

# Precautions for use

78K0/IB2 Fluorescent Ballast Evaluation Board

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**ZBB-CE-09-0005-E**

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# **EZ-BLST-003**

## Packaging List

Item	Number
<input type="checkbox"/> 1. This board (EZ-BLST-003)	1
<input type="checkbox"/> 2. Precautions for use (English)	1
<input type="checkbox"/> 3. Precautions for use (Japanese)	1
<input type="checkbox"/> 4. Table of Toxic and Hazardous Substance and Elements	1
<input type="checkbox"/> 5. Communication cable	2
<input type="checkbox"/> 6. USB cable	1
<input type="checkbox"/> 7. Cable for Fluorescent lamp connection	2

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# Safety Precautions




This document explains matters to be noted for safe use of this evaluation board. Be sure to read this document before using this evaluation board.

- Be sure to observe all dangers, warnings, cautions, and other instructions contained herein when using this evaluation board.
- This document should be kept handy at all times for ready reference.







## Symbols used

This document used the following symbols for matters to be observed for the safe use of the unit.

The symbols are followed by a brief explanation of the possible extent of problems which may occur if the notices are not observed.

 <b>Danger</b>	The user may suffer death or serious injury and it's risk is high if the warning is not observed.
 <b>Warning</b>	The user may suffer death or serious injury if the warning is not observed.
 <b>Caution</b>	Human injury or property damage may occur if the caution is not observed.

The following symbols express matters which are prohibited in order to prevent injury or accident.

 <b>General prohibition</b> The action mentioned is prohibited.	 <b>Do not touch</b> Touching the specified location may cause injury.	 <b>Do not disassemble</b> Disassembly may cause a problem such as electrical shock or product failure.
 <b>Keep away from water</b> Use near water poses the risk of electrical shock or product failure if moisture were to contact the unit.	 <b>Flammable</b> A nearby flame may cause the unit to catch fire.	 <b>Do not touch with wet hands</b> Touching with wet hands may cause electric shock or product failure.













The following symbols are used for cautions to prevent product failure and accidents.




 <b>General caution</b> Unspecified general cautions.	 <b>Caution Hot</b> Human injury by high temperature may occur.
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The following symbols are used for instructions to prevent product failure and accidents.

 Compulsory action based on an instruction for the user.	 Instruction to unplug from AC power supply.
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## Warnings

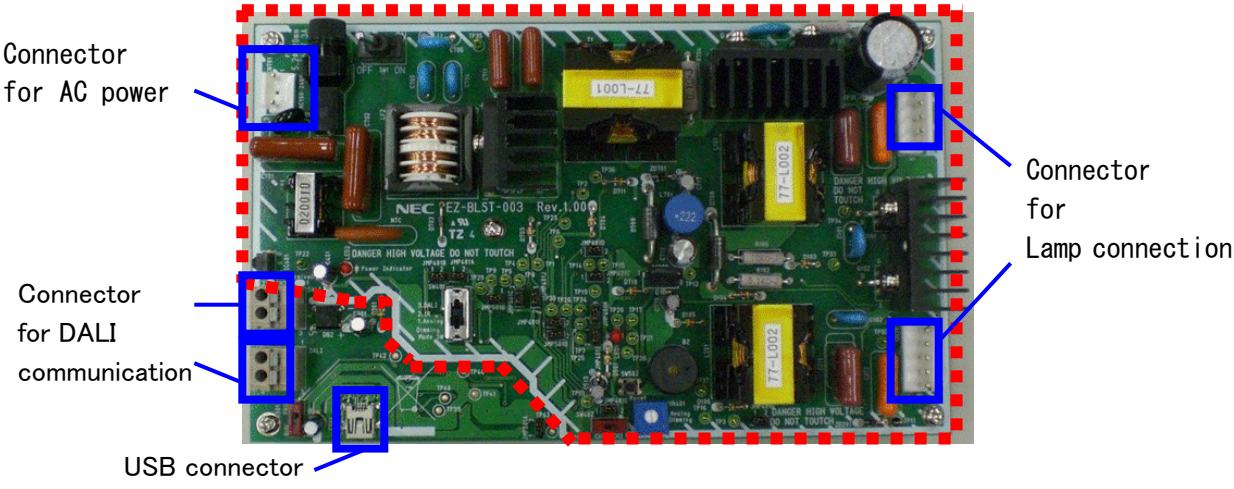
 <b>Danger</b>	
	<p><b>Do not use this board in the purpose except the evaluation of MCU.</b> This board does not take safety measures or anti-EMI measures required for lighting equipment.</p>
	<p><b>Do not touch to the high voltage area of the board.</b> Touching the board by tools or body while power is being supplied cause product failure or electric shock.</p>
	<p><b>Do not touch with wet hands.</b> Doing so cause product failure or electrical shock.</p>
	<p><b>Do not use or store this board in any of the following locations.</b></p> <ul style="list-style-type: none"> <li>- Environments with copious water, humidity, steam, dust, fumes, etc.</li> <li>- Environments where static electricity or electrical noise is readily generated.</li> </ul> <p>Such influences can lead to electric shock or product failure.</p>
	<ul style="list-style-type: none"> <li>- <b>Use glove to protect electric shock.</b></li> <li>- <b>Limit the user of this board.</b></li> </ul>
 <b>Warning</b>	
	<p><b>Be careful to burns.</b> The part of board becomes high temperature during AC power is connected.</p>
	<p><b>Do not disassemble or modify the board.</b> Doing so may cause product failure, emission of smoke, fire, or electric shock.</p>
	<p><b>Do not heat the board or expose it to fire, and do not short the terminals.</b> Doing so may cause product failure, generation of heat, fire, or rupture.</p>
	<p><b>Do not drop or jolt the board.</b> Doing so may break or damage the board, causing fire or electric shock.</p>
	<p><b>Use AC power supply in the range of AC100V~240V.</b> Using AC power supply out of this range may cause product failure, generation of heat, fire, or electric shock.</p>
	<p><b>Do not plug in or unplug a connector or cable with power applied to the board.</b> Doing so may cause product failure, generation of heat, fire or rupture.</p>
	<p><b>Do not turn on power switch in insufficient state of cable connection such as AC power, fluorescent lamp connection cable, and communication cable.</b> Doing so may cause product failure, generation of heat, fire or electric shock.</p>
	<p><b>Do not carry this board with connecting any cable.</b> Doing so may cause damage of cable and cause product failure, generation of heat, fire or electric shock.</p>
	<p><b>Use AC power supply cable and plug adapted to safety standard of each county with more than 5A rating.</b> Using non-adopt cable or plug cause product failure, generation of heat, fire or electric shock.</p>

	<p><b>Use this board with spacer and on the isolated bench.</b> In case conductor contact to the board, it may cause product failure, generation of heat, fire or electric shock.</p>
	<p><b>Confirm the outlet is near this board and easily unplugged.</b></p>
	<p><b>If smoke or an abnormal smell or sound is emitted, or heating occurs, promptly switch off the board power and unplug from AC power supply.</b> Using the board in such a state poses a risk of fire, burning, or electric shock.</p>

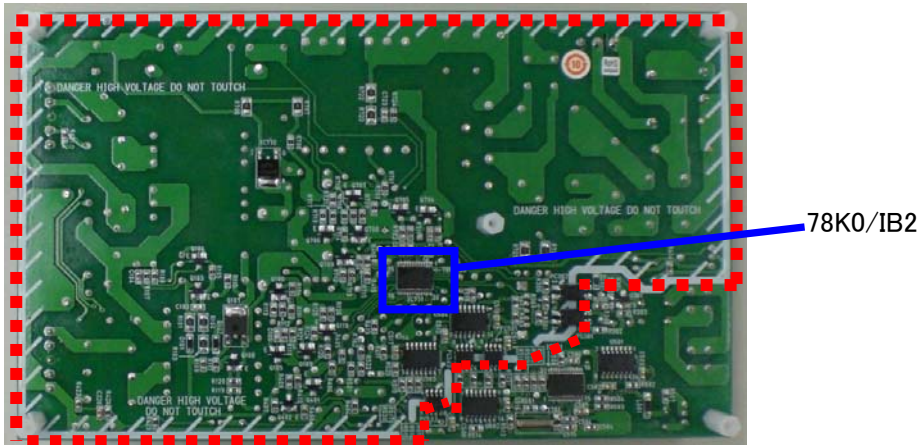
# Cautions

 <b>Caution</b>	
	<p><b>To prevent static electricity damage, guard against energizing when touching metal parts such as the connector.</b></p> <p>Static electricity can cause product failure.</p>




# Appearance of the board



Surface appearance (TOP View)



Surface appearance (Bottom View)

 <b>Danger</b>	
	<p><b>Do not touch the area enclosed with RED line because of high voltage while power is being supplied.</b> This area is also indicated by white heavy line on the board.</p>
	<p><b>Use this board with spacer and on the isolated bench.</b> In case conductor contact to the board, it may cause product failure, generation of heat, fire or electric shock.</p>



As for usage of this board, please download the User's Manual from following URL.

URL: <http://www.necel.com/micro/en/solution/lighting/index.html>