Thank you for purchasing an Oriental Motor product. This Operating Manual describes product handling procedures and safety precautions.

- Please read it thoroughly to ensure safe operation.
- Always keep the manual where it is readily available.

- Install the fan in an enclosure in order to prevent electric shock or injury.
- Keep the input-power voltage within the specified range to avoid fire and electric shock.
- Connect the cables securely according to the wiring diagram in order to prevent fire and electric shock.
- Do not forcibly bend, pull or pinch the cable. Doing so may fire and electric shock.
- Turn off the power in the event of a power failure, or the fan will suddenly start when the power is restored and may cause injury or damage to equipment.
- Do not disassemble or modify the fan. This may cause electric shock or injury. Refer all such internal inspections and repairs to the branch or sales office from which you purchased the product.

Handling the product without observing the instructions that accompany a “Caution” symbol may result in injury or property damage.

- Do not use the fan beyond its specifications, or electric shock, injury or damage to equipment may result.
- Keep your fingers and objects out of the openings in the fan. This may cause injury.
- Do not touch the motor during operation or immediately after stopping. The surface is hot and may cause a skin burn(s).
- Do not hold the rotating parts (blades) of the fan or lead wire. This may cause injury.
- Keep the area around the fan free of combustible materials in order to prevent fire or a skin burn(s).
- To prevent the risk of damage to equipment, leave nothing around the fan that would obstruct ventilation.
- Do not touch the rotating parts (blades) when the fan is in operation. This may cause injury. The use of the optional fingerguard is recommended to ensure protection. Wegen der Verletzungsgefahr dürfen die Lüfterflügel bei Ventilatorbetrieb nicht berührt werden. Der Gebrauch des als Sonderzubehör erhältlichen Fingerschutzes ist empfehlenswert, um erhöhte Sicherheit zu gewährleisten.
- When an abnormality is noted, stop the operation immediately, or fire, electric shock or injury may occur.
- The motor’s surface temperature may exceed 70 °C (158 °F), even under normal operating conditions. If a fan is accessible during operation, post the warning label shown in the figure in a conspicuous position to prevent the risk of skin burn(s).
- Dispose the product correctly in accordance with laws and regulations, or instructions of local governments.

Preparing the product
Verify the model number of the purchased product against the number shown on the package label. The fan model name is listed on the fan nameplate.

Checking the product
Verify that the items listed below are included. Report any missing or damaged items to the branch or sales office from which you purchased the product.

- Fan
- Finger guard
- Mounting screws
- Plug cord+

- Fan kit

- A plug cord is not included with the MU825 fans because of the lead wire type.
How to identify the fan model

**MU1225S-11 - 1**
- Plug cord (1m)
- Blank: without plug cord

**T- MU1225S-11 - GP**
- Finger guard
- Mounting screws
- Plug cord
- Mounting screws

### Installation

**Location for installation**
Install it in a well-ventilated location that provides easy access for inspection. The location must also satisfy the following conditions:
- Inside an enclosure that is installed indoors
- Operating ambient temperature
  -30 to +60 °C (−22 to +140 °F) (non-freezing)
- Operating ambient humidity 85% or less (non-condensing)
- Area that is free of explosive atmosphere or toxic gas (such as sulfuric gas) or liquid
- Area not exposed to direct sun
- Area free of excessive amount of dust, iron particles or the like
- Area not subject to continuous vibration or excessive shocks
- Area free of excessive electromagnetic noise (from welders, power machinery, etc.)
- Area that is free of explosive atmosphere or toxic gas (such as sulfuric gas) or liquid
- Area not subject to splashing water (rains, water droplets), oil (oil droplets) or other liquids
- Area free of radioactive materials, magnetic fields or vacuum
- Area free of excessive electromagnetic noise (from welders, power machinery, etc.)

When using near a switching circuit or high-frequency power supply, the induced current may flow inside the fan due to electromagnetic noise (conductive noise, radiative noise). If the induced current flows, the electric corrosion is caused in the bearings of the fan. As a result, it may generate the noise or shorten the service life of the products. Use the fan in the environment that the electromagnetic noise does not cause.

**How to install the fan**
- Install the fan onto an appropriate flat metal plate having excellent vibration resistance and heat conductivity.
- For air orientation and rotational direction, see the indications shown on the fan’s side frame.
- Drill holes on the mounting plate and fix the fan on the plate using screws (not supplied).

#### Model Screw size Tightening torque

<table>
<thead>
<tr>
<th>Model</th>
<th>Screw size</th>
<th>Tightening torque</th>
</tr>
</thead>
<tbody>
<tr>
<td>MU825</td>
<td>M4</td>
<td>0.6 N·m (5.3 lb-in)</td>
</tr>
<tr>
<td>MU1025</td>
<td>M3</td>
<td>0.4 N·m (3.5 lb-in)</td>
</tr>
<tr>
<td>MU1225</td>
<td>M4</td>
<td>0.6 N·m (5.3 lb-in)</td>
</tr>
<tr>
<td>M1428</td>
<td>M4</td>
<td>0.6 N·m (5.3 lb-in)</td>
</tr>
<tr>
<td>MU925</td>
<td>M3</td>
<td>0.4 N·m (3.5 lb-in)</td>
</tr>
<tr>
<td>MU1238</td>
<td>M3</td>
<td>0.4 N·m (3.5 lb-in)</td>
</tr>
<tr>
<td>MU1428</td>
<td>M3</td>
<td>0.4 N·m (3.5 lb-in)</td>
</tr>
</tbody>
</table>

For the MU925 type and MU1025 type, it is not possible to secure with a flange on one side. Secure with flanges on both sides using a screw for piercing. When securing with a flange on one side for the MU1238 type fan, use a plain washer which outside diameter is 8 mm (0.315 in.) or less.

### Connection

- **2-terminal type**
  - Use an optional plug code for the terminal type fan.
  - **Lead wire type (MU825)**

#### Connecting Protective Earth Terminal
Ground the motor using the motors with a Protective Earth Terminal ( ).

- Insulated round crimp terminal
- Terminal screw size: M4
- Tightening torque: 1.0 to 1.3 N·m (8.8 to 11.5 lb-in)
- Applicable minimum lead wire size: AWG18 (0.75 mm²) or more

#### Overheat protection
Impedance protection means the fan will not burn out in the event of a lockup.

- Unauthorized reproduction or copying of all or part of this manual is prohibited.
- Characteristics, specifications and dimensions are subject to change without notice.
- **Oriental Motor** and **ORIX** are registered trademarks or trademarks of Oriental Motor Co., Ltd., in Japan and other countries.

© Copyright ORIENTAL MOTOR CO., LTD. 2011

Published in December 2019

[Please contact your nearest Oriental Motor office for further information.]

[Please visit the Oriental Motor website for more information.]

- ORIENTAL MOTOR U.S.A. CORP.
  - Technical Support: Tel:800-468-3982
  - 8:30 a.m. to 5:00 p.m., P.S.T. (M-F)
  - www.orientalmotor.com

- ORIENTAL MOTOR DO BRASIL LTDA.
  - Tel:+55-11-3266-6018
  - www.orientalmotor.com.br

- ORIENTAL MOTOR (EUROPA) GmbH
  - Schossstr.44,40549 Düsseldorf, Germany
  - Technical Support: Tel:00800/22556622
  - www.orientalmotor.de

- ORIENTAL MOTOR (UK) LTD.
  - Tel:01256-347000
  - www.orientalmotor.co.uk

- ORIENTAL MOTOR (FRANCE) SARL
  - Tel:01 47 99 97 50
  - www.orientalmotor.fr

- ORIENTAL MOTOR ITALIA s.r.l.
  - Tel:02-93906346
  - www.orientalmotor.it

- ORIENTAL MOTOR CO., LTD.
  - 4-1-Higashiaueno,Taito-ku,Tokyo 110-8536
  - Japan
  - Tel:03-6744-0561
  - www.orientalmotor.co.jp

- ORIENTAL MOTOR ASIA PACIFIC PTE. LTD.
  - Singapore
  - Tel:1800-8420280
  - www.orientalmotor.com.sg

- ORIENTAL MOTOR (MALAYSIA) SDN. BHD.
  - Tel:1800-806161
  - www.orientalmotor.com.my

- ORIENTAL MOTOR (THAILAND) CO., LTD.
  - Tel:1800-888-881
  - www.orientalmotor.co.th

- ORIENTAL MOTOR (INDIA) PVT. LTD.
  - Tel:+91-80-41125586
  - www.orientalmotor.co.in

- TAIWAN ORIENTAL MOTOR CO., LTD.
  - Tel:0800-060708
  - www.orientalemotor.com.tw

- SHANGHAI ORIENTAL MOTOR CO., LTD.
  - Tel:400-820-6516
  - www.orientalmotor.com.cn

- INA ORIENTAL MOTOR CO., LTD.
  - Korea
  - Tel:0800-777-2042
  - www.inaom.co.kr

- ORIENTAL MOTOR CO., LTD.
  - Hong Kong Branch
  - Tel:852-2427-9800