
The Armstrong 600 Series

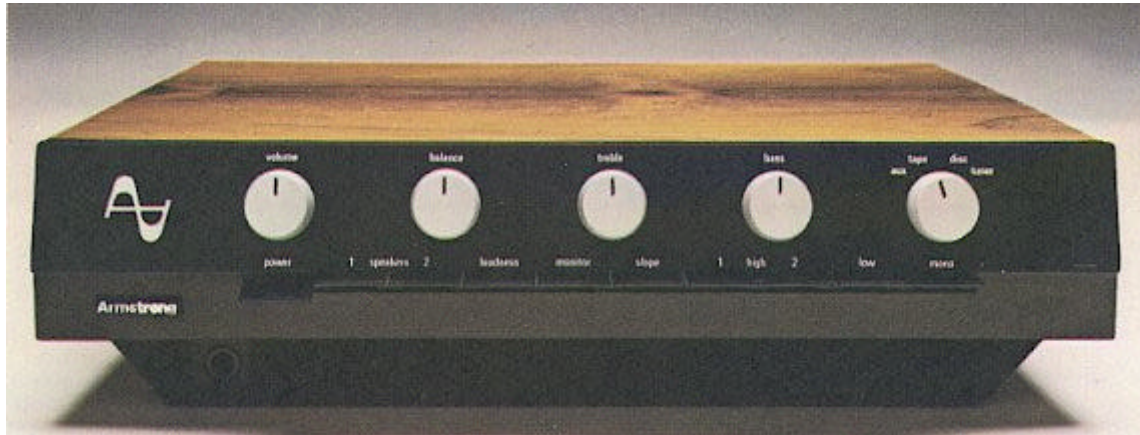
The units were:

- 602 Loudspeaker
- 621 Amplifier
- 623 AM/FM Tuner
- 624 FM Tuner
- 625 FM Receiver
- 626 AM/FM Receiver

The units were modular so the same amplifier and tuner circuits were used throughout the range.



As with the previous ranges, the 600's were modular and included receivers as well as separate amplifiers and tuners. The above picture shows a 625 FM receiver. Along with the 626 this proved very popular, particularly on the continent of Europe.



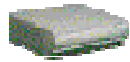
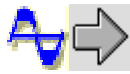
The 621 amplifier (shown above) was rated at 40 Watts per channel into 8 Ohms. This made it markedly more powerful than previous ranges. Yet despite this, the box was smaller with a very 'low profile' appearance. To some extent this was deceptive as the box was shaped with a cut-away black base. The effect was to make the box seem thinner and smaller and seem as if it was floating above the table.

As with many other Armstrong items, the appearance of the 600 range was quite distinctive, and designed to look attractive as a piece of furniture as well as provide good performance. For example, although the units included a number of selection switches these were accessed via thin 'piano key' tabs that the user pressed down. These acted as levers to operate the internal push-switches. The thin strip of black keys tended to be camouflaged against the black frontage. Hence the units didn't look as if they were covered in buttons.

Rated Power	40W per channel into 8 Ohms	Crosstalk	<-45dB
Frequency Response	20Hz - 25kHz \pm 1dB	SNR	-65dB
Total Harmonic Distortion	<0.08% at 25W	<0.08% at 1W	

The 600 series amplifier had some unusual features. One of these was the use of diode 'cold switching' of the inputs. This meant that the input selection avoided any mechanical switches in the signal paths. Instead the bias on a set of steering diodes was changed by the input selector. Thus any corrosion or mechanical problems with input selector switches was avoided. In more modern times other manufacturers often achieve a similar effect using IC's for switching. These were not available back then. One nice feature of the diode switching was that sources would 'cross fade' as the diode voltages changed. This was felt to be more pleasant than an abrupt change, particularly if the newly selected input was loud!

The power amplifier also had an unusual double-feedback arrangement. This was employed to correct some of the effects of the output capacitor. (The design was single-rail so required an output capacitor.) However it meant that over some of the output frequency range the amplifier's output impedance went slightly negative. This meant that the system maintained a high damping factor in use even when the cable resistance was taken into account. As a result the 600 amplifiers gave unusually tight control of the loudspeaker movement. This was also Armstrong's first amplifier to use silicon transistors throughout. This meant an improvement in both power and reliability.



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