

# ■ FDB-404 : 4-Channel DIRECT BOX

EWI

## Frequency Filter DIRECTBOX

This unit have it special function for eliminating the noise caused by outside electromagnetic.

### 1. Operating Elements and Connections

- ① XLR output jack - balanced
- ② Groundlift switch
- ③ Input and parallel feedthrough jack - unbalanced
- ④ Attenuator Slide switch
- ⑤ Chassis Ground

### 2. Important Instructions for Use

- The device is suitable for indoor use only. Protect it from humidity and heat (admissible ambient temperature 0-40°C).
- If the device is used for other purposes than originally intended or if it is wrongly operated or not repaired by an expert, no liability can be assumed for any probable damage.
- A transformer coupled device to pick up an instrument's signal for a mixing console, it maintains at the same time the connection between the instrument and its own amplifier.
- Use dry soft cloth for cleaning. Do not use any chemicals or water.
- Should the device definitively be put out of operation, same has to be disposed of in a local recycling plant.

### 3. Applications

<The FDB-404 has four separate audio channels with offer the following facilities independent of each other:>

The FDB box(Direct Injection) serves as an optimal connection of a musical instrument with high impedance unbalanced output to a low impedance balanced input of a mixer. By means of the balanced connections to the mixer, interferences can also be avoided in case of long connecting cables. In case of problems with hum loops, the ground connections between instrument and mixer can be separated by means of the groundlift switch. Then the devices are d.c. separated.

High signal levels can be reduced by means of the reductor and can be adapted to the mixer input. There by, the FDB box can also be connected directly to the speaker output of an instrument amplifier. Consequently the influence of the sound at the mixer input will be maintained by the amplifiers(e.g. guitar or tube amplifier).

### 4. Setting into Operation

<The following operating instructions refer to one channel and should be performed correspondingly for the other channels.>

The FDB box does not need any power supply. In the text below, only channel 1 is described. Setting into operation of channel 2 is identical.

#### 4.1 Connection of the Input

Connect the output of the musical instrument to one of the two INPUT input jacks ③. Set the ATT. sliding switch ④ right to the left to position "0dB". Should there be any distortions on the following mixer, set the switch to position "-20dB" or in case of very high signals to position "-40dB".

Alternatively the input jack can also be connected to the speaker output of an instrument amplifier to transmit the influence of the sound by the amplifier. Do not connect speaker outputs of amplifiers operating as bridge circuit as they will be short circuited by the FDB box.

**Caution** The amplifier's output voltage may not exceed 32V. Otherwise the FDB box can be overdriven. This results in 125W with a 8Ω speaker or 250W with 4Ω speaker. Set the ATT. sliding switch ④ to the right to position "-40dB", and if necessary in case of low volume to mean position "-20dB".

#### 4.2 Using the feedthrough Output

Should the instrument signal by transmitted directly to the amplifier, connect the amplifier input to the second INPUT jack ③. Here the signal, which is directly coming from the instrument, is applied to.

**Caution** The feedthrough output is not suitable for connecting speaker. Over load hazard

#### 4.3 Connecting the Balanced Output

connect the XLR jack ① via a balanced cable to a highly sensitive mixer's input(e.g. mike input).

#### 4.4 Groundlift Switch

If the groundlift switch ② is in "OFF" position, the ground of the unbalanced input ③ is connected to the ground of the balanced output ①. This switch position should be chosen first However in case of hum loops, set the switch to "ON" position.

Then the ground between input and output is d.c. separated.

### 5. Specifications

Frequency Resp. - - - - high to low impedance : 15 - 30,000 Hz  
 low to high impedance : 30 - 20,000 Hz

Attenuator - - - - - 0, -20, -40 dB

#### Inputs :

1/4" jack - - - - - 50kΩ, unbalanced  
 max. Input voltage : 32v (corresponds to 125W at 8Ω or 250W at 4Ω)

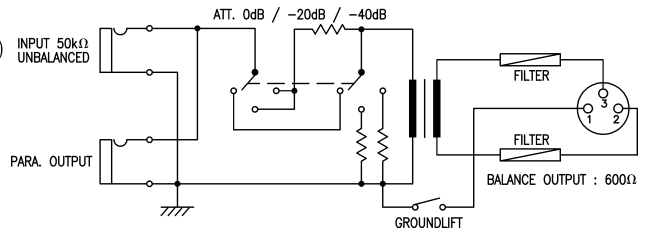
#### Outputs :

XLR - - - - - 600Ω, balanced  
 Transmission ratio - - - - 10 : 1

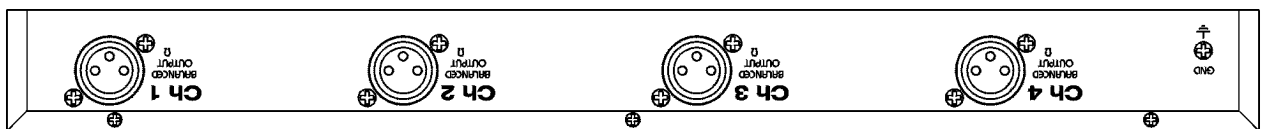
#### Admissible ambient :

Temperature - - - - - 0~40°C  
 Dimensions (WxHxD) - - - 483 x 44.5 x 95 mm  
 Weight - - - - - 1.25kg

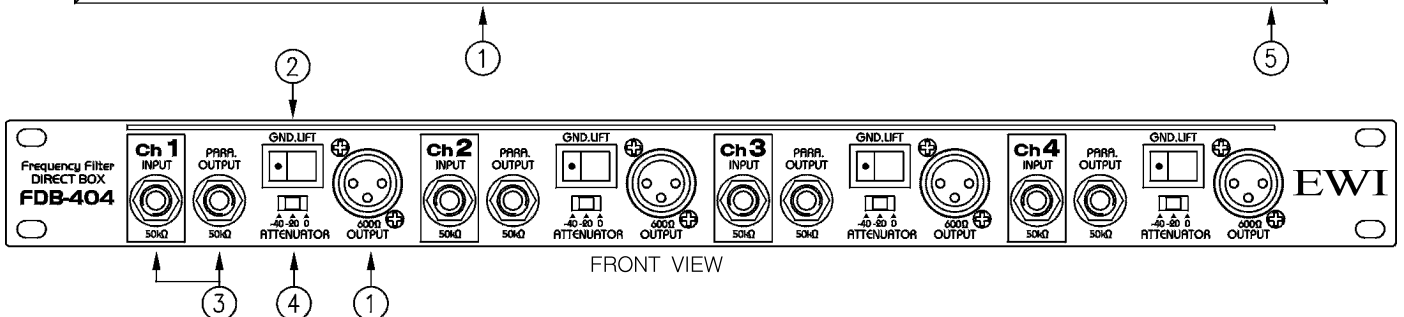
- PRINCIPLE DIAGRAM FOR ONE CHANNEL -



REAR VIEW



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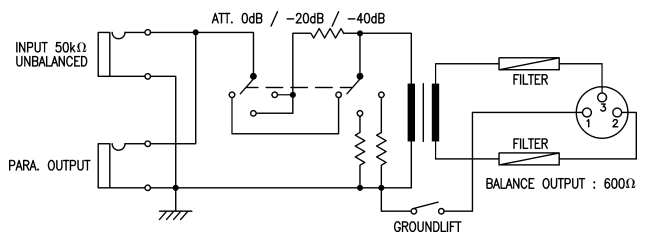
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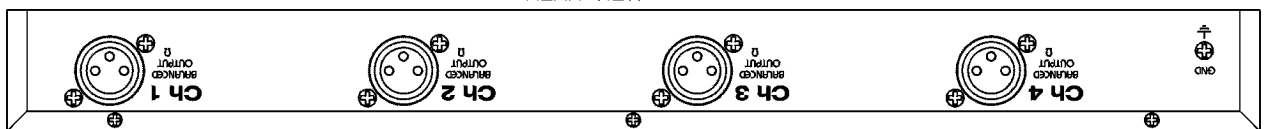
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