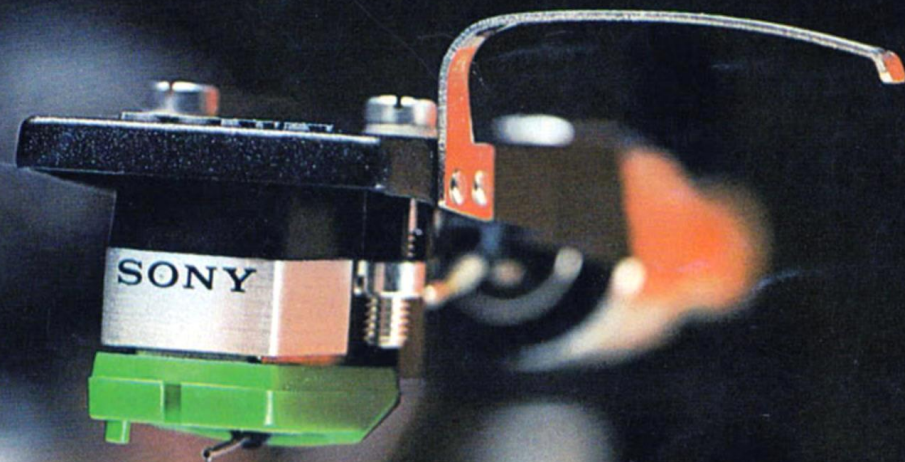


SONY

Hi-fi and stereo cassettes
Autumn 1976



SONY has put together this booklet to present our products in the simplest way. Without complicated jargon.

Without the sort of explanations only boffins can comprehend.

To start with, each product illustrated has a rundown of the most significant features.

All these are colour coded for quick reference to the specification section at the back.

The only significant feature not mentioned is compatibility, since all SONY equipment is compatible with other SONY equipment.

(You can assemble a complete system without any of the usual problems of building one.)

To help further, equipment is grouped in recommended "family" systems which give you the benefits of perfectly balanced Hi-Fi.

(Each system can be added to at will without changing the basics.)

Finally, we hope the brochure is a help to all Hi-Fi buyers.

Not just to the newcomers, but to experienced listeners as well.

Tape Copying

Amplifiers and receivers having the tape copying symbol adjacent to them are equipped with 2 pairs each of tape recorder inputs and record outputs for the connection of 2 stereo tape recorders.

Front panel switching enables the making of 2 recordings, simultaneously, or tape duplicating from either of the 2 tape recorders connected, without the necessity for rewiring the inter-connecting leads between the recorders.

Both Open reel and cassette type recorders may be connected, permitting duplication of open reel or cassette tapes or the copying of open reel tapes onto cassette (etc.).

V-FET

Amplifiers and tuner amplifiers bearing the V-FET symbol are utilising vertical field effect transistors developed by SONY Engineers to handle high currents found in their output stages. The V-FET has characteristics closer to those of the thermionic valve, than the Bi-polar transistor previously used in solid state amplifiers providing a smoothness of sound that will satisfy even the most critical of Hi-Fi enthusiasts.

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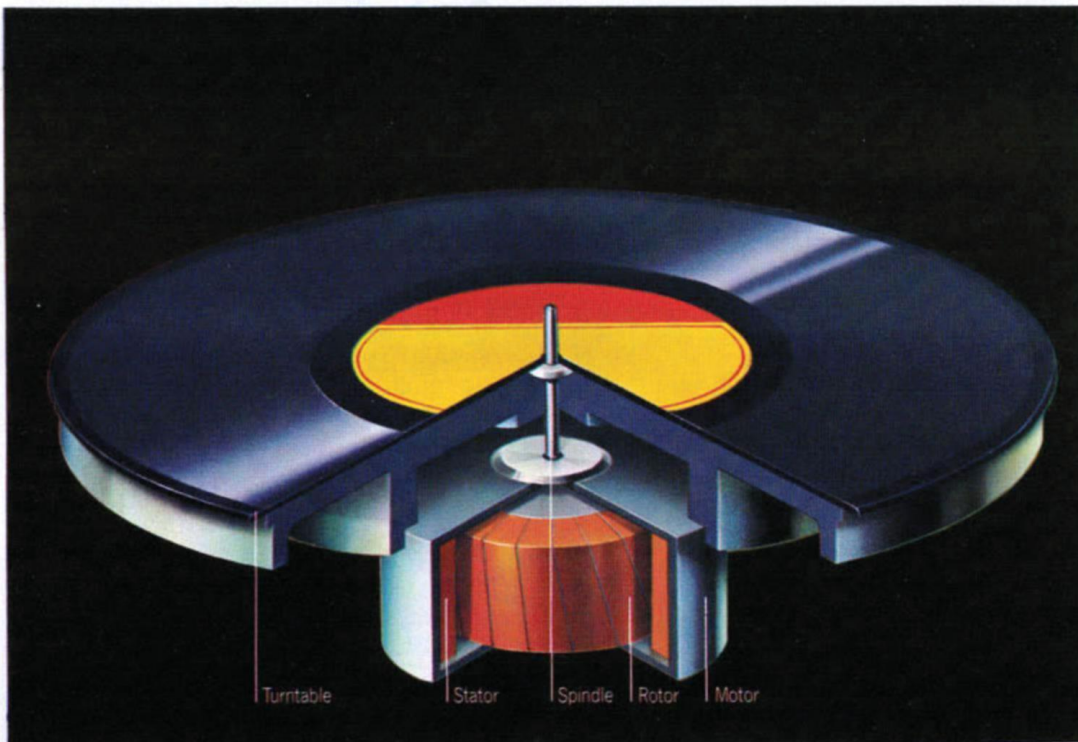
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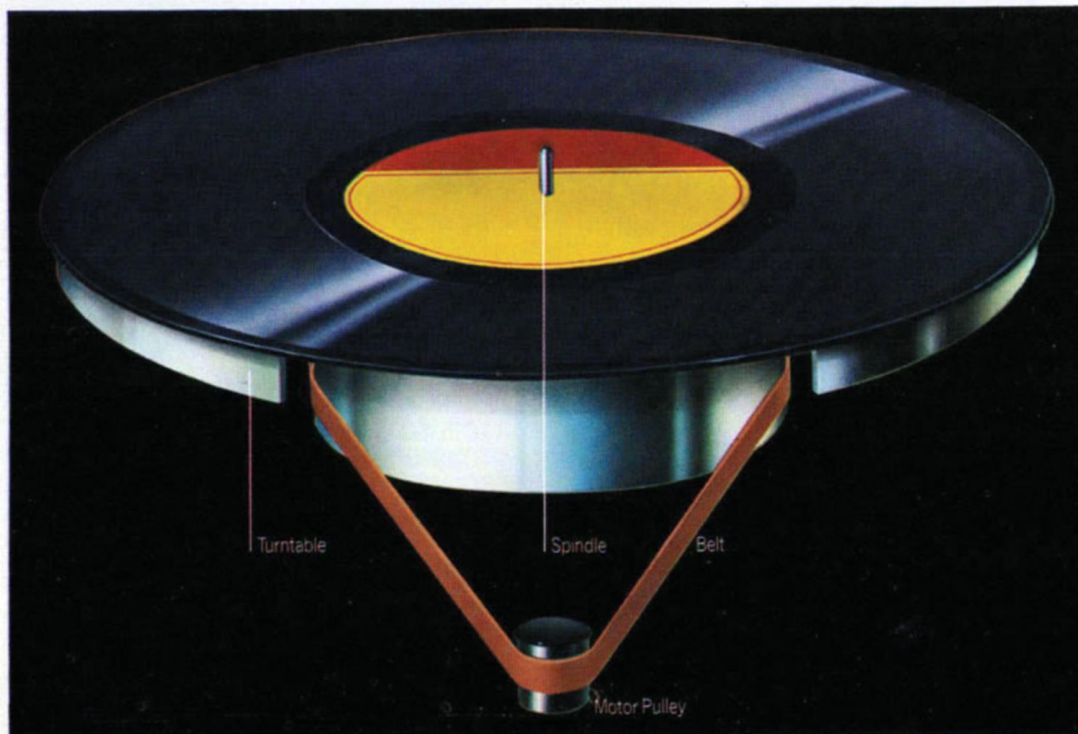
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Direct Drive

By mounting the turntable platter on the end of the motor shaft, the platter is directly driven by the motor thereby eliminating intermediate idler or belt drive components with their inherent contribution to wow and flutter. High speed motors tend to create rumble due to their relatively high vibration. However, because the direct drive motor rotates at the same low speed as the turntable platter, any rumble due to the rotational speed of the motor should be outside the audible frequency band. The rumble of a direct drive turntable is therefore, exceedingly low compared to that caused by the high speed motors of other systems. The already low wow and flutter of the direct drive system is reduced further by the addition of a closed loop servo control system that senses and corrects any minute change in speed almost before it occurs.



Belt Drive

Belt drive is a feature of most fine Hi-Fi turntables. The belt drive system provides excellent performance and reliability with the utmost simplicity of design. Power is transmitted from a motor pulley to the turntable platter by means of the special belt which effectively absorbs any vibration caused by the motor. This ensures minimum rumble which is generally caused by motor vibration.

PS1350

STEREO TURNTABLE

PS1350 will add both quality and style to your existing Hi-Fi system. Coming complete with SONY magnetic cartridge and detachable dust cover.

FEATURES

- Semi-automatic belt driven turntable.
- Anti-skating and cueing facilities.
- Fitted magnetic cartridge.
- Newly designed disc mat effectively dampening disc vibration.



SONY

Cubism

The Tate Gallery

The Art of the Renaissance

THE LIMITS TO GROWTH

Principles of Economics

Robert M. La Follette

Various vinyl records stacked on a shelf



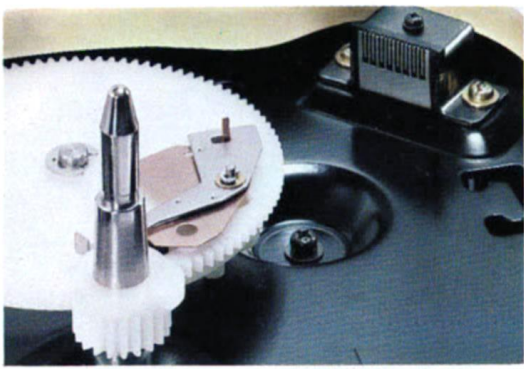
PS1700

STEREO TURNTABLE

The PS1700 is a new introduction to our range of stereo turntables incorporating belt drive and a high sensitivity static balanced tone arm. It comes complete with a SONY cartridge.

FEATURES

- Automatic arm return and stop.
- Belt driven aluminium die-cast turntable.
- High-signal to noise ratio, low wow and flutter.
- Precision pivot bearings and bias compensator for low distortion.



Detail shows the pick-up sensor which measures the speed at the rim of the turntable and through the DC servo system ensuring constant speed with optimum reproduction.

PS 3300

STÉREO TURNTABLE

A high quality stereo turntable featuring a direct drive brushless DC servo motor providing extremely low wow and flutter.

FEATURES

- Direct drive brushless DC servo-controlled motor.
- Cueing device.
- Automatic arm return at the end of record.
- Built-in illuminated stroboscope.
- Good acoustic isolation.











Detail shows touch controls allowing full operation without lifting the dust cover or jarring the unit.

PS 4300

FULLY AUTOMATIC STEREO TURNTABLE

A fully automatic stereo turntable of extremely high quality featuring finger touch controls to facilitate ease of operation. The PS 4300 boasts a host of features some of which are listed below. Please note this turntable is supplied without a cartridge.

FEATURES

-  Brushless DC servo-controlled motor, direct drive player.
-  All operations can be carried out automatically or manually.
-  End of record sensing device allows extremely light tracking pressures.
-  Newly developed arm protection mechanism.
-  Auto cueing device.
-  Aluminium die-cast turntable with built-in illuminated stroboscope.



The illustration shows the carbon fibre tone arm combining lightness with strength and low resonance, resulting in low distortion performance.

PS6750 STEREO TURNTABLE

To the proven advantages of a direct drive turntable SONY has brought a new technology in the construction of an ultra low resonance carbon fibre tone arm. Supplied without cartridge.

FEATURES

- Direct drive.
- 2-speed with individual pitch controls.
- Cueing device.
- Minimal acoustic feedback.
- New low resonance construction.
- Newly developed carbon fibre tone arm.
- Fluid-filled platter mat for clearer sound.
- Built-in illuminated stroboscope.
- Anti-static grid on dust cover prevents static influencing tone arm tracking performance.





TA 70

INTEGRATED STEREO AMPLIFIER

A compact amplifier at a sensible price incorporating all the features necessary to form the centre-piece of a complete Hi-Fi system. Designed for combination with the ST 70.

FEATURES

- 8 watts per channel.
- 4 inputs (phono, tuner, aux, tape).
- Connections for 2 pairs of speakers.

ST 70

STEREO TUNER

A stereo tuner offering many facilities normally found in more expensive models. It provides for a reasonable price the additional dimension of a stereo radio to your Hi-Fi system.

FEATURES

- VHF/MW.
- MPX decoder for VHF stereo.
- AFC switch.
- Tuning meter.
- Stereo indicator light.

Suggested TA 70 'family' comprising models TA 70, ST 70, PS1350, TC117 and SS 70 speakers.



Suggested TA 88 family comprising models TA 88, ST 88, PS 1700, TC 1185SD and SS 1050 speakers.

TA 88

INTEGRATED STEREO AMPLIFIER

A conservatively rated amplifier of distinctive appearance taking up a minimum of shelf space. Specifically designed to match the ST 88 Stereo Tuner.

FEATURES

- 10 watts per channel.
- 4 inputs (phono, tuner, tape, aux).
- Ultra compact design.
- Slider type volume and tone controls.
- Input indicator lamps.

ST 88

STEREO TUNER

A compactly designed stereo tuner whose performance matches that of more costly and larger tuners.

FEATURES

- VHF/MW.
- AFC control.
- Capture ratio 2.5 dB.
- Flywheel operation for smooth tuning.
- Input meter.



Suggested TA 1630 'family' comprising models TA 1630, ST 2950F, PS 3300, TC 186SD and SS 2050 speakers.

TA 1630

INTEGRATED STEREO AMPLIFIER

An attractively styled stereo amplifier providing a healthy 22 watts rms output per channel and the functionally designed control panel should please even the most critical of Hi-Fi connoisseurs.

FEATURES

- 22 watts per channel rms.
- Click setting tone control.
- Facilities for 2 tape monitors.
- Presence and loudness control switches.
- Tape 2 input facility on the front panel.
- Well designed protection circuits protecting both amplifier and speakers.
- Direct coupled amplifier circuit.

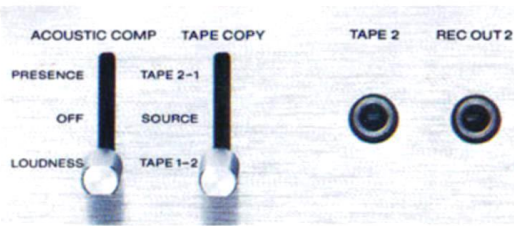
ST 2950F

STEREO TUNER

This superbly designed tuner has all the advanced features and high performance that you could wish for and at a price one can afford. The easily readable linear dial scale and large signal and FM tuning meters make precise and accurate tuning extremely simple.

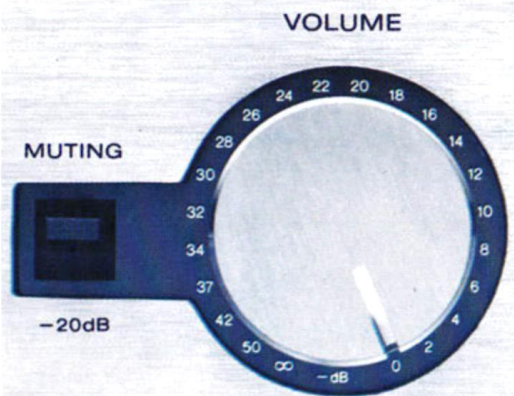
FEATURES

- LW/MW/SW/VHF.
- Newly developed junction FET front end for high sensitivity and low IM distortion.
- Phase locked loop decoder for good stereo separation and wide bandwidth.
- Uniphase filters for high selectivity and excellent stereo performance.
- Tuning and signal meters.



The above detail shows the presence and loudness switch and the second tape input feature on the TA 2650.

The detail below clearly shows the click setting volume control and instant muting switch.



TA 2650 STEREO AMPLIFIER

The TA 2650 has sufficient power at 40 watts per channel to fill any room in your home with music. This integrated stereo amplifier is the result of many years of development using the latest solid state technology.

FEATURES

- 40 watts r.m.s. per channel (at 20 Hz to 20kHz).
- Click setting volume and tone controls.
- Facility for 2 tape recorders.
- Duplicate tape input on front panel.
- Presence and loudness switch.
- Totally direct coupled amplifier circuit.
- A newly designed protection circuit for both power transistors and speakers.





ST 3950

STEREO TUNER

An attractively styled 2-band tuner designed to match the TA 3650 amplifier. This superbly designed unit offers many advanced features with a high standard of performance.

FEATURES

- Accurate dial indication through a newly developed linear tracking tuning capacitor and highly stable local oscillator.
- High sensitivity and overload capability thanks to MOS FETS in the RF amplifier.
- Excellent selectivity and stereo performance due to uniphase filters.
- LED dial pointer illuminates when 'on-station' on VHF waveband.
- Built-in simple to operate multipath checking switch.

TA 3650

STEREO AMPLIFIER

An excellent high quality amplifier, the TA 3650 has a host of features and with an output of 55 watts r.m.s. per channel, this amplifier will surely satisfy the most particular of Hi-Fi connoisseurs.

FEATURES

- 55 watts r.m.s. per channel (at 20Hz to 20kHz).
- Click setting volume and tone controls.
- Facilities for 2 tape recorders.
- Second tape input facility available on the front panel as well as on the rear.
- Tape-to-tape is completely independent.
- Presence and loudness switch.
- High and low filters.
- Direct coupled dual transistor differential amplifiers for stability and life-like sound.
- A newly designed protection circuit for both power transistors and speakers.



Suggested TA 3650 'family' comprising models TA 3650, ST 3950, PS 4300, TC 206SD and SS 3050 speakers.



Suggested 5950SD "family" comprising models ST 5950SD, TA8650, PS 6750, TC 880-2, EL 7 and SS 8150 speakers.

ST 5950SD

STEREO TUNER

The ST 5950SD is a further addition to our range of high quality stereo tuners and incorporates a Dolby decoder for future Dolby encoded VHF transmissions.

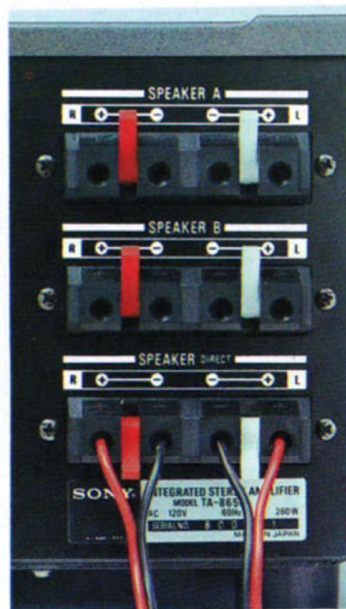
FEATURES

- VHF/MW (with built-in Dolby NR for VHF broadcasts).
- Highly accurate dial indication from a newly developed tuning capacitor.
- High sensitivity and overload capability made possible by MOS FETs.
- Superb spurious response ratio with new dual gate MOS FET balanced mixer.
- Phase locked loop stereo multiplex decoder for stable, clear, low distortion,

high quality stereo performance.

- LED tuning indicator for accurate tuning on VHF illuminates when "on station."
- Built-in multipath checking switch.
- Headphone out and volume level control.
- High blend switch eliminating background hiss without losing frequency response.





Detail shows convenient lever operated speaker terminals for connection of up to 3 pairs of speakers.

V-FET TA 8650

V-FET INTEGRATED STEREO AMPLIFIER

The most powerful and sophisticated amplifier in the SONY range, with a wide variety of useful control facilities.

FEATURES

- 80 watts per channel.
- 10 inputs.
- Harmonic distortion 0.1% at 1 kHz full rated power.
- Damping factor 100/8 ohm.
- External adaptor facility.
- Flexible filters and tone controls.
- Acoustic compensation control.
- Clip level indicators.
- Facility for 2 tape recorders.











TA 5650

V-FET INTEGRATED STEREO AMPLIFIER

The V-FET is a vertical construction field effect transistor developed by SONY engineers to be capable of handling the large currents found in the output stages of an amplifier. The first of a new generation of V-FET amplifiers, the TA 5650 offers a smoothness of sound not previously associated with solid state equipment.

FEATURES

-  50 watts per channel.
-  8 inputs.
-  Harmonic distortion only 0.1% at 1 kHz full rated power.
-  Damping factor 100/8 ohm.
-  External adaptor facility.
-  Connections for 2 tape recorders.
-  Tape copying facility.
-  Connections for 2 pairs of speakers.



STR 7015

STEREO TUNER AMPLIFIER

STR 7015 is designed for those who want an amplifier and tuner in one cabinet, providing 15 watts r.m.s. per channel output. Its direct coupled power amplifier ensures a good low frequency performance.

FEATURES

- 15 watts per channel output.
- VHF/MW.
- Connections for 2 pairs of speakers.
- VHF interstation muting switch.
- Microphone input.



STR 7025

STEREO TUNER AMPLIFIER

This tuner amplifier with an output of 18 watts r.m.s. per channel is provided with a full range of output facilities and makes an ideal and versatile centre-piece to any Hi-Fi system.

FEATURES

- 18 watts per channel.
- VHF/MW.
- Connections for 2 pairs of speakers.
- Facility for 2 tape recorders.
- Microphone mixing facility.
- VHF interstation muting switch.









STR 7035

STEREO TUNER AMPLIFIER

A recent addition to SONY's superb range of high quality components. This unit combines a powerful amplifier of 24 watts per channel with an extremely sophisticated tuner system.

FEATURES

-  24 watts per channel.
-  VHF/MW.
-  Connections for 2 pairs of speakers.
-  Facility for 2 tape recorders.
-  Microphone mixing facility.
-  VHF interstation muting switch.

Suggested STR 7035 'family' comprising models STR 7035, TC 204SD, PS 3300, TC 377 and SS 2050 speakers.



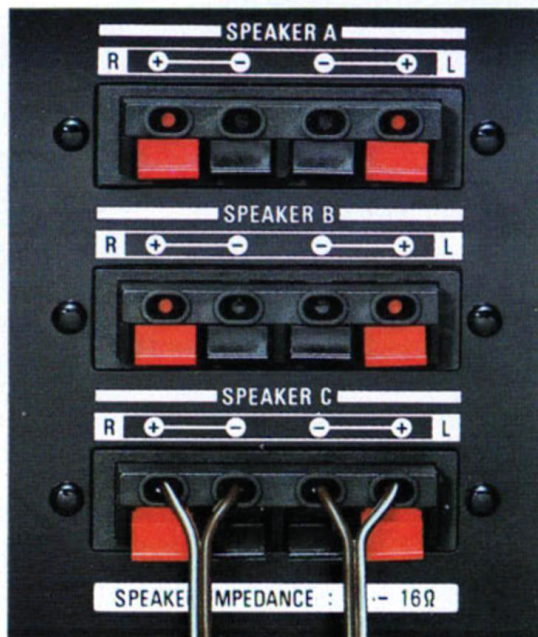
STR 4800

STEREO TUNER AMPLIFIER

The STR 4800 combines a high performance stereo tuner and a powerful amplifier with a host of facilities which will be of great interest to the Hi-Fi enthusiast.

FEATURES

- 40 watts per channel.
- VHF/MW.
- Combined oscillator and tuning capacitor for high stability and accuracy.
- Uniphase IF filter for high selectivity and low distortion.
- Phase lock loop stereo decoder for high channel separation and low distortion.
- Long linear tuning scale for ease of tuning.
- Tape 1 to tape 2 copying facility.









STR 5800 STEREO TUNER AMPLIFIER

A further addition to our range of quality stereo tuner amplifiers the STR 5800 provides 60 watts of high powered sound:

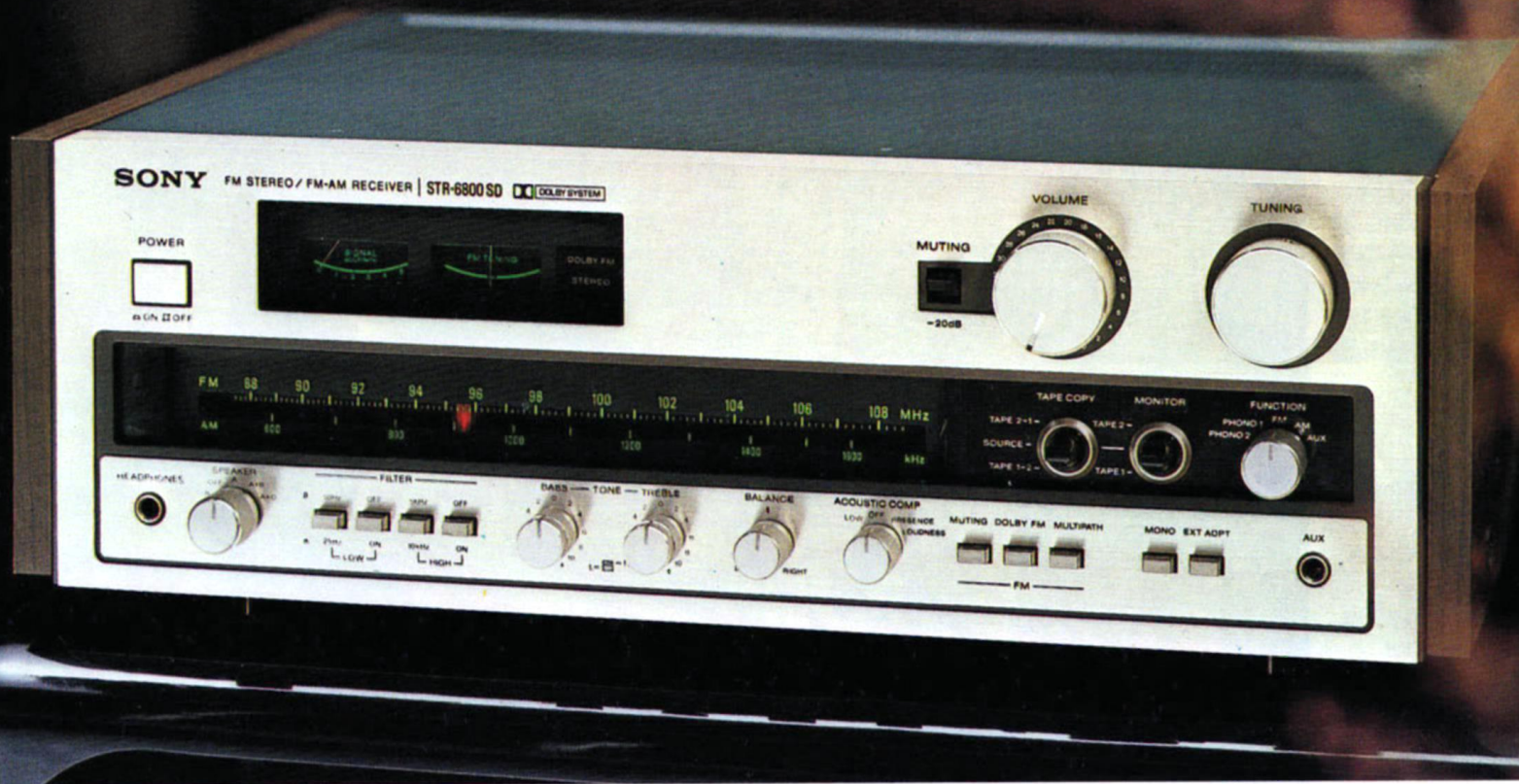
-  Facility for 3 pairs of speakers.
-  Facility for 2 tape recorders.

FEATURES

-  60 watts per channel.
-  VHF/MW.
-  Presence and bass compensator controls.
-  High and low filters to eliminate scratch and rumble.
-  Comprehensive protection circuits.
-  LED tuning indicator.

The detail far left clearly shows a host of facilities provided on the STR 5800.

Detail left shows tab type speaker connections for safe and easy connection of speakers.



Suggested 6800SD "family" comprising models STR-6800SD, PS-6750, EL-5 and SS-5050 speakers.

STR 6800SD
STEREO TUNER AMPLIFIER

The most powerful and sophisticated in our range of tuner amplifiers the STR-6800SD also incorporates a Dolby decoder for future Dolby encoded VHF transmissions.

FEATURES

- 80 watts per channel.
- VHF/MW.
- Tape dubbing facility.
- Multipath check for aerial setting to achieve high quality reception.
- LED tuning indicator.
- High and low filters to eliminate scratch and rumble.
- Presence and bass compensator controls.
- Facility for 3 pairs of speakers.

Introduction to SQ

Quadraphonic Sound is very simple in principle but rather complex in its technology. In a concert hall, listening to music, be it Beethoven or the Beatles, really depends on what seat you are in as to exactly what sounds reach you, albeit that most concert hall acoustics are very good.

Now, when recording quadraphonic sound the engineers try to put on to the master tape, and hence on to disc, not only the music, but the ambient effects (i.e. 'space') of a concert hall and the ability, when you play it back, to choose your own seat.

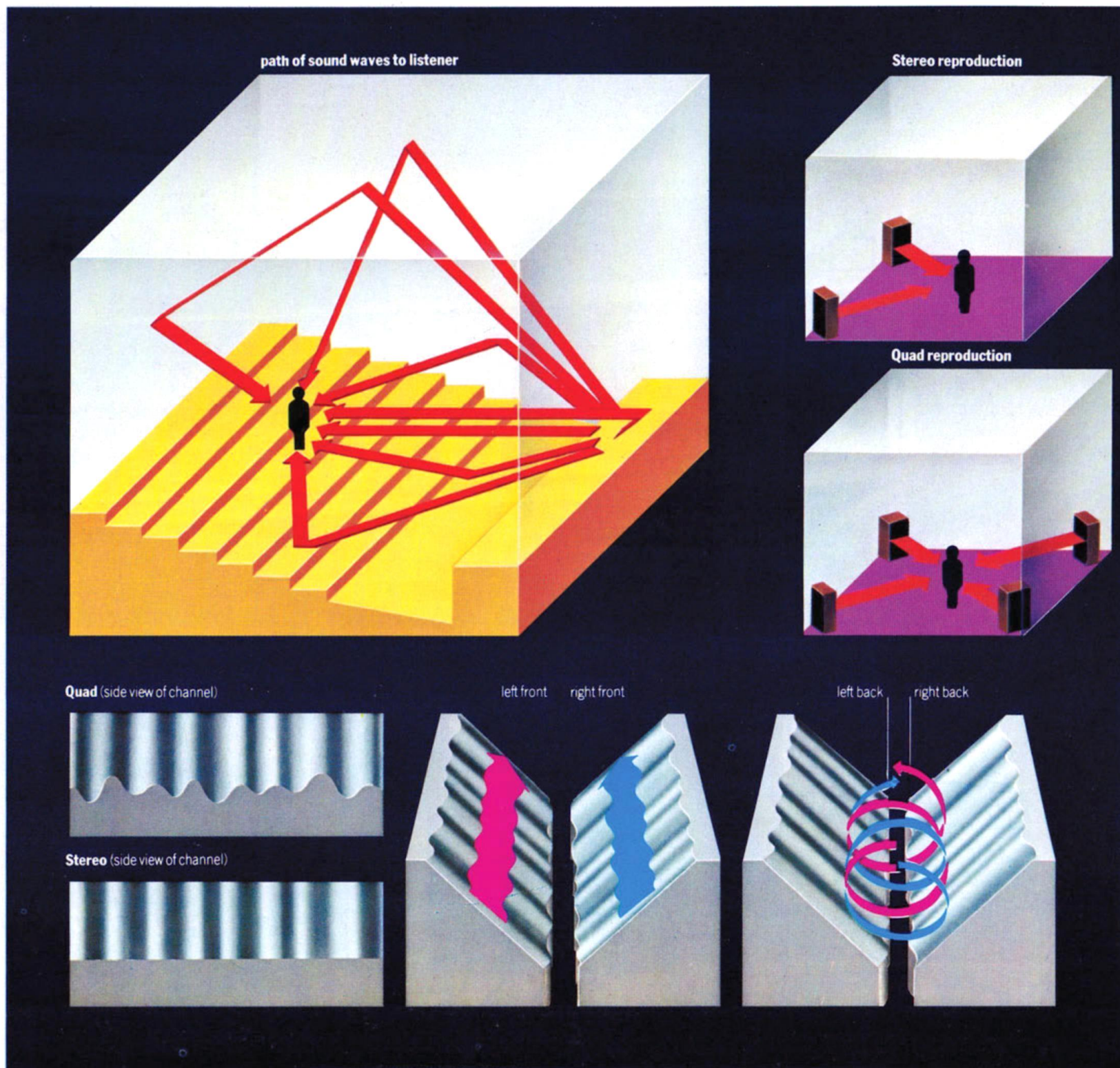
TECHNOLOGY

As you know, stereo is in two channels – quadraphonic is four-channel sound – it gives you depth as well as width.

On an SQ disc, this is done by adding a clockwise helix for left-back modulation and an anti-clockwise helix for right-back modulation, shown in the very simplified diagram. Your SONY SQ equipment decodes this encoded signal into the four channels the recording engineer intended.

You will hear many people talk about varying types of four-channel reproducing systems so, why SQ? Basically for six main reasons:

1. SQ can be simply added to most normal stereo systems.
2. SQ is compatible with the stereo records already in wide use.
3. An SQ record can be played on conventional stereo equipment and give normal stereo effect.
4. All four channels can be controlled independently.
5. SQ is directly compatible with the present VHF broadcast technology.
6. Providing your existing system incorporates a tape monitor switch, you can simply convert from stereo into exciting quadraphonic sound.





TA 3140F

STEREO POWER AMPLIFIER

An excellent amplifier for use with systems having an independent pre-amplifier and ideal for use in a stereo-to-quadraphonic conversion.

FEATURES

- 35 watts per channel.
- Compatible with almost any pre-amplifier.
- Overload protection circuitry.
- Direct coupled output.
- Input level controls.



SQA 2030

SQ DECODER AMPLIFIER AND CONTROL UNIT

A popular unit for addition to most normal stereo systems, the SQA 2030 provides full logic decoding of SQ records as well as regular matrix. Your stereo records can be reproduced with more depth as simulated quadraphonic, ensuring that your existing record collection is enhanced rather than made obsolete.

FEATURES

- Full logic decoding.
- Master control of all 4 channels.
- Built-in 18 watts per channel rear amplifier.
- Decodes both SQ and regular matrix-records.



SQD 2010

QUADRAPHONIC DECODER

A sophisticated decoder for addition to most Hi-Fi systems providing the exciting sound of stereo quadrasonic - SQ. The TA 3140F would make a perfect match to the SQD 2010 as a rear channel power amplifier.

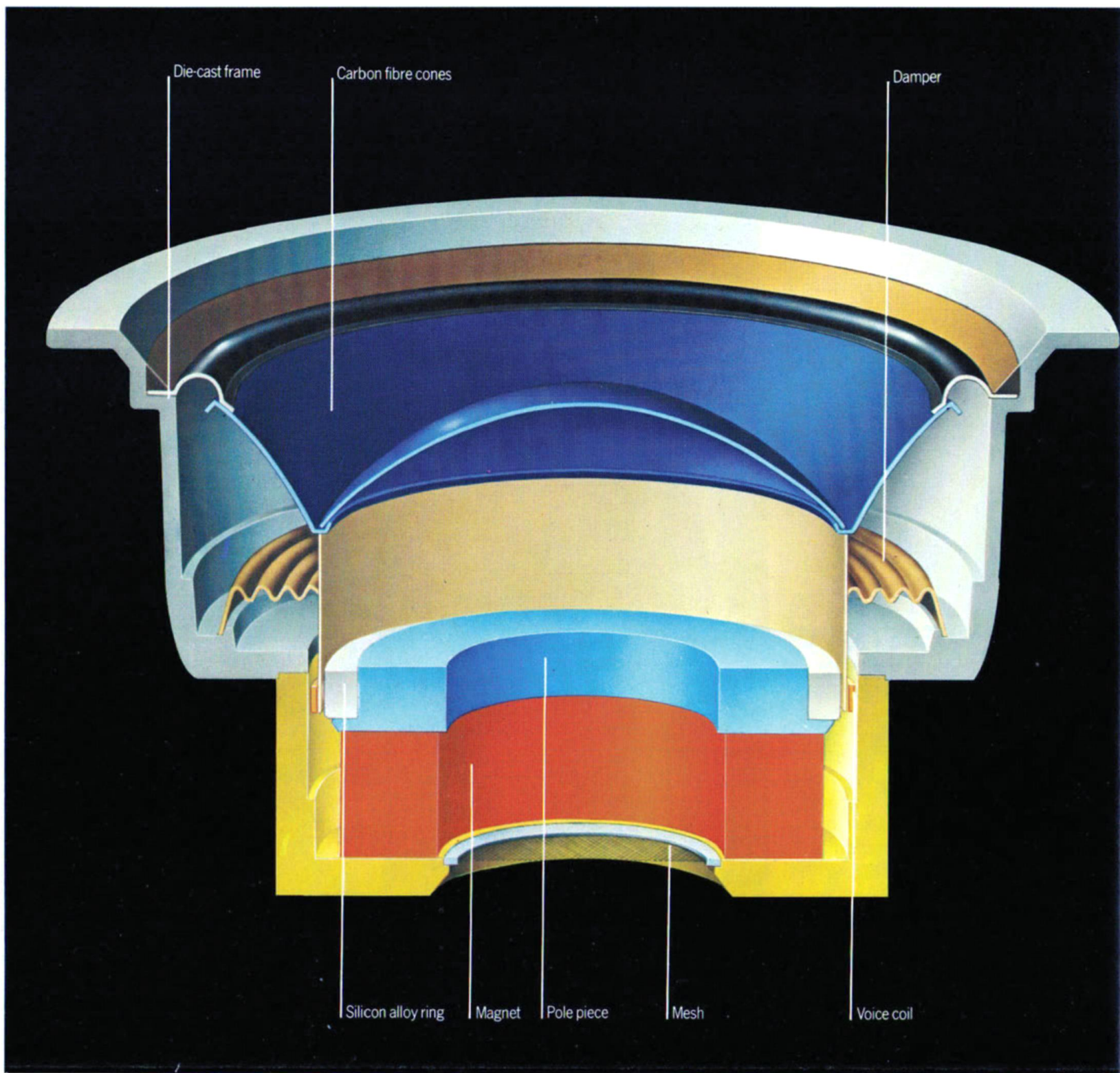
FEATURES

- Full front/back and wave matching logic.
- Master control of all 4 channels.
- Full metering of each channel.
- Rear channel tone controls.
- Decodes both SQ and regular matrix records.

Introduction to speakers

Prevention of the cone 'break-up' at high frequencies has long been an aim of loudspeaker designers. SONY has developed a process for applying carbon fibre to the cone base material, resulting in a drive unit of high stiffness, light weight, and low resonant characteristics, which moves in a true piston function over the whole audible frequency range. These carbon cones are now employed in all drive units for the SONY SS 8150 and for the bass drivers of SS 3050 and SS 5050 speaker systems.

The speaker unit illustrated is the bass driver for the SS 8150 speaker system. It has a newly developed low distortion magnetic circuit and is of a fundamentally different design to conventional speakers. The voice coil is mounted in such a way that the cone is dynamically balanced, thereby further reducing distortion and producing a more faithful audio output.





SS 8150

LOUDSPEAKER SYSTEM

Employing three newly developed SONY die-cast frame speaker drive units with the carbon fibre cones, the SS 8150 is the ultimate model in our range of speakers. The voice coils of the speaker drive units are mounted in such a way that the cones are dynamically balanced, resulting in a more faithful audio output. The pole piece of each unit is a newly designed refinement introduced by SONY. A silicon steel ring is employed for the base unit, annealed pure iron for the mid-range and permertur for the tweeter. These low loss hysteresis materials provide high linearity, thus reducing harmonic distortion caused by the magnetic circuit. Mid-range and tweeter level controls are provided for optimum matching to room acoustics and separate terminals for the three speakers are provided enabling each to be driven from a separate amplifier, if required. The infinite baffle cabinet is constructed from a solidly braced beech-ply, and presented in a grey finish.

FEATURES

- 100 watt handling.
- Carbon fibre cones.
- Unit level controls.
- Additional terminals for direct connection to each separate speaker drive unit.
- Balanced type speaker units.

Speakers

No matter how good the rest of your equipment, how good a signal it sends, if you have poor speakers, it will all be in vain, and worse, distorted. Illustrated right you will find a SONY speaker to give the best performance from the smallest to the most sophisticated hi-fi system.

The cabinet finishes and nominal handling capacity of SONY speakers are given below:
SS 70: 8 watts, teak finish.
SS 1030: 30 watts, teak and walnut finishes.
SS 1050: 30 watts, teak and walnut finishes.
SS 2030: 30 watts, teak and walnut finishes.
SS 2050: 40 watts, teak and walnut finishes.
SS 2070: 50 watts, teak and walnut finishes.
SS 3050: 70 watts, walnut finish.
SS 5050: 80 watts, walnut finish.



SS 70 SS 1030 SS 1050 SS 2030



SS2050

SS2070

SS3050

SS5050

FF F & F Head

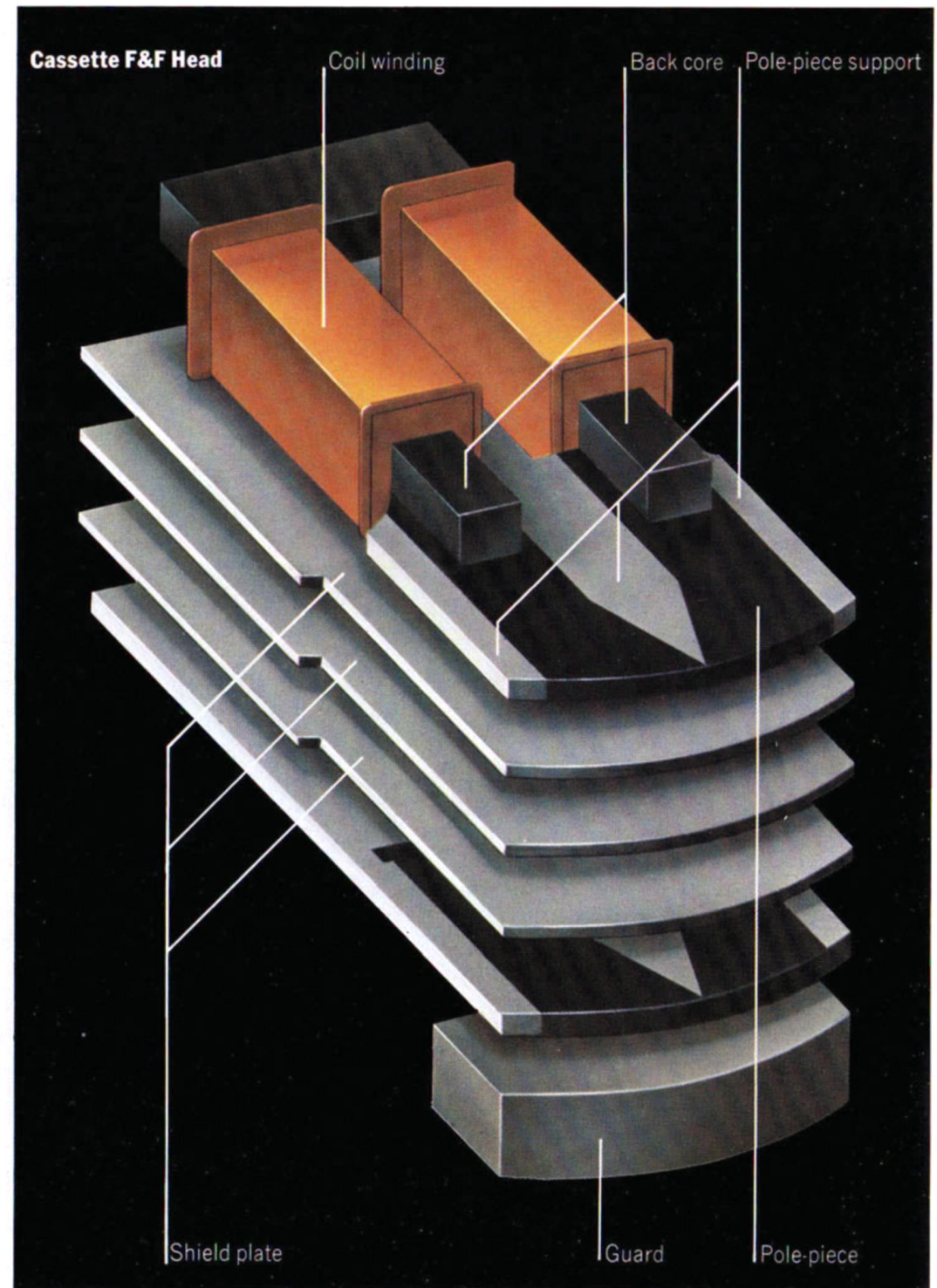
The ferrite head is a new kind of magnetic head. It brings dramatic improvements in tape recorder performance.

When compared with conventional heads, the ferrite head features up to 200 times longer life, better tape-to-head contact, wider frequency response, less distortion, less noise and smaller phase difference between channels.

The use of ferrite heads is essential if optimum results are to be realised with a noise reduction system and for cassette machines in particular ferrite heads are indispensable for use with chromium dioxide tapes. Among the various ferrite heads now in use by different manufacturers, SONY's Ferrite and Ferrite head is distinguished by the use of ferrite material for both the core material plus the guard portion of the head. The entire surface of the F & F head is therefore made of highly polished ferrite, assuring slow even wear with less oxide accumulation and maintaining a precisely parallel head gap for a more extended period of time. Full performance potential is therefore maintained for a much longer period.

Super Permalloy Head

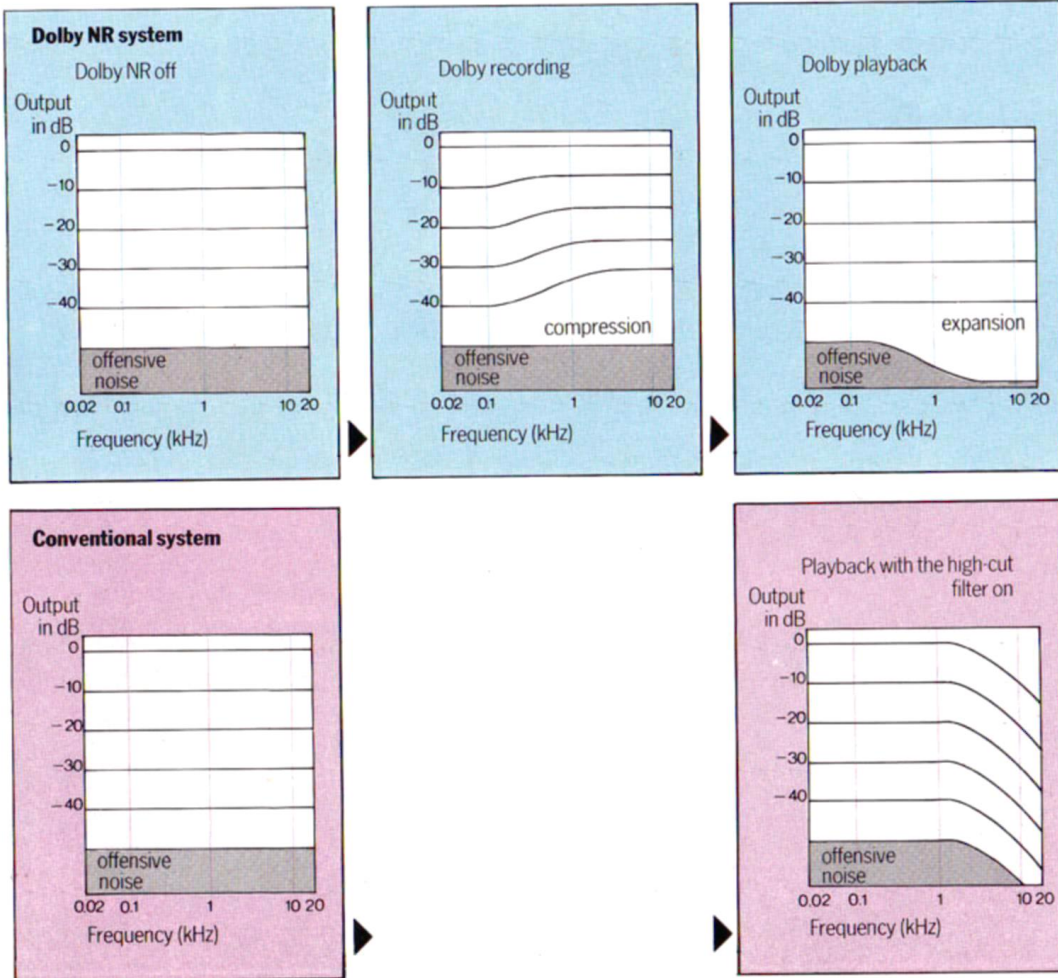
The super permalloy head provides increased cassette deck performance and in comparison to the conventional head it features longer life with less wear thus ensuring minimum head adjustment and maintaining its full performance for a longer period of time.



☐ The Dolby Noise Reduction System

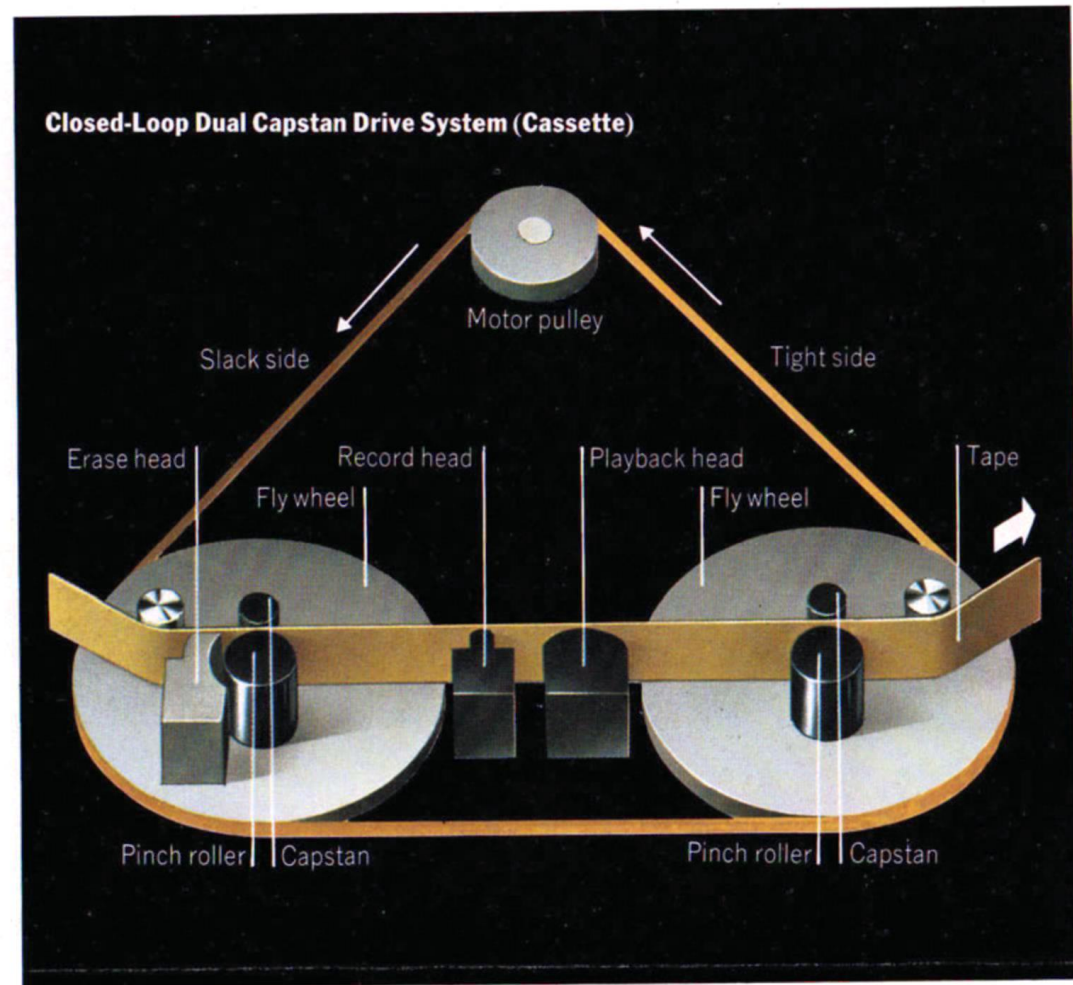
The extremely narrow track width and slow tape speed of stereo cassette recorders resulted in a relative increase of noise in reproduction. Hissing noise often interferes with music enjoyment especially in quiet pianissimo passages. The Dolby circuit has been built into some of our cassette decks to reduce this annoying background noise. It is a 2-way device used for both recording and reproduction. When recording quieter passages, it boosts high frequency energy up to more than twice as strong as it really is. And, when reproducing this recording, it suppresses the boosted energy back to a normal level reducing at the same time the noise energy inherent in the tape and playback amplifier. Since the amount of suppression is determined by the level recorded on the tape and picked up by the magnetic head, good tape-to-head contact and use of prime quality tape are essential in obtaining optimum results.

The word Dolby is a trademark of Dolby Laboratories Inc.



🔋 Closed-Loop Dual-Capstan Drive

The primary advantage of the closed-loop dual-capstan tape drive system is that it isolates that portion of the tape which is in contact with the recording head from external vibrations and tension irregularities caused by uneven spool winding and the inevitable inconsistencies of the back tension mechanism. The dual-capstan system uses a difference in the rotational speed of the capstans to establish and maintain uniform tape tension across the heads. The leading capstan rotates slightly faster than the trailing capstan. Reduced modulation noise and stable tape-to-head contact are performance benefits resulting directly from the use of the closed-loop dual-capstan drive system. Many of our top quality open reel recorders use this system making pressure pads totally unnecessary but it is also utilised to particular advantage on certain of our high quality cassette recorders and, especially on 3-head machines where the record head does not coincide with the position of the cassette pressure pad.



Introduction to Stereo Cassette

Whatever your requirements in stereo cassette equipment SONY have a cassette recorder to suit your needs. Our range of stereo cassette decks have gone a long way in helping to establish the cassette as a genuine Hi-Fi medium. The decks on the following pages have varied and numerous features, beginning with the familiar top loading units, running right up to our latest development... ELCASET. Many of them feature the now famous Dolby Noise Reduction System. So browse through the pages. We are sure you will find what you are looking for.

TC144CS

COMPLETE STEREO CASSETTE UNIT

A transportable, mains operated stereo cassette with large lid speakers which fit sandwich style for portability. The extra dimension of disc can be added simply by the connection of a stereo turntable with a magnetic cartridge.

FEATURES

- DC servo-controlled motor.
- 8 watts per channel output.
- Independent left and right slider volume controls.
- Phono input sockets for direct connection to a stereo turntable with a magnetic cartridge.



Detail right shows the TC144CS with its detachable hinged speakers which clip on sandwich style for ease of portability.

Detail far right shows the TC144CS linked to a stereo turntable thus eliminating the need of an amplifier.

F&F TC 153SD

PORTABLE DOLBY STEREO CASSETTE DECK

This model really sets new standards of excellence in portable sound recording at a sensible price. For Hi-Fi natural history recordings in stereo, for location interviewing or effects recording.

It is equally suitable for connection to a Hi-Fi system and offers quality and performance.

FEATURES

- Accepts normal, chrome and ferri-chrome tape.
- Stereo portable recorder.
- Dolby noise reduction, F&F heads.
- Servo-controlled motor.
- Microphone attenuator.
- Limiter and tape-select facilities.
- Built-in monitor.
- Hi-Fi deck performance.
- Battery/mains operation.
- Digital tape counter.



Detail right shows the TC153SD with the DR6M collapsible headset which were designed specifically for monitoring outside live recordings.

Detail far right shows the TC153SD being used for natural history recordings.



TC 525 (right)
PORTABLE MONO CASSETTE RECORDER/
STEREO CASSETTE DECK

The TC 525 features a speaker for mono playback, but it can also be used for stereo recording with a stereo microphone. Fitted to your Hi-Fi system it becomes operational as a stereo deck with record and playback facilities.

FEATURES

- Super permalloy heads.
- Long battery life.
- DC servo-controlled motor.
- Manual/auto recording.
- 2 VU meters.
- 3 position tape selector switch.

TC 520CS (left)
COMPLETE STEREO CASSETTE UNIT

The TC 520CS is a portable stereo cassette recorder with mono monitoring via the built-in speaker or stereo monitoring via a stereo headphone jack. Stereo playback is possible through the supplied speakers.

FEATURES

- Battery or mains operated.
- AGC recording level control.
- Auto shut-off in all modes.
- Horizontal or vertical operation.
- Cue/review facility.
- Tone and balance controls.
- 1.5 watts output per channel.



Detail far left shows the TC 520CS complete with its two speakers and supplied accessories.

Detail near left shows the TC 520CS in its role as a self-contained mono cassette deck.



TC118SD (right)
DOLBY STEREO CASSETTE DECK

An ideal cassette deck to add to your present Hi-Fi set up. Incorporating the Dolby noise reduction system the TC118SD combines high performance with superb value for money.

FEATURES

- Accepts normal, chrome and ferrichrome tape.
- Dolby noise reduction system.
- DC servo-controlled motor.
- Recording bias for chromium dioxide tape automatically set by tape detector.
- Limiter switch.
- Digital tape counter.



TC117
STEREO CASSETTE DECK

The TC117 stereo cassette deck is essentially simple in operation, and ideal for anyone thinking of adding the extra dimension of cassette record and playback to his system.

FEATURES

- Accepts normal, chrome and ferri-chrome tape.
- High filter switch.
- Auto shut-off.
- Limiter switch to prevent tape overload.
- Digital tape counter.







FF **TC135SD** (left)

DOLBY STEREO CASSETTE DECK

The TC135SD provides the convenience of cassette with the additional feature of the now famous Dolby noise reduction system. And will prove an ideal purchase for those Hi-Fi enthusiasts anxious to add a stereo Dolby cassette deck to their system.

FEATURES

- Accepts normal, chrome and ferri-chrome tape.
- Dolby noise reduction.
- F & F heads.
- Auto shut-off.
- Digital tape counter.
- Limiter circuit.
- Pause control.

FF **TC136SD** (right)

DOLBY STEREO CASSETTE DECK

A really worthwhile partnership between SONY cassette deck engineering and the Dolby 'B' system for noise reduction providing true Hi-Fi with the addition of the TC136SD to your present Hi-Fi system.

FEATURES

- Accepts normal, chrome and ferri-chrome tape.
- Dolby noise reduction, F & F head.
- Servo controlled motor.
- Line/mic mixing facility.
- Auto shut-off.
- Pause control.
- Limiter circuit.
- Digital tape counter.



FF D TC138SD

DOLBY STEREO CASSETTE DECK

The TC138SD brings to our range of stereo cassette recorders a standard only previously achieved by large open reel machines.

FEATURES

- Accepts normal, chrome and ferri-chrome tape.
- Dolby noise reduction system.
- F & F heads.
- Limiter switch.
- Line/mic mixing facility.
- Peak level indicator.
- Memory counter.
- Variable line output.
- Noise free and smooth AC motor with precision drive belt ensures low wow and flutter.
- Digital tape counter.



FF DD TC177SD

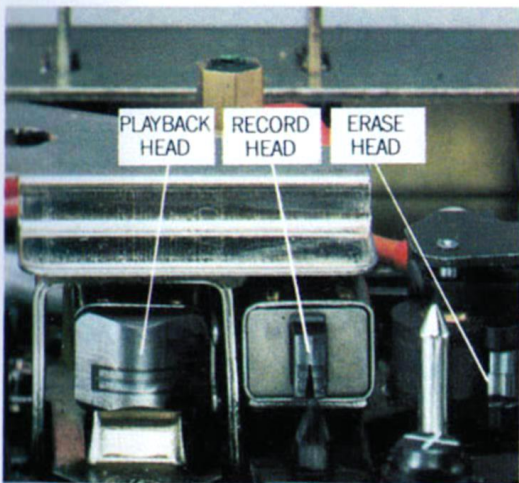
3-HEAD DOLBY STEREO CASSETTE DECK

At last a stereo cassette deck which will satisfy even the most dedicated reel-to-reel enthusiast and a machine which will change a lot of people's minds about the level of cassette technology.

FEATURES

- 3 heads, closed loop dual capstan.
- Switchable bias and equalisation.
- Full off-tape monitoring.
- Dolby system, F&F heads.
- Peak level indicator.
- Limiter circuit.
- Memory counter.
- Variable line output.
- Line/mic mixing.
- Dolby calibration facility.
- Reference standard performance.
- Azimuth adjuster.
- AC synchronous motor and precision drive belt ensure low wow and flutter.
- Built-in switchable MPX filter.
- Digital tape counter.

The detail shows the 3 heads that enable off-tape monitoring on this unique machine.





SONY STEREO CASSETTE DECK | TC-186SD DOLBY SYSTEM

POWER
ON OFF

HEADPHONES

EJECT REVERSE STOP PLAY PAUSE RECORD

LEFT VU RIGHT VU
REC

DOLBY NR LIMITER TAPE SELECT BIAS EQ REC LEVEL
ON OFF ON OFF LOW NORM Fe-Cr L-R
MIC L R

FERRITE & FERRITE HEAD/AUTO SHUT OFF

FF TC186SD

FRONT LOADING DOLBY CASSETTE DECK

A recent introduction to our range of front loading cassette decks, the TC186SD represents superb value for money and matches the design of our amplifiers and tuners.

FEATURES

- Bias and equalisation 3-position tape switches.
- Accepts normal, chrome and ferri-chrome tape.
- Auto shut-off in all modes.
- DC servo-controlled motor.
- Dolby noise reduction system.
- F&F heads.
- Pause button.
- Limiter circuit.
- Illuminated cassette compartment.
- Built-in switchable MPX filter.
- Digital tape counter.



Suggested TC186SD 'family' comprising models TC186SD, TA1630, ST 2950F, PS 3300 and SS 2050 speakers.

FF DD TC204SD

FRONT LOADING DOLBY STEREO CASSETTE DECK

An advanced front loading stereo cassette deck with outstanding performance incorporating the Dolby noise reduction system.

FEATURES

- Accepts normal, chrome and ferri-chrom tape.
- Front loading cassette system.
- Dolby system, F & F head.
- Peak level indicator.
- Line/mic mixing facilities.
- Bias and equalization switches.
- DC servo controlled motor.
- Auto shut-off.
- Variable line output.
- Extra line input on the front panel.
- Built-in switchable MPX filter.
- Digital tape counter.

The illustration clearly shows that the cassette is positioned upright in the machine to make the label easily readable.



FF TC 204SD

FRONT LOADING DOLBY STEREO CASSETTE DECK

An advanced front loading stereo cassette deck with outstanding performance incorporating the Dolby noise reduction system.

FEATURES

- Accepts normal, chrome and ferri-chrom tape.
- Front loading cassette system.
- Dolby system, F & F head.
- Peak level indicator.
- Line/mic mixing facilities.
- Bias and equalization switches.
- DC servo controlled motor.
- Auto shut-off.
- Variable line output.
- Extra line input on the front panel.
- Built-in switchable MPX filter.
- Digital tape counter.

The illustration clearly shows that the cassette is positioned upright in the machine to make the label easily readable.



FF DD TC 209SD

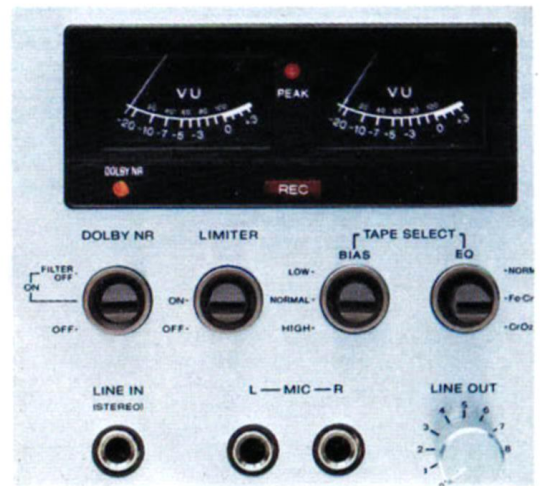
FRONT LOADING DOLBY STEREO CASSETTE DECK

The TC 209SD is the ultimate in our range of front loading cassette decks combining high performance with its good looks.

FEATURES

- Accepts normal, chrome and ferri-chrome tape.
- Front loading cassette system.
- Dolby system, F & F head.
- Peak level indicator.
- Line/mic mixing facilities.
- Feather touch solenoid control.
- Independent bias and equalisation switches.
- Limiter circuit.
- Memory counter.
- Built-in switchable MPX filter.
- Digital tape counter.

The detail shows the control switches for selecting the type of tape and controlling limiter and Dolby noise reduction. Dolby 'on' and peak indicator lights are conveniently located adjacent to the VU meters.





ELCASET

A COMPLETELY NEW AUDIO TAPE FORMAT

The development and introduction of ELCASET provides a new ¼ inch, 3¾ inches per second audiocassette incorporating the convenience of cassette with the quality of open reel. Listed below are some of the advantages over normal compact cassette tape and open reel tape.

Advantages over the compact cassette:-

¼ INCH TAPE WIDTH

The ¼ tape width provides wider recording tracks, lower drop out; superior signal to noise ratio, wider dynamic range, and lower cross talk.

3¾ INCH PER SECOND TAPE SPEED

The 3¾ inches per second tape speed gives a wider, more even frequency response, and lower wow and flutter.

STATIONARY TAPE GUIDES AND HEADS

The stationary tape guides and heads provide smoother more accurate tape guidance plus stable azimuth.

Advantages over open reel:-

Cassette convenience.

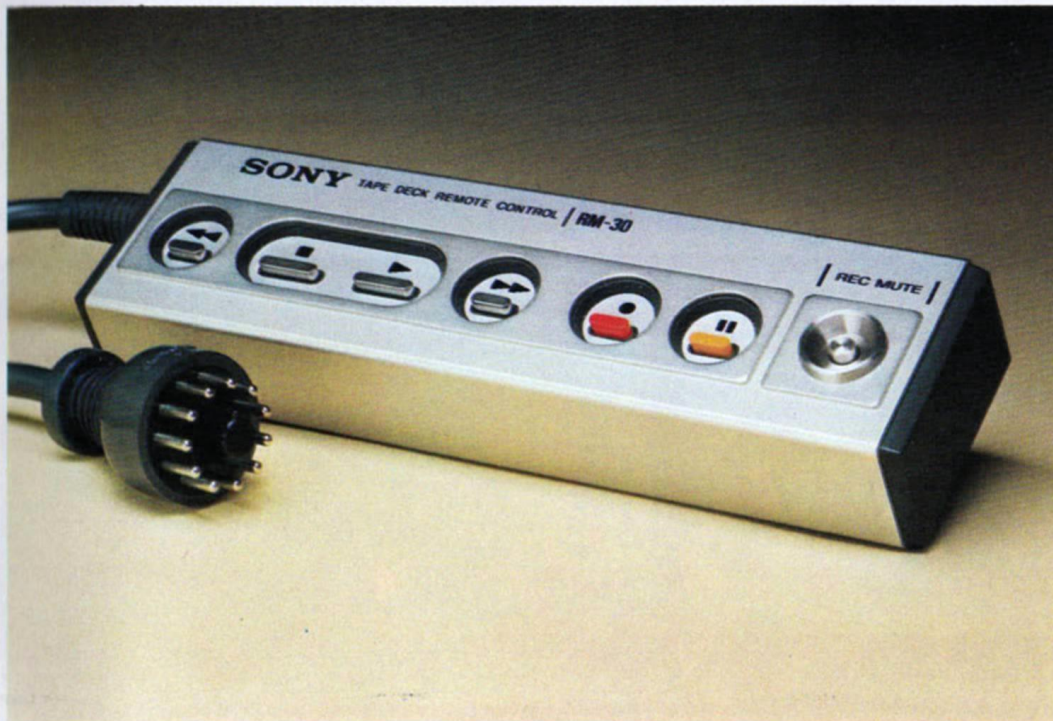
Cassette type track format for stereo/mono compatibility.

Dolby noise reduction standard.

Cue/control tracks for many applications.

Compact machine size identical to a conventional front loading cassette deck (dimension is same as our TC 209SD).

Tape protected by the cassette thus eliminating accidental unspooling.



RM 30

REMOTE CONTROL UNIT FOR EL 5 AND EL 7

The RM30 duplicates the controls of the EL 5 and EL7 at a remote location in a compact clearly marked format.

An additional facility available on the RM30 is the record mute button which may be used to omit unwanted sounds from the recording.



This mark is used on all products manufactured under the ELCASET standard.

FF DC EL5

2-HEAD ELCASET FRONT LOADING TAPE DECK

The EL 5 front loading tape recorder is designed to use the new 'ELCASET' tape system, giving reel-to-reel performance with cassette convenience.

FEATURES

- The recorder features 2 heads and frequency generator type servo-controlled motor.
- Feather touch logic control circuitry makes this unit a pleasure to operate, and a remote control unit is available as an optional extra.
- A timer switch provides the facility of recording or playing tapes at pre-set times using a standard mains timer unit.
- A memory facility is fitted to the tape counter, giving either a programmed stop facility or automatic play from rewind.
- A 'Dolby' noise reduction facility is fitted as standard.
- Bias and equalisation selector switches provided.
- Line/mic mixing facility.



Detail right shows the EL 5 and the TA5650 together in a family setting.



EL 7

3-HEAD ELCASET FRONT LOADING TAPE DECK

The EL 7 front loading tape recorder provides the optimum in ELCASET performance and like the EL 5 designed to use the new 'ELCASET' tape system.

FEATURES

- The recorder features a 3-head, 3-motor, dual capstan closed loop system with frequency generator type servo motor.
- Feather touch logic control circuitry makes this unit a pleasure to operate, and a remote control unit is available as an optional extra.
- A timer switch provides the facility of recording or playing tapes at pre-set times using a standard mains timer unit.
- A memory facility is fitted to the tape counter, giving either a programmed stop facility or automatic play from rewind.
- A 'Dolby' noise reduction facility is fitted as standard with a built-in calibration oscillator.
- Bias and equalisation selector switches provided.
- Line/mic mixing facility with very convenient master volume control.



Detail far left shows the RM 30 remote control unit being used in connection with the EL 7.

Detail near left shows the EL 7 master volume control with preset click stop.

Sony Accessories

Illustrated here is a selection from our comprehensive range of Accessories. We have everything that you will require to make your hi-fi that little bit special and whatever your need, we have it from a connecting lead to a pair of stereo headphones.

MX 8

Passive 6-channel stereo mixer for microphone or line inputs.

INPUTS: 6-channel inputs (passive type)

| | |
|---------------|-----------------|
| Impedance | Output level |
| Mic low | -50 dB (2.1 mV) |
| Line 82 k ohm | -5 dB (435 mV) |

OUTPUTS:

| | |
|--------------|-------------------|
| Impedance | Output level |
| Line 280 ohm | -60 dB (0.775 mV) |

GENERAL

DIMENSIONS (approx.): 9 $\frac{3}{8}$ (W) x 3 (H) x 5 $\frac{7}{8}$ (D) inches,
238 x 76 x 148 mm including projecting parts

WEIGHT (approx.): 3 lb 2 oz (1.4 kg)

SUPPLIED ACCESSORIES: 2 x DC1 plug adaptor

MX 510

Battery operated 5-channel stereo mixer with mic, line and phono inputs; one pan-pot and twin VU meters.

INPUTS: 5-channel inputs

| | |
|----------------|-----------------|
| Impedance | Sensitivity |
| Mic low | -72 dB (0.2 mV) |
| Line 100 k ohm | -22 dB (60 mV) |
| Phono 50 k ohm | -51 dB (2.2 mV) |

OUTPUTS: 2-channel outputs

| | |
|-----------------|----------------|
| Impedance | Output level |
| Line 10 k ohm | -5 dB (435 mV) |
| Headphone 8 ohm | -24 dB (47 mV) |

FREQUENCY RESPONSE: 30-25,000 Hz

S/N RATIO: 60 dB

GENERAL

POWER REQUIREMENTS: DC 12 V, 8 x HP11 batteries

DIMENSIONS (approx.): 13 $\frac{3}{4}$ (W) x 3 (H) x 9 $\frac{1}{2}$ (D) inches,
348 x 75 x 240 mm including projecting parts

WEIGHT (approx.): 6 lb 10 oz (3 kg)

SUPPLIED ACCESSORIES: RK74 connecting cord

MX 650

Battery operated 6-channel stereo mixer, with mic, line and phono inputs; 2 pan-pots, twin VU's and line-up oscillator.

INPUTS: 6-channel inputs

| | |
|------------------|-----------------|
| Impedance | Output level |
| Mic low | -72 dB (0.2 mV) |
| Line 100 k ohm | -22 dB (60 mV) |
| Phono 50 k ohm | -51 dB (2.2 mV) |
| Cascade 50 k ohm | -5 dB (435 mV) |

OUTPUTS: 2-channel outputs

| | |
|-----------------|-------------------|
| Impedance | Output level |
| Line 10 k ohm | -5 dB (435 mV) |
| 600 ohm | -60 dB (0.775 mV) |
| Headphone 8 ohm | -24 dB (49 mV) |

FREQUENCY RESPONSE: 30-25,000 Hz

S/N RATIO: 60 dB

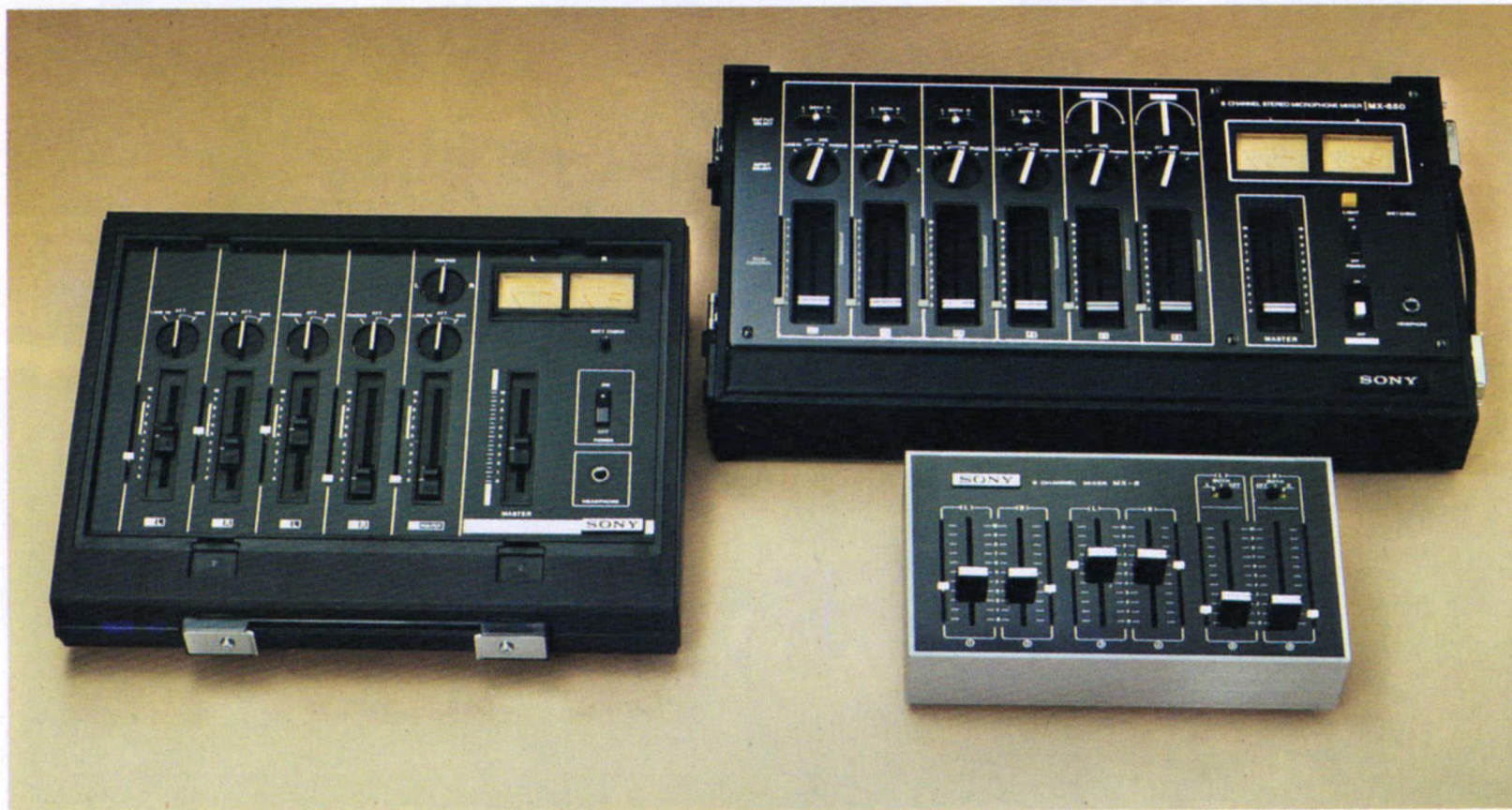
GENERAL

POWER REQUIREMENTS: DC 12 V, 8 x HP11 batteries

DIMENSIONS (approx.): 17 $\frac{7}{8}$ (W) x 3 $\frac{3}{8}$ (H) x 10 (D) inches,
452 x 83 x 252 mm including projecting parts

WEIGHT (approx.): 9 lb 8 oz (4.3 kg)

SUPPLIED ACCESSORIES: RK74 connecting cord



Low noise series (Top left)

C-90, C-90, C-120 Standard ferric oxide tape. May be used on all types of cassette recorders.

HF series (Top right)

C-90HF, C-90HF, C-120HF Low noise ferric oxide tape. For cassette recorders having a special position tape select switch.

Cr series (Bottom left)

C-90Cr, C-90Cr, C-120Cr Chromium dioxide tape for improved treble response. For cassette recorders having a 'chrome' position tape select switch.

FeCr series (Bottom right)

C-90FeCr, C-90FeCr Top performance dual layer ferric-chrome tape. For all cassette recorders.

SU1700 (The Concert Unit)

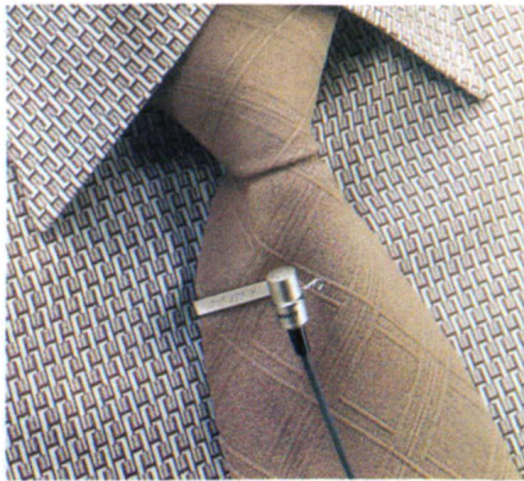
We've put this unit together to help those people that require Hi-Fi with the minimum of fuss, yet want something a little higher up the scale from unit audio.

The SU1700 is designed to incorporate a turntable, amplifier, tuner and front loading cassette deck. The following models ST 2950, TA1630, PS1350, TC186SD are shown as a sample combination of SONY component equipment.



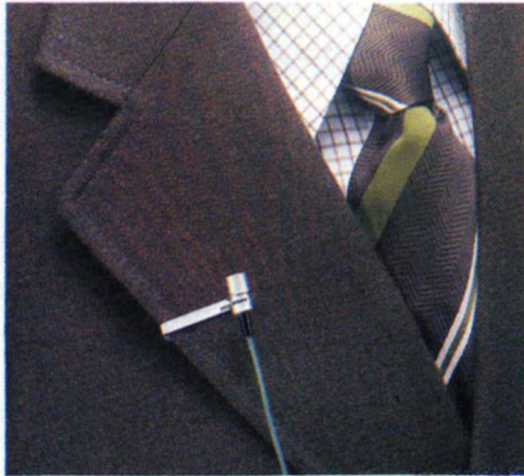
Introduction to microphones

Half the fun of a stereo cassette deck is being able to make your own recordings and we illustrate here a number of stereo microphones that enable you to do just that, so whether you want to make recordings of the dawn chorus or your local pub trio you will find just what you are looking for here.



ECM150 (right)

The ECM150 is the smallest in our range of microphones featuring an Electret Condenser capsule and FET pre-amplifier. It can be used as a desk standing microphone with its special telescopic case stand or on a necktie or lapel.



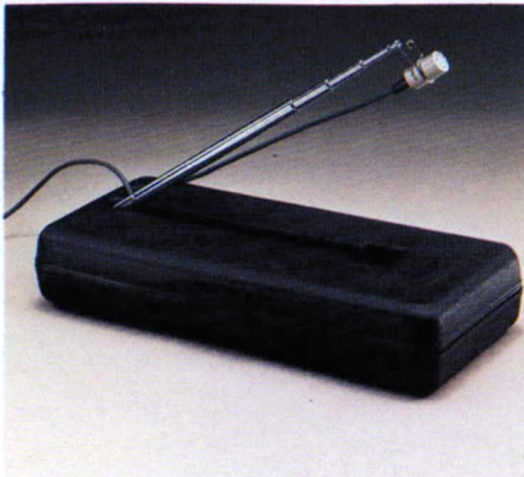
ECM150
DIRECTIVITY: Omni-directional.
FREQUENCY RESPONSE: 40-13,000 Hz.
OUTPUT IMPEDANCE: 600 ohm at 1 kHz \pm 20% unbalanced.
OUTPUT LEVEL: -72 dB (0.25 mV).
S/N RATIO: More than 40 dB (1,000 Hz, 1 micro bar).
INHERENT NOISE: Less than 34 dB SPL (1,000 Hz, 1 micro bar).
WIND NOISE: Less than 50 dB SPL (1,000 Hz, 1 micro bar).
MAX. SOUND PRESSURE LEVEL: 117 dB SPL approx.
DYNAMIC RANGE: 83 dB approx.
PLUG: Mini and standard.
WEIGHT (approx.): 1/4 oz (5g), with power supply 1oz (25g).
SUPPLIED ACCESSORIES: 1 x wind screen, 1 x holder clip, 1 x L-shaped mini plug, 1 x S76 battery, 1 x stand/case.

ECM270 (far right top)

Low impedance cardioid electret capacitor.

ECM280 (far right bottom)

Low impedance cardioid electret capacitor with bass roll-off switch.



F99B

F99S

ECM95S

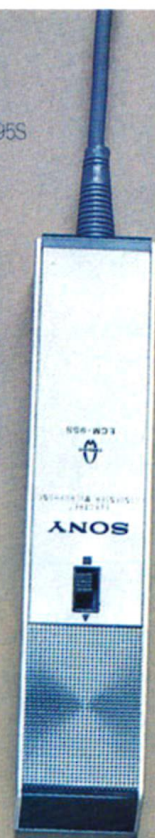
ECM99

ECM99A

ECM200

ECM200S

ECM220



F99B

Stereo low impedance moving coil fitted mini-jacks.

F99S

Stereo low impedance moving coil fitted combined plug.

ECM95S

Low impedance cardioid electret condenser with remote switch.

ECM99

Stereo low impedance electret condenser fitted mini-jack plugs.

ECM99A

Stereo low impedance electret condenser fitted with standard jack plugs.

ECM 200

Low impedance cardioid electret condenser.

ECM 200S

Low impedance cardioid electret condenser with remote switch.

ECM 220

Low or high impedance cardioid electret condenser with talk switch.



DR9

Sensibly priced headphone with independent volume and tone controls.



ECR 400

An electret condenser headphone system with an adaptor for connection to the speaker output terminals of an amplifier.



DR 35

Open air type headphone enabling you to hear outside sounds as well as the music.

DR 6M

A collapsible lightweight completely portable headset designed for outside live recording and monitoring purposes.



ECR 500

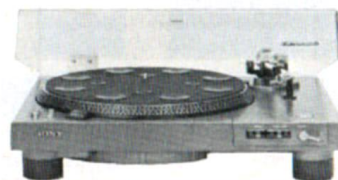
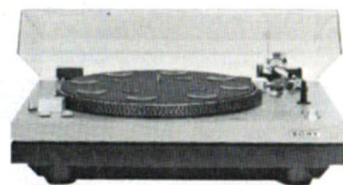
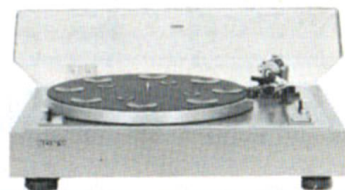
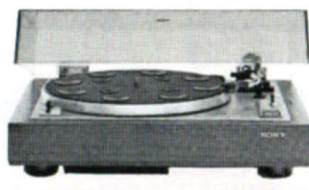
Electret capacitor headphone of superlative performance. Includes switch-box driven from amplifier speaker terminals.



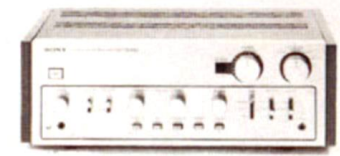
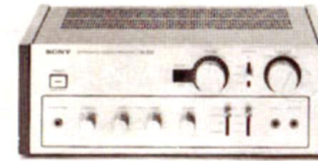
DR 45

Again an open air type of headphone providing a wide frequency response.





| | PS 1350 | PS1700 | PS3300 | PS4300 | PS 6750 | |
|------------------------|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| Turntable Section | Type | Semi-automatic | Semi-automatic | Semi-automatic | Fully automatic | Manual |
| | Platter diameter | 11 ¹³ / ₁₆ inches (300 mm) | 11 ¹³ / ₁₆ inches (300 mm) | 11 ¹³ / ₁₆ inches (300 mm) | 12 ³ / ₁₆ inches (314 mm) | 13 inches (320 mm) approx. |
| | Speeds | 33 ¹ / ₃ , 45 rpm | 33 ¹ / ₃ , 45 rpm | 33 ¹ / ₃ , 45 rpm | 33 ¹ / ₃ , 45 rpm | 33 ¹ / ₃ , 45 rpm |
| | Drive system | Belt drive | Belt drive | Direct drive | Direct drive | Direct drive |
| | Motor | 4-pole semi-synchronous | 4-pole synchronous | DC servo motor | DC servo-brushless | DC servo-controlled |
| | Speed control range | Fixed | Fixed (allowance ± 2%) | ±4% | ±4% DIN | ±4% |
| | Wow & flutter | ±0.08% DIN 0.06% wrms | Less than 0.08% DIN 0.06% wrms | Less than 0.04% wrms | Less than 0.045%, 0.03% (wrms) | ±0.045% DIN |
| S/N ratio | 63 dB DIN | 63 dB DIN | 65 dB DIN | Better than 70 dB DIN | 70 dB DIN | |
| Tone Arm Section | Type | Static balanced | Static balanced | Static balanced | Static balanced | Static balanced |
| | Overall arm length | 11 ¹³ / ₁₆ (300 mm) | 11 ¹³ / ₁₆ (300 mm) | 11 ¹³ / ₁₆ inches (300 mm) | 11 ¹³ / ₁₆ inches (300 mm) | 12 ⁵ / ₈ inches (320 mm) |
| | Pivot to stylus | 8 ¹ / ₂ inches (216.5 mm) | 8 ¹ / ₂ inches (216.5 mm) | 8 ¹ / ₂ inches (216.5 mm) | 8 ¹ / ₂ inches (216.5 mm) | 9 ³ / ₈ inches (237 mm) |
| | Overhang | 2 ¹ / ₃₂ inch (16.5 mm) | 2 ¹ / ₃₂ inch (16.5 mm) | 2 ¹ / ₃₂ inch (16.5 mm) | 2 ¹ / ₃₂ inch (16.5 mm) | 1 ⁹ / ₃₂ inch (15 mm) |
| | Tracking error | | +3°(-)1° | (+)3°(-)1° | (+)3°(-)1° | |
| | Stylus force adj. range | 0-3 g | 0-3 g | 0-3 g | 0-3 g | 0-3 g |
| | Anti-skating adj. range | 0-3 g | 0-3 g | 0-3 g | 0-3 g | 0-3 g |
| Shell weight | 7.5 g | 7.5 g | 7.5 g | 7.5 g | 10.5 g | |
| Cartridge weight range | 4-12.5 g | 4-8 g | 4-10 g | 10-155 g | 4-15 g | |
| Cartridge Section | Type | VL-32 G magnetic | VL-32G | Not supplied | Not supplied | Not supplied |
| | Channel separation | 25 dB at 1 kHz | Better than 25 dB at 1 kHz | | | |
| | Output voltage | 3 mV at 1 kHz, 5 cm/sec | 4 mV at 1 kHz, 3 mV at 1 kHz | | | |
| | Load impedance | 50 k ohm recommended | 50-100 k ohm (50 k ohm recommended) | | | |
| | Tracking weight | 1.5-2.5 g (recommended 2 g) | 2 g recommended | | | |
| | Stylus | ND-135G conical, 0.5 mil diamond | ND-134G conical, 0.5 mil diamond | | | |
| General | Power requirements | AC 110, 127, 220 and 240 V, 50 Hz (factory-set 240 V, 50 Hz) | 220 and 240 V (power consumption 18 watts) | AC 240 V, 50 Hz (readjustable 110, 127, 220 V, 50/60 Hz) | 240 V (power consumption 13 watts) | AC 240V, 50 Hz (readjustable to 110, 127, 220V, 50/60 Hz) |
| | Dimensions (approx.) | 17 ³ / ₄ (W) x 6 ³ / ₄ (H) x 15 (D) inches, 450 x 170 x 380 mm incl. projecting parts | 17 ¹ / ₂ (W) x 6 ¹ / ₄ (H) x 14 ¹ / ₂ (D) inches, 445 x 160 x 370 mm incl. projecting parts | 18 (W) x 6 (D) x 13 ¹ / ₈ (D) inches, 455 x 153 x 352 mm incl. projecting parts | 17 ¹ / ₈ (W) x 6 ¹ / ₈ (H) x 14 ¹ / ₈ (D) inches, 445 x 155 x 375 mm incl. projecting parts | 18 (W) x 7 ¹ / ₄ (H) x 14 ³ / ₄ (D) inches, 456 x 185 x 375 mm incl. projecting parts |
| | Weight (approx.) | 17 lb (7.7 kg) | 16 lb 5 oz (7.4 kg) | 12 lb 5 oz (8 kg) | 22 lb 1 oz (10 kg) | 28 lb 10 oz (13 kg) |
| | Supplied accessories | 1 x 45 rpm adaptor, 1 x AC mains lead | 1 x 45 rpm adaptor, 1 x AC mains lead, 1 x stylus adjustment gauge | 1 x 45 rpm adaptor, 1 x AC mains lead, 1 x stylus adjustment gauge | 1 x 45 rpm adaptor, 1 x carriage installation, 1 x screws alignment protractor, 1 x extra weight, 1 x cartridge spacer, 1 x head shell | 1 x 45 rpm adaptor, 1 x limit protector, 1 x spacer for carriage light, 1 x adjustment carriage |
| | | | | | | |

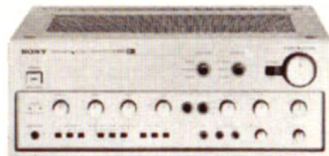
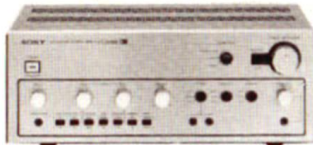


| | TA 70 | TA 88 | TA 1630 | TA 2650 | TA 3650 | |
|------------------------------|-----------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|---------------------|
| Rated output (r.m.s.) | 8 watts per channel, both channels operating, load 8 ohm at 1 kHz | 10 watts per channel, both channels operating, load 8 ohm at 40 Hz–12.5 kHz | 25 watts per channel, both channels operating at 1 kHz into 8 ohm; 22 watts at 0.5% distortion at 20–20,000 Hz | 48 watts per channel, both channels operating at 1 kHz into 8 ohm. 43 watts at 0.2% distortion at 20–20,000 Hz | 60 watts per channel, both channels operating into 8 ohm at 20–20,000 Hz; 55 watts at 0.1% distortion (20–20,000 Hz) | |
| Power bandwidth | 30 Hz–20 KHz | 20–20,000 Hz IHF | 10–40,000 Hz | 10–40,000 Hz | 5–40,000 Hz | |
| Harmonic distortion | 5% at rated output power | 1% at rated output power, 0.5% at 1 watt output power | 0.5% at rated output power, 0.1% at 1 watt output power | 0.2% at 1 kHz rated output power, 0.15% at 1 watt output power | 0.1% at rated output power, 0.03% at 1 watt output power | |
| IM distortion | | 1% at rated output power | 0.5% at rated output power, 0.1% at 1 watt output power | 0.2% at rated output power, 0.15% at 1 watt output power | 0.1% at rated output power, 0.03% at 1 watt output power | |
| Frequency response | 30 Hz–50 kHz ±3 dB (tape in) | Tuner, tape, aux, rec/PB input 15–15,000 Hz +1–3 dB | 20–100,000 Hz ±1 dB at tuner input | | | |
| Residual noise | | | 0.25 μwatts (micro watts) | 0.25 μwatt (micro watts) (8 ohms) | 0.008 μwatt | |
| Damping factor | | 35/8 ohm | 40 (8 ohm) at 1 kHz | 25 (8 ohm) at 1 kHz | 35 (8 ohm) at 1 kHz | |
| Inputs | Impedance | Sensitivity | Impedance | Sensitivity | Impedance | Sensitivity |
| Phono 1, 2 | 50 k ohm | 3.5/300 mV | 50 k ohm | 3 mV | 50 k ohm | 2.5 mV |
| Mic | | | | | | 50 k ohm 2.5 mV |
| Aux 1, 2 | 100 k ohm | 250 mV | 50 k ohm | 250 mV | 100 k ohm | 200 mV |
| Aux 3 | | | 50 k ohm | 250 mV | | |
| Tuner | 100 k ohm | 250 mV | 50 k ohm | 250 mV | 100 k ohm | 200 mV |
| Tape | 100 k ohm | 440 mV | 50 k ohm | 250 mV | 100 k ohm | 200 mV |
| DIN | 100 k ohm | 440 mV | 50 k ohm | 250 mV | 100 k ohm | 200 mV |
| Outputs | Impedance | Output level | Impedance | Output level | Impedance | Output level |
| Rec out | 10 k ohm | 250 mV | 10 k ohm | 250 mV | 10 k ohm | 200 mV |
| DIN | 80 k ohm | 30 mV | 80 k ohm | 30 mV | 82 k ohm | 30 mV |
| Headphone | | | 8 k ohm | | 330 ohm (accepts 8 ohm) | 300mV |
| Frequency response | | | Phono 1 RIAA equalisation curve ±0.5 dB, tuner, DIN, 20 Hz–100 kHz | Phono RIAA equalisation curve ±0.5 dB, aux, tuner, DIN, tape 10 Hz–100 kHz (+0/–2 dB) | Phono 1, 2 RIAA equalisation curve ±0.5 dB, aux, tuner 3 Hz–100 kHz +0/–2 dB | |
| Tone controls | Bass 100 Hz ±10 dB, treble 10 kHz ±10 dB | Bass 100 Hz ±10 dB, treble 10 kHz ±10 dB | Bass 100 Hz ±9 dB, treble 10 kHz ±6.5 dB, presence switch 1 kHz ±2.5 dB | Bass 100 Hz ±9 dB, treble 10 kHz ±6.5 dB, presence switch 1 kHz ±2.5 dB | Bass 50 Hz ±10 dB, 100 Hz ±10 dB, treble 10 kHz ±10 dB, 20 kHz ±10 dB | |
| Filters | High 3 dB/oct above 5 kHz | High 6 dB/oct above 5 kHz | | | High 6 dB/oct above 10 kHz, low 6 dB/oct below 30 Hz | |
| Loudness control | 100 Hz ±8 dB, 10 kHz +4 dB (att –30 dB) | | 50 Hz +8.8 dB, 10 kHz +2.5 dB | 50 Hz +8.8 dB, 10 kHz +2.5 dB | 50 Hz +10 dB, 10 kHz +3 dB | |
| S/N ratio | | Phono 60 dB, other inputs 80 dB | Phono 70 dB, aux, tape 1, 2, DIN 90 dB | Phono 70 dB, aux, tape, DIN 90 dB | Phono 1, 2 70 dB, others 90 dB | |
| Circuit system | Quasi-complementary symmetry circuit | Quasi-complementary symmetry direct coupling SEPP OTL circuit | Main-amp, pure-symmetry SEPP direct coupled; Pre-amp, 2-way power supplied NF type tone control | Main-amp, pure-complementary symmetry direct coupled; pre-amp, 2-way power supplied, NF type tone control | Main-amp, pure-complementary direct coupling SEPP, pre-amp. Dual FET and transistors direct coupled | |
| Power requirements | AC 240V, 50 Hz, power consumption 70 watts | AC 110, 127, 220 and 240 V, 50/60 Hz (factory-set 240 V, 50 Hz), power consumption 140 watts | AC 110, 127, 220 and 240 V, 50/60 (factory-set 240V) | AC 110, 127, 240 V, power consumption 275 watts | AC 110, 127, 220 and 240 V, 50/60 Hz (factory-set 240 V) power consumption 320 watts | |
| Dimensions (approx.) | 13 (W) x 3½ (H) x 9⅞ (D) inches, 330 x 87.5 x 245 mm incl. projecting parts | 5⅞ (W) x 9 (H) x 6½ (D) inches, 130 x 230 x 165 mm incl. projecting parts | 15⅞ (W) x 5¾ (H) x 11¼ (D) inches, 390 x 145 x 290 mm incl. projecting parts | 15⅞ (W) x 5¾ (H) x 11¼ (D) inches, 390 x 145 x 290 mm incl. projecting parts | 18⅞ (W) x 6⅞ (H) x 12⅞ (D) inches, 460 x 170 x 325 mm incl. projecting parts | |
| Weight (approx.) | 8 lb 6 oz (3.8 kg) | 7 lb 1 oz (3.2 kg) | 14 lb 10 oz (6.7 kg) | 19 lb 1 oz (8.65 kg) | 26 lb 8 oz (12 kg) | |
| Supplied accessories | | 1 x AC mains lead, 2 x fuses | 1 x AC mains lead, 1 x wooden side panel | 1 x AC mains lead, 1 x wooden side panel | 1 x AC mains lead, wooden side panel | |

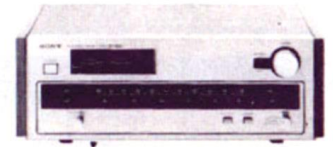
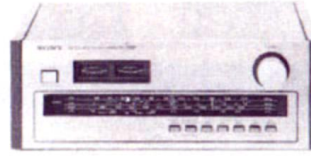
Main Amp. Section

Pre-Amp. Section

General



| | TA 3140F | TA 5650 | TA 8650 | |
|-------------------|-------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Main Amp. Section | Rated output (r.m.s.) | 35 watts per channel, both channels operating into 8 ohm at 20-20,000 Hz r.m.s. | 60 watts per channel, both channels operating at 1 kHz into 8 ohm; 50 watts per channel, both channels operating into 8 ohms at 20-20,000 Hz | 90 watts per channel, both channels operating at 1 kHz into 8 ohm; 80 watts per channel, both channels operating into 8 ohm at 20-20,000 Hz |
| | Power bandwidth | 6-35,000 Hz 1HF | 5-40,000 Hz | 5-50,000 Hz |
| | Harmonic distortion | 0.1% at rated output power, 0.05% at 1 watt output power | 0.1% at 1 kHz rated output power 0.08% at 1 watt output | 0.1% at 1 kHz rated output power 0.05% at 1 watt output |
| | IM distortion | 0.1% at rated output power | 0.1% at rated output power 0.08% at 1 watt output | 0.1% at 1 kHz rated output power 0.05% at 1 watt output |
| | Frequency response | 10-200,000 Hz+0-22 dB at 1 watt output | 2-100,000 Hz+0-2 dB (power amp.) | DC-100,000 Hz ±9 dB at 1 watt output 20-20,000 Hz ±0.1 dB at rated output |
| | Residual noise | 0.01 μ watt | 0.15 V | Less than 1 μ watt |
| | Damping factor | 100/8 ohm | 50 (8 ohm) at 1 kHz | 200 (8 ohm) at 1 kHz |
| Pre-Amp. Section | Inputs | 70 k ohm Impedance 0.85 v Sensitivity | Impedance Sensitivity | Impedance Sensitivity |
| | Phono 1, 2 | | 50 k ohm 2.5 mV | 50 k, 100 k ohm 2.5, 4.5 mV |
| | Mic | | | 50 k ohm 0.2 mV |
| | Aux 1, 2 | | 250 k ohm 150 mV | 100 k ohm 150 mV |
| | Aux 3 | | | 100 k ohm 150 mV |
| | Tuner | | 250 k ohm 150 mV | 100 k ohm 150 mV |
| | Tape | | 250 k ohm 150 mV | 100 k ohm 150 mV |
| | DIN | | 250 k ohm 150 mV | |
| | Outputs | | Impedance Output level | Impedance Output level |
| | Rec out | | 4.7 k ohm 150 mV | 600 ohm 150 mV (max. 10 V) |
| | DIN | | 82 k ohm 17 mV | 1 k ohm 1V |
| | Headphone | | 470 ohm 0.3 V (accepts 8 ohms) | |
| | Frequency response | | Phono 1, 2 RIAA equalisation curve ±0.5 dB, aux 1, 2, tuner, DIN, tape 10 Hz-100 kHz +0-2 dB | Phono 1, 2 RIAA equalisation curve ±0.2 dB, aux 1, 2, 3, tuner, tape 1, 2 10 Hz-100 kHz +0-2 dB |
| Tone controls | | Bass 100 Hz ±10 dB, turnover 250-500 Hz; treble 10 kHz ±10 dB, turnover 2.5-5 kHz | Bass 100 Hz ±10 dB, turnover 250-500 Hz; treble 10 kHz ±10 dB, turnover 2.5-5 kHz | |
| Filters | | High 12 dB/oct above 9 kHz, low 12 dB/oct below 30 Hz | High 12 dB/oct above 9 kHz, low 12 dB/oct below 50 Hz | |
| Loudness control | | 50 Hz+10 dB, 10 kHz+3 dB | | |
| S/N ratio | | Phono 1, 2 70 dB aux, tape, DIN 90 Db | Phono 1, 2 70 dB, aux, tape, DIN 90 dB | |
| Circuit system | Quasi-complementary symmetry direct coupling SEPP OTL | Main-amp, pure-complementary direct coupled | Main-amp, pure-complementary direct coupled | |
| General | Power requirements | AC 110, 127, 220 and 240 V, 50/60 Hz (factory-set 240V, 50 Hz), power consumption 210 watts | AC 110, 127, 220 and 240 V, 50/60 Hz (factory-set 240V, 50 Hz), power consumption 340 watts | AC 110, 127, 220 and 240 V, 50/60 Hz (factory-set 240V, 50 Hz), power consumption 800 watts |
| | Dimensions (approx.) | 7 ⁷ / ₈ (W) x 5 ⁷ / ₈ (H) x 12 ⁵ / ₈ (D) inches, 200 x 149 x 320 mm incl. projecting parts | 18 ⁷ / ₈ (W) x 6 ³ / ₈ (H) x 12 ³ / ₄ (D) inches, 460 x 170 x 323 mm incl. projecting parts | 17 ¹ / ₂ (W) x 6 ³ / ₈ (H) x 17 ³ / ₄ (D) inches, 440 x 170 x 425 mm incl. projecting parts |
| | Weight (approx.) | 14 lb 5 oz (6.5 kg) | 29 lb 9 oz (13.4 kg) | 45 lb 12 oz (20.8 kg) |
| | Supplied accessories | 2 x phono plugs, 1 x fuse | 1 x AC mains lead, 2 x shorting plug | 1 x AC mains lead, 2 x shorting plugs |



| | ST 70 | ST 88 | ST 2950F | ST 3950 | | |
|---------------------|------------------------------------------------|------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|-------------------------------------------------------|
| FM Section | Tuning range | VHF 87.5-108 MHz (3.43-2.78 m) | VHF 87.5-108 MHz (3.43-2.78 m) | VHF 87.5-108 MHz (3.43-2.78 m) | | |
| | Sensitivity | 2µV, S/N 30 dB | 1.7µV, S/N 30 dB | 4.0µV mono, 50µV stereo IHF (at 50 dB quieting 75 kHz DEV); 1.7µV mono S/N 26 dB (40 kHz DEV) | 3.0µV mono, 40µV stereo (at 50 dB quieting); 1.5µV, S/N 26 dB (40 kHz DEV) | |
| | S/N ratio | 65 dB | 65 dB | 68 dB stereo | 70 dB stereo | |
| | Capture ratio | 4 dB (IHF) | 2.5 dB, IHF | 1 dB | 1 dB | |
| | Selectivity | 35 dB (IHF) | 50 dB | 45 dB IHF | 80 dB | |
| | Image rejection | 40 dB (IHF) | 45 dB | 45 dB | 80 dB | |
| | IF rejection | 90 dB | 90 dB | 90 dB | 100 dB | |
| | Spurious rejection | | 75 dB | 75 dB | 90 dB | |
| | AM suppression | 45 dB | 45 dB | 54 dB | 56 dB | |
| | Frequency response | 20-15,000 Hz, ± 3 dB | 30-15,000 Hz, ± 2 dB | 30-15,000 Hz, +0.5-2 dB (40-12,500 Hz, +0.5-1.5 dB) | 30-15,000 Hz, +0.2-1.5 dB (40-12,500 Hz, +0.3/-0.8 dB) | |
| Aerial terminals | 300 ohm balanced | 300 ohm balanced | 300 ohm balanced, 75 ohm unbalanced | 300 ohm balanced, 75 ohm unbalanced | | |
| Harmonic distortion | Monaural 0.5% at 400 Hz. Stereo 1.0% at 400 Hz | Monaural 0.5% at 400 Hz, 100% modulation. Stereo 0.8% at 400 Hz 100% modulation | Monaural 0.2%, stereo 0.3% | Stereo 0.25% at 100 Hz, 0.6% at 10 kHz | | |
| Stereo separation | 35 dB at 400 Hz | 35 dB at 400 Hz | Better than 40 dB at 1 kHz | Better than 40 dB at 1 kHz | | |
| IM distortion | 19, 38 kHz suppression | | | | | |
| AM Section | Tuning range | MW 530-1,605 kHz (566-187 m) | MW 530-1,605 kHz (566-187 m) | MW 530-1,605 kHz (566-187 m) | SW 6-18 MHz | |
| | Sensitivity | MW 48 dB/m built-in aerial 20µV external aerial | MW 48 dB/m built-in aerial, 100µV external aerial | MW 250µV built-in aerial, 100µV ext aerial LW 500µV built-in aerial, 100µV ext aerial | 30µV external aerial | 250µV built-in aerial, 100µV external aerial |
| | Selectivity | | | 50 dB | 45 dB | 50 dB |
| | S/N ratio | 50 dB | 50 dB at 50 mV/m | 50 dB | 50 dB | 50 dB |
| | Image rejection | | 40 dB at 1,000 kHz | 70 dB | | 40 dB at 1 kHz |
| | IF rejection | | 30 dB at 1,000 kHz | | | 35 dB |
| | Harmonic distortion | | 0.8% at 50 mV/m | 0.5% | 0.5% | 0.5% |
| | Aerial terminals | Built-in ferrite bar aerial, external aerial terminal | Built-in ferrite bar aerial, external aerial terminal | Built-in ferrite bar aerial, external aerial terminal | Built-in ferrite bar aerial, external aerial terminal | Built-in ferrite bar aerial, external aerial terminal |
| | Circuit system | FM stereo, FM/AM superheterodyne tuner | FM stereo, FM/AM superheterodyne tuner | FM stereo, FM/AM superheterodyne tuner | | FM/AM superheterodyne tuner |
| | Output level | High 2 V, normal 750 mV | High 1.5 V (3.3 k ohm), 100% mod., normal 750 mV (4.5 k ohm), 100% mod. | | | |
| General | Power requirements | AC 240 V, 50 Hz, power consumption 8 watts | AC 110, 127, 220 and 240 V, 50/60 Hz (factory-set 240 V, 50 Hz), power consumption 10 watts | AC 240 V, 50/60 Hz only power consumption 23 watts | AC 110, 127, 220 and 240 V, 50/60 Hz (factory-set 240 V), power consumption 29 watts | |
| | Dimensions (approx.) | 13 (W) x 3½ (H) x 9⅝ (D) inches, 330 x 87.5 x 245 mm including projecting parts | 5⅞ (W) x 9⅞ (H) x 8¼ (D) inches, 128 x 232 x 210 mm including projecting parts | 15⅜ (W) x 5¾ (H) x 2¼ (D) inches, 390 x 145 x 310 mm including projecting parts | 18⅞ (W) x 6⅞ (H) x 13 (D) inches, 460 x 170 x 335 mm including projecting parts | |
| | Weight (approx.) | 6 lb 2 oz (2.8 kg) | 5 lb 15 oz (2.7 kg) | 13 lb 4 oz (6 kg) | 21 lb 7 oz (9.8 kg) | |
| | Supplied accessories | 1 x VHF ribbon aerial, 1 x connecting lead RK55 | 1 x connecting lead RK74, 1 x mains lead, 1 x VHF ribbon aerial | 1 x FM ribbon aerial, 1 x RK74 connecting cord, 1 x mains power cord, | 1 x ribbon aerial, 1 x coaxial plug, 1 x RK74 connecting cord, 1 x AC mains lead | |



ST 5950SD

| | |
|---------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| Tuning range | VHF 87.5–108 MHz (3.43–2.78 m) |
| Sensitivity | 2.8 μ V mono, 35 μ V stereo IHF (at 50 dB quieting 75 kHz DEV); 1.4 μ V mono S/N 26 dB, 30 μ V S/N 46 dB DIN (40 kHz DEV) |
| S/N ratio | 76 dB mono, 70 dB stereo |
| Capture ratio | 1 dB |
| Selectivity | 85 dB IHF |
| Image rejection | 90 dB |
| IF rejection | 100 dB |
| Spurious rejection | 100 dB |
| AM suppression | 56 dB |
| Frequency response | 20–15,000 Hz, +0.2/–1 dB; 40–12,500 Hz, +0.2 dB/–0.2 dB |
| Aerial terminals | 300 ohm balanced, 75 ohm unbalanced |
| Harmonic distortion | Stereo 0.2% at 100 Hz, 0.4% at 10 kHz |

| | |
|------------------------|---------------------------------|
| Stereo separation | 50 dB at 1 kHz, 40 dB at 10 kHz |
| IM distortion | |
| 19, 38 kHz suppression | |

| | |
|--------------|------------------------------|
| Tuning range | MW 530–1,605 kHz (566–187 m) |
|--------------|------------------------------|

| | |
|---------------------|----------------------------------------------------------|
| Sensitivity | 250 μ V built-in aerial, 100 μ V external aerial |
| Selectivity | |
| S/N ratio | 50 dB |
| Image rejection | 45 dB at 1,000 kHz |
| IF rejection | 35 dB at 1,000 kHz |
| Harmonic distortion | 0.5% at 50 mV/m |
| Aerial terminals | Built-in ferrite bar aerial, external aerial terminal |

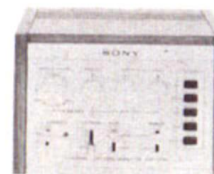
| | |
|----------------|--|
| Circuit system | |
| Output level | |

| | |
|--------------------|-------------------------------------------------------|
| Power requirements | AC 240 V, 50/60 Hz only power consumption 32 watts |
|--------------------|-------------------------------------------------------|

| | |
|----------------------|--------------------------------------------------------------------------------------------------------------|
| Dimensions (approx.) | 17 $\frac{3}{4}$ (W) x 6 $\frac{5}{8}$ (H) x 13 (D) inches, 450 x 168 x 331 mm including projecting parts |
|----------------------|--------------------------------------------------------------------------------------------------------------|

| | |
|------------------|---------------------|
| Weight (approx.) | 20 lb 8 oz (9.3 kg) |
|------------------|---------------------|

| | |
|----------------------|----------------------------------------------------------------|
| Supplied accessories | 1 x ribbon aerial, 1 x coaxial plug, 1 x RK 74 connecting cord |
|----------------------|----------------------------------------------------------------|



SQA 2030

SQD 2010

| | | |
|--------------------|-------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Circuit system | Full logic IC SQ decoder, hybrid power amplifier | Full logic controlled, SQ, R-MTX decoder |
| SQ separation | Lf–Rf 20 dB, Lb–Rb 14 dB, Lf–Lb 20 dB, Rf–Rb 20 dB, Lf–Rb 20 dB, Rf–Lb 20 dB, Cf–Cb 18 dB | Lf–Rf 35 dB, Lb–Rb 13 dB, Lf–Lb 17 dB, Rf–Rb 17 dB, Lf–Rb 13 dB, Rf–Lb 17 dB, Cf–Cb 20 dB |
| Frequency response | 20–20,000 Hz \pm 3 dB SQ, RMTX, 2–4, 20–20,000 Hz +0–3 dB others | SQ, RMTX, 24: 20 Hz to 20 kHz \pm 3 dB. 2–4, Discreet, 4 channel tape, 2 channel 110 Hz to 100 kHz \pm 3 dB, SQ R-MTX 2–4, 80 dB. Discreet 4-channel tape, 2 channel 10 Hz to 100 kHz \pm 3 dB |

| | |
|---------------------|-----------------------|
| S/N ratio | 85 dB ('A' weighting) |
| Harmonic distortion | 0.8% at rated output |

| Inputs | Sensitivity | | Impedance | |
|-------------------|-------------|--|------------|--|
| | | | | |
| (from record out) | 250 mV | | 100 k ohms | |
| 2-channel tape | 750 mV | | 100 k ohms | |
| DIN | 750 mV | | 100 k ohms | |
| 4-channel tape | 750 mV | | 100 k ohms | |
| Discreet | 250 mV | | 100 k ohms | |

| Outputs | Output voltage | | Impedance | |
|----------------------|--------------------|--|------------------|--|
| | | | | |
| (to tape in) | 500 mV | | 5 k ohms | |
| (to rear amp) | High 2 V, 5 k ohms | | Low | |
| | 2 V, 5 k ohms | | 500 mV, 5 k ohms | |
| 2-channel record out | 250 mV | | 5 k ohms | |
| DIN | 30 mV | | 82 k ohms | |
| 4-channel record out | 250 mV | | 5 k ohms | |

| | | |
|--------------------------|----------------------------------------------------|----------------------------------------------------|
| Tone controls (rear ch.) | Bass 100 Hz \pm 10 dB, treble 10 kHz \pm 10 dB | Bass \pm 10 dB 100 Hz, treble \pm 10 dB 10 kHz |
|--------------------------|----------------------------------------------------|----------------------------------------------------|

| | | |
|--------------------|----------------------------------------------------------------------------------------------|----------------------------------------------------------|
| Power requirements | AC 110, 127, 220 and 240 V, 50/60 Hz (factory-set 240 V, 50 Hz), power consumption 170 watts | AC 110, 127, 220 and 240 V (factory-set 240 V, 50/60 Hz) |
|--------------------|----------------------------------------------------------------------------------------------|----------------------------------------------------------|

| | | |
|----------------------|----------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
| Dimensions (approx.) | 9 (W) x 6 $\frac{1}{4}$ (H) x 12 $\frac{1}{8}$ (D) inches, 226 x 156 x 307 mm including projecting parts | 15 $\frac{3}{4}$ (W) x 5 $\frac{1}{8}$ (H) 12 $\frac{1}{8}$ (D) inches, 400 x 149 x 327 mm |
|----------------------|----------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|

| | |
|------------------|---------------------|
| Weight (approx.) | 15 lb 3 oz (6.9 kg) |
|------------------|---------------------|

| | | |
|----------------------|----------------------------|------------------------------------------|
| Supplied accessories | 2 x RK 74 connecting cords | 3 x RK-7Q connecting cord, Ac mains lead |
|----------------------|----------------------------|------------------------------------------|

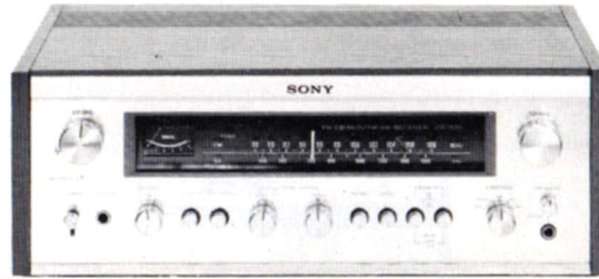
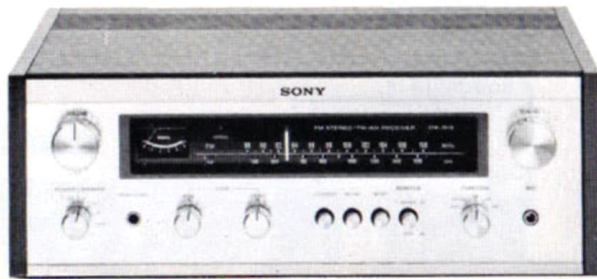
FM Section

AM Section

General

Decoder/Decoder-Amp. Section

General


STR 7015
STR 7025
STR 7035

| | | | |
|---------------------|---------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| Rated output | 16 watts per channel, both channels operating at 1 kHz into 8 ohm; 40–20,000 Hz, 15 watts at 0.8% distortion into 8 ohm load | 20 watts per channel, both channels operating at 1 kHz into 8 ohm; 40–20,000 Hz, 18 watts at 0.8% distortion | 26 watts per channel, both channels operating at 1 kHz into 8 ohms; 40–20,000 Hz, 24 watts at 0.8% distortion into 8 ohm load |
| Power bandwidth | 10–25,000 Hz | 10–25,000 Hz | 10–25,000 Hz |
| Harmonic distortion | 0.8% at 1 kHz rated output power, 0.1% at 1 kHz, 1 watt output power | 0.8% at 1 kHz rated output power, 0.1% at 1 kHz, 1 watt output power | 0.8% at 1 kHz rated output power, 0.1% at 1 kHz, 1 watt output power |
| IM distortion | 0.8% at rated output power | 0.8% at rated output power | 0.8% at rated output power |
| Residual noise | 0.08 μ watts | 0.08 μ watts | 0.08 μ watts |

| | | | |
|----------------|---------------------|---------------------|---------------------|
| Damping factor | 25 (8 ohm) at 1 kHz | 25 (8 ohm) at 1 kHz | 25 (8 ohm) at 1 kHz |
|----------------|---------------------|---------------------|---------------------|

| | Inputs | | Outputs | |
|------------|-----------|------------------------------|-----------|-------------------------------|
| | Impedance | Sensitivity | Impedance | Output level |
| Phono 1, 2 | 47 k ohm | 2.5 mV | 10 k ohm | 250 mV (only one tape output) |
| Mic | 47 k ohm | 2 mV | DIN | 82 k ohm |
| Aux 1, 2 | 100 k ohm | 250 mV (only one aux input) | Headphone | 8 ohm–10 k ohm |
| Tape 1, 2 | 100 k ohm | 250 mV (only one tape input) | | |
| DIN | 100 k ohm | 250 mV | | |

| | | | |
|--------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Frequency response | Phono RIAA equalisation curve ± 2 dB, aux, DIN, tape 30–40,000 Hz $\pm 0-3$ dB | Phono RIAA equalisation curve ± 2 dB, aux, DIN, tape 30–40,000 Hz $\pm 0-3$ dB | Phono RIAA equalisation curve ± 2 dB, aux, DIN, tape 30–40,000 Hz $\pm 0-3$ dB |
| Tone controls | Bass 100 Hz ± 10 dB, treble 10 kHz ± 10 dB | Bass 100 Hz ± 10 dB, treble 10 kHz ± 10 dB | Bass 100 Hz ± 10 dB, treble 10 kHz ± 10 dB |
| Filters | | High 6 dB/oct above 5 kHz | High 6 dB/oct above 5 kHz |

| | | | |
|--------------------|------------------------------------------------|------------------------------------------------|------------------------------------------------|
| Loudness control | 50 Hz +6 dB, 10 kHz +4 dB (att–30 dB) | 50 Hz +6 dB, 10 kHz +4 dB (att–30 dB) | 50 Hz +6 dB, 10 kHz +4 dB (att–30 dB) |
| S/N ratio | Phono 60 dB, aux 70 dB, tape 80 dB, DIN 80 dB | Phono 60 dB, aux 70 dB, tape 80 dB, DIN 80 dB | Phono 60 dB, aux 70 dB, tape 80 dB, DIN 80 dB |
| Tuning range | VHF 87.5 MHz–108 MHz (3.43–2.78 m) | VHF 87.5 MHz–108 MHz (3.43–2.78 m) | VHF 87.5 MHz–108 MHz (3.43–2.78 m) |
| Sensitivity | 2.2 μ V IHF useable, 1.7 μ V S/N–30 dB | 2.2 μ V IHF useable, 1.7 μ V S/N–30 dB | 2.2 μ V IHF useable, 1.7 μ V S/N–30 dB |
| Capture ratio | 3.0 dB | 1.5 dB | 1.5 dB |
| Selectivity | 60 dB IHF | 60 dB IHF | 60 dB IHF |
| Frequency response | 30–15,000 Hz $\pm 0-3$ dB | 30–15,000 Hz $\pm 0-3$ dB | 30–15,000 Hz $\pm 0-3$ dB |
| Stereo separation | 35 dB at 400 Hz | 35 dB at 400 Hz | 35 dB at 400 Hz |
| Aerial terminals | 300 ohm balanced, 75 ohm unbalanced | 300 ohm balanced, 75 ohm unbalanced | 300 ohm balanced, 75 ohm unbalanced |

| | | | |
|--------------|--------------------------------------------------------|--------------------------------------------------------|--------------------------------------------------------|
| Tuning range | MW 530 kHz–1,605 kHz (566–187 m) | MW 530 kHz–1,605 kHz (566–187 m) | MW 530 kHz–1,605 kHz (566–187 m) |
| Sensitivity | MW 48 dB/m built-in aerial, 30 μ V external aerial | MW 48 dB/m built-in aerial, 30 μ V external aerial | MW 48 dB/m built-in aerial, 30 μ V external aerial |
| Aerial | Built-in ferrite bar aerial, external aerial terminal | Built-in ferrite bar aerial, external aerial terminal | Built-in ferrite bar aerial, external aerial terminal |

| | | | |
|--------------------|----------------------------------------------------------|----------------------------------------------------------|------------------------------------------------------------------------------------------|
| Circuit system | Main amp direct coupled SEPP system | Main amp direct coupled SEPP system | Main amp direct coupled SEPP system |
| Power requirements | AC 110, 127, 220 and 240 V (factory-set 240 V, 50/60 Hz) | AC 110, 127, 220 and 240 V (factory-set 240 V, 50/60 Hz) | AC 110, 127, 220 and 240 V (factory-set 240 V, 50/60 Hz), power consumption 230 watts |

| | | | |
|----------------------|----------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|
| Dimensions (approx.) | 16 $\frac{7}{8}$ (W) x 5 $\frac{7}{8}$ (H) x 13 $\frac{3}{8}$ (D) inches, 427 x 149 x 345 mm including projecting parts | 16 $\frac{7}{8}$ (W) x 5 $\frac{7}{8}$ (H) x 13 $\frac{3}{8}$ (D) inches, 427 x 149 x 345 mm including projecting parts | 16 $\frac{7}{8}$ (W) x 5 $\frac{7}{8}$ (H) x 13 $\frac{3}{8}$ (D) inches, 427 x 149 x 345 mm including projecting parts |
| Weight (approx.) | 16 lb 5 oz (7.4 kg) | 18 lb 12 oz (8.5 kg) | 18 lb 15 oz (8.6 kg) |
| Supplied accessories | 1 x AC mains lead | 1 x AC mains lead | 1 x AC mains lead |

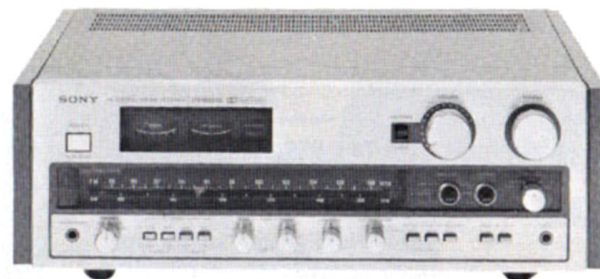
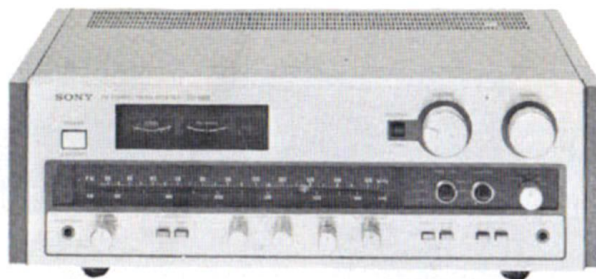
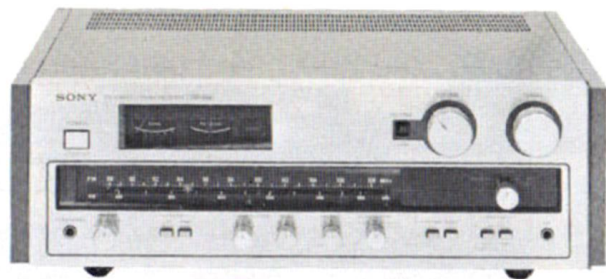
Main Amp. Section

Pre-Amp. Section

FM Section

AM Sect

General

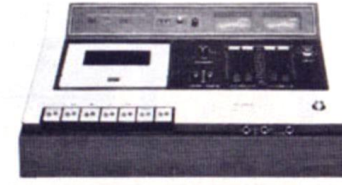
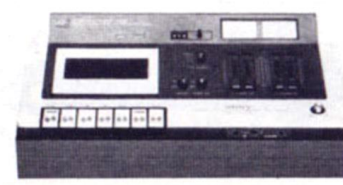
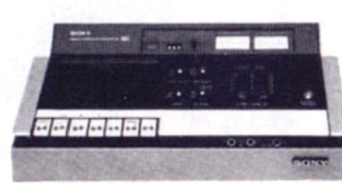
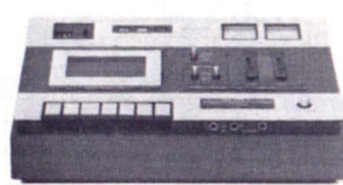
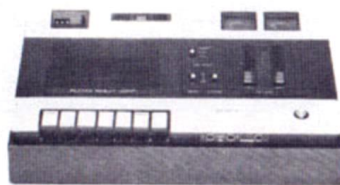


STR4800

STR5800

STR6800SD

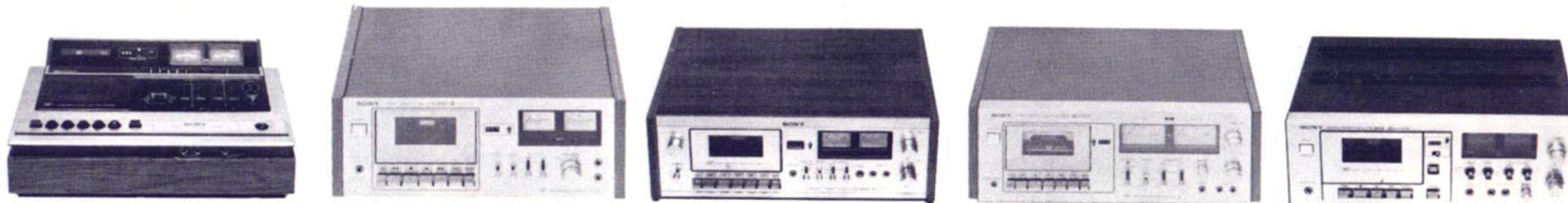
| | | | | | | | |
|----------------------|-----------------------------------------------------------------------------------------------|--------------|----------------------------------------------------------------------------------------------------|--------------|----------------------------------------------------------------------------------------------------------|--------------|----------------------------------------|
| Rated output | 40 watts per channel, both channels operating at 1 kHz into 8 ohm; 20–20,000 Hz, 35 watts | | 60 watts per channel, both channels operating at 1 kHz into 8 ohm; 20–20,000 Hz, 55 watts | | 85 watts per channel, both channels operating at 1 kHz into 8 ohm; 20–20,000 Hz, 80 watts | | |
| Power Bandwidth | 10–35,000 Hz | | 10–35,000 Hz | | 10–35,000 Hz | | |
| Harmonic distortion | Less than 0.2% at 1 kHz rated output power, 0.1% at 1 watt output power | | Less than 0.2% at 1 kHz rated output power, 0.1% at 1 watt output power | | Less than 0.15% at 1 kHz rated output power, 0.05% at 1 watt output power | | |
| IM distortion | Less than 0.2% at rated output power, 0.1% at 1 watt output power | | Less than 0.2% at rated output power, 0.1% at 1 watt output power | | Less than 0.15% at rated output power, 0.05% at 1 watt output power | | |
| Residual noise | Less than 0.1 μ watts at 8 ohm | | 0.1 μ watts | | Less than 1 μ watts | | |
| Damping factor | 10–35 Hz (8 ohm), (4 ohm) at 1 kHz | | 40 at 1 kHz 8 ohm | | 40 ohm at 1 kHz | | |
| Inputs | Impedance | Sensitivity | Impedance | Sensitivity | Impedance | Sensitivity | |
| | Phono 1, 2 | 50 k ohm | 2.5 mV | 50 k ohm | 2.5 mV | 50 k ohm | 2.5 mV |
| | Aux 1, 2 | 100 k ohm | 250 mV | 100 k ohm | 250 mV | 100 k ohm | 250 mV |
| | Tuner | 100 k ohm | | 100 k ohm | | 100 k ohm | |
| Outputs | Impedance | Output level | Impedance | Output level | Impedance | Output level | |
| | Rec 1, 2 | 4.7 k ohm | 250 mV | 4.7 k ohm | 250 mV | 4.7 k ohm | 250 mV |
| | Rec/PB | 4.7 k ohm | 250 mV | 82 k ohm | 40 mV | 4.7 k ohm | 250 mV |
| | Headphone | | 0.3 V into 8 ohm, 9 V into 10 k ohm | | 0.35 V into 8 ohm, 10 V into 10 k ohm | | 0.4 V into 8 k ohm, 13 V into 10 k ohm |
| Frequency response | Phono RIAA equalisation curve \pm dB, aux 1, 2, tuner, DIN, tape 10–30,000 Hz +0.5–3 dB | | Phono RIAA equalisation curve \pm dB, aux 1, 2, ext. adpt., rec/PB, tape 10–30,000 Hz +0–2 dB | | Phono 1, 2 RIAA equalisation curve \pm dB, aux 1, 2, tuner, ext. adpt., tape 10–30,000 Hz +0–2 dB | | |
| Tone controls | Bass 100 Hz \pm 10 dB, treble 10 kHz \pm 10 dB | | Bass 100 Hz \pm 10 dB, treble 10 kHz \pm 10 dB | | Bass 100 Hz \pm 10 dB, treble 10 kHz \pm 10 dB | | |
| Filters | High 6 dB/oct above 6 kHz, low 6 dB/oct below 35 Hz | | High 6 dB/oct above 6 kHz, low 6 dB/oct below 35 Hz | | High 6 dB/oct above 5 kHz, 6 dB/oct above 10 kHz, low 6 dB/oct below 50 Hz, 6 dB/oct below 25 Hz | | |
| Loudness control | 50 Hz +9 dB, 1 kHz +3 dB | | 50 Hz +9 dB, 1 kHz +3 dB | | 50 Hz +9 dB, 1 kHz +3 dB | | |
| S/N ratio | Phono 70 dB, tape 1, 2 90 dB, rec/PB 90 dB | | Phono 72 dB, tape 1, 2 90 dB, rec/PB 90 dB, ext. adpt. 90 dB | | Phono 1, 2 72 dB, aux 1, 2, rec/PB, ext. adpt. 90 dB | | |
| Tuning range | VHF 87.5–108 MHz (3.43–2.78 m) | | VHF 87.5–108 MHz (3.43–2.78 m) | | VHF 87.5–108 MHz (3.43–2.78 m) | | |
| Sensitivity | 1.9 μ V IHF useable 1.7 μ V S/N = 26 dB | | 1.5 μ V IHF useable, 1.5 μ V S/N = 26 dB | | 1.7 μ V IHF useable, 1.5 μ V S/N = 26 dB | | |
| Capture ratio | 15 dB | | 1 dB | | 1 dB | | |
| Selectivity | 80 dB (400 kHz) | | 80 dB | | 80 dB (400 kHz) | | |
| Frequency response | 40–12,500 Hz +0.2–1 dB, 30–15,000 Hz +0.2–2 dB | | 40–12,500 Hz +0.2–1 dB, 30–15,000 Hz +0.2 dB–1.5 dB | | 40–12,500 Hz +0.2–1 dB, 30–15,000 Hz +0.2–1.5 dB | | |
| Stereo separation | 35 dB at 100 Hz, 40 dB at 1 kHz, 35 dB at 10 kHz | | 35 dB at 100 Hz, 40 dB at 1 kHz, 35 dB at 10 kHz | | 35 dB at 100 Hz, 40 dB at 1 kHz, 35 dB at 10 kHz | | |
| Aerial terminals | 300 ohm balanced, 75 ohm unbalanced | | 300 ohm balanced, 75 ohm unbalanced | | 300 ohm balanced, 75 ohm unbalanced | | |
| Tuning range | MW 530–1,605 kHz (566–187 m) | | MW 530–1,605 kHz (566–187 m) | | MW 530–1,605 kHz (566–187 m) | | |
| Sensitivity | 250 μ V/m external aerial at 1,000 kHz, 100 μ V external aerial at 1,000 kHz | | 250 μ V/m built-in aerial at 1,000 kHz, 100 μ V external aerial at 1,000 kHz | | 250 μ V/m built-in aerial at 1,000 kHz, 100 μ V external aerial at 1,000 kHz | | |
| Aerial | Built-in ferrite bar aerial, external aerial terminal | | Built-in ferrite bar aerial, external aerial terminal | | Built-in ferrite bar aerial, external aerial terminal | | |
| Circuit system | Main amp. direct coupled SEPP system, tuner superheterodyne | | Main amp. direct coupled SEPP system, tuner superheterodyne | | Amp. EQ 3 stage NF type, flat amp. 2 stage direct, tone box type, power diff. +NPN + B class power IC | | |
| Power requirements | AC 110, 127, 220, 240 V (factory-set 240 V, 50/60 Hz) | | AC 110, 127, 220, 240 V (factory set 240 V, 50/60 Hz) | | AC 110, 127, 220, 240 V (factory-set 240 V, 50/60 Hz) | | |
| Dimensions (approx.) | 19 1/4 (W) x 6 9/16 (H) x 16 1/4 (D) inches, 490 x 170 x 415 mm including projecting parts | | 19 1/4 (W) x 6 9/16 (H) x 16 1/4 (D) inches, 490 x 170 x 415 mm including projecting parts | | 19 1/4 (W) x 6 9/16 (H) x 16 1/4 (D) inches, 490 x 170 x 415 mm including projecting parts | | |
| Weight (approx.) | 30 lb 10 oz (13.9 kg) | | 34 lb (15.4 kg) | | 36 lb 7 oz (16.5 kg) | | |
| Supplied accessories | 1 x FM ribbon aerial | | 1 x FM ribbon aerial | | 1 x FM ribbon aerial, 1 x short plug (2 pieces) | | |



Recorder Section

General

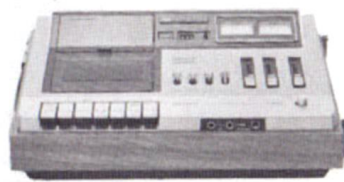
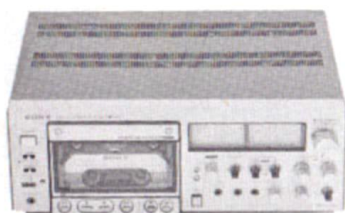
| | TC117 | | TC118SD | | TC135SD | | TC136SD | | TC138SD | | | |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|-------------------------------------------------------------------------------------------------------------------------------------|---------------------|------------------------------------------------------------------------------------------------------------------------|----------------------------|-----------------------------------------------------------------------------------------------|--|
| Bias frequency | Approx. bias 85 kHz | | Bias 80 kHz | | Bias 105 kHz | | Bias 105 kHz | | Bias 105 kHz | | | |
| Track system | 4-track, 2-channel | | 4-track, 2-channel | | 4-track, 2-channel | | 4-track, 2-channel | | 4-track, 2-channel | | | |
| Tape speed | 1 $\frac{7}{8}$ ips (4.8 cm/s) | | 1 $\frac{7}{8}$ ips (4.8 cm/s) | | 1 $\frac{7}{8}$ ips (4.8 cm/s) | | 1 $\frac{7}{8}$ ips (4.8 cm/s) | | 1 $\frac{7}{8}$ ips (4.8 cm/s) | | | |
| Wow & flutter | 0.2% w.r.m.s. | | 0.18% at 4.8 cm/s | | 0.12% w.r.m.s. \pm 0.22% DIN | | 0.1% w.r.m.s. \pm 0.2% DIN | | 0.07% w.r.m.s. 0.18% DIN | | | |
| S/N ratio | 46 dB (FeCr) | | 44 dB (normal), 46 dB (FeCr, CrO ₂), 5 dB (Dolby 'in' improvement) at 1 kHz, 10 dB over 5 kHz | | 53 dB FeCr, CrO ₂ , 46 dB FeCr DIN | | 52 dB (normal), 54 dB (FeCr, CrO ₂) | | 55 dB (FeCr peak level) | | | |
| Frequency response | 40–10,000 Hz (normal), 40–13,000 Hz (CrO ₂), 40–13,000 Hz (FeCr), 63–8,000 DIN (normal), 63–10,000 DIN (CrO ₂), 63–10,000 DIN (FeCr) | | 40–10,000 Hz at 4.8 cm/s (normal) 40–13,000 Hz at 4.8 cm/s (CrO ₂) 40–13,000 Hz at 4.8 cm/s (FeCr) 63–8,500 Hz at 4.8 cm/s (normal) 63–11,000 Hz at 4.8 cm/s (CrO ₂) 63–11,000 Hz at 4.8 cm/s (FeCr) | | 30–13,000 Hz (FeCr) 40–14,000 Hz (FeCr) 40–14,000 Hz (CrO ₂) 40–11,000 Hz (DIN normal) 30–14,000 Hz (DIN FeCr) 30–14,000 Hz (DIN CrO ₂) | | 30–14,000 Hz (normal) 30–16,000 Hz (FeCr) 40–14,000 Hz \pm 3 dB (FeCr) 40–11,000 Hz (DIN normal) 40–14,000 (DIN FeCr) | | 'Normal' tape 20–15,000 Hz 30–13,000 Hz DIN | | 'FeCr, CrO ₂ ' tape 20–17,000 Hz 30–15,000 Hz DIN 30–15,000 Hz \pm 3 dB | |
| Total harmonic distortion | 3% (FeCr) | | 3% | | 2.2% FeCr | | 2.0% | | Less than 1.7% | | | |
| Inputs | Impedance | Sensitivity | Impedance | Sensitivity | Impedance | Sensitivity | Impedance | Sensitivity | Impedance | Sensitivity | | |
| Mic | Low | –72 dB (0.2 mV) | Low | –72 dB (0.2 mV) | Low | –72 dB (0.2 mV) | Low | –72 dB (0.2 mV) | Low | –72 dB (0.2 mV) | | |
| Line | 100 k ohm | –22 dB (60 mV) | 100 k ohm | –22 dB (60 mV) | 100 k ohm | –22 dB (60 mV) | 100 k ohm | –22 dB (60 mV) | 100 k ohm | –22 dB (60 mV) | | |
| DIN | 10 k ohm | | Less than 10 k ohm | | 10 k ohm | | 10 k ohm | | 10 k ohm | | | |
| Outputs | Impedance | Output level | Impedance | Output level | Impedance | Output level | Impedance | Output level | Impedance | Output level | | |
| Line | More than 10 k ohm | 435 mV at 100 k ohm | 10 k ohm | –22 dB (0.435 V) | 10 k ohm | 435 mV at 100 k ohm | 10 k ohm | 435 mV at 100 k ohm | More than 10 k ohm | 0 dB (775 mV) at 100 k ohm | | |
| DIN | 50 k ohm | 700 mV | 10 k ohm | 0.7 V | 50 k ohm | 435 mV | 50 k ohm | 435 mV at 100 k ohm | 50 k ohm | | | |
| Headphone | 8 ohm | | 8 ohm | | 8 ohm | | 8 ohm | | 8 ohm | | | |
| Motor | DC servo-controlled | | DC servo motor | | DC servo controlled | | DC servo-controlled | | Semi-synchronous | | | |
| Heads | 1 x F&F rec/PB head, 1 x erase head | | 1 x rec/PB head, 1 x erase head | | 1 x F&F rec/PB head, 1 x erase head | | 1 x F&F rec/PB head, 1 x erase head | | 1 x F&F rec/PB head, 1 x erase head | | | |
| Power requirements | AC 240V, 50/60 Hz power consumption 10 watts | | AC 240V power consumption 7 watts | | AC 110, 127, 220 and 240V, 50/60 Hz (factory-set 240V, 50 Hz), power consumption 7 watts | | AC 240, 50/60 Hz | | AC 110, 127, 220 and 240V, 50/60 Hz (factory-set 240V, 50 Hz), power consumption 24 watts | | | |
| Dimensions (approx.) | 14 $\frac{1}{4}$ (W) x 4 $\frac{1}{8}$ (H) x 9 $\frac{3}{8}$ (D) inches, 362 x 105 x 238 mm | | 4 $\frac{1}{8}$ (W) x 14 $\frac{1}{4}$ (H) x 9 $\frac{3}{8}$ (D) inches, 105 x 362 x 238 mm | | 15 $\frac{3}{8}$ (W) x 4 $\frac{1}{4}$ (H) x 9 $\frac{1}{4}$ (D) inches, 390 x 108 x 248 mm incl. projecting parts | | 15 $\frac{1}{4}$ (W) x 4 $\frac{7}{8}$ (H) x 9 $\frac{1}{2}$ (D) inches, 386 x 126 x 240 mm | | 16 $\frac{1}{8}$ (W) x 5 $\frac{3}{8}$ (H) x 11 $\frac{5}{8}$ (D) inches, 411 x 138 x 294 mm incl. projecting parts | | | |
| Weight (approx.) | 7 lb (3.2 kg) | | 7 lb 7 oz (3.2 kg) | | 8 lb 3 oz (3.7 kg) | | 8 lb 6 oz (4.2 kg) | | 15 lb 7 oz (7 kg) | | | |
| Supplied accessories | 2 x RK74 connecting cords, 1 x AC mains lead | | 2 x RK74H connecting cords | | 1 x AC mains lead, 2 x RK74 connecting cords | | 1 x AC mains lead, 2 x RK74 connecting cords | | 1 x AC mains lead, 2 x RK74 connecting cord | | | |



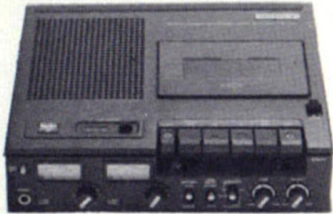
| | TC177SD | | TC186SD | | TC204SD | | TC206SD | | TC209SD | | |
|---------------------------|--------------------------------------------------------------------------------------------------------------|----------------|-------------------------------------------------------------------------------------------|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|--------------------------------------------------------------------------------------------|--------------|-----------------------------------------------------------------------------------------------------|--------------|---------------------|
| Recording system | AC bias, 105 kHz | | AC bias 105 kHz | | Bias 105 kHz | | AC bias 105 kHz | | Bias 105 kHz | | |
| Track system | 4-track, 2-channel | | 4-track, 2-channel stereo | | 4-track, 2-channel | | 4-track, 2-channel stereo | | 4-track, 2-channel | | |
| Tape speed | 1 7/8 ips (4.8 cm/s) | | 1 7/8 ips (4.8 cm/s) | | 1 7/8 ips (4.8 cm/s) | | 1 7/8 ips (4.8 cm/s) | | 1 7/8 ips (4.8 cm/s) | | |
| Wow & flutter | 0.07% NAB ± 0.18% DIN | | 0.09% w.r.m.s. ± 0.2% DIN | | 0.1% w.r.m.s. ± 0.2% DIN | | 0.08% w.r.m.s., ± 0.2% DIN | | 0.18% DIN | | |
| S/N ratio | 53 dB (normal), 55 dB (special) Dolby 'in' improvement, 5 dB increase at 1 kHz, 10 dB increase above 5 kHz | | 48 dB (FeCr DIN), 57 dB (FeCr) 5 dB at 1 kHz, 10 dB at above 5 kHz Dolby 'in' improvement | | 53 dB (normal), 55 dB (FeCr, CrO ₂), 48 dB (DIN, FeCr), Dolby 'in' improvement, 5 dB at 1 kHz, 10 dB at 5 kHz and above | | 50 dB (FeCr DIN), 59 dB (FeCr) improvement, 5 dB at 1 kHz, 10 dB at above 5 kHz Dolby 'in' | | 53 dB (FeCr DIN), 61 dB (FeCr JIS), Dolby 'in' improvement, 5 dB at 1 kHz, 10 dB at 5 kHz and above | | |
| Frequency response | 30-13,000 Hz ± 3 dB (normal), 30-17,000 Hz ± 3 dB (FeCr), 30-15,000 Hz DIN (normal), 30-18,000 Hz DIN (FeCr) | | 40-15,000 Hz ± 3 dB, 40-15,000 Hz (FeCr) DIN, 40-12,000 Hz (normal) DIN | | 40-12,000 Hz ± 3 dB (normal), 40-15,000 Hz ± 3 dB (CrO ₂), 40-15,000 Hz ± 3 dB (FeCr), 40-12,000 Hz (DIN normal), 40-15,000 Hz (DIN CrO ₂), 40-15,000 Hz (DIN FeCr) | | 30-15,000 (FeCr) ± 3 dB, 30-15,000 (FeCr) DIN, 30-12,000 (Normal) DIN | | 30-15,000 Hz ± 3 dB (FeCr), 30-16,000 Hz (DIN FeCr) 30-13,000 Hz (DIN normal) | | |
| Total harmonic distortion | 1.3% | | 1.7% (FeCr) | | 1.7% FeCr | | 1.7% (FeCr) | | 1.7% FeCr | | |
| Inputs | Impedance | Sensitivity | Impedance | Sensitivity | Impedance | Sensitivity | Impedance | Sensitivity | Impedance | Sensitivity | |
| | Mic | Low | -72 dB (0.2 mV) | Low | -72 dB (0.2 mV) | Low | -72 dB (0.2 mV) | Low | -72 dB (0.2 mV) | Low | -72 dB (0.2 mV) |
| | Line | 100 k ohm | -22 dB (60 mV) | 100 k ohm | -22 dB (60 mV) | 100 k ohm | -22 dB (60 mV) | 100 k ohm | -22 dB (60 mV) | 100 k ohm | -22 dB (60 mV) |
| Outputs | Impedance | Output level | Impedance | Output level | Impedance | Output level | Impedance | Output level | Impedance | Output level | |
| | Line | 10 k ohm | 775 mV at 100 k ohm | 10 k ohm | 435 mV with 100 k ohm load | More than 10 k ohm | 775 mV at 100 k ohm | 10 k ohm | 775 mV | 10 k ohm | 775 mV at 100 k ohm |
| | DIN | 50 k ohm | | 50 k ohm | 435 mV | 50 k ohm | 775 mV | 50 k ohm | 775 mV | 50 k ohm | 775 mV |
| Headphone | 8 ohm | -22 dB, -32 dB | 8 ohm | | 8 ohm | | 8 ohm | | 8 ohm | | |
| Motor | 6-pole, hysteresis synchronous motor | | DC servo-controlled | | DC servo-controlled | | DC servo-controlled | | Hysteresis synchronous | | |
| Heads | 3.1 x F&F rec, 1 x F&F PB, 1 x erase | | 1 x F&F rec/PB head, 1 x erase head | | 1 x F&F rec/PB head, 1 x erase head | | 1 x F&F rec/PB head, 1 x erase head | | 1 x F&F rec/PB head, 1 x erase head | | |
| Power requirements | AC 110, 127, 220 and 240V, 50/60 Hz (factory-set 240V, 50 Hz), power consumption 52 watts | | AC 110, 127, 220, 240V, 50/60 Hz (factory-set 240V), power consumption 8 watts | | AC 110, 127, 220 and 240V, 50/60 Hz (factory-set 240V, 50 Hz), power consumption 8 watts | | AC 110, 127, 220 and 240V, 50/60 Hz (factory-set 240V), power consumption 11 watts | | AC 110, 127, 220 and 240V, 50/60 Hz (factory-set 240V, 50 Hz), power consumption 38 watts | | |
| Dimensions (approx.) | 17 1/4 (W) x 6 7/8 (H) x 12 7/8 (D) inches, 435 x 325 x 155 mm incl. projecting parts | | 15 3/8 (W) x 5 3/4 (H) x 11 5/8 inches, 390 x 145 x 295 mm incl. projecting parts | | 16 7/8 (W) x 6 1/4 (H) x 12 3/4 (D) inches, 430 x 160 x 325 mm | | 18 1/8 (W) x 6 5/8 (H) x 12 5/8 (D) inches, 460 x 168 x 320 mm incl. projecting parts | | 17 (W) x 6 3/4 (H) x 12 5/8 (D) inches, 430 x 170 x 320 mm | | |
| Weight (approx.) | 22 lb 11 oz (10 kg) | | 13 lb 15 oz (6.3 kg) | | 17 lb (6.5 kg) | | 17 lb 14 oz (8.5 kg) | | 26 lb 8 oz (12 kg) | | |
| Supplied accessories | 2 x RK74 connecting cords, 1 x set of head cleaning tips, 1 x AC mains lead | | 1 x AC mains lead, 2 x RK74 connecting cords, 1 x wooden side panel | | 2 x RK74 connecting cords, 1 x AC mains lead | | 1 x AC mains lead, 2 x RK74 connecting cords, 1 x wooden side panel | | 2 x RK74 connecting cords, 1 x AC mains lead | | |

Recorder Section

General


EL5
EL7
TC144CS
TC153SD
TC520CS

| | | | | | | | | | | | |
|---------------------------|-------------------------------------------------------------------------------------------------------|--------------------|---------------------------------------------------------------------------------------------------------------------|----------------------|----------------------------------------------------------------------------------------------------------------------|--------------------|-------------------------------------------------------------------------------------------------------------------------------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|-----------------|
| Bias frequency | Bias 160 kHz | | Bias 160 kHz | | Bias 85 kHz | | Bias 105 kHz | | AC bias 85 kHz | | |
| Track system | 4-track, 2-channel | | 4-track, 2-channel | | 4-track, 2-channel | | 4-track, 2-channel | | 4-track, 2-channel | | |
| Tape speed | 3 $\frac{3}{4}$ ips (9.5 cm/s) | | 3 $\frac{3}{4}$ ips (9.5 cm/s) | | 1 $\frac{7}{8}$ ips (4.8 cm/s) | | 1 $\frac{7}{8}$ ips (4.8 cm/s) | | 1 $\frac{7}{8}$ ips (4.8 cm/s) | | |
| Wow & flutter | 0.06% w.r.m.s., 0.12% DIN | | 0.06% w.r.m.s., 0.12% DIN | | 0.1% w.r.m.s., 0.2% DIN | | 0.15% w.r.m.s. \pm 0.3% DIN | | 0.26% at 4.8 cm/s | | |
| S/N ratio | 59 dB (SLH), 62 dB (DUAD), 5 dB (Dolby 'in' improvement) at 1 kHz, 10 dB over 5 kHz | | 59 dB (SLH), 62 dB (DUAD), 5 dB (Dolby 'in' improvement) at 1 kHz, 10 dB over 5 kHz | | 51 dB (normal), 55 dB (FeCr), 53 dB (CrO ₂), 48 dB (normal DIN) | | 53 dB (normal), 55 dB (FeCr, CrO ₂), 48 dB (DIN, FeCr), Dolby 'in' improvement, 5 dB at 1 kHz, 10 dB at 5 kHz and above | | 53 dB (normal), 55 dB (FeCr, CrO ₂), 48 dB (DIN, FeCr), Dolby 'in' improvement, 5 dB at 1 kHz, 10 dB at 5 kHz and above | | |
| Frequency response | 15–23 kHz (Type I) | | 15–25 kHz at 9.5 cm/s (Type I, SLH) | | 30–13,000 Hz (normal) | | 'Normal' tape | | 'FeCr, CrO ₂ ' tape | | |
| | 15–25 kHz (Type II) | | 15–27 kHz at 9.5 cm/s (Type II) | | 30–15,000 Hz (CrO ₂) | | 30–13,000 Hz | | 30–15,000 Hz | | |
| | 20–20 kHz (Type I, SLH, DIN) | | 25–20 kHz at 9.5 cm/s + 3 dB (Type I, SLH) | | 30–15,000 Hz (FeCr) | | 40–11,000 Hz DIN | | 40–12,500 Hz DIN | | |
| | 20–22 kHz (Type II, DUAD, DIN) | | 25–22 kHz at 9.5 cm/s + 3 dB (Type II, DUAD) | | 40–10,000 Hz (normal) | | | | | | |
| | 20–22 kHz (Type I, SLH, DIN) | | 20–22 kHz at 9.5 cm/s (Type I, SLH, DIN) | | 40–13,000 Hz (DIN, CrO ₂) | | | | | | |
| | 20–25 kHz at 9.5 cm/s (Type II, DUAD, DIN) | | 20–25 kHz at 9.5 cm/s (Type II, DUAD, DIN) | | 40–13,000 Hz (FeCr) | | | | | | |
| Total harmonic distortion | 0.8% | | 0.8% | | 2% | | Less than 1.7% | | | | |
| Inputs | Impedance | Sensitivity | Impedance | Sensitivity | Impedance | Sensitivity | Impedance | Sensitivity | Impedance | Sensitivity | |
| | Mic | Low | –68 dB (0.3 mV) | Low | –68 dB (0.3 mV) | Low | –72 dB (0.2 mV) | Low | –72 dB (0.2 mV) | Low | –72 dB (0.2 mV) |
| | Line | 100 k ohm | –18 dB (95 mV) | 100 k ohm | –18 dB (95 mV) | 100 k ohm | –22 dB (60 mV) | 100 k ohm | –22 dB (60 mV) | 1 m ohm | –22 dB (60 mV) |
| Phono input | | | | | 50 k ohm | | –57.7 dB (1 mV) | | | | |
| Rec/PB | Less than 10 k ohm | | Less than 10 k ohm | | | | | | | | |
| DIN | | | | | | | 10 k ohm | | | | |
| Outputs | Impedance | Output level | Impedance | Output level | Impedance | Output level | Impedance | Output level | Impedance | Output level | |
| | Line | More than 10 k ohm | 775 mV | Better than 10 k ohm | 435 mV | More than 10 k ohm | 435 mV | More than 10 k ohm | 0 dB (775 mV) at 100 k ohm | 10 k ohm (variable) | |
| | Rec/PB | 50 k ohm | 775 mV | 50 k ohm | 775 mV | 50 k ohm | 435 mV | | | | |
| DIN | | | | | | | 50 k ohm | | | | |
| Headphone | 8 ohm | variable | 8 ohm | 2 mW | 8 ohm | | 8 ohm | | 8 ohm | | |
| Power output | | | | | | | Mono only: DC 0.8 watts, AC 1.5 watts | | 1 watt x 2 | | |
| Speaker | | | | | 8 ohm 2-way (16 cm/5 cm), 8 watts/8 ohm | | 4 inches (100 mm) diameter | | 4 inches (100 mm) diameter | | |
| Motor | DC servo with F/G | | DNF1400A capstan, MNR1500A reel | | DC servo motor | | DC servo controlled | | DC | | |
| Heads | 1 x rec/PB head, 1 x erase head | | 1 x rec/PB head, 1 x erase head | | 1 x rec/PB head, 1 x erase head | | 1 x F&F rec/PB head, 1 x erase head | | 1 x rec/PB head, 1 x erase head | | |
| Power requirements | AC 240 V | | 240 V, 50 Hz | | AC 240 V, 50/60 Hz | | AC 240 V, 50 Hz, 12 watts; | | AC 240 V | | |
| | power consumption 33 watts | | power consumption | | power consumption 80 watts | | DC 6 V, 4 x 8P2 batteries or Sony BP8 rechargeable battery pack | | power consumption 14 watts | | |
| Dimensions (approx.) | 17 (W) x 6 $\frac{3}{4}$ (H) x 12 $\frac{1}{2}$ (D) inches, 430 x 170 x 320 mm incl. projecting parts | | 18 $\frac{1}{8}$ (W) x 6 $\frac{3}{4}$ (H) x 12 $\frac{1}{2}$ (D) inches, 430 x 170 x 320 mm incl. projecting parts | | 16 $\frac{1}{8}$ (W) x 5 (H) x 11 $\frac{1}{8}$ (D) inches, 420 x 125 x 295 mm incl. projecting parts | | 14 $\frac{7}{8}$ (W) x 4 $\frac{1}{4}$ (H) x 9 $\frac{3}{8}$ (D) inches, 378 x 108 x 238 mm incl. projecting parts | | 11 $\frac{1}{8}$ (W) x 3 $\frac{3}{8}$ (H) x 9 $\frac{3}{4}$ (D) inches, 280 x 90 x 245 mm incl. projecting parts | | |
| Weight (approx.) | 23 lb 2 oz (10 kg) | | 27 lb 8 oz (12.5 kg) | | 11 $\frac{1}{8}$ (W) x 16 $\frac{3}{4}$ (H) x 4 $\frac{5}{16}$ (D) inches, 295 x 425 x 125 mm incl. projecting parts | | 11 lb 15 oz (5.4 kg) | | 7 lb 8 oz (3.4 kg) | | |
| Supplied accessories | 1 x DK74 and 2 x RK74H connecting cords, 1 x tape driver, 1 x set of head cleaning tips | | 1 x DK74 and 2 x RK74H connecting cords, 1 x tape driver, 1 x set of head cleaning tips | | 24 lb 8 oz (10.90 kg), 1 x cleaning aid | | 1 x AC mains lead, 2 x RK74 connecting cords, 1 x shoulder strap, 1 x set of head cleaning tips | | 1 x AC mains lead, 1 x RK50H connecting cord, 1 x F99B microphone, 1 x demonstration tape, 1 x carrying case, 1 x shoulder strap, 1 x cleaning kit | | |



TC525

Bias 85 kHz
 4-track, 2-channel
 1 7/8 ips (4.8 cm/s)
 0.25% at 4.8 cm/s
 46 dB (normal)

45-10,000 Hz at 4.8 cm/s

3%
 Impedance Sensitivity
 Low -72 dB (0.2 mV)
 560 k ohm -22 dB (60 mV)

Impedance Output level
 More than 10 k ohm 440 mV

| | SS 70 | SS1030 | SS1050 | SS2030 |
|----------------------|----------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|
| Speaker system | 2-way, 2-speaker | 2-way, 2-speaker | 2-way, 2-speaker | 3-way, 3-speaker |
| Speaker units | Woofer and mid range 5 1/4 inches (130 mm) diameter cone type; tweeter 2 1/2 inches (60 mm) diameter cone type | Woofer and mid range 6 1/2 inches (160 mm) diameter cone type; tweeter 2 inches (50 mm) diameter cone type | Woofer and mid range 6 1/2 inches (160 mm) diameter cone type; tweeter 2 inches (50 mm) diameter cone type | Woofer 8 inches (200 mm) diameter cone type, mid range 4 inches (100 mm) cone type, tweeter 2 inches (50 mm) cone type |
| Input impedance | 8 ohm | 8 ohm | 8 ohm | 8 ohm |
| Handling power | 10 watts max. DIN | 30 watts max. DIN | 30 watts nominal, 45 watts max. DIN | 30 watts nominal, 45 watts max. DIN |
| Frequency response | 95-18,000 Hz DIN | 70-16,000 Hz | 50-17,000 Hz | 45-20,000 Hz (45-18 kHz) |
| Crossover frequency | | | 5 kHz | 2 kHz & 5 kHz |
| Finish | Teak | Teak, walnut | Teak, walnut | Teak, walnut |
| Dimensions (approx.) | 6 7/8 (W) x 10 1/4 (H) x 9 (D) inches, 175 x 262 x 220 mm incl. projecting parts | 10 (W) x 16 (H) x 7 (D) inches, 255 x 405 x 180 mm incl. projecting parts | 9 7/8 (W) x 17 1/8 (H) x 5 1/4 (D) inches, 250 x 435 x 133 mm incl. projecting parts | 11 (W) x 19 3/4 (H) x 9 (D) inches, 280 x 500 x 229 mm incl. projecting parts |
| Weight (approx.) | 4 lb 3 oz (1.9 kg) | 9 lb 11 oz (4.4 kg) | 9 lb 4 oz (4.2 kg) | 15 lb 8 oz (7 kg) |

| | SS2050 | SS2070 | SS 3050 | SS 5050 |
|----------------------|----------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| Speaker system | 3-way, 3-speaker | 3-way, 3-speaker | 3 way, 3-speaker | Acoustic suspension enclosure |
| Speaker units | Woofer 8 inches (200 mm) diameter cone type; mid range 4 inches (100 mm) diameter cone type; tweeter 1 inch (25 mm) diameter dome type | Woofer 10 inches (250 mm) diameter cone type; mid range 4 inches (100 mm) diameter cone type; tweeter 1 inch (25 mm) diameter dome type | Woofer 10 inches (250 mm) diameter cone type; tweeter 2 1/2 inches (60 mm) diameter cone type; super tweeter 1 1/2 inches (40 mm) diameter cone type | Woofer 12 inches (300 mm) diameter cone type; mid range 1 1/2 inches (35 mm) diameter dome type; tweeter 1 inch (25 mm) diameter dome type |
| Input impedance | 8 ohm | 8 ohm | 8 ohm | 8 ohm |
| Handling power | 40 watts nominal, 60 watts max. DIN | 50 watts nominal, 80 watts max. DIN | 100 watts max. DIN; 70 watts (DIN Nom.) | 80 watts r.m.s. 120 watts music DIN |
| Frequency response | 45-22,000 Hz (45-20 kHz) | 35-22,000 Hz (35-20 kHz) | 91 dB/w/1 m | 40-20,000 Hz DIN |
| Crossover frequency | 2 kHz & 9 kHz | 800 Hz & 4,000 Hz | 2.5-12 kHz | 800-9,000 Hz |
| Attenuator | | | | |
| Tweeter | Fixed | Fixed | Fixed | ±3dB variable |
| Mid range | Fixed | Fixed | Fixed | +1 to -5 dB variable |
| Finish | Teak, walnut | Teak, walnut | Walnut | Walnut |
| Dimensions (approx.) | 11 1/2 (W) x 21 (H) x 9 (D) inches, 290 x 535 x 229 mm incl. projecting parts | 12 1/4 (W) x 22 1/2 (H) x 10 1/2 (D) inches, 310 x 540 x 266 mm incl. projecting parts | 12 1/2 (W) x 22 1/4 (H) x 11 1/2 (D) inches, 315 x 580 x 290 mm incl. projecting parts | 14 3/8 (W) x 24 3/4 (H) x 12 1/2 (D) inches, 365 x 630 x 318 mm incl. projecting parts |
| Weight (approx.) | 20 lb 9 oz (9.35 kg) | 26 lb (11.8 kg) | 33 lb (15 kg) | 40 lb 4 oz (20 kg) |
| Supplied accessory | | | | 1 x 3 m speaker cord |

| | SS 8150 |
|--------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| 8 ohm | Speaker system |
| 1 watt | Speaker units |
| 4 inches (100mm) diameter | Woofer 11 3/4 inches (300 mm) diameter cone type; mid range 1 9/16 inches (40 mm) diameter dome type; tweeter 1 3/16 inch (20 mm) diameter dome type |
| | Input impedance |
| AC 240 V, 50 Hz, 12 watts; 4 x HP11 batteries | Handling power |
| | Frequency response |
| | Crossover frequency |
| | Attenuator |
| | Tweeter |
| | Mid range |
| | Finish |
| 11 1/8 (W) x 3 3/8 (H) x 9 3/4 (D) inches, 280 x 90 x 245 mm incl. projecting parts 7 lb 5 oz (3.3 kg) | Dimensions (approx.) |
| 2 x RK74H, 1 x ME20H and 1 x DK38 connecting cords, 1 x set of head cleaning tips | Weight (approx.) |
| | Supplied accessory |

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Dealer

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Autumn 1976