

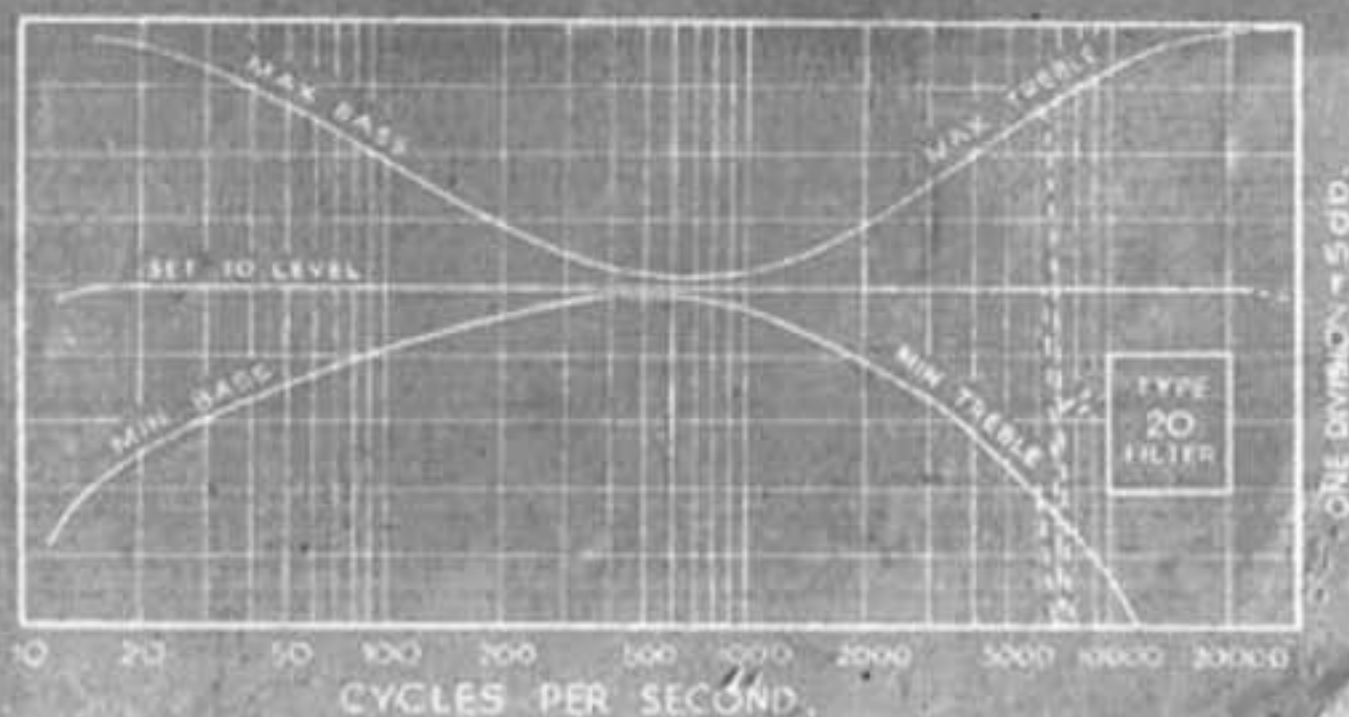


10-12 WATT
QUALITY CHASSIS
(TYPE QA12/P)

The QA12/P is an amplifier of extreme fidelity for those requiring the finest possible quality of reproduction in the home. It is also supplied for laboratory purposes for precision measurements at all audio frequencies.

For reproduction purposes, the response extends without deviation well beyond the limits of the human ear. Cross modulation - harmonic distortion - background noise, etc., have all been reduced to a level well below the standards accepted as incapable of human detection. The unit incorporates bass and treble controls for boosting or reducing and the slope of these controls is particularly designed for reproducing sound at a lower level than the original in small rooms.

For gramophone reproduction, lightweight high fidelity pickups should be used and the amplifier provides sufficient gain for these pickups with fixed bass compensation fitted in addition to the variable bass boost.



QA12/P CIRCUIT DETAIL

The pre-stage and tone control section utilises two high slope triode stages with independent negative feedback. The input resistance is 1.5 megohm, but the source impedance applied to the input should not exceed 30,000 ohms at high frequencies in order to maintain the specified figures. A switch is fitted to the pre-stage to cut out the tone controls when straight line is required and a third position of the switch introduces a further 20 db gain for laboratory use.

The main chassis consists of a push-pull driver and push-pull output stage. The phase changing is self-compensating to the extent of normal valve variations. The output valves are operated partly as cathode followers of special design and matched to the loudspeaker via a thirteen-section output transformer. Capacitive compensation is incorporated in the circuit and negative feedback is added to a total of 18db. The following figures are pass figures for final test.

Distortion content at 12 watts
whole amplifier incl. prestage.

2nd Harmonic: 0.1% - 60db.

3rd Harmonic: 0.2% - 54db.

High order: 0.05% - 66db.

Total: 0.25% - 52db.

Frequency range:

Within 0.3db 20-20,000 c.p.s.

Within 2db 15-30,000 c.p.s.

Tone controls: To published
curves within 1db.

Background: 6db. below 1
microvolt at input.

Sensitivity:

Amplifier only: 66db.: 1.3v.
for full output.

Controls in: 100db.: 15mv.
for full output.

Controls out: 120db.: 1.5mv.
for full output.

Input impedance: 1.5 megohm

Source impedance: Up to
30,000 ohms.

Output impedance: 7 & 15
ohms.

Output damping factor: 12.

Supply voltage: 200-250 A.C.
single phase. 40 - 80 c.p.s.
(or to specification).

Supply consumption: 80 watts.

Valves: ECC. 35-EF. 36-
EF. 36-KT. 66-KT. 66-
5U4G.

Dimensions: 10½in. x 8½in. x
7in.

Weight: 16 lbs. complete.

Finish: Bonderised and grey
cellulose.

Type No. Amplifier only—
QA 12. Amplifier with pre-
stage—QA12/P.