

ThermoTools

The clever way to configure your industrial control components



■ Supporting your needs

Programmable industrial control components are becoming more and more advanced. As the world's largest supplier of temperature and process controllers, Omron naturally takes a leading role in this field. In addition to the 'basic' control functions, modern controllers must be capable to perform much more advanced and high level functions as well.

As functionality increases, the number of parameters that must be programmed in general purpose controllers already exceeds over 100 parameters. This requires significant programming time during the installation, especially if you have a large number of applications and use a variety of controllers. Omron recognises that today's temperature and process controllers and signal processing instrumentation require advanced software tools to support you and help you save valuable set up time. The advanced ThermoTools software package has been designed to reduce your installation, programming and testing time significantly!

■ ThermoTools



ThermoTools is an advanced software support package for Omron temperature controllers, process controllers and a selection of other panel instruments that exploits state-of-the-art ActiveX® technology.

The ThermoTools software provides an extensive range of functions to set up, configure and monitor Omron industrial control components equipment.

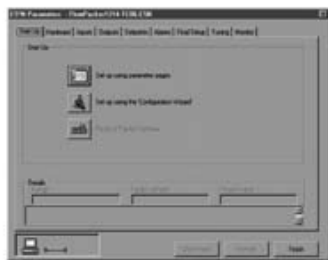
Easy file handling and printing facilities help you to record your valuable process data and parameter lists for use in installation, maintenance and quality assurance documentation.

■ ThermoTools supported products

A large range of 'digital programmable products' is supported by ThermoTools, and more will follow.

Supported hardware products	
E5*N series, Basic Temperature controller line: E5GN (< 2009), E5CN, E5EN and E5AN (< 2003)	Temperature controllers and Process controllers
E5*K series, Advanced Process and Temperature line: Standard controller models: E5CK, E5EK and E5AK Programmable controller models: E5CK-T, E5EK-T and E5AK -T	
E5*R series, Advanced Process and Temperature Controller line: E5ER and E5AR	
E5ZN, Compact multi-loop controller All E5ZN models	
E5ZE series, Compact multi-loop controller line: All E5ZE models	
K3N series: Advanced line of Intelligent Signal Processors K3NC, K3NH, K3NP, K3NR, K3NV, K3NX, K3GN and H8GN	Panel meters, Timers and Counters

■ Simple yet advanced at the same time...



ThermoTools is equipped with extended help functionality, that covers everything from getting started to becoming familiar with the advanced functionality. The 'configuration wizard' can be used to configure controllers for 'basic' applications. The wizard will ask you a sequence of questions about the type of controller set up that you require based on the most commonly used parameters. This allows you to create a quick and easy set up.

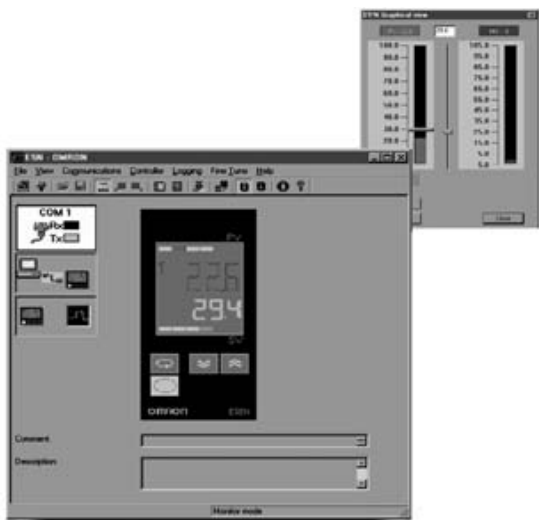
■ All parameters at your fingertips

The ThermoTools components use a series of tabs to display information regarding the controller parameters, all sorted in a very logical order, making each parameter easy to find.

Even if no device is connected you are still able to edit, save and load parameter sets. If a device is connected, two modes are available; the configuration mode and the monitoring mode. In configuration mode, parameter sets may be downloaded to, and uploaded from, the controller. Parameter sets can also be saved to store your settings, for use on other applications. In this way you can create a library for your applications and their settings. Listing details of the machine, customer or application can be done in the notes section, for quick and easy recognition or retrieval. If required you can also reset all parameter values in the controller back to their factory defaults by pressing the 'Reset to factory settings' button.



■ Speeding up installation



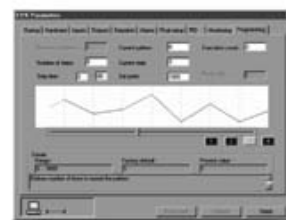
The parameter pages allow you to rapidly make all the necessary settings for your application. With the versatile monitoring functions you can check, test and modify the operation of your application instantly.

Your PC can be used to display the controller front and with the graphical view you can also monitor in bar graph format the active setpoint, process and output values.

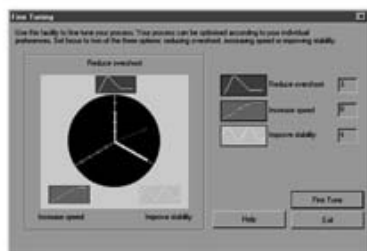
■ Full support

Depending on the controller that is connected to your PC, the functions of ThermoTools change instantly, allowing access to all functions available for that model. Full support is included for the whole functionality of the selected product, so that maximum product capabilities are at your disposal.

For example: When using the E5K-T programmable controllers, the 'recipes' can be set, numerically and seen graphically. Once these are set changes to the 'Ramp's and Soak's' can be made easily by selecting that particular step. Also the versatile K3N series signal processors are fully supported. ThermoTools supports several different types of file handling functions: saving, loading, exporting to CSV or HTML format. ThermoTools also supports the saving of full sets of parameter values to a controller-family specific file. These files can then be copied, loaded and run by the ThermoTools application. A paper copy of the parameters can be printed. Either as a list of all parameters or only the parameters that have been changed compared to the factory default. Your project, application or quality documentation can then be easily created and maintained.



■ Including many advanced functions

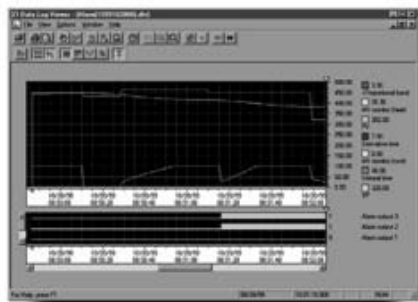


ThermoTools does not only allow you to upload or download and store your parameters, but also offers several advanced functions.

■ Personal fine-tuning

All modern controllers from Omron can perform Auto-tuning, which will tune the PID parameters for a 'standard preferred performance'. Due to our vast experience with controllers, we were able to incorporate a knowledge-based functionality that enables you to further fine-tune your process to a greater level of detail. You can give more emphasis to reduce the over-shoot, increase the speed or improve stability. Though these three parameters are in contradiction with each other you can even combine two of these parameters to improve your process according to the precise needs of your application or customer requirements!

■ Logging and trending facilities



ThermoTools offers you a very sophisticated logging function and data log viewer. ThermoTools allows you to select which parameters need to be logged, for how long, at what rate and within what limits. The data log viewer then allows viewing of the logged data including live updates, zoom and printing facilities. The log files can be exported to CSV format usable in other packages or applications.

Contact your local Omron representative office to discover the full functionality of this advanced software package.

■ Simple to use, yet advanced Software, for advanced products

The ThermoTools software package offers you the following main functionality:

- Off-line configuration mode with full upload and download capability and on-line monitoring mode for more precise adjustments.
- Sophisticated 'live logging and trending' facility for testing and recording key parameter values.
- File handling to save instrument configurations in several different file formats; a ThermoTools file (for rapid instrument cloning), a spreadsheet or an HTML file.
- Auto-tuning as well as a 'personal fine-tuning' facility for optimisation of advanced PID parameters according to your specific process response preferences.
- Remote configuration of multiple Omron controllers and intelligent signal processors when utilising a multi-drop protocol (RS422/RS485) in an easy-to-use Windows based package.
- 'Configuration Wizard' providing instrument configuration, suitable for users of all levels.
- Multi-loop support for the E5ZE, E5ZN and E5□R temperature controllers including a 'Replication' function for you to copy parameter values between control points and memory banks.
- Comprehensive help system, including introduction to the Omron control components.

■ The right software & the right hardware... your IDEAL combination.

Combining ThermoTools software with OMRON controllers and intelligent signal processors enables you not only to easily configure our advanced equipment saving valuable set-up time when installing, configuring or commissioning, it will also help you to store all your important process parameters, copy them to other controllers for multiple applications and to make use of the maximum capabilities of your products.

Technical specifications

PC requirements
MS Windows. Recommended: Windows2000
Pentium 133 MHz
64 MB
650 MB Space
CD-ROM Drive
SVGA (800x600). Recommended: XGA (1024x768), High-color (16bit)
RS-232C port, COM1 – COM4, (USB port can be used when use K3CS)

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In the interest of product improvement, specifications are subject to change without notice.

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