Quick Reference

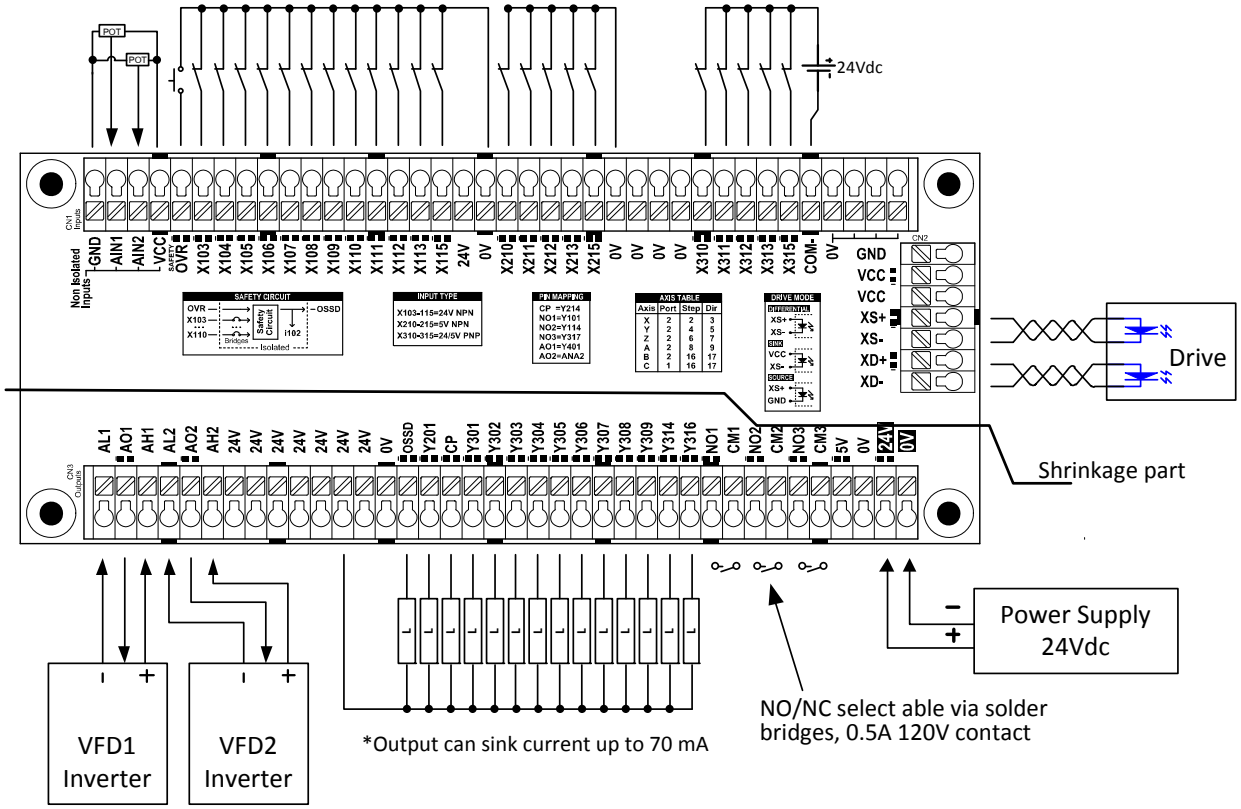


Figure 1, UB1 Overview Connection

Port1 (Pins 2-9 as input)			
Pin	I/O	Term Name	Description
1	O	NO1	Relay Contact
2	I	-	OSSD feedback
3	I	X103, Safety	NPN input
4	I	X104, Safety	NPN input
5	I	X105, Safety	NPN input
6	I	X106, Safety	NPN input
7	I	X107, Safety	NPN input
8	I	X108, Safety	NPN input
9	I	X109, Safety	NPN input
10	I	X110, Safety	NPN input
11	I	X111	NPN input
12	I	X112	NPN input
13	I	X113	NPN input
14	O	NO2	Relay Contact
15	I	X115	NPN input
16	O	CS (C step)	Line driver
17	O	CD (C dir)	Line driver

Port2 (output)			
Pin	I/O	Term Name	Description
1	O	SPD (Spindle)	Sink output
2	O	XS (X step)	Line driver
3	O	XD (X dir)	Line driver
4	O	YS (Y step)	Line driver
5	O	YD (Y dir)	Line driver
6	O	ZS (Z step)	Line driver
7	O	ZD (Z dir)	Line driver
8	O	AS (A step)	Line driver
9	O	AD (A dir)	Line driver
10	I	X210	NPN input
11	I	X211	NPN input
12	I	X212	NPN input
13	I	X213	NPN input
14	O	CP (ChargePump)	Sink output
15	I	X215	NPN input
16	O	BS (B step)	Line driver
17	O	BD (B dir)	Line driver

Port3 (Pins 2-9 as output)			
Pin	I/O	Term Name	Description
1	O	Y301	Sink output
2	O	Y302	Sink output
3	O	Y303	Sink output
4	O	Y304	Sink output
5	O	Y305	Sink output
6	O	Y306	Sink output
7	O	Y307	Sink output
8	O	Y308	Sink output
9	O	Y309	Sink output
10	I	X310	PNP input
11	I	X311	PNP input
12	I	X312	PNP input
13	I	X313	PNP input
14	O	Y314	Sink output
15	I	X315	PNP input
16	O	Y316	Sink output
17	O	NO3	Relay Contact

Analog Input1 = AIN1, **Analog Output1** = Y401 (Can be changed to PWM1 by solder bridge) X103-X110 are **Safety** inputs
Analog Input2 = AIN2, **Analog Output2** = PWM2, **NO3 Contact** = Y317 (Can be changed to ChargePump by solder bridge)

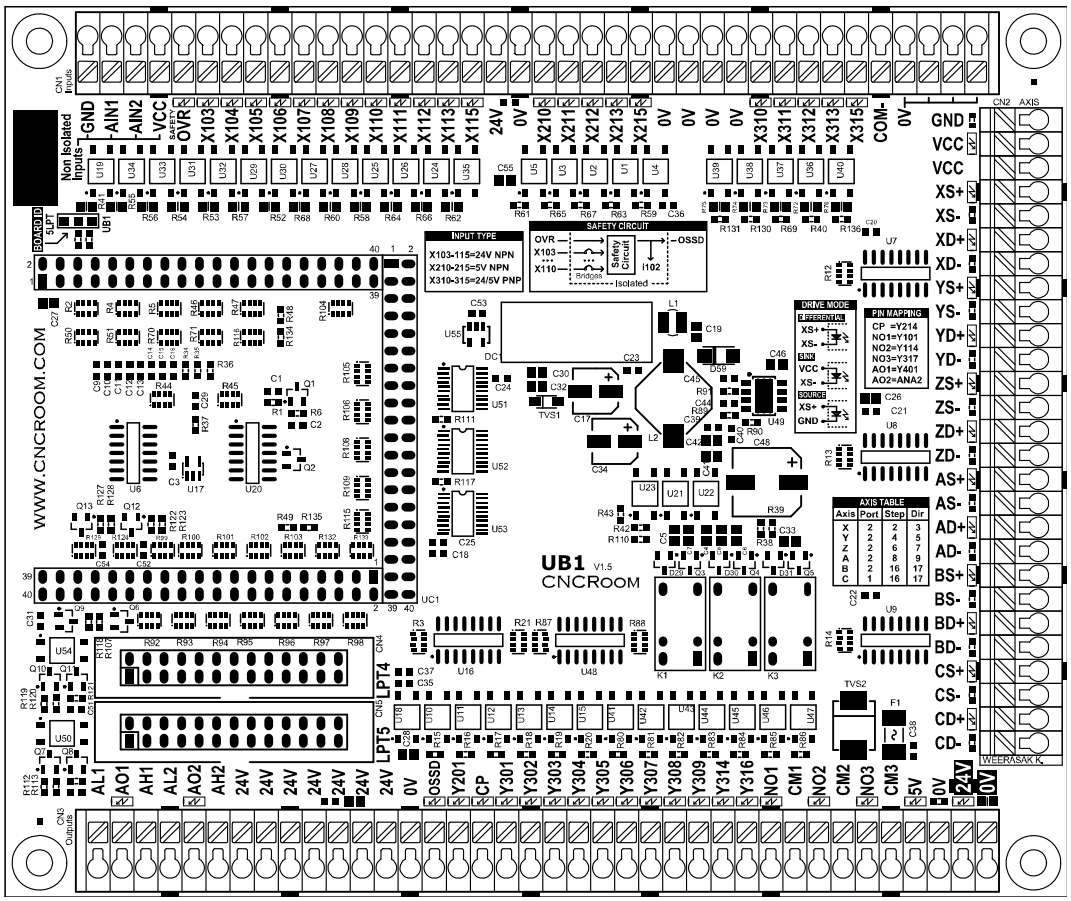
Table 1, Ports and Pins Reference Tables

Quick Reference is a summary for the experienced user.

Figure 1 is a shrinkage view of UB1 board. It shows the connection of inputs & outputs, power supply, analog output for the VFD and axis differential signals. This line drivers can be connected as source and sink single end, it is suggested that you should first try the differential connection.

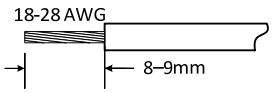
Table 1 is a summary of Ports and Pins and their corresponding reference numbers. All pin numbers preceded by an "X" are inputs and if preceded by a "Y" are outputs. Using X110 as an example. The "X" means it is an input. The first digit "1" is the port number, the last 2 digits "10" is the pin number.

UB1 Layout



UB1v1.5

Figure 2, UB1 version 1.5



Input (CN1) – Input terminals, consisting of 2 channels of non-isolated analog inputs, 18 channels of NPN type and 5 channels of PNP type

Axis (CN2) – Axis signal terminals, consisting of 6 axes, which are; X, Y, Z, A, B, C

Output (CN3) – Output terminals, consisting of 14 isolated NPN sink outputs, 2 isolated analog output signals, 3 Relay's NO (Contacts can easily be changed to NC by using the Solder Bridge under the board) and an inlet for the 24Vdc power supply

LPT4, 5 (CN4, 5)– 2 non-isolated inputs headers. It is compatible with PC parallel port input mode.

Board ID – 5LPT / UB1 Identifier jumper

UC300ETH and UB1 piggyback

The UC300ETH can be plugged into header socket on UB1 board easily, without need any ribbon cables. It draws power from isolated dc2cd convert on the UB1 board.

Figure 3, UC300ETH stack on UB1 breakout board.

UB1 Connection Diagram

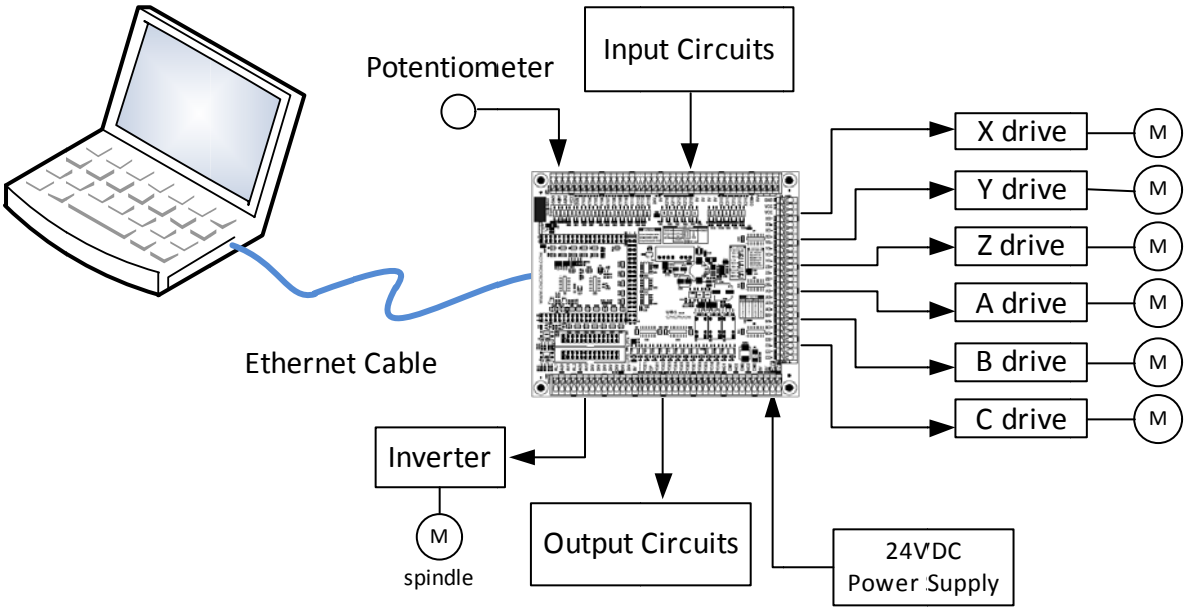


Figure 4, Connection Diagram