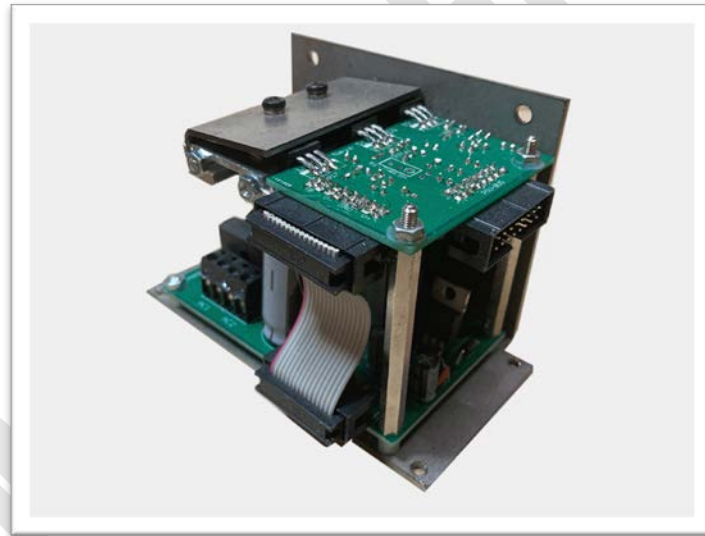


LABO ★ K EFFECTS

POWER SUPPLY KIT FOR NEVE 51/V2/V3/VR SERIES



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INTRODUCTION

This kit allows to build a power supply specifically designed for Neve 51, V2, V3 et VR legend Preamp and Equalizer modules to put them in a rack.

PSU bus system allows to connect up to 4 preamp/equalizer modules pairs.

You just have to build the adequate ribbon.

The assembly kit secures the pcbs and radiator of the PSU.

The compact unit can be easily placed in the rack.

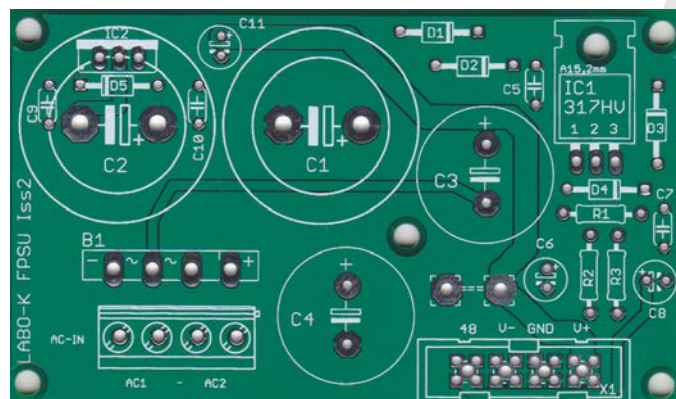
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KIT OVERVIEW

- **1 PCB (FPSU board) for connecting:**

- 1 power transformer 2x15v 50VA (not supplied)
- The +16V / -15V /-16V regulation board (VREG)

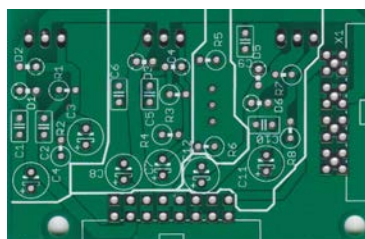
This board performs the rectification and filtering of ac power. It provides the +48V phantom.



- **1 PCB (VREG board) for connecting:**

- PSU Bus
- FPSU board

This board provides +16V / -16V /-15V regulated voltages



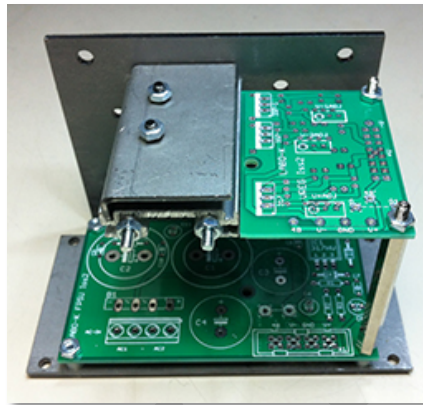
- **Connectors and components**

- *The power transformer is not supplied*
- *Use a 2x15V 50VA for 1 or 2 channels*
- *Use a 2x15V 80VA for 4 channels*

COMPOSITION OF THE ASSEMBLY KIT











- **1 steel base for fixing:**

- The FPSU card
- The +16V / -15V / -16V regulation card (VREG)
- The heat sink


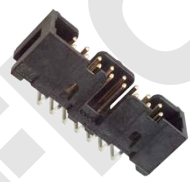


- **The following elements:**

- 4 M3x10 screws (A)
- 4 plastic spacers (B)
- 2 50mm spacers (C)
- 2 M3x60 screws (D)
- 1 heat sink + 2 screws (E)
- 1 clip (F)
- 2 plastic washers (G)
- 2 washers (H)
- 8 M3 nuts (I)
- 3 insulator pads for TO220 (J)

A	B	C	D	E	F	G	H	I	J
									

FPSU BOARD PARTS LIST

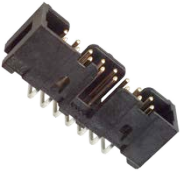
PL1	PCB connector 4G	
Connector X1	IDC16	
BR1		RS602 Rectifier
D1, D2, D3, D4		1N4002
R1		180R
R2		15K
R3		12K
C1, C2		4700µF/63v
C3, C4		1000µF/100v
C5, C7		100n100v
C6, C8		47µF/63v
IC 1		LM317HV

All resistors are 1/4w metal film 1%

FPSU BOARD CONNECTOR PINOUT

AC-In		X1	
1	15V AC1	1-4	+48V
2	15V AC1	5-8	-22V
3	15V AC2	9-12	0V
4	15V AC2	13-16	+22V

VREG BOARD PARTS LIST

Connectors 1, PSU-BUS 2516-6002	3M	
D1 to D6		1N4002
R1, R3, R7		243R
R4		2K7
R2, R8		2K87
R5, R6		10K (Neve 51)
51 Thresh		Trimmer 1K (Neve 51)
C1, C2, C5, C6, C9, C10		100n/50v
C3, C4, C7, C8, C11, C12		10µF/63v
IC1, IC2		LM337
IC3		LM317

All resistors are 1/4w metal film 1%

PSU BUS PINOUT

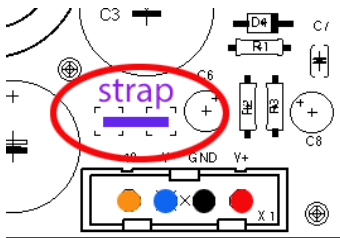

1	+48V
2	+48V
3	Threshold (Neve 51)
4	0V
5	0V
6	0V
7	+16V
8	+16V
9	+16V
10	+16V
11	-15V
12	-15V
13	-16V
14	-16V
15	NC
16	NC

FPSU BOARD ASSEMBLY INTRUCTIONS

- 1) Solder a strap on the PCB as shown in figure 1.
- 2) Solder components on the pcb

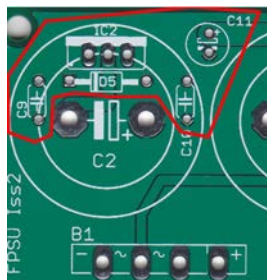
Note :

Make sure that the legs of the components are cut as close to the board as possible so that they do not come into contact with the base.

Strap on the pcb	Bend the legs of capacitors C1 and C2 before soldering
	

Note.

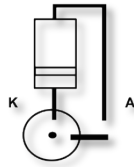
The components IC2, D5, C9, C10 and C11 are not fitted.



VREG BOARD ASSEMBLY INTRUCTIONS

- 1) Solder the components on the PCB **except the regulators**

Vertical implementation of diodes



Implementation of the Thresh trimmer

The Thresh trimmer is mounted on the opposite side of the components as shown in Figure 2.

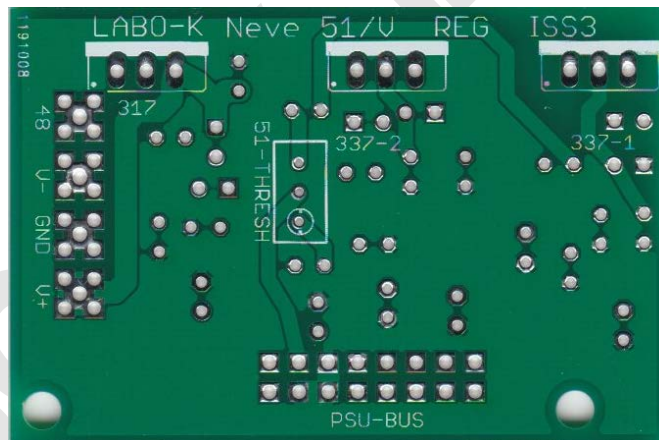
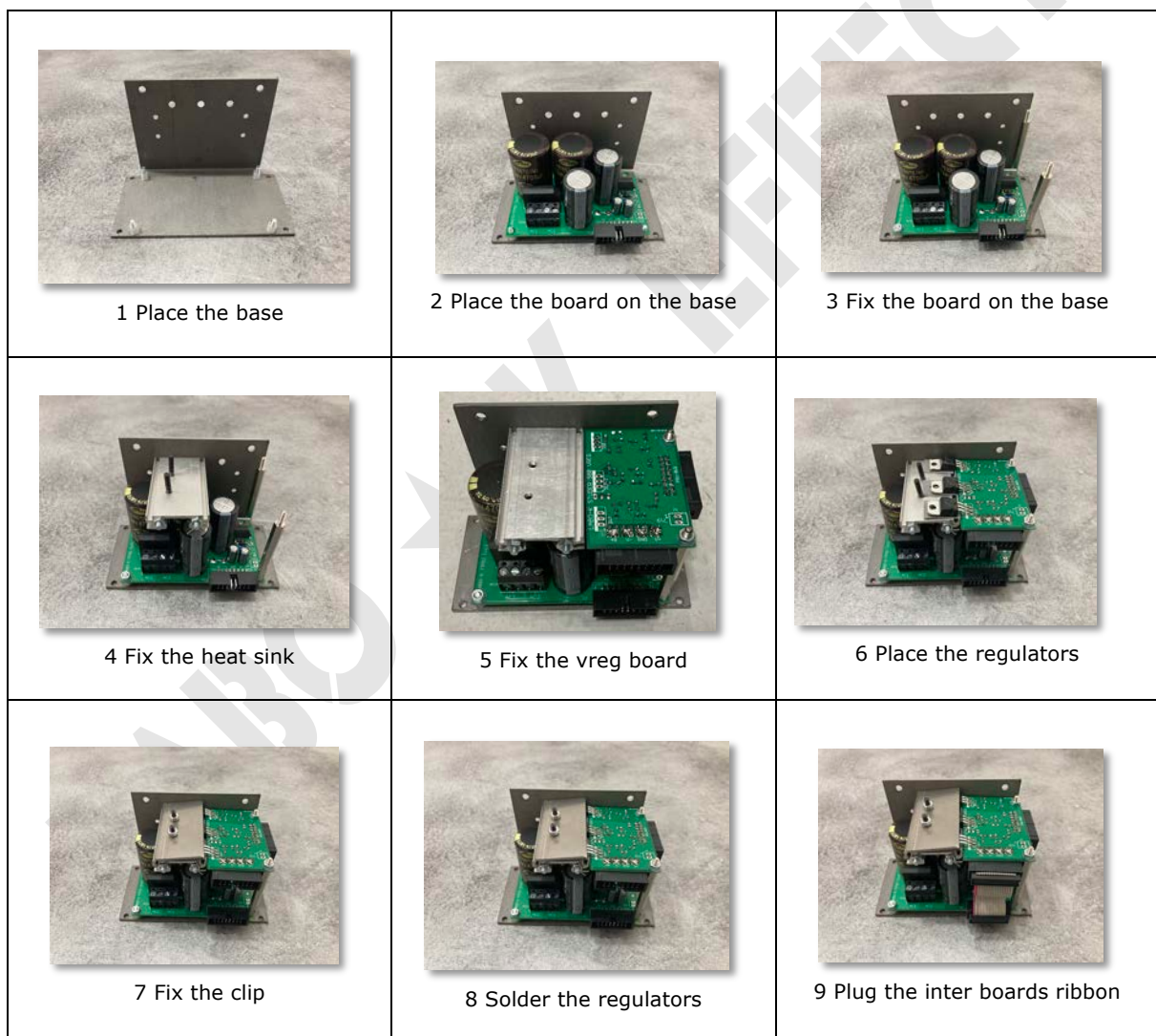


Figure 1

FIXING FPSU AND VREG BOARDS

- 1: Place the base with the 4 screws (A) and 4 plastic spacers (B)
- 2: Place the FPSU card on the base
- 3: Fix the FPSU board on the base with 2 washers (G), 2 nuts (I) and 2 spacer (C)
- 4: Attach the heat sink (E) on the base with the screws (D) and 2 nuts (I). The screws are on the left of the heat sink
- 5: Fix the card VREG with components facing down with 2 washers (G) and 2 nuts (I).
- 6: Place the insulators pads (J) and the regulators in the good order.
- 7: Fix the clip (F) on the heat sink with washers (H) and screws (I).
- 8: Solder regulators.
- 9: Connect the inter boards ribbon.

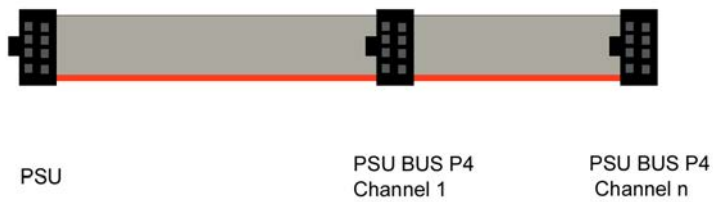
Important: Check with a tester that the legs of the regulators are well insulated from the chassis.



MANUFACTURING OF THE RIBBONS

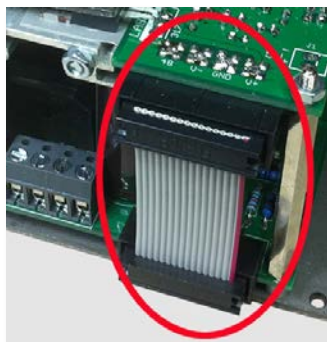
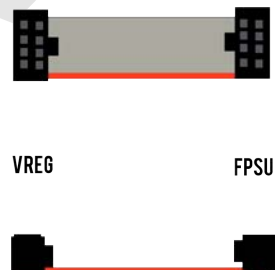
A good way to build the ribbon is to use a vice.

The red wire of the ribbon must be placed in front of the mark on the female connector. This marker (small triangle) must be opposite the same marker on the male connector on the pcb (except for the small PSU interboards Ribbon)



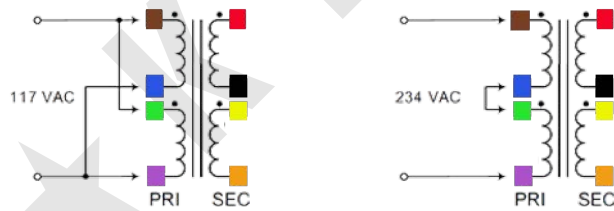
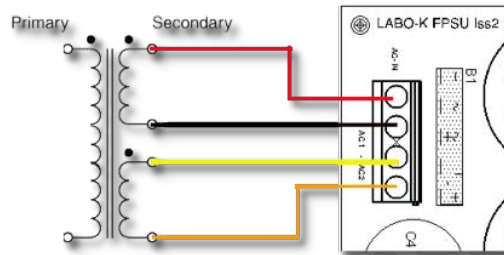
Inter boards ribbon

LITTLE RIBBON BETWEEN
THE
CARDS OF THE PSU



POWER TRANSFORMER WIRING

2X 15V 50VA (80VA for 4 channels) power transformer wiring



115/220 option

Legal notice:

Labo ★ K Effects shall not be responsible and disclaims all liability for any damage (whether direct or consequential) that may result from a wrong use of the kit by the user.