



TrapMan®

MODEL TM5/TrapManager®

COMPUTERIZED STEAM TRAP MANAGEMENT SYSTEM FOR PRODUCTIVE MAINTENANCE

Benefits

Complete measurement and analysis system for effective management of the steam trap population. TrapMan consists of two main components:

- **TM5** hardware, a precise ultrasonic and temperature testing instrument which stores and accesses **TLV** diagnosis technology for making consistent performance judgments.
 - **TrapManager** software, a comprehensive Windows based program designed to enable extensive data analysis of the entire trap population.
1. **TM5** makes the judgment, not the test personnel. Judgments occur by comparing the test results with stored data from **TLV**'s laboratory analysis of similar traps in a controlled environment. This comparison of the measured data to the reference data allows the instrument to be used by personnel with little trap testing experience or training.
 2. Trap performance is diagnosed within 15 seconds to facilitate a high daily testing rate.
 3. The **TM5** unit measures and indicates both the test judgment and surface temperature for operator use. This data is stored and can easily be uploaded to a computer via cable transfer.
 4. For rapid circuit testing, **TM5** can store inspection data for approximately 1600 traps. Most frequently referenced models can be input and quickly recalled from the instrument's memory.
 5. Diagnostic data for each steam trap can be classified, summarized, and automatically analyzed for effective report and work order generation.
 6. **TrapMan**'s judgement accuracy has been validated by Lloyd's Register.



Specifications (Diagnosis Hardware)

| Model | TM5 | TM5-EX* |
|--------------------------------|--|---|
| Description | Standard | Intrinsically safe cULus: Class I, Groups C and D, Temp. code T3C |
| Measurement Period | 15 seconds (Time period required to hold the probe against the trap) | |
| Automatic Judgement | Good/Leak (Small, Medium, Large) /Blowing/Blocked/Low Temperature/Temperature Adjustment Failure | |
| Manual Judgement | Not in S (not in service), L/Gasket (gasket leak), L/Body (body leak), NO CHECK (not inspected) | |
| Memory | Total available registered trap models: Max. 3400 (more than 4000 available in TrapManager). Call registered models: max. 30 models per trap type No. of steam traps that can be tested and survey data memorized at one time: approximately 1600 Information items: 20. Model/Judgement/Temperature/Pressure/Inspection Data/Application/Installation Data/Connection, etc. | |
| Display | 16 digits×2 lines, 5×7 Matrix LCD | |
| Steam Pressure Range | 7—999.9 psig | |
| Steam Trap Surface Temperature | 32—662 °F | |
| Operating Temperature | 32—104 °F | |
| Humidity Range | 20—80% RH | |
| External Interface | RS232C (Maximum communication speed: 19200 bps) (Adapter for USB provided) | |
| Power | Main Battery***: Ni-MH 860 mAh. Backup Battery***: Lithium 850 mAh (holds data for approx. 10 yrs.) Charger: Rapid 1 hr. charge (Special charger with protection against overcharge) Continuous Operation: 10 hrs. (with back-light off), 7 hrs. (with back-light on) Auto Power OFF: Auto Power Off function if no operation for more than 5 minutes (defaults to enable, can set to disabled) Resume: Yes (indicates trap No. when power went off). Battery Recondition: Yes (do it before recharging) | |

* The **TM5-EX** is approved for use in hazardous locations only while inserted in the leather case. Do not remove the case while in a hazardous location. Product markings are provided on the product enclosure beneath the leather case. For hazardous areas, the TM5-EX should be used by trained personnel with knowledge of the hazardous locations/classifications.

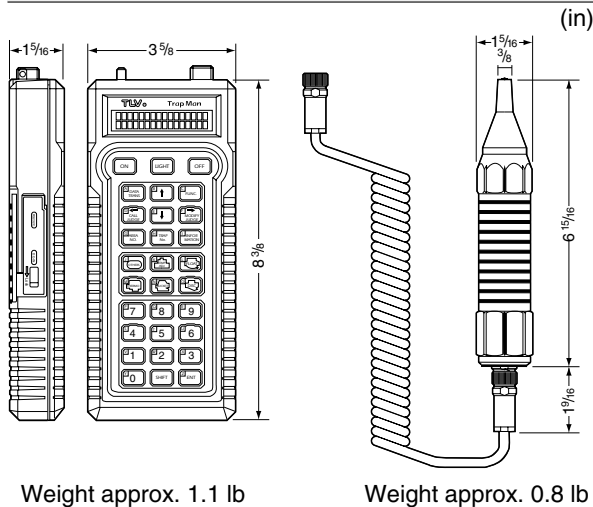
** **TM5** batteries are recyclable. Dispose of them in an environmentally friendly manner and according to local regulations. (For **TM5-EX**, do not attempt to remove batteries. Return unit to TLV for battery replacement).

Specifications (Analysis Software)

| Model | | TrapManager | |
|-----------------|----------------|---|--|
| Main Features | Management Log | Can display and maintain: All Trap List/Failed Trap Reminder List/Inspection History List | |
| | Trap Route | Survey route can easily be set and saved | |
| | Analysis | Can analyze and save the data by selecting various conditions in detail | |
| | Report | Can print: Log Details/Inspection History/Failed Trap Reminder List/ Trap Route/Set up conditions, etc. | |
| | Communication | Automatic data transfer | |
| PC Requirements | OS | Windows 2000, Windows XP, Windows Vista | |
| | CPU* | Minimum | XP: Intel Pentium 133, 2000: Intel Pentium 300, Vista: Intel Pentium 800 |
| | | Recommended | Intel Pentium 1 GHz or greater |
| | Hard Disk | | 60 MB |
| | Memory (RAM) | | 512 MB Minimum |
| | CD-ROM Drive | | 2× (double speed) minimum |
| | Display | Minimum | SVGA (800×600) with 256 colors |
| | | Recommended | XGA (1024×768) with 16 bit color |

* **TrapManager** has been designed to work with Intel processors.
Windows is a trademark of Microsoft Corporation, Pentium is a Trademark of Intel Corporation.

Dimensions



Weight approx. 1.1 lb

Weight approx. 0.8 lb

Package

TM5/TM5-EX

- Main Units: Main Body, Coil Cord, Probe
 Accessories: Special Electrical Charger, Protective Case, Belt-loop Holder, Strap, Flat File, Carrying Case, Ear Phone (**TM5** only), Communications Cable, Serial/USB Adapter
 Manual: Pocket Guide
 Instruction Manual (pdf file on CD-ROM)

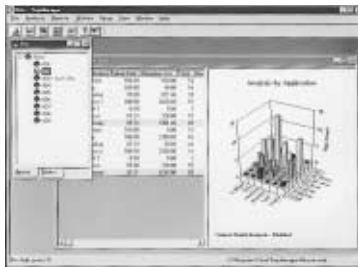
TrapManager

- Software: (CD-ROM)
 Accessories: Hardlock Key (HASP: USB standard, LPT optional)
 Manual: Quick Start Guide (pdf file on CD-ROM)

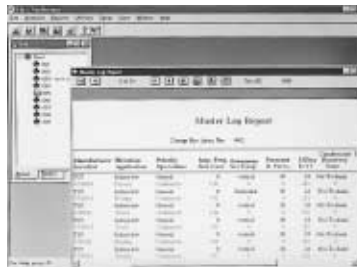
- CAUTION**
1. Use **ONLY** the battery charger included in the package when the unit is charged.
 2. The interface cable and HASP included in the package must be used when the unit is connected to the PC.

Sample Screen of TrapManager

① Analysis



② Report



③ Maintenance



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Manufacturer
TLV CO., LTD.
 Kakogawa, Japan
 is approved by LRQA Ltd. to ISO 9001/14001

ISO 9001/ISO 14001

