

# mitsubishi electric

**E1060**

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Installation manual

English

## Installation manual for the E1000 series operator terminals

### Foreword

The E1000 operator terminal is developed to satisfy the demands of human-machine communication. Built-in functions such as displaying and controlling text, dynamic indication, time channels, alarm and recipe handling are included.

The operator terminal work, for the most part, in an object-oriented way, making it easy to understand and use. The configuration operation of the terminal is made in a personal computer, using the configuration tool E-Designer. The project is then transferred and stored in the operator terminal.

The operator terminal can be connected to many types of automation equipment, such as PLCs, servos or drives. In this manual the expression “the controller“ is used as a general term for the connected equipment.

This manual explains how to install the operator terminal. Please refer to the reference manual for further information.

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The information in this document is subject to change without notice and is provided as available at the time of printing. The manufacturer reserves the right to change any information without updating this publication. assumes no responsibility for any errors that may appear in this document.

Read the entire installation manual prior to installing and using this equipment.

Only qualified personnel may install, operate or repair this equipment. The manufacturer is not responsible for modified, altered or renovated equipment.

Because the equipment has a wide range of applications, users must acquire the appropriate knowledge to use the equipment properly in their specific applications.

Persons responsible for the application and the equipment must themselves ensure that each application is in compliance with all relevant requirements, standards and legislation in respect to configuration and safety.

Only parts and accessories manufactured according to specifications set by The manufacturer may be used.

THE MANUFACTURER SHALL NOT BE LIABLE TO ANYONE FOR ANY DIRECT, INDIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE INSTALLATION, USE OR REPAIR OF THIS EQUIPMENT, WHETHER ARISING IN TORT, CONTRACT, OR OTHERWISE. BUYER'S SOLE REMEDY SHALL BE THE REPAIR, REPLACEMENT, OR REFUND OF PURCHASE PRICE, AND THE CHOICE OF THE APPLICABLE REMEDY SHALL BE AT THE SOLE DISCRETION OF THE MANUFACTURER.

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# 1 Safety Precautions

Both the installer and the owner and/or operator of the operator terminal must read and understand this installation manual.

## 1.1 UL Installation

Power, input and output (I/O) wiring must be in accordance with Class 1, Division 2 wiring methods (Article 501-4 (b) of the National Electric Code, NFPA 70) and in accordance with the authority having jurisdiction.

## 1.2 General

- Only qualified personnel may install or operate the operator terminal.
- The operator terminal must be installed according to the installation instructions.
- The operator terminal is designed for stationary installation on a plane surface, where the following conditions are fulfilled:
  - no high explosive risks
  - no strong magnetic fields
  - no direct sunlight
  - no large, sudden temperature changes
- Never allow fluids, metal filings or wiring debris to enter any openings in the operator terminal. This may cause fire or electrical shock.
- The operator terminal fulfills the requirements of article 4 of EMC directive 89/336/EEC.
- Storing the operator terminal where the temperature is lower/higher than recommended in this manual can cause the LCD display liquid to congeal/become isotopic.
- The LCD display liquid contains a powerful irritant. In case of skin contact, wash immediately with plenty of water. In case of eye contact, hold the eye open, flush with plenty of water and get medical attention.
- The supplier is not responsible for modified, altered or reconstructed equipment.
- Use only parts and accessories manufactured according to specifications of the supplier.
- Peripheral equipment must be appropriate for the application and location.
- The figures in this manual serves an illustrative purpose. Because of the many variables associated with any particular installation, the supplier cannot assume responsibility for actual use based on the figures.
- The supplier neither guarantees that the operator terminal is suitable for your particular application, nor assumes responsibility for your product design, installation or operation.

## 1.3 During Use

- Keep the operator terminal clean.
- Emergency stop and other safety functions may not be controlled from the operator terminal.
- Do not use too much force or sharp objects when touching the keys, display etc.

## **1.4 Service and Maintenance**

- Only qualified personnel should carry out repairs.
- The agreed warranty applies.
- Before carrying out any cleaning or maintenance operations, disconnect the equipment from the electrical supply.
- Clean the display and surrounding front cover with a soft cloth and mild detergent.
- Replacing the battery incorrectly may result in explosion. Only use batteries recommended by the supplier.

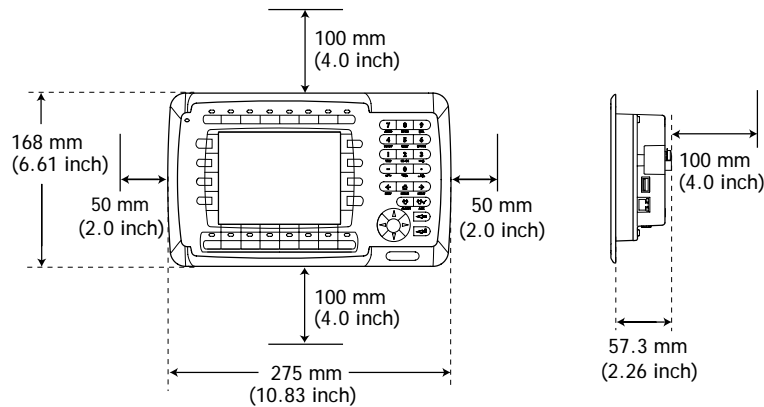
## **1.5 Dismantling and Scrapping**

- The operator terminal or parts thereof shall be recycled according to local regulations.
- The following components contain substances that might be hazardous to health and the environment: lithium battery, electrolytic capacitor and display.

## 2 Installation

### 2.1 Space Requirements

- Installation plate thickness: 1.5 - 7.5 mm (0.06 - 0.3 inch)
- Space requirements when installing the operator terminal:

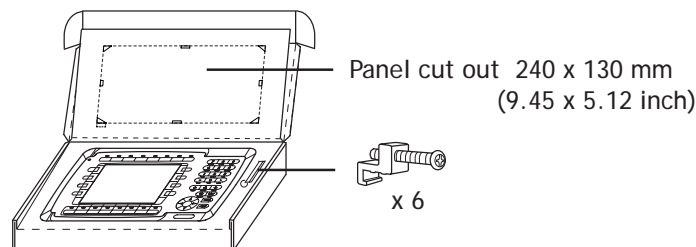


#### Caution

The openings on the enclosure are for air convection. Do not cover these openings.

### 2.2 Installation Process

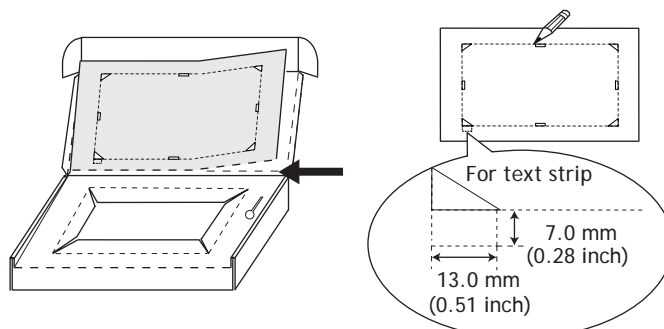
1. Unpack and check the delivery. If damage is found, notify the supplier.



#### Note:

Place the operator terminal on a stable surface during installation. Dropping it or letting it fall may cause damage.

2. Place the panel cut out where the operator terminal is to be situated, draw along the outer sides of the holes and cut according to the markings. If access to the text strip is needed, add extra space in the lower left corner.



























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# MITSUBISHI ELECTRIC

**Mitsubishi Electric Automation, Inc.**  
500 Corporate Woods Parkway  
Vernon Hills, IL 60061, USA

**Mitsubishi Electric Europe B.V.**  
Gothaer Strasse 8  
D-40880 Ratingen, Germany