1. Remove the tire from the wheel. Inspect the tire for damage and defects that would make the tire non-repairable. Locate and mark all damage on the inside and outside of the tire. Insert a spiral cement tool or a probe into the injury from the inside of the tire to determine the size and angle of the injury.

2. Pre-clean the inner liner 2 to 3 times with Hub-O-Matic Rubber Cleaner #704 or #704A and a scraper to remove contaminants.

3. Outline the area to be buffed. Buff the outlined area with a low RPM buffer (Max 5,000 RPM) and appropriate inner liner wheel.

4. Damaged rubber and steel should be removed from the injury using a carbide cutter on a low speed air/electric drill, maximum 1,200 RPM. Drill the injury from the inside of the tire 3 to 5 times. Repeat this process from the outside.

5. Use a soft wire brush followed by a vacuum to remove buffing dust and debris from the buffed area.

6. Using a spiral cement tool in a clockwise direction, apply Chemical Vulcanizing Fluid #760 to the injury 3 – 5 times. Apply a thin, even coat to the buffed surface and allow to dry 3 - 5 minutes. Additional time may be required in cold or humid conditions.

7. Apply a small amount of vulcanizing fluid to the black tapered portion of the stem. Insert the lead wire through the injury from the inside of the tire.

8. Grasp the wire with pliers on the outside of the tire and pull the stem through the tire until the cap forms a slight indentation.

9. Press down the repair with your thumb from the center out. Stitch repair unit down from the center out. Remove blue poly from under cap and continue stitching toward the edge of the repair.

10. Remove the clear poly from the repair. Seal the edge of the repair unit and the over buffed area with TECH Security Coat #738 or Butyl Liner Repair Sealer #739.

11. With the stem relaxed, cut off the excess stem 1/8” (3mm) above the tread surface. The tire is ready to be returned to service.

**WARNING**

Failure to properly repair tire could cause SUDDEN TIRE FAILURE, RESULTING IN SERIOUS INJURY OR DEATH. Carefully read and follow these instructions.

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**RADIAL AND BIAS PASSENGER TIRE PUNCTURE LIMITATIONS**

<table>
<thead>
<tr>
<th>TIRE AREA</th>
<th>REPAIRED INJURY SIZE</th>
<th>REPAIR UNIT</th>
<th>CAUSING COTTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crown (T-T)</td>
<td>3mm (1/8”)</td>
<td>UL3 (249UL)</td>
<td>CC3 (269)</td>
</tr>
<tr>
<td>Crown (T-T)</td>
<td>6mm (1/4&quot;)</td>
<td>UL6 (250UL)</td>
<td>CC6 (270)</td>
</tr>
<tr>
<td>Crown (T-T)</td>
<td>8mm (5/16&quot;)</td>
<td>UL8 (251UL)</td>
<td>CC8 (271)</td>
</tr>
<tr>
<td>Crown (T-T)</td>
<td>10mm (3/8&quot;)</td>
<td>UL10 (291UL)</td>
<td>C10 (271/38)</td>
</tr>
<tr>
<td>Crown (T-T)</td>
<td>10mm (3/8&quot;)</td>
<td>UL10N (290UL)</td>
<td>C10 (271/38)</td>
</tr>
</tbody>
</table>

All injuries larger than those defined in the chart, or outside the specified T-T area, must be treated as a section repair.

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**RADIAL AND BIAS TRUCK TIRE PUNCTURE LIMITATIONS**

<table>
<thead>
<tr>
<th>TIRE AREA</th>
<th>REPAIRED INJURY SIZE</th>
<th>REPAIR UNIT</th>
<th>CAUSING COTTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crown (T-T)</td>
<td>8mm (5/16&quot;)</td>
<td>UL8 (251UL)</td>
<td>CC8 (271)</td>
</tr>
<tr>
<td>Crown (T-T)</td>
<td>10mm (3/8&quot;)</td>
<td>UL10 (291UL)</td>
<td>C10 (271/38)</td>
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<td>10mm (3/8&quot;)</td>
<td>UL10N (290UL)</td>
<td>C10 (271/38)</td>
</tr>
</tbody>
</table>

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**NOTES**

- TECH Instructions for Uni-Seal Ultra Puncture Repair
- Uni-Seal Ultra repairs are designed for use in the Crown (T-T) area of the tire only.
- All injuries larger than those defined in the chart, or outside the specified T-T area, must be treated as a section repair.

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**TECH Instructions for Uni-Seal Ultra Puncture Repair**

Refer to RM-4 Repair Manual for Additional Information

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**TECH®**

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**REVISED: 2/19**

Cat. No. PTC