AFINIA LABEL®

Mini DLF Series

USER MANUAL

DLF-140S / DLF-220S

Tabletop Label Finishing Systems

With Graphtec CE8000-40

CE RoHS COMPLIANT 2002/95/EC UKCA FC 157848-2.1

REV. 4.0

IMPORTANT: Please keep the original packaging in case you need to return the material. If we receive the system in non-original packaging, the warranty will be void.

IMPORTANT: The latest version of the DLF Series software is available on our websites **afinialebel.com** or **afinialabel.co.uk.**

SAFETY

The machine has to be installed in the specif place where only the authorized and trained technician can have the access.

ATTENTION! Sharp cutter.

Install the machine on a stable and robust table.

Ground connection mandatory, so please connect the machine to a power outlet with ground connection.

Only the plotter Graphtec CE8000-40 can be used on this machine.

ELECTRONIC AND TECHNICAL DETAILS:

Input: 100-240V~ 2.0A, 50-60Hz

Power cord: 3 x 0.75 mm2

Fuse: T3.15 A 250 V

Working temperature: -10° / +40°

Working Humidity: 15-80%

In Denmark: “Apparatets stikprop skal tilsluttes en stikkontakt med jord som giver forbindelse til stikproppens jord.”
In Finland: “Laite on liitettävä suojakoskettimilla varustettuun pistorasiaan”
In Norway: “Apparatet må tilkoples jordet stikkontakt”
In Sweden: “Apparaten skall anslutas till jordat uttag”

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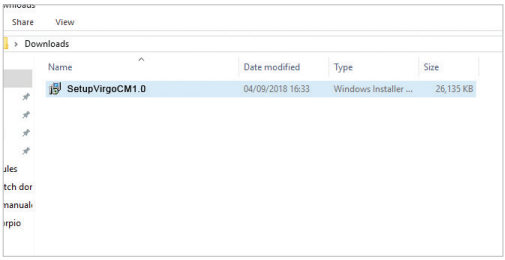
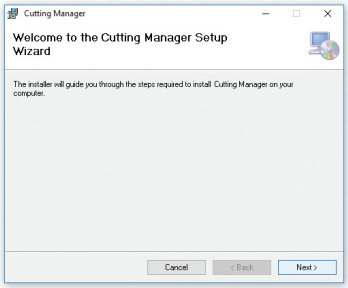
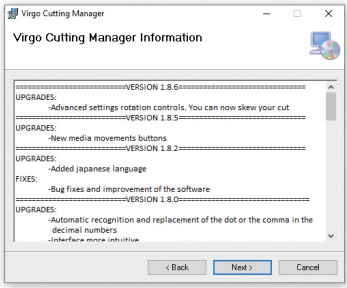
HOW TO INSTALL THE CUTTING PLOTTER



1. Click on "*Setup DLF-Software...*" and follow the step by step instructions to complete the installation.
Please DO NOT connect the Afinia USB to your pc before the installation is complete



2. Click NEXT



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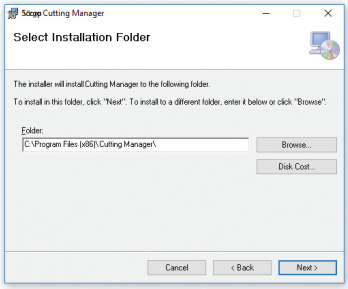
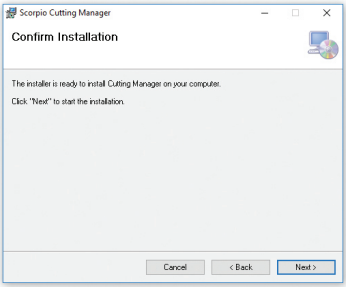
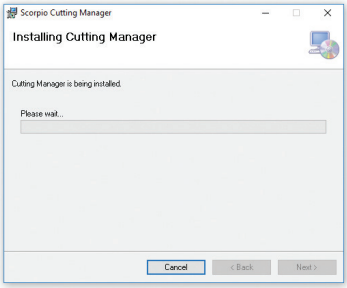


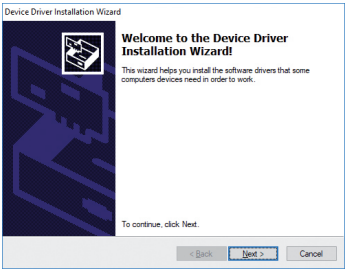
4. Click NEXT



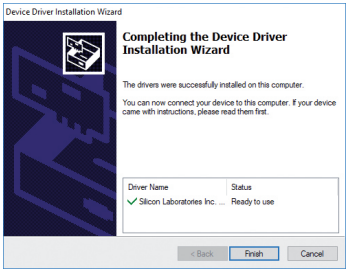
5. Click YES



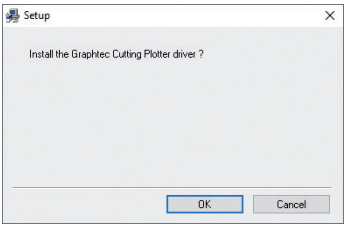
6. In process



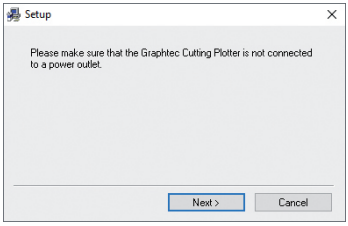
7. Click NEXT



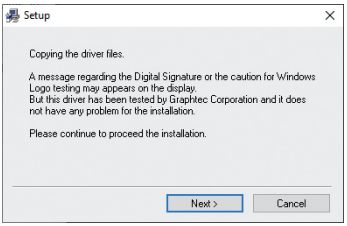
8. Click FINISH



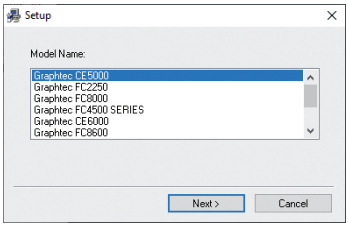
9. Click OK



10. Click NEXT *(Remove the Afinia USB from your pc, and turn off the Afinia)*

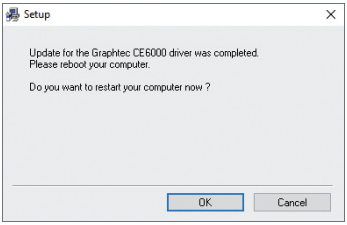


11. Click NEXT



12. Choose the right model name of your Graphtec (***CE8000-40***).

Click NEXT

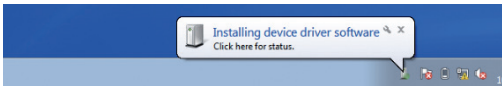


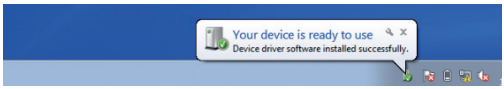
13. Wait until the sign “Update for the Graphtec CE8000-40 driver was completed” shows up. You may need to restart the computer.

Click OK

The installation is completed. An Afinia CM shortcut is displayed on your desktop

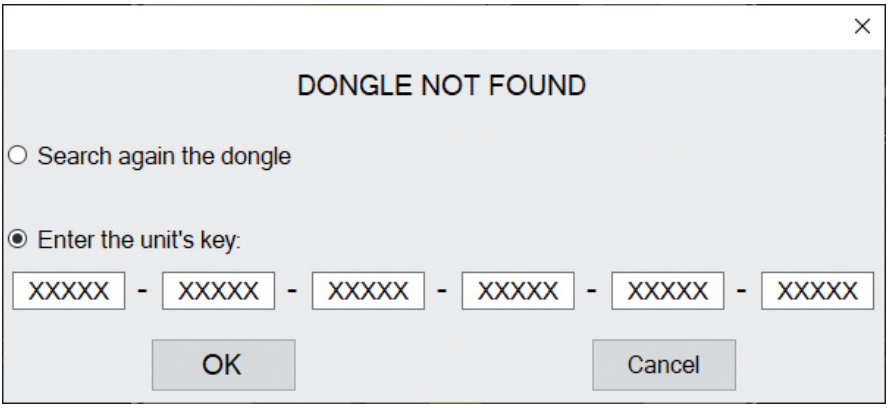
Plug in the USB camera and the USB dongle, they will auto-install.
If your computer already has a camera installed, we recommend disabling it. If you do not, your pc will ignore the camera on the plotter.





CM Software will generate a folder in the Windows start menu.

SOFTWARE ACTIVATION



To activate the software you must have **one of these options**:

- The unit's key, which can be found attached to the plotter. *(valid up to 3 activations)*
WHEN YOU ACTIVATE THE LICENSE YOU MUST BE CONNECTED TO INTERNET

or

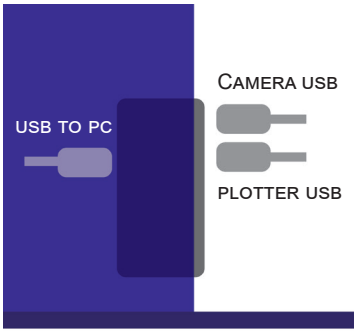
- A red dongle (already plugged inside the unit).

SYSTEM REQUIREMENTS

The Cutting Manager software works on Windows OS from Windows 8.1. We do not guarantee its functionality on previous versions. Not compatible with macOS systems.

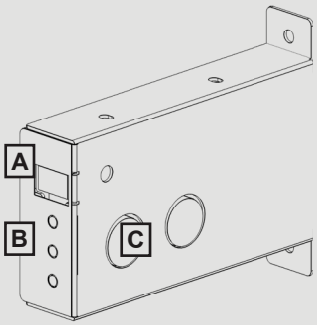
Cutting files: Adobe Illustrator or and Corel Draw (save as PDF file).

Diagram connectors behind the on-off panel.



MEDIA TENSION CONTROL

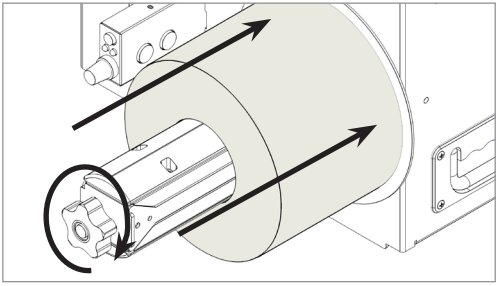
Each core holder (ON THE LAMINATING & UNWINDING MODULE) is managed by its own controller designed to set the required media tension, keeping that tension automatically constant even the roll diameter variation during the job.



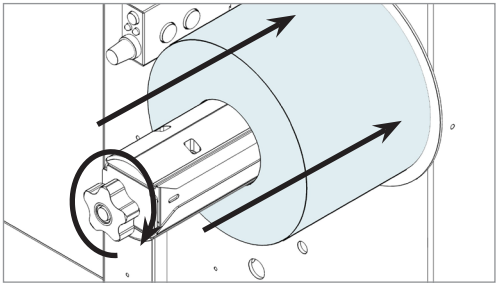
A) Display
B) **ON/OFF** : activate/deactivate the tension control
+ : increase the media tension
- : decrease the media tension
C) Ultrasonic sensor

Display conditions:
- flashing O - F - F = the controller is deactivated
- flashing number = the controller is active and it shows the tension level set

Keeping “run” pressed; the core will spin

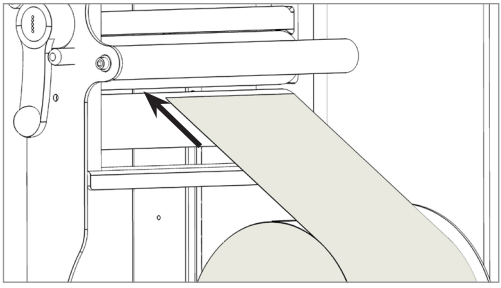


Load the printed roll against the disk. Tighten the core holder.

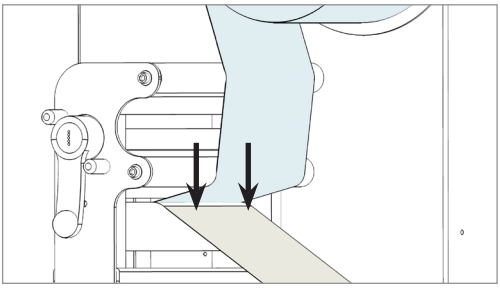


Load the lamination roll, move it along the supply shaft and make it match with the web, tighten the core holder.

IMPORTANT: the lamination roll always needs to be narrower than the web width.

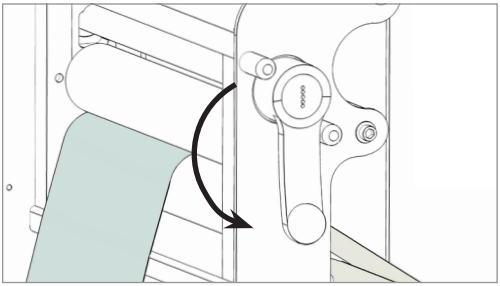


Load the media into the nip roller.

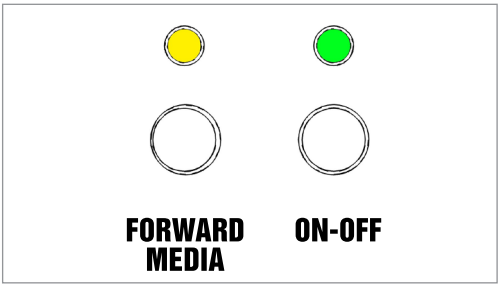


Hold the laminating film with both hands, pull it underneath the guide roller, center it and adhere the laminating film to the web.

For any doubt, please refer to the lamination and media path drawing.



Close the nip roller once the media has been loaded.



When both LEDs are off, the manual media feeding is active. It operates keeping pushed "***Forward Media***" button.

Push "***On-Off***" button to active the automatic media feeding mood. The green led will be on.

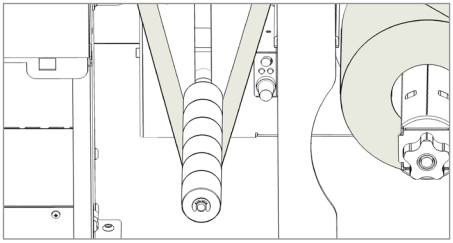
When both yellow and green leds are flashing it means the system is in error status. The error occurs when the media roll, lamination roll or both are not loaded, broken or simply they are run out.

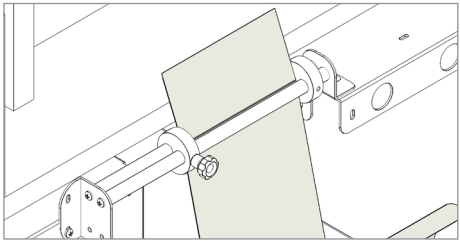
To clear the error it is just necessary to restart the module pushing "***On-Off***" Button.

WHEN TO ADJUST THE CLUTCH

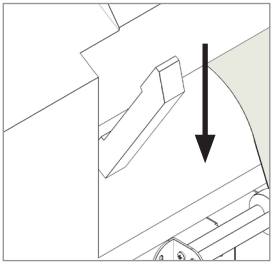
It is important to keep the media and laminating film under tension using the clutch adjustments. If the tension is too tight, the roller system may be damaged; if the tension is too loose, the media will not be laminated properly.

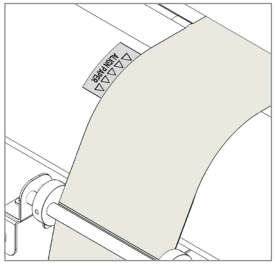
HOW TO LOAD THE LAMINATED MEDIA INTO THE PLOTTER

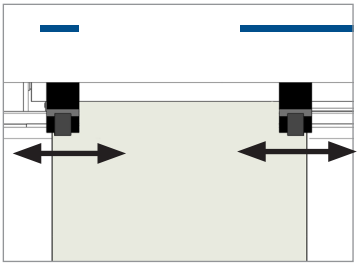




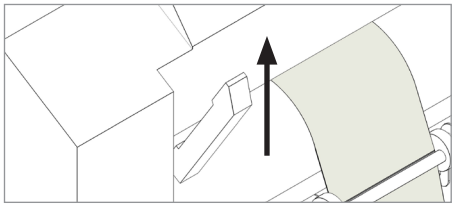
Pull the laminated media under the tension arm, then pass it between the aluminium rollers. The guide can be adjusted to prevent the media from shifting.

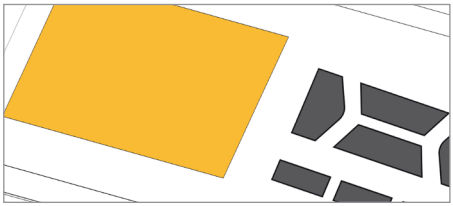






Put the lever, located in the rear of the plotter, in the down position.
Pull the media through the plotter, keeping the media edge in contact with the alignment points.
Set both pinch rollers at the media edge.



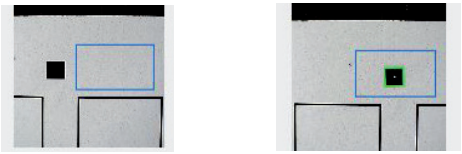


While holding the media in the aligned position with one hand, lift the handle on the rear of the plotter with the other to secure the media.

Press “ROLL-2” as requested on plotter’s display.

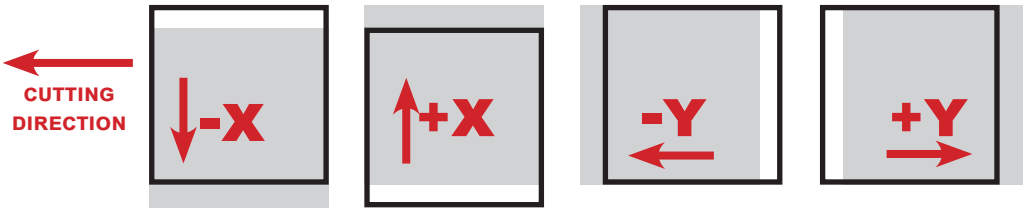
>> *How to run the black-mark mode*

1. Open Afinia Cutting Manager.
2. Press “OPEN PDF” or “OPEN LAST JOB” to load the Cut File.
3. Look at the camera preview, hold down “BACKWARD MEDIA” or “FORWARD MEDIA” arrows to move the web until the black-mark goes in the center position of the blue rectangle area.



NO YES

4. Measure the distance in (MM) between the top of one black-mark to top of the next black-mark, key in this value in the “DISTANCE BETWEEN BLACKMARKS” box section.
5. Make sure the “Enable” in the blank mode is unflagged
6. Press “CUT TEST” to check for cut depth. If the liner has been cut, decrease the cutter pressure value in the cut force box. If label doesn’t detach, increase the cutter pressure value in the cut force box.
7. Make sure label is aligned with the cut. **Through X and Y values in the software, adjust offsets if cut doesn’t match label.**



MOVE DOWN THE CUTTING FILE | MOVE UP THE CUTTING FILE | MOVE TO THE LEFT THE CUTTING FILE | MOVE TO THE RIGHT THE CUTTING FILE

8. Once the cut settings are properly set, select “COPY MODE” ON if you desire a preset quantity of copies or OFF if to cut until the media roll is empty.
9. Set the black-mark size” in “BLACK-MARK MODE” area.
10. Press “START”.

IMPORTANT:
Whenever you lower and rise the lever while you are in black-mark mode, hold down the forward media arrow button to move again the plotter’s head down

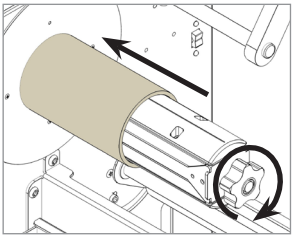
>> ***How to run the blank mode***

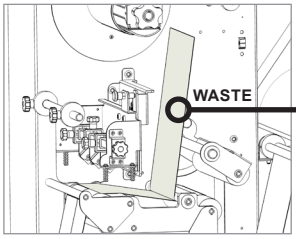
1. Press “OPEN PDF” or “OPEN LAST JOB” to load the cut file.
2. Set the copy mode **ON**, and set 2 as number of copies.
3. Click “START”.
4. Check the horizontal position and the gap between the cuts.
5. If necessary, adjust the offset X and the distance between each cut in the “STEP” box.
6. Once the cut is set properly, select copy mode: ON if you desire a preset quantity of copies, or OFF to cut until the media roll is empty.
7. Click “START”.

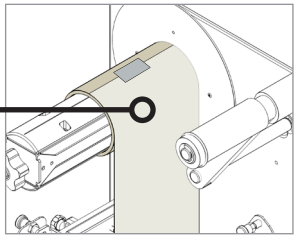
HOW TO LOAD THE MATRIX REMOVER CORE HOLDER

WARNING: Before starting a job, always remove the waste media from the matrix remover core.
Tape the matrix securely onto the cardboard core.

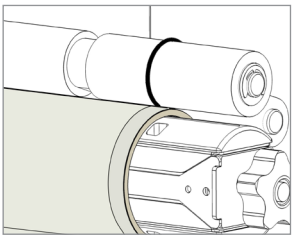
System operating issues may occur if the above suggestions are not followed.

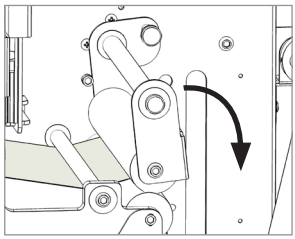






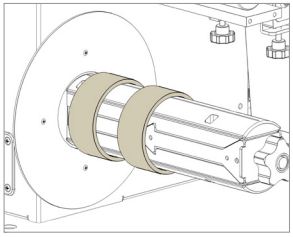
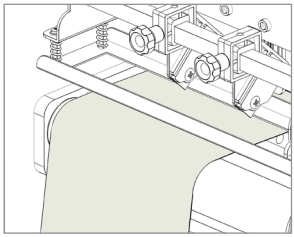
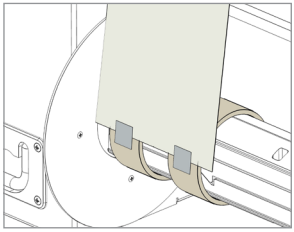
1. Load empty cardboard core(s) and tighten the core holder, then place the motorized core holder in position.
2. Peel back the matrix.
3. Pull the matrix and attach it to the matrix remover core holder.



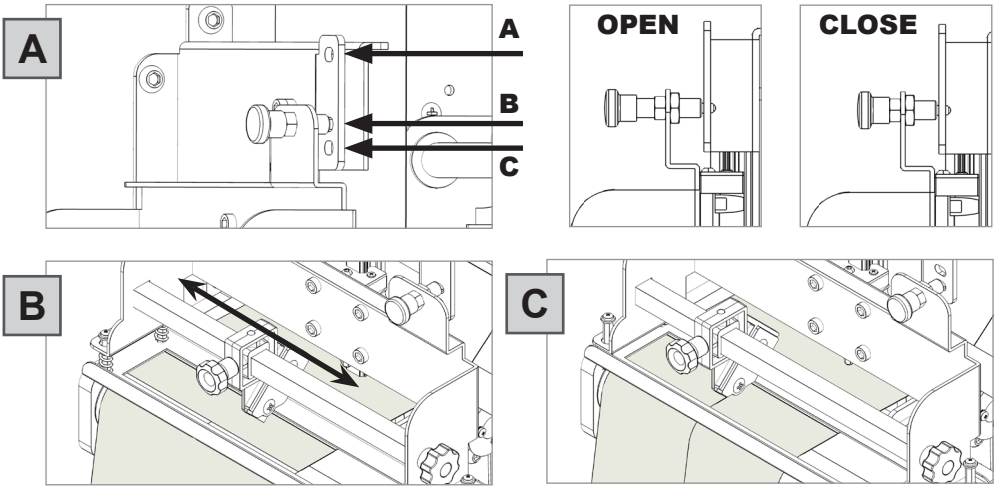


4. Pull down the waste press and relocate the o-rings to be over the waste matrix.
5. Close the sponge roller (not strong).

HOW TO LOAD THE REWINDER CORE HOLDER AND SET THE SLITTER MODULE

1. Load empty cardboard core(s) and tighten the core holder, then place the motorized core holder in position. Tighten the core holder.
Cardboard core(s) should not be wider than the width of the finished roll.
2. Pull the media through the aluminium rollers and attach the labels to the core using a waste label.



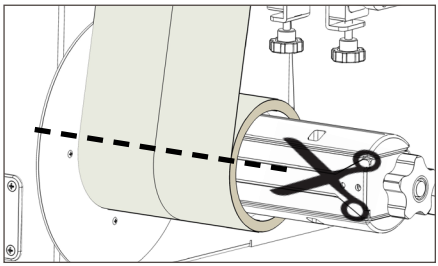
Slitter module has 3 positions:

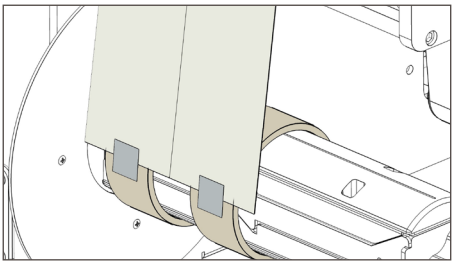
- Upper position (A), the blades are lifted to allow the media loading;

- Middle position (B), align the blades with the edges and the center of the labels, tighten the thumb screw once the blade is in position;

- Lower position (C), the blade cut the media.

3. Turn ON the Matrix Remover module to rewind and start to slit the media, then turn OFF

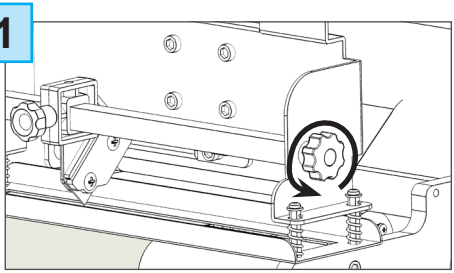




4. Cut the labels when the first “good” labels are visible.
5. Make sure the tension on all rolls is even, and attach each label to the core using a waste label or tape.
6. Turn the Matrix Remover module ON. **Press Resume to continue.**

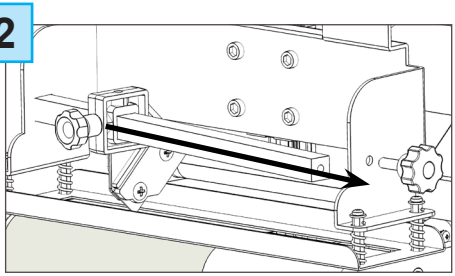
HOW TO ADD OR REMOVE A BLADE HOLDER

1



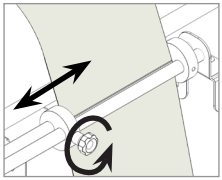
Remove the iron bar by unscrewing the black thumb screw.

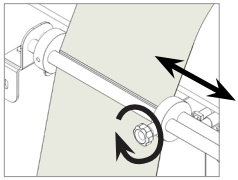
2



Slide the blade holder on or off. Replace the slide iron bar and rescrew the thumb screw.

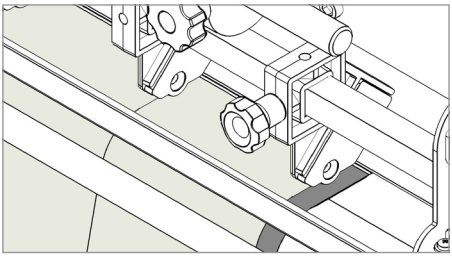
METAL GUIDES ALIGNMENT





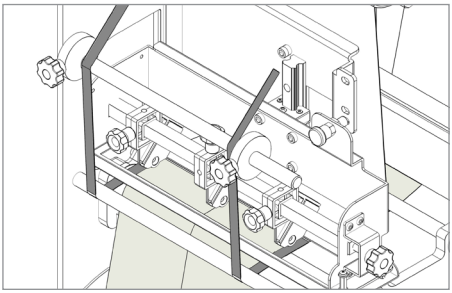
Media guides should be adjusted in order to prevent the web from shifting position.

HOW TO CUT OUT THE EXTERNAL TRIMS

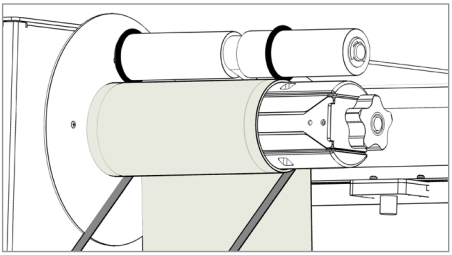


Position the blade holders according the job requirements.

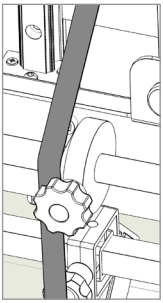
IMPORTANT: the external trims too thin may break, we recommend at least 4mm wide.

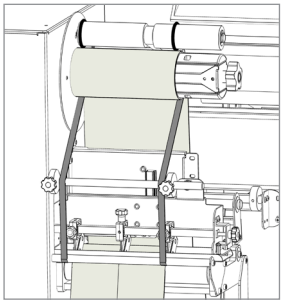


Pull up the trims keeping them behind the roller with guides.



Attach the trims onto the waste removal core.



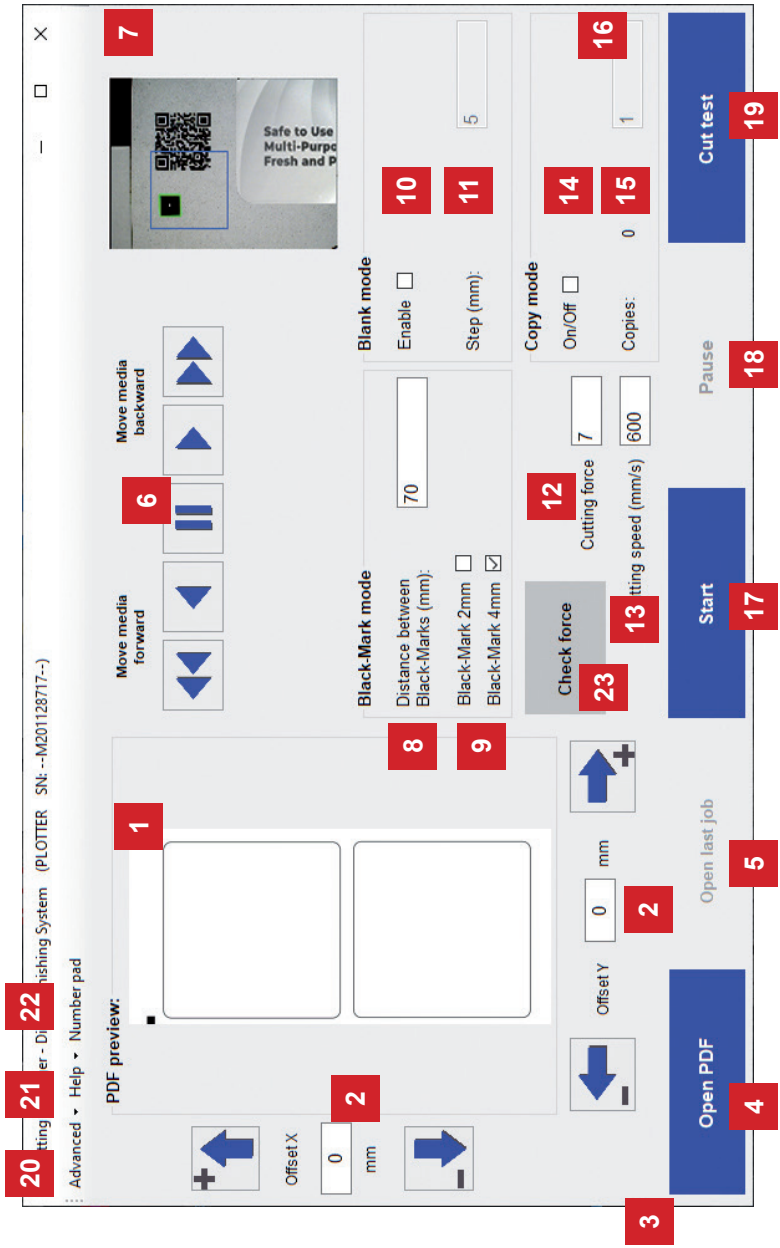


Move the guides to drive the rewinding trims on the desired position.

It is recommend to keep them inside the removed label area.

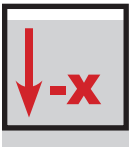
Afinia cutting manager (Afinia CM)

USER INTERFACE



1. Cutting file preview.

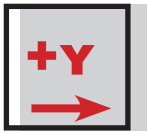
2. Alignment adjustement controls.



MOVE DOWN
THE CUTTING FILE

MOVE UP
THE CUTTING FILE

MOVE TO THE LEFT
THE CUTTING FILE



MOVE TO THE RIGHT
THE CUTTING FILE

3. Status bar.

4. Selects the cutting file.

5. Open the last cutting file.

6. Controls to move the media forward or backward.

7. Camera preview.

8. To set the distance between the base of each black-mark.

9. To set the size of the black-marks.

10. Enable or disable blank mode.

11. To set the distance between each label.

Any extra border on the bottom of your cutting file is added to the step.

12. To set the Graphtec's blade strength and increase the cutting depth. Its value can be from 1 to 31. The most common values in label cutting are from 7 to 9.

13. To set the cutting speed. Its value can be from 50 to 600. The most common value in label cutting is 600. If you have a cutting force major than 9, you may need to decrease the cutting speed to have a proper precision.

14. Flag to determined number of copies to cut during a cutting job launched with the "Start" button, otherwise the plotter will continue and stop at the end of the media.

15. Counts the number of copies cut since pressing the "Start" button.

16. Section where to put the number of copies needed to be cut.

17. Start/Cancel button. Used to launch or stop a cutting job.

18. Pause/Resume button. Used to pause or resume the cutting job.

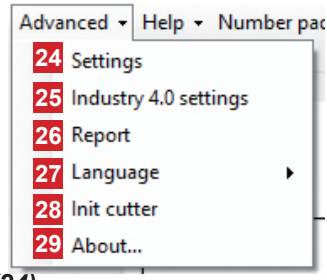
19. Used to launch a single cut to let the user check the cutting parameters.

20. **Advanced controls.**

21. Help: here you can find a path to open the user manual, and useful video guides.

22. Pad number: screen pad number useful for touch screen.

23. Check force: If you click this button the plotter will make 5 squares each one with a different cut force. A number inside the square will show how much the force is increased or decreased. This is useful to find quickly the most proper force value for your material. however we suggest to start with little values, in order to don't damage accidentally the cutting mat with the high force squares.



24. Settings

25. Settings for the industry 4.0

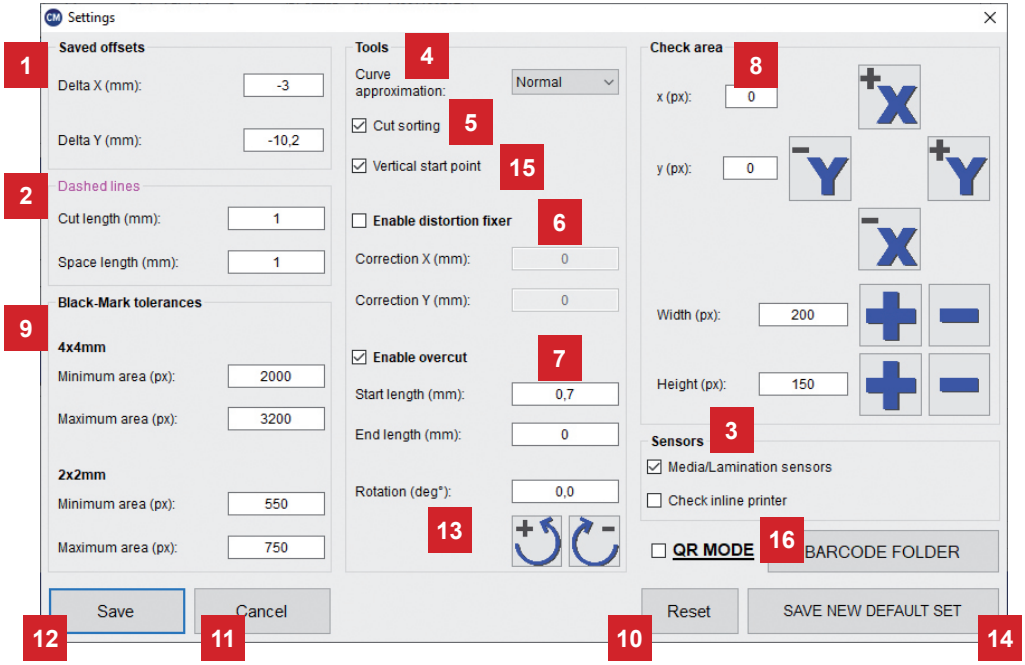
26. List of cut logs

27. Set interface's language

28. Restore of the plotter's settings

29. Additional information

Settings (24)



1. When you launch a cut with new offsets, they will be added to the deltas. The deltas store the saved offsets.

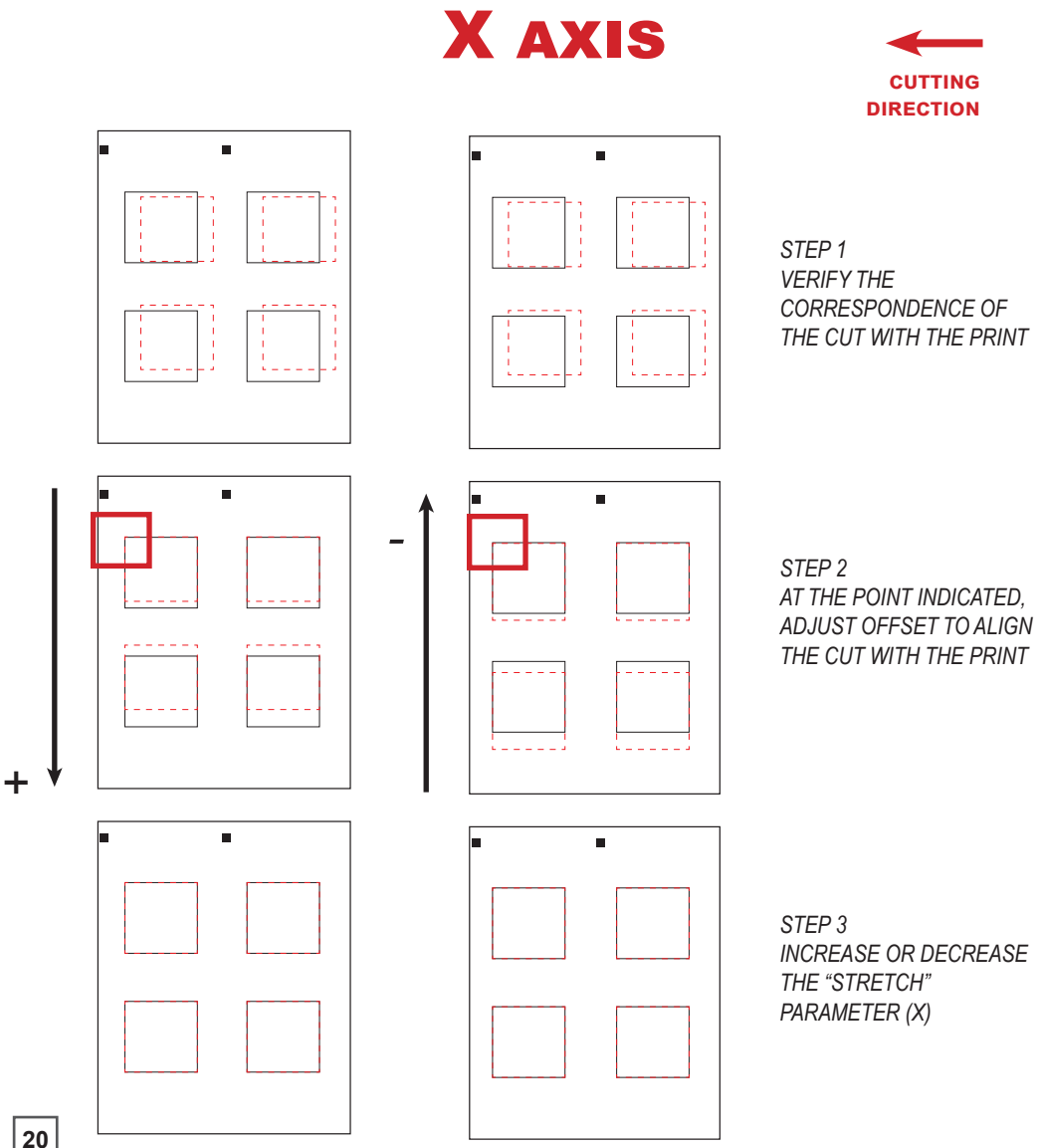
2. All the 100% magenta lines in your cutting file will be recognized as dashed. Here you can set the cut length and the spacing between each on of them. They must be at least 0.1mm, and not more than 819mm.

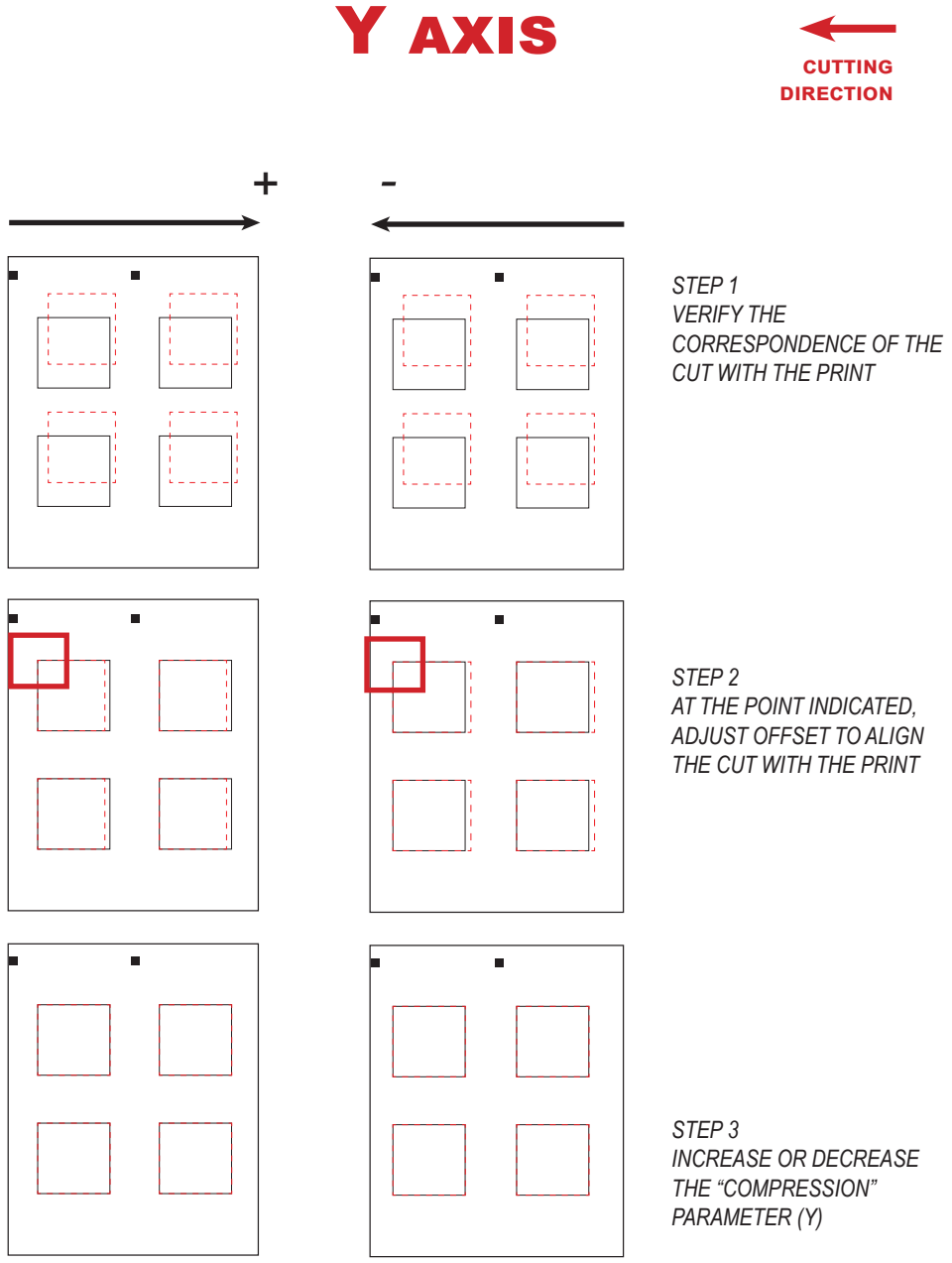
3. Here you can choose to enable or disable the media or lamination sensors. If "Media/ Lamination sensors" is checked, when the material ends, the software stops the cut and will give you an alert.

4. Approximation of the cut curves.

5. If cut sorting is enabled, the software will automatically select the order of the cut of all the shapes on the file. Otherwise, the cut will follow the .pdf layers order.

6. When you print your rolls, sometimes you may have distortion on your output. In that case, even with a correct set of the offsets, the cut may not match your print. You will have to enable the distortion fixer, and set the corrections. A positive value will stretch the cut on that axis, otherwise with a negative one, the cut will be more compressed.





7. With thin materials the cut may not be closed. To fix this, enable the overcut, and set how much you want the blade to start early, or end later. You can anticipate or delay the end of the cut up to 0.9mm for each one.

8. Check area parameters lets you change the position of the Black-Mark's checking area, which is the blue square shown in the camera preview while the blank mode is disabled.

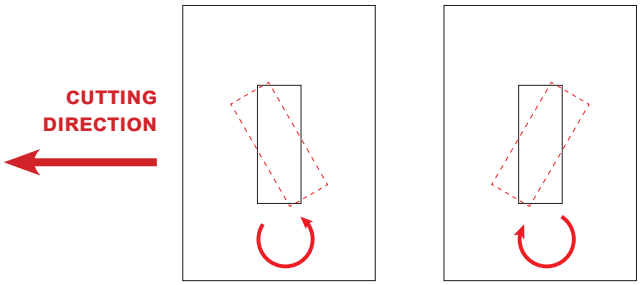
9. In case your print has distorted the output of your blackmark, you can change the tolerances to let the cam recognize it. The tolerances must be positive values.
If your blackmark side is smaller than 4mm (for 4x4mm) or 2mm (for 2x2mm), you will have to reduce the minimum area by 100, until the blackmark is recognized. If your blackmark side is higher than 4mm (for 4x4mm) or 2mm (for 2x2mm), you will have to increase the maximum area by 100, until the blackmark is recognized.

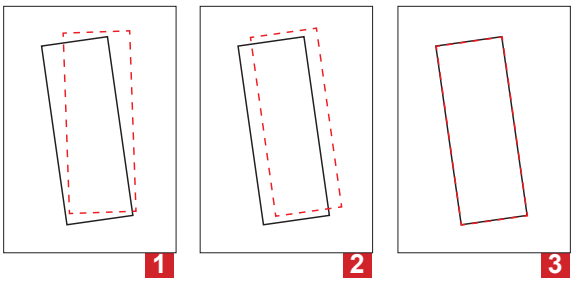
10. Click to restore the default settings.

11. Discard the changes and closes the window.

12. Save the changes and closes the window.

13. <u>Your artwork may be not printed straight</u>.
When this happens, the cutting lines will have a different grade from your artwork. To fix this you can rotate your cut.
The arrow near the textbox shows you towards which direction will be rotated your cut. *<u>Usually the artwork should not be too much rotated</u>*. When you check the cutting rotation we suggest you to change by 0.1 degrees with the arrows your value, and then proceed with a cut test.





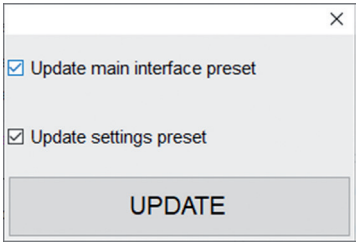
STEP
1. Check the match between the cut with the print.

2. Rotate the die-cut to find the correct inclination (until the cut lines and the printed lines are parallel).

3. Adjust the offsets to match the cut lines to the printed lines

14. This button allows you to set the current values in your interface as the new preset for any time you will load a new file.

When you click it one window will appear. Through it you can choose to update the main interface preset, the settings preset or both of them



15. This button determines wheter the cut starts in the middle of a vertical side, or not.

QR mode (16)

With qr code enabled, the camera will scan the barcode and load automatically the cut file and marks distance.

The files to be picked by the software must be contained inside the barcode folder (default location *C:\Cutting Manager\Barcode files folder*).

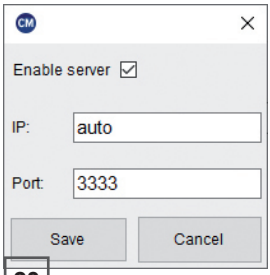
Once it has been done, the user to cut has just the press start or cut test.

> ***Barcode folder***
> Opens the barcode folder to place inside the cut files while working with qr mode

Buttons 1 and 2 (17)

Select which plotter to use and adjust its parameters

Industry 4.0 settings (25)

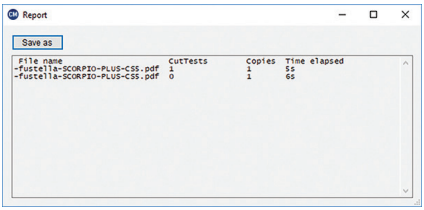


Here are all the settings necessary for the industry 4.0 communication (TCP/IP).

Once you enable the server, the machine will start to be available on the network.

After that you can set the IP (if set to “auto” it will automatically be the same of the last network ethernet adapter) and the port.

Report (26)



Report will display the cuts run by the Cutting Manager system.

Each session report is automatically added and saved into the history report when cutting manager is closed.

You can find the complete report history file of all the jobs run since cutting manger has been installed to this path "*C:/Unit Cutting manager/Report/CutHistory.txt"*

Clicking on "*SAVE AS*" will save which ever work session report you choose to save

Cutting parameters are saved after every completed job.
So the next time you will re-open the software, you will have automatically added to the interface the settings you have used with the file selected (force, speed, cutting mode,...)

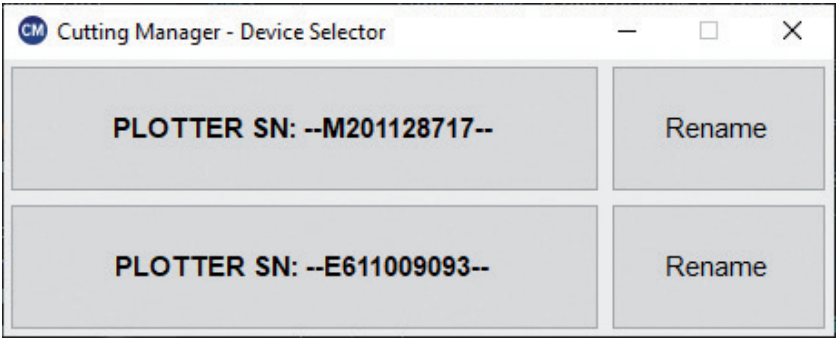
HOW TO UPDATE SOFTWARE

1. Go to Panel control.
2. Unistall Unit Cutting Manager.
3. Download from the website the new Cutting Manager release and run the installation.

DEVICE SELECTOR

Whenever you plug two units (YOU CANNOT USE MORE AT THE SAME TIME) to the pc, the device selector window will show up, and it will allow you to select which machine run.

WHILE WORKING WITH TWO UNITS AT THE SAME TIME, PLEASE USE A USB 3.0 HUB (ALSO PLUGGED TO A USB 3.0 PORT)



COMMUNICATION SPECIFICATIONS

The user application must communicate with the Unit server by using tcp/ip.
By default the server ip is the same of the network plugged to the ethernet port, and the server port is the 3333.

You can't send to the server more than 65MB of data.

The (), +, "", and ... characters in this documentation are used just to simplify the understanding, and they are not part of the commands.

Each command sent or received ends with "!", used as terminator. If you send unrecognized command, the server will return "Unknown command sent!"

OBTAIN UNIT STATUS

Command: GET_STATUS!

Description: With this command you get the status of the Unit and its jobs. Each block of data containing Unit status or job data, ends with a 0x17 hexadecimal character.

Return data:
(Unit STATUS)
Unit STATUS: not cutting/cutting/paused + 0x17 (end of Unit status data) +

(JOB1)
N:(job code),STJ:(job status),FD:(number of files completed),FTD:(number of files to do),C:(customer),TS:(job start time) +
; (end of JOB1 data) +

(FILE_A OF JOB1)
F:(file name),ST:(file status "not cutting/cutting/paused/suspended/completed"),M:(material),CT:(cut tests done),LD:(layouts done),LTD:(layouts to do),TL:(total of labels done),TE:(time elapsed in seconds),MS:(material speed "x m/min/start and stop/sheets"),FS:(file start at) + ; (end of FILE_A data) +

(FILE_B OF JOB1)
F:(file name),... + ; (end of FILE_B data) + 0x17 (end of JOB1 block of data) +

(JOB2)
N:(job code),... + ; (end of JOB2 data) +

(FILE_C OF JOB2)
F:(file name),... + ; (end of FILE_C data) + 0x17 (end of JOB2 block of data) + ! (terminator)

Example of returned data (line feed and carriage return are shown here, and they are not actually returned):

(if after the commands code there isn't any data, it means that this value is not set yet. For example if after TS: there isn't anything, it means that the job is not started yet)

Unit STATUS:cutting(0x17)
N:001,STJ:cutting,FD:0,FTD:2,C:Customer 1,TS:dd-mm-aaaa H:mm;
F:file1,ST:cutting,M:paper label,CT:3,LD:100,LTD:2000,TL:300,TE:3500,MS:16 m/min,FS:dd-mm-aaaa H:mm;
F:file2,ST:not cutting,M:paper label,CT:0,LD:0,LTD:3000,TL:0,TE:,MS:,FS:;(0x17)
N:002,STJ:not cutting,FD:0,FTD:1,C:Customer 2,TS:;
F:file3,ST:not cutting,M:plastic label,CT:0,LD:0,LTD:2000,TL:0,TE:,MS:,FS:;(0x17)!

JOB ENDED NOTIFICATION

Description:
Every time a job ends (so whenever the layouts to do for each file are completed) the server will remove it from the queue, and provide to each connected user a report.
The Unit software also stores a report of any completed job in C:Unit Cutting Manager\Report\Queue jobs completed report.txt

Return data:
(JOB1)
N:(job code),STJ:(job status),FD:(number of files completed),FTD:(number of files to do),C:(customer),TS:(job start time) + ,TF:(job end time) + ; (end of JOB1 data) +

(FILE_A OF JOB1)
F:(file name),ST:(file status "not cutting/cutting/paused/suspended"),M:(material),CT:(cut tests done),LD:(layouts done),LTD:(layouts to do),TL:(total of labels done),TE:(time elapsed in seconds),MS:(material speed "x m/min/start and stop/sheets"),FS:(file start at) + ; (end of FILE_A data) +

(FILE_B OF JOB1)
F:(file name),... + ; (end of FILE_B data) + ! (terminator)

Example of returned data (line feed and carriage return are shown here, and they are not actually returned):

N:001,STJ:completed,FD:2,FTD:2,C:Customer 1,TS:dd-mm-aaaa H:mm,TF:dd-mm-aaaa H:mm;
F:file1,ST:completed,M:paper label,CT:2,LD:1000,LTD:1000,TL:3000,TE:2000,MS:16 m/min,FS:dd-mm-aaaa H:mm;
F:file2,ST:completed,M:paper label,CT:2,LD:2000,LTD:2000,TL:8000,TE:3000,MS:start and stop,FS:dd-mm-aaaa H:mm;

APPEND JOB TO QUEUE:

Command:

APPEND:N:(job code),C:(customer);(FILE_A->)F:(file name),M:(material),LTD:(layouts to do (number or “u” for unlimited));(FILE_B->)F:(file name),...;!.

Description:

This command allows you to append a new job to the queue.
YOU MUSTN’T USE FILES WITH THE SAME NAME AMONG THE JOBS. FOR EXAMPLE YOU CAN’T ADD FILE_A TO BOTH JOBS N:001 AND N:002, OR ADD IT TWO TIMES TO THE SAME JOB.

Example of sent data:

APPEND:N:001,C:Customer 1;F:FILE_A,M:paper label,LTD:300;F:FILE_B,M:plastic label,LTD:200;!

Return data:

If the command syntax is correct it returns “Job appended to queue with success!”.
Otherwise it returns “The APPEND request syntax is not correct, it should be ”APPEND:N:job_code,C:customer;F:file_1,M:material,LTD:layouts_to_do;F:file_2,M:material,LTD:layouts_to_do;...(terminator)!”

REMOVE JOB FROM QUEUE:

Command:

REMOVE:N:(job code/all);F:(file name 1,file name 2/all)!

Description:

This commands allows you to remove jobs or files from the queue.

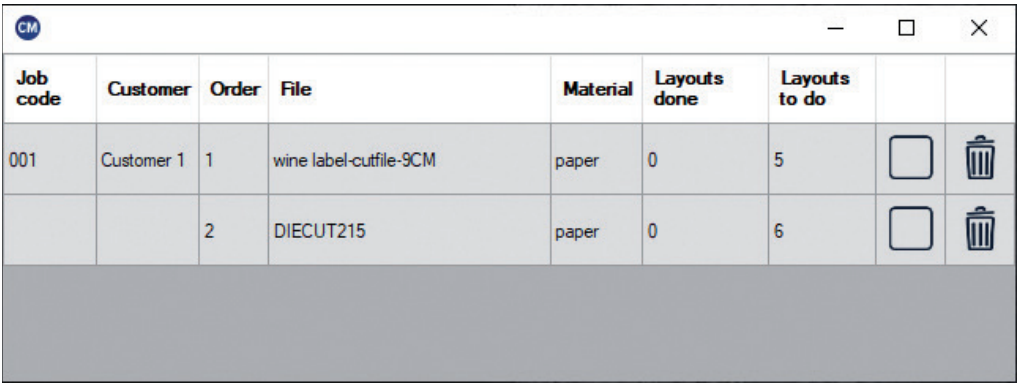
Example of sent data:

(REMOVE ALL JOBS)	REMOVE:N:all!
(REMOVE ALL FILES OF A JOB)	REMOVE:N:001;F:all!
(REMOVE SPECIFIED FILES)	REMOVE:N:001;F:FILE_A,FILE_B!

Return data:

If the command syntax is correct it returns “Files removed with success!”.
Otherwise it returns “Remove didn’t go properly:(list of errors)!”.

JOBS QUEUE WINDOW



Description:
Each time a job is appended to the queue, it gets shown in this window.

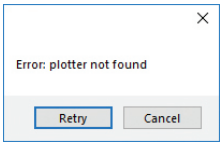
The user can see for each job which files needs to open, their order, the type of material, the layouts to do.

The user can even choose to delete the files from queue, by clicking on the trash can icon on the right.

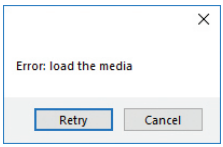
Whenever a job gets completed the layouts to do for each file, the job will be considered ended and removed from the window.

ERROR MESSAGGES

If the plotter is not correctly connected to the computer, the following errors will be displayed at application launch:



Make sure the plotter is switched on and properly connected. In case it is turned off, turn the plotter on and then press the button 2 on the control panel. Wait until the display shows “READY” as its status. Then, press retry on the popup window

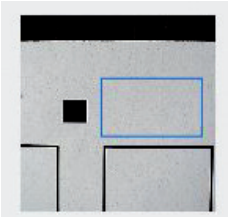


Ensure the media is loaded properly. Raise the lever on the plotter, then press the number 2 on control panel. Wait until the display shows “READY” as its status. Then, press retry on the popup window.

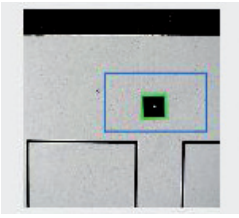
BLACK-MARK DETECTION

It is important that the camera is reading the black mark properly.

Look at the camera preview, hold down “BACKWARD MEDIA” or “FORWARD MEDIA” arrows to move the web until the black-mark goes in the center position of the blue rectangle area.



WRONG POSITION



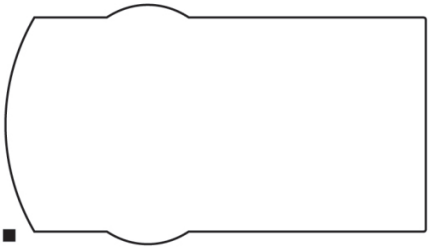
CORRECT POSITION

CUTTING FILE SPECIFICATIONS

Cut Files: Adobe Illustrator and/or Corel Draw (save as PDF file).
The artwork file within the cutting shape must include a registration square black mark having a size of 4x4mm or 2x2mm.

Only the cut contour lines (which must be completely vectorial and don’t contain any filling) and black mark (not needed for the blank labels) can be in the saved cut file.

Graphics layers must be deleted or the cut line shapes must be copied in a new file and saved instead of hiding or disabling any extra content.



The cutting shape must be 100% black (otherwise in case of dashed lines, it must be a 100% magenta normal line) and have a thickness of 1 pt.

The black-mark MUST ALWAYS be the object placed in the lower left corner of any layout file.

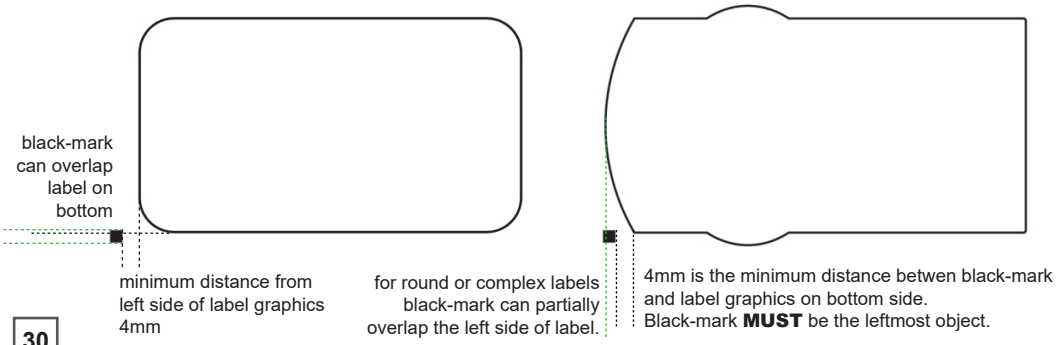
The Afinia Cutting Manager (Afinia CM) work with the VECTOR PDF FILE. You can create this file with Adobe Illustrator or Corel Draw.

IMPORTANT:
The Afinia Cutting Manager (Afinia CM) works with VECTOR PDF FILE. You can create this File type with Adobe Illustrator or Corel Draw.

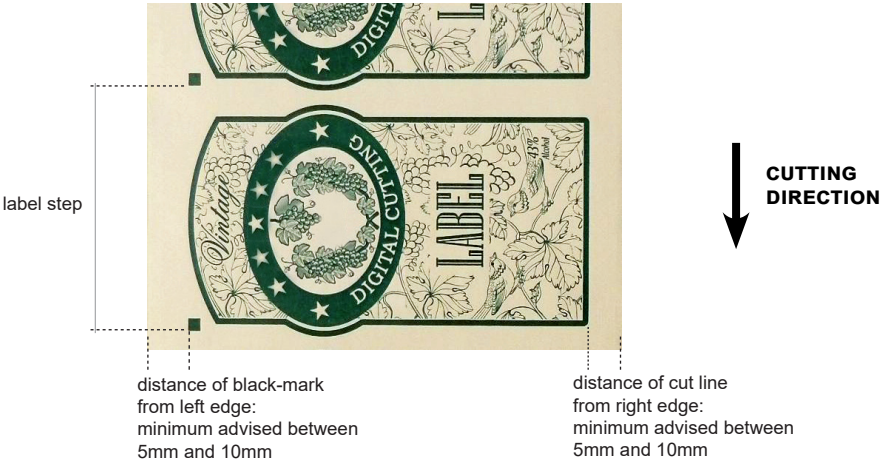
IMPORTANT:
To guarantee the black marks size and its position printed correctly on the media, the artwork must be printed with the actual size, make sure to avoid any fit or scale.

BLACK-MARK POSITION INTO THE CUTTING FILE AND PRINTED ARTWORK

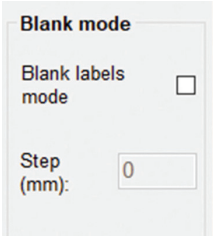
Black-mark size: 4x4mm or 2x2mm



BLACK-MARK POSITION IN THE MEDIA



HOW TO CUT BLANK LABELS

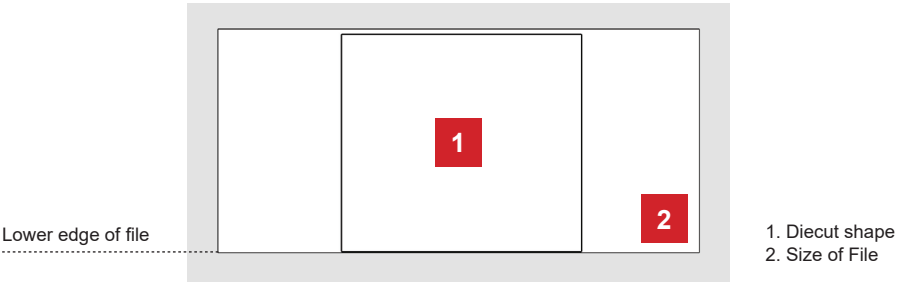


To use the “Blank Label Mode” feature to cut blank labels (without a registration mark), follow these steps:

1. Import the cut file (without a registration mark) into the software.

2. Select the “blank label” feature from the software and enter the number of copies that you wish to cut.

3. Click “Start”.



The diecut shape must be attached to the bottom edge of the fi le. The distance you leave will automatically be added to the gap that you will enter in the “STEP” box.

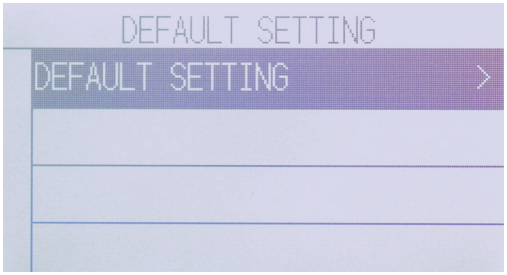
WARNING: Please note that enabling the blank label feature will disable both the cut test and Y offset adjustment.

HOW TO UPDATE SOFTWARE

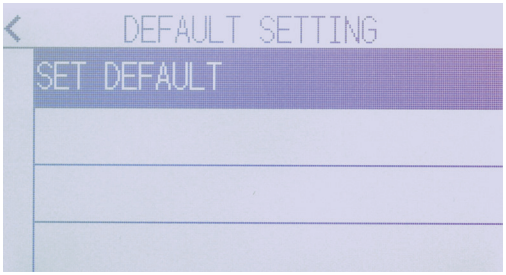
1. Go to Panel control.
2. Unistall Afinia Cutting Manager.
3. Download from the website the new Cutting Manager release and run the installation.

HOW TO RESTORE PLOTTER SETTINGS

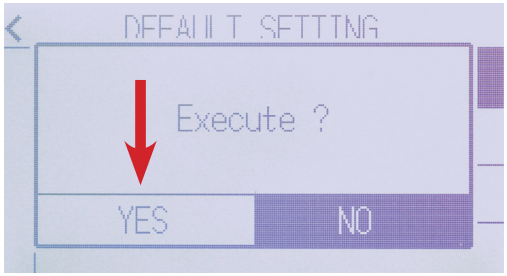
1. Turn off the plotter.
2. Turn on the plotter while keeping pushed the UP arrow on the panel.



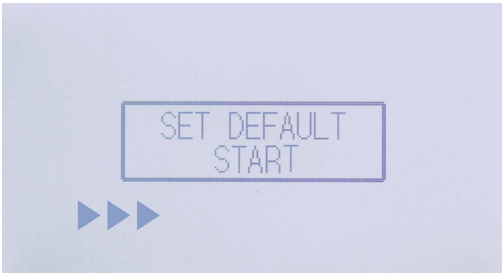
3. When the display shows “DEFAULT SETTING” press ENTER.



4. Press “SET SETTING”

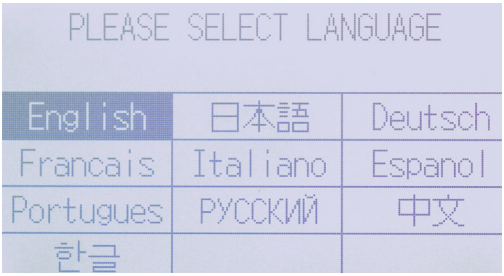


5. Press “YES”.

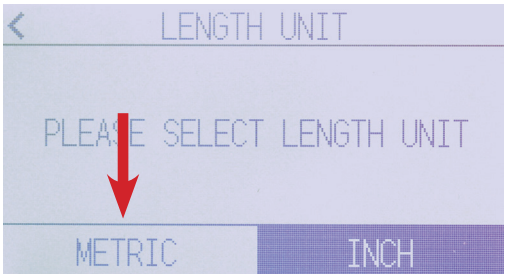


6. In process.

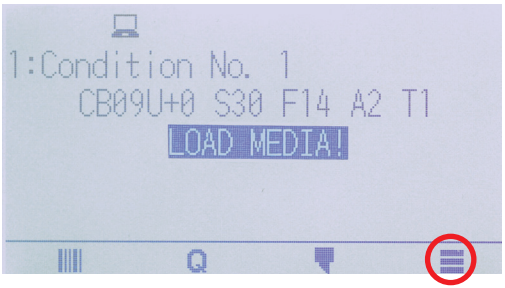
7. When the display shows “SET DEFAULT COMPLETE” switch off the plotter



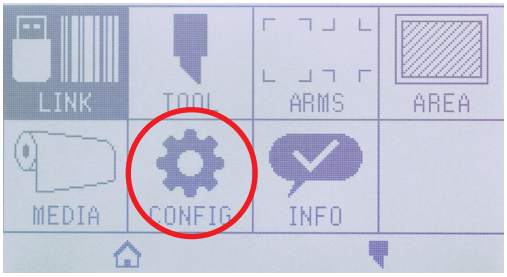
8. Turn on the plotter, choose “English” and press enter.



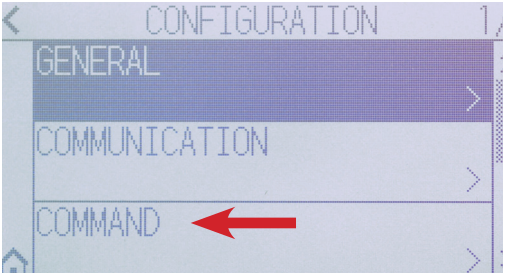
9. Press ***metric.*** <u>If request, do not set up the wireless lan</u>



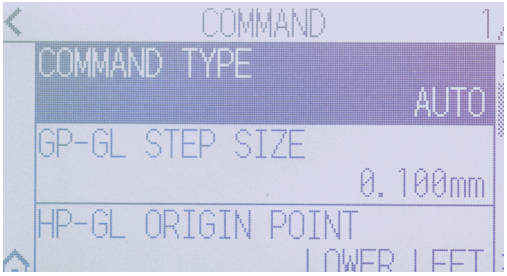
10. Lower the lever on the back and press on the three lines at the bottom right



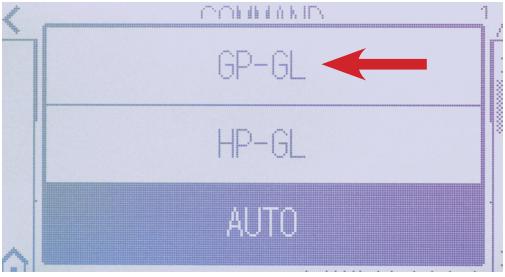
11. Press “CONFIG”



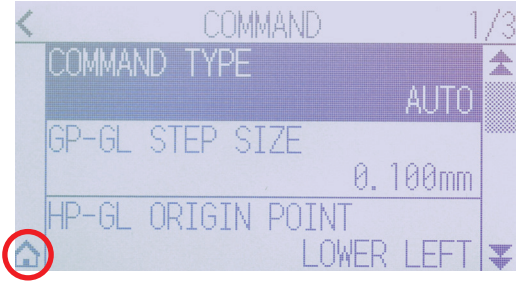
12. Select “COMMAND”



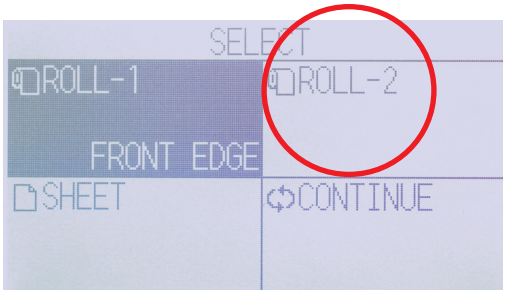
13. Select “COMMAND TYPE”



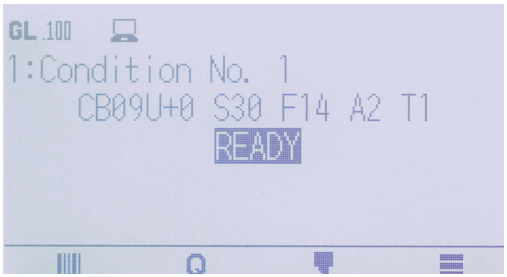
14. Select GPGL.



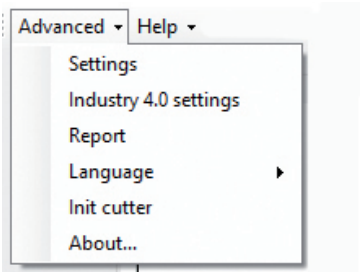
15. Press “HOME” at the bottom left.



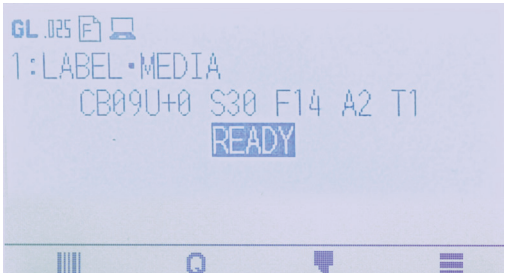
16. Restart the plotter, load any material, raise the lever on the back and press ROLL-2.



17. Wait until on the display appears "READY".



18. Open the Cutting manager, click on "Advanced" and then select "Init cutter". Click "YES" to confirm



19. Wait until "Init cutter completed" will be shown in the status bar.
Plotter display will show "LABEL MEDIA" as status.

WHEN AND HOW TO REDUCE THE PLOTTER CUTTING SPEED

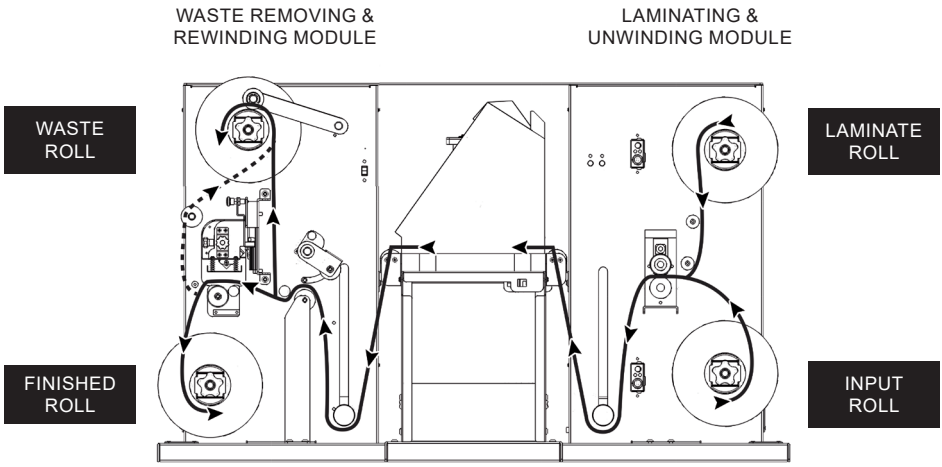
To guarantee smooth and controlled working operations it is required to reduce plotter cutting speed when the job is characterized by the below conditions:

- single label is longer than 250mm;
- multiple across labels are longer than 200mm;
- tension arm works close to the higher end run (when it should operate by the middle/lower end run)

You can reduce the speed from the CM software to allow the unit to work much better.

The plotter cutting speed can be adjusted between 50 and 600 through the Cutting Manager Software.

MEDIA PATH



TENSION ARM CALIBRATION (*WASTE REMOVING & REWINDING MODULE*)

Perform this procedure to set the unit to run properly with different labels length.

1. Turn OFF the module.

2. Using a paper clip, keep pushed the button into the small hole (above the Yellow Led) while switch ON the module. It beeps and the led turns on. Release the button.

3. Push again the button (the leds light up individually) until the desired option is selected:
   - Light up the Green Led to allow labels up to 250mm (9.84”) length *
   - Light up the Yellow Led to allow labels over 250mm (9.84”) length *

4. Turn off the unit to save the setting.

5. The tension arm has been set and ready to operate.

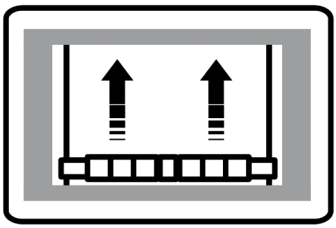
*single label setting

For multiple across labels: if the labels are shorter than 250mm but the tension arm reaches the higher end run, set the rewinding module to allow labels longer than 250mm

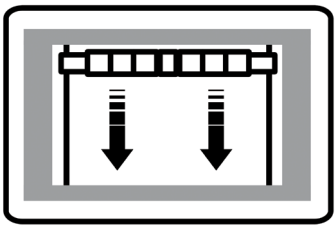
When the tension arm reaches the lowest position, both leds light up while the cores are still rotating.

After five seconds of this condition, both cores stop while the leds are blinking.

LAMINATING & UNWINDING MODULE

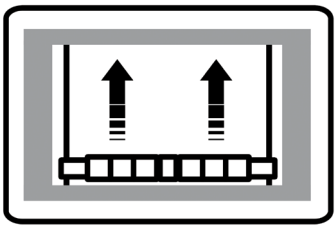


SPEED INCREASE

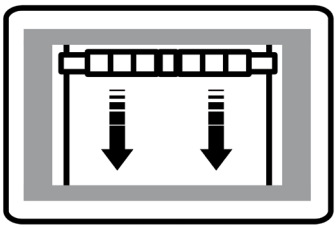


SPEED DECREASE

WASTE REMOVING & REWINDING MODULE



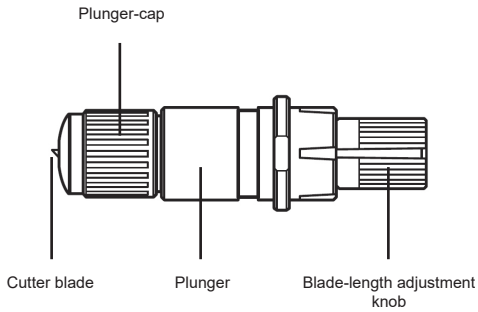
SPEED DECREASE

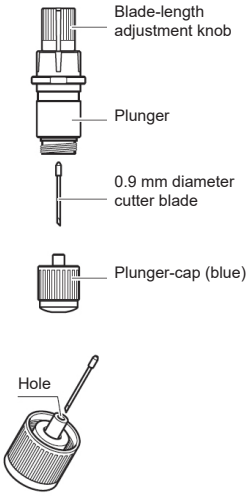


SPEED INCREASE

Cutter Plunger

The plotter cuts using a cutter blade mounted in a plunger. There are two different plungers to suit the diameter of the cutter blade to be mounted (the 0.9 mm cutter plunger is provided as a standard accessory). Be sure to mount the cutter blade in the corresponding cutter plunger.



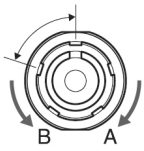


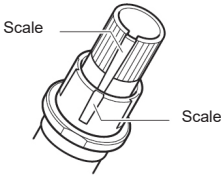
CAUTION:
To avoid bodily injury, handle cutter blades with care.

WARNING: It may result in damaging the cutter blade or the cutting mat if the blade is extended too much. Make sure the blade length is set less than the thickness of the media.

Adjust the blade length by turning the blade-length adjustment knob. Turn the knob in direction “A” to extend the blade, or in direction “B” to retract the blade. When the knob is turned by one scale unit, the blade moves approximately 0.1 mm. One full turn of the knob moves the blade approximately 0.5 mm.

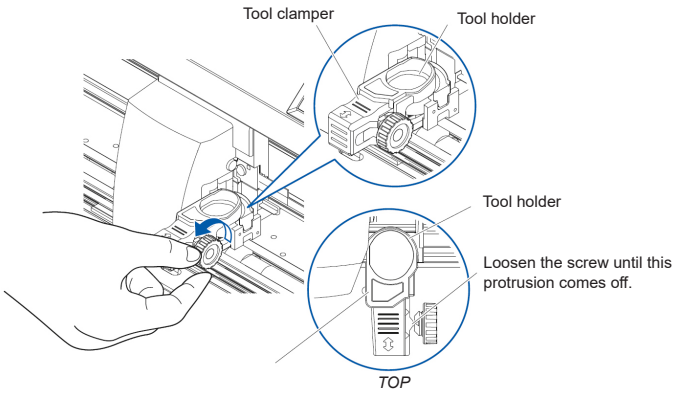
Cutter blade moves approximately 0.1 mm turning one scale unit



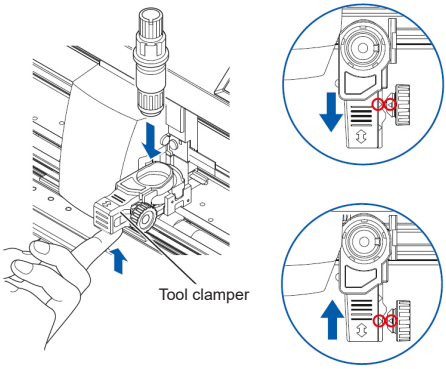


Mounting the tool

1. Loosen the tool holder screw.



2. While pushing up the tool clamper, set the tool in the tool holder.



When using with the cutting out

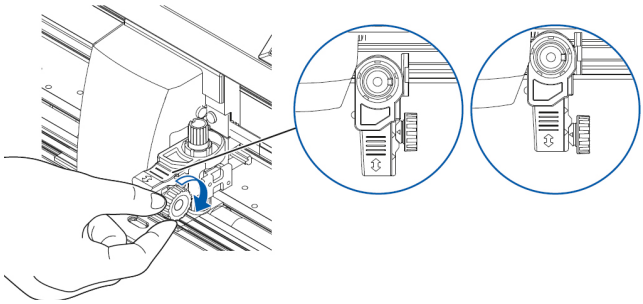
PERFORATION CUT

Move using the triangle mark in the back as a guide.

When using with half cut and pen

Move using the triangle mark in the forward side as a guide.

3. Make sure the tool is set straight into the tool holder, then tighten the tool holder screw.



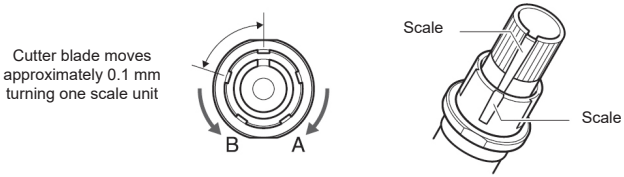
Removing the tool

To remove the tool, loosen the screw until this protrusion mentioned in step 1 of “Attaching a tool” comes off and then remove the tool.

HOW TO REPLACE THE KNIFE

See page 37 for the structure of the cutter plunger.

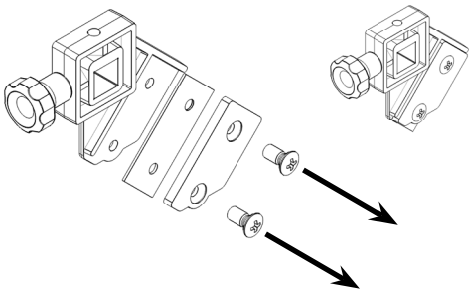
1. Turn the blade-length adjustment knob in the direction of the B arrow and pull the blade into the plunger.



2. Turn the plunger cap in the counter-clockwise direction to remove it from the plunger.
3. Remove the blade from inside the plunger cap.
4. Remove a new blade from its pack. Insert the new blade into the hole provided in the plunger cap.
5. With the blade inserted into the plunger cap, screw on the plunger from above.
6. Fix the plunger cap by turning it clockwise.

ATTENTION: ***In order to preserve the lifespan of the plotter knife and not to wear it out quickly, make sure to properly calibrate the knife exposure and cut force depending on the media thickness.***

HOW TO REPLACE THE SLITTER BLADE



Remove the two screws holding the blade in place.

Replace the blade.

Replace the two screws holding the blade in place

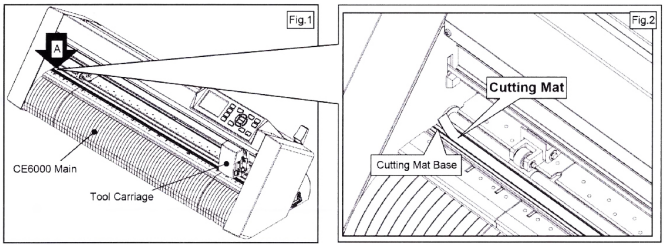
CAUTION:

Please turn off the power when replacing the cutting mat. Please move the tool carriage to "A" position allowing for ease of work.

1. Remove the cutting mat.

-The cutting mat is attached to the cutting base (fig.2)

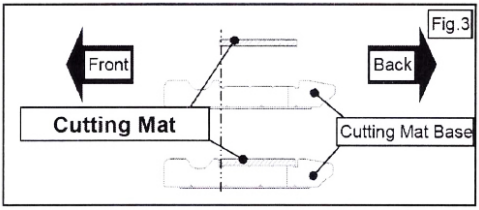
-Please remove only the cutting mat from the cutting mat base from the location shown by the arrow (A) (fig.1)



- After removing the cutting mat, please make sure that there is no adhesive tape or other adhesives left on the cutting base.
- Please clean the cutting mat base before installing the cutting mat.
- Installing the cutting mat with the remaining adhesive may affect cut quality.

2. Installing the cutting mat.

- Fit the cutting mat with the front cutting base grooves (fig.3) and attach it from the location shown by the arrow (A) (fig.1) while peeling off the release paper.



HOW TO CREATE THE QR CODE

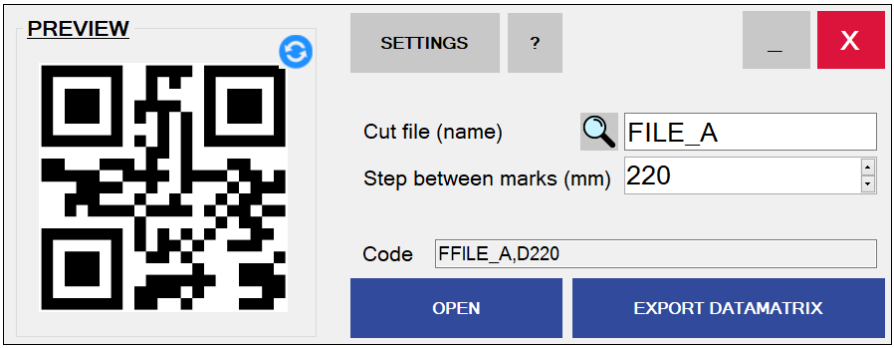
This feature allows system to load automatically the cut file related the job printed onto the media.

Simple steps to set properly the data matrix code.
- use any QR code generator.
- mandatory size is 10x10mm.
- printed once at the beginning of each job.
- positioned at least 5mm from the media edge (same site of black-mark).

QR / DATA MATRIX SPECIFICATION

F(diecut file name),D(distance between marks(mm))

Example:
FFILE_A_A,D220



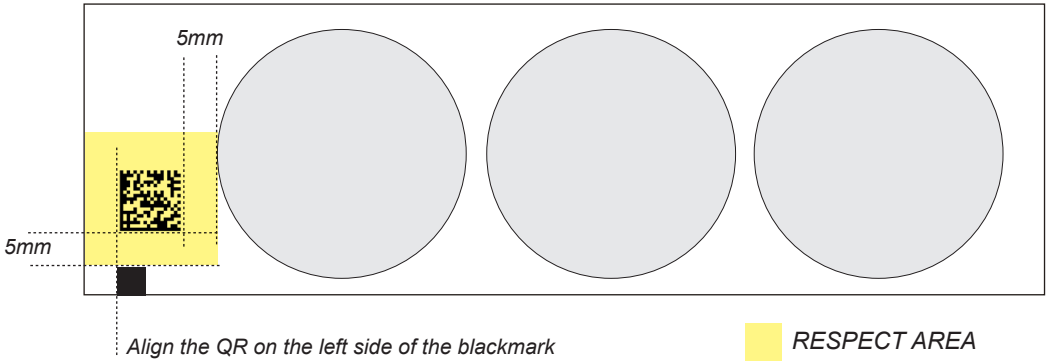
QR CODE GENERATOR

To create a QR / DATA MATRIX with the previous specifications, the quickest way is to use our "Taurus Code Generator" application (downloadable from our website)

!IMPORTANT!

Make sure to write exactly the same cut file and laser parameters name including any space or symbol.

QR POSITION IN THE MEDIA



HOW TO RUN THE QR MODE

The cutting manager allows you to work with QR codes, for cut different jobs on the same roll.
The camera will scan the code and load automatically the required parameters. You have only to make sure that the cut files are put inside the barcode folder.
To see its location, click on the top left the “Advanced” button in the main interface, then settings, then click “BARCODE FOLDER”.

To start a job follow these steps:

1. On the top left click on “Advanced” and go into “Settings”.
2. Flag “QR MODE” and click “Save”.

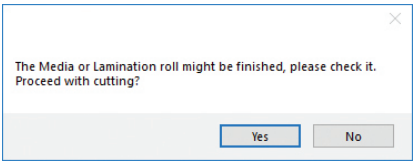
3. Move the mark and the QRcode inside the camera view with the forward and backward media buttons.

4. Set the cut force and speed desired.
5. Run a job with “Start” or “Cut Test”. The camera will read the QR code and load the cut file and parameters.

IF YOU ARE EXPERIENCING THE FOLLOWING ISSUES WITH THE ANY OF OUR Afinia UNITS, PLEASE FOLLOW TROUBLESHOOTING STEPS BELOW

Yellow and Green LED's simultaneously on lamination control board (Applies to all Afinia models)

Problem: Yellow and Green LED's simultaneously on lamination control board. This will also create the following error:



Cause: All Afinia Digital Finishing Systems are equipped with two reflective sensors on the lamination module. One is the media sensor, located right after the First two guide rollers, and the other is the lamination sensor, mounted between the two black knobs on the rubber roller assembly. When both the yellow and green LED's on lamination control panel are on, it would indicate that either one or both of the sensors have picked up an error and the cause could be due to either the media or lamination roll has run out or the sensors may be out of sync and needs to be re-calibrated. The following steps below will show you how to tell when each sensor is in error mode and how to correct it or help you re-calibrate each sensor if needed.

Media not aligned properly

Problem: If the media is not aligned properly after running a couple of jobs.

Cause: This problem occurs for a couple of reasons. The primary reason would be that the tension force on the on the rubber roller assembly, media core and the lamination core (If using lamination) are all out of sync and needs adjusting. Another reason could be that the media was wounded unevenly to begin with thus creating an uneven media roll.
Make sure the distance between top to top black-marks is set correctly.

Fix: First check to see if you have a flat even media roll before you begin installation. An uneven media roll will cause the job to misalign itself. If that checks out ok, then you will need to adjust the tension force on the lamination module. To do this you must turn the two black knobs located at the top the rubber roller assembly to adjust the tension force until you receive satisfactory results. If needed, this may have to be done in conjunction with adjusting the clutch tension on both the lamination core *(If using lamination)* and the material core using the aluminum handles. Adjust the tension force at all three locations accordingly until you get the perfect setting and the media is properly aligned.

Plotter error "E01017" - TENSION ARM BLOCKED ON UNWINDING MODULE

Problem: The plotter displays an error *"E01017 Hardware X Position Alarm Power off then on".*

Cause: The plotter will give you this error after starting a job in *Afinia CM* and the tensioner arm was not set-up to begin with or the tension arm was positioned too high after turning on the lamination module.

(**NOTE** To set the tensioner arm properly, the arm must always be at a midpoint position or lower before turning on the lamination module).

Fix:

1. To set-up the tensioner arm, first turn off lamination module.
   (**NOTE** The lamination module must be off for the next steps to work.)
2. Use the arrow buttons at the top of the control panel to manually feed the media forward until the arm descends into the correct position ***(**Correct position for the tensioner arm will be midpoint or lower)***.
3. Once Tensioner is in the correct position, turn ON lamination module.

(If done successfully, the tensioner arm will automatically re-adjust itself thus activating the unwinder motor).

4. Restart Cutting Manager software

Plotter error "E01017" - TENSION ARM BLOCKED ON REWINDING MODULE

Problem: The plotter displays an error *"E01017 Hardware X Position Alarm Power off then on".*

Cause: The plotter will display this error after starting a job in Afinia CM and the tension arm on the rewinding module was set up incorrectly (it got stuck in the highest position).

(**NOTE** once the media has been loaded through the rewinding module, before start the job, make sure the tension arm is positioned by the middle of its operation range)

Fix:

1. Restart the plotter and cutting manager software;
   (**NOTE** The rewinding module must be off for the next steps to work.)
2. Feed the media through the plotter until the tension moves down to the middle of its operation range.
3. Now it is required to reduce the plotter cutting speed (*please refer to page 34 "When and how to reduce the plotter cutting speed"*) or readjust the tension arm settings (*please refer to page 35 – "Tension arm calibration"*)

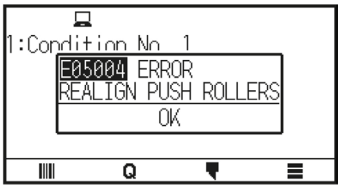
Plotter error "E01019 Hardware Y Position Alarm Power off then on"

Problem: The plotter displays an error *"E01019 Hardware Y Position Alarm Power off then on".*

Cause: This error occurs when the blade tray was moved from side to side by the user after loading the media onto the plotter and with the rear plotter lever in the up position.

Fix: To fix this error, you must first power off the plotter, turn the plotter back on, wait for the display on the plotter to load, then press the number "2" as instructed on the plotter to complete the set-up.

Plotter error "E05004 Hardware Realign Push Rollers Confirm"

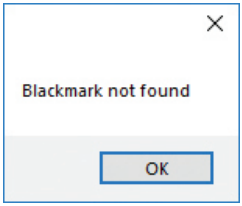


Problem: The plotter displays an error *"E05004 Hardware Realign Push Rollers Confirm"*

Cause: This error occurs when the pinch rollers are not aligned properly with the plotter's grips.

Fix: Before feeding the material through the plotter (While the rear lever is in the down position) be sure that the pinch rollers are aligned properly with the plotter's grips.

Cutting Manager error "Black-mark not found"

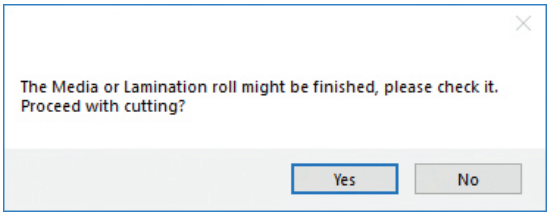


Problem: After starting a job in *Afinia CM*, you get an error *"Black-mark not found".*

Cause: This problem occurs when after you start the job and the software can't detect the black-mark on the media. The reason for this could be the following; the media is missing a marker to begin with; the media is not aligned with the arrows points labeled on the front and back of the plotter; the plotter's camera is not positioned correctly; and the plotter's camera is picking up too much exposure from the sunlight or another light source.

Fix: To fix this, before you start any job in *Afinia CM* be sure to always do the following; check and make sure the media has a black-mark printed on it to begin with; manually aligned the media with the arrows points labeled on the front and back of the plotter *(This is done with the plotter's rear handle in the down position)*; make sure to position the plotter's camera over the blackmark in order to centered marker as much as possible on the software camera preview.

The Media or Lamination roll might be finished, please check it. Proceed with cutting?

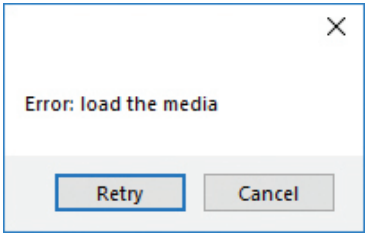


Problem: Yellow and Green light simultaneously on lamination control board.

Cause: When both the yellow and green LEDs on lamination control panel are on, it would indicate that either the media or lamination sensor have picked up and error or the sensors may be out of sync and needs to be calibrated.

Fix: To fix this, please refer to the *"Yellow and Green LED's simultaneously on lamination control board"* guide above to resolve.

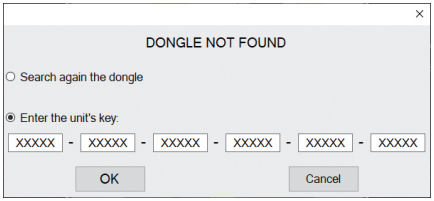
Error: load the media



Cause: You launched the Cutting Manager while the plotter's lever was down.

Fix: Rise the lever on the plotter, than press the button roll2 on control panel and wait until the display will show "READY" as status. Then press retry on the popup window.

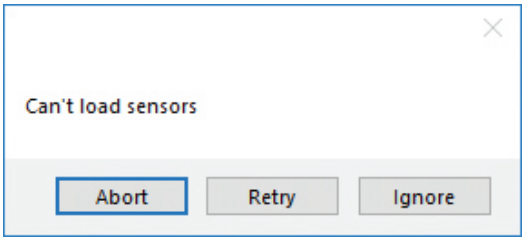
Dongle not found



Cause: This occurs after opening the software while the dongle (the red key) was not plugged into the internal hub. This can also take place when the USB cable from the unit was not plugged to the pc or when you're first installing the software.

Fix: Plug the dongle to the hub, or the unit USB to the pc and click retry.
If this does not fix the issue, please contact your dealer to get a new activation key and go to the section titled "SOFTWARE ACTIVATION" at page 8 for further instructions.

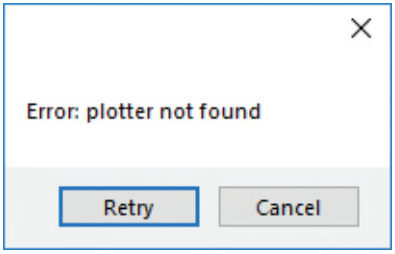
Can't load sensors



Cause: Media/Lamination sensors might be not plugged in correctly or turned off.

Fix: Check if sensors are powered up and plugged correctly into the black sensor box. Then Retry. If you do not want to keep activated the sensors, click Ignore.

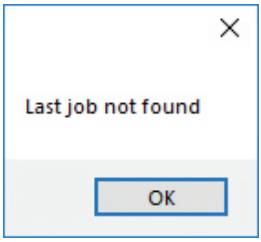
Error: plotter not found



Cause: The plotter might be switched off or not properly connected.

Fix: Make sure the plotter is turned on and properly connected.
In case it is turned off, please turn the plotter on and than press the button roll2 on control panel and wait until the display will show "READY" as status. Then press retry on the popup window.

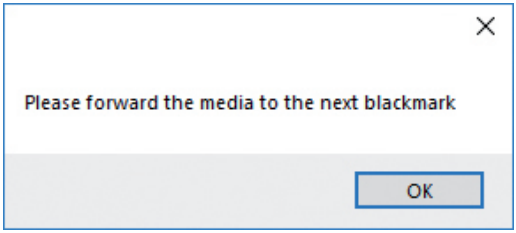
Last job not found



Cause: You will get this error when you try to open the last job when you run Cutting Manager for the first time after the installation.

Fix: Choose your file through "Open PDF".

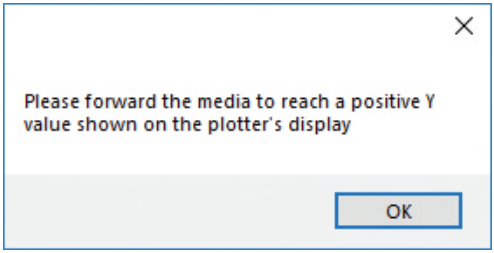
Please forward the media to the next black-mark



Cause: The starting Y position of the cut is a negative value (you can see coordinates on plotter's display when you move the media with arrows). **Keep in mind also the offset influences the starting position of the cut. So, if you start the cut at Y coordinates 0, while you have an offset Y value of -10, you will still get this error.** This error might happens when the media has been just loaded.

Fix: Move to the next black-mark. If it is not enough, forward until you have reached Y coordinate value major than 0.

Please forward the media to reach a positive Y value shown on the plotter's display



Cause: The starting Y position of the cut is a negative value (you can see coordinates on plotter's display when you move the media with arrows).
This error might happens when the media has been just loaded.

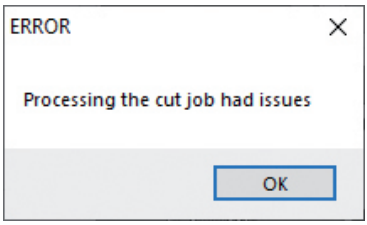
Fix: Move forward until you have reached positive Y coordinates.

Error after opening a .pdf file

Cause: - The antivirus doesn't allow the software to open the file
- The file is loaded from a server web or a remote disk. This may create issues sometimes
- The file is not properly built

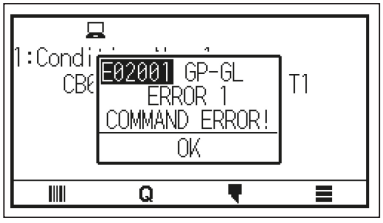
Fix: - Add the cutting manager to your antivirus's whitelist
- Move your file to your computer
- The cutting file must contain only:
- The contours lines
- The Black-Mark, in case of Black-Mark mode cutting

Processing the cut job had issues, or error after opening a .pdf file



Make sure that:
1- The cut file contains ***JUST VECTORIAL LINES AND NOT ANY FILLED FIGURE***, and has been built properly
2- The cut file is opened from a pc folder, and not any usb or external network folder.
3- Add the cutting manager to your antivirus's whitelist.
4- Use just standard occidental letters or numbers for the file name.

E02001 GPGL Error 1 command error!



Make sure that:
1- The cut file contains JUST VECTORIAL LINES AND NOT ANY FILLED FIGURE, and has been built properly
2- The cut file is opened from a pc folder, and not any usb or external network folder

If this doesn't solve, restore and init the plotter.

Plotter is not cutting or Plotter cutting all the way through the material

Problem: After starting a job, you notice that the plotter is not producing a clean cut through the media or the plotter is cutting all the way through the media.

Cause: This happens if cut force in or blade exposure may be set too low if it's not producing a clean cut or if it's cutting all the way through the media it could be set too high.

Fix: If the plotter is not producing a clean cut, this can be fixed by either; increasing the cut force in *Afinia CM* while decreasing the blade exposure until the unit provides satisfactory results or you can also decrease the cut force and increase the blade exposure until it produces a perfect cut. Adjust both accordingly until the correct cut setting has been achieved.

If the plotter is cutting through the media, this can be fixed by decreasing both the cut force and blade exposure to factory settings and start by increasing the cut force until you get a clean cut. You may have to increase the blade exposure while decreasing the cut force there's a clean cut and the correct settings is has been achieved.

(**NOTE**You can continue to increase the blade exposure if necessary, but remember that when you increase the blade exposure, do not simultaneously increase the cut force or you will cut through the cutting mat below the media. It is always best to increase one setting while decreasing the other or just increasing one setting only, normally the blade. Never increase both settings simultaneously)