The following instructions explain how the i2i Absolute Black ink for making screen positives is installed on an Epson Stylus Pro 4900. The Absolute Black ink can be installed in one or multiple cartridges on the printer, can be used alongside full color inks for regular color printing, or can be used in combination with our Absolute Clear inks for the non-active channels on a dedicated screen positive printing machine. The choice of which combination of inks to use is not discussed in these instructions. If you need guidance on the best combination of inks to use for your application, then please refer to the 'Absolute Black buying guide' on our website, or call 847-827-0747.

If you intend to use the Absolute Black inks in every channel of your machine, or in combination with the Absolute Clear inks, then it is best to turn off the 'Auto Nozzle Check' feature on your printer. The auto nozzle check only works with normal full color inks. To turn off the auto nozzle check, go to the menu on the printer display and select 'Printer Set Up' and then 'Auto Nozzle Check'. Set the auto nozzle check to off.

The Absolute Black inks, Absolute Clear inks, and Cave Paint Elite full color pigment inks are supplied in pre-filled 200 ml size cartridges, or in bulk bottles for use with our refillable cartridges. The installation method for pre-filled cartridges is explained first below. If you are going to install refillable cartridges and bulk inks then proceed to the next section.

INSTALLING PRE-FILLED CARTRIDGES

Installing on a brand new printer that has never been used with inks before, or on a printer that has been flushed with cleaning fluid.

Simply install the cartridges in the printer and follow the instructions on the display. The machine should automatically perform an 'initial fill' routine immediately after installing the cartridges to fill the ink system with inks. If the printer does not automatically start this fill process then see the 'Running an initial fill routine' below. When the machine has finished the initial fill routine (indicated by 'Ready' showing on the display), perform a manual nozzle check print on plain paper using the driver software utility to check that all jets are firing on the print heads you intend to use for printing. If you are installing Absolute Black in the black channel only and Absolute Clear in all the other channels, then the nozzle check print will show the black print head only – this is fine. If the nozzle check print shows that some jets are not firing then perform manual cleaning cycles (not auto cleaning) and nozzle check prints until you get a good print. You are now ready to start printing.

Installing Absolute Black ink in the black channel only on a printer that has Epson original black ink installed, and is going to be used alongside Epson original inks, Absolute Clear inks, or Cave Paint Elite Enhanced color inks in the other cartridges.

The Absolute Black ink is mixable with the original Epson black pigment ink (Photo Black or Matte Black) but we recommend purging the ink through to the print head to eliminate any strange printing effect that can be caused by a mixture of the two inks. This can easily be done by running an 'initial fill' routine on the printer.

Unfortunately, Epson printers do not have a built in routine to purge ink through the black channel only so running the 'initial fill' routine will purge through all the channels on the machine. Because of this, all the other cartridges installed on the machine will need at least 25% ink remaining in them (excluding the black cartridge that you are about to change). You will also need at least 25% capacity left in the maintenance tank. Install the pre-filled Absolute Black cartridge in the black channel, and original Epson cartridges, Absolute Clear cartridges, or Cave Paint Elite Enhanced pigment ink cartridges in the other channels. Run the initial fill routine (see details below) and then perform a manual nozzle check print on plain paper using the driver software utility to check that all jets are firing on the print heads you intend to use for printing. If you are installing Absolute Black in the black channel only and Absolute Clear in all the other channels, then the nozzle check print will show the black print head only – this is fine. If the nozzle check print shows that some jets are not firing then perform manual cleaning cycles (not auto cleaning) and nozzle check prints until you get a good print. You are now ready to start printing.

Installing Absolute Clear inks, or Cave Paint Elite Enhanced color inks on a printer that has the Epson original ink installed.

Simply install the cartridges as the existing cartridges run empty. Both the Absolute Clear ink and the Cave Paint Elite Enhanced inks are freely mixable with the Epson original inks, so no cleaning or purging is required.

Installing Absolute Black ink in every channel on a printer that is using Epson original pigment inks.

We strongly recommend that a printer running existing Epson inks should be flushed out before installing the Absolute Black ink in every channel on the machine, and Ink2image supplies cleaning cartridges for this purpose. Failure to do so can result in bad printed output or nozzle clogging. To flush out a printer and install the Absolute Black cartridges in every channel, you will need at least 50% capacity left in the maintenance tank. To flush the machine, Install cleaning cartridges in every channel. Run the initial fill routine (see details below) and then ideally leave the printer to 'soak' overnight if possible to allow the cleaning fluid to dissolve any dried ink deposits in the ink system. Install the Absolute Black cartridges in every channel. Run the initial fill routine again and then perform a manual nozzle check print on plain paper using the driver software utility to check that all jets are firing. If the nozzle check print shows that some jets are not firing then perform manual cleaning cycles (not auto cleaning) and nozzle check prints until you get a good print. You are now ready to start printing. The cleaning cartridges are good for another three flushes, so keep them for re-use in case you ever want to use the machine for full color printing again.

RUNNING AN INITIAL FILL ROUTINE

There are two ways of performing an initial fill routine on the Epson Pro 4900 – one quick and the other more time consuming. Both require that the maintenance tank on your machine has at least 25% capacity remaining. The quickest method is to purchase the Epson Service program which then enables you to set an 'initial fill' routine that will automatically fill the printer with ink or cleaning fluid. The service program can be downloaded for a small fee from www.2manuals.com. Simply go to this website and enter your printer make and model in the search box and this will take you to all downloads for the printer. Service manuals are also available that show you how to disassemble and repair your printer if you are technically minded. If you decide to get the service program, then use this to quickly fill your machine with ink or cleaning fluid.

The more time consuming method of filling your printer with ink or cleaning fluid is to run multiple 'power' cleanings by going to the ink menu on the printer control panel by pressing the bottom left button and selecting manual cleaning (not auto cleaning). You can run power cleanings on all colors at once (if you are
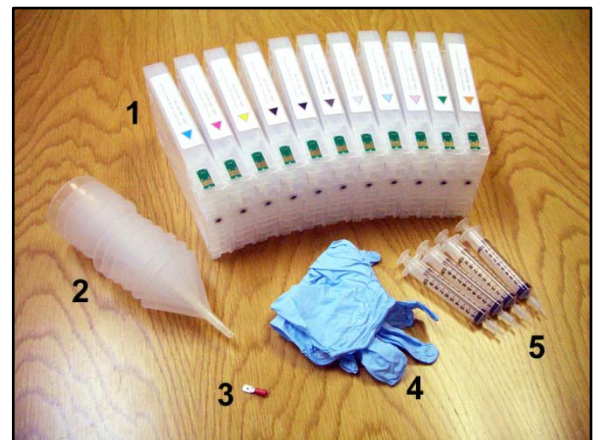
flushing out the printer or installing Absolute Black in all channels), or you can run power cleanings on pairs of colors – select the PK/LK colors if you are installing Absolute Black in the Photo Black channel only and just want to purge out the original Epson ink. It normally takes about 12 power cleanings to prime up the machine. This should ensure that any new inks or cleaning fluid will travel from the cartridges through to the print head. A way to check is to make a full color print on scrap paper after running the three power cleans. If you are filling the printer with cleaning fluid then the printed output should be relatively colorless. If you are filling the printer with Absolute Black in every channel then the printed output should be all black inks with no color showing. If this is not the case then one further power clean should be sufficient.

INSTALLING REFILLABLE CARTRIDGES

Refillable cartridges are designed for use with bulk inks supplied in bottles, and offer considerable savings over single use pre-filled cartridges. Refillable cartridges can be purchased individually, but are generally supplied in starter kits that include an initial supply of ink. Ink2image refillable cartridges are simple to install, easy to use, and will provide you with many hours of trouble free and lower cost printing. However, the successful use of the system is dependent on how accurately you follow this guide during installation. Please read these instructions and familiarize yourself with the system components before you start the installation. Please also remember that you are now about to start working with bulk ink instead of sealed cartridges. During installation, protect the area around your printer in case of ink spillage and wear the disposable gloves included with the kit. Have a roll of paper towel handy. Remember, accidents can happen!

SYSTEM COMPONENTS

1.   Refillable Cartridges (11).
2.   Filling funnels.
3.   Chip resetting tool.
4.   Rubber gloves.
5.   10 ml syringe with end adaptor.

The method of installing refillable cartridges is different than with pre-filled single use cartridges. Firstly, the cartridges are supplied empty and you will need to fill them. Secondly, the first time you fill a refillable cartridge, the cartridge will need to be primed using the included syringe to remove a small amount of air from an ink channel in the front of the cartridge, However, this priming is not necessary if you are going to run an initial fill routine during installation – see options below. Thirdly, refillable cartridges can be used with cleaning fluid prior to filling them with ink if flushing of the printer is required before installing the Absolute Black inks – see options below. The details on filling and priming refillable cartridges are included in the next section of these instructions. Read the section below for specific instructions on the ink set up that you intend to use.

Installing refillable cartridges on a brand new printer that has never been used with inks before, or on a printer that has been flushed with cleaning fluid.

Simply fill and install all the refillable cartridges (without priming) in the printer and follow the instructions on the display. The machine should automatically perform an 'initial fill' routine immediately after installing the

cartridges to fill the ink system with inks. If the printer does not automatically start this fill process then see the 'Running an initial fill routine' below. When the machine has finished the initial fill routine (indicated by 'Ready' showing on the display), perform a manual nozzle check print on plain paper using the driver software utility to check that all jets are firing on the print heads you intend to use for printing. If you are installing Absolute Black in the black channel only and Absolute Clear in all the other channels, then the nozzle check print will show the black print head only – this is fine. If the nozzle check print shows that some jets are not firing then perform manual cleaning cycles (not auto cleaning) and nozzle check prints until you get a good print. You are now ready to start printing.

Installing a refillable cartridge and Absolute Black ink in the black channel only on a printer that has Epson original black ink installed, and is going to be used alongside Epson original inks, Absolute Clear inks, or Cave Paint Elite Enhanced color inks in pre-filled single use cartridges.

The Absolute Black ink is mixable with the original Epson black pigment ink (Photo Black or Matte Black) but we recommend purging the ink through to the print head to eliminate any strange printing effect that can be caused by a mixture of the two inks. This can easily be done by running an 'initial fill' routine on the printer. Unfortunately, Epson printers do not have a built in routine to purge ink through the black channel only so running the 'initial fill' routine will purge through all the channels on the machine. Because of this, all the cartridges installed on the machine will need at least 25% ink remaining in them (excluding the black cartridge that you are about to change). You will also need at least 25% capacity left in the maintenance tank. Install the refillable cartridge filled with Absolute Black ink in the black channel (no priming required), and original Epson cartridges, Absolute Clear cartridges (single use or refillable), or Cave Paint Elite pigment ink cartridges (single use or refillable) in the other channels. Run the initial fill routine (see instructions below) and then perform a manual nozzle check print on plain paper using the driver software utility to check that all jets are firing on the print heads you intend to use for printing. If you are installing Absolute Black in the black channel only and Absolute Clear in all the other channels, then the nozzle check print will show the black print head only – this is fine. If the nozzle check print shows that some jets are not firing then perform manual cleaning cycles (not auto cleaning) and nozzle check prints until you get a good print. You are now ready to start printing.

Installing refillable cartridges using Absolute Clear inks, or Cave Paint Elite Enhanced color inks on a printer that has the Epson original ink installed.

Simply install the refillable cartridges as the existing cartridges run empty. Each refillable cartridge will need priming with the included syringe (see instructions below). Both the Absolute Clear ink and the Cave Paint Elite Enhanced inks are freely mixable with the Epson original inks, so no cleaning or purging is required.

Installing refillable cartridges and Absolute Black ink in every channel on a printer that is using Epson original pigment inks.

We strongly recommend that a printer running existing Epson inks should be flushed out before installing the Absolute Black ink in every channel on the machine. Ink2image supplies cleaning fluid in bulk for use in refillable cartridges for this purpose. Failure to do so can result in bad printed output or nozzle clogging. To flush out a printer and install the Absolute Black inks in every channel, you will need at least 50% capacity left in the maintenance tank. To flush the machine, fill each refillable cartridge with around 1" of cleaning fluid (no cartridge priming required) and install the cartridges in every channel. Run the initial fill routine and then ideally leave the printer to 'soak' overnight if possible to allow the cleaning fluid to dissolve any dried ink deposits in the ink system. Empty any cleaning fluid remaining in the refillable cartridges by pouring it out through the filling hole and back into the cleaning fluid bottle, and fill all the cartridges with Absolute Black ink (no cartridge priming required). Install the Absolute Black cartridges in every channel. Run another initial fill

routine and then perform a manual nozzle check print on plain paper using the driver software utility to check that all jets are firing. If the nozzle check print shows that some jets are not firing then perform manual cleaning cycles (not auto cleaning) and nozzle check prints until you get a good print. You are now ready to start printing.
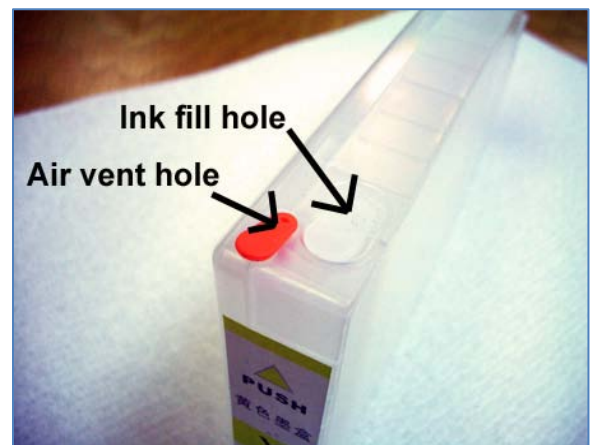
RUNNING AN INITIAL FILL ROUTINE

There are two ways of performing an initial fill routine on the Epson Pro 4900 – one quick and the other more time consuming. Both require that the maintenance tank on your machine has at least 25% capacity remaining. The quickest method is to purchase the Epson Service program which then enables you to set an 'initial fill' routine that will automatically fill the printer with ink or cleaning fluid. The service program can be downloaded for a small fee from www.2manuals.com. Simply go to this website and enter your printer make and model in the search box and this will take you to all downloads for the printer. Service manuals are also available that show you how to disassemble and repair your printer if you are technically minded. If you decide to get the service program, then use this to quickly fill your machine with ink or cleaning fluid.

The more time consuming method of filling your printer with ink or cleaning fluid is to run multiple 'power' cleanings by going to the ink menu on the printer control panel by pressing the bottom left button and selecting manual cleaning (not auto cleaning). You can run power cleanings on all colors at once (if you are flushing out the printer or installing Absolute Black in all channels), or you can run power cleanings on pairs of colors – select the PK/LK colors if you are installing Absolute Black in the Photo Black channel only and just want to purge out the original Epson ink. It normally takes about 12 power cleanings to prime up the machine. This should ensure that any new inks or cleaning fluid will travel from the cartridges through to the print head. A way to check is to make a full color print on scrap paper after running the three power cleans. If you are filling the printer with cleaning fluid then the printed output should be relatively colorless. If you are filling the printer with Absolute Black in every channel then the printed output should be all black inks with no color showing. If this is not the case then one further power clean should be sufficient.

FILLING REFILLABLE CARTRIDGES

Avoid touching the chips on the cartridges during the filling process, and avoid tipping the cartridges over.
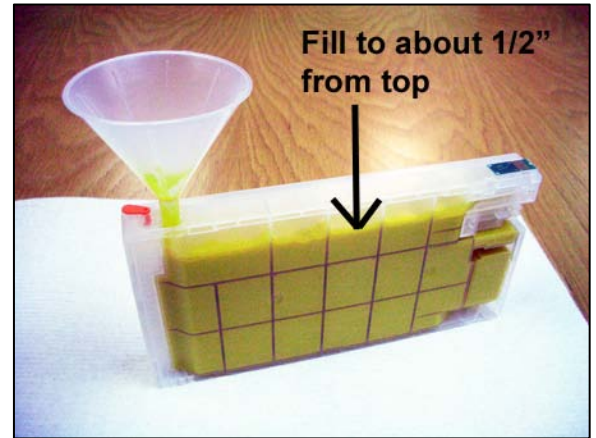
Stand a cartridge upright on some paper towel. Familiarize yourself with the two rubber bungs and holes on the top surface. The white rubber is in the ink filling hole – this bung should always be in place when the cartridge is installed in the printer, and should only be removed when you are refilling a cartridge. The smaller rubber bung is in the air vent hole – this bung should always be removed when the cartridge is installed in the printer, and should only be in place when you are refilling a cartridge. The only time you should have this bung in place when the cartridge is installed in the printer is if you intend to not use your machine for an extended period – inserting the bung will stop any ink evaporation during extended periods of non-use.

To fill a cartridge, remove the bung from the ink fill hole and insert a clean funnel into the hole as in this picture.

Take an ink bottle of the appropriate color and gently start to pour the ink into the funnel. Double check you are using the correct ink color for the cartridge you are filling. As the ink level nears the top of the cartridge, slow down the pour rate and stop filling when the ink about ½" from the top of the cartridge. There is no point in trying to fill the cartridge more than this level – you will be in danger of over flowing the cartridge and making a big mess! If you notice that there is a lot of foam being created on top of the ink that prevents you filling the ink up to the neck of the cartridge, you may have to let the cartridge stand until the foam disperses before you can continue refilling with ink.
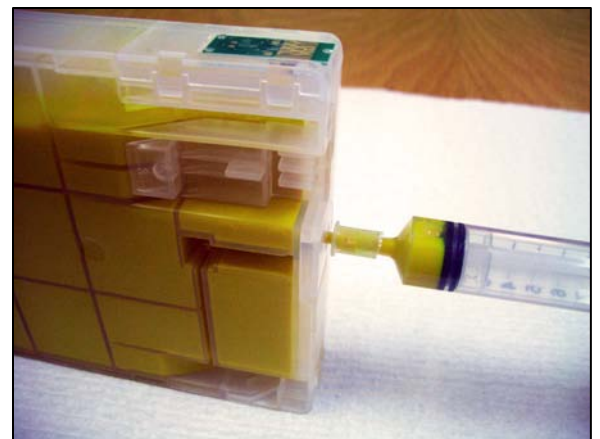

Fill to about 1/2" from top

Remove the funnel from the cartridge and insert the rubber bung firmly back into the filling hole. Clean the funnel using water under a faucet, and store in a clean place ready for when the cartridge needs refilling again. Repeat the filling process with each cartridge that you intend to install at this point using a clean funnel for each cartridge and ensuring you fill the correct color ink into the correct color cartridge.

If intend to install a full set of refillable cartridges and run an initial fill routine to fill the printer with ink, then simply install the refillable cartridges remembering to remove the rubber bungs from all the air vent holes.

PRIMING CARTRIDGES INDIVIDUALLY

If you are installing refillable cartridges one at a time so existing standard cartridges can be used up, you will need to extract a small amount of air from each refillable cartridge that gets trapped during the initial filling process before you first install the cartridge in the printer. Failure to do this will mean that this trapped air will eventually make its way to the print head and cause some nozzle drop outs during printing. Several cleaning cycles would be needed to remove this air if this happens.

To prime a cartridge, remove the bung from the air vent hole. Gently insert a 10 ml syringe with end adaptor fitted into the ink exit port. Pull on the syringe plunger until you get a steady flow of bubble free ink into the syringe, as in this picture. Ink in the syringe may be returned to the bottle of the appropriate ink color. After you have removed the air from the ink port, the
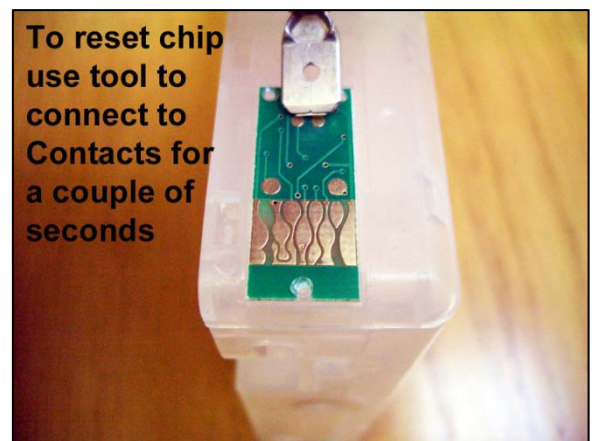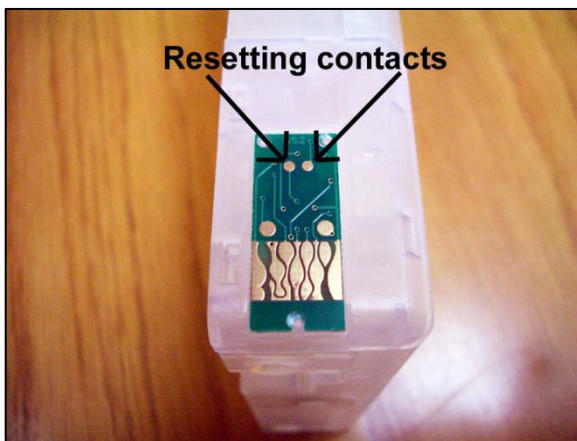
cartridge is ready for use, and the syringe and adaptor should be cleaned out with water under a faucet. Keep the syringe in a safe clean place ready for use the next time you refill a cartridge. <u>Removal of the air from the ink exit port is only necessary the first time that you fill a cartridge or if you let a cartridge run dry during printing. When you refill a cartridge normally, some ink will remain in the bottom of the cartridge and so it is not necessary to remove the air from the ink exit port.</u>

Install the cartridges in the printer in exactly the same way as regular cartridges. The ink levels should show full on the printer display. It is OK use refillable cartridges alongside regular cartridges. **Remember to remove the rubber bung from the air vent hole on each cartridge after you install them**. The printer is now ready to be used. **Please note** that this process of using a syringe to remove air is not required when installing all the cartridges at one time – the machine's initial fill routine as described in the previous sections will automatically remove the trapped air.

REFILLING THE CARTRIDGES AND RESETTING THE CHIPS

Cartridges should be refilled when the ink levels on the printer display show more than 10% remaining to ensure that a cartridge doesn't run dry. It is best to work on one cartridge at a time to reduce the risk of putting the wrong color ink in the wrong color cartridge. The method to refill a cartridge is explained above. The only difference is that the cartridge ink monitor chip will need resetting to full after refilling.

Resetting a cartridge chip is very simple. The cartridge chip has two small gold contacts – see the picture below. To reset the chip, hold the resetting tool on the chip to make a connection between the two gold contacts for a couple of seconds. If you lose the resetting tool, then anything conductive such as a paper clip can be used to make a connection between the two contacts.

After resetting the chip and re-installing the cartridge, the printer display should show the ink level at 100% for the reset cartridge. If not, remove the cartridge and try resetting the chip again. Chips can be reset to full using this method at any time, so even a cartridge that is still showing 75% full, for example, can be refilled and reset prior to a long print run if required.
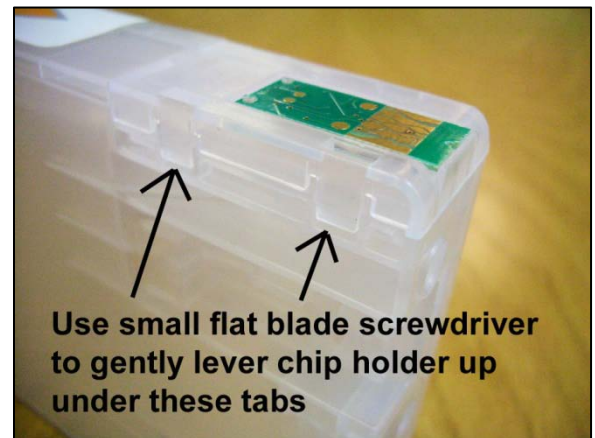
It is very important to always refill a cartridge when resetting a chip. The chip itself is simply a counter that counts the amount of ink that is removed from the cartridge by the printer – the chip has no idea of the actual amount of ink contained in the cartridge. If you don't refill the cartridge to full when resetting the cartridge

chip to full, then the ink level on the machine display will be out of sync with the actual ink level in the cartridge, and the cartridge could run dry before the printer display shows it as low or empty.

CHANGING A CHIP ON A CARTRIDGE

Cartridge chips do not have an infinite life and will fail periodically. You can prolong chip life by avoiding touching the gold contact on the chips. A chip failure is indicated by the cartridge not being recognized by the printer after resetting. Replacement chips can be obtained from the supplier where the cartridge kit was purchased.

The chips are supplied mounted on a plastic chip holding plate that snaps into place on the cartridge. To change a cartridge chip, a small flat blade screwdriver is required. Insert the screwdriver under the small tabs on the side of the chip holder and gently lever the chip holder up to un-snap it from the cartridge, as in this picture.

Use small flat blade screwdriver to gently lever chip holder up under these tabs

To install the new chip, simply line up the chip holder assembly over the recess in the cartridge and push down on the side of the plastic to snap the new assembly into place. Try to avoid touching the gold contacts on the chip during this operation. After a chip has been changed, it is wise to purchase a new spare chip from your supplier.

Push down on chip holder to snap it into place

USER TIPS

The use of an Ink2image refillable cartridge system is very simple to use as long as you remember these important points:-

1. Top up the cartridges regularly with ink. Be aware that certain colors will be used more quickly than others depending on what type of printing you do. For instance, the black ink will be used quicker than the other cartridges if you are printing screen positives using the black cartridge only. Or, if your ink set up also allows you to print full color images, then the light colors will also run down quickly. Never let the ink levels drop below ½" (1 cm) from the bottom of the cartridge and don't fill higher than ½" (1 cm) from the top of cartridge.

2. If you do accidently let a cartridge run dry, refill and prime the cartridge as described above.

3. When you have finished printing, always turn your printer off.

4. Always try and use your printer at least once a week, even if you only print one small print. This will keep the ink fresh in the printer's print heads and reduce the chance of clogging or drying out of the inks. If you are not going to use your printer for more than four weeks, then we recommend removing the cartridges and flushing the printer with cleaning cartridges or, if you are using refillable cartridges, then fill the cartridges with cleaning fluid and perform an initial fill routine.

   Apart from these points, you should use your printer just as you would with normal cartridges and, as long as you follow these simple guidelines, you will enjoy trouble free and cost saving printing.

If you require technical assistance or support with your Ink2image refillable cartridge system, please initially contact the store or dealer where the system was purchased. All Ink2image dealers are well trained in the operation of the system and can help with most problems. Alternatively, contact Ink2image technical support on 1-800-443-9508 or 847-827-0747, orat inquiries@ink2image.com.

30 DAY GUARANTEE TO REPLACE DEFECTIVE PARTS

Ink2image guarantees all parts are defect-free for a period of 30 days from the date that you receive your new Ink2image refillable cartridge system. If you have received a defective part, please initially contact the retailer or dealer from where the system was purchased.

DISCLAIMER

Because Ink2image refillable cartridges are self installed by the user, Ink2image is not responsible for any damages to your printer, whether they are or are not related to the Ink2image refillable cartridge system. Please contact the store or dealer where the printer was purchased, or the printer manufacturer for any problems or questions related to the printer and its operation.

If the Customer chooses to use ink in the system from another manufacturer other than Ink2image, and is not satisfied with the ink, or it clogs the printer or the bulk feed system, it will be the Customers responsibility to pay for the parts to repair the system and restore it to normal usage. We can only guarantee that the Ink2image refillable cartridge system will deliver Ink2image ink just as well as a normal ink cartridge. We will not accept returns of used systems, or systems filled with third party ink that the customer later decides does not meet their specific needs**.**