



NIHON KOHDEN
CORPORATION

OPERATOR'S MANUAL

FREE MODULE ✓

MODEL EK-610G

S- 20428

S- 20432

GENERAL HANDLING PRECAUTIONS

This device is intended for use only by qualified medical personnel.

Please read these precautions thoroughly before attempting to operate the instrument.

1. **To satisfy and effectively use the instrument, its operation must be fully understood.**
2. **When installing or storing the instrument, take the following precautions:**
 - (1) Avoid moisture or contact with water, extreme atmospheric pressure, excessive humidity and temperatures, poorly ventilated areas, and dusty saline or sulphuric air.
 - (2) The instrument should be placed on an even, level floor. Vibration and mechanical shock should be avoided even during moving.
 - (3) Avoid placing in an area where chemicals are stored or where there is danger of gas leakage.
 - (4) The power line source to be applied to the instrument should correspond in frequency and voltage to specifications, and have allowable current capacity.
 - (5) Choose a room where a proper grounding facility is available.
3. **Before Operation**
 - (1) Check that the instrument is in perfect operating order.
 - (2) Check that the instrument is grounded properly.
 - (3) Check that all cords are connected properly.
 - (4) Pay extra attention when the instrument is in combination with other instruments to avoid misdiagnosis or other problems.
- (5) All circuitry used for direct patient connection must be doubly checked.
- (6) Check that battery voltage and battery condition are perfect when using battery-operated models.
4. **During Operation**
 - (1) Both the instrument and the patient must receive constant, careful attention.
 - (2) Turn power off or remove electrodes and/or transducers when necessary to assure the patient's safety.
 - (3) Avoid direct contact between the instrument and the patient.
5. **To Shutdown After Use**
 - (1) Turn power off with all controls returned to their original positions.
 - (2) Remove the cords gently; do not use force to remove them.
 - (3) Clean the instrument together with all accessories to keep them ready for their next use.
6. **The instrument must receive expert, professional attention for maintenance and repairs. When the instrument is not functioning properly, it should be clearly marked to avoid operation while it is out of order.**
7. **The instrument must not be altered or modified in any way.**

8. Maintenance and Inspection:

- (1) The instrument and parts should undergo regular maintenance inspection at least every 6 months.
- (2) If stored for extended periods without being used, make sure prior to operation that the instrument is in perfect operating condition.

9. When the instrument is used with an electro-surgical instrument, careful attention should be paid to the application and/or location of electrodes and/or transducers to avoid possible burn to the patient.

10. When the instrument is used with a defibrillator, make sure that the instrument is protected against defibrillator discharge. If not, remove patient cables and/or transducers from the instrument to avoid possible damage.

WARRANTY POLICY

Nihon Kohden Corporation (NKC) shall warrant its products against all defects in materials and workmanship for one year from the date of delivery. However, consumable materials such as recording paper, ink, stylus and battery are excluded from the warranty.

NKC or its authorized agents will repair or replace any products which prove to be defective during the warranty period, provided these products are used as prescribed by the operating instructions given in the operator's and service manuals.

No other party is authorized to make any warranty or assume liability for NKC's products. NKC will not recognize any other warranty, either implied or in writing. In addition, service performed by someone other than NKC or its authorized agents or technical modification or change of products without prior consent of NKC may be cause for voiding this warranty.

Defective products or parts must be returned to NKC or its authorized agents, along with an explanation of the failure. Shipping costs must be pre-paid.

In the USA and Canada other warranty policies may apply.

FREE MODULE EK-610G

INTRODUCTION

The free module is designed to assemble your originally designed circuit on the multi-purpose board.

The module contains the power supply of regulated $\pm 15V$ and $+5V$ on the multi-purpose circuit board.

FEATURES

1. Built-in $\pm 15V$ and $+5V$ power supplies with output current of $200mA$.
2. Both dual-in-line type and can type integrated circuits can be mounted on the multipurpose circuit board as well as transistors and other components.

SPECIFICATION

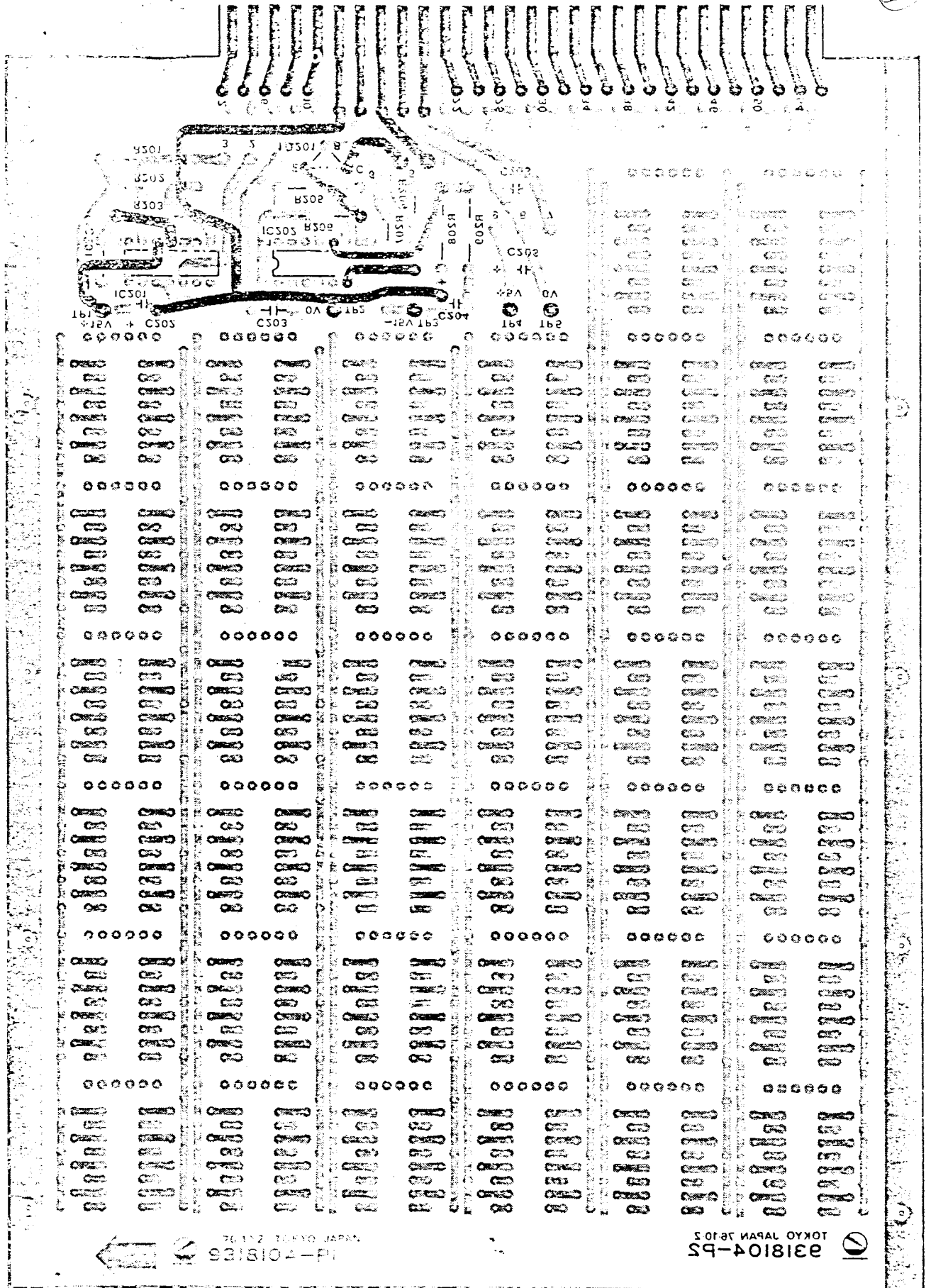
Power Supply	$+15V, \pm 6\%$	$200mA$
	$-15V, \pm 6\%$	$200mA$
	$+5V, \pm 6\%$	$200mA$

Power mounted side →

Printed side →

1 3 5 7 9 11 13 15 17 19 21 23 25 27 29 31 33 35 37 39 41 43 45 47 49 51 53 55
 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50 52 54 56

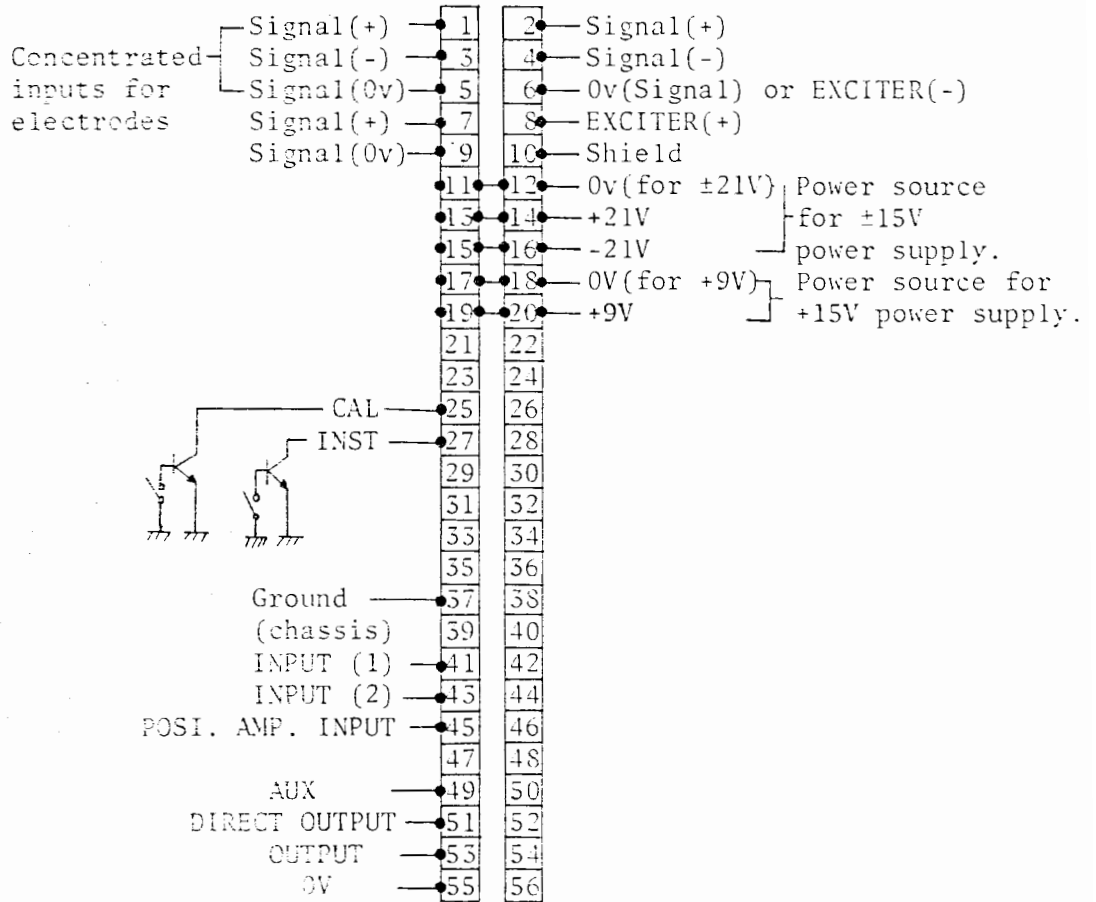
① P.V.C



E318104-15
 TOKYO JAPAN 2R103

Plug-in Unit
Connector

A connector for receiving and applying signals to the plug-in units.
The signal connection of the terminals is as follows:



Plug-in unit connector : 56P female
Type : 1150-056-019
Code number : 5420064