

Instructions for replacing viewing windows in ccl8200 Chamber Top Plates

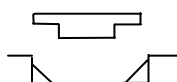
1) **Removing old window**

- a) Remove the Gun Cable and electron gun making sure you note how they come apart and carefully placing the components in a safe place.
- b) Heat the top plate round the existing window from the top using a hot air gun set to 200 deg C . Do not direct the gun directly at the window (as this may cause the windows to crack), but play the gun round the window.
- c) Using the wax supplied with the new window rub lightly on the top plate, if it starts to melt the top plate is hot enough.
- d) Turn the top plate over, You will need to use a cloth as it will be hot.
- e) Using a cocktail stick press on the underside of the window it will pop out.
- f) Turn the top plate right way up again and carefully remove any glass pieces that may exist round the window seat. You may need to re heat the window seat area to do this. It is best to remove most of the old wax at this point, as it is easy to miss a small fragment of glass and this will cause the new window not to seat correctly. A paper towel normally does this well.

2) **Fitting the new window**

- a) Heat the windows seat area with the hot air gun using the wax stick between applications of the heat to ascertain when it is hot enough. The wax should readily melt to the consistency of soft butter but not to a water state.
- b) Apply a thick layer of wax to the window seat.
- c) Carefully place the window in the seat. The small diameter downward.(Diagram A)
- d) Using your middle finger apply very light pressure to the window. So that it sits in the seat correctly slowly rotate your finger (and thus the window) by 20 degrees. Take Care not to press to hard as window may crack also the top plate is hot.
- e) If you have been successful a continuous black ring will be seen through the window.(Diagram B) If this ring is broken (Diagram C) carefully apply more heat with the heat gun to the top plate but not directly to the window. Then apply light pressure to the window again as above.
- f) Allow the top plate to cool for 30 Minutes.
- g) using a soft paper towel with a small amount of acetone or trichloroethane on it wipe the excess wax off and clean the window. On no account put either solvent directly on the window or top plate as it will destroy the vacuum seal.
- h) reassemble toplate .

A



B



Correct

C



Wrong