



# RH802 radio/record-playing system

Another outstanding system.

The combination unit is designed for a high standard of performance, surpassing the DIN 45 500 Hi-Fi Standard.

It features a very powerful stereo amplifier, a 5-waveband radio tuner, a transcription quality deck and the Philips GP400 Super-M magneto-dynamic pick-up head with diamond stylus.

The amplifier delivers 2 x 15 Watt (RMS-continuous), or 2 x 20 Watt Music Power, into loudspeakers of 4 Ohm impedance. Physiological compensation prevents loss of high and low notes when volume is reduced.

The frequency response is from 20 Hz to 20,000 Hz, plus or minus only 1 decibel, which means smooth coverage of the full frequency spectrum.

The radio tuner gives sensitive reception on VHF/FM, long, short and medium wavebands (the latter in two bands for easy station selection). The stereo decoder switches on automatically when stereo broadcasts are being received. An Automatic Frequency Control can be switched in for stable reception on FM. By means of pushbuttons, you can quickly select any of five stations, each being indicated on a separate tuning scale. A tuning meter is provided.

The two-speed record deck has a feather-light tubular pick-up arm with a viscous-damped device that lowers or lifts the arm gently and precisely, guarding records against damage.

The two loudspeaker enclosures recommended are type RH402, each having a 7" woofer and 1" tweeter.

As an alternative two RH405 loudspeakers may be used. See page 17.

The finish is walnut veneer.

## TECHNICAL SPECIFICATION RH802

### AMPLIFIER SECTION

**Power output:** 2 x 15 Watt continuous power into 4 Ohm.  
2 x 20 Watt music power into 4 Ohm.  
**Distortion:** Harmonic:  $\leq 1\%$  @ 1,000 Hz for 2 x 15 Watt.  
**Power bandwidth:** 3 dB below 2 x 15 Watt @ 30 Hz and 20 KHz.  
**Frequency response:** 20-20,000 Hz  $\pm 1$  dB.  
**Signal-to-noise ratio:**  $> 50$  dB with respect to 2 x 15 Watt.  
**Crosstalk:**  $> 40$  dB @ 1,000 Hz.  
**Tone controls:** Bass:  $+15$  to  $-15$  dB @ 50 Hz.  
Treble:  $+14$  to  $-14$  dB @ 10 KHz.  
**Physiology** (non switchable):  $+9$  dB at 50 Hz,  $+7$  dB at 10 KHz.  
**Sensitivity:** Tape and ceramic pick-up 270 mV into 500 K Ohm. Microphone: 0.5 mV into 2 K Ohm.  
**Input sockets:** 2 x 5-pin 180° DIN for tape/ceramic pick-up and microphone.  
**Output sockets:** 2 x 2-pin DIN for speakers.  
5-pin 180° DIN for tape output. 5-pin 360° DIN for headphones.

### TUNER SECTION

**Wavebands:** LW: 150-340 KHz (2,000-882 m).  
MW1: 520-1,420 KHz (577-211 m). MW2: 1,400-1,605 KHz (214-187 m). SW: 5.95-9.8 MHz (50.4-30.7 m). FM: 87.5-108 MHz (with stereo decoder and indicator light).  
**Aerials:** Ferroreceptor for MW and LW. Wire aerial for FM and SW. IEC input sockets for FM dipole and AM aerial/earth.  
**Sensitivity:** AM: 90  $\mu$ V EMF for 26 dB signal/noise ratio. FM: 6  $\mu$ V at 15 KHz deviation for 26 dB. S/N across 300 Ohm. 1.1  $\mu$ V terminal voltage at 40 KHz deviation for 26 dB. S/N across 300 Ohm.  
**Selectivity:** AM: 80 x for 9 KHz off resonance. FM: 200 x for 300 KHz off resonance.  
**FM performance:** Distortion  $\leq 1.5\%$  @ 75 KHz deviation. Pilot suppression:  $-30$  dB @ 19 KHz.  $-40$  dB @ 38 KHz.  
**Crosstalk:** 35 dB @ 1,000 Hz. AF response: 40-15,000 Hz  $\pm 1.5$  dB. (With standard 50  $\mu$  sec. de-emphasis).

### RECORD PLAYER SECTION

**Turntable speeds:** 33 $\frac{1}{3}$  and 45 rpm.  
**Wow and flutter:**  $\leq 0.2\%$ .  
**Rumble:**  $\leq 38$  dB (DIN A).  $\leq 58$  dB (DIN B).  
**Arm friction:** Lateral: 0.1 g at stylus tip. Vertical: 0.15 g at stylus tip.  
**Tracking error:**  $\leq 0.8^\circ$ /cm.  
**Motor:** Synchronous, low speed (250 rpm).  
**Turntable:** 10 $\frac{1}{4}$ " diameter with anti-static mat. Belt driven.  
**Headshell:** Slide-in cartridge carrier system for cartridges with standard  $\frac{1}{4}$ " fixing centres.  
**Stylus force:** Adjustable calibrated 2-4 gm.  
**Side thrust compensation:** Adjustable for spherical or elliptical styli.  
**Pick-up lift and lower:** Viscous damped.  
Automatic switch off and pick-up lift at end of record.

## GP400

**Type:** Stereo Magnetic Dynamic.  
**Stylus:** 15  $\mu$ m Diamond.  
**Pressure:** 1.5-3 g.  
**Compliance** (dynamic): 20 mm/N lateral. 16 mm/N vertical.  
**Sensitivity:** 1.2 mV/cm/sec. at 1 KHz.  
**Separation:** 20 dB.  
**Mounting:**  $\frac{1}{4}$ " fixing centres (International standard).

### GENERAL

**Dimensions:** 23" x 6 $\frac{3}{4}$ " x 14 $\frac{1}{4}$ ".  
**Mains Supply:** 110, 127, 220, 240 V 50 Hz AC only.

### RH402 LOUDSPEAKER ENCLOSURES

**Power handling capacity:** 20 Watt RMS continuous.  
**Volume:** 0.2 cu ft.  
**Type:** Infinite baffle.  
**Frequency response:** 50 Hz-20,000 Hz.  
**Bass resonance:** 90 Hz.  
**Drive units:** 7" woofer, 1" tweeter.  
**Crossover frequency:** 1,200 Hz.  
**Dimensions:** 10 $\frac{1}{2}$ " x 10 $\frac{1}{2}$ " x 4 $\frac{1}{4}$ ".

