

## INSTRUCTION MANUAL

RF pre-amplifier

00-00012A / 00-00013A

00-00014A / 00-00016A

NOISE LABORATORY CO., LTD

Edition 1.01

AES00002-00E-0B

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### 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

Important points for the safe use of this unit are provided below. Be sure to carefully read this information before use.

1. Do not use this unit in areas where open flames are prohibited or areas having an explosive atmosphere. Electrical discharges can occur during use, which can cause these atmospheres to ignite.
2. Do not allow people with pacemakers or other electronic medical devices to operate this unit and to enter the testing area while this unit is operating.
3. The section "Basic Safety Precautions" contains important safety recommendations, and so be sure to read the section carefully before making the testing environment settings, connections, and starting testing.

### 2. INTRODUCTION

Thank you very much for your purchase of RF pre-amplifier model 00-00012A/13A/14A/16A.

- This Instruction Manual was prepared so that any person who can observe the prescribed instruction method and operating precautions may safely handle and fully utilize this product.
- Thoroughly read this operation manual before use and keep it as a ready reference.
- This product has the features shown below:

#### § Features

1. Used for a wide range of applications thanks to its high performance.
2. Four models with different frequency ranges and gains.
3. N-Female connectors provided for input and output.

### 3. BASIC SAFETY PRECAUTIONS

#### 1. Safety Warning Signs and Their Meanings



Indicates **Warning**.

Failure to follow this safety information can lead to a **potentially hazardous situation** resulting in **death** or **serious injury**.



Indicates **Caution**.

Failure to follow this safety information can lead to a **potentially hazardous situation** resulting in a **minor injury** or **moderate damage**.

#### 2. Basic Safety Precautions



1. Do not use this unit in areas where open flames are prohibited or areas having an explosive atmosphere. Electrical discharges can occur during use, which can cause these atmospheres to ignite. (Precaution regarding personal safety and environment)
2. Do not allow people with pacemakers or other electronic medical devices to operate this unit and to enter the testing area while this unit is operating. Failure to observe this can result in malfunctions in the electronic medical device and endanger personal safety. (Precaution regarding personal safety and operation)
3. Noise Laboratory and our affiliated dealers are not liable for any injuries or equipment damage due to improper operation of this unit or for any resulting incidental damages. (Precaution regarding personal safety, operation, environment, and connection)
4. When operating this unit, do not leave the equipment unmonitored. Before leaving this unit, be sure to turn off test equipment power and terminate testing.  
If you fail to observe this, you could endanger people in the surrounding area and testing equipment. (Precaution regarding personal safety, operation, and environment)



5. Do not use or store in environments with extremely hot or cold temperatures. If you cannot maintain a suitable operating environment (temperature: 15°C to 35°C, humidity: 25% to 75%), the unit can be damaged and result in impaired performance. (Precaution regarding environment)
6. In the event that condensation forms, be sure that the unit is fully dried before starting operation. Failure to observe this can damage the unit and result in impaired performance. (Precaution regarding environment)
7. Avoid using the unit in locations with high humidity or exposed to large amounts of dust. Failure to observe this can damage the unit and result in impaired performance. (Precaution regarding environment)
8. Any required repairs, maintenance, and internal adjustment for this unit must be performed only by service engineers authorized by Noise Laboratory. Failure to observe this can result in impaired performance.

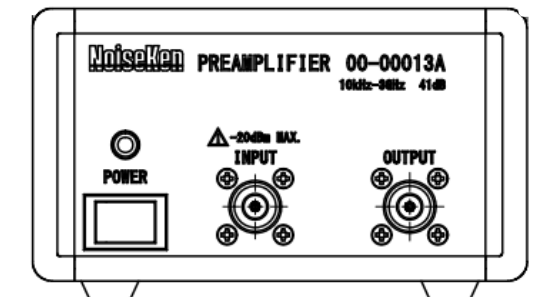
9. Do not wipe the unit with thinner, alcohol, or other solvents. If the unit is dirty, wipe with a cloth dipped in neutral detergent after it is fully wrung out. Wiping with a solvent can damage the unit surface.

### 4. PRODUCT PACKAGE

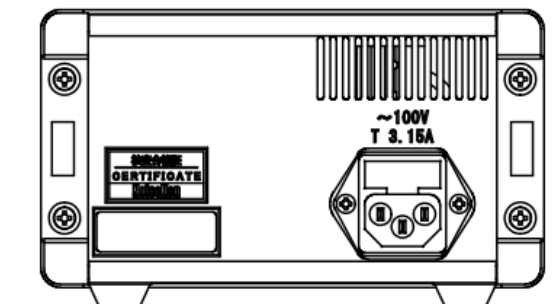
A : RF pre-amplifier (main unit)

1 set

• Front view



• Rear view



\* The figures shown here are for Model 00-00013A. The other models have the same appearance.

B : AC cord 1 piece

C : Coaxial cable (00-00013A only) 1 piece

D : Instruction manual 1 piece

## 5. SPECIFICATIONS

Item	Specifications/performance
Frequency range(usable)	00-00012A : 9kHz~1GHz 00-00013A : 10kHz~3GHz 00-00014A : 500MHz~8GHz 00-00016A : 9kHz~1GHz
GAIN	00-00012A : 36dB (typ) 00-00013A : 41dB (typ) 00-00014A : 47dB (typ) 00-00016A : 46dB (typ)
GAIN flatness (GAIN Max—GAIN Min)	00-00012A : <3dB 00-00013A : <3dB 00-00014A : <4dB 00-00016A : <4dB
Maxim input power	00-00012A : -17dBm 00-00013A : -20dBm 00-00014A : -20dBm 00-00016A : -25dBm
Input impedance	50 Ω
Input / Output connectors	N-Female
Power supply	AC100V±10% 50/60Hz
Operating temperature range	15~35 °C
Operating humidity range	25~75 %
Dimensions	W160mm×H88mm×D230mm (projection excluded)
Weight	Approx. 3kg

## 6. OPERATION

Connect to an appropriate AC source by using the included AC cord. Connect appropriate (covering the intended frequency range for your application) coaxial cables for its input and output ports. Check again the output power from this product and turn on the POWER.



Care should be taken for the maximum input and output power.

## 7. WARRANTY

### Services

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

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

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

## 8. MAINTENACE

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

## 9. 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.  
SALES DEPT.

TEL: +81-42-712-2051  
FAX: +81-42-712-2050

E-mail: sales@noiseken.com  
http://www.noiseken.com

## 10. Application Form for Instruction Manual

We place an order for an instruction manual.

Model:   
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: +81-42-712-2051 Fax: +81-42-712-2050**