

Translated from original instructions in Italian

ALGOTEX

WIDE FORMAT DIGITAL INKJET PLOTTERS



Idea **PLOTTERS**

USERS' GUIDE

COMPANY
WITH QUALITY MANAGEMENT
SYSTEM CERTIFIED BY DNV
=ISO 9001:2000=

Inkjet
Technology by

invent

MADE IN
= ITALY =
PRECISION

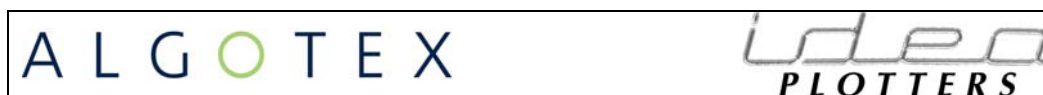


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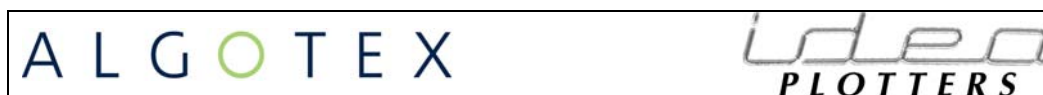


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Congratulations on your purchase of our apparel design marker plotter. This Users' Manual will instruct you how to best install and use the system. Follow the safety precautions and warnings, and observe correct operating procedures to ensure the optimum use of your plotter.

1 INTRODUCTION

Title: Users' Guide IDEA Plotters

Note: The manufacturer declares that while maintaining safety measures and performance, certain plotter features may slightly differ from those found in this Users' Manual, due to continual efforts to improve the product.

Rev	Notes	Last Page	Date	Department	Verified	Approved
1	English version - 01	64	09/2012			pd

1.1 Safety precautions (refer also to page 12)

Precautions for using the system.

Do not attempt to operate the plotter until you have read and understood all instructions in this manual and have been certified as a qualified operator by the manufacturer, or an authorized supplier.



WARNING: potentially dangerous moving parts !

- Before switching the plotter ON be sure that nobody is in the immediate vicinity.
- Stay clear of all moving parts on the plotter when the machine is in operation.



WARNING: high voltage !

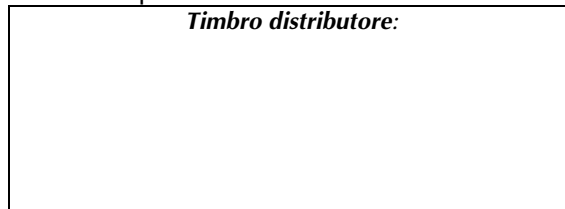
- Do not start or operate the plotter if the protective side covers are not installed. Only trained service personnel should remove side covers.
- The plotter should be switched OFF and disconnected from all power sources before proceeding with maintenance operations.

1.2 Service centers

Algotex - Advanced Techne s.r.l.
Via di Mezzo Levante, 1751
40014 CREVALCORE (Bologna) – Italy
Tel: +39 – 051 – 680 0232
Fax: +39 – 051 – 680 2421

Authorized plotter distributor:

Timbro distributore:





2 GLOSSARY

AlgoClient – (section 14.8)

The 'AlgoClient' program is used for plot list management. This program may be installed on the dedicated computer that is connected to the plotter, and also on remote workstations which can send plot files via network to the 'Working Directory'.

AlgoServer – (section 14.2)

The 'AlgoServer' program must be installed on the dedicated computer that is connected to the plotter by cable. Use this program to open the connection between the plotter and the computer and to specify the communication port, the 'Working Directory', the type of plot list management and to regulate basic plotter settings.

Axis – (section 6.3)

Reference lines used to indicate movement and position on the plotter.

X-Axis: a vertical reference line that indicates the length of the printed paper as it moves from the rear to the front of the plotter.

Y-Axis: a horizontal reference line that indicates the width of the printed paper from the right to the left side.

Calibration – (section 14.5)

This calibration function should be run periodically to ensure precise plotting dimensions, particularly if the paper quality (regarding weight and finish) is changed.

Configuration file – (section 16.1.2)

A data file that determines the basic plotter settings. This file (extension .apx) resides on the plotter's onboard electronics and on the dedicated computer that is connected to the plotter by cable.

Data step – (section 14.7.6)

This value refers to the conversion factor for standard HPGL format files that the rasterizing program uses to calculate plot coordinates. Possible 'Data Step' settings are 0.01, 0.025, 0.0254.

Data type – (section 14.7.6)

This option permits choosing the graphics language to be interpreted by the plotting program. The formats currently recognized are HPGL, HPGL/2, STD and ISO.

Display – (section 6.3)

The plotter's front display is located at the top of the right side cover and functions as a monitor for the onboard plotter control messages.

Dongle

An 'anti-copy' protection device that is installed on the computer where proprietary software resides. The dongle, or 'Security Key', must be physically present on the computer in order for the proprietary software to function.

Electronic box – (section 16.3)

The plotter's electronic box is located under the plotter's right side cover and includes:

- the main control board which manages data flow between the plotter and the dedicated computer;
- the motors control board;
- the electrical power unit.



Firmware – (section 13.1)

The onboard control software resides on the main board within the electronic box. These controls include a series of diagnostic tests, operational tests and settings.

Home position – (section 15.5)

The print carriage's home position is the origin of the plotter's mechanical coordinate system. The location of the home position is determined by the physical position of the home sensor. When the plotter is turned on the printheads carriage automatically makes a brief initializing movement, first to the left and then back to the right close to the home sensor and stops, ready to begin plotting coordinates starting at the zero setting, the origin. If the home sensor is moved physically the plotter should be turned OFF, and then ON again, before the new coordinates become effective.

Ink – (section 7.4)

The ink is oil-based and does not dry. It penetrates and becomes part of the paper and is light-fast, water-fast and organic-resistant.

Ink Cartridge: the disposable cartridges hold approximately 25 ml of usable ink which affords about 2000 meters of printed paper.

Jet (efficiency) test – (section 14.4)

Command used to determine if all jet nozzles in the printheads are functioning properly. Upon activation of the 'Jet Test', the printheads should print, from right to left, 10 separate lines divided into 15 sectors (total of 150 lines x 2 printheads = 300 lines).

The 'Jet Test' is available within the 'AlgoServer' program 'Settings ⇒ Advanced Tests & Settings'.

Marker – (section 6.2)

A design comprised of one or more pattern pieces that may be plotted on paper and subsequently used as a guide by fabric cutters.

Paper spools – (section 6.3)

Paper Feed Spool:

The paper feed spool is located at the rear of the plotter. Paper rolls are loaded onto the feed spool from the right side (as seen from rear of plotter). The paper is unrolled as the paper advance motor causes the paper take-up spool to revolve, thus pulling the paper to the front of the plotter.

Paper Take-up Spool:

The paper take-up spool is located at the front of the plotter. Paper is attached to this spool which will pull the paper forward as the paper advance motor causes the paper take-up spool to revolve.

Pen width – (section 14.3)

The plotter may be set to print either of two line qualities.

Standard: select this setting for normal line width.

Bold: select this setting for bold (darker) line quality.

Note: when using 'Bold' Pen Width quality, ink consumption is doubled.

Plot list management – (section 14.8)

Automatic Management: choose this option if plot files will be transferred to the plot list with the use of a 3rd party CAD program.

Manual Management: choose this option to allow management of the plotting list directly within the 'AlgoClient' menu.



Priming the printhead – (section 14.4)

A software command 'Head Clean' found in the 'General Settings' menu, triggers each of the printhead jet nozzles to simultaneously emit a dense spray of ink through the inkjets and flush debris or air bubbles out of the ink channels.

Print mode – (section 14.3)

The plotter may be set to print in one or two directions.

Mono directional mode:

The plotter will print on the right to left sweep of the printhead carriage and NOT on the return movement of the carriage from left to right. While line quality is optimum, printing speed is reduced by approximately 30 percent.

Bi directional mode:

The plotter will print on the right to left movement, and then also print on the left to right movement of the printhead carriage. This mode results in full speed printing, but will initially require vertical alignment (refer to 'Shift' setting).

Right margin setting – (section 14.3)

This value represents the distance between the right edge of the paper and the point towards the left side of the paper where printing begins.

Shift setting – (section 14.4)

This setting is used when printing in 'Bi Directional Mode' (from right-to-left and left-to-right), as opposed to printing in Mono Directional Mode' (only right-to-left), and serves as an alignment function. The 'Shift' setting may require regulation after the print media (paper quality regarding weight and finish) has been changed. This setting is effective if the vertical print alignment is skewed across the ENTIRE print surface, as opposed to being skewed only in one area of the print surface.

Surge protection – (section 7.4)

A separate device not supplied with the plotter that filters electrical power received from the main AC line and prevents over-voltage from reaching the plotting system.

Swath – (section 14.4)

The swath is the height of the printed field. Each printhead permits printing a swath with a horizontal field 12.70 mm in height. The total swath for the IDEA plotter, with 2 printheads is 25.40 mm in height.

Turnaround point

The point at which the printhead carriage reverses direction, either from right-to-left, or from left-to-right.

Working directory – (section 14.7.1)

The 'Working Directory' is the destination folder for plot files and may be any folder located on the computer that is directly connected by cable to the plotter.

NOTE: except for plot files, this folder MUST be empty.



3 LIABILITY NOTICE

The manufacturer shall have no liability for damage of any kind (including but not limited to unearned profits, indirect damages, special losses and other debts) caused by the malfunction of the product unless otherwise specified in the warranty provisions. The same applies to any case where the manufacturer has been informed of the possible risk of such damages beforehand. For example, the manufacturer shall not be liable for any damage to materials due to the use of the product or any indirect damage that is caused by the product. Therefore, the manufacturer shall have no liability for claims from third parties resulting from the use of the device.

4 COPYRIGHT

Copyright © 2012. All rights reserved. This document may not be reproduced, in whole or in part, without written permission of the manufacturer, and is part of the proprietary accessories supplied with the plotter. The information contained herein is given in confidence and shall not be copied or reproduced without written consent of the manufacturer, and is subject to change without notice. The manufacturer and its distributors shall not be liable for errors in this documentation or for consequential damages in connection with the use of this material.

5 GUARANTEE

5.1 Duration of the guarantee

The guarantee is valid for one year on plotters and for three months on spare parts starting from the date of purchase of the product by the initial customer. The initiation of the guarantee may be delayed until the date of installation of the product providing that the *'installation form'* is completely filled in, signed and returned to the manufacturer by the customer.

5.2 Conditions of the guarantee

The manufacturer guarantees the free repair or substitution of defective material with new or equivalent material, as well as labor costs for repairs to be effected on the manufacturer's premises and including return shipment expenses.

5.3 Limitations

The guarantee is void in the following instances:

- Periodic controls, maintenance, repairs and substitutions of parts due to normal wear and tear;
- Consumable materials;
- Failures caused by modifications not authorized by the manufacturer;
- Costs sustained by the manufacturer for modifications or service calls necessary for the adaptation of the product in order to comply with specific technical or safety requirements, or to various country standards, as well as the costs sustained for the adaptation of the product so as to be on a level with operative conditions modified successive to the delivery of the product;
- improper use of the product; manipulation or excessive operation of the product, and in particular, damage to the product resulting from inadequate warehousing;
- *repairs, modifications or maintenance executed by unauthorized personnel;*
- use of spare parts or consumable materials (ink, paper, etc.) that are not compatible with the product or that have not been expressly approved by the manufacturer;
- connection of the product to devices not approved by the manufacturer;
- improper or inadequate packaging of the product;
- damage or accidents not attributable to the manufacturer, including but not limited to lightning, floods, or other natural catastrophes.



6 PLOTTER LAYOUT AND DESCRIPTION

6.1 Description of the plotting environment and objectives

The IDEA plotter is operational in factories or in apparel pattern service studios where severe temperatures, humidity and dust might not be controlled.

During a normal work shift the plotter is not continually monitored by the plotter operator. Once the operator has properly set-up and programmed the plotter, plotting continues autonomously.

One person may assume complete responsibility for plotter operation and maintenance, except when loading new paper rolls or when the plotter must be moved, in which cases at least two persons should participate. The plotter may be employed either as a single work station or as part of a network in which plotting commands are sent from a remote source.

6.2 Description of the plotting system and utilisation

The plotter is a CAD (computer assisted design) station used principally in the apparel industry. The CAD program is used to create pattern markers which are utilised as guides for cutting fabric into individual garment pieces. The plotter is employed to print the pattern markers on many types of paper in varying widths. The paper with the traced pattern marker is then laid over the fabric to be cut. The fabric cutting operator then uses the lines of the pattern design that have been traced on the paper as a guide to accurately cut the fabric into garment pieces.

The plotting system is comprised essentially of two distinct and functioning units.

1) A workstation equipped with a personal computer (Pentium™, or more recent CPU), monitor, keyboard and mouse. The computer must have the plotting program installed in Windows XP, Vista or Win7 environment. Marker files are transferred to the computer by means of USB flash memory or a network.

2) The IDEA plotter is equipped with two printheads. Each printhead employs 150 nozzles that spray ink onto the print surface. The plotters are used to manage pattern marker designs and print the designs in relatively wide and long formats on paper.



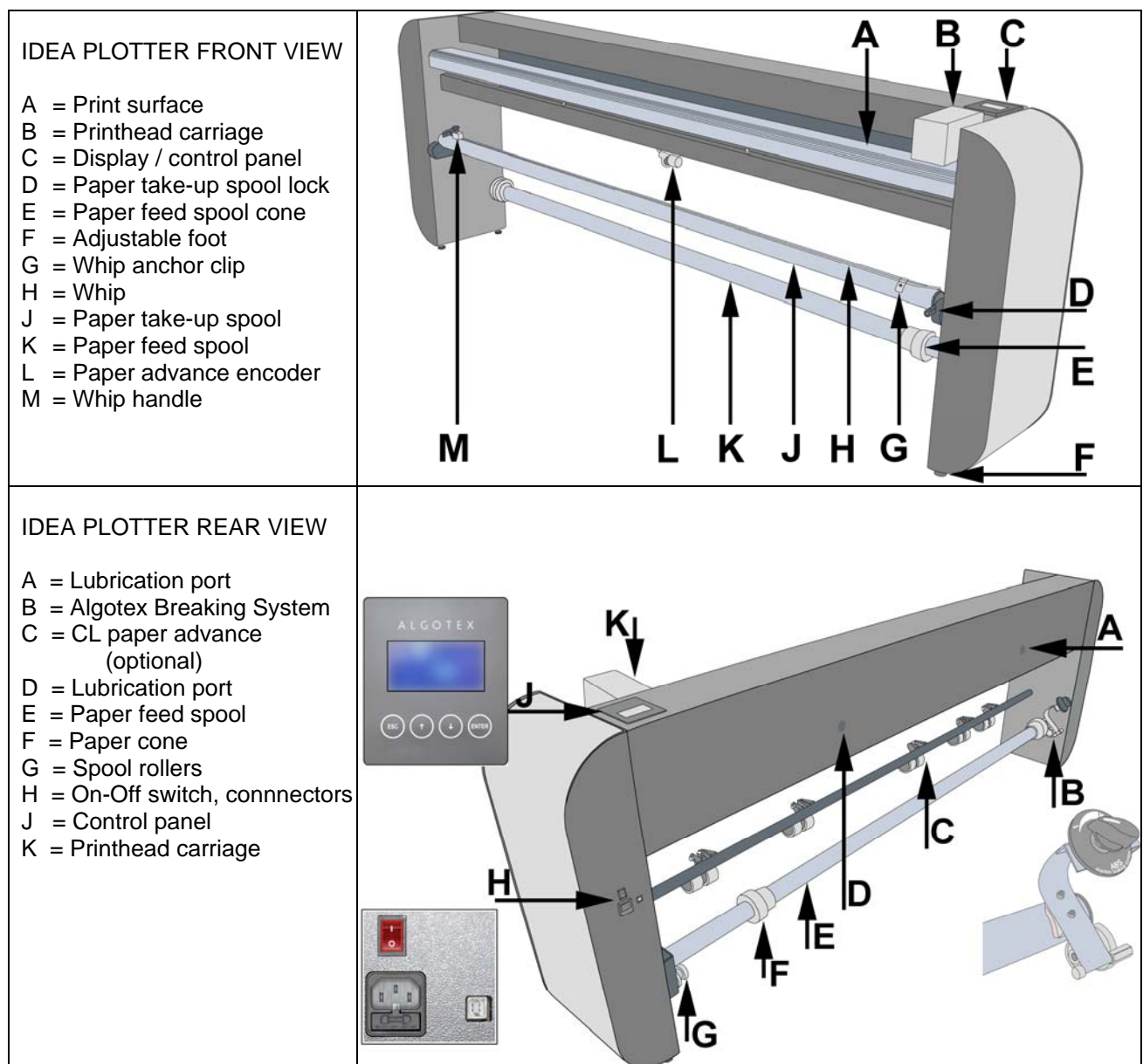


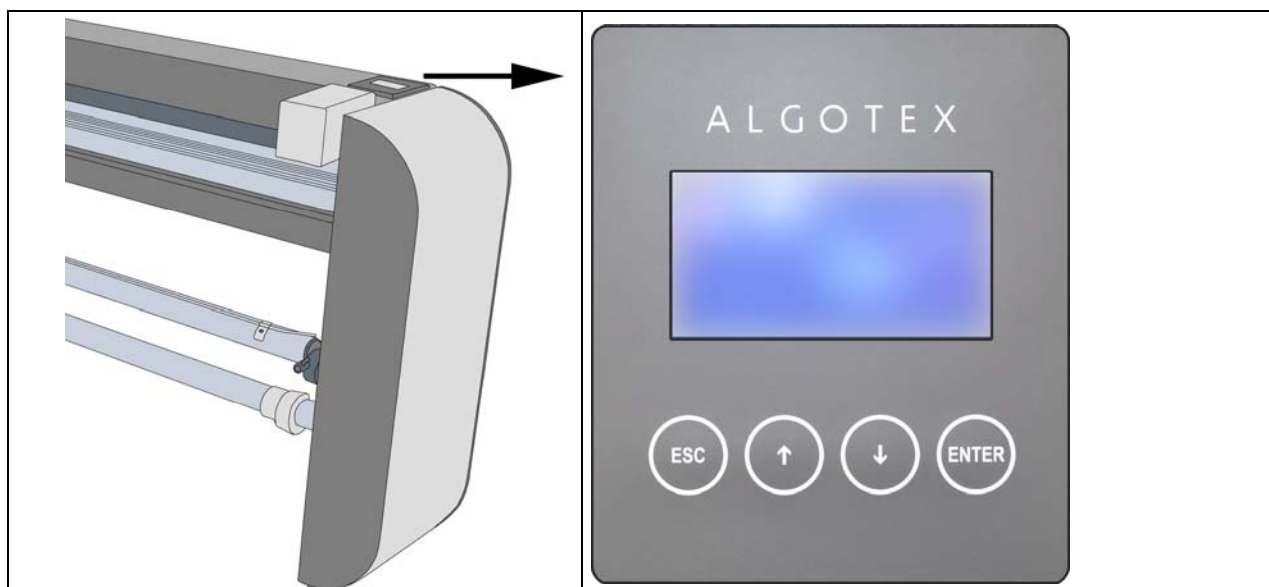
6.3 Description of the plotter

The plotters are constructed on robust metal frames. The frame is supported by four adjustable feet used to regulate plotter levelling and assure stability.

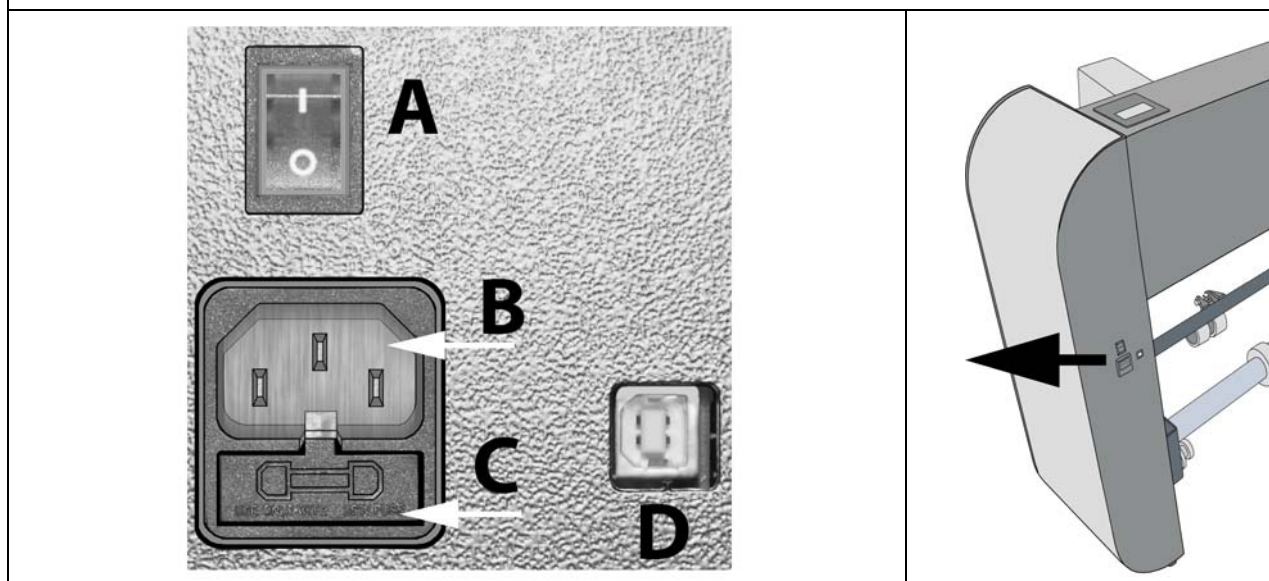
The printheads are mounted on the printhead carriage. The carriage moves on a track horizontally from right to left, and vice-versa, while the printheads print on the vertically moving paper.

An aluminum paper feed spool is located at the rear of the plotter. Paper rolls of varying widths are loaded onto the feed spool. The paper is pulled forward by the front aluminum paper take-up spool. The paper take-up and paper feed mechanism is equipped with a paper advance encoder that insures the paper advances regularly, allowing for real, non-stop plotting.





Display + Touch pad: right side front view



On-Off Switch / Connectors: left side rear view

- A = ON – OFF switch
- B = Power cable connector
- C = Fuse position (1.6A)
- D = USB-2 connector



6.4 Electrical layout

The system employs two encoders that control paper advancement and printhead position during plotting so as to maintain exact plotting coordinates.

6.4.1 Onboard electronics

The electronic system is enclosed in a metal box located on the right side of the plotter and employs a power supply that allows input line voltage of 230VAC (default factory setting). The system gathers data received from the encoders and in turn sends data and commands to the motor controlling paper movement as well as the motor that drives the printhead carriage.

6.4.2 Plotter motorization

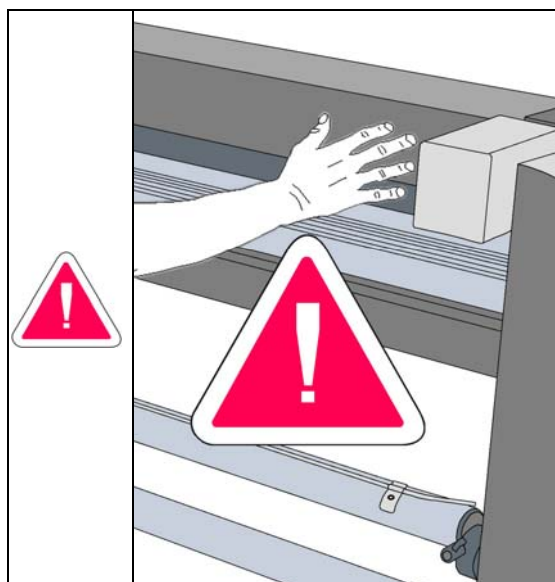
- 1) The 35V, direct current servomotor that drives the print carriage is enclosed by the fixed cover on the left side of the plotter.
- 2) The 24V, direct current geared motor that drives the paper take-up spool is enclosed by the fixed cover on the left side of the plotter.

6.5 Plotter safety features and devices


- 1) The paper take-up spool are equipped with a blocking mechanism that impedes the right end of the spool from moving out of position.
- 3) The right and left side covers, fixed with screws to the plotter frame, enclose the electronics and motors that drive the plotter. The side covers should be removed only when the plotter is not in operation and only by trained personnel.

7 SAFETY PRECAUTIONS

7.1 Danger of entanglement with the printhead carriage during plotting operations

	<p>WARNING: potentially dangerous moving parts !</p> <ul style="list-style-type: none"> • Before switching the plotter ON be sure that nobody is in the immediate vicinity of the work area. • Stay clear of all moving parts on the plotter when the machine is in operation.
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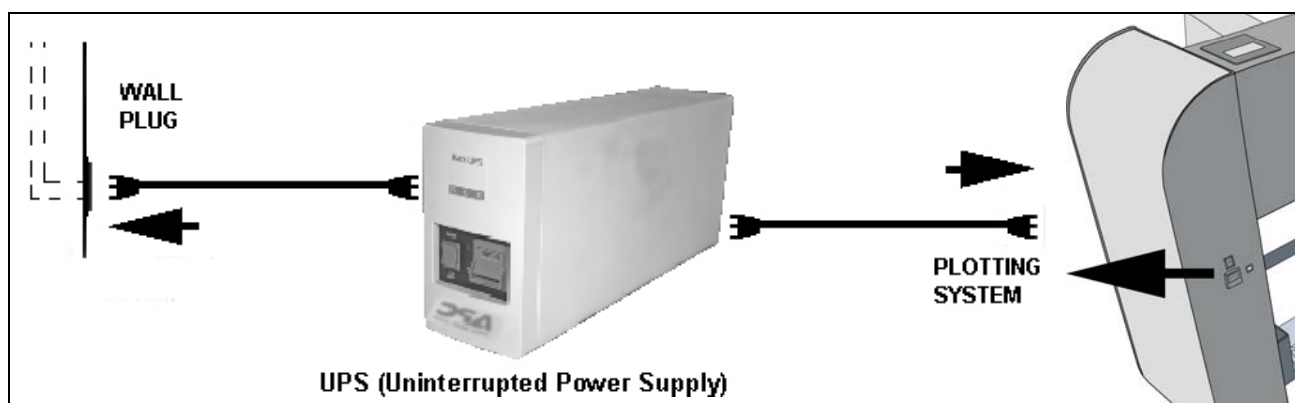
7.2 Electrical danger

	<p>WARNING: high voltage !</p> <ul style="list-style-type: none"> • Do not start or operate the plotter if the protective side covers are not installed. Only trained service personnel should remove the side covers. • The plotter should be switched OFF and disconnected from all power sources before proceeding with maintenance operations.
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7.3 Electrical precautions

	Attention !	When connecting the power cable supplied with the plotter always use a 3 prong (grounded) wall socket.
	Attention !	The plotter owner should equip his plotting system with a SURGE PROTECTOR or UPS (uninterrupted power supply). This device filters electrical power received from the power source and prevents over-voltage from reaching the system
	Warning !	Once a surge protector / UPS has been installed, be sure to turn the plotter OFF before connecting it to the power source outlet (wall plug).



7.4 Ink dangers and precautions

	Attention !	Ink Classification: IRRITANT
<p>Avoid contact with skin by wearing suitable protective gloves. Ink used in the plotter is a mildly toxic irritant and staining substance. Do not swallow or allow the ink to come into contact with your eyes, hands or clothes. Should you accidentally spill the ink, rinse immediately with cold water and soap. If sensitisation of skin develops after contact, obtain medical attention as a precaution.</p> <p>The vapor has anaesthetic properties and when inhaled at high concentrations it may cause headache, fatigue, dizziness and uncoordination. Obtain medical attention as a precaution.</p>		
	WARNING:	use of any ink other than the quality supplied by the manufacturer voids all guarantees and may damage the printheads irreparably.

The ink cartridges should be stored in their vacuum packaging. Keep the cartridges away from oxidizing agents. The cartridges should be stored in an ambient with the following conditions:

Ambient		Temperature	Humidity
Operations	Mech – elect	10 - 40° C	10 - 90%
Stock	Plotter	10 - 40° C	10 - 90%
	Cartridge	10 - 30° C	10 - 90%



8 TECHNICAL SPECIFICATIONS

IDEA plotters are equipped with a system of automatic controls consisting of encoders and sensors in continuous on-line contact with the onboard electronics, thus allowing for constant verification of operations which permits non-stop plotting. Each IDEA plotter bears the European Community certification 'CE APPROVAL'. The inkjet plotting technology allows for the use of a wide range of paper, including heat-seal and recycled paper qualities.

Print width:	Model 180:	183cm (72 inches)
	Model 220:	218 cm (85 inches)
Continuous print capacity:	up to 200mt	(220 yards)
Paper roll diameter (maximum):	20cm	(7.9 inches)
Printing technology:	2 inkjet printheads / disposable cartridges	
Print resolution:	up to 254 DPI	
Plotting speed:	average of 80 m ² / hour (47.8 yd ² /hr)	
Power supply:	230VAC (adjustable to 115VAC)	
Power consumption:	< 100 watt	
Plotter length:	Model 180:	2510mm (107 inches)
	Model 220:	2910mm (122 inches)
Plotter depth:	320 mm	(12.6 inches)
Plotter height:	890 mm	(35 inches)
Plotter weight:	Model 180:	100kg (220 lbs)
	Model 220:	120kg (264 lbs)
Space required for paper loading:	1500mm	(60 inches)
Acoustic threshold:	d < 60 dB (continuous)	
Safety standards compliance:	CE	

9 REGULATORY STANDARDS AND COMPLIANCE

Please refer to the last page of this Users' Guide for a complete 'Declaration of Conformity CE'

for the following plotting apparatus:

IDEA 180 2H HP CL;
IDEA 220 2H HP CL.

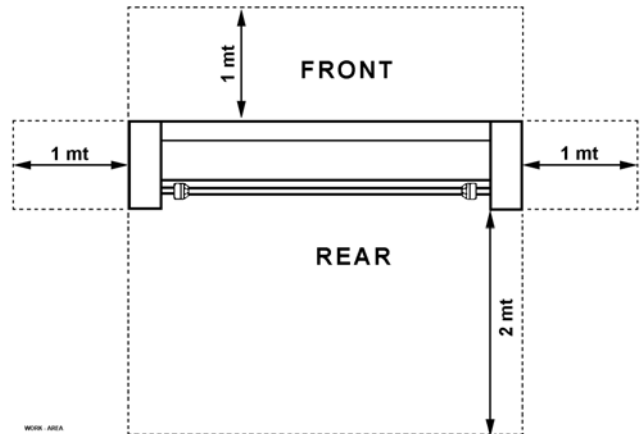
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PLOTTERS

10 INSTALLATION

10.1 Work area dimensions

The plotter should be installed on a flat surface, with a minimum free working area as illustrated.

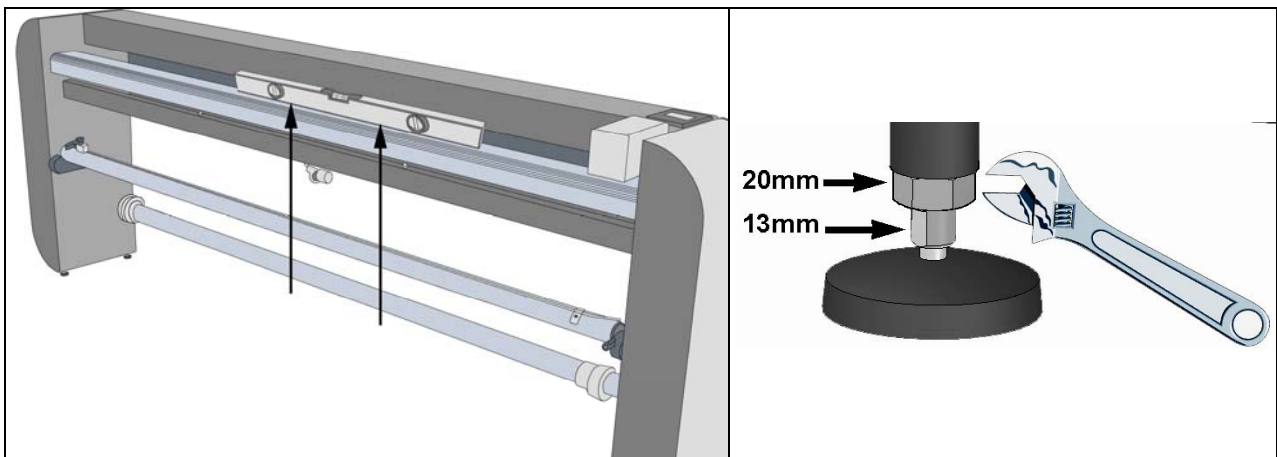


10.2 Local environmental requirements

The plotter should be installed in an environment with the following conditions:

- Minimum 10° C temperature, 35 % humidity;
- Ideal 24° C temperature, 50 % humidity;
- Maximum 35° C temperature, 90 % humidity;
- No direct sunlight;

10.3 Plotter levelling





To ensure accurate plotter operation, the entire unit must be perfectly level. Place a bubble level on the print surface of the plotter. Then regulate the four adjustable feet using a 13 mm open wrench. After levelling the plotter, fix the feet in position using a 20 mm open wrench.

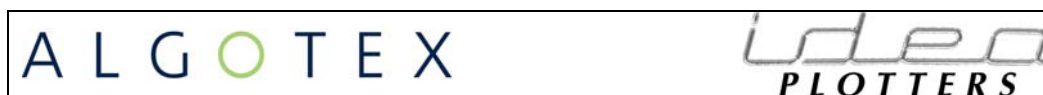


11 EQUIPMENT INCLUDED WITH THE PLOTTER

While unpacking the IDEA plotter, verify that the following material is included.

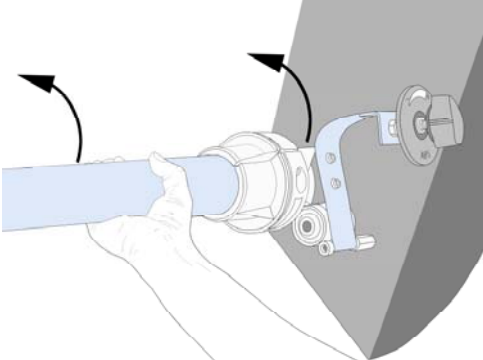
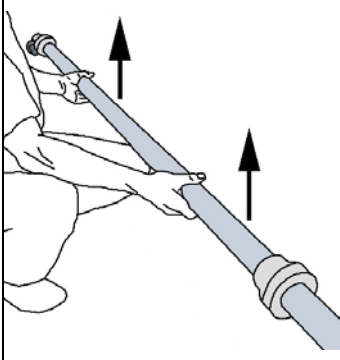
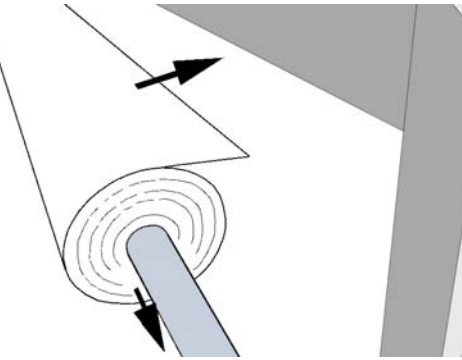
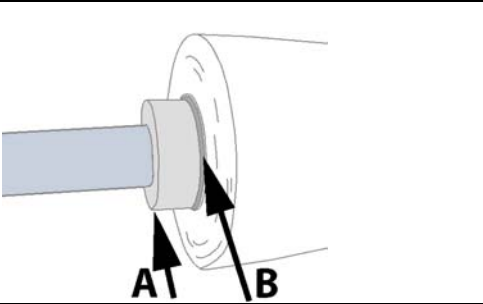
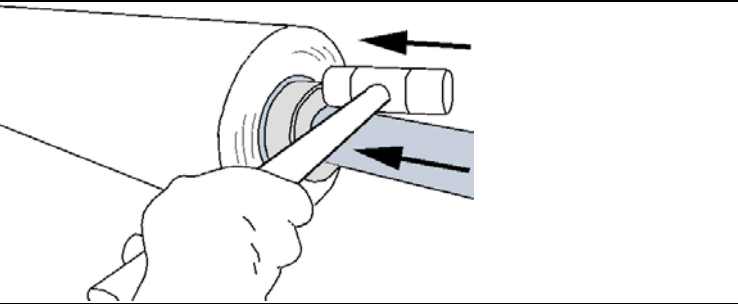

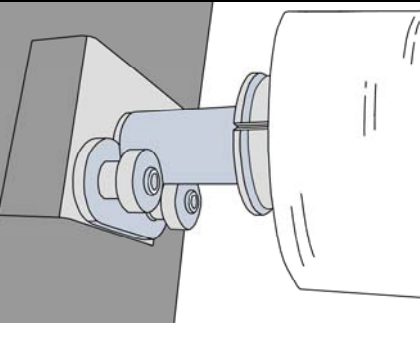
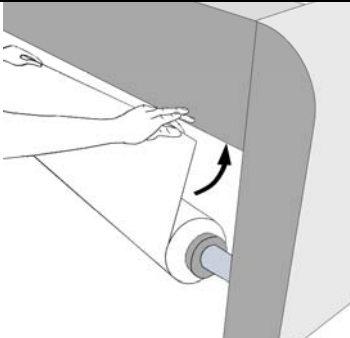
- A large (40 x 30 cm) white envelope that contains:
 - CD containing the 'Plotting Programs';
 - various print tests and plotter settings.
- An 'Accessory Kit' that includes:

		
Power Cable	USB 2 Cable	Bottle of Lubricant



12 GETTING STARTED

12.1 Paper loading

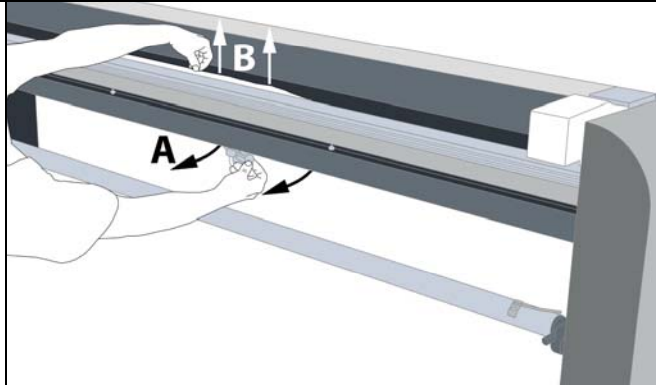
<p>CAUTION! Due to the weight and dimensions of the paper rolls, 2 persons should always participate in loading paper onto the plotter.</p>		
<p>WARNING: potentially dangerous moving parts !</p> <ul style="list-style-type: none"> Before switching the plotter ON be sure that nobody is in the immediate vicinity of the work area. Stay clear of all moving parts on the plotter when the machine is in operation. 		
<p>1) At the REAR of the plotter, remove the 'Paper Feed Spool':</p>		
		
<p>1A) Lift the RIGHT end of the paper feed spool from its lodging in the ABS system.</p>	<p>B) Using both hands, lift the spool UP and off the plotter and place it on the floor.</p>	<p>2) Remove the RIGHT paper cone from the paper feed spool. Load the paper roll onto the spool so that the paper feeds OVER THE TOP of the roll towards the plotter.</p>
		
<p>3) Push the paper roll to the LEFT so that the LEFT paper cone (A) penetrates deeply into the cardboard core (B) of the roll.</p>	<p>4) Press the RIGHT paper cone FIRMLY into the cardboard core on the RIGHT side. Tap the cone with a hammer to force it into the tube and tighten the screw securely. THE PAPER ROLL MUST NOT REVOLVE ON THE SPOOL.</p>	
		
<p>5) Using 2 hands, reposition the RIGHT end of the paper feed spool into its lodging in the ABS system</p>	<p>6) Lay the LEFT end of the paper feed spool on the rollers.</p>	<p>7) Feed the paper UNDER the plotter's central beam. Then pull the paper UP.</p>

ALGOTEX

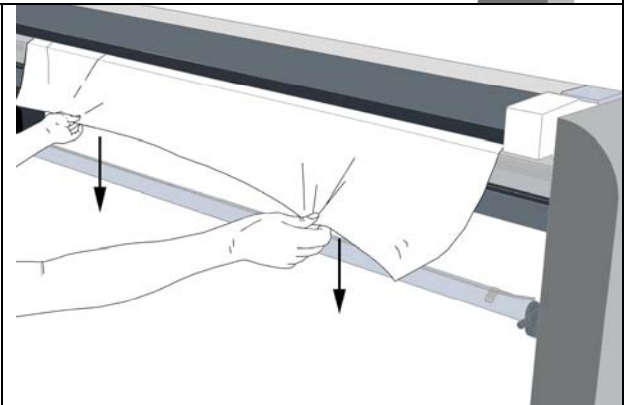
idea
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8) Standing in FRONT of the plotter:

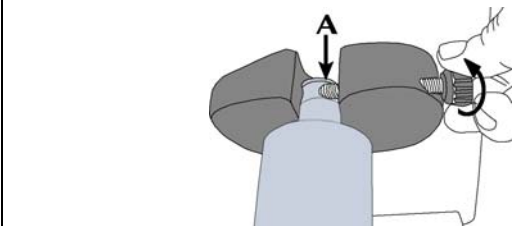
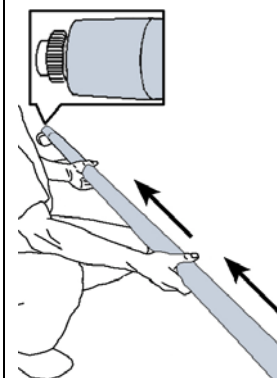
- reach UNDER and BEHIND the plotter's main beam;
- with one hand pull the paper encoder (A) FORWARD towards the FRONT of the plotter;
- with the other hand pull the paper (B) UP between the plotter's central beam and the encoder.



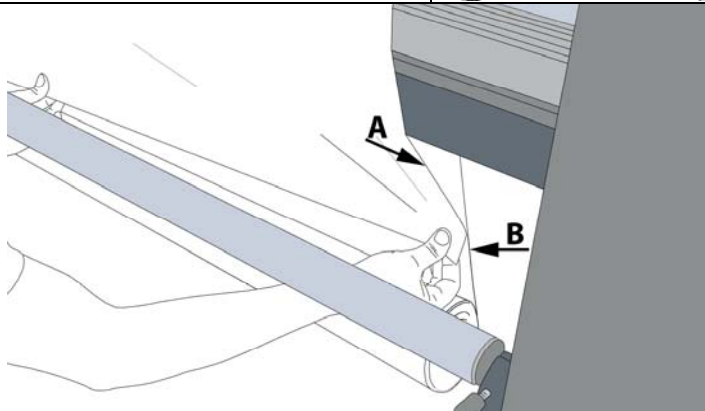
9) Pull the paper FORWARD above the print surface and then DOWN until it reaches the paper take-up spool.



10) Shift the paper take-up spool to the LEFT to engage it with the gear / drive shaft.

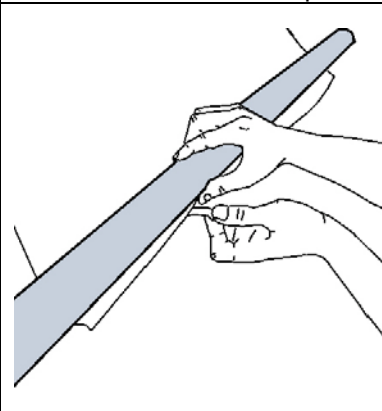


11) Close the safety knob at the RIGHT end of the paper take-up spool by screwing it clockwise completely. Verify that the end of the screw (A) extends well into the channel on the spool.

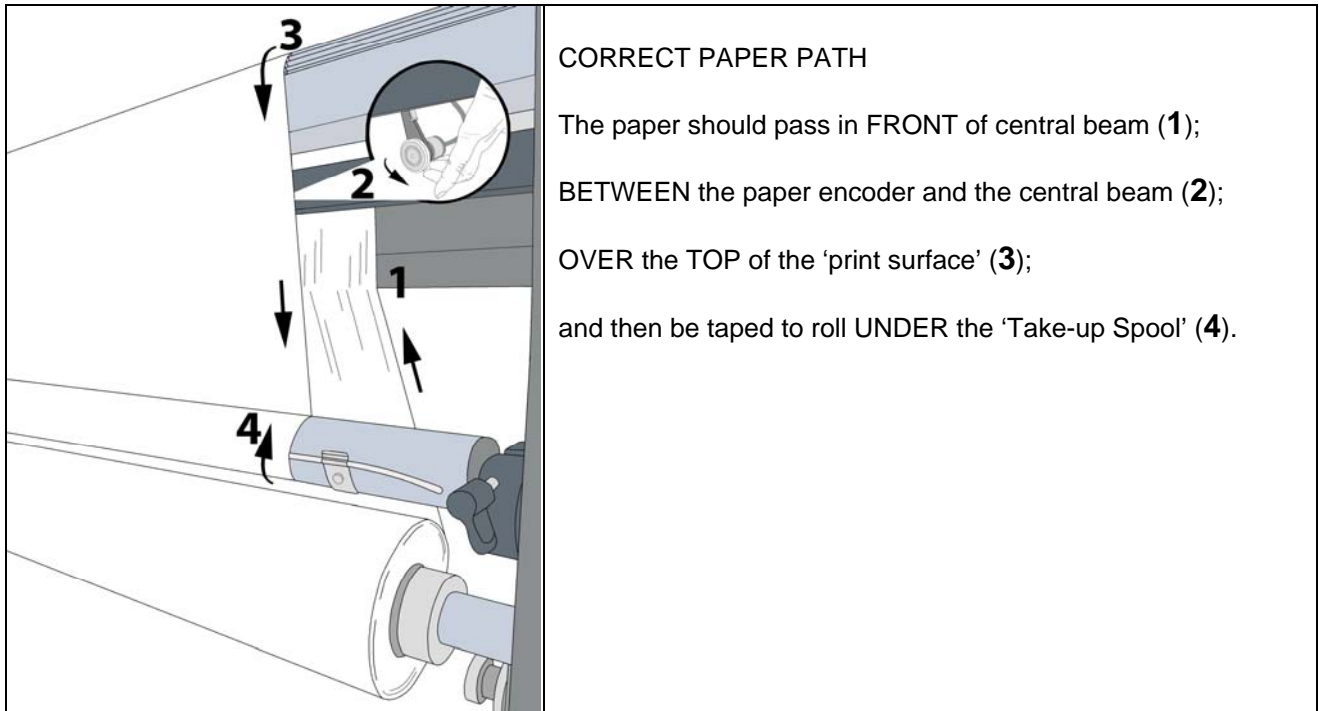


12) Verify that the edges of the paper both at the front (A) and at the rear (B) of the plotter are aligned.

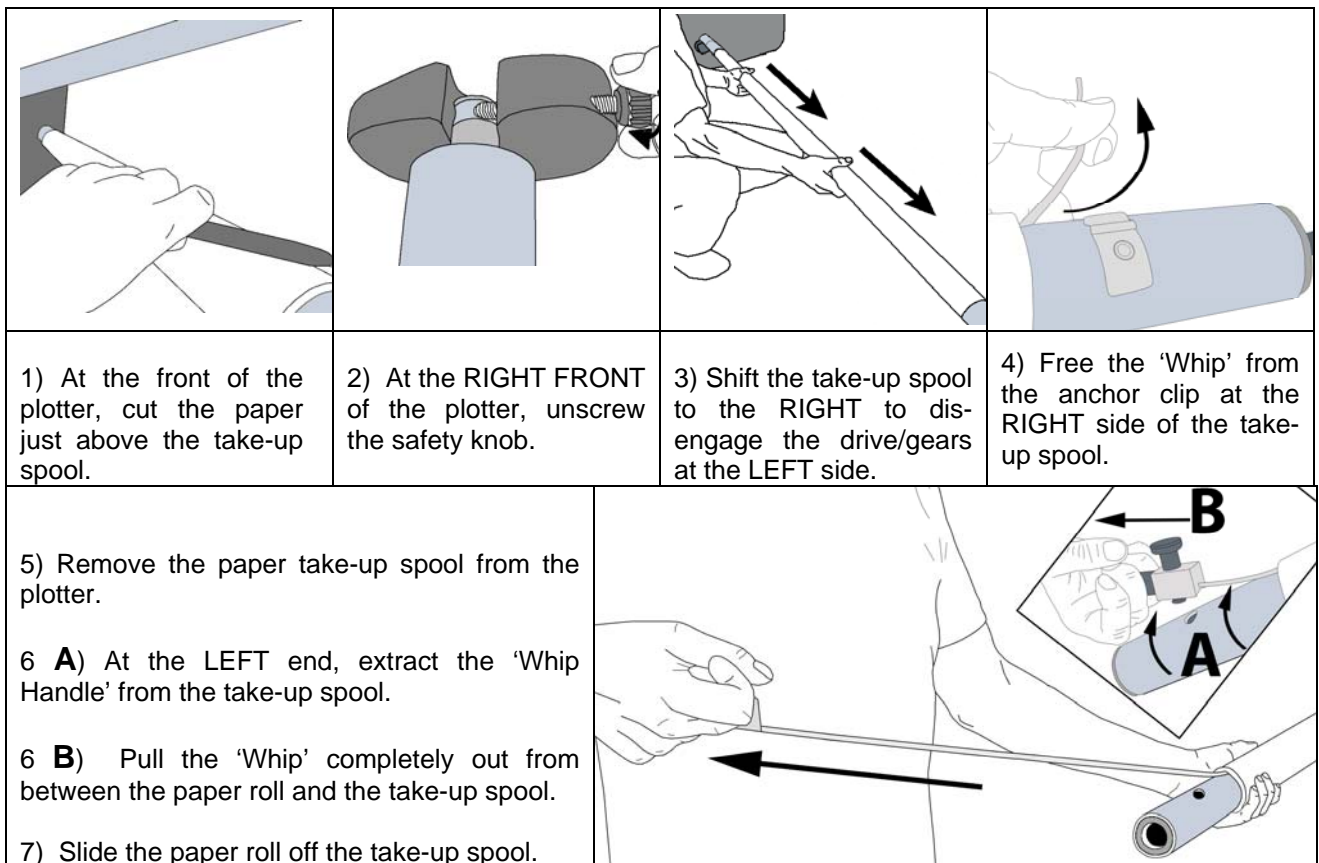
The paper should remain flat across the entire width of the plotter.



13) Tape the paper to the take-up spool first at the CENTER and then at each side.
NB. Tape the paper to roll UNDER the spool.



12.2 Remove printed paper from the plotter

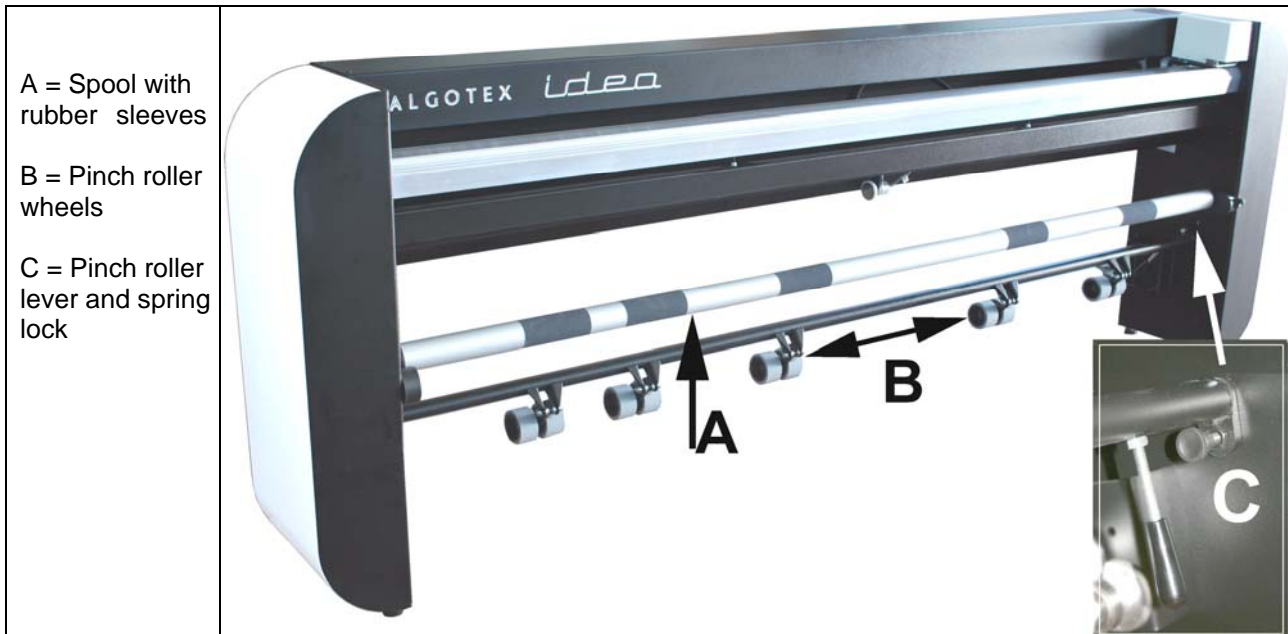




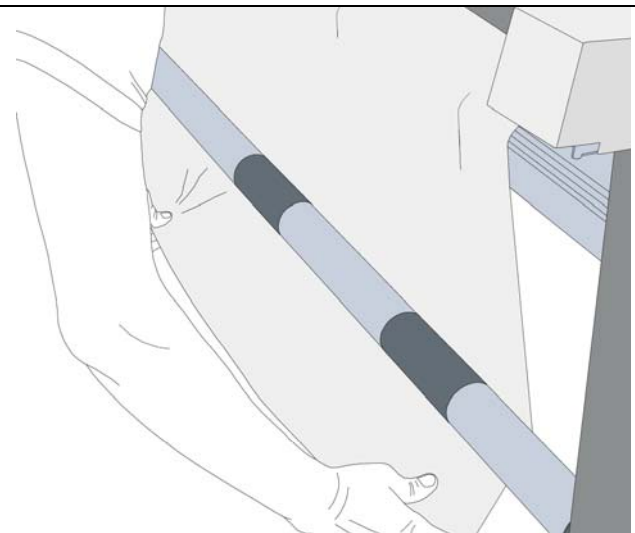
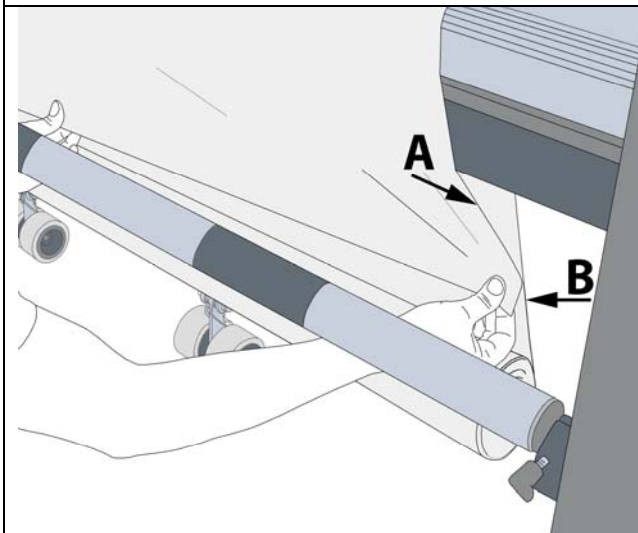
12.3 ACL System (Algotex Free Paper Advance)

The 'Free Paper Advance' system allows for paper to advance without being rolled up onto the paper take-up spool. Printed markers may be removed from the plotter WITHOUT interrupting plotting.

Paper loading instructions for the ACL system follow below.



1) Remove the paper take-up spool with 'Whip' and install the spool with rubber sleeves (A).



Follow instructions for standard paper loading procedures in section 12.1, up to point 12.

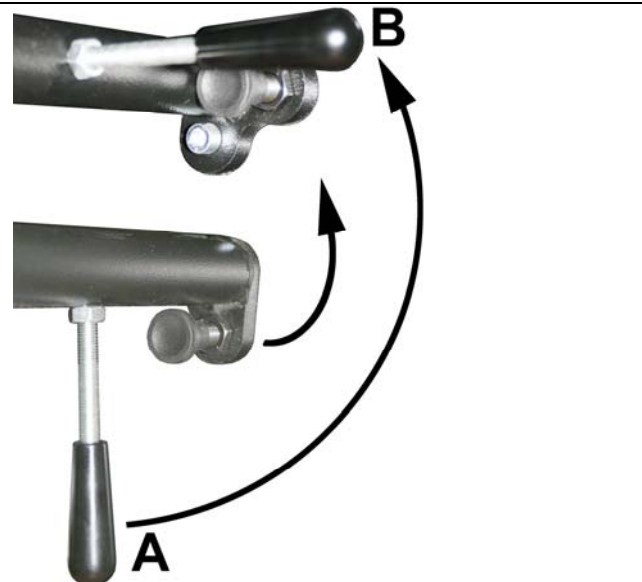
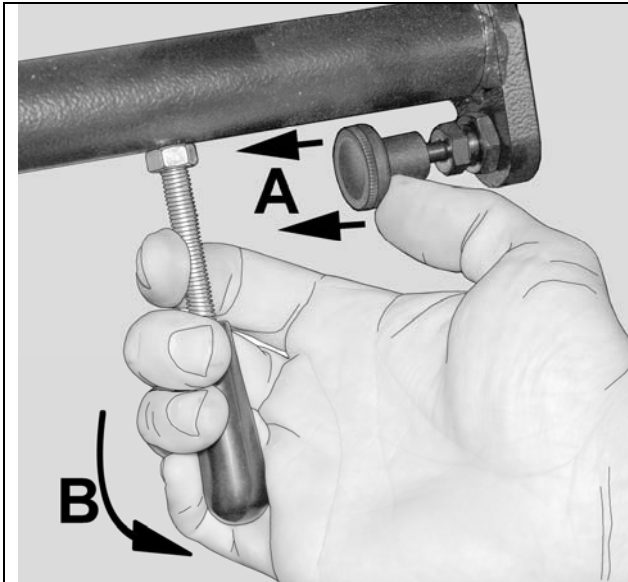
2) Verify that the edges of the paper both at the front (A) and at the rear (B) of the plotter are aligned.

3) Pull the paper down BEHIND the spool with rubber sleeves and then ABOVE and in FRONT of the pinch rollers.

Verify that the paper remains flat across the entire width of the plotter.

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4) At the RIGHT front of the plotter, pull the Spring Lock out with your thumb (A).

5) Then raise the Lever UP (B) to close the pinch rollers.

NB. The Spring Lock should snap into position when the Lever is in the top (closed) position.

A = Pinch roller lever / spring lock in open position

B = Pinch roller lever / spring lock in closed position

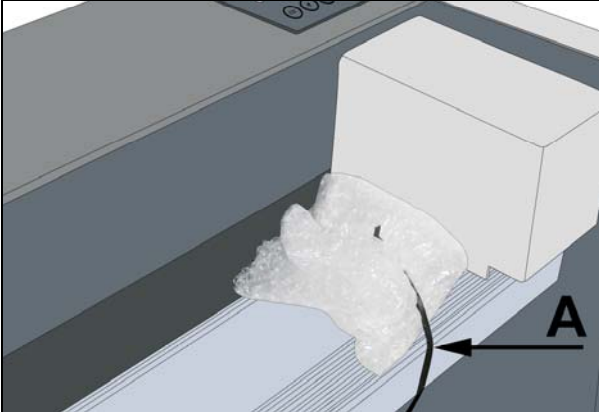


CORRECT PAPER PATH for the Algotex free paper advance system (ACL).

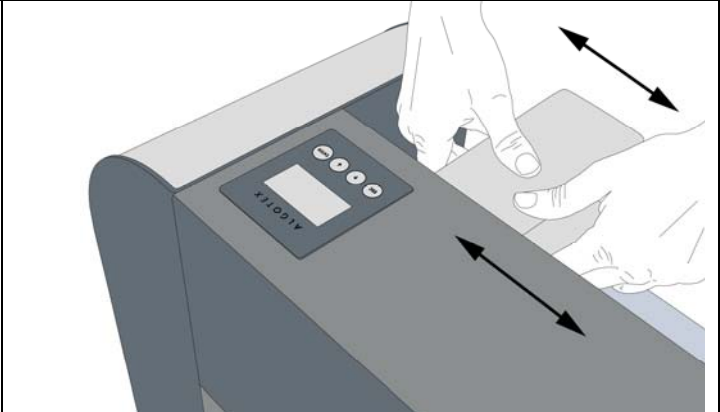
12.4 Prepare the printhead carriage

WARNING

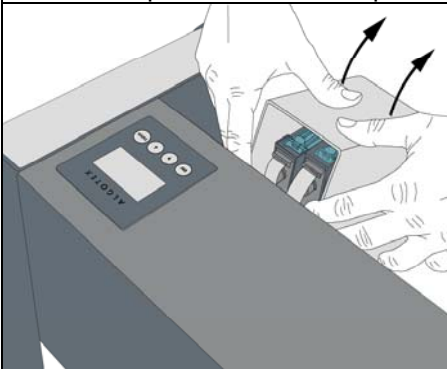
BEFORE switching the plotter ON: prepare the printhead carriage



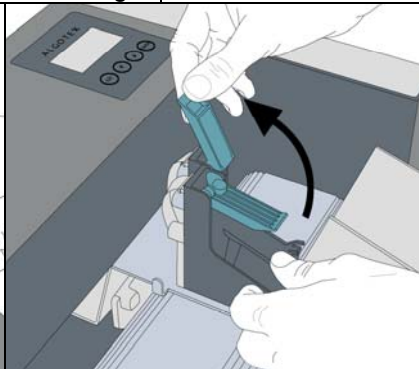
1 Remove the plastic tie-wrap (A) and the bubble wrap from around the printhead carriage.



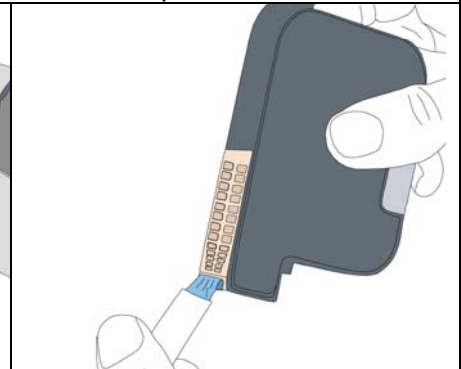
2 Using both hands, manually move the printhead carriage laterally, from RIGHT to LEFT, across the entire print surface to verify that the carriage slides easily and does not come in contact with the print surface below.



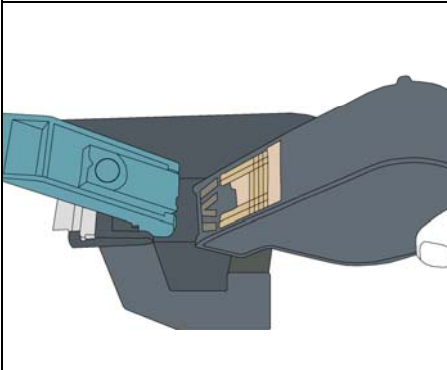
3 Open the carriage cover.



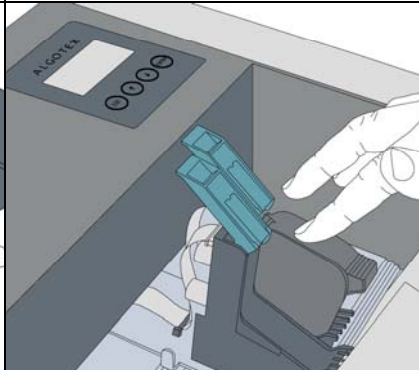
4 Raise the cartridge levers.



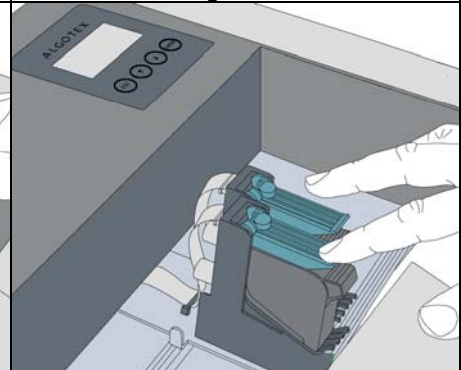
5 Remove the protective tape from the cartridge.



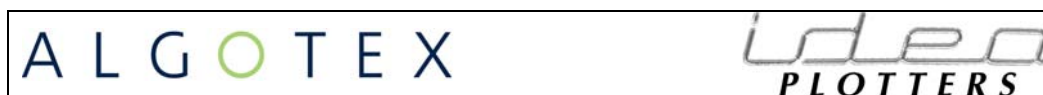
6 Insert the cartridges in their slots with the metal surfaces facing toward the plotter.



7 Press the cartridges firmly DOWN into their slots.



8 Press the cartridge levers firmly DOWN. Then close carriage cover.



12.5 Connecting the plotter

	WARNING ! The plotter and the PC should both be switched OFF before connecting them with the USB cable.
	WARNING ! Protect all cables from sources of heat, liquid substances and foot traffic.
	Local electrical power source requirements: <ul style="list-style-type: none"> the local power source must be grounded; the local power source must be free from radio wave interference
On-Off Switch / Connectors (rear view)	
<p><u>12.5.1 Communication connection</u> Use the supplied USB-2 cable to connect the plotter to the PC. Cable length: 2.00 mt.</p> <p><u>12.5.2 Power supply connection</u> Use the supplied power cable to connect the plotter to the local electrical power supply. NB. The plotter is factory pre-set for 230VAC. If necessary, contact a local technician for adjustment to 115VAC. Cable length: 1.50 mt. Schuko plug.</p>	
At the REAR LEFT side of the plotter connect the power cable to the power connector (B), and the USB-2 cable to the USB port connector (C).	

12.6 Installation of the plotting program

The PC must have one of the following operating systems previously installed:

- Windows XP, Windows Vista or Windows 7.

- 1) Connect the plotter to the PC using the supplied USB 2.0 cable as described above.
- 2) Switch the PC ON. Do NOT switch the plotter ON at this time.
- 3) Because the 'AlgoServer' program will be installed on a system running Windows XP, Vista or Win7, you must log on as the 'Administrator'. Otherwise, the following error message will appear: "...insufficient privileges..", and installation of the program will not be completed successfully.
- 4) Insert the installation CD in the PC that is connected to the plotter by cable.

5) Follow the installation instructions and eventually choose 'custom' if you want to install only either the 'AlgoServer' program or the 'AlgoClient' program. If you want to install the complete version, do not choose custom installation.


6) After installation is completed, LOG OFF as the 'Administrator'.

7) Then LOG ON as the 'User'.








12.7 Switch the plotter ON

	<p>WARNING ! Do NOT switch on the plotter until:</p> <ul style="list-style-type: none"> • you have completed loading paper as per instructions in section 12.1; • you have completed preparing the printhead as per instructions in section 12.4.
---	--

Switch the plotter ON:




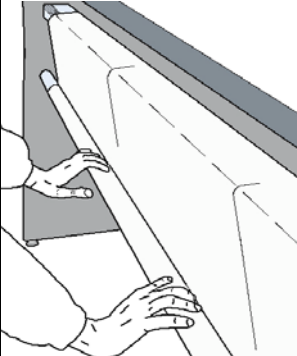
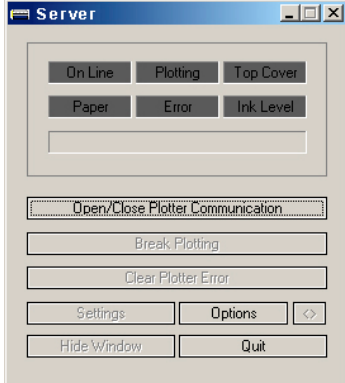
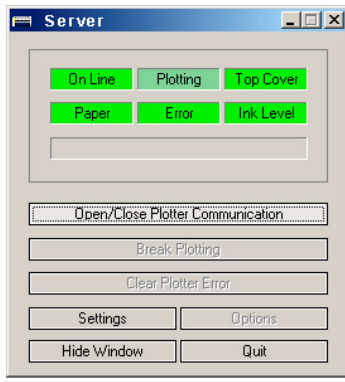
Windows will detect the presence of the USB connection.

Designate the CD drive of the PC that is connected to the plotter by cable to complete the installation of the USB driver (refer to the previous section, 12.6).

<p>At power ON:</p> <p>1 The plotter emits one high pitched acoustic signal.</p> <ul style="list-style-type: none"> • After 8 seconds the plotter emits another acoustic signal and the boot data appears on the control panel display. 	
<p>2 After 5 seconds the plotter emits 2 more high pitched acoustic signals, and the ALGOTEX logo appears.</p>	
<p>3 At completion of start-up the 'IDEA' logo appears on the display screen. The plotter is 'ONLINE' and communication can be opened between the PC and the plotter.</p> <p>Press the 'ENTER' button on the control panel ⇒ to open the 'Operations MENU'.</p>	

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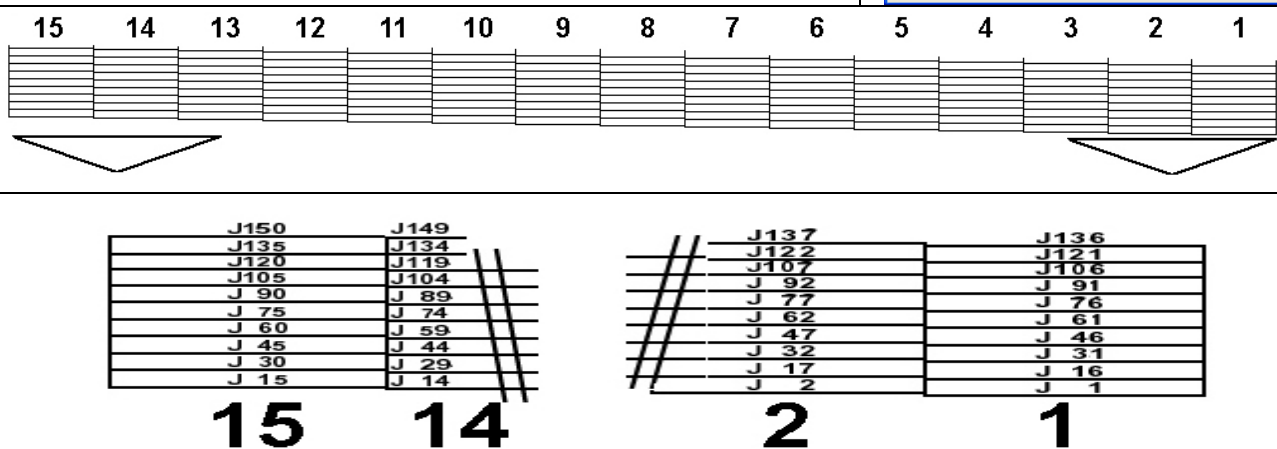
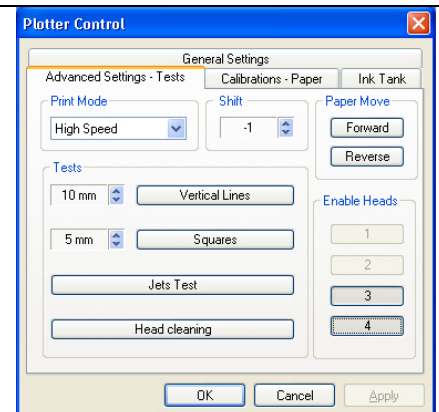
idea
PLOTTERS**12.8 Start plotting**

		
<p>1) After the carriage has moved to the left and then come to a stop on the right side of the plotter, press the ENTER button on the control panel.</p>	<p>2) Press ENTER again to begin rolling-up paper onto the take-up spool.</p>	
<p>3) At the front of the plotter, ensure that the paper begins rolling up evenly onto the take-up spool. Eventually, manually smooth the paper surface to avoid creasing.</p> <p>4) After the take-up spool has made 2 complete revolutions, press the ESC button under the display to stop 'Advance Paper'.</p>		
<p>5) If you haven't already done so, switch the computer ON.</p> <p>6) Double click the desktop icon for the shortcut to the 'AlgoServer' program.</p> <p>7) If the 'Options' window automatically appears refer to section 14.7 for descriptions regarding 'Connection Configurations' which should be setup by a technician during plotter / PC installation.</p>	 <p>'AlgoServer' menu (not connected)</p>	
<p>The 'AlgoServer' program permits opening and closing communication between the plotter and the computer that it is connected to by cable. To send plot commands from the computer to the plotter, the 'AlgoServer' program must be open and all indicators must be lit green, as seen at right.</p> <p>8) In the 'AlgoServer' menu click the 'Open/Close Plotter Communication' button.</p> <p>9) Verify that the indicators for 'On Line', 'Plotting', 'Paper', 'Error', and 'Ink Level' are all GREEN (not yellow or red), signifying that the plotter is ready to begin operations. If one or more of the indicators are not green refer to section 14.1 for 'AlgoServer'.</p> <p>10) In the 'AlgoServer' window click the 'Settings' button to open the 'Plotter Control' window (refer to next point).</p>	 <p>'AlgoServer' menu (connected)</p>	



11) Click the 'Advanced Settings – Tests' tab.

12) Click the 'Jets Test' button to determine if all of the printhead nozzles are functioning properly. Each printhead should print, from right to left, 10 separate lines divided into 15 sectors (total 150 lines x 2 printheads = 300 lines), each 60 mm in length, as partially illustrated in the sample below.



Printhead 'Jets Test' (partial view)

13) If there are less than 300 lines, or if there are evident gaps in the print test, one or more of the inkjet nozzles are not printing correctly. In this case, click the 'Printhead Priming' button to create a flow of ink through the inkjets and eventually flush debris or air bubbles out of the ink channels. If the printheads continue to have blocked nozzles, refer to section 15.4 for instructions how to manually clean the nozzle plates of the cartridges.

When the printheads are printing properly, close the 'Advanced Settings – Tests' menu.

14) Click the desktop icon for the shortcut to the 'AlgoClient' program.

The first time the 'AlgoClient' menu is opened, the 'Server Properties' menu will appear automatically. If so, refer to section 14.8.1 for descriptions regarding 'Connection Configurations' which should be setup by a technician during plotter / PC installation.

15) In the 'AlgoClient' menu click the 'Connect / Disconnect' button to open communications with the 'AlgoServer' program which should be already open on the PC monitor (refer to points 6 – 9 above).



16 A) If you are using a 3rd party CAD program to manage the plotting list queue, and have chosen the 'Automatic Plot List' option (refer to section 14.7 regarding 'Working Directory' designation):

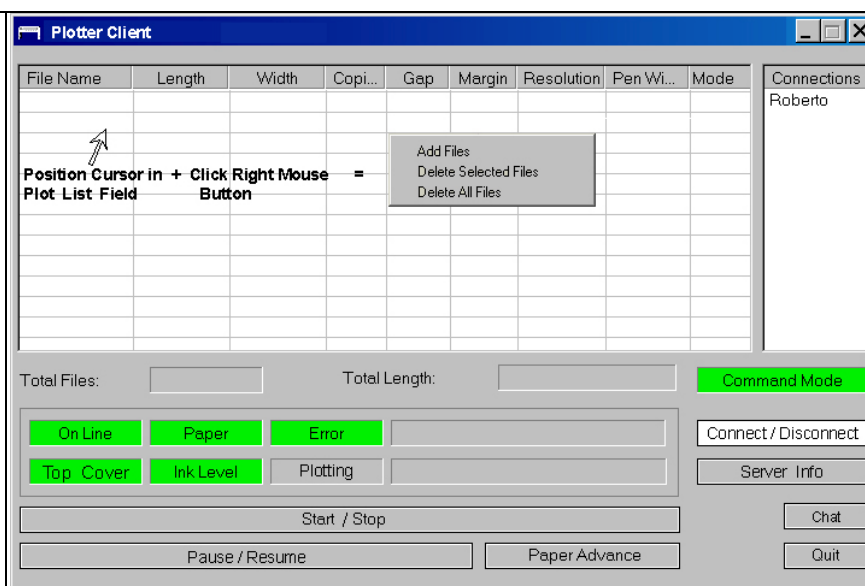
- click the 'Start / Stop' button,
- transfer files to the 'Working Directory' on the C: drive of the PC that is physically connected to the plotter using your CAD program commands.

As soon as the files are rasterized plotting will begin.

16 B) If you have chosen the 'Manual Plot List' option (refer to section 14.7 regarding 'Working Directory' designation):

- in the 'AlgoClient' menu, position the mouse cursor within the plot list field and click the 'Right' mouse button.

- choose 'Add Files' from the drop down menu to open the 'Add Files' menu (refer to next point below).



AlgoClient menu – 'Add Files' drop down menu

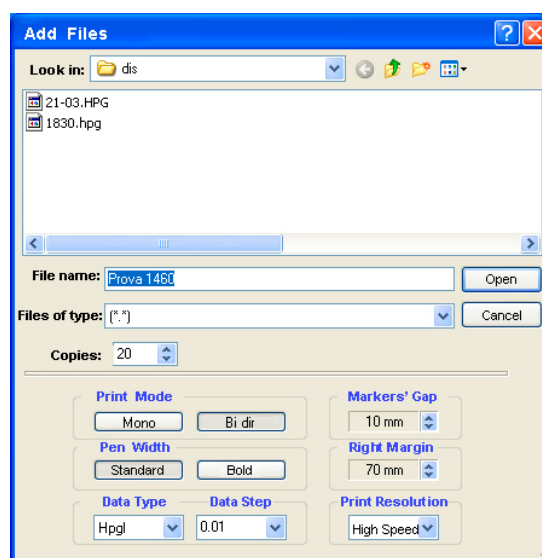
Procedure to select and plot a marker file follows.

1) Click the ↓ arrow button to the right of the 'Look in' field, navigate to the directory where HPGL files are stored and select the marker file to be entered in the plotting list.

2) You may choose settings for each individual marker file that you have selected.
Refer to section 14.3 for descriptions of marker settings.

3) Click the 'Open' button. The files will appear in the 'AlgoClient' menu. As soon as these files are rasterized, the length, width, and other details of each marker file will appear on the screen to the right of the marker file names.

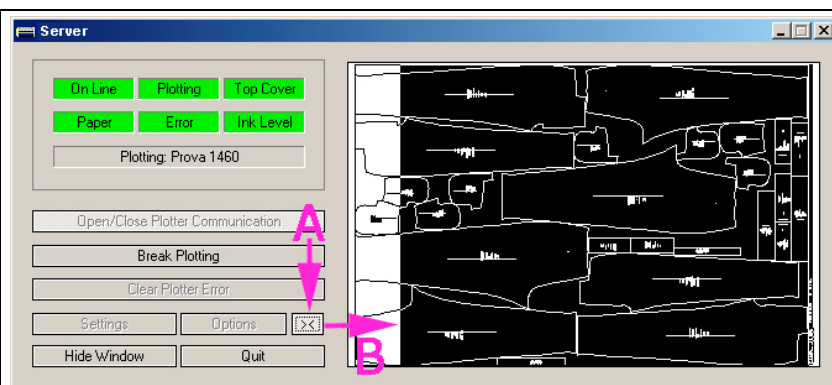
4) Begin plotting markers in the plotting list by clicking the 'Start / Stop' button in the 'AlgoClient' menu.



'Add Files' menu

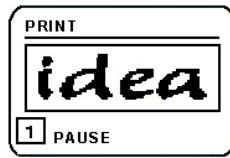




In the AlgoServer menu, click the button to the RIGHT of the 'Options' button (A) to view the progression of plotting within the current marker in reduced scale (B).



12.9 How to stop plotting

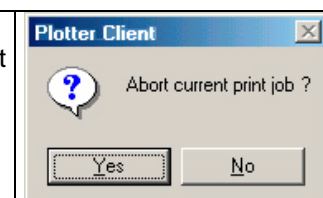
Stop plotting with any of the first five options below. Use methods 6 or 7 only in the event of an emergency.

While the plotter is in operation:	
1) Press the 'ENTER' button under the front display. The plotter will enter pause mode and the 'On Line' indicators in both the 'AlgoServer' menu and the 'AlgoClient' menu will change from green to red.	
While the plotter is in 'PAUSE' mode, with the 'CONTINUE' plotting window open:	
<ul style="list-style-type: none"> Press the 'ENTER' button again to 'CONTINUE' plotting; OR: Press either of the ARROW buttons under the front display to open the 'STOP' plotting option. 	
While the plotter is in 'PAUSE' mode, with the 'STOP' plotting window open:	
<ul style="list-style-type: none"> Press the 'ENTER' button to STOP plotting. OR: Press either of the ARROW buttons under the front display to return to the 'CONTINUE' plotting option. 	

- 2) In the 'AlgoClient' menu click the 'Pause / Resume' button.
 - Click the 'Pause / Resume' button again to resume plotting;
 - OR
 - press the 'ENTER' button under the front display to continue plotting.

- 3) Click the 'Start / Stop' button in the 'AlgoClient' menu. The 'Abort current print job' warning will appear.

- Choose 'Yes' to stop plotting.
- Choose 'No' to continue plotting, and then:
 - click the 'Pause / Resume' button in the AlgoClient menu;
 - OR
 - press the 'ENTER' button on the plotter's front display.



- 4) In the 'AlgoServer' menu, click the 'Break Plotting' button.

NOTE: No warning message will appear. The printhead carriage will stop and the current marker file coordinates will be lost. The marker file will have to be plotted again from the beginning.



5) Click the 'Quit' button, OR click the ☒ box at the top right corner of the 'AlgoServer' menu.

NOTE: The printhead carriage will continue plotting and the following warning message will appear:

'Plotting in Progress. If you proceed it will be aborted. Continue ?'

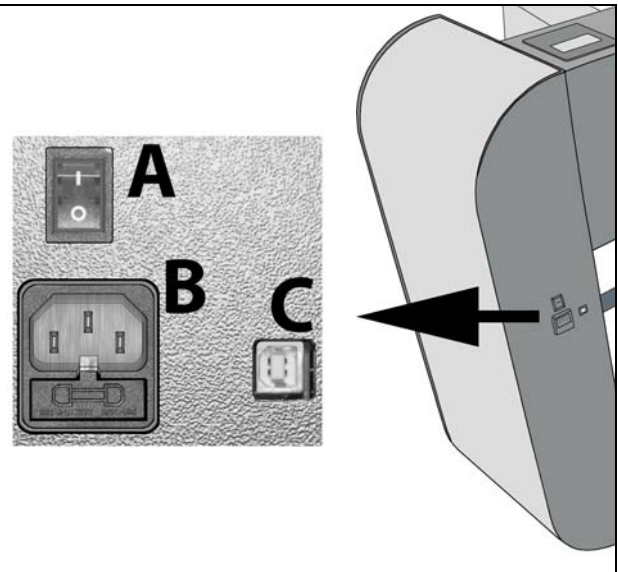
- Choose NO to continue plotting.
- Choose YES to stop plotting. The following warning message will appear:
'Clients are Connected to the Plotter' .
- Choose NO to leave the 'Client' programs connected.
- Choose YES to disconnect the 'Client' programs.

6) Switch the plotter OFF using the illuminated ON/OFF switch (**A**) located at the REAR LEFT side of the plotter.

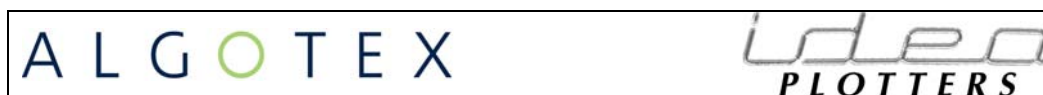
Plotting will stop and coordinates of the marker will be lost.

7) Unplug the main power cable (**B**).

Plotting will stop and coordinates of the marker will be lost.



ON-OFF Switch / Connectors



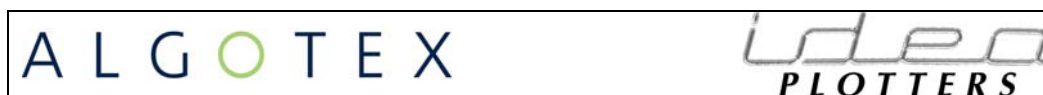
13 SOFTWARE: ONBOARD PLOTTER CONTROLS

13.1 Power ON: Self Tests

	<p>WARNING ! Do NOT switch on the plotter until:</p> <ul style="list-style-type: none"> • you have completed loading paper as per instructions in section 12.1; • you have completed preparing the printhead as per instructions in section 12.4.
	<p>At power ON:</p> <p>1 The plotter emits one high pitched acoustic signal.</p> <ul style="list-style-type: none"> • After 8 seconds the plotter emits another acoustic signal and the boot data appears on the control panel display.
	<p>2 After 5 seconds the plotter emits 2 more high pitched acoustic signals, and the ALGOTEX logo appears.</p>
	<p>3 At completion of start-up the 'IDEA' logo appears on the display screen. The plotter is 'ONLINE' and communication can be opened between the PC and the plotter.</p> <p>Press the 'ENTER' button on the control panel ⇒ to open the 'Operations MENU'.</p>

13.2 Operations

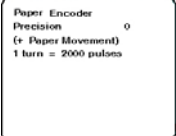
	<p>WARNING ! Do NOT switch on the plotter until:</p> <ul style="list-style-type: none"> • you have completed loading paper as per instructions in section 12.1; • you have completed preparing the printhead as per instructions in section 12.4.
	<p style="text-align: center;">ON LINE – MENU</p> <p>The plotter is 'ONLINE' and communication can be opened between the PC and the plotter.</p> <p>Press the 'ENTER' button ⇒ to open the 'Operations' (see below).</p>
	<p style="text-align: center;">ADVANCE PAPER</p> <p>When the plotter is 'ONLINE', press the 'ENT' button to open the 'Operations'.</p> <ul style="list-style-type: none"> • With 'Advance Paper' selected, press the 'ENT' button to move paper forward. • Press one of the arrow buttons to stop paper advancement. • Or, press the 'ESC' button to stop paper advancement and exit the test menu.



13.3 Diagnostic Tests – Defective Paper Movement

	<p style="text-align: center;">DIAGNOSTIC TESTS</p> <p>DEFECTIVE PAPER ADVANCE error message: one of the most common errors in plotter operation is omitting to load paper. Before proceeding with the 'Paper Movement' tests, first verify that the paper is properly loaded.</p> <p>Possible causes for 'Defective Paper Advance':</p> <ul style="list-style-type: none"> • no paper attached to front take-up spool; • defective paper take-up motor; • defective paper advance encoder; • defective motors board. <ul style="list-style-type: none"> • Press the 'ENTER' button to open the 'Paper Movement' test menus. • Press the 'ESC' button to exit the test menu. • Press the arrow buttons to scroll through the other 'Diagnostic Tests'.
--	--

13.4 Diagnostic Tests – Incorrect Paper Advance Measurement



	<p>The display screen at left indicates that the self-tests have not detected correct forward movement of the paper on the plotter.</p> <p>Possible causes:</p> <ul style="list-style-type: none"> • the encoder wheel is not fully in contact with paper; • defective paper advance encoder; • defective electronic controller for the paper encoder. <ul style="list-style-type: none"> • Press the 'ENTER' button to open the 'Paper Encoder' menu (see below). • Press the 'ESC' button to exit the test menu. • Press the arrow buttons to scroll through the other 'Diagnostic Tests'.
	<p><u>Test the paper encoder</u></p> <p>Manually spin the encoder's wheel forward and backward to verify that the precision counter registers these movements in plus and minus pulses.</p> <p>Eventually use a marker to indicate a starting point on the encoder's wheel to judge one complete revolution which should be equal to 2000 pulses on the 'Precision' counter.</p> <ul style="list-style-type: none"> • Press the 'ESC' button to exit the 'Paper Encoder' test menu.

13.5 Diagnostic Tests – Defective Carriage Movement

	<p style="text-align: center;">CARRIAGE MOVEMENT</p> <p>The display screen at left indicates that the self-tests have not detected correct movement of the printhead carriage.</p> <p>Possible causes:</p> <ul style="list-style-type: none"> • defective carriage 'Home Sensor'; • defective carriage motor; • defective carriage encoder; • defective motors board. <ul style="list-style-type: none"> • Press the 'ENTER' button to open the 'Carriage Movement' menu. • Press the 'ESC' button to exit the 'Diagnostic Tests'. • Press the arrows buttons to scroll through the other 'Diagnostic Tests'.
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13.6 Error Messages During Printing Operations

<div data-bbox="135 459 335 638"> <p>ERROR 7</p> <p>Defective Carriage Movement</p> <p> Reset</p> </div>	<p>ERROR 7: This error will occur if the system does not register the presence of the carriage encoder counter within the period of 0.25 seconds.</p> <p>Possible causes:</p> <ul style="list-style-type: none"> • carriage movement becomes blocked; • defective carriage motor; • defective carriage motor encoder. <p>• Press the 'Enter' button to return to online status.</p>
<div data-bbox="135 777 335 956"> <p>ERROR 9</p> <p>Paper Encoder Match Failed</p> <p> Reset</p> </div>	<p>ERROR 9: This error will occur if the system does not register correct paper advance movement.</p> <p>Possible causes:</p> <ul style="list-style-type: none"> • paper roll finished; • paper advance encoder wheel is blocked; • defective paper take-up motor; • defective motors board. <p>• Press the 'Enter' button to return to online status.</p>



14 SOFTWARE: PLOTTING PROGRAM

14.1 Installation

The PC must have one of the following operating systems previously installed:

- Windows XP, Vista or Win 7.

1) Connect the plotter to the PC using the supplied USB 2.0 cable.



WARNING:

- To connect the plotter to the PC only use the USB 2 cable supplied with the plotter.
- Before connecting the plotter to the PC verify that both units are switched OFF.

2) Switch the PC ON. Do NOT switch the plotter ON at this time.

3) Because the 'AlgoServer' program will be installed on a system running Windows XP, Vista or Win 7, you must log on as the 'Administrator'. Otherwise, the following error message will appear: "...insufficient privileges..", and installation of the program will not be completed successfully.

4) Insert the supplied CD in the PC that is connected to the plotter by cable.

5) Follow the installation instructions and eventually choose 'custom' if you want to install only either the 'AlgoServer' program or the 'AlgoClient' program. If you want to install the complete version, do not choose custom installation.

6) After installation is completed, LOG OFF as the 'Administrator'.

7) Then LOG ON as the 'User'.



8) Switch the plotter ON. Windows will recognize the presence of a USB-2 connection. Designate your CD drive as the source for the USB driver to permit Windows to complete the installation.

9) After installation is complete, open the 'AlgoServer' program and click the 'Options' button, if the 'Options' menu does not open automatically. Follow instructions in section 14.7 to designate the 'Working Directory'.

10) While the 'Options' menu is still open, follow instructions in section 14.7 to designate the 'Communication Port'. Then click the OK button to close the 'Options' menu.

For 'step-by-step' instructions to begin printing refer to section 12.8 in the 'Getting Started Guide'.



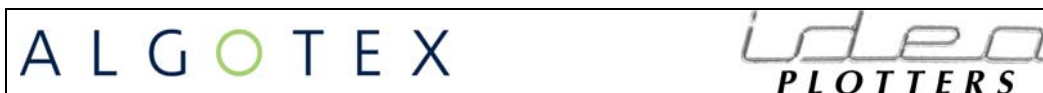
14.2 The 'AlgoServer' program

- 1) Double click the desktop icon for 'AlgoServer'.
- 2) Automatically the 'Options' window should appear. If so, proceed to section (14.7).

	<p>1) Plotter Status Indicators</p> <p>To open communications between the PC and the plotter first click the 'Open/Close Plotter Communication' button. This will activate the plotter status indicators.</p> <p>NOTE: the indicators for</p> <ul style="list-style-type: none"> • 'OnLine', • 'Plotting', • 'Paper', • 'Error', • 'Ink Level', <p>must all be continuously lit GREEN (NOT Yellow) to permit the plotter to operate.</p>
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- The 'OnLine' indicator will become green after the plotter's onboard firmware has successfully completed the series of self tests that appear on the front display. Only then is communication between the PC and the plotter possible.
- The 'Plotting' indicator will become green when the plotter is in operation. When the plotter ON but inactive, the indicator will become light green.
- The 'Paper' indicator will become red when the paper supply is finished, or in the event of defective paper movement.
 - Follow instructions in the section 12.1 'Paper Loading' to load new paper.
 - Click the 'Clear Plotter Error' button. The 'Paper' indicator will revert to green. If the indicator does not become green, refer to the diagnostic section.
- The 'Error' indicator will become Red when:
 - paper movement is defective;
 - there is a general electronics failure.
- The 'Ink Level' indicator will become yellow when the ink supply in the disposable cartridge is low. The current marker will be plotted completely. The eventual interruption of plotting due to low ink level occurs only when the next marker in the print queue is to be plotted. At this point the indicator will become yellow. To resume plotting follow the procedure below.
 - a) In the 'AlgoServer' menu click the 'Settings' button.
 - b) Click the 'Ink Level' tab.
 - c) Verify that the box to the left of the 'Enable Ink Control' field is checked.
 - d) Substitute the cartridge.
 - e) Click the 'Reset' button relative to the cartridge that you have substituted.

	<p>NOTE: To ensure that the 'Low Ink Level' indicator functions correctly after substituting ink cartridges ALWAYS:</p> <ul style="list-style-type: none"> • verify that the 'Enable Ink Control' field is checked. • click the 'Reset' button after cartridge substitution. <p>Refer to section 14.6 for complete instructions.</p>
--	--



1) 'Open / Close Plotter Communication'

Click the 'Open / Close Plotter Communication' button as the first step to begin plotting. When all of the plotter status indicators are green, communications between the PC and the plotter will be opened and plotting may begin.

2) 'Break Plotting'

When the plotter is in operation click the 'Break Plotting' button to stop plotting. The 'Plotting' status indicator will become yellow.

NOTE: no warning message will appear. The printhead carriage will stop and the current marker file will have to be plotted again from the beginning.

3) 'Clear Plotter Error'

In the event that plotting has been interrupted as evidenced by the 'Online' 'Paper', 'Error' or 'Ink Level' status indicators, follow the instructions to reset the plotter. Then click the 'Clear Plotter Error' button to revert to correct operational status.

4) 'Settings'

To open the 'Plotter Control' window:

- first click the 'Open Plotter Communications' button;
- verify that the plotter is NOT in operation;
- click the 'Settings' button. Refer to the following section for settings descriptions.

5) 'Options'

The 'Options' window can only be opened BEFORE the 'Open Plotter Communications' has been activated. Refer to section 14.7 for options descriptions.

6) 'Hide Window'

Click the 'Hide Window' button to reduce the 'AlgoServer' window to an icon that will appear in the bottom right corner of the 'Task Bar'.

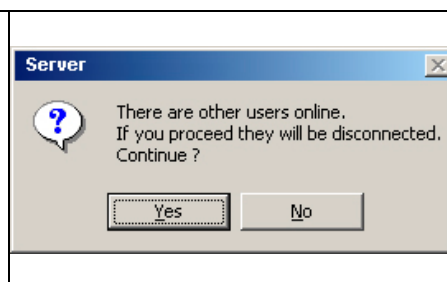
- Note: also use the 'Minimize' button at the top right corner of the 'AlgoServer' window to reduce the window to an icon that will appear on the 'Task Bar'.

7) 'Quit'

Click the 'Quit' button, OR click the ☒ box at the top right corner of the 'AlgoServer' window.

NOTE: The printhead carriage will continue plotting and the warning message at the right will appear.

- Choose **NO** to continue plotting.
- Choose **YES** to stop plotting.



ALGOTEX

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PLOTTERS

14.3 Plotter Control General Settings

1) 'Unit of Measure'

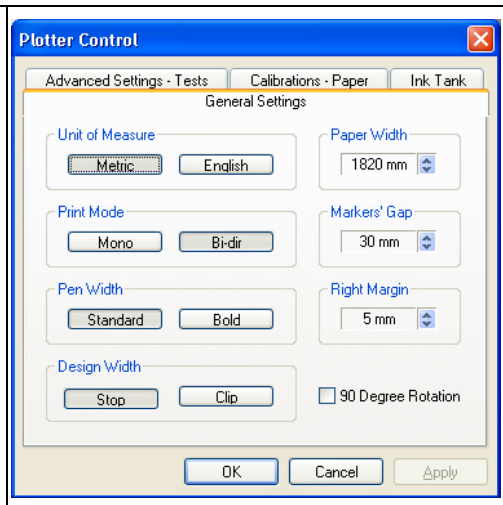
The plotting program provides the option of displaying measurements either in the Metric system, or in the English system (yards / inches). To select one of the options simply click the button for the preferred unit of measure.

2) 'Print Mode'

The plotter may be set to print either in one or two directions.

- **Mono-directional mode:** the plotter will print on the right to left sweep of the printhead carriage and NOT on the return sweep of the carriage from left to right. While line quality is optimum, plotting speed is reduced by at least 30 percent.

- **Bi-directional mode:** the plotter will print on the right to left sweep, and then also print on the left to right sweep of the printhead carriage. This mode results in full speed plotting.



3) 'Pen Width'

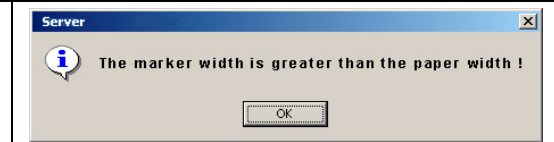
The plotter may be set to print either of two line qualities.

- **Standard:** for normal line width.
- **Bold:** for bold (darker) line quality.

4) 'Design Width' & 'Paper Width'

The plotter offers two options should a marker file be wider than the 'Paper Width' setting value.

- Select the 'STOP' option to automatically terminate plotter operations when a marker that is wider than the 'Paper Width' setting arrives at the top of the 'Print List'. The error message seen at right will appear on the PC's monitor.



Note: the plotter cannot resume operations until:

- the over-wide marker file is manually deleted from the 'Print List',
OR
- the 'Paper Width' setting is raised to a value higher than the marker width.
- Select the 'CLIP' option to automatically clip off (eliminate from the printed marker) the area of a marker file that is outside the range of the 'Paper Width' setting. The portion of the marker that has been clipped will be plotted after the main portion of the marker has been successfully plotted.

5) 'Markers' Gap'

This value represents the distance between two successive markers. Change this value to modify the distance between the beginning of a new marker and the end of the previous marker.

- Maximum setting is 3000 mm (118 inches).
- Minimum setting is 0 mm.

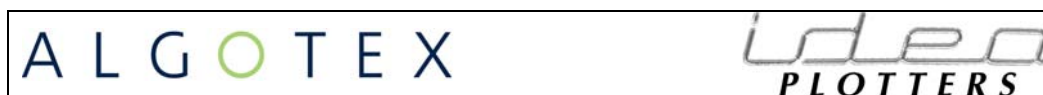
6) 'Right Margin'

This value represents the distance between the right edge of the paper and the point towards the left side of the paper where plotting begins. When this value is changed, the right margin is changed proportionally.

- Maximum setting is 1000 mm (39 inches).
- Minimum setting is 0 mm.

7) '90 Degree Rotation'

This option may be used to save space on the print surface (which signifies saving paper) in the event that the length of a print design is greater than the print design width, but less than the paper width.

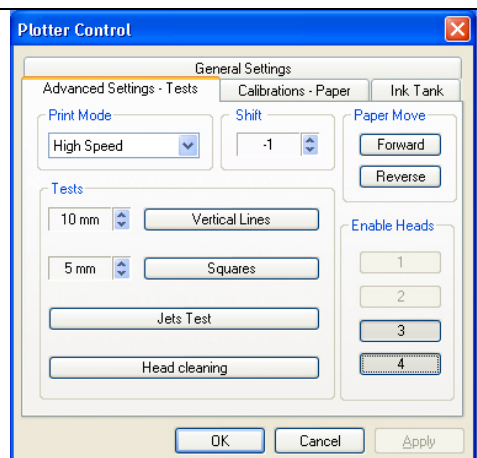


14.4 Advanced Settings & Tests

1) 'Print Mode':

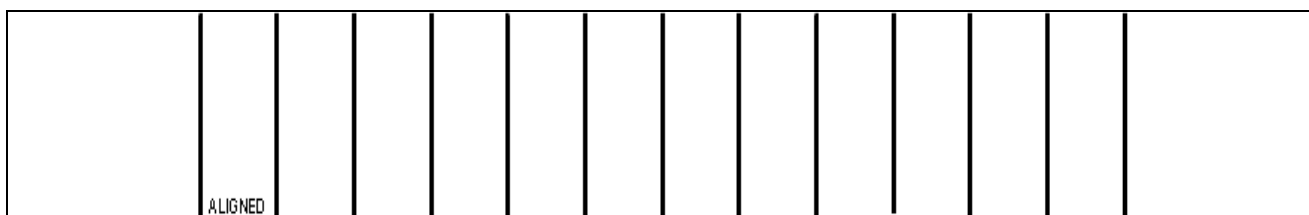
This field enables only:

- high SPEED printing.

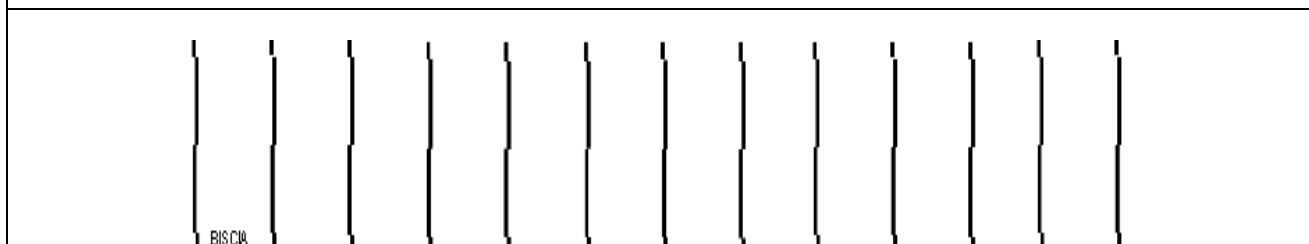


2) 'Vertical Lines Test' - 'Shift' Set procedure

This setting is used when plotting in bi-directional mode (right-to-left and left-to-right), as opposed to mono-directional mode (only right-to-left), and serves as an alignment function. Correct vertical print alignment is illustrated below.



The 'Shift' setting may require regulation after the print media (paper quality regarding thickness, weight and finish) has been changed. This setting is effective if alignment is skewed across the ENTIRE print surface as seen below.



On the contrary, if the alignment is poor only at one side or the other, or only at the center of the marker, the 'Shift' setting will most likely be of little use to improve print alignment. In these cases, first check that the paper is loaded correctly (taut across the entire width), and that the distance between the printhead and the print surface is constant across the entire width.

STEP BY STEP instructions for 'Shift' setting regulation follow below.

a) In the 'General Settings' menu set 'Print Mode' to 'Bi-Dir' (bi directional) printing.

b) Open the 'Advanced Settings and Tests' menu.

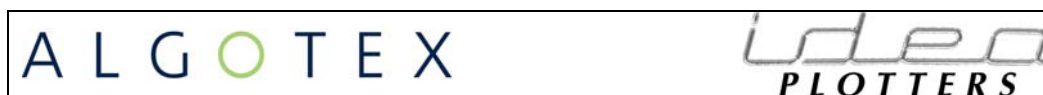
c) Click the 'Vertical Lines' button to begin printing vertical lines.

Note: to stop plotting vertical lines click the 'Vertical Lines' button a second time.

d) If the vertical lines are not aligned and you are sure that the paper has been properly loaded, change the 'Shift' value one number at a time.

e) Again use the 'Vertical Lines Test' to see if alignment has improved.

f) Repeat this sequence until vertical alignment is optimum.



3) 'Paper Move(ment)'

Use the 'Forward' command to advance paper.

NOTE: • ONE CLICK to START advancing paper;
• CLICK AGAIN to STOP advancing paper.

4) 'Vertical Lines'

Use this test to print vertical lines across the entire width of the paper (as determined by the 'Paper Width' setting value). Adjust the distance between the vertical lines by modifying the value at the left of the button.

Refer to the 'Shift' Set procedure (point 2, above).

NOTE: • ONE CLICK to START plotting vertical lines;
• CLICK AGAIN to STOP plotting vertical lines.

5) 'Squares Test'

Use this test to print squares across the entire width of the paper (as determined by the 'Paper Width' setting value). Adjust the dimensions of the squares by modifying the value at the left of the button.

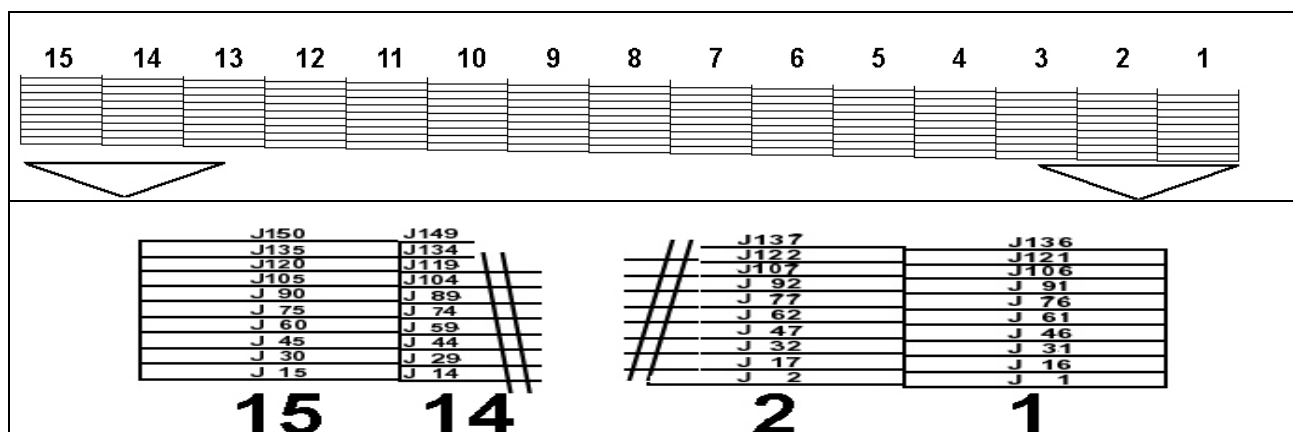
6) 'Enable Heads'

Should printhead # 2 not function properly, it is possible to DIS-able this printhead by clicking button 3 in the 'Enable Heads' field.

Printhead # 1 cannot be disabled.

7) 'Jets Test'

Use this test to determine if all of the 150 printhead nozzles in each of the 2 printheads are functioning properly. Each printhead should print, from right to left, 10 separate lines divided into 15 sectors (total 150 lines x 2 printheads = 300 lines), each 60 mm in length, as partially illustrated in the sample below.

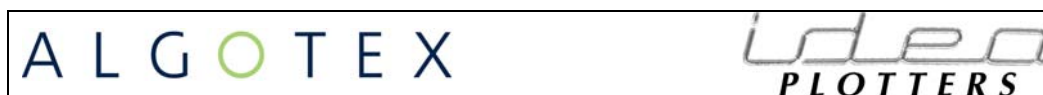


Printhead 'Jets Test (partial view)

If there are less than 300 lines in the printed 'Jets Test', or if there are evident gaps in the test, one or more nozzles are not printing. Follow printhead cleaning procedures below.

8) 'Head Cleaning'

While the plotter is on but not in operation, click this button to conduct automatic priming of the ink jets. Refer to section 15.4 for complete instructions to clean the printhead.



14.5 Calibrations – Paper Menu

1) 'Calibrations'

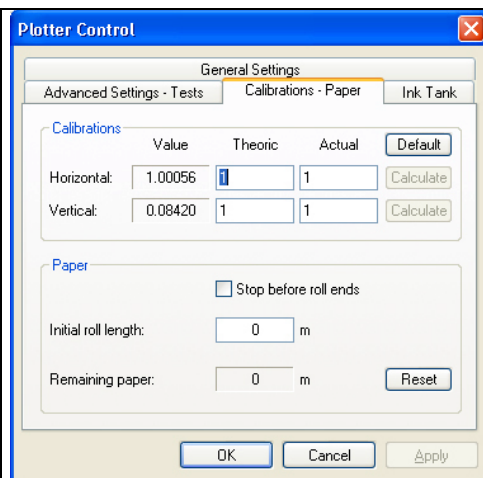
Instructions to calibrate the plotter for correct width and length measurements follow below.

2) 'Paper'

After loading a paper roll, enter the length of the roll either in meters or yards depending on which measurement system you are using (as determined in 'General Settings').

As printing proceeds the paper remaining on the roll is calculated automatically.

If the 'Stop before roll ends' box is enabled plotting will not start when the length of the marker to be plotted is greater than the amount of paper remaining on the roll.



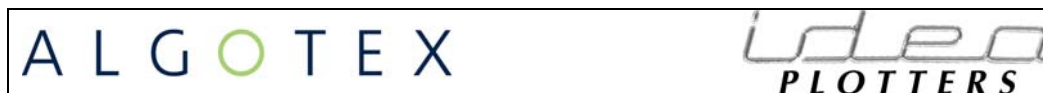
Instructions follow for Horizontal (Width) and Vertical (length) calibration.




WARNING ! Proceed with the calibration procedure **ONLY** after verifying the following:

- that the plotter is perfectly level;
- that the paper has been loaded on the plotter correctly;
- after having plotted the same marker 2 times and both plotted markers have measurements that are **EQUAL BUT NOT CORRECT**.

- a) plot a marker at least 2 times.
- b) Measure the plotted marker **WIDTHS** and **LENGTHS** manually with a tape measure.
- c) Open the 'Calibration – Statistics' menu.
- d) In the fields to the right of the 'HORIZONTAL' heading fill in the values for:
 - 'Theoric Measure' = WIDTH the markers should be;
 - 'Actual Measure' = WIDTH measured manually.
- e) In the fields to the right of the 'VERTICAL' heading fill in the values for:
 - 'Theoric Measure' = LENGTH the markers should be;
 - 'Actual Measure' = LENGTH measured manually.
- f) Click the 'Calculate' buttons to the right of the Horizontal and Vertical fields and then click the 'Apply' and 'OK' buttons to close the 'Calibrations' menu.
- g) Delete all marker files present in the 'AlgoClient' plotting list.
- h) Add a marker file in HPGL or HPGL/2 format to the plotting list.
- i) Repeat steps a-b. If the WIDTH or LENGTH measurements are not precise, repeat steps c-g).

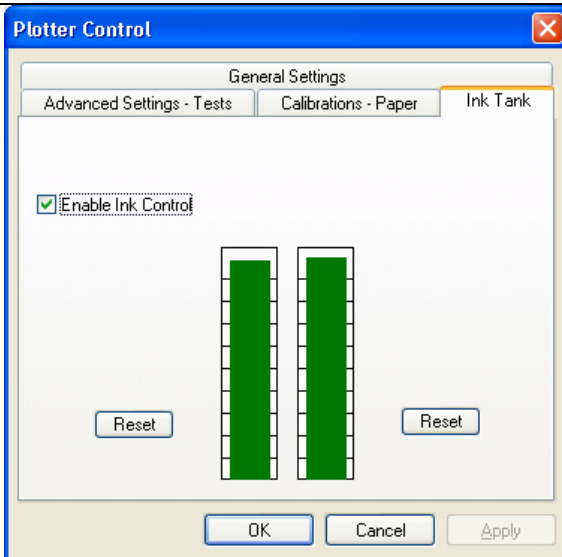


14.6 Ink Level Menu



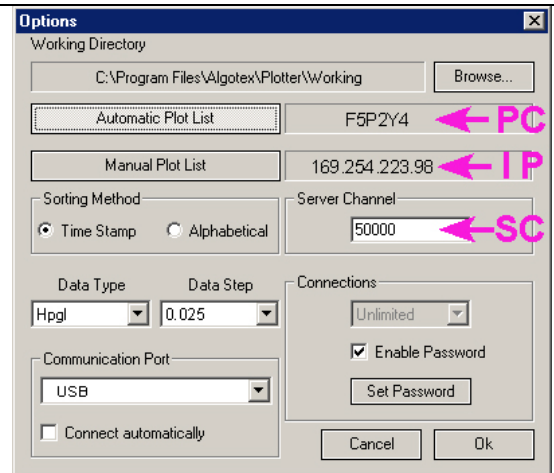
To ensure that the 'Low Ink Level' indicators function correctly, after substituting ink cartridges ALWAYS:

- Verify that the 'Enable Ink Control' field is checked ✓ .
- Click the 'Reset' button relative to the cartridge that has been substituted.



14.7 Options Menu

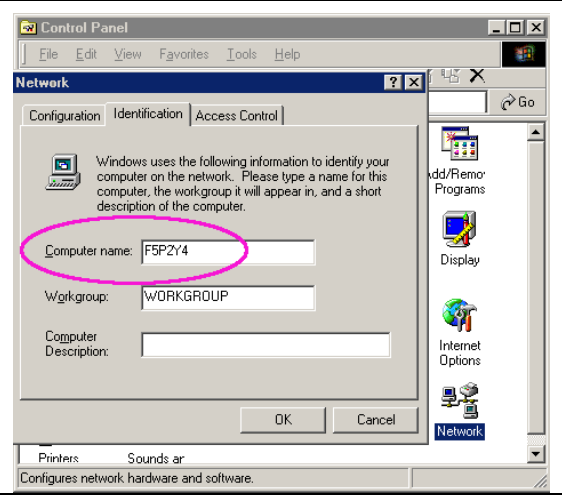
- PC Identification: the field to the right of the 'Automatic Plot List' button should identify the PC that is physically connected by cable to the plotter (see next window below for instructions how to verify the PC identification).
- IP Address: the field to the right of the 'Manual Plot List' button should identify the IP (Internet Protocol) address (refer to the following page for instructions how to verify the IP Address).
- Server Channel: this setting identifies the 'AlgoServer' connection. All 'AlgoClients' connected to this server MUST have the same 'Server Channel' setting. Refer also to the 'AlgoClient' menu, K = Server Info. The 'Server Channel' default is 50000. If an error message appears, change the 'Server Channel' value. 'Server Channel' values must fall between 2,048 – 66535.



Verify PC Identification:

- Click 'Start';
- click 'Settings';
- click 'Control Panel';
- click 'Network';
- click 'Identification'.

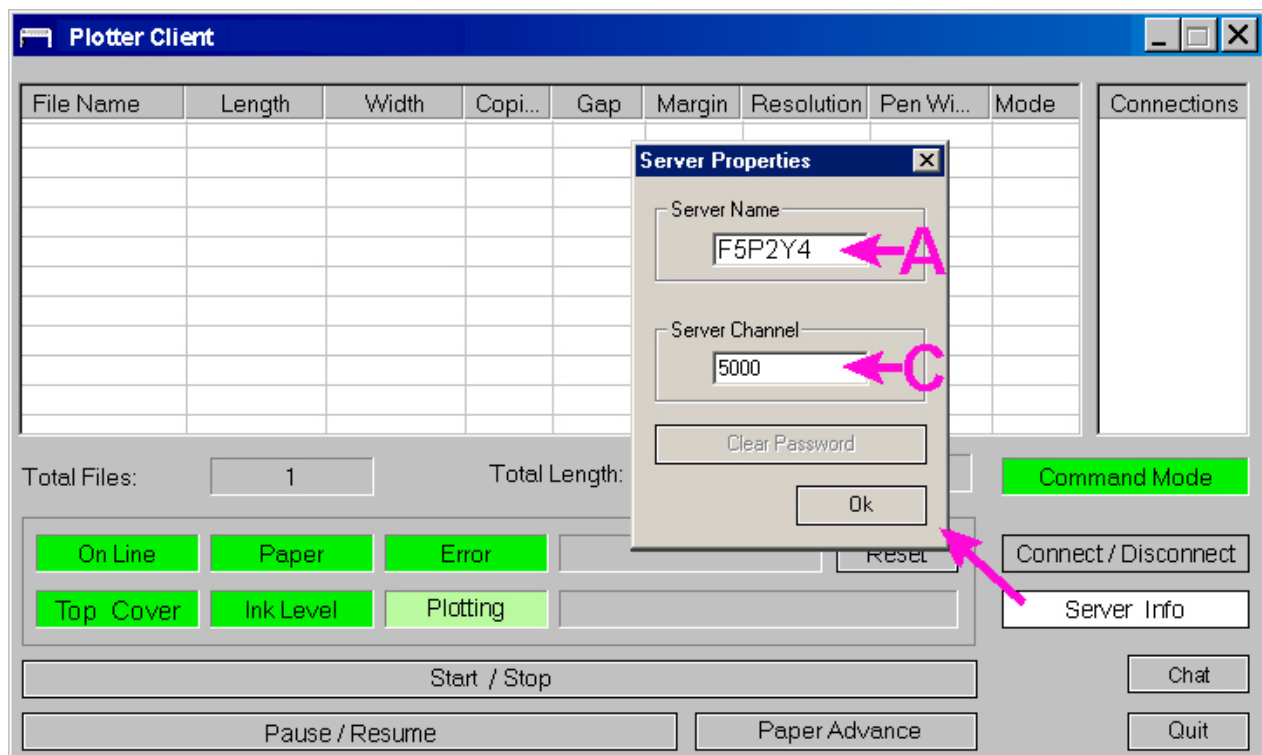
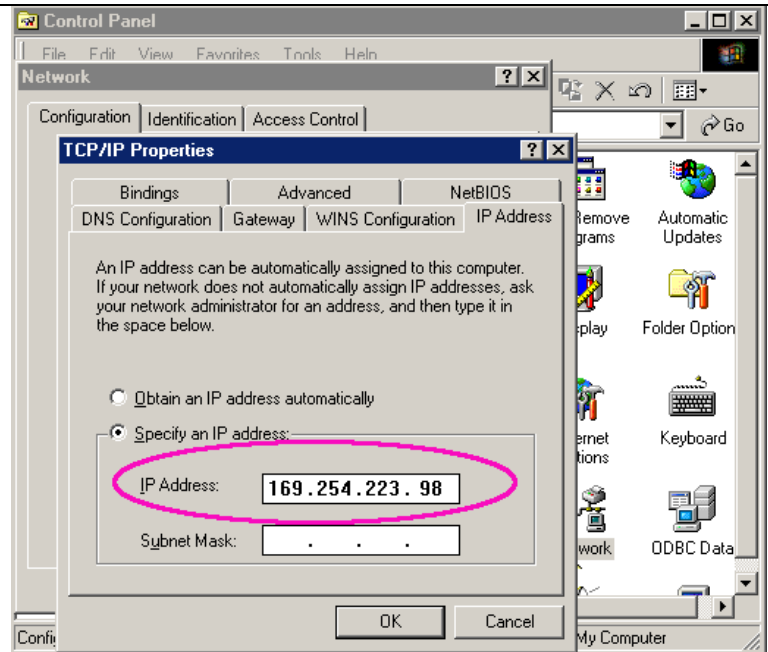
The PC Identification MUST correspond to the Windows 'Network Identification' for the computer name.



Verify IP Address:

- click 'Start';
- click 'Settings';
- click 'Control Panel';
- click 'Network';
- select 'TCP/IP';
- click 'Properties'.

The IP Address (B) in the 'Options' menu MUST correspond to the Windows 'IP Address'.

Verify 'Server Channel':

- open the 'AlgoClient' menu by double clicking the shortcut on the desktop;
- click the 'Server Info' button;

the 'Server Name' (A), and 'Server Channel' (C), MUST correspond to the 'PC Identification' and the 'Server Channel' in the 'Options' menu (refer to previous page).

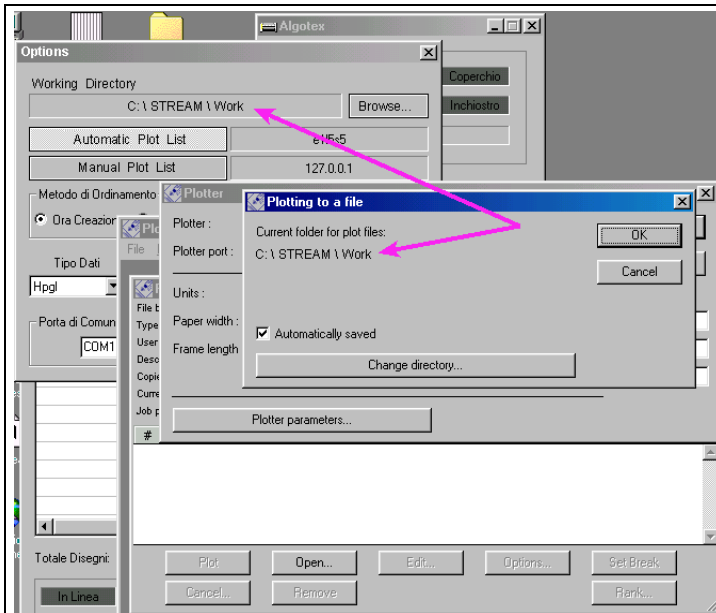


14.7.1) 'Working Directory'

The 'Working Directory' may be any folder located on the PC that is directly connected by cable to the plotter. This folder **MUST** be empty.

To designate the 'Working Directory' click the 'Browse' button located to the right of the 'Working Directory' field and scroll to the directory you will use as the 'Working Directory'. Then click the 'OK' button at the bottom of the 'Options' menu to save the path change.

NOTE: after creating the 'Working Directory', be sure to allow for 'Full Control' SHARING PERMISSION, for this directory.



If plotting will be started from a 3rd party CAD program for print list management, designate the 'Working Directory' as identified in the 'Options' menu of the 'AlgoServer' plotting program.

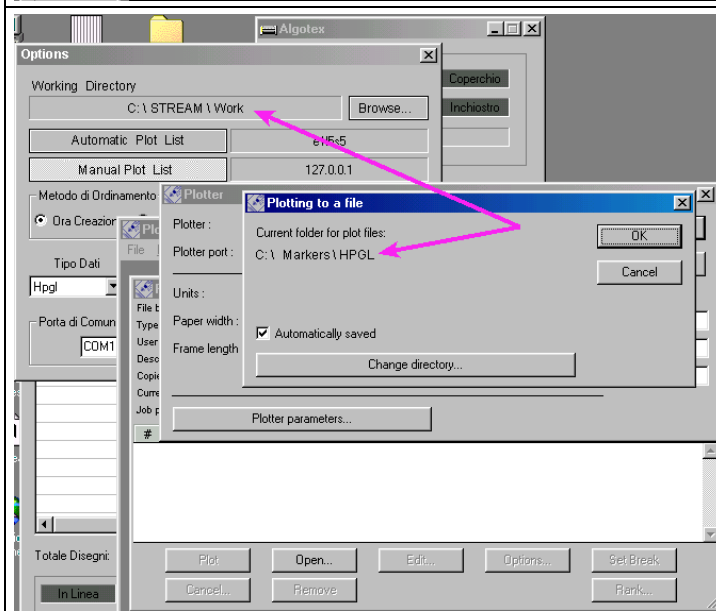
RULE:

When using a 3rd party CAD program for print list management; the 'Folder for Plot Files' in the 3rd party CAD program's plotter setup must contain ONLY print files, and

MUST CORRESPOND to

the 'Working Directory' in the AlgoServer Options menu.

Then select 'Automatic Plot List'.



If the plotting list will be managed from the 'AlgoClient' menu of the plotting program, designate a folder on the C drive of the PC that is connected to the plotter.

RULE:

When using the 'AlgoClient' plot list management; the 'Folder for Plot Files' in the 3rd party CAD program's plotter setup must contain ONLY print files, and

MUST BE DIFFERENT from

the 'Working Directory' in the AlgoServer Options menu.

Then select 'Manual Plot List'.

WARNING: when changing from 'Automatic Plot List' management to 'Manual Plot List' management (or vice-versa), all files in the 'working directory' will be deleted.



14.7.2) 'Automatic Plot List'

Choose the 'Automatic Plot List' button to disable local 'AlgoClient' plot list management. Marker files may be transferred to the 'AlgoClient' plot list only with the use of a 3rd party CAD program. In this mode files cannot be added or copied using the standard menus. Only the 'Move' and 'Delete' commands are enabled for the 'AlgoClient' plot list management.

The procedure to start plotting follows below:

- open the 'AlgoServer' menu and click 'Open / Close Communications';
- open the 'AlgoClient' menu and click 'Connect / Disconnect';
- click the 'Start / Stop' button in the 'AlgoClient' menu;
- transfer files to the 'Working Directory' using the 3rd party CAD program commands. As soon as the files are rasterized plotting will begin.

14.7.3) 'Manual Plot List'

Choose the 'Manual Plot List' button to allow management of the plotting list directly within the 'AlgoClient' menu. This option permits adding or removing marker files, changing the order of the files in the plotting list, changing the number of copies of a plot file, selection of 'Bold' or 'Standard' print mode, selection of the 'Data Format' and the 'Data Step', regulation of the 'Right Margin' width, regulation of the 'Paper Width', and regulation of the 'Markers' Gap' (distance between successive markers in the plotting list).

Refer to the 'AlgoClient' menu, section 14.8, for descriptions of print list management features.

14.7.4) 'Sorting Method'

This function is enabled only for 'Automatic Plot List' management.

'Time Stamp': when several marker files are transferred as a group to the plotting list, the oldest files will automatically be positioned at the top of the print queue and will be plotted first. The most recently created files in the group will be plotted last.

'Alphabetical': when several of marker files are transferred as a group to the plotting list, the files will be positioned in the list according to their alphabetical order.

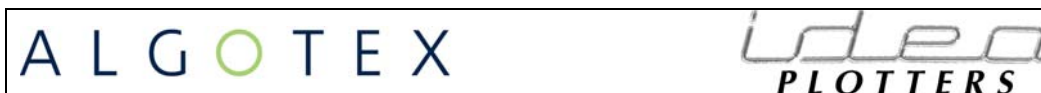
14.7.5) 'Data Type'

This window indicates the graphics language that may be interpreted by the plotting program. Formats currently recognized are HPGL (Hewlett Packard Graphics Language), HPGL/2 and STD.

11.7.6) 'Data Step'

This value refers to the conversion factor for standard HPGL format files that the rasterizing program uses to calculate print coordinates which may be based either in inches or in millimeters. Files that are based on the metric system have a 1 to 1 conversion factor to the rasterizing program (Data Step 0.01). Most programs that create files based on the English numeric system have a conversion factor of 2.5 to 1 (Data Step 0.025). The 'Data Step' setting for GGT generated HPGL files is 0.0254.

NOTE: when using standard HPGL/2 format the 'Data Step' values are not required, and will be inactive (greyed out).



14.7.7 'Communication Port'

	<p>WARNING:</p> <ul style="list-style-type: none">• use the supplied USB 2 cable to connect the plotter to the PC.• before connecting the plotter to the PC with the USB-2 cable switch both units OFF.
--	---

USB 2.0 PORT: connect the supplied cable to the plotter's USB port outlet on the rear connector panel and to a USB port on the PC. Follow instructions in section 14.1 to install the USB driver. Then designate the USB port in the 'Communication Port' field in the 'Options' menu.

Note: after you have designated the USB port and you attempt to open communications with the plotter in the AlgoServer program while the plotter is switched OFF, the warning message 'The USB Printer is not connected', will appear. Switch the plotter ON to allow the system to locate the USB-2 port.

14.7.8) 'Connect Automatically'

When the box to the left of 'Connect Automatically' is checked (enabled) the 'AlgoServer' program will establish a connection to the plotter automatically when the 'AlgoServer' shortcut on the desktop is activated.

14.7.9) 'Server Channel'

This setting identifies the 'AlgoServer' connection. All 'AlgoClients' connected to this server must have the same 'Server Channel' setting. Refer also to section 14.8 for the 'AlgoClient' window, K = Server Info.

The 'Server Channel' default is 50000. If the error message: 'Network Service Failure' appears, change the 'Server Channel' value. 'Server Channel' values must fall between 2,048 – 66535.

14.7.10) 'Connections'

The value entered in this field determines how many clients may be enabled to manage plotting operations.

14.7.11) 'Enable Password'

To limit access to the plot list management, passwords may be activated. First enter a check in the box to the left of 'Enable Password'. Then click the 'Set Password' button to open the 'Connection Passwords' menu.

The 'Command' password field will limit access to plot list management.

The 'View' password field will limit access to visualization of the plot list.

IDEA Plotters: AlgoClient program menu

14.8 AlgoClient program menu

ALGOTEX

IDEA
PLOTTERS

Add Files
Delete Selected Files
Delete All Files

Open – Add Files

Change Number of Copies
Change Markers' Gap
Change Right Margin
Change Pen Width
Change Print Mode

Add Files
Delete Selected Files
Delete All Files

Change Settings

Add Files

Look in: dis

21-03.HPG
1830.hpg

File name: Prova1450 Open

Files of type: (*.*) Cancel

Copies: 20

Print Mode
Mono Bi dir

Pen Width
Standard Bold

Data Type
Hpgl 0.01

Markers' Gap
10 mm

Right Margin
70 mm

Print Resolution
High Speed

'Add Files Menu'

Plotter Client

File Name	Length	Width	Copi...	Gap	Margin	Resolution	Pen Wi...	Mode	Connections
									Roberto

Position Cursor in + Click Right Mouse = Plot List Field Button

Add Files
Delete Selected Files
Delete All Files

Total Files: Total Length: Command Mode

On Line Paper Error Reset Connect / Disconnect

Top Cover Ink Level Plotting Server Info

Start / Stop Log

Pause / Resume Paper Advance Quit

Plotter Client

File Name	Length	Margin	Resol	Connections
B212-7	3257 mm	0 mm	High S	xxxx

Log Files List

2002-01-15

File Name	Length	Start
B212-7	3257 mm	14:06
Plotter: Paper Error		14:07
This operation returned because the timeout p...		14:12
Plotter: Paper Error		14:12

Total Files: 1

On Line Paper Error Reset Connect / Disconnect

Top Cover Ink Level Plotting Server Info

Start / Stop Log

Pause / Resume Paper Advance Quit

Procedure to open – 'Log List'

Server Properties

Server Name
F5P2Y4

Server Channel
5000

Clear Password

Ok

Info Server



14.8.1 Descriptions of the 'AlgoClient Plotting Menu' (Refer to layout on the previous page):

A = Headings (File Name, Length, Width, Copies, Gap, etc)

These headings identify the marker files in the plotting list. NOTE: The length and width values for each marker will appear in the list as soon as the markers are rasterized.

B = Plot List field

Position the mouse cursor anywhere in the field and click the right mouse button:

- When there are no files in the list the 'Add Files' drop down menu (B1) will appear;
- When marker files are present in the field, and the files are selected, the 'Add Files + Queue Edit' menu (B2) will appear;

Click the 'Add Files' heading to open the 'Add Files+ Settings' menu (B3).

Refer to section 14.8.2 for descriptions of the 'Add Files + Settings' menu.

C = Total Files and Total Length

The 'Total Files' value is determined by the total number of rasterized marker files present in the plot list. The 'Total Length' value is the sum of the lengths of all marker files in the list.

D = Printer Status Indicators

To open communications between the PC and the plotter first click the 'Open/Close Plotter Communication' button. This will activate the plotter status indicators. NOTE: the indicators for: 'OnLine', 'Error', 'Ink Level' and 'Paper' must all be continuously lit GREEN (NOT Red or Yellow) to permit plotter operation.

E = Start / Stop button

Begin plotting by clicking the 'Start / Stop' button when rasterized marker files are present in the plot list.

To stop plotting, click the 'Start / Stop' button in the 'Plotting List' window. The 'Abort current print job' warning window will appear.

- Choose '**Yes**' to stop plotting.
- Choose '**No**' to continue plotting, and then:
 - Click the 'Pause / Resume' button;
 - OR
 - press the 'Enter' button on the printer's front display.



F = Pause / Resume button

Click the 'Pause / Resume' button to enter pause mode. Click the 'Pause / Resume' button again to resume plotting at the point of interruption.

G = Paper Advance

When the plotter is online but not in operation, click the 'Paper Advance' button to advance paper one line (25.40 mm).

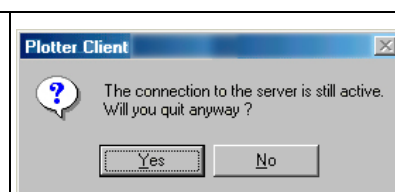
H = Reset

Should any of the plotter status indicators become yellow or red, the plotter will not operate. Once the plotter status has been corrected (examples: ink cartridge has been substituted, paper has been reloaded, etc.), click the 'Reset' button to re-establish correct plotting conditions.

I = Quit

After clicking the 'Quit' button the 'Connection to server ...' warning window will appear.

- Choose '**Yes**' to stop plotting. All parameters of the current marker will be lost.
- Choose '**No**' to continue plotting.

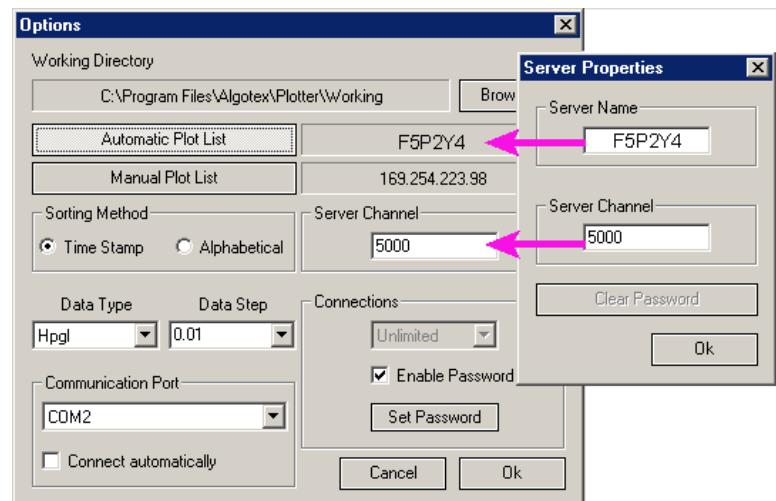


J = Log

Click the 'Log' button (1), then double click a date in the 'Log Files List' to view a record of all plotting operations and eventual errors that occurred on a specific day.

K = Servo Info

- The 'Server Name' indicates the PC Identification: the PC that is physically connected by cable to the plotter (refer to section 14.7 for instructions how to verify the PC identification).
- The 'Server Channel' must correspond to the 'Server Channel' setting in the 'Options' window as illustrated at right.

L = Connect / Disconnect

Click this button at anytime to open or interrupt communications with the 'AlgoServer' program on the PC that is connected to the plotter.

NOTE: 'Connect / Disconnect' will NOT start or stop plotter operations. The plotter will only start or stop when the 'Start / Stop' button is pressed by you or another 'AlgoClient' connected to the 'AlgoServer', or if plotting operations are terminated from within the 'AlgoServer' menu.

EXAMPLE: if you click 'Connect / Disconnect' to disconnect from the 'AlgoServer', you will close the 'AlgoClient' window, but plotting operations will continue until the last marker file in the plotting list is successfully printed, unless plotting operations are terminated from within the 'AlgoServer' menu.

The procedure to START PLOTTING follows.

- In the 'AlgoServer' menu click the 'Open / Close Communications' button.
- In the 'AlgoClient' menu:
 - click the 'Connect / Disconnect' button;
 - click the 'Start / Stop' button.

M = Command Mode

When this indicator is GREEN the 'AlgoClient' can manage the print list.

If the indicator is disabled the 'AlgoClient' can only observe plotting operations, but cannot modify operations.

N = Connections

This field will list all of the 'AlgoClients' that are connected to the 'AlgoServer', the PC that is connected to the plotter. The name(s) that appears in this column will correspond to the Windows log on name for the PC.



14.8.2 Description of the 'Add Files' menu

If you have chosen the 'Manual Plot List' option (refer to section 14.7.3) follow the procedure below to select and plot a marker file.

1) in the 'AlgoClient' menu, position the mouse cursor within the plot list field and click the 'Right' mouse button.

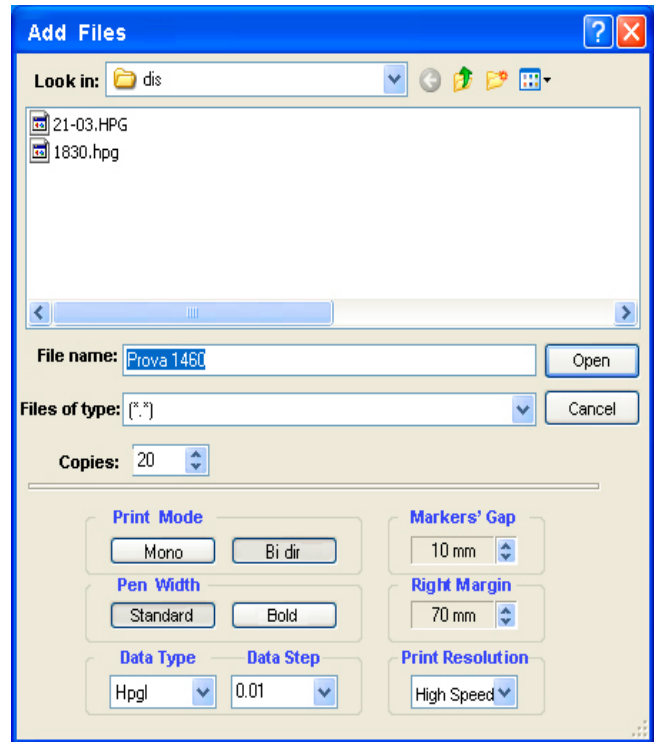
2) Choose 'Add Files' from the drop down menu to open the 'Add Files' window, as seen at right.

3) Click the ↓ arrow button to the right of the 'Look In' field, navigate to the directory where HPGL files are stored and select the marker file to be entered in the plotting list.

4) You may choose settings for each individual marker file that you have selected. See below for descriptions of the possible marker settings.

5) Click the 'Open' button. The files will appear in the 'AlgoClient' menu. As soon as these files are rasterized, the length, width, and other details of each marker file will appear on the screen to the right of the marker file names.

6) Begin plotting markers in the plotting list by clicking the 'Start / Stop' button in the 'AlgoClient' menu.



14.8.2.1 Add Files Menu settings descriptions

1) 'Print Mode'

The plotter may be set to print either in one or two directions.

- **Mono-directional mode:** the plotter will print on the right to left sweep of the printhead carriage and NOT on the return sweep of the carriage from left to right. While line quality is optimum, plotting speed is reduced by at least 30 percent.
- **Bi-directional mode:** the plotter will print on the right to left sweep, and then also print on the left to right sweep of the printhead carriage. This mode results in full speed plotting.

2) 'Pen Width'

The plotter may be set to print either of two line qualities.

- **Standard:** for normal line width.
- **Bold:** for bold (darker) line quality.



3) 'Data Type'

This window indicates the graphics language that may be interpreted by the plotting program. Formats currently recognized are HPGL (Hewlett Packard Graphics Language), HPGL/2 and STD.

4) 'Data Step'

This value refers to the conversion factor for standard HPGL format files that the rasterizing program uses to calculate print coordinates which may be based either in inches or in millimeters. Files that are based on the metric system have a 1 to 1 conversion factor to the rasterizing program (Data Step 0.01). Most programs that create files based on the English numeric system have a conversion factor of 2.5 to 1 (Data Step 0.025). The 'Data Step' setting for GGT generated HPGL files is 0.0254.

Note: when using standard HPGL/2 format the 'Data Step' values are not required, and will be inactive (greyed out).

5) 'Markers' Gap'

This value represents the distance between two successive markers. Change this value to modify the distance between the beginning of a new marker and the end of the previous marker.

- Maximum setting is 3000 mm (118 inches).
- Minimum setting is 0 mm.

6) 'Right Margin'

This value represents the distance between the right edge of the paper and the point towards the left side of the paper where printing begins. When this value is changed, the right margin is changed proportionally.

- Maximum setting is 1000 mm (39 inches).
- Minimum setting is 0 mm.

7) 'Print Mode'

This field enables only:


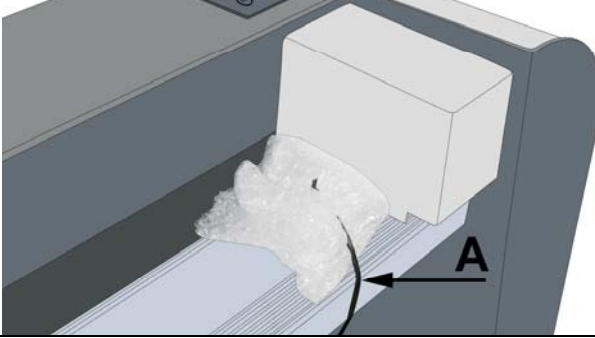
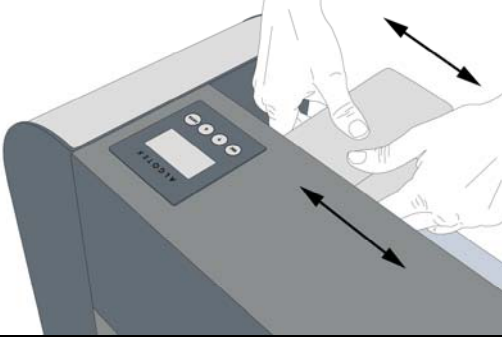
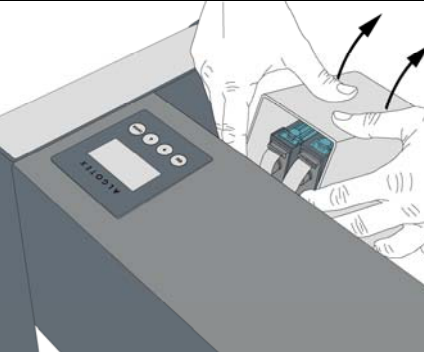
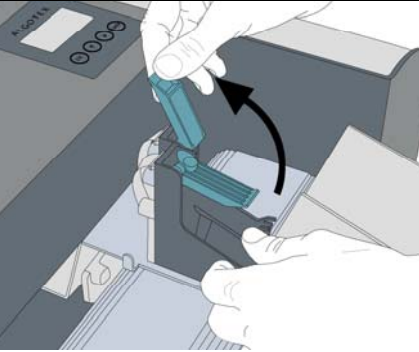
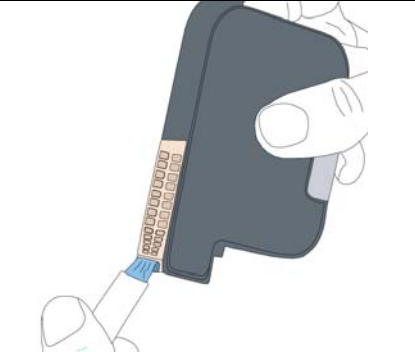
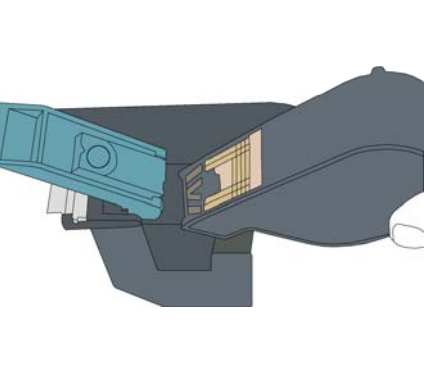
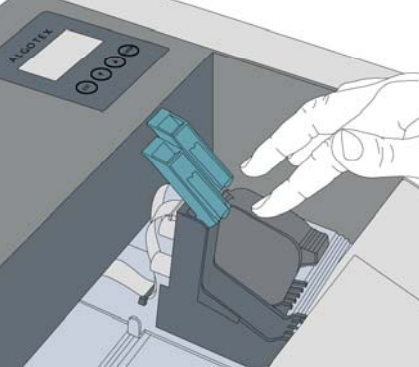
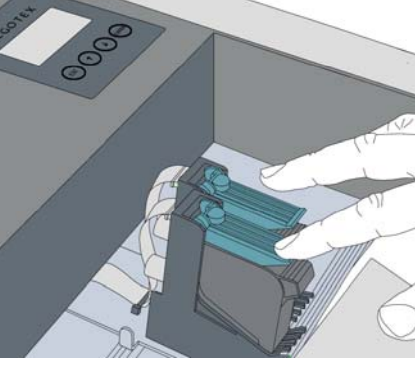
- high SPEED printing.

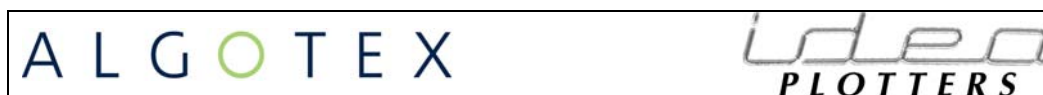
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15 MAINTENANCE

15.1 Printhead carriage preparation

	<p>WARNING ! Before switching the plotter ON: prepare the printhead carriage.</p>	
		
<p>1 Remove the plastic tie-wrap (A) and the bubble wrap from around the printhead carriage.</p>	<p>2 Using both hands, manually move the printhead carriage laterally, from RIGHT to LEFT, across the entire print surface to verify that the carriage slides easily and does not come in contact with the print surface below.</p>	
		
<p>3 Open the carriage cover.</p>	<p>4 Raise the cartridge levers.</p>	<p>5 Remove the protective tape from the cartridge.</p>
		
<p>6 Insert the cartridges in their slots with the metal surfaces facing toward the plotter.</p>	<p>7 Press the cartridges firmly DOWN into their slots.</p>	<p>8 Press the cartridge levers firmly DOWN. Then close carriage cover.</p>



15.2 HP printhead / Ink cartridges

Each HP printhead / cartridge has an array of 150 nozzles through which ink is sprayed onto the print surface. The cartridges hold approximately 25ml of usable ink which affords up to 2000 meters of printed paper (1500mm width). The ink is oil-based and does not dry immediately on contact. It penetrates and becomes part of the paper and is light-fast, water-fast and organic-resistant.



Attention ! Ink Classification: IRRITANT

Avoid contact with skin by wearing suitable protective gloves. Ink used in the plotter is a mildly toxic irritant and staining substance. Do not swallow or allow the ink to come into contact with your eyes, hands or clothes. Should you accidentally spill the ink, rinse immediately with cold water and soap. If sensitisation of skin develops after contact, obtain medical attention as a precaution.

The vapor has anaesthetic properties and when inhaled at high concentrations it may cause headache, fatigue, dizziness and uncoordination. Obtain medical attention as a precaution.



WARNING: use of any ink other than the quality supplied by the manufacturer voids all guarantees and may damage the printheads irreparably.

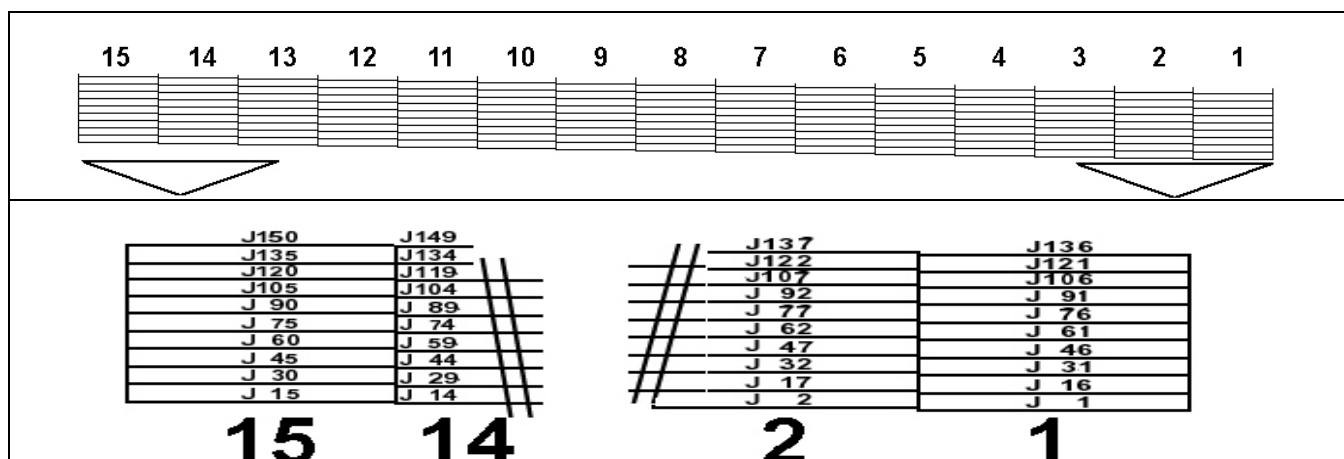
- Storage shelf life of the separately sealed cartridges is 12 months at room temperature.
- Pot life of cartridges that are installed on the printhead carriage is one to three months depending on the amount of plotter operation. Should the plotter remain inactive for a long period of time (more than 3 days), remove the cartridge and store it together with a wet sponge in a closed container.

15.3 Jets Test

Use this test to determine if all of the 150 printhead nozzles in each of the 2 printheads are functioning properly. The printheads should print, from right to left, 10 separate lines divided into 15 sectors (total 150 lines x 2 printheads = 300 lines), each 60 mm in length, as partially illustrated in the sample below.

The jets test procedure follows below.

- 1) In the 'AlgoServer Program' click the 'Settings' button.
- 2) Click the 'Advanced Settings – Test' tab.
- 3) Click the 'Jets Test' button.



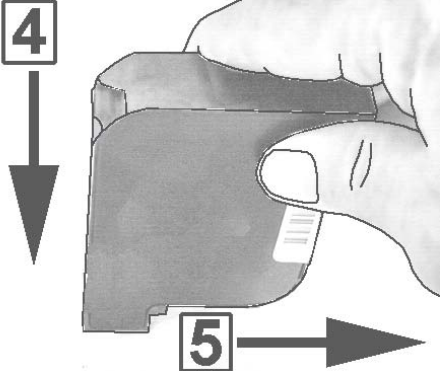

Printhead 'Jets Test (partial view)

If there are evident gaps in the test, one or more nozzles are not printing. Follow priming and cleaning procedures in the next section.



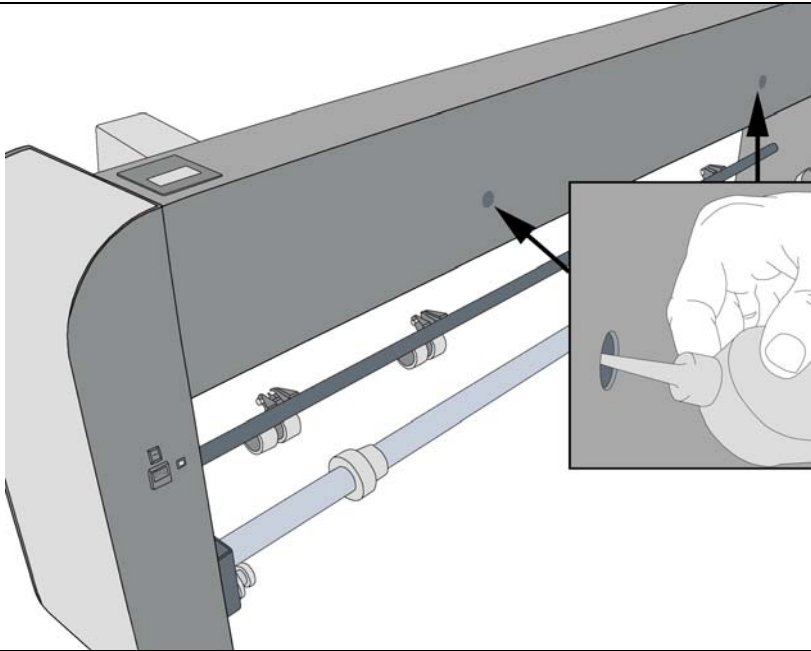
15.4 Printhead / cartridge priming and cleaning procedures

- 1) Open the 'Advanced Settings – Tests' menu and click the 'Head Cleaning' button.
Wait 10 seconds and then click the 'Head Cleaning' button again.
- 2) Wait 10 seconds and then click the 'Jets Tests' button. If there continue to be evident gaps in the print test, proceed to clean the HP cartridges manually as described below.
- 3) Remove the cartridges from the printhead carriage.

	
<p>4) Press the metallic face of the HP ink cartridge delicately down on soft, absorbent, fiberless cloth that has been moistened with water.</p> <p>5) Drag the face of the cartridge across the surface of the cloth.</p>	<p>6) Verify that ink from the cartridge makes 2 separate tracks on the cloth. If not, substitute the cartridge.</p> <p>7) Replace the cartridge in the printhead carriage and make another 'Jets Test'.</p>

15.5 Lubrication Points

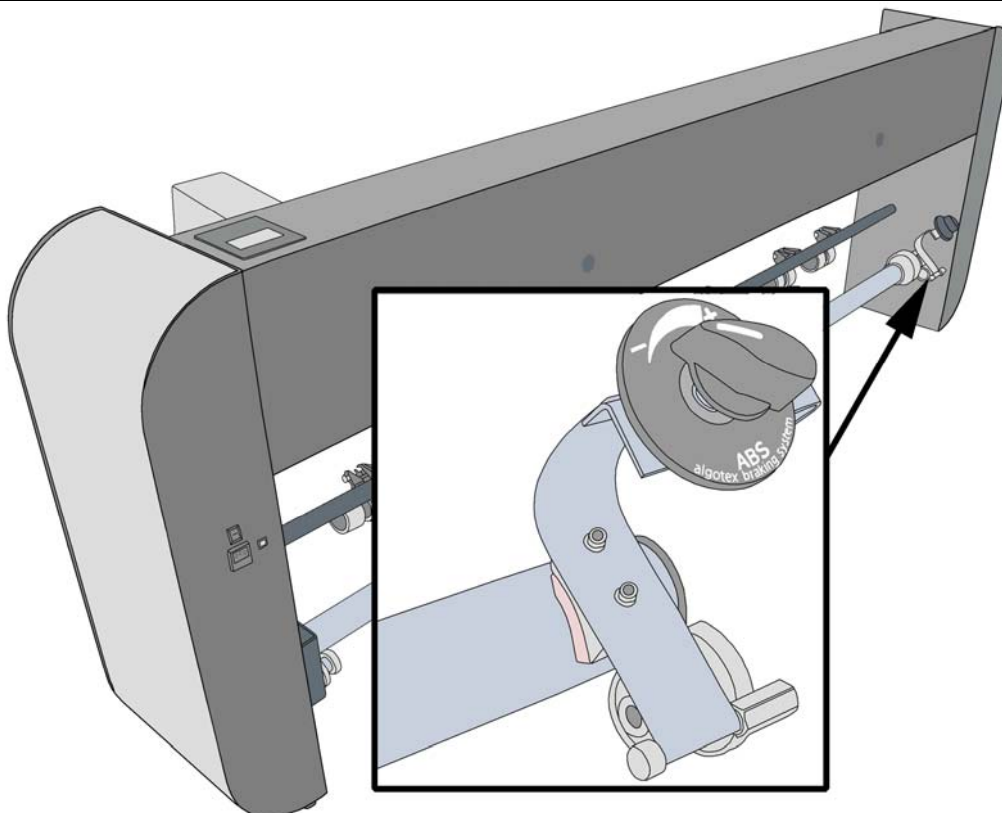
Periodically lubricate the carriage guide located below the printhead carriage.

<p>Apply a few drops of oil by inserting the beak of the oil container supplied in the plotter's accessory kit into the 2 ports at the rear of the plotter, as illustrated.</p>	 <p>Oil ports at rear of the Idea plotter</p>
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15.6 ABS – Algotex Braking System (to eliminate paper creasing)



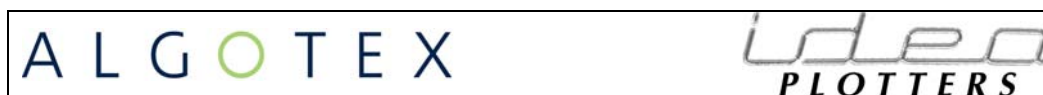
Paper creasing as seen above may occur along the print surface during paper advancement.



ABS dial position (at REAR-RIGHT side of the plotter)

The Algotex Breaking System (ABS) is used to adjust paper take-up force.

- If paper creasing occurs along the print surface, turn the ABS dial to the LEFT (minus).

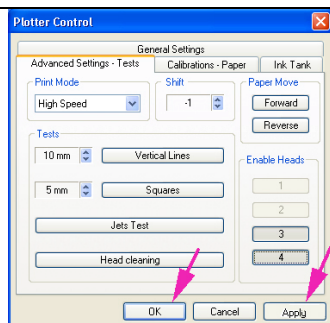


16 TECHNICAL GUIDE

16.1 Protection procedures for plotter configuration

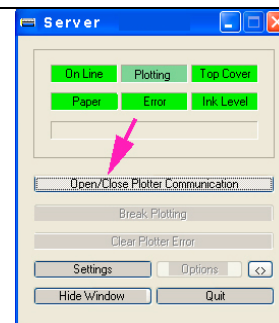
Occasionally plotter configuration settings located on the firmware in the electronic box may be lost or become corrupted if the firmware does not have sufficient time to register setting changes before the plotter is switched off.

To avoid damaging the plotter configuration after changing plotter settings or after closing communications between the plotter and the computer WAIT UNTIL THE COMMAND TAKES EFFECT BEFORE SWITCHING OFF THE PLOTTER.



'ADVANCED SETTINGS-TESTS' MENU

After saving settings changes by clicking the 'OK' or the 'Apply' button, wait until the command takes effect before switching off the plotter.



'ALGOSERVER' MENU

After clicking the 'Open / Close Plotter Communication' button to close the 'AlgoServer' program, wait until the menu disappears from the screen before switching off the plotter.

16.2 Changing the language version for onboard (Display) plotter controls

It is possible to change the language version for the onboard plotter controls directly from the computer that is connected to the plotter by cable. Instructions to change the language version from the PC follow below.

1) Switch the computer ON.

The file with the new language version will have a final extension with the letters (**aff**). If this file has been sent to you by email or is on a CD or floppy disk, first copy the file to the following directory on the PC that is connected to the plotter: [C:\Program Files\plotter].

2) Verify that the file has 'Read Only' attributes DISABLED.

Open Windows 'Explorer', select the (**aff**) file and click with the right mouse button. Then choose 'Properties' and verify that the box to the left of 'Read Only' is empty. Exit 'Explorer'.

3) Switch the plotter ON.

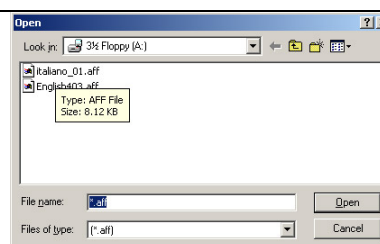
4) After the plotter has completed the 'Self Tests', open the AlgoServer program on the PC and click the 'Open Communications' button.

5) Hold down the **F5** key and click the 'Settings' button.

6) In the password box type: **changefont**, and then click OK.



7) At the message 'Changing font: do you really want to proceed?', click 'Yes'.



8) In the 'Open' menu, scroll to the location where the (**aff**) file with the new language version is located. Highlight the correct (**aff**) file and click the 'OPEN' button..

9) Press the 'Enter' button under the plotter's front display to activate the language version change



16.3 Set-up a single PC to drive more than one plotter

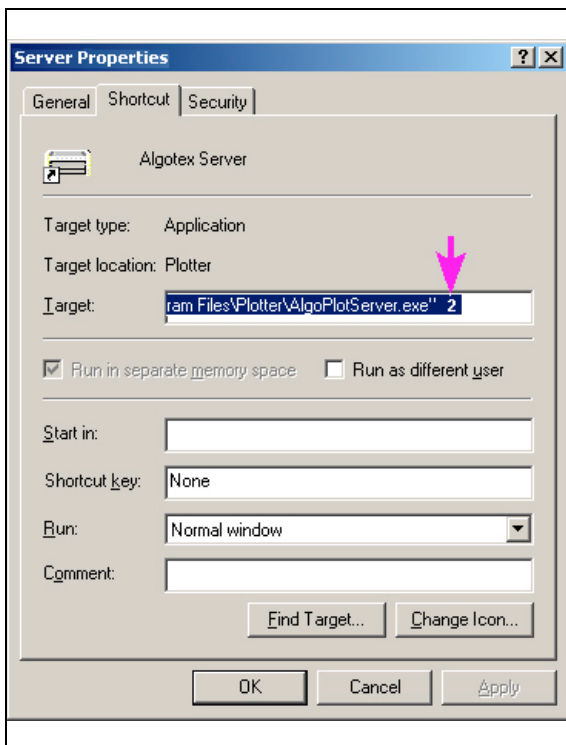
A single PC may be used to drive numerous plotters. Each plotter must be piloted by a separate AlgoServer program located on the PC. The USB-2 ports may be used to connect the plotters to the single PC.

To use more than one AlgoServer instance on the same PC, you must differentiate between them by using increasing integer values as parameters in the 'Target' path command line. Each AlgoServer instance must also utilize a different 'Working Directory', a different communication port and a different 'Server Channel'.

Finally, to avoid changing the AlgoServer Info settings in the AlgoClient program each time you change to a different 'Server' program, it is recommended to create a separate 'Client' program for each additional AlgoServer program that is created.

Instructions to create additional AlgoServer and AlgoClient programs on a single PC and configure them to drive separate plotters follow below.

- 1) Create a copy of the AlgoServer program icon on the desktop.
- 2) Right click the icon copy and choose 'Properties'.



- 3) Edit the 'Target' path command line in the properties window of the copy using an increased integer value. Example, enter a space and then a number at the end of the target path:

[“.....AlgoServer.exe” 2]

- 4) Repeat this procedure for the AlgoClient program, so as to have a separate AlgoClient for each additional AlgoServer program.

4A) Create a copy of the AlgoClient program icon on the desktop.

4B) Right click the icon copy and choose 'Properties'.

4C) Edit the 'Target' path command line in the properties window of the copy using an increased integer value.

Example, enter a space and then a number at the end of the target path:

[“.....AlgoClient.exe” 2]

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5) Double click the AlgoServer program icon copy on the desktop.

6) Click the 'Options' button in the AlgoServer menu.

7) Follow instructions in section 14.7:

- to designate a new 'Working Directory' (1);
- to designate a new 'Server Channel' (2);
- to designate a new 'communications Port' (3).

NB. Each additional AlgoServer program must have a unique:

- 'Working directory'
- 'Server Channel';
- 'Communications Port'.

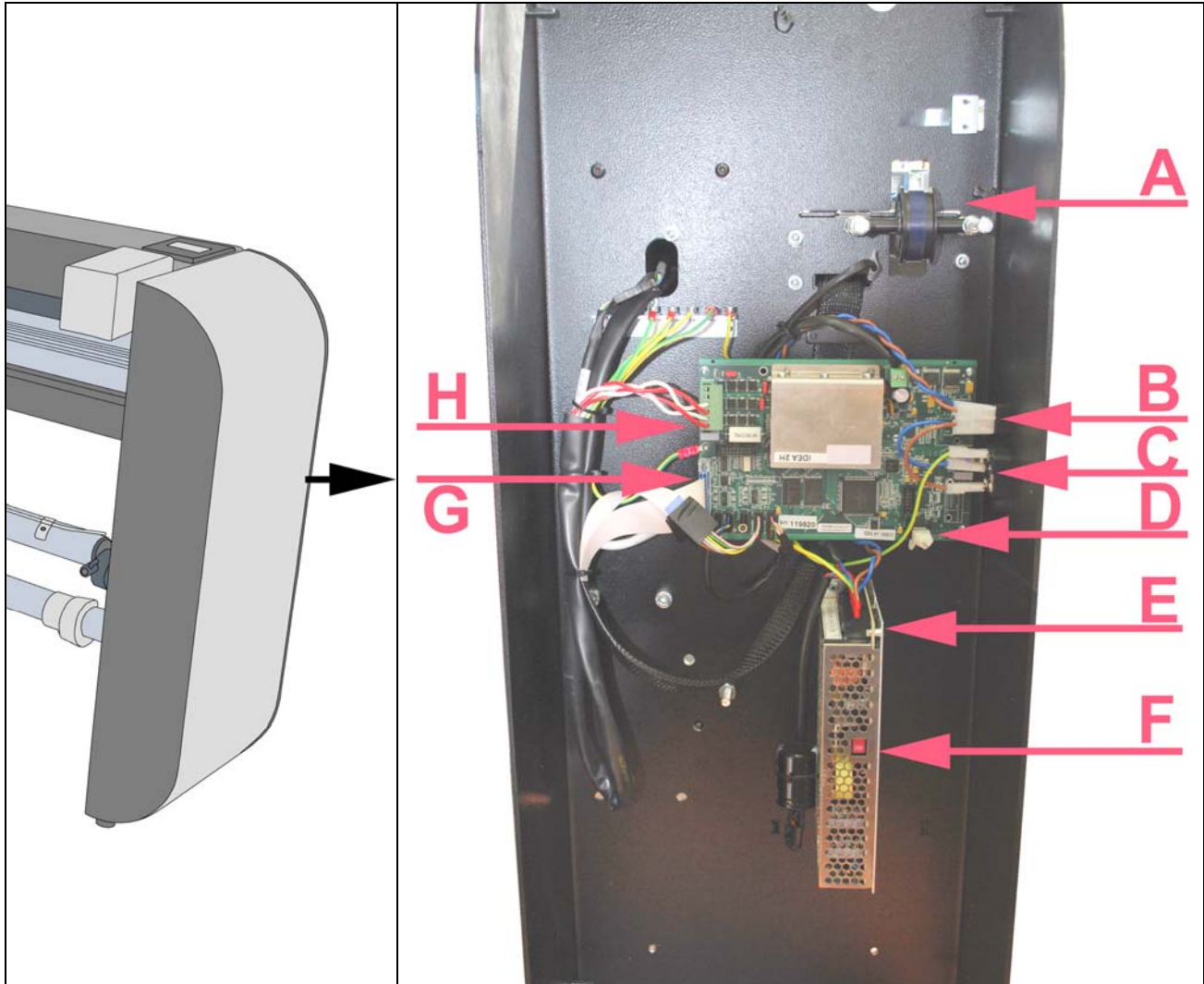
8) Configure the 'Server Info' settings in the AlgoClient programs to correspond to the 'Server Channel' settings in the respective AlgoServer programs.

STEP 1: open the AlgoClient menu by double clicking the shortcut on the desktop;

STEP 2: if the 'Server Properties' window does not automatically appear, click the 'Server Info' button;

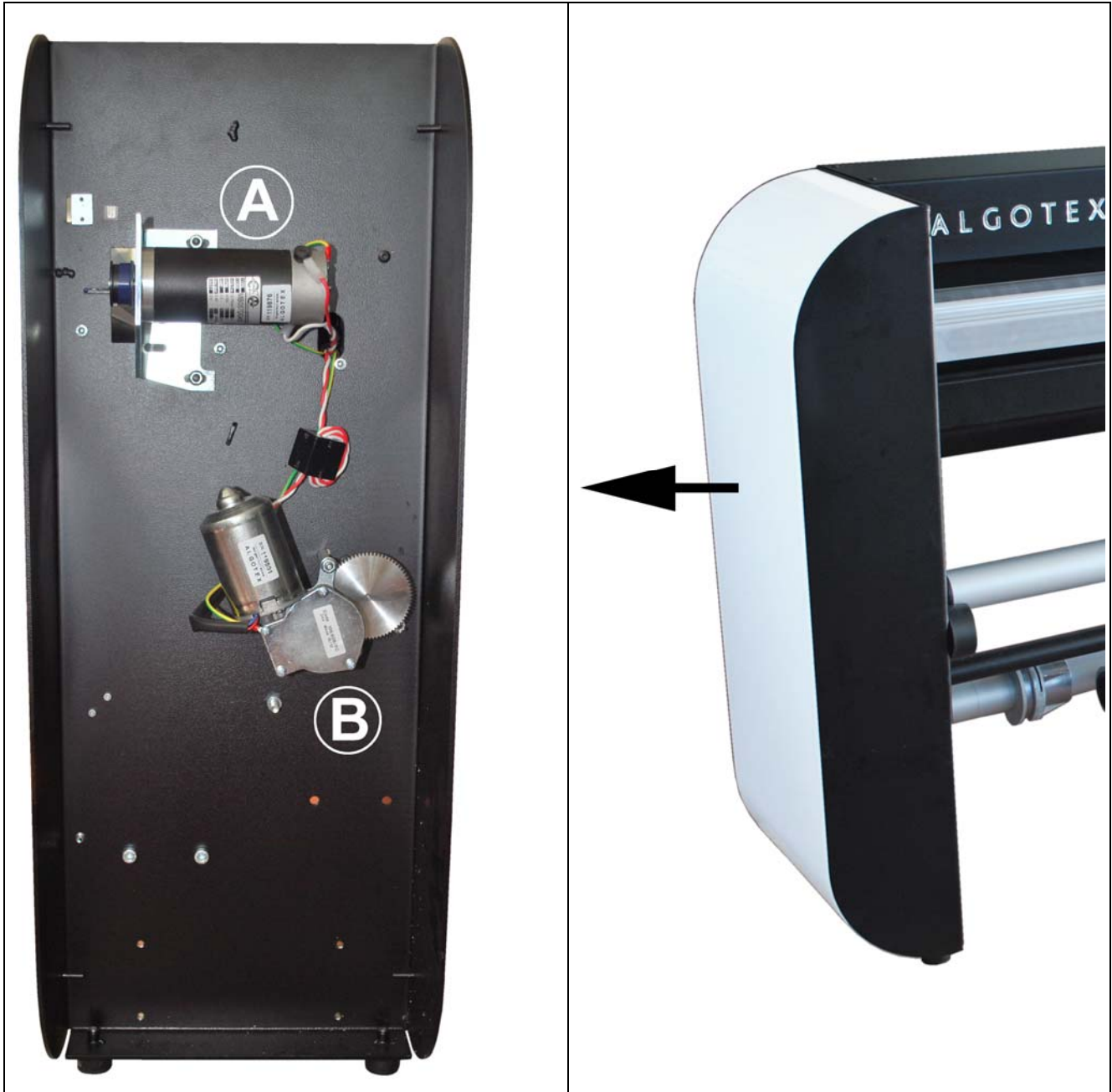
STEP 3: the 'Server Name' (A), and 'Server Channel' (C), MUST correspond to the 'PC Identification' and the 'Server Channel' in the 'Options' menu (refer to section 14.7).

16.4 Layout for main board and power supply on plotter's right side



- A = Printhead carriage pulley
- B = On-Off switch connector
- C = Main power cable connector
- D = Display connector
- E = Power supply
- F = Voltage regulator switch
- G = Printheads connectors
- H = Motors connectors

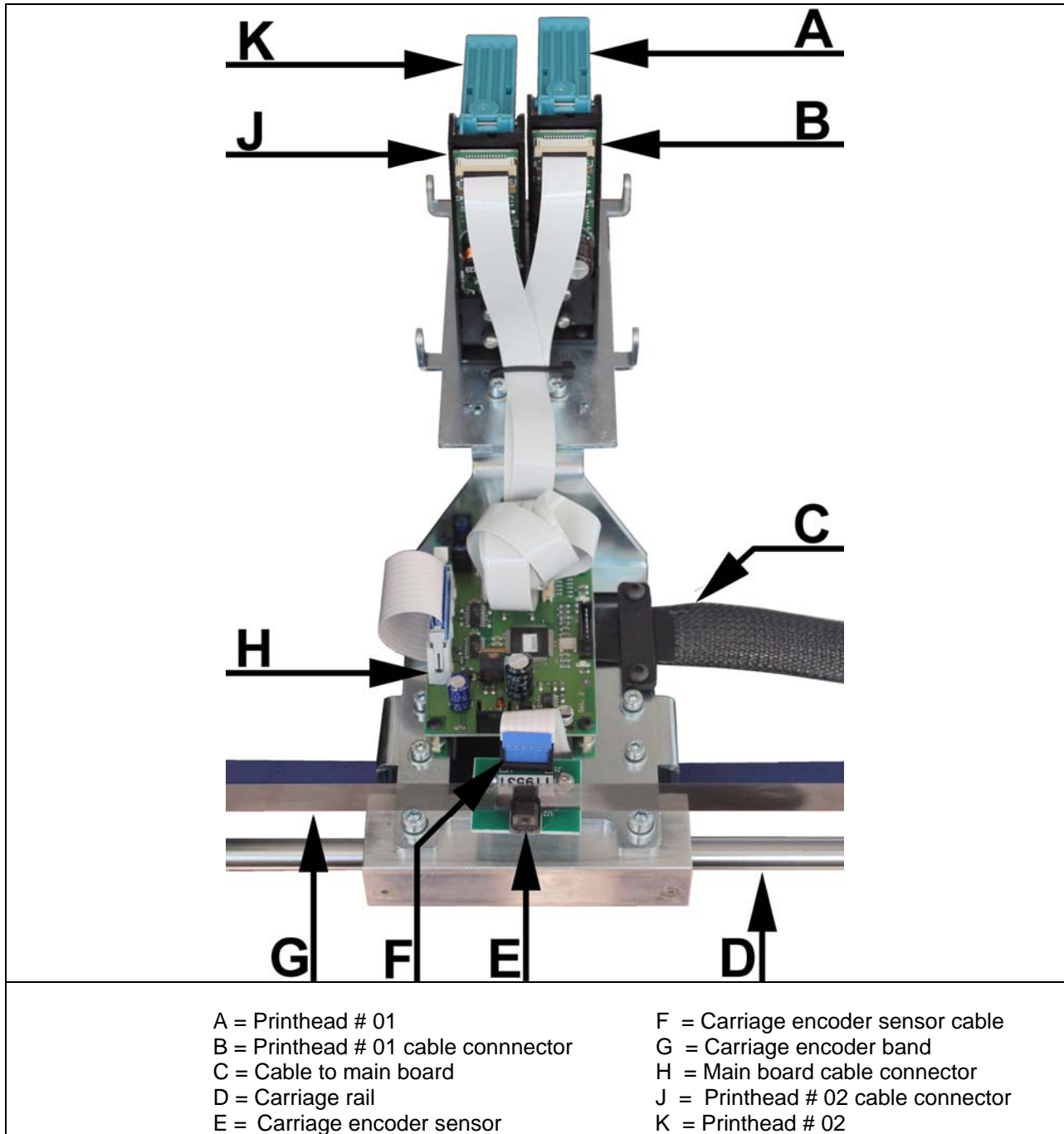
16.5 Motors layout on plotter's left side



The motors are positioned under the plotter's left side cover.

A = Printhead carriage motor
B = Paper take-up motor

16.6 Printhead carriage layout



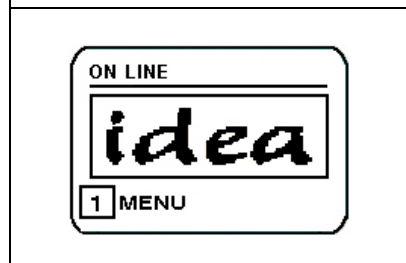
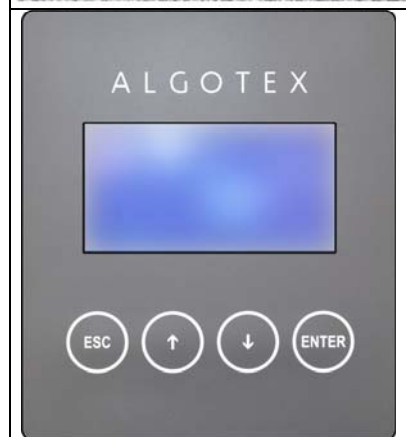
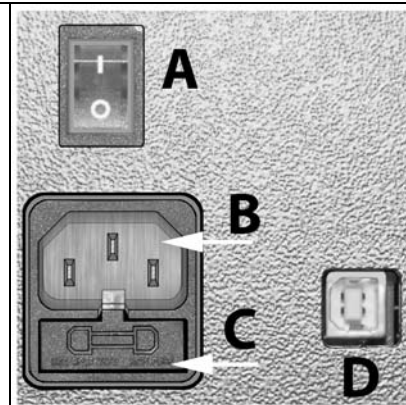


17 TROUBLE SHOOTING

17.1 Plotter ON – Trouble shooting

The Power ON sequence follows below.

- 1) The ON / OFF switch (A) lights up.
 - If the switch does not light up check the following::
 - the local power source outlet;
 - the power cable;
 - the (T 1.6A) fuse (C) located under the plotter's power cable connector (B).
- 2) The display lights up.
 - If the display does not light up check the following:
 - contact local technical assistance to check the cable connection between the electronic box and the display inside the plotter's right side cover.
- 3) During start up the plotter will emit a total of 4 high pitched audio signals after which the ALGOTEX logo will appear on the display. The plotter proceeds with a series of auto diagnosis (16 seconds). The system checks in order:
 - the paper advance motor; (refer to section 13.3)
 - the paper advance encoder; (refer to section 13.4)
 - the printhead carriage motor; (refer to section 13.5)
 - the printhead carriage encoder; (refer to section 13.6)
- 4) At completion of the auto diagnosis, the 'IDEA' logo will appear on the display screen. The plotter is 'ONLINE' and communication can be opened between the PC and the plotter.



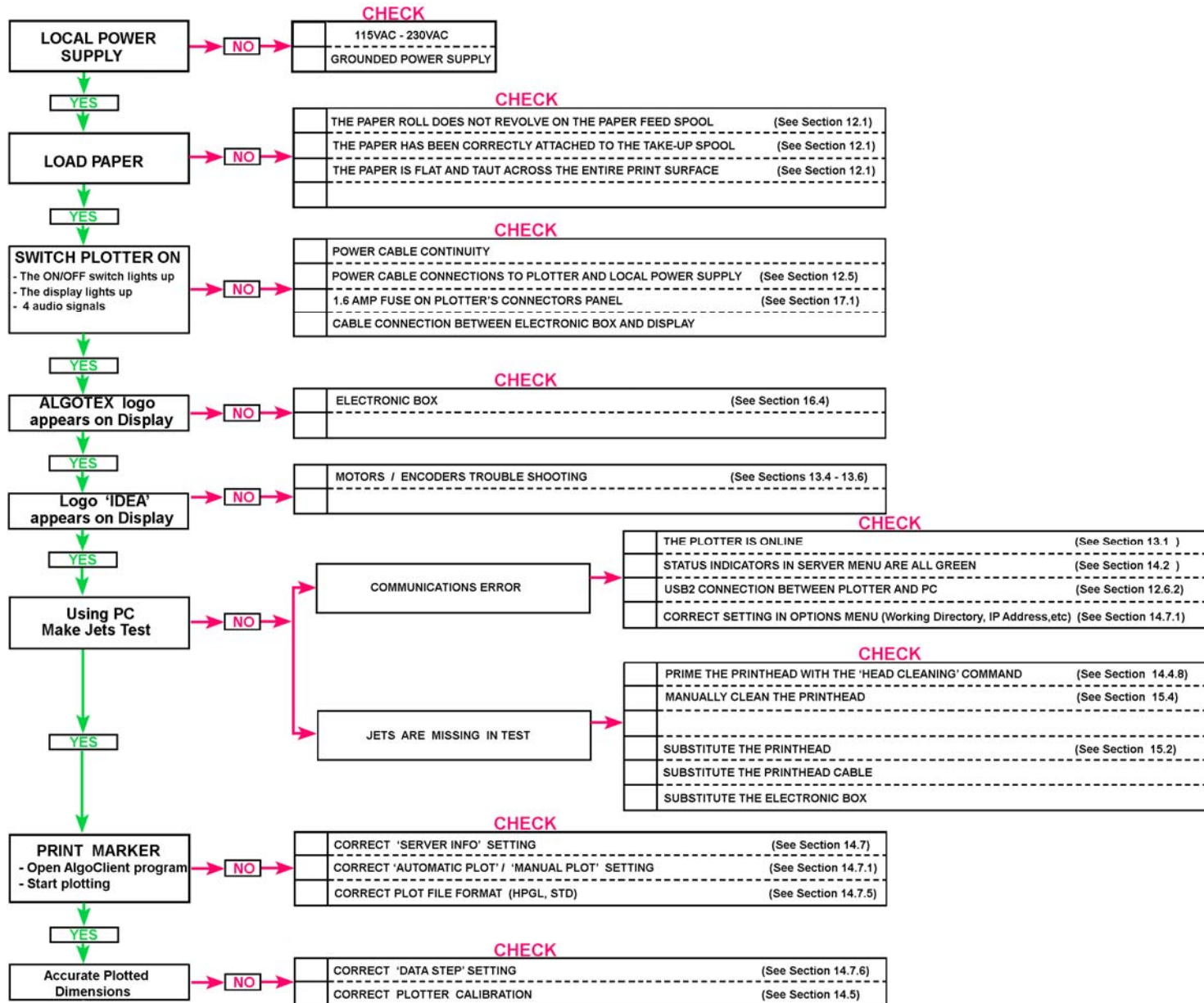
17.2 Trouble Shooting CHECK LIST

17 TROUBLESHOOTING

ALGOTEX

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17.2 Trouble Shooting CHECK LIST



17.3 Trouble Shooting: problem solving

PROBLEM	POSSIBLE CAUSES	SOLUTIONS
ERROR messages that might appear on the front display during plotter start up :		
<ul style="list-style-type: none"> • 'Defective Paper Advance' 	⇒ No paper is attached to the take-up spool. ⇒ Defective paper take-up motor. ⇒ Defective motors board.	<ul style="list-style-type: none"> • Verify that the paper is loaded correctly. Then switch the printer OFF and ON again. (Section 12.1). • If the same error message appears on the display, refer to section 13.3 for instructions how to use the 'Diagnostic Tests' to eliminate defective paper movement.
<ul style="list-style-type: none"> • 'Incorrect Paper Advance Movement' 	⇒ The encoder wheel does not rest evenly on the surface of the paper, or wheel movement is blocked. ⇒ Defective paper advance encoder. ⇒ Defective electronic control for the paper advance encoder.	<ul style="list-style-type: none"> • Verify that the encoder wheel is positioned to rest flat on the paper and that the surface of the wheel is free from extraneous material. (Section 12.1) • Contact local technical assistance to control the paper advance encoder, and the electronic box. (Section 13.4).
<ul style="list-style-type: none"> • 'Defective Printhead Carriage Movement' 	⇒ Defective carriage 'Home' sensor; ⇒ Defective carriage motor; ⇒ Defective carriage encoder; ⇒ Defective motors board.	<ul style="list-style-type: none"> • Contact local technical assistance to control the 'Home' sensor, the carriage motor, the carriage encoder and the electronic box. (Sections 13.5, 16.3).
<ul style="list-style-type: none"> • The printer is ON but does not start when you try to print a marker. 	⇒ The plotter is not ONLINE. ⇒ The 'Ink Level' is low. ⇒ Not all of the status indicators in the AlgoServer menu are green.	<ul style="list-style-type: none"> • Verify that the printer's front display shows 'ONLINE' status which will permit opening communication between the printer and the PC (Section 13.1). • Substitute the ink cartridge and reset the 'Ink Level' setting (Sections 15.2, 14.6). Then click the 'Clear Error' button in the AlgoServer menu (Section 14.2.4). • Check that the AlgoServer program is OPEN and that all status indicators are green (Section 14.2).
After making a plot command from the PC the following message appears on the monitor: 'The plotter is not connected'.	⇒ The plotter is switched OFF. ⇒ The settings for the 'Configuration Port' are not correct. ⇒ The 'Working Directory' is not empty.	<ul style="list-style-type: none"> • Switch the plotter ON. • Verify that the settings for the 'Communication Port' correspond to the setting for the connection between the plotter and the PC. (Section 14.7.7). • Delete all the files in the 'Working Directory'. Then close and re-open the AlgoServer program. (Section 14.7.1).
The following error message appears on the monitor; 'Hard Disk Error ! '	⇒ Presence of (TMP) files in the 'Working Directory'	<ul style="list-style-type: none"> • Delete all the files in the 'Working Directory'. Then close and re-open the AlgoServer program. (Section 14.7.1).

Translated from original instructions in Italian
17.3 Trouble Shooting: problem solving

PROBLEM	POSSIBLE CAUSES	SOLUTIONS
There are gaps across the entire width of the print surface.	<p>⇒ One or more jet nozzles are blocked.</p> <p>⇒ The value for the 'Encoder Step' setting is too high.</p> <p>⇒ The control board or the Y-axis cable are defective.</p>	<ul style="list-style-type: none"> • In the 'Advanced Settings and Tests' menu run 'Test Jets' to verify that all jet nozzles are printing correctly. If not, follow instructions in section 15.4 for 'Head Cleaning' (priming the head automatically). • If the problem persists, follow instructions in section 15.4 for 'Manual Printhead Cleaning'. • Contact local technical assistance for instructions how to modify the 'Encoder Step' setting. • Contact local technical assistance to substitute the electronic box and / or the Y-axis cable. (Section 16.3).
Occasionally paper advances with long movements causing gaps across the entire print surface.	<p>⇒ The paper advance encoder does not correctly register forward paper movement.</p> <p>⇒ Too much paper has been rolled up onto the paper take-up spool.</p>	<ul style="list-style-type: none"> • Verify that the encoder wheel rests evenly against the paper surface and that the wheel revolves freely. • Remove the paper from the take-up spool. As a rule, avoid accumulating more than 100 meters of paper on the take-up spool.
Vertical printed lines are not perfectly straight.	<p>⇒ The paper is not completely flat and taut across the entire print surface.</p> <p>⇒ The setting 'Shift', located in the 'Advanced Settings and Tests' menu should be adjusted.</p>	<ul style="list-style-type: none"> • Reload the paper on the plotter. Then switch the plotter OFF and back ON. (Section 12.1). • Refer to section 14.4 for instructions how to regulate the 'Shift' setting. • If the problem persists, contact local technical assistance to check the distance between the printhead and the print surface.
ERROR messages that might appear on the front display DURING printing operations:		
Error N. 7 'Defective Carriage Movement'	<p>⇒ Carriage movement is blocked.</p> <p>⇒ Defective carriage motor.</p> <p>⇒ Defective carriage motor encoder.</p>	<ul style="list-style-type: none"> • Verify that the 'Slide Areas' and the supports under the printhead carriage are clean and well lubricated (Section 15.6). • Contact local technical assistance.
Error N. 9 'Paper Encoder Match Failed'	<p>⇒ The paper roll is finished.</p> <p>⇒ The paper advance encoder wheel is blocked.</p> <p>⇒ The paper advance motor and/or the motors board is defective.</p>	<ul style="list-style-type: none"> • Load a new roll of paper on the plotter • Verify that the encoder wheel rests evenly against the paper surface and that the wheel revolves freely. • Contact local technical assistance.

**DICHIARAZIONE DI CONFORMITA' CE
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Nella persone di CESARE RIZZOLI
(In the person of CESARE RIZZOLI)

Posizione nell'Azienda: Amministratore
(With the title of: Chief Executive Officer)

**DICHIARA
(DECLARES)**

Sotto la propria esclusiva responsabilità che la macchina,
(Under his sole and exclusive responsibility that plotting apparatus)

IDEA 180 2H HP CL – IDEA 220 2H HP CL

CONFORME
CONFORMS

Alle seguenti direttive:

(With the following directive):

- Direttiva Macchine 2006/42/CE
European Machinery Directive 2006/42/CE
- Compatibilità Elettromagnetica 2004/108/CE
Electromagnetic Compatibility 2004/108/CE
- Bassa Tensione 2006/95/CE
Low Voltage Tension 2006/95/CE
- ROHS (Restriction of the use of certain Hazardous Substances) 2002/95/CEE

E INOLTRE CONFORME
AND ALSO CONFORMS

Ai requisiti richiesti dalla Norma:

With the following directives:

- EN60950-1 "Apparecchiature per la tecnologia dell'informazione- Sicurezza .Parte1: requisiti generali
EN60950-1 "Information Technology Equipment" Safety Part included in the : general requirement
- EN60204-1 " Sicurezza del macchinario- Equipaggiamento elettrico delle macchine".Parte 1 :Regole generali Part 1 General requirement)
EN60204-1 regarding " Safety of machinery – electrical equipment of machines" Part 1General requirement)

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