

SPIN ON POWER UP

Available on
MVC + MCPV

MODE DESCRIPTION

This is ClearPath’s simplest mode of operation. Just turn on power and ClearPath smoothly ramps to your preset velocity. Use this mode for applications that require reliable constant velocity and a bare minimum of wiring.

Apply main DC power and ClearPath immediately ramps up to your target velocity (target velocity and acceleration are defined by the user during setup). ClearPath spins at the target velocity until power is removed. All inputs are ignored, but the output (High-Level Feedback) is functional.

Note: When power is removed, ClearPath may stop abruptly or coast a short distance depending on the application and motor winding configuration. Carefully test your loaded ClearPath application for stopping behavior before deploying.

Velocity Control Spin On Power Up

Signal	Function	Input Type	Example Timing
Input A	Disabled	NA	1 0 NA
Input B	Disabled	NA	1 0 NA
Enable	Disabled	NA	1 0 NA
Main Power			ON OFF
<p>Caution! Motor shaft may spin as soon as main power is applied. Notes: All inputs are ignored in this mode. High-Level Feedback is available. Motor will free-wheel when main power is removed, unless external braking force is applied. Motor may stop abruptly depending on load conditions.</p>			<p style="text-align: center;"><i>Motor velocity vs. time</i></p>

cc_mcsd

Motor free-wheeling

I/O FUNCTIONS

Enable Input - Not used.

Input A - Not used.

Input B - Not used.

Output (HLFB) - See HLFB section for available modes.

Notes:

- To stop the motor, simply remove power and the motor will stop.
- Other speed modes give you more control of motor behavior, but require a little more wiring. This mode is the simplest way to get constant, servo-controlled motion from a brushless motor."
- Disable time = 10 mS

MODE CONTROLS

The screenshot shows a control panel for a motor mode. It includes several input fields and buttons:

- Target Velocity (RPM):** A text box containing "+250.". A callout above it says "Enter target velocity."
- Accel (RPM/s):** A text box containing "1,000". A callout below it says "Enter maximum desired motor acceleration rate."
- Decel = Accel:** A checkbox that is currently unchecked. A callout below it says "Check here to set motor deceleration rate to same value as acceleration rate."
- Decel (RPM/s):** A text box containing "50". A callout below it says "Enter maximum desired motor deceleration rate."
- Profile Conversion:** A button labeled "RAS™ 25 ms" and another button labeled "Setup...". A callout below it says "Adjust settings for RAS™ (or optional g-Stop™) to convert standard trapezoidal move profiles into profiles that reduce noise, resonance, and vibration."
- Torque Limit:** A button labeled "Setup..." next to an indicator light labeled "OVR". A callout above it says "Click to open Torque Limit Setup dialog."
- Torque Override Indicator:** A callout box pointing to the OVR indicator. It contains the text: "Torque Override Indicator. When lit, the main torque limit is being overridden by a secondary, user-set torque limit (e.g., when an axis is homing, the main torque limit may be overridden by the separate homing torque limit setting)."
- Inputs and Commands:** A section on the left with the text "This mode uses no inputs".
- ASG-Velocity Output:** A button labeled "At Target Speed". A callout above it says "Displays HLFB output status."