Tyco Electronics

Installation Procedure for Duraseal
Splices and Terminals

1. Products:

DuraSeal Splice:		DuraSeal Terminal:		
DS-XX-XX	D-406-XXXX	DB-X-XX	DP-X-XX	B-106-XX
DS-MIXT-XX		DF-X-XX	DR-X-XX	DS-MIXT-XX

2. Application Equipment:
- Crimping tool: AD-1522
- Hot air gun:

Heat Gun	Reflector	Setting
HL1910E	PR-25 or PR-25D and HL1802E-ADAPT	6 on dial [1]
HL2010E		700°F on LCD [1]
CV-1981	PR-25D	7 [1]

3. Wire Preparation:
- Strip the stranded wire as shown.

		Product						
		Red		Blue		Yellow		
Configuration		Wire Range	Strip Length L (±0.5)	Wire Range	Strip Length L (±0.5)	Wire Range	Strip Length L (±0.5)	
Terminal		$0.5 < Sc < 1.0$	$L_C = 6$	$1.5 < Sc < 2.5$	$L_C = 6$	$3.0 < Sc < 6.0$	$L_C = 6$	see Fig. 1
Splice 1 to 1		$0.5 < Sc < 1.0$	$L_C = 7.5$	$1.5 < Sc < 2.5$	$L_C = 7$	$3.0 < Sc < 6.0$	$L_C = 8$	see Fig. 2
Splice 2 to 1	øA < øB	$1.5 < øA+øB < 3.7$ and $1.5 < øC < 3.7$	$L_A = 10$ $L_B = 7$	$2.0 < øA+øB < 4.3$ and $2.0 < øC < 4.3$	$L_A = 10$ $L_B = 7$	$3.0 < øA+øB < 6.4$ and $3.0 < øC < 6.4$	$L_A = 11$ $L_B = 8$	see Fig. 3
		$0.5 < S_A+S_B < 1.0$ and $0.5 < S_C < 1.0$		$1.5 < S_A+S_B < 2.5$ and $1.5 < S_C < 2.5$		$3.0 < S_A+S_B < 6.0$ and $3.0 < S_C < 6.0$		
	øA = øB	$1.5 < øA+øB < 3.7$ and $1.5 < øC < 3.7$	$L_A = 10$ $L_B = 10$	$2.0 < øA+øB < 4.3$ and $2.0 < øC < 4.3$	$L_A = 10$ $L_B = 10$	$3.0 < øA+øB < 6.4$ and $3.0 < øC < 6.4$	$L_A = 11$ $L_B = 11$	see Fig. 4
		$0.5 < S_A+S_B < 1.0$ and $0.5 < S_C < 1.0$		$1.5 < S_A+S_B < 2.5$ and $1.5 < S_C < 2.5$		$3.0 < S_A+S_B < 6.0$ and $3.0 < S_C < 6.0$		

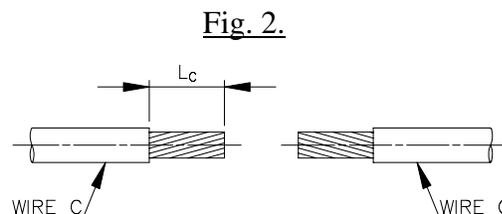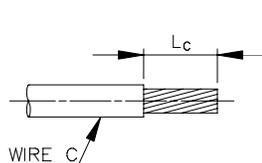øA = diameter (mm) of the insulation of wire A.
Sc = cross section area (mm^2) of wire C.
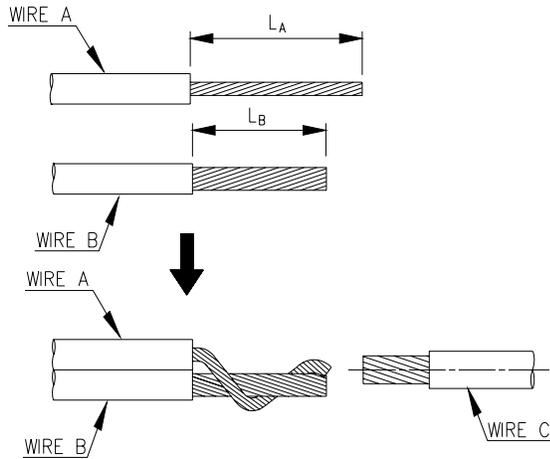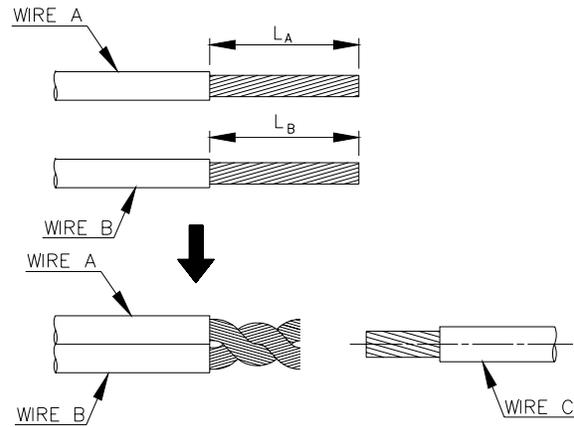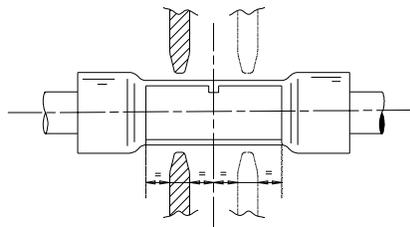

Fig. 1.

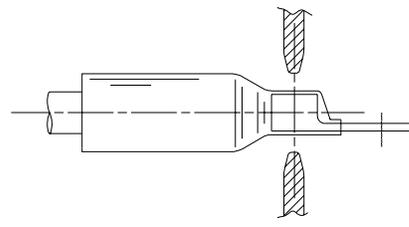Fig. 2.

Fig. 3.

Fig. 4.

4.   Installation Procedure:
- Select the correct DuraSeal crimp.
- Match its color with the color of the cavity of the crimp tool.
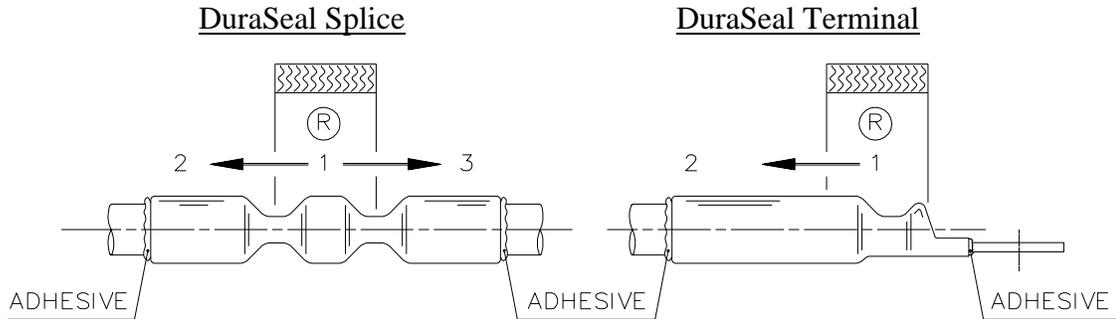- Get the jaws in touch with the tubing.
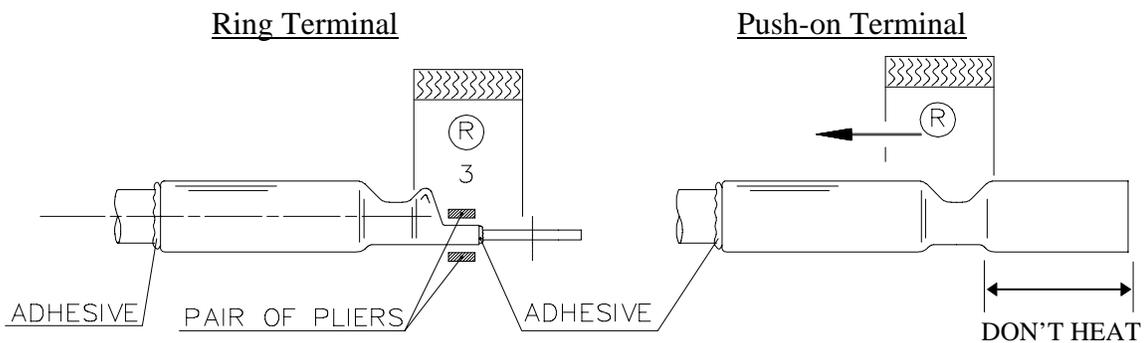
DuraSeal Splice   DuraSeal Terminal

- Insert the stripped wire until it butts inside the DuraSeal crimp.
- Crimp the wire in place.
- Repeat the operation symmetrically for the DuraSeal splice.
- Allow the hot air gun to warm up.
- Position the DuraSeal crimp in the reflector (R).
- Apply heat to shrink the sleeve until the adhesive melt and flow around the extremities of sleeve.

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DuraSeal Splice   DuraSeal Terminal

Note: For DuraSeal terminals, in order to achieve maximum sealing (except for DuraSeal push- on) heat the terminal at 3 and press the flat part with a pair of pliers until the assembly cools.

Ring Terminal   Push-on Terminal

DON'T HEAT

Note: Do not heat the terminal for the push-on terminal.
    Do not bend the splice or the terminal assemblies until then have completely cooled.

5.   Inspection of Assembly:
    Check:
    - Wire insulation is positioned inside the DuraSeal sleeve.
    - Adhesive has flowed to form a fillet around the ends of the sleeve.
    - Sleeve is completely shrunk on to the wire insulation.
    - Sleeve is not cut, split or discolored.
    - Wire insulation has no signs of mechanical damage or overheating.

[1] These values are for reference only and may change based on other variables (i.e. reflector type, sleeve's relative distance to the reflector, etc.)

DISCLAIMER