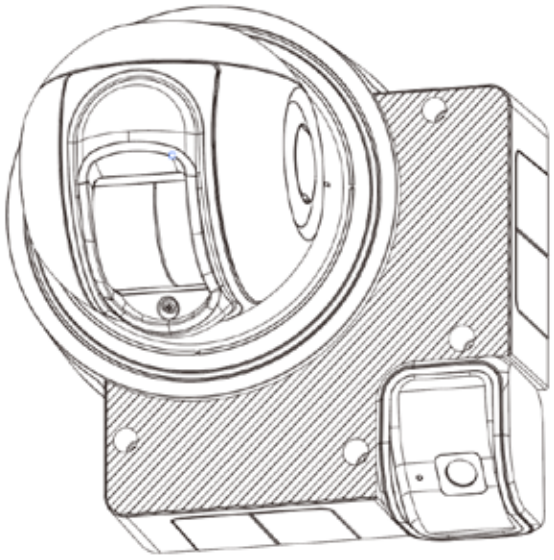
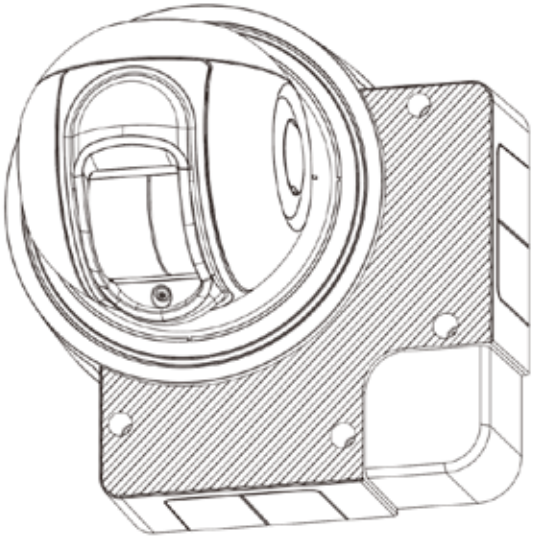
No. 59-3404-0

EN

REDSCAN mini-Pro
RLS-2020V/RLS-2020A



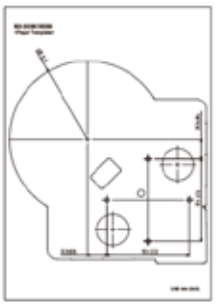
RLS-2020V



RLS-2020A

To find out useful hints, tips and information about OPTEX products and services, please visit www.optex.net

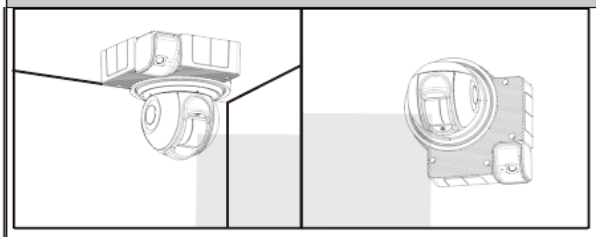
Accessories in the package



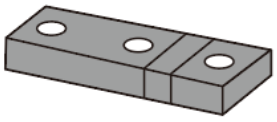
Size = T-20H
for installations

Spare parts

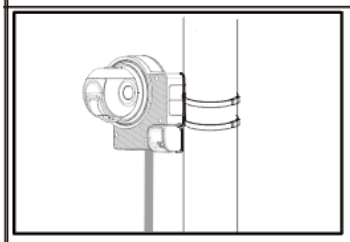
Purchase separately as necessary

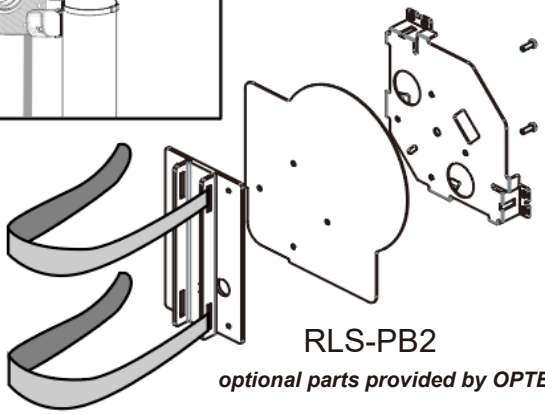


Area checking



Laser Area Checker
LAC-1
optional parts provided by OPTEX





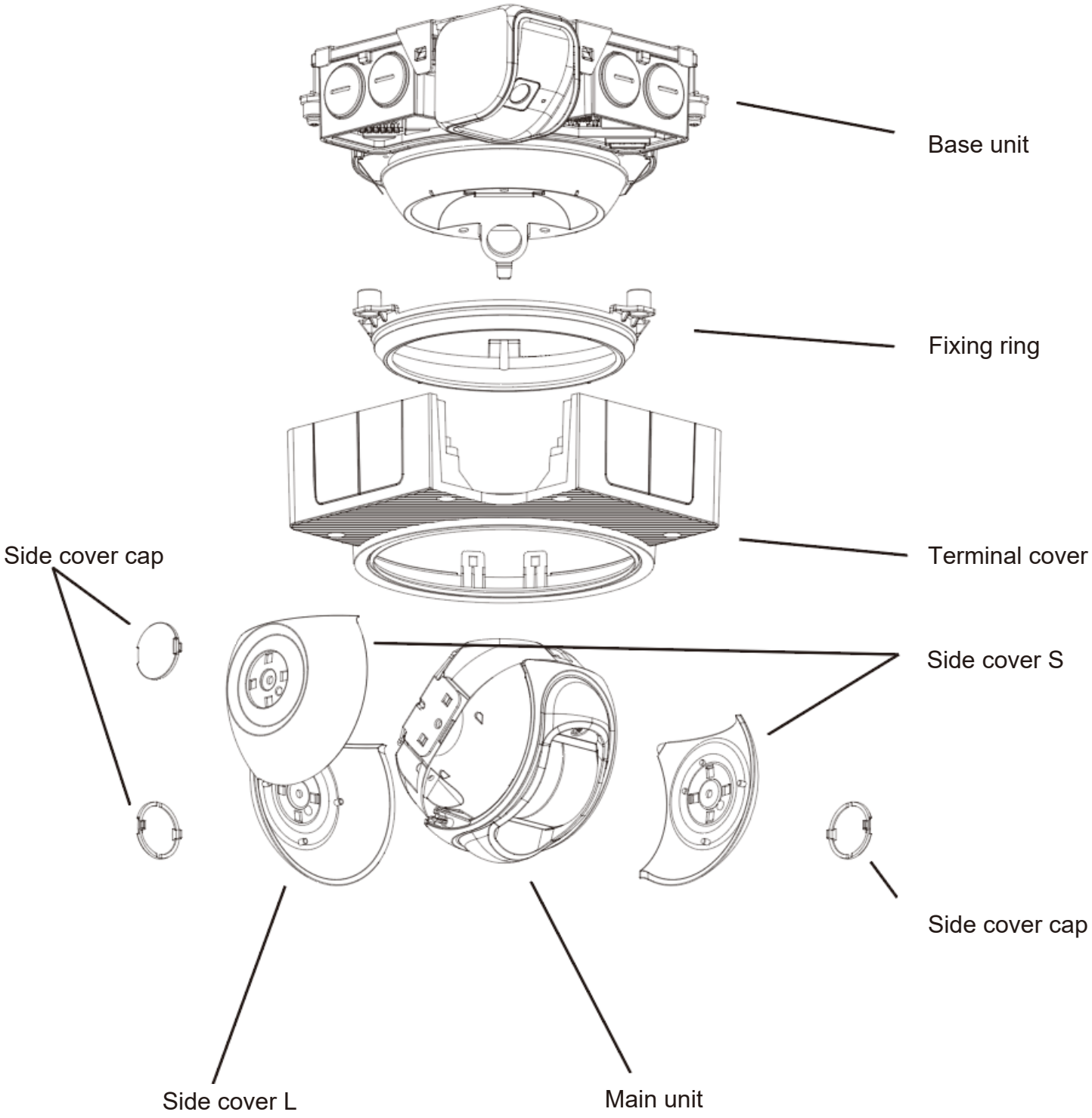
RLS-PB2
optional parts provided by OPTEX

Maintenance

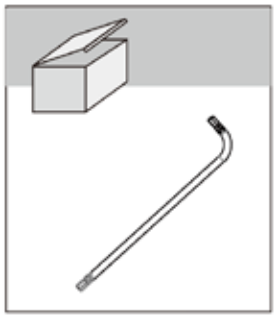
Size = T-10H
for maintenance

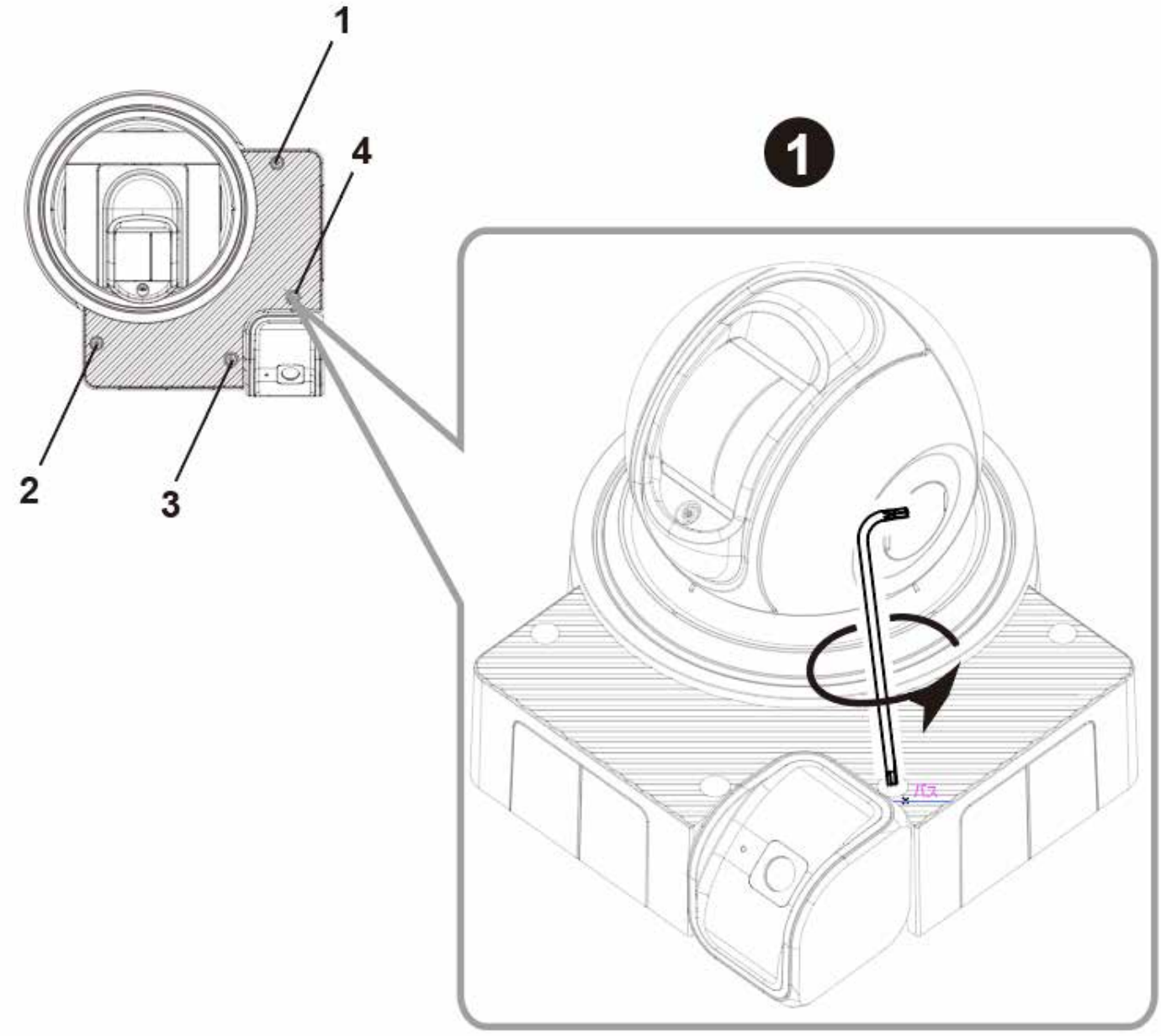
Laser Window
RLS-LW
maintenance parts provided by OPTEX

Parts identification



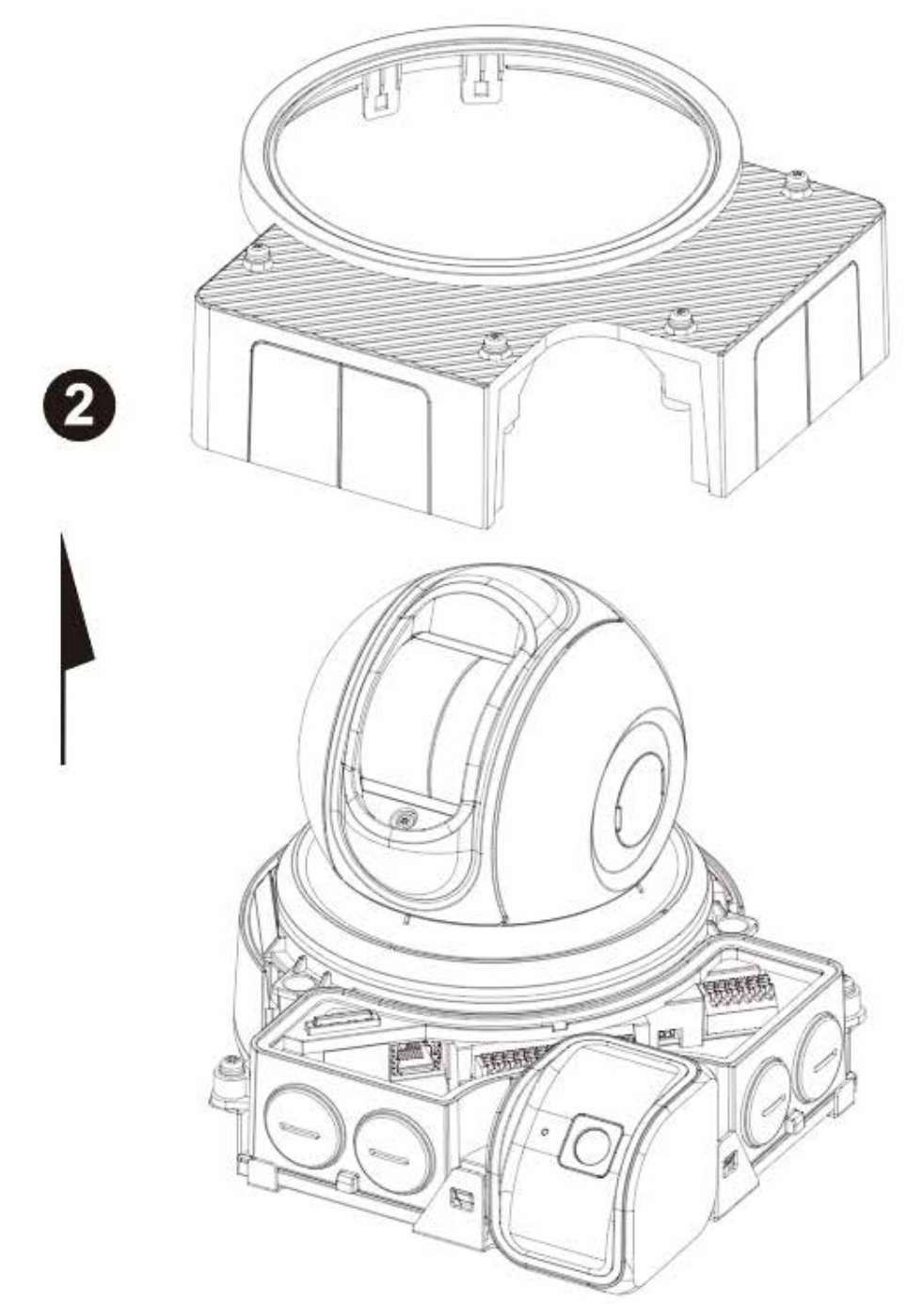
1 Disassembly





✓ Just loosen

⊘ Do not remove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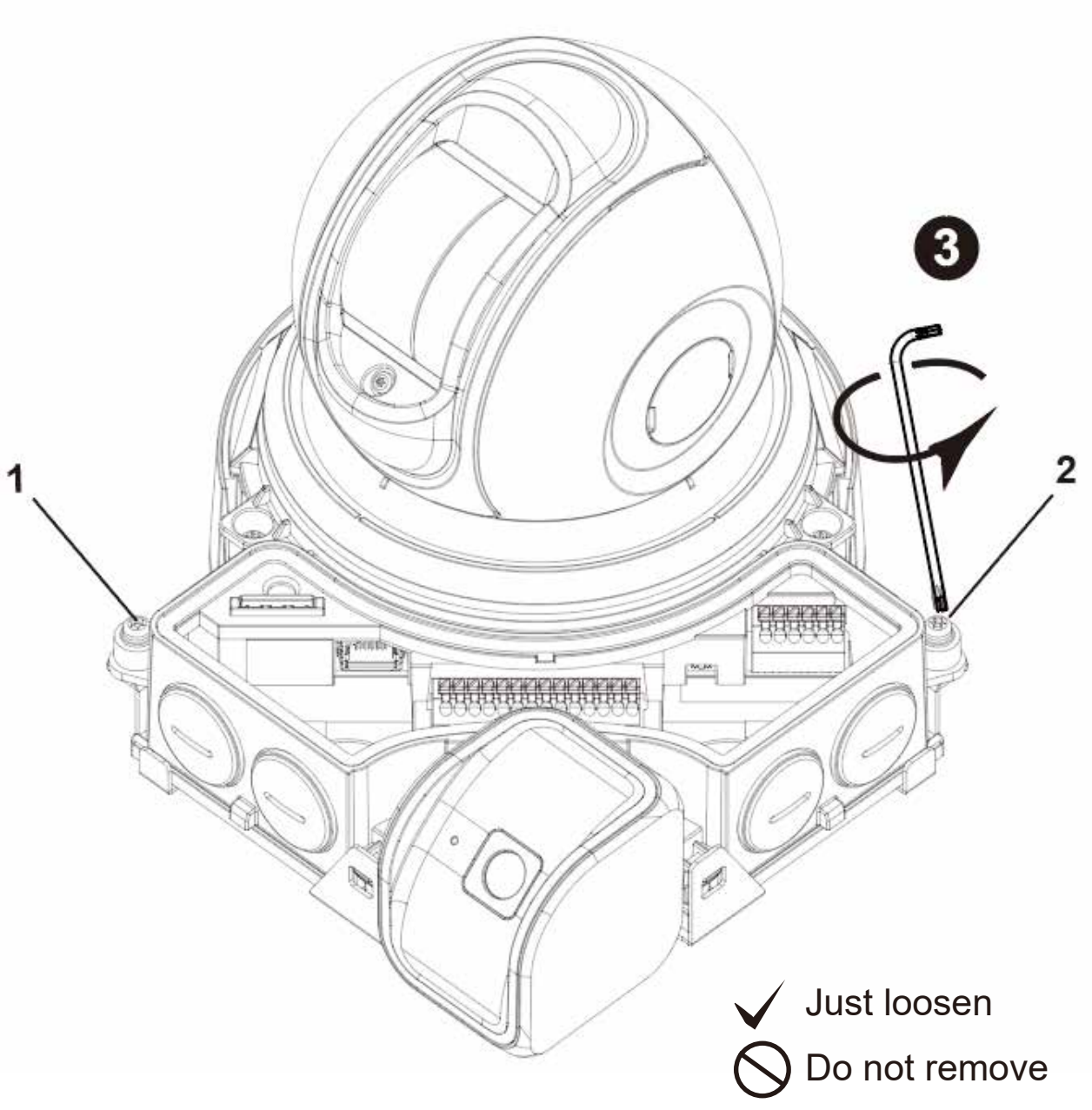
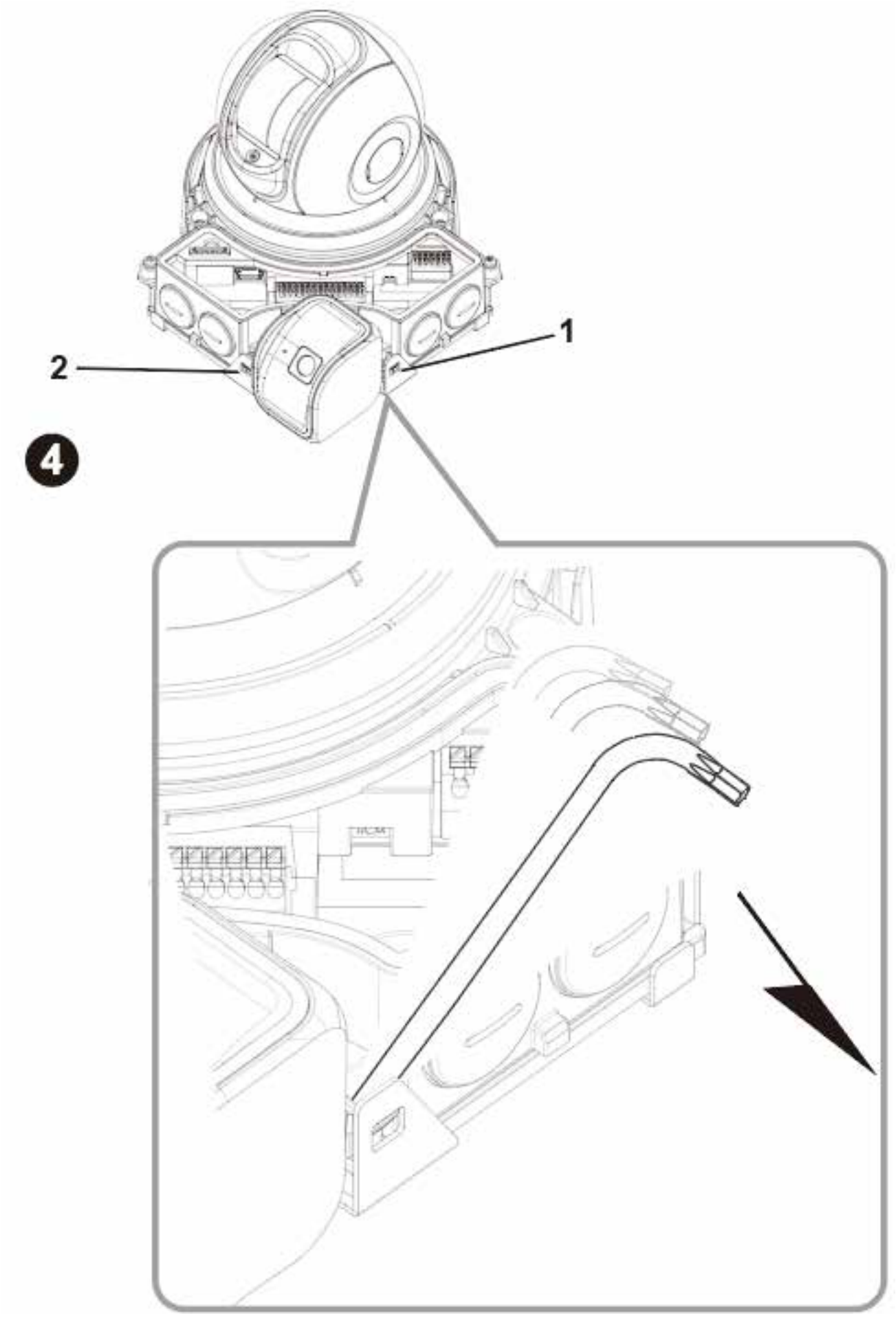
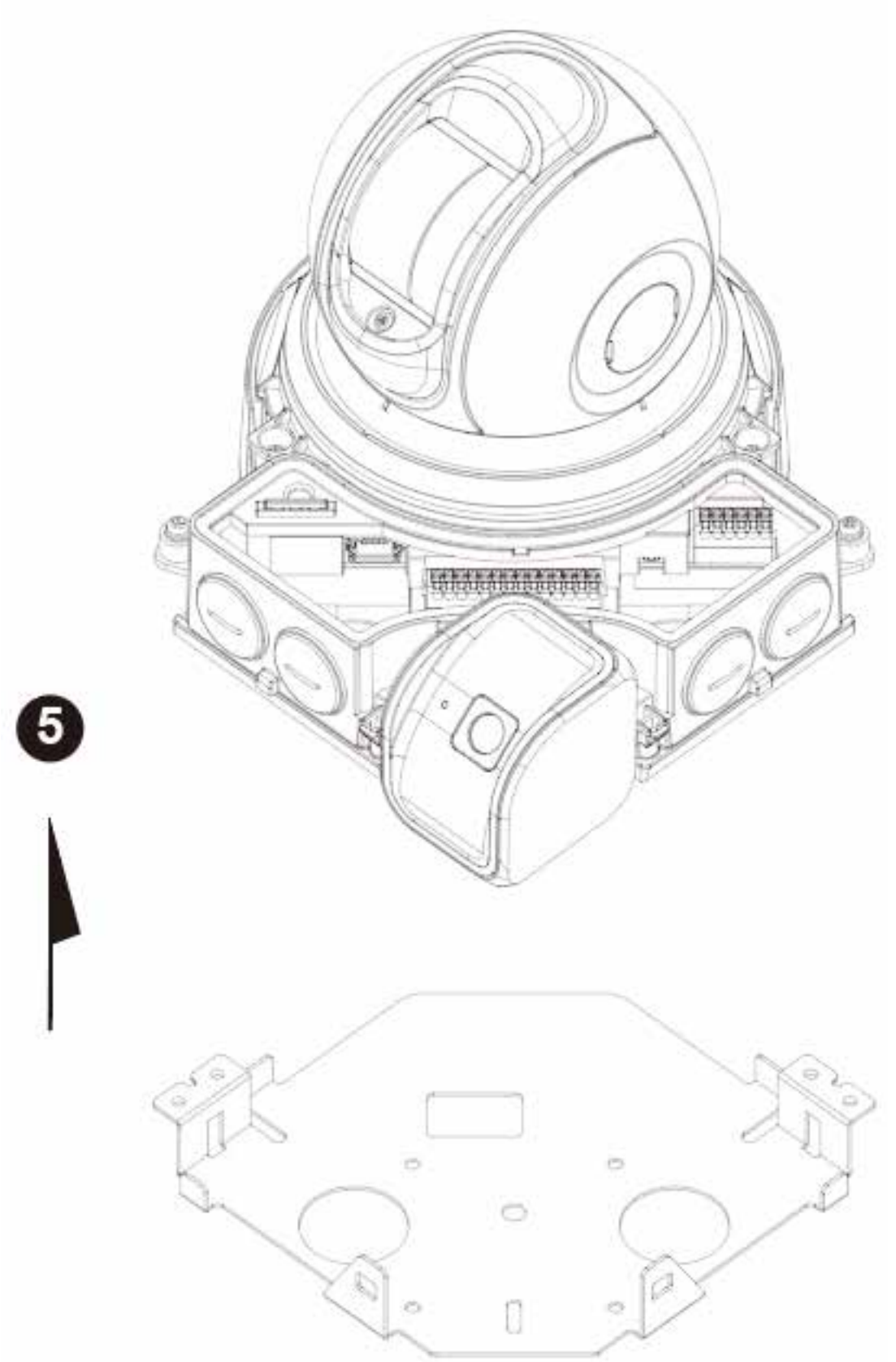

3
1
2
Just loosen
Do not remove


1
2
4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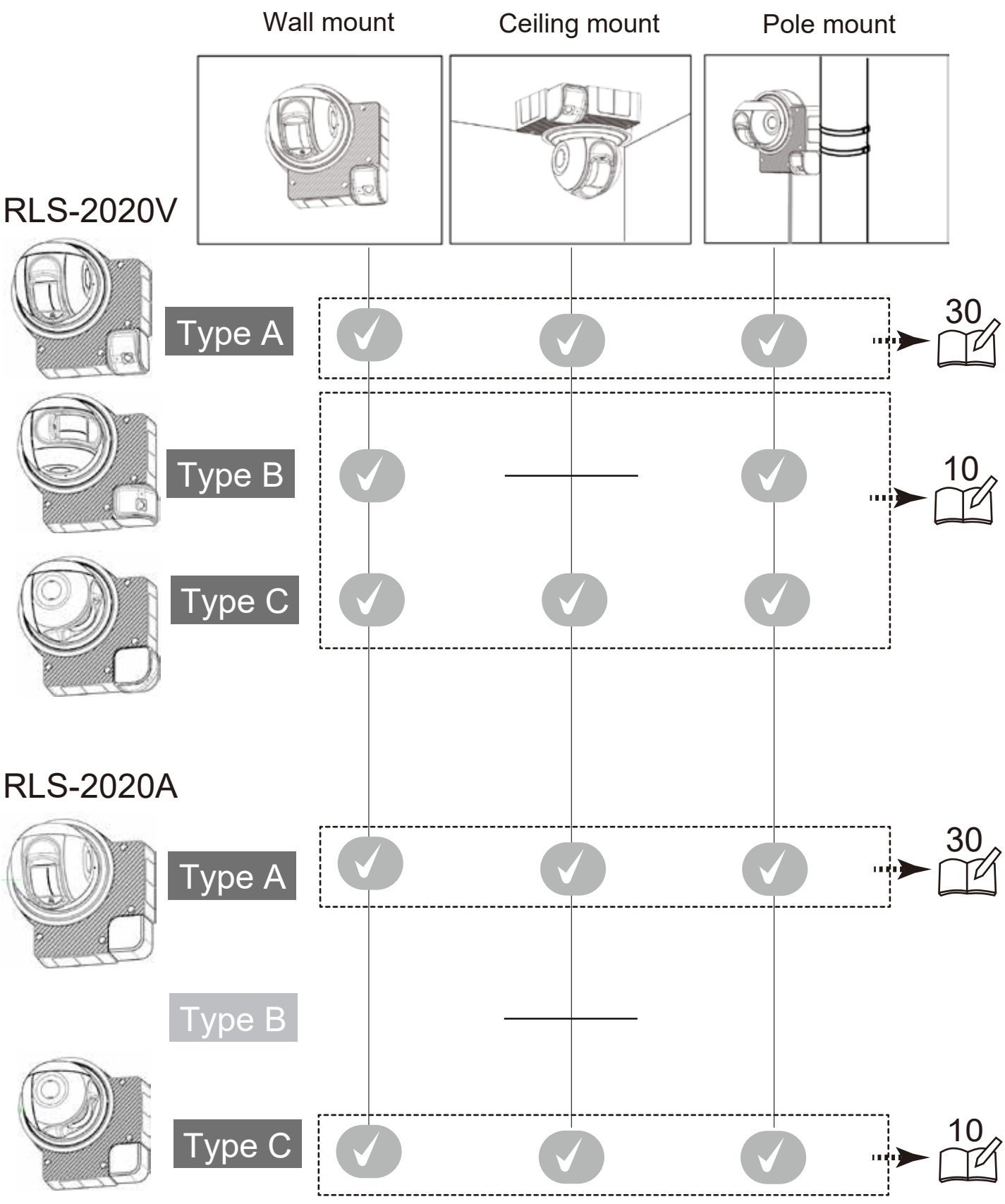
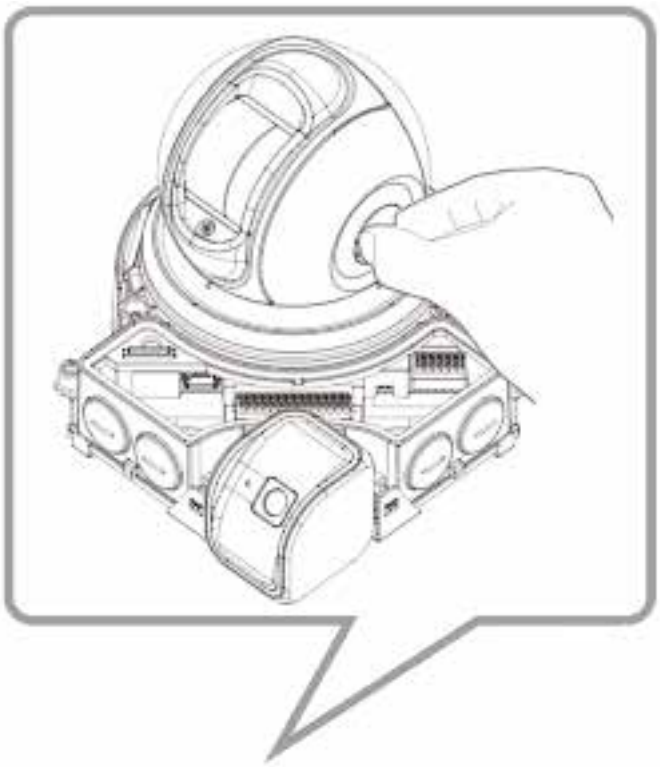
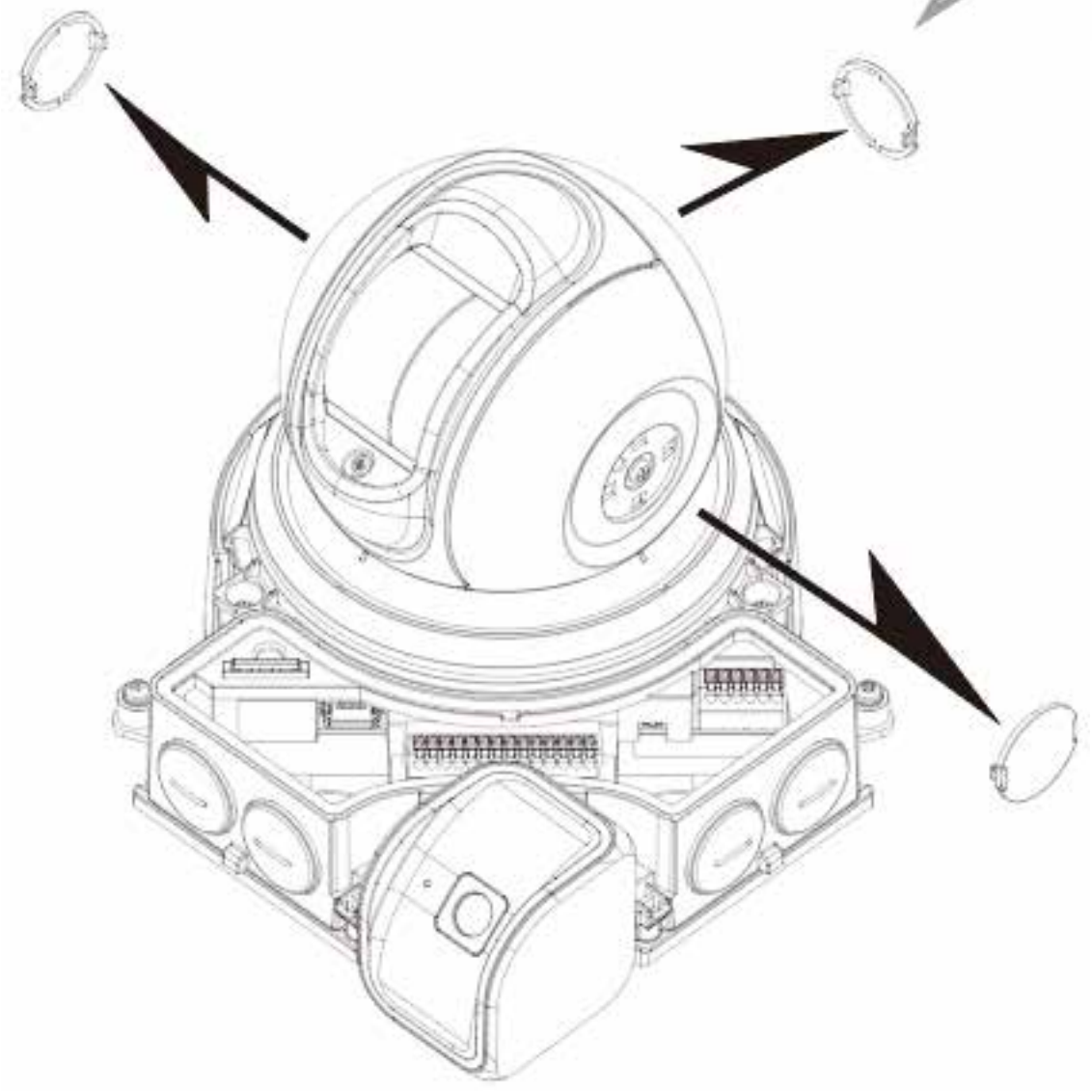
2 Transformation



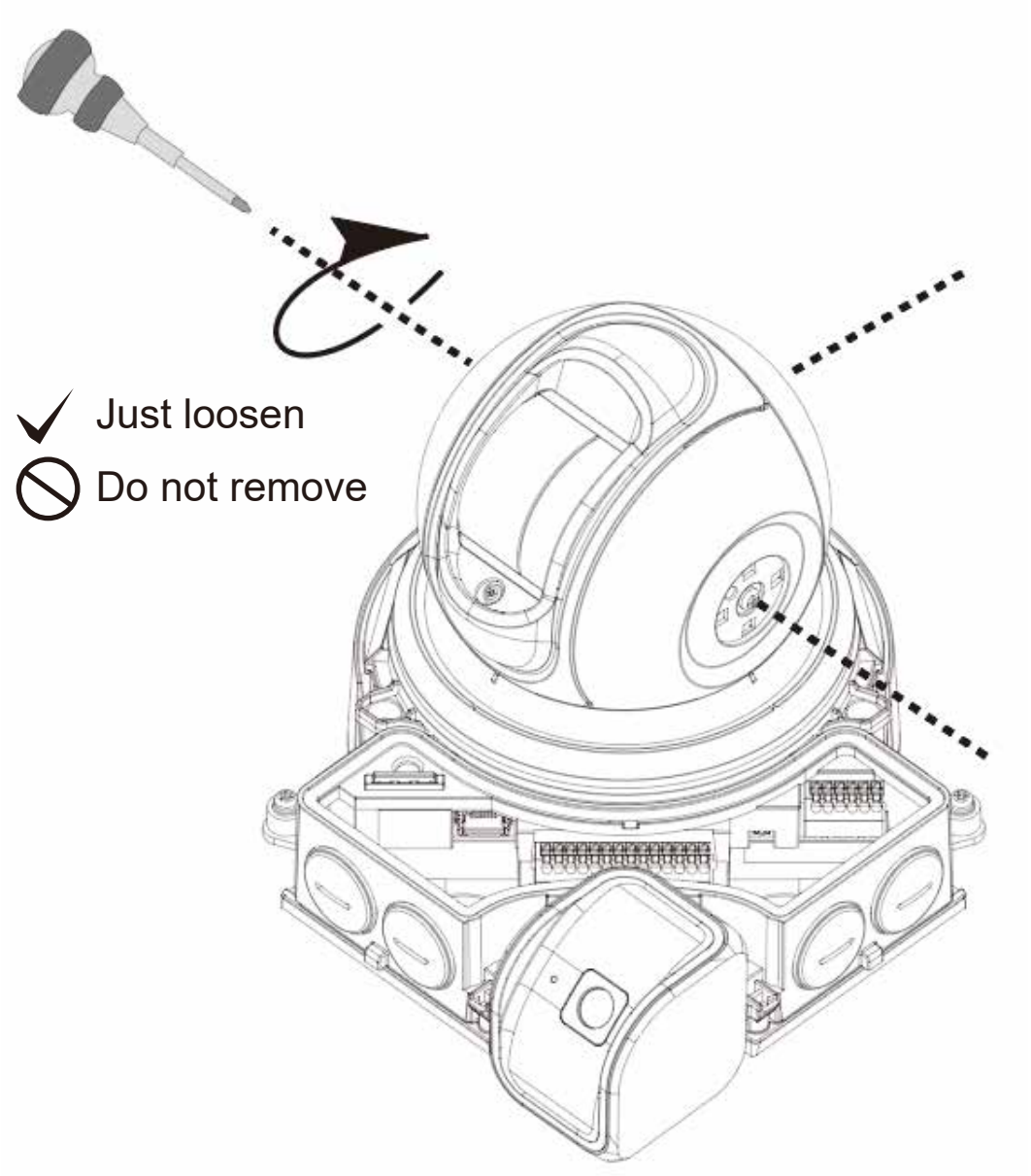
	RLS-2020V			RLS-2020A		
	Wall	**C**eiling	**P**ole	**W**all	**C**eiling	**P**ole
Type A	—	—	—	—	—	—
Type B	✓	—	✓	—	—	—
Type C	✓	✓	✓	✓	✓	✓

30

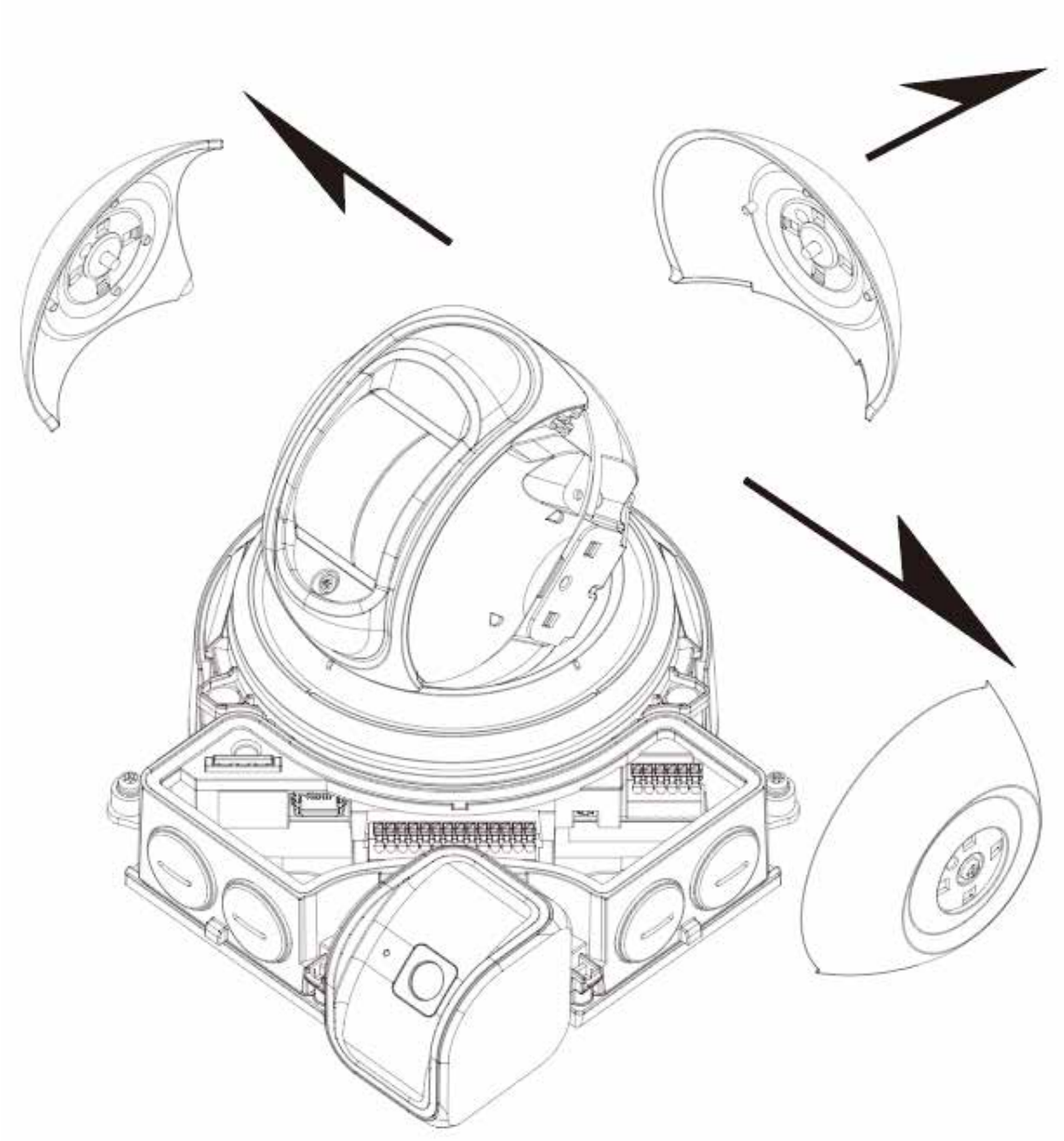




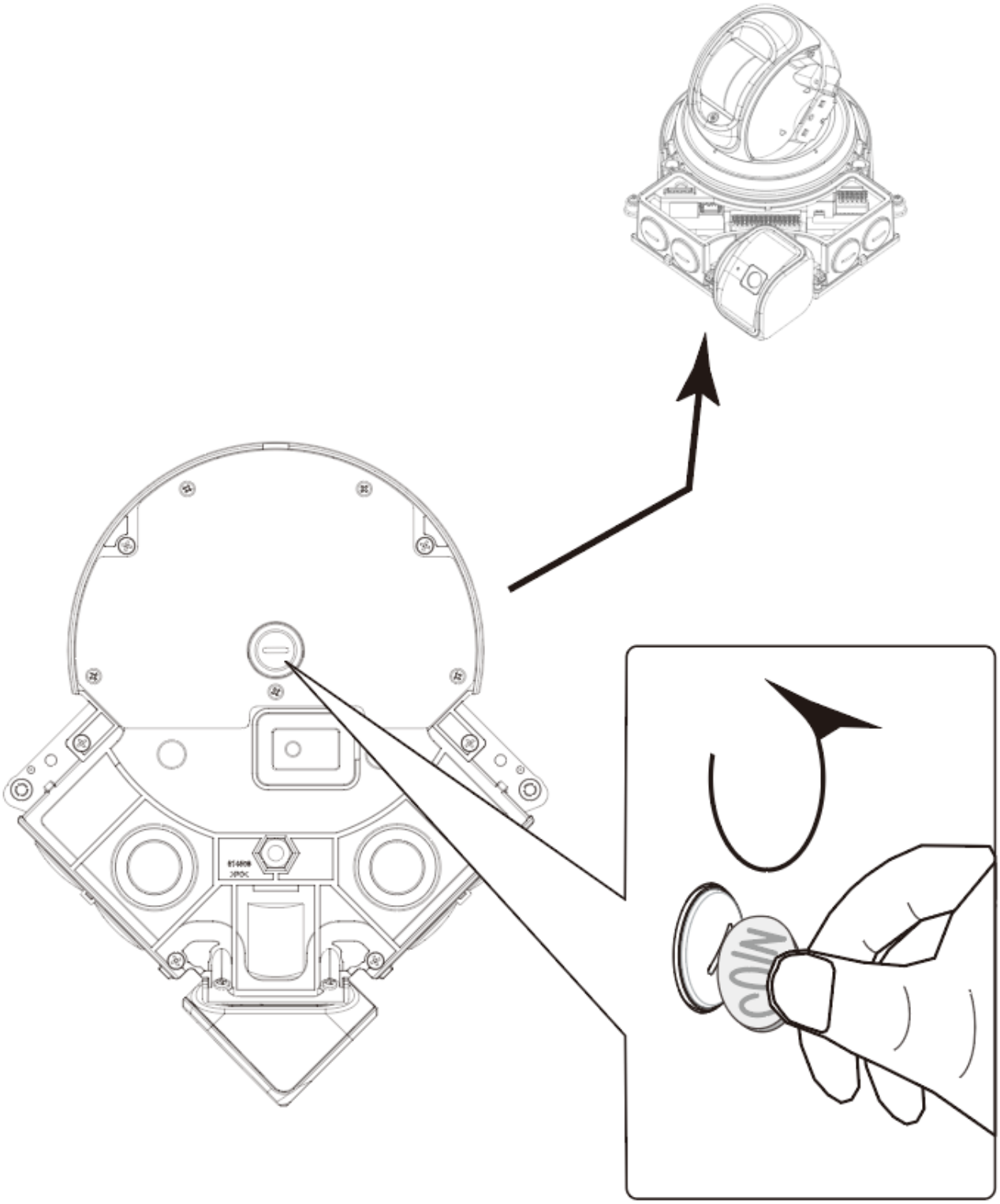
	RLS-2020V			RLS-2020A		
	Wall	**C**eiling	**P**ole	**W**all	**C**eiling	**P**ole
Type A	—	—	—	—	—	—
Type B	✓	—	✓	—	—	—
Type C	✓	✓	✓	✓	✓	✓



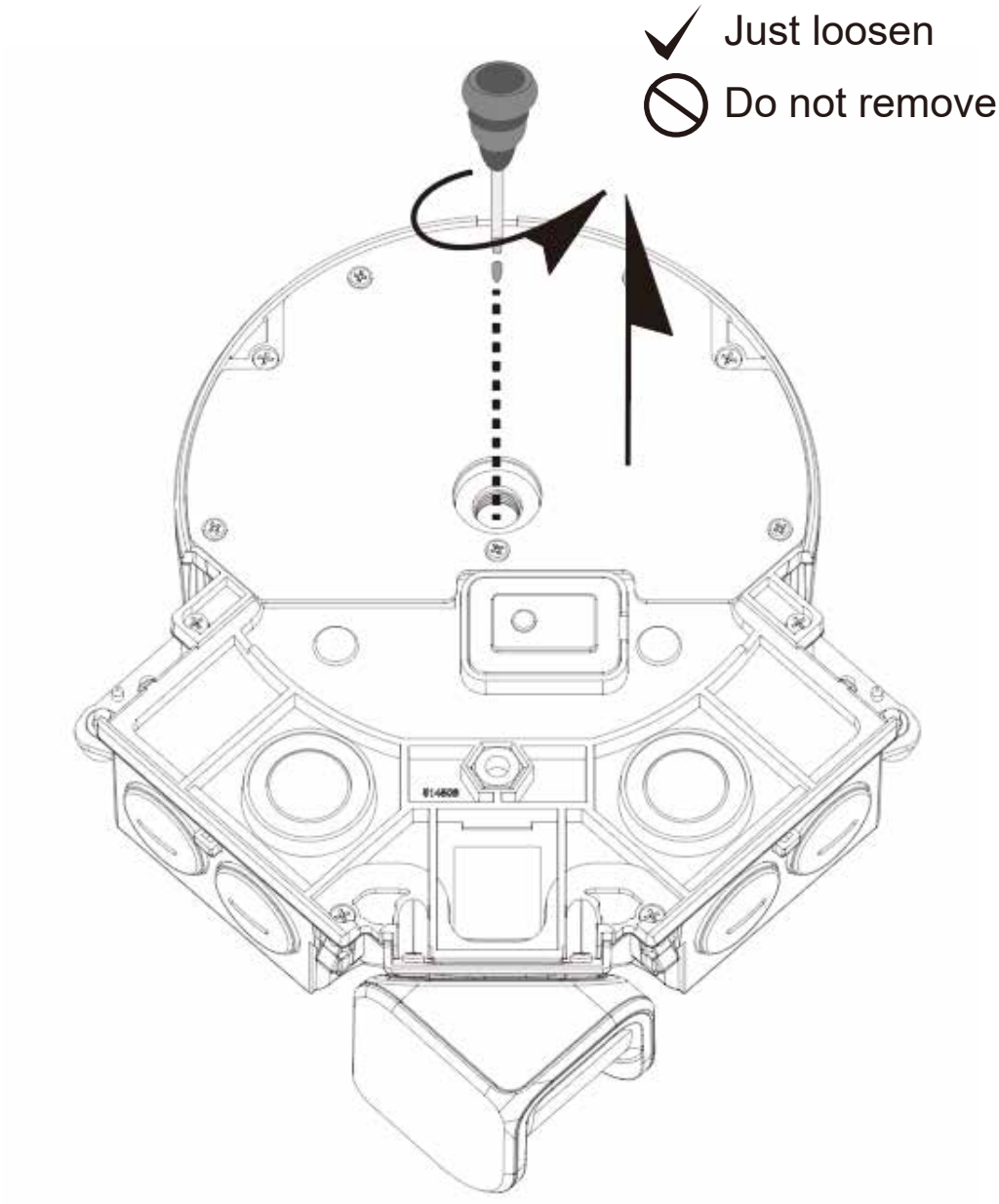
	RLS-2020V			RLS-2020A		
	Wall	**C**eiling	**P**ole	**W**all	**C**eiling	**P**ole
Type A	—	—	—	—	—	—
Type B	✓	—	✓	—	—	—
Type C	✓	✓	✓	✓	✓	✓



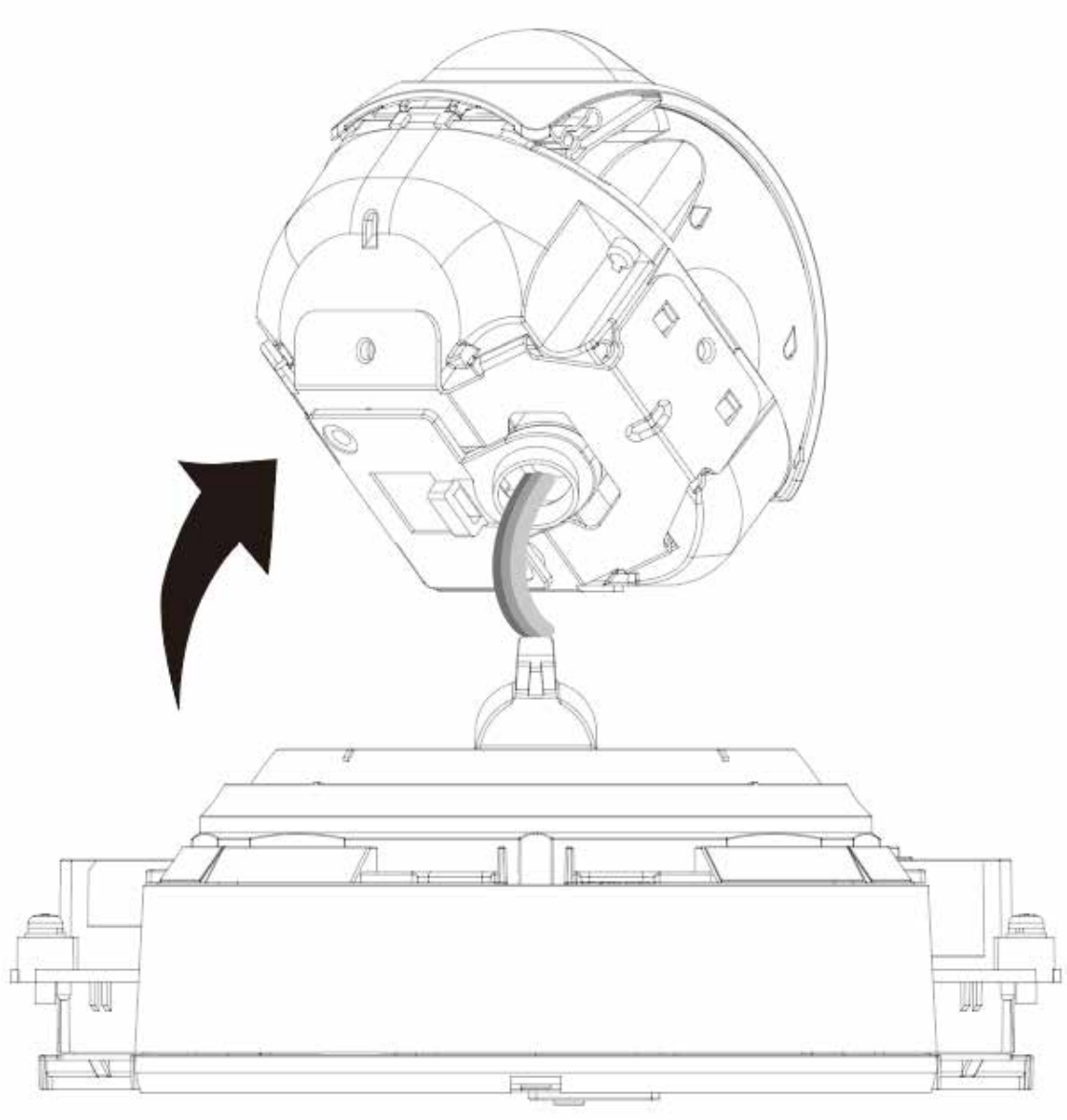
	RLS-2020V			RLS-2020A		
	Wall	**C**eiling	**P**ole	**W**all	**C**eiling	**P**ole
Type A	—	—	—	—	—	—
Type B	✓	—	✓	—	—	—
Type C	✓	✓	✓	✓	✓	✓



	RLS-2020V			RLS-2020A		
	Wall	**C**eiling	**P**ole	**W**all	**C**eiling	**P**ole
Type A	—	—	—	—	—	—
Type B	✓	—	✓	—	—	—
Type C	✓	✓	✓	✓	✓	✓

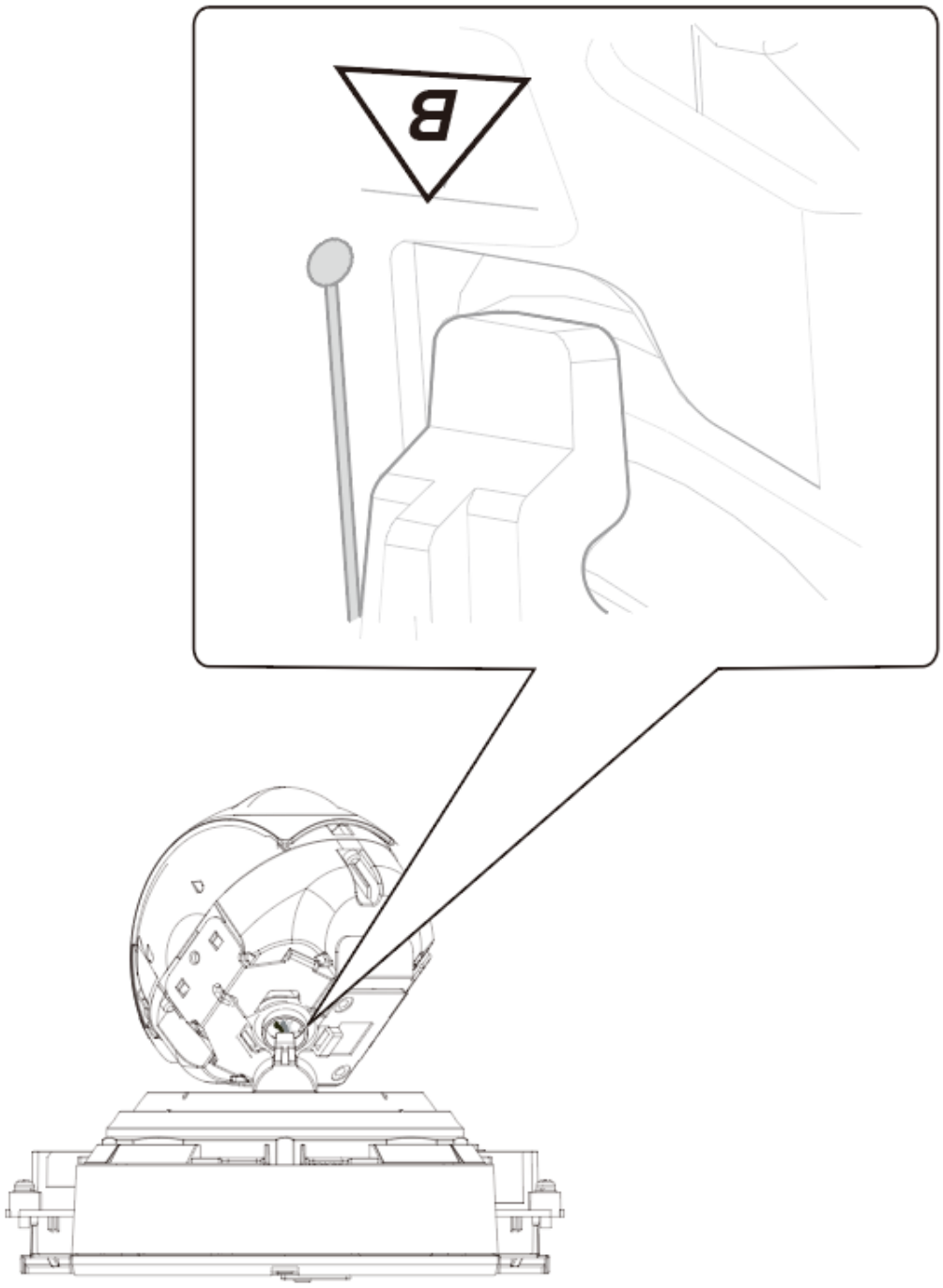


	RLS-2020V			RLS-2020A		
	Wall	**C**eiling	**P**ole	**W**all	**C**eiling	**P**ole
Type A	—	—	—	—	—	—
Type B	✓	—	✓	—	—	—
Type C	✓	✓	✓	✓	✓	✓

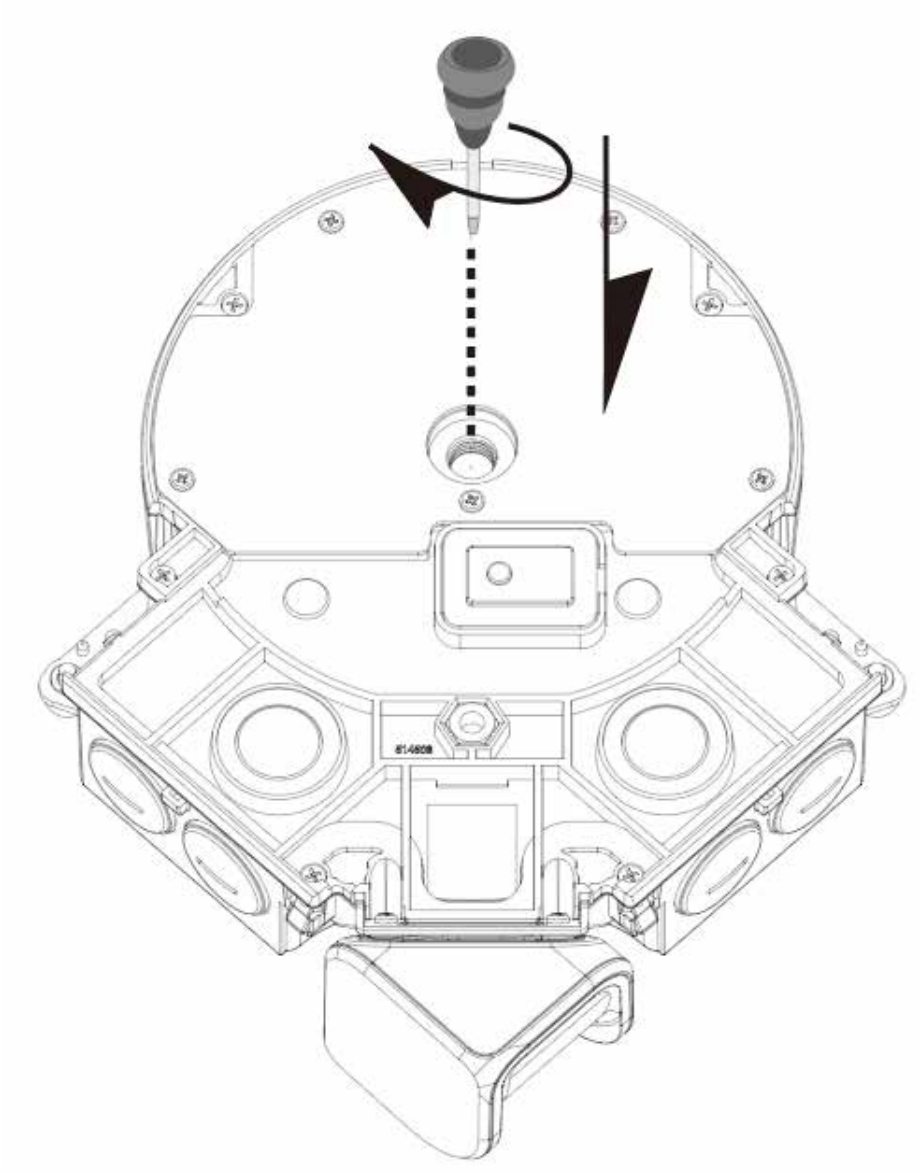


	RLS-2020V			RLS-2020A		
	Wall	**C**eiling	**P**ole	**W**all	**C**eiling	**P**ole
Type A	—	—	—	—	—	—
Type B	✓	—	✓	—	—	—
Type C	—	—	—	—	—	—

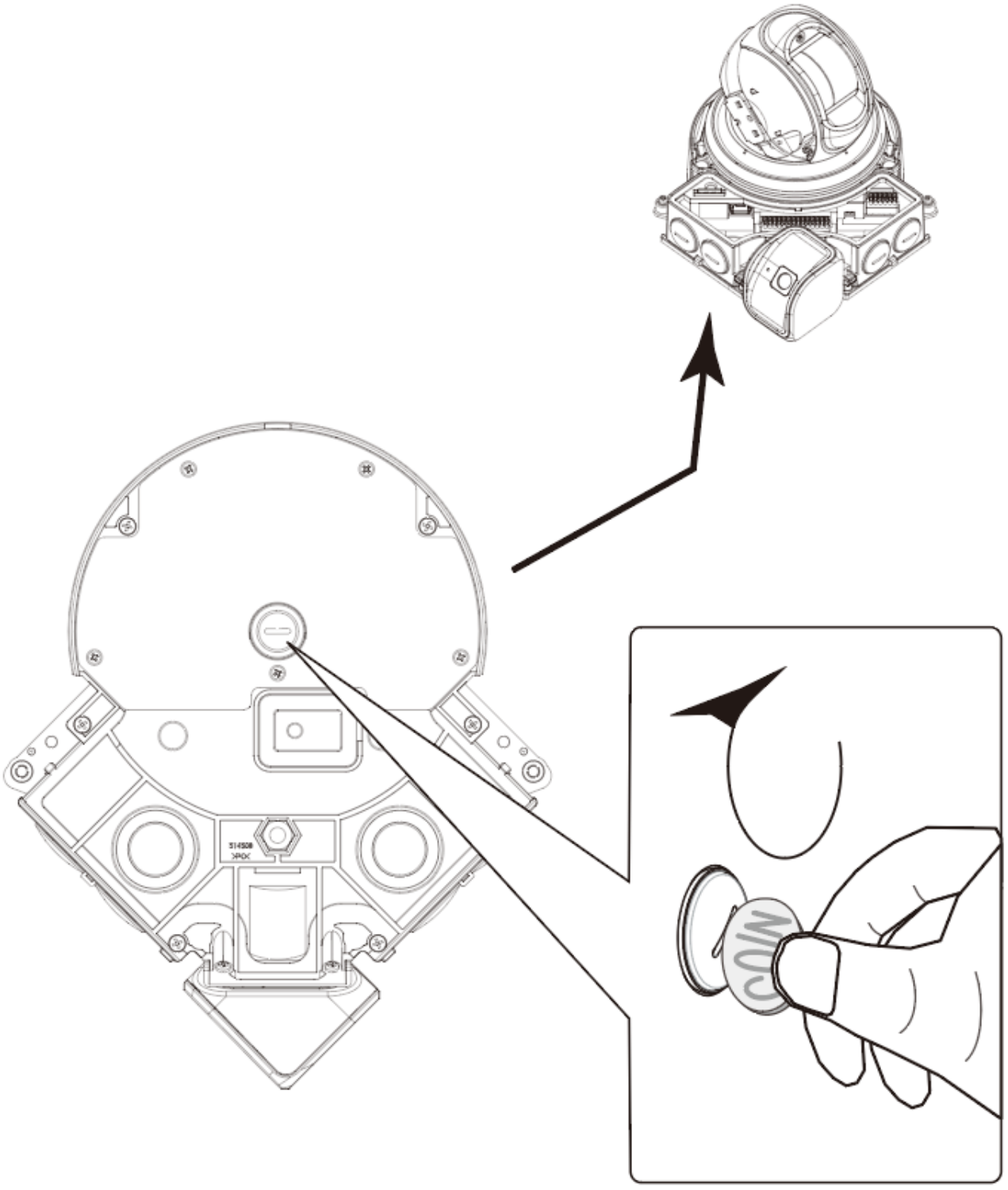
23



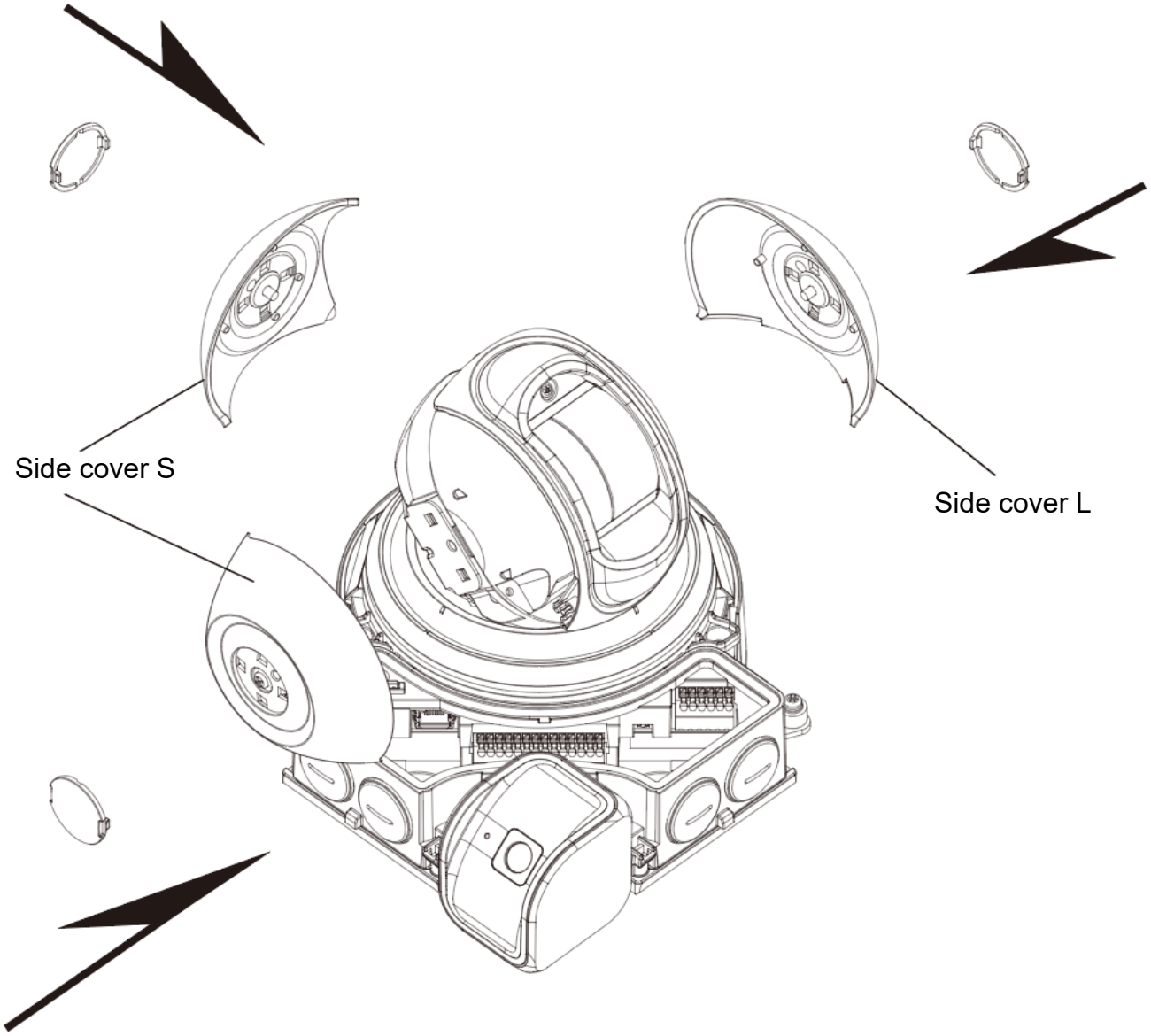
	RLS-2020V			RLS-2020A		
	Wall	**C**eiling	**P**ole	**W**all	**C**eiling	**P**ole
Type A	—	—	—	—	—	—
Type B	✓	—	✓	—	—	—
Type C	—	—	—	—	—	—



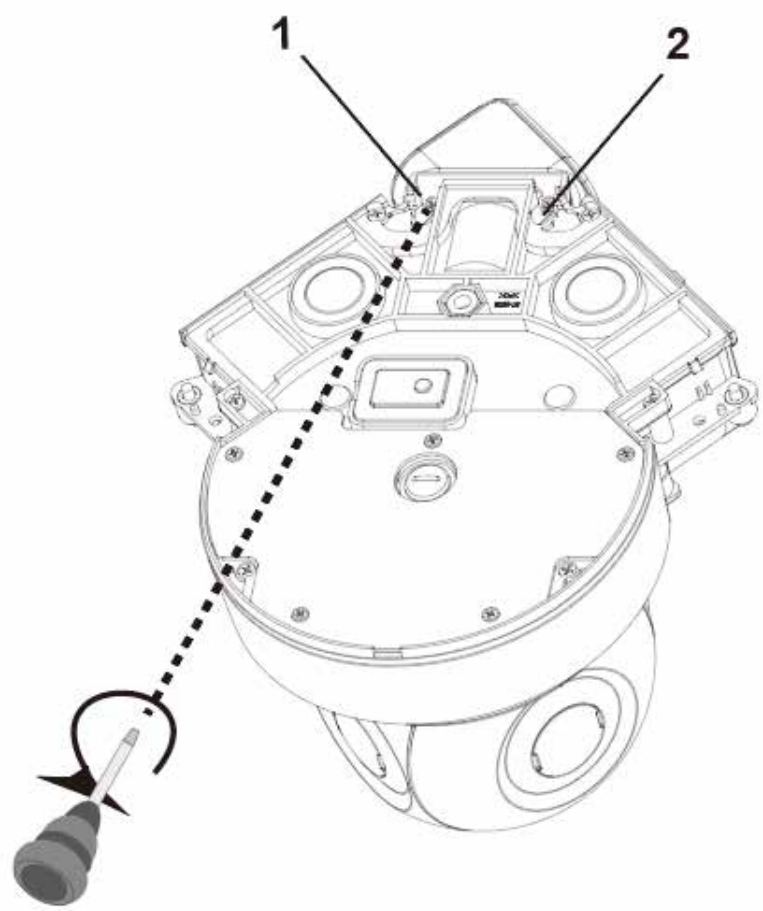
	RLS-2020V			RLS-2020A		
	Wall	**C**eiling	**P**ole	**W**all	**C**eiling	**P**ole
Type A	—	—	—	—	—	—
Type B	✓	—	✓	—	—	—
Type C	—	—	—	—	—	—



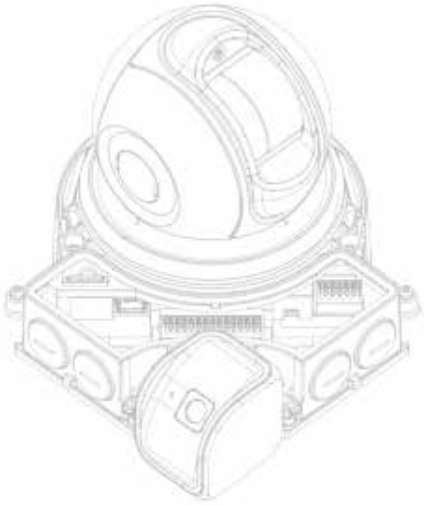
	RLS-2020V			RLS-2020A		
	Wall	**C**eiling	**P**ole	**W**all	**C**eiling	**P**ole
Type A	—	—	—	—	—	—
Type B	✓	—	✓	—	—	—
Type C	—	—	—	—	—	—



	RLS-2020V			RLS-2020A		
	Wall	**C**eiling	**P**ole	**W**all	**C**eiling	**P**ole
Type A	—	—	—	—	—	—
Type B	✓	—	✓	—	—	—
Type C	—	—	—	—	—	—

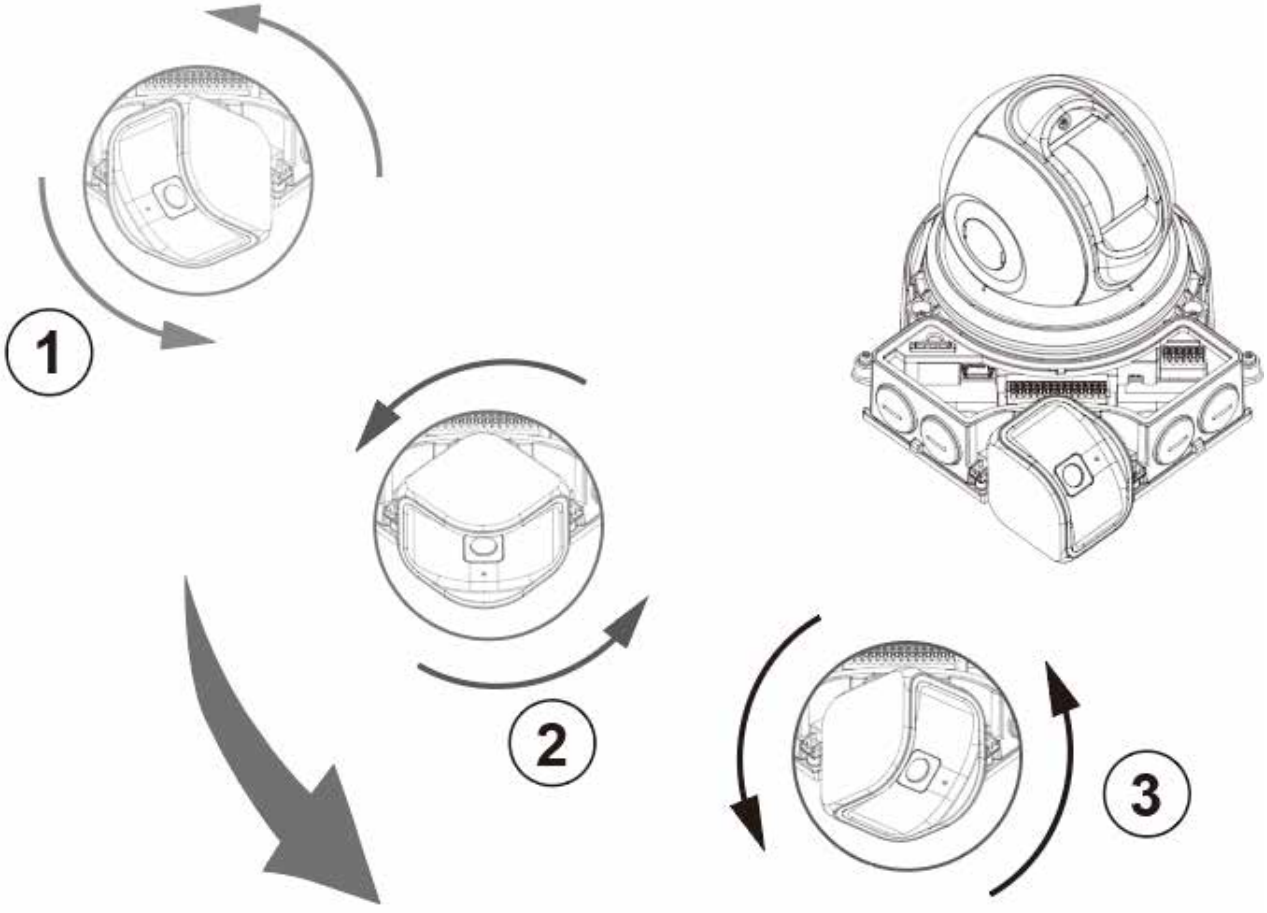


	RLS-2020V			RLS-2020A		
	Wall	**C**eiling	**P**ole	**W**all	**C**eiling	**P**ole
Type A	—	—	—	—	—	—
Type B	✓	—	✓	—	—	—
Type C	—	—	—	—	—	—

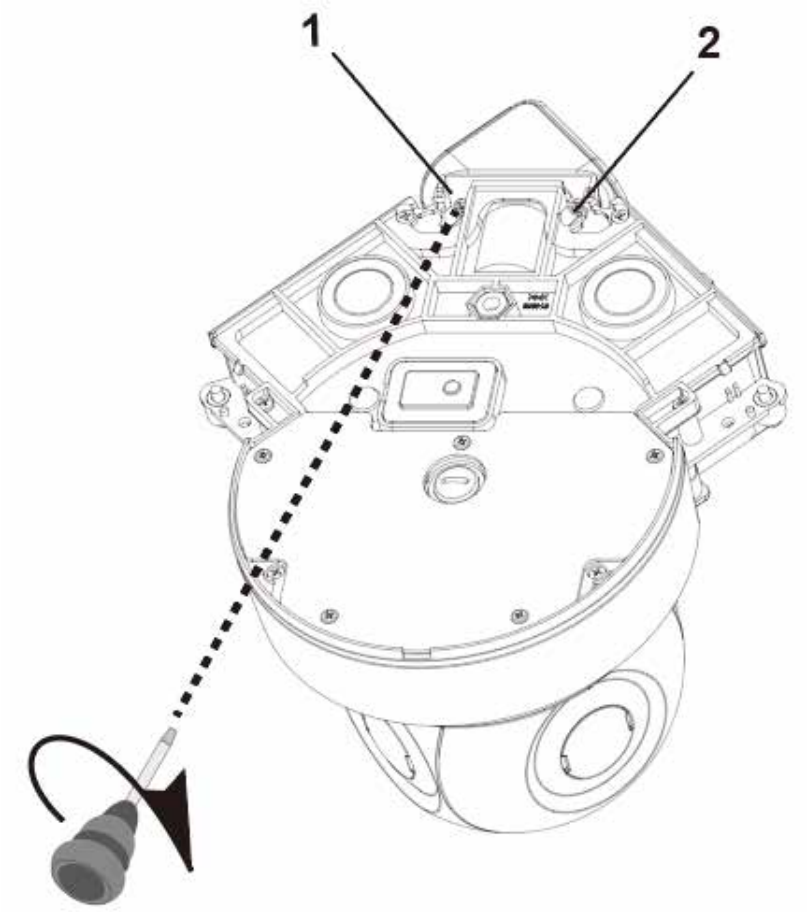


✓ **Counter clockwise**

⊘ **Clockwise**



	RLS-2020V			RLS-2020A		
	Wall	**C**eiling	**P**ole	**W**all	**C**eiling	**P**ole
Type A	—	—	—	—	—	—
Type B	✓	—	✓	—	—	—
Type C	—	—	—	—	—	—

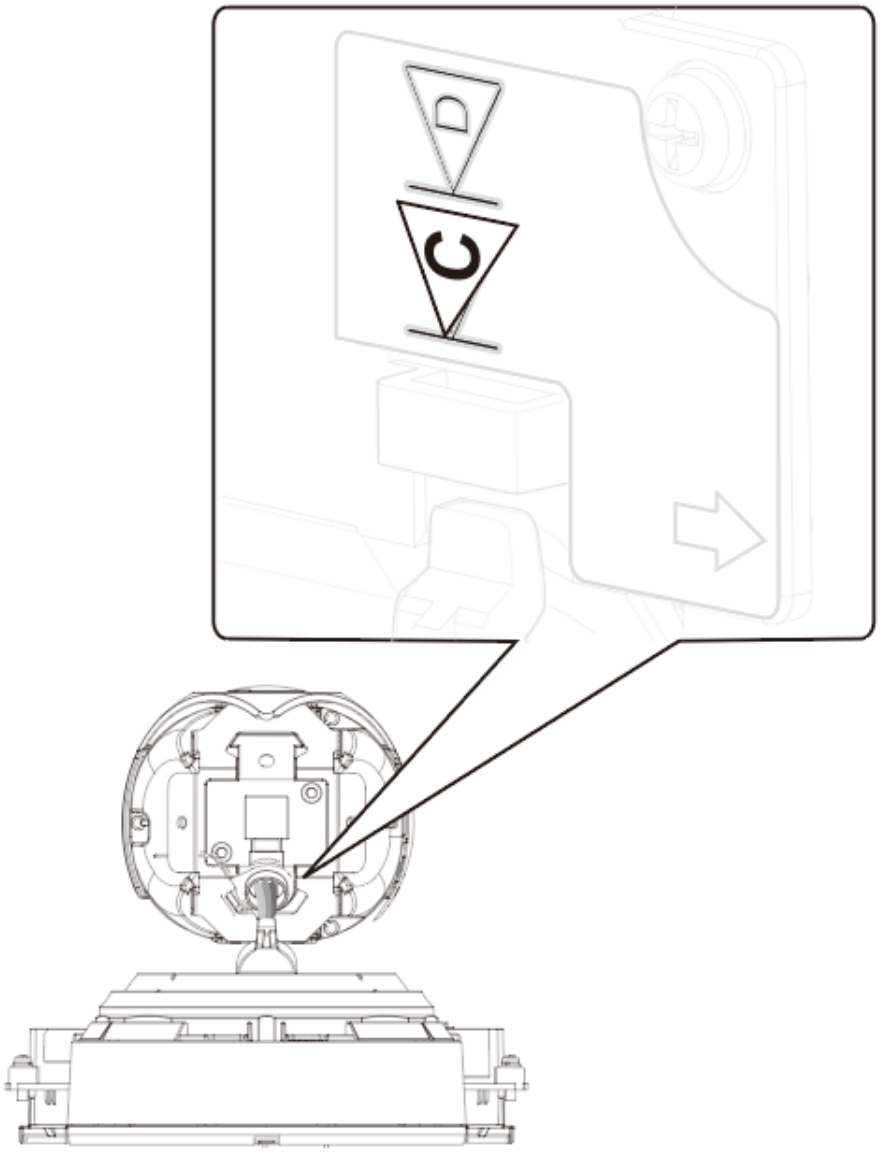


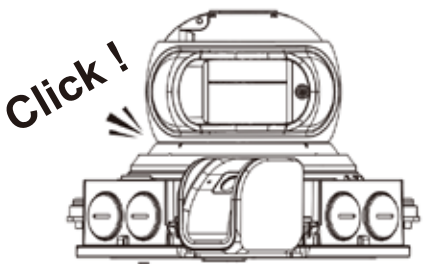
	RLS-2020V			RLS-2020A		
	Wall	**C**eiling	**P**ole	**W**all	**C**eiling	**P**ole
Type A	—	—	—	—	—	—
Type B	✓	—	✓	—	—	—
Type C	—	—	—	—	—	—

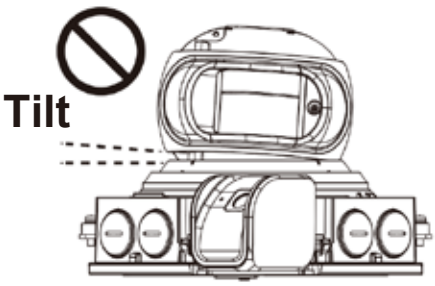
30

	RLS-2020V			RLS-2020A		
	Wall	**C**eiling	**P**ole	**W**all	**C**eiling	**P**ole
Type A	—	—	—	—	—	—
Type B	—	—	—	—	—	—
Type C	✓	✓	✓	✓	✓	✓

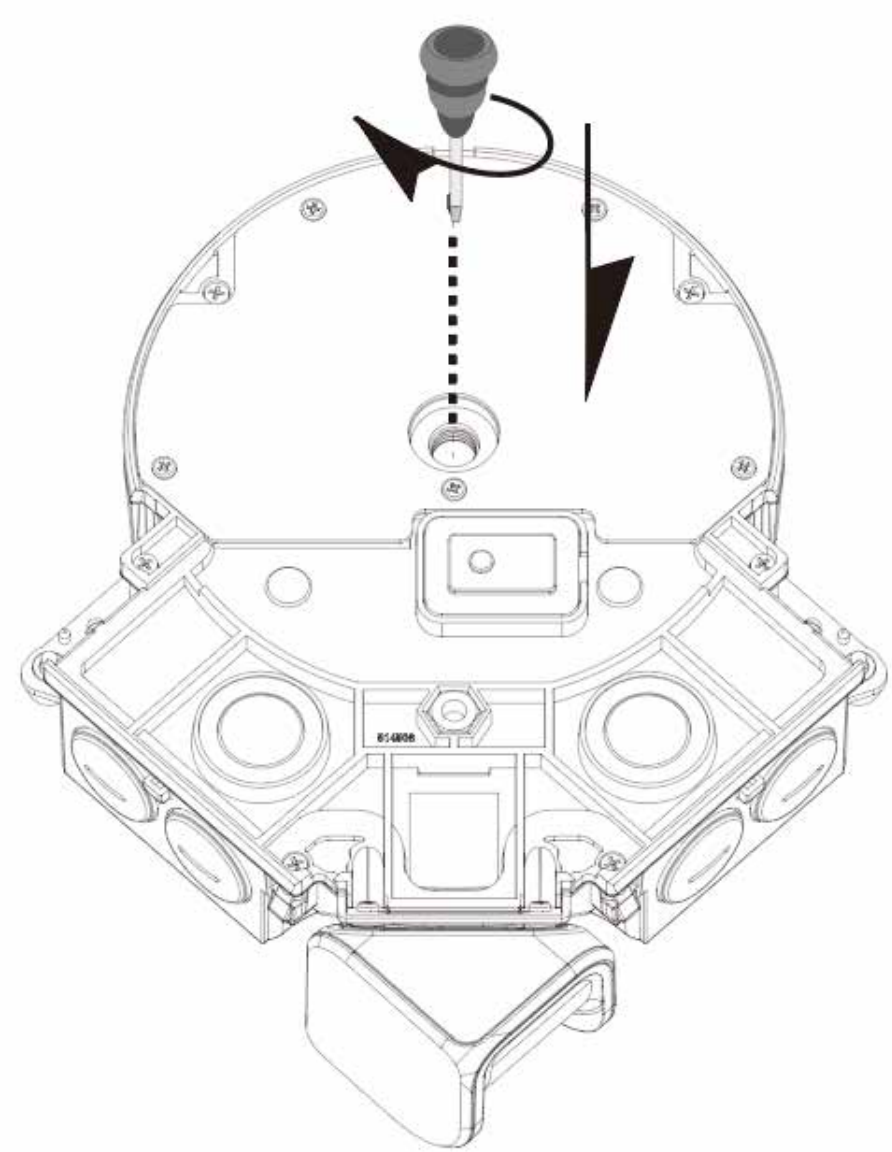
30



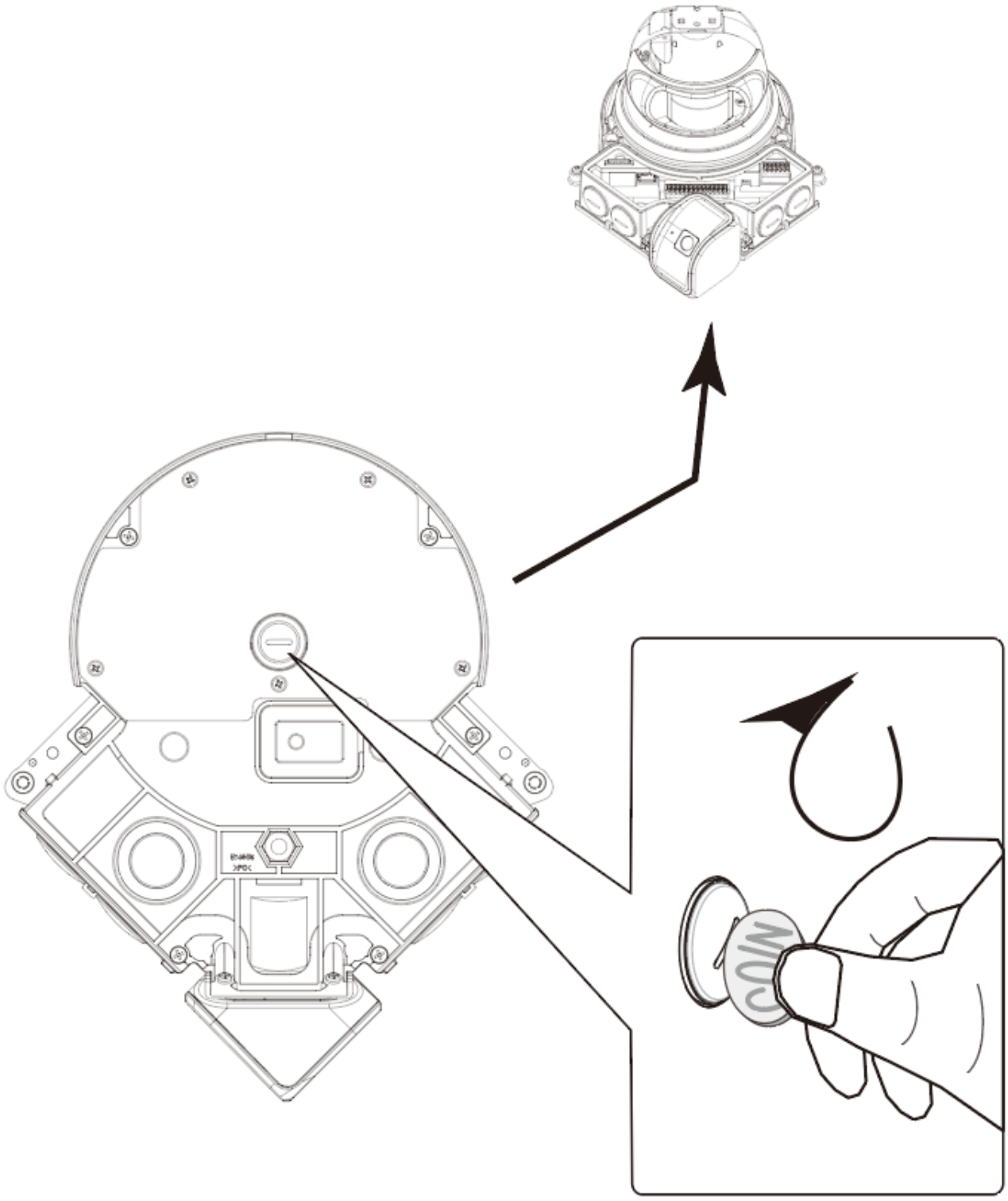




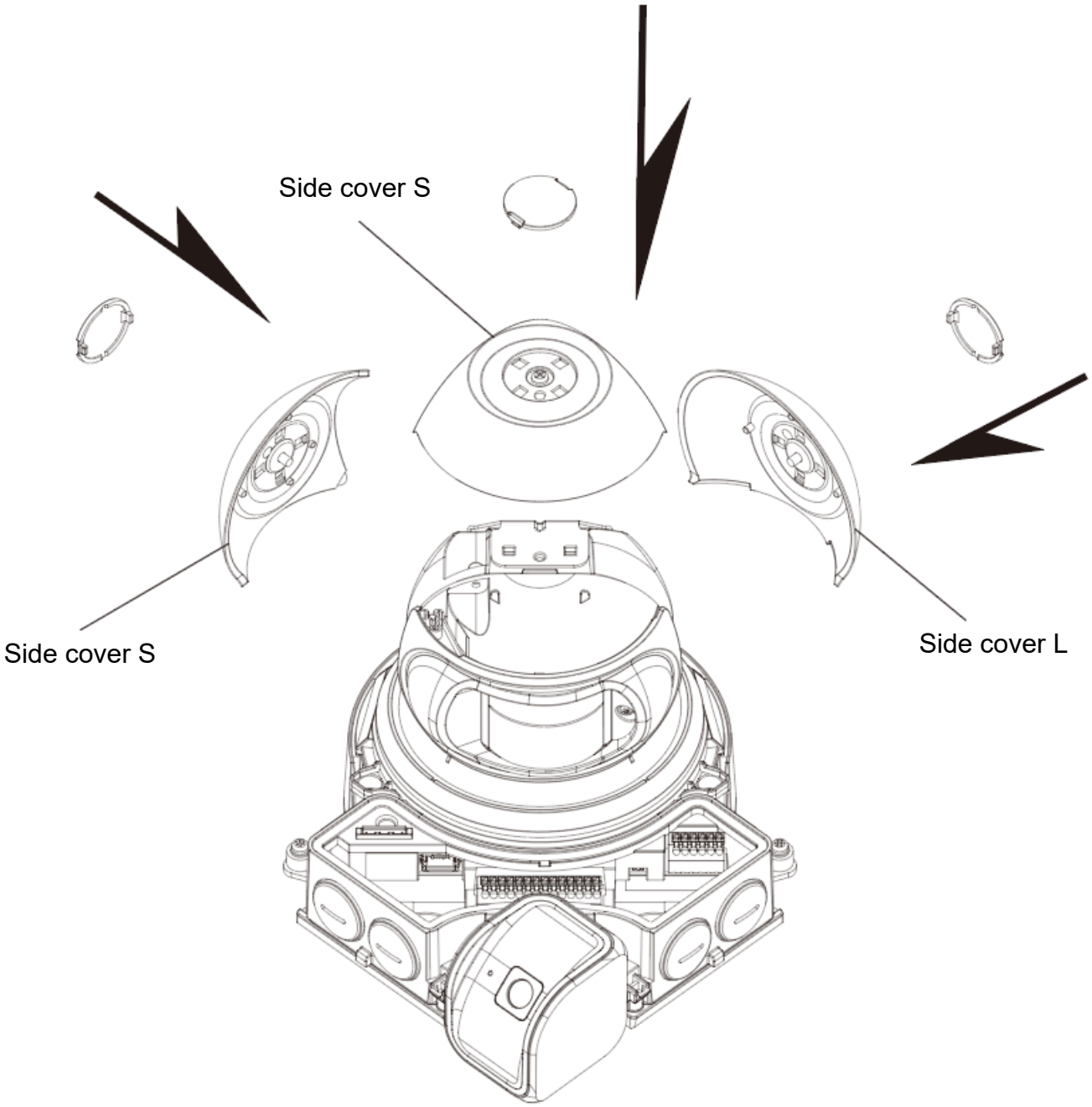
	RLS-2020V			RLS-2020A		
	Wall	**C**eiling	**P**ole	**W**all	**C**eiling	**P**ole
Type A	—	—	—	—	—	—
Type B	—	—	—	—	—	—
Type C	✓	✓	✓	✓	✓	✓



	RLS-2020V			RLS-2020A		
	Wall	**C**eiling	**P**ole	**W**all	**C**eiling	**P**ole
Type A	—	—	—	—	—	—
Type B	—	—	—	—	—	—
Type C	✓	✓	✓	✓	✓	✓



	RLS-2020V			RLS-2020A		
	Wall	**C**eiling	**P**ole	**W**all	**C**eiling	**P**ole
Type A	—	—	—	—	—	—
Type B	—	—	—	—	—	—
Type C	✓	✓	✓	✓	✓	✓

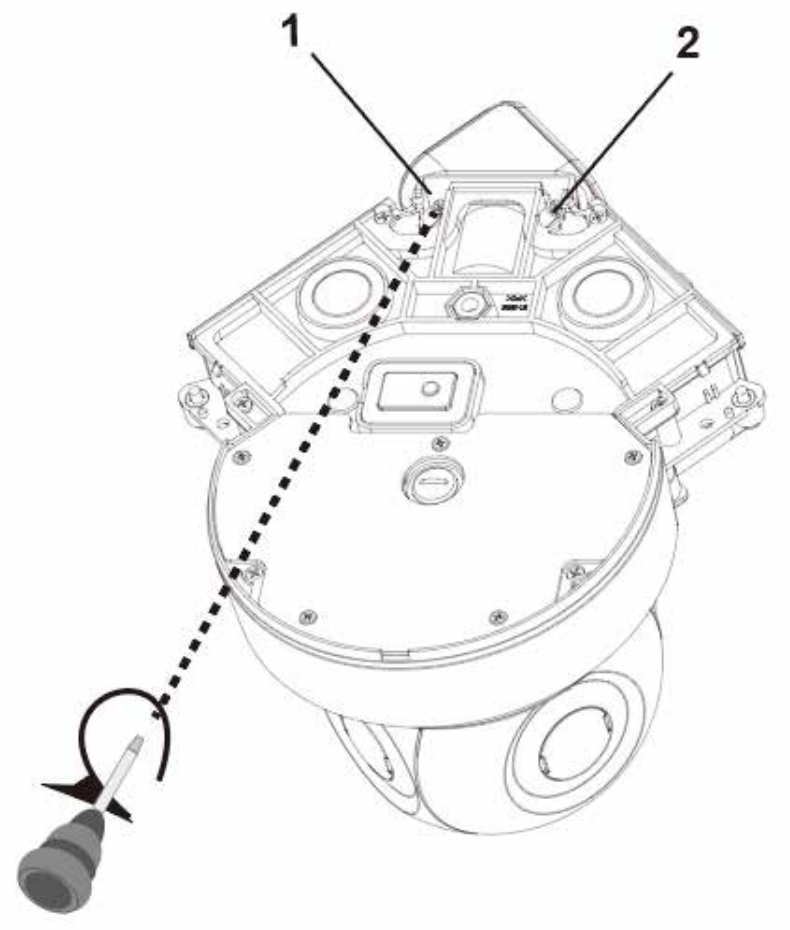


	RLS-2020V			RLS-2020A		
	Wall	**C**eiling	**P**ole	**W**all	**C**eiling	**P**ole
Type A	—	—	—	—	—	—
Type B	—	—	—	—	—	—
Type C	✓	✓	✓	✓	✓	✓

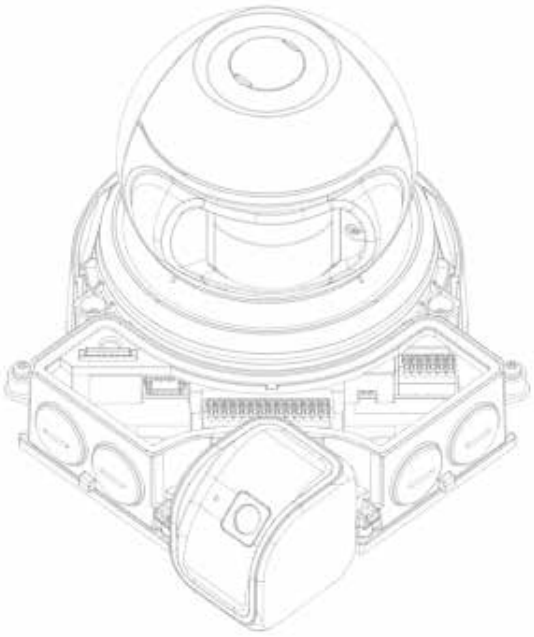
30

	RLS-2020V			RLS-2020A		
	Wall	**C**eiling	**P**ole	**W**all	**C**eiling	**P**ole
Type A	—	—	—	—	—	—
Type B	—	—	—	—	—	—
Type C	✓	✓	✓	—	—	—

30

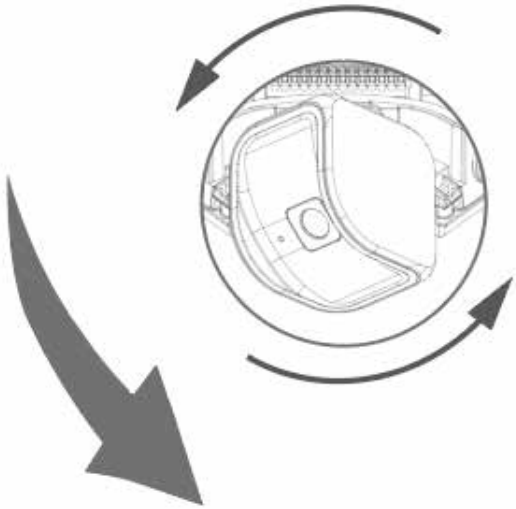


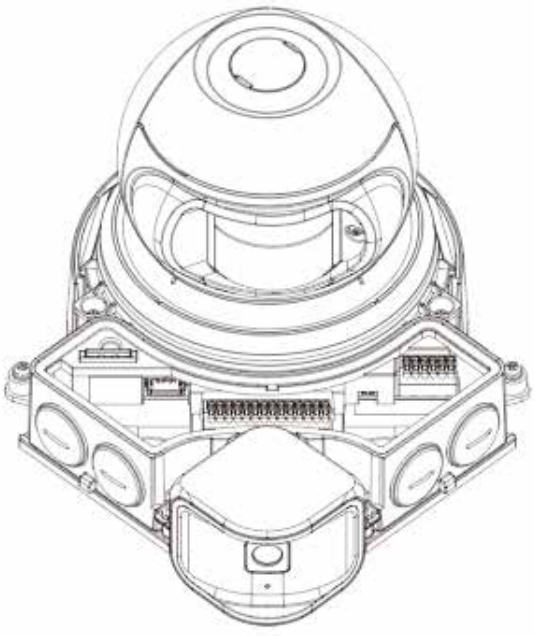
	RLS-2020V			RLS-2020A		
	Wall	**C**eiling	**P**ole	**W**all	**C**eiling	**P**ole
Type A	—	—	—	—	—	—
Type B	—	—	—	—	—	—
Type C	✓	✓	✓	—	—	—



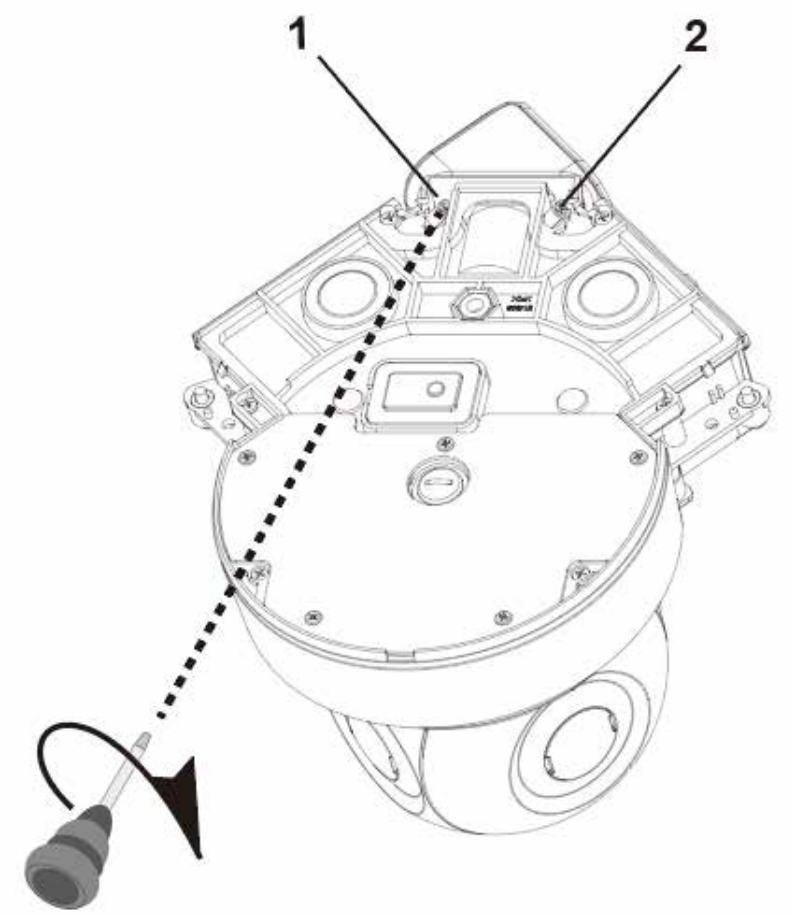
✓ **Counter clockwise**

⊘ **Clockwise**



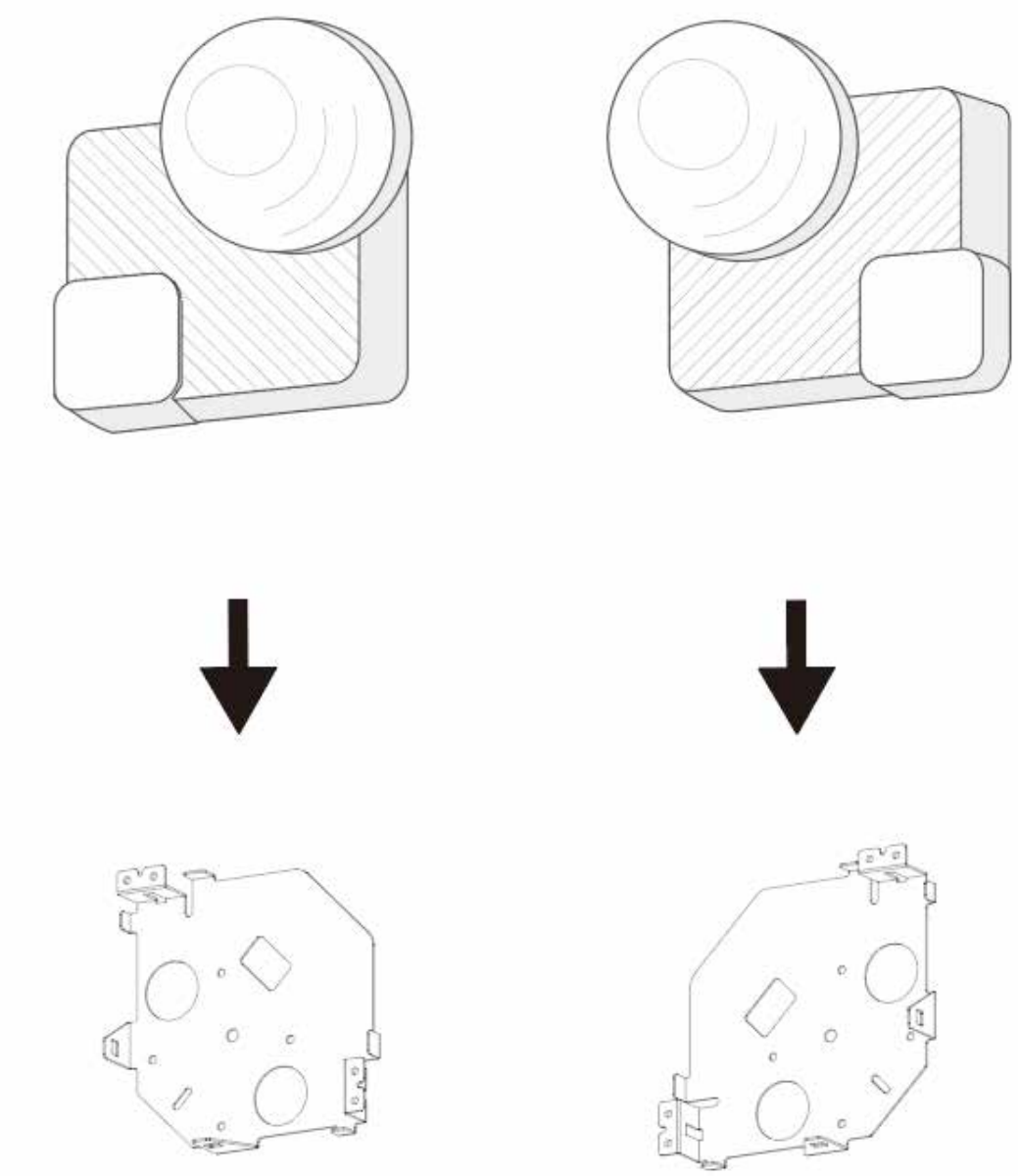


	RLS-2020V			RLS-2020A		
	Wall	**C**eiling	**P**ole	**W**all	**C**eiling	**P**ole
Type A	—	—	—	—	—	—
Type B	—	—	—	—	—	—
Type C	✓	✓	✓	—	—	—



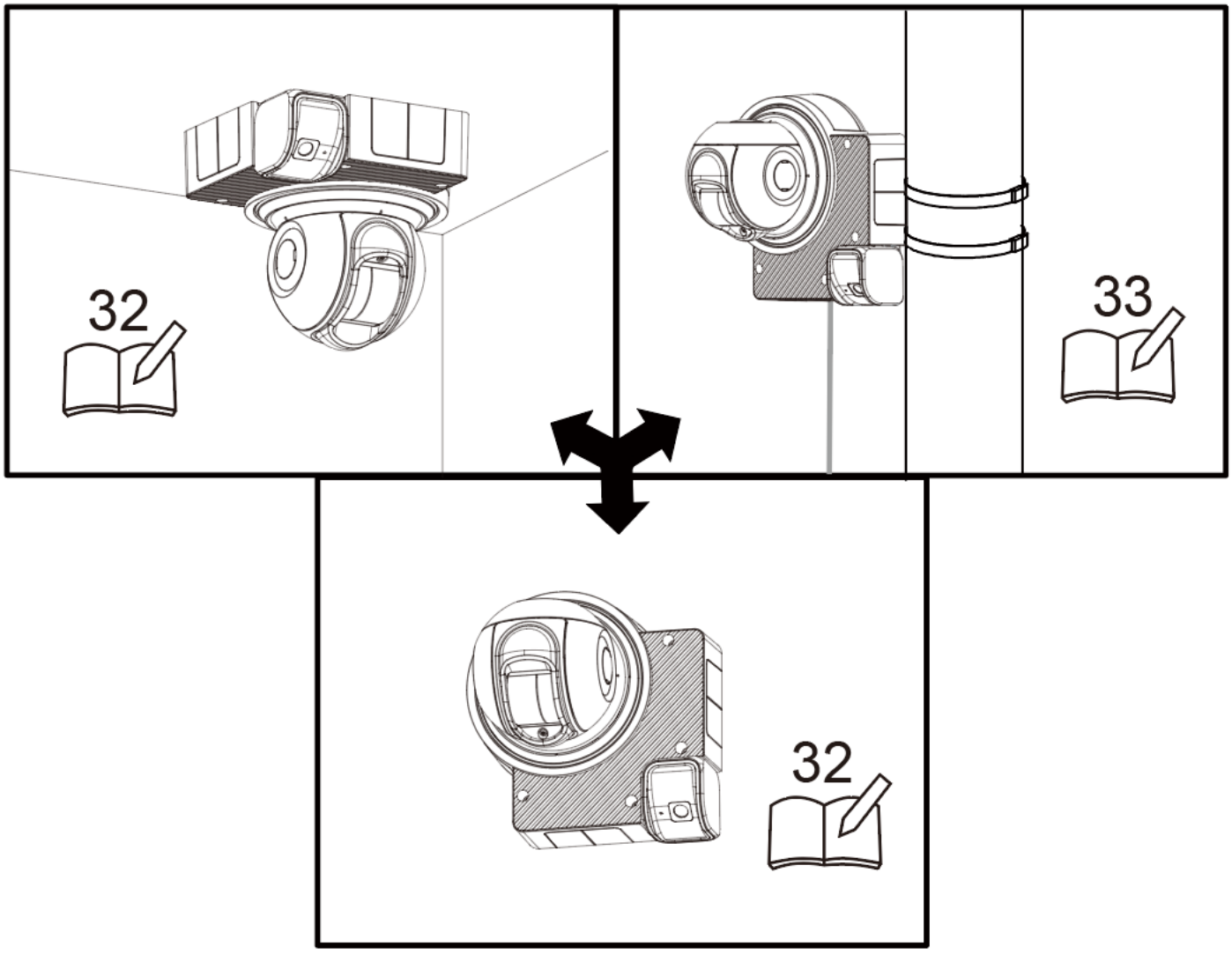
3 Mounting

	RLS-2020V			RLS-2020A		
	Wall	**C**eiling	**P**ole	**W**all	**C**eiling	**P**ole
Type A	✓	✓	✓	✓	✓	✓
Type B	✓	—	✓	—	—	—
Type C	✓	✓	✓	✓	✓	✓



Ceiling mount

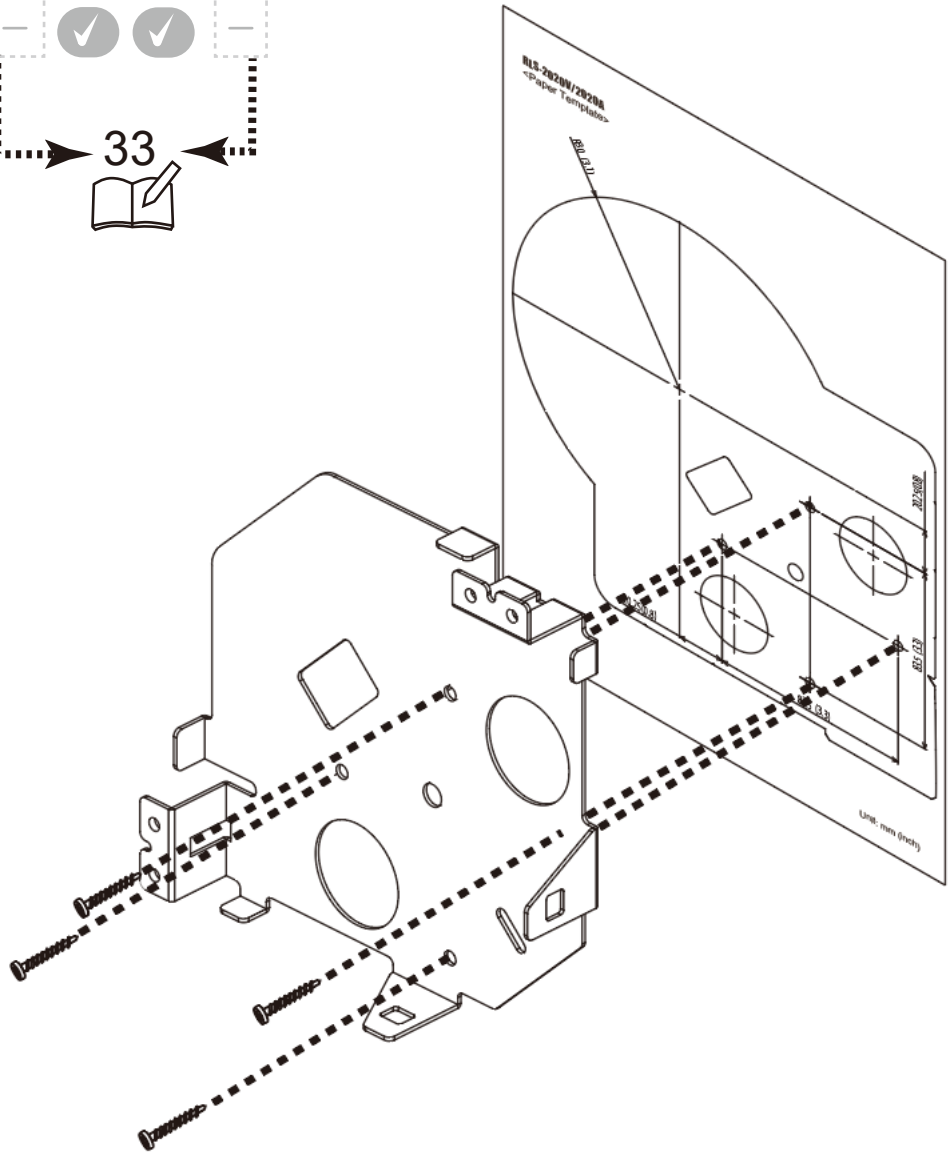
Pole mount

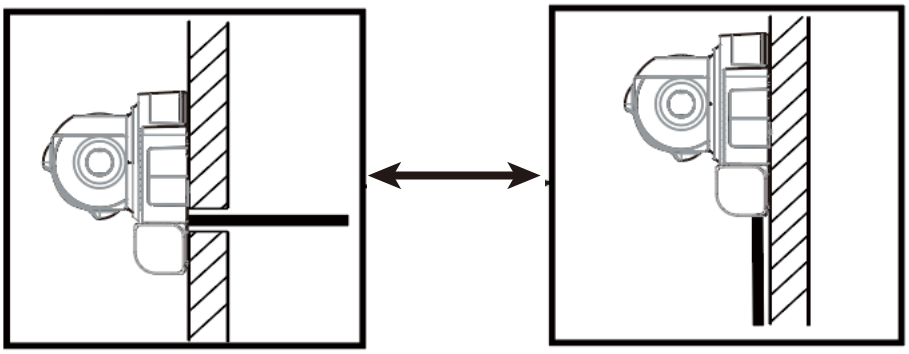


Wall mount

	RLS-2020V			RLS-2020A		
	Wall	**C**eiling	**P**ole	**W**all	**C**eiling	**P**ole
Type A	✓	✓	—	✓	✓	—
Type B	✓	—	—	—	—	—
Type C	✓	✓	—	✓	✓	—

33



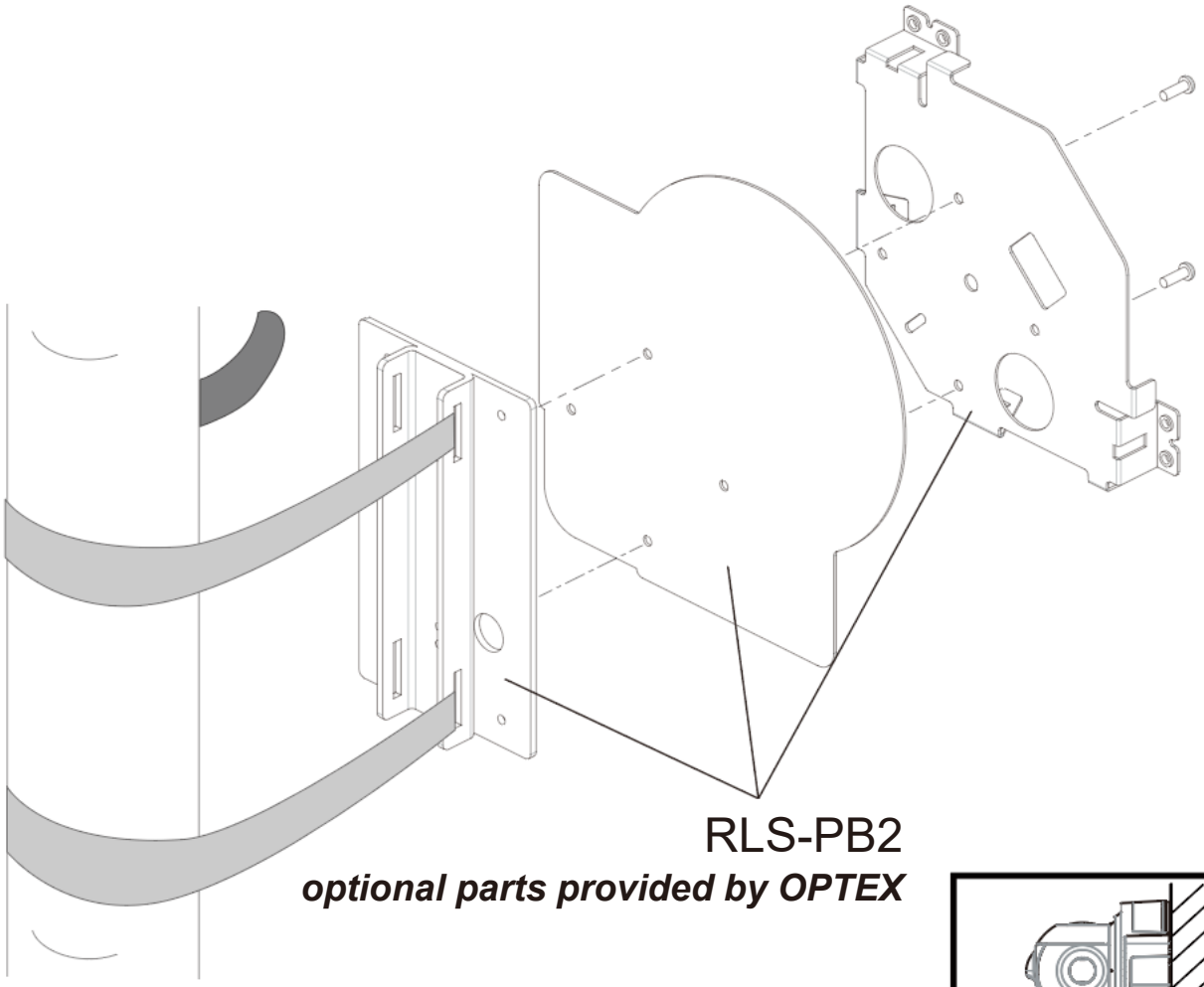


34

38

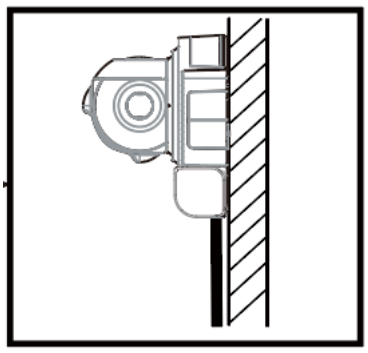
	RLS-2020V			RLS-2020A		
	Wall	**C**eiling	**P**ole	**W**all	**C**eiling	**P**ole
Type A	—	—	✓	—	—	✓
Type B	—	—	✓	—	—	✓
Type C	—	—	✓	—	—	✓

34



RLS-PB2

optional parts provided by OPTEX



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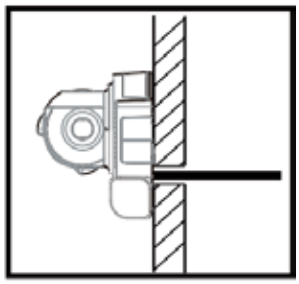
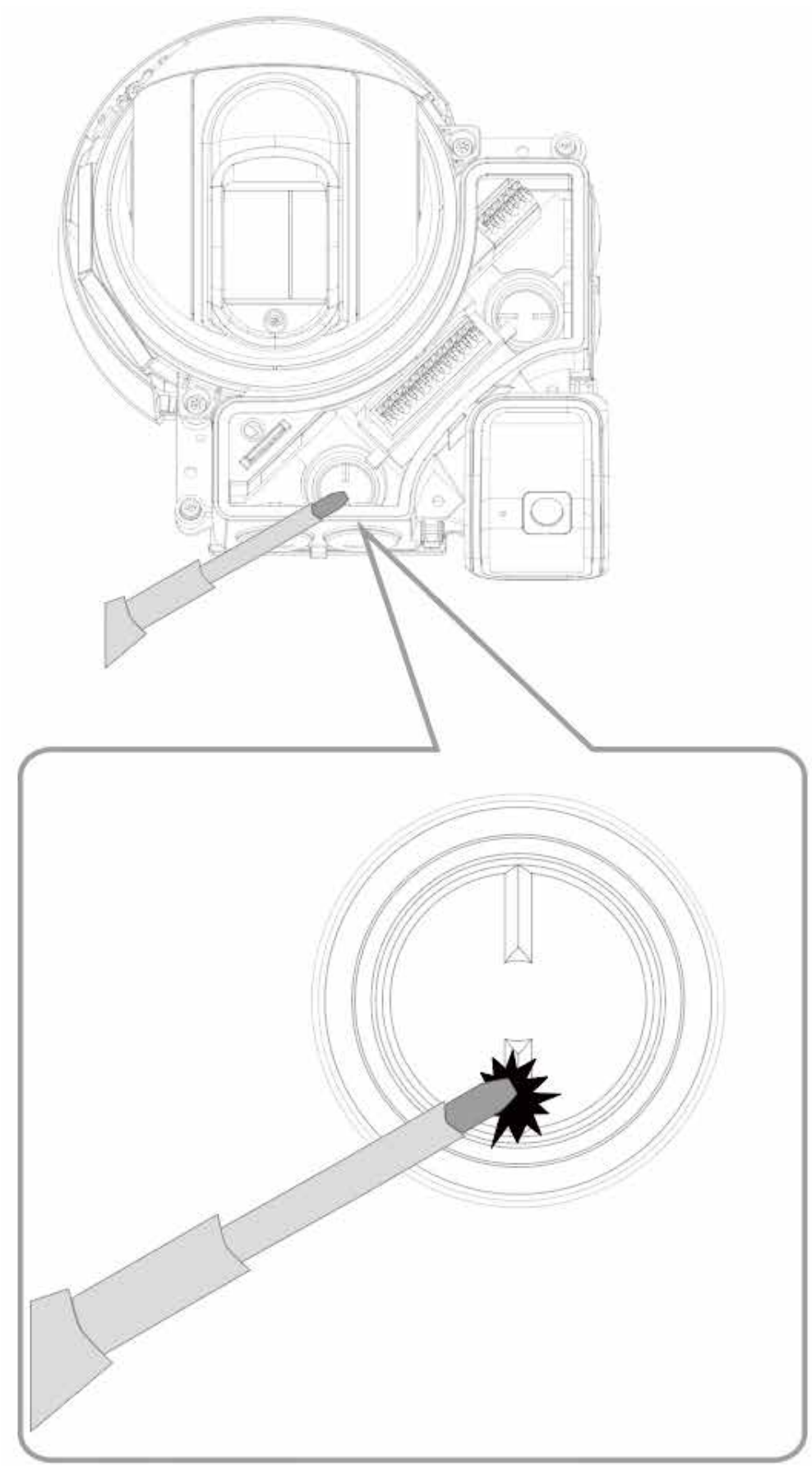
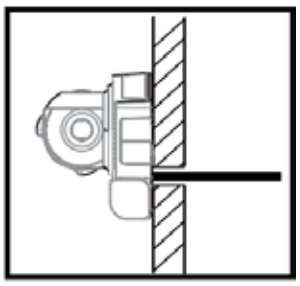
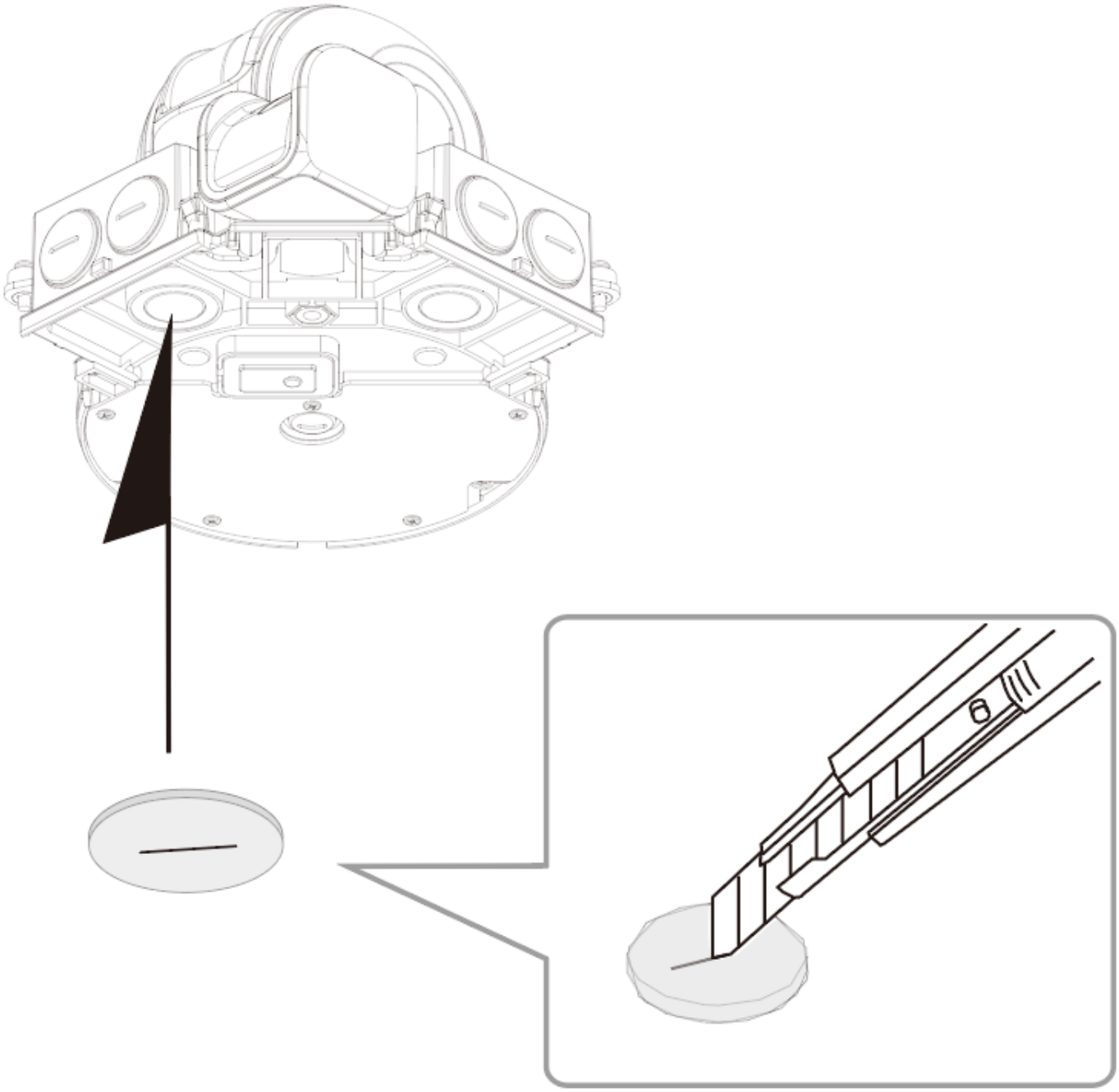
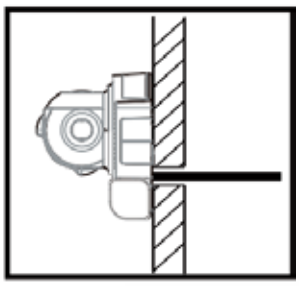
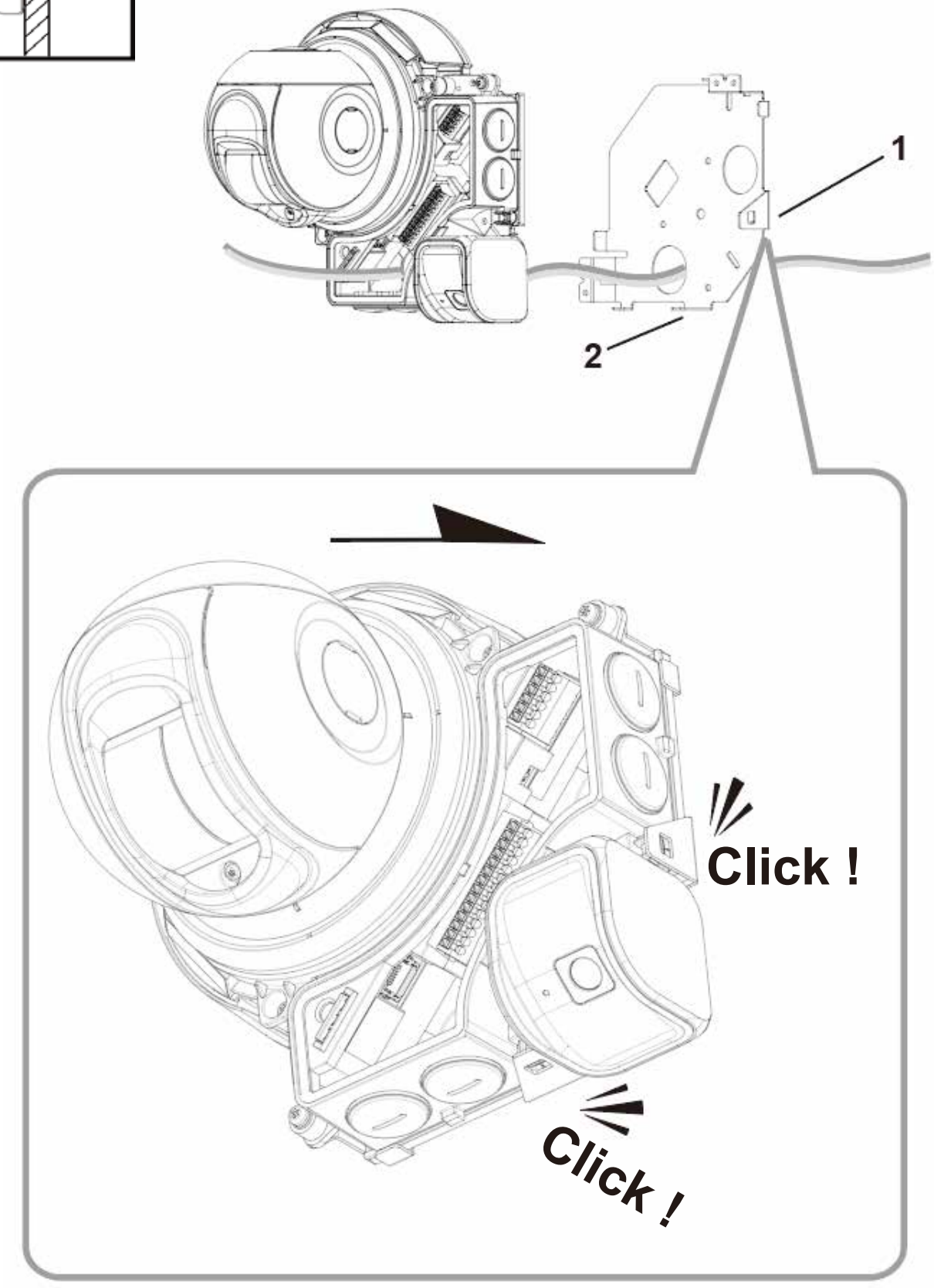


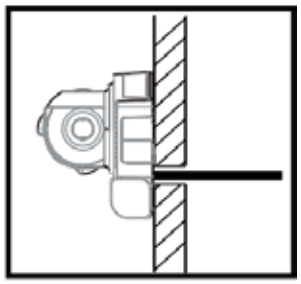


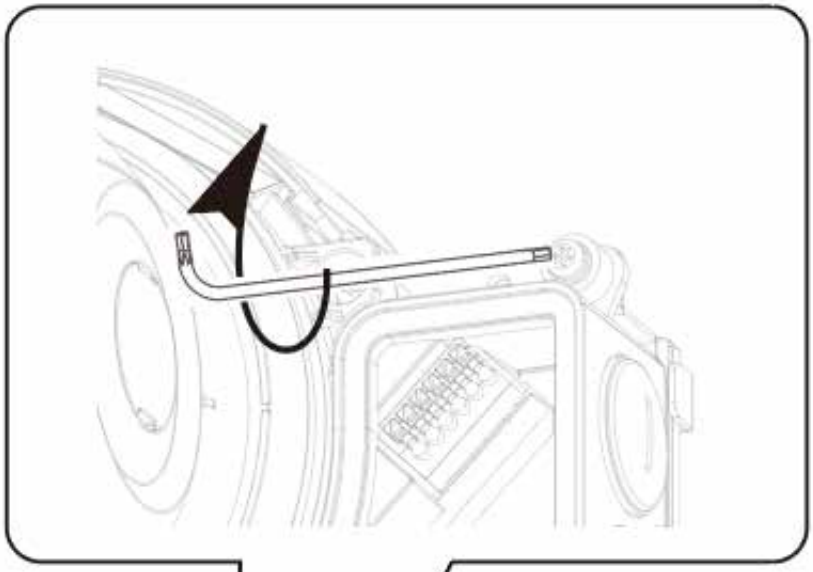


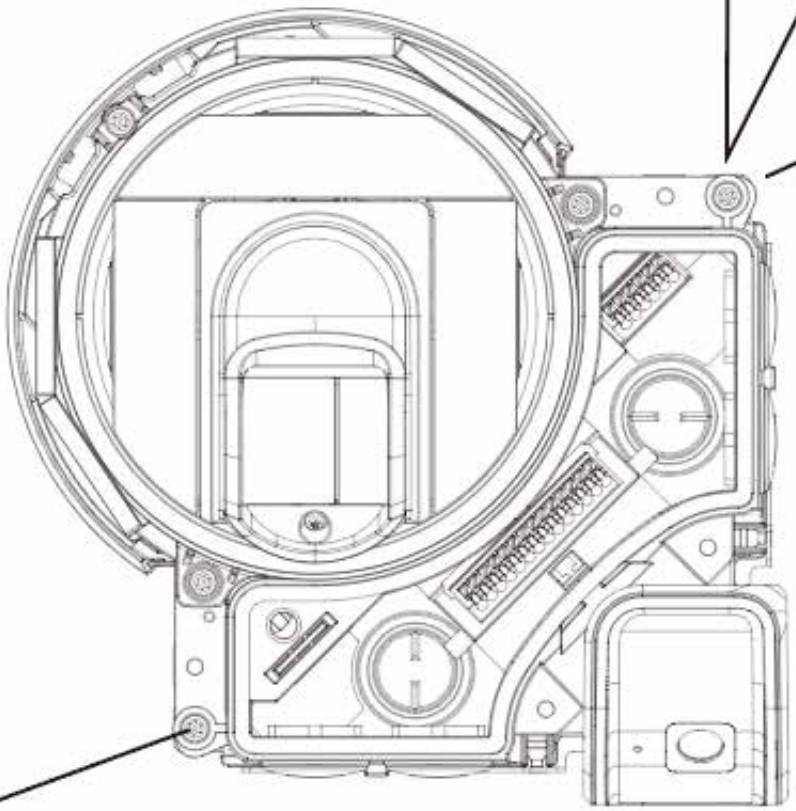





1
2
Click !
Click !



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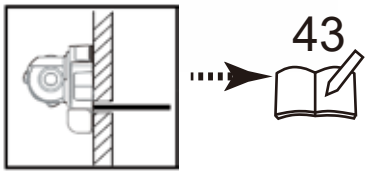
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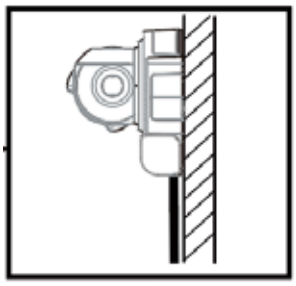

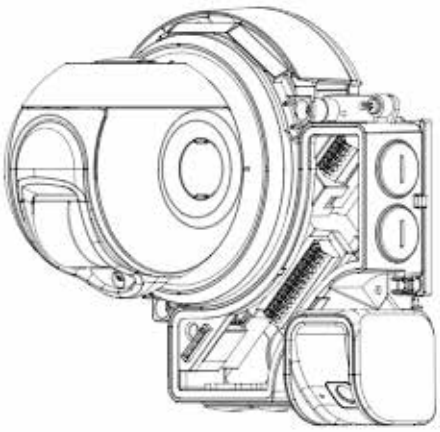

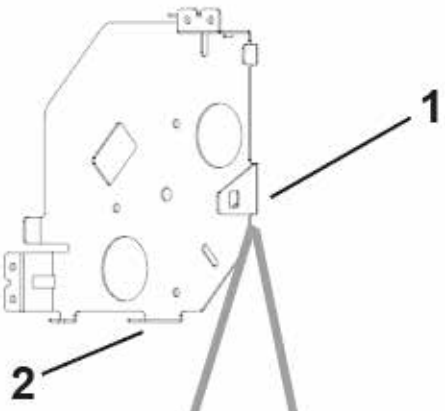
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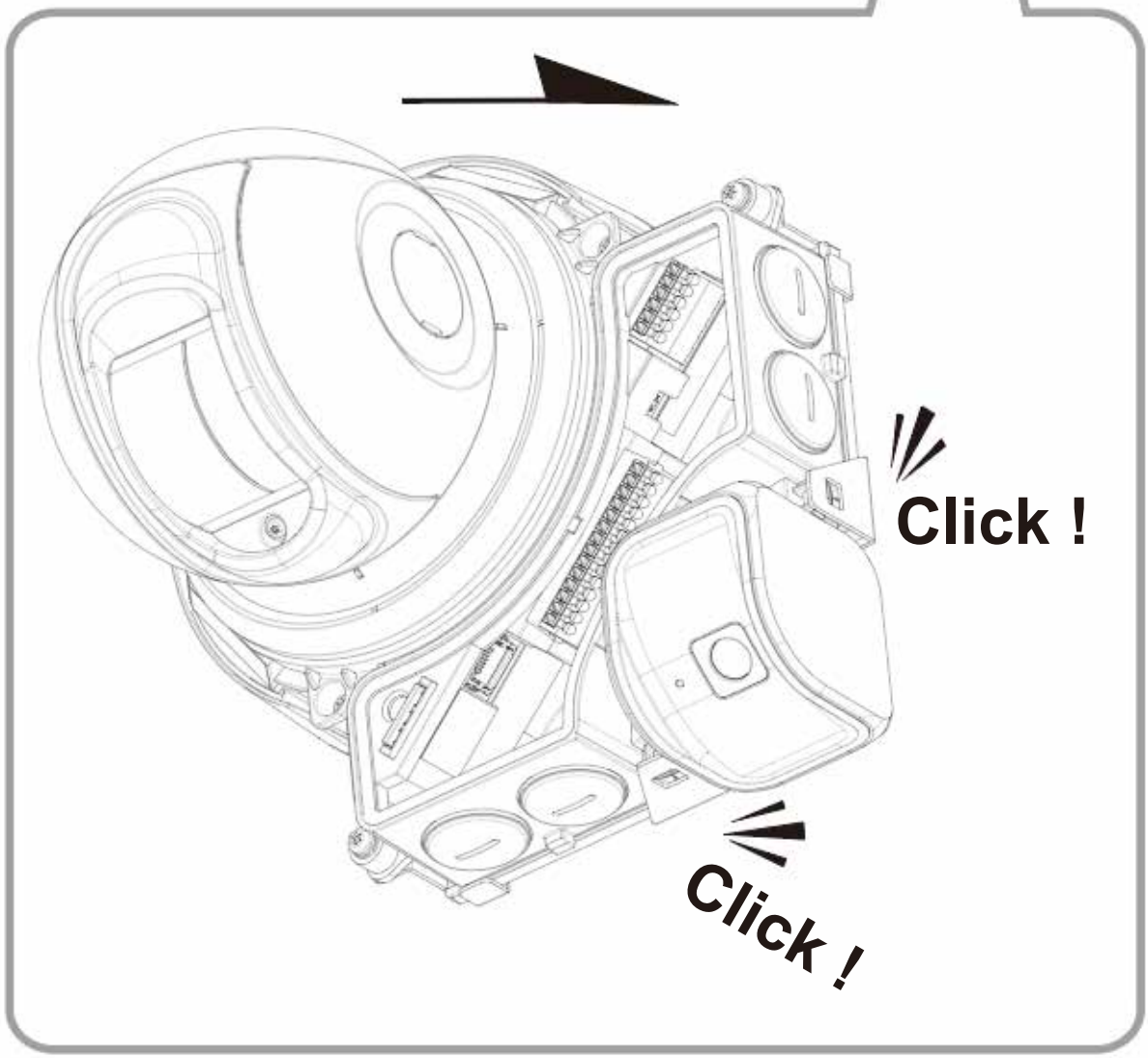
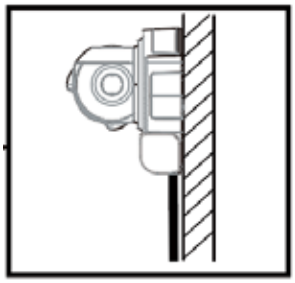
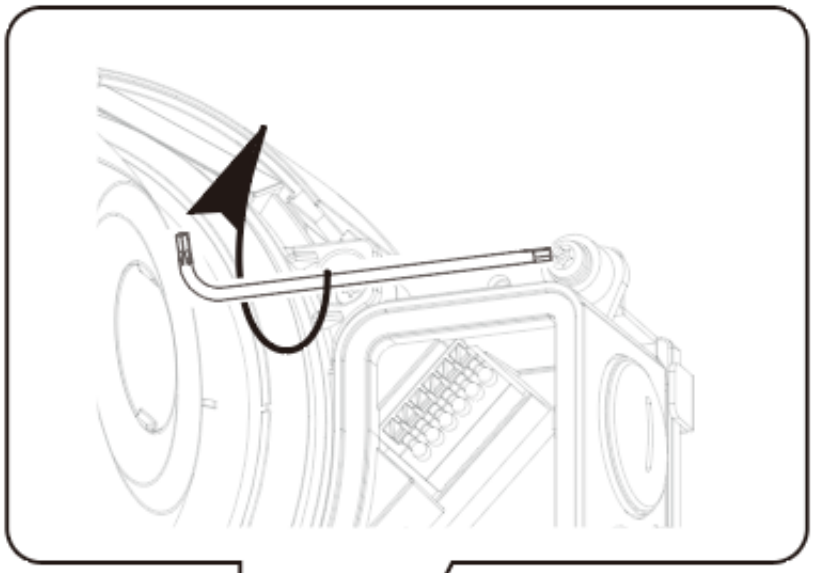
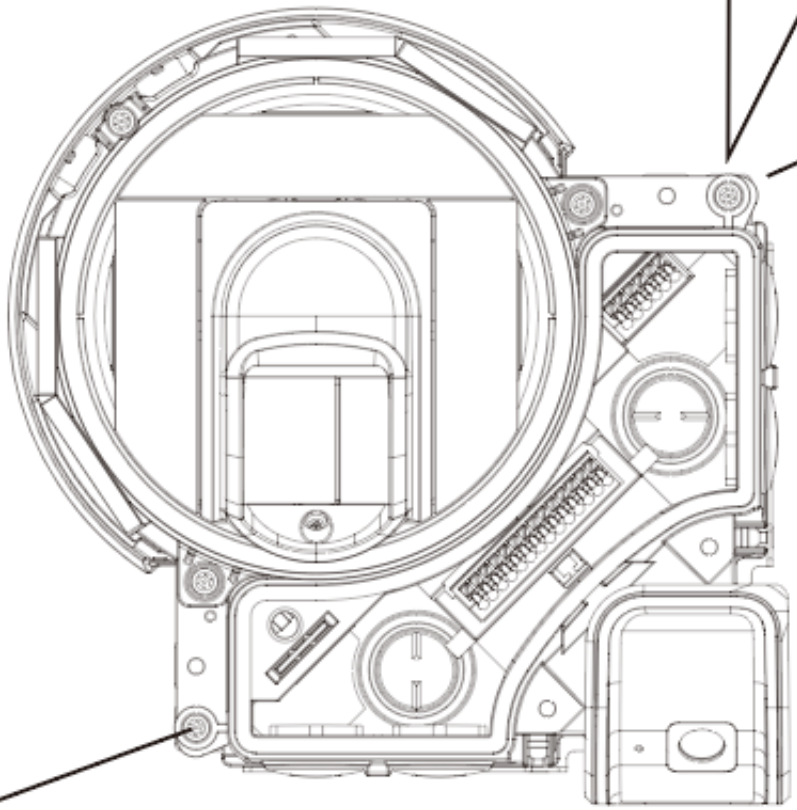

Click !
Click !



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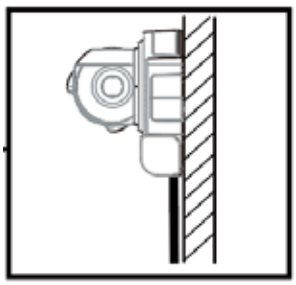
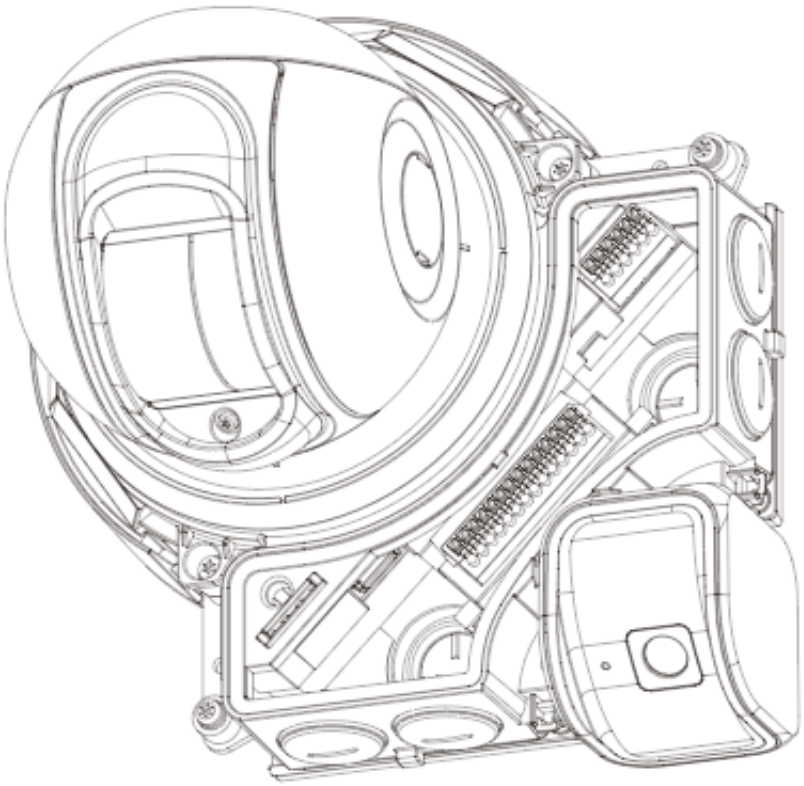
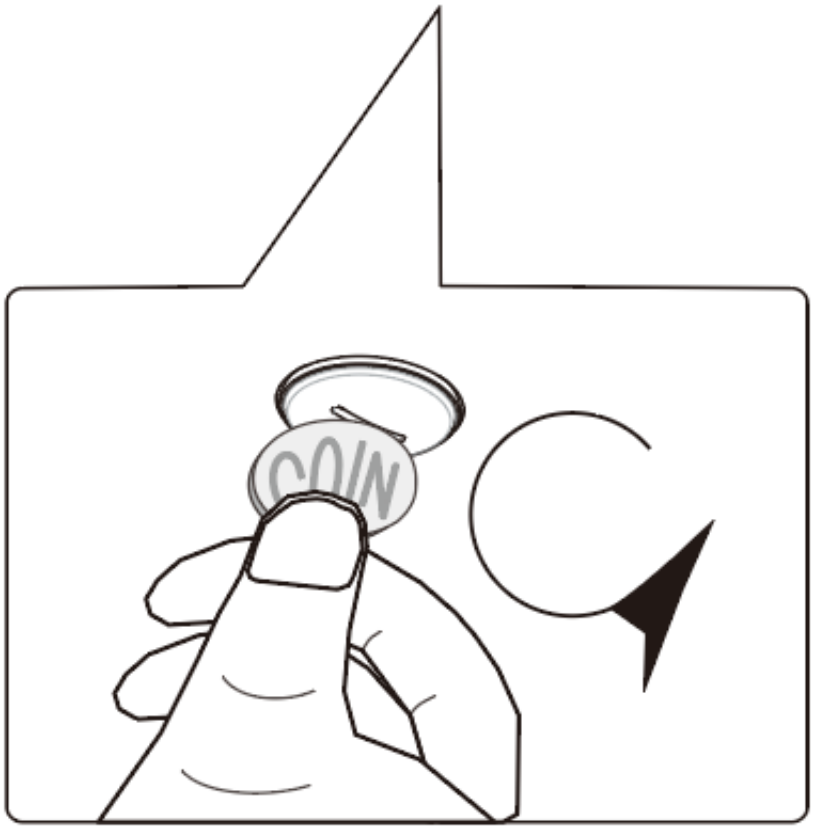
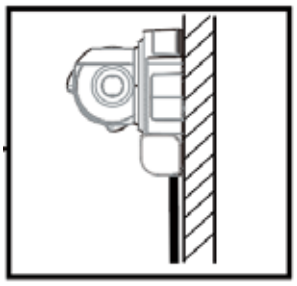
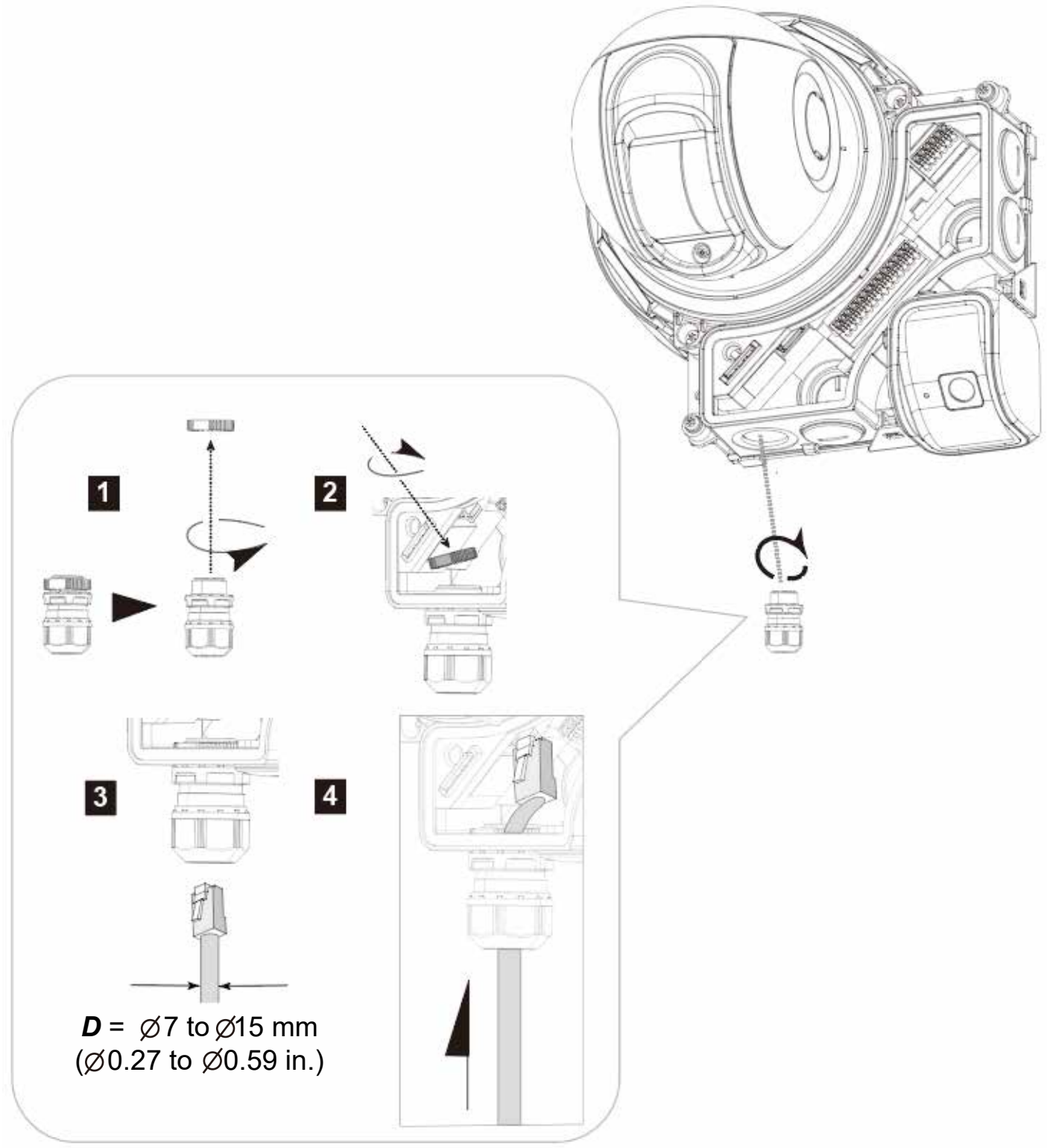





COIN




1
2
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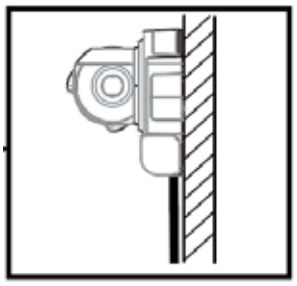
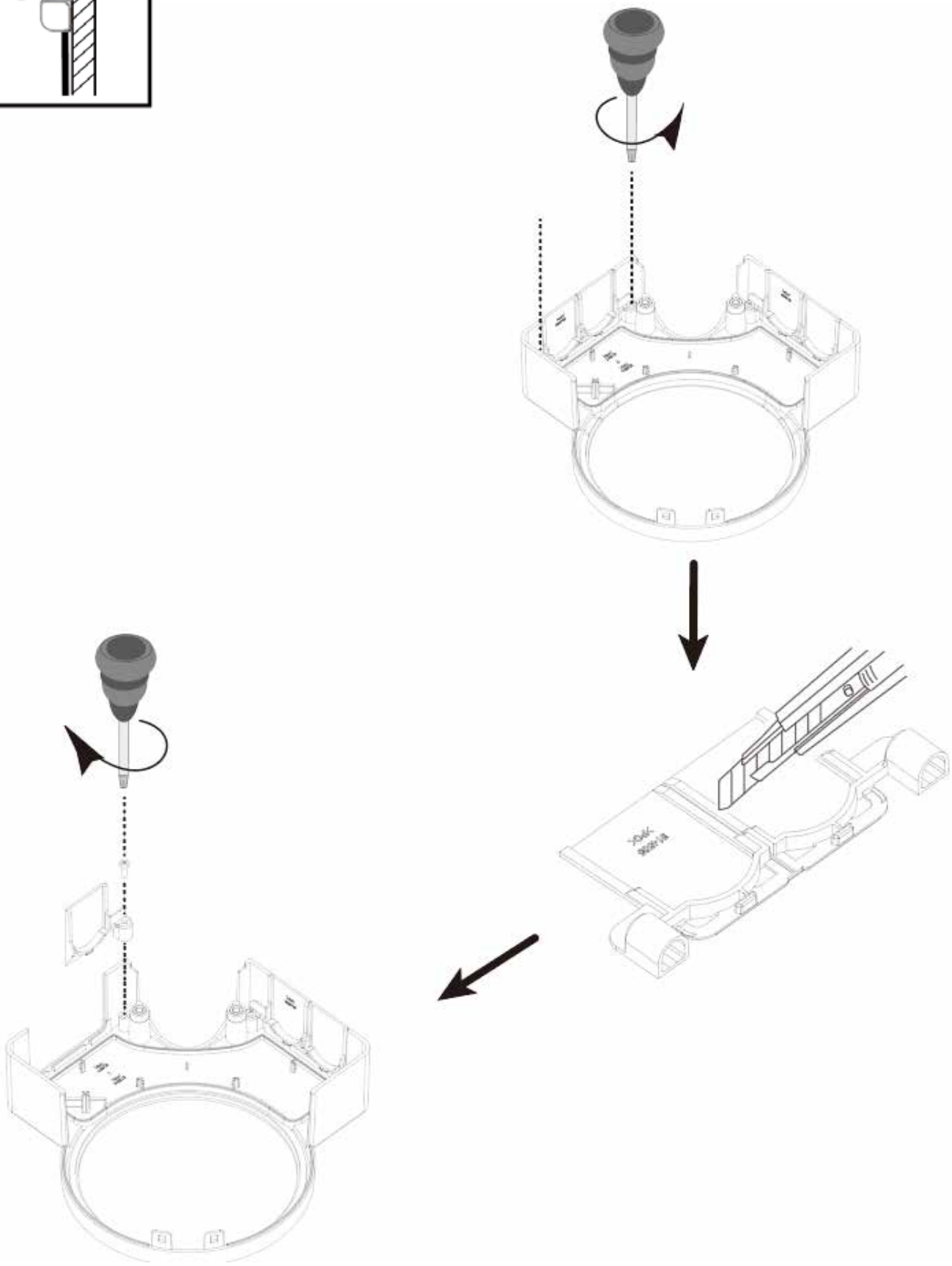
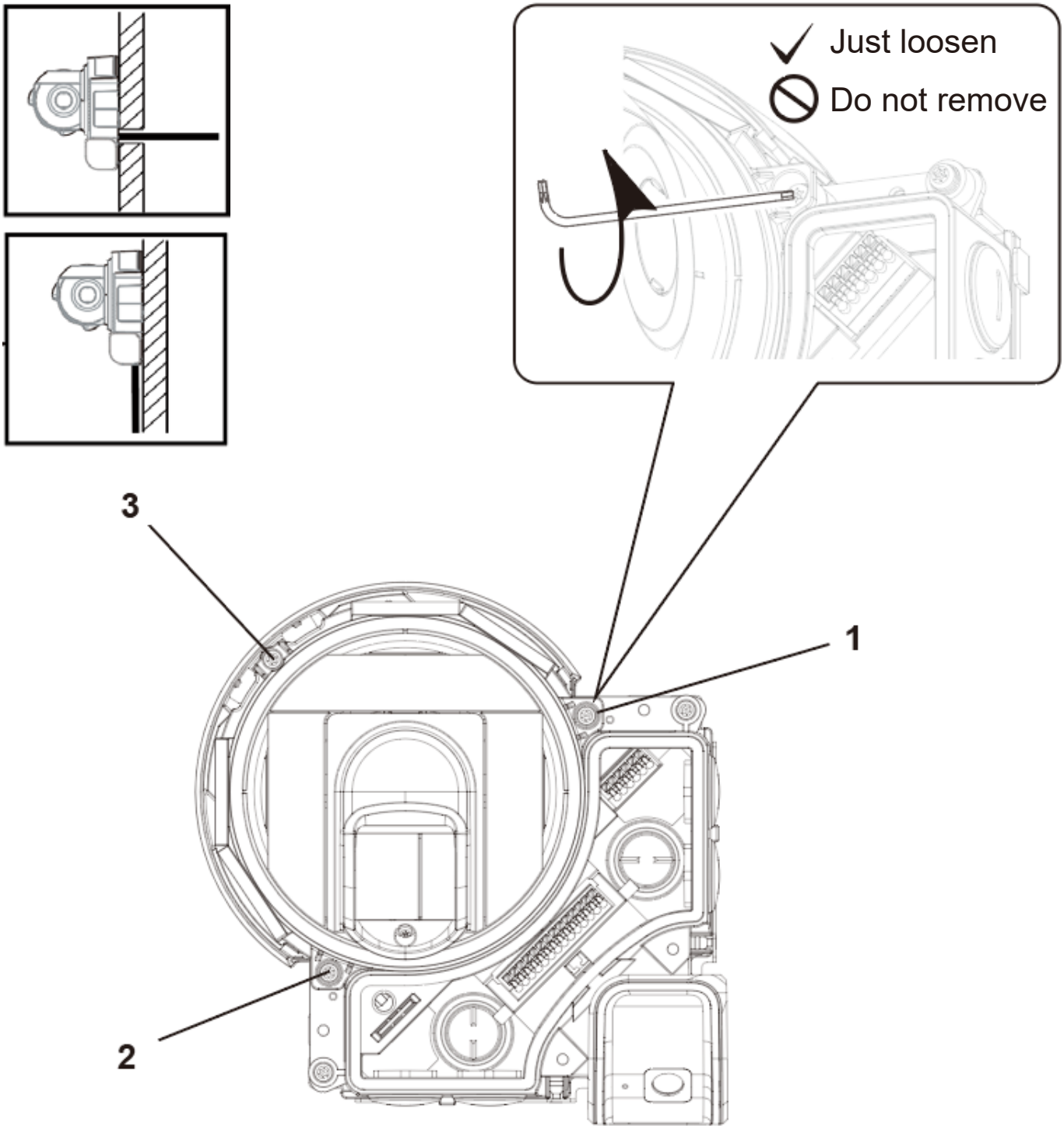
4
D = ∅7 to ∅15 mm
(∅0.27 to ∅0.59 in.)



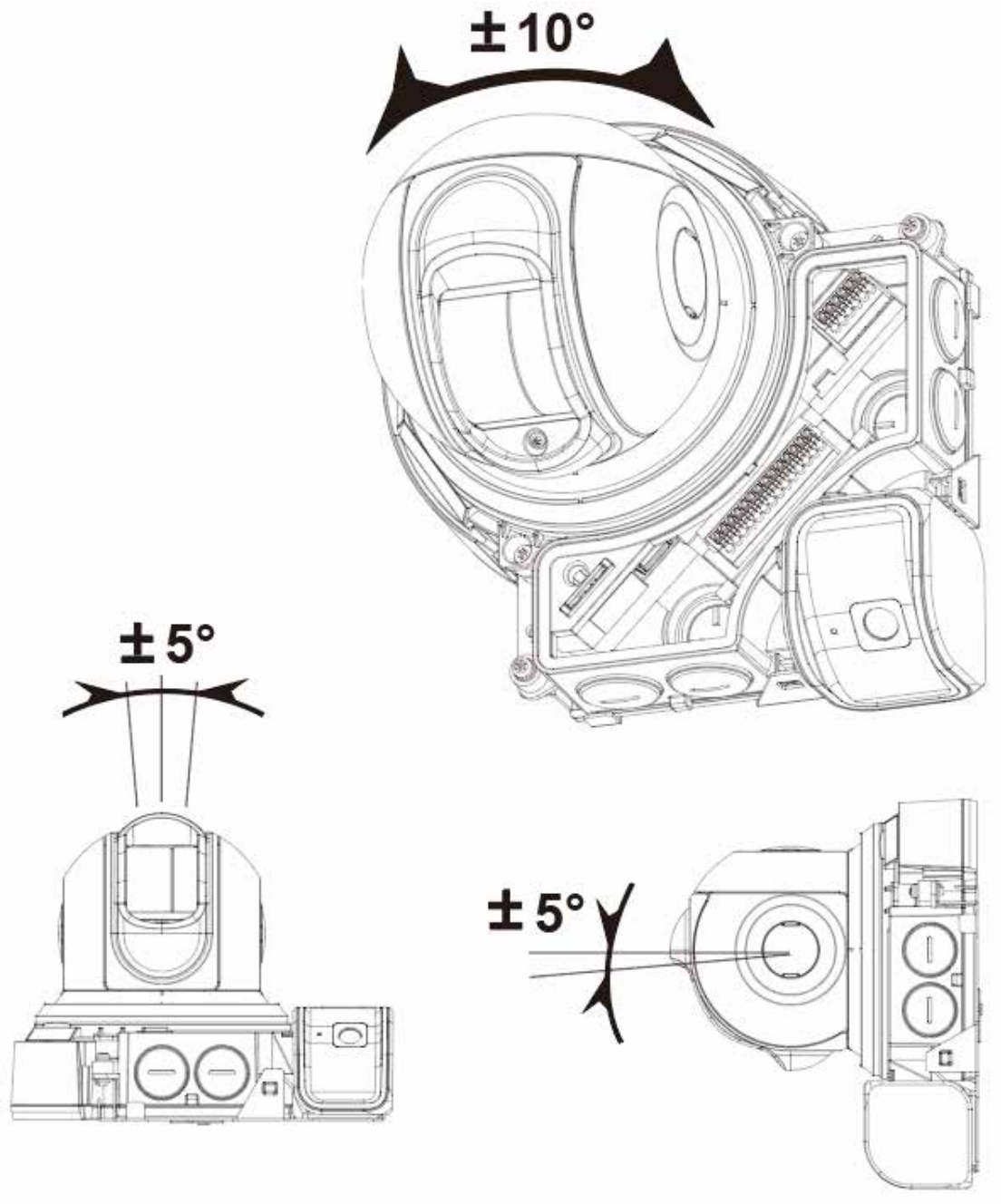


4 Area adjustment



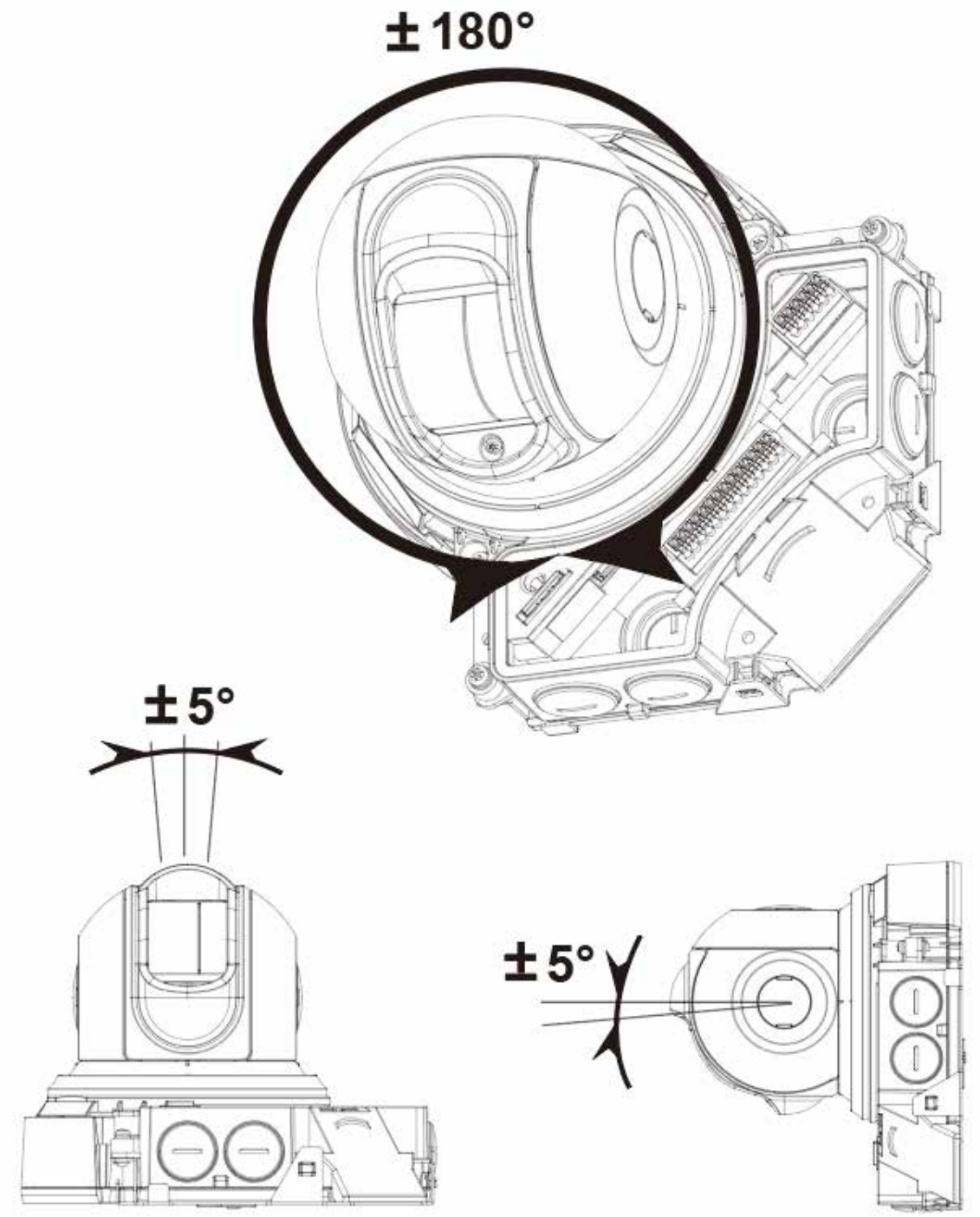
	RLS-2020V			RLS-2020A		
	Wall	**C**eiling	**P**ole	**W**all	**C**eiling	**P**ole
Type A	✓	✓	✓	—	—	—
Type B	✓	—	✓	—	—	—
Type C	✓	✓	✓	—	—	—

45

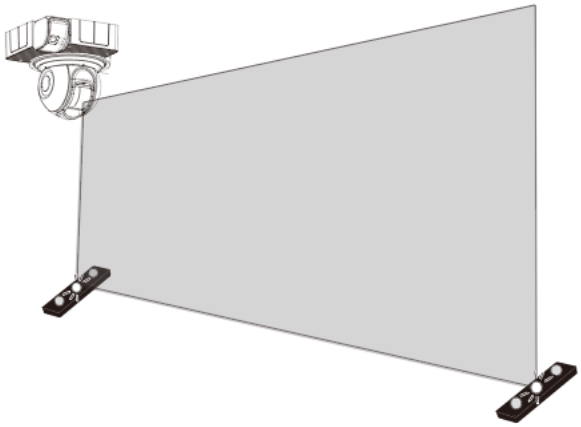


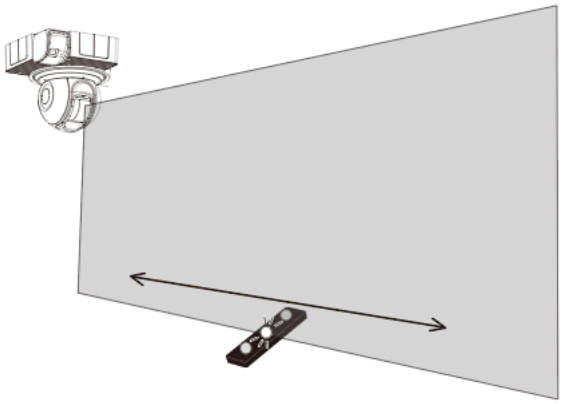
	RLS-2020V			RLS-2020A		
	Wall	**C**eiling	**P**ole	**W**all	**C**eiling	**P**ole
Type A	—	—	—	✓	✓	✓
Type B	—	—	—	—	—	—
Type C	—	—	—	✓	✓	✓

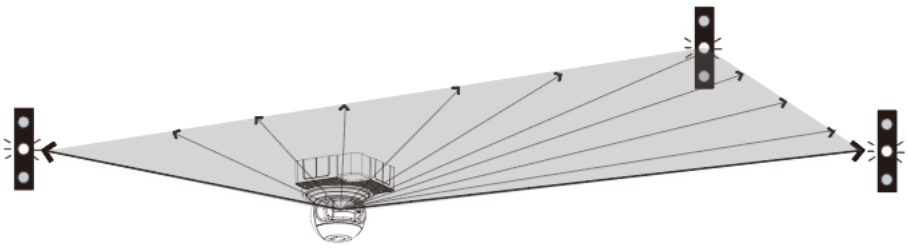
46



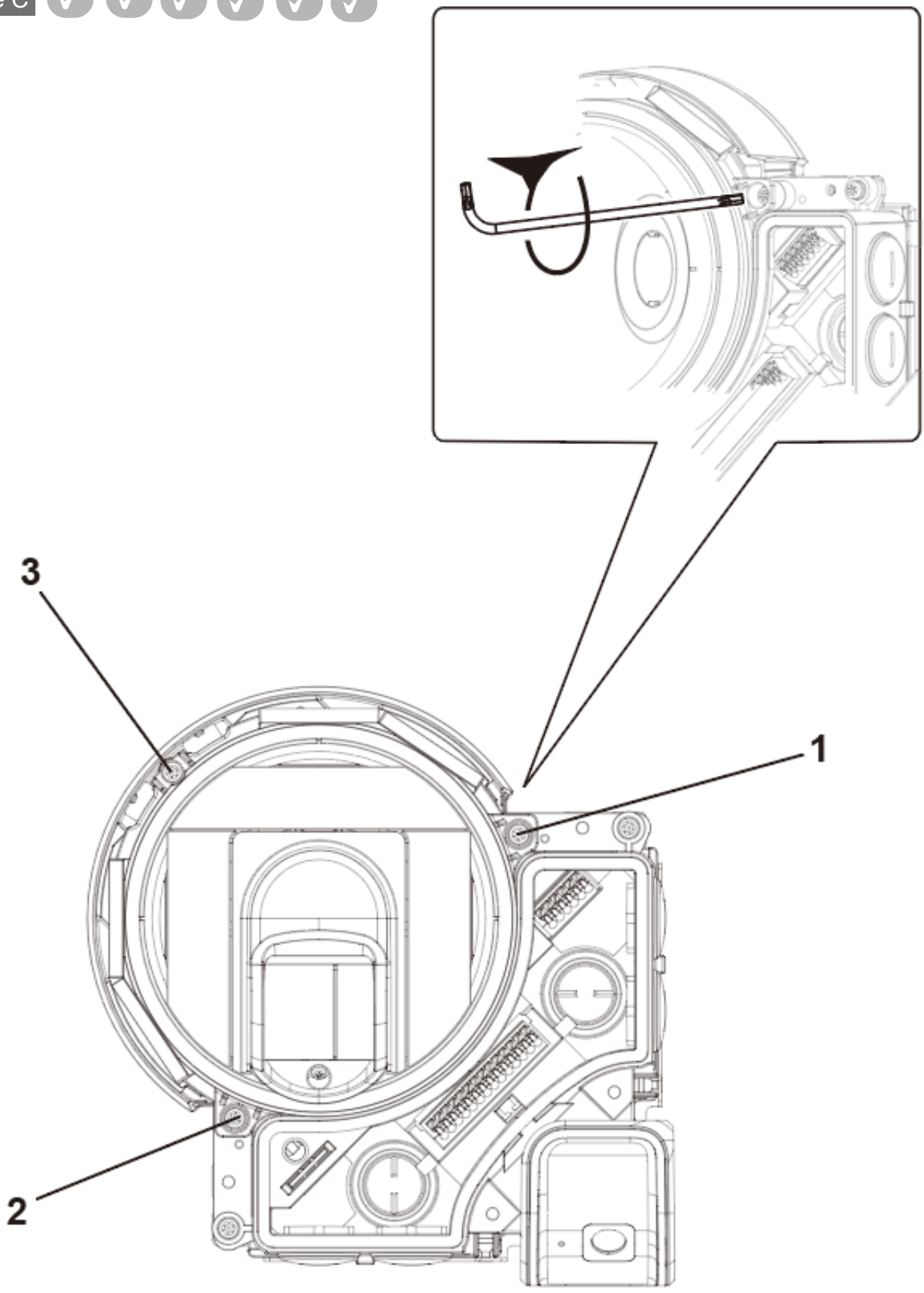
Laser area adjustment
with optional area checker **LAC-1**

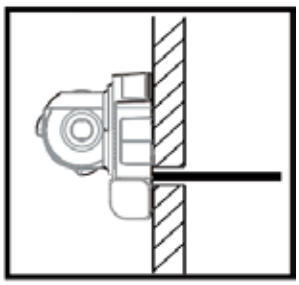


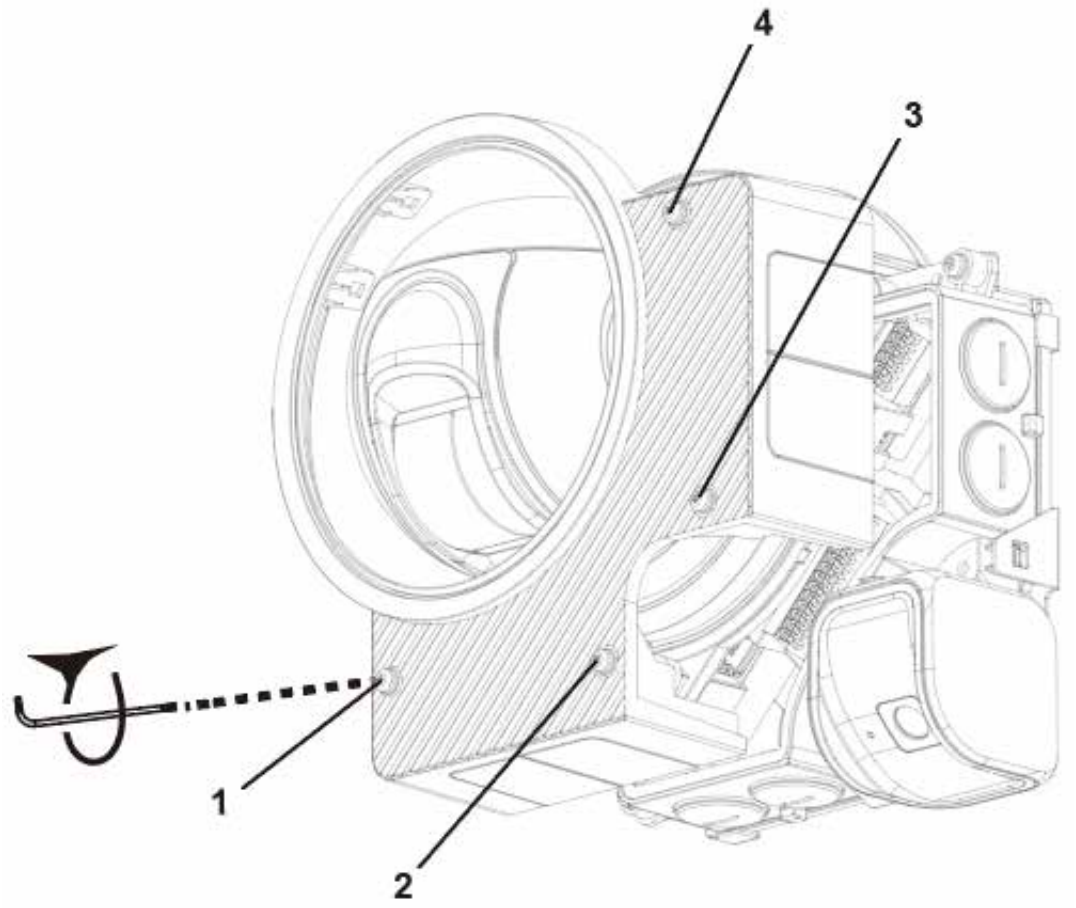




	RLS-2020V			RLS-2020A		
	Wall	**C**eiling	**P**ole	**W**all	**C**eiling	**P**ole
Type A	✓	✓	✓	✓	✓	✓
Type B	✓	—	✓	—	—	—
Type C	✓	✓	✓	✓	✓	✓






4
3
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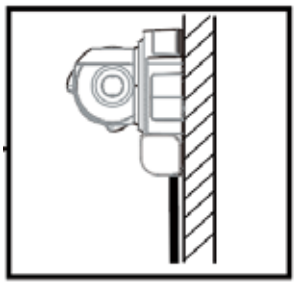

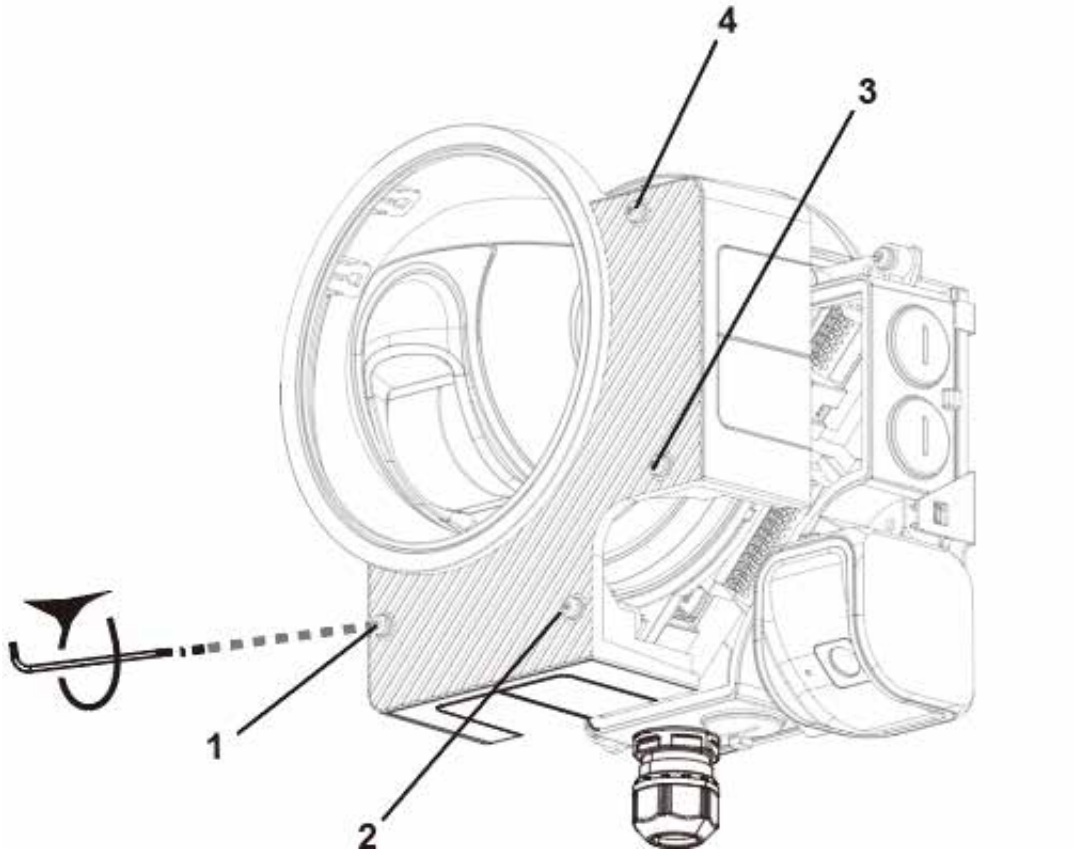
4
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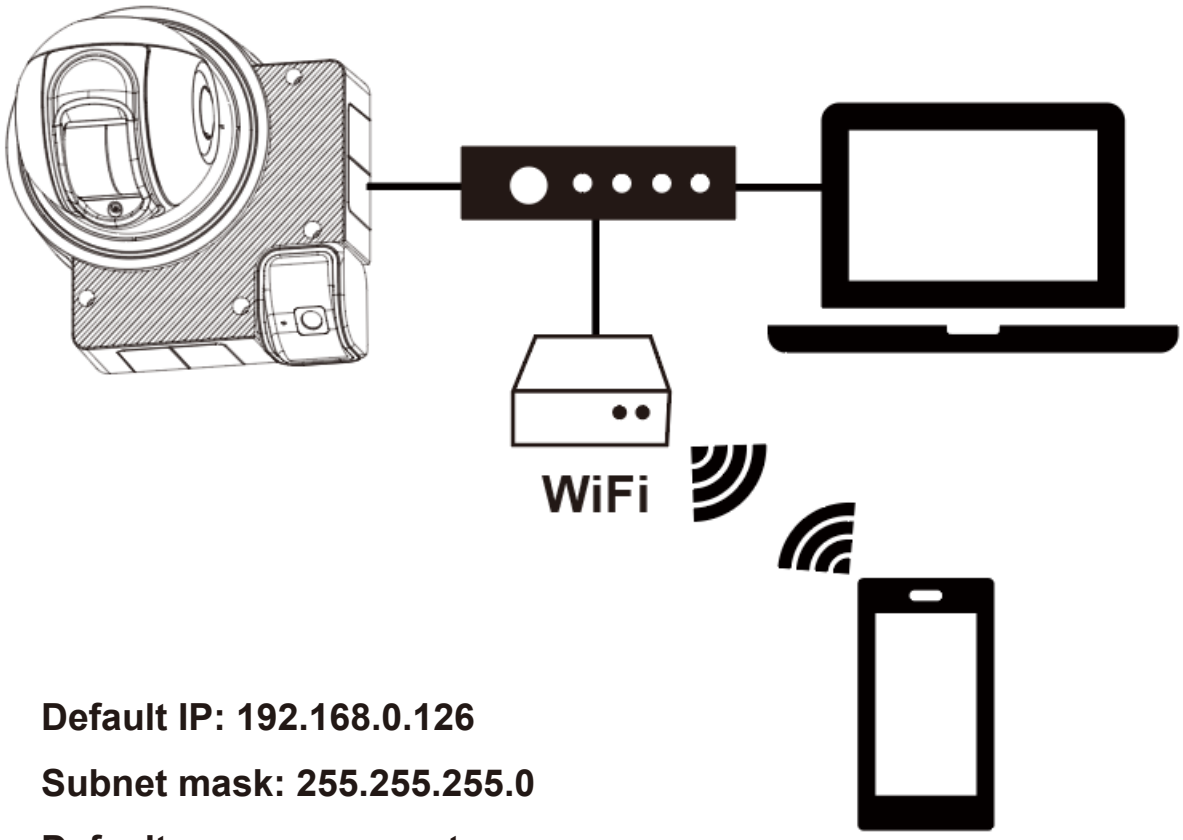
5 Settings



Default IP: 192.168.0.126

Subnet mask: 255.255.255.0

Default user name: root

Support web browser:

Chrome (running on Windows 10 or later, Mac, Android)

https://navi.optex.net/manual/50500

Important Product Information

Setting Manual

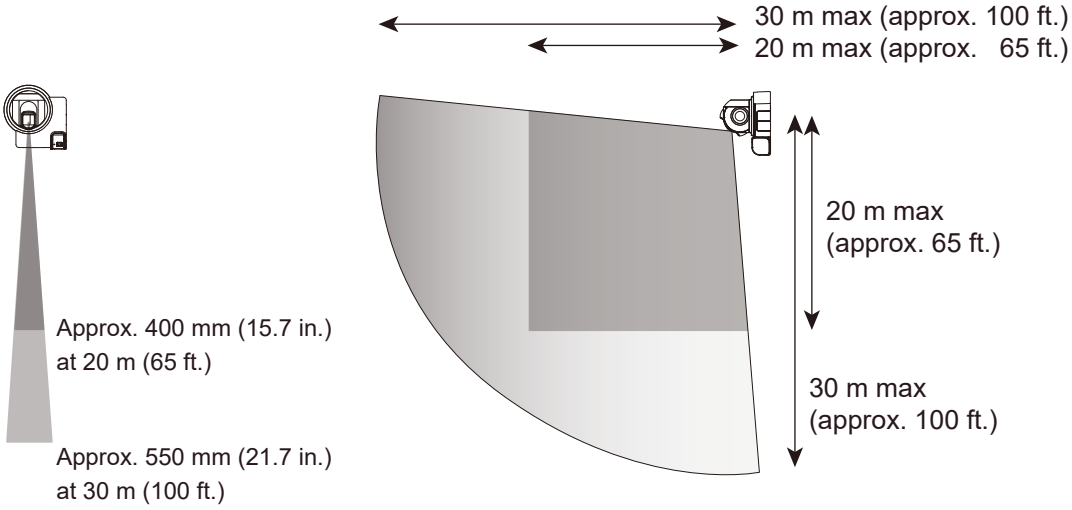
Installation Instruction

Quick Installation

Setting Manual LangSelection

Detection range

RLS-2020V/RLS-2020A



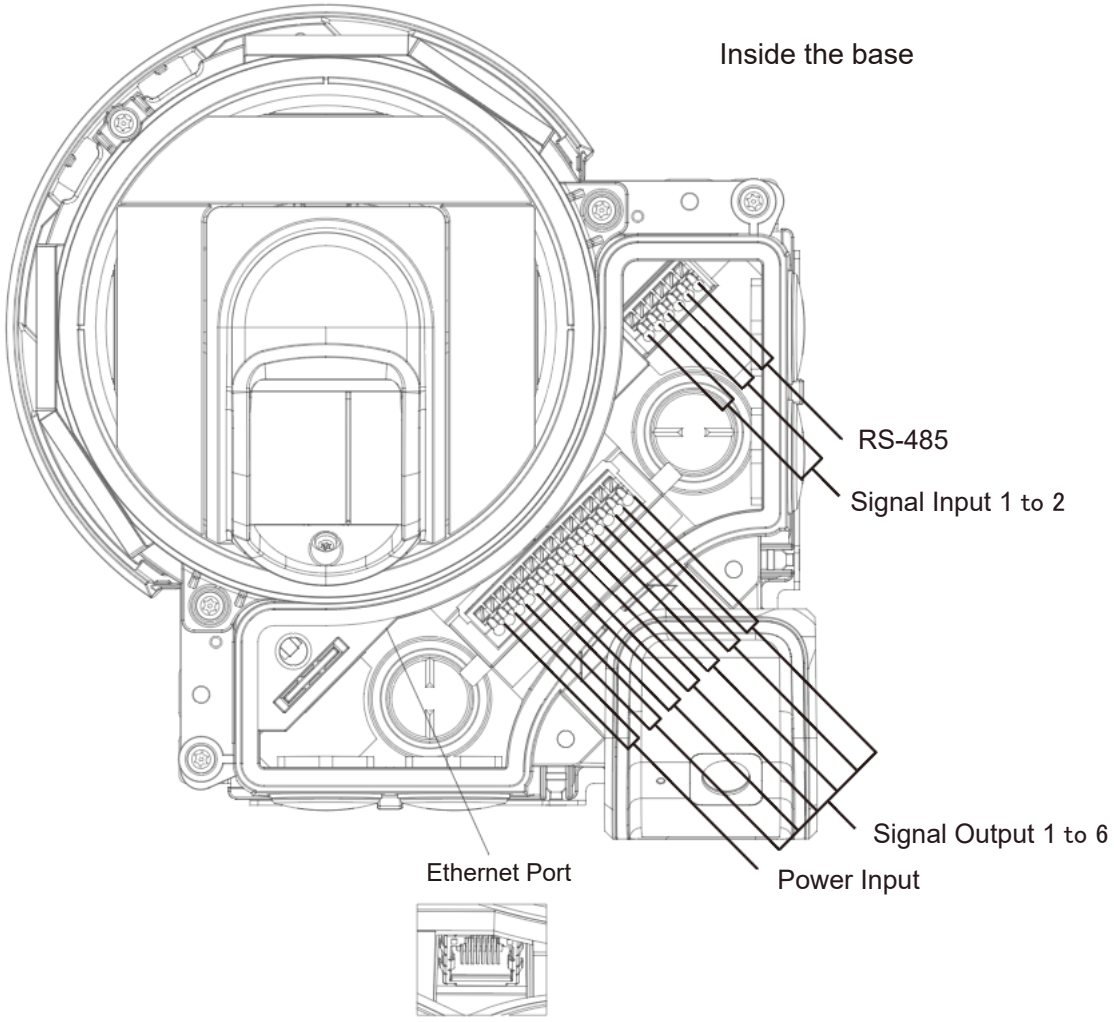
Normal detection range

20 x 20 m (Approx. 65 x 65 ft.), 95 degree square

When using “Detection range expansion”

radius 30 m (Approx. 100 ft.) 95 degree, Fan-shaped area.

Parts layout inside the cover and their functions



The length of the power wire must be less than the figures listed below.

Wire size	Detector 24 V DC	
	RLS-2020V	**RLS-2020A**
AWG20 (**0.52mm²**)	40 (130)	45 (150)
AWG18 (**0.83mm²**)	60 (200)	70 (230)
AWG16 (**1.31mm²**)	100 (320)	110 (370)

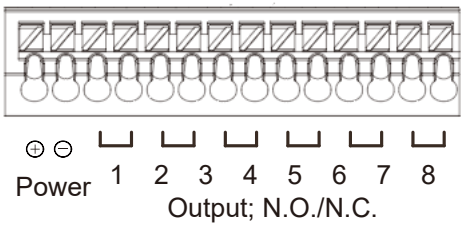
m (ft.)

Strip the cover of the wiring about 9 mm.

Note >>
Some PoE hubs have a limit for wattage. Connect the detectors to PoE hubs without exceeding the limit referring to the PoE hub's instructions.

Parts layout inside the cover and their functions

Output terminal



The six output terminals can be configured as N.O./N.C.

They are however fixed as open when the unit is not energized.

The outputs are programmable from options below.

Alarms

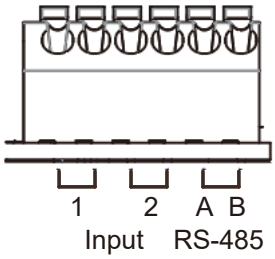
- Master alarm (MO)
- Zone alarm (A1)
- Zone alarm (Allocating mode)

(A11, A12, A21, A22, B11, B12, B21, B22)

Troubles

- Anti-masking (AM)
- Anti-rotation (AR)
- Soiling (SO)
- Environmental disqualification (DQ)
- Device trouble (TR)
- Tamper output (TA)
- Device monitoring (DM)

Input terminal

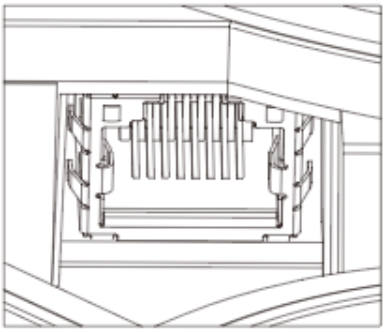


The function of the signal input can be selected from the following options.

- Detection profile switching
- Area set
- Turn on LEDs
- Sensor check

Parts layout inside the cover and their functions

Ethernet Port (PoE)



The Ethernet Port inside the base is for constant connection.
PoE is supported.

Default
- IP address : 192.168.0.126
- Subnet mask : 255.255.255.0
- Default gateway : 192.168.0.1

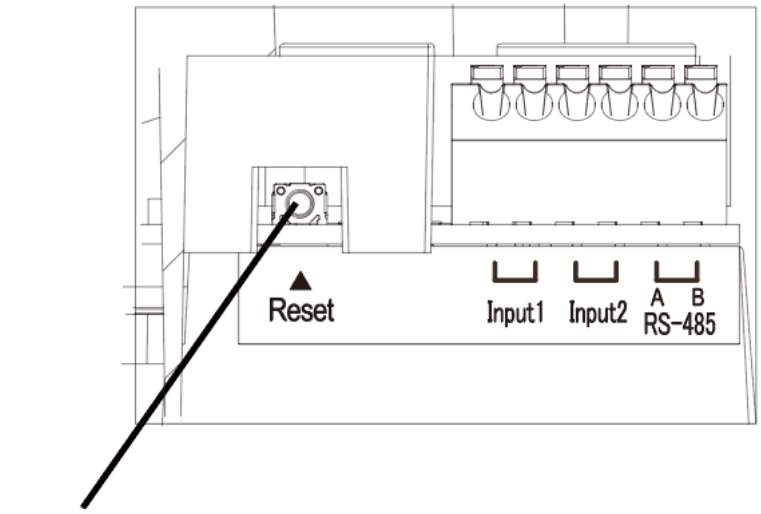
Powering ON

Startup conditions
Enter the DC power to the power supply input terminal, or connect PoE power supply equipment to the Ethernet Port (PoE). After power on, all the LEDs are turned on for approx. 70 seconds and then the status and alarm LED is turned off. During this period, REDSCAN mini-Pro itself performs initial settings.

Parts layout inside the cover and their functions

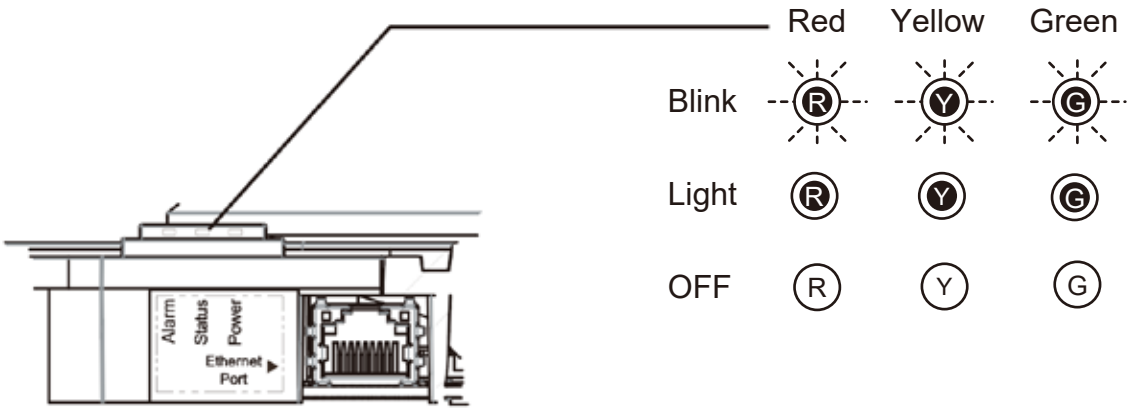
Reset button

If you forget your IP address or password,
you can initialize it by following the steps below.



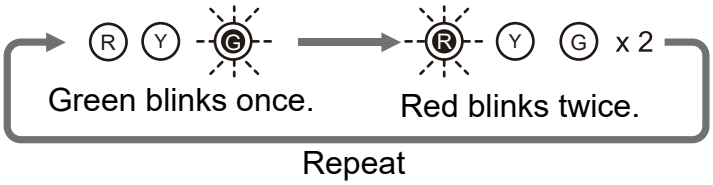
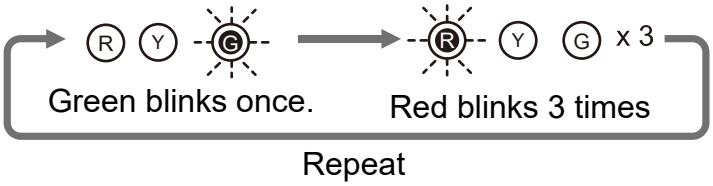
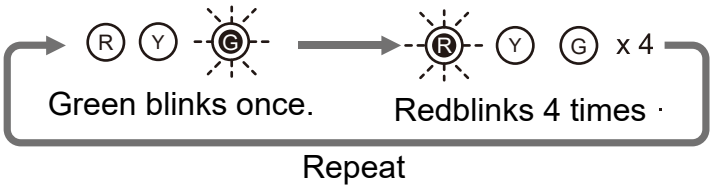
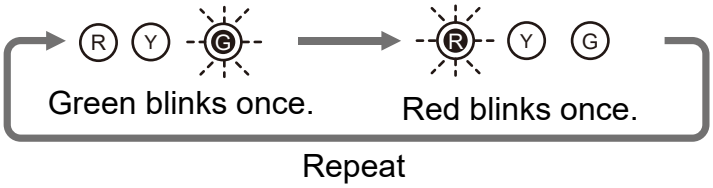
1. Turn Off the Power supply. Remove the terminal cover.
2. Power on, then press and hold the reset button.
3. All LEDs blinking after 70 seconds.
   Then, in this status, release the reset button.
4. REDSCAN mini-Pro reboot itself.
   Attach the terminal cover and reconnect REDSCAN mini-Pro.
   Please note that IP address has initialized to the default

   Default IP: 192.168.0.126



Detector condition	LED (R) (Y) (G)	
Warm-up (approx. 70 s)	(R) (Y) (G)	
Stand-by	R Y (G)	
Area setting	R (Y) (G)	
Alarm	(R) Y (G)	
Reset completed (by RESET button)	(R) (Y) (G)	
Anti-masking	* (R) Y G	R Y (G) → R (Y) G Green blinks once. Yellow blinks once. Repeat
Anti-rotation		R Y (G) → R (Y) G x 2 Green blinks once. Yellow blinks twice. Repeat
Soiling		R Y (G) → R (Y) G x 3 Green blinks once. Yellow blinks 3 times Repeat
Environmental Disqualification (DQ)		R Y (G) → R (Y) G x 4 Green blinks once. Yellow blinks 4 times Repeat

* According to alarm status

Trouble condition	LED Ⓡ Ⓨ Ⓖ
Camera error	
Over heat	
Hardware error	
Others	

ONVIF and RTSP

REDSCAN mini-Pro series supports ONVIF and RTSP.
Client application can get video stream of embedded camera in REDSCAN mini-Pro series.
Username and password are common to ONVIF and RTSP.
Even if ONVIF is not used, create ONVIF account by the sequence above to use RTSP authentication.

ONVIF

ONVIF is an open industry forum that provides and promotes standardized interfaces for effective interoperability of IP-based physical security products.
See the site below for details. Specification are downloadable.
https://www.onvif.org/

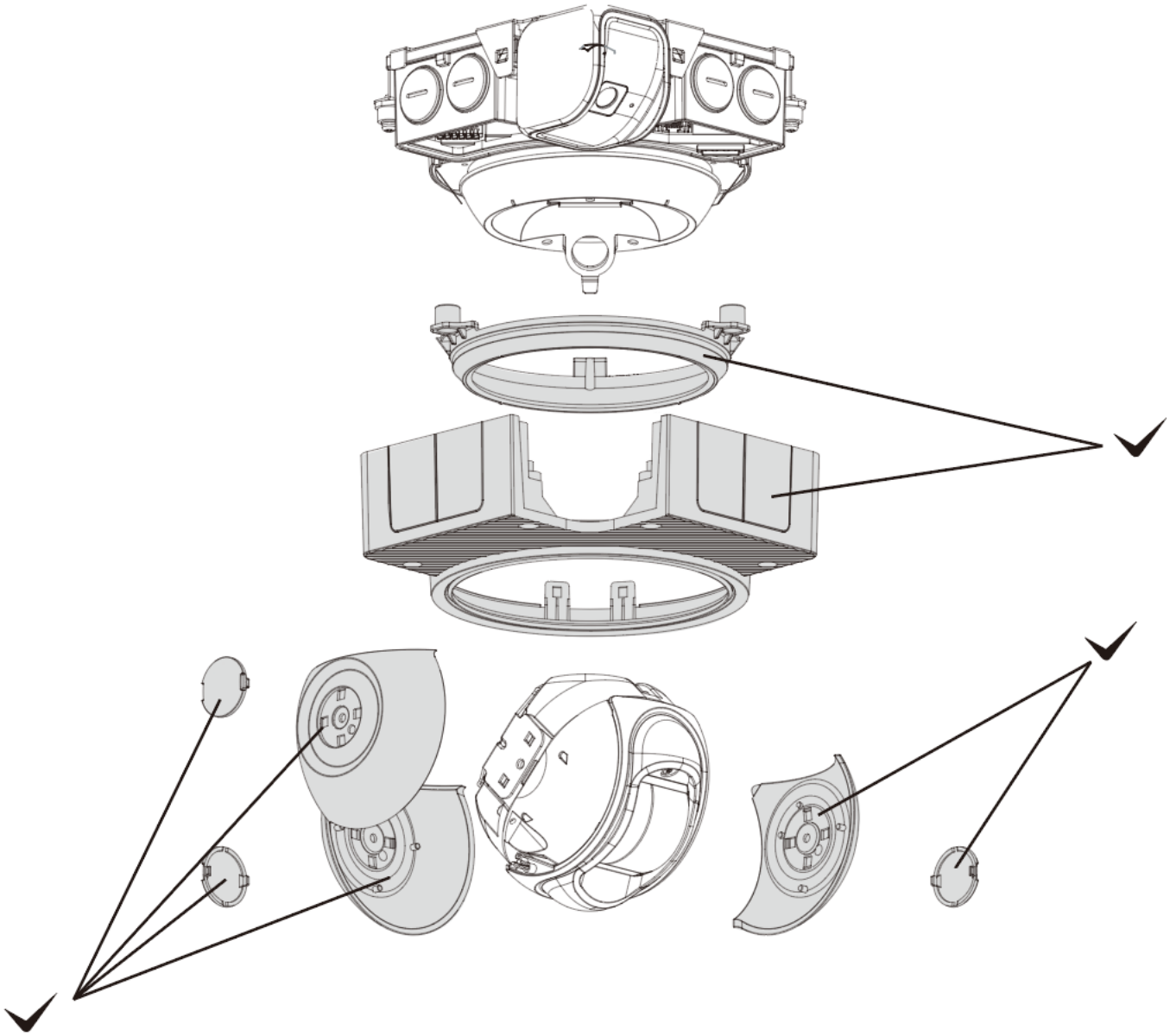
ONVIF Device manager is popular tool in the industry. It enables accessing and testing ONVIF device. See the site below for details.
https://sourceforge.net/ptojects/onviffdm/

RTSP

URI of RTSP of REDSCAN mini-Pro is rtsp:///(ip address)/stream/0
URI of HTTP tunneling of REDSCAN mini-Pro is http:///(ip address)/stream/0

Repainting

Paint the following parts. (refer to ✓ marks as follows)
Use the suitable paint for poly-carbonate resin.



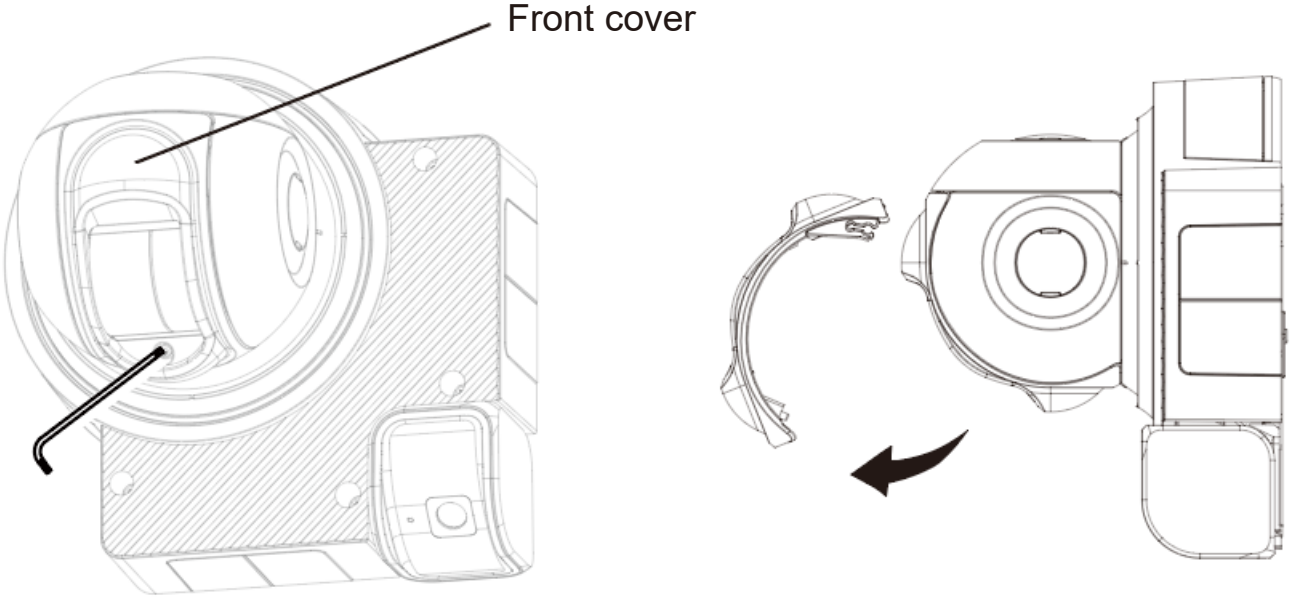
Note >>

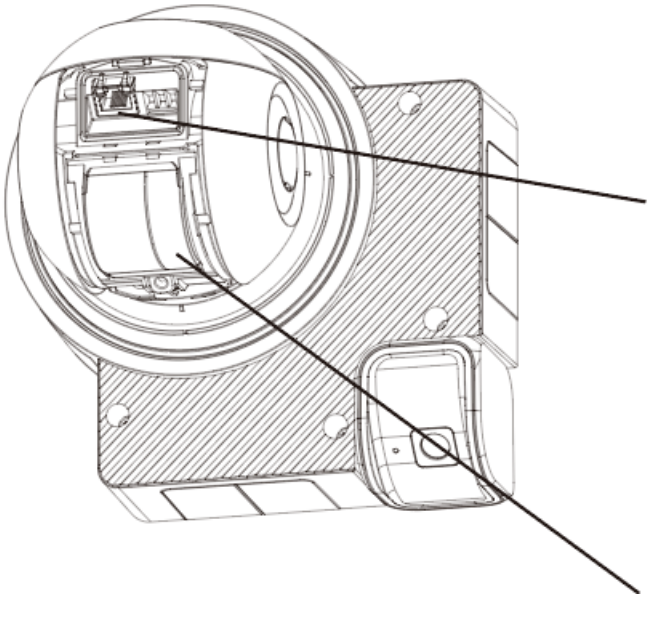
- Do not paint the main unit, or the base unit.
- Painting the RLS-2020V/2020A a dark color could raise the internal temperature and cause a malfunction.
- Painting should be avoided if there is any possibility that the unit would be exposed to direct sunlight.
- Avoid entrapping wires when attaching the fixing ring.

Maintenance

Purchase separately as necessary

Size = T-10H





Purchase separately as necessary

Size = T-10H

RLS-LW

Maintenance