SELECTION AT THE START OF THE FOCUS

when start the generator the large focus is selected

when start the generator the small focus is selected

SELECTION D.P.I.

DosePerImage in Pulse is 5,0 nGy/image

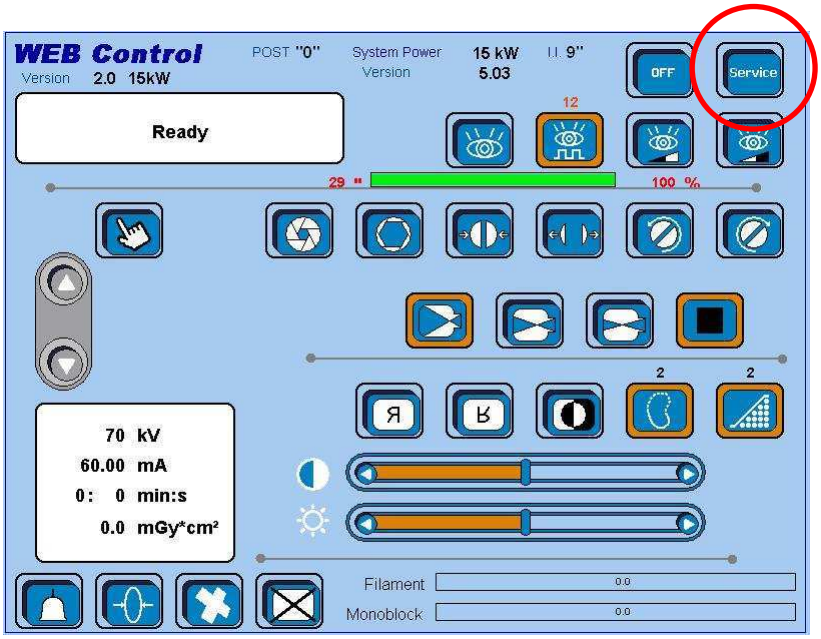
DosePerImage in Pulse is 6,4 nGy/image

DosePerImage in Fluoro is 6,4 nGy/image

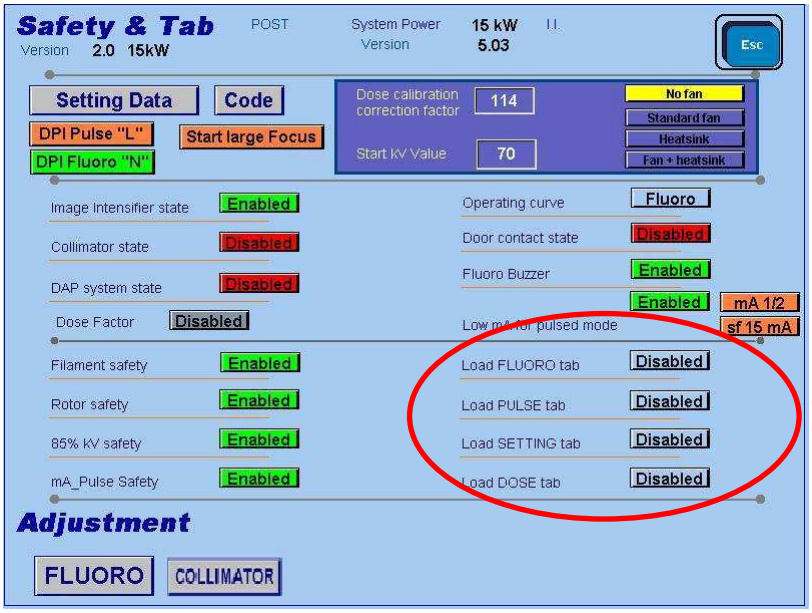
DosePerImage in Fluoro is 10,2 nGy/image

LOADING THE DEFAULT DATA

Step 1 - Press the <Service> switch.

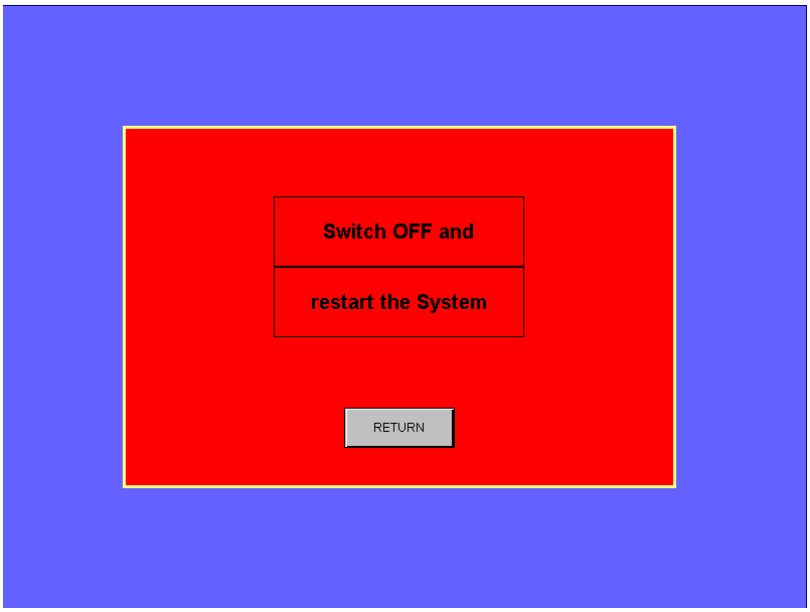


Step 2 - In the Service page you can see four switches on the right; they are set on <DISABLED>.



Step 3 - Press all of them to turn them to <ENABLED>.

Step 4 - After this, restart the system.
NB: each time you switch to <ENABLED>, the system asks to be restarted; you can skip this, set all the four switches to <ENABLED>, then restart the system just once.



Now the default data are loaded on the system, which means you have to do a full calibration and configure all the system settings again.

RX TUBE ADJUSTMENT

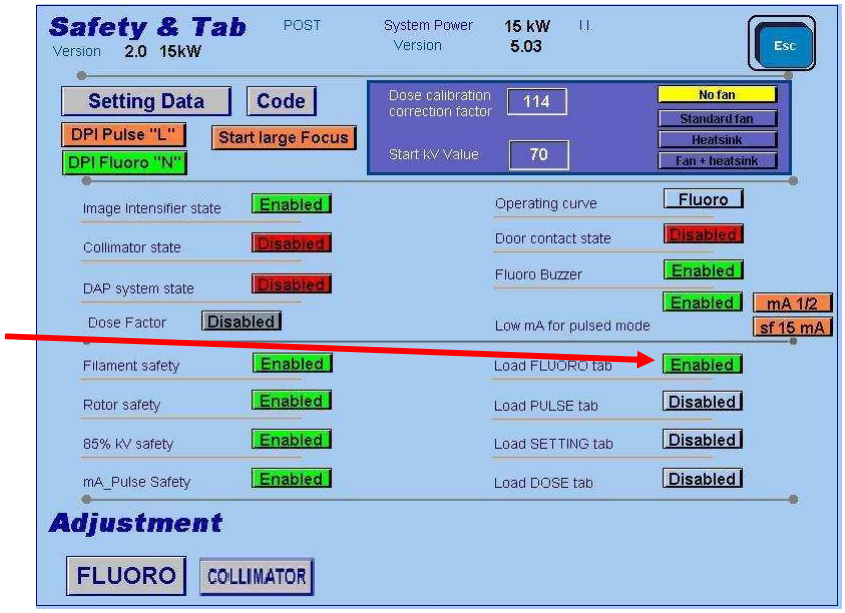
The RX tube adjustment involves a fluoro adjustment and a pulse adjustment.

IMPORTANT: after any calibration it is wise to save the data by using the BACKUP functions. Refer to the 'Backup' chapter of this manual.

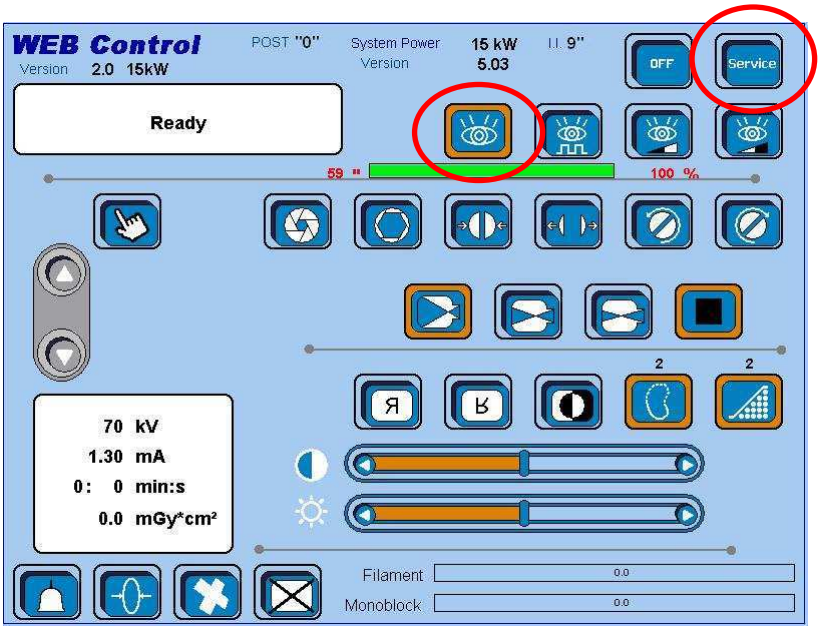
Fluoro adjustment

IMPORTANT: before doing any fluoro calibration you need to load the FLUORO default data. This is to be done either if you want to adjust both the curves or if you only need to adjust one of them. In this last case the curve that is not adjusted is set to default.

Step 1 - In the Service page set the <Load FLUORO tab> switch to ENABLED. Then restart the system.

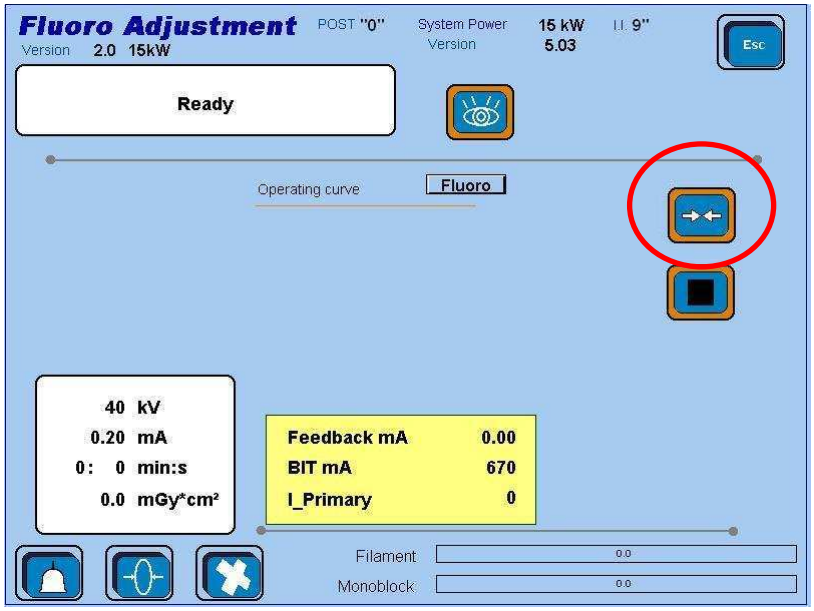


Step 2 - In the start page be sure that continuous RX mode is selected. Then press <Service>.

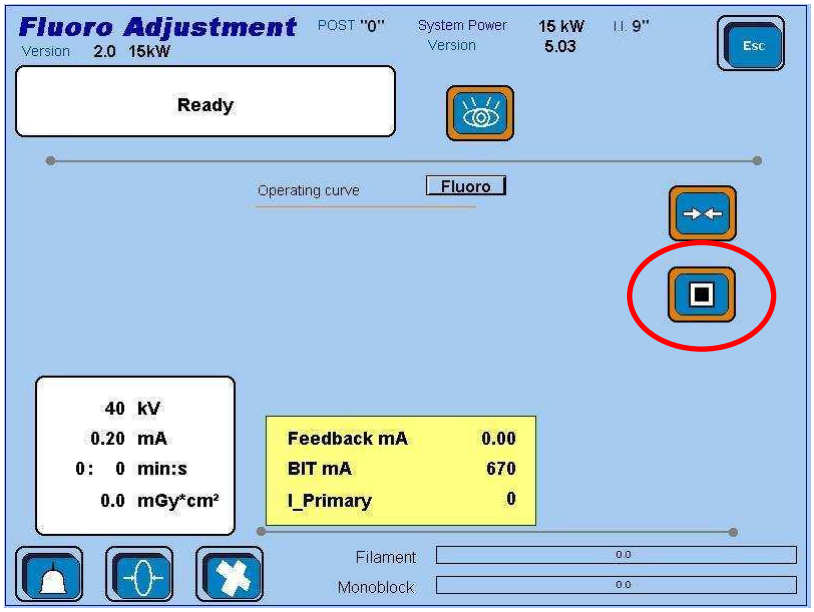


Step 3 - In the <Serivice> page press <Fluoro> to access the Fluoro calibration page.

Step 4 - This is the Fluoro calibration page.
You need to calibrate the Fluoro and Isowatt curves, and large and small focus for both the curves; so you have to do four calibrations.
In the figure you have Fluoro curve and small focus; to do calibration press the switch circled below, then press the RX button to X-ray, and keep it pressed until the calibration is over.

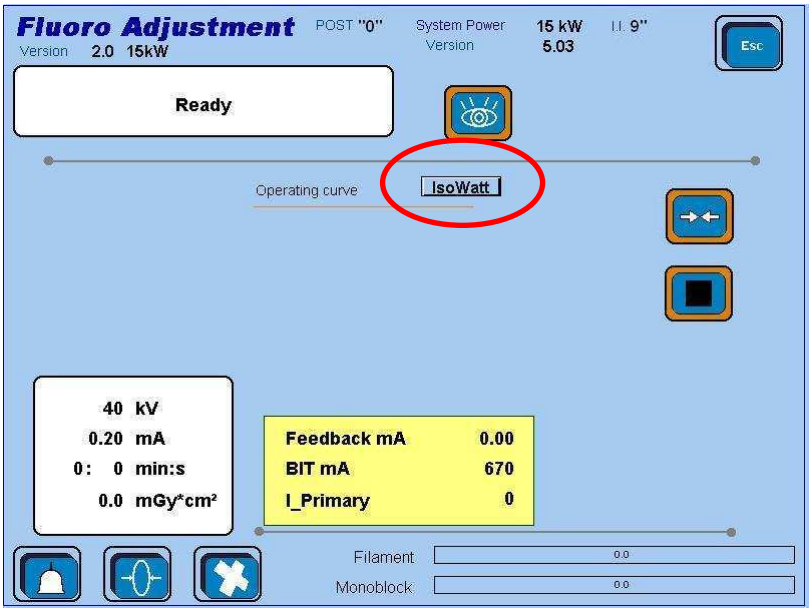


Step 5 - Now switch to large focus by pressing the proper button, press the button with the two matching arrows and do the second calibration.

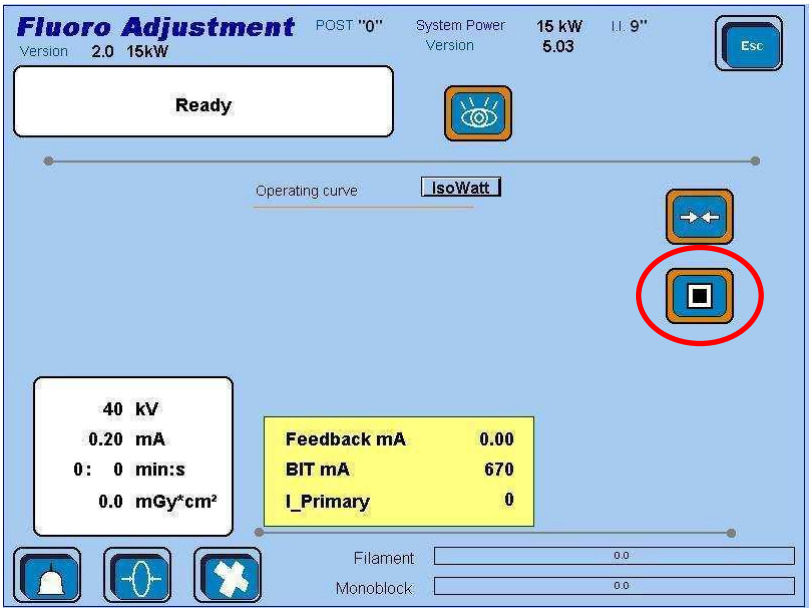


Step 6 - You still miss the two calibration for the Isowatt curve; so restart the system, press the button for the selection of the Isowatt curve in the Service page, then restart the system again.

Step 7 - Repeat Step 2 and Step 3 then press the two matching arrows button and do the third calibration.

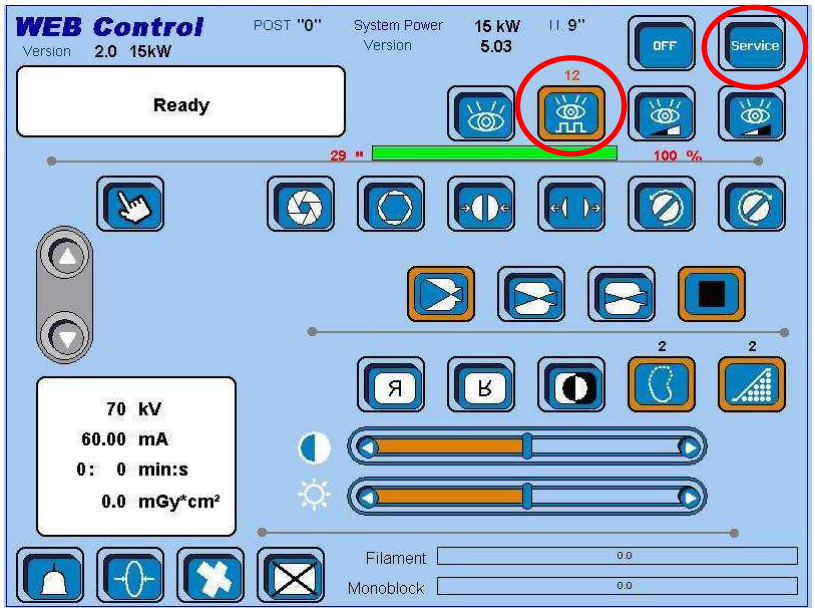


Step 8 - At last, select the small focus again, press the two matching arrows button and do the fourth calibration. Restart the system.

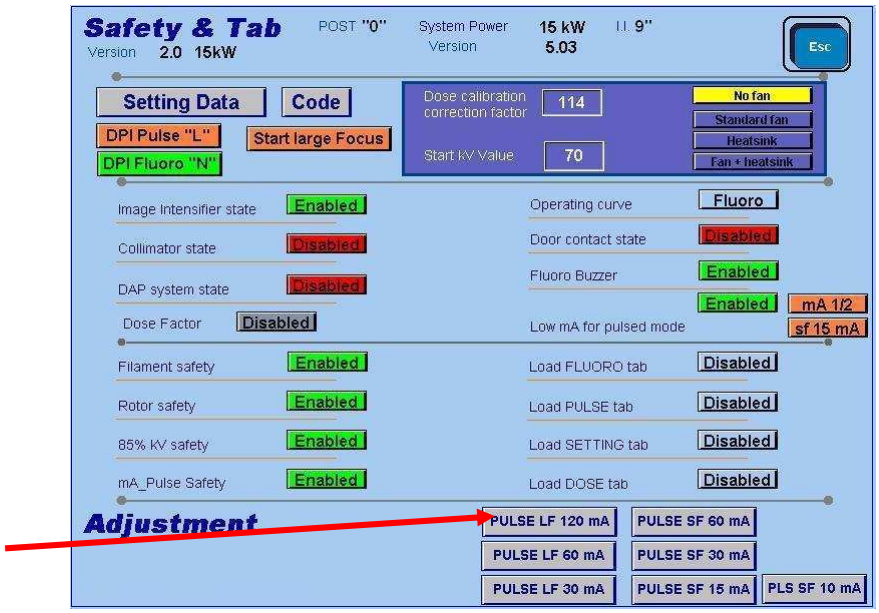


Pulse adjustment

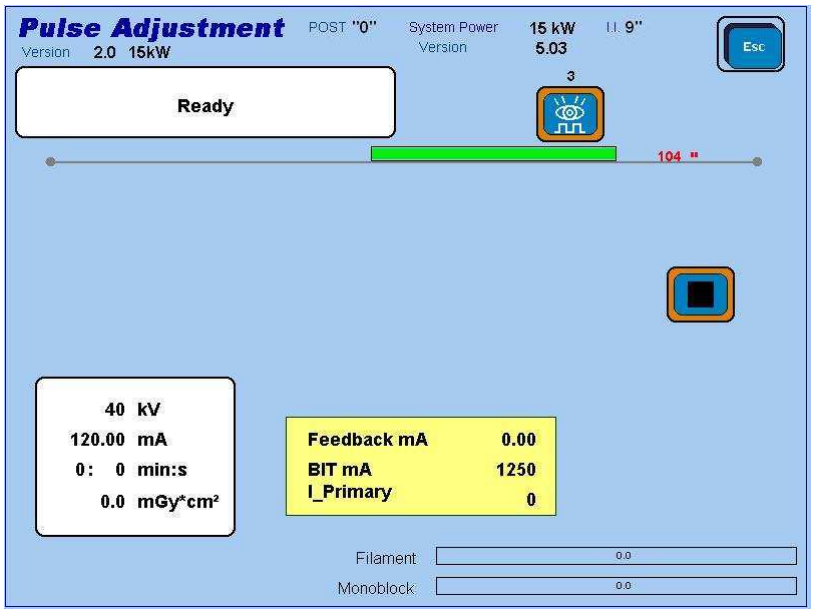
Step 1 - In the start page, be sure that pulse mode is selected. Then press <Service>.



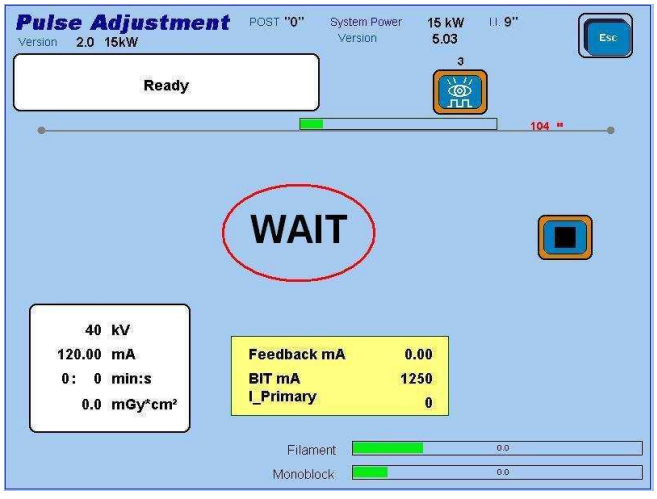
Step 2 - You have to do seven calibrations for the pulse mode: three for the large focus and tour for the small focus. Select one of the four buttons at the bottom of the screen; here we choose the large focus at 120 mA, but only as an example.



Step 3 - Now you are in the Large Focus – 120 mA Pulse calibration page. Just press the RX button and keep it pressed to do the calibration.

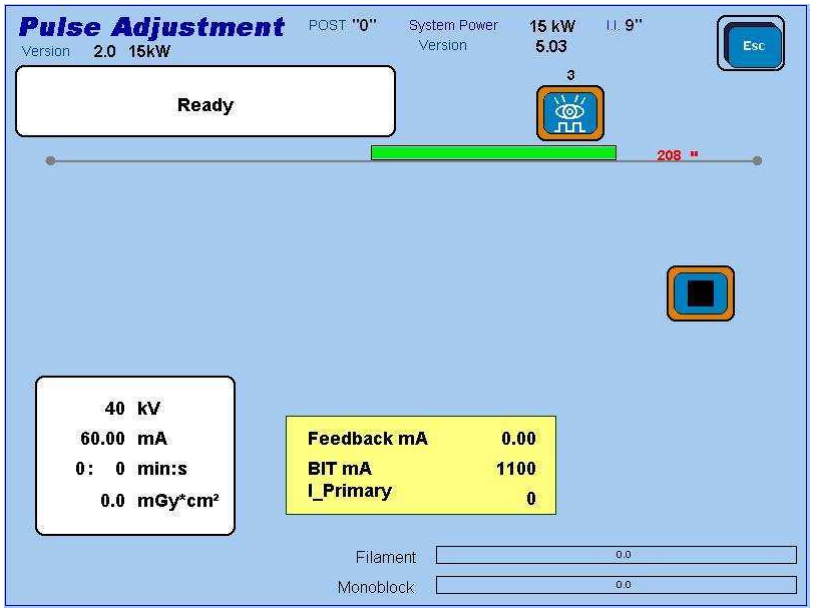


NOTE
As the calibration ends, a <WAIT> message appears in the middle of the screen. You must wait for 90 seconds before performing the other adjustments. This wait time is meant to prevent you from doing a full cycle of calibrations and thus overstressing the tube. It appears after each pulse calibration.



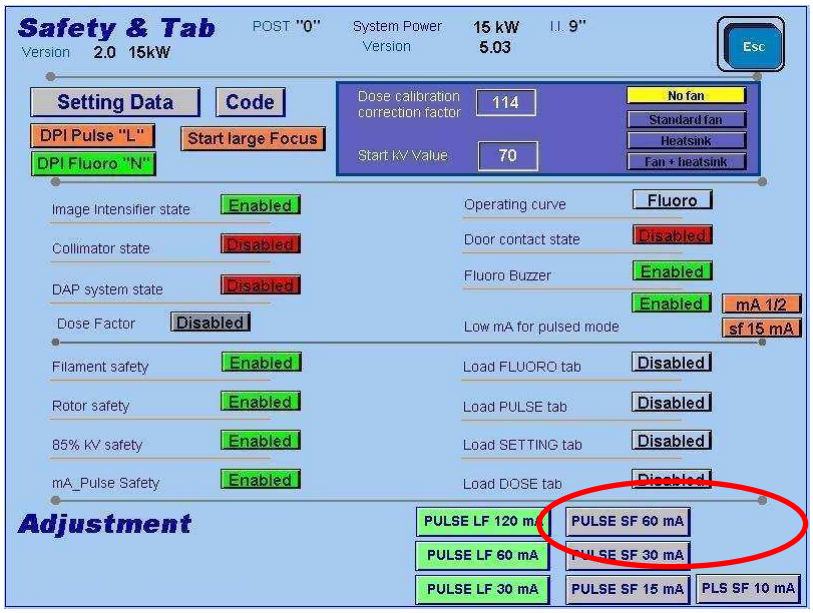
Step 4 - To perform the other calibrations you need to return to the <Service> page and select them from there (you can do this even before the wait time ends, but you still cannot x-ray).

Step 5 - Now you are in the Large Focus – 60 mA Pulse calibration page. If the wait time has ended, press the RX button and keep it pressed to do the calibration.

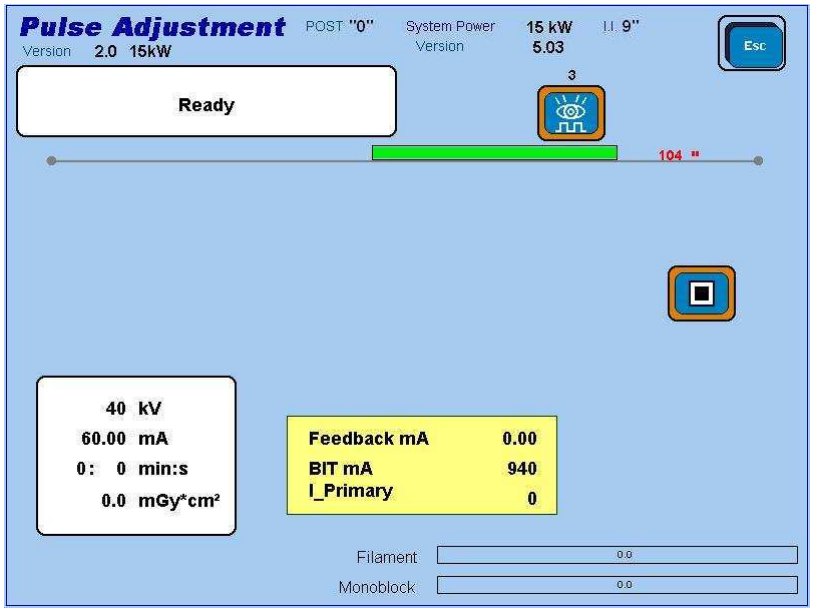


As the calibration ends, wait for 90 seconds before performing the other adjustments (see NOTE in step 3).

Step 6 - To perform the other calibrations you need to return to the <Service> page and select them from there.



Step 7 - Now you are in the Small Focus – 60 mA Pulse calibration page. If the wait time has ended, press the RX button and keep it pressed to do the third calibration.



As the calibration ends, wait for 90 seconds before performing the other adjustments (see NOTE in step 3).

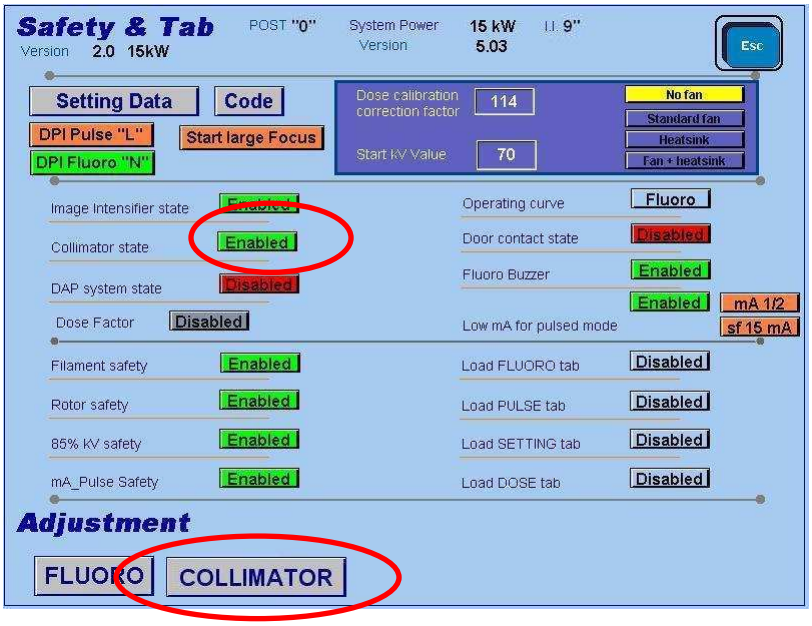
Step 8 - To perform the next calibration left click on the switch and access the proper page.

Step 9 - Proceed in this way with all the values to be calibrated.

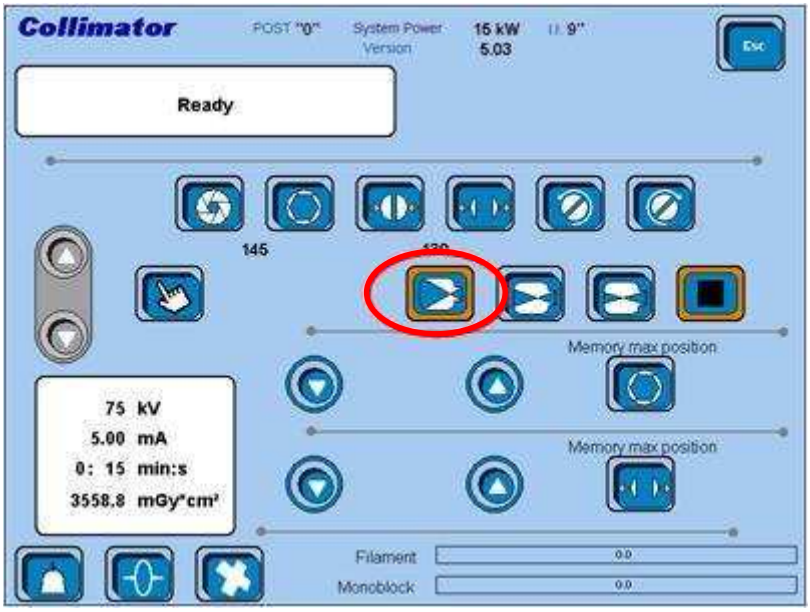
Pulsed mode calibration procedure is finished, turn off the generator.

COLLIMATOR ADJUSTMENT

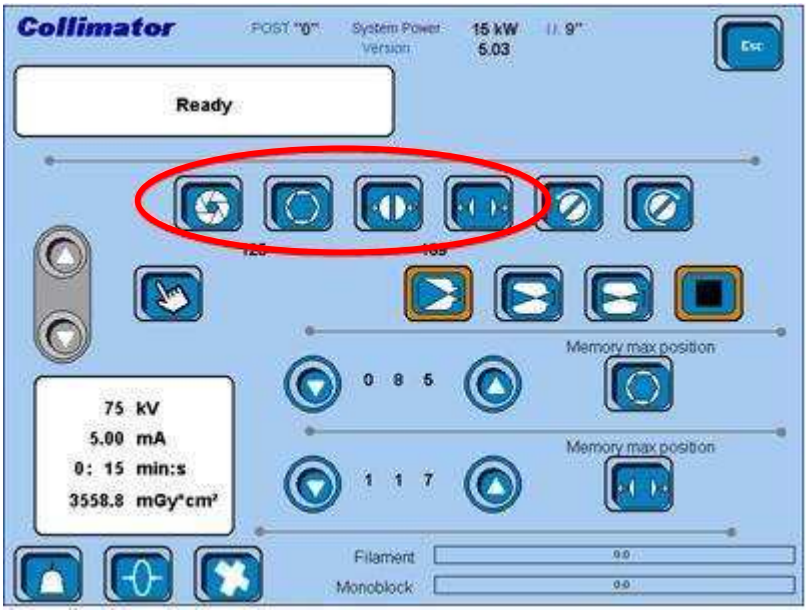
Step 1 - Access the <Service> page. Here be sure that the collimator is enabled; if so, you will see a big grey button named <Collimator> at the bottom of the page. Press it to access the collimator calibration page.



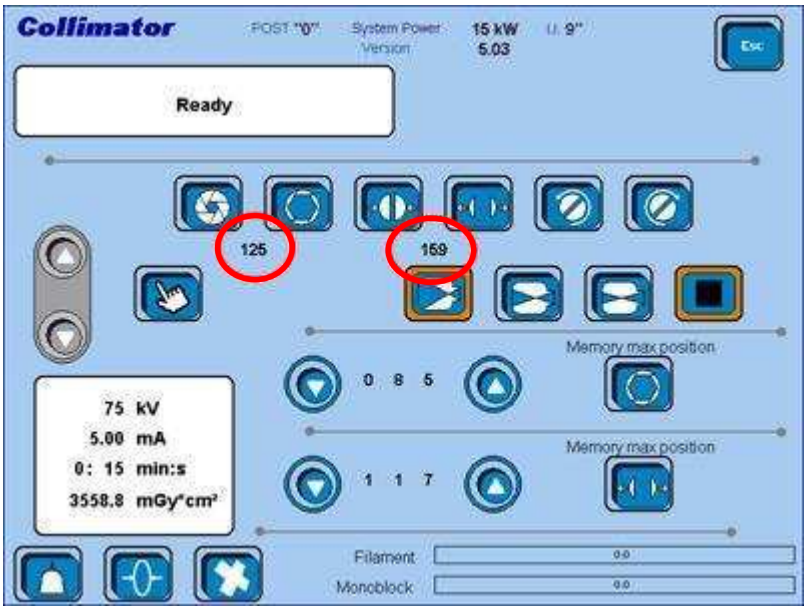
Step 2 - This is the collimator adjustment page.
First select the I.I. total field.



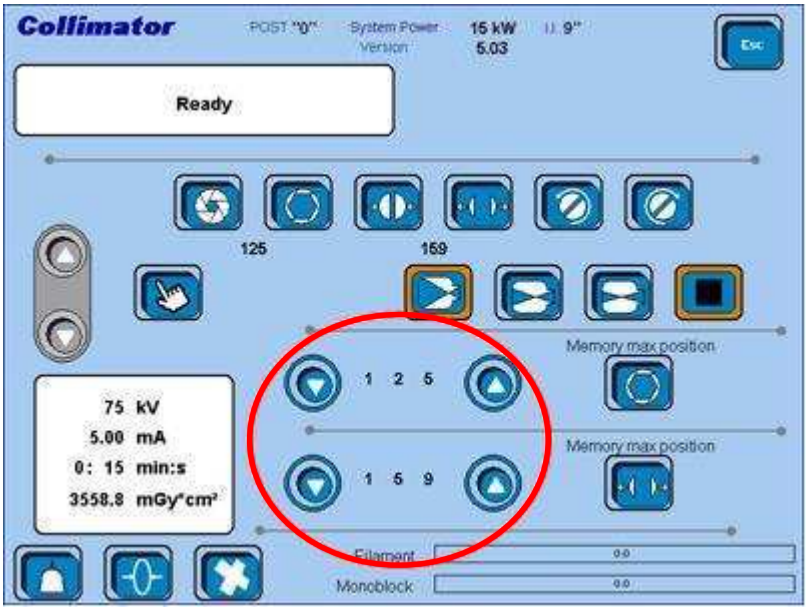
Step 3 - Then press the RX switch to make an RX exposition. While the RX button is pressed, use the switches circled in the figure below to set the diaphragms opening.



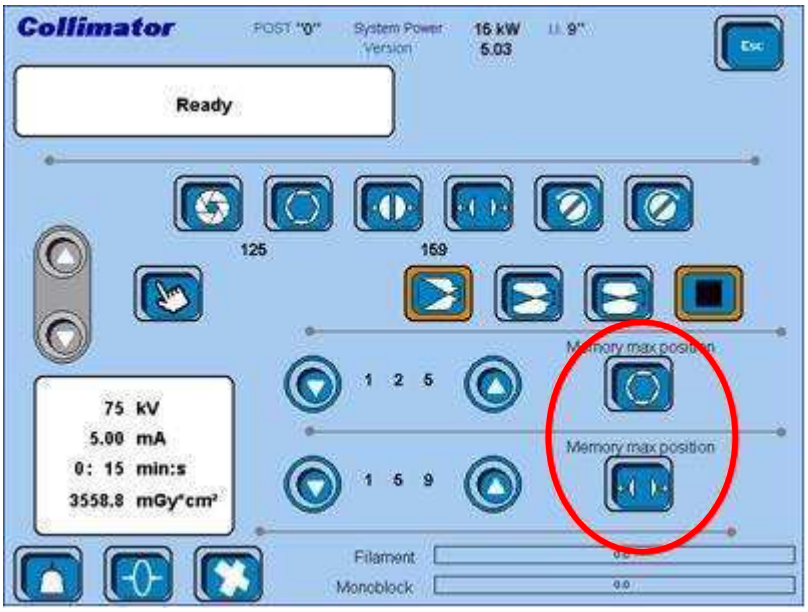
Step 4 - Now release the RX switch and read the two values circled below.



Step 5 - Adjust the values circled in the figure below by using the arrow keys.

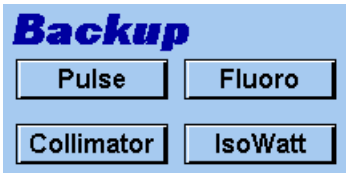


Step 6 - Now press the two buttons aside to save the set values.



Step 7 - To end the collimator calibration you need to repeat this whole procedure for the I.I. zoom 1 and zoom 2.

BACKUP



It is recommended to use the Backup function after any calibration. Pressing the buttons on the left allows to save, through four separate files, the data of Pulse, Fluoro curve, Isowatt curve, and Collimator adjustments.

IMPORTANT: you must use these four buttons one by one, turning off and restarting the system, and then performing the next adjustment, after each single press.

EXAMPLE
As an example, we suppose that you're doing a full calibration.
A correct sequence of actions is as follows.

Step 1 - Turn on the system, select the pulse mode in the Work page; then enter the Service page and perform the all pulse calibrations (both focuses). Enter the Setting Data page and press the <Pulse> button (BACKUP). Then turn off the system.

Step 2 - Turn on the system again, enter the Service page and press the <Load FLUORO tab> button. Turn off the system.

Step 3 - Turn on the system, select the fluoro mode from the Work page; then enter the Service page and perform the fluoro calibration (both focuses).
Now let's suppose that you've just adjusted the Fluoro curve. Enter the Setting Data page and press the <Fluoro> button (BACKUP). Then turn off the system.

Step 4 - You now need to choose the Isowatt curve: turn on the system again, enter the Service page and select the Isowatt curve from there. Turn off the system.

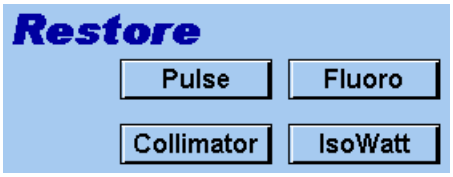
Step 5 - Turn on the system again, select the fluoro mode from the Work page; then enter the Service page and perform the fluoro calibration (both focuses). This time you have adjusted the Isowatt curve, so enter the Setting Data page and press the <Isowatt> button (BACKUP). Turn off the system.

Step 6 - Turn on the system again, be sure that the collimator is enabled (check it in the Service page), then perform the collimator adjustment. Enter the Setting Data page and press the last <Collimator> button (BACKUP). Turn off the system one last time.

Step 7 - Restart the system, which is now ready for use.

IMPORTANT: it does not matter the order you choose to use the four buttons. Just remember to restart the system anytime you press one of them. Pay attention when you change the fluoro curve (FLUORO/ISOWATT), because you need to restart the system once more to load the new curve (this is what happens in STEP 3 of the example above).

RESTORE



The Restore buttons allow to load the data that had been previously saved.
This is especially useful after updating the system software, since it prevents you from doing any calibration.

NOTE: unlike the BACKUP buttons, you can press all of them and then restart the system.