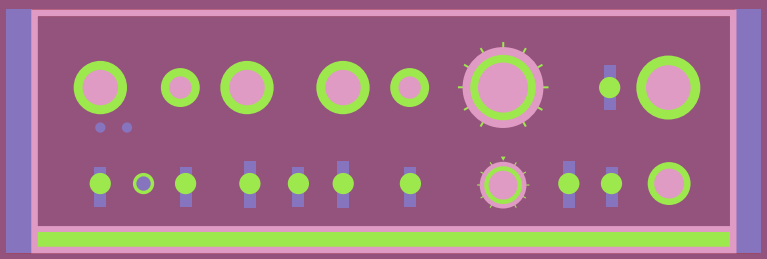
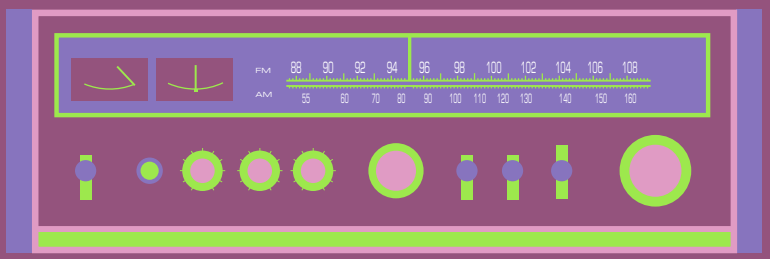
PIONEER

# PIONEER AMPLIFIERS & TUNERS





# Wide-Range Professional Amplifier & Tuner Line

SD-1100
TX-6200
SA-5200
TX-7100
SA-7100

SR-202W
TX-8100
SA-8100
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SA-9100

**The basic objective of all hi-fi audio equipment is to reproduce the original program source with faithful fidelity. Pioneer's professional equipment fulfills this objective—and goes well beyond, depending on your personal objectives in stereo, your budget plus the power, sensitivity and versatility you desire. Even with all the many choices of fine Amplifiers & Tuners, selecting the "right" Pioneer component for your needs is not nearly as difficult as it may look. There are several key requirements in the choice of any piece of stereo component, all adding up to the most logical fulfillment of your needs. When you visit your hi-fi dealer, we'd like to make one suggestion before buying. Take the time to listen to a number of components before you make a choice. This way you'll have a better idea about what's right for you—for your ears, your musical tastes, your own home. And when you listen to Pioneer, do more than just listen. Consider the virtues of function, performance, versatility, stability and design. Then consider the price. We're confident you'll like what you see. Even more confident you'll like what you hear.**

# SA-9100

## 60W X 2 RMS STEREO INTEGRATED AMPLIFIER

Pioneer's finest two-channel stereo integrated amplifier is a masterpiece of design, reliability and sophisticated circuitry. Its extraordinarily stable performance exceeds the characterisitcs of many of the more expensive amplifiers now available. It has a plus/minus split-power supply, plus a differential amplifier design used in the equalizer, control amplifier and power amplifier sections. The power amp section uses a complementary direct-coupled OCL design to provide a wide frequency response and power bandwidth, and includes automatic electronic protection circuit. A Twin Tone Control system, with special sub tone controls in addition to regular main controls, provides extremely high and low sound spectrum adjustment. This powerful amplifier delivers a solid 60 watts+60 watts (both channels driven at 8 ohms) as the minimum standard output within the all-important 20—20,000Hz sound range. For outstanding versatility the SA-9100 handles up to three pairs of speaker systems, two turntables, two tape decks, two microphones, and two additional auxiliary sound sources. A level-set switch widens the optimum control range for the volume level, and there are subsonic filters provided for individual pre-and power-amp sections. The very highest standards of electronics—all in one handsome Pioneer package.

**SPECIFICATIONS**

| | |
|---|---|
| Continuous Power Output (20Hz to 20KHz, 8 ohms, both channels driven): | 60W + 60W |
| Total Harmonic Distortion (20Hz to 20KHz, rated output): | Less than 0.1% |
| Power Bandwidth (IHF, both channels driven): | 5Hz to 40KHz (T.H.D. 0.1% ) |
| Frequency Response | |
| PHONO, RIAA equalization: | 30Hz to 15KHz ±0.2dB |
| POWER AMP | 7Hz to 80KHz +0dB, −1dB |
| Phono Overload Level (at 1KHz): | 250mV (RMS), 700mV (P-P) |
| Dimensions: | $16\frac{15}{16}$(W) × $5\frac{7}{16}$(H) × $13\frac{7}{16}$(D) inches<br>430(W) × 138(H) × 341(D) mm |
| Weight: | 30 lb./13.6 kg |

# SA-8100

## 40W X 2 RMS STEREO INTEGRATED AMPLIFIER

The state-of-the-art in stereo has a fine representative with this bold and advanced amplifier. A plus-minus split power supply for all stages, a differential amplifier design with all the first-stages for DC stability, and 100% DC negative feedback for low distortion figures are part of the SA-8100's performance. There are also features like Pioneer's unique Twin Tone Control system that uses special SUB tone controls as well as ordinary MAIN controls to give up to 2,025 different kinds of tone characteristics. The power amplifier section uses the direct-coupled complementary OCL design for extended frequency response, wide power bandwidth and low distortion. There is an automatic protection circuit to protect transistors and speakers. Big power is another SA-8100 achievement—40watts +40watts of continuous power output, with both channels driven at 8 ohms within the audio range of 20—20,000Hz. Other features include the independent use of pre- and power-amplifier sections, subsonic filters, a level-set switch of the volume control knob for broadening the operational range, and immense versatility—the SA-8100 handles two pairs of speakers, two turntables, two tape decks, two microphones and two auxiliary sound sources.

**SPECIFICATIONS**

| | |
|---|---|
| Continuous Power Output (20Hz to 20KHz, 8 ohms, both channels driven): | 40W + 40W |
| Total Harmonic Distortion (20Hz to 20KHz, rated output): | Less than 0.3% |
| Power Bandwidth (IHF, both channels driven): | 5Hz to 40KHz (T.H.D. 0.3% ) |
| Frequency Response | |
| PHONO, RIAA equalization: | 30Hz to 15KHz ±0.2dB |
| POWER AMP.: | 7Hz to 80KHz +0dB, −1dB |
| Phono Overload Level (at 1KHz): | 250mV (RMS), 700mV (P-P) |
| Dimensions: | $16\frac{15}{16}$(W) × $5\frac{7}{16}$(H) × $13\frac{7}{16}$(D) inches<br>430(W) × 138(H) × 341(D) mm |
| Weight: | 26 lb. 11 oz./12.1 kg |

# SA-7100

## 20W X 2 RMS STEREO INTEGRATED AMPLIFIER

The medium-power winner in Pioneer's versatile line of amplifiers is this handsomely designed unit. It provides 20 watts+20 watts of continuous power output, both channels driven at 8 ohms within the important audio range of 20—20,000Hz. The unit has a complementary direct-coupled OCL power amplifier, equipped with an automatic protection circuit that prevents transistor and speaker damage. Dynamic sound reproduction in the SA-7100 is provided by a three-stage direct-coupled Negative Feedback equalizer circuit with an emitter-follower in the second stage that prevents flat-topping. The RIAA equalization curve is accurate within ±0.2dB, adding in great measure to overall performance characteristics. In the tone control amplifier section, Pioneer has used an FET-equipped two-stage direct-coupled circuit, again with Negative Feedback design, and there is an independent turnover frequency selector attached to each bass and treble control permitting you to achieve maximum effective acoustical tonal adjustments. Other features of this advanced amplifier include a tone defeat switch, a large heat-sink, and unusual versatility: you can use up to two pairs of speaker systems, two turntables, two tape decks, a microphone and two auxiliary sound sources.

**SPECIFICATIONS**

| | |
|---|---|
| Continuous Power Output (20Hz to 20KHz, 8 ohms, both channels driven): | 20W + 20W |
| Total Harmonic Distortion (20Hz to 20KHz, rated output): | Less than 0.5% |
| Power Bandwidth (IHF, both channels driven): | 5Hz to 70KHz (T.H.D. 0.5% ) |
| Frequency Response | |
| PHONO, RIAA equalization: | 30Hz to 15KHz ±0.2dB |
| POWER AMP.: | 7Hz to 80KHz +0dB, −1dB |
| Phono Overload Level (at 1KHz): | 190mV (RMS), 530mV (P-P) |
| Dimensions: | $16\frac{15}{16}$(W) × $5\frac{7}{16}$(H) × $13\frac{7}{16}$(D) inches<br>430(W) × 138(H) × 341(H) mm |
| Weight: | 22 lb. 4 oz./10.1 kg |

# SA-5200

## 10W X 2 RMS STEREO INTEGRATED AMPLIFIER

Value, versatility and advanced solid state circuitry sum up the feature attractions of this handsome Pioneer amplifier. The man about to start a system of integrated components could hardly find a better choice. The unit offers a two-stage direct-coupled Negative Feedback type equalizer section, for wide dynamic range sound reproduction. It includes versatile click-stop type individual bass and treble controls for easy tonal adjustment. There's power to spare from the SA-5200's power amplifier section, which is equipped with complementary SEPP (single-ended push-pull) type circuitry noted for high efficiency and low-distortion. It delivers 10 watts+10 watts of continuous power output into 8 ohms with both channels operating within the 20—20,000Hz range. And there are many other features. Versatility is exemplified by the unit's ability to handle up to two pairs of speaker systems, two auxiliary sound sources (like two tape players), a tuner and a turntable. There is also a stereo-mono mode selector, a loudness contour switch, independent volume controls for both right and left channels, and a very attractive front panel design.

**SPECIFICATIONS**

| | |
|---|---|
| Continuous Power Output (20Hz to 20KHz, 8 ohms, both channels driven): | 10W+10W |
| Total Harmonic Distortion (20Hz to 20KHz, rated output): | Less than 0.8% |
| Power Bandwidth (IHF, both channels driven): | 10Hz to 40KHz (T.H.D. 0.8% ) |
| Frequency Response | |
| PHONO, RIAA equalization: | 30Hz to 15KHz ±0.5dB |
| AUX: | 15Hz to 30KHz ±1dB |
| Phono Overload Level (at 1KHz): | 100mV (RMS), 280mV (P-P) |
| Dimensions: | $16\frac{1}{32}$(W) × $5\frac{3}{16}$(H) × $12\frac{29}{32}$(D) inches<br>415(W) × 132(H) × 328(D) mm |
| Weight: | 15 lb. 14 oz./7.2 kg |

# TX-9100

## AM/FM STEREO TUNER

Pioneer's finest tuner is a rich stereo achievement that offers one of the finest FM sensitivity ratings ever built-in to a tuner. Among its many quality features are a 5-gang variable capacitor and low-noise dual-gate MOS-type FETs employed in the FM front end, resulting in a superb 1.5μV (IHF) sensitivity figure, spurious rejection of more than 110dB and image rejection of more than 110dB. For outstanding selectivity, Pioneer has used phase-linear ceramic filters in the IF section, coupled with a 6-stage limiter by monolithic ICs with differential amplifiers. Such sophisticated circuitry results in a 90dB (IHF) selectivity characteristic, plus improved phase characteristics and a signal-to-noise ratio of 75dB. Capture ratio is equally superb, measured at 1dB (IHF). The multiplex circuit in the TX-9100 consists of the Phase-Lock-Loop circuit, a prime reason for the tuner's low-distortion and wide separation, as well as its reliability and stability. Other features include a sharp low-pass filter that cancels carrier leaks, a two-step FM muting switch, a double-action FM muting with reed relay to cancel irritating inter-station noise, plus a pulse noise suppressor. Even the AM tuner section is advanced, consisting of a frequency-linear AM 3-gang variable capacitor coupled with one-stage RF amplifier to provide quality AM reception.

**SPECIFICATIONS**

| | |
|---|---|
| FM Usable Sensitivity (IHF): | 1.5μV |
| FM Capture Ratio (IHF): | 1dB |
| FM Selectivity (IHF): | 90dB |
| FM Signal-to-Noise Ratio: | 75dB |
| FM Stereo Separation | |
| at 1KHz: | More than 40dB |
| at 50Hz to 10KHz: | More than 30dB |
| FM Total Harmonic Distortion | |
| Mono: | Less than 0.2% |
| Stereo: | Less than 0.3% |
| AM Usable Sensitivity (IHF): | 15μV |
| Dimensions: | 16 5/16(W) × 5 7/16(H) × 13 19/32(D) inches |
| | 430(W) × 138(H) × 345(D) mm |
| Weight: | 19 lb. 10 oz./8.9 kg |

# TX-8100

## AM/FM STEREO TUNER

Another one of Pioneer's advanced, new breed tuners, that offers the rare blend of advanced electronics plus a practical price. From front to back, the TX-8100 delivers near-perfect performance characteristics. Its front-end section consists of dual gate MOS-type FETs in the RF stage and mixing stage, coupled with a frequency linear 4-gang variable capacitor, with this circuitry adding up to a sensitivity rated at 1.8μV (IHF). In the IF section Pioneer has employed new IC and phase-linear ceramic filters to achieve a selectivity ratio of more than 80dB (IHF) and capture ratio of 1dB (IHF). The important MPX circuit uses a high performance IC and double-balanced type differential demodulation circuit, as well as a low-pass filter to eliminate carrier leakage. There is a double-action FM muting circuit, complete with reed relay, to eliminate inter-station noise. And a combination of a center-tuning meter, wide linear dial scale and precise, flexible signal meter—the better to offer easy tuning convenience. AM performance is also first-rate, owing to the use of an exclusive IC with excellent Automatic Gain Control characteristics, a balanced type mixer, ceramic filters, and a 3-gang variable capacitor and one-stage RF amplifier for improved image rejection, IF rejection, and tonal quality.

**SPECIFICATIONS**

| | |
|---|---|
| FM Usable Sensitivity (IHF): | 1.8μV |
| FM Capture Ratio (IHF): | 1dB |
| FM Selectivity (IHF): | 80dB |
| FM Signal-to-Noise Ratio: | 70dB |
| FM Stereo Separation | |
| at 1KHz: | More than 40dB |
| at 50Hz to 10KHz: | More than 30dB |
| FM Total Harmonic Distortion | |
| Mono: | Less than 0.2% |
| Stereo: | Less than 0.4% |
| AM Usable Sensitivity (IHF): | 15μV |
| Dimensions: | 16 5/16(W) × 5 7/16(H) × 13 19/32(D) inches |
| | 430(W) × 138(H) × 345(D) mm |
| Weight: | 17 lb. 7 oz./7.9 kg |

# TX-7100

## AM/FM STEREO TUNER

This advanced tuner offers more value and features than any unit in its price range. The FM front-end uses a dual-gate MOS FET and frequency-linear 4-gang variable capacitor to deliver remarkably high sensitivity of 1.9μV (IHF), image rejection of more than 80dB, IF rejection of more than 100dB and spurious rejection of more than 100dB. In the FM IF section are an exclusive IC with 5-stage limiter and phase-linear ceramic filters, both designed to deliver superb selectivity of 60dB (IHF) and improved capture ratio of 1dB (IHF). The high-performance IC used in the MPX circuit guarantees wide separation characteristics of more than 40dB at 1KHz and more than 30dB over the 50Hz—10KHz range. Other important features include an FM muting switch to cancel irritating inter-station noise, a multiplex noise filter that suppresses noise in the high frequency range, and independent output level controls for both AM and FM that let you match the output level of the tuner with your other stereo components. The AM section includes an AM IC in one-stage RF amplifier and ceramic filters in the IF section for maximum stability, improved selectivity and distortion characteristics. The TX-7100 also has a wide linear type FM dial scale, twin tuning meter for tuning precision.

**SPCIFICATIONS**

| | |
|---|---|
| FM Usable Sensitivity (IHF): | 1.9μV |
| FM Capture Ratio (IHF): | 1dB |
| FM Selectivity (IHF): | 60dB |
| FM Signal-to-Noise Ratio: | 70dB |
| FM Stereo Separation | |
| at 1KHz: | More than 40dB |
| at 50Hz to 10KHz: | More than 30dB |
| FM Total Harmonic Distortion | |
| Mono: | Less than 0.2% |
| Stereo: | Less than 0.4% |
| AM Usable Sensitivity (IHF): | 15μV |
| Dimensions: | 16 15/16 (W) × 5 7/16 (H) × 13 19/32 (D) inches |
| | 430 (W) × 138 (H) × 345 (D) mm |
| Weight: | 17 lb./7.7 kg |

# TX-6200

## AM/FM STEREO TUNER

If this compact, sensitive tuner has a theme, it's obviously "more for your money." In all the ways, it is a most attractive and competent piece of stereo equipment. Equipped with all the latest solid-state circuitry, the unit has a frequency-linear 3-gang variable capacitor in its FM front end as well as a low-noise junction type FET in its RF amplifier stage. These features, besides offering stability against excessively strong signals, minimizing distortion and jamming, also add up to outstanding IHF sensitivity of 1.9μV as well as image rejection of more than 60dB and spurious rejection of more than 75dB. An FM IC is employed in the IF section, which forms the five-stage limiter to ensure extremely stable limiter characteristics against any kind of input level fluctuations. This circuitry also helps to improve capture ratio, AM suppression and signal-to-noise ratio. Phase-linear ceramic filters are utilized in the IF section for excellent phase characteristics and an IHF selectivity figure of more than 60dB. There is also an IC in the double-balanced differential demodulator in the MPX circuit contributing to wide separation. Other features include a low-pass filter, large signal meter that doubles as the center tuning meter, and a wide linear FM dial scale for tuning ease.

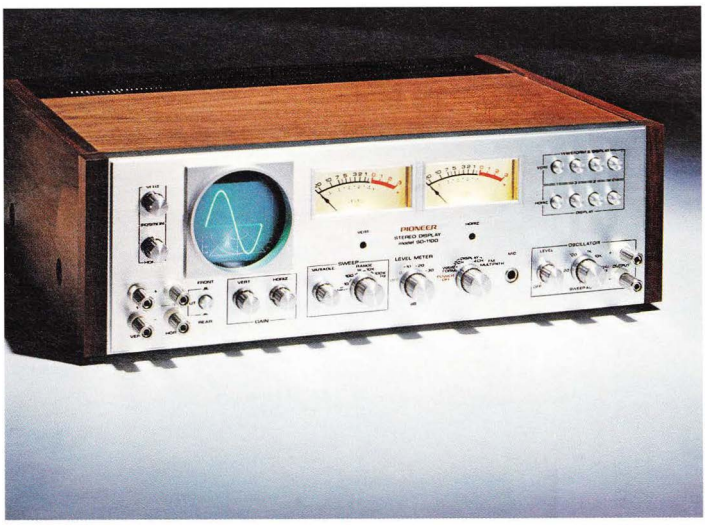
**SPECIFICATIONS**

| | |
|---|---|
| FM Usable Sensitivity (IHF): | 1.9μV |
| FM Capture Ratio (IHF): | 1.5dB |
| FM Selectivity (IHF): | 60dB |
| FM Signal-to-Noise Ratio: | 70dB |
| FM Stereo Separation | |
| at 1KHz: | More than 40dB |
| at 50Hz to 10KHz: | More than 30dB |
| FM Total Harmonic Distortion | |
| Mono: | Less than 0.2% |
| Stereo: | Less than 0.4% |
| AM Usable Sensitivity (IHF): | 15μV |
| Dimensions: | 16 1/32 (W) × 5 3/16 (H) × 13 3/8 (D) inches |
| | 415 (W) × 132 (H) × 340 (D) mm |
| Weight: | 15 lb. 10 oz./7.1 kg |

# SD-1100

## STEREO DISPLAY

This unique unit is recommended for the serious audio enthusiast who prefers a precise method of scoping and testing his stereo components. The Stereo Display has the capability for observation of the various stereo wave forms and a means of measuring the various characteristics possessed by audio instruments, including amplifiers, tuners, speakers, cartridges, tape decks, and others. You may use the SD-1100 to observe and analyze the wave forms of the new 4-channel stereo systems, measure the sound field characteristics of your own listening room, observe a stereo display, measure a voltage level, measure a phase shift by means of a Lissajous pattern, measure stereo sound by observing a difference in level of output signals, even check the frequency response of a cartridge while playing a stereo test record. Added, an investment in this strikingly designed unit is a continuing investment in unparalleled sound quality.



**SPECIFICATIONS**

| | |
|---|---|
| Cathode-ray Tube: | 3-inch (75 mm) electrostatic deflection type |
| Vertical and Horizontal Amplifier: | Deflection sensitivity;<br>20mV P-P/cm (Low level input),<br>200mV P-P/cm (High level input)<br>Frequency Response;<br>5 to 250,000Hz (within −3dB) |
| Sweep Time: | 25 seconds (from 20 to 20,000Hz) |
| Dimensions: | 16 15/16(W) × 5 7/16(H) × 13 1/16(D) inches<br>430(W) × 138(H) × 349(D) mm |
| Weight: | 19 lb. 13 oz./9 kg |

# SR-202W

## REVERBERATION AMPLIFIER

This supplemental stereo components adds a rarely achieved natural stereo sound through a reverberation effect to your regular components. And improves the sound of all of your finest records and tapes. Using a double scatter system by blending direct signals from the source and the reverberation effect, the SR-202W provides acoustical realism, and a variety of other effects. The reverberation effect may be turned off at any time, or you may play tapes and add the reverberation effect without altering the sound of the original tape. Easily connected to your amplifier, the SR-202W includes a reverberation indicator window so that the amount of reverberation added may be visually noted. The reverb time adjustment is easily made by the time control knob.

**SPECIFICATIONS**

| | |
|---|---|
| RMS Output Voltage: | 330mV (at 1KHz, reverberation time: MIN, input level: 200mV) |
| Total Harmonic Distortion: | Less than 0.2% (at 1KHz, reverberation time: MIN, output level: 330mV) |
| Frequency Response: | 20 to 35,000Hz ±2dB (reverberation time: MIN) |
| Signal-to-Noise Ratio: | 65dB (at 330mV output) |
| Reverberation Time: | 0 to 2.5 sec. (at 1KHz) |
| Dimensions: | 13 1/16(W) × 5 1/2(H) × 10 3/8(D) inches<br>322(W) × 140(H) × 263(D) mm |
| Weight: | 10 lb. 2 oz./4.6 kg |

NOTE: Specifications and design subject to possible modification without notice.

PIONEER®

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