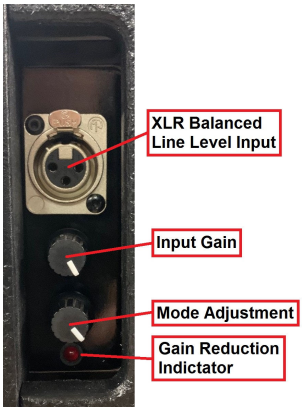
Dwarf - Operational Overview

23 December 2020

Input Panel



Input is via line level balanced XLR connector.

Input gain is adjustable from zero to full with the gain knob.

The mode adjustment knob adjusts the response of the Dwarf according to the required application.

When the limiters or Limitiza are reducing the gain significantly the red LED will Illuminate.

Operational mode adjustment

With the knob in this "12 o'clock" position the Dwarf has an acceptable full range output down to about 50hz and can achieve output levels that are adequate for small scale PA applications.

With the knob in this "7 o'clock" position the Dwarf is able to perform louder as a mid/high box down to about 120hz, and when accompanied with a powerful bass speaker it can be used for slightly larger and/or bass heavy PA applications.

The response for PA operation is continuously variable between the full range and mid/high mode, and in fact if the Dwarf is significantly overdriven in the full range mode it will automatically dynamically eq to reduce the sub weight in the output so that it can maintain a louder output when required.

When the knob is turned clockwise from the 12 o'clock position the Dwarf enters HiFi mode which is intended for low volume applications when absolute top audio quality and an extended sub response are required.

I would suggest in this application starting with the knob at the "3 o'clock" position, and then the knob can subsequently be adjusted as required to the desired sub output level to suit the requirements and the room acoustics. Of course in this mode the Dwarf is not able to perform so loud, and if overdriven then the limiters and high cone excursion may spoil the sound slightly, but it is not intended for loud output levels in this mode. However, if overdriven significantly in this mode then again the Dwarf will automatically use dynamic eq to reduce the sub weight in the output and evolve into PA mode so the louder output is available as required.

Limiter/Limitiza

When overdriven the limiter will automatically prevent clipping, and if significantly or consistently overdriven then the Limitiza will slowly reduce the input gain as required. In either case the illuminating of the red LED indicates that gain reduction is being applied by these circuits. This LED being illuminated is fine, the Dwarf can run with the LED continuously illuminated.