



INSTALLATION INSTRUCTIONS

MS 0107-10 | 04.13.20

D-Track

⚠ WARNING:
Cancer and Reproductive Harm | www.P65Warnings.ca.gov

ZT | zippertubing®

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D-Track User Guide

ABOUT ZIPPERTUBING®

Since 1957, Zippertubing® has been solving every type of cable bundling, heat-shielding, EMI-shielding, specialized heat shrink and marine fairing component challenge. From under the sea to outer space, we have prototyped, manufactured, and shipped custom-engineered solutions for every type of industry. We specialize in creating unique custom solutions in-house from beginning to end, so you feel confident you will receive the perfect product every time.

No matter the size, shape, standards, or specifications, Zippertubing® will abide by any requirements to create a custom solution.

If the project has material restrictions or weight limitations, we will create a solution to fit your unique application needs, rather than make your application fit the product. We will draw up, prototype, and refine to ensure the solution is exceeding your expectations.



TABLE OF CONTENTS

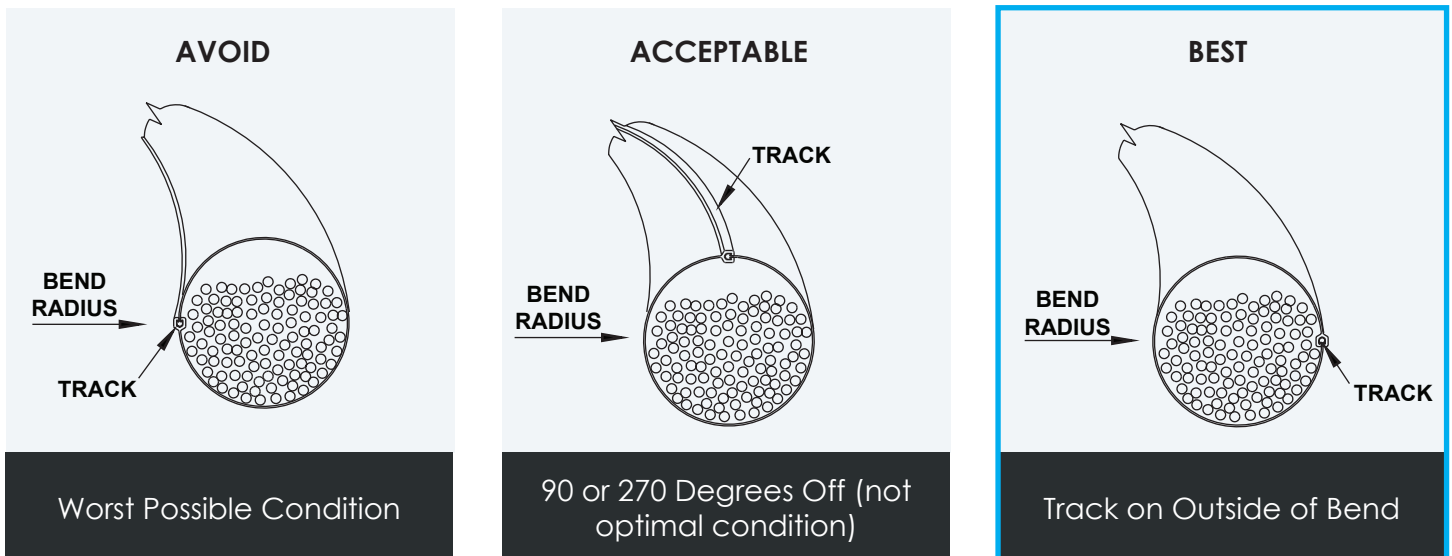
INTRODUCTION.....	3
INSTALLATION	4
RE-ENTRY PROCEDURE	8
NOTES	10

INTRODUCTION

D-Track was developed in Europe for the truck and bus industry and is a complete cable management system made from flexible PVC. This unique wrap-around jacketing system for wire and cable management has several advantages over split convoluted tubing.

The wrap-around or side entry allows for modular cable design, reducing the total installed cost. The D-Track closure method ensures that cables are not exposed to outside contaminants, also reducing total operating costs. This product is currently being used on trucks and buses manufactured by Daimler/Chrysler, DAF, Freightliner, Kenworth and PACCAR.

TRACK CLOSURE VS BEND LOCATION



Installation Notes

1. Always size the Zippertubing® jacket at least 1/8 inch larger than the maximum cable diameter. If severe cable bending is anticipated, increasing jacket diameter beyond the 1/8 inch requirement is advisable.
2. Always install Zippertubing® jackets so that the track faces the outside of the bend radius. Failure to position the jacket in this manner may result in the track "popping open" due to track distortion.
3. If the design does not call for re-opening the jacket periodically, it may be desirable to seal the track closed using ZT-Tape® (see "SEALING EXTRUDED TRACKS" on page 11).
4. The most common causes of tracks "popping open" are:
 - Improperly closed track
 - Incorrectly sized jacket, less than 1/8 inch oversize
 - Track located other than on the outside of the bend radius

INSTALLATION

SLD SLIDER

The SLD tool is an inexpensive plastic slider tool designed for closing Zippertubing® D-Track products. It is primarily intended for use in low volume production line applications or field installations. The tool engages the external ears of the D-Track extrusion and snaps the interlock together as it slides along the cable run. This tool makes closing D-Track fast and easy while minimizing operator fatigue. The tool is used after squeezing the two track halves together manually with your fingers at the jacket end. The tool is then slid along this short section of pre-closed track. As the tool is slid along the cable run, it will pre-form the jacket around the cable and form a closed continuous tube.



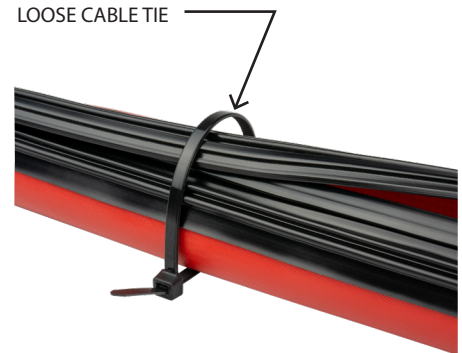
ZTD-SP PLIER

The ZTD-SP tool is a stainless steel plier tool designed for closing Zippertubing® D-Track products. The ZTD-SP tool is primarily intended for use in high volume production line installations where hundreds or thousands of feet of material require closing. It has two roller wheels which engage under the external ears of the D-Track extrusion. Squeezing the handles drives the interlock mechanism together, as the operator pulls the tool along the cable the D-Track jacket forms around the cable harness and is snapped together to form a continuous tube. This tool makes closing D-Track fast and easy while minimizing operator fatigue.



General Installation Notes

Both the SLD and ZTD-SP tools will pull the two edges of the D-Track jacket together for you; however, you will find that removing any “spool set” kinks or twists and bringing the two inter-lock edges into close proximity of one another will ease the installation process. An assistant prepping the D-Track tubing around the cable approximately 18-24 inches (0.5 meters) ahead of you will increase installation speed. If working alone, you can wrap a cable-tie loosely around the Zippertubing® jacket and cable assembly to pre-form the jacket and bring the edges of the jacket close together. Slide the tie-wrap along as you close the jacket.



The ideal installation temperature for D-Track is above 60°F (15.5°C). D-Track consists of a very thick track section tapering out to a thin film material. As a result of this mass differential, the thicker material will tend to take the shape of the spool it was packaged on. This memory phenomena is due to low temperature and can cause the material to coil and twist as it comes off a spool. If installations must be made at temperatures below 60°F (15.5°C), you will find that pre-warming the spools in an oven at 100°F (38°C) for approximately two hours will help minimize the spool set and make the material far more pliable. If you are working with shorter lengths at low temperatures, you may want to warm the material with a heat gun or hair dryer to minimize any spool set memory.

When using the SLD plastic slider tool on long assembly lengths, a great deal of friction will occur. Lubricating the tool and track surface with a few drops of isopropyl alcohol (IPA) periodically will reduce the tool friction and ease the closure process. Isopropyl alcohol (IPA) is a flammable liquid, so obtain approval from your Process Engineering Department before implementing any tool lubricant procedure.



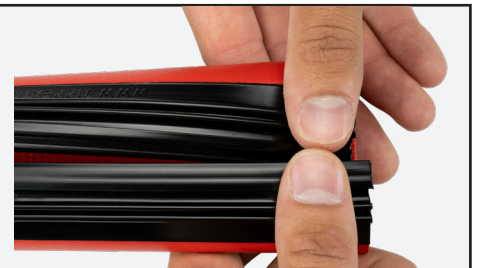
CAUTION

Do not use oils or silicone-based lubricants that will remain on the jacket/track surface since these materials may reduce the mechanical closure strength and contaminate the finished assembly.

Closing D-Track using the SLD Slider Tool

**STEP
01**

Wrap the end of the D-Track material around the cable to be covered. Use your thumb and the index finger of both hands to push the arrow into the mating channel cavity for a distance of about 1.0 inch (25mm) at the tubing end.



D-Track User Guide

STEP
02

Slide the SLD tool over the two external ridges of the pre-closed section.

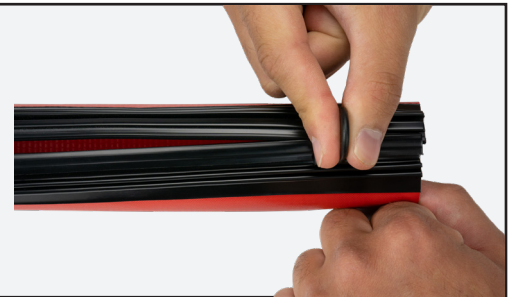


Work the SLD tool down the track about 1.0 inches (25mm).



STEP
03

Grasp the closed end of the interlock using your thumb and index finger, then begin sliding the tool along the cable length by pulling the tool along using your thumb and index finger. Once 6-8 inches (10-20 cm) of track has been closed, you can grab the entire cable/jacket assembly with your hand as you pull the tool along.



Closing D-Track using the ZTD-SP Plier Tool

STEP
01

Wrap the end of the D-Track material around the cable to be covered. Use your thumb and the index finger of both hands to push the arrow into the mating channel cavity for a distance of about 1.0 inch (25mm) at the tubing end.



STEP
02

Allow the handles of the ZTD-SP tool to open and align the two roller wheels over the two external closure ridges. Squeeze the tool handles closed to engage the roller wheels with the ridges.



STEP
03

Grasp the closed end of the D-Track interlock using your thumb and index finger, then begin pulling the ZTD-SP tool along the cable length. Once 6-8 inches (10-20 cm) of track has been closed, you can grab the entire cable assembly with your hand as you pull the tool along.



Sealing Zippertubing® Extruded Tracks

All Zippertubing® products that utilize extruded closure tracks (excluding FEP and TPU) can be permanently sealed after closure using the following method. Under normal circumstances, a properly closed Zippertubing® track does not require post closure sealing. However, in some applications where an environmental or tamper-proof seal is desired or extreme abuse is anticipated, the post sealing process can ensure that the track does not open inadvertently.

ZT-Tape®

This method involves placing a one-inch wide strip of Zippertubing's ZT-Tape® down the center of the inter-locking track split line after the track has been closed. ZT-Tape® is a UL-510 recognized, fire-retardant, polyurethane film tape with an acrylic adhesive backing. The adhesive is compatible with both PVC and PFR track materials and is easily applied. The tape sealing method provides additional closure strength, improves environmental protection and is an environmentally friendly process.



CAUTION

The ZT-Tape® is highly elastic and must be applied to the track in a relaxed condition. Stretching the tape during installation can result in disbonding of the film from the adhesive if the assembly is stored or shipped in a coiled or tightly bent condition.

RE-ENTRY PROCEDURE

Background

Zippertubing's D-Track product was designed as a heavy-duty wire harness jacket system that provides easy installation through the use of a side entry design combined with a highly flexible material and an extremely strong closure mechanism. The closure mechanism is designed to provide high closure strength (35 lbs/in typical), yielding a jacket that remains closed in service and maintains a system free from outside contamination.

Re-Entry Anticipated

On rare occasions, the users may find that they will need to re-open a D-Track tubing jacket that has been closed. If a user anticipates numerous re-entry cycles (as might occur during prototype development) then the jacket should not be fully closed until all work is complete. One or both ends should be left unzipped over the last 2.0" of the tubing to provide easy re-entry access (Figure 1). With the ends left open, the user can simply pull the track halves apart to re-open the tubing.

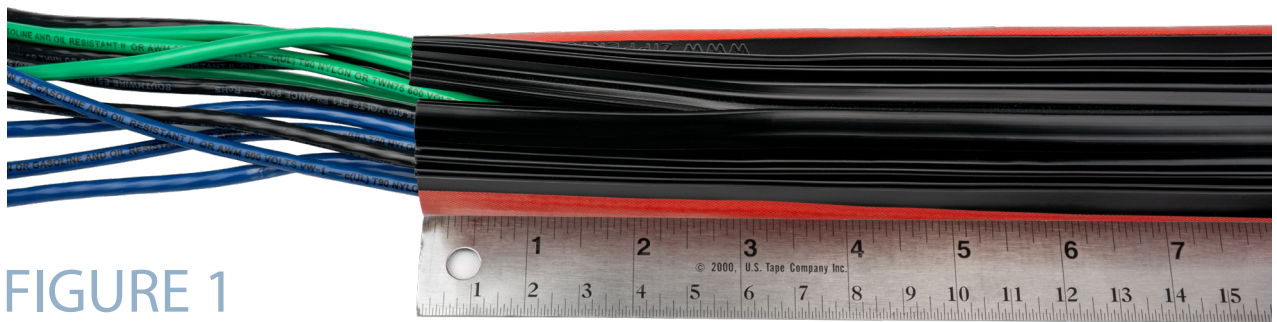


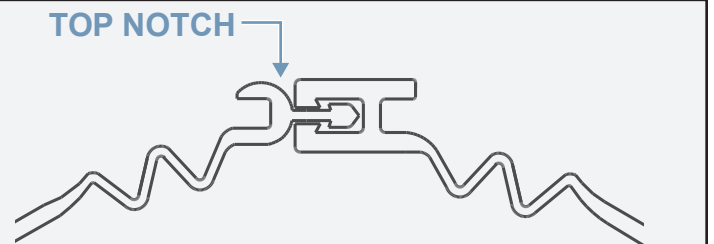
FIGURE 1

Opening a Fully Closed Jacket

If re-entry is required after the entire D-Track jacket has been fully closed, then the re-opening process should begin at the end of the tubing. Follow the steps shown next to separate the track interlock mechanism and then peel the track apart as necessary to gain access.

STEP
01

Examine the closed end of the D-Track tubing's interlock mechanism. Locate the notch between the track halves.



STEP
02

Use a 1/4 inch wide flat head screwdriver to open the interlock mechanism. Care should be taken to avoid damaging the interlock mechanism or the components contained within the tubing assembly.

Approximately 3/8 to 1/2 inch back from the end of the tubing, insert the blade of the screwdriver into the track notch. Work the blade so that the top catch is lifted off the arrowhead barb.



STEP
03

Hold the tubing assembly so it will not move. Continue holding pressure on the screwdriver so it does not slip out of the interlock mechanism. Rotate the screwdriver to the vertical position. This will push the arrowhead barb out of the locking channel side. As the barb is released from the channel, remove the inward pressure on the screwdriver so as not to force the blade into the cables or hoses contained within the tubing jacket.



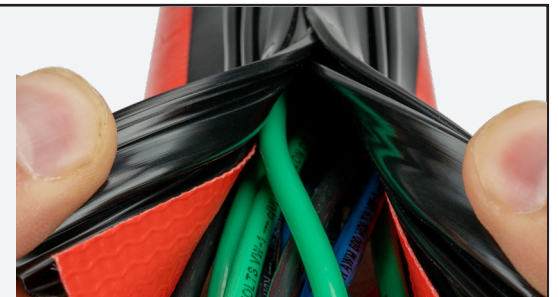
STEP
04

Once the two halves of the track are separated, remove the screwdriver, grasp the two track halves with your thumb and index fingers and pull the two halves apart approximately one inch.



STEP
05

With the track separated, reposition your thumb and index fingers to grasp a larger amount of the tubing on each side of the track. Continue to separate the tubing into a flat sheet as required.



NOTES

Area with horizontal dotted lines for taking notes.




A series of 20 horizontal dotted lines for writing.

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