

Commonly Used Registers in the MP930

This document is intended as an aid to programming the MP930 controller. It lists the most commonly used registers and their functions. The list is for Axis #1 only, for other axes, add 40 Hex to the address. The information is detailed in the Hardware Manual, pages 5-18 – 5-36.

OWC000 - RUN MODE

OBC0002 – PCON – Position control, must be “ON” in the MP930 to execute motion.

OBC0006 – Servo Alarm Clear.

OBC0009 – Home Direction – 0 = Forward, 1 = Reverse.

OWC001 – DRIVE RUN

OBC0010 – Servo Enable.

OWC010 – Position Loop Gain.

OWC011 – Feed Forward Gain.

OWC01D – Speed Loop Gain.

OLC012 – Position Register

OWC020 – Servo Command Register #1

Store the following values to change functions:

0 = NOP.

1 = Position Mode.

3 = Zero Return.

4 = Interpolation.

5 = Last Segment of Interpolation.

6 = LATCH, use with Latch Input on Drive and EXM command.

7 = JOG Mode.

19 = Alarm Monitor.

20 = Alarm History.

21 = Clear Alarm History.

OWC021 – Servo Command Register #2

OBC0210 = HOLD.

OBC0211 = ABORT.

OBC0212 = Direction.

OLC022 – Fast Feed Speed Register

Register for the speed of JOG, STEP, MOV, & MVT Commands.

OWC02C – Register to set percentage of OLC022

Range is 0 ~ 32767 where 1 = 0.01% and 10000 = 100%.

OWC02D – Position Management Register

OBC02D0 = Machine Lock.

OWC034 – Time to Position Register

An Alarm will occur if the positioning is not complete by the time set in this register. Range is 0 – 65535 where 1 = 1 millisecond, if set to 0, no time check is made.

IWC000 – Drive Status Register

IBC0001 – Set – Up Parameter Error.

IBC0002 – Fixed Parameter Error.

IBC0007 – Motion Controller Ready (MP930 Ready).

IBC0008 – Motion Controller Ready & SVON Cmd issued & Valid Control Mode Selected.

IBC0010 – Servo Alarm.

IBC0011 – Servo Warning.

IBC0014 – Servo Power ON.

IBC0013 – Position Complete.

IWC00F – Parameter Over Range

1 ~ 47 – Set – Up Parameter out of range.

101 ~ 127 – Fixed Parameter out of range.

IWC015 – Servo Module Status

IBC0150 = Motion Command Executing.

IBC0151 = On if Program HOLD.

IBC0152 = Feed Complete.

IBC0153 = New Zero Point is Set.

IBC0154 = External Positioning Complete.

IBC0155 = On when Motion Error occurs.

IBC0156 = On when Homing is Complete.

ILC022 – Servo Alarm Register

Look up in the Monitor List, Appendix A in the Hardware Manual.