

X1 INPUTS 12 - 19

PIN	SIGNAL	
1	CHASSIS	
2	INPUT 12	
3	INPUT 13	
4	INPUT 14	
5	INPUT 15	
6	INPUT 16	
7	INPUT 17	
8	INPUT 18	
9	INPUT 19	
10	CHASSIS	
11		
12	COMMONS 8-19	0v 60

X2 INPUTS 4 - 11

PIN	SIGNAL	
1	CHASSIS	
2	INPUT 4	
3	INPUT 5	
4	INPUT 6	Guard Switch Input 70
5	INPUT 7	
6	INPUT 8	
7	INPUT 9	
8	INPUT 10	
9	INPUT 11	
10	CHASSIS	
11	COMMON 0-7	0v 60
12	COMMON 8-19	0v 60

X3 INPUTS 0 - 3

PIN	SIGNAL	
1	INPUT 0	E-Stop monitor 59
2	COMMON 0-7	
3	CHASSIS	
4	INPUT 1	X Datum Sensor 45
5	COMMON 0-7	
6	CHASSIS	
7	INPUT 2	Y Datum Sensor 45
8	COMMON 0-7	
9	CHASSIS	
10	INPUT 3	Z Datum Sensor 46
11	COMMON 0-7	
12	CHASSIS	

X4 OUTPUTS 6 - 11 (7 - 12 written on Breakout Unit)

PIN	SIGNAL	
1	CHASSIS	
2	OUTPUT 6	CPR
3	OUTPUT 7	CCR
4	OUTPUT 8	
5	OUTPUT 9	
6	OUTPUT 10	
7	OUTPUT 11	
8		
9		
10	CHASSIS	
11	USER V+	24v 61
12	USER V-	0v 60

X5 OUTPUTS 0 - 5 (0 - 6 written on Breakout Unit)

PIN	SIGNAL	
1	CHASSIS	
2	OUTPUT 0	SGR 80 Spindle Go Relay
3	OUTPUT 1	SRR 81 Spindle Reverse Relay
4	OUTPUT 2	COR
5	OUTPUT 3	CIR
6	OUTPUT 4	CDR
7	OUTPUT 5	DBR
8		
9		
10	CHASSIS	
11	USER V+	24v 61
12	USER V-	0v 60

X6 ANALOGUE INPUTS

PIN	SIGNAL	
1	AGND	Screen
2	A IN 0 +	135 Spindle Pot. Green
3	A IN 0 -	
4	A IN 1 +	135 Feedrate Pot. Yellow
5	A IN 1 -	
6	CHASSIS	
7	AGND	
8	A IN 2 +	
9	A IN 2 -	
10	A IN 3 +	
11	A IN 3 -	
12	CHASSIS	

X7 COMMAND 0 - 3

PIN	SIGNAL	
1	DEMAND 0	
2	AGND	
3	CHASSIS	
4	DEMAND 1	
5	AGND	
6	CHASSIS	
7	DEMAND 2	
8	AGND	
9	CHASSIS	
10	DEMAND 3	Red Sprint Drive Terminal 3
11	AGND	Blue Sprint Drive Terminal 2
12	CHASSIS	

X8 DRIVE ENABLE RELAY (Relay Power written on Breakout Unit)

PIN	SIGNAL	
1	CAN V+ 1	
2	CAN GND 1	
3	CAN V+ 2	
4	CAN GND 2	
5	RELAY N/C	
6	RELAY N/O	Drive Enable Output 43
7	RELAY COM	0v 60
8	USER V+	24v 61
9	USER GND	0v 60
10	CHASSIS	

X9 POWER CONNECTOR

PIN	SIGNAL	
1	V _{CC} 5v	136 Override Pots. Red
2	V _{CC} 5v	
3	ENCODER V+	
4	ENCODER V+	
5	GND	137 Override Pots. Blue
6	GND	
7	USER V+	
8	USER V+	
9	USER GND	
10	USER GND	

X10 STEPPER

PIN	SIGNAL		
1	STEP 0	Red *	X CN 1 1
2	DIR 0	Yellow *	X CN 1 3
3	GND		
4	DIR 1	Yellow	Y CN 1 3
5	STEP 1	Red	Y CN 1 1
6	! STEP 0	Blue *	X CN 1 2
7	! DIR 0	Green *	X CN 1 4
8	! DIR 1	Green	Y CN 1 4
9	! STEP 1	Blue	Y CN 1 2

X11 STEPPER

PIN	SIGNAL		
1	STEP 2	Red	Z CN 1 1
2	DIR 2	Yellow	Z CN 1 3
3	GND		
4	DIR 3		
5	STEP 3		
6	! STEP 2	Blue	Z CN 1 2
7	! DIR 2	Green	Z CN 1 4
8	! DIR 3		
9	! STEP 3		