



## ***XyDrive* XD3**

*Isolated Parallel Port Breakout Board*

User Manual  
Rev B


**Features:**

- Made In USA
- DB25 Female
- Full Optical Isolation
- All Pins Brought Out
- Controls Up to Six Axis
- LED Power Indicators for Both PC and Terminal Sides
- Screw Terminals for Easy Wire-to-Board Connection
- Jumper Selectable Power Source for DB25 PC Side – USB power or External +5V
- External +5V Input for Terminal Side
- 5 Inputs Allow Connection of Limit and Homing Switches

**Description:**

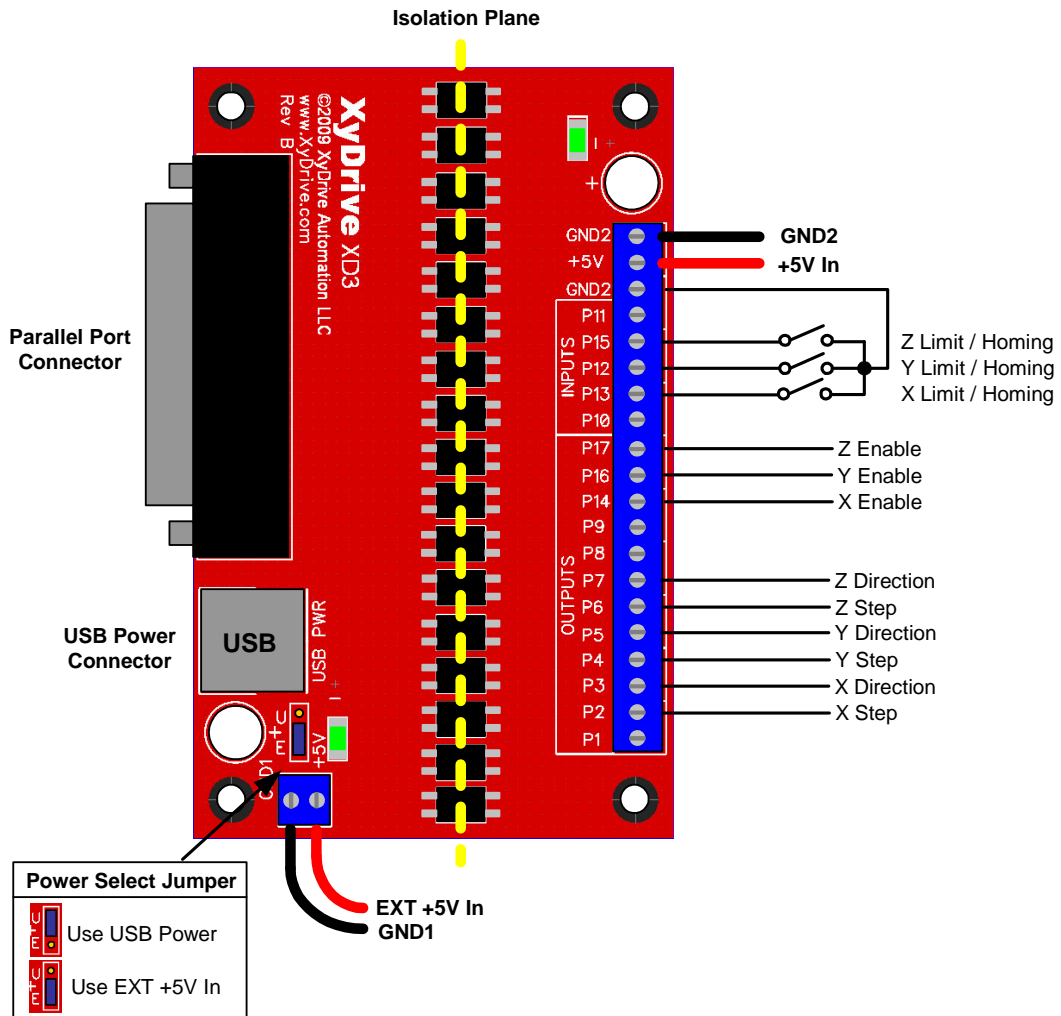
The XyDrive XD3 parallel port breakout board is used to interface a PC to the outside world. The XD3 was designed for the CNC hobbyist but is not limited to that application. The XD3 is equipped with optical isolation which serves to protect the connected PC from potentially damaging current and voltage spikes.

The XD3 provides 12 outputs and 5 inputs which is the maximum available from the PC parallel port. All inputs and outputs are terminated in a screw terminal which provides quick and easy wire connection.

As with all isolated breakout boards, the PC side and terminal side require separate power supplies to maintain isolation across the isolation plane. The terminal side of the XD3 has a +5V DC input terminal. Connect this to a +5V DC regulated supply. This same supply can be used to run driver-side logic circuitry if connecting a motor driver board such as the XyDrive XD8 single axis stepper motor driver. The PC side also requires a +5V DC supply. This supply can be provided either by an external +5V DC supply or via the onboard USB connector when connected to a PC. The "Power Select Jumper" should be set accordingly (see Figure 1).

**WARNING:** Never connect signals across the isolation plane. GND1 and GND2 should never be connected. Failure to maintain isolation may result in PC damage.

## **Board Configuration:**



**Figure 1 Typical Wiring**