

G-5700

Sansui Pure Power DC FM/AM Stereo Receiver with Exclusive Digitally Quartz-Locked Tuning System, 75 Watts/Ch, 20 to 20kHz, at 8 ohms, 0.03% THD.

Sansui

Only hi-fi, everything hi-fi.

*© beim Hersteller
Archiv Michael Otto*



- Patented Digitally Quartz-Locked Tuning
- Digital Tuning Dial Display
- Pure Power DC Amp Section
- LED Peak Power-Level Display



*© beim Hersteller
Archiv Michael-Otto*

The Sansui G-5700: Faithful hi-fi reproduction and drift-free tuning in this Pure Power DC Receiver w

On the *outside* of the G-5700 are two features that are bound to catch your eye right away. They are the LED Power-Level Display and the bright Digital Dial for FM and AM tuning. You'll want to learn all the details about them from this brochure. But remember, it's what is *inside* the G-5700 that counts even more.

So look (and listen, too) for its accurate tuning. FM stations *cannot* drift out of tune because our patented Sansui Digitally Quartz-Locked Tuning System instantly catches and corrects any error. Back-up circuitry then delivers *strictly* hi-fi sound from the perfectly tuned FM signal.

Then you should look (and listen) for its pure power amplification. We've achieved it with our Pure Power DC amp—so good at fighting TIM and other kinds of distortion that we've applied for a patent on it. Power delivery is a comfortable 75 watts per channel, min. RMS, both channels driven into 8 ohms, from 20 to 20,000Hz, with no more than 0.03% total harmonic distortion.

When you're satisfied the inside of the G-5700 is as advanced as you're likely to need for the next decade or so, then turn your attention again to the outside, taking note of all the conveniences that make it the most versatile and easy-to-use receiver in its price range. Your choice is bound to be the DC receiver with the digital dial, from Sansui, where it's *all* hi-fi.

The Amplifier: Pure DC Power means better transient response.

DC

Lower TIM and THD plus better Rise Time and Slew Rate are the Sansui advantages.

TIM, of course, is Transient Intermodulation distortion, which is particularly harmful to musical signals. Sansui's original DC amplifier technology—the very same as found in the larger G-7700 receiver and our very best AU integrated DC amplifiers—is yours in the G-5700. That technology also improves THD (total harmonic distortion) to 0.03% at the full rated power.

Of particular importance to the *transient* quality of reproduced *musical* signals is the fact that this receiver's pure DC power amplifier also improves rise time and slew rate. The first is an expression of how fast the amp can respond to pulsed inputs, and here it's an amazing 1.4μSec. The slew rate, on the

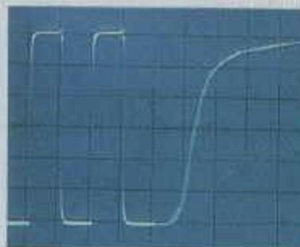
other hand, shows how much output the amp can offer to those pulsive inputs in a given time period; again, the performance is amazing at a high 56V/μSec. Overall power-amp frequency response is zero Hz (DC) to a super high of 200,000Hz!

SLEW RATE & RISE TIME (Power Amp)



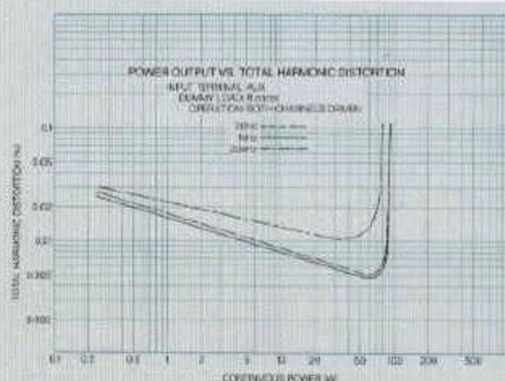
A CONVENTIONAL RECEIVER

Slew Rate: 21V/μSec.
Rise Time: 4μSec



G-5700

Slew Rate: 56V/μSec.
Rise Time: 1.4μSec



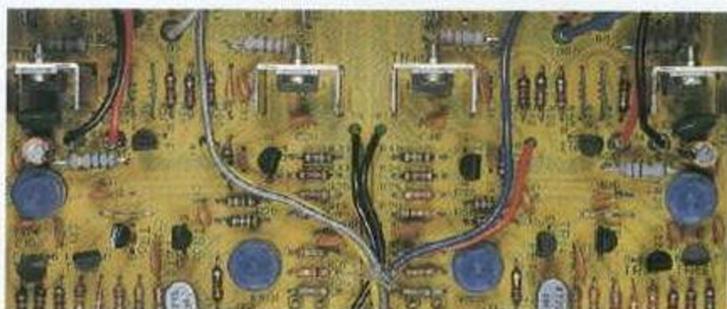
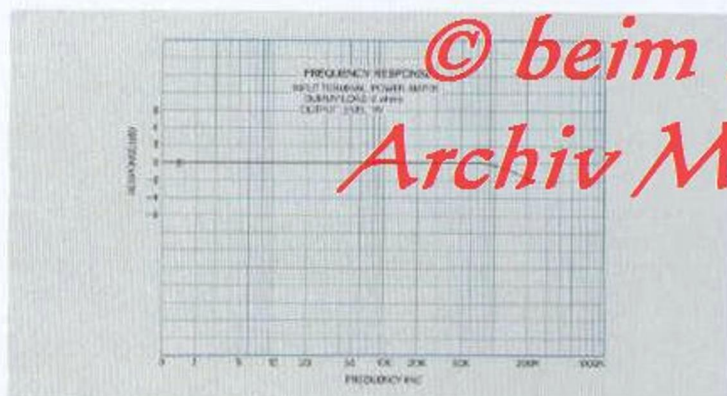
Circuitry: Dual FET input plus a Sansui (Pat. Pend.) exclusive technique in pure DC format.

Highlighted is the Sansui-exclusive (pat. pend.) current differential push-pull drive which follows the ICL (Input Capacitor-Less) input featuring a dual-FET differential and a current-mirror-loaded differential.

After this Sansui DC innovation comes a two-stage Darlington-connected OCL (Output Capacitor-Less) output.



With the Digital Dial.



DC Power Circuit Board

Thanks to the well-matched FETs and our DC technique, the circuit's stability and linearity are excellent, meaning that your music is reproduced with lower TIM, faster response and purer tonal quality than from conventional DC type amps.

*© beim Hersteller
Archiv Michael Otto*

Low-impedance power supply ensures plenty of reserve power for pulsive signals.

Frequency response can be severely limited if impedance is permitted to rise in a power amp. We've kept source impedance low by using a large, well-regulated power transformer in the supply of the G-5700.

Then, for plentiful power reserve, a pair of quality capacitors is added, one for each channel. Bass sound is clear-cut, mids are rich and musicality is lifelike across the entire audio-frequency range.

LED

Peak Power Level Display: 15 LEDs (Light-Emitting Diodes) flash instant-by-instant output from 0.006 to 75 watts.

For power output indication on the G-5700, we've chosen a newly-designed Peak Power-Level Display. Why? Because electronic means of indicating flows of signals are more accurate, easier to read and, above all, much, much faster to respond than swing-needle types.

It has seven bright red LEDs per channel, arranged in a line which flashes outward from the center as power increases in the left/right output. The Power Display is calibrated from 0.006 to the rated 75 watts—fun to watch, and useful, too, as it helps you better control the signals you are sending to your speaker systems.



Power protection circuits are IC built for further reliability.

The little green light on the front panel of the G-5700, the one marked "SAFE," is there to inform you when the receiver is ready to perform its job. Notice that when you switch on the power, the light remains off for a few seconds until circuits are stabilized.

The warning system is tied to the very effective protection circuitry. This, built around an IC for greater reliability, provides:

(1) DC detection protector circuit: The moment a DC current exceeding a prescribed value appears in the output, this circuit instantly opens a relay to disconnect the output circuit and protect your speaker systems.

(2) Overcurrent detection protector circuit: Whenever overcurrent due to speaker terminal shorts, etc., is detected, this circuit instantly opens the output circuit via a relay to prevent overcurrent from flowing to your speaker systems. Additionally, the protection team eliminates power-on pop noise.



Phono equalizer features high-quality parts and inspired circuitry to deliver very accurate record performance.

Overall tonal quality of record reproduction is determined here once the signals leave your phono cartridge. And if we had used parts and circuitry less reliable or less elaborate, that tonal quality would suffer irreparably.

Fortunately, Sansui engineers understand how much musicality depends on phono equalizer quality. They achieved an excellent pre-NFB open-loop response, by building it around high-quality transistors for superb transient response in reproduction. RIAA equalization is an accurate $\pm 0.2\text{dB}$ thanks to the use of high-quality passive components. Phono overload is a high 210mV. Hum/noise is 78dB. They help you get wide dynamic range from whatever disc source.

Defeat BASS/TREBLE tone controls when your listening room's acoustics don't require them.

The object of tone controls, after all, is to help achieve a flat response in your listening room. If your room's acoustics are balanced (and if the program sources you play are up to hi-fi standards) you won't need the broad-range tone controls on the G-5700. In such cases, simply push the button for DEFEAT and the tone circuit is put off-line (via a resistor).

When you DO require tonal adjustment, however, the receiver offers a high-quality circuit with a differential input and four low-noise transistors for each channel. Negative feedback is employed to reduce distortion. The controls themselves have convenient clicks to aid adjustment.

Just you and the music—amplified for PA with the Mic Mixing feature.

Parties and other occasions often require PA sound—and the higher the fi the better. With the Mic Mixing feature on the G-5700 you can plug in an external microphone and blend its sounds with any other program source (recording of mixed sound not possible). The feature has its own level control and front-panel mic jack.

Versatile TAPE-COPY facilities.

You can connect two stereo tape decks and copy a tape from deck 1 to deck 2, or record any source on either or both at the same time. You can even connect a third deck (for playback only) through the TAPE/AUX terminals located on the rear panel and can dub from deck 3 to deck 1.



Subsonic Filter saves your ears (and may just save your valuable speaker systems) at a touch.

Warped records (and some other sound sources) contain infrasonics (very low-frequency waveforms) which can be annoying to your ears. Such content can also cause severe damage to certain speaker systems by driving woofers too erratically if volume is high. A touch of the Subsonic Filter on the front panel of the G-5700 removes this danger (below 16Hz, 6dB/oct.) instantly without harming musical content.

More Sansui convenience features...

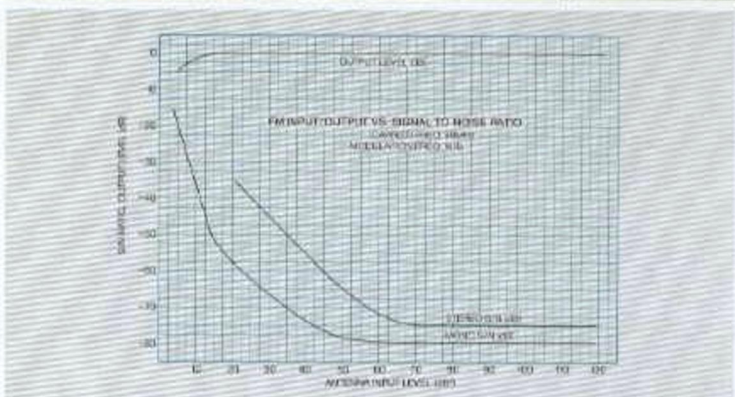
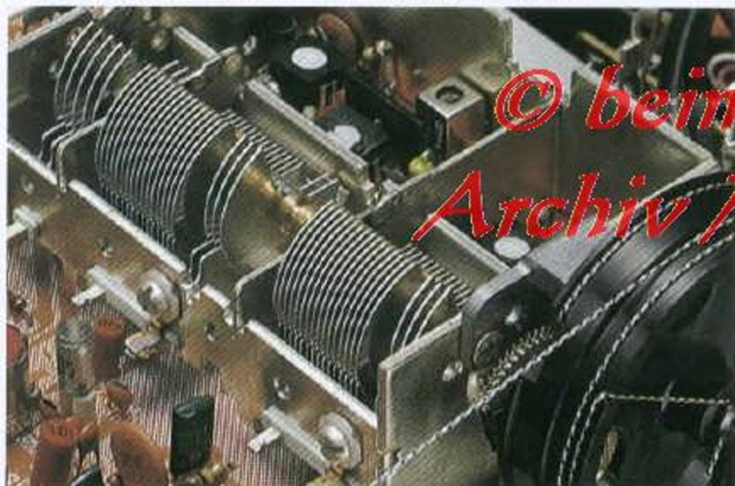
- Large Volume/Tuning Controls—The two largest controls on the front panel of the Sansui G-5700 are (right) the tuning knob for FM/AM and (left) the master volume control, the latter featuring 41 clicks for smooth and precise control of output.
- Audio Muting—This instantly reduces sound volume by 20dB; the receiver may be operated with the switch in to give you a finer "feel" in volume control when inputs are of sufficient strength.
- Loudness—Achieves natural tonal balance during low-level listening.
- Speaker Selection—You may connect and drive up to two stereo sets of speaker systems individually or together, or turn both off for listening through headphones.

The Tuner: Pure musicality in FM and AM means faithful reproduction.

New microelectronic techniques help assure **STRICTLY** hi-fi performance in tuner section of G-5700.

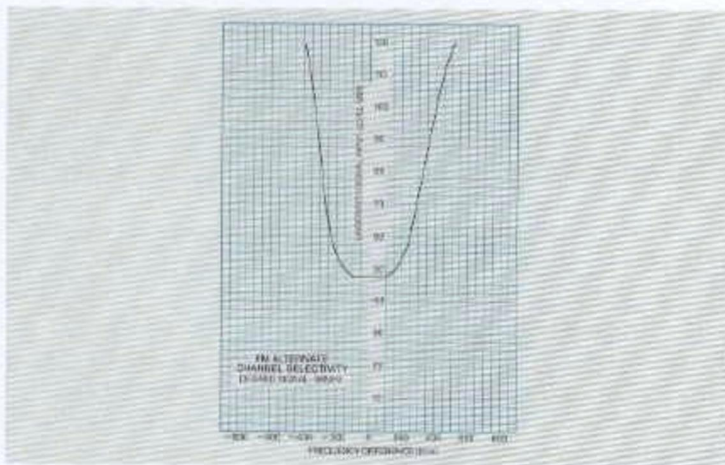
Sansui's reputation for building *strictly* hi-fi tuners is demonstrated again here, with circuitry certain to give you pure musicality from any station under even the most difficult of reception conditions. For starters, in FM there are two high-integration/high-performance ICs, one each in the PLL MPX for stereo, and in the quadrature detector/discriminator. Together they deliver a high 75dB (mono) signal-to-noise ratio with low distortion.

In the FM local oscillator and mixer, a third IC of a new hybrid type stabilizes the oscillated frequency against changes in ambient temperature. This works in concert with the Sansui-patented quartz/digital tuning system described elsewhere in this brochure. A linear 3-ganged tuning capacitor, coupled with a Dual-Gate MOS FET RF amp, means interference is minimized for still purer sound in the final output.



Stations too faint or too strong for other receivers' tuner sections are reproduced beautifully.

There is a frequency-linear 3-ganged tuning capacitor and a Dual-Gate MOS FET to minimize interference and provide better reception of all stations, weak or strong, stripping off all unwanted distortion and noise. The 3-stage



limiter amp is in IC form while the ceramic filter is a 4-element linear-phase type with superb group-delay response to prevent the damage to musicality other types of filters can cause.

AM for people who hate AM.

We can't do much about the quality of AM *programming*. But we can (and do) improve the quality of AM *sound*. A high-integration monolithic IC handles amplification, limiting, detection, etc. of AM signals with high accuracy and even higher reliability. To end AM whine, whistles and booms we use an array of selective ceramic filters and LC blocks in the AM IF section. AM has never sounded better.

And that's not all...

- FM Muting—Ends annoying inter-station noise while tuning.
- Dolby FM De-Emphasis—Selector position for putting the special 25 μ Sec. de-emphasis circuit on the line for an FM Dolby adaptor.



QUARTZ

SIGNAL ■■■■■■
TUNE ■ ● ■ FM 103.2 MHz

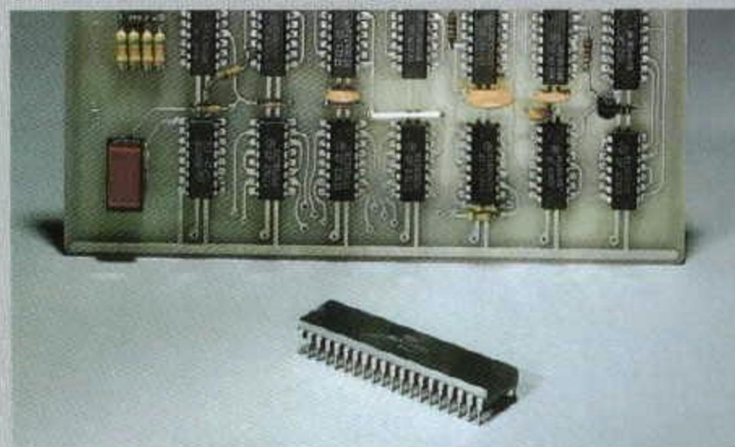
Stations CANNOT go adrift with Sansui's patented Digitally Quartz-Locked Tuning System.

This is a Sansui-exclusive feature. The Sansui quartz system uses an accurate "time base"—the timing counter on a quartz crystal—to help keep the FM station you want locked in via a circuit loop monitored by a digital processor. If the station tries to drift out of tune, the error is detected by a frequency counter and converted into digital data "bits." These, in turn, are used to bring the station back into line instantly.

Most other quartz tuners use analog phase reference controls that compare phase of two frequencies between the local oscillators and quartz crystals, in order to check and correct errors. But our Digitally Quartz-Locked Tuning System doesn't; instead it has a digital control system. It uses the "time base" generated in the quartz crystal, and detects errors by *digitally* counting the frequency on this undeviating reference. Therefore, unlike other quartz tuners using analog reference controls, ours avoids harmonics harmful to audio tuning with the use of a digital reference control.

Better spurious rejection ratio, higher sensitivity and a better signal-to-noise ratio are among the audible advantages. And purer, more faithful reproduction of musical sound is the final product.

A reminder: Sansui has received patents on our quartz/digital system. And to ensure long-term reliability of its operation we've packed it all in a single LSI (Large-Scale Integrated Circuit) which can never fail.



The Large-Scale Integrated Circuit (LSI) you see in the foreground now compactly houses all the discrete parts, wiring and ICs grouped behind it. This Sansui innovation assures computer-grade reliability in our Digitally Quartz-Locked Tuning System.

Unique Locking System: Your station is digitally quartz locked the moment you stop moving the tuning knob.

Another Sansui-exclusive innovation sets our locking system apart from others. And makes the G-5700 a whole lot

easier to use. Your locked-in station stays locked in until you move the tuning knob.

Many "locking" tuners and receivers use a touch-sensitive knob which acts as an on/off switch for the locking system. This means your fingers must grasp, then release, then grasp and again release the knob—repeating this troublesome process until you're sure your station is tuned and locked. In the Sansui system, however, the locking on/off switching is determined not by touch but by movement.

And a reminder: This Sansui-exclusive tuner circuitry includes a built-in RE-LOCK system. Your station is memorized for instant recall whenever you re-power the unit.

BLOCK DIAGRAM OF SANSUI DIGITALLY QUARTZ-LOCKED TUNING

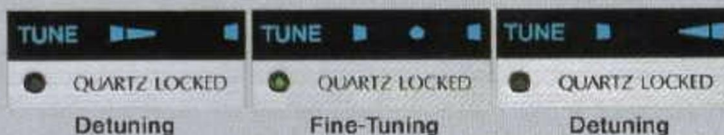


FM/AM Tuning Dials: We provide a bright and clean digital display PLUS the traditional analog rule-scale.

The Sansui FM quartz/digital system has a wider locking range than most. And the analog dial scale is wide and extremely clearly calibrated in FM-linear sections to make that tuning smoother and easier still.

But when the station you want is faint, or "crowded" between others, make a note of its assigned frequency, then simply dial that frequency on the bright digital display. As you do, watch the row of dots to the left of the display: these indicate signal strength (for AM and FM), the more showing, the better.

For FM tuning, also watch the lower left part of the digital display. The righthand and lefthand arrows show when you are nearing the station's best position; the center dot lights (and the arrows go dark) when you have tuned to the exact center of the station. Now, stop moving the knob and your station will be automatically locked by the Sansui-patented quartz/digital system, and the QUARTZ LOCKED indicator will light.



Specifications

AUDIO SECTION

POWER OUTPUT*

Min. RMS, both channels driven, from 20Hz to 20,000Hz, with no more than 0.03% total harmonic distortion

75 watts per channel into 8 ohms

Min. RMS, both channels driven, at 1,000Hz, with no more than 0.03% total harmonic distortion

82 watts per channel into 8 ohms

TOTAL HARMONIC DISTORTION*

OVERALL (from AUX) less than 0.03% at or below rated min. RMS power output

OVERALL (from AUX) less than 0.015% at 1kHz, 75W power output

INTERMODULATION DISTORTION

(70Hz: 7,000Hz = 4:1 SMPTE method)

OVERALL (from AUX) less than 0.03% at or below rated min. RMS power output

DAMPING FACTOR

LOAD IMPEDANCE*

SLEW RATE

RISE TIME

FREQUENCY RESPONSE (at 1 watt)

POWER AMP SECTION DC to 200,000Hz +0dB, -3.0dB

OVERALL (from AUX) 5 to 75,000Hz +0.2dB, -2.0dB

RIAA CURVE DEVIATION (30 to 15kHz)

+0.2dB, -0.2dB

HUM AND NOISE (IHF)

PHONO 78dB

AUX 95dB

CHANNEL SEPARATION (at 1,000Hz)

PHONO 55dB

AUX 65dB

INPUT SENSITIVITY AND IMPEDANCE (at 1,000Hz)

PHONO 1 2.5mV, 47k ohms

AUX 150mV, 47k ohms

MIC 6mV, 10k ohms

(PHONO: Max. input capability more than 210mV RMS at 0.1% distortion)

OUTPUT VOLTAGE AND IMPEDANCE (at 1,000Hz)

TAPE REC (PIN) 150mV, 47k ohms

CONTROLS

BASS +10dB, -10dB at 50Hz

TREBLE +10dB, -10dB at 10kHz

LOUDNESS +8dB at 50Hz

+6dB at 1,000Hz

-3dB at 16Hz (6dB/oct.)

-20dB

FM SECTION

TUNING RANGE

50dB QUIETING SENSITIVITY

MONO 15dBf (3.1µV IHF T-100)

STEREO 37dBf (38.9µV IHF T-100)

SENSITIVITY

MONO (IHF) 10.8dBf (1.9µV IHF T-100)

(DIN) 1.2µV

STEREO 18dBf (4.4µV IHF T-100)

SIGNAL TO NOISE RATIO AT 65dBf

MONO 75dB

STEREO 70dB

FREQUENCY RESPONSE

MONO

30 to 15,000Hz +0.5dB, -1.0dB

STEREO

30 to 15,000Hz +0.5dB, -1.0dB

DISTORTION AT 65dBf

MONO

less than 0.13% at 100Hz

less than 0.1% at 1,000Hz

less than 0.25% at 6,000Hz

less than 0.25% at 100Hz

less than 0.15% at 1,000Hz

less than 0.25% at 6,000Hz

STEREO

1.0dB

CAPTURE RATIO

ALTERNATE CHANNEL SELECTIVITY

50dB at 400kHz

SPURIOUS RESPONSE RATIO

70dB at 98MHz

IMAGE RESPONSE RATIO

50dB at 98MHz

IF RESPONSE RATIO

90dB at 98MHz

AM SUPPRESSION RATIO

50dB at 98MHz

STEREO SEPARATION

35dB at 100Hz

40dB at 1,000Hz

ANTENNA INPUT IMPEDANCE

300 ohms balanced

75 ohms unbalanced

AM SECTION

TUNING RANGE

530 to 1,600kHz

SENSITIVITY (Bar antenna)

50dB/m (300µV/m)

SELECTIVITY

33dB at 1,000kHz

SIGNAL TO NOISE RATIO

46dB

TOTAL HARMONIC DISTORTION

less than 0.5% at 30% Mod. 80dB/m

IMAGE RESPONSE RATIO

46dB at 1,000kHz

IF RESPONSE RATIO

38dB at 1,000kHz

GENERAL

AC OUTLETS

switched max. 100 watts

unswitched total 150 watts

SEMICONDUCTORS

POWER REQUIREMENTS

POWER VOLTAGE

100, 120, 220, 240V 50/60Hz

POWER CONSUMPTION

400 watts

DIMENSIONS

465mm (18 1/2") W

177mm (7") H

405mm (16") D

WEIGHT

13.8kg (30.4 lbs.) Net

FINISH

16kg (35.3 lbs.) Packed

Simulated rosewood grain

*Power specifications measured pursuant to U.S. Federal Trade Commission trade regulation on power output claims for amplifiers.

•The FM performance of this receiver is measured pursuant to the new Institute of High Fidelity standard, IHF-T-200, except specifications with the legend IHF-T-100.

•For European models, some specifications might change to comply with local safety regulations and standards.

•Design and specifications subject to change without notice for improvements.

•Digitally Quartz-Locked System: U.S. Pat. No. 3991382.



FA-7 Compatible FM/AM Antenna System

PS-107C/112C Wide-Range Triaxial Speaker Cables

PS-4C/5C Hi-Fi Pin Cords

PS-6C/7C Stereo/Mono Phone Plug Cords

PS-1P/2P Extension Plug Adaptors



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Importeur von Spitzenmarken

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6-5700

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82 watts per channel into 8 ohms

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OVERALL (from AUX) less than 0.03% at or below rated min. RMS power output

OVERALL (from AUX) less than 0.015% at 1kHz, 75W power output

INTERMODULATION DISTORTION

(70Hz:7,000Hz = 4:1 SMPTE method)

OVERALL (from AUX) less than 0.03% at or below rated min. RMS power output

DAMPING FACTOR

LOAD IMPEDANCE*

SLEW RATE

RISE TIME

FREQUENCY RESPONSE (at 1 watt)

POWER AMP SECTION DC to 200,000Hz +0dB, -3.0dB

OVERALL (from AUX) 5 to 75,000Hz +0.2dB, -2.0dB

RIAA CURVE DEVIATION (30 to 15kHz) +0.2dB, -0.2dB

HUM AND NOISE (IHF)

PHONO 78dB

AUX 95dB

CHANNEL SEPARATION (at 1,000Hz)

PHONO 55dB

AUX 65dB

INPUT SENSITIVITY AND IMPEDANCE (at 1,000Hz)

PHONO 1 2.5mV, 47k ohms

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MIC 6mV, 10k ohms

(PHONO: Max. input capability more than 210mV RMS at 0.1% distortion)

OUTPUT VOLTAGE AND IMPEDANCE (at 1,000Hz)

TAPE REC (PIN) 150mV, 47k ohms

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TREBLE +10dB, -10dB at 10kHz

LOUDNESS +8dB at 50Hz

+6dB at 10kHz

-3dB at 16Hz (6dB/oct.)

-20dB

SUBSONIC FILTER

MUTING (Audio)

FM SECTION

TUNING RANGE

50dB QUIETING SENSITIVITY

MONO 15dBf (3.1μV IHF T-100)

STEREO 37dBf (38.9μV IHF T-100)

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STEREO 70dB

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STEREO 30 to 15,000Hz +0.5dB, -1.0dB

DISTORTION AT 65dBf

MONO less than 0.13% at 100Hz

less than 0.1% at 1,000Hz

less than 0.25% at 6,000Hz

less than 0.25% at 100Hz

less than 0.15% at 1,000Hz

less than 0.25% at 6,000Hz

1.0dB

CAPTURE RATIO

ALTERNATE CHANNEL SELECTIVITY

50dB at 400kHz

SPURIOUS RESPONSE RATIO

70dB at 98MHz

50dB at 98MHz

90dB at 98MHz

AM SUPPRESSION RATIO 50dB at 98MHz

STEREO SEPARATION 35dB at 100Hz

40dB at 1,000Hz

ANTENNA INPUT IMPEDANCE

300 ohms balanced

75 ohms unbalanced

AM SECTION

TUNING RANGE

530 to 1,600kHz

SENSITIVITY (Bar antenna) 50dB/m (300μV/m)

SELECTIVITY 33dB at 1,000kHz

SIGNAL TO NOISE RATIO 46dB

TOTAL HARMONIC DISTORTION less than 0.5% at 30% Mod. 80dB/m

46dB at 1,000kHz

IF RESPONSE RATIO 38dB at 1,000kHz

GENERAL

AC OUTLETS

switched max. 100 watts

unswitched total 150 watts

88 Transistors, 70 Diodes, 5 FETs, 11 ICs

SEMICONDUCTORS

POWER REQUIREMENTS

POWER VOLTAGE 100, 120, 220, 240V 50/60Hz

POWER CONSUMPTION 400 watts

465mm (18 1/2") W

177mm (7") H

105mm (4 1/8") D

13.8kg (30.4 lbs.) Net

16kg (35.3 lbs.) Packed

Simulated rosewood grain

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trade regulation on power output claims for amplifiers.

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Institute of High Fidelity standard, IHF-T-200, except specifications with the

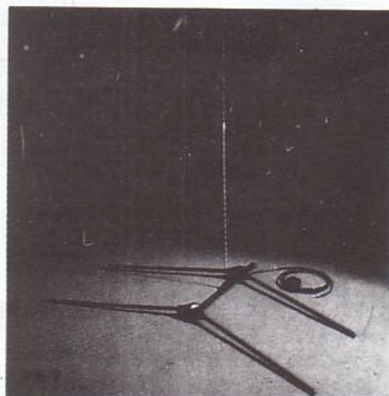
legend IHF-T-100

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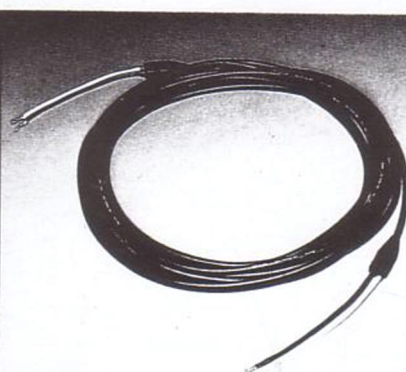
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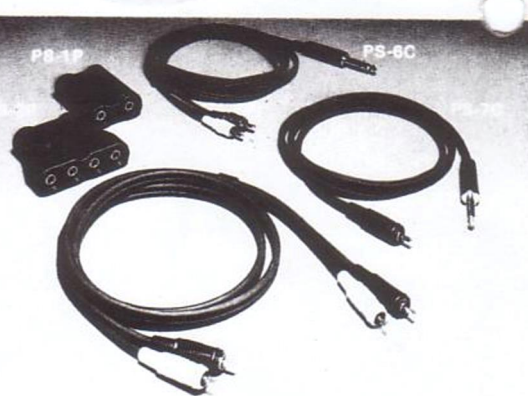


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Sansui

Only hi-fi, everything hi-fi.



- Patented Digitally Quartz-Locked Tuning
- Digital Tuning Dial Display
- Pure Power DC Amp Section
- LED Peak Power-Level Display



The Sansui G-5700: Faithful hi-fi reproduction and drift-free tuning in this Pure Power DC Receiver

On the *outside* of the G-5700 are two features that are bound to catch your eye right away. They are the LED Power-Level Display and the bright Digital Dial for FM and AM tuning. You'll want to learn all the details about them from this brochure. But remember, it's what is *inside* the G-5700 that counts even more.

So look (and listen, too) for its accurate tuning. FM stations *cannot* drift out of tune because our patented Sansui Digitally Quartz-Locked Tuning System instantly catches and corrects any error. Back-up circuitry then delivers *strictly* hi-fi sound from the perfectly tuned FM signal.

Then you should look (and listen) for its pure power amplification. We've achieved it with our Pure Power DC amp—so good at fighting TIM and other kinds of distortion that we've applied for a patent on it. Power delivery is a comfortable 75 watts per channel, min. RMS, both channels driven into 8 ohms, from 20 to 20,000Hz, with no more than 0.03% total harmonic distortion.

When you're satisfied the inside of the G-5700 is as advanced as you're likely to need for the next decade or so, then turn your attention again to the outside, taking note of all the conveniences that make it the most versatile and easy-to-use receiver in its price range. Your choice is bound to be the DC receiver with the digital dial, from Sansui, where it's *all* hi-fi.

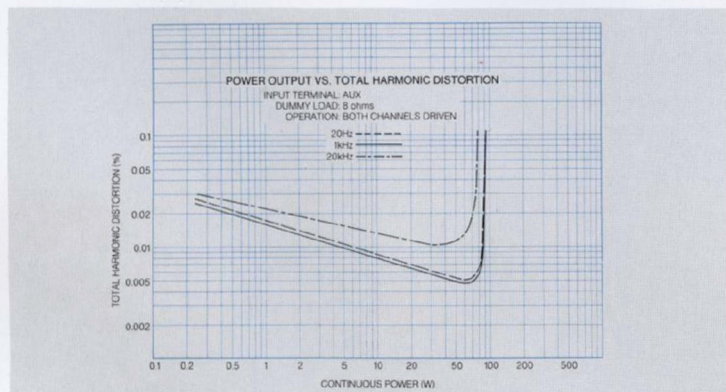
The Amplifier: Pure DC Power means better transient response.

DC

Lower TIM and THD plus better Rise Time and Slew Rate are the Sansui advantages.

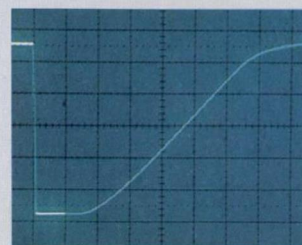
TIM, of course, is Transient Intermodulation distortion, which is particularly harmful to musical signals. Sansui's original DC amplifier technology—the very same as found in the larger G-7700 receiver and our very best AU integrated DC amplifiers—is yours in the G-5700. That technology also improves THD (total harmonic distortion) to 0.03% at the full rated power.

Of particular importance to the *transient* quality of reproduced *musical* signals is the fact that this receiver's pure DC power amplifier also improves rise time and slew rate. The first is an expression of how fast the amp can respond to pulsive inputs, and here it's an amazing 1.4 μ Sec. The slew rate, on the



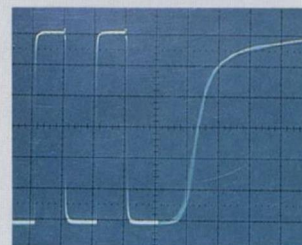
other hand, shows how much output the amp can offer to those pulsive inputs in a given time period; again, the performance is amazing at a high 56V/ μ Sec. Overall power-amp frequency response is zero Hz (DC) to a super high of 200,000Hz!

SLEW RATE & RISE TIME (Power Amp)



A CONVENTIONAL RECEIVER

Slew Rate: 21V/ μ Sec.
Rise Time: 4 μ Sec



G-5700

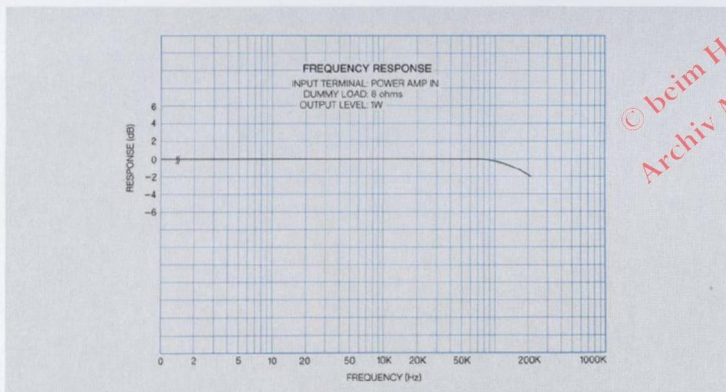
Slew Rate: 56V/ μ Sec.
Rise Time: 1.4 μ Sec.

Circuitry: Dual FET input plus a Sansui (Pat. Pend.) exclusive technique in pure DC format.

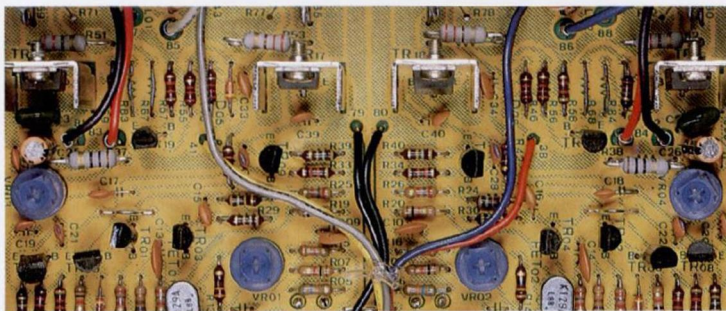
Highlighted is the Sansui-exclusive (pat. pend.) current differential push-pull drive which follows the ICL (Input Capacitor-Less) input featuring a dual-FET differential and a current-mirror-loaded differential.

After this Sansui DC innovation comes a two-stage Darlington-connected OCL (Output Capacitor-Less) output.

With the Digital Dial.



© beim Hersteller
Archiv Michael Otto



DC Power Circuit Board

Thanks to the well-matched FETs and our DC technique, the circuit's stability and linearity are excellent, meaning that your music is reproduced with lower TIM, faster response and purer tonal quality than from conventional DC type amps.

Low-impedance power supply ensures plenty of reserve power for pulsive signals.

Frequency response can be severely limited if impedance is permitted to rise in a power amp. We've kept source impedance low by using a large, well-regulated power transformer in the supply of the G-5700.

Then, for plentiful power reserve, a pair of quality capacitors is added, one for each channel. Bass sound is clear-cut, mids are rich and musicality is lifelike across the entire audio-frequency range.

LED

Peak Power Level Display: 15 LEDs (Light-Emitting Diodes) flash instant-by-instant output from 0.006 to 75 watts.

For power output indication on the G-5700, we've chosen a newly-designed Peak Power-Level Display. Why? Because electronic means of indicating flows of signals are more accurate, easier to read and, above all, much, much faster to respond than swing-needle types.

It has seven bright red LEDs per channel, arranged in a line which flashes outward from the center as power increases in the left/right output. The Power Display is calibrated from 0.006 to the rated 75 watts—fun to watch, and useful, too, as it helps you better control the signals you are sending to your speaker systems.



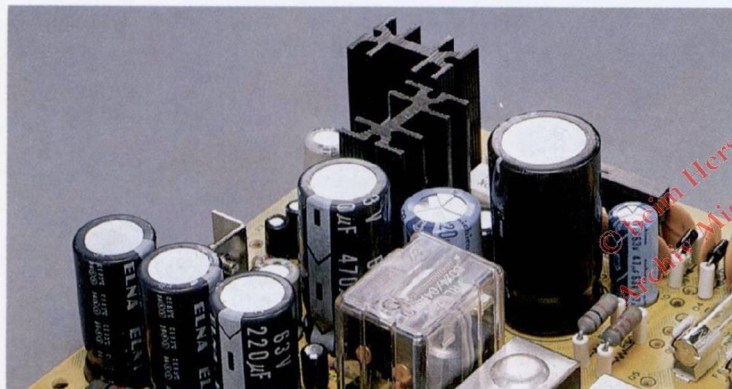
Power protection circuits are IC built for further reliability.

The little green light on the front panel of the G-5700, the one marked "SAFE," is there to inform you when the receiver is ready to perform its job. Notice that when you switch on the power, the light remains off for a few seconds until circuits are stabilized.

The warning system is tied to the very effective protection circuitry. This, built around an IC for greater reliability, provides:

(1) DC detection protector circuit: The moment a DC current exceeding a prescribed value appears in the output, this circuit instantly opens a relay to disconnect the output circuit and protect your speaker systems.

(2) Overcurrent detection protector circuit: Whenever overcurrent due to speaker terminal shorts, etc., is detected, this circuit instantly opens the output circuit via a relay to prevent overcurrent from flowing to your speaker systems. Additionally, the protection team eliminates power-on pop noise.



Phono equalizer features high-quality parts and inspired circuitry to deliver very accurate record performance.

Overall tonal quality of record reproduction is determined here once the signals leave your phono cartridge. And if we had used parts and circuitry less reliable or less elaborate, that tonal quality would suffer irreparably.

Fortunately, Sansui engineers understand how much musicality depends on phono equalizer quality. They achieved an excellent pre-NFB open-loop response, by building it around high-quality transistors for superb transient response in reproduction. RIAA equalization is an accurate ± 0.2 dB thanks to the use of high-quality passive components. Phono overload is a high 210 mV. Hum/noise is 78 dB. They help you get wide dynamic range from whatever disc source.

Defeat BASS/TREBLE tone controls when your listening room's acoustics don't require them.

The object of tone controls, after all, is to help achieve a flat response in your listening room. If your room's acoustics are balanced (and if the program sources you play are up to hi-fi standards) you won't need the broad-range tone controls on the G-5700. In such cases, simply push the button for DEFEAT and the tone circuit is put off-line (via a resistor).

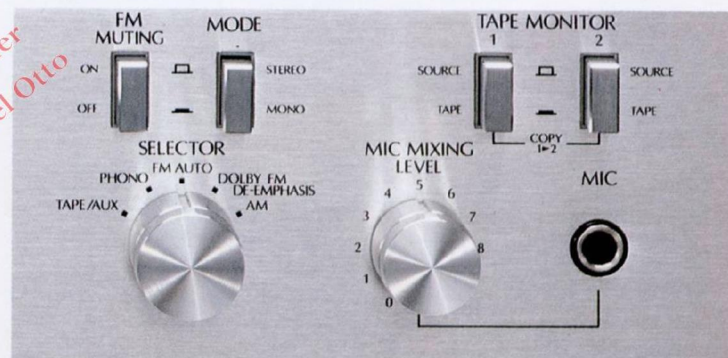
When you DO require tonal adjustment, however, the receiver offers a high-quality circuit with a differential input and four low-noise transistors for each channel. Negative feedback is employed to reduce distortion. The controls themselves have convenient clicks to aid adjustment.

Just you and the music—amplified for PA with the Mic Mixing feature.

Parties and other occasions often require PA sound—and the higher the fi the better. With the Mic Mixing feature on the G-5700 you can plug in an external microphone and blend its sounds with any other program source (recording of mixed sound not possible). The feature has its own level control and front-panel mic jack.

Versatile TAPE-COPY facilities.

You can connect two stereo tape decks and copy a tape from deck 1 to deck 2, or record any source on either or both at the same time. You can even connect a third deck (for playback only) through the TAPE/AUX terminals located on the rear panel and can dub from deck 3 to deck 1.



Subsonic Filter saves your ears (and may just save your valuable speaker systems) at a touch.

Warped records (and some other sound sources) contain infrasonics (very low-frequency waveforms) which can be annoying to your ears. Such content can also cause severe damage to certain speaker systems by driving woofers too erratically if volume is high. A touch of the Subsonic Filter on the front panel of the G-5700 removes this danger (below 16 Hz, 6 dB/oct.) instantly without harming musical content.

More Sansui convenience features...

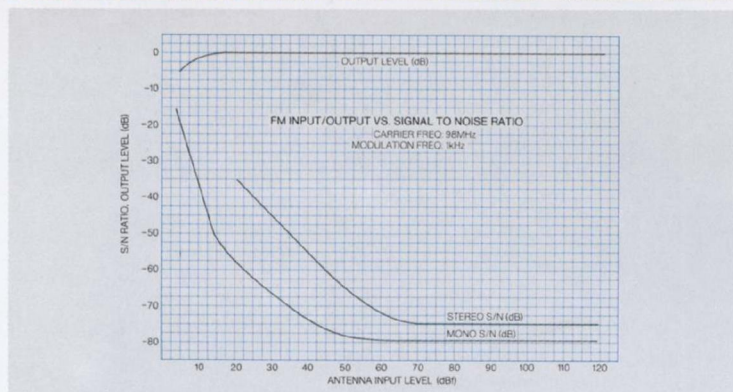
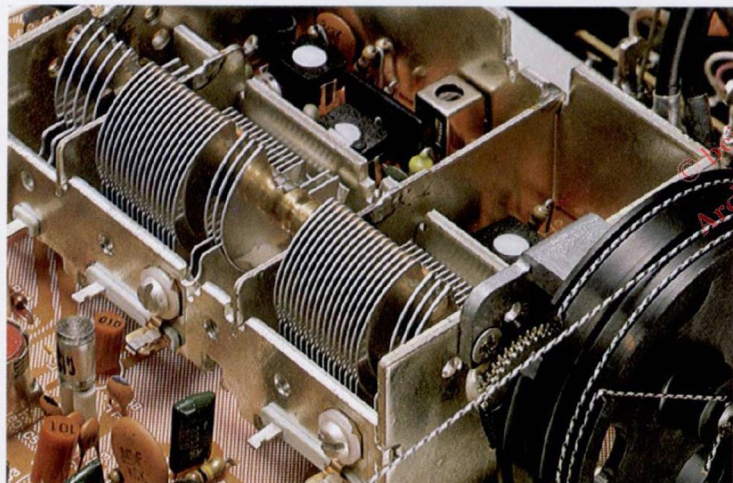
- Large Volume/Tuning Controls—The two largest controls on the front panel of the Sansui G-5700 are (right) the tuning knob for FM/AM and (left) the master volume control, the latter featuring 41 clicks for smooth and precise control of output.
- Audio Muting—This instantly reduces sound volume by 20 dB; the receiver may be operated with the switch in to give you a finer "feel" in volume control when inputs are of sufficient strength.
- Loudness—Achieves natural tonal balance during low-level listening.
- Speaker Selection—You may connect and drive up to two stereo sets of speaker systems individually or together, or turn both off for listening through headphones.

The Tuner: Pure musicality in FM and AM means faithful reproduction.

New microelectronic techniques help assure **STRICTLY** hi-fi performance in tuner section of G-5700.

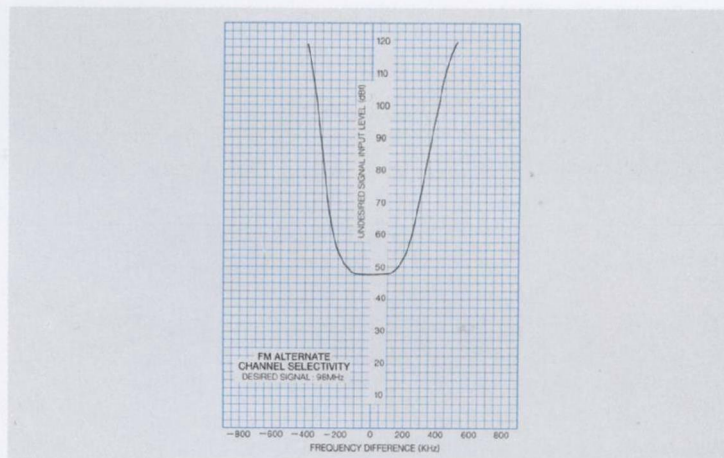
Sansui's reputation for building *strictly* hi-fi tuners is demonstrated again here, with circuitry certain to give you pure musicality from any station under even the most difficult of reception conditions. For starters, in FM there are two high-integration/high-performance ICs, one each in the PLL MPX for stereo, and in the quadrature detector/discriminator. Together they deliver a high 75dB (mono) signal-to-noise ratio with low distortion.

In the FM local oscillator and mixer, a third IC of a new hybrid type stabilizes the oscillated frequency against changes in ambient temperature. This works in concert with the Sansui-patented quartz/digital tuning system described elsewhere in this brochure. A linear 3-ganged tuning capacitor, coupled with a Dual-Gate MOS FET RF amp, means interference is minimized for still purer sound in the final output.



Stations too faint or too strong for other receivers' tuner sections are reproduced beautifully.

There is a frequency-linear 3-ganged tuning capacitor and a Dual-Gate MOS FET to minimize interference and provide better reception of all stations, weak or strong, stripping off all unwanted distortion and noise. The 3-stage



limiter amp is in IC form while the ceramic filter is a 4-element linear-phase type with superb group-delay response to prevent the damage to musicality other types of filters can cause.

AM for people who hate AM.

We can't do much about the quality of AM *programming*. But we can (and do) improve the quality of AM *sound*. A high-integration monolithic IC handles amplification, limiting, detection, etc. of AM signals with high accuracy and even higher reliability. To end AM whine, whistles and booms we use an array of selective ceramic filters and LC blocks in the AM IF section. AM has never sounded better.

And that's not all...

- FM Muting—Ends annoying inter-station noise while tuning.
- Dolby FM De-Emphasis—Selector position for putting the special 25 μ Sec. de-emphasis circuit on the line for an FM Dolby adaptor.



QUARTZ

SIGNAL ■■■■■■

TUNE ■ ● ■

FM 103.2 MHz

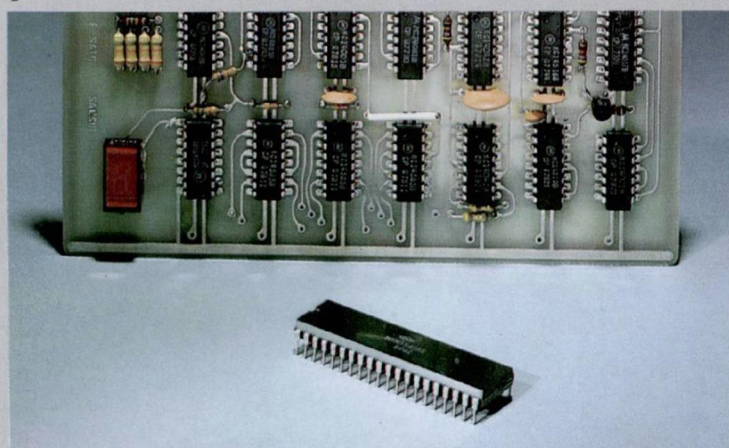
Stations CANNOT go adrift with Sansui's patented Digitally Quartz-Locked Tuning System.

This is a Sansui-exclusive feature. The Sansui quartz system uses an accurate "time base"—the timing counter on a quartz crystal—to help keep the FM station you want locked in via a circuit loop monitored by a digital processor. If the station tries to drift out of tune, the error is detected by a frequency counter and converted into digital data "bits." These, in turn, are used to bring the station back into line instantly.

Most other quartz tuners use analog phase reference controls that compare phase of two frequencies between the local oscillators and quartz crystals, in order to check and correct errors. But our Digitally Quartz-Locked Tuning System doesn't; instead it has a digital control system. It uses the "time base" generated in the quartz crystal, and detects errors by *digitally* counting the frequency on this undeviating reference. Therefore, unlike other quartz tuners using analog reference controls, ours avoids harmonics harmful to accurate tuning with the use of a digital reference control.

Better spurious rejection ratio, higher sensitivity and a better signal-to-noise ratio are among the audible advantages. And purer, more faithful reproduction of musical sound is the final product.

A reminder: Sansui has received patents on our quartz/digital system. And to ensure long-term reliability of its operation we've packed it all in a single LSI (Large-Scale Integrated Circuit) which can never fail.



The Large-Scale Integrated Circuit (LSI) you see in the foreground now compactly houses all the discrete parts, wiring and ICs grouped behind it. This Sansui innovation assures computer-grade reliability in our Digitally Quartz-Locked Tuning System.

Unique Locking System: Your station is digitally quartz locked the moment you stop moving the tuning knob.

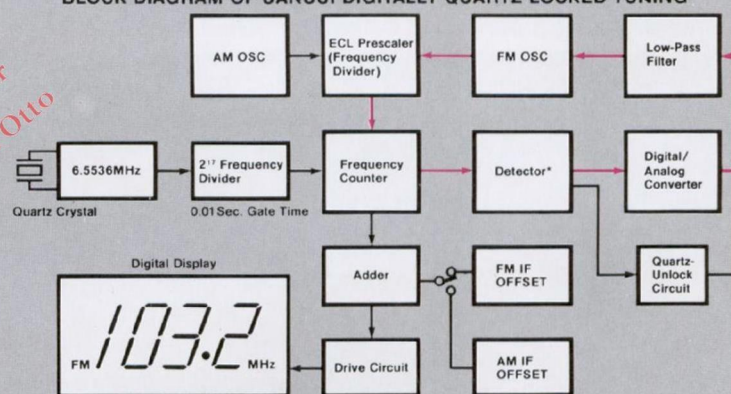
Another Sansui-exclusive innovation sets our locking system apart from others. And makes the G-5700 a whole lot

easier to use. Your locked-in station *stays* locked in until you move the tuning knob.

Many "locking" tuners and receivers use a touch-sensitive knob which acts as an on/off switch for the locking system. This means your fingers must grasp, then release, then grasp and again release the knob—repeating this troublesome process until you're sure your station is tuned and locked. In the Sansui system, however, the locking on/off switching is determined not by touch but by movement.

And a reminder: This Sansui-exclusive tuner circuitry includes a built-in RE-LOCK system. Your station is memorized for instant recall whenever you re-power the unit.

BLOCK DIAGRAM OF SANSUI DIGITALLY QUARTZ-LOCKED TUNING



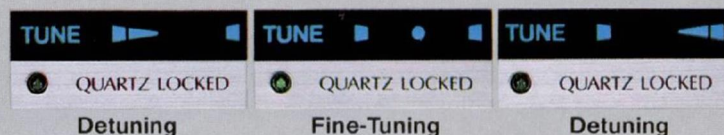
*The detector drops hundredths (.0x) of 5 or below and rounds off hundredths of 6 or above to the next tenth.

FM/AM Tuning Dials: We provide a bright and clean digital display PLUS the traditional analog rule-scale.

The Sansui FM quartz/digital system has a wider locking range than most. And the analog dial scale is wide and extremely clearly calibrated in FM-linear sections to make that tuning smoother and easier still.

But when the station you want is faint, or "crowded" between others, make a note of its assigned frequency, then simply dial that frequency on the bright digital display. As you do, watch the row of dots to the left of the display: these indicate signal strength (for AM and FM), the more showing, the better.

For FM tuning, also watch the lower left part of the digital display. The righthand and lefthand arrows show when you are nearing the station's best position; the center dot lights (and the arrows go dark) when you have tuned to the exact center of the station. Now, stop moving the knob and your station will be automatically locked by the Sansui-patented quartz/digital system, and the QUARTZ LOCKED indicator will light.



Specifications

AUDIO SECTION

POWER OUTPUT*

Min. RMS, both channels driven, from 20Hz to 20,000Hz, with no more than 0.03% total harmonic distortion

75 watts per channel into 8 ohms

Min. RMS, both channels driven, at 1,000Hz, with no more than 0.03% total harmonic distortion

82 watts per channel into 8 ohms

TOTAL HARMONIC DISTORTION*

OVERALL (from AUX) less than 0.03% at or below rated min. RMS power output

OVERALL (from AUX) less than 0.015% at 1kHz, 75W power output

INTERMODULATION DISTORTION

(70Hz:7,000Hz=4:1 SMPTE method)

OVERALL (from AUX) less than 0.03% at or below rated min. RMS power output

DAMPING FACTOR LOAD IMPEDANCE*

SLEW RATE

56V/ μ Sec.

RISE TIME

1.4 μ Sec.

FREQUENCY RESPONSE (at 1 watt)

POWER AMP SECTION DC to 200,000Hz +0dB, -3.0dB

OVERALL (from AUX) 5 to 75,000Hz +0.2dB, -2.0dB

RIAA CURVE DEVIATION (30 to 15kHz)

+0.2dB, -0.2dB

HUM AND NOISE (IHF)

PHONO 78dB

AUX 95dB

CHANNEL SEPARATION (at 1,000Hz)

PHONO 55dB

AUX 65dB

INPUT SENSITIVITY AND IMPEDANCE (at 1,000Hz)

PHONO 1 2.5mV, 47k ohms

AUX 150mV, 47k ohms

MIC 6mV, 10k ohms

(PHONO: Max. input capability more than 210mV RMS at 0.1% distortion)

OUTPUT VOLTAGE AND IMPEDANCE (at 1,000Hz)

TAPE REC (PIN) 150mV, 47k ohms

CONTROLS

BASS +10dB, -10dB at 50Hz

TREBLE +10dB, -10dB at 10kHz

LOUDNESS +8dB at 50Hz

+6dB at 10kHz

SUBSONIC FILTER -3dB at 16Hz (6dB/oct.)

MUTING (Audio) -20dB

FM SECTION

TUNING RANGE

88 to 108MHz

50dB QUIETING SENSITIVITY

MONO 15dBf (3.1 μ V IHF T-100)

STEREO 37dBf (38.9 μ V IHF T-100)

SENSITIVITY

MONO (IHF) 10.8dBf (1.9 μ V IHF T-100)

(DIN)

STEREO 18dBf (4.4 μ V IHF T-100)

SIGNAL TO NOISE RATIO AT 65dBf

MONO 75dB

STEREO 70dB

FREQUENCY RESPONSE

MONO

STEREO

30 to 15,000Hz +0.5dB, -1.0dB

30 to 15,000Hz +0.5dB, -1.0dB

DISTORTION AT 65dBf

MONO

less than 0.13% at 100Hz

less than 0.1% at 1,000Hz

less than 0.25% at 6,000Hz

less than 0.25% at 100Hz

less than 0.15% at 1,000Hz

less than 0.25% at 6,000Hz

CAPTURE RATIO

1.0dB

ALTERNATE CHANNEL SELECTIVITY

50dB at 400kHz

SPURIOUS RESPONSE RATIO

70dB at 98MHz

IMAGE RESPONSE RATIO

50dB at 98MHz

IF RESPONSE RATIO

90dB at 98MHz

AM SUPPRESSION RATIO

50dB at 98MHz

STEREO SEPARATION

35dB at 100Hz

40dB at 1,000Hz

ANTENNA INPUT IMPEDANCE

300 ohms balanced

75 ohms unbalanced

AM SECTION

TUNING RANGE

530 to 1,600kHz

SENSITIVITY (Bar antenna)

50dB/m (300 μ V/m)

SELECTIVITY

33dB at 1,000kHz

SIGNAL TO NOISE RATIO

46dB

TOTAL HARMONIC DISTORTION

less than 0.5% at 30% Mod. 80dB/m

IMAGE RESPONSE RATIO

46dB at 1,000kHz

IF RESPONSE RATIO

38dB at 1,000kHz

GENERAL

AC OUTLETS

switched max. 100 watts

unswitched total 150 watts

88 Transistors; 70 Diodes; 5 FETs; 11 ICs

SEMICONDUCTORS

POWER REQUIREMENTS

POWER VOLTAGE

100, 120, 220, 240V 50/60Hz

POWER CONSUMPTION

400 watts

DIMENSIONS

465mm (18 $\frac{5}{8}$ ") W

177mm (7") H

405mm (16") D

13.8kg (30.4lbs.) Net

16kg (35.3lbs.) Packed

FINISH

Simulated rosewood grain

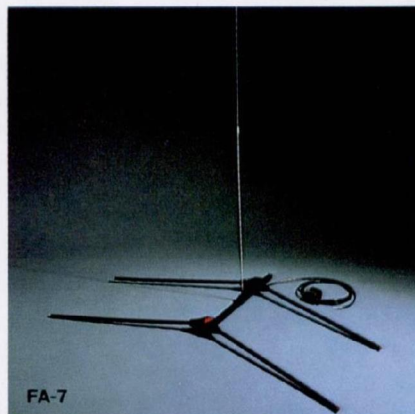
*Power specifications measured pursuant to U.S. Federal Trade Commission trade regulation on power output claims for amplifiers.

•The FM performance of this receiver is measured pursuant to the new Institute of High Fidelity standard, IHF-T-200, except specifications with the legend IHF-T-100.

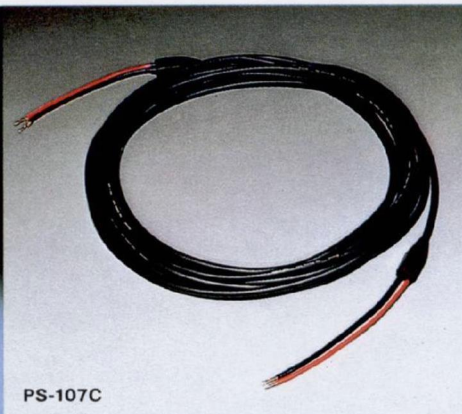
•For European models, some specifications might change to comply with local safety regulations and standards.

•Design and specifications subject to change without notice for improvements.

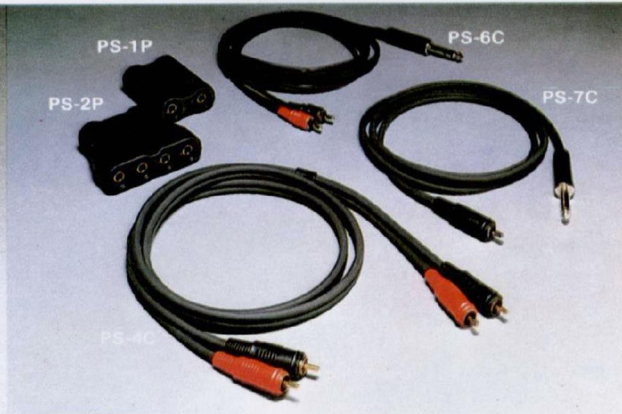
•Digitally Quartz-Locked System: U.S. Pat. No. 3991382.



FA-7 Compatible FM/AM Antenna System



PS-107C/112C Wide-Range Triaxial Speaker Cables



PS-4C/5C Hi-Fi Pin Cords

PS-6C/7C Stereo/Mono Phone Plug Cords

PS-1P/2P Extension Plug Adaptors



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