

ESTD. 1958



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NARANG SCIENTIFIC WORKS PRIVATE LIMITED

MAINTENANCE MANUAL

HIGH PRECISION TEMPERATURE CONTROL EQUIPMENT FOR
MEDICAL, INDUSTRIES & RESEARCH LABORATORIES



WHO GMP
compliant company



NSW-143 **OVEN UNIVERSAL &** **(SUPER DELUXE MODEL)**

www.nsw-india.com

OPERATING INSTRUCTIONS & WARRANTY CARD

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NSW-143

OVEN UNIVERSAL

(Super Deluxe Model)

NSW -143



INTRODUCTION

Ovens are generally used to dry material at desired temperature to maintain properties of the specimen. Moisture of the materials are dried / escaped by uniform heating with air circulating fan. It become uniform drying when circulation fan is fitted.

PARTS IDENTIFICATION

- | | |
|---|--|
| 1. On-Off Switch | 7. Heating Element (Inside in Ribs) |
| 2. Fan Switch | 8. Air Break Contactor / SSR |
| 3. Main Indicator | 9. Thermocouple (PT-100) (Sensor) of temperature controller (Inside) |
| 4. Control Indicator | |
| 5. Main Connecting Cord | |
| 6. Thermostat or Digital temp. indicator cum controller | |

TECHNICAL DATA

Model : NSW-143 Oven Universal (Memmert Type With Thermostat) & Super Deluxe Model (With Digital Temp . Controller /PID Controller)

Working Temp. (Max)	250°C
Working Temp. Continous	+ 5°C above ambient upto 225°C
Connected Load	1 KW to 2 KW

CONNECTED LOAD KW

Model No.	Size	KW	No of Shelves	Ltrs
OUA 1.& OUS 1	300X300X300mm	1.0	1.0	28
OUA 2.& OUS 2.	355X355X355mm	1.0	1.0	45
OUA 3.& OUS 3.	455X455X455mm	1.5	1.5	95
OUA 4.& OUS 4	455X455X605mm	1.5	1.5	125
OUA 5.& OUS 5.	605X605X605mm	2.0	2.0	224
OUA6.& OUS 6.	605X455X910mm	2.0	2.0	252
OUA 7.& OUS 7.	605X455X910mm	2.0	2.0	336

■ GENERAL

Open the case, if supplied in wooden box packing, safely remove the unit from wooden platform.

■ NOTE

The Ovens are supplied with 2 meters long cord with plug and connector. Before inserting plug into main supply of electrical power the automatic controller's knob (Thermostat) should be at zero position and also put the knob of 'On-Off' Switch at 'OFF' position. It is advisable that oven should be properly earthed from the main supply. Take out all papers, manual connecting cord from inside chamber of the Oven.

■ OPERATING INSTRUCTION

NSW – 143 Oven Universal & Super deluxe Model.

■ "ON-OFF SWITCH"

To operate the Memmert type first put on this switch at 'ON POSITION' (After using the oven, the ON-OFF switch should be put back to the OFF position).

■ MAIN INDICATOR

It is connected with the 'ON-OFF' switch. When switched on, it will glow and will remain glowing until the switch is put off. If it does not glow then main source of supply should be checked.

■ TEMPERATURE SETTING KNOB (THERMOSTAT)

The control knob is graduated from No.1 to 10 and each division indicates 25 deg.C, set oven at any desired temp 5 deg.C above ambient temperature, upto 250 deg.C mark on dial and this automatic heat control device will maintain the temp. at 100 deg.C if thermostat knob is kept at 4 position. Similarly if Kept at Position 5 temp. 125 Deg.C could be attained. Please do not open the door of the oven till the desired temp. is attained within 70 to 90 mts. depending on the size of the inside chamber of Oven (If it take more time to get the desired temp. then it is certain that voltage is below to 220 volts). The temperature will stabilize after 3or 4 cut off by thermostat.

SETTING OF DIGITAL TEMPERATURE CONTROL CUM INDICATOR (OPTIONAL)

- 1 These Ovens are suitable to work till maximum of 250 deg.C and continuous working not more than 225 Deg.C. This is supplied with temp. Controller cum indicator which shows (S.V.) set value of your temp. (In Green) and (P.V) process value which is (In Red) current running temp.
- 2 To set the desired temp. suppose 150 Deg.C, you need to use arrow keys on extreme right up & down keys. Other keys are used to change the settings of the controller which is already done by our company for easy use. You can also lock the temp. if your desired temp. is always fixed. For other settings of the controller. Kindly contact the company or ask for user manual of Digital temperature controller.
- 3 One your mains are on (Red Indicator Is On) you can set the temp. by up arrow key. The door of the Oven should not be opened and also do not disturb the keys of Digital Controller until the Desired temperature is attained.
- 4 It should attain the temperature 150 Deg. C. within 70-90 minutes, it may take more time if the voltage of the main supply is incorrect. The progress in the heating up of the oven can be observed on the Digital Controller.
- 5 **CONTROL INDICATOR:** It is connected to temperature controller and shows the working of the thermostat / digital temp. Controller.
- 6 **VENTILATION:** Two ventilator are provided on the both sides near the top of the oven so that moisture from the inside chamber can come out. Half of the each ventilator should always be kept open when the Oven is in use.
- 7 **SHELVES:** The Oven are supplied with 2/3 perforated shelves and are so designed that the shelves could be adjusted accordingly to the requirement to obtain better efficiency in the working chamber. The material for testing or baking should be kept in such a way that it should not cover more than 75% space inside the Oven.

■ IMPORTANT INSTRUCTION

- 1 Do not set working temperature above 225 Deg.C. It has Maximum temp. of 250 Deg.C
- 2 Acidic/flammable material should not be kept inside Oven for Drying.
- 3 Oven should not be filled with material more than 75% space of inside chamber.
- 4 Oven should be properly earthed. (Oven is supplied with 3 pin Plug).
- 5 Any repair job should be done at power off from the power source.
- 6 Frequent door opening should be avoided while in operation.

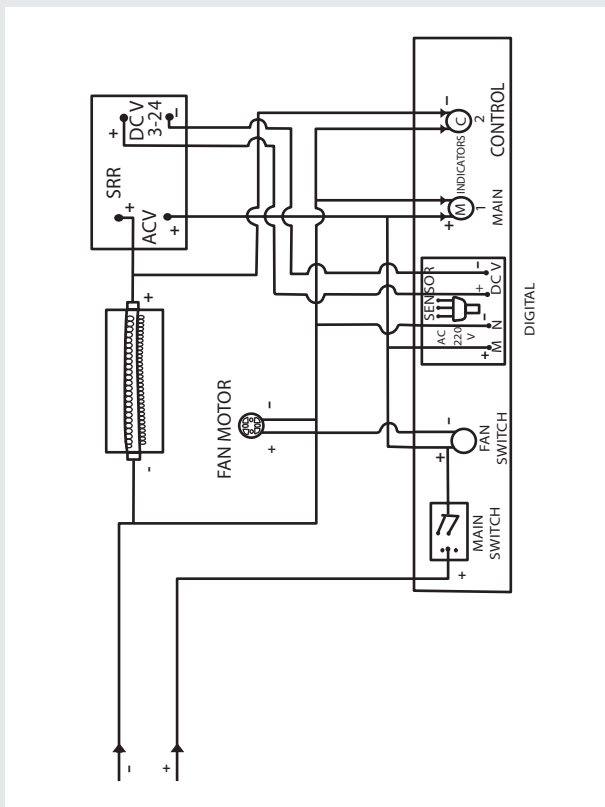
■ TROUBLE SHOOTING

- 1 Main indicator does not glow when - power is connected-check main source of power.
- 2 Main indicator glows-Digital temperature controller displays 1- PT-100 sensor is defective.
- 3 All the control and every indicators are glowing but heating is slow check-voltage.
- 4 In thermostatic Oven, control indicator does not glow / glows continuously, Thermostat is defective.

In case you feel any kind of difficulty please do not hesitate to contact us. We shall be pleased to assist you without any obligation.

NSW-143 OVEN UNIVERSAL & (Super Deluxe Model)

Diagram



TERMS OF WARRANTY

ESTD. 1958



NARANG SCIENTIFIC WORKS PVT. LTD. guarantee the high quality and workmanship of each unit for a period of one year subsequent to the date of delivery by the company. During this period, faulty material will be replaced free of charge. This guarantee does not extend to components that are subject to wear and tear in the course of normal operation or due to improper treatment /maintenance as per instructions not followed.

- 1 The manufacturer is only responsible for effects on the safety, reliability and the performance of the instrument.
- 2 Installation, additions, adjustments, modifications or repairs are carried out by personnel authorized by the manufacturer.
- 3 The electrical installations within the room concerned satisfy the requirements laid down by ISO/CE.
- 4 The appliance is used in full accordance with the instruction manual which is solely a guide and no substitute for professional training. The safe and effective use of this product largely depends on the skill of the operator. We are not liable for any damages due to mishandling or improper and unauthorized use.
- 5 The company reserves the right to change technical specifications, designs without prior notice.

Note: In case you feel any kind of difficulty please do not hesitate to contact us. We shall be too pleased to assist you without any obligation. Our Instruments are guaranteed for 12 months from the date of purchase.

WARRANTY CARD

Bill No. _____

Stamp:

Serial No. _____

Date of Purchase _____

Dealer Name _____