DXE-UT-8213
Coaxial Cable Stripping Tool

DXE-UT-8213-INS-Revision 5c

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Introduction

The **DXE-UT-8213** has been designed and manufactured to properly cut coaxial cable for use with **DXE-PL259** - PL-259, Silver Plated, Teflon® Insulation PL-259 connectors or the **DXE-N1001-S** - Type N Male, Silver Plated, Teflon® Insulation two-piece Type N connector (requires a slight additional trimming of the cable center conductor length).

The **DXE-UT-8213** has been tested with:

DXE-400MAX Low Loss Direct Bury Coaxial Cable
DXE-213U RG-213/U
DXE-8U RG-8/U
Belden 8213 RG11/U
Belden 8214 RG-8 foam
Belden 8237 RG-8/U
Belden 8267 RG-213/U
Belden 9913 low-loss RG8 type(spiral dielectric material)
Belden 9913F7 low-loss RG8 type, high-flex
Davis RF "Bury Flex"
LMR 400 Times Microwave (not LMR-400/UF)

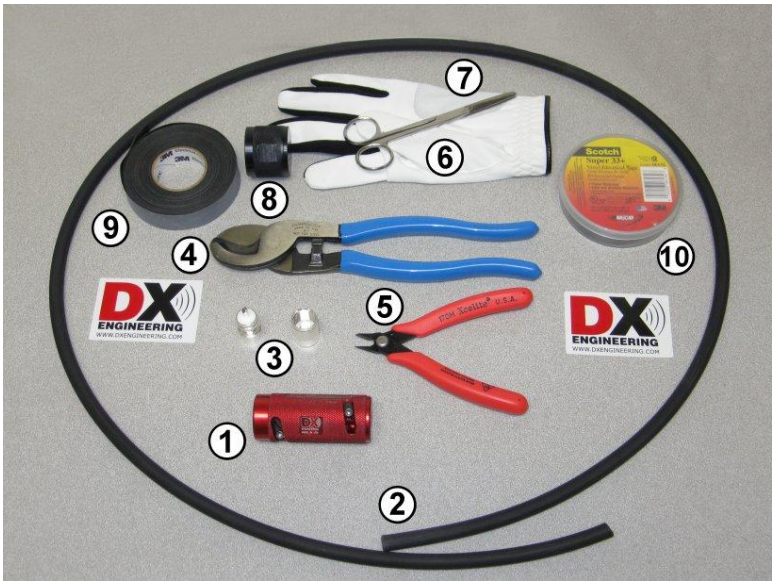
Please check the DX Engineering web site
http://www.dxengineering.com
for the latest coaxial cable information and instructional videos

The following instructions show typical operation using Belden 8267 RG-213/U coaxial cable.

Instructions

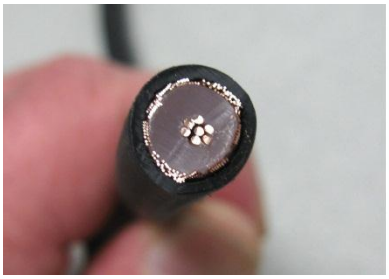
Items Used:

1. **DXE-UT-8213** Coaxial Cable Stripping Tool
2. Coaxial Cable
3. **DXE-PL-259** Coaxial Cable Connector
4. **CNL-911** Coaxial Cable Cutter
5. **DXE-170M** Precision Shear Side Cutters
6. Golf Glove
7. Scissors
8. **DXE-UT-80P** Connector Assembly Tool for PL-259/RG-213-size Cable
9. **DXE-3M21553M** Temflex™ 2155 Rubber Splicing Tape
10. **TRM-06132** Scotch Super 33+ Vinyl Electrical Tape



A. Cut the end of the coaxial cable with the **CNL-911** Coax Cable Cutter to get a good flush cut.

B. You want the coaxial cable to be round and not oval when viewed from the end. If the coaxial cable is slightly oval, gently use the **CNL-911** to round out the end of the coaxial cable.




C. Place the prepared coaxial cable end into the body of the **DXE-UT-8213** labeled "**1st CUT**".

D. Firmly grip the coaxial cable and the **DXE-UT-8213**, turn the **DXE-UT-8213** in a clock wise direction while applying steady and slightly firm pressure. Grip the coaxial cable between your thumb and first finger, close to the tool.

If your coaxial cable is older, your grip is not good, or the outer insulation is slightly larger in diameter, a golf glove may help you get a better grip on the coaxial cable.

Also, if the outer covering is older and dried out, it may stick inside the **DXE-UT-8213**. One suggestion is to put a ***very light*** coating of cooking oil or other similar lubricant on the coaxial cable outer covering for about 1", then insert it into the **DXE-UT-8213**.

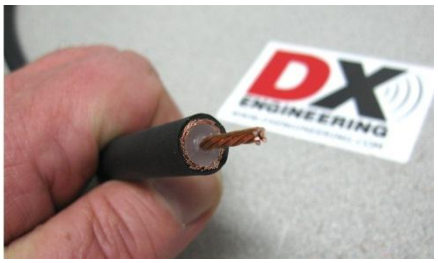
Take care to keep the oil away from the exposed coaxial cable end.

Do not use any silicone based lubricant since the silicone may interfere with soldering.

E. As you turn the tool clockwise, the **DXE-UT-8213** will begin cutting. Keep turning the tool in a clockwise direction until it will not cut anymore, the tool will eject the cut parts and stop cutting at the proper length.



Remove the coaxial cable from the **DXE-UT-8213**.

F. Turn the **DXE-UT-8213** around for the second cut. Insert the coaxial cable into the tool again.


G. Grip the cable between your thumb and first finger close to the tool and turn the tool in a clock wise direction. The **DXE-UT-8213** will begin cutting as you turn it. Keep turning the tool in a clockwise direction until it will not cut anymore, the tool will eject the cut outer insulation and stop cutting at the proper length.



Remove the coaxial cable. Clean any excess cable cuttings from the tool.

H. You may want to trim back some of the braid on the coaxial cable slightly using the **DXE-170M** precision shear side cutters prior to installing the **DXE-PL259** PL-259 connector.



I. Place the PL-259 Collar on the coaxial cable and slide it out of the way. Gently install the PL-259 on the prepared coaxial cable ensuring the center conductor strands go into the center conductor of the PL-259.


J. Screw the patent pending **DXE-UT-80P** Connector Assembly Tool onto the PL-259. Grip the coaxial cable firmly and turn the **DXE-UT-80P** Assembly Tool clockwise until the coaxial cable center conductor is visible at the end of the PL-295 as shown below.

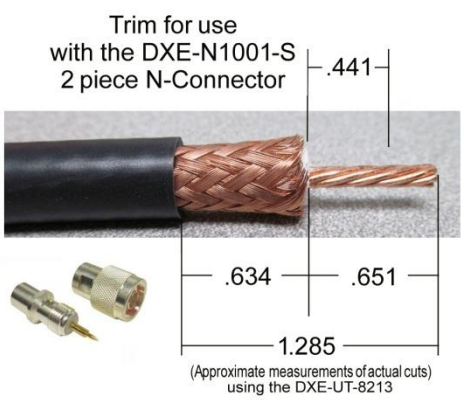


K. Remove the **DXE-UT-80P** Connector Assembly Tool and you're ready to solder the PL-259. This combination of DXE tools allows perfect and easy connector installation every time!

The premium cutting blades supplied with the **DXE-UT-8213** will last a long time. If replacements are needed, order **DXE-UT-RB-HD** (customer supplied 7/64" Allen Wrench required).

Trimming for 2-Piece N Connector

If you are using the **DXE-N1001-S** DX Engineering 2-piece N Connectors, you will need to trim the center conductor to a length of approximately 0.441". This will allow thw center conductor to seat properly in the gold center pin of the 2-piece N Connector



Weatherproofing

The following example of weatherproofing shows two PL-259 connectors that are joined together with a UHF Female to Female Adapter connector.

A. Firmly attach your coaxial cables to both ends of the UHF Female to Female Adapter.

B. Using the scissors, cut a piece of the **DXE-3M2155** Rubber Splicing Tape. Peel back the protective backing.
[Experience will help you determine how long of a piece you can comfortably work with]

C. As you tightly wrap the PL-259, stretch the **DXE-3M2155** Rubber Splicing Tape and overlap the previous wrap by about 50%.

Wrapping peeled back as you wrap

Stretching about 50% as you wrap
Overwrap previous wrap by about 50%

Completely wrapped with DXE-3M2155 Rubber Slicing Tape

D. Overwrap the **DXE-3M2155** Rubber Splicing Tape with the **TRM-06132** Scotch® Super 33+ Vinyl Electrical Tape to give the assembly UV protection. Cover the **DXE-3M2155** Rubber Splicing Tape completely.

DX Engineering also has a Coaxial Cable Stripping Tool for smaller RG-8X style coaxial cable.

DXE-UT-808X - Coax Cable Stripper for RG-8X, Belden 9258, LMR-240

This tool prepares good quality RG-8X, Belden 9258 and LMR-240 coax cable for installation of a PL-259 connector.

The large diameter knurled handle provides a good grip for easy stripping - you'll really appreciate that after stripping several ends! New, premium quality cutting blades assure clean cuts and long life.

- For foam or solid dielectric cable preparation
- Precision, two-step operation
- No nicks or scratches to conductor
- Premium, long lasting cutter blades

Please visit the DX Engineering website for more information and instructional video using the tools described in this manual.

This combination of DX Engineering tools allows perfect and easy connector installation every time!

Optional Items

DXE-400MAX Coax, 50 Ω low loss RG-8/U type, PE jacket, UV resistant, direct buriable

Specially manufactured for DX Engineering - Sold by the foot cut to your specified length.

A premium, low loss 50 ohm coaxial cable with a special Type III-A UV-resistant polyethylene jacket which is ideal for any outdoor applications - particularly suited for direct burial. With its larger AWG #10 center conductor, this 50 ohm cable is specially suited for high-power amateur stations, it provides a lower loss solution for long cable runs at any power level. Gas Injected Foam Polyethylene dielectric. High reliability and long life are key elements in choosing this cable.
The highest level of shielding is assured by the bonded aluminum tape covered with a tinned copper shield braid.
Mechanical Specifications: Center Conductor: AWG #10, 19/.0210" Strand Bare Copper. Dielectric: Gas Injected Foam Polyethylene, OD: .285". Shield Tape: Bonded Aluminum - polyester - aluminum tape. Shield Braid: AWG #34 Tinned Copper, 95% coverage. Jacket: Black Low Density Polyethylene Direct Burial UV resistant. Jacket Dim: .044" thick. Nominal OD: .405". **Electrical Specifications:** Impedance: 52 ohms. Capacitance: 23.0 pF/foot. Velocity of Prop.: 84% (0.84)

DXE-213U Coax, RG-213/U MIL-SPEC, Type II-A non-contaminating PVC jacket, UV resistant, direct buriable

A low loss 50 ohm MIL-spec coaxial cable with a non-contaminating Type II PVC jacket - UV-resistant and direct burial - which is great for all outdoor applications. Specially suited for high-power amateur stations, it provides a lower loss solution for long cable runs at any power level. Solid polyethylene dielectric. High reliability and long life are key elements in choosing this cable. Uses standard PL-259 connectors and N connectors for RG-8 size cables. Mechanical Specifications: Center Conductor: AWG #12.5, 7/.0296" Strand Bare Copper. Dielectric: Solid Polyethylene, OD: .285". Shield Braid: AWG #33 Bare Copper, 96% coverage. Jacket: Black PVC Type II Non-Contaminating. Jacket Dim: .045" thick. Nominal OD: .405". Electrical Specifications: Impedance: 50 Ohms. Capacitance: 30.8 pF/foot. Velocity of Prop.: 66% (0.66)

DXE-8U Coax, RG-8/U Foam 50 Ω low loss, PVC jacket

A new low loss corrected 50 ohm coaxial cable with a black vinyl jacket and foam polyethylene dielectric. Specially suited for high-power amateur stations, it provides a lower loss solution for long cable runs at any power level. High reliability and low loss are key elements in choosing this cable. Uses standard PL-259 connectors and N connectors for RG-8 size cables
Mechanical Specifications: Center Conductor: AWG #11, 7 Strand Bare Copper. Dielectric: Gas Injected Foam Polyethylene, OD: .285". Shield Braid: AWG #34 Bare Copper, 95% coverage. Jacket: Black High Flex PVC Jacket Dim: .047" thick. Nominal OD: .405". Electrical Specifications: Impedance: 50 ohms. Capacitance: 25.5 pF/foot. Velocity of Prop.: 81% (0.81)

CNL-911 - Coax Cable Cutter

High quality CHANNELLOCK® cable cutters with blades designed to cut coaxial cable cleanly. Does not crush the cable like diagonal side cutters. The cut end of the cable is cleanly cut - ready for stripping and connector assembly.

DXE-170M - Precision Shear Side Cutters

After stripping coaxial cable, this is the perfect tool for trimming loose strands of copper braid or trimming individual strands of the center conductor - up to 20 AWG.

- Low profile, general-purpose cutter
- Superior blade by-pass shear cutting action
- Better cuts with half the effort
- Greatly reduced mechanical shock delivered to the work
- Features red grips
- Flush cuts soft wire up to 20 AWG (0.8mm)

DXE-UT-80P - Connector Assembly Tool for PL-259/RG-213-size Cable - patent pending
Originally introduced as the DXE-UT-80TN at Hamvention® 2008, this assembly tool allows simple threading of PL-259 sleeve onto the vinyl jacket of RG-8/U, RG-213/U, LMR-400 and other similar size cables. First strip the cable with the DXE-UT-8213 Cable Stripping Tool.
Then, use this simple hand-gripped tool - forget about those pliers that scarred the connector and ripped off chunks of metal - and thread the connector body onto the stripped cable end. A visual guide at the end allows easy viewing of the cable center conductor for proper depth of installation. This tool allows a perfect and easy connector installation every time!

DXE-PL259 - PL-259, Silver Plated, Teflon® Insulation
This superior PL-259 connector uses silver plated outer and inner conductors and a Teflon® insulator. The connector has very low loss and high electrical break down.

- Silver plated
- Teflon® insulated
- Very low loss
- High electrical break down
  Fits: RG213/U , RG8/U , LMR-400
  To fit RG58A/U and/or LMR195 coax, utilize this PL-259 with a **DXE-UG175** reducer
  To fit RG8X coax, utilize this PL-259 with a **DXE-UG176S** reducer

DXE-UT-80N - Connector Assembly Tool for Type N/RG-213-size Cable - patent pending
This assembly tool allows simple threading of the two-piece Type N connector sleeve onto the vinyl jacket of RG-8/U, RG-213/U, LMR-400 and other similar size cables. First strip the cable with the DXE-UT-8213 Cable Stripping Tool and trim the center conductor length slightly to fit the center pin.
Then, use this simple hand-gripped tool - forget about those pliers that scarred the connector and ripped off chunks of metal - and thread the connector body onto the stripped cable end. A visual guide at the end allows easy viewing of the cable center conductor for proper depth of installation. This tool allows a perfect and easy connector installation every time!

DXE-N1001-S - Type N Male, Silver Plated, Teflon® Insulation
This superior Type N male connector uses a silver plated shell, Teflon® insulation and a gold-plated center pin. The connector has very low loss and constant impedance. Its two-piece construction allows for the same easy cable installation as a soldered PL-259.

- Silver plated
- Teflon® insulated
- Very low loss
- Constant impedance
  Fits: RG213/U, RG8/U, LMR-400
  To fit RG58A/U and/or LMR195 coax, utilize this connector with a DXE-UG175 reducer
  To fit RG8X coax, utilize this connector with a DXE-UG176S reducer

DXE-UG175 - RG-58A/U and LMR-195 Reducer for PL-259, Nickel Plated
This reducer is utilized in conjunction with a PL-259 connector to fit RG58A/U and/or LMR195 coax.

- Nickel plated
- High electrical break down
- Very low loss

DXE-UG176S - RG-8X Reducer for PL-259, Silver Plated
This reducer is utilized in conjunction with a PL-259 connector to fit RG8X coax.

- Silver plated
- High electrical break down
- Very low loss

DXE-UT-RB-HD - Premium Replacement Blades for DX Engineering and Cablematic Strippers
This is a set of original equipment heavy duty, longer-lasting replacement blades for the DX Engineering UT-8213 and UT-808X coax cable strippers, and is a direct premium upgrade for the Cablematic UT-8000.

- 2 blades per pack

DXE-VPC-0677 - Black Vinyl Cap for PL-259, (.677 in. OD) 20 Pack, (PL-259 Protector)
Utilize this cap to protect PL-259 connectors that are not in use.

- Extra feedline cables
- Coaxial jumper cables

These black vinyl caps are designed to fit over the end of a PL-259 connector, covering the connector shell and the center pin. Made from a strong UV rated material, they will withstand the abuse of nature and can keep dust and dirt out of your connectors.

- Black Vinyl Material - UV Rated
- Great for outside installation
- Will stretch to fit securely over a PL-259 connector or a nominal 0.677 in. OD Tube
- Length: 1-7/16 in.
- 20 pcs per pack

DXE-CPC-250 - Cushioned P-Clamp 10-pack, for RG-8X, RG-6, RG-59 size cable
DXE-CPC-375 - Cushioned P-Clamp 10-pack for RG-213, RG-8, RG-11 size cable

DX Engineering rubber-cushioned P-clamps are ideal for providing strain relief of coaxial cable connections. Rubber insert grips cable jacket securely without nicking or cutting jacket, which would allow water entry. Supplied in a pack of 10 for convenient ordering and stocking for future needs.

TRM-061232 - Scotch Super 33+ Vinyl Electrical Tape

Scotch® Super 33+ is highly conformable and super stretchy in all weather applications. This tape provides flexibility and easy handling for all around performance. It combines PVC backing with excellent electrical insulating properties to provide primary electrical insulation for splices up to 600V and protective jacketing. Recommended as a protective overwrap for **DXE-3M2155** rubber splicing tape in RF connector weatherproofing.

DXE-3M21553M - Temflex™ 2155 Rubber Splicing Tape

3M Temflex™ 2155 Rubber Splicing Tape is a conformable self-fusing rubber electrical insulating tape. It is designed for low voltage electrical insulating and moisture sealing applications. For outdoor use, it should be protected from UV deterioration with an overwrap of **TRM-06132** Vinyl Electrical Tape.

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

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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.
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Specifications subject to change without notice.