

Dyversity 4

Gel Documentation and Analysis System

Installation Guide

The system components:

Dyversity consists of the following parts:-

Darkroom with epi white (factory fitted), Camera with lens factory fitted, motorised sample tray, synthetic orange [(fluorescent under UV) and white (phosphorescent - if you first expose to light then you can use it as a chemi sample) gels - both can be used as focusing aids], GeneSnap software, GeneTools software.

If purchased you will also have a computer (processor, screen, keyboard, mouse), Microsoft Office (Small Business Edition), a thermal printer, Cy dye lighting unit (includes a low fluorescent glass plate and a mirror plate), UV transilluminator, Visible light converter (NovaGlo), 9 position filter wheel (filters installed), epi UV (factory fitted), Neutral field screens (blue and frosty), epi RGB platform (black plastic).

Dyversity cannot be operated without connection to a suitable PC. For required specification please consult your supplier or Syngene.

You are provided with a full set of leads, cables, screws and washers.

DO NOT CONNECT POWER TO ANY OF THE COMPONENTS UNTIL YOU ARE SATISFIED THAT EVERYTHING IS CONNECTED CORRECTLY. FOR ANY ASSISTANCE PLEASE CONTACT YOUR SUPPLIER OR SYNGENE DIRECTLY.

Installation of darkroom lighting

White Epi illumination has been factory fitted.

To install either the transilluminator or Cy dye lighting unit:

open the darkroom door; place a small object against the micro-switch at the back of the darkroom, then push the top sample tray button at the same time as pressing the black button positioned 5cms below the round shiny door magnet, to raise the stage so that the lighting unit can be installed.

For the transilluminator, slide it between the runners located on each side. Connect the flying mains lead in the darkroom into the input socket on the rear of the transilluminator. Make sure the power button on the front is turned on.

For the Cy dye lighting unit, slide it between the runners located on each side. Connect the flying 7-way D-type connector.

Please note that the transilluminator and Cy dye lighting unit cannot be installed in the darkroom at the same time.

Installation of the camera

Remove 2xM4nuts, shakeproof and plain washers from the top of the darkroom and put to one side. Place the camera/lens/bracket assembly on the 2 screw studs (first remove lens cap if fitted) on top of the darkroom with the fan hole on the left as you stand facing the darkroom. Use the same 2xM4 nuts, shakeproof and plain washers to attach the camera to the top of the darkroom. If there are bellows attached to the top of the darkroom then you also need to connect the lens to it to make the system light tight. The bellows has a black adapter ring with a gold pin. Lifting the adapter, hold the side (with the pin up) and then pull the pin to attach fully to the lens.

Connect the camera power cable (9-way D-type connector) to the back of the darkroom (port labelled 'Camera').

Connect the other end of camera power cable (red DC connector end) to the camera. Attach the USB cable to the camera and thread the cable back through the hole in the rear of the darkroom. Do not attach the free end of the USB cable to the USB 2 port on the PC until the GeneSnap/Camera drivers have been installed.

Place the hood on top of the darkroom to cover the camera/lens/bracket assembly. There is a recess in the back of the hood so that you do not trap the cables and a hole at the front for lens control.

1) Unpack the components

2) Place transilluminator or
3) Place the Cy dye lighting unit in the darkroom

4) Fit the camera

Setting up the PC

Set up the PC by attaching the monitor, keyboard and mouse into the appropriately labelled ports. If your system has been supplied with a printer, you should attach this now. The thermal printer will attach via a USB cable.

Connecting the PC to the darkroom

Connect the serial cable from the labelled port in the rear of the darkroom ('Darkroom/PC') to the serial port (com1 or com2) of your PC.
Connect electrical power leads to each component but **DO NOT SWITCH ON AT THIS TIME**.

Switching on with the Syngene supplied PC

Attach the free end of the camera USB cable to a USB 2 port on the PC. Ensure it does not share a paired port with a slower device, for instance a mouse, otherwise this will compromise the response time of the camera.

Ensure that each mains lead is now connected to a live supply.

Now switch on the darkroom using the on/off switch on the rear of the unit adjacent to the mains inlet socket. The green power On indicator will glow.

Next switch on the monitor, thermal printer and computer processor (hold the button in for 1-2 seconds).

During the next few seconds the computer will start up, load the necessary programs and check that the darkroom and camera are all fully connected and working.
Depending upon the operating system being used, you may need to input some details and/or establish a system administrator. You will need to accept the agreement terms of any pre-installed operating systems on the PC. There may be some back-up procedures that need to be carried out before you can capture your first image. Please be patient, these processes all contribute to later protection of your personal data and settings.

When the Windows operating system is fully loaded Dyversity will be ready to use - the initial acquisition part of the software - GeneSnap - is loaded into the start-up files and it is this part that is seen first.

If you are supplying the PC

Switch on the monitor, thermal printer and computer processor.

- When prompted by Windows, install the Printer drivers from the supplied disk.
- For Dyversity you will now need to follow the Hardware Installation document to install the Camera Drivers and GeneSnap software.
- Install the GeneTools software from the supplied CD. If the CD does not auto-run then using Windows Explorer locate the InstallGeneTools.exe file on the CD and double click on it. For Windows VISTA you will be presented with an AutoPlay dialogue box where you need to click on 'Run cdguide.exe'. Click 'Install' within the Syngene install dialogue box+. Within the resulting User Account Control dialogue box click 'Allow'. Follow the instructions and select the appropriate licensing for your system. For hardware or network licensing you will have been supplied with a hardware key. For software licensing each PC will need a Media key (found on the CD insert). Software licensing requires a Security Key code to activate GeneTools. This process involves sending an email to installations@syngene.com (You can also send the request by FAX, but this takes longer). Ensure that the information you send is copied accurately - any mistake can result in an incorrect code and create delays in activating your software. When you receive the Security Key code, you will need to enter it into the Installation Wizard 'Security Code' dialog. If you closed the Install Wizard you can restart it from the Windows START button - Choose: All) Programs/Syngene/Install Wizard.
- + If after clicking 'Install' within the Syngene dialogue box you are presented with an error message: 'Unable to run installation program. CD may be corrupted', then click 'OK'. Browse for the install.bat file on the CD and right click on it and select 'Run as administrator'. Within the resulting User Account Control dialogue box click 'Continue' and now GeneTools will install (continue from "Follow the instructions....").

5) Connect computer monitor, keyboard, mouse

6) Connect the PC to the darkroom

7) Connect power leads

8) Switch on the darkroom

9) Switch on monitor, printer and Syngene supplied computer

10) Switch on monitor, printer and customer supplied computer

11) Printer driver installation

12) Camera drivers and GeneSnap software installation

13) GeneTools installation

NB GeneTools needs to be installed and licensed to activate both the Effective Pixels and Focus Indicator features in GeneSnap, the acquisition software.

NB2 Within GeneSnap, images can be automatically transferred to GeneTools using the Send to GeneTools icon. For Windows VISTA in order for this link to operate you need to perform a mouse right click on the GeneTools desktop icon and select Run as administrator. This only needs to be performed once and now all users can use this function.

• The Calibration File and calibration file installation program is supplied on a CD. The CD will either auto-run or you will need to run the Install.exe program from the CD.

14) Camera calibration file installation



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