

We thank you for your confidence set into our firm and our product and request you a lot of joy while listening music with your new ASR Basis!

We as manufacturers, the company ASR Audio Systems Friedrich Schäfer, produced for you the Basis with great care exclusively with **highest quality** and **selected** components.

If you have questions that your dealer can't answer, please, call us during the normal business hours, Monday till Friday from 7.30 to 15.00 o'clock middle European time.

Table of content

Set up and connect	Page 2
Power connection and the adjustment of the Basis	Page 3
Adjustment of the input impedance and the amplification factor	Page 4
Default values for the adjustment, service and general drawing	Page 5
What to do in the case of malfunction	Page 6
Cleaning	Page 7
Technical data	Page 8

!!! Please, read carefully this operating manual before you set up your ASR Basis and make yourself familiar with the qualities of the Basis !!!

That will help you to use optimally the diverse possibilities of the ASR Basis and to prevent damages, that may result of inappropriate operation.

Unpacking the Basis

After opening the carton, you take out the devices. Loosen the adhesive strips cautiously (please do not cut through) around the foam plastic foil and keep them for possible later use.

Then you may test the scope of delivery for completeness :

1. preamplifier
2. power unit with 150 cm of power cable 3x 1,5 qmm
3. repair lot
Allen wrench 3 mm for case screw joints
Replacement screws
Replacement fuses
4. care set
Bottle of anti static plastic cleaner
Special cleaning cloth for cleaning of acrylic material

The place of installation for the ASR Basis

At the place of installation the ASR Basis should not be exposed to moisture, extremely high or low temperatures. A well chosen, **acoustic isolated installation** of the Basis improves the tonal result very much. You can use for example damping plates that are offered by many manufacturers.

Also at the power units a good **isolated installation** results in **sound improvement**.

Therefore, please set up the cases individually and separately.

A damping plate with strings or spikes below every case can improve the sound again.

Of course you can also use a rack. Please, in this case pay attention however to a stable place which is decoupled from vibrations.

ASR Basis power supply connection:

Please, switch OFF the ASR Basis before connecting the Basis to the power supply.

Please connect first the three pole Cannon- plug into the socket at the rear side of the Basis. Make sure that the plug is locked correctly into the socket for safe performance.

For unlocking the plug please pull the clamp at the socket before you pull out the plug. Please switch OFF the Basis before unlocking connection !

Four accumulators for the voltage buffering are built-in the housing of the Basis to attain best Audio quality. When the Basis is switched ON, these accumulators are discharged.

When the Basis is switched OFF, the accumulators are charged. Therefore the power supply should be permanently supplied from the power- supply network.

The employed accumulators are plumbic gel models with firm electrolytes. This type can be mounted in any position and achieves a long life without maintenance. Therefore they are installed also in alarm systems.

When the accumulators are discharged to 25% of the accumulator capacity the charging unit is activated and the accumulators are charged again. This is made for the highest possible care of the accumulators.

After about 20 hours of operation, the Basis is supplied out of the loading power unit and not more from the accumulators. As a result, the Basis can be operated for unlimited time

Therefore please switch OFF the Basis after approximately 30 hours for best possible care of the accumulators, so it can recharge completely.

You can calculate one hour of charging for 2 hours of operation.

Connection of the Basis:

!! Urgent !! To avoid harm of the loudspeakers or of the amplifier the ASR Basis is to be switched OFF, as soon as cable connections are changed.

After you have found the correct place of installation for the ASR Basis, please take a look at the connection panel at the backside of the Basis.

The sockets for the Phono input are arranged in the middle around the supply voltage connection (three-pole XLR connection). The output sockets for the connection to your amplifier are mounted further outside. Especially low channel crosstalk is achieved by this symmetrical order.

The sockets for the right channel are marked with a red colour ring, the sockets of the left channel with a black colour ring.

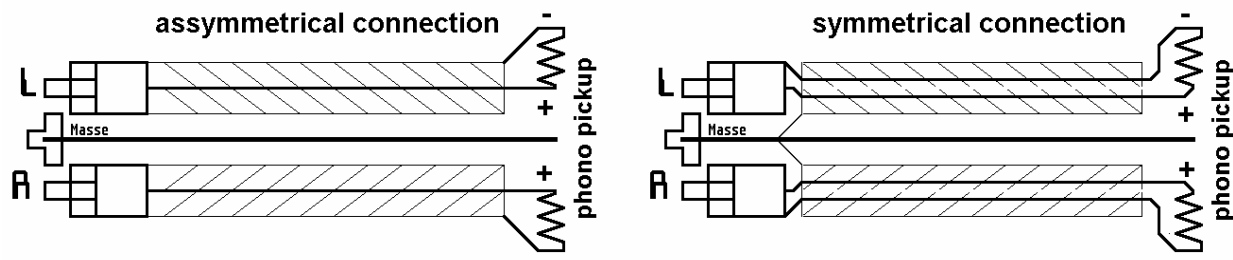
The ASR- BASIS can be used for all usual MC- and MM- pickups and can be operated both in symmetrical and asymmetrical mode.

The symmetrical operation is possible with the normal RCA sockets and also with the XLR sockets built-in upon request. In the asymmetrical operation, the turntable is to be connected with the normal tone arm cables to the two RCA Phono input sockets.

The symmetrical operation is more save against magnetic and electrical fields. This results in a more precise, free of distortions operation especially at very low voltage pickups. Therefore, we recommend you to manufacture specific cables for the optimal use of the advantages of this operating mode.

Normally, the negative terminal of the pick-up is mostly connected with the shielding of the cord to the phonograph.

The shielding of both cords should only be done on the pole at the BASIS. The other side of the shielding on the tone arm remains free.



The ground wire of the phonograph should be connected at the pole terminal that is positioned in the middle of the backside of the Basis. To minimise hum it may be necessary to try out the optimal ground connection.

Adjustment of the Phono input:

Before you adjust the phono input please switch OFF the Basis and take out the power cable from the wall socket. Then please unscrew the cover plate with the 3 mm allen wrench that is enclosed in the service package.

Every channel is equipped with two eight pole DIP switches which are designated with DIP 1 and DIP 2 for adjustments. This switches are placed in the middle of the motherboard.

The Dip switches of both channels are to be adjusted always both sides in the same way, except a channel disparity should be balanced.

DIP 1 is mounted in the middle of the motherboard. The input impedance can be adjusted with 8 switches of DIP 1.

DIP 2 is further mounted in front. The input capacitance can be adjusted to switch 1, switch 2 is used to switch the input into symmetrical mode. The switches 3 to 8 are used to adjust the amplification factor.

The Dip switches can be switched between the two positions "ON" and "OFF". Please, ensure that the Dip switches are positioned certainly into one of the two switching conditions.

Adjustment of the input impedance:

For optimal tonal adaption at the used pick-up system the input impedance can be adjusted with Dip 1 with its 8 switches from 10 Ω bis 1 KΩ.

At lower input impedance, the drawing of the acoustical room becomes more exact with lower dynamic. With higher input impedance, the sound picture becomes brighter and more dynamic with small losses of exactness and accuracy.

An input impedance should be about three times the internal resistance of the cartridge.

Adjustments to DIP 1

Nr.	47KΩ	47KΩ	1KΩ	470Ω	360Ω	220Ω	100Ω	64Ω	47Ω	22Ω	15Ω	10Ω	7Ω	5Ω
1	--	--	--	--	--	--	--	--	--	--	--	ON	ON	ON
2	--	--	--	--	--	--	--	--	--	ON	ON	--	ON	ON
3	--	--	--	--	--	--	--	--	ON	--	ON	--	--	ON
4	--	--	--	--	--	--	ON	ON	--	--	--	--	--	ON
5	--	--	--	--	--	ON	--	ON	--	--	--	--	--	ON
6	--	--	--	ON	ON	--	--	--	--	--	--	--	--	ON
7	--	--	ON	--	ON	--	--	--	--	--	--	--	--	--
8	--	ON	--	--	--	--	--	--	--	--	--	--	--	--

Nr.	47KΩ	47KΩ	1KΩ	470Ω	360Ω	220Ω	100Ω	64Ω	47Ω	22Ω	15Ω	10Ω	7Ω	5Ω
	asym	symm												

If no switch is put to ON at Dip 1, the input impedance is adjusted to 100 k Ohm in the symmetrical mode. Further intermediate values which are not noted here can be achieved by suitable combination of resistors.

Adjustment of amplification:

The amplification of the phono input can be increased by tuning of switches 3-8 of DIP 2 to ON.

The maximum amplification is achieved if the switch No. 3 from DIP 2 is ON.

The following table indicates the values for amplification:

Adjustments at DIP 2

Switch	none	ON	8 ON	7 ON	6 ON	5 ON	4 ON	3 ON
Amplification	0 dB	+ 4dB	+ 8dB	+ 12dB	+ 18dB	+ 24dB	+ 32dB	

All switches usually ought to be adjusted left and right side of identical. By different adjustment you can adjust level differences of the pick-ups. For improvement of the signal-to-noise ratio the amplification ought to be adjusted as low as possible!

During maximum aperture of the volume control and activating the loudest possible amplification at the amplifier the highest volume desired for sound monitoring should be achieved.

Every further increase of amplification on the Basis only impairs unnecessarily the signal-to-noise ratio. This operates especially with MC pick-ups relatively near what is physically possible.

! Caution! While tuning the DIP- switch please turn down the volume control in order to prevent harm of your loudspeakers through noises that may result while changeover of the switches.

Adjustment of input capacitance:

The input capacitance can be set by switch 1 of Dip 2 to ON to 320 pF (100 pF in case of OFF). Please subtract the necessary load capacity for your pick up from the cable capacity. Then adjust the result at the Basis.

Default values for the adjustment of the Basis:

DIP 1								DIP 2								
1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8	
--	--	--	--	--	--	--	--	--	ON	--	--	--	--	--	--	used pickups
--	--	--	ON	--	--	--	--	--	XX	--	--	ON	--	--	--	MM and High Output MC
--	ON	--	--	--	--	--	--	--	XX	ON	--	--	--	--	--	MC- low Output
--	ON	--	--	--	--	--	--	--	XX	ON	--	--	--	--	--	MC- very low Output

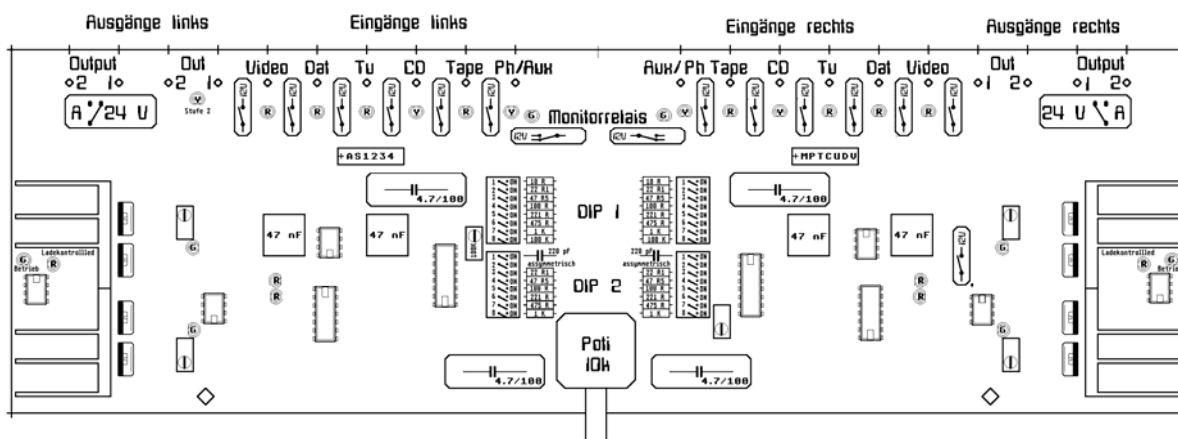
The operation of the ASR basis

The ASR Basis is turned ON with the rotary switch in the middle of the frontplate.

During operation inside the Basis at the left and right side green Leds are shining. Near to the middle also two red Leds are shining.

During switching the Basis On and OFF please turn down the volume control of the amplifier, or choose another input to avoid switching noises.

General drawing of the motherboard



The input signal is at first amplified linear at the symmetrical input circuit. Then the signal passes through a passive filter, and is then equalised further in the second IC. The output signal is then given onto the output sockets.

The initial offset of the Basis is stabilised with an offset regulating circuit using a TL 84 to minimum DC output voltage.

The supply voltage that is coming from the power unit is regulated at IC's at the left and right cooling element and is switched with MOS- Fet transistors.

Troubleshooting:

No LED lights up after switch ON:

Please check if the two red charging control Led at the left and right side shining during the Basis is switched OFF. If they do not shining, please check whether the power unit is connected correct to the power socket and if the power cable is mounted correct into the socket at the Basis.

After this please check whether the 250 mA semi- timelag fuse built-in in the power unit is in order. Before replacement of the defective fuse, the Basis is to be switched OFF and the power plug is to be removed from the wall socket.

Humming:

Depending on the construction with voltage supply via accumulator the ASR- Basis has no hum. To avoid of hum by external magnetic and electric fields the ASR Basis or the power unit should not be placed near to big power units.

At low voltage pick-ups the necessary amplification factors are more than ten thousand. An error voltage as low as of a millionths part of one volt can result in audible humming. A hum loop can be disturbed perhaps by turning the power plug.

Hissing:

If hissing occurs, amplification should be lowered. Too high adjusted amplification factors only cause tonal disadvantages.

The hiss at the internal system resistance at low output MC- pickups can already be higher than the hiss of the input amplifier stage that is built-in in the Basis !

Both channels have differently volume:

Ensure that the Dip switches of both channels are adjusted in the same way.

Cleaning

For cleaning our sets we recommend you to use the Anti-Static Plastic Cleaner and the Cleaning Cloth contained in the cleaning set.

The use of unsuitable materials may damage the surface of the plastic material.

The added Cleaning Cloth is washable, fluff free and contains no fraying which would be able to attack the surface (Even in tissues, threads which can damage the surface are contained).

The rotary knob is sealed and may not be treated with chemicals. The knob should be wiped with a tender cloth if necessary.

If dirt sticks on plastics for a long time, this dirt may form a kind of film that isn't easy to remove.

Therefore, regular care is necessary!

Use of the antistatic plastic cleaner: Spray the liquid directly onto the face of the subject, and wipe it with a especially soft cleaning cloth.

Elimination of scratches

Your device may be scratched through strong wiping or other external influences. In this case you can polish this with ACRYL-POLIERPASTE. After application, a subsequent treatment is advisable with the enclosed ANTISTATIC KUNSTSTOFFREINIGER.

No guarantee is given, for harming on incorrect cleaning.

Repair

Before you send in the device for repair, please contact us by phone.

If we should not be able to help you by telephone, please send the Basis to us. dWrappings can ordered by us if necessary against extra payment.

We hope that these information are useful to you for the operation of your Basis. We wish you much fun and music pleasure with the **ASR- Basis**.

Your A S R - team

Technical data: State of information: 01.01.1998

Preamplifier for Phonoequalisation for Moving Magnet and Moving Coil pick-up systems. The phono amplifier is built with a symmetrical, switchable to assymmetrical, linear input amplifier. The input can be regulated in the amplification, the input resistance and capacity. This stage is followed by a passive correction circuit and a active equalisation amplifier.

The inputs are equipped upon request with three-pole XLR (Cannon) sockets.

Double-sided **motherboard** with 2x 120u copper- lead- and tin material, polypropylene or polystyrene condensers types are used exclusively as for the Phono equalisation, additional foil capacitors are also used for the supply voltage buffering.

Voltage supply is made out of built-in accumulators in the case ± 12 Volt with 10 Ampere-hours output, automatic loading power unit.

Signal-to-noise ratios:

at 5 mV in, 1 Volt out Phono MM, better 77 dB (depending on adjustment)
at 0.5 mV in, 1 Volt of Phono MC, better 68 dB (depending on adjustment)

Frequency response: - 3dB from 3 Hz to 200.000 Hertz

Distortions: from 5 mV to 8 V AC at a load of 100 Ohms at 1 kHz is lower than 0.01%,
from 20 - 20.000 Hz <0.05 %

Input impedance: Phono MM: 47 K Ohm, Phono MC: 5 to 1.000 Ohms

Input capacitance: Phono is adjustable between 100 and 320 pF

Amplification factor: universally adaptable

Dimensions and weight: (W x D x H)

Basis: 430 x 370 x 80 mm, weight 17 kg,
external power unit 30 VA 160 x 90 x 70 mm

Technical improvements reserved