ColorWay
www.colorway.ua

Installation instructions
Continuous Ink Supply System (CISS). Item code: H121CN-4.5NC
CISS for inkjet printers that use HP121/122 cartridges.

Thank you for purchasing CISS TM ColorWay. We appreciate your support and we do our best for convenient usage of our products.
Continuous Ink supply system
Continuous ink supply system (CISS) is a device that is used for massive printing volumes, such as color copying, instant printing and other promotional materials printing. Systems are ideal for home and work operation.
CISS represents a device, which consists of inktanks with inks, linked with multichannel silicon tube with cartridges, identical to the original ones. CISS ColorWay uses high quality inks TM ColorWay.

Box content:
1. 4-colours ink tank set with rubber plugs – 1 pc.
2. 4-lines damper set – 1pc.
3. 4-channel silicone tube – 1pc.
4. Tube clincher "clip" – 2pcs.
5. U-shaped tube clincher – 3pcs.
6. T-shaped tube clincher – 1pc.
7. Stainless steel tube holder – 1pc.
8. Double-sided adhesive tape – 1 set.
9. Binder clip - 2pcs.
10. Ink tanks holder – 2pcs.
11. Screwdriver – 1pc.
12. Elbow hose with elbow ring – 4 pcs.
13. Cartridge rubber plug (small, black) – 4 pcs.
14. Cartridge rubber plug (big, white) – 4 pcs.
15. Refill tool – 1pc.
16. Refill tool rubber pad-connector – 2pcs.
17. Air filter – 4 pcs.
18. Syringe with needle – 4pcs.
19. Installation manual – 1pc.
20. Gloves – 1 pare.

Appearance and content may vary. Pictures are represented only for general understanding of installation of CISS. Manufacturer has a right to change characteristics and content without notice.

As an option inks: HP121CN-0.0NC (without inks); HP121 CN-4.5.NC (4x50 ml); HP121CN-4.1.NC (4x100 ml).
Please note: Box does not include original cartridges. Box content may vary.

1. Installation preparation

Installation of CISS requires technical information how to install it so we advise you to read instruction before installation.
Before installation please check the whole system and box content.
During the period of CISS usage please do not touch chips and printing heads of original cartridges, do not let dust and liquids to make them broken.
1.1. Before installation of CISS makes sure the printer is in working condition: make sure the printer works well with original cartridges and paper supply mechanism is fine. If the printer is new and it is been never used before so please go to p.1.4.
1.2. Before system installation make sure that your cartridges have never been refilled before, since depending on the way of refilling the cartridge impermeability may be broken what may lead to system inability to work. If you have been using inks of another manufacturers that differs from CISS inks, please remove old inks from cartridges. For this is convenient to use a syringe with needle

! *Reminder! The fact that in a printer is used non original consumables can be used as a reason of warranty cancelation.*
Make sure that your printer is compatible with this system (list of compatible printer models is on a side label of box).

to pull out old inks. After you need to fill cartridges with set inks. (see p.2.1.) and to check their workability.
1.3. Please print nozzles checking test or test page to check printer workability (see printer manual, MFU). If test is positive so please start CISS installation. If result is negative so please follow the recommendations on cleaning printing head via software of printer (See printer manual, MFU). During printing process no deffects should be detected (stripes, colors problems, blots and etc.)If cleaning does not give positive result, please replace broken cartridge into a new one. **Please note: in some printers and MFU with partial installation of software (only drivers is installed), printer serive settings might be absent.**
1.4. Get straight a silicone tube, it should be in fine working condition. Let CISS to lie for a while for getting room temperature.
1.5. All procedures are recommended to be organized in a way to avoid getting inks on furniture, floor and clothes.

2. Modernization and preparation.

2.1. Turn the printer (MFP) on. Open the closing cartridges cover. Wait till the cartridge holder moves to cartridge change position; plug power source off. Move the cartridge holder to "change cartridge" position and take original ink cartridges off.
2.2. Carefully unstick the label from the original ink cartridge with box cutter or similar razor (Pic.1). You will see tooling holes, depending on cartridge model there can be different quantity of holes. Some inner cartridge containers have several tooling holes (Pic.2).
2.3. In case cartridges have been used before or they are empty, you have to fill them with ink before installation (p. 2.4-2.7). If cartridges are new, please follow to p.2.8.
2.4. To make sure that you are injecting correct color of ink into the correct filling hole, insert match into the respective filling hole, deep enough to pick up some ink and check to which color it will dye. That color matches to the necessary color of ink. **Do not muddle colors; the cartridges with the same number may have different color consequence!**
2.5. Fill the syringes with ink and assemble needles on them. Put the cartridge by printing head down on the paper towel – in case you fill more ink that it needs, the towel will absorb the rest of ink, won't let ink overflow and mix on cartridge nozzle.
2.6. Insert the needle into the corresponding color filling hole with foam sponge for about 1 cm and slowly push the syringe plunger down. Inject 1-2 ml of color ink and 2-3 ml of black ink into the cartridge. Do not mix up the colors (Pic.3); do not let ink overflow the cartridge; do not fill in the cartridge without sponge inside. If it's necessary, gently pull back on the plunger to remove the excessive ink and reduce the dose of ink. Repeat this procedure for each color. During the filling process do not fill those halls where foam rubber is absent.
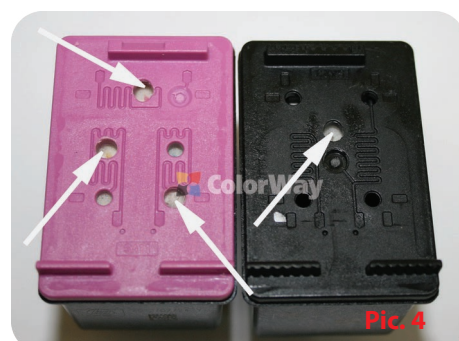

Pic. 1

Pic. 2
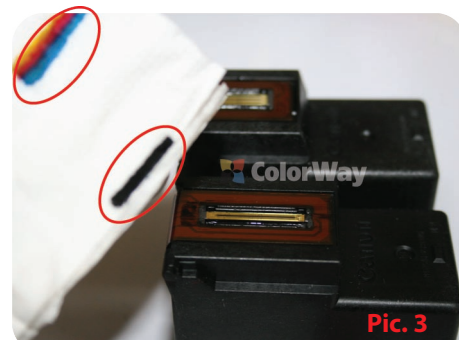
Pic. 3

Pic. 4

Pic. 5

Pic. 6

2.7. Once you've done, wipe off the cartridge nozzles and contacts with paper towel. Ink shouldn't accumulate on the printing head. If this happens, insert the syringe with needle in the hole and pull excess ink back to the syringe. For checking you can lean a clean tissue on cartridge nozzles. If a clear trace of all colors is observed you've done a successful refill. (Pic. 3)

2.8. Take the cartridge to your hand and drill 4 working holes by screwdriver in strict accordance with Pic.4, 5. Via these holes ink will flow from the ink tanks.

2.9. Install in the working holes with elbow rings. Please note, elbow rings should close the holes tough; there is no need to drill the bigger holes to insert the rings (Pic. 4;5). If it is necessary you can push the rings with a blunt object (for example pen). Elbow rings shouldn't contain any damages after the installation. All other holes should be plugged with small black rubbers (Pic. 6)

If you occasionally make extra holes, you should block them up with big white rubbers.

3. Connecting cartridges with the tube.

3.1. The color consequence in the cartridges with the same number may differ. Before the CISS installation you have to make sure what color is inside of cartridge chamber: insert the match into the filling hole and see to which color it'll dye. If top chamber of the cartridge is filled with **YELLOW** ink, leave the color consequence without changes (Pic. 7). If there is **MAGENTA** color – **please change labels on the ink tanks and color rubbers on the silicone tube tip** (Pic. 8). Please make sure in correct color sequence of tubes before connecting them to the cartridges.

3.2. Stick the metal holder by means of the double-sided adhesive tape to the color cartridge. Please pay attention –the right corner of the holder should locate in the middle of the cartridge (Pic.9, 10). **While using of double-sided adhesive tape it's recommended to degrease the surface with alcohol-containing liquid. (Do not use dissolving agents).**

3.3. When necessary move the elbow hoses inside the tube towards cartridge. Insert tube into the holder (Pic. 11) the tube shouldn't hang loosely in the hanger, when applicable you can slightly bend the holder.
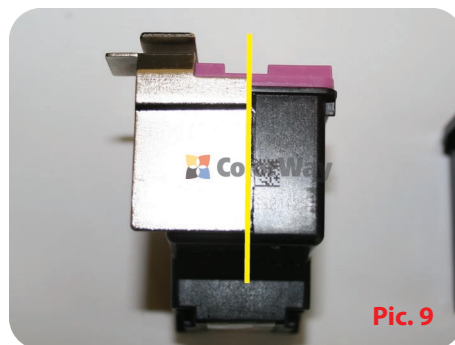
3.4. Take off color rubber plugs from the tips of the silicone tube. Than connect tube with the cartridges. Do not mix up the colors; avoid clamping of the inky tube; do not damage rubber plugs (Pic.12). The tube should be fixed with metal holder at the right angle (90 degrees).

Pic. 7

Pic. 8

Pic. 9

Pic. 10

Pic. 11

Pic. 12

4. Ink tank refilling

PLEASE NOTE: INK VERY BADLY WASHED OFF, PLEASE ORGANIZE ALL THE PROCEDURES VERY CAREFULLY!

INK CAN RUIN YOUR FURNITURE AND CLOTHES; MAKE SURE THAT YOUR WORKING SPACE AND CLOTH ARE NOT CHERISHED.

Fill in the ink tanks as it shown on Pic.13:

4.1. Plug small aperture with the rubber;

4.2. Inject ink though the big aperture;

4.3. Plug the big aperture;

4.4. Unplug the small aperture, insert the air filter;

4.5. In case big apertures weren't plugged, ink level in both chambers will become equal. In this case you have to unplug both chambers, insert the syringe with pulled back plunger into the small aperture. Carefully push the syringe plunger down, injecting the air into the small chamber and transferring ink into the big chamber. Than plug the big aperture (Pic.13 – images 4.5).

In-service ink tanks should be correctly filled-in: please pay attention to operating level of ink in small chamber – it should be minimal.

Pic. 13

work level

4.1   4.2   4.3   4.4   4.5
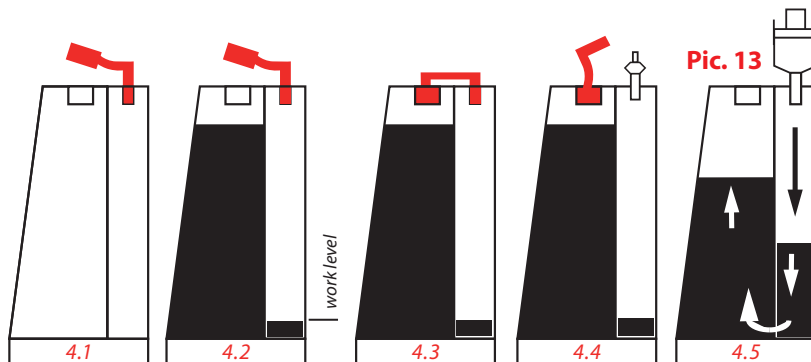
> **!** *Note: Do not place ink tanks higher than level of cartridges (printing head) it may cause leakage. Due to excess pressure ink flows into the printer and may spoil printing head and electronic contacts. Keep the ink tanks on the same level with the printer. The air filters (membrane) should be clean and dry. If the air filter is moisten with ink or any other liquid – it stops passing the air and CISS stops working properly (the missing colors are observed on printouts). In this case it'll be better to take filter away and use the CISS without it.*

5. System pumping

5.1. Before pumping of the system you need to fill the damper chambers with ink. Take the dumper set out from the holder (Pic.14).

5.2. Pull out the rubber plug from the damper. Insert syringe without needle and pull up the plunger (Pic. 15). Please wait until the damper chamber will fill up with ink; take syringe out and plug up the damper chamber. Take the clean syringe and purge other chambers.

5.3. Insert the damper set into the holder.

5.4. Put the rubber pad-connector into the cartridge holder. Make sure that pad-connector has through hole. Pad-connector with oblong hole intended for purging of black cartridge; connector with smaller hole is intended for purging of color cartridge (Pic.16).

5.5. Put cartridges into the holder in turn, changing corresponding rubber pad-connectors. Hold down cartridge in the holder with

Pic. 14

Pic. 15

your finger and insert tip of the syringe into the rubber pad-connector. **SLOWLY** pull the plunger of the syringe (Pic.17); while purging ink start flowing by tube to the cartridge. Please wait until ink passes the whole tube and starts drawing into the syringe. Do not pull out the syringe abruptly and do not release plunger until stabilization of pressure inside the syringe. Then you can pull cartridge from the holder.

5.6. Take the cartridge out from the holder and wipe off the printing head and metal contact points with a piece of tissue paper. For checking you can lean a clean tissue on cartridge nozzles. If a clear trace of all colors is observed you've done a successful purging. (Pic.3). If necessary hold the tissue on cartridge nozzles for some time to absorb the excessive or mixed ink.
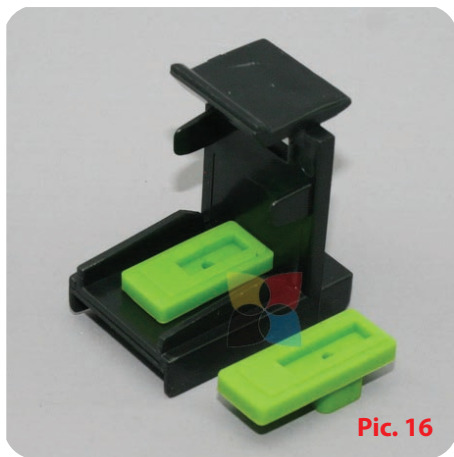
5.7. To avoid ink outflow during the installation of cartridges into the printer, after purging take tube in about 5-6 cm far from ink tanks, refract and fix it with the binder clip (Pic.18).
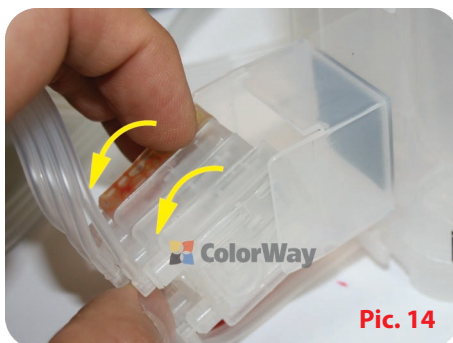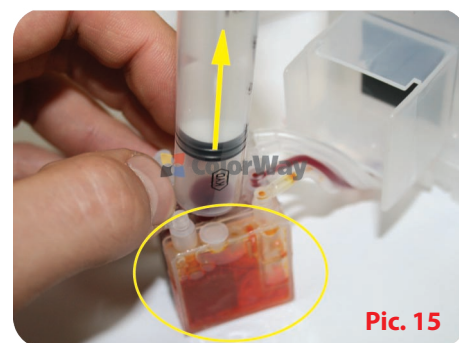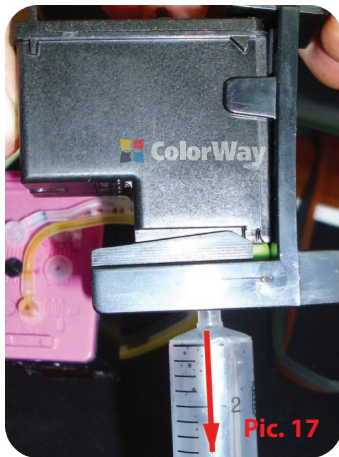
Pic. 16

Pic. 17

Pic. 18

6. Setting up the tube

Due to big quantity of HP printers and MFU's on the market we cannot describe tube setting up for all HP models. That's here below presented the main variations of the setting of the tube based on several models of printers and MFU's. Please be aware that configuration and arrangement of the printer (MFU) may differ from attached pictures

> **!** *Before you start to fix the tube, you need to clearly understand the principle of its movement during the printer operation, as well as to understand the basic fixing principles:*
> *Rule № 1: The length of the tube should be enough for free movement of the printhead from the extreme right – to the extreme left position;*
> *Rule № 2: The tube can bend and touch the printer itself during the moving of print head, but the tube should not get stuck between moving and stationary printer parts!*

Turn the printer (MFU) on. Open the closing cartridge cover. Wait till the cartridge holder moves to cartridge Change position; plug power source off. After this you can move cartridge with your hand

Variant 1. Installation of the CISS on HP DeskJet 1000 / 1050 / 2000 / 2050 / 3000 / 3050 printers and MFU
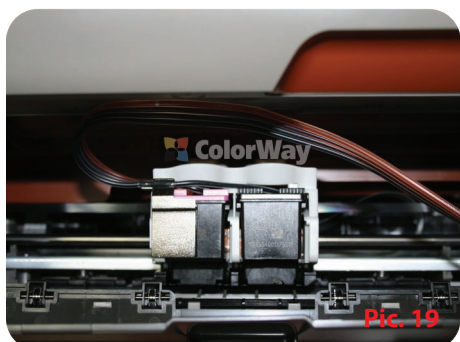
6.1.1. Insert cartridges into the carriage (Pic. 19). Please pay attention to the silicone tube position (output). It must be securely fixed in the metal holder perpendicularly to the cartridge sidewall (Pic. 12). Please note: tube lines should not be squeezed between cartridges and printer carriage.

6.1.2. **For printers:** fix the tube on the top with П-shaped tube clincher and double-sided adhesive tape. (Pic. 20; 21).

6.1.3. **For MFU:** to fix the tube you need to cut T-shaped clincher as it shown on Pic. 22. Then paste up 2 parts of T-shaped clincher by means of double-sided adhesive tape, so that the groove formed between between them (Pic. 23). Insert the tube into the tube clincher and stick it under the scanner block so that closing MFU cover fixed into the groove (Pic. 24; 25). The left edge of the tube clincher should be located near the left lock of cartridge compartment cover.

6.1.4. Slide the carriage back and forth from the far left position to the far right. The carriage should move easily without twisting the tube. If required, adjust tube length by gently pulling the silicone tubing in the direction required (Pic. 26; 27). Close the cartridge compartment cover.
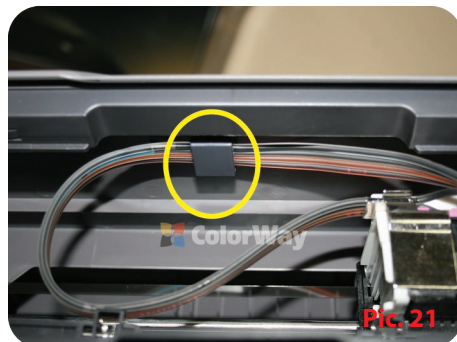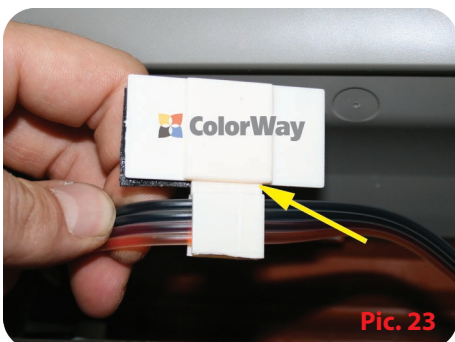
6.1.5. Fix the tube on the right side of the printer (MFU) (Pic. 28).
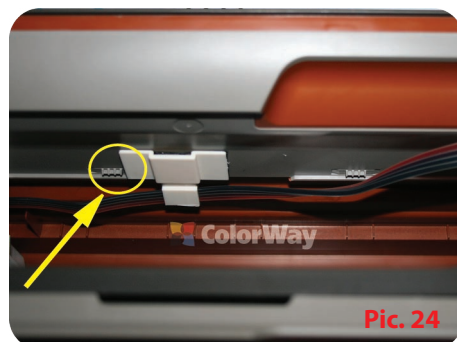

Pic. 19
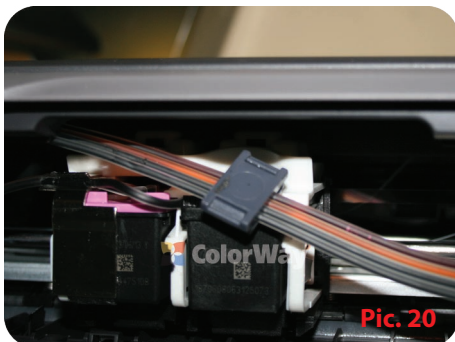
Pic. 20

Pic. 21
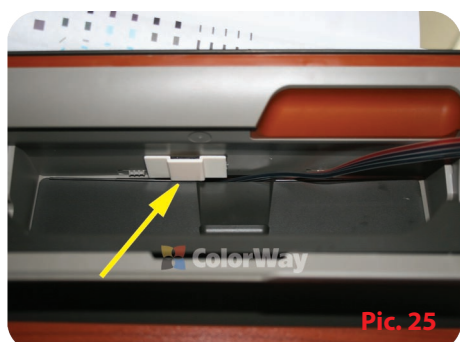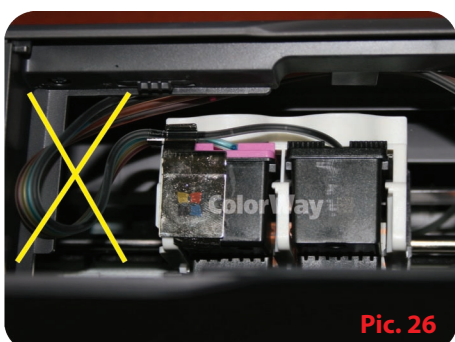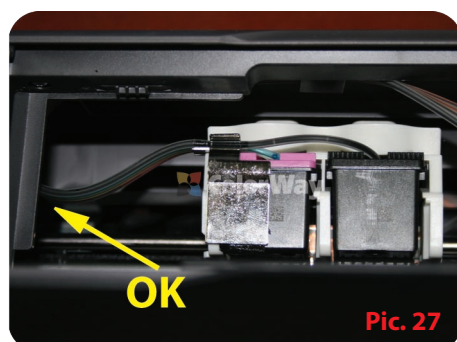

Pic. 22

Pic. 23

Pic. 24

Pic. 25

Pic. 26

OK

Pic. 27

Variant 2. Installation of the CISS on HP DeskJet D2500 series printers.

6.2.1. Insert cartridges into the carriage (Pic.19). Please pay attention to the silicone tube position (output).

It must be securely fixed in the metal holder perpendicularly to the cartridge sidewall (Pic. 12). Please note: tube lines should not be squeezed between cartridges and printer carriage.

6.2.2. Fix the tube on the top with T-shaped tube clincher and double-sided adhesive tape. (Pic. 29).

6.2.3. Slide the carriage back and forth from the far left position to the far right. The carriage should move easily without twisting the tube. If required, adjust tube length by gently pulling the silicone tubing in the direction required. Close the cartridge compartment cover.

6.2.4. Fix the tube on the right side of the printer, in the way that does not interfere paper output while printing.

Variant 3. Installation of the CISS on HP DeskJet F2400 series / F4400 series MFUs.
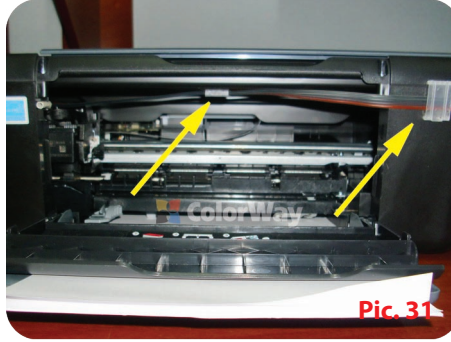
6.3.1. Insert cartridges into the carriage (Pic.19). Please pay attention to the silicone tube position (output).

It must be securely fixed in the metal holder perpendicularly to the cartridge sidewall (Pic.12). Please note: tube lines should not be squeezed between cartridges and printer carriage.

6.3.2. Fix the tube on the top edge under the scanner block with П-shaped tube clincher (or Tube clincher "clip") and double-sided adhesive tape (Pic.30; 31).

6.3.3. Slide the carriage back and forth from the far left position to the far right. The carriage should move easily without twisting the tube. . If required, adjust tube length by gently pulling the silicone tubing in the direction required. Close the cartridge compartment cover.

6.3.4. Fix the tube on the right side of the printer, in the way that does not interfere paper output while printing (Pic.32).

Pic. 28

Pic. 29

Pic. 30

Pic. 31

Pic. 32

Variant 4. Installation of the CISS on HP DeskJet F4200 series MFUs.

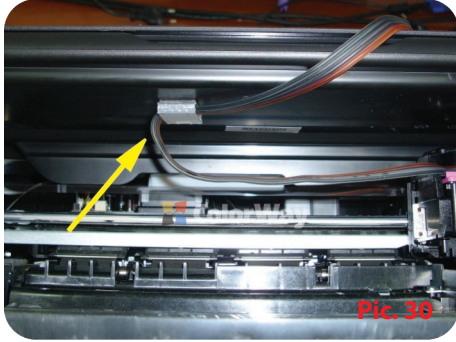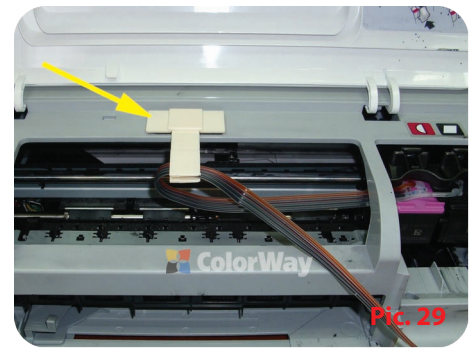6.4.1. MFU has internal partition; move the carriage to the left pass cartridges through the partition. . Insert cartridges into the carriage (Pic.19). Please pay attention to the silicone tube position (output).

It must be securely fixed in the metal holder perpendicularly to the cartridge sidewall (Pic.12). Please note: tube lines should not be squeezed between cartridges and printer carriage.

6.4.2. Fix the tube on the top edge under the scanner block with П-shaped tube clincher (or Tube clincher "clip") and double-sided adhesive tape (Pic.33).

6.4.3. Slide the carriage back and forth from the far left position to the far right. The carriage should move easily without twisting the tube. If required, adjust tube length by gently pulling the silicone tubing in the direction required. Close the cartridge compartment cover.

6.4.4. Fix the tube on the right side of the printer, in the way that does not interfere paper output while printing (Pic.34).

Pic. 33

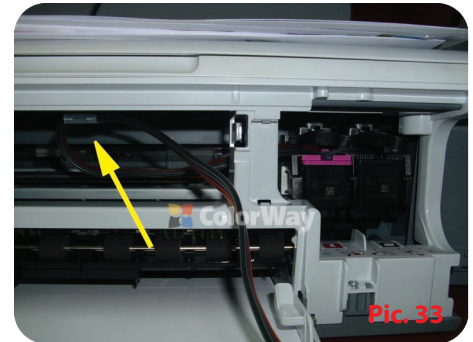## Variant 5. Installation of the CISS on HP DeskJet D1600 series printers.

6.5.1. MFU has internal partition; move the carriage to the left pass cartridges through the partition. . Insert cartridges into the carriage (Pic.19). Please pay attention to the silicone tube position (output).

It must be securely fixed in the metal holder perpendicularly to the cartridge sidewall (Pic.12). Please note: tube lines should not be squeezed between cartridges and printer carriage.

6.5.2. Fix the tube on the top of the printer by means of binder clips and remove the handles (Pic 35;36).

6.5.3. Slide the carriage back and forth from the far left position to the far right. The carriage should move easily without twisting the tube. If required, adjust tube length by gently pulling the silicone tubing in the direction required. Close the cartridge compartment cover.

6.5.4. Fix the tube on the right side of the printer, in the way that does not interfere paper output while printing (Pic.37).

Pic. 34

Pic. 35

Pic. 36

Pic. 37
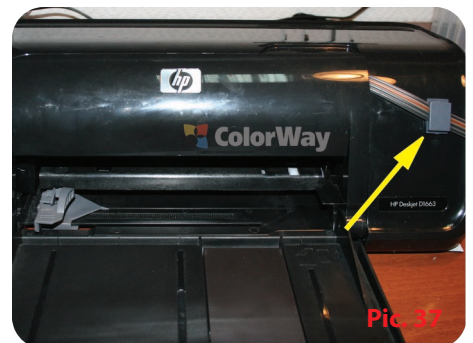
7. System start up

! *Before system start, please monitor whether you strictly followed to all instructions in section 4 "Refilling of ink tanks". Make sure that ink tanks are on the same level with the printer; and air holes are open.*

7.1. Remove the binder clip (Pic. 18) to recover the tube.

7.2. Turn the printer (MFU) on. Wait until the printer (MFU) is ready mode.

7.3. Use printer (MFU) driver and perform a 2-3 cycles of printing head cleaning and nozzle check. Then execute the nozzle test to make sure that all the nozzles are ok (p.1.3. of this manual). If some nozzles print badly, leave the printer for several hours, to let go the air that may get inside while the installation of the printing head; and the pressure inside the system stabilizes.

If this didn't help, perform the print head cleaning once again and follow to section 10 of this manual.

7.4. If your printer is stating that cartridge is run out of ink – ignore this, choosing the commands to continue printing on printer display. Do not allow excess air in silicone tube, it may damage the cartridge.

7.5. As the rule, printer cartridges are disposable. But using of the CISS provides the constant ink inflow that cools the cartridge nozzles. This helps to extend the shelf life of the cartridge. CISS stability is provided by printing frequency. If you print not very often the cartridges may dry out. In this case printer doesn't recognize this cartridge and it must be replaced with a new one.

7.6. If the printing quality is still unacceptable after several print head cleanings, you should pull cartridges out and inspect them. There shouldn't be ink on the nozzles. If necessary, wipe off the cartridge nozzles with paper towel. For checking you can lean a clean tissue on cartridge nozzles; there should be a clear trace of all colors (Pic. 3).

8. Service regulations of CISS

8.1. External ink tanks should be filled correctly. A minimum level of inks should be in small ink tanks (p.4. Filling of ink tanks.

8.2. Big halls in tanks should be closed and small halls open with air filters.

8.3. External ink tanks should be standing on the same level with printer, do not lift them higher than level of cartridges because it may cause leakage. If air filters do not work properly due to various reasons please remove them and use system without them

8.4. Silicone tube should be installed properly and do not obstruct a movement of printing head.

8.5. Print no less than 1 time a week to avoid printing head drying.

8.6. Use only high quality inks, do not mix inks of various brands and types. It may harm cartridges.

8.7. During printing do not get upside down tanks of inks.

8.8. Use CISS in clean room at temperature of 15-35 C.

8.9. Do not get separate CISS parts. For getting the best printing quality please use inks and paper TM ColorWay.

8.10. During a long-term storage, please do not get upside down your CISS, remove air filters and close small halls of CISS ink tanks to avoid ink leakage.

8.11. Do not keep it under direct sun light.

8.12. Keep out of the reach of children, do not let inks to harm eyes.

9. Transportation of CISS with printer.

9.1. Put out air filters and close with caps small halls in order to avoid leakage.

9.2. Bind with binder a silicone tube that comes from CISS to printer.

9.3. Transport a printer with CISS in horizontal position, do not get printer upside down. For more convenience you can stick air tanks to printer.

10. Questions and answers.

10.1. Air bubbles in a silicone tube/One or two colors do not work properly:

In case: if cleaning do not lead to positive result and you still have problems with colors workability.

Solution: a system is not properly pumped and as a result in cartridges lots of air, you need to pump system properly one more time.

Solution: halls in cartridges are not drilled properly or rubber seals are harm. Replace rubber seal and glue around halls with silicone.

Solution: L-shaped stuck with parolon inside cartridges. Remove connection and cut it on 2 mm.

Solution: External tanks are lower than printer. Please get tanks on the same level with printer.

Solution: Print test page, identify which color does not work and check the whole length of silicone tube. After this please make cleaning couple of times

Solution: the main reason of problem is drying of printing head that can be caused by long time printer unworkable condition or usage of low quality inks. Please use a driver for standard cleaning procedure and repeat all procedures after 2-3 hours.

Solution: a cartridge has deffects and needs to be replaced.

10.2. Incorrect colors transfer/color inversion.

In case: if all colors of pictures are unnatural.

Solution: Please open graphical editor, draw some color trinagulars, print it, if colors does not work (for example, instead of yellow is blue or green), then a silicone tube is installed in wrong way. It is necessary to replace cartridge and to install a silicone tube in correct way.

10.3. A printer does not recognize cartridges.

In case: if a printer does not recognize cartridges. Solution: bad contact of cartridge with chips, make sure that cartridges installed correctly. Clean chips of cartridges with dry napkin.

Solution: Please bind with a binder a silicone tube, put out tubes from cartridges and if a printer still does not recognize cartridges then you need to replace cartridges

10.4. Blot on paper, a permanent air in tubes.

In case: you see blots on paper. Solution: tanks are not on the same level with printer or in small tanks are to much of inks. Please get inks tanks on the same level with printer and control filling procedure.

10.5. Error with carriage positioning.

In case: when printer says General Error or your printer needs service

Solution: during the printing a carriage cannot move. A silicone tube might be too short of long, please adjust a necessary length of silicone tube. If an external part gets in a printer, please check printer body on any external parts.