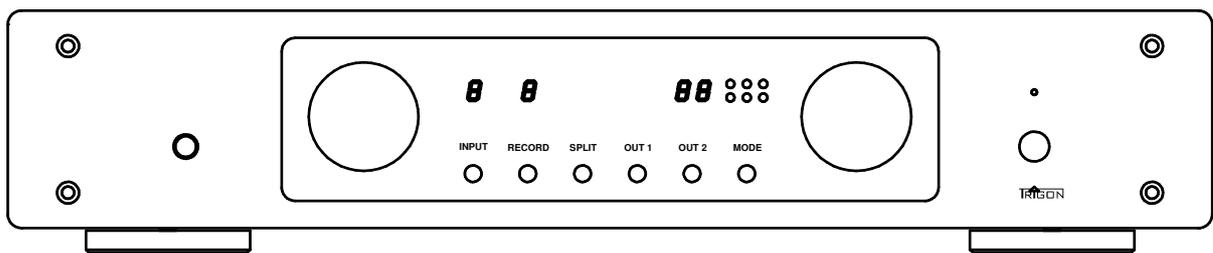




## OPERATING INSTRUCTIONS

FOR PRE AMPLIFIER

# TRV-100



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# **1. Preface**

Dear **TRIGON** - client,

Your made up your mind for the pre-amplifier **TRV-100**. This equipment was produced in response to severe production-controls and it is an excellent example for modern precision-technic.

Even if you are already familiar to the handling of HIFI equipment you should study this instruction carefully and act according to the herein instructions.

Please save this instruction carefully because it can surely be a good help again while running your pre-amplifier.

Have a good time with your new pre-amplifier.

Your **TRIGON-TEAM**

## **2. General description of the equipment**

The **TRV - 100** is a pre-amplifier of high quality with eight high-level-inputs and two separately switchable outputs. Two of the eight inputs as well as one output are supplied in symmetrical design. The inputs 7 and 8 can also be used as input for a tape-recorder because there are also two record-outputs belonging to these two inputs.

There are also two switched low-voltage-outputs (10V DC) for the running of amplifier and active loudspeaker with DC-remote control. Further **TRIGON**-equipment, controlled by the **TRV - 100** can be connected to a 3-pole-D-sub-socket.

For the running of a high-ohmic head-phone there is a 6,3 mm phone plug at the front of the equipment.

Further the **TRV - 100** has got an input/output where special equipment like Surround Decoder, Equalizer etc. can be connected.

The amplifier is completely controlled by a uP in consideration of a good working separation of the analogous and digital circuits.

The operating of the pre-amplifier is possible at the equipment itself as well as by a IR-remote-control-unit. A clear display on th front of the pre-amplifier, which is dimable and can be switched off, informs always about current positions. In the „Stand-by Modus“the equipment can be switched-off by remote-conrol-unit.

Independent from the current program the Record-circuit allows copying any program-source.

The volume can be adjusted by a special D/A-converter, so it is much better than conventional volume control(Pontentiometer) in respect to sound and technology.

Each of the amplifier stage is produced modulary, in the case of developments concerning the technology or the sound they can be exchanged by unplugging.

The integrated toroid transformer with a „Super Silent material“ which is low magnetic field and humless runs even very well in the case of unclean voltage. Again the mains-part was very much considered. It consits mainly of four separat mains-parts

and contains for the supply of the amplifier stage a special connection, which always allows a low source resistance in the case of higher frequency. That way the distortion occurring also in the high-sound-sphere will be minimized and the sound seems to be less rough comparing to the use of usual connections.

## 2.1 Security-advice

**TRIGON ELEKTONIK** will not undertake liability for damages caused by inexperienced handling by not handling according to the following security-advice.

The pre-amplifier shouldn't be used close to hot places like heaters, chimneys, fireplaces, lights of high-power etc.

The pre-amplifier shouldn't be bumped or vibrated.

After transporting from a cold surrounding into a warm room the pre-amplifier shouldn't be connected to the mains-supply immediately.

The pre-amplifier shouldn't be settled directly in the sun-light.

Please take care for good air-circulation at the place where the equipment is installed

Never spill any liquid onto the pre-amplifier. Liquids are not allowed to penetrate into the case.

Never use this equipment without the protecting cover of the case.

Always unplug the plug before opening the equipment.

Never span a fuse. Please exchange a broken fuse only with an original fuse of the same type and of the same factor.

Never try to repair on your own. Any kind of maintenance and repair is only allowed to be done by authorized, extra trained staff. Defects caused by inexperienced handling or by foreign treatment will lead to the expiry of a possible demand for guarantee.

Before unplugging or installing connecting cable please switch off the unit in any case.

The **TRV-100** is prepared from factory for the use on 230 V supply. Should you have another voltage-supply, please contact your distributor or **TRIGON** in order to prepare your equipment.

## 2.2 reference for nomination

After unpacking at first please check the equipment upon damages caused by transport. If you should find a damage please connect immediately your distributor.

After that please control the content of the cardboard-box:

Besides the **TRV-100** you should find the following parts:

- Power-cable
- IR-remote-control-unit
- operating-instructions
- warrantee-sheet

Install the equipment horizontally at a dry place. Always take care for good airing. Strong magnetic strayfield which can be caused by power amplifier transformers and Halogen light transformer can lead to hum and noise. Therefore please install the pre-amplifier in a distance to such equipments. Also the connecting cables shouldn't be installed parallel to light-lines. Hum and noise are also caused by luminous discharge lamps so that therefrom should be a distance of about 1 m at least. .

Avoid direct sunlight and install do not install the **TRV-100** next to powerful heating units.

## 2.3 Warrantee and Service

With the **TRV-100** you bought a product of high quality, with a well developed technology.

Your **TRIGON**-Team takes care that in each stage of production the demands on a **TRIGON**-product can be assured by several quality-tests and a severe control before sending-off the products. Should there be nevertheless a fault, **TRIGON-ELEKTRONIK GmbH** offers a guarantee of 3 years. The guarantee consists of the repair of the defect parts as well as the wage. Further demands are excluded. The guarantee excludes any damage caused by inexpert installation, incorrect handling or repairs by not authorized distributors or private persons. Further the guarantee will expire if the identify-numbers are made unrecognizable as well as in the case of damages caused by accident or transport-damages.

### 3. Start

After unpacking the pre-amplifier we recommend first of all to connect the equipment to the power-line and to switch it on before connecting it to further equipment.

After a short starting-phase (the sign LED is gleaming) you will hear a soft noise caused by some relays and now the now the **TRV-100** is ready.-

Now you should get used to the operating-instruments and to the connecting-sockets.

Try to work with all operating-functions. You cannot destroy anything.

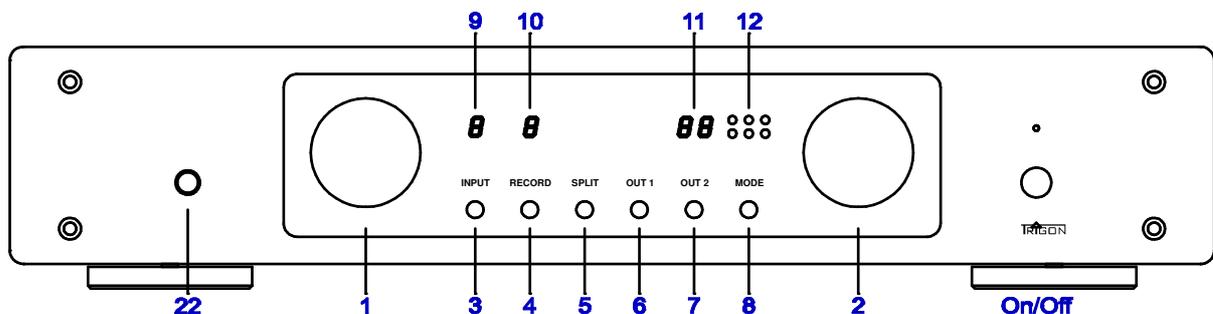
If you tried everthing and have understood the function of the **TRV-100** you can start the connection of the cables.

If you have already stored within the *MODE-Function* it is recommended to recall the storages (keep the *MODE-key* pressed for ca. 5 seconds)

If working at the cabling in any case you should switch off the**TRV-100** as well as the rest of the system.

As a help please pay attention to the cabling-expample at top **4.7** and the following tops.

#### 3.1 The operation-elements on the front



##### **1 - Knob SELECTOR :**

If you select the INPUT-SELECTOR with key **3** (the *INPUT*-Signal is brighter), with the knob you will be able to choose the input you want to listen to at the moment.

If you select the RECORD-SELECTOR with key **4** (the *RECORD* -Signal is brighter), with the knob you will be able to choose the input which is now chosen to lay at the *TAPE OUTPUTS* and which can be copied by a connected recorder.

##### **2 - Knob VOLUME :**

Using this knob the volume can be adjusted within 100 positions. The digital-display **11** informs about the current volume.

Please notice that this knob is a digital encoder without left- or right-stop.

### **3 - INPUT :**

If you strike this key with the SELECTOR-knob you will be able to choose the input which shall reproduce. The signal **9** shows the chosen channel.

### **4 - RECORD :**

If you strike this key, with the SELECTOR-knob you will be able to choose the input which shall be copied by a recorder (f.e. cassette-player, tape-recorder etc.) The signal **10** shows the chosen channel.

### **5 - SPLIT :**

If you strike this key, the additional equipment connected to the SPLIT-sockets (f.e. equalizer, surround decoder) will be smoothed into the Signal way ( Please pay attention to top **5.3** as well.)

### **6 - OUT1 :**

If you strike this key the output 1 can be switched on- or off.

### **7 - OUT2 :**

If you strike this key the output 2 can be switched on- or off.

### **8 - Mode :**

If you strike this key, the *MODE-Menu* is switched on. The *MODE-Signal* is gleaming, as long as the *MODE-Menu* is active. With short strikes you will get to each top of the menu. A longer strike will store the chosen positions. The *MODE-Signal* isn't gleaming while storing. As soon as the storing is finished, the *MODE-Signal* starts gleaming again and you can do further operations.

Please pay attention to the exact description of the MODE-function under top **5**.

### **9 - INPUT Display :**

This display shows the just chosen input which is reproduced at the moment.

### **10 - RECORD Display :**

This display shows the just chosen input, which has just been connected to the TAPE-OUTPUT.

### **11 - VOLUME Display :**

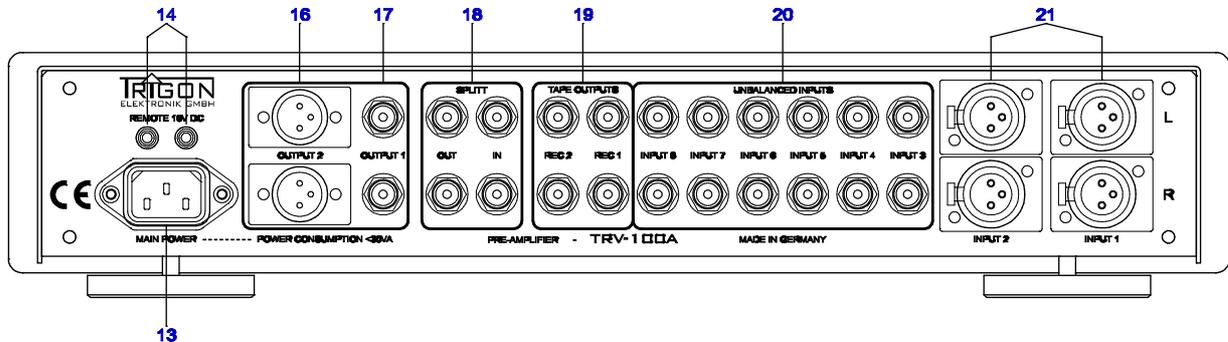
This display shows the volume adjusted at the moment. Within the *MODE- Menu* it shows other level as well. Please pay attention to top **5** too.

### **12 - LED Multifunction-display**

This 6 LEDs give additional information within the *MODE-Menu*, described more exactly under top **5**.

The upper LED in the middle will gleam if the pre-amplifier is adjusted onto MONO together with the remote-control-unit

## 3.2 The connections on the back



### **13 - MAIN POWER :**

The line-cable will be herein plugged

### **14 - 10V DC :**

The sockets are connected to a 10 - voltage DC-voltage to switch-on power amplifier or active-speakers from the distance.

### **15 - TR-LINK :**

nothing else

### **16 - OUTPUT 2 :**

This is the symmetrical output for the pre-amplifier. Hereon a power amplifier or an active-speaker can be connected.

At pin\_ 1 is the ground

At pin\_ 2 is the uninverted signal (+)

At pin\_ 3 is the inverted signal (-)

### **17 - OUTPUT 1 :**

This is the assymmetrical output of the pre-amplifier. Hereon a power amplifier or a active-box with assymetrical inputs can be connected. There is no uninverted signal.

### **18 - SPLIT :**

At this in/output a special equipment (Equalizier, externe sound adjustment, Surround-Decoder) can be connected and feed in the signal path.

If using a Sourround Decoder with an own volume adjustment, please pay also attention to the special-function *DIRECT*; described more exactly under top **5.3**.

### **TAPE OUTPUTS :**

These sockets are connected to the input chosen by the RECORD SELECTOR: The to this belonging input-sockets are INPUT7 (REC-1) and INPUT 8 (REC-2)

## **20 - UNBALANCED INPUTS :**

The socket-pairs INPUT 3 to INPUT 4 are unsymmetrical inputs. Any high level equipment like Tuner, CD-Player, Tape-Set etc. can be connected.

Record-Players can't be connected as they need an additional amplifier stage  
Nevertheless, special Phono-pre-amplifiers for record-players can be connected to these inputs.

## **21 - BALANCED INPUTS :**

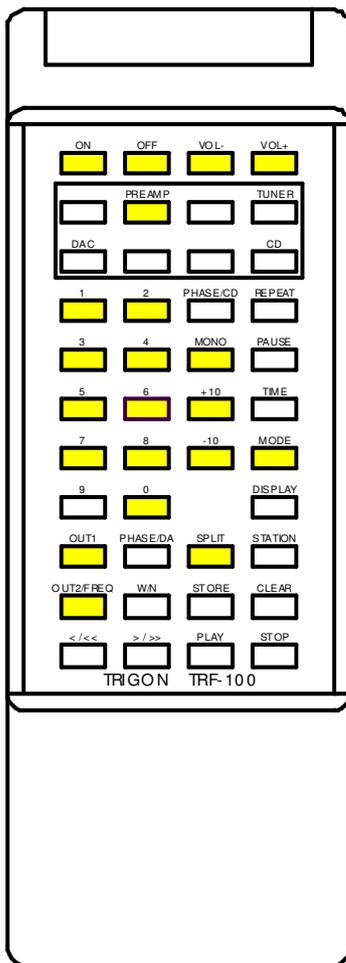
INPUT 1 as well as INPUT 2 is produced as symmetrical input. Hereto equipment with symmetrical outputs can be attached.

## **22 -Head-phone**

To this socket a head-phone can be attached. The impedance of this head-phone shouldn't be lower than 200 Ohm.

### 3.3 The Remote-Control-Unit

An IR remote-control-unit is attached to each **TRIGON**-pre-amplifier. This remote-control-unit is a system unit which can also be used in connection to further **TRIGON**-equipment. The buttons, which can be pre-adjusted to the respective equipment are marked by a graphical frame. First press the button **PREAMP** in order to use the **TRV 100**. As long as you do not press another button within this marked area, the pre-adjustment for the pre-amplifier will be stored in the remote-control-unit.



Button **ON**: If the pre-amplifier was switched off by the remote-control-unit before it can be switched-on by this button again.

Button **OFF**: With this button the pre-amplifier can be switched-off. But the pre-amplifier will not be separated from the power-supply. It is still in the Stand-By Position

Button **VOL-** :With this button the volume can be reduced

Button **VOL+** : With this button the volume can be raised.

(The buttons **VOL-** and **VOL +** work independently from the pre-adjustment of the unit )

Button **1 - 8** : With these buttons the respective input can be selected.

Button **MONO** : With this button it is possible to change between Mono and Stereo. If the amplifier is switched Mono, there will be a light within the display of the pre-amplifier.

Button **+10**: If you press this button, the volume will be raised by 10dB.

Button **-10**: If you press this button, the volume will be reduced by 10 dB.

Button **Mode**: With this button you get into the *MODE*-Menu. With every single press on the button there will be a further function within the *MODE*-Menu. As long as you are within the *MODE*-Menu the respective signal is twinkling in the display of the pre-amplifier. You'll find further advices for the *MODE*-Menu in chapter 5.

Button **0**: With this button the amplifier will be switched to Mute, that means that the volume is zero. Instead of the *INPUT*- and *Volume*-numbers you will see horizontal lines. If you press the a button **0** or another button of the pre-amplifier once again, the old situation will be restored.

Button **OUT1** : With this button the output 1 can be switched-on and-off.

Button **OUT2/FREQ** : With this button the output 2 can be switched on and - off

Button **SPLIT** : With this button the *SPLIT*-Funktion can be switched on and -off.

The remote-control-unit is run with two Mignon 1,5 voltage batteries. Please control regularly the condition of the batteries in order not to destroy the remote-control-unit by leaking batteries.

## 4. Examples for connection-possibilities

### 4.1 Which equipment can be connected ?

The **TRV 100** is conceived as a pure high level amplifier. All units of the audioelectronic can be connected, which offer a linear, analog signal voltage between 0,2 voltage and 2 voltage. Such units are for example: Tuner, CD-Player with integrated DA-converter tape-recorders, cassette-players, HIFI-Video-recorders etc. Effect-units like equalizer, tone control amplifier, surround-decoders etc. can be connected at the socket-pair *Split*

Microphones and record-players **cannot** be connected.

### 4.2 The input-sockets

The **TRV 100** has got 8 inputs. The inputs 1 and 2 are conceived as symmetrical inputs ( Pin 1= GND, Pin 2 = + not inverted, Pin 3 = inverted).

A *SPLIT*-input offers an extra input. If this socket is used as input, please take care that this input won't be connected onto the tape-outputs.

### 4.3 Connection of recording units

The **TRV 100** has got 2 record-outputs (19). Hereon the record-inputs of cassette-players, tape-players and the analogous-inputs of a DAT or MD-recorder can be connected.

## 4.4 Recording possibility between two recording-units

In order to record between two recording units please connect the outputs of recording-unit A to the *input 7* and the outputs of unit B to *input 8*. The recording-inputs of unit A should be connected to *Tape outputs Rec-1* and of unit B to *Tape outputs Rec-2*.

If you now want to record from unit A to unit B, please switch the RECORD-path on position 7. Therefore you have to switch button 4 (RECORD) and move the knob 1 to position 7. Now the recording can be started.

## 4.5 The output sockets

The **TRV 100** has got two outputs which can be switched undependent from each other.

To these outputs usually a power-amplifier or an active-speaker can be connected.

With *output 1* there is an asymmetrical and with *output 2* a symmetrical output available.

The symmetrical output is good to use in the case of very long connection-cables between pre-amplifier and amplifier.

The advantage of a symmetrical cabling is that jammings going on to such lines will be effectively suppressed.

The pin-engagement is as follows: Pin 1 = GND, Pin 2 = + not inverted, Pin 3 = inverted.

## 4.6 Remote Sockets

Some power amplifier and active-speakers can be switched on and off by using a DC-voltage. Therefore the **TRV 100** has got two *REMOTE*-sockets with a DC-voltage of 10V as soon as the **TRV 100** has been switched-on.. Nevertheless the DC-voltage can be switched-off within the *MODE-Menue*.

## 4.7 Connection of an equalizer

In order to build an equalizer into the signal-line, the **TRV 100** has got a socket-quartet with the mark *SPLIT (18)*.

Connect the output of the equalizer to the sockets *INPUT* and connect the output of the equalizer to the sockets *OUTPUT*.

In order now to build the equalizer into the signal-line, you only need to press the button *SPLIT* at the **TRV 100** or at the remote-control-unit.

## 4.8 Connection to a surround-unit

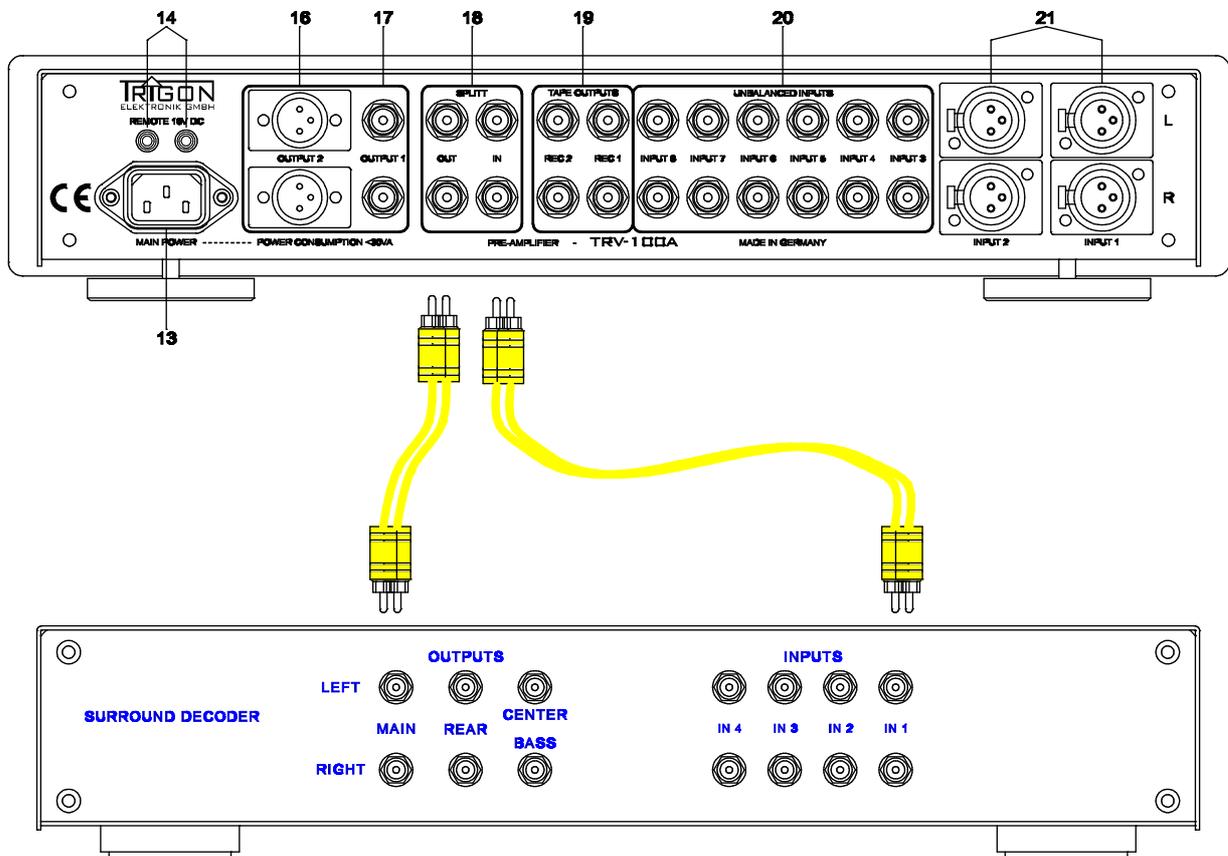
The **TRV 100** offers the possibility to integrate a surrounddecoder into your HIFI-equipment in an easy manner.

In the case of a surround-unit usually at least 5 independent speakers have to be steered. In order to use the two main-speakers of the right and left channel without disconnecting, you have to connect the surrounddecoder as follows:

The input of the surrounddecoder has to be connected to the sockets of *SPLIT OUTPUT (18)*. The output-sockets for the main-channels front left and front right have to be connected to the sockets of *SPLIT INPUT (18)*.

By pressing the button *SPLIT* the main-speakers are now connected to the surrounddecoder by using the main power amplifier.

The power amplifier for the two backward channels and of the middle channel will be directly connected to the surround-decoder.



In order to adjust the total-volume at the surround-decoder you adjust the volume at the **TRV 100** to factor 73. Now you adjust the surround-unit according to the instruction.of the surround-decoder. The volume at the **TRV 100** shouldn't be adjusted any longer.

Now the unit is adjusted for the surround-function.

Here are the adjustments for the surround-function in tops:

**Example:** The Videorecorder is connected to the **TRV 100** at INPUT 5. The surround-decoder is cabled as above.

1st step : switch the **TRV-100** on *SPLIT*.

2st step: put the volume at **TRV-100** to factor **73**

3rd step: select input 5 at the **TRV-100**

4th step: switch the surround-decoder to input 1

5th step: adjust the unit according to the instruction of the surround-decoder.

6th step: start the reproduction at the video-recorder

## 5 The Function *MODE*

Some extra functions are called if calling this button. At the moment the following functions are available:

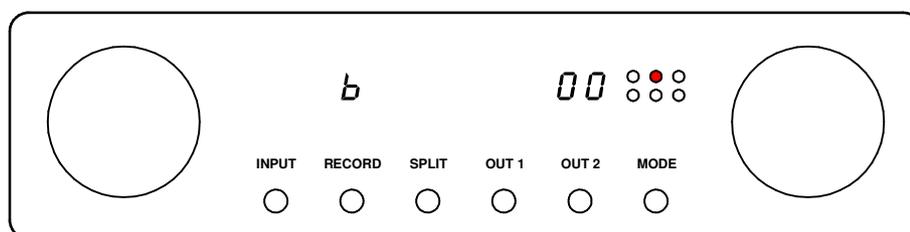
- Adjustment of the stereo-balance
- Adjustment of the display-brightness
- level adjustment for each input
- adjustment of the basic-volume
- basic adjustment ex-factory

If pressing the button *MODE* you get into the special-function-modus and the *signal MODE* is sparkling. With every further pressing of the button the menue changes to a further function, after the 6th pressing you will leave the *MODE-Menue*. If you want to store an adjustment for a longer time you'll have to keep the *MODE*-button pressed for an instand. During this time the sparkling of the *MODE-signal* stops for a short time. As soon as the signal starts sparkling again the adjustment is stored durably until it will be overwritten by another adjustment on the same way.

The adjustment-possibilities are described as follows:

### 5.1 Adjustment of the **STEREO-Balance**

After the first pressing onto the *MODE-button* you'll find yourself in the modus **BALANCE**: The display shows the following picture, while the *MODE-signal* is twinkling and the upper light in the middle (LED) is shining.



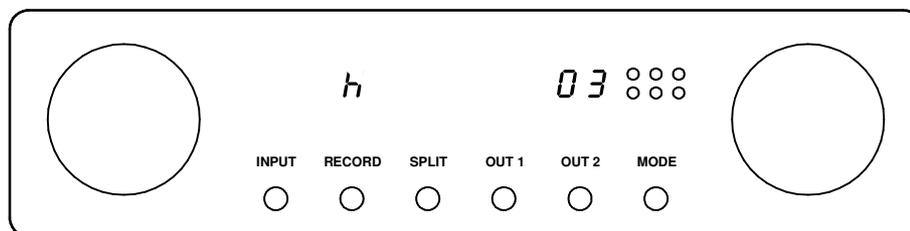
By turning the *VOLUME-button* to the left or to the right the stereo-balance can be adjusted. Dependend on the turning-direction of the balance there will be another LED shining in order to inform you about the changing of the direction.

The volume-display shows the level of the changing. One changing-unit means 1dB.

A maximum difference of 100dB can be adjusted. When you have found the right adjustment it can be stored as described above. By using the *MODE-button* another time you will jump into the next menu. But if you want to stop the adjustments, the amplifier will leave the *MODE-menu* automatically after ca. 10 seconds and the *MODE-signal* as well as the signal-LEDs will stop shining. Again the volume-display shows the actual volume-factor.

## 5.2 Adjustment of the display-brightness

The brightness of the entire display can be pre-adjusted in three steps. In order to do this adjustment please press the *MODE-button* two times, so that the numeral-signal above from the *RECORD-signal* shows a symbolical „h“



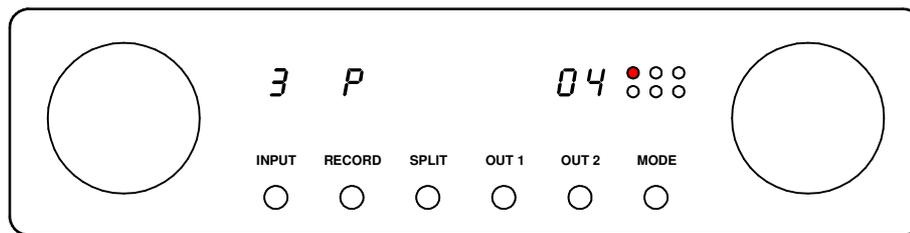
By turning the *VOLUME-button* you can adjust the brightness. The display shows the selected step

When you found the right adjustment you can store it durably as described above.

By using the *MODE-button* another time you'll jump to the next menu. But if you don't want to adjust any more, the amplifier will leave the *MODE-menu* and the *MODE-signal* and the signal-LEDs will stop shining as well. Again the volume-display shows the actual volume factor

## 5.3 Adjustment of the input-level

Sometimes it can occur that the equipments connected to the **TRV-100** have got a different volume and that there are volume-differences if switching over. The **TRV-100** offers the possibility to adjust the sensibility of each input individually. At the third position in the *MODE-modus* occurs the function level. With the *INPUT-knob* you can select the input which input-level you want to change.. With the *volume-knob* then you can lift the level (turning to the right) or let the level down (turning to the left). The volume-display shows you the degree of the lifting/sinking. With the lifting the upper LED on the left side is shining additionally, with the sinking the downer LED on the left side is shining



Input level adjustment: INPUT 3 is selected and lifted by „4“ (2dB)

Having adjusted the level the *MODE-button* has to be pressed for some seconds (until the *MODE-signal* is twinkling again) .. That way the level\_adjustment for the selected input is stored.

If you want to work with further input-level please select the the next entrance with the *INPUT-knob* and operate as described above.

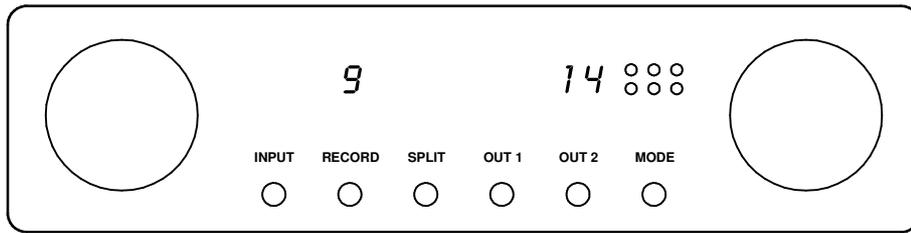
The adjustment-possibility overwrites+- 6dB in steps of 0,5dB, that means 12 digits up and 12 digits down.

If you want to finish the adjustments, the amplifier will leave the menue automatically after 10 seconds.

## 5.4 Adjustment of the basic-volume

The **TRV 100** has got an elctronial volume-adjustment. This operation offers a better reproduce-quality (in comparison to a convenient (Potentiometers) and advantageous extra-functions. One of them is the adjustment-possibility of the basic-volume. That is the *\_volume-level*, which adjusts itself automatically after switching on the pre-amplifier. Even when you have switched-off the *OUTPUTS* for instance in order only to listen with head-phones, the basic-volume will be adjusted automatically after switching-on again. That way it is assured that a high positioned volume-level adjusted like that before the last switching-off, will sound immediately at the output at the speaker.

But the basic-volume can be pre-adjusted in the *MODE-menue* by yourself. Therefore you switch the *MODE-button* and you get at the fourth position to the adjustment-modus of the basic-volume.

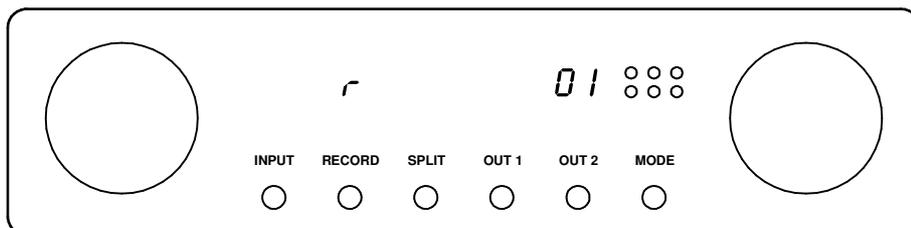


With turning the *VOLUME-knob* basic-volume can be changed. When you have adjusted a level again the *MODE-button* has to be pressed for some seconds (until the *MODE-signal* is twinkling again) and the basic-level-adjustment is stored. If you want to stop the adjustments, the amplifiers leaves the *MODE-menue* automatically after 10 seconds.

## 5.5 DC-Remote Switch-on and-off

The **TRV-100** has got the possibility to offer a 10 voltage DC-voltage for remote control \_ Such a DC-voltage is demanded from several power amplifier and active-speakers in order to get switched-on at the same time as the pre-amplifier.

Sometimes it can be an advantage to switch-off this remote voltage. That happens for instance if listening only by head-phones and the power amplifier isn't needed. At the fifth position of the *MODE-menue* you get to the switch-on/switch-off modus. The following picture appears:



With the volume-button a factor of 00 or 01 can be adjusted. 00 means, that the REMOTE-signal is switched-off an 01 means that the REMOTE-signal is switched-on. In order to store the adjustment again keep the *MODE-button* pressed for some seconds until the *MODE-signal* is twinkling again. In order to leave the *MODE-menue* press another time the *MODE-button* or wait some seconds until the amplifier leaves the *MODE-menue* automatically.

## 5.6 Basic adjustment ex-factory

Ex-factory the **TRV-100** is supplied with a basic-position. If you are not satisfied with the adjustments in the *MODE-menu* and want to reproduce the ex-factory adjustment, please keep the *MODE-button* pressed for some seconds (but you shouldn't be in the *MODE-menu*, that means that the *MODE-button* is not twinkling at the moment). As soon as you press the *MODE-button* for some seconds the *MODE-signal* starts twinkling sometimes and the original-adjustments are reproduced. But please take care that all your adjustments (balance, display-lightness, basic-volume etc.) will be overwritten.

## 6. What to do if...

In this chapter we want to ease for you to localize and to remove small faults

### 6.1 ... nothing happens ?

Is the plug put-in properly ? - Put-the plug regularly into the socket.  
Is the used socket connected to the AC-voltage or is it connected to the home fuse box. Check the home fuse box.

Did the internal fuse blow? - Send the equipment to the service.

### 6.2 ... nothing is to hear ?

Did you select the right input? Select the input which shall be heard.

Did you switch-on the used output? -Switch-on the output.

Does the source supply a signal? Switch-over to another used input and check if this one is working. If it does, the other source has a fault. - Check this source.

Is the *MUTE-Function* active? Press once again *MUTE* on the remote-control-unit or just change the volume?

Is the *Split-Function* select though there is no extra-unit connected? Deactive the *SPLIT-Function*.

### 6.3 ...it is humming ?

Did you put in the connection-lines unshaky and are they fixed? - Check the connecting-cable.

Sometimes there are\_ so called huming loop caused by multiple grounding.  
In order to solve this problem some experience is necessary. We recommend to connect your distributor.

It is only humming if the tuner or the video-recorder or the television-set is connected to the pre-amplifier. -All these units are connected to the aerial which itself is earthed. So there is from time to time a humming loop which in this case can easily be removed by the use of a AC-filter.

## **6.4 ... the remote-control-unit does not react ?**

Does the remote-control-unit operate in the pre-amplifier-modus at the moment? Press the button *PREAMP* on the remote-control-unit. Now the remote-control-unit is activated for the pre-amplifier.

Are the batteries finished? - Put in new batteries.

Is the distance too great?- Decrease the distance. IR-remote-control-units too have only got a certain reach. With well loaded batteries up to eight meters.

The reach will decrease as well if too bright sunlight is disturbing. Avoid direct sunlight.

## **6.5 ... there is no remote-signal ?**

Did you switch off the remote-signal? - Switch-in the remote-signal into the *MODE-menu*.

Did you put in the connection-cable properly? - Check the connection-cable.

## 7. Technical Details

Bandwith	: 1Hz - 200kHz (+ - 3dB)
Distortion	: < 0.02 %
Channel separation	: < 80 dB ( 1kHz )
S/N	: < 98 dBA
Input impedance	: 47kOhm
max. Output-voltage	: 6.5 V eff
Dimensions	: 440 x 89 x 340 mm ( BxHxT)
Weight	: 8,1 kg
Inputs	: 6x Cinch, 2x XLR
Outputs	: 1x Cinch , 1x XLR , 2x Cinch Tape
Head-phone-output	: 1x Phone Jack_ 6.3mm > 200 Ohm
Additional equipment	: IR remote-control-unit
Guarantee	: 3 years

Modifications are reserved

### **Production and construction:**

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