

Avery Dennison®

TrafficJet Pro™ Printer Maintenance

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Regular maintenance on your Avery Dennison TrafficJet Printer Pro is required to support proper functioning and a prolonged service life. The document summarizes the mandatory maintenance procedures for the printer. Should you have any questions, please contact your Avery Dennison Technical Services. The email addresses can be found in the disclaimer on the last page of this document.

IMPORTANT: Not properly maintaining your printer may lead to bad printing quality and/or expensive repairs!

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● Daily Maintenance / Before and after any shifts

1. Nozzle Check (purge and wipe heads if nozzles are missing)
2. Clean the print head area including nozzle plate
3. Clean the waste ink tray
4. Empty the waste tank (if needed)
5. Check lamp condition (clean if required)
6. Clean the vacuum table

■ Weekly Maintenance

1. Clean the anti-static bars with IPA
2. Clean the pinch rollers with IPA
3. Drain the compressor oil and water trap
4. Clean UV lamps window
5. Purge using the purge valves and tubes

▲ Monthly Maintenance

1. Clean the CR Encoder Strip
2. Check coolant liquid level
3. Clean and lubricate CR rails
4. Clean all fans
5. Clean and lubricate the Z-axis (carriage) gear
6. Check printer calibration

II Bi-annual Maintenance

1. Change primary and secondary ink filters (every 13 liters/bottles)
2. Check printer alignment/calibration
3. Printing and analyzing the Traffic Jet Test file
<https://drive.google.com/file/d/1yvrVZtift9KzBaEdMI56i1VRYrLFxxf8/view?usp=sharing>
4. Check of negative pressure system (inks shouldn't drip or having air in the system leading to nozzle drop-outs; ensure no ink is in the air tubing)

O Annual Maintenance

1. Change ink pumps
2. Clean/Check of Gantry worm gear
3. Check/clean (waste) ink tank level sensor
4. Check the pressure rollers

* As Needed

1. Change the negative pressure pumps (check every year)
2. Check carriage Z-axis limit switch (position) and foot detector.

Important Information

1. **DO NOT! print anything while the carriage is in high (maintenance) position!**
2. Always ensure to have a thickness measurement recorded before printing, in case of doubts, simply use the “Measure and print” function
3. Always ensure the media is well pinched, torque and vacuum are ON prior to any carriage movements to prevent head strikes or crashes

Completed Maintenance Sign Off Sheet

● Daily Maintenance

1. Nozzle Check

When to print a Nozzle Check

At least once every day, prior to printing or before any critical job. Another good moment is when you see print quality issues, artefacts or before contacting Technical Services about quality related issues.

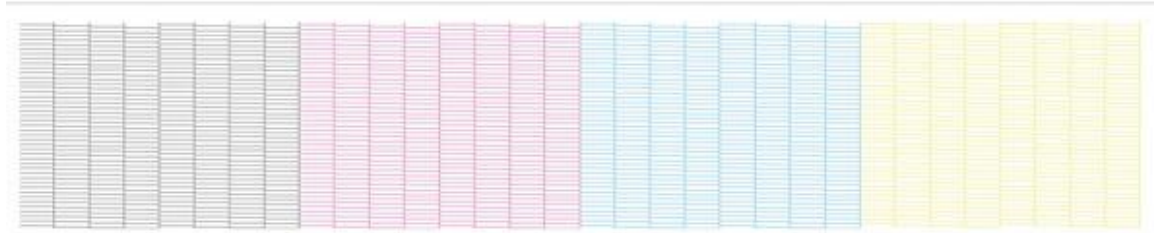
How to print a Nozzle Check

Simply by one click on the nozzle check request button. Ensure the media is well loaded.

Prior to print, GUI will ask you if you want to perform a height calibration



How to read the Nozzle Check



Example of a good nozzle check. All individual nozzle lines are present.



Example of a bad nozzle check. Some lines or parts of a channel are missing.

TIP:

Sometimes the individual nozzle lines are hard to see, especially on prismatic sheeting. In that case, load white vinyl so it's easier to read the nozzle check. If you have issues seeing the yellow nozzle lines, you could buy a special flashlight with blue light that makes it easier to see yellow in general.

How to correct missing nozzles

By purging and wiping

The purge will clean the nozzle but also remove the air which could be trapped in the print head.

Performing a purge :

There are 2 ways to purge :

1. Ink through the nozzles

The ink goes only through the nozzles. Required when there are some clogged nozzles - no air in the system

>> Simply press for 2 - 3 seconds the purge button, it activates the replenishment pump. You will see ink leaking from the print heads

>> Wipe the nozzle plate with a dry clean lint free clothes

2. Ink through the nozzles and the air escape line

The ink goes through the nozzles and by opening the purge valve, air/ink can escape the system.

>> Simply press for 2 - 3 seconds the purge button, it activates the replenishment pump. You will see ink leaking from the print heads, then gently open 90° up the purge valve with the service wrench. Ink will start to leak from the valve too. Air may come out too. Close the valve and release the purge button.

BE CAREFUL :

The sequence purge button - purge valve open - purge valve closed - release purge button is important to be followed.

Indeed if the purge valve remains open and the purge is not activated, air will get into the system. And may damage the heads.

>> Wipe the nozzle plate and the aluminium platen with a dry clean lint free clothes

2. Clean the print area

IMPORTANT: Before performing any of these procedures and when working with Flush, make sure to wear proper protection for your eyes, skin (hands) and clothes!

When to clean the print area

At least once every day, at the end of the shift. When the nozzle check is not good. After a purge.

Why clean the print area

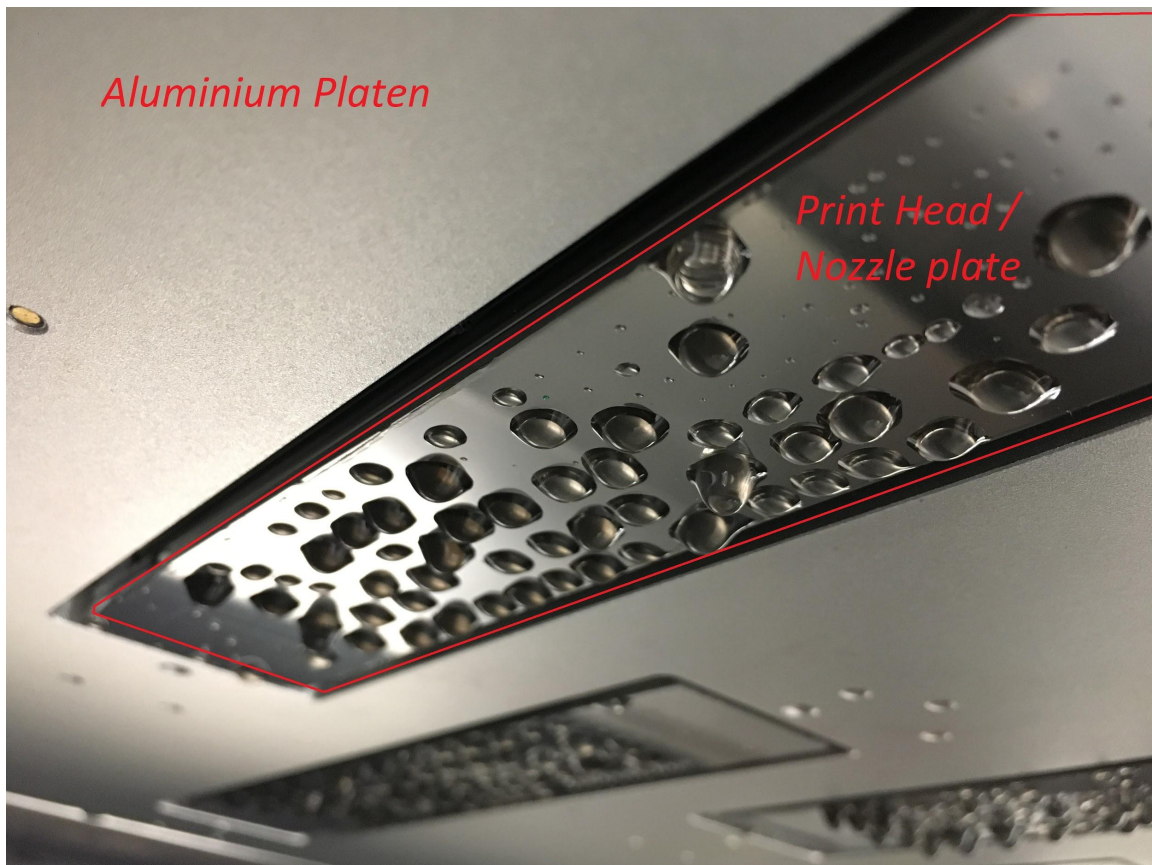
Ink and debris will accumulate, which can lead to artefacts on prints and also can damage a print head

How to clean the print area

Using a damp with flush lint free cloth, cleaning the metal plate around the print heads (Aluminium platen)

Lift up the carriage for easier access

Wiping from back to front with a dry cloth the print head itself (nozzle plate)



Be Careful: Do not apply excessive force on the Print heads , you may damage the nozzle plate.

3. Clean the waste tray

Using flush and IPA clean the entire waste tray.

Ink will start to dry in the waste tray, not having it clean will result of a clogged ink waste line.

4. Empty the waste tank

The Waste Tank is located in the down right side of the Chiller cabinet.

Remove both ink waste tubes from the cap to easily access the waste tank. The Waste tank is a removable part.

Another solution would be to use a transfer liquid pump.

Be Careful : Always have towels of clean paper with you as ink drop may come out of the waste tubes

5. Check UV lamps condition (clean if required)

Check the UV lamps condition, to prevent any cured inks hard to remove during the weekly maintenance.

6. Clean the vacuum table

Using IPA and Flush if necessary.

Using manually a .diam. #1 drill bit in case of vacuum holes are clogged.



Because of the friction, a small amount of sheeting adhesive on the edge of the web may leave marks on and contaminate the Vacuum Table. This can create dirt marks on the media. In addition, ink Mist may also leave small deposits on the Platen.

Use a Lint Free Cloth and Flush or Adhesive Remover and clean the Drying Table and Platen.

■ Weekly Maintenance

1. Clean the Anti Static bars (optional - if installed)

Ionizing bars become contaminated with usage. Dirt buildup on the body of the ioniser, particularly on the Emitter pins, will cause a drop in performance.

IMPORTANT! Before cleaning, ensure that the equipment is switched OFF and be aware that the Emitter pins are extremely sharp.

Emitter pins can be cleaned very effectively with a soft plastic bristle brush. A dry toothbrush is ideal.

The bar itself will also need periodic wiping to clean gray/black deposits from the surface of the bar. A cloth moistened with a small amount of Isopropyl Alcohol is recommended. Do not spray the bar directly, spray the cloth first.

IMPORTANT: Make sure the bar is completely dry before turning back ON.

To get the best performance, clean at least once per month or more if buildup is visible. If buildup is severe, a Clean Pin Alert will be triggered, and the LED light will change from green to red.

IMPORTANT: Do not use Flush as it may damage the Antistatic bar.

2. Clean the pinch rollers

Using Isopropyl alcohol and clean clothes.

Dust will start to collect on the Push Rollers and will reduce grip and friction.

It may affect the print quality.

Note: if some uncured inks are touching the pinch roller, clean them directly.

3. Drain the compressor oil and water trap

Oil and water are in the atmosphere, to prevent the inner tubing of the printer to be damaged by those components, there are filter traps on compressors.



4. Clean UV lamps

Using a lint free clothes and Isopropyl Alcohol

- Lift the carriage for easier access
- With a damp lint free clothes, clean the glass surface of the lamp on both sides of the carriage
- Ensure no stains of IPA / Ink remain on the glass
- Use a razor blade to carefully scrape off ink build up if necessary

▲ Monthly Maintenance

1. Clean the CR Encoder

The CR Encoder Strip is responsible for communicating the position of the Carriage.

Use a Lint Free Cloth and Isopropyl Alcohol and gently clean.

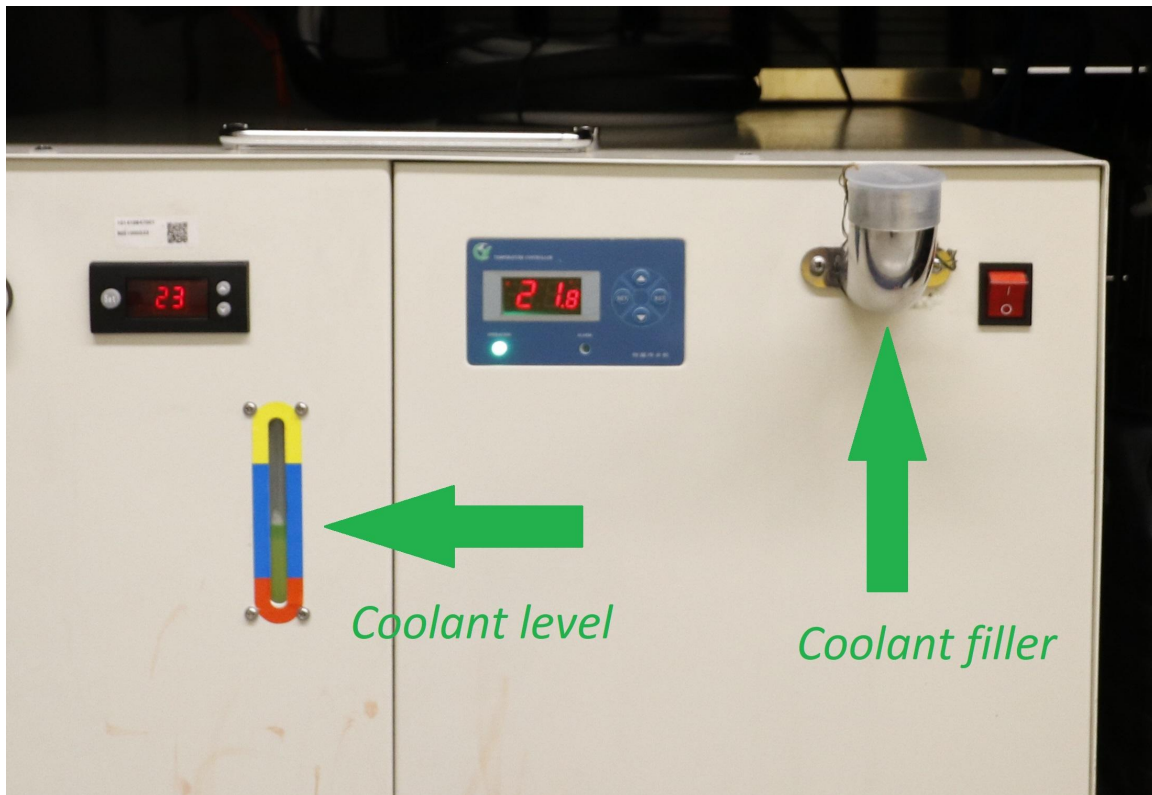
IMPORTANT: Do not use Flush, and be very careful not to damage or smear anything on the Encoder Strip as this will trigger errors.

2. Check coolant liquid level

The UV Led lamps are chilled by a coolant liquid circulating through the lamps and cooled by the chiller..

The level of coolant is really important to prevent any damage due to high temperature inside the lamps housing.

Simply refill with glycol and/or demineralized water if required.



3. Clean and lubricant CR rails

This will allow the Carriage to run smoothly over the Bearing Races preventing vibration and noise. Use Lint Free Cloth to clean of any dust and dirt. Use Isopropyl Alcohol if needed

After cleaning apply a thin layer of bearing grease to the slider bearings that drives the carriage (4 - Left/Right and Up/Down) and on the rails. Alternatively, using a greaser with a needle nozzle.



IMPORTANT: Not lubricating these parts in time, may cause catastrophic failure to the printer!

4. Clean all fans

Using a vacuum cleaner, simply remove dust from all fans

Fans are located

- Both back side of the printer
- In the ink cabinet (on the chiller and one down the printer frame)

- Back of the computer

5. Lubricate the Z axis gear (carriage lift gear)

Apply 3 or 4 droplets of “3in1 oil” on the gear axle.

Perform 2 times up/down movement with the carriage.



6. Check calibration printer

Refer to Operator manual for more detailed explanation

Through the calibration wizard perform the following print test

- Bi-directional (overall + Left & Right)
- Step
- Vertical
- Overlap

Make the correction accordingly

II Bi annual Maintenance

1. **Change primary and secondary ink filters** (refer to how to do section in operation guide). This is an indication, as for proper functioning, the primary and secondary filters need to be replaced every 15 liters.
2. **Check of Printer alignment/calibration**
3. **Printing and analysing the Traffic Jet Test file**
<https://drive.google.com/file/d/1yvrVZtft9KzBaEdMI56i1VRYrLFxxf8/view?usp=sharing>
File is located in your backup folder.
4. **Check of negative pressure system** (inks shouldn't drip or having too much air in the system; ensure no inks is in the air tubing)

O Annual Maintenance

1. **Change ink pumps**
2. **Gantry worm gear maintenance**
 - Ensure the gaps are vacuumed out as they can attract dust over the year. This will prevent dirt and debris damaging delicate components near by.
3. **Check waste ink level sensor**
 - Ensure the detection is working properly, If needed clean the sensor
4. **Check the pressure roller**
 - Speed and proper pinch of the media along the roller
 - Roller rubber condition

Done by trained person only !

* As Needed

Change the Negative pressure pump

Important information

1. Make sure the Waste ink Container is empty if you do not print for a longer period of time.

The level sensor can become blocked and may overflow.

2. Cleaning Frequency

Perform the maintenance AT LEAST with the frequency as mentioned (daily, weekly, monthly) or as often as needed. If you see issues, print high volumes, have sub-optimal environmental conditions etc., perform maintenance as often as needed and sometimes several times a day.

3. Print the Traffic Jet Pro T&Q file

Especially for cross contamination recovery. This file will also help the tech services to troubleshoot and ensure good print quality.

Avery Dennison[®] TrafficJet[™] Maintenance Schedule

Year :

Printer Serial :

Week Nr.	Monday	Tuesday	Wednesday	Thursday	Friday	Weekly	Monthly
Week 1							
Week 2							
Week 3							
Week 4							
Week 5							
Week 6							
Week 7							
Week 8							
Week 9							
Week 10							
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Week 28							

Week Nr.	Monday	Tuesday	Wednesday	Thursday	Friday	Weekly	Monthly
Week 29							
Week 30							
Week 31							
Week 32							
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Week 35							
Week 36							
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Week 50							
Week 51							
Week 52							

NOTES :

The above Avery Dennison literature provides information to the user for proper application, storage and other requirements. Please refer to Product Data Bulletins or your local Avery Dennison Representative for warranty information. Find the latest information on the Avery Dennison website, www.reflectives.averydennison.com. We encourage you to check our website periodically for updates.

All statements, technical information and recommendations about Avery Dennison products are based upon tests and information believed to be reliable, but do not constitute a guarantee or warranty of any kind. All Avery Dennison products are sold with the understanding that Purchaser has independently determined the suitability of such products for its intended and other purposes.

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