

SONY

7.1 Surrounds

Memo List

6-CD Changer

Station Memo Display

Digital Time Alignment

Program

mobile

Driver's Remote Control

Program Bank

ES

Mirror-Image Twin

High-Output Preamplifiers

Electronic Shock Protection

LaserAmorphous Tape Head



UniLink

Advancing at the Speed of Sound

The Elevated Standard

If you consider every drive a chance
to enjoy music. If you believe the most
important control in the car is the volume
control. If you believe life holds no
adequate substitute for spectacular sound,
you've come to the right place.

Because the engineers of Sony Mobile ES
share your beliefs and have expressed them
in copper and polymer, silicon and steel.

Here is a new generation of components
that will involve you, entertain you
and excite you as never before.

So grab your keys, pick up a few CDs
and fasten your seatbelt.

The concert is about to k



d Shifts into Overdrive.



egin.

Contents

Reference Series	4
CD Receivers	6
Cassette Receivers	8
CD Changers	10
Digital Processors	12
Power Amplifiers	14
Speakers	16
Specifications	18

mobile ES reference series

This is what happens when you give the world's greatest autosound engineers free rein. They'll push back the limits. Streamline the controls. And produce components of such superb sound quality, they leave all previous achievements in the dust. Welcome to the Mobile ES Reference Series.

High-Output Preamplifier. The analog stages of the Reference Series head units use lavish DC-to-DC converters and ± 15 Volt power supplies. This results in superb stability, superior isolation, a lower noise floor and an impressive 4 Volts of preamp output – twice that of conventional designs. Extravagant? Perhaps. But for the last measure of performance, it's the only way.

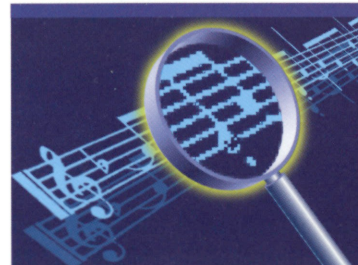
Copper Chassis. To protect the sensitive, low-level signals inside the Reference Series units, we've given them non-magnetic copper chassis. The result is purer, more transparent reproduction of the music you love.

Electronic Shock Protection. Like a 2x speed CD-ROM drive, the CDX-C910 conducts double-speed read. So the player can actually check and correct for errors – assuring the integrity of the data stream. What's more, the data is always accumulating in a 4 megabit buffer memory. So if a bump or jolt should knock the laser off course, the music continues to play from memory while the laser gets back on track.

Dual Display. Sony just reinvented the display. Presenting the multi-color, fluorescent backlit, two-line Dual Display. It's mounted on a motorized front panel that folds out for cassette or CD loading. There's no loading slot to take up space. So the Dual Display can be larger and more informative. You can see clock time and source information simultaneously. And with a



CDX-C910 CD Tuner



DOUBLE-SPEED READ. Like a high-speed proofreader, Sony's double-speed read actually checks and corrects for CD data errors.

CD Changer connected, you can see the disc name, disc number, track number and elapsed time at a single glance!

Driver's Remote Commander. We've matched the Dual Display with the Driver's Remote Commander. Every function gets its own, unique twist, turn or touch. So you can keep your mind on the music and your eyes on the road.

Rotary Encoder. The main controls, carefully chosen, are clustered to the left, around a single rotary encoder. This multi-function electronic control turns like a conventional knob, for easier, more intuitive operation.

CDX-C910 CD Tuner with Unilink Controller

Why did Sony build so many technical advancements into the CDX-C910? Just listen and you'll understand immediately.

- Electronic Shock Protection with 4 megabit buffer memory
- Four staggered 20-bit Burr Brown® Sign Magnitude™ D/As
- Optical digital output with optional XA-D210 • SSIR-EX tuning • 20 FM + 10 AM station presets • Station Memo™ display of preset station names • Non-magnetic copper chassis • High-output preamp with ±15 V DC-DC converter • UniLink™ control for CD, MD, TV and DSP • Motorized, fold-out front panel • High-resolution Dual Display • Rotary Encoder front panel with simplified controls • Supplied Driver's Remote

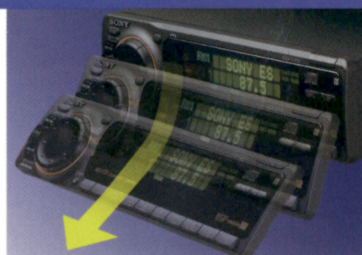
XR-C900 Cassette Tuner with Unilink Controller

Your cassettes are about to experience First Class travel.

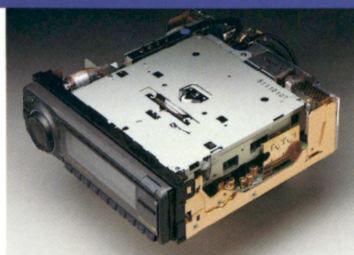
- LaserAmorphous tape head suppresses head crystal switching noise • Dolby® B and C NR • SSIR-EX Diversity tuning • 20 FM + 10 AM station presets • Station Memo display of preset station names • Non-magnetic copper chassis • High-output preamp with ±15 V DC-DC converter • Non-fading preamp output for subwoofer or center • UniLink control for CD, MD, TV and DSP • Motorized, fold-out front panel • High-resolution Dual Display • Rotary Encoder front panel with simplified controls • Supplied Driver's Remote and wireless remote control



XR-C900 Cassette Tuner



MOTORIZED FACEPLATE. Because a loading slot would reduce the display size, Sony designed a faceplate that folds out for cassette or CD loading, and even adjusts for best viewing angle.



COPPER CHASSIS. Most people wouldn't notice magnetically induced distortions. We do. And we controlled them with a luxurious copper chassis.

mobile ES cd receivers

Car CD is Sony's brainchild. That's why we've nurtured it and developed it year after year. That's why these Mobile ES CD Receivers are so technically advanced. And that's why they sound so good. They're the finest products yet from car CD's most passionate advocates. Sony.

Electronic Shock Protection (ESP). With their rugged transports and powerful tracking servos, Sony car CD players rarely skip. But ESP provides the ultimate line of defense, with a 4 megabit, 3 second buffer memory. Because audio data is constantly read into and played from the buffer, your music won't skip a beat even if the laser mistracks momentarily.

Dual Display. The Driver's Remote gives you comprehensive control over the Receiver, while the Dual Display gives you comprehensive feedback of information. At a single glance, you can see clock time, CD track number and track elapsed time! Together, the Remote and the Display form a feedback loop that makes operation almost effortless.

UniLink™ System Options. Start with a Sony CD Receiver. Then add a CD Changer, MiniDisc Changer, Digital Signal Processor and TV Tuner! The Sony UniLink control bus makes it possible to expand your system and control it all via the Receiver's front panel.

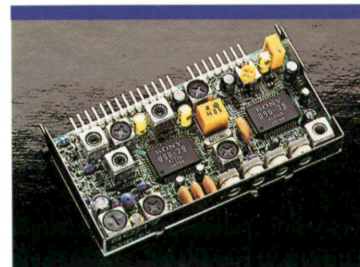
Custom File™ CD Changer Features. Add a Sony CD Changer and our Custom File system will help you enjoy your CDs to the fullest. First, the Disc Memo™ display lets you assign 8-character names to each CD. Memo List scrolls through the names, even while a disc is playing. Next, Program Play lets you select two sets of 12 songs, mixing tracks from several discs. So you can hear the music of your choice in the sequence of your choice. Finally, Program Bank lets you skip the boring songs – and hear only your favorites!

Digital Signal Processing. To escape the limitations of analog preamplifiers, the CDX-C710 and CDX-C510 let you connect a Sony Digital Signal Processor. And DSP is built right into the CDX-C810DSP. Either way, you get ultra-precise digital adjustment of Volume, Balance, Fader, Bass and Treble. Digital Time Alignment moves the stereo "sweet spot" to your seat. And Digital Soundfields let you enjoy Rock in a Stadium and Classical in a Concert Hall.

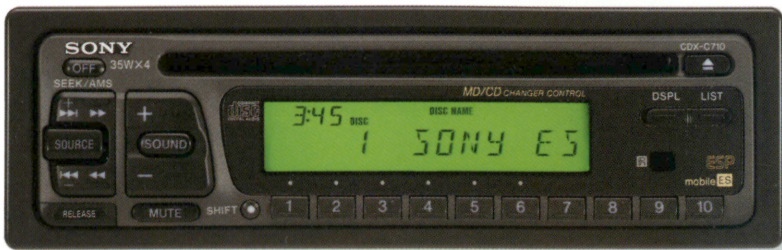


CDX-C810DSP CD Receiver with Unilink Controller

The digital Compact Disc deserves the precision of Digital Signal Processing – a thought embodied in the Sony CDX-C810DSP. • 7 DSP Soundfields • Digital Bass & Treble • Digital lo-pass filter, adjustable frequency & level • Digitally time aligned seat position, 5 adjustable presets • Three Σ -DEC 1-bit D/As • 35 w x4 high power, front, rear, sub preouts • UniLink CD/MD/TV control with Custom File • Supplied Driver's Remote



SSIR-EX TUNER. Designed by Sony, built by Sony and studded with Sony integrated circuits, our SSIR-EX front end combines stellar FM tuning sensitivity with superlative interference rejection.



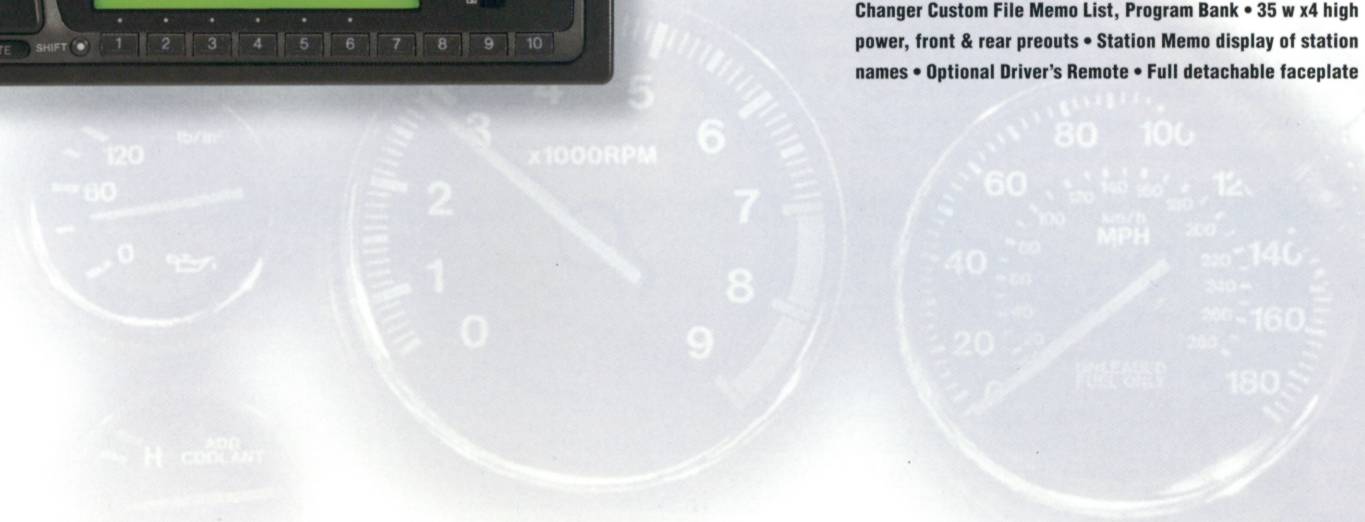
CDX-C710 CD Receiver with Unilink Controller

Sony presents a high-performance CD Receiver with our high-precision ESP system. • Electronic Shock Protection (ESP) with 4 megabit buffer memory • Burr-Brown PCM-1710 1-bit D/A converter • UniLink™ CD/MD/TV/DSP control • CD Changer Custom File Memo List, 12 + 12 Program Play • 35 w x4 high power, front & rear preouts • Station Memo display of station names • Supplied Driver's Remote • Full detachable faceplate

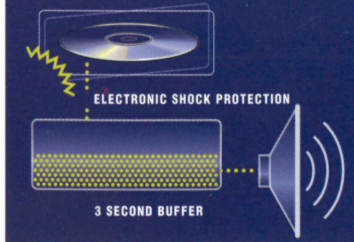


CDX-C510 CD Receiver with Unilink Controller

This high-performance CD Receiver also controls a Sony UniLink CD Changer, MD Changer, TV Tuner or Digital Signal Processor. • Burr-Brown PCM-1710 1-bit D/A converter • CD Changer Custom File Memo List, Program Bank • 35 w x4 high power, front & rear preouts • Station Memo display of station names • Optional Driver's Remote • Full detachable faceplate



ERGONOMIC FRONT PANEL. The principal controls are grouped to the left, for easy access. This makes room for a larger, Dual Display with at-a-glance visibility.



ELECTRONIC SHOCK PROTECTION. The CDX-C710 reads the CD at 2X normal speed to keep a 3 second "reservoir" of memory filled. Because audio data is always played from the buffer, music continues to flow even if the laser should mistrack momentarily.

mobile ES cassette receivers

Consider your future. That's what Sony did when we designed the Mobile ES Cassette Receivers. They give you effortless access to the best of FM, AM and Cassette today. And you can add a CD Changer tomorrow.

Full-Logic, 2-Motor Cassette Deck. Full Logic's feather-touch controls respond to the slightest finger contact. Full Logic features like Intro Scan, Repeat and Blank Skip give you more ways to enjoy your cassettes. And Sony's 2-motor operation gives you smoother tape running, power-assisted loading, even faster Fast-Forward.

9-Step AMS Track Search. Sony speeds you directly to your song. Touch a button once to skip forward to the next track or back to the beginning of this one. Touch a button up to nine times to skip up to nine songs forward or back.

Cassette Advancements. Sony's remarkable XK-R100 Cassette Tuner reduces even subtle sources of noise with a non-magnetic copper chassis and separate power supplies for audio and UniLink control. The LaserAmorphous Head avoids the noise that occurs when head crystals switch polarity. The ± 15 volt DC-to-DC converter delivers 4 volts at the preamplifier output for superb dynamics, lower noise and better coupling to the power amp. The resulting cassette sound is uncommonly accurate, uncannily natural.

Driver's Remote Commander. Once you've experienced the Driver's Remote Commander, you'll never go back to conventional car stereo. We give each function its own tactile sensation – making each identifiable by touch. Once you've learned the remote, you'll be able to operate your system without taking your eyes off the road.

Station Memo Display. Now you can display 8-character names for your preset stations. So instead of just tuning preset numbers, you'll be receiving Z-100, OLDIES, CLASSICL or WDRE-FM.

CD Changer Control. You can connect a Sony CD Changer, and operate it through the Cassette Receiver's front panel. When you do, our Custom File system will help you enjoy your CDs to the fullest. For example, Program Play lets you select two sets of 12 songs, mixing tracks from several discs. So you can hear the music of your choice in the sequence of your choice.



XR-C700 Cassette Receiver with Unilink Controller

Sophisticated engineering meets superb ergonomics: the Sony XR-C700. • Full-logic cassette deck • Dolby® B and C NR • 35 w x4 high power, front and rear preouts • Station Memo™ display • UniLink CD/MD control with Custom File operation • 12 + 12 track CD Program Play • Dual Display • Two-color illumination • Fold-Down front panel • Supplied Driver's Remote



DRIVER'S REMOTE. Keep your eyes on the road. The Sony Driver's Remote gives each control its own, distinctive turn, twist or tap. So once you've mastered the Remote, you can operate the Receiver by touch alone.



XR-C500 Cassette Receiver with Unilink Controller

Glance at the Dual Display, open the front panel and insert a cassette. The XR-C500 is an experience beyond the ordinary

- Full-logic cassette deck • Dolby® B NR • 35 w x4 high power, front and rear preouts • Station Memo display • UniLink CD/MD control with Custom File operation • Dual Display
- Fold-Down front panel • Supplied Driver's Remote



XK-R100 Cassette Tuner with Unilink Controller

Here's what happens when you take the Amplifier out – and take the Cassette Deck and Preamp to the limit. If you're a fanatic for cassette sound quality, you're a candidate for the XK-R100.

- LaserAmorphous head • Dolby® B NR • High-output preamp with ±15 V DC-DC converter • Non-magnetic copper chassis • UniLink control for CD, MD • Station Memo display • Optional Driver's Remote • High-contrast positive LCD • 4 Volt front and rear preouts



XR-C620 Cassette Receiver with Unilink Controller

With superlative features in the cassette deck and tuner, plus incredible expansion options for CD and DSP, the XR-C620 is stand-out.

- Full-logic cassette deck • Dolby® B and C NR • Station Memo display • Best Tuning Memory • Auto Tuner Activation
- 35 w x4 high power, front and rear preouts • UniLink control for CD, MD, TV and DSP with Custom File operation • Two color illumination • Supplied Driver's Remote • 24 track CD Program Play



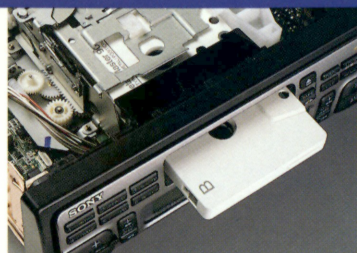
XR-C520 Cassette Receiver with Unilink Controller

The XR-C520 lets you enjoy the performance of Mobile ES without performing radical surgery on your bank account.

- Full-logic cassette deck • Dolby® B NR • Best Tuning Memory • Auto Tuner Activation • 35 w x4 high power, rear preout • UniLink control for CD, MD with Custom File operation
- Optional Driver's Remote • Full detachable faceplate



FOLD-DOWN FRONT PANEL. Because a loading slot would reduce the display size, the faceplate folds down. This gives the XR-C700 and XR-C500 room for an oversized, Dual Display.



ADVANCED TAPE DRIVE. The XK-R100 is uncommonly well-shielded, thanks to Sony's copper chassis. Noise is uncommonly low, thanks to Sony's LaserAmorphous head.

CD mobile ES changers

Ten discs give you more playing time, more musical styles, more choices. Six discs give you more options for mounting a changer inside the cabin. That's why Sony is pleased to present the CDX-91 10-Disc CD Changer alongside two ultra-small 6-Disc Changers!

Ultra-Compact 6-CD Changers. Sony's six-disc magazine and our rapid changing mechanism have made possible 6-CD changers that fit under your seat, in your center console or your glove compartment – with room to spare for gloves!

Electronic Shock Protection (ESP). The laser "reads" the CD at double-speed, checking and correcting for errors. The corrected audio data is constantly read "through" a 3-second buffer memory. Even if a jolt knocks the laser off track, the buffer continues to play, providing up to 3 seconds for the laser to get back on track.

Optical Digital Output. The CDX-91 permits a fiber optic, digital-to-digital connection to the XDP-U50D or XDP-210EQ

Digital Signal Processors. So you can make the link entirely without ignition noise or other electromagnetic hash.

Custom File Disc Memo™ Feature. A Sony CD Changer multiplies your playback options. And our Custom File system will help you enjoy those options to the fullest. For example, the controller's Disc Memo display lets you assign 8-character names to as many as 110 CDs. So instead of Disc 1 or 6, you'll be listening to BEETHOVN or ZYDECO.

Memo List. Forgotten which discs are loaded in your changer? You can scroll through the Disc Memo titles of the CDs you've got loaded, even while a disc is playing.

12 + 12 Program Play. Select and program two sets of 12 songs, even mixing tracks from several discs. So you can hear the music of your choice in the sequence of your choice.

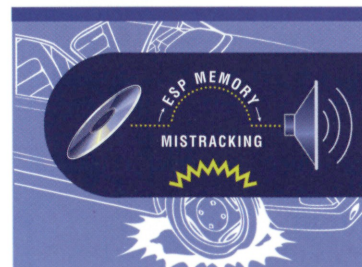
Program Bank. For each of 110 CDs, Program Bank lets you skip the boring tracks – and hear only your favorites.

DSP File. The system remembers, and automatically returns to your precise Digital Signal Processor settings for all 110 CDs!



CDX-91 10-CD Changer

Electronic Shock Protection makes this sleek 10-CD Changer uniquely adapted to life on the road. • 4 megabit ESP buffer memory • 8x oversampling • Burr-Brown PCM-1710 1-bit D/A converter • Optical digital output • Custom File memory for 110 CDs • 12 + 12 Program Play • Chassis mounted line output connectors • Long-excursion silicone-damped suspension • Horizontal or vertical mounting



ELECTRONIC SHOCK PROTECTION. You get smooth sailing over potholes with 4 megabits of memory. That equals 3 seconds of music: enough to keep the tunes flowing without interruption, even if the laser mistracks.

CDX-T65 6-CD Changer

Upgrade your center console or glove compartment with the ultra small CDX-T65. • Electronic Shock Protection (ESP) with 4 megabit buffer memory • 8x oversampling • High-resolution Σ DEC 1-bit D/A converter • Digital servo control • Custom File memory for 110 CDs • 12 + 12 Program Play • Fast-change CD mechanism • Cord mounted line output connectors • Long-excursion silicone-damped suspension • Horizontal or vertical mounting

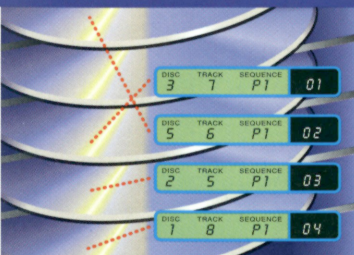


CDX-T60 6-CD Changer

Your glove compartment will thank you for it. • 8x oversampling • 1-bit pulse D/A converter • Digital servo control • Custom File memory for 110 CDs • 12 + 12 Program Play • Fast-change CD mechanism • Cord mounted line output connectors • Long-excursion silicone-damped suspension • Horizontal or vertical mounting



PROGRAM PLAY. Sony changers let you perform multi-disc programming for two sets of 12 songs, mixing tracks from several discs. So you can hear your favorite music in your favorite sequence.



CONVENIENCE AND CAPACITY. Choose an ultra-small 6-CD Changer to install within easy reach. Choose our 10-CD Changer to enjoy more music. Or daisy-chain up to ten changers for the best of both worlds!



mobile ES digital processors

Maybe you've never heard the amazing clarity of digitally aligned Seat Position. Or the transparency of digital preamplification. Or the superb smoothness of digital equalization. If you haven't heard it, be forewarned. When you experience Sony digital processing, you'll want Sony digital processing.

Digital Processing beyond "Effects." Some manufacturers equate digital processing with reverberation or ambience effects. For Sony, digital processing is much more: a powerful tool to optimize your sound. For proof, consider the XDP-210EQ – an extraordinary powerful 21-band digital equalizer, digital crossover, and high output preamp.

Digital Processing Power. Digital Equalization helps correct frequency response problems, but without the phase shift and distortion which plagues even the best analog EQs. Dynamic Range Suppression can increase softer passages to help overcome the masking effect of road noise. With a judicious hand on the controls, digital Surround can make your music sound richer and fuller, by restoring the acoustical characteristics lost in the close confines of a car. Sony lets you optimize your sound with the precision and convenience that only digital processing offers.

Digitally Aligned Seat Position. Most audio systems present a proper stereo image down the centerline of the car – an axis on which few people ever sit. While Sony can't shift where you sit, we can shift the

stereo "sweet spot" – the point at which the sound from the speakers meets to form a coherent image. Digitally aligned seat positions synchronize the arrival of the sound from your speakers to wherever you're sitting. So for the first time, you hear car stereo in true stereo.

Last Sound Memory. AM, FM, Cassette and CD: different sources often need different equalization. To accomplish this with analog processing, you've got to fuss with controls every time you change what you're listening to. Sony digital processing is far more convenient. It can automatically switch to the equalization, soundfield, or suppression you've chosen for each source. It can also recall your settings for each of the CDs in a Custom File CD Changer!

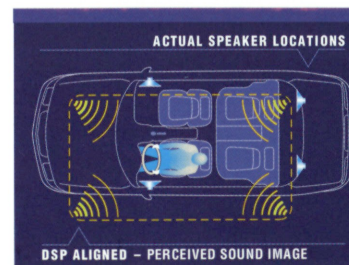
UniLink Control Architecture. Sony's UniLink system lets you add one of our digital processors and control it from the front panel of a DSP control head unit. With UniLink's powerful system integration, the head unit's audio functions are replaced by digital functions in the processor, without any duplication of controls.



XDP-766EQ Digital EQ/Preamplifier

Here are Digital graphic equalizer, crossover, soundfields and seat position – all in a sleek, in-dash chassis with multifunction display.

- 7-band Digital EQ • Digital Surround with 7 soundfield presets and 10-step adjustable effect level • 10-step Dynamic Range Suppression
- 7 user + 7 preset memories combine EQ, Soundfield, and Suppression
- Last Sound Memory, DSP File • Digitally aligned seat position with 5 adjustable settings • Digital lo-pass filter with adjustable frequency and level • Requires head unit with UniLink DSP control



DIGITALLY ALIGNED SEAT POSITION. In most autosound systems, the stereo "sweet spot" is off to the driver's right. Sony digital processing can actually put the sweet spot where it belongs: directly aligned with you!



XDP-210EQ Digital EQ/Preamplifier

Here's performance beyond the dreams of analog equalizers.

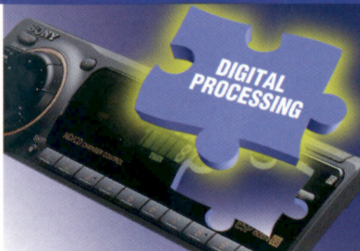
- 21-band Digital Equalizer (18 front + 3 rear) • 9 user EQ memories • Last Sound Memory • EQ File • Digital bass and treble • Digitally Aligned Seat Position with 5 adjustable settings • Digital lo-pass filter for subwoofer with selectable frequency • Digital front & rear hi-pass filter with separately selectable frequencies • Three 20-bit high-linearity D/As for front, rear and sub • Non-magnetic copper chassis resists noise • Requires head unit with UniLink DSP control



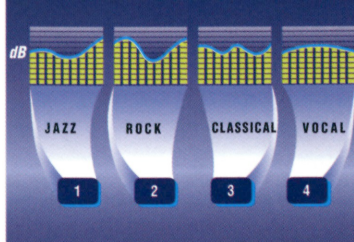
XDP-U500 Digital Processor/Preamplifier

Here's a hideaway Digital Preamp you can operate through the head unit's front panel.

- 10 digital soundfields with 10-step effects level • Last Sound Memory • DSP File • Digital bass & treble with adjustable turnover frequency • Digital subwoofer filter, 48 dB/octave low pass • Digitally Aligned Seat Position with 5 adjustable settings • Non-magnetic copper chassis • Three 1-bit D/As for front, rear and sub • Requires head unit with UniLink DSP control



THE ULTIMATE UPGRADE. Any of Sony's DSP control head units can be upgraded to digital preamplification. So you can step up from the superb to the spectacular.



DIGITAL PROCESSING MEMORIES. Don't struggle with controls while you're driving! Digital processing memories store your equalization, soundfield or suppression adjustments in one-touch accessed memories. You can even link a preset to source mode or CD Custom File.

mobile ES power amplifiers

The air around the lead singer's voice. The kick of the bass line.

The crisp attack of high hat cymbals. Mobile ES Amplifiers deliver the music.

And they do it effortlessly, thanks to MOS FET output transistors, low-impedance drive, and better-than-it-has-to-be design.

MOS FET Power Output Transistors. Compared to conventional, bi-polar transistors, MOS FETs offer extremely high switching speed, high input impedance and excellent isolation. And the most grating sort of harmonic distortion – 3rd-order harmonics – are dramatically reduced. So all your music, from original instrument Baroque to alternative rock, sounds incredibly clean and life-like.

1-Ohm Drive. Since car speaker impedance often dips far lower than the rated 4 ohms, Sony builds amplifiers to deliver much more power at 2 ohms than at 4 ohms. It's an impressive demonstration of our amplifiers' power supply and output stages. What's more, all Mobile ES amplifiers continue to operate into 1 ohm, with the XM-2100G and XM-260G delivering still higher output!

So you get high-output, high-impact sound, no matter what speakers you're driving.

12-volt Power Ratings. Sony's four new amplifiers produce plentiful power when your car's electrical system provides 12 volts – and even greater power at the higher voltage typical of a car that's running! We can do it because our power supplies pack enormous reserves. So you get increased real-world, road-going performance.

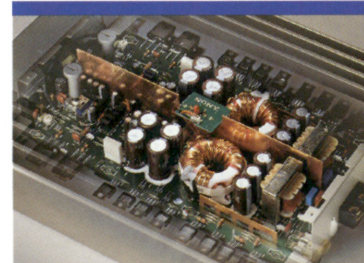
Twin Power Supplies. The XM-5046 has two, separate MOS FET regulated power supplies. The XM-2100G and XM-260G go one step further with two separate, mirror-image amps for left and right channels. The results are much higher stereo separation, greater detail and lower distortion.

System Flexibility. Sony's four-channel amps have the versatility today's installations need. And four Mobile ES amps include adjustable hi-pass and low-pass filters, for easy integration of a subwoofer.



XM-2100G 2/1 Channel Amplifier

What is the most you expect from an autostand amplifier? The XM-2100G will meet your expectations – and exceed them. • 100 w x2, 4Ω, 20-20 kHz, 0.03% THD • 180 w x2, 2Ω, 20-20 kHz, 0.08% THD • 240 w x2, 1Ω, 20-20 kHz, 0.1% THD • Mono: 360 w, 4Ω, 20-20 kHz, 0.08% THD • MOS FET final stage • 1-Ohm Drive • Mono block construction • Separate Left/Right power supplies • Adjustable lo-frequency EQ

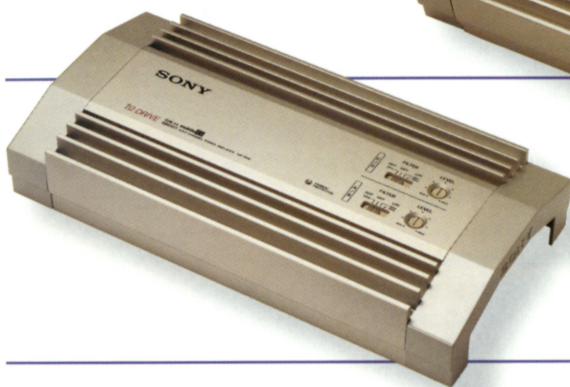


TWIN MONO CONSTRUCTION. They're expensive. But twin mono design and separate left/right power supplies assure superb power delivery into 4-ohm, 2-ohm and even 1-ohm loads!



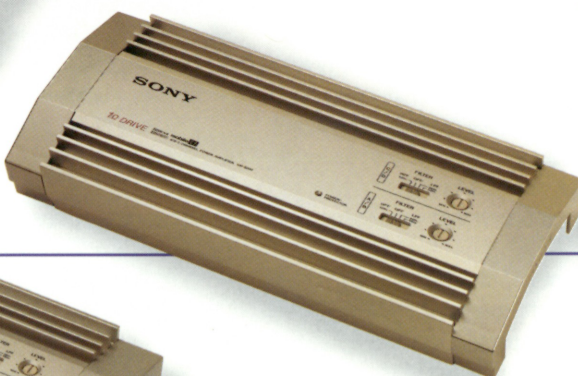
XM-260G 2/1 Channel Amplifier

Here is the exalted performance of our top amplifier, in a version with more modest output power. • 60 w x2, 4Ω, 20-20 kHz, 0.03% THD • 120 w x2, 2Ω, 20-20 kHz, 0.08% THD • 180 w x2, 1Ω, 20-20 kHz, 0.1% THD • Mono: 240 w x1, 4Ω, 20-20 kHz, 0.08% THD • MOS FET output stage • 1-Ohm Drive • Mono block construction • Separate Left/Right power supplies • Adjustable lo-frequency EQ



XM-504b 4/3/2 Channel Amplifier

Here's the power, flexibility and the sound quality to make your music come alive. • 12-volt rated at 50 w x4, 4Ω, 20-20 kHz, 0.04% THD • 12-volt rated at 75 w x4, 2Ω or 1Ω, 20-20 kHz, 0.1% THD • 180 w x2, 4Ω, 20-20 kHz, 0.1% THD • MOS FET final stage • 1-Ohm Drive • Separate Left/Right power supplies • 50/80 Hz 18dB/Oct lo-pass filter • 80 Hz 12 dB/Oct hi-pass filter • DC fan cooling



XM-304b 4/3/2 Channel Amplifier

It's not merely powerful, it's also superbly musical. • 12-volt rated at 30 w x4, 4Ω, 20-20 kHz, 0.04% THD • 12-volt rated at 45 w x4, 2Ω or 1Ω, 20-20 kHz, 0.1% THD • 120 w x2, 4Ω, 20-20 kHz, 0.1% THD • MOS FET final stage • 1-Ohm Drive • 50/80 Hz 18dB/Oct lo-pass filter • 80 Hz 12 dB/Oct hi-pass filter • DC fan cooling



XM-502b 2/1 Channel Amplifier

Discrete MOS FET output transistors help make this a performance classic. • 12-volt rated at 50 w x2, 4Ω, 20-20 kHz, 0.04% THD • 12-volt rated at 75 w x2, 2Ω or 1Ω, 20-20 kHz, 0.1% THD • Mono: 220 w, 4Ω, 20-20 kHz, 0.1% THD • MOS FET final stage • 1-Ohm Drive • 50/80 Hz 18dB/Oct lo-pass filter • 80 Hz 12 dB/Oct hi-pass filter • Adjustable lo-frequency EQ



XM-302b 2/1 Channel Amplifier

The most affordable Mobile ES amplifier upholds the Elevated Standard. • 12-volt rated at 30 w x2, 4Ω, 20-20 kHz, 0.04% THD • 12-volt rated at 50 w x2, 2Ω or 1Ω, 20-20 kHz, 0.1% THD • Mono: 150 W, 4Ω, 20-20 kHz, 0.1% THD • MOS FET final stage • 1-Ohm Drive • 50/80 Hz 18dB/Oct lo-pass filter • 80 Hz 12 dB/Oct hi-pass filter



12-VOLT RATINGS. Sony's conservative rating assures generous output power even at low supply voltages. At higher supply voltages, power increases as much as 50% for extended dynamic range.



CONSTRUCTION QUALITY. Generous heat sinks, flexible controls, even integrated trim covers – Mobile ES amplifiers are set apart. No detail is overlooked in the pursuit of superior sound.

mobile ES speakers

Of all the Mobile ES products, the speakers are the ones you finally hear. That's why our engineers sat for hours on end, in all types of cars, scrutinizing sound quality. The result is sound that's incredibly dynamic, superbly musical.

Component Tweeters. Deep bass drivers can be located anywhere, pointing in any direction, and still be heard. But tweeters are different. Ideally, you want tweeters pointed at your ears, along a direct line-of-sight. The component tweeters of Sony's XS-HF77 and XS-HF55 make it substantially easier to do just that. You can achieve acoustically correct tweeter mounting on the doors or dashboard, for true, high-fidelity high-frequency sound.

Highly Oriented Polyolefine. For low distortion, a speaker diaphragm must be rigid. And that usually means heavy. But for accurate transient response, the diaphragm must be light. That's why Sony uses polyolefine that's compressed to the point where the molecular strands become aligned – oriented – in parallel. Because all the particles are aligned, the resulting woofer can be extremely stiff, yet thinner and lighter than before. The result is uncommonly clean, superbly clear bass.

Compliant Surrounds. The "surround" forms the outside circumference of the woofer cone. Its job is to permit flexible motion – while keeping the cone centered. Sony accomplishes this with highly flexible, dimensionally accurate rubber and urethane. The result is high sensitivity – and low distortion.

High-Temperature Voice Coils. A speaker's thermal weak link is inside, where the amplifier's current flows through the voice coil. Here's where drivers get "fried." And here's where Sony Mobile ES uses high-temperature voice coils and bobbins. As a result, Sony speakers have impressively high Maximum Input Power – and impressive resistance to burn-out.

Strontium Magnets. Autosound speakers must achieve high acoustic output in the limited confines of a car door, a dashboard, or a rear deck. That's why Sony uses rare-earth Strontium woofer magnets. They pack tremendous magnetic energy in a small size. Strontium magnets help Sony produce Sound Pressure Levels of 88 dB or more – from a single watt of input power!



XS-HF77 6-1/2" 2-Way Speaker System

Music comes alive when the XS-HF77 creates your front soundstage. • 6-1/2" Highly Oriented Polyolefine cone woofer • Non-resonant polycarbonate woofer frame • 1" Silk/Polymer laminate dome tweeter • Strontium and neodymium magnets • 12 dB/octave crossover • Angle and flush-mount tweeter trim rings • 140 w Maximum Input Power



SPEAKER MATERIALS. Ultra-light silk/polymer tweeter domes and anti-resonant polycarbonate woofer frames exemplify the advanced materials highlighting the XS-HF55 and XS-HF77.

SONY



XS-HF55 5-1/4" 2-Way Speaker System

Take the same brilliant tweeter as the XS-HF77 and match it to a slightly smaller woofer. That's the XS-HF55. • 5-1/4" Highly Oriented Polyolefine cone woofer • Non-resonant polycarbonate woofer frame • 1" Silk/Polymer laminate dome tweeter • Strontium and neodymium magnets • 12 dB/octave crossover • Angle and flush-mount tweeter trim rings • 140 w Maximum Input Power



XS-6953 6x9" 3-Way Speaker System

Just how good can a 6 x 9 speaker be? Sony's answer is the XS-6953. • 6 x 9" Composite polypropylene cone woofer • 2-3/8" Polyetherimide film midrange • 1" Polycarbonate balanced dome tweeter • High-compliance urethane surround • High-energy Strontium magnets • 140 w Maximum Input Power



XS-6053 6-1/2" 2-Way Speaker

If you have a standard 6-1/2" round speaker mount, get sound that's anything but standard. • 6-1/2" Composite polypropylene cone woofer • 1" Polycarbonate balanced dome tweeter • High-compliance urethane surround • High-energy Strontium magnets • 130 w Maximum Input Power



XS-3053 5-1/4" 2-Way Speaker

The doors of your car are an opportunity for first-rate sound. Sony's XS-3053 proves it. • 5-1/4" Composite polypropylene cone woofer • 1" Polycarbonate balanced dome tweeter • High-compliance urethane surround • High-energy Strontium magnets • 100 w Maximum Input Power



HIGHLY ORIENTED POLYOLEFINE. During the injection molding process, enormous pressure forces the polyolefine strands to align. So the woofer cone is light for superb musical transients, and rigid for low distortion.



THREE-WAY DESIGN. Sony's own Balanced Dome tweeter design and a film midrange help make the XS-6953 a supremely accurate, extraordinarily musical loudspeaker.

mobile ES specifications

CD Players/Changers	CDX-C910	CDX-C810DSP	CDX-C710	CDX-C510	CDX-91	CDX-T65	CDX-T60
Number of Discs	1	1	1	1	10	6	6
Electronic Shock Protection (ESP)	Yes	—	Yes	—	Yes	Yes	—
UniLink Control	CD, MD, TV, DSP	CD, MD, TV	CD, MD, TV, DSP	CD, MD, TV, DSP	Yes	Yes	Yes
Disc Memo / Memo List	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Program Bank	Yes	Yes	Yes	Yes	Yes	Yes	Yes
12 + 12 Track Program Play	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Optical Digital Output	w/XA-D210	—	—	—	Yes	—	—
Tuner Presets (FM/AM)	20+10	20+10	20+10	20+10	—	—	—
Station Memo Display	Yes	Yes	Yes	Yes	—	—	—
Preamp/Line Outputs	Front + Rear	F + R + Sub	F + R, 4 Ch Main In	F + R, 4 Ch Main In	2 Ch	2 Ch	2 Ch
Dual Information Display	2 Line	Yes	Yes	Yes	—	—	—
Display Type	Backlit Fluorescent	2 Color, Dot LCD	2 Color, Segment LCD	Segment LCD	—	—	—
Full Detachable Face	Motorized Fold Out	Yes	Yes	Yes	—	—	—
Driver's Remote Commander	Supplied	Supplied	Supplied	Optional	—	—	—
Wireless Remote Commander	Optional	Optional	Optional	Optional	—	—	—
CD Frequency Response	5 Hz - 20 kHz	10 Hz - 20 kHz	10 Hz - 20 kHz	10 Hz - 20 kHz	5 Hz - 20 kHz	10 Hz - 20 kHz	10 Hz - 20 kHz
CD Signal-to-Noise Ratio	105 dB	90 dB	90 dB	90 dB	102 dB	95 dB	95 dB
CD Stereo Separation	95 dB	85 dB	85 dB	85 dB	95 dB	85 dB	85 dB
CD THD	0.003%	0.008%	0.008%	0.008%	0.0025%	0.004%	0.004%
FM Usable Sensitivity	8 dBf	8 dBf	8 dBf	8 dBf	—	—	—
FM Selectivity (400 kHz)	75 dB	75 dB	75 dB	75 dB	—	—	—
FM Capture Ratio	2.0 dB	2.0 dB	2.0 dB	2.0 dB	—	—	—
Preamp Output Voltage	4.0 volts	2.1 volts	2.1 volts	2.1 volts	Fixed	Fixed	Fixed
Preamp Output Impedance	<200 ohms	<400 ohms	<400 ohms	<400 ohms	—	—	—
Maximum Output Power	—	35 w x4	35 w x4	35 w x4	—	—	—
Rated Power Output	—	15 w x4, 1.0% THD	15 w x4, 1.0% THD	15 w x4, 1.0% THD	—	—	—
Dimensions (w x h x d)	7-1/8 x 2 x 7"	7-1/8 x 2 x 6-3/4"	7-1/8 x 2 x 6-3/4"	7-1/8 x 2 x 6-3/4"	12-1/8 x 3-1/2 x 7-1/2"	8-7/8 x 2-5/8 x 6-1/4"	8-7/8 x 2-5/8 x 6-1/4"

Cassette Receivers	XR-C900	XR-C700	XR-C500	XK-R100	XR-C620	XR-C520
Full Logic, 2-Motor Deck	Yes	Yes	Yes	Yes	Yes	Yes
Dolby Noise Reduction	B/C	B/C	B	B	B/C	B
Tape Head	LaserAmorphous	Permalloy	Permalloy	LaserAmorphous	Permalloy	Permalloy
UniLink Control	CD, MD, TV, DSP	CD, MD	CD, MD	CD, MD	CD, MD, TV, DSP	CD, MD
CD Disc Memo / Memo List	Yes / Yes	Yes / Yes	Yes / Yes	Yes / —	Yes / Yes	Yes / —
CD Program Bank	Yes	Yes	Yes	Yes	Yes	Yes
CD 12 + 12 Track Program Play	Yes	Yes	—	—	Yes	—
Tuner Presets (FM/AM)	20+10	20+10	20+10	18+12	20+10	18+12
Station Memo Display	Yes	Yes	Yes	Yes	—	—
Preamp Outputs	F + R + Sub	Front + Rear	Front + Rear	Front + Rear	F + R, 4 Ch Main In	Rear
Dual Information Display	2 Line	Yes	Yes	—	—	—
Display Type	Backlit Fluorescent	2 Color, Dot LCD	Segment LCD	2 Color, Segment LCD	2 Color, Segment LCD	Segment LCD
Full Detachable Face	Motorized Fold Out	Fold Down	Fold Down	Yes	Yes	Yes
Driver's Remote Commander	Supplied	Supplied	Supplied	Optional	Supplied	Optional
Wireless Remote Commander	Supplied	Optional	Optional	Optional	Optional	—
Tape Frequency Response	20 Hz - 22 kHz	30 Hz - 20 kHz	30 Hz - 20 kHz	25 Hz - 22 kHz	30 Hz - 20 kHz	30 Hz - 20 kHz
Tape S/N Ratio, Dolby NR Off/B/C	61/67/73 dB	61/67/73 dB	61/67 dB	61/67 dB	61/67/73 dB	61/67 dB
Wow & Flutter, WRMS	0.06%	0.08%	0.08%	0.08%	0.08%	0.08%
FM Usable Sensitivity	8 dBf	8 dBf	8 dBf	8 dBf	8 dBf	8 dBf
FM Selectivity (400 kHz)	75 dB	75 dB	75 dB	75 dB	75 dB	75 dB
FM Capture Ratio	2.0 dB	2.0 dB	2.0 dB	2.0 dB	2.0 dB	2.0 dB
Preamp Output Voltage	4.0 volts	2.1 volts	2.1 volts	4.0 volts	2.1 volts	2.1 volts
Preamp Output Impedance	<200 ohms	<400 ohms	<400 ohms	<200 ohms	<400 ohms	<400 ohms
Maximum Output Power	—	35 w x4	35 w x4	—	30 w x4	30 w x4
Rated Output Power	—	15 w x4, 1.0% THD	15 w x4, 1.0% THD	—	12 w x4, 1.0% THD	12 w x4, 1.0% THD
Dimensions (w x h x d)	7-1/8 x 2 x 7"	7-1/8 x 2 x 6-3/4"	7-1/8 x 2 x 6-3/4"	7-1/8 x 2 x 6-3/4"	7-1/8 x 2 x 6-3/4"	7-1/8 x 2 x 6-3/4"

Digital Processors	XDP-766EQ	XDP-210EQ	XDP-U50D
Digital Equalization	7 Band, ±12dB adjustable	21 Band (18 front, 3 rear), ±12dB adjustable	—
Digital Bass & Treble	314 Hz / 3.1 kHz, ±12dB adjustable	314 Hz / 3.1 kHz, ±12dB adjustable	198/250/314/396 Hz, 2k/3.1k/4k/5k Hz, ±12dB
Digital Soundfields	7, 10-step adjustable effect level	—	10, 10-step adjustable effect level
Digital Dynamic Range Suppress	10-step adjustable	—	—
Processor Memories	7 User + 7 Preset, SUR/EQ/DRS	9 User defined, EQ	10 User SUR
Last Sound Memory	SUR/EQ/DRS link to source mode	EQ link to source mode	SUR link to source mode
Processor File Memory	SUR/EQ/DRS link to CD Custom File	EQ link to CD Custom File	SUR link to CD Custom File
Time Aligned Seat Positions	5 Memory, 12-step adjustable F-R, L-R	5 Memory, 12-step adjustable F-R, L-R	5 Memory, 12-step adjustable F-R, L-R
Digital hi-pass filter	—	78/99/125/157/198 Hz, -24 dB/Oct (F/R ind)	—
Digital lo-pass filter	78/99/125/157/198 Hz, -48 dB/Oct	50/62/78/99/125/157 Hz, -36 dB/Oct	62/78/99/125/157 Hz, -48 dB/Oct
Optical Digital Input	—	2	2
Analog Input	1	2	2
Frequency Response	20 - 20 kHz (+0, -1 dB)	8 - 20 kHz (+0, -1 dB)	15 - 20 kHz (+0, -1 dB)
Signal-to-Noise Ratio	>85 dB	>105 dB	>103 dB
Output Level	3.1 V	4.0 V	3.1 V
Distortion	0.008%	0.005%	0.005%
Dimensions (w x h x d)	7-1/8 x 2 x 6-1/2"	9-3/4 x 1-5/8 x 5-3/4"	8-3/4 x 1-3/4 x 6-1/2"

Power Amplifiers	XM-2100G	XM-260G	XM-5046	XM-3046	XM-5026	XM-3026
Channels	2/1	2/1	4/3/2	4/3/2	2/1	2/1
Differential FET Pre-Drivers	Yes	Yes	Yes	Yes	Yes	Yes
Discrete MOS FET Outputs	Yes	Yes	Yes	Yes	Yes	Yes
Hi-pass filter	—	—	80 Hz, -12 dB/Oct	80 Hz, -12 dB/Oct	80 Hz, -12 dB/Oct	80 Hz, -12 dB/Oct
Lo-pass filter	—	—	50/80 Hz, -18 dB/Oct	50/80 Hz, -18 dB/Oct	50/80 Hz, -18 dB/Oct	50/80 Hz, -18 dB/Oct
Lo-frequency EQ	40 Hz, 0 to +10 dB	40 Hz, 0 to +10 dB	—	—	40 Hz, 0 to +10 dB	—
MOS FET Power Supplies	Twin	Twin	Twin	Single	Single	Single
Separate Power Supply Rails	Predriver, Final	Predriver, Final	Predriver, Final	Predriver, Final	Predriver, Final	Predriver, Final
4Ω Output Power (20-20kHz)	100 w x2; 0.03% THD	60 w x2; 0.03% THD	50 w x4; 0.04% THD (12v)	30 w x4; 0.04% THD (12v)	50 w x2; 0.04% THD (12v)	30 w x2; 0.04% THD (12v)
2Ω Output Power (20-20kHz)	180 w x2; 0.08% THD	120 w x2; 0.08% THD	75 w x4; 0.1% THD (12v)	45 w x4; 0.1% THD (12v)	75 w x2; 0.1% THD (12v)	50w x2; 0.1% THD (12v)
1Ω Output Power (20-20kHz)	240 w x2; 0.1% THD	180 w x2; 0.1% THD	75 w x4; 0.1% THD (12v)	45 w x4; 0.1% THD (12v)	75 w x2; 0.1% THD (12v)	50w x2; 0.1% THD (12v)
Bridged Power (4Ω, 20-20kHz)	360w, 0.1% THD	240 w, 0.1% THD	180 w x2, 0.1% THD	120 w x2, 0.1% THD	240w, 0.1% THD	150w, 0.1% THD
Frequency Response (+0, -3 dB)	5 Hz - 100 kHz	5 Hz - 100 kHz	5 Hz - 100 kHz	5 Hz - 100 kHz	5 Hz - 100 kHz	5 Hz - 100 kHz
Signal-to-Noise Ratio	>105 dB	>105 dB	>105 dB	>105 dB	>105 dB	>105 dB
Channel Separation	>80 dB	>80 dB	>80 dB	>80 dB	>80 dB	>80 dB
Damping Factor	>105	>105	>105	>105	>105	>105
Rated Current Draw	40 A	30 A	38 A	29 A	26 A	18 A
Dimensions (w x h x d)	13 x 2-1/4 x 7-7/8"	11-1/2 x 2-1/4 x 7-7/8"	14-1/2 x 2-5/8 x 7-1/8"	11-1/2 x 2-5/8 x 7-1/8"	11-1/2 x 2-5/8 x 7-1/8"	8-1/4 x 2-5/8 x 7-1/8"

Speakers	XS-HF77	XS-HF55	XS-6953	XS-6053	XS-3053
Configuration	2-Way Component	2-Way Component	3-Way	2-Way	2-Way
Woofer Size	6-1/2"	5-1/4"	6 x 9"	6-1/2"	5-1/4"
Woofer Material	Highly Oriented Polyolefine	Highly Oriented Polyolefine	Composite Polypropylene	Composite Polypropylene	Composite Polypropylene
Woofer Surround	Rubber	Rubber	Urethane	Urethane	Urethane
Midrange Size	—	—	2-3/8"	—	—
Midrange Material	—	—	Polyetherimide	—	—
Tweeter Size	1" dome	1" dome	1" Balanced dome	1" Balanced dome	1" Balanced dome
Tweeter Material	Silk/Polymer	Silk/Polymer	Polymer film	Titanium Laminate	Titanium Laminate
Maximum Input Power	140 w	140 w	140 w	130 w	100 w
Frequency Response	30 Hz - 25 kHz	35 Hz - 25 kHz	28 Hz - 25 kHz	35 Hz - 25 kHz	38 Hz - 25 kHz
Sensitivity, 1 w, 1 m	90 dB	90 dB	90 dB	88 dB	88 dB
Mounting Diameter/Depth	5" / 2-1/8"	4-7/8" / 2-1/8"	6-1/8 x 8-1/2" / 3"	5-1/4" / 2-1/8"	4-7/8" / 2"

© 1996 Sony Electronics Inc. All rights reserved. Reproduction in whole or in part without written permission is prohibited. Features and specifications are subject to change without notice. All non-metric weights and measures are approximate. Sony, Custom File, Disc Memo, DiscJockey, Station Memo, UniLink and the Mobile ES logo are trademarks of Sony. Burr Brown and Sign Magnitude are trademarks of Burr Brown Inc. Dolby is a registered trademark of Dolby Laboratories Licensing Corp.

For your complete personal guide to all Sony consumer electronics, we're introducing Sony Style magazine. To receive your copy for \$4.95, plus \$1.50 shipping and handling, call 1-800-848-SONY. Offer expires 10/96.

SONY®

Sony Electronics Inc.
1 Sony Drive
Park Ridge, NJ 07656
<http://www.sony.com>