

# Easily Upgrade Your Watlow® F4T® PID Temperature Controller or D4T™ Digital Temperature Controller and Data Logger

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If you rely on precise temperature control for your industrial or laboratory processes, Watlow's F4T® PID temperature controller and D4T™ digital temperature controller and data logger offer industry-leading solutions. Now, upgrading your F4T or D4T has never been easier—boost performance and unlock powerful new features with a simple software code.

Whether you're in Los Angeles, Houston, Chicago, or anywhere in the U.S., upgrading your PID temperature controller or digital temperature controller helps you maintain efficiency, compliance, and accuracy in your thermal systems.

## Why Upgrade Your Watlow® Temperature Controller?

Watlow's F4T temperature and process controller

(<https://www.watlow.com/products/controllers/Temperature-and-Process-Controllers/F4T-Integrated-Controller>) is a powerful, flexible, and highly configurable PID controller, while the D4T data logger

provides comprehensive data tracking with field-removable I/O modules for ultimate design flexibility. With a new software upgrade, you can now add advanced features to both devices—no new hardware required.

Upgrades are easily installed through the Watlow COMPOSER® software

(<https://www.watlow.com/products/controllers/Software/COMPOSER-Software/>) with an activation code delivered via email from your Watlow representative.

## Key Upgrade Features for F4T and D4T Temperature Controllers

### ***1. Enhanced Data Logging with Optional Encryption***

With the data logging upgrade, both the F4T PID temperature controller and D4T digital temperature controller can automatically save process data to internal memory or an external USB flash drive. This includes:

- Time-stamped data for traceability

- User-selected parameters
- Optional encryption for secure data handling

This feature is especially valuable for regulated industries or applications requiring documented process control.

## ***2. Add Real-Time Trending Charts***

Visualize system performance directly on your digital temperature controller with trending charts.

- View up to four charts with six customizable trend lines each
- Export graphical data for reports or compliance audits
- Monitor temperature fluctuations and system behavior in real-time

## ***3. Add Function Blocks for Customized Control***

Function blocks let users tailor the control logic of their PID temperature controllers (<https://www.watlow.com/blog/Posts/Are-Traditional-PIDs-Still-Good-Enough>) or data loggers: (<https://www.watlow.com/products/controllers/Data-Loggers>)

- Basic upgrade includes more alarm blocks (beyond the default six)
- Add timers, counters, mathematical and logic functions
- Ideal for automated temperature or process control

For example, a user monitoring a critical temperature range can use additional alarm blocks to ensure consistent performance.

## ***4. Add Ramp and Soak Profile Programming (F4T Only)***

If your **F4T temperature controller** doesn't already include ramp and soak profiling, this upgrade adds it with ease.

- Program a temperature increase (ramp), hold (soak), and decrease cycles
- Automate thermal processes like heat treatment, curing, or testing
- Enhance repeatability and precision in temperature-sensitive operations

## ***5. Expand Control and Cascade Loops (F4T Only)***

Need more control? This upgrade increases the number of control and cascade loops supported by your F4T PID controller.

- Ideal for multi-zone systems or advanced process applications
- May require additional hardware like flex modules and wiring
- Enable precise control across complex systems

## How to Upgrade Your Watlow® Temperature Controller

Upgrading your F4T or D4T temperature controller is simple:

1. Contact your local Watlow representative and provide your part and serial number.
1. Purchase an upgrade code specific to your needs.
1. Receive an email with the code and enter it using the COMPOSER software.

If you're unsure which upgrades are right for your PID temperature controller or digital temperature controller, Watlow's experts are here to help.

