



**Termination Procedure for “723” Series SolderTacts® Contacts for
Coaxial Cable: D-602-0106, D-602-0107**

1. Scope

This engineering standard contains the termination procedures, inspection requirements, and rework procedures for SolderTacts® contacts D-602-0106 and D-602-0107.

2. References

2.1 Raychem Specification Control Drawings

1. D-602-0106: Contact, Coaxial Plug, #12, RG-180/U (Inner socket/Outer pin).
2. D-602-0107: Contact, Coaxial Receptacle, #12, RG-180/U (Inner pin/Outer socket)

2.2 Raychem Instructions

1. AA-400 Super Heater Instructions
2. AD-1319 Holding Fixture Instructions
3. HL1920E and HL2020E Heat Gun® Heating Tool Instructions

3. Application Equipment and Tools

Heating Tool	Reflector	Holding Fixture
AA-400 Super Heater (Portable, compressed air)	#979663 Mini SolderSleeve® Reflector	AD-1319 Holding Fixture with
HL1920E / HL2020E Steinel Hot Air Gun 	EH0600-000 HL-Solder- Sleeve® Reflector	AT-1319 Adapter or AD-1494 Repair Holding Fixture

 Steinel HL1920E / HL2020E Replaces CV5300 and CV5700 MiniGun®. But they still can be used.

4. General Information

4.1 Description

The D-602-0106 and D-602-0107 contacts are designed for use in the following connectors having size 12 cavities:

1. MIL-C-83723 Series 3B
2. MIL-C-26482 Series 2
3. MIL-C-83733
4. MIL-C-81703
5. Raychem MTC Coax Rectangular Connector

The D-602-0106 and D-602-0107 contacts are single-piece contacts that solder to coaxial cable by means of preinstalled solder preforms in heat-shrinkable insulating sleeves.

4.2 Coaxial Cable Accommodation

D-602-0106 and D-602-0107 contacts will accommodate RG-180/U coaxial cable when conventionally stripped (cable dimensions are shown below).

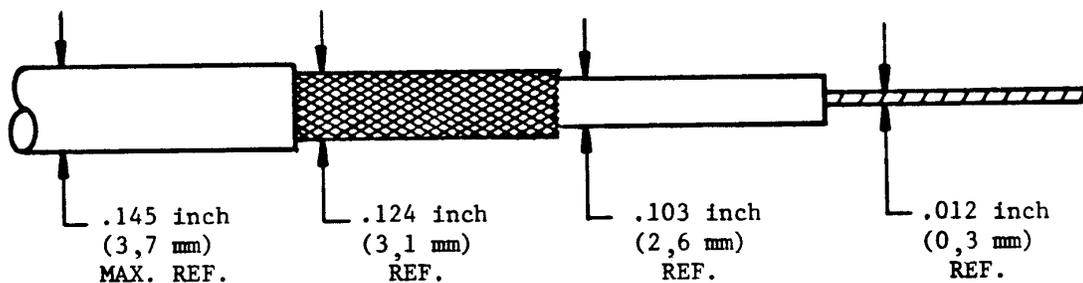


FIGURE 1

5. **Termination Procedures**

5.1 Coaxial Cable Preparation

1. Strip the cable as shown below.

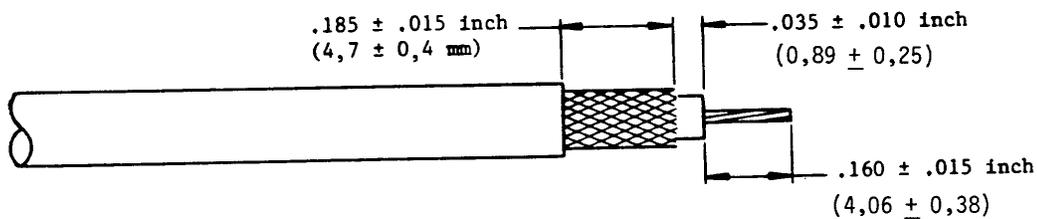


Figure 2

2. Straighten the center conductor and make sure that stranded center conductor is twisted into its original lay.
3. Pretin stranded center conductors and unplated solid center conductors with Sn63 solder and flux per QQ-S-571.
4. Make sure that the shield braid is trimmed evenly, and that no loose strands are extending out across the exposed dielectric.
5. Smooth the braid ends flat against the dielectric or cable jacket.

5.2 Inserting Prepared Cable Into Contact

1. Slip the contact carefully over the end of the prepared cable and gently push the contact onto the cable until it stops.

NOTE

Rotating the contact slightly during cable insertion will help prevent the braid from catching.

2. Inspect for proper insertion.
 - a. The center conductor must be visible through one of the forward inspection windows.
 - b. The distance from the rear of the contact body to the cable jacket insulation must not exceed 0.1 inch (3 mm).

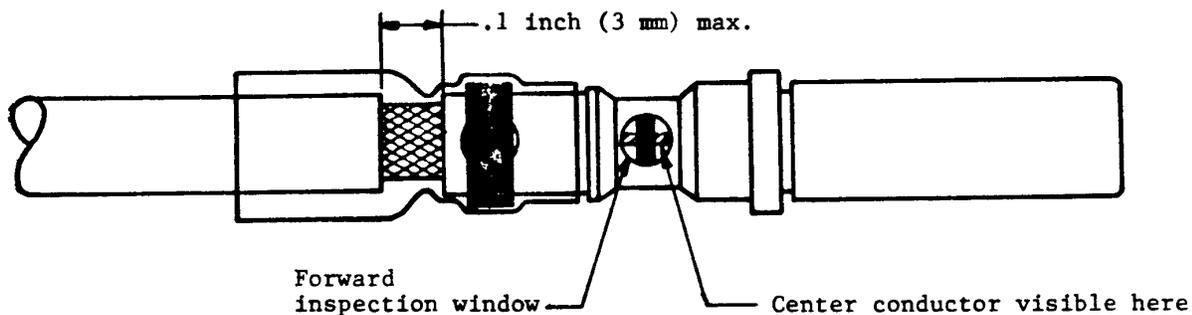


Figure 3

3. If the cable cannot be inserted as required, remove the contact from the cable and check for improper strip dimensions, splayed shield braid, or bent center conductor.

5.3 Heating Procedure

NOTE

Either the AD-1319 holding fixture and adapter or the AD-1494 repair holding fixture must be used, to prevent damage to the contacts.

If the AD-1319 holding fixture is to be used, install the AT-1319-19 adapter, insert a contact, and set up the dimensions as shown.

- a. Make sure that the contact is inserted into the appropriate end of the adapter outer pin contact into the "P" end and outer socket contact into the "S" end.
- b. If using a hot-air heating tool, the space collar is not needed but may be left in place.

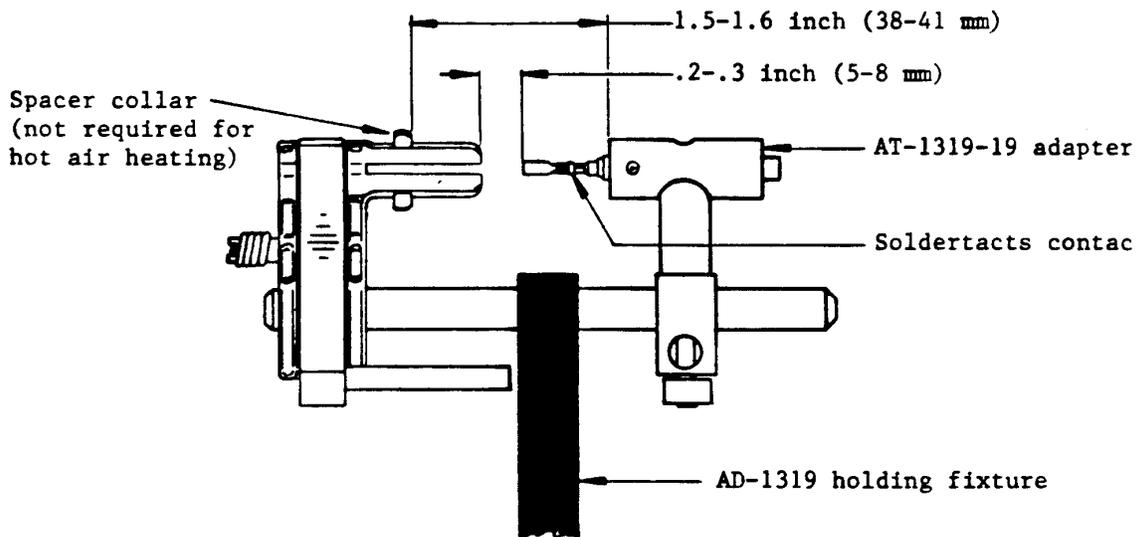


Figure 4

2. Insert the contact/cable-assembly into the appropriate end of the AT-1319-19 adapter or AD-1494 repair holding fixture, as shown.

D-602-0106 contacts (Inner socket/Outer pin): "P" end

D-602-0107 contacts (Inner pin/Outer socket): "S" end

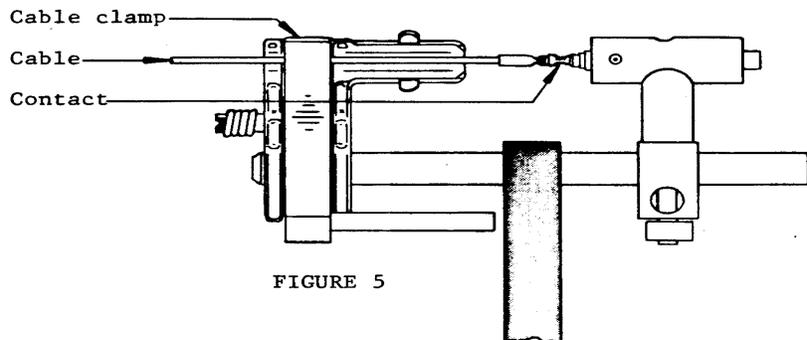


FIGURE 5



3. Clamp the coaxial cable in the AD-1319 holding fixture (if used).
 - a. The cable must be fully inserted in the contact. (See Step 2 of Section 5.2).
 - b. The contact must be fully inserted in the adapter.
 - c. The cable must be straight between the contact and the cable clamp.
4. Applying heating with hot air heating tool: Heat-Gun® or Super Heater.
 - a. Attach the appropriate reflector to the heating tool (see Section 3 for reflector selection).
 - b. Turn the heating tool on and allow to warm up.
Steinel settings: 700°F ± 50°F, setting Air Flow Stage II, Duration-20 to 30 Secs

NOTE

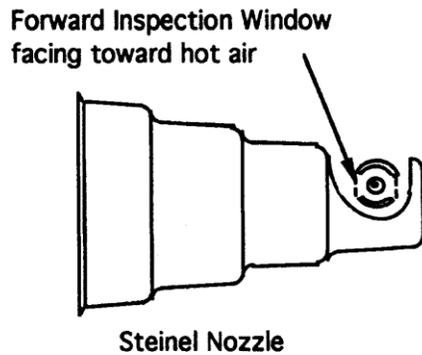
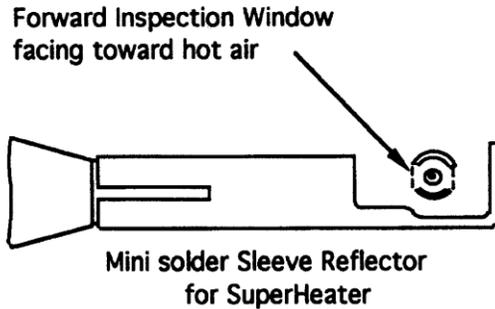
See instruction for tool used.
(See Section 2.2)

- c. Using one of the required holding fixtures, position the contact in the hot air stream within the reflector.

Center the forward inspection window in the reflector.

NOTE

For optimum heating, position the contact as shown.



- d. Continue to direct hot air around the contact until the small solder preform in the forward inspection window has melted and flowed. The large solder preform in the rear inspection window should have melted and flowed by this time, if it has not, direct hot air around the rear inspection window until it does.

NOTE

Be sure to allow the solder to solidify before removing the contact from the holding fixture.

5. After the termination has cooled at least 15 seconds, remove it from the holding fixture.
6. Inspect the completed termination according to Section 6 of this standard.

6. Inspection

6.1 Assembly Inspection. Inspect the completed termination for correct assembly according to the following criteria:

1. The distance from the rear of the contact body to the cable jack insulation should not exceed 0.1 inch (3 mm).



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2. The center conductor must be visible through one of the forward inspection windows.



3. The shield braid must be visible through the rear inspection windows.

6.2 Heating Inspection Visually inspect the completed termination for proper heating according to the following criteria:

1. The small solder preform in the forward inspection windows must be melted and flowed so that:
 - a. Preform shows no trace of its original form (underheated condition).
 - b. Solder fillet is visible between center conductor and inner contact soldering surface.

NOTE

Insufficient visible solder indicates overheated condition.

2. The large solder preform in the rear inspection window must be melted and flowed so that:
 - a. Preform shows no trace of its original form (underheated condition).
 - b. Solder fillet is visible between braid and contact body.

NOTE

Insufficient visible solder indicates overheated condition.

3. The insulating sleeve must be shrunk over the area of braid visible between the cable jacket and the contact.

NOTE

Insulating sleeve may remain flared at end

4. The insulating sleeve must not be darkened so as to obscure the solder joints or hinder inspection (overheated condition).
5. The coaxial cable insulation must not show signs of damage or overheating outside of the insulating sleeve.

7. **Repair and Rework**

7.1 Underheated Terminations

Reheat as directed in Section 5.3 and reinspect per Section 6.

7.2 Overheated or Improperly Assembled Terminations

1. Remove the contact from the cable as directed in Section 7.3.
2. Check the cable for damage and incorrect stripping.



NOTE

If the cable is damaged, cut off the damaged portion and restrip per Section 5.1.

If stripping is incorrect, restrip as required (Section 5.1).

3. Install a new contact (Sections 5.2 and 5.3).

7.3 Removing Contacts From Cable

1. Use a sharp knife or razor blade to score the insulating

CAUTION

Avoid cutting into the cable jacket.

2. Holding the contact with pliers, heat the contact until the solder melts, and quickly pull the heated contact off the cable sleeve full length on opposite sides of the contact.