



Océ | Arizona 2xx/3xx/4xx/5xx/6xx GT/XT Printers

Application Bulletin

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Converting an Océ Arizona Printer to a Different Océ IJC25X Ink Formulation

IMPORTANT! It is strongly recommended that customers consult their Océ Applications Specialist prior to switching inks to verify that they are switching to an ink type that is best suited to meet the requirement of their applications. It is also recommended that customers consult their Océ Service Representative to discuss potential costs associated with switching inks.

Introduction

Converting an Océ Arizona printer to a different Océ IJC25X ink formulation is a procedure that can be done by customers with the exception of the potential need for a printer re-alignment. For optimal bidirectional alignment after converting ink formulations it is recommended to re-align single row printers models (Océ Arizona 200/300/400-series), and it is required for double row print head models (Océ Arizona 550/600-series) models. Please contact your Service representative to find out the cost of printer re-alignment due to an ink change, as this is not covered by your service contract.

Océ Arizona Model Restrictions & Recommendations

- Océ Arizona 200-series printers do not support Océ IJC257 or Océ IJC258 inks.
- Océ IJC258 White Ink is permitted in all models except the Océ Arizona 200-series however it is **not recommended for use in the Océ Arizona 318 GL**. The Océ Arizona 318 GL uses a small ink reservoir in the carriage and cannot support a sufficiently high ink recirculation rate to effectively maintain nozzle readiness during idle time (between prints). As a result, we recommend that Océ Arizona 318 GL users, who wish to use Océ IJC258 CMYK inks, use these *only* in combination with the Océ IJC256 or IJC257 White Inks.

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Ink Formulation Overview

Ink formulation changes should be performed only after careful consideration of the characteristics of the ink formulation being considered and the intended applications. A brief comparison of the four inks follows.

Océ IJC255 UV Curable Inks –This ink set is characterized by a superior color gamut, a semi-gloss appearance and a very hard surface finish. IJC255 is the ink of choice for paper and paper-capped rigid media for close viewed POP/POS applications when only the best print quality is acceptable.

Océ IJC256 UV Curable Inks retains the important qualitative characteristics of IJC255 but offers improved functionality on vinyl and plastics most commonly used for outdoor applications. This ink set is characterized by an excellent color gamut, satin appearance and a slightly softer surface finish. IJC256 is a good choice for vinyl and foamed, rigid media applications when excellent print quality and automated finishing operations are required. However, in most applications IJC257 is preferred over IJC256.

Océ IJC257 UV Curable Inks offers improved adhesion and handling properties compared to IJC256. IJC257 has similar gloss, color density and color gamut as IJC256 but with significantly better adhesion. IJC257 is the preferred ink choice for most applications. IJC257 is compatible with IJC255 & IJC256 and therefore only requires a short (ink) flush switching to/from IJC257 to another IJC255 or IJC256 ink formulation.

Océ IJC258 UV Curable Inks are significantly different from the other three ink formulations. Designed as a more industrial product, these inks offer superior adhesion and coverage functionality on most hard plastics commonly used for signage and industrial applications, including low-cost outdoor materials such as polyethylene and polypropylene. IJC258 inks are “sticky” and require additional print head maintenance compared to the other three ink formulations. IJC258 inks are characterized by a smaller color gamut, matte appearance and an ability to cover blemishes and finger marks that are latent on the media prior to printing. IJC258 are the inks of choice for applications that require superior adhesion and that can be successfully produced with a smaller overall color gamut, particularly when printed in the fastest print modes. Although IJC257 Varnish is chemically compatible with all IJC25X ink formulations although its performance varies by media/ink loading/ink formulation combination. It is least compatible with IJC258 inks because of greater tendency for varnish to flow over the ink in a non-uniform manner than when compared to the other IJC25X inks. Switching from IJC258 to the other IJC25X formulations requires a long flush which can be stressful on the ink tubing and there is a risk of damage to older printer models, in particular Arizona 300 and 500 series printers. It is strongly recommended that Océ Arizona 300 or 500 series printer ink conversions from IJC258 be performed by your Océ Service representative. Please contact your Service representative to find out the cost for them to do the ink conversion, as this is not covered by your service contract.

Ink Conversion Procedure Overview

The printer software guides the operator through the conversion procedure. When a bag of ink is inserted into a printer that differs from the ink type currently installed, the appropriate ink conversion procedure wizard is automatically activated from the printer User Interface. The wizard steps the operator through the procedure.

There are three ink conversion procedures:

- **Short Flush** – an ink-only flush process. The procedure is a lot quicker than a long flush. The short flush procedure simply purges the previous ink type ink and replaces it with new ink type ink. For the Arizona 300 & 500 series printers performing a short flush can stress the ink system so it is recommended to use the Manual Purge procedure instead.
- **Manual Purge** – an ink-only flush process. This procedure does not stress the ink system as much as the Short Flush procedure and is strongly recommended as a Short Flush replacement procedure for the Arizona 300 & 500 series printers. The Manual Purge can also be used to reduce conversion time on other Arizona models but it is the required method to be used on Arizona 300 & 500 series printers. [The Manual Purge, unlike the Short Flush, will result in some of the previous ink remaining in the printer for some period, depending on the intensity of subsequent printing, but the benefits of the new ink type will take effect to a large degree.](#)

The Manual Purge procedure is:

1. Insert the new bag of ink;
2. Cancel the ink conversion wizard;
3. Repeat steps 1 & 2 for the other ink colors;
4. Following the table below, for your printer model perform the following number of long (hold purge button for >3 seconds) purges to replace the old ink formulation with the new ink formulation.

IMPORTANT! After every two long purges close the maintenance drawer and wait until the ink reservoirs have been refilled. Please check the fill status on printer UI. This will prevent the ink reservoirs from running out of ink and causing print head nozzle reliability problems.

Océ Arizona Model/Series	# Of Long Purges
318	14
350,360	14
400	20
550	20
600	20

- **Long Flush** – requires flush and ink filter(s). This procedure is more involved and time consuming than the short flush. The long flush procedure takes about 45 minutes per ink channel for CMYK ink colors and about 90 minutes for inks that require re-circulation (white or varnish). The long flush procedure requires a flush kit [3010114672](#) for **each** ink channel. A flush kit contains a one liter bag of flush, an air adapter, a temporary disc ink filter and a regular ink filter. So for example: converting all 8 channels of an Océ Arizona 480 would require the customer to purchase 8 flush kits for the conversion.

Ink Conversion Flush Procedure Table

Converting To	Converting From	Flush Procedure
Océ IJC255 C,M,Y,K,W	Océ IJC256, IJC257 C,M,Y,K,W	Short/Manual
Océ IJC256 C,M,Y,K,W	Océ IJC255, IJC257 C,M,Y,K,W	Short/Manual
Océ IJC257 C,M,Y,K,W	Océ IJC255, IJC256 C,M,Y,K,W	Short/Manual
Océ IJC258 C,M,Y,K,W	Océ IJC255, IJC256, IJC257 C,M,Y,K,W	Short/Manual
Océ IJC255,IJC256,IJC257 C,M,Y,K,W	Océ IJC258 C,M,Y,K,W	Long
Océ IJC257 Varnish	Océ IJC25x W	Long
Océ IJC25x W	Océ IJC257 Varnish	Long

Preparing for the Ink Conversion

Materials Required:

- Ink bags of ink type being converted too
- **If the long flush procedure is required – One ink flush kit per ink channel**
- Safety glasses
- Nitrile gloves
- Protective clothing

Printer Software

IMPORTANT! Please ensure the printer software is current, (you can confirm that you have the latest software version on the dgs.oce.com website).

Preparing the Printer

Ink may splatter when switching inks, so it is recommended to protect the surfaces adjacent to the maintenance station to make clean-up easier. One suggestion is to tape the surfaces of the maintenance station with tape and to cover the opening with a clear piece of film (see Figure 1).

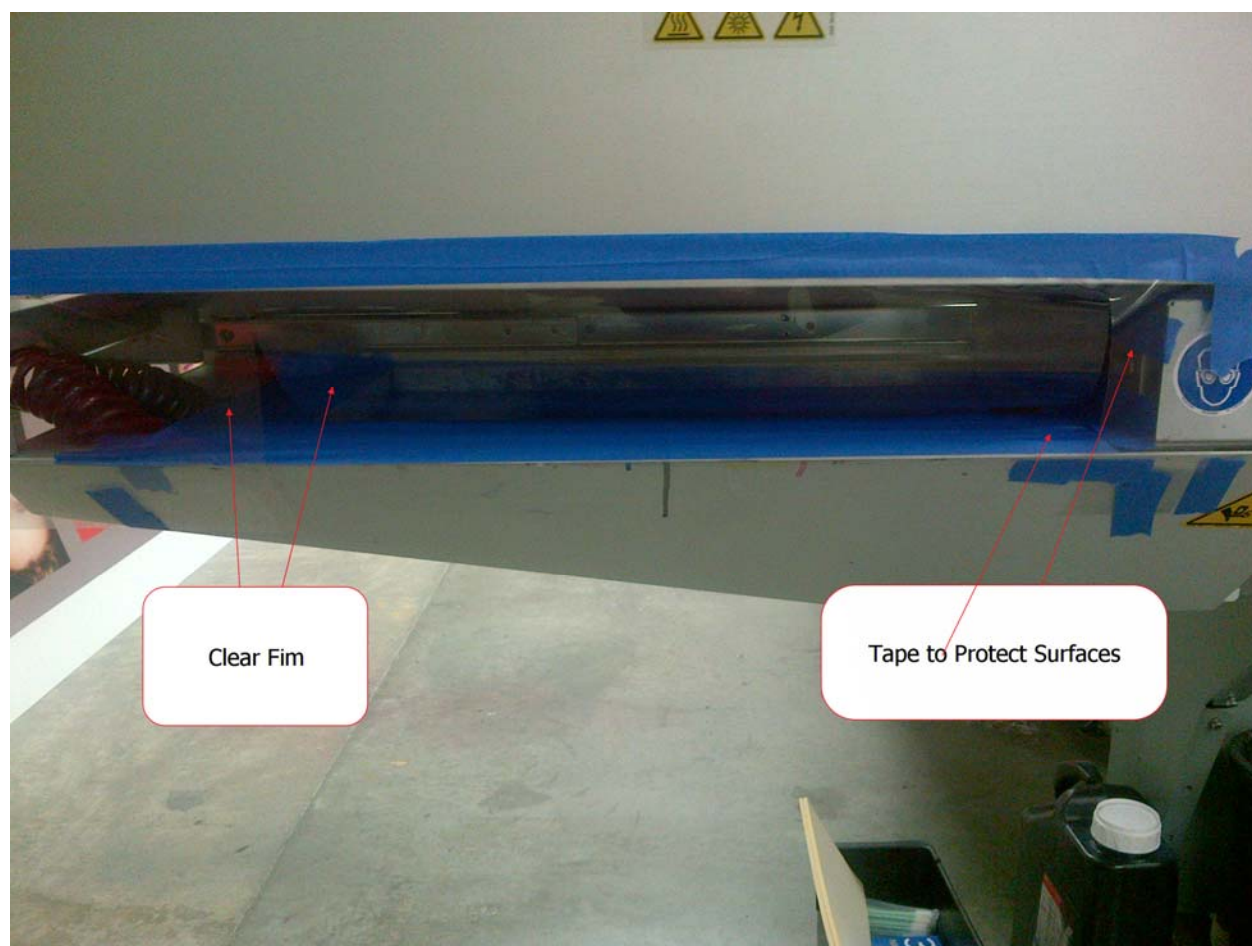


Figure 1: Protect Maintenance Surfaces and Cover Opening

The amount of ink splatter depends on the ink type; Océ IJC258 has the most ink splattering. When the Océ IJC258 ink is purged from the printheads, bubbles/foam may form on the printhead nozzle plates. See Figure 2, Foam On Print Head Nozzle Plates. As these ink bubbles burst, ink may be splattered onto nearby surfaces.



Figure 2: Foam on Printhead Nozzle Plates

Converting the Ink

WARNING: Please wear safety glasses, nitrile gloves and protective clothing when switching ink formulations.

Replace a current bag of ink in the printer with a bag of ink of the same color of the formulation being converted too. The software will guide you through the conversion procedure. Repeat the procedure for the other bags of ink in the printer.

ONYX Media Profiles

After converting ink formulations it is important to use ONYX media profiles designed for the newly installed ink type to ensure color accuracy. ONYX Media Profiles for Océ Arizona printers can be downloaded from the customer area of the Océ DGS website: <http://www.dgs.oce.com>