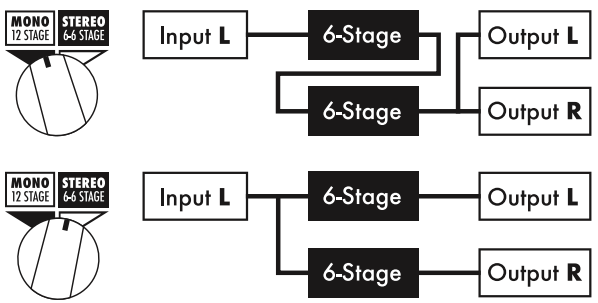
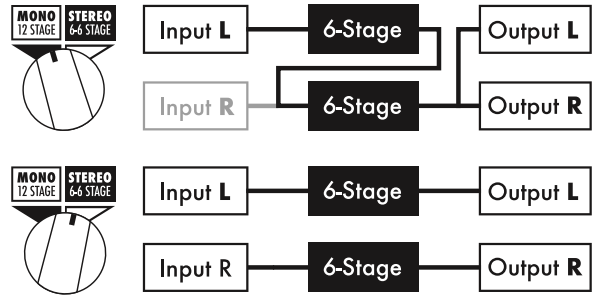
*PHASE it's a 12-stage all-analog optical stereo phaser specifically engineered for studio production and live-mix settings. Old-school mojo with modern improvements and routing versatility packed in an easy-to-use layout.*

*PHASE is an optical, photoresistor-based phaser design, featuring a 12-stage MONO or a 6-stage STEREO phaser. You can switch between the two modes with the "Mode Select" control at any time allowing for a wider sound palette regardless of the wiring.*
*As any other BENIDUB device, its built with high quality components for a rich, complex and organic sound. We also packed it with several convenience features, routing possibilities (check the AUX/INSERT controls!) and our signature peformance-oriented design, making it one of the most versatile and compact optical phaser on the market.*

## Routing Schematic - MONO INPUT




## Routing Schematic - STEREO INPUT




## For a correct use of the Benidub Phase:

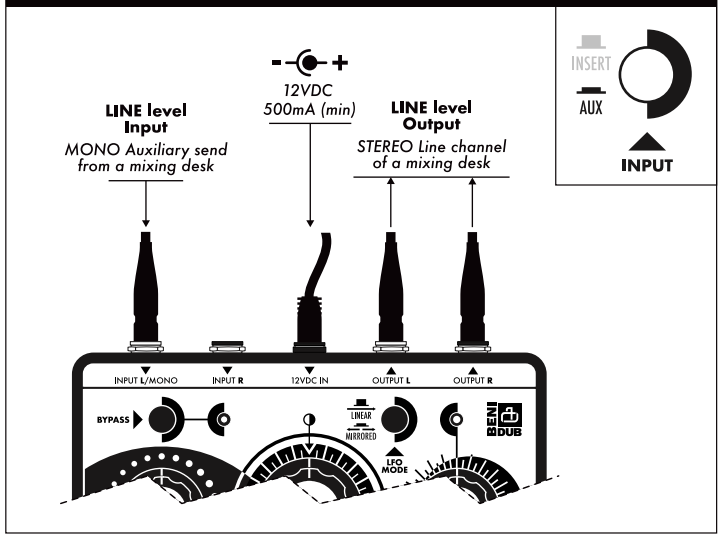
**1 -** *The Benidub Phase provides a line-output, it needs to be connected to a line-input channel of a mixer or preamp.*

**2 -** *The Benidub Phase is designed to receive a line-level signal. Don't use it with a guitar, mic or similiar sources.*

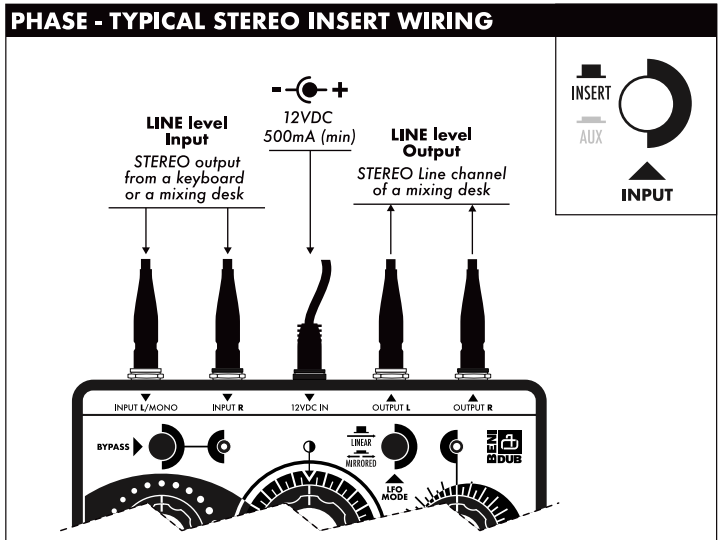
**3 -** *AUX/INSERT: set it on AUX if the unit goes to an "Auxiliary Send" or an auxiliary mix. Set it on INSERT to use it as a stand alone stompbox.*

**4 -** *Only use the provided power supply or one compatible with the specifications.*

## PHASE - TYPICAL MONO AUX WIRING



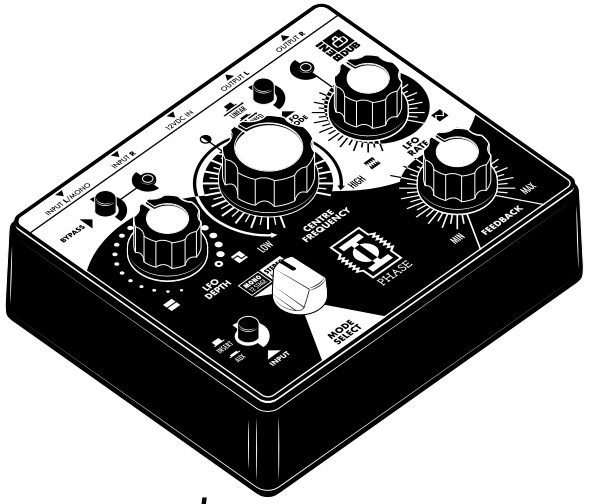

## PHASE - TYPICAL STEREO INSERT WIRING




# BENIDUB

## PHASE

12-Stage Stereo Optical Phaser




*User manual*

**Designed and manufactured by**

BENIDUB
AUDIO ELECTRONICS

*Info:*
www.benidub.com
orders@benidub.com

**Technical Specifications:**

Power Supply: *12VDC, center positive, 2.1mm x 5.5mm barrel type connector.*
Current draw: *less than 500mA*
Audio input: *1/4" balanced or unbalanced Jack*
Audio output: *1/4" balanced or unbalanced Jack*
Size: *120x150x60 mm*

*Made in Spain*

## INPUT L/MONO

*1/4" Balanced or Unbalanced Jack. The "main" mono input of the unit.*

## INPUT R

*1/4" Balanced or Unbalanced Jack.*

## 12VDC IN

*12VDC 500mA (Min.), centre positive, 2.1mm x 5.5mm barrel type connector.*

## OUTPUT L

*1/4" Balanced or Unbalanced Jack.*

## OUTPUT R

*1/4" Balanced or Unbalanced Jack.*

## BYPASS

*Turns off the out of phase signal, thereby stopping the phaser effect.*

## LFO DEPTH

*Sets the amount of modulation.*

## LFO RATE

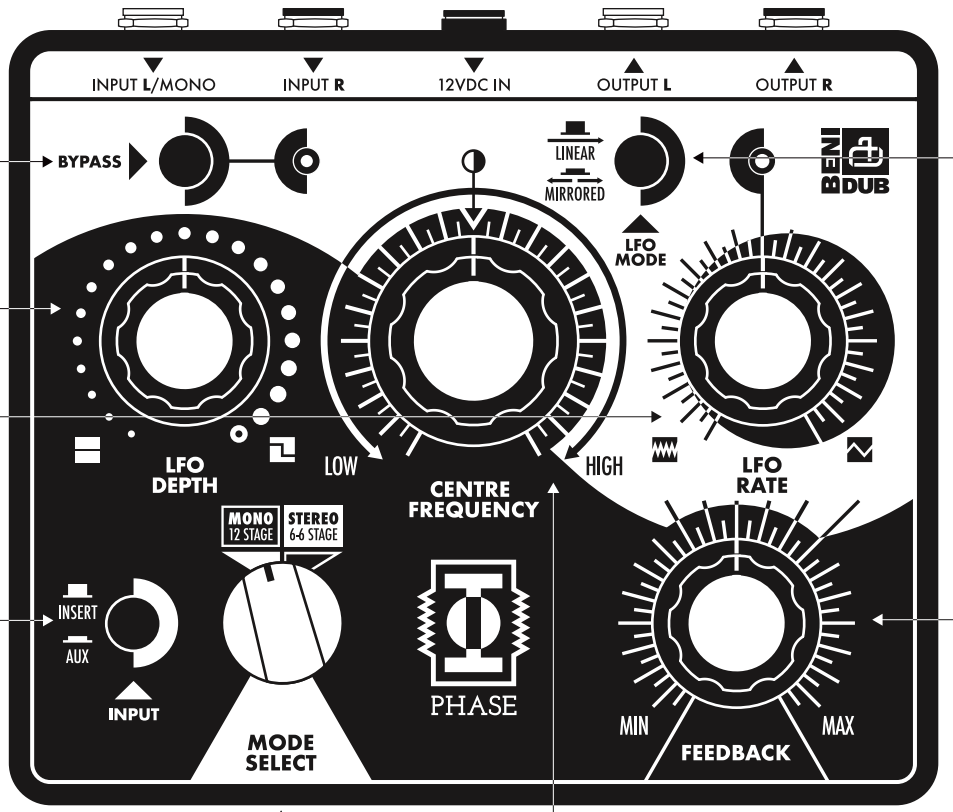
*Sets the modulation speed.*

## INPUT

*On INSERT mode, you got the usual 50/50 dry signal.*
*On AUX mode, you got the full wet signal. Set it on AUX if the unit is fed from an mixer auxiliary send.*
*Set it on INSERT to use it as a stand alone unit or using mixer sub-group/alternate out.*

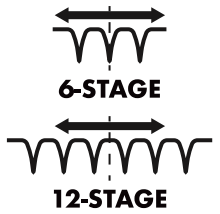
## MODE SELECT

*Switch between MONO and STEREO mode.*
*On MONO you get 12 stages.*
*On STEREO you get 6-stages per channel. The stereo mode can be used with a mono input to generate a mono-to-stereo output.*



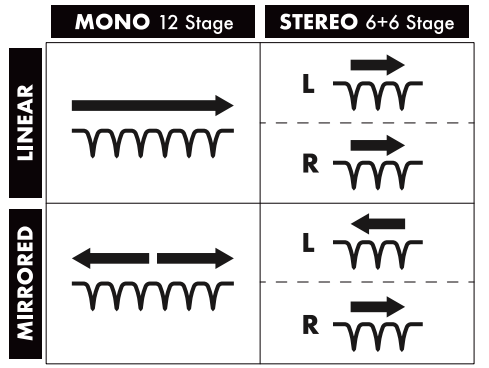

## CENTRE FREQUENCY

*Sets the frequency that the phaser will revolve around.*
*The Centre Frequency determines where the middle of the comb-filter will be on the spectrum.*
*This will shift all notches either up or down.*

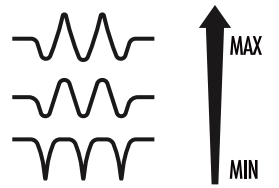



## LINEAR/MIRRORED

*Switch between LINEAR or MIRRORED modulation.*
*In LINEAR mode, all the 12 (6+6) stages will receive the same modulation. In MIRRORED mode, the first batch of stages modulation will be inverted.*




## FEEDBACK




*Similiar to a "resonance" parameter, the feedback knob controls the amount of phase-shifted signal that gets fed back through the phase-shifting circuit. By increasing the feedback, the peaks's resonance will be sharper and more intense.*