

# A-80|T-80

Sansui Integrated DC-Servo Stereo Amplifier with Pre-Preamp for MC Cartridges and FM/AM Stereo Tuner with Exclusive Digitally Quartz-Locked Tuning/Display.



Only hi-fi, everything hi-fi.





# The Sansui A-80: Few Amplifiers Can Equal Its Fidelity.

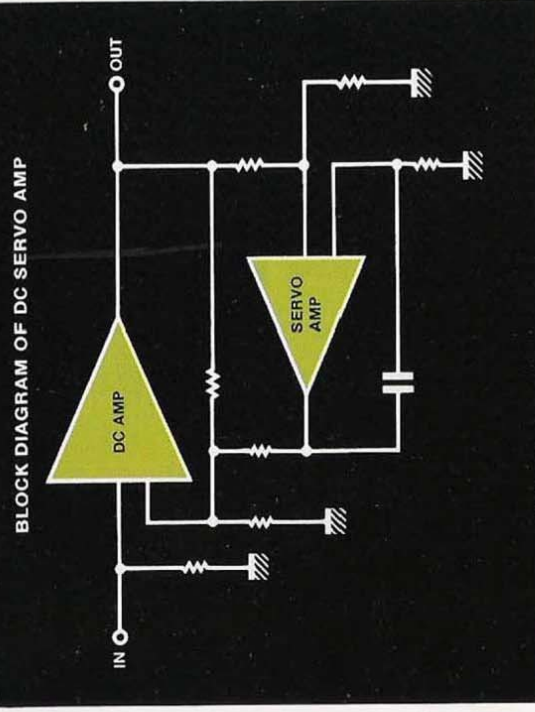
**This "DC-Servo" amplifier has very low THD, wide frequency response and—best of all—very rich musical sound.**

**Yes, this integrated amplifier has a DC-Servo power amp: Cleaner sound is assured.**

In the A-80 "DC-Servo" means sound that's pure as pure can be these days. All stages inside the power amplifier are direct coupled. All capacitors in the signal path are eliminated. We've added nothing, thus lost nothing. There are no capacitors used that can add harmful coloration to music.

No wonder sound is exceptionally clean in the A-80. The DC-Servo controls ultra-low-frequency signals (all those below 1Hz) so that they can't reach your speakers. Which means you can, if you have to, play warped records and still hear good sound.

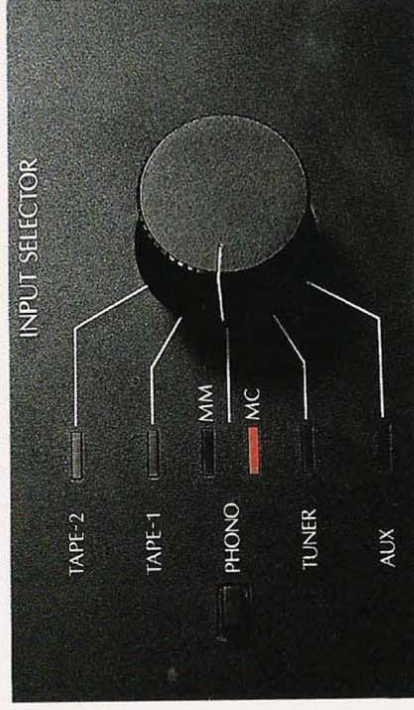
Power output is a comfortable 65 watts per channel, min. RMS, both channels driven into 8 ohms, from 20 to 20,000Hz, with no more than 0.05% total harmonic distortion. All this from an OCL (Output Capacitorless) true complementary circuit with a DC-Servo system, built around a dependable op-amp (operational-amp) IC, for good, clean, dependable performance.



## MC, MM or IM?

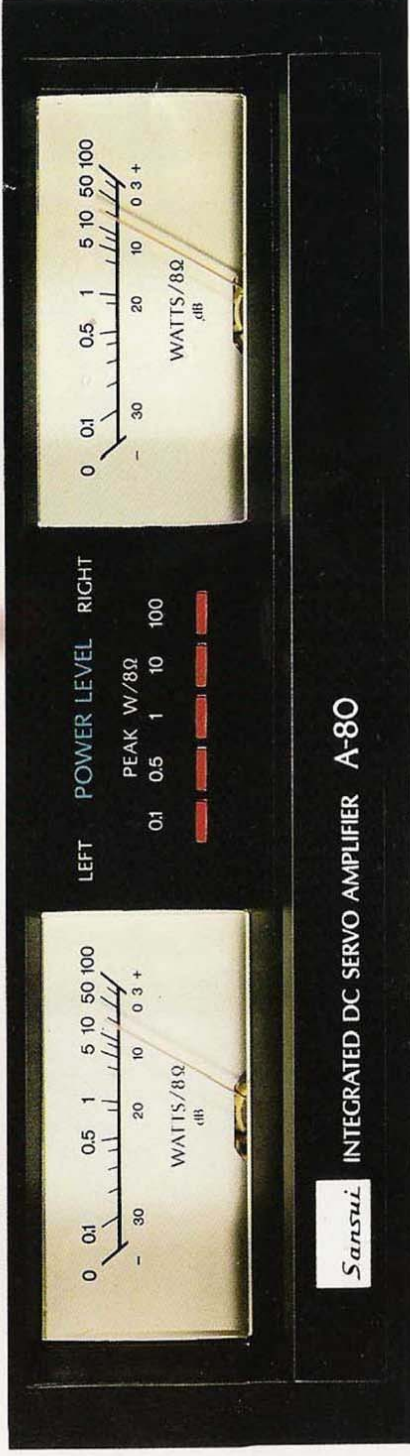
**You might have a favorite type of phono cartridge. Whatever it is, you can play it through the A-80.**

Some people say that the sound quality achieved through an MC or Moving Coil phono cartridge is more transient, "crisper" than from MM (Moving Magnet) or IM (Induced Magnet) types. Sansui is taking no sides in the issue, but we do make it easier to use all types of phono cartridges in the A-80. For example, we include a phono equalizer of exceptionally good performance capabilities. RIAA equalization, noise and distortion factors are tops. And if you prefer your MC cartridge, you needn't buy an expensive, bulky "step-up transformer" for it. Just hook up your MC to the built-in "pre-amp." It automatically matches impedance. It provides high dynamic range because it uses low-noise J-FET input and true complementary SEPP output circuitry in the ICL (Input Capacitor-less) design.



## Power! Power! Power! And heavy-duty Power Meters and LED Peak-Power Display to help you control it.

Do you know how much power you should feed to your speaker systems? If you do (and you should) you also know that too much power can cause distortion, while too little can allow noise to increase. The pair of large, heavy-duty power meters on the A-80 help you control the output of the power amplifier so that your speakers always operate at optimum levels. The Peak Power Display (using five LED or Light-Emitting Diode indicators) reads the momentary peaks which the meters themselves (registering 0.1 watts to 100 watts) might miss.







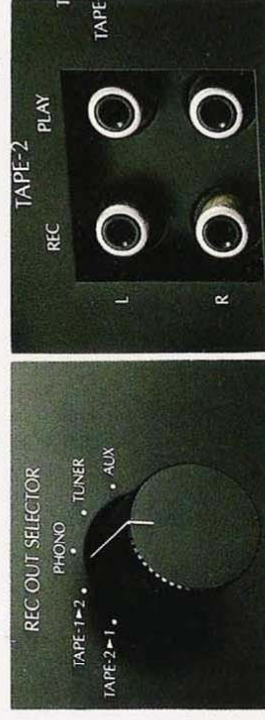
### Variable loudness. It compensates for your ear's insensitivity to highs and lows.

As the level of sound from your speakers is lowered, your ear hears less of certain frequencies: highs and lows. This leads to audibly unnatural response, which a loudness control is supposed to rectify. But the control on the A-80 is even better because you can adjust the amount of boost given to highs and lows, depending on the acoustic conditions of your room, on the particular sensitivity of your own ears, and on your personal taste in sound and music.

### Tape versatility?

#### As much as you can imagine.

You can connect and control up to two stereo tape decks through terminals and front-panel switches on the A-80. Then record from any source selected by the RECORD OUT SELECTOR while you listen to it or *any other* through the



INPUT SELECTOR. Naturally, you may easily dub a tape from one deck to the other without changing connections. TAPE-2 terminals are on the front as well as on the rear panel.

### And we haven't forgotten...

- **TONE CONTROLS**—Just boost (or cut) the BASS or TREBLE controls to emphasize (or deemphasize) the low and high frequencies to suit your taste or the acoustics of your room.
- **HIGH FILTER**—Musical content will not be harmed when you use this button to eliminate annoying "hiss" from tapes or scratch/whine noise from records/broadcasts.
- **SUBSONIC FILTER**—The DC-Servo amp cuts the potentially harmful ultra-low-frequency content, but you might want to use this button when "rumble" is present in your program source.
- **SPEAKERS**—Connect and drive up to two stereo pairs of speaker systems (A, B, A+B or OFF for headphone).
- **AUDIO MUTING**—Instantly reduces output level to 1/10 of original without disturbing setting on Master Volume Control.
- **LED INDICATORS**—Bright-glowing LEDs for PHONO, TUNER, TAPE 1, 2, AUX.
- **ONE-TOUCH SPEAKER TAPS**—Twist-to-connect terminals for speaker leads are safe and easy to use. Color coded for polarities.
- **BALANCE CONTROL**—Left/Right Channel balancer.
- **TWO AC OUTLETS**—One is "switched."
- **SANSUI'S SMART DESIGN**—Slotted cabinet sides facilitate mounting in our smart, convenient custom-made cabinets.



# The Sansui T-80: Few Tuners Can Match Its Accuracy.

**Another new component for strictly hi-fi FM/AM tonality and—we promise—very accurate reception.**

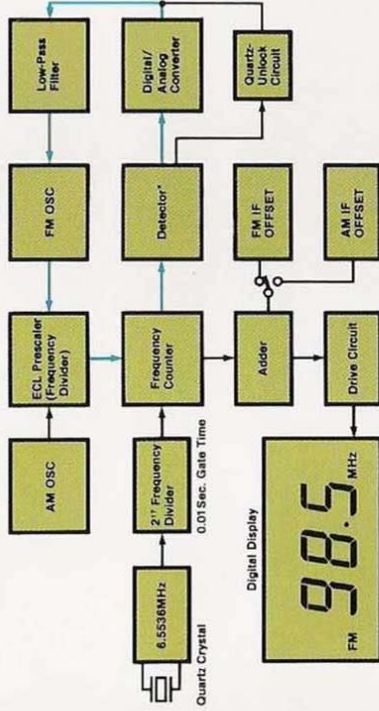
**Yes, this FM/AM stereo tuner CANNOT drift out of tune! FM has our patented Digitally Quartz-Locked System.**

Once you tune and lock the FM station you want on this simple to use system, NOTHING can cause it to drift. No changes in voltage or fluctuations in frequency of your AC power supply, no sudden changes in temperature or humidity inside the tuner or in the environment. Nothing. And here's why:

The Sansui-patented system in the FM tuning section uses a digital control for its quartz-lock function. A reference (time base) signal from the quartz crystal is used to count frequency from the local oscillator (the device that does the actual tuning). If there are too many or too few digital "bits" to the count, the difference is converted to a correctional voltage, the local oscillator is "told" to go back on station, and your station is locked in until you move the tuning knob. (If you turn the tuner off, a "Re-Lock" memory makes sure the station comes back fully locked when you turn it on again—even if you use a preset timer clock for recording while you are away.)

The big Sansui advantage is that ours is a digital system. Others use an analog phase comparator with quartz. But it can create radio-frequency signals which leak out, mix with the broadcast frequency you want, and cause degradation in tonal quality. Our digital doesn't.

**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.

**And a DIGITAL dial! Selecting your FM/AM station is easier than making a telephone call.**

Because the digital circuitry in the Sansui T-80 can be put to many uses at once, some of the same precision elements in the drift-free tuning system double to provide a DIGITAL frequency readout on the front panel, in addition to the conventional dial. It works for FM and AM alike. You just turn the tuning knob until the frequency of the station you want shows up. Rough tuning of FM will generally be enough to lock that

station. The only thing simpler would be a tuner that could read your mind. And we're working on that.

**Do you still tune "by ear"? You don't have to with these very accurate SIGNAL and TUNE indicators.**

All but the very most advanced needle-type tuning meters tend to "fool" you with false signal readings. This tuner has electronic meters instead. You can trust your eyes (and not have to rely on your ears) to help you pinpoint your FM/AM station at its strongest SIGNAL on the scale of eight fluorescent dots; for FM center-of-channel tuning you fine-tune until the arrowhead indicators go dark and the center dot lights on the TUNE meter.



**Backup circuitry lives up to state-of-art standards—and then some!**

With such an accurate tuning system, we couldn't let you down by using inferior backup circuitry. So we have employed a precision 3-gang tuning capacitor in the FM frontend of the T-80. It also has high stability when handling local stations of strong intensity. Following it is a high-technology quadrature detector for good tonal quality, and a PLL MPX or FM stereo demodulator (in IC) to deliver wide stereo separation and still better sound.

Even the AM fidelity is improved. A better AM oscillator, a precision-designed variable capacitor and a tuning circuit which has almost no tracking error are among the high-quality features providing wider-range, less noisy, less distorted AM performance. Still other FM/AM features include:

- NOISE CANCELLER—Use it when FM signals are too weak.
- FM MODE/MUTING—You select the mono mode and put the muting circuit off line to pull in distant FM stations in mono.
- FM/AM SELECTOR and LED INDICATORS—Special care has been taken to design the circuitry to eliminate noise when switching between FM and AM. The LEDs include one for FM STEREO.



● SANSUI'S SMART DESIGN—As on the high-fidelity A-80 Integrated DC Servo Stereo Amplifier, slots are provided in the cabinet sides to facilitate mounting in a custom-made Sansui Audio Cabinet. See your Sansui dealer for details.



# Sensible Stereo Separates — Sansui

If you are looking for a match—a stereo match—look no farther. These two top-quality Sansui *separate* hi-fi components will light up your life with very faithful musical reproduction quality, easy-to-use features and very dependable circuitry. We think the design concept in the A-80/T-80 is sensible: good performance, reasonable cost. This is why we call these Components the “sensible separates.” From Sansui, where it’s *all* hi-fi.

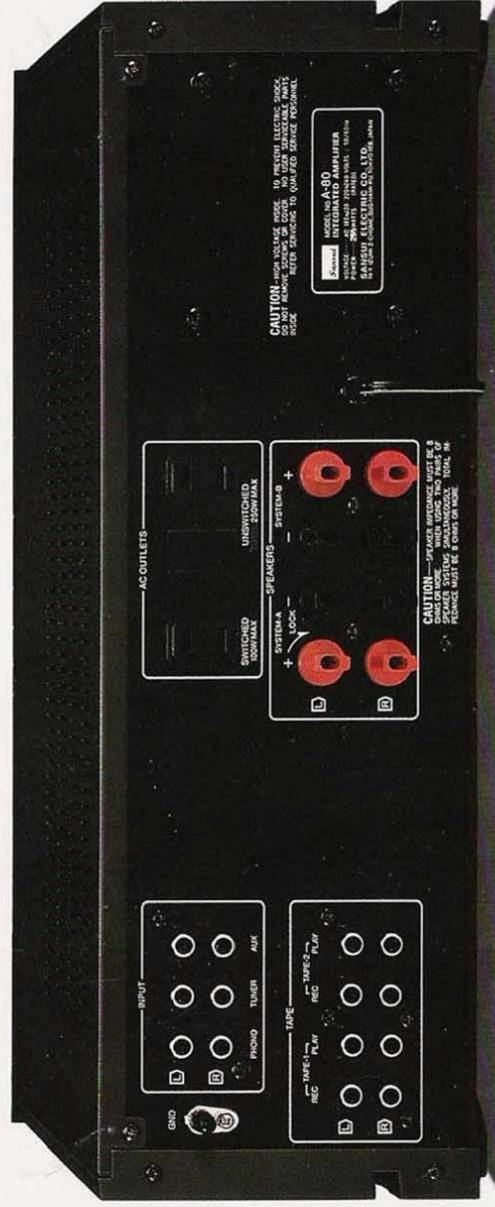
## The “Sensible Separates” in Sansui System Combinations

The A-80 is an integrated stereo amplifier with a

DC-Servo power section and a built-in phono “pre-amplifier” for high-quality MC (Moving Coil) phono cartridges. The T-80 matches the high performance standards of the amplifier by providing *drift-free* FM tuning accuracy through its Sansui-patented Digitally Quartz-Locked Tuning System. It has top-class circuitry for strictly hi-fi sound quality, and a convenient analog and digital dial system for FM/AM selection. Both new Sansui “sensible separates” are designed for use with our other fine components, and are pictured here installed with them in Sansui audio cabinets for safety, convenience and good looks.







## Specifications

### A-80

#### POWER OUTPUT

MUSIC POWER (IHF)  
DIN POWER  
CONTINUOUS RMS POWER

100 watts per channel into 8 ohms at 1,000Hz  
75 watts per channel into 8 ohms at 1,000Hz  
72 watts per channel into 8 ohms at 1,000Hz  
with no more than 0.05% total harmonic  
distortion

65 watts per channel, min. RMS, both channels  
driven, into 8 ohms from 20 to 20,000Hz, with  
no more than 0.05% total harmonic distortion  
8 ohms

#### LOAD IMPEDANCE

#### TOTAL HARMONIC DISTORTION

OVERALL (from AUX)  
OVERALL (from AUX)

less than 0.03% at 1kHz, 70W power output  
less than 0.05% at or below rated min. RMS  
power output

#### INTERMODULATION DISTORTION

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

less than 0.05% at or below rated min. RMS  
power output

#### DAMPING FACTOR

#### FREQUENCY RESPONSE

OVERALL (from AUX)

5 to 70,000Hz +0.5dB, -2dB

#### RIAA CURVE DEVIATION

(30 to 15,000Hz) +0.6dB, -0.6dB

#### INPUT SENSITIVITY AND IMPEDANCE

PHONO (MM)

(MC)

AUX, TAPE, TUNER

MAXIMUM INPUT CAPABILITY

PHONO (MM)

(MC)

AUX

OUTPUT VOLTAGE AND IMPEDANCE

TAPE REC (PIN)

HUM AND NOISE (IHF)

PHONO (MM)

(MC)

AUX

CHANNEL SEPARATION

PHONO

AUX

CONTROLS

BASS

TREBLE

LOUDNESS (volume control at -30dB position)

SUBSONIC FILTER

HIGH FILTER

AC OUTLETS

#### POWER REQUIREMENTS

POWER VOLTAGE

POWER CONSUMPTION

SEMICONDUCTORS

#### DIMENSIONS

#### WEIGHT

### T-80

#### FM SECTION

TUNING RANGE

50dB QUIETING SENSITIVITY

MONO

STEREO

SENSITIVITY

MONO (IHF)

STEREO (DIN)

SIGNAL TO NOISE RATIO

MONO

STEREO

FREQUENCY RESPONSE

MONO

STEREO

TOTAL HARMONIC DISTORTION

MONO

STEREO

CAPTURE RATIO

ALTERNATE CHANNEL SELECTIVITY

SPIRIOUS RESPONSE RATIO

IMAGE RESPONSE RATIO

IF RESPONSE RATIO

AM SUPPRESSION RATIO

STEREO SEPARATION

ANTENNA INPUT IMPEDANCE

OUTPUT VOLTAGE AND IMPEDANCE

AM SECTION

TUNING RANGE

SENSITIVITY (Bar antenna)

SIGNAL TO NOISE RATIO

GENERAL

AC OUTLETS

POWER REQUIREMENTS

POWER VOLTAGE

POWER CONSUMPTION

SEMICONDUCTORS

DIMENSIONS

WEIGHT

88 to 108MHz  
15dBf  
37dBf

10.8dBf (1.9µV IHF T-100)  
21dBf

72dB (at 65dBf)  
70dB (at 80dBf)  
68dB (at 65dBf)

30 to 15,000Hz +1dB, -2dB  
30 to 15,000Hz +1dB, -2dB

less than 0.2%  
less than 0.25%

1.0dB  
60dB at 400kHz

75dB at 98MHz  
50dB at 98MHz

85dB at 98MHz  
50dB at 98MHz

40dB at 1,000Hz  
300 ohms balanced

75 ohms unbalanced  
750mV/2.2k ohms

530 to 1,600kHz  
50dB/m (300µV/m)

45dB  
unswitched total 100 watts

110-120/220-240V 50/60Hz  
19 watts

31 Transistors; 34 Diodes; 3 FETs;  
9 ICs; 3 LEDs

430mm (16<sup>1</sup>/<sub>16</sub>"W)  
147mm (5<sup>1</sup>/<sub>16</sub>"H)  
251mm (9<sup>1</sup>/<sub>16</sub>"D)

4.8kg (10.6lbs.) Net  
5.8kg (12.8lbs.) Packed

#### DIMENSIONS

#### WEIGHT

- The FM performance of this model is measured pursuant to the new Institute of High Fidelity standard, IHF-T-200, except specifications with the legend IHF-T-100
- Design and specifications subject to change without notice for improvements.
- Digitally Quartz-Locked System: U.S. Pat. No. 3991382.



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