

SUPPLEMENT 1: WALL CASSETTE

ABOVETABLE X-RAY SOURCE RADIOGRAPHIC SYSTEMS

This supplementary procedure is used in conjunction with the abovetable x-ray source radiographic systems test procedure to test for PBL sizing and alignment of an optional wall cassette where the diagnostic source assembly is common to both the wall cassette and the table bucky. The procedure is designed so that the investigator can elect to test the radiographic system with table bucky only, or test both the table bucky and wall cassette using one FDA 2784 field test record. When testing both, the following changes to the radiographic procedure apply:

1. Indicate in item 6 of the field test record the certification status of the wall cassette using the "other" box, and write "wall cassette" just below the box.
2. Perform the entire radiographic test following the routine procedure except eliminate steps 8.9, 8.10, and 8.11 (second cassette size for PBL test) leaving data items 60-67 blank. These data items will be used later for testing the wall cassette PBL sizing and alignment.
3. After completing the routine procedure as described in step 2 above, set up the system to operate to the wall cassette. Set the source to a commonly used SID for which PBL is provided, and center the tubehead to the image receptor using the means available. (e.g., light localizer, tubestand detent, or other similar device).
4. Select a commonly used size of cassette (preferably a 10" x 12" or smaller so that the light field dimensions will not exceed the panel dimensions). Have the technologist load the cassette with film. If film is not available or cannot be used, continue the test with the empty cassette (centers alignment test, steps 12, 13, and 14, will not be done).
5. Insert the cassette (oriented either way) into the holder assuring that the PBL engages. Record the film dimension in the vertical direction at item 60, and the film dimension in the horizontal direction at item 61.
6. Record the indicated SID at item 62.
7. Turn on the light localizer and measure the light field dimensions at the wall cassette front panel or on the cassette if there is no panel. Record the vertical light field dimension at item 63 and the horizontal light field dimension at item 64.

NOTE: For cassette holders without a front panel, visualization of the light field perimeter at the cassette may be easier if the room lights are dimmed, and/or a sheet of white paper is held along each edge of the light field.

8. Enter a "W" in the first block of data item 65 and leave the rest of the blocks for this item number blank (this is to indicate that this field test record is a combined table bucky/wall cassette test).

9. Manually adjust the beam-limiting device to a field size smaller than the selected cassette size.
10. Using a low mAs technique (<5 mAs), make an exposure.
11. Before removing the cassette, measure to the nearest millimeter the distance from the front panel to the cassette. Record at item 66. If there is no panel, record 00.0 at item 66.
12. Remove the cassette from the cassette holder, and develop the film.
13. Referring to the developed film, trace the perimeter of the x-ray field with a ruler and pen or pencil. Draw diagonals from opposite corners of the x-ray field to define the center of the field. Likewise, draw diagonals from opposite corners of the film to define the center of the film.
14. Measure to the nearest millimeter the misalignment between the center of the x-ray field and the center of the film. Record at item 67.