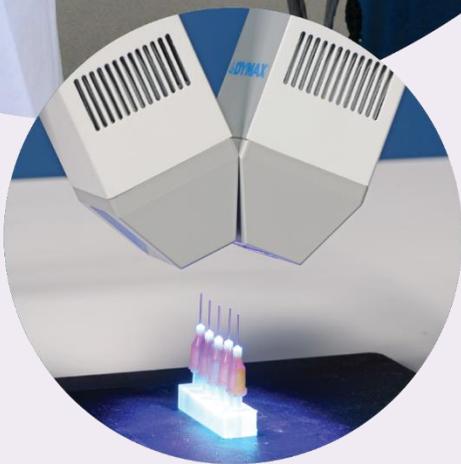


Manual Louvered Shutter

For use with Dymax EC, PC, &
ECE Flood Lamps
User Guide



About Dymax

UV/Visible light-curable adhesives. Systems for light curing, fluid dispensing, and fluid packaging.

Dymax manufactures industrial, light-curable, epoxy, and activator-cured adhesives. We also manufacture a complete line of manual fluid dispensing systems, automatic fluid dispensing systems, and light-curing systems. Light-curing systems include LED light sources, spot, flood, and conveyor systems designed for compatibility and high performance with Dymax adhesives.

Dymax adhesives and light-curing systems optimize the speed of automated assembly, allow for 100% in-line inspection, and increase throughput. System designs enable stand-alone configuration or integration into your existing assembly line.

Please note that most dispensing and curing system applications are unique. Dymax does not warrant the fitness of the product for the intended application. Any warranty applicable to the product, its application, and use is strictly limited to that contained in the Dymax standard Conditions of Sale. Dymax recommends that any intended application be evaluated and tested by the user to ensure that desired performance criteria are satisfied. Dymax is willing to assist users in their performance testing and evaluation by offering equipment trial rental and leasing programs to assist in such testing and evaluations. Data sheets are available for valve controllers or pressure pots upon request.

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Introduction

This guide describes how to assemble, use, and maintain the Dymax Manual Louvered Shutter safely and efficiently.

Intended Audience

Dymax prepared this user guide for experienced process engineers, technicians, and manufacturing personnel. If you are new to UV light curing and do not understand the instructions, contact Dymax Application Engineering to answer your questions before using the equipment.

Where to Get Help

Dymax Customer Support and Application Engineering teams are available in the United States, Monday through Friday, from 8:00 a.m. to 5:30 p.m. Eastern Standard Time. You can also email Dymax at info@dymax.com. Contact information for additional Dymax locations can be found on the back cover of this user guide.

Additional resources are available to ensure a trouble-free experience with our products:

- Detailed product information on www.dymax.com
- Dymax adhesive Product Data Sheets (PDS) on our website
- Material Safety Data Sheets (MSDS) provided with shipments of Dymax adhesives

Safety



WARNING! *If you use a Dymax shutter without first reading and understanding the information in this user guide, injury can result from exposure to high-intensity light. To reduce the risk of injury, read and ensure you understand the information in this user guide before assembling and operating a Dymax shutter in a UV flood lamp system.*

General Safety Considerations

All users of Dymax equipment should read and understand this user guide before assembling and using the equipment.

To learn about the safe handling and use of light-curable formulations, obtain and read the MSDS for each product. Dymax includes an MSDS with each adhesive sold. In addition, fluid product MSDS can be requested through our website.

Specific Safety Considerations

Dymax shutters are designed to maximize operator safety and minimize exposure to UV light. To use the shutter safely, it must be set up and operated in accordance with the instructions in this user guide. Please also read and understand the following safety considerations.



WARNINGS! To prevent eye injury, always wear protective goggles when working near a UV light-curing system.

Long-sleeved shirts or a lab coat are recommended to protect the arms and use of UV opaque gloves will protect the hands from UV exposure.

Product Overview

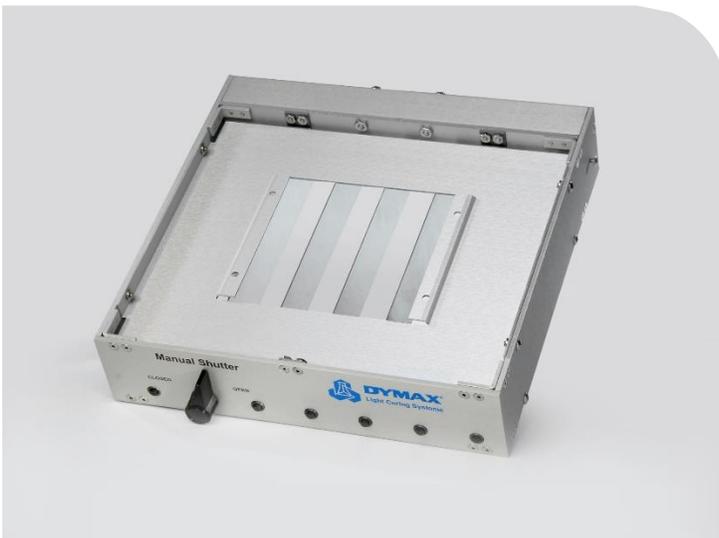
Description of the Dymax Manual Louvered Shutter

The Dymax manual shutter was developed as an auxiliary device to control the dose of curing energy directed onto adhesives in a flood-lamp curing system and reduce operator exposure to UV/Visible light. Made of lightweight brushed aluminum, this shutter has a two-direction hand-turn knob for opening and closing and can be used with the Dymax Light Shield and all Dymax flood curing systems.

Dymax flood lamps are used for a wide variety of applications where a relatively large area of illumination is needed. These applications may be cured using one of two types of systems: the first is with continuous illumination in conveyORIZED curing systems where the dose is defined by the conveyor belt speed. The second type uses a free-standing flood lamp where accurate timing is required. In the second type, the shutter can ensure the proper dose.

Dymax flood lamps use a medium-pressure arc bulb as a source of curing energy. The bulb requires a few minutes to warm up after ignition before it reaches a steady state and needs a few minutes to cool before being able to re-ignite after being turned off. Repeatedly turning the power to the bulb off and on negatively affects its lifetime. With a Dymax shutter installed, the flood lamp may stay on continuously. Objects needing curing may be loaded and unloaded from underneath the shutter when it is closed without exposing parts or operators to UV light.

Figure 1.
Manual Shutter PN 35572



Unpacking and Setup

Unpacking and Inspecting Your Shipment

When your shutter arrives, inspect any boxes for damage and notify the shipper immediately of box damage.

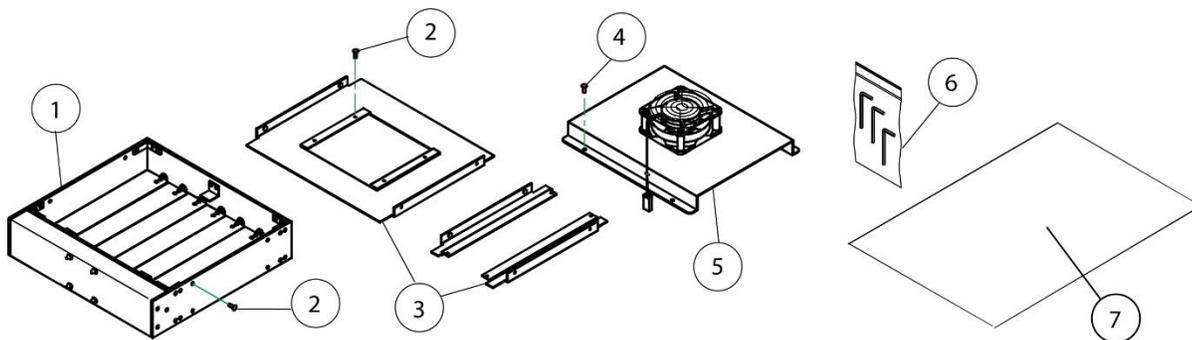
Open each box and check for equipment damage. If parts are damaged, notify the shipper and submit a claim for the damaged parts. Contact Dymax so that new parts can be shipped to you immediately.

Check that the parts included in your order match those listed below. If parts are missing, contact your local Dymax representative or Dymax Customer Support to resolve the problem.

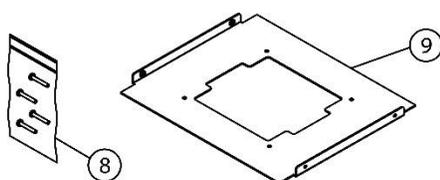
Parts Included in the Manual Louvered Shutter

- Manual Louvered Shutter (1)
- Mounting Plates for Dymax Flood Lamps (3)
- SS Socket Head Screws - 8-32 x 1/4" (Not Shown), 6-32 x 1/4" (4), and 8-32 x 3/8" (2)
- Skirt, Top, Fan, 2000 Assembly (5)
- Tools – Hex Wrenches – 3/32", 1/8", and 5/64" (6)
- Dymax Manual Louvered Shutter User Guide (7)
- ECE System Hardware (ECE Systems Only, 8)
- ECE 5000 Adapter Plate (ECE Systems Only, 9)

Figure 2.
Manual Shutter Unpacking Diagram



Parts Used with ECE Systems Only:



Assembly

EC & PC Series Lamps

NOTE: Setup of the EC- or PC-series flood lamps are covered in the flood lamp user guides. Refer to MAN007 – EC-Series Flood Lamp User Guide or MAN006 – PC-Series Flood Lamp User Guide.

5000-EC/PC Flood Lamp

1. Remove the Adapter Plate from the Manual Shutter by removing the four 8-32 x $\frac{3}{8}$ " screws. (Figure 3)
2. Install the Adapter Plate on the base of the 5000-EC/PC Lamp Reflector Housing by removing the four 8-32 x $\frac{1}{4}$ " screws and attaching the Adapter Plate to the Lamp Housing with four new 8-32 x $\frac{3}{8}$ " screws (Figure 4).

Figure 3.
Remove the Adapter Plate from the Shutter

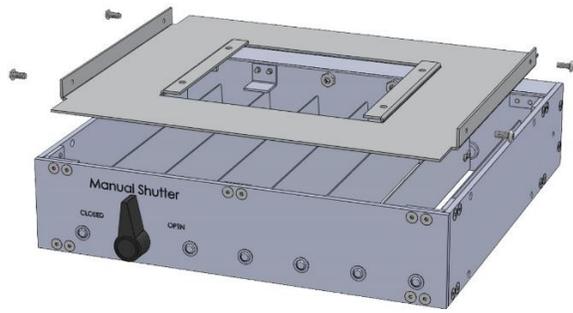


Figure 4.
Flood Lamp with Adapter Plate Installed



3. Install the assembly into the Manual Shutter and attach it with four 8-32 x $\frac{3}{8}$ " screws. (Figure 5)

Figure 5.
Install the Lamp into the Shutter



2000-EC/PC or 1200-EC/PC Flood Lamp

1. Remove the Adapter Plate from the Manual Shutter by removing the four 8-32 x 3/8" screws. (Figure 6)
2. Install the two Mounting Plates on the 2000-EC/PC or 1200-EC/PC Lamp Reflector Housing by removing the four 6-32 x 1/2" screws and attaching the Mounting Plates to the Lamp Reflector Housing by reinstalling the same four screws (Figure 7).

Figure 6.
Remove the Adapter Plate from the Shutter

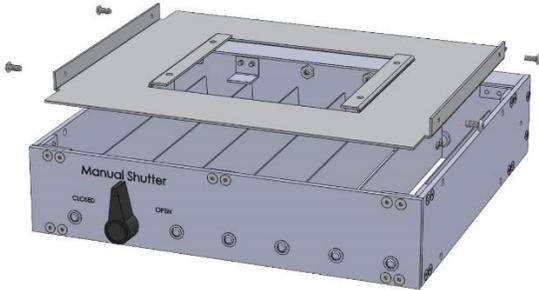


Figure 7.
Attach the Mounting Plates to the Flood Lamp



3. Install the assembly into the Manual Shutter and attach it with four 8-32 x 3/8" screws removed in instruction one (Figure 8).

Figure 8.
Install the Lamp into the Shutter



ECE Series Lamps

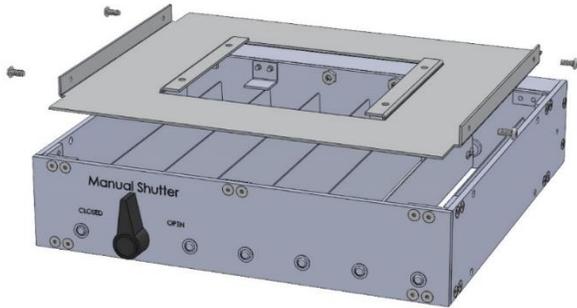
NOTE: To use an ECE flood-lamp system safely, it must be set up and operated in accordance with the instructions given by Dymax. Using the system in any other manner will impair the protection of the system. Dymax assumes no liability for any changes that may impair the protections of the ECE flood-lamp curing system. Setup of the ECE flood lamps is covered in the flood lamp user guide. Refer to MAN044 – ECE Flood Lamp User Guide for detailed instructions. Dymax Application Engineering is also available to assist with any questions you may have.

ECE 5000 Flood Lamp

1. Remove the existing Adapter Plate from the Manual Shutter by removing the four 8-32 x 3/8" screws. (Figure 9)

Figure 9.

Remove the Adapter Plate from the Shutter



2. Install the ECE Adapter Plate (PN 40813) on the base of the ECE 5000 Lamp Reflector Housing with four new M4 x 8 mm screws (Figure 10).
3. Install the assembly into the Manual Shutter and attach it with the four 8-32 x 3/8" screws removed in step 1. (Figure 11)

Figure 10.

Install the Adapter Plate to the Flood Lamp



Figure 11.

Install the Lamp into the Shutter



ECE 2000 Flood Lamp

1. Remove the existing Adapter Plate from the Manual Shutter by removing the four 8-32 x $\frac{3}{8}$ " screws (Figure 12).
2. Remove the four M3 x 12 mm screws that hold the Filler Plate to the Lamp. Remove the Filler Plate (Figure 13).

Figure 12.
Remove the Adapter Plate from the Shutter

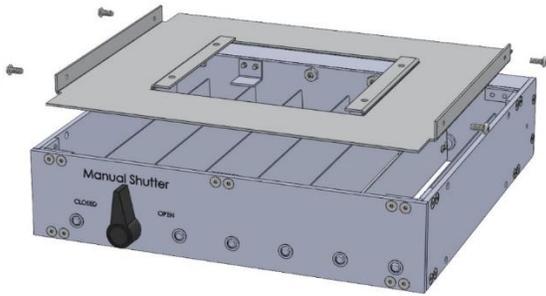


Figure 13.
Remove the Filler Plate from the Lamp



3. Install the two Mounting Plates (Figure 14) on the ECE 2000 Lamp Reflector Housing by installing the four M3 x 16 mm screws and four M3 flat washers.
4. Install the assembly into the Manual Shutter and attach it with four 8-32 x $\frac{3}{8}$ " screws (Figure 15).

Figure 14.
Install the Mounting Plates to the Flood Lamp



Figure 15.
Install the Lamp into the Shutter



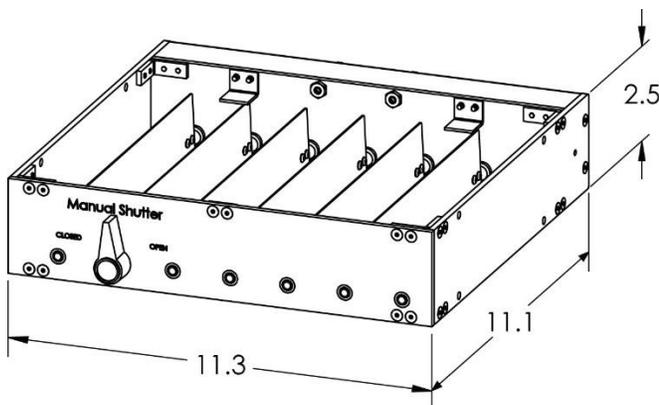
Operation

1. Have the Shutter in the closed position.
2. Open the Access Door to the Light Shield and place the object to be cured on the work surface (preferably in line with the center of the Shutter).
3. Turn the Shutter to the "Open" position.
4. When the required curing time for the application has elapsed, turn the Knob to close the Manual Shutter and end the cycle.

Specifications

Property	Specification
Part Number	35572
Compatible Flood Lamps	Dymax EC Series Flood Lamps Dymax PC Series Flood Lamps Dymax ECE Series Flood Lamps
Dimensions (W x D x H)	11.3" x 11.1" x 2.5" [28.7 cm x 28.2 cm x 6.4 cm]
Weight	3.5 lbs [1.6 kg]

Figure 16.
Manual Shutter Dimensions



Warranty

From date of purchase, Dymax Corporation offers a one-year warranty against defects in material and workmanship on all system components with proof of purchase and purchase date. Unauthorized repair, modification, or improper use of equipment may void your warranty benefits. The use of aftermarket replacement parts not supplied or approved by Dymax Corporation, will void any effective warranties and may result in damage to the equipment.

IMPORTANT NOTE: DYMAX CORPORATION RESERVES THE RIGHT TO INVALIDATE ANY WARRANTIES, EXPRESSED OR IMPLIED, DUE TO ANY REPAIRS PERFORMED OR ATTEMPTED ON DYMAX EQUIPMENT WITHOUT WRITTEN AUTHORIZATION FROM DYMAX. THOSE CORRECTIVE ACTIONS LISTED ABOVE ARE LIMITED TO THIS AUTHORIZATION.



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