PixMax[™] 5 in 1 Sublimation Pressing

Machine Instruction Manual



About The PixMax 5 in 1 Sublimation Pressing Machine

The 5 in 1 sublimation pressing machine has 5 functions to enable you to transfer a design or a photo on to various products. The flexibility of the product enables the user to produce products of high quality at a quicker rate and a lower cost. It also takes up less space and is easy to interchange the various presses meaning that manufacturing can be done in a relatively small space with less effort.

The features that come with the 5 in 1 sublimation pressing machine are as follows:

- T-shirt press to allow for printing of any design on to blank t-shirts
- Mug press to allow printing on 11oz mugs.
- Cap press to allow for printing onto baseball caps.
- 8 inch plate press to allow designs such as commemorative, family pictures or landscapes to be printed on to 8 inch plates.
- 10 inch plate press for slightly larger plate designs!

Safety Advice

This section outlines the basic operation and preparation of the 5 in 1 machine and how to use it safely.

L • 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.

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.

5. 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.

• Whilst using the heat press, avoid touching the heating components to prevent burns.

• Whilst using, avoid touching the pressure spring to prevent possible injury.

• If the press handle is difficult to push down, please adjust the arm height using the winding handle to raise the arm. This reduces the pressure and is important to preserve the machine's mechanical strength.

• When raising or lowering the arm, you must lock the press handle tightly in the upright position and loosen the winding handle. When the arm has reached its lowest limit there will be resistance on the winding handle. Please do not continue to wind any further as this may cause damage.

Safety Advice

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.

LO. When switching between heating components, you should power off first before switching the plugs into the socket of the control box.

LL. Please do not use the plate heating pad to bake or press any other goods. It is for sole use of the porcelain plates only!!!

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



Figure 1: The control unit interface

- 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.)

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 5 in 1 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.

• 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.)

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.**)

• 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.**

• 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.)

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



Figure 3: Mirror image

Mirror Image

OK Cancel Help



Figure 4: Sublimation paper correct printing side



Figure 5: Trimming the image

Installing and Using the T-Shirt Press

T-Shirt press components and requirements:

The following are the standard components that are required to use the T-shirt press (**Fig. 6.**).

- The T-shirt sublimation top press plate.
- The 5 in 1 main stand with control unit, adjustable arm and handle.
- The 5 in 1 metal base plate stand with silica gel and sponge pads.
- The T-shirt press electrical cable.
- White Teflon heat protective pad covers.

The following are the required products needed for the T-shirt sublimation.

- A white or light coloured cotton or polyester t-shirt.
- Sublimation paper.
- Sublimation ink and CISS (if you are not using a sublimation printer)
- Heat resistant tape (required to hold design in place)

Installing the T-shirt press

To install the T-shirt press, the top press plate and metal base plate stand are required and need fitting into place on the main stand unit. The top plate fits into the central attachment point (the circular discs attached to the arm handle) by means of two wing nuts (**Fig. 8.**). These must be partially attached into the bolts on top of the press plate and then lifted into the "T shaped" gaps (**Fig. 7.**) in the attachment point ensuring that the electrical cable is facing the back of the stand. This will then slide forward into place and the wing nuts can be tightened to secure the plate (**Fig. 8.**). The metal base plate sits on four bolts: two on the left and two on the right on the main stand (**Fig. 9.**) and are then tightened in place using wing nuts (**Fig. 10.**). The press is then plugged into the control box. The white cable on the T-shirt press is inserted into the socket on the side of the control box. Make sure the notch in the plug lines up with the notch on the socket and screw the metal cap surrounding the plug into place to secure the connection (**Fig. 11.**). Press the on/off switch to begin operation. **Note: Ensure the correct press heat pad is connected.**



Figure 6: T-shirt press components



Figure 7: Central attachment - T shaped holes



Figure 8: Press attachment with wing nuts



Figure 9: Main stand attachment plate with bolts for attaching the base plate



Figure 10: Base plate attachment with wing nuts



Figure 11: Inserting the plug into the control box and securing

T-Shirt sublimation instructions

Ensure that the white teflon protective sheets are covering both the press plate and the silica gel base (Fig. 12.)
 Raise the adjustable arm so that it clears the notch on the cylinder (Fig. 13.) and using the handles on the top of the press, swing the press to the left to allow for better access to the press base (Fig. 14.). Lay the t-shirt on to the base of the press, making sure the area that requires printing is entirely covered by the press plates. Make sure

the pressing area of the T-shirt is completely crease-free as this **WILL AFFECT** the quality of the print (**Fig. 15.**).



paper is facing outwards. Smooth the image down as much as possible so that it is in full contact with the t-shirt.

- Tape the image onto the t-shirt using the heat resistant tape, ensuring there are no creases and that the entire area of paper is in full contact with the t-shirt (Fig. 16.). 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. Swing the top press section back in line with the bottom base and lower the adjustable arm so that the press hangs about 2-3 inches from the base. Pull the arm handle down to make sure that the press sits on top of the base with enough pressure so that the t-shirt cannot move. Pull the handle back up into the "locked" most upright position so that the press now hangs 2-3 inches from the base again (Fig. 17.).
 - Switch on the PixMax press control unit (**Fig. 18.**) 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 t-shirt. **See below for recommended settings.**

• 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 temperature to rise to the target temperature. This process may take between 8-10 minutes from switch on to the press acquiring



Figure 12: Heat press and bottom plate with white Teflon sheets



Figure 13: Clearing the notch



Figure 14: Swing the tshirt press



Figure 15: Lay the t-shirt on the base



Figure 16: Tape the design onto the t-shirt



Figure 17: Press sitting 2-3 inches above the t-shirt



Figure 18: On/off switch

Installing and Using the T-Shirt Press

target temperature. Once the press has reached target temperature the timer will start, at which point the handle should be lowered so that the press sits against the t-shirt to allow the print to transfer (**Fig. 19.**). 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 " \Box " 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. 20.**)

• Next raise the adjustable arm so that the press can be swung out of the way to avoid any injury whilst reaching in to retrieve the t-shirt. Once this is done the t-shirt may be removed and the sublimation paper can be removed from the t-shirt to reveal the finished product.

Recommended settings:

The recommended values for the temperature and time settings shown below are given as a guideline only.

	Light	Dark	Light coloured	Dark coloured
	coloured	coloured	polyester/cotton	polyester/cotton
	cotton	cotton	mix	mix
Temperature	330 °F	330 °F	330 °F	330 °F
(preliminary/target)				
Time	30 seconds	30 seconds	120 seconds	120 seconds





Figure 20: Control unit buttons

Installing and Using the Mug Press

Mug press components and requirements:

The following are the standard components that are required to use the mug press (**Fig. 21.**).

- The mug sublimation press pad.
- The mug sublimation press stand.
- The 5 in 1 control unit.
- The mug press electrical cable.



Figure 21: Mug press components

- White Teflon heat protective pad covers.

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

- A white or light coloured polymer coated mug. (none conical)
- High quality sublimation paper
- Sublimation ink and CISS (if you are not using a sublimation printer).
- Heat resistant tape.

Installing the mug press

The mug press pad should already be bolted in place on the mug press metal stand. This can stand alone from the main pressing unit so there is no need to attach it onto the main stand. To install the mug press ensure the control box is plugged in and insert the plug from the white cable on the mug press into the socket on the side of the control box. Make sure the notch in the plug lines up with

the notch on the socket and screw the metal cap surrounding the plug into place to secure the connection (**Fig. 22.**). Press the on/off switch to begin operation. **Note: Ensure the correct heat pad is connected.**



Figure 22: Inserting the plug into the control box and securing

Mug Sublimation Instructions

These instructions have been designed on tests undertaken using the product to ensure the best possible results. Temperatures and timings may vary depending on your requirements, however the information provided in these instructions will allow a greater understanding of the various possible outcomes. The temperature and timing values are based on the sublimation on an 11oz mug.

Place the image facing onto the mug in the position that you require. Ensure that the image is in direct contact with the mug 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 polymer coated mug.



Figure 23: Taping the image to the mug.

Tape the image onto the mug using the heat resistant tape on all sides ensuring there are no creases and that the entire area of paper is in full contact with the mug (Fig. 23.). Note: This is important to prevent the paper from scorching the mug.

Installing and Using the Mug Press

Switch on the control unit (Fig. 24.) and adjust the settings for the preliminary and target temperatures and the time settings. These will vary depending on whether you want to do a fast press or a slow press. See below for recommended settings.

 Adjust the pressure by tightening or loosening the bolt that inserts into the lever. Loosening the bolt will increase pressure whilst tightening with decrease pressure (Fig. 25.)

• To do a fast press allow the temperature to heat up to the required temperature, insert the polymer mug into the press and close it using the lever to ensure there is a good even pressure on the mug. The machine will beep when it reaches the preliminary temperature, however once the mug is inserted the press will cool down slightly. Wait until the temperature rises back up to the preliminary temperature where it will beep again. Once it beeps, press the "□" button on the control unit to begin the timer. Fast pressing is useful for a one off press where the machine will not be idle after use. (Fig. 26. & 27.)

• To do a slow press ensure the control unit is switched/turned off. Insert the polymer mug into the press and close it using the lever. Turn the press on and allow it to heat up to the preliminary temperature. The machine will beep when it reaches the preliminary

temperature signalling that the "□" button needs to be pressed. The temperature will then continue rising until it reaches the target temperature. The timer will automatically start when the target temperature has been reached. Slow pressing is useful for batch productions where the press may be idle or at high temperatures for long periods of time. (**Fig 26. & 27.**)

• Once the timer has counted down to "000" the machine will beep to alert you that the mug is ready. Press the "□" button to stop the process. In a slow press the temperature will drop back to the preliminary temperature value allowing the machine to idle. In a fast press it is advisable to turn off the machine or set the preliminary temperature to 200 °F so that the press does not burn. Release the mug press using the lever and remove the mug by the handle. **Caution: Mug will be extremely hot.**

S. Immediately dip the mug with the sublimation paper still attached into a bowl of room temperature water and allow it to cool down. Once cool, remove the sublimation paper and heat resistant tape to reveal the finished product (Fig. 28.).

Figure 24: On/ off switch



Figure 25: Pressure adjustment bolt



Figure 26: Control box controls



Figure 27: Mug press open and closed



Figure 28: Dip mug into water



Installing and Using the Mug Press

Recommended settings:

The recommended values for the temperature and time settings shown are guidelines only and may vary depending on the requirements. Please check the charts below.

Fast Press:

Temperature: (preliminary and target)	310 °F
Time:	120 Seconds

Slow Press:

Temperature: (preliminary/ target)	200 °F / 330 °F
Time:	30 Seconds

Installing and Using the Cap Press

Cap press components and requirements:

The following are the standard components required to use the cap press (**Fig. 29.**).

- The cap sublimation top press plate.
- The 5 in 1 main stand with control unit, adjustable arm and handle.
- The cap base plate.
- The cap press electrical cable.
- White Teflon heat protective pad cover.

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 29: Cap press components



Figure 30: Central attachment- T shaped holes



Figure 31: Press attachment with wing nuts



Figure 32: Main stand base with bolts for attaching the cap base stand



Figure 33: Cap base stand on middle two bolts



Figure 34: Inserting the plug into the control box and securing

Installing the cap press:

To install the cap press the top press plate and metal base plate stand are required and need fitting into place on the main stand unit. The top plate fits into the central attachment point (the circular discs attached to the arm handle) by means of two wing nuts. These must be partially attached into the bolts on top of the press plate and then lifted into the "T shaped" gap (Fig. 30.) in the attachment point ensuring that the electrical cable is facing towards the back of the stand. This will then slide forwards into place and the wing nuts tightened to secure the plate (Fig. 31.). The cap base plate sits on two bolts in the centre of the stand so that it is directly underneath the top press plate and is then tightened in place using wing nuts (Fig. 32. & 33.). The control box is then plugged in to the mains and the plug from the white cable on the cap press is inserted into the socket on the side of the control box. Make sure the notch in the plug lines up with the notch on the socket and screw the metal cap surrounding the plug into place to secure the connection (Fig. 34.). Press the on/off switch to begin operation. Note: Ensure the correct heat pad is connected.

Cap sublimation instructions:

- Ensure that the white protective sheet is covering the press plate (Fig. 35.). Raise the adjustable arm so that it clears the cap base enough to safely insert the cap onto the base.
- 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. 36.).
- Tape the image onto the cap using the heat resistant tape, ensuring there are no creas es 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.
- Switch on the PixMax press control unit (Fig. 37.) 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.
- Allow the press to heat up to the preliminary temperature. Once at the preliminary temperature a beep will sound requiring the " \Box " 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 coverable by the press plates.
- locked down on cap • 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. 38. & 39.)

Figure 39: Control box controls



Figure 38: Press

Figure 36: Tape design to cap





Figure 35: White Teflon protective

sheet





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 are guidelines only and may vary depending on the requirements.

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

Installing and Using the Plate Press

Plate press components and requirements:

The following are the standard components that are required to use the plate presses (**Fig. 40.**)

- The 8 and 10 inch plate sublimation top press plates.
- The 5 in 1 main stand with control unit, adjustable arm and handle.
- The 5 in 1 metal base plate stand with silica and sponge pads.
- The plate presses electrical cables.
- White Teflon heat protective pad covers.

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

- White or light coloured polymer coated 8 or 10 inch plates.
- High quality light sublimation paper.
- Sublimation ink and CISS (if you are not using a sublimation printer).
- Heat resistant tape.

Installing the Plate Press

To install the plate press, either the 8 inch or 10 inch top press plate and metal base plate stand are required and need fitting into place on the main stand unit. The top plate fits into the central attachment point (the circular discs attached to the arm handle) by means of two wing nuts. These must be partially attached into the bolts on top of the press plate and then lifted into the "T shaped" gap (**Fig. 41.**) in the attachment point ensuring that the electrical cable is facing the back of the stand. This will then slide forwards into place and the wing nuts tightened to secure the plate (**Fig. 42.**). The metal base plate sits on four bolts: two on the left and two on the right on the main stand and are then tightened in place using wing nuts (**Fig. 43. &**

44.). The control box is then plugged in and the plug from the white cable on the plate press is inserted into the socket on the side of the control box. Make sure the notch in the plug lines up with the notch on the socket and screw the metal cap surrounding the plug into place to secure the connection (**Fig. 45.**). Press the on/off switch to begin operation. **Note: Ensure the correct heat pad is connected.**



Figure 40: Plate press components



Figure 41: Central attachment- T shaped gap



Figure 42: Press plate attached with wing nuts



Figure 43: Metal base with bolts for base plate stand



Figure 44: Base plate attachment with wing nuts



Figure 45: Inserting the plug into the control box and securing

Plate sublimation instructions:

These instructions have been designed on tests undertaken using the product to ensure the best possible results. Temperatures and timings may vary depending on your requirements, however the information provided in these instructions will allow a greater understanding of the various possible outcomes.

Place the image facing onto the plate in the position that you require. Ensure that the image is in direct contact with the plate 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 polymer coated plate.

2. Tape the image onto the plate using the heat resistant tape on all sides ensuring there are no creases and that the entire area of paper is in full contact with the plate.

Note: This is important to prevent the paper from scorching the plate.

5 • Ensure that the white protective sheets are covering both the press plate and the silicon foam base (**Fig. 46.**). Raise the adjustable arm so that it clears the notch on the cylinder and using the handles

on the top of the press, swing the press to either the left or right to allow for better access to the press base (**Fig. 47. & 48.**). Switch on

the control unit (Fig. 49.) and adjust the settings for the preliminary and target temperatures and the time settings. These will vary depending on whether you want to do a fast press or a slow press. See below for recommended settings.



Figure 47: Clearing the notch



Figure 48: Swing the plate press

Place the polymer plate with the design facing upwards on to the base in the position required. Swing the top press into position and lower the arm into position. Check to make sure that there is enough pressure on the plate by pulling the press handle down. Once happy with the pressure pull the press handle back up into the locked position.

• To do a fast press allow the press to heat up to the required temperature and close it up against the plate using the press handle to ensure there is a good even pressure on the plate. The machine will beep when it reaches the preliminary temperature, however once the plate is inserted the press will cool down slightly. Wait until the temperature rises back up to the preliminary temperature where it will beep again and press the "□" button on the control unit to begin the timer. (Fig. 50. & 51.)



Figure 49: On/ off switch

Installing and Using the Plate Press

To do a slow press ensure the control unit is switched/turned off. Push the press handle down until the press is against the plate with a good even pressure. Turn the control unit on and allow it to heat up to the preliminary temperature. The machine will beep when it reaches the preliminary temperature signalling that the "
" button needs to be pressed. The temperature will then continue rising until it reaches the target temperature. The timer will automatically start when the target temperature has been reached. (Fig. 50. & 51.)

Figure 50: Lock the press down on the plate





Once the timer has counted down to "000" the machine will beep to alert you that the plate is ready. Press the " \Box " button to stop the process. In a slow

press the temperature will drop back to the preliminary temperature value allowing the machine to idle. In a fast press it is advisable to turn off the machine or set the preliminary temperature to 200 °F so that the press does not burn. Release the plate press using the lever and remove the plate. Caution: Plate will be extremely hot.

Immediately dip the plate with the sublimation paper still attached into a bowl of room temperature water and allow it to cool down. Once cool, remove the sublimation paper and heat resistant tape to reveal the finished product. The plate may require a quick wash to reveal the best finish. (Fig. 52.)



Figure 52: Dip plate in water

Recommended settings:

The recommended values for the temperature and time settings shown are guidelines only and may vary depending on the requirements. Please check the charts below.

Fast Press:

Temperature: (preliminary and target)	310 °F
Time:	120 Seconds

Slow Press:

Temperature: (preliminary/ target)	200 °F / 330 °F
Time:	30 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.