

ESTD. 1958



Caltan[®]

Manufacturer & Exporter

60
Years
of Success

NARANG SCIENTIFIC WORKS PRIVATE LIMITED

MAINTENANCE MANUAL

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



WHO GMP
compliant company



NSW-152

**CALTAN B.O.D. INCUBATOR
LOW TEMPERATURE INCUBATOR
(DELUXE & SUPER DELUXE MODEL)**

www.nsw-india.com

OPERATING INSTRUCTIONS & WARRANTY CARD

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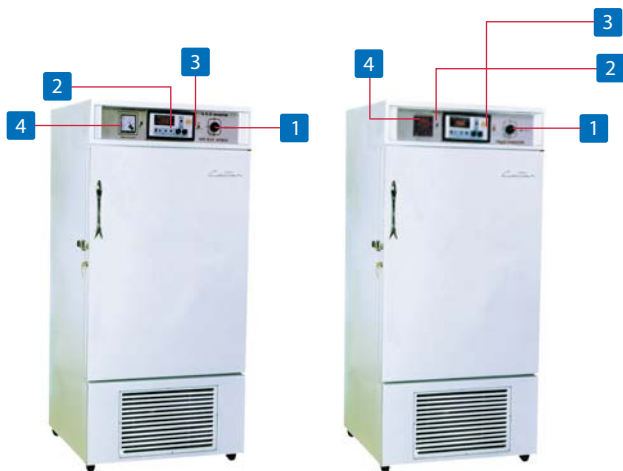
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NSW-152

CALTAN B.O.D. INCUBATOR

LOW TEMPERATURE INCUBATOR
(DELUXE & SUPER DELUXE MODEL)

NSW -152



INTRODUCTION

This type of incubator is used in biology, botany, virology, Oceanography, Water pollution, Sewage, Agriculture and Food research laboratories etc. It provides a wide range of conditions for studies of Synthesing organisms. Temperatures are attainable within the cabinet, enabling the user to study the growth of organisms under tropical or temperature and Summer or winter conditions, independent of ambient temperature. Designed to maintain constant temperature for use in making standard B.O.D.

PARTS IDENTIFICATION

1. On-off switch.
2. Microprocessor digital temperature controller cum indicator.
3. Main indicator.
4. Voltage indicator (electronic) in super deluxe model.
5. Control indicator
6. Condenser.
7. Condenser fan motor.
8. Air circulating fans 2nos (one for heating & one for cooling).
9. Sealed CFC free hermetic compressor.

TECHNICAL DATA

Model	NSW - 152
Working Pressure	+ 5 °C to 50 °C
Design Pressure	Deluxe 1.0 °C / Super delux 0.5 °C
Working Temperature	200 - 220 V.A.C. 50 Hz
Electric Supply	1 to 2 kw.
Connected Load	4.0, 6.1, 10.0, 12.0 & 15 cuft.

GENERAL

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

OPERATING INSTRUCTION

NSW - 152 CALTAN B.O.D. INCUBATOR (Low Temperature Incubator)

The B.O.D. Incubator consists of two primary section a refrigeration and other heating system. Both are controlled by Electronic digital Temperature controller cum indicator.

WE HAVE 2 BASIC MODEL OF B.O.D. INCUBATOR :

1. B.O.D. Incubator - Deluxe Automatic.
2. B.O.D. Incubator - Super Deluxe Automatic.

Before putting the equipment "ON" all switch of control panel should be kept at "OFF" position.

Above B.O.D. Incubator are provided with optional arrangements also and all the controlled switched and indicators are provided on the control panel itself. You have to operate the equipment as per models and optional arrangement which you have purchase.

■ HOW TO SET TEMPERATURE IN DELUXE AUTOMATIC MODEL

Simply you have to switch on the B.O.D. Incubator and set the required temperature as mentioned above from +5 °C 50 °C.

■ HOW TO SET THE ELECTRONIC TEMPERATURE IN SUPER DELUXE AUTOMATIC

Controller is having temperature display system. First of all "ON" the switch of controller and press the switch near the "ON-OFF" switch it will display the ambient temp. say 30 °C and you have to set the temp. 40 °C then press the knob of "SET" and set the temp. by coarse knob. It will come near to 40 °C then adjust slowly by fine knob then you can set it 40 °C. Now again press the knob of "SET" now leave the knob of "SET" it will show set temp. at 40 °C and you will get the desired temp. In the variation of + 0.5 °C. Kindly refer to operational manual of digital controller supplied with B.O.D. incubator.

■ NOTE

If the equipment is switched "OFF" and Switched "ON" again within a very short period of time. The compressor may not operate immediately. This is normal and the equipment will start again automatically after a period of time.

■ OPTIONAL ARRANGEMENTS HOW TO WORK WITH HUMIDITY AND LIGHTING ARRANGEMENT

STEP 1. Connect the water inlet pipe to the reservoir provided at the back side of the unit.

STEP 2. Switch ON the Main Switch (Rotary Switch at the side of the control panel). Supply is now available to the panel but none of the functions are ON.

FUNCTION 1: Temperature setting on Digital Temperature Indicator Controller. Press switch on. Now the Controller is ON.

STEP 3. To Set up, Press Set Temperature switch, Turn the corresponding Coarse and Fine Knob for the required Temperature. On completion press Set/Temp. switch to Temp. position (knob fully put). The Temperature is now being controlled to set condition.

NOTE: When the lights come ON the Digital Temperature Indicator Controller would take some time to achieve the desired temperature setting.

STEP 4. FUNCTION 2.1

ILLUMINATION AND TIMER:

Illumination by Four fluorescent Tube fitted two on both sides externally with separate on/off switches. Make sure these switches are ON.

24 Hrs. Timer is provided at the side on top of the B.O.D. which will control the lights for day and night cycles.

STEP 5. FUNCTION 3

RELATIVE HUMIDITY CONTROL:

Check the water supply to the reservoir. It should be a continuous water supply to the reservoir when the humidity is ON.

Put the Humidity switch ON (Switch is provided in the control panel) Set the desired humidity with the HUMIDISTAT fitted inside the chamber. A compressor provided at the bottom of the unit is ON & Start spraying water in the chamber for required humidity. The Humidity indicator on the control panel indicates when the compressor is ON.

HOW TO OPERATE 0-24, 24HRS. / 7 DAYS PROGRAMMED TIMER

Kindly refer manual attached.

■ IMPORTANT INSTRUCTION

1. B.O.D. Incubator should not stand in direct sunlight or close to high temperature heat source such as boilers. controlled heating equipment like Oven. Hot Plate etc.
2. Such equipment should be located in well ventilated dry space.

Position the equipment in the location selected, ensuring heat from the condenser at the rear bottom can be easily disbursed. We recommend that you should allow a minimum 6" distance between the rear of B.O.D. Incubator and the wall.

Ensure that the equipment stands on level and firm on the floor.

ELECTRICAL INSTRUCTION

The equipment is equipped with 3 pin earthed plug for your protection against electrical shock and this should be plugged directly into a properly earthed pin socket. It is also recommended that no extension cord should be used for your equipment. The use of separate fuse circuit directly from meter panel is recommended. B.O.D. Incubator is fitted with 3 step voltage stabilizer. To work between 200-220 V.A.C. 50Hz.

REGULAR MAINTENANCE OF THE EQUIPMENT

- 1 Clean the condenser fins and tubing of the cooling unit with the brush once in a month.(to be assessed by removing the grill in the front side bottom of the B.O.D. Incubator).
- 2 Clean the water reservoir once in a month if B.O.D. Incubator supplied with Humidity control.
- 3 Ensure proper ventilation to B.O.D. Incubator to maintain efficient Refrigeration System.

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.

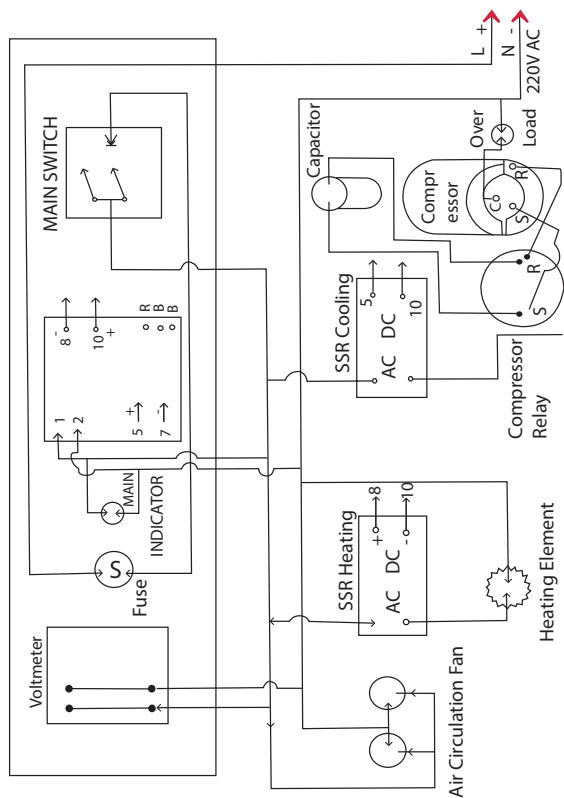
Incase you feel any kind of difficulty please do not hesitate to contact us. We shall betoo pleased to assist you without any obligation.

NSW-152

CALTAN B.O.D. INCUBATOR

(LOW TEMPERATURE INCUBATOR) DELUXE & SUPER DELUXE

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 _____