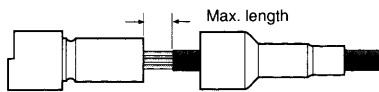


# Assembly Instructions

## Wire and Jacketed Cable Preparation

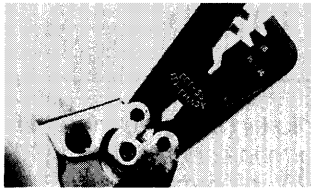


Strip wires to appropriate length (See contact chart on page 24 for strip lengths). If using a boot, strip jacket so no more than listed dimension is exposed when contact is full inserted.

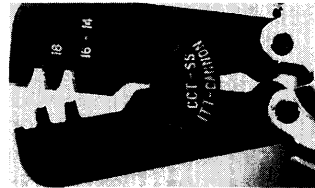
Note: Strip lengths will vary depending on cable being used.

| # Circuits | Length Max.<br>Inches (mm) |
|------------|----------------------------|
| 2, 3, 4    | .87 (22)                   |
| 5, 6, 7    | 1.02 (26)                  |
| 8, 9, 10   | 1.02 (26)                  |

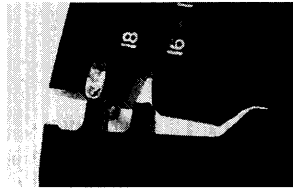
## Hand Crimp Tool Operation



1. Hold the crimp tool in an open position and select the proper crimp cavity for the wire size to be crimped.



2. Hold the tool so that the die cavity identification is toward you.



3. Insert the contact into the crimp tool from the back side with the crimp wing flush with the top of the tool. Close the crimp tool so that it gently holds the contact in place.



4. Insert the stripped wire into the crimp area until it bottoms. Firmly squeeze the handle until the crimp jaw ratchet releases.

5. Remove the contact from the tool and inspect the crimp by gently pulling on contact (it should not be loose). Visually inspect crimp. See crimp inspection on page 32.

## MVCT Moderate Volume Crimp Tool

(For standard Sure-Seal® stamped contacts 030-2196-\_\_\_ & 031-1267-\_\_\_ )

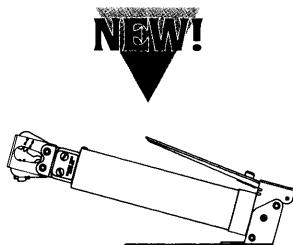
The MVCT moderate volume pneumatic crimp tool is ideally suited where manual crimping is not practical and crimp volume is not high enough to justify lease tooling. The MVCT includes the power unit, bench mounting bracket, universal crimp head and a crimp head guard that maximizes operator safety. Replaceable contact crimp dies are ordered separately (see table below). The MVCT comes with a standard palm pad to actuate the crimping process. An optional Pneumatic Foot Pedal (PFP) may also be used.

Ordering Information:

|         |   |                                           |
|---------|---|-------------------------------------------|
| MVCT    | = | Crimp tool                                |
| MVCTISD | = | Insulation Support Contact Crimp Dies     |
| MVCTNSD | = | Non-Insulation Support Contact Crimp Dies |
| PFP     | = | Pneumatic Foot Pedal                      |

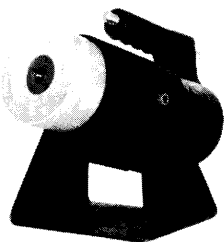
Power Requirements: Pneumatic = 80-100 PSI filtered lubricated air

Operating Instructions: (Call for operating instructions)



## Power Sure-Seal® Machined Contact Crimp Tool

SS400BHD



The SS400BHD is a pneumatically power heavy duty crimp tool designed for contacts that are too large to be crimped by hand tools. The SS400BHD comes with a power unit and bench mounting bracket. The SS400BHD is actuated with either the standard handle actuating switch or optional Pneumatic Foot Pedal (PFP). Crimp Die Kits are ordered separately (see page 25). 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.

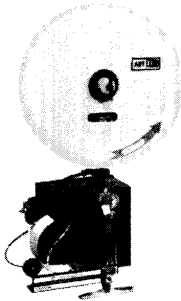
Power Requirements: 90-125 PSI 1-2 CFM of dry, oil free, air

Operating Instructions: (Call for operating instructions)

# Assembly Instructions

## Leased Crimp Tooling

### ABT-607 Pneumatic Crimper



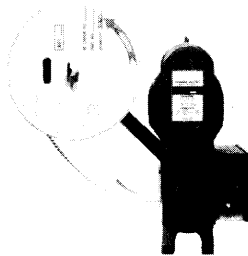
The ABT-607 is a pneumatic powered and controlled machine. It is designed for customers with moderate volume. This machine is designed to semi-automatically crimp stamped contacts onto pre-stripped stranded or single conductor electrical wire. This machine will accommodate size 34 thru 12 AWG wire and is actuated by the use of a foot pedal. The compact design of this tool takes up very little bench space and allows the machine to be portable.

Machine Crimp Rate: 800 per hour

Power Requirements: Pneumatic = 100 psi, 2 cu. ft. per min.

Minimal Annual Usage: 10 Reels of Contacts

### ABT-500 UCCD



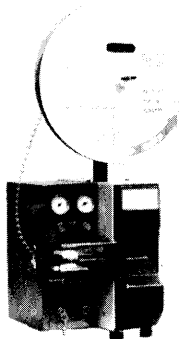
The ABT-500 Universal Crimper, is a flywheel driven, electronically controlled machine that is designed to semi-automatically crimp stamped and formed contacts on standard or single conductor, pre-stripped wire. This machine will accommodate size 34 thru 12 AWG wire. The primary application of this machine is for terminating discrete, pre-stripped, wire. The machine is actuated by the use of a foot pedal.

Machine Crimp Rate: 1300 per hour

Power Requirements: Electrical = 115 VAC, 60 Hz, 20A

Minimal Annual Usage: 30 Reels of Contacts

### ABT-620 UCCS



The ABT-620 Universal Crimper/Stripper is a pneumatic powered, microprocessor controlled machine. It is designed to semi-automatically strip insulation from standard or single conductor electrical wire and attach a stamped and formed contact by crimping. The machine will accommodate 34 thru 12 AWG wire. Primary application of the machine is the termination of jacketed cable where the individual leads cannot be stripped by fully automated equipment. The ABT-620 UCCS operates automatically upon insertion of a wire or it can be switched over to foot pedal operation as desired.

Machine Crimp Rate: 1200+ per hour

Power Requirements: Electrical = 115 VAC, 60 Hz, 20A

Pneumatic = 80 psi, 3 cu. ft. per min.

Minimal Annual Usage: 30 Reels of Contacts

Call for more information about lease tooling.

## Crimp Inspection

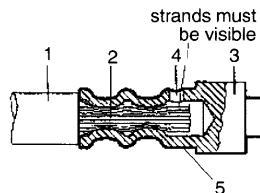
Micro sections

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.

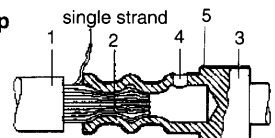
- |   |                      |
|---|----------------------|
| 1 | insulation           |
| 2 | stands               |
| 3 | contact              |
| 4 | wire inspection hole |
| 5 | shoulder             |

### For machined power contacts

#### Correct Crimp

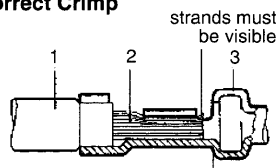


#### Incorrect Crimp

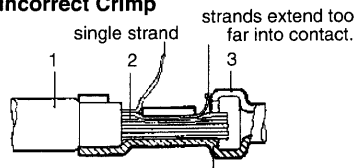


### For stamped contacts

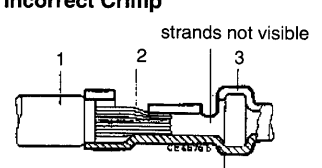
#### Correct Crimp



#### Incorrect Crimp



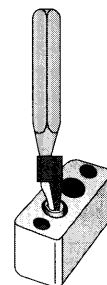
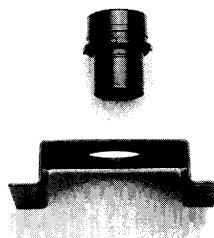
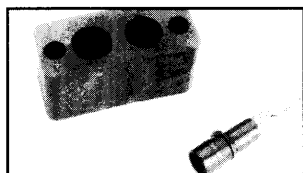
#### Incorrect Crimp



# Assembly Instructions

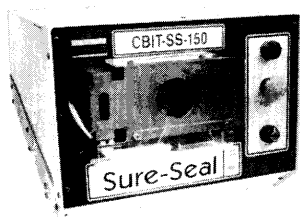
## Manual Insertion of Contacts

1. Affix proper connector holding block to stable surface (i.e. vice or table). See Connector Selection table, page 23, for proper holding block.
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).
3. Dip connector in isopropyl alcohol and place in holding block with the back end up (wire side).
4. Using proper contact insertion tool, (see Contact Selection table for proper tool):
  - A. place contact in groove of tool
  - B. make sure that end of the tool is up against the shoulder of the contact.
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).
6. Insert all remaining contacts. To insure environmental sealing of the connector any empty contact cavities must be filled with wire hole fillers (see Contact Selection table chart for proper wire hole filler).
7. Check mating side of the connector to be sure that all contacts are on the same plane (fully inserted).
8. If you are using jacket sealing boot, slide the boot down the cable and onto the connector.
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 power, 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.

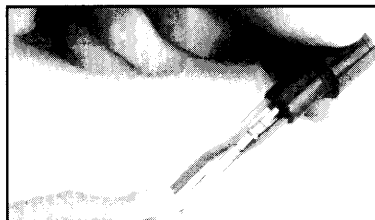
The benefits of using this insertion machine are:

- |                           |                                                   |
|---------------------------|---------------------------------------------------|
| ▪Ease of operation        | Short operator training time                      |
|                           | Reduces operator fatigue and insertion errors     |
| ▪Low cycle time           | Quick change over for different connectors sizes  |
|                           | Much faster than manual insertion                 |
| ▪High Connector integrity | Lower chance of damaging the wire sealing ripples |

Power Requirements: Electrical = 115 Vac, 60 Hz  
Pneumatic = 80 PSI, 10 CFM dry oil free filtered air

Minimum annual contact usage: 30 reels

## Extraction of Contacts



1. Slide up any rear accessories (i.e. jacket cable sealing boots). Using isopropyl alcohol will help you slide these up your cable.
2. Grasp individual wire firmly and gently pull the contact out of the connector.