

X-ray Tube Maintenance Procedure

SHFR generators

This procedure must be performed **weekly**.

Not doing so will result in generator damage (that will not be covered under warranty).

Setup:

- Close the collimator blades
- Set mAs to 20.0
- Set kVp and mA (see table below), take x-ray, then wait 30 seconds **between each exposure**
- Perform exposures 1-10

Weekly Seasoning Chart							
wait 30s between exposures							
Exp.	kVp	mAs	mA station table				
			Generator 320s	Generator 400S	Generator 500S	Generator 650S	Generator 800S
1	60	20	400	500	630	630	1000
2	70		400	500	630	630	1000
3	80		400	500	500	630	1000
4	90		320	400	500	630	800
5	100		320	400	500	630	800
6	110		250	320	400	500	630
7	120		250	320	400	500	630
8	125		250	320	400	500	630
9*	140		200	250	320	400	500
10*	150		200	250	320	400	500

* For systems that have a tube **and** a generator capable of 150kVp, perform Exp 9 and 10.

Handling Errors:

If an error occurs during the seasoning process:

- Cycle generator power.
- Leave kVp and mAs the same.
- Repeat exposure with **~half of the mA** (keep reducing mA if error continues).
- Repeat exposure at the original mA value in the table.
- Make note of the date, technique, and error messages for the next x-ray maintenance visit.

If an error occurs every week:

- In general, tube seasoning should not result in errors.
- If errors begin occurring weekly, then this is a sign of a failing HV component.
- Notify **your local** x-ray service company
- Shorten the tube seasoning time to every 3-4 days, until the x-ray system has been repaired.