

impact™



VS-LCD Series Flash INSTRUCTIONS

Thank you for purchasing the Impact VS-LCD Series Studio Strobe. This light incorporates numerous advanced features, and was designed to provide many years of trouble-free service. Please read these operating instructions and safety precautions carefully before operating this equipment.

Features

- A tactile, “grippy” feel that resists slipping and shock damage
- Cushioned “touch-pad” function control buttons
- Liquid Crystal Display
- Five Stop Range – full power to 1/16th power in .10 f/stop increments
- Red Eye Reduction function
- “Auto Dump” excess power release circuitry
- User-replaceable flash tube
- Commonly available 1/8” mini plug flash sync input
- Universal IEC C13 type computer power cord
- 7” grid reflector
- Voltage: 100-120V 50-60Hz
- Built-in optical slave

Power Requirements

This light is designed for use with 110/120V AC power only, and is supplied with a 3-prong, grounded plug. Do not attempt to defeat this safety feature. If necessary, use only grounded extension cords rated for 10 amps or greater.

Warning

There are no user-serviceable parts inside the unit. Only qualified service engineers should access the inside of the case (Danger – high voltage parts inside). Avoid damage to both the flash tube and modeling lamp. If the modeling lamp becomes cracked or damaged in any way, it should be replaced immediately. Do not use your flash unit in an environment where moisture or flammable vapor is likely to come in contact with the unit. Turn the power off and unplug the power cord when the unit is not in use. Always remove the modeling lamp and replace the protective cap when transporting the unit. Avoid strong light falling onto the slave cell as it will prevent efficient operation. If the strobe blows a fuse, a replacement fuse can be inserted in the pull-out compartment on the back of the unit. To ensure long life of the flash capacitors, the flash unit should be powered up and fired several times at least every two months.

Preparing Your Flash for Use

Contents of carton

Carefully remove the flash unit from the box. You should have the following:

- 110-120V flash unit with protective cap and flash tube installed
- 150W modeling lamp
- 7" grid reflector
- 11' sync cable
- power cable
- user manual



Mount on a stand

Select a stand or support system of suitable weight and dimensions to ensure stable operation of the unit.

Install Reflector & Modeling Lamp

Depress the latch above the protective cap. Rotate the cap counter-clockwise. Pull the cap off and set aside. Install the modeling lamp by screwing it into the threaded socket. **CAUTION:** Do not touch the lamp with your bare hands. Oil residue from your fingers can cause the surface of the lamp to heat unevenly and explode. Use white cotton gloves or a clean cloth. Install the reflector where the protective cap was before. Align the three pegs on the reflector with the three slots, press the reflector in and rotate clockwise until it locks in place.

Note: Take care when fitting or removing reflectors or softboxes to not damage the flash tube assembly. The flash tube is very delicate. Always switch off the unit and disconnect the power before fitting or changing lamps, flash tubes, reflectors or softboxes.



Operating Instructions

Legend

A – Liquid Crystal Display

B – Flash Output

C – Voltage Indicator

D – Flash Counter

E – UP/DOWN Arrow Buttons

F – Power Switch

G – Fuse Holder

H – Audible Recycle Indicator

I – Photo Cell Indicator (shown off)

J – MODE Button

K – ENTER Button

L – TEST Button

M – 3.5mm Sync Jack

N – Power Socket

O – Umbrella Holder

Reading the LCD

Flash Output (B): This is the power ratio selected. 6.0 is full power. As the unit is recycling, this number will flash. When the unit is fully powered, the number will stop flashing.

Audible Recycle Indicator (H): A beep sounds once when the flash is recycled and ready to flash. A musical note on the LCD indicates that the audible beep tone is set to the ON position. When the beeper is OFF, the musical note will not be displayed.

Photo Cell (I): An “eye” symbol represents the built-in photo cell. The number beside the “eye” indicates the setting option for the photo cell. There are several options which will be covered later in this manual. If you have selected the photo cell to be OFF, the “eye” will not be displayed.

Voltage (C): This is a constant readout of the voltage being supplied to the flash unit. It is normal for this number to fluctuate.

F/Times (D): This indicates the number of times the flash tube has been fired.

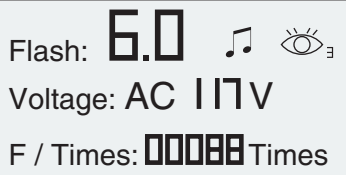
Power Supply

Power Cord

Before plugging the power cord into the wall socket, make certain that the power switch is set to the OFF ("O" position). Note: The VS-LCD flash unit is designed to work on 110-120V 60Hz AC current.

Power Switch

Turn the power switch to the ON ("—") position. As the power is turned on, the internal cooling fan will immediately begin to operate. The unit will give an audible beep and display the voltage on the LCD screen for a moment. The flash is fully prepared to operate with a second audible beep and the LCD screen showing all operations and controls.



Changing the Fuse

A 10A fuse is mounted in the rear panel and protects the circuitry of the flash unit. Turn off the unit and disconnect the power supply before changing the fuse. Never replace with a fuse of a different type or rating. Use a small screwdriver to release the fuse cover. Press in and turn counter-clockwise. Place the new fuse in the cover, insert into the flash unit, then lock the cover by pressing in and turning clockwise.



Flash & Modeling Lamp Settings

Flash Output

The flash power output is variable over a 4 f/stop range (5 f/stops) from 2.0 to 6.0 adjustable in 1/10 f/stop increments.

Setting	Power	Guide Number	f/stop at 10 ft ¹
6.0	Full Power	68	f/22
5.0	1/2 Power	54	f/22
4.0	1/4 Power	43	f/16
3.0	1/8 Power	28	f/11
2.0	1/16 Power	16	f/5.6

¹ Assuming ISO 100 Sensitivity. Guide numbers are shown as a starting point. You should perform your own evaluations to determine the results you prefer.

The Impact VS-LCD Series Studio Flash allows you to set the modeling light power and the flash output independently or together.

To Set the Flash Output Only

Press the MODE button² once. The display will read “Flash Adjust” and a numerical value. Press the up/down arrow buttons to adjust the flash output. When done, press the ENTER button. The new flash power output value will show in the display.

Flash Adjust:
6.0

² Please note: After pressing the MODE button the display will return to the main window if no entry is made within 7 seconds.

Flash & Modeling Lamp Settings (continued)

To Set the Modeling Light Output Only

Press the MODE button twice. The display will read "M/Lamp Adjust" and a numerical value. Press the up/down arrow buttons to adjust the modeling light output. When done, press the ENTER button. The new output value will show in the display.

M/Lamp Adjust:
6.0

To Set the Flash and Modeling Light Output Together

Press the MODE button three times. The display will read "M/Lamp and Flash Output." Press the up/down arrow buttons to adjust the modeling light and flash output. When done, press the ENTER button. The new output value will show in the display.

M/Lamp and Flash
output: **6.0**

Notes:

- 1 After pressing the MODE button the display will return to the main window if no entry is made within 7 seconds.
- 2 The modeling light will turn off when the flash is triggered.
- 3 Your settings are retained even when the flash unit is turned off.

Audible Beep Settings

A beep will sound once when the flash is recycled and ready to flash. You can turn this audible beeper off.

To Set the Audible Beeper Tone

Press the MODE button four times. The display will read "BEEP" and the current setting. Press the up/down arrow buttons to adjust the setting to ON or OFF. When done, press the ENTER button. The musical note will display if the beeper is on, and will not display if the beeper is off.

BEEP: ON


Flash: 6.0  

Voltage: AC 117V

F / Times: 00088 Times

Audible Beep is ON.

BEEP:
OFF

Flash: 6.0 

Voltage: AC 117V

F / Times: 00088 Times

Audible Beep is OFF.

Photo Cell Settings

The VS-LCD features a smart photocell which allows the flash unit to be triggered by another flash or to be triggered by a second or third flash to allow for anti-red eye preflashes.

To Set the Photo Cell

Press the MODE button five times. The display will read "Photo Cell" and the current setting. Press the up/down arrow buttons to adjust the setting to OFF or one of three modes. When done, press the ENTER button. An "eye" with a small number will appear if one of three autoflash settings is on. There will be no "eye" if the photo cell is not active.

Photo Cell "1"

If you have selected "1" in the procedure above, the unit will autoflash immediately when another flash is activated in the same area. The "eye" will show in the display with a small number "1."

Photo Cell "2" and "3"

If you have selected "2" in "To Set the Photo Cell" above, the unit will autoflash on the second flash the photo cell detects and will ignore the anti-red eye flash, also known as the "preflash." If you have selected "3" the unit will autoflash on the third flash detected by the photo cell.



Photocell:

OFF



Setting the photo cell to OFF. No autoflash.

Flash: 6.0  
Voltage: AC 117V
F / Times: 00088Times

Autoflash set for the first flash detected.

Flash: 6.0  
Voltage: AC 117V
F / Times: 00088Times

Autoflash set for the second flash detected.

Flash: 6.0  
Voltage: AC 117V
F / Times: 00088Times

Autoflash set for the third flash detected.

Changing the Flash Tube

Discharge the Flash Unit

The charge in the flash unit must be discharged before removing the flash tube. Make sure the flash unit is on. Push the TEST button on the rear panel of the flash. The unit will flash, discharging the power. Immediately turn off the power switch on the rear panel. Unplug the power cord from the power source. It is advisable to wait at least 30 minutes before touching or removing the flash tube.



Remove Old Flash Tube

First, remove the reflector. Then, using white cotton gloves or a clean cloth, remove the modeling lamp. You will need to remove the retention spring wrapped around the top of the flash tube. With needle-nose pliers, unhook the retention spring loop. Using white cotton gloves or a clean cloth, grip the base of the flash tube on each side. Carefully pull the flash tube from the flash unit.

Install New Flash Tube

Make sure the power switch is off and the power cord is disconnected from the source. Locate the two flash tube pin receptacles above the modeling lamp receptacle. Using white cotton gloves or a clean cloth, push the pins of the flash tube into the receptacles using firm, even pressure at the base of the flash tube. With needle-nose pliers, hook the retention spring over the hook above the flash tube. Re-insert the modeling lamp using white cotton gloves or a clean cloth. Re-install the reflector.

Umbrella Holder



An umbrella with a handle diameter of 8-10mm can be firmly secured in the umbrella holder. The locking screw is located towards the front of the unit. Do not over tighten the screw of the umbrella holder to avoid damaging the shaft of the umbrella.

Specifications

VS-LCD400

Power Output	400W
Guide Number (ft/m) ¹	205/63
Aperture	32
Recycling Time	3-4 seconds
Power Adjustment	1/16th to full power in .10 f/stop increments
Modeling Lamp	150W
Color Temperature	5700 ±200° K
Flash Triggers	Sync cord, photo cell sensor, test button
Trigger Voltage	4.3V DC
Sync Range	up to 40ft (12m)
Working Voltage	110-120V AC
User Replaceable Elements	Modeling lamp, flash tube
Reflector/Softbox Mount	Fits Bowen style
Dimensions (with reflector)	16" × 6" × 11.25" (410 × 155 × 285 mm)
Weight (approx.)	6.17 lb. (2.8 kg)

¹ Assuming ISO 100 Sensitivity. Guide numbers are shown as a starting point.
You should perform your own evaluations to determine the results you prefer.

Error codes for VS-LCD400

In the event that one of the following error codes are displayed in the LCD screen, turn off the unit and return it to the place of purchase for repair or exchange.

E1 means the input power is unstable.

E2 means the unit is overcharged.

E3 means the unit can't be charged.

Safety and Maintenance Notes

Safety Notes

- Do not use your flash in an environment where moisture may come in contact with the unit.
- A fire hazard exists if flammable materials are placed in close proximity to the flash tube or the modeling lamp. Do not use your flash in an environment where flammable vapors are present.
- Do not restrict the ventilation holes when the flash is in use.
- Always switch off the power and disconnect the power cord before changing the fuse, modeling lamp, or flash tube.
- Avoid placing cables where they can be tripped over. Replace damaged cords immediately.
- Never use a flash unit with damaged covers, moldings, flash tube, or modeling lamp. If the unit is dropped or damaged, have it checked by a professional repair service before using.
- Due to the high voltage circuitry inside this device, do not attempt to disassemble or repair the unit yourself.
- Keep out of the reach of children

Maintenance Notes

- Turn the power off and unplug the power cord when the flash is not in use.
- We recommend charging the flash unit for one to two hours prior to its initial use and after an extended period of inactivity (more than two weeks).
- If the unit is left unused for a few months, or the unit has been used predominantly at low power settings, we recommend that the power be increased to the maximum and the unit left switched on (with the modeling lamp OFF) occasionally for at least 30 minutes to help preserve the life of the capacitors.
- Avoid rapid, high-power flashing, especially when using restrictive reflectors such as snoots or grids. Excessive heat will shorten the lifespan of your flash unit, modeling lamp, and flash tube.

One-Year Limited Warranty

This IMPACT product is warranted to the original purchaser to be free from defects in materials and workmanship under normal consumer use for a period of one (1) year from the original purchase date or thirty (30) days after replacement, whichever occurs later. The warranty provider's responsibility with respect to this limited warranty shall be limited solely to repair or replacement, at the provider's discretion, of any product that fails during normal use of this product in its intended manner and in its intended environment. Inoperability of the product or part(s) shall be determined by the warranty provider. If the product has been discontinued, the warranty provider reserves the right to replace it with a model of equivalent quality and function.

This warranty does not cover damage or defect caused by misuse, neglect, accident, alteration, abuse, improper installation or maintenance. EXCEPT AS PROVIDED HEREIN, THE WARRANTY PROVIDER MAKES NEITHER ANY EXPRESS WARRANTIES NOR ANY IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. This warranty provides you with specific legal rights, and you may also have additional rights that vary from state to state.

To obtain warranty coverage, contact the Impact Customer Service Department to obtain a return merchandise authorization ("RMA") number, and return the defective product to Impact along with the RMA number and proof of purchase. Shipment of the defective product is at the purchaser's own risk and expense.

For more information or to arrange service, visit www.impactstudiolighting.com or call Customer Service at 212-594-2353.



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