

4.4 Operation

The sub-woofer amplifier control and connection panel provides a range of adjustment facilities to assist its integration with the satellite speakers. These facilities are explained below and illustrated in Diagrams 4, 5 and 6.

Level: Sets the overall sensitivity of the sub-woofer. Initially the level control should be set towards the centre of its range and only adjusted once the **Low Pass** and **Contour** controls have been set.

Low Pass: Varies the upper crossover frequency as indicated on the control panel and Diagram 5. This is the fundamental parameter that defines the integration of the sub-woofer with the satellites. The Low Pass control should be set at or slightly above the specified low frequency cut-off of the satellite speakers.

Contour: With the Contour control set to the **Flat+** position the sub-woofer pass-band frequency response is fundamentally flat and in phase with the satellite speakers. With the Contour control to the **Flat-** position the frequency response remains flat but the phase is reversed. Depending on the relative position of the sub-woofer and satellite speakers within the listening environment, phase reversal can result in more consistent integration.

The Flat position is recommended for music programme material. The response curves for each Low Pass filter position with **Flat+** selected is shown in Diagram 5.

With the Contour control in the **Lift+** position the frequency response is lifted in the 40 - 60Hz region. This boosted setting is designed to provide a more demonstrative sub-woofer performance appropriate for audio/visual programme material. The response curves for each Low Pass filter position with **Lift+** selected is shown in Diagram 6. The **Lift-** position retains the frequency response but reverses the phase.

Badge Indicator (C6 Only): The badge located on the lower front of the C6 cabinet incorporates an amplifier status indicator. GREEN indication shows that the amplifier is operating normally. RED indication shows that the amplifier is operating at the full available output. Any more than brief RED indication means that the amplifier is being over-driven and that its protection circuits are operating. Protection will limit and distort the acoustic output of the sub-woofer so the operating volume should be reduced.

Due to the nature of the electronics in ATC active loudspeakers it is quite normal for a sound to be heard from the speaker when the power is applied or disconnected. The noise heard will not damage the speaker and is quite normal. Although ATC uses the highest-grade components, a different noise may be heard from each speaker due to slight tolerance variations in the amplifier components.

4.5 Listening

The ear and brain tend to interpret distorted sound as loudness and thus underestimate the actual level of undistorted sound. ATC sub-woofers, like all ATC products, demonstrate very much lower levels of distortion than conventional systems

Diagram 4 - connection and control panel

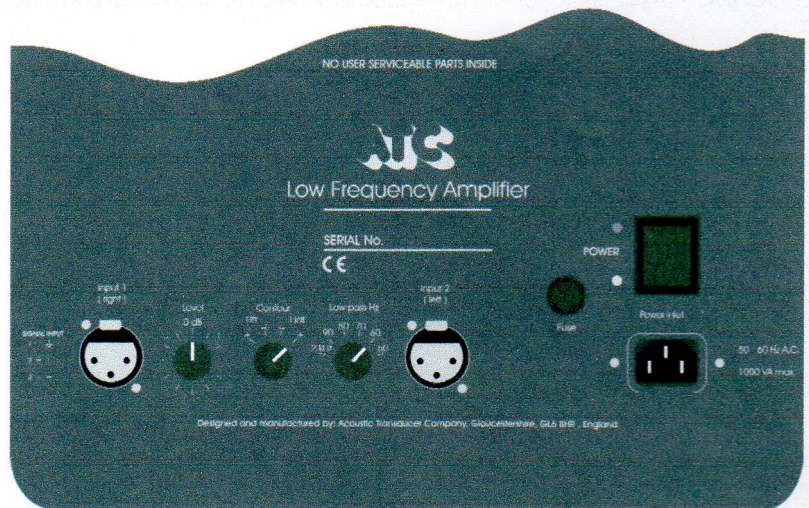


Diagram 5 - low pass options, contour flat

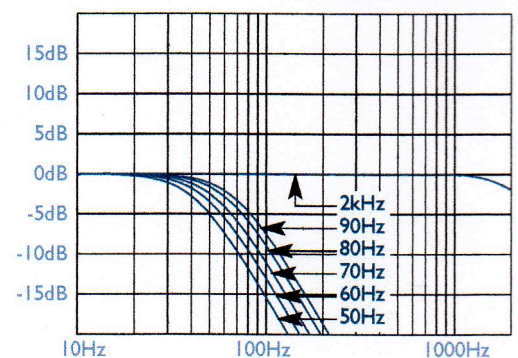


Diagram 6 - low pass options, contour lift

