



Phosphor Storage Plate (PSP) Reversed Image Prevention

**USAF Dental Evaluation &
Consultation Service**

Air Techniques PSP

Reversed Image Potential

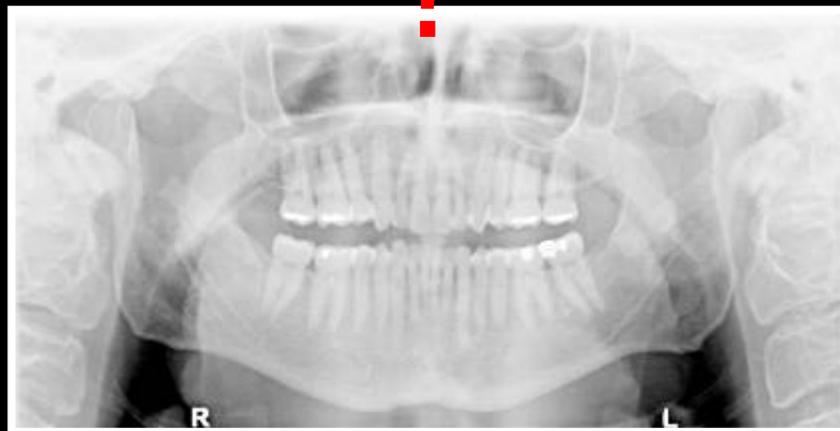
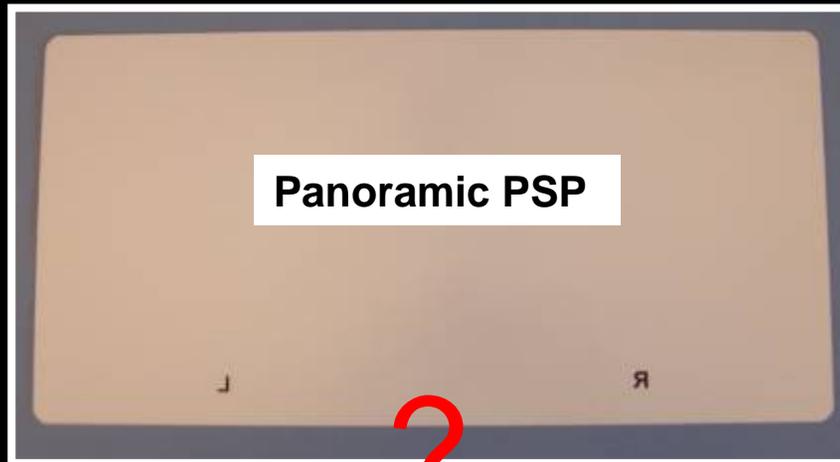
- Images exposed through the non-sensitive (black side) of PSPs are indistinguishable from images properly exposed
- Creates the potential for a wrong site surgery/procedure
- Occurs for both the intraoral PSPs as well as panoramic plates



Air Techniques PSP

Reversed Image Potential

A non-reversed "a" symbol or non-reversed "R" and "L" marker on the digital image is no guarantee that the image is properly exposed



Air Techniques PSP Reversed Image Potential

Intraoral PSP placed in barrier envelope correctly



Non-sensitive side with print toward clear window

Air Techniques PSP

Reversed Image Potential

- Intraoral PSP placed in barrier incorrectly**
- “Sensitive” or blue side toward clear window
 - Will expose sensitive side to light
 - Obvious as an error; should never see “blue”



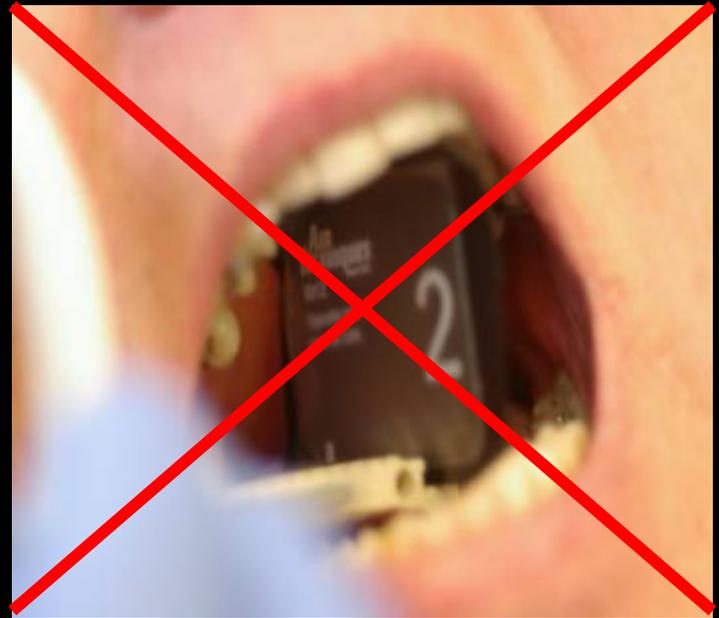
Air Techniques PSP

Reversed Image Potential

Correct vs. Incorrect Intraoral PSP placement within protective barrier



Correct – No print toward tubehead



Incorrect – print toward tubehead

Air Techniques PSP Reversed Image Potential

Panoramic PSP

Non-Sensitive

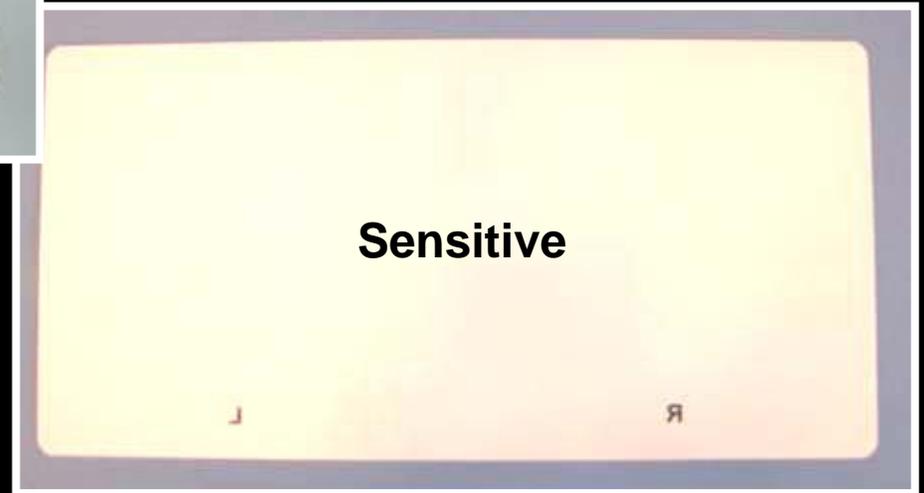


Non-Sensitive and Sensitive sides

Sensitive

L

R



Air Techniques PSP Reversed Image Potential

Panoral PSP Placed Incorrectly in the Cassette



Right



Wrong

Air Techniques PSP Reversed Image Potential

Cassette Positioned Incorrectly in the Unit



Right



Wrong

Reversed Image Prevention

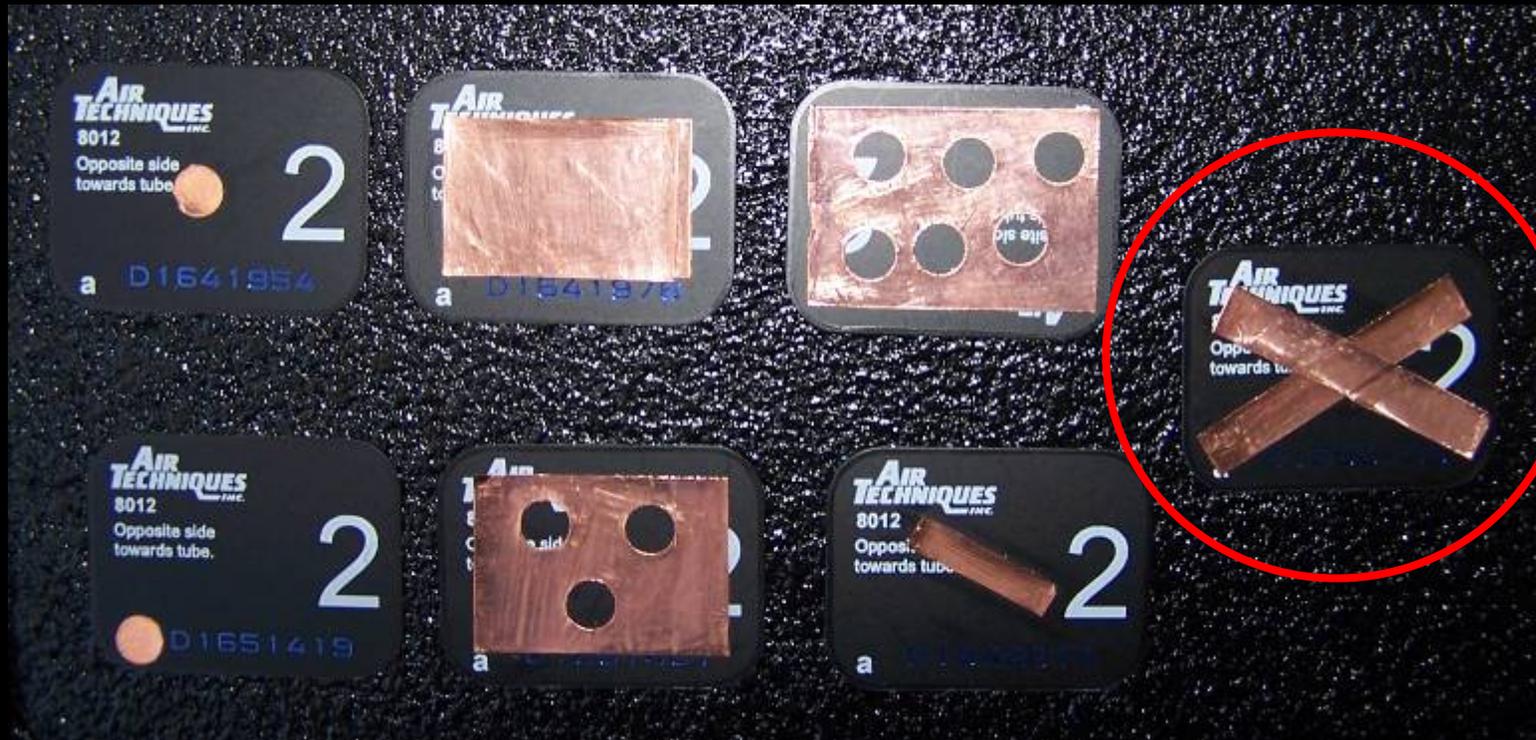
Copper Tape Radiographic Marker
Placed on the Non-Sensitive side of the PSPs



Reversed Image Prevention

Multiple Shapes Evaluated

“X” was the Best



Reversed Image Prevention

**Copper “X” Provides Intraoral
Visual Cue to Prevent Reversed Image**



Copper “X” means PSP is reversed! Don't proceed with radiograph!

Reversed Image Prevention

Copper Tape Radiographic Marker
Intraoral PSP – Maxillary Anterior



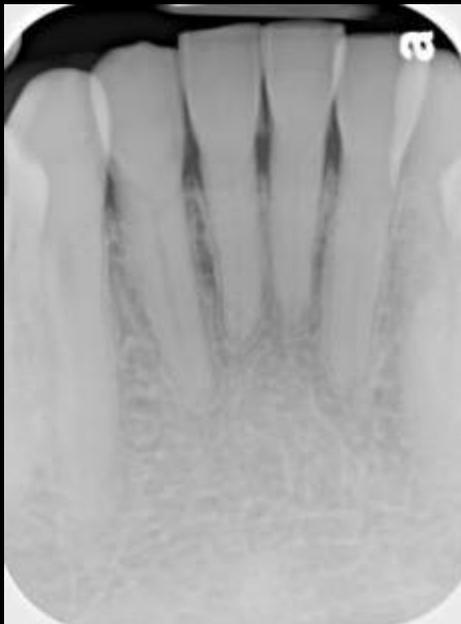
Correct Image



Reversed Image

Reversed Image Prevention

Copper Tape Radiographic Marker
Intraoral PSP – Mandibular Anterior



Correct Image



Reversed Image

Reversed Image Prevention

Copper Tape Radiographic Marker
Intraoral PSP – Posterior Bitewing



Correct Image



Reversed Image

Reversed Image Prevention

Copper Tape Radiographic Marker
Intraoral PSP – Maxillary Posterior



Correct Image



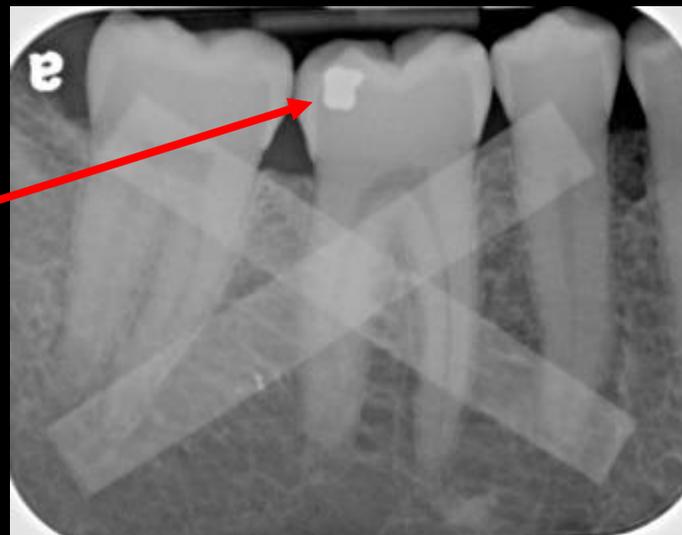
Reversed Image

Reversed Image Prevention

Copper Tape Radiographic Marker
Intraoral PSP – Mandibular Posterior



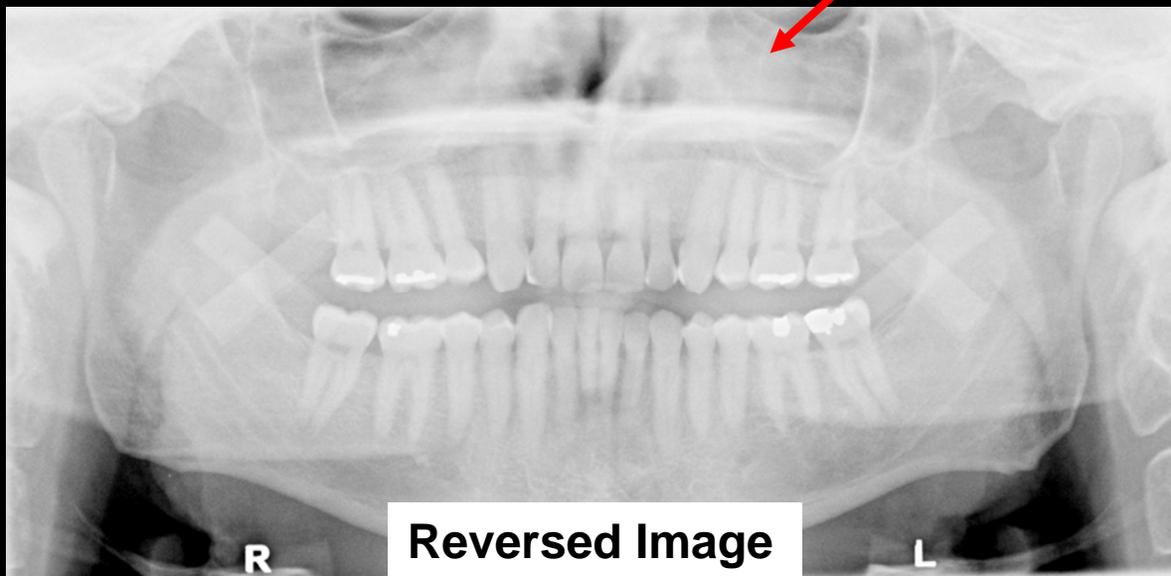
Correct Right BWXR



Reversed Periapical

Reversed Image Prevention

Panoramic PSP Cassette Placement



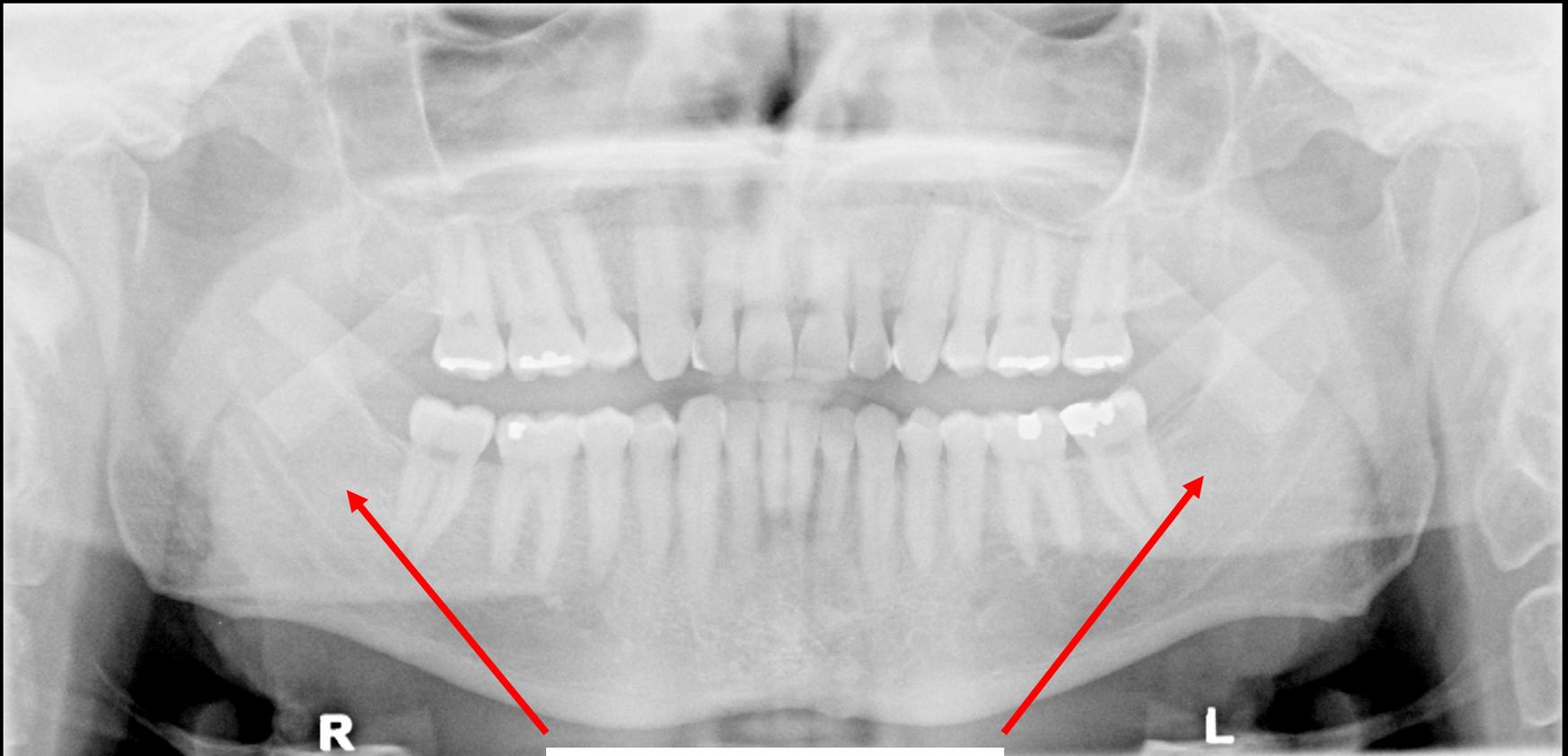
Reversed Image Prevention

Copper Tape Placement in Area of Ascending Ramus for Panoramic PSP



Copper Tape Application

Two Layers of Tape Required for Minimal Radiopacity for the Panoramic PSP



Two Layers of Tape

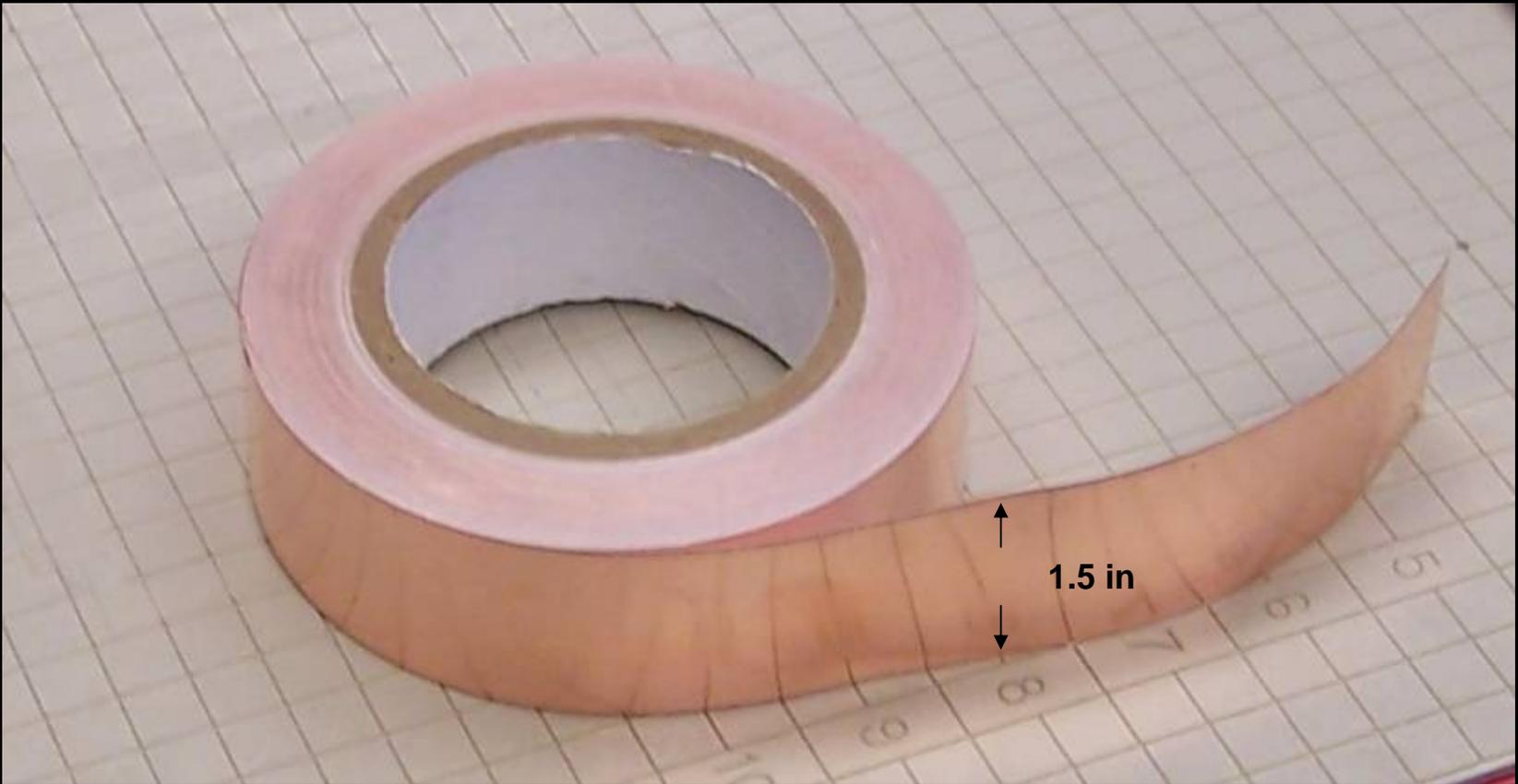
Copper Tape Application

Three Layers of Tape May be Required or Chosen for Increased Radiopacity for the Panoramic PSP



Three Layers of Tape

Copper Tape



Width = 1.5 inches

Best width for #2 size sensors

Copper Tape Application

Step 1: Cut $\frac{1}{4}$ inch by $1 \frac{1}{2}$ inch strips



Copper Tape Application

**Step 2: Apply legs of “X” to PSP
Burnish edges of tape**



Protect sensitive side in plate storage or transfer box

Length will need to be shortened for smaller intraoral PSPs

Copper Tape Application

Step 3: Check tape edges for separation from PSP after each run through the Scan X



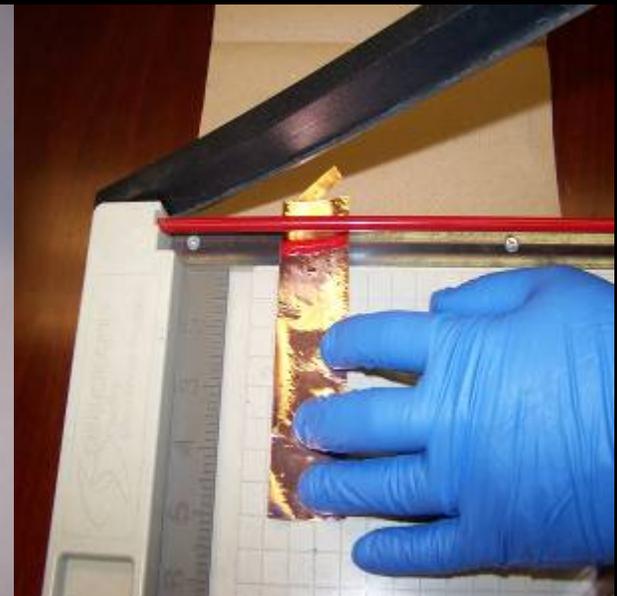
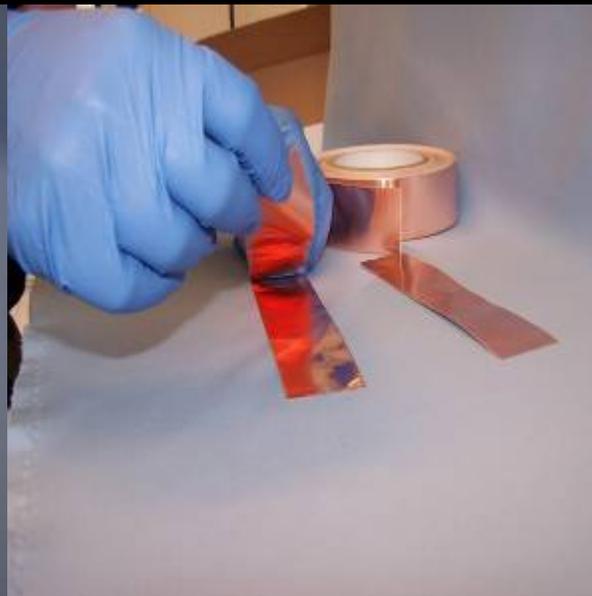
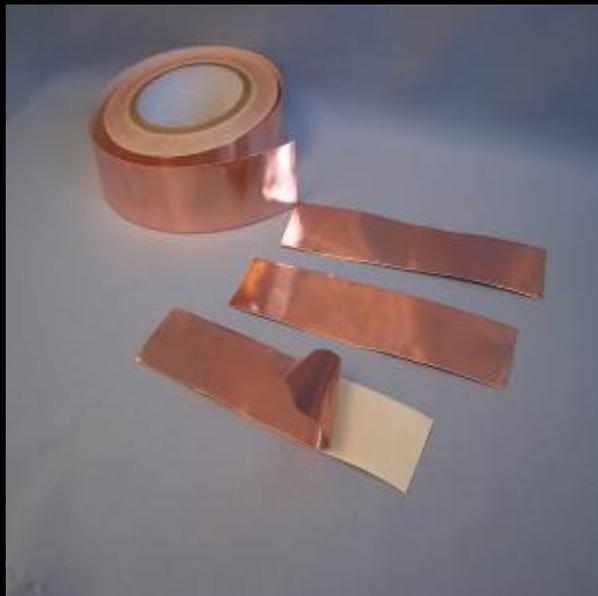
Replace tape as required



Copper Tape Application

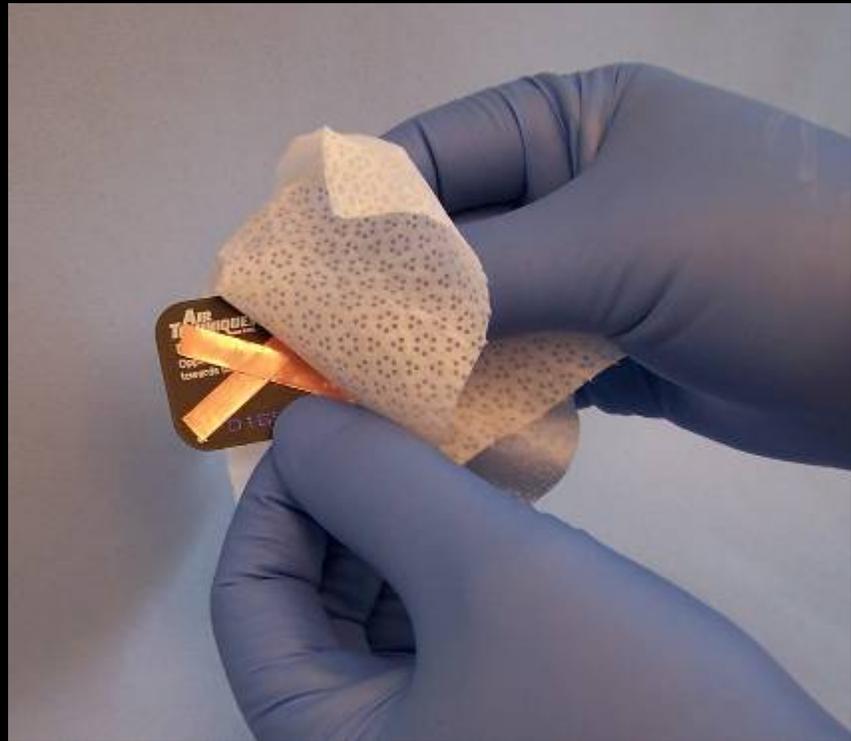
Multiple layers of tape for panoramic plates

- may be easier to create large multi-layered strips by removing the backing and attaching to each other (leave backing on bottom layer)
- then cut legs of the “X”



PSP/Tape Disinfection

PSP with copper tape was compatible with disinfection with CaviCide spray or CaviWipes in DECS Lab



Copper Tape Source



Description

Copper foil, conductive adhesive version 1.5"

Part Number

CCH-36-101-0150

Price (includes shipping and 3% credit card surcharge)

1 roll of tape @ \$130.00/each

2 rolls of tape @ \$95.00/each

3 rolls of tape @ \$85.00/each

Order by phone or FAX with IMPACT Card (billable at time of shipment)

Phone Number: (937) 866-2112

FAX: (937) 866-3371

Shipment in CONUS by UPS Ground with delivery expected within 1-2 weeks

Shipment OCONUS by U.S. Postal Service to APO/FPO address (shipping costs may be higher)