

Service Call:

Dielectric Reclassification / Rerating
Procedure

Tools Required: Common Hand
Tools, AC Dielectric Test Machine

Model(s): TM, RMX

Tech Tip Safety Rules



Danger

Failure to obey the instructions and safety rules in the appropriate Operator's Manual and Service Manual for your machine will result in death or serious injury. Many of the hazards identified in the operator's manual are also safety hazards when maintenance and repair procedures are performed.

Do Not Perform Maintenance Unless:

- You are trained and qualified to perform maintenance on this machine.
- You read, understand and obey:
 - manufacturer's instructions and safety rules
 - employer's safety rules and worksite regulations
 - applicable governmental regulations
- You have the appropriate tools, lifting equipment and a suitable workshop.

The information contained in this tech tip is a supplement to the service manual. Consult the appropriate service manual of your machine for safety rules and hazards.

Introduction

The dielectric category that was assigned at the factory can be changed to a lower category if the aerial device will no longer be used and maintained as originally equipped.

Category A aerial devices can be de-rated to a Category B or C. Category B aerial devices can be de-rated to a Category C.

Depending on which conversion is taking place components may need to be removed and a dielectric test will need to be performed if the unit is to be maintained as insulated.

Please note that the unit does not have to be re-rated to be used as a lower category machine. As an example, a 69 kV Category B machine can work any voltage below the 69 kV Phase to Phase rating. A Category B machine can be used for Category C work without any modifications. Re-rating to Category C (46KV), would only be necessary if the owner wanted to eliminate the Category B components and testing requirements. All units used for rubber glove work must have fiberglass platforms and covers over all exposed metal at the boom tip.

If the machine is rated as a Category A it can be used for Category B and C work by simply removing the metal liner and disconnecting the bonding cables at the platform. If the machine is equipped with a metal platform, it will need to be changed to fiberglass or it can only be used for Category D work. If a Category A machine is not used for bare hand work every 6 months. It cannot be considered a bare hand unit. It will require an annual dielectric test at the qualification voltage before being used for bare hand work again.

Regardless of machine type or category rating if an annual dielectric test is not performed on the equipment it must be considered as not insulating. The exemption is Category A units, when used for bare hand work at least every 6 months, only require a dielectric test every 3 years.

Category A to B

The parts that are removed can be stored for future use if the unit is ever rerated back to a Category A.

Step 1

If located in the platform, the metal platform liner will need to be removed and stored off the unit. Before removing the liner verify that the orange bonding cable from the liner to the boom tip is disconnected from the boom tip.



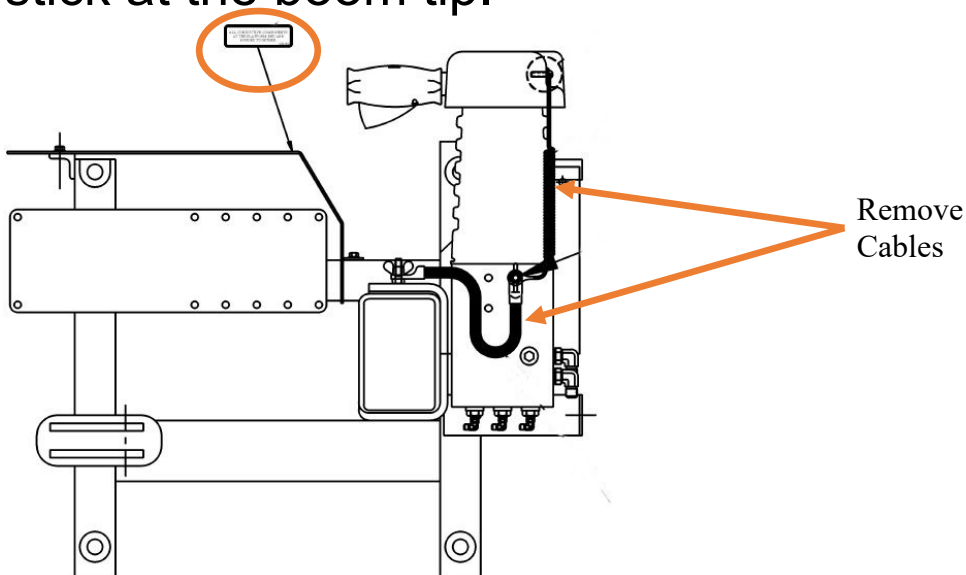
Step 2

Remove the Corona Ring from the upper boom and store off the unit. If the unit is going to be rated at 138kV Category B or higher the corona ring will need to be left on the unit.



Step 3

Remove the orange bonding cables to the single stick at the boom tip.



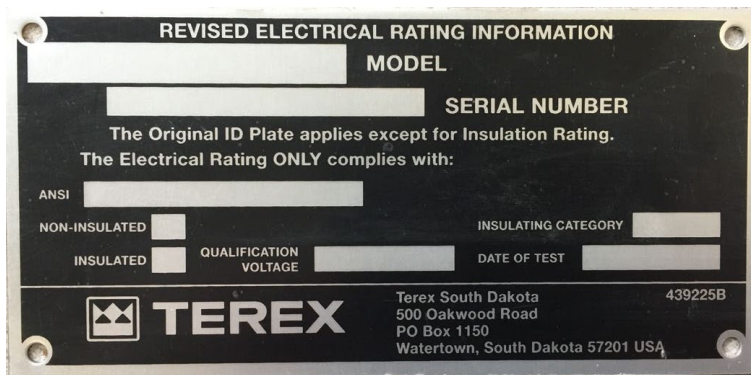
Step 4

Perform a 69Kv Category B dielectric maintenance test. If the unit is to be rated higher than 69Kv further testing will need to be completed by a 3rd party.

Step 5

Contact parts at 1-844-837-3948 and order #439225 rerate placard.

When ordering the placard, inform parts personnel that Product Safety must be notified of the change. If there are any questions, contact Technical Support at 1-844-837-3948.



Step 6

Install the rerated placard next to the original ID placard and X out the category rating on the original ID plate.

Category A to C

Step 1

If located in the platform, the metal platform liner must be removed. Before removing the liner verify that the orange bonding cable from the liner to the boom tip is disconnected from the boom tip.



Step 2

Remove the Corona Ring from the upper boom.



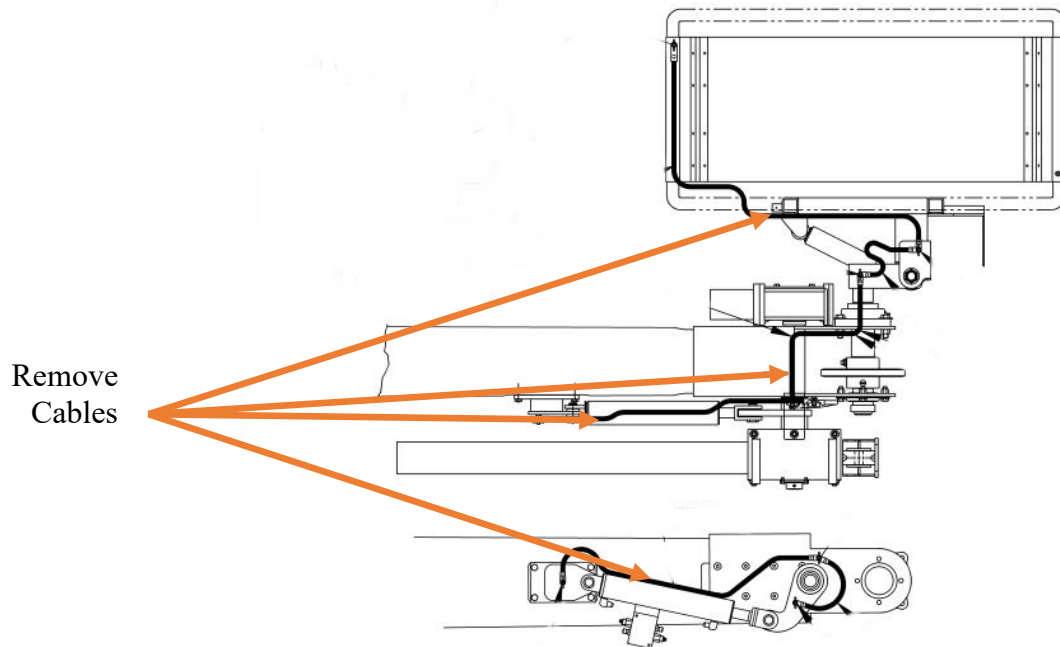
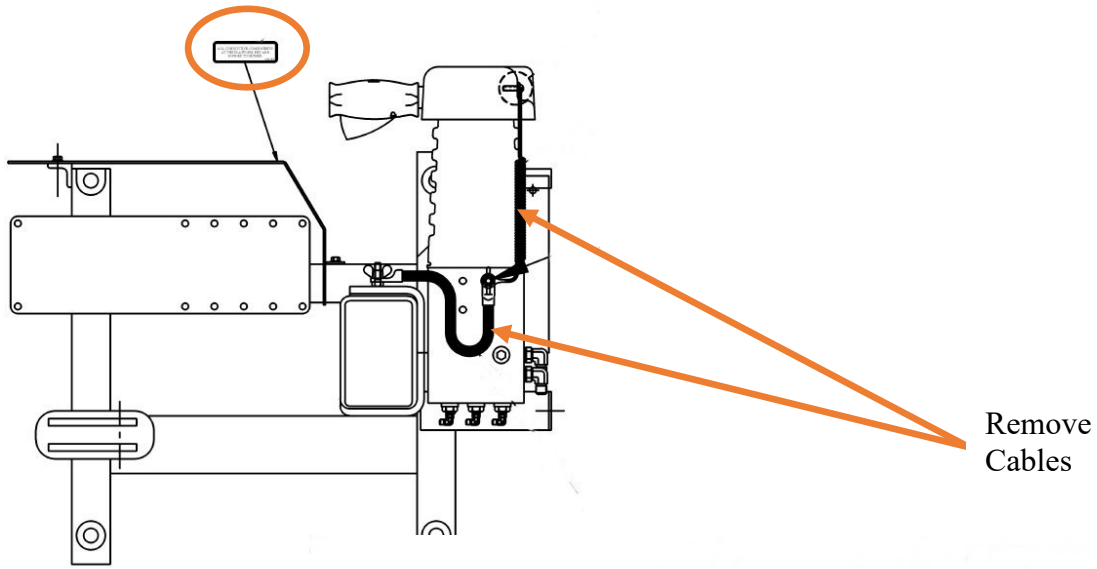
Step 3

Remove the Conductive Shield from the upper boom.



Step 4

Remove all the orange bonding cables at the boom tip and the bonding cable decal.

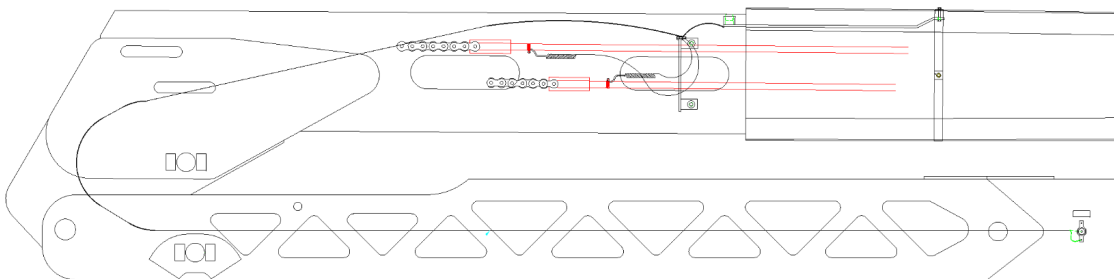


Step 5

Remove the entire monitoring circuit from both the upper and lower booms.

This includes, but is not limited to:

- Coax Cable from terminal strip to Amphenol connector
- Leakage Test Meter Connection Amphenol Connector and Placard
- Terminal Strip
- Wire from terminal strip to test band connection
- Wire from terminal strip to bulkhead assembly
- Wire from terminal strip to leveling rods



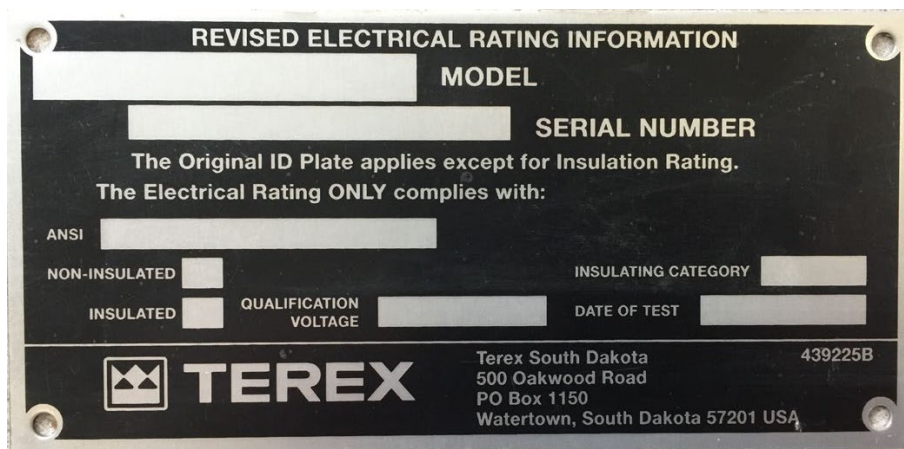
Step 6

Perform a 46Kv Category C dielectric qualification test.

Step 7

Contact parts at 1-844-837-3948 to order the #439225 rerate placard.

When ordering the placard, inform parts personnel that Product Safety must be notified of the change. If there are any questions, contact Technical Support at 1-844-837-3948.



Step 8

Install the rerated placard next to the original ID placard and X out the category rating on the original ID plate.