



Ultra-Grip Crimp Connector Hand Tool Kit for Coaxial Cable and Powerpole[®] Connectors

DXE-UT-KIT-CRIMP

DXE-UT-KIT-CRIMP-INS-Revision 2a



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Introduction

The DX Engineering Ultra-Grip Crimp Connector Hand Tool and Tool Kit are ready for you to make professional quality crimped coaxial cable assemblies and Powerpole[®] wire terminations.

DXE-UT-CRIMP Ultra-Grip Crimp Connector Hand Tool is a quality ratcheting steel crimper, ergonomically shaped non-slip dual color with soft thermoplastic rubber grips for comfortable and positive connector crimping results. The Ultra-Grip Crimp Connector Hand Tool is made from high quality carbon steel with black oxide finish for corrosion resistance and durability. The **DXE-UT-CRIMP** Ultra-Grip Crimp Connector Hand Tool features high crimping quality that is repeatable with precision dies and their integral locking mechanism. The safety crimp release helps eliminate rejected terminations due to incorrect positioning.

The **DXE-UT-CRIMP** is supplied with the **DXE-UT-DIE-8U** Crimp Die for RG-8U/213/LMR-400 size cable. The included 2.5 mm Allen wrench is used to change to one of two optional dies, to cover the most popular sizes of coaxial cables with ten different Amphenol Connex crimp connectors in UHF Male/PL-259, Type N, BNC and three Powerpole[®] connector sizes.

The DX Engineering Coaxial Cable and Powerpole[®] Ultra-Grip Crimp Connector Hand Tool Kit, model **DXE-UT-KIT-CRIMP**, provides a handsome, convenient carrying case furnished with the Ultra-Grip Crimp Connector Hand Tool, cable cutting, braid snipping tool and all three crimp dies with a precut foam insert providing a home for each tool and die set. The coaxial cable connector dies are designed to crimp the full ferrule and the center pin. The Powerpole[®] die has crimping positions for 15, 30 and 45 Ampere connectors.

Not only is this DX Engineering Ultra-Grip Crimp Connector Hand Tool Kit perfect for helping you keep track of your tools, but it also makes it easy for you to carry them from job to job.

DXE-UT-KIT-CRIMP Complete Kit contains:

- **DXE-UT-CRIMP** Ultra-Grip Crimp Connector Hand Tool
- **DXE-UT-DIE-8U** Crimp Die for RG-8U/213/LMR-400 size cable
- **DXE-UT-DIE-8X** Crimp Die for RG-8X/LMR-240 size cable
- **DXE-UT-DIE-PP** Crimp Die for Powerpole[®] 15, 30, 45A contact
- **CNL-911** Coaxial cable shears
- **DXE-170M** Precision braid trimmers
- 2.5 mm Allen Wrench
- **DXE-CRIMP-CASE** Custom Tool Case



Available from DX Engineering as individual items:

- **DXE-UT-CRIMP** Ultra-Grip Crimp Connector Hand Tool - Supplied with the **DXE-UT-DIE-8U** Crimp Die for RG-8U/213/LMR-400 size cable and one 2.5 mm Allen Wrench
- **DXE-UT-CRIMP-PWR** Ultra-Grip Crimp Connector Hand Tool - Supplied with the **DXE-UT-DIE-PP** Crimp Die for Powerpole[®] for 15A, 30A and 45A contacts and one 2.5 mm Allen Wrench
- **DXE-UT-CRIMP-8X** Ultra-Grip Crimp Connector Hand Tool - Supplied with the **DXE-UT-DIE-8X** Crimp Die for RG-8X/LMR-240 size cable and one 2.5 mm Allen Wrench
- **DXE-UT-DIE-8U** Crimp Die for RG-8U/213/LMR-400 size cable
- **DXE-UT-DIE-8X** Crimp Die for RG-8X/LMR-240 size cable
- **DXE-UT-DIE-PP** Crimp Die for Powerpole[®] for 15A, 30A and 45A contacts
- **CNL-911** Coaxial cable shears
- **DXE-170M** Precision braid trimmers
- **DXE-CRIMP-CASE** Custom Tool Case



The DX Engineering crimp die sets work with most of the popular coaxial cables and connectors.

Available from DX Engineering, the coaxial cable connectors include:

UHF Type

AMP-182100 Amphenol Connex UHF Male Crimp Connector 182100

Brass body with nickel plate, gold plated center pin contact, 50 ohm, yellow phenolic dielectric. For LMR-200 and equivalents.



AMP-182102 Amphenol Connex UHF Male Crimp Connector 182102

Silver plated nickel body, shell and center pin. 50 ohm. PTFE dielectric. Nickel plated copper crimp ferrule. For some RG-8/U, most RG-213/U and equivalents with 12-13 AWG center conductors.



AMP-182115-10 Amphenol Connex UHF Male Crimp Connector 182115-10

Silver plated brass body, shell and center pin, nickel plated copper crimp ferrule. 50 ohm. PTFE dielectric. For RG-8X, LMR-240 and equivalent cables.



AMP-182130-10 Amphenol Connex UHF Male Crimp Connector 182130-10

Silver plated brass body, shell and center pin. Nickel plated copper crimp ferrule. 50 ohm. PTFE dielectric. Fits DXE-8U, DXE-400MAX, LMR-400 and equivalent cables and RG-8U with 10-11 AWG center conductors.



N-Connector Type

AMP-172100 Amphenol Connex N-Type Male Crimp Connector 172100

White bronze finished brass with gold plated contact. PTFE dielectric. 50 ohm. For RG-58, LMR-195, and equivalents.



AMP-172102 Amphenol Connex N-Type Male Crimp Connector 172102

White bronze finished brass with gold plated contact. PTFE dielectric. 50 ohm. For RG-8 (with 12-13 AWG center conductors), RG-213, RG-393 and equivalents.



AMP-172102H243 Amphenol Connex N-Type Male Crimp Connector 172102H243

White bronze finished brass with gold plated contact. PTFE dielectric. 50 ohm. For DXE-400MAX, DXE-8U, RG-8 (with 10-11 AWG center conductors), LMR-400 and equivalents.



AMP-172135 Amphenol Connex N-Type Male Crimp Connector 172135

Coaxial Cable Connector, Solderless crimp, PTFE dielectric. N Type Male for RG-8X, LMR-240, 50 ohm.



BNC Type

AMP-112116 Amphenol Connex BNC Male Crimp Connector 112116

Nickel finished brass with gold plated contact. Delrin dielectric. 50 ohm. For RG-58, LMR-195, and equivalents.



AMP-112533 Amphenol Connex BNC Male Crimp Connector 112533.

Nickel finished brass with gold plated contact. Delrin dielectric. 50 ohm. For RG-8X, LMR-240, and equivalents.



The **DXE-UT-DIE-PP** Crimp Die is made for Powerpole® for 15A, 30A and 45A contacts. The most popular sizes are available from DX Engineering:

DXE-PP30 DX Engineering Anderson Powerpole® Connectors PP30

Power Pole Connectors, Anderson, 12 - 16 AWG, 30 amps, 10 red and 10 black connectors.



DXE-PP45 DX Engineering Anderson Powerpole® Connectors PP45

Power Pole Connectors, Anderson, 10 - 14 AWG, 45 amps, Includes 10 red and 10 black connectors.



The following chart shows which coaxial cable crimp connectors work with different types of coaxial cable. *This list is dynamic and changes will be made on our web site as new coaxial cables are tested.*

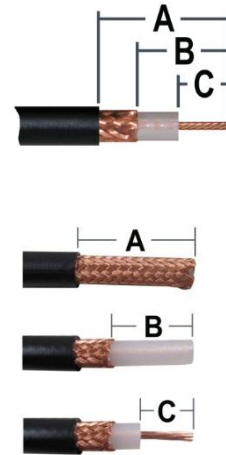
Connector Type	PL-259	PL-259	PL-259	PL-259	Type N	Type N	Type N	Type N	BNC	BNC	
Connector P/N	182100	182102	182115-10	182130-10	172100	172102	172102H243	172135	112116	112533	
Use Die	DXE-UT-	DIE-8X	DIE-8U	DIE-8X	DIE-8U	DIE-8X	DIE-8U	DIE-8U	DIE-8X	DIE-8X	DIE-8X
Hex Crimp Center Pin*	0.068	0.100	0.068	0.118	0.100	0.100	0.118	0.100	0.068	0.068	
Hex Crimp Ferrule*	0.213	0.429	0.255	0.429	0.213	0.429	0.429	0.255	0.213	0.255	

Coax Part Number										
DXE-400MAX				XX			XX			
DXE-11U		XX								
DXE-213U		XX				XX				
DXE-58AU	XX				XX				XX	
DXE-8U				XX			XX			
DXE-8X			XX						XX	XX
LMR-195					XX				XX	
LMR-200	XX									
LMR-240			XX					XX		XX
LMR-400				XX			XX			
RG-213		XX				XX				
RG-393		XX				XX				
RG-58	XX				XX				XX	
RG-8 with 12-13 AWG center conductor		XX				XX				
RG-8U with 10-11 AWG center conductor				XX			XX			
RG-8X			XX						XX	XX
Belden 8214				XX			XX			
Belden 9913				XX			XX			
Belden 8267/8327		XX				XX				

(* dimensions are in inches)

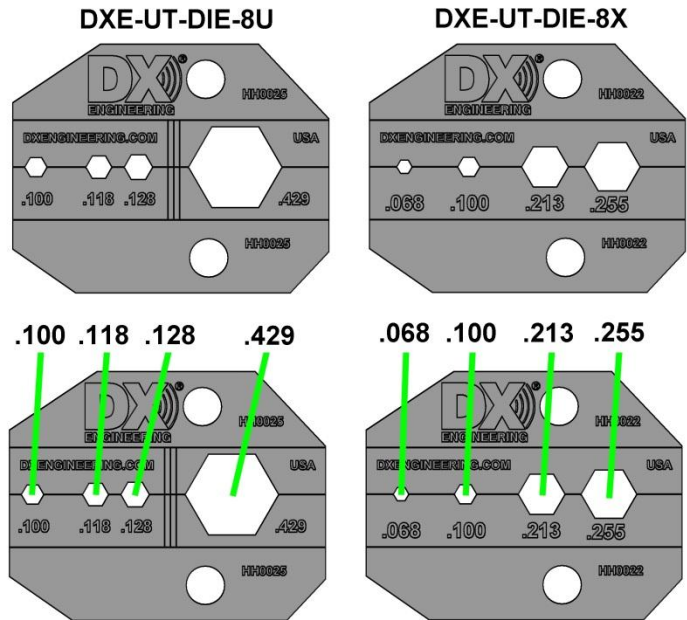
The following chart shows the trim length required for the various coaxial cable crimp connectors.

Connector Type	Connector P/N	A	B	C
PL-259	AMP-182100	1.217"	0.890"	0.544"
	AMP-182102	1.218"	0.891"	0.544"
	AMP-182115-10	1.218"	0.891"	0.544"
	AMP-182130-10	1.218"	0.891"	0.544"
Type N	AMP-172100	0.630"	0.303"	0.157"
	AMP-172102	0.631"	0.304"	0.158"
	AMP-172102H243	0.631"	0.304"	0.158"
	AMP-172135	0.630"	0.303"	0.157"
BNC	AMP-112116	0.631"	0.304"	0.158"
	AMP-112533	0.634"	0.307"	0.157"



Close up showing the various sized openings.

Refer to the chart on page 3 for the die openings used for the various coaxial connectors.



Changing Dies

There are three die sets available for the DX Engineering Ultra-Grip Crimp Connector Hand Tool.

DXE-UT-DIE-8U Crimp Die for RG-8U/RG-213/LMR-400 size cable

DXE-UT-DIE-8X Crimp Die for RG-8X/LMR-240 size cable

DXE-UT-DIE-PP Crimp Die for Powerpole® 15A, 30A and 45A contacts



DXE-UT-DIE-8U



DXE-UT-DIE-8X



DXE-UT-DIE-PP

To install a die set. Close the Ultra-Grip Crimp Connector Hand Tool far enough to comfortably insert the die set as shown.



Align the holes and using the supplied 2.5 mm Allen Wrench, insert and tighten the Allen head screws to hold the die set in place as shown below.



Reverse the process to remove the die set.

When using the die set for the Powerpole[®] connector contacts, there are added parts that are mounted on the opposite side from the die printed numbers (15, 30 45 which correspond to the applicable Powerpole[®] crimp connector contact pins). These added parts provide support for the Powerpole[®] crimp connector contact pin.

When installing the Powerpole[®] die, use the longer (supplied) screw, with the supplied washer and Nyloc nut to hold the support part in place as shown below.



Front View
Support, Hex Screw, Washer Nut



Rear View
Support Installed



Front View with jaws open
Support Installed

Adjustment

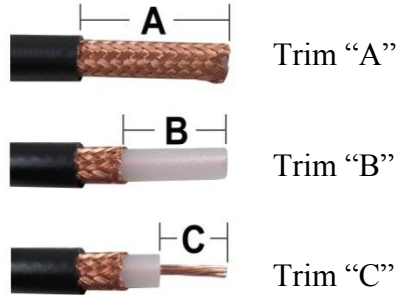
The Ultra-Grip Crimp Connector Hand Tool has one adjustment. This adjustment will determine the amount of 'squeeze' needed to fully ratchet the crimper closed then allow it to release. If you encounter difficulties, try adjusting the screw by loosening the Phillips head screw, moving the adjustment to another setting, then re-tighten the Phillips screw and test. Adjust as needed. Do not over tighten the setting or you may cause damage not covered by warranty to the die if they are squeezed to hard together. **If the tool jams while ratcheting for any reason, push the small black tab seen between the handles. This will release the ratchet mechanism and allow you to open the tool.**



Crimping Coaxial Cable Connectors

Select your coaxial cable and crimp connector per the information presented in this manual. Practice makes perfect. As with any tool, the more you use it, the better it will perform.

Prepare the coaxial cable per the dimensions in the chart. The example shown uses **DXE-213U** Coaxial Cable and the Amphenol Connex **AMP-182102** PL-25 Connector.



Place the ferrule collar and the PL-25 collar over the coaxial cable. Install the main body of the PL-259 on the coaxial cable taking care to slide under the coaxial cable shield, and have the center conductor go into the center pin on the connector. Push the main body until you see the center conductor just reach the end of the center pin.



Using the Crimp Tool with the 8U die, crimp the center conductor pin using the (in this example) .100 die hole. Squeeze the tool completely (it ratchets) . It will release itself when the crimp is complete.



Slide the ferrule over the shield until it comes to a stop at the back of the main body. Using the Crimp tool (use the large hexagonal opening) crimp the ferrule in place. Squeeze the tool (it will ratchet) until the ferrule is completely crimped, the tool will automatically release when done.



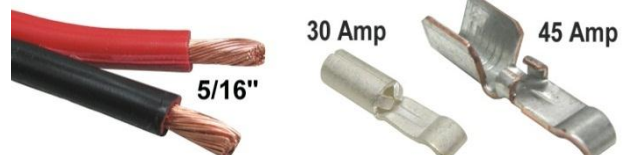
Slide the PL-259 collar in place and screw it onto the main body. The process is complete.



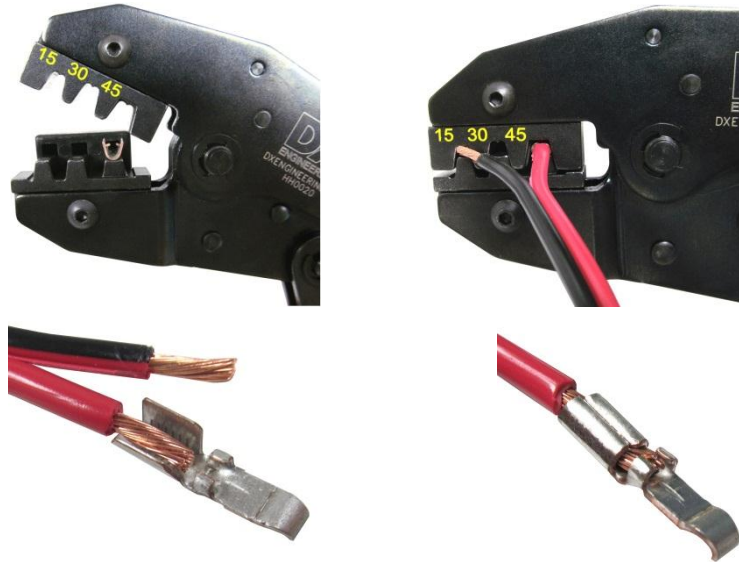
Crimping Powerpole® Connectors

Install the **DXE-UT-DIE-PP** into the crimp tool as described earlier in this manual.

For both sizes of connectors, strip the wire 5/16"



Insert the connector being used in the appropriate spot on the Powerpole die. Squeeze the crimp tool slightly so the connector is held snug in place. Insert the wire and squeeze the crimp tool until it ratchets and releases. The crimp is complete. The pictures below show the 45 amp connector.



Technical Support

If you have questions about this product, or if you experience difficulties during the installation, contact DX Engineering at (330) 572-3200. You can also e-mail us at:

DXEngineering@DXEngineering.com

For best service, please take a few minutes to review this manual before you call.

Warranty

All products manufactured by DX Engineering are warranted to be free from defects in material and workmanship for a period of one (1) year from date of shipment. DX Engineering's sole obligation under these warranties shall be to issue credit, repair or replace any item or part thereof which is proved to be other than as warranted; no allowance shall be made for any labor charges of Buyer for replacement of parts, adjustment or repairs, or any other work, unless such charges are authorized in advance by DX Engineering. If DX Engineering's products are claimed to be defective in material or workmanship, DX Engineering shall, upon prompt notice thereof, issue shipping instructions for return to DX Engineering (transportation-charges prepaid by Buyer). Every such claim for breach of these warranties shall be deemed to be waived by Buyer unless made in writing. The above warranties shall not extend to any products or parts thereof which have been subjected to any misuse or neglect, damaged by accident, rendered defective by reason of improper installation, damaged from severe weather including floods, or abnormal environmental conditions such as prolonged exposure to corrosives or power surges, or by the performance of repairs or alterations outside of our plant, and shall not apply to any goods or parts thereof furnished by Buyer or acquired from others at Buyer's specifications. In addition, DX Engineering's warranties do not extend to other equipment and parts manufactured by others except to the extent of the original manufacturer's warranty to DX Engineering. The obligations under the foregoing warranties are limited to the precise terms thereof. These warranties provide exclusive remedies, expressly in lieu of all other remedies including claims for special or consequential damages. SELLER NEITHER MAKES NOR ASSUMES ANY OTHER WARRANTY WHATSOEVER, WHETHER EXPRESS, STATUTORY, OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS, AND NO PERSON IS AUTHORIZED TO ASSUME FOR DX ENGINEERING ANY OBLIGATION OR LIABILITY NOT STRICTLY IN ACCORDANCE WITH THE FOREGOING.

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