



SS-EC Product Change Notification

Issue Date: 2017-09-05

Reason for Change:

To be more compatible with mainstream EtherCAT master controllers.

Products Affected:

SS-EC StepSERVO Drives with EtherCAT communications.

Part Numbers: SS03-EC-D, SS05-EC-D, SS10-EC-D

Change items 1 and 2 affect the speed and acceleration/deceleration parameters for the drives operating in PP, PV, CSV and HM modes. For the drives operating in CSP mode there is no effect.

Change Details:

1. Units for speed related objects

Before change: Speed of 1 rps (rev/sec) is converted to value 240.

After change: Speed units are counts/sec, where count is based on encoder resolution.

Example:

When a drive is connected to HT17-SS, HT23-SS, HT24-SS, and HT34-SS motors, the encoder resolution is 20,000 counts/rev.

Speed	Parameter Value Before Change	After Change
1 rps	240	20000
5 rps	1200	100000

When a drive is connected to HT11-SS motors, the encoder resolution is 4096 counts/rev.

Speed	Parameter Value Before Change	After Change
1 rps	240	4096
5 rps	1200	20480

2. Units for acceleration/deceleration related objects

Before change: Accel/decel of 100 rps/s (rev/sec/sec) is converted to value 600.

After change: Accel/decel unit are counts/sec², where count is based on encoder resolution.

Example:

When a drive is connected to HT17-SS, HT23-SS, HT24-SS, and HT34-SS motors, the encoder resolution is 20,000 counts/rev.

Accel/Decel	Parameter Value Before Change	After Change
100 rps/s	600	2000000
500 rps/s	3000	10000000

When a drive is connected to HT11-SS motors, the encoder resolution is 4096 counts/rev.

Accel/Decel	Parameter Value Before Change	After Change
100 rps/s	600	409600
500 rps/s	3000	2048000

Affected speed and acceleration/deceleration related objects are:

606C	Velocity Actual Value	607F	Max Profile Speed
6081	Profile Velocity	6083	Profile Acceleration
6084	Profile Deceleration	6085	Quickstop Deceleration
6099	Homing Speed	609A	Homing Acceleration
60FF	Target Velocity		

3. Bit definition for input status object 0x60FD

Before change		
bit 0~15	reserved	
bit 16	Input X1	A "0" means the input is closed. A "1" means the input is open.
bit 17	Input X2	
bit 18	Input X3	
bit 19	Input X4	
bit 20	Input X5	
bit 21	Input X6	
bit 22	Input X7	
bit 23	Input X8	
bit 24~31	reserved	



After change		
bit 0	CCW Limit	A "0" means no limit alarm. A "1" means limit alarm occurs.
bit 1	CW Limit	
bit 2	Home Sensor	A "0" means home sensor is not active. A "1" means home sensor is active.
bit 3~15	reserved	
bit 16	Input X1	A "0" means the input is open. A "1" means the input is closed.
bit 17	Input X2	
bit 18	Input X3	
bit 19	Input X4	
bit 20	Input X5	
bit 21	Input X6	
bit 22	Input X7	
bit 23	Input X8	
bit 24~31	reserved	

Availability of Legacy Drives

Any customers wishing to use SS-EC drives with the original speed and accel/decel units, i.e. functionality available before this change notification, should contact Applied Motion Products at 1-800-525-1609 or www.applied-motion.com/contact.

Applied Motion Products
 404 Westridge Dr.
 Watsonville, CA 95076, USA
 1-800-525-1609
 Tel (831) 761-6555
www.applied-motion.com