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# APPLICATION NOTE

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RTI Electronics AB

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## Measuring mammographic kVp in angled primary beams using the DIGI-X

The Digi-X is calibrated in a mammographic beam where the geometrical, vertical beam coincides with the primary beam. To recreate the calibration conditions out in the field, the Digi-X detector must be tilted accordingly.

RTI Electronics does not take any responsibility for the result when this application note is used. Please observe that this note does not apply to the Siemens Mammomat unit.

By

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### Measuring procedure

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When the mammo unit has a primary beam differing from the geometrical, vertical beam, one should proceed as follows:

1. Consult the technical specifications for the unit. The beam angle difference should be stated. A very common angle is 12 degrees (CGR-GE). Please note that this is valid for the large focus only.
2. Align the long side of the Digi-X detector to the chest wall side of the cassette holder.
3. Make sure that the detector is centred. (The short side should now be in the Anode - Cathode direction.)
4. Heighten the inner long side of the detector and measure the angle between the cassette holder and the detector basin. (The angle should be the same as the primary beam and vertical beam difference.)
5. Balance the detector in the usual way. If You are using oRTIgo DX ver 2.02 or older, the balance check must be done manually due to a bug in the program!

Tilting the detector every time can be a tedious work and it is recommended to get a small camera stand. Please note that the previous description is not applicable for other RTI-instruments, i.e. PMX-II, PMX-III and Mini-X M, which all have a different detector configuration.

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