Referencia de comandos del controlador Mark IV

System Commands

SA	Read motor status.
SC	Read system configuration. Bit 7: 1 = host mode 0 = pendant mode Bit 6: 1 = pendant enabled 0 = pendant disabled Bit 5: 1 = generic controller 0 = robot controller Bit 4: 1 = SCARA mode 0 = XR-3 mode Bit 3: 1 = gripper disabled 0 = gripper enabled Bit 2: 1 = xyz coordinate 0 = joint coordinate Bit 1 and 0 are always 0.
SD,d	Stop/start delay timer. 0 <= d <= 3000.
SE	Read host error stack.
SM,m	Read motor mode. 0 = Idle mode 1 = Trapezoidal mode 2 = Velocity mode 3 = Open loop mode
SP	Read teach pendant error byte.
SR	Reset motor current limit circuitry.
SS	Read system status. Bit 7: 1 = At least one motor is busy. Bit 6: 1 = A system error has occurred. Bit 5: 1 = The delay timer is active. Bit 4: 1 = Wait on input/switch still pending.

	Bit 3: 1 = No teach pendant is connected. Bit 2: 1 = The ENTER key has been pressed. Bit 1: The ESCAPE key has been pressed. Bit 0: A teach pendant error has occurred.
ST	Execute diagnostics.
SU	Read usage time.
SV	Read version and I.D. number.
SX	Execute diagnostics and return results.
SZ	Read the delay timer.

Configuration Commands

CC,d	Set coordinate position.
CG,s	Enable (1) gripper mode (0) disable.
CM,m,d	Set motor mode. 0 = Idle mode 1 = Trapezoidal mode 2 = Velocity mode 3 = Open loop mode
CR,d	Set robot type. 0 = XR-3 robot mode. 1 = SCARA robot mode. 2 = GENERIC controller mode.

Motor Read Commands

AR	Read system acceleration.
DR,m	Read motor pwm level and direction
GS	Read gripper status.
HR,m	Read soft home position.
PA,m	Read actual position.

PW,m	Read destination position.
PZ,x	Read xyz destination position.
RL	Read limit switches.
UA	Read xyz rotation angle.
UH,x	Read xyz home position.
UO,x	Read xyz offset.
UT	Read xyz tool length.
UY	Read xyz height of the elbow rotation axis (H0).
VA,m	Read motor actual velocity.
VR,m	Read motor desired velocity.
VX	Read system velocity.
XR,m	Read auxiliary port level and direction. 1 <= d <= 2

Motor Set Commands

AC,m	Clear motor actual position.
AS,d	Set system acceleration.
DS,m,d	Set motor pwm level and direction.
GC	Close gripper.
GO	Open gripper.
HA	Go to the hard home position.
HG	Go to the soft home position.
HH	Execute a hard home.
HL,m	Hard home on limit switch.
HS	Set soft home.
MA	Stop all motors and auxiliary ports.

MC	Start all motors, coordinated.
MI	Start all motor, independent.
MM,m	Stop single motor.
MS,m	Start single motor.
MX	Start xyz move.
PD,m,d	Set motor destination position, absolute.
PR,m,d	Set motor destination position, relative.
PX,x,f	Set axis destination position, absolute.
PY,x,f	Set axis destination position, relative.
VG,d	Set system velocity.
VS,m,d	Set motor velocity.
XA,f	Set xyz rotation angle.
XH,x,f	Set xyz home position.
XO,x,f	Set xyz offset.
XS,m,d	Set auxiliary port level and direction. 1 <= m <= 2
XT,f	Set xyz tool length.
XY,f	Set xyz height of the elbow rotation axis (H0).

Teach Pendant Commands

FR	Receive teach pendant file from host.
FT	Transmit teach pendant file to host.
FX	Execute teach pendant program.
TA	Abort/terminate teach pendant program.
TC	Clear teach pendant display.
TD,”msg”	Print to teach pendant display.

TE,d	Enable(1)\disable (0) teach pendant to move motors.
TH	Give control to host.
TK	Return to host the next key code.
TL	Return to host the last key code.
TR	Reset the teach pendant.
TS,r,c	Set teach pendant display cursor.
TT	Execute teach pendant diagnostics and return results.
TX	Give control to teach pendant.

Gain Commands

KA,m,d	Set propotional gain.
KB,m,d	Set differential gain.
KC,m,d	Set integral gain.
RA,m	Read proportional gain.
RB,m	Read differential gain.
RC,m	Read integral gain.
KR	Restore user gains from EEPROM.
KS	Store user gains to EEPROM.
KX	Restore factory gains.

Input and Output Commands

IB,b	Read input or switch bit.
IP	Read input port.

IX	Read switch port.
OB,b,s	Set output bit.
OP,d	Set output port.
OR	Read output port.
OT,b,s	Toggle output bit.
WA	Abort all wait on inputs and switches.
WI,b,s	Wait on input or switch bit.