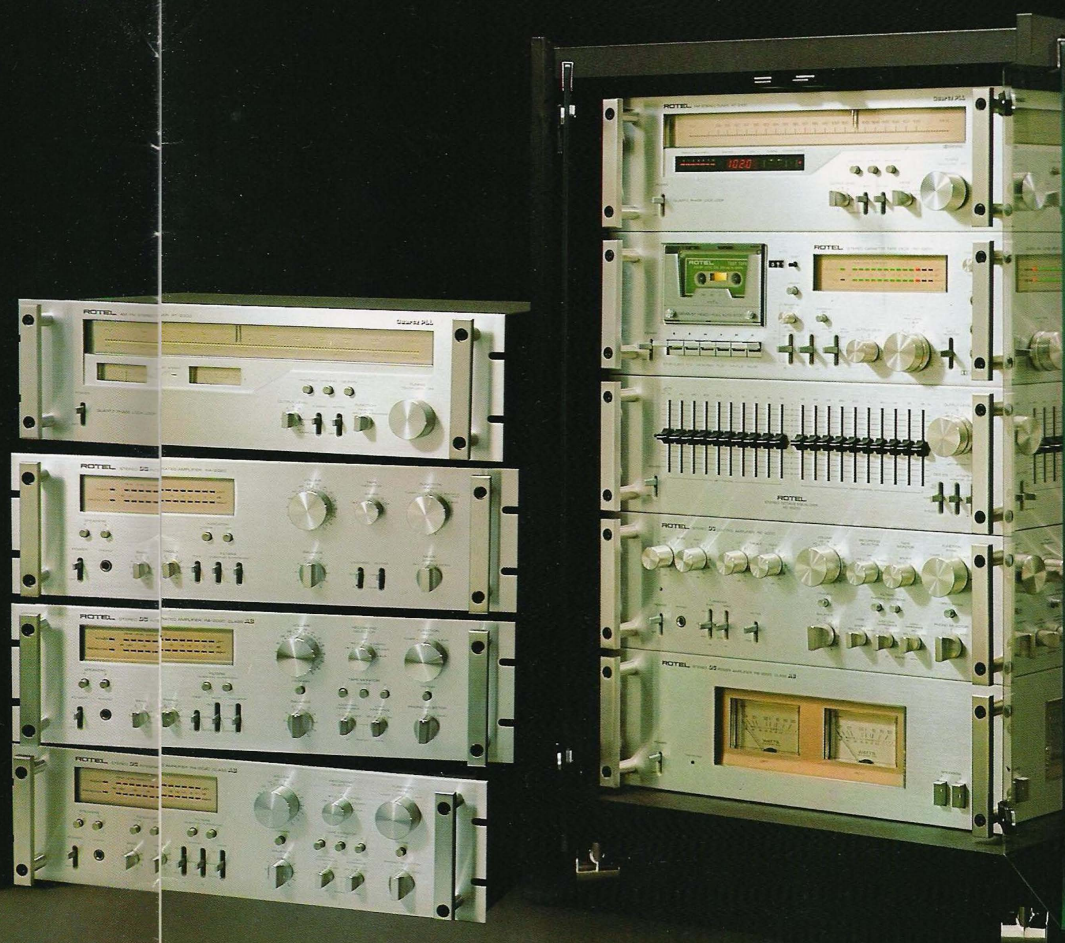


**LIMITLESS
SATISFACTION
AND PLEASURE
FOR THE EXPERIENCED
EAR-LIKE
REDISCOVERING
THE WORLD
OF HIGH FIDELITY
SOUND.**

The ROTEL 2000 series was designed to totally satisfy the experienced audio fan's demands for quality sound: in its design our R&D team had in mind not the few specialists running huge custom speakers at full power in a listening room with perfect acoustics, but the needs of the discriminating fan who has gradually been expanding and improving his audio system. Excellent sound reproduction in audio equipment is not enough for today's fan. The equipment he chooses must give constant enjoyment which can be enjoyed daily for years and become an integral part of the room in which it is used. ROTEL therefore proudly introduces the 2000 series. We are convinced that those who select it will be more than impressed with the perfection of its electronics, ease of operation, and refined beauty. The ROTEL 2000 series — for music lovers and the demanding audio fan.

**THE
2000
SERIES** **AMPLIFIERS
TUNERS
CASSETTE DECK**



DC CIRCUITRY

RB-2000 RC-2000
RA-2040 RA-2030 RA-2020

The 2000 series uses DC amplifiers with excellent response at very low frequencies and makes maximum use of its DC circuitry design. As is becoming standard in precision equipment, ROTEL's DC amps have eliminated all capacitors (which give unwanted time constant) from the signal path and the negative feedback loop, stabilized the DC range and greatly improved transmission characteristics, enabling superior low frequency performance. On the other hand, negative aspects of DC circuitry such as DC drift due to fluctuations in input and in power supply have been eliminated in the 2000 series by stabilizing the differential's mid-point electric potential, using circuit technology to achieve a DC balance, and securing an adequate CMRR (Common Mode Rejection Ratio) value. As a result, the audio enthusiast is even free to enjoy the full dynamic range of organ music, with all its low frequency signals.

CLASS AB OPERATION

RB-2000 RA-2040 RA-2030

In general the biggest drawback to Class A amplifiers, which have no switching and crossover distortion, is their low efficiency. ROTEL, however, employs a new system that maximizes the superior sound quality of Class A amps while at the same time ensuring maximum output. Class A operation, which is amazingly distortion free and provides excellent sound quality when listening to regular music, automatically switches over to Class B operation when more power is required by a large signal. By adopting this ideal system, where Class A operation handles average music signals and Class B ensures a broad dynamic range during peak signals, the 2000 series Class AB philosophy proves its true worth: distortion is held below 0.01% even during maximum output. (Class A operation below 5 watts, as previously mentioned, are remarkably distortion free).

LARGE SCALE TOROIDAL CORE TRANSFORMER

RB-2000 RA-2040

Smaller and lighter than conventional transformers, toroidal core transformers are remarkably effective for large power output. The RB-2000 and the RA-2040 use toroidal transformers which give superior regulation and little leakage flux leading to excellent high power output and low hum.

SOPHISTICATED PROTECTION CIRCUITRY AND OVERLOAD INDICATOR

RB-2000 RA-2040 RA-2030

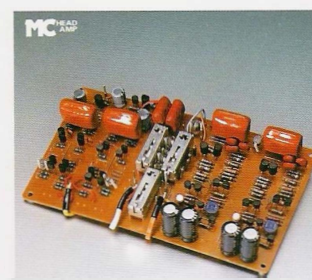
The 2000 series uses 3 sets of protection circuitry to protect both the amp

itself and the speakers from possible overload damage. One is electronically controlled ASA (Area of Safe Operation) detecting circuitry that employs a relay to protect the output transistors and the speakers in case of accidental overload. The second is a DC feedback power limiting circuitry that serves to protect the transistors when impedance load falls below 4 ohms. The Overload Indicator light located on the front panel of the amplifiers informs the user when the above circuitry goes into operation. The third is the separate relay which overcomes the problems of loud pop-noise and abnormal in-rush current when turning the power switch on.

QUICK RESPONSE PEAK LEVEL POWER METERS

RB-2000

The RB-2000 amplifier comes with a large independent meter for each channel. Quick response and reliability is ensured by the accuracy of the meter itself from minute to large power inputs in conjunction with IC's employed in the circuitry. ROTEL integrated amps employ a LED BAR CHART PEAK INDICATOR that operates independently for each channel from -20 to +1dB (or -40 to -19dB), and 26 LED units record the instantaneous signal peaks. This digital indicator not only means maximum speed of response, but also an ultramodern simplicity that blends with the overall design.



MC HEAD AMPLIFIER (RC-2000)

MC HEAD AMPLIFIER

RC-2000 RA-2040 RA-2030 RA-2020

The MC head amplifier built into the RC-2000 and RA-2040 use DC circuitry without capacitors in the input stage. The entry for signals from the MC (moving coil) cartridge is a FET differential with perfect symmetry to both negative and positive input signals. The output stage uses a pure complimentary push-pull circuit. This results in an input sensitivity/impedance value of 0.1mV/33 ohms.

The RA-2030 and RA-2020 both use a low noise FET differential amplifier for the input stage and a 3-stage parallel-coupled circuit for the output stage.

With a built-in MC head amp it becomes possible to enjoy music without having to use an external headamp or booster transformer even with a high performance MC type cartridge.

DIRECT PHONO SWITCH

RC-2000

The RC-2000 direct phono switch has a unique function in that when "ON" it gives priority to the optimum phono circuitry throughout the system (making it possible to set the shortest signal route for PHONO)—it eliminates all tone and frequency selection controls except for LOUDNESS and the subsonic filter option but leaves level controls (volume, balance, and muting) operative. Needless to say, it also disconnects the PHONO circuits from the tape monitor controls but leaves them open for tape recording. In essence, this provides direct connection between the record player and the speakers, and is one of the most advanced functions of the RC-2000.

REMOTE LOCATION SWITCH

RC-2000

Remote location switches are used for the phono selector, recording selector, and function selector. The control knobs are connected by flat and flexible drive cables extending from the front panel to the rear panel switches. This eliminates the S/N and distortion problems caused by use of many interconnecting joints and wires and further improves the overall circuitry by permitting an ideal placement of vital parts.

PHONO EQUALIZER

RC-2000 RA-2040 RA-2030 RA-2020

ROTEL's RC-2000, RA-2040, and RA-2030 use a 2-stage DC connected differential input circuit with low noise FET. With a push-pull output stage, this results in excellent S/N, high overload capacity, and accurate input impedance.

The RA-2020 uses a Class A differential amplifier in the first stage and push-pull IC circuitry in the output stage, ensuring ample phono overload capacity.



RB-2000

RC-2000

OPTIMUM PHONO IMPEDANCE AND LOAD CAPACITANCE SWITCH (FOR MM CARTRIDGES)

RC-2000 RA-2040 RA-2030

2 switches are attached to the above ROTEL models which make it possible to create the optimum load conditions for MM (moving magnet) cartridges. These permit choice of three impedance loads (35 kohms, 50 kohms, and 70 kohms) and 3 additional capacitance positions (0, 100, 200pF) on the PHONO 1.

RECORDING SELECTOR FUNCTION

RC-2000 RA-2040

A separate recording selector switch is attached to the above models which makes it possible to choose the signal desired for recording regardless of the source input one may be listening to. For example, this makes it possible to record from a record disc while listening to FM.

2-WAY TAPE DUBBING

RC-2000 RA-2040 RA-2030 RA-2020

Since the tape monitor switch and the recording selector function independent of each other, except for the RA-2020, dubbing between 2 tape decks is possible irregardless of what is being played through the amplifier (for the RA-2020, only either of tape decks can be played). Simple operation of the switch permits dubbing between 2 tape recorders in either direction.

TONE CONTROL

RC-2000 RA-2040 RA-2030 RA-2020

Use of a DC amp style tone control that eliminates coupling capacitors from the NF loop guarantees accurate reproduction even at low frequencies. Because of this circuitry design, placing the TONE DEFEAT switch "ON" allows operation as a totally flat buffer amp.

Turnover frequencies for both BASS and TREBLE are switchable between 2 options, allowing for wide variation in possibilities (not on the RA-2030 and the RA-2020). Control range is ± 10 dB. RC-2000 and RA-2040 use a calibrated attenuator-type tone control system, and RC-2000 uses independent controls for both left and right channels, permitting precise function.

SUBSONIC AND SUPERSONIC FILTERS

RC-2000 RA-2040 RA-2030 RA-2020

ROTEL 2000 series comes equipped with two filters — subsonic and supersonic — that eliminate unwanted components from the very high or very low frequency ranges. Unwanted elements from frequency ranges inaudible to the human ear can have a negative effect on the audible range due to intermodulation and excessive base speaker cone excursions. The ROTEL filters eliminate these at 12dB/oct slope to provide perfect reproduction of the original sound.

DISCRETE RESONANT CIRCUITRY

RE-2000

The RE-2000 Octave Equalizer employs discrete resonant circuitry (composed of only semi-conductors, capacitors and resistors without inductors) for its frequency control and vital systems which results in low distortion and a high S/N ratio. Compared to circuitry using inductor circuits this results in minimizing unwanted coupling with other components. RE-2000 uses a FET in the first stage, eliminates coupling capacitors for input and uses a metalized film capacitors for output to achieve maximum sound quality.

AMPLIFIERS

- RB-2000..... STEREO CLASS AB DC POWER AMPLIFIER
- RC-2000..... STEREO DC CONTROL AMPLIFIER
- RA-2040..... STEREO CLASS AB INTEGRATED DC AMPLIFIER
- RA-2030..... STEREO CLASS AB INTEGRATED DC AMPLIFIER
- RA-2020..... STEREO INTEGRATED DC AMPLIFIER
- RE-2000 STEREO OCTAVE EQUALIZER

DC ^{AMP}	DC AMPLIFIER
TOROIDAL ^{TRANSFORMER}	TROIDAL TRANSFORMER
CLASS AB	CLASS AB OPERATION
MC ^{HEAD AMP}	MC HEAD AMPLIFIER
DIRECT-PHONO	DIRECT PHONO FACILITY
LBPI	LED BAR CHART PEAK INDICATORS
ILAR ^{CIRCUIT}	INDUCTORLESS ACTIVE RESONANT

	DC CIRCUITRY													
	MAIN AMP	EQUALIZER	MC AMP	FLAT AMP (TONE DEFEAT)	FLAT AMP (DIRECT PHONO)	CLASS AB	LED BAR CHART PEAK INDICATORS	PEAK METERS	DIRECT PHONO FACILITY	OPTIMUM PHONO IMPEDANCE & LOAD CAPACITANCE SWITCHES	SEPARATE RECORDING SELECTOR SWITCH	BUILT-IN MC HEAD AMP	EIA 19in. RACK MOUNTABLE	
RB-2000	•	—	—	—	—	•	x	•	—	—	—	—	•	
RC-2000	—	•	•	•	•	—	—	—	•	•	•	•	•	
RA-2040	•	•	•	•	x	•	•	x	x	•	•	•	•	
RA-2030	•	•	x	•	x	•	•	x	x	•	•	•	•	
RA-2020	•	•	x	x	x	x	•	x	x	•	x	•	•	



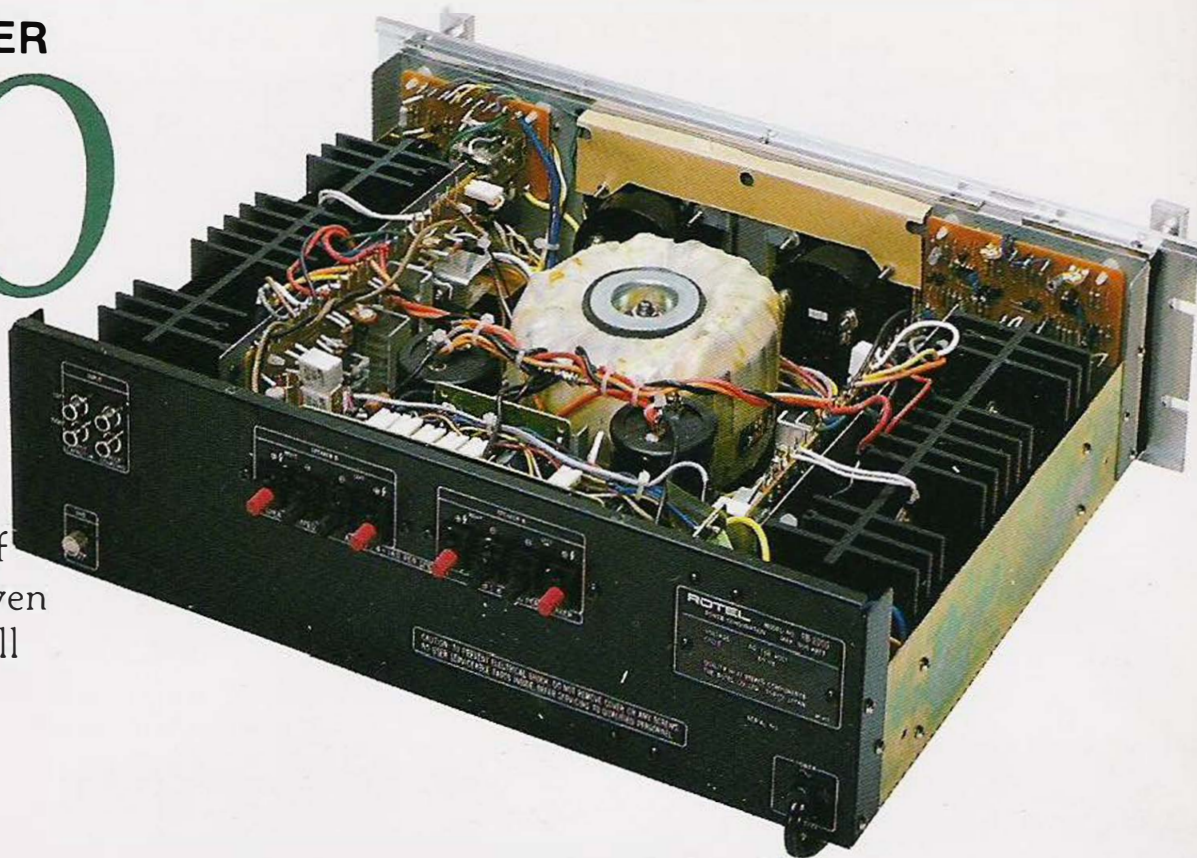
RC-2000

STEREO CLASS AB DC POWER AMPLIFIER

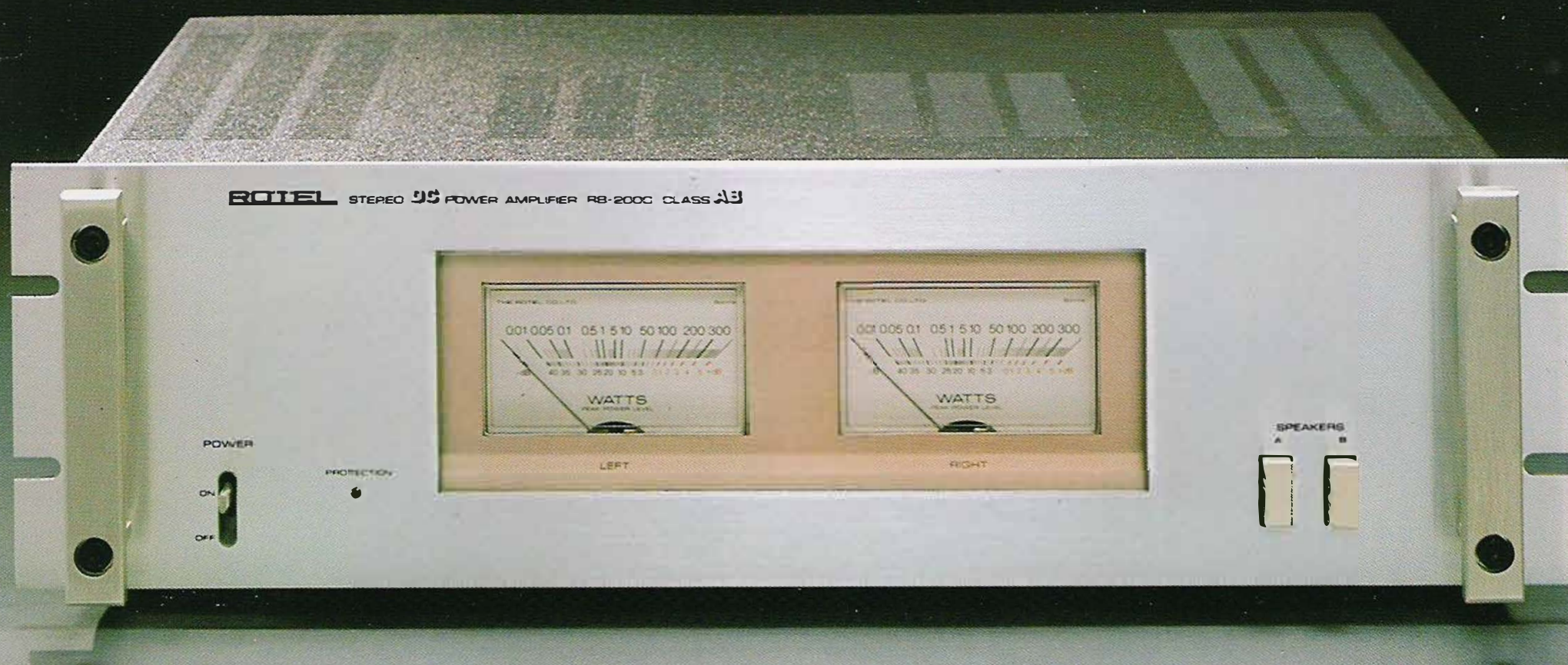
RB-2000

DC^{AMP}
TOROIDAL TRANSFORMER
CLASS **AB**

Distortion (THD) less than 0.01% at a huge output of 120 watts per channel (min. RMS both channels driven into 8 ohms from 20 to 20,000 Hz). DC circuitry in all stages. Class AB operation. Left and right channels totally separated except for power source. Modest exterior but top performance.



A heavy duty amplifier with enormous power behind a modest exterior



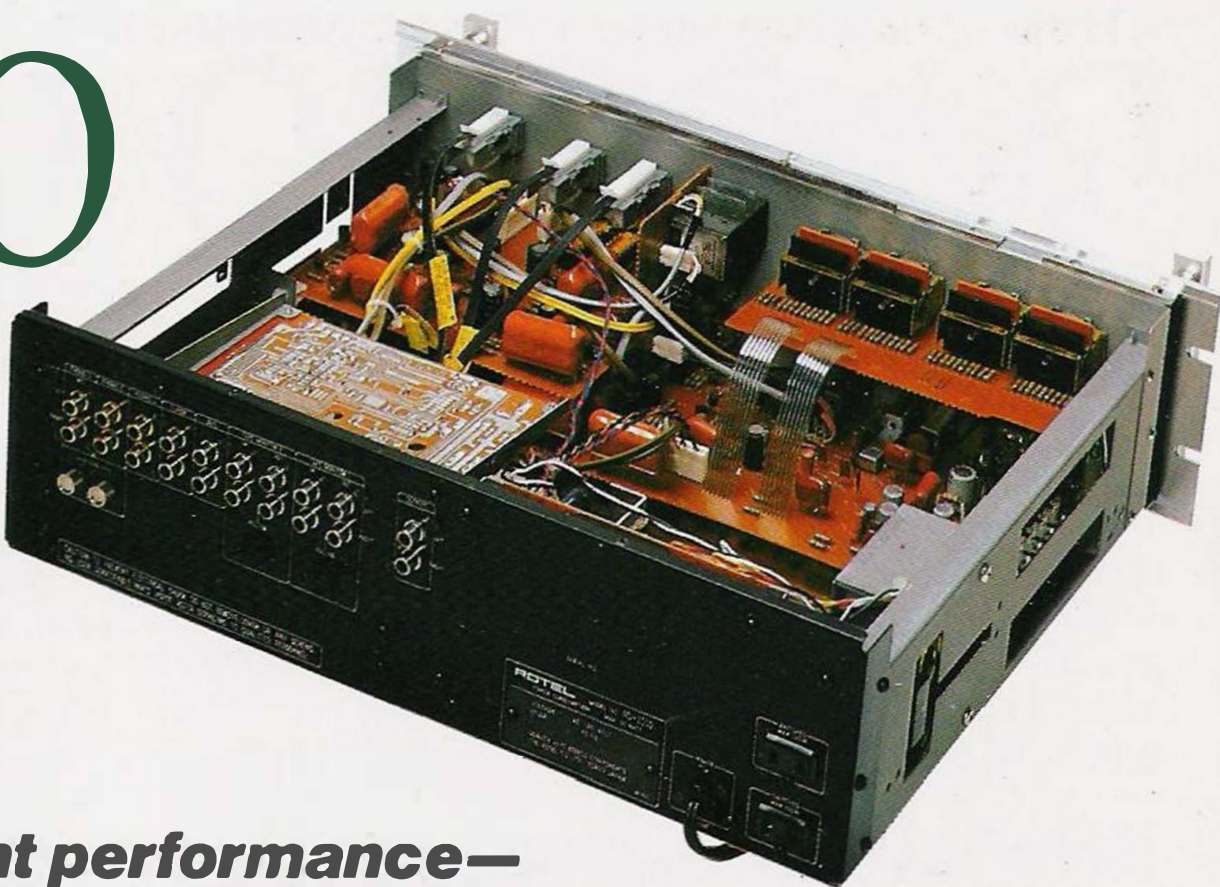
STEREO DC CONTROL AMPLIFIER

RC-2000

DC AMP
MC HEAD AMP
DIRECT-PHONO

4-block DC amplifier configuration. Perfectly symmetrical circuitry throughout. Less than 0.002% high frequency distortion (AUX). S/N ratio greater than 100 dB (TAPE). PHONO maximum overload capacity 450mV. The perfect union of function and performance.

**Superior function and brilliant performance—
outstanding overall value**



STEREO CLASS AB INTEGRATED DC AMPLIFIER

RA-2040

DC^{AMP}
TOROIDAL TRANSFORMER
CLASS AB

MC^{HEAD} AMP
LEP1^{CIRCUIT}

Less than 0.01% total harmonic distortion at an output of 120 watts per channel (min. RMS both channels driven into 8 ohms from 20 to 20,000Hz). DC amplification. Class AB operations. Pure complimentary amplifier configuration. High overload capacity and precision RIAA equalization—the optimum design in an integrated amplifier.



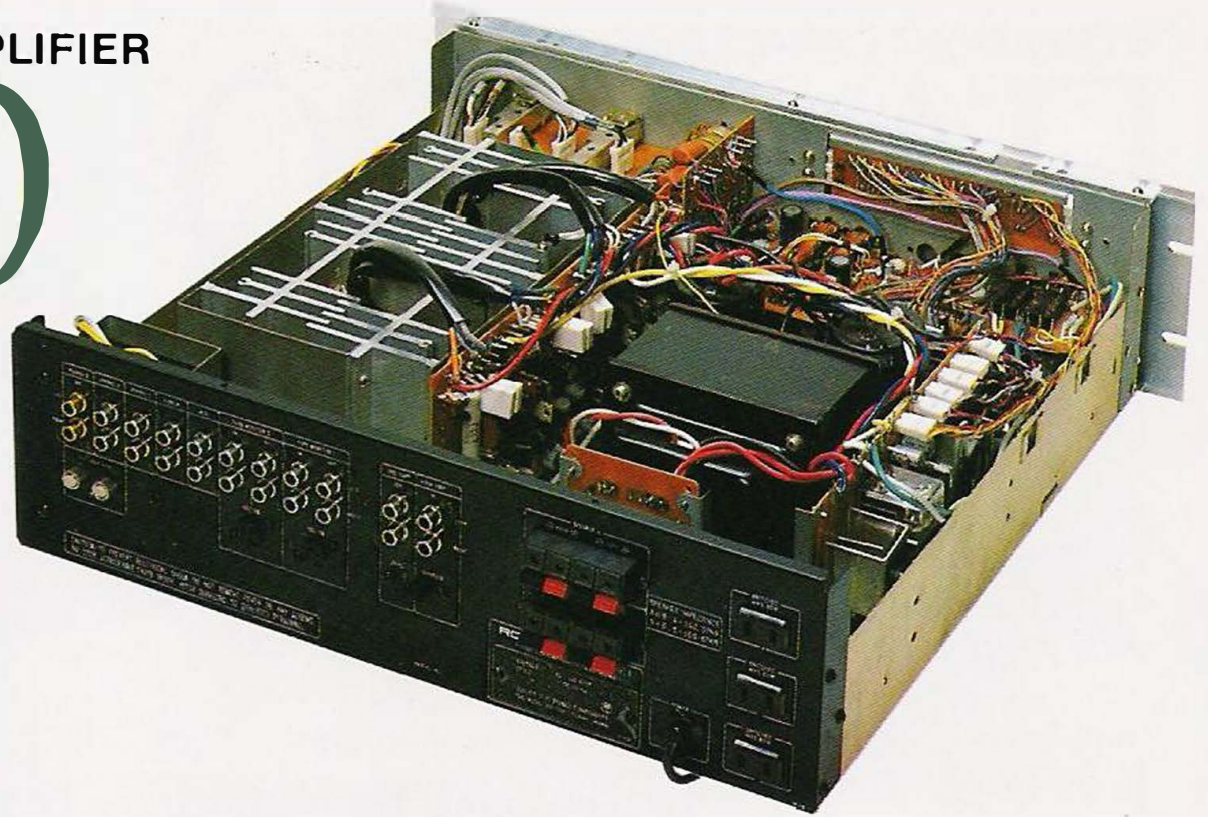
Rotel's top integrated amplifier, combining the characteristics of the formidable RB-2000 and RC-2000



STEREO CLASS AB INTEGRATED DC AMPLIFIER

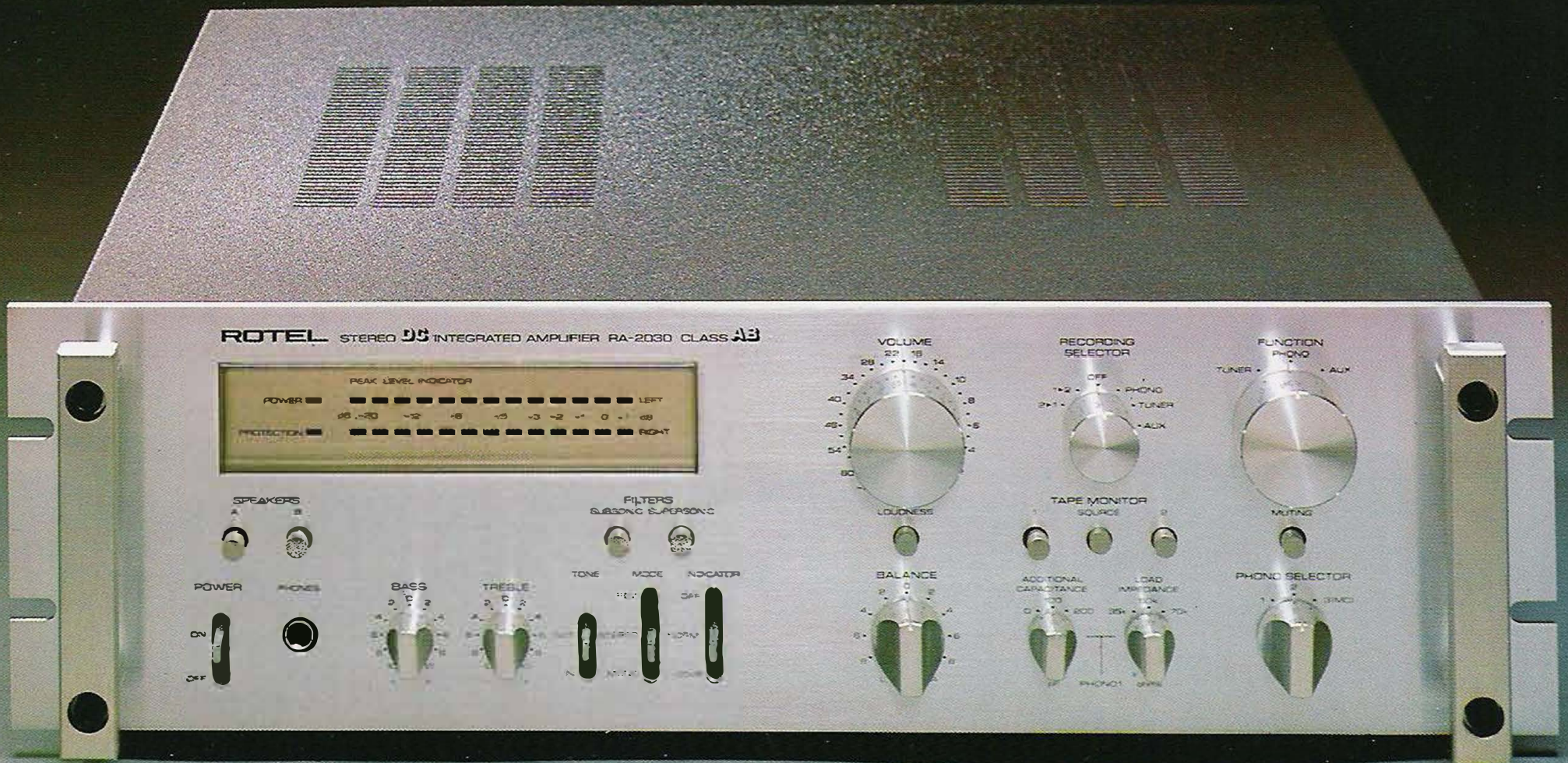
RA-2030

DC^{AMP}
CLASS **A3**
MC^{HEAD}
AMP
LBPI



Class AB. DC configuration. Incorporates the same MC head amp as the RA-2040 into its own top level functions—an integrated amplifier incorporating the maximum functions of its class.

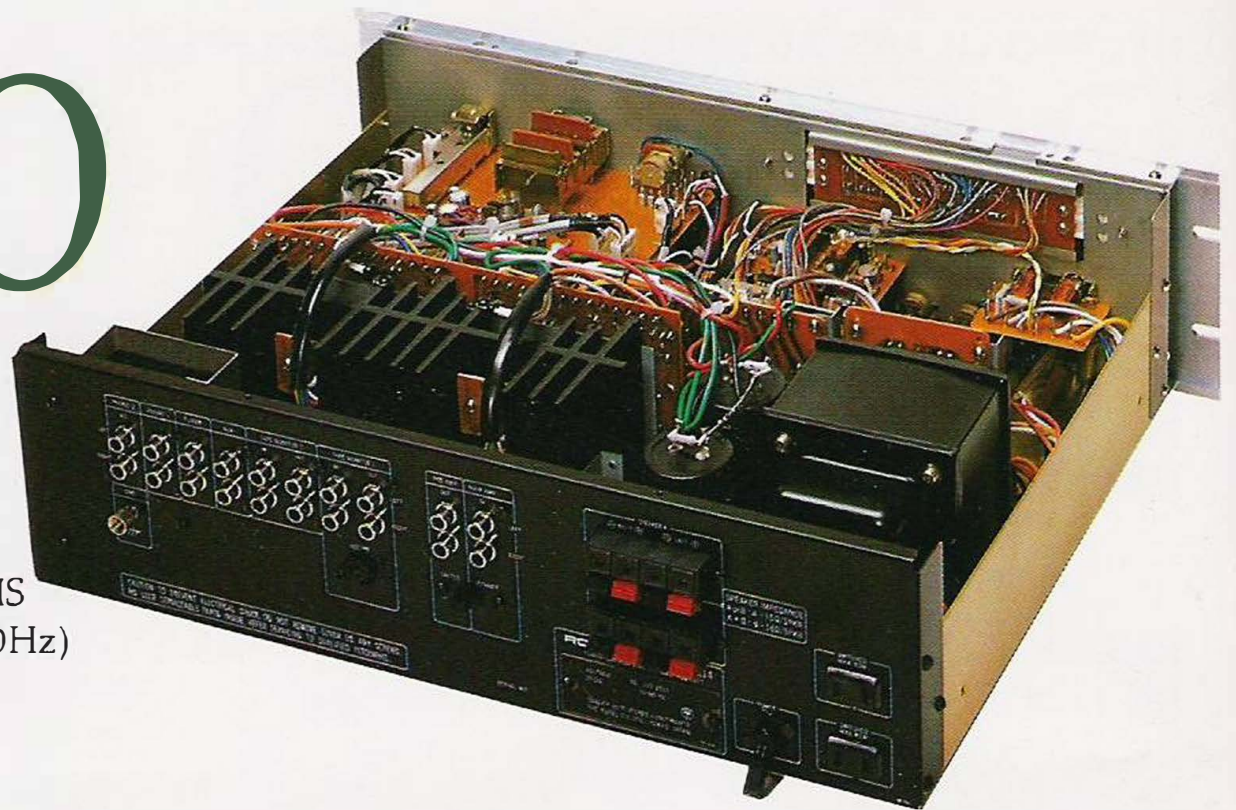
***Less than 0.01% total harmonic distortion at a rated output.
A very clean amplifier***



STEREO INTEGRATED DC AMPLIFIER

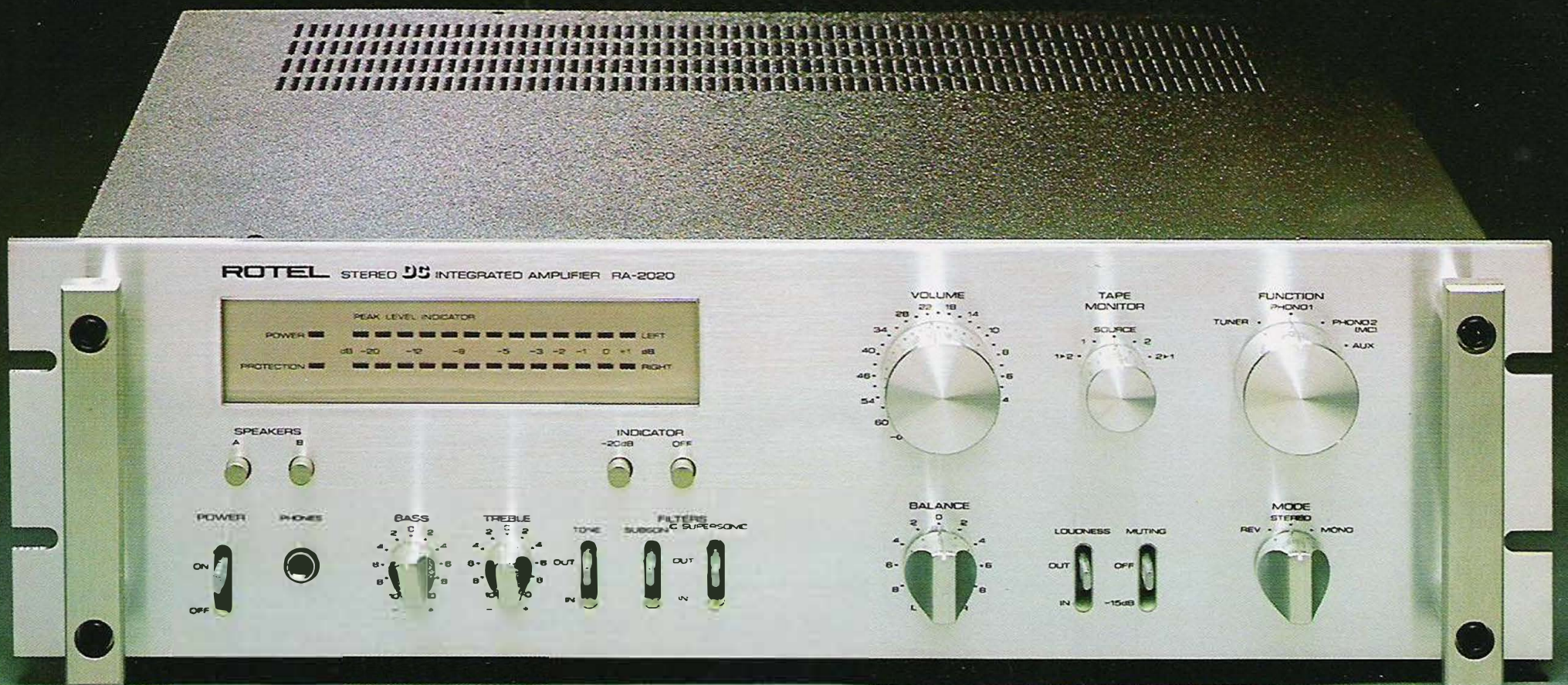
RA-2020

DC^{AMP}
MC^{HEAD} AMP
LEP1



Less than 0.02% total harmonic distortion at a maximum output of 60 watts per channel (min. RMS both channels driven into 8 ohms from 20 to 20,000Hz) — the component to match all others, with DC amplification, MC head amp, and no compromises on the quality inherent in ROTEL's 2000 series.

The integrated amplifier that has comprehensive refinements essential to excellent sound quality with ease of operation

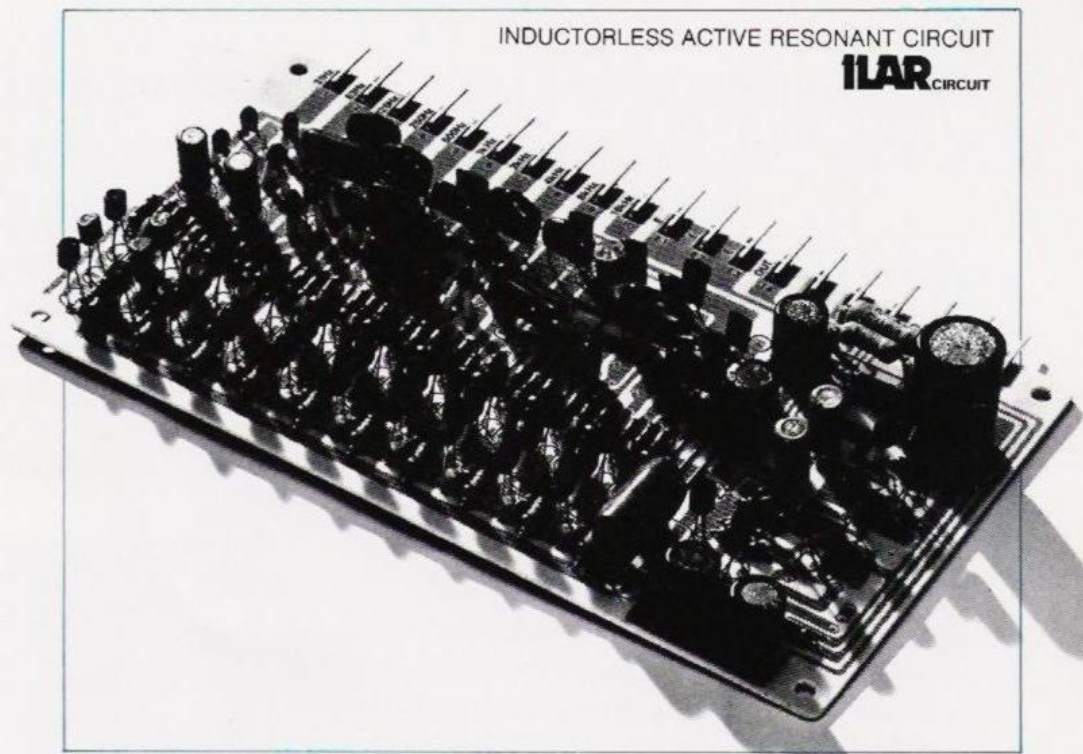


STEREO OCTAVE EQUALIZER

RE-2000

ILAR CIRCUIT

Capable of improving and expanding original sound components and range. Left and right channels independent. Increased fidelity possible by operating the 10 resonant frequency level settings for left and right channels. Class A operation. Discrete resonant circuitry. Less than 0.005% harmonic distortion. Equipped for tape recorder connection.



The component that answers the needs of the most discriminating enthusiast. Essential for maximum flexibility in high fidelity recording and reproduction



TUNERS

QUARTZ LOCK

As obvious as it may seem, a tuner's true worth is determined by the accuracy of its tuning. Both of Rotel's 2000 series tuners ensure absolute precision by using a quartz crystal oscillator lock system. ROTEL's quartz lock system automatically compares the precise 10.7 MHz emanating from the oscillator with the approximate 10.7 MHz of the intermediate frequency (IF). Should there be a discrepancy, a positive or negative signal is accordingly emitted by the phase comparator which passes through the low pass filter (LPF) and serves to lock the local oscillator. Touching the tuning knob unlocks the quartz lock circuit. Releasing one's hand from the tuning knob automatically activates the quartz lock circuit, which then maintains the station selected. Once tuned, stable reception is guaranteed and drift is eliminated regardless of changes in humidity and temperature because oscillation is locked.

NEW LED INDICATOR TUNING SYSTEM

RT-2100
Touching the tuning knob causes the quartz lock to unlock upon register of induction voltage. This then causes the local oscillator frequency to become linear, and when the tuning pointer approaches the desired broadcasting signal or within ± 60 kHz of it the side indicator lamp goes on. When the tuning pointer further moves to within ± 8 kHz of the desired station (capture range), the center green indicator light goes on. Releasing the tuning knob at this point causes the tuning lights to extinguish and the quartz lock indicator light on the right side to go on signifying that the quartz lock is operating.

FM FRONT END, IF SECTION

ROTEL uses a linear-frequency precision 5 gang variable capacitors. The RT-2000 has a 3 Dual-Gate MOS FET stages while RT-2000 has one Dual-Gate MOS FET, both employing the best low-noise components, with resultant superior interference rejection capability as well as having a positive effect on cross modulation interference. The intermediate frequency band is divided into 2 stages, WIDE and NARROW, which ensures superior sound quality under varying conditions of reception, and the linear phase filter aids in low distortion and superior stereo separation.

DIGITAL INDICATORS

RT-2100

Tuning is made amazingly simple and accurate by employing a digital station indicator that can be read at a glance in conjunction with the quartz PLL lock. The signal indicator also uses an easy-to-see yet beautifully designed LED display system.

SUPERIOR MPX SECTION

In order to improve frequency characteristics in the MPX section, ROTEL has paid particular attention to the cut off of the pilot signal (19 kHz) and weakening of the carrier signal (38 kHz). By using LC block filters, high frequency range drop is minimized and a wide range is guaranteed, with the result that rich sound reproduction is possible. The PLL IC is employed to assure constant high stereo separation at low distortion for wide dynamic range.

IF BAND SELECTOR

IF (intermediate frequency) is the front end output (unified at 10.7 MHz for FM) resulting from the difference between the broadcasting signal received and the oscillator frequency. Rotel makes it possible to select between two options, WIDE or NARROW. When reception is weak, use of a narrow IF band can result in superior selection.

DOLBY FM

When receiving a Dolbyized FM broadcast, turning the function selector on the RT-2100 to the Dolby FM position activates the Dolby NR circuitry and enables enjoyment of a clear sound at lower distortion without loss of frequency response. The RT-2000 incorporates a 25 μ s de-emphasis switch, in case of a use with an external Dolby NR adapter.

TAPE RECORDER LEVEL CHECK

RT-2100

Pushing the REC CHECK button activates a 400 Hz tone signal from the built-in circuitry. Fail-safe recording is ensured if the tape deck recording level is then set (usually 0 dB) on this tone to prevent overloading by the broadcast signal.

HI BLEND SWITCH

ROTEL's HI BLEND switch creates a faithful and easy-to-listen-to reproduction by cutting out unwanted high frequency noise with minimum loss for stereo separation and frequency response.

MULTIPATH INTERFERENCE SUPPRESSION

The multipath phenomenon in FM reception, similar to double images on television, can adversely affect sound fidelity. With the MULTIPATH switch "ON" it is possible to select the optimum position for an antenna. The degree of multipath interference can be checked with the digital signal indicator on the RT-2100 and the signal meter on the RT-2000.

AM SECTION

RT-2000

The RT-2000's AM front-end uses a 16-pin dual-in-line IC package with great resistance to external interference as well as much improved performance. Advanced circuitry means AM broadcasts also become a source for high fidelity sound reproduction.

DECK

SC (SENDUST CORE) REC/PB HEAD

ROTEL's 2000 series uses the newly developed and superior SC (SENDUST CORE) HEAD for its REC/PB cassette deck head. The SENDUST alloy adds silicon and aluminum to pure iron to give the best magnetic characteristics possible in the ideal REC/PB head. The SENDUST HEAD solves the problems of weakness and headwear in permalloy and the poor magnetic characteristics of ferrite, which is durable but liable to cracking. Excellent magnetic permeability and a high S/N ratio are thereby guaranteed. Moreover, since it provides as accurate a gap as the ferrite head, even very high frequency characteristics are improved. In addition, with a greater maximum flux density than permalloy, linearity is improved and less headwear results in superior performance. A magnetic coercivity of 1/2 that of ferrite but magnetic properties equivalent to permalloy ensures less need for demagnetization and overall ease of maintenance.

LED BAR CHART PEAK LEVEL INDICATORS

The RD-2200 uses the ultra modern LED BAR CHART PEAK INDICATOR for record and playback. This consists of 13 independent LED each for both right and left channels that register from -20 dB to +3 dB. Compared to the analogue system of other peak level meters with limited speed of response, the digital system is superior in speed and presentation since it converts information into peak and average levels. By eliminating all mechanical meters and employing electronic circuitry an instant and accurate register of information is ensured. Parallel displays of both right and left channels provide easy visibility and quality recording.



RT-2100

RD-2200

MEMORY FUNCTION

Depressing the MEMORY button during recording or playback and adjusting the tape counter to "000" means that the tape will automatically stop at "999" when rewound, a major assist in listening to the same tape segment more than once.

3-STAGE TAPE SELECTORS

The BIAS and EQUALIZER tape selectors each have three positions and function in tandem with the superb SENDUST TAPE HEAD to get the most out of today's high quality tapes. In addition to the three positions of NORMAL, FERRI CHROME, and CHROME there is a control knob for bias adjustment when the bias selector is on "NORMAL" for optimum performance with a particular tape.

LINE/MIC/REC-MUTE SELECTOR

ROTEL's RD-2200 model has a unique but effective REC MUTE position on its selector. Whereas the PAUSE button stops the tape and recording momentarily, the REC MUTE position merely stops the recording, and not the tape—in other words, it makes it possible to create blanks in the recording. With the addition of this function on a tape deck, editing of cassettes has become far easier.

CUE AND REVIEW

Depressing the CUE or REVIEW switch during playback speeds the tape in either direction and normal playback is resumed instantly when the switch is released: an immeasurable aid in locating a particular song or segment of a recording.

SEPERATE MPX FILTER SWITCH

ROTEL's 2000 series tape deck has a built-in separate MPX filter switch for optimum FM recording. When "ON" it cuts the 19kHz and 38 kHz pilot/carrier signals from FM tuner to enable ideal recording; when "OFF" there is no high frequency cutout for other recordings (record disc or microphone), thus permitting optimum frequency response available for recording.

DOLBY NR SYSTEM

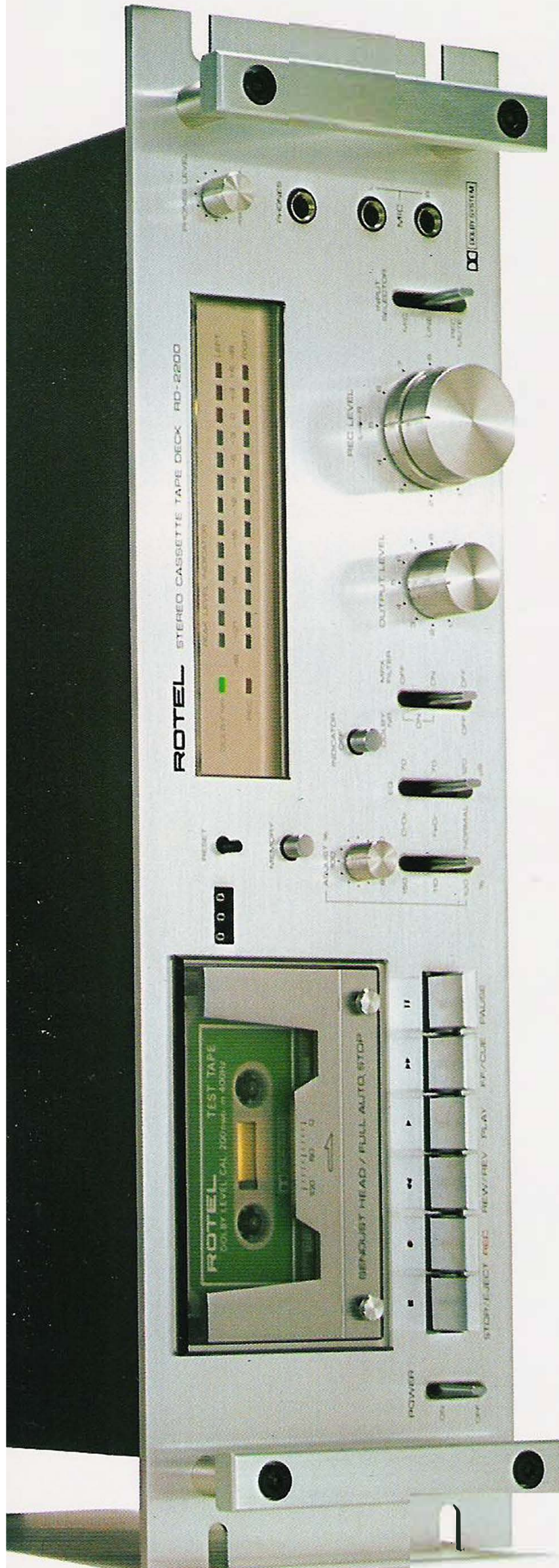
ROTEL's DOLBY NR system reduces annoying tape hiss without harming frequency characteristics and improves the S/N ratio to a maximum of 10dB. Use of DOLBY IC's in the 2000 series has simplified construction and improved stability with time.

FULL AUTO STOP

ROTEL's FULL AUTO STOP mechanism operates in all modes including RECORD, PLAY, FAST FORWARD and REWIND to stop the tape before it reaches the end and returns the respective buttons to their "OFF" positions.

RT-2100 STEREO QUARTZ PLL FM TUNER
 RT-2000 STEREO QUARTZ PLL AM/FM TUNER
 RD-2200..... STEREO CASSETTE DECK

TUNERS AND DECK



- QUARTZ^{PHASE} LOCK** QUARTZ PHASE LOCK

- WIDE-NARROW^{IF BAND}** WIDE-NARROW IF BAND SELECTOR

- DIGITAL^{READOUT}** DIGITAL READOUT

- SC^{HEAD}** SENDUST REC/PB HEAD

- BIAS^{ADJUSTMENT}** BIAS ADJUSTMENT FACILITY

- REC-MUTE** REC-MUTE FACILITY

- LBPI** LED BAR CHART PEAK INDICATORS

	AM	FM	QUARTZ PLL LOCK/TOUCH-LOCK TUNING KNOB	DUAL-GATE MOS FET FRONT END	FM PLL MPX	DIGITAL READOUT	DOLBY FM (BUILT-IN)	RECORD CALIBRATION CHECK SWITCH	EIA 19in. RACK MOUNTABLE
RT-2100	x	•	•	•	•	•	•	•	•
RT-2000	•	•	•	•	•	x	x	x	•

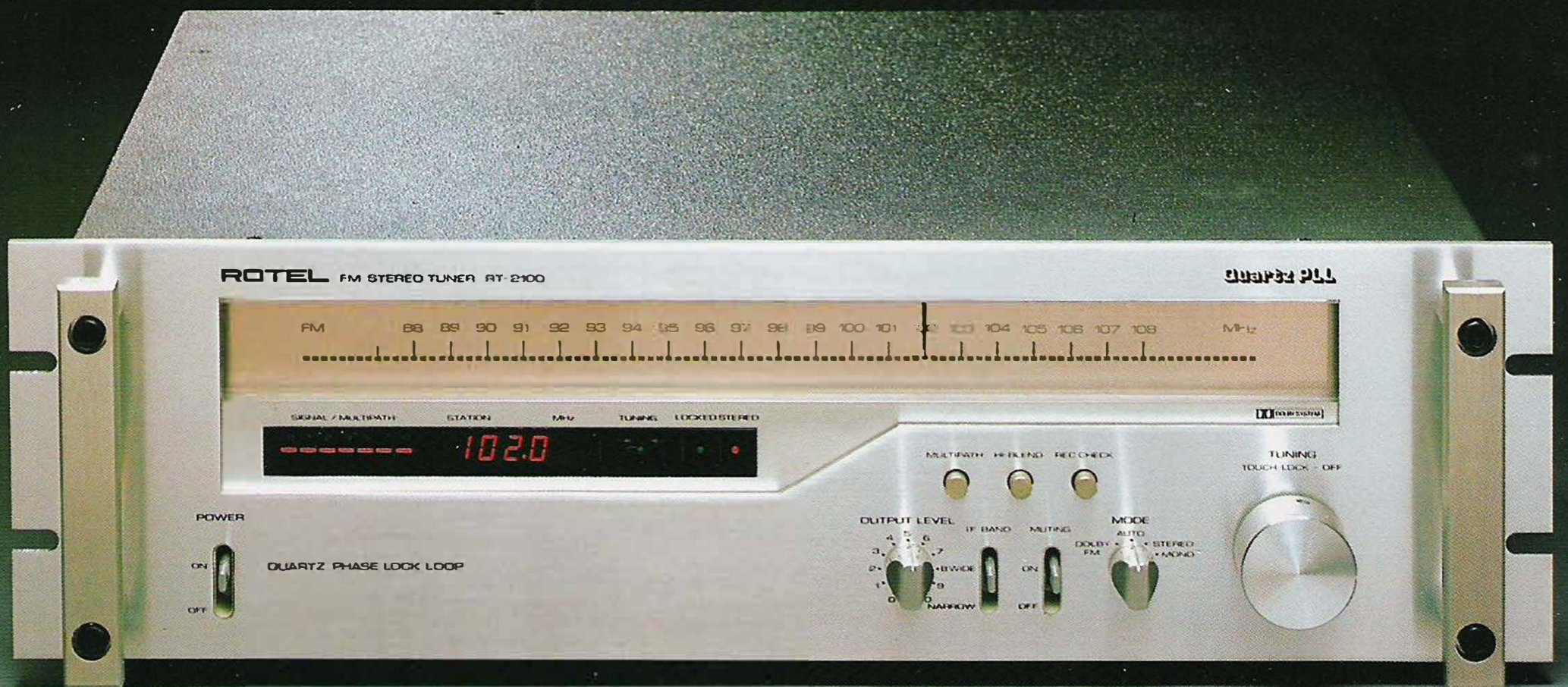
STEREO QUARTZ PLL FM TUNER

RT-2100

QUARTZ^{PHASE}_{LOCK}
WIDE-NARROW^{IF BAND}
DIGITAL_{READOUT}

The RT-2100 employs the latest technology, including a quartz phase lock and digital station readout. A 5-gang dual-gate MOS FET front-end gives an excellent receptivity of 29 dBf (Stereo, 50 dB S/N). Uniquely beautiful design.

The tuner that uses all the latest technology to give the best in fm reception



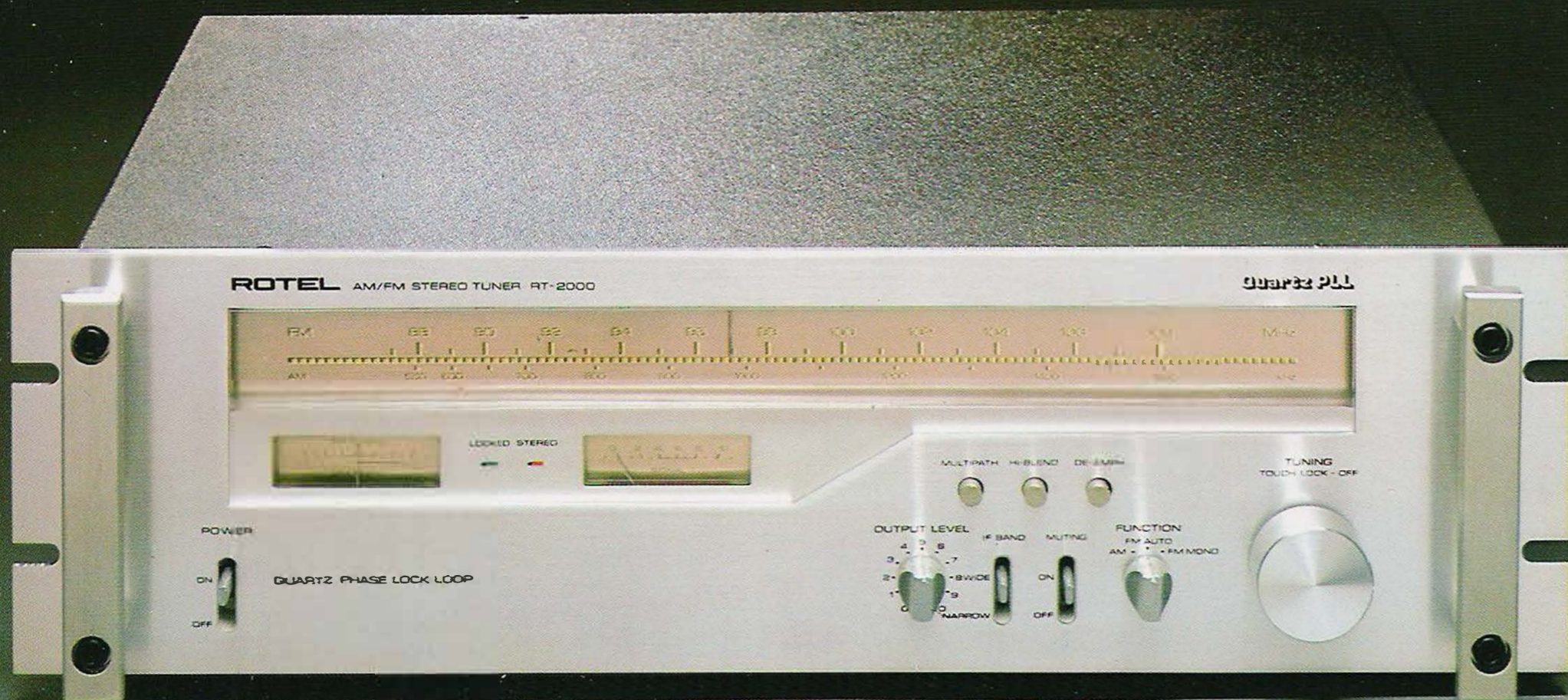
STEREO QUARTZ PLL AM/FM TUNER

RT-2000

QUARTZ PHASE LOCK
WIDE-NARROW IF BAND

In addition to its quartz lock system, the RT-2000 has a front-end with a 5-gang dual-gate MOS FET that guarantees reception sensitivity, and an FM PLL MPX section for superior stereo separation and a wide dynamic range. This model stands on its own in performance and quality.

Top performance with a quartz lock system and ideal ease of operation that complements an abundance of information



STEREO CASSETTE DECK

RD-2200

SC^{HEAD}
BIAS^{ADJUSTMENT}
REC MUTE
LBPI

The best in electronics with time-tested mechanisms — the deluxe cassette deck design that stepped into the future with its digital peak indicators — reliable flywheel-damp ejection.



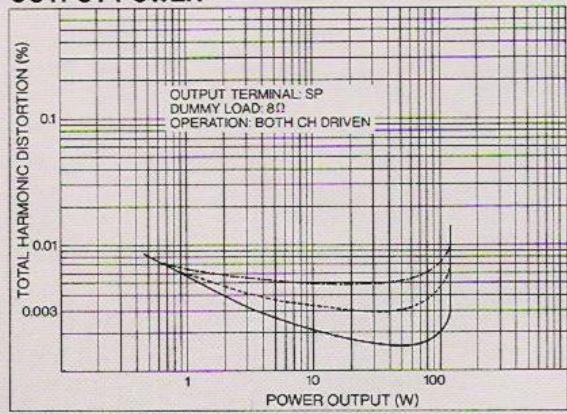
The ultimate in functional design, with the accuracy of led bar chart indicators



•Cassette tape is optional

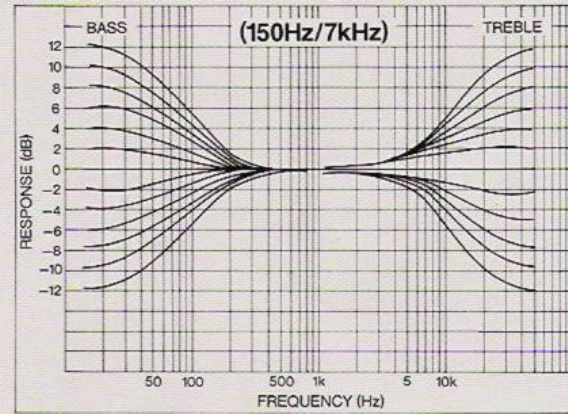
RB-2000 / RA-2040

TOTAL HARMONIC DISTORTION vs OUTPUT POWER



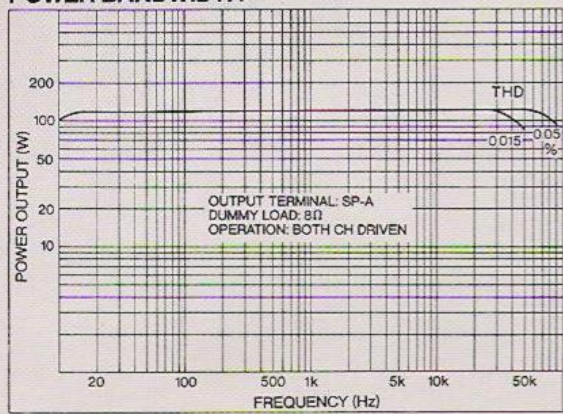
RC-2000 / RA-2040

TONE CONTROL CHARACTERISTICS (150Hz/7kHz)



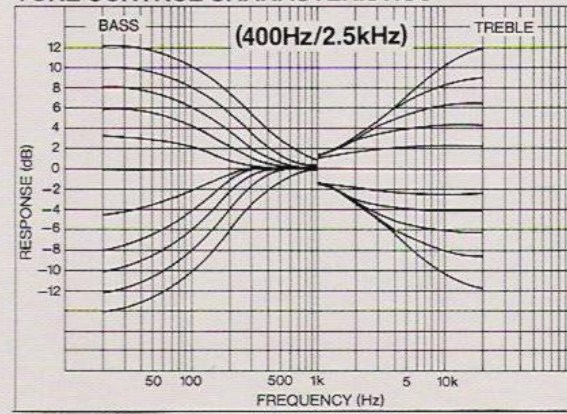
RB-2000 / RA-2040

POWER BANDWIDTH



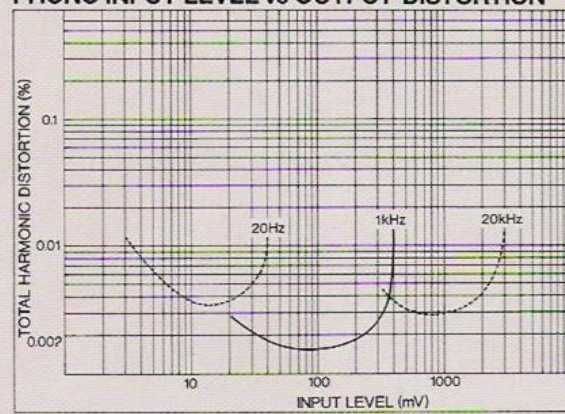
RC-2000 / RA-2040

TONE CONTROL CHARACTERISTICS (400Hz/2.5kHz)



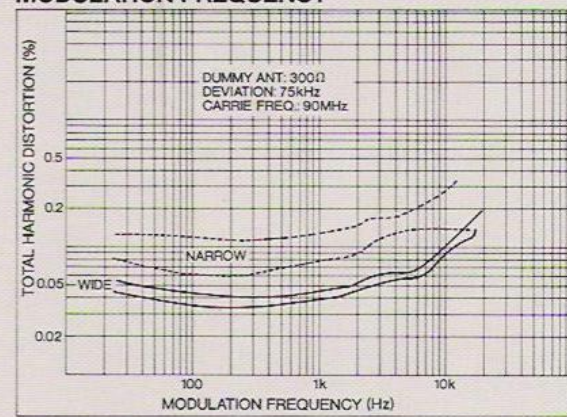
RC-2000 / RA-2040

PHONO INPUT LEVEL vs OUTPUT DISTORTION



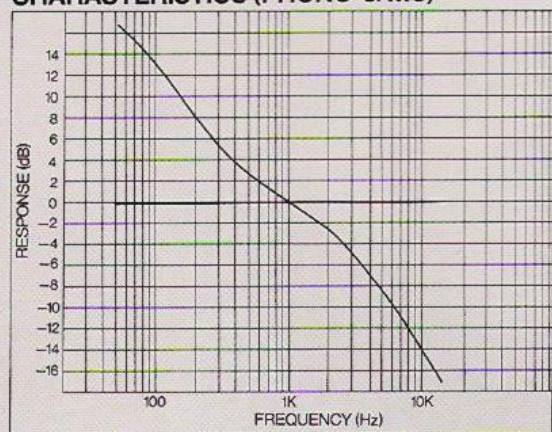
RT-2100 / RT-2000

OUTPUT DISTORTION vs MODULATION FREQUENCY



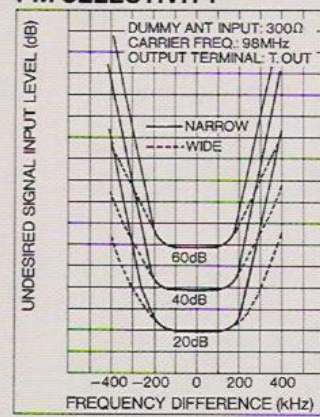
RC-2000

PHONO EQUALIZER CHARACTERISTICS (PHONO-3/MC)



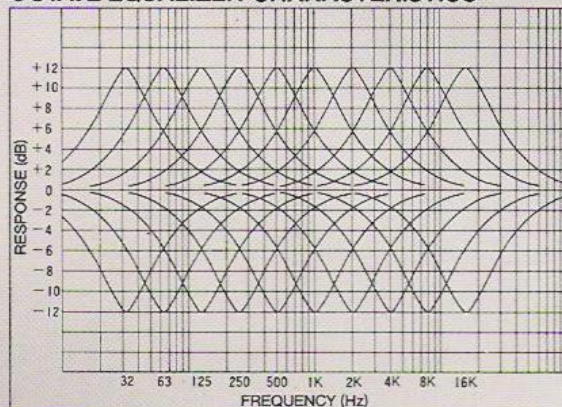
RT-2100 / RT-2000

FM SELECTIVITY



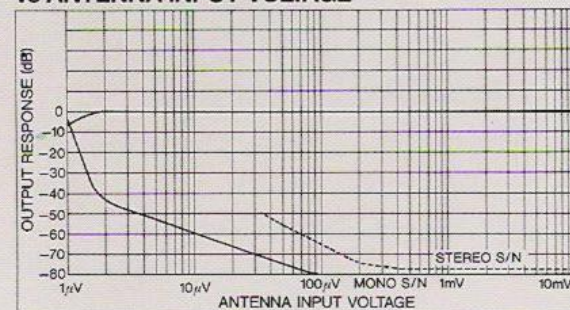
RE-2000

OCTAVE EQUALIZER CHARACTERISTICS



RT-2100 / RT-2000

SIGNAL TO NOISE RATIO, OUTPUT vs ANTENNA INPUT VOLTAGE



SPECIFICATIONS

POWER AMP/CONTROL AMP/INTEGRATED AMPS

POWER AMP SECTION	RB-2000	RC-2000	RA-2040	RA-2030	RA-2020
Continuous RMS Power:					
both channels driven at 1kHz, 4Ω	140W/ch	•	140W/ch	100W/ch	85W/ch
both channels driven at 20–20,000Hz, 8Ω	120W/ch	•	120W/ch	80W/ch	60W/ch
Total Harmonic Distortion 20–20,000Hz, rated power output	0.01	•	0.01	←	0.02
Intermodulation Distortion rated power output, 8Ω	0.015	•	0.015	←	0.02
Frequency Response	(+0dB, -1dB)	•	(+0dB, -1dB)	←	←
DC IN (1W/ch, 8Ω)	DC–100,000Hz	•	DC–100,000Hz	•	•
AC IN (1W/ch, 8Ω)	(+0dB, -1dB) 5–100,000Hz	•	(+0dB, -1dB) 5–100,000Hz	(+0dB, -3dB) 2–200,000Hz	← 2–160,000Hz
Input Sensitivity/Impedance	1.5V/50kΩ	•	1.5V/50kΩ	1V/50kΩ	←
Damping Factor					
20–20,000Hz, 8Ω	60	•	65	60	50
1kHz, 8Ω	100	•	100	90	80
Hum & Noise (IHF, short-circuited A network)	110dB	•	110dB	105dB	100dB
Crosstalk (10kHz)	65dB	•	65dB	60dB	57dB
EQUALIZER AMP SECTION					
Harmonic Distortion					
PHONO (MAG)	•	0.004%	0.005%	←	0.006%
PHONO (MC)	•	0.006%	←	←	0.008%
Phono Equalization (20–20,000Hz)	•	±0.2dB	±0.3dB	←	±0.5dB
Input Sensitivity/Impedance (ref. rated output)					
PHONO 1 (MAG)	•	2mV/35, 50, 70kΩ 0, 100, 200pF	←	←	2mV/50kΩ
PHONO 2 (MAG)	•	2mV/50kΩ	←	←	•
PHONO 3 (MC)	•	100μV/33Ω	←	200μV/150Ω	← (PHONO 2)
Overload (1kHz, 0.5% THD)					
PHONO (MAG)	•	400mV	←	300mV	200mV
PHONO (MC)	•	20mV	15mV	10mV	5mV
PRE AMP SECTION					
Harmonic Distortion (rated output, 20–20,000Hz)	•	0.008%	←	←	0.01%
Frequency Response	•	4–160,000Hz	←	←	5–120,000Hz
Hum & Noise (IHF, A network)					
TUNER, AUX	•	95dB	←	←	92dB
TAPE MONITOR	•	95dB	←	←	92dB
RESIDUAL (Volume level – min.)	•	6μV, 100dB	←	←	8μV, 100dB
Input Sensitivity/Impedance (ref. rated output)					
TUNER, AUX	•	150mV /50kΩ	←	←	←
TAPE MONITOR	•	150mV /50kΩ	←	←	←
Overload (1kHz, 0.5% THD)					
TUNER, AUX	•	15V	←	←	←
TAPE MONITOR	•	15V	←	←	←
Slew Rate	40V/μS	•	40V/μS	30V/μS	←
Square Wave Risettime	2μS	•	2μS	3μS	←
CONTROL CHARACTERISTICS					
Tone Control Turnover roll-off					
BASS	•	150Hz/400Hz	←	•	•
TREBLE	•	7kHz/2.5kHz	←	•	•
BASS Control	•	±5dB/±10dB	←	100Hz, ±10dB	←
Treble Control	•	±5dB/±10dB	←	10kHz, ±10dB	←
Supersonic Filter 24kHz	•	12dB/oct	←	←	←
Subsonic Filter 16Hz	•	12dB/oct	←	←	←
MISCELLANEOUS					
Power Consumption (Max.)	900W	30W	900W	500W	450W
Dimensions (Overall) W x H x Dmm	482 x 143 x 430	482 x 143 x 333	482 x 143 x 408	←	482 x 143 x 328
Weight	18kg	10kg	22kg	18kg	13kg

OCTAVE EQUALIZER

RE-2000	
Channels	2 (left, right)
Bands	10 bands/channel
Bands Control Characteristic	+12 dB ~ -12 dB
Center Frequencies	32, 63, 125, 250, 500, 1000, 2000, 4000, 8000, 16000 Hz
Input Sensitivity/Impedance	0.775V/56k Ω
Rated Power/Impedance	0.775V/600 Ω
Hum & Noise (IHF A network)	100 dB
Residual Noise	0.08 mV
Frequency Response	10 ~ 100,000 Hz (+0 dB, -1 dB)
Harmonic Distortion	0.005%
Dimensions (Overall) W x H x D mm	482 x 143 x 328
Weight (Net)	6.3 kg

CASSETTE DECK

RD-2200		
Heads	Rec/Play Erase	SC (SENDUST CORE) TYPE DOUBLE GAPS FERRITE CORE
Wow & Flutter (WRMS)		0.05%
Frequency Response (MPX OFF POSITION)	Normal/LH Tape CrO ₂ /Ferri-Chromium Tape	30 Hz - 17 kHz \pm 3 30 Hz - 19 kHz \pm 3
Signal-to-Noise Ratio (Ferri-Chromium)	1 kHz at zero VU Dolby in Dolby out	64 dB 56 dB
Input Sensitivity/Impedance	MIC LINE (RCA) LINE (DIN)	0.4 mV/20k Ω 140 mV/50k Ω 10 mV/10k Ω
Output Level	LINE (RCA) LINE (DIN)	980 mV
Motor		EGC DC TYPE
Fast Forward & Rewind Time (C-60)		90 Seconds
Dimensions (Overall) W x H x D mm		482 x 150 x 260
Weight (Net)		9 kg

TUNERS

FM SECTION (88-108 MHz)	RT-2100	RT-2000
Sensitivity: (IHF) Mono 26 dB s/n Stereo (50 dB s/n)	9.3 dBf (1.6 μ V) 36 dBf (35 μ V)	9.8 dBf (1.7 μ V) 36 dBf (35 μ V)
Signal-to-Noise Ratio (IHF) mono stereo	80 dB 75 dB	80 dB 75 dB
Harmonic Distortion, mono stereo	wide 0.05%, narrow 0.15% wide 0.07%, narrow 0.2%	wide 0.05%, narrow 0.15% wide 0.07%, narrow 0.2%
Capture Ratio	1 dB	1 dB
Alternate Channel Selectivity (IHF)	narrow 80 dB	narrow 80 dB
Frequency Response (30 Hz - 15,000 Hz)	\pm 0.2 dB	\pm 0.2 dB
Stereo Separation (1 kHz)	47 dB	45 dB
Image Response Rejection	115 dB	100 dB
IF Rejection	115 dB	100 dB
AM Suppression Ratio	65 dB	60 dB
Muting Threshold	5 μ V	5 μ V
AM SECTION (525-1605 kHz)		
Sensitivity (IHF)	•	200 μ V/m
Signal-to-Noise Ratio	•	55 dB
Image Rejection	•	50 dB
Selectivity	•	40 dB
MISCELLANEOUS		
Dimensions (Overall) W x H x D mm	482 x 143 x 328	482 x 143 x 328
Weight (Net)	7.5 kg	7.5 kg

Note: features and specifications subject to changes for improvement without notice.
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