OLTRONIX

# INSTRUCTION MANUAL

## DC POWER SUPPLY

## MODEL LS 122R

OLTRONIX-ELECTRONICS: Regulated Power Supplies - Converters - Amplifiers - Oscillators - Specially Designed Electronic Equipment

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# REGULATED MEDIUM VOLTAGE POWER SUPPLIES

## LS120R LS122R LS124R

### GENERAL

These 19" Rack-models are multiple voltage high stability D. C. Power Supplies for universal use, when D. C. voltage of excellent regulation is needed.

They are conservatively constructed with electron tube regulation. The amplifier heaters in the major unit, 0-500 V, are fed with regulated D. C. current providing improved regulation and low ripple.

| Model | Regulated Output | | | Ripple mV | Regulation | | Heater 6,3V 50 Hz | Meters for A, D & E | Dimensions | | | Weight |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | No. | V | mA | r.m.s. | Line mV | Load mV | | | H | W | D | kgs |
| LS120R | A | 0-500 | 250 | 1 | 40 | 200 | 6A 2A | two V+A | 132 | 19" | 350 | 15 |
| | B | -150 | 100 | 0,5 | 10 | 150 | | | | | | |
| | C | 0--150 | high imp. | | 10 | - | | | | | | |
| | D | 0-170 | 100 | 2 | 300 | 600 | | | | | | |
| LS122R | A | 0-500 | 500 | 1 | 40 | 250 | 6A 6A | two V+A | 132 | 19" | 350 | 19 |
| | B | -150 | 100 | 0,5 | 15 | 150 | | | | | | |
| | C | 0--150 | high imp. | | 15 | - | | | | | | |
| LS124RS | A | 0-500 | 250 | 1 | 40 | 200 | 6A 2A | one V/A | 221 | 19" | 348 | 17 |
| | B | -150 | 100 | 0,5 | 10 | 150 | | | | | | |
| | D | 0-170 | 100 | 1 | 300 | 600 | | | | | | |
| | E | 0-170 | 100 | 1 | 300 | 600 | | | | | | |

### OUTPUTS

A. Continuously variable in two ranges 0-230 V and 230-500 V.

B. Fixed voltage, connected to A.

C. High impedance, continuously variable, derived from B.

D. Continuously variable, isolated from A, B, C and E.

E. Continuously variable, isolated from A, B, C and D.

Binding posts are provided on the front panel, in addition a connector is located at the rear. This connector also includes terminals for remote programming.

### INPUT VOLTAGE

220 V 50-60 Hz may fluctuate between 200 V and 240 V. Other input voltage and frequency on special request.

### SWITCHES

Separate switches are used for "LINE ON" and "D.C. ON". LS120R and LS122R has one "D.C. ON" switch for all D.C. output terminals, LS124R has one switch for output A and B and one for D and E.

### REGULATION

The specifications above refer to:

a 10% line voltage variation and

a no load to full load change.

### METERS

One volt- and one amp-meter can be switched for measuring voltage and current from output A, D and E.

### ADJUSTABLE PROTECTION

The different outputs are ordinarily fused with thermal fuses, but on special order the output A can be provided with a transistorized protecting circuit adjustable within 10-100% of max. current. This feature is recognized by the letter S after the model number, as in LS 120 RS.

### REMOTE PROGRAMMING

The output A on LS 120 R and LS 122 R can be controlled externally by connecting a resistor between the connectors E and F in the rear contact. The programming constant is 200 ohms per volt, and it is possible to cover the whole voltage range without switching or other adjustment, if a reduction of the output current is permissible. This is described in detail in our manual.



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# REGULATED D.C. POWER SUPPLY

## Type LS 122R

| | | |
|---|---|---|
| INPUT: | 220V 50-60Hz (may fluctuate from 200 to 240V). | |
| OUTPUT A | Voltage: | 0-500V. Continuously variable in two ranges 0-250V and 250-500V. |
| | Current: | 0-500mA. |
| | Stability: | 40mV for a 10% change in line voltage. |
| | Regulation: | 250mV for a no load to full load change |
| | Ripple: | 1mV rms. |
| OUTPUT B | Voltage: | -150V fixed. |
| | Current: | 0-100mA. |
| | Stability: | 25mV for a 10% change in line voltage. |
| | Regulation: | 150mV for a no load to full load change. |
| | Ripple: | 0,5mV rms. |
| OUTPUT C | Voltage: | 0- -150V, high impedance derived from B. Continuously variable with a logarithmic potentiometer. |
| OUTPUT E | 6,3V 50Hz 6A. | |
| OUTPUT F | 6,3V 50Hz 6A. | |

The outputs A, B and C have a common zero and can be disconnected from the terminals by a switch on the front panel (DC ON). All outputs can be obtained at the rear as well as on the front panel. Rear connector is Cannon MS 3102 A-20-27S, suitable plug is MS 3106 B20-27P. The instrument is equipped with a time delay realy delaying A about 45 sec. after the line is switched on.

### FUSES

Primary: 4A.
Secondary: A: 500mA B: 100mA

In addition a built in 315mA fuse for the V7-V10 screen grids is located close to the rear output terminal.

## METERS

LS 122R has one voltmeter and one ammeter measuring voltage and current in output A and D.

## PROGRAMMING

Output A is remote programmable by connecting a resistor between the connectors E and F in the rear contact. The programming constant is 200 ohm per Volt.

Very important.

When programing the LS 122R will provide 0-500V in one range. The voltage control potentiometer is ganged with a variable transformer and therefore the programming range at full current is limited.

When the voltage range switch on the front panel is in 0-250V position the voltage must not exceed 250V otherwise the built in screen grid fuse will blow.

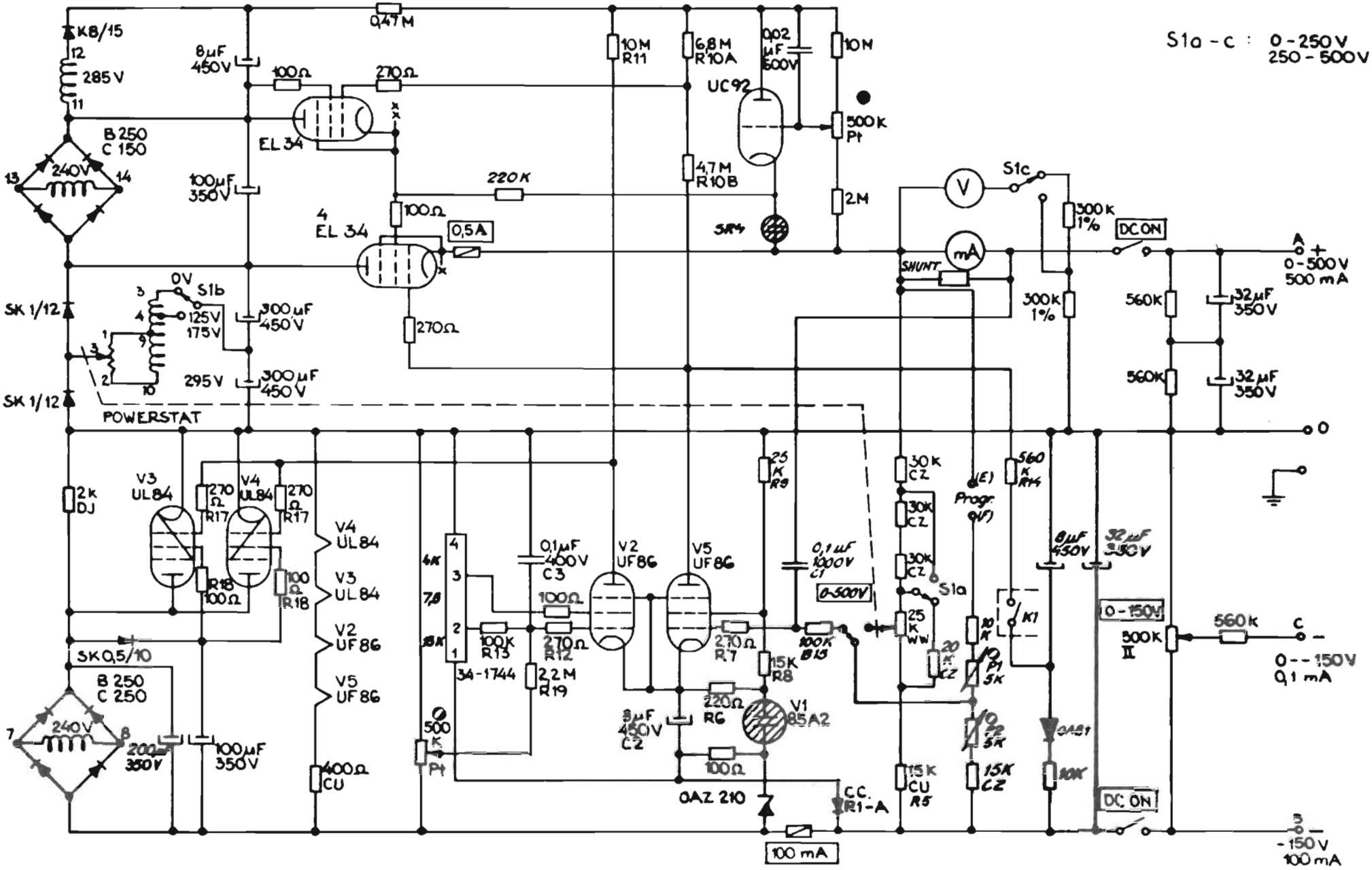
| | max current | at voltage |
|---|---|---|
| Voltage control fully clockwise | 500mA | 250V |
| and the voltage range switch | 375mA | 125V |
| in 0-250V position | 250mA | 0V |
| Voltage control fully clockwise | 500mA | 500V |
| the voltage range switch in | 325mA | 250V |
| 250-500V position | 125mV | 0V |

DO NOT OBSTRUCT VENTILATION

OLTRONIX
Vällingby
June 11th, 1963

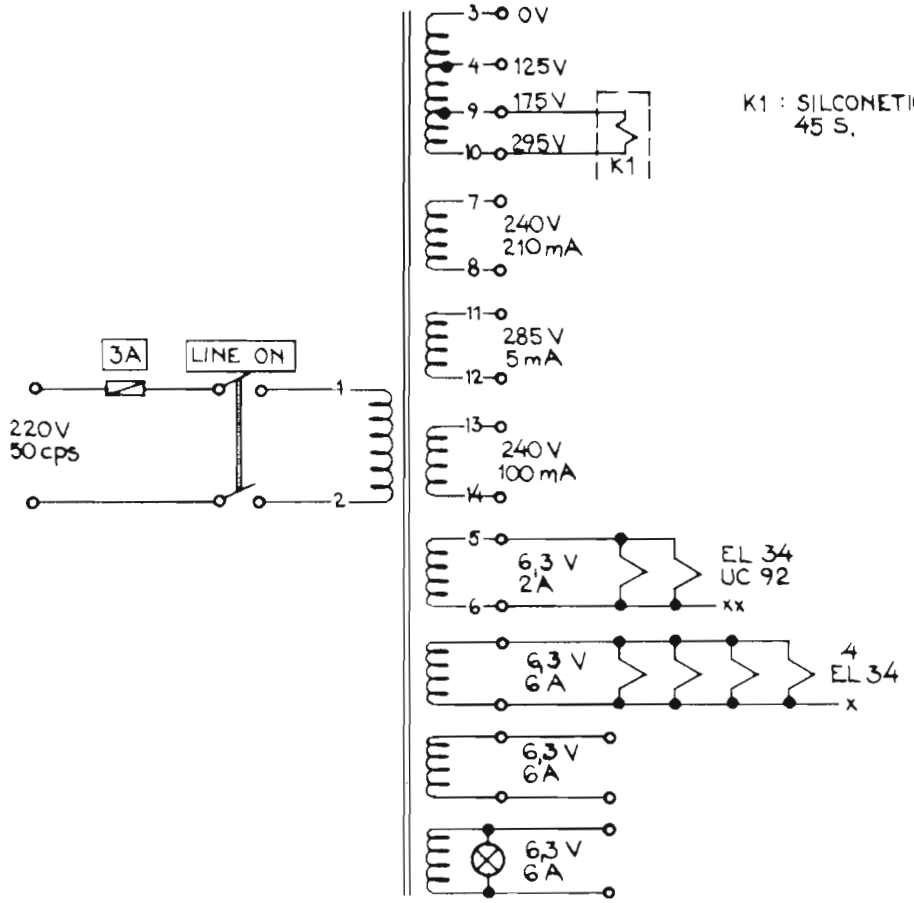
# REGULATED POWER SUPPLY TYPE LS 122R

0 - 500 V 500 mA  0 -- 150 V 0,1 mA  -150 100 mA



# TRANSFORMER CONNECTION

## TYPE LS 122R

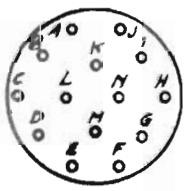



K1 : SILCONETIC RELÄ 45 S.

ELAB 15786

*REAR OUTPUT*

*CANNON MS 3102A-20-27S*




| | | | |
|---|---|---|---|
| (A) | - 150 V | (G) | – |
| (B) | 0 - - 150 V | (H) | – |
| (C) | 0 | (I) | – |
| (D) | + 500 V | (J) | ⏚ |
| (E) | + Progr. | (K-N) | 6,3V 6A |
| (F) | – | (L-M) | 6,3V 6A |

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