

## PLATE CARE & PREPARATION

Prior to performing the intraoral imaging procedures on the following pages, the user must be familiar with the care, handling and preparation of the Phosphor Storage Plate (PSP) in order to ensure successful image scanning. Figure 5 shows the configuration of a typical Intraoral Size #2 PSP.

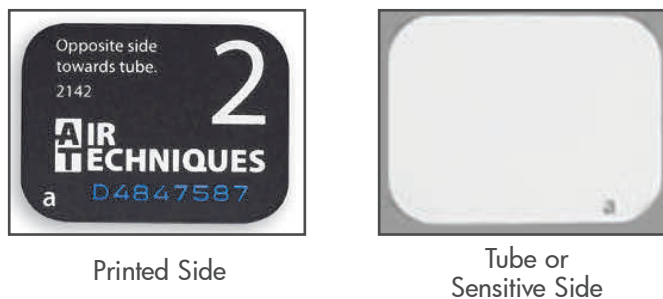


Figure 5. Intraoral PSP Configuration

### Handle PSPs with Care.

- Avoid scratching or soiling PSPs.
- Do not bend PSPs or apply unnecessary pressure.
- Do not store PSPs in a hot or moist area.
- Protect the PSPs from direct sunlight and ultraviolet rays.
- Pick up the PSPs using two fingers around the edges to avoid unnecessary contact with the plates.

**CAUTION:** Always use a Barrier Envelope for each Intraoral plate. Exercise care in handling the plate so as not to scratch the sensitive surface or nick the edges.

### Plate Protection

When storing Intraoral PSPs use the plate transfer box. Place the PSP covered with a Barrier Envelope with the sensitive (front) side of the PSP facing down into this box for protection and safekeeping.

**IMPORTANT:** PSPs must always be erased prior to use.

**Note:** Use PSPs within 24 hours of last erasure. Repeat erasing process if PSPs have been stored longer than 24 hours.

### Erase the PSP

Each Intraoral PSP should be used (i.e. X-ray exposed and scanned) **within 24 hours** of erasure since natural radiation will add noise to the PSP. Erase PSPs by simply using the ScanX In-Line Erase Feature. This can be accomplished using one of two methods as follows:

**Note:** Both erasing methods will result in an erased PSP suitable for reuse. The user will not observe any difference in ScanX operation when using either method.

#### Method #1

Perform the Imaging Procedures for PSPs on page 18. Except when performing step 4 of the Activate Scanner procedure, select the Erase option from the installed authorized imaging software to activate ScanX. This method does **not** scan the plate and no image will be acquired.

#### Method #2.

Perform the normal Imaging Procedures for PSPs on page 18. This method scans the plate and the imaging software may acquire a "junk image" (scanned latent plate image) that should subsequently be deleted from the imaging software (image folder).

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### Cleaning Phosphor Storage Plates

For the best images, PSPs should be handled carefully and kept clean. Use specially formulated PSP Cleaning Wipes (P/N B8910) to clean all PSPs. These single-use, extra soft, 100% polyester fabric wipes will not scratch or damage while safely removing dust, hair, dirt and smudges from the imaging surface. Use one wipe and clean plates as follows:

1. As shown by Figure 6, gently wipe the PSP Cleaning Wipe over the dry Plate surface. Wipe back and forth and then in a circular motion.
2. Allow the plate surface to air dry. Make sure that the PSP is completely dry before re-using.



Figure 6. PSP Cleaning

### Disinfecting the Phosphor Storage Plates

There is no reason to routinely disinfect the PSPs unless contamination is suspected. If a PSP has touched a contaminated surface, it may be immersed briefly in a cold sterilant (such as a 2% Gluteraldehyde solution) according to sterilant manufacturers directions. Do not immerse the plate if there is any evidence of deep scratches in the surface of the plate or nicks in the edges of the plate. After disinfection, clean and dry the plate using the instructions above.

### Disposal of Phosphor Storage Plates

Consult with your federal, national, state and local government, for rules and regulations on disposal of Phosphor Storage Plates.

### Barrier Envelope Handling

Always guard against contamination by using standard infectious control procedures when handling individual barrier envelopes. It is best to discard suspected contaminated envelopes since no cleaning or disinfection procedure exist or are required for barrier envelopes.



The Barrier Envelope must be used only once and disposed of properly in accordance with local code.

### Preparing Intraoral Plates for Patient Use

Insert the erased PSP into the Barrier Envelope so the printed side of the PSP is visible through the transparent side of the envelope. Peel off the adhesive strip and seal the envelope. See Figures 7a - 7c below.



Figure 7a  
Insert the PSP.



Figure 7b  
Peel off the adhesive strip.



Figure 7c  
Seal the Barrier Envelope.

- Note:** 1. The orientation letter “a”, printed on the PSP, may be used for reference as you would use the dot on an intraoral X-ray film. In addition, a backwards “a” (i.e. “a”), appearing in an image, is an indication that the image has been flipped.
2. If using holders with alligator clips, it is advisable to file down the points to avoid puncturing the Barrier Envelope. It is important to take care not to puncture the Barrier Envelope or damage the PSP.

### Take an X-ray Image

Put an image on the PSP by performing the following procedure.

1. Place the erased intraoral PSP in the sealed Barrier Envelope into the patient's mouth exactly as you would use X-ray film. Make sure the opaque side of the Barrier Envelope is facing the tubehead.
2. Take the exposure. The X-ray dose may typically be reduced by 80 - 85% of that required for D-speed intraoral film (depending on X-ray system used; the actual X-ray dose should be determined through experimentation).
3. Wearing gloves, remove the exposed PSP from the patient's mouth and place to the side making sure the sensitive side of the barrier envelope is facing away from any light source.
4. Repeat steps 1 through 3 as necessary to complete the patient's X-ray series. When all necessary plates in the X-ray session have been exposed, prepare each plate by performing the procedure below.

### Preparing the Exposed Plate for Scanner Processing

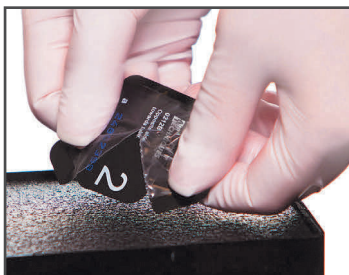
1. Disinfect the Barrier Envelope (with plate still inside) and your gloves by washing with disinfectant hand soap and water. Dry the Barrier Envelope thoroughly.
2. Remove gloves and wash any powder from hands. Powder on a PSP will degrade the image, and an accumulation of powder in the scanner will lead to degradation of scanner performance.

**IMPORTANT:** Be sure that the sensitive side of the PSP is facing down when it lands on the PSP Transfer box (See Figure 8, View C). If it is not sensitive side down, TURN IT OVER IMMEDIATELY. Failure to do so may result in erasure of the PSP.

3. Lay the PSP Transfer box on a flat surface near the ScanX as shown by Figure 8, View A.
4. As shown by Figure 8, View B, remove the exposed PSP from its washed and dried envelope as follows:
  - a. Hold the enveloped exposed PSP, with the printed side facing up, parallel to and about an inch above the PSP Transfer box.
  - b. Tear the envelope lengthwise starting at the notch to eject the PSP onto the PSP Transfer box.
5. As shown by Figure 8, View C, the PSP is now ready to be scanned to read the image from the PSP by performing the Intraoral Imaging Procedures.



View A  
Empty Transfer box



View B  
Ejecting PSP to Transfer box



View C  
PSPs ready for Scanning

Figure 8. Preparing the Exposed Plate for Scanning