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Vertrieb: Michael Otto

YAMAHA NS STEREO

NATURAL SOUND

MODULAR SYSTEMS



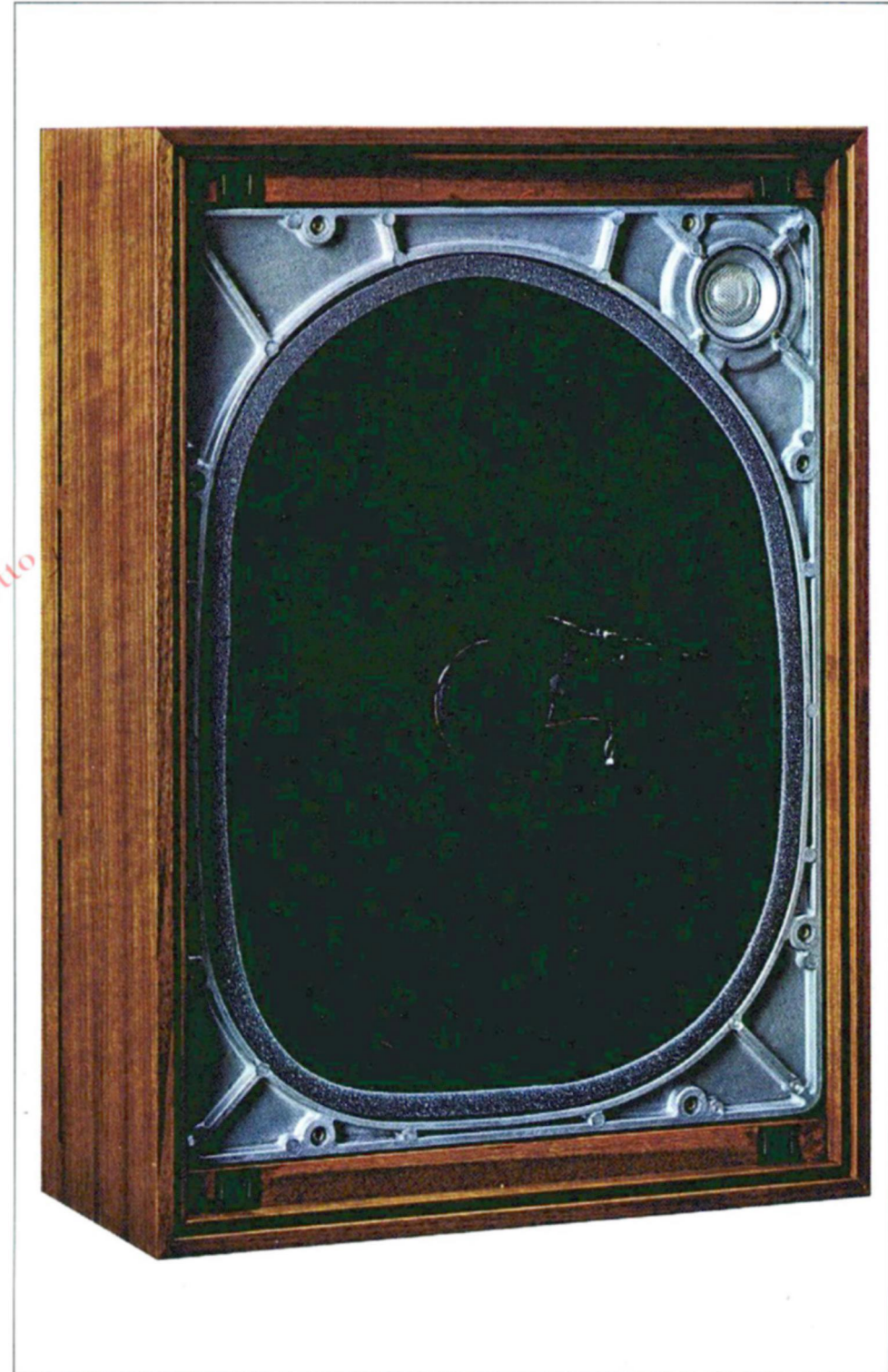
What is Natural Sound?

Briefly explained, *natural* sound is that sound which we hear in its natural condition. For those discriminating listeners of fine music, natural sound means even more. It is sound which can be heard without artificial resonances or spurious modulations...uncolored sound...pure and clean sound...unconstricted sound. Unfortunately, such sound is seldom heard when subjected to the vagaries of even the finest of modern sound reproduction equipment, although the results are very close to that goal. And no matter how closely modern recording, broadcasting and reception techniques approach this natural sound, it must ultimately pass the toughest obstacle of all...final projection from the amplifier through the air to our ears. This is the job of the speaker...to bring out the sheen of the highs, the natural balance of the midrange and the careful enunciation of the bass. And, although every other component of modern music systems has been developed to a high degree of efficiency, speakers have undergone no major change in 50 years. The fact that speakers are still far from perfect—and need a great deal of improvement—is proven by the myriad of claims and “improvements” seen almost daily as speaker manufacturers, one might say desperately, grope for some way to correct this imbalance between the sound at its source and the sound which you hear.

Each of these changes made the speaker indeed somewhat different from other brands—and added or subtracted something from the sound at the same time—but, substantially, speakers remained unchanged.

Until Yamaha decided to try not to reproduce sound, but to *produce* it. More than eighty years of musical instrument development and production have given Yamaha unparalleled experience with the raw, natural sound produced by pianos, organs, guitars, band instruments and almost every other popular instrument. Electronic organ development has yielded a wealth of knowledge in modern electronics. Woodcrafting techniques honed over the decades provided skills and lore which could not be bought at any price.

And still it was not easy, even with that combination of talents, for Yamaha to obtain the desired results. Many years of research, trial and disappointment finally, however, culminated in a music system built around speakers which are, to say the least, unusual...both to the eye and the ear. One glance will be ample proof that they are truly different in appearance...and your ear will soon tell you that the sound is quite different too...it's *natural* sound...brought to you just as the amplifier gave it to the speaker, for better or worse depending, then, upon the rest of the system..



MODERN MODULAR SYSTEMS FOR MODERATE BUDGETS



MC-40

Total harmonic distortion: Less than 0.15% (10/10W, 1000 Hz)

Hum and noise: -60 db (Phono)

Turntable: 29 cm (11½") aluminum diecast

Cartridge: Moving magnet

Stylus pressure: 3.0 gr.

Wow and flutter: Less than 0.12%

Dimensions: (W×D×H) 59×41×19 cm (23×16×8")

Weight: 14 kg (31 lb)

This popular model has been especially Yamaha-engineered for the demanding stereo enthusiast with a limited budget, or for those buying their first high quality stereo equipment.



MC-50

Total harmonic distortion: Less than 0.15% (10/10W, 1000 Hz)

Hum and noise: -60 db (Phono)

Turntable: 30 cm (12") aluminum diecast

Cartridge: Induced magnet

Stylus pressure: 2.5 gr. **Wow and flutter:** Less than 0.1%

Dimensions: (W×D×H) 69×42×22 cm (27¼×16½×9")

Weight: 21 kg (46 lb)

Other features: Radar tuning system, tuning meter, compartment for accessories

The MC-50 is a beautiful unit designed for the audiophile who simply wants the best in FM/AM/FM stereo and stereo turntable performance without tape.

With the discriminating listener in mind, then, Yamaha has carefully engineered the rest of the system around the fabulous Natural Sound speaker systems. And, although any component of these systems will enhance the finest system—and are of course fully compatible with existing components, the combinations shown on these pages have been particularly designed to mutually augment the individual qualities of each component.

Contrary to the situation just a few short years ago, modular stereo is now in no way inferior to component stereo, and offers several important advantages: savings in both space and cost being the two most important. Yamaha proudly presents here a complete selection of compact units which offer a variety of features, all of proven dependability and value, in a range of models designed for the needs of virtually any listening environment.

The following specifications are applicable to every model shown here.

TUNER/AMPLIFIER

Continuous output power (at 1 kHz): 15/15 W **Dynamic output power (8Ω):** 44 W

Frequency response: 20~30,000 Hz ±2 db **FM frequency range:** 88~108 MHz

AM frequency range: 535~1605 kHz **FM stereo separation:** 40 db

STEREO TURNTABLE

Type: 4-pole synchronous motor; Double float system **Speeds:** 33½ and 45 rpm

Stylus: 0.7 mil diamond **Tonearm:** Gravity centered

Other: Automatic return, automatic cut, automatic "sleep switch" cut off

OTHER: FM stereo eye, automatic stereo changeover, stereo headphone jack,

DIN jack, AM ferrite antenna, illuminated dial, loudness control

GENERAL

Cabinet: American walnut, oil finish

Cover: Brown smoke acryl, spring hinged for 60° and 90° opening



MC-600

Total harmonic distortion: 0.15%

Hum and noise: -80 db (mini. volume)

Turntable: 30 cm (12") aluminum diecast

Cartridge: Induced magnet

Stylus pressure: 2.5 gr.

Wow and flutter: 0.08%

Dimensions: (W×D×H) 42×32×13 cm (17×12½×5")

Weight: 14 kg. (31 lb.)

Other features: Removable cartridge shell, illuminated tuning dial, tuning meter, provisions for main and remote speaker systems, muting circuit

Our finest stereo turntable equipped modular stereo. Includes every feature for the advanced Hi-Fi enthusiast. Connections for main and remote speaker systems, for tape recording and playback, and for microphone amplifier.



MC-50A

Total harmonic distortion: Less than 0.15% (10/10W, 1000 Hz)

Hum and noise: -60 db (Phono)

Turntable: 30 cm (12") aluminum diecast

Cartridge: Induced magnet

Stylus pressure: 2.5 gr.

Wow and flutter: Less than 0.1%

Dimensions: (W×D×H) 69×42×22 cm (27¼×16½×9")

Weight: 23 kg (50 lb)

Other features: Radar tuning system, tuning meter,

Lear-jet type stereo tape player



MC-50B

Total harmonic distortion: Less than 0.15% (10/10W, 1000 Hz)

Hum and noise: -60 db (Phono)

Turntable: 30 cm (12") aluminum diecast

Cartridge: Induced magnet **Stylus pressure:** 2.5 gr.

Wow and flutter: Less than 0.1%

Dimensions: (W×D×H) 69×42×22 cm (27¼×16½×9")

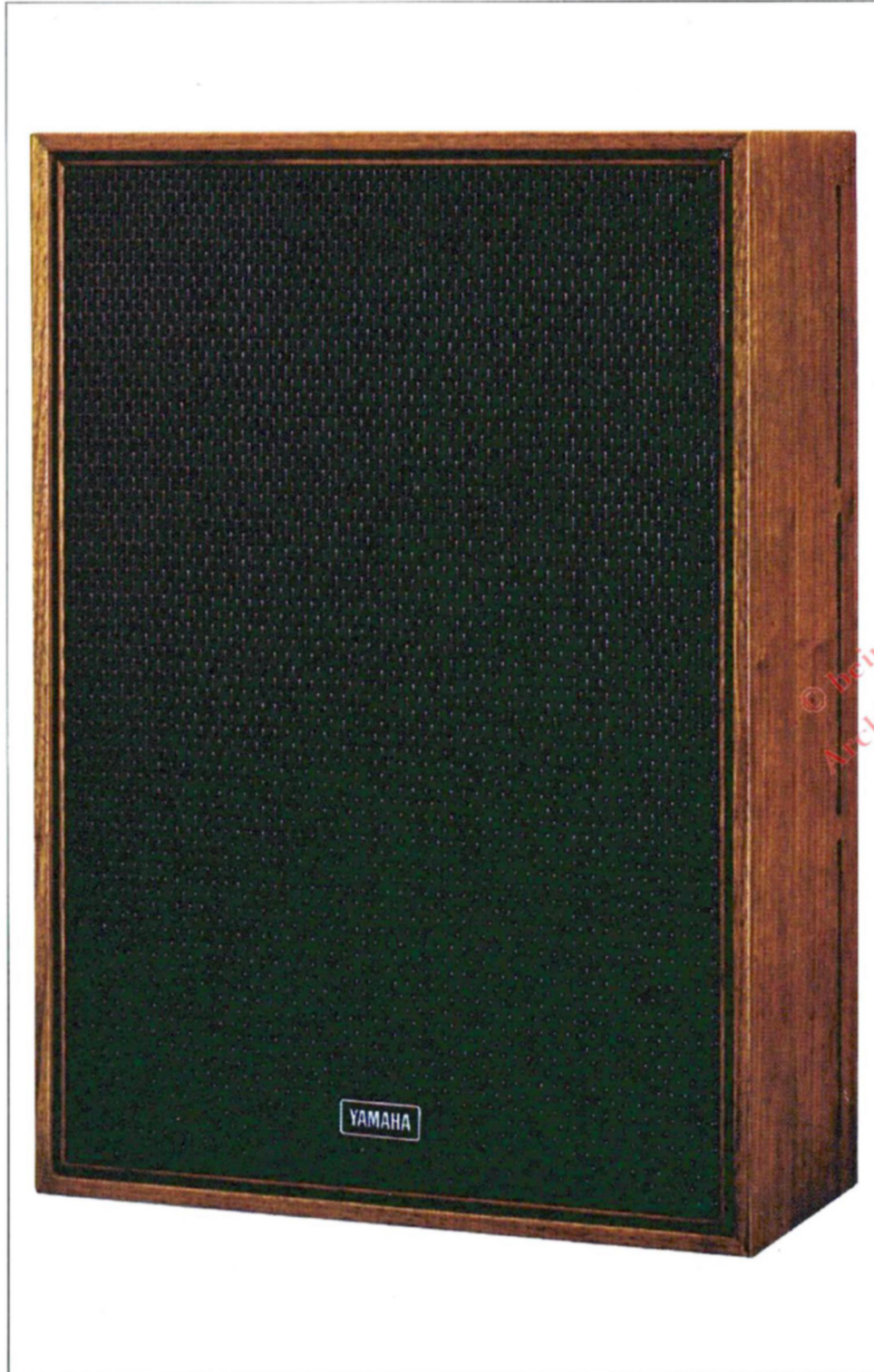
Weight: 23 kg (50 lb)

Other features: Radar tuning system, tuning meter,

Philips-type compact cassette tape recorder

These two models, MC-50A and MC-50B, are perfect for the listener who wants to enjoy the pleasures of tape together with the turntable and FM/AM/FM stereo broadcasts.

A SPEAKER SYSTEM FOR EVERY NEED... FOR ANY BUDGET



NS-10



Thrilling Natural Sound without distorting coloration of music. Most speakers add something to music: a "boomy" bass, or an overemphasis of treble. Many speakers are even specifically designed to do this and you may not mind the effect... but it *isn't* faithful reproduction... and *shouldn't* be a part of speaker design. There are, after all, controls on every good amplifier to add emphasis if and when you desire. The best speaker is still the one with absolutely no modulation or coloration of its own added to the highs and the lows. Yamaha Natural Sound speaker systems are completely honest: what goes into them is what comes out. They won't help to improve a bad receiver or turntable; but they won't distort the pure sounds of a good component either. That's why Yamaha spent tremendous amounts of time and money to develop the several systems shown here. There's one for every need and in a complete selection of input powers and prices.

NS-15



NS-18



NS-10

Impedance: 8Ω **Maximum continuous input:** 10 W

Speaker complement: Natural Sound woofer 32×45 cm (12½×18")
Tweeter 5 cm (2")

Cabinet: Open back; removable grille; American walnut, oil finish
Dimensions (H×W×D): 51×36×18 cm (20×14×7") **Weight:** 7 kg (15½ lb)

NS-20



NS-15

Impedance: 8Ω **Maximum continuous input:** 15 W

Speaker complement: Natural Sound woofer 38×51 cm (15×21")
Tweeter 5 cm (2")

Cabinet: Open back; removable grille; American walnut, oil finish
Tone Control: Continuously variable

Dimensions (H×W×D): 59×42×19 cm (23½×16½×7½") **Weight:** 10 kg (22 lb)

NS-30



Impedance: 8Ω **Maximum continuous input:** 18 W

Speaker complement: Natural Sound woofer 46×58 cm (18×23")
Tweeter (JA-0506B) 6 cm (2½")

Cabinet: Open back; American walnut, oil finish
Tone control: 3-position

Dimensions (H×W×D): 72×54×25 cm (28¼×21¼×10") **Weight:** 18 kg (40 lb)

NS-20/NS-20A

Impedance: 8Ω **Maximum continuous input:** 20 W

Speaker complement: Natural Sound woofer 50×68 cm (20×27")
Squawker 20 cm (8")
Tweeter 5 cm (2")

Tone control: 3-position

Cabinet (NS-20): Open back; removable grille; American walnut, oil finish
(NS-20A): Open back; Satin American walnut

Dimensions (H×W×D) (NS-20): 86×62×31 cm (34×24½×12¼")
(NS-20A): 66×85×36 cm (26×33×14")

Weight (NS-20): 23 kg (51 lb) **(NS-20A):** 28 kg (62 lb)

NS-20A



NS-30A



NS-30/NS-30A

Impedance: 8Ω **Maximum continuous input:** 30 W

Speaker complement: Natural Sound woofer 63×89 cm (25×35")
Squawker 30 cm (12")
Tweeter 5 cm (2")

Tone control: 3-position

Cabinet (NS-30): Open back; removable grille; American walnut, oil finish
(NS-30A): Open back; Satin American walnut

Dimensions (H×W×D) (NS-30): 103×74×31 cm (41×30×12½")
(NS-30A): 74×100×36 cm (29×39×14")

Weight (NS-30): 35 kg (77 lb) **(NS-30A):** 36 kg (79 lb)

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EVERY COMPONENT... PERFECTLY ENGINEERED FOR SUPERB PERFORMANCE

Every Yamaha modular stereo system has the same fine amp, although exterior design and features vary slightly from model to model. On AM, FM or FM stereo, this finer tuner/amplifier brings the same fine performance, virtually indistinguishable from professional studio equipment. Every delicate note is presented in all its original loveliness. And the styling beautifully projects Yamaha's concept of the finest in modern and professional appearance combined with a finish which will blend delightfully with even the most luxurious decor. This FM/AM "home music center" brings all of the features and convenience of multi-component systems on one chassis and makes your modular stereo system outstanding for space-saving performance and economy.

The turntables used in Yamaha Natural Sound modular stereo systems are a very exciting part of the system. All models incorporate Yamaha's original turntable—with the revolutionary Double Float system and Gravity Center mechanism (both described below), the convenient automatic "sleep switch" cut off, static-balanced tonearm, 4-pole synchronous motor, belt-driven, two speeds, diamond stylus, and automatic return and automatic cut off. Encased in the open-pore, oil-polished, straight-grained American walnut cabinet, all turntables feature a brown smoke acryl spring-hinged cover which can be opened to either 60° or

90°. Each of these fine turntables, no matter which model you choose, has been engineered to deliver the finest performance from your records and to match perfectly with the other fine components of this fine system.

Note the modern design and convenient controls of model MC-50B.

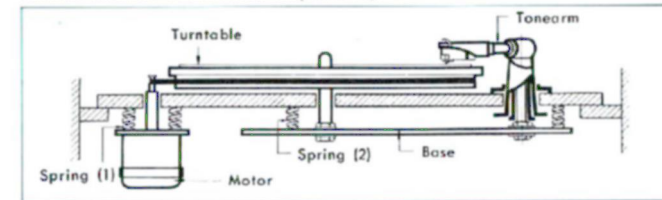


DOUBLE FLOAT SYSTEM FOR VIBRATION-FREE PERFORMANCE

Each Yamaha turntable features the finest system ever devised to eliminate vibration from outside sources or the unit's motor. The motor is separated in a very unique and effective way, as shown, by a series of spring coils which serve to absolutely prevent virtually every possible vibration from reaching the tonearm/turntable assembly. This series

of separate and independent spring coils is another example of Yamaha progress toward assurance to the listener of the finest in wonderful listening pleasure.

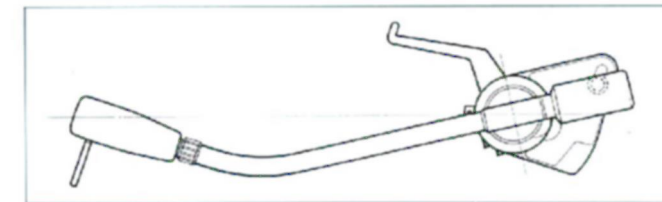
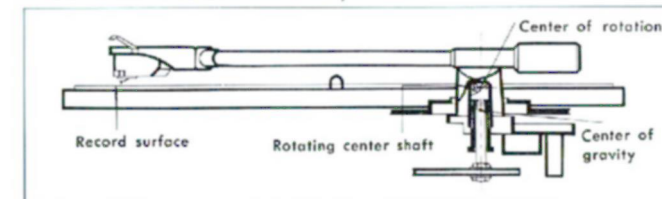
Yamaha's exclusive "Double Float" suspension system.



PERFECTLY BALANCED "GRAVITY CENTER" TONEARM

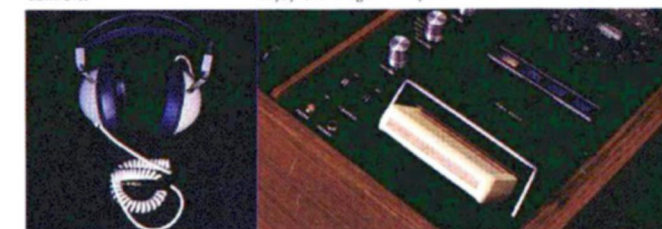
This feature is found on all Yamaha turntables. The very important tonearm assembly has been carefully, completely and precisely balanced in every direction: vertical, left/right and front/rear. The center of rotation is at a point which is perfectly level with the surface of the record itself to assure never-changing cartridge pressure in the record groove even though the record may be warped. In addition, the center of gravity of the entire tonearm assembly is located slightly below the center of rotation for extra stable operation. Finally, the tonearm features two main weights for quick and precise adjustment to any cartridge.

Precision tonearm is static-balanced in every direction.



With stereo headphones, enjoy private listening in comfort.

Enjoy the magic of tape on models MC-50A and MC-50B.



YAMAHA COMPONENTS FOR THE DISCRIMINATING AUDIOPHILE

AA-70



A striking and exciting new solid-state tuner/amplifier for the finest stereo system. Introduces a completely new standard of performance. Every audiophile will immediately recognize this receiver as virtually equal to the finest piece of professional studio equipment. Big 130-watt output

assures superb reproduction of every delicate note and nuance of sound in all its natural beauty. Styling and convenient arrangement of controls, plus a lovely finish, are all conceived to delightfully blend with even the most luxurious decor. This model, on a single chassis, has been engineered to perform all of the functions of systems which previously required two or more components to do the same work, and at absolutely no sacrifice in quality reproduction. Some of its many features include: stereo lamp, muting circuit, extra high sensitivity, all-transistorized printed circuitry, illuminated dial, loudness control, DIN connection, stereo headphone jack, provision for both remote and main speaker systems, superior selectivity... and a host of other exciting "pluses". Again, as for more than 80 years, Yamaha leads the way to better sound.



AA-70 FM/AM Tuner-Amplifier Specifications

AMPLIFIER

Dynamic output power (IHF) at 1 kHz:
130W at 4 Ω , 90W at 8 Ω
Harmonic distortion at 1 kHz: 0.3%
Sensitivity (for rated output at 8 Ω):
Phono: 3.0 mV
Auxiliary: 170 mV
Tape monitor: 200 mV
Hum and noise (below rated output):
Minimum volume: -85 db
Phono: -65 db
Auxiliary: -75 db
Frequency response:
Phono: 30~20,000 Hz \pm 1 db
Auxiliary: 30~20,000 Hz \pm 1 db
Power amplifier section: 30~30,000 Hz
+0 -2 db
Recorder output:
Low/high: 200 mV

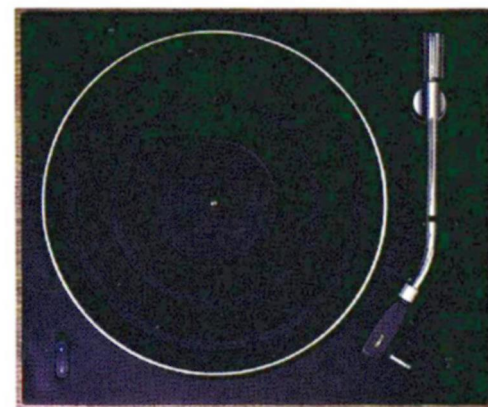
Bass control range: 26 db to 50 Hz
Treble control range: 26 db at 10 kHz
FM TUNER
Usable sensitivity (IHF): 2.5 μ V
Harmonic distortion (at 400 Hz):
100% modulation: 0.4%
Stereo separation: 40 db
S/N ratio (at 100% modulation,
1 mV input): 70 db
AM TUNER
Sensitivity (Ferrite antenna) IHF: 20 μ V
GENERAL
Dimensions (including controls, dress
panel and heat sink): (WxDxH)
47x44x14 cm
(18 $\frac{1}{2}$ x17 $\frac{1}{4}$ x5 $\frac{1}{2}$ "")
Weight: 7.5 kg (16 lb)

YP-70



The Yamaha YP-70 stereo turntable system is engineered for the finest music systems and the most critical listener. Featuring the Yamaha exclusive Double Float suspension system and the Gravity Center, static-balanced tonearm assembly, this model provides the ultimate in definitive, flawless, silent and synchronous speed with instant starting power and the reliable torque of its fine motor. A definite evolution in home record playing equipment. Such features as the 4-pole synchronous motor for perfect

speed unaffected by load or voltage variations, an extra-heavy aluminum die-cast platter, belt drive, an IM (induced magnetic) cartridge with diamond stylus and special 3-bearing main shaft all combine to make the YP-70 one of the finest turntables ever produced. Performance is virtually rumble free, and mechanical vibration and electric noise are reduced to non-measurable values. Wow and flutter are at an absolute minimum, and skipping and skating are a problem no longer seen. Its performance makes it the perfect complement for the finest stereo system, and its attractive appearance makes it the perfect complement to every decor.



YP-70 Stereo Turntable System Specifications

Turntable: Type: 2-speed motor with automatic pickup and return
Speeds: 33 $\frac{1}{3}$ and 45 rpm
Wow & Flutter: 0.08%
S/N ratio: 46 db (DIN)
Diameter: 30 cm (12"), aluminum diecast
Tonearm: Type: Static balanced (center of gravity mechanism)
Stylus pressure: 0~5 gr.
Shell: Universal plug-in type

Cartridge: Type: IM-type stereo (Yamaha CG-5000)
Output: 4 mV
Frequency response: 10~20,000 Hz
Stylus pressure: 2.5 gr.
Stylus: 0.7 mil diamond
Dimensions: (WxDxH) 48x41x15.5 cm (19x16x6")
Weight: 8.6 kg (20 lb.)

SINCE 1887



YAMAHA

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