**WIRE AND JACKETED CABLE PREPARATION**

Strip wires to appropriate length (See contact chart on page 18 for strip lengths). If using a boot, strip jacket so no more than listed dimension is exposed when contact is full inserted.

**Note:** Try stripping back jacket approximately 1.25 inches (32mm) because strip lengths will vary depending on cable being used.

<table>
<thead>
<tr>
<th># CIRCUITS</th>
<th>MAX EXPOSED LENGTH INCHES (MM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2, 3, 4</td>
<td>.87 (22)</td>
</tr>
<tr>
<td>5, 6, 7</td>
<td>1.02 (26)</td>
</tr>
<tr>
<td>8, 9, 10</td>
<td>1.02 (26)</td>
</tr>
</tbody>
</table>

**HAND CRIMP TOOL OPERATION**

The Sure Seal hand crimp tool has a full cycle ratchet controlled release and straight action crimp jaws. The flap locator makes it easy to load the terminal and the pre-positioner assures that the terminal is loaded for proper crimping. To open the tool, you must apply force to the handles to allow the tool to spring open.

**STEP 1:**
Open proper hand crimper (see Contacts & Tooling tab) by squeezing handles until handles spring open.

**STEP 2:**
Open flap locator. Insert contact up to stop. Make sure contact is inserted properly.

**STEP 3:**
Close flap locator.

**STEP 4:**
Press pre-positioner downward firmly for contact alignment. (crimp area should be facing upward)

**STEP 5:**
Pre-close the handles.

**STEP 6:**
Insert stripped wire into contact up to insulation stop.

**STEP 7:**
Squeeze handles until they pop open. Remove contact from the locator.

**POWER SURE-SEAL® MACHINED CONTACT CRIMP TOOL**

**400BHD**

The 400BHD is a pneumatically power heavy duty crimp tool designed for contacts that are too large to be crimped by hand tools. The 400BHD comes with a power unit and bench mounting bracket. The 400BHD is actuated with either the standard handle actuating switch or optional Pneumatic Foot Pedal (FFP). Crimp Die Kits are ordered separately (see page 19). It is highly recommended that you provide a sample of your wire when ordering these Crimp Die Kits. Your wire sample will be crimped and tested for proper crimp tensile strength.

**Power Requirements:** 90-125 PSI 1.2 CFM of dry, oil free, air

**Operating Instructions:** (Call for operating instructions)

All dimensions in inches (millimeters in parentheses)
**MINI APPLICATOR**

The Sure-Seal mini-applicator is designed for use in most common crimping presses and automatic wire processing systems. It utilizes a quick change mounting system, which allows the applicator to be installed or removed in two quick steps. This makes the change over from one applicator to another for crimping a variety of contacts utilizing the same press fast and easy. We offer this side-feed applicator for our most popular stamped and formed terminals (see below).

<table>
<thead>
<tr>
<th>APPLICATOR</th>
<th>TERMINAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSMA-SSI</td>
<td>110238-0195 &amp; 110238-0194</td>
</tr>
<tr>
<td>SSMA-SS</td>
<td>110238-0040 &amp; 110238-0085</td>
</tr>
<tr>
<td>MSSMA-SSI</td>
<td>121348-0100 &amp; 121347-0100</td>
</tr>
</tbody>
</table>

**M3000 CRIMPING PRESS**

The M3000 crimping press is compatible with most side-feed mini-applicators for automated terminal crimping and is the most economical “state-of-the-art” crimping press on the market. The M3000 accommodates our mini-applicator listed above as well as most “left-to-right” and “rear” quick change “mini” style applicators. Other features include precision crimp height adjustment, electronically interlocking safety guard, jog cycle and 110V power supply.

Crimp monitors and counters are also available. Contact us for more information.

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**CRIMP INSPECTION**

Micro sections: Enlargement of micro section allows for final judgment of crimp quality. This test is recommended whenever new tools or new types of wire are used.

**FOR STAMPED CONTACTS**

Correct Crimp

Incorrect Crimp

Incorrect Crimp

1 - Insulation
2 - Strands
3 - Contact

**FOR MACHINED CONTACTS**

Correct Crimp

Incorrect Crimp

1 - Insulation
2 - Strands
3 - Contact
4 - Wire inspection hole
5 - Shoulder

NOTE: For accurate pull test results when crimping insulation support contacts (030-2196-001 & 031-1267-001), strip wire back .3” so that the insulation support tine does not crimp onto insulation.
MANUAL INSERTION OF CONTACTS

STEP 1: Affix proper connector holding block to stable surface (i.e. vice or table) (See Contacts & Tooling tab on page 16 for proper holding block)

STEP 2: If a jacket wire sealing boot is to be used, it must be slid up the cable (isopropyl alcohol will help in doing this)

STEP 3: Dip connector in isopropyl alcohol and place in holding block with the back end up (wire side)

STEP 4: Using the proper contact insertion tool (See Contacts & Tooling tab on page 18)
   A. Place contact in groove of tool
   B. Make sure that the end of the tool is up against the shoulder of the contact.

STEP 5: Insert contact into proper cavity of the connector body by applying constant pressure until contact snaps into place. Isopropyl alcohol will help in doing this. (Warning: Do not tilt the tool during the insertion).

STEP 6: Insert all remaining contacts. To insure environmental sealing of the connector any empty contact cavities must be filled with wire hole fillers (See Contacts & Tooling tab on page 18 for proper wire hole filler).

STEP 7: Check mating side of the connector to be sure that all contacts are on the same plane (fully inserted).

STEP 8: If you are using jacket sealing boot, slide the boot down the cable and onto the connector.

STEP 9: Remove connector and wire assembly from holding block.

PNEUMATIC AUTOMATIC INSERTION TOOL (LEASED)

CBIT-SS-150

The CBIT-SS-150 Sure-Seal® insertion machine is pneumatically powered, and microprocessor controlled. It is designed to insert pre-crimped wires into the standard Sure-Seal® plug and receptacle housings for moderate to high volume applications. This machine is used for SS2P/R through SS10P/R including the 120-1873-007 and 120-1874-007 rectangular style Sure-Seal® connectors.

The benefits of using this insertion machine are:

<table>
<thead>
<tr>
<th>Ease of operation</th>
<th>Short operator training time, reduces operator fatigue and insertion errors, quick change over for different connectors sizes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low cycle time</td>
<td>Much faster than manual insertion</td>
</tr>
<tr>
<td>High connector integrity</td>
<td>Lower chance of damaging the wire sealing ripples</td>
</tr>
</tbody>
</table>
| Power Requirements| Electrical = 115 Vac, 60 Hz  
                      Pneumatic = 80 PSI, 10 CFM dry oil free filtered air                                                                     |

EXTRACTION OF CONTACTS

STEP 1: Slide up any rear accessories (i.e. jacket cable sealing boots). Using isopropyl alcohol will help you slide these up your cable.

STEP 2: Grasp individual wire firmly and gently pull the contact out of the connector.

*Extraction tool is available, DRK32 & DRK152, contact us for more information.