

EYELA**Vacuum Oven****Instruction Manual**

VOS-201SD -301SD
-451SD -601SD
VOC-301SD -401SD

**Important**

This manual is designed to use this unit safely with the best performance.

Read carefully the chapter [For safety operation] before operating this unit.

Keep this instruction manual beside the unit.

Tokyo Rikakikai Co., Ltd.

FOREWORD

Thank you very much for your kind patronage of EYELA. Get to know your EYELA products, but before using, to be sure to read this manual well. EYELA cannot be held responsible for the malfunction resulting from the use of EYELA products other than as specified in this manual.

WARRANTY

EYELA products are warranted against defects in materials and workmanship for a period of year following the date of shipments. EYELA will make repairs or replacements free of charge upon return to the factory, transportation paid, of the defective item except following cases. This warranty does not cover finishes nor does it cover damage resulting from accident, misuse, abuse, tampering, servicing performed or attempted by unauthorized service agency.

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Liability Disclaimer

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Precautions for your safety

1. Warning signal words

On account of the function and characteristic, some parts of this unit will be heated to high temperature.

This manual shows precautions for your safety to prevent careless injuries.

They are classified and defined according to their risk, and indicated with an alert mark and a signal word.

Please follow these instructions.

Alert Mark Signal word	Definition
 Dangerous	Indicates a strained hazardous situation which, if you use incorrectly, could result in death or serious injury.
 Warning	Indicates a potentially hazardous situation which, if you use incorrectly, could result in death or serious injury.
 Caution	Indicates a potentially hazardous situation which, if you use incorrectly, may result in injury or physical damage.

We investigate enough possible hazards during the operation, however it is very difficult for us to find every hazardous occasions.

Therefore this manual cannot describe all hazardous operations.

Please follow this manual and be careful to operate the unit, to prevent injuries or physical damages.

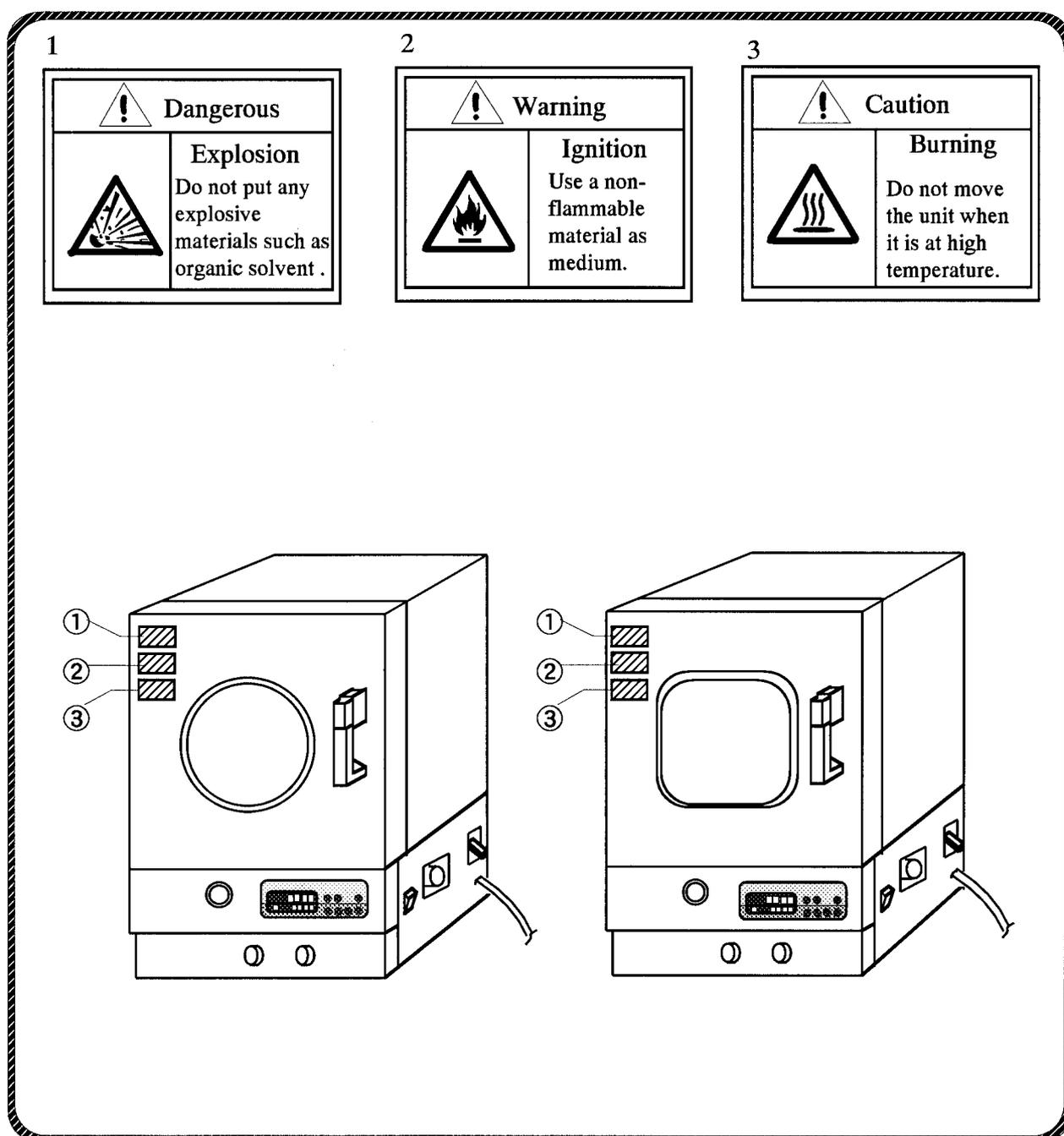
2. Warning label

A warning label is attached to the unit to refer the most important clause.

The attached position is shown as below.

Be careful to use the unit referring warning messages.

* When the warning label is worn and hardly show the message, change it with a new one.
Please order us a new label.



Thank you for choosing **EYELA** products.

Introduction

This instruction manual describes the procedure of installation, operation, trouble shooting, maintenance / check-up, and disposal for Vacuum oven model VOS-201SD, 301SD, 451SD, 601SD, VOC-301SD and VOC-401SD. Read this manual carefully before operation.

For use of this unit, also refer to following manuals.

[Key operation manual]

It instructs key operation procedure to make operation programs.

[Reference sheet for key operation]

Quick reference manual for key operation.

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Packing

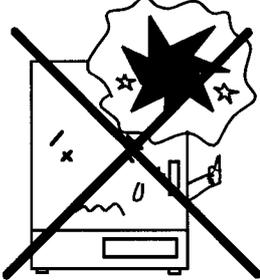
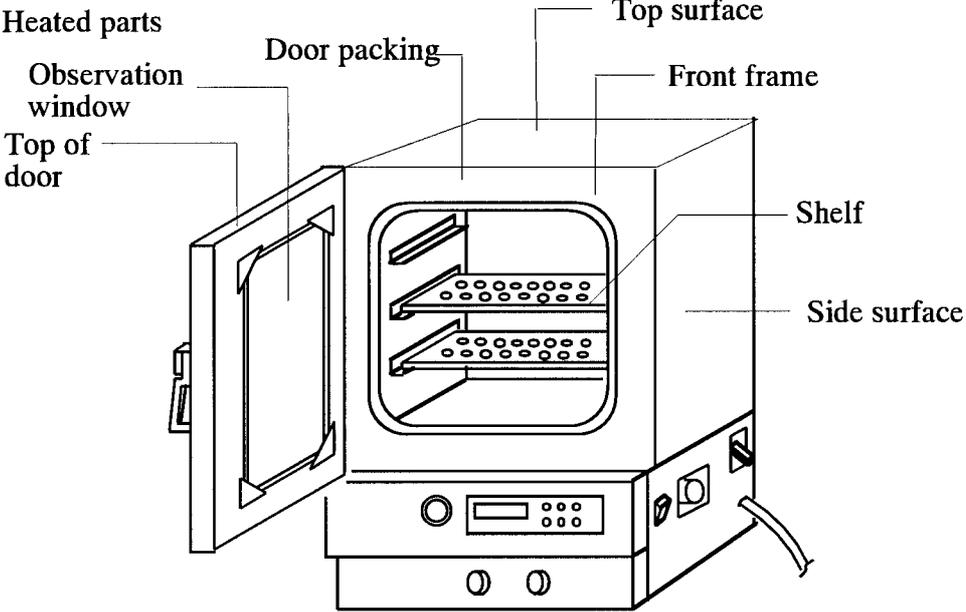
Check quantities referring to the below table.

Contents	VOS-				VOC-	
	201SD	301SD	451SD	601SD	301SD	401SD
1 Main unit	1	1	1	1	1	1
2 Shelf	2	2	3	4	(S) 1 (L) 1	(S) 2 (L) 1
3 Suspending bolt	/	/	/	4	/	/
4 Adapter	1	1	/	/	1	1
5 Instruction manual	1	1	1	1	1	1
6 Key operation manual	1	1	1	1	1	1
7 Reference sheet	1	1	1	1	1	1

* Additionally a rack, 4 sets of bolt and nut (for fixing to main unit) are packed in the model VOS-601SD.

1 For safety operation

This unit is heated to high temperature. This unit is not an explosion-proof structure. Be careful to handle safely.

 <p>Dangerous</p>	<p>Do not use flammable materials such as organic solvent.</p> <p>While operating, Temperature of inside of the unit is very high so that sample materials may be vaporized, and ignitable or explosive. Ignitable materials are nitrates, nitro compounds, etc. and explosive materials are salt peroxides, inorganic peroxides, salt nitrates, organic solvents etc. This unit is not an explosion-proof structure.</p> 
 <p>Warning</p>	<p>When you use flammable materials, set proper temperature for safety drying.</p> <p>If you set drying temperature for resin vessels or parts too high, they are melted and drop on the bottom heater, and then they may ignite. Do not stuff samples into chamber. Only the bottom part is heated extremely, then flammable materials are melted and may be ignite.</p> 
 <p>Caution</p>	<p>While operating unit, the top surface of cabinet, observation window and exhaust port is very hot. Do not touch them.</p> <p>While operating unit, and after operating, the top surface of cabinet, observation window and exhaust port is very hot. Do not touch them to prevent burning of your hands.</p> <p>Heated parts</p> 

2-1 Application

Warning

Do not remodel.
Do not use out of applications.

Remodeling or use out of applications may occur electric shock hazard and mechanical troubles.

This unit is used to dry samples and materials under vacuum condition, or to test and dry parts with supplying inactive gas into the chamber.

2-2 Program mode

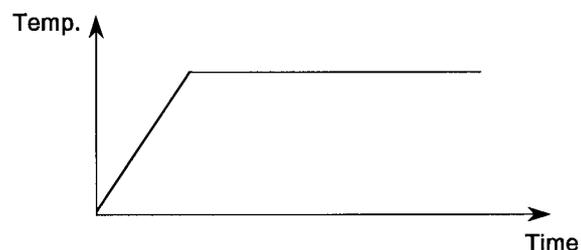
You can set temperature against time in 7 patterns of program. Values can be entered through the control panel. The set temperature can be changed and the controlling can be quitted during operation.

For more details, refer to Key operation manual.

7 programs

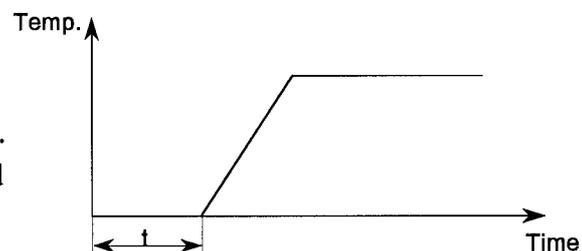
1. Program 1 (Set-point operation)

After you set a temperature, operation starts and continue at the set temperature.



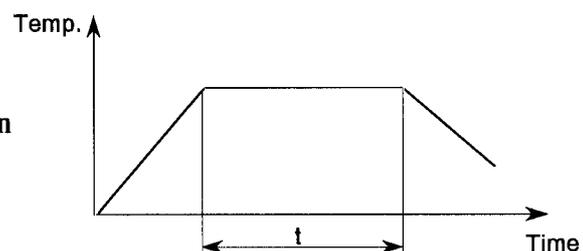
2. Program 2 (Auto-start operation)

You set a temperature and start delay time (t). After the time (t) elapses, operation starts and continue at the set temperature.



3. Program 3 (Auto-stop operation)

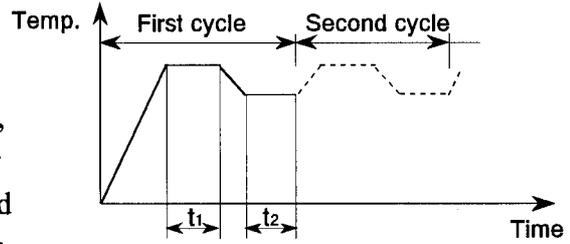
You set a temperature and operating duration time (t). After operating at the set temperature for the set duration time (t), the operation stops automatically.



4. Program4 (Step A)

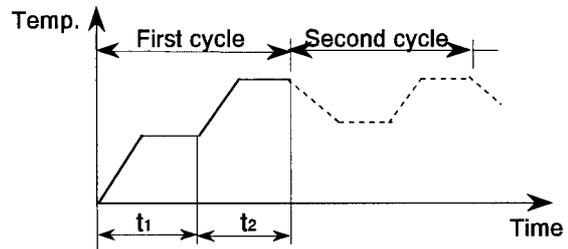
You set two pairs of temperature and operation time (t_1 , t_2) to repeat them.

When the temperature attains to the first set point, the operation continues for the set time (t_1). After quitting first operation, the temperature is changed to another set-point. When the temperature attains to the second set-point, the operation continues for the set time (t_2). This cycle is repeated the set times (max. 99 times).



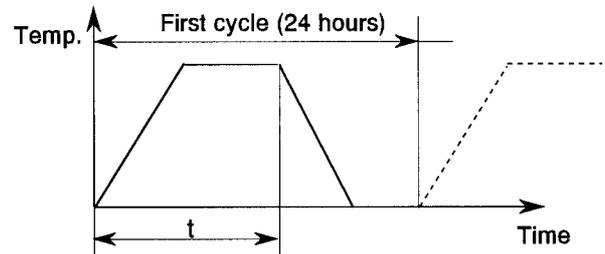
5. Program 5 (Step B)

This program pattern is similar to the pattern Step A. Though, in this pattern, the heat up (or cool down) time is included in each set time (t_1 , t_2).



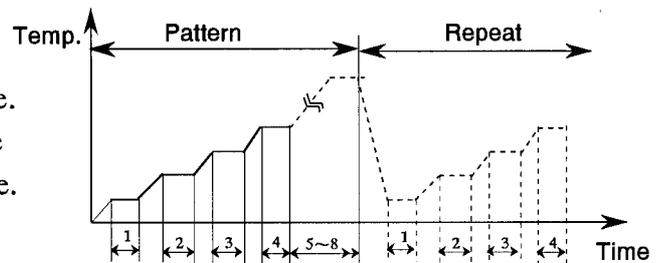
6. Program 6 (24-hours cycle operation)

You set a pair of temperature and time (t). The operation is repeated by 24-hours cycle the set times (max. 99 times). The heat up (or cool down) time is included in the set time (t). After the set time (t) elapses, the operation stops automatically, and starts again after one cycle (24 hours).



7. Program 7 (8 steps operation)

You can set up to 8 pairs of temperature and time. When the temperature attains to the set point, the operation continues automatically for the set time. After the set time elapses, the temperature is changed to another set point.



2-3 Adjustment mode

1. Auto tuning

This unit is controlled by a built-in microprocessor based on PID control. The most suitable PID constant is set before shipment. If the temperature accuracy becomes low, PID constant is tuned automatically.

2. Temperature display compensation

When you calibrate temperature by a standard thermometer, the temperature display can also be compensated within the range $\pm 20^{\circ}\text{C}$.

3. Upper limit temperature alarm (Over shooting)

You can change the upper limit temperature alarm.

4. Lower limit temperature alarm (Under shooting)

You can change the lower limit temperature alarm.

5. Data lock

Data of adjustment mode can be locked.

	Vacuum Oven	
Model	VOC-301SD	VOC-401SD
Method	Cylindrical heating and vacuuming	
Temp. control range	40 ~ 200°C	
Vacuum control range	1.01 x 10 ⁵ ~ 1.33 x 10 ² Pa (760 ~ 1Torr)	
Temp. control accuracy *	±1.5°C (at 200°C)	
Heat up time	80 min.	80 min.
Temp. control	PID microprocessor triac zero cross output	
Temp. probe	K thermo couple (CA)	
Temp. setting and display	Digital setting by membrane switch, 3 digit digital read-out	
Heater wattage	0.8kW	1.2kW
Observation window ** W x H	ø250mm	ø250mm
Vacuum gauge	Bourdon tube pressure gauge (0.1 ~ 0 MPa.)	
Interior	Stainless steel SUS 304	
Chamber dimensions W x D x Hmm	300 x 400 (28L)	400 x 500 (60L)
Overall dimensions	470 x 530 x 725	570 x 630 x 825
Max. load of a shelf	Uniform distribution 15kg/pce	
Number of shelf	2 pcs	3 pcs
Suction port diameter	Vacuum nozzle : OD22mm	Purge nozzle : OD22mm
Power consumption	8.5A 0.85kVA	12.5A 1.25kVA
Power source	AC100V 50/60Hz, 115V 60Hz or 220V 50Hz	
Net weight	50kg	70kg

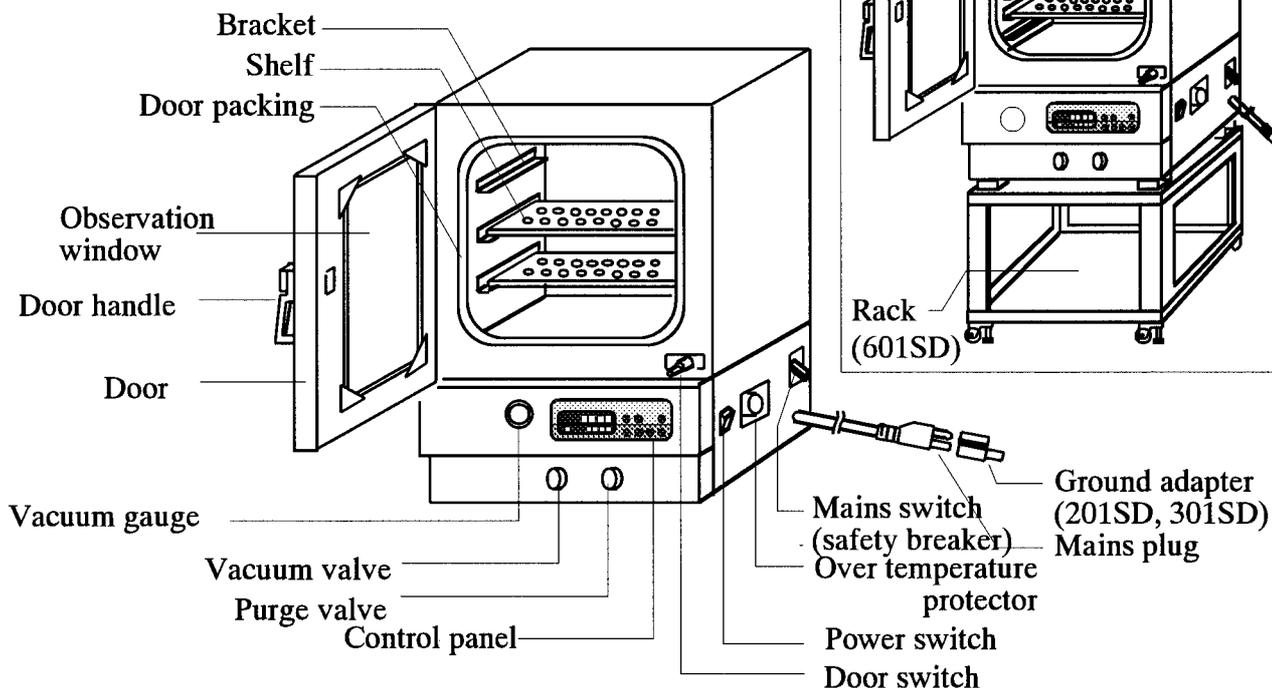
* At room temp. 20°C without load.

** Observation window

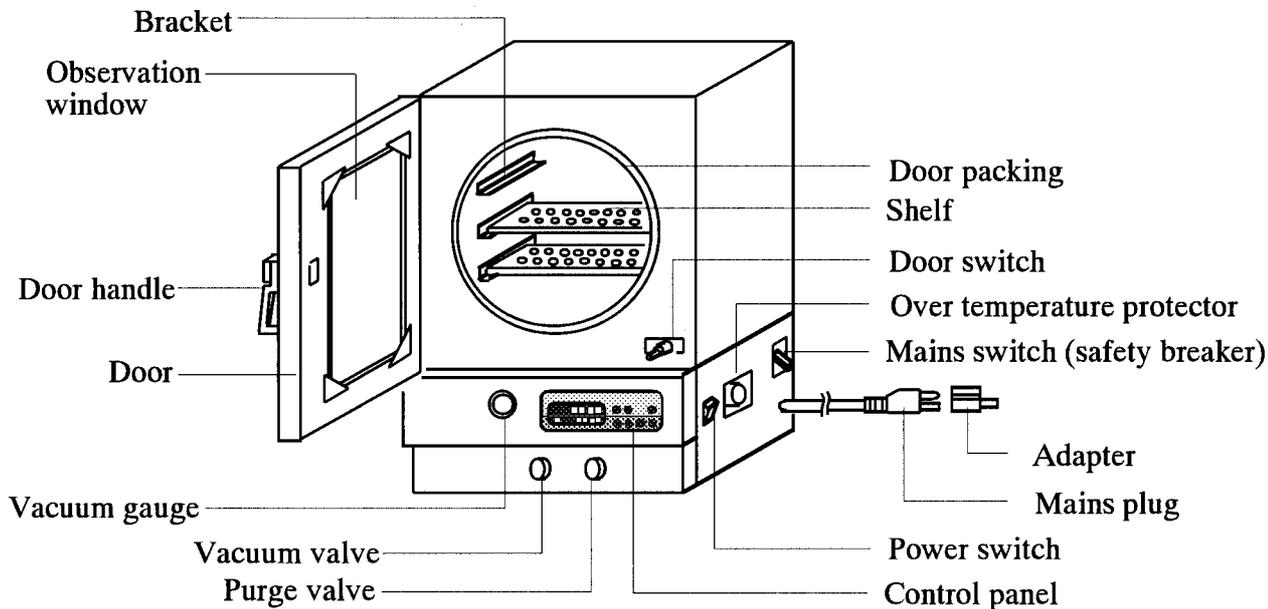
Tempered glass 12mm thick + Polycarbonate cover

2-5 Description

VOS-201SD,301SD,451SD,601SD



VOC-301SD,401SD

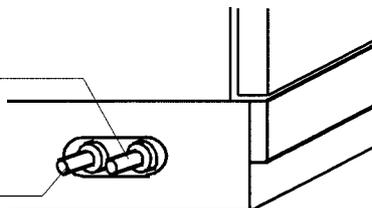


VOS-201SD,301SD,451SD,601SD

VOC-301SD,401SD

Vacuum nozzle
(OD22mm)

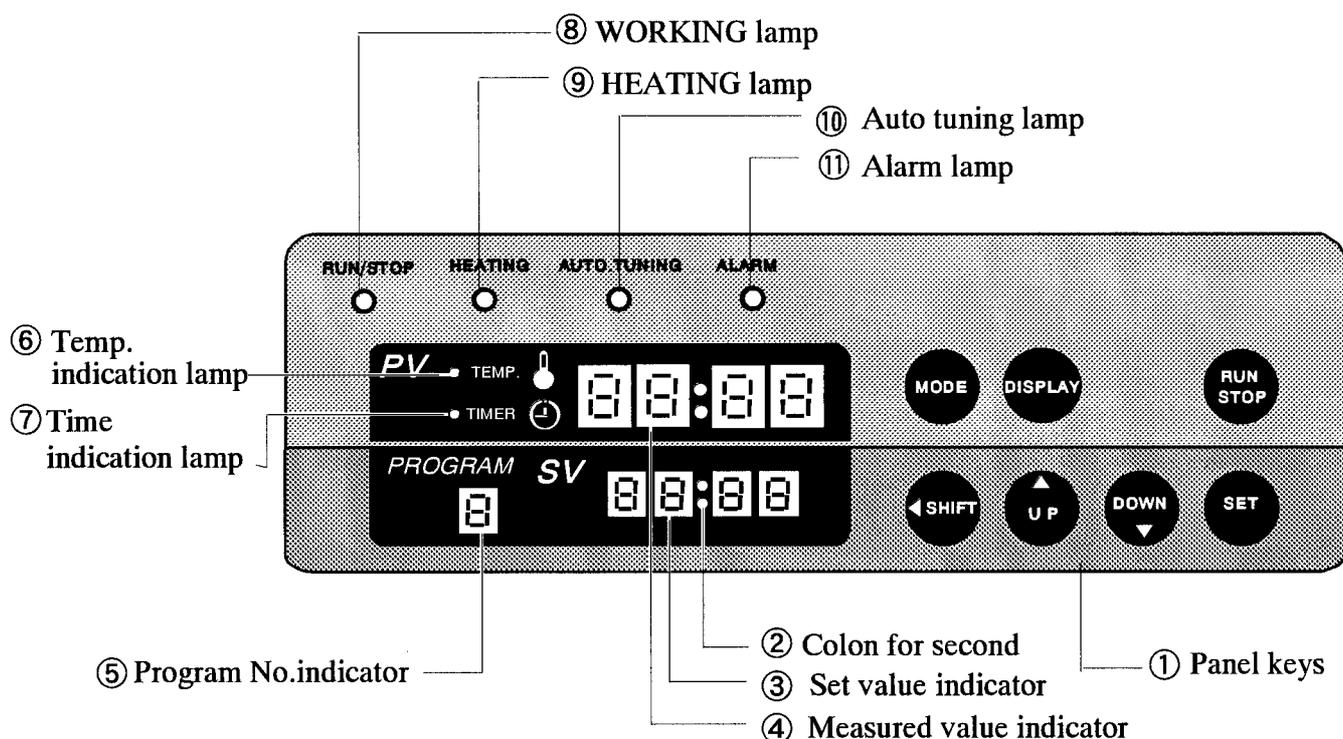
Purge nozzle
OD22mm



Left side surface of unit

3 Descriptions and functions of the control panel

3-1 Control panel



NO	Description	Function
①	Panel keys	To set program. Refer to the Key operation manual.
②	Colon for second	This illuminates when you set the time, and blinks at one second interval while measuring.
③	Set value indicator	Indicates set values of temperature, time, repetition times, recovering action from power failure and step No. for step operation.
④	Measured value indicator	Indicates measured values of temperature, time, repetition times, recovering action from power failure and alarm signals.
⑤	Program No.indicator	Indicates running and setting program No.
⑥	Temp.indication lamp	Illuminates when the measured temperature indication is active.
⑦	Time indication lamp	Illuminates when the measured time indication is active.
⑧	WORKING lamp	Blinks when the program runs, and off when the operation stops.
⑨	HEATING lamp	Illuminates when the heater works.
⑩	Auto tuning lamp	Illuminates while auto tuning is executed.
⑪	Alarm lamp	Illuminates when alarm output is active.

3-2 Safety and alarm functions

This unit has safety and alarm functions as below.

When an abnormal operation occurs, solve it referring to [Trouble shooting] on P.16 and [Alarm function] on P.6 of Key operation manual.

Safety function

Safety device	Function	Cause
Mains switch	It turns off to shut down the power.	Electric leakage or excess current.
Over temperature protector (High limiter)	The power is shut down and the heater and fan stop, when the temperature in the chamber rises to the set temperature of over temperature protector.	<ul style="list-style-type: none"> • The set temperature of over temperature protector is lower than the set operating temperature. • The chamber temperature exceeds the set temperature of over temperature protector by any trouble.

Alarm function

- Setting error alarm
- Door alarm
- Upper limit temperature alarm (Over shoot alarm)
- Lower limit temperature alarm (Under shoot alarm)
- Temperature ramp alarm
- Power failure alarm
- Over heat alarm
- Heater disconnection alarm
- Watch-dog system

4 Installation

4-1 Installed place

Warning

Do not install at a dangerous circumstance

As this unit equips a heater, there is a fear of fire in the dangerous circumstance.

Caution

Be careful to keep good conditions of installed place.

Keep good environmental conditions in order to maintain the best performance of the unit and avoid troubles.

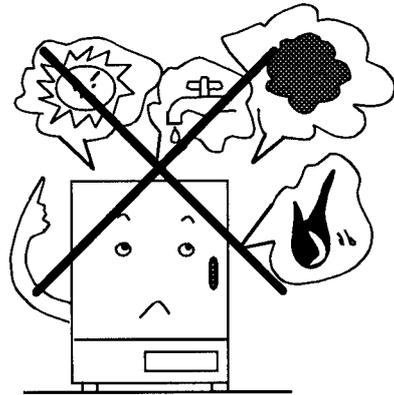
Place to be installed.

Horizontal flat low humid place where is not exposed to direct sun light, not vibrated, no explosive gas, no corrosive gas or chemical.

(Humidity less than 85% R.H. non-condensation)

Ambient temperature between 5 ~ 35°C.

Away from heat source.



4-2 Environmental conditions

Caution

Keep good ventilation space.

The following space is required as a minimum to maintain excellent performance of the unit.

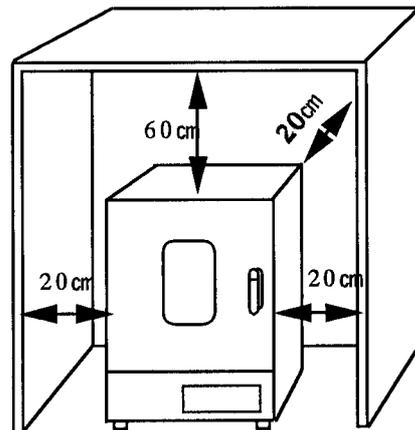
Caution

Do not put on anything on the top of this unit in order to avoid a fire-hazard.

Caution

Be careful to transport unit.

VOS-201SD(40kg),301SD(60kg)
451SD(110kg),601SD(260kg)
VOC-301SD(50kg),401SD(70kg)



4-3 Connection of utility

 **Warning**

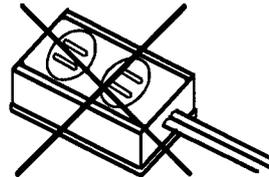
Use a suitable voltage, phase,
capacity and plug type.
Unsuitable power source may cause a
fire or electric shock hazard.

 **Warning**

Do not use a multi-plug extension cord.
There is danger of a fire of cable by excess
current.

 **Warning**

Ground this unit correctly.
Do not ground to the pipe of gas or water.



- (1) Check the voltage, phase, current capacity
of this unit.
It is shown in the right table.

VOS-201SD, 301SD
VOC-301SD, 451SD

- (2) Check the AC outlet to be used.
(Do not connect the unit yet.)

You can use a AC outlet with a ground
core without adapter.

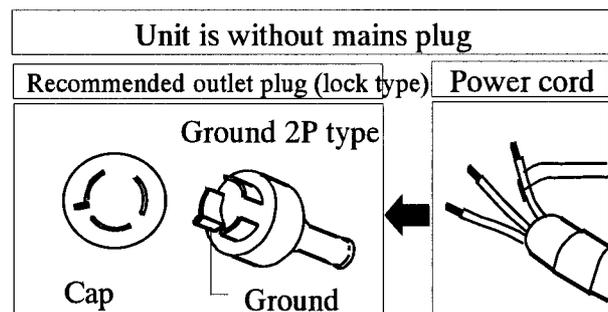
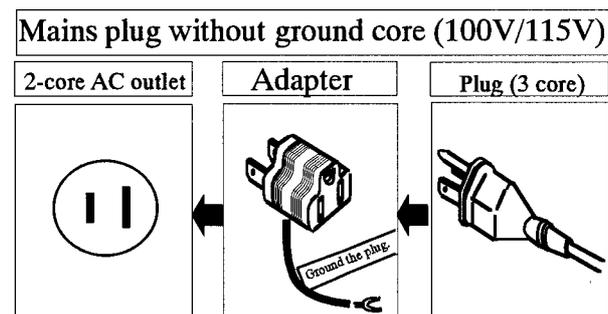
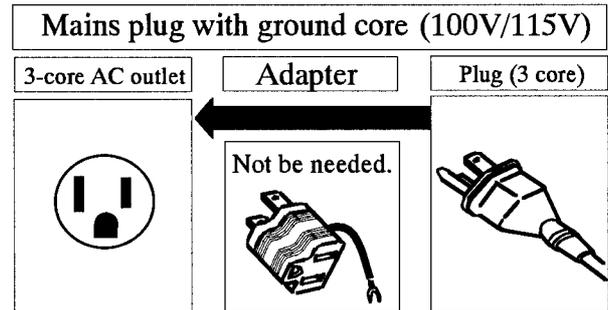
AC outlet without a ground core needs
an adapter.
Ground the wire of adapter.

Do not use a multi-plug extension cord.

VOS-451SD, 601SD

- (3) This model is supplied without mains plug.
Connect directly to a switch board, or
connect to a lock type outlet plug as
shown the right figure.
Ground this unit surely.

Model	Power source	
	Voltage	Current
VOS-201SD, 301SD	AC - 100V	15A
VOC-301SD, 401SD		
VOS-451SD, 601SD	AC - 200V single phase	15A



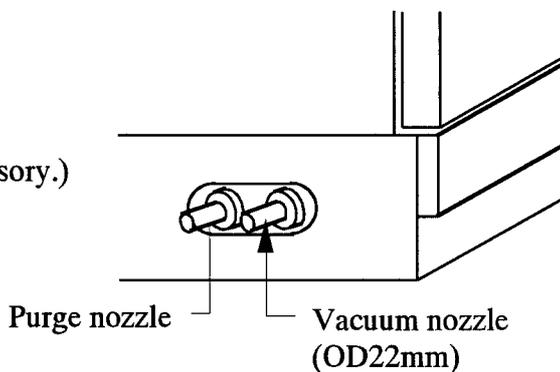
5 Operation

5-1 Preparation

Left side of unit

1. Attaching shelves

- (1) Attach shelves.
- (2) Connect the unit to a vacuum pump with a vacuum hose. (Hose is an optional accessory.) Be careful not to leak air between vacuum nozzle of the unit (OD ϕ 22) and the suction port of the vacuum pump.



! Dangerous

Do not use flammable materials such as organic solvent.

While operating, the inside temperature of the unit becomes very high so that sample materials may be vaporized, and ignitable or explosive. Do not apply the ignitable materials such as: nitrates, nitro compounds, etc. or explosive materials such as: salt peroxides, inorganic peroxides, salt nitrates, organic solvents etc.

This unit is not an explosion-proof structure.

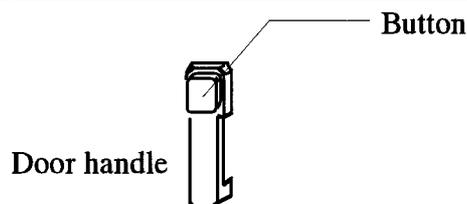
! Warning

When you use flammable materials, set the proper temperature for safety drying.

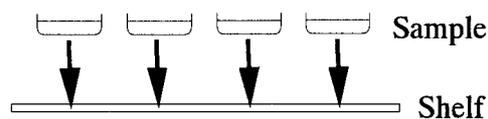
If you set the drying temperature for resin vessels or parts too high, they are melted and drop on the bottom heater, and then they may ignite.

Do not stuff samples into chamber. Only the bottom part is heated extremely, then flammable materials are melted and may be ignite.

- (1) Wipe a drop of water from samples and vessels.
- (2) Open the door.
Push the button to open the door.
- (3) Put samples on a shelf keeping uniform distance.
(You can put samples on a shelf up to 15kg.)
- (4) Close the door gently.
Close completely until you hear a click.
If it is not complete, operation does not start.
(Door lamp illuminates.)



Put samples on a shelf keeping uniform distance.



3. Connecting of mains plug

Make sure that the mains switch and the power switch are turned off.

Connect the mains plug to AC outlet.

5-2 Operation



Caution

While operating unit,
do not touch heated parts.

While operating unit, and after operating,
top surface of cabinet, observation window
and exhaust port are very hot. Do not touch
them to prevent getting burnt in your hands.



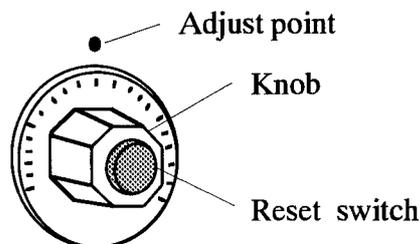
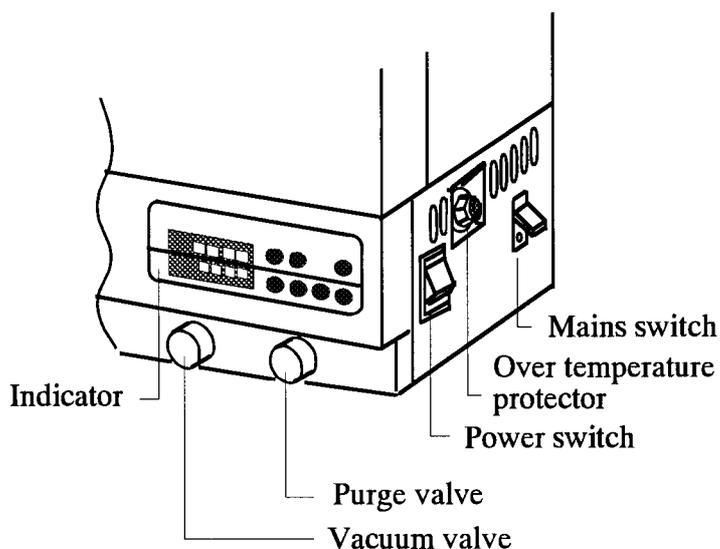
Caution

If a trouble occurs, stop
operating immediately.

If a trouble occurs, turn off mains switch
immediately, and check the unit referring to
the chapter [Trouble shooting].

1. Controlling temperature

- (1) Turn off the mains switch.
 - (2) Set the over temperature protector.
Turn the knob to set the desired
temperature to the adjust point.
Generally set the temperature 20°C
higher than the set temperature on
control panel.
 - (3) Turn on the power switch.
Program No is indicated on the indicator.
 - (4) Set programs referring to Key operation
manual.
 - (5) To quit the unit, turn off the power switch
first and then mains switch.
- * To recover the unit after functioning the over
temperature protector, check the unit
referring to the chapter [Trouble shooting] on
the page 15, and press the reset switch.
- * To recover the unit after power failure,
check the unit referring to the clause [Power
failure alarm is displayed.] in the chapter
Trouble shooting.



2. Vacuum operation

 Caution
<p>Change oil of vacuum pump periodically.</p> <p>The oil of vacuum pump is degraded by using in a long time. Change oil to avoid damage to a vacuum pump or prevent a poor vacuum.</p>

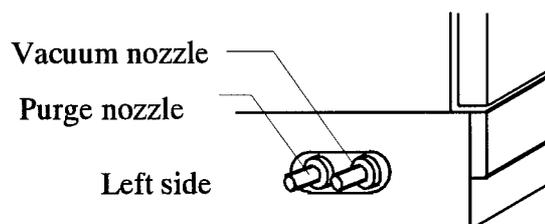
- (1) Connect a vacuum pump to vacuum nozzle (OD22mm) with a vacuum hose.

* Prepare a vacuum hose as it is not supplied as a standard accessory.

If the suction port size of vacuum pump is OD22mm, use a ID18mm vacuum hose. If the hose (ID18mm) is not suitable, refer to the manual of the pump.

We have some adapters for vacuum hose as optional accessories.

* Use a cold trap or dehydrator (molecular sieve) for collection of vapor, acid or alkaline corrosive gas, organic solvent, mercury vapor etc. to keep good condition of vacuum oil.

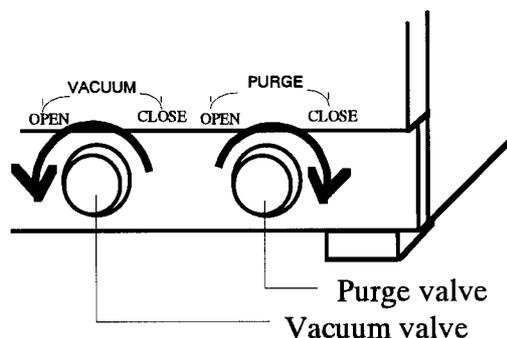


Adapter for vacuum hose

Model	Size	Code No.
Adapter A	OD22mm x OD17mm	119240
Adapter B	OD17mm x OD13mm	119250
Adapter C	OD22mm x OD13mm	119270

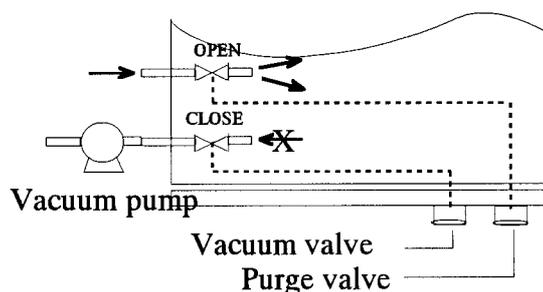
- (2) Turn the purge valve clockwise to close completely.

Turn on the switch of vacuum pump and turn the vacuum valve counterclockwise gradually to vacuumize the chamber.



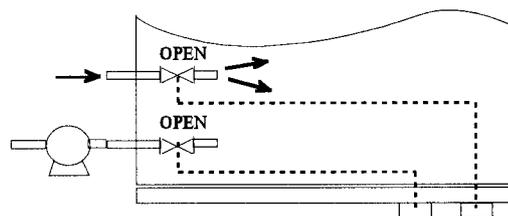
- (3) When drying operation is completed, turn the vacuum valve clockwise to close it.

Then turn the purge valve counterclockwise to release vacuum pressure from the chamber.



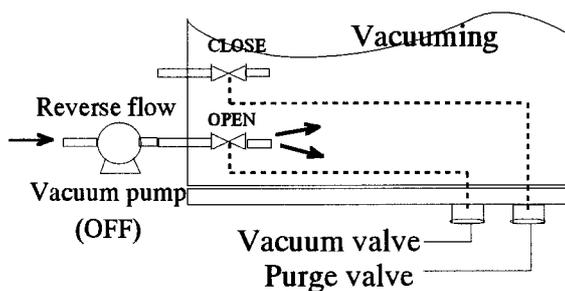
- (4) Keep opening the purge valve and turn the vacuum valve counterclockwise again to open it. Suck air for a minute by a vacuum pump.

- (5) Turn off the switch of the vacuum pump.



To be continued to the next clause.

* If you turn off the switch without operating the clause (3) and (4) after drying, vacuum oil may flow reversely from the vacuum pump.



* If you put samples in the vacuumed chamber, close vacuum valve and disconnect hose between the unit and the vacuum pump (release vacuum pressure at the suction port of vacuum pump) after attaining to the set vacuum pressure or after purging gas.

Then turn off the switch.

If you turn off the switch without disconnecting vacuum hose, the vacuum pump oil flows reversely to the nozzle of the main unit.

3. Gas replacement



Caution

When replacing gas, the supplying gas pressure must be 19.6kPa (0.2kg/cm² or lower).

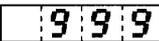
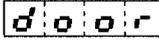
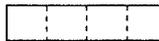
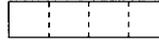
The high supplying gas pressure may transform the chamber or breaks down the observation window.

- (1) Connect a gas cylinder to the purge nozzle with a hose.
- (2) Regulate the supplying gas pressure 19.6kPa (0.2kg/cm²) or lower by a regulator.
- (3) Vacuumize the chamber by a vacuum pump and then close the vacuum valve.
- (4) Open the purge valve slowly to replace gas.
- (5) After replacing gas, close the purge valve to seal up the chamber.

* If you put samples in the gas replaced chamber, close vacuum the valve and disconnect hose between the unit and the vacuum pump (release vacuum pressure at the suction port of vacuum pump) after attaining to the set vacuum pressure or after purging gas. Then turn off the switch of vacuum pump. If you turn off the switch without disconnecting vacuum hose, the vacuum pump oil flows reversely to the nozzle of the main unit.

6 Troubleshooting

Problem	Cause	Remedy
The mains switch shuts down the circuit soon after turning on it.	Power failure.	Stop operation immediately and call service.
	Excess current.	
The display does not show anything, even if the power switch is turned on.	Mains plug is disconnected, or it is not connected completely.	Turn off both mains switch and power switch, and then connect the plug to AC outlet.
	Electric power is not supplied.	Turn on the breaker on switch board.
	Mains switch turns off.	Turn on mains switch.
	Mains switch breaks down.	Stop operation immediately and call service.
	Power switch breaks down.	
	Connector of temperature controller is disconnected.	
	Temp. controller breaks down.	
	Over temperature protector is not reset.	<ul style="list-style-type: none"> • Press the reset switch of over temp. protector, then change the set temperature of over temp. protector. (20°C higher than the set chamber temp. • After power failure, refer to the last clause in this chapter. [Power failure alarm is displayed.]
	The set temperature for chamber is lower than that of over temperature protector.	
The chamber temperature exceeds both the set chamber temperature and temperature of over temperature protector by breakage of controller.	Stop operation immediately and call service.	
The unit stops while operating.	The set temperature for chamber is lower than that of over temperature protector.	<ul style="list-style-type: none"> • Press the reset switch of over temp. protector, then change the set temperature of over temp. protector. (20°C higher than the set chamber temp. • After power failure, refer to the last clause in this chapter. [Power failure alarm is displayed.]
	The chamber temperature exceeds both the set chamber temperature and the set value of over temperature protector by breakage of controller.	Stop operation immediately and call service.
Chamber temperature does not attain to the set temperature.	Exhaust port is fully opened.	Close the exhaust port.
	Too much samples or vessels are stuffed into the chamber. Inner air can not circulate.	Reduce samples to keep good circulation of inner air.

Problem	Cause	Remedy	
<p>Even though you vacuumize the chamber, the vacuum gauge does not operate.</p>	Purge valve is opened.	Close the purge valve fully.	
	Vacuum valve is closed.	Open the vacuum valve.	
	Vacuum gauge breaks down	Stop operation immediately and call service.	
	Vacuum hose size is unsuitable. Vacuum hose has cracks.	Change vacuum hose.	
Alarm messages are displayed.	<p>Incorrect setting alarm is displayed. Set value is not accepted.</p> <p>PV </p> <p>The set value blinks for 3 sec. and then the indication recovers to input mode.</p>	<p>Entered value is out of the range (*40 ~ 200°C, ** 40 ~ 240°C)</p> <p>* VOS-601SD, VOC-301SD, 401SD ** VOS-201SD, 301SD, 451SD</p>	<p>Set a value within the range. (* 40 ~ 200°C or **40 ~ 240°C)</p>
	<p>Door alarm is displayed. The alarm LED illuminates and the heater is turned off.</p> <p>PV </p>	<p>Door is not closed completely.</p>	<p>Close completely.</p>
	<p>Over shoot alarm is displayed.</p> <p>PV </p> <p>Upper limit value</p>	<p>It displays when the chamber temperature exceeds the upper limit value (set temp. + upper limit alarm value)</p>	<p>The unit recovers when the temperature lowers than the upper limit value (set temp. + upper limit alarm value)</p>
	<p>Under shoot alarm is displayed.</p> <p>PV </p> <p>Lower limit value</p>	<p>It displays when the chamber temperature falls below the lower limit value (set temp. + lower limit alarm value)</p>	<p>The unit recovers when the temperature rises above the lower limit value (set temp. + lower limit alarm value)</p>

	Problem	Cause	Remedy
Alarm messages are displayed.	Power failure alarm is displayed, and alarm LED illuminates. PV o F F	Power failure occurs while operating. The switch turned off while operating.	After recovering the unit, it runs following to the recovering action from power failure. Press [DISP] key to clear the alarm indication and alarm LED, and the unit returns to normal indication.
	Over heat alarm is displayed, alarm LED illuminates, and all operations stop. PV o u H t	SSR breaks down.	Stop operation immediately and call service.
	Heater alarm is displayed, alarm LED illuminates, and all operations stop. PV H E A T	Heater is disconnected.	
	Sensor alarm is displayed, alarm LED illuminates, and all operations stop. PV S E n S	Sensor is disconnected. Sensor terminal is disconnected from temperature controller.	
Watch-dog system	Other indications appear except aforementioned indications or any key operation is not accepted, and control operation stops.	The unit is influenced by large electrical noise through power supply line.	Turn off mains switch , and turn on again. If this does not recover the unit, execute zero clear operation. (Refer to P8. of key operation manual.)

7 Maintenance and Check-up

7-1 Test of Mains switch

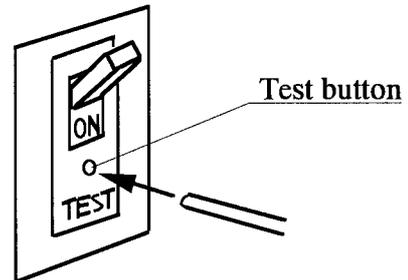


Caution

Test mains switch periodically.

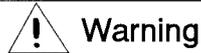
If you use the unit with any trouble of mains switch, you may meet with an electric shock hazard.

Test once or more time in a month.



Connect mains plug.
Turn on mains switch and press test button with a stick.
When the switch is turned off, it does not have any problems.

7-2 Cleaning, Care



Warning

Do not take the unit apart.

There are heating part and electric parts inside of the unit.

Do not take the unit apart to prevent electric shock hazard or getting injuries.



Caution

Clean or care the unit after it is cooled enough.

Clean or care the unit after it is cooled enough to avoid getting burnt in your hands.



Caution

Use proper cleaning material or detergent.

Do not use cleanser, benzine acid liquid or other petroleum emulsion.

Do not pour water on the unit.

- (1) Turn off mains switch and pull out the plug from AC outlet before cleaning.
- (2) Clean with a soft cloth or a wet towel.
If not enough, use a neutral detergent.

8 Disposal of unit

To dispose the unit, follow the disposal standard of your country.

VOS

	Model	Net weight	Overall dimensions	
Main unit	VOS-201SD	40kg	355W x 400D x 580H mm	
	VOS-301SD	60kg	505W x 540D x 760H mm	
	VOS-451SD	110kg	655W x 595D x 905H mm	
	VOS-601SD	260kg	860W x 780D x 1120H mm	

VOC

	Model	Net weight	Overall dimensions	
Main unit	VOC-301SD	50kg	470W x 530D x 725H mm	
	VOC-401SD	70kg	570W x 630D x 820H mm	