

## DT 105 Subwoofer Amplifier

### Feature details:

The active subwoofer module DT 105 consists of:

- A toroidal transformer,
- that is shielded from the electronics by a solid metal plate
- discrete main amplifier module
- automatic standby
- 3 different input types

The DT 105 protects the bass driver against overload by cutting off low frequencies. Both the lower and the upper cut-off filter is 12 dB / octave. A relatively gentle slope was chosen to simplify the adaptation to the satellites.



### Technical data:

- output continuous: 110 W into 4 Ohm
- output programme: 210 W into 4 Ohm
- output continuous: 70 W into 8 Ohm
- output programme: 140 W into 8 Ohm
- minimum speaker impedance: 4 Ohm
- frequency range: 22-150 Hz, upper cut-off frequency adjustable
- frequency response, subwoofer input, filter of home cinema unit is being used (+/- 1dB): 10-20 000 Hz
- integrated overload protection
- damping factor: 400 at 8 Ohm
- signal to noise ratio: 90 dB
- outside dimensions (HxWxD): 240 x 200 x 125 mm
- mounting dimensions (HxWxD): 200 x 170 x 120 mm
- power supply: 230V, 50 Hz, 250 VA



### Operating controls:

1. mains input with
2. integrated fuse (230VAC / 1,6A slow blow)
3. on / off switch
4. power indicator: standby/on
5. high level input: for the connection of the DT 105 to the loudspeaker outputs of your amplifier
6. line input: low level input, e.g. for connection to the pre-amp out of your amp
7. subwoofer input: for connection to the subwoofer out of your home cinema unit. Since this unit already contains a crossover the DT 105 will amplify over its full bandwidth (10-20.000 Hz).
8. volume control
9. crossover: to adjust the upper cut-off frequency when input 5 or 6 is being used, adjustable from 40 to 150 Hz.
10. phase correction: phase switch to set the correct phase; should be adjusted in such a way that the mid bass is as loud as possible.

# DETONATION<sup>®</sup>

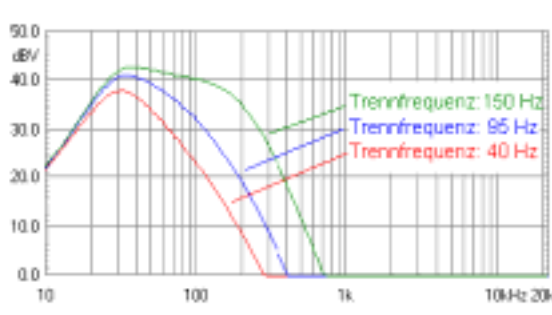
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## Hi-fi mode:

DT 105 shows a marginal bass boost between 30-40 Hz.

The frequency response is tuned to accommodate hi-fi systems, delivering too much low bass, leading to distortion and bottoming.

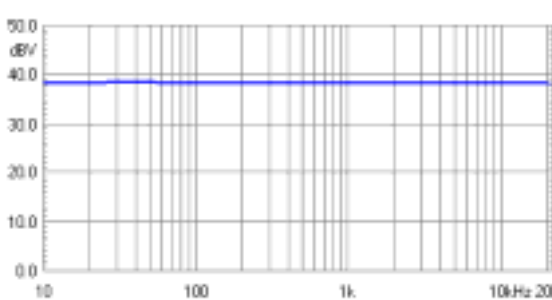
The graph below shows the frequency response for inputs 5 and 6:



## Home cinema mode:

In this mode lowest bass is required. Since here the home cinema's crossover is being used the additional crossover of the subwoofer would be interfering.

Therefore, the DT 105 possess a separate subwoofer input (7) for home cinema mode, showing an almost flat response ( $< \pm 0.5$  dB) between 10-20.000 Hz:



## Bass driver connection:

The bass driver needs to be connected to the red / black wires on the rear side of the module.



## Tuning instructions:

First you connect the finished subwoofer to your home cinema system. Then you increase the until the subwoofer's bass is clearly audible. Now you reduce the subwoofer's volume until the low frequencies are no longer noticeable.

The phase switch has to be adjusted in such a way that the bass is as loud as possible. Should the switch be turned the opposite way certain frequencies coming from satellites and subwoofer are cancelling one another.

## Assembly advice:

The module should only be mounted and connected when not connected to the mains.

## Please note:

All technical data has been collected with greatest care. However, since errors cannot be excluded entirely, we would like to advice you that we cannot take on any guarantee, responsibility or liability for consequences that result from incorrect data.