Hanwha Vision

CÂMARA DE REDE

Manual do usuário

PNV-A9081R/PND-A9081RV
PND-A9081RF/PNO-A9081R
PNB-A9001

CE

Câmara de rede
Manual do usuário

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Marca comercial

Cada uma das marcas aqui incluídas se encontram registradas. O nome deste produto e as outras marcas registadas mencionadas neste manual são marcas registradas de sua respetiva companhia.

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❖ **Design e especificações estão sujeitos a alterações sem aviso prévio.**

❖ **O ID inicial de administrador é "admin" e a senha deverá ser definida ao fazer o logon pela primeira vez.**
Por favor, mude sua senha a cada três meses para proteger suas informações pessoais de forma segura e para evitar os prejuízos causados pelo roubo de informação.
Repare, por favor, que a segurança e quaisquer outros problemas causados pelo mau gerenciamento de senhas é da responsabilidade do usuário.

INSTRUÇÕES IMPORTANTES DE SEGURANÇA

1. Leia estas instruções.
2. Guarde estas instruções.
3. Preste atenção a todos os avisos.
4. Siga todas as instruções.
5. Não utilize este leitor próximo à água.
6. Limpe a área contaminada na superfície do produto com um pano macio e seco ou úmido.
   (Não use detergentes ou produtos cosméticos que contenham álcool, solventes, tensoativos ou componentes de óleo pois eles podem deformar ou causar danos no produto.)
7. Não bloqueie as aberturas de ventilação. Instale de acordo com as instruções do fabricante.
8. Não o instale perto de fontes de calor, como radiadores, sistemas de aquecimento ou outros aparelhos que produzam calor, (incluindo amplificadores).
9. O plugue polarizado ou de aterramento desempenha uma importante função de segurança. Um plugue polarizado contém duas lâminas com uma mais larga do que a outra. Um plugue do tipo-terra contém duas lâminas e um terceiro pino de aterramento. A lâmina larga ou o terceiro pino são fornecidos para sua segurança. Se o plugue fornecido não encaixar na tomada, chame um eletricista para trocar a tomada inadequada.
10. O cabo de alimentação deve ser posicionado de maneira que não seja deformado nem comprimido, especialmente nos plugues, em tomadas elétricas e nos pontos de saída do leitor.
11. Utilize apenas conexões / acessórios especificados pelo fabricante.
12. Utilize apenas carrinhos, bases, tripés, suportes ou mesas especificados pelo fabricante ou vendidos com o leitor. Ao utilizar um carrinho, tenha cuidado ao deslocá-lo com o leitor, para evitar ferimentos caso tombem.

13. Desligue este leitor da tomada durante tempestades com raios ou quando não for utilizá-lo por um longo período.
14. Todos os serviços de manutenção devem ser executados por técnicos qualificados.
    A manutenção será necessária quando o leitor for danificado de alguma forma, como danos ao cabo de alimentação ou plugue, derramamento de líquidos ou queda de objetos sobre o leitor, exposição à chuva ou umidade, mau funcionamento ou queda.
15. Esse produto tem o objetivo de ser fornecido com uma Unidade de fonte de alimentação marcada com “Classe 2” ou “LPS” e classificada de 12 V CC, 1,48 A ou PoE, 0,38 A. (PND-A9081RV/RF)
16. Esse produto tem o objetivo de ser fornecido com uma Unidade de fonte de alimentação marcada com “Classe 2” ou “LPS” e classificada de 12 V CC, 1,56 A ou PoE, 0,38 A. (PNV-A9081R)
17. Esse produto tem o objetivo de ser fornecido com uma Unidade de fonte de alimentação marcada com “Classe 2” ou “LPS” e classificada de 12 V CC, 1,5 A ou PoE, 0,4 A. (PNO-A9081R)
18. Esse produto tem o objetivo de ser fornecido com uma Unidade de fonte de alimentação marcada com “Classe 2” ou “LPS” e classificada de 12 V CC, 1,15 A ou PoE, 0,32 A. (PNB-A9001)
19. Este produto tem o objetivo de ser fornecido com energia de isolamento.
20. Se você usar força excessiva ao instalar o produto, a câmera pode ficar danificada e avariada.
    Você pode danificar o produtos ao instalá-lo à força, usando ferramentas incompatíveis.
21. Não instale o produto em um local onde existem ou podem ser geradas substâncias químicas ou névoa de óleo. Como os óleos comestíveis como óleo de soja podem danificar ou deformar o produto, não instale o produto na cozinha ou perto da mesa da cozinha.
    Isso pode danificar o produto.
22. Ao instalar o produto, tenha cuidado para não permitir que a superfície do produto seja manchada com alguma substância química.
    Alguns solventes químicos tais como purificadores ou adesivos podem causar danos na superfície do produto.
23. Se você instalar/desmontar o produto de uma forma que não a recomendada, as funções de produção/desempenho não podem ser garantidas.
    Instale o produto consultando “Instalação e conexão” no manual do usuário.
24. Instalar ou usar o produto na água pode causar danos sérios no produto.
25. Apesar de uma rápida mudança de temperatura poder causar congelamento dentro da caixa, não haverá nenhum problema com o vídeo.
26. Este dispositivo foi verificado com o cabo STP. Recomenda-se o uso do aterramento GND adequado e do cabo STP para proteger de forma eficaz o seu produto e propriedade contra voltagem transitória, trovoada e interrupção das comunicações.

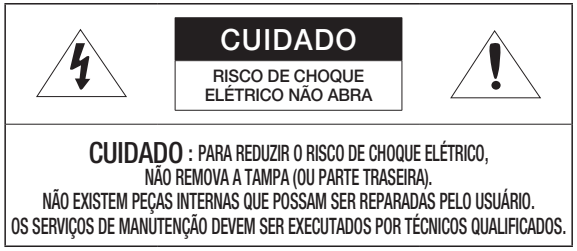
AVISO

PARA REDUZIR O RISCO DE INCÊNDIO OU CHOQUE ELÉTRICO, NÃO EXPONHA ESTE PRODUTO À CHUVA OU UMIDADE.
NÃO INSIRA OBJETOS METÁLICOS PELAS GRADES DE VENTILAÇÃO OU POR OUTROS ORIFÍCIOS NO EQUIPAMENTO.

O aparelho não deve ser exposto a goteiras ou respingos e não deve servir de base para recipientes com líquido, como vasos.

Para evitar ferimentos, este aparelho deve ser conectado com firmeza à parede/teto de acordo com as instruções de instalação.

CUIDADO



EXPLICAÇÃO DOS SÍMBOLOS GRÁFICOS

O raio com uma seta na ponta dentro de um triângulo eqüilátero destina-se a alertar o usuário sobre a presença de "tensão perigosa" dentro da caixa do produto, cuja grandeza talvez seja suficiente para constituir risco de choque elétrico nas pessoas.

O ponto de exclamação dentro de um triângulo eqüilátero tem o objetivo de alertar o usuário sobre a presença de importantes instruções de operação e manutenção (serviço) na literatura que acompanha o produto.

Construção de Classe I

Um aparelho com construção de CLASSE I deve ser conectado a uma tomada elétrica com uma conexão de terra para proteção.

Bateria

As baterias(a unidade da bateria ou baterias instaladas) não devem ser expostas a calor excessivo, como luz do sol, fogo ou situações semelhantes.

A bateria não pode ser substituída.

Dispositivo de desconexão

Desconecte o plugue de fonte de alimentação do aparelho, se estiver com defeito. E chame um técnico de reparos em seu local.

Fora dos Estados Unidos, ele poderá ser usado; o código HAR com adaptações de uma agência aprovada é empregado.

CUIDADO

Estas instruções de manutenção devem ser praticadas apenas pela equipe técnica qualificada. Para reduzir o risco de choque elétrico, não execute qualquer outra manutenção que não seja a contida nas instruções de operação, a menos que você seja qualificado para executá-la.

Use a energia de entrada apenas com uma câmera e outros dispositivos não devem estar conectados.

Quando a caixa de um produto novo é aberta (ou durante o uso inicial do produto), pode haver acúmulo de umidade no vidro da câmera. A umidade acumulada desaparecerá naturalmente algumas horas após a câmera ser ligada.

Não aperte ou afrouxe aleatoriamente a válvula Gore.

O ITE deve ser conectado apenas para redes PoE sem roteamento para a planta exterior.

Leia as seguintes precauções recomendadas de segurança com atenção.

- Não coloque este aparelho em uma superfície irregular.
- Não o instale em uma superfície onde ficará exposto à luz direta do sul, perto de equipamentos que emitem calor ou áreas extremamente frias.
- Não coloque este aparelho próximo de materiais condutores.
- Não tente reparar pessoalmente este aparelho.
- Não coloque um copo de água sobre o produto.
- Não o instale perto de fontes magnéticas.
- Não bloqueie as aberturas de ventilação.
- Não coloque objetos pesados sobre o produto.
- Por favor, use luvas protetoras ao instalar/remover a câmera.
  A alta temperatura da superfície do produto pode causar queimaduras.

O Manual do Usuário é um guia contendo informações sobre como usar o produto.

O significado dos símbolos no manual é o seguinte.

- Referência: caso existam informações que ajudam a usar o produto
- Nota: caso exista qualquer possibilidade de ocorrerem danos ao produto e ao ser humano causados pelo não cumprimento das instruções

※ Leia este manual quanto aos itens de segurança antes de usar o produto e mantenha-o em local seguro.

Não garantimos a qualidade de produtos de terceiros (ex.: lentes, acessórios) comprados separadamente.

Em ambientes de instalação específicos, pode haver interferência em comunicações de rádio. Quando ocorrer interferência de ondas eletromagnéticas entre o produto e o dispositivo de comunicação de rádio, recomenda-se manter uma certa distância entre os dois ou alterar a direção da antena de recebimento.

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ESPECIFICAÇÕES RECOMENDADAS PARA PC

- CPU : Intel(R) Core(TM) i7 3,4 GHz ou superior
- RAM : 8Gb ou superior
- Navegador recomendado: Chrome
- Navegadores suportados: Chrome, Safari, Firefox, MS Edge(chromium based)
- SO suportado : Windows, Mac, Linux, Android, iOS, Chrome
- Ambiente de verificação
  - Windows 10: Google Chrome versão 80 ou posterior, Firefox versão 72 ou posterior, MS Edge versão 83 ou posterior
  - Mac 10.13/14: Safari versão 11.0.1 ou posterior

※ O desempenho da reprodução de vídeo do Web Viewer depende do desempenho da CPU e GPU do usuário.

ESPECIFICAÇÕES DE CARTÃO DE MEMÓRIA MICRO SD/SDHC/SDXC

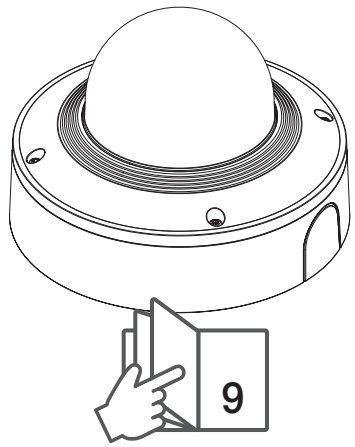
- Capacidade recomendada: 16GB a 256GB (Tipo MLC requerido)
- Fabricantes recomendados: SanDisk, Transcend
- Tipo de produto: Alta resistência
- A compatibilidade varia de acordo com os fabricantes e tipos de cartões.

ESPECIFICAÇÕES RECOMENDADAS POR NAS

- Capacidade recomendada : É recomendado 200 GB ou superior.
- Para esta câmera, é recomendado o uso de um NAS com as seguintes especificações do fabricante.
  Produtos recomendados : QNAP NAS, Synology NAS

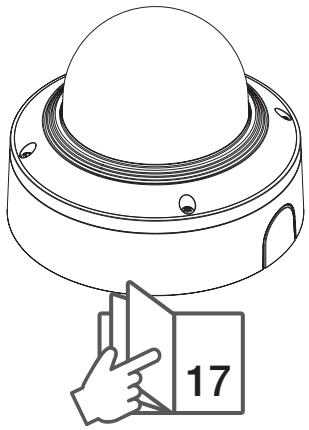
Câmera externa com proteção antivandalismo

PNV-A9081R



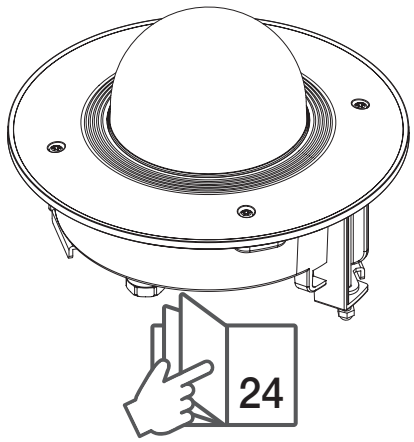
Câmera interna com proteção

PND-A9081RV



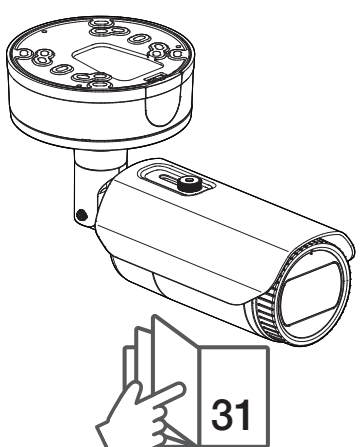
Câmera de encaixe com proteção

PND-A9081RF



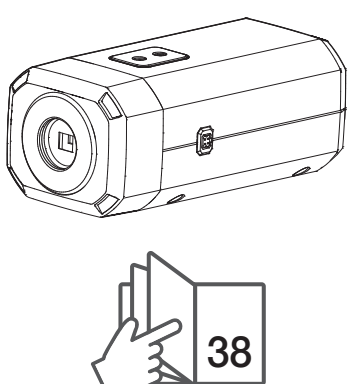
Câmera externa canhão

PNO-A9081R



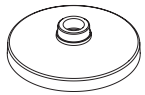
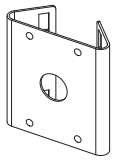
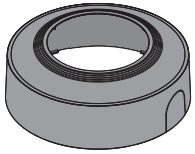
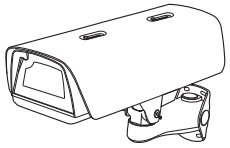
Câmera da caixa

PNB-A9001



ACESSÓRIOS OPCIONAIS PARA INSTALAÇÃO

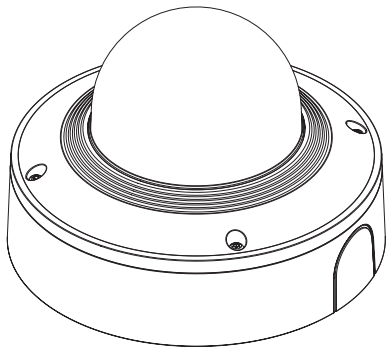
Você pode comprar os acessórios opcionais apropriados que estão disponíveis.

Nome do modelo	Montagem suspensa	Montagem de haste	Tampa personalizada	Invólucro	Tudo
PNV-A9081R	SBP-187HMW		SBC-180B (Preto)		SBP-300LMW (Montagem em parapeito) SBP-300CMW (Montagem de teto) SBP-300WMW (Montagem de parede) SBP-300WMW1 (Montagem de parede) SBP-300NBW (Caixa de instalação) SBP-300NBW (Base de montagem em parede) SBP-300PMW (Montagem de haste) SBP-300KMW (Montagem de canto))
PND-A9081RV	SBP-167HMW		SBC-160B (Preto)		
PNO-A9081R		SBP-302PM			
PNB-A9001				SHB-4300HP	

ITENS FORNECIDOS

Dado que para cada país de vendas, os acessórios não são os mesmos.



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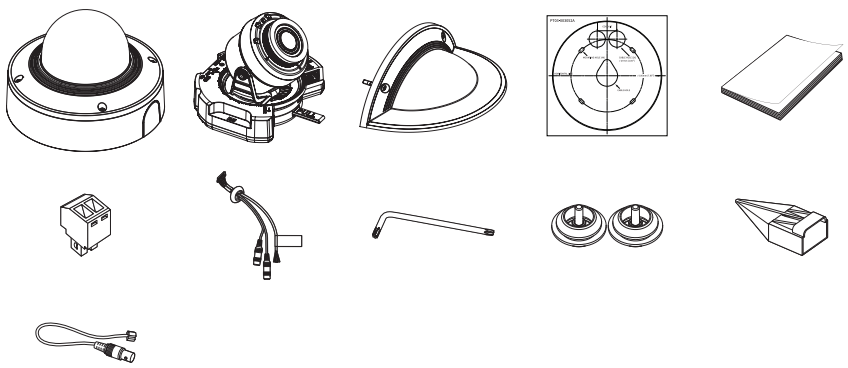
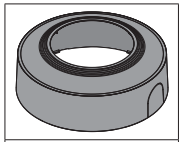
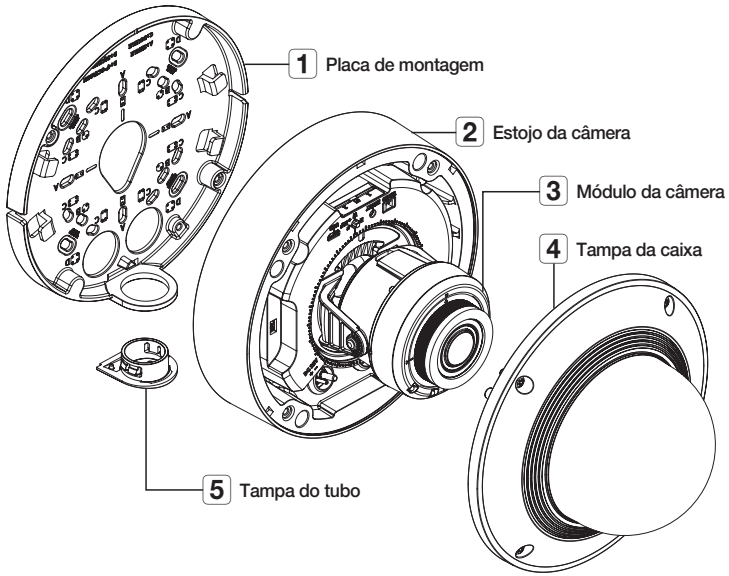


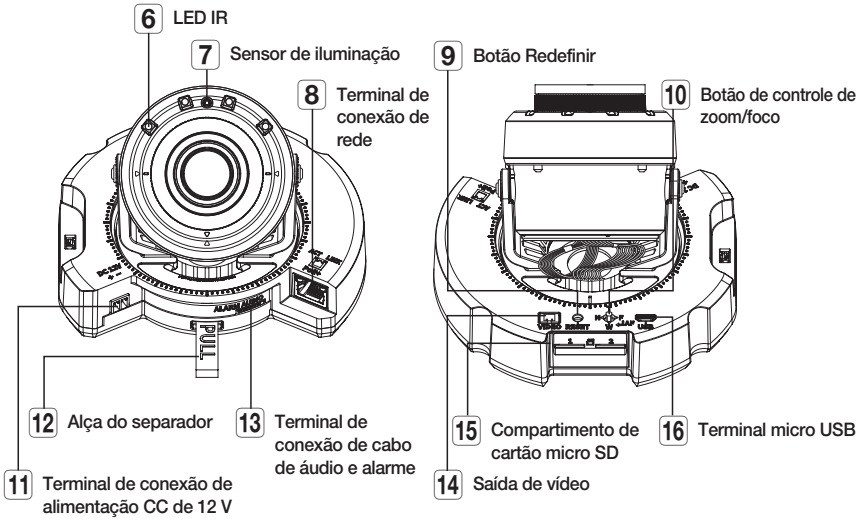
Opção (não incluído)



SBC-180B
(Cor: Preto)

INFORMAÇÕES RESUMIDAS





INSTALAÇÃO

- Esta camara é impermeável e cumpre as especificações IP67 / IP6K9K, mas a ficha conectada ao cabo externo não cumpre. Se recomenda instalar este produto debaixo da borda das abas para evitar que o cabo seja exteriormente exposto.

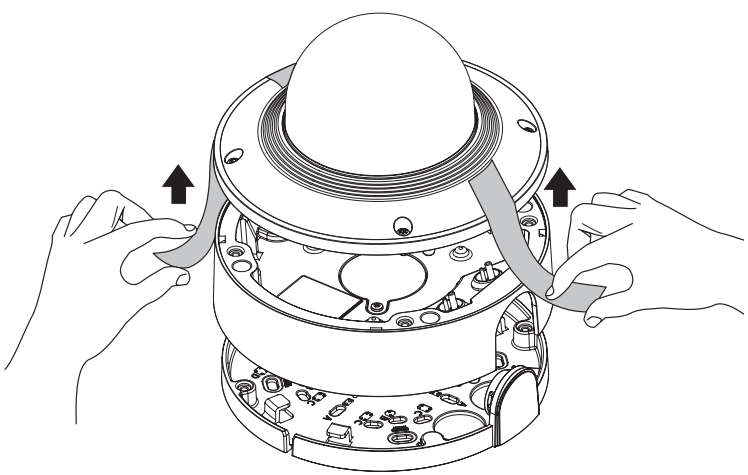
Precauções antes da instalação

Certifique-se de ler as seguintes instruções antes de instalar a câmera:

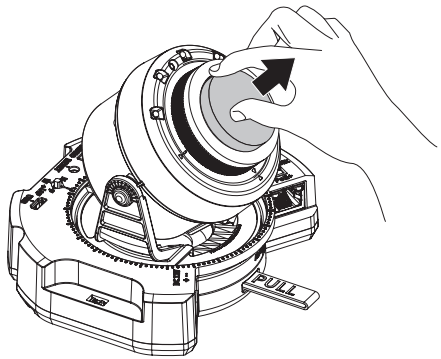
- Selecione um local de instalação que possa suportar pelo menos 5 vezes o peso da câmera.
- Cabos presos ou desencapados podem causar danos ao produto ou um incêndio.
- Por motivos de segurança, mantenha outras pessoas longe do local de instalação. E coloque os pertences pessoais longe do local, apenas por precaução.
- Se o produto for instalada com força excessiva, isso pode causar danos na câmera devido a avaria. Forçar a montagem usando ferramentas incompatíveis pode danificar o produto.

Remoção

1. Retire a fita que prende o estojo da câmera.

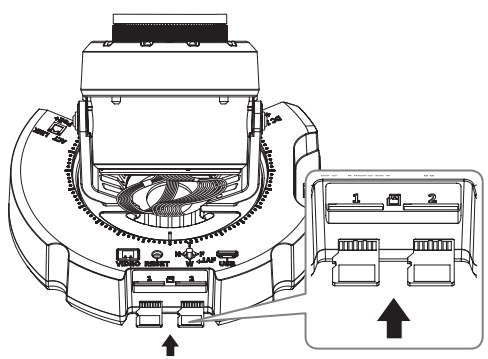


2. Retire a almofada que protege a lente da câmera.



Inserindo um cartão de memória Micro SD

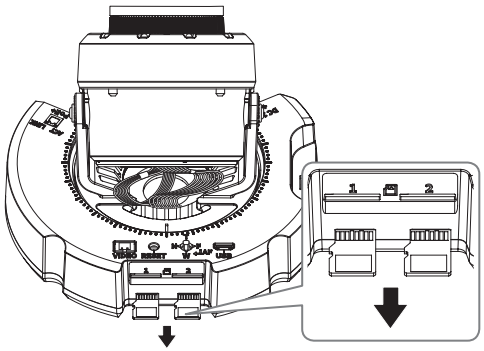
Insira o cartão micro SD no compartimento micro SD no módulo da câmera, na direção da seta.



- Antes de instalar a câmera, o cartão de memória micro SD deve ser inserido enquanto a fonte de alimentação e o corpo estiverem separados.
- Não o insira com força na direção contrária. Pode danificar o seu cartão de memória Micro SD e o seu produto.
- Quando chove ou a umidade é alta, não é recomendada a inserção ou a ejeção de um cartão Micro SD.
- Ao instalar/remover o cartão de memória Micro SD, verifique se você colocou o corpo do produto em uma superfície lisa antes de trabalhar com ele, para evitar acidentes devido à perda de peças que se soltam.

Removendo um cartão de memória Micro SD

Pressione com cuidado a extremidade exposta do cartão de memória, conforme mostrado na figura, para ejetá-lo do slot.

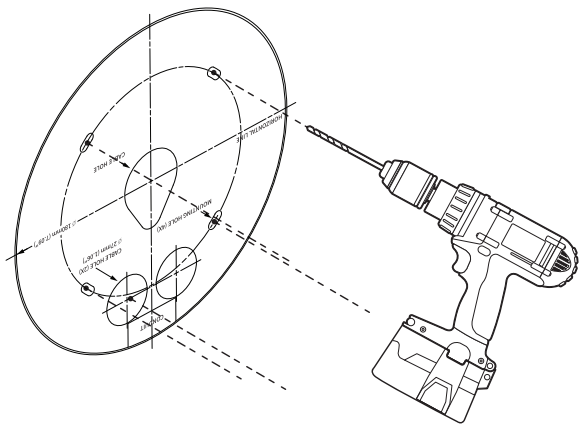


- Antes de remover o cartão de memória SD, em <**Armazenamento**>, defina o dispositivo para <**Desl.**> e pressione o botão [**Aplicar**] e desligue a câmera.
- Se desligar a câmera ou remover o micro cartão de memória SD que contém dados do produto, os dados podem se perder ou se danificar.

Instalação (placa de montagem)

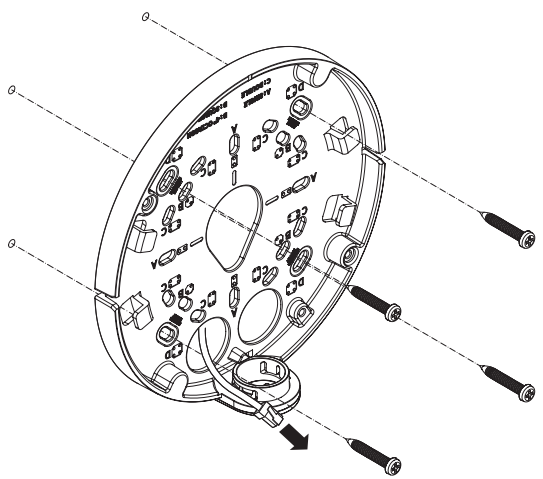
[Instalar diretamente na parede/teto]

1-1. Fixe o modelo de instalação sobre a superfície desejada e crie furos para os parafusos e cabos.



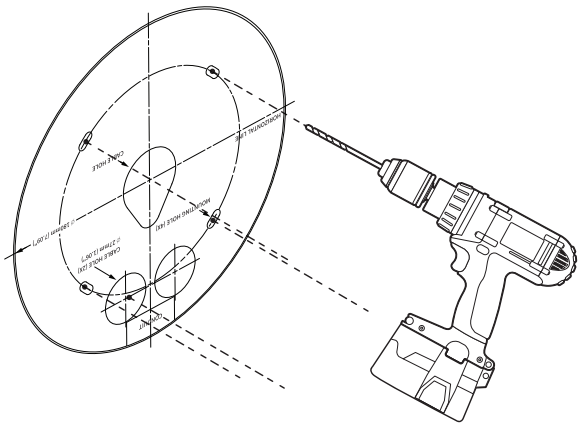
1-2. Fixe a placa de montagem usando os parafusos adequados.

1-3. Passe os cabos necessários dentre os cabos LAN, de alimentação, de áudio e de alarme pelo furo na placa de montagem.

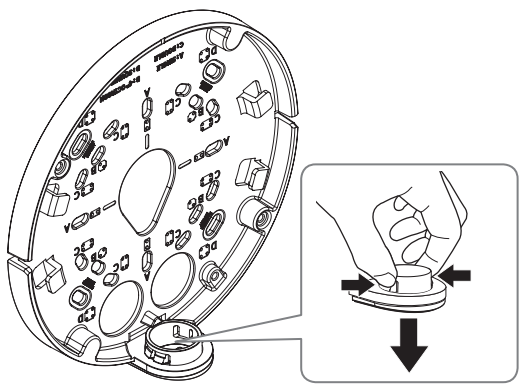


[Instalar usando tubo]

2-1. Fixe o modelo de instalação e crie furos para os parafusos e cabos.



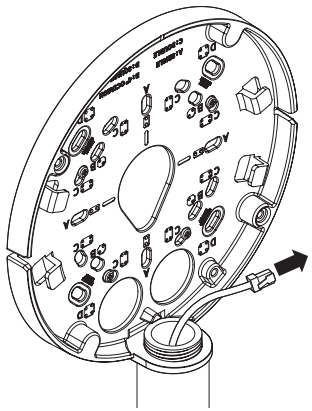
2-2. Separe a tampa do tubo da placa de montagem, apertando nos lados.



2-3. Coloque o tubo sobre a placa de montagem.

2-4. Fixe a placa de montagem usando os parafusos adequados.

2-5. Passe os cabos necessários dentre os cabos LAN, de alimentação, de áudio e de alarme pelo tubo.



Instalação (estojo da câmera)

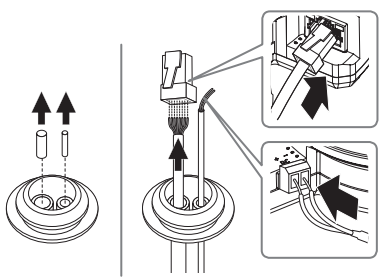
- Use uma bucha de cabo compatível com o cabo LAN para conectar.
  - Câmera principal: usar um cabo com um diâmetro de Ø5 a 6,5
  - Componentes: usar um cabo com um diâmetro de Ø5 a 8,5

[Instalar cabo LAN/de alimentação]

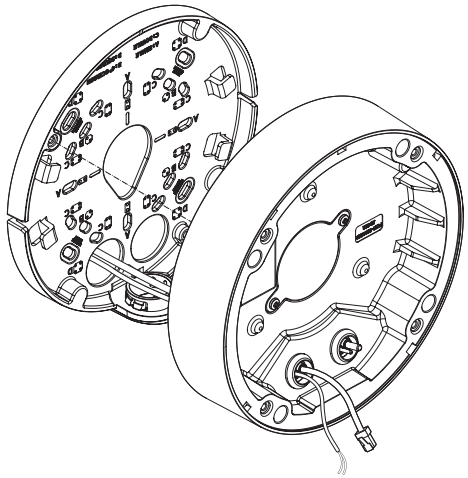
1-1. Retire as partes expulsadas da bucha que será usada.

1-2. Passe o cabo LAN pelo furo maior da bucha e conecte-o ao conector LAN.

1-3. (Ao usar a alimentação) Passe o cabo de alimentação pelo furo menor da bucha e conecte-o ao bloco de terminal fornecido.



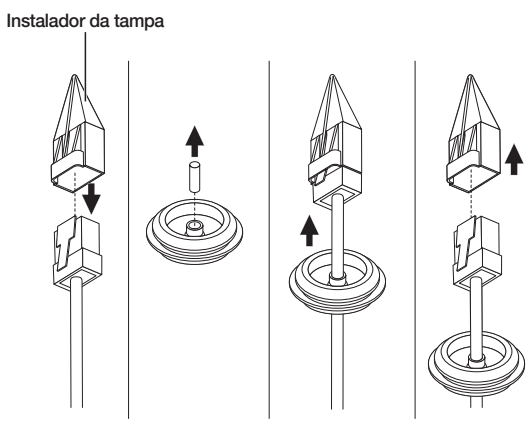
1-4. Monte a bucha no estojo da câmera.



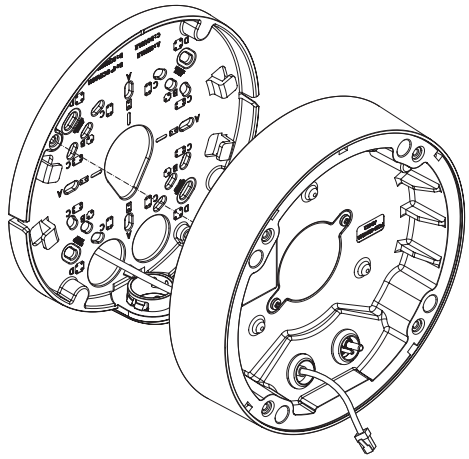
[Instalar o cabo LAN] (IP66)

2-1. Retire a parte expulsada da bucha de 1 furo fornecida.

2-2. Use o instalador da tampa para passar o cabo RJ45.

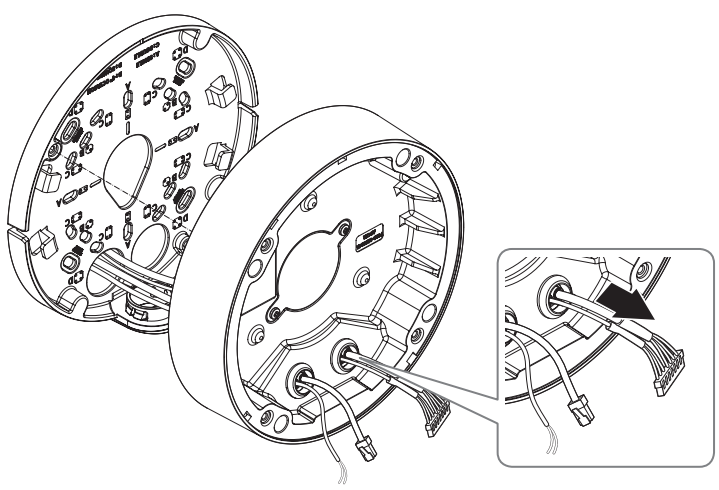


2-3. Monte a bucha no estojo da câmera.

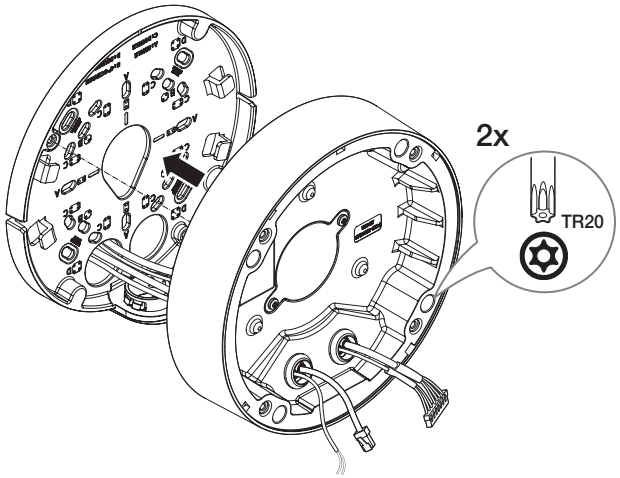


[Instalar cabos de áudio e alarme]

3-1. Monte a bucha dos cabos de áudio e alarme fornecidos no estojo da câmera.



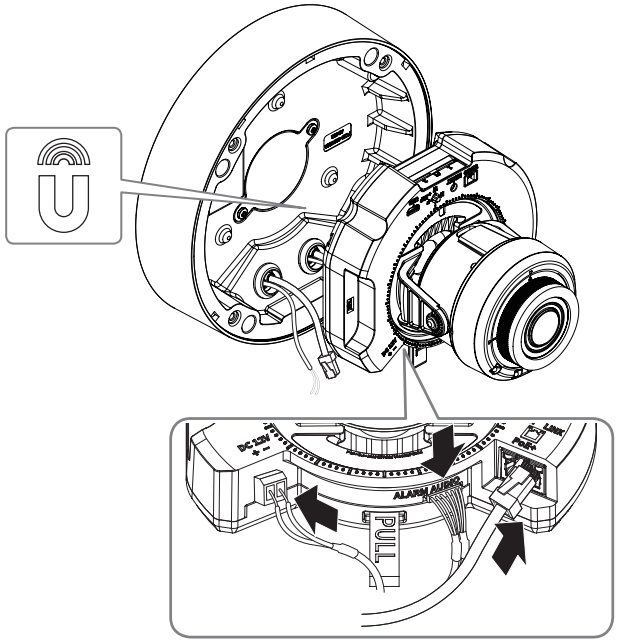
4. Junte a placa de montagem ao estojo da câmera.



Instalar o módulo da câmera

1. Conecte cabos LAN, de alimentação, de áudio e alarme ao terminal do módulo da câmera.
2. Fixe o módulo da câmera ao estojo.

- Há um imã embutido na parte de baixo do módulo.
- Tome cuidado para não deixar nenhum objeto estranho entre as superfícies de fixação.



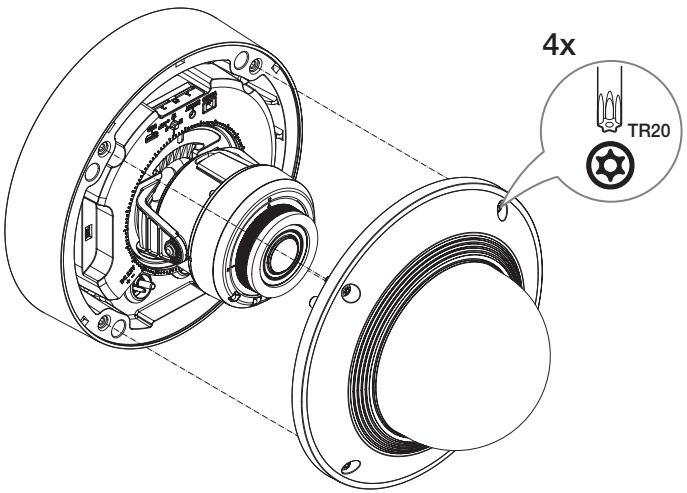
3. Ajuste a lente para a direção desejada, consultando a seção "**Ajustando a direção de monitoramento da câmera**". (página 42)

Montar a tampa da caixa

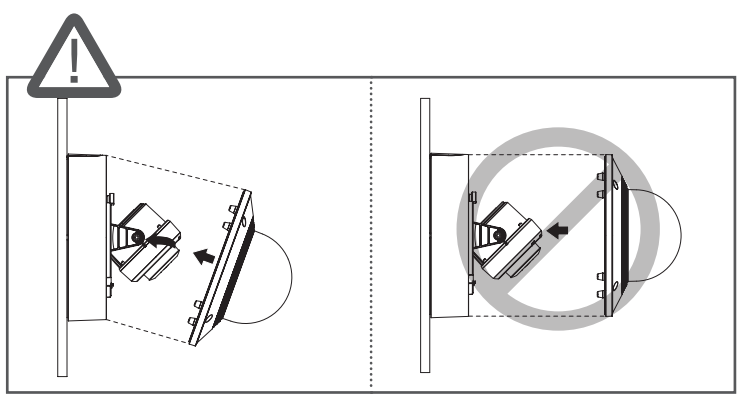
[Instalar diretamente na parede/teto]

1. Monte a tampa da caixa.

- Aperte firmemente os parafusos de fixação para que não haja problemas de danos causados por água.

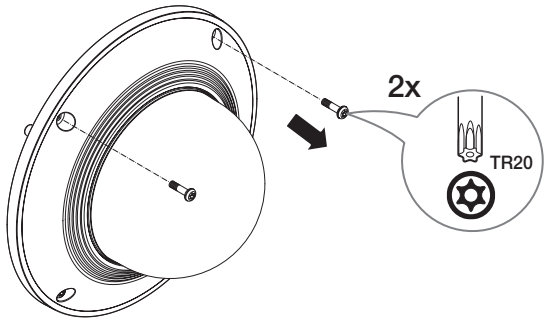


- Esteja atento para não alterar a direção de monitoramento de sua câmera.



[Usar tampa contra intempéries]

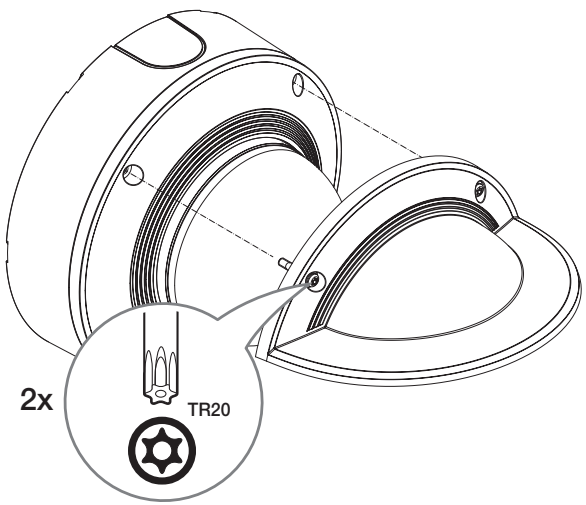
1. Retire os parafusos da tampa da caixa.



2. Monte a tampa da caixa.

3. Monte a tampa contra intempéries na tampa da caixa e aperte os parafusos.

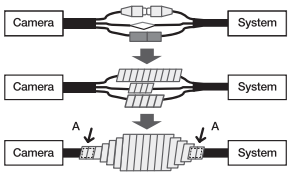
- Aperte firmemente os parafusos de fixação para que não haja problemas de danos causados por água.



Instalação no exterior

Quando instalar o aparelho, se o fizer fora do edifício, por favor impermeabilize a ficha com tape impermeável de borracha butílica (pode ser adquirida em lojas) para que a água não extravase a partir do vão do cabo conectado para o exterior.

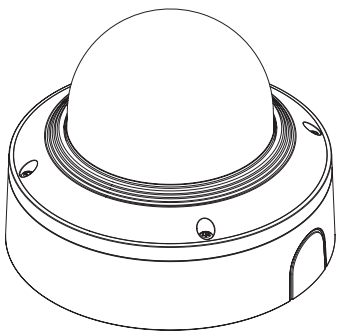
1. Conecte a alimentação, I/O, e os cabos LAN.
2. Envolva o revestimento do cabo negro (Área A) e a área de ligação do cabo com tape impermeável (borracha butílica) de modo que mais de metade da fita de borracha de butilo esteja sobreposta.



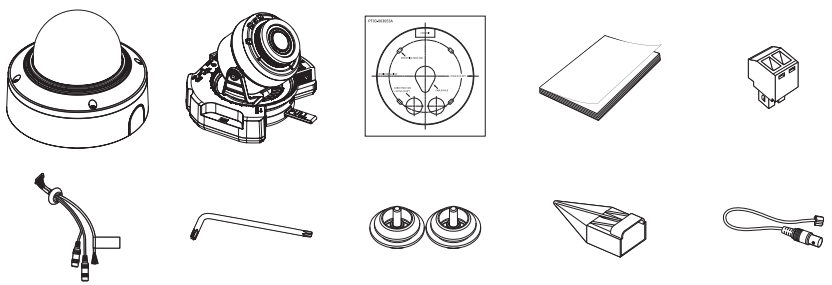
- Se o invólucro do cabo não se encontrar adequadamente impermeabilizado, pode diretamente provocar vazamento. Certifique-se de proteger o cabo com uma densa camada de tape.
- A tape de borracha butílica é fabricada a partir de borracha de butilo que pode ser esticada até ao dobro de seu comprimento normal.

ITENS FORNECIDOS

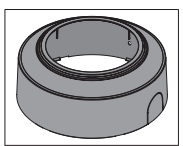
Dado que para cada país de vendas, os acessórios não são os mesmos.



<PND-A9081RV>

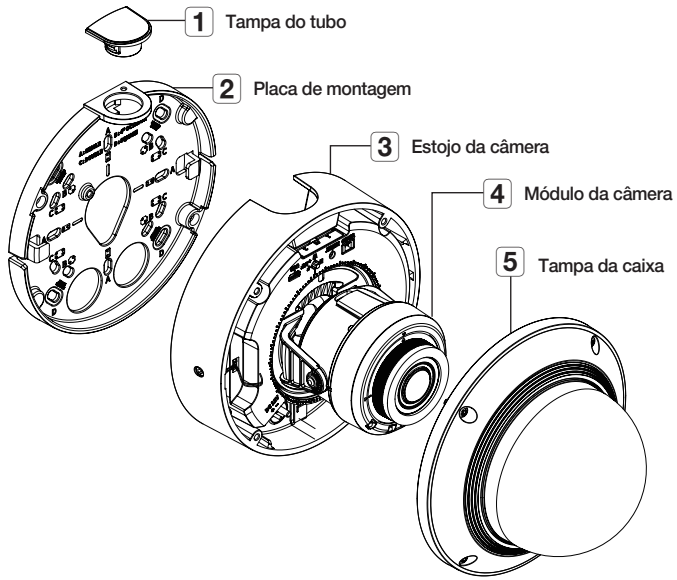


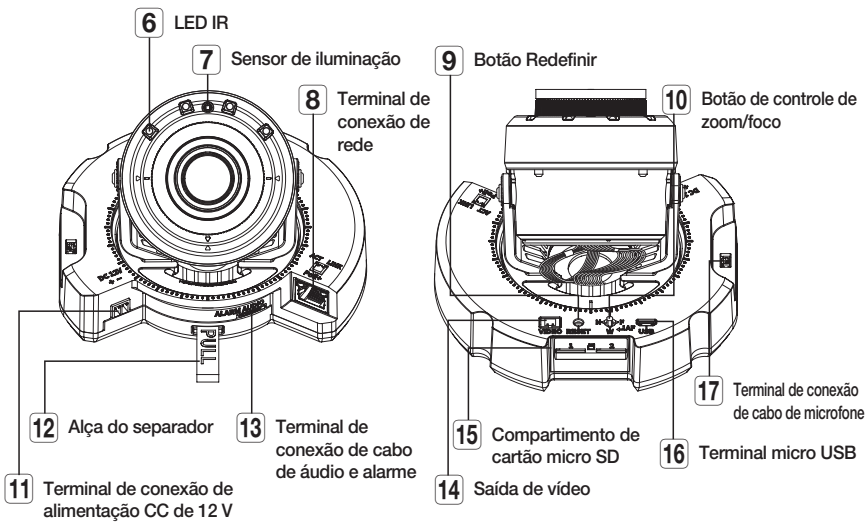
Opção (não incluído)



SBC-160B
(Cor: Preto)

INFORMAÇÕES RESUMIDAS





INSTALAÇÃO

- Esta camara é impermeável e cumpre as especificações IP52, mas a ficha conectada ao cabo externo não cumpre. Se recomenda instalar este produto debaixo da borda das abas para evitar que o cabo seja exteriormente exposto.

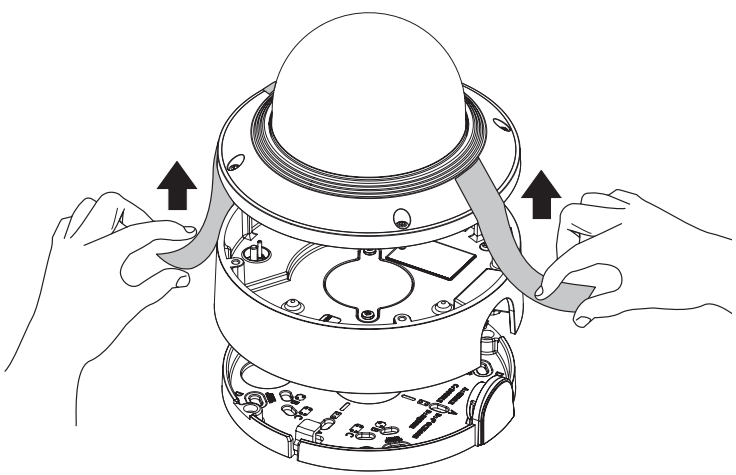
Precauções antes da instalação

Certifique-se de ler as seguintes instruções antes de instalar a câmera:

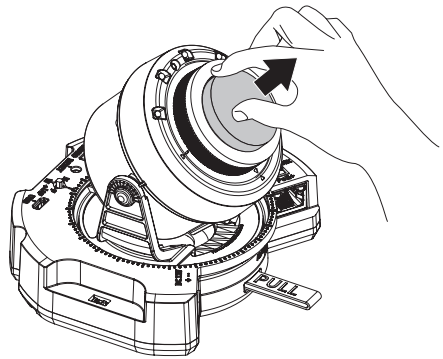
- Selecione um local de instalação que possa suportar pelo menos 5 vezes o peso da câmera.
- Cabos presos ou desencapados podem causar danos ao produto ou um incêndio.
- Por motivos de segurança, mantenha outras pessoas longe do local de instalação. E coloque os pertences pessoais longe do local, apenas por precaução.
- Se o produto for instalada com força excessiva, isso pode causar danos na câmera devido a avaria. Forçar a montagem usando ferramentas incompatíveis pode danificar o produto.

Remoção

1. Retire a fita que prende o estojo da câmera.

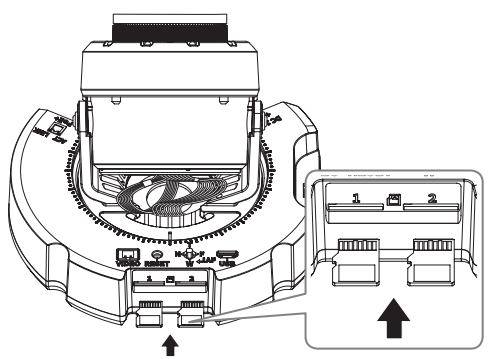


2. Retire a almofada que protege a lente da câmera.



Inserindo um cartão de memória Micro SD

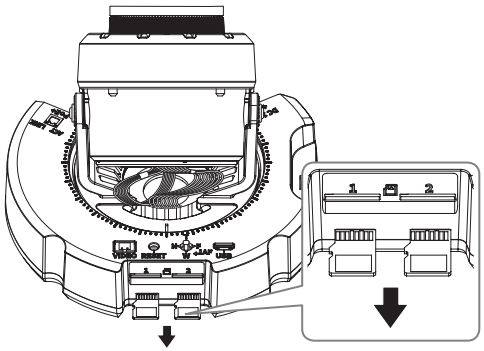
Insira o cartão micro SD no compartimento micro SD no módulo da câmera, na direção da seta.



- Antes de instalar a câmera, o cartão de memória micro SD deve ser inserido enquanto a fonte de alimentação e o corpo estiverem separados.
- Não o insira com força na direção contrária. Pode danificar o seu cartão de memória Micro SD e o seu produto.
- Quando chove ou a umidade é alta, não é recomendada a inserção ou a ejeção de um cartão Micro SD.
- Ao instalar/remover o cartão de memória Micro SD, verifique se você colocou o corpo do produto em uma superfície lisa antes de trabalhar com ele, para evitar acidentes devido à perda de peças que se soltam.

Removendo um cartão de memória Micro SD

Pressione com cuidado a extremidade exposta do cartão de memória, conforme mostrado na figura, para ejetá-lo do slot.

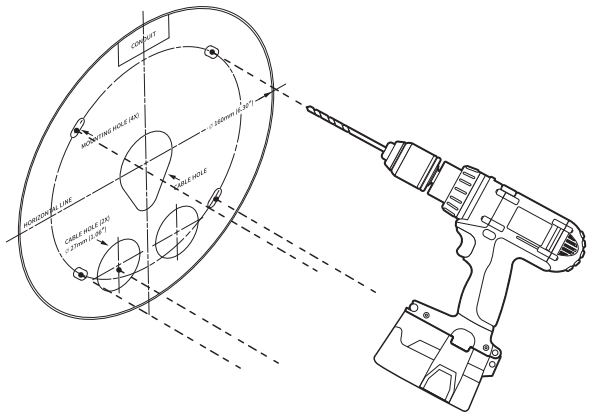


- Antes de remover o cartão de memória SD, em <**Armazenamento**>, defina o dispositivo para <**Desl.**> e pressione o botão [**Aplicar**] e desligue a câmera.
- Se desligar a câmera ou remover o micro cartão de memória SD que contém dados do produto, os dados podem se perder ou se danificar.

Instalação (placa de montagem)

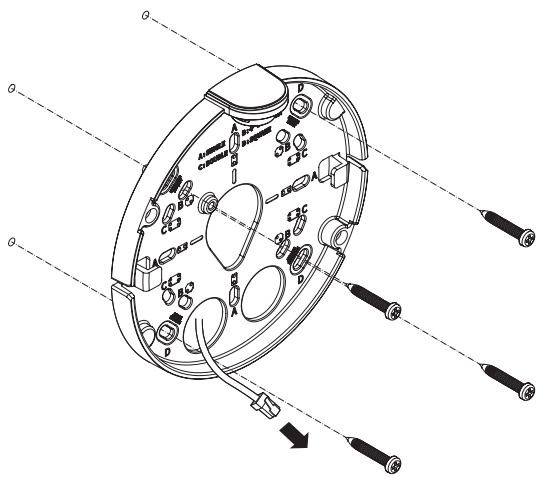
[Instalar diretamente na parede/teto]

1-1. Fixe o modelo de instalação sobre a superfície desejada e crie furos para os parafusos e cabos.



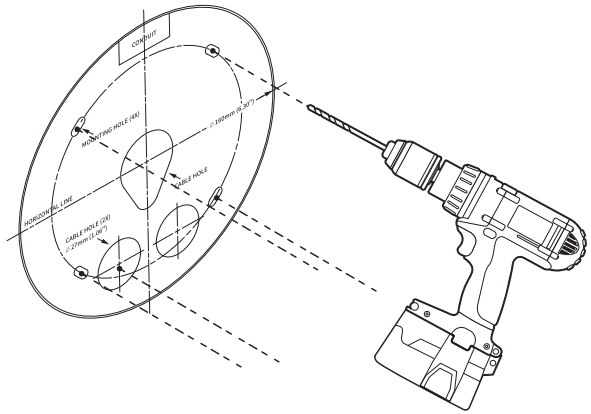
1-2. Fixe a placa de montagem usando os parafusos adequados.

1-3. Passe os cabos necessários dentre os cabos LAN, de alimentação, de áudio e de alarme pelo furo na placa de montagem.

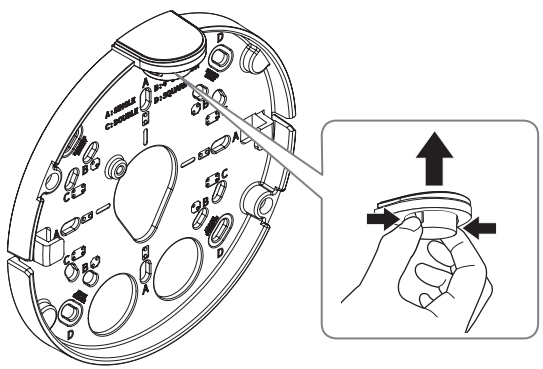


[Instalar usando tubo]

2-1. Fixe o modelo de instalação e crie furos para os parafusos e cabos.



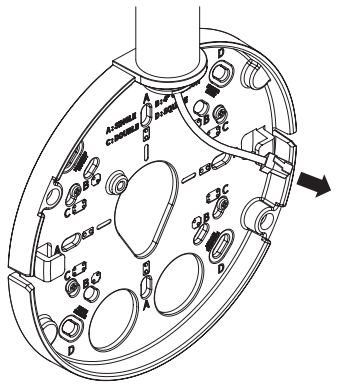
2-2. Separe a tampa do tubo da placa de montagem, apertando nos lados.



2-3. Coloque o tubo sobre a placa de montagem.

2-4. Fixe a placa de montagem usando os parafusos adequados.

2-5. Passe os cabos necessários dentre os cabos LAN, de alimentação, de áudio e de alarme pelo tubo.



Instalação (estojo da câmera)

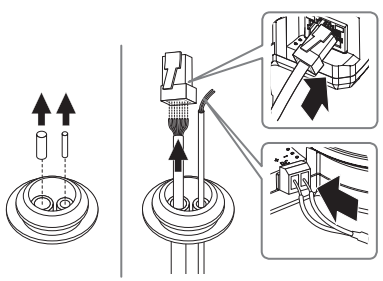
- Use uma bucha de cabo compatível com o cabo LAN para conectar.
  - Câmera principal: usar um cabo com um diâmetro de Ø5 a 6,5
  - Componentes: usar um cabo com um diâmetro de Ø5 a 8,5

[Instalar cabo LAN/de alimentação]

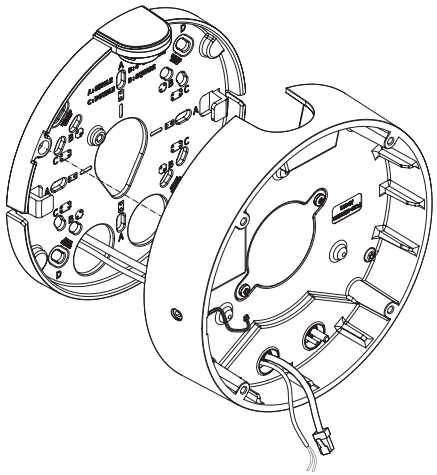
1-1. Retire as partes expulsadas da bucha que será usada.

1-2. Passe o cabo LAN pelo furo maior da bucha e conecte-o ao conector LAN.

1-3. (Ao usar a alimentação) Passe o cabo de alimentação pelo furo menor da bucha e conecte-o ao bloco de terminal fornecido.



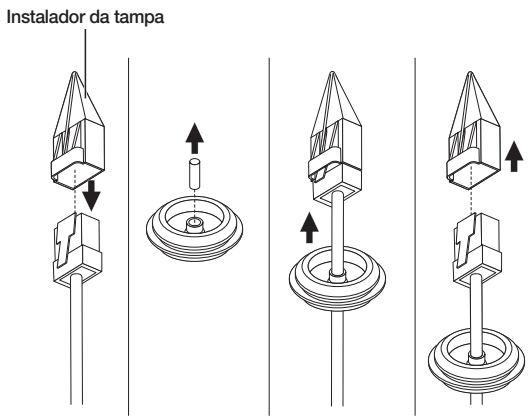
1-4. Monte a bucha no estojo da câmera.



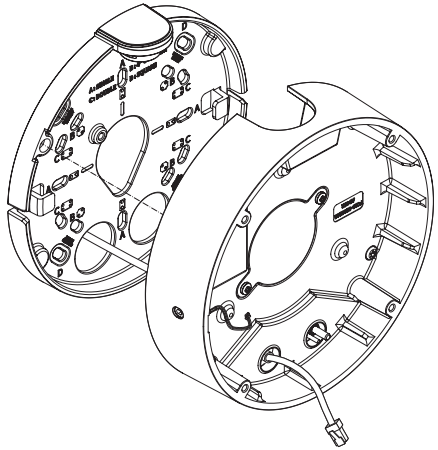
[Instalar o cabo LAN]

2-1. Retire a parte expulsada da bucha de 1 furo fornecida.

2-2. Use o instalador da tampa para passar o cabo RJ45.

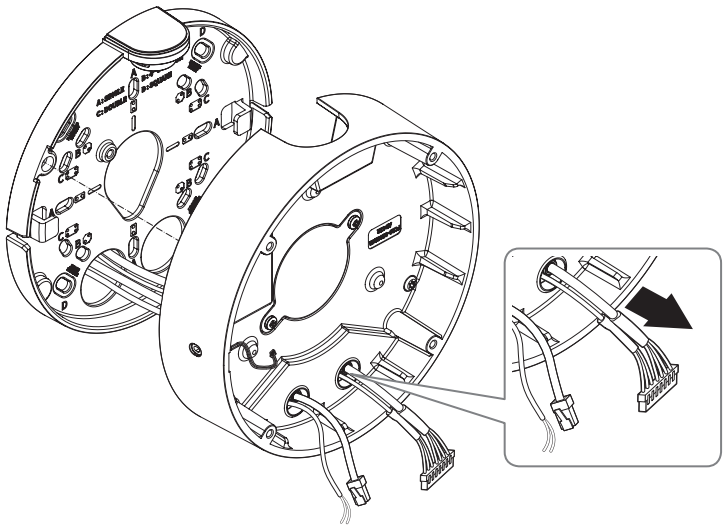


2-3. Monte a bucha no estojo da câmera.

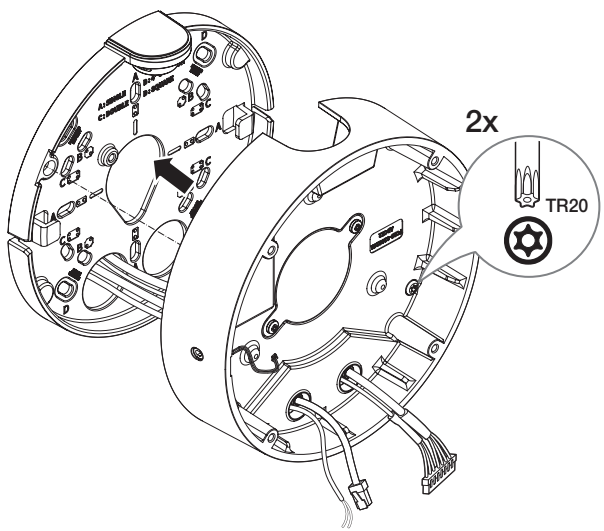


[Instalar cabos de áudio e alarme]

3-1. Monte a bucha dos cabos de áudio e alarme fornecidos no estojo da câmera.



4. Junte a placa de montagem ao estojo da câmera.



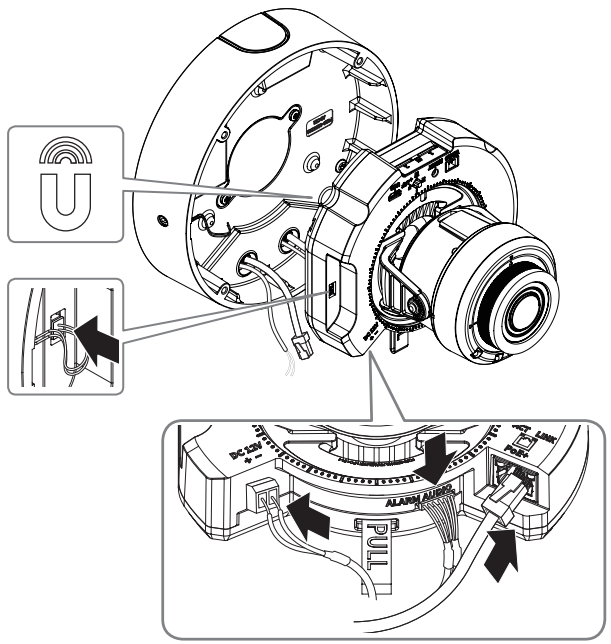
Instalar o módulo da câmera

1. Conecte cabos LAN, de alimentação, de áudio e alarme ao terminal do módulo da câmera.

2. Fixe o módulo da câmera ao estojo.

- Há um imã embutido na parte de baixo do módulo.
- Tome cuidado para não deixar nenhum objeto estranho entre as superfícies de fixação.

3. Conecte o cabo de microfone ao módulo da câmera.



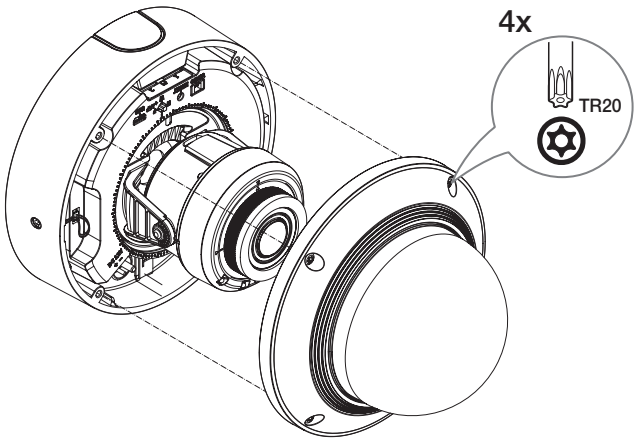
4. Ajuste a lente para a direção desejada, consultando a seção "**Ajustando a direção de monitoramento da câmera**". (página 42)

Montar a tampa da caixa

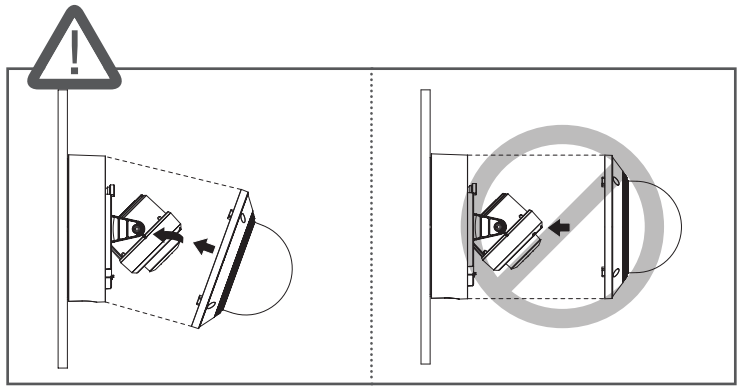
[Instalar diretamente na parede/teto]

1. Monte a tampa da caixa.

- Aperte firmemente os parafusos de fixação para que não haja problemas de danos causados por água.

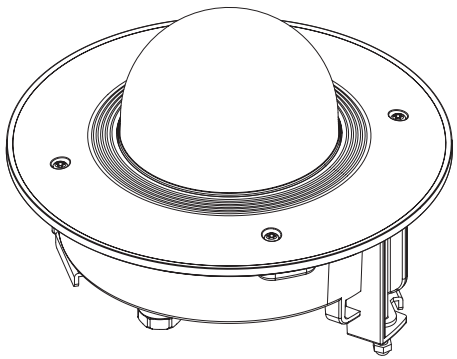


- Esteja atento para não alterar a direção de monitoramento de sua câmera.

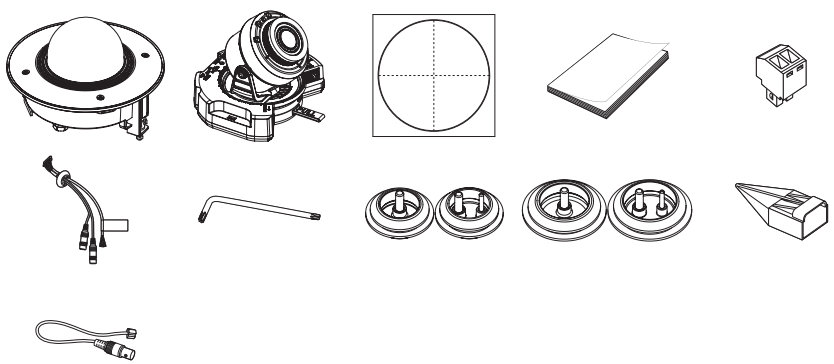


ITENS FORNECIDOS

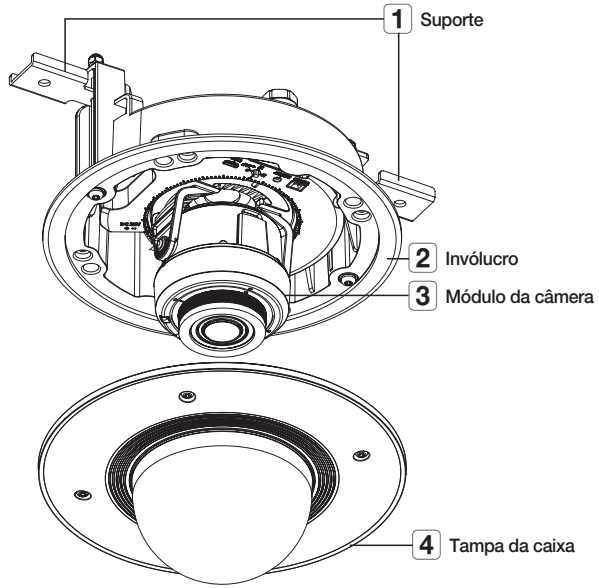
Dado que para cada país de vendas, os acessórios não são os mesmos.

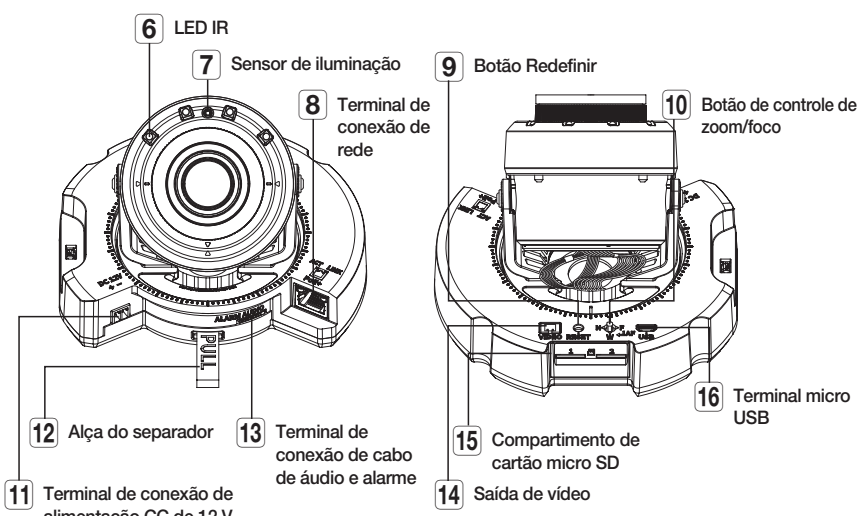


<PND-A9081RF>



INFORMAÇÕES RESUMIDAS





INSTALAÇÃO

- Esta camara é impermeável e cumpre as especificações IP52, mas a ficha conectada ao cabo externo não cumpre. Se recomenda instalar este produto debaixo da borda das abas para evitar que o cabo seja exteriormente exposto.

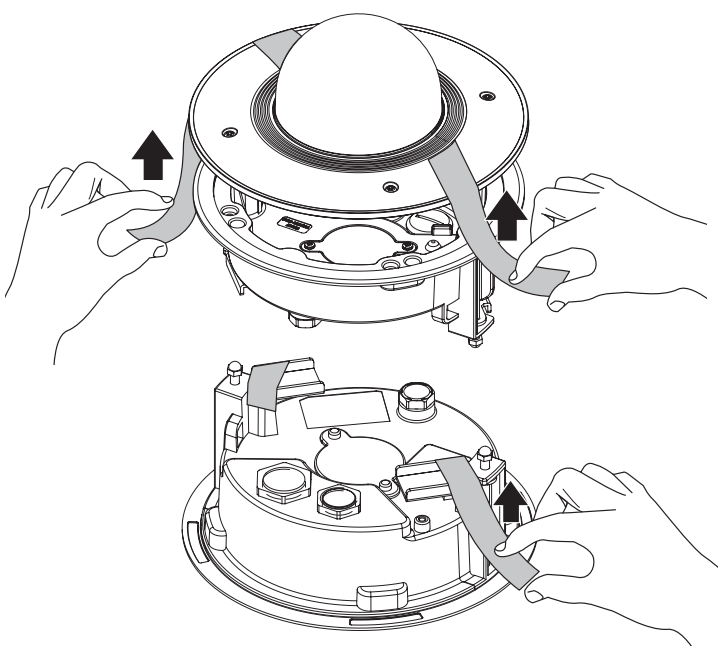
Precauções antes da instalação

Certifique-se de ler as seguintes instruções antes de instalar a câmera:

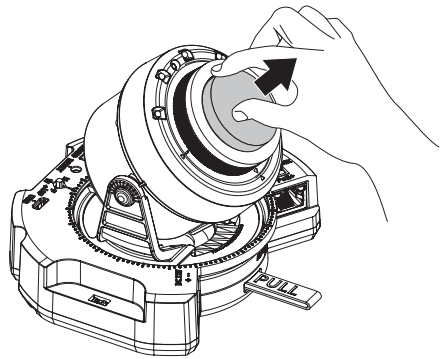
- Selecione um local de instalação que possa suportar pelo menos 5 vezes o peso da câmera.
- Cabos presos ou desencapados podem causar danos ao produto ou um incêndio.
- Por motivos de segurança, mantenha outras pessoas longe do local de instalação.
  E coloque os pertences pessoais longe do local, apenas por precaução.
- Se o produto for instalada com força excessiva, isso pode causar danos na câmera devido a avaria.
  Forçar a montagem usando ferramentas incompatíveis pode danificar o produto.

Remoção

1. Retire a fita que prende o estojo da câmera.

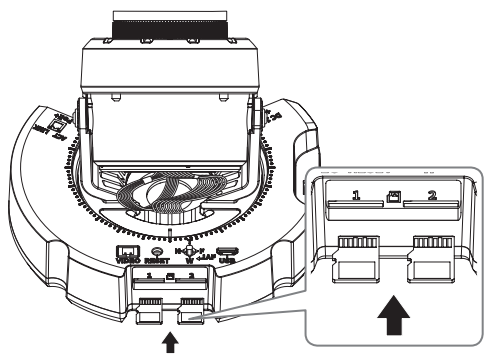


2. Retire a almofada que protege a lente da câmera.



Inserindo um cartão de memória Micro SD

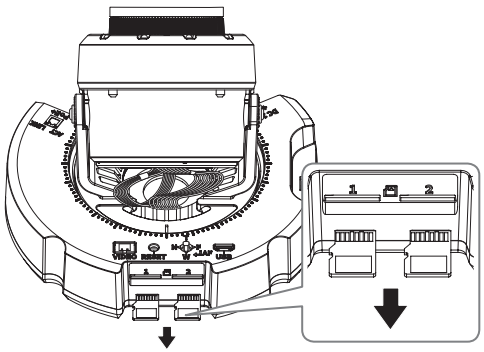
Insira o cartão micro SD no compartimento micro SD no módulo da câmera, na direção da seta.



- Antes de instalar a câmera, o cartão de memória micro SD deve ser inserido enquanto a fonte de alimentação e o corpo estiverem separados.
- Não o insira com força na direção contrária. Pode danificar o seu cartão de memória Micro SD e o seu produto.
- Quando chove ou a umidade é alta, não é recomendada a inserção ou a ejeção de um cartão Micro SD.
- Ao instalar/remover o cartão de memória Micro SD, verifique se você colocou o corpo do produto em uma superfície lisa antes de trabalhar com ele, para evitar acidentes devido à perda de peças que se soltam.

Removendo um cartão de memória Micro SD

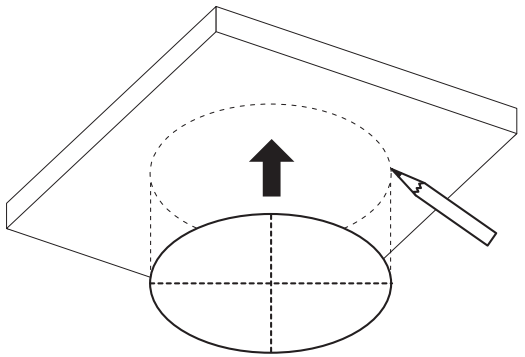
Pressione com cuidado a extremidade exposta do cartão de memória, conforme mostrado na figura, para ejetá-lo do slot.

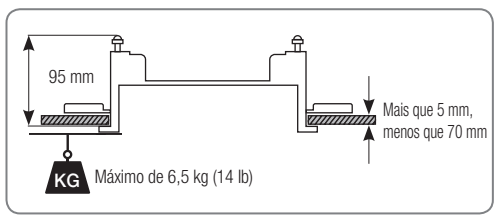


- Antes de remover o cartão de memória SD, em <**Armazenamento**>, defina o dispositivo para <**Desl.**> e pressione o botão [**Aplicar**] e desligue a câmera.
- Se desligar a câmera ou remover o micro cartão de memória SD que contém dados do produto, os dados podem se perder ou se danificar.

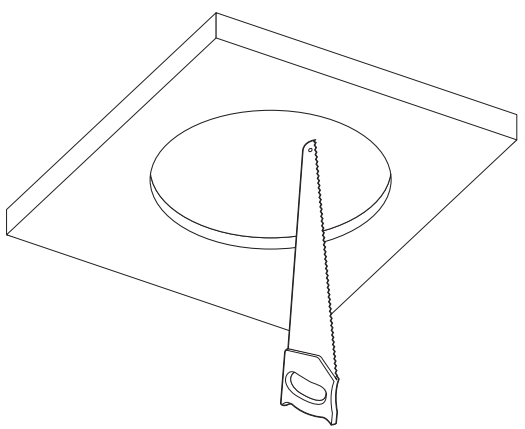
Instalação (invólucro)

1. Fixe o modelo de instalação ao teto e marque sua localização com um lápis.





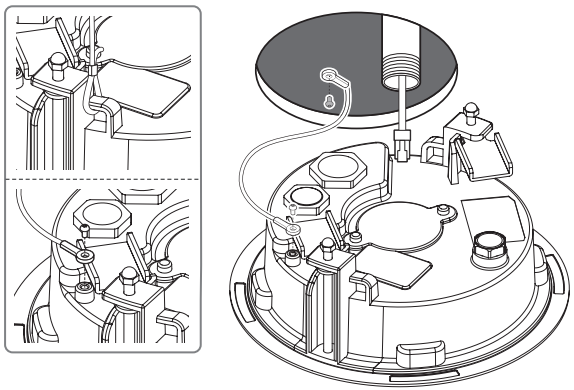
2. Fixe o modelo de instalação e crie furos.



3. Conecte o cabo de segurança.

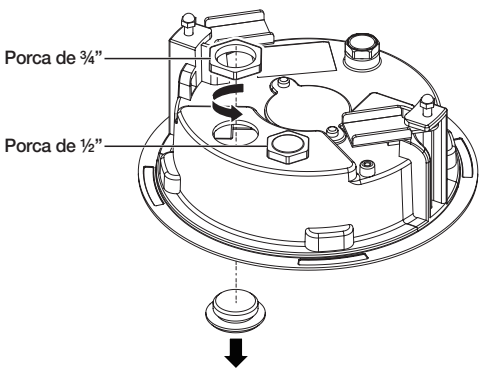
- O cabo de segurança não é fornecido.

ex.

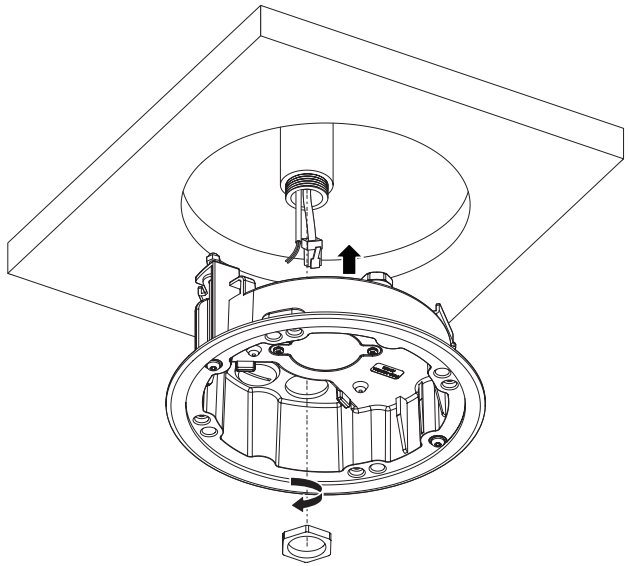


[Usar tubo]

4-1. Instale o tubo em um furo adequado.



4-2. Passe os cabos necessários dentre os cabos LAN, de alimentação, de áudio e de alarme pelo tubo.



Instalação (estojo da câmera)

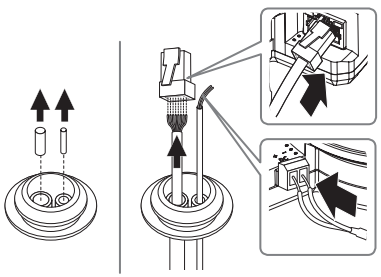
- Use uma bucha de cabo compatível com o cabo LAN para conectar.
  - Componentes: usar um cabo com um diâmetro de Ø5 a 8,5

[Instalar cabo LAN/de alimentação]

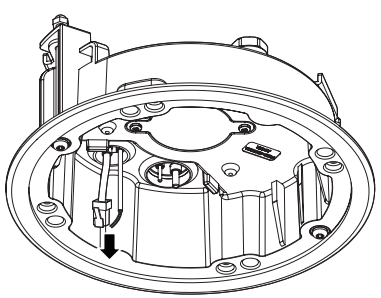
1-1. Retire as partes expulsadas da bucha que será usada.

1-2. Passe o cabo LAN pelo furo maior da bucha e conecte-o ao conector LAN.

1-3. (Ao usar a alimentação) Passe o cabo de alimentação pelo furo menor da bucha e conecte-o ao bloco de terminal fornecido.



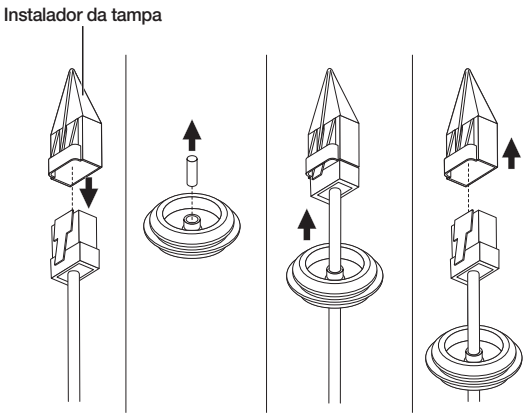
1-4. Encaixe a bucha no invólucro.



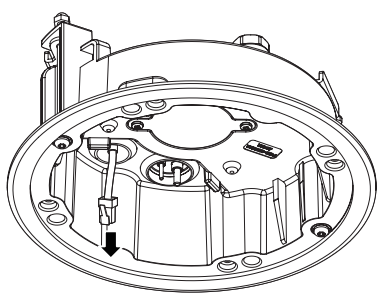
[Instalar o cabo LAN]

2-1. Retire a parte expulsada da bucha de 1 furo fornecida.

2-2. Use o instalador da tampa para passar o cabo RJ45.

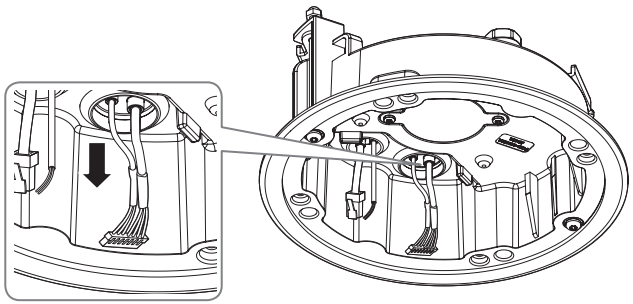


2-3. Encaixe a bucha no invólucro.



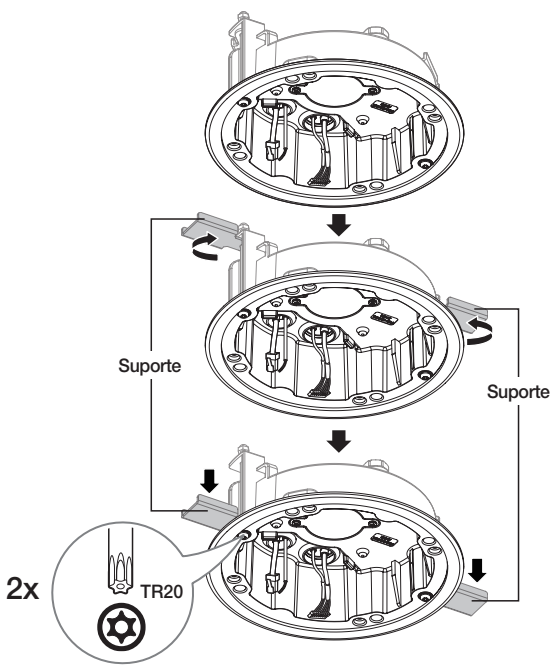
[Instalar cabos de áudio e alarme]

3-1. Monte a bucha dos cabos de áudio e alarme fornecidos no estojo da câmera.



4. Gire os parafusos no invólucro para fixá-lo ao teto.

- O suporte fixará o invólucro ao teto.
- Verifique se o invólucro está fixado firmemente ao teto.

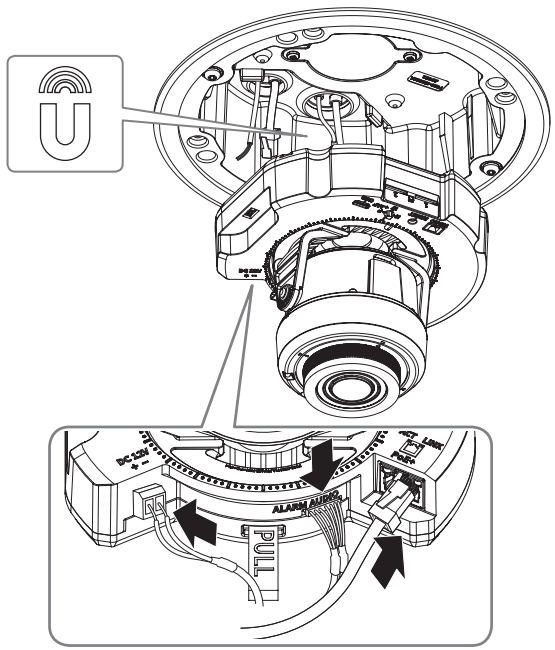


Instalar o módulo da câmera

1. Conecte cabos LAN, de alimentação, de áudio e alarme ao terminal do módulo da câmera.

2. Fixe o módulo da câmera ao estojo.

- Há um imã embutido na parte de baixo do módulo.
- Tome cuidado para não deixar nenhum objeto estranho entre as superfícies de fixação.

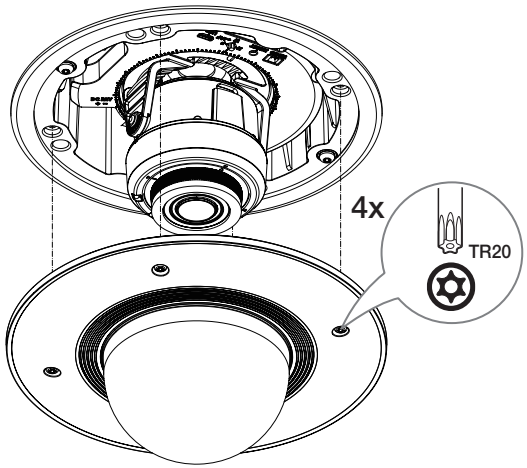


3. Ajuste a lente para a direção desejada, consultando a seção "**Ajustando a direção de monitoramento da câmera**". (página 42)

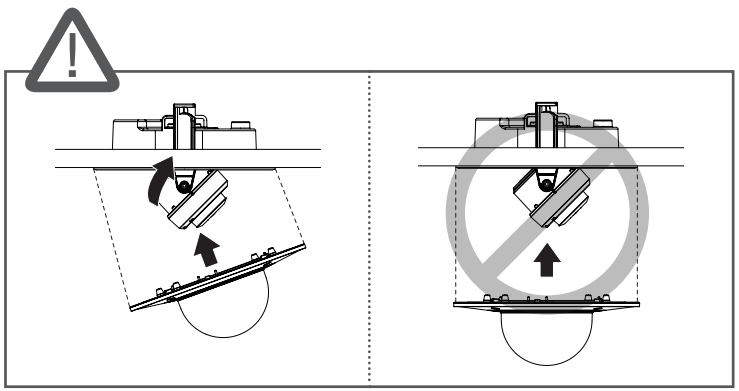
Montar a tampa da caixa

1. Monte a tampa da caixa.

- Aperte firmemente os parafusos de fixação para que não haja problemas de danos causados por água.



- Esteja atento para não alterar a direção de monitoramento de sua câmera.

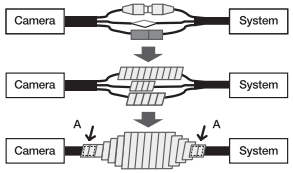


Cabos à prova d'água

Se houver qualquer possibilidade de infiltração de umidade pela abertura do cabo, faça a vedação à prova d'água na área em questão com fita de borracha butílica à prova d'água (encontrada em lojas), conforme abaixo.

1. Conecte a alimentação, I/O, e os cabos LAN.

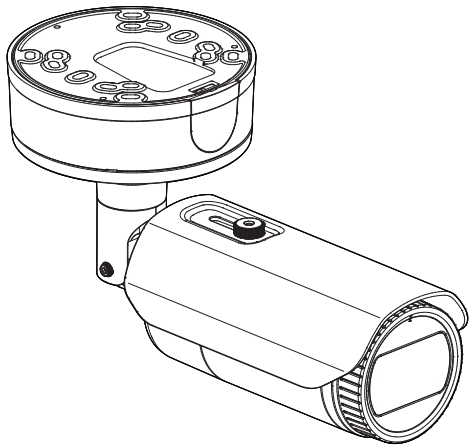
2. Envolva o revestimento do cabo negro (Área A) e a área de ligação do cabo com tape impermeável (borracha butílica) de modo que mais de metade da fita de borracha de butilo esteja sobreposta.



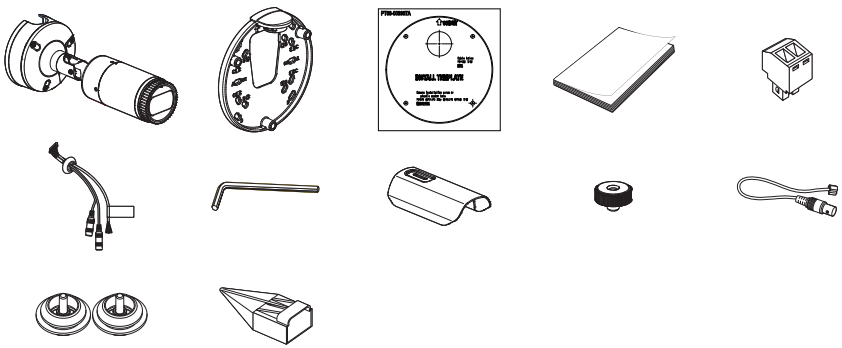
- Se o invólucro do cabo não se encontrar adequadamente impermeabilizado, pode diretamente provocar vazamento. Certifique-se de proteger o cabo com uma densa camada de tape.
- A tape de borracha butílica é fabricada a partir de borracha de butilo que pode ser esticada até ao dobro de seu comprimento normal.

ITENS FORNECIDOS

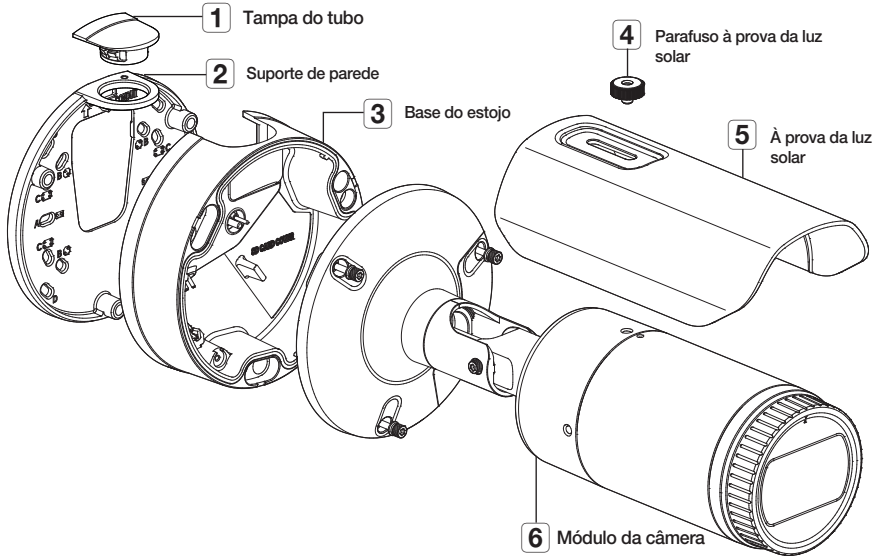
Dado que para cada país de vendas, os acessórios não são os mesmos.

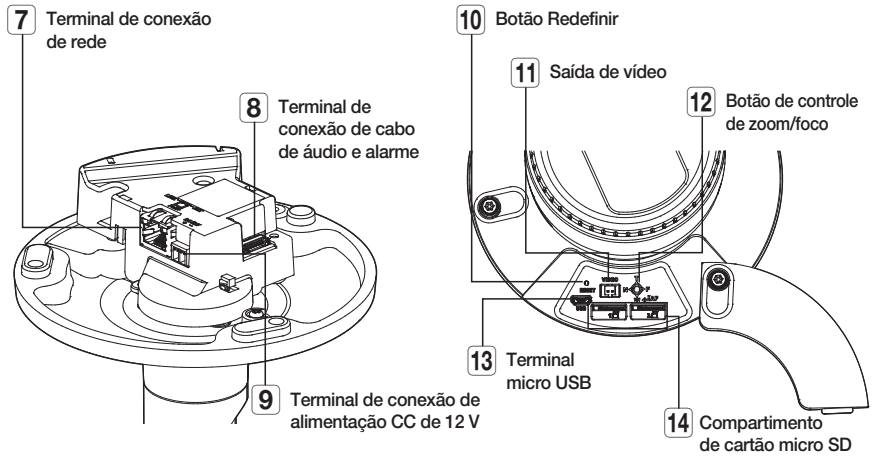


<PNO-A9081R>



INFORMAÇÕES RESUMIDAS





▪ Limpe a superfície suja da lente suavemente com um pano ou tecido para lente embebido em álcool etílico.

INSTALAÇÃO

- Esta camara é impermeável e cumpre as especificações IP67, mas a ficha conectada ao cabo externo não cumpre. Se recomenda instalar este produto debaixo da borda das abas para evitar que o cabo seja exteriormente exposto.

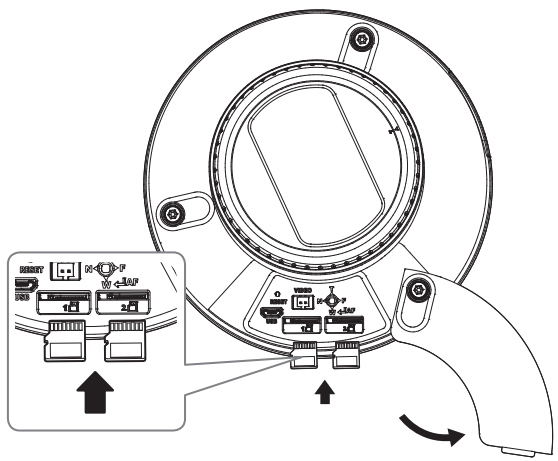
Precauções antes da instalação

Certifique-se de ler as seguintes instruções antes de instalar a câmera:

- Selecione um local de instalação que possa suportar pelo menos 5 vezes o peso da câmera.
- Cabos presos ou desencapados podem causar danos ao produto ou um incêndio.
- Por motivos de segurança, mantenha outras pessoas longe do local de instalação. E coloque os pertences pessoais longe do local, apenas por precaução.
- Se o produto for instalada com força excessiva, isso pode causar danos na câmera devido a avaria. Forçar a montagem usando ferramentas incompatíveis pode danificar o produto.
- Não use o buraco do protetor solar para qualquer finalidade que não seja para ligar o protetor solar.

Inserindo um cartão de memória Micro SD

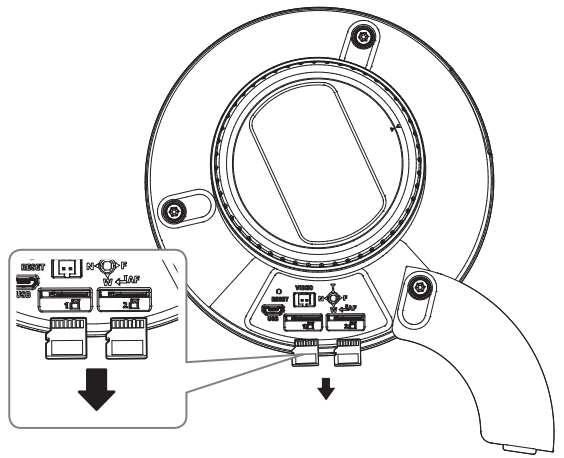
Insira o cartão micro SD no compartimento micro SD no módulo da câmera, na direção da seta.



- Antes de instalar a câmera, o cartão de memória micro SD deve ser inserido enquanto a fonte de alimentação e o corpo estiverem separados.
- Não o insira com força na direção contrária. Pode danificar o seu cartão de memória Micro SD e o seu produto.
- Quando chove ou a umidade é alta, não é recomendada a inserção ou a ejeção de um cartão Micro SD.
- Ao instalar/remover o cartão de memória Micro SD, verifique se você colocou o corpo do produto em uma superfície lisa antes de trabalhar com ele, para evitar acidentes devido à perda de peças que se soltam.

Removendo um cartão de memória Micro SD

Pressione com cuidado a extremidade exposta do cartão de memória, conforme mostrado na figura, para ejetá-lo do slot.

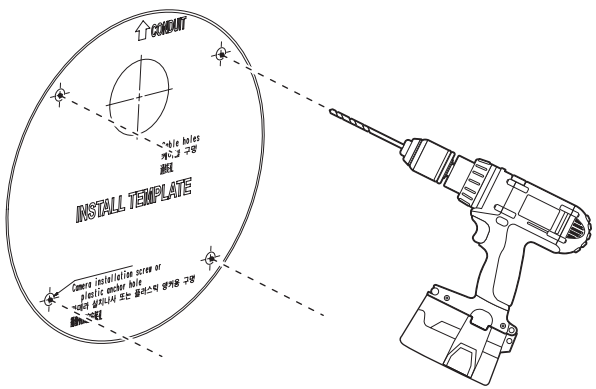


- Antes de remover o cartão de memória SD, em <**Armazenamento**>, defina o dispositivo para <**Desl.**> e pressione o botão [**Aplicar**] e desligue a câmera.
- Se desligar a câmera ou remover o micro cartão de memória SD que contém dados do produto, os dados podem se perder ou se danificar.

Instalação (Suporte de parede)

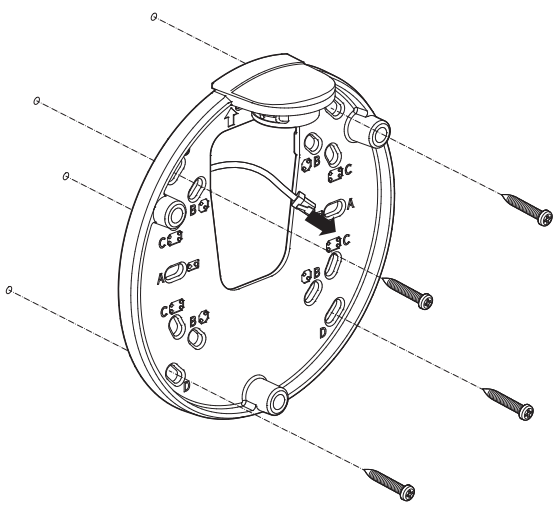
[Instalar diretamente na parede/teto]

1-1. Fixe o modelo de instalação sobre a superfície desejada e crie furos para os parafusos e cabos.



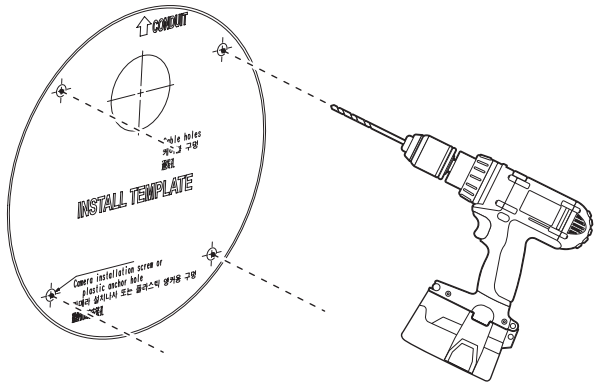
1-2. Fixe o suporte de parede usando os parafusos adequados.

1-3. Puxe para fora os cabos necessários dentre os cabos de LAN, alimentação, áudio e alarme pelo orifício no suporte de parede.

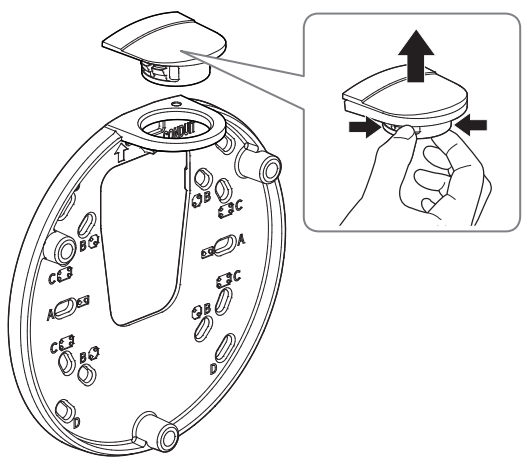


[Instalar usando tubo]

2-1. Fixe o modelo de instalação e crie furos para os parafusos e cabos.



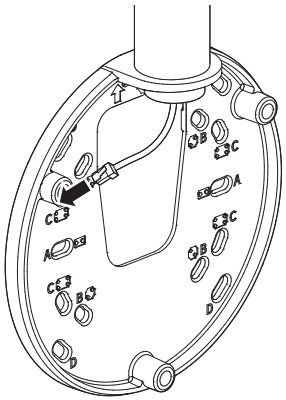
2-2. Separe a tampa do tubo do suporte de parede, pressionando nas laterais.



2-3. Coloque o tubo no suporte de parede.

2-4. Fixe o suporte de parede usando os parafusos adequados.

2-5. Passe os cabos necessários dentre os cabos LAN, de alimentação, de áudio e de alarme pelo tubo.



Instalação (Base do estojo)

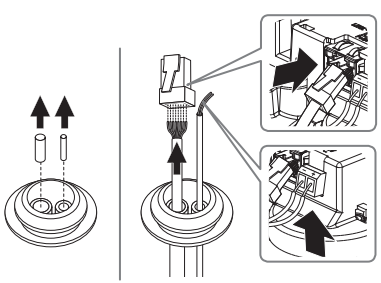
- Use uma bucha de cabo compatível com o cabo LAN para conectar.
  - Câmera principal: usar um cabo com um diâmetro de Ø5 a 6,5
  - Componentes: usar um cabo com um diâmetro de Ø5 a 8,5

[Instalar cabo LAN/de alimentação]

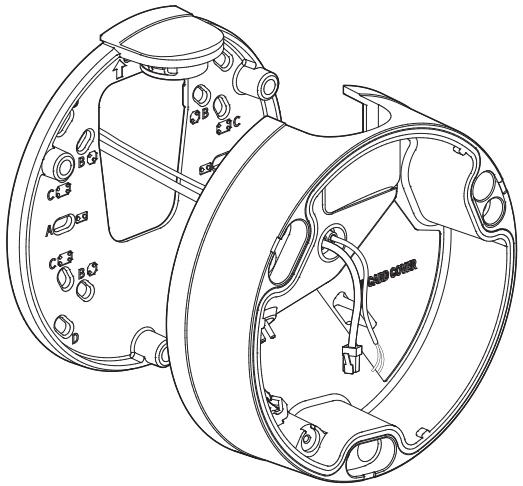
1-1. Retire as partes expulsadas da bucha que será usada.

1-2. Passe o cabo LAN pelo furo maior da bucha e conecte-o ao conector LAN.

1-3. (Ao usar a alimentação) Passe o cabo de alimentação pelo furo menor da bucha e conecte-o ao bloco de terminal fornecido.



1-4. Coloque a bucha na base do estojo.

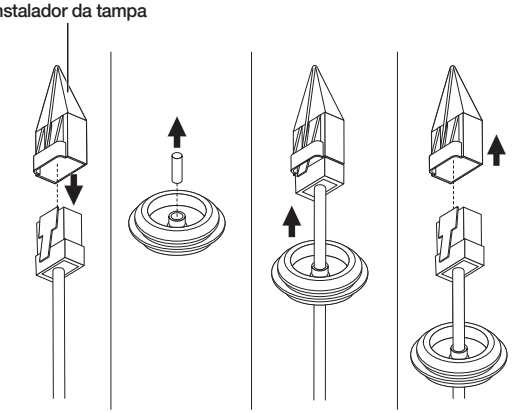


[Instalar o cabo LAN]

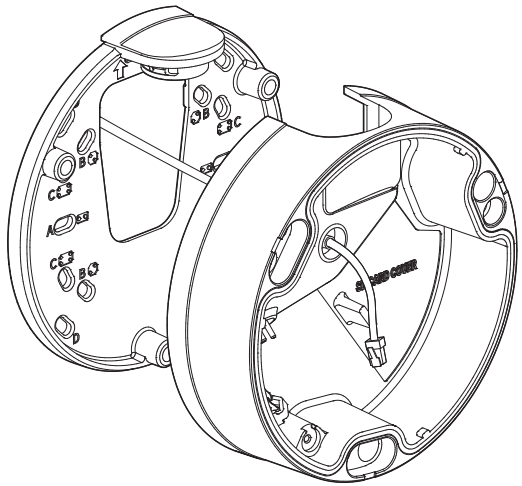
2-1. Retire a parte expulsada da bucha de 1 furo fornecida.

2-2. Use o instalador da tampa para passar o cabo RJ45.

Instalador da tampa

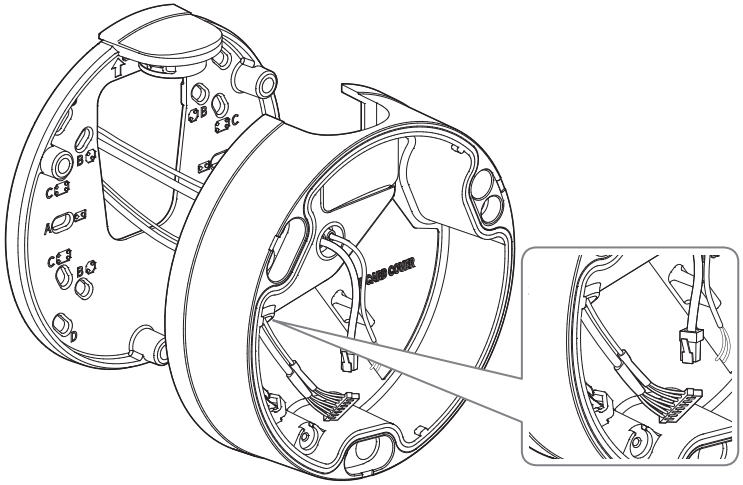


2-3. Coloque a bucha na base do estojo.

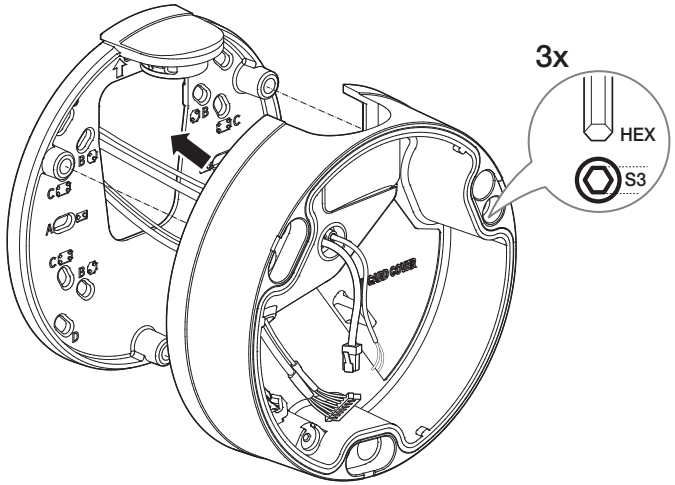


[Instalar cabos de áudio e alarme]

3-1. Coloque a bucha dos cabos de áudio e alarme fornecidos na base do estojo.

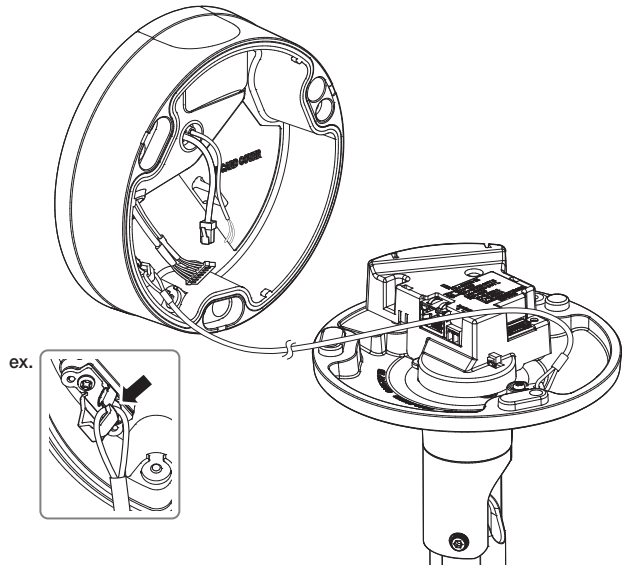


4. Junte o suporte de parede à base do estojo.

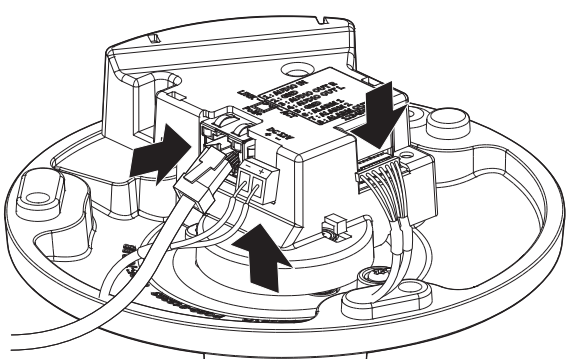


Instalar o módulo da câmera

1. Pendure o cabo de segurança em um gancho parecido com uma seta, na base do estojo.

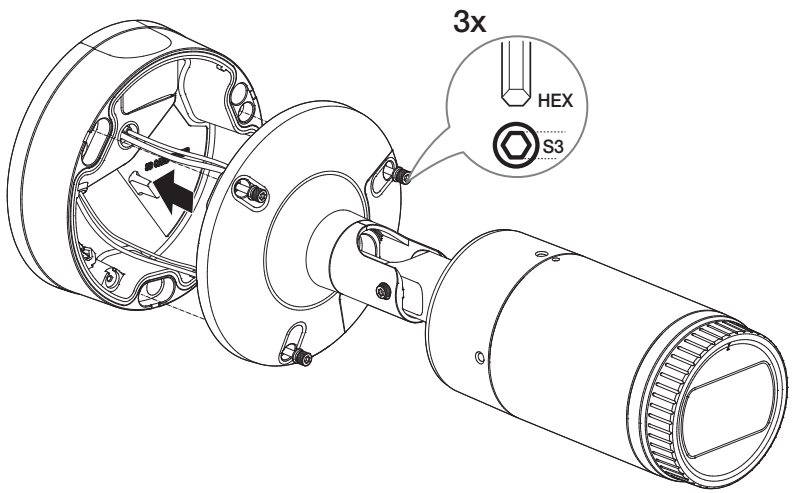


2. Conecte cabos LAN, de alimentação, de áudio e alarme ao terminal do módulo da câmera.



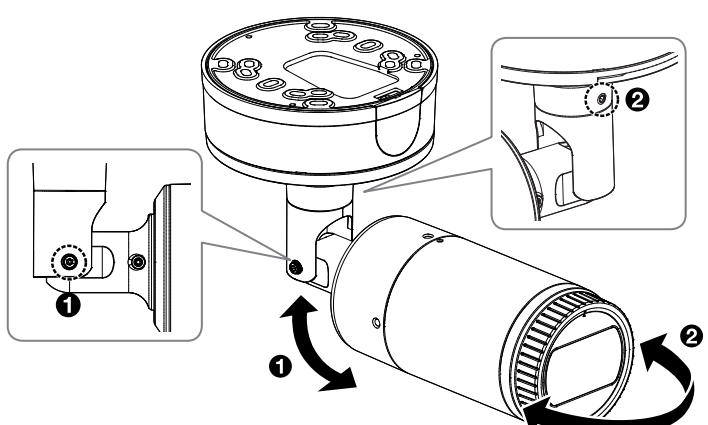
3. Prenda o módulo da câmera à base do estojo.

▪ Aperte firmemente os parafusos de fixação para que não haja problemas de danos causados por água.

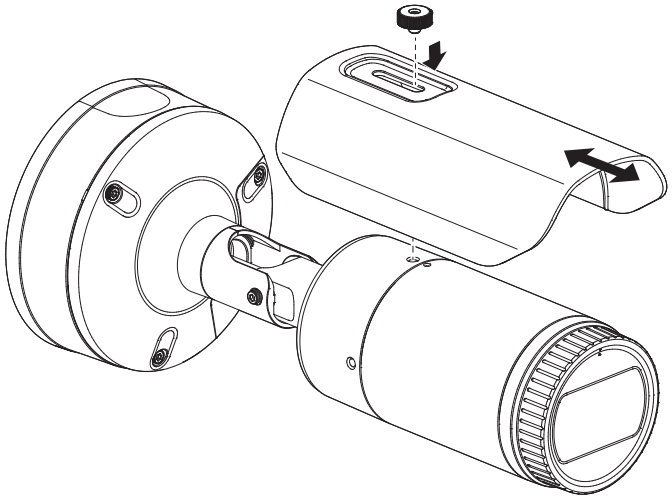


4. Ajuste a direção da câmera com a chave em L fornecida.

▪ Quando você ajustar a posição da câmera usando um suporte, por favor, afrouxe o parafuso do suporte, ajuste a câmera, e aperte-o. Se tentar ajustá-lo à força, estando o parafuso apertado, pode riscar ou causar outros problemas.



5. Monte a proteção contra a luz solar no módulo da câmera, usando o parafuso à prova da luz solar.

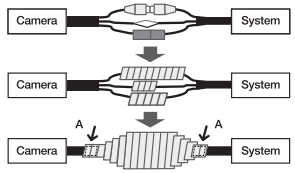


Instalação no exterior

Quando instalar o aparelho, se o fizer fora do edifício, por favor impermeabilize a ficha com tape impermeável de borracha butílica (pode ser adquirida em lojas) para que a água não extravase a partir do vão do cabo conectado para o exterior.

1. Conecte a alimentação, I/O, e os cabos LAN.

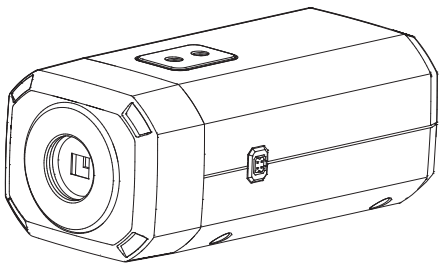
2. Envolva o revestimento do cabo negro (Área A) e a área de ligação do cabo com tape impermeável (borracha butílica) de modo que mais de metade da fita de borracha de butilo esteja sobreposta.



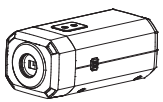
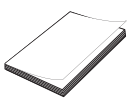
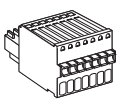
- Se o invólucro do cabo não se encontrar adequadamente impermeabilizado, pode diretamente provocar vazamento. Certifique-se de proteger o cabo com uma densa camada de tape.
- A tape de borracha butílica é fabricada a partir de borracha de butilo que pode ser esticada até ao dobro de seu comprimento normal.

ITENS FORNECIDOS

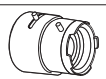
Dado que para cada país de vendas, os acessórios não são os mesmos.



<PNB-A9001>

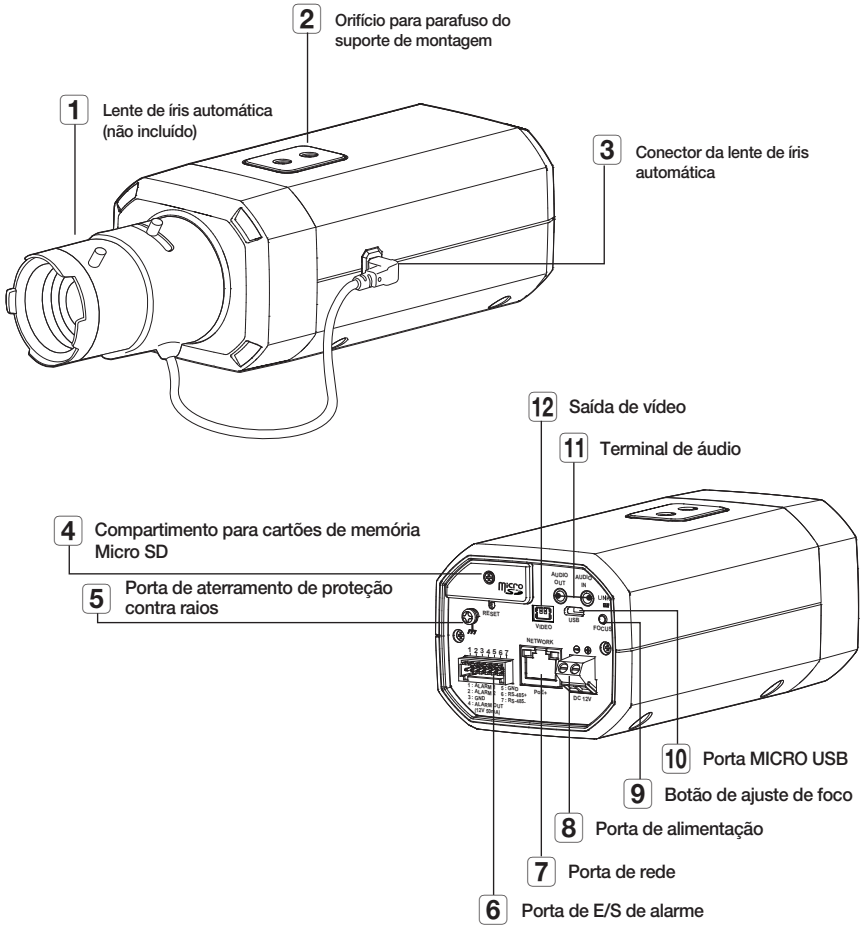




Opção (não incluído)



Lente CS

INFORMAÇÕES RESUMIDAS



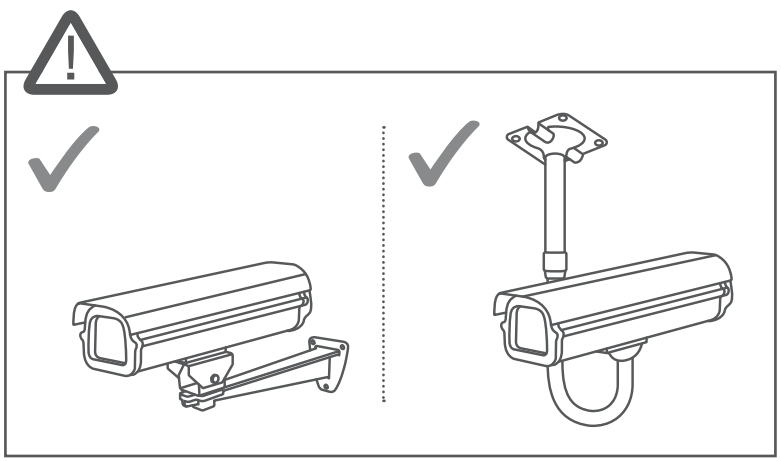
INSTALAÇÃO

▪ O conector da câmera conectado ao cabo externo não é à prova d'água. Recomenda-se instalar este produto abaixo da borda dos beirais para evitar que o cabo fique exposto externamente.

Precauções antes da instalação

Certifique-se de ler as seguintes instruções antes de instalar a câmera:

- Selecione um local de instalação que possa suportar pelo menos 5 vezes o peso da câmera.
- Cabos presos ou desencapados podem causar danos ao produto ou um incêndio.
- Por motivos de segurança, mantenha outras pessoas longe do local de instalação.
  E coloque os pertences pessoais longe do local, apenas por precaução.
- Se o produto for instalada com força excessiva, isso pode causar danos na câmera devido a avaria.
  Forçar a montagem usando ferramentas incompatíveis pode danificar o produto.
- Ao instalar a câmera, recomenda-se a montagem do acondicionamento (vendido separadamente).



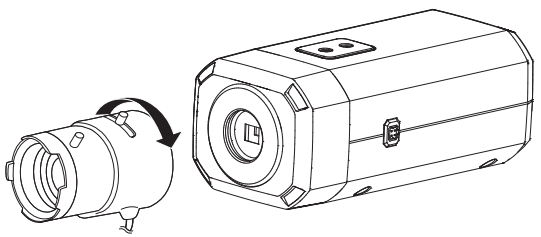
MONTANDO A LENTE

Desconecte a energia antes de continuar.

▪ As lentes CS não estão incluídas na embalagem do produto.
Você deve usar a megalente apenas para esta finalidade.

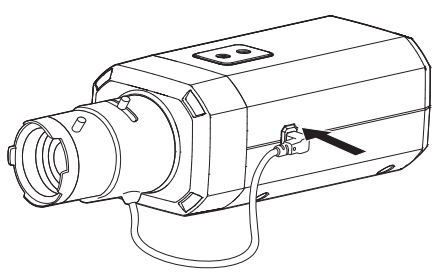
Montando as lentes CS em uma câmera

Gire a lente CS no sentido horário para a fixar.



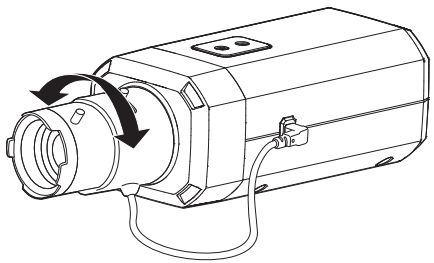
Encaixando o conector da lente de íris automática

Ligue o conector de íris da lente na ranhura de ligação da câmara.



Focalizando

Selecione um alvo para filmar, gire a alavanca de zoom da lente para ajustar a ampliação e depois foque a lente para que esse alvo seja claramente exibido.

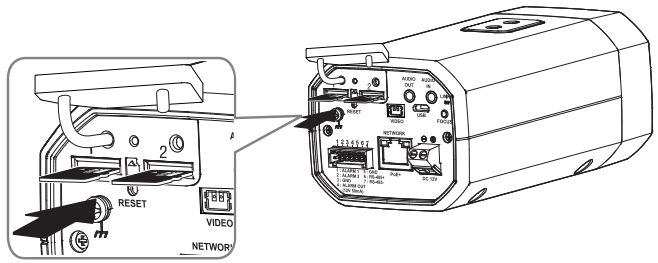


- Após focar com a alavanca de zoom da lente, pressione o botão [**FOCUS**] na parte traseira da câmera para ajustar a lente obtendo maior nitidez.
- A lente i-CS está equipada com um motor para que possa ser ajustada com o visualizador web para ajuste de zoom/foco e abrir/fechar a íris.

INSERINDO/REMOVENDO UM CARTÃO DE MEMÓRIA MICRO SD

Inserindo um cartão de memória Micro SD

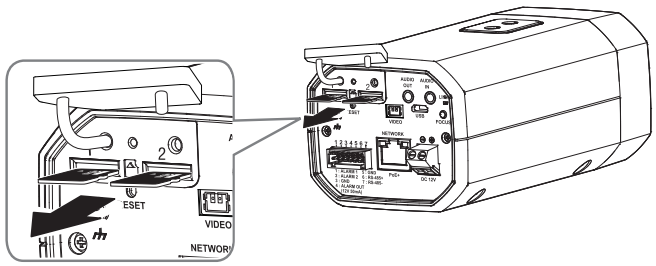
Insira o cartão micro SD no compartimento micro SD no módulo da câmera, na direção da seta.



- Antes de instalar a câmera, o cartão de memória micro SD deve ser inserido enquanto a fonte de alimentação e o corpo estiverem separados.
- Não o insira com força na direção contrária. Pode danificar o seu cartão de memória Micro SD e o seu produto.
- Quando chove ou a umidade é alta, não é recomendada a inserção ou a ejeção de um cartão Micro SD.
- Ao instalar/remover o cartão de memória Micro SD, verifique se você colocou o corpo do produto em uma superfície lisa antes de trabalhar com ele, para evitar acidentes devido à perda de peças que se soltam.

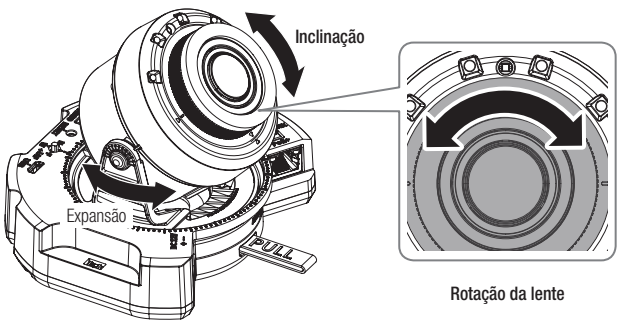
Removendo um cartão de memória Micro SD

Pressione com cuidado a extremidade exposta do cartão de memória, conforme mostrado na figura, para ejetá-lo do slot.



- Antes de remover o cartão de memória SD, em <**Armazenamento**>, defina o dispositivo para <**Desl.**> e pressione o botão [**Aplicar**] e desligue a câmera.
- Se desligar a câmera ou remover o micro cartão de memória SD que contém dados do produto, os dados podem se perder ou se danificar.

AJUSTANDO A DIREÇÃO DE MONITORAMENTO DA CÂMERA



▪ **Ajustando a direção de monitoramento**

Você pode ajustar a direção da câmera apenas quando a câmera estiver fixada no teto.
Neste momento, girar o corpo principal da câmera para a esquerda e para a direita é chamado PAN, e ajustar o ângulo da câmera é chamado TILT.

- O ângulo de expansão é de 0˚ a 360˚.
- O ângulo de inclinação é de -45˚ a 85˚.
- O ângulo de rotação é de 0˚ a 355˚.

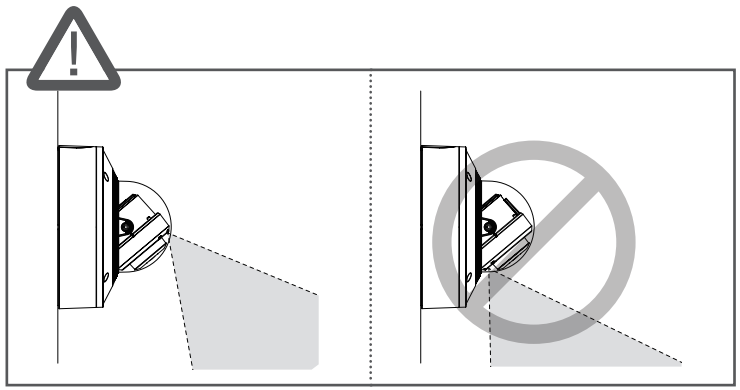
▪ Com ângulo de inclinação de 75˚ ou mais, pode ocorrer bloqueio da visualização ou imagem desfocada em parte da tela, dependendo da ampliação de zoom.

▪ Não force a rotação nem pressione a lente de foco/zoom. Do contrário, o foco pode não funcionar adequadamente por falha do motor.

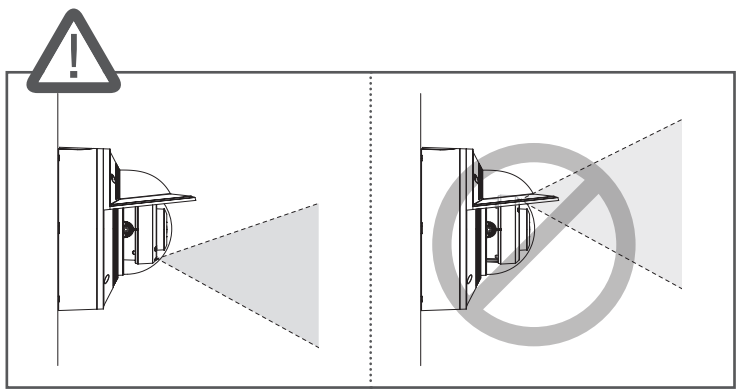
▪ **Métodos de ajuste**

1. Ajuste o ângulo de expansão levando em conta a direção a ser monitorada.
2. Ajuste o ângulo horizontal para que o vídeo não se inverta durante a rotação.
3. Ajuste o ângulo de inclinação em relação à direção a ser monitorada.

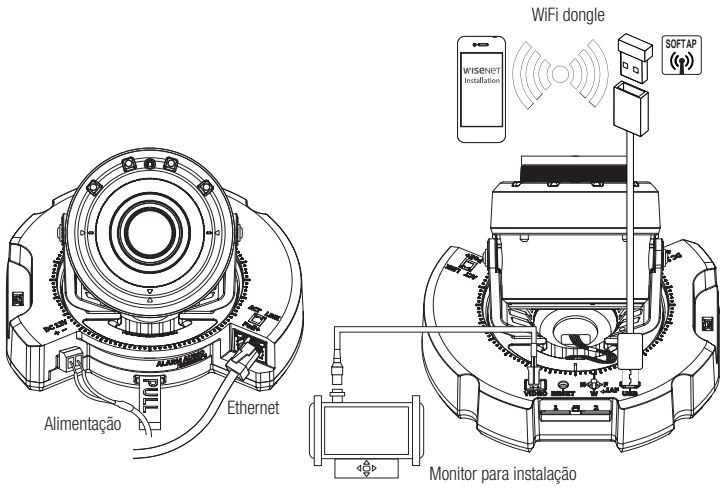
▪ Ajuste a direção dos LEDs infravermelhos para não obstruir a visão deles com um instrumento.



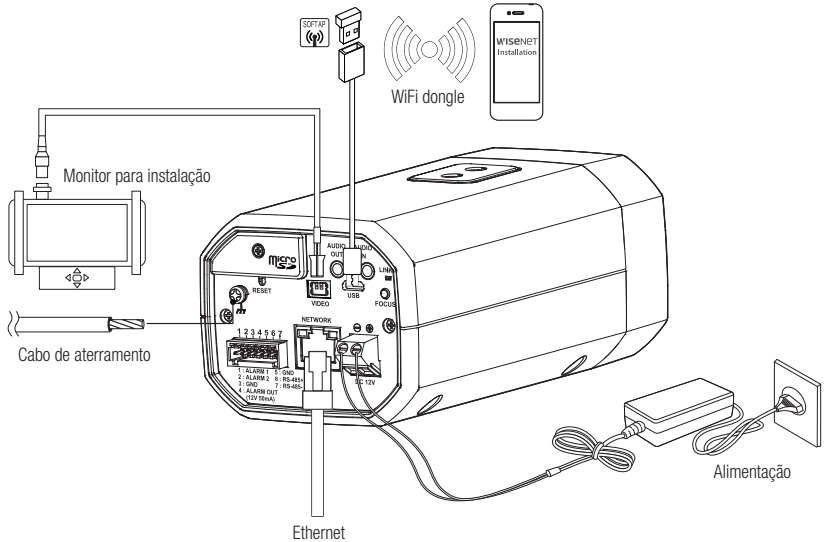
▪ Ajuste a direção dos LEDs infravermelhos para não obstruir a visão deles com uma capa contra intempéries (se houver).



CONECTANDO A OUTRO DISPOSITIVO



<PNV-A9081R/PND-A9081RV/PND-A9081RF>



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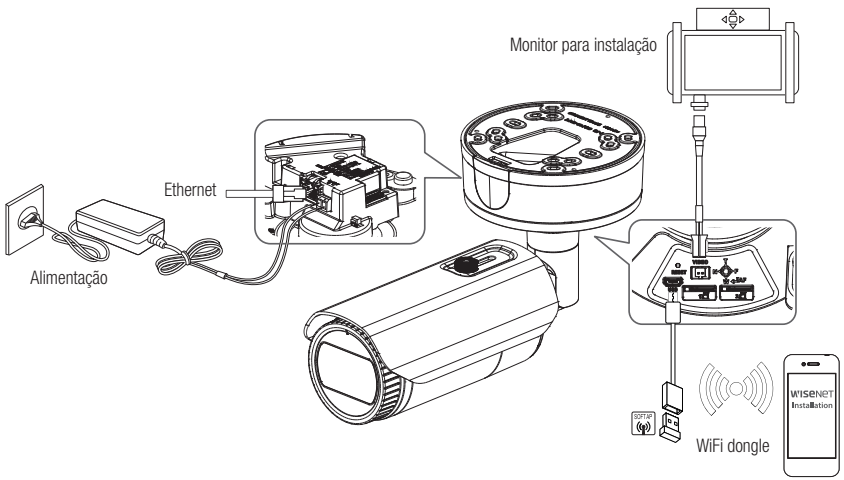


<PNO-A9081R>

- O terminal de saída CVBS do produto é disponibilizado para facilitar a instalação, e não é recomendado para o monitoramento.
- O terminal Micro USB de saída do produto é fornecido para instalação mais fácil e não é recomendado para finalidades de monitoramento.

Conexão Ethernet

Conecte o cabo Ethernet à rede local ou à Internet.

Ligando a WiFi

Configuração da Câmera

1. Ligue o adaptador OTG (5-pinos) e o dongle WiFi ao terminal Micro USB.

Configuração de Smartphone

1. Instale o aplicativo Instalação Wisenet.
2. Selecione o SSID da câmera após ligar o WiFi.
3. Execute o aplicativo Instalação Wisenet.
4. Quando você acessa à câmera, o vídeo será ligado
   - O vídeo será reproduzido sem estar logado durante a ligação inicial.
5. Você pode ajustar o ângulo de visualização vendo o vídeo através de seu smartphone.

Fabricante de dongle recomendado

Fabricante	Modelo
NETIS	WF2123 n300
EDIMAX	EW-7811Un
IP Time	N100mini
TP-LINK	TL-WN823N V1
ASUS	USB-N13
NETGEAR	WNA3100M

Fonte de alimentação

Use a chave de fenda para conectar cada linha (+, –) do cabo de alimentação à porta de alimentação correspondente da câmera.

- Se as fontes de alimentação para PoE+ e CC de 12 V estiverem ligadas simultaneamente, a alimentação do dispositivo será fornecida tanto por PoE+ quanto por CC de 12 V.
  - Também é possível usar um roteador que tenha PoE+ para fornecer energia à câmera.
  - Use um PoE+ compatível com os protocolos IEEE 802.3at.
- Tenha cuidado para não inverter a polaridade quando conectar o cabo de alimentação.
- Se você quiser conectar um dispositivo externo, precisará desativar o dispositivo externo antes de continuar.
- Primeiro, conecte o conjunto e o adaptador de linha de energia, e de seguida conecte o cabo de energia à saída de na parede.

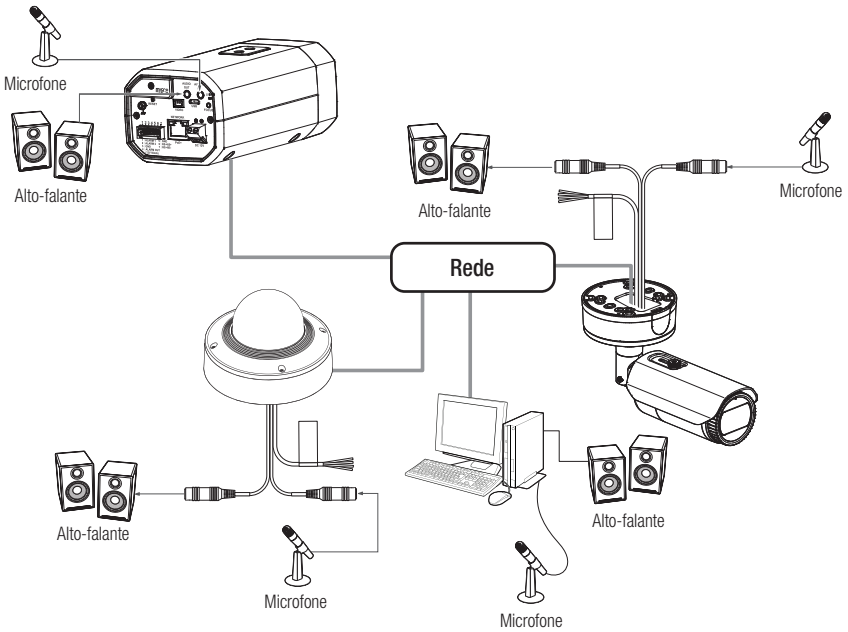
Especificação do Cabo de Alimentação para Cada Modelo

Modelo	Potência de entrada	Tipo de Fio (AWG)	Comprimento do Cabo (Max.)
PND-A9081RV PND-A9081RF PNV-A9081R	CC de 12 V	#18	15m
		#16	24m
PNO-A9081R	CC de 12 V	#18	15m
		#16	24m
PNB-A9001	CC de 12 V	#18	18m
		#16	29m

Especificação do Cabo de Rede

Item	Conteúdos	Comentário
Conector	RJ-45(10/100/1000BASE-T)	
Ethernet	10/100/1000BASE-T	
Cabo	Categoria 6	
Distância Máxima	100M	
Suporte PoE	IEEE 802.3at	

Conectando à entrada/saída de áudio



1. Conecte a porta AUDIO IN da câmera no microfone ou a porta LINE OUT do amplificador ao qual o microfone está conectado.

▪ Você pode usar o microfone interno da câmera sem conexão de microfone externo (aplicável somente para PND-A9081RV / PNB-A9001).

2. Conecte a porta AUDIO OUT da câmera nos alto-falantes ou a porta LINE IN do amplificador ao qual os alto-falantes estão conectados.
3. Verifique as especificações para a entrada de áudio.

- **Codec de áudio**
  - Entrada de Áudio : G.711 PCM (Taxa de Bits: 64kbps / Frequência de Amostragem: 8kHz), G.726 ADPCM (Taxa de Bits: 16Kbps, 24Kbps, 32Kbps, 40Kbps / Frequência de Amostragem: 8kHz), AAC (Taxa de Bits: 48Kbps / Frequência de Amostragem: 16kHz)
  - Saída de Áudio : G.711 PCM (Taxa de Bits: 64kbps / Frequência de Amostragem: 8kHz)
- **Áudio full duplex**
- **Entrada de áudio (PND-A9081RV/PNB-A9001)** : Selecionável (microfone/Linha de entrada/Microfone interno), Tensão suportada: 2,5VCC (4mA), Impedância de entrada: 2K Ohm
- **Entrada de áudio (PNV-A9081R/PND-A9081RF/PNO-A9081R)** : Selecionável (microfone/Linha de entrada), Tensão suportada: 2,5VCC (4mA), Impedância de entrada: 2K Ohm
- **Saída de áudio**: Linha de saída (3,5mm tomada mono), Saída máxima: 1Vms
- **Impedância de saída de linha** : 600Ω

▪ Caso você acesse o visualizador Web e selecione um microfone externo como fonte de entrada de áudio em <**Vídeo e áudio**> - <**Configuração de áudio**>, são recomendadas as especificações a seguir:

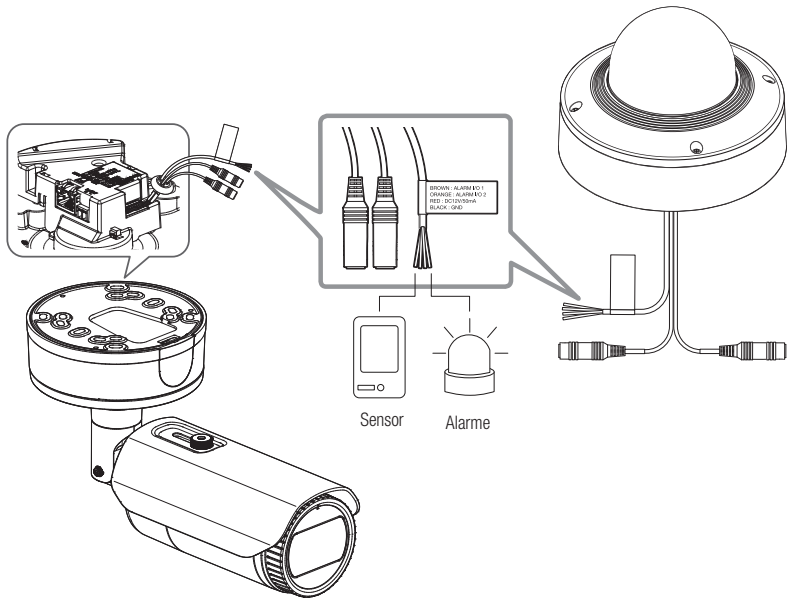
- Gama de frequência: 40-16.000 Hz
- Impedância: 1.500 Ω
- Sensibilidade: -40±3 dB (7,1-14,1 mV)

▪ Em qualquer um dos casos a seguir, o desempenho da classificação do som pode ser prejudicado ou apresentar mau funcionamento:

- Se sons de disparo forem ouvidos continuamente em um curto intervalo (ex.: som de metralhadora) em vez de somente um som de disparo;
- Se o ruído estiver muito alto para que ele e o som almejado possam ser distinguidos;
- Se dois ou mais sons diferentes forem registrados simultaneamente;
- Se a classificação do som for aplicada enquanto se utiliza a função de remoção de ruído em um local silencioso;
- Se a fonte dos sons de palmas ou gritos estiver perto da câmera (a 1 metro);
- Se um som que não pertence a nenhuma das categorias de classificação do som (som de aviões, de sirene etc.) for ouvido em volume elevado de repente;
- Se o microfone externo não cumpre as especificações recomendadas

Conectando à caixa da porta de E/S

Conecte o cabo de Alarme I/O à porta correspondente da caixa de portas.



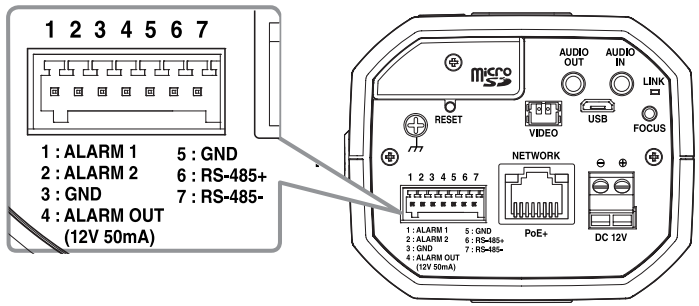
Conector relacionado com o alarme

▪ Garanta que liga o cabo de áudio/alarme fornecido antes de usar.

Cor do cabo	Função	Descrição
CASTANHO : E/S ALARME 1 LARANJA : E/S ALARME 2	ALARM I/O 1, ALARM I/O 2	Essas duas portas são configuradas por meio do visualizador Web, uma vez que podem ser usadas como entrada ou saída de alarme ※ Alterações de E/S de alarme podem ser feitas por meio da configuração do Webviewer.
VERMELHO	DC 12V/50mA	Este pino fornece uma saída contínua de CC 12 V com uma amperagem máxima de 50 mA
PRETO	GND	É um terminal terra.

Conectando à caixa da porta de E/S (PNB-A9001)

Conecte o sinal de E/S do alarme à porta correspondente da caixa da porta traseira.

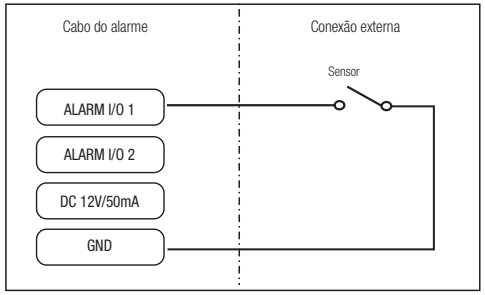


Função	Descrição
ALARM 1, ALARM 2	Essas duas portas são configuradas por meio do visualizador Web, uma vez que podem ser usadas como entrada ou saída de alarme ※ Alterações de E/S de alarme podem ser feitas por meio da configuração do Webviewer.
GND	É um terminal terra.
ALARM OUT	Este pino fornece uma saída contínua de CC 12 V com uma amperagem máxima de 50 mA
RS-485	Ao conectar um dispositivo externo à porta [RS-485 +, –], o dispositivo externo pode ser controlado. A conexão GND é recomendada para comunicação RS-485. Se você encontrar uma falha de comunicação, conecte o pino GND conforme apropriado para corrigir o nível de GND entre a câmera e o dispositivo externo.

Para conectar a um sensor externo

Para usar como entrada de alarme: Conecte uma porta de [E/S ALARME] e o outro terminal à porta [TERRA].

Alarme no diagrama de fiação (exemplo)



<Se E/S ALARME 1 for configurado como um terminal de entrada>

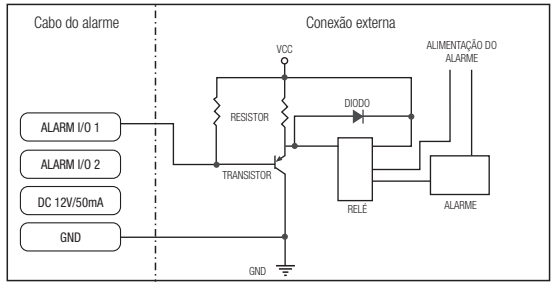
Para conectar a uma saída de alarme

Se dispositivos (por exemplo, luz intermitente e sirene) que excedem as especificações de tensão e corrente (CC 12 V/50 mA) forem conectados usando o método de coletor aberto, isso poderá causar danos.

Consulte abaixo o diagrama de 2 casos de conexão de saída de alarme.

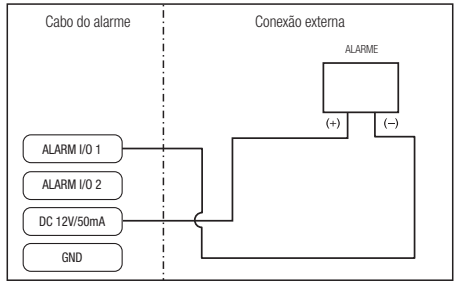
Diagrama de fiação de saída de alarme (exemplo)

Quando a luz/sirene de advertência exceder CC 12 V/50 mA: conecte as especificações do relé de acordo com as especificações de alimentação da luz/sirene de advertência.



<Se E/S ALARME 1 for configurado como um terminal de saída>

Quando a luz/sirene de advertência não excede CC 12 V/50 mA



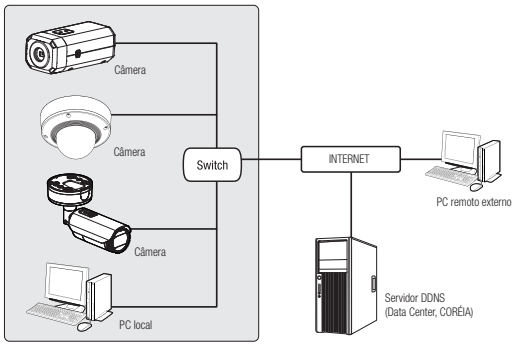
<Se E/S ALARME 1 for configurado como um terminal de saída>

É possível ajustar as definições da rede de acordo com suas configurações de rede.

CONECTANDO A CÂMERA DIRETAMENTE À REDE LOCAL

Conectando a câmera a partir de um PC local na LAN

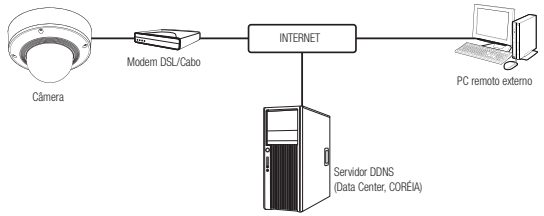
1. Inicie um navegador de Internet ao PC local.
2. Insira o endereço IP da câmera na barra de endereços do navegador.



<Rede local>

- Um PC remoto em uma Internet externa fora da rede LAN talvez não consiga se conectar à câmera instalada na intranet se o encaminhamento de porta não estiver corretamente configurado ou se um firewall estiver configurado.
  Neste caso, para resolver o problema, entre em contato com o administrador de rede.
- Por padrão de fábrica, o endereço IP será atribuído a partir do servidor DHCP automaticamente.
  Se não houver servidor DHCP disponível, o endereço IP será configurado como 192.168.1.100.
  Para alterar o endereço IP, use o Device Manager.
  Para mais detalhes sobre o uso do Device Manager, consulte "**Usar o Device Manager**". (Página 49)

CONECTANDO A CÂMERA DIRETAMENTE A UM DHCP COM BASE NO MODEM DSL/CABO



1. Conecte o PC do usuário diretamente à câmera de rede.
2. Execute o Device Manager e altere o endereço IP da câmera, para que você possa usar o navegador de rede em sua área de trabalho para se conectar à internet.
3. Use o navegador da Internet para conectar-se ao visualizador da web.
4. Vá para a página [**Configurar**].
5. Vá para [**Rede**] – [**DDNS**] e defina as configurações do DDNS.
6. Mova-se para [**Basic**] – [**IP & Porta**] e defina o tipo de IP como [**DHCP**].
7. Conecte a câmera, que foi removida do PC, diretamente para o modem.
8. Reinicie a câmera.

- Para informação sobre como definir o DDNS, consulte a ajuda online do Visualizador Web.
- Para informação sobre como definir o formato de IP, consulte a ajuda online do Visualizador Web.

USAR O DEVICE MANAGER

- O programa Device Manager pode ser baixado no menu <**Support**> – <**Online Tool**> do site da Hanwha Vision (https://www.HanwhaVision.com).
- Mais informações sobre o Device Manager podem ser encontradas no menu <**Ajuda**> da página inicial.

PESQUISAR A CÂMERA AUTOMATICAMENTE

Se uma câmera estiver conectada à mesma rede do computador em que o Device Manager estiver instalado, você pode encontrar a câmera da rede usando a função de pesquisa.

1. Clique em <**Search (Pesquisar)**>, na página inicial do Device Manager.
2. Encontre a câmera na lista.
   - Marque o endereço MAC no adesivo junto à câmera.

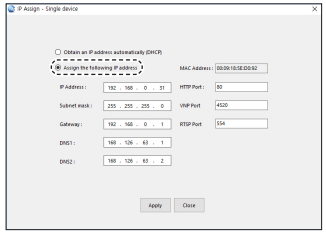
CONFIGURAR O ENDEREÇO IP

Se você quiser alterar as configurações de rede da câmera, o aviso <**Login OK**> deve ser exibido em <**Status**>. Clique em <**Authentication (Autenticação)**>, na página inicial, para fazer o login.

Configurar o IP estático

Insira e configure manualmente o endereço IP e as informações da porta.

1. Na lista, clique na câmera para a qual você deseja alterar a configuração de IP.
2. Clique em <**IP Assign (Atribuição de IP)**>, na página inicial do Device Manager.
3. Selecione <**Assign the following IP address (Atribuir o seguinte endereço IP)**>.
   - As informações do IP da câmera serão exibidas conforme definido anteriormente.
4. Preencha as categorias relativas a IP e porta.



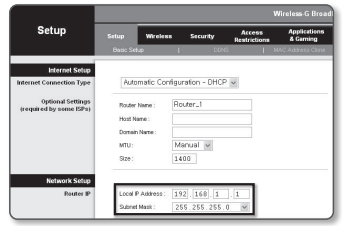
Se não estiver usando um Roteador de banda larga

Peça o valor definido pelo gerenciador de rede para <**IP Address (endereço IP)**>, <**Subnet Mask (máscara de sub-rede**> e <**gateway)**>.

- HTTP Port : Usada para acessar a câmera usando o navegador da Internet, definida, por padrão, como 80.
- RTSP Port : Uma porta que controla o streaming em tempo real. O valor inicial é 554.

Se estiver usando um Roteador de banda larga

- IP Address : Insira um endereço que esteja no intervalo de IPs fornecido pelo Roteador de banda larga.
  Por ex) 192.168.1.2~254, 192.168.0.2~254,
  192.168.XXX.2~254
- Subnet Mask : A <**Subnet Mask**> do Roteador de banda larga será a <**Subnet Mask**> da câmera.
- Gateway : O <**Local IP Address**> do Roteador de banda larga será o <**Gateway**> da câmera.



- As configurações podem ser diferentes dependendo do modelo do Roteador de banda larga conectado. Para obter mais informações, consulte o manual do usuário do roteador aplicável.
- Para obter mais informações sobre o encaminhamento de porta do roteador de banda larga, consulte "**Configuração do Avanço da Faixa da Porta (Mapeamento de Porta)**". (Página 51)

Se o Roteador de banda larga tiver mais de uma câmera conectada

Defina as configurações relacionadas ao IP e as configurações relacionadas à porta de modo distinto entre si.

Por ex)

Categoria		Câmera #1	Câmera #2
Configurações relacionadas ao IP	IP Address Subnet Mask Gateway	192.168.1.100 255.255.255.0 192.168.1.1	192.168.1.101 255.255.255.0 192.168.1.1
Configurações relacionadas à porta	HTTP Port RTSP Port	8080 554	8081 555

- Se a <**HTTP Port**> estiver configurada para um valor que não seja 80, você terá que fornecer o número de <**Port**> na barra de endereço do navegador de Internet antes que possa acessar a câmera.
  Por ex) http://IP address : HTTP Port
  http://192.168.1.100:8080

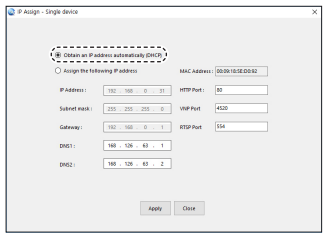
5. Clique no botão [**Aplicar**].
6. Se aparecer a mensagem de êxito, clique em [**OK**].

Configurar o IP dinâmico

Obtenha o endereço IP no DHCP

- Exemplo do ambiente de IP dinâmico
  - Se um Roteador de banda larga, com câmeras conectadas, estiver designado a um endereço IP pelo Servidor DHCP
  - Se estiver conectando a câmera diretamente ao modem usando os protocolos DHCP
  - Se os IPs estiverem designados ao servidor DHCP interno através da LAN

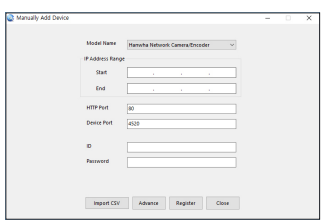
1. Na lista, clique na câmera para a qual você deseja alterar a configuração de IP.
2. Clique em <**IP Assign (Atribuição de IP)**>, na página inicial do Device Manager.
3. Selecione <**Obtain an IP address automatically (DHCP) (Obter um endereço IP automaticamente (DHCP))**>.
4. Clique no botão [**Apply (Aplicar)**].
5. Se aparecer a mensagem de êxito, clique em [**OK**].



REGISTRAR A CÂMERA MANUALMENTE

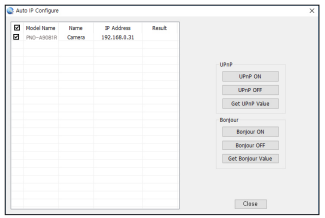
Se a câmera não for encontrada por meio da função de pesquisa, ela pode ser registrada remotamente, por meio do preenchimento manual das informações de IP, caso a câmera esteja conectada a uma rede externa.

1. Clique em <**Add Devices (Adicionar dispositivos)**> – <**Manually Add Device (Adicionar dispositivos manualmente)**>, na página inicial do Device Manager.
2. Defina o intervalo do endereço IP pesquisado.
3. Selecione o <**Model Name (nome do modelo)**> da câmera que deseja registrar, e preencha as informações de porta HTTP, ID e senha.
4. Clique no botão [**Register (Registrar)**].
5. Confirme se a câmera está registrada.
   - Marque o endereço MAC no adesivo junto à câmera.



CONFIGURAR IP AUTOMATICAMENTE

1. Na lista, clique na câmera para a qual você deseja configurar automaticamente o IP.
2. Clique em < **+** >, na página inicial do Device Manager.
   - O menu Configuração do equipamento é exibido.
3. No menu, clique em <**Auto IP Configure (Configurar IP automático)**>.
4. Clique no botão [**Close (Fechar)**].

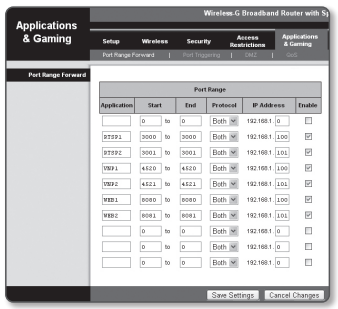


CONFIGURAÇÃO DO AVANÇO DA FAIXA DA PORTA (MAPEAMENTO DE PORTA)

Se você instalou um Roteador de banda larga com uma câmera conectada, será necessário configurar o avanço da faixa da porta no Roteador de banda larga para que um PC remoto possa acessar a câmera em seu interior.

Avanço manual da faixa da porta

1. A partir do menu Setup do Roteador de banda larga, selecione <**Applications & Gaming**> - <**Port Range Forward**>.
   Para configurar o avanço da faixa da porta para um Roteador de banda larga de terceiros, consulte o guia do usuário desse Roteador de banda larga.
2. Selecione <**TCP**> e <**UDP Port**> para cada câmera conectada ao Roteador de banda larga.
   O número de cada porta a ser configurada ao router de IP deve ser definida de acordo com o número de porta designado em <**Configurar**> - <**Basic**> - <**IP & Porta**> no visualizador da web da câmera.
3. Quando concluído, clique em [**Save Settings**].
   Suas configurações serão salvas.

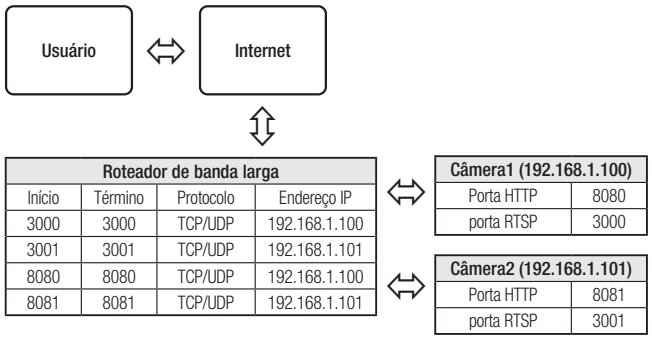


- A configuração de encaminhamento de porta é um exemplo de configuração do roteador de IP CISCO.
- As configurações podem ser diferentes dependendo do modelo do Roteador de banda larga conectado. Para obter mais informações, consulte o manual do usuário do roteador aplicável.

Configurando o avanço da faixa da porta para várias câmeras de rede

- Você pode definir uma regra de encaminhamento de porta no Roteador de banda larga por meio da página de configuração do mesmo na Web.
- Um usuário pode alterar cada porta usando a tela de configuração da câmera.

Quando a Câmera1 e Câmera2 estiverem conectadas a um roteador :



- O encaminhamento de porta pode ser feito sem configuração adicional do roteador caso o roteador ofereça suporte à função UPnP (Universal Plug and Play).
  Após ligar a rede da câmera, selecione a caixa de seleção do menu <**Conexão rápida**> em <**DDNS**> em "**Configurações** -> **Rede** -> **DDNS**".

CONECTANDO À CÂMERA A PARTIR DE UM PC LOCAL COMPARTILHADO

1. Execute o Device Manager.
   Ele procurará pelas câmeras conectadas e exibirá uma lista delas.
2. Clique duas vezes em uma câmera para acessá-la.
   O navegador da Internet inicia e se conecta à câmera.

▪ Você também pode acessar a câmera de modo que você digita o endereço IP da câmera encontrada na barra de endereços do navegador da Internet.

CONECTANDO À CÂMERA A PARTIR DE UM PC REMOTO POR MEIO DA INTERNET

Em um computador remoto fora do cluster de rede do roteador de banda larga, os usuários podem acessar câmeras com a rede do roteador de banda larga, por meio da URL de DDNS dinâmico da câmera.

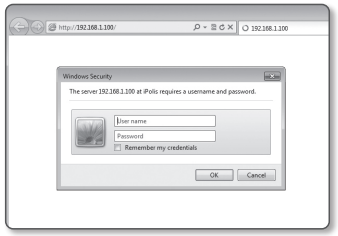
1. Antes de acessar uma câmera na rede do Roteador de banda larga, você deve ter configurado o avanço de faixa de porta para o Roteador de banda larga.
2. No PC remoto, ative o navegador da Internet e digite o endereço de URL DDNS da câmera ou o endereço IP do Roteador de banda larga na barra de endereço.
   Por ex) http://ddns.hanwha-security.com/ID

▪ Para usar o DDNS, cadastre-se na página do DDNS (http://ddns.hanwha-security.com) e registre o produto em [**Meu DDNS dinâmico**]>[**Registrar produto**].

CONECTANDO À CÂMERA

Normalmente, você

1. Inicia o navegador da Internet.
2. Digita o endereço IP da câmera na barra de endereço.
   Por ex) • Endereço IP (IPv4) : 192.168.1.100 → http://192.168.1.100
   - A caixa de diálogo Login deverá aparecer.
   • Endereço IP (IPv6) : 2001:230:abcd: ffff:0000:0000:ffff:1111 → http://[2001:230:abcd:ffff:0000:0000:ffff:1111] - A caixa de diálogo Login deverá aparecer.



Se a porta HTTP for diferente de 80

1. Inicia o navegador da Internet.
2. Digita o endereço IP e o número da porta HTTP da câmera na barra de endereço.
   Por ex) Endereço IP : 192.168.1.100:Número da porta HTTP(8080)
   → http://192.168.1.100:8080 - A caixa de diálogo Login deverá aparecer.

Usando URL

1. Inicia o navegador da Internet.
2. Digita o URL DDNS da câmera na barra de endereço.
   Por ex) Endereço URL : http://ddns.hanwha-security.com/ID do produto
   - A caixa de diálogo Login deverá aparecer.

▪ A conexão de rede é apenas desativada no ambiente LAN.

Conectar via UPnP

1. Execute o cliente ou sistema operativo no suporte do protocolo UPnP.
2. Clique no nome da câmera para pesquisa.
   No sistema operativo Windows, clique no nome da câmera pesquisado a partir do menu de rede.
   - É exibida a janela de login.

Conectar via Bonjour

1. Execute o cliente ou sistema operativo no suporte do protocolo Bonjour.
2. Clique no nome da câmera para pesquisa.
   No sistema operativo Mac, clique no nome da câmera pesquisado a partir da aba Bonjour de Safari.
   - É exibida a janela de login.

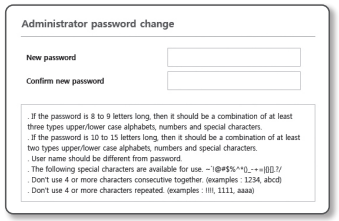
Para verificar o endereço DDNS

Se a câmera estiver conectada diretamente a um modem de cabo com base DHCP ou modem DSL, o endereço IP irá mudar de cada vez que tenta conectar ao ISP (a empresa à qual você aderiu).
Se esse for o caso, você não será informado do endereço IP alterado por DDNS.

Uma vez que você registrar um dispositivo baseado em IP dinâmico com o servidor DDNS, poderá facilmente verificar o IP alterado quando tentar acessar o dispositivo.
Para registrar o seu dispositivo no servidor <**DDNS**>, visite http://ddns.hanwha-security.com e registre o dispositivo primeiro; em seguida, configure <**Rede**> - <**DDNS**> do Visualizador da Web para <**DDNS**> e forneça o <**ID do produto**>usado no registro do DDNS.

CONFIGURAÇÃO DE SENHA

Quando você acessar o produto pela primeira vez, você deve registrar o logon e senha.

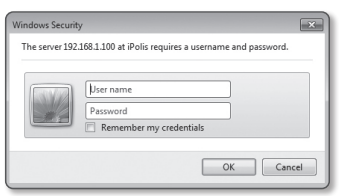


- Para uma nova senha com 8 a 9 dígitos, você deve usar pelo menos 3 dos seguintes: letras maiúsculas/minúsculas, números e caracteres especiais. Para uma senha com 10 a 15 dígitos, você deve usar pelo menos 2 tipos dos mencionados.
  - Caracteres especiais são permitidos. : ~`!@#$%^*()_-+=|{}[].?/
- Para maior segurança, não recomendamos repetir nas suas senhas os mesmos caracteres ou entradas consecutivas no teclado.
- Se perdeu a sua senha, pode pressionar o botão [**RESET**] para reinicializar o produto. Por isso, não perca sua senha, usando o um bloco notas ou memorizando-a.

LOGIN

Sempre que você acessar a câmera, a janela de logon é exibida. Insira o ID do usuário e a senha para acessar a câmera.

1. Digite "**admin**" na caixa de entrada <**User name**>. O ID do administrador, "**admin**", é fixo e não pode ser alterado.
2. Digite a senha no campo de entrada <**Password**>.
3. Clique em [**OK**]. Se você efetuou login com sucesso, verá a tela do Visualizador ao vivo.



- Quando você acessa o visualizador da câmera web, preste atenção especial à segurança, verificando se os dados de imagem estão criptografados.

- Ao marcar a opção "**Remember my credentials**" quando sua entrada for concluída, você será conectado automaticamente sem ser avisado para inserir as informações de login da próxima vez que conectar.
- Você experimentará a melhor qualidade de vídeo se o tamanho da tela estiver em 100%. A redução da proporção pode cortar a imagem nas margens.

CONFIGURAÇÃO DA VISUALIZAÇÃO ON-LINE DA CÂMERA

1. Clique no ícone [**Configuração ( )**].
2. A janela de Configurações é exibida.
3. Você pode configurar as definições das informações básicas, vídeo, áudio, rede, evento, análise e sistema da câmera através da rede.
4. Clique em <**Ajuda ( )**> para visualizar as descrições detalhadas de cada função.

SOLUÇÃO DE PROBLEMAS

PROBLEMA	SOLUÇÃO
Quando um usuário do Windows 10 acessa o visualizador web através do Chrome ou Firefox, o volume do som do microfone se altera periodicamente.	• Isso é o que acontece quando o driver do microfone é configurado para o driver Realtek. Instale o dispositivo Áudio de Alta Definição (Driver Padrão do Windows) ou o driver de terceiros como o driver do microfone.
Quais são as especificações para arquivos WAVE necessárias para reproduzir áudio no momento de um evento?	• Recomenda-se uma taxa de amostragem de 48.000 KHz ou menos. • Para bits por amostra (bps), recomenda-se até 8/16 bits. • Somente o formato de codificação PCM é compatível.
Não é exibido nenhum vídeo ao acessar o visualizador web com plug-in gratuito no navegador Safari via HTTPS.	• Na janela pop-up de autenticação exibida quando acessa inicialmente a https, clique em "Ver Certificado de Autenticação" e selecione a caixa de seleção “Confiar sempre ao ligar ao IP do visualizador da web escolhido". • Se o visualizador web continuar falhando ao exibir um vídeo depois de você selecionar "Seguinte" na janela de mensagem em baixo, pressione a tecla Command + Q para sair do navegador Safari, acesse de novo e siga os procedimentos referidos acima.
Não consigo acessar a câmera de um navegador da Web.	• Verifique se as configurações de rede da câmera são apropriadas. • Verifique se todos os cabos de rede foram conectados corretamente. • Se foi conectada usando DHCP, verifique se a câmera consegue obter os endereços IP dinâmicos sem qualquer problema. • Se a câmera estiver conectada a um Roteador de banda larga, verifique se o encaminhamento da porta está corretamente configurado.
O visualizador foi desconectado durante o monitoramento.	• Os visualizadores conectados são desconectados após qualquer alteração na câmera ou nas configurações de rede. • Verifique todas as conexões da rede.
A câmera conectada à rede não é detectada no programa Device Manager.	• Desative as configurações de firewall em seu PC e pesquise a câmera novamente.
Sobreposição de imagens.	• Verifique se duas ou mais câmeras estão configuradas para um único endereço de multicast em vez de diferentes endereços. Se um único endereço for usado para várias câmeras, as imagens poderão ficar sobrepostas.
Nenhuma imagem é exibida.	• Se o método de transmissão estiver configurado para multicast, verifique se há um roteador que ofereça suporte para multicast na rede local à qual a câmera está conectada.

PROBLEMA	SOLUÇÃO
A voz não é gravada mesmo que as configurações de entrada de áudio estejam definidas.	• Você deve ativar a caixa de seleção <Entrada áudio> em <Basic> - <Perfil de vídeo>.
O <Detecção de movim.> do <Análises> é definido como <Ativar>, mas não me chega nenhuma notificação por e-mail, mesmo quando ocorreu um evento de análise.	• Verifique as configurações na seguinte seqüência: A. Verifique <Data e horário>. B. A <Detecção de movim.> deve ser configurada para <Ativar>. C. Verifique se a opção de <E-mail> do menu de <Configuração de evento> está marcada como Usar.
Nenhum sinal é encontrado na porta de saída de alarme mesmo quando um evento de análise inteligente de vídeo é gerado.	• Verifique as configurações da porta de saída de alarme.
Não é possível gravar no cartão de memória Micro SD.	• Verifique se o cartão de memória está defeituoso.
O cartão de memória Micro SD está inserido, mas a câmera não está funcionando corretamente.	• Verifique se o cartão de memória está inserido na direção correta. A operação do cartão de memória formatado por outros dispositivos não é garantida com esta câmera. • Formate o cartão de memória novamente pelo menu <Configurar> → <Evento> → <Armazenamento>.
Uma ID registrada com o NAS.	• Confirma se as informações registradas em NAS estão corretas.
Faz o relatório da falha de configuração de NAS.	• Confirme que o endereço IP de NAS é válido. • Confirme que o ID/senha do NAS é válido. • Confirme que pode acessar à pasta designada como pasta básica usando a ID do dispositivo NAS. • Confirme que os itens SMB/CIFS ide NAS não estão marcados. • Confirme que o endereço IP de NAS e o endereço IP da câmera estão no mesmo formato. Exemplo) o valor inicial de NAS e da máscara de subrede da câmera é 255.255.255.0. Se o endereço IP for 192.168.20.32 então o endereço IP de NAS deve estar no intervalo entre 192.168.20.1~192.168.20.255. • Verifique se tentou acessar como outros usuário sem formatar a pasta básica salva ou usada. • Confirme que usou o equipamento NAS recomendado.

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Component Name	License	URL
Base Kernel	GPL 2.0	
Busybox	GPL 2.0	http://www.busybox.net/downloads/snapshots
iproute2-4.3.0	GPL 2.0	
iptables-1.4.21	GPL 2.0	http://ftp.netfilter.org/pub/iptables
ethtool-4.2	GPL 2.0	
mtd-1.5.2	GPL 2.0	ftp://ftp.infradead.org/pub/mtd-utils
mii-diag-2.11	GPL 2.0	
rp-pppoe-3.11	GPL 2.0	http://www.roaringpenguin.com/pppoe/
wpa_supplicant-2.5	GPL 2.0	
bash-4.3.30	GPL 3.0	
zeroconf	GPL 2.0	

LGPL SW

Component Name	License	URL
gLibc	LGPL 2.0	
Inetutils	LGPL 3.0	
neon-0.29.6	LGPL 2.0	http://www.webdav.org/neon/

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- Version 1.1

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established by T-Engine Forum
on January 23, 2004
revised on June 17, 2004
revised on December 21, 2006
revised on March 24, 2009

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1. This License Agreement sets forth copyrights and the terms and conditions of use applicable to the source code of T-Kernel distributed by T-Engine Forum and any derivative work created therefrom.

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1. "T-Kernel" means a real-time operating system controlled and distributed by T-Engine Forum on behalf of the copyright holder thereof.

2. "Source Code" means a source program, including related comments and documentations, for the T-Kernel and the Ported Source Code defined in Article 2.8 which is registered with T-Engine Forum.

3. "Hardware-dependent Part" means the part of the Source Code which depends on hardware and needs to be changed when the Source Code is ported and operated on the target hardware, and is designated and separated as such part.

4. "Compiler-dependent Part" means the part of the Source Code which depends on compiler and needs to be changed when the Source Code is ported and operated on the target hardware, and is designated and separated as such part.

5. "Header File" means the part of the Source Code which contains definitions necessary to develop application programs.

6. "T-Engine Hardware" means the hardware which is manufactured in accordance with the T-Engine Hardware specifications or the µT-Engine Hardware specifications issued by T-Engine Forum, and registered with T-Engine Forum.

7. "Similar Hardware to T-Engine Hardware" means any hardware (including software which emulates hardware) other than that defined in Article 2.6 above, on which the T-Kernel can be operated.

8. "Ported Source Code" means a source program produced from the Source Code by modifying only its Hardwaredependent Part and/or Compiler-dependent Part to enable it to be operated on the T-Engine Hardware or the Similar Hardware to T-Engine Hardware. The Ported Source Code which is registered with T-Engine Forum shall be included in the Source Code.

9. "Modified Source Code" means a source program modified from the Source Code for the purpose of improving its performance, increasing or decreasing its function, and the like. The Ported Source Code shall not be included in the Modified Source Code.

10. "Binary Code" means an executable code form which is created by compiling programs, which include all or part of the Source Code or the Modified Source Code.

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16. "Patch for Modification" means a difference, program, system, or the like in order to create the Modified Source Code from the Source Code or the Binary Code thereof.

17. "Vicarious Execution of Patch Processing" means vicarious execution service to create the Modified Source Code applying the Patch for Modification to the Source Code or the Binary Code thereof.

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2. to transmit a work to the general public through the Internet communication, broadcasting, and the like automatically in response to a request from the public; and

3. to distribute a copy of a work to the general public or a large number of specific persons.

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3. to run the Source Code modified in accordance with the provision of Article 4.3 (1) above for its own research, development and the like.

4. to distribute the Binary Code created from the Source Code provided by T-Engine Forum hereunder or from the Source Code modified in accordance with the provision of Article 4.3 (1) above.

4. In accordance with the license granted under Article 4.1 above, the System Developer may perform the following acts:

1. to perform any and all acts set forth in the Article 4.3 above.

2. to develop and manufacture the Embedded Product containing the Binary Code, and, whether with or without payment, provide the End User with the same and make the Binary Code available to the End User on the Embedded Product.

5. The Source Code User and the System Developer shall be obligated to give a notice that the Source Code is used, in such a way as separately specified by T-Engine Forum, when they use the Source Code or the Binary Code, or make the Binary Code available for the End User on the Embedded Product.

Article 5. Distribution of Modified Source Code

1. Any of A- members of T-Engine Forum may become the Distributor of Modification by obtaining the approval of T-Engine Forum through the registration procedure as prescribed by the Forum provided that only the department of the A- member which has taken the registration procedure may distribute the Modified Source Code in such a way as provided for in this Article as long as it holds the Amembership.

2. The Distributor of Modification may create the Modified Source Code based on the Source Code provided by T-Engine Forum and the Patch for Modification to be applied to create such Modified Source Code from the Source Code.

3. The Distributor of Modification shall, prior to the distribution, inform T-Engine Forum of and register a name and description of the Modified Source Code in such a way as specified by T-Engine Forum.

4. The Distributor of Modification shall determine the name of the Modified Source Code subject to the rules separately established by T-Engine Forum and publish an appropriate notice as required by the rules on the Patch for Modification and the Modified Source Code.

5. The Distributor of Modification may distribute the Modified Source Code to a third party, whether with or without payment, provided that the Distributor of Modification shall take the necessary measures to prohibit the third party from making the re-Distribution of the Modified Source Code.

6. Developer with the Patch for Modification. Provided, however, that the Distributor of Modification shall be obligated to confirm that the System Developer is the Source Code User duly licensed under Article 4.1.

7. The Distributor of Modification may perform the Vicarious Execution of Patch Processing for the System Developer.

8. The System Developer shall not distribute the Modified Source Code in further modified form to any third party as a stand-alone software product.

9. The System Developer may, under the same obligation as imposed in Article 4.5, make the Embedded Product available for the End User through use of the Patch for Modification distributed by the Distributor of Modification or the Derivative Works obtained through the Vicarious Execution of Patch Processing.

Article 6. Distribution and Registration of the Ported Source Code

1. The Source Code User and the System Developer may, whether with or without charge, distribute to any third party only the following parts of the Ported Source Code on the T-Engine Hardware or the Similar Hardware to T-Engine Hardware:

1. The Hardware-dependent Part and/or Compiler-dependent Part; provided that the Source Code User and the System Developer shall inform T-Engine Forum of, and T-Engine Forum may publish, a method for distributing said Part(s) to third parties.

2. The Header File; provided that the Header File shall be distributed together with the Binary Code of the Ported Source Code.

2. Any member of T-Engine Forum may request T-Engine Forum to register and distribute, as an original source code for T-Kernel, the Ported Source Code on the T-Engine Hardware or the Similar Hardware to T-Engine Hardware.

3. Any member of T-Engine Forum who requests the distribution mentioned in the preceding paragraph shall accede to the following conditions:

1. The member shall confirm that the object hardware is the T-Engine Hardware or the Similar Hardware to T-Engine Hardware.

2. The member shall provide T-Engine Forum with a complete set of operational environment for the object hardware and T-Kernel free of charge when requesting the distribution.

3. The member shall submit test results of the Ported Source Code to T-Engine Forum when requesting the distribution.

4. In the event that T-Engine Forum accepts the request mentioned in Article 6.2, T-Engine Forum shall register and distribute the Ported Source Code as the Source Code for T-Kernel. Provided, however, that the Ported Source Code may be treated in the same way as the Modified Source Code until the time of registration hereunder.

5. The provision set forth in Article 3 shall apply to the Ported Source Code registered in accordance with this Article.

Article 7. Use for Other Purpose

1. Any use of the Source Code, the Modified Source Code or the Ported Source Code other than those stipulated in Articles 4, 5 and 6 shall be subject to the prior approval of T-Engine Forum.

Article 8. Limited Warranty

1. T-Engine Forum and the copyright holder of the Source Code warrant that the Source Code does not infringe third party's copyrights. Provided, however, that T-Engine Forum and the copyright holder of the Source Code make no warranty as to the Hardware-dependent Part and/or Compiler- dependent Part set forth in Article 6.2 in the Ported Source Code by any third party.

2. Neither T-Engine Forum nor the copyright holder of the Source Code warrants that the Source Code will fit for any particular purpose of the Source Code User.

3. Neither T-Engine Forum nor the copyright holder of the Source Code warrants that the Source Code does not infringe any third party's industrial property rights. In no event shall T-Engine Forum and the copyright holder of the Source Code be liable for any dispute which may arise between the Source Code User and a third party in connection with the third party's industrial property rights.

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1. Neither T-Engine Forum nor the copyright holder of the Source Code shall be liable for any damages (including, but not limited to, damages resulting from loss of profit, business interruption, loss of business information or any other pecuniary damage) arising out of use or impossibility of use of the Source Code, even if T-Engine Forum and the copyright holder have been informed of the possibility of such damages.

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3. Any legal dispute which may arise in relation to any breach of this License Agreement shall be subject to the exclusive jurisdiction of the Tokyo District Court.

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Iperf performance test

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The data format used by the zlib library is described by RFCs (Request for Comments) 1950 to 1952 in the files http://www.ietf.org/rfc/rfc1950.txt (zlib format), rfc1951.txt (deflate format) and rfc1952.txt (gzip format).

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