



**AS20 Compact Stirrer
Instruction Manual**

**Agitador Compacto AS20
Manual de instrucciones**

**Agitateur compact AS20
Manuel d'instructions**

**AS20 便携式搅拌器
使用说明书**

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1. INTRODUCTION

This manual contains installation, operation and maintenance instructions for AS20 compact stirrer. Please read it completely before installation and operation.

1.1. Safety precautions

Definition of Signal Warnings and Symbols

Safety notes are marked with signal words and warning symbols. These show safety issues and warnings. Ignoring the safety notes may lead to personal injury, damage to the instrument, malfunctions and false results.

WARNING For a hazardous situation with medium risk, possibly resulting in severe injuries or death if not avoided.

CAUTION For a hazardous situation with low risk, resulting in damage to the device or the property or in loss of data, or minor or medium injuries if not avoided.

ATTENTION For important information about the product. May lead to equipment damage if not avoided.

NOTE For useful information about the product.

Warning Symbols



General hazard



Explosion hazard

Safety Precautions



CAUTION: Read all safety warnings before installing, making connections, or servicing this equipment. Failure to comply with these warnings could result in personal injury and/or property damage. Retain all instructions for future reference.

- Operate the equipment only under ambient conditions specified in these instructions.
- The equipment is for indoor use only.
- Do not operate the equipment in wet, hazardous or unstable environments.
- Do not allow liquids to enter the equipment.
- Use only approved accessories and peripherals.
- Spills should be removed promptly.
- Alkalis spills, hydrofluoric acid or phosphoric acid spills may damage the unit and lead to the unit failure.
- Do not immerse the unit for cleaning.
- Do not operate the unit if it shows signs of electrical or mechanical damage.
- Place the stirrer on a flat, clean, non-slip workbench, and the non-slip feet at the bottom must be clean and undamaged.

- Use a container with suitable size. Place the container in the center of the container plate, and do not move it
- Choose appropriate stirring speed to prevent liquid from spilling out of the container due to excessively fast speed.
- Do not move the stirrer by pulling the power cord to prevent damage to it.
- Unplug the power adapter if you do not use the stirrer for a long time. Make sure the power indicator on the panel goes out.
- Service should only be performed by authorized personnel.
- In the event of an unexpected power interruption, the stirrer will not automatically restart.



WARNING: Never work in an environment subject to explosion hazards! The housing of the instrument is not gas tight. (Explosion hazard due to spark formation, corrosion caused by the ingress of gases)



WARNING! The protection provided by the unit may be impaired if used with accessories not provided or recommended by the manufacturer, or used in a manner not specified by the manufacturer.



WARNING! DO NOT use the unit in a hazardous atmosphere or with hazardous materials for which the unit was not designed.

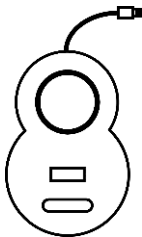


CAUTION! To avoid electrical shock, completely cut off power to the unit by disconnecting the power cord from the unit or unplugging from the wall outlet.

1.2. Intended use

This instrument is intended for use in laboratories, pharmacies, schools, businesses and light industry. It must only be used for operation described in the manual. Any other type of use and operation beyond the limits of technical specifications, without written consent from OHAUS, is considered as not intended. This instrument complies with current industry standards and the recognized safety regulations; however, it can constitute a hazard in use. If the instrument is not used according to these operating instructions, the intended protection provided by the instrument may be impaired.

1.3. Package Contents



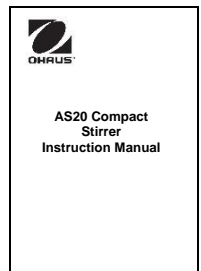
AS20 stirrer



Power cord



Stirring bar



AS20 Compact
Stirrer
Instruction Manual

User manual
and flyers

1.4. Control panel

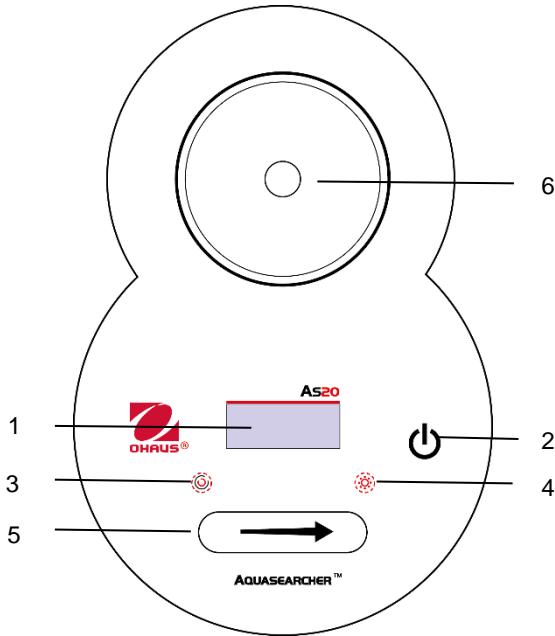


Figure 1-1 Control panel

1. **Display screen**
2. **Power button:** press to turn on or off the stirrer.
3. **Operation indicator:** flashes to display operation status.
4. **Power indicator:** lights when power is on.
5. **Speed control:**
 - a) Press and hold the left side to decrease speed.
 - b) Press and hold the right side to increase speed.
 - c) Slide from left to right to increase speed slightly. (10 – 40 rpm each time).
 - d) Slide from right to left to decrease speed slightly. (10 – 40 rpm each time).
6. **Container plate:** place your container on it.

2. OPERATION

2.1 Connection

Take out the supplied power cord, and connect each interface to the places according to the illustration below.

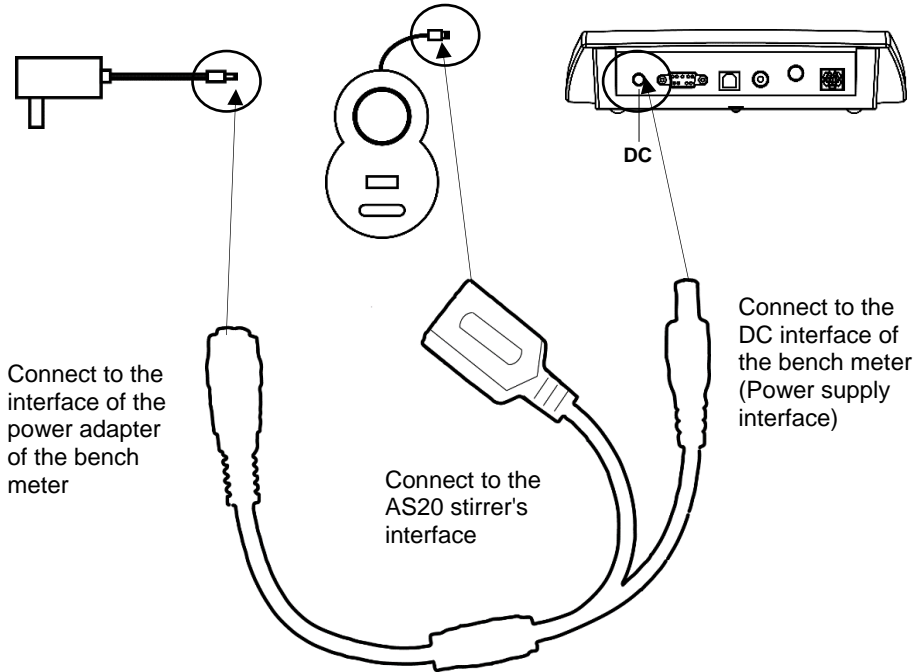


Figure 1-2 Power cord connection

2.2 Operation

1. Connect the stirrer to a bench meter and power supply using the supplied power cord demonstrated in **section 2.1**. The power indicator lights up when power is on.
2. Press the power button to turn on the stirrer. The display shows the speed of last time.

The operation indicator then flashes after 3 seconds while the speed displayed starts to increase until the speed of the last time is displayed. The operation indicator thus becomes steady on.

3. You can press or slide the speed control to adjust stirring speed.
 - a) Press and hold the left side to decrease speed.
 - b) Press and hold the right side to increase speed.
 - c) Slide from left to right to increase speed slightly. (10 – 40 rpm each time)
 - d) Slide from right to left to decrease speed slightly. (10 – 40 rpm each time)

4. After the speed is set, the speed displayed changes to the set one and the operation indicator returns to being steady on.

3. MAINTENANCE

3.1 Troubleshooting

Error	Possible Solution
Unable to turn on the stirrer	If the power indicator is off, check the power cord and power adapter. Make sure they are plugged in and the connection is correct. The power indicator should be on if the above is correct.
Stirring bar is not moving	<ol style="list-style-type: none"> 1. Check if the container is made by an easily magnetized material. Use a glass container instead. 2. Check if the stirring bar is damaged and replace it with a new one.
Irregular jumping of the stirring bar	<ol style="list-style-type: none"> 1. Check if the container deviates from the center of the container plate. Move the container to the correct position. 2. Check if the stirring bar is damaged. Replace it with a new one. 3. Check if the bottom of the container is irregular. Decrease the stirring speed until the stirring bar becomes stable, or replace a new container.

Note: If the troubleshooting section does not resolve your problem, contact an OHAUS technical support agent. For assistance in the United States, call toll-free 1-800-526-0659 between 8:00 AM and 5:00 PM Eastern Standard Time. An OHAUS Technical Support Specialist will be available to assist you. Outside the USA, please visit our website www.ohaus.com to locate the OHAUS office nearest you.

3.2 Cleaning



WARNING: Electric Shock Hazard. Disconnect the equipment from the power supply before cleaning. Make sure that no liquid enters the interior of the instrument.



Attention: Do not use solvents, harsh chemicals, ammonia or abrasive cleaning agents.

The housing may be cleaned with a cloth dampened with a mild detergent if necessary. Wear work gloves when cleaning.

4. TECHNICAL DATA

4.1 Specifications

Equipment Ratings:

Indoor use only

Altitude: 0 to 2000m

Operating temperature: 5 to 40°C

Storage temperature: -20 to 65°C

Operating Humidity: 20 to 85% relative humidity, non-condensing

Storage Humidity: 20 to 85% relative humidity, non-condensing

Electrical Supply: 12VDC, 0.1A. (For use with certified or approved power supply, which must have a SELV and limited energy output.)

Voltage fluctuations: Mains supply voltage fluctuations up to $\pm 10\%$ of the nominal voltage.




Overvoltage category II
(Installation category):

Pollution degree: 2

Model	AS20 compact stirrer
Adjustable speed range	60-1500 r/min
Display	LCD
Length of the stirring bar	20 – 30 mm
Maximum stirring capacity	1 liter
Maximum weight capacity (H ₂ O)	1.5 kg
Working plate material	Polypropylene
Size	190*130*12 mm (diameter)
Weight	0.2 kg
Ambient temperature	5 - 40 °C

5. COMPLIANCE

Compliance to the following standards is indicated by the corresponding mark on the product.

Mark	Standard
	<p>This product complies with the applicable harmonized standards of EU Directives 2011/65/EU (RoHS), 2014/30/EU (EMC) and 2014/35/EU (LVD). The EU Declaration of Conformity is available online at www.ohaus.com/ce.</p>
	<p>This product complies with the EU Directive 2012/19/EU (WEEE). Please dispose of this product in accordance with local regulations at the collecting point specified for electrical and electronic equipment. For disposal instructions in Europe, refer to www.ohaus.com/weee.</p>
	<p>EN 61326-1</p>

ISED Canada Compliance Statement:

CAN ICES-003(A) / NMB-003(A)

ISO 9001 Registration

The management system governing the production of this product is ISO 9001 certified.

FCC Supplier Declaration of Conformity

Unintentional Radiator per 47CFR Part B
Trade Name: OHAUS CORPORATION
Model or Family identification: AS20

Issuing Party that Assembled the Product:

Ohaus Instruments (Changzhou) Co., Ltd.
2F, 22 Block, 538 West Hehai Road, Xinbei District, Changzhou
Jiangsu 213022
China
Phone: +86 519 85287270

Responsible Party – U.S. Contact Information:

Ohaus Corporation
7 Campus Drive, Suite 310
Parsippany, NJ 07054
United States
Phone: +1 973 377 9000
Web: www.ohaus.com

FCC Compliance Statement:

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

LIMITED WARRANTY

OHAUS products are warranted against defects in materials and workmanship from the date of delivery through the duration of the warranty period. During the warranty period OHAUS will repair, or, at its option, replace any component(s) that proves to be defective at no charge, provided that the product is returned, freight prepaid, to OHAUS.

This warranty does not apply if the product has been damaged by accident or misuse, exposed to radioactive or corrosive materials, has foreign material penetrating to the inside of the product, or as a result of service or modification by other than OHAUS. In lieu of a properly returned warranty registration card, the warranty period shall begin on the date of shipment to the authorized dealer. No other express or implied warranty is given by OHAUS Corporation. OHAUS Corporation shall not be liable for any consequential damages.

As warranty legislation differs from state to state and country to country, please contact OHAUS or your local OHAUS dealer for further details.