

NoiseKen

INSTRUCTION MANUAL

Emergency Stop Box

MODEL **13-00005A**

NOISE LABORATORY CO., LTD.

Edition 1.02
AEY00043-00E-0C

NOTICE

- The contents of this instruction manual (the “Manual”) are subject to change without prior notice.
- No part of the Manual may be reproduced or distributed, in any form or by any means, without the authorization of Noise Laboratory Co., Ltd. (the “Company”).
- The contents of the Manual have been thoroughly examined. However, if you find any problems, misprints, or missing information, please feel free to contact our sales agent who you purchased our product from.
- The Company assumes no responsibility for any loss or damage resulting from improper usage, failure to follow the Manual, or any repair or modifications of this product undertaken by a third party other than the Company or the agent authorized by the Company.
- The Company assumes no responsibility for any loss or damage resulting from remodeling or conversion solely undertaken by the user.
- Please note that the Company cannot be held responsible for any consequences arising from the use of this product.

1. IMPORTANT SAFETY PRECAUTIONS

The following instructions are very important for safe handling of the emergency stop box 13-00005A (hereinafter “the Unit”). They must be kept strictly to prevent users of the Unit from receiving harm or damage through using the Unit. Read them carefully before use.

- **Before connection of other system components to this device, be sure to turn off each component and check to see that no component is operating.**

Failure to observe this may cause an electric shock or lead to a failure of this device and other connected devices.

- **A person who has a pacemaker on should not operate the Unit and also should not enter the area where it is operating.**

It may result in a fatal or serious accident.

- **The Unit cannot be used in an explosive area, fire prohibited area, etc.**

Use of the Unit in such an area is liable to cause combustion or ignition.

A number of safety recommendations are listed in the later chapter "BASIC SAFETY PRECAUTIONS". Be sure to read them before test environment settings, connecting relating equipment and testing.

2. APPLICATION FORM FOR INSTRUCTION MANUAL

We place an order for an instruction manual.

Model:13-00005A _____

Serial No.: _____

Applicant:

Company name: _____

Address: _____

Department: _____

Person in charge: _____

Tel No.: _____

Fax No. _____

Cut off this page “APPLICATION FORM FOR INSTRUCTION MANUAL” from this volume and keep it for future use with care.

When an INSTRUCTION MANUAL is required, fill in the above Application Form and mail or fax it to the following sales department of our company.

To: Noise Laboratory Co., Ltd.

1-4-4 Chiyoda, Chuo-ku, Sagamihara City,

Kanagawa Pref., 252-0237 Japan

Tel: +81-(0)42-712-2051

Fax: +81-(0)42-712-2050

Cut
line

3. PREFACE

We thank you very much for your purchase of our Emergency Stop Box 13-00005A (hereinafter “the Unit”). This instruction manual (“the Manual”) contains how to use the Unit and other important information. In order to obtain the highest performance from the Unit, thoroughly understand the contents of the Manual and use as ready reference for operation.

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- The Manual was prepared so that any person who can observe the prescribed instruction method and operating precautions may safely handle and fully utilize the Unit.
 - Keep the Manual by your side or other proper location so that it may be readily available when using the Unit.
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3—1. Feature

This product is a system overall safety device which interrupts the output path from SG (signal generator) and send instructions to the amplifier to turn off output and NETS immunity system software for stopping output from SG, when the interlock or emergency stop signal has been detected.

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5. BASIC SAFETY PRECAUTIONS

- The following items are very important instructions which users must follow to take precautions against possible injury and harm.
- The indications are provided as an explanation of potential danger involved if the safety precautions are not observed correctly.

5–1. Symbols of Hazard

- ◆ The following display classifications describe degree, to which injury or harm might occur when the contents of the display are not followed or the Unit or related equipment is operated incorrectly.



DANGER

The contents of this display indicate “the assumption that imminent danger might occur resulting in death or serious injury” if the Unit or related equipment is handled incorrectly.



WARNING

The contents of this display indicate “the assumption that there is a possibility of death or serious injury” if the Unit or related equipment is handled incorrectly.



CAUTION


The contents of this display indicate “the assumption that there is a possibility of harm and the assumption that there is a possibility of physical damage” if the Unit or related equipment is handled incorrectly.


5–2. Symbols of Instruction, Warning and Caution

- ◆ The following display classifications describe details that should be followed.


	Indicates attention (a matter that must be paid attention fully)		
	Indicates prohibition (an action that must not be taken)	 Prohibited	 Do not disassemble
	Indicates a compulsory action (an action that must be taken)	 Compulsory	


DANGER


 Do not disassemble	<p>Do not take the Unit apart or do not remodel. Do not open the cover.</p> <p>Imminent danger might occur resulting in death or serious injury. Repair, internal adjustment, and inspection of the Unit should be performed by a qualified service engineer. Ask the Company or its sales agent.</p>
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 Prohibited	<p>Do not use the Unit in an explosive are or fire-prohibited area etc.</p> <p>Use of the Unit in such an area is liable to cause combustion or ignition.</p>
	<p>A person who has a pacemaker on should not operate the Unit and also should not enter the area where it is operating.</p> <p>It may result in a fatal or serious accident.</p>


WARNING


 Compulsory	<p>Stop operation if following unusual phenomena should occur.</p> <ul style="list-style-type: none">○ Emitting fumes, or smelling.○ Water or an unusual substance being stuck○ Being dropped or being damaged○ AC cable being damaged (e.g. core lines being exposed etc.) <p>Continuing to operate in the above status may result in a fire, electric shock, or injury. If an unusual phenomenon occurs, turn off power supply immediately, pull AC plug out of an outlet, and ask the Company or sales agent repair. As there is potential danger, any user must not repair the product.</p>
	<p>Turn off power supply of the Unit when setting or changing connection of related equipment.</p> <p>Failure to follow this notice may cause electric shock, injury, or malfunction.</p>

 Compulsory	<p>Use the Unit after understanding instructions in the Manual fully.</p> <p>There may be danger causing a fatal or serious wound or emitting over-ristricted-value electromagnetic noise in using the Unit. NOISE LABORATORY and its sales agents shall have no liability against any accident resulting in injury or death, any damage to equipment or any resultant damage thereof, which is caused by abuse or careless handling of this unit.</p>
	<p>Watch equipment while the Unit is operating.</p> <p>If this instruction should not be followed, a third person or equipment related to the test may be exposed to a danger.</p>
	<p>Supply power within the indicated range.</p> <p>Failure to follow this instruction may cause an electric shock or a fire. The attached AC cord in the accessory is for AC100~120V.</p>
	<p>Use proper connectors and cables and connect them securely.</p> <p>Avoid using a damaged connector or cable. The misuse may cause an electric shock or damage of equipment.</p>
	<p>Insert AC plug securely to the end.</p> <p>Insecure inserting generates heat and gathers dust. It may result in a fire or an electric shock. Avoid using a multiple outlet extension plug for the same reason.</p>
	<p>Install the Unit on a stable place.</p> <p>If the Unit is installed on an unstable place, human body may be in danger due to drop or overturn of the Unit.</p>

 Prohibited	<p>Do not put any substance into the Unit or its connectors.</p> <p>If some metal or flammable things are put into the Unit through a connector or a vent, it may result in a fire or an electric shock.</p>
	<p>Do not install the Unit on the spot where quick operation of power key or STOP key is difficult.</p> <p>If the simulator is set up on such a spot, difficulty in taking action in emergency may result in a fire or an electric shock.</p>
	<p>Do not use the attached AC cable for any other purpose.</p> <p>The misuse may result in a fire or an electric shock.</p>
	<p>Do not damage AC cable.</p> <p>A damaged AC cable may cause a fire or an electric shock. For HV cable, be sure to take notice following points.</p> <ul style="list-style-type: none">○ Do not work it.○ Do not bend it forcibly.○ Do not twist it.○ Do not pull it.○ Do not move it close to heat.○ Do not put heavy things on it.

 **CAUTION**

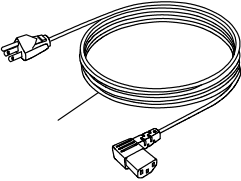
 Compulsory	<p>If dewing occurs, fully dry up the Unit before using it.</p> <p>Dews may cause an electric shock, a trouble, or a fire.</p>
	<p>Use the Unit in proper environment.</p> <p>Operating temperature range is 15~35°C. Operating humidity range is 25~75%. If these precautions are not followed, the unit may be broken or the prescribed performance may not be warranted.</p>
	<p>Clean up the AC plug periodically.</p> <p>If dust gets damp between the AC plug and outlet, insulation capability deteriorates. It may result in a fire. Pull the AC plug out from an outlet periodically and wipe it with a dry cloth.</p>
	<p>When the body is dirty, wipe the body with a dry cloth.</p> <p>Do not wipe the Unit and Probe with thinner, alcohol or other solvent. When the body is very dirty, soak a cloth into neutral detergent, squeeze out the detergent from the cloth and wipe the body with the cloth.</p>

 Prohibited	<p>Do not install the Unit on following places.</p> <p>Setting up the Unit on wrong places as follows may result in a fire, an electric shock, or an injury.</p> <ul style="list-style-type: none">○ A very humid or dusty place○ A hot place, e.g. a place exposed to direct rays of the sun, a place close to a heater.○ A place easy to bedew, e.g. a place close to a window.
	<p>Do not handle the AC plug with your hand wet.</p> <p>The misuse may result in an electric shock or trouble.</p>
	<p>Do not put any container containing water on the Unit.</p> <p>If water is spilled or gets into the Unit, it may result in a fire or an electric shock.</p>
	<p>Do not drop or shock the Unit excessively.</p> <p>The misuse may cause trouble or damage.</p>
	<p>Do not bump or rub the Unit against something hard.</p> <p>The misuse may damage a surface of the Unit.</p>
	<p>Do not put any heavy stuff or sit on the Unit.</p> <p>The misuse may result in a dent on the body or damage of internal components.</p>

6. INCLUDED ACCESSORIES

The following accessories are included in the purchase package

A



B



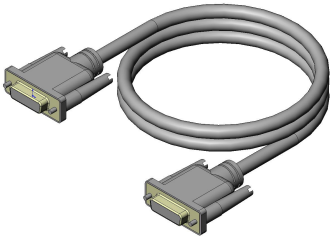
C



D

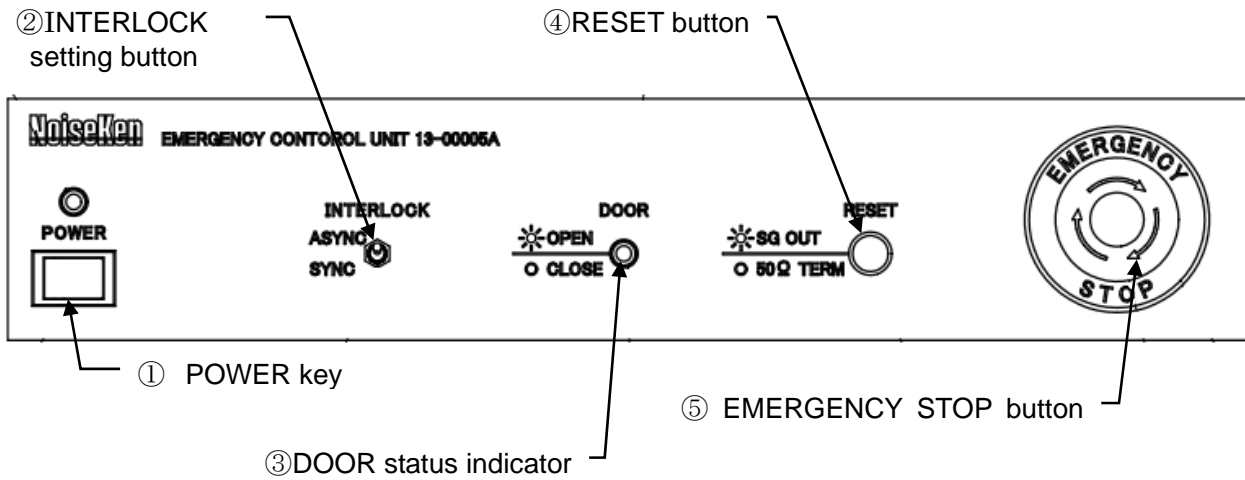


E



A : AC cord	1
B : Short-bar (OSP-10 by Osada)	2
C : N-connector 50-ohm terminated	1
D : BNC connector with a short-connection cap.....	1
E : D-Sub 9-pin connector cable (5m).....	1

7. CONTROLS AND INDICATORS



① : POWER key

The main POWER key for this device

② : INTERLOCK setting button

Provides a selection between SYNC (operational) and ASYNC (non-operational) for ⑧DOOR terminals on the rear panel. When an open circuit is detected between ⑧DOOR terminals, the SG output path is changed from SG IN-SG OUT to SG IN-50Ω with SYNC INTERLOK setting.

③ : DOOR status indicator

This indicator is lit red when the terminals on ⑧DOOR terminals are open.

④ : RESET button

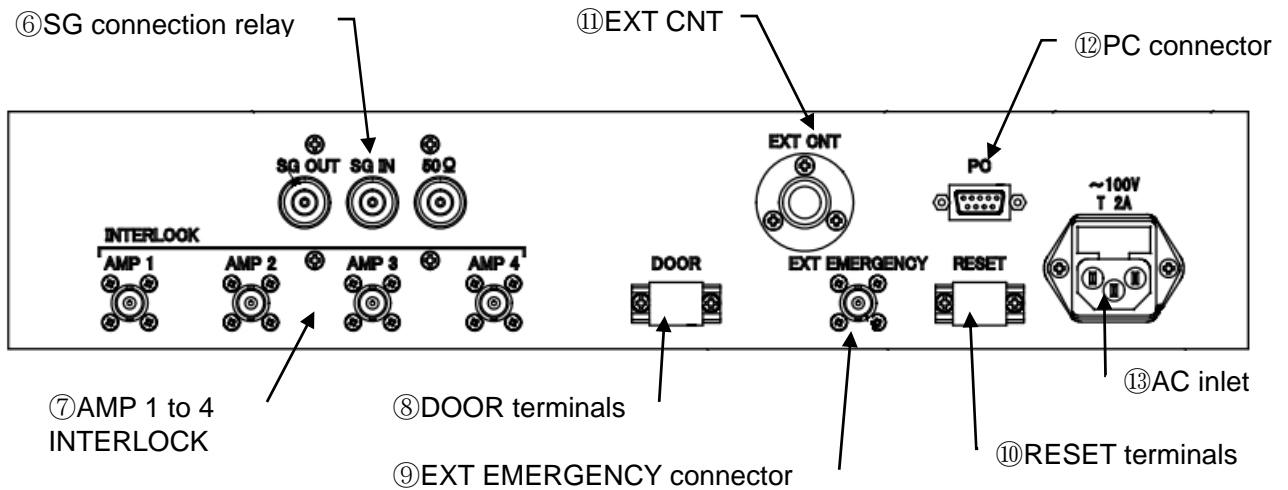
Resets the status of the internal ⑥SG connection relay on the rear panel to SG IN-SG OUT from SG IN-50Ω connection activated by ⑧DOOR terminals, ⑤EMERGENCY STOP button or ⑨EXT EMERGENCY port. When the lamp is lit, SG IN and SG OUT ports are internally connected. When the lamp is off, SG IN port is connected to 50Ω port.

⑤ : EMERGENCY STOP button

The device is placed in the status shown below when this button is pressed.

- status change from SG IN to SG OUT to SG IN to 50Ω with ⑥SG connection relay
- open interlocks (open circuit between the inner and outer conductors of the coaxial connectors with ⑦AMP1 to 4
- disables ⑪EXT CNT connector
- short-circuiting for 7-8 pins on ⑫PC terminal

Releasing this button, turn the red button clockwise and pull it lightly.



⑥ : SG connection relay

The SG (signal generator) output is connected to SG IN, and SG OUT is connected to the amplifier input and attach the supplied 50-ohm terminated N connector to 50Ω port. In normal status, pressing ④ RESET button establishes SG IN to SG OUT connection. Activating either of ⑧ DOOR terminals, ⑤ EMMERGENCY STOP button or ⑨ EXT EMERGENCY interrupts the SG output to the amplifier by internally switching the signal path to 50Ω coaxial port.

⑦ : AMP 1 to 4 INTERLOCK

Activating either by pressing ⑤ EMMERGENCY STOP button or open-circuiting the inner and outer conductors of ⑨ EXT EMERGENCY coaxial connector sets open circuit conditions between the inner and outer conductors of the coaxial connectors (AMP 1 to 4 coaxial ports). In the normal status, the inner and outer conductors are short-circuited.

⑧ : DOOR terminals

Open interlock is detected by opening the circuit between the two terminal. Connect the supplied short-bar when the DOOR terminals are not used.

⑨ : EXT EMERGENCY connector

An optional EMERGENCY BOX is connected. Open circuit between the inner and outer conductors places the system in the same status as when the operator has pressed ⑤ EMERGENCY STOP. When this connector is not used, attach the supplied BNC connector with a short-connection cap.

⑩ : RESET terminals

Short-circuiting the both terminals (of RESET terminals) performs the same function as ④ RESET button on the front panel pressed. If you prefer to use ④ RESET button on the front only, remain the open circuit status for these terminals. When the operator does not use manual RESET function (by ④ RESET button on the front panel), connect the supplied short-bar to RESET terminals.



With RESET terminals short-circuited with the short-bar, SG connection relay is set for SG IN to SG OUT path immediately after the DOOR terminals are short-circuited or releasing EMERGENCY STOP BUTTON. When the signal generator is outputting signals, power output from the amplifier may be unexpectedly high. Care should be taken to avoid this event.

⑪ : EXT CNT

The connection port for optional remote control switch (13-00006A)

⑫ : PC connector

The PC where NETS software has been installed is informed that the system is in Emergency Stop status.

⑬ : AC input

The AC power input for this device. Connect the supplied AC cord.

8. OPERATION

1. Make the required connections.
2. Turn on this device by pressing the POWER key to [I] side.
3. Select the desired mode for interlock setting of SYNC or ASYINC by using ② INTERLOCK setting button.
4. Select SG IN to SG OUT path by pressing ④ RESET button. The lamp on the left of ④ RESET button illuminates in green when SG IN to-SG OUT path has been selected.

When SG IN to SG OUT setting is not made by pressing ④ RESET button (the lamp is off) , check the following:

* check to see that ⑤ EMERGENCY STOP button has not been pressed.

⇒ Turn ⑤ EMERGENCY STOP button clockwise (or pull it lightly).

* check to see that EMERGENCY BOX (optional) has not been pressed or check short-circuit between the inner and outer conductors of ⑨ EXT EMERGENCY.

⇒ Release EMERGENCY BOX button or attach the supplied BNC connector with a short-connection cap

* Check to see the lamp of ③ DOOR status indicator is off when SYNC mode has been selected with the INTERLOCK setting button.

⇒ Short-circuit the ⑧ DOOR terminals

* Check to see that the remote control switch (optional) connected to EXT CNT has not been pressed.

⇒ Release the button .

9. WARRANTY

Services

The following terms are applicable to the services provided by the Company to maintain and repair the Unit.

1. Scope

The Unit and accessories and options provided by the Company are covered under this section.

2. Technical Service Fee

Any repairs provided by the Company during the warranty period will be free of charge in accordance with the Limited Warranty. After expiration of the warranty period, actual cost for the repair will be charged to the user.

3. Ownership of Defective Parts

All the defective parts replaced during the warranty period become the property of the Company. For paid repairs, they also become the property of the Company unless otherwise directed by the user.

4. Maximum Compensation

In the event the user incurs damage due to malfunction of the Unit arising solely from the negligence and/or improper repair on the part of the Company, the Company will compensate for the damage. The maximum compensation amount shall be limited to the amount paid by the user at the time of purchase of the Unit. In no event, shall the company be liable or in any way responsible for incidental or consequential damages such as loss of profit or third party's claims to the user.

5. Wrong Parts, Missing Parts and Damage

The company shall not be liable for loss of profit, business interruption, other incidental damage, special loss, punitive damage or third party's claims to the user directly or indirectly arising from suspension of testing activities due to wrong parts, missing parts, or damage of the Unit.

6. Service Refusal

The company may not accept a repair order in the following cases:

- More than 5 years have passed since the product discontinued
- More than 8 years have passed after delivery
- Required component for servicing already discontinued and no alternative is available.
- Product changed, repaired or remodeled without obtaining a prior permission from the Company.
- Product severely damaged to the extent it has lost its original form

Limited Warranty

In the event of failure during the warranty period, the Unit will be repaired or replaced free of charge. Decision of the repair method shall be left at the discretion of the Company. This limited warranty is applicable in Japan only.

1. Scope

This warranty is applicable only to the Unit and its accessories.

2. Warranty Period

One year from the date of delivery.

For a location once repaired, the warranty period for same parts / same problems is 6 months from the time of repair completion.

3. Exceptions

Regardless of the above, following will be excluded from the warranty.

- ◇ Consumable parts replacement, including High Voltage Relay (if used)
- ◇ Failure caused by negligence, or damage to the Unit.
- ◇ Failure due to modifications made without the Company's authorization.
- ◇ Failure due to repairs made by personnel not authorized by the Company.
- ◇ Failure directly or indirectly arising from force majeure including but not limited to, acts of god, fire, war, rebellion and others.
- ◇ Failure due to shipping, vibration, falling, or impact shock after delivery
- ◇ Failures due to use of the Unit under the improper environment.
- ◇ When the Unit is taken out of the country.

10. MAINTENANCE

1. When repair, maintenance or internal adjustment of the Unit is required, a qualified service engineer takes charge of such work.
2. Maintenance on the user side is restricted to the outside cleaning and functional check of the Unit.
3. When checking or replacing the fuse, turn off the switch of the Unit and disconnect the plug socket beforehand.
4. When cleaning the Unit, turn off the switch of the Unit and the connected equipment and disconnect the plug socket beforehand.
5. Avoid using chemicals for cleaning. Otherwise, the coating of the Unit may peel off or the sight glass may be broken.
6. Do not open the cover of the Unit.

11. NOISE LABORATORY SUPPORT NETWORK

- If a symptom which seems a trouble is found, inform the model name and serial number of the product together with the symptom to Noise Laboratory or your nearest sales agent of Noise Laboratory.
- When the product is returned to Noise Laboratory, write the state of the trouble, contents of your request, model name and serial number in a repair order, and pack the product and repair order sheet in the former package of equivalent suitable for transit and send them back.

NOISE LABORATORY CO., LTD.

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