

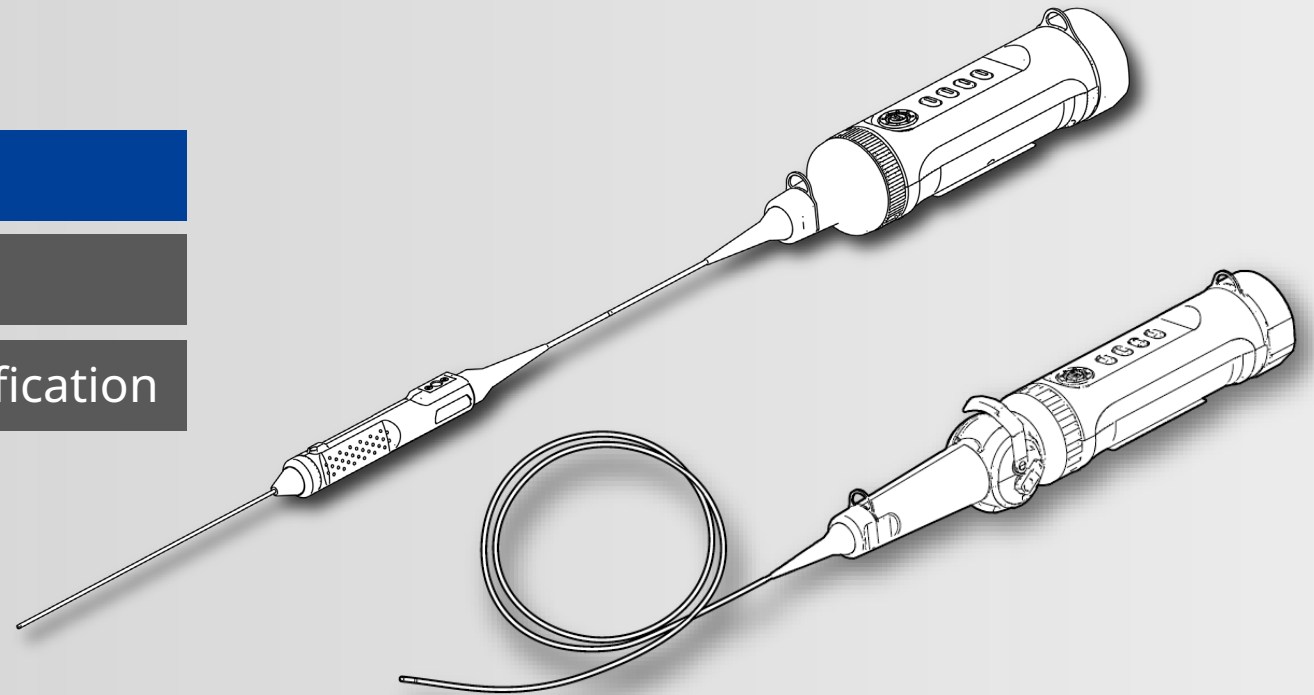
# ***i*PLEX TXII**

## Brief Operating Manual

[Pages 2 to 8] Basic usage

[Pages 9 to 13] Storage and optional items

[Pages 14 to 17] Precautions for use and specification

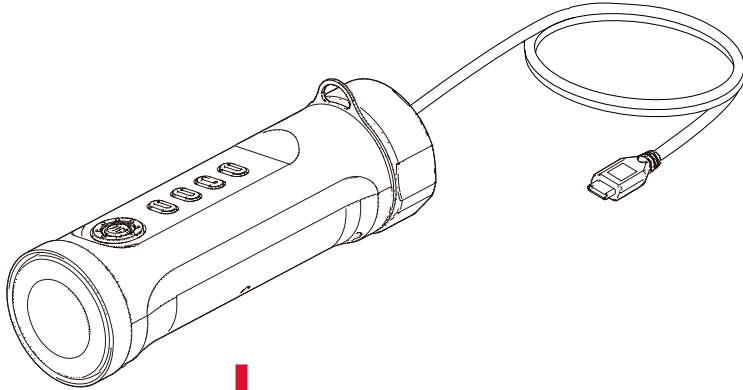


**\* Please make sure to read the included “Operating Manual” before using this product.**

MM4888 01

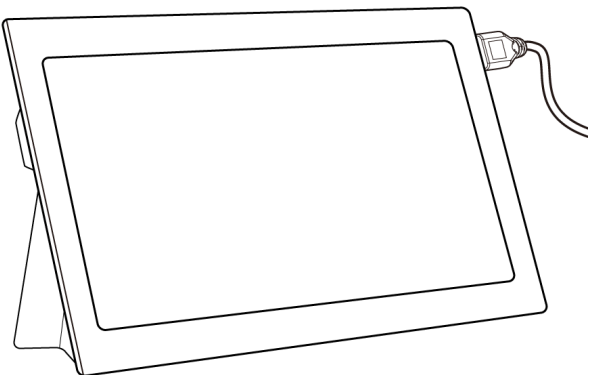
# Product components

Control unit

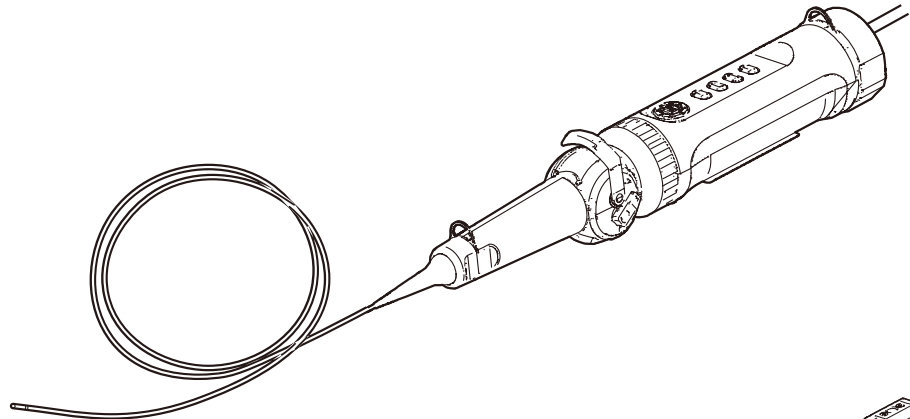


To be connected  
via USB cables

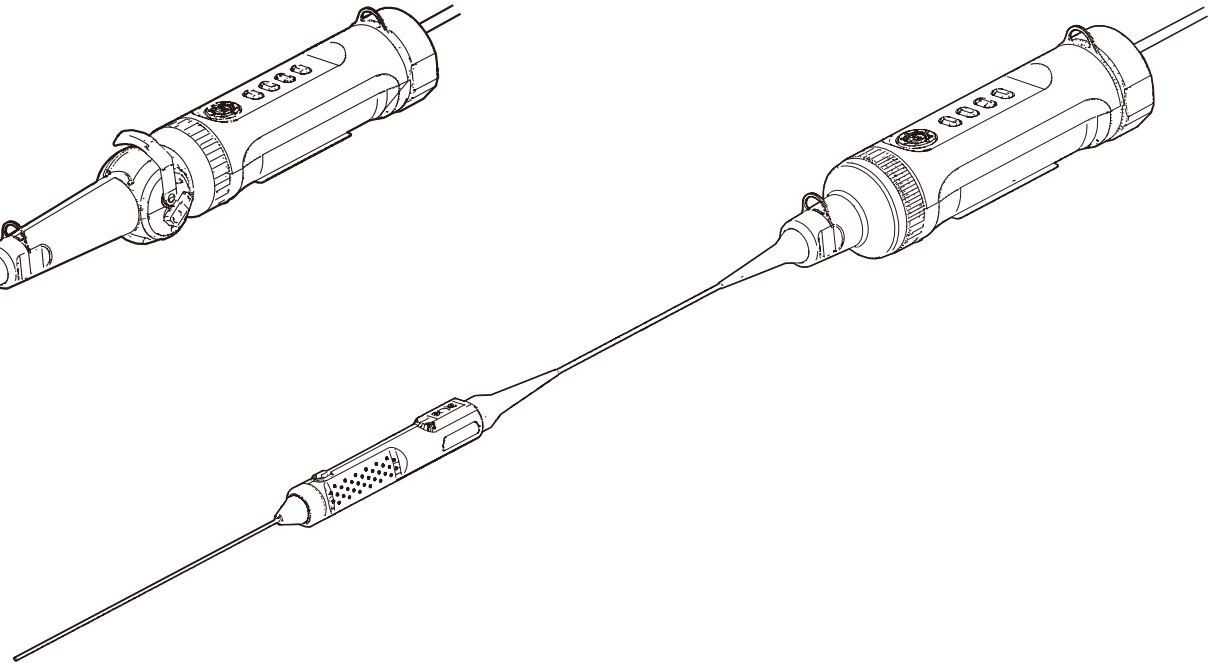
Tablet



Flexible scope unit

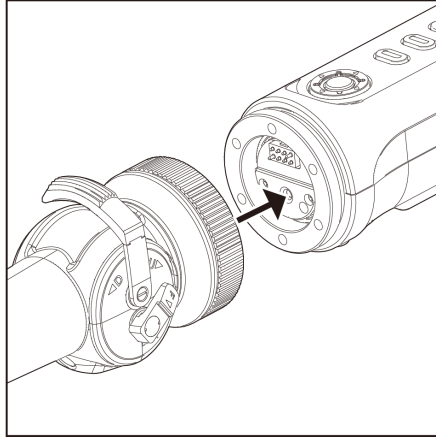
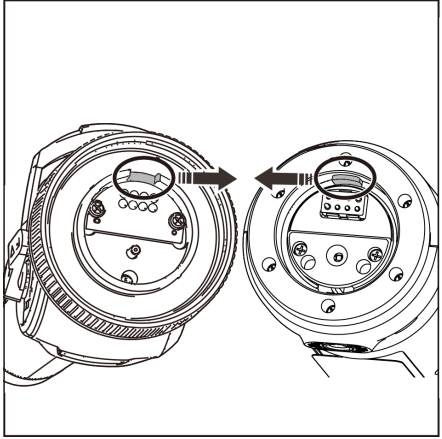


Rigid scope unit

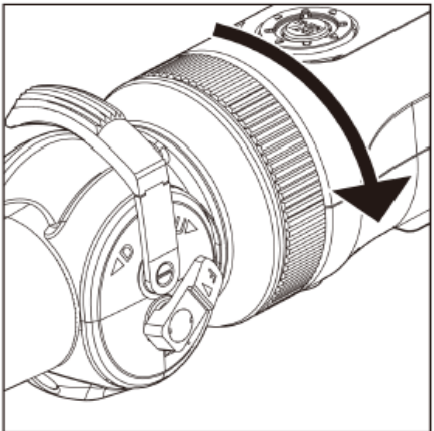


\* For information on how to connect the scope units, please see page 3.

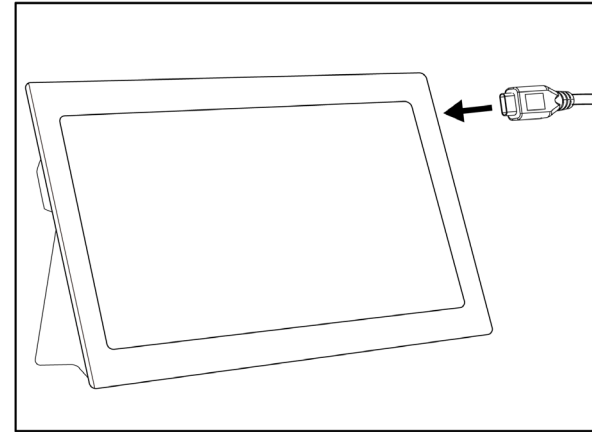
**1. Align the scope unit with the control unit and apply clamping rings.**



**2. Tighten the clamping ring to fix the scope unit.**



**3. Connect the cable from the control unit to the tablet.**

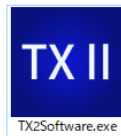


**1. Download the .zip file containing the TXII software from the download site below and decompress it.**

<https://www.olympus-ims.com/service-and-support/downloads/>



**2. Double-click the icon to start the software.**



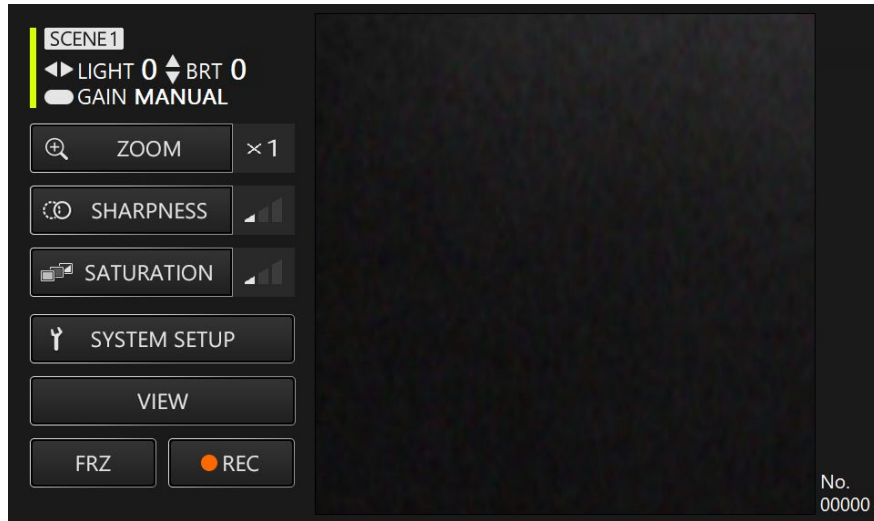
**3. Activate the application program. Enter the key code to activate the software. (Activation is only required when you establish a connection with the control unit for the first time.)**



Enter the key code and then click [Execute]

How to make observations

**1. While watching the live image, insert the insertion section into the object under test and then observe the area of interest.**

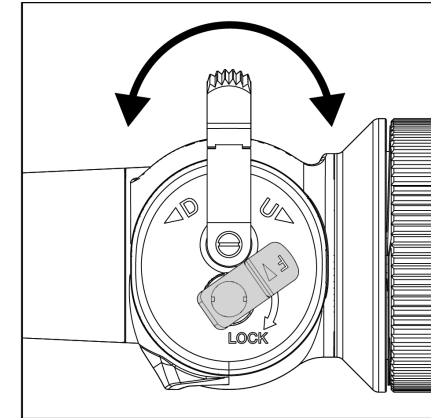
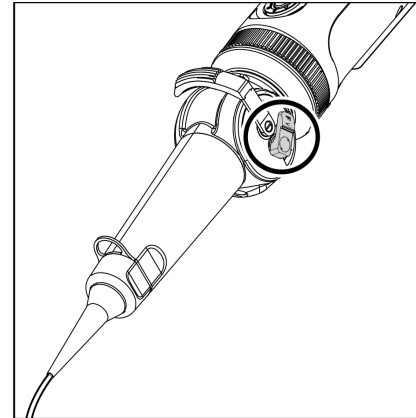


**2. To end the observation, slowly withdraw the insertion section from the object under test while watching the live image.**

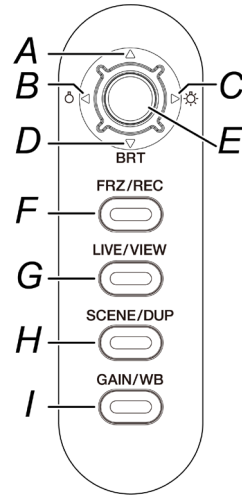
How to operate the flexible scope unit (angle lever)

While performing a bending operation, observe the area of interest

**1. Unlock the angle lever in locked state and then perform a bending operation with the angle lever.**

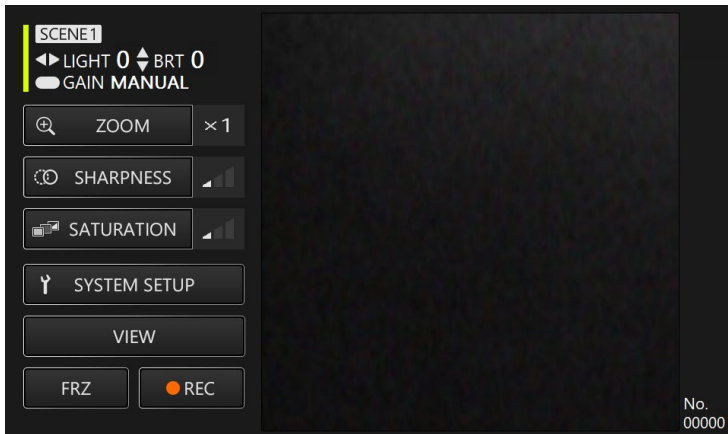


### Control unit, buttons



### Application screen

Icons will be displayed.

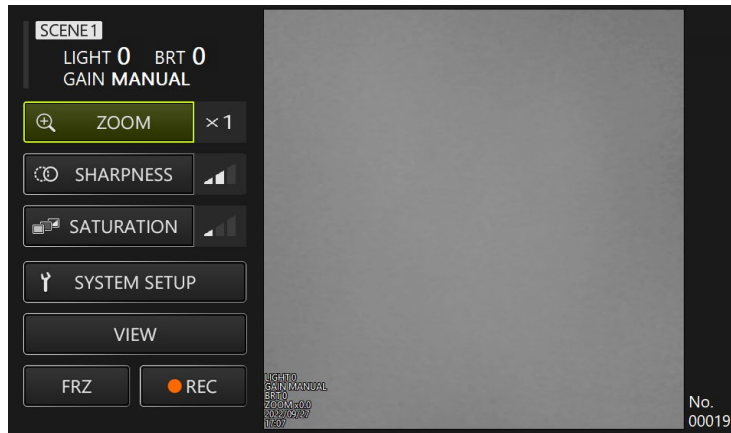


In Remote Control mode, you can perform operations using the buttons on the control unit.

|          | Button             |                | Function   |
|----------|--------------------|----------------|--|
| <b>A</b> | Cross-hair key [U] | Briefly press  | Increases intensity to the next higher level.  |
| <b>B</b> | Cross-hair key [L] | Briefly press  | Decreases the quantity of light to the next lower level.   |
| <b>C</b> | Cross-hair key [R] | Briefly press  | Increases the quantity of light to the next higher level.  |
| <b>D</b> | Cross-hair key [D] | Briefly press  | Decreases intensity to the next lower level.   |
| <b>E</b> | [ENT/MODE] button  | Press and hold | Switches between Remote Control mode and GUI mode.   |
| <b>F</b> | [FRZ/REC] button   | Briefly press  | Switches between freezing and unfreezing the observation image.  |
|          |                    | Press and hold | Saves the image on the Freeze screen. When the Live screen is displayed, a dialog appears prompting you to confirm whether or not to record the video. |
| <b>G</b> | [LIVE/VIEW] button | Briefly press  | Displays a live video.   |
|          |                    | Press and hold | Switches between live video and the View screen.   |
| <b>H</b> | [SCENE/DUP] button | Briefly press  | Switches between <SCENE1> and <SCENE2>.  |
|          |                    | Press and hold | Copies the scene setting selected to a scene setting that hasn't been selected.  |
| <b>I</b> | [GAIN/WB] button   | Briefly press  | Switches Gain mode between <AUTO> and <MANUAL>. Disabled when the image is frozen.   |
|          |                    | Press and hold | Performs white balance. Disabled when the image is frozen.   |

### Application screen

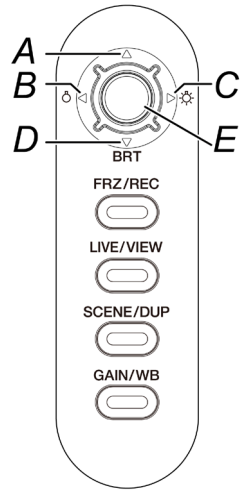
\* The selected field is highlighted in yellow.



In GUI mode, operations can be performed via the touch panel of the tablet or a mouse. (For some operations, buttons on the control unit are also used.)

|                 | Menu buttons  | Function  |
|-----------------|---------------|---|
| [ZOOM]          | ZOOM          | Changes a zoom factor to another.<br>Makes zoom-in to 200% (x2) from 100% (x1) and zoom-out to 100% (x1) from 200% (x2).  |
| [SHARPNESS]     | SHARPNESS     | Adjusts how sharp the image looks.<br>Intensifies sharpness from left to right (three levels are available).  |
| [SATURATION]    | SATURATION    | Adjusts the color on the observation image before displaying it.<br><ul style="list-style-type: none"> <li> Monochrome: Displays the observation image in monochrome.</li> <li> Standard: Displays the observation image as standard.</li> <li> Dark: Displays the observation image so that it looks rather dark overall.</li> </ul> |
| [SYSTEM SETUP]  | SYSTEM SETUP  | Displays the System Setting screen.   |
| [DISPLAY]       | DISPLAY       | Allows the user to select whether or not to display information on the screen.  |
| [CHANGE FOLDER] | CHANGE FOLDER | Selects the folder to which the image/video will be saved.  |
| [VERSION]       | VERSION       | Displays the version number.<br>Displays the version number of the application program.   |
| [VIEW]          | VIEW          | Displays image or video.<br>Displays saved image or video.  |
| [FRZ]           | FRZ           | Switches between Live screen and Freeze screen.   |
| [REC]           | REC           | When Live screen is displayed, the observation image starts to be recorded.<br>When Freeze screen is displayed, the stationary image is saved.  |

### Control unit, buttons



In GUI mode, only the following buttons work.

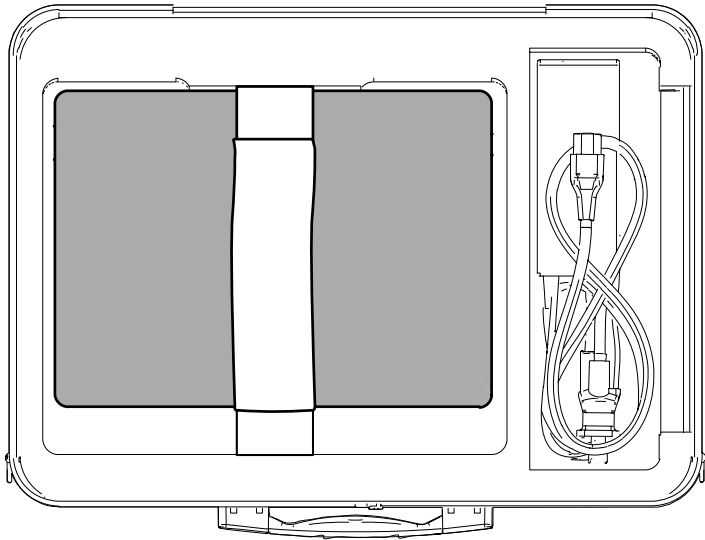
|          | Button             |                | Function   |
|----------|--------------------|----------------|--|
| <b>A</b> | Cross-hair key [U] | Briefly press  | Moves the cursor up                                |
| <b>B</b> | Cross-hair key [L] | Briefly press  | Moves the cursor to the left                       |
| <b>C</b> | Cross-hair key [R] | Briefly press  | Moves the cursor to the right                      |
| <b>D</b> | Cross-hair key [D] | Briefly press  | Moves the cursor down                              |
| <b>E</b> | [ENT/MODE] button  | Briefly press  | Confirms   |
|          |                    | Press and hold | Switches between Remote Control mode and GUI mode. |



### Placing the tablet in the carrying case

Pull the belt out of the bottom of the tablet, and then affix the hook surface to the loop surface to firmly fix the tablet.

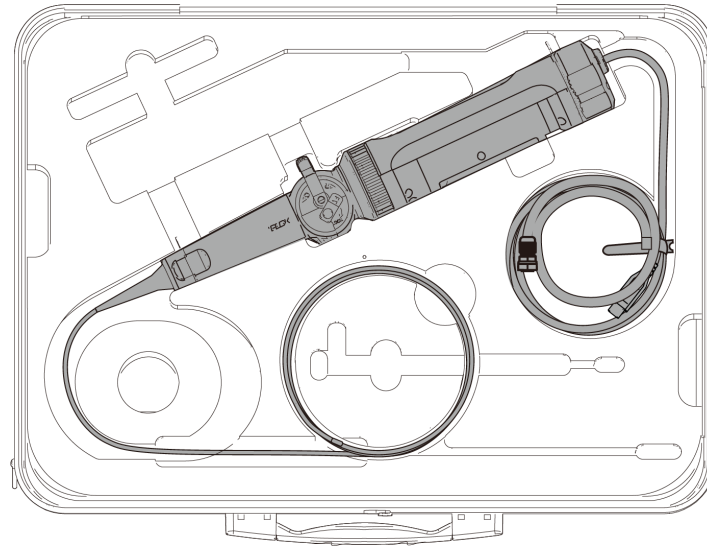
- \* Place peripheral devices such as the AC adapter in the space on the right.



### Placing the flexible scope unit

The components should be placed in the carrying case with the logos facing the front.

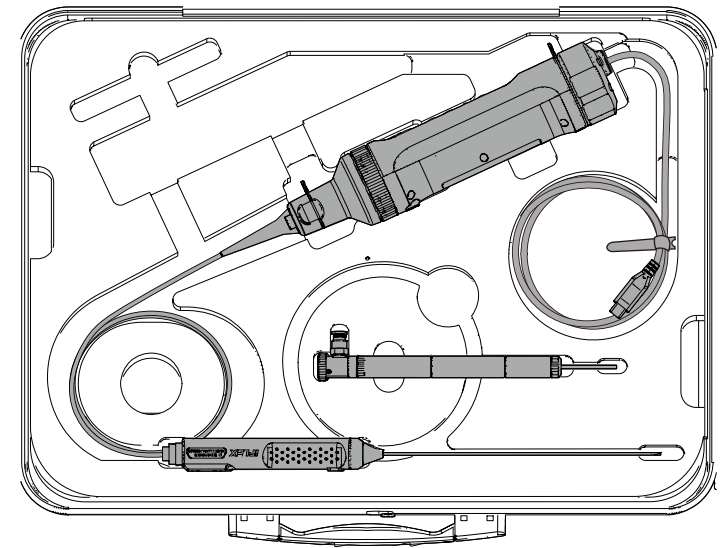
- \* Place the insertion section in the carrying case so that the distal end fits inside the case.
- \* Place peripheral devices such as the protection braid in the space on the right.



### Placing the rigid scope unit

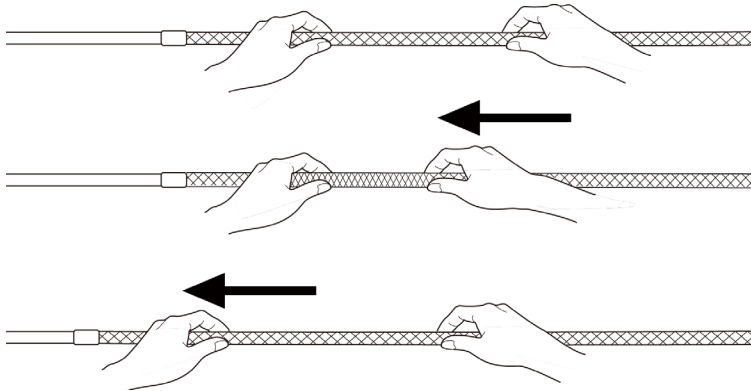
For storage, wind the cable attached to the scope twice around the scope.

- \* Remove the protection sleeve and grip extender from the rigid scope unit and then place them in the carrying case.

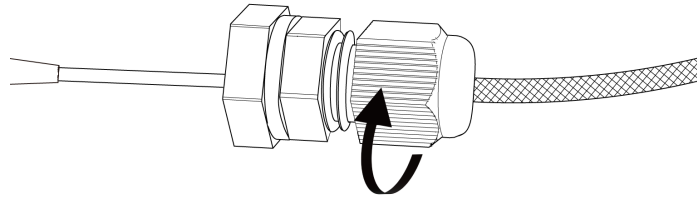


### Attaching the protection braid to the flexible scope

1. With the insertion section of the scope stretched, position the protection braid over the insertion section by repeatedly elongating and contracting the protection braid.

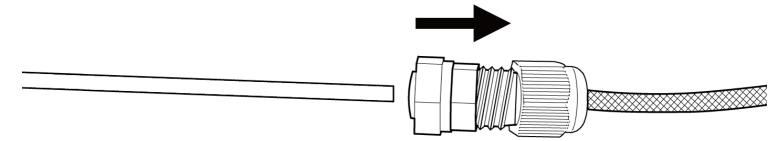


2. Once the entire length of the protection braid has covered the insertion section, insert the braid stopper into the insertion section and then firmly tighten the tightening screw of the braid stopper.



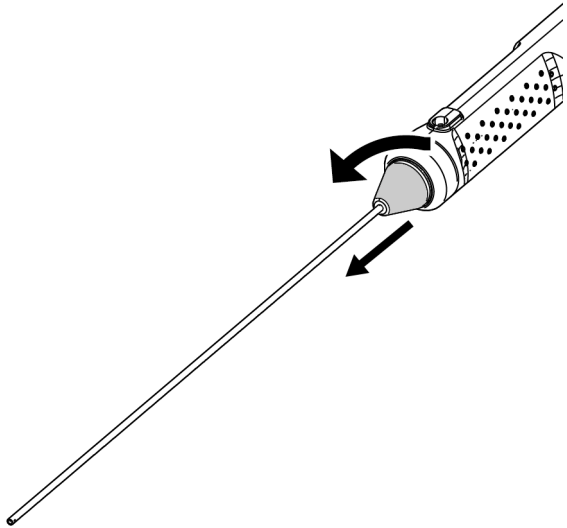
### Removing the protection braid from the flexible scope

1. Loosen the tightening screw of the braid stopper and then slowly withdraw the protection braid from the scope.

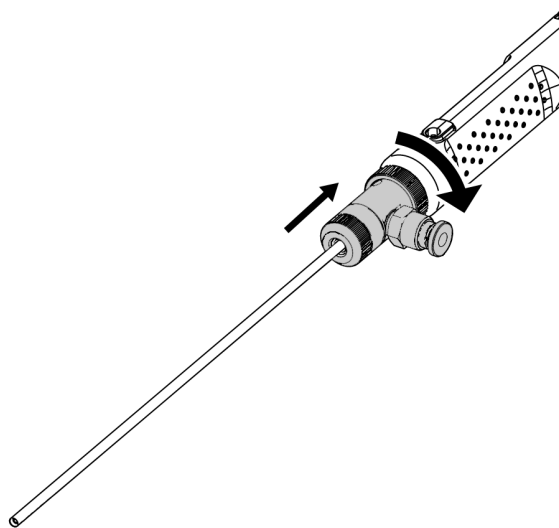


### Removing the protection sleeve from the rigid scope

1. Remove the bending-proof device from the rigid scope unit by rotating it counterclockwise.

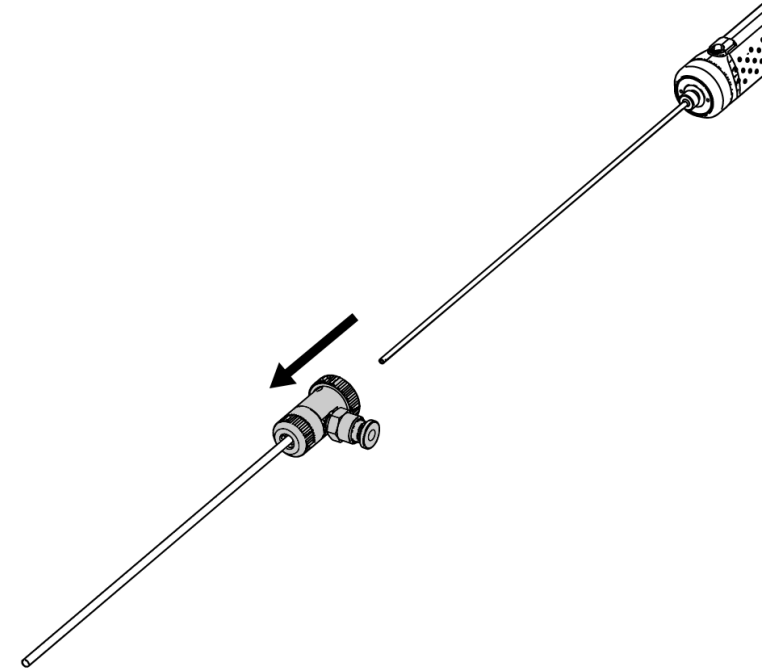


2. Attach the protection sleeve to the rigid scope unit and then fix it by rotating the clamping ring clockwise.



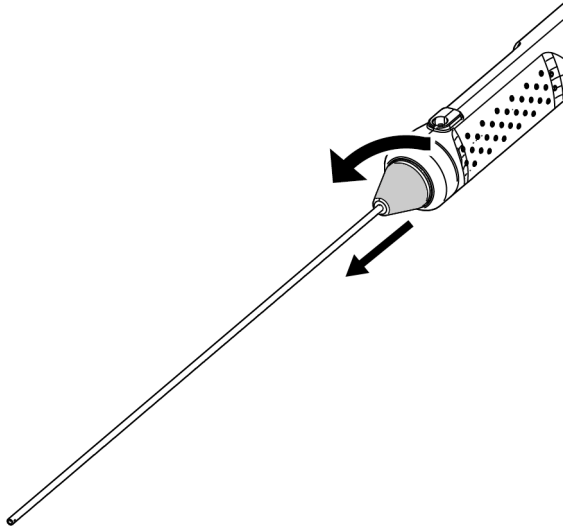
### Removing the protection sleeve from the rigid scope

1. Remove the clamping ring by rotating it counterclockwise. Attach the bending-proof device and then fix it by rotating it clockwise.

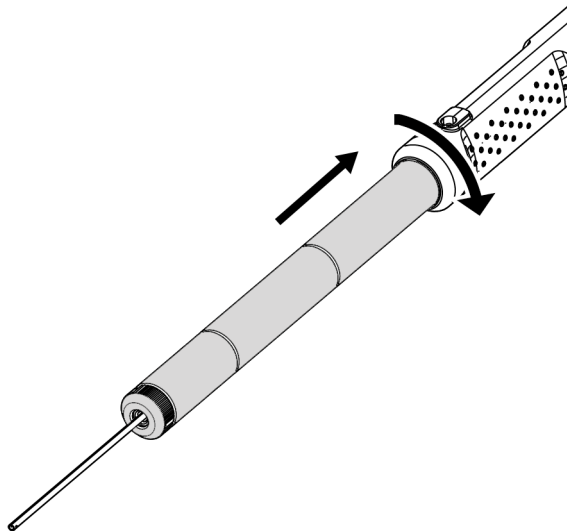


### Attaching the grip extender to the rigid scope

1. Remove the bending-proof device from the rigid scope unit by rotating it counterclockwise.

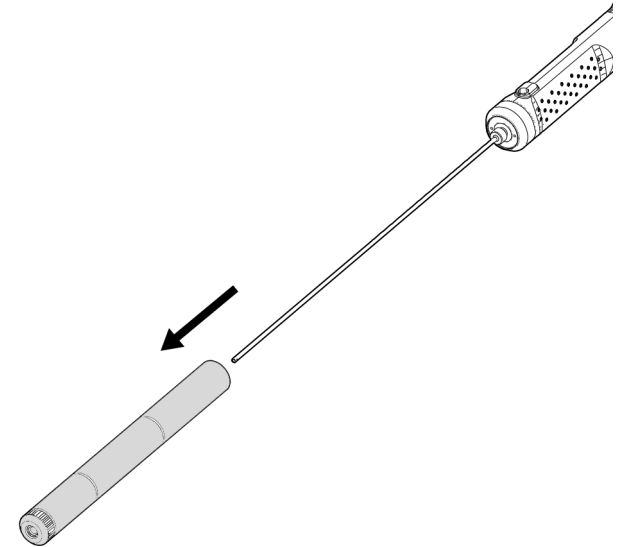


2. Attach the grip extender to the rigid scope unit and then fix it by rotating it clockwise.



### Removing the grip extender from the rigid scope

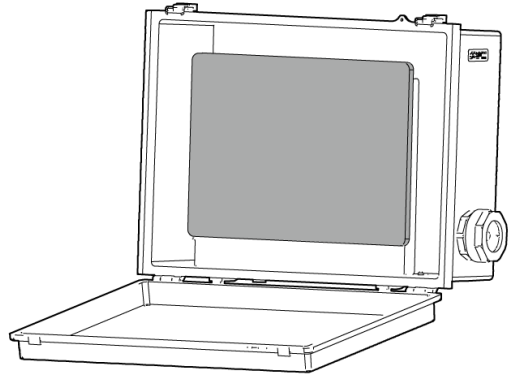
1. Remove the grip extender by rotating it counterclockwise. Attach the bending-proof device and then fix it by rotating it clockwise.



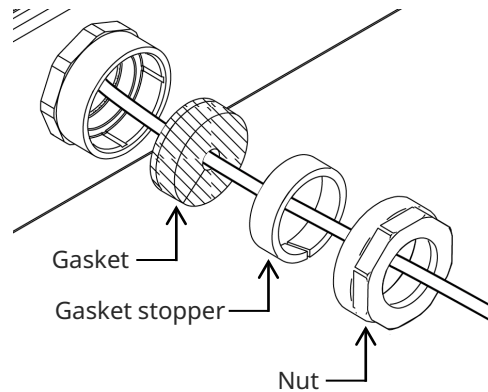
# How to assemble the components

## How to use the protection box

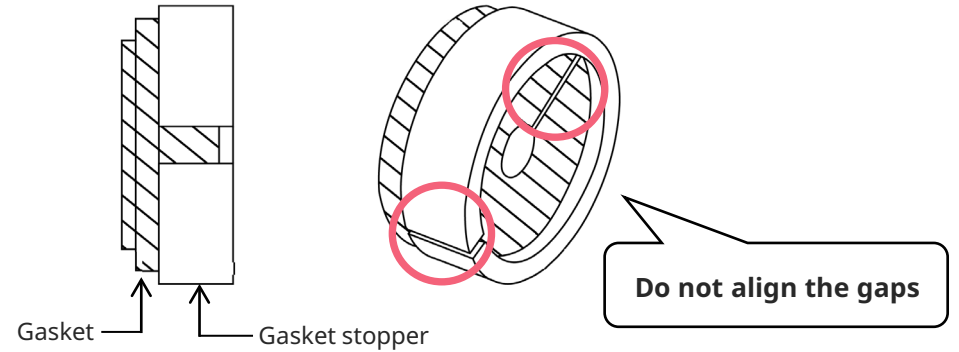
1. Open the lid of the protection box and then place the tablet on the tablet stand.



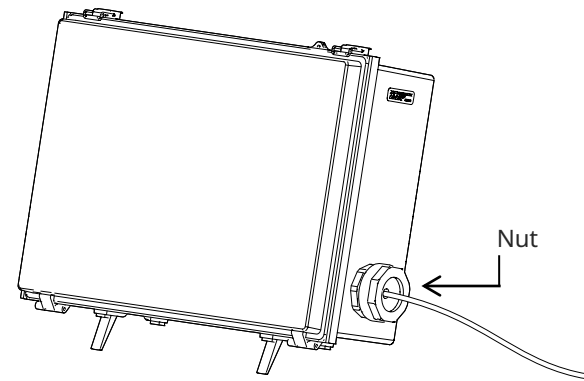
2. Put the USB cable from the control unit through the nut, then the gasket stopper, and finally the gasket.



3. Combine the gasket with the gasket stopper.



4. Attach the nut for the side surface.



**The Operating Manual contains safety-related instructions.  
Please make sure to read them before using this product.**

## Precautions for

### During use

- Do not push in the insertion section with force. Doing so could result in a malfunction
- While withdrawing the insertion section from the object under test, do not bend the bending section  
The distal end of the insertion section includes a lens. Therefore, take care to avoid strong impact on it wherever possible
- Parts other than the insertion section are not constructed to be dust-proof. Therefore, make sure not to soak them in water

### After use

Wipe off any water, oil, dirt, or similar adhering to the product before storing

### During storage

When closing the carrying case, take care to ensure that the insertion section or any other part does not get caught

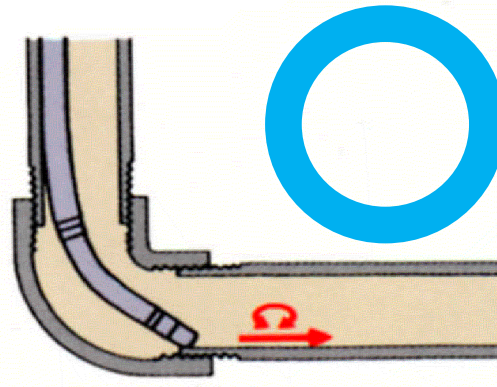
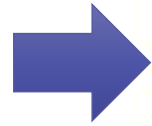
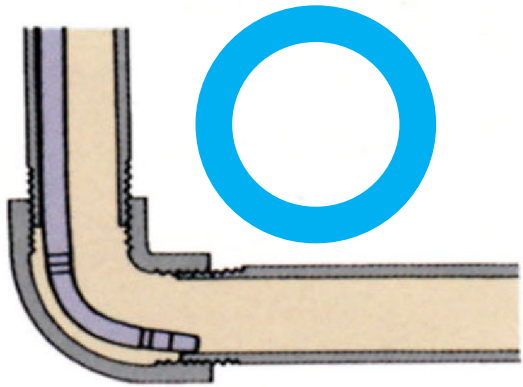
| Item                           |                        | Specification  |
|--------------------------------|------------------------|--|
| Control unit: IV10200T         |                        |  |
| Weight                         |                        | 350 g (including cables)   |
| Control section                | Function               | Performs the following operations: video signal output for displaying live images; gain control; brightness adjustment; zoom-in/zoom-out of images; freezing/recording observation images; bending; menu display; stationary image/thumbnail image display |
|                                | External dimensions    | 172 (L) × 52 (diameter) mm (not including protrusions, cables, or connectors)  |
| Power supply                   |                        | USB power supply from the connected tablet   |
| USB terminal                   |                        | USB2.0 connection, C terminal  |
| Flexible scope unit: IV10212TF |                        |  |
| Weight                         |                        | 255 g  |
| Insertion section              | Scope diameter         | 2.2 mm (dia.)  |
|                                | Scope length           | 1.2 m  |
|                                | Distal end             | 7.85 mm  |
|                                | Exterior               | Metal blade + treatment with special reinforced resin  |
| Tube flexibility               |                        | Bellows with constant rigidity between the distal end of the insertion section and the control section   |
| Optical system                 | Line of sight          | Direct vision (forward)  |
|                                | Angle of visibility    | 120°   |
|                                | Observation depth      | 3 to 80 mm   |
| Illumination                   |                        | Base LED (control unit)<br>(Light is transmitted via the light guide.)   |
| Articulation section           | Articulation angle     | 120 degrees (two directions [up and down])   |
|                                | Articulation mechanics | Articulation mechanics by angle lever  |
| Rigid scope unit: IV10212TR    |                        |  |
| Weight                         |                        | 180 g  |
| Rigid section                  | Scope diameter         | 1.8 mm (dia.)  |
|                                | Scope length           | 180 mm   |
| Optical system                 | Direction of view      | Direct vision (forward)  |
|                                | Field of view          | 120°   |
|                                | Observation depth      | 3 to 80 mm   |
|                                | Illumination           | Base LED (control unit)<br>(Light is transmitted via the light guide.)   |

| Item                        |  | Specification   |
|-----------------------------|--|---|
| Protection box: MAJ-2536    |  |   |
| Weight                      |  | 2.2 kg  |
| External dimensions         |  | 400 (W) × 300 (H) × 150 (D) mm (not including protrusions)                    |
| Function                    |  | Dust/drip-proof performance (equivalent to IP52)                              |
| Protection braid: MAJ-2537  |  |   |
| Weight                      |  | 5.6 g   |
| Diameter                    |  | 2.8 mm (dia.)   |
| Effective length            |  | approx. 1 m   |
| Compatible scope            |  | IV10212TF   |
| Function                    |  | Protects the insertion section  |
| Protection sleeve: MAJ-2538 |  |   |
| Weight                      |  | 32 g  |
| Diameter                    |  | 2.3 mm (dia.)   |
| Effective length            |  | 162 mm  |
| Compatible scope            |  | IV10212TR   |
| Function                    |  | Protects the insertion section and removes drips                              |
| Grip extender: MAJ-2540     |  |   |
| Weight                      |  | 53 g  |
| External dimensions         |  | 30 mm grip<br>30 mm x 14 mm (dia.)<br>48 mm x 14 mm (dia.) grip (quantity: 2) |
| Compatible scope            |  | IV10212TR   |
| Function                    |  | Adjusts effective length  |
| Carrying case               |  |   |
| Weight                      |  | 2.1 g   |
| External dimensions         |  | 455 (W) x 185 (H) x 330 (D) mm (not including protrusions)                    |

| Item                        | Specification  |
|-----------------------------|--|
| Applications                |  |
| Image processing            |  |
| Zoom-in/zoom-out            | Switches between two zoom factors (100% and 200%)  |
| Brightness adjustment       | Switching between Auto (8 levels) and Manual (12 levels) with the [Gain] button<br>Gain and exposure time switching interlocked with brightness control  |
| Image-recording function    |  |
| Recording medium            | Images are recorded to the storage incorporated in the tablet to be used   |
| Print Screen                | The date, time, logo and various setting (light, brightness, zoom, gain) displayed on the screen can be superimposed on the image before the image is saved  |
| Recording stationary images | Resolution: 500 × 500<br>Recording system: JPEG compression (conforms to Exif2); stationary image file size: approx. 1 MB (can record about 1,000 stationary images per GB);<br>file mark not supported. |
| Video recording             | Resolution: 392 × 392<br>Frame rate: 30 fps<br>Recording system: H.264-compliant voice recording not available<br>Video file size: Allows approx. two hours of recording per file                        |

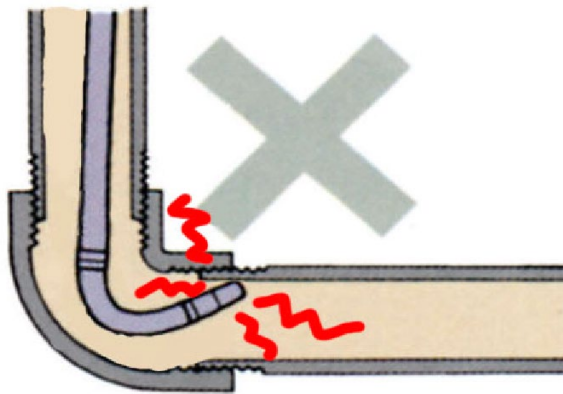
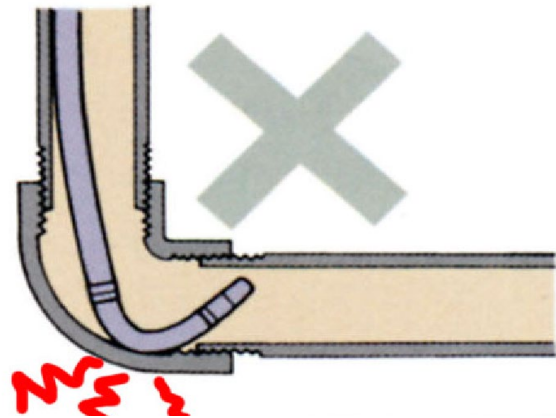


# Insertion techniques



While making an observation, bend the scope towards the piping. Push in the scope until it is placed on the distal end of the joint.

Bend the scope in the reverse direction, and then push it in while rotating it alternately to the left and right.



**Pushing in the scope with force, withdrawing the scope while it is bent, or bending the scope with force could result in malfunction. Avoid doing this.**