

4-INS-105



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





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

REGISTER ONLINE TODAY

- 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?

- 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.

MAGNETIC STIRRER/HOT PLATE

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.



**INSTALLATION OPERATION AND CARE OF
MAGNETIC STIRRER/HOT PLATE
MODEL: 105**

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.

GENERAL INSTALLATION AND OPERATION INSTRUCTIONS

1. Position the magnetic stirrer on a level surface in a area where drafts and rapidly changing ambient conditions are not present.
2. Leave at least 200mm clearance all around the unit to allow for ventilation and access.

OPERATING INSTRUCTION

1. START-UP

Place the vessel containing the liquid to stirred on the top of the magnetic stirrer. NOTE: vessel must be non-magnetic. Drop the stirrer bar into the vessel.

2. SETTING THE STIRRER SPEED

Switch on the unit via the switch located on the left side. Adjust the speed control knob (A) until the desired speed is reached. Turning the knob clockwise will increase the speed of the stirrer bar.

3. SETTING THE HOT PLATE TEMPERATURE.

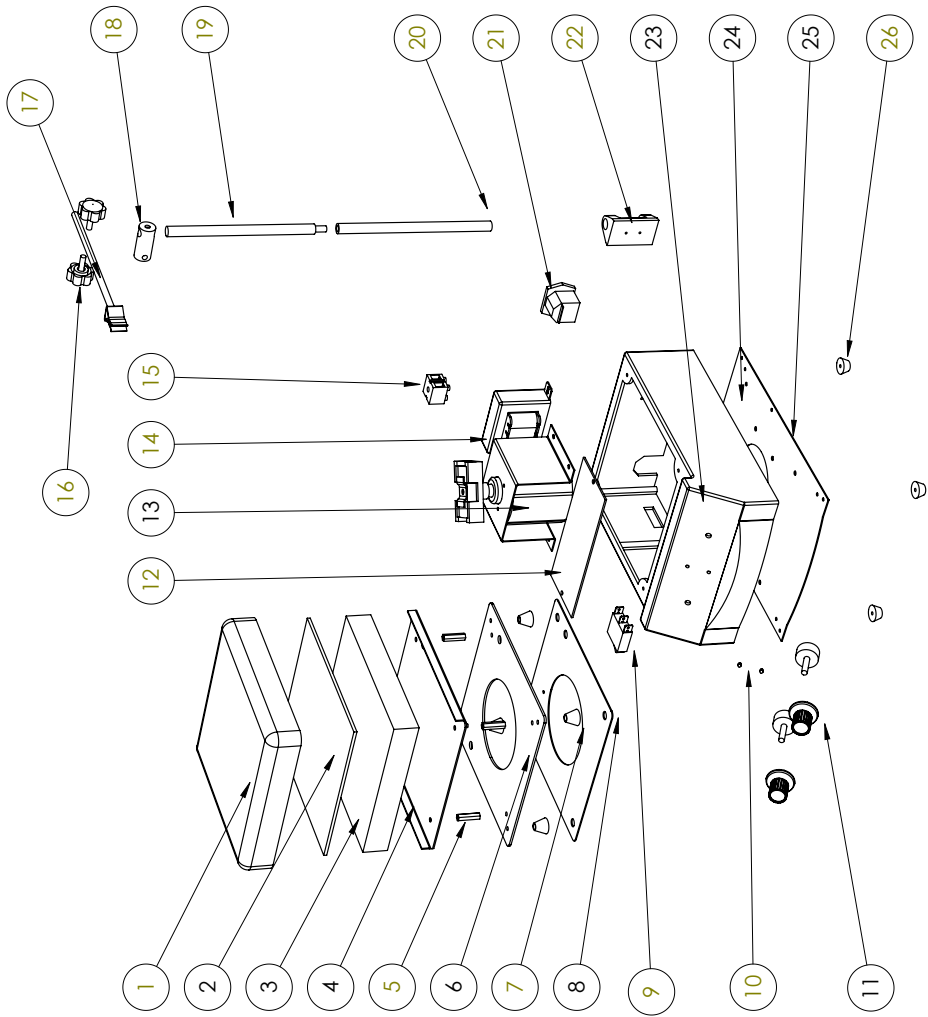
Adjust the heating control knob (B) until the desired temperature is reached. In the MAX position there is no temperature control, the hot plate will run at maximum power.

MODEL: MAGNETIC STIRRER/HOT PLATE

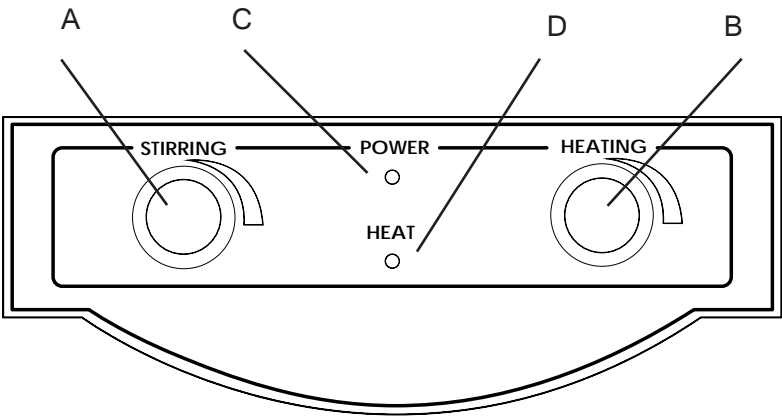
MODEL CODE: 105

Part No.	Description
1	STIRRER SURFACE COVER
2	HEATING ELEMENT
3	FIBERGLASS
4	FIBERGLASS MOUNT
5	HEXAGONAL SPACER
6	SPACER PANEL
7	ROUND SPACER
8	BOTTOM PANEL
9	SWITCH
10	LIGHT
11	CONTROL KNOB
12	CIRCUIT BOARD
13	MOTOR
14	TRANSFORMER
15	PLASTIC CONNECTOR BLOCK
16	THUMBSCREW
17	CLAMP
18	CONNECTOR
19	DETACHABLE STAND
20	FIXED STAND
21	POWER PLUG
22	STAND MOUNT
23	CONTROL DECAL
24	BASE SHELL
25	BOTTOM COVER
26	FEET

EXPLODED DIAGRAM
MAGNETIC STIRRER/HOT PLATE
MODEL: 105



CONTROL PANEL



- A. STIRRER CONTROL KNOB
- B. HOT PLATE TEMPERATURE CONTROL
- C. POWER INDICATOR LIGHT
- D. HEATER INDICATOR LIGHT

SPECIFICATIONS

MODEL	DESCRIPTION
Max load (kg)	5
Speed (rpm)	100 to 1800
Temperature range of heating plate	50-350°C
Nett weight (kg)	5

MAINTENANCE

NOTE: When using the following chemicals, limit the time to a maximum of four hours and then clean surfaces immediately.

ALUMINIUM CHLORIDE	BICHLORIDE OF MERCURY
BARIUM CHLORIDE	PHENOL
CALCIUM CHLORIDE	POTASSIUM THIOCYANATE
FERROUS CHLORIDE	CHLORINATED LIME
MERCURIC CHLORIDE	DANIN'S SOLUTION
STANNOUS CHLORIDE	LYSOL
CITRIC CHLORIDE	MERCURY SALTS
CARBOLIC ACID	POTASSIUM PERMANGANATE
TARTARIC ACID	SODIUM HYPOCHLORIDE

AVOID USING THE FOLLOWING:

AQUA REGIA
 IODENE
 COPPER SULPHATE
 FERRIC CHLORIDE
 SULPHURIC ACID
 HYDROCHLORIC ACID



CARE MUST BE TAKEN WHEN USING THESE CHEMICALS. ALWAYS WORK IN A WELL VENTILATED AREA AND WEAR THE CORRECT PROTECTIVE CLOTHING

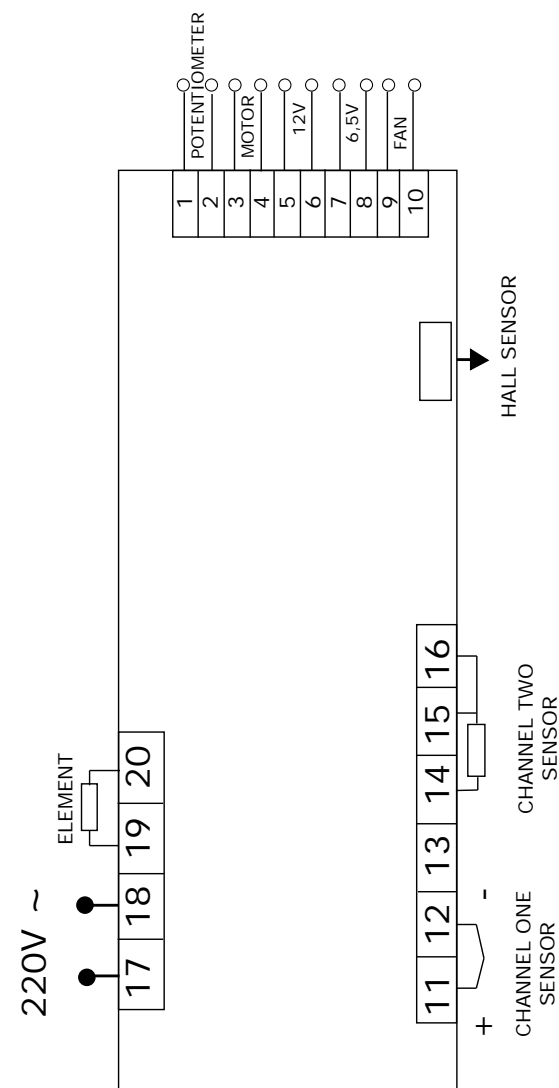


SWITCH OFF UNIT WHEN NOT IN USE. EXTENDED OPERATION WITHOUT A FILLED BEAKER ON THE HOT PLATE SURFACE WILL SHORTEN THE LIFE OF THE ELEMENTS



WHEN USING HAZARDOUS CHEMICALS ENSURE THAT THE UNIT IS OPERATED UNDER A FUME HOOD AS THE HAZARDOUS FUMES MAY AFFECT THE OPERATOR

WIRING DIAGRAM MODEL: MAGNETIC STIRRER/HOT PLATE MODEL CODE: 105



ELECTRICAL CONNECTION INFORMATION

MODEL	DESCRIPTION	VOLTS (V /Hz)	POWER (W)
105	MAGNETIC STIRRER	230/50	500



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.



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.



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

1. Always ensure that the unit is disconnected from the main power supply before cleaning.
2. This unit should not be cleaned with a water jet or immersed in water. Use only a damp cloth or sponge dipped in soapy water.
3. Wipe off the unit with a dry cloth and wait at least a half an hour before re-connecting to the main power outlet.

The following solution can be used to remove traces of iron rust:

A mixture of twenty percent nitric acid and a half percent hydrofluoric acid. Wearing the correct protective clothing, and in a well ventilated room, swab solution on surface. Leave until rust has loosened, flush the surface using water making sure that all the acid is removed



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 Magnetic Stirrer 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. The equipment may be hot, even though the pilot light is not on.
9. Do not operate if equipment has been damaged or is malfunctioning in any way.
10. These units are designed to run only on alternating current (A.C.) **DO NOT CONNECT TO DIRECT CURRENT (D.C)**

POSITIONING DIAGRAM MAGNETIC STIRRER/HOT PLATE MODEL 105

