

## **UG-25+ Control Service Tool Version 2.7 and Firmware 5418-3715 Rev. NEW Releases**

### **Explanation of Software Changes**

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## General

Woodward has released application firmware 5418-3715 rev NEW as an upgrade to 5418-2970 and 5418-2879 for all UG-25+ controls. The latest UG-25+ Service Tool (Version 2.7) is required for the new firmware and is compatible with all UG-25+ controls (Woodward part number 9927-1366). This application note describes the changes made. Refer also to product manual 26330 for product details inclusive of all firmware releases.

## Description of Firmware Changes

The new firmware is based on the existing firmware (5418-2970), with changes listed in this document. All of the listed changes are included with the firmware upgrade.

### 1) New Dual Start Fuel Limit Option

A new time-based start fuel limit selection is added entitled 'Two with time delay'. If Start Speed Threshold 2 is not reached, the start fuel limiter moves to the Start Fuel 2 limit after the configured time delay at Start Fuel 1 expires. The prior functionality was based on engine speed, as opposed to time, and would move to the Start Fuel 2 limit when the speed exceeded the Start Speed 2 Threshold. The previous start fuel functionality (selecting 'One' or 'Two') remains unchanged. This new mode is an added option.

### 2) Separate Rates for Up and Down When Using an Analog Setpoint

Different up and down maximum rates have replaced the previous 'Max Analog Rate' setting. To match functionality with previous versions, simply set the Max Analog Up Rate and Max Analog Down Rate to the same setting.

### 3) Persistence Added to STOP Command

A delay of 650 ms has been added to the Stop input as a robustness improvement to prevent inadvertent stop commands.

## Compatibility with Existing Controls

The new firmware, 5418-3715 rev NEW, will operate with all existing UG-25+ controls. Version 2.7 of the UG-25+ Service Tool (9927-1366) is required for the new firmware and is compatible with all UG-25+ controls. Configuration files created for previous firmware revisions are automatically converted when loaded into a control with the latest firmware. Configurations for the 5418-3715 are not compatible with the older firmware.

## **Firmware Identification**

The UG-25+ control firmware version can be viewed from the Identification tab on the Service Tool.

## **How to Upgrade**

The UG-25+ firmware can be field upgraded, but requires specialized software tools and must be performed by authorized Woodward personnel. If you have any questions about this issue or wish to upgrade, please contact one of our Woodward facilities and refer to this Application Note number.

**We appreciate your comments about the content of our publications.**

**Send comments to: [icinfo@woodward.com](mailto:icinfo@woodward.com)**

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