

## Instruction Manual and Data Sheet

### Papilio's Mark II Water-Slide Decal Sheets

For use with product numbers: *IASMK28511; WIASMK28511; IASMK21117; WIASMK21117*

**CAUTION! ATTENTION!**

**THESE WATER-SLIDE DECAL SHEETS ARE INTENDED FOR USE STRICTLY IN INKJET PRINTERS. DO NOT ATTEMPT TO PRINT ON THIS MEDIA USING A LASER PRINTER, YOU MAY CAUSE SEVERE AND PERMANENT DAMAGE TO LASER FUSING UNIT!**

**DISCLAIMER:**

**HEMMI PAPILIO SUPPLIES (HPS LLC) IS NOT RESPONSIBLE FOR PRINTER DAMAGE OR OTHER LIABILITIES AND ASSETS CAUSED BY THE USE OR MISUSE OF OUR MEDIA. ALWAYS READ AND FOLLOW INSTRUCTIONS THOROUGHLY FOR BEST RESULTS.**

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### About HPS LLC:

Hemmi Papilio Supplies, a North Texas based company, has been manufacturing high-quality specialty printer media for over 15 years. As a company, the focus of each and every employee is to provide our customers with the best service and products available, at fair and affordable prices. As a brand name, Papilio has established its reputation as the leading manufacturer of quality inkjet and laser specialty media and continues to push the envelope to develop innovative new products that live up to the quality standards we are known for.

### Warranty / Exchange / Refund Information:

HPS LLC may only be held liable for the return or exchange of products considered to be defective. Defective products may be exchanged for products of the same make and model number within (30) days of purchase. Returned items may be subject to refund if a replacement product is not available or no longer in production. Returns may only be accepted after contacting a customer service representative.

### Safety Information:

These papers contain no lead or lead byproducts and are coated and treated with non-hazardous chemicals. Neither paper nor chemical components should be consumed. When using chemical aerosols or liquids, ensure the area is properly ventilated. Keep chemicals out of reach of children.

**Tolerances:** Store media at room temperature and out of contact with water. Water and severe heat may damage the media. Not intended for long-term/extended storage.

# Papilio Mark II Water-Slide Decal Sheets

## Introduction:

Papilio's Mark II Water-Slide paper is designed for applications where the user requires a decal, but doesn't want the "sticker" look. This media is a very thin, gelatin based film that appears almost as if it had been painted on when applied to a capable substrate.

This media is ideal for applications where looking like a "sticker" is out of the question, or when thickness may be an issue. This media is directly printable by most dye or pigment based inkjets and comes in either white based paper, or clear.

As inkjet inks by nature are water soluble, when a printed inkjet image comes in contact with water it simply washes away. To prevent this from occurring – as water is a critical ingredient to the application of water-slide decals – the printed sheets and images must be water sealed using either Papilio Decal Fixative, or the aerosol version, Papilio Decal Fixative Spray. These products, when applied to the printed images provide a barrier of protection from water, effectively denying the water access to the inks themselves. Fixative should be generously applied to the image to ensure water is not afforded access.

## Required Components:

- **Dye/Pigment based inkjet printer**
- **Papilio Clear / White Water-Slide Decal paper**
- **Decal Fixative** (*aerosol or brush-on liquid*)
- **Scissors / X-Acto knife**
- **Hot water**
- **Papilio Ink Freeze – Pigment Drying Agent** (*for Epson Claria inks*)

### NOTICE:

*Extra steps and components may be required if printing decals using Epson's Claria ink. These procedures are documented in this manual on page xx.*

To determine whether your printer uses strictly dye, or pigment based inks, consult your printer documentation.

## Accepted Ink Types:

Papilio's Mark II Water-Slide decal paper is designed to accept OEM dye or pigment based inks from nearly all major desktop inkjet manufacturers. This includes but is not limited to: HP dye based, or HP Vivera; Canon dye and Pigment; Epson dye based and Claria; and many other brands including Lexmark, Kodak and Samsung. Please note that the use of non-OEM inks, including "Continuous Ink Systems" or "Refillable Cartridges" is not recommended and may not function properly with our media.

Laser printers must never be used on inkjet water-slide decal paper. The high operating and fusing temperatures of laser printers may cause the media to melt and bond to the fusing unit. This may permanently destroy your printer. HPS LLC cannot guarantee the full functionality of our media when used by any make or model of printer. It is critical to test this media for both hardware and application compatibility. It is important to note that only those papers deemed defective may be replaced or exchanged and this does not include any media incompatible with end-user hardware. **TESTING IS CRITICAL.**

## Basic Installation Instructions: Dye Based Printers

These instructions should be followed if you are using a dye based inkjet printer. Pigment inks, especially those from Epson's Claria line will require different steps to complete the process. For a list of required components, prior to beginning installation procedures, see page 2 of this document under "Required Components."

1. Begin by first loading a water-slide sheet, glossy side down, into your printer. The matte side of the media is designed to serve only as the liner for the decal film and is not to be printed upon.
2. Next, select the image you would like to print and select the "Print" option.
3. In your Printing settings, select the "Glossy Photo Paper" paper type and set the Print Quality to high, or best.
4. Print the image, 1 copy at a time. Do not attempt to load multiple units and begin mass-printing. Sheets must be individually hand-fed for best results.
5. Once printed, set the image aside and allow 15 minutes to dry.
6. Once dry, apply a generous coat of Papilio's Decal Fixative, either brush-on or aerosol to the printed image, ensuring the inks are entirely blanked by the chemical.
7. Allow the Decal Fixative to dry for approximately 20 minutes.
8. Once time has elapsed, apply another coat of Decal Fixative, to ensure the image is treated properly and the inks are completely sealed.
9. Allow the second coating of Decal Fixative to dry for approximately 30 minutes.
10. After time has elapsed, use a finger to test the sheet, looking for any areas where the paper is still tacky. If the paper appears wet, continue to let it dry, checking again in 5 minute increments.
11. Use an X-acto knife or scissors to cut around the printed image as closely as possible. Discard excess material, it may not be printed on again.
12. Once cut-out, set the sealed image aside and fill a bowl with warm to hot water, there should be enough room in the bowl to allow the decal to be completely submerged.
13. Place the decal into the water and ensure it is completely submerged.
14. Wait approximately 20 seconds, or when the decal begins to curl and fall off of the liner and remove it from the bowl.
15. Lay the decal and liner on the target area.
16. Carefully slide the decal onto the target surface. It is easiest to "pin" the decal to the surface and carefully slide the liner out and away from the decal.
17. Once in place, allow the decal to try and fully adhere to the substrate – generally 30 minutes.

For best results, begin with a high resolution image. Typically, 300DPI is suitable. This will ensure your image is as crisp, sharp and clear as possible. For tips and tricks to make installation easier and more efficient, please see page xx of this document.

### **CAUTION! ATTENTION!**

*Once an image has been cut from a decal sheet, it may not be run through the printer again. This may cause damage to your printer as surface area that may be used by the roller mechanism in your printer has been removed. Jamming may occur as a result and may cause permanent damage to your printer or roller mechanism. If cut straight, sheets may be halved and fed through the printer. Sheet sizes smaller than 5.5" x 8.5" are not recommended. It is essential that any cuts made in this fashion are perfectly straight, so as not to cause the media to jam or become lodged in the printer.*

## Papilio Mark II Water-Slide Decal Sheets

### Basic Installation Instructions: Hewlett Packard Vivera Based Printers

These instructions should be followed if you are using a Hewlett Packard, Vivera ink based printer. For a list of required components, prior to beginning installation procedures, see page 2 of this document under "Required Components."

1. Begin by first loading a water-slide sheet, glossy side down, into your printer. The matte side of the media is designed to serve only as the liner for the decal film and is not to be printed upon.
2. Next, select the image you would like to print and select the "Print" option.
3. In your Printing settings, select the "Glossy Photo Paper" paper type and set the Print Quality to high, or best.
4. Print the image, 1 copy at a time. Do not attempt to load multiple units and begin mass-printing. Sheets must be individually hand-fed for best results.
5. Once printed, set the image aside and allow 45 minutes to dry.
6. Once dry, apply a generous coat of Papilio's Decal Fixative, either brush-on or aerosol to the printed image, ensuring the inks are entirely blanked by the chemical.
7. Allow the Decal Fixative to dry for approximately 20 minutes.
8. Once time has elapsed, apply another coat of Decal Fixative, to ensure the image is treated properly and the inks are completely sealed.
9. Allow the second coating of Decal Fixative to dry for approximately 30 minutes.
10. After time has elapsed, use a finger to test the sheet, looking for any areas where the paper is still tacky. If the paper appears wet, continue to let it dry, checking again in 5 minute increments.
11. Use an X-acto knife or scissors to cut around the printed image as closely as possible. Discard excess material, it may not be printed on again.
12. Once cut-out, set the sealed image aside and fill a bowl with warm to hot water, there should be enough room in the bowl to allow the decal to be completely submerged.
13. Place the decal into the water and ensure it is completely submerged.
14. Wait approximately 20 seconds, or when the decal begins to curl and fall off of the liner and remove it from the bowl.
15. Lay the decal and liner on the target area.
16. Carefully slide the decal onto the target surface. It is easiest to "pin" the decal to the surface and carefully slide the liner out and away from the decal.
17. Once in place, allow the decal to try and fully adhere to the substrate – generally 30 minutes.

For best results, begin with a high resolution image. Typically, 300DPI is suitable. This will ensure your image is as crisp, sharp and clear as possible. For tips and tricks to make installation easier and more efficient, please see page xx of this document.

#### **CAUTION! ATTENTION!**

*Once an image has been cut from a decal sheet, it may not be run through the printer again. This may cause damage to your printer as surface area that may be used by the roller mechanism in your printer has been removed. Jamming may occur as a result and may cause permanent damage to your printer or roller mechanism. If cut straight, sheets may be halved and fed through the printer. Sheet sizes smaller than 5.5" x 8.5" are not recommended. It is essential that any cuts made in this fashion are perfectly straight, so as not to cause the media to jam or become lodged in the printer.*

## Papilio Mark II Water-Slide Decal Sheets

### Basic Installation Instructions: Epson Claria Based Printers

These instructions should be followed if you are using an Epson, Claria / Durabrite ink based printer. For a list of required components, prior to beginning installation procedures, see page 2 of this document under "Required Components."

1. Begin by first loading a water-slide sheet, glossy side down, into your printer. The matte side of the media is designed to serve only as the liner for the decal film and is not to be printed upon.
2. Next, select the image you would like to print and select the "Print" option.
3. In your Printing settings, select the "Glossy Photo Paper" paper type and set the Print Quality to high, or best.
4. Print the image, 1 copy at a time. Do not attempt to load multiple units and begin mass-printing. Sheets must be individually hand-fed for best results.
5. Once printed, allow the image to dry for approximately 1 minute.
6. After drying for 1 minute, generously apply a layer of Papilio's Ink Freeze pigment drying component to the printed areas of the image.
7. Once the image is completely covered in a layer of Ink Freeze powder, wait approximately 30 seconds and then use a foam applicator to gently wipe the powder from the image.
8. Powder wiped from the printed image may be reused.
9. Ensure all powder has been removed from the printed image and allow to dry for approximately 10 minutes.
10. Test a discrete area of the printed image with a toothpick, or finger tip, confirming the ink does not smear when touched.
11. In the event the image is still wet to the touch, apply another layer of Papilio's Ink Freeze material and repeat steps 7-10.
12. Once the ink has dried, apply a thin coating of Papilio's Decal Fixative and allow to dry for approximately 20 minutes.
13. After time has elapsed, apply another coat of Decal Fixative, to ensure the image is treated properly and the inks are completely sealed.
14. Allow the second coating of Decal Fixative to dry for approximately 30 minutes.
15. After time has elapsed, use a finger to test the sheet, looking for any areas where the paper is still tacky. If the paper appears wet, continue to let it dry, checking again in 5 minute increments.
16. Use an X-acto knife or scissors to cut around the printed image as closely as possible. Discard excess material, it may not be printed on again.
17. Once cut-out, set the sealed image aside and fill a bowl with warm to hot water, there should be enough room in the bowl to allow the decal to be completely submerged.
18. Place the decal into the water and ensure it is completely submerged.
19. Wait approximately 20 seconds, or when the decal begins to curl and fall off of the liner and remove it from the bowl.
20. Lay the decal and liner on the target area.
21. Carefully slide the decal onto the target surface. It is easiest to "pin" the decal to the surface and carefully slide the liner out and away from the decal.
22. Once in place, allow the decal to try and fully adhere to the substrate – generally 30 minutes.

For best results, begin with a high resolution image. Typically, 300DPI is suitable. This will ensure your image is as crisp, sharp and clear as possible. For tips and tricks to make installation easier and more efficient, please see page xx of this document.

## Papilio Mark II Water-Slide Decal Sheets

### **CAUTION! ATTENTION!**

*Once an image has been cut from a decal sheet, it may not be run through the printer again. This may cause damage to your printer as surface area that may be used by the roller mechanism in your printer has been removed. Jamming may occur as a result and may cause permanent damage to your printer or roller mechanism. If cut straight, sheets may be halved and fed through the printer. Sheet sizes smaller than 5.5" x 8.5" are not recommended. It is essential that any cuts made in this fashion are perfectly straight, so as not to cause the media to jam or become lodged in the printer.*

### **Papilio Ink Freeze Pigment Drying Agent**

It is crucial Papilio's Ink Freeze pigment drying agent be used on images printed with Epson Claria or Durabrite inks. Without the application of this material, the ink from these printers will not naturally dry on the Mark II Water-slide media. Unassisted, the inks will remain wet to the touch even days after application. Immediate application after printing is required, as inks not treated may begin to "bubble" or "bead up" on the page, causing image discoloration and distortion.

Papilio's Ink Freeze pigment drying agent acts as a sponge, absorbing excess ink and chemicals to allow the image to set and dry properly. After preliminary use, Ink Freeze may be recycled and used again. When the powder material appears to have lost all of its natural white color, it should no longer be used and discarded.

### **CAUTION! ATTENTION!**

*Papilio's Ink Freeze Pigment Drying Agent is not for consumption and should be stored out of reach of children in a cool, dry place.*

### **Optional Components:**

To stream-line the application of Papilio's Mark II Water-Slide decals, the following tools may be employed. Please note these items are not required to achieve the full functionality of the media, they are simply for ease of use.

**Papilio Rubber Decal Squeegee** – allows the user to maneuver and manipulate the decal during application process. Great for removing air bubbles.

**Papilio Decal Mounting Fluid** – when applied to target area, prior to applying the decal itself, this fluid will act as a lubricant making moving the decal around much easier and reducing the risk of tearing in larger decals.

**Papilio Foam Application Sponge** – ideal for applying liquid Decal Fixative or Decal Mounting Fluid to target areas. May also be used to apply and remove Ink Freeze drying agent powder.

**Tweezers / Plastic Tongs** – tweezers or plastic tongs may be used to retrieve decals after being submerged in water.

## Papilio Mark II Water-Slide Decal Sheets

### Tips and Tricks:

These tips and tricks have been compiled to improve both design and application efficiency. These tips and tricks may also provide answers to questions you may have regarding how to best use water-slides for your application.

- **Air Bubbles** – The larger the decal, the more risk you will encounter air bubbles upon application. To eliminate air bubbles, begin by first applying a layer of Papilio's Decal Mounting Fluid to the substrate and after applying the decal, use Papilio's Rubber Decal Squeegee to gently rub the air bubbles to the sides of the decal, allowing the air to escape. Starting from the middle of the decal, push the air out in all four directions, top, then bottom, then side to side, a half inch to inch at a time. Using all 4 directions, rather than just one helps keep the decal secure in the place where you originally placed it.
- **Moving and Placing** – To move and place the decal, apply a layer of Papilio's Decal Mounting Fluid before placing the decal on the surface. This fluid acts as a lubricant and can make manipulating the decal easier. Once the decal is on the surface, begin by moving the outer edges of the decal and then working inward to the center, gently pulling it to correct placement. Sliding the entire decal at once may be difficult, particularly with large decals. Moving in small increments from the outside in also reduces risk of air bubbles.
- **Clear Coating** – Many varieties of clear coat may be employed to finish the decal, including aerosol clear coats, such as Papilio's UV Laminate Spray, or epoxies for thicker coats. For the most part, epoxies should not damage a properly sealed decal, but it is important to test a small area prior to complete application. Applying layers of clear coat may make the decal suitable for outdoor use and add to the overall durability of the decal – particularly abrasion and water resistance.
- **Sharper Images** – Sharper printed images begin with sharper images on your computer. Begin with an image that is at least 300 Dots Per Inch (DPI) to ensure the best quality.
- **Removal** – In the event a water-slide decal must be removed, rubbing with a wet sponge should cause the decal to flake off and remove any residue left behind. Citric acid removers, such as Goo Gone, or even cut lemons may help improve this process.
- **Color Vibrancy** - On darker substrates, we recommend the use of white backed paper. Clear decal paper may allow the color of the substrate to subdue the original colors of the image. White paper cancels this effect and boosts vibrancy.

## Frequently Asked Questions / Troubleshooting

### **My ink won't dry on the sheets?**

This issue may occur when using pigment inks, particularly those from the Epson brand printers. To counteract this effect, try using Papilio's Ink Freeze pigment drying agent. This powder is designed to soak up the chemicals within these inks and allow the image to cure properly. For application instructions using the Ink Freeze material, please see the application instructions for "Epson Claria" inks.

### **My image appears fuzzy or blurry?**

This issue may occur when using low-resolution source images to print from. We recommend your source image be at least 300 Dots Per Inch (DPI). This will ensure the highest quality image reproduction.

### **Can I cut the sheets down in size?**

It is not recommended, as the sheets must be perfectly cut, but sheets may be cut down to halves. The result would be 2 sheets, each 5.5" x 8.5" which may be fed through your envelope tray on most printers.

### **Can I apply a clear coat to my decal?**

For the most part, application of a clear coat material, such as Papilio's UV Laminate spray (LLA5000) will not cause damage to the decal. Clear coats may be applied to provide abrasion, UV or water resistance.

### **Do I need to "Mirror Image" before printing?**

You should not need to do a mirror image prior to printing your image. The sheet slides off the liner, with the adhesive compound being on the back of the sheet. This means the way it appears on the paper is how it will appear when applied to your target.

### **Can I use an additional adhesive with my water-slides?**

Additional adhesives may be applied to the decal for added levels of permanence. Papilio's Adhesive Spray (SA86412) is ideal for this purpose, as it does not yellow with age as most adhesive sprays typically do.

### **My image cracks and tears when I try to apply it?**

This issue may occur when the surface upon which the decal is being applied is too dry. Try using Papilio's Decal Mounting Fluid to act as a lubricant and allow for easier manipulation of the decal.

### **How do I determine what kind of ink I have?**

Consult your printer's documentation. The type of cartridges your inkjet printer uses should be described by the manufacturer in your printer's manual. Pigment inks are typically used for their "archival" qualities. Dye based inks are known for their larger gamut of colors.

### **Do I have to seal my image with Decal Fixative?**

This step is critical to ensure when the decal comes in contact with water, as it must before application, the ink is not washed away.

### **May these decals be used outside?**

When properly sealed, water-slides may be used for outdoor applications. This will typically involve several layers of clear coat.