

# - PLEASE READ FIRST -

Your Impulse is equipped with the new 2002 circuit board. Please read all the instructions included on this sheet and disregard any operating or adjustment instructions that refer to the old circuit board included in the original manual, also packaged with your new Impulse.



## [Power Switch]

- Activates and deactivates the Impulse.
- Switches the Impulse between *Eye-On* and *Eye-Off Mode*.

## 2002 Impulse Operating Instructions

### Activating the Impulse

The power button is located on the back of the solenoid housing. To turn on the Impulse, press and hold the power button for 1 second. Upon activation, the Impulse will beep once and the LED light will display a slow double blink. The Impulse is now active and will fire each time the trigger is pulled. Each time the Impulse is activated it will default to *Eye-Off Mode*.

### Deactivating the Impulse

To turn off the Impulse, press and hold the power button for 2 seconds. When deactivated, the Impulse will beep once and the LED will not flash.

### Setting the Vision Eye Mode

The new Vision Eye detects the dropping motion of the paintball into the Impulse's chamber. With the Impulse in *Eye-On Mode*, it will only fire when a paintball has been detected by the Vision Eye and is in the chamber ready to fire. With the Vision Eye turned off, the Impulse will fire every time the trigger is pulled, regardless of the position of the paintball.

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When turned on, the Impulse defaults to *Eye-Off Mode*; to switch to *Eye-On Mode*, simply press the power button once. Pressing the power button again will change the Impulse back to *Eye-Off Mode*.

**IMPORTANT:** In *Eye-On Mode*, the first shot will fire with or without a paintball in the chamber. This is to allow the Impulse to fire, even if it is turned on after a ball is already in the chamber.

### LED Display for Vision Eye Modes

- |              |   |
|--------------|---|
| Eye-Off Mode | Slow double-blink every 1 second. This is the default mode for the Impulse when it is activated.  |
| Eye-On Mode  | Rapid 5 blinks per second. Between shots, the LED will flash at 5 blinks per second if the next paintball has successfully loaded. If the next paint ball has not correctly loaded, the LED will flash 1 blink per second until the next paintball has loaded successfully. |

## Impulse Adjustments

### Vision Eye

The new Impulse Vision Eye requires no manual adjustment. All settings are adjusted automatically.

### Rate of Fire

The new Impulse has two default fire rates that cannot be adjusted:

- |                 |                       |
|-----------------|-----------------------|
| Vision Eye Off: | 13.7 shots per second |
| Vision Eye On:  | 20 shots per second   |

### Dwell Adjustment

The dwell is the amount of time that the Impulse's valve remains open. It is controlled by the amount of air sent to the hammer through the solenoid valve. The dwell setting can modify the velocity of the Impulse and the marker should be chronographed after any adjustments to the dwell or input pressure.

The dwell has an operating range of 4-14 milliseconds which is adjustable in .25 millisecond increments. The higher the setting, the longer the valve stays open, thus increasing the air flow to the hammer.

**Increasing / Decreasing the Dwell** - Insert a small flat-tipped tool (i.e. - small allen wrench) into the center of either button housings located on the side of the solenoid housing. Each press adjusts the dwell up or down .25 milliseconds and can be verified by a single high pitch beep for each press. When the dwell setting has reached the limit of its adjustment, a rapid low pitch beep will sound when the button is pressed. This button design prevents dwell adjustment during tournament play.