



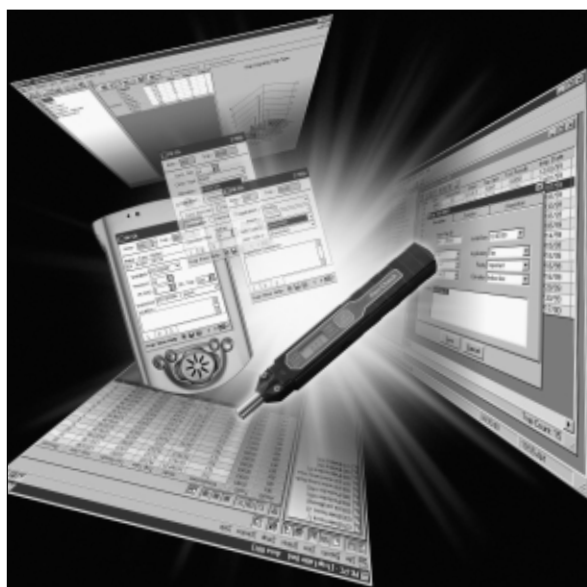
PenCheck® System Package

COMPUTERIZED STEAM TRAP MANAGEMENT SYSTEM FOR PRODUCTIVE MAINTENANCE

Features

Complete measurement and analysis system for effective management of small to medium steam trap populations.

1. PK1 eliminates the need for multiple testing instruments.
2. Auto-judgement of operating conditions by PK-DL, based on a test standard, eliminates tester subjectivity.
3. Testing efficiency is maximized through the use of integrated on-site and office software.
4. Office-based software (PK-PC) offers a comprehensive range of features and database editing tools that enable effective management of the entire steam trap population.
5. Graphs and reports can be printed or exported to most well-known commercial software packages to facilitate professional reporting and assist with implementation of corrective actions.



Package Components*

● **PK1 Diagnostic Unit**

Pocket-size precision testing instrument for simultaneous ultra-sonic vibration and temperature measurement.

Also includes: hard case, extra battery packs, earphone, manuals, flat file

● **Pocket PC**

Hand-held computer that runs the PK-DL software.

Also includes: cradle/charger with communications cable, AC adapter, rechargeable battery pack, soft case, Windows-based operating system software and manuals

● **PK-DL Software****

Software, used on the included Pocket PC, for recording trap details, PK1 test results and steam trap operational judgement.

● **PK-PC Software****

Trap management database software, used on an office PC to facilitate management of the steam trap population.

Also includes: hardlock security key (HASP)



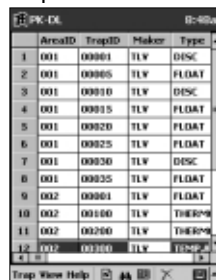
* Contained in custom carrying case, to provide maximum portability

** Software applications and Quick Start Guide found on included CD-ROM

Sample Screens

● **PK-DL Software**

Trap List

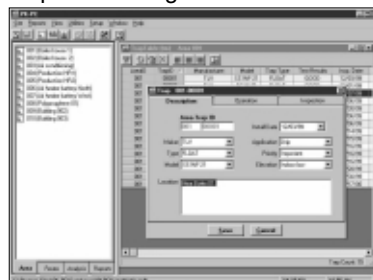


Trap Details

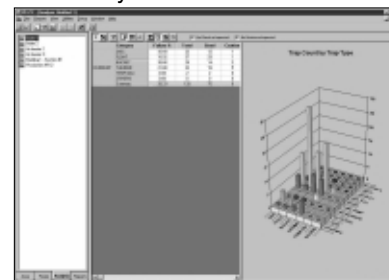


● **PK-PC Software**

Trap Master Log



Data Analysis



Specifications for PK1 (Diagnosis Instrument)

Model	PK1*	
Temperature Measurement Range	0 °C – 255 °C	
Central Frequency	Approximately 40 kHz	
Band Width	Approximately 20 kHz (-3dB)	
PK1 Display	Average Vibration Level	0.00 – 255.0 Scale Reading (AVG)
	Peak Vibration Level	0.00 – 255.0 Scale Reading (PEAK)
	Surface Temperature	0 °C – 255 °C (TEMP)
	Level Indicators	Vibration levels are shown in bar graph form as well as on a numeric digital display
Overload	Indicators appear if the vibration level limit is exceeded or if the surface temperature falls outside the allowable measurement range	
Measurement "Auto Start"	Measurement begins automatically when the tip of PK1 is placed against the object to be measured	
Data Display "Auto Hold"	When the tip is removed from the tested object, data is automatically retained	
Auto Power-off	Yes	
Power Source	One (1) lithium battery pack (3CR-1/3N)	
Total Battery Use Time	Approximately 5 hours	
Weight	Approximately 65 g	

* For more detailed information, see the separate PK1 specification data sheet

Specifications for PK-DL (On-site Database and Judgement Software)

Model	PK-DL	
Main Features	Management Log	Can display and maintain trap lists and trap details
	Judgement	Auto-judgement of trap test data by comparison to a reference standard according to trap type classification (float, disc, etc.) Traps operating between pressures of 0.1 MPaG and 4.0 MPaG
	Communication	Automatic data transfer with TLV PK-PC software
Pocket PC Specifications**	OS	Windows CE 3.0 or later
	CPU	MIPS or ARM based CPU
	Interface	Serial: RS-232C, infrared: IrDA Ver. 1.0 protocol
	Required Hard Disk Space	1 MB for software installation, plus approximately 0.25 MB for 1000* trap records
	RAM	(Minimum) 32 MB
	Display	Hyper Amorphous Silicon TFT 65,536 Color LCD or Monochrome
	Operating Temperature	0 °C to 40 °C
	Power Supply	Main: Rechargeable battery pack Back-up: One lithium battery
Weight	Approximately 200 g	

* Recommended maximum number of traps for optimum performance

1 MPa = 10.197 kg/cm²

** Contact your TLV representative for further details about the Pocket PC included in the PenCheck System Package

Specifications for PK-PC (Analysis and Management Software)

Model	PK-PC	
Main Features	Management Log	Can display and maintain trap tables, failed traps and trap histories
	Trap Route	Survey route can easily be set and saved
	Analysis	Can analyze and save inspection data by selecting various conditions in detail
	Report	Can print log details, inspection history, failed trap list, trap route, etc.
PC Requirements	Communication	Automatic data transfer with TLV PK-DL software
	OS	Windows 95 or 98
	CPU	(Minimum) Intel Pentium 166, (recommended) Intel Pentium 350 or higher capability, PK-DL has been designed to work with Intel processors
	Required Hard Disk Space	20 MB for software installation
	RAM	(Minimum) 32 MB, (recommended) 64 MB or more
	CD-ROM Drive	(Minimum) 2 x (double speed)
Display	(Minimum) VGA monitor (600 x 800) with graphic features to display 256 colors, best viewed with resolution 1024 x 768 pixels (or higher), High Color (16-bit)	

Windows is a trademark of Microsoft Corporation, and Pentium is a trademark of Intel Corporation.

Manufacturer

ISO 9001/ISO 14001

TLV® CO., LTD.
Kakogawa, Japan

is approved by LRQA Ltd. to ISO 9001/14001

