

We thank you for trusting in our company and our products, and we wish you many hours of listening pleasure with your new ASR - EMITTER.

We, the company ASR Audio Systems Friedrich Schäfer have built for you the Emitter with high accuracy only with exceptionally selected, high-grade components.

!!! Please study carefully this Operating Instructions Manual before installing the Emitter to get acquainted with the various qualities of the ASR-EMITTER !!!

This will help you, to optimal Utilization the many possibilities that the ASR-EMITTER has to offer; as well to avoid misuse, and to avoid damages of the amplifier through improper use. If you have more questions, please contact your local dealer or import agent.

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Unpacking of the Emitter :

After unpacking the carton you should carefully unwrap the adhesive tape (don't cut through). Please store the packaging foam for eventually later use.

Packing List : Please proof for completeness

1. Amplifier
2. Programmabel remote control
3. Power Supply
4. Repair Set including :
 - 3 mm Imbusspanner for Hex-keywrench
 - Extra Screws M4 x 16 mm
 - Fuses: 5 Amp slow for Emitter I (10 Amp for 110 V)
 - 8 Amp slow for Emitter II (16 Amp for 110 V)
5. Cleaning Set including
 - 1 bottle Antistatic Acrylic Cleaner
 - 1 Special Cleaning Cloth

After unpacking, the amplifier must be allowed to accomodate to the room temperature for aproximately two (2) hours. Dampness through cold and weather may have accumulated during transport. This dampness must be totally dried before turning ON the set.

The place of installation :

At the place of installation do not expose the ASR-EMITTER to moisture, very high or low temperatures. The temperature of the room where you use the amplifier should be between 15 to 25 degrees Celsius or 60 to 80 degrees Fahrenheit.

In order for the waste heat of the Class A/B construction to flow freely without resulting in overheating, please place the set in an open area and do not cover the body when in use.

The connections of the ASR Emitter :

To get best possible audio quality we recommendate you to use short cables especially for the connection to turntables.

After you found the righth place for your Emitter, please study the connection field at the backside.

The input sockets are placed symmetrically at the backside.

The sockets for the (optional) Phono- input are placed in the middle, the RECORD OUT sockets at the righth and left side. This had been made to obtain high channel seperation.

Please make the connections to your equiment depending on the lettering at the backside. Please use high quality cables.

The positions of the inputs are also be shown by the glimmering of leds mounted beside the input depending on the position of the input switch. The input cynchsockets utilized for the right channel are equipped with a red insulator; the left ones with a black insulator.

The inputs of the Emitter have the same technically property, only their names are different.

!! Urgent !! To avoid damages of your loudspeakers, please switch OFF the ASR Emitter (ON / OFF dial to the position " AUS ") before inserting or changing cable connections.

Connection of a tape recorder to the Emitter :

The "TAPE" input can be used by pushing the monitor button for monitoring the tape while recording.

The tape- recorder LINE OUT sockets should be connected to the " TAPE " input at the Emitter.

The OUT 1 or 2 sockets of the Emitter should be wired to the REC IN or LINE IN sockets at the tape recorder.

A second tape recorder without the possibility of monitoring can be connected for example with the " DAT " input.

To make records please switch the input selector to the audio source, which you want to record from. This signal appears at the sockets OUT 1 and 2. By this way also tape- to-tape recordings can be made with less effort.

!! Urgent !! Never dial the source switch to Position "Tape" during recording. By doing this, you are connecting input and output of the tape recorder together, and the resulting very high frequency feedback may damage your loudspeakers.

Connection of a equalizer to the Emitter :

You may also use the "TAPE " input to put a additional equipment, for example an equalizer, into the signal path.

Please connect the LINE OUT sockets of this equipment with the "Tape" input at the Emitter and the OUT 1 or 2 sockets with the LINE IN sockets of this instrument.

When you push the monitor button this equipment is put into the signal path.

Connections of loudspeakers to the ASR Emitter :

The Emitters had been constructed to work together with loudspeakers with an impedance that should not be lower than 2 Ohms in the range from 1 - 2000 Hertz.

For protection of the Emitter, a security circuit will check the DC- impedance of the loudspeakers connected to the outputs.

For output A the impedance is shown in three different steps/levels :below 6 Ohm - through a green LED, below 3 Ohm - through a yellow LED, for an impedance of about A or B < smaller than 1.5 Ohm a red LED will glimmer and the amplifier is switched OFF.

To ensure best possible contact, the loudspeakers should be connected to the terminals with isolated pole- shoes.

The red- marked terminals are intended for the connection of the positive poles; the black terminals for the negative poles.

To avoid damage to the ASR-EMITTER, please insure that the loudspeaker cables do not touch each other; or any other connection, when in use.

Self-constructed cable must be inspected for short-circuiting before connections are made.

A short-circuiting before switching ON the amp is detected by the security circuit. If a short circuit occurs after the amp has been switched ON the amp may be destroyed by a short circuit. This can be easily traced and is not covered by our guarantee.

Using the operating elements at the backside of the display platine

Inside the Emitter there are two buttons and a 8 pole dip switch mounted at the backside of the display platine. If you want to operate them, the screws for the fixing of the front- and backplate have to be loosened.

With the red button mounted at the left side it is possible to reset the microcontroller and to restart the control programm.

This button should be used at malfunctions of the control programm, the same function can be reached by disconnecting the Powersupply unit from the power network.

With the black button mounted at the righth side several setup function during production can be made.

At the 8 pole Dip- switch the it is possibel to setup configuration :

- Switch 1 ON : second loudspeaker output present
- Switch 2 ON : headphone output present
- Switch 3 ON : clock display OFF
- Switch 4 ON : Phono display instead of AUX position 1
- Switch 5 ON : Biwiring : Beide Lautsprecherausgänge gleichzeitig schalten
- Switch 6 ON : Aktiv equipment slave
- Switch 7 ON : Aktiv equipment master
- Switch 8 ON : Record selector present

The switches are set up during production to the extra equipment built in your Emitter, clock display and soft level increment ON.

You can change the setup according to your wishes. To store the new setup into the control programm, it is necessary to dial the ON/OFF switch.

Connection to power supply network :

The ASR-EMITTER is equipped with a separate power supply which allows you to obtain the best possible results in music reproduction. When the amplifier is switched OFF, only a standby-transformer utilizing very little electricity, is working. Therefore the Emitter should be connected all the time to the power network, cause the built in clock will stop without power.

The amplifier has to be turned OFF before connecting the cable from the amplifier to the power supply.

The connection cable plug from the amplifier has to be locked in the multi contact socket on the backside of the power-supply's housing. To insure a secure fitting and faultless contact, insert the plastic-'nose' of the plug into the recess of the socket, then put the plug into the socket and fix the plug with the metal clamp at the other side of the socket.

Then you may plug in the Power supply unit into the power network wall socket.

To disconnect the plug it is necessary to put away the metal clamp, that fixes the plug in the socket. Before disconnecting the plug, however, two minutes should be given to allow the power supply condensers to discharge.

If you have unplugged the connection before all the Leds inside the Emitter had gone out, please wait about two hours before connecting the amp and the power supply unit again.

There are three leds built in the power supply unit :

A red one glimmers, when the unit is connected to power network, a yellow one is shining when the main transformers are switched on with the starting current limiter, and a green one glimmers when some seconds later the transformer are connected completely to powersupply network.

Basic Setup of the Emitter :

After connecting the amp with the power supply network there shows a green led fixed on the right side in front of the main platine and a red one mounted on the display platine between ON / OFF switch and level control that the necessary supply voltages for standby operation are available.

After first time use or every time you connect the Emitter to power supply network, there appears in the display the greeting text with the number of the programm- version. When the clock reaches the next minute, then the time is shown when the Emitter has worked at last.

Now please setup the correct time.

Therefore in Position "Standby" with Display "Ready" the Monitorbutton should be pushed. At the second push at the bottom line at the right side of the display appears "BACKL" and the brightness of the display can be adjusted by rotating the impulse generator with the big knob.

With again pushing the Monitor button clock adjustment mode is reached.

The clock shows every second the actual time, in the top line hour, minute, second is shown, in the bottom line day, month, year.

By adjusting the input control switch (right knob) it is possible to choose the part of the time which should be adjusted. This is shown in the bottom line behind the year. The time can now be adjusted by rotating the impulse generator. With pushing again the Monitor button the standard mode is switched ON again. Positioning the left knob to "Aus" stores adjustment.

Operating the ASR Emitter :

The ASR Emitter can be operated with the three big golden knobs and the black monitor button in the most functions. The left knob switches ON / Off the amp, the middle one is the volume controller, the right one chooses the inputs.

ON/OFF switch (Left control knob)

AUS - Circuit switched OFF, a green LED fixed on the right side in front of the main platine, is glimmering for controlling the supply voltage. The display and the infrared remote control detect are switched OFF.

STANDBY - The amplifier is still turned OFF in this position. However, the channel selection relays and the display are supplied with voltage to allow you to make records while the amplifier is OFF.

1 - First sensitivity position. Amplifier should be used in this position during normal action use. This avoids damages of the loudspeaker caused by to high volumes setup by operational misuse.

2 - Second sensitivity position. Switch only to Position 2 if the level of Position 1 is not sufficient.

The switching between position 1 and 2 means no complete change of the amplification. It is only an increment or decrement of the level of 15dB. For example, a display of 60 means the same level

in both positions. In Position 1 the maximum level is 71. Position 2 can only be chosen after the loudspeakerrelays have closed.

After Positioning the the ON / OFF switch at "1" the Emitter is switched On and after six seconds the output will be switched ON. The countdown can be seen at the display.

If you happen to switch OFF the amplifier, please wait approximately 30 seconds before turning ON the set again. If the set is immediately turned on again, the starting current limiting circuit has not switched back to its' starting position. This may result in tripping the main fuse or the fuse of the power supply.

Switching-ON Positions used with Extra Equipment

Depending on the extra equipment of the Emitter, second output, or headphone, the ON - OFF switch has 4 or 8 positions. In the standard version without extra equipment these are AUS, Standby, 1, 2. The positions 5-8 are not marked at the frontplate.

A means output 1, B is output 2, Kh means headphones, 1 stands for 1st sensitivity position, 2 for 2nd sensitivity position.

Equipment	Aus	Standby	1	2	3	4	5	6
Standard	Aus	Standby	A1	A2	-	-	-	-
Headphone	Aus	Standby	A1	Kh1	A2	Kh2	A+Kh1	A+Kh2
Second Output	Aus	Standby	A1	B1	A2	B2	A+B1	A+B2
Second, Headphone	Aus	Standby	A1	B2	Kh1	A2	B2	A+B1

The respectively choosen output is shown with leds and on the display after the release through the safety circuit. These LEDs are fixed directly besides the output-relays, green for output A, yellow for output B; a green LED for the headphones fixed besides the output-relay which is located on the right side in front.

Volume control (Big control knob / in the middle) :

For the volume control of the amp there is a built-in rotary pulse generator. It is operated with the big knob in the middle of the front plate. It can be turned without detent for more than 360 degree.

For a complete use of the volume range several rotations of the pulse controller are necessary. This allows very fine tuning.

The pre- adjusted level is displayed in the bottom line of the display and counts from 11 to 86. The real value of attenuation of the Emitter is shown in the top line of the display.

For maximum protection of the output relays when the amp is switched OFF or at failures the attenuator is turned down for maximum damping (11).

After switching ON of the output relays the pre-adjusted level will be set with soft increasing level or direct depending on the adjustment of the Dip- switch.

If the loudspeaker- outputs are switched OFF, the level can only be adjusted up to a maximum of 59 to avoid defects of the loudspeakers after switching ON.

For best audio quality the connected hifi equipment should be turned to maximum output level, and the level should better be regulated at the Emitter.

Input selector (Right control knob) :

The input selector is provided with 6 positions in standard version.

For each chosen input, you will recognize the concerning input-sockets on the backside through the glimmer of one led at the left and at the right channel. The inputs Ph/AUX and CD have yellow LEDs, other inputs are shown by red LEDs.

Monitor- button :

For monitoring tape recorders which are connected at the tape input. When Monitor is switched ON, green leds will light up in the middle between the inputs and under the monitor button.

In " Standby " Mode of the ON/ OFF switch the monitor button may be used for setup of the different modes.

Balance adjustment :

The balance is displayed with one digit hexadecimal number left or right over the level-display. Hex numbers are used for simpler display the numbers in only one digit, the numbers from 1-9 are displayed normal, instead of 10 >A is shown, 11 >B, 12 >C, 13 >D, 14 >E, 15 >F.

The Balance is operated with the two buttons marked with double arrow button at the remote control unit or directly at the Emitter.

Therefore the Monitorbutton has to be pushed while the ON/OFF switch is set to "Standby".

Now the balance can be controlled by turning the big knob.

By pushing the monitorbutton two times or turning the ON /OFF knob the standard mode is switched ON again.

The monitorbutton can only be used if the impulse controller is exactly positioned at one detent, otherwise the interrupt is blocked and the controller can't detect the pushing of the monitor button.

Input- channel Pre- adjustments :

By using the buttons Channel+ and Channel- at the remote control unit it is possible to make a pre adjustment for the different input channels. The attenuating is shown in one digit in the display before the name of the Input channel.

The lowest input signal should not be attenuated, and the other inputs should be adjusted in the way that there is the same loudness from all inputs by turning the Input switch.

Equipment mounted by request :

Headphones :

The headphone can normally be left in its' socket (front or back side). This output is only switched ON in the corresponding position of the ON / OFF switch.

The function is shown by a green LED located before the right headphone- relay.

Second Output :

The 2nd output is connected over two additional relays and therefore shows the same quality as the first output. This function is shown by the glimmer of a yellow LED on both output relays.

Operating the Emitter with the remote- control unit :

The supplied Remote controller is programmabel and is able to operate up to 8 sets. Don't reset the unit, this will erase the programming. The functions for operating the Emitter are programmed under switch position of the remote controle bank selector "AMP".

The numbers are the remote control code (RC5 adress 19).

16 VOLUME UP (bolt to top)	increases the level
17 VOLUME DOWN (bolt to bottom)	decreases the level
12 OFF	switches into Standby- mode
63 POWER	switches Emitter and loudspeaker A ON
28 CHANNEL +	increases input- channel pre adjustment
29 CHANNEL -	decreases input- channel pre adjustment
13 MUTE	decreases level 15 dB and position 1
14 STATUS	Display clear up and maximal brightness, Balance in the middel, Level 50, Output A, Clears switch ON blocking and FB codedisplay
18 TRACK +	increases the Display brighthness
19 TRACK -	decreases the Display brighthness
01 (digit one)	switches Input Phono/Aux 1
02 (digit two)	switches Input Tape
03 (digit three)	switches Input CD
04 (digit four)	switches Input Tuner
05 (digit five)	switches Input Dat
06 (digit six)	switches Input Video
07 (digit seven) not serie !	switches Input Aux 2 (Extra)
08 (digit eigth) not serie !	switches Input Aux 3 (Extra)
09 (digit nine)	increases the switch ON Positions
00 (digit zero)	decreases the switch ON Positions
30 PROG	Store setup and time
31 ENT	Monitorbutton
32 button " M1 " not serie !	second output (Extra)
33 button " M2 " not serie !	headphone (Extra)
27 << (doubel bolt left)	turns the balance left
26 >> (doubel bolt righth)	turns the balance righth
53 PLAY	increases level 15 dB
50 TV/VCR	selects Record- Selectormode, or switching between the outputs
54 STOP	switches OFF after level decrease
48 PAUSE	switches between Sensitivity 1 and 2
36 LOCK	selects Pos. 2 and increases level 15 dB only when the lodspeakers are ON
55 RECORD	shows remote control code

Explanation of activity controls, shown at the drawing page 12

When the Emitter is turned off, the voltage supply of the EMITTER will only be shown by the green LED.

In the position 'STANDBY', source-switch-LEDs and protective circuits are supplied with voltage. The negative auxiliary voltage of minus 10V is shown by a yellow LED.

When using the Positions 1 or 2 as well as further positions, in the power supply the main transformers are switched ON in order to supply the output stage, this function is shown by a yellow LED in the front.

The different necessary operating voltages are shown through various coloured LEDs, green for voltage (+ 76 V), yellow for the output level supply (+ 60 V), red for the auxiliary voltage and for offset-regulation (+ 15 V).

Additionally leds at the front plate :

Activity control led : Between ON/OFF switch and volume control a low glimmering red Led is mounted, that shows that the Emitter is connected to power network, and the supply voltage for the microcontroller is in correct.

Monitor- and activity control led : Below the monitor button there are two leds : a green one shows that monitor is activated, a yellow one shows the activity of the microcontroller by manuell or remote control operation.

Only when the yellow led glimmers the microcontroller is working !

When the activity is finished the microcontroller switches OFF until the next operation. This means that the microcontroller is controlled by interrupts. This avoids distortions caused by digital signals.

Protective circuits :

The Emitter got several protective circuits in order to avoid eventual damages :

Short-circuit before switching ON :

After switching ON the Emitter the D.C. (direct current) impedance of the connected loudspeakers is checked.

For output A the impedance is shown in three different steps/levels :

below 6 Ohm - through a green LED, below 3 Ohm - through a yellow LED, for an impedance of about A or B < smaller than 1.5 Ohm a red LED will glimmer and the amplifier is switched OFF.

Offset-check :

Only in case that the amplifier's output is free of D.C., the choosen output is switched on. A disturbance is shown by yellow leds, located at the righth and left side behind the relays of the relay attenuator.

Distortion- and overcharge protection :

When the Emitter is overloaded, consequently distortion will be very much increased. Overload of the amplifier means, that the needed output-voltage is higher than the amplifier's operating-voltage.

That causes a potential danger especially for the tweeter and midrange loudspeakers.

The EMITTER has a circuit for detecting these distortions whose occurrence actually is usual for any type of amplifiers.

After having detected these disturbances caused by overload or by short- circuit during the amplifier is operating, the concerning output is disconnected after a while. The period after which the output-relay will be switched OFF, is selectable by DIP-switchs.(see drawing page 12)

Switch 1 = off = long period

Switch 1 = on = short period

Switch 2 = off = no influence

Switch 2 = on = no switch-off (due to overloading or short-circuit)

Please notice, that if the protective circuit is switched OFF by switching Dip 2 ON, no guaranty can be accepted by us.

In case of any damage we are able to assess this reason.

Because of this please use this position of switch 2 only during demonstration or when using the amplifier inside a discotheque.

For each channel, a red LED glimmers besides the yellow offset-control- LED when disturbances are detected.

Indication of overheat :

The amplifier is completely switched OFF when temperature is higher than 55 degree Celsius at the cooling- attachments. The overheat is shown by the glimmer of red LEDs located on the left side in the front.

Malfunction :

All disturbances are shown in the display. After having detected disturbances, short-circuit and overheat, or repeated overload, the amplifier is completely switched- OFF.

To switch the Emitter ON again, the ON / OFF-switch is to be turned to the position 'AUS' or the Status button of the remote controller should be used. This actions clears also the display.

If the malfunction of the programm can't be cleared by this, it may be necessary to reset the controller.

This can be made by pushing the reset button mounted left at the display platine inside the amp or by disconnecting the powersupply unit

from the power network for about a minute. The ON / OFF switch should be positioned to "AUS" or "Standby" during reset and the pulse generator on a detent.

The program is also equipped with a watchdog timer, that checks the program and makes reset if the processor stops.

After switching ON no led is illuminated :

Please check, when the Emitter is switched OFF, if the green activity control of the Emitter and the red Led inside the power supply unit is illuminated (see drawing page 12).

If this leds are not illuminated, please check at first, if the power supply unit is connected correct to the power network plug.

Next you may check the fuse located in the fuse holder at the backside of the power supply unit.

Before checking these please disconnect the power supply unit from the Power network and switch OFF the Emitter.

A defective fuse must be exchanged with a new 5 x 20 mm fuse.

A 5 Amp slow fuse for EMITTER I and a 8 Amp slow fuse for EMITTER II is to be inserted. (for 110 V 10 and 16 amps are used)

On the platine inside the housing of the power supply unit beside the standby- transformer a 0.25 Amp (0.63 at 110V) fuse is mounted in a black vertical fuse holder.

Inside the Emitter no fuse is mounted.

Knacking of the case during the warming phase :

Because of the different warmth dimensions from the aluminum of the cooling attachment and the acrylic of the housing, eventual 'knacking' noises may appear during the warming and cooling phases. These can be eliminated by slightly loosening the screws of the bottom plate.

Repair :

If the set is damaged, please send it in the original packaging to your dealer or import agent. Service by unauthorized persons will result in loosing your dealers' guarantee.

Please use a plastic foil before packing the amp into the carton.

Instructions to be used with the maintenance and repair set can be read under the product description among the last pages.

We hope, that these information may help you for best use of your Emitter.

The only thing that remains for us to do is, to wish you to have a good

time with the **A S R - E M I T T E R !**

Best regards,

Your ASR - Team

Drawing of the top sight of the main PCB board :

Technical Data Emitter I revision 1.1.95, Emitter II in brackets

Emitter I and II plus : Amplifier with switchable Input sensitivity, Input level control, 6 high level inputs switched with relays, one with the possibility of monitoring.

The amp can be also equipped with a microcontroller controlled relay- stepped- attenuator with a control range of 75 dB with balance, input level adjustment, Display, and Remote control.

Input stage with Fet- inputs and separate voltage stabilisation, output stage with high internal feedback, and complete made with fully complementary MOS- FET- Transistors.

Temperature depending controlling of the quiescent current of 400 (600) mA, high operation in Class A, DC amplification and Offset regulation.

At distortions higher than 1% the Emitter switches OFF with adjustable time delay as a protection for tweeter and midrange.

Separate Supply of the Voltage amplifier stages with ± 76 V, 18.800 μ F (± 100 V 37.600 μ F), Current output stage ± 60 V, 113.000 μ F, (± 78 V, 264.000 μ F), Platine 2x 120 μ copper, no capacitor used in the signal path, for the voltage buffering foil Capacitor are used.

Sinus output 20- 20.000 Hz, 0.1 % Distortion, both channels driven :

8 Ω 2x 150 Watt, 4 Ω 2x 250 Watt, 2 Ω 2x 400 W, Emitter I

8 Ω 2x 250 Watt, 4 Ω 2x 450 Watt, 2 Ω 2x 700 W, Emitter II

At loads lower than 1.5 Ohms in the bass section only low levels should be used (Position 1). Peak- Output circa Sinus x 1.5.

Distortions from 50 mW to -1dB under rated output at 1 kHz lower 0.02%, from 20- 20.000 Hz lower 0.1 %.

Weighted signal to noise ratio at 1 Watt / 8 Ω , better 90 dB Frequency range - 3dB from 0.1 Hz to 500 KHz

Input resistance 10 Ω , Amplification Pos. 1 24.5 db, Pos. 2 38.5 dB with relay stepped attenuator between 17 and 43 dB

Input sensitivity for 34,6 V AC Output (150 Watt at 8 Ω) Position 1 : 2.0 Volt, Position 2 : 0.4 Volt

Power supply unit in a separate case, with 2x 700 VA (4x 700 VA) nominal power, more than 1000 VA Pulse each Philbert- Mantelschnitt- transformers, separated transformers and rectification for positive and negative voltage and pre buffer (2 Trafos per channel), Power supply network filter for primary and secondary side. Standby transformer + 10V DC, Switch ON with relay with input current limiter.

Dimensions and weight (W x D x H) :

Emitter 150 : 420 x 410 x 180 mm, weight 16 kg

PSU- Unit : 430 x 320 x 150 mm, weight 27 kg

Emitter 250 : 570 x 440 x 230 mm, weight 40 kg

2x (one per channel) PM- Units : 430 x 320 x 150 mm, weight 27 kg

Technical improvements reserved.

Cleaning :

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

For thorough cleaning and erasing scratches, we also recommend our Intensive Plastic Cleaner and Polish Paste.

These cleaners have been used with excellent results. Instructions for use are in this page. Use of unfit materials may damage the surface of the plastic material.

The cleaning-cloths are washable, do not fade and do not cause surface damage.

The knobs are made from massive, coated brass. A cleaning solution is not required; only a soft cleaning cloth.

If the plastic material or the knobs are damaged, replacements can be obtained from your local dealer.

One more tip: When the amplifier is not in use, cover it with a soft cloth to avoid dust.

Cleaning Advice of Plastic Material

A special problem occurs when dust is left on the plastic materials for longer periods of time. The dust becomes film-like and is very difficult to remove. Regular cleaning is necessary.

Plastic material is also electro-static and dust causes the unit to look very unattractive. When cleaning, insure that additional static is not produced; this will cause more dust accumulation than before.

Some of the regular cleaners are very aggressive and may damage the plastic material. Furthermore, most normal cloths are not worthy of use with sensitive, plastic materials.

You will not damage your set when you specifically use our specially- equipped Anti-Static Cleaning Liquid and the Cleaning Cloth.

Put some liquid directly on the set and distribute it over the plate, clean it and rub it until it is dry. You may also put the liquid onto the cloth and clean it with a wet cloth.

As a result, you will be able to enjoy the beautiful appearance of your ASR-EMITTER for a very long time.