

MANUAL

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CE RT-200



Rodek Co.,Ltd

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■ Preface

Thank you for purchasing the Refraction Table RT-200.

Be sure to read the "Safety Precautions" carefully before use.

Be sure to observe the precautions shown here because they contain important safety information.



Operating Environment

- ✓ Use the system under the following normal conditions:
Operation : +5 to +40°C, 30 to 80% r.h., 70 to 106 kPa
- ✓ Make sure the system is properly plugged into the power source before use.
- ✓ Use the Power Supply (SMPS) within the range of 230V~ 50/60Hz
- ✓ Always turn OFF this system when not in use.




Safety Alert Signs










This manual provides important information to prevent improper operation leading to human injury or property damage to the user or another person. Please read the "Safety Precautions" carefully and follow all safety indications and symbols.

Safety Marks and Definitions













	Warning	This symbol indicates information that, if not adhered to, could possibly result in serious personal injury or even death due to incorrect handling.
	Caution	This symbol indicates information that, if not adhered to, could result in minor or moderate injury or property damage.



Symbols and Definitions

	Template for a prohibition sign (red circle and diagonal); The black symbol or text shall be placed centrally on the background and shall not obliterate the cross bar, or a supplementary text next to the sign
	Template for a mandatory action sign (blue background); The white symbol or text shall be placed centrally on the background, or a supplementary text next to the sign.
	Template for a warning sign (yellow background and black triangle); The black symbol or text shall be placed centrally on the background, or a supplementary text next to the sign.

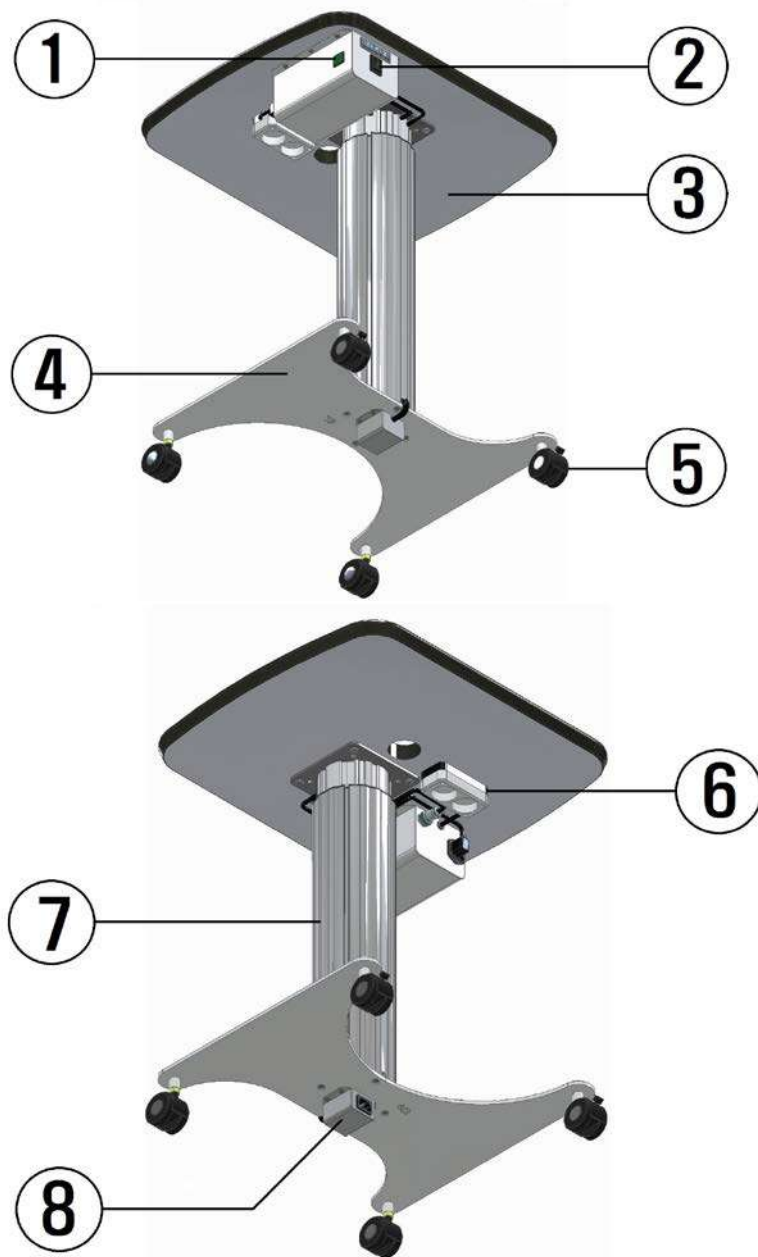
	Follow instructions for use
	Manufacturer
	Date of Manufacture
	Serial no.
	Indicates a medical device that needs protection from light sources
	No pushing
	Indicates the temperature limits to which the medical device can be safely exposed.
	Indicates the range of humidity to which the medical device can be safely exposed.
	<p>Warning - Disposal of waste products</p> <ol style="list-style-type: none"> 1. When this crossed-out wheeled bin symbol is attached to a product it means the product is covered by the European Directive 2012/19/EU. 2. All electrical and electronic products should be disposed of separately from the municipal waste stream via designated collection facilities appointed by the government or the local authorities. 3. The correct disposal of your waste products will help prevent potential negative consequences for the environment and human health. 4. For more detailed information about disposal of your waste products, please contact your city office, waste disposal service or the shop where you purchased the product.

■ Safety Warnings & Precaution

Symbol	Prevention Item
	Do not disassemble the table for repair. Electric shock may occur. Contact the sales shop for repairs.
	Do not place the table near water or another area with liquid. Fire or electric shock may occur.
	Connect the table to a single-phase AC power plug. Otherwise, it can cause a fire or electric shock.
	Replace the fuse only after the power cord is unplugged. Otherwise, an electric shock may occur. Use the appropriate fuse.
	Unplug the power cord immediately when smoke or any other problem occurs. Otherwise, there is a danger of fire. Please contact the sales shop for repairs.
	Do not place the equipment on an unstable foundation or slanted more than 5°. It may cause injury.
	Do not place heavy materials exceeding the specified weight. It may cause injury.
	Do not put your fingers around moving or rotating machinery objects. It may cause injury.
	Do not open the cover, as electric shock may result. Contact the sales shop when repairs are needed.
	Ensure that the voltage of the main power supply is the same as the voltage described in the instruction manual of the equipment.
	If you are unsure of the voltage you are going to use, please consult the electric company or the company responsible for the maintenance to confirm the voltage of the main power.
	To ensure the protection and electrical safety of the equipment, the power socket to which the equipment is connected must not have multiple sockets or other connections for power use.

	<p>Connecting electrical equipment to the multiple socket-outlet effectively leads to creating a medical electrical system, and can result in a reduced level of safety.</p> <p>The responsible organization (accountable for the use and maintenance of a medical electrical system) shall be referred to EN 60601-1, 3rd edition for requirements.</p>
	<p>The external and internal socket-outlets shall be connected with ophthalmic instruments only complying with IEC 60601-1.</p>

■ Name of Each Part



Name Function of Each Part

- ① MAIN POWER Switch: The switch to turn ON/OFF the MAIN Power
- ② UP & DOWN Switch: The switch to turn UP & DOWN the table
- ③ TABLE: Mounting base
- ④ BASE: Used to secure to the table to the floor
- ⑤ CASTER: Movable or stoppable wheels are fixed hereto.
- ⑥ POWER OUTLET SOCKET
- ⑦ MOTOR COLUMN
- ⑧ POWER INLET SOCKET: Used to connect power cords
FUSE 250V F5AL 2EA

Standard accessories and Spare parts

- ✓ User's Guide (1 EA)
- ✓ Glass tube fuse 250V F5AL (2 EA)

Management

Operator's Management

Other than what is indicated in this manual, for safety reasons, do not perform administrative maintenance tasks on the equipment; have qualified service people complete all maintenance and repairs.

The items listed below can be managed by customers:

✓ **Fuse Replacement**







The fuse is a replaceable item.

Refer to its handling method in the manual.

Disclaimers

- ✓ We are not responsible for damages caused by fire, earthquakes, acts by third parties, or other accidents, or damage caused by negligence or use under abnormal conditions.
- ✓ We are not responsible for damages caused by abnormal use of the machine not described in the instruction manual.

Precautions before use

-  If any abnormality is detected during use of the equipment, immediately discontinue use of the equipment, isolate the patient from the equipment, turn off the equipment, and contact the place of purchase or headquarters.
-  You must use the specified power source for the use of the medical equipment. If the voltage used is too high or too low, the system may not operate normally.
-  Use a genuine fuse conforming to the voltage specified in the instruction manual.
-  Do not place heavy objects on the medical table that exceed the weight used.
-  Equipment should not be dismantled by nonprofessional.
This may cause equipment failure or cause problems with the power system. Do not alter or modify the equipment or any part of the equipment for any purpose other than its intended use.
-  Do not arbitrarily manipulate people who do not have the knowledge of using the equipment, and do not allow children to access or manipulate the equipment arbitrarily.

■ How to use

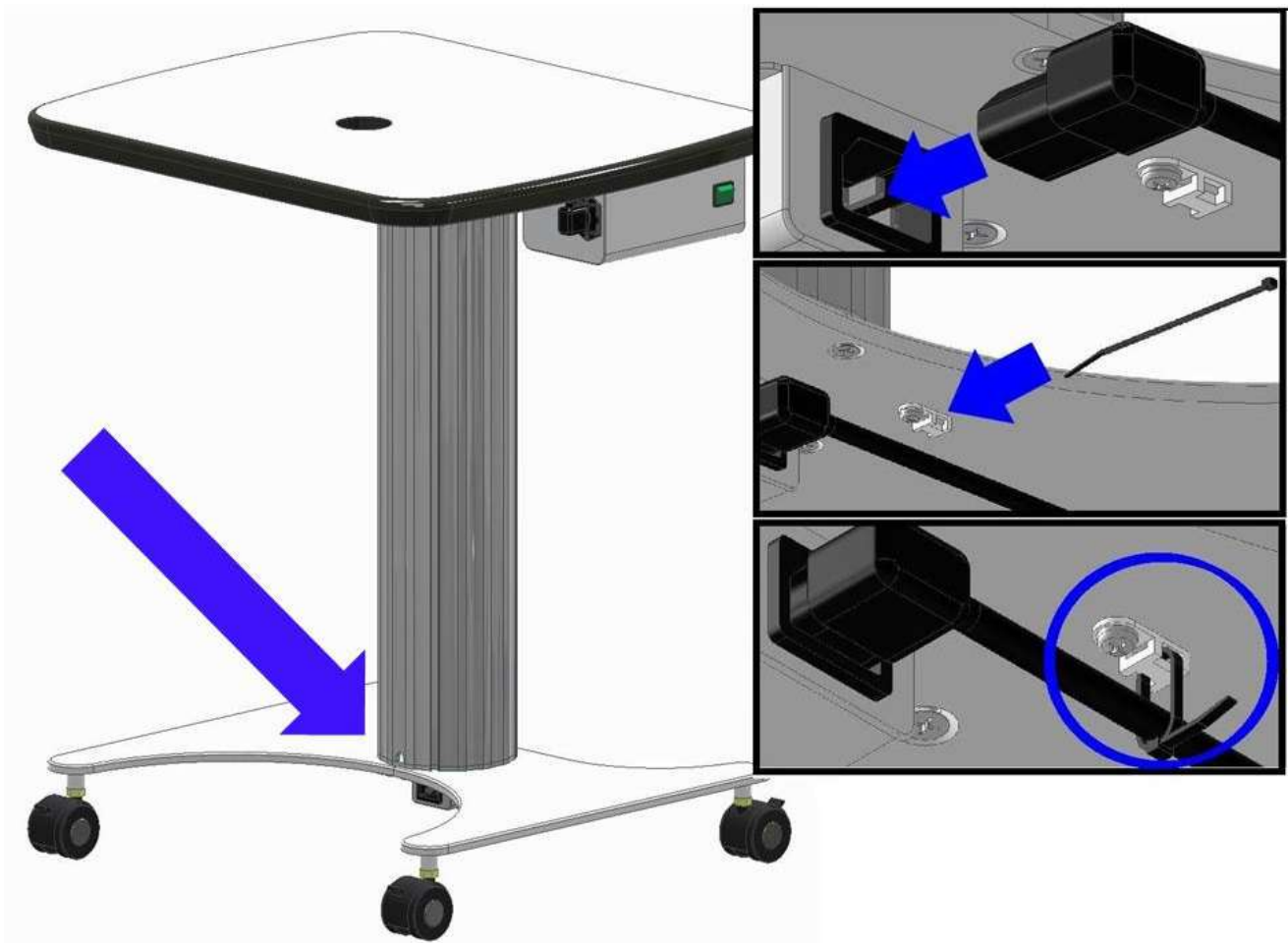
※Protection would be impaired if the equipment is used in a manner not specified in the manual by the manufacturer.

🔍 Preparation before use

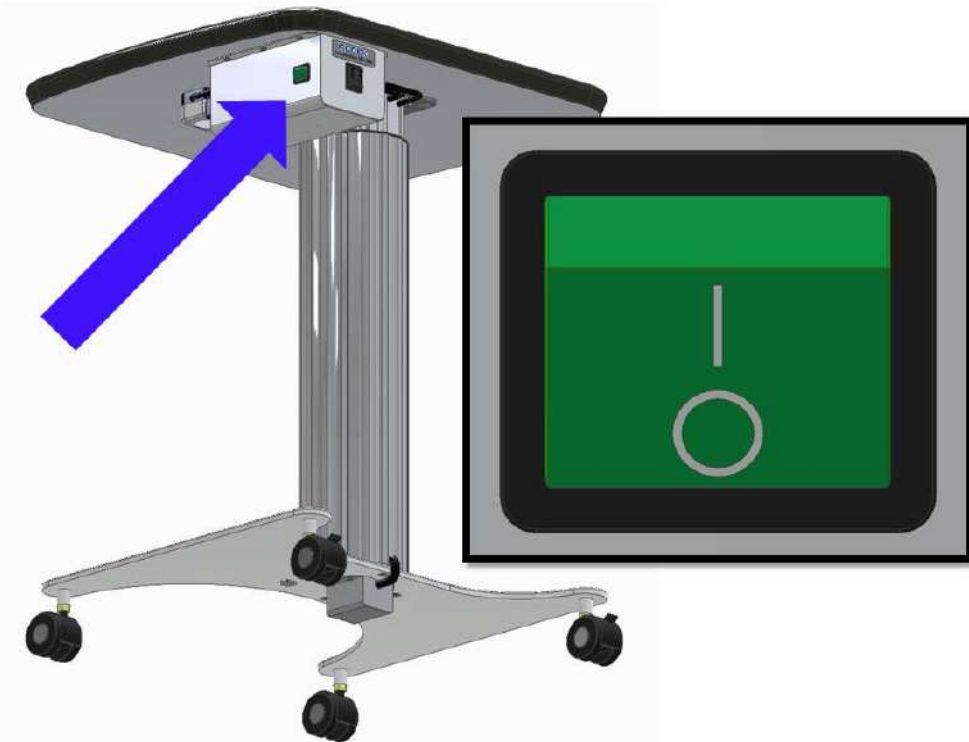
- ① Check the power voltage. (230V~ 50/60Hz)
- ② Check that all switches are positioned properly.
- ③ After connecting the power, check the machine for proper operation.

🔍 Operation Method and Procedures

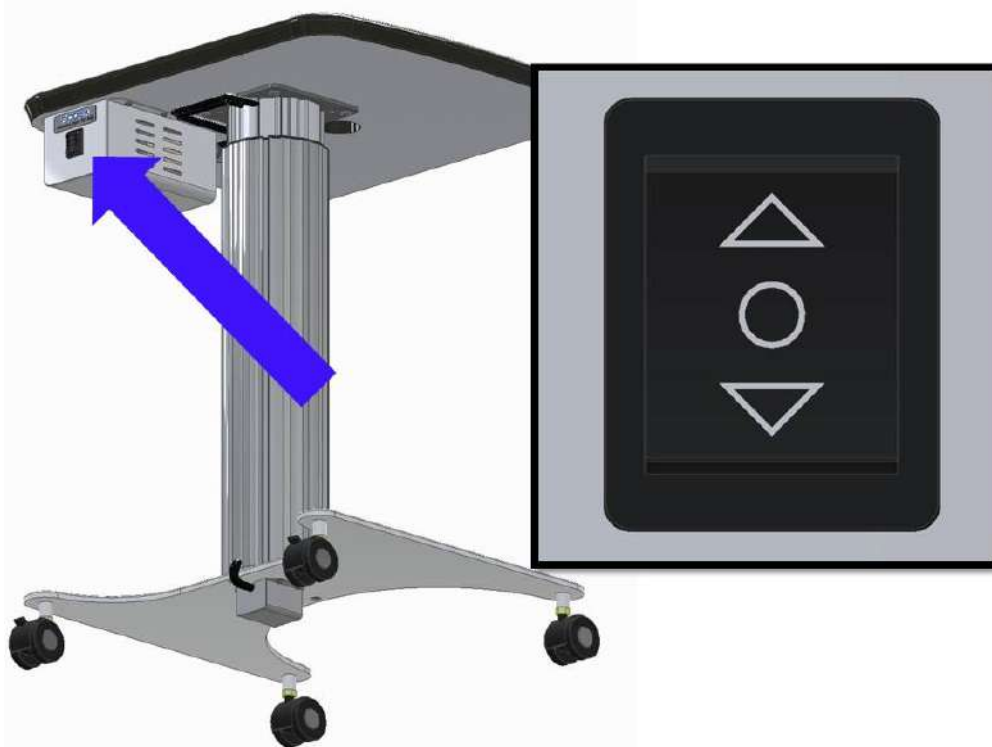
- ① Insert the POWER CABLE into the input socket at the bottom of the equipment and connect it to a commercial power supply.



- ② Push the green switch on the control panel at the left of the product to the "I" position. The light will turn green (POWER ON).





- ③ Press the UP(▲)/DOWN(▼) Switch at the lower of the table to adjust the table's height.



- ④ Press the UP(▲)/DOWN(▼) switch to return the height of table to its original position.
- ⑤ Push the POWER switch on the control panel to the "O" position.
The green light will turn off (POWER OFF).
- ⑥ Remove the POWER CABLE from the commercial power supply.

■ Countermeasures in case of failure or malfunction

🔧 How to operate in case of trouble

	Warning	Do not disassemble the table. You may get an electric shock. Contact the sales shop for repairs.
	Caution	Do not open the cover. You may get an electric shock. Contact the sales shop for repairs.

Please refer to the following checklist if any problems occur.

For other cases, contact the sales shop.

✓ Checklist

Problem	Check Item	Probable Cause and Remedy	Remarks
Ascending/ descending of the table does not work properly	Check the POWER CABLE for proper connection.	Position POWER switch to "O "and connect the POWER CABLE.	
	Check that the POWER Switch turns ON.	Position the POWER switch to "I," and check that the green LED turns on.	
	Check the fuse for normal conditions.	Refer to "fuse replacement."	

■ Reference

🔍 Specifications and Performance


- ✓ Up and down moving range of table: 670~970mm
- ✓ Table Size: 550x500
- ✓ Power Supply: 230V~ 50/60Hz
- ✓ Total Weight: approx. 22Kg
- ✓ Allowable weight on table: 60kg
- ✓ Maximum power consumption(Full road): 50VA
 - ※ Specifications and appearance of the product are subject to change without notice.
 - ※ This product is not contained with a chair.

■ Maintenance and Inspection matters

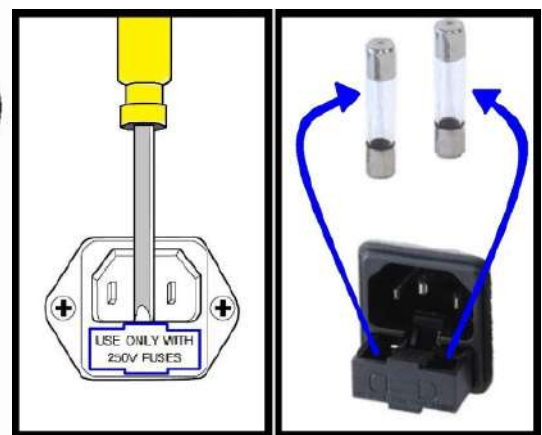
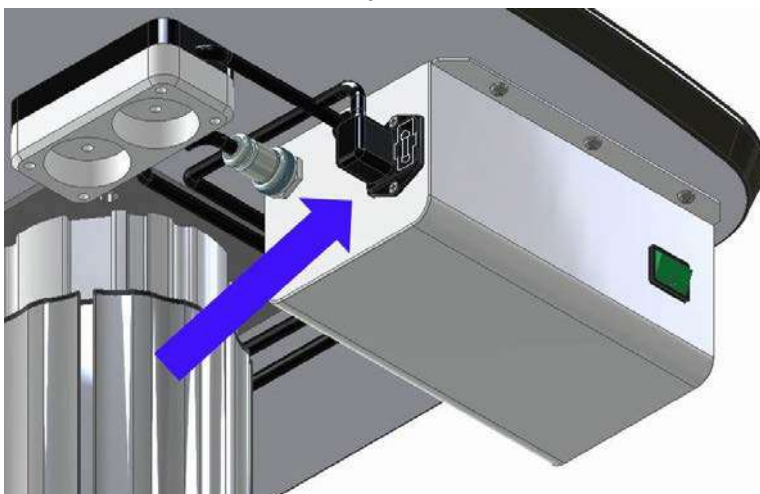
🔍 Daily Management

- ✓ Turn off the equipment when it is not in use.
- ✓ Do not place the equipment in a dusty area.

🔍 Replacement of Fuse



	Warning	Disconnect the fuse from the power cord before replacing. Otherwise, electric shock may occur. Use a rated fuse only.
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Make sure that the power switch is "OFF".



- ✓ Open the fuse holder located at the bottom of the power input socket with a screwdriver.
- ✓ Replace the FUSE with a new one (250V F5AL).

Cleaning of the External Cover



	Caution	Do not open the cover. Electric shock may occur. Contact the sales shop for repairs.
	Caution	<ul style="list-style-type: none"> • Do not install the equipment in a chemical storage or gas-generating area. • Install it in a dry place. • Install in a place without adverse effects such as poor barometric pressure, temperature, humidity, sunlight, salinity, ion composition, etc. • Disconnect the power cord when not in use.

When cleaning the external cover or the operation panel, use a soft cotton cloth and, if the dirt is severe, apply mild kitchen detergent to the cloth and wipe off carefully.

Warranty Period

The warranty period of this equipment is one year from the date of purchase, and failure due to user's negligence will be excluded from warranty repair period.

How to keep and manage after use

-  When you are finished, lower the chair to the lowest position
-  Move the table for treatment to the rest position after use

- Ⓢ Keep it near water
- Ⓢ Store at room temperature
- Ⓢ When not in use for a long time, please keep it covered with a clean cloth.
- Ⓢ Make sure that the main power of the equipment is completely shut off except during medical hours.
- Ⓢ Do not install or store in places where excessive humidity or direct sunlight is transmitted.
- Ⓢ Lowest and highest temperatures for easy installation and storage
(From - 10 ° C to less than 55 ° C minimum).
- Ⓢ Recommended humidity for easy installation and storage
(10% to 90%).
- Ⓢ Clean the equipment with a soft cotton cloth. If the surface is dirty, spray it with household cleaner and wipe it with a cotton swab.
- Ⓢ If equipment moves during use, check table's horizontal state.
- Ⓢ Table U/D Motor Duty Cycle: 10%

■ Assembly and Installation

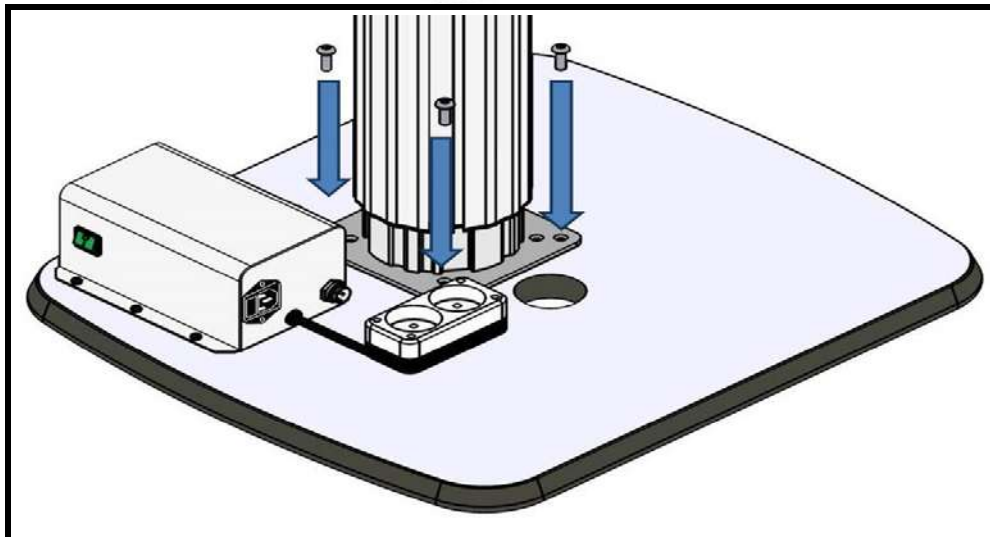
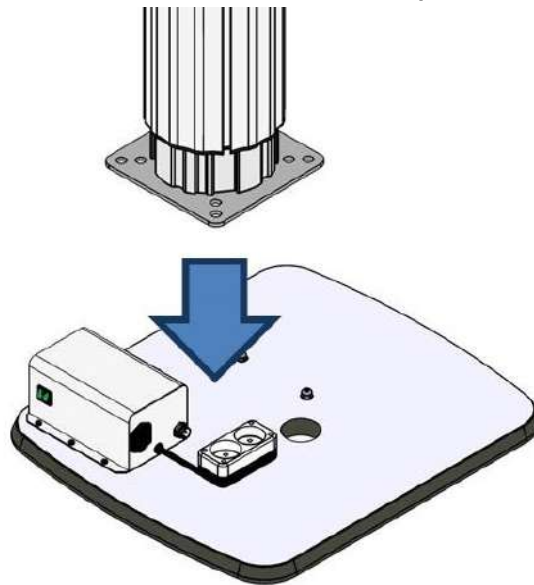
Ⓜ The bolts required for assembly are fastened to the product.

Ⓜ The following tools are required.

- ✓ Driver(+)
- ✓ Hexagon Wrench(Allen Wrench)
- ✓ Tools with pointed ends such as an awl

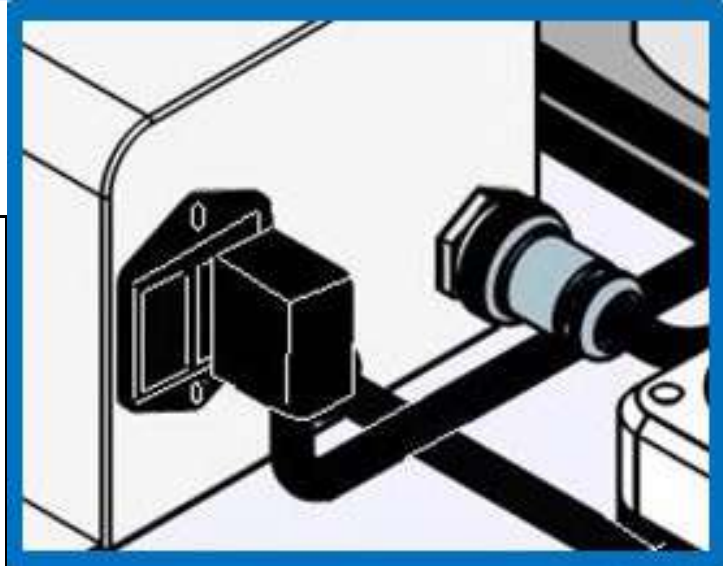
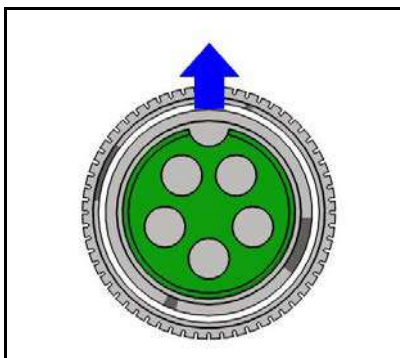
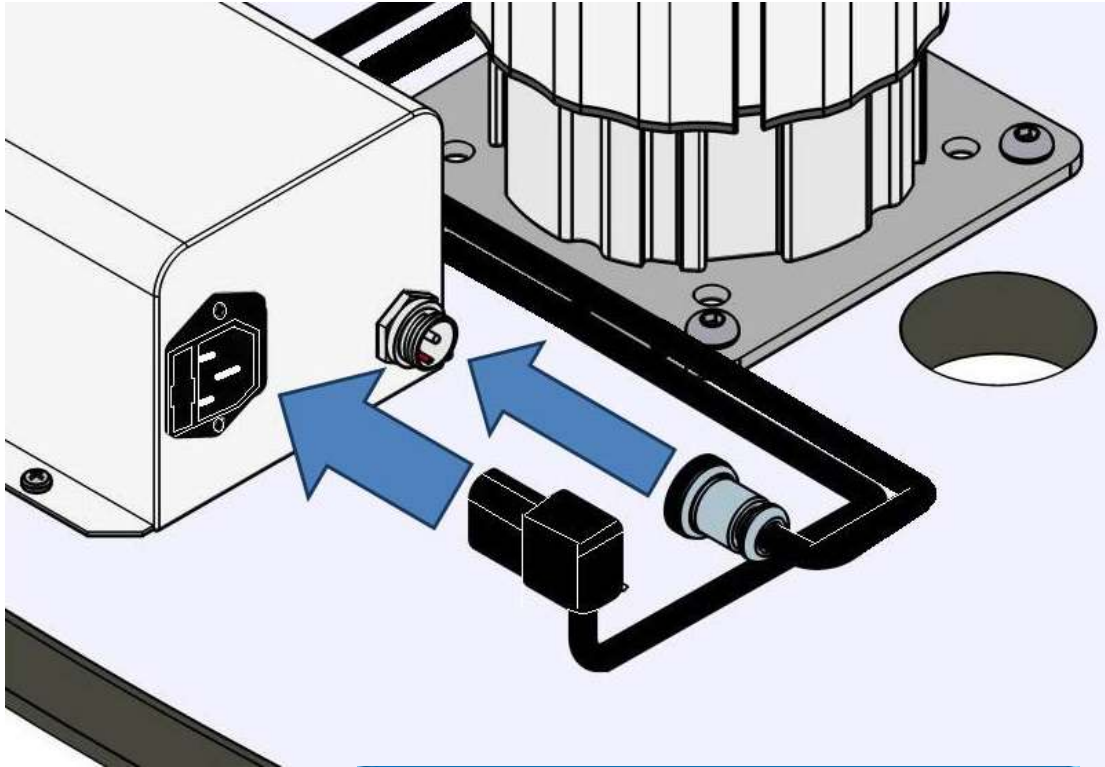
1. Assembly the motor column on the table.

- ✓ Use M8*20L Round Headed Bolts (4 pieces).



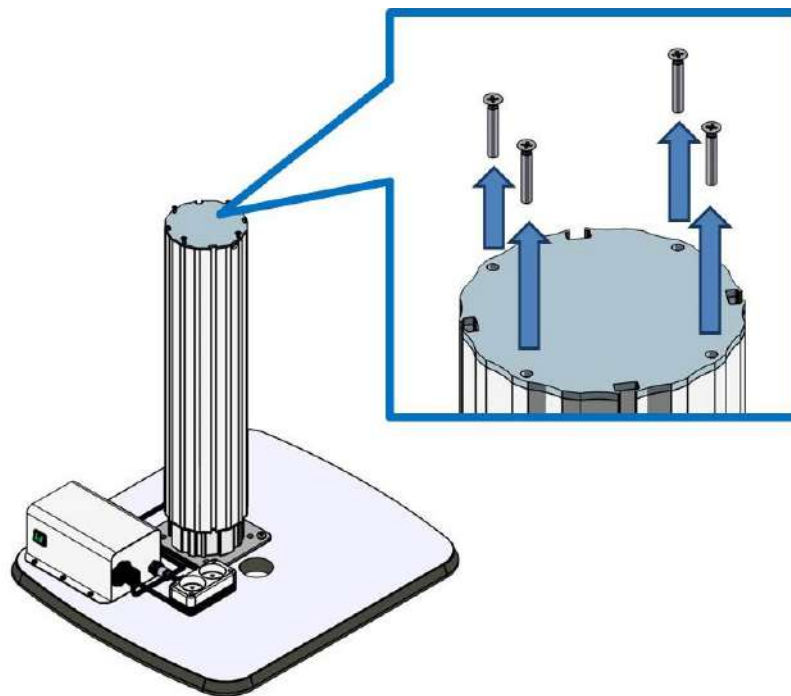
2. Fasten the cable at the top of the motor column as below.

- ✓ Fasten the power cable so that it doesn't fall out.
- ✓ Tighten the connector clockwise to the groove.



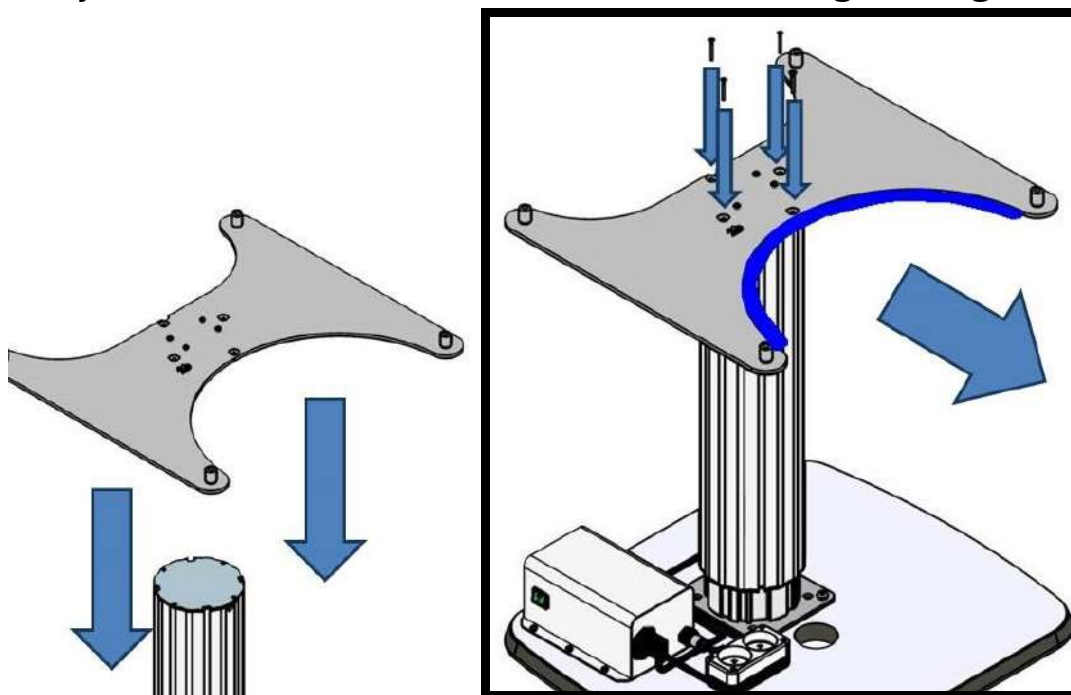
3. Remove the bolt fastened at the bottom of the motor column.

- ✓ Separate the 4 M5*30L Flat Headed Bolts.



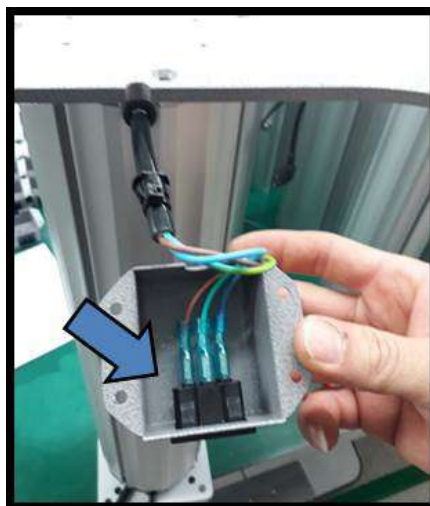
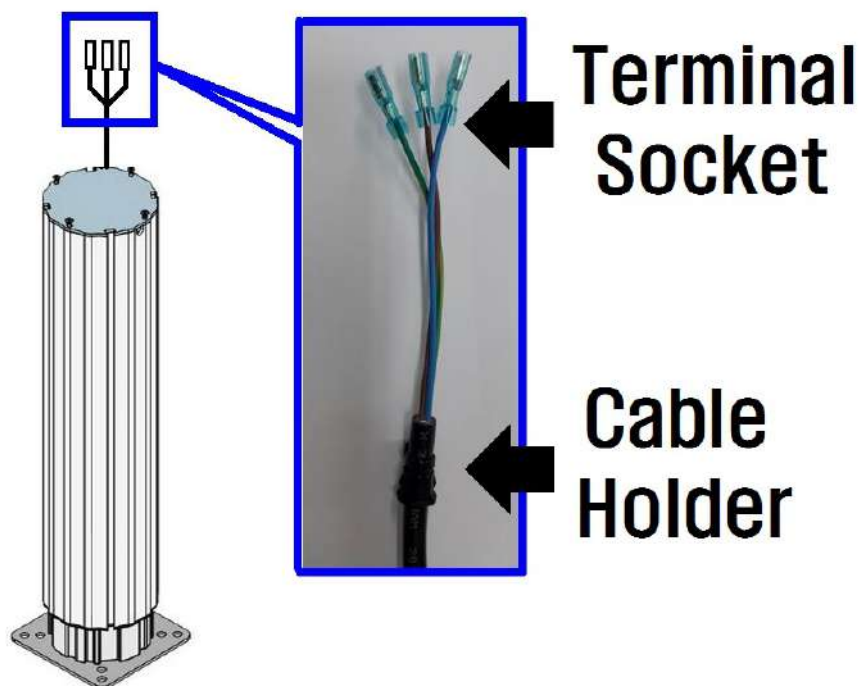
4. Fasten the base to the motor column.

- ✓ Use 4 M5*30L Flat Headed Bolts.
- ✓ Pay attention to the direction of the base tightening.

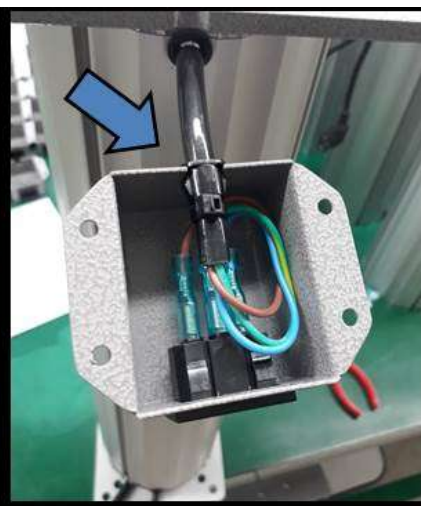


5. Fasten the three terminal sockets at the bottom of the motor column to the power input box.

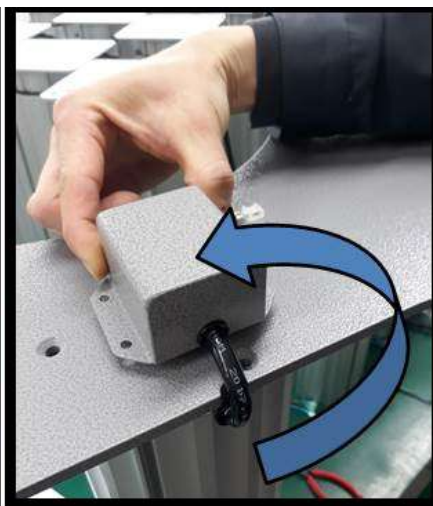
- ①Fasten the three Terminal Sockets inside the power input box.
- ②Insert the cable holder into the groove of the power input box.
- ③Place the power input box on the top of the base as it is.



1



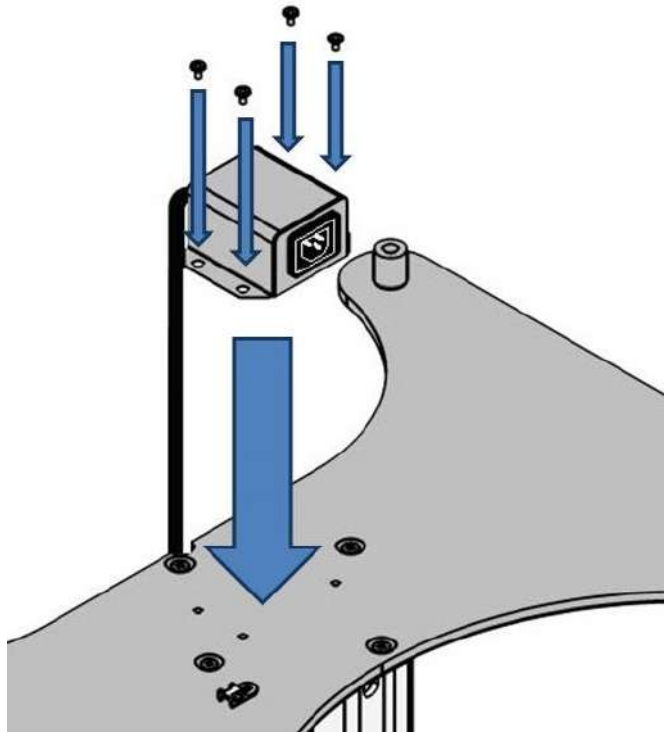
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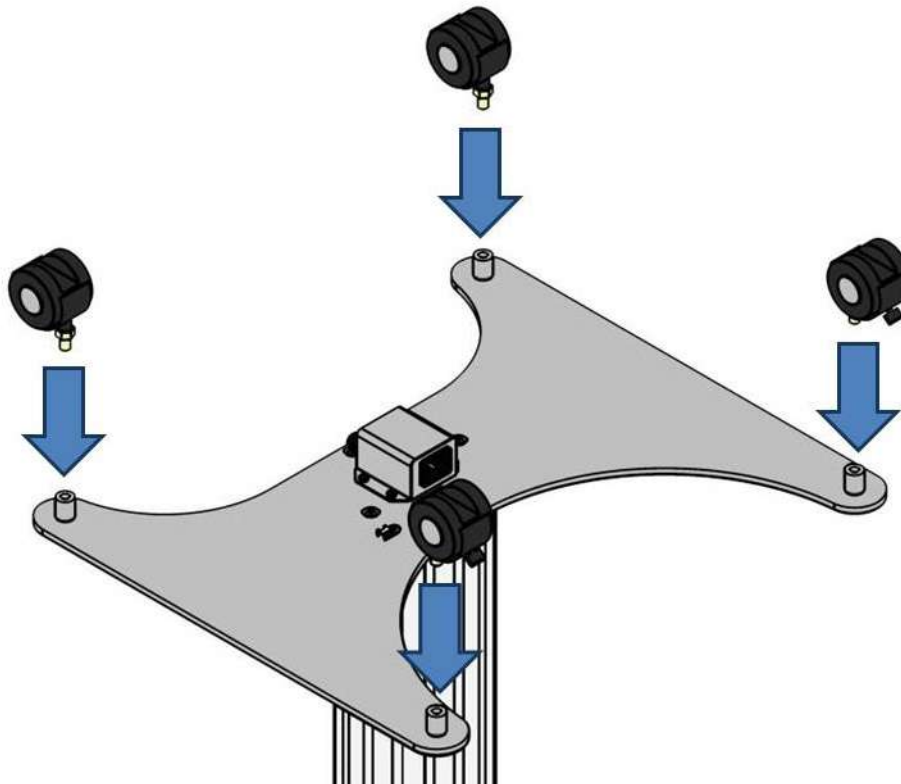
3

6. Fasten the power input box to the base.

- ✓ Fasten the M4*6L Round Head Bolts (4).



7. Fasten the four casters to the base.



■ Storage After Use & Maintenance

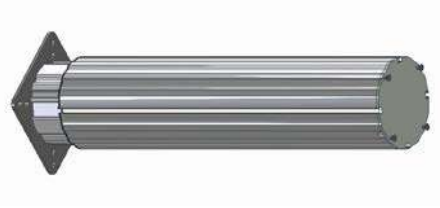
- Ⓢ After using, return the POWER, etc. to their original position.
Then disconnect the power cord.
- Ⓢ When disconnecting the power cord, do not use excessive force.
- Ⓢ Observe the following precautions when storing the equipment.
Store it in a dry place.
- ✓ Store in a place that does not have any adverse effects such as poor barometric pressure, temperature, humidity, sunlight, salinity, ion composition, etc.
- ✓ Be careful of safety precautions including slants, vibrations, and shock (in transportation).
- ✓ Storage & transportation : -10 to +55°C, 10 to 95% r.h.,
50 to 106 kPa
- ✓ Do not store the equipment in a chemical storage or gas-generating area.
- Ⓢ Clean the accessories, power cords, etc. before storage.
- Ⓢ Clean the equipment thoroughly for future use.

■ Composition of the Product

① Table



② Motor Column



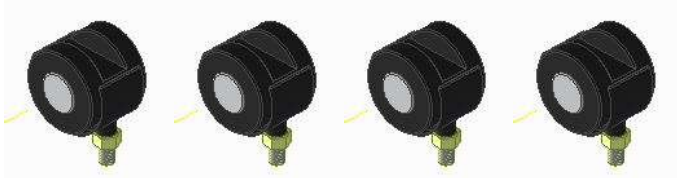
③ Base Plate



④ Power Inlet Box



⑤ Caseter(4ea)



⑥ M8*20L Round Head Wrench Bolt(4ea)



⑦ M5*30L Flat Headed Bolt(4ea)



⑧ M4*6L Round Head Bolt(4ea)



■ Detailed Description

1. Manufacturer Name and Address

- Company Name: Rodek Co.,Ltd.
- Address: 61, Jikji-daero 456beon-gil, Heungdeok-gu,
Cheongju-si, Chungcheongbuk-do, 28580, Korea
- TEL: +82-43-274-2520 • FAX: +82-43-275-2520
- Website: <http://www.Rodek.co.kr>
- Product Name, Model Name: Refraction table, RT-200

2. Package Unit: 1 BOX

3. Technical Specifications

- Table size: 550x500mm • Height of table: 670~970mm
- Rated Power: 230V~ 50/60 Hz
- Power Consumption: 50VA
- Allowable Weight of Table: 60 kg • Total weight: 22kg

4. Creation & Revision date of Manual: 2018/05(VER 1.6)

■ Rough Map of the Company

