HQ

Mortsel

How to Shutdown and Start up
:Anapurna M$_W$

Document History

Review Date	Document Version	Changes
March 18, 2010	Version 1.2	

AGFA *Agfa*

1 Contents

2   Related Documents

⇨   the :Anapurna M$_W$ Operator Manual
⇨   How to Calibrate the :Anapurna M$_W$
⇨   How to Maintain the :Anapurna M$_W$
⇨   How to Handle the Media on the :Anapurna M$_W$
⇨   How to use the Wasatch Soft RIP on the :Anapurna M$_W$

3   Shutting down the :Anapurna M$_W$

When switching OFF the Anapurna, the following needs to be considered.

⇨   As long there is ink in the Heads, the negative air pressure must be supplied to avoid color contamination due to unwanted color reflow in the ink provision mechanism.

⇨   In order to maintain optimum system quality, the air pressure must be available at all times.
The negative air pressure mechanism is necessary to avoid dripping of heads
and unwanted color mixing in the ink provision mechanism.

For this reason we have foreseen the following situations.

⇨   Overnight situation
   o   In case the White Ink system is active, the system should remain switched on
with the "WEEP" function active. (Every 3 to 5 min See Parameter Settings).
   o   In case the White Ink system is disabled, the :Anapurna MW can be switched OFF overnight, as long as the Air Pressure remains available.

⇨   For a period longer than 3 nights
Use the "Long stand still procedure.

3.1 Daily Shut Down Procedure.

3.1.1   White system is Active

⇨   The carriage is at the Home Position (after printing).
- o   Perform a Prime Test to check if all the print heads are in good shape.
(See How to Maintain the :Anapurna Mw)

⇨   Turn the Lamps 'OFF'.

⇨   Let the Lamps cool down
(wait for Lamp Fans to go off).

⇨   In a normal overnight situation, the compressor has to stay "On" 24 h/7 days
- o   Keep the Ink valve levers on "I" for white and color printing heads
- o   Keep the Solution valve lever on "I"

⇨   When the white ink system is active, the system should remain switched on
with the "WEEP" function active. (Every 3 to 5 min See Parameter Settings).

⇨   The engine should not be switched OFF overnight in order
to keep the ″WEEP″ functionality for the white printing heads.

⇨   In case it is not acceptable to leave the engine switched ON overnight
The ″Long stand still″ procedure needs to be followed.

☞   ″WEEP″ every x minutes the White Heads will be fired when in Home Position
to maintain ink circulation in the White printing heads.

Place a new absorbing cloth or paper on top of the home cover tray, to absorb the
″weep-ed″ ink from the white printing heads.

3.1.2 White system is Disabled (Switched OFF)

⇨ The carriage is at the Home Position (after printing).

   o Perform a Prime Test to check if all the print heads are in good shape.
     (See How to Maintain the :Anapurna MW)

⇨ Turn the Lamps 'OFF'.

⇨ Let the Lamps cool down
  (wait for Lamp Fans to go off).

⇨ In a normal overnight situation, the compressor has to stay "On" 24 h/7 days

   o Keep the Ink valve levers on "I" for white and color printing heads
     Turn the "Negative Air Pressure" for White to "0.000"
     (Use the gauge on the left of the shuttle)

   o Keep the Solution valve lever on "I"
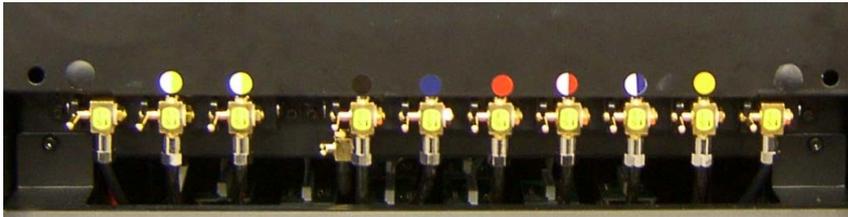
   o Flush the White Heads (See also 5.3)

     ▪ Put the 3 way valves for White to "S"

     ▪ Press the solution valve button to build some pressure

     ▪ Open the Solution 3-way valve (position "S") shortly to apply solution through the
       White heads.

     ▪ Close the Solution 3-way valve; switch to "I"

     ▪ Clean the heads with a lint free dry cloth. (Wipe gently from back to front)

⇨ Engine can be switched OFF.
  Press the Emergency button to switch OFF the :Anapurna M_W

3.2 Long Stand Still Shut Down Procedure (More than 3 days)

If not possible to keep Compressor On or if the engine will be not used for more than 3 days.

3.2.1 Drain the Solution Bar with flushing.

⇨ Remove the Front Panel (5 screws).
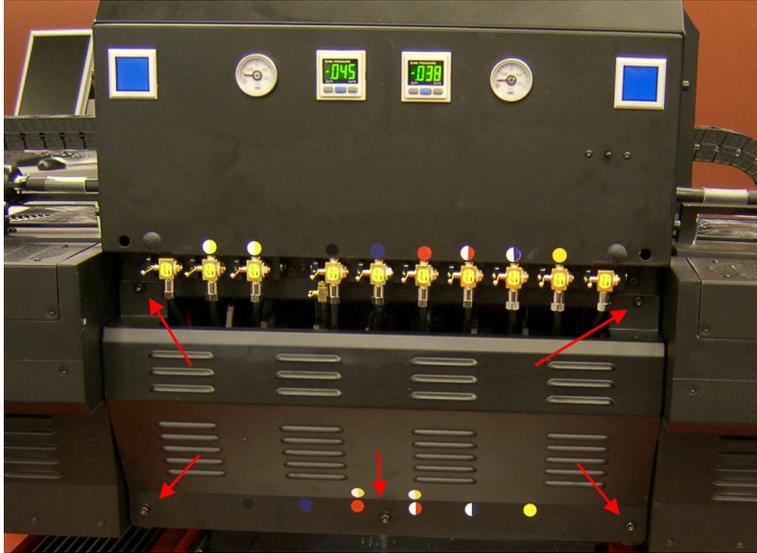
⇨ Remove the black tube-end from the mini-valve (1) and place an empty bottle (2) under it.
⇨ Open the mini valve and press the Solution Button until clear clean solution will come out the mini-valve.
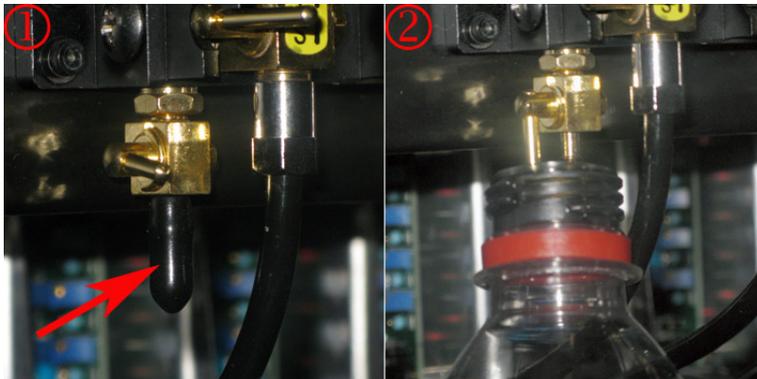
⇨ Close the mini-valve, remove the bottle and re-install all the parts.

3.2.2   Switch Off the White Ink System

Use the procedure described in Chapter 5.2

⇨   Switch OFF the White Ink System
⇨   Purge the White Heads after the White Ink System is switched OFF in order
      to empty the tubes between the White Sub Ink Tank and the White Heads.
⇨   Flush the White Heads (See 5.3)

3.2.3   Flush the Color Heads with Flushing Solution.
NOTE: never use solvent or detergent (e.g. Acetone, Isopropyl, etc.)

Clean the heads one by one.

⇨   First clean the Black head by moving the Black 3-way Ink Valve on "S"
⇨   Push the Solution Valve Switch, to build pressure in the flushing solution tank.

Valve on Ink   Solution Valve   Valve on Solution

⇨   Open Solution Valve for 2 seconds (position "S") to flush the Black head with solution.
      Close the solution Valve again. (position "I")
      Check on the Display if the solution tank is refilled.
      A small "s" means that the Solution is being filled.
      A Capital "S" means that the Solution is filled
      Wait for the "S" before opening the solution valve again.
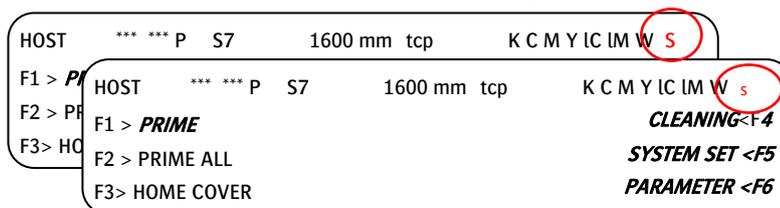
⇨   Move the Black ink valve back to ink position "I"
⇨   Then repeat this procedure head by head from left to right.
      When pushing the Solution Valve Switch again check on the control panel the status of Solution

⚠   NOTE: Flushing too long will the empty sub tank and will introduce air into the circuit.

⇨   Once all the heads have been cleaned, switch all ink valves to position "S" and
      flush again flushing solution through all the heads together until you can see only flushing Solution
      coming out from the heads.

⇨   Switch the 3-way ink valves for Solution back to 'I' position.

⇨   Clean the residue of the flushing solution on the print heads (wipe gently from
      back to front)
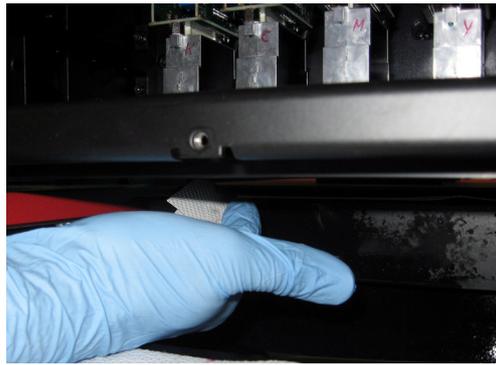
⇨   Clean the base plate with a dust free dry cloth.
     Or wetted with flushing solution

⇨   Turn the Vacuum Gauge to zero.

⇨   Flush all heads again after 2 hrs.

⇨   Flush all heads again after 12 hrs.

3.2.4   Move the shuttle to Capping Station

NOTE: Clean first all the cups of the capping station with a clean white cloth. Make sure it is dry and free from dust and particles.

⇨   Open the cover of the capping station
    switch the Capping Cover Switch to "OPEN".

⇨   On the control panel press "ESC" to go Off-Line and than press the button [CAPPING] to move the shuttle to the capping station.

⇨   Push the Red Emergency Button to switch off the engine

⇨   Turn the Power Switch 'OFF' (rear side of the Anapurna) to cut the power completely

⇨   Now other devices may be switched OFF.
    o   Compressor
    o   Air conditioning devices if any.

NOTE: This procedure has to be followed to avoid:

        Ink contamination inside the 3-way valves and the Solution Bar.
        This can cause color pollution resulting in wrong colors.

4 Start Up the :Anapurna M$_W$

4.1 Starting Up after a ′Daily Shut Down′

4.1.1 Daily start when the White System is kept Active

⇨ Clear the Media transport table
⇨ Verify if the White Ink system is still ON.
  If the White sub ink Temp shows a green "40 degrees", the White system is on.
⇨ Else : See Chapter 5.1 (Enable the White Ink System)
⇨ Continue with Prepare for Printing (See 4.1.3)

4.1.2 Daily start when the White ink system was disabled

4.1.2.1 Check the engine

⇨ Clear the Media transport table
⇨ Release the Emergency Buttons (turn clockwise to release)
⇨ Press the "Start" button to start the engine.
⇨ In case the White Ink System will be used
  Switch ON the White Ink System (See 5.1)
⇨ In case the White Ink system has to stay "Disabled"

  o Flush the White Heads with Flushing Solution
  o Clean the White Heads with a lint free cloth. (Wipe gently from back to front)
⇨ Continue with Prepare for Printing (See 4.1.3)

☞

White Heads must be flushed with Flushing Solution 3 to 4 times a day.

  o To avoid drying of the head and nozzle constipation during color printing
  o To flush any sediments from the White Heads that are loosened from the Head Ink Chambers by the Flushing Solution.

4.1.3 Prepare for printing

Wait till the system is warmed up completely.

⇨ Open the " Home Cover" press [F3]
⇨ Turn the under pressure gauge to "000"
     Use Left gauge for the White system
     Use Right gauge for the Color system

⇨ Let all heads drip for about 1 minute.
⇨ Reset the under pressure display to " 000" (press left and right button for a few seconds)
⇨ Turn the under pressure on again.
⇨ For white use " -0,041" for color "-0,038"
⇨ Clean the heads with a new Dust and lint free cloth. (use a different cloth for each head)
⇨ Gently wipe from back to front.
⇨ Place some media on the table
⇨ Switch on the vacuum
⇨ Perform a head gap
⇨ Do a prime for colors and white.
⇨ If prime is ok, the system is ready for printing
⇨ If not, perform the "purge procedure"
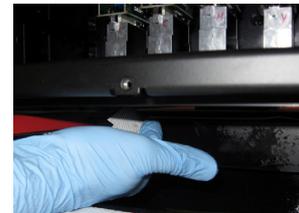
4.2 Starting Up after a 'Long Stand Still'

4.2.1 Starting the engine

⇨   Clear the Media transport table.

⇨   Switch on the Anapurna Mw.

⇨   Turn ON the Main Switch at the rear of the engine.

⇨   Press the Power Switch

⇨   When the Shuttle was previously set to Capping, the following screen appears

```
== CAPPING ==

                               UNCAPPING <ESC


Ready [POWER OFF]
```
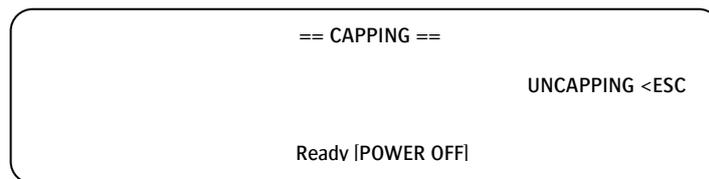
⇨   Press <ESC> to start UNCAPPING

```
== PURGE ==

F2> CAPPING
```
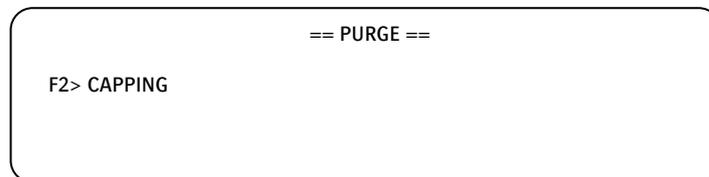
⇨   Press <ESC> to move shuttle back to its home position.

⇨   The shuttle moves to its home position

⇨   The firmware starts initializing

⇨   When working according the safety rules the next question will NEVER appear
    If the Safety Sensors were not activated; you will get a message on the Control Panel informing that
    'The Safety is OFF' (the safety sensors are OFF). You will have two options,
    Press F2 & the sensors will stay OFF or
    Press F5 & the Sensors will activate.

⇨   Press F5 (the sensors will get activated) & the carriage will start moving up.

⚠   REMARK: The Safety Sensors must always be 'ON' during production mode

⇨ The carriage will then move towards the Home Side & move down

⇨ If the white ink system was used before, and the system was switched off in a normal condition, the following option will be shown.

⇨ Use White ink system?

 o Press [enter] to confirm or [esc] to abort.

```
╭──────────────────────────────────────────╮
│           == WHITE INK SYSTEM ==           │
│                                            │
│                                            │
│    USE WHITE INK?   YES <ENTER>    NO <ESC> │
│                                            │
│                                            │
╰──────────────────────────────────────────╯
```

 o Press [ENTER] to confirm

```
╭──────────────────────────────────────────╮
│           == WHITE INK SYSTEM ==           │
│                                            │
│   WHITE INK SYSTEM  = ON                    │
│                                            │
│                          CIRCULATION<F6     │
╰──────────────────────────────────────────╯
```
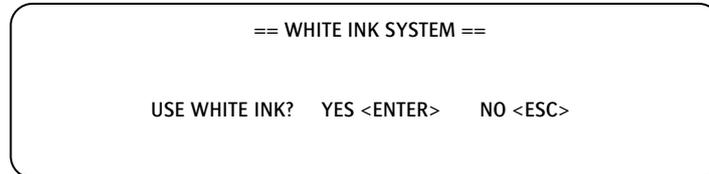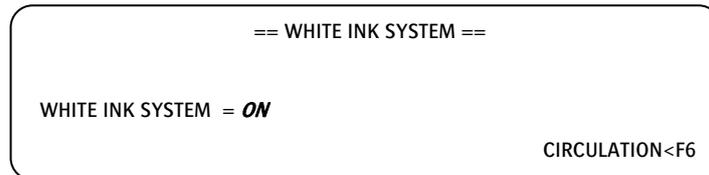
⇨ If the above message did not appear

 o Verify if the White Ink system is ON.
  If the White sub ink Temp shows a green "40 degrees", the White system is on.

 o Else: If it shows a green "10 degrees" the White system is OFF.
  Switch ON the White Ink System (See 5.1)

⚠ REMARK : Leaving ink in the heads while the White ink system off, will damage the white print head.

4.2.2   Prepare for printing

Wait till the system is warmed up completely.

While warming Up, perform a number of (5) circulation cycles for the White
in order to rinse the white ink tubes and to keep away any sediments from the heads.

⇨   Press [F5] SYSTEM SET
⇨   Press [F4] WHITE INK SYSTEM
⇨   Press [F6] CIRCULATION
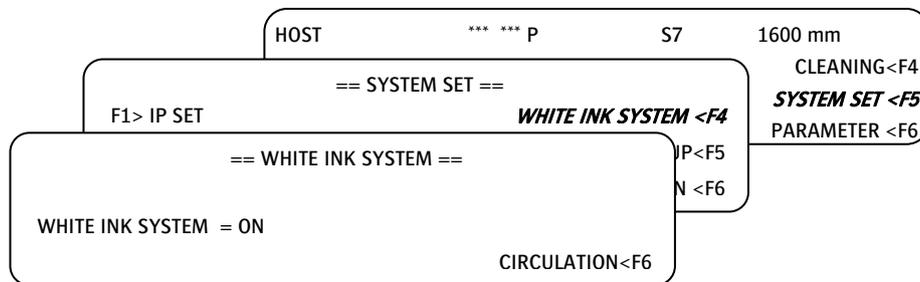
☞   Tip: Wait 30 sec between each circulation cycles in order to allow the system to re-fill the ink.

⇨   Open the " Home Cover" press [F3]
⇨   Turn the under pressure gauge to "000"
      Use Left gauge is for the White system
      Use Right gauge for the Color system

⇨   Let all heads drip for at least 3 minutes.
⇨   Reset the under pressure display to " 000" (press left and right button for a few seconds)
⇨   Turn the under pressure on again.
⇨   For white use " -0,041" for color "-0,038"
⇨   Clean the heads with a new Dust and lint free cloth. (use a
      different cloth for each head)
⇨   Gently wipe from back to front.
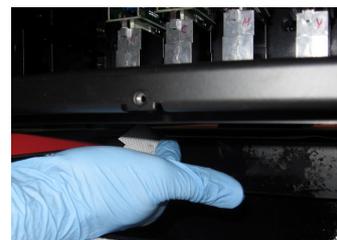
⇨   Place some media on the table
⇨   Switch on the vacuum
⇨   Perform a head gap
⇨   Do a prime for colors and white.
⇨   If prime is ok, the system is ready for printing
⇨   If not, perform the "purge procedure"
⇨   Perform a test print

Caution: When your prints feel sticky, there might be still some flushing in the head.
          let the heads drip again for a few minutes (3 min)

5 Enable / Disable White Ink System

5.1 Switch ON the White Ink System

⇨ From the Main Menu select [F5] 'SYSTEM SET'

```
HOST    *** *** P  S7      1600 mm   tcp    KCMYLcLmWS
F1 > PRIME                               CLEANING<F4
F2 > PRIME ALL                         SYSTEM SET <F5
F3> HOME COVER                         PARAMETER <F6
```

⇨ Select [F4] 'WHITE INK SYSTEM'

```
            == SYSTEM SET ==
F1> IP SET                      WHITE INK SYSTEM <F4
F2> SAFETY SENSOR                      TAKE UP<F5
F3> UV LAMP/SHUTTER                 F / W VERSION <F6
```

⇨ Use White ink system?

```
            == WHITE INK SYSTEM ==


    USE WHITE INK ?   YES <ENTER>    NO <ESC>

```

⇨ Press [ENTER] to confirm or [esc] to abort.

⇨ Press [ENTER] to confirm

```
            == WHITE INK SYSTEM ==


WHITE INK SYSTEM  = ON

                              CIRCULATION<F6
```

⇨ Perform a few 'CIRCULATION' cycles (5 x) to avoid introduction of sediment particles in the White printing head.

```
            == WHITE INK SYSTEM ==
               [ CIRCULATION ]

           WAIT: 1 Times , [ x sec]
```

⇨ Press [ENTER] to Exit and SAVE the White Ink System Menu

⇨ Open Home Cover

⇨ Switch off negative pressure

⇨ Drip heads for 3 minutes

⇨ Switch on negative pressure

⇨ Clean heads

⇨ Close home cover

⇨ Prime

5.2 Switch OFF the White Ink System

⇨ Form the Main menu

- o Press [F5] SYSTEM SET

```
HOST      *** *** P    S7        1600 mm     tcp      KCMYLCLmWS

F1 > PRIME                                           CLEANING<F4

F2 > PRIME ALL                                     SYSTEM SET <F5

F3> HOME COVER                                     PARAMETER <F6
```

- o Press [F4] WHITE INK SYSTEM

```
                    == SYSTEM SET ==

F1> IP SET                                  WHITE INK SYSTEM <F4

F2> SAFETY SENSOR                                    TAKE UP<F5

F3> UV LAMP/SHUTTER                             F / W VERSION <F6
```

- o Use the UP/DOWN Arrow to select "WHITE INK SYSTEM = OFF"

```
                  == WHITE INK SYSTEM ==


WHITE INK SYSTEM  = OFF

                                              CIRCULATION<F6
```

- o Press [ENTER] to continue.

```
                  == WHITE INK SYSTEM ==
            EMPTY WHITE INK ?  YES <ENTER>  NO <ESC>
```

- o Press [ENTER] to empty the white ink.
  The white ink system will now be emptied back into the White ink container.

```
                  == WHITE INK SYSTEM ==
                   Wait . . .   [ 12 ] sec
```

⇨ After this is done, the white heads must be switched from ink to Flushing solution.
Follow the procedure "Flush the White Print heads with Flushing Solution" as described below. (See 5.3)
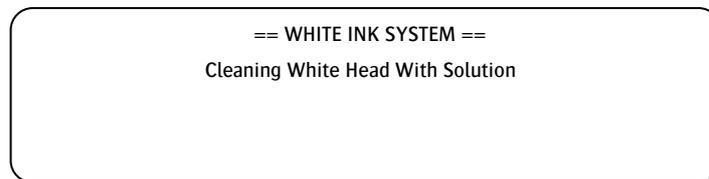
```
== WHITE INK SYSTEM ==

Cleaning White Head With Solution
```

⇨ Purge the White Heads after the White Ink System is switched OFF in order
to empty the tubes between the White Sub Ink Tank and the White Heads.

☞ When the White sub ink Temp shows "a green 10" degrees, the ink system is switched OFF.

❗ CAUTION:

When printing colors with the White Ink System disabled, the White Heads must be flushed with Flushing Solution 3 to 4 times a day.

- To avoid drying of the head and nozzle constipation during color printing
- To flush any sediments from the White Heads that are loosened from the Head Ink Chambers by the Flushing Solution.

5.3 Flush the White Heads

Clean the heads one by one.

⇨ First clean the first White head by moving the 3-way Ink Valve on "S"

⇨ Push the Solution Valve Switch, to build pressure in the flushing Solution tank.

⇨ Open Solution Valve next to the white heads for 2 seconds (position "S") to flush the head with solution.
Close the solution Valve again. (position "I")
Check on the Display if the solution tank is refilled.
A small "s" means that the Solution is being filled.
A Capital "S" means that the Solution is filled
Wait for the "S" before opening the solution valve again.

```
HOST        *** *** P   S7         1600 mm  tcp          K C M Y lC lM W   S

F1 > PR
             HOST        *** *** P   S7         1600 mm  tcp          K C M Y lC lM W   s
F2 > PR
             F1 > PRIME                                       CLEANING <F4
F3> HO
             F2 > PRIME ALL                                   SYSTEM SET <F5

             F3> HOME COVER                                   PARAMETER <F6
```
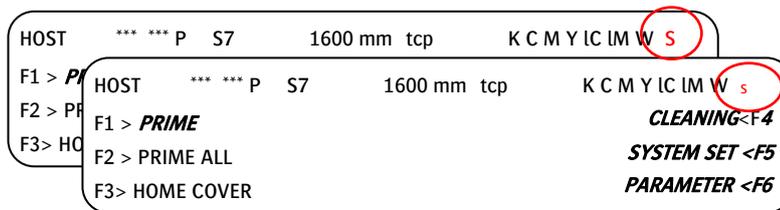
⇨ Switch the 3-way valve of the first White head back to position "I"

⇨ Then repeat this procedure for the second White Head.
When pushing the Solution Valve Switch again check on the control panel the status of Solution

NOTE: Flushing too long will the empty sub tank and will introduce air into the circuit.

⇨ Once both the heads have been flushed,,
flush again flushing through all the heads together until you can see only flushing Solution coming out from the heads.

⇨ Switch the 3-way ink valves for Solution back to 'I' position.

⇨ Clean the residue of the flushing solution on the print heads (wipe gently from back to front)
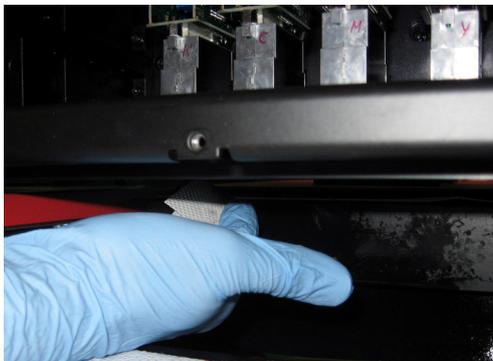
⇨ Clean the base plate with a dust free dry cloth.
Or wetted with flushing solution

⇨   Turn the Vacuum Gauge to zero.

⇨   Flush both White heads again after 2 hrs.
⇨   Flush both White heads again after 12 hrs.