SER.TEC.

DPI
DG PRINTING



# THE EAGLE

## *USER GUIDE*

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DPI warrants part repair or replacement as a sole measure only if a failure is found in the system or in the materials and workmanship of the product the seller produced.

However, if the cause of failure is uncertain or cannot be conclusively proved to be directly related to defect in workmanship any part repair or replacement shall be solely at the discretion of DPI

The warranty shall not apply to any direct or indirect loss, or compensation for the loss due to the product that has been subject to misuse, neglect, or improper alternation whether directly or indirectly.

Any liability under the guarantee has declined in the case of using inks or parts that are not original DPI

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# About this Manual

### A. Purpose and Targed Readers

This manual explains the preparations and procedures for operating the “The Eagle” 60 UV.

This manual assumes that the reader / operator is familiar with computers and the basics of network operation and configuration.

This manual is designed to assist the end user in the use, maintenance and general troubleshooting of the “The Eagle” 60 UV. Before using the “The Eagle” 60 UV printer you are required to read and fully understand the contents and directions in this manual.

**B. Manual Configuration**

| Section | Cotnents |
|---|---|
| 1 Safety Instructions | Explains the steps to follow to avoid causing damage (sometimes irreparable) to the printer |
| 2 Product Overview | Explains the features, part names and functions of the printer |
| 3 Initial Setup and Basic Operations | Explains the steps to perform during the first installation of the printer and the basic operations that you can perform |
| 4 Printing | Explains how to prepare the printer to print |
| 5 General Maintenance | List the steps necessary to keep the printer clean and perfectly functional |

**1. Safety Instructions..... 6**
1.1 Introduction..... 6
1.2 Electrical safety..... 6
1.3 Machine Handling Safety Instructions..... 7
1.4 Consumables Handling Safety Instructions..... 7
1.5 Warning Label Meanings..... 8

**2. Product Overview..... 9**
2.1 Introduction..... 9
2.2 Features..... 9
2.2.1 New Generation Printhead..... 9
2.2.2 Operation Efficency Improvement..... 9
2.2.3 Ink Recirculation System..... 9
2.2.4 UV LED Lamps..... 9
2.3 Part Names and Functions..... 10
2.3.1 Front Section..... 11
2.3.2 Rear Section..... 12
2.3.3 Operation Panel..... 13
2.3.4 Ink System..... 14

**3. Initial Setup and Basic Operations..... 15**
3.1 Introduction..... 15
3.2 Choosing a Place for the Printer..... 15
3.3 Minimun Computer Requirements..... 15
3.4 Removal of the transport blocks..... 16
3.5 Ink Charge..... 16
3.6 Basic Operations..... 16
3.6.1 Switching the Printer ON..... 16
3.6.2 Starting the Printer..... 16
3.6.3 Switching the Printer OFF..... 17
3.6.4 Connecting the Printer to the PC..... 17
3.6.5 Operation Panel..... 17
3.6.6 Performing a Head Cleaning from the Operation Panel..... 19
3.6.7 Printing a Nozzle Check..... 20

**4. Printing..... 21**
4.1 Introduction..... 21
4.2 Adjust Printing Bed Height..... 21
4.3 Printing your Image..... 21
4.4 Cancelling a Print Job..... 21

**5. General Maintenance..... 22**
5.1 Introduction..... 22
5.2 Run the Nozzle Check test print each day before starting production..... 22
5.3 Maintaining the Ink System..... 22
5.3.1 Accessing the Capping Station..... 22
5.3.2 Clean the Wiper and Head Cap..... 22
5.3.3 Manual Print Head Clean..... 22
5.3.4 Empting the Waste Ink Tank..... 23

5.3.5 Cleaning the UV Led Lamps..... 23
5.4 Other Maintenance Items..... 24
5.4.1 Clean the CR Encoder Strip..... 24
5.4.2 Cleaning the Carriage Guide Shaft..... 24
5.4.3 Clean the CR Drive Belt, Roller and Pulley..... 25
5.4.4 Replacement of damper and capping station..... 25
5.4.5 Long Periods of inactivity..... 25
5.5 General Care..... 26
5.5.1 Environment..... 26
5.5.2 Clean the “The Eagle”..... 26
5.5.3 Ink Levels..... 26
6 Error List..... 27

# 1. Safety Instructions

### 1.1 Introduzione

This chapter explains the meaning of safety terms for personnel who install, operate, or maintain this equipment, important safety instructions, and the warning labels attached to the equipment.

### 1.2 Electrical Safety

This product is supplied with a plug that has a protective earth pin. The plug fits only into an earthed electrical outlet. This is a safety feature. If the plug doesn’t fit to the outlet, contact an electrician to replace the outlet to avoid risk of electric shock. Never use an earthed adaptor plug to connect the product to the electrical outlet that has no earth connection terminal.

Plug the power cord directly into a grounded electrical outlet. To prevent overheating and fire, do not use an extension cord, a multi-plug adaptor or a multiple connector. Consult your local electrician to check if an outlet is grounded.

Connect this product to a branch circuit or an outlet that has larger capacity than the rated ampere and voltage of this product. Refer to the data plate on the rear panel of this product for it’s rated ampere and voltage.

Never touch the power cord with wet hands. It may cause electric shock.

Keep the plug connection free of dust and other contaminants. Dust, damp and other contaminants may cause a minute electrical current in a connector, which may in turn generate heat and possible cause a fire accident.

To avoid the risk of electric shock and fire accident, only use the power cord supplied with this product. Do not damage or modify the power cord. Damage or tampering may generate head and eventually cause electric shock or a fire accident. If the power cord is damaged or insulated wires are exposed, replace the power cord. Do not use a damaged or un-insulated cord to avoid the risk of electric shock and a fire accident.

Do not operate the printer if it has been contaminated by foreign substances or liquid spills as doing so may result in electrical shock or fire. Immediately turn off the power switch, disconnect the power plug from the electric socket, and contact your authorized DPI Dealer.

Do not insert or drop metal or objects which are easily combustible through the openings such as the ventilation hole of your printer. Doing so may result in electrical shock or fire.

Do not place the printer in humid and/or dusty areas. Doing so may result in electrical shock or fire.

When cleaning this product, or replacing consumable parts, always switch the product off, and unplug it, prior to doing so. Access to a live machine interior my cause electric shock.

Do not unplug or re-connect this product with the power switch on. Plugging and unplugging a live connector may deform the plug and generate heat, and eventually cause a fire accident.

Pay attention to the following when handling the power cable:

- Do not do anything forcefully (e.g. pull, bend, twist, knot) on the power cable
- Do not place heavy objects on the power cable
- Do not route the power cable near heat sources

Once a month, switch off this product and check if

- The power cord is plugged firmly into the electrical outlet
- The plug is not excessively hot, rusted or bent
- The plug and electrical outlet are free of dust
- The power cord is not cracked or otherwise deteriorated in any way

### 1.3 Machine Handling Safety Instructions

General safety instructions that must be observed when installing or moving the equipment are explained below.

Do not locate this product where people might step on or trip over the power cord. Friction or excessive pressure may generate heat and eventually cause electric shock or a fire accident

Do not place the printer in the following areas. Doing so may result in the printer tipping or falling over and causing serious injury.
Unstable or loose surfaces
Angled surfaces
Areas subject to vibration by other equipment

Do not stand on or place heavy objects on your printer. Doing so may result in the printer tipping or falling over and causing injury.

Do not cover the ventilation holes of this product with cloth, such as a blanket or table cloth whilst the printer is switched on. Doing so could obstruct ventilation and cause fire.

Keep the product away from direct heat sources such as radiators, and out of sunlight to prevent overheating and any risk of fire.

### 1.4 Consumables Handling Safety Instructions

Handle all inks, pre-treatments and cleaning solutions in accordance with the relevant MSDS (Material Safety Data Sheet).
Keep the bottle of ink away from direct sunlight. Store the bottle of ink sealed in a well-ventilated place at a temperature comprised between 10 and 30 ° C and a relative humidity between 40 and 70%.
Keep inks, pre-treatments and cleaning solutions out of the reach of children. If ink is accidentally swallowed, spit it out, rinse mouth thoroughly with water, drink plenty of water and consult a physician immediately.

When re-filling inks, be careful not to spill the ink. In the case of any ink spills, avoid inhalation and avoid contact with clothes, skin, eyes and mouth.

If ink, pre-treatment or cleaning solution spills onto your skin or clothing, wash it off with soap and water. Seek medical treatment if irritation occurs.

If you get ink, pre-treatment or cleaning solution in your eyes, rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical attention.

If you inhale ink, pre-treatment or cleaning solution, move to fresh air, and rinse your mouth with water.

If you swallow ink, pre-treatment or cleaning solution, treat symptomatically. Get medical attention. Call a poison centre or doctor if exposed or you feel unwell.

There is ink in the tubes throughout the printer. Be careful that the ink is not spilled from any tube outlet onto the printer or items close to the printer.

### 1.5 Warning Labels Meanings

| LABEL | MEANING |
|---|---|
|  | High Voltage |
|  | Pay close attention because your hands may get caught in moving mechanical parts |
|  | UV light, wear safety glasses |

# 2. Product Overview

### 2.1 Introduction
This chapter explains the features, part names, and functions of the printer.

### 2.2 Features
The features of the printer are explained below.

#### 2.2.1 New Generation Printhead
This model uses a micro piezo print head with high performance. The ability to release from 3pl to 6pl drop allows a good distribution of the ink and its mirror treatment prevents the deposit of the color and the clogging of the nozzles.

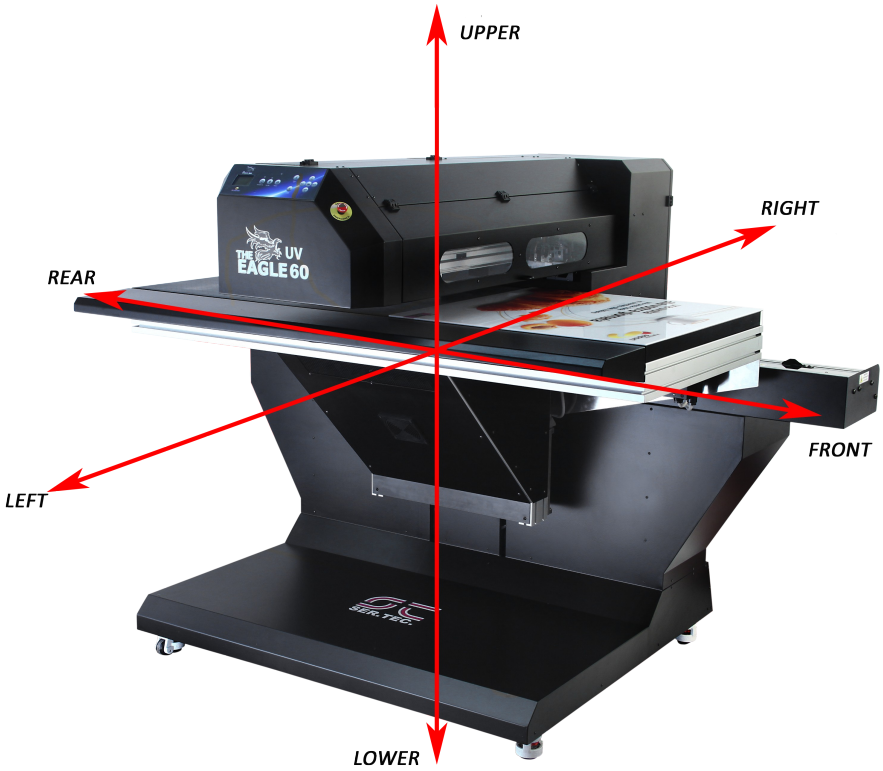
#### 2.2.2 Operation Efficency Improvement
With its wing design the "The Eagle" allows you to place on the work surface materials that are even larger than the print area. In addition there is also the possibility to work with a variable thickness up to 25cm.

#### 2.2.3 Ink Recirculation System
IRS (Ink Recirculation System) is a system that allows the machine to improve performance thanks to a constant recirculation of white ink that prevents the creation of sediment that would cause inevitably fillings in the head and long periods of inactivity.

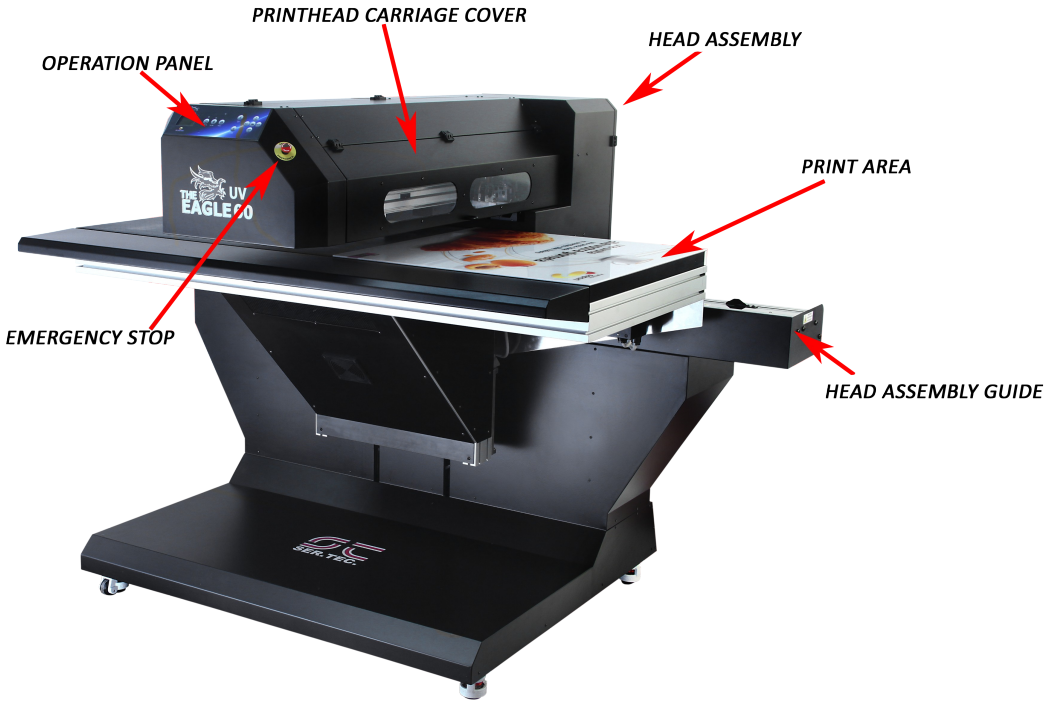
#### 2.2.4 UV Led Lamps
The UV LED technology allows you to get photo quality printing on any material, also the low processing temperatures allow to print on heat sensitive materials.

## 2.3 Part Names and Functions

Part names and functions are explained in this section.
For the directions described in this document, refer to the following orientation figure:

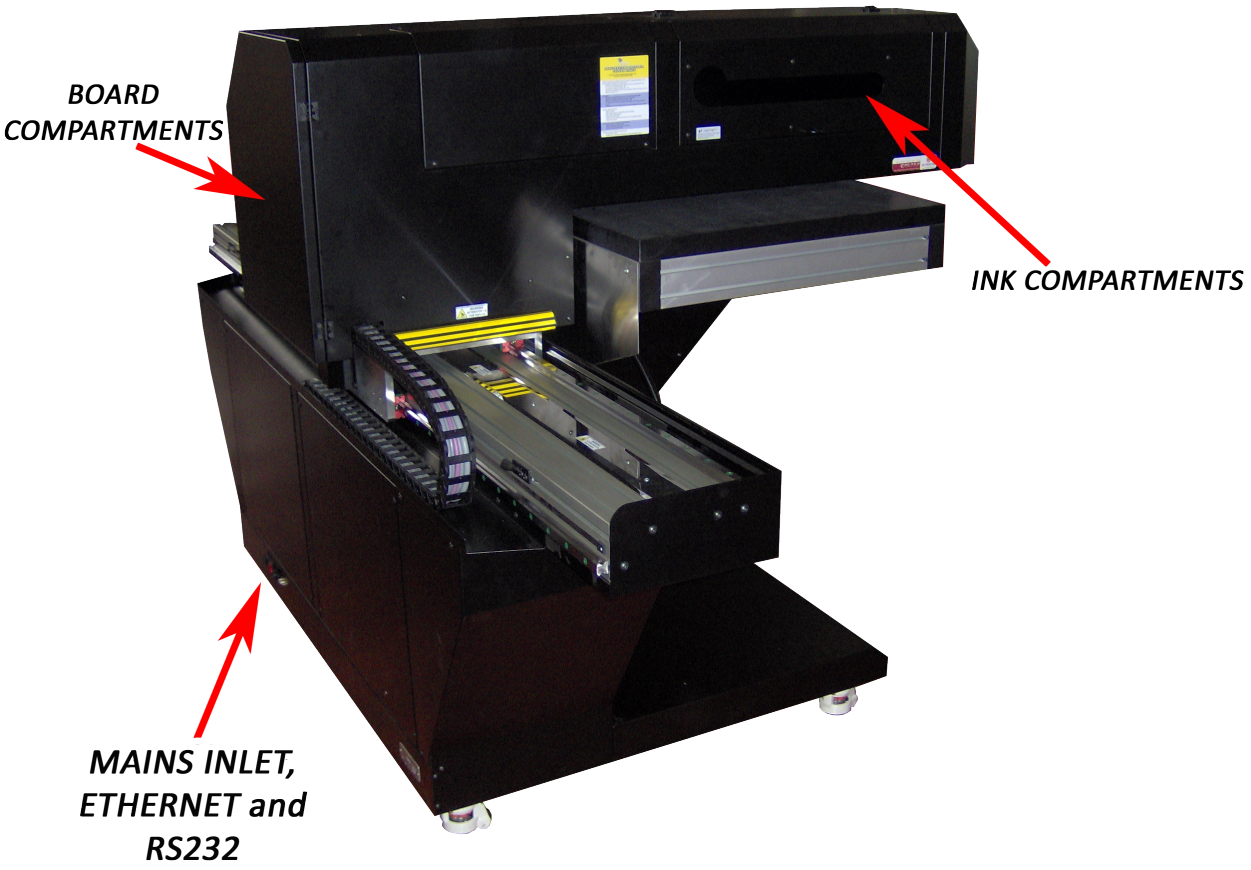


### 2.3.1 Front Section



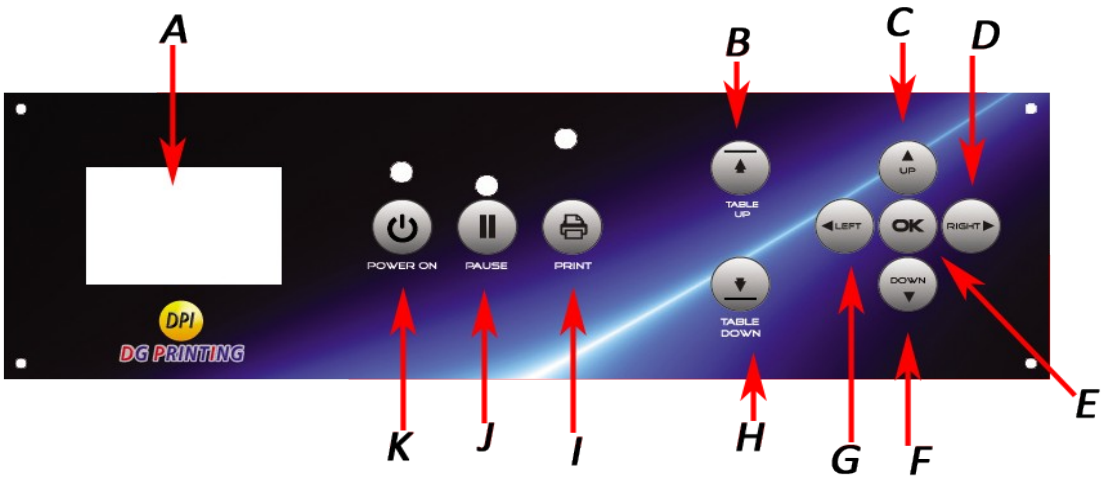

| Name | FunctionFunzione |
|---|---|
| Emergency Stop | This button removes mains power from the printer in an emergency. Press firmly to engage, twist clockwise to disengage. |
| Print Head Carriage Cover | This cover allows access to the print head carriage. It also mounts a type of glass that shields the UV light from lamps, harmful to the eyes. |
| Head Assembly | Contains electronic and mechanical components that allow the movement of the print head and regulate the actual process of printing machine. It is supported on HEAD ASSEMBLY GUIDE for movement along the length of the platen. |
| Print area | The print area where you can place your material. In some versions may be a suction plate. |

### 2.3.2 Rear Section




| Name | Function |
|---|---|
| Board Compartments | Contains boards that regulate the movement of the head assembly. Here is also the contained encoder disk PF (Paper Feed) that regulates the progress of the head assembly along the guide. |
| Ink Compartments | Contains the bottles of ink and white ink circulation pump. |
| Mains Inlet | For inserting the main power cable plug |
| Ethernet | Connector to connect a network interface cable. |
| RS232 | Connector to connect a serial interface cable |

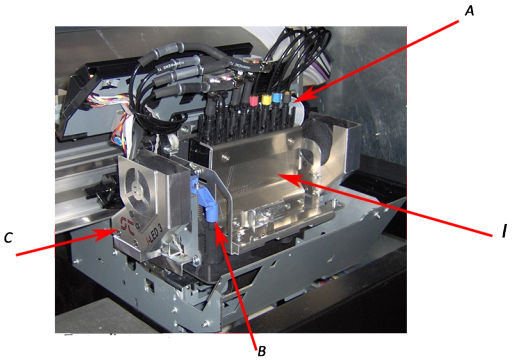
### 2.3.3 Operation Panel

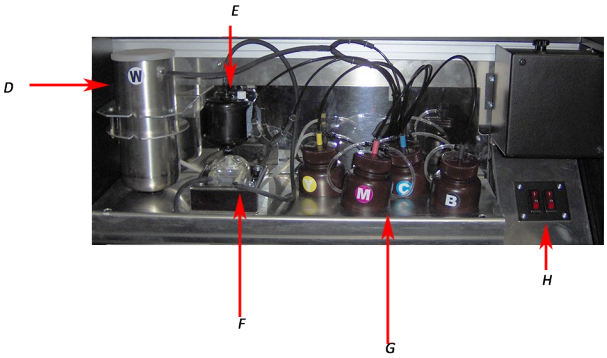



The operation panel is used to set operational conditions, display the status of the printer, and set other functions

| ID | Name | Function |
|---|---|---|
| A | Display | This monitor displays the operation status and error messages of the printer |
| B | Table UP | Raises the level of the platen. Press just to make a small movement, hold for a wider movement. |
| C | UP | Changes the parameter in the reverse order (scrolls menus upward) when selecting a desire parameter in the menu mode. |
| D | RIGHT | -Opens the menu<br>-If held down for 3 seconds or more, starts cleaning the print head (if the printer is in the READY status) |
| E | OK | -Selects the selected parameter in the selected item in Menu mode.<br>-Executes the item if the selected item is for execution only. |
| F | DOWN | Changes the parameters in forward order (scrolls downward through menus) when selecting a desired parameter in Menu mode. |
| G | LEFT | Returns to the previous level when pressed in Menu mode |
| H | TABLE DOWN | Lowers the level of the platen. Press just to make a small movement, press and hold to make a larger movement. |
| I | PRINT | If enabled in the Printer Control Center (see software manual) |
| J | PAUSE | -Pauses a print job. Press again to unpause it.<br>-If held down for 3 seconds or more, abort a print job. |
| K | POWER ON | Switch ON/OFF the printer. |

### 2.3.4 Ink System




The Ink System is comprised of a number of components which have the objective of delivering and printing ink to the media. These components are primarily internal to the printer, but can be seen by opening the cart cover the head or the ink compartment door.

| ID | Name | Function |
|---|---|---|
| A | Dampers | The dampers are small tanks, one for each color channel, and are positioned above the printhead. |
| B | Printhead realese button | It is used to unlock the head from the capping station allowing you to move freely along the carriage and allowing access to the capping station. |
| C | UV Lamps | Allow the ink to dry |
| D | White ink tank | Contains white ink |
| E | White ink filter | Filters the impurities and sediments of the white ink in order to prevent them to arrive in printhead |
| F | Peristaltic pump | Allows white ink circulation, via peristaltic action, within the entire circuit avoiding clogging of the pipes [durata media 2000H] |
| G | Color tanks | Contain the CMYK |
| H | “Ink lever” switches | These switches replace the ink levers typically used during a heavy cleaning. |
| I | Damper Holder | Keeps the dampers firmly in the print head. |

# 3 Initial Setup and Basic Operations

### 3.1 Introduction

This chapter provides information on the initial setup and basic operation of the “The EAGLE” 60 UV. It is highly recommended that the initial setup of the printer be performed by a trained & authorized technician. Damage caused by incorrect setup will not be warrantied.

These operations must be done befor switching the printer on:

1. Position the printer
2. Remove packaging materials
3. Load color inks
4. Load white ink

### 3.2 Choosing a Place for the Printer

Choose a place for printer installation following the requirements of the table below.

| | | |
|---|---|---|
| Installation WxLxH (mm) | 2365x1475x1490 (mm) | |
| Voltage | AC 100V – 240V ± 10% | |
| Frequency | 50/60Hz ± 1Hz | |
| Power | 500W | |
| Environmental Conditions | Temperature | Humidity |
| Operation Environment | 20°C (68°F) – 25°C (77°F) | 40% - 70% |

### 3.3 Minimun Computer Requirements

Ensure that your computer has the minimum specifications as recommended here to ensure optimum performance of your printer and the RIP:

| Specification | Minimum Requirement | Recommended |
|---|---|---|
| Processor | Dual Core (2.2GHz) | Quad Core (3.0GHz) |
| Operating System | Microsoft® Windows® XP | Microsoft® Windows® 7 |
| Hard Disk | SATA 120GB | |
| RAM | 2GB DDR2 | 4GB DDR2 |
| Monitor | SVGA with 1280x1024 resolution or higher. 16 bit or higher color support. | |
| Ports | 1 RS232, 1 Ethernet, 1 USB | |

### 3.4 Removal of the transport blocks

The transport blocks are “parts” that are added to the moving parts of the machine in order to avoid that the moving parts may be damaged during transport.
The blocks are as follow:

- Print head carriage belt block, is a tape that holds the belt preventing the print head from moving and being damaged. It's located in the middle of the print head carriage belt.
- Head assembly block, consist of brackets located on both sides of the head assembly and they serve to lock it firmly in his guide, preventing it from moving and being damaged.

Failure to remove these blocks before using the printer can cause serious damage to the equipment.

### 3.5 Ink Charge

Load the ink does not mean simply fill the bottles but  also make sure that the print head is loaded with color. the procedure  should be performed when the machine is turned off. The first thing to do is to fill the bottles of both four-color (CMYK) and white. Once you have filled the bottles with colors, using the included syringe, pull from the waste ink tubes until ink come out. Once the ink has reached the syringe reassembled the waste ink tank in place and run a head cleaning.

### 3.6 Basic Operations

Some basic printer operations are described here as they are referred to in the Initial Setup instructions.

#### 3.6.1 Switching the Printer ON

1. Ensure that the emergency stop is engaged by pressing hard on the red cap.
2. Plug the supplied mains cord into the socket at the rear of the printer, and switch the power switch at printer socket to the “ON” position.
3. Failure to remove the shipping tape before powering up the printer may result in catastrophic damage to the printer drive mechanism.
4. Plug the other end of the power cord into the wall socket and turn ON.
5. Rotate the red cap of the emergency stop to allow the printer to receive power.

#### 3.6.2 Starting the Printer

1. Press the [Power] button on the operation panel.
2. The printer will begin initializing, this process will take approximatelyt 60 seconds, after which the LCD on the operation panel will display “READY”

### 3.6.3 Switching the Printer OFF

1. Press the [Power] button on the operation panel. After about 20 seconds or so a beep will be heard from the printer, and the Operation panel display will be blank.
2. Ensure that the emergency stop is engaged by pressing hard on the red cap and that the plotter is powered.

### 3.6.4 Connecting the Printer to the PC

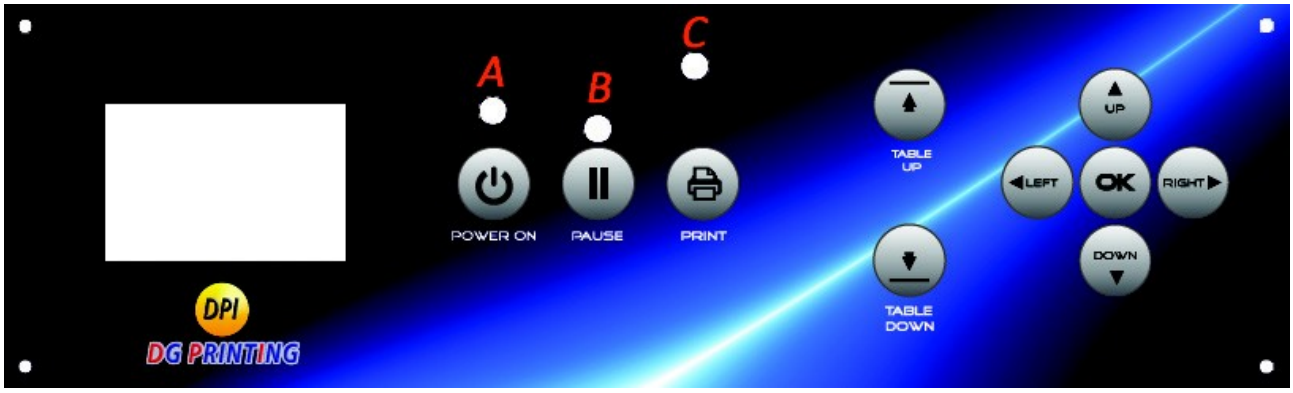
The “The EAGLE” 60 UV printer supports the Ethernet interface cable for connecting to the PC.

*3.6.4.1 Ethernet Connection*

1. Turn off both your PC and printer
2. Insert the network interface cable connector into the network interface connector port located at the rear of the printer:

### 3.6.5 Operation Panel

This section will give an overview of the features from the panel of "The Eagle" and its default settings.




*3.6.5.1 Ready Mode*

When the printer is in Ready mode, it is ready to print.

| Operation Panel Display | Status Light |
|---|---|
| READY (illuminated) | Solid Green |

*3.6.5.2 Stand-by Mode (Sleep)*

While the printer is in stand-by mode, the printer is in a state of energy savings and can be brought into READY by pressing any key on the control panel (except the [POWER] key.)

The printer will go into Stand-By mode after a period of inactivity of approximately 15-20 minutes.

| Operation Panel Display | Status Light |
|---|---|
| READY (not illuminated) | Solid Green |

*3.6.5.3 Menu Mode*

While the printer is in Menu mode, the printer is not ready to print. Each print job sent to the printer while in MENU mode will be appended and printed when the printer returns to the READY mode.

The MENU mode is accessed by pressing the [RIGHT] button on the operation panel while the printer is in READY mode.

| Operation Panel Display | Status Light |
|---|---|
| MENU | Solid Green |

*3.6.5.4 How to Change Settings Menu*

This section describes how to enter the MENU mode and make changes to the settings with the buttons on the operation panel.

Make sure that the printer is in the READY mode

1. Press the [RIGHT] button on the operation panel
2. The menu list will be displayed on the LCD screen
3. To select a menu, press [UP] or [DOWN]
4. To enter the selected menu, press [RIGHT]
    - The first item in the selected menu will appear on the LCD screen of the operation panel.
5. Press [UP] or [DOWN] to scroll through the options
6. Press [RIGHT] to get or set the element
    - The parameter list for that item will be displayed in the LCD
7. Press [UP] or [DOWN] to scroll through the options
8. Once the desired parameter is highlighted on the LCD screen, press the [OK] button to save the selected parameter. If the selected parameter provides an execution, press [OK] to perform the associated function. After execution, the printer will exit the menu and return to the READY state.
9. Press the [LEFT] button to exit the menu mode and return to the READY state.

*3.6.5.5 Led meaning*

| ID | Color | Status | Meaning |
|---|---|---|---|
| A | Green | Static | The printer is in READY or in STAND-BY status |
| | | Blink | The printer is processing some data |
| B | Orange | Static | The current print job is PAUSED |
| C | Red | Static | The GAP sensor has found something that may damage the print head. The platen will lower automatically. |
| | | Blink | The GAP sensor has not found anything but the platen is already at his maximun height and it can't be raise more. |
| | Orange | Static | The GAP sensor is DISABLED |
| | Green | Static | The GAP sensor has not found anything |

### 3.6.6 Performing a Head Cleaning from the Operation Panel

This process is usually used to free the clogged nozzle of the printhead.

CAUTION Do not launch a cleaning unless there are inks in the printer.

1. Ensure that the printer is in READY state
2. Hold the [RIGHT] button for about 3 seconds
    - The display on the operation panel will display the message CLEANING / PLEASE WAIT and the process will begin.
    - After 2/3 minutes the cleaning is complete and the display will show the READY status.

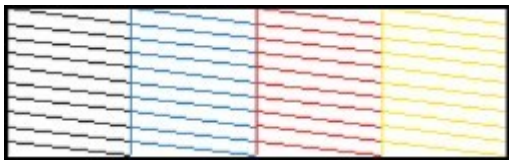
NOTE The cleaning will consume a little 'ink but this is normal for all printers.

### 3.6.7 Printing a Nozzle Check

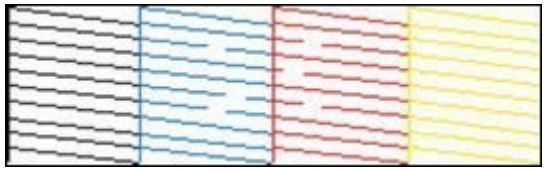
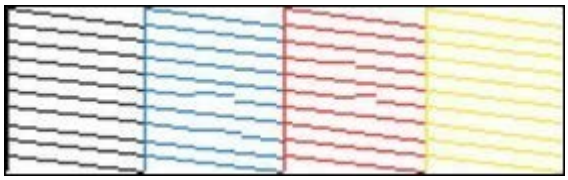
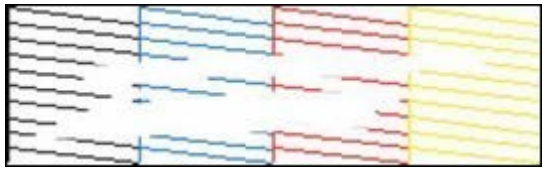
The nozzle check is a test print used to check the condition of the printhead nozzles. The print of a nozzle check helps to avoid wrong prints and the waste of the material.

To print a nozzle check you have to:

1. Move the print head carriage from the home position (see Printer Control Center manual) and control the print head height.
2. Open the Menu, select Test Print → Nozzle Check → Print and press [OK]
3. Wait the end of the proces and check the result.



Example of a perfect nozzle check.

| TEST | EXPLANATION |
|---|---|
|  | This print shows missing nozzle line which indicates that there is either a blockage or an air pocket preventing the individual nozzle(s) from ejecting any ink. |
|  | This print shows a misplaced (deflected) nozzle line which indicates that there is either a partial nozzle blockage or debris on the print head facet preventing the nozzle from ejecting ink in a straight line. |
|  | This print shows a line of missing nozzle prints which indicates that there is likely to be physical damage to the print head face, possibly by the print head face striking the platen surface or the media which is preventing the affected nozzles from ejecting any ink. |

# 4. Printing

### 4.1 Introduction

Print on objects with "The Eagle" 60 UV is a very simple process which is divided in 4 simple steps:

1. Create an image in any of your image editing programs
2. Prepare an object for printing and place it on the platen
3. Set your image in the RIP software
4. Send the print job

Refer to your RIP manual to know how to send a print job.

### 4.2 Adjust Printing Bed Height

The ideal gap between the print head and the material should be 2,3mm.
To adjust the height, lower the printing bed until you see that the distance is high enought. After that raise the bed until the sensor founds the object.

NOTE: If the material isn't regular use the highest point as refer.

Now the plotter will automatically set the height to 2,3mm.
It is recommended that an operator checks the correct height when the print job starts.

### 4.3 Printing your Image

Please refer to the manual for your RIP for detailed information on how to send a print to "The Eagle". The quality is an extremely important part of the print process. You can check the print quality by doing a Nozzle Check.

### 4.4 Cancelling a Print Job

To cancel a print job in progress you have to pause the printer by pressing the [PAUSE] button, from PCC click the “Abort Job” button and then from the printer keep the [PAUSE] button pressed for 3 seconds.

# 5 General Maintenance

## 5.1 Introduction

The "The Eagle" is a precision instrument and as such it needs maintenance in order to function at its best. Regular head cleanings, nozzle check and adequate control of the inks and the main mechanisms (movement of the head carriage, cleaning the capping station etc..) will ensure better performance.

## 5.2 Run the a Head Clean and Nozzle Check test print each day before starting production

You'll discover the presence of missing nozzles BEFORE you see in the piece that you have printed.

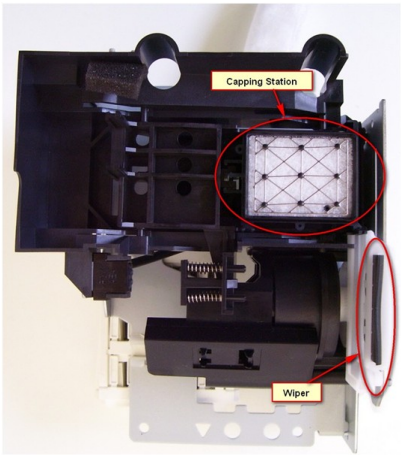
## 5.3 Maintaining the Ink System

### 5.3.1 Accessing the Capping Station

NOTE No tools are required for this procedure

1. Lift the cover of the print head carriage
2. Press the blue button on the printhead to release it and get it out of the capping station.
3. Move the head to the left side of the carriage in order to have access to the capping station.

### 5.3.2 Clean the Wiper and Head Cap




1. Access to the capping station
2. Clean the wiper with a swab and cleaning
3. Clean the edge of the capping with a swab and cleaning
4. Move the print head carriage to the right until you hear a “lock” noise. That noise means that the print head is locked in the capping.

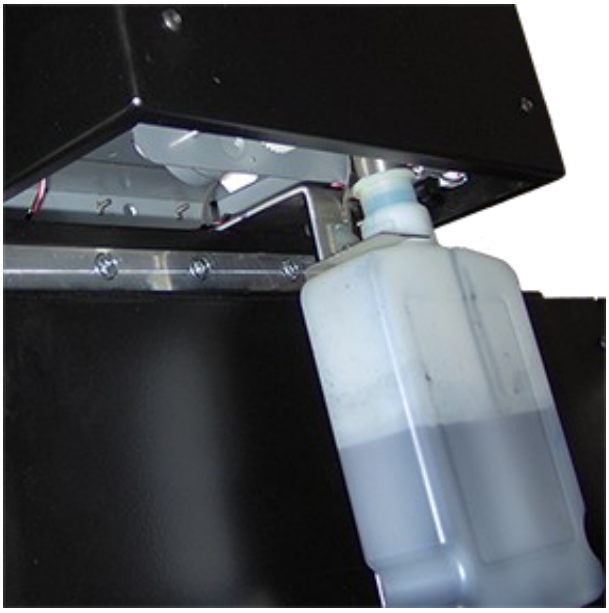
### 5.3.3 Manual Print Head Clean

1. Access to the capping station
2. Move the printhead to the center of the carriage
3. Clean the edges of the printhead with a swab
4. Clean carefully the metallic covers both sides of the head with a swab

### 5.3.4 Empting the Waste Ink Tank

During the process of printhead cleaning, the "The Eagle" draws the ink through the print head. This excess ink goes to a bottle calles waste ink tank. Check regularly this bottle and empty it when necessary. Remember that you must comply with local regulations to dispose of the contents.

1. Remove the waste ink tank (located in the area below the capping station and is accessible only if the group head is at the beginning or end of the print area)
2. Empty the waste ink tank
3. Reposition the tank waste



### 5.3.5 Cleaning the UV Led Lamps

During the print process, it is possible that ink goes to clump on the lamps, thus blocking the UV light and causing a not complete drying of the ink and consequently a lower print quality.

1. Accesso to the capping station
2. Clean the lower part of the lamps with a piece of paper soaked in alcool

## 5.4 Other Maintenance Items

### 5.4.1 Clean the CR Encoder Strip

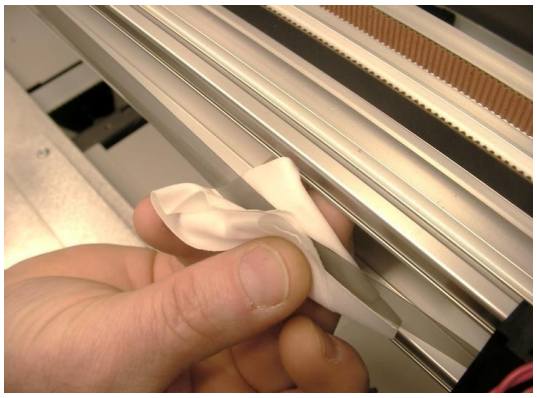
NOTE Use gloves to avoid getting dirty. Use only recommended cleaning.

The encoder strip is the thin strip of plastic present behind the print head for the whole length of the carriage. It is clear or slightly gray, but has hundreds of vertical marks. A sensor located behind the destination "reads" these vertical marks so that the print head knows exactly where to spray the ink. It is possible that the tape is dirty and that, consequently, the sensor no longer able to properly read these signs and your printer will be "confused". The "fluff" of clothing, the ink sprayed in excess and also the pre-treatment can help to smudge the encoder strip. It is therefore important that you clean this strip at least once a week, even daily if you have a large amount of daily production:

NOTE: Before cleaning the encoder strip CR make sure the printer is turned off.

CAUTION: When you perform these steps, be careful not to touch the encoder strip with bare hands or stain it with ink. Be very careful also not to scratch, for example bumping against the frame. Any dirt or scratches on the encoder strip may cause a malfunction of the sensor encoder:

- Do not pull the encoder strip by force. The strip can break easily.
- Be careful not to damage or break the encoder strip.



1. With a microfiber cloth dampened with distilled water or purified water or cleaning, GENTLY rub both sides of the encoder strip.

CAUTION: Do not rub too hard because you may remove the signs on the strip

- If the cloth or applicator gets dirty, throw it and use a clean one

2. Release the printhead and move it to the left side of the carriage. This will allow you to get easily to the other side of the encoder strip.

- Let the encoder strip to dry completely before start printing again.

### 5.4.2 Cleaning the Carriage Guide Shaft

Check the guide rail of the printhead carriage regularly and remove dust and dirt with a soft cloth.

Put grease on the rails of theprinthead carriage every two or three weeks to get it to flow freely. Too much grease will collect dirt and dust, be parsimonious.

### 5.4.3 Clean the CR Drive Belt, Roller and Pulley

The CR Drive Belt, Pulley and Roller can collect a build-up of pre-treatment, dust and lint in their “teeth”. An excessive build up can cause the Print Head to “skip” during printing

The Drive Belt and Gear are driven by the CR Motor, and in turn drive the Print Head itself left and right during the printing process. These components are located along the top of the CR Guide, the CR Belt Pulley is directly behind the Carriage Assembly (when in home position), the CR Drive Belt runs the length of the Carriage area, and the Roller is located on the far left side of the printer.

Use a small brush or mini-vacuum cleaner to clean the teeth of the Drive Belt and the Drive Gear. You may also need to use a small sharp object and/or a small pair of tweezers to remove stubborn build up (take care not to scratch or damage the Drive Belt or Gear in doing this).

### 5.4.4 Replacement of damper and capping station

The UV ink is thicker and more corrosive than a normal water base ink so it tends to wear out both dampers and capping station faster. It is recommended a part replacement every six months in order to avoid sudden stops of the machine and therefore of the production.

### 5.4.5 Long periods of inactivity

The procedure to be followed to keep the printer "stopped" for long periods is as follows:

1. Empty bottles of inks
2. Pull from the waste ink tubes with the syringe the ink in tubes and damper
3. Wipe the head with a piece of paper and cleaning

This procedure is necessary to prevent the jamming of the print head nozzles causing future problems.

## 5.5 General Care

### 5.5.1 Environment
In order to have a good print quality an to let the printer live the longest, it is important for the machine to be set in an environment where the humidity values swings between 40% and 70% and where temperature never falls below 20°C nor rises beyond 30°C. Air conditioning is not cause of any problems unless the air jet is actually pointed towards the machine itself. Dust too is an enemy of the EAGLE: do not use the printer in dusty environments.

### 5.5.2 Clean the “The Eagle”
Dust, ink and pre-treatment may not only soil the internal parts of the printer, but the external as well, in time ruining the printer. Use a smooth baize and some cleaning solution to clean the print platform, the black printer dock and the internal side of the head mobile unit. Do not spray the detergent directly on the parts of the machine; wet the baize instead.

### 5.5.3 Ink Levels
Paying attention to the ink levels is very important. The check up has to be made using one’s one eyes, not the software. Mind that the ink level has to be in a range between ¾ and ½ of the bottle.

# 6 Error List

The following list contains common error codes that may occurs while printing. They are followed by a short explanation that tells you how to solve them.

| Error Codes | Solution |
|---|---|
| 00010000<br>00010001<br>00010002<br>00010003<br>0001001E | Clean the PF encoder disc |
| 00010004<br>00010005<br>00010007<br>0001001D | Clean the CR encoder strip and/or lubricate the printhead release button |
| 00010014<br>00010027<br>0001003E | Check that the color tanks are well closed and that there isn't pressure loss in the air tubes |
| 00010035 | It is necessary to clean the capping station |
| 0001001B<br>00010028<br>00010037<br>00010038 | Print head error, contact the assistance |
| 0001000C | Check that the gears that lift the print head carriage are touching each other. The gears are located on the right of the print head. |