

4-INS-260



INSTALLATION, OPERATION AND CARE MANUAL

REMEMBER TO COMPLETE THE ONLINE WARRANTY REGISTRATION TO RECEIVE YOUR FULL TWO YEAR WARRANTY.

WARRANTY

All Scientific equipment comes with a standard ONE year warranty, The 1 Year Extended Warranty is only valid for customers who have registered their warranty online at www.scientific.co.za within the first year after making their purchase.

MANUFACTURED
IN SOUTH AFRICA



www.scientific.co.za

REGISTER ONLINE TODAY

- o Register your warranty on-line at www.scientific.co.za today and learn how to get the best out of your Scientific product.

NO WEB ACCESS?

- o If you do not have access to the Web, register by completing this form and Email it to the Scientific head office in South Africa. Email: sales@scientific.co.za

ONLY COMPLETE IF YOU DO NOT HAVE WEB ACCESS

Company _____

Name _____

Surname _____

Telephone _____

Cellphone _____

Email Address _____

Country _____

Postal address _____

Scientific products purchased _____

Product Code (see box label) _____

Serial number (see back of machine) _____

INTENDED USE

- | | | |
|---------------------------------------|--|---|
| <input type="checkbox"/> Agriculture | <input type="checkbox"/> Genetics | <input type="checkbox"/> Pharmaceutical Physics |
| <input type="checkbox"/> Automotive | <input type="checkbox"/> Industrial | <input type="checkbox"/> Power Generation |
| <input type="checkbox"/> Biochemistry | <input type="checkbox"/> Medical | <input type="checkbox"/> Special Metals |
| <input type="checkbox"/> Botony | <input type="checkbox"/> Microbiology | <input type="checkbox"/> Sugar |
| <input type="checkbox"/> Chemistry | <input type="checkbox"/> Mining | <input type="checkbox"/> Water |
| <input type="checkbox"/> Cosmetics | <input type="checkbox"/> Nuclear | <input type="checkbox"/> Zoology |
| <input type="checkbox"/> Electronics | <input type="checkbox"/> Paper/Packaging | <input type="checkbox"/> Other (Specify): _____ |
| <input type="checkbox"/> Food | <input type="checkbox"/> Petrochemical | _____ |



ALL SCIENTIFIC EQUIPMENT COMES WITH A TWO YEAR WARRANTY ON COMPONENTS AND DEFECTIVE WORKMANSHIP - Ts & Cs APPLY.



ORBITAL SHAKING INCUBATOR



**INSTALLATION OPERATION AND CARE OF
ORBITAL SHAKING INCUBATOR
MODEL: 260 R01**

UNPACKING

Unpack the product and check for any damage incurred during transit. This should be reported to the responsible carrier, railway or postal authority, and a request for a damage report should be made.



THESE INSTRUCTIONS MUST BE FOLLOWED FOR US TO GUARANTEE OUR FULL SUPPORT OF YOUR CLAIM FOR PROTECTING AGAINST LOSS FROM CONCEALED DAMAGE. THE FORM FOR FILING SUCH A CLAIM WILL BE PROVIDED BY THE CARRIER.

PRODUCT DESCRIPTION

- This heavy duty orbital shaking incubator has been developed to accommodate an 8kg load.
- The unit features an analogue setting knob and digital indicating meter showing rotational speed. Speed control is microprocessor controlled. A 120 minute timer with infinity setting is fitted.
- The temperature operates between ambient +7°C and 60°C. and is controlled by PID electronic control with digital indication. An axial fan ensures even circulation.
- The shakers are quiet running and belt driven via a cast iron eccentric drive platform. Shaking platforms are supplied with four clamping bars and a rubber mat. There is a built in fuse which can be reset via a push button located on the rear of the unit. Shaking speeds are variable from 10 to 200 rpm. Stroke is 25mm.
- The hinged lid is fitted with a plexiglass window for viewing samples. A microswitch is activated, stopping the shaking platform when the lid is opened.

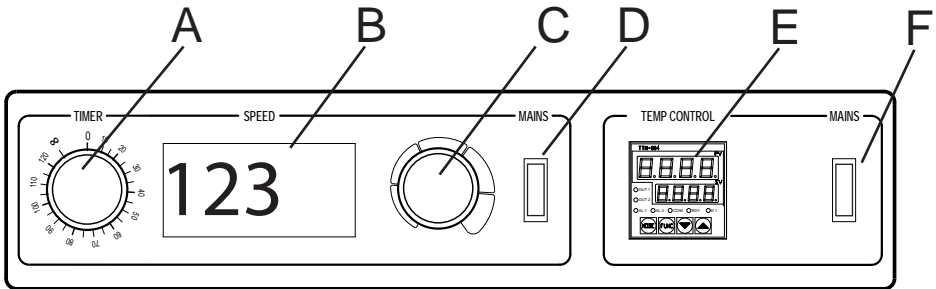
GENERAL OPERATING GUIDELINES

- Do not overload the platform. Where possible distribute the load evenly.
- Start the unit with the speed setting on a low position to avoid sudden movement and possible spillage.

GENERAL INSTALLATION AND OPERATION INFORMATION

1. Position the unit on a stable bench.
2. Ensure that the unit is at least 100mm-200mm from the wall and other equipment to ensure that the hinged lid does not come in to contact with any objects.

MODEL 260 ORBITAL SHAKING INCUBATOR 8kg

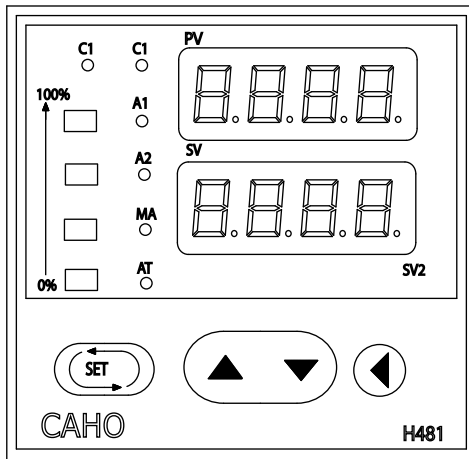


CONTROL PANEL

1. Ensure that the power plug of the unit is plugged into the mains power socket.
2. Place the sample on the platform and secure with clamping bars by loosening the clamping knobs, positioning bars and then re-tightening the clamping knobs.
3. Select the cycle time required by turning knob "A" clockwise or alternatively turn knob counter clockwise to the ∞ (infinity) position. The infinity position will ensure that the shaker remains on continuously. Close the door.
4. Press the mains switch "D" to the on position. The switch will now illuminate indicating there is power to the unit
5. Select the rotation speed required by turning knob "C". The rotation speed will be indicated on the digital display "B".
6. To set the operating temperature, first press mains switch "F". The switch will now illuminate indicating there is power to the controller. Use controller "E" to set the temperature. The unit will operate in the range ambient $+7^{\circ}\text{C}$ to 60°C . See below for specific instructions.

OPERATING INSTRUCTIONS OF ELECTRONIC TEMPERATURE CONTROLLER

1. The temperature controller has four buttons on the front face. These are used to set the required temperature, initiate Auto-Tuning, and enter any adjustments to the program.
2. To set the required temperature, ensure that the unit is connected and switched "ON" in the appropriate manner.
3. The top display (red) shows the actual temperature (PV) in the unit, the bottom display (green) is the setting temperature (SV) and must be adjusted to the required temperature. To adjust the setting, press the button that points to the left. This action will start one of the digits in the lower display flashing. By touching this button again, the flashing will move to the left. Once the flashing red display is on the number that needs to change, use the UP/DOWN buttons to attain the required settings.
4. By moving the flashing digit left or right the desired temperature required can be set. Once the correct temperature has been entered, press SET to enter the setting.





WARNING

Burn Hazard.

Do not touch hot, liquid or heating surfaces while equipment is heating or operating

Hot surfaces and liquid can burn skin. Allow the hot surfaces to cool before handling

CLEANING

BEFORE CLEANING THE UNIT, DISCONNECT THE POWER PLUG FROM THE MAINS SOCKET!

- Clean the outside of the unit using a damp cloth with soapy water.
- Under no circumstances should steel wool be used.
- Do not clean with organic solvents.
- Do not submerge in water or subject the unit to water spray.



CLEAN THE UNIT WITH A DAMP CLOTH AND SOAP. AVOID THE USE OF DETERGENTS CONTAINING ABRASIVE SUBSTANCES. DRY CAREFULLY AFTER CLEANING. DO NOT USE PRODUCTS CONTAINING AGGRESSIVE CHEMICALS, ACIDS OR PRODUCTS WITH CHLORINE TO CLEAN.



WARNING

Electric Shock Hazard.

Keep water and other liquids from entering the inside of the equipment. Liquid inside the equipment could cause an electrical shock

Do not spray water or cleaning products. Liquid could contact the electrical components and cause a short circuit or an electrical shock. Do not use equipment if power cord is damaged or has been modified

SAFETY

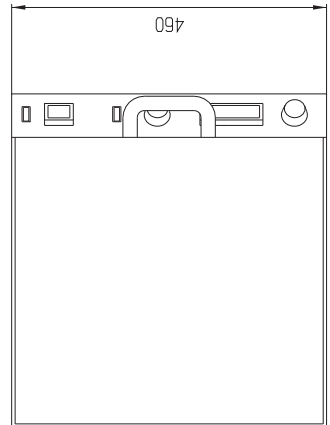
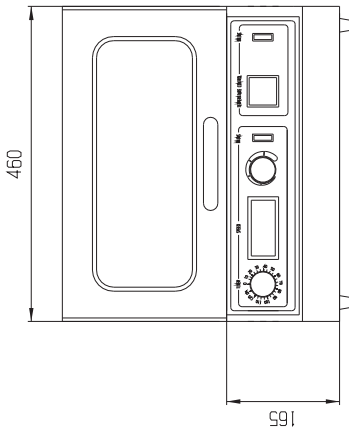
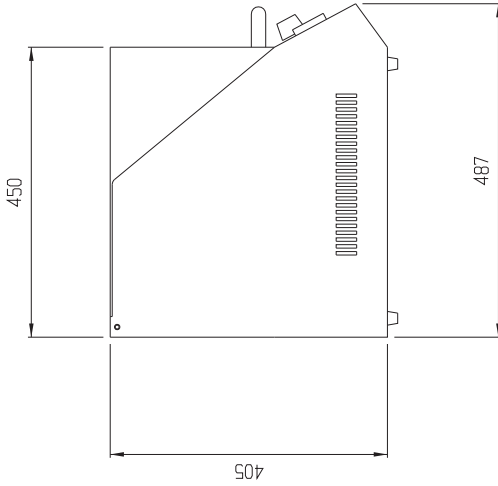
READ ALL INSTRUCTIONS BEFORE USE. FAILURE TO FOLLOW THESE PRECAUTIONS COULD RESULT IN INJURY TO YOURSELF AND OTHERS

1. Use the shaking incubator on an individual 15A mains outlet only. **DO NOT OVERLOAD THE CIRCUIT.**
2. Ensure that the equipment and the power supply cord does not come into contact with hot surfaces.
3. This unit is only to be used by properly trained laboratory staff.
4. If the supply cord is damaged, it must be replaced with a new cord assembly available from the suppliers agent.
5. Use only earthed outlets matching the serial plate voltage.
6. Have equipment installed by a qualified personnel in accordance with local codes and ordinances.
7. Use equipment in a flat level position.
8. Do not operate if equipment has been damaged or is malfunctioning in any way.
9. These units are designed to run only on alternating current (A.C.) **DO NOT CONNECT TO DIRECT CURRENT (D.C)**

SAFETY RECOMMENDATIONS

1. When loading and unloading the shaker platforms, turn the speed control to a slow setting and switch off the mains switch.
2. Be aware of the range of movement of the platform and keep objects clear of the shaker before switching on.

**POSITIONING DIAGRAM
ORBITAL SHAKING INCUBATOR
MODEL: 260**



ELECTRICAL CONNECTION INFORMATION

MODEL	DESCRIPTION	VOLTS (V/Hz)	POWER (WATTS)	CAPACITY kg	PLATFORM SIZE (mm)
260	ORBITAL SHAKING INCUBATOR	230/50	575	8	400 x 300



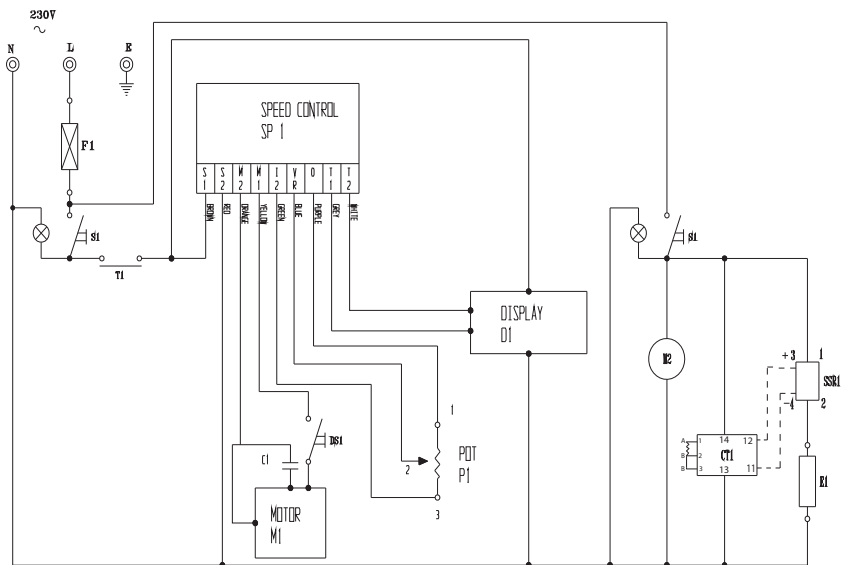
THE CONTROL COMPARTMENT OF THIS UNIT CONTAINS DANGEROUS VOLTAGES. MAINTENANCE AND SERVICING REQUIRING THE REMOVAL OF ANY PANELS OR COVERS SHOULD BE DONE BY QUALIFIED SERVICE PERSONNEL ONLY.



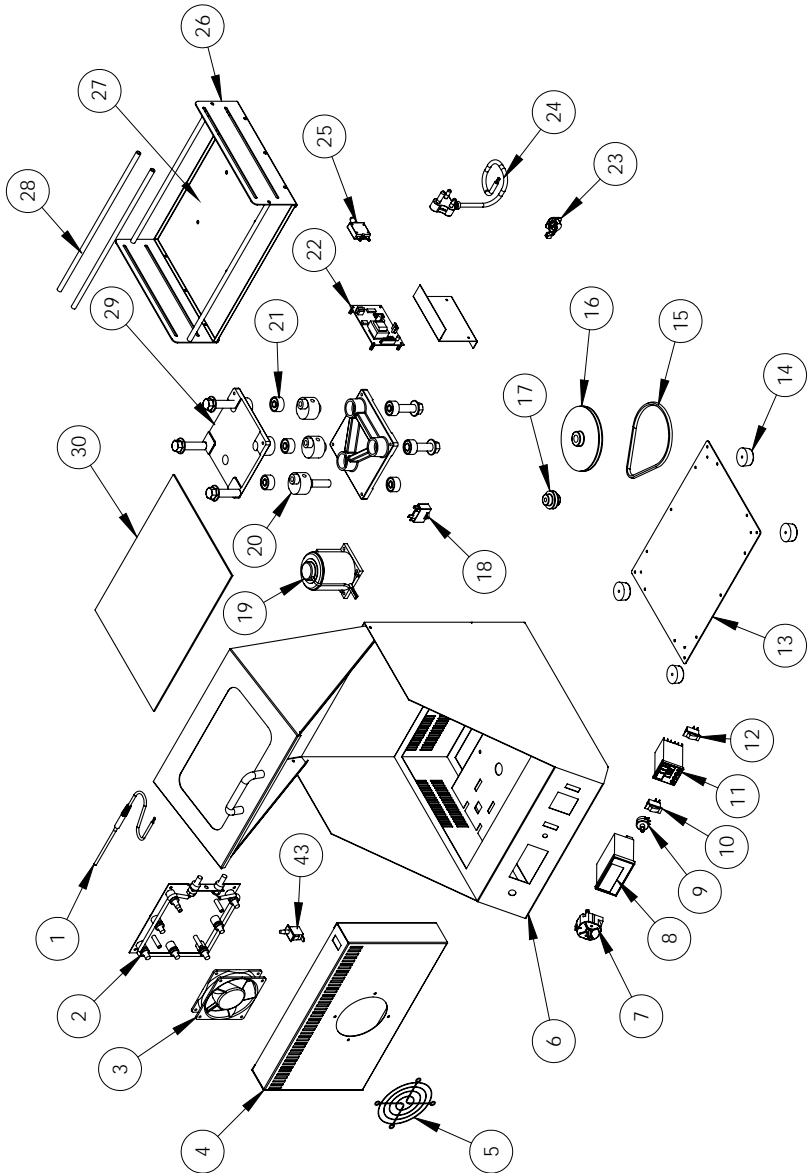
IT IS ESSENTIAL TO MAKE SURE THAT THE INCOMING VOLTAGE IS THE SAME AS THE RATED VOLTAGE OF THE OF THE UNIT AS FOUND ON THE SERIAL PLATE. THE SERIAL PLATE IS LOCATED AT THE REAR OF THE UNIT ADJACENT TO THE INCOMING CABLE ENTRY.

WIRING DIAGRAM
MODEL: ORBITAL SHAKING INCUBATOR
MODEL CODE: 260 R01

LEGEND	DESCRIPTION	PART NUMBER
M1	MOTOR	1-MOT-261
C1	CAPACITOR	1-CAP-15
F1	INLINE FUSE	1-RF-261
S1	MAIN SWITCH	1-17TAF
P1	SPEED CONTROL POTENTIOMETER	1-SCP-261
D1	SPEED INDICATOR	1-SI-261
SP1	SPEED CONTROL	1-SC-261
CT1	CONTROL	1-TCD-103
SSR1	SOLID STATE RELAY	1-SSR-40A
E1	ELEMENT 7W 230V	5-7W-260
DS1	DOOR SWITCH	1-DS-355
M2	MOTOR	1-MOT-261
T1	2 HOUR TIMER	1-2HR-TIMER



**EXPLODED DIAGRAM
ORBITAL SHAKING INCUBATOR
MODEL: 260 R01**



MODEL: ORBITAL SHAKING INCUBATOR
MODEL CODE : 260 R01

Part No.	Description
1	PT 100 PROBE
2	ELEMENT
3	FAN MOTOR
4	FAN COVER
5	FAN PROTECTION COVER
6	SHAKER BODY
7	2 HOUR TIMER
8	SHAKING SPEED INDICATOR
9	SPEED CONTROL POTENTIOMETER
10	SWITCH
11	TEMPERATURE CONTROLLER
12	SWITCH
13	BOTTOM COVER
14	RUBBER FOOT
15	V BELT
16	SHAKING PULLEY
17	MOTOR PULLEY
18	MOTOR CAPACITOR
19	SHAKING MOTOR
20	CAM
21	CAM TABLE BEARING
22	SHAKING MOTOR PC BOARD CONTROL
23	CABLE GRIP
24	POWER CORD
25	INLINE RESETABLE FUSE
26	SIDE PANEL
27	TRAY
28	SHAKER CROSS BAR
29	SHAKER MOUNTING TABLE
30	3mm RUBBER MAT

LIMITED WARRANTY

The manufacturer guarantees that this unit is free from defect in materials and workmanship when it leaves the factory and undertakes to replace or repair the unit if it proves defective in normal use or during servicing for a period of 1(one) year. The date of original installation and is for the benefit of the original purchaser only. The liability under this warranty is limited to repairing the defective unit or any part of the unit provided it is sent carriage paid to an authorized dealer. All other Warranties ,expressed or implied , statutory or otherwise, including without limitations any implied Warranty of Merchantability or fitness for purpose are excluded .The Seller shall in no event be liable for direct,indirect or consequential damages in connection with the products.

This unit is at all times to be used according to the instruction manual and for its normal purpose.

This Warranty is not effective if damage occurs because of accident, carelessness,improper installation,lack of proper set-up,supervision when required or if the equipment is installed or operated in any manner contrary to the installation and operating instructions. In these cases,repairs will be made at a reasonable cost. Work performed by unauthorized personnel or unauthorized service agencies voids this Warranty.