

MLEP-B070W2LR


INSTRUCTION MANUAL

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1. Introduction

Please read this instruction manual carefully, before starting operation. Keep this book for the whole product lifetime, and store it in a place easily accessible.

Meanings of Warning Symbol		The following warning symbol is used in this manual. Be sure to fully understand the contents of the warning.
	WARNING	This warning marking indicates a potentially hazardous situation, which can result in hazard to the operator or damage to the unit, if the directions of this Instruction Manual are not followed.

Precautions for Correct Use



WARNING

Use this product only after understanding contents of the following:

- If using this product in combination with other apparatuses, please confirm the correctness/compatibility of the connection with these external apparatuses (especially regarding insulation requirements).
- If using this product in combination with other apparatuses, please confirm any standards, codes, or regulations that apply to the combination of the apparatuses.
- If using this product in combination with other apparatuses, please confirm that installation, connection and use within the entire system is according to the specification of this product (as described in this Instruction Manual) and according to those of all other apparatuses.
- Never use the product for an application involving serious risks to life or property as long as the whole system is not equipped with appropriate safety measures of the relevant safety category.
- Please install this product in such a way that water cannot sprinkle into it.
- Whenever some matter/dirt stuck to the product, please completely wipe it off, using a dry cloth.
- This product needs periodical inspection and exchange of maintenance parts.
- Whenever trouble occurs, please request repair to MORITEX, and do not dismantle the product by your own.

Other precautions

- When a customer wants to scrap the product, the whole equipment has to be disposed as industrial waste, according to laws and ordinances of the customer's area.
- Dimensions and Weights are reference.
- Specifications of the product (or accessories or optional items) may be changed at any time based on improvements and other reasons without any notice.
- Please inquire to MORITEX about indistinct contents.

Warranty

The term of a warranty

The warranty of this product lasts for two years from the date of purchase. In case of product failure within two years from the date of purchase, and there is no doubt on the correct utilization of the product, according to this instruction manual the unit will be repaired at no charge.

Limitations of warranty

When inconvenience due to our responsibility occurs to a product during the warranty period, the part that has trouble will be changed to a new part, or repaired, free of charge. But, if the cause of the trouble fits to the following, the product is out of warranty.

- The cause of the trouble is of such technical nature that could not be foreseen at the time of shipment.
- The trouble is not caused by this product.
- The trouble is caused by modification or repair by a person other than MORITEX.
- The trouble is caused by unauthorized use, not conforming to this Instruction Manual.
- The trouble is caused by the inappropriate handling such as a drop or a shock.
- The trouble is repaired by MORITEX at on-site service.
- The trouble is caused by a condition out of our responsibility such as a natural disaster or pollution.
- The cause of the trouble cannot be identified by MORITEX.

MORITEX shall not be responsible for indirect or consequential damages, in any way related to this product. The responsibility of MORITEX for any act shall not exceed the price of this product. The warranty is limited to business and use in Japan. Please inquire to MORITEX about warranty overseas.

Confirming Package Contents

Part name	Quantity	Unit	Notes
Main body	1	piece	—
Power Supply Cord Set	1	piece	※
Instruction Manual	1	book	This book

※1 『MC-AC100A-2.0M』 is attached to 『-100V』 model. 『MC-AC200A-2.0M』 is attached to 『-200V』 model. (It depends on the suffix of the model that was purchased.)

Before connection to the power supply, please check the conformity of the specifications of the Power Supply Cord Set with the laws and standards of your country as well as the correct power and temperature rating.

Refer to Page 17: Installation, Page 21: Specifications, Page 22: Optional Items

※2 An attached AC cord set is an AC cord set for exclusive use of this product. Other than this product, please do not use it.

2. Features

Applicable Illuminators

Requirements for applicable MCEP/MSPP series Illuminators (made by MORITEX) : ※1
3pin type: Illuminator of 0.35/0.70 [A]

Output

Number of output channels: 2 channel

※ Each output channel is controlled separately.

Manual illuminance adjustment function

It is possible to adjust the illuminance of the Illuminator by using the Output Control SW on the front-panel.

※ It is possible to control each channel separately

※ Manual adjustment of the illuminance is possible when selecting MANU mode (MANU/REMO SW)

※ Hexadecimal control: 0,1,⋯,E,F

※ (COARSE, FINE): (0,0) = MIN; (F,F) = MAX

※ Range between (0,0) and about (0,5) does not turn on the Illuminator.

Remote illuminance adjustment function

It is possible to adjust the illuminance of the Illuminator by inputting an EXT_0-5V analog voltage or EXT_VR signal (0-2.5V / at using 2.5Vref) to the External Signal Connector on the rear-panel.

※ It is possible to control each channel separately.

※ Remote adjustment of the illuminance is possible when selecting REMO mode (MANU/REMO SW)

※ Input 0V: MIN, Input 5V: MAX

※ It is possible to change EXT_0-5V or EXT_VR by inputting a signal to the External Signal Connector.

Output ON/OFF function

It is possible to turn off the Illuminator by inputting a relevant signal to the External Signal Connector.

※ It is possible to control each channel separately.

※ Operation of this function is possible regardless of the MANU/REMO setting.

Hot swapping of the illuminators

When lighting is not connected, it will cut off the output voltage. In order to restore the output, you will need to restart the power supply after you have connected the lighting.

※ It operates channel separately.

※ Operation of this function is possible regardless of the MANU/REMO setting.



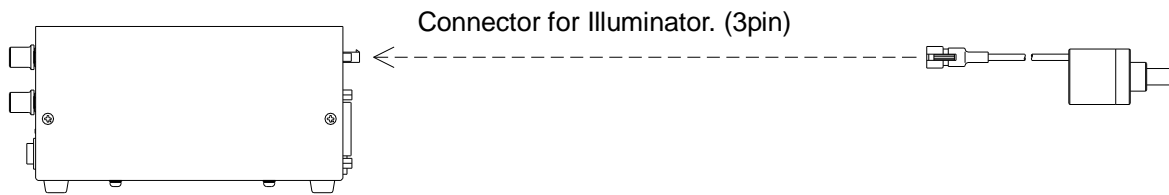
WARNING

※1 Do not connect anything to output except designed Illuminator.

3. Installation

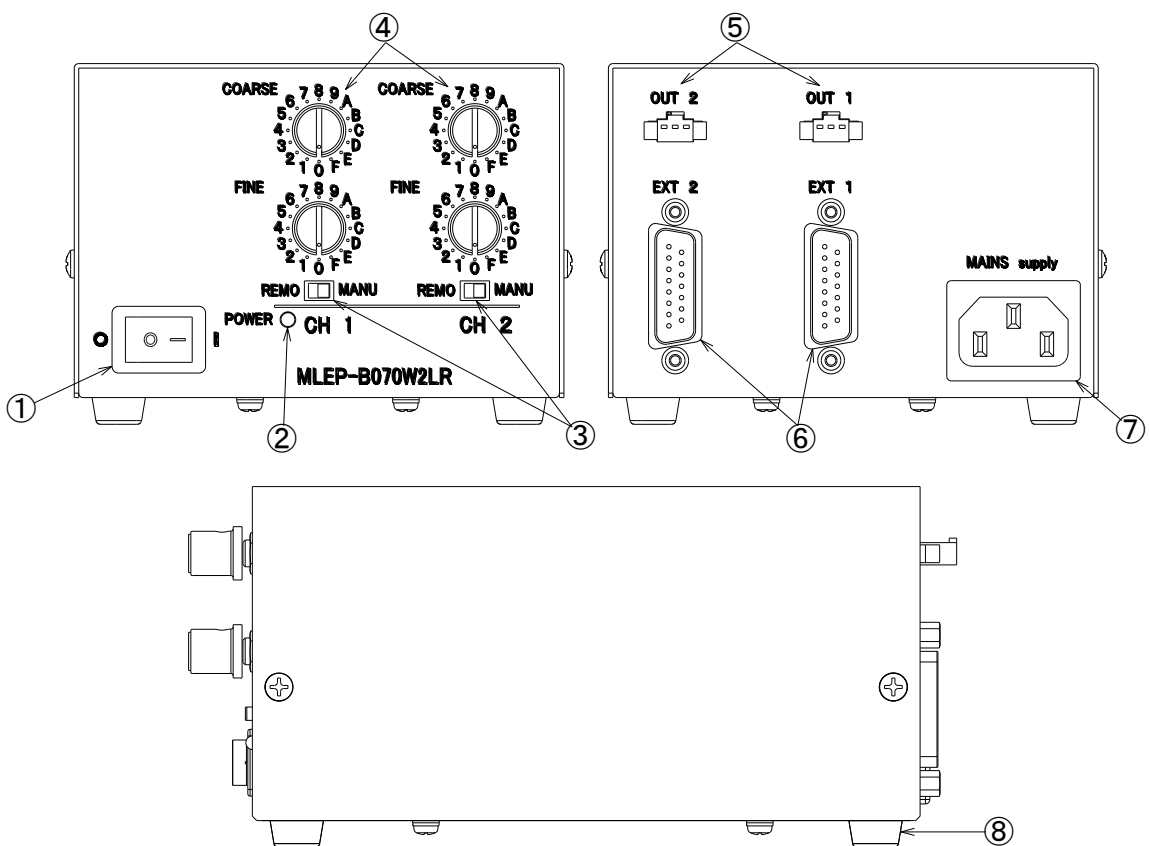
Basic System Configuration

- This Unit is dedicated for use with/for connection to the MCEP/MSPP Illuminator. Refer to Page 3: Features
- For external control, it is possible to connect an external apparatus via the External Signal Connector.



※ The cables for connection to the EXT Connector and to the Illuminator are supplied as Optional Item (MC-EXC-02, M-RCB3**L).

Equipment Control




①	Power SW	Tilt to "I" side for turning on power.
②	Power indicator	LED illuminates when power supply is ON.
③	MANU/REMO SW	Switch for selecting manual or remote control.
④	Output control SW	Manual adjustment switch for output-control.
⑤	Connector for illuminator: OUT1 / OUT2	Terminal for connection to the Illuminator.
⑥	External signal connector: EXT1 / EXT2	Terminal for external control.
⑦	MAINS supply	Inlet for connecting power supply cable.
⑧	Rubber feet	Take them off, when using with the optional installation bracket.

Installation

Install horizontally on the rubber feet at the bottom of the unit.

- ※ Install the unit in such a way, that adequate space is left free for ventilation. Keep space of at least 10mm around the main body.
- ※ Be sure to install the unit in such a way that the Power Switch can be operated easily and the Mains Plug can be pulled out without hindrance, in case of emergency.
- ※ Protection Class: Class I equipment.
- ※ Before using this product, please provide an appropriate power supply cord set conforming to the input power ratings and to the relevant standards of the area where you use this product.
- ※ The power supply cord set shall have following configurations:
Length: < 3 m; Conductors: L / N / PE; Class I type mains plug with reliable connection to the Protective Earthing Conductor of the Building Installation.
Optional Item MC-AC200A-2.0M does comply with these requirements.

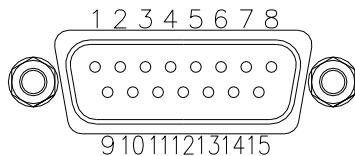
4. Connections

	WARNING	<ul style="list-style-type: none"> • Only SELV circuits, which have reinforced insulation to their equipment primary circuit, may be connected to the unit. • For connection to the External Signal Connector, use a shielded cable with a recommended length of less than 2 m (Optional item: MC-EXC-02) • Please do not excessive input or overload.
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External signal connector (EXT)

Model

Terminal of the Unit	Connector of the cable
HDAB-15P(05) (male) (made by HRS) Screw: M2.6	HDAB-15S(05) : connector(female) (made by HRS) HAD-CTH : connector case (made by HRS) or its equivalent



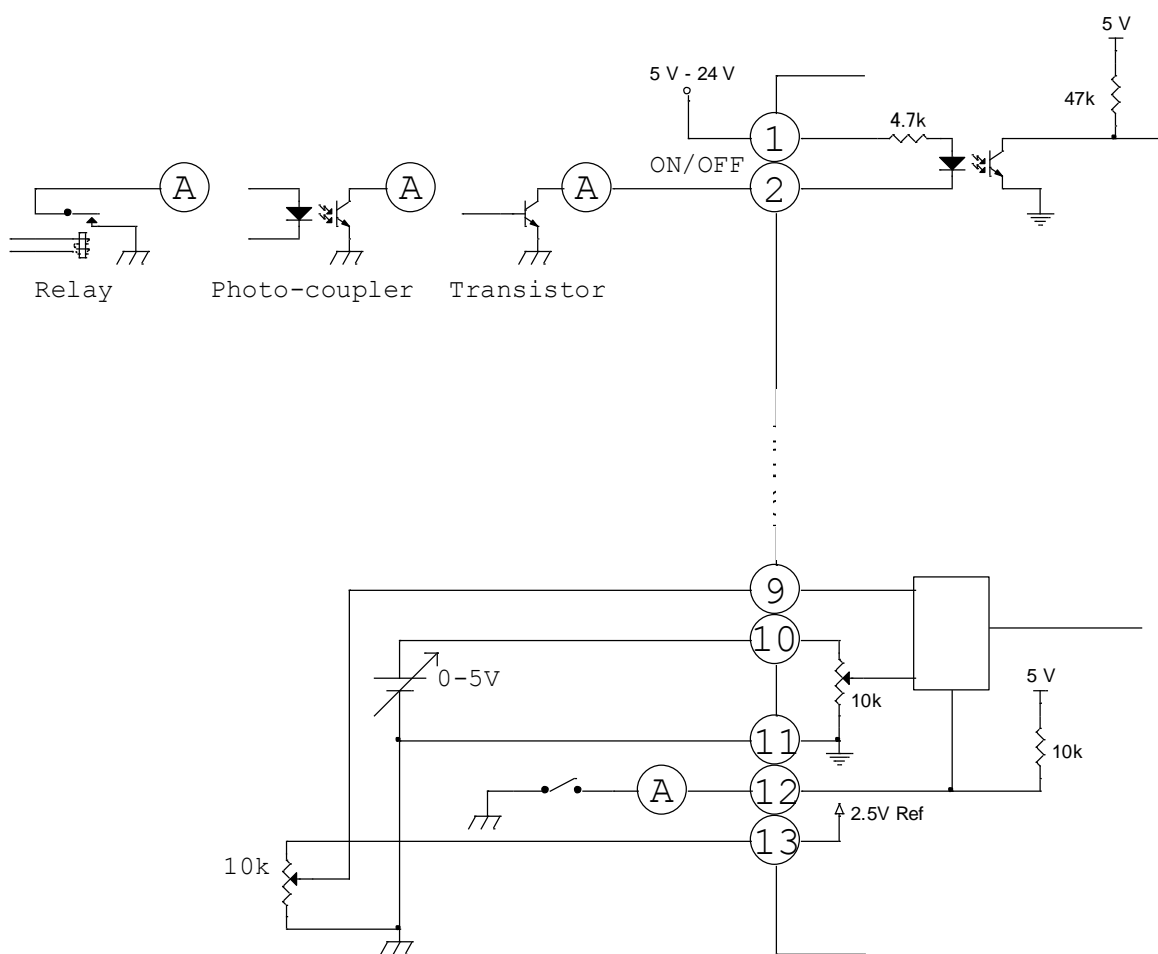
Pin assignment

No	Identification	No	Identification
1	Input ON/OFF signal + ※1	9	EXT_VR (Volume control signal) ※2
2	Input ON/OFF signal - ※1	10	EXT_0-5V (Analog control signal) ※3
3	NC	11	EXT_GND
4	NC	12	EXT_0-5V / EXT_VR Selection ※4
5	NC	13	DC2.5V Reference voltage output ※2
6	NC	14	
7	NC	15	
8	NC		

- ※1 It is possible to input a voltage between 5V and 24V.
Input a voltage between 5V and 24V Output OFF
Input 0V or Input open Output ON
- Please do not change the input voltage during operation.
- Operation possible regardless from MANU/REMO selection.
- Input Current : 1mA (Input 5V), 5mA (Input 24V)

- ※2 Input to EXT_VR(9) conforms to only a signal of variable resistor of 10KΩ connected to 2.5Vref(13P) and GND(11P).
 - Input 0V (GND) : Min / Input 2.5V : Max
 - Please do not use 2.5V Vref besides a designated usage.
- ※3 Circuited to GND with 10KΩ resistor.
 - Input 0V(GND) : Min / Input 5V : Max
- ※4 Open-Collector type input or DC5V input are possible.
 - Input DC5V or Input open EXT_0-5V
 - Short GND EXT_VR
 - Only for REMO Control
 - Output current is 0.5mA at short to GND. (Pull up to DC5V with 10KΩ resistor.)

Example of input circuit



Connector for Illuminator (for MCEP/MSPP Illuminator: OUT1, OUT2)

Model

Output Connector of the Unit	Connector of the Illuminator
SMP-03V-BC (made by JST)	SMR-03V-B (made by JST) or its equivalent


Pin assignment: Connector for Illuminator

No	Function/Identification
1	0.70A Output Current (+) ※1
2	0.35A Output Current (+) ※1
3	Output Current (-)

※1 Maximum Output voltage is 6.0V.

Optical item : M-RCB3**L

5. Maintenance

	WARNING	<ul style="list-style-type: none"> • Please turn off the power switch and detach all connections before doing maintenance. • Please never take the product apart.
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- Please periodically wipe off any dirt by a dry cloth.
- If the contamination is worse, wipe it off with a cloth that has been lightly immersed in a weak solution of neutral detergent.

Troubleshooting: Before requesting repair, check the following items.

Symptom	Cause	Remedy
Illuminator does not turn on.	- Are all connectors correctly attached?	- Please attach connectors correctly.
Illuminator remains dark.	- Is the MANU/REMO correctly set? - Is the output control correctly adjusted? - Are the external signals correctly set?	- Please reset. - Please set MANU/REMO correctly. - Please adjust output control. - Please connect signals correctly.
Unit does not turn ON/OFF.	- Are the external signals correctly set?	- Please connect signals correctly.

6. Specifications

Model	MLEP-B070W2LR	
Input Voltage	AC 100 – 240 [V] (TN-S power distribution system)	※1
Input Current	0.20/0.11 [A] typ. at AC 100 / 240 [V]	
Input Frequency	50/60 [Hz]	
Rushing Current	16 [A] max. at AC 100 [V] 40 [A] max. at AC 240 [V]	※2
Number of Outputs	2 channel	
Output Voltage	Max 6.0 [V]	
Output Current	0.35 / 0.70 [A]	※3
Output Control	Constant current control	
Output Characteristics	Continuous DC output	
Output Adjustment Function	Yes Manual / Remote	
Output Range	0 – 100 [%]	
Remote Control	Yes EXT 0-5V / EXT VR (with changeover function) Output ON/OFF control	
Environmental Condition	Indoor Altitude up to 2000m Temperature 0°C to 45°C Maximum 80% RH for temperatures up to 31°C decreasing linearly to 50% RH at 40 MAINS supply voltage fluctuations up to ±10% of the nominal voltage Installation category II For use up to Pollution degree 2	
Storage Temperature/Humidity	-20 ~ 75 [°C] / 20 ~ 85 [%RH] (non-condensing)	
Installation Method	Horizontal installation on rubber feet.	
Protection Class	Class I equipment	
Cooling Method	Air-cooling	
International Protection Degree	IP40 (EN60529)	※4
Dimensions	W110×H75×D150 (Protuberances excluded)	
Mass	Approximately 0.9[kg]	
CE Marking	LVD:2014/35/EU , EMC:2014/30/EU RoHS:2011/65/EU, 2015/863	※5

- ※1 Please use power supply cord set satisfying the input AC voltage / current ratings of the unit and complying to the relevant standards / laws of the area where you use this product. (Please confirm a model of an attached power supply cord set to the product with the table of optional items.)
- ※2 Specification for cold-start
- ※3 Please do not connect anything to output of the unit except illuminator of designation current.
- ※4 An object equal to or more than a diameter of 2.5mm does not reach hazardous parts inside the unit. The unit is not protected against invasion of water.
- ※5 MLEP-B070W2LR, except stated explicitly do comply to these European Standards upon which CE marking is declared. Additionally, please use a Class I power supply cord set which confirms to CE marking in order to conform the unit to CE marking.(Optional Item MC-AC200A-2.0M does comply with CE marking.)

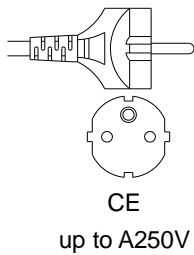
Optional items

Name	Model	CE	O:Yes x:No
Relay cable for Illuminator (optional sales)	M-RCB3 * * L (Relay cable for 4pin connector) * * :length (01=1m, 02=2m, 03=3m)	※1,2	○
AC200V Power Supply Cord (optional sales)	MC-AC200A-2.0M (Only 2m length available)	※3	○
AC200V Power Supply Cord (optional sales)	MC-AC200B-2.0M (Only 2m length available)	※4	×
AC100V Power Supply Cord (optional sales)	MC-AC100A-2.0M (Only 2m length available)	※5	×
External Connector & Cable (optional sales)	MC-EXC-02 (length:2m,output side unattached)	※1	○
Installation bracket (optional sales)	LBK-001 (Bottom type)		—

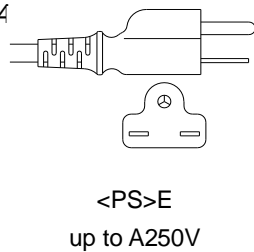
※1 Please inquire to MORITEX about cable different in length.

※2 Please inquire to MORITEX about 10m or more.

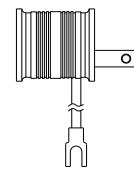
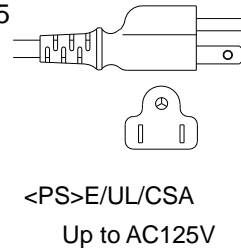
※3



※4



※5



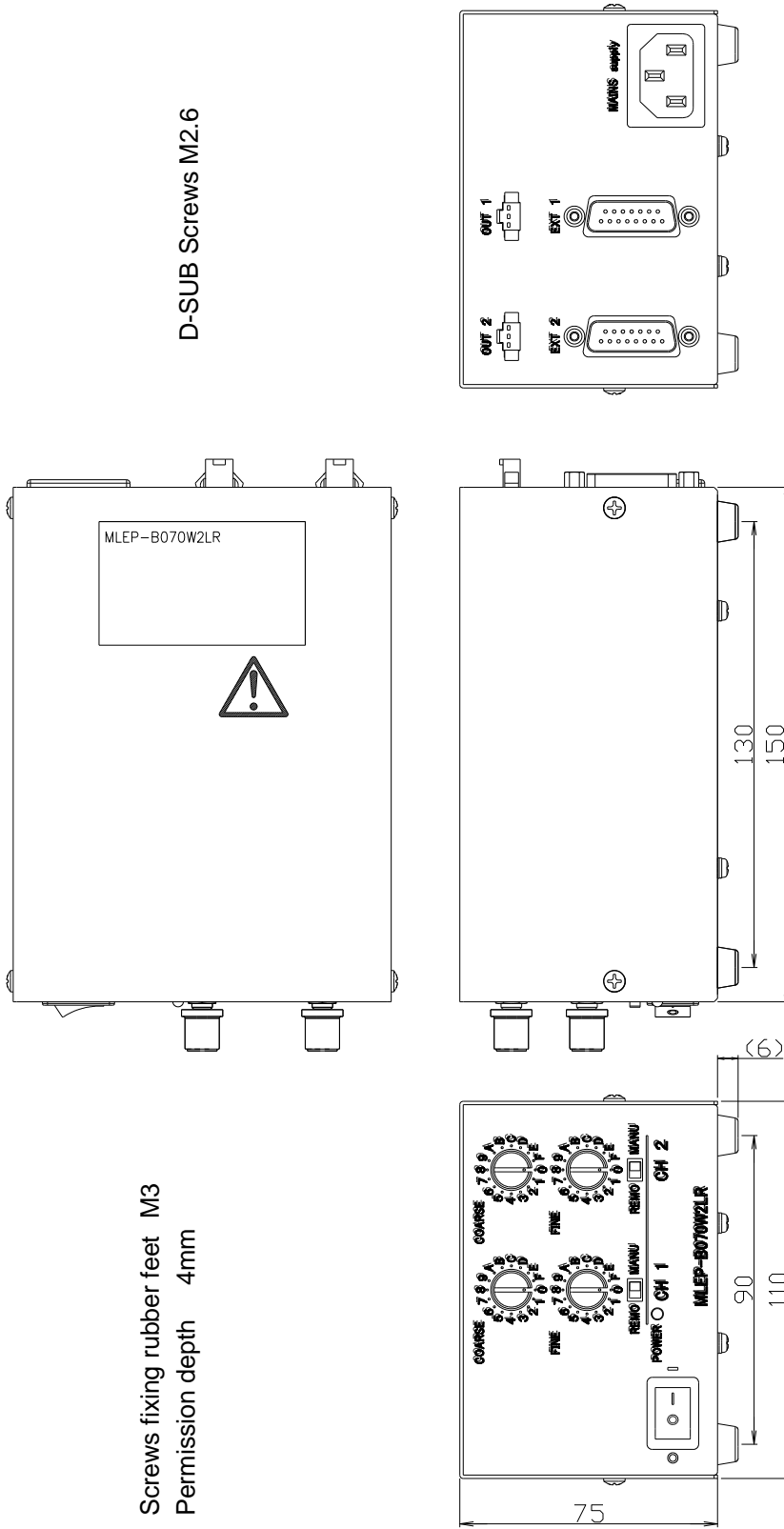
Adaptor
(for Japan
only)

<PS>E

(Please check conforming to the relevant standards of country or area where you use cord.)

(Please inquire to MORITEX about specifications of Power Supply Cord.)

Dimensions



Screws fixing rubber feet M3
 Permission depth 4mm

D-SUB Screws M2.6

《 MEMO 》

《Appendix》

- If there are any unclear points or if you have any questions, please feel free to inquire MORITEX.
For repair or after sales service, please contact any MORITEX office or the sales office where you have purchased the unit.
- Please provide following information when requesting service.

Model	:	MLEP-B070W2LR
Ser. No.	:	Indicated on the product
Date of purchase	:
State of trouble	:	Please provide detailed information
Your name (company name and/or individual name), address, telephone/FAX number, email-address	:	

お問い合わせは.....

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