LaceLok®

Instruction Manual

DANIELS MANUFACTURING CORPORATION®

www.dmctools.com

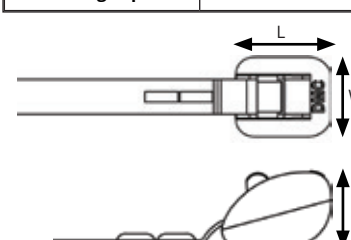
GENERAL INFORMATION

This instruction manual provides technical information for LaceLok®. LaceLok installation tools feature a durable steel cutting blade tested to withstand thousands of termination cycles. The tools apply consistent tension to tighten the lace and activates the locking pin of the buckle at 17-22lb consistently. Both application tools are lightweight, durable, and easy to operate. The original DLT-1100 is ideal for wire board assembly and confined spaces, while the DLT-1100L Extended LaceLok Tool provides improved access for on-wing applications and hard-to-reach wire bundles.

LaceLok is comprised of three components: the lacing tape, the fastener, and the thread. All components are made of materials that are resistant to chemicals and can withstand an extreme temperature range.

Operating Specifications	
Operating Temperature	-65°C to 260°C
Chemical Resistance	Hydraulic fluid, JP-8 jet fuel, lubricating oil, isopropyl alcohol
Fastener Head	Ultra high temp. thermoplastic (PEEK)
Lacing Tape	A-A-52084 Size 2, Finish C
Related Specs	AS50881H*, IPC/ WHMA-A-620 Rev. F, MIL-DTL-32554, MIL-DTL-32555, NAVAIR 01-1A-505-1, TO 1-1A-14, TM 1-1500-323-24-1, MIL-HDBK-522

Tool & Lace Dimensions (L x W x H)	
DLT-1100	7.59” x 1.29” x 5.67”
DLT-1100L	10.59” x 1.29” x 5.67”
Lacing Tape	.25” x .23” x .18”



*LaceLok (CLF) is approved for use as a secondary wiring support device for aerospace vehicles under **AS50881H.**

© Daniels Manufacturing Corporation 2026

INSTALLATION INSTRUCTIONS

1. Wrap LaceLok around the wire bundle one to three times (Fig. 1).
2. Feed the end of lace through the fastener and under the locking pin once. Cinch tightly (Fig. 2).

Fig. 1

Fig. 2

3. Loop the end of lace over the locking pin and back through the fastener. Cinch tightly (Fig. 3).
4. Side-load the lace into the capstan (Fig. 4).

Fig. 3

Fig. 4

5. While maintaining tension on the lace, position the fastener in the nose of the tool (Fig. 5).
6. Ensuring the fastener is properly nested, squeeze tool trigger two to three times to tighten, lock, and cut the excess lace.
7. The operator will hear and see the activated fastener (Fig. 6).

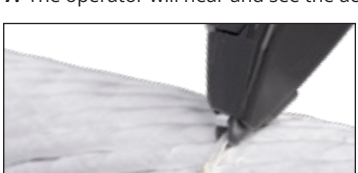


Fig. 5

Fig. 6

SCAN FOR A VIDEO TUTORIAL

qrco.de/lacelok_video

© Daniels Manufacturing Corporation 2026

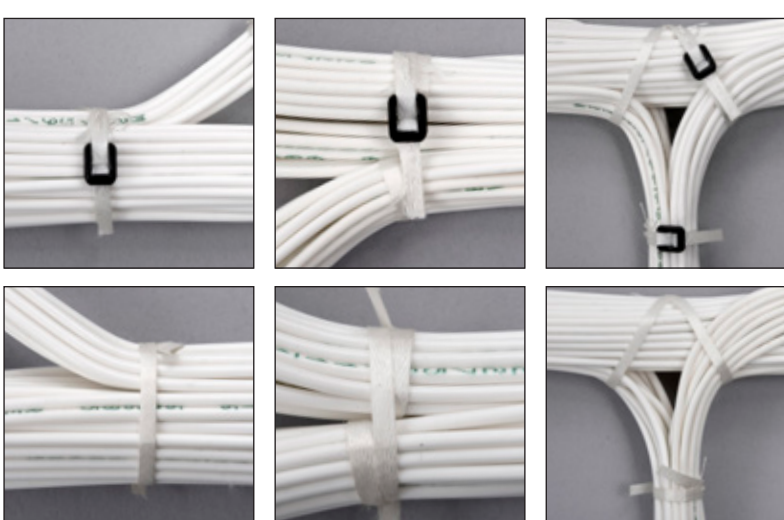
INSTALLATION PRACTICES

LaceLok is exceptionally strong with a single wrap. Additional strength can be achieved by simply applying a second or third wrap around the wire harness prior to activation. Multiple wrap installations should be used where increased tensile strength or additional resistance to radial motion is needed. Double and triple wrap configurations are ideal for pressure sensitive components such as coaxial and fiber optic cables.

Number of Wraps	Application	Minimum Tensile Strength
Single	1/4" to 1" (.6 cm to 2.5 cm) diameter cable bundles	55 lbs. (240 N)
Double	<1/4" and 1" to 3" (< .6 cm and 2.5 cm to 7.5 cm) diameter cable bundles	110 lbs. (490 N)
Triple	>3" (> 7.5 cm) diameter cable bundles or Exposure to JP-8 jet fuel	165 lbs. (730 N)

BREAKOUT EXAMPLES

LaceLok can be used to create breakouts in a similar application method as plastic cable ties or hand-tied lace by replacing the traditional hand-tied lace knot with the LaceLok fastener. Examples of breakouts include, but are not limited to the following examples. It is up to the responsible engineering authority to determine the applicable method and application of LaceLok.

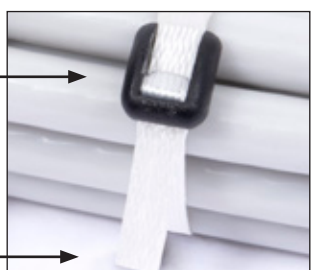


© Daniels Manufacturing Corporation 2026

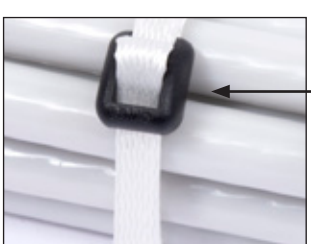
INSPECTION AND MAINTENANCE

A proper installation of LaceLok is shown in Fig. 7 and an improper installation is shown in Fig. 8. To confirm that LaceLok has been installed correctly ensure the following:

1. The LaceLok locking pin is activated.
2. The locking pin is angled away from the cut end of the lace.
3. LaceLok is adequately tight around bundle.
4. The lacing tape is not twisted in the fastener or around the bundle.
5. The lacing tape is cut cleanly.
6. The cut end of the lacing tape measures greater than two lacing tape widths (.25") and less than six (.75").



Activated
Fig. 7



Not Activated
Fig. 8

CUTTING BLADE AND NOSE REPLACEMENT

1. Unscrew the cutting blade cover screw (1-1025).
2. Remove the cutting blade cover (DLT-1100-33).
3. Carefully remove the used yellow cutting blade (DLT-1100-SA5, M32555/01-02).
4. Replace the cutting blade with a new cutting blade.
5. Reinstall cutting blade cover, or replace as necessary.
6. Tighten the cutting blade cover screw fully (approximately 8in-lb).

⚠ Do not overtighten the cover screw. ⚠ Cutting blade is sharp & could cause injury

© Daniels Manufacturing Corporation 2026

BEST PRACTICES

1. LaceLok is used to support wire bundles, not gather the bundle. Before installing LaceLok, it may be helpful to bundle the wire with a clamp or other bundling device. If a clamp is not available, operators may hold the bundle together with their non-dominant hand (Fig 9).
2. To ensure the bundle is secured properly, it is important that the lacing tape is not twisted during installation (Fig. 10).
3. Remember the lace is not fed through the nose of the tool, but rather side-loaded through the capstan.
4. To achieve the best termination, remember to align the tool to the fastener so that it is nested in the nose of the tool. Do not position the tool in front, to the side, or perpendicular to the fastener. Failure to correctly align the tool can result in a faulty installation.
5. When performing a multiple wrap installation, be sure to wrap the lace around the bundle multiple times, but only through the fastener once on the final pass around the bundle. Do not thread the lace through the fastener multiple times (Fig. 11).
6. A lockstitch method can be used for larger bundles, bundles of multi-conductor cables, or bundles where additional resistance to lateral movement is needed. A lockstitch is completed by looping the lace around one component and then completing the wraps and termination as normal (Fig. 12).

Fig. 9

Fig. 10

Fig. 11

Fig. 12

© Daniels Manufacturing Corporation 2026

ASSOCIATED PRODUCTS

DMC PART NUMBERING SYSTEM

LF2-XX CCC

LENGTH

06 = 6" (15 cm)
10 = 10" (25 cm)
18 = 18" (45 cm)
24 = 24" (61 cm)

COLOR

NA1 = Natural (White)
NA2 = Natural w/Dark Tracer
BLK = Black
BLU = Blue
BRN = Brown
GRY = Gray
GRN = Green
ORN = Orange
PNK = Pink
RED = Red
VIO = Violet

MILITARY PART NUMBERING SYSTEM

M32554-XX-1-XXX

LENGTH

06 = 6" (15 cm)
10 = 10" (25 cm)
18 = 18" (45 cm)
24 = 24" (61 cm)

COLOR

NA1 = Natural (White)
NA2 = Natural w/Dark Tracer
BLK = Black
BLU = Blue
BRN = Brown
GRY = Gray
GRN = Green
ORN = Orange
PNK = Pink
RED = Red
VIO = Violet

Color	Lace Length	DMC Part #	Military Part #	NSN
NA1 (White)	6"	LF2-06NA1	M32554-06-1-NA1	5975-01-718-7002
	10"	LF2-10NA1	M32554-10-1-NA1	5975-01-718-6969
	18"	LF2-18NA1	M32554-18-1-NA1	5975-01-718-8486
	24"	LF2-24NA1	M32554-24-1-NA1	5975-01-718-6985
NA2 (White w/ Dark Tracer)	6"	LF2-06NA2	M32554-06-1-NA2	NSN Pending
	10"	LF2-10NA2	M32554-10-1-NA2	NSN Pending
	18"	LF2-18NA2	M32554-18-1-NA2	NSN Pending
	24"	LF2-24NA2	M32554-24-1-NA2	NSN Pending
Black	6"	LF2-06BLK	M32554-06-1-BLK	5975-01-718-6919
	10"	LF2-10BLK	M32554-10-1-BLK	5975-01-718-6973
	18"	LF2-18BLK	M32554-18-1-BLK	5975-01-718-6977
	24"	LF2-24BLK	M32554-24-1-BLK	5975-01-718-6996

© Daniels Manufacturing Corporation 2026

ASSOCIATED PRODUCTS

LaceLok is sold in packages of 100. It is available in various colors including blue, brown, gray, green, orange, pink, red, and violet. An outgassed version of LaceLok is also available. Order using the DMC part # on page 6, preceded with "S." Outgassed LaceLok is approved for commercial use and meets the requirements for ASTM E595-15(2021) and NASA Technical Standard MSFC-SPEC-1443.

Tool and Tool Kits	Lace Length	DMC Part #	Military Part #	NSN
LaceLok Installation Tool	N/A	DLT-1100	M32555/01-01	5120-01-720-6605
Starter Kit: LaceLok Installation Tool, Cutting Blade, Guarded Cutter, 100 Quantity of White LaceLok	6"	DMC2300-06NA1	N/A	NSN Pending
	10"	DMC2300-10NA1		5120-01-733-2604
	18"	DMC2300-18NA1		NSN Pending
	24"	DMC2300-24NA1		NSN Pending
Extended LaceLok Tool	N/A	DLT-1100L	M32555/01-03	NSN Pending
Guarded Cutter	N/A	MG-1300	N/A	N/A

Additional kits are available with various lengths and colors of LaceLok including blue, brown, gray, green, orange, pink, red, and violet. Consult the factory for additional part numbers.

SHOP ALL LACELOK
qrco.de/cable-ferrules

© Daniels Manufacturing Corporation 2026

TOOL CARE

The installation tool was designed to require no calibration and minimal maintenance. Users should keep the tool clean and free of debris. Users can change the blade as needed. For all other repair work, users must return to the tool to DMC or to a DMC authorized repair center.

DO NOT immerse tools in cleaning solution

DO NOT disassemble housing halves or injury may occur due to spring-loaded components. The warranty will be voided if the housing is disassembled.

Only use tools for their intended purposes

CALIBRATION & REPAIR

DMC offers comprehensive calibration and repair services. Our technicians will inspect the tool, replace worn components, and ensure it meets factory specifications.

To begin the calibration or repair process, scan the QR code. U.S. Customers will be directed to the appropriate forms to initiate service through DMC. Customers outside of the U.S. may contact authorized repair centers near them.

qrco.de/Calibrate

SAFETY

Safety is essential in the use and maintenance of DMC tools and equipment. This manual and any markings on the tool provide information for avoiding hazards and unsafe practices related to the use of these tools. Observe all of the safety information provided below:

Inspect tool before use. If any parts are worn or damaged, send the tool for repair.

The cutting blade is sharp and could cause injury.

Limitation of Liability

DANIELS MANUFACTURING CORPORATION (DMC) IS NOT LIABLE FOR CONSEQUENTIAL OR SPECIAL DAMAGES OF ANY NATURE OR KIND RESULTING FROM THE USE, MISUSE, OF ANY OF ITS PRODUCTS. OWNERS AND USERS OF DMC PRODUCTS ASSUME FULL RESPONSIBILITY FOR INSTRUCTING THEIR EMPLOYEES IN THE PROPER AND SAFE USE OF SUCH PRODUCTS.

Limited Warranty

Daniels Manufacturing Corporation (DMC) warrants each new product sold by it to be free from defects in material and workmanship under normal use and service. DMC's obligation under this warranty is limited to the free correction or, at DMC's option, the refund of the purchase price of any such product which proves defective in normal service within ninety (90) days after delivery to the first user, provided that the product is returned to DMC with all transportation charges prepaid and which shall appear to DMC's satisfaction, after DMC's inspection, to have been defective in material or workmanship, it being understood that DMC products are not consumer products. This warranty shall not cover any damage to any products which, in the opinion of DMC, was caused by normal wear, misuse, improper operation, tampering, neglect or accident. This warranty is in lieu of all other warranties express or implied. No warranty, express or implied, is made or authorized to be made or assumed with respect to products of DMC other than those herein set forth.

© Daniels Manufacturing Corporation 2026

Daniels Manufacturing Corporation
526 Thorpe Road, Orlando, Florida 32824 USA
407-855-6161 dmc@dmctools.com
www.dmctools.com

Rev. A