

FLYSYS FlashLamp System



Overview

The Flashlamp System includes a high intensity photic stimulator, lamp driver, and liquid light guide optic. Ideal for standard ERG, Visual Evoked Potential, and Visual Neurophysiology applications, the system features rapid flash rates, variable intensity control, high output, and a spectral range from UV to near infrared.

The modular design and supplied 9' cable allows for precise positioning of the Flashlamp (LS1130) and the 1 meter liquid light guide optic (FO1) offers additional positioning and focusing abilities.

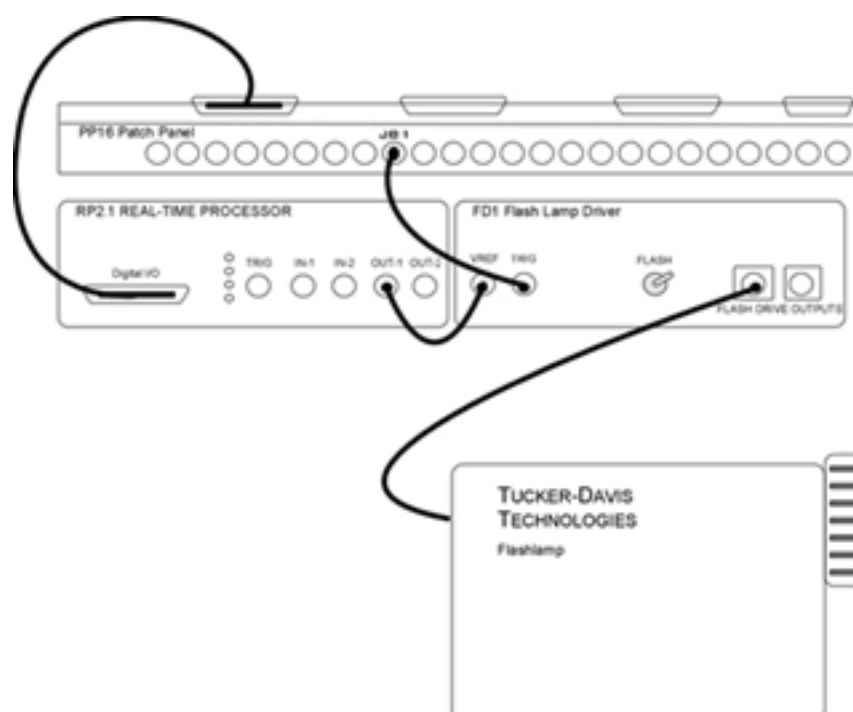


Power

The Flash Lamp Driver (FD1) provides power for the flashlamp and can control flashlamps that use their own power supply. The driver is powered via the System 3 zBus (ZB1PS). No PC interface is required for FD1 operation.

System Set-Up

The LS1130 output intensity and rate of stimulation are controlled via the FD1, which receives a variable voltage reference and trigger input from one of the System 3 processors. The diagram below shows how the system would be connected when using an RP2.1 module for control.



System Features

Vref Input Signal

The variable reference voltage controls flashlamp output intensity and can be supplied by any System 3 device with a DC level positive, such as the RP2.1 or RX processors (the RA16BA cannot be used), and must be set high for 10 mSec before the stimulus trigger.

Trig Input Signal

A TTL trigger controls stimulation rate and is typically supplied by a digital output line from one of the System 3 processors, such as the RP2.1 or RX6. Alternatively, the trigger line can be provided by an external source TTL source with a maximum voltage of 5 V and 1 mSec duration.

Flash Switch

This manual switch can be used to trigger the flashlamp. To trigger the lamp, push the switch up and then press down.

Flash Driver Output (LS1130 or MVS7000)

The Flashdrive LS1130 output will drive the standard LS1130 flashlamp that ships with the FLSYS. The MVS7000 output can be used to control other flashlamps.

Important! Contact TDT for assistance before using any other flashlamps with the FD1.

Flash Intensity

To calculate the flash intensity, use the following equation:

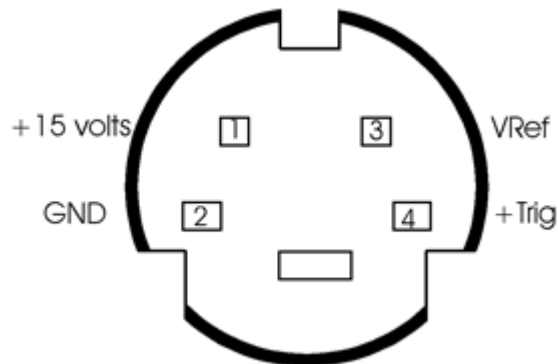
$$J = 1/2 (0.50 \mu\text{F}) (V_{\text{ref}} * 100)^2$$

FLYSYS Technical Specifications

Includes FD1 Flash Lamp Driver, LS1130 Flashlamp, and FO1 Liquid Light Guide.

Flash Rate	0.1 - 200 Hz
Flash Duration	10 μsec
Trigger	TTL (5V max)
Flash Intensity (max)	0.235 Joules
Charge Time	30 msec
Spectrum	350 - 800 nm
Input Signal (Vref)	4 - 10 V
Life	10^9 flashes
Power and Communication	zBus required for FD1

LS1130 and MVS7000 Connector Pinout



Note: Connectors are wired the same.

