

G-6700

Sansui Pure Power DC FM/AM Stereo Receiver with Exclusive Digitally Quartz-Locked Tuning System, 90 Watts/Ch, 20 to 20kHz, at 8 ohms, 0.025% THD.

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



QUARTZ

SIGNAL ■■■■■■

TUNE ■ ● ■

FM

98.5 MHz

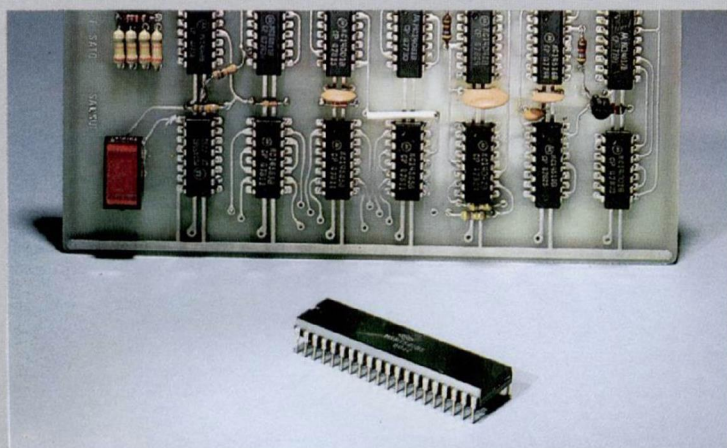
Stations CANNOT go adrift with Sansui's patented Digitally Quartz-Locked Tuning System.

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 signal 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.

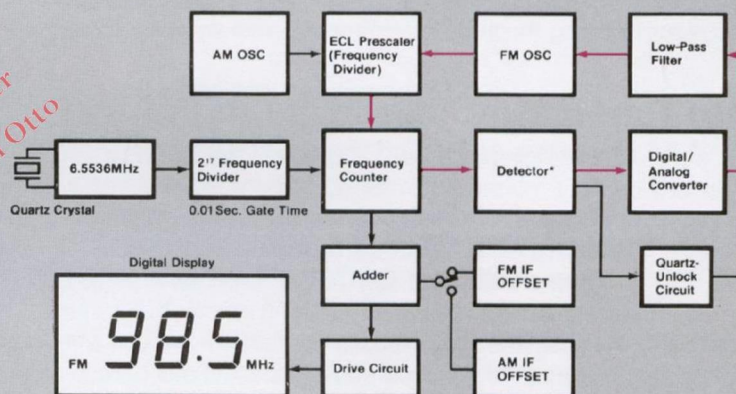
Another Sansui-exclusive innovation sets our locking system apart from others. And makes the G-6700 a whole lot

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 off-on 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 off-on 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



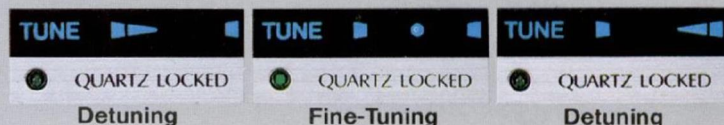
*The detector drops hundredths (.0x) of 5 or below and rounds off hundredths of 6 or above to the next tenth.

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.



The Sansui G-6700: Faithful hi-fi reproduction and drift-free tuning in this Pure Power DC Receiver

Shopping for a receiver is not as simple as it once was. Because receivers are not as simple. Today, a good receiver will outperform separate amp/tuner components—if you make the right choice. A good receiver today will also *last longer* than separate amp/tuner components, offer *wider* versatility, cleaner sound and greater tuning accuracy *and* cost less in the long run—if it's a Sansui.

First, you should look (and listen, too) for a *strictly* hi-fi tuning section. In the Sansui G-6700 receiver we have achieved drift-free accuracy with our patented Digitally Quartz-Locked Tuning System. It uses a quartz/digital processor team to instantly catch and correct any error. FM stations *cannot* drift out of tune. Back-up circuitry then takes the perfectly-tuned signal out of tune. Back-up circuitry then takes the perfectly-tuned signal and treats it as a strictly high fidelity sound source for your listening pleasure.

Look (and listen), then, for pure power amplification. In the Sansui G-6700 it's achieved with our Pure Power DC amp—so good at fighting TIM and other kinds of distortion that we've applied for a patent on its elaborate circuitry. Power delivery is a huge 90 watts per channel, min. RMS, both channels driven into 8 ohms, from 20 to 20,000Hz, with no more than 0.025% total harmonic distortion.

For more power, your choice would be one of our larger G-Series receiver models. They feature the same DC amp circuitry (and the same FM advantages). But whichever one you select, your choice is bound to be a DC receiver with the digital dial, from Sansui, where it's *all* hi-fi.

Pure Power DC Amplifier section effectively reproduces all musical sources with lower TIM and THD, higher Slew Rate and faster Rise Time.

DC

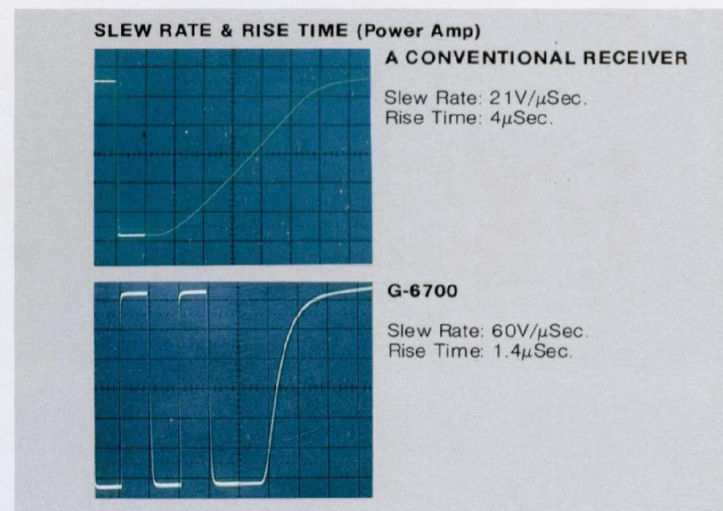
All four vital amp specs (TIM, THD, slew rate and rise time) are optimized for Pure Hi-Fi performance here.

If you've kept abreast of the state of the art in amp design, you know that THD or total harmonic distortion—a steady-state specification—is no longer the *only* important way of judging an amplifier's performance abilities. While you might still prefer the "ear test" as your final criterion of quality, you should also know about such things as rise time, slew rate and TIM—the factors which actually determine the transient quality you're listening for.

TIM, of course, is Transient Intermodulation distortion, particularly harmful to musical signals. Sansui's original DC amplifier technology in the G-6700's power amp section keeps TIM under control. That technology also improves the slew rate to a high 60V/ μ Sec. and the rise time to an excellent 1.4 μ Sec.—both very instrumental in helping the amp respond more quickly and more accurately to the *pulsive* musical waveforms fed to it.



This said, we can now point out that while Sansui DC improves transient response as you've just learned, steady-state excellence is not sacrificed at all. THD and frequency response, for instance, are super-low 0.025% and DC—200kHz, respectively in the G-6700—a level thought to be impossible to obtain only a few short years ago.

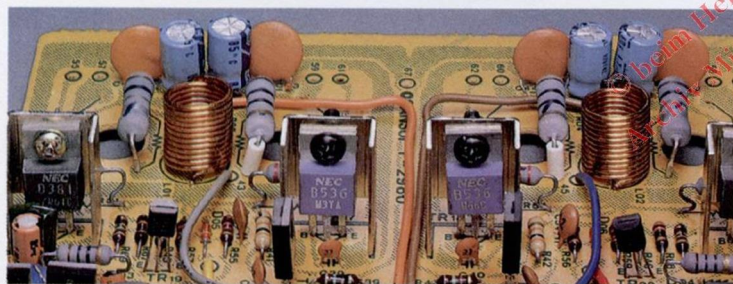


How? The answer is in special DC circuitry you can enjoy only in Sansui's best amps and receivers.

Keeping THD low while improving transient response is a feat only Sansui has mastered. You might find "DC" amps in other receivers, but only ours offer it in this refined way:

First, the input of the power amp in the G-6700 is of ICL (Input-Capacitor-Less) design with a Dual-FET differential. This is followed by a current-mirror loaded differential, a current-differential push-pull drive (Sansui pat. pend.), and, finally, a two-

With the Digital Dial.



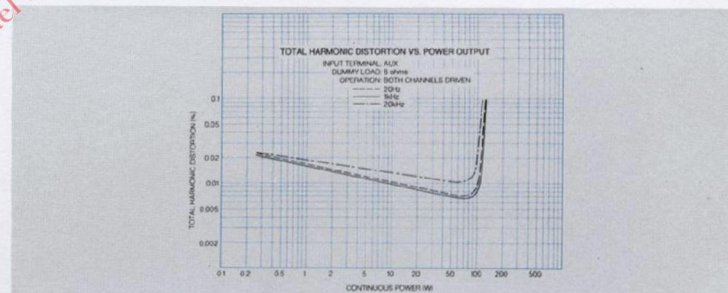
DC Power Circuit Board



stage Darlington-coupled OCL (Output-Capacitor-Less) output.

We put the emphasis on *pure* DC for only this kind of circuitry can reduce TIM, raise slew rate and speed up rise time. These are achieved in the current-differential push-pull drive we mentioned above.

Of further technical interest is the Dual-FET, two



FETs (Field-Effect Transistors) with carefully matched thermal characteristics and low-noise, high-gm performance. Together they form a very stable input stage. Then there are the output transistors themselves, mounted on extra-wide heat sinks for better heat dissipation. Since they feature extra-high linearity, the power amplifier in the G-6700 may be driven at its full rated power output of 90 watts per channel without the slightest worry about distortion or danger.

LED

Peak Power Level Display: 15 LEDs (Light-Emitting Diodes) flash instant-by-instant output from 0.006 to 100 watts.

For power output indication on the G-6700 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 above the rated 90 watts—fun to watch, and useful, too, as it helps you better control the signals you are sending to your speaker systems.

This receiver's power supply is a dramatic improvement over conventional types.

A huge, well-regulated power transformer with a pair of high-quality, low-impedance capacitors forms the power supply. Stereo sound images retain amazingly high resolution, and there's plentiful power in reserve for those massive peaks in your music, at any frequency and in either or both channels, always.

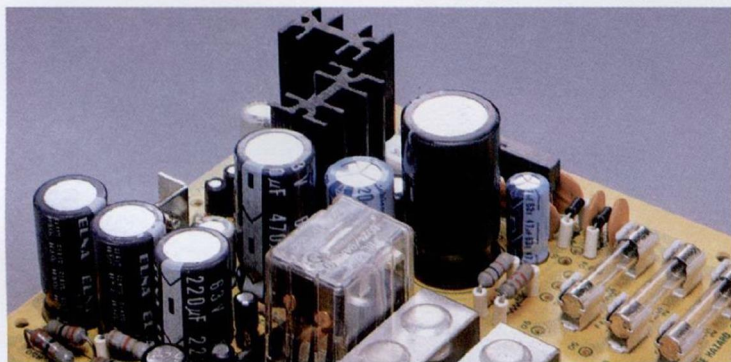
"SAFE" INDICATOR—Your assurance of full protection in the case of power-related mishaps.

You'll note that the front panel of the G-6700 has a little green indicator with the word "Safe." This means that when the indicator is lighted, the circuits inside the power amp are stabilized and the receiver is ready to use.

If the light goes out, the built-in dual-function protector circuit built around a reliable IC has been triggered:

(1) DC detection protector circuit: The moment a DC current exceeding a prescribed value appears in the output, this circuit instantly opens the output circuit by a relay to 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 and prevents the overcurrent from flowing to your speaker systems. Additionally, the protection team eliminates power-on pop noise.



High-precision phono equalizer with advanced differential input achieves high 210mV overload.

What goes in...And what it goes into is equally important. Here the input is an advanced and highly stable differential stage, followed by a two-stage Darlington-connected class-A amplifier. Records are reproduced with flat frequency

response, natural transients and no added distortion.

Specifications? Also superb. Selected, precision components help keep RIAA deviation within $\pm 0.2\text{dB}$ across the 30 to 15kHz range. Phono overload is a high 210mV. Hum/noise ratio is 78dB. All in all, the fine-grained musical texture and sharp sound-image location are maintained at the output. What goes in...comes out clean.

BASS/TREBLE tone controls have a defeat switch.

When tonal adjustments are called for to help you achieve a flat response in your particular listening room, or to suit a particular program source, the G-6700 offers NF-type BASS/TREBLE controls with broad control range, sharp control curves and minimum distortion.

The tone control circuit itself is built around a differential input with four low-noise transistors. But this circuit is put off line when you use the DEFEAT switch; in fact, bypassing (via a resistor) the tone controls is the *normal* operational mode of this high quality hi-fi component, as you can tell from the design of the front panel switch.

Hear any source while dubbing tapes.

The G-6700 is perhaps more versatile, even, than some expensive preamps. For we've equipped it with a trio of knobs offering a number of combinations and applications. They are the "SOURCE/MONITOR," "TAPE MONITOR 1" and "TAPE MONITOR 2" switches.

You can hear a program source through your speaker systems while dubbing from Deck 1 to 2. Dubbing may be done also from Deck 3 (a deck connected through the TAPE/AUX terminals for playback only) to either Tape 1 or 2 (or both).



Mic Mixing lets you take an active part in hi-fi creativity.

A separate microphone level control is provided next to the mic input jack to help you balance live sounds (such as your own voice) with any other source coming from the speaker systems. (Recording of mixed sound is not possible under normal operation).

Subsonic sounds from warped records, high-frequency "hiss" from tapes—eliminate either without harm to your music.

Extremely useful to you if you own a large record collection is the Subsonic Filter on the G-6700. It cuts low-

frequency content (below 16Hz on a 6dB/oct. slope) as caused by warped records and thus prevents possible speaker cone damage. Also useful, especially if your records are old and scratched, or if you play tapes that have no noise reduction processing, is the High Filter (10kHz, 6dB/oct.). Neither filter should harm musical content.

And we haven't forgotten...

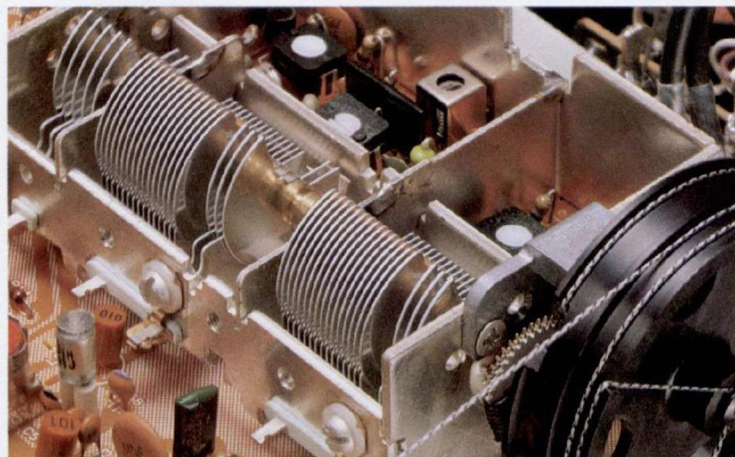
- **Large Volume/Tuning Controls**—The two largest controls on the front panel of the Sansui G-6700 are (right) the tuning knob for FM/AM and (left) the master volume control, the latter featuring 41 clicks for smooth and precise control of output.
- **Audio Muting**—This instantly reduces sound volume 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.
- **Two Phono Inputs**—Selectable for playing two stereo turntables.
- **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-6700.

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.

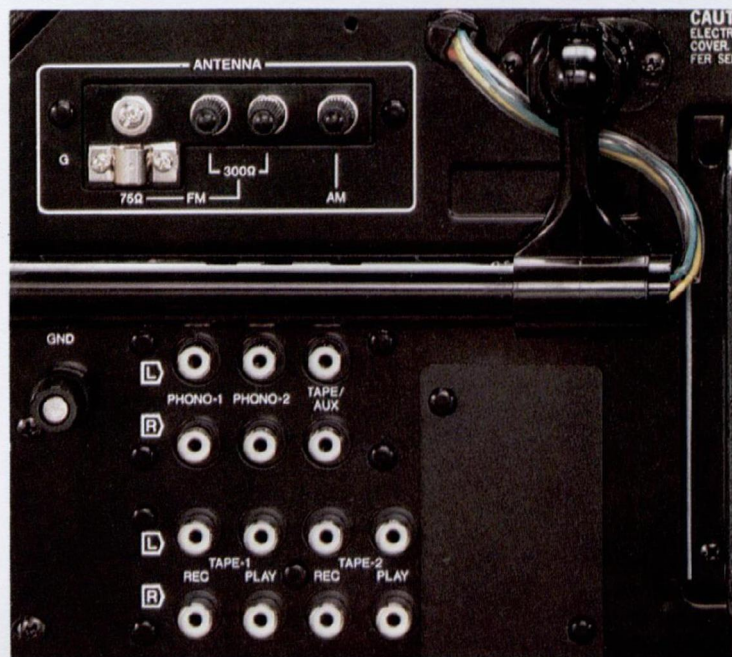
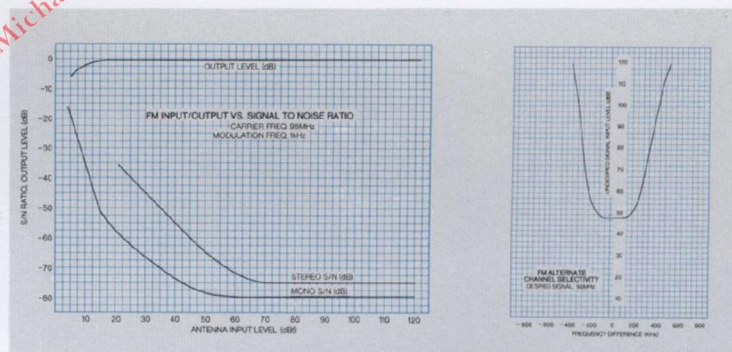
There is a frequency-linear 3-ganged tuning capacitor and a Dual-Gate MOS FET to minimize interference and provide better reception of all stations, weak or strong, stripping off all unwanted distortion and noise. The 3-stage limiter amp is in IC form while the ceramic filter is a 4-element linear-phase 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.



Specifications

AUDIO SECTION

POWER OUTPUT*

Min. RMS, both channels driven, from 20Hz to 20,000Hz, with no more than 0.025% total harmonic distortion

90 watts per channel into 8 ohms

Min. RMS, both channels driven, at 1,000Hz, with no more than 0.025% total harmonic distortion

98 watts per channel into 8 ohms

TOTAL HARMONIC DISTORTION*

OVERALL (from AUX) less than 0.025% at or below rated min.

RMS power output

OVERALL (from AUX) less than 0.008% at 1kHz, 90W 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

80 into 8 ohms at 50Hz,

50 into 8 ohms from 20 to 20kHz

DAMPING FACTOR

LOAD IMPEDANCE*

SLEW RATE

60V/ μ Sec.

RISE TIME

1.4 μ Sec.

FREQUENCY RESPONSE (at 1 watt)

POWER AMP SECTION DC to 200,000Hz +0dB, -3dB

OVERALL (from AUX) 5 to 75,000Hz +0.2dB, -2dB

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

FILTERS

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

HIGH -10dB at 10kHz (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) 1.2 μ V

STEREO 18dBf (4.36 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, -1dB

30 to 15,000Hz +0.5dB, -1dB

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

CAPTURE RATIO

ALTERNATE CHANNEL SELECTIVITY

50dB at 400kHz

SPURIOUS RESPONSE RATIO

70dB at 98MHz

50dB at 98MHz

IMAGE RESPONSE RATIO

IF RESPONSE RATIO

Balanced

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

46dB at 1,000kHz

38dB at 1,000kHz

GENERAL

AC OUTLETS

switched max. 100 watts

unswitched total 150 watts

90 Transistors; 52 Diodes;

5 FETs; 12 ICs; 18 LEDs

SEMICONDUCTORS

POWER REQUIREMENTS

POWER VOLTAGE

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

POWER CONSUMPTION

330 watts

DIMENSIONS

505mm (19 $\frac{1}{16}$ ") W

182mm (7 $\frac{1}{8}$ ") H

422mm (16 $\frac{5}{8}$ ") D

16.1kg (35.5 lbs.) Net

18.4kg (40.6 lbs.) Packed

simulated rosewood grain

WEIGHT

FINISH

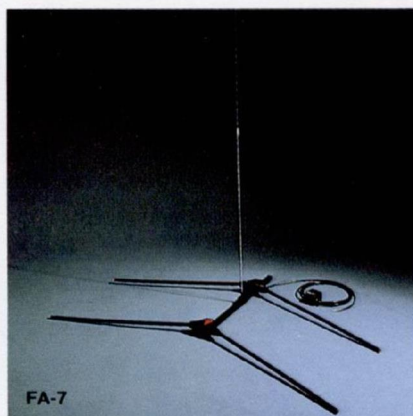
*Power specifications measured pursuant to U.S. Federal Trade Commission trade regulations on power output claims for amplifiers.

•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.

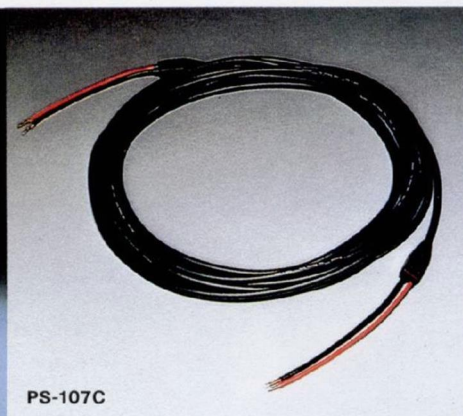
•For European models, some specifications might change to comply with local safety regulations and standards.

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

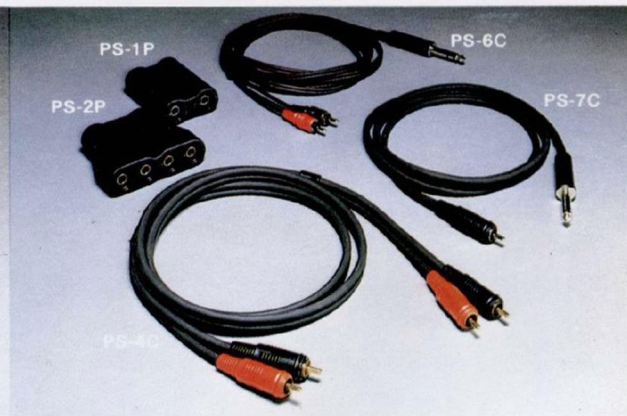
•Digitally Quartz-Locked System: U.S. Pat. No. 3991382.



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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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



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The Sansui G-6700: Faithful hi-fi reproduction and drift-free tuning in this Pure Power DC Receiver w

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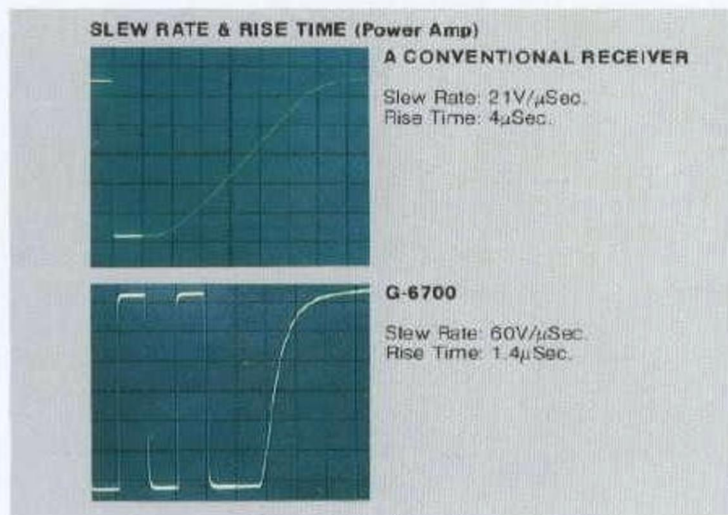
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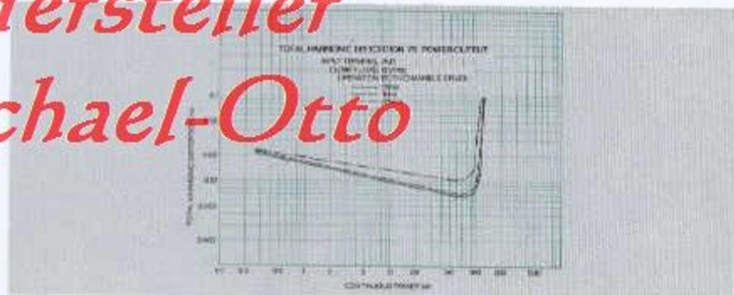
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*© beim Hersteller
Archiv Michael-Otto*



DC Power Circuit Board



FETs (Field-Effect Transistors) with carefully matched thermal characteristics and low-noise, high-gm performance. Together they form a very stable input stage. Then there are the output transistors themselves, mounted on extra-wide heat sinks for better heat dissipation. Since they feature extra-high linearity, the power amplifier in the G-6700 may be driven at its full rated power output of 90 watts per channel without the slightest worry about distortion or danger.



stage Darlington-coupled OCL (Output-Capacitor-Less) output.

We put the emphasis on *pure DC* for only this kind of circuitry can reduce TIM, raise slew rate and speed up rise time. These are achieved in the current-differential push-pull drive we mentioned above.

Of further technical interest is the Dual-FET, two

chosen a newly-designed Peak Power Level Display. Why?

LED

Peak Power Level Display: 15 LEDs (Light-Emitting Diodes) flash instant-by-instant output from 0.006 to 100 watts.



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 above the rated 90 watts—fun to watch, and useful, too, as it helps you better control the signals you are sending to your speaker systems.

This receiver's power supply is a dramatic improvement over conventional types.

A huge, well-regulated power transformer with a pair of high-quality, low-impedance capacitors forms the power supply. Stereo sound images retain amazingly high resolution, and there's plentiful power in reserve for those massive peaks in your music, at any frequency and in either or both channels, always.

"SAFE" INDICATOR—Your assurance of full protection in the case of power-related mishaps.

You'll note that the front panel of the G-6700 has a little green indicator with the word "Safe." This means that when the indicator is lighted, the circuits inside the power amp are stabilized and the receiver is ready to use.

If the light goes out, the built-in dual-function protector circuit built around a reliable IC has been triggered.

(1) DC detection protector circuit: The moment a DC current exceeding a prescribed value appears in the output, this circuit instantly opens the output circuit by a relay to 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 and prevents the overcurrent from flowing to your speaker systems. Additionally, the protection team eliminates power-on pop noise.



High-precision phono equalizer with advanced differential input achieves high 210mV overload.

What goes in...And what it goes into is equally important. Here the input is an advanced and highly stable differential stage, followed by a two-stage Darlington-connected class-A amplifier. Records are reproduced with flat frequency

response, natural transients and no added distortion.

Specifications? Also superb. Selected, precision components help keep RIAA deviation within $\pm 0.2\text{dB}$ across the 30 to 15kHz range. Phono overload is a high 210mV. Hum/noise ratio is 78dB. All in all, the fine-grained musical texture and sharp sound-image location are maintained at the output. What goes in...comes out clean.

BASS/TREBLE tone controls have a defeat switch.

When tonal adjustments are called for to help you achieve a flat response in your particular listening room, or to suit a particular program source, the G-6700 offers NF-type BASS/TREBLE controls with broad control range, sharp control curves and minimum distortion.

The tone control circuit itself is built around a differential input with four low-noise transistors. But this circuit is put off line when you use the DEFEAT switch; in fact, bypassing (via a resistor) the tone controls is the *normal* operational mode of this high quality hi-fi component, as you can tell from the design of the front panel switch.

Hear any source while dubbing tapes.

The G-6700 is perhaps more versatile, even, than some expensive preamps. For we've equipped it with a trio of knobs offering a number of combinations and applications. They are the "SOURCE MONITOR," "TAPE MONITOR 1" and "TAPE MONITOR 2" switches.

You can hear a program source through your speaker systems while dubbing from Deck 1 to 2. Dubbing may be done also from Deck 3 (a deck connected through the TAPE/AUX terminals for playback only) to either Tape 1 or 2 (or both).



Mic Mixing lets you take an active part in hi-fi creativity.

A separate microphone level control is provided next to the mic input jack to help you balance live sounds (such as your own voice) with any other source coming from the speaker systems. (Recording of mixed sound is not possible under normal operation).

Subsonic sounds from warped records, high-frequency "hiss" from tapes—eliminate either without harm to your music.

Extremely useful to you if you own a large record collection is the Subsonic Filter on the G-6700. It cuts low-

frequency content (below 16Hz on a 6dB/oct. slope) as caused by warped records and thus prevents possible speaker cone damage. Also useful, especially if your records are old and scratched, or if you play tapes that have no noise reduction processing, is the High Filter (10kHz, 6dB/oct.). Neither filter should harm musical content.

And we haven't forgotten...

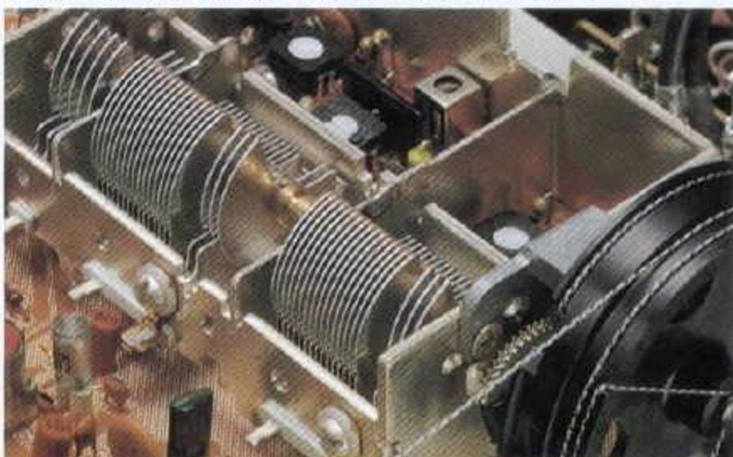
- **Large Volume/Tuning Controls**—The two largest controls on the front panel of the Sansui G-6700 are (right) the tuning knob for FM/AM and (left) the master volume control, the latter featuring 41 clicks for smooth and precise control of output.
- **Audio Muting**—This instantly reduces sound volume 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.
- **Two Phono Inputs**—Selectable for playing two stereo turntables.
- **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-6700.

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 25μSec. de-emphasis circuit on the line for an FM Dolby adaptor.



QUARTZ

SIGNAL ■■■■■■

TUNE ■ ● ■

FM

98.5 MHz

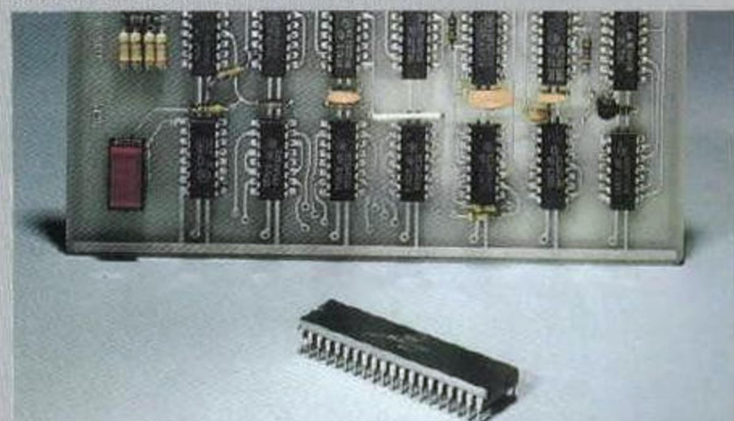
Stations CANNOT go adrift with Sansui's patented Digitally Quartz-Locked Tuning System.

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 signal 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.

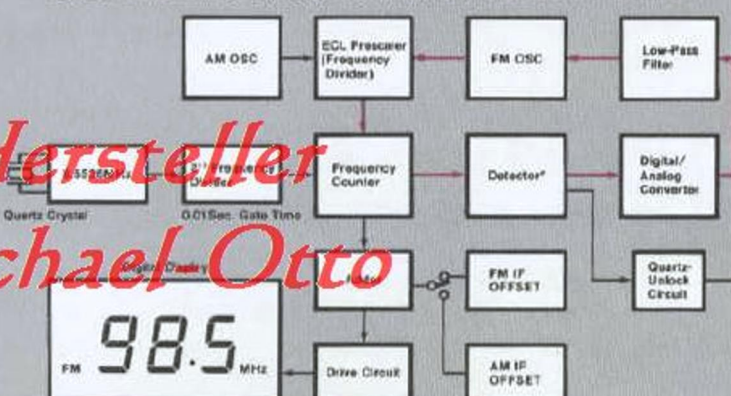
Another Sansui-exclusive innovation sets our locking system apart from others. And makes the G-6700 a whole lot

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 off-on 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 off-on 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



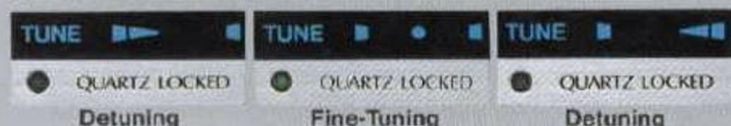
*The detector drops hundredths (.0x) of 5 or below and rounds off hundredths of 6 or above to the next tenth.

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 0.025% total harmonic distortion

90 watts per channel into 8 ohms

Min. RMS, both channels driven, at 1,000Hz, with no more than 0.025% total harmonic distortion

98 watts per channel into 8 ohms

TOTAL HARMONIC DISTORTION*

OVERALL (from AUX) less than 0.025% at or below rated min. RMS power output

OVERALL (from AUX) less than 0.008% at 1kHz, 90W 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, -3dB

OVERALL (from AUX) 5 to 75,000Hz +0.2dB, -2dB

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

FILTERS

SUBSONIC

-3dB at 19Hz (10dB/oct)

HIGH

-10dB at 10kHz (6dB/oct)

MUTING (Audio)

-20dB

FM SECTION

TUNING RANGE

88 to 108MHz

50dB QUIETING SENSITIVITY

MONO

15dBf (3.16µV 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 (4.36µV IHF T-100)

SIGNAL TO NOISE RATIO AT 65dBf

MONO

75dB

STEREO

70dB

FREQUENCY RESPONSE

MONO

30 to 15,000Hz +0.5dB, -1dB

STEREO

30 to 15,000Hz +0.5dB, -1dB

DISTORTION AT 65dBf

MONO

less than 0.13% at 100Hz

less than 0.1% at 1,000Hz

less than 0.25% at 6,000Hz

STEREO

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

IMAGE RESPONSE RATIO

IF RESPONSE RATIO

Balanced

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

38dB at 1,000kHz

GENERAL

AC OUTLETS

switched max. 100 watts

unswitched total 150 watts

90 Transistors, 52 Diodes,

5 FETs, 12 ICs, 18 LEDs

SEMICONDUCTORS

POWER REQUIREMENTS

POWER VOLTAGE

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

POWER CONSUMPTION

330 watts

DIMENSIONS

505mm (19 7/8") W

182mm (7 1/8") H

422mm (16 5/8") D

WEIGHT

FINISH

16.1kg (35.5 lbs.) Net

18.4kg (40.6 lbs.) Packed

simulated rosewood grain

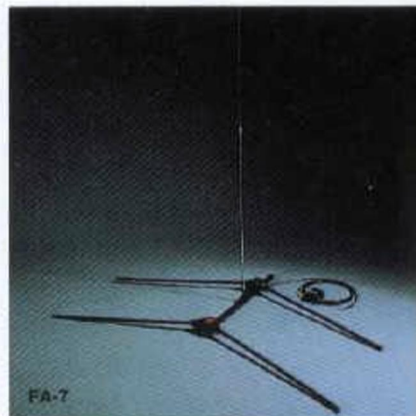
*Power specifications measured pursuant to U.S. Federal Trade Commission trade regulations on power output claims for amplifiers.

•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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