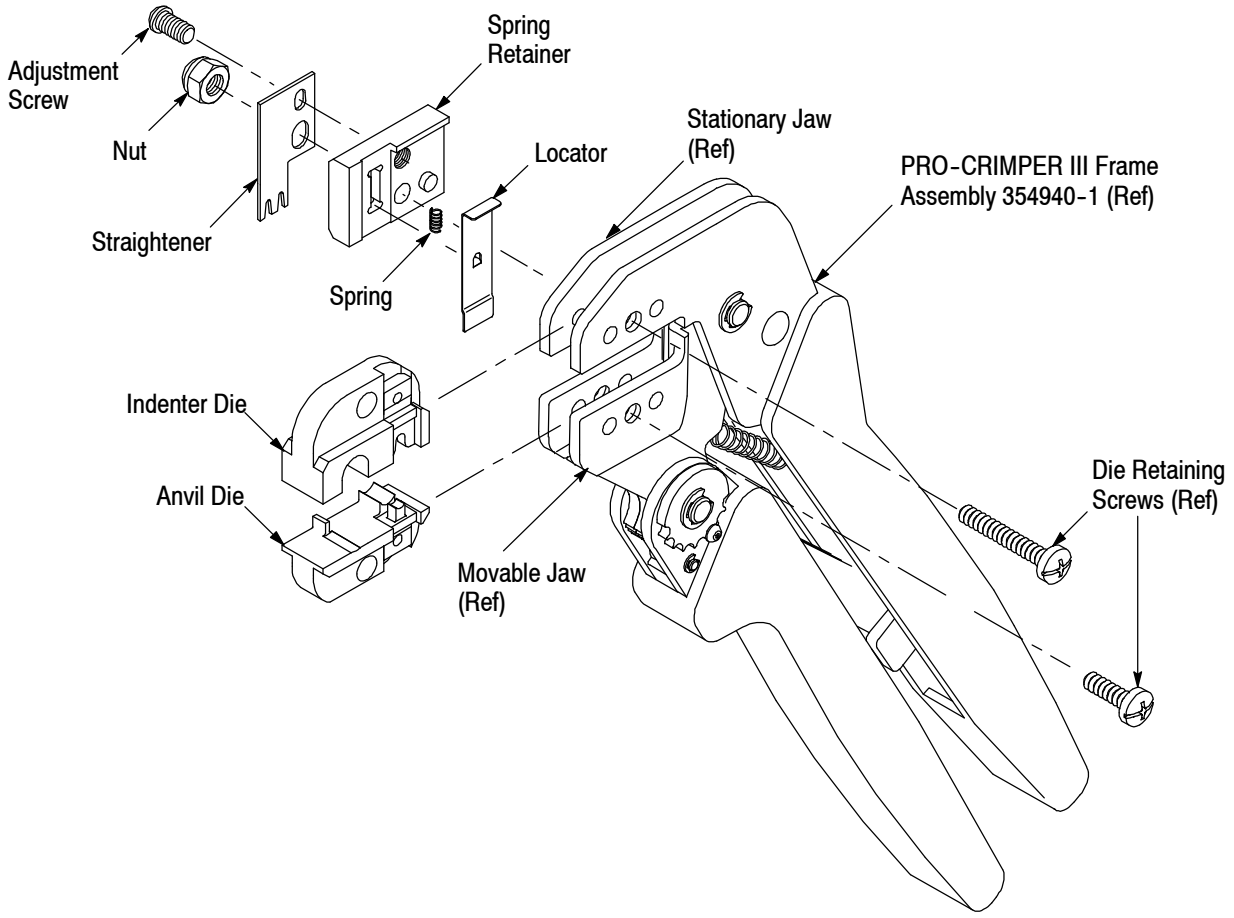


Figure 1

1. INTRODUCTION

Crimping Die Assembly 58559-1 is designed to crimp Consumer RF Series BNC plug connectors when used in PRO-CRIMPER III Frame Assembly 354940-1. Read these instructions thoroughly before using the die assembly.

NOTE

Dimensions in this instruction sheet are in millimeters [with inches in brackets]. Figures are not drawn to scale.

Reasons for reissue of this instruction sheet are provided in Section 8, REVISION SUMMARY.

2. DESCRIPTION (See Figure 1)

The die assembly consists of an indenter die and an anvil die. The die assembly features a locator and straightener assembly (straightener, adjustment screw, nut, spring retainer, and spring). Each die is held in the tool jaws by a single screw.

When mated, the dies form two crimping chambers. The small crimping chamber crimps the center contact onto the center conductor of the coaxial cable and the large crimping chamber crimps the ferrule of the connector onto the coaxial cable. The ferrule crimping chamber actually places two different size crimps on the ferrule; one crimp in the connector support sleeve area, and another crimp in the cable insulation area directly behind the cable braid.

The locator and straightener assembly properly positions and holds the center contact of the connector during the crimping procedure.

3. INSTALLATION AND REMOVAL OF DIE ASSEMBLY (See Figure 1)

1. Close the tool handles until the ratchet releases, then allow the handles to open fully.
2. Remove the two die retaining screws from the tool jaws.
3. Install the anvil die in the movable jaw of the tool. Insert the short die retaining screw through

the retaining hole in the jaw and through the anvil die. Tighten the screw just enough to hold the die in place. Do *not* tighten the screw completely at this time.

4. Install the indenter die in the stationary jaw of the tool frame. Insert the long die retaining screw through the retaining hole in the jaw and through the indenter die. Tighten the screw just enough to hold the die in place. Do *not* tighten the screw completely at this time.

5. Carefully close the tool handles, making sure that the dies align properly. Continue closing the tool handles until the tool ratchet has engaged sufficiently to hold the dies in place, then tighten both die retaining screws.

NOTE

The ratchet has detents that create audible clicks as the tool handles are closed.

6. Attach the straightener onto the spring retainer with the adjustment screw. Insert the spring into the spring retainer and place the locator over the spring.

7. While holding the locator against the spring retainer, place the screw hole in the spring retainer over the end of the long die retaining screw. The locator should be against the side of the tool jaw.

8. Place the nut onto the end of the long die retaining screw and tighten the nut enough to hold the locator and straightener assembly in place, but still allowing the locator to slide up and down.

9. To remove the die assembly, close the tool handles until the ratchet releases. Remove the nut, the locator and straightener assembly, and the two die retaining screws. Slide the anvil and indenter out of the tool jaws.

4. CRIMPING PROCEDURE

NOTE

Initially, the connector retention force should be verified as specified in Paragraph 5.2., Retention Force Adjustment, before using the tool.

For detailed information on cable strip lengths and proper assembly of the connector, refer to the instructions packaged with the connector. Make sure that the connector ferrule has been placed onto the cable, and that the cable braided shield is flared away from the cable. Then proceed as follows:

4.1. Crimping the Center Contact (See Figure 2)

1. Holding the center contact by the mating end, insert the contact through the front of the tool and into the crimping chamber and onto the anvil die.

2. Close the tool handles so that the dies partially close. Position the contact so that the locator drops into the contact wire stop slot and the end of the contact is inside the groove in the straightener. See cross-section of Figure 2.

3. Hold the contact in place and squeeze the tool handles together until the ratchet engages just enough to hold the contact in place. Do not deform the contact wire barrel.

4. Insert stripped cable into contact wire barrel until it is butted against the locator. See cross-section of Figure 2.

5. Holding the cable in position, close the tool handles until the ratchet releases. Allow the tool handles to open fully and remove the crimped center contact.

Crimping Center Contact

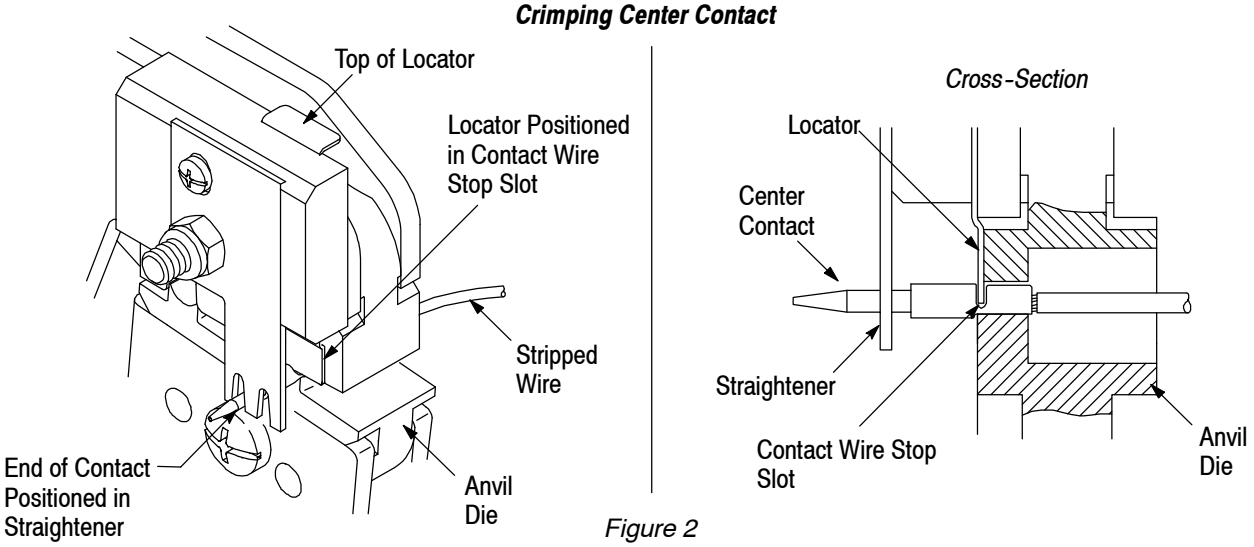


Figure 2

NOTE

The crimped center contact may stick in the crimping area, but the contact can be easily removed by pushing downward on the top of the locator (see Figure 2).

4.2. Crimping the Ferrule (Figure 3)

1. Insert the crimped center contact into the connector body until the cable dielectric butts against the dielectric inside the connector body or until the center contact is securely positioned within the connector. Make sure that the braided shield of the cable is over the support sleeve of the connector body and that no strands from the shield enter the connector body.

2. Slide the ferrule up over the braided shield and onto the connector until the ferrule butts against the shoulder on the connector body.

3. Place the ferrule in its crimping chamber of the anvil die so that the shoulder on the connector body butts against the edge of the die.

4. While holding the assembly together, begin to close the tool handles. Keep holding the assembly until the dies have closed enough to hold the assembly in place.

CAUTION

Make sure that both sides of the ferrule are started evenly into the crimping chamber. DO NOT attempt to crimp an improperly positioned ferrule.

5. Carefully close the tool handles until the ratchet releases.

6. Allow the tool handles to open fully, and remove the crimped connector.

5. TOOL ADJUSTMENTS

5.1. Contact Support Adjustment

Make a sample crimp and determine if the center contact is bending upward, bending downward, or bending from side to side. If the contact is bent, adjustment is required.

1. Loosen the adjustment screw.

2. Place a contact with cable into the proper crimping chamber and close the tool handles until the locator and straightener assembly is holding the contact in position.

3. Move the straightener up or down, as required, to eliminate the bending of the center contact.

4. Tighten the adjustment screw and close the handles until the ratchet releases.

5. Remove and inspect the center contact.

6. Make another sample crimp. If the contact is still being bent during crimping, repeat the adjustment procedure.

5.2. Retention Force Adjustment (Figure 4)

The tool ratchet mechanism features an adjustment wheel with numbered settings. If the retention force is not acceptable, adjust the ratchet as follows:

NOTE

Refer to the appropriate Application Specification (114-Series) for the required retention force of the connector.

1. Remove the lockscrew from the ratchet adjustment wheel.

Crimping Ferrule

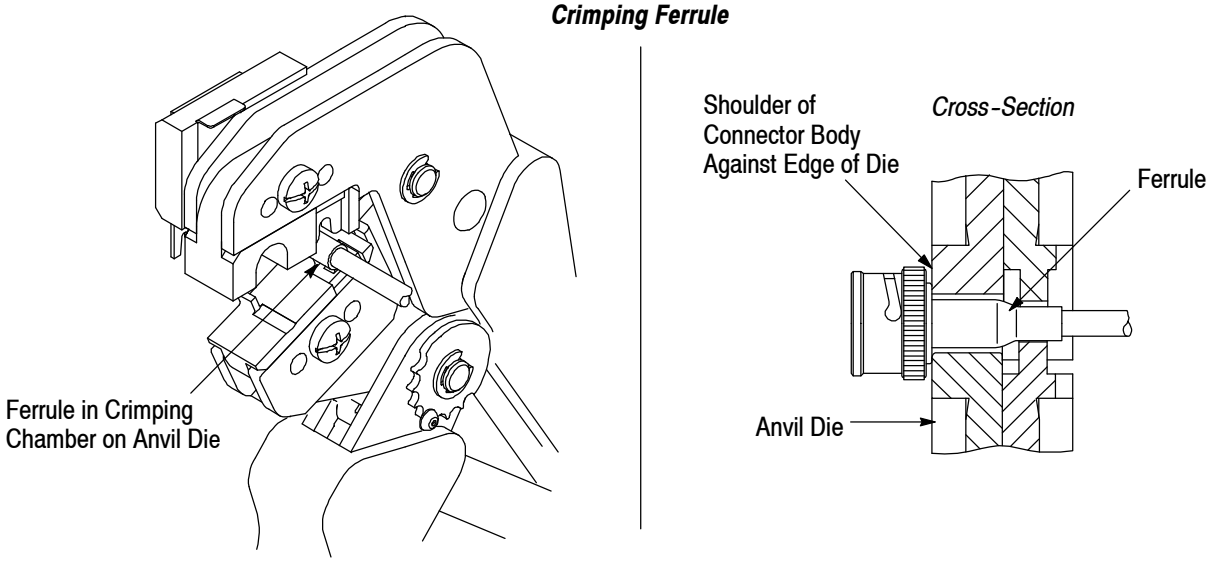


Figure 3

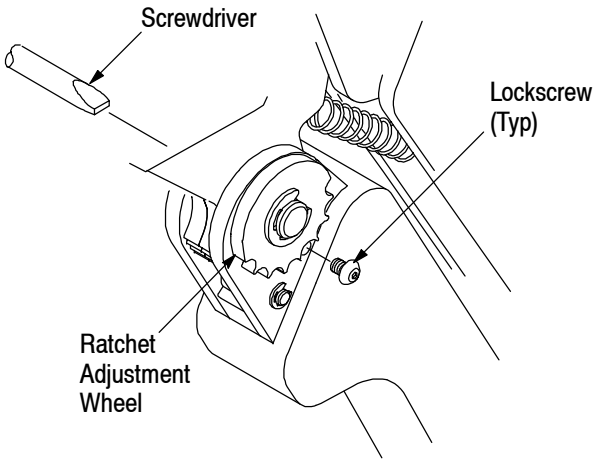


Figure 4

2. With a screwdriver, adjust the ratchet wheel from the opposite side of the tool.

3. Observe the ratchet adjustment wheel. If a tighter retention is required, rotate the adjustment wheel COUNTERCLOCKWISE to a higher-numbered setting. If a looser retention is allowed, rotate the adjustment wheel CLOCKWISE to a lower-numbered setting.

4. Re-install the lockscrew.

5. Make a sample crimp and measure the retention force with a pull force tester. If the retention force is acceptable, secure the lockscrew. If the retention force is unacceptable, remove lockscrew and continue to adjust the ratchet, and again measure a sample crimp.

6. MAINTENANCE AND INSPECTION

6.1. Maintenance

1. Remove dust, moisture, and other contaminants with a clean, soft brush, or a clean, soft, lint-free cloth. DO NOT use any objects that could damage the die assembly or tool.

2. Make sure that the die retaining screws are properly secured.

3. When the die assembly is not in use, mate and store it in a clean, dry area.

4. Clean the die assembly with a soft, lint-free cloth.

6.2. Inspection

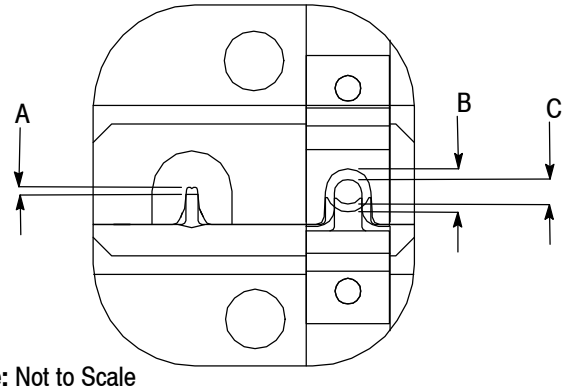
1. Remove all lubrication and accumulated film from the dies by immersing them in a suitable commercial degreaser.

2. Make certain that all die retaining screws and die components are properly secured.

3. Inspect the crimping surfaces for flattened, chipped, worn, or cracked areas. If damage is evident, the dies must be replaced. Refer to Section 7, REPLACEMENT AND REPAIR.

6.3. Measuring Die Opening

The die assembly will perform correctly as long as: (1) the product specified is correct for the application, (2) the specific die assembly is used, (3) the die assembly has been measured to ensure that the openings are correct, and (4) the tool has been adjusted correctly. Figure 5 provides dimensions of the die openings.



Note: Not to Scale

DIMENSION (mm [in.])		
A ±0.05 [±.002]	B ±0.10 [±.004]	C ±0.10 [±.004]
0.66 [.026]	2.64 [.104]	4.32 [.170]

Figure 5

7. REPLACEMENT AND REPAIR

It is recommended that the die assembly be inspected when you receive it and at regularly scheduled intervals. The die assembly is not repairable, and it should be replaced when it is worn or damaged.

Order die assemblies through your Representative, or call 1-800-526-5142, or send a facsimile of your purchase order to 1-717-986-7605, or write to:

CUSTOMER SERVICE (38-35)
TYCO ELECTRONICS CORPORATION
PO BOX 3608
HARRISBURG PA 17105-3608

8. REVISION SUMMARY

Revisions to this instruction sheet include:

- Updated instruction sheet to corporate requirements