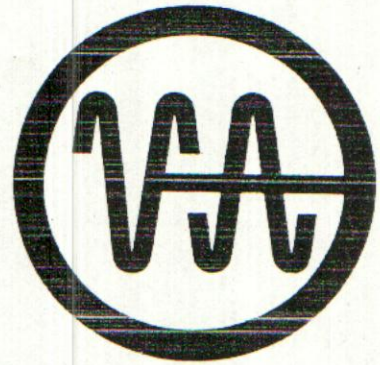




Eurovac

INSTRUCTION MANUAL



varian
vacuum
division

TSP CONTROL UNIT
MODEL No. 981-0032

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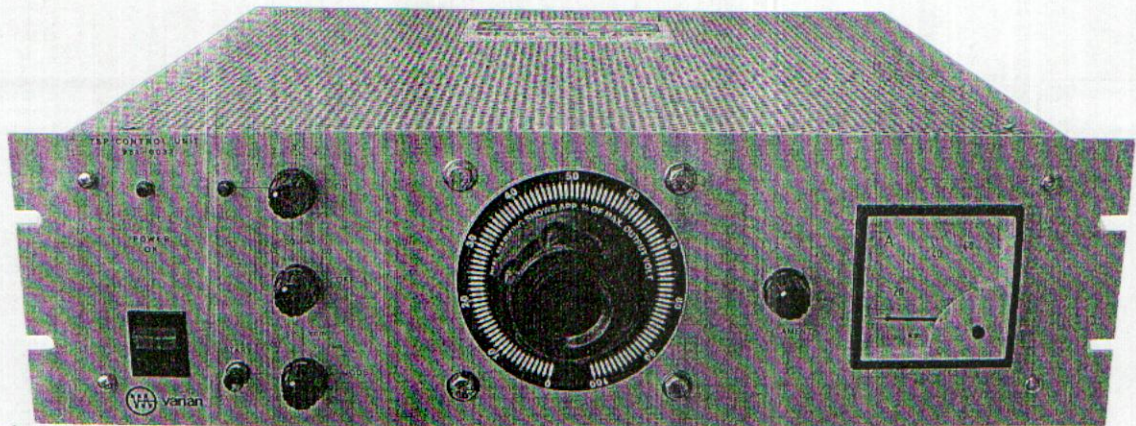
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1.0 GENERAL DESCRIPTION AND SPECIFICATIONS

The TSP Control Unit delivers high current, low voltage, AC power to titanium sources for getter pumping in a vacuum system. With this unit, an operator can control the sublimation rate either manually or with a cycle timer via the remote connector.

SPECIFICATIONS

Input Power:	230 V AC $\pm 10\%$; single phase; 50 Hz; 3 amp
Fuse F1 & F2	5 amp
Output Power:	12 V AC; single phase; 600 W, adjustable through variable auto transformer
Metering:	Current Range 0...60 amp
Timer:	ON cycle timer 1 to 4 min OFF cycle timer 15 to 60 min
Mode:	Off - Cycle - Continue - Remote
Size:	Panel Width: 19" (483mm) Height: 5.22" (133 mm) Unit Depth: 16" (406 mm)
Weight:	Operating: 15 kg Shipping: 17 kg
Country of Origin:	Sweden



Front Panel



Rear Panel

2.0 INSTALLATION

2.1 Receiving and unpacking

Carefully inspect for evident damage which may have occurred in shipment. If any damage is evident, a claim should be filed with the carrier, with one copy to EUROVAC. Save packing material.

2.2 Installation sequence

- a) Place the unit in a dry clean location and secure it. Avoid extremely high temperature above 25° C.
- b) With the main switch in OFF position, connect a grounding strap between the GROUND terminal, J 4 of the chassis and the system ground.
- c) Remove top cover by loosening seven screws.
- d) Connect the colored filament cables from the FILAMENT TERMINAL J 2 to the filament holder (Pump).

TERMINAL

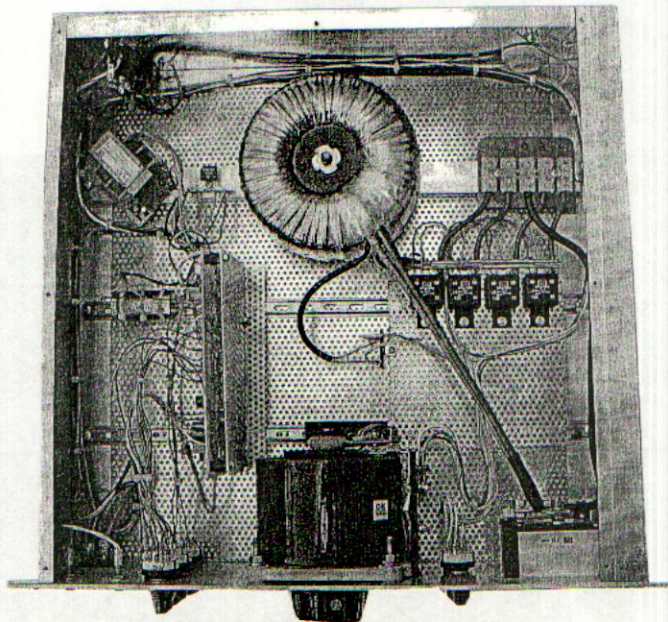
- 1 Black
- 2 Black
- 0 Red
- 3 Black
- 4 Black

FILAMENTHOLDER

- 1
- 2
- Common
- 3
- 4

- e) Tighten the cable compression nut.
- f) Reinstall top cover.
- g) Connect the power cord to the 230 V (± 10%), single phase, 50 Hz outlet J1.

2.3 Figure of interior



3.0 PRINCIPLES OF OPERATION

3.1 Controls and indicators on front panel:

- | | |
|----------------------|---|
| a) ON-OFF | This switch turns the power on, the red light should lit. |
| b) MODE | This switch has four positions: |
| 1. OFF | No filament current applied. |
| 2. CONTINUOUS | The filament current is continuously supplied to the filament. |
| 3. CYCLE | The filament current is supplied by intervals. |
| 4. REMOTE | The filament OFF-ON cycle can be externally controlled via an input on the backpanel. |
| c) CYCLE - ON | The filament is on by 1 to 4 minutes. The green light should lit. |
| d) CYCLE - OFF | The filament is off by 15 to 60 minutes. |
| e) RESET CONTROL | This momentary switch is used to reset the filament timer. |
| f) FILAMENT SELECTOR | This four position rotary switch selects any of the four filaments in the filament holder. |
| g) CURRENT SET | This control adjusts a variable transformer which supplies 0 to 60 amps to the selected filament. |
| h) CURRENT DISPLAY | This amperemeter shows the direct current supplied to the filament. |

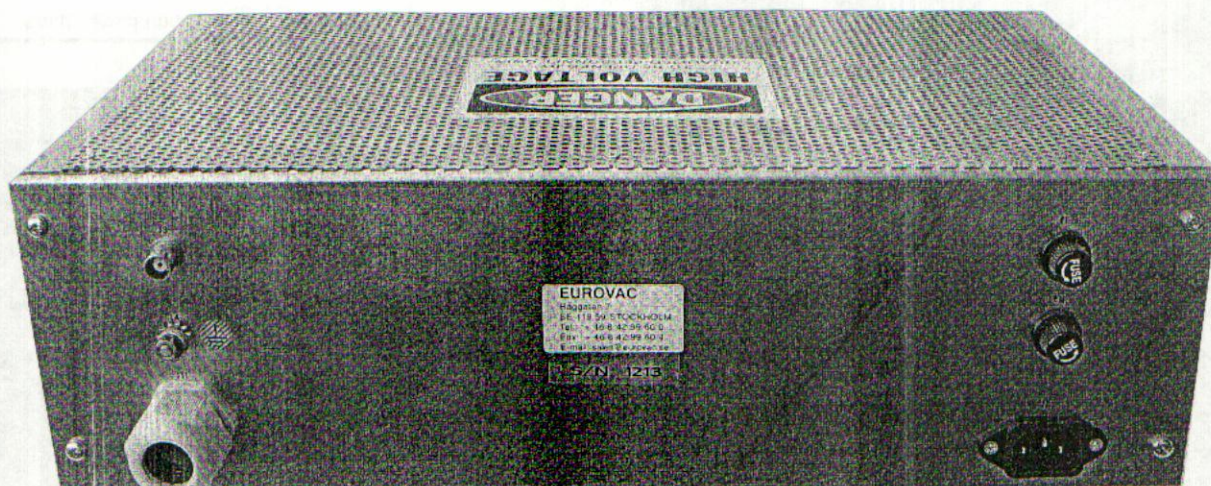
3.2 Figure of Front Panel



3.3 Controls and indicators on back panel:

- | | |
|------------------------------|--|
| a) FUSE
F 1 | This fuse protects all power from overload.
The rate is 5,0 amps. |
| b) FUSE
F 2 | This fuse protects low voltage power supply.
The rate is 5,0 amps. |
| c) CONNECTOR TERMINAL
J 2 | This 5 pin multiwire terminal is the current outlet to the filaments and located inside. |
| d) POWER CORD
J 1 | This is the input power cable from the 230 V,
50 Hz line, single phase. |
| e) GROUND TERMINAL
J 4 | Used for system ground. |
| f) REMOTE TERMINAL
J 3 | This BNC is a normally open contact with
no potential applied. Individually external
cycle times can be applied by a closing
contact. |

3.4 Figure of back panel



4.0 General Schematics of Control Unit

