

Technical Service Bulletin 130502
"Stackpole®" Resistors in DCX/IOX Transmitter HPAs

Applicability: DCX and IOX running high beam current, especially with D3130 IOT.

The DCX and IOX transmitters use two large surge resistors to form a voltage divider to provide for correct operation of the Thyatron crowbar. These resistors are the Stackpole® 5-ohm, 5" tall, and 40-ohm, 10" tall, high-power resistors. The resistors are located in the High Voltage compartment of the HPA.

With higher beam current, the 40-ohm resistor can run hot enough to cause premature failure of the insulated rod that holds the resistor together. In particular, beam currents of near 2 amps and higher have the highest heating and therefore the most likelihood of failure. Using the power formula $P=I^2R$, we can see how the higher beam current results in much greater power dissipation.

To alleviate this problem, we are substituting a 10-ohm resistor in the same 10" tall package that provides for proper operation of the crowbar assembly and runs much cooler. This replacement resistor may be replaced at any time and does not require any recalibration and only needs to have the normal crowbar test function used.

For transmitters where the IOT is not operated at maximum capacity and have a much lower beam current, this change is not needed (but won't cause any issues if it is installed). If the resistor is to be replaced, we will replace with the 10-ohm resistor.

The part number of the new 10-ohm replacement resistor is part number **403597-05** and replaces the 403597-04, 40-ohm resistor. The resistor can be ordered by calling Comark Customer Service at 800-345-9295 or by emailing us at support@comarktv.com.

At Comark, we are constantly striving to improve the satisfaction of both our new and existing customers. Please do not hesitate to contact Comark Customer Service with any questions you may have concerning the contents of this service bulletin.

Comark Communications
104 Feeding Hills Road
Southwick, MA 01077 U.S.A.
(800) 345-9295
www.comarktv.com