

Installing a CeBix cathode in a Self Biased or an Independently Biased System

If you have **Self Biased System** and are installing a CeBix™ cathode, you must:

1. Increase the distance between the tip of the crystal and the Wehnelt cap. For example, when installing a cathode in a JEOL JBX-5DII Lithography system, the crystal truncation should be recessed from the front surface of the Wehnelt $3/5$ a turn for LaB₆, or $3/4$ turn for CeBix™. Use a similar tip distance relationship when installing CeBix™ in other LaB₆ instruments.

-OR-

2. Increase the bias resistance by a factor of 2

In some cases you will need to perform a combination of 1) and 2).

If you have an **Independently Biased System** and are installing a CeBix™ cathode, simply operate it the same way as you would operate a LaB₆ cathode. Do expect, however, the total emission current to be approximately half of that obtained when operating a LaB₆ cathode.