RazorGage Remote Serial Commands and Responses

Note: All commands and responses shall be terminated with a carriage return. (Line feeds are ignored)

Command Description	Syntax	Return String	Comments
Home the RazorGage	H	G=*current position*	Current & Desired position values could contain up to 4 characters before the decimal point and 3 characters after the decimal point. This will return the current 'Home Offset"
Move to Position	G=*desired position*	G=*current position*	Current & Desired position values could contain up to 4 characters before the decimal point and 3 characters after the decimal point.
Request Current Position	P or G	G=*current position*	Request current position.
Stop Motion Immediately	E	S=2	This will force a stall condition and the motor will be disabled. (See Fault conditions below)
Check Inputs	I	I=*0,0 or 1,0 or 0,1 or 1,1*	The first digit after the equal sign is a 1 (true) or 0 (false) describing the state or RazorGage Input 1 and the digit after the comma is 1 (true) or 0 (false) describing the state of RazorGage Input 2. Input 1 is reserved for use as the Tool Safe Sensor. When that input is on then the RazorGage will not move. When it is off, the RazorGage is free to move. In many RazorGage screens the Tool Safe Sensor is used to automatically move to the next position after a machine cycle. THIS IS NOT AN ESTOP!
Set Output 2	*O=0 or O=1*	Ack with O=0 or O=1	Output 1 is reserved as the Machine Enable Output. When the RazorGage is in motion this output is turned off. When the RazorGage is not moving it is turned on. Output 2 is available for control from your software.
Read Output 2	*O*	O=0 or O=1	Reports Status of Output 2
Check RazorGage Status	S	*See Below*	Request current status.
		S=0	0=Ready to accept commands.
		S=1	1=Moving.
Status # 2 and up will automatically be sent if condition occurs.		S=2	2=Stall. At this point the motor is disabled and may be 'pushed' out of the way. Send a S=0 to clear the fault and the current position will be send back (G=xxxx.xxx)
		S=3	3=Requested position exceeded the maximum limits.
		S=4	4=Tried to move while Input 1 is off, Razorgage motion is disabled.
		S=5	5=Means there was a communicaitons fault between the PC and the motor controller. This usually requires some operator intervention to correct.
		S=9	RazorGage needs to be 'Homed'