

Thank you for purchasing our Fostex product.

The model PH-50 is a headphone distributor. It has three inputs and five high power (500mW) headphone outputs whose output level can be separately controlled. In addition, it contains a matrix box function for five inputs and five outputs.

For inputs to the headphone distributor, it has two balanced lines and one unbalanced line. The balanced input level can be switched for receiving +4dBu or -10dBV levels. Also, the CUE box function can be employed by using the AUX inputs, and the multi-channel operation by cascade connection of a multiple number of PH-50's. Please carefully read through this manual for many years of good service.



CAUTION

RISK OF ELECTRIC SHOCK
DO NOT OPEN



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER (OR BACK).
NO USER - SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

CAUTION:

TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT, FULLY INSERT.

ATTENTION:

POUR ÉVITER LES CHOCs ÉLECTRIQUES, INTRODUIRE LA LAME LA PLUS LARGE DE LA FICHE DANS LA BORNE CORRESPONDANTE DE LA PRISE ET POUSSER JUSQU' AU FOND.



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

"WARNING"

"TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK,
DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE."

SAFETY INSTRUCTIONS

1. Read Instructions - All the safety and operating instructions should be read before the appliance is operated.
2. Retain Instructions - The safety and operating instructions should be retained for future reference.
3. Heed Warnings - All warnings on the appliance and in the operating instructions should be adhered to.
4. Follow Instructions - All operating and use instructions should be followed.
5. Water and Moisture - The appliance should not be used near water - for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, and the like.
6. Carts and Stands - The appliance should be used only with a cart or stand that is recommended by the manufacturer.
7. Wall or Ceiling Mounting - The appliance should be mounted to a wall or ceiling only as recommended by the manufacturer.
8. Ventilation - The appliance should be situated so that its location or position does not interfere with its proper ventilation. For example, the appliance should not be situated on a bed, sofa, rug, or similar surface that may block the ventilation openings; or, placed in a built-in installation, such as a bookcase or cabinet that may impede the flow of air through the ventilation openings.
9. Heat - The appliance should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances (including amplifiers) that produce heat.
10. Power Sources - The appliance should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.
11. Grounding or Polarization - The precautions that should be taken so that the grounding or polarization means of an appliance is not defeated.
12. Power Cord Protection - Power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.
13. Cleaning - The appliance should be cleaned only as recommended by the manufacturer.
14. Nonuse Periods - The power cord of the appliance should be unplugged from the outlet when left unused for a long period of time.
15. Object and Liquid Entry - Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.
16. Damage Requiring Service - The appliance should be serviced by qualified service personnel when:
 - A. The power supply cord or the plug has been damaged; or
 - B. Objects have fallen, or liquid has been spilled into the appliance; or
 - C. The appliance has been exposed to rain; or
 - D. The appliance does not appear to operate normally or exhibits a marked change in performance; or
 - E. The appliance has been dropped, or the enclosure damaged.
17. Servicing - The user should not attempt to service the appliance beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel.



An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.

Notes On Operation

1. Do not use headphones for long hours at high sound levels.

If the headphone is used under such condition, it could injure your hearing. Also, be careful not to rapidly raise the output control when using the headphone.

Please use good sense to protect your hearing.

2. Turn down all sound volume controls before switch on power.

Be sure to fully turn off all sound volume controls when switching on/off power to the PH-50.

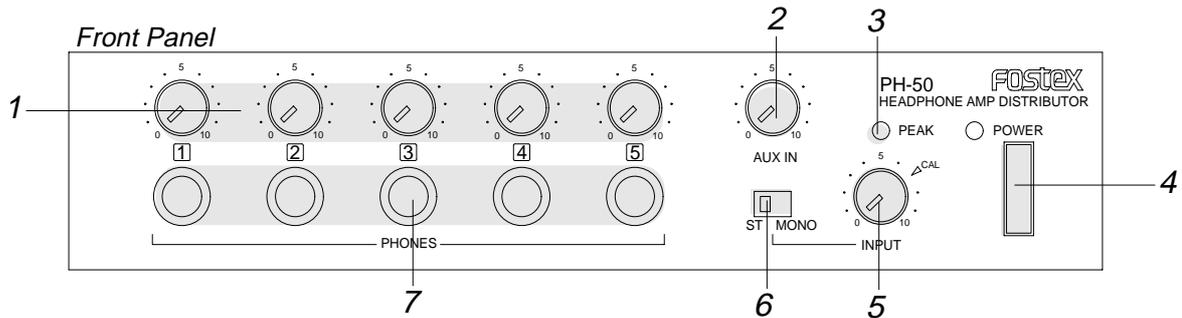
3. Retard the sound volume control when the headphone plug is connected or disconnected from the jack.

Always turn down the sound volume control before the headphone is plugged or unplugged to the PHONES jack. If it is plugged or unplugged while the volume control is set too high, it could create noise and have hurt your ears.

4. Switch off power when connecting external equipment to PH-50.

Always switch off power to the PH-50 when connecting external equipment to it.

Names and Functions of the Controls and Jacks



1. Headphone output level control knob [PHONES 1 ~ 5]

For adjusting sound volume of the headphone plugged into PHONES jack 1 ~ 5.

2. AUX input level control knob [AUX IN]

This adjusts the input level of the external equipment connected to the rear panel AUX IN jacks. The signal, whose level is adjusted by this knob, is mixed with the signal whose level is adjusted by the INPUT knob and thus output from both the PHONES jack and CASCADE OUT jack.

3. Peak LED [PEAK]

This will light when input is overloaded. Should this light frequently, turn down the INPUT knob.

4. Power switch [POWER]

This switches on/off power to this equipment (LED will light at ON). When switching on/off power to this equipment, turn down the level control knobs on this and also on the external equipment.

5. Input master level control knob [INPUT]

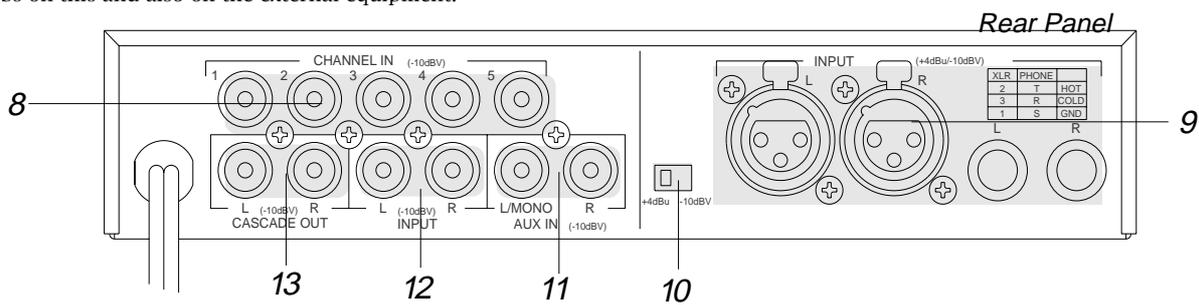
Adjusts the input signal level of equipment connected to the rear panel balanced input connectors (XLR or PHONE) or the unbalanced input jacks. Standard input level is obtained when the knob is set to CAL.

6. Input image position selector switch [ST/MONO]

Image position, of input signals from equipment connected to the rear panel balanced input connectors (XLR or PHONE) or the unbalanced input jacks (RCA), is selected by this switch. If switched to ST, the input signal will be output from the PHONES output jack or the CASCADE OUT jack, in stereo if switched to ST, or in monaural if switched to MONO.

7. Headphone jacks [PHONES 1 ~ 5]

Headphones are plugged in here. Sound volume for each are adjusted by the headphone output level control knob located above each jack.



8. Channel input jacks [CHANNEL IN 1 ~ 5] (RCA: -10dBV)

These jacks are used to directly assign external signals (monaural) to each headphone output. Signal input to these jacks will not be affected by the INPUT knob.

9. Balanced input connector [INPUT] (XLR, PHONE: -10dBV/+4dBu)

The balanced line is connected here. Two types of connectors XLR-3-31 and PHONE - are provided. Input level is adjusted with the INPUT knob and the +4dBu/-10dBV switch is set to match the output level of the equipment connected here.

10. Balanced input level selector switch [+4dBu/-10dBV]

When using the balanced input, this is switched to match the output level of the equipment that is connected. The input level can be selected for -10dBV or +4dBu.

11. AUX input jack [AUX IN] (RCA: -10dBV)

This is a spare input jack. For an external equipment of monaural output, it must be connected to L/MONO (the same signal will also be applied to R). Signals input here are adjusted in level by the AUX IN knob.

12. Unbalanced input jack [INPUT] (RCA: -10dBV)

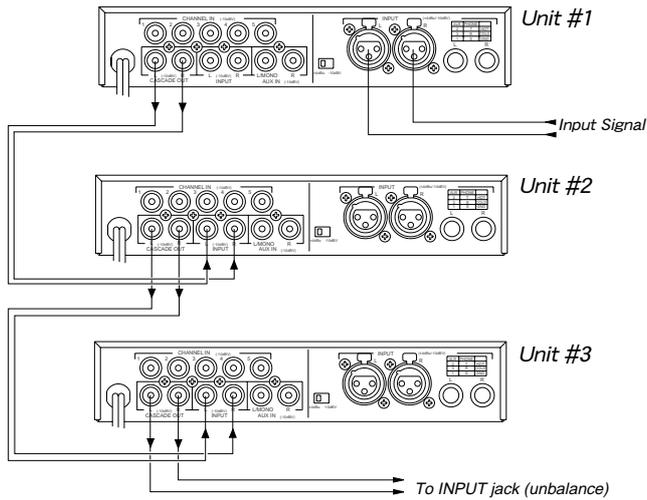
Unbalanced outputs are connected here. In the same way as for balanced inputs, the input level is adjusted with the INPUT knob. When making a cascade connection, this is connected to CASCADE OUT of the other PH-50.

13. Cascade output jack [CASCADE OUT] (RCA: -10dBV)

When using PH-50 in the cascade connection, this jack is connected to the unbalanced input jack of the next PH-50. This output can also be used for recording by applying it to the INPUT of a recorder.

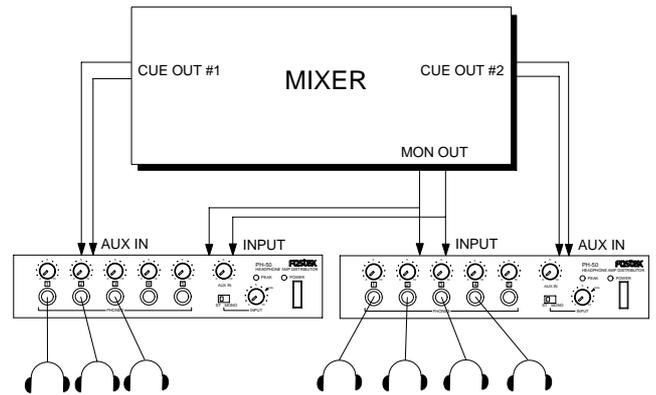
PH-50 Operating Examples

Monitoring System by Cascade Connection



A system for monitoring a single stereo source to the PHONES OUT up to a maximum of 50 persons. CASCADE OUT of Unit #1 is connected to INPUT (unbalance) of Unit #2, and so forth from Unit #3. If the INPUT knob of Unit #2 and later units are set to CAL, the output level of all headphones can be changed simultaneously by simply adjusting the INPUT knob of Unit #1 (Cascade connection must be limited to a maximum 10 units. Fostex cannot guarantee correct operation if this number is exceeded.).

CUE BOX

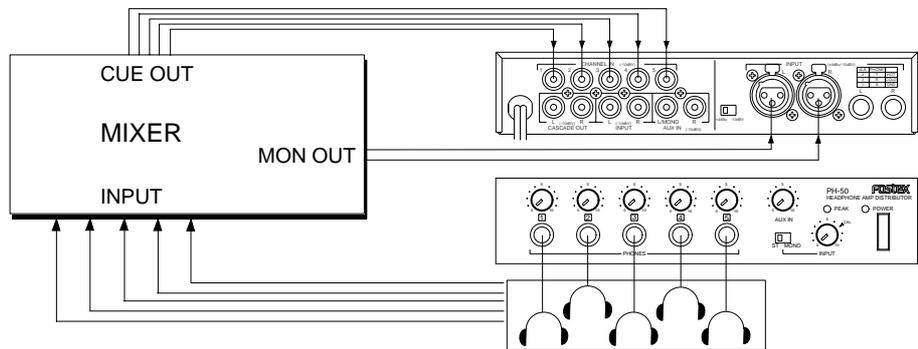


This is a system for locating a PH-50 in each musician's booth, in which each musician can adjust the monitor balance to their preference during recording sessions. A monitor send exclusive for each musician is connected to AUX IN and monitor signals other than this is returned to the INPUT. Each musician can thus set balance of the two monitor mix by adjusting the AUX and INPUT knobs of the PH-50.

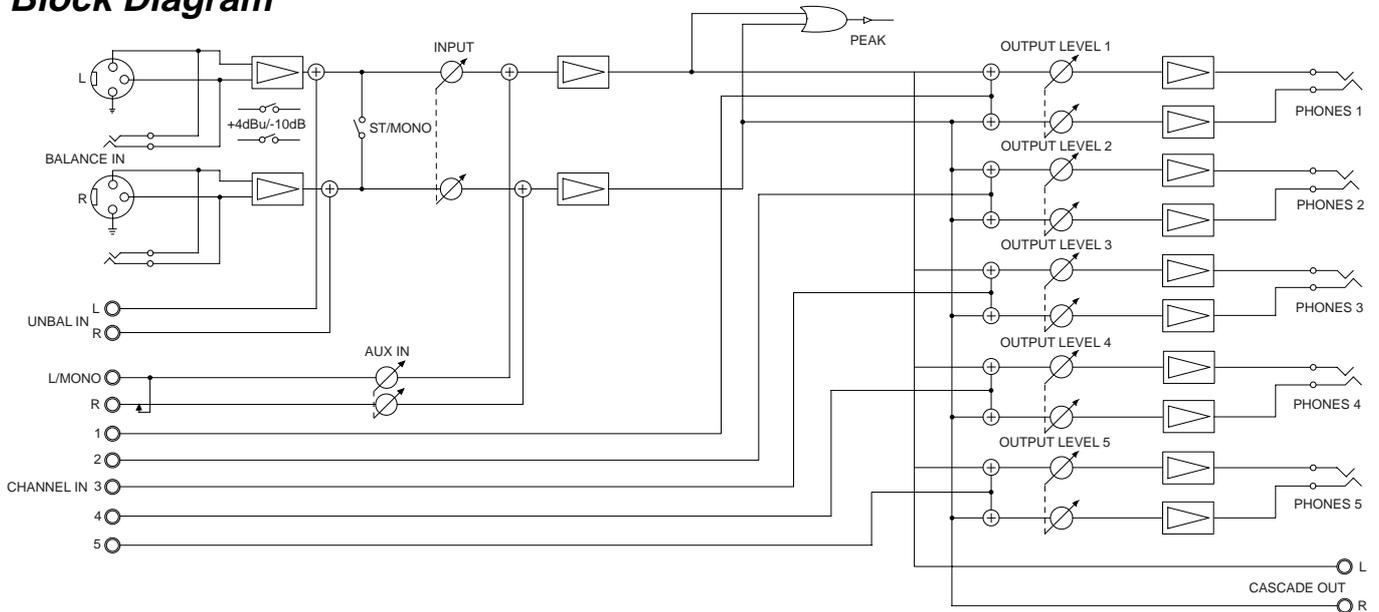
* The PH-50 can also be rack mounted by utilizing the separately sold rack mount adaptor. The ROLAND CO., Model RAD-50 adaptor is recommended.

Recording Studio

During multitrack recording, a system can be made for sending the monitor signal from the MIXER to the musician's headphones and at the same time, send them talkback individually from the MIXER.



Block Diagram



Specifications

INPUTS/OUTPUTS

INPUT (Balance)	Input level: +4dBu/-10dBV (switchable) Input impedance: 10kΩ or more
INPUT (Unbalance)	Input level: -10dBV Input impedance: 10kΩ or more
AUX INPUT	Input level: -10dBV Input impedance: 10kΩ or more
CHANNEL INPUT	Input level: -10dBV Input impedance: 10kΩ or more
PHONES OUTPUT	Maximum Output level: 500mW Load impedance: 8~50Ω Frequency response: 30Hz ~ 20kHz ±1dB

CASCADE OUTPUT

Output level: -10dBV
Frequency response: 30Hz ~ 20kHz ±1dB

GENERAL

Dimensions	210 (W) x 200 (D) x 43 (H) mm
Weight	Approx. 1.9 kg
Power supply	120VAC 60Hz 230V ~ 50/60Hz
Power consumption	Approx. 8W

* Specifications and appearance are subject to change without notice for product improvement.

Declaration of EC Directive

This equipment is compatible with the EMC Directive (89/336/EEC) - Directive on approximation of member nation's ordinance concerning the electromagnetic compatibility and with the Low Voltage Directive (73/23/EEC) - Directive on approximation of member nation's ordinance concerning electric equipment designed to be used within the specified voltage range.

The Affect of Immunity on This Equipment

The affect of the European specification EN50082-1 (coexistence of electromagnetic waves - common immunity specification) on this equipment are as shown below.

* In the electrical fast transient / burst requirements, radiated electromagnetic field requirements and static electricity discharging environment, this could be affected by generation of noise and distortion in some cases.

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