MITSUBISHI ELECTRIC

TECHNICAL BULLETIN

GOT-A-0252-A

Precautions for Using the GOT at High Altitudes

■Date of Issue

July 2025

■Relevant Models

GOT3000 Series, GOT2000 Series, GOT1000 Series

Thank you for your continued support of Mitsubishi Electric Graphic Operation Terminal (GOT).
This technical bulletin describes precautions for using the GOT at high altitudes.

CONTENTS

MITSUBISHI ELECTRIC CORPORATION

HEAD OFFICE : TOKYO BLDG., 2-7-3, MARUNOUCHI, CHIYODA-KU, TOKYO 100-8310, JAPAN
NAGOYA WORKS : 1-14, YADA-MINAMI 5-CHOME, HIGASHI-KU, NAGOYA 461-8670, JAPAN

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1 Precautions regarding withstand voltage performance

It is generally understood that at altitudes above 2000 m, withstand voltage performance decreases due to lower atmospheric pressure, as shown in the table below. (Safety requirements for electrical equipment for measurement, control, and testing: According to IEC 61010-1 (2010 edition))

Mitsubishi Electric GOTs do not specify the withstand voltage performance when the altitude exceeds 2000 m.

Be aware that at altitudes above 2000 m, the withstand voltage decreases to 0.78 to 0.92 times for AC systems and 0.88 to 0.96 times for DC systems.

For information on the product's withstand voltage performance, refer to the instruction manual for the product to be used.

Altitude	AC system correction factor	DC system correction factor
2000 m	1.0	1.0
3000 m	0.92	0.96
4000 m	0.85	0.92
5000 m	0.78	0.88

When the altitude exceeds 2000 m, noise immunity (particularly against lightning surge noise and static electricity) decreases. Therefore, enhance the external protection circuit for the GOT, such as by using isolation transformers or noise filters as described in the instruction manual for the GOT. Also, before touching the unit, always discharge any static electricity from your body by touching a grounded metal part or similar objects.

2 Precautions for use at ambient temperature

The operating ambient temperature of the GOT is specified as 0 to 55℃[*1] at an altitude of 0 m.

At higher altitudes, the heat dissipation inside the unit decreases due to lower atmospheric pressure. As a result, the temperature of the internal parts of the GOT may rise, potentially shorting the life of the GOT.

To maintain the original performance of the GOT, the ambient temperature must be lowered at higher altitudes.

The ambient temperature of the GOT at each altitude can be expressed by the following equation.

- Ambient temperature = 55[℃] - 0.005 × altitude [m]

Example) Use at 2500 m

55℃ - (0.005 × 2500 m) = 42.5℃ (ambient temperature)

*1 Some handy models and rugged models have different upper limits for the operating ambient temperature.
In such cases, replace 55℃ in the equation with the upper limit of the operating ambient temperature for the product to be used.

Revisions

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A	July 2025	• First edition