

10-PT-SE Series Coaxial Contacts

Installation
Instruction

10-265994 Pin
10-265995 Socket
10-305954 Pin
10-305955 Socket
10-407406 Pin
10-407407 Socket

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**Electrical
Components
Division**

Sidney N Y 13838

SECTION I

GENERAL INSTRUCTIONS

1-1. This manual contains installation procedures for 10-PT-SE series coaxial contacts. These contacts are covered by six basic contact assembly numbers. The 10-305954 Pin and 10-305955 Socket are 50 mils gold plated. The 10-265-994 Pin and 10-265995 Socket are 100 mils gold plated. The 10-407406 Pin and 10-407407 Socket are 50 mils gold plated. The contact assembly number is followed by a dash number which indicates the contact configuration for use with certain coaxial cables. For example, 10-305955-86 is a socket contact which uses RG-58/U coaxial cable.

1-2. Present production coaxial contacts have the assembly dash number stamped in the crimp area. Older contacts did not incorporate this identification, therefore the assembly dash number must be determined by making the two measurements indicated in figure 1-1 and obtaining the dash number from Table I.

NOTE

The 10-407406 and 10-407407 series coaxial contacts are not identified with the assembly dash number.

1-3. The main differences in installation procedure for various dash number contacts are:

- a. Type of coaxial cable used.
- b. Method of insertion.
- c. Type of crimping tool and insertion tool used.

1-4. Refer to Section II for installation procedure. Table II lists the cable type and tool numbers for each contact configuration.

1-5. General information concerning installation of coaxial contacts.

- a. When cutting cables to proper length, ends must be cut cleanly

and at right angles to axial plane of cable. Cable must not be deformed while making cut.

- b. Strip cable sheath and dielectric carefully to avoid cutting or nicking braid or conductor strands. Small diagonal cutting pliers, scissors or a fingernail clipper may be used for trimming braid.

- c. If outer sheath of cable is the woven type which tends to fray easily, slip a one inch length of tight fitting vinyl tubing onto cable ahead of contact attaching parts. After soldering is completed and attaching parts are installed, slide vinyl sleeve along cable until it fits snugly against contact assembly.

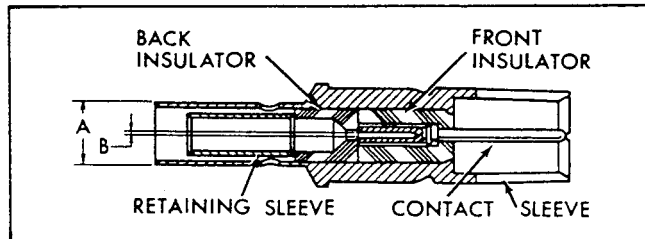


Figure 1-1. Contact Identification Dimensions

TABLE I

Contact P/N	Dash No.	"A" Dim.	"B" $\begin{matrix} +.002 \\ -.001 \end{matrix}$ Dim.
10-305954 Pin & 10-305955 Socket (50 Mils Gold)	82	$\begin{matrix} +.003 \\ 0.196 \text{ } -.000 \end{matrix}$	0.016
10-265994 Pin & 10-265995 Socket (100 Mils Gold)	83	$\begin{matrix} +.003 \\ 0.196 \text{ } -.000 \end{matrix}$	0.024
10-305954 Pin & 10-265995 Socket (100 Mils Gold)	85	$\begin{matrix} +.006 \\ 0.223 \text{ } -.000 \end{matrix}$	0.024
10-305954 Pin & 10-265995 Socket (100 Mils Gold)	86	$\begin{matrix} +.006 \\ 0.223 \text{ } -.000 \end{matrix}$	0.045

SECTION II
INSTALLATION PROCEDURE

TABLE II

SE CRIMP COAX CONTACTS						
CONTACT		USED WITH RG CABLE NO.	CRIMPING TOOLS		INSERTION TOOL 11-8660-	REMOVAL TOOL
SERIES PART NO.	DASH NO.		OUTER BARREL	INNER CONTACT 11-7295 WITH POSITIONER		
10-407406 Pin 10-407407 Socket 10-305954 Pin 10-305955 Socket 10-265994 Pin 10-265995 Socket	-82	-180/U -195/U	11-8153	11-7771-11 (Socket) 11-7771-12 (Pin)	-3	11-8154-1
	-83*	-187/U -188/U	11-8153	11-7771-11 (Socket) 11-7771-12 (Pin)	-3	11-8154-1
	-85	Suprenant 5699 & 4705	WT 232 or 206 (Nest GSC 194)	Solder	-4	11-8154-1
	-86	-58/U	WT 232 or 206 (Nest GSC 194)	11-7771-11 (Socket) 11-7771-12 (Pin)	-4	11-8154-1
	-81**	Raychem 9527A1118	WT203	Solder	-4	11-8154-1

NOTE

See Section I, paragraph 1-5, for general information concerning cutting and stripping of cable. Refer to Table II for cable type and tool numbers for each contact configuration.

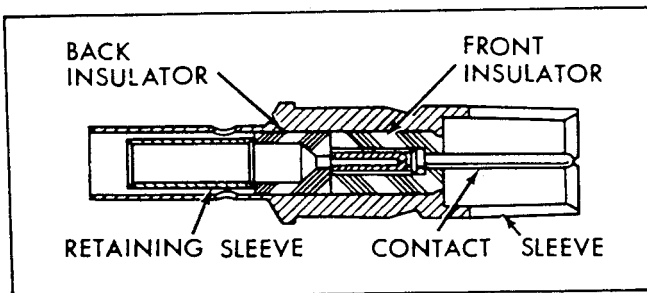


Figure 2-1. Contact Part Identification

a. Remove 0.625 inch (5/8") of cable outer sheath from end of cable (A, figure 2-2). Hot wire stripping is recommended to avoid cutting or nicking outer conductor.

b. Expand outer conductor (braid) and slide retaining sleeve under braid until it bottoms against edge of outer sheath (B, figure 2-2).

c. Smooth braid over retaining sleeve. Trim braid flush with edge of sleeve.

d. Measure 0.062 inch (1/16") from end of braid and strip remaining cable core from inner conductor (C, figure 2-2). Hot wire stripping is recommended.

e. Position back insulator onto cable, large ID first (D, figure 2-2). Butt back insulator against retaining sleeve, catching ends of braid between insulator and sleeve.

f. Cut center conductor 0.156 inch (5/32") from front edge of back insulator.

g. Install inner contact on inner conductor and butt back end of contact against back insulator (E, figure 2-2).

*The -83 assembly incorporates an intermediate sleeve which must be slipped over the braid before assembly into the contact sleeve.

**The -81 is applicable to 10-407406 and 10-407407 series contact only and is the only contact available in this series.

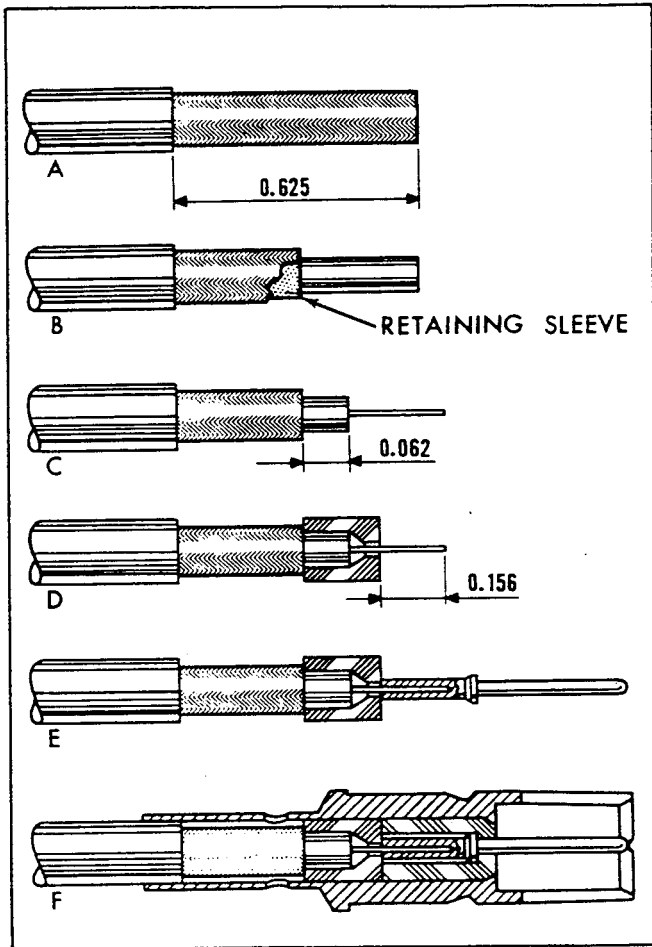


Figure 2-2. Contact Assembly Steps

h. Crimp inner contact using 11-7295 Crimping Tool* with applicable positioner.**

i. Position front insulator over crimped contact and slide assembly into contact sleeve (F, figure 2-2). Make certain outer conductor is visible in inspection hole.

j. Insert contact assembly into crimping tool** and, with tool jaws centered between inspection hole and end of contact outer barrel, crimp outer barrel.

*There is no available crimping tool for crimping inner contact on -81 or -85 coaxial contacts. For -81 or -85 contacts, solder inner contact to inner conductor using 60-40 solder, a good grade of rosin flux and a 30-60 watt soldering iron.

**See Table II for proper tool to be used with each specific contact configuration.

k. Make certain center contact and front insulator are fully seated and outer conductor is visible through inspection hole.

2-2. CONTACT INSERTION.

2-3. Using channel type insertion**, insert contact assembly into rear (grommet) end of connector. Make certain that contact is aligned with hole and not inserted at an angle. Some increase in resistance will be noted prior to seating of contact into contact retaining bushing.

2-4. 10-407406 AND 10-407407 CONTACTS.

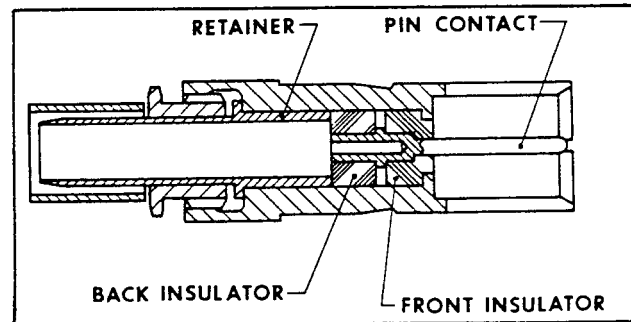


Figure 2-3. Contact Part Identification

2-5. Assemble contact to cable as follows:

a. Remove 0.809 in. of cable outer sheath from end of cable (A, figure 2-4, X dimension). Hot wire stripping is recommended to avoid cutting or nicking outer conductor.

b. Slide ferrule over outer braid flush with edge of outer sheath (B, figure 2-4).

c. Trim braid flush with edge of ferrule.

d. Slide ferrule over outer sheath (C, figure 2-4). On some coaxial cables this ferrule will not move back over the outer sheath due to diameter interference. Position the nut and retainer assembly inside the outer braid while holding the ferrule in position over the outer braid. Crimp as described in step f.

e. Position nut on retainer. Expand outer braid and slide retainer under braid. Leave approximately 1/64 inch gap between edge of braid and nut.

f. Slide ferrule over outer braid and crimp braid between ferrule and retainer with Thomas & Betts Crimping Tool* WT203. Make certain nut turns freely after crimping.

g. Trim cable core flush with end of retainer. Do not cut or nick center conductor.

h. Tin center conductor using a 47.5 watt soldering iron.

i. Slide back insulator over center contact (E, figure 2-2). Place center contact on center conductor.

j. Trim center conductor to allow inner contact to butt against edge of back insulator.

k. Solder center conductor into inner contact wire well. Refer to paragraph 2-3, for general soldering instructions. A pin vise can be used to hold inner contact.

l. Slide front insulator over inner contact, large diameter first.

m. Slide outer contact over insulator and thread nut into rear of outer contact.

2-6. CONTACT REMOVAL.

2-7. Working from front face of connector, insert 11-8154-1 Removal Tool into insert until it fully engages in contact retaining bushing. Rotate tool slightly to open bushing and disengage contact by pushing spring loaded sleeve fully forward. Remove contact by gripping contact wire well and pulling straight to rear. Do not grip wire.

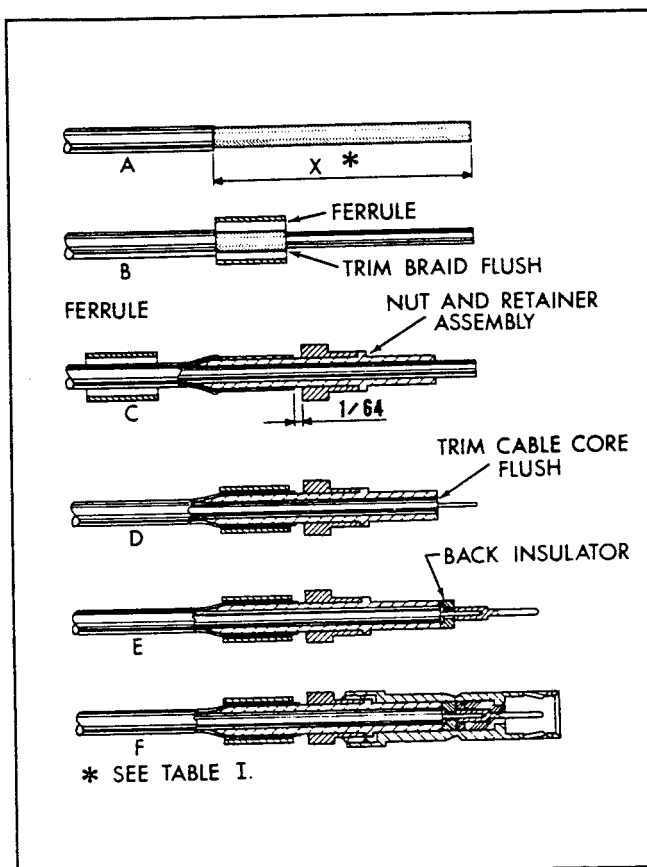


Figure 2-4. Contact Assembly Steps

*There is no available crimping tool for crimping inner contact on -81 or -85 coaxial contacts. For -81 or -85 contacts, solder inner contact to inner conductor using 60-40 solder, a good grade of rosin flux and a 30-60 watt soldering iron.