Using the CheckSum USB Hub

The CheckSum USB Hub (5100-114) is designed for use in programming applications in a range of CheckSum systems. To facilitate this there are a few different ways the Hub power can be supplied.

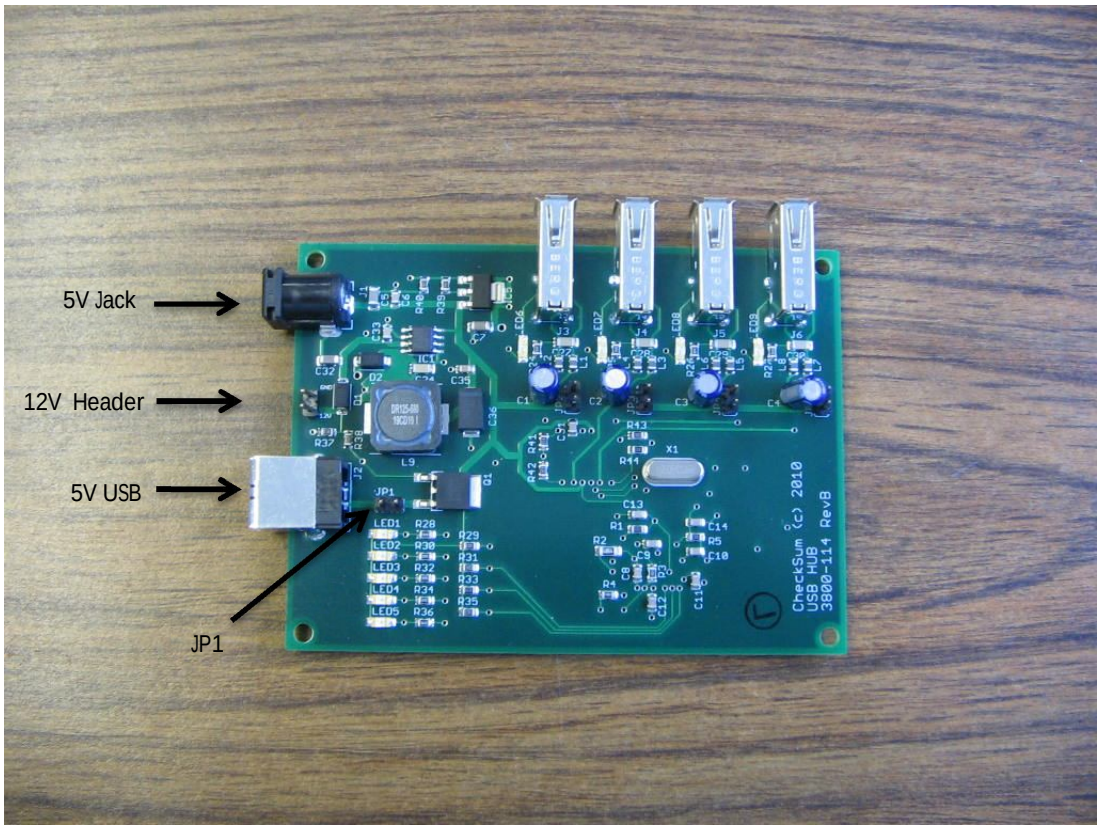

Figure 1. Power Inputs

1. 5V DC power jack – This is for use with a wall power supply and is used to power the Hub inside the PPS system. Jumper JP1 must be removed.
2. 12V wire wrap header – This is for use in the 12KN system and should be wired to the unswitched 12V on the wiring block, pins K46 (12V) and K45 (GND). The input voltage range is 4.5V to 42V so can work in other system types where unswitched power is available.
3. USB power – This is for use with any system other than the 12KN where USB is connected through the block or through the probe plate. Jumper JP1 should be installed. USB power must always be used in conjunction with the USB+PWR block (5100-113) to provide the needed current levels.

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On fixtures that may be used in both 12KN and other systems, it is okay to wire the 12V from the wiring block and have jumper JP1 installed at the same time. 5V from the USB input will automatically switch off when 12V is also detected.

The LEDs on the Hub are used to indicate the state of the port and power connections.

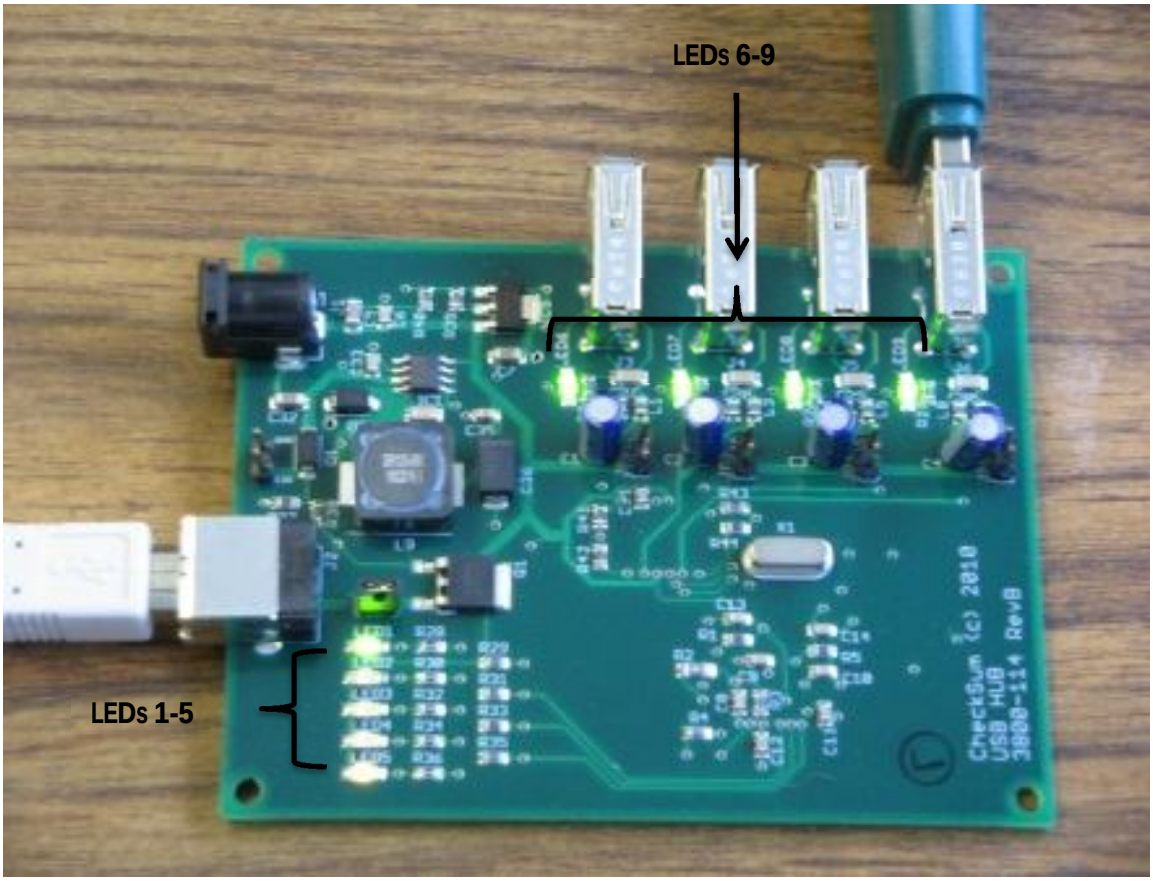

Figure 2. LEDs

LED1 indicates that a connection is seen on the upstream port and should flash green.

Amber LEDs 2-5 indicate that a connection is seen on a downstream port.

Green LEDs 6-9 indicate that power is available on a downstream port. These will turn off if an overcurrent state is detected.

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The CheckSum Hub is designed with a 500mA current limit on each port. This is controlled by the power distribution switch IC2. If higher current levels are needed, jumpers JP2-JP5 can be installed to bypass the power switch and power directly from the 5V input. This is not recommended for typical application use.

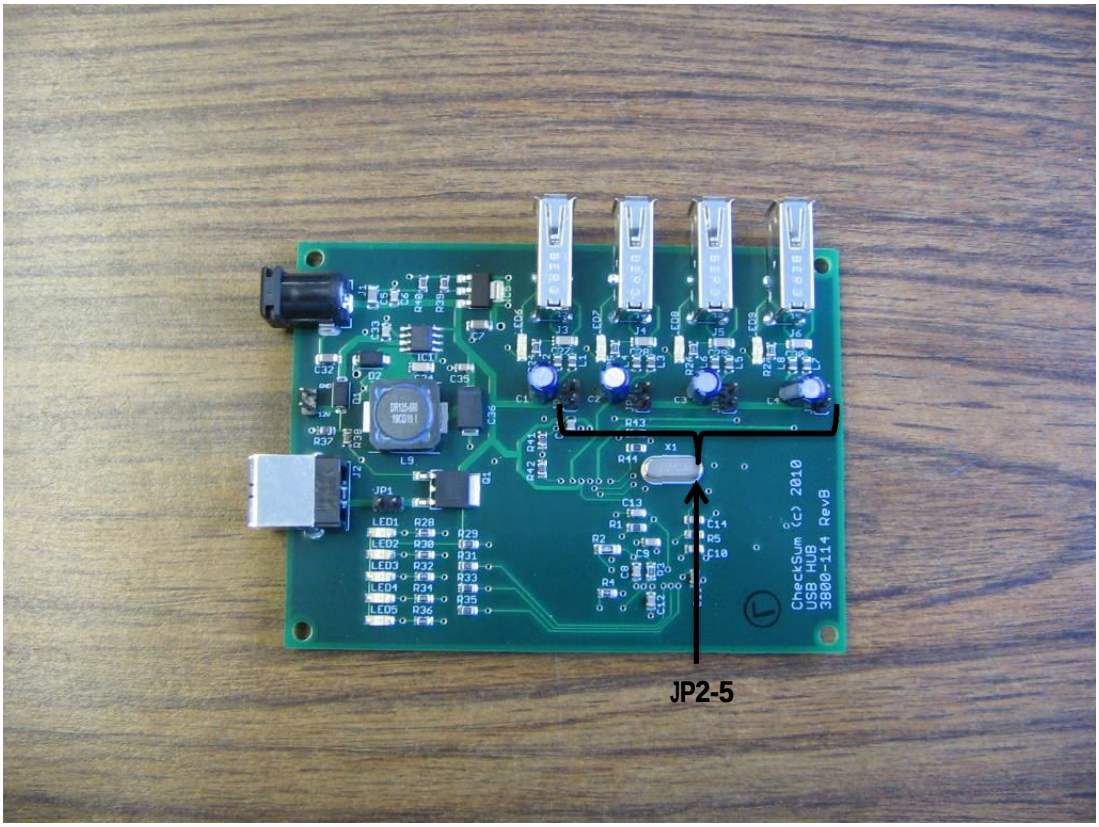

Figure 3. Power distribution jumpers