

## PRODUCT HIGHLIGHTS

- ✓ Test varies SVL lights: continuous, Multi-Drive™ or OverDrive™ modes
- ✓ Ability to change pulse duration for Multi-Drive™ or OverDrive™ modes
- ✓ Ability to dim light output in continuous mode or OverDrive™ modes
- ✓ 5-pin M12 quick connect
- ✓ PNP and NPN camera trigger options



## PRODUCT SPECIFICATIONS

Electrical Input	100 - 240 V AC
Max Power Out	100 Watts
Input Power (No Load)	3.6 Watts
Pulse Rate	1–30 Hz
Camera Input	PNP input: +4VDC or greater to activate (max 26VDC) NPN input: GND (<1VDC) to activate
Input Channel Current	PNP Line: 4 mA @ 4VDC   10 mA @ 12VDC   20 mA @ 24VDC NPN Line: 15 mA @ Ground (0VDC)
Light Connector	5-pin M12 connector (female)
AC Power Inlet	IEC 60320 C14 (standard power cord)
Dimensions	H = 120 mm (4.7"), L = 107 mm (4.2"), W = 45 mm (1.8")
Ambient Temperature	-18°–40° C (0°–104° F)
Ambient Humidity	0–95% non-condensing
Weight	~720 g



## TEST BOX TERMINOLOGY

**Continuous Operation** Lights stays on continuously.

**OverDrive™** Lights pulse (strobe) when in use and can produce a higher output of light then continuous mode.

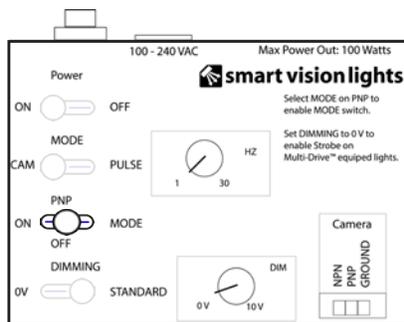
**Multi-Drive™** Combines continuous operation and OverDrive™ strobe (high-pulse operation) mode into one easy-to-use light.

**On/Off Input** Setting an electrical pulse to turn light on / off quickly, similar to turning a home light switch on and off rapidly.

**NPN** Pulse is set to sinking.

**PNP** Pulse is set to sourcing.

**DIMMING** Setting the brightness of the light output.



### TIP:

PNP switch can be used as an off switch rather than the power switch by placing the PNP switch in the off position.

**NOTE:** Smart Vision Lights recommends testing only one light at a time.



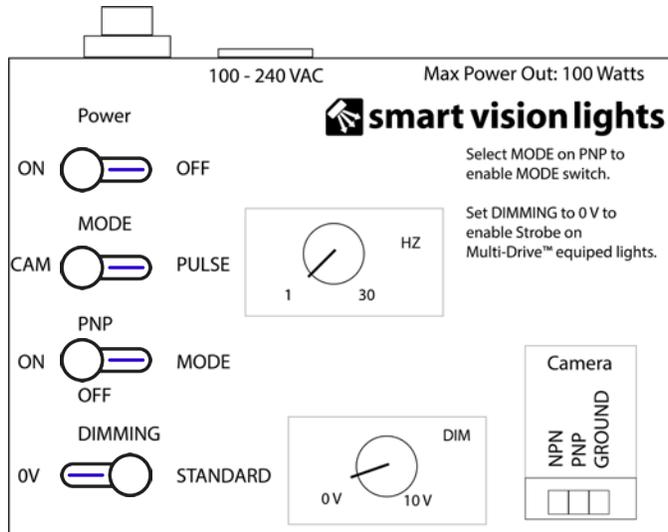
## RESOURCE CORNER

Additional resources are available on our website, including CAD files, videos, and application examples.



## USING THE TEST BOX (Standard Lights)

### Continuous Light Mode



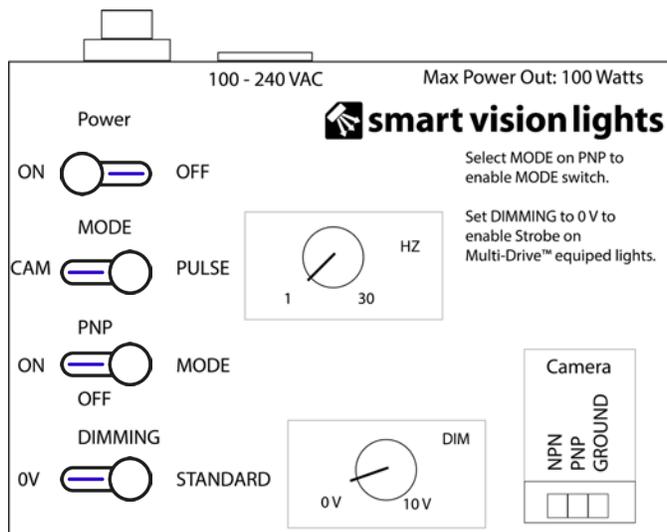
Toggle switches set to:

POWER	ON
MODE	CAM
PNP	ON
DIMMING	STANDARD

#### Configuration allows:

- Dimming enabled to change light brightness.
- Can use camera to trigger. **See using the test box (with camera) for configuration.**

### On/Off Input Light Mode



Toggle switches set to:

POWER	ON
MODE	PULSE
PNP	MODE
DIMMING	STANDARD

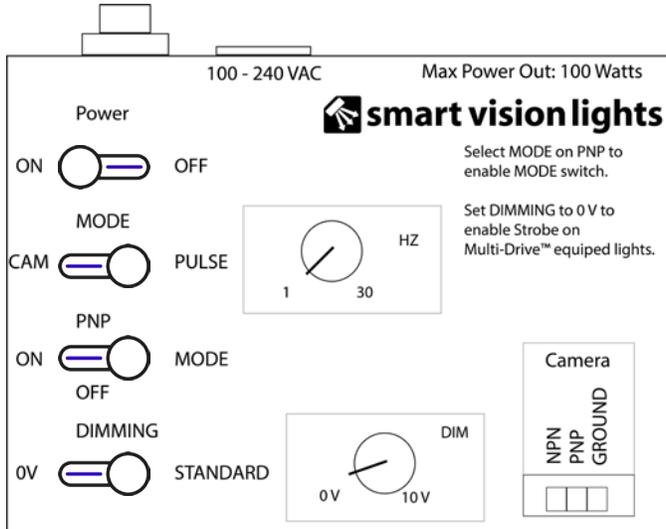
#### Configuration allows:

- Dimming enabled to change light brightness.
- The light can be turned on and off (pulsed) by using the 1 - 30 HZ trigger.
- Can use camera to trigger. **See using the test box (with camera) for configuration.**



## USING THE TEST BOX (OverDrive™ Lights)

### OverDrive™ Light Mode



Toggle switches set to:

POWER	ON
MODE	PULSE
PNP	MODE
DIMMING	STANDARD

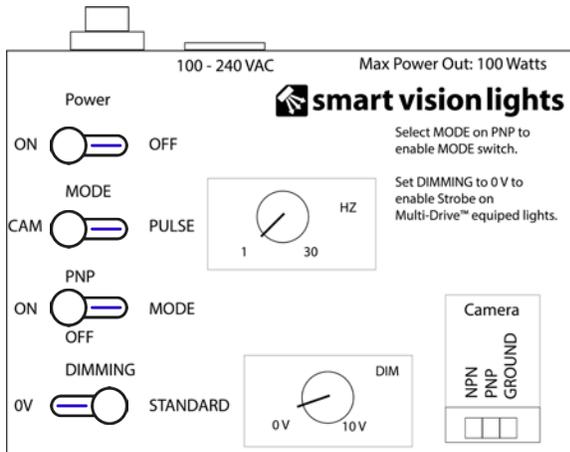
#### Configuration allows:

- OverDrive™ pulse rate is able to be changed.
- Can use camera to trigger. **See using the test box (with camera) for configuration.**



# USING THE TEST BOX (Multi-Drive™ Lights)

## Continuous Light Mode



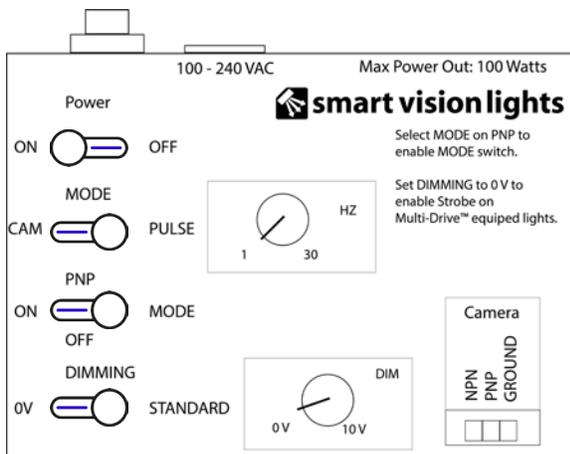
Toggle switches set to:

POWER	ON
MODE	CAM
PNP	ON
DIMMING	STANDARD

### Configuration allows:

- Dimming enabled to change light brightness.
- Can use camera to trigger. **See using the test box (with camera) for configuration.**

## On/Off Input Light Mode



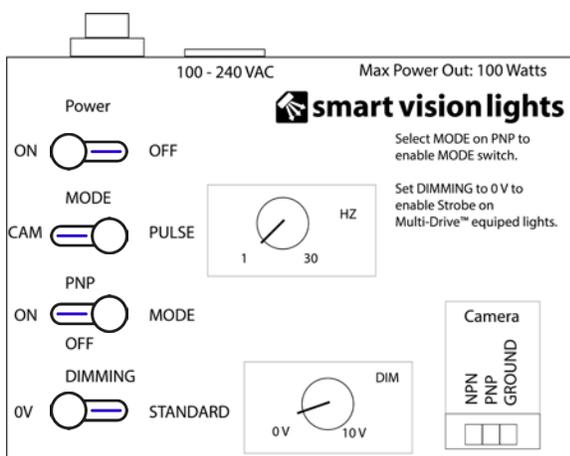
Toggle switches set to:

POWER	ON
MODE	PULSE
PNP	MODE
DIMMING	STANDARD

### Configuration allows:

- Dimming enabled to change light brightness.
- The light can be turned on and off (pulsed) by using the 1 - 30 HZ trigger.
- Can use camera to trigger. **See using the test box (with camera) for configuration.**

## OverDrive™ Light Mode



Toggle switches set to:

POWER	ON
MODE	PULSE
PNP	MODE
DIMMING	0V

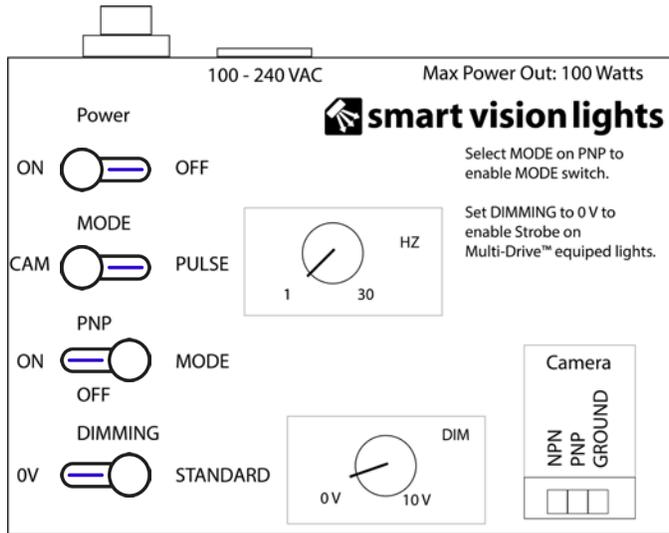
### Configuration allows:

- Dimming enabled to change light brightness.
- Pulse rate is able to be changed.
- Can use camera to trigger. **See using the test box (with camera) for configuration.**

If DIMMING is set to STANDARD, light is no longer in OverDrive™



## USING THE TEST BOX (with Camera)



**SET PNP TO MODE.  
SET MODE TO CAM.**

Settings are the same as examples on previous pages, other than having to set PNP to MODE and Mode to CAM.

Toggle switches set to:

### Continuous Light Mode

POWER	ON
MODE	CAM
PNP	MODE
DIMMING	STANDARD

### On/Off Light Mode

POWER	ON
MODE	CAM
PNP	MODE
DIMMING	STANDARD

### OverDrive™ Mode (OverDrive™ Only Lights)

POWER	ON
MODE	CAM
PNP	MODE
DIMMING	STANDARD

### OverDrive™ Mode (Multi-Drive™ Only Lights)

POWER	ON
MODE	CAM
PNP	MODE
DIMMING	0V



## PART NUMBER

TB-1000 –

**POWER OPTION:**

North America - Leave Blank  
Europe - Add EURO

### Part Number Examples:

**TB-1000** Includes North American Power Cord  
**TB-1000-EURO** Includes European Power Cord



## ACCESSORIES

### Power Cables



Lengths	Part Number
5 m	5PM12-5
10 m	5PM12-10
15 m	5PM12-15

### Jumper Cables (Daisy Chain)



Lengths	Part Number
300 mm	5PM12-J300
1000 mm	5PM12-J1000
2000 mm	5PM12-J2000



## GLOSSARY

This glossary covers all Smart Vision Lights product families; some content in this section may not apply to this specific product.

### TERMINOLOGY

**OverDrive™** Lights include an integrated high-pulse driver for complete LED light control.

**Continuous Operation** Lights stays on continuously.

**Multi-Drive™** Combines continuous operation and OverDrive™ strobe (high-pulse operation) mode into one easy-to-use light.

**Built-in Driver** The built-in driver allows full function without the need of an external controller.

**Camera to Light** Connecting the light directly to the camera, without the need for additional controllers or equipment.

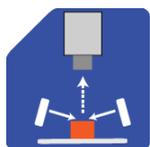
**Polarizers** Filters that reduce reflections on specular surfaces.

**Diffusers** Used to widen the angle of light emission, reduce reflections and increase uniformity.

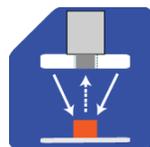
### TYPES OF ILLUMINATIONS



Projector



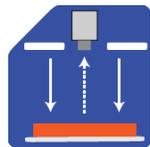
Dark Field



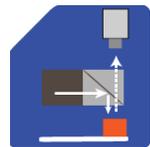
Radial



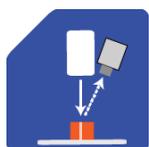
Bright Field



Direct



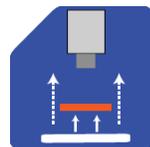
Axial



Line



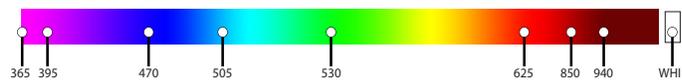
Diffuse Panel



Backlight

### COMMON COLOR/WAVELENGTHS LEGEND

Wavelengths options range from 365 nm to 1550 nm. Additional wavelengths available for many light families.



Short Wave Infrared LEDs are available in 1050 nm, 1200 nm, 1300 nm, 1450 nm, and 1550 nm.