

## Grab N Win prize sensor operation and trouble shooting



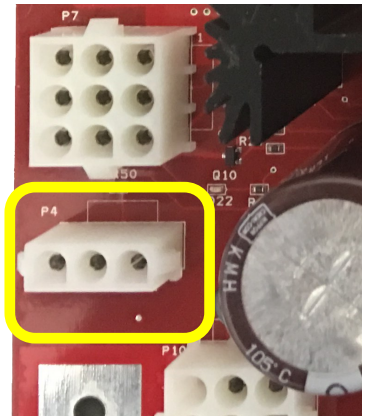
The ICE Grab N Win crane uses 3 self contained optics mounted underneath the prize chute to register a prize passing through the opening. The optics use a reflector bracket mounted across from them. The transmitted IR light is reflected off reflector and turned 90 degrees back to the built in receiver. The optics have two LED indicators. One in front and one at the back. The front LED is red and indicates that there is power present. An orange led at the back indicates alignment. The indicator LEDs can be seen using an inspection mirror or with a phone using the front camera.



Front view



Back view



The prize sensor is connected to P4 on the main board, the color code is as follows:

- 1) Orange - 12 VDC
- 2) White/ yellow – Sensor signal
- 3) Black - ground

The sensor signal line is an active high signal. Use the red probe of your voltage meter and put it in pin 2 of P4. Then place the black probe to pin 3 of P4. A working sensor will show 3 VDC on your voltage meter when it is blocked. When it is unblock and correctly aligned, the voltage will be at 0 VDC.

When the sensor is plugged in and aligned, it will keep the sensor signal voltage low or at 0 VDC. If you disconnect P4 from the main board, pin 2 of P4 will go high or 3.3vdc. You can jump pins 2 and 3 together to disable the prize sensor for test purposes.

The led at location D19 represents the signal for the prize sensor.

When the sensor is connected and aligned the led will be off

When the sensor is blocked the led will be on

\*\*when the prize sensor is disconnected from the board the led will be on.

