
U n i - C o d e r
T h e r m a l o s c i l l o
T - 4 3 8 (Main Unit)

SPECIFICATION

Specifications are subject to change without notice.

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| PANTOS CO., LTD | Drawing number | Amendment |
| | T 4 3 8 - 0 0 - 0 0 0 1 | |

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| Product name T-438 | Drawing name T-438 Thermal recorder SPECIFICATIONS |
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1. INTRODUCTION

The uni-corder T-438 is a thermal array type recorder.

As a standalone unit, it can record from extremely low speeds to extremely high speeds. Because the operational design is of great importance, read the operation manual.

2. SPECIFICATIONS

Basic specifications

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| Model | : T-438 (00 Verzion) |
| Power supply | : 90 ~ 132 V AC, 48 ~ 62 Hz |
| Power consumption | : 60 W (max) |
| External dimension | : 224 (W) × 124 (H) × 400 (D) mm |
| Weight | : Approx. 5 kg |
| Operating environment | : 5 ~ 35 °C, 35 ~ 85 %RH |
| Storage environment | : 0 ~ 45 °C, no condensation |
| Insulation resistance | : Power supply-chassis (GND) 50 MΩ or more (500 V DC megger) |
| | : Control input/output-chassis (GND) 20 MΩ or more |
| Withstand voltage | : Power supply-chassis (GND) 1000 V AC |
| | : Control input/output-chassis (GND) 500 V AC (for 1 minute) |

Input section

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| Number of slots | : 4 |
| Applicable recorder | : T-938 |
| Assembly | : No restriction for the device assembly |

Operating section

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| Memory length setting | : 50, 100, 200, or 300 div |
| Split recording | : 100 mm or 40 mm in the direction of phenomenon axis; or depending on the number of input units split. |
| Enlargement/Reduction | : 5 times enlargement in the direction of the time axis or reduction of 1/5, 1/10 |
| Trigger logic | : Selectable AND or OR |
| Delay | : 10%, 50%, or 90% of set memory length |
| Time axis feed | : 100 μs to 1 h/div, 23 steps |
| [FEED] switch | : Feeds the chart paper. |
| [STATUS] switch | : Records the setting conditions. |
| [COPY] switch | : Copies the stored waveform. |
| [START] switch | : Starts the measurement. |
| [STOP] switch | : Stop the operation. |
| [KEY LOCK] witch | : Makes the key setting impossible. |
| Memory recording | : Sets memory recording when low speed recording in real time is possible. |
| Repeat recording | : Repeats the trigger stand-by status after recording the waveform in the memory mode. |
| Channel No. recording | : Records the Nos. of channels. |

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Display section

- Process display : Before/stand-by/after trigger
Nothing is carried out when the lamp is unlit;
Operating when the lamp is blinks;
Operation is finished when the lamp is lit.
- Mode display : Displays the switching of memory or real-time recording
by the time axis feed rate.
- Paper-out alarm : Warns the chart paper out.
- Over-heat indicator : Warns the print head is over heated.
Recording is stopped when this indicator is lit.
- Recording monitor : Monitor of recording level.
Operates during stopping or waveform recording.

Recording section

- Phenomenon axis resolution : 1 / 8 mm (Total of dots : 896)
- Time axis resolution : 1 / 10 mm
- Recording speed : Max. 20 mm / s
Changes by the waveform to be recorded.
(Max. 10 mm / s during the real time recording)
- Feed rate : 20 mm / s
- Chart paper : 11411T
- Recording width : 112 mm
- Width of chart paper : 114 mm
- Length of chart paper : 30 m

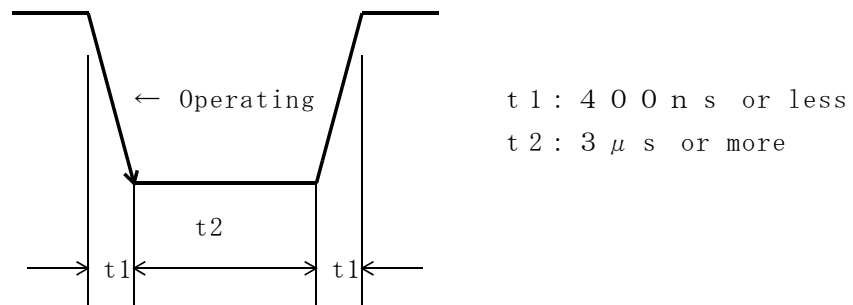
Print head section

- Model : KF2004-B1 (Rohm)
- Pulse lifetime : 50 million pulse
- Abrasion resistance : 50 km

NOTE : Print head is expendables.

External input section

- Trigger input : TTL level, Contact signal
Negative logic ; operates at trailing.



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Trigger output : TTL level
Negative logic ; trails during the trigger operation.

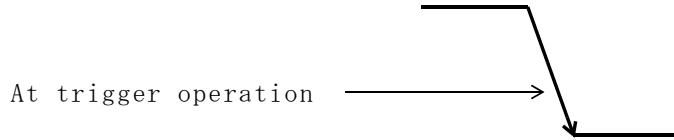


Chart paper feeding : TTL level, Contact signal
Effective in the START status, or the [START] switch is pressed on the upper panel.

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| TTL level H : Operating L : Stopped | Contact signal OFF : Operating ON : Stopped |
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Built-in clock section

Accuracy : ± 4 seconds a day
Recording digit : NN year NN month NN day NN hour NN minute
NN second

Buck-up section

Storing time : Approx. 1 month (at 23°C) (at fully charged)
Item : Each setting, built-in clock

Accessories

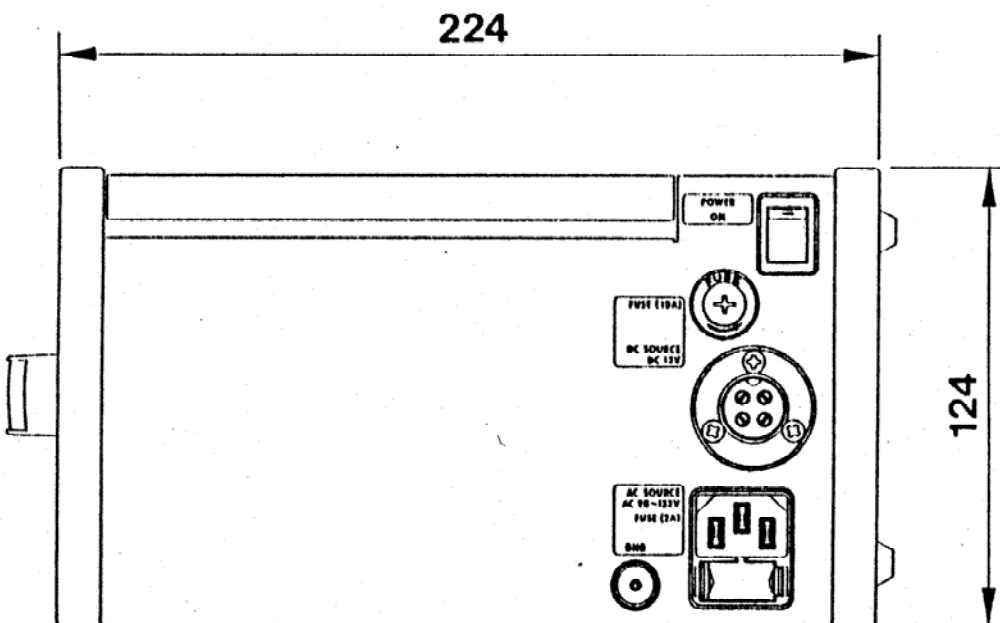
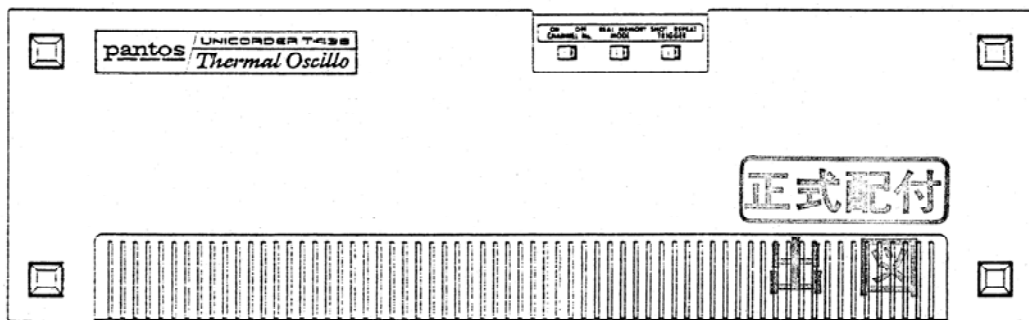
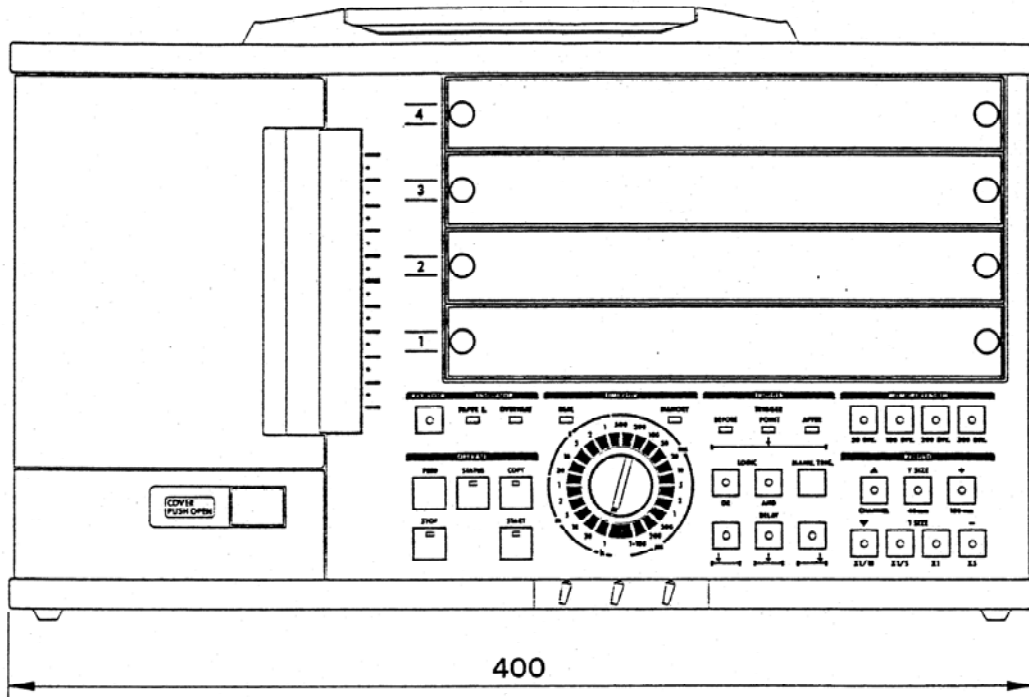
Chart paper : 1
2 A fuse : 1
3 A power cable : 1
Instruction manual : 1
Head cleaner : 1
Dust cover : 1
Ground adapter : 1

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3. EXTERNAL VIEW OF T-438



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