



Thanks for purchasing the s5100 probe unit.

Points to note:

#1, Connect as follows: \*\*\*\*\*DO NOT REVERSE POLARITY\*\*\*\*DAMAGE WILL OCCUR\*\*\*\*\*

BLACK wire to GROUND

RED wire to +5 volts MAX

WHITE wire to signal INPUT (sink 24 volt logic tolerant at 50ma max)

#2, The 4 set screws on the unit are to facilitate concentricity adjustment. This adjustment will be necessary if your control does not have software probe calibration. This adjustment works like an "ADJ-TRUE" lathe chuck. To move stylus away from you loosen the setcrew on the back, then screw in the one in front, then lightly snug the one in back. Repeat process as needed.

#3, The receiver has a magnetic back, and needs to be mounted inside the machine in direct line of sight to the probe unit. Coolant will not damage the receiver electronics, but it should be placed out of direct coolant reach so that residue buildup will not block the infrared signal to the center eye.

#4, On the RECEIVER, the red error light should only illuminate when the probe is in the power off state. If it illuminates when the probe is powered on, relocate the receiver to find a better line of sight to probe unit, in order to resolve the communication error.

#5, The light on the PROBE is a 2 color led. It will be:

RED when the probe is on, and stylus is SEATED.

Blue when the probe is on, and stylus is DEFLECTED.

Off when probe is off.

Flashing RED when USB is charging.

Flashing BLUE when USB charging is complete.

Rapid RED flash low battery alarm\*\*NEW FOR 2019 BLACK ANODIZED MODELS\*\*

\*\*probe cannot be used while charging\*\*

#6. Always approach surfaces to be probed at the SAME FEED RATE! If you probe locations at varying feed rates the distance the probe stylus deflects before the probe triggers will change, and your calibration values will not be correct.

#7, The probe unit has a 3min power on timer. To turn the probe on, deflect the stylus. The probe unit must be on before it is used to find the location of a surface. After 3min of inactivity the probe unit will turn itself off.

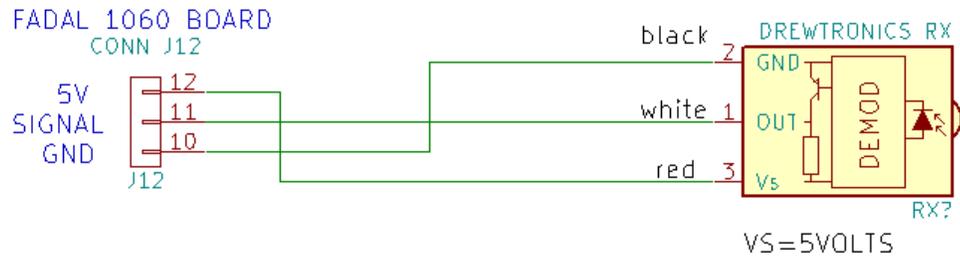
#8, Internally the probe unit is filled with oil and needs no service, it is IP67 submersible. There is a seal between the body and the stylus that can be damaged if the probe is over deflected. Never deflect the stylus past the stops in the X and Y axis. Never deflect more than .125" in the Z axis.

Questions? Drop me a note at [kn6za@hotmail.com](mailto:kn6za@hotmail.com)

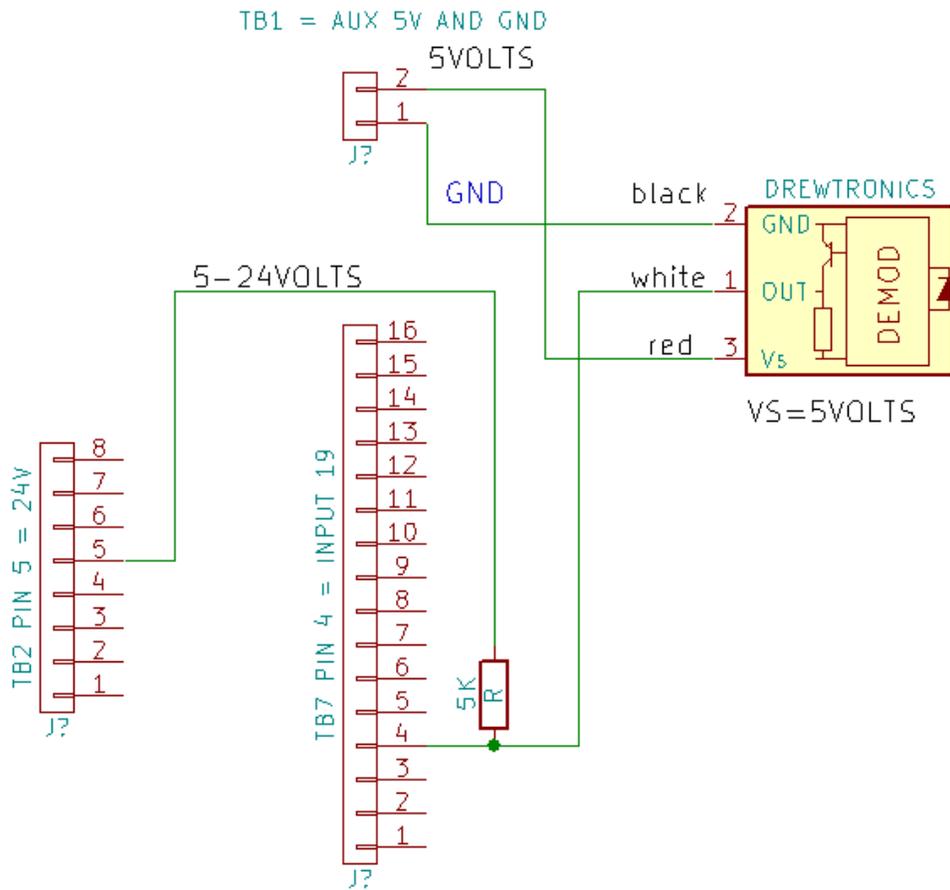
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[www.drewtronics.org](http://www.drewtronics.org)

FADAL CONNECTION EXAMPLE:



Example of Linux cnc with mesa 7177 board connection:



Haas wiring diagram with supplied cable p47-p11 for 1990's machines.

