

# **FISCHER AMPS**

## **Manual HARD-WIRED IN EAR BODY PACK XL**



**Dear customer:**

You have decided to buy a **Fischer Amps** product. Thank you.

**Please read this manual carefully prior to the first use, you will get important information for use and safety of the unit. These safety and operating instructions should be retained for future reference.**

**Should you have further questions, please do not hesitate to contact *FISCHER AMPS*.**

### **Product Description:**

The Body Pack XL has the same functional principle as the Fischer Amps Hardwired In Ear Monitor Belt Pack plus an additional Mic-In to add-on a microphone signal to the stereo or mono mix received. The integrated low-noise microphone preamp has standard features such as 48V phantom power, PAD switch to reduce the input signal by 20 dB, and gain control from +12 dB to +60 dB. An additional feature for the microphone input is the parallel out which allows to loop the microphone signal.

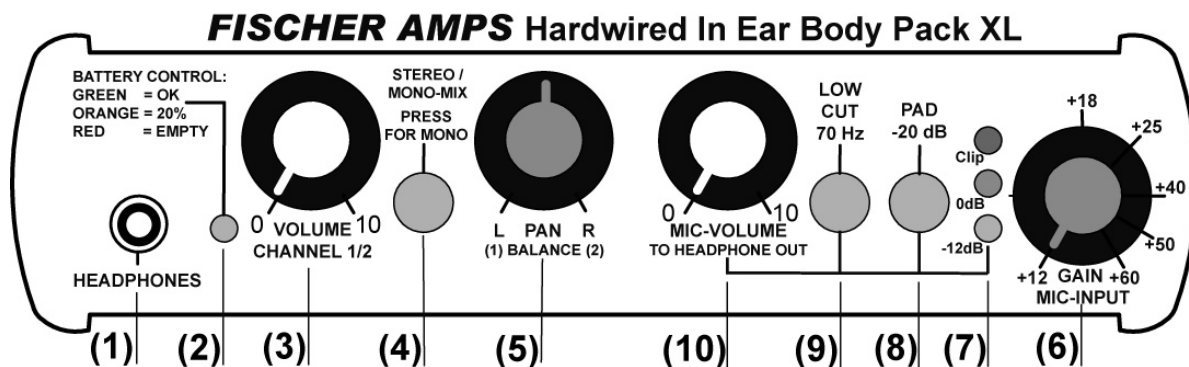
The Body Pack XL is powered with a 9V battery or a mains adaptor (not included).

This Body Pack is a compact in ear solution not only for orchestra musicians who want to mix their own microphone signal to the incoming in ear signal, but it is also an excellent tool for engineers to monitor microphone signals.

### **Basic information on the use of in-ear monitoring systems:**

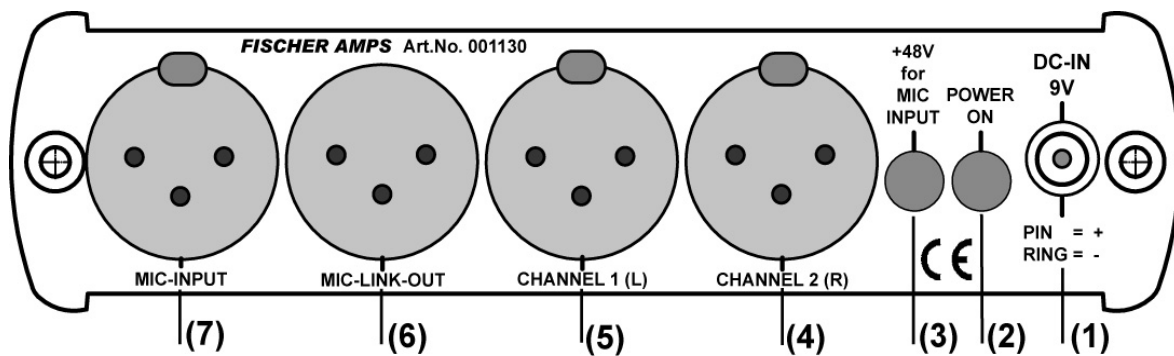
#### **CAUTION:**

Using this system at too high sound levels may cause permanent hearing defects. Adjust the volume so that you can hear sufficiently. Ringing in the ears can indicate that the adjusted hearing level is too high. Use headphone systems with good fit which suppress the ambient noise well. This allows that the required listening volume can be low which is kind to your ears.



### Description of the Actuators (Front Side) :

- (1)**  
3.5mm (1/8") Stereo Jack: Connection of the headphone system (minimum impedance 12 ohms per channel)  
Maximum output power 40 mW per channel into 20 ohms.  
Tip = left signal, Ring = right signal, Sleeve = ground
- (2)**  
Battery Control LED: This LED controls the capacity of the battery or rechargeable battery. After switching on with a newly inserted battery the green LED lights. With increasing operating time and decreasing battery power (remaining capacity approx. 20%) the LED lights orange. When the LED lights red, the battery should be replaced.
- (3)**  
Volume Control: Adjusts the volume of the left and right side of the headphone for channels 1 and 2. The microphone signal is adjusted with a separate volume control.
- (4)**  
Change-over switch Stereo/ Mono-Mix Mode  
Stereo Mode: The device outputs the signal fed into the left input at the left headphone and the right signal at the right headphone.  
Mono Mix Mode: Channel 1 and channel 2 are mixed and output to both sides of the headphone.  
By means of the Pan (balance) controller the ratio between both channels can be adjusted.
- (5)**  
Pan (Balance) Controller  
In Stereo Mode: Adjusts the balance of volume of channel 1 and 2 between the left and the right headphone system.  
In Mono Mix Mode: Adjusts the volume level ratio between channel 1 and channel 2. Channels 1 and 2 are output mutually to both headphone sides. In middle position both channel levels are equal; at left stop only channel 1, at right stop only channel 2.
- (6)**  
Microphone Gain: Adjusts the gain of the microphone signal from 12 dB to 60 dB.  
When the PAD switch is activated, the adjusted gain is reduced by -20 dB.
- (7)**  
LED Microphone Signal: Controls the level of the microphone signal after the microphone preamp. When LED 0 dB lights, the working level is adjusted correctly. Peak levels cause the LED to light red for a short period of time, however, the LED may not constantly light red.
- (8)**  
PAD Switch: The PAD switch reduces the adjusted gain value by -20 dB (which is required for signals with a higher level).
- (9)**  
LOW Cut Switch: Adds on a 70Hz Low-Cut with 18 dB/oct. after the microphone preamp; this reduces deep bass signals.
- (10)**  
Microphone Volume: Controls the volume of the microphone signal at the headphone output (L/R)



**Description of the Actuators (Back):**

- (1)  
DC-In Connector:  
(lockable)
 

Possibility to connect a 230V mains adaptor with DC output 9V with minimum 250mAh output current. When a battery or rechargeable battery is inserted, the battery is switched off after plugging in the adaptor. When unplugging the adaptor, the Body Pack XL operates with the battery. Polarity (+ tip, - ring)

**Fischer Amps offer a suitable mains adaptor with lockable DC plug.**
- (2)  
Power On:
 

Activates the voltage supply of the device. This switch is flush so that it is protected against being inadvertently switched off. Activation of 48V phantom power is only possible, when the device is switched on.
- (3)  
+48V for MIC INPUT  
(Activation of Phantom Power):
 

Add-on of 48V phantom power for the microphone input. Activate phantom power only when a microphone is connected which requires phantom power. 48V phantom power should only be activated at one of the devices which are connected to the microphone.
- (4) – (5)  
XLR Inputs (L/1) and (R/2):
 

Connect the input signal from the mixing console.  
Assignment:           1 = Ground  
                              2 = Signal +  
                              3 = Signal -

With asymmetric wiring, assign PIN 3 to Ground (bridge in connector plug).  
Maximum input level +5dB
- (7) MIC-INPUT:
 

Symmetric XLR connector to plug in the microphone
- (6) MIC-LINK-OUT:
 

XLR output to loop the microphone signal to another microphone input. Mic In (7) and Mic Out (6) are coupled and function even when the device is switched off.

**Mono Operation of Body Pack XL:**

With mono monitor mixing, the signal is connected to one of the two input channels, the change-over switch is set to „Mono-Mix“ (press (4) front side), and the pan controller is in middle position. Thus the mono signal is output to both headphones.

**Mono-Mix Operation:**

This operation mode is the easiest way to create a user-specific monitor mix. An over-all mono mix of the band, for instance, is supplied to channel 1, the signal of the musician to channel 2. Thus the musician can individually adjust the optimum listening signal by means of the PAN controller (ratio of over-all mix and instrument). The PAN controller has no effect on the microphone signal. The microphone signal is output at the Headphones output with the same level for left and right.

## **Adjustment of the Output Level at the Source of Signal (Mixing Console) for Channel 1 (L) and 2 (R):**

Adjust the output level at the source of signal (mixing console at approx. 0 dB to +3 dB) at the signal peaks. This provides the In Ear Body Pack XL with an adequate input level so that there is sufficient power at the headphones output. In addition, this prevents that high increases of the level such as feedbacks escalate the headphone level. The input level limits the signal at approx. +5 dB.

## **Inserting the Battery or Rechargeable Battery:**

Switch off the device, open battery cover on top of the housing, insert battery or NiMH rechargeable battery in correct position of the pole into the battery receptacle (according to drawing), put on cover and close it. Inserting the battery with the pole in incorrect direction will not cause any damage to the device (the device simply does not function).

Either use a 9V block alkaline battery or a nickel metal hydride (NiMH) brand rechargeable battery with 7 cells (8.4V) and minimum 270mAh capacity. We advise not to use 9V zinc carbon batteries since their capacity is too low and they can leak.

The operating time with a 270mAh rechargeable battery is min. 4 hours. We therefore recommend to use such rechargeable batteries due to economic reasons and the protection of the environment. FISCHER AMPS offer special rackmount chargers for the use on stage with charging times of 2 – 3 hours as well as high-quality rechargeable batteries. When operating the Body Pack XL with add-on phantom power, the operating current is increased (see Technical Data). When using the device for more than 4 hours, we suggest to use the DC adaptor.

## **TECHNICAL DATA:**

<b>Dimensions L x W x H :</b>	<b>125 x 136 x 32 mm</b>
<b>Weight:</b>	<b>approx. 430 g without battery</b>
<b>Input Jacks:</b>	<b>3 x Neutrik-XLR, 3-pole with interlock</b>
<b>Output Jack:</b>	<b>3.5mm / 1/8" mini jack stereo, 1 XLR Mic Link-Out</b>
<b>Frequency Response:</b>	<b>30 Hz – 20 kHz +/- 2dB</b>
<b>Min. Impedance of Headphones:</b>	<b>12 ohms per side</b>
<b>Input Impedance:</b>	<b>15 kOhms channel 1 and 2 2 kOhms microphone input (with PAD switch = 15 kOhms)</b>
<b>Nom. Input Level symmetric:</b>	<b>0 dBV (channel 1 and 2)</b>
<b>Max. Input Level symmetric:</b>	<b>+4 dBV (channel 1 and 2)</b>
<b>Limiting of the Input Signal:</b>	<b>from +5 dBV (channel 1 and 2)</b>
<b>Input Level Mic Input:</b>	<b>-60 dB to + 6 dB</b>
<b>Max. Output Power into 20 ohms:</b>	<b>40 mW per channel @ 20 ohms</b>
<b>Max. Operating Current:</b>	<b>65 mA (with add-on phantom power 120-140 mA)</b>
<b>Power Supply:</b>	<b>9V block alkaline battery or 8.4V NiMH rechargeable with min. 210mAh</b>
<b>DC Input:</b>	<b>External input voltage DC 9V (Pin +, Ring -)</b>
<b>Operating Time of Battery:</b>	<b>Alkaline battery (500 mAh) approx. 7.5 hours, NiMH rechargeable battery (270 mAh) approx. 4 hours (depending on headphones volume)</b>

**In Ear Body Pack XL**  
**DC Adaptor:**

**Art. No. 001130**  
**Art. No. 006010**

## ***FISCHER AMPS***

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