LG
Life's Good

OWNER'S MANUAL

LG LED Signage
(LED CONTROLLER)

Please read this manual carefully before operating your set and retain it for future reference.

LLLG003
LLLG003-A
LLLG003-B
LLLG003-C
LLLG003-D

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WARNING - This equipment is compliant with Class A of CISPR 32. In a residential environment this equipment may cause radio interference.

SAFETY PRECAUTIONS

Please read these safety precautions carefully before using the product.

⚠ WARNING

- If you ignore the warning message, you may be seriously injured or there is a possibility of accident or death.

⚠ CAUTION

- If you ignore the caution message, you may be slightly injured or the product may be damaged.

⚠ WARNING

- Indoor Use Only.

Precautions In Installing the Product

⚠ WARNING

- Keep away from heat sources like electrical heaters.
  - Electrical shock, fire, malfunction, or deformation may occur.
- Keep the packing anti-moisture material or vinyl packing out of the reach of children.
  - Anti-moisture material is harmful if swallowed. If swallowed by mistake, force the patient to vomit and visit the nearest hospital. Additionally, vinyl packing can cause suffocation. Keep it out of the reach of children.
- Do not put heavy objects on the product or sit upon it.
  - If the product collapses or is dropped, you may be injured. Children must pay particular attention.
- Do not leave the power or signal cable unattended on the pathway.
  - The passerby can trip or fall, which can cause electrical shock, fire, product breakdown, or injury.
- Install the product in a neat and dry place.
  - Dust or moisture can cause electrical shock, fire or product damage.
- If you dropped the product or the case is broken, turn off the product and unplug the power cord.
  - If you continue to use without taking proper measures, electrical shock or fire can occur. Contact the service center.

- Do not drop an object on or apply pressure to the product. Do not throw any toys or objects on the product screen.
  - It can cause injury to human, problem to product and damage the display.
- Do not let the product fall or drop when connecting it with an external device.
  - This may cause injury and/or damage to the product.
- Do not install this product on a wall where there is high risk of exposure to oil fumes or mist.
  - This may damage product and cause it to fall.
- Install the product firmly fixed on a floor, wall, etc. to prepare against external impact such as wind and earthquake.
  - You must refer to the installation guide.
- Safely install the product in a place that can hold the weight of the product.
  - A lack of strength may cause the product to fall.

⚠ CAUTION

- Make sure the product ventilation holes are not blocked. Install the product in a suitably wide place (more than 100 mm from the wall).
  - If you install the product too close to the wall, it may be deformed or fire can break out due to internal heat.
- When installing the product on a shelf or cabinet, make sure that the bottom end of the product is not protruding forward.
  - The product may fall due to unbalanced centre of gravity, which may cause personal injury or damage to the product. Be sure to use cabinets or shelves that fit your product.
- Do not block the ventilation hole of the product with a tablecloth or curtain.
  - The product can be deformed or fire can break out due to overheating inside the product.
- Install the product on a flat and stable place that has no risk of dropping the product.
  - If the product is dropped, you may be injured or the product may be broken.
- Install the product where no EMI occurs.
- Keep the product away from direct sunlight.
  - The product can be damaged.
- If you install the product in a place that does not meet the recommended conditions, this may cause serious damage to the product's picture quality, life cycle, and appearance. Please check with LG or a qualified installer before installing. This caution applies to a place where there is an abundance of fine dust or oil mist, chemical substances are used, the temperature is very high or low, the humidity is very high, or the product is likely to remain turned on for a long period of time (airport and train station). Failure to do so will invalidate the warranty.
- Do not install the product in an area with poor ventilation (e.g. on a bookshelf, in a closet) or outside and avoid placing on cushions or carpets.
- In addition, do not install it where there are heating objects such as lighting equipment.

Precautions to the AC Adapter and Electrical Power

⚠ WARNING

- If water or any foreign substance goes inside the product (TV, monitor, power cord, or AC adapter), disconnect the power cord immediately and contact the service center.
  - Otherwise, this may cause a fire or electric shock due to damage to the product.
- Do not touch the power plug or AC adapter with wet hands. If the pins of the plug are wet or dusty, wipe and dry them before use.
  - Otherwise, this may cause a fire or electric shock.
- Make sure to completely insert the power cord into the AC adapter.
  - If loosely connected, the poor connection may cause a fire or electric shock.
- Be sure to use power cords and AC adapters provided or approved by LG Electronics, Inc.
  - The use of non-approved products may cause a fire or electric shock.
- When unplugging the power cord, always pull it by the plug. Do not bend the power cord with excessive force.
  - The power line can be damaged, which may cause electric shock or fire.
- Be careful not to step or place heavy objects (electronic appliances, clothing, etc.) on the power cord or AC adapter. Be careful not to damage the power cord or AC adapter with sharp objects.
  - Damaged power cords may cause a fire or electric shock.
- Never disassemble, repair or modify the power cord or AC adapter.
  - This may cause a fire or electric shock.
- Make sure to connect the power cable to the grounded current.
  - You may be electrocuted or injured.
- Use the rated voltage only.
  - The product can be damaged, or you may be electrocuted.
- In the presence of thunder and lightning, never touch the power cord and signal cable because it can be very dangerous.
  - It can cause electric shock.
- Do not connect several extension cords, electrical appliances, or electrical heaters to a single outlet. Use a power strip with a grounding terminal designed for exclusive use with the computer.
  - A fire can break out due to overheating.
- Do not touch the power plug with wet hands. Additionally, if the cord pin is wet or covered with dust, dry the power plug completely or wipe dust off.
  - You may be electrocuted due to excess moisture.

- If you don't intend to use the product for a long time, unplug the power cable from the product.
  - Covering dust can cause a fire, or insulation deterioration can cause electric leakage, electric shock or fire.
- Fix the power cable completely.
  - If the power cable is not fixed completely, a fire can break out.
- Do not insert a conductor (like a metal chopstick) into one end of the power cable while the other end is connected to the input terminal on the wall. Additionally, do not touch the power cable right after plugging into the wall input terminal.
  - You may be electrocuted.
- The appliance coupler is used as the disconnect device.
- Please make sure the device is installed near the wall outlet to which it is connected and that the outlet is easily accessible.
- As long as this unit is connected to the AC wall outlet, it is not disconnected from the AC power source even if the unit is turned off.

⚠ CAUTION

- Be sure to keep the outlet, AC adapter, and pins of the power plug clean from dust and etc.
  - This may cause a fire.
- Do not unplug the power cord while the product is in use.
  - Electrical shock can damage the product.
- Use only the power cord supplied with the unit. If you use another power cord, make sure that it is certified by the applicable national standards when not provided by the supplier. If the power cable is faulty in any way, please contact the manufacturer or the nearest authorized repair service provider for a replacement.
- Ensure the power cord does not come into contact with hot objects such as a heater.
  - This may cause a fire or an electric shock hazard.

Precautions In Moving the Product

WARNING

- Make sure to turn off the product.
  - You may be electrocuted or the product can be damaged.
- Make sure to remove all cables before moving the product.
  - You may be electrocuted or the product can be damaged.
- Make sure the panel faces forward and hold it with both hands to move. If you drop the product, the damaged product can cause electric shock or fire. Contact an authorized the service center for repair.
- Make sure the product is turned off, unplugged, and all cables have been removed. It may take 2 or more people to carry larger apparatus. Do not press against or put stress on the front panel of the apparatus.

CAUTION

- Do not shock the product when moving it.
  - You may be electrocuted or the product can be damaged.
- Do not dispose the product-packing box. Use it when you move.

Precautions In Using the Product

⚠ WARNING

- Do not disassemble, repair or modify the product at your own discretion.
  - Fire or electric shock accident can occur.
  - Contact the service center for check, calibration or repair.
- When the display is to be left unattended for an extended period of time, unplug it from the wall outlet.
- Do not shock or scratch the front and sides of the screen with metallic objects.
  - Otherwise, it may cause damage to the screen.
- Never touch the wall outlet when there is leakage of gas, open the windows and ventilate.
  - It may cause a fire or a burn by a spark.
- Keep the product away from water.
  - Fire or electric shock accident can occur.
- If you can smell smoke or other odors or hear a strange sound unplug the power cord and contact the service center.
  - Fire or electric shock accident can occur.
- Do not touch the surface to overheat.
- Avoid high temperatures and humidity.
- Do not use high voltage electrical goods near the product(e.g. electric swatter).
  - This may result in product malfunction.

⚠ CAUTION

- All the power sources must be disconnected by removing the power cables to remove all power from the unit.
- Do not put or store inflammable substances near the product.
  - There is a danger of explosion or fire due to careless handling of the inflammable substances.
- When cleaning the product, unplug the power cord and scrub gently with a soft cloth to prevent scratching. Do not clean with a wet cloth or spray water or other liquids directly onto the product. An electric shock may occur. (Do not use chemicals such as benzene, paint thinners, or alcohol.)
- Take a rest from time to time to protect your vision.
- Keep the product clean at all times.
- Take a comfortable and natural position when working with a product to relax the muscles.
- Take a regular break when working with a product for a long time.
- Do not press strongly upon the panel with a hand or sharp object such as nail, pencil, or pen, or make a scratch on it.
- Keep the proper distance from the product.
  - Your vision may be impaired if you look at the product too closely.
- Leaving a fixed image on the screen for a long time may cause damage to the screen and cause image retention.
  - Image retention and related problems are not covered by the warranty on this product.

- Set the appropriate resolution and clock by referring to the User's Guide.
  - Your vision can be impaired.
- Use authorized detergent only when cleaning the product. (Do not use benzene, thinner, or alcohol.)
  - Product can be deformed.
- Do not expose to dripping or splashing and do not place objects filled with liquids, such as vases, cups, etc. on or over the apparatus (e.g. on shelves above the unit).
- Batteries should not be exposed to excessive heat. For example, keep away from direct sunlight, open fireplace, and electric heaters.
- Do not place non-rechargeable batteries in charging device.
- Since the LED Signage uses a high technology to produce a screen comprised of millions of LED packages, a few pixel spots (red, green, white, and black) may occasionally appear on the screen during use.
  - This is a phenomenon that can occur due to the unique properties of the LED Signage and does not indicate any performance issues or malfunction.
- To clean the product, use an air gun to lightly remove dust from the front frame and the screen. If there are foreign substances in between the LEDs on the screen, it may cause a defect in the screen.
  - Do not physically come in contact with the screen of the LED Package. This may cause damage to the product.

Mounting on a Wall

- Do not install this product by yourself as you may injure yourself or cause damage to product. Please contact service personnel authorised by manufacturer.

ASSEMBLING AND PREPARING

CAUTION

- Always use genuine components to ensure safety and durability of the product.
- The product warranty will not cover damage or injury caused by the use of unauthorised components.

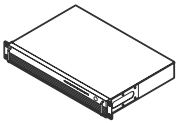
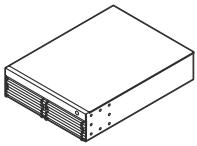
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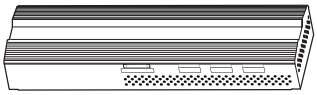
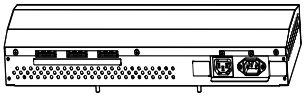
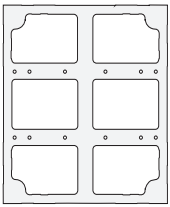
- The accessories provided with your product may vary depending on the model.
- Product specifications or content in this user manual may be changed without prior notice due to the upgrade of product functions.
- The warranty will not cover any damage caused by using the product in an excessively dusty environment.

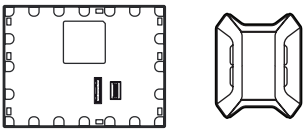
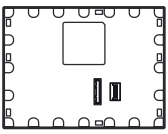
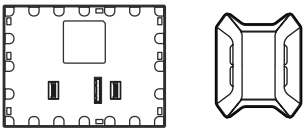
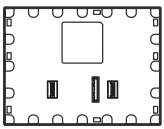
Optional Accessories

Without prior notice, optional accessories are subject to change to improve the performance of the product, and new accessories may be added.

The images in this user manual may differ from the actual product and optional accessories.

System Controller	Power Supply Unit
	
LCLG003*, LCLG005*	LPLG001

Power Pack	Power Pack	Unit Frame
		
LPLG002	LPLG002-A, LPLG002-D	LFLG000E

LED Display Module	LED Display Module
	
LAP015EL6B, LAP015EL7B, LAP015EL7N, LAP015EL9N	LAP015EL6BP, LAP015EL7BP, LAP015EL7NP, LAP015EL9TP, LAP015EL9NP
	
LAP020EL6B, LAP025EL4D, LAP020EL7B, LAP025EL7B, LAP020EL7N, LAP025EL7N	LAP020EL6BP, LAP025EL4DP, LAP020EL7BP, LAP025EL7BP, LAP020EL7NP, LAP025EL7NP

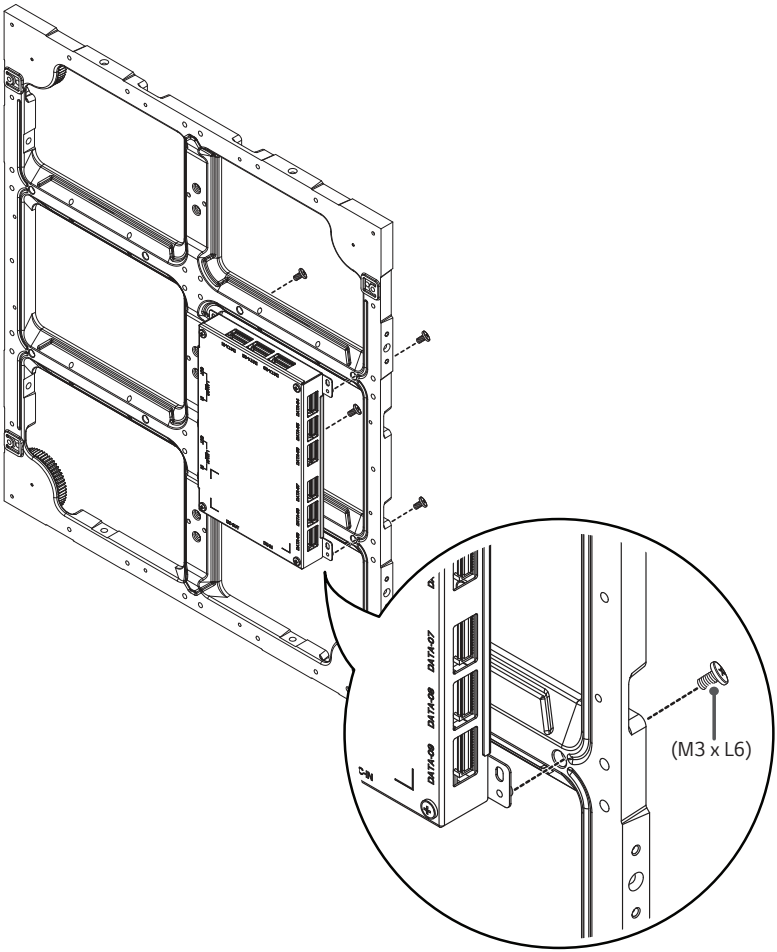
NOTE

- Optional accessories are only available for some models. If necessary, please purchase them separately.

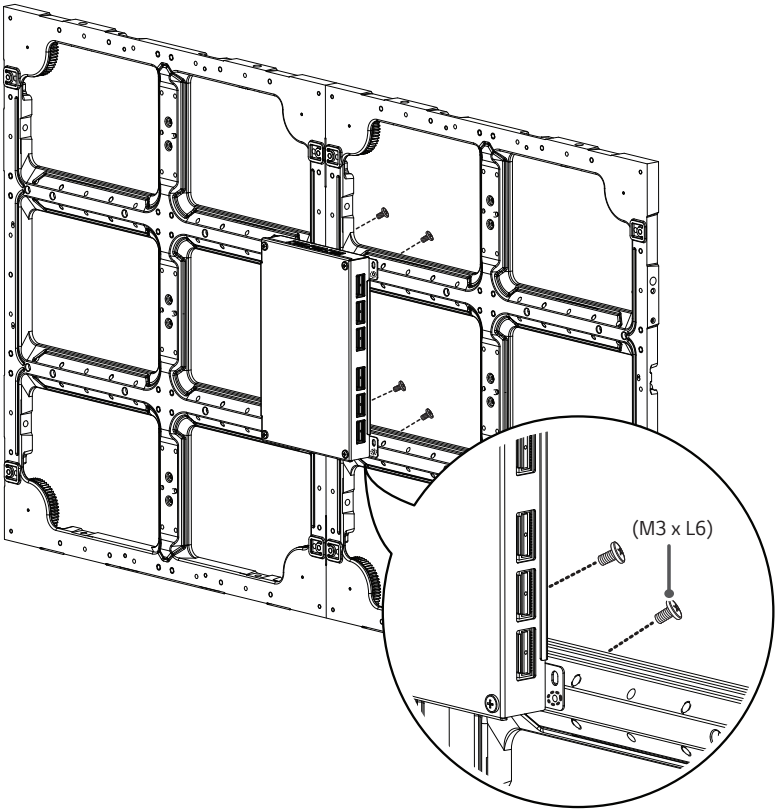
Installation

Fix the assembled set in the desired place using the screws provided as components.

LCLG003*



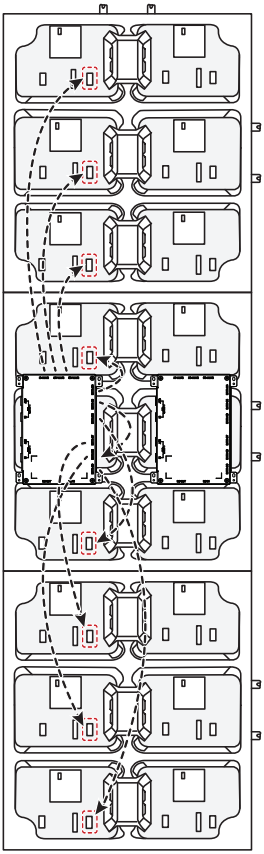
LCLG005*



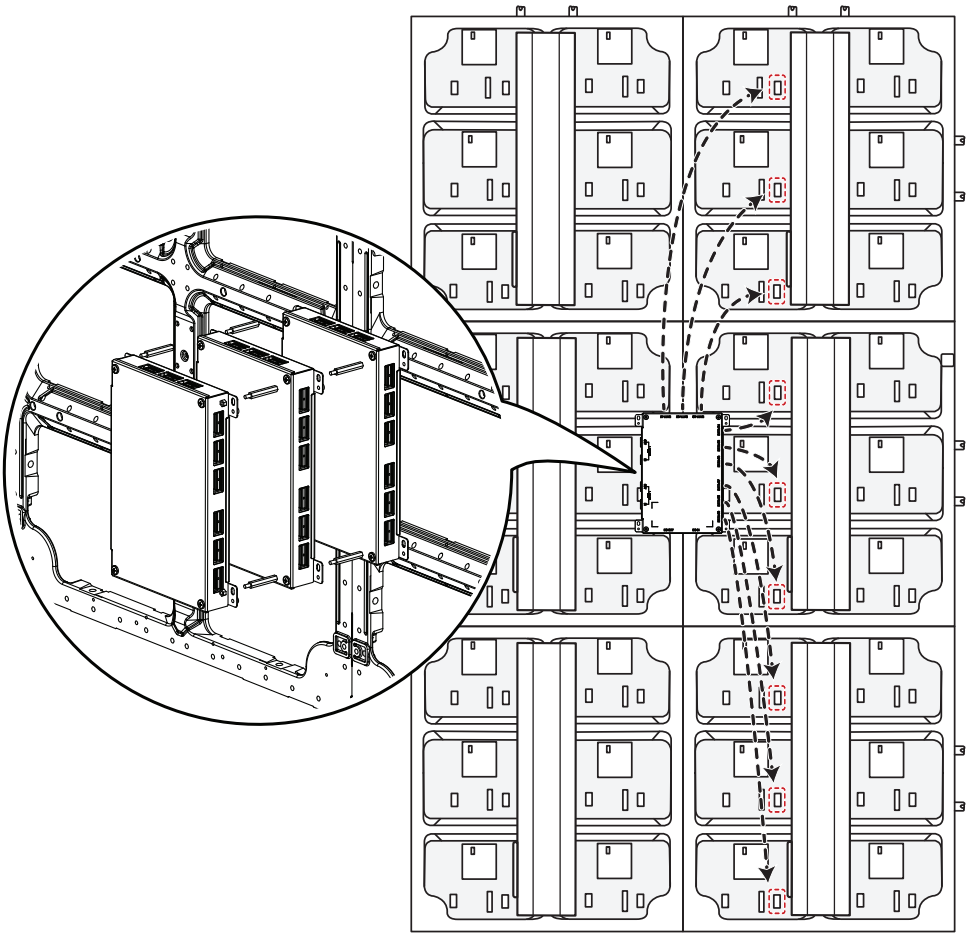
When connecting to LLLG003 (LAP015EL6B, LAP015EL6BP) / LLLG003-A (LAP015EL7B, LAP015EL7BP, LAP015EL7N, LAP015EL7NP) / LLLG003-C (LAP015EL9TP) / LLLG003-D (LAP015EL9N, LAP015EL9NP)

- You can connect one LED Display Module per LLLG003* DATA terminal.
- You can connect up to nine LED Display Modules per LLLG003*.
  - You can use the DATA-01 - DATA-09 terminals.
- You can connect up to three LED Controllers by connecting the daisy chain to the LCLG003* 1 terminal.

LAP015EL6B, LAP015EL7B, LAP015EL7N, LAP015EL9N



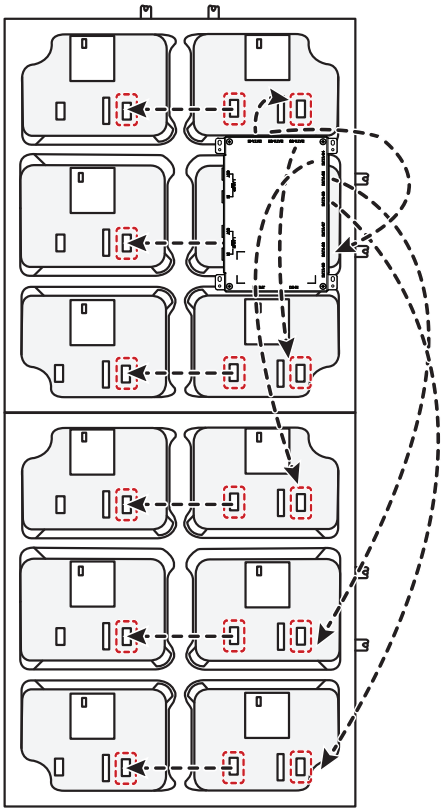
LAP015EL6BP, LAP015EL7BP, LAP015EL7NP, LAP015EL9TP, LAP015EL9NP



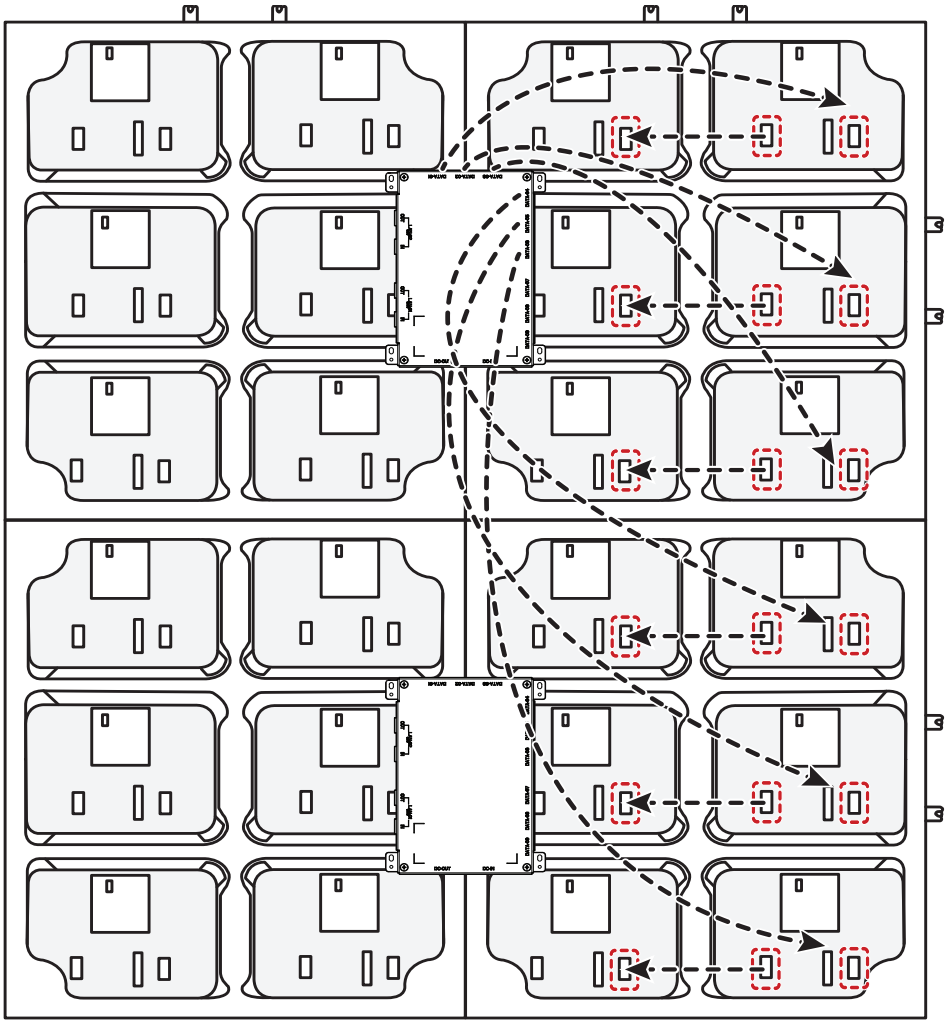
When connecting to LLLG003 (LAP020EL6B, LAP020EL6BP) / LLLG003-A (LAP020EL7B, LAP020EL7BP, LAP020EL7N, LAP020EL7NP)

- You can connect up to two LED Display Modules per LLLG003* DATA terminal by connecting the daisy chain.
- You can connect up to 12 LED Display Modules per LLLG003*.
  - Of the DATA-01 - DATA-09 terminals, you can use six DATA terminals.
- You can connect up to four LED Controllers by connecting the daisy chain to the LCLG003* 1 terminal.

LAP020EL6B, LAP020EL7B, LAP020EL7N



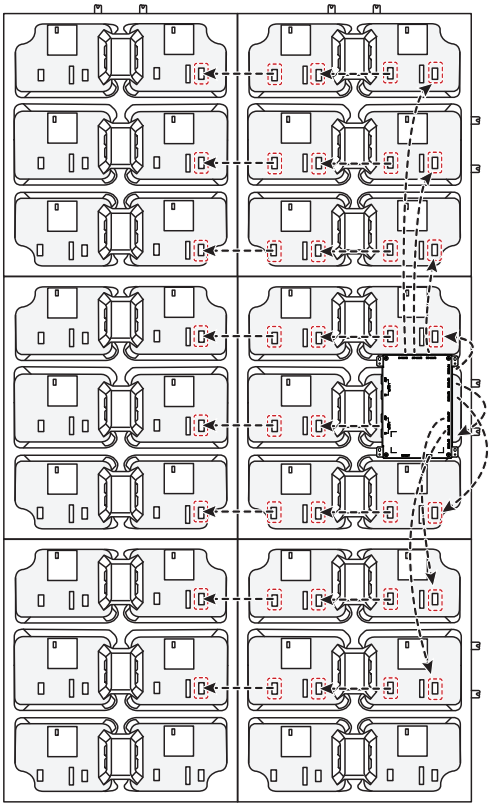
LAP020EL6BP, LAP020EL7BP, LAP020EL7NP



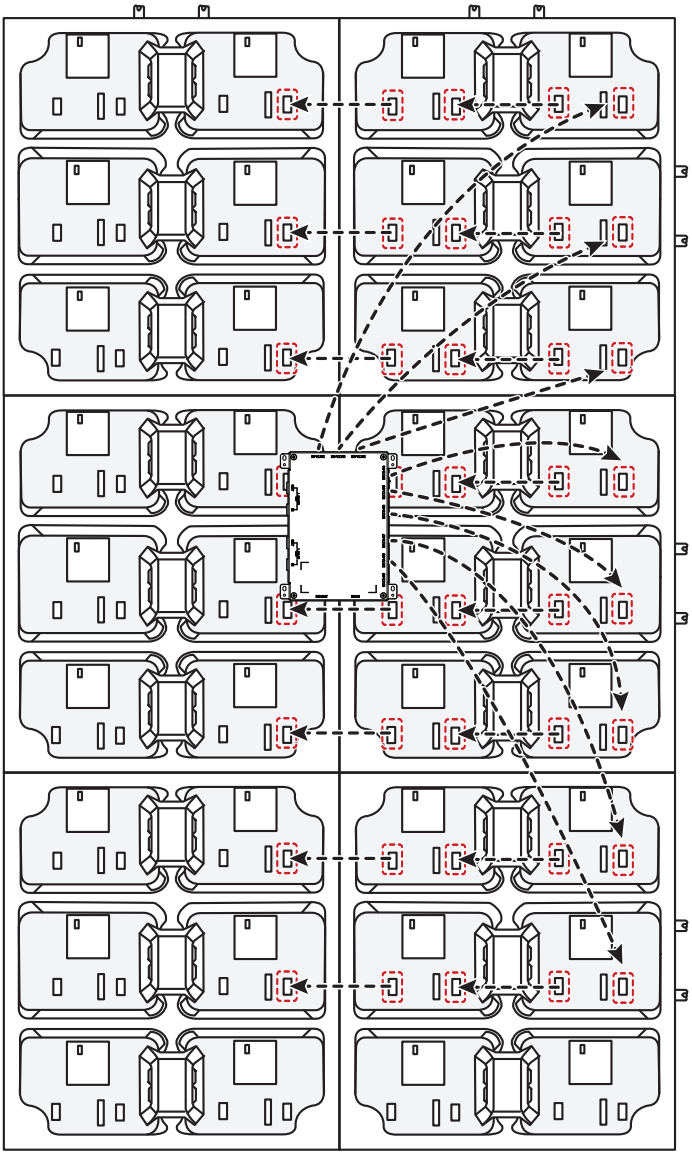
When connecting to LLLG003 (LAP025EL4D, LAP025EL4DP) / LLLG003-B (LAP025EL7B, LAP025EL7BP, LAP025EL7N, LAP025EL7NP)

- You can connect up to three LED Display Modules per LLLG003* DATA terminal by connecting the daisy chain.
- You can connect up to 24 LED Display Modules per LLLG003*.
  - Of the DATA-01 - DATA-09 terminals, you can use eight DATA terminals.
- You can connect up to four LED Controllers by connecting the daisy chain to the LCLG003* 1 terminal.

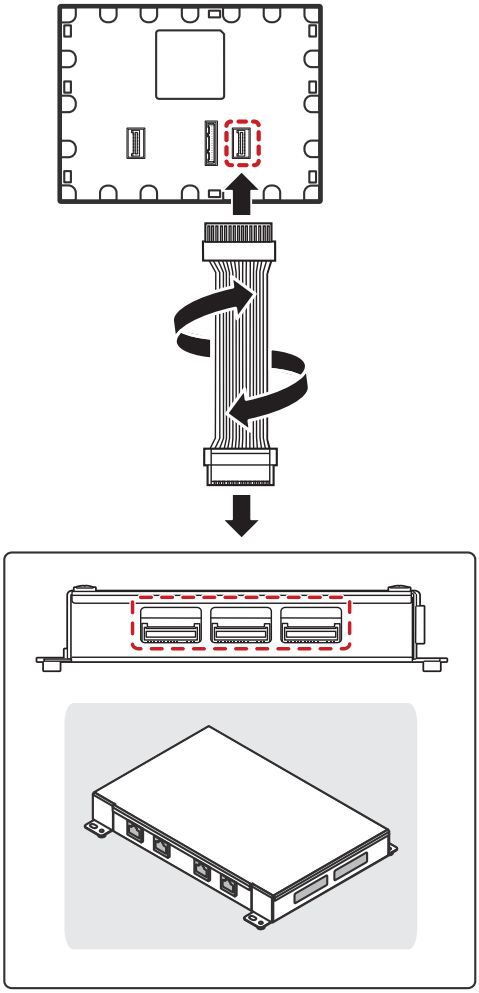
LAP025EL4D, LAP025EL7B, LAP025EL7N



LAP025EL4DP, LAP025EL7BP, LAP025EL7NP



Specific Position to Connect Signal Cable

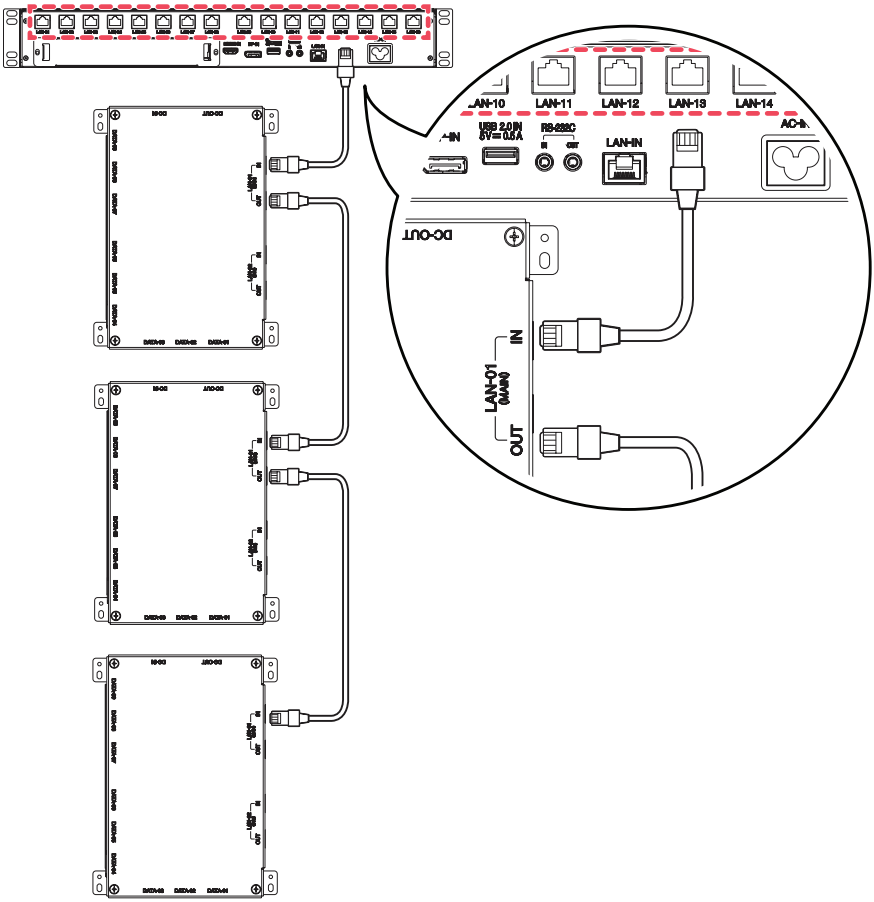


⚠ CAUTION

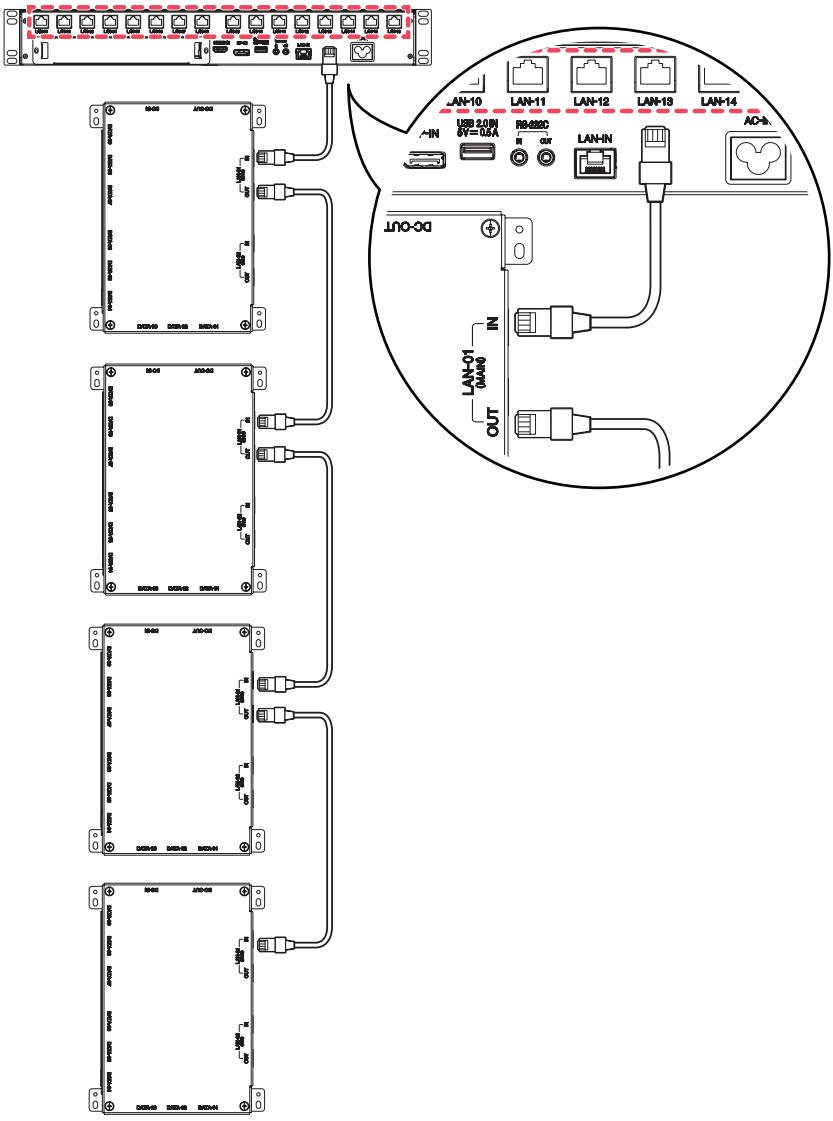
- When connecting the cable, rotate it more than five times to complete the connection.
- Check the direction so that the Signal cable is not damaged.
- Inserting the Signal cable with excessive force may damage the contact part.

Connecting Ethernet LAN Cable

LLLG003 (LAP015EL6B, LAP015EL6BP)
LLLG003-A (LAP015EL7B, LAP015EL7BP, LAP015EL7N, LAP015EL7NP)
LLLG003-C (LAP015EL9TP)
LLLG003-D (LAP015EL9N, LAP015EL9NP)



LLLG003 (LAP020EL6B, LAP020EL6BP, LAP025EL4D, LAP025EL4DP)
LLLG003-A (LAP020EL7B, LAP020EL7BP, LAP020EL7N, LAP020EL7NP)
LLLG003-B (LAP025EL7B, LAP025EL7BP, LAP025EL7N, LAP025EL7NP)



TROUBLESHOOTING

No image is displayed.

Problem	Solution
Is the power cable connected to the product?	• Check if the power cable is properly connected to the connector.
Is the signal cable connected to the product?	• Check if the signal cable is properly connected to the connector.
Is the Ethernet cable connected to the product?	• Check if the Ethernet cable is properly connected to the connector.

The screen image looks abnormal.

Problem	Solution
Is the proper number of daisy chains connected to each DATA terminal?	• Check if the maximum number of connections has been exceeded. • When connecting to **LLLG003** (LAP015EL6B, LAP015EL6BP) / **LLLG003-A** (LAP015EL7B, LAP015EL7BP, LAP015EL7N, LAP015EL7NP): Up to 1 • When connecting to **LLLG003** (LAP020EL6B, LAP020EL6BP) / **LLLG003-A** (LAP020EL7B, LAP020EL7BP, LAP020EL7N, LAP020EL7NP): Up to 2 • When connecting to **LLLG003** (LAP025EL4D, LAP025EL4DP) / **LLLG003-B** (LAP025EL7B, LAP025EL7BP, LAP025EL7N, LAP025EL7NP): Up to 3 • When connecting to **LLLG003** (LAP015EL6B, LAP015EL6BP) / **LLLG003-C** (LAP015EL9TP): Up to 1 • When connecting to **LLLG003** (LAP015EL6B, LAP015EL6BP) / **LLLG003-D** (LAP015EL9N, LAP015EL9NP): Up to 1
Did you use the DATA terminal that is not supported?	• When connecting to **LLLG003** (LAP015EL6B, LAP015EL6BP) / **LLLG003-A** (LAP015EL7B, LAP015EL7BP, LAP015EL7N, LAP015EL7NP): DATA-01 - DATA-09 terminals can be used. • When connecting to **LLLG003** (LAP020EL6B, LAP020EL6BP) / **LLLG003-A** (LAP020EL7B, LAP020EL7BP, LAP020EL7N, LAP020EL7NP): Of the DATA-01 - DATA-09 terminals, you can use up to six terminals. • When connecting to **LLLG003** (LAP025EL4D, LAP025EL4DP) / **LLLG003-B** (LAP025EL7B, LAP025EL7BP, LAP025EL7N, LAP025EL7NP): Of the DATA-01 - DATA-09 terminals, you can use up to eight terminals. • When connecting to **LLLG003** (LAP015EL6B, LAP015EL6BP) / **LLLG003-C** (LAP015EL9TP): DATA-01 - DATA-09 terminals can be used. • When connecting to **LLLG003** (LAP015EL6B, LAP015EL6BP) / **LLLG003-D** (LAP015EL9N, LAP015EL9NP): DATA-01 - DATA-09 terminals can be used.
Is LED Controller correctly connected to the maximum number?	• Check if the maximum number of connections has been exceeded. • When connecting to **LLLG003** (LAP015EL6B, LAP015EL6BP) / **LLLG003-A** (LAP015EL7B, LAP015EL7BP, LAP015EL7N, LAP015EL7NP): Up to 3 • When connecting to **LLLG003** (LAP020EL6B, LAP020EL6BP) / **LLLG003-A** (LAP020EL7B, LAP020EL7BP, LAP020EL7N, LAP020EL7NP): Up to 4 • When connecting to **LLLG003** (LAP025EL4D, LAP025EL4DP) / **LLLG003-B** (LAP025EL7B, LAP025EL7BP, LAP025EL7N, LAP025EL7NP): Up to 4 • When connecting to **LLLG003** (LAP015EL6B, LAP015EL6BP) / **LLLG003-C** (LAP015EL9TP): Up to 3 • When connecting to **LLLG003** (LAP015EL6B, LAP015EL6BP) / **LLLG003-D** (LAP015EL9N, LAP015EL9NP): Up to 3

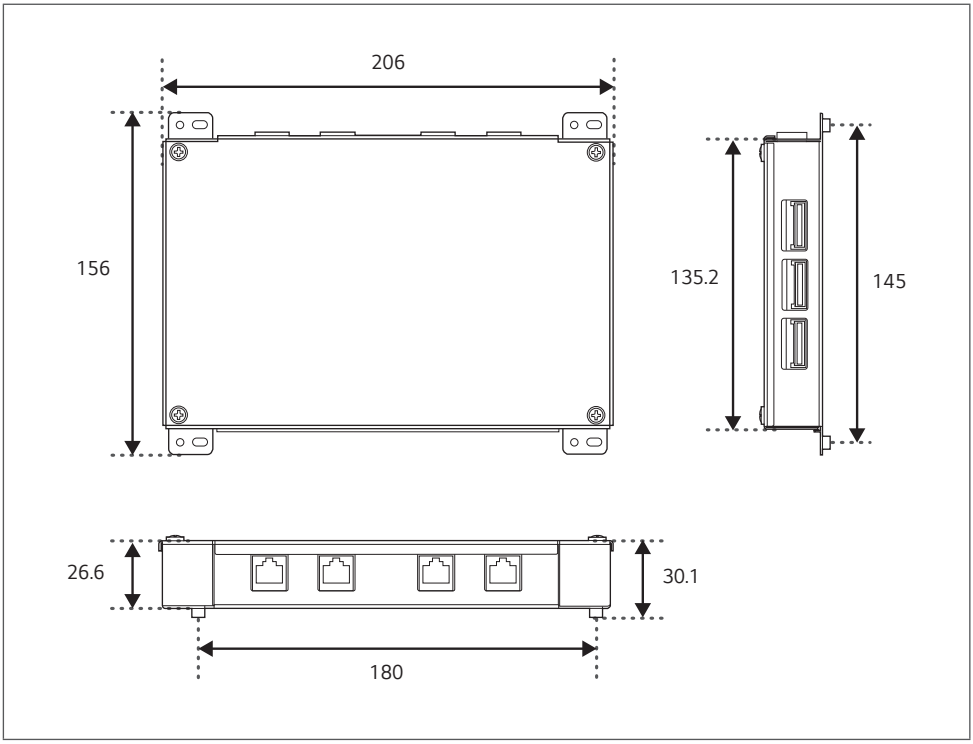
PRODUCT SPECIFICATIONS

Without prior notice, all product information and specifications contained in this manual are subject to change to improve the performance of the product.

The ~ symbol means alternating current, and the symbol ⎓ means direct current.

Input/Output Ports		LAN IN/OUT, DC IN/OUT, DATA
Power	Rated Voltage	48 V ⎓
	Power Consumption	On Mode: 10 W (Max)
Embedded Battery		Not Applied
Environmental Conditions	Operating Temperature	0 °C to 40 °C
	Operating Humidity	10 % to 80 %
	Storage Temperature	-20 °C to 60 °C
	Storage Humidity	5 % to 85 %
Dimensions (Width x Depth x Height) / Weight		206 mm x 156 mm x 30.1 mm / 0.6 kg

[Unit: mm]





The model and serial number of the product are located on the back and on one side of the product. Record them below in case you ever need service.

MODEL _____

SERIAL NO. _____

Temporary noise is normal when powering ON or OFF this device.