°LAUDA

Operating Instructions

Varioshake Shaking Incubator
VS 45 OI, VS 150 OI

°FAHRENHEIT. °CELSIUS. °LAUDA.

The Shaking Incubators LAUDA Varioshake VS 45 OI and VS 150 OI are universally applicable for all tasks in standard and research laboratories that require exactly reproducible orbital motions and temperatures and a clear view of the cultures, for example in incubations, fermentations, homogenisations, chemical and biochemical reactions, enzyme and tissue studies. Temperature and shaking frequency are microprocessor-controlled. The temperature can be set within a range of 20 °C (from approx. 8 K above ambient) to 70 °C. The shaking frequency can be set from 20 rpm to max 250 rpm and operates with a fixed amplitude of 25 mm. The microprocessor-controlled timer continuously displays the current remaining incubation time and emits an acoustic signal at end of time.

Control panel with main switch and switch for interior lighting as well as display and operating elements of the timer and the electronic regulators for interior temperature and shaking frequency.

Before installation, please check whether contents of package are in good order and complete. Should you note any damages or have any reasons for complaint, please contact your supplier or directly:

LAUDA DR. R. WOBSER GMBH & CO. KG
Schulze-Delitzsch-Str. 4+5
30938 Burgwedel - Deutschland
Telefon: +49 (0)5139 9958 0
E-Mail: info@lauda.de
Internet: https://www.lauda.de

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Content

1 Use of the Shaking Incubator

1.1 Intended Use

The information in these operating instructions must by all means be carefully read and observed. Only then a perfect functioning of the Shaking Incubator can be guaranteed. The units may only be installed and operated by persons who have made themselves familiar with these operating instructions. The frequency of the shaking motion can be set and is electronically regulated. Laboratory vessels that are to be used on the Shaking Incubator must be fixed safe-to-operate. The maximum usable shaking frequency is also determined by the kind and weight of the load. Provide sufficient working space in the vicinity of the unit to put down accessories in use safely.

Caution:
due to high risk of injuries, never reach into the unit while the shaking device is still in operation.

The temperature of the usable space is electronically controlled and can be adjusted in the range from 20 °C (from approx. 8 K above room temperature) to 70 °C. The circulating air fan optimizes the temperature distribution.

The built-in cooling coil enables reliable operation at temperature setpoints even below room temperature when connected to the domestic water supply or to a circulation cooler.

The speed of the shaking movement is electronically controlled and adjustable in the range between 20 rpm and 250 rpm with a movement amplitude of 25 mm. Laboratory vessels that need to be shaken must be securely fixed using appropriate additional equipment. The maximum usable movement frequency is determined by the type and weight of the payload.

The timer can be set in the range from one minute to 999 hours and 59 minutes and constantly shows the current remaining running time. It acoustically signals the expiry of the set time without affecting the work of the temperature and shaking movement areas.

1.2 Improper Use

LAUDA Varioshake Shaking Incubators must not be used in potentially explosive environments. The temperature work and the shaking motion must not create an explosive atmosphere in the vicinity of the unit.
No aggressive media, such as: B. acids can be heated or moved in the device.
LAUDA Varioshake Shaking Incubators, operated in a laboratory, are no Medical Devices. They fall neither under national nor international Medical Device Directives and have to be used and applied accordingly.

2 Warranty conditions

LAUDA offers a standard 12 month manufacturer's warranty from the date of purchase.

3 Before installation

The information in these operating instructions must by all means be carefully read and observed. Only then a perfect functioning of the Shaking Incubator can be guaranteed.

Vital information within the manual are emphasized in bold letters. Safety precautions are additionally marked with the following symbols.

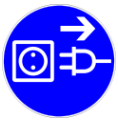
Read and observe the operating instructions

Warning of hand injuries

Warning of hot surfaces

Warning of dangerous electrical voltage

General warning



Before maintenance and repair disconnect the unit all-pole from the electrical mains (pull the plug from the socket).

4 Transport, Assembly and Location of the Shaking Incubator

After unpacking, the device must be placed on a pallet for transport. To transport the device to the installation site, suitable transport equipment must be used, e.g. B. a pallet truck is available. Doors, elevators and paths to the installation site must allow safe transport.

Caution:
The shaking incubators have a dead weight of 70 kg (type VS 45 OI) or 135 kg (type VS 150 OI). They must be lifted or moved by at least four people. On the incubator type VS 150 OI, the handle sets on the outside of the device can be used for this purpose.

Place only on firm, stable and level surfaces indoors. The location must offer sufficient space and must safely carry the total weight of the unit (unit weight as per technical data, chapter 11 of these operating instructions, plus weight of the load).
For safe handling of removed, warmed-up loads make sure to allow sufficient workspace in the direct vicinity of the unit.
The unit is not approved for operation in potentially explosive surroundings.

5 Operating Voltage

The Shaking Incubator must only be connected to a properly installed power connection with earth conductor (PE), according to the local regulations. The Shaking Incubator is an electric appliance, protection class I, therefore, a connection to earth conductor (PE) must be provided. The value of the required mains fuse can be found in the technical data, Chapter 11. Further information on connecting to the mains can be found in Chapter 13 of these instructions. The electrical connection must be carried out in such a way that the shaker can be completely disconnected from the power supply at any time.
It must be secured that, even after opening the door(s), the mains connection cable does not touch any warm parts of the interior or of removed, warmed-up load. The main switch on the control panel of the Incubator must be off (position O).
The operating voltage stated on the nameplate (on the back of the unit) must be identical to the mains voltage. If they are identical, connect to the mains.

6 Initiation

Caution:
due to high risk of injuries, never reach into the unit while the shaking device is still in operation.

Caution:
make sure that neither the shaking movement nor the heating process create an explosive atmosphere near the Shaking Incubator during operation.

Caution:
hot surfaces in the interior when temperature is set to 50 °C or more. Danger of burns. Wearing suitable safety gloves is recommended.

6.1 Operation

After switching on the main switch the fan motor starts.
Interior lighting, incubation time, incubation temperature and shaking frequency must be set and activated individually. The shaking motion and the heating can only be initiated when the door(s) is(are) closed and will be cut off when the door(s) is(are) opened. Please refer to the following pages for instructions on initiation of the individual functions.

6.2 Interior lighting

Switch (1)

By pressing the switch (1), the interior lighting (2) is switched on.

6.3 Cooling Coil

The serial cooling coil for connection to the domestic water supply or a commercially available circulation cooler increases the temperature range of the Shaking Incubator (lowest operating temperature of the Incubator +20 °C). The connections of the cooling coil are situated at the back of the unit.
Cooling water is to be supplied to the Shaking Incubator through pressure-proof water hoses with an interior diameter of approx. 9 mm. The connected hoses are to be secured with hose clamps (hoses and clamps are not part of the standard scope of supply).

6.4 Operation and display elements of the control panel

6.4.1 Incubation time

Press key 20 of the keypad to switch the timer to entry mode.
The display begins to flash and pilot lamp 4 glows (display in minutes). The required incubation time can now by set by pressing keys 6 (▲) and 7 (▼) (max. 59 minutes). Press key 21 to confirm the set minutes. The entry mode then switches to entry of set hours. Pilot lamp 19 glows. Use keys 6 (▲) and 7 (▼) to set the required incubation time in hours (max. 999 hours). Press key 21 to confirm the set hours. The timer is now activated, the set incubation time starts to run down.

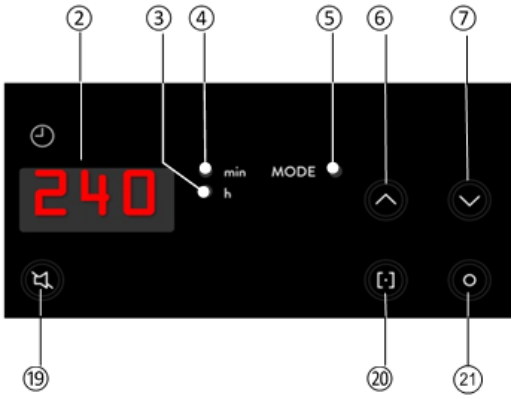
After activation of the timer the set incubation time can only be interrupted or altered by switching the Shaking Incubator off with the main switch.

The time is displayed in hours. If the remaining run-time is less than one hour, pilot lamp 4 glows. The time is displayed in minutes. While the incubation time is running down, press key 6 to choose between display of the remaining run-time and the set total run-time. When the display of the total run-time is chosen, pilot lamp 5 glows.

Approx. 30 seconds after the last entry, the digital timer switches back to normal operation mode. Expiry of the set incubation time is signaled by a continuous acoustic alarm. Press key 19 to switch off the alarm signal.

The timer merely triggers the alarm signal; the unit is not switched off automatically.

Operation panel incubation time



2	Display incubation time
3	Pilot lamp "time" in the display, hours
4	Pilot lamp "time" in the display, minutes
5	Pilot lamp "total run-time" in the display
6	Change-over key for total run-time and for entry of higher set points
7	Entry of lower set points
19	Key to switch off alarm signal after expiry of preset run-times
20	Change-over key for alteration of set points
21	Confirmation of new total run-times

6.4.2 Incubation temperature

The microprocessor-controlled PID-type regulation permits quick availability of the set temperature, at the same providing a high temporal temperature constancy of +/- 0.2 K. Display as well as setting the temperature is done digitally on an LED display, in 0.1 K increments. The operating temperature is approx. 8 K above ambient temperature to 70 °C. The serial cooling coil for connection to the domestic water supply or to a cooling circulator permits operation at set temperatures as of 20 °C.
After switching the unit on, display 8 flashes and shows the last memorized set temperature, pilot lamp 11 glows. Use keys 12 (▲) and 13 (▼) to enter a new set temperature. Press key 25 to confirm the set temperature.
The temperature controller starts operation. Approx. 30 seconds after the last entry pilot lamp 11 goes out and pilot lamp 9 glows. The display now switches from set temperature to actual temperature.

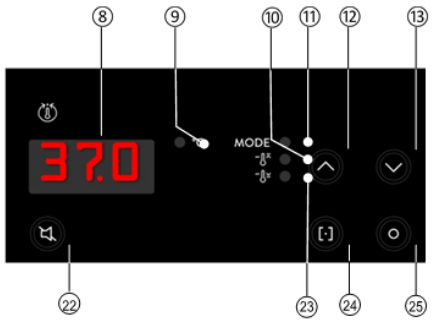
Three different temperatures can be selected and changed by pressing key 12:

1. Set temperature, pilot lamp 11 glows.
2. Difference point for over-temperature alarm, dependent on the set temperature (set temperature plus difference point = alarm point), pilot lamp 10 glows. Factory aligned at 04.0 = 4.0 K.
3. Difference point for under-temperature alarm, dependent on the set temperature (set temperature minus difference point = alarm point), pilot lamp 23 glows. Factory aligned at 09.0 = 9.0 K.

When key 24 is pressed, the displayed set point starts to flash and can be reset through keys 12 (▲) and 13 (▼). Press key 25 to confirm the new set point. Over- and under-temperature alarms are signalled acoustically as well as visually by error codes in the display. The heating is switched off. For further information on this subject, please see chapter 7.1 Error Codes of these instructions. When opening the Incubator's door(s), both heating and shaking drive will be switched off. After closing the cover, the Incubator will restart with the set values of temperature and shaking frequency.

Caution:
the temperature in the Incubator's interior may rise up to 70 °C during operation. Danger of burns. Wearing suitable safety gloves is recommended

Operation panel temperature controller



8	Display for set and actual temperatures
9	Pilot lamp "actual temperature" in the display
10	Pilot lamp difference value of over-temperature alarm in the display
11	Pilot lamp set temperature in the display
12	Change-over key between display and entry of higher set points
13	Entry of lower set points
22	Key to switch off alarm signal
23	Pilot lamp difference value of under-temperature alarm in the display
24	Change-over key for alteration of set points
25	Confirmation of new set points

6.4.3 Shaking frequency

An overload-protected a. c. motor produces an orbital shaking motion with a shaking amplitude of 25 mm through the robust, durable drive mechanism. The motor is controlled through a PID type microprocessor frequency regulation. The shaking frequency can be set between 20 rpm to 250 rpm, independent of the load. It is equipped with a gentle start-up and can be set in increments of 1 rpm.
Press key 26 to switch the shaking movement on and off. After switching on the shaking device, the Incubator starts shaking with the last set shaking frequency. Pilot lamp 15 glows, display 14 shows the actual shaking frequency.

In order to reset the shaking frequency, first press key 17 and then 27. Pilot lamp 16 glows, the display flashes and shows the set shaking frequency. Use keys 17 (▲) and 18 (▼) to reset the displayed value. Press key 28 to confirm the new set value.
Even when the shaking device is switched off, the set shaking frequency can be read by pressing key 17 (pilot lamp 16 glows = set frequency). It can be reset as described above.

Approx. 30 seconds after the last entry the Incubator automatically switches back to operation mode (shaking device on or off). To switch off the shaking device, press key 26. The shaking frequency is cut off slowly, the operation panel is switched off.

When opening the Shaking Incubator's door(s), a control switch will cut off both heating and shaking device. After closing the cover, the Incubator will restart operation with the set values of temperature and shaking frequency.

Caution:
only after the shaking platform has come to a complete stop, the cover may be opened to reach into the unit.

Operation panel shaking frequency control

14 Display for actual and set shaking frequencies
15 Pilot lamp "actual shaking frequency" in the display
16 Pilot lamp "set shaking frequency" in the display
17 Change-over key between the displays and entry of higher set points
18 Entry of lower set points
26 Shaking movement on/off
27 Change-over key for alteration of set points
28 Confirmation of new setpoints

6.5 RC Operation via PC

An interface module with a terminal on the back of the Incubator produces the data transmission format RS 232. The interface enables reading of current actual and set values at any time. In order to set values for the temperature and shaking frequency in a defined time-span, the Incubator has to be switched to remote control mode via a PC signal. Being in remote control mode, the incubator cannot be operated manually. An interface protocol is available for operation of the Shaking Incubator's RS 232 interface. Please advise model and serial number of the incubator.

Caution:
before operating the unit in RC mode, both unit and interior assembly of the Incubator must be carefully checked. The Incubator must be operated in direct sight. Take special care in the vicinity of the automatically operated unit.

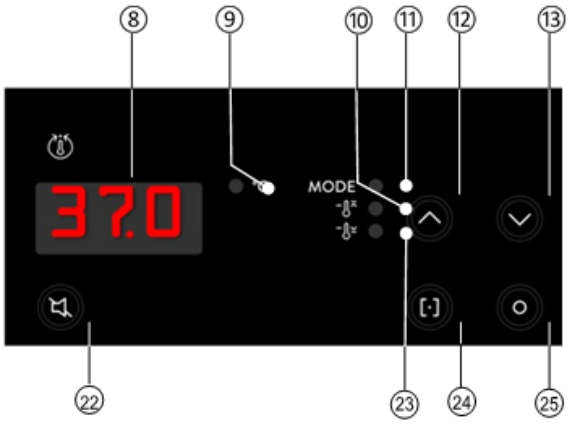
6.6 Shutdown

To turn off the unit for longer shutdown times, first switch the main switch to position O and disconnect the unit from the mains. Empty the interior, if necessary, dry and clean the interior to prevent bacterial contamination.

7 Error Codes and Temperature Cut-out

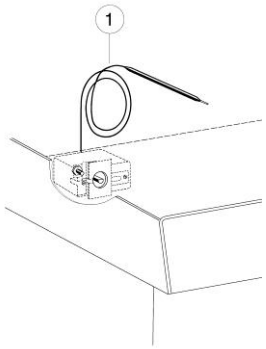
7.1 Error Codes

E01 Over-temperature alarm:
When the set target value is reached for the first time after starting the temperature control, the alarm functions for over and under temperature are switched on. If an under- or over-temperature alarm occurs due to external influences or malfunctions, this is reported acoustically and visually. In the event of an over-temperature alarm, E01 is shown on the display, and in the case of an under-temperature alarm, E02 is shown on the display.



E02 Under-temperature alarm:
The heater is disabled until the alarm is turned off by pressing switch 22. If the temperature is too low, the acoustic alarm is switched off immediately and the visual alarm is switched off after the alarm point is exceeded. If the temperature is too high, the acoustic and visual alarms are switched off at the same time. If the alarm occurs repeatedly, the fault must be checked and eliminated by a qualified electrician.

7.2 Temperature Cut-out



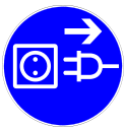
In addition to the over- and under-temperature alarm functions, a thermostatic temperature limiter (1) protects the device against overheating in the event of a temperature controller or fan motor failure. Only after the device has cooled down, it is possible to unlock the temperature limiter, which is located behind the dashboard. To do this, the dashboard must be unscrewed and the green release button on the left side of the rear wall has to be pressed. After unlocking, the functions of the Shaking incubator must be observed. If the error occurs again, the fault must be repaired by a qualified electrician.

8 Functional description

One/two door(s) with a viewing window made of acrylic glass close off the usable space, which is heated by a heating element in a temperature range of 20 °C (from approx. 8 K above ambient) to 70 °C. The fan optimises the temperature distribution. The built-in cooling coil permits works at set temperatures near to the ambient temperature. The temperature controller is a PID controller and is equipped with a monitoring function that signals malfunctions and switches off the heating in case of a malfunction.
The AC geared motor is protected against overload.
The adjustable shaking frequency is 20 rpm to 250 rpm, it is controlled independently of the load and can be set in steps of 1 rpm.
The timer allows times to be set between 1 minute and 999 hours and 59 minutes. The timer continuously shows the current remaining run time and emits an acoustic expiration signal. The electronic regulation is microprocessor controlled.

The exterior housing is made of electrolytically galvanised and powder-coated sheet steel. The shaking platform, made of anodised aluminium, is equipped with a stainless-steel rack frame for secure attachment of up to two shaking trays (accessories). The heating element and the cooling coil as well as the rear wall and bottom plate of the interior are made of stainless steel.
An RS 232 interface, set into the rear side of the unit, not only serves to register set and actual values of temperature and shaking frequency, but also for remote operation through PC.

9 Maintenance, Support and Repair




Make sure that no liquids can get into cable connections or inside the electrical device. Before carrying out any cleaning or repair work, the mains plug must be pulled out and the shaker must be disconnected from the power supply at all poles. Repairs to the electrical system may only be carried out by a qualified electrician.

9.1 Cleaning and Disinfection

The powder-coated surfaces of the housing, the shaking platform made of anodised aluminium and the acrylic glass cover may be cleaned with mild, non-abrasive and pH neutral detergents. Never use solvent-containing cleaning agents. The stainless steel surfaces of the interior can be cleaned and the original shine be restored with commercial stainless steel polishing agents (e. g. “Helios Brillant“ from M/s Ecolab).
To disinfect the Shaking Incubator by a wipe process, approved disinfecting agents with proven compatibility with stainless steel, powder-coated steel, aluminium or acrylic glass can be used. The instructions for use of the disinfectant must by all means be observed. If in doubt, test the disinfectant in a small local area.
Should the Incubator have been contaminated with dangerous substances, cleaning and decontamination measures must be carried out according to the safety data sheets of these substances. It may be necessary afterwards to have the unit tested for function and safety by a trained electrician or by the service department in the manufacturing plant.

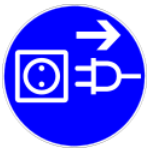
9.2 Temperature Adjustment

LAUDA Varioshake Shaking Incubators are set and adjusted at a temperature of 45 °C. Instructions for adjustment of the temperature regulator are available on request for adjustment purposes during maintenance. Please state model and serial numbers of the Shaking Incubator.

9.3 Shutdown caused by overload or power failure

The drive motor of the shaking device is protected against over-heating due to overload. The device will be switched off. Caution, after the motor has cooled down, the shaking device restarts automatically (without gentle start-up control). After a mains failure, the Incubator does not restart automatically, but has to be started as described in chapter 6.

9.4 Exchanging the fuses

The unit's two fuses are situated in a drawer below the unit's plug. In order to check or to exchange these fuses, press the fixing clips on both sides of the drawer and pull.
The fuses may only be exchanged against 4 Amp fuses of the same type. Information on the fuse type can be found on the nameplate next to the unit plug and in the spare parts list of these operating instructions.
If the unit is shut down due to an operation fault, always switch it off on the main switch before opening the cover and touching parts in the unit's interior.

9.5 Technical support

You can call our customer service at any time for technical support relating to LAUDA Varioshake Shaking Incubator appliances.

Telefon: +49 (0) 9343 / 503-350

E-Mail: service@lauda.de

Maintenance, repairs and modifications must be carried out by a qualified electrician. Only original spare parts may be used.

10 Disposal of Old Units

LAUDA will take responsibility, within the scope of the legal directives, for an environmentally sound handling and disposal of all used LAUDA units as of the production year 1995 that are returned to us free of charge and will have it materially recycled. Before the unit is returned, a legally binding declaration must be provided from the sender, confirming that the unit is free from harmful and/or hazardous contaminations as well as from hazardous substances caused by the previous use of the unit. LAUDA laboratory apparatus are exclusively designed for industrial use and may not be disposed of through public waste disposal authorities.
EAR Registration Number WEEE-ID.NO.DE 67770231

11 Technical Data

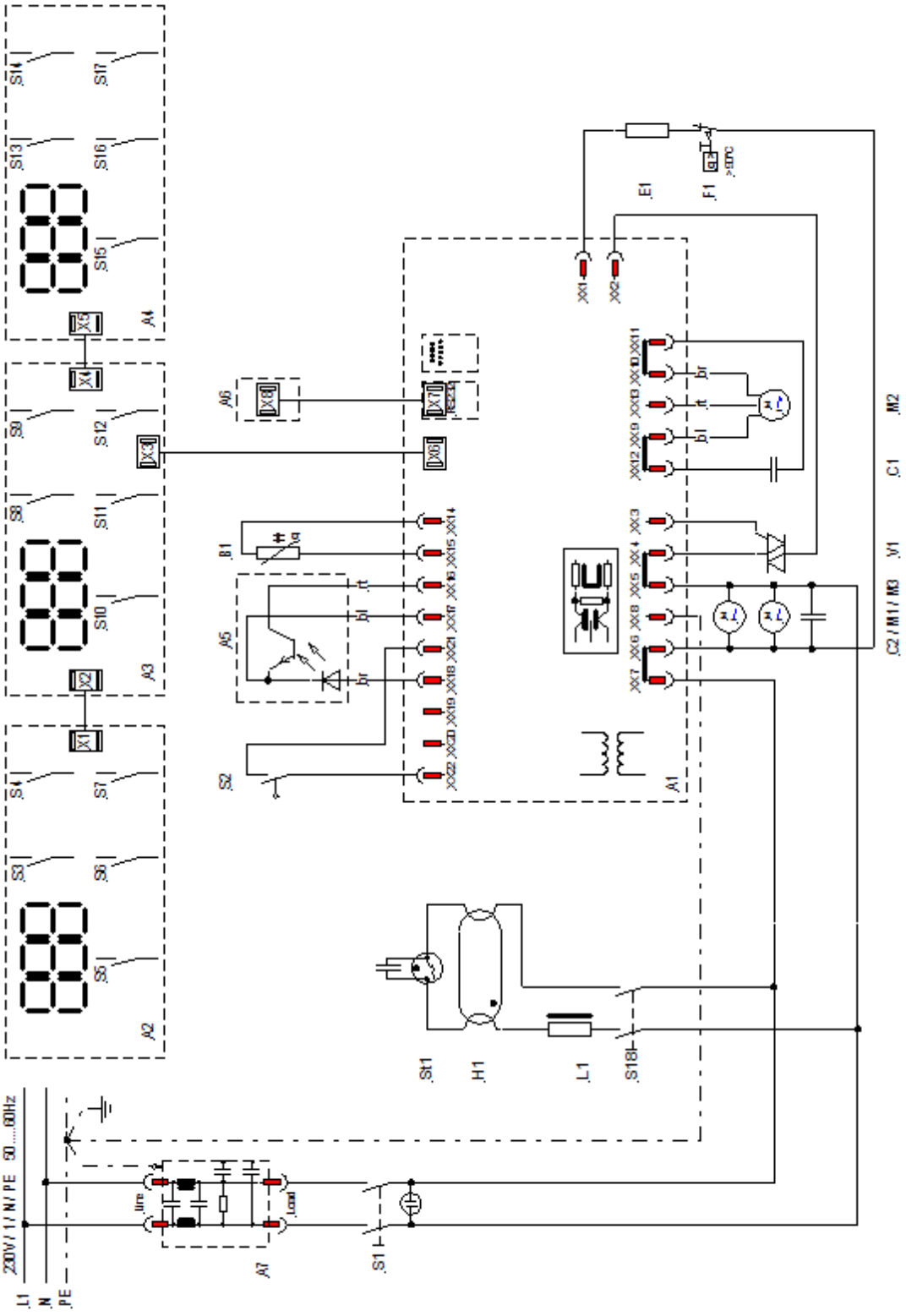
11.1 Varioshake Shaking Incubator VS 45 OI and VS 150 OI

	VS 45 OI	VS 150 OI
Exterior dimensions (W x D x H)	710 mm x 650 mm x 710 mm	930 mm x 890 mm x 820 mm
Interior dimensions (W x D x H)	420 mm x 270 mm x 320 mm	674 mm x 540 mm x 430 mm
Volume / Capacity	approx. 45 l Accepts two shaking trays A000046 For vessel heights of 150 mm or more, one tray only	approx. 150 l Aufnahmen für zwei Tablare A000047 For vessel heights of 180 mm or more, one tray only
Maximum load depending on the type of load with even load distribution and the set speed	Up to max. 12 kg	Up to max. 20 kg
Control	Digital	
Temperature range (Incubation)	+20 °C (from approx. 8 K above ambient) to +70 °C serial built-in cooling coil	
Temperature constancy (temporal)	+/- 0.2 K	
Over-temperature cut-out	electronically settable up to 9.9 K above the set value, to protect the test substances	
Under-temperature cut-out	electronically settable up to 9.9 K below the set value, to protect the test substances	
Temperature limiter	electromechanical temperature limiter with capillary tube sensor, cut-off temperature 110 °C / -10K	
Shaking motion type	orbital, can be switched on and off	
Shaking amplitude	25 mm	
Shaking frequency	20 - 250 rpm depending on load	
Incubation time	1 min to 999:59 h	
Electrical connection / Mains connection	230 V, +/-10 %, 50...60 Hz	
Mains fuse on-site	10 A	
Internal fuse F1 / F2	4 A T	
Power	800 W	
Protection class / - type	I / IP20	
Environmental conditions	only for indoors use (not in potentially explosive surroundings)	
Ambient temperature	+ 10 °C to + 30 °C	
Humidity	max 70 % relative humidity, non-condensing	
Emission sound pressure level	< 70 dB (A)	
Weight	70 kg	135 kg

12 Circuit Diagram

A1 Electronic control power board
A2 Electronic control timer
A3 Electronic control temperature regulator
A4 Electronic control shaking frequency
A5 Pulse generator
A6 Interface inlet RS 232
A7 Line filter
B1 Temperature sensor PT100
C1 Motor condenser
C2 X2 condenser for M3
E1 Tubular heating element
F1 Temperature limiter
H1 Interior lighting
L1 Choke interior lighting
M1 Fan motor
M2 Drive motor
M3 Fan motor (at the drive motor, for type VS 150 OI only)
S1 Main switch
S2 Door switch
S3 Change-over key for display of total run-time or entry of higher set points
S4 Entry of lower set points
S5 Switch off alarm signal
S6 Change-over key alteration of total run-time
S7 Confirmation of new total run-times
S8 Change-over key display and entry of higher set points
S9 Entry of lower set points
S10 Switch off alarm signal
S11 Change-over key alteration of set points
S12 Confirmation of new set points
S13 Change-over key display and entry of higher set points
S14 Entry of lower set points
S15 Shaking movement on / off
S16 Change-over key set points
S17 Confirmation of new set points
S18 Switch for interior lighting
St1 Starter interior lighting
V1 Triac

12.1 Varioshake Shaking Incubators VS 45 OI and VS 150 OI



13 Connection to the mains supply

LAUDA Varioshake Shaking Incubators are supplied with a pre-assembled mains plug.
Make sure to connect to a protective conductor terminal.

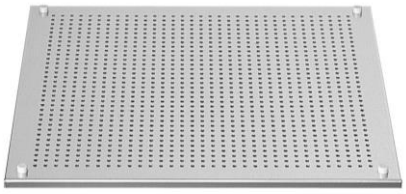
Colour decoding	Stromnetz
ge/gr – yellow/green	PE (Protective earth)
bl – blue	N
sw – black	L1

13.1 Electrical fuses

Type	Power	Power consumption at mains voltage *	On-site mains fuses (F4, F5)
VS 45 OI	0.8 kW	3.0 A at 230 V	10 A (max. 16 A)
VS 150 OI	0.8 kW	3.0 A at 230 V	10 A (max. 16 A)

* see nameplate

14 Accessories

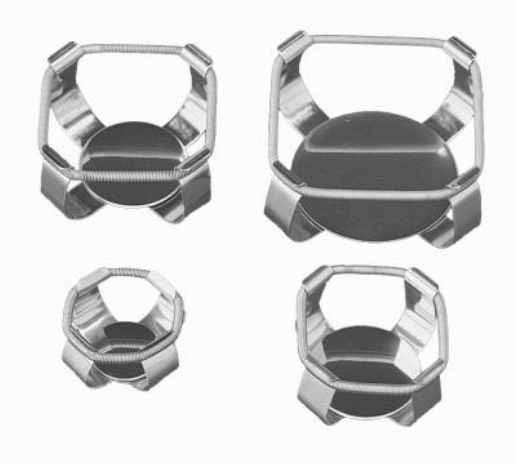


Shaking Tray with holes to fix clamps for Erlenmeyer flasks and test tube racks .

Part-No. A000046	for VS 45 OI	made of stainless steel
Part-No. A000047	for VS 150 OI	made of stainless steel

Test Tube Rack, seat for test tubes can be tilted by 90 ° for easy loading, with springs for firm hold and silent shaking of the tubes. Supplied complete with fixing material, to be screwed on to a shaking tray.

Part-No. A000059	Test tube rack for max. 24 Tubes, 12 - 17 mm Ø, Length 75 - 160 mm
Part-No. A000060	Test tube rack for max. 16 Tubes, 25 - 29 mm Ø, Length 75 - 160 mm



Clamps for Erlenmeyer flasks, made of stainless steel. Supplied complete with fixing material, to be screwed onto a shaking tray.

Part-No. A000025	for	25 ml Erlenmeyer flasks
Part-No. A000026	for	50 ml Erlenmeyer flasks
Part-No. A000027	for	100 ml Erlenmeyer flasks
Part-No. A000028	for	200 ml Erlenmeyer flasks
Part-No. A000029	for	250-300 ml Erlenmeyer flasks
Part-No. A000030	for	500 ml Erlenmeyer flasks
Part-No. A000031	for	1000 ml Erlenmeyer flasks
Part-No. A000053	for	2000 ml Erlenmeyer flasks

Adhesive mat, black. Strong adhesive special mat for easy attachment of different vessels onto the shaking platform or tray. Max. shaking speed: up to 250 rpm (depending on shape and weight of the vessel as well as on the shaking amplitude). Dimensions: 200 mm x 200 mm, the mat can be cut or trimmed with scissors. Operation temperature range: 15 to 50 °C

Part-No. A000041	Adhesive mat, black

15 Ordering spare parts / LAUDA Service

When ordering spare parts, please state the serial number (type plate) to avoid queries and wrong deliveries.

Your partner for maintenance and competent service support:

LAUDA Service
Phone: +49 (0)9343 503-350
Email: service@lauda.de

We are always at your disposal for questions and suggestions!

LAUDA DR. R. WOBSER GMBH & CO. KG
Laudaplatz 1
97922 Lauda-Königshofen
Germany
Phone: +49 (0)9343 503-0
Email info@lauda.de
Internet: http://www.lauda.de/

16 Product Returns and Clearance Declaration

Product Returns and Clearance Declaration

Product Returns

Would you like to return a LAUDA product you have purchased to LAUDA? For the return of goods, e.g. for repair or due to a complaint, you will need the approval of LAUDA in the form of a *Return Material Authorization (RMA)* or *processing number*. You can obtain the RMA number from our customer service department at *+49 (0) 9343 503 350* or by email service@lauda.de.

Return address

LAUDA DR. R. WOBSER GMBH & CO. KG

Laudaplatz 1

97922 Lauda-Königshofen

Deutschland/Germany

Clearly label your shipment with the RMA number. Please also enclose this fully completed declaration.

RMA number	Product serial number
Customer/operator	Contact name
Contact email	Contact telephone
Zip code	Place
Street & house number	
Additional explanations	

Clearance Declaration

The customer/operator hereby confirms that the product returned under the above-mentioned RMA number has been carefully emptied and cleaned, that any connections have been sealed to the farthest possible extent, and that there are no explosive, flammable, environmentally hazardous, biohazardous, toxic, radioactive or other hazardous substances in or on the product.

Place, date	Name in block letters	Signature

Version 02 - EN

17 EC Declaration of Conformity and certificates

°LAUDA

EC DECLARATION OF CONFORMITY

Manufacturer: LAUDA DR. R. WOBSER GMBH & CO. KG
Schulze-Delitzsch-Straße 4+5, 30938 Burgwedel, Germany

We hereby declare under our sole responsibility that the machines described below

Product Line: Varioshake **Serial number:** from 220____

Types: VS 8 O, VS 8 B, VS 8 OE, VS 8 BE,
VS 15 O, VS 15 B, VS 15 T, VS 15 R,
VS 20 OH, VS 30 O, VS 45 OI, VS 60 OI and VS 150 OI

comply with all relevant provisions of the EC Directives listed below due to their design and type of construction in the version brought on the market by us:

Machinery Directive	2006/42/EC
EMC Directive	2014/30/EU
RoHS Directive	2011/65/EU in connection with (EU) 2015/863

The protective objectives of the Machinery Directive with regard to electrical safety are complied with in accordance with Annex I Paragraph 1.5.1 in conformity with the Low Voltage Directive 2014/35/EU.

Applied standards:

- EN 61326-1:2013
- EN 61010-1:2010/A1:2019/AC:2019-04
- EN IEC 61010-2-010:2020

Authorized representative for the composition of the technical documentation:

Dr. Jürgen Dirscherl, Head of Research & Development

Burgwedel, 05.06.2023

A. Dinger

Dr. Alexander Dinger,
Head of Quality and Environmental Management

Q5WA-QA13-029-EN-01

°FAHRENHEIT. °CELSIUS. °LAUDA.

LAUDA DR. R. WOBSER GMBH & CO. KG
Schulze-Delitzsch-Straße 4+5 ◦ 30938 Burgwedel ◦ Deutschland
Tel.: +49 (0) 5139 9958-0
E-Mail: info@lauda.de ◦ Internet: https://www.lauda.de