

Manual for PPS-24

1. Introduction

Dear Customer,
we would like to congratulate you to the purchase of your new plasma facility!

Please read the following operating instructions carefully and particularly the safety instructions.

This manual contains special warnings and important information that must be observed when dealing with the seam-product.

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3. Safety Instructions



1. Before commissioning you have to control the equipment regarding any damage! If there is any visible damage on the object, you are not allowed to start the equipment. Therefore please contact the manufacturer.
2. **Important!** If there is any damage on the equipment, only the manufacturer is allowed to repair it.
3. The devices are designed only for the dry interior. The use outside and in wet areas is prohibited!

4. Don't bring the plasma device into a direct contact with liquids, metals or other materials with a strong grounding potential.
5. Plasma light objects have an electromagnetic „aura“, that means, that they produce electromagnetic pollution in their immediate vicinity. Depending on the object size and the filling gas, the electromagnetic radiation field can be measured up to 3 meters around the object.
6. Plasma objects should not be touched to avoid the formation of ozone.
7. The location of the object should be chosen in that way that it is enclosed in a barrier or is completely closed. No sensitive electrical equipment should be installed within a radius of 3 meters because of the radiation it can be disturbed in the technical function.
8. People with medical devices on the body, e.g. with Pacemaker should not be close to the object and the power supplies as well.
9. The power supplies and the glass object should not be subjected to any mechanical loading remissions.
10. The devices are no toys and should not be accessible for children.
11. The power supply and the plasma power are only for a plasma facility. Therefore it's not allowed to connect any other loader to the object.
12. The connection may only be performed by a qualified electrician.
13. **Important!** By the manufacturer on a particular object defined radio frequency for an individual plasma power supply (PPS-24) should not be used without consultation with the manufacturer by another plasma objects.
14. If the HV cable loosening the plasma objects during operation, it can not to be guaranteed that brought back into operation the plasma supply still works properly.█
15. The design of the PPS-24 or the 24 volt power supply was chosen so that the aluminium housing at the same time also functions as a heat sink. This ensures maximum shelf life of the individual components through the shed construction. An external cooling fan on air is no longer necessary. The transformer heat is dissipated through the cooling jacket to the outside. This means that the aluminium case heats up, depending on the object access, a maximum of 50° - 75°C and the PPS-24 45° - 50°C to the power supply. The PPS-24, and the power supply, should thus be placed so that the air can circulate on all 4 sides of the metal.
16. The plasma supply has to be actuated with the included heat sink.
17. **Warning!** Slight risk of burns in case of touching the case – fire risk does not exist!



18. Keep a distance between several plasma properties of at least 2 meters each, so that PPS does not interfere with each other.

4. Individual Components

4.1 Power Supply

4.2 Plasma power Supply PPS-24 with heat sink

4.3 Plasma object (if relevant a plug adapter)

4.4 Remote control with light intensity control for the plasma object (optionally)

4.1 PSU

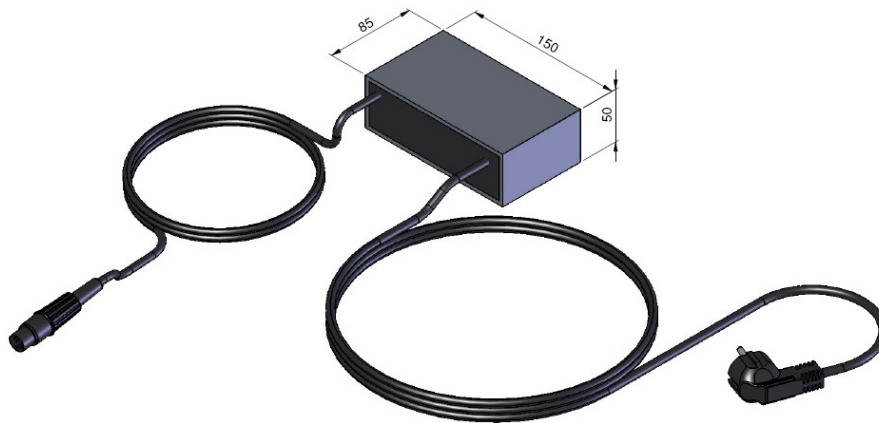
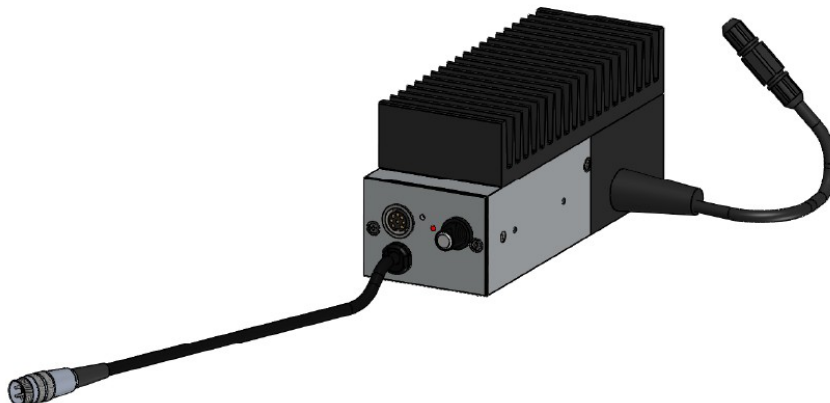


Abb1: assembly of the NT-PSU

4.2 Plasma power supply PPS-24



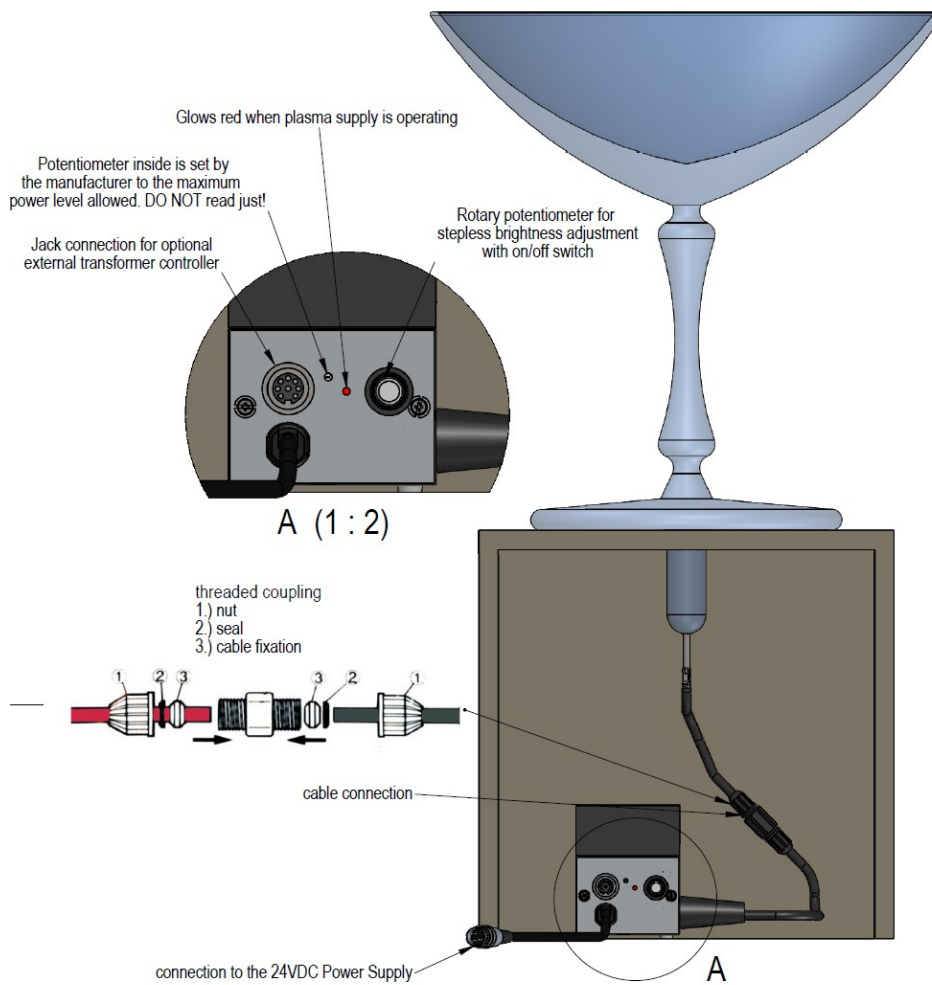


Abb2: assembly and explanation of the power supply PPS-24

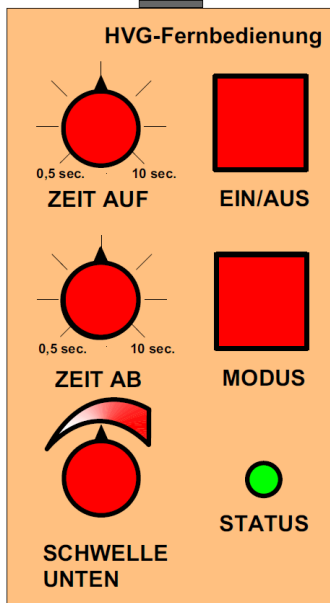
4.3 Example of the plasma facility



Abb3: object „green mamba“



4.4 Remote control with light intensity control for the plasma object (optionally)



5. Power Supply Specification

Specifications

In 110-230VAC 50/60Hz

Out 24VDC 6A 144W $t_{a25^{\circ}\text{C}}$

Input: Protection class I

Output: Protection class III PELV, IP44

At the entrance is a 1,2m long schuko mains cable installed. Users with other plug devices, which fit within the input range, can use an adapter. 24VDC output with 3-pin plug fits to the power-supply.

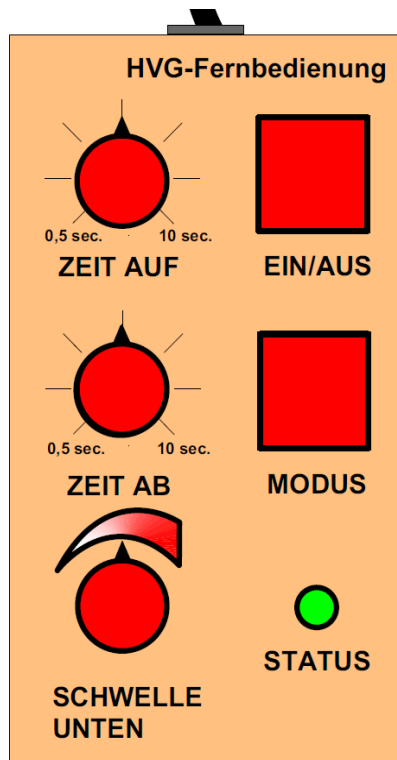
Important! In case of old European or East-European public networks, the neutral conductor has to be by-passed with the earth. This implies that an outlet connected to zero- and ground wire is put on.

6. Remote control with light intensity control for the plasma object

knob 3
(effective only in operating mode)
Setting the time (0.5-10 seconds) to reach the max. The brightness value (adjusted by control dial on PPS24)

knob 2
(effective only in operating mode)
Setting the time (0.5-10 seconds) to reach the min. Value of the brightness (set by rotary 1)

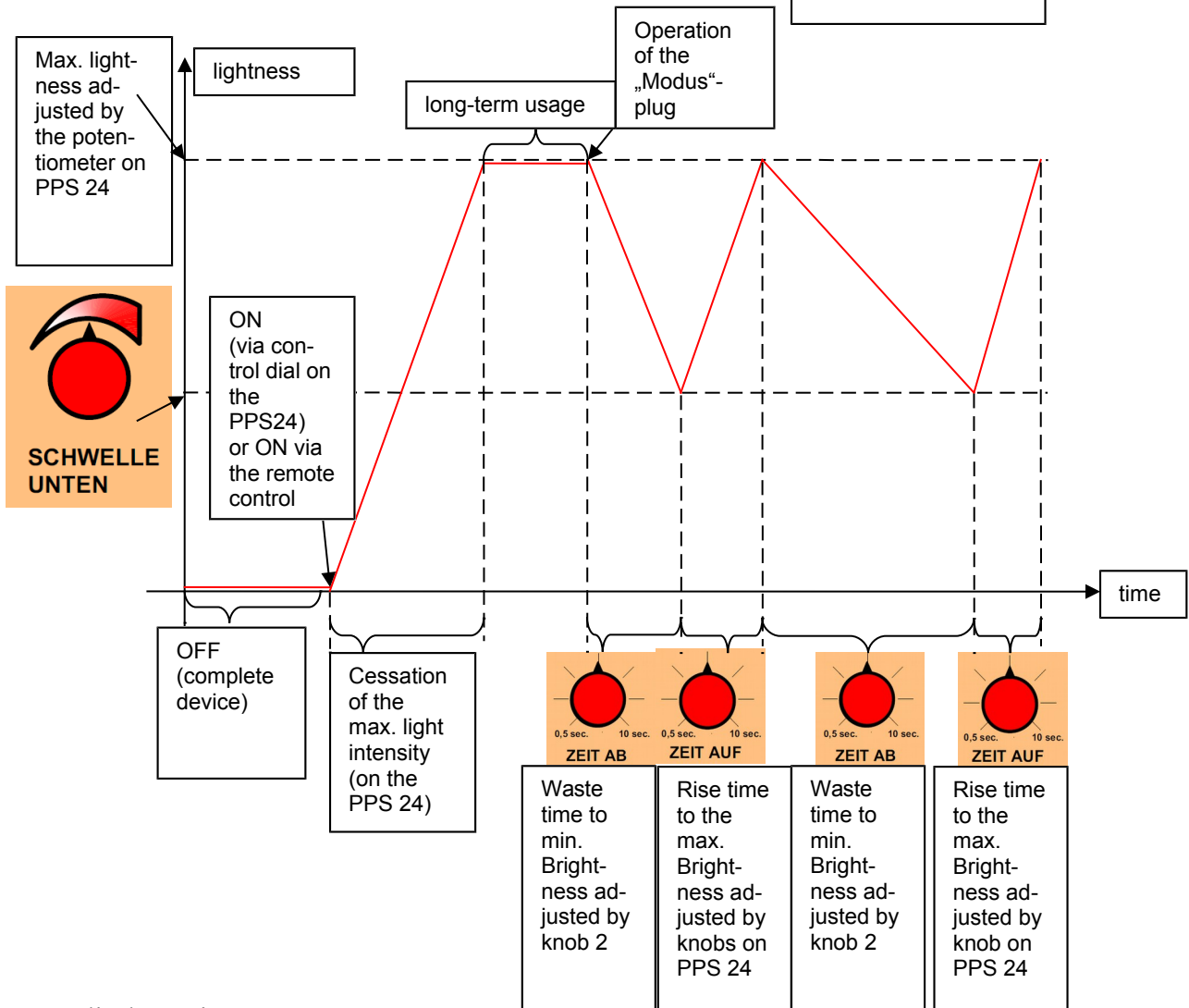
knob 1
(effective only in operating mode)
Setting the min. brightness



ON-OFF switch for PPS24

switch between long-term usage and changing usage

Green button
1 Sec ON 1 Sec OFF = changing usage
Continuous light = long term usage
0,5 Sec ON, 0,5 Sec OFF = error



The remote control is connected to the plasma supply PPS 24 with an 8-pin plug. The remote control may only be used in conjunction with the PPS24.

During long-term usage the lightness is adapted by the control dial 1.

If the mode button is pressed, the lower threshold is set using the rotary 1.

If the plasma supply is switched off with the ON / OFF switch on the remote control, it is automatically switched to continuous operation when turned back on. When the mode button is pressed, the brightness fluctuates according to the specified parameters (knobs 1-3) between the upper and lower limit back and forth.

In case of a power failure, the remote control settings are saved.

7. Plasma Power Supply Specification

In: 22-24VDC + PE (ground wire)

Out: 2-7,5kV

Frequenz: 20-70kHz

Input: Protection class III PELV

Output: Protection against dangerous body currents according to DIN VDE 0100

Input: 24VDC-plug with earth

Output: fast plug coupling for plasma object

Voltage and frequency depend on each other and are adjusted as required with 2 Potentiometer. Thereby will be set a Poti-Plasmaobject which is perched on top of the board by the manufacturer to the max. possible output. This present potentiometer is sealed by a glue dot. If this seal is injured or removed, the warranty will be expire!

The large rotary potentiometer is used for the light settings by the customer.

8. Commissioning and Activation

Before start please mind the instructions.

1. **Important** Prior start-up, make sure that the big potentiometer on the plasma power supply is locked with a counter-clockwise rotation and an audible click. The plasma object must be connected. The Power adapter unplugged.
2. Connect the high-frequency cable through the tool-less threaded coupling with the glass object cable, put the double-threaded screw caps on and check for tightness.
3. Push the Plug of the Power supply in.
4. Activate the object with a slow clockwise rotation of the potentiometer.



The plasma transformer is made of such dimensions that the customer has the opportunity to select a maximum, as well as a minimum setting of the transformer for continuous and risk free use.

If there is no function or any dis-function, please contact the manufacturer.
Like all other electrical appliances the plasma should be switched off without attendance! The device has to be connected only by a qualified electrician!

9. Warranty

The manufacturer grants a legal warranty of 24 months.

10. Manufacturer

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11. Power Supply Manufacturer

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