



#### **QUICK REFERENCE GUIDE**

## Flexible

- Convenient permanent or temporary repairs to restore the harness
- Rugged solutions matched to your application hazards

## Fast and Easy

- Complete line for quick, effective field repairs
- Repair conductors, jackets, bundles, shields, and backshells

# Wire and Conductor Repair

	Product Family	Description	Standards	Features	Max. Temperature	Temporary / Permanent	Re-Enterable / Re-Workable	Side Entry	Installation Practices & Instructions	Tooling
	MiniSeal Splices D-436-XX D-200-XX	Sealed wire-to-wire crimp splice	SAE AS81824/1 SAE AS81824/11 Pending	High temperature Sealed Immersion resistant 26 thru 12 AWG	150°C 200°C	Perm	_	-	RCPS-200-20	AD-1377 Heat gun
11/20	In-Line Sealed Crimp Splices W-096-XX	Sealed wire-to-wire crimp/solder splice	EN3373-001 & 013	High temperature Immersion resistant 26 thru 12 AWG	260°C	Perm	_	-	RPIP-685-00	AS-1377-S Heat gun
	SolderSleeve Shield Terminators S-200-XX	Silver/nickel braid termination	SAE AS83519/5 Pending	High temperature Seals to PTFE	200°C	Perm	_	-	RCPS-100-71	Heat gun
Co	SolderSleeve Splices D-1744-XX	Sealed wire-to-wire solder splice	NAS 1744	Sealed Immersion resistant 26 thru 12 AWG	150°C	Perm	_	-	RPIP-850-00	Heat gun
	RF One-Step Connectors RBD-XX-X-XX RTD-XX-X-XX	Solder termination	Meets performance requirements of MIL-C-39012 up to 2.8 GHz	Excellent strain relief Sealed	150°C	Perm	1	-	RPIP-683-00	Heat gun
-	Data Bus Splice Kit D-150-0708-5		MIL-STD-1553b Data Bus USAF 8340708	Sealed EMI resistant	150°C	Perm	-	-	RPIP-600-12	AD-1377 Heat gun
-	SolderShield Splices D-150-0XXX	Shielded splice for coax and twisted pairs		Sealed EMI resistant	150°C	Perm	_	_	RCPS-150-02	AD-1377 Heat gun
	SolderShield Splices D-155-XXXX	Shield-only splice		Sealed EMI resistant	150°C	Perm	_	_	c/w drawing	Heat gun
	Cold Applied Splices D-436-3X-COLD	Gel sealed in-line butt crimp	SAE AS81824/12	Sealed Altitude immersion No heat gun required 26 thru 12 AWG	150°C	Perm	-	-	RPIP-1102	AD-1381-1
	<b>C-Wrap Repair Sleeves</b> D-150-C-1X	Jacket repair wrap	SAE AS6224/1 pending	Sealed 26 thru 12 AWG	150°C	Perm	-	<b>V</b>	RPIP-1101	Heat gun M81969/8 removal tool
34/2	Rayseal Repair Sleeves D-260-C-X	Jacket repair wrap	SAE AS6224/2 in process	Sealed 10 AWG thru 4/0 AWG	260°C	Perm	_	<b>✓</b>	RPIP-1106	CV2014 Heat gur PR-38 Reflector
	SolderTacts Coax Contacts D-602-0140 Pin D-602-0141 Socket	One-piece solder contact	MIL-DTL-38999 Series I thru IV M39029/76 and 77	Unsealed	150°C	Perm	_	<b>✓</b>	ES61226	Heat gun AD-1565 fixture
	DEUTSCH Crimp Contacts 38943-2238941-22	Crimp Contact (Size 22)	M39029/56-348 Socket M39029/58-360 Pin MIL-DTL-38999 Series I thru IV M39029/56 & 59	Unsealed	125°C	Perm	-	-	Crimp tool specific	Crimp tool
ALC LOS	SOLISTRAND Splices	Butt or inline crimp splice	MIL-T-7928 T Type 1, Class 1 & 2	Unsealed 26 thru 2 AWG 1/0 AWG thru 600 MCM	170°C	Perm	_	-	Crimp tool specific	Various crimp
22	STRATO-THERM Splices	High-temp splice		Unsealed 22 thru 10 AWG	649°C	Perm	_	_	Crimp tool specific	Various crimp
	COPALUM Splices	Butt or inline crimp splice for copper or aluminum		Unsealed Dry crimp 8 thru 3/0 AWG aluminum 10 thru 2/0 AWG copper	150°C	Perm	_	-	Crimp tool specific	Various crimp
	LightCrimp Fiber Optic Splices	Fiber-optic field splice 250/ 900 um buffered fiber 1.8/2.0 mm jacket		Sealed	70°C	Perm	-	-	408-10193	Kit

## **Bundle and Shield Repair**

Product Family	Description	Standards	Features	Max. Temperature	Temporary / Permanent	Re-Enterable / Re-Workable	Side Entry	Installation Practices & Instructions	Tooling
High-Shrink-Ratio Tubing RP-4800-XX	4:1 shrink ratio	VDE 0341 PT 9005 Part A SAE AMS-DTL-23053/5	High temperature Sealed & Unsealed	135°C	Perm	<b>/</b>	-	COP551	Heat gun
High-Shrink-Ratio Flexible Tubing HRHF-XX	5.5:1 shrink ratio		High temperature Sealed & Unsealed	135°C	Perm	<b>√</b>	-	COP551	Heat gun
High-Shrink-Ratio Tubing HRHT-XX	5.5:1 shrink ratio	SAE AMS-DTL-23053/15 (except some sizes)	High temperature Sealed & Unsealed	135°C	Perm	<b>√</b>	-	COP551	Heat gun
Ultra-High-Shrink-Ratio Tubing URHT-XX	Up to 8:1 shrink ratio	UL E85381	High temperature Sealed & Unsealed	135°C	Perm	<b>✓</b>	-	COP551	Heat gun
RayOLOn Roll-On Sealing Sleeves LNCL-XX-XXX	Roll-on sleeve		Reusable Nonshrink Gel strips for sealing NSN listed	70°C	Perm & Temp	/	-	TUS-41-3007	-
RayRim Edging Material	Protective, self-adhering edging profile		Edge protection	80°C	Perm	/	<b>,</b>	PIP-067	Heat gun
Side-Entry Bushing SEB-XX	Coiled bushing	SAE AMS-DTL-23052/10 MIL-PRF-46846 Type II Class 1	Side entry	180°C	Perm	/	1	N/A	-
RayBraid Tubular Copper Braid Ray101-XX ( tin plated) Ray103-XX (nickel plated) LWB-10X-XX (lightweight)	Copper braid over plastic former		Pull on Add heat shrink tubing for sealing Alternative to braiding machine	150°C 200°C	Perm	/	-	COP361	-
Electrical Shielding Tape 000W280	Shielded gauze tape		Tinned copper Wrapping transitions	150°C 200°C	Perm	/	/	-	-
INSTALITE Cable Bundle Management Sleeves CBMS-XX-P	Low friction, light weight system for open wire bundle management	RW3042	Very lightweight Easy to install Uses standard termination equipment/method Low friction	150°C	Perm	-	-	ELE-3COP-365	Available

#### **Backshell Terminations**

	Product Family	Description	Standards	Features	Max. Temperature	Temporary / Permanent	Re-Enterable / Re-Workable	Side Entry	Installation Practices & Instructions	Tooling
	Wrap-Around Heat-Shrink Boot 209W2XX-XX	Zipper termination spine Allows repair when there is no access to end of harness			200°C	Perm	-	1		Heat gun
	Tinel-Lock Splice TXS51-XX	Split metal ferrule, for bandstrap shield splice		Two piece Midpoint shield butt splice	150°C to 200°C	Perm	✓	1		Banding tool
	Tinel-Lock Splice TSR-XX	Metal ferrule for Tinel shield splice		Midpoint shield butt splice	150°C to 200°C	Perm	✓	_		Tinel heat tool
EN:CONTE	HexaShield Adapters Hex-XX	Metal ferrule individual shield terminations		Overall shield termination	150°C to 200°C	Perm	/	_		Torque tool
	<b>Bandstrap</b> BND-1225S	Steel straps, nickel or cadmium plated		Easy replacement of shield termination	150°C to 200°C	Perm	1	/		Banding tool
	Side-Entry Tinel Ring SETR-XX	Split Tinel Ring shield termination		Notch engagement Easy replacement of Tinel Ring	150°C to 200°C	Perm	1	1		Tinel heat tool

	Product Family	Description	Standards	Features	Max. Temperature	Temporary / Permanent	Re-Enterable / Re-Workable	Side Entry	Installation Practices & Instructions	Tooling
7/	High-Temp Heat-Shrink Tape RT-555-TX.X-A260-XX	High-temperature, side-entry, shrinkable repair tape	RT-1381	High temperature Sealed Fluids resistant Altitude immersion Moderate peel strength	200°C	Perm	<b>/</b>	/	TUS-41-3032	Heat gun PTFE tape
	Self-Amalgamating Tape S-1081	Bonds to itself	RK-6019	Supplement with adhesive at ends for sealing	130°C	Perm & Temp	<b>✓</b>	/	ELE-3COP-606 c/w data sheet HSL#04146	Heat gun
	Silicone Fusion Tape 608036			High temperature sealing Low peel Supplement with heat shrink tubing for mechanical protection	200°C	Temp	<b>✓</b>	<b>✓</b>	408-9716	N/A
	Chemical- and Abrasion-Resistant Heat-Shrink Tubing DR-25	2:1 shrink ratio	SAE AMS-DTL-23053/16 VG95343 Part 5 Type D DEF STAN 59-97 Issue 3	Sealing, strain-relief Mechanical protection Supplement with adhesive	150°C	Perm	<b>/</b>	_	ELE-3COP-551 PIP-068 COP551TUS-41-3024	Heat gun
	High-Temperature Heat-Shrink Tubing RT-555-XX	2:1 shrink ratio	RT-555	High temp Mechanical protection Supplement with adhesive	200°C	Perm	<b>√</b>	_	ELE-3COP-551	Heat gun
	Semiflexible Dual-Wall Heat-Shrink Tubing HTAT-XX	4:1 shrink ratio Hotmelt adhesive	SAE AMS-DTL-23053/16	Sealing, strain-relief	125°C	✓	/	_	COP610	Heat gun
THE REAL PROPERTY OF THE PARTY	Heat-Shrink Molded Parts AT-099-XX INSTALITE	High shrink ratio Elastomer sleeve	MIL-S VG95343 VG95343/XX AS85049/XX	Sealing, strain-relief Heat-activated epoxy adhesive Refurbish back- shell Anti-rotation	150°C	Perm	/	-	COP554	Heat gun
-(9)	Helical Convolex Conduit Tubing HCTE	High temperature, fluid resistant Conduit, nonheat shrink	VG96936 Part 6 RT-1162	High temp Impact protection Flexing Supplement with shrink boots Supplement with adhesive	200°C	Perm	/	_	COP566	N/A
	COPALUM Splice Cover RT-555-XXX-YYY-A287	High-temperature, heat-shrinkable, fluid-resistant sealing sleeves	FAR Part 25 FAA Standard	Sealed, high temp	200°C	1	/	-	TUS-41-3026	Heat gun
	<b>Wrap-Around Marker</b> WM-SCE	Wrap around heat-shrink identification marker		Adhesive lined Harness marking Any difficult to access area	135°C	1	<b>✓</b>	/	411-121004	Heat gun PTFE tape Thermal printer
	S1260 Adhesive Tape	Fast, permanent repair to high temperature PTFE jacket	RT-1050/29	High temperature sealing Fluid resistance Seals to PTFE Cures with heat gun, no oven required	240°C	Perm	-	/	TUS-44-3039	Heat gun rated to 2200 W
The state of the s	Epoxy Adhesive S-1125	Two-component liquid Sealing and mechanical bonding	VG95343/15 RK-6619	Flexibility Potting High peel strength Room temp cure, no oven required	240°C	Perm	_	<b>√</b>	COP604	N/A
	Hotmelt Adhesive Tape S-1048	Sealing and mechanical bonding	RT-1050/3	Flexibility High peel strength No curing Heat gun set Re-workable	120°C	Perm	/	<b>/</b>	COP607	Heat gun
	Conductive Epoxy S-1184	Two-component liquid Sealing and mechanical bonding	RK-6627	Flexibility, Potting, Braid shield termination Low electrical resistance No heat, no solder, no clamping Supplement with structural/ sealing epoxy Caution with shelf life & storage	150°C	Perm	_	/	COP522 COP505	N/A
	<b>Shrink Tape</b> T-DR-25	No adhesive Sealing and mechanical bonding		Flexibility Mechanical protection Nonself-amalgamating Supplement with adhesive for sealing and bonding	135°C	Perm	_	<b>/</b>	TDR25INSTALL	Heat gun

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