

# Instruction for Remote Operation

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# IPLEX G*A*ir

INDUSTRIAL ENDOSCOPE

Industrial Endoscope

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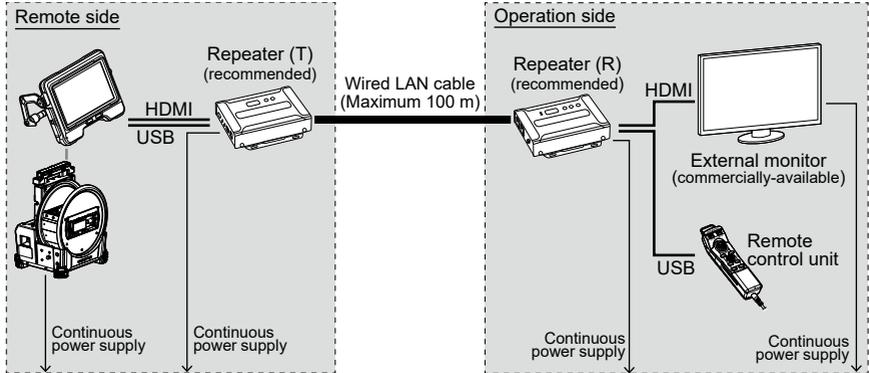
## Notation of unit names

In this instruction manual, the unit names are abbreviated as follows.

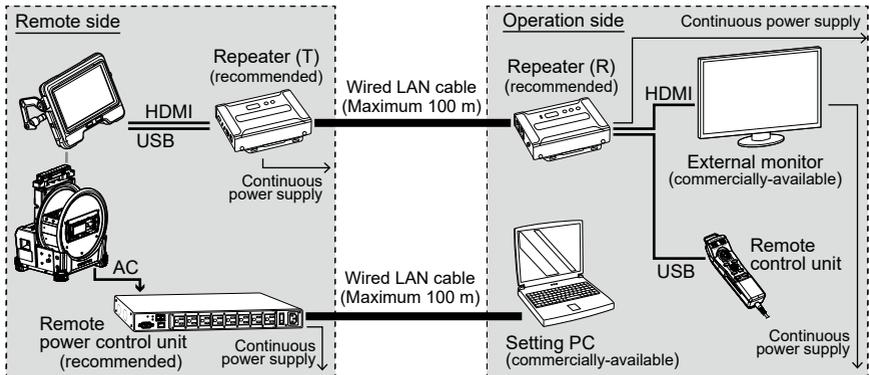
Repeater (Transmitter):      Repeater (T)  
Repeater (Receiver):         Repeater (R)  
Repeater (Transmitter) and Repeater (Receiver): Repeater

This instrument can be operated away from the base unit using the repeater (T) and the repeater (R) (recommended products).

Connecting units as follows allows you to operate this instrument remotely using the remote control unit while looking at the external monitor. (⇒ “1 Operation without controlling the power remotely” (page 2))



Connecting units as follows allows you to control the power of the drum unit in addition to the remote operation. (⇒ “2 Operation with controlling the power remotely” (page 10))



# 1 Operation without controlling the power remotely

## 1-1 Preparation

To check that the remote control unit is connected to the system properly, it is recommended to set the <REMOTE CONTROLLER VIBRATION> menu to <ON> in advance.  
(See “5.2 Using the live screen or freeze screen” in the instruction manual for IPLEX GAir.)

Necessary items:

Type	Model Number / Requirements	Quantity
Repeater (T)	VE8900T or VE8950T* (ATEN)	1
Repeater (R)	VE8900R or VE8950R* (ATEN)	1
External monitor	Commercially-available product (with HDMI type A input connector)	1
USB cable	A male / B male cable supporting USB 2.0 standard	1
HDMI cable	High speed type (Ver 1.4 or higher) compatible A male—A male cable (One unit is provided with IV9000GA.)	1
LAN cable	Straight cable (RJ-45/CAT5e or higher)	1
Setting PC	Windows10 with Wired LAN port LAN Network using the USB-LAN conversion adapter may not function properly. Use the LAN port.	1
LAN cable for setting the network environment	RJ-45/CAT5e or higher is recommended. When the wired LAN port of the setting PC is AutoMDIX, either the straight cable or the crossed cable can be used as the LAN cable.	1

\* As far as using one transmitter and one receiver, the different combination of model number can be used.

\* The firmware version of the transmitter and the receiver must be same.

The operation in the network configuration that is not described in this instruction manual is not guaranteed.

## 1-2 Setting the network environment

The network environment described in this section must be configured for the first time only. It is not necessary to configure it for the second time and after.

### 1-2-1 Preparing IPInstaller

#### 1. Install IPInstaller.

IP Installer must be installed on the setting PC in advance in order to acquire and set the IP address of the repeater.

Also, the Web browser is required for setting the IP address.

**TIP:**

For the procedure to install IP Installer and the corresponding Web browser as well as its version, refer to the instruction manual for the repeater.

#### 2. Write down Login ID (user level) and Password of the repeater.

To access to the repeater, you need Login ID (user level) and Password described in the instruction manual of the repeater. At this time, as the wireless LAN of the setting PC must be disconnected, you cannot view the instruction manual of the repeater via network. Prior to accessing to the repeater, write down Login ID (user level) and Password.

### 1-2-2 Setting the wired LAN port

#### 1. Start the setting PC and set TCP/IP as follows.

IP assignment	Manual
IP address setting (v4)	192.168.1.200
Subnet mask	255.255.0.0
Default gateway	192.168.1.254

**TIP:**

The procedures to set ICP/IP are described below.

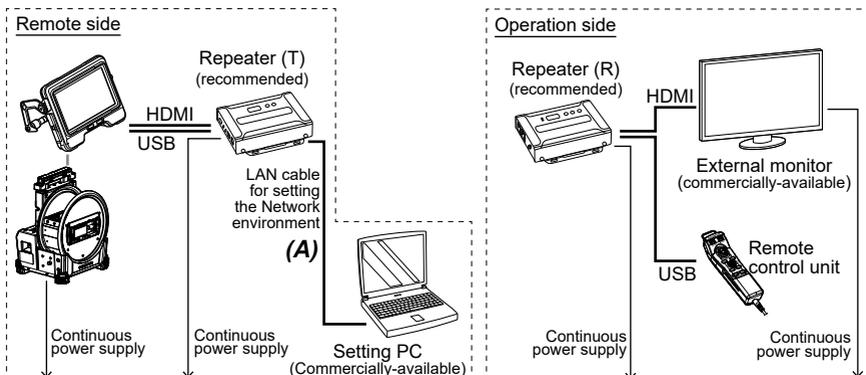
1. Right-click [Start] to display the menu, select [Run], input "ncpa.cpl", and then click the [OK] button.
2. Right-click on [Ethernet] to display the menu, and select [Properties].
3. Select [Internet Protocol Version 4 (TCP/IPv4)], and click the [Properties] button.
4. Click the [Use the following IP address] radio button, and input the values shown above in [IP address], [Subnet mask] and [Default gateway] respectively.

## 1-2-3 Connecting the units

### 1. Connect the base unit, repeater (T), repeater (R), external monitor, remote control unit, and setting PC as follows.

#### NOTE:

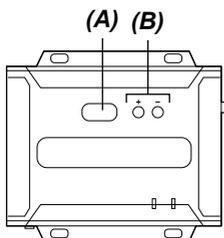
- Turn OFF the power of each unit.
- Connect the repeater (T) to the HDMI terminal and the USB connector of the base unit.
- Do not connect the switching hub, etc. Otherwise, the image may not be displayed on the external monitor properly.
- Do not connect to the intranet or the internet. Otherwise, the remote operation cannot be performed.
- Connect the setting PC to the repeater (T) using the LAN cable for setting the Network environment. **(A)**



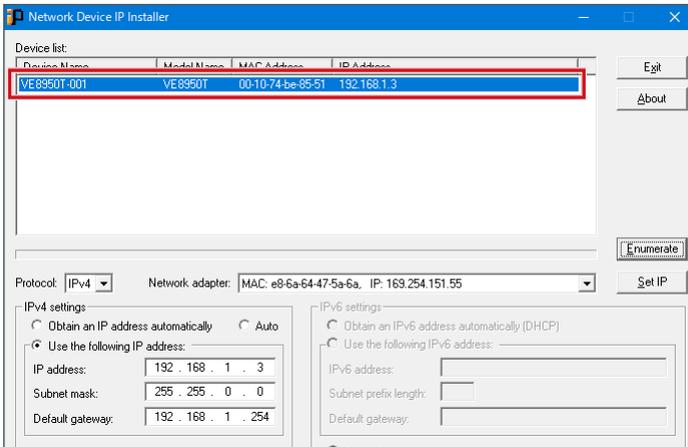
## 1-2-4 Setting the repeater

### 1. Connect the power cord of the repeater (T) to the outlet.

The numerical characters are displayed in the ID Number field **(A)**. (It takes approximately one minute to display the numerical characters.)



2. Press the [+] or [-] button (B) to set the numerical characters in the ID Number field (A) to "001".
3. Start IP Installer on the setting PC and check that the repeater is recognized properly.  
If the repeater is not recognized, check the connection of cables, etc.



4. On the IP Installer screen, change the network settings of the repeater (T) as follows.

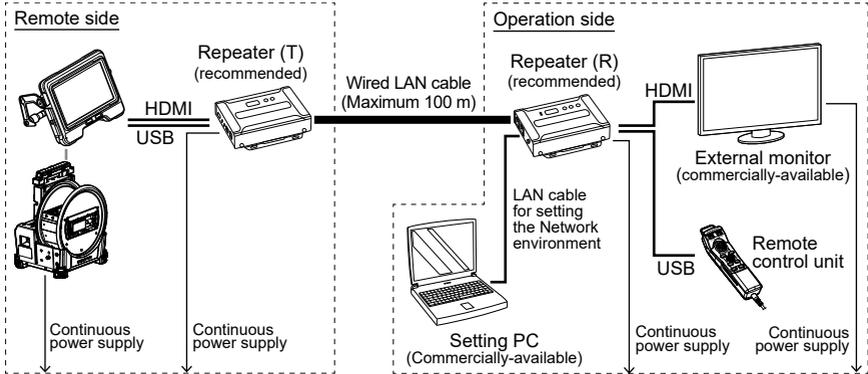
IP address setting (v4)	192.168.1.3
Subnet mask	255.255.0.0
Default gateway	192.168.1.254

**TIP:**

When network settings are changed, wait for a few tens of seconds and go to the next step.

5. Close IPInstaller.

**6. Disconnect the LAN cable for setting the Network environment connected to the setting PC from the repeater (T), and connect it to the repeater (R).**



**7. Connect the repeater(T) and the repeater(R) using the wired LAN cable.**

**NOTE:**

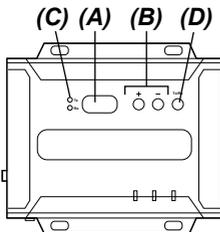
Be sure to connect the repeater (T) and the repeater (R) directly using the LAN cable.

**TIP:**

The LAN cable can be connected to either [LAN 1 Port] or [LAN 2 Port] of the repeater (R).

**8. Connect the power cords of the repeater (R) and the external monitor to the outlet.**

The powers of the repeater (R) and the external monitor turn ON, and the numerical characters are displayed in the ID Number field **(A)**. (It takes approximately one minute to display the numerical characters.)



**9. Press the [+/-] button (B) to set the numerical characters in the ID Number field (A) to "001".**

**TIP:**

The repeater (R) can be changed to the transmitter. Check that LED(Rx) **(C)** of the repeater (R) is turned ON. If LED(Tx) of the transmitter is turned ON, press the Tx/Rx switch button **(D)** to select Tx or Rx.

10. Start IP Installer on the setting PC and check that the repeater is recognized properly. If the repeater is not recognized, check the connection of cables, etc.
11. On the IP Installer screen, change the network settings of the repeater (R) as follows.

IP address setting (v4)	192.168.1.2
Subnet mask	255.255.0.0
Default gateway	192.168.1.254

**TIP:**

When network settings are changed, wait for a few tens of seconds and go to the next step.

12. Disconnect the wireless LAN of the setting PC.
13. Start the Web browser and access to the following address.

<http://192.168.1.2/>

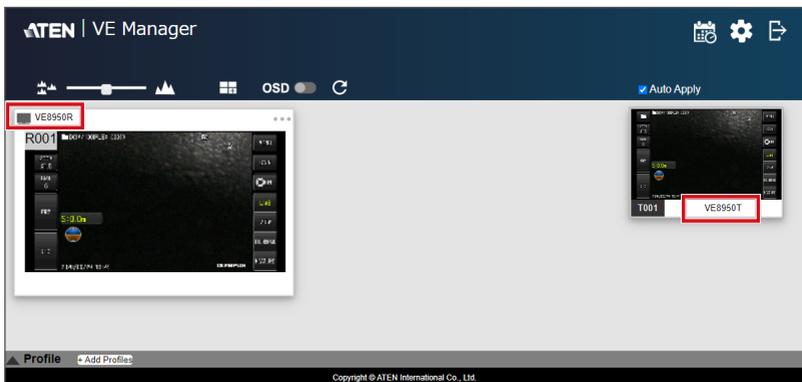
VE Manager starts and the login screen of the repeater (R) is displayed.

14. Log in to the repeater (R).

Login to the repeater with Login ID (user level) and Password you wrote down in “1-2-1 Preparing IPInstaller” on page 3. For the first time login, the initial setting wizard screen is displayed. Log in to the repeater (R) according to the instruction manual for the repeater, and cancel the wizard screen to close it.

15. On the VE Manager screen of the repeater (R), check that the VE89x0T and the VE89x0R are displayed individually.

Check that the repeater (T) and the repeater (R) are recognized individually. If the repeater is not recognized, check the network setting or the connection configuration of the devices.



16. On the VE Manager screen of the repeater (R), click the gear (setting) icon in the upper right corner, and click the <Receiver> tab on the system setting screen.

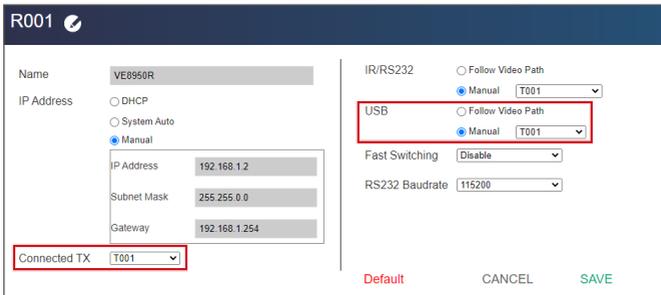
17. Click ▼ that appears when you place the mouse pointer on the VE8900R or the VE8950R, and click <Configuration>.



The setting screen of the repeater (R) is displayed.

18. Set as follows.

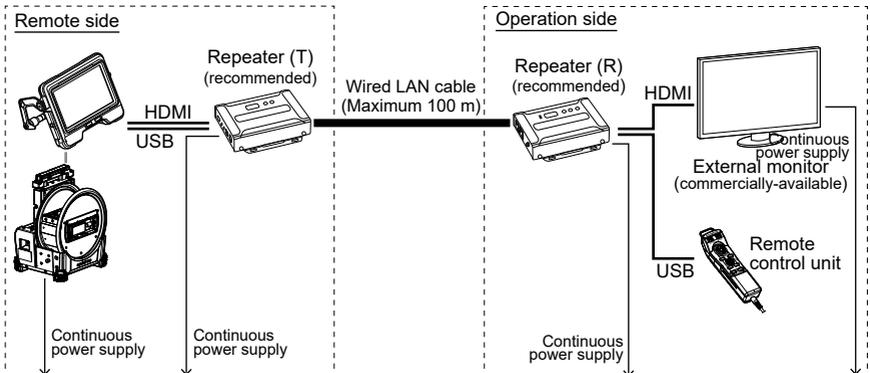
Connected TX	T001
USB	Manual T001



19. Click <Save>.

The setting screen is closed and the screen is returned to the system setting screen.

20. Disconnect the LAN cable for setting the Network environment connected to the setting PC from the repeater (R).



## 1-3 Turning ON the power of the IPLEX GAir system

**1. Turn ON the main switch of the drum unit.**

The [POWER] LED of the drum unit turns ON in orange.

**2. Press the [POWER] button of the base unit for approx. 1.5 to 2 seconds.**

The power of the system turns ON, and [POWER] LED on the drum unit turns ON in blue.

Approximately 10 seconds after pressing the [POWER] button, the adapter selection screen is displayed on the external monitor.

(When the <REMOTE CONTROLLER VIBRATION> is set to <ON>, the remote control unit vibrates.)

## 1-4 Remote operation

The system can be operated remotely using the remote control unit.

**TIP:**

The buttons are displayed on the external monitor, but the system cannot be operated by touching the external monitor.

## 1-5 Turning OFF the power of the IPLEX GAir system

**1. Press the [THUMBNAIL] button and the [CENT] button of the remote control unit for 2 seconds or more at the same time.**

The power of the system turns OFF, and the [POWER] LED on the drum unit turns ON in orange.

**TIP:**

You can also turn OFF the power of the system by pressing the [POWER] button of the base unit for 2 seconds or more.

**2. Turn OFF the main switch of the drum unit.**

The [POWER] LED on the drum unit turns OFF.

# 2 Operation with controlling the power remotely

## 2-1 Preparation

To check that the remote control unit is connected to the system properly, it is recommended to set the <REMOTE CONTROLLER VIBRATION> menu to <ON> in advance.  
(See “5.2 Using the live screen or freeze screen” in the instruction manual for IPLEX GAir.)

Necessary items:

Type	Model Number / Requirements	Quantity
Repeater (T)	VE8900T or VE8950T* (ATEN)	1
Repeater (R)	VE8900R or VE8950R* (ATEN)	1
External monitor	Commercially-available product (with HDMI type A input connector)	1
USB cable	A male / B male cable supporting USB 2.0 standard	1
HDMI cable	High speed type (Ver 1.4 or higher) compatible A male—A male cable (One unit is provided with IV9000GA.)	2
LAN cable	Straight cable (RJ-45/CAT5e or higher)	2
Setting PC	Windows10 with Wired LAN port LAN Network using the USB-LAN conversion adapter may not function properly. Use the LAN port.	1
LAN cable for setting the network environment	RJ-45/CAT5e or higher is recommended. When the wired LAN port of the setting PC is AutoMDIX, either the straight cable or the crossed cable can be used as the LAN cable.	1
Remote power control unit	PE6108AV or PE6108G (ATEN) **	1
Power conversion plug**	Convertible to OUTLET standard (NEMA 5-15R)	1

\* As far as using one transmitter and one receiver, the different combination of model number can be used.

\* The firmware version of the transmitter and the receiver must be same.

\*\* Choose the remote power control unit obtainable in your area. If you use PE6108G, the power conversion plug is necessary. Contact EVIDENT for the power conversion plug that supports PE6108G.

The operation in the network configuration that is not described in this instruction manual is not guaranteed.

## 2-2 Setting the network environment

The network environment described in this section must be configured for the first time only. It is not necessary to configure it for the second time and after.

### 2-2-1 Changing the power start mode of the system

The special setting is required to automatically turn ON the power of the system remotely. The SDHC card containing the power control program must be used to make this special setting. For details of this special setting, contact EVIDENT.

- 1. Insert the SDHC card containing the power control program into the SDHC card slot of the base unit.**
- 2. Turn ON the power in the order of the drum unit and the base unit.**  
When the power control program is run, the adapter selection screen is displayed on the LCD monitor of the base unit.
- 3. Turn OFF the power in the order of the base unit and the drum unit.**
- 4. Remove the SDHC card containing the power control program from the SDHC card slot of the base unit.**

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**TIP:**

To return the power control to the initial setting, the SDHC card containing the program to return the power control to the initial setting is necessary. Contact EVIDENT for details.

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### 2-2-2 Preparing IPInstaller

**1. Install IPInstaller.**

IP Installer must be installed on the setting PC in advance in order to acquire and set the IP address of the repeater.

Also, the Web browser is required for setting the IP address.

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**TIP:**

For the procedure to install IP Installer and the corresponding Web browser as well as its version, refer to the instruction manual for the repeater.

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**2. Write down Login ID (user level) and Password of the repeater.**

To access to the repeater, you need Login ID (user level) and Password described in the instruction manual of the repeater. At this time, as the wireless LAN of the setting PC must be disconnected, you cannot view the instruction manual of the repeater via network. Prior to accessing to the repeater, write down Login ID (user level) and Password.

## 2-2-3 Setting the wired LAN port

### 1. Start the setting PC, and set TCP/IP of the setting PC as follows.

IP assignment	Manual
IP address setting (v4)	192.168.1.200
Subnet mask	255.255.0.0
Default gateway	192.168.1.254

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**TIP:**

The procedures to set ICP/IP are described below.

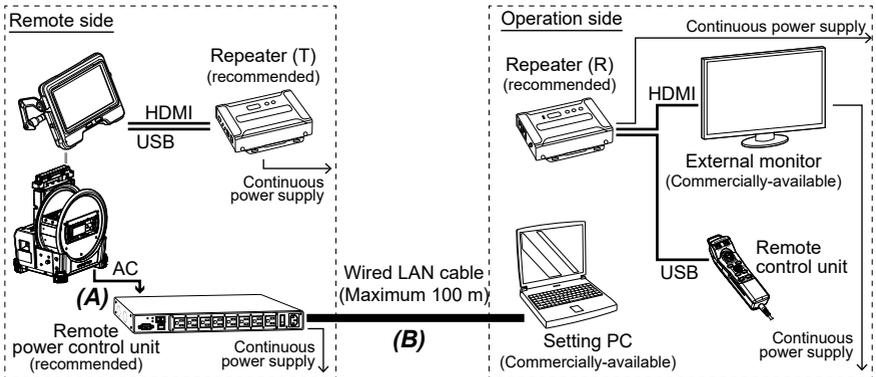
1. Right-click [Start] to display the menu, select [Run], input "ncpa.cpl", and then click the [OK] button.
  2. Right-click on [Ethernet] to display the menu, and select [Properties].
  3. Select [Internet Protocol Version 4 (TCP/IPv4)], and click the [Properties] button.
  4. Click the [Use the following IP address] radio button, and input the values shown above in [IP address], [Subnet mask] and [Default gateway] respectively.
-

## 2-2-4 Connecting the units

1. Connect the base unit, drum unit, repeater (T), repeater (R), external monitor, remote control unit, remote power control unit, and setting PC as follows.

**NOTE:**

- Turn OFF the power of each unit.
- Connect the repeater (T) to the HDMI terminal and the USB connector of the base unit.
- Do not connect the switching hub, etc. Otherwise, the image may not be displayed on the external monitor properly.
- Use the AC adapter for the drum unit. Do not use the battery or the external battery.
- Connect the AC adapter (A) for the drum unit to Port1 of the remote power control unit. If the shape of the connector is different, connect the power conversion plug that supports NEMA 5-15R.
- Do not connect to the intranet or the internet. Otherwise, the remote operation cannot be performed.
- Connect the setting PC to the repeater (R) using the LAN cable. (B)



2. Connect the power cord of the remote power control unit to the outlet, and turn ON the power switch on its rear side.

The power of the remote power control unit turns ON.

**NOTE:**

Do not turn ON the power of the drum unit and the base unit yet.

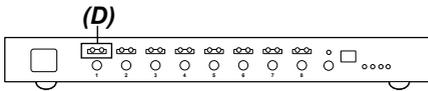
3. When the remote power control unit starts, start IP Installer on the setting PC.

- On the IP Installer screen, change the network setting of the remote power control unit as follows:

IP address setting (v4)	192.168.1.100
Subnet mask	255.255.0.0
Default gateway	192.168.1.254

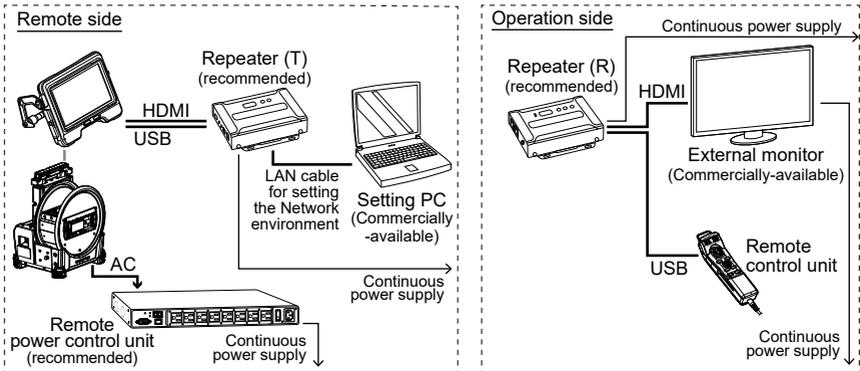
- Check that the LED (D) of Port1 of the remote power control unit are turned ON in orange.

If the LEDs are turned OFF, it is necessary to make the setting to turn ON the power of the remote power control unit on the Web browser. For details, refer to the instruction manual of the remote power control unit.



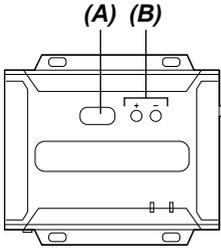
## 2-2-5 Setting the repeater

- Disconnect the LAN cable connected to the setting PC from the remote power control unit, and connect the setting PC and repeater (T) with a LAN cable for setting the Network environment.



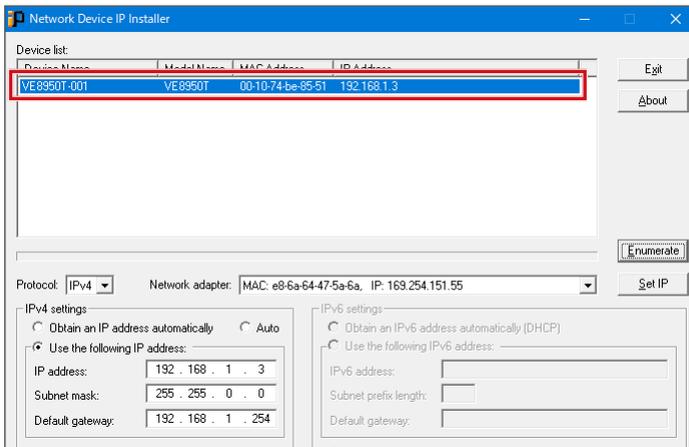
**2. Connect the power cord of the repeater (T) to the outlet.**

The numerical characters are displayed in the ID Number field (A). (It takes approximately one minute to display the numerical characters.)



3. Press the [+]/[-] button (B) to set the numerical characters in the ID Number field (A) to "001".
4. Start IP Installer on the setting PC and check that the repeater is recognized properly.

If the repeater is not recognized, check the connection of cables, etc.



**5. On the IP Installer screen, change the network settings of the repeater (T) as follows.**

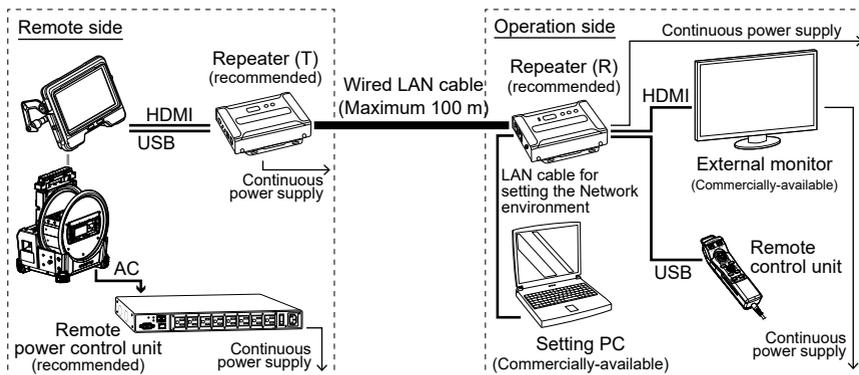
IP address setting (v4)	192.168.1.3
Subnet mask	255.255.0.0
Default gateway	192.168.1.254

**TIP:**

When network settings are changed, wait for a few tens of seconds and go to the next step.

**6. Close IPInstaller.**

**7. Disconnect the LAN cable for setting the Network environment connected to the setting PC from the repeater (T), and connect it to the repeater (R).**



**8. Connect the repeater(T) and the repeater(R) using the wired LAN cable.**

**NOTE:**

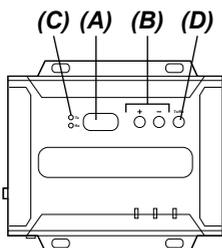
Be sure to connect the repeater (T) and the repeater (R) directly using the LAN cable.

**TIP:**

The LAN cable can be connected to either [LAN 1 Port] or [LAN 2 Port] of the repeater (R).

**9. Connect the power cords of the repeater (R) and the external monitor to the outlet.**

The powers of the repeater (R) and the external monitor turn ON, and the numerical characters are displayed in the ID Number field **(A)**. (It takes approximately one minute to display the numerical characters.)



- 10. Press the [+] or [-] button (B) to set the numerical characters in the ID Number field (A) to "001".**

**TIP:**

The repeater (R) can be changed to the transmitter. Check that LED(Rx) (C) of the repeater (R) is turned ON. If LED(Tx) of the transmitter is turned ON, press the Tx/Rx switch button (D) to select Tx or Rx.

- 11. Start IP Installer on the setting PC and check that the repeater is recognized properly.**

If the repeater is not recognized, check the connection of cables, etc.

- 12. On the IP Installer screen, change the network settings of the repeater (R) as follows.**

IP address setting (v4)	192.168.1.2
Subnet mask	255.255.0.0
Default gateway	192.168.1.254

**TIP:**

When network settings are changed, wait for a few tens of seconds and go to the next step.

- 13. Disconnect the wireless LAN of the setting PC.**

- 14. Start the Web browser and access to the following address.**

<http://192.168.1.2/>

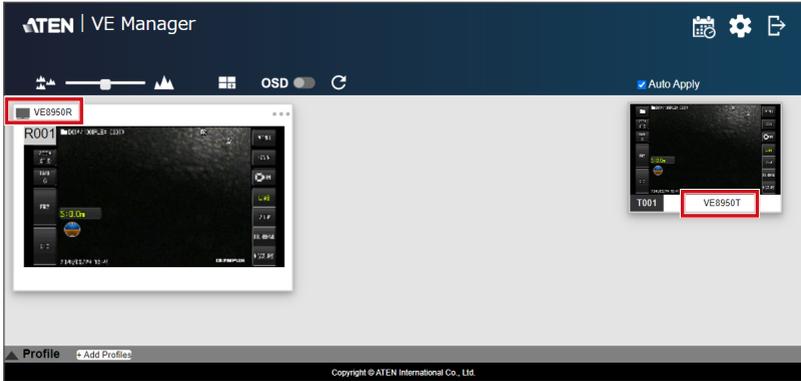
VE Manager starts and the login screen of the repeater (R) is displayed.

- 15. Log in to the repeater (R).**

Login to the repeater with Login ID (user level) and Password you wrote down in "2-2-2 Preparing IPInstaller" (page 11). For the first time login, the initial setting wizard screen is displayed. Log in to the repeater (R) according to the instruction manual for the repeater, and cancel the wizard screen to close it.

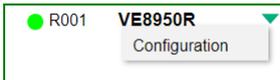
**16. On the VE Manager screen of the repeater (R), check that the VE89x0T and the VE89x0R are displayed individually.**

Check that the repeater (T) and the repeater (R) are recognized individually. If the repeater is not recognized, check the network setting or the connection configuration of the devices.



**17. On the VE Manager screen of the repeater (R), click the gear (setting) icon in the upper right corner, and click the <Receiver> tab on the system setting screen.**

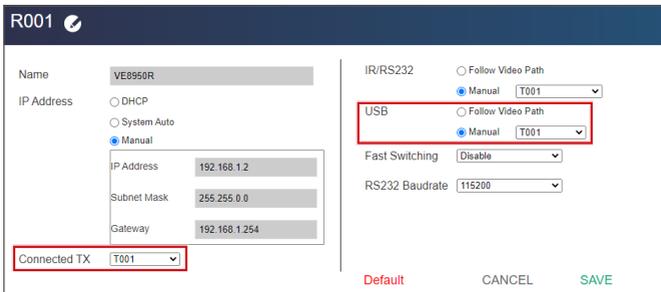
**18. Click ▼ that appears when you place the mouse pointer on the VE8900R or the VE8950R, and click <Configuration>.**



The setting screen of the repeater (R) is displayed.

**19. Set as follows.**

Connected TX	T001
USB	Manual T001



**20. Click <Save>.**

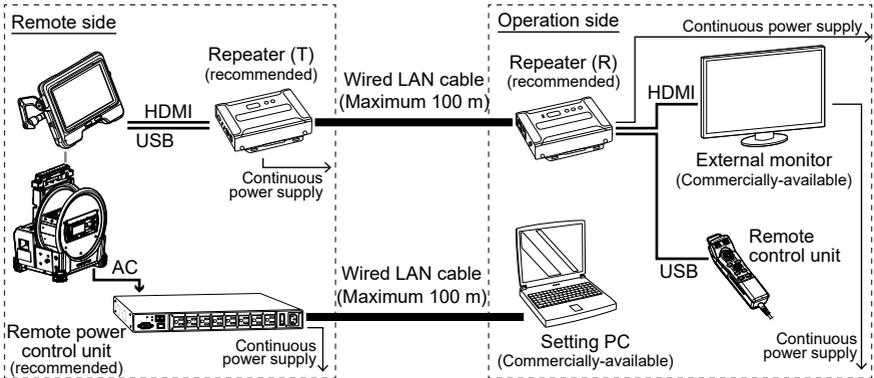
The setting screen is closed and the screen is returned to the system setting screen.

**21. Turn ON the power of the drum unit.**

**22. Check that the system screen is displayed on the external monitor.**

**23. Check that the system can be operated using the remote control unit.**

**24. Disconnect LAN cable for setting the Network environment connected to the setting PC from the repeater (R), and connect the setting PC and remote power control unit with a LAN cable.**



## 2-3 Remote operation

The system can be operated remotely using the remote control unit.

**TIP:**

The buttons are displayed on the external monitor, but the system cannot be operated by touching the external monitor.

## 2-4 Turning OFF the power remotely

1. Press the [THUMBNAIL] button and the [CENT] button of the remote control unit for 2 seconds or more at the same time.

A few seconds after pressing the buttons, the power of the system turns OFF.

2. Start the Web browser on the setting PC and access to the following address.

<http://192.168.1.100/>

Even if the message telling you that the Website is not safe is displayed, continue the operation.

The login screen is displayed.

3. Log in to eco Sensors according to the instruction manual for the remote power control unit.

The eco Sensors screen is displayed.

4. Set OFF <PDU Status> in <PDU Status> on the <Energy> tab.

The power of the drum unit turns OFF automatically.

The screenshot shows the NPG@Face PE6198AVA web interface. The top navigation bar includes 'Energy', 'User', 'Log', 'Setup', and 'PDU'. The 'Energy' tab is selected. The main content area is divided into two sections: 'PDU Status' and 'Outlet Status'.

**PDU Status Table:**

PDU Name	Measurement	Min Threshold	Max Threshold	PDU Status
PE6198AVA	Aggregate current	0.00 A		
	Voltage	0A.57 V		
	Power	0.27320 W		
	Aggregate power dissipation	0.3467 KWh		
	Voltage Frequency	50.00 HZ		
	Temperature	N/A		
	Humidity	N/A		
	Pressure	N/A		
	Sensor1 Temperature	N/A		
	Sensor1 Humidity	N/A		
Sensor2 Temperature	N/A			
Sensor2 Humidity	N/A			
Sensor2 Pressure	N/A			

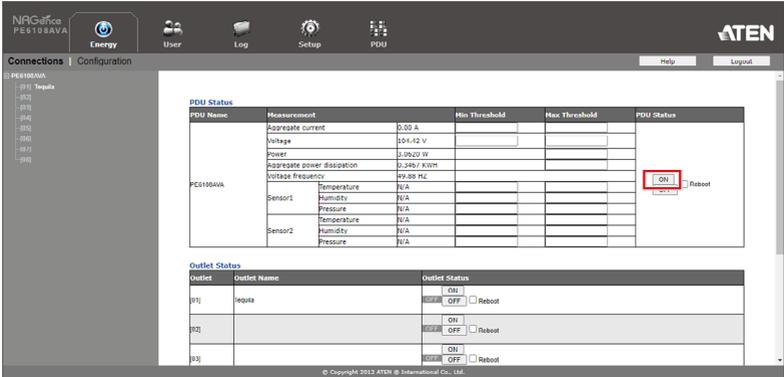
The 'PDU Status' for PE6198AVA is currently set to 'OFF', which is highlighted with a red box. A 'Reboot' button is visible next to the status.

**Outlet Status Table:**

Outlet	Outlet Name	Outlet Status
001	Teputa	<input checked="" type="checkbox"/> ON <input type="checkbox"/> OFF <input type="checkbox"/> Reboot
002		<input checked="" type="checkbox"/> ON <input type="checkbox"/> OFF <input type="checkbox"/> Reboot
003		<input type="checkbox"/> ON <input checked="" type="checkbox"/> OFF <input type="checkbox"/> Reboot

2-5 Turning ON the power remotely

- 1. Start the Web browser on the setting PC and access to the following address.**  
 http://192.168.1.100/  
 Even if the message telling you that the Website is not safe is displayed, continue the operation.  
 The login screen is displayed.
- 2. Log in to eco Sensors according to the instruction manual for the remote power control unit.**  
 The eco Sensors screen is displayed.
- 3. Set ON <PDU status> in <PDU Status> on the <Energy> tab.**  
 The powers of the drum unit, base unit and turn ON.



Approximately 50 seconds after setting ON the PDU status, the adapter selection screen is displayed on the external monitor. The time to display the adapter selection screen depends on the network settings.

(When the <REMOTE CONTROLLER VIBRATION> is set to <ON>, the remote control unit vibrates.)

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Service Center



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