DENON. FOR 70 YEARS, INNOVATION HAS BEEN OUR TRADITION.

1910, the year DENON first started producing records and players, marked the beginning of a DENON tradition that includes many of the audio industry’s most significantly accomplishments. A direct-drive turntable in 1939. Moving-coil cartridges in 1951. And the invention of commercial PCM recording system in 1972. To name just a few.

It is no wonder that DENON is the prime supplier to the NHK, Japan’s equivalent to the BBC.

The equipment shown in this brochure marks DENON’s 70th Anniversary as a Professional Audio Brand. Every DENON item, from the accessories to the reference electronics, represents the culmination of 70 years of experience in improving the reproduction of recorded music.
**DH-510 7½/15 IPS Half Track “True Professional Performance” Tape Deck**

- Outstanding half track performance and stability enhanced a direct drive capstan system, speed servo mechanism using a high precision magnetic recording detection system and an innovative direct tension servo mechanism.
- Wide dynamic range amplifier circuit.

**SPECIFICATIONS**

- **Type**: 3 motors 2-speed stereo tape deck
- **Heads**: Hard permalloy (NIP)
- **Ferrite**: Erase
- **Motors**: Capstan: AC servo motor
- **Head**: AC current motor x 2
- **Click**: Less than 0.05% (2 cm)
- **Low noise**: Less than 0.03% (1 cm)
- **Wow and flutter**: More than 6 dB
- **Overall S/N ratio**: More than 60 dB
- **Overall harmonic distortion ratio**: Less than 0.1%
- **Overall frequency response**: 30 cm/s
- **Channel separation**: 19 cm/s
- **Input**: More than 50 dB (1 kHz)
- **Microphone**: 0.2 mV, 50 kΩ
- **Line**: 61.5 mV, 100 kΩ
- **Output**: Line
- **Headphone**: 8 Ω
- **Power supply**: 110 V 60 Hz or AC 200/220/240 V, 50/60 Hz
- **Dimensions**: 456 (H) x 475 (W) x 210 (D) mm
- **Weight**: 22 kg

**DR-330 3-Head Tape Tension Servo System Stereo Cassette Deck**

- DENON's new tension servo sensor maintains optimum tape tension.
- F-alloy combination head offers wide frequency response 25 Hz – 21 kHz ± 3 dB, high sensitivity and low distortion.
- Quartz locked PLL servo motor drives the capstan for higher tape transport stability.
- Double Dolby noise reduction system.

**SPECIFICATIONS**

- **Type**: 4-track, 2-channel, stereo
- **Heads**: Record/playback: F-alloy
- **Erase**: Double gap ferrite
- **Capstan**: Double gap ferrite
- **DC servo motor**: Rated: DC motor
- **Wow and flutter**: More than 67 dB (DOLBY NR switch at ON)
- **Frequency response**: 25 Hz – 21 kHz ± 3 dB
- **Tape**: Metal tape
- **Microphone**: 0.35 mV/10k Ω
- **Output**: Line
- **Headphone**: 75 mV (W): 300 ohm
- **Power supply**: AC 200/220/240 V, 50/60 Hz
- **Dimensions**: W x H x D: 434 x 117 x 300 (mm), 7.0 kg

**DR-320 3-Head Tape Tension Servo System Stereo Cassette Deck**

- DENON's new tension servo system 3 Head configuration, with DENON's new tape transport system provides better tape contact to the heads.
- Double Dolby system further improves the performance of the 3-head system by eliminating tape hiss.
- Full DC amplifiers are built into both the record and playback system for wide frequency response.

**SPECIFICATIONS**

- **Type**: 4-track, 2-channel, stereo
- **Heads**: Record/playback: F-alloy
- **Erase**: Double gap ferrite
- **Capstan**: DC servo motor
- **Wow and flutter**: More than 55 dB
- **Frequency response**: 25 Hz – 21 kHz ± 3 dB
- **Tape**: Metal tape
- **Microphone**: 0.35 mV/10k Ω
- **Output**: Line
- **Headphone**: 75 mV (W): 300 ohm
- **Power supply**: AC 200/220/240 V, 50/60 Hz
- **Dimensions**: W x H x D: 434 x 117 x 300 (mm), 7.0 kg

**RC-55 Remote Control Unit (optional)**
DL-305 Lightest Amorphous Boron Cantilever MC Type Phono Cartridge

Ensuring excellent acoustic characteristics by newly developed amorphous boron pipe cantilever with light weight vibration system. Obtaining a flat frequency response over a wide range and adds to frequencies as high as 75 kHz.

**SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Type</th>
<th>Moving coil type</th>
<th>0.2 mV (1 kHz / mm/sec)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Output voltage</td>
<td>2.2 mV</td>
<td>0.2 mV (1 kHz / mm/sec)</td>
</tr>
<tr>
<td>Frequency response</td>
<td>20 Hz – 70 kHz</td>
<td>40 Hz – 70 kHz</td>
</tr>
<tr>
<td>Output impedance</td>
<td>5 kHz</td>
<td>5 kHz</td>
</tr>
<tr>
<td>Load impedance</td>
<td>100 ± 10%</td>
<td>100 ± 10%</td>
</tr>
<tr>
<td>Channel separation</td>
<td>Over 20 dB (1 kHz)</td>
<td>Over 20 dB (1 kHz)</td>
</tr>
<tr>
<td>Channel sensitivity</td>
<td>1 dB or Less (1 kHz)</td>
<td>1 dB or Less (1 kHz)</td>
</tr>
<tr>
<td>Dynamic compliance</td>
<td>Special elliptical tip stylus (0.05 x 0.1 mm)</td>
<td>Special elliptical tip stylus (0.05 x 0.1 mm)</td>
</tr>
<tr>
<td>Static compliance</td>
<td>14 x 10^6 cm/deg/Hz</td>
<td>14 x 10^6 cm/deg/Hz</td>
</tr>
<tr>
<td>Stylus force</td>
<td>1.3 ± 0.2 g</td>
<td>1.3 ± 0.2 g</td>
</tr>
<tr>
<td>Weight</td>
<td>5.8 g</td>
<td>5.8 g</td>
</tr>
</tbody>
</table>

DL-103D "High Trackability" MC Type Phono Cartridge

- The top of the line in the DL-103 series. Employing a 0.1mm special stylus tip with a tapered and double construction cantilever. High trackability that can reproduce flat response up to 65 kHz.

**SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Type</th>
<th>Moving coil type</th>
<th>0.2 mV (1 kHz / mm/sec)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Output voltage</td>
<td>2.2 mV</td>
<td>0.2 mV (1 kHz / mm/sec)</td>
</tr>
<tr>
<td>Frequency response</td>
<td>20 Hz – 60 kHz</td>
<td>40 Hz – 20 kHz</td>
</tr>
<tr>
<td>Output impedance</td>
<td>5 kHz</td>
<td>5 kHz</td>
</tr>
<tr>
<td>Load impedance</td>
<td>100 ± 10%</td>
<td>100 ± 10%</td>
</tr>
<tr>
<td>Channel separation</td>
<td>Over 20 dB (1 kHz)</td>
<td>Over 20 dB (1 kHz)</td>
</tr>
<tr>
<td>Channel sensitivity</td>
<td>1 dB or Less (1 kHz)</td>
<td>1 dB or Less (1 kHz)</td>
</tr>
<tr>
<td>Dynamic compliance</td>
<td>Special elliptical tip stylus (0.05 x 0.1 mm)</td>
<td>Special elliptical tip stylus (0.05 x 0.1 mm)</td>
</tr>
<tr>
<td>Static compliance</td>
<td>14 x 10^6 cm/deg/Hz</td>
<td>14 x 10^6 cm/deg/Hz</td>
</tr>
<tr>
<td>Stylus force</td>
<td>1.3 ± 0.2 g</td>
<td>1.3 ± 0.2 g</td>
</tr>
<tr>
<td>Weight</td>
<td>5.8 g</td>
<td>5.8 g</td>
</tr>
</tbody>
</table>

DL-103S High Performance MC Type Phono Cartridge

- Retaining the construction of the DL-103, the DL-103S's vibration system is much lighter, and high trackability is possible with higher compliance at lighter stylus force. Flat response up to 60 kHz.

**SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Type</th>
<th>Moving coil type</th>
<th>0.2 mV (1 kHz / mm/sec)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Output voltage</td>
<td>2.2 mV</td>
<td>0.2 mV (1 kHz / mm/sec)</td>
</tr>
<tr>
<td>Frequency response</td>
<td>20 Hz – 60 kHz</td>
<td>40 Hz – 20 kHz</td>
</tr>
<tr>
<td>Output impedance</td>
<td>5 kHz</td>
<td>5 kHz</td>
</tr>
<tr>
<td>Load impedance</td>
<td>100 ± 10%</td>
<td>100 ± 10%</td>
</tr>
<tr>
<td>Channel separation</td>
<td>Over 20 dB (1 kHz)</td>
<td>Over 20 dB (1 kHz)</td>
</tr>
<tr>
<td>Channel sensitivity</td>
<td>1 dB or Less (1 kHz)</td>
<td>1 dB or Less (1 kHz)</td>
</tr>
<tr>
<td>Dynamic compliance</td>
<td>Special elliptical tip stylus (0.05 x 0.1 mm)</td>
<td>Special elliptical tip stylus (0.05 x 0.1 mm)</td>
</tr>
<tr>
<td>Static compliance</td>
<td>14 x 10^6 cm/deg/Hz</td>
<td>14 x 10^6 cm/deg/Hz</td>
</tr>
<tr>
<td>Stylus force</td>
<td>1.3 ± 0.2 g</td>
<td>1.3 ± 0.2 g</td>
</tr>
<tr>
<td>Weight</td>
<td>7.8 g</td>
<td>7.8 g</td>
</tr>
</tbody>
</table>

DL-301 High Performance MC Type Phono Cartridge

- DENON's unique sophisticated vibration system permits excellent trackability over a wide frequency range. A special elliptical solid diamond stylus (0.07mm x 0.14mm). Further improves channel separation.

**SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Type</th>
<th>Moving coil type</th>
<th>0.3 mV (1 kHz / mm/sec)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Output voltage</td>
<td>2.5 mV</td>
<td>0.3 mV (1 kHz / mm/sec)</td>
</tr>
<tr>
<td>Frequency response</td>
<td>20 Hz – 60 kHz</td>
<td>40 Hz – 20 kHz</td>
</tr>
<tr>
<td>Output impedance</td>
<td>5 kHz</td>
<td>5 kHz</td>
</tr>
<tr>
<td>Load impedance</td>
<td>100 ± 10%</td>
<td>100 ± 10%</td>
</tr>
<tr>
<td>Channel separation</td>
<td>Over 20 dB (1 kHz)</td>
<td>Over 20 dB (1 kHz)</td>
</tr>
<tr>
<td>Channel sensitivity</td>
<td>1 dB or Less (1 kHz)</td>
<td>1 dB or Less (1 kHz)</td>
</tr>
<tr>
<td>Dynamic compliance</td>
<td>Special elliptical tip stylus (0.04 x 0.07 mm)</td>
<td>Special elliptical tip stylus (0.04 x 0.07 mm)</td>
</tr>
<tr>
<td>Static compliance</td>
<td>15 x 10^6 cm/deg/Hz</td>
<td>15 x 10^6 cm/deg/Hz</td>
</tr>
<tr>
<td>Stylus force</td>
<td>1.2 g ± 0.2 g</td>
<td>1.2 g ± 0.2 g</td>
</tr>
<tr>
<td>Weight</td>
<td>4.7 g</td>
<td>4.7 g</td>
</tr>
</tbody>
</table>

DL-103, DL-103/T MC Type Phono Cartridge

- The basic model of DL-103 series which was specifically designed for professional use. Moving coil type cartridge design for the ultimate tone quality. The highly respected model has been the standard for playback of phono records over the past 15 years by broadcasting and business. DL-103/T is furnished with its own wide band transformer which can extract the DL-103 full potential.

**SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Type</th>
<th>Moving coil type</th>
<th>0.3 mV (1 kHz / mm/sec)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Output voltage</td>
<td>2.5 mV</td>
<td>0.3 mV (1 kHz / mm/sec)</td>
</tr>
<tr>
<td>Frequency response</td>
<td>20 Hz – 40 kHz</td>
<td>40 Hz – 20 kHz</td>
</tr>
<tr>
<td>Output impedance</td>
<td>5 kHz</td>
<td>5 kHz</td>
</tr>
<tr>
<td>Load impedance</td>
<td>100 ± 10%</td>
<td>100 ± 10%</td>
</tr>
<tr>
<td>Channel separation</td>
<td>Over 20 dB (1 kHz)</td>
<td>Over 20 dB (1 kHz)</td>
</tr>
<tr>
<td>Channel sensitivity</td>
<td>1 dB or Less (1 kHz)</td>
<td>1 dB or Less (1 kHz)</td>
</tr>
<tr>
<td>Dynamic compliance</td>
<td>Special elliptical tip stylus (0.04 x 0.07 mm)</td>
<td>Special elliptical tip stylus (0.04 x 0.07 mm)</td>
</tr>
<tr>
<td>Static compliance</td>
<td>15 x 10^6 cm/deg/Hz</td>
<td>15 x 10^6 cm/deg/Hz</td>
</tr>
<tr>
<td>Stylus force</td>
<td>1.2 g ± 0.2 g</td>
<td>1.2 g ± 0.2 g</td>
</tr>
<tr>
<td>Weight</td>
<td>4.7 g</td>
<td>4.7 g</td>
</tr>
</tbody>
</table>
POA-3000 "Class A" Power Amplifier

- Output stage delivers incredibly high 180W of "class A" output power per channel. DENON's new patented "real bias circuit" achieves exceptionally high efficiency with high output power.
- Newly developed direct DC servo control circuit eliminates drift of DC off-set voltage, while reducing noise and distortion.

SPECIFICATIONS

<table>
<thead>
<tr>
<th>Type:</th>
<th>Class A operation power amplifier</th>
</tr>
</thead>
<tbody>
<tr>
<td>Music power:</td>
<td>250W + 250W (6 ohm)</td>
</tr>
<tr>
<td>Output power:</td>
<td>180W per channel min, RMS both channel driven, at 8 ohms from 20 Hz to 20 kHz, no more than 0.005% total harmonic distortion</td>
</tr>
<tr>
<td>Intermodulation distortion:</td>
<td>60 Hz (7 kHz at rated output)</td>
</tr>
<tr>
<td>Power bandwidth:</td>
<td>60 Hz (7 kHz at rated output)</td>
</tr>
<tr>
<td>Input sensitivity/impedance:</td>
<td>100 kHz</td>
</tr>
<tr>
<td>Output impedance:</td>
<td>0.02 ohm (1 kHz)</td>
</tr>
<tr>
<td>Damping factor:</td>
<td>122 dB (50 Hz)</td>
</tr>
<tr>
<td>SIN ratio:</td>
<td>1 Hz – 15 kHz: 0.005, 15 kHz – 100 kHz: 0.006</td>
</tr>
<tr>
<td>Transmission characteristic:</td>
<td>Separation:</td>
</tr>
<tr>
<td>Separation:</td>
<td>AC 120V/60 Hz AC 220V/50 Hz</td>
</tr>
<tr>
<td>Frequency response:</td>
<td>1300W (MAX) REC 27W/UL</td>
</tr>
<tr>
<td>Dimensions:</td>
<td>480 W × 139 H × 439 (D) mm</td>
</tr>
<tr>
<td>Weight:</td>
<td>34 kg</td>
</tr>
</tbody>
</table>

-2000 "Non-NFB Equalizer" Pre-Amplifier.

- Newly developed "non-NFB real time equalizer amplifier" eliminates the time delay distortion inherent in the NFB-type pre-amps. TIM distortion: 0.003%, IM distortion: 0.002%. DENON's real time flat amplifier achieves incredibly small RIAA deviation from 20 Hz to 100 kHz ≤ 0.2 dB. Built-in MC cartridge head amplifier with performance indistinguishable to the DENON Model HA-1000.

SPECIFICATIONS

<table>
<thead>
<tr>
<th>Type:</th>
<th>Equalizer amp, section PHONO 1.2—REC OUT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input sensitivity/impedance:</td>
<td>2.5mV/10kΩ: PHONO 1, 2.0mV/10kΩ: PHONO 2</td>
</tr>
<tr>
<td>Max. allowable input:</td>
<td>280mV (1 kHz)</td>
</tr>
<tr>
<td>Max. output level:</td>
<td>18W/100V</td>
</tr>
<tr>
<td>RIAA deviation:</td>
<td>20 Hz – 100 kHz: 0.025 dB</td>
</tr>
<tr>
<td>MC gain, amp. sect: PHONO 3—REC OUT</td>
<td></td>
</tr>
<tr>
<td>Input sensitivity/impedance:</td>
<td>0.125mV/100kΩ: PHONO 3</td>
</tr>
<tr>
<td>Max. allowable input:</td>
<td>18W/100V</td>
</tr>
<tr>
<td>Total harmonic distortion:</td>
<td>Less than 0.003% (20Hz – 20kHz)</td>
</tr>
<tr>
<td>Frequency response:</td>
<td>20 kHz – 100kHz: 0.025 dB</td>
</tr>
<tr>
<td>Subsonic filter:</td>
<td>150mV/100kΩ: input noise level</td>
</tr>
<tr>
<td>Grooved distortion:</td>
<td>Less than 0.002%</td>
</tr>
<tr>
<td>SIN ratio:</td>
<td>Less than 0.002%</td>
</tr>
<tr>
<td>Frequency response:</td>
<td>Better than 100Gbps</td>
</tr>
<tr>
<td>Subsonic filter:</td>
<td>10Hz – 50kHz: ±0.01dB, 20Hz – 1kHz: 0.001dB</td>
</tr>
<tr>
<td>Power supply:</td>
<td>115V (EC), 120V (US)</td>
</tr>
<tr>
<td>Power consumption:</td>
<td>48W (24V) × 3570Ω</td>
</tr>
<tr>
<td>Dimensions:</td>
<td>119G</td>
</tr>
</tbody>
</table>

PMA-950 "Class A" Integrated Amplifier

- High performance class A amplifier and this real bias circuit ensures outstanding efficiency and high output power. Super wide range amplifier achieves incredibly RIAA deviation from 20 Hz – 100 kHz ≤ 0.2 dB. Capacitorless design for all signal circuits from phono input to speaker output. Real drive circuit reduces distortion during speaker drive by 1/20. Improving S/N ratio and reduce distortion with direct DC servo circuit.

SPECIFICATIONS

<table>
<thead>
<tr>
<th>Type:</th>
<th>POWER AMPLIFIER SECTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input power:</td>
<td>85W per channel, min. RMS both channel driven, at 8 ohms from 20 kHz to 20 kHz, no more than 0.01% total harmonic distortion</td>
</tr>
</tbody>
</table>
| Intermodulation distortion: | 60Hz (7kHz at rated output) Less than 0.004%
| Power bandwidth: | Both channels driven |
| Frequency response (at 1 W output): | 5Hz – 100kHz (T.H.D. 0.055%) |
| Input sensitivity/impedance: | 10Hz – 50kHz: ±0.01dB |
| Output impedance: | 0.1Ω (1kHz) |
| S/N ratio: | 110 dB (50 Hz) |

- PREAMP MAY SECTION

| Max. output level: | 10V/100mW |
| Input sensitivity/impedance: | 10V/100mW |
| NIA deviation: | 2.5W/50Ω |
| Subsonic filter: | 100Hz |
| Loudness control: | 1kHz |
| Power supply: Power consumption: | 120V/60Hz 240V/50Hz |
| Dimensions: | 470W × 140H × 410D mm |
| Weight: | 15kg |

PMA-550 "Direct A" Integrated Amplifier

- Power stage with a non-switching direct servo circuit uses DENON's zero cross linear bias system to deliver a generous 100W of output power per channel. Perfect RIAA characteristics over 20 Hz – 100 kHz ± 0.2 dB range. Direct DC servo circuit eliminates capacitors from all signal circuit to improve S/N ratio and reduce distortion.

SPECIFICATIONS

<table>
<thead>
<tr>
<th>Type:</th>
<th>POWER AMPLIFIER SECTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Output power:</td>
<td>100W per channel, min. RMS both channel driven, at 8 ohms from 20 kHz to 20 kHz, no more than 0.02% total harmonic distortion</td>
</tr>
<tr>
<td>Intermodulation distortion:</td>
<td>86Hz 27kHz at rated output</td>
</tr>
<tr>
<td>Power bandwidth:</td>
<td>Both channels driven</td>
</tr>
<tr>
<td>Frequency response (at 1 W output):</td>
<td>5Hz – 100kHz</td>
</tr>
<tr>
<td>Input sensitivity/impedance:</td>
<td>5Hz – 100kHz (0.0001% RIAA deviation)</td>
</tr>
<tr>
<td>Output impedance:</td>
<td>0.1Ω (1kHz)</td>
</tr>
<tr>
<td>S/N ratio:</td>
<td>110 dB (50 Hz)</td>
</tr>
</tbody>
</table>

- PREAMP MAY SECTION

| Max. output level: | 10V/100mW |
| Input sensitivity/impedance: | 10V/100mW |
| NIA deviation: | 2.5W/50Ω |
| Subsonic filter: | 100Hz |
| Loudness control: | 1kHz |
| Power supply: Power consumption: | 120V/60Hz 240V/50Hz |
| Dimensions: | 470W × 140H × 410D mm |
| Weight: | 15kg |
**PMA-540 “Direct A, Real Drive Circuit” Integrated Amplifier**
- Non-switching power amplifier delivers 60 W + 60 W power output.
- Super equalizer amplifier provides a wide RIAA deviation from 20 Hz to 100 kHz, ±0.2 dB.
- Real drive circuit reduces distortion during speaker drive by 1/50.
- Newly developed real-time tone control circuit prevents deterioration in sound quality.
- Provided with A, B speaker system for individual ON/OFF switch.

**SPECIFICATIONS**

**Type:** All-stage direct DC servo circuit

**Output power:**
- 65 W per channel, minimum RMS, both channels driven, 8 ohms from 20 Hz to 20 kHz, no more than ±0.03% total harmonic distortion

**Frequency response (at 1 W output):** 20 Hz to 20 kHz, ±0.5 dB

**Input sensitivity/impedance:**
- Microphones: 2.5 mV/47 kΩ
- Line: 0.25 mV/100 kΩ

**S/N ratio:**
- MC: 80 dB
- Dynamic: 100 dB

**Power supply:**
- 120 V, 50/60 Hz

**Dimensions:**
- Width: 414 (W) x 175 (D) x 350 (H) mm

**Weight:** 6.7 kg

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**TU-520 “Servo Locked” AM/FM Stereo Tuner**
- Newly developed quadrature detector circuit ensures S/N ratio of 94 dB.
- IF amplifier achieves high selectivity and low distortion with three stages of ceramic filters.
- FM MPX stage employing a newly developed low-noise PLL-MPX-IC provides high S/N ratio.
- Servo-locked circuit built in for accurate, stable tuning.
- Signal tuning system with LED.

**SPECIFICATION**

**FM section:**
- Tuning frequency: 88 to 108 MHz
- Tuning sensitivity: 1.75 μV
- Effective selectivity: S/N: 65 dB
- Total harmonic distortion: 0.05%
- AM suppression: 65 dB
- Frequency range: 530 kHz ± 9 kHz
- Frequency selectivity: 15 kHz
- S/N ratio: 65 dB
- Power supply: 120 V, 50/60 Hz

**Dimensions:**
- Width: 434 (W) x 93 (H) x 300 (D) mm

**Weight:** 4.9 kg

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**DRA-600 “Class A Amplification, Synthesized Tuning” AM/FM Stereo Receiver**
- Non-switching class A amplifier with large output power 60W + 60W.
- Quartz-PLL frequency synthesizer for accurate tuning.
- Built-in head amplifier for MC type cartridge.
- Elegant design (ACA-3 side wooden cabinet optional)

**SPECIFICATIONS**

**Type:**
- Power amplifier section: All-stage direct DC servo circuit

**Output power:**
- 50 W + 50 W
- 70 W + 70 W

**Frequency response:**
- 20 Hz to 20 kHz

**Input sensitivity/impedance:**
- Microphones: 2.5 mV/47 kΩ
- Line: 0.25 mV/100 kΩ

**S/N ratio:**
- MC: 80 dB
- Dynamic: 100 dB

**Power supply:**
- 120 V, 50/60 Hz

**Dimensions:**
- Width: 414 (W) x 175 (D) x 350 (H) mm

**Weight:** 6.7 kg

---

**PMA-510 "High c/p Direct A" Pre-main Amplifier**
- Highly efficient non-switching power amplifier delivers large output power of 50W per channel.
- Super equalizer amp and non-switching power amp.
- 2-stage pre-main amp equipped with direct DC servo circuit substantially improves S/N ratio while reducing distortion.
- Super equalizer amplifier offers surprisingly wide range of reproduction.
DP-60L "DENON Quartz" Auto Lift D.D. Turntable.
- Low mass straight tonearm provides superb tonal quality with improved trackability. ● Replaceable with attached S-shaped type tonearm. ● Turntable motor controlled by DENON'S magnetic speed detection and quartz-controlled phase-locked servo control system for accuracy and stability. ● Tonearm is automatically lifted at the end of the record by an angular-control motor.

**Specifications**
- Drive system: Direct drive by AC servo motor
- Speed control: Servo control with frequency detection
- Speed: 33 1/3 rpm, 45 rpm
- Speed deviation: Less than 0.25%
- Wow/flutter: Less than 0.015% wms, Less than 0.045%
- Rumble: Less than 78 dB (DIN-B)
- Turntable platter: Aluminum alloy diecast 300 mm
- Tonearm type: Straight and S-shaped type compatible with automatic armlift
- Effective length: 241 mm
- Overhang: 14 mm
- Stylus force range: 4.9 g (0.1 g direct reading)
- Acceptable weight of cartridge: 1.2-15 g (including shell)
- AC 120V, 60 Hz
- AC 220/230/240V 50/60 Hz 15W
- 485 W x 180 H x 410 (D) mm
- 13 kg

- Ultra-high quality turntable featuring quartz phase-locked control plus DENON'S highly precise magnetic detection system for speed accuracy smooth sure electronic brake system. ● Furnished with a newly designed base for maximum isolation from unwanted vibrations.

**Specifications**
- Drive system: Direct drive by AC servo motor
- Speed control: Servo control with frequency detection
- Speed: 33 1/3 rpm, 45 rpm
- Speed deviation: Less than 0.015% wms
- Wow/flutter: Less than 0.045% wms
- Rumble: Less than 78 dB (DIN-B)
- Turntable platter: Aluminum alloy diecast 300 mm diam.
- AC 120V, 60Hz 15W
- 610 (W) x 166 H x 425 (D) mm
- 10 kg

DP-33F "DENON Quartz" Fully Automatic D.D. Turntable.
- Electronic servo-controlled tonearm automatically functions without affecting performance whatsoever. ● Newly developed servo lifter minimizes impact on stylus when lowering onto or lifting from the disc. ● Highly accurate speed detection with exclusive magnetic recorded system with quartz-lock. ● Convenient front panel controls permits operation with dust cover closed.

**Specifications**
- Drive system: Direct drive by AC servo motor
- Speed control: Servo control with frequency detection
- Speed: 33 1/3 rpm, 45 rpm
- Speed deviation: Less than 0.015% wms
- Wow/flutter: Less than 0.045% wms
- Rumble: Less than 78 dB (DIN-B)
- Turntable platter: Aluminum alloy diecast 300 mm diam.
- AC 120V, 60 Hz
- AC 220/230/240V 50/60 Hz 15W
- 220 mm
- 16 mm
- 4.0-2.5 g (0.1 g direct reading)
- 1.0-21 g (including shell)
- AC 120V, 60 Hz
- AC 220/230/240V 50/60 Hz 15W
- 485 W x 140 H x 420 (D) mm
- 9.5 kg


**Specifications**
- Drive system: Direct drive by AC servo motor
- Speed control: Servo control with frequency detection
- Speed: 33 1/3 rpm, 45 rpm
- Speed deviation: Less than 0.015% wms
- Wow/flutter: Less than 0.045% wms
- Rumble: Less than 78 dB (DIN-B)
- Turntable platter: Aluminum alloy diecast 300 mm
- AC 120V, 60 Hz
- AC 220/230/240V 50/60 Hz 15W
- 485 W x 140 H x 420 (D) mm
- 9.5 kg
**SPECIFICATIONS**

**Drive system:**
- Direct drive by 1-phase AC servo motor
- Frequency detection servo system phase locked to a quartz crystal oscillator
- 35.13 mm (1.4”) mm, 40 rpm
- Less than 0.002% deviation
- Less than 0.01% w.r.m.s.
- New developed double construction platter aluminum alloy diecast 300 mm dia.
- AC 100V 50/60 Hz 8W
- 376 diam. 140 (H) mm, 10 kg

**Speed:**
- Direct drive by 3 phase AC servo motor
- Frequency detection servo system phase
- Locked to a quartz crystal oscillation
- 35.13 mm, 45 rpm
- Less than 0.002% deviation
- Less than 0.01% w.r.m.s.
- New developed double construction platter aluminum alloy diecast 300 mm dia.
- AC 100V 50/60 Hz 8W
- 376 diam. 140 (H) mm, 10 kg

**Speed Control:**
- Direct drive by 1-phase AC servo motor
- Frequency detection servo system phase locked to a quartz crystal oscillation
- 35.13 mm (1.4”) mm, 40 rpm
- Less than 0.002% deviation
- Less than 0.01% w.r.m.s.
- New developed double construction platter aluminum alloy diecast 300 mm dia.
- AC 100V 50/60 Hz 8W
- 376 diam. 140 (H) mm, 10 kg

**Drive system:**
- Direct drive by 1-phase AC servo motor
- Frequency detection servo system phase locked to a quartz crystal oscillation
- 35.13 mm (1.4”) mm, 40 rpm
- Less than 0.002% deviation
- Less than 0.01% w.r.m.s.
- New developed double construction platter aluminum alloy diecast 300 mm dia.
- AC 100V 50/60 Hz 8W
- 376 diam. 140 (H) mm, 10 kg

**Speed:**
- Direct drive by 3 phase AC servo motor
- Frequency detection servo system phase
- Locked to a quartz crystal oscillation
- 35.13 mm, 45 rpm
- Less than 0.002% deviation
- Less than 0.01% w.r.m.s.
- New developed double construction platter aluminum alloy diecast 300 mm dia.
- AC 100V 50/60 Hz 8W
- 376 diam. 140 (H) mm, 10 kg

**SPECIFICATIONS**

**Input impedance:**
- 100 Ohm
- 32 dB24 dB/Watt (max.)
- Input noise level (A) 60 dB (R.I.A.A. EQ)
- Frequency response: 20 Hz – 20 kHz
- Harmonic distortion: 0.005% (A)
- Intermodulation distortion: 0.01% (A)
- Crosstalk (1 kHz): 75 dB
- Power supply: Power consumption: Dimensions: Weight:
- AC 120V 50/60 Hz
- DC 12V
- 150 x 40 x 252 (H) mm
- 1.4 kg

**HA-500 MC Head Amplifier “High Signal-to-Noise Level”**
- Advanced circuit technology virtually eliminates T.J.M.
- The unbelievable S/N ratio is the result of using a super-low-noise transistor for the first stage.
- The amazing dynamic range of 141 dB is accomplished by using class A operation circuit in the final stage.

**SPECIFICATIONS**

**Input Impedance:**
- 100 Ohm
- 24 dB 100 dB
- Input Noise Level (R.A.A. EQ + 1/2 "A")
- Frequency Response: 20 Hz – 20 kHz
- Intermodulation distortion: 0.005% (A)
- Crosstalk (1 kHz): 75 dB
- Power supply: Power Consumption: Dimensions: Weight:
- AC 120/240V 50/60 Hz
- 17W
- 175 x 71 x 305 (H) mm
- 2.2 kg

**AU-340 MC step-up Transformer “High Performance Super Permalloy Core”**
- Wide band range and minimum distortion are made possible by using a high performance super permalloy core.
- Independent multi-shield for right/left channels.

**SPECIFICATIONS**

**Input Impedance:**
- 100 Ohm
- 24 dB
- 100 dB
- Input Noise Level (R.A.A. EQ + 1/2 "A")
- Frequency Response: 20 Hz – 20 kHz
- Intermodulation distortion: 0.005% (A)
- Crosstalk (1 kHz): 75 dB
- Power supply: Power Consumption: Dimensions: Weight:
- AC 120/240V 50/60 Hz
- 17W
- 175 x 71 x 305 (H) mm
- 2.2 kg

**AU-320 MC Step-up Transformer “High S/N Ratio”**
- High performance model designed to extract excellent performance from a wide variety of MC cartridge.
- Two types of input impedances, plus two pairs of inputs.

**SPECIFICATIONS**

**Input Impedance:**
- 100 Ohm
- 24 dB
- 100 dB
- Input Noise Level (R.A.A. EQ + 1/2 "A")
- Frequency Response: 20 Hz – 20 kHz
- Intermodulation distortion: 0.005% (A)
- Crosstalk (1 kHz): 75 dB
- Power supply: Power Consumption: Dimensions: Weight:
- AC 120/240V 50/60 Hz
- 17W
- 175 x 71 x 305 (H) mm
- 2.2 kg

**AU-310 MC Step-up Transformer**
- Excellent phase, distortion and crosstalk characteristics, extremely flat and wide frequency response.
- High S/N ratio achieved through the use of double-shielding.

**SPECIFICATIONS**

**Input Impedance:**
- 100 Ohm
- 32 dB24 dB/Watt (max.)
- Input Noise Level (R.A.A. EQ + 1/2 "A")
- Frequency Response: 20 Hz – 20 kHz
- Intermodulation distortion: 0.005% (A)
- Crosstalk (1 kHz): 75 dB
- Power supply: Power Consumption: Dimensions: Weight:
- AC 120V 50/60 Hz
- 150 x 40 x 252 (H) mm
- 1.4 kg
DA-401 Light Weight Low Effective Mass Tonearm
- Light weight tonearm—effective mass 7.5 g
- Dynamic damping mechanism

**SPECIFICATIONS**
- **Type:**
- **Overall length:** 224 mm
- **Effective length:** 244 mm
- **Effective mass:** 7.5 g
- **Overhang:** 14 mm
- **Tracking error:** 0.2–2 g (with graduation in increment of 0.1 g)
- **Head shell (exclusive type):**
- **Height adjustment range:** 42–70 mm
- **Anti-skating device:**
- **Acceptable cartridge:**

DA-307 Dynamically Damped Tonearm
- Non-contact magnetic control anti-skating device
- Dynamic damping mechanism

**SPECIFICATIONS**
- **Type:**
- **Overall length:** 224 mm (max)
- **Effective length:** 14 mm
- **Overhang:** 47–70 mm (between arm board surface and arm pipe central line)
- **Tracking error:**
- **Stylus force:**
- **Acceptable cartridge weight:**
- **Head shell:**
- **Inside force canceller:**
- **Casing:**
- **Output cord:**

DK-300 Universal Turntable Base
- Heavy weight base excellent for eliminating feedback
- Dimensions: 555(W) x 183(H) x 453(D)mm
- Weight: 14kg

DK-110 Universal Turntable Base
- Heavy weight base for reducing the acoustic feedback and resonance
- Dimensions: 555(W) x 183(H) x 453(D)mm
- Weight: 10kg

AD-3 Record Weight
- Dimensions: 385 x 229 mm
- Weight: 145g

ARC-75 Interior Center Rack
- Dimensions: 900(W) x 110(H) x 110(D) mm
- Weight: 34 kg

AH-9 Open Type Stereo Headphone

AH-7 Open Type Stereo Headphone

AH-5 Open Type Stereo Headphone

PCL-7 Magnesium Alloy Head Shell
- Weight: 6.5g

PCL-5 Magnesium Alloy Diecast Head Shell
- Weight: 5g

PCL-4 Aluminum Alloy Head Shell
- Weight: 9g

All specifications are subject to change for improvement without prior notice.

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