

COBRA Cure™ FX2

UV LED Curing System



Compact, UV LED Curing System with IntelliSense™ smart sensing technology

The COBRA Cure™ FX2 is an innovative UV LED Curing system, delivering up to 8.4 W/cm² or 17.5 J/cm². Its unique design incorporates the many benefits of a LED curing systems as well as novel features to guarantee a consistent, reliable cure over the lifetime of the system.

LED systems offer vastly improved lifetimes, reduced maintenance costs, significant energy savings, and with no ozone or mercury, offer a safer working environment. In addition, the cold cure offered is ideal for heat sensitive substrates.

The COBRA Cure™ FX2 offers all of the benefits of an LED system and also incorporates a field replaceable window to ensure the system delivers consistent output. This innovative patent pending feature is easy to use, requires no special tools for window replacement, thus minimizing system downtime. In addition the COBRA Cure™ FX2's compact design offers edge to edge illumination without any drop in intensity at the edges. Due to the ability to monitor and drive each LED segment, the COBRA Cure™ FX2 offers excellent intensity control.

Options available include a number of optical configurations, wavelength and multi-wavelength options.

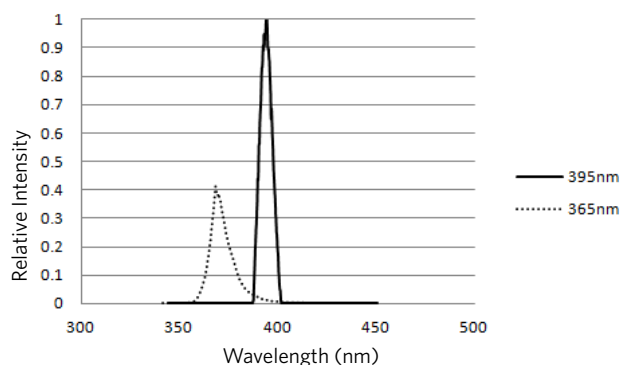
Key Features

- Compact UV LED System
- Delivers intensities of up to 8.4 W/cm² at 2mm
- Provides a dose of up to 17.5 J/cm² at 10 mm/sec.
- Lifetime: 20,000 hours
- Instant on/off and intensity control
- Cold cure – ideal for heat sensitive substrates
- No ozone. No mercury
- Replaceable window for consistent curing results
- 365nm, 385nm, 395nm, 405nm & multi-wavelength/ options available

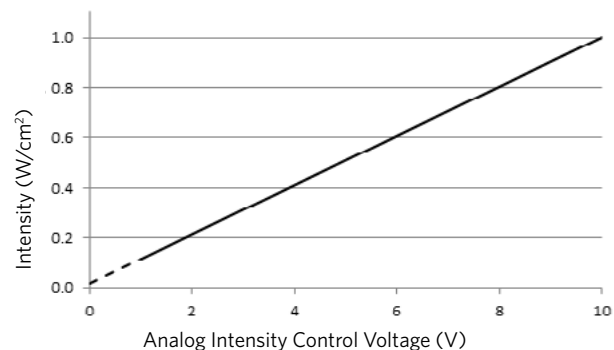
Key Applications

- UV Curing of:
 - Inks
 - Coatings
 - Adhesives
- Pinning of Inks
- 3D Printing

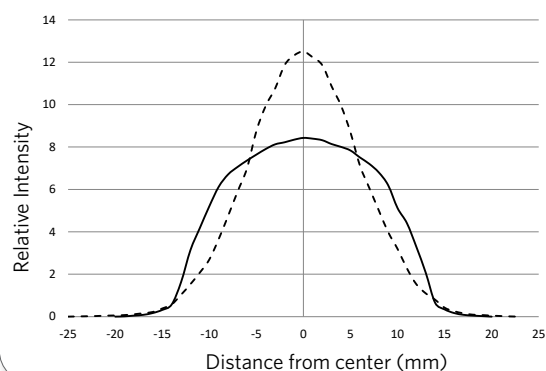
RELATIVE INTENSITY VERSUS WAVELENGTH



INTENSITY RESPONSE TO ANALOG INTENSITY



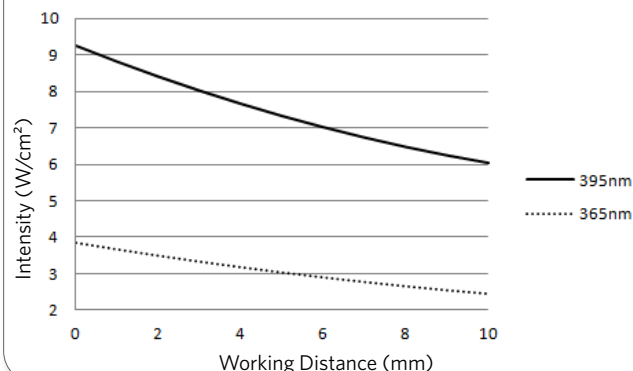
LATERAL & LONGITUDINAL INTENSITY PROFILES



Measured at 0mm.

Linewidth (FWHM) approx. - 20mm

INTENSITY VERSUS WORKING DISTANCE - DIVER-



Measured at 2mm.

Linewidth (FWHM) approx. - 20mm.

Wavelength (nm)	Optical Configuration	Working Distance (mm)	Factory set dose (J/cm²)	Intensity (W/cm²)
395nm	D4	2.0	17.5	8.4
395nm	DW	2.0	18.2	12.5
365nm	D4	2.0	7.0	3.5
365nm	DW	2.0	7.6	5.2

The stated wavelength is the peak wavelength ± 5 nm.

Working distance is the distance from the window to the point at which the intensity and dose is measured. The dose is set at the factory. The dose is measured using a Loctite Radiometer Dosimeter. It is scanned at a speed of 10mm/sec (0.6m/min).

Nominal intensity is the intensity expected at the specified dose level.

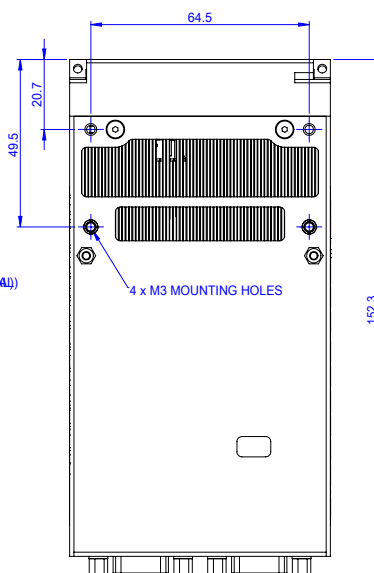
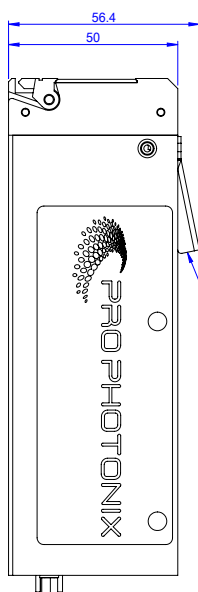
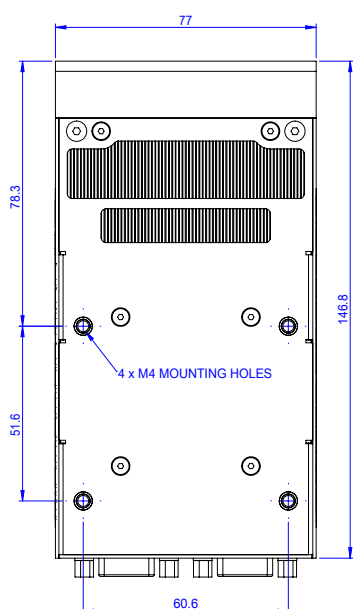
Field Replaceable Window



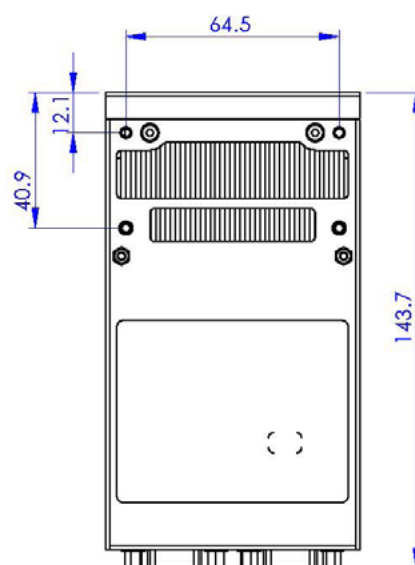
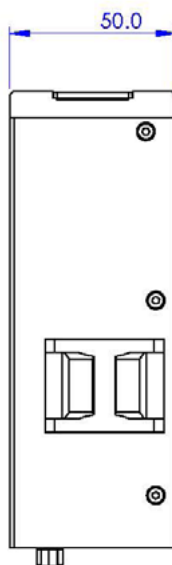
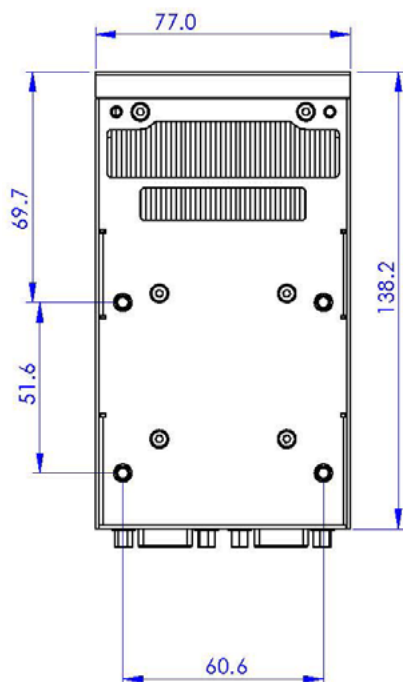
The window retainer can be rotated back to allow removal of the window. There is an alternative opening on the side of the retainer if this side is more desirable.

Dimensional Diagram

COBRA Cure FX2 - D4 Configuration



COBRA Cure FX2 - DW Configuration



Connection Schemes

COBRA Cure™ FX2 lamps can be used in three basic configurations. All configurations allow the user to control the intensity of the modules.

FX2 Connected to Flying Lead Cables

FX2-CAB-F-PD-LL
Flying Lead to Power Connector

FX2-CAB-F-CD-LL
15-way Flying Lead to DB15 Connector



This connection scheme allows the user to configure their own power and control scheme. These cables allow the FX2 module interface to be connected to external power supplies and controllers via flying leads.

The intensity is adjusted by varying the voltage using a 1-10V control signal on the control wire. Activation/Enable is achieved by applying a 16-24V signal on the enable wire. This connection configuration also allows the user to monitor the operating status through the status wire.

Note: 2000mm are the normal stocked lengths for these cables.

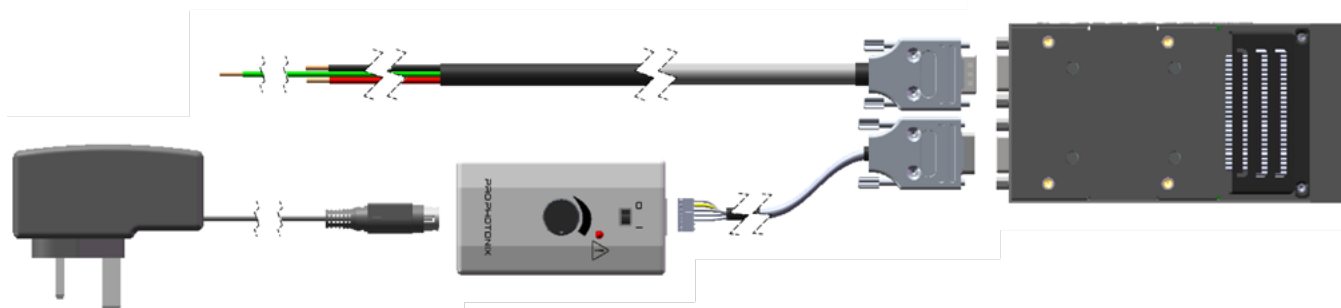
FX2 Connected to Flying Lead Power Cables and Intensity Controller with PSU

FX2-CAB-F-PD-LL
Flying Lead to Power Connector

FX-CTL-A
Intensity Controller

FX2-CAB-A-CD-LL
14-pin to DB15 Connector

PSA-48V-024W
Wall Plug Power Supply

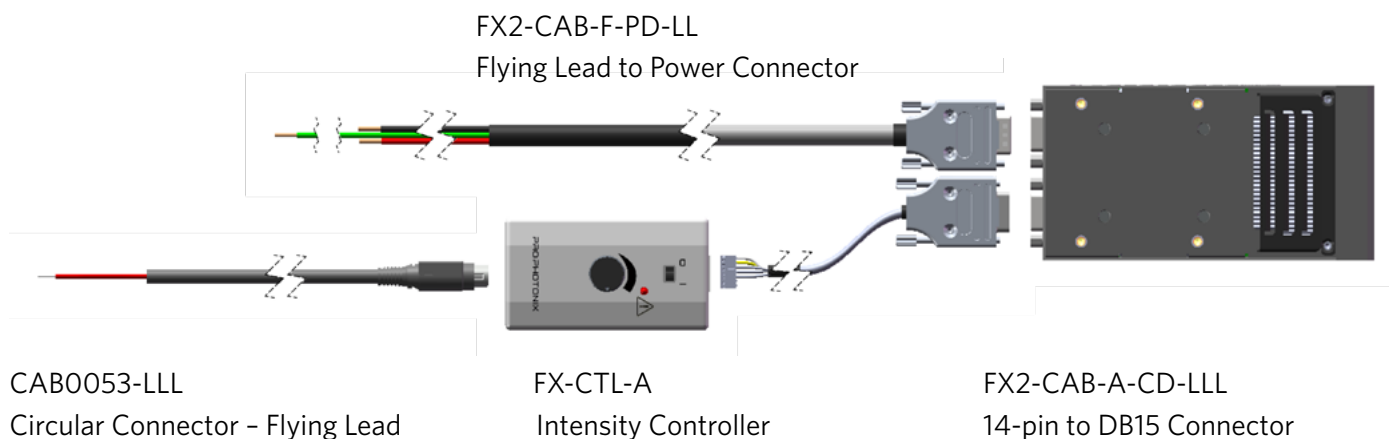


This Connection scheme allows the user to configure their own power scheme while utilizing ProPhotonix' Intensity Controller to control the intensity of the lamp. The Intensity Controller has 2 manual inputs. The slider switch is used to activate/enable the unit and there is a rotary potentiometer to adjust the intensity. The controller also incorporates a LED light that illuminates a fault when detected.

The controller is powered by a wall plug power supply (ProPhotonix Part Number: PSA-48V)

Note: 2000mm are the normal stocked lengths for Flying Lead to Power Connector cables. The Wall Plug Power Supply and 14-pin to DB15 Connector cables are normally stocked in 500mm lengths.

FX2 Connected to Flying Lead Power Cables and Intensity Controller without PSU



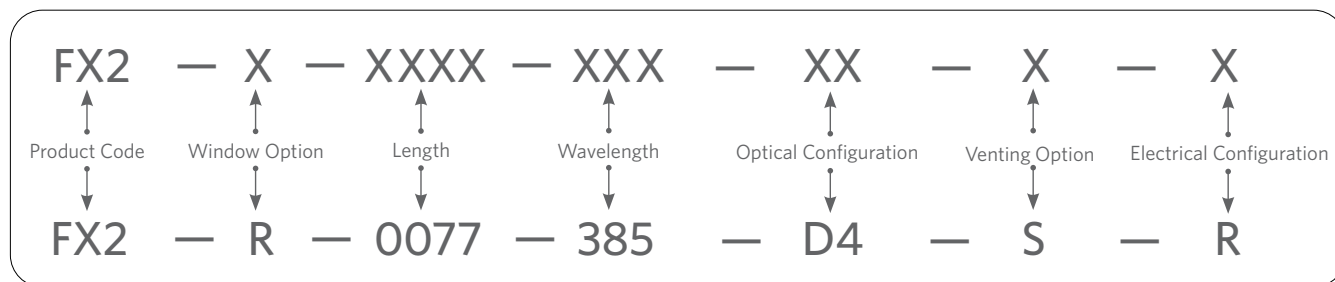
This Connection scheme allows the user to configure their own power scheme while utilizing ProPhotonix' Intensity Controller to control the intensity of the lamp. The Intensity Controller has 2 manual inputs. The slider switch is used to activate/enable the unit and there is a rotary potentiometer to adjust the intensity. The controller also incorporates a LED light that illuminates a fault when detected. The controller is connected to a flying lead cable (ProPhotonix Part Number: CAB0053-LL, where LL is the length of the cable).

Note: 2000mm are the normal stocked lengths for Flying Lead to Power Connector cables. The Circular Connector - Flying Lead and 14-pin to DB15 Connector cables are normally stocked in 500mm lengths.

Part Number

Product Code	Window Option	Length (mm)	Wavelength (nm)	Optical Configuration	Venting Option	Electrical Configuration
FX2	R - Replaceable	0077	405	D4 - Divergent Wide	S-Side Vented	R
	F - Fixed		395	DW - Divergent Wide		
			385			
			365			

To order your COBRA Cure FX2- Use product code (FX2) - Select Window Option (X) -Select Length (XXXX) - Select Wavelength (XXX) - Select Optical configuration (XX) - Select Venting Option (X) - Select Electrical Configuration (X)



* D4 is only available with the replaceable (R) window option

* DW is only available as a fixed (F) window option

Accessories Part Number

Accessories	Part Number
48V Power Supply	PSU-48V-480W-XX
Wall Plug Power Supply	PSA-48V-024W
Intensity Controller	FX-CTL-A
Replaceable Window (pack of 5)	FX2-W-0077
Air Deflector	FX-B-0077
Flying Lead to Power Cable	FX2-CAB-F-PD-LL
14-pin to DB15 Control Cable	FX2-CAB-A-CD-LL
15-way Flying Lead to DB15 Control Cable	FX2-CAB-F-CD-LL
2-way Flying Lead to Circular Power Cable	CAB0053-LL

LL represents length of cable. The standard length is 2m. Example 1: Require 2m cable, the product number is then FX1-CAB-F-A-02.
XX represents Region Code: US, EU, UK.

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