

# 995068 Operators Manual

MAC5000-based 4 Channel Shutter Driver



- Integral RS-232/USB interface
- Compatible with MAC5000 shutter commands
- External synchronization options
- Shutter status indicators
- Supports LEP 99A360 and Uniblitz VS25/35 shutters



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P/N: 90M033

## Overview:

The 995068 shutter controller system is an affordable solution for precise control of up to 4 independent shutters. Simple manual control is accessible via toggle switches and current shutter status is indicated on the front panel of the controller using LEDs. The controller may be connected to a host system using the available RS-232/USB interface which accepts the standard MAC5000 commands as well as a commonly used simple single-byte command mode. Hardware triggering is accomplished using dedicated synchronization ports for each shutter driver channel.

## Specifications:

Weight	1.9 kg	Shutter pulse	10-20ms
Dimensions	70x145x195mm	Trigger Inputs	Active high or low TTL compatible
Input Power	90-260VAC 50/60 Hz 150W	Synchronization outputs	TTL totem-pole
RS-232 interface	9600 baud, 8 data, 2 stop, no parity	USB	1.3 compliant
Shutter control	4 independent shutters any combination of 25 or 32mm mode	Command compatibility	Standard MAC5000 commands or single byte commands

## Synchronization Connectors:

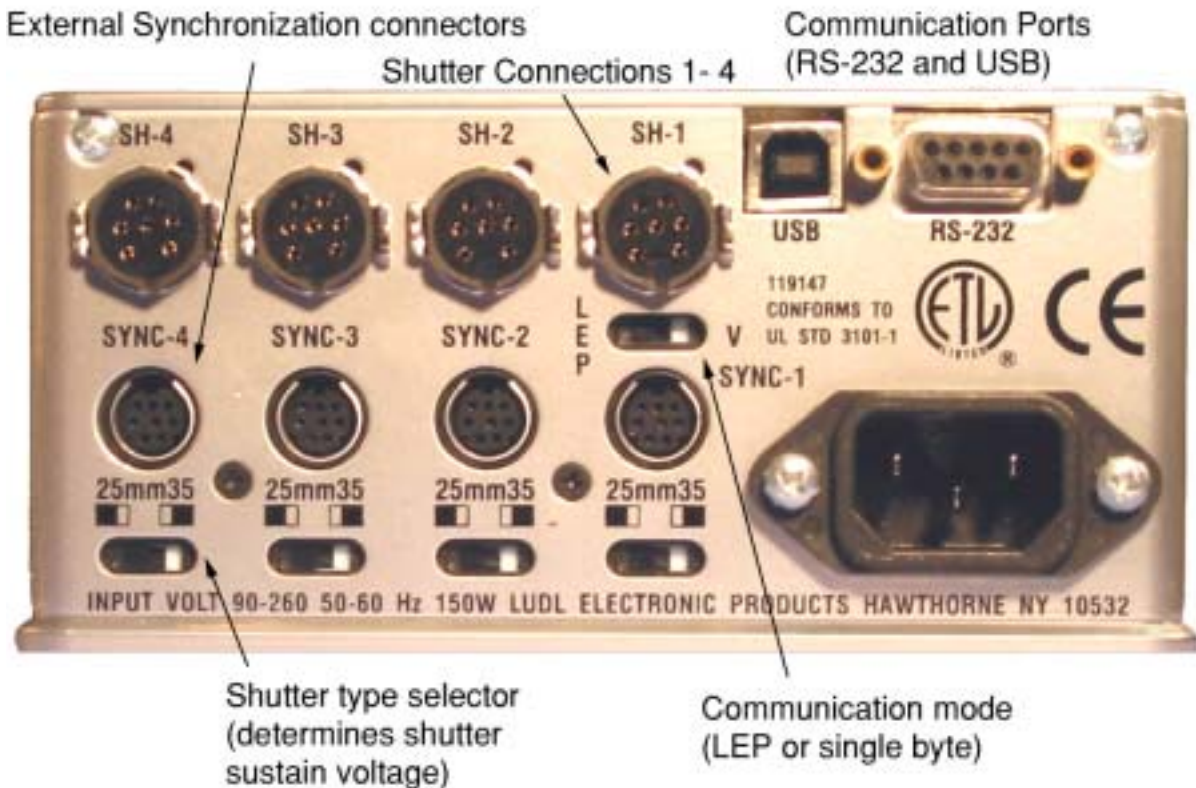
Independent synchronization connectors are located at the rear of the 995068 controller for hardware triggering. The diagram below details the pin out of the Sync connectors:

8-Pin Mini-DIN Synch Connector layout



- Pin 1 Logic Common
- Pin 2 No connection
- Pin 3,4 All shutters open (active low)
- Pin 5 Shutter status output: Open (active high)
- Pin 6 Shutter close input (active low)
- Pin 7 Shutter close input (active high)
- Pin 8 Shutter status output: (Open (active low)

## Rear Panel Connections:



The 995068 controller can be configured to drive various shutter types and use different command protocols when connected to a host computer.

For Uniblitz VS25 shutters, the 25mm setting should be used; for LEP P/N: 99A360 and Uniblitz VS35 shutters, the controller should be configured for 35mm operation.

The communication mode switch configures the controller to respond to the standard LEP command set for shutter control or use a simple single-byte command structure.

External synchronization options for each shutter channel are accessible via these 8-pin mini-DIN connectors. (see previous page for connection information)

LEP P/N: 73A00062 (7-pin circular male/female cable) is used to connect shutters to the rear panel of the shutter controller. Ensure cables are secured and locked in position for reliable operation.

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