



# Ultra3000 with SERCOS V13 Firmware Release v1.41

## Catalog Numbers:

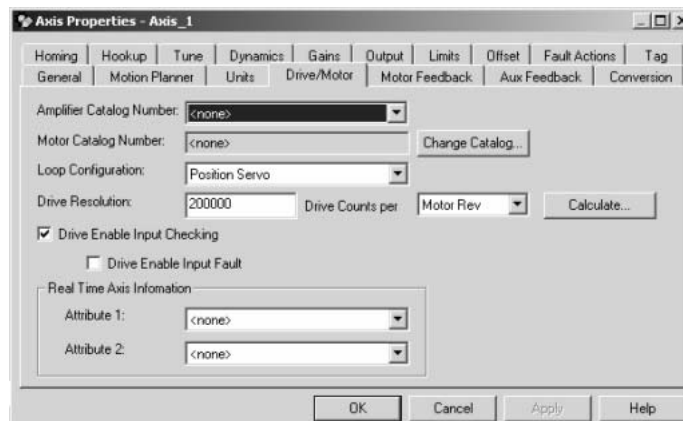
Ultra3000™ Digital Servo Drives	
Ultra3000-SE (230V)	Ultra3000-SE (460V)
2098-DSD-005-SE	2098-DSD-HV030-SE
2098-DSD-010-SE	2098-DSD-HV050-SE
2098-DSD-030-SE	2098-DSD-HV100-SE
2098-DSD-075-SE	2098-DSD-HV150-SE
2098-DSD-150-SE	2098-DSD-HV220-SE

## Enhancements

The following enhancements correspond to firmware release v1.41 of the Ultra3000 Digital Servo Drives (with SERCOS interface™) when used with v13 RSLogix™ 5000 software.

### Drive Enable Input Checking

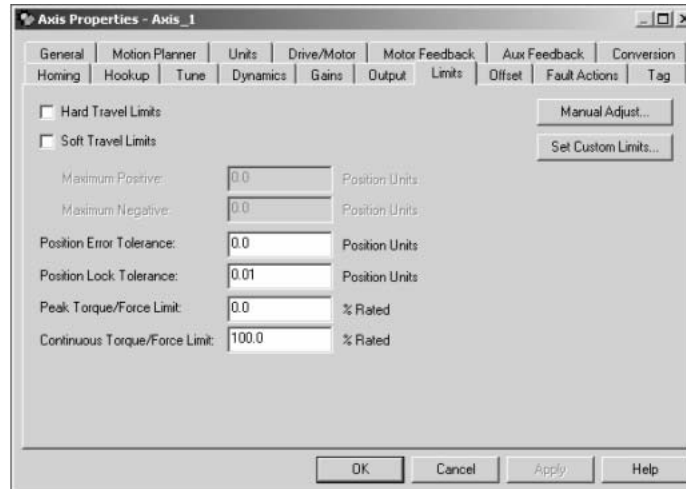
The Drive Enable Input Checking check box has been added to the Axis Properties dialog box (Drive/Motor tab). This enhancement is used to enable/disable the drive's monitoring of the hardware drive enable input. When checked (default) a hard drive enable input signal is required. When unchecked (disabled), a hard drive enable input signal is *not* required. This eliminates the need to hardwire the input for normal drive operation, and complete drive enable and disable sequencing is provided by the soft drive enable.



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## Continuous Current Limit

The Continuous Torque/Force Limit field has been added to the Axis Properties dialog box (Limits tab).



In this field, data entry is limited to integer values between 0-200, indicating a 0%-200% range. The drive adjusts the motor's continuous current rating based on this value.

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**IMPORTANT**

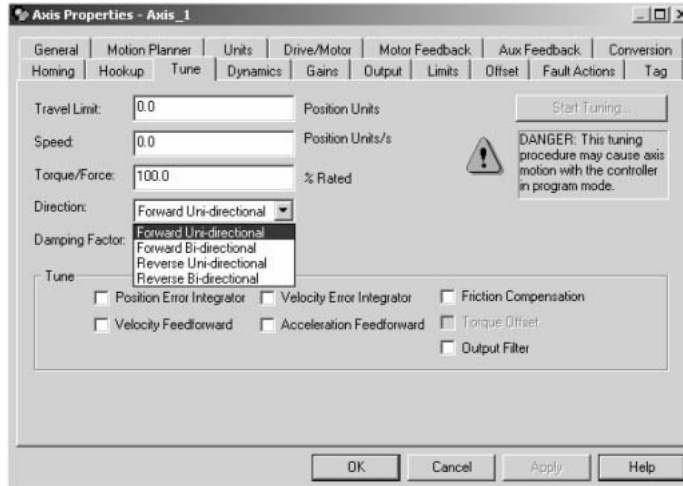
A custom motor database with a suitable continuous torque/force limit is required to use this feature above the 100% setting. The standard motor database shipped with the RSLogix 5000 software restricts the Continuous Torque/Force Limit to 100%.

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Note: Increasing or decreasing the motor continuous current rating does not change the drive's continuous current limiting.

## Bi-Directional Tuning

Support for the selection of a bi-directional tuning has been added to the Axis Properties dialog box (Tune tab).



## Locked Setpoint Stopping/Starting

The drive will no longer switch to local velocity mode during a starting or stopping sequence while the Loop Configuration is set to a positioning mode. The drive will not switch to local velocity mode if a stop sequence is issued (i.e. HW/SW enable, fault action, completion of hookup) and the drive's position loop is active. In this case, torque and velocity offsets remain active.

## Corrections

Fixes anomalies in version 1.40 where:

- Brake Delays were not working in non-SERCOS™ drives.
- Hall Offset was non-functional with linear motors.

# Restrictions

The following restrictions apply when using RSLogix 5000 in conjunction with a ControlLogix™ (1756-MxxSE) or SoftLogix™ (1784-PM16SE) servo module, and the Ultra3000-SE drive.

- Windowed Registration is not supported. If Windowed Registration is enabled in the MAR instruction, the instruction will not complete.
- Friction Torque Compensation and Backlash Compensation is not supported. Adjusting the value in the Offset tab of the Manual Tune screen will have no effect. Future versions of the firmware may support this parameter, so the setting should be left at the default value of 0.0%.
- Velocity Droop is not supported. Adjusting the value in the Custom Gain Attributes screen will have no effect.
- The following Real Time Axis Information attributes, accessible in the Drive tab of the Axis Properties screen, are not supported:
  - Position Int. Error
  - Velocity Int. Error
  - Accel. Command
  - Accel. Feedback
  - Bus Regulator Capacity
  - Power Capacity
- When using a Dual Loop Configuration, the resolution units setting (Rev, Inch, Millimeter) on the Motor Feedback and Aux Feedback tabs of the Axis Properties dialog must be the same.
- After an SSV of a drive parameter, wait at least 3 ms after the ConfigUpdateComplete bit is set before acting on the result of the setting.

For more information refer to our web site: [www.ab.com/motion](http://www.ab.com/motion)

For Allen-Bradley Technical Support information refer to: [www.ab.com/support](http://www.ab.com/support) or Tel: (1) 440.646.5800

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