ES SERIES HIGH FIDELITY COMPONENTS

SONY

ES

CONTENTS

The quest for excellence takes an exacting attention to detail. A passion and determination that never ceases. It is this quest for excellence that has resulted in the Sony ES Series, the Elevated Standard in high fidelity components. The ES Series features components that bring extraordinary clarity and richness to your listening experience. So you can enjoy music as you would in the finest concert hall.

To honor that same pursuit of excellence, Sony has established the ES Award for

ELEVATED STANDARD

Musical Excellence. This award honors students at The Juilliard School with scholarships to help them pursue their dreams. We think this collaboration is truly a noteworthy endeavor.

We invite you to experience the Sony ES Series for yourself. And enjoy the Elevated Standard in high fidelity components.


ES
Christina K.Y. Wong
Sony ES Award for Musical Excellence
Identifying those who achieve the
Elevated Standard
SONY

Sony ES Scholarship winners (featured left to right): Mark Inouye, Samuel Karam, Jennifer Haygbe and Brian Lewis.

ES Sony & The Juilliard School

While others played baseball, they played trumpet. While others listened to music, they felt it, lived it, created it. These rare talents belong to the students at The Juilliard School who have received recognition from Sony through the ES Award for Musical Excellence. As an incoming freshman, Christine K.Y. Wong was selected for her promising future at Juilliard. The four students featured throughout this brochure, Jennifer Hayghe, Mark Inouye, Samuel Karam and Brian Lewis, were also honored as graduating seniors. These students are music's future. It is through amazing talent, such as theirs, that great music will be enjoyed for generations to come.

Models shown

TC-K909ES

CDP-C801ES

TA-E2000ESD

ES Design Your System

The finest orchestras consist of individual pieces working together as one. The same is true of audio systems. Each component must possess a superior sound quality, so that when in concert together, the result is truly magnificent. It was with this standard in mind that the Sony ES Series was designed.

The Sony ES Series has a complete line of audio components and speakers, so you can design a system to suit your needs. One that can be operated by a single remote.

Models shown

CDP-C801ES

And Sony believes so strongly in the design and construction of their ES components that they offer a three-year limited warranty, of which your dealer has details. With Sony's complete line of stereo components a new standard of excellence has been set.

TC-WR901ES

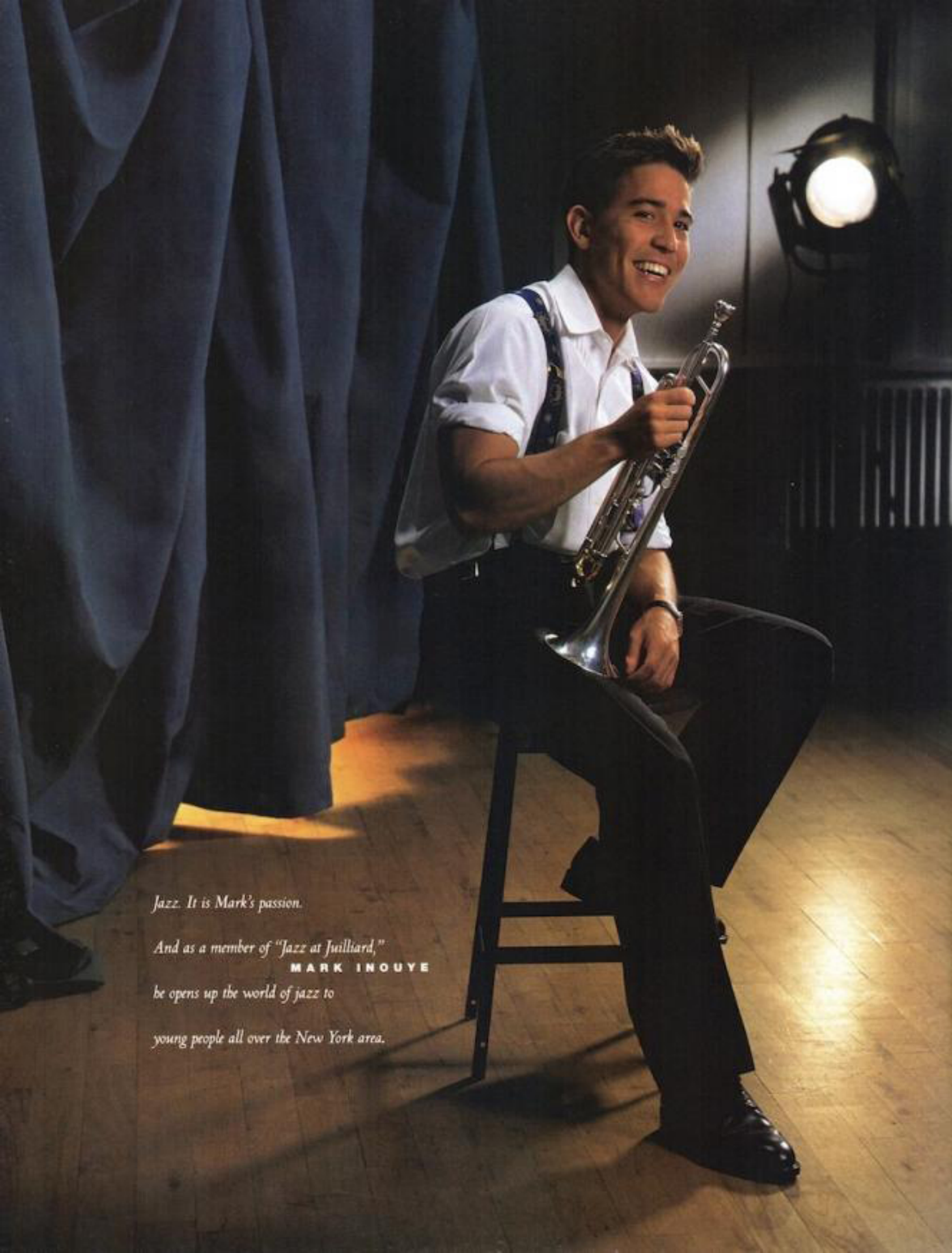
ST-S707ES

TA-F808ES

SS-M7

ST-S707ES and TA-F808ES are shown with optional side panels.


SONY
C801ES
SONY
16.54
38.88
QUICK REVERSE
SONY
S707ES
9950
A
SONY
SPONTANEOUS TWIN DRIVE
F808ES



Jazz. It is Mark's passion.

And as a member of "Jazz at Juilliard,"
MARK INOUYE
he opens up the world of jazz to

young people all over the New York area.

ES RECEIVERS

Achieving a new level of excellence. Defining an even higher standard of performance. It is as true of the students at Juilliard as it is of the engineers at Sony. Continually, they strive to refine the heart of your sound system, the A/V Receiver. Technological breakthroughs like Digital Dolby Pro Logic® Surround Sound bring home such realistic movie sound, you'll not only hear it, but feel its power.

Model shown

Ergonomic triumphs like the VisionTouch™ system bring your entire audio/video system to life. Sony

STR-G1ES

ES Receivers take your listening experience to extraordinary levels.

ES VisionTouch A/V Receiver

Pointing. It may well be the most basic form of human communication. It's something we learn as infants. And now, it's the easiest way to operate an entire audio/video system. Because now Sony introduces the amazing STR-G1ES VisionTouch Audio/Video Receiver.

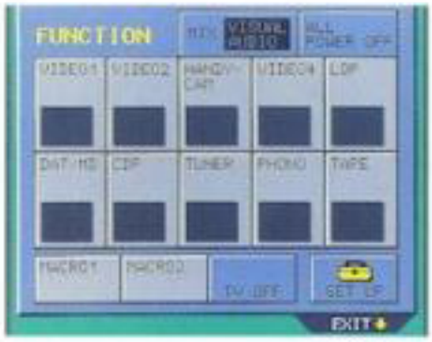
Pick up the sculptural remote control, and the VisionTouch system comes to life. It's a point-and-click world where all your choices are made with just one button. So it's hard to hit the wrong button. Your options appear as large, colorful icons on your video screen. Swing the VisionTouch remote toward your choice, and an on-screen arrow moves there. Then hit the button, and your selection is made.

With the VisionTouch remote you press just one button to control not only the full array of Receiver functions, but also source components like TV, Cable, VHS, Hi-Fi, Laserdisc, CD and Tape.

Fittingly, the VisionTouch system is an integral part of the finest Audio/Video Receiver Sony has ever built. With the STR-G1ES, you'll enjoy Digital Dolby Pro Logic Surround Sound. You'll benefit from powerful amplifiers for front, center and surround channels. You'll gain Digital Signal Processing for acoustic effects, equalization and dynamics – all operated by the VisionTouch remote control. And you'll take complete charge of audio/video switching. Which means the STR-G1ES is destined to take a place of pride in today's top audio/video systems, where it will bring out the best in music, movies, videos and more.

STR-G1ES

- VisionTouch remote control with icon-based displays on your video screen
- 80 watts x 3, 20–20,000 Hz, into 4 Ω or 8 Ω, 0.04% THD for left, center and right channels
- 20 watts x 2, 1,000 Hz, into 8 Ω, 0.04% THD for surround channel
- Digital Dolby Pro Logic decoding
- Digital Signal Processing with 20 Soundfield presets, adjustable parameters
- Digital parametric equalizer
- FTC/UL 4 Ω rated front amplifier
- Spontaneous Twin Drive power supply
- Main speaker terminals with 5-way binding posts
- Discrete output transistors
- Optical A amplifier biasing
- Separate power transformers for audio and control
- Active subwoofer crossover (12 dB per octave at 100 Hz)
- 6 audio and 4 A/V inputs with S-Video
- Preamp output for all channels/main in for front
- 30 FM/AM preset stations
- Aluminum front panel
- Optional veneer side panels available



With the Vision Touch system the source selections can be custom labeled and viewed on the television screen.

The VisionTouch Remote Commander Remote Control lets the user select his favorite seat position within a chosen Soundfield environment.

Direct Access™ Track Selection and CD transport functions are operated through the VisionTouch Remote Commander Remote Control. All other components are operated in a similar fashion with the VisionTouch system.

The STR-G1ES creates a graphic display of the five speakers used in a Dolby Pro Logic system. Their relative volume levels are easily adjusted with the VisionTouch Remote Commander Remote Control. Other Soundfield parameters can also be adjusted.

ES A/V Receivers

Meeting the demands of audio/video entertainment without compromising the requirements of home high fidelity; that is the accomplishment of the Sony ES Audio/Video Receivers.

When the time comes to watch a movie, you'll appreciate the digital Dolby Pro Logic system. It ensures that a movie's left, right, center and surround channels are recovered with maximum separation. So you get the same excitement and drama you experience in the movie theater. And with Sony, the all-important center channel receives just as much power as the left and right. So movie dialog is convincingly "anchored" to the screen.

When you're in the mood for music, Sony Receivers provide just the right acoustic setting. With powerful Digital Signal Processing (DSP) that can place symphonies in a lush concert hall and chorales in a magnificent church. And Sony DSP gives you exquisite, distortion-free control over equalization and dynamics, letting you shape your music with incredible precision.

But even without these feats of signal processing, Sony Receivers stand apart. Choose a favorite Compact Disc, and listen carefully. You'll hear the crisp definition of Sony's Opto A circuitry, which delivers the superlative smoothness of Class A amplification without any of the drawbacks. You'll hear the effortless strength of Sony's Spontaneous Twin Drive power supply, which protects low-level stages from the voltage demands of high-level stages. And you'll discover that "ES" really does stand for an Elevated Standard of music reproduction.

STR-GX909ES

- Icons on your video screen for all receiver functions and features
- 80 watts x 3, 20–20,000 Hz, into 4 Ω or 8 Ω, 0.04% THD for left, center and right channels
- 20 watts x 2, 1,000 Hz, into 8 Ω, 0.04% THD for surround channel
- Digital Dolby Pro Logic decoding
- Digital Signal Processing with 20 Soundfield presets, adjustable parameters
- Digital parametric equalizer
- FTC/UL 4 Ω rated front amplifier
- Spontaneous Twin Drive power supply
- Discrete output transistors
- Optical A amplifier biasing
- Separate power transformers for audio and control
- Main speaker terminals with 5-way binding posts
- Active subwoofer crossover (12 dB per octave at 100 Hz)
- 6 audio and 3 A/V inputs
- Preamp output for all channels/main in for front
- 30 FM/AM preset stations
- Aluminum front panel
- Programmable audio/video remote
- Veneer side panels

STR-GX808ES

- 70 watts x 3, 20–20,000 Hz, into 4 Ω or 8 Ω, 0.04% THD for left, center and right channels
- 20 watts x 2, 1,000 Hz, into 8 Ω, 0.04% THD for surround channel
- Digital Dolby Pro Logic decoding
- Digital Signal Processing with 20 Soundfield presets, adjustable parameters
- Digital parametric equalizer
- FTC/UL 4 Ω rated front amplifier
- Spontaneous Twin Drive power supply
- Discrete output transistors
- Optical A multi-stage amplifier biasing
- Separate power transformers for audio and control
- Active subwoofer for crossover (12 dB per octave at 100 Hz)
- Parallel wired A/B speaker outputs
- Main speaker terminals with 5-way binding posts accept banana plugs
- 6 audio and 3 A/V inputs
- Preamp output for all channels/main in for front
- Aluminum front panel
- Programmable audio/video remote
- 30 FM/AM preset stations

STR-GX69ES

- 100 watts x 2, 20–20,000 Hz, into 4 Ω or 8 Ω, 0.08% THD
- 50 watts center, 50 watts surround (1,000 Hz, into 8 Ω, 0.8% THD)
- Dolby Pro Logic decoding
- Hall, simulated Soundfield modes
- Auto input balance
- FTC/UL 4 Ω rated front amplifier
- Spontaneous Twin Drive power supply
- Discrete output transistors
- Optical A multi-stage amplifier biasing
- Separate power transformers for audio and control
- 6 audio and 2 A/V inputs
- Audio muting (20 dB)
- Source direct switching
- Motorized volume control
- Video copying
- Preamp output for all channels/main in for front
- Sony Control S input for Digital Signal Transfer™ (DST) system use
- Programmable audio/video remote
- 30 FM/AM preset stations

ES CD PLAYERS

Student musicians like those at The Juilliard School are Sony's inspiration. The power, the passion, the talent they possess can be heard and felt in every performance. It was the desire to replicate each live performance to exacting detail that led Sony to invent the compact disc. And to continue to develop new technologies for CD Players. Now when you listen to Sony's newest CD Players, you are a step closer to Sony's original inspiration, the sound of live music.

Model shown

CDP-X707ES

Brian comes from a long line

BRIAN LEWIS

of classical musicians.

He has played all over the world

and most recently made his

Carnegie Hall debut.

ES CD PLAYERS

At the cutting edge of digital technology in the recording studio is a remarkable signal treatment called "dither." This is a carefully controlled and formulated signal that, when added to music, reduces distortions in the digital process. Sony, a leader in dither technology for the professional studio, is pleased to introduce dither for the home—in the digital filters of the new Sony ES Compact Disc Players.

Just as in the studio, dither helps to lower distortion. When used within Sony's 45-bit process, 20-bit output, 8x oversampling digital filter, the result is superior smoothness and superlative accuracy. Next, Sony's well known High Density Linear Converter™ D/A circuit produces an analog output of exceptionally low distortion, even during delicate, low-level passages. Sony's new stable lock mechanism, frame & beam construction and anti-resonant isolator feet complete the story.

All of this means that when you slip a Compact Disc into the loading drawer and press the play button, you'll hear just what the original musicians intended. Harpsichords and cymbals convey all their transient bite. You hear all the original energy of brass and bass guitars. Violins and oboes retain their characteristic subtlety. And loud music doesn't fatigue you, even after hours of listening. The end result of our technological efforts? Music reproduction that's effortless.

CDP-X707ES

- Dither-equipped, 8x oversampling 45-bit digital filter; 20-bit output
- Advanced 90 MHz High Density Linear Converter D/A system
- 16 complementary D/A outputs
- Separate transformers for analog and digital stages
- Linear drive sled motor
- Sony BSL spindle motor with sapphire bearings
- G-base optical block & disc tray
- Ceramic isolation feet
- Stable lock transport mechanism
- Optical and coaxial digital outputs; balanced analog outs
- Direct Digital Sync™ circuitry
- Digital Servo control
- Frame & beam construction
- Aluminum top plate; front panel
- Class A FET analog output stage
- Anti-magnetic copper shielded chassis
- Custom File™ memory for 184 discs
- 24-track programming
- 6 play modes; 8 repeat modes
- Peak level search
- Wireless remote control with 20-key Direct Access™ track search
- Veneer side panels

CDP-X303ES

- Dither-equipped, 8x oversampling 45-bit digital filter; 20-bit output
- Advanced 90 MHz High Density Linear Converter D/A system
- 8 complementary D/A outputs
- Linear drive sled motor
- G-base optical block & disc tray
- Stable lock transport mechanism
- Zinc isolation feet
- Direct Digital Sync circuitry
- Digital Servo control
- Multi-regulated power supply
- Frame & beam construction
- Aluminum front panel, double-wall top plate
- Custom File memory for 184 discs
- 24-track programming
- 7 play modes; 8 repeat modes
- Peak level search
- Time, just, program and link edit
- Display dimmer
- Optical and variable line outputs
- Wireless remote control with 20-key Direct Access track selection
- Headphone jack level control
- Veneer side panels

CDP-X202ES

- Dither-equipped, 8x oversampling 45-bit digital filter; 20-bit output
- Advanced 90 MHz High Density Linear Converter D/A system
- 8 complementary D/A outputs
- Direct Digital Sync anti-jitter circuitry
- Digital Servo control
- Frame & beam construction
- Multi-regulated power supply
- Aluminum front panel
- Custom File memory for 184 discs
- 24-track programming
- 7 play modes; 8 repeat modes
- Peak level search
- Time, just, program and link edit
- Display dimmer
- Optical and variable line outputs
- Wireless remote control with 20-key Direct Access track selection
- Headphone jack with level control

ES CD CHANGERS

With their clarity, accuracy and rich ambience, the CD Carousel Changers of Sony ES bring new dimensions of enjoyment to your recorded music.

Start with the spatial dimension. Thanks to built-in Digital Signal Processing, the top two changers can place your music in exactly the right performance space. So you can enjoy rock concerts in a suitably vast stadium, or jazz gigs in a suitably intimate setting.

Then there's the dimension of convenience. The five-disc convenience of a CD Carousel. And the amazing convenience of Sony's Custom File memory, which remembers the way you like to play up to 184 favorite discs. It even remembers a disc's name—and displays it.

Most important of all is the dimension of sound. That's why we built in dither-equipped digital filters, 90 MHz High Density Linear Converter D/As, and jitter-reducing Direct Digital Sync circuitry. So your music, from Delta blues to The Blue Danube, is reproduced with a vitality that will have you listening to your old favorites all over again.

CDP-C801ES

- 5-disc Carousel CD Changer
- Dither-equipped, 8x oversampling 45-bit digital filter; 20-bit output
- Advanced 90 MHz High Density Linear Converter D/A system
- 8 complementary D/A outputs
- Separate transformers for analog and digital stages
- Custom File memory for 184 discs
- Digital Signal Processing (DSP) with 7 Soundfield effects
- Variable DSP equalization, reverb
- 5-Disc, 10-key Direct Access track selection
- 8 play modes; 8 repeat modes
- Aluminum front panel
- Aluminum carousel platter
- Anti-magnetic copper shielded chassis
- Digital Servo control
- 32-track programming
- 20-track music calendar
- Peak level search
- Edit navigation
- Sony Control-S input for DST use
- Gold-plated variable line outputs
- Optical digital output
- Wireless remote control
- Veneer side panels

CDP-C701ES

- 5-disc Carousel CD Changer
- Dither-equipped, 8x oversampling 45-bit digital filter; 20-bit output
- Advanced 90 MHz High Density Linear Converter D/A system
- 8 complementary D/A outputs
- Separate transformers for analog and digital stages
- Custom File memory for 184 discs
- Digital Signal Processing (DSP) with 7 Soundfield effects
- Variable DSP equalization, reverb
- 5-Disc, 10-key Direct Access track selection
- 8 play modes; 8 repeat modes
- Aluminum front panel, double-wall top plate
- Sony Control-S input for DST system use
- Wireless remote control
- Veneer side panels

CDP-C601ES

- 5-disc Carousel CD Changer
- Dither-equipped, 8x oversampling 45-bit digital filter; 20-bit output
- Advanced 90 MHz High Density Linear Converter D/A system
- 8 complementary D/A outputs
- 5-Disc, 10-key Direct Access track selection
- 7 play modes; 7 repeat modes
- 32-track programming
- 20-track music calendar
- Gold-plated variable line outputs
- Optical digital output
- Digital Servo control
- Aluminum front panel, double-wall top plate
- Headphone jack with level control
- Wireless remote control with 20-key Direct Access track selection

CDP-C90ES

Have a Sony DiscJockey® 10-Disc Changer in your car? Then this is the home 10-Disc Changer to own.

ES TAPE DECKS/ANALOG AND DIGITAL

There is always something new to be discovered in all great works. It is true with music. And it is true with how we listen to music. That is why Sony continues to refine Analog Cassette Decks. Designed with Dolby® S type noise reduction, they reveal subtle details. And Sony's Digital Audio Tape Decks (DAT) let you hear music as it was originally recorded. Sony Tape Decks bring you music as if the musicians were right there performing for you.

Model shown

TC-K909ES

From age six,

Jennifer's hands have held a destiny
JENNIFER HAYGHE
different than most.

To play the piano and perform.

ES Cassette Decks

At Sony, tape recording is a passion. It's a single-minded pursuit that dates back 44 years to our company's very first consumer product: an open-reel tape recorder. And Sony is still busy refining every aspect of tape deck performance: tape heads, motors, electronics and convenience, as these ES Cassette Decks so amply demonstrate.

Consider the three essential limitations of cassette tape: high-frequency compression, distortion and noise. There's a single new technology that addresses each of these constraints. It's the latest from Dolby® Laboratories, the Dolby S type noise reduction system. The Dolby S system enables these new Sony analog decks to approach the clarity of our digital components. And it's wonderfully compatible with car stereos and Walkman® personal stereos equipped with Dolby® B noise reduction.

In addition to Dolby S type noise reduction, Sony continues to improve on the essentials of high-end Cassette Deck performance. Our three-head models use separate erase, record and play heads, each optimized for peak performance at its specific task. Our closed-loop dual capstan system vanquishes wow and flutter. And mechanical refinements, like mid ship construction and ceramic cassette stabilizers, keep resonance from muddying your music.

The end result? Pianos that sound like pianos – not a watery imitation. Violins with their characteristic sheen intact. Vocals and brass of pure, unwavering tone – just what you'd expect from Sony.

TC-K909ES

- Ultra-stable three-motor transport
- Sapphire-bearing direct drive capstan motor
- Three heads; off-tape monitoring
- Closed-loop dual capstan drive
- Dolby S type noise reduction
- 160 kHz Super Bias™ circuitry
- Sony laser amorphous tape heads with pressure pad reduction
- Mid ship design
- Aluminum front panel
- Power-assisted cassette loading
- Ceramic cassette stabilizer
- Bias and record calibration with test tone
- Dolby® B and C noise reduction
- Switchable Dolby HX Pro® circuit
- Switchable MPX filter
- 24-segment fluorescent meters
- Linear time counter with memory
- Multi-step Automatic Music Sensor™ track search
- Auto play, record mute
- Record level and balance control
- Timer standby record and play
- Headphone jack with level control
- Gold-plated input and output jacks
- Remote capable with Sony Receivers
- Veneer side panels

TC-K707ES

- Ultra-stable three-motor transport
- Three heads; off-tape monitoring
- Closed-loop dual capstan drive
- Dolby S type noise reduction
- 160 kHz Super Bias circuitry
- Sony laser amorphous tape heads
- Mid ship design
- Aluminum front panel
- Power-assisted cassette loading
- Ceramic cassette stabilizer
- Bias and record calibration with test tone
- Dolby B and C noise reduction
- Dolby HX Pro headroom extension
- Switchable MPX filter
- 16-segment fluorescent meters
- Linear time counter with memory
- Multi-step Automatic Music Sensor track search
- Auto play, record mute
- Record level and balance control
- Timer standby record and play
- Headphone jack with level control
- Gold-plated input and output jacks
- Remote capable with Sony Receivers

TC-RX606ES

- Quick reverse, auto reverse
- Ultra-stable three-motor transport
- Dolby S type noise reduction
- 160 kHz Super Bias circuitry
- Sony laser amorphous tape heads
- Mid ship design
- Aluminum front panel
- Power-assisted cassette loading
- Ceramic cassette stabilizer
- Auto calibration circuit
- Dolby B and C noise reduction
- Dolby HX Pro headroom extension
- Switchable MPX filter
- 16-segment fluorescent meters
- Linear time counter with memory
- Auto play, record mute
- Multi-step Automatic Music Sensor track search
- Record level and balance control
- Timer standby record and play
- Front panel microphone inputs
- Headphone jack with level control
- Gold-plated input and output jacks
- Remote capable with Sony Receivers
- Control-S input for Sony DST use

ES DUAL-WELL DECKS

Can uncompromising performance be compatible with unfettered convenience? With these Dual-Well Cassette Decks, the engineers of Sony ES answer a resounding, "Yes!"

Relay play lets you hear three hours of continuous music from a pair of C-90 cassettes—a great advantage when you're entertaining guests. You get the same three-hour capacity with sequential recording. Dual recording lets you make two identical tapes at once. And high-speed dubbing copies tapes at the touch of a button. There are no levels to set, no adjustments to make.

On the subject of sound, the Dolby S type noise reduction system helps Sony establish a new level of fidelity. Frequency response is a near perfect 20 Hz to 20,000 Hz, ±3 dB. Tone quality is unwavering, thanks to Sony's multi-motor tape transports. And 160 kHz Super Bias circuitry means that high-speed dubbing takes place without the high-frequency losses of lesser machines. The ES Dual-Well Decks: proof that performance and convenience need not be mutually exclusive.

TC-WR901ES

- Quick reverse, auto reverse
- Dual record
- Dual three-motor transports
- Power assisted cassette loading
- Dolby S type noise reduction for both A and B decks
- 160 kHz Super Bias circuitry
- Sony laser amorphous tape heads
- Deck A and B relay play
- Twin/sequential recording
- Dolby HX Pro headroom extension
- Dolby B and C noise reduction
- Twin auto record calibration circuits
- Switchable MPX filter
- Aluminum front panel construction
- Remote capable with Sony Receivers
- Multi-step Automatic Music Sensor track selection
- Blank skip
- Pitch control
- Auto pause, record mute
- Record level and balance control
- Twin linear time counters with memory
- Fluorescent display
- Sony Control-S input for DST use
- Veneer side panels

TC-WR701ES

- Dual auto reverse
- Dual record
- Dual two-motor transports
- Dolby S type noise reduction for both A and B decks
- Deck A and B relay play
- Twin/sequential recording
- Dolby HX Pro headroom extension
- Dolby B and C noise reduction
- Twin auto record calibration circuits
- Switchable MPX filter
- Aluminum front panel construction
- Multi-step Automatic Music Sensor track selection
- Record level and balance control
- Record mute
- Twin linear time counters with memory
- Fluorescent display
- Remote capable with Sony Receivers

ES DAT DECKS

Do you yearn to get your hands on professional-grade recording equipment? Do you long to make recordings that sound nearly indistinguishable from the original? Or do you simply crave archival-quality tapes of your valuable 78s and LPs? If so, then we have the tape recorders for you. The Sony ES Digital Audio Tape (DAT) Decks.

Sony DAT is a remarkable achievement. These are machines capable of recording and playing the same 16-bit linear digital samples used in professional audio. This is the same 16-bit linear sound you enjoy on Compact Discs.** This is the 2-track digital format that's widely accepted in recording studios across the country and around the world.

Yet even in the rarefied world of DAT Decks, a machine like the Sony DTC-87ES stands worlds apart. With four heads instead of two, for instantaneous off-the-tape monitoring as you record. With a super-slick, quick-loading 4-motor tape transport. With Sony's High Density Linear Converter system for exceptionally open, natural sound. With the rigorous standards of glass epoxy circuit boards and a copper-shielded chassis.

Yet technology and sound quality are only one side of the DAT story. You can also program, access and play DAT cuts much as you can with Compact Discs. You can set your DAT Deck to LP mode and capture up to four hours of music on a single DT-120 tape. And you can record and play your digital tapes on Sony DAT Walkman personal stereo recorders and players—not to mention the many studio DAT machines that populate the music and broadcasting industries.

DTC-87ES

- Sony's four-head system for tape/source monitoring
- Sony High Density Linear Converter system
- Separate power transformers for analog and digital circuitry
- Glass epoxy circuit boards
- Pulse A/D converter
- Anti-magnetic copper shielded chassis
- Quick-loading 4-motor transport
- 48, 44.1 or 32 kHz sampling rates
- Subcode recording system for start, skip and stop ID
- SP and LP tape speeds
- Serial Copy Management System**
- Search at 200x normal speed
- 10-key Direct Access track selection
- 60-track programming
- Optical, coaxial, and analog inputs and outputs
- CD synchro recording
- Timer standby record/play
- Time search, skip play and music scan
- Automatic Music Sensor search
- Wireless remote control
- Veneer side panels

DTC-59ES

- Sony Advanced High Density Linear Converter system
- 3-motor direct drive transport
- Multi-regulated power supply
- Pulse A/D converter
- 8x oversampling digital filter
- 48, 44.1 or 32 kHz sampling rates
- Vibration-resistant aluminum chassis
- Subcode recording system for start, skip and stop ID
- SP and LP tape speeds
- Serial Copy Management System**
- Search at 200x normal speed
- 10-key Direct Access track selection on unit and remote
- Display for absolute and remaining time
- 60-track programming
- Optical, coaxial and analog inputs
- Optical and analog outputs
- CD Synchro recording
- Automatic Music Sensor search
- 4-way time display
- Headphone jack
- Wireless remote control
- Veneer side panels


Samuel just loves to play his horn.
SAMUEL KARA
Someday soon, there will be a CD
featuring his name and own distinct style.

ES SEPARATE COMPONENTS

Performance. It is the goal for which music students study, train and practice. It is the culmination of countless hours of composition and rehearsal. Performance is what brings music to life. And performance is the reason Sony ES Separate Components were created. The ES Series of Integrated Amplifiers, Preamplifiers, Power Amplifiers, Tuners and Loudspeakers perform as if they were the finest musicians. They bring you music with an uncommon purity and brilliance. The ES Series of Separate Components was designed not just to reproduce music, but to bring it to life.

Models shown

TA-E2000ESD

ST-S707ES

TA-N80ES

ST-S707ES is shown with optional side panels.

ES Integrated Amplifiers

If you listen to music at night, when the world is quiet and the concerns of the day are just a distant memory. If you listen for the inner voices of a fugue or the exact fingering of a lead guitar riff. If you listen to music with single-minded intensity, we understand. The engineers of Sony ES share your love of music. And they've expressed that love in the new ES Integrated Amplifiers.

Here are amplifiers that embody the eternal truths of sound reproduction. Truths like purity. Simplicity. Absolute attention to detail. It starts with Metal Oxide Semiconductor Field Effect Transistors. Known to the trade as MOS FETs, they're also known for their high speed, high input impedance—and lower odd-order harmonic distortion. To minimize resonance-induced distortion, the chassis is created from calcium carbonate and reinforced with glass fibers. It is formed into a seamless block that is nearly immune to resonance and is also totally non-magnetic. To suppress interference between high-level and low-level circuits, Sony's Spontaneous Twin Drive system powers them separately. And to reduce even a slight chance of noise and distortion, Sony employs a motor-driven function selector, activated on the front-panel.

Listen carefully to these Integrated Amplifiers, and your care will be rewarded. You'll hear your music with all its majesty. You'll hear sound that's superbly natural, open and transparent. You'll hear a soundstage of ample breadth and depth. And you'll hear iron-clad proof that Sony ES engineers are as serious about music as you are.

TA-F808ES

- 100 watts per channel 20–20,000 Hz into 8 Ω, 0.004% THD
- 130 watts per channel 20–20,000 Hz into 4 Ω, 0.004% THD
- Class A voltage stage with MOS FETs
- Power output employing MOS FETs
- 7-input motorized function selector
- Moving coil cartridge input
- Source direct switch
- Preamplifier output
- Speaker A/B switching
- Mono/stereo switch
- Independent record output selector
- Subsonic filter
- Adaptor input/output loop
- Muting switch
- Anti-resonant G-Chassis™ design
- Spontaneous Twin Drive power supply
- FTC/UL rated for 4 Ω and 8 Ω loads
- Wireless remote control
- Optional veneer side panels available

TA-F707ES

- 90 watts per channel 20–20,000 Hz into 8 Ω, 0.004% THD
- 120 watts per channel 20–20,000 Hz into 4 Ω, 0.004% THD
- Class A voltage stage with MOS FETs
- Power output employing MOS FETs
- 7-input motorized function selector
- Moving coil cartridge input
- Source direct switch
- Preamplifier output
- Speaker A/B switching
- Mono/stereo switch
- Independent record output selector
- Subsonic filter
- Adaptor input/output loop
- Muting switch
- Anti-resonant G-Chassis design
- Spontaneous Twin Drive power supply
- FTC/UL rated for 4 Ω and 8 Ω loads
- Wireless remote control
- Optional veneer side panels available

TA-F606ES

- 80 watts per channel 20–20,000 Hz into 8 Ω, 0.008% THD
- 100 watts per channel 20–20,000 Hz into 4 Ω, 0.008% THD
- Class A voltage stage with MOS FETs
- Power output employing MOS FETs
- 7-input motorized function selector
- Moving coil cartridge input
- Source direct switch
- Speaker A/B switching
- Mono/stereo switch
- Independent record output selector
- Direct Link signal path
- Subsonic filter
- Adaptor input/output loop
- Muting switch
- Anti-resonant G-Chassis design
- Spontaneous Twin Drive power supply
- FTC/UL rated for 4 Ω and 8 Ω loads
- Wireless remote control
- Optional veneer side panels available

ES PREAMPS AND POWER AMPS

Sony ES Preamplifiers and Power Amplifiers signal a dramatic new approach to sound reproduction. The centerpiece is Sony's TA-E2000ESD Digital Signal Processing Preamplifier. It's the second generation of the Preamp that introduced DSP dynamics and DSP equalization, in addition to DSP acoustic enhancement. You get digital control of the three parameters that define a sound field: direct sound, early reflection, and reverberation. This control is so refined, you can even choose the row and number of your seat. And you have access to literally millions of equalization curves, all with the exacting precision of digital processing.

Now consider Sony Power Amplifiers. Notice their massive aluminum heat sinks and their anti-resonant, non-magnetic G-Chassis construction. As a result, their sound is so superbly musical, there's no further need for words.

TA-E2000ESD

- Digital Dolby Pro Logic surround with DSP Soundfield enhancement
- Digital compression and expansion
- Digital parametric equalization
- 20 digital Soundfield presets
- 10 variable Soundfield parameters
- Separate equalization for front, center, surround
- Digital separation control
- 90 MHz High Density Linear Converter D/A circuit
- Pulse A/D converter
- 8x oversampling digital filter
- Optical digital output
- Independent record output selector
- Dual subwoofer outputs
- Programmable A/V remote control
- Veneer side panels

TA-E80ES

- 6-input function selector
- Motorized function selector
- Source direct mode
- Independent record output selector
- Discrete head amp for moving coil phono cartridges; switchable load impedance
- External adaptor loop
- Balanced XLR inputs/outputs
- Anti-resonant G-Chassis design
- Glass epoxy circuit boards
- Dual monophonic topology
- Copper bussing
- Oversized power transformer
- Full system remote control
- Veneer side panels

TA-N80ES

- Spontaneous Twin Drive power
- 270 watts per channel, 4 Ω, 20–20,000 Hz, 0.006% THD
- 200 watts per channel, 8 Ω, 20–20,000 Hz, 0.004% THD
- Dynamic headroom of 2.8 dB at 4 Ω
- Monophonic: 580 watts at 8 Ω, 20–20,000 Hz, 0.007% THD
- Discrete output transistors in triple push-pull configuration
- Large, anodized heat sinks
- 520 VA power transformer
- Resin cast power supply capacitors
- Anti-resonant G-Chassis design
- Fixed and variable inputs
- Balanced XLR inputs
- Parallel A and B speaker terminals
- Dual protection circuits
- Veneer side panels

TA-N55ES

- Spontaneous Twin Drive power
- 150 watts per channel, 4 Ω, 20–20,000 Hz, 0.006% THD
- 110 watts per channel, 8 Ω, 20–20,000 Hz, 0.004% THD
- Dynamic headroom of 2.8 dB at 4 Ω
- Monophonic: 300 watts at 8 Ω, 20–20,000 Hz, 0.007% THD
- Discrete output transistors in push-pull configuration
- High current power transformer
- Resin cast power supply capacitors
- Anti-resonant G-Chassis design
- Fixed and variable inputs
- Parallel A and B speaker terminals
- Dual protection circuits
- Veneer side panels

TA-N220

Subwoofers, surround and center dialog speakers get their power here!

ES TUNERS

Nothing introduces you to the new voices of alternative music like FM. Nothing surprises you like FM with a Swing era favorite you'd almost forgotten. Nothing else brings you the weekly concert broadcasts of the great symphony orchestras. That's why Sony continues to advance the cause of FM reception with the extraordinary ES Tuners.

Refinements like Sony's wave optimized design for IF stage, detector, and stereo decoder; plus advances like a low-noise radial power supply and direct comparator frequency synthesis endow these tuners with exceptionally gratifying performance.

ST-S707ES

- Low-noise radial power supply
- Super sound tracking front end
- Wave optimized IF system
- Wave optimized direct detection
- Wave optimized digital stereo detector
- Direct Comparator synthesis tuning
- Antenna attenuator switch
- Switchable A/B antenna inputs
- Remote control capable
- 40 station memory presets
- Station Memo™ name display
- Multi-process memory
- Switchable IF bandwidth
- High fidelity AM reception
- Optional veneer side panels available

ST-S550ES

- Low-noise radial power supply
- Low-noise direct comparator PLL circuitry
- Antenna attenuator switch
- Remote control capable
- Optically-sensed rotary tuning
- 30 station memory presets
- Station Memo name display
- Multi-process memory saves your control settings
- Switchable IF bandwidth
- High Blend
- Interstation muting
- Coaxial FM input
- Control-S input and output
- Veneer side panels

ST-S211

Sensitive and quiet, the ST-S211 is remote control capable.

ES LOUDSPEAKERS

What makes a Speaker sound more natural? This simple question led us to scour the technical literature. To conduct a lengthy audition of driver prototypes. To perform an in-depth analysis of driver time alignment. And to move ever closer to perfection by moving from the engineering workstation to the listening room and back, over and over again.

These efforts in Speaker design are without parallel in the history of our company. The result: the Sony SS-M7 and SS-M3 Loudspeaker Systems. Listen to the dramatic soundstage of our time-aligned drivers. To the penetrating clarity of 24 dB per octave crossovers. To the point-source accuracy of the low-diffraction cabinet design. The result sounds less like Speakers. And more like music.

SS-M7

- 3-way sealed enclosure system
- Low-diffraction front baffle with flush-mounted drive units
- Non-parallel enclosure surfaces
- Anti-resonant inch-thick internal cabinet bracing
- Computer optimized bass loading
- Drivers time-aligned for a 3-meter listening distance
- Mineral filled polypropylene cones
- Compliant Butyl rubber surrounds
- Large-diameter aluminum voice coils
- Ferrofluid voice coil cooling
- Pro-style flux demodulation rings
- Computer-optimized woofer structure
- Steep-slope 24 dB per octave crossovers minimize comb filtering
- Separate bass and treble crossover boards
- Polypropylene crossover capacitors
- Ultra-high saturation, low DC resistance laminated steel crossover inductors
- High-power ceramic crossover resistors

SS-M3

- 2-way sealed enclosure system
- Low-diffraction front baffle with flush-mounted drive units
- Non-parallel enclosure surfaces
- Anti-resonant inch-thick internal cabinet bracing
- Computer-optimized bass loading
- Drivers time-aligned for a 3-meter listening distance
- Mineral filled polypropylene cones
- Compliant Butyl rubber surrounds
- Large-diameter aluminum voice coils
- Ferrofluid voice coil cooling
- Pro-style flux demodulation rings
- Computer optimized woofer structure
- Steep-slope 24 dB per octave crossovers minimize comb filtering
- Polypropylene crossover capacitors
- Ultra-high saturation, low DC resistance laminated steel crossover inductors
- High-power ceramic crossover resistors

ES SPECIFICATIONS

Receivers	STR-GX69ES	STR-GX808ES	STR-GX909ES	STR-G1ES
Power Output 8 Ohms, 20Hz - 20 kHz	100 Watts x 2/0.08%	70 Watts x 3/0.04%	80 Watts x 3/0.04%	80 Watts x 3/0.04%
Center/THD	50 Watts/0.08%			
Surround RMS at 1kHz	50 Watts/0.08%	20 Watts x 2/0.04%	20 Watts x 2/0.04%	20 Watts x 2/0.04%
Input Sensitivity				
Phono	2.5mV/50 k	2.5mV/50 k	2.5mV/50 k	2.5mV/50 k
Line	150 mV/10 k	250 mV/50 k	250 mV/50 k	250 mV/50 k
Output				
Video Out/Rec Out	150 mV/10 k			
Recout		250 mV/10 k	250 mV/10 k	250 mV/10 k
Preout		1 V/1 k	1 V/1 k	1 V/1 k
Center		1 V/1 k	1 V/1 k	1 V/1 k
Rear		1 V/1 k	1 V/1 k	1 V/1 k
Mono		1 V/1 k	1 V/1 k	1 V/1 k
Signal-to-Noise Ratio				
Phono	85 dB	87 dB	87 dB	87 dB
(A Net)		79 dB	79 dB	79 dB
Line	86 dB	105 dB	105 dB	105 dB
(A Net)		85 dB	85 dB	85 dB
Frequency Response				
Phono	RIAA ± 0.5	RIAA ± 0.5	RIAA ± 0.5	RIAA ± 0.5
Line	5 - 20k ± 0.5	10 - 20k ±1	10 - 20k ±1	10 - 20k ±1
Power		10 - 100k ±1	10 - 100k ±1	10 - 100k ±1
Equalizer	Bass and Treble	Parametric	Parametric	Parametric
Bass 125 - 1 k	± 10 dB	± 10 dB	± 10 dB	± 10 dB
Mid 54 - 8 k		± 10 dB	± 10 dB	± 10 dB
Treble 1 k - 8 k	± 10 dB	± 10 dB	± 10 dB	± 10 dB
DBFB 70 Hz	+ 10 dB	+ 10 dB	+ 10 dB	+ 10 dB
Low cut Filter	12dB/oct	12dB/oct	12dB/oct	12dB/oct
FM Tuning Range	875 MHz - 108 MHz	875 MHz - 108 MHz	875 MHz - 108 MHz	875 MHz - 108 MHz
IHF Sensitivity	11.2 dBf	11.2 dBf	11.2 dBf	11.2 dBf
50 dB Sensitivity (Mono/Stereo)	18.3 dB/38.3 dB	18.3 dB/38.3 dB	18.3 dB/38.3 dB	18.3 dB/38.3 dB
Selectivity 400 k	60 dB	60 dB	60 dB	60 dB
Capture Ratio	1.2 dB	1.2 dB	1.2 dB	1.2 dB
Separation (1k)	45 dB	45 dB	45 dB	45 dB
Frequency Response 30 - 15 k	+0/-2 dB	+0/-2 dB	+0/-2 dB	+0/-2 dB
Distortion (1k Mono/ 1k Stereo)	0.3%/0.5%	0.3%/0.5%	0.3%/0.5%	0.3%/0.5%
Signal-to-Noise Ratio				
Mono	80 dB	80 dB	80 dB	80 dB
Stereo	74 dB	74 dB	74 dB	74 dB
AM Tuning Range	530 kHz - 1710 kHz	530 kHz - 1710 kHz	530 kHz - 1710 kHz	530 kHz - 1710 kHz
Sensitivity	50 dB/m	50 dB/m	50 dB/m	50 dB/m
Selectivity 10 k	40 dB	40 dB	40 dB	40 dB
Frequency Response 100 - 10 k	-10 dB +/- 3	-10 dB +/- 3	-10 dB +/- 3	-10 dB +/- 3
Distortion 400 Hz	0.5%	0.5%	0.5%	0.5%
Signal-to-Noise Ratio	54 dB	54 dB	54 dB	54 dB
Video				
Input	1 V/75	1 V/75	1 V/75	1 V/75
Output	1 V/75	1 V/75	1 V/75	1 V/75
Dimensions	17" x 5¾" x 14⅜"	17" x 5⅞" x 15¼"	18½" x 5⅞" x 15¼"	17" x 5⅞" x 15¼"
(shipping)	20½" x 10⅝" x 17⅞"	20⅞" x 10¼" x 18⅛"	22⅝" x 10¼" x 18⅛"	22⅝" x 10¼" x 18⅛"
Weight	29 lbs. 9 oz.	27 lbs. 8 oz.	32 lbs. 3 oz.	32 lbs. 3 oz.
(shipping)	35 lbs. 8 oz.	31 lbs.	35 lbs. 14 oz.	35 lbs. 14 oz.

Compact Disc Players	Single Disc Players CDP-X202ES	CDP-X303ES	CDP-X707ES
Frequency Response	2 Hz - 20 kHz ± 0.3 dB	2 Hz - 20 kHz ± 0.3 dB	2 Hz - 20 kHz ± 0.3 dB
Harmonic Distortion	< 0.0023%	< 0.0017%	< 0.0015%
Signal-to-Noise Ratio	> 117 dB	> 119 dB	> 119 dB
Dynamic Range	> 100 dB	> 100 dB	> 100 dB
Channel Separation	> 110 dB	> 110 dB	> 110 dB
Line Out			
Fixed	2 V/ 50 k ohms	2 V/ 50 k ohms	2 V/ 50 k ohms
Variable	2 V	2 V	2 V
Headphones Output Level	28 mW	28 mW	100 mW
Power Consumption	17 W	29 W	38 W
Dimensions	17" x 4⅜" x 13⅛"	18½" x 4¾" x 14⅜"	18½" x 4¾" x 13¾"
(shipping)	20" x 8⅝" x 14¼"	22⅝" x 9⅝" x 16½"	22⅝" x 11⅞" x 18⅛"
Weight	12 lbs. 12 oz.	25 lbs. 4 oz.	32 lbs. 5 oz.
(shipping)	14 lbs. 4 oz.	29 lbs. 4 oz.	39 lbs. 13 oz.

Compact Disc Players	Carousel Disc Players CDP-C601ES	CDP-C701ES	CDP-C801ES	10 Disc CD Changer CDP-C90ES
Frequency Response	2 Hz - 20 kHz ± 0.3 dB	2 Hz - 20 kHz ± 0.3 dB	2 Hz - 20 kHz ± 0.3 dB	2 Hz - 20 kHz ± 0.3 dB
Harmonic Distortion	< 0.0025%	< 0.0023%	< 0.0023%	< 0.003%
Signal-to-Noise Ratio	> 116 dB	> 116 dB	> 116 dB	> 110 dB
Dynamic Range	> 100 dB	> 100 dB	> 100 dB	> 100 dB
Channel Separation	> 110 dB	> 110 dB	> 110 dB	> 105 dB
Line Out				
Fixed	2 V/ 50 k ohms	2 V/ 50 k ohms	2 V/ 50 k ohms	2 V/ 50 k ohms
Variable	2 V	2 V	2 V	2 V
Headphones Output Level	15 mW/ 32 ohms	15 mW/ 32 ohms	15 mW/ 32 ohms	15 mW/ 32 ohms
Power Consumption	13 W	23 W	38 W	18 W
Dimensions	17" x 4 7/8" x 15 1/4"	16 1/2" x 4 7/8" x 15 1/4"	16 1/2" x 4 7/8" x 16 1/4"	17" x 4 5/8" x 14 5/8"
(shipping)	19 3/4" x 7 7/8" x 18 5/8"	21 1/8" x 7 7/8" x 18 5/8"	21 1/8" x 7 7/8" x 18 5/8"	20" x 7" x 20"
Weight	14 lbs. 12 oz.	19 lbs. 1 oz.	20 lbs.	14 lbs. 6 oz.
(shipping)	18 lbs. 4 oz.	23 lbs. 2 oz.	23 lbs. 2 oz.	17 lbs.

Tape Decks	Single Cassette Decks TC-RX606ES	TC-K707ES	TC-K909ES	Dual Decks TC-WR701ES	TC-WR901ES
Frequency Response (Type IV)	25 Hz - 19 kHz ± 3 dB	20 Hz - 21 kHz ± 3 dB	15 Hz - 22 kHz ± 3 dB	30 Hz - 19 kHz ± 3 dB	20 Hz - 20 kHz ± 3 dB
Wow and Flutter (WRMS)	0.06%	0.05%	0.022%	0.07%	0.06%
Signal-to-Noise Ratio					
Dolby Off Type IV	59 dB	60 dB	61 dB	59 dB	59 dB
Dolby C On Type IV	74 dB at 500 Hz	75 dB at 500 Hz	76 dB at 500 Hz	74 dB at 500 Hz	74 dB at 500 Hz
Total Harmonic Distortion	1.8 % at 315 Hz	1.5 % at 315 Hz	1.3 % at 315 Hz	1.0 % at 315 Hz	1.8 % at 315 Hz
Input Sensitivity	0.16 V into 47 k ohms	0.16 V into 47 k ohms	0.16 V into 47 k ohms	0.16 V into 47 k ohms	0.16 V into 47 k ohms
Output Levels					
Line	0.5 V/ 47 k ohms	0.5 V/ 47 k ohms	0.5 V/ 47 k ohms	0.5 V/ 47 k ohms	0.5 V/ 47 k ohms
Headphones	0 - 3 mW/ 32 ohms	0 - 3 mW/ 32 ohms	0 - 3 mW/ 32 ohms	0 - 3 mW/ 32 ohms	0 - 3 mW/ 32 ohms
Power Consumption	20 W	21 W	26 W	33 W	30 W
Dimensions	17" x 12 1/4" x 4 3/4"	17" x 12 3/4" x 4 3/4"	18 1/2" x 13 3/4" x 5 5/8"	17" x 12 1/4" x 5 5/8"	18 1/2" x 13 3/4" x 5 5/8"
(shipping)	19 1/4" x 14 1/4" x 7 1/4"	19 1/4" x 14 3/4" x 7 1/4"	16 3/4" x 15 5/8" x 8 1/2"	19 3/4" x 15 1/4" x 7 1/4"	21 1/4" x 15 5/8" x 8 1/2"
Weight	10 lbs. 10 oz.	11 lbs. 1 oz.	17 lbs. 11 oz.	11 lbs. 1 oz.	16 lbs. 9 oz.
(shipping)	12 lbs.	12 lbs. 7 oz.	20 lbs. 2 oz.	13 lbs. 6 oz.	18 lbs. 6 oz.

Digital Audio Tape (DAT) Decks	DTC-59ES	DTC-87ES
Digital to Analog Converter	90 Mhz Complementary HDLC System	50 Mhz Complementary HDLC System
Analog to Digital Converter	Pulse Converter	Pulse Converter
Tape Transport	3 Motor Drive, 2 Direct, 1 Assist	4 Motor Drive, 3 Direct, 1 Assist
Heads	2 Heads, 30mm Stainless Steel Drum	4 Heads, 30mm Stainless Steel Drum
Sampling Frequencies	32 kHz, 44.1 kHz, 48 kHz	32 kHz, 44.1 kHz, 48 kHz
Power Supply	Single Transformer, Multi Regulated	Dual Transformers for A/D
Inputs/Outputs		
Analog	RCA	RCA
Digital	Optical/Coaxial	Optical/Coaxial
Frequency Response	2 Hz - 22 kHz 0.5 dB	2 Hz - 22 kHz * 0.5 dB
Signal-to-Noise Ratio (Std/Slow)	>90 dB/>92 dB	>94 dB
Dynamic Range (Std/Slow)	>93 dB/>92 dB	>94 dB
Total Harmonic Distortion (Std/Slow)	.0045%/0.08%	.0045%/0.08%
Wow and Flutter	Immeasurable	Immeasurable
Input	47 k ohms/-4 dB	47 k ohms/-4 dB
Output	470 ohms/-4 dB	470 ohms/-4 dB
Power Consumption	32 W	37 W
Dimensions	18 1/2" x 3 1/2" x 14"	18 1/2" x 5 7/8" x 14"
Weight	17 lbs. 10 oz.	24 lbs. 4 oz.

ES SPECIFICATIONS

Integrated Amplifiers	TA-F606ES	TA-F707ES	TA-F808ES
Power Output 8 ohms, 20 Hz - 20 kHz	80 Watts	90 Watts	100 Watts
Both Channels Driven			
Total Harmonic Distortion	0.008%	0.004%	0.004%
Power Output 4 ohms 20 Hz - 20 kHz	100 Watts	120 Watts	130 Watts
Both Channels Driven			
Damping Factor 8 ohms at 1 kHz	80	100	100
Frequency Response			
Line	2 Hz - 200 kHz + 0	2 Hz - 200 kHz + 0	2 Hz - 200 kHz + 0
	dB - 3 dB	dB - 3 dB	dB - 3 dB
Phono	RIAA +/- 0.2 dB	RIAA +/- 0.2 dB	RIAA +/- 0.2 dB
Input Sensitivity			
Phono MC 3 ohms	0.25mV/100 ohms	0.25mV/100 ohms	0.25mV/100 ohms
Phono MC 40 ohms		0.25mV/1k ohms	0.25mV/1k ohms
Phono MM	2.5mV/50k ohms	2.5mV/50k ohms	2.5mV/50k ohms
Line Level	150mV/20k ohms	150mV/20k ohms	150mV/20k ohms
Signal to Noise			
Phono MC	76 dB	77 dB	79 dB
Phono MM	84 dB	93 dB	93 dB
Line Level	105 dB	105 dB	105 dB
Dimensions	17" x 5¾" x 14½"	17" x 6¾" x 17½"	17" x 6 7/8" x 17½"
Weight	30 lbs. 12oz.	46 lbs. 12 oz.	54 lbs. 2 oz.

FM/AM Stereo Tuners	ST-S211	ST-S550ES	ST-S707ES
Frequency Response	30 - 15,000 Hz	15 - 15,000 Hz ± 0.2 dB	15 - 15,000 Hz ± 0.2 dB
	+ 0.5 dB/-1.0 dB	mono, ± 0.5 dB stereo	
Signal-to-Noise Ratio			
Stereo	75 dB	78 dB	92 dB
Mono	80 dB	82 dB	100 dB
THD (Stereo/Mono)			
IF Wide	0.05%/ 0.3%	0.05%/ 0.04%	0.0075%/ 0.004%
IF Normal		0.08%/ 0.06%	0.06%/ 0.04%
Sensitivity (Mono)	12.1 dBf/ 2.2 uV	10.3 dBf/ 1.8 uV	10.3 dBf/ 1.8 uV
Selectivity			
400 kHz, wide	65 dB	80 dB	70 dB
300 kHz, narrow		65 dB	65 dB
Separation (1 kHz, wide)	40 dB	65 dB	70 dB
Power Consumption	10 W	10 W	20 W
Dimensions	17" x 3½" x 11¼"	18⅞" x 3⅝" x 14⅛"	17" x 3½" x 14⅛"
Weight	6 lbs. 8 oz.	8 lbs. 14 oz.	12 lbs. 8 oz.

Multi-Channel Power Amplifiers	TA-N55ES	TA-N80ES
Continuous Sine Wave Power Output (all channels driven, 8 ohms, 20 - 20,000 Hz)	150 Watts per Channel at 4 ohms, 0.006% THD 110 Watts per Channel at 8 ohms, 0.004% THD	230 Watts per Channel at 4 ohms, 0.006% THD 200 Watts per Channel at 8 ohms, 0.004% THD
Mono Operation	300 Watts at 8 ohms, 20 - 20,000 Hz, 0.007% THD	580 Watts at 8 ohms, 20 - 20,000 Hz, 0.007% THD
Dynamic Power 2, 4, 8 ohms	400 Watts, 290 Watts, 150 Watts	800 Watts, 520 Watts, 300 Watts
IM Distortion 8 ohms at Rated Output	0.004%	0.004%
IHF Dynamic Headroom at 4 ohms	2.8 dB	2.8 dB
Power Bandwidth (IHF, 8 ohms)	5 - 50,000 Hz	10 - 100,000 Hz
Damping Factor	100 at 8 ohms, 1 kHz	100 at 8 ohms, 1 kHz
Slew Rate	120 V/msec; 250 V/msec. inside	150 V/msec; 300 V/msec. inside
Residual Noise	Less than 90mV, A wd	Less than 35mV, A wd
Power Consumption	280 W	380 W
Dimensions	18⅞" x 6" x 14⅛"	18⅞" x 7⅞" x 17⅛"
Weight	26 lbs. 14 oz.	52 lbs. 15 oz.

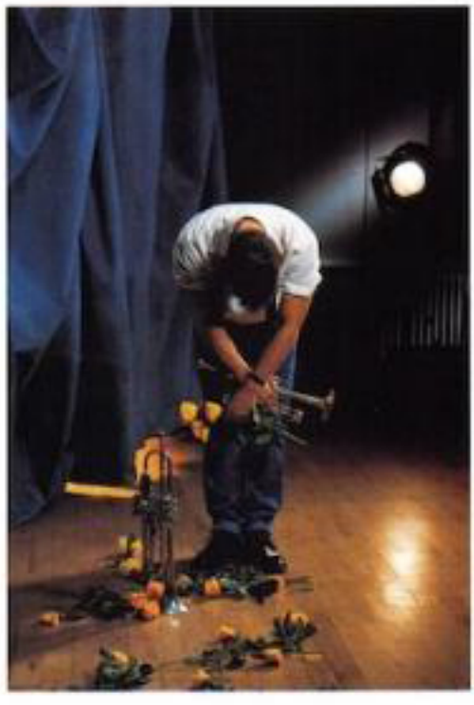
Multi-Channel Power Amplifiers	TA-N220
Continuous Sine Wave Power Output	100 Watts per Channel x 2, 0.1% THD
(all channels driven, 8 ohms, 20 - 20,000 Hz)	45 Watts per Channel x 4, 0.015% THD
	100 Watts per Channel x 1, 45 Watts
	per Channel x 2, 0.1% THD
Dynamic Power (8 ohms)	
Bridged	250 Watts per Channel
Unabridged	85 Watts per Channel
IM Distortion 8 ohms at Rated Output	0.12%
IHF Dynamic Headroom at 8 ohms	
Bridged (100 W) Channel	3.9 dB
Unabridged (45 W) Channel	2.3 dB
Power Bandwidth (IHF, 8 ohms)	12 - 40,000 Hz
Residual Noise	Less than 0.5 mV (A-network)
Dimensions	18⅛" x 5⅞" x 14⅝"
Weight	20 lbs. 5 oz.

Preamplifiers	TA-E80ES
Input Sensitivity and Input Impedance	
Phono MM	2.5 mV, 50 k ohms
Phono MC (40 ohms)	0.17 mV, 1 k ohms
Phono MC (3 ohms)	0.17 mV, 100 ohms
CD	150 mV, 50 k ohms
Maximum Input Capability	
Phono MM	150 mV
Phono MC	9 mV
Frequency Response	
Phono	RIAA ± 0.2 dB
CD	3 Hz - 300 kHz + 0 dB - 3 dB
Signal-to-Noise Ratio	
Phono MM	86 dB
Phono MC	83 dB
CD	105 dB
Total Harmonic Distortion	0.001%
Intermodulation Distortion	0.001%
Residual Noise	10 mV
Power Consumption	30 watts
Dimensions	15½" x 5¼" x 14½"
Weight	28 lbs. 10 oz.

Preamplifiers	TA-E2000ESD
Converter Section	
A/D Converter Sampling Frequency	48 kHz
A/D Conversion	Pulse Type
D/A Converter Sampling Frequency	32 kHz, 44.1 kHz, 48 kHz
D/A Conversion	Advanced 90 MHz High
	Density Linear Converter™
Audio	
Frequency Response	
Center at Wide	10 Hz - 20 kHz ± 0.1 dB
(Subwoofer)	Cutoff 80 Hz - 18 dB/ Oct
Phono In	20 Hz - 20 kHz ± 0.2 dB
Input Sensitivity and Input Impedance	
Phono	5 mV, 50 k ohms
Tuner, CD, Tape 1 - 2, Video 1 - 5, VDP, TV	250 mV, 50 k ohms
Coaxial	0.5 V p - p ± 20% 75 ohms
S/N (network)	
Phono	Front/rear both 84 dB (A)
Tuner, CD, Tape 1 - 2, Video 1 - 5, VDP, TV	Front/rear both 94 dB (A)
Optical 1 - 2, Coaxial	Front, Center, Rear 103 dB (A)
Residual Noise	Below 10 uV (A)
Output Voltage and Output Impedance	
Front 1 - 2	2.5 V
Video 1 - 3 Audio Out, Tape 1 - 2 Rec Out	250 mV 470 ohms
Headphones	25 mW (at 8 ohms)
Total Harmonic Distortion	
Analog Input	Front 1 kHz below 0.004%
Digital Input	Front 1 kHz below 0.003%
Video	
Input Sensitivity & Impedance (Video 1 - 5, VDP, TV)	1V p - p 75 ohms
Output Voltage & Impedance (Video 1 - 3, Monitor 1 - 2)	1V p - p 75 ohms
S-Video Input Sensitivity & Impedance (Video 1, 2, 5)	Luminance: 1V p - p 75 ohms
	Chroma: .286 V p - p 75 ohms
S-Video Output Voltage & Impedance (Video 1, 2, Mon.)	Luminance: 1V p - p 75 ohms
	Chroma: 1V p - p 75 ohms
DSP	
EQ Frequency Range	3 Band, 16 Hz - 20 kHz (81 positions)
Gain ±	Per each Band ± 12 dB, 0.1 dB Step
Slope	16 slope-step variable
Soundfield (Main Parameter)	
Room Size & Wall	0.5 - 2.0 (0.1 Step)
Seat Position	(Rear-Front) 101-step variable
	(Left-Right) 101-step variable
Center Level & Rear Level	0 dB - 60 dB - ∞ dB (1 dB Step)
Soundfield (Sub Parameter)	
Effect Level	0% - 100% (1% Step)
Early Reflection Time	2 mS - 500 mS (2 mS Step)
Early Reflection Level	0% - 100% (1% Step)
Reverb Time	0.3 Sec - 5.0 Sec (0.1 Sec Step)
Spread	- 2.0 (0.1 Step)
Reverb Density	Mid - High
Dynamics	9 - Linear - EXP 9
Both Dolby Delay and Each Dolby Delay	15.0 mS - 30.0 mS (0.1 mS Step)
Each Rear Level	0 dB - 60 dB - ∞ dB (1 dB Step)
General	
Power Requirements	AC 120V, 60 Hz (USA, CND)
Power Consumption	38 watts
AC Outlets (USA, CND)	Switched x 3 (total 300 watts)
	Unswitched x 1 (300 watts)
Dimensions	16⅞" x 6" x 14⅞"
Weight	18 lbs. 12 oz.

ES SPECIFICATIONS

Loudspeakers	SS-M3	SS-M7
Configuration	2-Way Sealed Enclosure	3-Way Sealed Enclosure
Crossover	Computer Optimized	Computer Optimized
	24 dB per Octave	24 dB per Octave
Crossover Frequency	2 kHz	4 kHz, 400 Hz
Frequency Response	78 Hz - 17 kHz +/- 2 dB	52 Hz - 17 kHz +/- 2 dB
	70 Hz - 20 kHz +/- 3 dB	47 Hz - 20 kHz +/- 3 dB
Impedance	8.0 ohms Nominal	8.0 ohms Nominal
	5.5 ohms Minimum	4.5 ohms Minimum
Sensitivity	85 dB at One Meter with	86 dB at One Meter with
	2.83 Vrms Input	2.83 Vrms Input
Power Handling	120 Watts Maximum	200 Watts Maximum
	Continuous Power	Continuous Power



*Sony developed the pulse D/A converter and designed the LSI circuitry with the cooperation of NTT (Nippon Telegraph and Telephone Corporation). Multi-stage noise shaping, with a two-stage, third order noise shaper and EFB pass techniques were originated by NTT.

**DAT products sold by manufacturer-authorized outlets incorporate the Serial Copy Management System, which will not prevent you from making a direct digital-to-digital copy from a digital source, but from such copies will prevent a second direct digital copy from being made.

SONY.

Sony Electronics Inc.
1 Sony Drive
Park Ridge, NJ 07656-8003

C4234
Printed in USA 8/93 (45)