Wing-Nut® Wire Connector Instructions

**WARNING:**
Improper use or installation of this product may cause fire, electrocution, serious personal injury or death. Shut off power to the circuit or remove fuse before using this product. Use only connectors properly sized to the wires being used. Consult local building codes for installation requirements.

To be sold only with installation instructions.

**Installation Instructions**
1. Turn off power before removing or installing connectors.
2. Strip connectors to the correct strip length per the chart below:

<table>
<thead>
<tr>
<th>Connector</th>
<th>Strip length</th>
</tr>
</thead>
<tbody>
<tr>
<td>451®</td>
<td>Strip wires 3/8” (9.5mm)</td>
</tr>
<tr>
<td>452®</td>
<td>Strip wires 1/2” (13mm)</td>
</tr>
<tr>
<td>454®</td>
<td>Strip wires 7/8” (22mm)</td>
</tr>
</tbody>
</table>

3. Straighten and align frayed strands.
4. Hold wires together with ends even. Lead stranded wires slightly ahead of solid wires.
5. Pre-twisting acceptable, but not required. For pre-twisting; strip wires long, hold wires together with insulation even, twist wire ends together, trim to recommended strip length.
6. Insert bundle into connector and twist clockwise until tight.

Use only on Copper to Copper (Cu/Cu) wire combinations.
For use in dry locations only.
Temperature rating: 105°C (221°F) maximum.
600 volts maximum building wire; 1000 volts signs or lighting fixtures.
UL 486C Listed and CSA C22.2 #188 Certified
Complies with Federal Specification W-S-61D