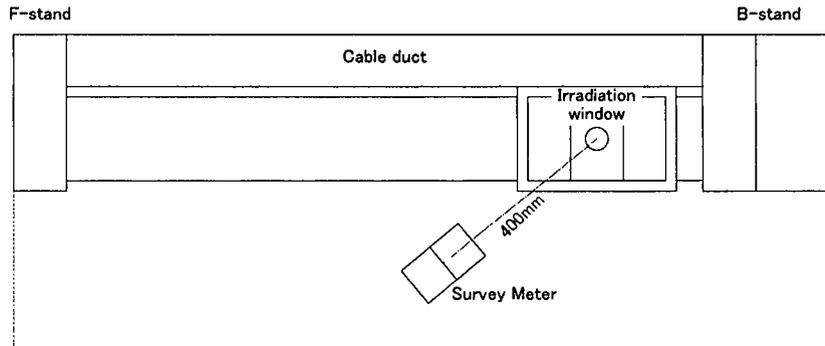


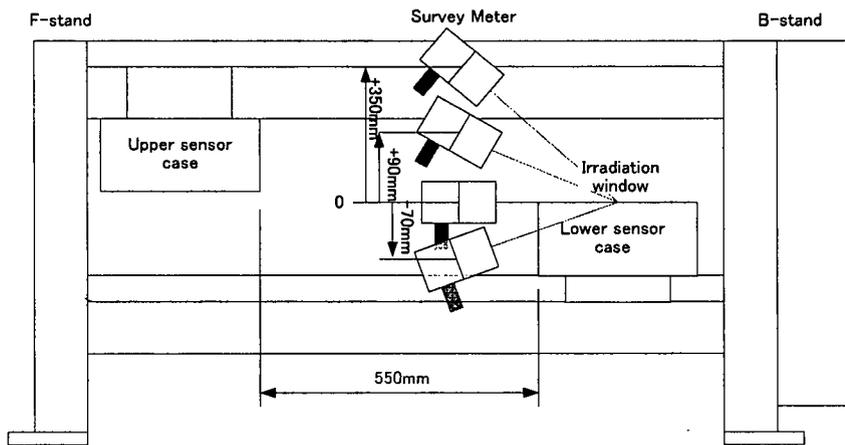
Radiation dose with condition that separated upper sensor case and lower sensor case

Method for measurement

<Top View of Frame>



<Side View of Frame>



Result of a measurement

Point of measurement	Shutter closed	Shutter opened
-70mm	1.5mRem/h	4.4mRem/h
0mm	1.7mRem/h	5.0mRem/h
+90mm	1.7mRem/h	4.7mRem/h
+350mm	1.0mRem/h	2.9mRem/h

8.2 Cleaning Static Electricity Eliminator

The static electricity eliminator mounted on the sensor head eliminates static electricity that is charged on the sheet and that may cause error in measurement. This eliminator is made of fine conductive string, which facilitates corona discharge, and can remove static electricity without touching the sheet.

Any dust on the eliminator must be removed by gently brushing it. The eliminator will be gradually shortened due to sheet fluttering or discharge. If this happens due to its long term use, adjust the mounting position of the static electricity eliminator to compensate for this reduction.

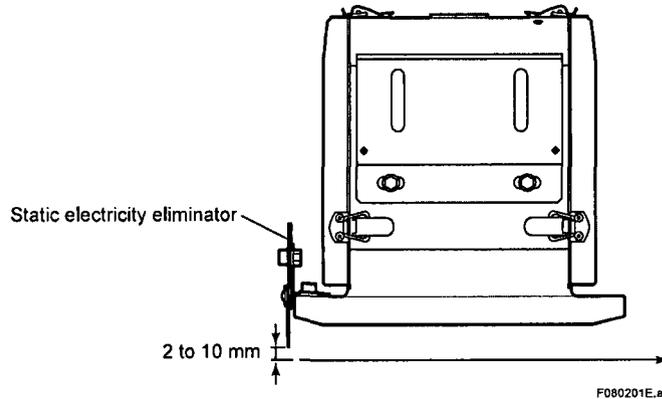


Figure Installing Static Electricity Eliminator



IMPORTANT

Pay attention to the following when the upper and lower sensor heads are disengaged in LOCAL mode:

- Be sure to engage the sensor heads before switching to REMOTE mode.
- For your safety, do not open the shutter with the heads disengaged. Do not also disengage the sensor heads with the shutter opened.

8.3.1 X-axis Direction and Y-axis Direction

Refer to the following figure to inspect the alignment in the X-axis direction and in the Y-axis direction:

1. Insert the alignment pins (K9285ZA) into the holes of the base unit from the sensor cover side.
2. Examine any misalignment between the holes on the upper and lower base units. Check the alignment on both sides of the base units.
3. The misalignment must be within 0.5 mm (second stage) for the both sides of the base units.
If either side of the misalignment is more than 0.5 mm, check that the sensor head is misaligned in the X-axis direction or the Y-axis direction.
4. Turn the REMOTE/LOCAL mode switch (SW1) to LOCAL and set the shutter OPEN/CLOSE switch (SW3) to CLOSE.
5. Check that the green LED of the shutter OPEN/CLOSE indicator lights up.
6. Turn off the U MOTOR and L MOTOR breakers.
7. Move the upper sensor head by hand, and then insert the alignment pins into the holes of the both base units to check that the pins can be inserted to the second stage.
8. If not, the sensor head may be misaligned in the X-axis direction. Follow the procedure described in Section 8.4.1 "Correcting Misalignment in X-axis Direction and Z-axis Direction" to correct the misalignment.
9. When inserted, the sensor head may be misaligned in the Y-axis direction. Follow the procedure described in Section 8.4.2 "Correcting Misalignment in Y-axis Direction" to correct the misalignment.

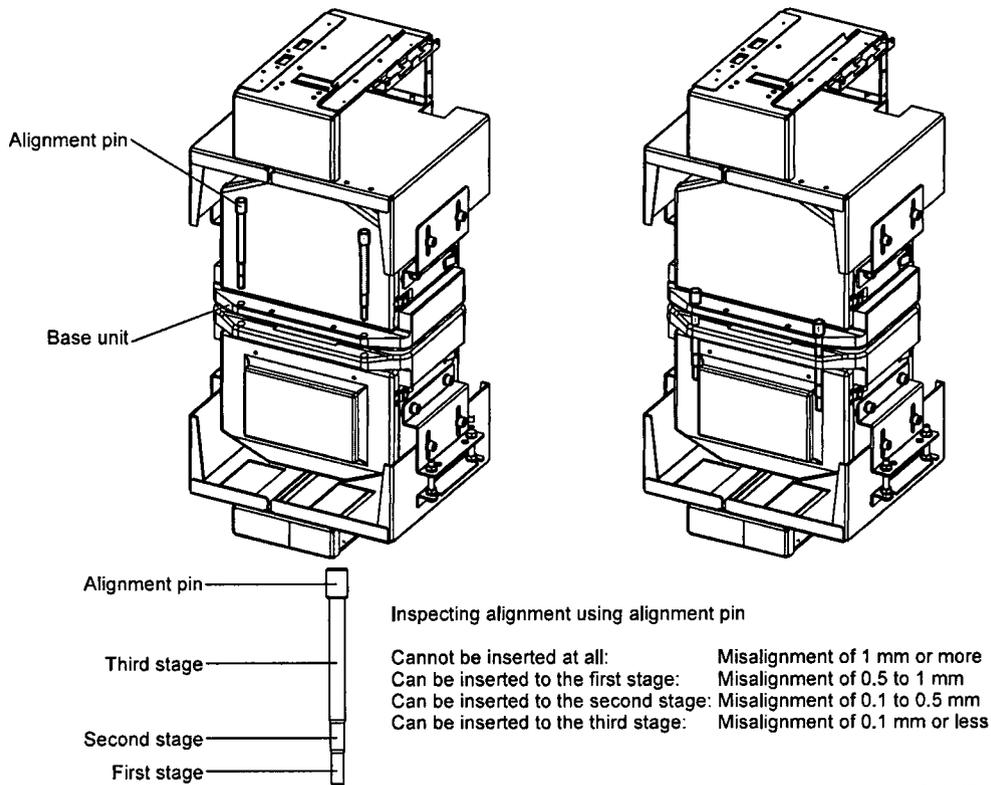


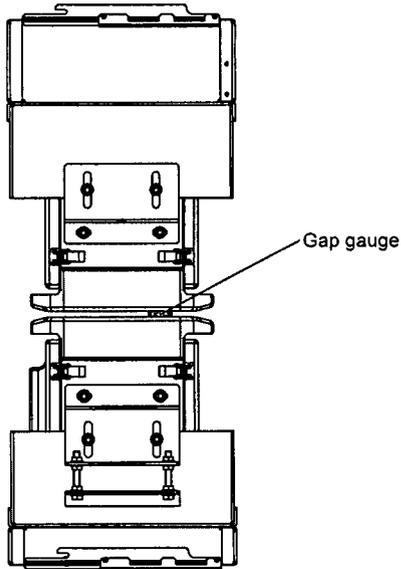
Figure Checking Alignment in X-axis Direction and Y-axis Direction

8.3.2 Z-axis Direction

Refer to the following figure to inspect the alignment in the Z-axis direction:

1. Insert the gap gauge into the measurement gap.
2. Measure along the entire edge of the base unit to make sure that the measurement gap is within 0.5 to 1 mm.

If even a gap of more than 1 mm is found, follow the procedure described in Section 8.4.1 "Correcting Misalignment in X-axis Direction and Z-axis Direction" to readjust the mounting position of the sensor head. Also adjust the mounting position again when the measurement gap is too narrow to insert the gap gauge.



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Figure Checking Alignment in Z-axis Direction

8.4 Correcting Sensor Head Misalignment



WARNING

Make sure that the sensor head is placed on the RETIRE position before examining the alignment.

8.4.1 Correcting Misalignments in X-axis Direction and Z-axis Direction

Shift the upper sensor head to correct the misalignments in the X-axis direction and in the Z-axis direction.

Do the same work when the sensor head is misaligned in the either direction.



WARNING

Do not loosen the screws of the lower sensor head.

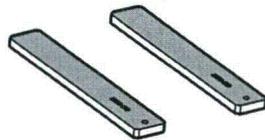
The upper sensor head is fastened by the hanging bracket suspended from the Compact O frame. The misalignments in the X-axis direction and in the Z-axis direction can be corrected by adjusting the fixed position of the head.

The following are required to adjust the position:

- Gap sheet (K9754TY)
- Gap gauge
- Alignment pin (K9285ZA)



Gap sheet



Gap gauge

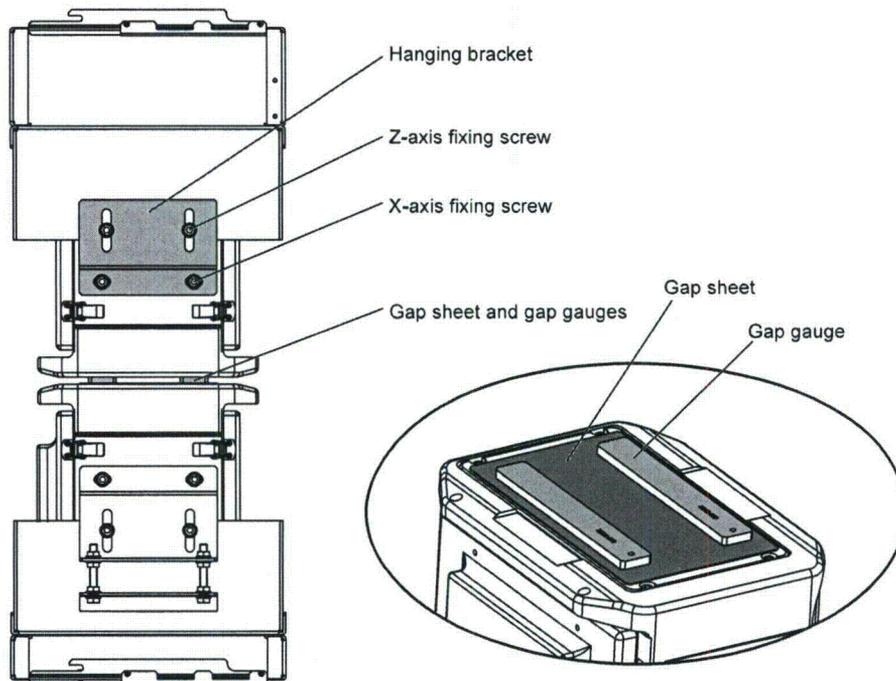


Alignment pin

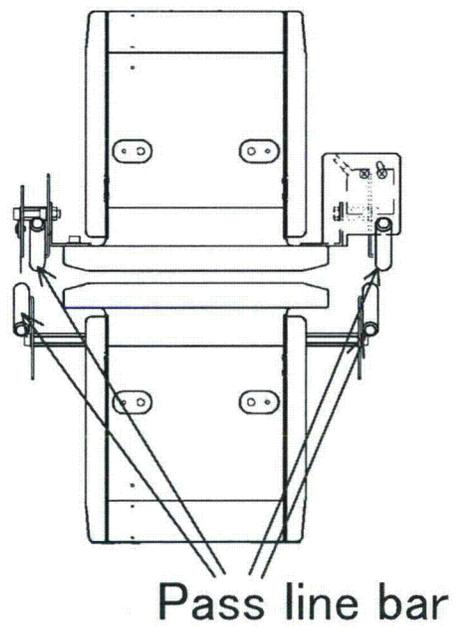
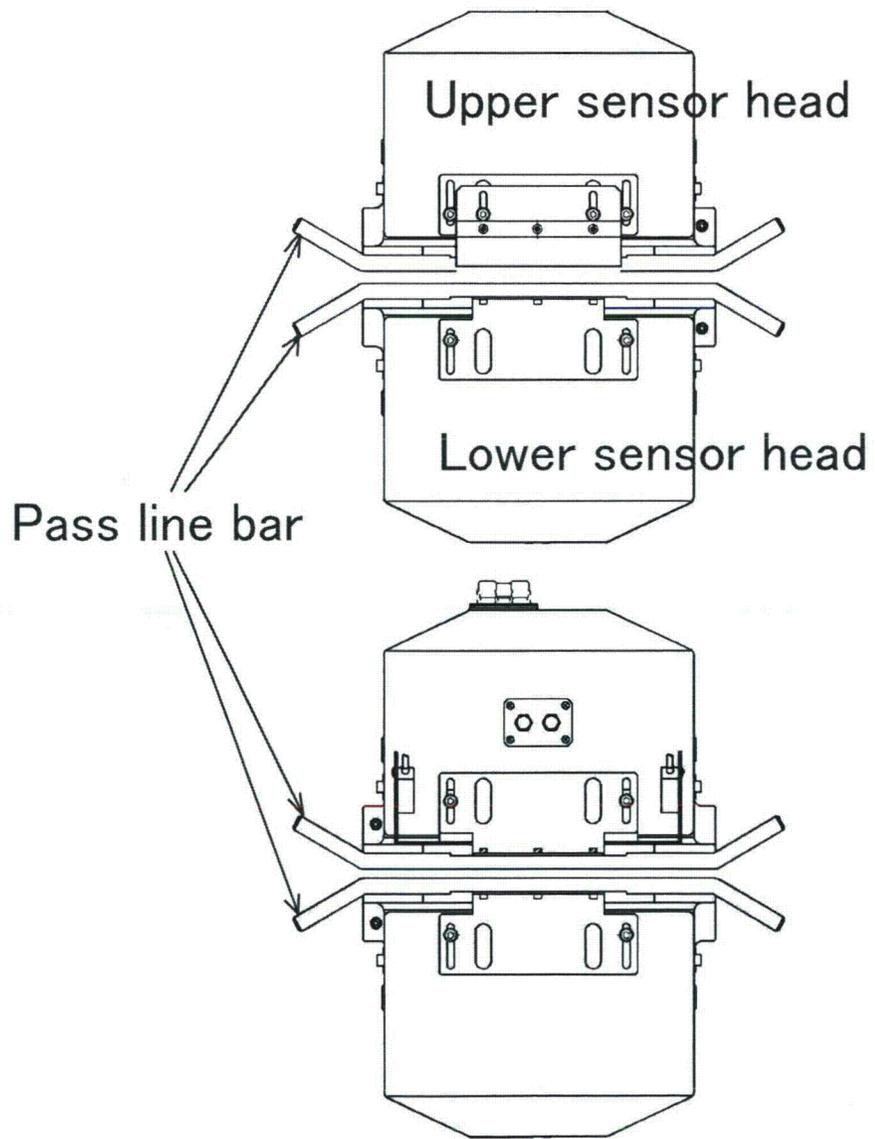
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Refer to the following figure to correct the misalignment in the X-axis direction and in the Z-axis direction:

1. Turn the REMOTE/LOCAL mode switch (SW1) to LOCAL and set the shutter OPEN/CLOSE switch (SW3) to CLOSE.
2. Check that the green LED of the shutter OPEN/CLOSE indicator lights up.
3. Turn off the U MOTOR and L MOTOR breakers.
4. Disengage the sensor heads.
5. Put the gap sheet on the top of the lower sensor head, and then locate the gap gauges on the sheet.
6. Move the upper and lower sensor heads to align them.
7. Loosen the Z-axis fixing screws of the upper sensor head to place the upper sensor head on the gap gauges.

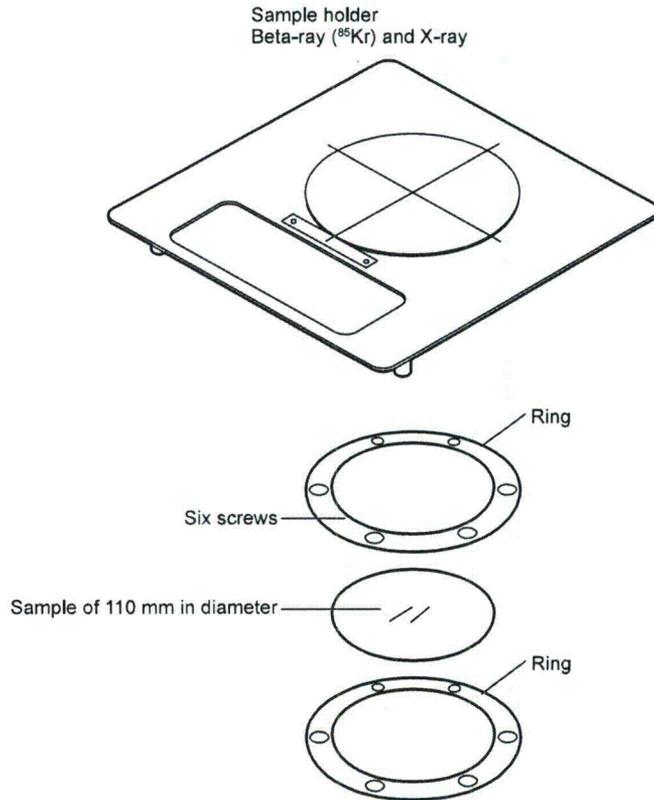


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Appendix1.3 Sample Calibration

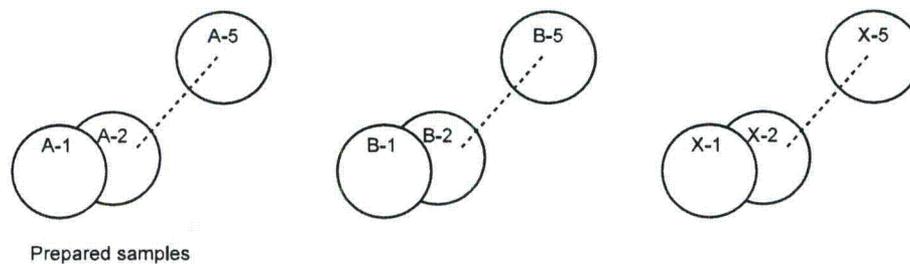
Before starting calibration, find the most uniform area of the samples by using the Beta-ray sensor. Then, cut the samples to 110 mm in diameter. The sample holder uses rings to fix the sample.



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When rings are not available, use samples of 130 mm in diameter or 130 mm square.

In this case, fix the sample onto the sample holder with adhesive tape. Prepare several samples of this size for each type of product.



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