

# TU-317/217

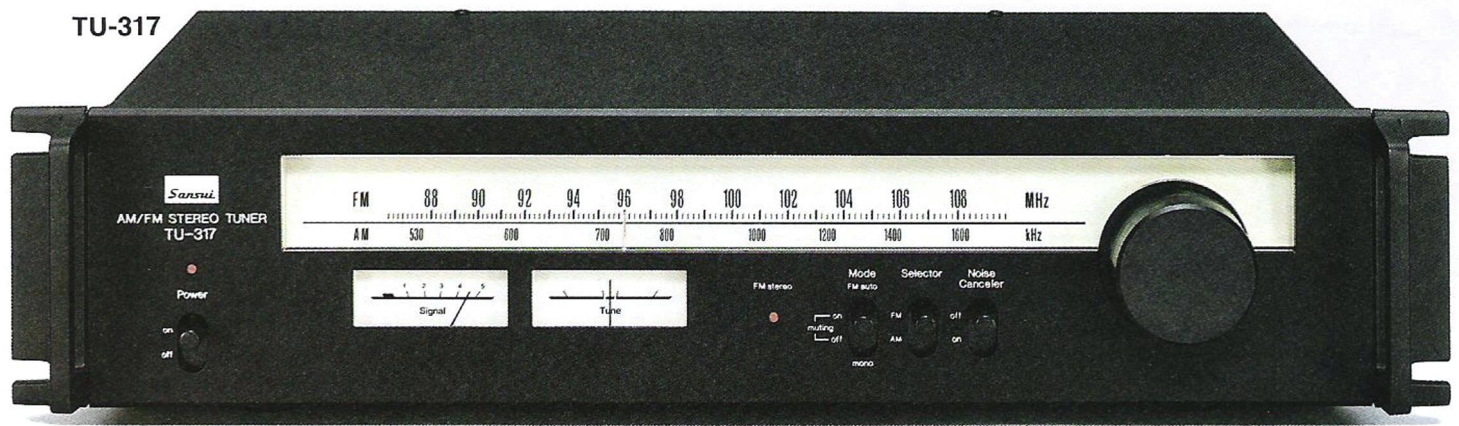
Sansui Stereo FM/AM Tuners with Twin Signal/Tune Meters & Strictly High-Fidelity Performance.



Only hi-fi, everything hi-fi.







# TU-317/217

## Strictly Hi-Fi Performance in FM and AM.

Sansui's tuner technology is tough to top. These two models complement our slim-line AU integrated stereo amplifiers for high fidelity connoisseurs. And they benefit from the same highly advanced engineering as found in our more expensive stereo tuners, yet offer their high performance at a much lower cost.

All this and *strictly* hi-fi specifications and musicality make them best-buy tuners for the music-minded stereo enthusiast.

Read on to learn more about these first-class tuners from Sansui, where it's *all* hi-fi.

### Frequency-Linear FM Frontend: High FM sensitivity is vital to pure musicality.

We took the extra care to build the TU-317/217 to perform to the highest state-of-the-art standards as high performance receivers *and* as high fidelity instruments.

Using a high-performance Junction-FET radio frequency amplifier, coupled with a precision 3-gang frequency-linear tuning capacitor, the FM frontend section (identical in both models) offers impressively high FM sensitivity: signals as faint as 10.3dBf (TU-317) or 10.5dBf (TU-217) are received with exceptional stability. Likewise, signals so strong as to cause noticeable overload in other tuners are received with clarity.

An extra-large tuning knob backed by an ingenious tuning mechanism and a frequency-linear dial plan makes station selection simple, smooth and sure in both models.

### Improved FM IF Section: Quality not dependent on strength of incoming signal.

A further guarantee of strict hi-fi performance is found in the use of a 3-differential amp limiter section in both models. It is circuited behind a transistor amp, and since it's in IC form, operation is free of instability; then, since it affords sufficient gain and limiting without strain, its operation is wholly independent of the strengths of incoming signals. Flat group-delay response is a particular advantage in the IF filter, formed of a 4-element linear-phase ceramic unit, and distortion, separation, capture ratio and other vital parameters for truly pure hi-fi sound are yours to enjoy.

### No FM Stereo "Smear": Phase-Locked-Loop IC Stereo Demodulator stabilizes separation.

There's no reason you should suffer stereo "smear" or "fuzz" in this day and age, not when you can rely on the PLL or Phase-Locked-Loop circuit used in the multiplex demodulators of both models. Its IC construction adds still more stability.

By designing filters with sharp response to completely eliminate the pilot-signal component, Sansui engineers have eliminated FM stereo "beat" as well. Distinct stereo separation over the entire audio range is a certainty in these advanced Sansui TUs.

### Quadrature Detector: Linear-responsive, wide-bandwidth tuning made easier.

It's refreshing to find tuners in this price range that deliver such wide-range performance without stress. Because our engineers have developed wide-range tuning circuits using a quadrature detector in the FM discriminator section, response is linear across the entire bandwidth above 200kHz.

Distortion is no more than 0.07% (TU-317) or 0.1% (TU-217), and the stability of the ICs used could not be better.

### FM Muting: One-touch elimination of inter-station noise.

One touch of the muting switch on either model and you effectively eliminate annoying inter-station noise while you tune FM AUTO.

If you have reason to tune in a faint or too-distant station, set the switch to MUTING OFF/MONO to bypass the advanced muting circuitry.

### Noise Canceller for TU-317: Improve FM Fidelity.

On the TU-317, the choice is yours: hear distant or faint FM stations in stereo with the least possible noise and widest frequency response simply by engaging the FM Noise Canceller circuit.

With the circuit out, normal-strength FM stations are received with optimum accuracy and wide hi-fi quality.

### Twin Meters: One for Signal-Strength, one for Tuning.

Do you still tune "by ear"? You won't have to with the twin meters provided on both models. One is a large signal-strength meter for FM and AM; it is never "fooled" by false information.

The other is a precision Tune meter for FM center-of-channel indication; when it's centered, your stereo FM station will deliver optimum separation and sound.

### Hi-Fi for AM? That's guaranteed in both models.

You'll be surprised at the clean tonal quality and wide frequency range of AM afforded by both models. We've given the "hi-fi" oriented AM sections their own 2-gang tuning capacitors, exclusive high-integration ICs and block filters with ceramic filters.

There are also separate transformer taps to further ensure the reception of AM stations, weak or strong, with minimum noise.

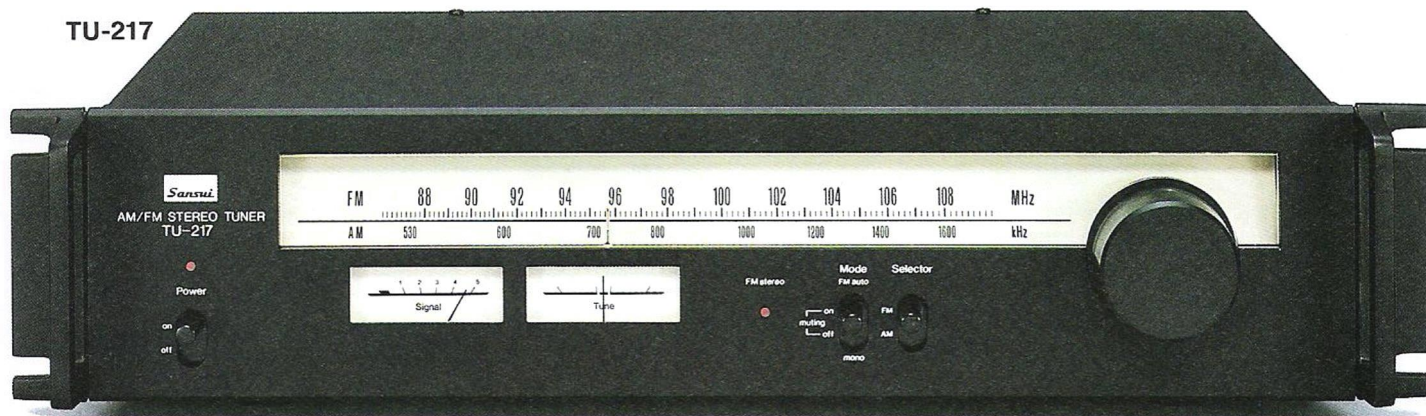
### Low-Profile Design: Coordinated for Total-Audio good looks.

Sansui's total audio design includes a unified appearance for all major hi-fi components, featuring the distinctive Sansui matte-black finish (a pleasant change from cold metallic faceplates).

All units in the latest AU/TU series, including these two TU tuners, are sized for rack mounting in standard EIA 19-inch audio racks. And with their slightly rounded corners, solid-feel switches and logically laid-out panel, they offer enhanced operating convenience as well as good looks.



TU-217



SR-838

TU-317

AU-317II

AX-7

SC-1110

GX-5  
(Custom-Made  
Audio Rack)





# Specifications

## TU-317

### FM SECTION

|                                      |                                                                                      |
|--------------------------------------|--------------------------------------------------------------------------------------|
| <b>TUNING RANGE</b>                  | 88 to 108MHz                                                                         |
| <b>SENSITIVITY</b>                   |                                                                                      |
| MONO                                 | 10.3dBf (1.8μV IHF T-100) (1μV DIN)                                                  |
| STEREO                               | 19dBf                                                                                |
| <b>50dB QUIETING SENSITIVITY</b>     |                                                                                      |
| MONO                                 | 13.5dBf                                                                              |
| STEREO                               | 36.5dBf                                                                              |
| <b>SIGNAL TO NOISE RATIO</b>         |                                                                                      |
| MONO                                 | 79dB (at 65dBf)                                                                      |
| STEREO                               | 73dB (at 65dBf)                                                                      |
| STEREO                               | 76dB (at 80dBf)                                                                      |
| <b>FREQUENCY RESPONSE</b>            |                                                                                      |
| MONO                                 | 30 to 15,000Hz +0.5dB, -1dB                                                          |
| STEREO                               | 30 to 15,000Hz +0.5dB, -1dB                                                          |
| <b>TOTAL HARMONIC DISTORTION</b>     |                                                                                      |
| MONO                                 | less than 0.1% at 100Hz<br>less than 0.07% at 1,000Hz<br>less than 0.23% at 6,000Hz  |
| STEREO                               | less than 0.15% at 100Hz<br>less than 0.09% at 1,000Hz<br>less than 0.25% at 6,000Hz |
| <b>CAPTURE RATIO</b>                 | 1.0dB                                                                                |
| <b>ALTERNATE CHANNEL SELECTIVITY</b> | 50dB at 400kHz                                                                       |
| <b>SPURIOUS RESPONSE RATIO</b>       | 83dB at 98MHz                                                                        |
| <b>IMAGE RESPONSE RATIO</b>          | 55dB at 98MHz                                                                        |
| <b>IF RESPONSE RATIO</b>             | 95dB at 98MHz                                                                        |
| <b>AM SUPPRESSION RATIO</b>          | 50dB at 98MHz                                                                        |
| <b>STEREO SEPARATION</b>             | 35dB at 100Hz<br>40dB at 1,000Hz<br>30dB at 10,000Hz                                 |
| <b>ANTENNA INPUT IMPEDANCE</b>       | 300 ohms balanced<br>75 ohms unbalanced                                              |
| <b>OUTPUT VOLTAGE AND IMPEDANCE</b>  |                                                                                      |
| Fixed                                | 775mV, 1k ohms                                                                       |

### AM SECTION

|                                  |                                      |
|----------------------------------|--------------------------------------|
| <b>TUNING RANGE</b>              | 530 to 1,600kHz                      |
| <b>SENSITIVITY (BAR ANTENNA)</b> | 47dB/m (220μV/m)                     |
| <b>SELECTIVITY (±10kHz)</b>      | 35dB at 1,000kHz                     |
| <b>SIGNAL TO NOISE RATIO</b>     | 48dB                                 |
| <b>TOTAL HARMONIC DISTORTION</b> | less than 0.4% at 30% Mod.<br>80dB/m |
| <b>IMAGE RESPONSE RATIO</b>      | 55dB at 1,000kHz                     |
| <b>IF RESPONSE RATIO</b>         | 40dB at 1,000kHz                     |

### GENERAL

|                             |                                                                                                                                       |
|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| <b>POWER REQUIREMENTS</b>   |                                                                                                                                       |
| POWER VOLTAGE               | 100, 120, 220, 240V 50/60Hz                                                                                                           |
| POWER CONSUMPTION           | 15 watts                                                                                                                              |
| <b>SEMICONDUCTORS</b>       | 8 Transistors; 6 Diodes; 1 FET; 4 ICs                                                                                                 |
| <b>DIMENSIONS</b>           | 430mm (16 <sup>1</sup> / <sub>8</sub> " )W<br>110mm (4 <sup>3</sup> / <sub>8</sub> " )H<br>310mm (12 <sup>1</sup> / <sub>4</sub> " )D |
| with Rack-mounting Adaptors | 482mm (19" )W<br>110mm (4 <sup>3</sup> / <sub>8</sub> " )H<br>316mm (12 <sup>1</sup> / <sub>2</sub> " )D                              |
| <b>WEIGHT</b>               | 5.1kg (11.2lbs.) Net                                                                                                                  |
| with Rack-mounting Adaptors | 5.3kg (11.7lbs.) Net<br>6.4kg (14.1lbs.) Packed                                                                                       |

- The FM performance of the TU-317/217 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.

## FA-7 FM/AM Compatible Antenna System

World's first FM/AM compatible antenna system (Pat. Pend.):  
Both FM and AM reception is possible with one antenna and one cable, connected to receiver/tuner's FM/AM terminals.

## TU-217

### FM SECTION

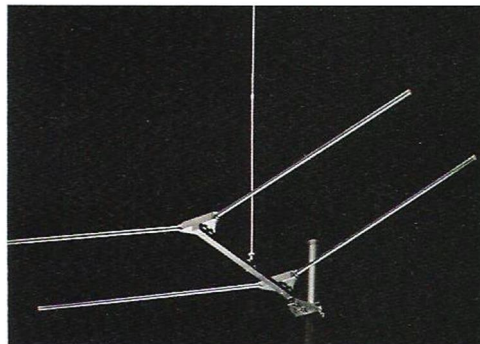
|                                      |                                                                                      |
|--------------------------------------|--------------------------------------------------------------------------------------|
| <b>TUNING RANGE</b>                  | 88 to 108MHz                                                                         |
| <b>SENSITIVITY</b>                   |                                                                                      |
| MONO                                 | 10.5dBf (1.83μV IHF T-100) (2μV DIN)                                                 |
| STEREO                               | 20dBf                                                                                |
| <b>50dB QUIETING SENSITIVITY</b>     |                                                                                      |
| MONO                                 | 13.8dBf                                                                              |
| STEREO                               | 37dBf                                                                                |
| <b>SIGNAL TO NOISE RATIO</b>         |                                                                                      |
| MONO                                 | 78dB (at 65dBf)                                                                      |
| STEREO                               | 72dB (at 65dBf)                                                                      |
| STEREO                               | 75dB (at 80dBf)                                                                      |
| <b>FREQUENCY RESPONSE</b>            |                                                                                      |
| MONO                                 | 30 to 15,000Hz +0.5dB, -1dB                                                          |
| STEREO                               | 30 to 15,000Hz +0.5dB, -1dB                                                          |
| <b>TOTAL HARMONIC DISTORTION</b>     |                                                                                      |
| MONO                                 | less than 0.1% at 100Hz<br>less than 0.1% at 1,000Hz<br>less than 0.25% at 6,000Hz   |
| STEREO                               | less than 0.15% at 100Hz<br>less than 0.13% at 1,000Hz<br>less than 0.25% at 6,000Hz |
| <b>CAPTURE RATIO</b>                 | 1.0dB                                                                                |
| <b>ALTERNATE CHANNEL SELECTIVITY</b> | 50dB at 400kHz                                                                       |
| <b>SPURIOUS RESPONSE RATIO</b>       | 80dB at 98MHz                                                                        |
| <b>IMAGE RESPONSE RATIO</b>          | 50dB at 98MHz                                                                        |
| <b>IF RESPONSE RATIO</b>             | 90dB at 98MHz                                                                        |
| <b>AM SUPPRESSION RATIO</b>          | 50dB at 98MHz                                                                        |
| <b>STEREO SEPARATION</b>             | 35dB at 100Hz<br>40dB at 1,000Hz<br>30dB at 10,000Hz                                 |
| <b>ANTENNA INPUT IMPEDANCE</b>       | 300 ohms balanced<br>75 ohms unbalanced                                              |
| <b>OUTPUT VOLTAGE AND IMPEDANCE</b>  |                                                                                      |
| Fixed                                | 775mV, 1k ohms                                                                       |

### AM SECTION

|                                  |                                      |
|----------------------------------|--------------------------------------|
| <b>TUNING RANGE</b>              | 530 to 1,600kHz                      |
| <b>SENSITIVITY (BAR ANTENNA)</b> | 47dB/m (220μV/m)                     |
| <b>SELECTIVITY (±10kHz)</b>      | 35dB at 1,000kHz                     |
| <b>SIGNAL TO NOISE RATIO</b>     | 48dB                                 |
| <b>TOTAL HARMONIC DISTORTION</b> | less than 0.4% at 30% Mod.<br>80dB/m |
| <b>IMAGE RESPONSE RATIO</b>      | 55dB at 1,000kHz                     |
| <b>IF RESPONSE RATIO</b>         | 40dB at 1,000kHz                     |

### GENERAL

|                             |                                                                                                                                       |
|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| <b>POWER REQUIREMENTS</b>   |                                                                                                                                       |
| POWER VOLTAGE               | 100, 120, 220, 240V 50/60Hz                                                                                                           |
| POWER CONSUMPTION           | 5 watts                                                                                                                               |
| <b>SEMICONDUCTORS</b>       | 8 Transistors; 6 Diodes; 1 FET; 4 ICs                                                                                                 |
| <b>DIMENSIONS</b>           | 430mm (16 <sup>1</sup> / <sub>8</sub> " )W<br>110mm (4 <sup>3</sup> / <sub>8</sub> " )H<br>310mm (12 <sup>1</sup> / <sub>4</sub> " )D |
| with Rack-mounting Adaptors | 482mm (19" )W<br>110mm (4 <sup>3</sup> / <sub>8</sub> " )H<br>316mm (12 <sup>1</sup> / <sub>2</sub> " )D                              |
| <b>WEIGHT</b>               | 4.5kg (9.9lbs.) Net                                                                                                                   |
| with Rack-mounting Adaptors | 4.7kg (10.4lbs.) Net<br>5.8kg (12.8lbs.) Packed                                                                                       |



SANSUI ELECTRIC CO., LTD.  
14-1 IZUMI 2-CHOME, SUGINAMI-KU, TOKYO 168 JAPAN/TELEPHONE: 323-1111/TELEX 232-2076  
SANSUI ELECTRONICS CORPORATION  
1250 VALLEY BROOK AVENUE, LYNDHURST, NEW JERSEY 07071, U.S.A./TELEX: NEW JERSEY 422633 SEC UI  
SANSUI AUDIO EUROPE N.V.  
NORTH TRADE BUILDING, NOORDERLAAN 133-BUS 1, 2030 ANTWERP, BELGIUM/TELEX: 33538