

Bolling Design

MIC PREAMPS

(January 2024)

Rafal, Miraj, Miraj +, Tranzal, Atla



Miraj+ for CANAL PLUS TV may 2022.

USER MANUAL

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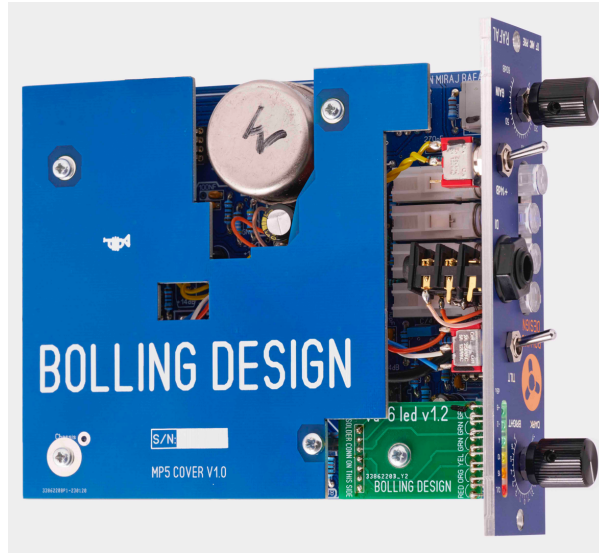
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Bolling Design ROHS and CE Compliance

With respect to Article 2.1 and 3 of the RoHS Directive, the Dynax falls under category 9. Equipment in this category are completely exempt from requirements of the RoHS Directive. Nevertheless, Bolling Design products are compliant with the RoHS Directive. The unit is compliant to CE rules. Power supply is compliant to CEI/EN 61558-2-6



**THIS UNIT CONTAINS NO USER-SERVICEABLE PARTS.
Warning : risk of electric shock if cover is removed.**

Opening cover void your guaranty.

In the event of unit operational failure, contact Audio Tech service and technical support or your geographic authorized distributor. Please be prepared to describe in detail the exact problem that the unit is experiencing, including : failure conditions, system signal flow, exact failure manifestation, events and actions leading to the failure, etc. Also, be able to quickly provide contact information and the unit's serial number.

It is highly recommended that customers do not attempt to troubleshoot their own units or have them serviced at unauthorized repair centers. Opening the case of the unit will void the Audio Tech warranty. These measures also act to protect Audio Tech intellectual property so that Audio Tech may continue to design high-end professional audio peripherals.

**In any case, always refer to this manual, or contact your authorized dealer.
List is available at : <https://bolling-design.myshopify.com/>**

**Bolling Design is trade company of :
OB
15, rue Colbert
41 000 Blois
France**

**<https://bollingdesign.com/>
aco.bolling@gmail.com**

*Thanks for buying a Bolling Design analog audio machine.
Made in France.*

History :

Bolling Design microphone pre amplifiers come from original MP2 AL.SO presented at San Francisco 2008 AES convention.

MP1 (MP2 with only one channel) and MP5 (MP1 with more options) were released closely.



2015 AL.SO MP2



2014 AL.SO MP2 "Muzik Messe"

Different models, what for ?

We offer 2 preamp technologies , declined in different models.

MP2,RAFAL, MIRAJ and MIRAJ+ are TRANSFORMER based.

TRANZAL, ATLA are based on the TRANSFOLESS microphone preamplifier we developed for INA (Institut National de l' Audiovisuel, France) in 2019 .

Those models share their technologies, this is why we can make one manual for different models.

Price range, why those differences ?

This is very simple.

Transformerless mike pre have no ...transformer...

And is easier to construct.

We use hi end transformers, with the induced cost...

This is why we have developed different models, with less option than the flagship, in order to decrease the price .

Transformer or transformerless ?

That's the question...

At Bolling Design, we generally prefer transformer version (and particularly in this beautiful design) , because it owns a bit of magic. The transformer add some silk to the sound, even if it respects carefully the instruments.

Transformerless is a bit harder .

So the choice depends on the instruments you records and the music you make.

Our advice:

- Vocals , acoustic piano, horns, strings , acoustic guitar: transformer
- Percussions, electric guitar, bass guitar : transformerless

Technical aspect:

Our preamplifiers suit perfectly the 500 series rules and have been developed for so less power than the 500 chassis can provide.

We have installed them in a large number of 500 racks without any problems.

They are Solid State, using world class components.

Controls:



Gain

Turn clockwise to increase the level. Indications are without PAD.



+14dB

Add 14 dB gain , with the help of a second gain stage (quiet).



.PAD is a 25 dB attenuator.
It avoids the gain stage to be overloaded.
It permits also to use the mike pre as a line preamplifier.
Option: 15 dB PAD
.Phase : reverse the balanced polarity



.HPF: low cut (80 Hz /2nd order filter).
Miraj + has a low cut with selectable corner frequency, from 30Hz to 300 Hz.



.DI : DIRECT INJECTION input , in order to record Hi-Z instruments (guitar, etc...)

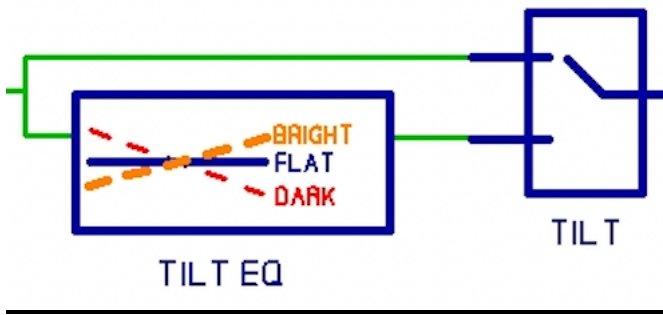


.TILT :

Tilt EQ is a flat curve EQ, centered on a central frequency. When turning counter clock wise the DARK/BRIGHT knob, you can change the caracter EQ to Dark (less treble, more bass). When turning clock wise the DARK/BRIGHT knob, you can change the caracter EQ to BRIGHT (more treble, less bass).

Tilt is engaged when the lever switch is at the position "TILT". At Dark position, 1kHz at 0 dB, 100 Hz about + 4 dB, 10 kHz about - 4dB. At Bright position, 1kHz at 0 dB, 100 Hz about - 4 dB, 10 kHz about + 4dB.

Tilt permits to simulate different preamplifier tones.

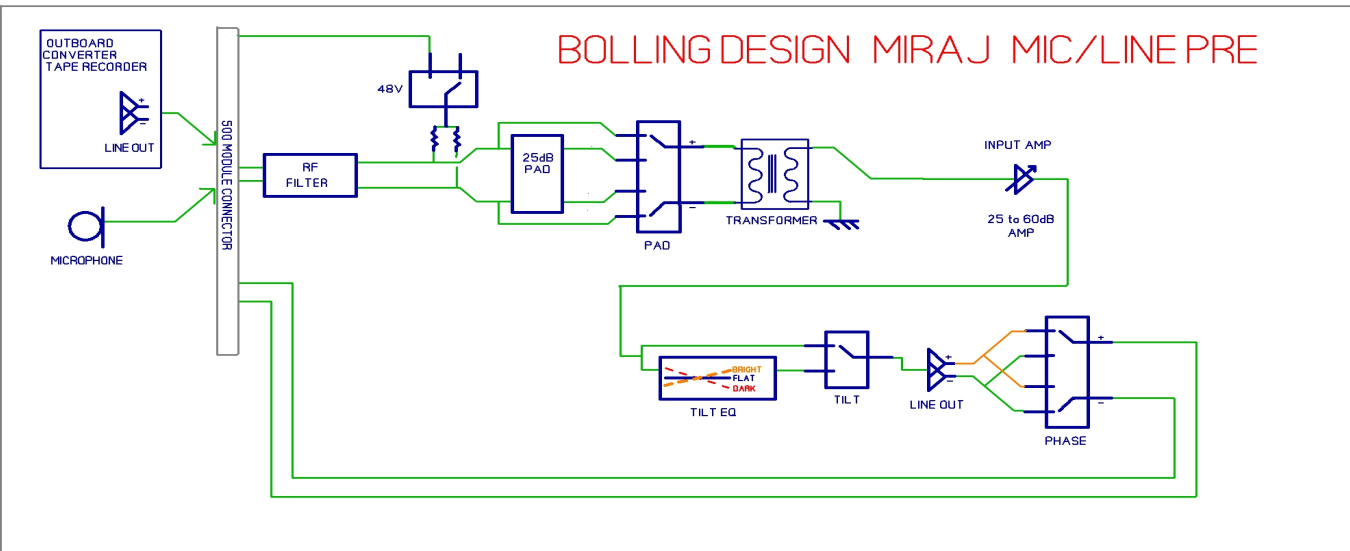


.LED Metering: as indicated...

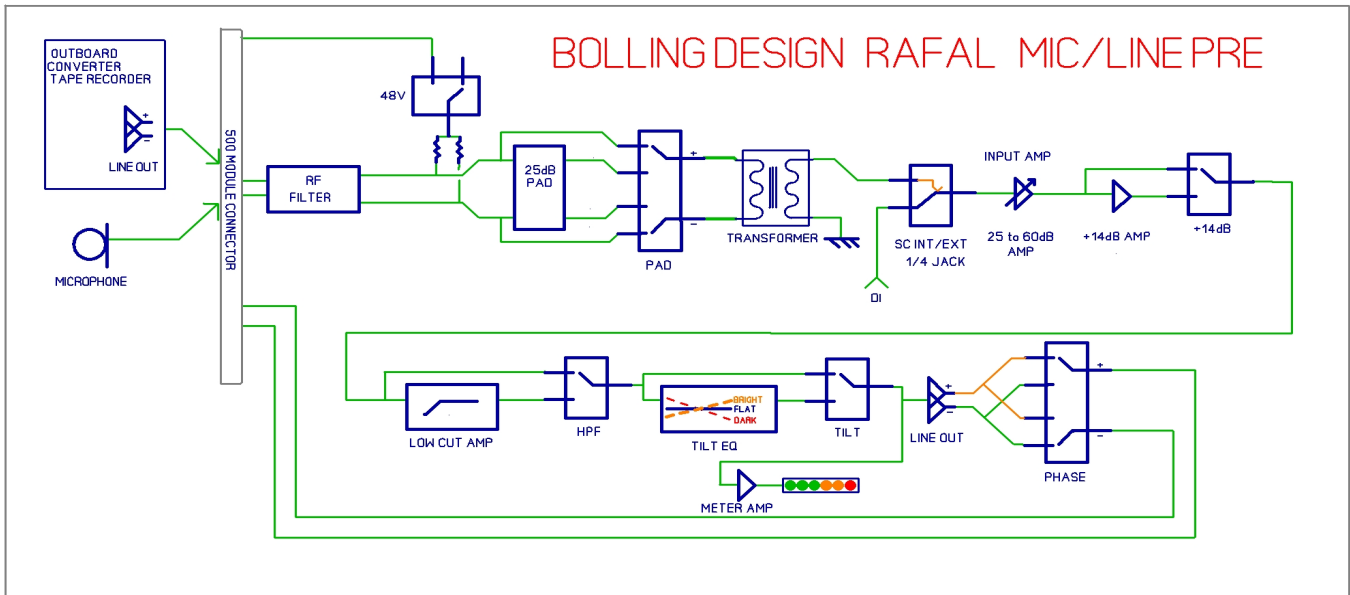
In some models, you can separate AUDIO 0 volt (connected to PSU 0 volt) and chassis. There is a dedicated jumper on the PCB.

All modules can be delivered printed horizontaly or vertically , on request.

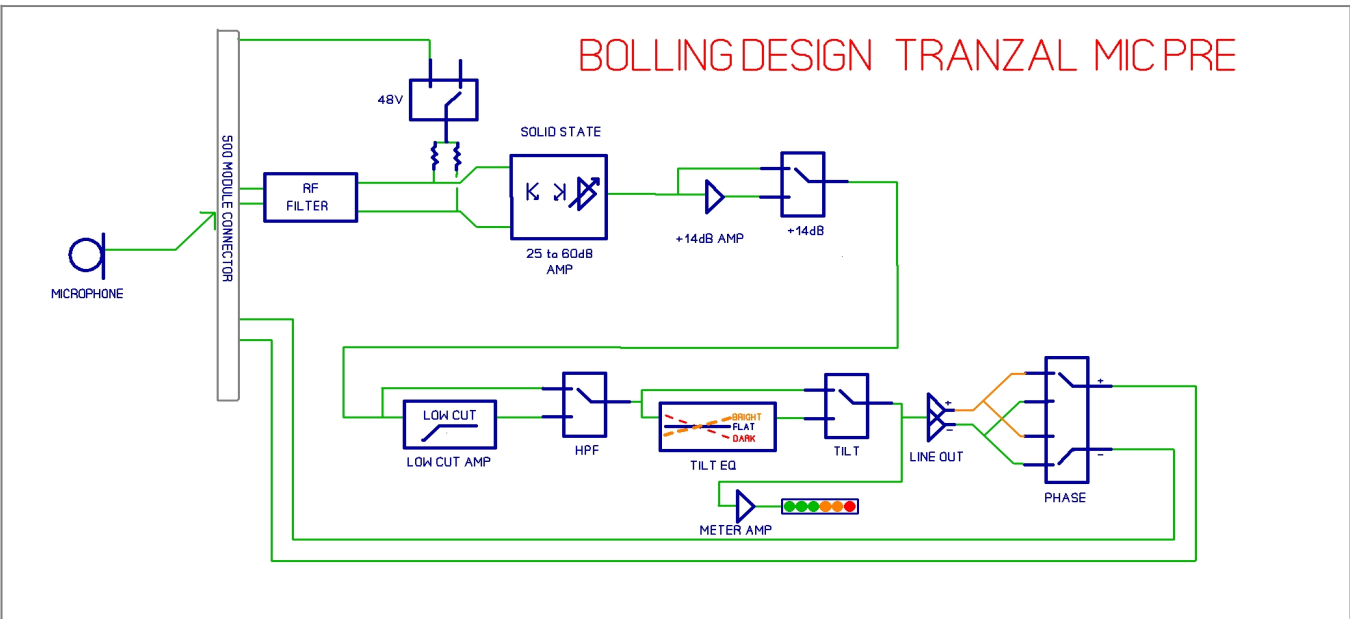
BOLLING DESIGN MIRAJ MIC/LINE PRE



BOLLING DESIGN RAFAL MIC/LINE PRE



BOLLING DESIGN TRANZAL MIC PRE



Technical specifications

Sometimes (we can say generally), there is a lot of difference between what brands claims and what we can measure at the office.

In addition, we say that we are creating musical instruments and that the relationship between measurement and listening is not so crystal clear !

So, the only way to know if a machine suits your taste and make the job you want is to test it by yourself.

For sure BOLLING DESIGN technical specifications are the good ones, regarding distortion ,noise , dynamic range and bandwidth !



Custom for
TITRA FILM

Please, listen, use your ears.

Music is the only way.

www.bollingdesign.com