



Domino A-Series User Guide

A decorative graphic consisting of a thick, wavy line in shades of green and grey, with several green diamonds of varying sizes scattered above it.

A200

A300

A400

Domino. Do more.

CONTENTS

HEALTH & SAFETY	3
INTRODUCTION	3
Basic Requirements	3
Storage	4
Fire Risk	5
Spillages and Disposal	6
OPERATION	7
STARTING UP AND SHUTTING DOWN	7
Start-Up	7
Shut Down (Not Opaque)	8
Shut Down (Opaque)	8
Long Shut Down (Opaque)	9
USER MAINTENANCE	10
FoodGrade Maintenance	10
Print Head Cleaning	11
Ink Reservoir Replacement	12
Ink and Make-up Cartridge Replacement	14
Main Filter Replacement	16
PRINTER CONTROLS	17
Display Contrast	17
General Information	17
Printer Control	18
Control Panel	18
Display	19
Jet On/Off Switching	20
Topic Keys	22
General Purpose Keys	23
Unicode Character Entry	25
Importing and Exporting Data	26

Memory Card	26
Back-up/Restore Card	26
User Port	26
CREATING A MESSAGE	27
To Create the Message	27
To Enter a Clock Entry	27
To Set the Clock Offsets	28
Special Fields	28
To Enter a Serial Number	28
To Enter a Shift Code	30
To Enter a Text Field	30
To Create a Machine Readable Code (MRC)	31
To Create a Bar Code	32
To Import Logos	34
To Import a Single Logo	34
To Save the Message	34
To Print the Message	34
PRINT PARAMETERS	35
Message Offset	35
Print Delay	35
Character Height and Width	36
Message Orientation	36
Reverse Printing	36
Inverse Printing	37
Repeat Printing	37
Import Messages	38
Export Messages	38
FAULT FINDING	39
Printer Faults	39

HEALTH & SAFETY

Introduction

Domino supplies Safety Data Sheets (SDS) giving specific safety information with each of its ink, make-up and wash fluids. There are also warnings on each container. The following notes are for general guidance only.

Basic Requirements

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

- Proper standards of industrial practice relating to cleanliness and tidiness must be maintained.
- Inks and their containers must be stored and handled with care.
- All who come into contact with inks must be properly instructed in their use.

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 which may transfer ink to the mouth, must be avoided.
- 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 saline solution is not available), taking care not to allow the water to run into an unaffected eye. Medical aid must be obtained immediately.

- Most inks contain solvents which may injure the skin. Warning of this is given on the SDS. Barrier creams and protective gloves should be used and protective clothing worn. In the event of Latex allergy, Domino recommend the use of Nitrile or Cotton gloves worn beneath the Latex gloves. **THE NITRILE GLOVES DO NOT REPLACE THE LATEX GLOVES.**
- Many inks contain materials which vaporise easily and can be inhaled. Good ventilation is necessary.
- Any used cleaning materials, e.g. rags, paper wipes, are a potential fire hazard. They must be collected for safe disposal after use.
- After exposure to ink, all possible traces must be washed off as soon as possible at the nearest washing facility.

Certain inks are allowed for use where they can be in indirect contact with food. In these cases, the following precautions must be observed in addition to those appropriate to hygiene:

- The inks must only be used in printers supplied from new for use with these inks. Any repairs and replacements must use genuine, new and unused spare parts.
- The inks must not be used in printers which have previously been used, at any time, for any other purpose.

In other words, a printer using “food grade” ink can be converted for use with other inks, but a printer which has used other inks must not be converted for use with food grade ink.

Storage

Printing inks must be stored in well-ventilated buildings, or in areas set aside for the purpose, chosen for safety in case of fire. Materials based on volatile, flammable solvents must be stored in accordance with local regulations.

Fire Risk

For an electrical fire, do not use water. If water must be used, such as in the case of a Nitro-cellulose ink fire (see below) the power **MUST BE REMOVED** first.

Many inks contain Nitro-cellulose as the binder and remain highly flammable when dry. Observe all warnings given on the machine and the following safety instructions:

If there has been an accumulation of dried ink, do not use metal scrapers to remove it, as they can produce sparks.

- If dry Nitro-cellulose based ink ignites, it will generate its own oxygen and can only be extinguished by lowering the temperature with water.
- If a Nitro-cellulose fire occurs, **ENSURE THAT THE ELECTRICAL POWER IS IMMEDIATELY REMOVED FROM THE PRINTER BEFORE** water is used to extinguish the fire.

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 wash to another.

Water-based inks will not burn, although inks based on water-alcohol mixtures may burn if there is sufficient alcohol present. Prolonged exposure of water-based systems to high temperatures may evaporate the water to give a flammable residue.

Solvent-based inks offer a greater degree of hazard depending on the particular solvent or solvent combination. When there is a particular hazard the appropriate information is given on the SDS.

The printers place small electrostatic charges on the ink drops used for printing. In most circumstances, such as when they arrive at the print surface, these electrostatic charges are either conducted away or cannot accumulate. However, during maintenance, print drops may be collected in a container, such as a beaker. It is essential that this container is made of conducting material and is securely connected to ground/earth. The electrostatic charges will then be safely conducted to ground/earth.

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.

Spillages and Disposal

WARNING: **Some dried inks are highly flammable.**
 Clean up all ink spillages immediately. Do
 not allow the ink to dry or allow any build-
 up of dried ink spills.

Spillages must be cleaned up as soon as possible with the appropriate solvent materials and with regard to the safety of personnel. Care must be taken to prevent spillages or residue from cleaning up entering drains or sewage systems.


Inks and associated fluids are materials which 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.

OPERATION

Starting Up and Shutting Down

Start-Up

Press the push-button switch  on the left side of the cabinet (rear on A400).


Note: Start-up takes about 40 seconds.

- Screen displays “Please wait . . .”
- Green indicator on the *Jet On/Off* key begins to flash.
- Status bar shows message *Printer Initialising*. See [page 17](#) to [page 24](#) for screen and key details.

Note: The amber alert indicator on the Jet On/Off key may flash and a message appear in the alert bar on the display.

- Status bar message changes to *Printer Off* and the green indicator stops flashing and remains off.
- Either A400, A300, A200, (depending on printer type) or Domino Logo is displayed on the screen.

The printer is now ready for the jet to be switched on.


Press the *Jet On/Off* key  for 2–3 seconds or until an audible “beep” is heard (if activated).

Note: Turning on the jet is an automatic procedure taking about 70 seconds.


- Status bar shows the message *Sequencing On*,
- Green indicator on the *Jet On/Off* key begins to flash.
- Status bar message changes to *Ready to Print*, green indicator shows steadily.

The printer is now ready to print messages.

Shut Down (Not Opaque)

- (1) Press the *Jet On/Off* key  for about 2 seconds or (if activated) until an audible “beep” is heard.
- (2) Check that the Status bar shows the message *Sequencing Off*, and the Status lamp (green) on the *Jet On* key begins to flash.
- (3) Check that approximately 3 minutes after switch-off, the Status bar message changes to *Printer Off* and the status lamp stops flashing.
- (4) Press the switch on the left side of the cabinet ① (rear on A400) to switch off the printer.

Shut Down (Opaque)

Press the *Jet On/Off* key  for about 2 seconds or (if activated) until an audible “beep” is heard.

Note: Shut down is an automated procedure taking about 3 minutes.

Status bar shows the message *Sequencing Off*.

Green indicator on the *Jet On/Off* key begins to flash.

Status bar message changes to *Wake-up Mode Enabled* and the green indicator stops flashing and remains off.

The printer now is in an automatic wake-up state which switches the printer on for approximately 2–3 minutes every 20 minutes.

Long Shut Down (Opaque)

Note: Do not switch the printer off unless absolutely necessary, or moving the printer to another site.

If the printer is not to be used for up to 7 days, flush the gutter with the correct wash during the auto-flush cycle to ensure the gutter is completely clean. Clean the rest of the print head and leave the printer in wake-up mode.

If the printer is to be switched off for longer than 7 days, stored, moved around or used infrequently, the following steps will keep the ink system sealed and the printer in good condition while not in use.

- (1) Flush the gutter with the correct wash during the auto-flush cycle to ensure the gutter is completely clean. Clean the rest of the print head.
- (2) Clean the rest of the printer and leave in wake-up mode.
- (3) Leave the make-up cartridge fitted to maintain viscosity during wake-up mode.

Note: Shake the reservoir thoroughly prior to starting the printer.

User Maintenance

FoodGrade Maintenance

When servicing a FoodGrade printer, the following points must be followed:

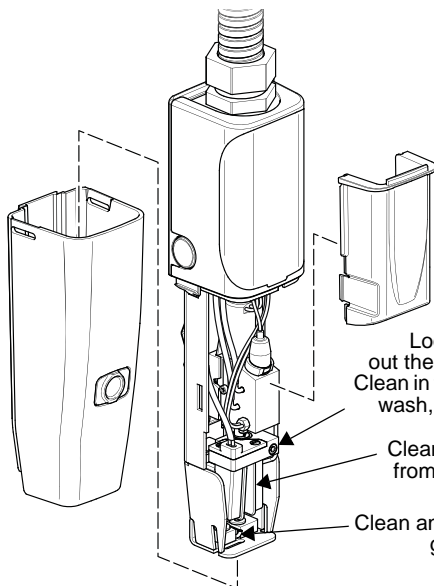
- The ink must never be changed to a non-FoodGrade ink. If however, another FoodGrade ink is required, Domino must be contacted to confirm the applicable legislative position
- Ensure that the correct (FoodGrade) wash fluid is used throughout
- Any work must be carried out in a clean area
- No loctite or lubricants are to be used on FoodGrade printers.

WARNING: **Any FoodGrade parts that are replaced during repair or maintenance must be replaced with identical Domino FoodGrade parts.**

Failure to follow these instructions could contaminate the printer.

Print Head Cleaning

The printer must be shut down. Fit the print head into the maintenance holster.



Loosen screw and pull out the Charge Electrode. Clean in the slot with relevant wash, dry using lint free

Clean any ink residue from deflector plates






Clean any ink residue from gutter area

Ink Reservoir Replacement

Note: For Opaque printers it is necessary to change the main filter and damper as part of this procedure. Refer to the Maintenance section in the Operation and Maintenance Manual.



The messages *Ink change needed in less than 24 hours* and, later, *Ink change needed in less than 2 hours* will appear near the end of the reservoir life (if a long-life system is being used, these warnings will appear at 300 hours and 24 hours before the end of reservoir life). Printing will not continue beyond the expiry of the reservoir life.

It is necessary to enter the reservoir quality code of the new reservoir and reset the reservoir replacement alarms, using the following procedure:

- (1) Press the Machine Setup key  and enter the password if required.
- (2) Use the key bar scroll keys   to find the *Change Resvr*  option at the bottom of the screen.
- (3) Press the function key marked by *Change Resvr* and the screen will change to show a prompt requesting input of the Quality Code printed on the label of the new ink reservoir.
- (4) Type in the reservoir quality code.
- (5) Press the function key marked OK .

If the correct code is typed in, the information bar will display “*Quality Code OK - Fit Reservoir*”, the reservoir run time will be reset and the alarms cancelled. Proceed to step (6).

If the number is typed inaccurately, it can be corrected by typing in again. If an invalid code number is typed, the number will not be accepted and messages in the information bar will indicate the problem, e.g. *Incorrect ink type*, *Ink out of date*, or *Resvr already used* (an old reservoir number). The offending reservoir should be replaced.

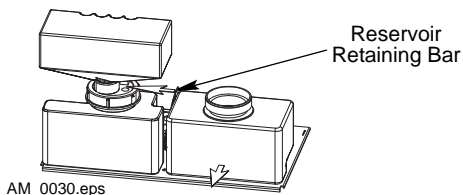
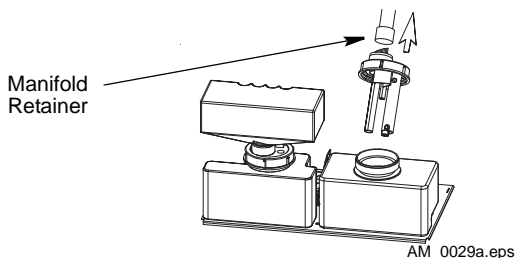
- (6) Shut down the printer using the proper procedure .
- (7) Switch off the printer .

Replace the reservoir as follows.

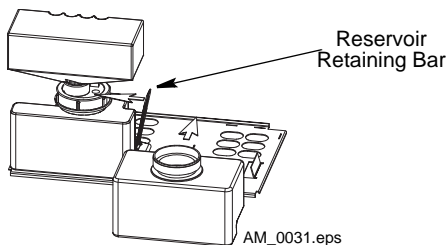
- Notes:*
- (1) *Tissue will be required for this procedure.*
 - (2) *The make-up reservoir is non-replaceable.*

Remove the ink cartridge (see the following diagram). Unscrew the manifold locking ring, lift the manifold out of the reservoir and secure the manifold into the manifold retainer inside the top of the ink cabinet. Fit a cap to the reservoir. Push the metal reservoir retaining bar and pull the reservoir forward to remove.

To fit a new reservoir, reverse the above procedure. When the printer is next switched on, it will display “Bleeding Ink System - Please Wait...”



Removing the Ink Reservoir



Refitting the Ink Reservoir

Ink and Make-up Cartridge Replacement



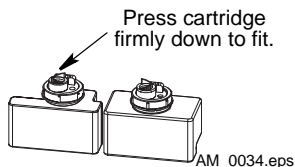
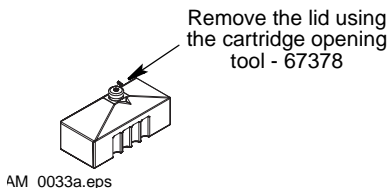
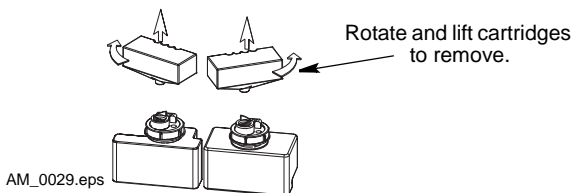
Note: If only small amounts of ink are being used by the printer, it may not be necessary to fit an ink cartridge. Leave the ink manifold seal in place and only fit an ink cartridge when a request appears on the display.

Messages ‘Add Ink Cartridge’ or ‘Add Make-up Cartridge’ will appear on the front panel display when the ink or make-up cartridges need replacing, and the amber alert will illuminate.

The ink cartridge is rotated anti-clockwise and the make-up is rotated clockwise to free them before being lifted away. This mechanism ensures that the cartridges cannot be fitted onto the wrong manifold.

To fit a cartridge, cut off the sealing tab and push on to the correct manifold.

Note: Opaque ink cartridges must be vigorously shaken for at least two minutes prior to fitting and must NOT be left on the manifold. Leave the ink manifold seal in place and only fit the ink cartridge when a request appears on the display.



Cartridge Replacement

If the make-up cartridge is not replaced, the make-up reservoir will empty and the ink viscosity will eventually go outside limits. Also, head flushing will not be carried out when the printer is shut down and ink may be deposited on the print head components. Thus, although the printer can still be used, head faults may occur.

Main Filter Replacement



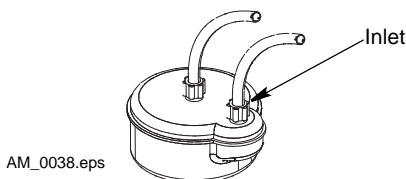
CAUTION: *Ensure the main filter is not mistaken for the damper module as these parts are similar in appearance.*

Notes (1) Tools required: Lint-free tissue to catch any escaping ink.
16mm spanner (see step (4))
Protective clothing (especially safety glasses).

(2) *Filters must not be re-used.*

The printer must be shut down and both cartridges removed.

- (1) Remove the securing screw and pull out the ink system.
- (2) Move the filter to the front of the ink system and make a note of the pipe connections (see diagram on next page).
- (3) Remove the bungs from the new filter and retain for use on the old filter.
- (4) Remove the connectors from the old filter and fit to the new filter in the same orientation (as noted in step (2)). The connections should be finger tight, then tightened 1.5 turns with a spanner.
- (5) Fit the bungs removed in step (3) to the old filter.
- (6) The filter will now need bleeding at low pressure as follows:
 - (a) Enter the service mode, by pressing the Service button and entering the password.
 - (b) Enter the ink system screen by pressing the Ink System button in the scroll menu at the bottom of the screen.
 - (c) Make a note of the target pressure, then set it to 1000mbar and press OK. Press the Ink System button again to return to the ink system screen.
 - (d) Scroll the menu selection at the bottom of the screen and press sequence to standby. Allow the printer to run for 3-5 minutes and monitor for leaks as the ink builds up in the filter.
 - (e) Press the sequence off button.
 - (f) Enter the target pressure as recorded in step (c) and press OK.
- (7) Replace the filter to its original position and refit the cartridges.



Main Filter Replacement

Printer Controls

Display Contrast

For comfort, the display contrast can be adjusted by pressing the blue alternative character set key and adjusting the contrast using the increment (+ and -) keys.

General Information

The following is general advice for using the keyboard. For example, if a mistake is made, and it is required to delete a character, the cursor keys (see [page 23](#)) can be used to move a highlight bar over the character. Pressing the delete key (see [page 23](#)) will then remove the character. Note that new characters are always inserted immediately in front of the highlight. Therefore, if a replacement character is required in the same place as a deleted character, type in the new character without moving the highlight.

Font (character) size, bold characters and double spacing can be selected as function key options. Pressing the key activates the option and all subsequent entries will be size/bold/spaced accordingly, until the key is pressed again.

Values can be typed in, or changed by using the increment keys (see [page 23](#)). Values changed with the increment keys are effective immediately. By contrast, values typed in using the number keys become effective only when OK or the equivalent is selected using the function keys, or a +/- key is pressed.

Font size is indicated by the vertical size of the cursor. If a larger font size is inserted into a multi-line message, the other characters will be automatically arranged around the larger characters.

Note: The following attributes/parameters can be set as special setups into individual messages (through Message Editor) and also set into the printer as overall global settings (through Print Setup):

Bold

Repeat messages

Reverse/Inverse

Individual message settings take priority over the global settings.

The key labels along the bottom of the screen may not show the required options immediately. If necessary, use the scroll keys (see [page 23](#)) to move the options across the screen. To select the option, press the key below the label on the screen.

Printer Control

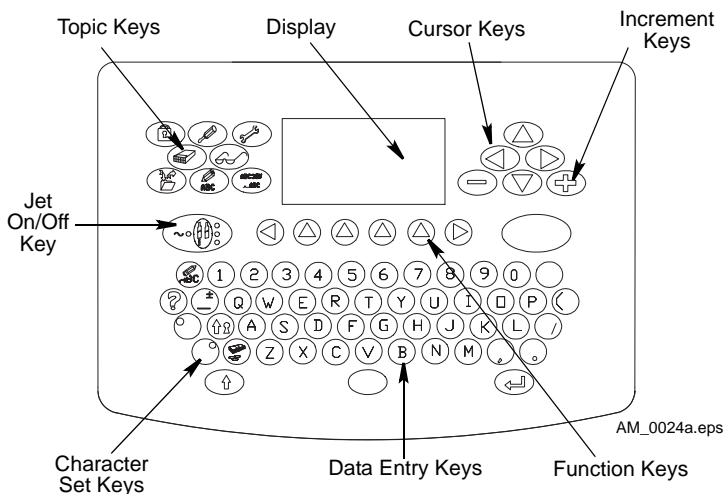
The printer is switched on by pressing the button-switch on the side (rear on A400) of the cabinet. This supplies power to the whole printer and after a short period control of the printer is transferred to the front panel.

Control Panel

The printer is controlled exclusively through the front panel. There are two types of keys:

- Permanent keys with fixed functions (these form the majority of keys)
- Function keys with functions which can change under software control.

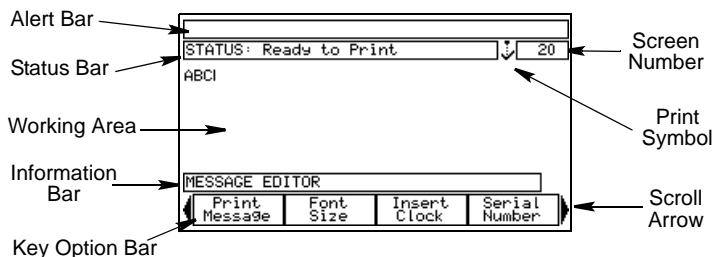
The main areas of the front panel are identified in the following diagram.



Front Panel Keyboard Layout

Display

The display presentation has the following basic structure.



Alert bar shows a message when a printer alert is raised. The message flashes until acknowledged by pressing any character key or the space key, after which the message is displayed continuously. When the alert condition is cleared, the message is cleared. If two or more alerts exist simultaneously, the highest priority alert is displayed. An unacknowledged alert is always at a higher priority than any other acknowledged alert.

Status bar shows status and other non-alert information.

Working area provides a general presentation area for the function in use.

Information bar usually shows which level is currently selected, but is also used for general information.

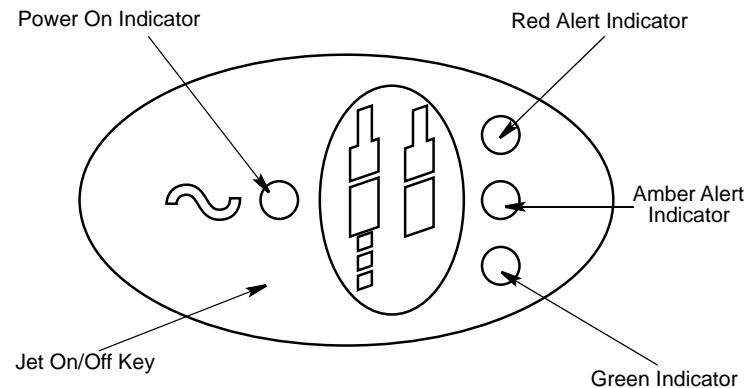
Key option bar shows up to four key options at any one time, presenting them as labels for the four function keys immediately below the screen. The options are scrolled left and right in groups of four by the keys on each side of the function keys, which appear when there is more than four key options. Scrolling results in the key labels changing, with the functions of the keys also changing to correspond with the labelling.

Screen number provides a numerical identity for each screen.

Scroll arrow shows that the screen detail, in the working area, extends off the display. The up and down cursor keys must be used to show the hidden detail.

Print symbol shows printing as each Print Go signal is received. At very slow print rates the symbol will appear to flash, but typical print rates will give the appearance of a continuous symbol.

Jet On/Off Switching



AM_0025.eps

The Jet On/Off switch is pressed to switch on the jet and pressed again to switch off the jet. It is necessary to press the switch for two seconds as a precaution against accidental use. The switch also carries the following indicators:

Power On Indicator shows when the power switch on the side (rear on A400) of the cabinet is switched ON.

Red Alert Indicator shows the printer has a fault which prevents printing. The indicator flashes while the alert is unacknowledged and displays steadily when the alert is acknowledged. It is extinguished when the fault is cleared.

Amber Alert Indicator shows the printer has a fault that requires attention. The indicator flashes while the alert is unacknowledged and displays steadily when the alert is acknowledged. It is extinguished when the fault is cleared.

Green Indicator flashes while the printer is starting up or shutting down and displays steadily when the printer is printing or ready to print. It is extinguished by a fault or when the jet is not running.

Topic Keys

Each topic key opens sets of screen options. These are shown in the diagram on [page 19](#).



Message Editor

Provides access to the message creation utilities.



Message Store

Provides access to the stored messages.



Print Setup

Provides access to the utilities controlling the message being printed, e.g. message orientation.



Machine setup

Provides access to adjustments in setting up the printer.



Service

Provides access to the printer for the Service engineer.



Memory Card

Provides access to the PCMCIA utilities.



Message Monitor

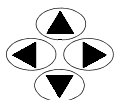
Shows the message currently being printed.



Lockout

Switches on password protection where used.

General Purpose Keys



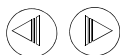
Cursor Keys

Four permanent keys used to move the cursor around the screen.



Increment Keys

Two permanent keys used to increment and decrement values shown on the screen and marked with the highlight bar. The effect of these keys on settings and values is immediate.



Option Key Bar
Scroll Keys

Two keys used to scroll the functions in the keybar.



Function Keys

Used to select softkey option in keybar above.



Delete Key

Deletes entries marked by the highlight bar.



Alternative
Character Set -
Left (Blue)

Press this key to select the top left blue character on character keys. Also (used with the + and - keys) controls screen contrast.



Alternative
Character Set -
Right (Green)

Press this key to select the top right green character on each character key.



Shift Lock Key

Changes characters to lower case until pressed again to return to upper case characters.



Shift Key

Hold down to change characters to lower case.



Enter Key

Press this key to put data into the system to complete an action.

Help Key



Help Key

Provides access to help information concerned with the current menu screen.

Currency Key



Currency Key

Provides entry for currency characters. Pressing this key generates minor currency symbols (e.g. p, c, etc.) pressing with the Shift key generates the major currency symbol (e.g. £, \$, etc.)

Lockout



Pressing the Lockout key prevents unauthorised changes through the front panel or interference with the printer while it is unattended. With Lockout selected, control of the printer is restricted to switching on, switching off and inspecting the message being printed (by pressing the Label Monitor key). Access to all other functions requires the use of the appropriate password, provided this has been set.

The Lockout screen also shows the internal clock, which is replaced in all other cases by a screen number.

Password System



Entry to the Lockout and Message Monitor areas of printer control is unrestricted, all other areas can, if required, be protected by password. There are two levels of password protection: Supervisor and Service. Each of these has a progressively higher level of access to the machine. When accessing a protected area, it is necessary to enter the appropriate password (or the password for a higher level). Entry to all areas with the same or lower password level will subsequently be unhindered. Returning to Lockout resets the password access. It is possible to change the Supervisor password.

The following table shows the available password protection:

LEVEL	PASSWORD LEVEL REQUIRED
Lockout	None
Message Monitor	None
Message Editor	Supervisor
Message Store	Supervisor
Print Setup	Supervisor
Memory Card	Supervisor
Machine Setup	Supervisor
Service	Service

Unicode Character Entry

Characters that are not represented by a key can be available for printing. They can be entered into the Message Editor or a data entry dialog using their Unicode identity. This is done by holding down both alternative character set keys and typing the Unicode 4-digit hexadecimal number (0000 to FFFF).

Common Unicode Characters

00A3	£	Pound (Sterling)
20AC	€	Euro Currency
0024	\$	Dollar (US)
00A2	¢	Cent (US)
00A5	¥	Yen (Japan)
20A1	₡	Colon (Costa Rica)

For a full list of Unicodes, please refer to the Unicode standard.

Importing and Exporting Data

Memory Card

The memory card is a blank, formatted PCMCIA card which can be used to copy and back-up messages and logos. This can then be used as a back-up for the messages and logos, or used to copy messages and logos to another printer.

It is possible to copy the entire message (see [page 38](#)) or logo store or individual messages or logos (see [page 34](#)).

Back-up/Restore Card

The Back-up/Restore card is a dedicated PCMCIA card used to back-up and restore all of the configuration data of a printer. It can also be used to restore partial configuration data to the same printer or copy it to another printer (although the printers must be the same, i.e. machine type, ink type, etc. and have the same version of main program). The restore will copy data such as: nozzle size, ink type, conduit length, etc. but not data such as: pump speed, modulation voltage, etc. the RAM restore will restore messages and logo information.


User Port

External control of the printer is possible through the User Port.

Creating a Message




The following shows how to create and print a message. The suggested entries could be used as a working example.

To Create the Message





- (1) Press the Message Editor topic key .
- (2) Type in the message (e.g. abc).

Creating a detailed message can include entering clock data, serial numbers, shift codes or text fields (see below). To continue with a simple message, proceed as follows.





To Enter a Clock Entry

- (1) With Message Editor  selected, select *Insert Clock*  from the key options. The display will change to show the Insert Clock screen with a highlight bar over *Clock Offset Number*.
- (2) Type in a numerical value, e.g. 2. This value selects one of four clocks containing time offsets entered into the printer by way of the *Clock Offsets* option. For example, a continuously updated date four weeks ahead of the current date can be inserted into the message.
- (3) Press the down cursor  key to move the highlight bar down over *Format*.

The clock entries consist of names, etc. arranged in a range of formats. The names, codes, available formats, etc. can all be changed if required).

- (4) Use an increment key  to change the clock format in the highlight bar to a suitable format.
- (5) Press the down cursor  key to move the highlight bar down over *Language*.
- (6) Use an increment key  to change the clock language in the highlight bar to a suitable language, either English, Arabic or Farsi (English is the default).
- (7) Select *OK*  from the key options. The display will change to show the message with the clock detail inserted at the cursor position. Clock entries on the display will not be updated. However, the printed messages will have clock entries updated from the master clock and Message Monitor will also display the correct clock information after each received print go.

To Set the Clock Offsets

- (1) Press the Message Editor key  .
- (2) Select *Clock Offsets* from the key options along the bottom of the screen (by pressing the key under the label).
- (3) The screen will change to show the clock details. Use the increment keys  to change the clock number.
- (4) Use the up and down cursor keys   to move the highlight bar to cover each value (year, day, hours or minutes) requiring amendment and type in the offset value.
- (5) When the offset values for each clock are correct, select *OK* from the key options along the bottom of the screen (by pressing the key under the label).

Special Fields

To Enter a Serial Number

- (1) With Message Editor selected , press the scroll keys to search the key options and select *Serial Number*.

The screen will change to show the parameters controlling the serial numbering. These include the start number (first limit), finish number (second limit) and the change between messages (step size). If the start number is below the finish number the change (step) will be incremental, i.e. positive. If the start number is above the finish number, the change (step) will automatically be decremental, i.e. negative. If required, the same serial number can be entered into a selected number of messages before it is changed (Repeat Count). Also, the language for the serial number can be either English (default), Arabic or Farsi.

More advanced serial numbers can be set up, to include a letter-type prefix or suffix and batch linking between two serial numbers. In the case of alphanumeric serial numbers, the order (precedence) in which the alpha and numeric parts are updated can be selected. In the following steps, the example entries will create a serial number AA0000, AA0001 . . . through AX0000 . . . up to KK1000, increasing at each step by 1.

- (2) Use down and up cursor keys (▲▼) to move the highlight bar and select the details of the serial number, and type in the required values. For example:

First Limit:0
Second Limit:1000
Start Value:0
Leading Zeros:Yes (selected with the increment keys)
Step Size:1
Repeat Count:0
Language:English

The serial number is displayed at the bottom of the screen.




- (3) If a more complex serial number is required, select *Advanced* ☐.

- (4) Use down and up cursor keys to move the highlight bar and select the details of the serial number, and enter the required values. For example:

Alpha:Prefix (selected with the increment keys)
Batch Link:No (selected with the increment keys)
Precedence:Numeric (selected with the increment keys)
First Limit:AA
Second Limit:KK
Lower Character:A
Upper Character:X
Start Value:AA




- (5) Select OK from the key options.

To Enter a Shift Code

- (1) With Message Editor  selected, press the scroll keys to search the function key options and select *Shift Code* . The display will change to show the Shift Code screen. Up to 24 shift codes can be entered in the form of start and stop times (in hours and minutes according to the 24 hour clock system) and a shift code name (in the *String* column). Move the highlight bar using the up and down cursor keys to mark the entry being entered or amended.
- (2) Type in a shift code, e.g. *Start 08:30, Stop 12:30, String Red*.
- (3) Select *OK*  from the key options. The display will change to show the message and, provided the current real time falls within the specified shift code start and stop times, the shift code name, e.g. Red, will be inserted at the cursor position. If the shift code time is outside the time limits, the shift code position in the message will show as a blank space.

To Enter a Text Field



A text field is a blank area which can be left within a message, e.g. to avoid interference with other pre-printed information.

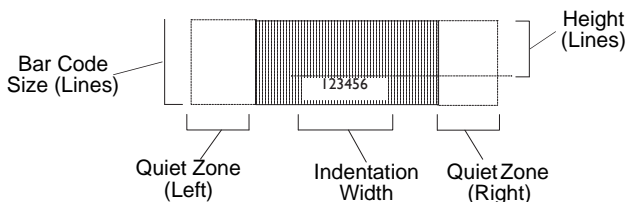
- (1) With Message Editor  selected, select *Text Field*  from the key options. The display will change to show the Text Field screen. Enter a value representing the size of the field (measured in characters).
- (2) Select *OK*  from the key options. The message will re-appear showing a space sized to the value entered in the previous step at the position of the cursor.

To Create a Machine Readable Code (MRC)

The following procedure is carried out in Message Editor, either as a new message or as part of a message being constructed.

During the following procedures, decisions on the following will be required:








- (a) MRC type
- (b) MRC data which is appropriate to the MRC type
- (c) Position of any human-readable text related to the MRC . This is usually indented into a bar code, but can, if required, be placed elsewhere.
- (d) Type of human readable text. This is usually the same data as the MRC and, if set up according to the following procedures, amendments or updates to the MRC will then be automatically applied to the human-readable text .







During the procedures, key labels along the bottom of the screen may not show the required options. It will be necessary to be familiar with using the scroll keys (see [page 23](#)) to move the key options across the screen and selecting an option by pressing the key below the label on the screen.

It will also be necessary to be familiar with using the up and down cursor keys to move the highlight bar to select settings given on a display screen.

To Create a Bar Code

- (1) Inspect the cursor on the display and press the *Font Size*  option key until it is the size of the required MRC.
- (2) Press the *MRC*  option key and select a bar code type from the list of MRC's.
- (3) Press *MRC Data*  - the entry screen will blank and the soft keys will change. Enter the data to be included in the MRC. Press *OK*  to return to the *MRC* screen.
- (4) Use the *Advanced* key to select any non-standard options and then press *OK*  to return to the *MRC* screen.
- (5) If a simple bar code only is required select *OK*  and the bar code will appear (an error message will be displayed if the data is not valid for the bar code selected). If human-readable information is to be indented in the code, select *Advanced*  as in step (6).

To visually check and edit the data, place the cursor onto the *MRC* image and press *Edit*.

- (6) The bar code data can be printed in human-readable form, after the bar code, or it can be indented into the bar code as shown in the diagram. Some bar codes (such as EAN 13) use a double indentation. Select *Advanced* .
- (7) With *Advanced* selected, set the indentation width. For an exact fit, this width is measured in strokes, but for demonstration purposes enter any large number, e.g. 1000, to create the largest available width in the bar code.
- (8) Enter the height (in number of lines) of the bar code above the indentation (see diagram on previous page).
- (9) If required, values (in strokes) can be entered to give quiet zones (clear spaces) at the beginning and end of the bar code.
- (10) Select *OK*  to return to the bar code screen.
- (11) Select *OK*  to return to the Message Editor screen. The bar code will now show the indentation(s).
- (12) Inspect the cursor at the front of the display and press the *Font Size*  option key until it is the size of the required bar code. If the bar code text is to be fitted into the indentation, it is important that this is a height suitable to fit into the indentation (or the text will be fitted outside the bar code). Then use the cursor keys to move the cursor to the required position.

- (13) Select *MRC Text* or, if the bar code uses two indentations, go to step (17).
- (14) Highlight the *Number of Characters* and enter the number of bar code characters.
- (15) Select *OK* .
- (16) The bar code will appear including the human-readable text. If required, this text can be re-positioned by entering character spaces or thin spaces (shift + space key).
- (17) In a bar code using two indentations, selected human-readable characters would be placed in the two positions. Select *MRC Text* .
- (18) Select *Number of Characters* and enter the number of characters to be put into the first indent (this is usually half of the total number). Leave the *Offset* value at zero.



- (19) Select *OK* and check that the required characters appear in the first indentation. If necessary move the cursor to the start of the second indentation.
- (20) Select *MRC Text* again.
- (21) Select *Offset* and enter the number of characters not required to be shown. Select *Number of Characters* and enter the number of characters (usually half of the total number), beyond the offset, to be put into the second indent.
- (22) Select *OK* and check that the required characters appear in the first and second indentations.

To Import Logos

To import a logo file (.dat file) to a printer:



- (1) Wearing a wrist strap plugged into the electronics inner door, insert the PCMCIA card containing the .dat file.
- (2) Enter the Memory card menu and press “import logos”.

To Import a Single Logo


To import a single logo file (.lgo file) to a printer:

- (1) Wearing a wrist strap plugged into the electronics inner door, insert the PCMCIA card containing the .dat file.
- (2) Enter the Message Store menu and press “Logo Store” then “Import p:\”.

To Save the Message

- (1) Press the Message Store key . (The screen will change and may show the name of a previous message – ignore this!)
- (2) Select *Save Message*  from the key options along the bottom of the screen (by pressing the key under the label).
- (3) Type in the name of the message (e.g. “Example”).
- (4) Select OK from the key options (by pressing the key under the label).

To Print the Message

- (1) With Message Editor selected, press the scroll keys to search the key options and find *Print Message* .
- (2) Press the key below *Print Message* the prompt ‘Message Ready for Printing’ is displayed. The message will now be printed at each Print Go signal if the printer is in the Ready to Print state.

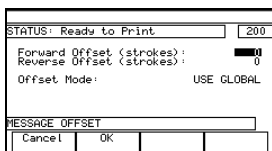
Note: If an on-line message is changed in any way, it is necessary to press Print Message again to implement the changes.

Print Parameters

Once the message has been created, the print parameters allow the way in which it is printed to be set, such as offsets, height and width, delays, orientation, etc.

Message Offset

Note: Not available in CP option.



Permits entry of an offset between the normal start-of-print position and the required print position. This delay is added to the Print Delay value.

Forward Offset: Enter 0-9999 strokes offset (forward printing).
Reverse Offset: Enter 0-9999 strokes offset (reverse printing).
Offset Mode: Select On/Use Global.

Options:




On: Use the values set here.
Use Global: Use the settings in Print Setup.

Function key options:





Cancel Discard changes.
OK Accept new settings.

Print Delay

Note: Each print format has a minimum print delay to which the printer is set on delivery. This value should be recorded for future use. Entering any value below this minimum will result in an error message when printing. In the absence of a recorded minimum, increase the print delay until an acceptable value is found. The product detector or print head may require re-positioning.

- (1) Press the Print Setup  key.
- (2) Use the scroll keys to search through the key options along the bottom of the screen and select **Print Delay** .
- (3) Type in the number of strokes giving the change in position required to print the message accurately on the product.
- (4) Select **OK**  from the key options along the bottom of the screen.












Character Height and Width




- (1) With Print Setup still selected, select *Change Height*  from the key options along the bottom of the screen.
- (2) Type in the height value required.
- (3) Select *OK*  from the key options along the bottom of the screen.
- (4) Use the scroll keys to search through the key options along the bottom of the screen and select *Change Width* .
- (5) Type in the width value required.
- (6) Select *OK*  from the key options along the bottom of the screen.

Message Orientation

Reverse Printing


Messages can be printed in reverse in all prints, or with change-overs between normal and reversed orientation after specific numbers of products or prints.

- (1) Press the Print Setup  key.
- (2) Select *Reverse Control*  from the key options along the bottom of the screen.
- (3) Use the increment   keys to set *Reverse Orientation* to *On*.
- (4) Select *OK*  from the key options along the bottom of the screen for continuous reverse printing.
- (5) Alternatively, for controlled change-overs between normal and reversed orientation, select *Dynamic Control* .
- (6) If dynamic control is not already in operation, the screen will show the prompt *Reverse Orientation*. Use the increment   keys to select *On*.
- (7) Select *Counted Products*  or *Counted Repeats* as required.
- (8) Use the increment   keys to set *Initial Orientation* to *On* (reversed) or *Off* (normal) as required.

- (9) Use the up and down   cursor keys to move the highlight bar to *Count* and type the number of products between each change-over.
- (10) Select *OK*  from the key options along the bottom of the screen to return to the Special Setup screen.

To cancel dynamic operation and return to continuous operation, select *Static Control*.


Inverse Printing

Messages can be printed in inverted form in all prints, or with change-overs between normal and inverted orientation after specific numbers of products or prints. Setting up follows procedures similar to reversed printing (below), but selecting *Inverse Control*  in the Special Setup menu.

Repeat Printing

Note: Not available in CP option.



STATUS: Ready to Print		240
Repeat mode: 		
Repeat count:	0	
Repeat pitch:	2	
Update Numbers for each repeat?:	NO	
Use Product End?	YES	
REPEAT		
Cancel	OK	

Permits selection of continuous printing, or repetitive counts to a specified number and pitch value, or global settings entered through Print Setup. Message contents such as clocks, shift codes, serial

numbers, etc. can be updated every time a message is printed or only when a new product is detected.

Repeat Mode: Select Off/Counted/Continuous/
Use Global.

Repeat Count: Enter 1-99.

Repeat Pitch: Enter 2-9999.

Update Numbers for each repeat: ? Select Yes/No.

Use Product End: ? Select Yes/No.

Options:

Use Global: Use the settings in Print Setup.

Counted: Use Repeat Count value.

Continuous: Repeat continuously.

Function key options:

Cancel Discard changes.

OK Accept new settings.

Import Messages

Note: Not available in CP option.



STATUS: Ready to Print		780
200 x 300g		
already exists. Overwrite?		
MEMORY CARD: Overwrite?		
Cancel	Skip	Over Write
		Over Wrt All

Permits import of a complete set of messages from the PCMCIA card.

If any message appears to already exist in the printer store, the screen shows a prompt requesting

confirmation that the imported message can overwrite the old message.

Function key options:

Cancel Return to previous screen without action.

Skip Do not overwrite.

Overwrite Overwrite message named on screen.

Over Wrt All Overwrite all messages.

Export Messages

Note: Not available in CP option.



STATUS: Ready to Print		120
MEMORY CARD: EXPORT SUCCESSFUL		
Export Messages	Import Messages	Export Logos
		Import Logos

Permits export of the entire message store to the PCMCIA card. Any existing set of messages on the PCMCIA card will be overwritten.

Fault Finding

Printer Faults

The following problems can have the suggested causes and remedies.

No Indicators Showing

Power failure.

Restore power.

Fuse failure.

Replace fuse.

Machine Does Not Print

Message faulty.

Check data entry.

Product detector disconnected or faulty.

Check detector.

Width control set too low.

Reset width control.

Faulty Shaft Encoder.

Check shaft encoder and connector.

External stroke source selected (where no encoder is fitted).

Change to internal stroke source.

Print Message has not been pressed

Press Print Message in Message Store or Message Editor.

Print Position Incorrect

Print delay incorrect.

Re-enter Print delay data.

Product detector misaligned.

Re-align detector.

Spaces entered at start or end of message.

Clear fixed spaces from input data.

Print Size Too Small

Character height adjustment incorrect.

Adjust print height.

Jet alignment with deflector plates incorrect.

Check jet alignment.

Ink Pressure too high.

Check and reset pressure if required.

Solvent on deflector plates (after cleaning).

Dry deflector plates.

Print head too close to product.

Check position of print head.

Incorrect size nozzle fitted.

Check and replace if necessary.

Gutter Over-flowing Ink

Gutter filter blocked.

Replace gutter filter.

Gutter tube blocked.

Wash down and clear gutter.

Air leak preventing vacuum at gutter.

Check gutter circuit for leaks.

Vacuum pump head faulty.

Check/replace pump head.

Pressure set incorrectly.

Adjust pressure.



This User Guide, part of pack 6-0199540, shows how to operate your Domino product. For full details, please refer to the Product Manual contained on the CD-ROM.

Domino Amjet Inc.

1290 Lakeside Drive

Gurnee IL60031

U.S.A.

Tel: +1 847 244 2501

Fax: +1 847 244 1421

Email: solutions@domino-na.com

Domino Printing Sciences plc

Bar Hill

Cambridge CB23 8TU

England

Tel: +44 (0)1954 782551

Fax: +44 (0)1954 782874

Email: enquiries@domino-uk.com