

RECEIVED
4-CHANNEL REAR AMPLIFIER

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GROUP 290

SANSUI

QS100



QS REGULAR MATRIX
4-CHANNEL STEREO

SANSUI QS-100 4-CHANNEL REAR AMPLIFIER Four cheers for the QS-100, Sansui's great new two-in-one component that rockets you out of your earthbound 2-channel orbit and into the magical world of 4-channel stereo in the twinkling of an eye. A combination of the widely heralded Sansui 4-Channel Synthesizer Decoder and a high-performance 50 watt power amplifier, the QS-100 is a springboard to the stereo of the future, enabling you to enjoy—right now—the incredibly rich sounds of four-channel stereo at a price far less than what you'd pay for a so-called 'discrete' 4-channel system. You simply connect the QS-100 to your present 2-channel system, add another set of speaker systems, and you're on your way to a glittering new stereo galaxy. Sansui's unique 4-

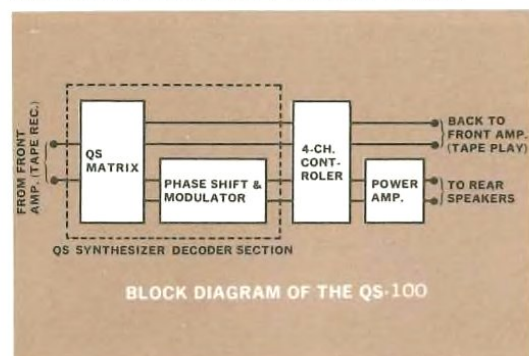
Channel Synthesizer Decoder is what provides the thrust, and it does so in two ways. It converts your present collection of 2-channel records and tapes (plus FM stereo broadcasts) into the immensely richer sounds of 4-channel stereo. And it also completes the 4-2-4 conversion of 4-channel FM stereo broadcasts, records and tapes encoded by the Sansui 4-Channel Encoder, enabling you to enjoy these programs with maximum 4-channel stereo effect. The QS-100's other element, the 50 watt power amplifier, features quality, all-silicon transistors plus a host of special conveniences, including a speaker switch which gives you a choice of two positions for the rear-channel speaker systems. Three cheers for the pleasure of stereophonic music. Four cheers for Sansui's new QS-100.

Sansui

4-CHANNEL SYNTHESIZER DECODER SECTION

CONVERTS TWO-CHANNEL MATERIAL INTO FOUR CHANNELS: A simple turn of the Function Selector converts conventional 2-channel stereo records, tapes and FM broadcasts into incomparably richer 4-channel stereo sound.

RE-CONVERTS ENCODED FOUR-CHANNEL MATERIAL: The QS matrix, can also reconvert 4-channel records, tapes and FM broadcasts encoded by the Sansui 4-Channel format.



EXCLUSIVE 'PHASE SHIFTER/MODULATOR CIRCUIT': The 'sound field' experienced at any live performance is made up of infinite combinations of direct sounds and innumerable, multi-dimensional indirect sounds with their infinitesimal phase differences. After the QS matrix re-organizes two-channel signals into four channels, these four channels of signal are processed through an exclusive 'phase shifter/modulator circuit' (patents pending) to establish a correct phase relationship among them and create distinct sound images of original sound sources. It is also through this process that the rear channel signals are given minute phase differences and then relayed on for reproduction through the rear speaker systems. When these meet the direct, unaffected sounds from the front left and right speaker systems in the air, an astonishingly vibrant sound field is achieved, closely approximating the acoustic effect of live performances.

ALL-ELECTRONIC INTEGRATED CIRCUITRY: The entire 4-Channel Synthesizer Decoder section is constructed as an all-electronic printed circuit board containing special Sansui-developed integrated circuits (ICs) among others. Since no mechanical echo or time-delay devices are used, the resulting sound effect is quite natural and the tonal quality of reproduced sound is not impaired in the least. Any echo or reverberation you may detect is contained in the original recording, and nothing is artificially added.

SPECIFICATIONS

SYNTHESIZER SECTION

INPUT LEVEL:

RATED INPUT (2-CHANNEL)	200mV (50kΩ)
MINIMUM INPUT (2-CHANNEL)	100mV
4-CHANNEL INPUT	775mV (50kΩ)
TAPE MONITOR (PIN, DIN)	200mV (50kΩ)

OUTPUT LEVEL: (FRONT)

RATED OUTPUT	775mV
MAXIMUM OUTPUT	2.5V

RECORDING OUTPUT: (2-CHANNEL)

TAPE REC (PIN)	200mV
TAPE RECORDER (DIN)	30mV

FREQUENCY RESPONSE: 20 to 20,000Hz ± 1 dB

REAR CHANNEL PHASE MODULATION:

Maximum 180° at 10,000Hz
(by Sansui's phase modulation system)

HUM AND NOISE: (IHF) better than 70dB

POWERFUL ENTHRALLING SOUND: The interaction in the air of the sounds coming out of the four separate speaker systems creates an enthralling, powerful sound effect. The 'texture' of the sounds, their transient response characteristics and dynamic range are immensely better than 2-channel stereo sound, so that even a relatively compact set-up is able to render a sound effect more powerful than a 2-channel stereo system several times bigger.

VERSATILE 5-POSITION FUNCTION SELECTOR:

To facilitate exploring the unique aspects of the different types of music, the QS-100 is equipped with a versatile 5-position Function Selector. Simply set it to the position appropriate for the type of music you wish to hear.

2-CHANNEL: For regular 2-channel stereo sound from the front left and right speaker systems only.

CONCERT HALL 1: For orchestras, big-band jazz, and most other purposes. The 'Front 2-2 System' of speaker positioning is best in this case.

CONCERT HALL 2: For solo performances, vocal numbers and other small-band selections.

SURROUND/DECODER: For popular music, mood music, Moog sound, rhythm and blues and live records. Also for hearing 4-channel records, tapes or FM broadcasts encoded from four channels by the Sansui 4-Channel Encoder, and now being re-converted to four channels.

AUX (4-CHANNEL): For hearing the playback of a 4-channel stereo tape by a 4-channel stereo tape deck connected to the rear panel of the QS-100.

2- AND 4-CHANNEL TAPE MONITOR CIRCUITS:

The QS-100 is equipped with pin jack terminals for connecting both a 2-channel tape deck and a 4-channel one. It also has a DIN socket for connecting a 2-channel deck. With a 2-channel deck, both recording and playback functions are possible, while a 4-channel deck permits only playback of 4-channel tapes.

FOUR EASY-TO-READ VU METERS: Four easy-to-check vertical VU meters facilitate setting the input signal strength to an appropriate level, protecting the set from excessively large input signals.

POWER AMPLIFIER SECTION

SEMI-COMPLEMENTARY ITL-OTL AMPLIFIER:

The power amplifier incorporated in the QS-100 adopts a semi-complementary Darlington ITL (input-transformer-less)-OTL (output-transformer-less) design. It affords exceptional out-

POWER AMPLIFIER SECTION

POWER OUTPUT:

Music Power (IHF)	50W	at 4Ω load
	44W	at 8Ω load
Continuous Power	18/18W	at 4Ω load
	15/15W	at 8Ω load

TOTAL HARMONIC DISTORTION: less than 0.8% at rated output

INTERMODULATION DISTORTION: less than 1% at rated output

POWER BANDWIDTH: (IHF) 25 to 40,000Hz

FREQUENCY RESPONSE: (at normal listening level) 20 to 50,000Hz ± 1 dB

CHANNEL SEPARATION: better than 50dB (at 1,000Hz)

HUM AND NOISE: better than 80dB

LOAD IMPEDANCE: 4 to 16Ω

DAMPING FACTOR: 70 at 8Ω load

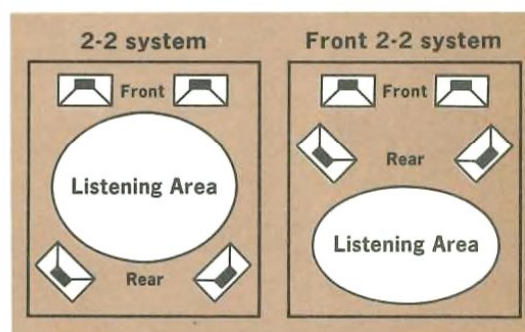
CONTROLS: MASTER VOLUME



put characteristics, such as a music power output of 50 watts (IHF), continuous power of 18 watts per channel, total harmonic distortion not exceeding 0.8%, and a wide power bandwidth of 25 to 40,000Hz.

COMPLETE TRANSISTOR PROTECTION: The all-important power transistors are very carefully protected in the amplifier. First of all, these transistors are very carefully selected and tested for superior electrical and physical characteristics, but in addition, the amplifier adopts a circuit design that minimizes the possibility of damage to them. It is also equipped with large heat sinks and special quick-acting fuses to doubly insure their safety.

2-POSITION REAR SPEAKER SWITCH: Whether you prefer being surrounded by the four speaker systems (2-2 System) or would rather have the sound field in front of you as in a concert hall (Front 2-2 System), you're well taken care of by the QS-100. Complete with a rear systems speaker switch that lets you choose either position, it also permits a combination of the two for those who like that kind of arrangement.



COMPLETE SYSTEM OF CONTROLS: The QS-100 is complete with these other convenient controls: Four-gang volume control for adjusting the sound volume in all four channels simultaneously and independently of the four VU meters; balance control for the rear left and right channels; slide type front-and-rear channels balance control, and a rear level control to facilitate matching the output signal strength to that of the front-channel amplifier.

LEVEL SET

BALANCE	(left-right)
MAIN BALANCE	(front-rear)
REAR LEVEL	(rear panel)

GENERAL

SWITCHES:

FUNCTION	
2-CHANNEL, CONCERT HALL-1, CONCERT HALL-2, SURROUND/DECODER, AUX (4-CHANNEL)	

TAPE MONITOR (2CH) POWER/SPEAKERS SOURCE, PLAY BACK POWER OFF, SYSTEM-A, SYSTEM-B, SYSTEM A+B

SEMICONDUCTORS: Transistors; 23 Diodes; 10 IC; 3 FET; 2 Module; 5

POWER REQUIREMENTS: POWER VOLTAGE 100, 117, 220, 240V 50/60Hz POWER CONSUMPTION 85 W (max. signal)

DIMENSIONS: 250mm(9 7/8")W x 127mm(5")H x 278mm(11")D

WEIGHT: 5.1 kg (11 lbs.)

Design and specifications subject to change without notice for improvements.



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