EN

DOMINO

K-Series
Product Manual

K600i

Domino. Do more.

THIS PAGE INTENTIONALLY LEFT BLANK

DOMINO K600i PRINTER
PRODUCT MANUAL

This manual, Domino Part No. 25410, is for use in the operation of Domino K600i printers.

This manual Domino Part No. 25410 is the official authority for the operation of Domino K600i printer. It is the instructions for the purposes of the Machinery Directive 2006/42/EC.

The English version is the Original Instructions. It is the source document for all translated versions.

Users of this printer are warned that it is essential to read, understand and act according to the information given in Part 1: Health and Safety.

Domino Printing Sciences plc. has a policy of continuous product improvement, the Company therefore reserves the right to modify the specification contained in this manual without notice.

For sales, service and inks please contact:

Domino UK Limited

Trafalgar Way

Bar Hill

Cambridge CB23 8TU

Tel: 01954 782551

Fax: 01954 782874

Email: enquiries@domino-uk.com

Domino North America

1290 Lakeside Drive

Gurnee IL.60031

U.S.A.

Tel:847 244 2501

Fax:847 244 1421

Email: solutions@domino-na.com

Contents of EC Declaration of Incorporation

No. Doc-0010151_R05

Manufacturers name: Domino Graph-Tech AG

Manufacturers address: Aeschwuhrstrasse 15, CH-4665 Oftringen, Switzerland

This declaration of incorporation is issued under the sole responsibility of the manufacturer.

Object of the declaration: K600i Digital Inkjet Printer

Serial number: from K600i-0480 onwards

The undersigned hereby declares, on behalf of Domino Graph-Tech AG that the above mentioned incomplete product to which this declaration relates is in conformity with the following EHSR of the 2006/42/EC Machinery Directive:

1.1.5; 1.1.6; 1.1.8;

1.2;

1.3.1; 1.3.4

1.5.1; 1.5.2; 1.5.3; 1.5.4; 1.5.5; 1.5.6; 1.5.7; 1.5.8; 1.5.9; 1.5.10;1.5.11; 1.5.13;

1.5.14; 1.5.15;

1.6.1; 1.6.2; 1.6.3; 1.6.4;

1.7

The object of the declaration described above is also in conformity with the relevant Union harmonisation legislation:

2014/30/EU: EMC Directive

2011/65/EU: RoHS Directive, including amending Directive 2015/863

The following harmonised standards and specifications are applied:

EN ISO 12100:2010	Safety of machinery - General principles for design - Risk assessment and risk reduction
EN 60204-1:2018	Safety of machinery - Electrical equipment of machines - Part 1: General requirements
EN 61000-6-2:2005	Electromagnetic compatibility (EMC) – Part 6-2: Generic standards – Immunity for industrial environments
EN 61000-6-4:2007+A1:2011	Electromagnetic compatibility (EMC) – Part 6-4: Generic standards – Emissions standard for industrial environments

The technical documentation required by Annex VII Part B of the Machinery Directive is maintained at the corporate headquarters of Domino Graph-Tech AG, Aeschwuhrstrasse 15, CH-4665 Oftringen.

This declaration is no longer valid if the machine is modified without the consent of Domino Graph-Tech AG.
It is proposed that K600i is installed in or onto an existing transport system.

The final machine must not be put into service until it has been declared that it conforms to the provisions of the Machinery Directive 2006/42/EC. It is mandatory to perform a risk assessment for the final completed machine including the machine-machine interfaces and the human-machine-interfaces. For the implementation of this risk assessment and the resulting protective measures the customer is responsible.
The following points must be considered:

- Check if there is sufficient space in and around the completed machine to allow operation and servicing. Ensure that there is enough space for the emergency exit.
- Integrate the K600i into the emergency stop safety circuit of the completed machine.
- If printhead mounting is in cleaning / printing position crush hazard exists during vertical and horizontal movement. In the manual is explained, in which situations this hazard does occur. Additional safety measures have to be installed.

Signed for and on behalf of Domino Graph-Tech AG Aeschwuhrstrasse 15
CH-4665 Oftringen Switzerland

Date: 22. October 2021

Name and Job title:
Christian Miescher
Head of Engineering Operations

Declaration of Incorporation

DOMINO
Graph-Tech AG

EU DECLARATION OF INCORPORATION

No. Doc-0010151_R05

Manufacturers name:	Domino Graph-Tech AG
Manufacturers address:	Aeschwuhrstrasse 15, CH-4665 Oftringen, Switzerland

This declaration of incorporation is issued under the sole responsibility of the manufacturer.

Object of the declaration:	**K600i Digital Inkjet Printer**
Serial number:	**from K600i-0480 onwards**

The undersigned hereby declares, on behalf of Domino Graph-Tech AG that the above mentioned incomplete product to which this declaration relates is in conformity with the following EHSR of the 2006/42/EC Machinery Directive:

1.1.5; 1.1.6; 1.1.8;
1.2;
1.3.1; 1.3.4
1.5.1; 1.5.2; 1.5.3; 1.5.4; 1.5.5; 1.5.6; 1.5.7; 1.5.8; 1.5.9; 1.5.10;1.5.11; 1.5.13;
1.5.14; 1.5.15;
1.6.1; 1.6.2; 1.6.3; 1.6.4;
1.7

The object of the declaration described above is also in conformity with the relevant Union harmonisation legislation:

2014/30/EU: EMC Directive
2011/65/EU: RoHS Directive, including amending Directive 2015/863

The following harmonised standards and specifications are applied:

EN ISO 12100:2010	Safety of machinery - General principles for design - Risk assessment and risk reduction
EN 60204-1:2018	Safety of machinery - Electrical equipment of machines - Part 1: General requirements
EN 61000-6-2:2005	Electromagnetic compatibility (EMC) – Part 6-2: Generic standards – Immunity for industrial environments
EN 61000-6-4:2007+A1:2011	Electromagnetic compatibility (EMC) – Part 6-4: Generic standards – Emissions standard for industrial environments

Declaration of Incorporation (continued)

The technical documentation required by Annex VII Part B of the Machinery Directive is maintained at the corporate headquarters of Domino Graph-Tech AG, Aeschwuhrstrasse 15, CH-4665 Oftringen.

This declaration is no longer valid if the machine is modified without the consent of Domino Graph-Tech AG.

It is proposed that K600i is installed in or onto an existing transport system. The final machine must not be put into service until it has been declared that it conforms to the provisions of the Machinery Directive 2006/42/EC. It is mandatory to perform a risk assessment for the final completed machine including the machine-machine-interfaces and the human-machine-interfaces. For the implementation of this risk assessment and the resulting protective measures the customer is responsible.

The following points must be considered:

- Check if there is sufficient space in and around the completed machine to allow operation and servicing. Ensure that there is enough space for the emergency exit.
- Integrate the K600i into the emergency stop safety circuit of the completed machine.
- If printhead mounting is in cleaning / printing position crush hazard exists during vertical and horizontal movement. In the manual is explained, in which situations this hazard does occur. Additional safety measures have to be installed.

Signed for and on behalf of
Domino Graph-Tech AG
Aeschwuhrstrasse 15
CH-4665 Oftringen
Switzerland

Date: 22. October 2021

Signature: 

Name and Job title: Christian Miescher
Head of Engineering Operations

This is the original document.

FCC Notice

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the Federal Communication Commission (FCC) Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communication. Operation of this equipment in a residential area is likely to cause harmful interference, in which case, the user will be required to correct the interference at his own expense.

Any changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

European EMC Statement

This product may cause interference if used in residential areas. Such use must be avoided unless the user takes special measures to reduce electromagnetic emissions to prevent interference to the reception of radio and television broadcasts.

Decommissioning of Equipment

The K600i contains valuable materials which should be re-cycled. It also contains specific materials and components which could be hazardous to human health and the environment if disposed of or handled incorrectly. The K600i must not be treated as domestic waste.

Consult industrial waste re-cycling authorities for information on correct disposal. The customer is also responsible (by law depending on country) for deleting any personal data that may be stored on the equipment.

Ensure the equipment poses no risk to personnel while being stored prior to disposal.

Intended Use of Printer

The K600i printer is designed for printing onto a variety of substrates and products. For specific details, please contact your local support office.

Safety may be impaired if the product is used in a manner not specified by the manufacturer.

Target Audience

This document cover the basic safety information and operation. It is aimed at operators of this equipment. Domino recommends that all operators receive product training before operating the equipment.

Keep these instructions for future reference.

PRODUCT/BATTERY END OF LIFE

WARNING:	Flammable Material. Risk of Fire or Explosion.
	• Batteries must not be disposed of by using fire, hot oven or by mechanically crushing or cutting. Obey local waste regulations when recycling batteries. • Do not store or leave the battery in high or low extremes of temperature or at low air pressure at high altitude.

CAUTION:	*Hazardous Material. Risk of damage to equipment and environment.*
	*Some batteries are not removable. If the battery requires replacement, replace the PCB that the battery is installed on. Obey local waste regulations when recycling the battery and PCB.*

Recycling information in accordance with the EU and UK WEEE and Battery Directives

If you are recycling a Domino product and are located within Europe (EEA and UK) you must have our products recycled within the terms of the WEEE and Battery Directive.

Product mark

Battery mark

The product/battery is marked with one of the above recyling symbols.

By the end of life the product/battery must be recycled separately at an appropriate recycling collection point.

For more information or guidance, please email: environmental-protection@domino-printing.com.

CONTENTS

AMENDMENT RECORD

Amendment	Date
All Parts at Issue 1	October 2011
All Parts at Issue 2	June 2012
All Parts at Issue 3	July 2014
All Parts at Issue 4	November 2015
All Parts at Issue 5	August 2016
All Parts at Issue 6	December 2017
All Parts at Issue 7	June 2024

PART 1: HEALTH AND SAFETY

CONTENTS

THIS PAGE INTENTIONALLY LEFT BLANK

HEALTH AND SAFETY

The following safety instructions concern all work carried out on the machine as well as in the area close to the machine. Local restrictions concerning the specific factory should be taken into consideration.

Risk Assessment

Ensure that risk assessments have been performed during installation of the print system.

SDS

Domino supplies Safety Data Sheets (SDS) giving specific safety information with its ink and flush fluids. Ensure that operators are familiar with the contents of SDS.

K600i Symbols

The following symbols are used in this manual. Where they appear next to a procedure or instruction, they have the significance and importance of a written warnings or cautions.

Risk of (crush) injury to fingers or hands.
The power supply must be switched off before accessing this area during a maintenance procedure.

Eye protection must be worn.

Protective clothing must be worn.

- Use appropriate protective gloves.
- Consult Safety Data Sheets.

Equipment must be switched off and the power connection removed.

Only trained operators should carry out this procedure.

Only advanced operators should carry out this procedure.

Beware of electro-static discharge.
The following electro-static precautions must be used:

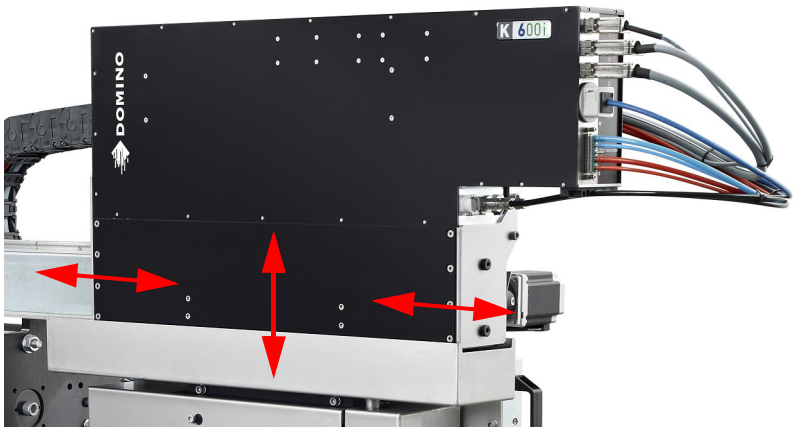
- Wear a wristband connected to ground/earth**.**
- Avoid wearing clothing that can build up electro-static voltages.

Crush Hazards

The risk areas are shown in the following illustrations:

Capping Station

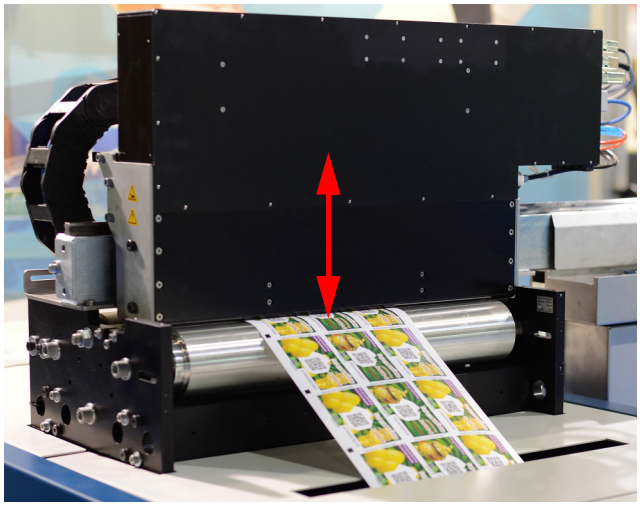
Where the print head moves forwards/backwards (horizontal movement) and moves up/down (vertical movement) in the capping station during the print head cleaning process.



Arrows indicate the vertical and horizontal movement.

Print Position

Where the print head moves up/down when moving to the print position when the line is started (vertical movement).



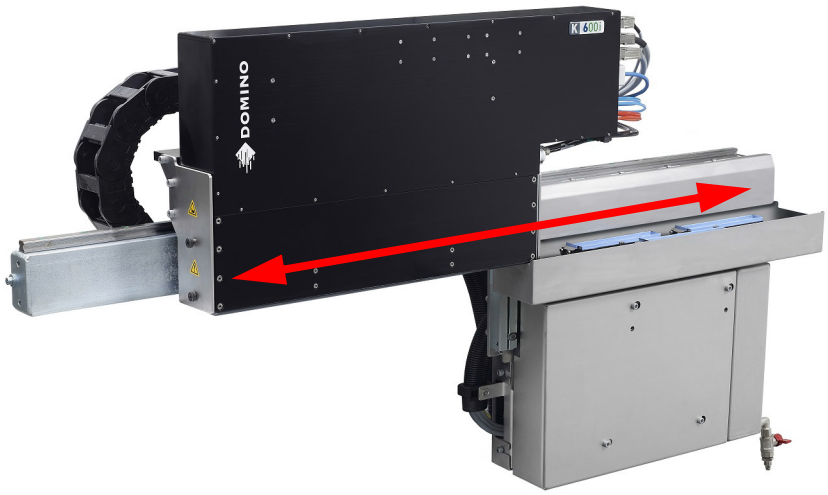
Arrow indicates movement in a vertical plane.

Capping Station to Print Position Traverse

WARNINGS: (1) The areas illustrated and described on pages 1-5 and 1-6 present possible crush hazards. The risk area may prove difficult to protect, depending upon the type of production line the print system is installed on.

(2) Keep hands away from the printer when it is operating.

Where the print head moves from the capping station to the print position and back to the capping station (horizontal movement).



Arrow indicates movement in a horizontal plane.

Ancillary Equipment

In addition to the illustrated crush hazards it must be noted that ancillary equipment such as power, pneumatic and control lines will move during the operation of the equipment. Precautions must be taken to prevent personnel and clothing becoming caught during these operating procedures.

Note: It remains the responsibility of the customer to perform a Risk Assessment on the printing equipment installed. Domino can assist where necessary.

Printer Configuration

Printer configuration must be taken into account especially when assessing crush hazards.

In general, warnings used in this manual are based on typical printer operational behaviour. This behaviour can, however, be configured to specific customer requirements. It is the customer's responsibility to ensure all users are aware of any specific changes to the printer's behaviour especially during the Print, Stop and Park Operations.

Segregation of UV and Solvent Based Waste Streams

General

Domino provides advice on the safe storage and usage of its inks and other consumables, and this advice is equally important when considering the management of waste from all printing processes.

Safe management and disposal of waste materials will protect your equipment, your employees and the environment.

It is important to keep UV, aqueous and solvent-based waste streams entirely separate from each other and ensure there are safety procedures in place to protect against deliberate or inadvertent mixing of these products.

As with all industrial chemicals, while the likelihood is low, mixing can result in adverse consequences that can result in harm or damage.

Further to this, the mixture of UV, aqueous and solvent based ink waste may also impact your waste disposal/recycling/recovery efforts.

Domino therefore advises customers to have preventative measures in place to prevent the mixture of these waste streams, such as physical separation, signage and training where appropriate.

Draining waste

It is important that the container used to collect waste (see page 5-8) is of sufficient capacity and compatible with the waste type in both its construction and previous contents.

Generally a bottle previously used for fresh flush or ink that is specified for the printer is suitable. Ensure it is clearly labelled as WASTE so it can be identified for future use.

Never use a container that has been used to store other chemicals - even if it appears clean. Dangerous chemical reactions can occur.

Should the collected waste be decanted into a larger container for storage, it is equally important that the larger container is compatible with the waste type as detailed above.

Printing Inks

WARNING: Wear appropriate Personal Protective Equipment (PPE), This includes protective glasses (UV and chemical), gloves (specific to the ink type where necessary), overalls and steel toe capped shoes. Gloves must be changed regularly even if they appear uncontaminated.

Each Domino ink and flush fluid container displays warnings. Refer to the SDS for detailed information. The following notes are for general guidance only.

Industrial Hygiene and Safe Working Practice

When used correctly, printing inks do not present unacceptable hazards or problems. However, everybody using them must be familiar with the appropriate safety standards and be aware of the precautions that must be taken. The following are basic requirements:

- Proper standards of industrial practice relating to cleanliness, tidiness and storage must be maintained
- Inks and ink containers must be handled with care
- All who come into contact with fluids must be properly instructed in their use
- Do not use the printer in wet or explosive environments.

Directions for safe working practices vary according to the environment. The following are broad principles so that necessary precautions may be taken:

- Contact with the mouth must be avoided. Therefore eating, drinking or smoking, or any personal habits or actions that may transfer ink to the mouth, must be avoided
- Do not smoke or allow naked flames (or other sources of ignition) in the vicinity of any inks or flushes, as this is highly dangerous
- Contact with the eyes must be avoided. Suitable eye protection must always be worn whenever there is any risk of splashing or misting. If ink does get into the eyes, first aid treatment is to flood the affected eye for 15 minutes with saline solution, or clean water if not available. Take care not to allow the water to run into the unaffected eye. Medical aid must be obtained immediately
- Most inks contain solvents, dyes, binder and photo indicators that may injure the skin. Warning is given on the appropriate SDS. Barrier creams, gloves and protective clothing must be used. After exposure to ink, all possible traces must be washed off as soon as possible at the nearest washing facility

- Many inks contain materials that vaporise easily, producing fumes that can be inhaled. Good ventilation is necessary
- Soiled cleaning materials (such as Domino-approved cleaning wipes) are a potential fire hazard. They must be collected for safe disposal after use
- Spillages of printing inks and auxiliary products must be cleaned up immediately. Inks and solvents must not be allowed to enter drains or sewage systems.

Spillages and Disposal

Inks and associated fluids conduct electricity. Therefore, power to the printer must be switched off while spillages inside the printer cabinet are being cleaned up.

Printing inks and associated fluids must not be treated as ordinary waste. They must be disposed of using approved methods according to local regulations.

Storage

Inks and flush fluids must be stored in Domino-approved/supplied containers.

Printing inks must be stored in well ventilated buildings, or in areas set aside for the purpose, chosen for safety in case of fire.

Inks must be stored within the ambient temperatures stated in the SDS. Otherwise ink degradation occurs and could lead to system and nozzle faults.

Fire Risk

Fire risk is a most important consideration where printing inks are stored and used. The degree of fire hazard will vary considerably from one type of ink or flush to another.

There are instances where UV inks can become flammable. Refer to the SDS for details.

If there is a fire, there is a likelihood that dangerous fumes will arise from printing inks. For this reason ink must be stored where it can be reached quickly by the fire fighting service, and where it will not spread beyond the store.

Electrical/Mechanical Safety



WARNINGS:

(1) High voltages are present within the print head and cabinet. Ensure that the power is removed before opening cabinets, removing panels or removing the print head cover.

(2) Ensure that the correct fire extinguishers are readily to hand.

(3) Domino printers require an electrical input and generate high voltages. Maintenance personnel and service engineers must be competently trained before working on the equipment.

(4) Do not attempt to lift heavy equipment alone. Use lifting equipment or a two-man lift. Ensure that cables do not create a hazard to personnel.

(5) Ensure that all servicing is carried out by trained and authorised personnel.

Ultraviolet Light Hazards

WARNINGS:

(1) Ultraviolet light is harmful to eyes and may cause permanent eye damage, similar to arc welder 'flash'

(2) Ultraviolet light causes skin burns that are similar to severe sunburn

(3) All light shielding must be in place during equipment operation.

UV ink curing systems emit a peak wavelength which is not visible to normal sight, therefore the high intensity of UV radiation may not be obvious. To ensure the safety to operators and servicing personnel the following must be complied with at all times:

- Never look directly at a UV light source
- UV light emitted from the ink curing system must be adequately shielded from eyes and skin
- Use UV radiation eye and skin protection during servicing.

Ensure all regulations and precautions relevant to the country of operation are complied with.

For UK operation refer to the HSE document *Guidance for Employers on the Control of Artificial Optical Radiation at Work Regulations (AOR) 2010*.

Ozone

Ozone, O^3, is a toxic gas possessing a distinctive odour and is a normal constituent of the earth's atmosphere. Ozone is produced deliberately for a variety of industrial purposes and is also produced naturally from oxygen whenever ultra-violet radiation or electrical discharges occur.

Background concentrations in the immediate atmosphere vary as a function of season, weather conditions, altitude and humidity.

Exposure Limits

The general policy adopted by the Health and Safety Executive of the UK is that exposure to hazardous substances should be kept at low as is reasonably practicable.

Users must comply with all applicable regulations relevant in the country of operation and refer to the manufacturer's manuals regarding any equipment that produces ozone in the course of normal operation.

Ventilation

Areas into which ozone may escape must be equipped with adequate ventilation and extraction facilities.

Ozone should be prevented from entering the workroom air by the use of exhaust appliances placed close to the source of emission.

First Aid

If a person is overcome by ozone, the following precautions should be adopted:

(1) Move the patient to a warm uncontaminated atmosphere and loosen tight clothing at the neck and waist

(2) Keep the patient at rest

(3) Seek medical aid.

PART 2: DESCRIPTION

CONTENTS

THIS PAGE INTENTIONALLY LEFT BLANK

INTRODUCTION

This document contains basic operation and maintenance instructions for the Domino K600i Printer.

The operator must only allow personnel to work on the machine who:

- Are familiar with the basic regulations on industrial safety and accident prevention
- Are trained to work on the machine
- Have read and understood the safety instructions and operational procedures in this Product Manual.

Benefits of the K600i

The K600i incorporates a number of Intelligent Technology (i-Tech) components and systems that deliver a more flexible and reliable system.

Duplex Printing

Duplex printing is available for two print head systems by selecting the RIP settings for Duplex/Simplex, Greyscale and print position on the sheet (X and Y positions).

Ink Circulating System

The Unique ink circulating system (i-Tech ActiFlow) ensures that the ink is always moving around the print head, even when printing has stopped. ActiFlow means that the ink does not have the opportunity to dry within the nozzle so reducing nozzle outages.

Print Head Cleaning

The system can be configured to include automatic print head cleaning and capping (i-Tech CleanCap).

This revolutionary method means the K600i is almost maintenance free. When not in operation the print head is automatically moved to the CleanCap position where the head is purged, wiped and capped ready for future production. This eliminates time consuming daily manual print head cleaning.

Print Head Alignment

Print head alignment and image stitching is achieved through the (i-Tech StitchLink) micromotor controller technology. It is easy to use and accurate for rapid set-up and registration which minimizes manual operator intervention.

PRINTER SPECIFICATION

Nozzle Data

- 2656 nozzles per head in a width of 108mm (4.26")
- Each print head has 2558 nozzles plus 49 nozzles on each side for margin areas.

For a single headed system 2558/600dpi = 108mm/4.26" or for a three headed system 3x2558 + 2x98 = 7870/600dpi = 333mm/13.12".

Print Width and Image Format

Print Module	Image Height (mm)	Image Height (Inches)
X1	108	4.26
X2	220	8.69
X3	333	13.12
X4	445	17.54
X5	558	21.96
X6	670	26.39
X7	782	30.81

Print Head

Nominal drop sizes:	6, 7, 11 and 14pl (Pico Litre), depending upon ink type used (figures quoted relate to UV inks), operating parameters and printing conditions.
Print head spacing from print surface:	1.0mm (0.04") maximum *Note: The print head Jetting assemblies are recessed within the print head frame by 0.2mm (200um).*
Print head orientation:	Downwards Printing only.

Fluid Capacity

Waste Container:	Integrated into capping station. Capacity dependent upon system configuration.
Flush Container:	10 litre container.

Ambient Environment for Operation and Storage

Optimum temperature range:	20-30°C (68-86°F)
Optimum humidity range:	40-60%
Note: A temperature and humidity controlled environment is an advantage. Operation outside of these stated optimum ranges may affect printer performance.	

Power and Air Supplies

Power Input:	Single Phase - 110-240v AC 50-60Hz auto ranging (This equipment MUST be earthed).
Fuse rating:	10A
Maximum Power:	2.5kW
UV Curing system:	Manufacturer and operation dependent. Typically 380-420V three phase drop + Extractor Fan requirements.

Air Supply

Input air supply:	6-8bar (87-116 psi), oil free, dry-air with filters, regulated to 0.6 megapascals on printers capping station. *Note: This air pressure is for the K600i printer ONLY. Ancillary equipment may require a differing input air pressures/flow rate.*

THIS PAGE INTENTIONALLY LEFT BLANK

PART 3: OPERATION

CONTENTS

THIS PAGE INTENTIONALLY LEFT BLANK

PRINT QUEUE

Initial Start-up

Toolbar Icons

(1) Before the K600i is started, make a visual check of the fluid levels in the ink and flush bottles by withdrawing their pick-up tubes. They must have sufficient fluid to complete any planned print job(s). Refer to page 5-5 and page 5-7 for ink and flush bottle locations.

Notes: (1) Checking fluid levels when the printer is operating will result in error warnings which must then be cleared.

(2) If OEM equipment is used in the system, refer to the manufacturer's start-up procedures.

(2) Ensure the Power Isolator switch, located on the rear of the machine, is in the *On* position.

(3) Open the cabinet door by depressing the lower latch.

(4) Power on the system via the *On/Off* switch. A blue LED illuminates confirming the system is being powered up.

The PC will automatically start with the desktop displayed.

Note: The K600i print systems can be configured for the GT-Print software to start-up automatically. If this has not been set, proceed to step (5).

(5) Start *GT-Print,* by clicking the  icon on the desktop.

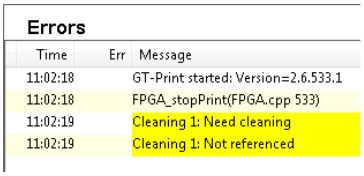
(6) From the *Print Queue* tab clear any errors by selecting the *Traffic light* icon.

Referencing and Print Head Cleaning

When initially starting the printer, the system needs to carry out two tasks:

- A procedure to reference the print head motor position sensors in relation to the print head and capping station positions.
- Print head cleaning to ensure it is free from ink deposits/misting and all the nozzles are clear of blockages.

These tasks are highlighted in the *Error* section of the *Print Queue* screen as shown below:



Referencing

To carry out the reference procedure click on the *Reference*  icon.

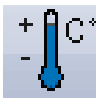
If the reference icon is greyed out, this indicates errors are present that must be rectified by clicking the *Traffic Light*  icon.

Once referencing has been completed, the error *Needs Cleaning* will remain.

Print Head Cleaning

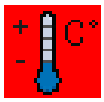
Before the print head can be cleaned the pneumatics module and print head must be allowed to reach operating temperatures.

Monitor the *Temperature* icon located on the lower Status bar:



Grey - Ok

Yellow - Wait



Red - Timed out. The heaters have timed out and need to be reset manually by re-setting the errors via clicking the traffic light icon.

Notes: (1) Do not perform a clean command until temperature icon is grey.

(2) Specific fault conditions will be displayed in the Status area and can be cleared by clicking the Traffic Light icon.

When the temperature indicator is grey, clean the print head by clicking the *Head Cleaning*  icon.

The printer will now perform an automated purge and wipe. Currently The error message *Need Cleaning* will remain. This is not a real error, so can be cleared by clicking the *Traffic Light* icon.

Producing a Test Print

Note: This procedure is dependant on the printer configuration at installation.

WARNINGS: (1) The following Warning is based on typical printer behaviour. Specific configurations can change this behaviour and must be taken into account during operation.

(2) When the Print icon is selected, the print head automatically moves from the capping station to its print position across the web. At the print position it will either lower immediately or when the production line is started.
KEEP CLEAR OF THE LINE DURING THIS OPERATION

A test print is required to ensure that all the print head nozzles are functioning correctly.

(1) From the *Print Queue* tab, select the *Folder* icon.

(2) Navigate to the Bitmaps folder on the *D:* drive.

(3) Select the Kyocera test image.

(4) Click the *Print*  icon. Confirmation of the test pattern to be printed is displayed in the *Errors* section of the *Print Queue* tab.

(5) With the UV/LED curing system switched on, start the production line to enable the test printing to commence.

(6) After the required number of prints click on the *Stop*  icon. The Error section confirms *Stopping* and *Stopped*.

Note: When clicked once, the printer will continue printing until a completed image is printed. Clicking twice will result in an immediate stop (this could be half way through a printed image).

(7) Stop the production line and examine the test print image for deviated or missing jets.

(8) If any deviated or missing jests are present, repeat the cleaning procedure as described on page 3-4 and produce another test print by repeating the test print procedure from step (4).

Note: If after performing this process three times in total there are still missing or misdirected jets, refer to "Extended Nozzle Cleaning" on page 5-10.

(9) If the test print is satisfactory, turn off the test print option by repeating the procedure from step (1) to step (3) and selecting *No* in the Test print Settings.

Starting Production

(1) Select the *Print Queue* tab.

(2) Highlight any obsolete or already printed jobs. The selected job is highlighted in blue.

(3) Click the *Delete* Key or select *Print Queue* > *Delete*. The job location and name are removed from the list.

(4) Click the *File Open*  icon.

(5) Browse to the location where production data files are stored (the recommended location is *D:\GT-Print-Data*…) and load the production job.

Note: When multiple jobs are loaded, the first job to be printed is at the bottom of the list and the queue will be printed in the order of bottom to top.

(6) Start Production by clicking the *Print*  icon on the toolbar.

Note: If multi-paged documents are printed the operator can save the stop location at the end of a day by saving the print queue. Starting the printer the next day will enable production to start from that saved location.

CAUTION: To maintain 100% nozzle functionality a clean/regular purge should be performed at least every 8 working hours.

Normal Shut Down

CAUTION: To maintain the print head in an operational condition it is recommended to perform a Normal Start-up and Shut Down procedure at least once every seven days.

(1) Click the *Print Stop*  icon once to stop printing. The Error section confirms *Stopping* and *Stopped*.

Note: When clicked once, the printer will continue printing until a completed image is printed. Clicking twice will result in an immediate stop (this could be half way through a printed image).

WARNING: If the print head is in the print position when the Park icon is clicked, the print head automatically lifts and moves back to the capping station.
KEEP CLEAR OF THE LINE DURING THIS OPERATION.

(2) Click the *Park*  icon to park the print head into the capping station.

(3) Click on the *Head Cleaning*  icon to perform a standard nozzle cleaning operation.

A clean is performed on the print head at shut down for three reasons:

- To ensure fresh ink is in the print head. This is especially important if the system is not going to be used for a few days
- To ensure nozzle integrity of nozzles not used. This occurs when the print job(s) completed have not used the full number of jets in the print head
- To clean any misting from the print head or potential ink curing from stray UV/LED light.

(4) When the *Errors* section confirms *Cleaning Done,* Select *File* > *Shut Down*.

Note: An Exit option is available in Service Mode only. Do not select this to return to the Widows desktop. If selected the ink system will enter stand-by mode where heater and fluid control will be maintained. The printer is therefore still on - only the user interface has been closed.

(5) Click *Yes* on the *Shut Down* confirmation dialog.

(6) A timed 30 second shut down dialog will appear. Allow shut down to continue or click *OK* for an immediate shut down.

(7) Wait until the PC has shut down and then switch off the printer at the power switch inside the cabinet. The blue LED will extinguish.

THIS PAGE INTENTIONALLY LEFT BLANK

TEST AND HEAD ALIGNMENT PATTERNS

CAUTION: Print head alignment is a Domino engineer function or an Advanced Operator trained to Maintenance level.

Installed on the system are a number of test patterns used for print quality checks or print head alignment. These can be found at:

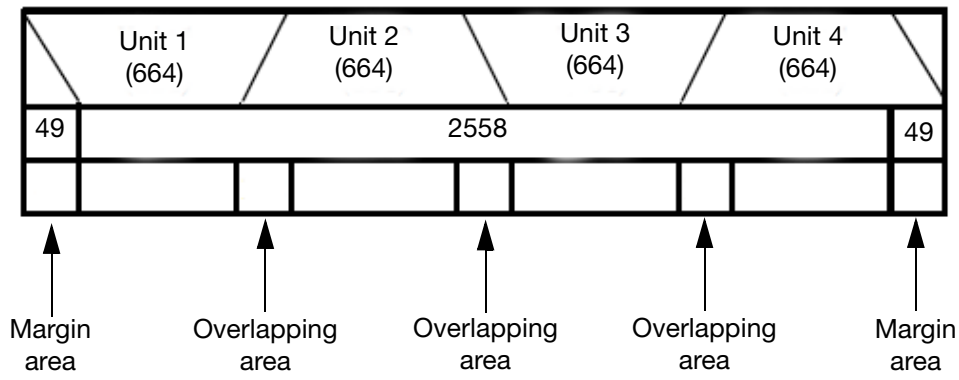
- *D:\GT-Print-Data\Test Patterns*

By printing these test patterns, the user can verify that the print head is set to the correct angle, is aligned correctly and verify if there are any missing jets.

Print Head Jetting Arrangement

Each jetting assembly is constructed of four segments each with a total width of 664 jets.

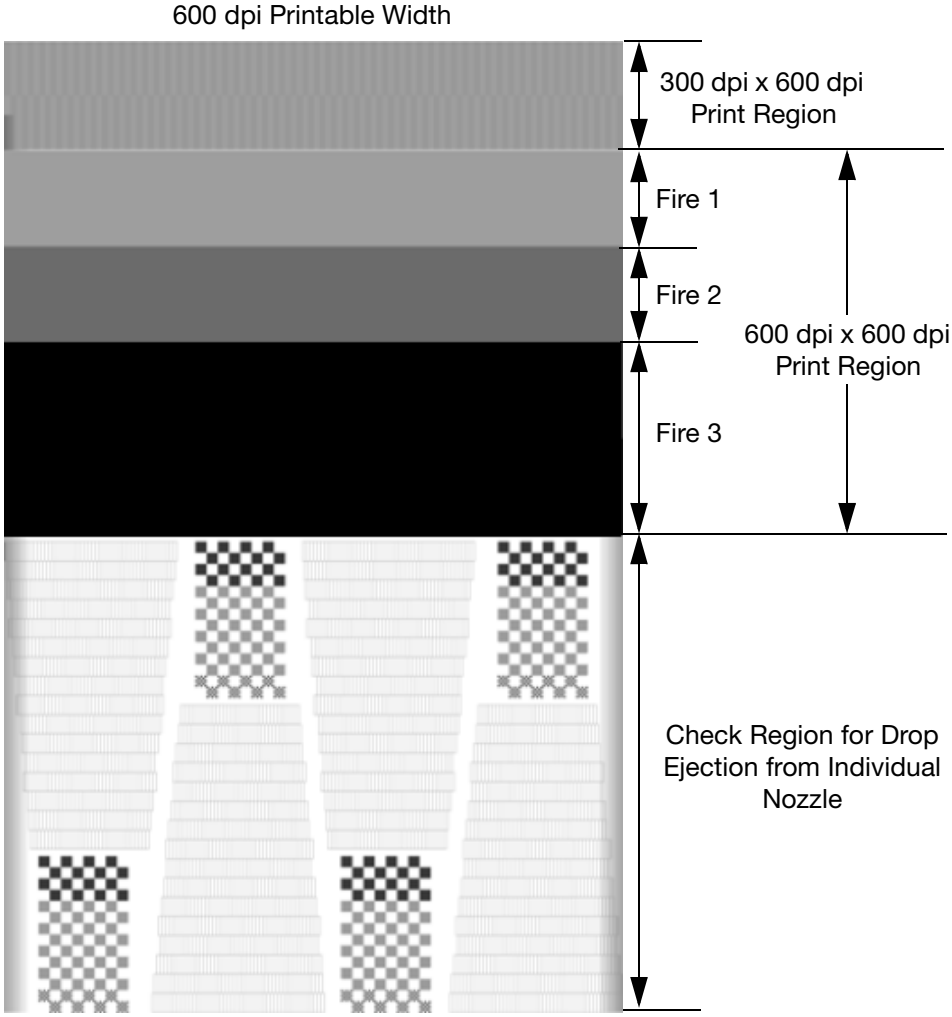
At the each end of the print head are 49 jets for margin areas. Total width of each print head (in jets) is therefore (4x664) - (2x49) = 2558.



Nozzle Distribution in Each Unit, Boundary and Marginal Region

Standard Test Pattern

Use this test pattern to verify deviated or missing jets.



Nozzle Test Pattern

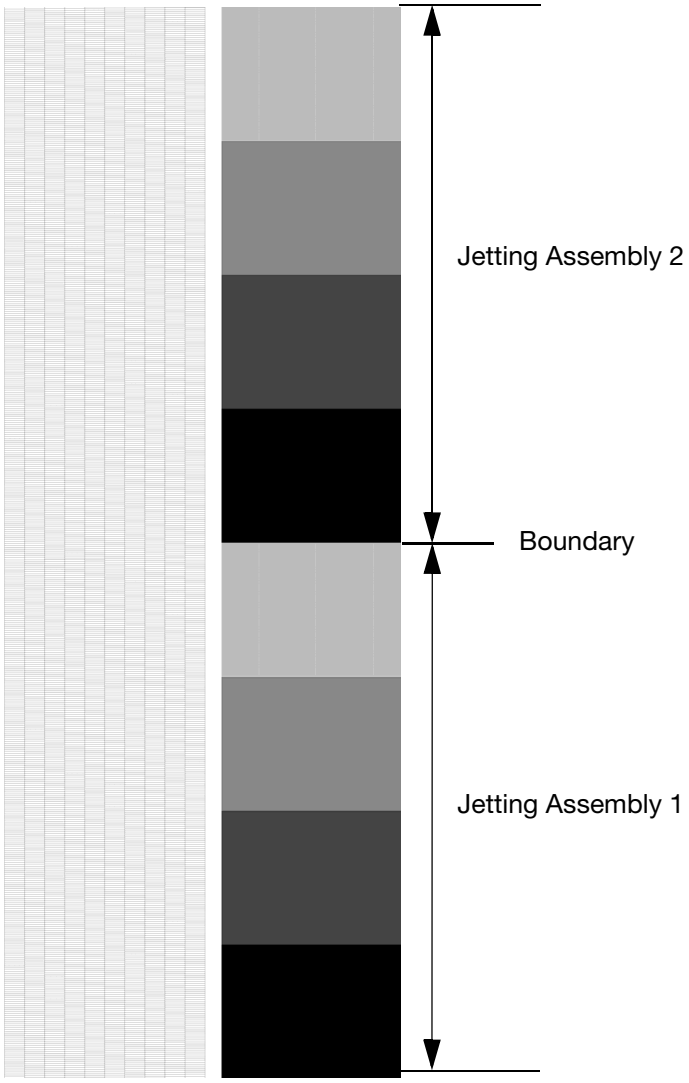
Print Head Alignment Pattern

Notes: (1) This procedure needs to be performed when the printer is first commissioned.

(2) Domino recommends that the operator checks the print head alignment before commencing any print jobs.

(3) Test patterns may vary depending on the number of print heads in the system.

The following pattern (showing a two-headed print system) is used to align the print head via software controls:



GT-PRINT FILE SYSTEM

File Structure

There are two main GT-Print directories that are specific to Operator or Supervisor levels:

- D:\GT-Print-Data
- D:\GT-Print.

GT-Print-Data

Sub Folders	Description
Customer configured	This is the recommended location for customer data and image files. This area can be configured to include sub folders as required or data can be stored directly under the main directory.

GT-Print

Sub Folder	File	Description
Log	GT-DP-xx-xxxx.Log	This file is printer specific and records the last 100,000 printer operations.

Viewing the Errors Log

Note: All users can view the error log, however only Supervisor level users can export the Error log file.

To view the Error log:

(1) From the menu select *Errors* > *Open Log*. A standard Windows Open dialog displays.

(2) Highlight the log file for the required printer (each printer will have its own) and click *Open*.

(3) The log file is displayed in an additional Tab *temp.log*.

Note: The error log is displayed with the latest errors at the end of the log file. Scroll down to see latest errors.

(4) Once the log file has been viewed, click the “X” on the *temp.log* tab to close it.

Exporting the Error Log

The Error log is located at *D:\GT Print\Log* and can be exported from this location using standard Windows procedures.

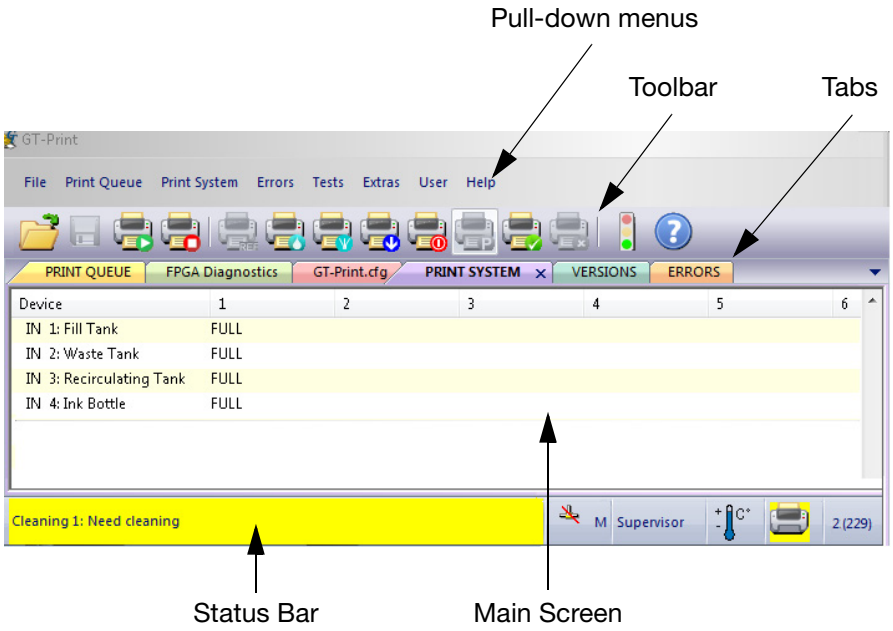
THIS PAGE INTENTIONALLY LEFT BLANK

PART 4: GT-PRINT SCREEN DISPLAY

CONTENTS

GT-PRINT DISPLAY OVERVIEW

The main elements of the GT-Print display are shown below:



Pull-Down Menus

Selecting a Menu option results in a drop down list of related options. Menu options available are user level dependant. Described on page 4-4.

Toolbar

Toolbar icons give quick access to specific printer operations. Their availability is dependant on the task being performed. Described on page 4-9.

Main Screen Display Tabs

These allow the operator to switch between various screens.

In *Operator* mode only the *Print Queue* tab is visible. When the printer is operated in *Supervisor* mode, five additional tabs are available.
Described on page 4-11.

Main Screen

This is the main display for the information in the various tabs.

Status Bar

This gives the operator an overview about the printer status.
Described on page 4-19.

PULL-DOWN MENUS

The GT-Print user interface has eight pull-down menus as shown below:

Each menu provides different functionality and set-up parameters for the system.

Note: These functions may also be duplicated via the icons on the toolbar.

File

The following menus are available. Functionality depends upon which main screen display tab is selected:

Open:	Opens a specific file type depending upon the tab selected.
Save:	Saves the specific file.
Save As:	Saves the current file to a new file name.
Shut Down:	Closes down the printer and PC. Used as the standard shut down procedure.
Exit:	Exit GT-Print software and returns to desktop. This is only available in *Service* Mode.

Note: "Open/Save/Save as" options are restricted to the Print Queue and Print configuration tabs.

Print Queue

Note: Not used in TCP/IP Mode.

Reprint File:	Reprints the selected file.
Reprint All:	Sets all documents to queued state.
Delete:	Deletes the selected files from the queue.

Configuration

Open:	Opens pre-defined configurations
Save:	Saves any changes to the active configuration.
Save As…	Allows saving changes to the active configuration and assigning a different name.
Import Distances:	Allows the import (re-loading) of .dst backup pre-defined distance files.
Export Distances:	Allows saving and exporting of .dst Distance files as a backup.

Print System

Do Reference: Starts the referencing process for the print head to the capping station. If the reference icon is greyed out, the action is not available or errors exist.

Clean: *Print System* > *Clean* > *Clean 1*.

Select a cleaning process for ALL print heads. Options available:

- Short Purge
- Regular Purge
- Strong Purge (UV Inks)
- Hard Purge (Water based inks)

To Park: Moves the print head to the park position and caps in the capping station.

To Print: Moves the print head into the print position.

Down: Lowers the capping station. This allows the capping station slide to be withdrawn and manual cleaning of the nozzles and wiper blades.

Wash: DO NOT USE

Fill Ink: Used on commissioning only.

Empty Ink: Used on maintenance operations only.

Skip Cleaning: Skips the cleaning function (used for specific maintenance operations only).

Set Head pattern: Print test pattern for print quality diagnostics (Service mode only).

Errors

Clear All: Clear all current errors.

Open Log: Opens the log file for the GT-Print System (Stored in *D:\GT Print\Log*). To view or export the error log see page 3-12.

Next Red: User is able to scroll to the next red error. Only available when the log file is open.

Tests

Only available at *Supervisor* level.
Options available:

- Test communications
- Test memory
- Test print - web only (Refer to Advanced nozzle recovery).

Extras

Domino trained engineer only.

User

User levels can be changed using the *User* menu and entering the correct password.

CAUTION: Untrained operators can damage/corrupt the system or print bars. Use caution when distributing passwords.

Operator:	This user can start/stop printing and select the file to print. No password is associated with this level.
Supervisor:	This user can also change the configuration and the main parameters of the ink system. Access is password protected: [.....]
Service:	Access only available via a service key. A registered email address is required.

Active user level is displayed in the *Status* bar. Refer to page 4-19.

Help

About GT-Print:	• Version: Software Version Number • Date: Date of software build • System Name: GT-Print PC Serial Number.
Create Log:	Used to create a back-up of the current system parameters.
Team Viewer:	Remote diagnostic support.

TOOLBAR

The GT-Print toolbar has up to 14 functional icons. Each icon provides different functionality for the printer.

Notes: (1) Greyed out (disabled) icons indicate that the action is pending, in progress or has been performed.

(2) Depending upon the mode of operation, some icons may not be displayed, for example, print icons in TCP/IP Mode.

The GT-Print toolbar icons and descriptions are described below:

Toolbar Icons

File Open: Opens a browse window to navigate to stored jobs (Print Queue) or stored configuration files (cfg).

Save:

- Advanced operators or Domino engineers: Saves system parameters if changed for advanced diagnostic procedures
- Operator: Available on Print Queue tab only
- Supervisor: Available on Print Queue and GT-Print.cfg tabs only.

Note: An active Save icon indicates changes have been made that have not been saved. These unsaved changes will be active during the current print session but will be lost when the printer is shut-down.

Print Mode On: Turns print mode on and moves print head to print position. Only available in *Print Queue* mode.

Print Mode Off: Turns print mode off. When clicked once, the printer will continue printing to produce a completed print. Clicking twice will result in an immediate stop (this could be halfway through the print).

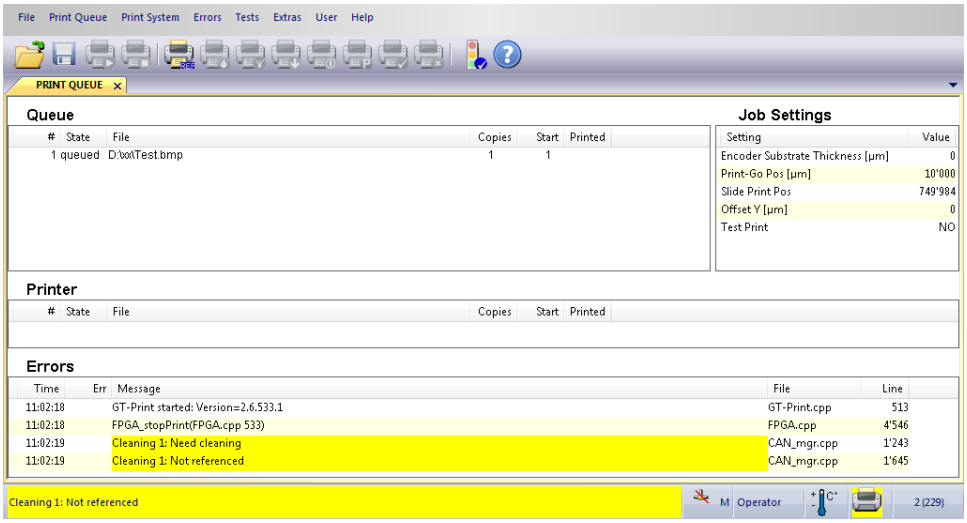
Do Reference: Starts the referencing process for moving the print head to the capping station. If the icon is greyed out (disabled) then the action is not available (it is already referenced or a fault exists).

 Clean:	Start a head cleaning process of purge, spray and wipe.
 Spray Clean:	DO NOT USE.
 Lower Capping Station:	Lowers the capping station so a manual nozzle clean or capping station wiper blade clean can be performed.
 Shut Down:	Shuts down the printer. The user will be prompted to confirm shut down. If confirmed the system will shut down and the operator can then power off the system via the On/Off switch.
 Park:	Moves the print head to the Park/Capped position.
 Print:	Moves the print head to the printing position (*Print* mode remains off).
 Emergency Stop:	Stops the current command (print head movement). The user will be required to clear the error and then re-reference the print head.
 Errors:	Clears all errors. View the *Errors* tab for error details. When an error is received, a tick appears in the *Traffic Light* icon.
 Version Information:	Provides details of the current installed GT-Print Software.

MAIN SCREEN DISPLAY TABS

The GT-Print toolbar has six tabs, as described below:

Print Queue Tab



The *Print Queue* tab is divided into the following areas:

Queue

#:	Number of jobs in the print queue.
State:	State of the selected file. Possible states include: • Queued: File is in the queue. It can still be deleted. • Ready: File is in the print buffer. It can not be deleted. • Printing: File is printing. • Printed: File is printed.
File:	File Path of the file to be printed (For multi page jobs only the *master file* is listed)
Copies:	Defines how many times this file is to be printed.
Start:	Defines the page start number of a multi page file.
Printed:	Shows which page is printed of a multi page file.

Note: For multi-page documents the operator can save the position of the document and re-start the next day from that saved position.

Job Settings

This portion of the *Print Queue* tab shows specific job information that can be adjusted by the operator.

Encoder Substrate Thickness:	This option should only be used when the *Rotating Encoder* option is selected in the *Configuration* Tab. The operator can change the thickness value of the media being used. This will then adjust encoder pulses specific to that media.
Print-Go Position:	The Delay (in µm). Once a Print-go signal has been received into the printer the user can delay printing by X- µm.
Slide Print Position:	Position of the print head across the web by X- µm. Adjust this value to align print head to media.
Offset Y:	Used to offset the label position within the print head by X- µm. This can be used for fine print registration adjustments or when no further adjustment can be obtained from the slide print position (slide print position has reached its limits).
Test Print:	The operator can print a pre-defined test pattern by selecting this option *Yes*/*No*. The test pattern is defined by the installing Engineer.

Printer

Status of the Job(s) printed. This section of the screen will be populated with images buffered and printed.

Error

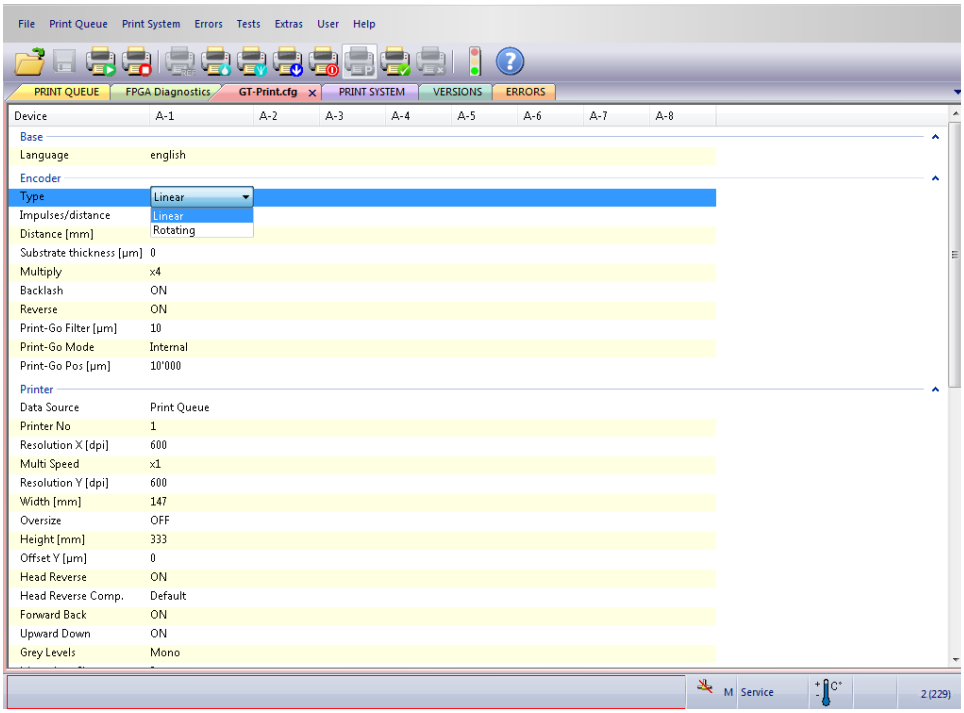
Current system errors and events are displayed here (all errors and events are stored in a log file (refer to page 3-12).

FPGA Diagnostics Tab

Note: This tab is restricted to use by advanced operators only.

GT-Print.cfg Tab

Note: An active Save icon and a star on the GT-Print.cfg tab indicates that changes have been made that have not been saved. These unsaved changes will be active during the current printing session but will be lost when the printer is shut-down.



CAUTION: This tab is restricted to use by Supervisors only.

The *GT-Print.cfg* Tab is used to set and modify the following parameters:

Base

Used for selecting the language of the operating software.

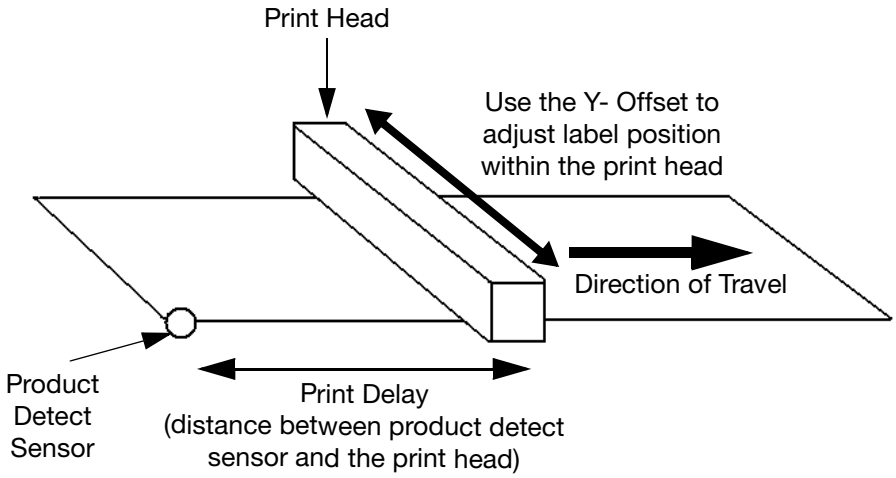
Encoder

Options used are:

Encoder Type:	Two options are available: • Linear (standard Domino Encoder designs) • Rotary, where the product thickness on the roller will, in effect, increase the roller diameter. This will have an impact on the number of pulses received.
Substrate Thickness (µm):	Only used with the rotating encoder type. Measure the thickness of the media and enter the value. Can also be set using the *Print Queue* tab's job settings.
Print Go Mode:	Defines how the print go signals are generated. See page 4-14.

Print Go Mode

External:	Print Go by external Signal. The Print-Go Position is used to define the delay between the signal and the start of the print. This is illustrated in the diagram below:



Print Delay and Offset

Internal:	Print Go is generated internally.

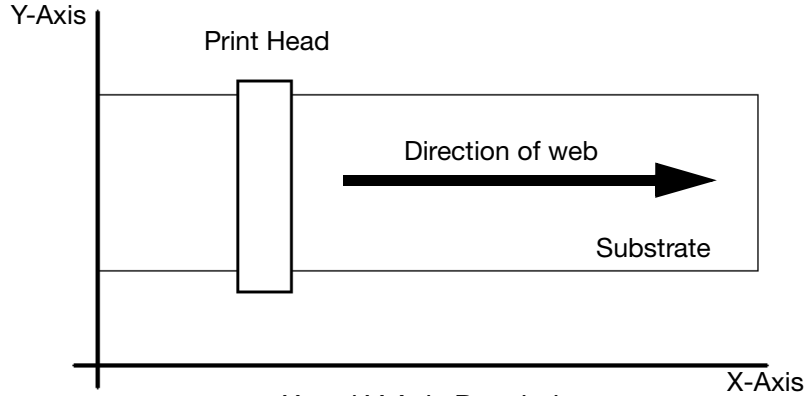
Printer

The Printer area configures the general printer settings.

Data Source: Three options are available:

- **Print Queue Report:** Prints all files of the print queue and repeats it until manually stopped by the operator
- **Print Queue:** Print all files of the print queue once

Resolution: Resolution can be specified in X and Y axis. This is described in the diagram below:



X and Y Axis Resolution

Resolution in X Axis (dpi):	Limiting factor is substrate speed relative to the print head. Settings: 300, 600 and 1200dpi.
Resolution in Y (dpi):	Setting based on number of jets used to create the image. Settings: 600 dpi.

Note: Images to be printed should be made at the specific resolution required by the data preparation process.

Width: Print Aperture size. Manually set. Maximum size is 1450mm where the *Oversize* mode should be turned On.

Oversize: Switch On or Off. Use for large files over 800mm wide only.

Height: Maximum page height (in mm) in print head (Y-Axis) direction.

Number of print heads used:

- 1 head = 108mm
- 2 heads = 220mm
- 3 heads = 333mm.

Y-Offset: Adjusts label position within the print head. This feature can also be set in Job Settings. See page 4-12.

Forward Back: Mirror placed on Y-Axis.

Upwards Down: Mirror placed on X-Axis.

Grey Levels: This must be set to MONO for standard configuration. Drops 2, 3 and 4 can be used for Grey scaling fixed data images but will require a pre-press application for image and file generation.

UV/LED Drop Size: Drop sizes are:

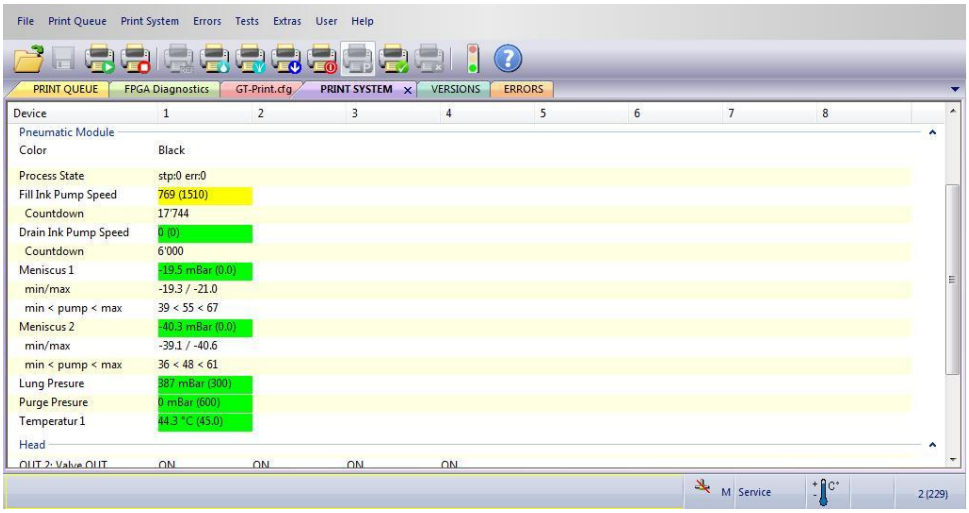
- 1 (6pl)
- 2 (7pl)
- 3 (11pl)
- 4 (14pl)

Water Drop Size: Drop sizes are:

- 1 (5pl)
- 2 (7pl)
- 3 (12pl)
- 4 (18pl)

Note: Monodrop size 1-3 speed can be up to 75m/minute at 600dpi. Using Monodrop size 4 this reduces to 50m/minute at 600dpi.

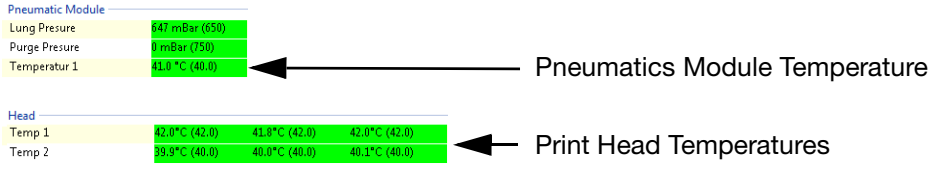
Print System Tab



The *Print System* tab has five headings:

- **Main:** (for use by advanced operators only).
- **Hub:** (for use by advanced operators only).
- **Cleaning:** (for use by advanced operators only).
- **Pneumatics Module:** Shows the state of operation of the pneumatic module (Operator view only).
- **Head:** Displays the state of the print heads

Operators and Supervisors can view the actual Pneumatic module and Head temperatures as illustrated below:

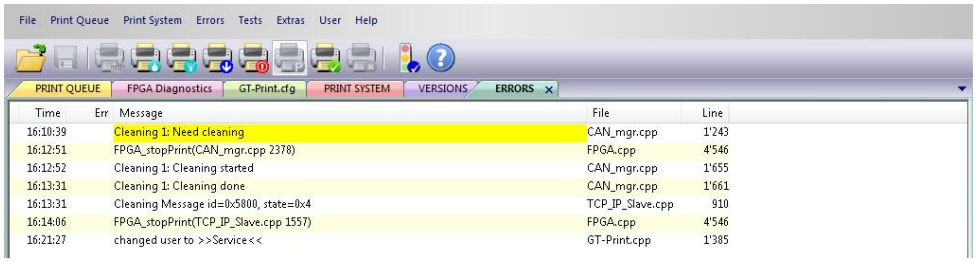


Note: "Actual" temperatures are displayed outside of the brackets, while "Set Values" or "Maximum Values" are shown inside the brackets.

Versions Tab

Note: This area is restricted to advanced operators.

Errors Tab



All error warnings or log messages are displayed in the *Errors* tab screen. They are also stored in a log file located in *D:\GT-Print\Log*.

For information on reading and exporting the Log file, refer to page 3-12.

The log file holds the last 100,000 messages, before being overwritten with new errors. If the log file is deleted, it will self-generate.

Error Log

The Error log contains the following information:

Time:	Time error/event occurred (defined by the PC clock).
Error Number:	Error number.
Message:	Description of error.
File:	Module that generated the error.
Line:	Line number of the software within module generating the error.

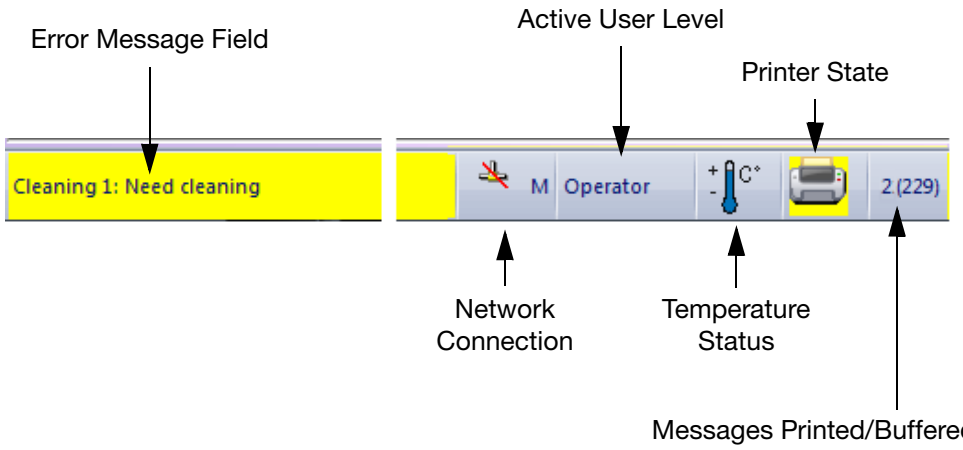
Error Colours

White/Cream:	Information.
Red:	Problem that requires immediate attention.
Yellow:	Problem that requires attention, but is not stopping the printer from working.

STATUS BAR

Overview

The *Status Bar* gives the operator an overview on the basic printer status. Elements of the Status Bar are illustrated below:



Error Message Field

The last occurring error or event is reported. For a full list of Errors and Events the user should view the *Errors* tab described on page 4-18.

Network Connection

Displays the status of any network connection.

Active User Level

User levels can be changed using the *User* menu and entering the correct password. Refer to page 4-7.

Temperature Status

Displays pneumatics module and print head temperatures. Refer to page 3-4.

Printer Status

This area of the *Status* bar uses printer symbols to indicate whether the printer is running and also its error state:

A static printer or an empty space indicates that the printer is OFF.

Paper feed through the printer indicates that the printer is ON and printing (or waiting for paper).

Paper feed through the printer with a yellow background signals that the printer is ready but that warnings exist.

Paper feed through the printer with a red background signals that the printer is ready but errors exist that require attention.

A static printer on a red background signals a fatal error that has terminated printing.

Buffers

On the far right of the *Status* bar is the buffer field. Two numbers appear in this field:

- The number before the brackets indicates the number of printed products
- The number within the brackets indicates the number of buffers ready to print.

Example: 2(229) indicates that two products are completed and 229 products are loaded in the printer buffer.

PART 5: MAINTENANCE

CONTENTS

THIS PAGE INTENTIONALLY LEFT BLANK

ROUTINE MAINTENANCE

Daily

Check Fluid Levels: Check the fluid levels of:

- Ink Container
- Flush Container
- Waste Container.

Print Test Pattern: Print the test pattern and examine for deviated or missing jets.
If deviated or missing jets are present, perform a standard nozzle cleaning procedure as described on page 3-4 and, if required, the extended nozzle cleaning procedure as described on page 5-10.

Check Print Parameters: Check print parameters including, but not limited to:

- Mono drop size
- Print head height to substrate
- Position of print head across web.

Change Web Cleaning Media (if fitted): Remove the used strip of cleaning media from the roller or rollers to expose a fresh strip.

General Cleaning:

- Clean Anti-static bars (if fitted)
- Clean Corona unit (if fitted)
- Clean roller section (if fitted).

Note: Refer to the OEM maintenance manuals for routine maintenance procedures.

Weekly

Print Head and Capping Station:	• Clean the Capping Station wiper blades and capping guides • Manually clean the print head (dependant on environment and installation set-up).
UV Lamp/LED Output:	Check the power output of the UV curing system by use of a UV light meter or UV power strips. *Note: Refer to the OEM maintenance manual for details of using a UV light meter.*
Clean Print Head Air Filter:	Remove the air filter by gently prising off the housing cover with a small screwdriver or other suitable tool. Remove the filter and clean by blowing low pressure air in the reverse direction to normal operational air flow. Replace the air filter and re-fit the housing cover.
Start the printer:	To maintain the print head in an operational condition it is recommended to perform a Normal Start-up and Shut Down procedure at least once every seven days.

Quarterly

Replace Print Head Air Filter:	Remove the air filter by gently prising off the housing cover with a small screwdriver or other suitable tool. Replace the air filter and re-fit the housing cover.
Crossbar Lubrication:	Ensure the crossbar is adequately lubricated with Silicone grease (machine grease).
Input Air Pressure:	Check input air pressure is set to 0.6 mega pascals.

Yearly/2000 Hours

After 12 months or 2000 hours (whichever occurs first) of operation the printer must be serviced by a Domino engineer. Contact details are given at the front of this manual.

CHANGING FLUID BOTTLES



WARNING: Ensure Personal Protective Equipment (PPE) including safety glasses and gloves are always used when handling any fluids used in this section.

CAUTIONS: *(1) Ensure that all replacement fluids are in date and have been stored according to the SDS.*

(2) It may be necessary to decant either flush or waste solutions. If this is necessary, follow local health and safety guidelines.

The K600i contains one ink bottle, one flush bottle an integral waste tank.

Ink Bottle Type and Location

Ink bottles reside within the printer cabinet enclosure.

When an *Ink Error* appears, the ink pump stops any further fluid additions. The ink bottle should therefore be changed as soon as possible, although printing can continue for up to 30 minutes.

CAUTION: Do not change the ink bottle until the “Ink Error” appears.

Changing Ink Bottles

10 Litre Ink Bottle

To change the 10 litre bottle:

(1) Open the cabinet door by depressing the lower latch.

(2) Pull the drawer containing the depleted ink bottle out to its full extent.

(3) Place an absorbent material such as tissue on the floor or under the area to the right of the bottle.

(4) Place the new bottle as close to the old one as possible, with the absorbent material protecting the floor between them.

(5) Remove the cap from the new bottle.

(6) Lift and tilt the old bottle sufficiently to allow the pick-up tube to be removed completely. Place the pick-up tube into the new bottle.

Note: During this process ensure any ink that drips from the pick-up tube lands on the absorbent material.

(7) Remove the depleted bottle.

(8) Place the new ink bottle into the drawer with the pick-up tube located to the rear right hand side.

(9) Ensure the pick-up tube is firmly located in the new ink bottle.

(10) Push the drawer back into the cabinet and close the door.

(11) Clear the errors from the printer system.



Flush Bottle

CAUTION: The flush bottle can be changed during production but not during a "Clean" command.

The Flush bottle is of 10 litre capacity, and resides in a flush bottle holder as shown in the following illustration:

10 Litre Flush Bottle

To replace the flush bottle:

(1) Lift the flush bottle and pick-up tube out of the holder and onto a flat surface.

(2) Place the new flush bottle into the holder. Ensure bottle is orientated so the pick-up tube is located to the rear right hand side.

(3) Remove the cap from the new bottle.

(4) Transfer the pick-up tube from the old flush bottle to the new one.

(5) Clear the errors from the printer system.



Empty Waste Tank

It is important that the container used to collect waste is of sufficient capacity and compatible with the waste type in both its construction and previous contents.

Generally a bottle previously used for fresh flush or ink that is specified for the printer is suitable. Ensure it is clearly labelled as WASTE so it can be identified for future use.

Never use a container that has been used to store other chemicals, even if it appears clean, to prevent unexpected chemical reactions that could occur.

Should the collected waste be decanted into a larger container for storage, it is equally important that the larger container is compatible with the waste type as detailed above.

The waste tank is integrated into the capping station unit. The GT-Print software will report an error when the waste tank is full.

CAUTIONS: *(1) When a waste tank full error is reported, do not perform any further clean commands as this will overfill the waste tank.*

(2) UV70 waste must be emptied at least twice weekly as the waste can solidify making the waste tank unusable.

A dedicated waste tank drain tap is provided with every system for this purpose.

To drain the waste tank a container with a minimum capacity of 5 litres and a method of capping will be required.

Waste Tank Valve in closed position

(1) Un-cap the waste container and place on a flat surface close to the waste tank.

(2) Screw a suitable drain tube into the base of the waste tank drain valve.

(3) Place the lower open end of the tube into the waste container.

(4) Open the waste valve by rotating it to the vertical position.

(5) Allow the fluid to fully drain into the waste container

Note: Draining the waste tank will take between 3-5 minutes depending on the size of the waste tank.

(6) Once draining has completed close the waste valve by rotating it to the horizontal position.

(7) Ensure all fluid has drained from the drain tube, and remove it from the fluid container and store safely.

(8) Replace the cap on the waste container.

(9) Clear the errors from the printer system.

EXTENDED NOZZLE CLEANING

CAUTION: Extended nozzle cleaning must only be carried out by Advanced/Supervisor level users only.

The following procedure should only be performed after 3 normal nozzle cleaning procedures have been performed by the operator as described on page 3-4.

Two options are available to recover missing nozzles, they should be performed in the order detailed below:

(1) Higher Pressure Purges

(2) Print Solids:

(a) If a rewind system is used, print for 10-20m.
(b) If a mail base is used, print 20-30 products.

Higher Pressure Purges

GT-Print Purge Procedure

(1) From the menu select *Print System* > *Clean* > *Clean 1.*

(2) From the dialog select *Strong Purge* for UV inks or *Hard Purge* for water based inks.

(3) Select *Ok*.

Verify Results

(1) Load the test pattern (if not already loaded) and select *Print*. Check the quality of the printed image.

Note: To load a test pattern from GT-Print refer to page 3-5.

(2) Repeat the purges an additional five times if required, allowing five minutes between each purge.

If missing jets are still observed proceed to “Print Solids” on page 5-11.

Print Solids

Note: Print for 10-20 metres (or 20-30 products), repeating if necessary.

This technique follows on from the “Higher Pressure Purges” on page 5-10.

(1) Make a solid black square with the specific dimensions of the print heads installed, for example:

   (a) For a single-headed system – 108mm x 108mm
   (b) For a two-headed system – 220mm x 220mm.

Note: Refer to page 2-4 for a full listing of print widths and image formats.

(2) Load the test pattern (if not already loaded) and select *Print*.

(3) Print the image for 10-20 metres (or 20-30 products), stopping to check if the missing jets have been recovered. Repeat up to three times if necessary.

For web based applications, if missing jets are still present there is an option to perform a test print when logged in at the Supervisor level. Please refer to the Supervisor training notes.

(4) Load the original test pattern and check quality.

SPARES AND CONSUMABLES

Spare Parts

Service Level 1: Parts that require periodic replacement.

Service Level 2: Parts that may require replacement during the lifetime of the machine.

Service Level 3: Parts that normally last the lifetime of the machine.

Description	Service Level	Part Number
K600i Jetting Assembly Complete UV/LED	1	DPPHU0
K600i Single Colour Hydraulic Module	1	DPASCHM0
K600i Meniscus Pump	1	84566
K600i Wiper Rev2	1	DP-05-222
K600i Cleaning Plate 1 Head	1	DP-12-013
K600i Cleaning Plate 3 Head	1	DP-08-014
K600i Cleaning Plate 5 Head	1	DP-11-010
K600i Cleaning Plate 7 Head	1	DP-07-016
K600i In/Out Belt	1	84577
K600i Ventilator Filter Insert Top Cover	1	84589
K600i Filter (GT)	1	83018
K600i Main Ink Filter 1.5µm	1	83999
K600i Sludge Filter (white, 0.2mm)	1	TBA
K600i PC Master Cube complete 1-4 heads	2	DPPCMC
K600i Cube without cards	2	83001
19" Monitor for desktop configuration	2	83201
Tracker Ball (GT) Domino	2	83011
K600i Hub Module	2	DBHUB0
Fast Ethernet Hub, 5 Ports (GT)	2	83327
K600i CAN Card PC	2	83058
K600i Main PCB	2	DP-30-001

Description	Service Level	Part Number
K600i Encoder Board PCB	2	DP-31-001
K600i CAN and Power Box	2	DP-42-001
K600i Single Colour HPM	2	DPSCHPM0
K600i Single Colour Pneumatic Module	2	DPASCPM0
K600i HPM PCB	2	DP-02-001
K600i Main Pump	2	84565
K600i 3/2 Port Solenoid Valve with Connector	2	50145
K600i Power Supply	2	DPPSS0
K600i Power Supply 24V/63A	2	84567
K600i Service Station PCB	2	DP-40-001
K600i Ink Sensor	2	84607
K600i Stepper Motor w. Planetary Gear	2	84609
K600i PCI/CPC Connector Plate PCB	2	DP-01-001
K600i Wiper Holder Rev2	2	DP-05-225
K600i Flush Valve Rev2	2	50400
K600i Cleaning Station Motor with Gear In/ Out	2	84574
K600i Ventilator Head Cover	2	84582
K600i Ventilator Top Cover	2	84588
K600i Service Connection Board	2	DP-43-001
K600i Encoder for Roller	2	84597
K600i Head Removing Tool	2	84628
Pickup Tube Assembly Bottle cover w. suction tube 330mm	2	DPABC330
Pickup Tube Assembly Bottle cover w. suction tube 430mm	2	DPABC430
Pickup Tube Assembly Bottle cover w. suction tube 530mm part number	2	DPABC530
Pickup Tube Assembly Bottle cover w. suction tube 880mm	2	DP-11-039

Description	Service Level	Part Number
K600i Ink Supply Tube	3	DPSAIT0
K600i Assembly Bottle Cover Ink 10 Litre	3	DPABCI10
K-Series Starter pack		85772
K600i Product Manual		25410

Consumables

Description	Part Number
Anticon Cleaning Wipes (2 x 75 wipe pack)	85773
Gloves Disposable Nitrile (Blue) - Small	99289
Gloves Disposable Nitrile (Blue) - Medium	99290
Gloves Disposable Nitrile (Blue) - Large	99291
Gloves Disposable Nitrile (Blue) - Extra Large	99292
Safety Glasses (Solvent only NOT UV)	14584
Hand Cleaning Wipes (Tub)	78228
Reduran Hand Cleaner	016-6009-001

Inks and Flushes

WARNING: Ensure Personal Protective Equipment (PPE) including safety glasses and gloves are always used when handling any printer fluids.

For all inks and flushes, refer to the relevant SDS and product data sheets. These provide product data, health and safety and environmental protection information.

Domino K600i Product Manual

Domino Printing Sciences plc has a policy of continuous product improvement, the Company therefore reserves the right to modify the specification contained within this document without notice.

For additional documentation, including other available languages, either scan the QR code, or go to https://mydomino.domino-printing.com

Domino UK Limited
Trafalgar Way
Bar Hill
Cambridge CB23 8TU
United Kingdom

Tel: +44 (0)1954 782551
Fax: +44 (0)1954 782874
Email: enquiries@domino-uk.com

Domino Amjet Inc.
1290 Lakeside Drive
Gurnee IL.60031
U.S.A.

Tel: +1 847 244 2501
Fax: +1 847 244 1421
Email: solutions@domino-na.com

25410_7 English