

Specifications

Please refer to the “Appendix – Specifications” for specifications not listed below.

Min. Subject Illumination	R13VE R12VE Day Mode (color): 0.05 lux (F1.4, shutter speed 1/30 sec., when smart shade control is off, 50IRE) Night Mode (monochrome): 0.002 lux (F1.4, shutter speed 1/30 sec., when smart shade control is off, 50IRE) When using the Dome Unit (Smoked) (sold separately) Day Mode (color): 0.1 lux (F1.4, shutter speed 1/30 sec., when smart shade control is off, 50IRE) Night Mode (monochrome): 0.004 lux (F1.4, shutter speed 1/30 sec., when smart shade control is off, 50IRE) R11VE R10VE Day Mode (color): 0.03 lux (F1.4, shutter speed 1/30 sec., when smart shade control is off, 50IRE) Night Mode (monochrome): 0.002 lux (F1.4, shutter speed 1/30 sec., when smart shade control is off, 50IRE) When using the Dome Unit (Smoked) (sold separately) Day Mode (color): 0.06 lux (F1.4, shutter speed 1/30 sec., when smart shade control is off, 50IRE) Night Mode (monochrome): 0.004 lux (F1.4, shutter speed 1/30 sec., when smart shade control is off, 50IRE) 360° continuous panning 180° (ceiling-mounted position: 0° – 180°) – When the horizontal direction of the camera is 0° – When the tilt angle is between angles below, the dome cover can cause a line to appear in the video, as well as a decline in the video quality 0° – 12° (168° – 180°) (W) 0° – 5° (175° – 180°) (T) Temperature Operating Temperature Range (including direct sun exposure): AC: -50°C – +55°C (-58°F – +131°F) PoE+: -35°C – +55°C (-31°F – +131°F) DC, PoE: -10°C – +55°C (+14°F – +131°F) Start-up Temperature Range (including direct sun exposure): AC, PoE+: -30°C – +55°C (-22°F – +131°F) DC, PoE: -10°C – +55°C (+14°F – +131°F) Humidity: 5% – 85% (without condensation)
Pan Angle Range	
Tilt Angle Range	
Operating Environment (Includes LAN Connector Set (Waterproof))	
Dimensions	R13VE R11VE (ϕ x H) ϕ 229 x 324 mm (ϕ 9.02 x 12.76 in.) – Camera only R12VE R10VE (ϕ x H) ϕ 229 x 324 mm (ϕ 9.02 x 12.76 in.) – Camera only (excluding the connector height)
Weight	R13VE R11VE Approx. 3530 g (7.79 lb.) R12VE R10VE Approx. 3420 g (7.54 lb.)

Connecting the Camera

Power Connection

Please be sure to read the user manual for the dedicated power supply before use.



Note

- Power supply should conform to all local codes.
- The power supply should also comply with IEC/UL60950-1 (SELV/LPS) standards.

PoE+/PoE (Power over Ethernet)

Power can be supplied to the camera by using a LAN cable connected to a PoE+/PoE HUB that conforms to the IEEE802.3at Type 2 (PoE+)/Type 1 (PoE) standard. Use a category 5 or better LAN cable, 100 m (328 ft.) or less in length.



Important

- Check with your dealer for more information about PoE+/PoE HUB and Midspan technology. Midspan (a LAN cable power supply device) is a device that, like a PoE+/PoE HUB, supplies power to the camera via a LAN cable.
- Some PoE+/PoE HUBs allow the limitation of power for each port, but applying limits may interfere with performance. If using this type of PoE+/PoE HUB, do not limit the operating power.
- Some PoE+/PoE HUBs have limits for the total power consumption for the ports, which can interfere with performance when multiple ports are in use. In such a case, check the user manual for your PoE+/PoE HUB.
- When the camera is connected to both a PoE+/PoE HUB and an external power supply (12 V DC or 24 V AC), power will be supplied in the following order of precedence. External power supply (24 V AC) > PoE+/PoE HUB > External power supply (12 V DC) However, when connecting power from both, certain combinations could cause problems such as unstable network connections. If a problem arises, disable one of the power supplies.

External Power Supply

12 V DC or 24 V AC input can be used. Use the included power interface cable to connect to the camera power connection terminal.

R13VE R11VE 	1: BROWN Power 24 V AC/12 V DC non-polar 2: BLUE Power 24 V AC/12 V DC non-polar 3: GREEN FG (frame ground)
R12VE R10VE 	

12 V DC can be connected in a non-polar configuration.



Important

- The power supply should be within the following voltage range:
24 V AC: Voltage fluctuation within $\pm$ 10% of 24 V AC (50 Hz or 60 Hz $\pm$ 0.5 Hz or less)
Current supply capacity of at least 2.0 A per camera
12 V DC: Voltage fluctuation within $\pm$ 10% of 12 V DC
Current supply capacity of at least 1.5 A per camera
- When using a 12 V DC battery power supply, be sure to connect resistors of at least 0.5 – 1.0 Ω /20 W in series to the power line.
- For an external power supply, use a double-insulated device.

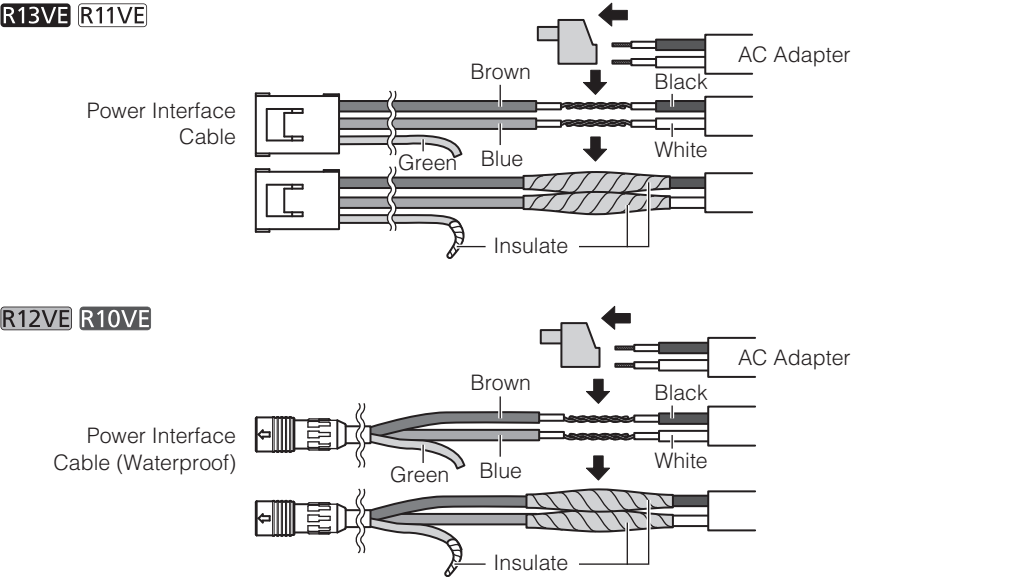
Recommended Power Cables [Reference]

Cable (AWG)	24	22	20	18	16
12 V DC maximum cable length m (ft.)	4 (13.1)	6 (19.7)	10 (32.8)	17 (55.8)	26 (85.3)
24 V AC maximum cable length m (ft.)	6 (19.7)	10 (32.8)	15 (49.2)	24 (78.7)	39 (128.0)

Use UL cable (UL-1015 or equivalent) for 12 V DC or 24 V AC wiring.

AC Adapter

Please use the dedicated AC adapter (sold separately).
Remove the power connector attached to the AC adapter, then connect the power interface cable included in the package, as shown in the following diagram.



External Device I/O Terminals R13VE R11VE

External device I/O terminals consist of two input and output systems each. Viewer can be used to check external device input status and control output to an external device (please refer to the “Operation Guide”).

Use the included I/O interface cable to connect to external device input/output terminals.

	1: BROWN External device input 1 IN1 (+) 2: BLACK External device input 1 IN1 (-) 3: RED External device input 2 IN2 (+) 4: BLACK External device input 2 IN2 (-) 5: ORANGE External device output 1 OUT1 6: YELLOW External device output 1 OUT1 7: GREEN External device output 2 OUT2 8: BLUE External device output 2 OUT2
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External Device Input Terminals (IN1, IN2)

External device input terminals consist of two sets (IN1, IN2) of two terminals, with the negative terminals connected to the camera interior GND. Connecting 2-wire cable to the positive and negative terminals and opening or closing the circuit notifies the Viewer.



Important

When connecting sensors and switches, connect terminals that are electrically isolated from the respective power and GND.

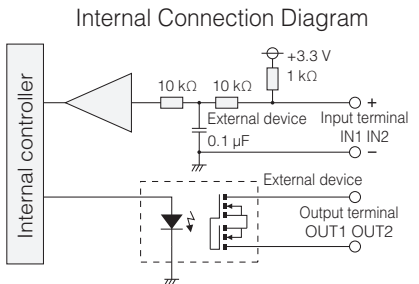
External Device Output Terminals (OUT1, OUT2)

External device output terminals consist of two sets (OUT1, OUT2) of two terminals. The sets have no polarity. Controls from the Viewer can be used to open and close the circuit between the terminals. Using optical couplers, the output terminals are isolated from the camera's internal circuit.

The load connected to the output terminals should be within the following rating range.

Rating between output terminals:

- Maximum voltage 50 V DC
- Continuous load current at or below 100 mA
- On resistance: Max. 30 Ω



Audio Input/Output Terminals R13VE R11VE

Each audio input/output terminal has one input system and one output system.
Connecting the camera to an audio input/output device such as a microphone or a speaker with an amplifier allows you to send/receive audio through the Viewer.
Use the ϕ 3.5 mm (ϕ 0.14 in.) monaural mini-jack connector to connect to an audio input/output device.

Audio Input Terminal Common LINE IN/MIC IN (monaural input)

Although the camera has a single audio input system, it supports two types of microphone input: LINE IN and MIC IN. Before using the audio input, please confirm the [Audio Input] in the Setting Page (please refer to the “Operation Guide”). LINE IN is selected by default.
Input terminal: ϕ 3.5 mm (ϕ 0.14 in.) mini jack (monaural)

- Dynamic MIC IN
Input impedance: 1.5 k Ω $\pm$ 5%
* Supported microphones: Output impedance: 400 – 600 Ω
- Condenser MIC IN
Input impedance (microphone bias resistance): 2.2 k Ω $\pm$ 5%
Microphone power supply: plug-in power (voltage: 2.3 V)
* Supported microphones: Condenser microphones with plug-in power support
- LINE IN
Input level: Max. 1 Vp-p
* Use a microphone with an amplifier.

Audio Output Terminal LINE OUT (monaural output)

Connect the camera to a speaker with an amplifier. Audio can be sent to the speaker from the Viewer.

Output terminal: ϕ 3.5 mm (ϕ 0.14 in.) mini jack (monaural) Output level: Max. 1 Vp-p

* Use a speaker with an amplifier.

VB-R13VE (H2)/VB-R13VE/
VB-R12VE (H2)/VB-R12VE/
VB-R11VE (H2)/VB-R11VE/
VB-R10VE (H2)/VB-R10VE

- JA
- 本書は壁面取付キット WM10-VB を使った壁面設置を記載しています。
 - 天井設置は壁面設置と同じ手順です。1.5 インチパイプアダプター PA10-15-VB を使って設置する場合は、ケーブルを接続してからカメラのアタッチメントをパイプに取り付けてください。詳細はオプションに同梱の設置ガイドをご覧ください。
 - 親水コーティングモデルの保護シートは、カメラの設置が完了するまで取り外さないでください (★)。

- EN
- This document describes the wall installation for the Wall Mounting kit WM10-VB.
 - The ceiling installation process is the same as the wall installation. In the case of installation using the 1.5 inch pipe adapter PA10-15-VB, be sure to connect the cable to the camera first, before fixing the attachment to the pipe. For details, refer to the Installation Guide included in the option item.
 - Do not remove the protective sheet of the hydrophilic coating model until installation of the camera is completed (★).

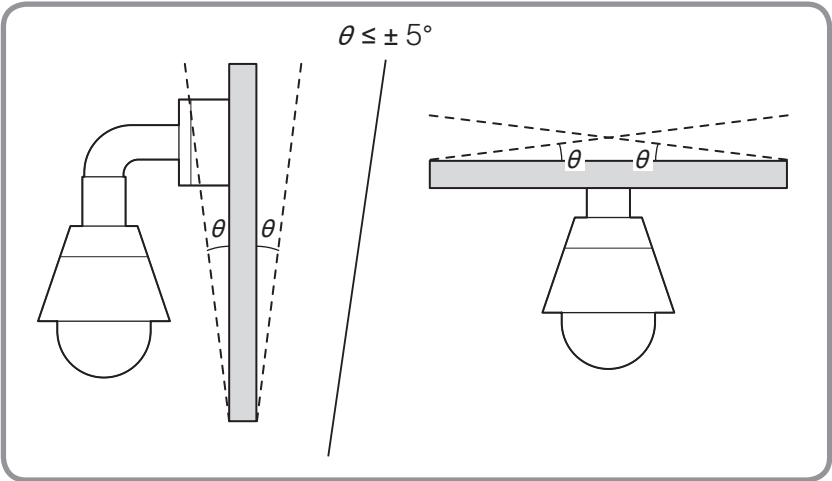
- DE
- Dieses Dokument enthält Informationen über die Wandmontage mit dem Wandmontagesatz WM10-VB.
 - Der Installationsvorgang für die Deckenmontage entspricht dem für die Wandmontage. Wenn Sie für die Installation den 1,5-Zoll-Rohradapter PA10-15-VB verwenden, verbinden Sie unbedingt zuerst das Kabel mit der Kamera, bevor Sie die Befestigung am Rohr anbringen. Informationen hierzu finden Sie in der Installationsanleitung des optionalen Artikels.
 - Entfernen Sie die Schutzabdeckung des Modells mit hydrophiler Beschichtung erst, wenn die Installation der Kamera abgeschlossen ist (★).

- ES
- En este documento se describe la instalación en pared del Kit de montaje en pared WM10-VB.
 - El proceso de instalación en techo es el mismo que para la instalación en pared. En caso de una instalación con el adaptador canalización de 1,5 pulgadas PA10-15-VB, asegúrese de conectar primero el cable a la cámara antes de fijar la conexión a la tubería. Para obtener más información, consulte la Guía de instalación que se incluye con la opción.
 - No retire la hoja protectora del modelo con revestimiento hidrófilo hasta que se haya completado la instalación de la cámara (★).

- FR
- Ce document décrit l'installation au mur du Kit de montage mural WM10-VB.
 - La procédure d'installation au plafond est identique à celle au mur. Si lors de l'installation vous utilisez un adaptateur de tuyau 1,5 pouces PA10-15-VB, veuillez à connecter d'abord le câble à la caméra, avant de procéder à la fixation au tuyau. Pour davantage de détails, consultez le Manuel d'installation fourni avec l'objet en option.
 - Ne retirez pas la feuille de protection du modèle à revêtement hydrophile tant que l'installation de la caméra n'est pas terminée (★).

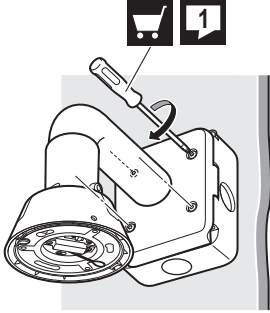
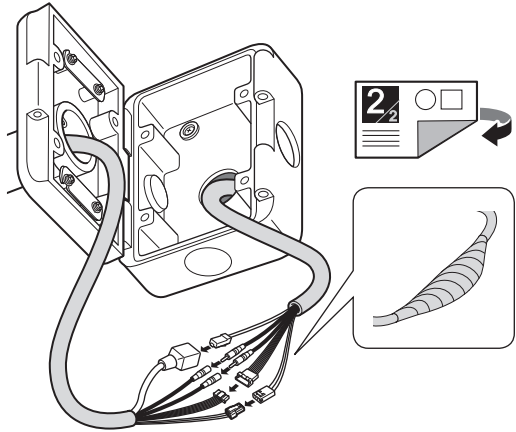
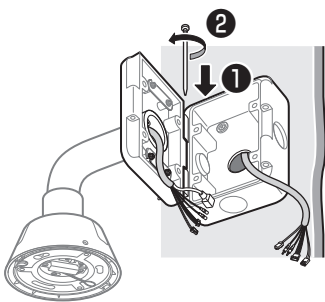
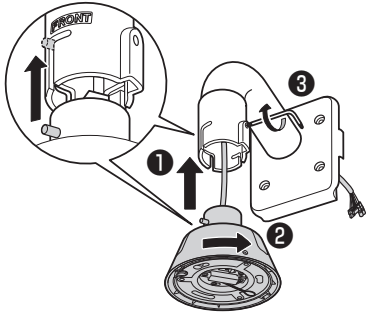
- IT
- Il presente documento descrive l'installazione a parete del Kit di montaggio a parete WM10-VB.
 - Il processo di installazione a soffitto è uguale a quello di installazione a parete. Durante l'installazione tramite adattatore per tubi da 1,5 pollici PA10-15-VB, collegare prima il cavo alla telecamera e poi fissare l'attacco al tubo. Per i dettagli, consultare la Guida all'installazione inclusa con l'articolo opzionale.
 - Non rimuovere la pellicola protettiva del modello con rivestimento idrofilo fino al termine dell'installazione della telecamera (★).

- RU
- В данном документе приводится описание монтажа на стене для комплекта для крепления на стену WM10-VB.
 - Процедура монтажа на потолке такая же, как при монтаже на стене. В случае монтажа с использованием трубного переходника 1,5 дюйма PA10-15-VB обязательно сначала подсоедините к камере кабель, прежде чем подсоединять крепеж к трубке. Подробные сведения см. в документе «Руководство по установке», входящем в комплект дополнительного оборудования.
 - Не снимайте защитный лист модели с гидрофильным покрытием до завершения установки камеры (★).



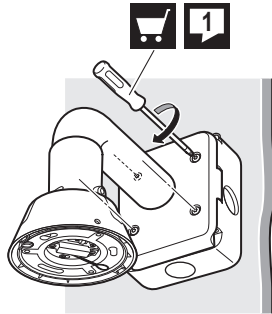
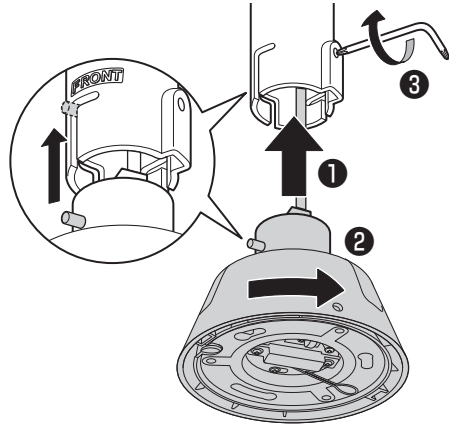
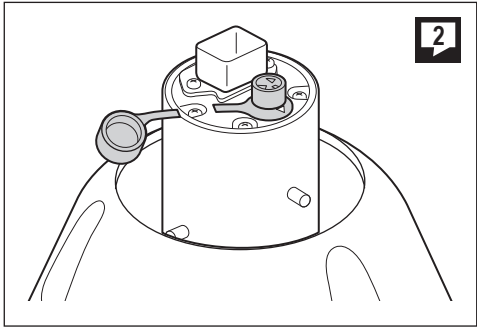
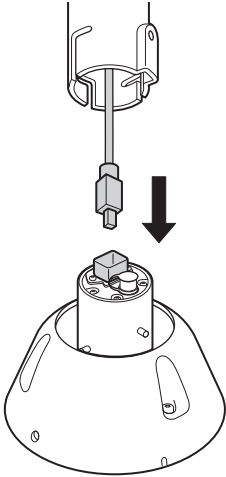
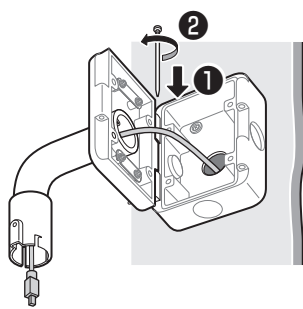
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R13VE R11VE

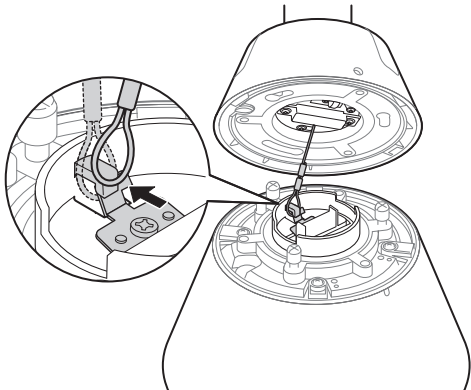


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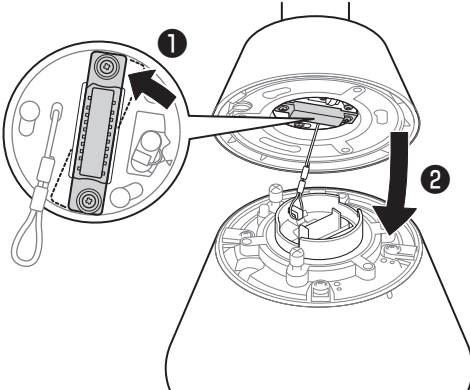
R12VE R10VE



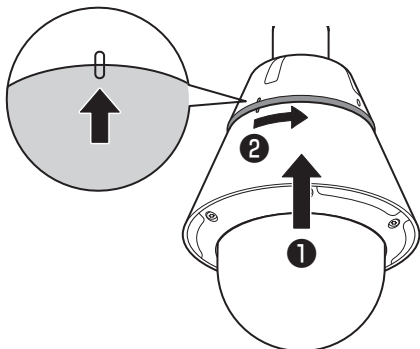
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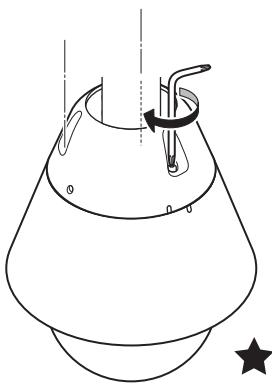
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5



6



- TR** • Bu belgede Duvar Montaj kiti WM10-VB duvara kurulma işlemi açıklanmaktadır.
- Tavana kurma işlemi duvara kurma işlemiyle aynıdır. 1,5 inçlik boru adaptörünü (PA10-15-VB) kurarken, bağlantıyı boruya sabitlemeden önce kabloyu kameraya bağlamayı unutmayın. Ayrıntılı bilgi için bu seçenekle birlikte gelen Kurulum Kılavuzu'na bakın.
- Kameranın kurulumu tamamlanana kadar su emici kaplamalı modelin koruyucu tabakasını çıkarmayın (★).
- PL** • W niniejszym dokumencie opisano montaż ścienny w przypadku Zestawu do montażu ściennego WM10-VB.
- Proces montażu sufitowego jest taki sam jak montażu ściennego. W przypadku montażu przy użyciu 1,5-calowego adaptera rurkowego PA10-15-VB należy pamiętać, aby najpierw podłączyć przewód do kamery, przed przyłączeniem mocowania do rury. Szczegółowe informacje zawiera „Instrukcja instalacji” dołączona do elementu opcjonalnego.
- Nie należy usuwać materiału ochronnego z modelu z powłoką hydrofilową do czasu zakończenia instalacji kamery (★).
- TH** • เอกสารนี้จะอธิบายการติดตั้งบนผนังสำหรับชุดติดตั้งบนผนัง WM10-VB
- กระบวนการติดตั้งบนเพดานจะเหมือนกับการติดตั้งบนผนัง ในกรณีของการติดตั้งโดยใช้ข้อต่อแปลงแบบท่อ 1.5 นิ้ว PA10-15-VB ต้องแน่ใจว่าได้เชื่อมต่อสายเคเบิลเข้ากับกล่องตั้งแต่แรกก่อนจะยึดอุปกรณ์ติดตั้งเข้ากับท่อ สำหรับรายละเอียด โปรดดูคู่มือการติดตั้งที่มีมาให้ในรายการอุปกรณ์เสริม
- อย่านำแผ่นป้องกันของรุ่นสารเคลือบไฮโดรฟิลิกออกจนกว่าการติดตั้งกล่องจะเสร็จสมบูรณ์ (★)
- KO** • 이 설명서는 벽면 설치 키트 WM10-VB를 사용한 벽면 설치를 기재하고 있습니다.
- 천장 설치 과정은 벽면 설치와 동일합니다. 1.5 인치 파이프 어댑터 PA10-15-VB를 사용하여 설치하는 경우는 케이블을 연결한 다음 카메라의 부속 장치를 파이프에 설치하십시오. 자세한 내용은 옵션에 동봉되어 있는 설치가이드를 참조하십시오.
- 친수성 코팅 모델의 보호 시트는 카메라의 설치가 완료될 때까지 제거하지 마십시오 (★).

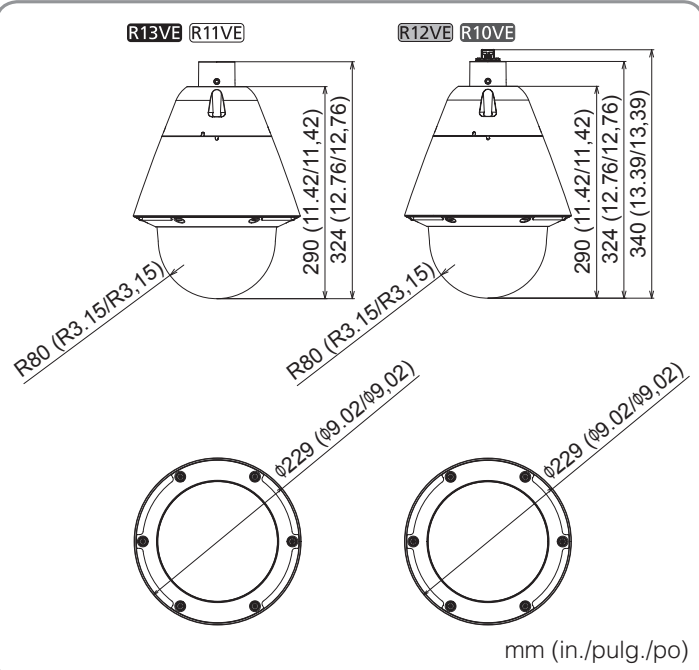
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- JA** トルクス T30 ドライバー
トルクスは Acument Intellectual Properties, LLC の商標です。
- EN** TORX T30 driver
TORX is the trademark of Acument Intellectual Properties, LLC.
- DE** TORX T30 Schraubenzieher
TORX ist die Marke von Acument Intellectual Properties, LLC.
- ES** Destornillador TORX T30
TORX es la marca comercial de Acument Intellectual Properties, LLC.
- FR** Clé TORX T30
TORX est une marque commerciale d'Acument Intellectual Properties, LLC.
- IT** Cacciavite TORX T30
TORX è un marchio commerciale di Acument Intellectual Properties, LLC.
- RU** Отвертка TORX T30
TORX — торговая марка Acument Intellectual Properties, LLC.
- TR** TORX T30 sürücüsü
TORX, Acument Intellectual Properties, LLC'nin ticari markasıdır.
- PL** Wkręтак TORX T30
TORX jest znakiem towarowym fi rmy Acument Intellectual Properties, LLC.
- TH** ไขควง TORX T30
TORX เป็นเครื่องหมายการค้าของ Acument Intellectual Properties, LLC
- KO** TORX T30 드라이버
TORX는 Acument Intellectual Properties, LLC의 상표입니다 .

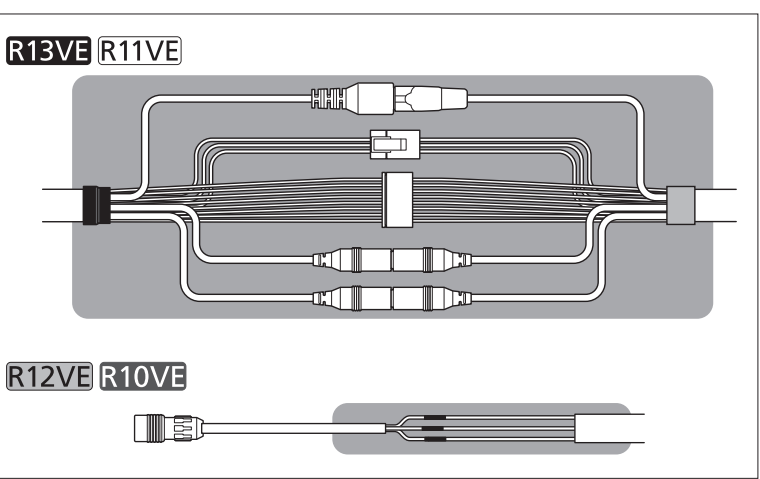
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- JA** 電源インターフェースケーブル（防水）をご使用の場合は、キャップは切断してください。また、切断したキャップは保管しておいてください。電源インターフェースケーブル（防水）を使用しない場合は、キャップをつけないと水が溜まり、カメラ本体が壊れます。

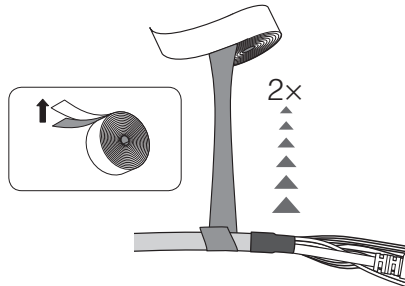
- EN** Cut off the cap if the power interface cable (Waterproof) is to be used. Keep the cut-off cap in a safe location. If the cap is not attached when the power interface cable (Waterproof) is not being used, it may result in the accumulation of water, which will damage the camera body.
- DE** Trennen Sie die Abdeckung ab, falls das Netzschnittstellenkabel (mit Wasserschutz) verwendet werden soll. Bewahren Sie die abgetrennte Abdeckung an einem sicheren Ort auf. Falls die Abdeckung nicht angebracht ist, obwohl das Netzschnittstellenkabel (mit Wasserschutz) nicht verwendet wird, sammelt sich möglicherweise Wasser an. Dies kann zu Schäden am Kameragehäuse führen.
- ES** Si se va a utilizar el cable de interfaz de alimentación (resistente al agua), corte el tapón. Guarde el tapón cortado en un lugar seguro. Si no se coloca el tapón cuando no se va a utilizar el cable de interfaz de alimentación (resistente al agua), puede acumularse agua, lo que dañarí a el cuerpo de la cámara.
- FR** Coupez le capuchon si vous prévoyez d'utiliser le câble d'interface d'alimentation (étanche). Rangez le capuchon découpé en lieu sûr. Si le capuchon n'est pas fixé alors que vous n'utilisez pas le câble d'interface d'alimentation (étanche), de l'eau peut s'accumuler, ce qui risque d'endommager le boîtier de la caméra.
- IT** Rimuovere il cappuccio se si intende utilizzare il cavo interfaccia di alimentazione (impermeabile). Conservare il cappuccio rimosso in un luogo sicuro. Se il cappuccio non viene ricollocato sulla telecamera quando non si utilizza il cavo interfaccia di alimentazione (impermeabile), può prodursi un accumulo d'acqua che rischia di danneggiare il corpo della telecamera.
- RU** Удалите заглушку, если необходимо использовать интерфейсный кабель (водостойкий). Храните удаленную заглушку в надеж ном месте. Если заглушка не прикреплена, когда интерфейсный кабель (водостойкий) не исполь зу ется, может происходить накоплен е влаги, которая повредит корпус камеры.
- TR** Güç arabirim kablosu (Su Geçirmez) kullanılacaksa başlığı kesin. Kesilen başlığı güvenli bir yerde saklayın. Güç arabirim kablosu (Su Geçirmez) kullanılmadığında başlık takılmazsa, bu durum su birikmesine neden olabilir ve bunun sonucunda kamera gövdesi zarar görür.
- PL** Odetnij kołpak, jeśli ma być używany kabel interfejsu zasilania (wodoodporny). Schowaj odcięty kołpak w bezpiecznym miejscu. Jeśli kołpak nie jest podłączony, gdy kabel interfejsu zasilania (wodoodporny) nie jest używany, może to powodować gromadzenie się wody, co spowoduje uszkodzenie korpusu kamery.
- TH** ให้ตัดสายฝาครอบออกเมื่อมีการใช้งานสายเคเบิลเชื่อมต่อ (กันน้ำ) เก็บฝาครอบไว้ในที่ปลอดภัย หากไม่ไ้ใช้งานสายเคเบิลเชื่อมต่อพลังงาน (กันน้ำ) แล้วไม่ไ้ได้นำฝาครอบไว้ จะทำให้กล่องมีน้ำมาสะสมซึ่งจะทำให้ตัวกล่องเสียหายได้
- KO** 전원 인터페이스 케이블 (방수)을 사용하실 때에는 캡을 절단해 주십시오. 절단한 캡은 보관바랍니다. 전원 인터페이스 케이블(방수)을 사용하지 않는 경우에는 캡을 씌우지 않으면 물이 고여 카메라 본체가 고장납니다.



- JA** ケーブル接合部には、同梱の防水テープを巻いてください。
- EN** Wrap the included waterproof tape to the cable connection.
- DE** Wickeln Sie das im Lieferumfang enthaltene wasserabweisende Band um die Kabelverbindung.
- ES** Envuelva la conexión del cable con la cinta resistente al agua incluida.
- FR** Entourez le câble de connexion de ruban adhésif étanche fourni.
- IT** Avvolgere il nastro impermeabile in dotazione al collegamento del cavo.
- RU** Обмотайте кабельное соединение прилагаемой водостойкой лентой.
- TR** Dahil edilen su geçirmez bandı kablo bağlantısına sarın.
- PL** Owiń dołączoną taśmą wodoszczelną połączenie przewodów.
- TH** พันเทปกันน้ำตรงส่วนเชื่อมต่อสายเคเบิล
- KO** 케이블의 연결 부위에 동봉된 방수 테이프를 감아 주십시오.

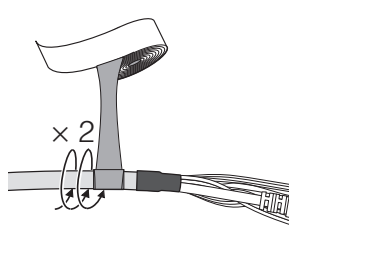


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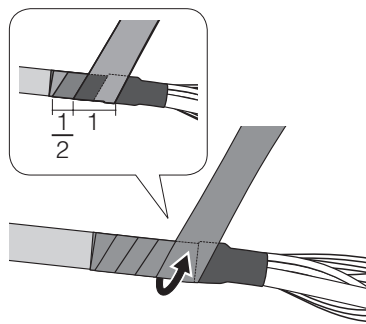


巻き始めの位置に注意
Be careful as to where to start wrapping.
Achten Sie darauf, wo Sie mit dem Umwickeln beginnen.
Tenga cuidado con dónde empieza a envolver.
Soyez particulièrement attentif à l'endroit où vous commencez à entourer le câble.
Prestare attenzione a dove si inizia con l'avvolgimento.
Внимательно определите, где следует начать обматывание.
Sarmaya nereden başlayacağınızı dikkat edin.
Zwróć uwagę, w którym miejscu zacząć owijanie.
ระมัดระวังตรงบริเวณที่เริ่มพันหุ้ม
감기를 시작할 위치에 주의하십시오.

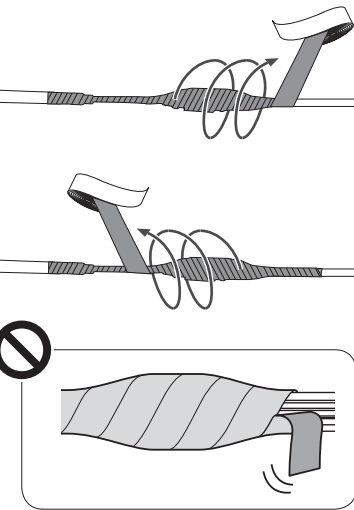
2



3



4



5

