

# Using the eView Camera Module

The eView Camera Module is an option available only on the Fusion M2 32. By printing registration marks on your project, the camera system will align your artwork with the cutting and engraving in your project file for the most precise cutting alignment available.

First we'll walk through the special steps to attach your computer to the Fusion M2 when an eView Module is installed, then we will walk through the steps of setting up an eView file and how it works with the system.

## Attaching the Fusion M2 with an eView Camera System to Your Computer

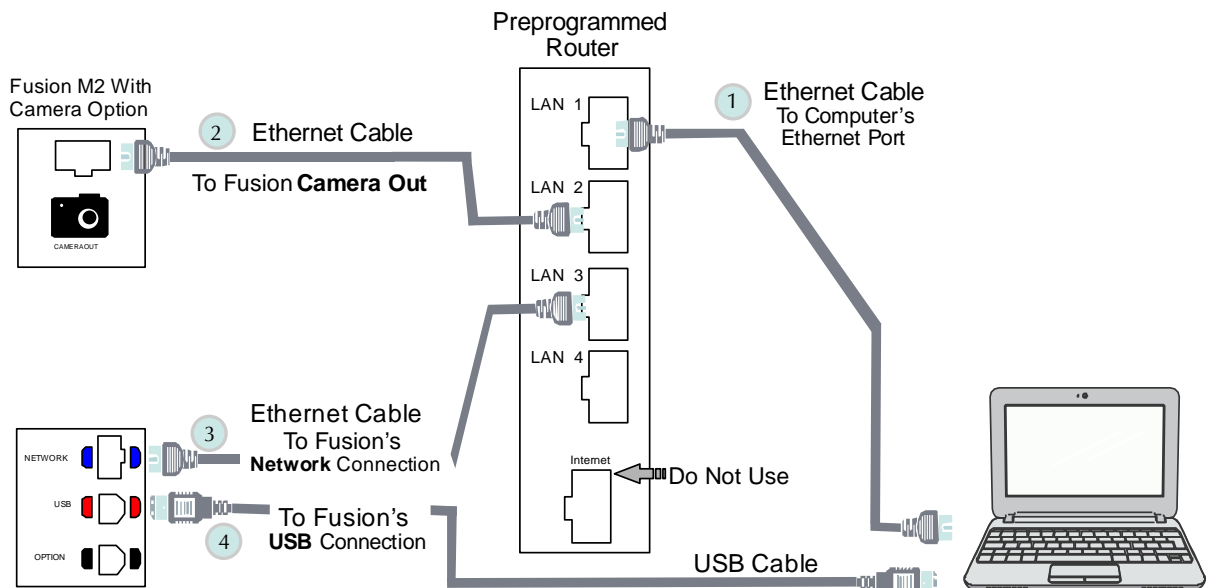
Below are instructions for how to attach you Fusion M2 with eView Camera Module to your computer.

### eView Camera Module Accessories Kit:

- . Preprogrammed Router
- . Three Ethernet Cables
- . One USB Cable

The camera module uses both USB and Ethernet communication that is optimized with an included, preprogrammed Gigabit router to handle the largest amounts of video data at the fastest speeds. Follow the four steps below to connect the laser, the router and the computer. **All four cables must be connected to use the camera system.**

- 1 Attach an Ethernet cable from a LAN port on the router to the Ethernet port on your computer. If you do not have an Ethernet port available, you can use a USB to Ethernet connector.
- 2 Attach an Ethernet cable from a LAN port on the router to the Ethernet port above Camera Out (on the back of the Fusion).
- 3 Attach an Ethernet cable from a LAN port on the router to the Network connection on the back of the Fusion.
- 4 Attach the USB cable from the USB connection on the back of the Fusion to a USB connection on your computer.



# Setting up your Fusion M2 and computer to work with the router

Below are instructions on how to set up your computer, router and Fusion M2 to talk to each other.

These instructions describe how to connect a dedicated computer to the Fusion laser system. These instructions assume that your computer has a dedicated network card for the Fusion system. Any configuration other than a dedicated computer requires input from your IT professional.

## 1) Install the Epilog Print Driver/Dashboard:

You will need to install the Epilog Print Driver before you can set up your Job Manager. Print Driver installation instructions are located in the Manual.

## 2) Install the Epilog Job Manager:

After installation you will find the Job Manager icon on your desktop. Click to open. You will set up your Job Manager to talk to your new Fusion.

When opening the Job Manager for the very first time you will only see the Laser Systems tab until you set up your first machine.

To set up your Fusion, click on the Fusion M2 icon. When highlighted, the border around the icon will display a blue highlight.



Fill in the top three lines:

Machine Name:

Printer Name:

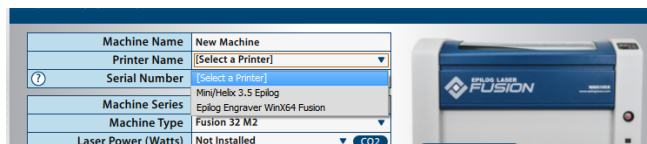
Serial Number:

We have used the following:

Machine Name:	My New Fusion
Printer Name:* (See Note Below)	Epilog Engraver Win X64 Fusion
Serial Number:* (See Note Below)	0012 )



Printer Name: There is a drop down menu that is used to select the appropriate driver. The Driver you select MUST match the IP Address in the Fusion and it must be the Fusion driver you set up when you loaded the Print Driver. If you only have one Epilog laser system this will not be a problem. If you have more than one Epilog laser connected to your computer you will need to make sure the correct driver for the Fusion is being used.



The Serial Number in the Job Manager MUST match the Serial # in the Config menu. Press the Config key on the Fusion keypad. Tilt the Joystick down repeatedly until you come to Serial #.

This serial number is used only for the Job Manager. There is another Serial Number engraved onto the ID tag on the back of your Fusion.



Make the appropriate selections for:

Machine Series:

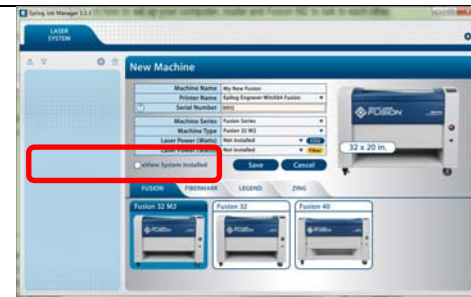
Machine Type:

Laser Power (CO2):

Laser Power (Fiber):

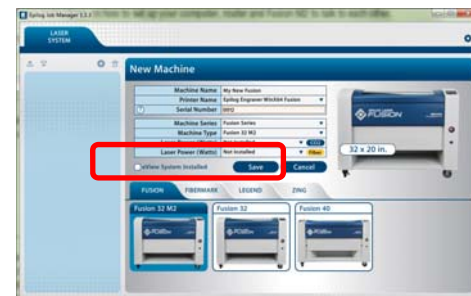


Lastly, and most importantly, select eView System Installed if your Fusion has an eView camera installed.

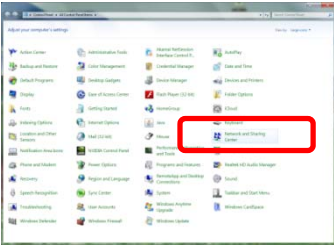
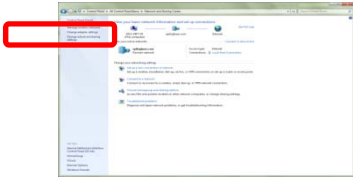
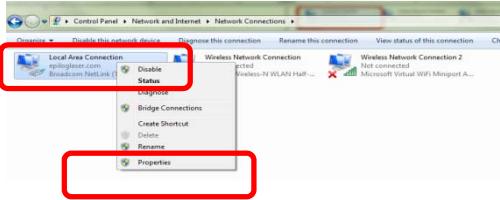
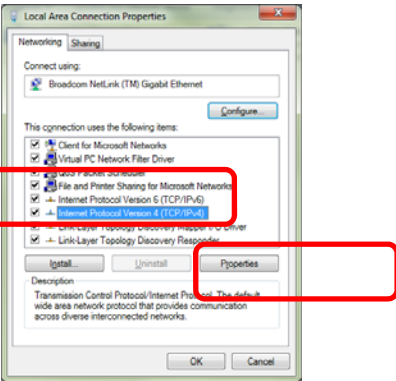
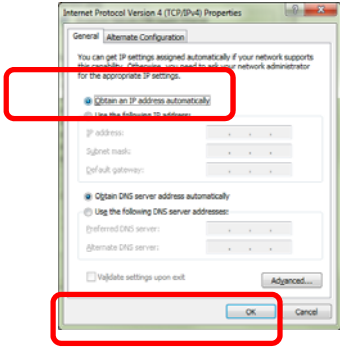


Click on Save.

Your Fusion is now set up and your Job Manager is ready to use.



### 3) Set up your computer to talk to the router:

<p>From your computer go to the Control Panel</p>	
<p>Select - Network and Sharing Center</p>	
<p>Select – Change adapter settings</p>	
<p>Right click on Local Area Connection and then Click on Properties</p>	
<p>Select Internet Protocol Version 4 (TCP/IP4) and then click Properties.</p>	
<p>Select Obtain IP address automatically. Click OK and close out the Network and Sharing windows and close your Control Panel.  Your computer is now set up to talk to the router.  You're ready to start using the eView Camera Module with your laser system.</p>	

## Setting Up the Print File

Start by printing your artwork on acrylic, paper, cardstock, fabric, etc. On the printed artwork, include two registration marks that will allow the camera system to detect where on the laser bed your piece is located.

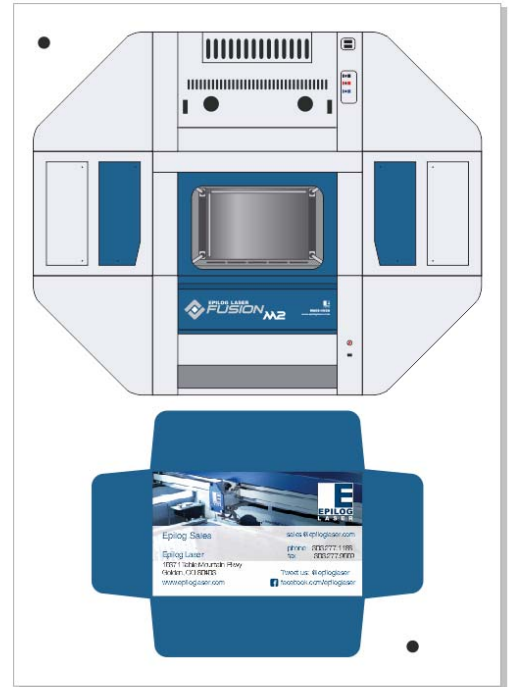
Each registration mark should be a 1/4" (6.35 mm) black, filled circle. Larger circles can be used, but .25" is the default.

The registration marks are vital to your printed artwork and provide a common point of reference between your graphic file, your printed material and the location of your printed material on your laser bed.

There are no hard and fast rules governing where the registration marks should be placed. It is preferable if they are placed on opposite sides of the graphic image.

When creating your artwork for printing you should overprint the outside edges of your artwork by approximately .060" (1.5 mm). The overprint area provides extra space to accommodate the cutting width of the laser beam.

The image to the right shows the file used for printing.



## Setting Up the File for Vector Cutting

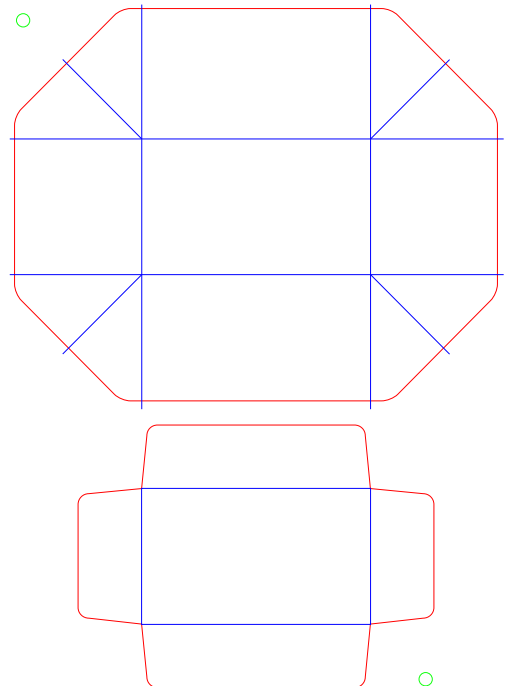
Once we have our print file (above) we need to add outlines to the registration marks and add vector cutting lines over the print file. Do not print the vector outlines. The vector outlines are for cutting only.

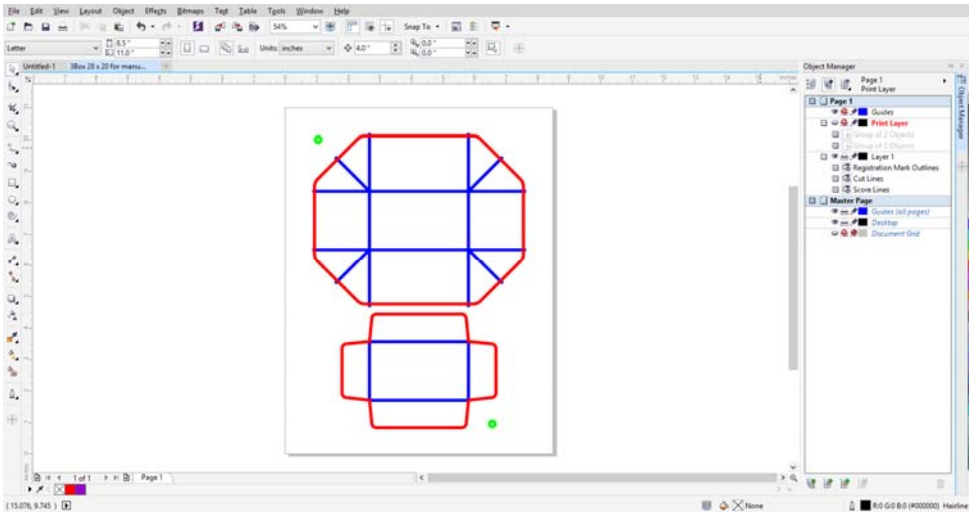
**All registration outlines and vector cut lines must use RGB values.**

First, select each of the registration marks and give them an outline color that will match one of the six basic colors available in the Color Mapping section of the driver (red, green, blue, cyan, yellow, magenta). In this example we used the color green. For more information on the colors available, see “**Color Mapping**” in the manual. Make sure you do not print these cutting lines on your printed item. These lines are only used for with the laser!

Create your vector lines and give them a separate color to be color mapped. In this example we used red for our cut lines and blue for our score lines. If you have different lines you would like to cut with different speeds and/or powers, give each of the lines a different color.

By placing your vector lines and printed items on different layers, you can quickly turn off the printed layer in the Object Manager so you can more easily print only the vector lines to the laser.





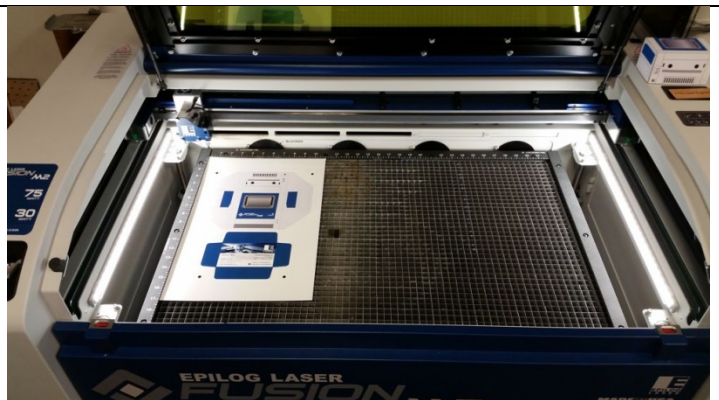
1. When you have your vector file prepared, choose **File > Print**. Go to **Preferences** and set your laser parameters, making sure that **Send to Manager** is checked.
2. For eView Camera jobs you must use Color Mapping. In the Color Mapping Tab, set your laser parameters for your cut lines. For instructions on setting Color Mapping settings, see “**Color Mapping**” on **page 91** in your manual.
3. You do not need to change the settings for the color you have assigned to the registration marks (green in this example) because they will not be processed as vectors. They are used only to identify which circles are registration marks.
4. Click OK to close the Preferences window and OK again to send the job to the Job Manager.

## Setting Up the Job in the Epilog Job Manager

Place your item to be cut on the laser’s table.

**Make sure to leave the door to the laser open.**

This allows the door cameras to show the table preview.



Open the Epilog Job Manager.

In the **Jobs Tab**, double click on the job you just printed to Open the Job Information window.

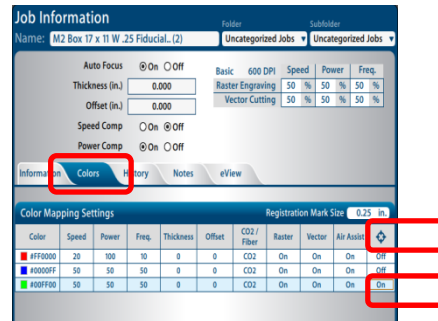


## Designate the Registration Mark Color:

Click the **Colors Tab**.

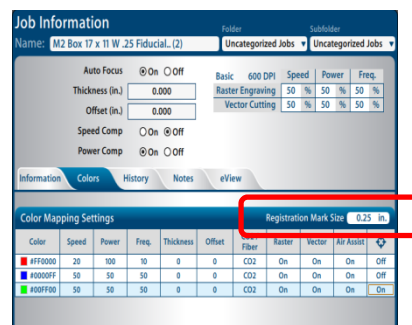
Find the color that represents the registration marks (green in this case). In the field at the far right (with a registration mark icon) click on the word **OFF** to toggle it to **ON**.

As soon as you click the Registration mark to **ON** the carriage will move as far back and to the left as it can go. This indicates that the Fusion is ready for the next step.

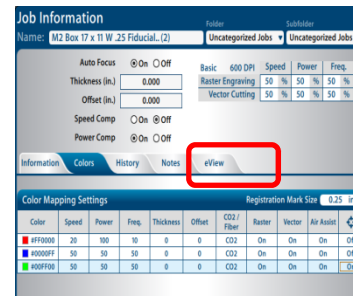


**Set Registration Mark Size:** After selecting the registration mark color, a field will appear allowing you to set the registration mark size. The default is .25" (6 mm), like we used in the file setup.

If you used a different size circle in your artwork setup you can designate that size here.



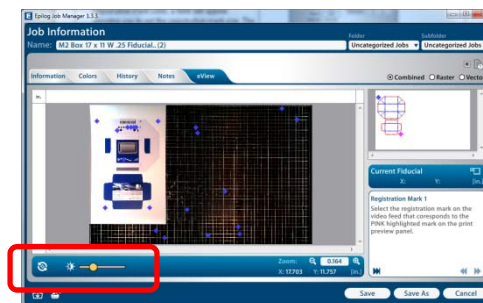
Click the **eView tab**.



The eView screen shows the video feed of the artwork on the laser bed.

The blue diamonds on the video feed have been identified as registration marks by the system.

You can adjust the brightness of the display to better see the table and registration marks by clicking on the **Refresh** button or sliding the **Brightness Bar** left or right.

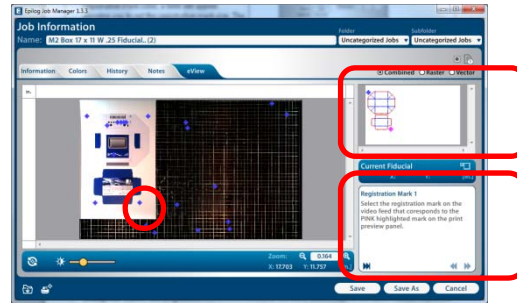


## Designate Registration Mark 1

In the upper right corner of the eView window you will see the Preview Window showing a line representation of the file. One of the registration marks is highlighted in pink.

Move your mouse to the corresponding registration mark in the video feed and click on the blue diamond icon that is on top of the registration mark in your artwork.

Clicking on the blue icon designates it as our first registration mark.



After clicking on the blue icon in the video feed it will turn pink.

Click on the **Proceed** button (double arrow shape) in the lower right corner.

The registration icons in the Preview Window and the corresponding video feed will turn green. This means the system has successfully identified the first registration mark.



## Designate Registration Mark 2

After clicking on **Proceed**, the other icon in the line representation will turn pink.

Move your mouse to the second corresponding registration mark on the video feed and click on the blue icon. It will turn pink.

Click on the **Proceed** button again in the lower right corner.

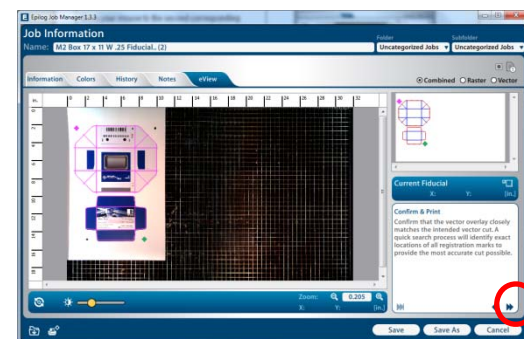


After clicking on the second registration mark the video feed will show an overlay of vector lines to be cut.

Insure the lines are in the correct location and orientation. If they are, you are ready to print to the Fusion.

**Confirm and Print** using the **Proceed** button in the lower right corner.

The job will now print to the Fusion.



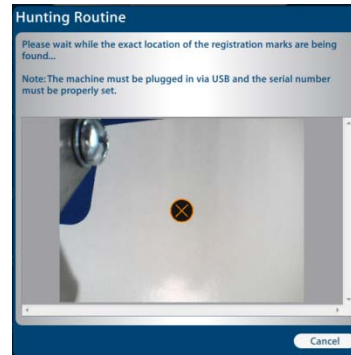


### Hunting Routine:

The laser carriage will start moving to find the first registration mark and precisely locate its exact location on the laser bed. The same process is followed to find and precisely locate the second mark.

After locating the second mark, the carriage will stop moving while it is directly over the second mark.

At this point, the vector files is transferred to the Fusion and the Fusion is ready to start cutting.



### Close the lid of the laser.

Click the **Go** button on the keypad to start the job.

The laser will then move away from where it stopped over the second registration mark and start the job.

