

OWNER'S MANUAL Network Dome Camera

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


MODEL

LNP3700T series
LNP2800 series
LNP2800I series




ipsolute





CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK
DO NOT REMOVE COVER (OR BACK)
NO USER-SERVICEABLE PARTS INSIDE
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



This lightning flash with arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of uninsulated dangerous voltage within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. **Wash hands after handling.**

FCC WARNING: This equipment may generate or use radio frequency energy. Changes or modifications to this equipment may cause harmful interference unless the modifications are expressly approved in the instruction manual. The user could lose the authority to operate this equipment if an unauthorized change or modification is made.

REGULATORY INFORMATION: FCC Part 15

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

- A suitable conduit entries, knock-outs or glands shall be provided in the cable entries of this product in the end user.
- Caution: Danger of explosion if battery is incorrectly replaced. Replaced only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.
- Holes in metal, through which insulated wires pass, shall have smooth well rounded surfaces or shall be provided with brushings.

This Class A digital apparatus complies with Canadian ICES-003.
Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

Warning

- Do not install this equipment in a confined space such as a bookcase or similar unit.
- Wiring methods shall be in accordance with the National Electric Code, ANSI/ NFPA 70.
- This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.
- To reduce a risk of fire or electric shock, do not expose this product to rain or moisture.

Caution

- This installation should be made by a qualified service person and should conform to all local codes.
- To avoid electrical shock, do not open the cabinet. Refer servicing to qualified personnel only.
- The apparatus shall not be exposed to water (dripping or splashing) and no objects filled with liquids, such as vases, shall be placed on the apparatus.

To disconnect power from mains, pull out the mains cord plug. When installing the product, ensure that the plug is easily accessible.



LG Electronics hereby declares that this/these product(s) is/are in compliance with the essential requirements and other relevant provisions of Directive 2004/108/EC and 2011/65/EU.

Contact office for compliance of this product:
LG Electronics Inc.
EU Representative, Krijgsman 1,
1186 DM Amstelveen, The
Netherlands

Disposal of your old appliance



- When this crossed-out wheeled bin symbol is attached to a product it means the product is covered by the European Directive 2002/96/EC.
- 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.
- The correct disposal of your old appliance will help prevent potential negative consequences for the environment and human health.
- For more detailed information about disposal of your old appliance, please contact your city office, waste disposal service or the shop where you purchased the product.

EEE Compliance with Directive.
(for Turkey only)

Important Safety Instructions

- Read these instructions.
- Keep these instructions.
- Heed all warnings.
- Follow all instructions.
- Do not use this apparatus near water.
- Clean only with dry cloth.
- Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.

- Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- Only use attachments/accessories specified by the manufacturer.
- Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.



- Unplug this apparatus during lightning storms or when unused for long periods of time.
- Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

Handling of the unit

Be careful not to spill water or other liquids on the unit. Be cautious not to get combustible or metallic material inside the body. If used with foreign matter inside, the camera is liable to fail or to get cause of fire or electric shock.

- Remove dust or dirt on the surface of the lens with a blower.
- Use a dry soft cloth to clean the body. If it is very dirty, use a cloth dampened with a small quantity of neutral detergent then wipe dry.
- Avoid the use of volatile solvents such as thinners, alcohol, benzene and insecticides. They may damage the surface finish and/or impair the operation of the camera.

Operating and storage location

Avoid viewing a very bright object (such as light fittings) during an extended period. Avoid operating or storing the unit in the following locations.

- Extremely hot or cold places (operating temperature -20 °C to 50 °C, however, we recommend that the unit be used within a temperature range of 0 °C to 45 °C)
- Damp or dust place
- Places exposed to rain
- Places subject to strong vibration
- Close to generators of powerful electromagnetic radiation such as radio or TV transmitters.

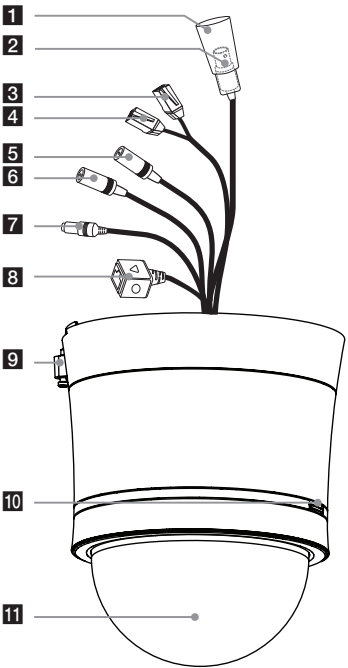
Specifications

Item		LNP3700T	LNP2800	LNP2800I
Image Sensor		4.5 mm (1/4 type) CCD		
Lens		x37 Zoom, F1.5(Wide End), F4.1(Tele End) (f = 3.5 mm to 129.5 mm)	x28 Zoom, F1.5 (Wide End) , F3.0 (Tele End) (f = 3.5 mm to 98 mm)	
Resolution		Up to 704 x 480 (NTSC), 704 x 576 (PAL)		
Minimum Illumination	B/W	0.01 lx (Sens-up OFF), 0.000 01 lx (Sens-up ON)		
	Color	0.2 lx (Sens-up OFF), 0.003 lx (Sens-up ON)		
ICR Day/Night		Support		
Image Enhancement		Backlight Compensation, Exposure Control, Sens Up Control, AGC, White Balance, Privacy Masking, Digital Zoom, EIS		
Optical Zoom		x37	x28	
Panning Range & Speed		0 ° to 360 °, Maximum 500 °/Second		
Tilting Range & Speed		0 ° to 180 °, Maximum 500 °/Second		
Auto Panning		2 to 8 points		
Preset		256		
Group Touring		Maximum 10 Groups		
Pattern		4 EA		
Auto Tracking		Support	No Support	
Video Compression		H.264, MJPEG		
Frame Rate		30/25 fps @ D1 (N/P) + 30/25 fps @ CIF (N/P)		
Multi-Streaming		Dual Streaming		
Audio Compression		G.726, G.711		
2-way Audio		Support		
Motion Detection		Support		
Event Notification		Relay Out, Email, FTP, Preset(on Sensor)		
Pre Event Buffering		Support		

Video In/Out		1 BNC Out	
Audio In/Out		1/1	
Alarm In/Out		4/2	
Ethernet		10/100 Ethernet	
Security		Password Protection, HTTPS (SSL, TLS)	
Protocol	IPv4	TCP/IP, HTTP, HTTPS, RTP, RTSP, UDP, DHCP, ICMP, FTP, SMTP, NTP, ARP, SNMPv1/v2c/v3, DDNS(LG)	
	IPv4/v6	TCP/IP, UDP, HTTP, HTTPS, RTP, RTSP, DHCP, ICMP	
Open Protocol		ONVIF 2.2 Profile S,PSIA 1.1	
Remote S/W		LVIS10, Mobile application (iPhone, Android, iPad)	
Connections		Up to 10	
Protection		IP66, Vandal Proof	No Support
Power Source		AC 24 V	
Power Consumption		Maximum 25 W	Maximum 21 W
Input Current		1.8 A	1.4 A
Operating Temperature		-20 °C to 50 °C	-10 °C to 50 °C
Operating Humidity		0 % RH to 80 % RH	
Weight		4.17 kg	2.5 kg
Dimension (ØxH)		234.6 mm x 269.9 mm	205.8 mm x 269.9 mm

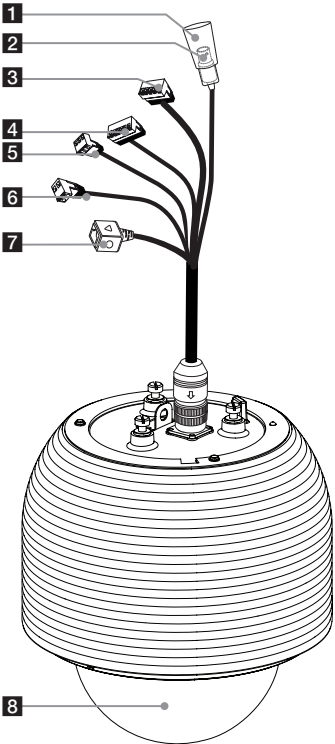
Part Names and Functions

LNP2800I series for Indoor



- BNC connector cover cap**
- Video output BNC connector**
- Data Port A (RJ-45)**
Input data port for alarm (relay) signal.
RS-485 data communication is not available.
- Data Port B (RJ-45)**
Output data port for alarm (relay) signal.
- AUDIO IN (Line Level Input)**
Input for a mono microphone, or a line-in mono signal.
- AUDIO OUT (Line Level Output)**
Connect to an active speaker with a built-in amplifier.
- Power input jack**
- ETHERNET Port**
Connects to a PC or a network via a hub with a 10 BASE-T/100 BASE-TX cable attached RJ-45 connector.
- Locking screw**
Tighten this screw to fixing the Ceiling Mount Assembly with camera body.
- Dome Cover open button**
- Dome Cover**

LNP3700T/LNP2800 series for Outdoor

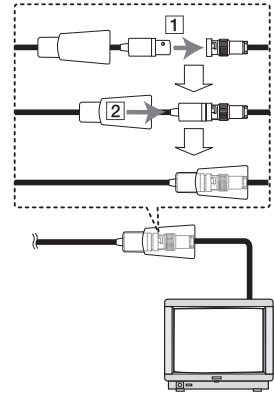


- BNC connector cover cap**
- Video output BNC connector**
- Alarm In Data Terminal**
Input data terminal for alarm (relay) signal.
- Alarm Out Data Terminal**
Output data terminal for alarm (relay) signal.
- AUDIO IN (Line Level Input) / AUDIO OUT (Line Level Output)**
Input for a mono microphone, or a line-in mono signal. Connect to an active speaker with a built-in amplifier.
- Power input Terminal**
This camera must always be operated AC 24 V. Certified/Listed Adaptor which comply with LPS.
- ETHERNET Port**
Connects to a PC or a network via a hub with a 10 BASE-T/100 BASE-TX cable attached RJ-45 connector.
- Dome Cover**

Connection & Installation

Connecting Display device

The video signal connection between the camera and the monitor.



ALARM input connection

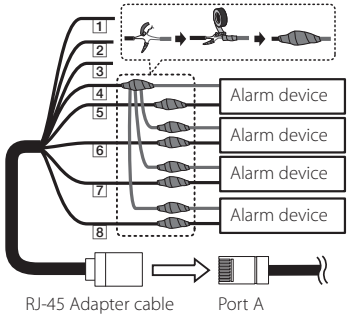
You can connect up to 4 alarm sensors to the camera. Each alarm sensor should be connected with Alarm IN COM. You can adjust the signal state to NO (normally open) or NC (normally closed) through the setup menu.

CAUTION:

Do not connect one alarm sensor to the several camera's alarm input connector.

For LNP2800I

1. Connect the RJ-45 Adapter cable to the PORT A (RJ-45) cable of the camera.
2. Connect the alarm device to the RJ-45 Adapter cable. When connecting lines, check and connect the color lines of the each device correctly. Refer to the below tables for color line information.



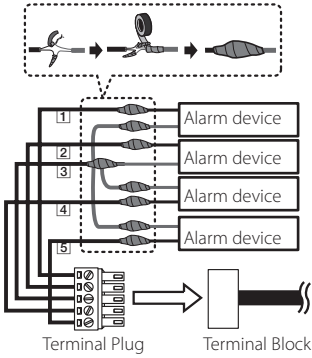
RJ-45 Adapter cable		
No	Description	Color
1	RS-485 +	White
2	RS-485 -	Orange
3	NC	Black
4	ALARM IN COM	Red
5	ALARM IN 1	Green
6	ALARM IN 2	Yellow
7	ALARM IN 3	Blue
8	ALARM IN 4	Brown

PORT A	
Description	Color
RS-485 +	Red/White
RS-485 -	Black/White
NC	
ALARM IN COM	Red
ALARM IN 1	White
ALARM IN 2	Light Green
ALARM IN 3	Yellow
ALARM IN 4	Pink

NOTE:
RS-485 data communication is not available.

For LNP3700T/LNP2800

1. Connect the terminal plug to the terminal block of the camera.
2. Connect the alarm device to the terminal plug. When connecting lines, check and connect the color lines of the each device correctly. Refer to the below tables for color line information.



No	Description	Color
1	ALARM IN 1	Brown
2	ALARM IN 2	Red
3	ALARM IN COM	Black
4	ALARM IN 3	Orange
5	ALARM IN 4	Green

ALARM output connections

Connect the alarm device to the alarm output data port. Alarm signal output at an event occurrence. You can set the Alarm Output to the normal open or normal close mode.

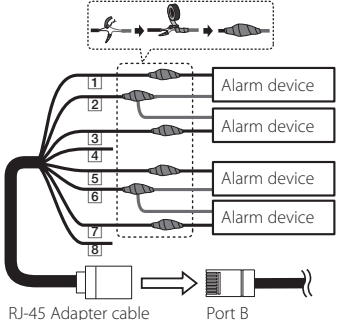
CAUTION:

Output specifications are lowactive, open-collector and a drive capacity of 30 V DC

0.5 A maximum. Connecting the alarm out incorrectly may cause damaging the camera.

For LNP2800I

1. Connect the RJ-45 Adapter cable to the PORT B (RJ-45) cable of the camera.
2. Connect the alarm device to the RJ-45 Adapter cable. When connecting lines, check and connect the color lines of the each device correctly. Refer to the below tables for color line information.



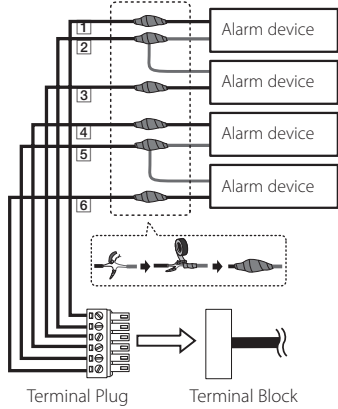
RJ-45 Adapter cable		
No	Description	Color
1	ALARM OUT [NO1]	White
2	ALARM OUT [COM1]	Orange
3	ALARM OUT [NC1]	Black
4	NC	Red
5	ALARM OUT [NO2]	Green
6	ALARM OUT [COM2]	Yellow
7	ALARM OUT [NC2]	Blue
8	NC	Brown

PORT B	
Description	Color
ALARM OUT [NC1]	Blue

ALARM OUT [COM1]	Violet
ALARM OUT [NO1]	Brown
NC	
ALARM OUT [NC2]	Gray
ALARM OUT [COM2]	Orange
ALARM OUT [NO2]	Black
NC	

For LNP3700T/LNP2800

1. Connect the terminal plug to the terminal block of the camera.
2. Connect the alarm device to the terminal plug. When connecting lines, check and connect the color lines of the each device correctly. Refer to the below tables for color line information.



No	Description	Color
1	ALARM OUT [NO1]	White
2	ALARM OUT [COM1]	Orange
3	ALARM OUT [NC1]	Black

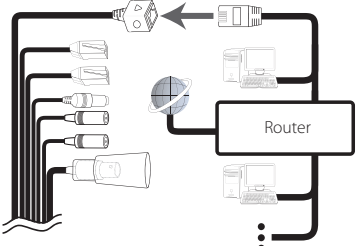
4	ALARM OUT [NO2]	Green
5	ALARM OUT [COM2]	Yellow
6	ALARM OUT [NC2]	Blue

Connecting Network

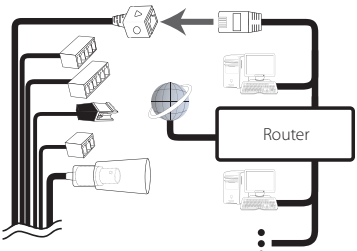
You can control and monitor the system via network. With the remote control (monitoring), you can change the system configuration or monitor the image via network. After the installation, check the network settings for the remote control and monitoring work.

Connect the IP camera to your network using a standard RJ-45 network cable as shown below.

For LNP2800I



For LNP3700T/LNP2800

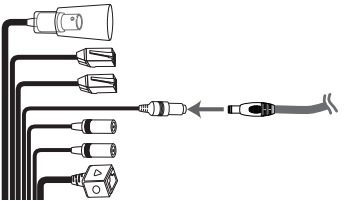


Connecting power source

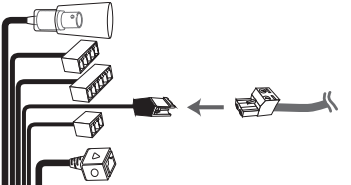
Connect a AC 24 V power source to the power input terminal as shown below.

(Recommended power adaptor is AC 24 V/3 A or above.)

For LNP2800I



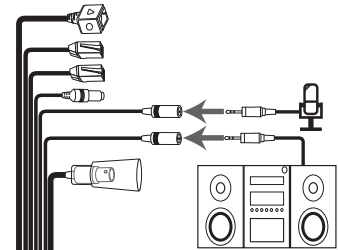
For LNP3700T/LNP2800



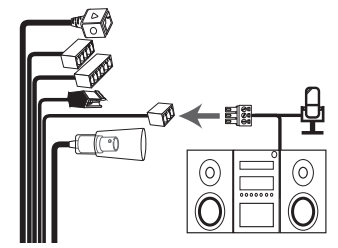
Connecting Microphone and Speaker Device

Optionally connect an active speaker and/or external microphone with a built-in amplifier.

For LNP2800I



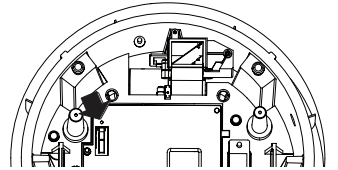
For LNP3700T/LNP2800



NOTE:
Keep the microphone away from the speaker to avoid howling.

Reset setting

Push the button more than 3 seconds, this would restore the factory default network related settings.



Removing the Protection Tape

You should remove the protection tape before installing the camera. Remove the protection tape carefully.

For LNP3700T/LNP2800

1. Loosen the screws using the wrench and remove the dome cover.
2. Remove the protection tape and attach the dome cover.

For LNP2800I

1. Press the Dome Cover open button and then disassemble the dome cover by using ALIGN mark.
2. Remove the protection tape and attach the dome cover.

CAUTION:

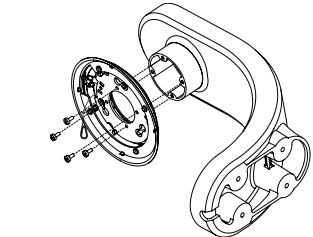
You must align the OPEN and LOCK mark correctly when you turn the dome cover to open or close. If you do not align the mark, it causes a malfunction.

Wall mount (optional)

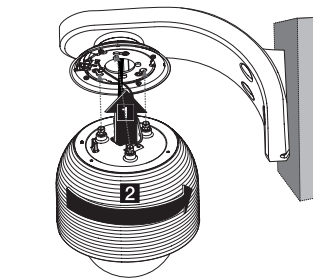
Install the camera by the following order.

1. Disassemble the PIPE Installation Bracket to remove the [A] part.

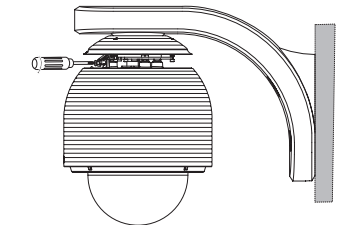
2. Install the PIPE Installation Bracket to the Wall Mount assembly.



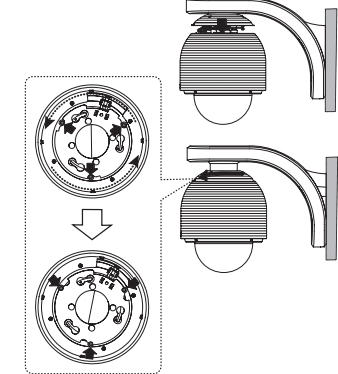
3. Drill a hole on the wall where you want to install the pipe. Pass the connection cable through the wall mount assembly so that they hang down.
4. Install the wall mount assembly.
5. Connect the connection cable and the safety cable to the camera body.
6. Attach the camera to the camera assembly bracket by following step 1 and 2. Align the locking point of the wall mount assembly and the camera.



7. Tighten the locking screw.

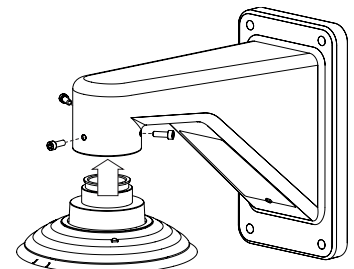


8. Assemble the camera cover as shown below.



NOTE:

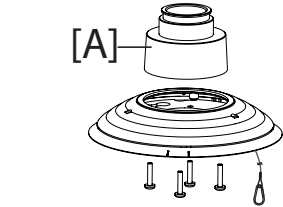
You can install the PIPE Installation Bracket direct to the other type LG Wall Mount assembly. This LG Wall Mount assembly make to easy to install your camera.



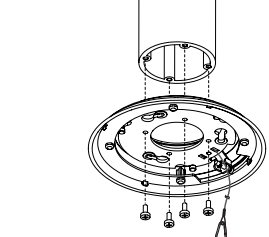
Pendant mount (optional)

Install the camera by the following order.

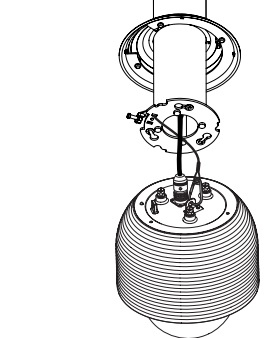
1. Disassemble the PIPE Installation Bracket to remove the [A] part.



2. Install the PIPE Installation Bracket to the Pendant Mount assembly.



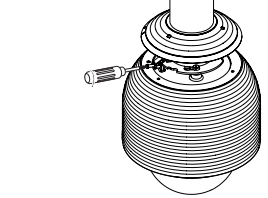
3. Drill a hole on the wall where you want to install the pipe. Pass the connection cable through the pendant mount assembly so that they hang down.
4. Install the pendant mount assembly.
5. Connect the connection cable and the safety cable to the camera body.



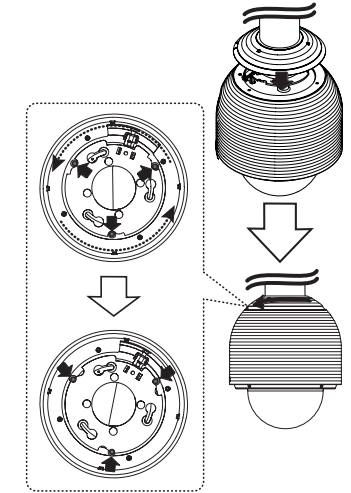
6. Attach the camera to the camera assembly bracket by following step 1 and 2. Align the locking point of the wall mount assembly and the camera.



7. Tighten the locking screw.



8. Assemble the camera cover as shown below.



NOTE:

You can install the PIPE Installation Bracket direct to the other type LG Wall Mount assembly. This LG Wall Mount assembly make to easy to install your camera.

