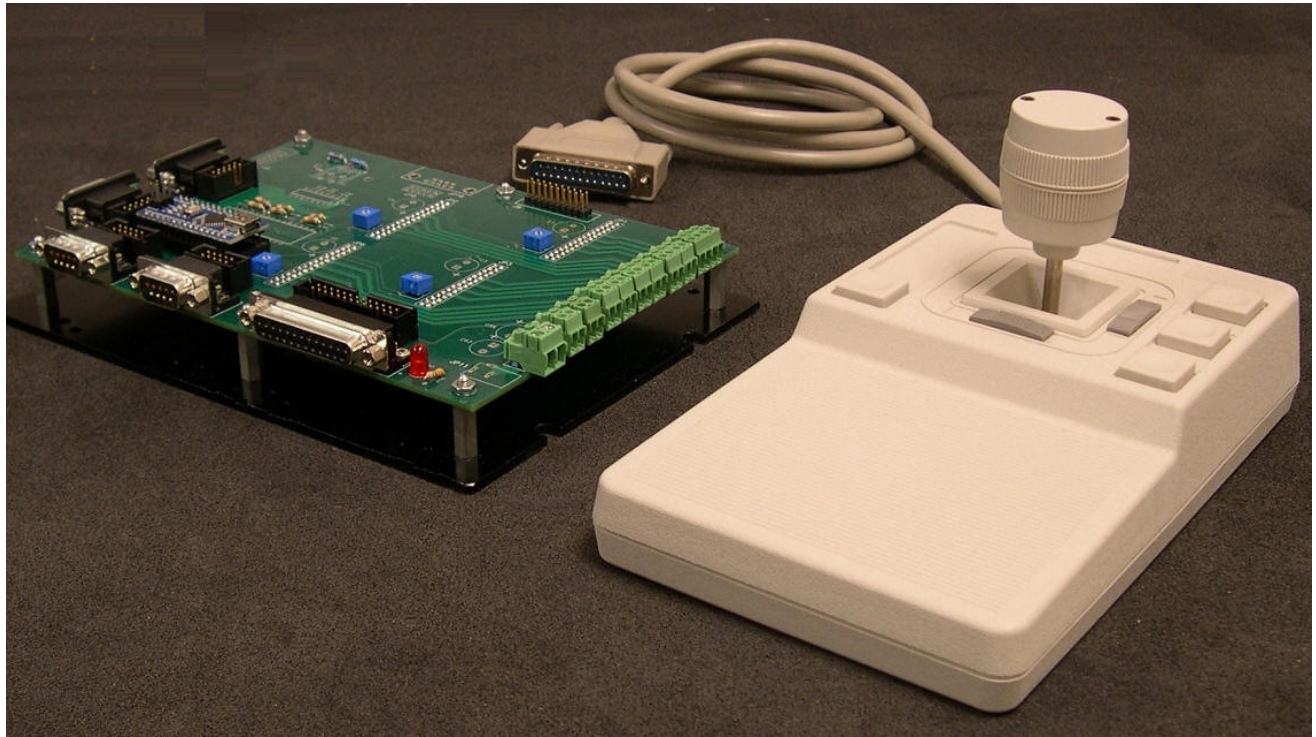


JMCD Series Reference Manual



Joystick Motion Control Module



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PIN ASSIGNMENT AND DESCRIPTION

INPUT POWER J11

PIN	NAME	DESCRIPTION
1	+24 VDC	+24 VDC INPUT
2	GND	+24 VDC RETURN

X-MOTOR J14

The X-axis motor should be connected to this connector.

PIN	NAME	DESCRIPTION
1	PHAX+	STEPPING MOTOR Phase A+
2	PHAX-	STEPPING MOTOR Phase A-
3	PHBX+	STEPPING MOTOR Phase B+
4	PHBX--	STEPPING MOTOR Phase B-

Y-MOTOR J15

The Y-axis motor should be connected to this connector.

PIN	NAME	DESCRIPTION
1	PHAY+	STEPPING MOTOR Phase A+
2	PHAY-	STEPPING MOTOR Phase A-
3	PHBY+	STEPPING MOTOR Phase B+
4	PHBY--	STEPPING MOTOR Phase B-

Z-MOTOR J16

The Z-axis motor should be connected to this connector.

PIN	NAME	DESCRIPTION
1	PHAZ+	STEPPING MOTOR Phase A+
2	PHAZ-	STEPPING MOTOR Phase A-
3	PHBZ+	STEPPING MOTOR Phase B+
4	PHBZ--	STEPPING MOTOR Phase B-

W-MOTOR J21

The W-axis motor should be connected to this connector.

PIN	NAME	STEPPING MOTOR
1	PHAW+	STEPPING MOTOR Phase A+
2	PHAW-	STEPPING MOTOR Phase A-
3	PHBW+	STEPPING MOTOR Phase B+
4	PHBW--	STEPPING MOTOR Phase B-

X-LIMITS

9-pin DB-9, Male Connector

The X-axis positive and negative switches should be connected to this port.

PIN	NAME	DESCRIPTION
1	POS-LIMIT-X *	X-Axis Positive Limit Switch Input
2	GND	System Ground
3	+5 VDC	+5 VDC
4	NEG-LIMIT-X *	X-Axis Negative Limit Switch Input
5	GND	System Ground
6	+5 VDC	+5 VDC
7		Not Connected
8	GND	System Ground
9	+5 VDC	+5 VDC

Y-LIMITS

9-pin DB-9, Male Connector

The Y-axis positive and negative switches should be connected to this port.

PIN	NAME	DESCRIPTION
1	POS-LIMIT-Y *	Y-Axis Positive Limit Switch Input
2	GND	System Ground
3	+5 VDC	+5 VDC
4	NEG-LIMIT-Y *	Y-Axis Negative Limit Switch Input
5	GND	System Ground
6	+5 VDC	+5 VDC
7	HOME-Y **	Not Connected
8	GND	System Ground
9	+5 VDC	+5 VDC

* A normally open or normally high switch should be placed between this pin and GND.

A 10 KOHM pull-up resistor is placed between all inputs and +5 VDC.

Z-LIMITS

9-pin DB-9, Male Connector

The Z-axis positive and negative switches should be connected to this port.

PIN	NAME	DESCRIPTION
1	POS-LIMIT-Z *	Z-Axis Positive Limit Switch Input
2	GND	System Ground
3	+5 VDC	+5 VDC
4	NEG-LIMIT-Z *	Z-Axis Negative Limit Switch Input
5	GND	System Ground
6	+5 VDC	+5 VDC
7		Not Connected
8	GND	System Ground
9	+5 VDC	+5 VDC

W-LIMITS

9-pin DB-9, Male Connector

The W-axis positive and negative switches should be connected to this port.

PIN	NAME	DESCRIPTION
1	POS-LIMIT-W *	W-Axis Positive Limit Switch Input
2	GND	System Ground
3	+5 VDC	+5 VDC
4	NEG-LIMIT-W *	W-Axis Negative Limit Switch Input
5	GND	System Ground
6	+5 VDC	+5 VDC
7	HOME-W **	Not Connected
8	GND	System Ground
9	+5 VDC	+5 VDC

* A normally open or normally high switch should be placed between this pin and GND.

A 10 KOHM pull-up resistor is placed between all inputs and +5 VDC.

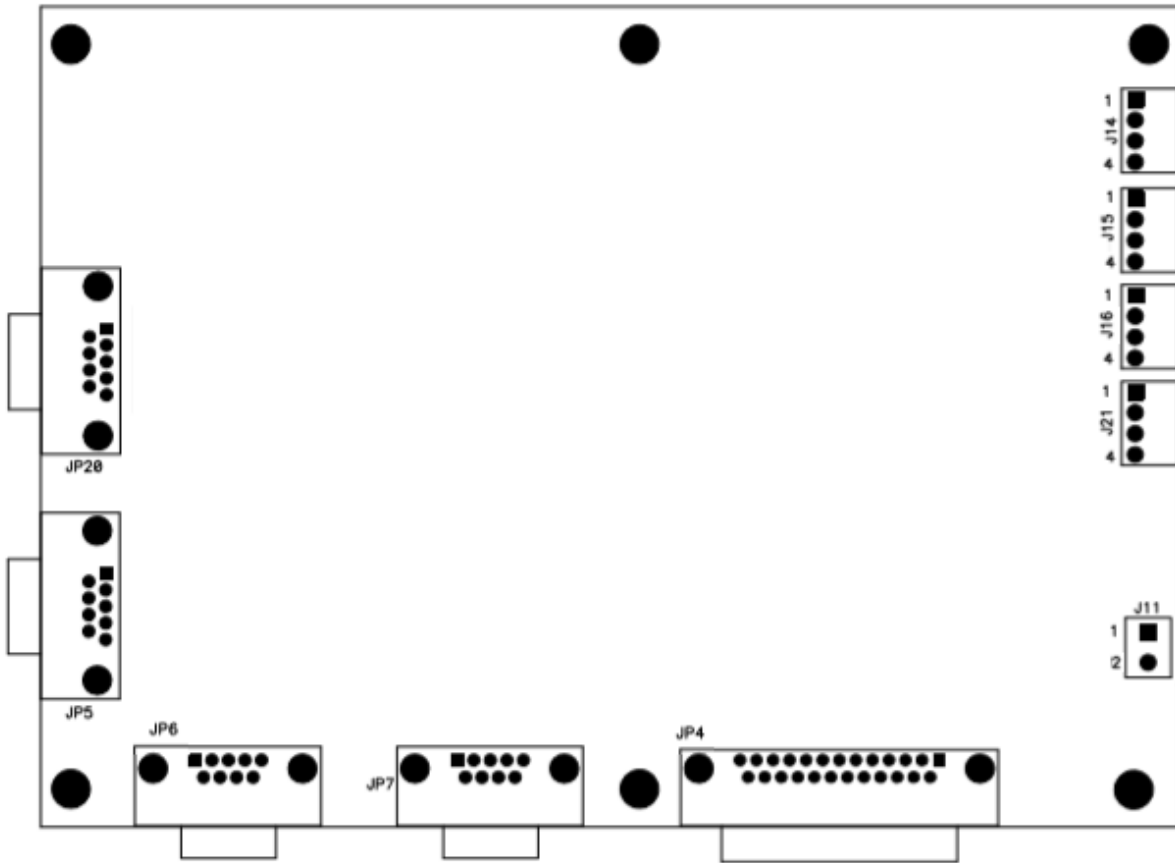
JOYSTICK JP4

25-pin DB-25, Female Connector

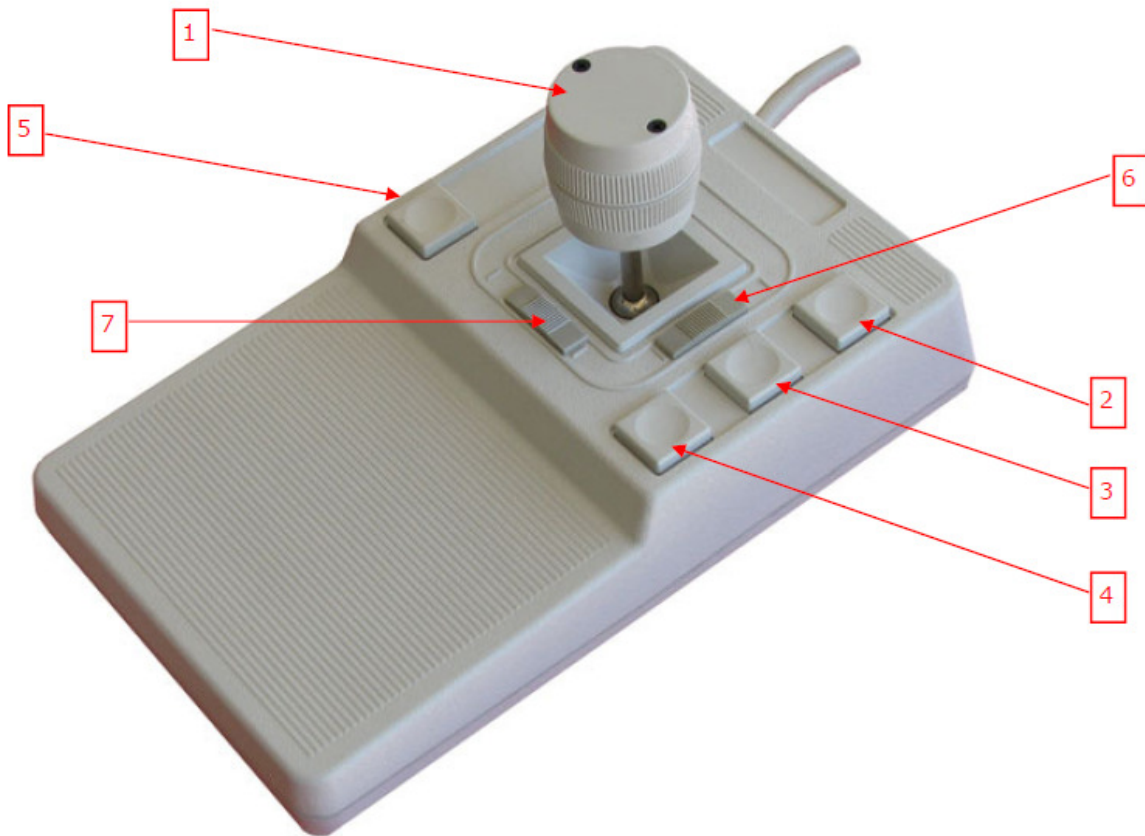
This port is used to connect an analog joystick

PIN	NAME	DESCRIPTION
1	ANALOG-X	Analog-X Input
2	ANALOG-Y	Analog-Y Input
3	HIGH-SPEED	High Speed Selection Input
4	MEDIUM-SPEED	Medium Speed Selection Input
5	LOW-SPEED	Low Speed Selection Input
6	W-SELECT	W-axis Selection Key
15	ANALOG-Z	Analog-Z Input
16	GND	System Ground
17	GND	System Ground
18	GND	System Ground
19	+5 VDC	+5 VDC
20	+5 VDC	+5 VDC
21	+5 VDC	+5 VDC

LAYOUT



JOYSTICK OPERATION



- 1- Move the joystick to left and right to move the X-axis motor. Move the joystick to up and down to move the Y-axis motor. Turn the knob CW and CCW move the Z-axis motor.
- 2- Press button number 2 to select the high speed mode.
- 3- Press button number 3 to select the medium speed mode.
- 4- Press button number 4 to select the low speed mode.
- 5- Press and hold button number 5 to select the W-axis. Move the joystick to up and down to move the W-axis motor.

- 6- Push the slide downward to engage the joystick.
- 7- Push the slide to the right to engage the joystick.
- 8- The positive direction for the X-axis is when the joystick is tilted to the right.
- 9- The positive direction for the Y-axis is when the joystick is tilted upward.
- 10- The positive direction for the Z-axis is when the joystick is turned clockwise.
- 11- To change the default setting of the STEP rates, please download <http://www.oesincorp.com/download/OES-JMC-Controller-Setup.zip> .

Specifications are subject to change without notice.
Tuesday, April 23, 2019