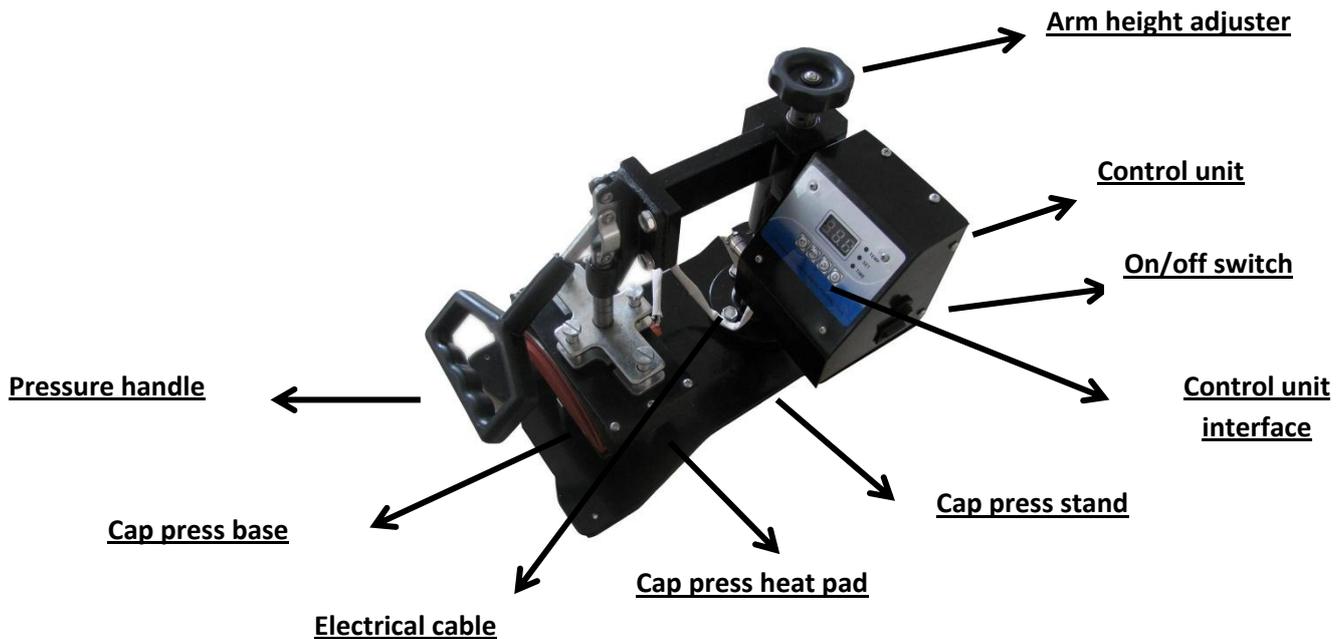


## PixMax™ Cap Sublimation Pressing Machine Instruction Manual



### **About The PixMax Cap Sublimation Pressing Machine**

The cap sublimation pressing machine enables you to transfer a design or a photo on to various caps of different shapes and sizes. The flexibility of the machine enables the user to produce products of high quality at a quicker rate, lower cost and in a small space for less effort.

The features that come with the cap sublimation pressing machine are as follows:

- Cap press heat pad with Teflon cover
- Cap press base
- Cap press stand
- Control unit
- Adjustable pressure handle
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## Safety Advice

This section outlines the basic operation and preparation of the cap press machine and how to use it safely.

- 1.** Before you use this machine, please check whether the power supply conforms to the rated voltage of the machine. There should be a reliable protective ground wire for the top core.
- 2.** If you need to replace any heat press parts, it is essential to remove the plug from the socket first. When replacing the top of the heat press when it is still hot please use insulated gloves.
- 3.** After using the press, if you do not intend to use it again for a while then switch off the power. Please ensure the white Teflon heat pad covers are on at all times to prevent damage.
- 4.** Whilst using the heat press, avoid touching the heating components to prevent burns.
- 5.** Whilst using, avoid touching the pressure spring to prevent possible injury.
- 6.** If the press handle is difficult to push down, please adjust the arm height using the adjusting screw to raise the arm. This reduces the pressure and is important to preserve the machine's mechanical strength.
- 7.** When raising or lowering the arm, you must lock the press handle tightly in the upright position and loosen the adjusting screw. When the arm has reached its lowest limit there will be resistance on the adjusting screw. Please do not continue to wind any further as this may cause damage.
- 8.** Please do not exceed the locking limits of the press handle as this may cause damage.
- 9.** Do not let children use the machine, regardless of supervision and/or whether the machine is in use or not.
- 10.** When switching between heating components, you should power off first before switching the plugs into the socket of the control box.

## Control Unit Settings

- To set the preliminary temperature: Press the MODE KEY once and the set indication light will come on. Press the "<" or ">" keys to set the preliminary temperature. This will maintain the temperature so that it's quicker for continuous work and prevent the pad from burning while idle.
- To set the target temperature: Press the MODE KEY twice and the temperature indication light will come on. Press the "<" or ">" keys to set the target temperature. The target temperature is the temperature that is required to undertake the subliminal pressing process.
- To set the heat press time: Press the MODE KEY three times and the time indication light will come on. Press the "<" or ">" keys to set the max heat press time.
- To set it to operation mode: Press MODE KEY four times and the machine will go into the ready state. (Fig. 1.)



Figure 1: The control unit interface

### Attention:

- The preliminary temperature setting range is 200-380 degrees; the maximum temperature setting range is 200-430 degrees.
- The target heat press time setting range is 0-999 seconds.
- The machine has the function of temperature setting self-locking, so if the preliminary temperature is 340 degrees, the machine will control the target temperature range between 340-430 degrees automatically. Conversely, if the target temperature is set at 250 degrees, then the machine will control the preliminary temperature between 200-250 degrees.

# Printing Instructions

These instructions are generic to all of the cap sublimation press products and are important in ensuring that the product images are correctly designed and printed before being developed in the pressing stage. Please follow the step by step instructions.

1. Firstly, create or acquire the design that you wish to print on to the product. Any design or word processing software can be used to achieve this. Ensure that all boundaries and sizes are catered to fit the product and that the images are manipulated to your desire. This may include colour correction, cropping, transforming etc. (Fig. 2.)

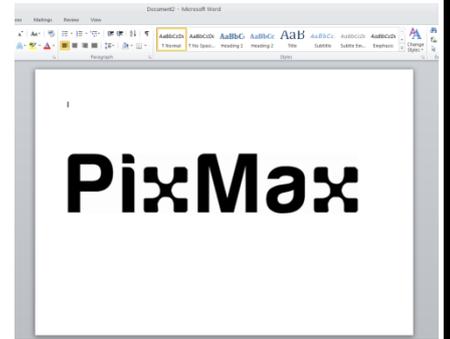


Figure 2: Design creation

2. Once this has been done and ready to print, set the print option to **mirror the image or design** (if the product requires it). You will find this option in the "Printer Settings" menu on the "Page Layout" tab. This is vitally important in ensuring that your design sublimates onto the product correctly. (Fig. 3.)

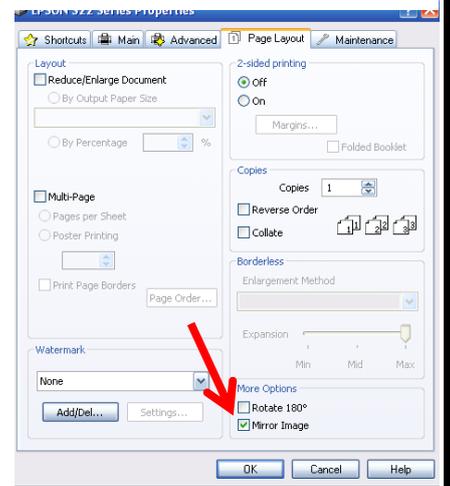


Figure 3: Mirror image

3. If using the CISS system ensure it is fully functioning within your Epson printer. This can be done by printing a test of your design on regular plain paper. If you are happy with the quality of the print

then move onto the next step. If you are not happy with the quality of the print then check your printer maintenance options. **Note: The colour depth of sublimation ink on regular paper will be less than that on sublimation paper.**

4. Load the PixMax high quality sublimation paper into the Epson printer with the whitest/ brightest side facing frontwards and print the design. **Note: This is important to ensure that the design will transfer onto the product correctly in the pressing stage.** (Fig. 4.)



Figure 4: Sublimation paper correct printing side

5. Once the image has printed, trim the sublimation paper around the image so it fits properly when wrapped around the product. (Fig. 5.)



Figure 5: Trimming the image

# Using the Cap Press

## Cap press components and requirements:

The following are the standard components required to use the cap press (**Fig. 6 & 7.**).

- The cap sublimation top press plate.
- The main stand with control unit, adjustable arm and handle.
- The cap base plate.
- The cap press electrical cable.
- White Teflon heat protective pad cover.



Figure 6: Cap press components

The following are the required products needed for the cap sublimation.

- A white or light coloured cap.
- High quality sublimation paper.
- Sublimation ink and CISS (if you are not using a sublimation printer.)
- Heat resistant tape.



Figure 7: Inserting the plug into the control box and securing

## Cap sublimation instructions:

- 1.** Ensure that the white protective sheet is covering the press plate (**Fig. 8.**). Raise the adjustable arm so that it clears the cap base enough to safely insert the cap onto the base.



Figure 8: White Teflon protective sheet

- 2.** Place the image facing onto the cap in the position that you require. Ensure that the image is in direct contact with the cap and that the blank side of the paper is facing outwards. Smooth the image down as much as possible so that it is in full contact with the cap (**Fig. 9.**).



Figure 9: Tape design to cap

- 3.** Tape the image onto the cap using the heat resistant tape, ensuring there are no creases and that the entire area of paper is in full contact with the cap. **Note: This is an optional step but beneficial as images printed on paper that has a small surface area or that has been trimmed down can warp under heat and subsequently deliver a bad quality print.**

- 4.** Switch on the PixMax press control unit (**Fig. 10.**) and adjust the settings for the preliminary and target temperatures and the time settings. These will vary depending on the type and colour of the cap. **See below for recommended settings.**



Figure 10: On/off switch

# Using the Cap Press

5. Allow the press to heat up to the preliminary temperature. Once at the preliminary temperature a beep will sound requiring the “□” button to be pressed. This will allow the press to rise to the target temperature. Insert the cap on to the base of the press, making sure the area that requires printing is entirely covered by the press plates.



Figure 11: Press locked down on cap

6. Once the press has reached target temperature it will beep again and the timer will start, at which point the handle should be lowered so that the press sits against the cap to allow the print to transfer. When the timer reaches “000” the control unit will again sound a beep and this informs you that the press needs to be raised, via the handle, back into the locked upright position. The “□” button should be pressed to tell the control unit that the process has finished and it can return the press to preliminary temperature to idle (Fig. 11. & 12.)



Figure 12: Control box controls

7. Raise the adjustable arm so that the press is clear enough from the cap to avoid any injury whilst retrieving it. Once this is done the cap may be removed and the sublimation paper can be removed from the cap to reveal the finished product.

## **Recommended settings:**

The recommended values for the temperature and time settings shown on the digital display are those that are proven to work, however may vary depending on the requirements.

Temperature (preliminary/target)	200°F / 330 °F
Time:	120 Seconds

# Sublimation Troubleshooting Guide

The troubleshooting guide aims to provide solutions to any problems that may arise with the quality of the sublimation print on the product. In most cases these can be solved by adjusting the temperature and time settings. Please consult the chart below if you feel you are experiencing difficulties with the print.

<u>Problem</u>	<u>Reason</u>	<u>Solution</u>
The colour of the design is light or faded.	The pressure is too low, the temperature is too low or the time is too short.	Ensure there is a firm, even pressure on the product. Increase the temperature incrementally by 10 °F and/or the time incrementally by 10 seconds until the desired result has been found.
The design has become indistinct.	The time is too long and has caused the ink to diffuse.	Shorten the time incrementally by 10 seconds until the design becomes clear and sharp.
The design has no lustre.	The pressure is too high or the temperature is too high.	Relieve the pressure but ensure that it is still firmly holding the product. Decrease the temperature in 10 °F increments.
Part of the design has become indistinct.	The heat printing area or the heat is inconsistent.	Ensure that the pressure is even on the product and that the sublimation paper is entirely flat against the product.
The design is scarred/broken.	The heat printing time is too long.	Decrease the time in 10 second increments until the image is full and clear.
The depth of colour on the design is uneven.	The pressure or the surface is not even.	Ensure the pressure is even on the product; ensure the surface is even.
The paper sticks to the product.	The temperature is too high or the surface of the product is low quality.	Lower the temperature in increments of 10 °F. Ensure that the surface of the product is appropriate for pressing.
There is browning/ yellow staining around and/or on the image.	The paper has burned out slightly and scorched the product.	Reduce the temperature in increments of 10 °F until the browning stops. If the image then looks washed out, increase the time in increments of 10 seconds.