

# CNC MPG Pendant's Rotary Switches Encoder Interface

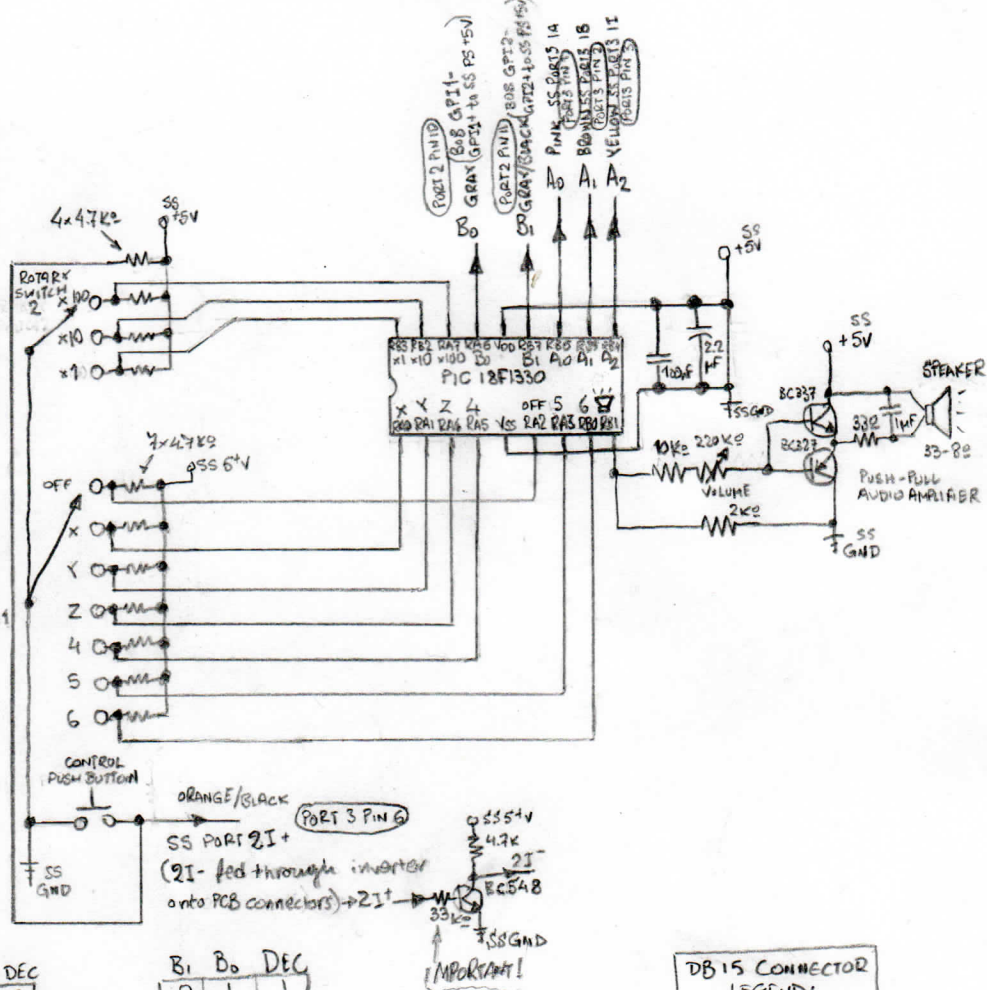
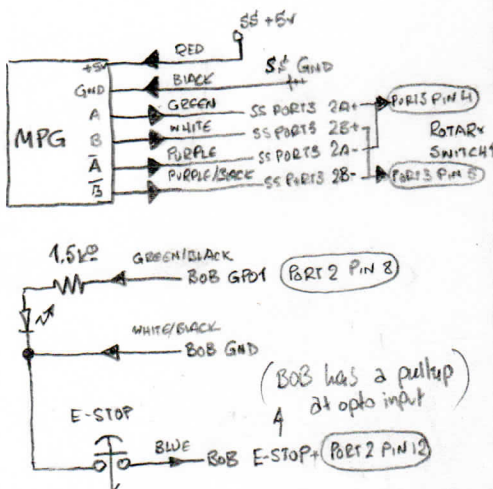
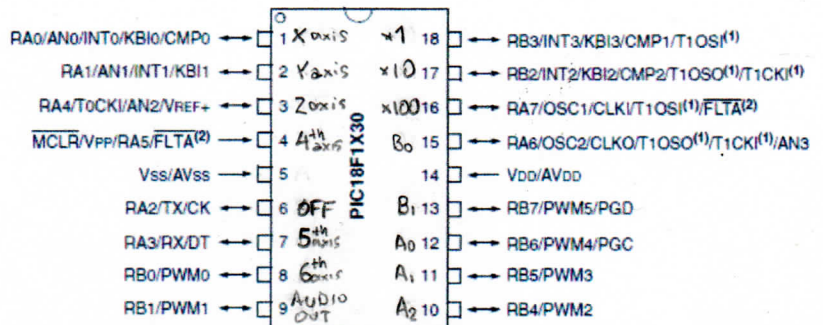
PIC18F1330 @ 8 MHz (INTERNAL OSCILLATOR)

## PORT A

PIN	STATUS	ASSIGNMENT
RA0	INPUT	X axis
RA1	INPUT	Y axis
RA2	INPUT	OFF
RA3	INPUT	5 <sup>th</sup> axis or B axis
RA4	INPUT	Z axis
RA5	INPUT	4 <sup>th</sup> axis or A axis
RA6	OUTPUT	B <sub>0</sub>
RA7	INPUT	x100

## PORT B

PIN	STATUS	ASSIGNMENT
RB0	INPUT	6 <sup>th</sup> axis or C axis
RB1	OUTPUT	PHM AUDIO OUT
RB2	INPUT	x10
RB3	INPUT	x1
RB4	OUTPUT	A <sub>2</sub>
RB5	OUTPUT	A <sub>1</sub>
RB6	OUTPUT	A <sub>0</sub>
RB7	OUTPUT	B <sub>1</sub>



### NOT CONNECTED WIRES:

- BLUE/BLACK
- ORANGE
- PINK/BLACK
- BROWN/BLACK
- YELLOW/BLACK

Rotary Switch 2

	X1	X10	X100	DEC
OFF	1	1	1	6
X	1	0	1	5
Y	1	1	0	3
Z	1	1	1	7

Rotary Switch 1

	B1	B0	DEC
OFF	1	1	3
1	0	2	1
1	1	3	0
0	0	0	0

Rotary Switch 1

	X6	X5	X4	X3	X2	X1	X0	DEC
OFF	1	1	1	1	1	1	0	126
X	1	1	1	1	1	0	1	125
Y	1	1	1	1	0	1	1	123
Z	1	1	1	0	1	1	1	119
4 <sup>th</sup>	1	1	0	1	1	1	1	111
5 <sup>th</sup>	1	0	1	1	1	1	1	95
6 <sup>th</sup>	0	1	1	1	1	1	1	63
Between Positions	1	1	1	1	1	1	1	127

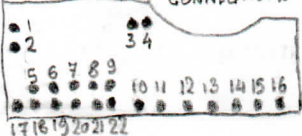
Rotary Switch 1

	A2	A1	A0	DEC
OFF	0	0	0	1
X	0	0	1	2
Y	0	1	0	3
Z	0	1	1	4
4 <sup>th</sup>	1	0	0	5
5 <sup>th</sup>	1	0	1	6
6 <sup>th</sup>	1	1	0	7
Between Positions	1	1	1	7

### DB15 CONNECTOR LEGEND:

1. RED +5V (SS PS)
2. BLACK GND (SS PS)
3. GREEN A (SS PORTS 2A+)
4. WHITE B (SS PORTS 2B+)
5. PURPLE A (SS PORTS 2A-)
6. PURPLE/BLACK B (SS PORTS 2B-)
7. GREEN-BLACK LED + (BOB GPO1)
8. WHITE-BLACK LED - (BOB GND)
9. YELLOW A<sub>2</sub> (SS PORTS 1I)
10. BROWN A<sub>1</sub> (SS PORTS 1B)
11. PINK A<sub>0</sub> (SS PORTS 1A)
12. GRAY B<sub>0</sub> (BOB GPI1, GPI1 → SS +5V)
13. GRAY/BLACK B<sub>1</sub> (BOB GPI2, GPI2 → SS +5V)
14. ORANGE/BLACK CONTROL (SS PORT 2I+, 2I- → 2I+)
15. BLUE E-STOP+ (BOB E-STOP+)

### CIRCUIT BOARD CONNECTIONS



### CIRCUIT BOARD CONNECTIONS LEGEND

1. SPEAKER
2. SS PS +5V
3. SS PS GND
4. X axis
5. Y axis
6. Z axis
7. 4<sup>th</sup> axis
8. 5<sup>th</sup> axis
9. 6<sup>th</sup> axis
10. A<sub>2</sub>
11. A<sub>1</sub>
12. A<sub>0</sub>
13. B<sub>1</sub>
14. B<sub>0</sub>
15. SS PS GND