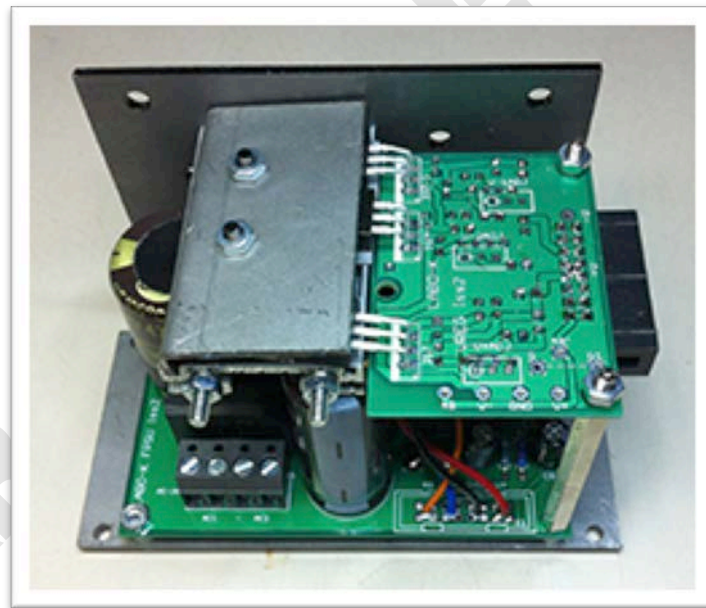


LABO ★ K EFFECTS

POWER SUPPLY KIT FOR NEVE 51/V3/VR SERIES



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INTRODUCTION

This kit allows to built a power supply specifically designed for Neve 51, 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.

Optional accessory

Labo★K Effects Bus PSU adapter

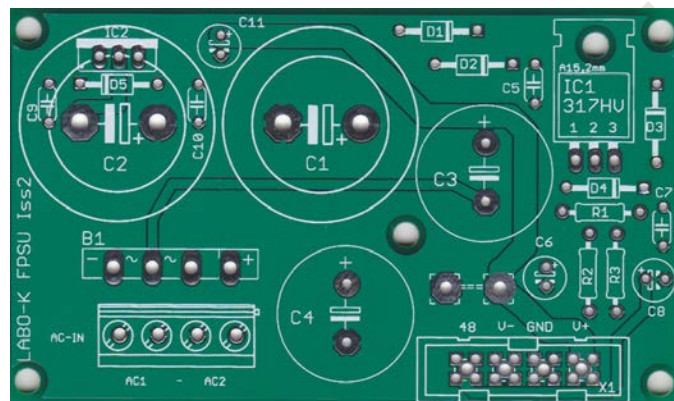
Allows to connect the psu to the bus via 5 cables (Stuffed or PCB only)



KIT OVERVIEW

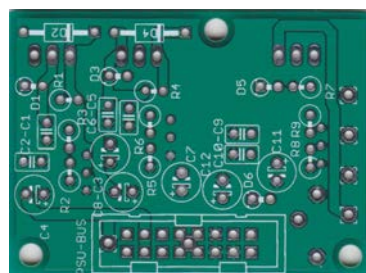
- **1 PCB (FPSU board) for connecting:**
 - 1 power transformer 2x15v 50VA (not supplied)
 - The +16V / -15V /-16V regulation board (VREG)

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 M3x15 screws (A)
- 4 plastic spacers (B)
- 2 50mm spacers (C)
- 2 M3x60 screws (D)
- 1 heat sink (E)
- 1 clip (F)
- 2 M3x15 screws (G)
- 8 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

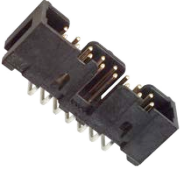
PL1 PCB connector 4G	
Connector X1 Not fitted Replaced by 4 wires	
BR1	RS602 Rectifier
D1, D2, D3, D4	1N4002
R1	180R
R2	15K
R3	12K
C1, C2	4700µF/63v
C3, C4	1000µF/100v
C5, C7	100n100v
C6, C8	47µF/63v
IC 1	LM317HV

All resistors are 1/4w metal film 1%

FPSU BOARD CONNECTOR PINOUT

AC-In		X1	
1	15V AC1	1 Orange	+48V
2	15V AC1	2 Blue	-22V
3	15V AC2	3 Black	0V
4	15V AC2	4 Red	+22V

VREG BOARD PARTS LIST

Connector 1	3M 2516-6002	
D1 to D6		1N4002
R1, R4, R7		243R
R5R6		2K7
R2R3, R8R9		2K87
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	NC
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
- 3) Solder the interconnection wires.

Note :

Solder the interconnection wires as shown in figure 1.
Observe the order orange, blue, black, red.

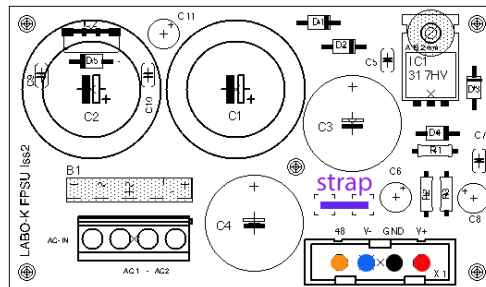
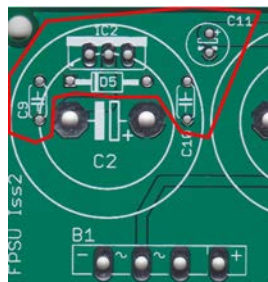


Figure 1

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

Note.

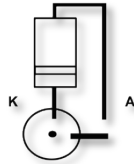
The components IC2, D5, C9, C10 and C11 are not fitted.



VREG BOARD ASSEMBLY INTRUCTIONS

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

Vertical implementatin of diodes D1, D3, D5 and D6



Implementation of resistors R2R3, R5R6 and R8R9

The pcb is designed to establish two resistors in series to obtain the desired value.

On Neve 51 and Neve V series power supplies, the resistors should be located as shown in Figure 2

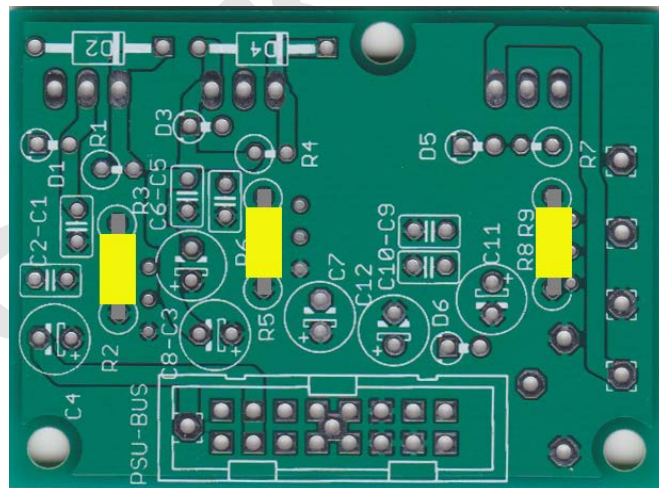
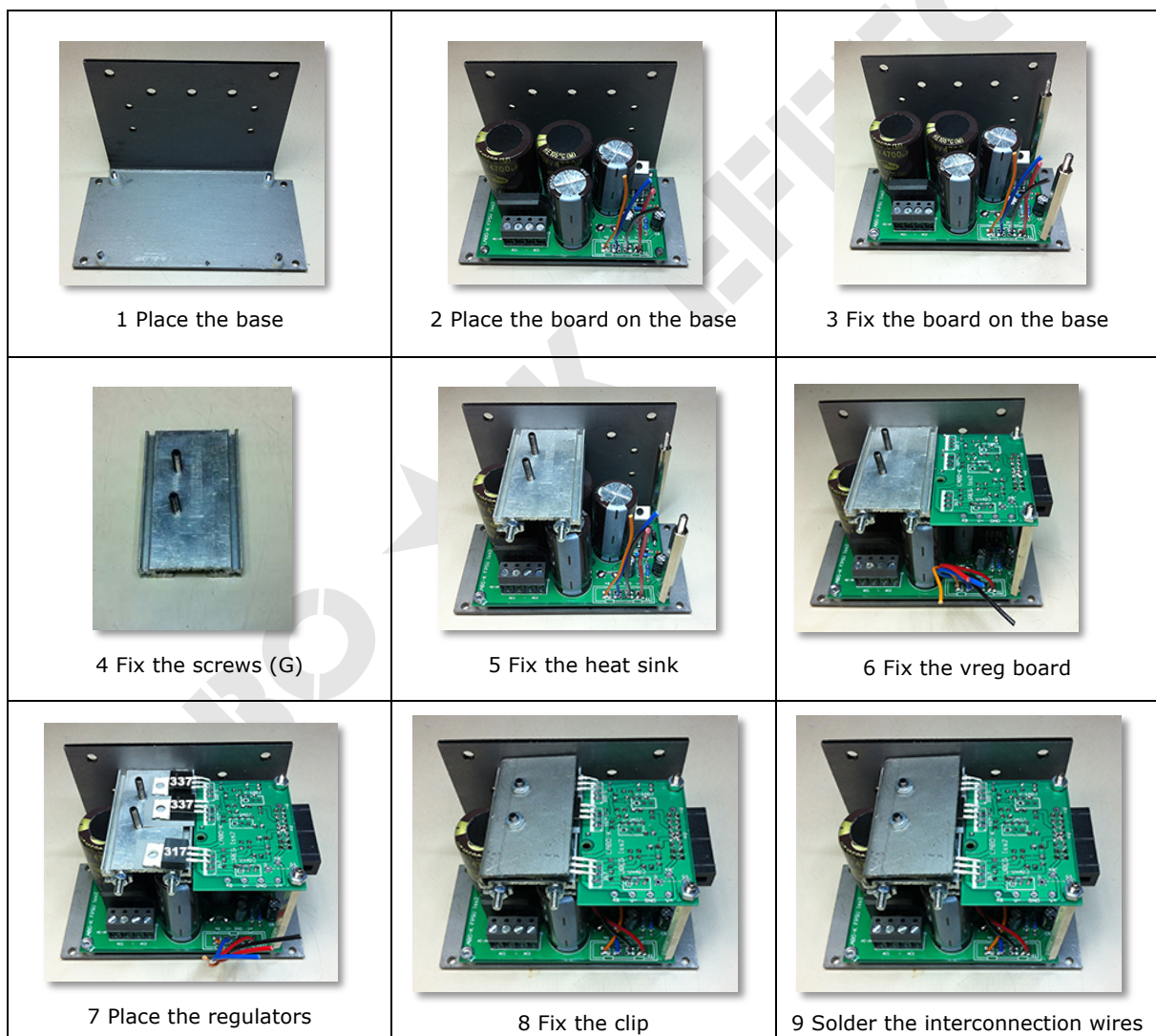


Figure 2

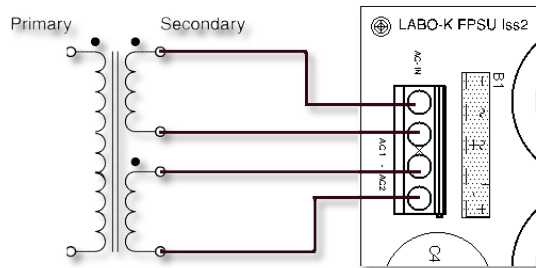
FIXING FPSU AND VREG BOARDS

- 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 (H), 2 nuts (I) and 2 spacer (C)
- 4 : Fix the screws (G) on the heat sink (E).
- 5 : Attach the heat sink (E) on the base with the screws (D), 2 washers (H) and 2 nuts (I). The screws (G) are on the left of the heat sink
- 6 : Fix the card VREG with components facing down with 2 washers (H) and 2 nuts (I).
- 7 : Place the insulators pads (J) and the regulators in the good order.
- 8 : Attach the clip (F) on the heat sink (E) using 2 washers (H) and 2 nuts (I).
- 9 : Solder regulators and interconnection wires.

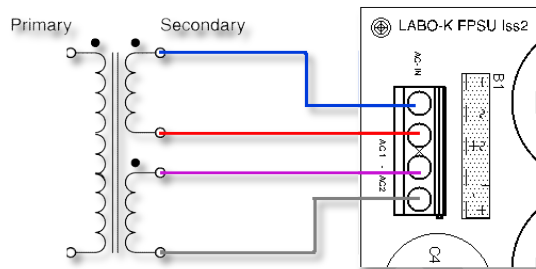


POWER TRANSFORMER WIRING

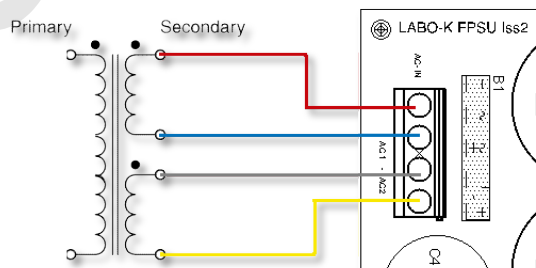
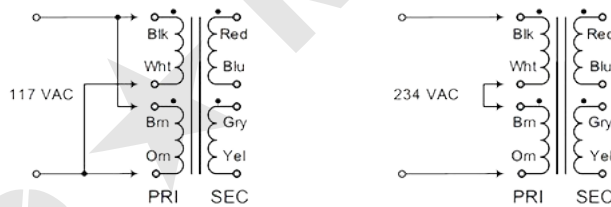
2X 15V 50VA power transformer wiring



Selectronic R-core power transformer colors



Hammond 182 series power transformer colors



Legal notice:

Labo★K Effect 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.