AMTDatasouth

Documax 5380

24-Pin Dot Matrix Printer
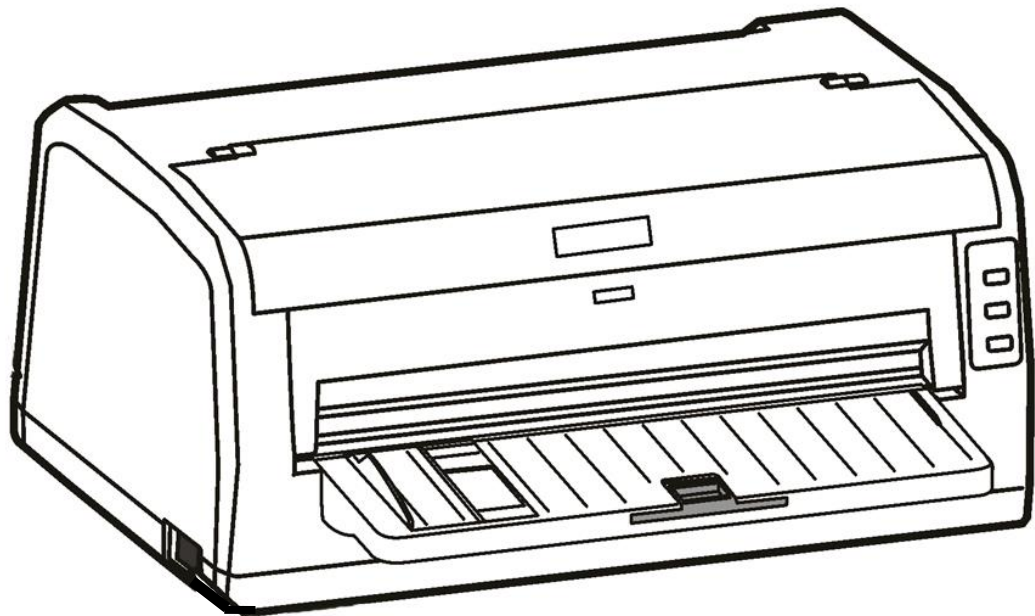
Align & Test Guide

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This document is intended as a general guide referencing alignment methods and production testing.

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Paper/Forms Adjust

Tractor paper tear off

At the completion of a print job, the printer will feed the tractor paper to the tear off position automatically. Paper can be torn off along the window edge. If necessary the paper perforation can be adjusted with the window edge utilizing the following procedure.

ADJUSTMENT ~

1. After installing the tractor paper correctly and ensuring the paper select lever is in tractor paper position .Press the **LOAD/EJECT** key to feed the paper to printing position, then press the **ONLINE** key to enter into offline mode, press **LOAD/EJECT** key to feed the paper to tear off position. Press the **ONLINE** key, then press both the **LOAD/EJECT** and **LF/FF** keys for about 3 seconds to get the printer to enter the tear-off adjustment mode. When the printer enters this mode, the **ONLINE LED** and the **COPY LED** blink alternately.

2. Press the **LOAD/EJECT** key to adjust the distance in 1/60 inch increments, or the **LF/FF** key to adjust the distance in 1/60 inch decrements.

3. To exit and save your new setting, press the **ONLINE** key. The **COPY LED** and the **ONLINE LED** blink simultaneously twice with two beeps, then the **ONLINE LED** will stay on. Your new tear-off setting value is saved.
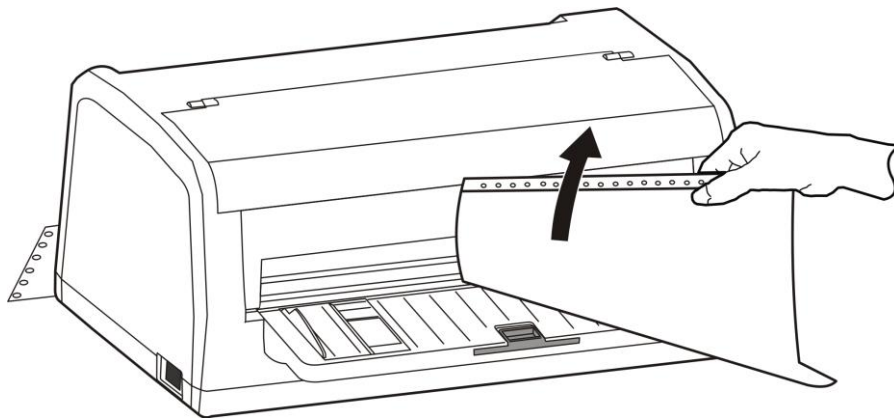
Top of form adjustment

The top of form setting determines the margin between the top of paper and the first printed line (the top margin). The top of the first printed line is the zero position. Advancing the paper is a positive value, reversing the paper is a negative value.

When the menu setup mode has specified the left black mark or right black mark, this is defined as the distance from the black mark to the left or right edge of paper.

TOF ADJUSTMENT ~

1. Install paper correctly, press **LOAD/EJECT** key to feed paper to printing position. In the **ONLINE** mode, press the **LOAD/EJECT** key and **LF/FF** key for about 3 seconds at the same time, **ONLINE LED** and **COPY LED** blinks alternately which denotes the printer has entered the adjustment mode.

2. Press the **LOAD/EJECT** key to increase the top of form by 1/60 inch. You can increase the margin to a maximum of +60 increments (+60/60 inch) from the factory setting. Press the **LF/FF** key to decrease the top of form by 1/60 inch. You can decrease the margin to a minimum value of 0 (-19/60 inch) from the default setting.

3. Press the **ONLINE** key to exit and save your new setting. The **COPY LED** and **ONLINE LED** blink simultaneously twice with two beeps, and then the **ONLINE LED** will stay on.

BLACK MARK ADJUSTMENT ~

1. Install paper correctly, press **LOAD/EJECT** key to feed paper to printing position. In the **ONLINE** mode, press the **LOAD/EJECT** key and **LF/FF** key for about 3 seconds at the same time, **ONLINE LED** and **COPY LED** blinks alternately which denotes the printer has entered adjustment mode.

2. Press the **LOAD/EJECT** key to adjust the sensor position 1/20 inch. You can increase the margin to a maximum of +80 increments (+80/20 inch) from the factory setting, or the **LF/FF** key to decrease the margin to a minimum of 0 (0/20 inch) from the default setting.

3. Press the **ONLINE** key after adjusting, the **COPY LED** and **ONLINE LED** blink simultaneously twice with two beeps, the new setting will be saved, then press the **ONLINE** key again to exit the adjustment mode entirely.

Print Driver Installation

Win2000 (XP~Vista~Win7)

1. Open the driver folder on the CD shipped with the printer. Then open the subfolder for your version of Windows.

2. Click on the "Setup.exe" file to begin the installation utility. Have your printer ready to connect when instructed.

3. If a pop-up window occurs, click "Install driver anyway".

4. Click on the "Documax 5380" icon to select the driver.

5. Click on the "Install" button to begin the driver installation. When prompted connect the interface cable and power ON the printer. Installing the printer without a proper interface will result in a "LPT1" port default.
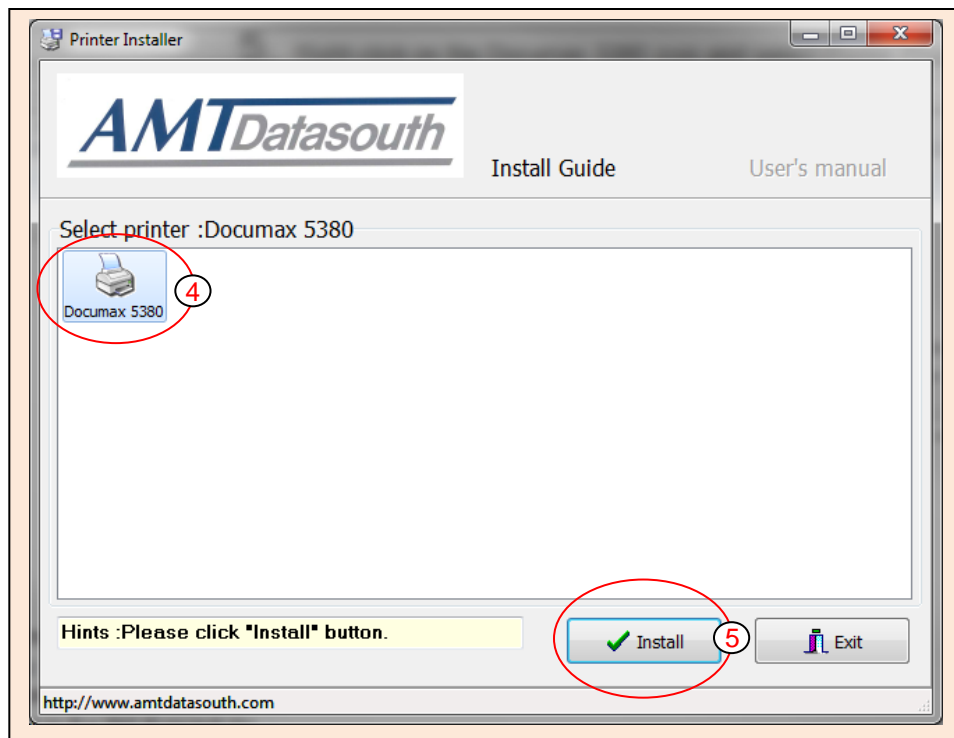
6. Once the Driver install is complete, close the printer installation utility.

7. Open the "Devices and Printers" window from the PC Start button.

8. Right-click on the Documax 5380 icon and select "Printer Properties".

Documax 5380

9. Choose the "Ports" tab and select the correct interface port for your printer. For Ethernet port IP recognition, run "NetFinder" utility on CD.

10. End of procedure.

Printer settings via driver

1. Open the "Devices and Printers" window from the PC Start button.

2. Right-click on the Documax 5380 icon and select "Printer Properties".

Documax 5380

3. Choose the "Ports" tab and verify, or select the preferred interface port for your printer.

4. Click on "Printer settings". [⚙ Printer settings]

5. Select and click on the printer setting icon you would like to adjust, a pop-up window will display feature choice and an explanation.

6. Click on drop down window "Set" tab to select new setting(s).
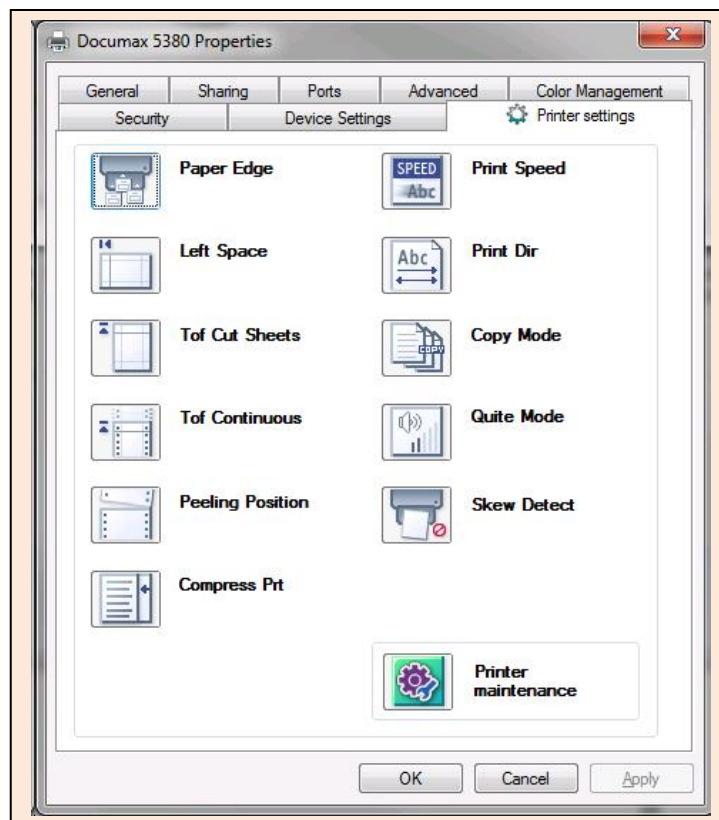
7. Click on "Printer maintenance" [Printer maintenance] to access additional printer setup features.

Printer Maintenance Menu
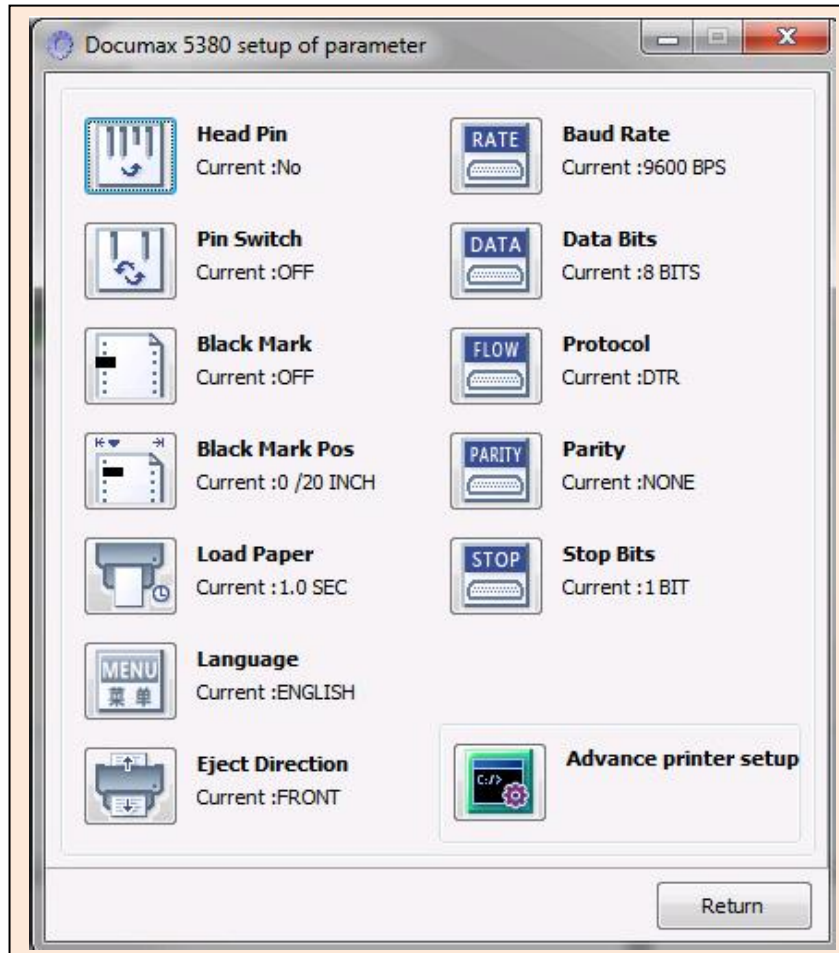
8. Click on "Advance printer setup" [Advance printer setup] to access additional printer setup features.

Advance Printer Setup Menu
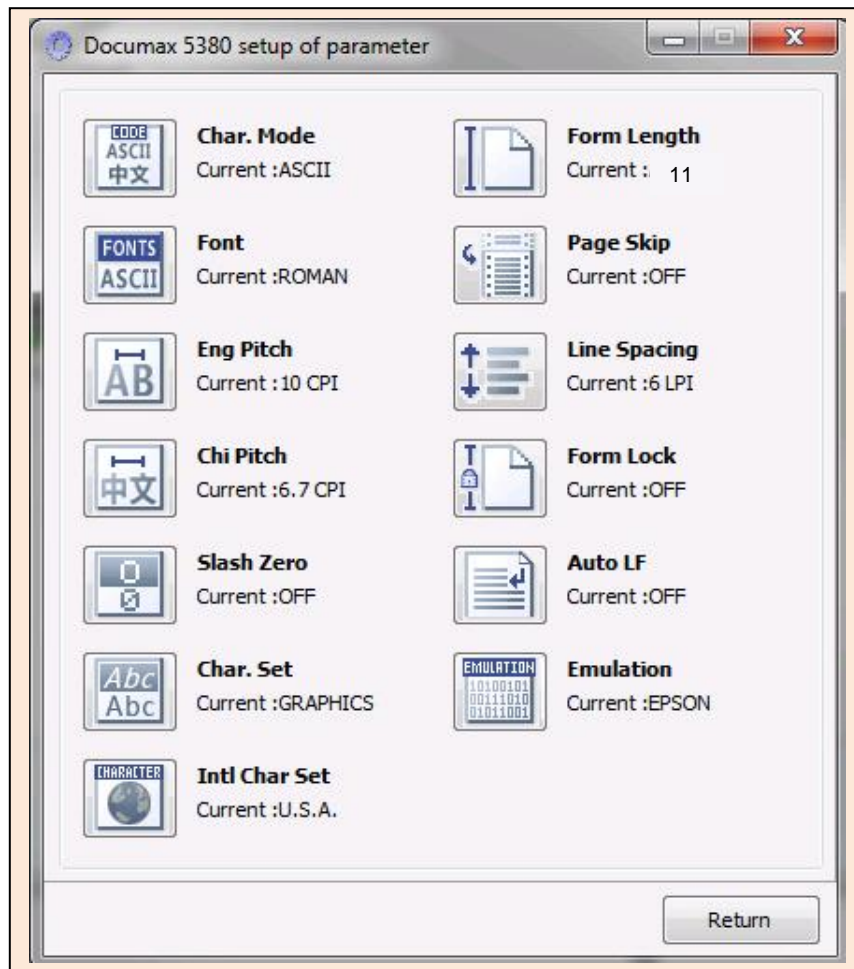
9. Return to main menu and click on "OK" to exit and save settings.

Control Panel

Indicator LED's
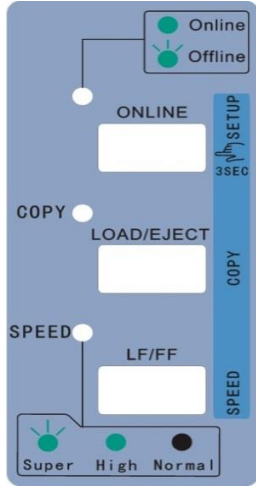
Indicator LED	Off	On	Blink
ONLINE (green)	___	Lights when the printer is online.	The printer is offline or error state.
COPY {BOLD} (green)	The printer is in the normal mode.	The printer is in the copy 1 mode.	The printer is in the copy 2 mode.
SPEED (green)	The printer is in the Letter Quality mode.	The printer is in High Speed Draft mode.	The printer is in Super High Speed Draft mode.

Basic control panel operations

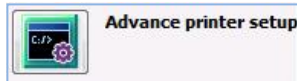|	
ONLINE	Press the **ONLINE** button, switch between **ONLINE** and **OFFLINE** modes.
LOAD/EJECT	When offline, press **LOAD/EJECT** key to control cut sheet or tractor paper feeding. In cut sheet mode, if you press **LOAD/EJECT** key when offline, the paper will be ejected. In tractor paper mode, with paper installed, press **LOAD/EJECT** key when offline. The paper will be fed to the print home position. The printer now being in the online mode. Press **ONLINE** again, then press the **LOAD/EJECT** key, the paper will be fed to the tear position. Press **LOAD/EJECT** key one more time, the paper will reverse feed back to the ready position. In online mode, press and hold the **LOAD/EJECT** key for about 3 seconds, the printer will reverse feed the paper in micro steps.
COPY {BOLD}	In the offline mode, press and hold **ONLINE** key for 3 seconds (until beep is heard), the printer will enter quick menu setup mode. Press **LOAD/EJECT** key will select the normal print mode, copy 1 print mode or copy 2 mode. Press **ONLINE** key to save setting.
LF/FF	In the offline mode, press the **LF/FF** key to feed the paper line by line. Alternatively, hold the **LF/FF** key down, the printer will eject the cut sheet, or feed the tractor paper one page. In the online mode, press and hold the **LF/FF** key for about 3 seconds will feed the paper in micro steps.
SPEED	In the offline mode, press and hold **ONLINE** key for 3 seconds (until beep is heard), the printer will enter quick menu setup mode. Pressing **LF/FF** key will switch the printer among the letter quality mode, high speed mode and super high speed mode. Press **ONLINE** key to save setting.
SETTINGS	To print current printer settings; Press **LOAD/EJECT** key and **LF/FF** key while turning ON printer power.
MENU SETUP	In the online mode, press and hold **LOAD/EJECT** key and then press the **ONLINE** key. Hold keys for 3 seconds. LED's will blink. Load paper and follow printed instructions for feature settings.
SELF-TEST	Press **ONLINE** key while turning ON printer power.

Printer settings via printer control panel

1. With ribbon installed, print current settings by pressing the **LOAD/EJECT** and **LF/FF** keys while turning ON the printer power switch. Release keys and load cut sheet paper to print settings.

2. Review printout. The highlighted settings (gray background) depict current feature setting.

3. In the online mode, press and hold the **LOAD/EJECT** key and then press the **ONLINE** key. Hold keys simultaneously for 3 seconds. The ONLINE LED and COPY LED will blink twice simultaneously to indicate MENU mode.

4. Load cut sheet paper, the title and first MENU will print. The underlined features are the default settings. The print head will stop at the default setting. Use control panel keys to change printer settings.

   Key functions:

   LOAD/EJECT key selects the menu option or menu setting value.
   LF/FF key enters into the submenu or confirms menu setting value.
   ONLINE key returns to upper menu.

5. Press and hold the **ONLINE** key for 3 second to save new settings. The ONLINE LED and COPY LED will blink to indicate completion.

6. Exit menu settings by cycling the printer power. Refer to next page for menu listing and default values.

AMT Documax 5380   Current Settings

Use the **LOAD/EJECT** key to point the print head to the desired setting.

Use the LF/FF key to confirm the current setting.
Use the **ONLINE** key to go back the previous menu.
Press and hold the **ONLINE** key to save settings and exit.

Current settings are <u>UNDERLINED</u> New settings will be **FILLED**.
MAC: XX-XX-XX-XX-XX-XX DHCP: YES IP: 10.0.0.1 Subnet: 255. 255. 255.0 gateway: 255.255.255.255

MAIN MENU   SYSTEM SETUP   CHARACTER   PAGE LAYOUT   PRINT SETUP   SERIAL I/F
                  BREAK PIN

With Ethernet interface connected, the MAC Address, DHCP status, IP Address Subnet and Gateway will print on MENU listing.

Factory default settings

AMT Documax 5380 V2.0 U11 2013/04/10   SN: XXXXXXXXXXXXXXXXXXXX
MAC:XX-XX-XX-XX-XX-XX   DHCP:YES IP:10.0.0.1   Subnet: 255.255.255.0   Gateway: 255.255.255.255

SYSTEM SETUP

LANGUAGE	ENGLISH	CHINESE					
EMULATION	EPSON	OKI					
CHAR. MODE	ASCII	CHINA					

CHARACTER

FONT	ROMAN	SANS SER	COURIER	PRESTIGE SCRIPT	OCR-B	OCR-A ORATOR	
ENG PITCH	10 CPI	12 CPI	15 CPI	PROPORTIONAL			
CHI PITCH	6.7 CPI	7.5 CPI					
SLASH ZERO	OFF	ON					
INTL CHAR SE	U. S. A.	FRANCE	GERMANY	U.K.	DENMARK1 SWEDEN ITALY SPAIN 1		
	JAPAN	NORWAY	DENMARK2	SPAIN 2	LATIN AM	KOREA	LEGAL HOLAND
	TURKEY						
GHAR. SET	ITALICS	GRAPHICS					

PAGE LAYOUT

USER SELECT	USER 1	USER 2	USER 3	USER 4			
LINE SPACING	6 LPI	8 LPI					
FORM LENGTH	3 INCH	11/3 INCH	3.5 INCH	4 INCH	5 INCH	5.5 INCH 6 INCH 7 INCH	
	LETTER	A4	12 INCH	14 INCH			
FORM LOCK	OFF	ON					
PAGE SKIP	OFF	ON					
COMPRESS PRT	NORMAL	AUTO	75%	66%	50%		
LEFT MARGIN	0/10 INGH	1/10 INCH	2/10 INCH	3/10 INCH	4/10 INCH	5/10 INCH	
BLACK MARK	OFF	LEFT MARK	RIGHT MAR				

PRINT SETUP

PRINT DIR	BI-DIR	UNI-DIR	AUTO-DIR				
HIGH DENSITY	OFF	ON					
QUIET MODE	OFF	ON					
AUTO LF	OFF	ON					
LOADING	PUSH KEY	0.5 SEC.	1.0 SEC.	2.0 SEC.			
EJECT	FRONT	REAR					
PIN SWITCH	OFF	ON					
MARGIN DETEC	OFF	ON					
SKEW DETECT	OFF	001	002	003	004	005	006	007

SERIAL 1/F

BAUD RATE	19200 BPS	9600 BPS	4800 BPS	2400 BPS 1200 BPS	
PARITY	NCNE	ODD	EVEN		
DATA BITS	8 BITS	7 BITS			
STOP BITS	1 BIT	2 BITS			
PROTOCOL	XON/XOFF	DTR			

HEAD PIN

PIN 1 _____	LIVE	BROKEN
PIN 24 _____	LIVE	BROKEN

Printer setting definitions

Options	Description
SYSTEM SETUP	
LANGUAGE	Specify the printer menu language as English or Chinese.
EMULATION	Specify printer's control commands.
CHAR. MODE	Select ASCII or Chinese character mode.
CHARACTER	
FONT	Specify a kind of ASCII character font. If the print data contains font instruction, the printer gives priority to print data instruction. (Only valid when CHARACTER MODE is set to ASCII)
ENG PITCH	Specify the ASCII character spacing in characters per inch (cpi).
CHI PITCH	Specify the Chinese character spacing in characters per inch (cpi).
SLASH ZERO	Select the printing character for the zero character with a slash (/) or without, to distinguish it from the letter O.
INTL CHAR SE	Specify the printer internal character set, utilizing international characters.
CHAR. SET	Specify character set as Italic Character or Graphic Character.
PAGE LAYOUT	
USER SELECT	Allows end user to save up to 4 setup profiles. Each profile may be saved with its own set (or group) of setup values. Selectable values are; Top-of-Form, Character Pitch, Print Speed/Quality, Form Length and Left Margin.
LINE SPACING	Specify the line spacing in lines per inch (lpi). If the print data includes vertical pitch instruction, the printer will give priority to the print data instruction.
FORM LENGTH	Specify the page length of the form, for both cut sheet and continuous paper. The printer feeds to next page according to the specified page length. If the print data includes page length instruction, the printer will give priority to the print data instruction.
FORM LOCK	After selecting this function, the printer will lock the page length setting. The printer feeds to next page according to the current setting parameter and will not be affected by the page length instruction of the print data.
PAGE SKIP	After selecting this function, the printer will leave one inch margin at the perforation of the tractor paper automatically. If the print data includes page margin instruction, the printer will give priority to print data instruction.
COMPRESS PRT	After selecting this function, the printer will print out transverse compressed content according to the specified percentage in normal speed. When auto-compress mode is selected, the printer will detect paper width automatically and choose the proper percentage to print.
LEFT MARGIN	Specify the distance between paper left edge and printing home position. (Only valid when ANY POSITION PAPER FEED function is on.)
BLACK MARK	After selecting this function, the printer will carry out black mark detect instruction to make precise vertical positioning (paper/forms should have black mark on the top surface).

PRINT SETUP	
PRINT DIR	Select the printing direction of the print head: unidirectional, bidirectional or Auto selected via software.
HIGH DENSITY	After selecting this function, printing definition will be enhanced while the print speed is reduce.
QUIET MODE	Disable or enable the low noise function. When this function is on, print speed will be reduced.
AUTO LF	If this function is on, the printer will advance the paper one line automatically after receiving every carriage return instruction.
LOADING	Specify the wait time between installing the cut sheet into the paper guide and when it is fed into the printer. Choose to wait specify time or press **LF/FF** key to feed paper.
EJECT	Specify paper eject direction when loading paper from front.
PIN SWITCH	After selecting this function, the printer will switch different pins to print table line automatically.
MARGIN DETECT	After selecting this function, the printer will detect the paper edge automatically after feeding paper and start to print from the position according to the left margin setting.
SKEW DETECT	After selecting this function, the printer will auto detect paper skew when feeding cut sheet paper. If the slant degree is beyond the set parameter, the printer will eject paper automatically.
SERIAL I/F	
BAUD RATE	Specify the printer serial data transfer rate.
PARITY	Specify the parity bit for serial data transfer.
DATA BITS	Specify the serial data bits.
STOP BITS	Specify the serial data transfer stop bit.
PROTOCOL	Specify the protocol of printer serial data transfer as software control (XON/XOFF) or hardware control (DTR).
HEAD PIN	Select the broken pin. The printer will automatically replace it with other pin to print.

Restore factory default settings

Restore printer factory user settings by holding down the **ONLINE** + **LF/FF** keys during power ON. Initialization is complete when ONLINE LED is illuminated

Print USER profiles before executing factory default restoration. Restoring default settings will reset all four USER profiles to their original factory settings.

Ethernet Interface Settings

NetFinder search

1. Power on the printer, connect the LAN Ethernet cable to the printer port located on the back of the printer. Verify the Ethernet port LED indicates a normal connection.

Yellow LED	Green LED	Description
ON	Blink	Connecting to network
OFF	OFF	Not connecting to network

2. Run NetFinder software (provided on CD shipped with the printer).
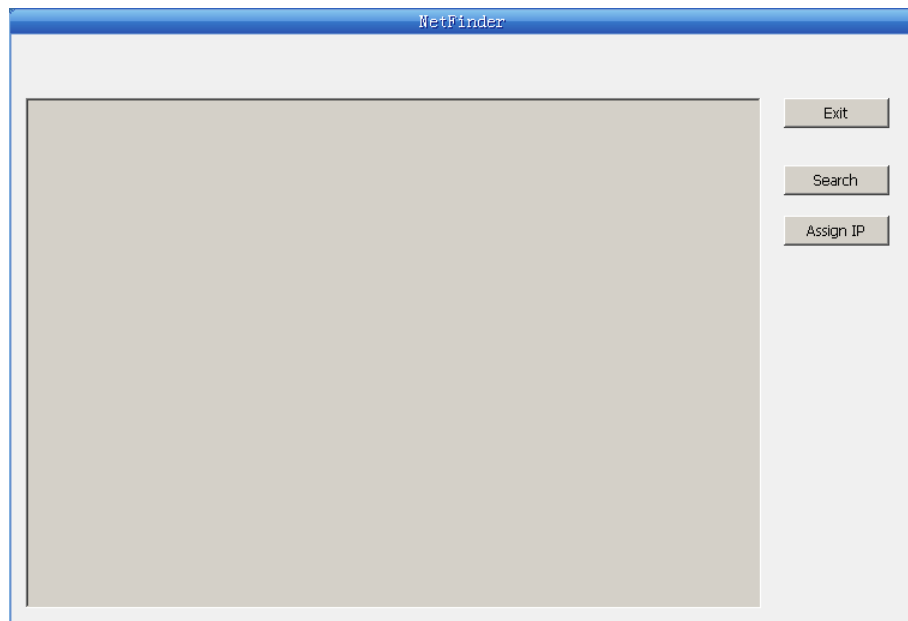

Button description:
Exit — Exit from the software
Search — Search for printers in the same LAN
Assign IP — Modify the IP address and other settings for the specified printer.

3. Click the "Search" button, the dialog box appearing will begin searching automatically listing printers found in the network. The time is counting down in the progress bar (10 seconds) and the search will finish as soon as the time is over.

Search results:
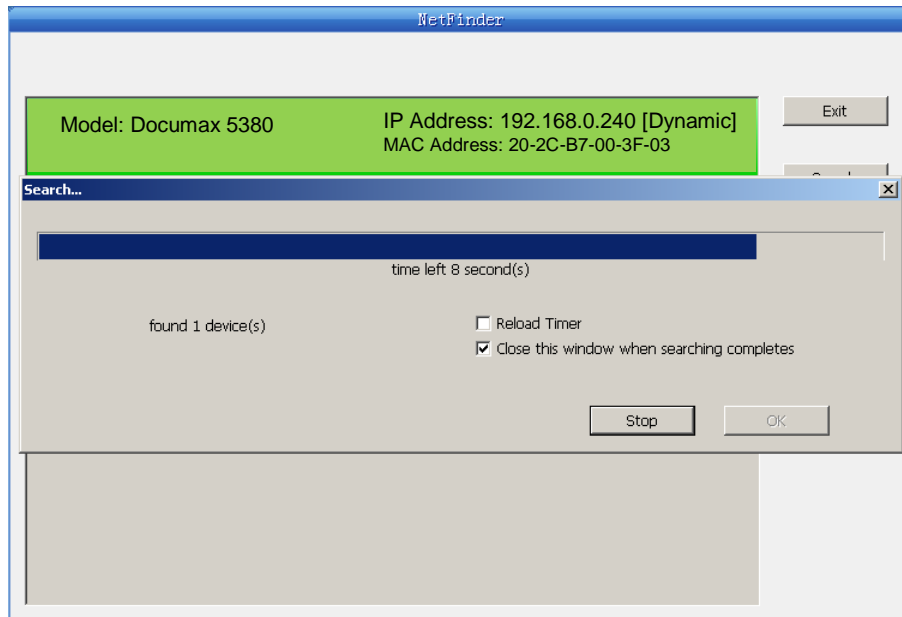
Should the printer not be found during the search, check to see if the network firewall is blocking the search results. Temporally disable the firewall and restart the NetFinder search.

In order to search and set the printer's IP address conveniently for the first time, the factory default setting is DHCP mode which assigns the IP address dynamically. If there is no DHCP server in the connected LAN and the printer is set to DHCP mode as well, then it will use the internal pre-set address (IP: 10.0.0.1, Subnet Mask: 255.255.255.0) automatically.
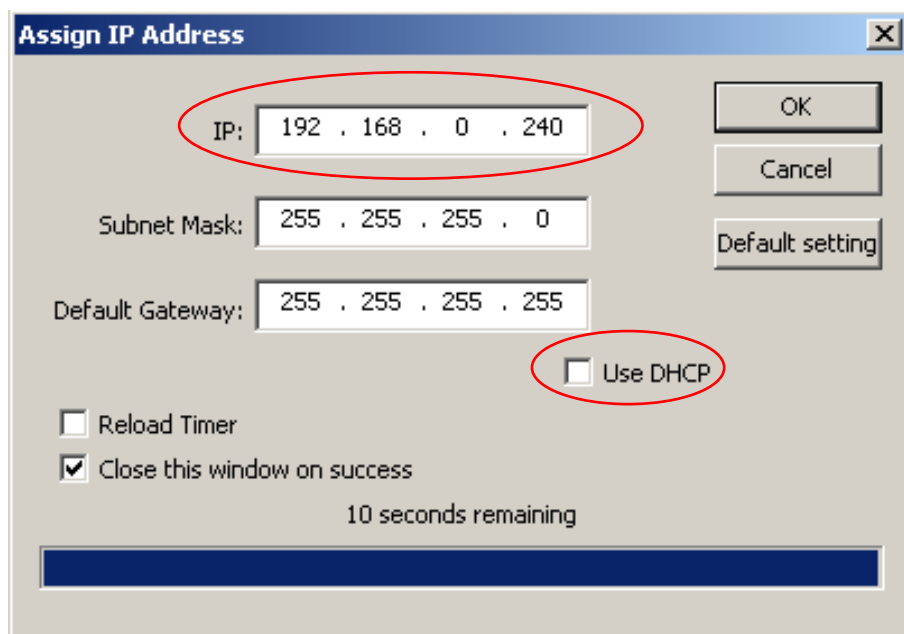
Setting printer static IP address

1. Run NetFinder search. *Refer to "NetFinder Search" section for instructions.*

2. Select the printer information to be modified by clicking on the displayed printer (black frame appears), click "Assign IP" button.
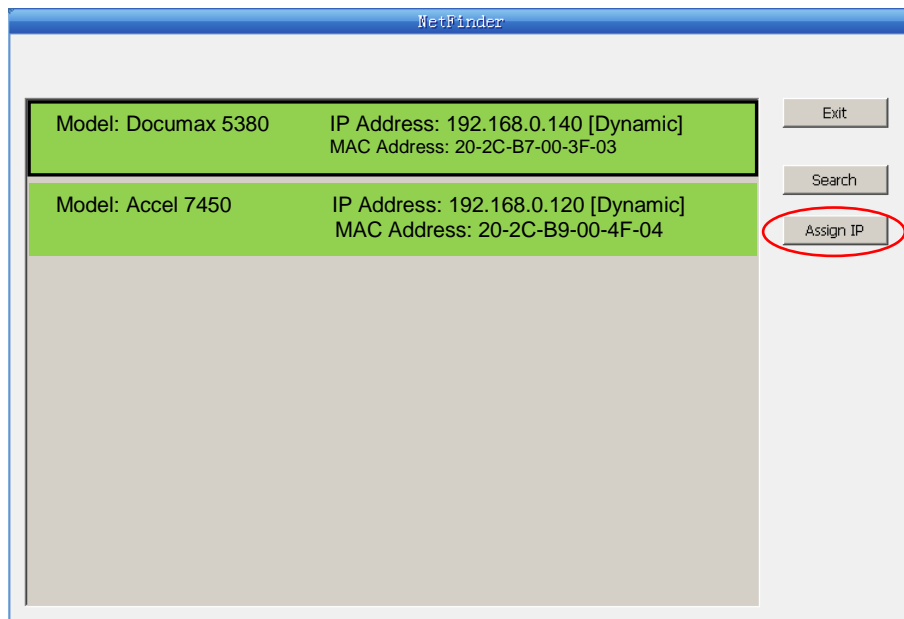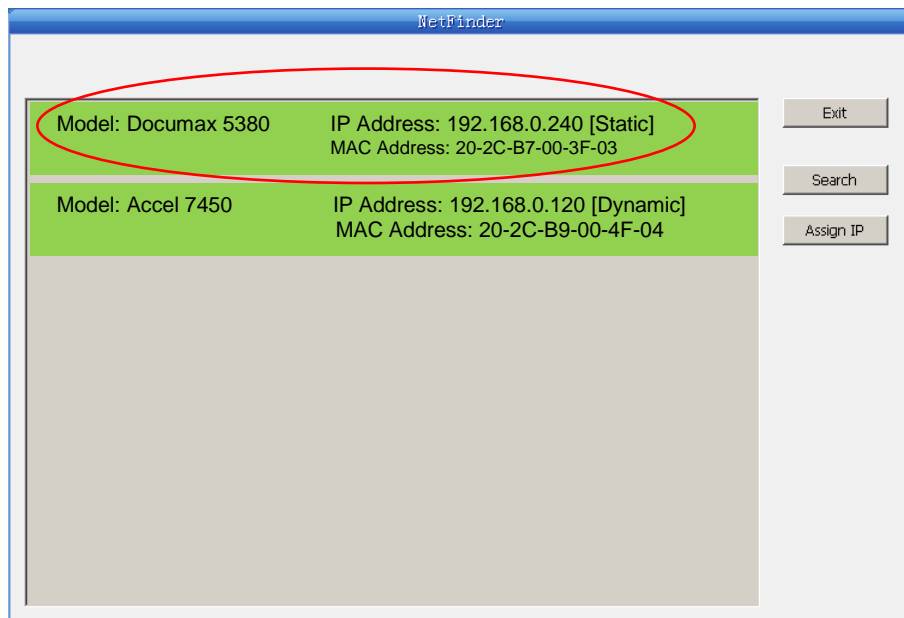

3. Uncheck "Use DHCP" and set the desired IP address, Subnet Mask and Gateway in the dialog box. If there is no gateway in the network, use 255.255.255.255.

4. Click "OK" button to assign Static IP address.

5. Run NetFinder again to verify the printer has been updated with Static IP.

6. Exit NetFinder software.

7. Open the "Devices and Printers" window from the PC Start button.

8. Right-click on the Documax 5380 icon   and select "Printer Properties".

9. Choose the "Ports" tab and select the correct IP interface port for your printer.

10. End of procedure.

Diagnostic Testing & Alignment

ASCII Self-test

1. Power on the printer while pressing the **ONLINE** key.
    Pressing the ONLINE key a second time will stop printing. Reboot the printer to exit ASCII test mode.

    ```
        ASCII TEST MODE

    AMT Documax 5380    VX.X XXX XXXX/XX/XX    SN: XXXXXXXX
    MAC: XX-XX-XX-XX-XX-XX   DHCP: YES   IP: 10.0.0.1   Subnet: 25

      !"#$%&'( )*+-./0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abc
     !"#$%&'( )*+-./0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcd
     "#$%&'( )*+-./0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcde
    ```

Print head pin test

1. Power ON printer, load paper and then turn OFF the printer.
2. Press the **ONLINE** and **LOAD/EJECT** keys while turning on the printer.

    Starting this test without paper pre-loaded will execute the Carriage Seek test instead of Pin Test.

Hex dump mode

1. Turn power on while pressing the **LOAD/EJECT** key to enter Hex Dump mode. In this mode, the data sent from computer will print in Hexadecimal code. Pressing the **ONLINE** key can stop printing, reboot the printer to exit Hex Dump mode.

    ```
    ***** HEXADECIMAL DUMP *****
    (0000) 1B 34 41 42 43 44 45 46 47 48 49 4A 4B 4C 4D 4E  .4ABCDEFGHIJKLMN
    (0010) 4F 50 51 52 53 54 55 56 57 58 59 5A 0D 0A 1B 35  OPQRSTUVWXYZ...5
    (0020) 41 42 43 44 45 46 47 48 49 4A 4B 4C 4D 4E 4F 50  ABCDEFGHIJKLMNOP
    (0030) 51 52 53 54 55 56 57 58 59 0D 0A                 QRSTUVWXYZ..
    ```

Vertical print alignment

Alignment is necessary when adjacent printed lines of text or graphics are not vertically aligned. The following procedure requires pin feed paper and the printer set to tractor mode.

1. Set printer to Tractor Mode and load pin feed paper. Turn printer power switch to ON position.

2. In the ONLINE printer mode, press and hold the **LF/FF** key and then the **ONLINE** key for 3-seconds to enter settings mode.

3. Press **ONLINE** key four times to print current settings (DP2, 60`DPI`, 90`DPI`, 120`DPI`, 180`DPI`).

4. Review alignments printed in step #3. Press the **LOAD** key to increment alignment value and **LF** key to decrement value. Each press of a key will move the adjusting line one step.

Before Alignment

```
    HHHHHHHHHHHHHHHH      |  |  |  |  |  |  |  |  |
 ← HHHHHHHHHHHHHHHH        |   |   |   |   |   |   |   |
```

After Alignment

```
    HHHHHHHHHHHHHHHH      |   |   |   |   |   |   |   |
    HHHHHHHHHHHHHHHH      |   |   |   |   |   |   |   |
```

NOTE: objective is to optimize vertical alignment, total column alignment may not be possible.

5. Press **ONLINE** twice to increment to next vertical setting. Repeated step #4 and #5 until each section alignment is achieved.

6. Turn Printer OFF to exit vertical alignment mode.

Firmware Update

Procedure

1. Connect the printer and PC utilizing a USB port.

2. Start PrinterUpdate utility.

3. Verify there is no other USB port in use. All other USB devices must be turned OFF.

   NOTE: *RUNNING THIS UTILITY MAY DAMAGE OTHER USB DEVICES IF CONNECTED TO THE PC AND TURN ON.*

4. Set printer into flash mode by holding down the **ONLINE** + **LOAD/EJECT** + **LF/FF** keys during power ON. The Online LED should be illuminated.

5. Select PrinterUpdate Utility, USB printer port.

6. Copy/Drag firmware (p/n: 131029) file into PrinterUpdate Utility.

7. Click on START button.

8. Verify ONLINE and COPY LED's flash.
   a. The ONLINE LED will flash at high rate indicating firmware transfer.
   b. Flash is complete when ONLINE and LOAD/EJECT LED's stay ON.

9. Verify/adjust vertical alignments. With printer ON and rear tractor mode selected with paper, press (**LF/FF + ONLINE**). Press LOAD key to increment value and LF key to decrement value. Press **ONLINE** twice to increment to next vertical setting. Turn Printer OFF to exit vertical alignment mode. Refer to page-20 instructions.

10. END of procedure.

    The correct printer ID can be verified at the top of the self-test page. Refer to previous page for test method and print example.

QA Print Test

Procedure

1. Configure the printer USB port interface.
2. Run "Documax 5380 QA Print Test" utility.
   o Two pages will print with text, vertical and horizontal spacing.
3. Follow software print instructions, paying close attention to paper size and orientation.
4. Verify print quality, line spacing and multi-part copies for proper contrast.

Port Test

1. Configure the printer Serial interface.
2. Load Cut-sheet multi-part form.
3. Run "PrinterUpdate" utility.
4. Flash Rolling ASCII /80-column text file.
5. Verify print quality and multi-layer contrast is acceptable.

6. Configure the printer Ethernet interface.
7. Refer to "Ethernet Setup" page-15 and configure port.
8. Run NetFinder.
9. Turn OFF DHCP, select printer and then enter IP address.
10. Load 8.5X11 Cut-sheet paper.
11. Run "PrintPrn" utility.
12. Flash Rolling ASCII /80-column text file.
13. Verify print quality and contrast is acceptable.
14. Run NetFinder.
15. Turn ON DHCP, select OK to save setting.
16. Print "Factory Default Settings", refer to page-10 "Settings" section. Verify Form Length is set to "LETTER" and DHCP is set to "YES".