

Hard-Stop Homing Commands for Step-Servo and M2 Series Servo

Applies to: All Step-Servo and M2 servo drive models
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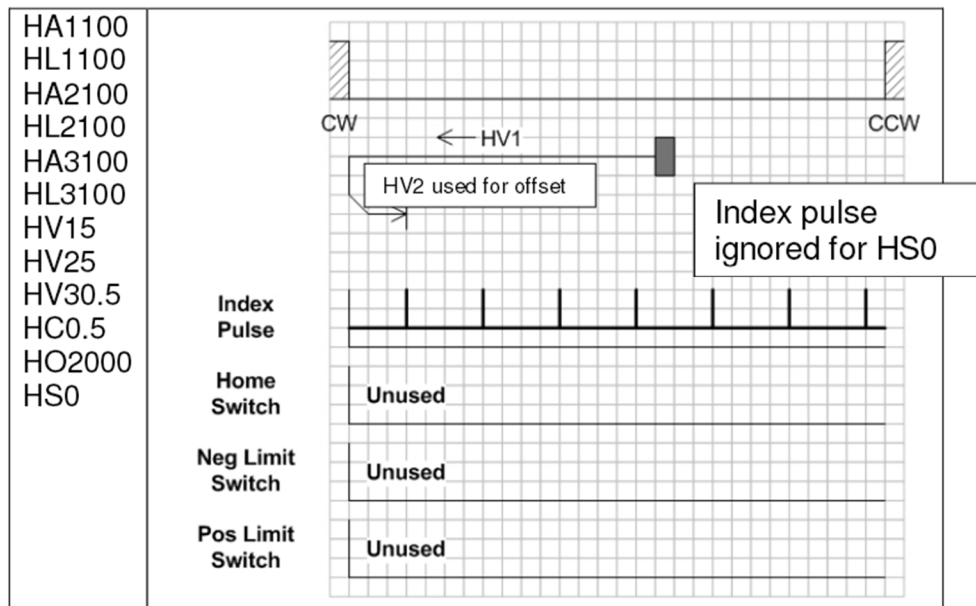
Description

This application note covers the HS command, as well as other associated SCL commands, that are used for the hard-stop homing process. This method of homing does not require an external sensor and functions by sensing a pre-defined current threshold value.

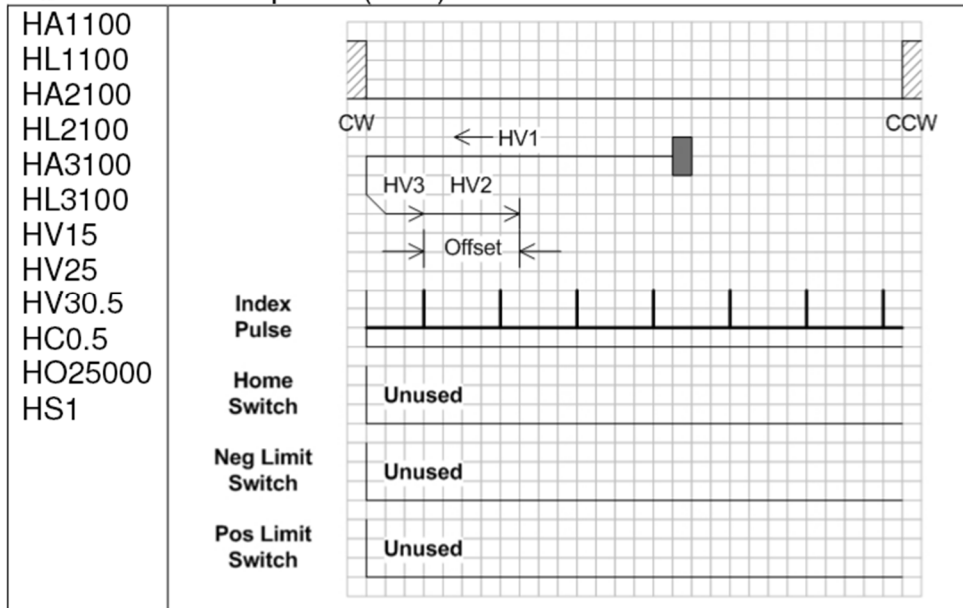
Commands:

HA (Homing Acceleration), HL (Homing Deceleration), HV (Homing Velocity)
 HC (Hard Stop Homing Current limit)
 HO (Home Offset; negative value indicates start in CCW direction)
 HS (Hard Homing execute)

Example #1 – without encoder index pulse (HS0)



Example #2 – with index pulse (HS1)



Hard-Stop Homing Details:

Searching for the mechanical end-stop begins with HV1 speed. The start direction comes from the sign of the HO command (“-” is CCW, no sign is CW). The motor will stop when the actual current equals the preset Hard Stop Current (HC) as the actuator reaches the end of travel.

Search Index behavior:

HS1

Then the motor runs in the opposite direction at the HV3 speed to the first encoder index. After that the motor moves to the Homing Offset (HO) position at the HV2 speed.

HS0

Then the motor just moves to the Homing Offset (HO) position at the HV2 speed.