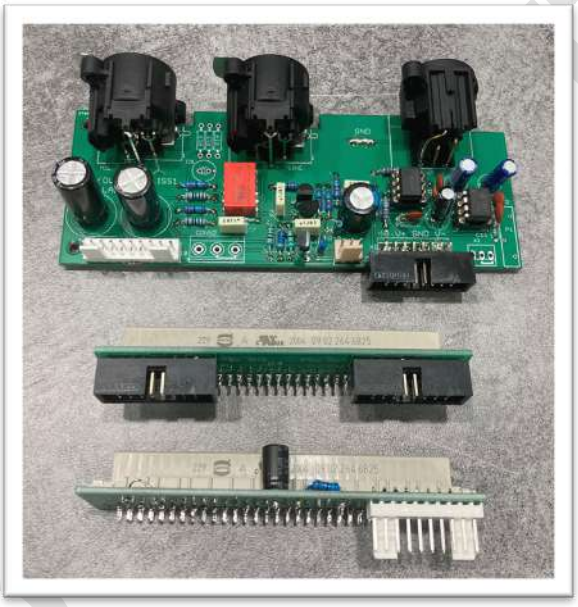
LABO ⋆ K EFFECTS

CONNECTION KIT FOR STUDER 900 PREAMPLI+EQUALISER
ISS 2



CONTENTS

INTRODUCTION

This kit allows to interconnect Studer 900 preamp and equalizer module to put them in a Rack. The kit allows to connect inputs, outputs and power supply necessary for the use of the set.

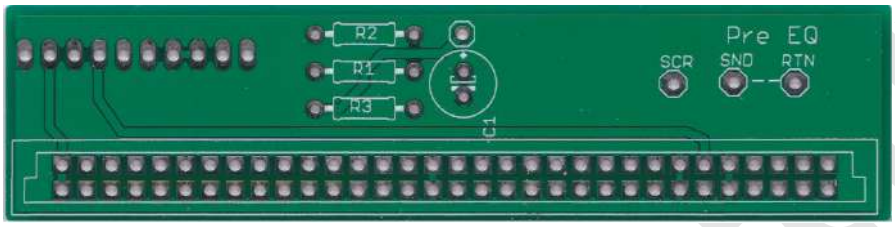
Optional accessories

Labo★K Effects Studer 900 PSU Kit Regulated PSU +48V, +/-15V, -25V, -6V (Kit or PCB + Metalwork only) *Transformer 2x19V not supplied* **Studer 900 PCB+METALWORK** Allows to fix the pcbs and the radiator of the power supply. The compact unit can thus be easily fixed in the rack.	 

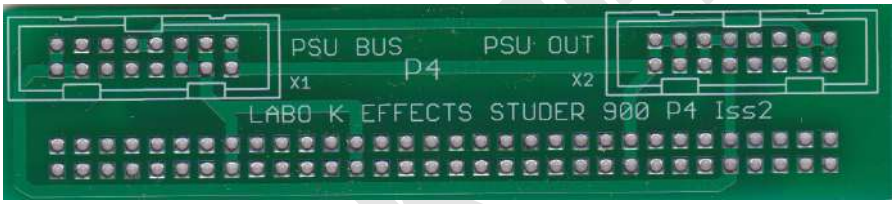
For proper operation of the unit, it is advisable to use modules in good conditions and with coupling capacitors that will have been replaced if necessary.
The poor condition of the capacitors can greatly affect the sound quality or even cut the signal. Similary, one will ensure that the various switches have been cleaned using a contact cleaner spray.

KIT OVERVIEW

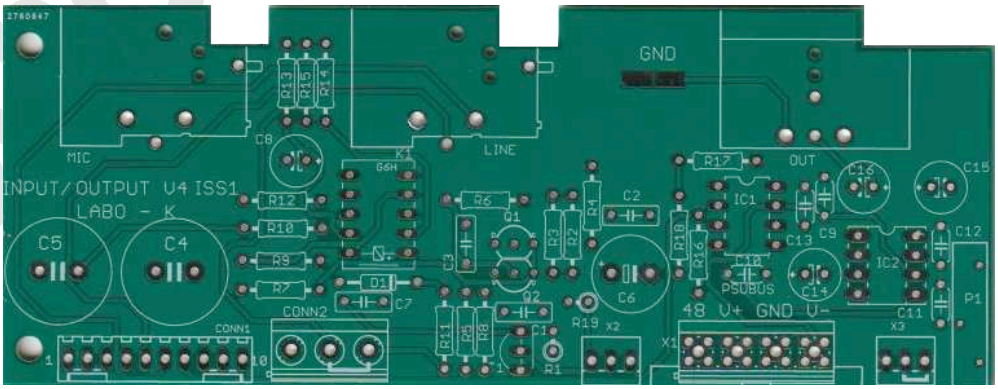
- **1 Interconnect board PCB 2 layers plated pads for connecting:**
- **Studer P6 connector (In/out)**
    - 1 Micro input
    - 1 Ligne input
    - 1 insertion Snd
    - 1 insertion Rtn
    - 1 Output



- **1 Interconnect board PCB 2 layers plated pads for connecting:**
- **Studer P4 connector (Power Supply)**
    - 1 power supply -25V, +/-15V, -6V and 48V (connector x1)
    - Power supply for the output card (connector X2)



    - **1 Interconnect board PCB 2 layers plated pads for connecting:**
    - The input/output card (P6)
    - 1 +4dB balanced output stage (located on the board).
    - The power supply of the card
    - An output potentiometer (Not supplied)
    - An optional High impedance input
-



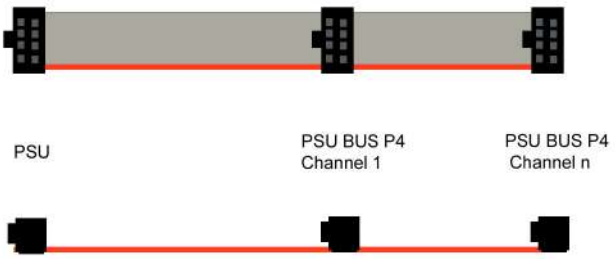
- **Connectors, components**

ASSEMBLY INSTRUCTIONS

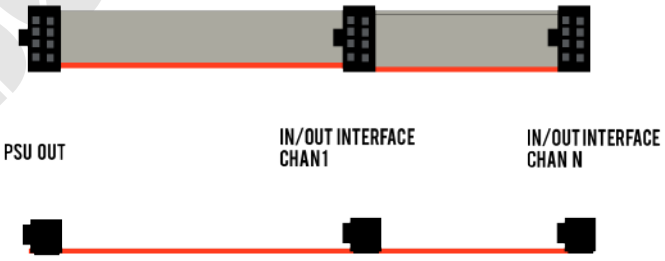
1) Solder components on the PCB.
2) Prepare interconnection ribbons
3) Prepare the audio wires
4) Fix the in / Out card
5) Connect the cards to connectors p4 et p6.
6) Connect PSU BUS to a regulated power supply +48v, 0V, +15V/-15V -25V and -6V.
7) Connect the power supply ribbon to the PSU Out bus of the P4 board

BUILDING THE RIBBONS CABLES

BUS PSU



Input/Output board power supplies

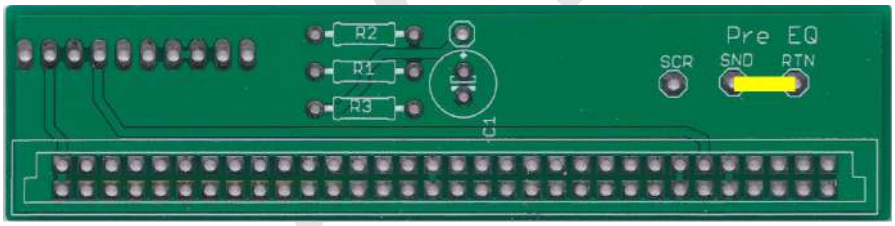


STUDER 900 P6 INTERFACE BOARD PART LIST

Connector X2	Molex 22-27-2101-10	
Connector 1	Din 41612	
R1, R2		6K81
R3		470R
C1		47µF/63v

All resistors are 1/4w metal film 1%

It is intended to wire an Insert between the channel (pre-EQ) and the output stage.
If this option is not used, the SND and RTN points must be connected using a jumper as shown below.



CONNECTOR X2 PINOUT

1	Mic in Lo
2	Mic in Hi
3	GND
4	GND
5	Line In Hi
6	Line In Lo
7	Unbalanced OUT
8	GND
9	NC
10	NC

STUDER 900 P4 INTERFACE BOARD PART LIST

Connectors X1, X2	IDC 2516-6002	
Connector 5	Din 41612	

CONNECTOR X1 (PSU BUS) PINOUT

1	+48V
2	+48V
3	GND
4	GND
5	GND
6	GND
7	+15V
8	+15V
9	+15V
10	-25V
11	-25V
12	-6V
13	-6V
14	-15V
15	-15V
16	-15V

CONNECTOR X2 (PSU OUT) PINOUT

1	+15V
2	+15V
3	+15V
4	+15V
5	GND
6	GND
7	GND
8	GND
9	-15V
10	-15V
11	-15V
12	-15V
13	+48V
14	+48V
15	+48V
16	+48V

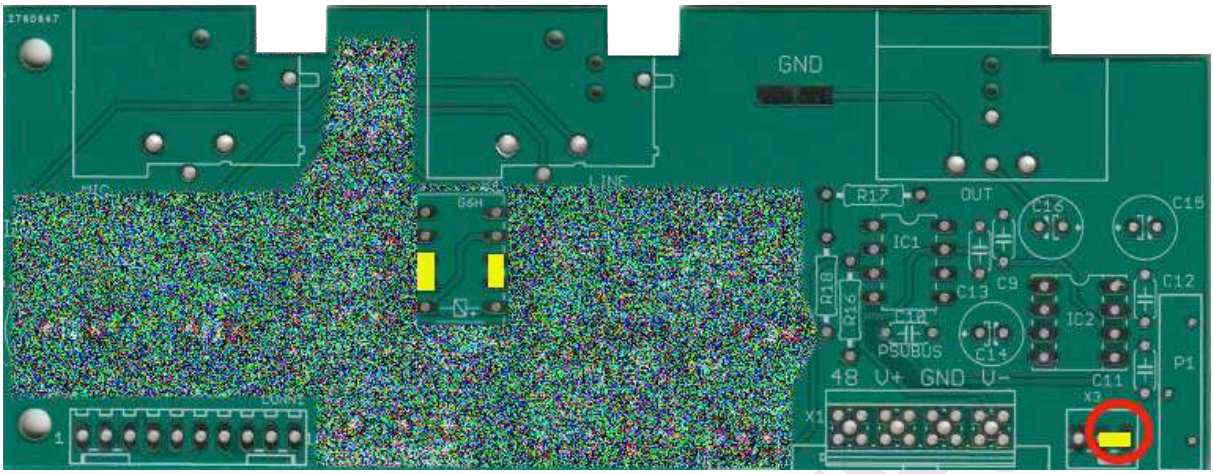
INPUT OUTPUT BOARD COMPONENTS PART LIST

Designation	Qnt	Reference	
XLR F Neutriik NC3FAHR2	2	Mic/Line	
XLR M Neutrik NC3MAHR	1	Out	
X1 Molex 22-27-2101-10	1	In/out	
PSU2 IDC 2516-6002	1		
680R	1	R18	
1K2	1	R17	
18K	1	R16	
10KA (pot) Not supplied	1	P1	
22p Ceramic	1	C13	
100n Ceramic	4	C9, C10, C11, C12	
22uF/25v	2	C15, C16	
100µF/16v	1	C14	
THAT 1646	1	IC2	
NE5534	1	IC1	
DIL 8 socket	2		
XLR screws	6		

All resistors are 1/4w metal film 1%

Component layout basic version

The places on the card not used for this kit are hidden.

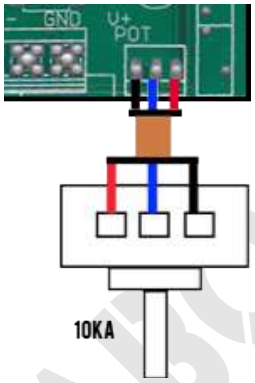


Place straps (component tails) where they are marked with yellow lines.

It is possible to wire an output potentiometer (not supplied)

In this case, do not implant the strap surrounded by a red circle.

Wiring the optional 10K linear potentiometer with a shielded wire (GND shown in black)



It is planned to be able to install a 3-pin Molex connector.

To connect pin 1 of the output XLR to ground, the two GND pads must be connected with solder.

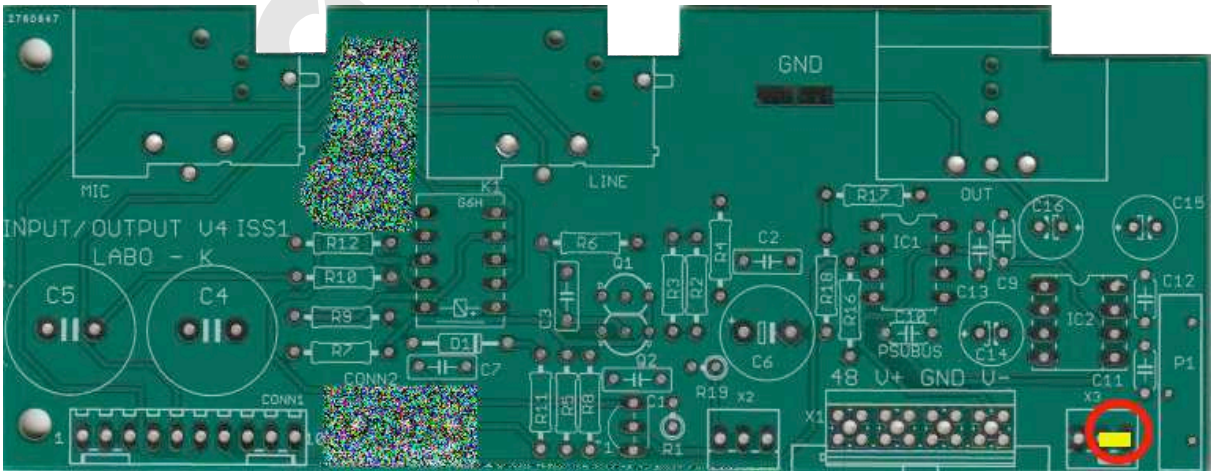
INPUT INTERFACE BOARD PINOUT

Input / Output connector	
1	Mic input Lo
2	Mic input Hi
3	Mic input Screen
4	Line input Screen
5	Line input Hi
6	Line input Lo
7	Output unbalanced
8	Output Screen
9	Output Hi (NC)
10	Output Lo (NC)

INSTRUMENT INPUT COMPONENTS PART LIST

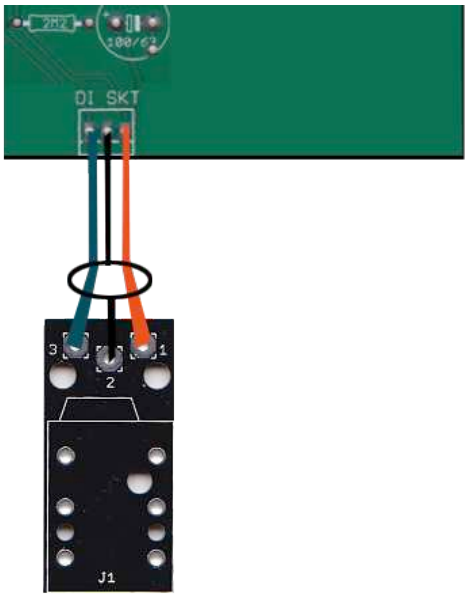
Designation	Qnt	Reference	
DI optionnal components			
KK3 3	1	DI SKT	
1N4148	1	D1	
22R	1	R8	
100R	2	R7, R10	
470R	1	R5	
3K	1	R11	
10K	1	R19	
2M2	7	R1, 2, 3, 4, 6, 9, 12	
100n Film	4	C1, 2, 3, 7	
100µF/50v NP	2	C4, C5	
100µF/63v	1	C6	
Relay	1	K1	
2SK170BL	2	Q1, Q2	
2N3904	1	T1	
Jack chassis+pcb	1	NRJ6HF1 Neutrik	

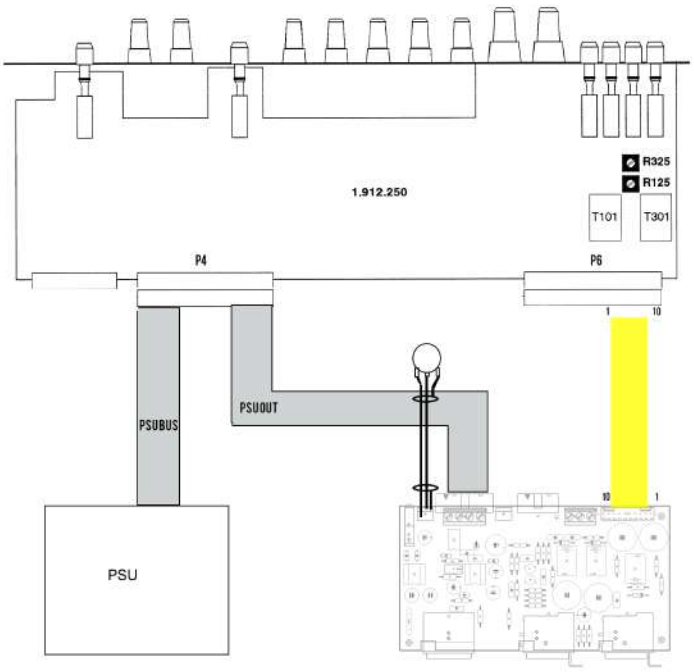
Component layout DI version



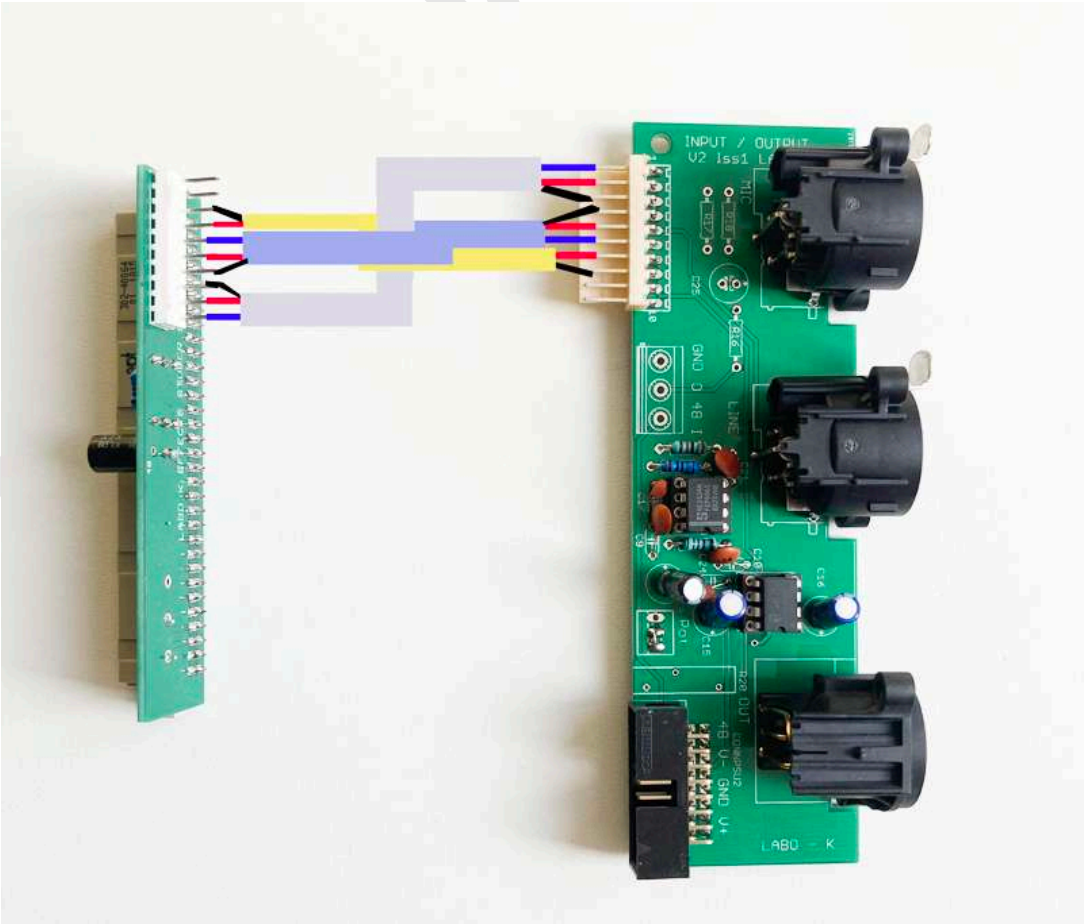
Place a jumper (yellow line) if the volume potentiometer option is not used.

Instrument Input Connector Wiring
(Screen shown in black)



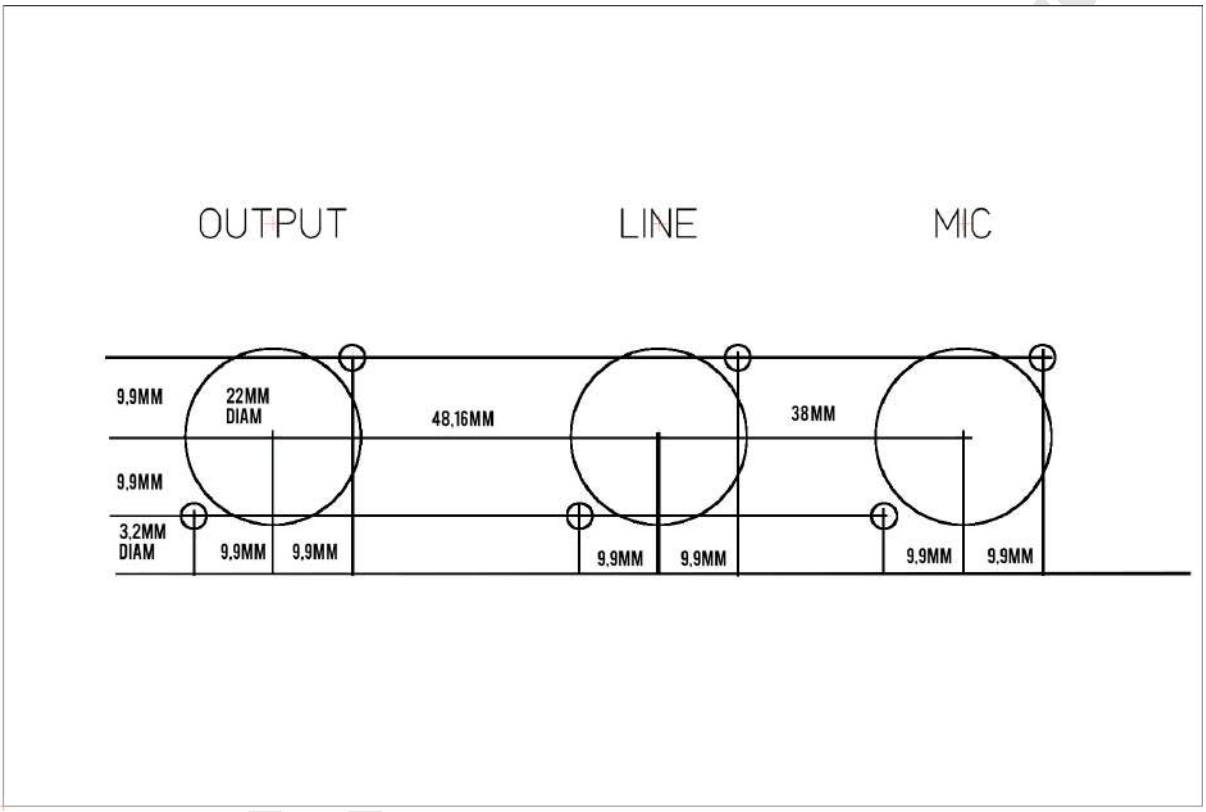


Connect the boards by soldering shielded cablesBlue =Lo, Red=Hi, Black=screen



DRILLING TEMPLATE

External view of the rack



Legal légales :

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.