speaker configuration sound just the way you want it. KEK features 5 different preset equalization settings (Rock, Top 40, Jazz, Easy and Flat), letting you customize the sound to match your taste and the type of music you are listening to.

KEK Sound Control gives you even more customizing options than ever before. You may select any one of four treble centerpoints (10/12.5/15/17.5kHz), and five bass centerpoints (60/70/80/100/150Hz) - each of which can be adjusted by +/- 12dB. You can also adjust the bass Q-factor settings by four steps (1.0/1.25/1.5/2.0). And there's even a Bass Expander mode: The Q boost curve is expanded 25%, but only on the low side of the centerpoint, avoiding the "boomy-ness" of a wide Q. Plus, you can save any setting as one of 6 different user presets and instantly recall it.

And KEK works great with Source Tone Memory. Try this... With KEK you create the perfect sound for your favorite CD. You switch to FM and adjust KEK for your favorite FM music station. Later, you switch back to CD and Source Tone Memory restores all your prior KEK CD player settings. (And you don't even have to burn a preset.)

With this setup, no matter what kind of music you enjoy, or how loud you enjoy it, Kenwood will make it sound its best. You now have total control.



## 45 WATTS OF POWER

Kenwood's top head units now produce 45 watts of maximum power per channel through four channels. The full bandwidth rating, which is performance at less than 1% total harmonic distortion (THD), is 22 watts per channel.

## HIGH-VOLTAGE PRE-OUTS

When a head unit produces more voltage, it produces a higher sound level above a system's noise floor (the electrical noise and RF interference that exists in any system.) In practice, this means much cleaner sound overall. Several Kenwood models offer 4.5-volt preouts—over double the typical 2-volt output.

## GRIP REMOTE

All Kenwood Excelon head units now come with a "Grip" remote that fits comfortably in your hand, with a groove in back for your index finger and the buttons placed for easy operation.

## DRIVE DISTORTION REDUCTION FILTER

As clean as CD sound is, it still contains digital distortion introduced by the digital mastering process itself which represents smooth analog sound waves as square stair-steps. Our patented DRIVE circuitry actually restores the natural waveshape, virtually eliminating this distortion, and giving music a more realistic, alive sound.

## DOSC (DIGITAL OPTIMUM SERVO CONTROL)

Kenwood CD players use DOSC, a technology that can actually read through dirty and scratched CDs and can also automatically adjust to the differences in reflection rates between different CDs (the reason one CD might play fine in one CD player and skip in another.) DOSC can adjust both laser gain and balance in 256 steps, thousands of times a second, enabling it to read even the most difficult discs.





## CD RECEIVERS

### KDC-X915 CD TUNER



#### Key Features

- D MASK+ Motorized Self-Hiding Removable Faceplate with Carrying Case
- KEH Sound Control System
- System E's+ Advanced Crossover System
- PowerSlide/B.M.S. Interface: with Compatible Amplifier
- DRAIVE Distortion Reduction Circuitry
- High Voltage Preamp Output
- Front, Rear, and Non-Fading Gold-Plated RCA Preouts (4.5U)
- Dual-Zone Audio Control
- Full-Function 10-Key Remote: Grip-Type
- Optional External Heads-Up Display and Weather Band Tuner

### KDC-X815 CD RECEIVER



#### Key Features

- Maximum Output Power: 45 Watts x 4
- Full Bandwidth Power (Less than 1% THD): 22 Watts x 4
- D MASK+ Motorized Self-Hiding Removable Faceplate with Carrying Case
- KEH Sound Control System
- System E's+ Advanced Crossover System
- PowerSlide/B.M.S. Interface: with Compatible Amplifier
- DRAIVE Distortion Reduction Circuitry
- High Voltage Preamp Output
- Front, Rear, and Non-Fading Gold-Plated RCA Preouts (4.5U)
- Dual-Zone Audio Control
- Full-Function 10-Key Remote: Grip-Type
- Optional External Heads-Up Display and Weather Band Tuner

## MP3 SOLUTIONS

### Z919 CD/MP3 RECEIVER



#### Key Features

- Plays MP3-Encoded CD-Rs and Conventional CDs
- Maximum Output Power: 45 Watts x 4
- Full Bandwidth Power (Less than 1% THD): 22 Watts x 4
- Motorized Faceplate
- System E's+ Advanced Crossover System
- DRAIVE Distortion Reduction Circuitry
- Front, Rear and Non-Fading Gold-Plated RCA Outputs
- Full-Function 10-Key Remote Control

### CA-C1AUX AUXILIARY INPUT ADAPTER



Allows any player with an analog audio output to be played through any Kenwood head unit that has changer control.

## KDC-X715 CD RECEIVER



### Key Features

- Maximum Output Power: 45 Watts x 4
- Full Bandwidth Power (Less than 1% THD): 22 Watts x 4
- D MASK+ Motorized Self-Hiding Removable Faceplate with Carrying Case
- KEH Sound Control System
- System E's+ Advanced Crossover System
- PowerSlide/B.M.S. Interface: with Compatible Amplifier
- DRIVE Distortion Reduction Circuitry
- High Voltage Preamp Output
- Front and Rear RCA Preouts (4.5U)
- Dual-Zone Audio Control
- Full-Function 10-Key Remote: Grip-Type
- Optional External Heads-Up Display and Weather Band Tuner

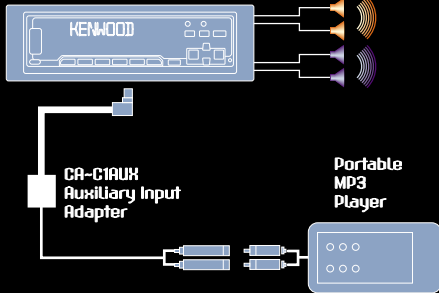
## KDC-X615 CD RECEIVER



### Key Features

- Maximum Output Power: 45 Watts x 4
- Full Bandwidth Power (Less than 1% THD): 22 Watts x 4
- D MASK Removable Faceplate with Carrying Case
- KEH Sound Control System
- System E's+ Advanced Crossover System
- PowerSlide/B.M.S. Interface: with Compatible Amplifier
- Front and Rear RCA Preouts
- Full-Function 10-Key Remote: Grip-Type
- Optional External Heads-Up Display Weather Band Tuner, and Sensor Box

Head Unit



## WWW.YOURMUSIC WITHOUT THE DOT.COM MP3 FOR YOUR CAR

Kenwood has two great ways to play your MP3 files:

**Z919 Head Unit** – Burn your favorite MP3's onto a CD-ROM (hours and hours worth if you want), and enjoy your music files with Kenwood's MP3 compatible Z919.

**CA-C1AUX Auxiliary Input Adapter** – Connect your portable MP3 player (or any A/U source with an analog audio output) to any Kenwood head unit with a DIN style CD changer input. Once the adapter is connected, you can listen to your favorite MP3 songs through your car stereo.

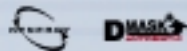
You've spent valuable time collecting your favorite music. Now break free from the net and enjoy it on the road, with a Kenwood.

KENWOOD



## CASSETTE RECEIVER

### KRC-X858 CASSETTE RECEIVER



#### Key Features

- Maximum Output Power: 45 Watts x 4
- Full Bandwidth Power (Less than 1% THD): 22 Watts x 4
- D-MASK+ Motorized Self-Hiding Removable Faceplate
- HXH Sound Control System
- System E's + Advanced Crossover System
- PowerSlide/B.M.S. Interface with Compatible Amplifier
- Front and Rear Gold-Plated RCA Preouts (4.5U)
- Dual-Zone Audio Control
- Dolby Noise Reduction: B
- Full-Function 10-Key Remote: Grip-Type
- Optional External Heads-Up Display and Weather Band Tuner

## MD RECEIVER

### KMD-X92 MD RECEIVER



#### Key Features

- Maximum Output Power: 45 Watts x 4
- Full Bandwidth Power (Less than 1% THD): 22 Watts x 4
- D-MASK+ Motorized Self-Hiding Removable Faceplate
- HXH Sound Control System
- System E's + Advanced Crossover System
- PowerSlide/B.M.S. Interface with Compatible Amplifier
- Changer Control
- Front, Rear, and Non-Fading Gold-Plated RCA Preouts (4.5U)
- Dual-Zone Audio Control
- Full-Function 10-Key Remote: Grip-Type
- Optional External Heads-Up Display and Weather Band Tuner

## CD CHANGERS

### KDC-CX85 10-DISC CD CHANGER



#### Key Features

- 10-Disc Capacity
- Compatible with All Kenwood Units with Changer Control
- Digital to Analog Converter: 20-Bit Resolution Integrated Quad I-Bit
- Digital Filter: 20-Bit Resolution 8-Times Oversampling
- DBUE Distortion Reduction Circuitry
- Disc Naming: 100 Discs

### C907 10-DISC CD CHANGER



#### Key Features

- For Use with P907 In-Dash Mobile Television System and 2919
- 10-Disc Capacity
- DBUE Distortion Reduction Circuitry
- 20-Bit Resolution Integrated Quad D/A Converter and Digital Filter
- 0-Bit Mute
- Digital Optimum Servo Control and Precision Digital Timing
- Disc Naming (100 Discs)
- CD Test
- IZ-Bus Control

### KCA-RC600 FULL-FUNCTION 10-KEY GRIP-TYPE REMOTE CONTROL





## FULL DOT MATRIX DISPLAY

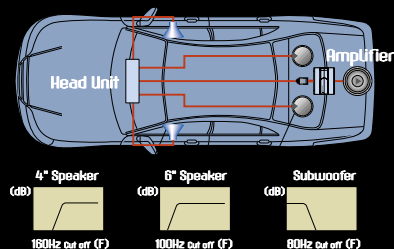
Kenwood's innovative fluorescent display is clearer, more sophisticated, and just plain cooler to look at. The fluorescent full dot matrix, integrated in our top-line CD receivers, displays more sophisticated characters and graphics than conventional dot matrix LCDs. Text scroll and response are smoother and quicker. When CD time is displayed, the digits roll vertically like a slot machine or an odometer. The spectrum analyzer can be displayed as an oscilloscope. (An unparalleled feat in head unit displays.) For cruising at night, the display can be dimmed by a series of 10 steps, for just the right amount brightness

## SYSTEM E's+

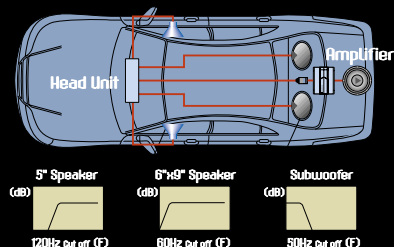
This built-in crossover will improve the sound and power of any system. System E's+ has eight selectable high-pass cut-off frequencies: 40, 60, 80, 100, 120, 150, 180, 220 Hz, at a 12dB-per-octave slope. You can apply them to the front and rear speaker leads and preouts independently, so you can pick the right high-pass filter for any size speakers. System E's+ lets you cut out the bass to smaller speakers, allowing the whole system to play almost twice as loud without distortion. Its selectable low-pass filter (50, 80, or 120Hz at a 12dB per octave slope), lets you cut the highs to large speakers so they won't sound muddy. The Source Tone Memory

feature means you can set a different balance between the subwoofer and the rest of the system for each of your sources. When you switch to a source—your CD player for example—System E's+ switches to the level you set before. You can even switch the phase for the non-fade preout if necessary to make sure the sound from your subs is in phase with the sound from the rest of your system.

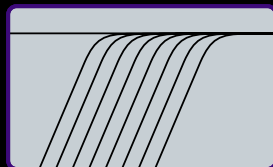
### SYSTEM PLAN 1



### SYSTEM PLAN 2



### FRONT/REAR HIGH PASS FILTER



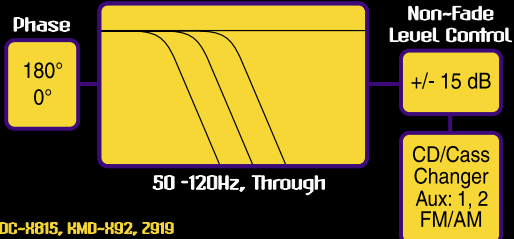
Through, 40 - 220Hz

Separate Non-Fade Preout on KDC-H915, KDC-K815, KMD-K92, Z919

High Pass Filter Frequencies: Through, 40, 60, 80, 100, 120, 150, 180, 220Hz

Low Pass Filter Frequencies: Through, 50, 80, 120Hz

### NON-FADE LOW PASS FILTER



50 -120Hz, Through

Non-Fade Level Control

+/- 15 dB

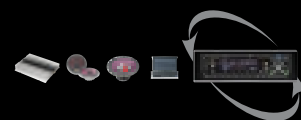
CD/Cass Changer

Aux: 1, 2

FM/AM

Non-Fade Level Memory

System E's+'s sophisticated control lets you select different high-pass filter cutoff frequencies (from the 8 available) for front and rear preouts and speaker outputs. Activate Non-Fade for the rear preout, and you can select a low-pass filter. The non-fading level control even remembers different settings for each source.



# amplifiers



## BMS

Lets you precisely increase bass response by +6dB anywhere between 50Hz and 100Hz. The high-Q slope won't muddy vocals as typical "bass boost" circuits do. With a MASK head unit, you can activate a +6dB or +12dB increase right from the head unit.

## ELECTRONIC CROSSOVERS

Variable high- and low-pass filters can be applied separately to front and rear channels and can also be overlapped to easily smooth out peaks and dips.

## LOW-VOLTAGE MEMORY

Keeps track of the number of times your system dips below 10 volts (up to ten incidents) and reports them as a number of flashes, letting you know if your electrical system needs to be strengthened.

## HIGH-EFFICIENCY DESIGN

Most amplifiers are about 40% efficient; the rest of the power simply produces heat. Kenwood amps are about 60% efficient. They produce more sound from less power and operate at a lower temperature, which makes them more reliable.

## SEPARATE POWER SOURCES FOR DRIVER AND OUTPUT STAGES

A signal is increased inside an amp by the driver stage and then by the final stage. Most amps run both stages from one power supply, which can cause the driver stage to loose power and distort. Kenwood amps have two power supplies, one for each stage. This keeps both stages separate and clean.

## LAPT

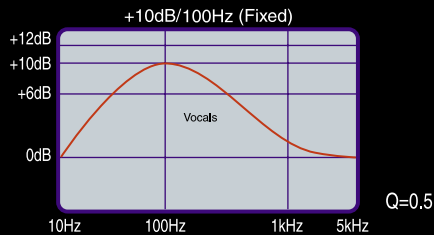
Conventional high-power transistors produce high levels of distortion at low volumes, distortion that gradually goes down only as the volume goes up. The LAPT (Linear Amplification Power Transistor) transistors we use are called "linear" because they deliver the same clean sound at any volume.



## POWERSLIDE

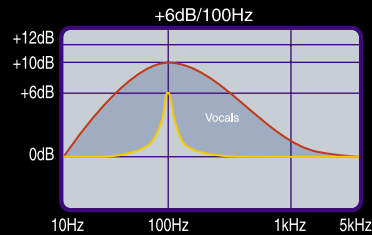
This Sliding door on top of the amp lets more cooling air in when it's needed. Underneath there's a fan that sucks air through the amp and out the top. PowerSlide automatically opens when the amp reaches 176 degrees, or when you give it a +6dB or +12dB command from a Kenwood Excelon MASK head unit.

### CONVENTIONAL BASS BOOST



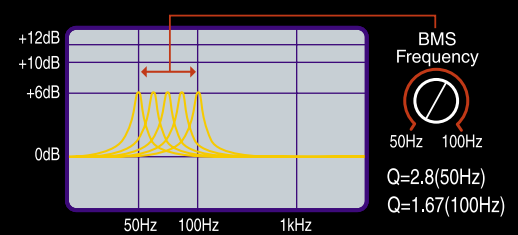
▼ Vocal range is also boosted. This results in "boomy" bass and "muddy" vocals.

### BMS

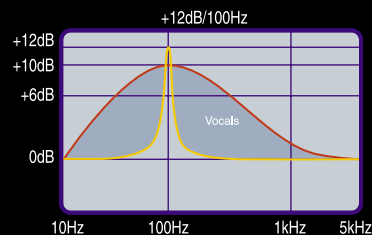


▼ High Q Value will not affect vocal range because it increases bass at the center frequency only.

### VARIABLE FREQUENCY

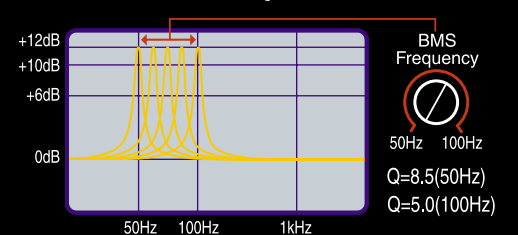


### BMS



▼ Even at +12dB, the increase will not affect the vocal range. Selected from Kenwood Excelon MASK Head Unit only.

### VARIABLE FREQUENCY



AMP BASS Flat

AMP BASS +6

AMP BASS +12

You can activate the amp's Bass Management System and open PowerSlide from an Excelon MASK head unit. The head unit's display confirms your settings.

## 4-STATUS LEDS AND TRIANGLE POWER INDICATOR

Power up a Kenwood Excelon amp, and a cool blue triangle lights up. Four status lights tell you when the fan is on, when BMS is active, when your system is in an undervoltage situation, and when a protection circuit has shut down the amp.

## MOSFET TRANSISTORS

MOSFET (Metal Oxide Semiconductor-Field Effect Transistor) switching transistors have a significantly higher switching speed than bipolar transistors and generate almost no heat, so they offer quick response, excellent linearity, and high efficiency.

## NOISE FILTERING

All Kenwood amplifiers use two types of filters to clean the vehicle's voltage before it reaches the power supply, improving efficiency (more energy is used to amplify music instead of noise) and resulting in clearer music.

## FAST-RECOVERY DIODES

Diodes change AC power to smooth DC power. If a diode can't react quickly, voltage drops, creating distortion. Compared to conventional diodes, our fast-recovery diodes handle twice the amperage and reduce voltage drop by a third, delivering sound that's dependably clear and clean.

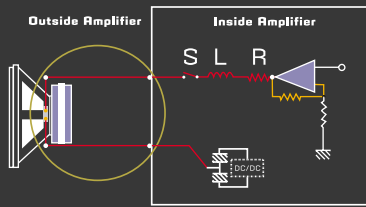
## COPPER BUS BAR

Thin wire or circuit board traces inside an amp can lose up to 30 watts. Kenwood's top amplifiers avoid this problem by using solid oxygen-free copper bus bars with at least a hundred times more mass than a circuit board trace.

## PROTECTION CIRCUITS

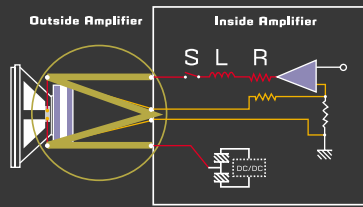
Our circuits provide protection against heat, static electricity, over-voltage, under-voltage, over-current, speaker short, reverse input voltage and ground disconnection. All fuses are chassis-mounted (not line mounted) so they can't be accidentally removed.

### WITHOUT SIGMA SERVO



Conventional amps rely on feedback from the amp's output stage, ignoring errors introduced by internal circuitry or the speaker. Sigma Servo gets feedback from the speaker itself, increasing the amp's Damping Factor from the typical 100 to over 9,000.

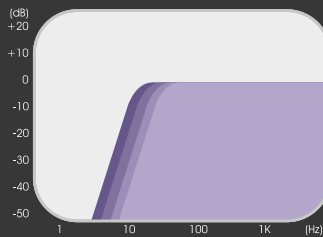
### WITH SIGMA SERVO



### AUDIO-USE CAPACITORS

Our capacitors are larger than most and designed for audio use only. They charge and discharge very rapidly and have very low resistance due to oxygen-free copper leads, which greatly improves the ability of Kenwood amplifier to reproduce loud, rapidly changing music.

### INFRASONIC FILTER



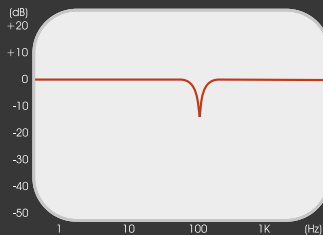
Infrasonic filters remove power-robbing frequencies that are too low to hear. Multiple cutoff frequencies and 24dB/octave (shown) or 18dB/octave slopes allow precise control.



### COPPER-SHIELDED EE CORE TRANSFORMER

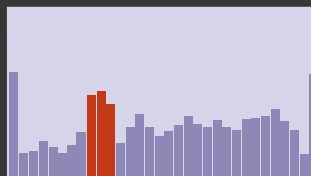
Kenwood Excelon amplifiers use an EE transformer design which greatly reduces the radio frequency interference that can leak into the audio and appear as hum.

### BAND REJECT FILTER



The KAC-K401M's band-reject filter adjusts from 40Hz - 200Hz. Its high Q-value, lets you zero-in on the exact frequencies that needs taming.

### WITHOUT BAND-REJECT FILTER



Most car interiors will produce a large response peak (standing wave) in the upper bass/lower midrange region.

### WITH BAND-REJECT FILTER



After using the KAC-K401M's Band Reject Filter to tame the car's standing wave, response is much smoother.

### INFRASONIC FILTER

CDs often have sound recorded below the threshold of human hearing which an amp can reproduce, wasting a large amount of power. Our amps have a selectable infrasonic filter that eliminates these frequencies, thus increasing the power available for music.

### BAND-REJECT FILTER

Every vehicle interior resonates at a particular frequency, which can cause a bump in frequency response. Our adjustable band-reject filter reduces the bump to smooth overall response.

### SIGMA DRIVE AND SIGMA SERVO

To keep a speaker from vibrating after a note, an amp must control speaker motion precisely. Kenwood's exclusive Sigma Drive and Sigma Servo circuits give the amp the instantaneous feedback needed to damp the speaker. Sigma Drive tracks this feedback from the amp's speaker connections, while Sigma Servo uses two additional wires which connect to the speaker itself to track movement. Sigma Drive more than doubles the typical damping factor of 100, and Sigma Servo boosts it up to 9,990.







## POWER AMPLIFIERS

### KAC-X501F

MULTI-CHANNEL POWER AMPLIFIER  
WITH POWERSLIDE/B.M.S. HEAD UNIT INTERFACE

**300 WATTS** Total Power RMS



#### Key Features

- 75 Watts x 4 Power Output at 4 Ohms, at 14.4V (20Hz-20kHz, 0.05% THD)
- 50 Watts x 4 Power Output at 4 Ohms, at 12V (20Hz-20kHz, 0.05% THD)
- 600 Watts x 2 Maximum Power Output
- PowerSlide
- B.M.S. (Bass Management System)
- PowerSlide/BMS Head Unit Interface
- Sigma Drive
- Power MOSFET Switching Power Supply
- Variable Low-Pass Electronic Crossover
- Variable High-Pass Electronic Crossover
- Selectable Infrasonic Filter

### KAC-X401M

MONO POWER AMPLIFIER  
WITH POWERSLIDE/B.M.S. HEAD UNIT INTERFACE

**300 WATTS** Total Power RMS



#### Key Features

- 300 Watts x 1 Power Output at 4 Ohms, at 14.4V (20Hz-20kHz, 0.05% THD)
- 200 Watts x 1 Power Output at 4 Ohms, at 12V (20Hz-20kHz, 0.05% THD)
- 1200 Watts x 1 Maximum Power Output
- PowerSlide
- B.M.S. (Bass Management System)
- PowerSlide/BMS Head Unit Interface
- Sigma Servo
- Power MOSFET Switching Power Supply
- Variable Low-Pass Electronic Crossover
- Variable Band Reject Filter
- Selectable Infrasonic Filter

## KAC-X301T

2-CHANNEL POWER AMPLIFIER  
WITH POWERSLIDE/B.M.S. HEAD UNIT INTERFACE

**200 WATTS** Total Power RMS



### Key Features

- 100 Watts x 2 Power Output at 4 Ohms, at 14.4V (20Hz-20kHz, 0.05% THD)
- 75 Watts x 2 Power Output at 4 Ohms, at 12V (20Hz-20kHz, 0.05% THD)
- 800 Watts x 1 Maximum Output Power
- PowerSlide
- B.M.S. (Bass Management System)
- PowerSlide/B.M.S. Head Unit Interface
- Sigma Drive
- Power MOSFET Switching Power Supply
- Variable Low-Pass Electronic Crossover
- Variable High-Pass Electronic Crossover
- Selectable Infrasonic Filter

## KAC-X201T

2-CHANNEL POWER AMPLIFIER  
WITH POWERSLIDE/B.M.S. HEAD UNIT INTERFACE

**150 WATTS** Total Power RMS



### Key Features

- 75 Watts x 2 Power Output at 4 Ohms, at 14.4V (20Hz-20kHz, 0.05% THD)
- 50 Watts x 2 Power Output at 4 Ohms, at 12V (20Hz-20kHz, 0.05% THD)
- 600 Watts x 1 Maximum Output Power
- PowerSlide
- B.M.S. (Bass Management System)
- PowerSlide/B.M.S. Head Unit Interface
- Sigma Drive
- Power MOSFET Switching Power Supply
- Variable Low-Pass Electronic Crossover
- Variable High-Pass Electronic Crossover
- Selectable Infrasonic Filter



# dB+ series



## QUALITY & POWER

dB+ Woofers and Full-Range speakers are both musical and loud – really loud. One reason the woofers can kick is their super-large X-max (the length of the voice coil that hangs outside of the magnetic field). The longer the X-max the greater the distance the cone can move and still be controlled by the magnetic circuit. A dB+ woofer's X-max is longer than other woofers (9mm for the KFC-XW12dB and 12mm for the KFC-XW10dB), and everything in a dB+ woofer is built to take full advantage of this huge X-max.

## ROCK SOLID SUBWOOFERS

dB+ subwoofers represent a breakthrough in basket design: they use thick rolled steel in a form that equals the performance of cast aluminum without the excessive cost. In vibration resistance tests, the dB+ frame proved just as solid as the best cast aluminum frames. And the dB+ construction quality doesn't end with the basket. The thick rubber gasket and the cone's rubber surround are typically two parts glued together, creating a potentially weak seam. A dB+ woofer's gasket and surround are one solid rubber piece which cannot come apart, thereby eliminating the resonance that can creep into the speaker at this joint. Finally, a dB+'s woofer pole piece and back plate are also one solid piece, improving magnetic transfer through the circuit. The back plate features a deep bumped yoke that allows long voice coil excursion.

## NEW dB+ FULL-RANGE SPEAKERS WITHSTAND POWER, HEAT

After the enormous success of our dB+ Woofers, we designed some awesome dB+ Full-Range Speakers. We use the same PBO fiber cone that makes our subwoofers resistant to heat and cold – they're almost indestructible. And the ability of PBO to withstand higher temperatures enable Kenwood engineers to design our dB+ full-range speakers with aluminum voice coil bobbins. The lighter weight aluminum bobbin allows a smaller air gap, greater sensitivity, and truer sound.



### GOLD-PLATED BINDING POSTS

Large, super conductive, posts take up to 8-gauge wire, and features extra side terminals to connect a second set of wires for Kenwood amps with Sigma Servo damping circuits.

### SPIRAL VENT

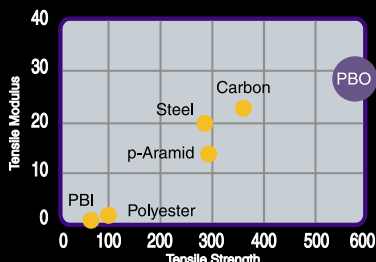
The large, tapered vent with spiral ridges allows air to swirl through like water in a whirlpool, avoiding the sudden "pop" that can give woofers with ordinary vents a "puh-puh-puh" sound.



### PBO ADVANCED FIBER (POLYPHENYLENEBENZOBISOXAZOLE)

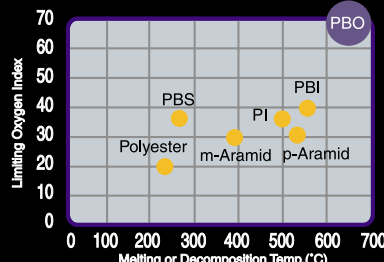
(PBO is a rigid-rod lyotropic liquid crystal polymer) This fiber uses the latest material that science and technology have to offer.

#### TESILE STRENGTH AND MODULUS



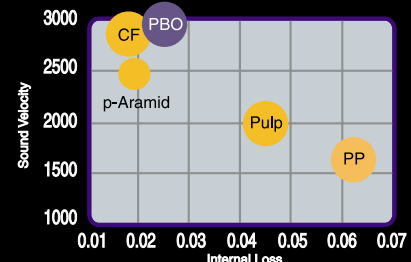
PBO fiber has superior tensile strength and modulus than that of other materials

#### THERMAL STABILITY AND FLAMABILITY



PBO demonstrates outstanding flame resistance and thermal stability when compared to other organic fibers

#### SOUND VELOCITY AND INTERNAL LOSS

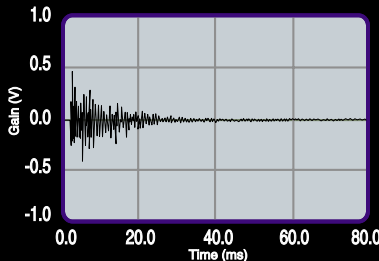


PBO provides higher sound speed and better internal loss to provide higher sound pressure level with no cone noise when compared to other fibers

### LOW RESONANCE/ANTI-VIBRATION FRAME

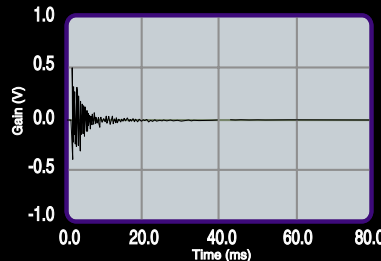
These graphs show attenuation abilities of different types of frame construction. Slow vibration attenuation will cause the bass to be undefined.

#### STANDARD STEEL FRAME



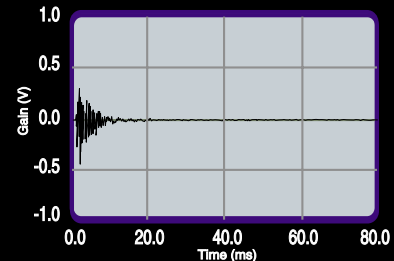
Dampens frame vibration slowly, low cost

#### CAST ALUMINUM



Dampens frame vibration quickly, high cost

#### dB+ FRAME



Similar to Cast Aluminum with a lower cost

### dB+ FRAME

## MORE ABOUT PBO - THE BEST CONE MATERIAL YET

With our exclusive PBO cone material, cones of carbon, kevlar, or polypropylene have all been surpassed. In every measurement of sound pressure level, speed, strength, weight, and stability, PBO is superior: There is simply no other cone material that equals PBO. The result: technology that allows dB+ speakers to move more air over a wider frequency range and with less mechanical noise than any other speakers on the market.



## SUB WOOFERS

### KFC-XW12dB

12" WOOFER



#### Key Features

- PBO Advanced Fiber Cone
- One-Piece Rubber Surround and Gasket
- Power Handling: 1,000 Watts
- Sensitivity: 93dB
- Voice Coil: 2-1/2"
- Frequency Response: 23Hz - 600Hz

### KFC-XW10dB

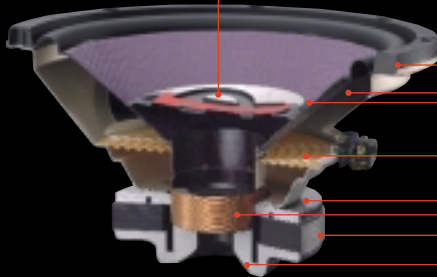
10" WOOFER



#### Key Features

- PBO Advanced Fiber Cone
- One-Piece Rubber Surround and Gasket
- Power Handling: 800 Watts
- Sensitivity: 92dB
- Voice Coil: 2"
- Frequency Response: 25Hz - 600Hz

### SUB WOOFER COMPONENTS



**3-D DB+ LOGO DUST CAP** - More than just good-looking, it's rigidity prevents noise.

**ONE PIECE RUBBER SURROUND AND GASKET** - Dampens basket vibration, which improves bass clarity.

**1.2MM STEEL FRAME (BASKET)** - The rigid design and thick steel has vibration resistance which equals that of cast aluminum, as measured by extensive testing.

**PBO ADVANCED FIBER CONE** - Compared to carbon or kevlar cones, our extra-deep and rigid PBO cones deliver higher sound pressure level (SPL), faster sound speed, lighter weight, more damping (with no cone noise), wider sound range, and better stability across all its dimensions. The specifications of our cones will never change due to heat, cold, sun, or age.

**ADVANCED FEED CONSTRUCTION (AFC) CONE'S SPIDER (DAMPER)** - The lead wires are stitched into the spider from both sides, cannot rattle and enable perfectly linear motion for the cone and voice coil.

**TOP PLATE** - Black heat-absorbing coating improves heat emission.

**2.5 OR 2 INCH VOICE COIL** - Extra-deep Kapton voice coil with glass fiber bobbin delivers longer movement for greater sound pressure level.

**STRONTIUM FERRITE MAGNET** - 52.9 oz. in KFC-XW12dB / 42.3 oz. in KFC-XW10dB

**SPIRAL VENTED POLE PIECE** - Solid, one-piece pole and backplate features extended slot for long voice coil travel and spiral vent to reduce air vent noise

## SPEAKERS

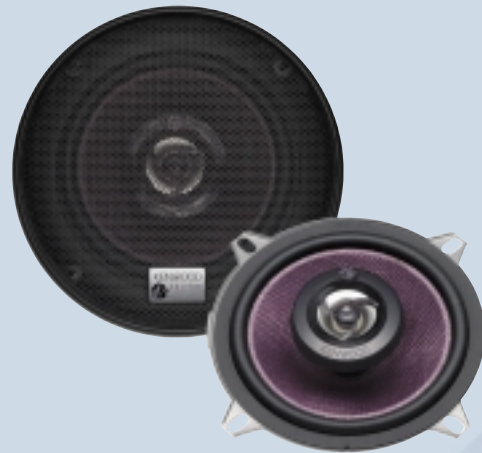
### KFC-X167dB 6-1/2" 2-WAY SPEAKER



#### Key Features

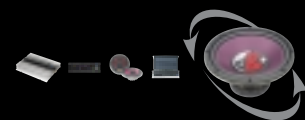
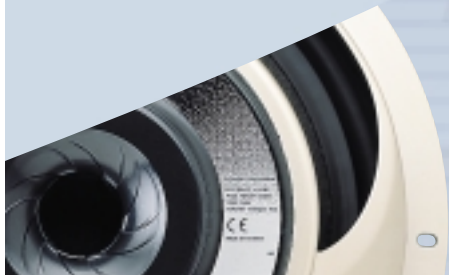
- PBO Advanced Fiber Woofer Cone
- PEI Film Balanced Dome Tweeter
- Power Handling: 220 Watts
- Frequency Response: 35Hz - 30kHz

### KFC-X137dB 5-1/4" 2-WAY SPEAKER



#### Key Features

- PBO Advanced Fiber Woofer Cone
- PEI Film Balanced Dome Tweeter
- Power Handling: 160 Watts
- Frequency Response: 40Hz - 30kHz



# SPEAKERS



## FOUR-LAYER VOICE COIL

Our four-layer voice coil and thicker, oxygen-free copper voice coil wire for the woofer let DualMags deliver more powerful bass and flatter frequency response. At the same time, the magnetic circuit features increase magnetic energy without generating fluctuations due to the widened voice coil gap. The result is high energy bass with greater stability and precision.

## PEARL MICA-INJECTION-MOLDED POLYPROPYLENE WOOFER CONES

Our pearl mica-injection-molded polypropylene woofer cones are made from a higher grade of pearl mica, with uniform-sized crystals that bond together more tightly to produce a stronger cone. The cones are molded from the apex out so they are the same thickness throughout, allowing them to deliver more accurate sound across the entire frequency range.

## CROSSOVER

The cutoff characteristics for the crossover—that is, where the high frequencies stop going to the midrange driver and start going to the tweeter—is crucial in a two-way speaker. In the 5-inch and 6-inch two-ways, Kenwood uses a 12dB slope, which means the high frequencies are cut off more sharply, which keeps each of the drivers sounding pure, and the overall sound of the speaker flat. Because the 4-inch midrange and its tweeter are much closer in their ability to reproduce highs, Kenwood wisely chose to use a 6dB cutoff for this model. The result is a smooth transition between the tweeter and the midrange driver.

## BUTYL RUBBER SURROUNDS

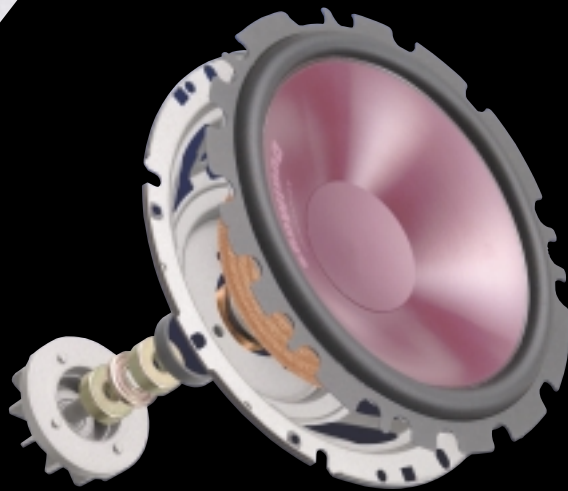
Butyl rubber has greater internal loss than standard urethane, preventing harmonic distortion at higher frequencies. It more efficiently absorbs edge reflections that can cause audible distortion, resulting in clearer bass performance.

## FLAT EDGE DIAPHRAGM

Our 7"x10" and 6"x9" woofer cones have flat outer edges that stiffen the cone. By reducing flexing, these cones control resonance and reduce midrange distortion.

## BALANCED DOME TWEETERS

Cone tweeters are clear, but beam sound in one direction. Dome tweeters disperse sound, but aren't as clear. Balanced Dome Tweeters combine the advantages of both. The area of the dome and the area of the cone are precisely matched (which is why they are called balanced) resulting in clean highs that can be heard from a variety of positions inside the car.



## DUALMAG SPEAKERS

Instead of using iron ferrite magnets that surround the voice coil as in traditional speaker design, Kenwood's patented DualMag design uses two small but very powerful neodymium magnets inside the voice coil. The magnets are turned so that their like poles face each other. This puts far more magnetic force in the voice coil gap, which controls the cone much more tightly for more accurate sound. Weight is reduced by up to two-thirds and the slimmer profile fits into tighter spots during installation.

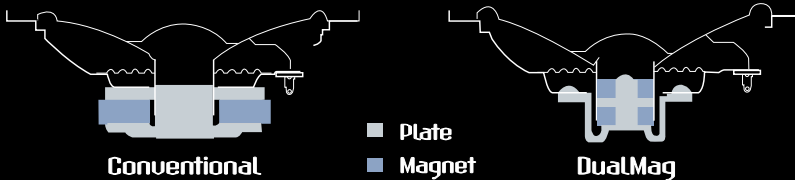
## UFLC TWEETER DIAPHRAGM

The tweeters use a Urethane Film Laminate Cloth Dome material which features improved damping and reduced distortion. Because it's so lightweight, it effectively extends the high frequency range and improves propagation speed, resulting in clear and crisp highs with quicker response.



## MULTIPLE-COMPONENT CROSSOVER NETWORKS

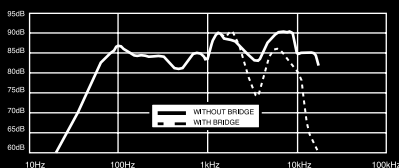
Smooth transition between woofer and tweeter with flatter frequency response is made possible by employing an advanced second order crossover. This crossover is capable of allowing three settings of tweeter attenuation either flat, -2dB or -4dB. The woofer can also be played full range in the low frequencies or it can be crossed over to create a bandpass effect on the midrange. The crossover has a clear plastic cover so you can see all the components inside.



## DUALMAG vs. CONVENTIONAL

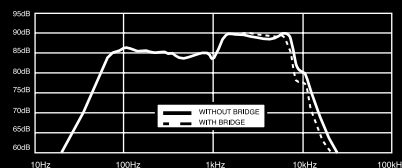
Conventional speakers use heavy iron magnets outside the voice coil; DualMags use much more powerful Neodymium inside the voice coil for light weight and improved performance.

WITH OLD TWEETER BRIDGE



The masking effect of the previous DualMag tweeter bridge introduced response irregularities in woofer's upper range.

WITH ANTI-MASKING TWEETER BRIDGE



The DualMag redesigned tweeter bridge virtually eliminates woofer response irregularities. Note that the woofer's frequency response with the bridge is nearly identical to its response with no bridge at all.

## ANTI-MASKING TWEETER BRIDGE

DualMag two-way speakers have a unique tweeter bridge that minimizes sound masking of the midrange driver by as much as 92%. The bridge also allows the midrange driver to have a dust cap, which gives it more rigidity and better response.





## SPEAKERS

### KFC-XR60P

6-1/2" WOOFER & 1" DOME TWEETER PACKAGE

#### Key Features

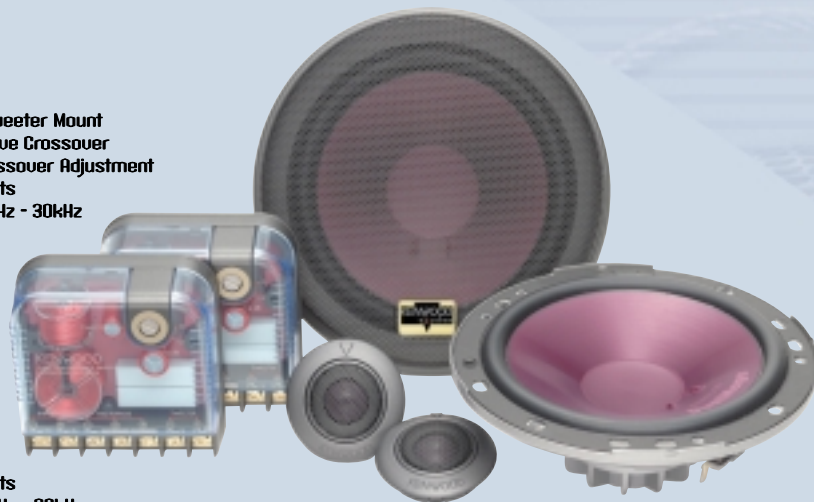
- DualMag Woofer Technology
- Pearl Mica Injection-Molded Polypropylene Cone
- Butyl Rubber Midrange Surround
- UFLC Soft Dome Tweeter
- 4-Layer Heat-Resistant Voice Coil with TIL Bobbin
- +/- 30 Degree Swivel Tweeter Mount
- 2-Way Component Passive Crossover
- Tweeter Attenuation Crossover Adjustment
- Power Handling: 180 Watts
- Frequency Response: 35Hz - 30kHz

### KFC-XR50P

5" WOOFER & 1" DOME TWEETER PACKAGE

#### Key Features

- DualMag Woofer Technology
- Pearl Mica Injection-Molded Polypropylene Cone
- Butyl Rubber Midrange Surround
- UFLC Soft Dome Tweeter
- 4-Layer Heat-Resistant Voice Coil with TIL Bobbin
- +/- 30 Degree Swivel Tweeter Mount
- 2-Way Component Passive Crossover
- Tweeter Attenuation Crossover Adjustment
- Power Handling: 160 Watts
- Frequency Response: 40Hz - 30kHz



## SPEAKERS

### KFC-X716

7" x 10" 3-WAY SPEAKER

#### Key Features

- Fits Many 6" x 9" Speaker Cutouts
- Pearl Mica Injection-Molded Polypropylene Woofer Cone
- Flat Edge Woofer Diaphragm
- Butyl Rubber Woofer Surround
- 2-3/4" PEI Cone Midrange
- 1" PPTA Balanced Dome Tweeter
- Multiple Component Crossover
- Power Handling: 280 Watts
- Frequency Response: 25Hz - 30kHz



### KFC-X696

6" x 9" 3-WAY SPEAKER

#### Key Features

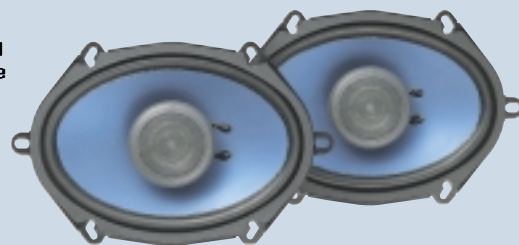
- Pearl Mica Injection-Molded Polypropylene Woofer Cone
- Flat Edge Woofer Diaphragm
- Butyl Rubber Woofer Surround
- 2-3/4" PEI Cone Midrange
- 1" PPTA Balanced Dome Tweeter
- Multiple Component Crossover
- Power Handling: 260 Watts
- Frequency Response: 25Hz - 27kHz

### KFC-X576C

5" x 7" 2-WAY SPEAKER

#### Key Features

- Pearl Mica Injection-Molded Polypropylene Woofer Cone
- Butyl Rubber Woofer Surround
- 1-9/16" PPTA Balanced Dome Tweeter
- +/- 15 Degree Swivel Tweeter Mount
- Power Handling: 120 Watts
- Frequency Response: 35Hz - 30kHz



### KFC-X466C

4" x 6" 2-WAY SPEAKER

#### Key Features

- Pearl Mica Injection-Molded Polypropylene Woofer Cone
- Butyl Rubber Woofer Surround
- Heat-Resistant TIL Voice Coil Bobbin
- 1" PPTA Balanced Dome Tweeter
- Power Handling: 150 Watts
- Frequency Response: 40Hz - 30kHz



## KFC-XR600

6-1/2" 2-WAY SPEAKER



### Key Features

- DualMag Woofer Technology
- Pearl Mica Injection-Molded Polypropylene Woofer Cone
- Butyl Rubber Woofer Surround
- 1" UFLC Soft Dome Tweeter
- New Bridged Tweeter Support
- 4-Layer Heat-Resistant Voice Coil with TIL Bobbin
- Bi-Wire Connections
- Power Handling: 180 Watts
- Frequency Response: 35Hz - 30kHz

## KFC-XR500

5-1/4" 2-WAY SPEAKER



### Key Features

- DualMag Woofer Technology
- Pearl Mica Injection-Molded Polypropylene Woofer Cone
- Butyl Rubber Woofer Surround
- 1" UFLC Soft Dome Tweeter
- New Bridged Tweeter Support
- 4-Layer Heat-Resistant Voice Coil with TIL Bobbin
- Bi-Wire Connections
- Power Handling: 160 Watts
- Frequency Response: 40Hz - 30kHz

## KFC-XR400

4" 2 WAY SPEAKER



### Key Features

- DualMag Woofer Technology
- Pearl Mica Injection-Molded Polypropylene Woofer Cone
- Butyl Rubber Woofer Surround
- 13/16" Soft Dome Tweeter
- New Bridged Tweeter Support
- Heat-Resistant Voice Coil with TIL Bobbin
- Bi-Wire Connections
- Power Handling: 100 Watts
- Frequency Response: 45Hz - 30kHz

## KFC-X106

4" 2-WAY SPEAKER

### Key Features

- Pearl Mica Injection-Molded Polypropylene Woofer Cone
- Butyl Rubber Woofer Surround
- Heat-Resistant Voice Coil Bobbin and Polyamide Damper
- 1" PPTR Balanced Dome Tweeter
- +/- 15 Degree Swivel Tweeter Mount
- Bi-Wire Connections
- Power Handling: 70 Watts
- Frequency Response: 45Hz - 30kHz



## KFC-XT13

1" ADD-ON DOME TWEETER

### Key Features

- Ultra Lightweight Polyamide Soft Dome
- Heat-Resistant Polyamide Voice Coil Bobbin
- 3-Way Mounting (Surface/Flush/Angle)
- +/-30 Degrees Swivel Mount
- 12dB/Octave In-Line High-Pass Filter
- Power Handling: 150 Watts
- Frequency Response: 4kHz - 26kHz





## OPTIONAL NECESSITIES

Sure, these are options – but once you've seen them, you'll wonder how you ever did without them. New for 2000 is the KPA-HD100 External Heads-Up Display. Information from D MASK+ and D MASK head units is displayed on a clear, flip-up reflector which can be mounted on your dashboard. The Heads-Up display shows all the standard head-unit information plus the valuable data from these other Optional Necessities:

- Know where you're going with the KPA-CP100 Compass. Sensing direction with up to 3-letter precision (NNW for example), you'll always know where you're headed.
- The KPA-SS100 Sensor Box provides you with two different temperature readings (amplifier and outside temperature), and will measure two different electrical system voltages (at the battery and at the amplifier). It will also display the difference between the two voltages.
- To complete your ready-for-adventure system is the KTC-WB100 Weather Band Tuner. With the KTC-WB100 you can scan all frequencies for the closest of the 480 National Weather Service stations across the U.S. No matter how the day starts, with Kenwood you'll know how it will end.

## WHY VOLTAGE INFORMATION MAKES A DIFFERENCE

Are you at optimum efficiency? Getting your money's worth from your amplifier(s)? The KPA-SS100 sensor box will tell you.

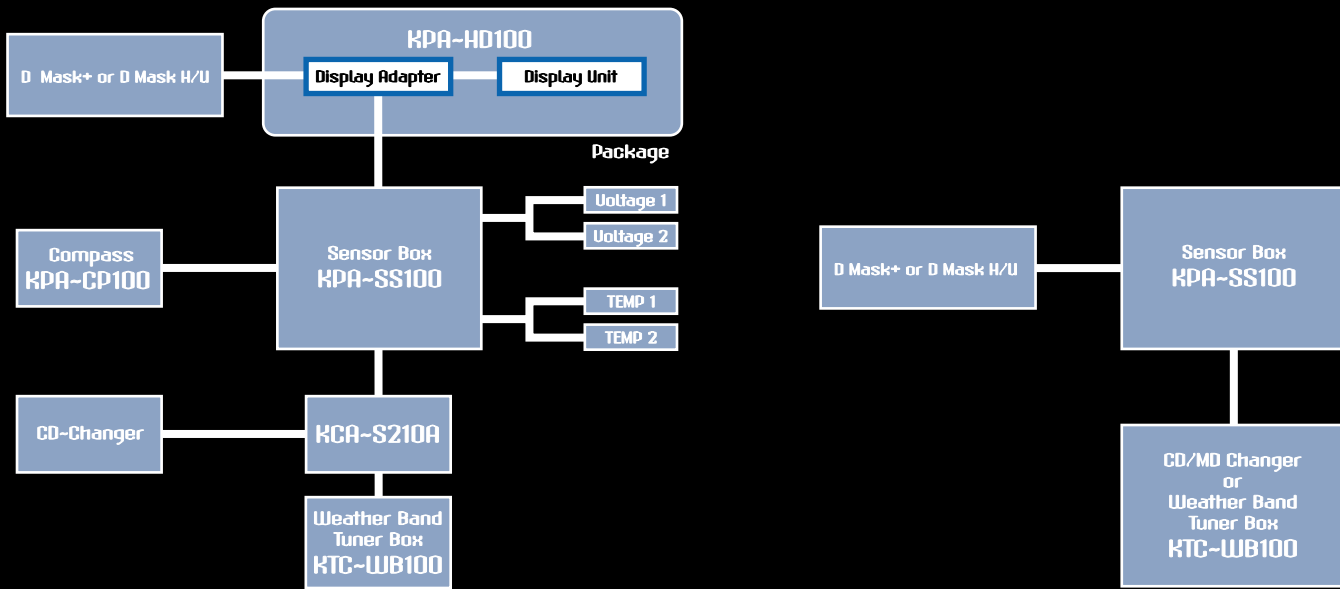
Say you attach your voltage sensors at the battery (the highest voltage), and at the amplifier(s) – the sensor box will tell you the difference in voltage. If there's a big difference, you might not be getting the most out of your amplifiers ... or speakers. And if the readings are close, you know you're getting your money's worth.

The KPA sensor box provides three different types of information:

D – Real time voltage difference.

D-I – Easy-reset difference peak – the peak difference between voltage sources. (Easily reset from the head unit.)

D-II – Hard-reset difference peak – the peak difference over extended periods. (This measurement will only reset if the head unit is completely reset, resulting in the loss of KEX and System E's settings, FM/AM presets, etc.)



## OPTIONAL NECESSITIES

### KPA-HD100 HEADS UP DISPLAY



#### DISPLAY INTERFACE BOX



#### Key Features

- Clear, Flip-Up Reflector Display
- Attaches to dashboard or visor
- Displays standard receiver information (FM, station, etc.)
- Optional data displayed with additional accessories
  - Compass (requires KPA-CP100)
  - Temperature and Voltage (requires KPA-SS100)
- Input for changer

### KPA-SS100 SENSOR BOX



#### Key Features

- Displays temperature or voltage information
- Capable of two different sources of information for temperature or voltage (ie: amp temperature or outdoor temperature; battery or amp voltage)
- D, D-1 and D-II voltage readings
- Input for changer

### KPA-WB100 WEATHER BAND TUNER



#### Key Features

- Receive weather band radio stations with compatible Kenwood head units
- Approximately 480 weather band channels available in the U.S.A.
- Useful for camping, hiking, or marine environments

### KPA-CP100 COMPASS



#### Key Features

- Senses direction and displays up to 3 letters (NNW)
- Useful for camping or marine environments



## HEAD UNIT FEATURES

	P907	KDC-H915	KDC-H815	KDC-H715	KDC-H615	KAC-H858	KMD-H92
<b>POWER OUTPUT</b>							
Maximum Power	40 x 4		45 x 4	45 x 4	45 x 4	45 x 4	45 x 4
Full Bandwidth Power	22 x 4		22 x 4	22 x 4	22 x 4	22 x 4	22 x 4
<b>GENERAL FEATURES</b>							
D MASK+ Motorized Removable Faceplate		•	•	•		•	•
D MASK Manual Removable Faceplate					•		
D MASK+ Angle Adjust		•	•	•		•	•
Display Readout	Video Display	Full Dot Matrix	Full Dot Matrix	12 Char Dot Matrix	12 Char Dot Matrix	12 Char Dot Matrix	Full Dot Matrix
Display Backlight	LCD	Fluorescent	Fluorescent	White LED	White LED	White LED	Fluorescent
Display Color	Hi-Resolution Full Color	Hi-Resolution Color	Hi-Resolution Color	Hi-Resolution Color	Multi-Color	Hi-Resolution Color	Hi-Resolution Color
Contrast Control	•			10 Step	10 Step	10 Step	
Spectrum Analyzer		•	•				•
Dimmer Control	3 Step	10 Step	10 Step	•	•	•	10 Step
2-Color Key Illumination		•	•	•	•	•	•
Source Key	On Screen GUI	Blue	Blue	Blue	Blue	Blue	Blue
Auto Dimmer	•	•	•	•	•	•	•
Remote Control	Grip Type	AC-520	AC-520	AC-520	AC-520	AC-520	AC-520
Accessory Capable		•	•	•	•	•	•
2-Zone Control		•	•	•	•	•	•
Attenuator with SUR	-20dB	-20dB/-60dB	-20dB	-20dB	-20dB	-20dB	-20dB
Changer Control Type (see table for details)	3	3	3	3	3	3	3
<b>AUDIO FEATURES</b>							
Pre-Outs	F+R/NF	F+R+NF (Gold)	F+R+NF (Gold)	F+R/NF (Gold)	F+R/NF (Gold)	F+R/NF (Gold)	F+R+NF (Gold)
Pre-Out Voltage	4U/80ohm	4.5U/80ohm	4.5U/80ohm	4.5U/80ohm	1.8U	4.5U/80ohm	4.5U/80ohm
KEH Sound Control		•	•	•	•	•	•
System E's+ Crossover System	System E's	•	•	•	•	•	•
DRIVE & 0-Bit Mute		•	•	•	•	•	•
20-Bit Resolution D/A		•	•	•	•	•	•
10-Second Digital Anti-Skip							•
Dolby B Noise Reduction						•	
PowerSlide/B.M.S. Interface		•	•	•	•	•	•
<b>TUNER FEATURES</b>							
RDS	•	•	•	•	•	•	•
Station Naming	•	•	•	•	•	•	•
Station Name Preset Play	•	•	•	•	•	•	•
Weather Band Capable		•	•	•	•	•	•
Tuner Antenna Control	•	•	•	•	•	•	•
Dimensions (W x H x D)	7-1/16 x 1-15/16 x 7-3/16	7-3/16 x 2-1/16 x 6-5/16	7-3/16 x 2-1/16 x 6-3/8	7-3/16 x 2-1/16 x 6-3/8	7-3/16 x 2-1/16 x 6-5/16	7-3/16 x 2-1/16 x 6-5/16	7-3/16 x 2-1/16 x 6-3/8

## CD CHANGER FEATURES

## CHANGER CONTROL FEATURES

	KDC-CH85	C907	Type 3	
<b>COMPACT DISC FEATURES</b>			<b>CHANGER CONTROL FEATURES</b>	
DRIVE & 0-Bit Mute	•	•	Changer Control	
Integrated Quad D/A Converter	20-Bit Resolution	20-Bit Resolution	2, + Aux (w/KCA-210A or compatible changer)	
Digital Filter	20-Bit Resolution	20-Bit Resolution	CD Text	
Digital Optimum Servo Control (DOOSC)	•	•	Disc Naming	
Precision Digital Timing (DPAC)	•	•	Disc Name Preset Play	
CD Text	•	•	Play Time Display	
Disc Naming	100 Discs	100 Discs	Random	
<b>GENERAL FEATURES</b>			Disc, Magazine	
Additional Changer Control or Aux Input	•	•	Repeat	
For Use With P907 Mobile Television		•	Scan	
Disc Capacity	10 Discs	10 Discs	Direct Disc and Track Access	
Super Capacitor Memory	•	•	with Remote	
3-Angle Mounting (0, 45, 90 Degrees)	•	•		
M2-Bus Control		•		
Ebony Finish	•	•		
Dimensions (W x H x D)	9-13/16 x 3-1/8 x 7-15/16	9-13/16 x 3-1/8 x 7-15/16		

## PERFORMANCE SPECIFICATIONS

	ALL CD Head Units except HDC-H615	HDC-H615	HMD-H92	HDC-CH85/C907	P907	HAC-H858
Frequency Response	10Hz - 20kHz (±1dB)	10Hz - 20kHz (±1dB)	20Hz - 20kHz (±2dB)	10Hz - 20kHz (±1dB)	5Hz - 20kHz (±1dB)	30Hz - 18kHz (±3dB, 70µs)
Total Harmonic Distortion (1kHz)	0.01%	0.01%	0.01%	0.005%	0.01%	
Signal-to-Noise Ratio (1kHz)	105dB	96dB	90dB	100dB	93dB	65dB (Dolby B), 57dB (Dolby off)
Dynamic Range	100dB	93dB	90dB	96dB	93dB	
Channel Separation	95dB	85dB	85dB	96dB	85dB	43dB (1kHz)
Preamplifier Output Level	4.5U	1.8U	4.5U			4.5U (Changer Control Mode)
Preamplifier Output Impedance	80 ohms	600 ohms	80 ohms			80 ohms
Auxiliary Input Level				1.4U		
Tone Control Characteristics	±10dB at 100Hz (Bass) ±10dB at 10kHz (Treble)	±10dB at 100Hz (Bass) ±10dB at 10kHz (Treble)	±10dB at 100Hz (Bass) ±10dB at 10kHz (Treble)		±10dB at 100Hz (Bass) ±10dB at 10kHz (Treble)	±10dB at 100Hz (Bass) ±10dB at 10kHz (Treble)
Wow & Flutter (WRMS)	Unmeasurable	Unmeasurable	Unmeasurable	Unmeasurable	Unmeasurable	0.08%

## TUNER SPECIFICATIONS

	ALL Head Units
FM Useable Sensitivity (0.8µV/75 ohms, 30dB S/N)	9.3dBf
FM Quieting Sensitivity (1.6µV/75 ohms, 50dB S/N)	15.2dBf
FM Selectivity (±400kHz)	≥80dB
FM Signal-to-Noise Ratio (Mono)	70dB
FM Stereo Separation (1kHz)	40dB
AM Useable Sensitivity (25µV, 20dB S/N)	28dBµ

## POWER AMPLIFIER FEATURES

	HAC-H501F	HAC-H401M	HAC-H301T	HAC-H201T
<b>POWER RATINGS (WATTS)</b>				
4 Ohm @ 14.4U				
20 - 20kHz 0.08% THD	75 x 4	300 x 1	100 x 2	75 x 2
4 Ohm @ 12.0U				
20 - 20kHz 0.08% THD	50 x 4	200 x 1	75 x 2	50 x 2
2 Ohm @ 14.4U				
1kHz 0.8% THD	150 x 4	600 x 1	200 x 2	150 x 2
2 Ohm @ 12.0U				
1kHz 0.8% THD	100 x 4	400 x 1	150 x 2	100 x 1
Bridged @ 14.4U				
1kHz 0.8% THD	300 x 2		400 x 1	300 x 1
Max Power	600 x 2	1200 x 1	800 x 1	600 x 1
Signal-to-Noise Ratio	105dB	105dB	105dB	105dB
<b>POWER SUPPLY FEATURES</b>				
Dual Power Supply	•	•	•	
Large Secondary Cap	•	•	•	•
Glass Epoxy PCB	•	•	•	•
Cooling Fan	(2)	•	(2)	•
Power Terminal	Large MG	Large MG	Large MG	Large MG
Power Indicator	•	•	•	•
<b>AUDIO FEATURES</b>				
Sigma Drive	•		•	•
Sigma Servo		•		
LAPT Transistors	•	•		
Tri-Mode	•		•	•
Stereo, Mono	•		•	•
Mono		•		
Low Pass Filter (Hz, dB/oct)	50-200, 24dB	50-200, 24dB	50-200, 18dB	50-200, 18dB
High Pass Filter (Hz, dB/oct)	50-200 18dB		50-200, 12dB	50-200, 12dB
Band Reject Filter (Hz)		40-200		
Infrasonic Filter (Hz, dB/oct)	15/25, 24dB	15/20/25/30, 24dB	25, 18dB	25, 18dB
Parallel RCA In/Out	•	•	•	•
Dimensions (D x H x W)	10-11/16 x 2-1/2 x 14-15/16	10-11/16 x 2-1/2 x 14-15/16	10-11/16 x 2-1/2 x 11-13/16	10-11/16 x 2-1/2 x 10-5/8

## OVAL SPEAKER FEATURES

	KFC-H716	KFC-H696	KFC-H576C	KFC-H466C
<b>SPEAKER FEATURES</b>				
Woofer	7"x10" Pearl Mica Polypropylene Cone	6"x9" Pearl Mica Polypropylene Cone	5" x 7" Pearl Mica Polypropylene Cone	4" x 6" Pearl Mica Polypropylene Cone
Midrange	2-3/4" PEI Film Cone	2-3/4" PEI Film Cone		
Tweeter	1" PPTA Film Balanced Dome	1" PPTA Film Balanced Dome	1-9/16" Polyamide Balanced Dome	1" Polyamide Balanced Dome
Rubber Surround	•	•	•	Urethane
Multiple Component Crossover	•	•		
Swivel Tweeter Mount			±15 degrees	
Gold-Plated Speaker Connectors	•	•	•	•
OFC Speaker Wire			•	•
Magnet Weight	18 oz	18 oz	8.3 oz	5.6 oz
Power Handling	280 Watts	260 Watts	120 Watts	100 Watts
Sensitivity	93dB	93dB	92dB	91dB
Frequency Response	25Hz - 30kHz	25Hz - 27kHz	35Hz - 30kHz	40Hz - 30kHz
Mounting Depth	3-1/4"	3-1/4"	2-1/16"	1-3/4"

## ROUND SPEAKER FEATURES

	KFC-H167dB	KFC-H137dB	KFC-H106
<b>SPEAKER FEATURES</b>			
Woofer	6" PBD Advanced Fiber Cone	5" PBD Advanced Fiber Cone	4" Pearl Mica Polypropylene Cone
Tweeter	1-3/16" PEI Film Balanced Dome	1-3/16" PEI Film Balanced Dome	1" PPTA Film Balanced Dome
Rubber Surround	•	•	•
Aluminum Voice Coil	•	•	TIL
OFC Speaker Wire	•	•	•
Gold-Plated Speaker Connectors	Bi-Wirable	Bi-Wirable	Bi-Wirable
Magnet Weight	11.9 oz	8.2 oz	6.4 oz
Power Handling	220 Watts	160 Watts	70 Watts
Sensitivity	92dB	92dB	90dB
Frequency Response	35Hz - 30kHz	30Hz - 30kHz	45Hz - 30kHz
Mounting Depth	2-3/8"	2-5/16"	1-5/8"

## WOOFER FEATURES

	KFC-KW12dB	KFC-KW10dB
<b>WOOFER FEATURES</b>		
Woofer	12" PBD Advanced Fiber Cone	10" PBD Advanced Fiber Cone
One-Piece Rubber Surround and Gasket	•	•
3-D Injection-Molded Dust Cap	•	•
Voice Coil	2-1/2" Kapton and Glass Fiber	2" Kapton and Glass Fiber
Heat-Resistant Cone Damper with Advanced Feed Construction	•	•
Strontium Ferrite Magnet	•	•
1.2mm-Thick Steel Frame	•	•
Vented Extended Pole Piece	Extra-Long, Spiral-Vented	Extra-Long, Spiral-Vented
Bumped Yoke	•	•
Speaker Connectors	Gold-Plated, 2-Way SB	Gold-Plated, 2-Way SB
Magnet Weight	52.9 oz	42.3 oz
Power Handling	1,000 Watts	800 Watts
Sensitivity	93dB	92 dB
Frequency Response	23Hz - 600Hz	25Hz - 600Hz
Mounting Depth	6-1/8"	5-1/2"
Hole Size	10-7/8"	9"
Displacement	0.15 cu. Ft.	0.085 cu. Ft.
<b>THREE-SMALL PARAMETERS</b>		
Nominal Impedance (Z)	4 ohms	4 ohms
DC Resistance (Re)	2.8 ohms	2.78 ohms
Resonant Frequency (Fs)	19.3Hz	24.4Hz
Mechanical Q Factor (Qms)	11.3406	6.446
Electrical Q Factor (Qes)	0.4	0.462
Total Q Factor (Qts)	0.386	0.431
Volume Acoustic Compliance (VAS)	198 Liters/6.996 cu. Ft.	79 Liters/2.792 cu. Ft.
Moving Mass (Mms)	3.3 oz.	2.618 oz.
Voice Coil Diameter (d)	2-3/8"	1-7/8"
Force Factor (BL)	9.94 Tm	9.23 Tm
Peak Excursion (Xmax)	9 mm	12 mm

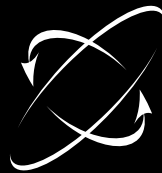
## COMPONENT SPEAKER PACKAGE FEATURES

	HFC-HR60p	HFC-HR50p
<b>MIDRANGE FEATURES</b>		
Pearl Mica Polypropylene Midrange Cone	6-1/2"	5-1/4"
Butyl Rubber Surround	•	•
Dual Neodymium Magnets	•	•
4-Layer Heat-Resistant Voice Coil	•	•
Magnet Weight	0.82 oz x 2	0.82 oz x 2
Mounting Depth	1-15/16"	1-7/8"
<b>TWEETER FEATURES</b>		
Tweeter	1" UFLC Soft Dome	1" UFLC Soft Dome
Neodymium Magnet	•	•
Swivel Mount	•	•
<b>SYSTEM FEATURES</b>		
Crossover	2-Way Component	2-Way Component
Tweeter Attenuation Adjustment	0dB/-2dB/-4dB	0dB/-2dB/-4dB
Crossover Midrange Connections	Through/Low Cut	Through/Low Cut
Gold-Plated Crossover Speaker Terminals	•	•
Power Handling	180 Watts	160 Watts
Sensitivity	91dB	90dB
Frequency Response	35Hz - 30kHz	40Hz - 30kHz

## DUALMAGS SPEAKER FEATURES

	HFC-HR600	HFC-HR500	HFC-HR400
<b>SPEAKER FEATURES</b>			
Pearl Mica Polypropylene Woofer Cone	6"	5"	4"
UFLC Soft-Dome Tweeter	1"	1"	13/16"
Butyl Rubber Surround	•	•	•
Pearl-Mica Injection-Molded Polypropylene Dustcap	•	•	•
4-Layer Heat-Resistant Voice Coil	•	•	•
Heat-Resistant Voice Coil and Polyamide Damper			•
Dual Neodymium Magnets	•	•	•
Bridged Tweeter Support	•	•	•
Speaker Connectors	Gold-Plated	Gold-Plated	Gold-Plated
Bi-Wire Connections	•	•	•
OFC Speaker Wire	•	•	•
Magnet Weight	0.82 oz x 2	0.82 oz x 2	0.29 oz x 2
Power Handling	180 Watts	160 Watts	100 Watts
Sensitivity	92dB	91dB	90dB
Frequency Response	35Hz - 30kHz	40Hz - 30kHz	45Hz - 30kHz
Mounting Depth	1-15/16"	1-7/8"	1-5/8"





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