iQsmart Hardware

This section of the addendum documents the new and updated functions and features of the scanner hardware, organized under the following topics:

- Power up/shutdown
- Startup sequence
- Operating panel
- Light Table
- Base glass
- Masks
- Mounting originals in the scanner

Power Up/Shutdown

1. Turn on your Macintosh computer.

2. Turn on the scanner by switching on the Main Power switch on the back of the scanner.
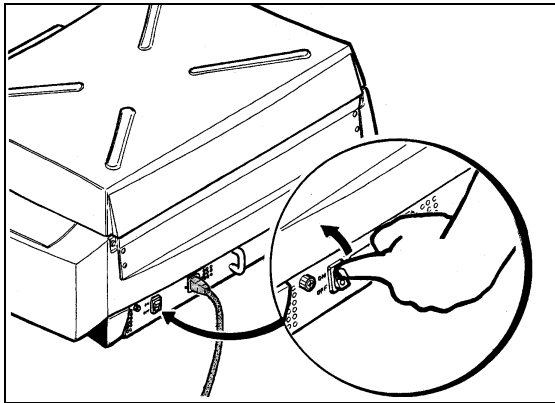

Figure 1: Main power switch on back of scanner

3. Press the Power button on the operating panel. The Power LED is green. The Status LED is orange for a few seconds.
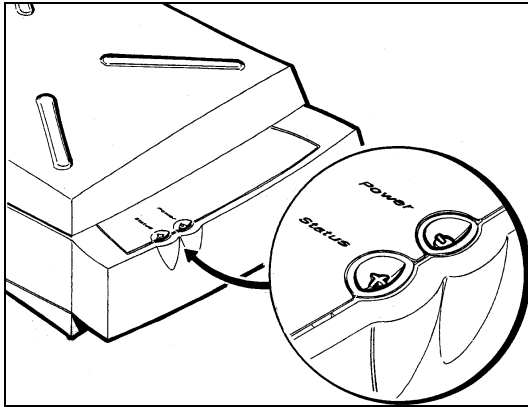
Figure 2: Power and status LEDs on the operating panel

The Status LED blinks green, during a series of self-tests. When the Status LED is steady green, the scanner is ready for operation.

If the Status LED remains red or blinking green (indicating a failure), do the following:

➢ Turn the scanner off and then on again.

If the LED is still red, call your Service Engineer.

NOTE: Shut down by quitting the application then switching off the Main Power switch located on the back panel. For temporary, short term shutdown, press the shutdown button located on the operating panel.

Startup Sequence

To start up the scanner, do the following:

1. Switch on the Main power switch on the back of the scanner.

2. Press the Power button on the Operating panel. The Power LED on the operating panel is green.

During the diagnostic self-tests, the Status LED illuminates in the following sequence:

1. Switch on the Main power switch on the back of the scanner.

2. The Status LED is orange for several seconds when the scanner is switched on.

3. The Status LED turns off for several seconds while the scanner checks the firmware software).

4. The Status LED turns green.

Base Glass for iQsmart Scanners

EverSmart users can refer to the user guide, *oXYgen Scanning Application* (399Z1P555C)*, pg. 16, Chapter 2, for information about the Base glass.

The iQsmart^2 is supplied with a 12" wide Base glass which has an etched finish.

The iQsmart^2 is supplied with a 13" wide Base glass which has an anti-reflective (AR) coating. The 13" Base glass is used for copydot scans and reflective scans up to 550% at 12 dpm resolution (approx. 300 dpi) or at an equal scaling per resolution. Reflective scans with a greater resolution can only be made within the 12" boundary on the 13" Base glass.

NOTE: Scans made from transparencies can only be made within the 12" boundary on the 13" Base glass.

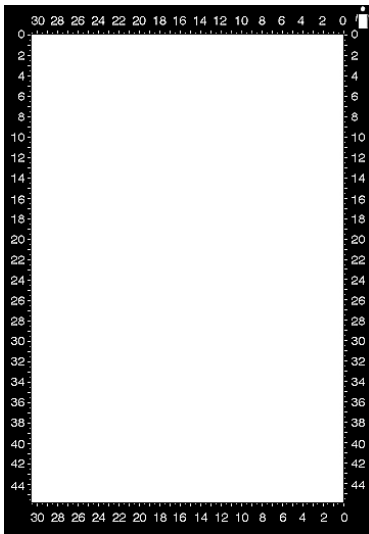The following figures show the Base glass layout, as seen in the Layout Display window of the application:

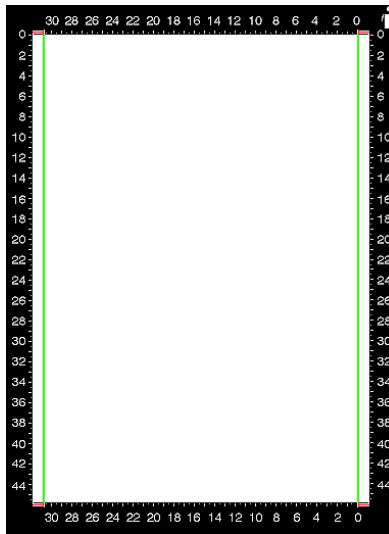**Figure 3:** 12" Base glass layout

Figure 4: 13" Base glass layout

For information about the CopyDot Scan, refer to the *oXYgen Dot for iQsmart Scanners User Guide* (399Z151895D).

The Operating Panel

The operating panel is located at the lower right corner of the top of the scanner and is mainly used during power up. The panel has a Power button with LED and one Status indicator with LED.

For further information about the various sections of the panel LEDs, refer to the startup sequence in *Galaxy Scanners Installation and Maintenance – for Mac Platform* (399Z1R946A).

Functional description of the operating panel

The Power button with LED and the Status indicator with LED are located on the operating panel.

The LED of the Power button indicates the Main power switch setting of the scanner. The LED of the Status indicator indicates the status of the scanner.

NOTE: Each time you press the Power button, the scanner status toggles between on and off.

The following are the meanings of the LED of the Power button:
- Off   Power is OFF.
- Green   Power is ON.
- Red   Power is OUTSIDE THE TOLERANCE RANGE.

The following are the meanings of the LED of the Status indicator:
- Orange   Scanner is activated.
- Red   Hardware problem.
- Blinking Red   The interlock switches are open.
- Green   Scanner is idle.
- Blinking Green   The scanner is either working or firmware is not updated. In the event that the firmware is not updated, you must activate the application version.
- (Off)   When the Top door is open or the Base glass is not in position.

NOTE: Do not open the Top door when the Status LED is blinking.

Light Table

The Light Table feature is available with the iQsmart[3]. It enables you to use the Base glass as a light table for evaluating and mounting original images.

To turn on the Light Table, do the following:

1. Open the Top cover of the scanner.

2. Press the Status button on the operating panel.

   The Light Table turns on.

To turn off the Light Table, do the following:

➢ Close the Top cover.

   The Light Table turns off automatically.

Mounting Originals

This section describes the various methods for mounting originals on iQsmart scanners.

NOTE: iQsmart users can find more information about masks and the Base glass in *iQsmart Oil Mounting Station* (501L3R318). The general purpose and use of the masks is the same for all iQsmart scanners, even though the masks themselves may differ.

The kit contains 11 masks, one of each of the 5 supplied masks and 6 user defined masks.

Mounting Originals

This section describes the various methods for mounting originals in the scanner.

Methods for mounting originals:

- Supplied masks

  - mix format mask

  - 35-mm strip

  - slide holder

- User defined masks

- Mounting originals directly in the scanner

  Before mounting, make sure the Base glass, Top glass and originals are clean.

- Oil mounting kit

  For information, refer to *Oil Mounting Station With EverSmart Scanners* (Cat. No. 399Z52842A).

Working with the scanner is more convenient and productive with masks. Therefore, using masks is recommended.

The advantages of using masks include:

- Preparing the originals in advance on a different worktable, while the scanner is busy with other scans.

- Positioning the originals is easier using the mask grid lines.

- The *Base glass* is kept clean (no tape marks).

- Defining multi-preview custom made formats. The defined user formats will appear in the *Format* list of the application. After preview, each image is displayed as a separate preview.

Supplied Masks

35-mm strip mask

This mask allows you to mount up to twelve 35-mm strips without a need to cut them into separate images.

Mix format mask

With this mask, you can mount up to 26 transparencies of different sizes, such as 35 mm, 6x7, or 4x5.

Slide Holder

The slide holder is designed for scanning up to twenty 35-mm slides (framed 35-mm transparencies). The holder has five (5) rows, each can hold four (4) slides. If necessary, a second holder can be used for scanning up to 40 slides.
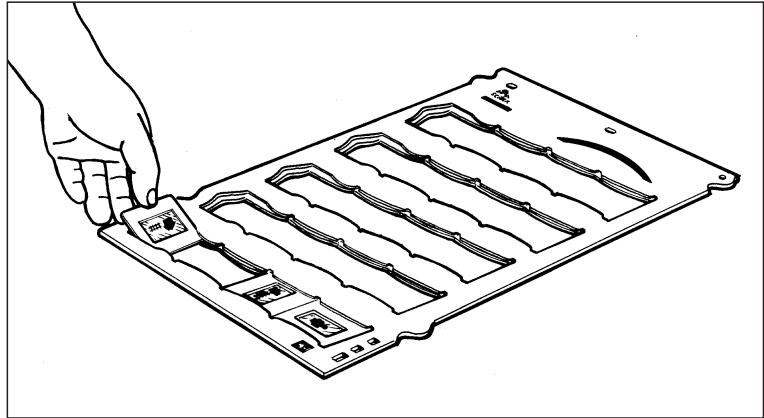
To use the slide holder, perform the following:

1. To insert slides, hold the slide holder with the printed side facing you. Insert the first slide, emulsion side down and in the correct orientation, into the bottom row. Push it all the way to the end of the row.

2. Insert the other three slides in the same row.

3. When the first row is full, continue to the next row, and so on. Make sure each slide is in its correct orientation.
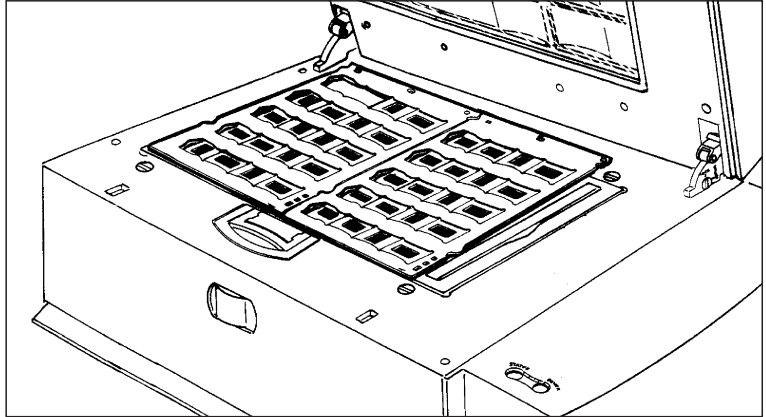
> For efficient scanner work, it is recommended that the bottom row is filled first, and that each row is filled starting at the end of the row.

Inserting slides into the slide holder

4. Mount the slide holder in the scanner with the printed side facing you; insert the two (2) right registration holes of the slide holder into the two right registration pins of the *Base glass* (the left hole and pin are not used). The right side of the slide holder should be aligned with the right side of the glass.

5. For more than 20 slides, use the second slide holder. Insert the slides in the second slide holder in the same manner as in the first holder.

6. Mount the second slide holder in the scanner next to the first holder; insert the left registration hole of the slide holder into the left registration pin of the *Base glass*. Make sure the jigsaw edges of the two slide holders interlock.

Two slide holders mounted in scanner

7. In *Setup* mode, choose **35-mm slide holder** or **2 x 35-mm slide holder** from the *Format* options in the *Setup* dialog box, depending on the mounted slide holders.

📖   Refer to *Chapter 4 Basic Scan on page 51* for details on the scan procedure.

User Defined Mask

Your scanner is supplied with several identical *User defined* masks, suitable for transparency and reflective originals.

This section describes the following:

- Preparing the mask

- Defining user defined formats
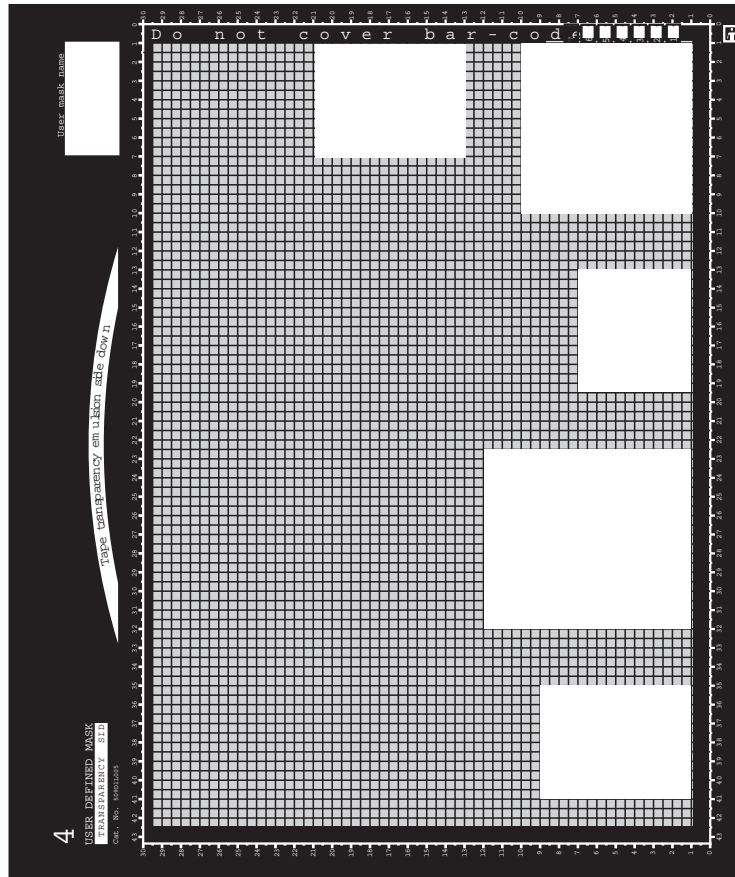
- Using user defined formats

Preparing the mask

The *User defined* mask is an A3 (11 in. x 17 in.) opaque sheet; one side of the mask is for transparency, the other for reflective (as labeled on the mask). A set of barcode windows appears at one edge; the first and last barcode windows are always open. The other barcodes are not implemented in this version.

For transparency:

- Mark outlines of the originals on the *transparency* side of the mask, according to the format you want to define. The procedure for preparing the outlines should be similar to that for direct mounting in multi preview (see *Direct Mount on page 24.*). The first original outline should be near the 1,0 point at the lower right corner of the mask.

- Use a sharp knife to cut out a window for each original. Make sure not to cut the mask barcodes.

The following figure shows the user-defined mask with cut windows for five (5) transparencies.

- Mount the mask (without originals) in the scanner with the *transparency* side facing up; insert the mask's registration holes into the registration pins of the glass.

  ✎ The 0,0 corner of the mask is approximately above the 0,0 corner of the *Base glass*.

For reflective:

- Tape the reflectives to the *reflective* side of the mask, according to the format you want to define. Make sure the image side is up and in the correct orientation.

  The first original should be near the 0,0 point at the lower *left* corner of the mask. Taping the originals is similar to direct mounting in multi preview (see *Direct Mount on page 24*), but here you proceed from *left to right*. Make sure not to cover the barcode windows.

- To mount in the scanner, turn the mask over so that the *transparency* label of the mask faces up; insert the mask registration holes into the registration pins of the glass.
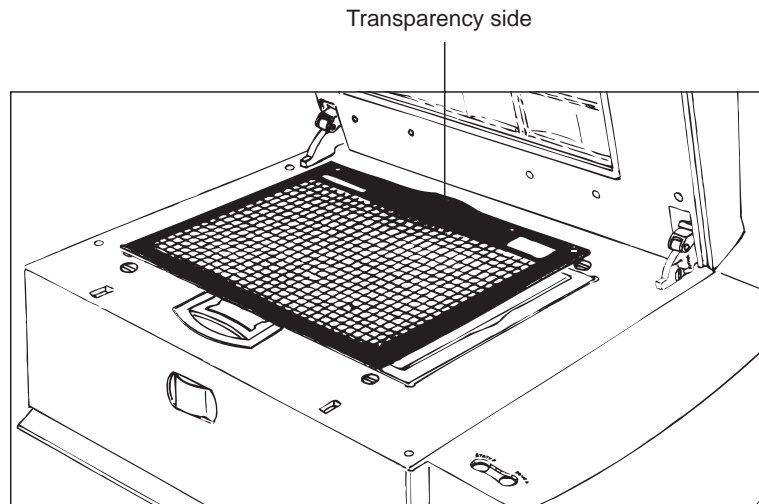
  The 0,0 corner of the mask is approximately above the 0,0 corner of the *Base glass*.

The following figure illustrates the prepared mask mounted for reflective scan.

  Since the reflective is taped to the other side of the mask, it is not shown in the figure.

Transparency side

Defining user defined format

The user-defined formats must be defined in the application before you can use them. With the mask you prepared previously mounted in the scanner, follow the procedure described below for transparency and reflective.

1. In the *Setup* dialog box, choose the **All Board** format.

2. Perform Preview.

    The *Preview display* window shows the entire mask. In transparency, the prepared windows are shown. In reflective, the taped originals are shown.

3. Crop each window/original in the *Preview display* window.

    ✎ The system automatically adds 1.5 mm around your crops.

4. From the *File* menu, choose **Save User Defined**. The *Save User Defined* menu appears.

5. From the *Save User Defined* menu, choose an option, depending on the format you want to define.

6. In the window that appears, enter the name of the new user defined format.

    If you define a new format under an existing format name, the new format replaces the previous one. To delete a user format, delete the format file from the *EverSmart Tables* folder.

Using user defined formats

When using the mask for transparencies, make sure the originals are taped to their windows, emulsion side down.

After application restart, the user-defined formats appear in the *Format* options in the *Setup* dialog box. Select the desired format when scanning according to this format.

📖

Direct Mount

Originals are mounted in the scanner by placing them directly on the Base glass. You can mount one original for single preview or several originals for multi-preview.

For single preview:

- Tape the original to the Base glass, placing the top right corner of the original near the 0,0 corner of the glass (lower right corner). Place transparencies with emulsion side down, and reflectives with image side down.

- It is recommended that if your original is a *non-standard* format, you should note the size of the original by checking the vertical and horizontal scales of the glass. This is important when using the *Layout display* window.

  📖   For more information, refer to *Performing Basic Scan on page 53*.

  👉   When scanning a thick reflective such as a book, it is possible to scan with the *Top door* open.

  ✍️   For high enlargements, we recommend you to use oil when mounting originals. For more information, refer to *Oil Mounting on page 167*.

For multi-preview:

In *multi-preview*, all originals are taped to the *Base glass* and scanned in a single run. The originals must be of the same type (transparency or reflective), but may be of different sizes and media (positive and negative).

- Tape the first original near the 0,0 corner of the glass, same as for *single preview* (see above).

- Tape the other originals proceeding toward the lower left corner of the Base glass, making sure the originals do not overlap. If necessary, continue to the next row. It is recommended to place the originals in an orderly way, and not spread them randomly all over the board.

- If you intend to use the *Layout display* window, you should note the total size of the area occupied by the originals by checking the vertical and horizontal scales of the glass.

  📖   For further details, refer to *Performing Basic Scan on page 53*.

The following figure illustrates direct mount of multi-previews.