



# Operation Manual

## **MINI- SHAKER**

Model : CMS-350

Manual No.: 3B1115L002 Version : 2.1



## **WARNING**

Please read this user manual carefully before using the product. Users should operate the product according to the operating instructions contained in this user manual. Users should be aware of cautions and warnings for your safety. Failure to follow these guidelines may result in serious injury or damage to your property.

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## 1.0 Safety Advice

### 1.1 Operation Manual

This manual contains important safety and operation information. You must carefully read, understand, and follow all the instructions in this manual prior to operating this instrument. Keep this manual in a safe place nearby for reference and make it easily available to all users.

### 1.2 WARNING/CAUTION/NOTICE Alerts

This manual highlights WARNING/CAUTION/NOTICE alerts to prevent injury or property damage and also to achieve optimum performance of your instrument.

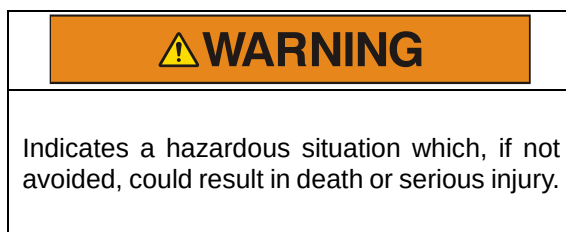
These alerts are classified into three types in this manual depending on the importance and the risk levels as described below:

| Symbols                                                                                          | Meaning                                                         |
|--------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|
|  <b>WARNING</b> | Ignoring this warning could cause serious injury or even death. |
|  <b>CAUTION</b> | Ignoring this caution could cause injury or property damage.    |
| <b>NOTICE</b>                                                                                    | Ignoring this notice could cause operational problems.          |

### 1.3 Exemption for responsibility

- (1) The claim which is out of the quality guaranteed by the manufacturer is out of Manufacturer's responsibility.
- (2) The damage which is from unexpected fault or damage of user by Acts of God is out of Manufacturer's responsibility

## 1.4 Warning statement



Please check and connect properly -the voltage, phase and capacity of power supply on the ID plate before installation.

Power supply must be properly grounded.

Abnormal grounded connection causes serious damage. Grounded connection must not be on the water pipe and gas pipe.

Please use correct and provided power code

Power cord: Wall outlet with grounded terminal power cord 250V 7A.

Do not install the product in the place that the gas could leak out. Does not use in the place that has the industrial oil smoke and the metallic dust. It causes fire or electric shock.

Do not use the machine near to places where explosion can be happened due to organic evaporating gases.

Explosive materials: Acid, Esther, Nitro compound

Inflammable materials: salt peroxides, inorganic peroxide, salt acids.

Please check equipment Permissible environmental condition when you use inside of Temp. & Humid. Chamber or Incubator.

It can be cause fire or trouble by Shaker electricity, electronic, and damage of motor.

Shaker Permissible environmental condition

:Temperature 2°C to 60°C, Maximum relative humidity 80%.

Wear your personal protective equipment in accordance with the hazard category of the medium to be processed.

: Splashing liquids, projectile parts, body parts, hair, clothing and jeweler getting caught.

Unplug, when there is strange sound, smell and smoke from the product.

Please stop operating and request the service.

Keep out of the direct sunlight.

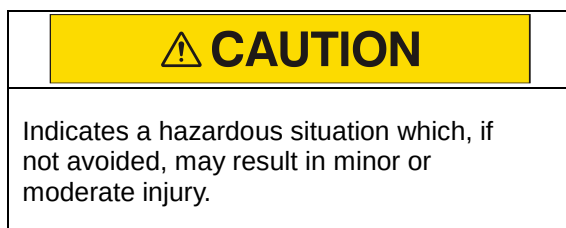
It may influence that product life and operation properly.

Do not use the machine at places where moisture is high and flooding can be happened.

Do not assemble, repair, modify on your own.

The product may not work well and electric shock in the efficiency of the product. Also you cannot get after service by warranty regulation

## 1.5 Caution statement



Do not put heavy things on the power line. Do not put the machine on the line.

It may take off the wire coating and causes the electric shock or fire.

Do not touch it with wet hands and put the main plug correctly.

It may cause the electric shock or injuries.

Installation power outlet near instrument and may be convenient.

Do not install the stirrer neat machinery generating high frequency noise.

Please avoid installed from high frequency- welding machine, sewing machine, and mass SCR controller.

Do not inject any liquid and inflammable things inside of product.

Do not pure water or put liquid on the top of the product when cleaning.

Please intercept the main power immediately and request the service when water may be in the product.

Do not let the product take any strong shock or vibration.

It causes abnormal operation or trouble. It may deteriorate the ability of the product and not obtain correct results.

Do not sprinkle insecticide or flammable spray on the product. Use smooth cloths.

Cleaning with solvent can cause fire and deformity.

Please power off while product cleaning.

It may cause the electric shock or fire.

Put off the power plug if some sounds and burning smell, smokes are happened. And request the service.

Do not let the product take shock and fall down product.

It will be caused by wrong operating and malfunction

## 2.0 Functional Description

### 2.1 Introductions

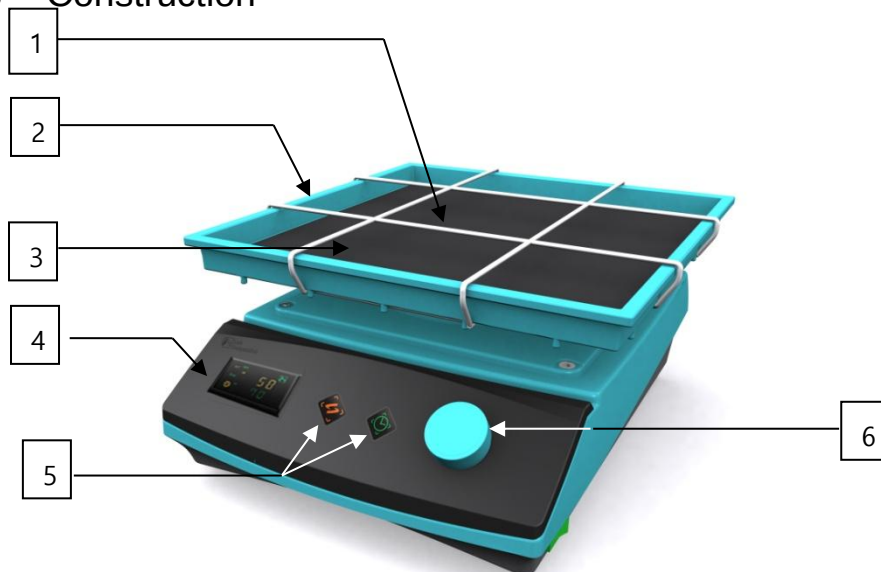
Mini shaker is commonly used for mixtures, homogenizing and various hybridization, immunocytochemistry reaction or gel staining / destaining process and over biotechnology.

### 2.2 Feature

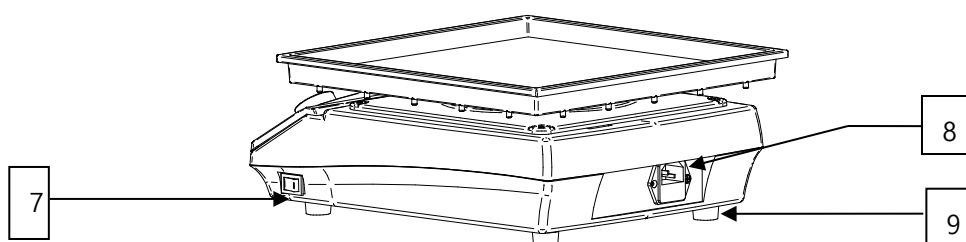
This product is aimed to be user safe in laboratories, convenient and follow features.

- (1) User can choose easily the instruments rotating speed (50~300 rpm) for their own purposes.
- (2) The controller display adopts VFD (Vacuum Fluorescent Display). It is easy to indicate stirrer set up and operating condition.
- (3) It is convenient to use in an incubator or a low temp. room because It is small and easy to move
- (4) User can do conveniently timer setting. (1 min to 99 hour 59 min)
- (5) The tray has the efficient size to be placed 6 Well-pate and can be separated from main body to keep using in clean condition. (Tray: optional)
- (6) It is conveniently used for Microbiological culture by Aluminum try and flask clamp(optional)
- (7) Sticky pad and rubber ring tray are optional
- (8) Aluminum platform is optional. Flask clamp, micro plate can be equipped on aluminum platform.

## 2.3 Construction



- (1) **Sticky Pad** : to protect sliding of glassy flask. (optional)
- (2) **Tray**: to be placed sample or carried. (optional)
- (3) **Rubber rings**: to fix and tie the sample. (optional)
- (4) **VFD panel & Controller**: The panel indicates product setting and control condition.
- (5) **Touch Button**: to choose RPM or TIMER individually, operating by orange and green LED lamp
- (6) **Knob**: to set a shaking speed / timer and start / stop.
- (7) **Power switch**: It is the main ON/OFF switch and supplying power of the product.
- (8) **Socket**: Connect the power cable on the socket.
- (9) **Foot**: to prevent from slippery and support main body



Mini shaker back side

## 3.0 Installations and Caution

### 3.1 Unpacking the package and Inspecting damage during transportations

- (1) Check to see that the unit is not damaged before unpacking.
- (2) Unpack the unit carefully.
- (3) Inspect to see that the unit is not damaged during transportations.

### 3.2 Checking the unit components

- (1) Please check the unit components supplied packaged in the package after unpacking.
- (2) If noticeable damage or an omission is found, immediately notify your local Jeio Tech dealer's Service Department.

| BASIC COMPONENT  | QUANTITY<br>/ RECEIVED | DESCRIPTION |
|------------------|------------------------|-------------|
| Operating Manual | 1/OK                   |             |
| Main unit        | 1/OK                   |             |
| Power cord       | 1/OK                   |             |

### 3.3 Installation

#### 3.3.1 Installing environment

- Temperature: 2°C ~ 60°C
- Relative Humidity: RH 10% ~ 80%
- Maximum attitude: up to 2,000 m

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#### **WARNING**

- The unit should be located away from naked
  - flame sources, direct sunlight. It can come with the malfunction or lower the function.
- 

#### 3.3.2 Location conditions

Place the unit table as far as possible when in use, and keep suitable distance not to be placed from other instruments.

---

#### **CAUTION**

- Do not place the unit nearby the other
  - laboratory equipments which can be readily influenced, even by weak motor vibration
-

### 3.3.3 Fixing feet and keeping its balance

**STEP 1:** please gently press the feet on the table

**STEP 2:** please check horizontality of the shaker

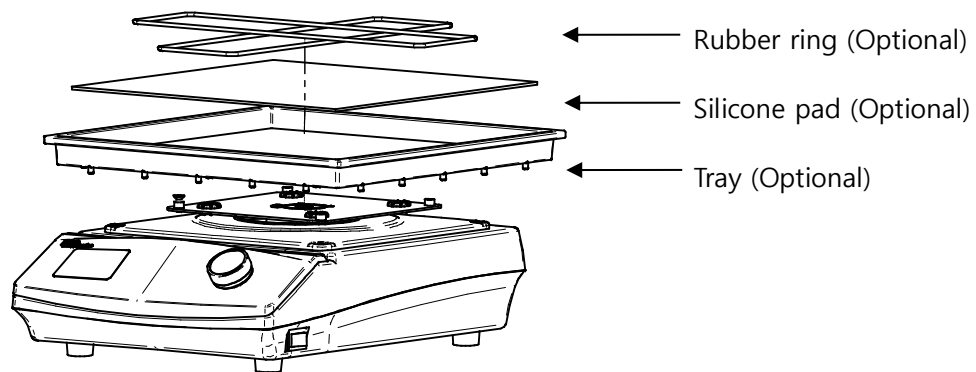
### 3.3.4 Installation Tray (Optional)

Please install the provided tray with main body as follows

It can be used by installing Non-slip pad as necessary. (Optional)

**STEP 1:** Put the protrusions of tray into the 4 holes of main body

**STEP 2:** Please check if the tray is fitted perfectly



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## **WARNING**

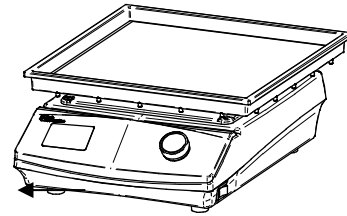
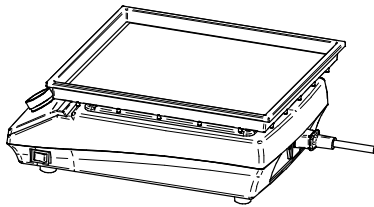
- When the product is operating, if you give wrong force to the product or catch tray, the shaft can be damaged.
-

### 3.3.5 connecting to the mains power supply

Connect the electric power to the unit according to the following process

**STEP 1:** Switch off the main switch before connecting AC power cable.

**STEP 2:** Connect the power cable on the socket located on the back side of the unit.



Power switch

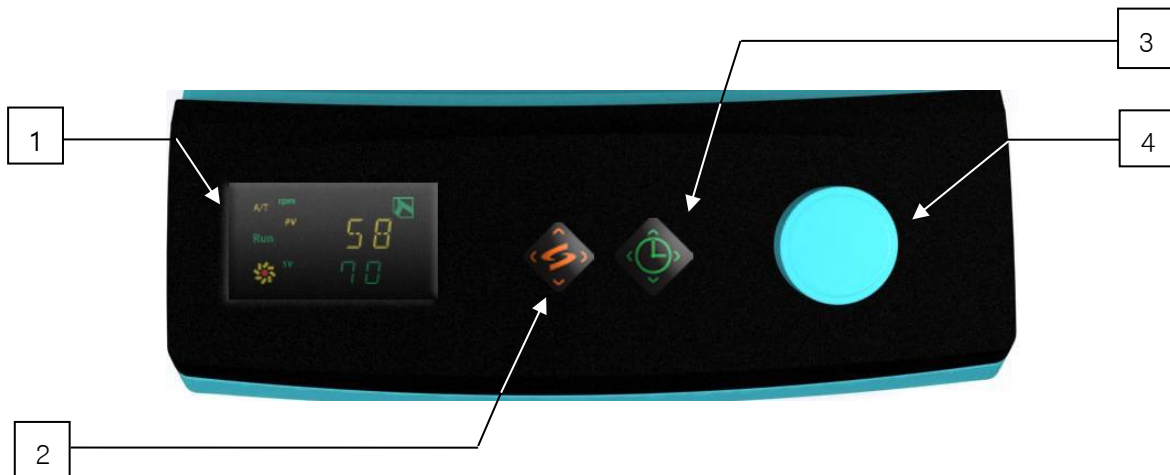
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#### **WARNING**

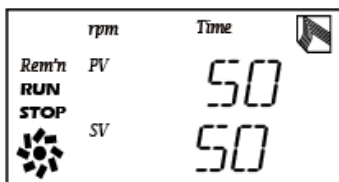
- Use the power cord only supplied with the unit.
-

## 4.0 Operation

### 4.1 Controller – Name and function



(1) **VFD (Vacuum Fluorescent Display)**: Check out status of unit through VFD display.



- A. **rpm**: Just indication below PV and SV show RPM.
- B. **Time**: Run time or Indicating Timer mode
- C. **PV**: Current RPM
- D. **SV**: Setting RPM
- E. **Run**: It indicates the unit works
- F. **Stop**: It indicates the unit stops
- G. **Rem'n**: It shows remaining time during Timer mode operation

(2) **RPM button**: It indicates that the unit works. RPM can be verified during Timer mode operation.



(3) **TIME button**: Timer and Run time can be verified.

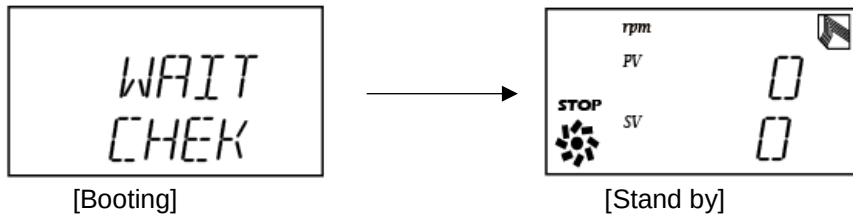


(4) **Dial knob**: RPM setting, Input time, or stop the unit



## 4.2 Start and stop

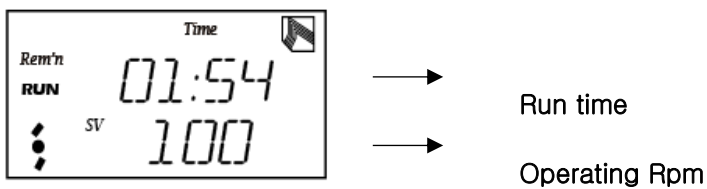
- (1) Turn on the switch at the right bottom of the unit.



- (2) Dial the knob and set the desired RPM.



- (3) Run time can be verified during shaking if you press  button.



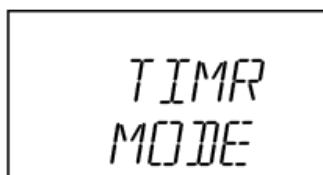
Display returns to previous display about after 10 seconds.

- (4) You can stop the unit if you rotate or press the dial knob.

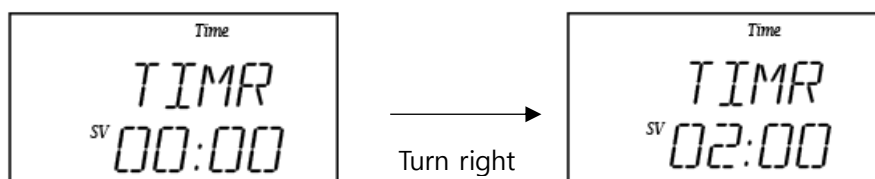
## 4.3 Timer function

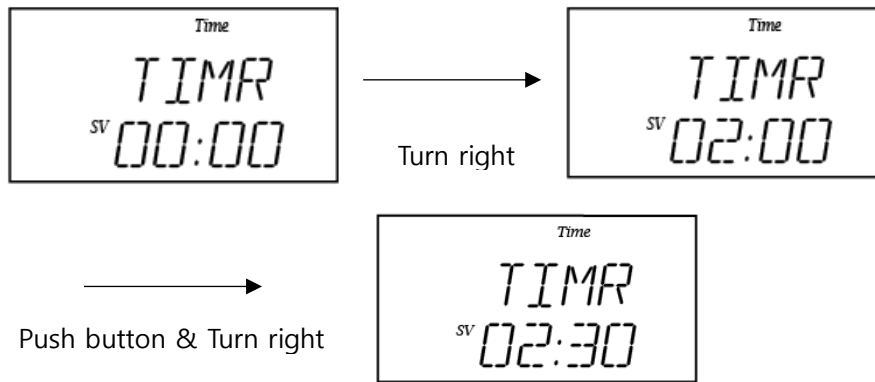
### 4.3.1 How to set Timer

- (1) Press button when the unit stops.



- (2) Time input display shows when you press the dial knob.





\* Input Hour/Min : Hour blinks during setting.

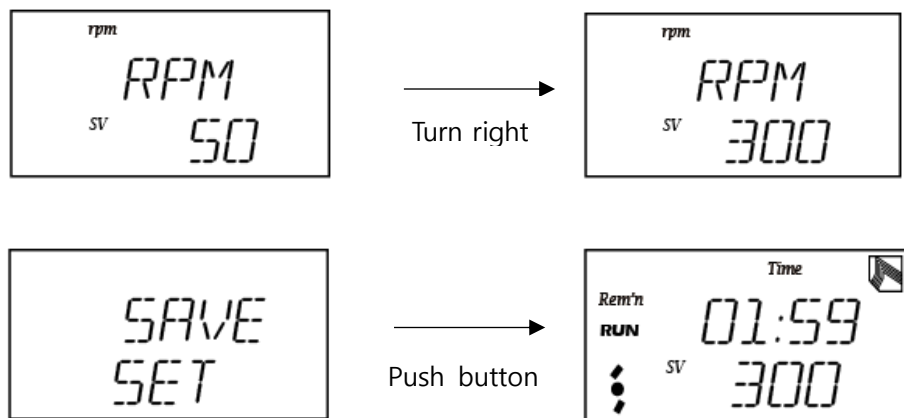
**STEP 1:** Input hour by rotating the dial knob to right or left direction.

**STEP 2:** Press the dial knob 1 time.

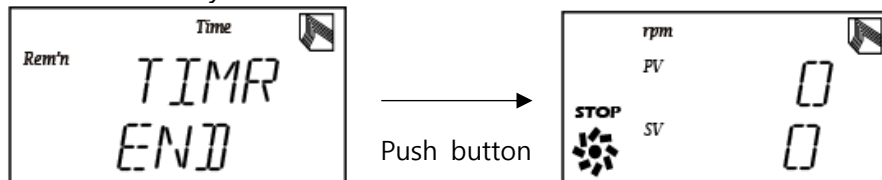
**STEP 3:** Input minute by rotating the dial knob to right or left direction.

**STEP 4:** Press the dial knob 1 time.  
Display moves to next mode (RPM setting).

Input RPM by dialing the knob. Press dial knob 1 time to save set value and unit starts shaking.  
Remaining time and set value (RPM) shows on display



- (3) Shaking stops and alarms when the time is terminated. If you press dial knob or touch button, display returns to stand by status.



#### 4.3.2 Stop Timer

Timer operation can be stopped as following steps.

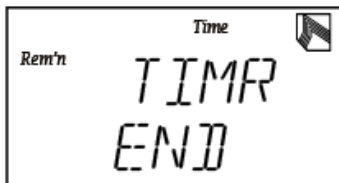
**STEP 1:** Press the dial knob



**STEP 2:** Turn the dial knob to right to choose STOP / YES.



**STEP 3:** Press the dial knob.



---

### NOTICE

- RPM Setting is available from 50 rpm min.

---

### NOTICE

- If you press the timer button at any stage of setting timer, it returns to standby mode. You can set time and rpm again by pressing timer button.

---

### ⚠ CAUTION

- Using the stop button does not work while timer is operating. Read 4.3.2 for timer stop function before using.
-

## 5.0 Preventive Maintenance

### 5.1 Periodic maintenance

| classifications                                                                                           | A period of checking time |        |
|-----------------------------------------------------------------------------------------------------------|---------------------------|--------|
|                                                                                                           | daily                     | weekly |
| <b>Generals</b>                                                                                           |                           |        |
| Power cord                                                                                                |                           |        |
| - The conditions of connection for power supply and an adaptor                                            | •                         |        |
| - The presence of power supply and an adaptor contact wetting, and cable peeling off, and out of contact. | •                         |        |
| Surface cleaning                                                                                          |                           | •      |
| <b>Mini Shaker</b>                                                                                        |                           |        |
| Controller display status                                                                                 | •                         |        |
| Controller function checking                                                                              |                           | •      |
| The status of ON/OFF on motor                                                                             | •                         |        |
| Check accessory attachments to the unit are tight.                                                        | •                         |        |

### 5.2 Cleaning for tray and accessories

Remove a contaminant by cleaning the unit frequently with a soft cloth before and after using, otherwise it cannot be readily wiped out for a long time. Keep the unit clean always without any contaminant.

#### **WARNING**

- Do not soak the product in the water to clean.

### 5.3 In case of not using long time

- (1) Unplug the unit from the main power.
- (2) Clean the unit with a soft cloth neatly.
- (3) Store in a dry place after packing.

## 6.0 Troubleshooting

### 6.1 Electrical

| Trouble                                                                       | Causes                                                                         | Solution                                                                                                                                                                            |
|-------------------------------------------------------------------------------|--------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>The unit does not turn on</b>                                              | Incorrect electric power                                                       | Compare power source and voltage on the ID plate and make sure they are the same. ID plate is found on the back of unit.                                                            |
|                                                                               | Power failure or circuit breaker shuts down                                    | Find out the causes of power failure and recovery.                                                                                                                                  |
|                                                                               | Main plug not seated properly.                                                 | Check the electrical cord connection at the unit to ensure it is fully seated.                                                                                                      |
|                                                                               | Check the electrical cord connection at the unit to ensure it is fully seated. | If the socket / plug / main power line are cut, request service.                                                                                                                    |
|                                                                               | PCB has damaged by reagent                                                     | Request service.                                                                                                                                                                    |
| <b>Room circuit breaker trips often when the unit is turned on or running</b> | Too many plugs connect at the same time                                        | 1. Check the circuit breaker size along with the voltage and current supplied to it.<br>2. Check that several similar units are inserted together, if so you should not use overly. |
| <b>No VFD</b>                                                                 | Power failure                                                                  | Find out the causes of power failure and recovery.                                                                                                                                  |
|                                                                               | Main plug not seated properly.                                                 | Check the electrical cord connection at the unit to ensure it is fully seated                                                                                                       |
| <b>Button doesn't operate well</b>                                            | Power failure                                                                  | Find out the causes of power failure and recovery.                                                                                                                                  |
|                                                                               | Button switch has damaged                                                      | Request service.                                                                                                                                                                    |

## 6.2 Trouble during operation

| Symptom                                                    | Cause                                                   | Action                                                                                                           |
|------------------------------------------------------------|---------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| <b>Incurring while running the device if it sounds</b>     | Axis deviation in the interior of the unit              | Request service.                                                                                                 |
| <b>Touch button doesn't operate well</b>                   | Capacitance sensor initialization errors                | Off the power switch on the power supply is blocked. In a few moments to initialize the controller power supply. |
| <b>Spinning speed cannot be controllable properly.</b>     | DC Motor and circuit problem.                           | Request service.                                                                                                 |
| <b>In case the severity of changes in rotational speed</b> | Heavy leaning to one side of the sample tray is located | Reduce the load or tray in the center                                                                            |

## 6.3 Error message on the display

| Symptom          | Cause                                                  | Action                                           |
|------------------|--------------------------------------------------------|--------------------------------------------------|
| <b>OVER LOAD</b> | Overloaded by the amount of work overload on the motor | Use in a fixed range of uses.                    |
|                  | Foreign substances jammed in the rotating part         | Take off the tray and remove foreign substances. |
|                  | Motor driver board problem                             | Request service..                                |
|                  | Average life of motor ends                             | Request service.                                 |
| <b>WARN KEY</b>  | In the key of the button pressed                       | Request service in case symptoms remain          |
| <b>MOTR CHEK</b> | Motor driver board problem (communication part)        | Request service.                                 |

## 7.0 Technical Specifications

| Model          |                                  | Mini shaker                                              |
|----------------|----------------------------------|----------------------------------------------------------|
| Technical data | Speed range(rpm)                 | 50~300                                                   |
|                | Timer                            | 1min to 99 hr and 59 min                                 |
|                | Orbital diameter (mm)            | 13                                                       |
|                | Load max.(kg)                    | up to 4                                                  |
|                | Ambient temperature range (°C)   | 2 to 60                                                  |
|                | Accuracy (rpm)                   | ±5                                                       |
| General data   | Speed control                    | PID feedback                                             |
|                | Control panel                    | VFD(Vacuum Fluorescent Display),<br>Touch key, Dial knob |
|                | Safety device                    | Over Current detection                                   |
|                | Motor                            | BLDC, 24V                                                |
|                | Material                         | PP, PET, Powder coated steel                             |
|                | Electrical supply                | AC 100-240 V, 50/60 Hz                                   |
|                | Overall dimension(W x D x H, mm) | 249 x 325 x 109                                          |
|                | Net weight(Kg)                   | 8                                                        |

※ Specifications can be changed without prior notice for quality upgrade

## 8.0 Accessories

### 8.1 Aluminum platform

An aluminum platform with screw holes is provided as an option to simply attach various accessories. Using an aluminum platform with its fixable flasks or well-plates guarantees safer stirring operations at high rpm.

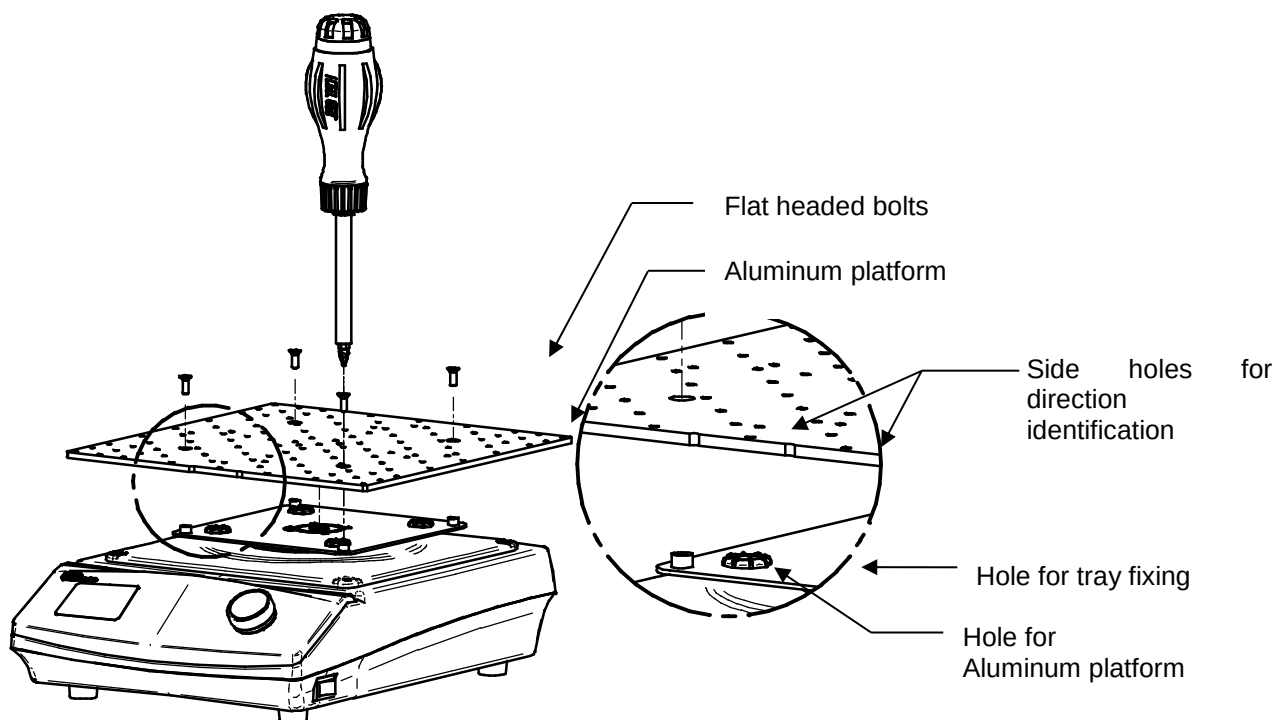
#### 8.1.1 Installation of the aluminum platform

**STEP1:** Remove the installed tray by lifting up.

**STEP2:** Check identification holes at two sides of overall platform.

**STEP3:** Place the platform on the top by adjusting platform's 4 screw holes to fit in the top's screw holes.

**STEP4:** Fix platform to main body with 4 flat headed bolts as [figure. 8-1]



[Figure 8-1]

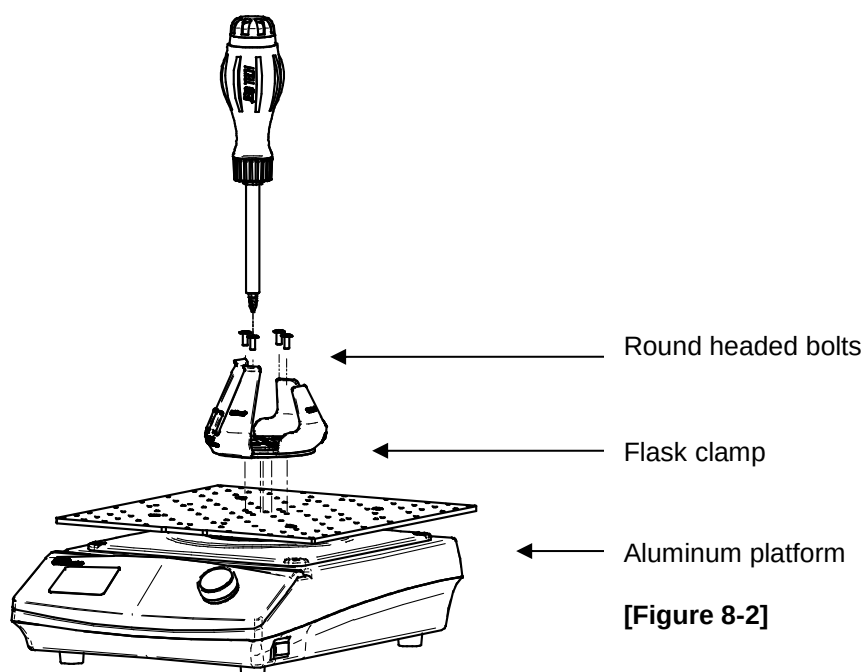
## 8.2 Plastic flask clamps

### 8.2.1 Maximum quantity of mountable plastic flask clamps

| Name                                                | Classification               | Cat. No. | Max. quantity based on Mini shaker |
|-----------------------------------------------------|------------------------------|----------|------------------------------------|
| Plastic Flask Clamp<br>(round headed bolt included) | 50ml conical flask type      | AAA30570 | 16                                 |
|                                                     | 100,125ml conical flask type | AAA30571 | 9                                  |
|                                                     | 200ml conical flask type     | AAA30572 | 9                                  |
|                                                     | 250ml conical flask type     | AAA30573 | 9                                  |
|                                                     | 300ml conical flask type     | AAA30574 | 9                                  |
|                                                     | 500ml conical flask type     | AAA30575 | 5                                  |
|                                                     | 1000ml conical flask type    | AAA30576 | 4                                  |
|                                                     | 2000ml conical flask type    | AAA30577 | 1                                  |

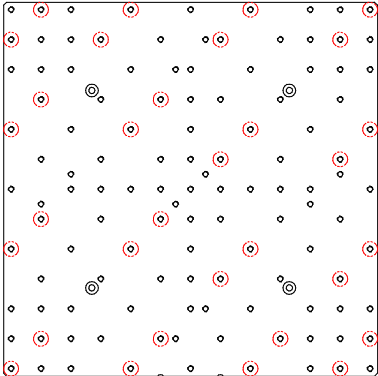
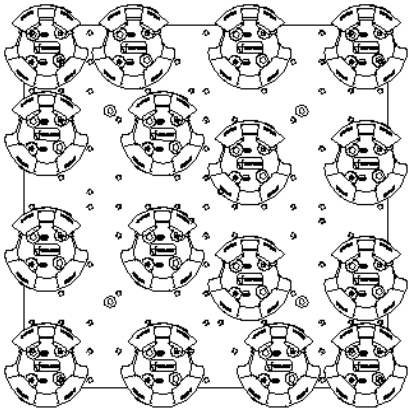
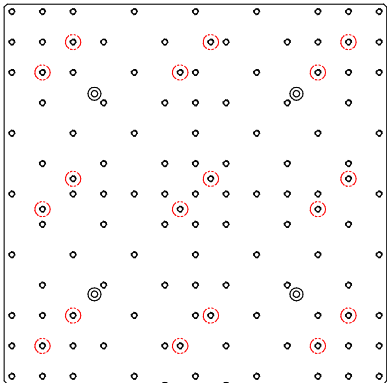
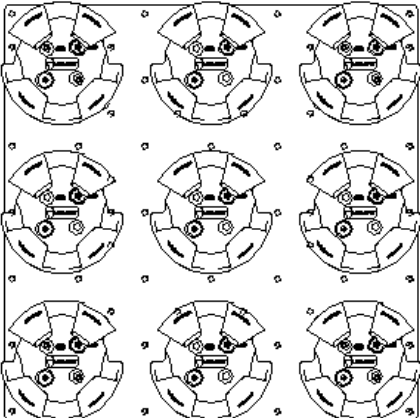
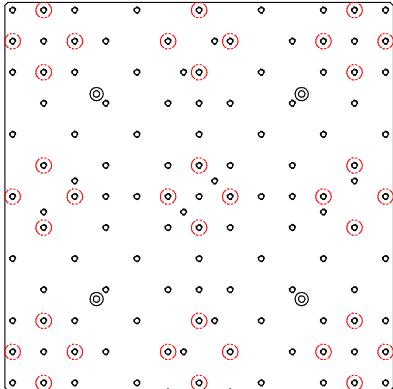
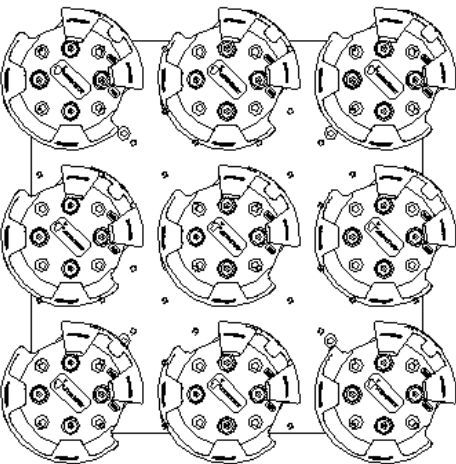
### 8.2.2 Installation of plastic flask clamps

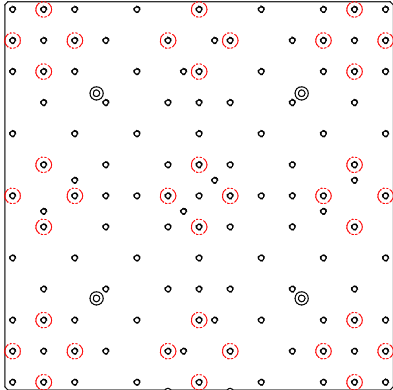
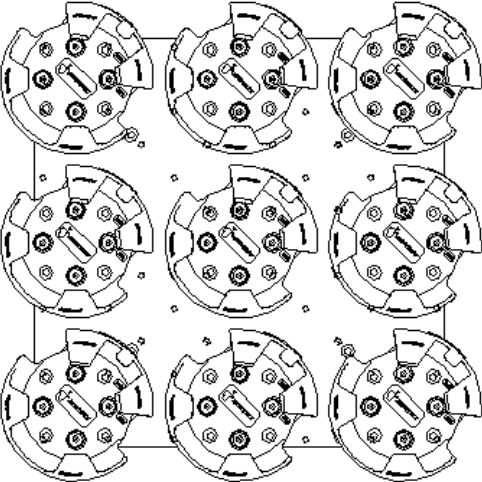
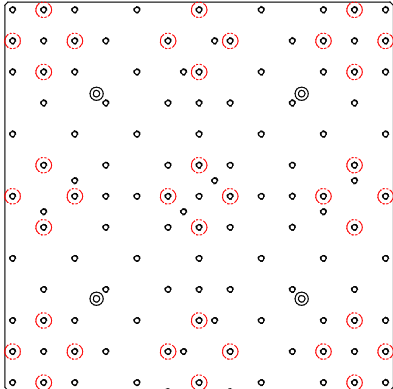
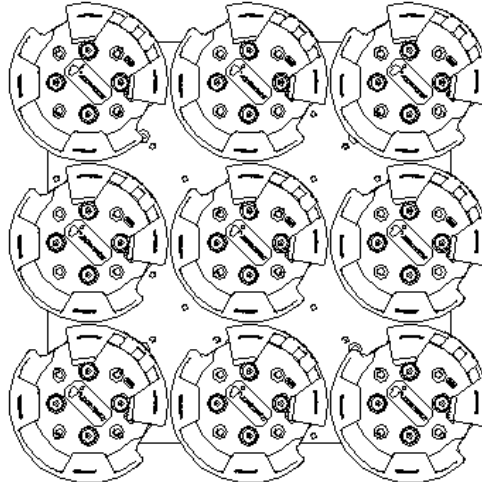
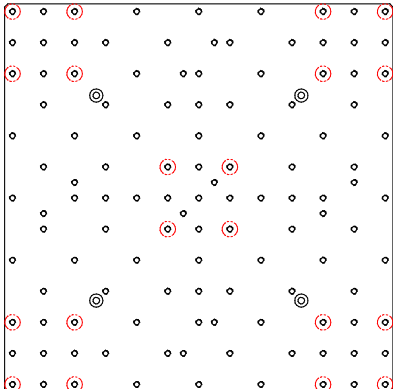
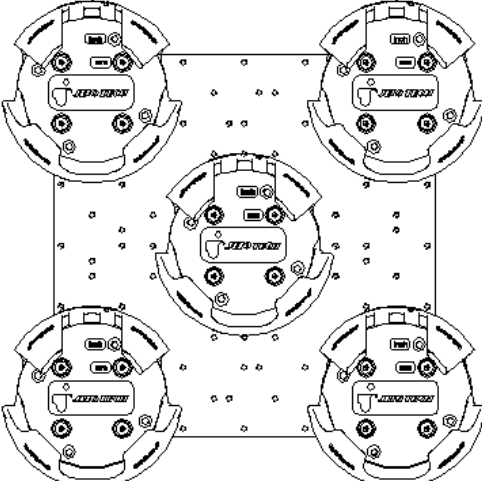
Fix flask clamps on the platform with 4 round-head bolts as [figure 8-2]. There are screw holes on aluminum platform for attaching various accessories. You can configure any accessories according to capacity and quantity of flask.

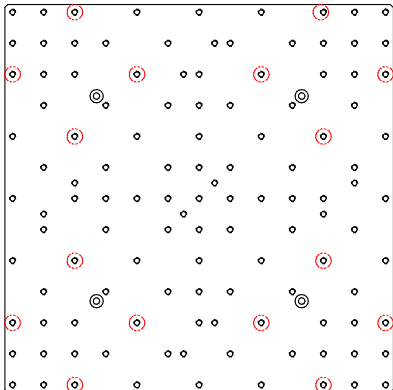
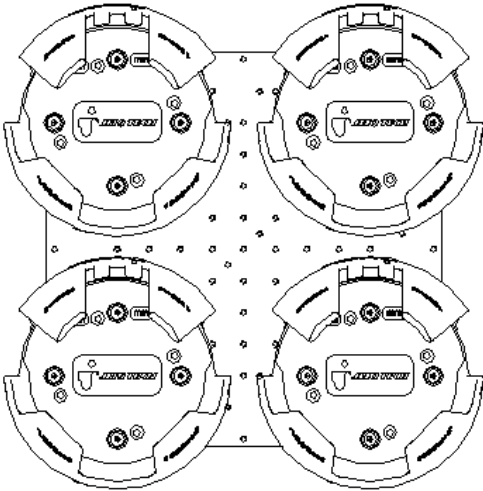
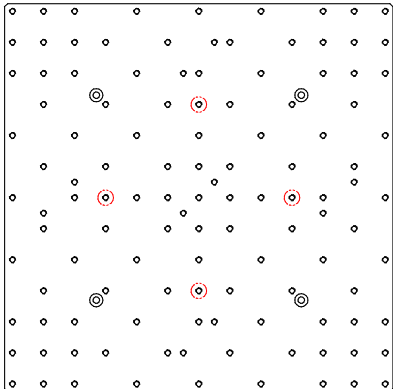
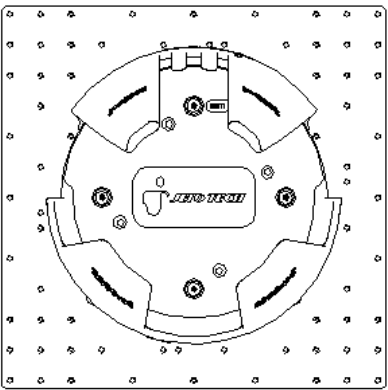


### 8.2.3 Example of installation for flask clamps.

Maximum mountable quantity per flask capacity is as below.

| Capacity and quantity of Flask clamps       | Installation location                                                               | Installation example                                                                 |
|---------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| 50ml -16 clamps<br>(2 bolts per clamp)      |    |    |
| 100,125ml – 9 clamps<br>(2 bolts per clamp) |   |   |
| 200ml -9 clamps<br>(4 bolts per clamp)      |  |  |

| Capacity and quantity of Flask clamps  | Installation location                                                               | Installation example                                                                 |
|----------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| 250ml -9 clamps<br>(4 bolts per clamp) |    |    |
| 300ml -9 clamps<br>(4 bolts per clamp) |   |   |
| 500ml -5 clamps<br>(4 bolts per clamp) |  |  |

| Capacity and quantity of Flask clamps   | Installation location                                                              | Installation example                                                                |
|-----------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| 1000ml -4 clamps<br>(4 bolts per clamp) |   |   |
| 2000ml -1 clamp<br>(4 bolts per clamp)  |  |  |

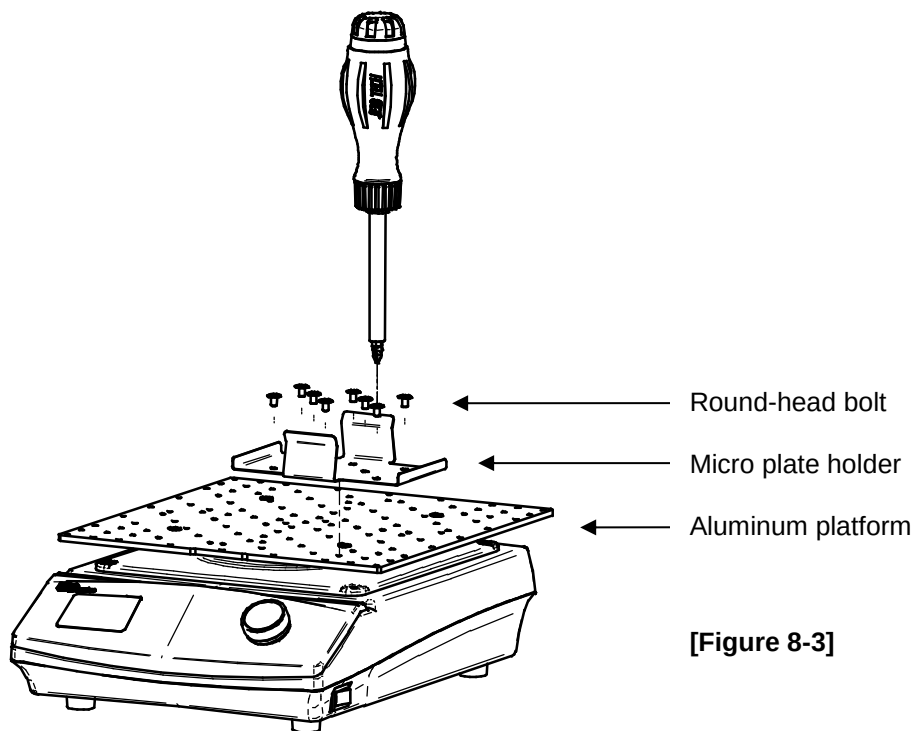
## ⚠ CAUTION

- Before taking actions, firstly determine accessories' quantity and location by considering the location of platform's screw holes.

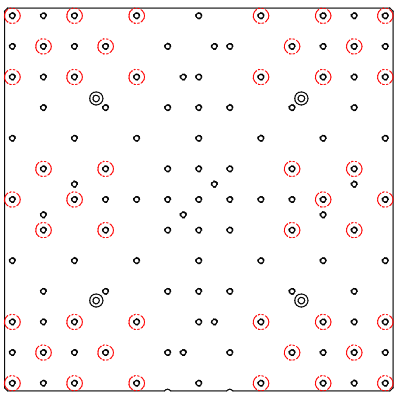
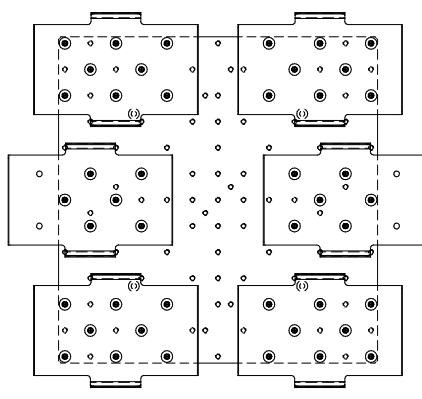
### 8.3 Micro plate (or well-plate) holder

It is more stable to stir at high speed if micro plate holder is fixed to mini shaker. You can fix micro plate to the place you want with 8 round-head bolts as [Figure 8-3].

You can fix maximum 6 micro plate holders to mini shaker as [Figure 8-4].



[Figure 8-3]

| Installation location                                                               | Installation example                                                                 |
|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
|  |  |

[Figure 8-4]

## 9.0 Warranty

### 9.1 Warranty period

- (1) If the product fails during normal and proper use, the warranty period for manufacturing liability shall be two years from the date of delivery.
- (2) If you request a repair, please check the items below and let us know so that you can get a quicker and more accurate repair.

- |                                                                                                                                                                                               |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"><li>• Date of purchase:</li><li>• Customer name / address / phone number / E-mail:</li><li>• Fault status</li><li>• Model</li><li>• Serial number</li></ul> |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

### 9.2 Technical Service Contact Points

#### Technical Services

Address : 153 (Youngsan-dong), Techno 2-ro Yuseong-gu, Daejeon-city, 34025, Republic of Korea

Tel : +82 (0)2 -2627-3824

Website : <https://www.jeitech.com/eng/>

E-mail : [overseas@jeitech.com](mailto:overseas@jeitech.com)

## 9.3 Certificate of Product Warranty

This is a guide to the product quality warranty and service terms provided by JEIOTECH Co., Ltd

All products are guaranteed to operate normally when installed under proper conditions, as specified in the user manual for each product, and used according to the intended purposes and permissible operating conditions.

The warranty period for product quality starts from the delivery date and is indicated in the catalog provided for each product or in the purchase order agreed upon with the customer. If a product malfunctions within the warranty period, JEIOTECH Co., Ltd. provides free repair services. However, among the transportation costs incurred during the repair process, any special costs resulting from the customer's site conditions (e.g., door or wall modifications, use of special handling equipment) are not covered under the warranty. Furthermore, JEIOTECH's liability under this warranty is limited to replacing the product or refunding the original purchase price at JEIOTECH's sole discretion if reasonable attempts to repair or replace the product fail.

Parts replaced during free repairs within the warranty period become the property of JEIOTECH Co., Ltd. Additionally, the warranty period is not extended due to free repairs. JEIOTECH is not responsible for any losses incurred by the customer due to delays in repairs caused by issues such as part shortages or shipping delays.

The following cases will be handled as paid repairs, even within the warranty period:

### 1. Non-defective cases

- \* Requests to resolve issues arising from improper operating environments or abnormal installations.
- \* Reinstallation requests or connections with external equipment other than the initial installation.
- \* Requests for usage instructions or simple adjustments that do not require disassembly.
- \* Inspections of non-defective products.
- \* Cleaning or debris removal service requests.

### 2. Failures caused by user errors:

- \* Malfunctions due to usage not in accordance with the user manual.
- \* Issues resulting from improper operating environments or abnormal installations.
- \* Malfunctions caused by incompatible chemical usage.
- \* Malfunctions caused by irregular or improper electrical or utility supplies.
- \* Damage due to product movement, storage, external impact, or dropping by the customer.
- \* Malfunctions resulting from unauthorized modifications or repairs without prior written approval from JEIOTECH Co., Ltd.
- \* Malfunctions caused by using consumables or optional components not specified by JEIOTECH Co., Ltd.
- \* Repairs performed by personnel other than JEIOTECH or its authorized service agents.

### 3. Other cases

- \* When the product model or serial number has been damaged, removed, manipulated, or altered.
  - \* Malfunctions caused by fire, flooding, or other natural disasters.
  - \* Failure due to consumable parts reaching the end of their lifespan (e.g., lamps, filters, fuses, gaskets, packings, hoses, heat transfer fluids).
  - \* Natural wear and tear (e.g., discoloration, screen printing degradation).
  - \* Damage or malfunction of product accessories (e.g., power cables, data cables, glass components) or options.
  - \* Malfunctions caused by errors in computers, computer components, or connected network systems.
- Before JEIOTECH performs free or paid repairs or accepts the return of a product, the customer must ensure the product has been decontaminated of chemical and biological hazards.
  - Replacement parts used during repairs may differ from the original but will function correctly and be equivalent in performance.
  - JEIOTECH does not bear any responsibility for damage to stored samples, data loss, or any other direct or indirect damages caused by product malfunctions, regardless of the warranty period.

- JEIOTECH does not guarantee issues related to computers, computer components, or network systems connected to the product, regardless of the warranty period.
- This warranty is the sole and exclusive warranty provided. Any implied warranties imposed by applicable laws are limited to the warranty period stated herein. This warranty cannot be modified by any verbal advice, statements, or documents on behalf of JEIOTECH unless explicitly labeled as a "Warranty Amendment" and signed by an authorized representative of JEIOTECH.
- This warranty applies only to products purchased for direct use by the customer. It does not cover products purchased for resale purposes without prior written approval from JEIOTECH.
- This warranty does not apply to consumables and is non-transferable.

- The contents of this manual can be changed or upgraded without prior notice.
- The copyright of this manual is reserved by Jeio Tech.