

FAULT DETECTION CIRCUIT MODULE

YA-1000A

Please follow the instructions in this manual to obtain the optimum results from this unit.
We also recommend that you keep this manual handy for future reference.

SAFETY PRECAUTIONS

- To use your equipment properly, be sure to read these safety precautions and the installation manual before operating the equipment.
- Make sure to observe the instructions in this manual as the conventions of safety symbols and messages regarded as very important precautions are included.
- We also recommend you keep this instruction manual handy for future reference.

Safety Symbol and Message Conventions

Safety symbols and messages described below are used in this manual to prevent bodily injury and property damage which could result from mishandling. Before operating your product, read this manual first so you are thoroughly aware of the potential safety hazards as well as understand the safety symbols and messages.

WARNING Indicates a potentially hazardous situation which, if mishandled, could result in death or serious personal injury.

CAUTION Indicates a potentially hazardous situation which, if mishandled, could result in moderate or minor personal injury, and/or property damage.

WARNING

When Installing the Unit

- To reduce chances of fire or electric shock, leave the installation to the shop from whom the unit was purchased. Construction work requires professional skills and experience.
- When mounting and connecting the unit, switch off the (V-1000 series) amplifier power. Failure to do this may result in electric shock.
- Take care that water does not get into the unit or the power amplifier in which the unit is installed, otherwise fires or electric shock may result.

When the Unit is in Use

- Should any of the following irregularities occur, unplug the (V-1000 series) amplifier in which the unit is installed, and inform the shop from where the unit was purchased. Make no further attempt to operate the unit as a fire or electric shock may be caused.
 - If you detect smoke or a strange smell coming from the unit.
 - If water or any metallic object gets into the unit.
 - If the unit falls, or the unit case breaks.
 - If the power supply cord is damaged (exposure of the core, disconnection, etc.)
 - If it is malfunctioning (no tone sounds.)
- To prevent fires or electric shock, do not repair the power amplifier in which the unit is installed, because there are high voltage components inside the power amplifier. Refer all servicing to the shop from where the unit was purchased.
- Do not insert nor drop any metal object, combustibles or any other foreign object in the power amplifier in which the unit is installed from the amplifier's ventilation slots, etc. Fires or electric shock may result.

GENERAL DESCRIPTION

The YA-1000A fault detection circuit module is designed to be installed in the power amplifier (VP series and PA-3640VB) to detect power amplifier failures.

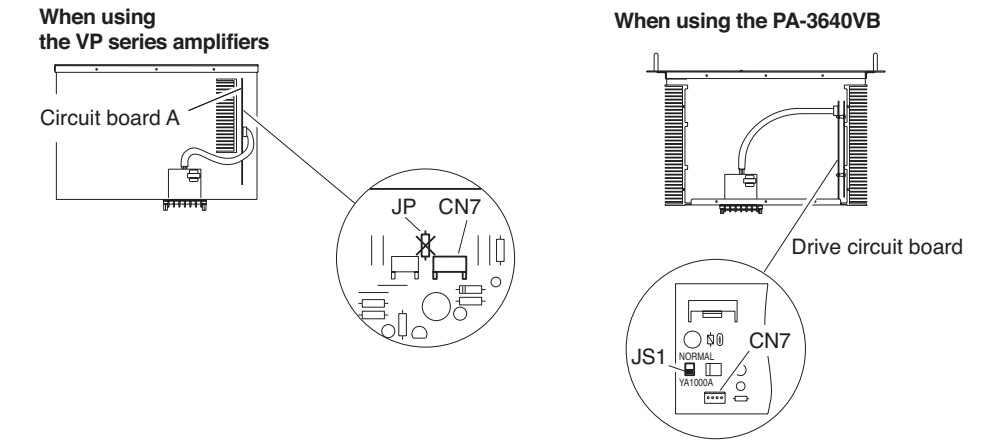
Caution

Do not use the unit during the power amplifier's parallel operation because the unit does not operate.

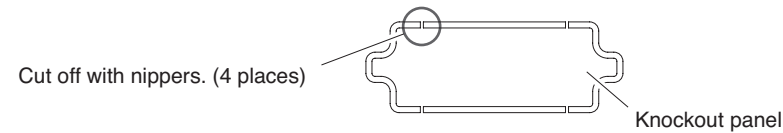
INSTALLATION

Check to be sure that the YA-1000A's SW201 switch is set to the "A" position.

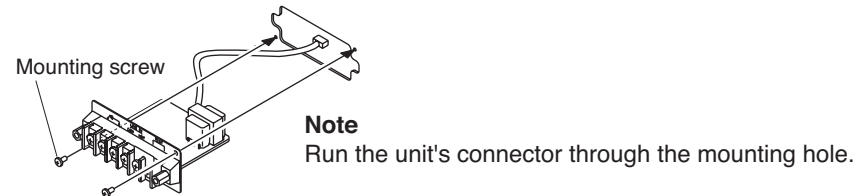
- Remove the power amplifier's case or top plate, then cut jumper wire JP on the amplifier's circuit board A.
When using the PA-3640VB amplifier, change the connection of JS1 jumper on the amplifier's drive circuit board to the "YA1000A" position.



- Using nippers, remove the knockout panel located on the power amplifier's rear panel.



- Insert the YA-1000A into the resultant hole, then fix it using the two supplied 3x8 screws.



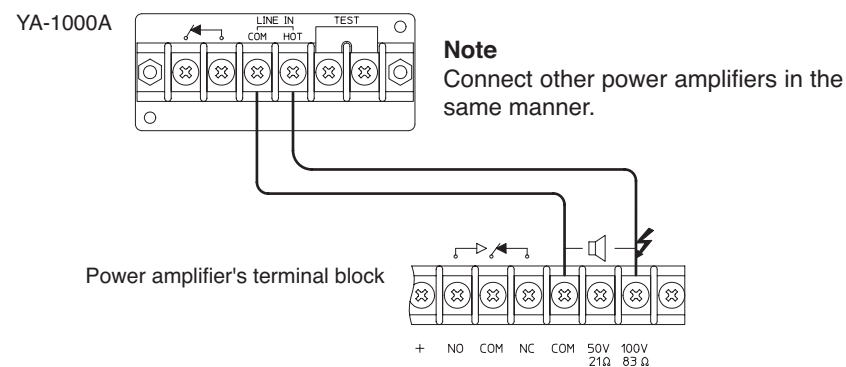
- Connect the YA-1000A's connector to CN7 on the power amplifier's circuit board A (drive circuit board in the case of the PA-3640VB). (Refer to the figure of Step 1 above.)

- Replace the power amplifier's case or top plate.

CONNECTION

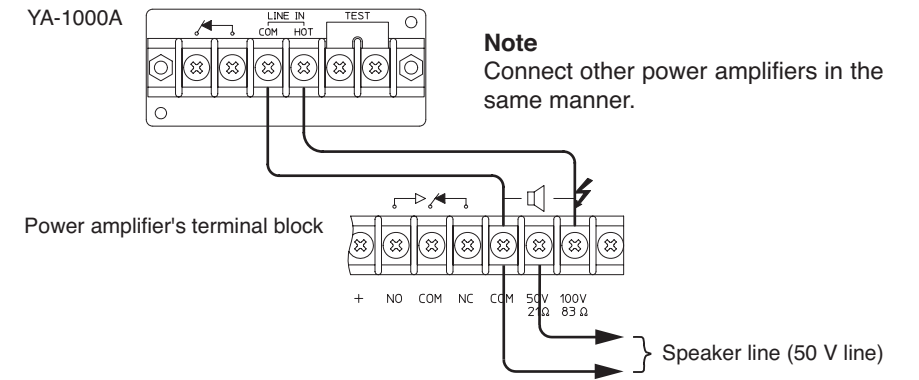
- Connect the power amplifier's COM terminal to the YA-1000A's COM terminal. Also connect the amplifier's 100V terminal to the YA-1000A's HOT terminal.

[Example] When connecting the unit to the VP-1120B

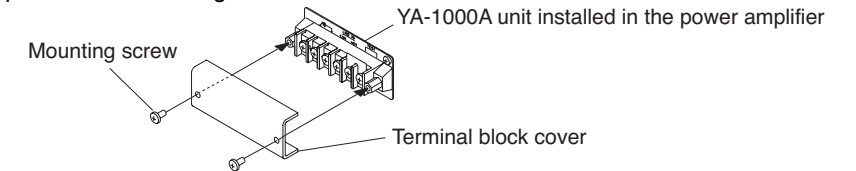


Note

Even when using the voltage other than 100 V for the power amplifier's speaker output, connect the YA-1000A's HOT terminal to the amplifier's 100V terminal.

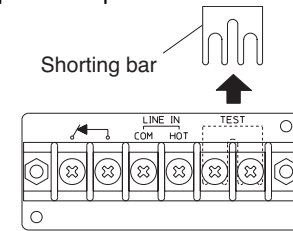


- Place the supplied terminal block cover over the unit's terminal block using the two supplied M4x6 mounting screws.



OPERATION TEST

- Set the power amplifier's power switch to the ON position.
 - The amplifier's power lamp will light green.
 - Check to confirm that the YA-1000A's fault detection output terminal [] is at break.
- Remove a shorting bar mounted to TEST terminals on the YA-1000A installed in the power amplifier.



- Check to confirm that the amplifier's power lamp is extinguished.
- Check to confirm that the YA-1000A's fault detection output terminal [] is at make.

- Set the power amplifier's power switch to the OFF position, then replace the shorting bar.
 - The amplifier's power lamp will be extinguished.
 - Check to confirm that the YA-1000A's fault detection output terminal [] is at make.

THE CONDITIONS THAT CLOSE (MAKE) A FAULT DETECTION OUTPUT

Power supply	Power amplifier		Fault detection output terminal (relay contact)
	State	Power indicator	
On	Normal	Lights green	Break
	Faulty	Off	Make
Off	Normal/faulty	Off	Make

SPECIFICATIONS

Power Source	24 VDC (supplied from the power amplifier)
Power Consumption	20 mA
Input	LINE IN: Connects to the power amplifier output (100 V line)
Fault Indication	Power amplifier's power lamp is extinguished.*
Fault Detection Output	Make of relay contact (Contact capacity: 30 VDC, 1 A)
Usable Amplifiers	VP-1060B, VP-1120B, VP-1240B, PA-3640VB

* When the AC or DC fuse is blown off, the power amplifier's power lamp is extinguished, making a relay contact of the fault detection output.

Note: The design and specifications are subject to change without notice for improvement.

Accessories

- Terminal block cover ... 1 Mounting screw (3x8) ... 2 Mounting screw (M4x6) ... 2