



HIGH FREQUENCY 48V SERIES AUTOMATIC OPERATION DISTRIBUTION BOX OPERATION MANUAL



ADS

EXEN CORPORATION

☆ SAFETY PRECAUTIONS

- ☆ This product is designed for automatic operation distribution box of high frequency vibrator 48V series. Do not use for any other purpose.
- ☆ Be sure to read and understand this operation manual carefully before using the product so that it can be operated safely and efficiently. Improper machine use may result in injury or machine failure. Keep this manual for further reference.
Also, read the operation manual of power supply equipment and ADV type vibrator carefully.
- ☆ The following symbols are DANGER, WARNING, and CAUTION instruction for the use of this product so that the product will not cause harm or damage to users or others.



DANGER

【DANGER】 indicates an imminent dangerous situation which may lead to death or serious injury.



WARNING

【WARNING】 refers to a hazard that may cause death or serious injury.



CAUTION

【CAUTION】 refers to a hazard that may cause minor or moderate injury.

	WARNING
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(To prevent death)

-  Do not use this product in the presence of water, moisture or dust. Otherwise, You may get an electric shock.
-  This product is for high frequency 48V only.
Do not use this product at voltages other than 48V. Wrong usage may lead to an electric shock.
-  Do not plug or unplug the power plug during operation. You may get an electric shock.

	CAUTION
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(To prevent injury or damages)

-  Do not pull the cable while it is connected to the distribution box. The distribution box may fall over or the conductor of the cable may be disconnected.
-  Keep away this product from rain or water. It may cause damage to the power supply equipment or vibrator.

○ INTRODUCTION

Thank you for purchasing this product: High frequency 48V series automatic operation distribution box.

Be sure to read this operation manual before use.

Be sure to read and understand this operation manual carefully before using the product until it can be operated safely and efficiently. Handle and maintain it appropriately for safety operation.

Keep this manual for further reference.

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○ SAFETY



(For personal protection during operation)

- Put on a safety helmet, anti-vibration gloves, safety boots, hearing protection, face protector (safety glasses and mask) and safety harness before using the vibrator.



Safety helmet



Anti-vibration gloves



Safety boots



Hearing protection



Face protector



Safety harness

- When inspecting this product, be sure to disconnect the cable connected to the power supply equipment. Inspection during energization may cause electric shock.



(For longer service life)

-  Connect the vibrator plug securely so as not to cause poor contact. Contact failure is one of the main causes of malfunction of the vibrator.
-  Be sure to use the appropriate number of vibrators to avoid exceeding the usable number of vibrators. In case of excess number, there is a danger of concrete placing capability and equipment failure.
-  The rubber flat connector attached to the automatic operation distribution box is input, and a round shaped outlet made of resin is output. Be careful not to make a mistake.
-  This product is only for ADV vibrator. Be sure to insert the output plug correctly. Please do not forcibly insert the plug.

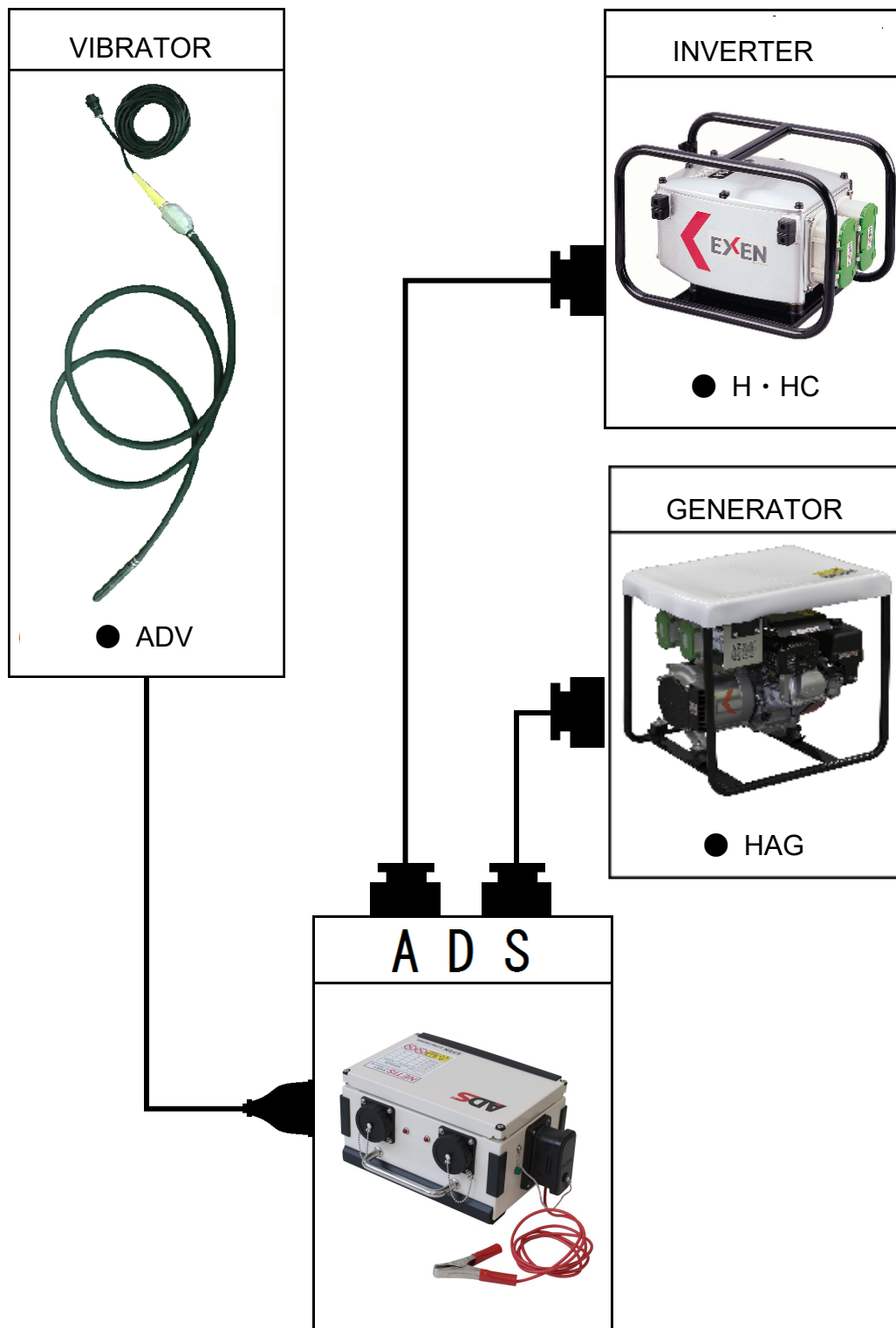
○ NUMBER OF VIBRATOR UNITS THAT CAN USE

	Usable Number	
	ADV40	ADV50
INVERTER		
HC111	1	1
HC113	1	1
HC116	2	1
HC230	4	2

Note : This product uses the output of the inverter or generator as the power supply. Therefore, the actual usable number of vibrators is smaller than the usable number of inverter or generator vibrator.

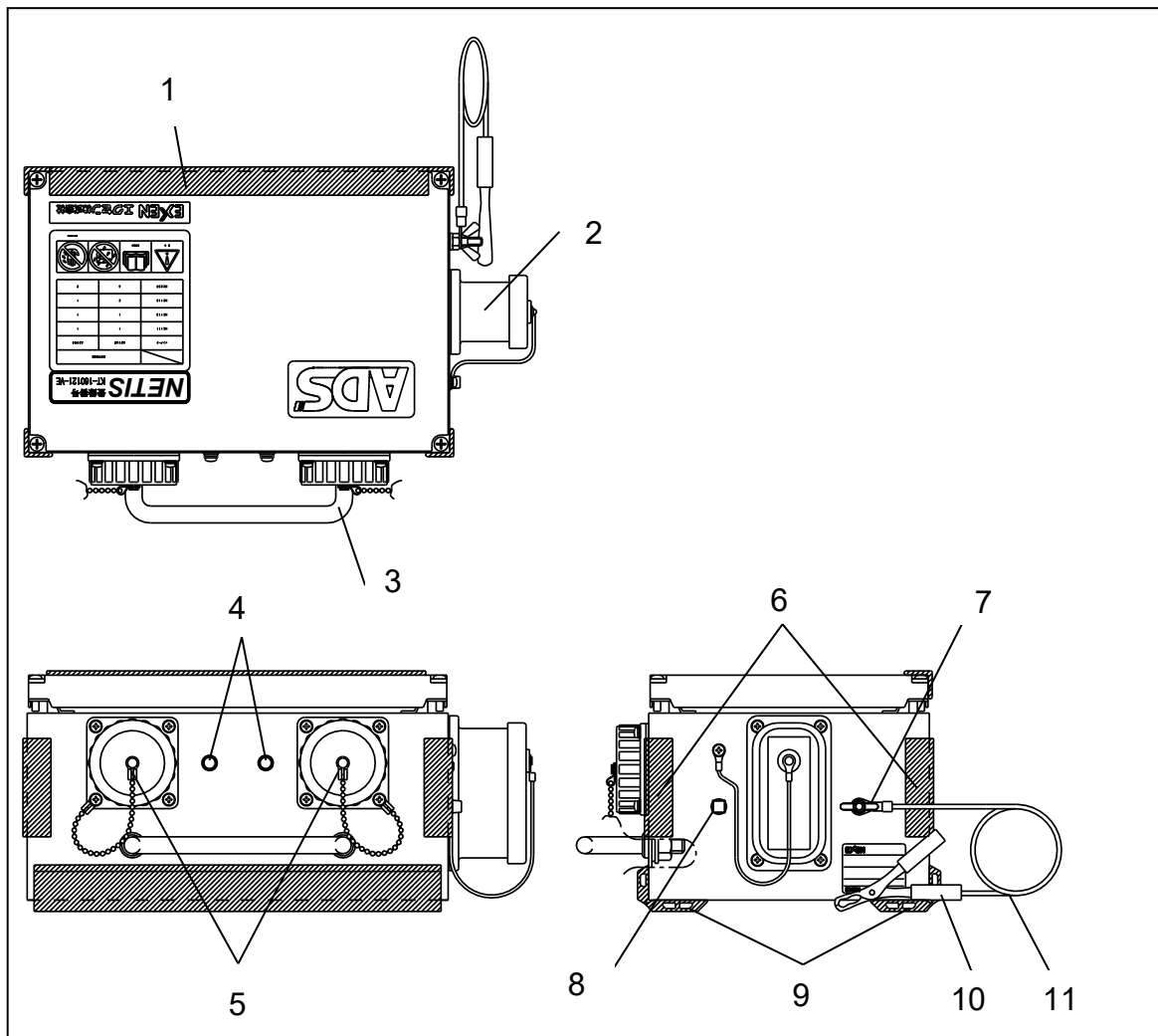
Note : When a power supply is not listed in the table above, subtract 1 from the usable number of power supply as a guide.

○ SYSTEM CONFIGURATION



- To connect ADV vibrator with ADS, a dedicated round plug is used.
When connecting ADV vibrator with an inverter or generator, Converter cable is required.
In this case, no automatic operation cannot be used.

○ NAMES OF PARTS



1	Protective cover rubber	7	Wing nut for fixing sensor
2	Input connector	8	Power lamp
3	Handle	9	Protective bottom rubber
4	Output lamps	10	Sensor clip
5	Output outlets	11	Sensor cable
6	Protective side rubber	—	—

○ CONNECTION AND OPERATION



Make sure that the input power of the power supply equipment is "OFF" when connecting this product. Connecting the power supply equipment during operation may cause electric shock.

1. Connect the Intermediate cable to the power outlets and the input connector of the ADS (automatic operation distribution box.)
2. Insert the plug of the ADV vibrator to the output outlet of the ADS (automatic operation distribution box.)
3. Connect the sensor clip to a conductor of reinforcement connecting to the concrete to be casted.
4. Start the power supply equipment and ADS (automatic operation distribution box.)
5. After start, check that the power lamp (green) next to the input outlet of the ADS (automatic operation distribution box) is lit.
6. Hold the vibrator hose so that the head assembly is suspended.
7. When you are ready, turn the operation switch to "ON" to start the ADV type vibrator.
8. Touch the conductor that the sensor clip is attached with the vibrator, and make sure that the vibrator can be operated.
9. This is the end of preparation.

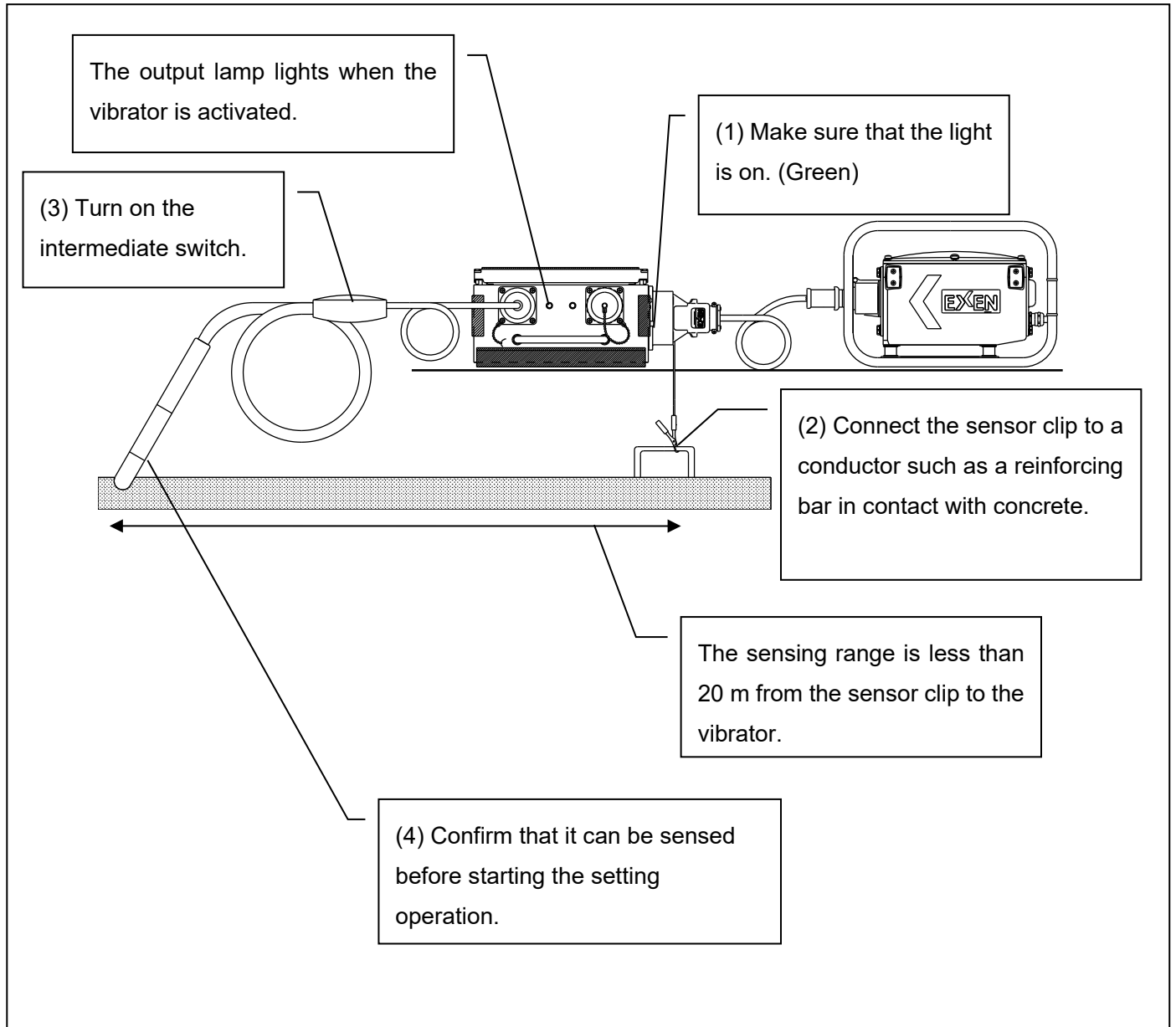
While the vibrator is touching with the conductor, the vibrator will operate automatically when inserting it into the ready mixed concrete. Or the vibrator will stop operation when pulling out it from the ready mixed concrete.

Note : The output lamp (red) next to the output outlet lights up during operation.

Note : Depending on the concrete condition and the installation condition of the product, the auto operation detectable distance is approximately 20 m or less, centering on the sensor clips installation position.

10. After concrete placing is completed, turn off the vibrator and remove the plug from the output outlet of the ADS (automatic operation distribution box).
11. Stops the power supply equipment.

○ CONNECTION EXAMPLE AND OPERATION CHECK



Note : Since the detective range greatly changes depending on the concrete state and the rebar layout, be sure to confirm the operation after installation.

○ CLEANING AND TRANSPORTATION AFTER USE

- After use, be sure to clean it well.
- 1. Remove concrete from the ADS (automatic operation distribution box) before it hardens.
- 2. Clean off any dust or concrete from output outlets and input connectors.
- 3. If there is dirt and rust on the sensor clip, the sensitivity of automatic operation decreases.
After use, be sure to wipe moisture and remove concrete from it.
- 4. Grab a handle when transporting this product.

○ INSPECTION

- Before carrying the ADS to the worksite and also after use, be sure to check the following.
It will greatly help prevent problems during operation.
- 1. Are there any dirt, wear or cracks on the output outlet connector? Is the output outlet damaged?
- 2. Is there dirt or wear on the connector of the input connector? Is there damage to the input connector body?
- 3. Are there any wear or cracks on the intermediate cable for connecting ADS (automatic operation distribution box)?
- 4. Is the output or power supply lamp of ADS (automatic operation distribution box) damaged?
- 5. Is the sensor clip dirty or rusty? Is there any wear, crack, or disconnection in the sensor cable?
- 6. Is the sensor fixing wing nut loosely tightened?

○ TROUBLESHOOTING

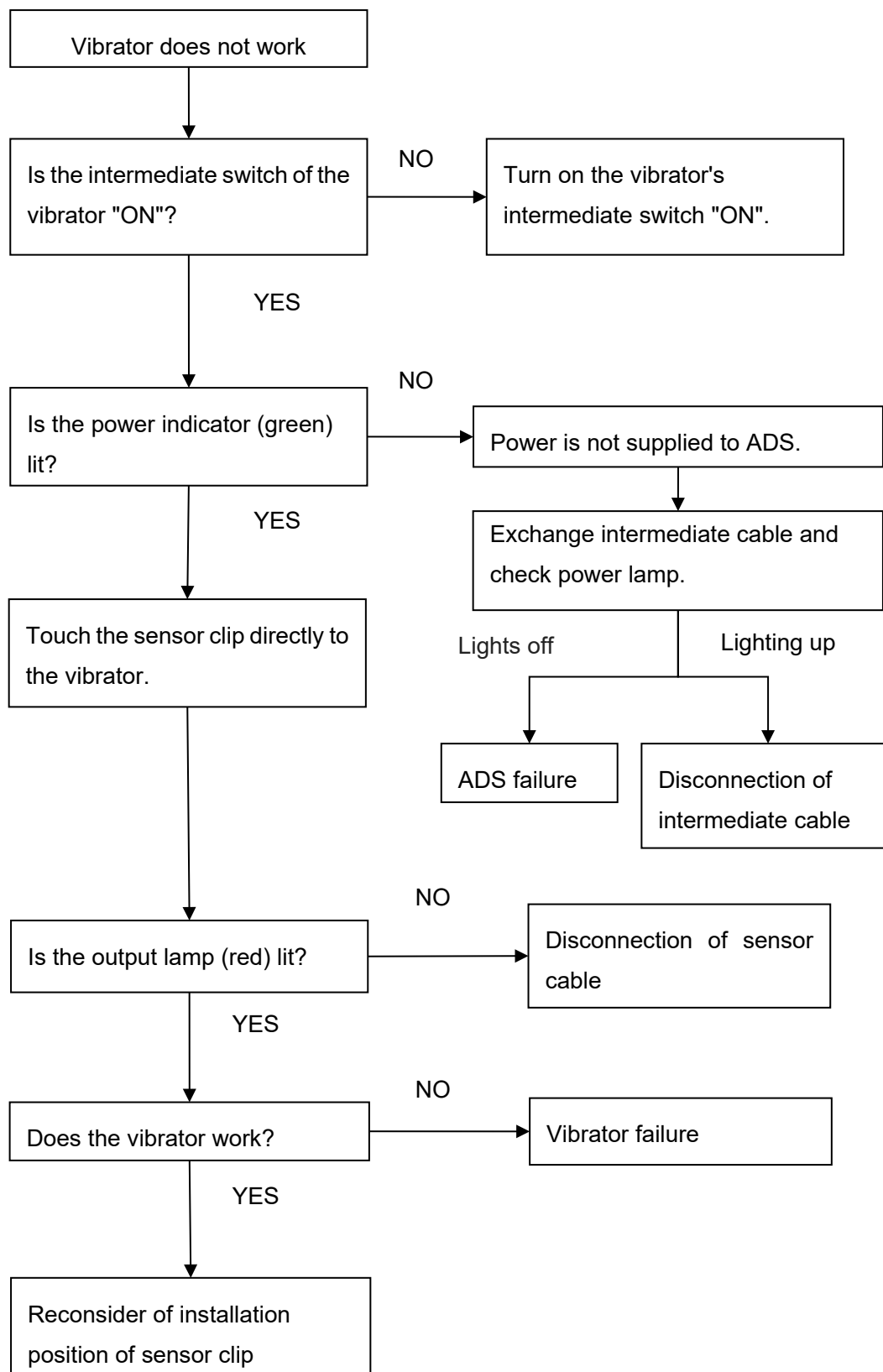
○ Before troubleshooting

1. This product detects the insertion of the vibrator by passing electricity between the automatic operation distribution box and the ADV vibrator through concrete.

The product cannot detect the insertion normally when the attachment part of the sensor clip is an insulator or does not contact with the concrete to be cast, or if the automatic operation distribution box and the ADV type vibrator are electrically insulated state. In addition, the detectable range varies depending on the state of the concrete, the thickness of the reinforcing bars, etc.

2. If the vibrator does not operate, make sure that the sensor clip is contacting with the vibrator directly. Before operation, change the installation position of the sensor clip based on the above.
3. If the vibrator does not operate even if you change the installation position for the sensor clip, or if each lamp of the automatic operation distribution box does not light up, refer to the table on the next page.

○ Troubleshooting table

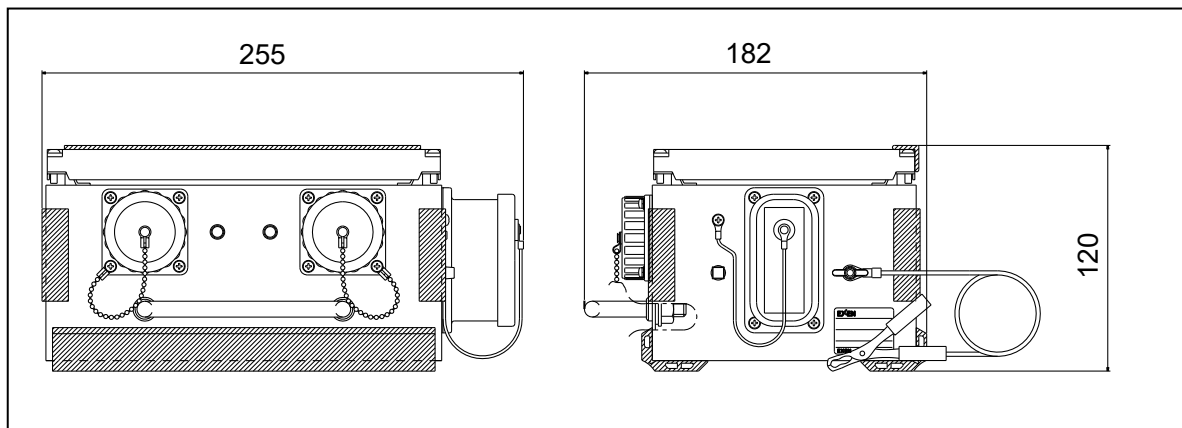


○ SPECIFICATIONS

■ Specifications

Model	Input voltage (V)	Input current (A)	Number of output outlets	Mass (kg)
ADS	48	3	2	6.75

■ Dimension



Note : Sensor cable 2m

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