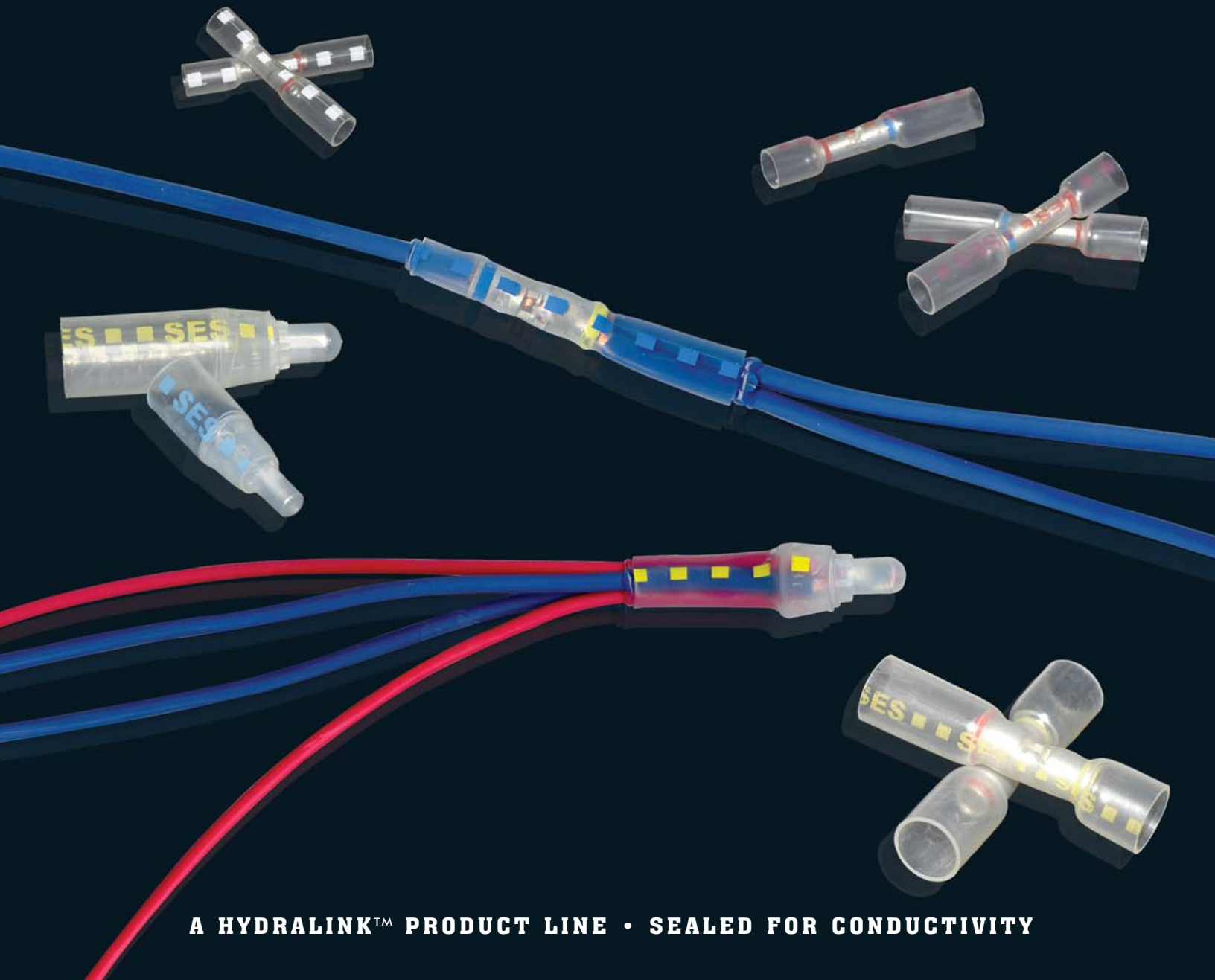


SEALED ELECTRICAL SYSTEM

It's a Question of Integrity®



SEALED CONNECTORS FOR MULTIPLE WIRES™



A HYDRALINK™ PRODUCT LINE • SEALED FOR CONDUCTIVITY

MINI ASSORTMENTS



NSPA-9216

STARTER ASSORTMENTS



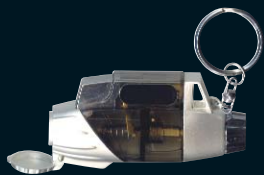
NSPA-5216

TOOLS



T-R-15

Multi Purpose Crimp Tool



T-MT-4E

Self Igniting Butane
Refillable Micro Torch

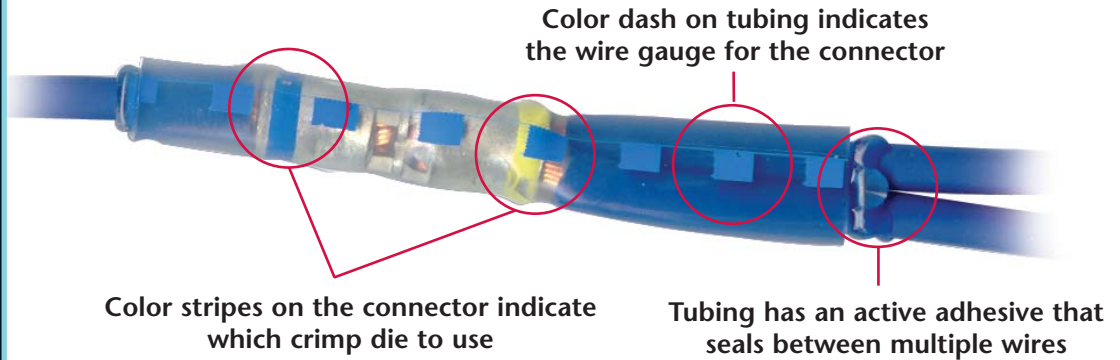


T-MT-51

Self-Igniting Butane
Refillable Canister Torch

IN-LINE BUTT CONNECTORS

JOIN TWO WIRES TO ONE WIRE ...

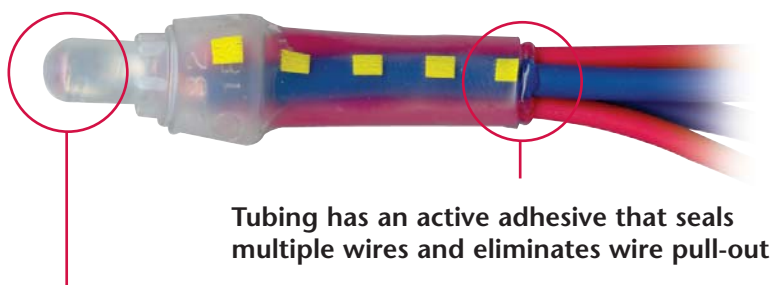


BUTT CONNECTORS

Part #	Wire Gauge	Tubing Color	Color Stripe On Connector	Wire	Crimp Die (Insulated)
HL57-20	24-22 AWG	Clear / White Dashes	Side 1: White Side 2: Red	One 24-22 AWG Two 24-22 AWG	White (24-22 AWG) Red (20-18 AWG)
HL57-16	20-18 AWG	Clear / Red Dashes	Side 1: Red Side 2: Blue	One 20-18 AWG Two 20-18 AWG	Red (20-18 AWG) Blue (16-14 AWG)
HL57-14	16-14 AWG	Clear / Blue Dashes	Side 1: Blue Side 2: Yellow	One 16-14 AWG Two 16-14 AWG	Blue (16-14 AWG) Yellow (12-10 AWG)
HL57-10	12-10 AWG	Clear / Yellow Dashes	Side 1: Yellow Side 2: Red	One 12-10 AWG Two 12-10 AWG	Yellow (12-10 AWG) Red (8 AWG)

CLOSED-END CONNECTORS

JOIN TWO TO FOUR WIRES ...



Closed-end connectors are crimped here. In environments where corrosion and/or vibration are a problem, the closed-end connector can be used to replace wire nuts.



CLOSED END CONNECTORS

Part #	Connector Wire Range	Tubing Color
HL8-22-14	22-14 AWG	Clear / Blue Dashes
HL8-18-10	18-10 AWG	Clear / Yellow Dashes

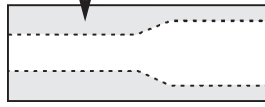
THE COMPONENTS

THE MULTIPLE WIRE CONNECTOR

THE COMPETITOR'S VERSION

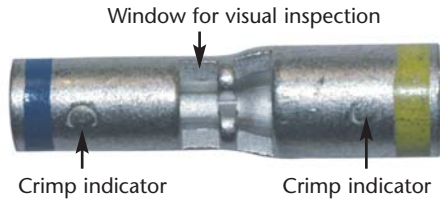


Thick copper wall - Difficult to crimp

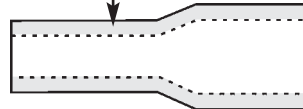


The outside diameter of the butt connector is the same on both ends and only the inside diameter is adjusted for the different wire gauge. This means that the side for the smaller wire has a much thicker wall than normal and is extremely difficult to crimp. **POTENTIAL FOR WIRE PULL-OUT!**

OUR VERSION



Uniform copper wall - **EASY** to crimp



The inside AND the outside diameter of the connector is varied which means that both sides will make a sound mechanical crimp.

The barrel has two stripes - one on each end - to indicate which wire size to insert. Plus, the stripe matches the crimp die that needs to be used. For example, the blue stripe indicates the side where a 14 or 16 AWG wire is to be inserted, and it will be crimped in the blue crimp die.

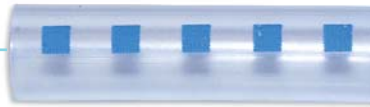
STRONG MECHANICAL TERMINATION!

ADDITIONAL FEATURES OF THE CRIMP CONNECTOR

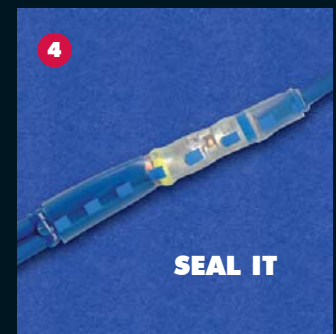
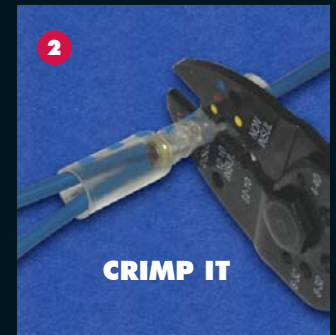
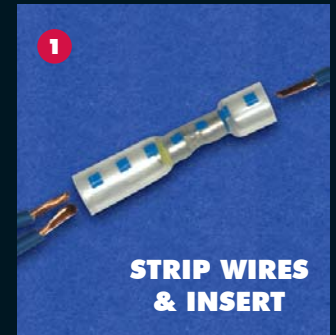
- Seamless butt connectors provide superior crimp performance
- Window in butt connectors allows for visual inspection to ensure all wires are fully inserted
- Butt connectors have indicators where the installation tool should be positioned to crimp connector
- Wire-stop in butt connector prevents over-insertion of the wires

THE HEAT SHRINK TUBING

- High adhesive-flow polyolefin to seal multiple wires
- Color-coded dash on tubing to indicate the wire gauge for the connector
- Clear tubing to allow for visual inspection



EASY TO INSTALL



PROBLEMS:		SOLUTION:	
<p>EXISTING METHODS:</p> <p>QUICK-TAP</p> <p>3-WAY CONNECTOR</p> <p>ADDING WIRE</p> <p>UNSEALED CONNECTOR</p>	<p>SEALED MULTIPLE WIRE CONNECTORS:</p> <p>IN-LINE CONNECTOR</p>		
PROBLEMS:		SOLUTION:	
<p>EXISTING METHODS:</p> <p>WIRE NUT</p> <p>END-CAP</p>	<p>SEALED MULTIPLE WIRE CONNECTORS:</p> <p>CLOSED-END CONNECTOR</p>		

PRODUCT CHARACTERISTICS

HEAT SHRINK TUBING

Material: Co-extruded, dual wall heat shrink tubing with a thermoplastic adhesive inner wall.

Characteristics: Semi-rigid; 4 to 1 shrink ratio; Excellent strain relief; Puncture resistant; Resistant to salt water, automotive fluids, corrosive chemicals; Functional over a wide temperature range

Applicable Specs: Chrysler MS-DB56 CPN 3686
Ford ES8-M99D56A1

Physical:	Temperature Rating:	-55° to 110°C	Chemical:	Auto Fluid Compatibility:	8 Fluid
	Recovery Temperature:	121°C (250°F)		Corrosion Resistance:	Non-Corrosive
	Tensile Strength:	2450 PSI			
	Longitudinal Change:	1%-10%			

Electrical:	Dielectric Strength (outer wall):	500 Volts/Mil
	Dielectric Withstand:	1000 Volts AC
	Current Leakage:	< 0.250 Microamps

IN-LINE BUTT CONNECTOR INSTRUCTIONS:

- For side of connector where two wires will be inserted, strip wires 5/8".
- Select a connector that matches the wire gauge (see chart below) and insert the two wires into the larger side of the connector.
- Make sure that both wires are properly seated and crimp the connector using an insulated connector crimping tool nest that matches the color stripe on the larger side of the connector barrel.
- For the side of the connector where one wire will be inserted, strip wire 5/16".
- Insert the wire into the smaller side of the connector, make sure the wire is properly seated and crimp the connector using an insulated connector crimping tool nest that matches the color stripe on the smaller side of the connector barrel.
- Apply heat evenly around the length of the tubing (including the crimp area) from the center out to the ends until the tubing fully recovers and the adhesive flows. During the heating process, separate the two wires in the larger end of the connector to allow the adhesive to flow in between the wires.
- Remove from the heat and let cool.

ONE WIRE TO TWO WIRES

Part #	Wire Gauge	Tubing Color	Color Stripe		Wire	Crimp Die (Insulated)
			On Connector	Wire		
HL57-20	24-22 AWG	Clear / White Dashes	Side 1: White Side 2: Red		One 24-22 AWG Two 24-22 AWG	White (24-22 AWG) Red (20-18 AWG)
HL57-16	20-18 AWG	Clear / Red Dashes	Side 1: Red Side 2: Blue		One 20-18 AWG Two 20-18 AWG	Red (20-18 AWG) Blue (16-14 AWG)
HL57-14	16-14 AWG	Clear / Blue Dashes	Side 1: Blue Side 2: Yellow		One 16-14 AWG Two 16-14 AWG	Blue (16-14 AWG) Yellow (12-10 AWG)
HL57-10	12-10 AWG	Clear / Yellow Dashes	Side 1: Yellow Side 2: Red		One 12-10 AWG Two 12-10 AWG	Yellow (12-10 AWG) Red (8 AWG)

CLOSED-END CONNECTOR INSTRUCTIONS:

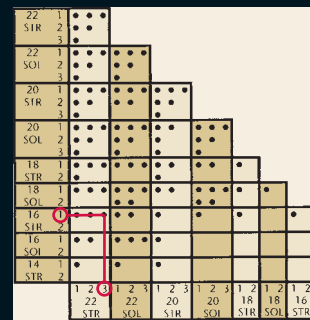
- Using the chart below, select the proper size of connector for the wires to be joined. A maximum of four wires may be connected.
- Strip each wire 5/8".
- Insert all wires into the connector, make sure that each wire is properly seated and crimp the connector using an insulated connector crimping nest that matches the color dash on the heat shrink tubing.
- Apply heat evenly to the tubing until the tubing fully recovers and the adhesive flows. DO NOT heat the crimp area since this will burn the plastic portion of the connector. During the heating process, separate the wires to allow the adhesive to flow in between the wires.
- Remove from the heat and let cool.

For best results, use a heat device of at the least 400° F. When using an open flame, do not isolate the flame on one area of tubing. Distribute the heat evenly. Overheating the connector may cause damage to the tubing.

Rating: 105° C • 600V maximum building wire • 1000V maximum in signs and fixtures • To be sold only with installation instructions • Not for use with multiple power sources.

UP TO FOUR WIRES

Connector		
Part #	Wire Range	Tubing Color
HL8-22-14	22-14 AWG	Clear / Blue Dashes
HL8-18-10	18-10 AWG	Clear / Yellow Dashes



How to read chart for HL8-22-14:

One #16 Stranded plus three #22 Stranded (equaling four wires) can be connected using an HL8-22-14 connector.

