

Bang & Olufsen
Beomaster 800/901/1001/3000-2/4000



Beomaster 800

The Beomaster 800 is a modern version of a traditional concept – the all-in-one mains radio. For high-fidelity reception on long, medium and FM (VHF) bands, you need only connect the Beomaster to the mains and to a suitable aerial. If you wish to build up a complete stereo music system, there are sockets for connecting a record player and tape recorder, and either of these items will play through the Beomaster 800's built-in loudspeakers. The tuner (radio) section of the Beomaster 800 has an integrated stereo decoder, and the use of ceramic filters and Field Effect transistors in the circuitry gives a high standard of reception from both AM and FM. An automatic frequency control circuit, in conjunction with the illuminated tuning indicator, ensures easy and accurate tuning. Through its own built-in speakers, the Beomaster 800 produces 2×3.5 watts RMS of audio output, but if connected to a pair of extension speakers from the Bang & Olufsen Beovox range, the amplifier will produce 20 watts RMS per channel at less than 0.5% distortion. Easy to use sliders control volume, balance, tuning, bass and treble, and push-buttons select waveband or tape or record input. The Beomaster 800 is available in natural teak or rosewood finish, with brushed aluminium alloy fascia and ribbed speaker grilles.

The technical advances that have been effected during the last decade in the recording and broadcasting of music have gone unnoticed by many a music-lover simply because his radio, once the best available, is just not capable of taking advantage of these improvements. There are two main points on which many domestic radios fall down – the sensitivity of the tuner, and the fidelity of the amplifier. More simply, this means the tuner's ability to cope with weak or difficult signal conditions, and the amplifier's ability to augment the signal to an audible level without altering the original sound in any way. It is quite possible that many listeners have become conditioned by habit to sincerely enjoying the standard of music which their radio offers them, not realizing that there should now be no discernible difference between a recorded broadcast and a live performance in a good concert hall. If you think there is a difference, then your radio is letting you down. The world of broadcasting is a large and fascinating one. Bang & Olufsen can help you enjoy it to the full.

Specification for Beomaster 800 — Type 2601

Dimensions

3.7" high, 33.8" wide, 9.0" deep.

Power supply

110–130–220–240 V AC
50–60 Hz.

Consumption

15–120 W

Connections (DIN type)

Inputs

Gram: 2.5 mV/1000 Hz/47 k Ω
(equalised to RIAA slope).

Tape: 150 mV/1000 Hz/470 K Ω

AM aerial: (IEC plug).

FM aerials: 240 and 75 Ω .

Outputs

Tape: 25 mV/1000 Hz/47 K Ω .

Speakers: One pair 4 Ω .

Headphones: 100 Ω minimum

Tuner section

Wavebands

FM: 87.5–104 MHz.

MW: 520–1620 KHz
(578–184 m).

LW: 147–350 KHz
(2040–857 m).

Sensitivities

FM: 1.8 μ V (at 75 Ω for 26 dB
signal/noise ratio).

MW: 20 μ V for 10 dB signal/
noise ratio.

LW: 15 μ V for 10 dB signal/
noise ratio.

Signal/noise ratio

FM 65 dB at 1 KHz with 100 μ V

and 75 KHz swing.

Special features

Light indicators for tuning
accuracy.

Integrated stereo decoder.

Amplifier section

Output power

3.5 W RMS per channel through
built-in speakers, or 2×20 W
RMS into 4 Ω . Protected by
short circuit cut-out.

Frequency response

20–30,000 Hz ± 1.5 dB.

Distortion

<0.5% at 20 W per channel/
1000 Hz.

Signal/noise ratio

Gram >55 dB
Tape >65 dB
Radio >65 dB } at full output.

Controls

Bass

± 17 dB at 40 Hz

Treble

± 14 dB at 12.5 KHz

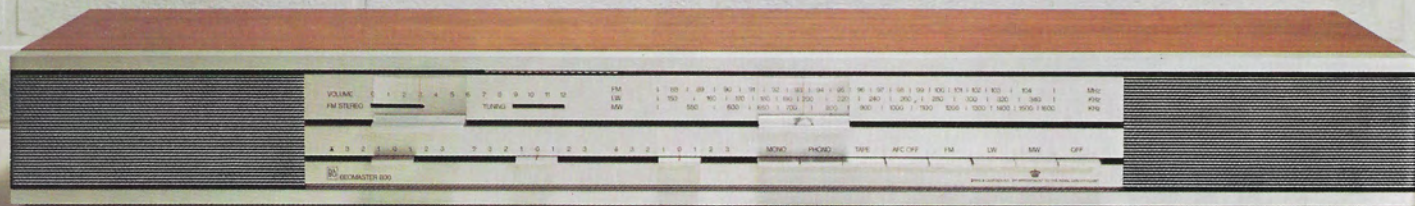
Balance (slider type).

Loudspeakers

5.25" $\times$ 3" elliptical Peerless
units. Specially designed to
accept full output of amplifier
without overloading and to give
good sound quality at all
volume settings.

Accessories

FM aerial-Type 8902010.



Beomaster 901

Specification for Beomaster 901 — Type 2602

£125

£ 99.90 + Vat

The Beomaster 901 is a high quality stereo tuner/amplifier of compact size. The tuner section covers MW, LW and FM wavebands and has an integrated stereo decoder.

The advanced circuitry employs Field Effect transistors and ceramic filters and gives a high standard of reception from both AM and FM. Tuning is by means of a transparent sliding pointer, with a close-friction finger-wheel for accurate fine tuning and an illuminated panel which performs the function of a tuning meter. An automatic frequency control circuit, which may be switched out if required, provides a further aid to accurate tuning and keeps the station spot-on tune even if the signal has a tendency to drift. The stereo amplifier section develops 20 watts RMS of audio output per channel, and has connections for a record player, a tape recorder, headphones and a pair of stereo loudspeakers. The advanced technical design of the amplifier includes the use of a new form of Darlington coupled output stage, so that the distortion level for the Beomaster 901 is kept below 0.5% at full output. Easy to use sliders control volume, balance, bass and treble individually, and push buttons select waveband or tape or record input. The slim-line cabinet is finished in natural teak or rosewood, with brushed aluminium alloy fascia clearly calibrated in black. The very compact shape of the Beomaster 901 makes it ideal for positioning in a multiple shelving unit, and by connecting suitable speakers from the Bang & Olufsen Beovox range, it can form the powerful centre of an excellent audio system.

Dimensions

2.95" high, 19.6" wide, 9.0" deep.

Power supply

110–130–220–240 V AC/
50–60 Hz.

Consumption

15–120 W.

Connections (DIN type)

Inputs

Gram: 2.5 mV/1000 Hz/47 K Ω
(equalised to RIAA slope).

Tape: 150 mV/1000 Hz/4 K Ω .

AM aerial: (IEC plug).

FM aerials: 240 and 75 Ω .

Outputs

Tape: 25 mV at 40 K Ω /1000 Hz.

Speakers: One pair, 4 Ω .

Headphones: 100 Ω minimum

Tuner section

Wavebands

FM: 87.5–104 MHz.

MW: 520–1620 KHz

(578–184 m).

LW: 147–350 KHz

(2040–857 m).

Sensitivities

FM: 1.8 μ V (at 75 Ω for 26 dB
signal/noise ratio).

LW: 15 μ V for 10 dB signal/
noise ratio.

MW: 20 μ V for 10 dB signal/
noise ratio.

Signal/Noise ratio

FM > 65 dB at 1 KHz with
100 μ V and 75 KHz swing.

Special features

Light indicators for tuning
accuracy.

Integrated stereo decoder.

Amplifier section

Output power

2 $\times$ 20 W RMS. 80 W total
music power into 4 Ω each
channel. Protected by short-
circuit cut-out.

Frequency response

20–30,000 Hz $\pm$ 1.5 dB.

Distortion

< 0.5% at 20 W per channel,
1000 Hz.

Signal/noise ratio

Gram > 55 dB

Tape > 65 dB

Radio > 65 dB

} at full output.

Controls

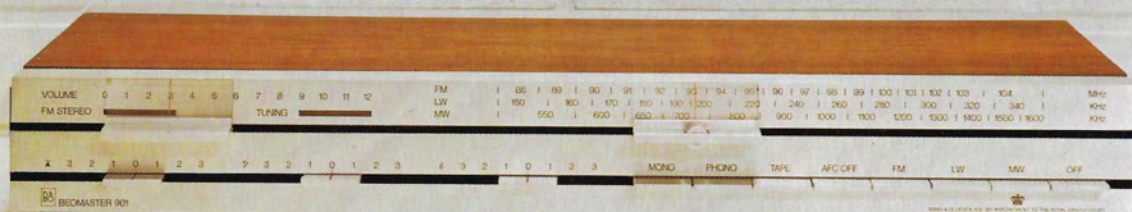
Bass $\pm$ 17 dB at 40 Hz

Treble $\pm$ 14 dB at 12.5 KHz

Balance (Slider type).

Accessories

FM aerial (IEC) Type 8902010.



VOLUME 0 1 2 3 4 5 6 7 8 9 10 11 12

FM STEREO

TUNING

FM

LW

MW

88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300 301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398 399 400 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600 601 602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656 657 658 659 660 661 662 663 664 665 666 667 668 669 670 671 672 673 674 675 676 677 678 679 680 681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700 701 702 703 704 705 706 707 708 709 710 711 712 713 714 715 716 717 718 719 720 721 722 723 724 725 726 727 728 729 730 731 732 733 734 735 736 737 738 739 740 741 742 743 744 745 746 747 748 749 750 751 752 753 754 755 756 757 758 759 760 761 762 763 764 765 766 767 768 769 770 771 772 773 774 775 776 777 778 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 794 795 796 797 798 799 800 801 802 803 804 805 806 807 808 809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830 831 832 833 834 835 836 837 838 839 840 841 842 843 844 845 846 847 848 849 850 851 852 853 854 855 856 857 858 859 860 861 862 863 864 865 866 867 868 869 870 871 872 873 874 875 876 877 878 879 880 881 882 883 884 885 886 887 888 889 890 891 892 893 894 895 896 897 898 899 900 901 902 903 904 905 906 907 908 909 910 911 912 913 914 915 916 917 918 919 920 921 922 923 924 925 926 927 928 929 930 931 932 933 934 935 936 937 938 939 940 941 942 943 944 945 946 947 948 949 950 951 952 953 954 955 956 957 958 959 960 961 962 963 964 965 966 967 968 969 970 971 972 973 974 975 976 977 978 979 980 981 982 983 984 985 986 987 988 989 990 991 992 993 994 995 996 997 998 999 1000

MHz

KHz

KHz

2 3 2 1 0 1 2 3 9 3 2 1 0 1 2 3 4 3 2 1 0 1 2 3 MONO PHONO TAPE AFC OFF FM LW MW OFF

BECMASTER 901

MADE IN JAPAN AND WE APPRECIATE TO THE TOTAL QUALITY CONTROL

Beomaster 1001

Ambiophonic stereo is an exciting advance in the field of sound reproduction, and it is a facility which the Beomaster 1001 brings within reach of everyone. The Beomaster 1001 is an integrated FM stereo tuner/amplifier with optional ambiophonic speaker channels. The radio section gives high quality reception on the FM band between 87.5 and 104 MHz and in addition to conventional dial tuning, there are three small tuning controls for pre-setting your three favourite FM stations. Once these controls have been correctly tuned, the stations may be instantly selected whenever required just by pressing a button. An FM indicator light acts also as a fine-tuning aid in that the light is at its brightest when the required station is accurately tuned. A second indicator lights up when a stereo transmission is being received. The amplifier section gives 15 watts RMS per channel of high-fidelity output with distortion at less than 0.5%. There are DIN sockets for connecting a record player and tape recorder, and a jack-socket for headphones is conveniently placed beneath the front edge of the unit. Effective tone controls for the separate adjustment of bass and treble provide tonal variation to suit all tastes, and a split channel volume control adjusts both sound level and channel balance. For mono or normal stereo use,

one pair of speaker outputs is provided but if ambiophonic stereo is required, a further pair of speakers may be connected to the special "ambio" sockets, and switched in or out by means of the "ambio" button on the control panel. An ambio filter is also provided to cut off all side-channel frequencies over 6 KHz should this be found necessary. Ambiophonic stereo produces a greatly enhanced sense of realism from normal stereo material by channelling a derived signal to a pair of speakers placed at either side of the room. In this way, the listener perceives a similar sense of ambience or "presence" as that existing in the concert hall or studio where the music was originally performed. The Beomaster 1001 has a large, clearly calibrated facia finished in matt black alluminium alloy with all controls and push-buttons positioned conveniently on the top of the unit. The wooden plinth is finished in teak, rosewood or white lacquer. The slim and elegant shape of the Beomaster 1001 makes it eminently suitable for mounting on a wall, and a special mounting bracket in matching finish is available as an optional accessory. The unit looks equally effective in a normal horizontal position on a shelf or table, or it may be inclined at an angle upon two fold-away feet. It is thus highly adaptable, and ideal as the centre of a complete high-fidelity music system.

Specification for Beomaster 1001 — Type 2504

£95.90 + V.A.T.

Dimensions
3.1" high, 21.4" wide, 8.1" deep.

Power supply
110–127–220–240 V A.C.,
50–60Hz.

Consumption
15–120 W.

Tuner section
FM tuning range
87.5–104MHz plus three pre-set stations.

Sensitivity
IEC < 1.8 μ V, 75 Ω ,
IHF < 3.5 μ V, 75 Ω .

Limiting
IHF < 2.2 μ V, 75 Ω .

Signal/noise
> 65dB.

Selectivity
> 20dB IHF.

Frequency response
40–15,000Hz, DIN45 500.

Distortion
< 0.9%.

Channel cross talk
> 30dB.

Amplifier section
Output power
2 $\times$ 15 W RMS,
2 $\times$ 20 W music power.

Impedance
4 Ω

Connections
Inputs
Phono (switchable)
High : 200mV–470K Ω

Low : 3.5mV–47K Ω
Tape : 200mV–470K Ω

Aerial
FM 75 Ω unbalanced or
FM 300 Ω balanced

Outputs

Speakers

One pair stereo front DIN
One pair ambio side DIN

Headphones

Jack socket 100 Ω minimum

Tape

40 mV at 80 K Ω /40% modulation

Harmonic distortion

< 0.3% at 50mW output

< 0.5% at full output

Intermodulation

< 1.0%

Frequency response

20–30,000Hz $\pm$ 1.5dB

Half power bandwidth

20–20,000Hz

Signal/noise ratio

Phono Low : 50 dB at 50 mW output

Tape : 60dB at 50mW output

Tone controls

Bass : $\pm$ 17dB

Treble : $\pm$ 14dB

Cross talk

> 50dB at 1KHz

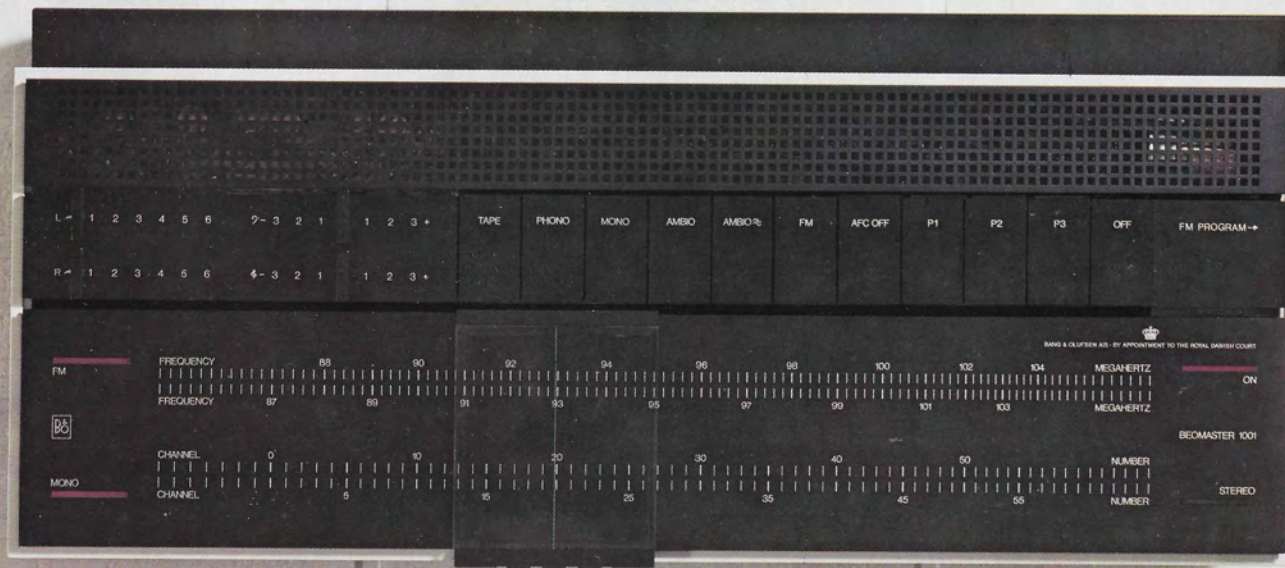
Accessories

Telescopic FM aerial

Type 8902010

Wall mounting bracket

Type 8902019



Beomaster 3000-2

The Beomaster 3000-2 high fidelity integrated stereo amplifier and FM tuner is a fine example of Bang & Olufsen's flair for combining performance with elegance, and is considered by B&O to be one of the most advanced units they have yet produced.

The volume, bass, treble and balance controls have been arranged in a slide scale presentation to achieve even more accurate definition. In addition, the Beomaster 3000-2 is equipped with a simple yet precise tuning system in the form of a double finger wheel which gives a slow motion drive, and a tuning indicator consisting of two illuminated panels.

All other controls and mode selectors are arranged in a professional yet simple switch-bank. There are also tuning controls for up to six preset stations on the FM band, and the automatic frequency control circuit ensures that the set stays absolutely on tune at all times. The Beomaster 3000-2 incorporates ceramic filters and integrated circuits to give optimum reception, and FET's (field effect transistors) to overcome weak signal conditions. There are connecting sockets duplicated in both DIN and phono types for either crystal/ceramic or magnetic pick-up cartridges, a tape recorder, headphones and two pairs of loudspeakers. The amplifier also has a unique two programme loudspeaker switching system.

Designed and engineered to give no more than 0.3% distortion at 40 watts RMS per channel (1 kHz), the Beomaster 3000-2 must surely be one of the most remarkable engineering achievements in audio technology.

The cabinet is finished in a choice of teak, rosewood or white lacquer, and the fascia is of brushed aluminium alloy.

Specification for Beomaster 3000-2 -Type 2402

1779

£ 163.50 + Vat

Dimensions

3.75" high, 22.8" wide, 10.3" deep.

Weight

19.1 lb.

Power supply

110-130-220-240 V AC,
50/60 Hz, 20-180 W.

Tuner section

FM tuning range

87.5-104 MHz.

Sensitivity

2 μ V (IHF M 6.03.05).

Signal-to-noise ratio

70 dB at 1 kHz with 100 μ V
and 75 kHz swing.

Aerial input

75 Ω coaxial socket.

Supplied with stereo decoder
fitted.

Amplifier

Power output

> 2 x 40 W RMS (2 x 75
watts music) at 4 Ω .

> 2 x 30 W RMS at 8 Ω .

> 2 x 20 W RMS at 16 Ω .

Inputs

All inputs have preset controls
for both left and right channels:
the sensitivity figures are for
minimum and maximum settings.

Phono 1

Magnetic P.U. maximum
nominal sensitivity 3 mV at 47 k Ω .

Phono 2

Crystal/ceramic P.U.
200 mV-3 V at 1 M Ω .

Outputs

Tape

200 mV-3 V at 1 M Ω .

Tape

DIN socket: 15 mV at 5 k Ω .

Phono socket: 170 mV at 5 k Ω .

Headphones

100 mW at 200 Ω will suit most
stereo headphones.

Loudspeakers

Switched sockets for two pairs
of speakers.

Tone controls

Bass

$\pm$ 17 dB at 50 Hz.

Treble

$\pm$ 14 dB at 10 kHz.

Balance

Minimum range 60 dB.

Rumble filter

12 dB per octave below 80 Hz.

Scratch filter

12 dB per octave above 4 kHz.

Signal-to-noise ratio

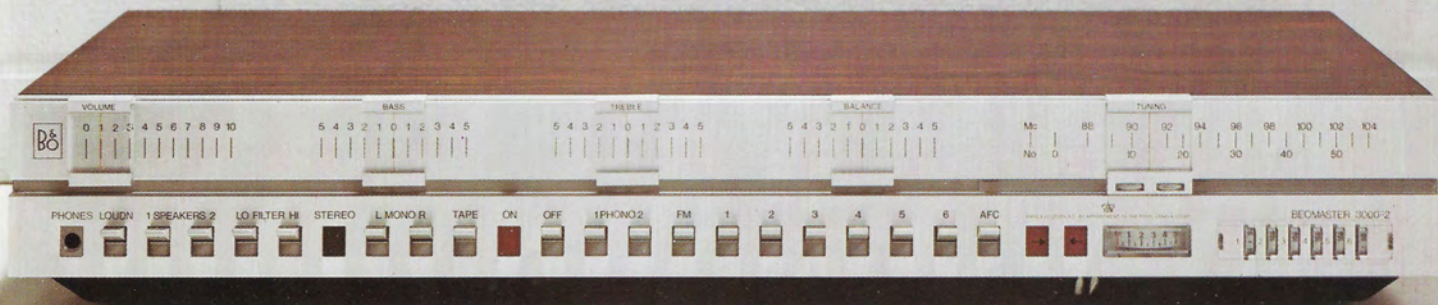
Minimum 65 dB at 30 W with
nominal input voltage
(magnetic pick-up).

Frequency response

40-20,000 Hz $\pm$ 1.5 dB.

Distortion

0.3% at 1 kHz at 38 W RMS
per channel. Less than 0.6% at
all frequencies from
40-12,500 Hz and with a
power output of 30 W per
channel simultaneously.



Beomaster 4000

The Beomaster 4000 is a superior stereo FM tuner/amplifier with optional ambiophonic speaker channels which can bring an entirely new quality to music reproduction. The tuner section of this high fidelity unit is extremely sensitive and selective, and there are tuning facilities for both manual selection of stations on the FM band between 87.5 and 104 MHz, and pre-set tuning of six stations in the same range with subsequent press-button selection. A "balanced-light" tuning indicator and signal strength meter assist accurate fine tuning, and a switchable automatic frequency control circuit keeps the selected station spot-on tune even when the signal has a tendency to drift. The high fidelity stereo amplifier section delivers a total RMS power of 120 watts with distortion of less than 0.2%. This extremely low distortion figure is made possible by the recent development of integrated Darlington output circuitry. The normal arrangement of Darlington-coupled driver and output transistor has been taken a step further, and in the output stages

of the Beomaster 4000, driver and output transistor are actually integrated into a single transistor-type component. By this method inherent transistor noise and cross-over distortion are almost eliminated. There are connections for a record player, tape recorder and tape cassette, and outputs for headphones and two pairs of stereo speakers — one pair being switchable between normal stereo use and ambiophonic use. These ambiophonic or "side-speaker" outputs enable the listener, by placing an additional loudspeaker at each side of the room, to experience a considerably enhanced sense of ambience or "presence" from his stereo tapes, records and radio. There are switchable filters for high and low frequency cut, an ambiophonic filter by which the highest frequencies can be reduced on the side speakers, and a switchable loudness circuit which will physiologically compensate for varying volumes. The Beomaster 4000 is housed in a craftsman-built cabinet, finished in natural teak or rosewood, and the fascia is of matt black metal with transparent slide controls.

Specification for Beomaster 4000—Type 2406

£199.50 + V.A.T.

Dimensions

3.7" high, 22.4" wide, 10.6" deep.

Power supply

110–130–220–240 V AC
50/60 Hz.

Consumption

20–275 W.

Tuner section

Waveband
FM 87.5–104 MHz.

Sensitivity

< 1.4 μ V at 75 Ω . 26 dB signal/noise.

Deviation $\pm$ 40 KHz.

Limiting

–3 dB, 1 μ V 75 Ω / $\pm$ 40 KHz deviation.

Signal/noise ratio

> 65 dB.

Selectivity

> 55 dB IHF $\pm$ 400 KHz.

Frequency Range

20–15,000 Hz $\pm$ 1.5 dB.

Harmonic distortion

< 0.4%.

Channel separation

35 dB/1000 Hz.

Pilot and carrier suppression

At 19 KHz, 40 dB.

At 38 KHz, 40 dB.

Amplifier

Power output

2 $\times$ 60 W RMS into 4 Ω .

2 $\times$ 55 W RMS into 8 Ω .

Harmonic distortion

At 50 mW/1000 Hz – < 0.1%.

At full output/1000 Hz – < 0.2%

Frequency response

20 Hz – 30 KHz $\pm$ 1.5 dB.

Half power Bandwidth

10–35,000 Hz.

Damping factor

> 20.

Inputs

Gram: 3 mV/47 K Ω .

Tape 1: 250 mV/1 M Ω with monitor facility.

Tape 2: 250 mV/1 M Ω .

Signal/noise

Gram: > 62 dB at specified output.

Tape: > 75 dB at specified output.

Outputs

Tape: 15 mV at 4.7 k Ω .

Speakers: 2 pairs 4–8 Ω .

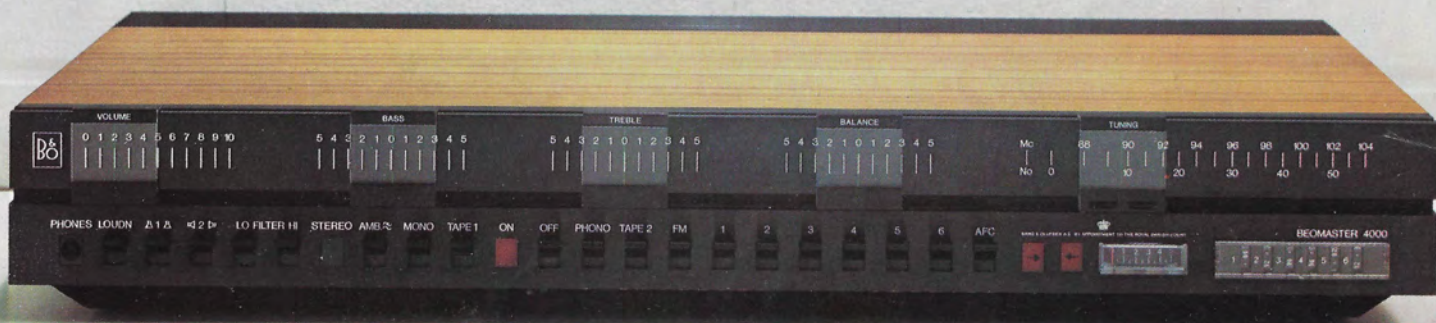
Controls

Bass

$\pm$ 17 dB at 40 Hz.

Treble

$\pm$ 14 dB at 12.5 kHz.





Bang & Olufsen U.K. Limited
Consumer Advisory Service
Eastbrook Road
Gloucester GL4 7DE
0452 21591

Trade Descriptions Act 1968

Descriptions of equipment shown in this leaflet are correct at the time of going to press, but are subject to alteration. Details of any alterations are available on request.

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Part number 125/59.