

PHILIPS

Lead Locking Device

LLD



Stable, flexible, and visible
lead removal

See how easy lead management can be

LLD E and LLD EZ combine the best of the original LLD family and enhanced tip design with new ease-of-use features to provide a flexible traction solution for leads targeted for removal today.

Sizing

LLD E and LLD EZ accommodate a wide range of leads with inner lumen diameters from 0.015" (0.38mm) to 0.023" (0.58mm).



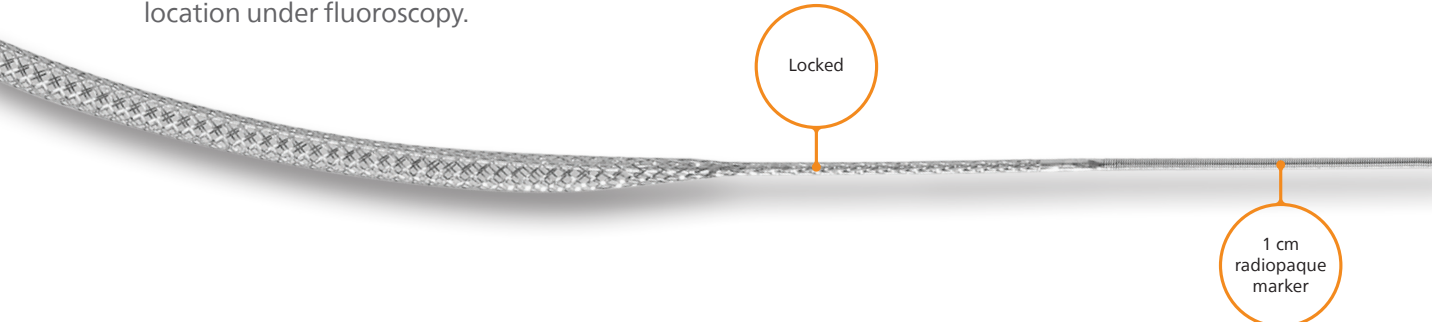
Tracking

Flexible platinum iridium tip design and sleek profile facilitate tracking and passage through tightly curved leads and past



Visibility

Permits Longer and highly visible radiopaque marker assists identification of both the LLD EZ and LLD E tip location under fluoroscopy.



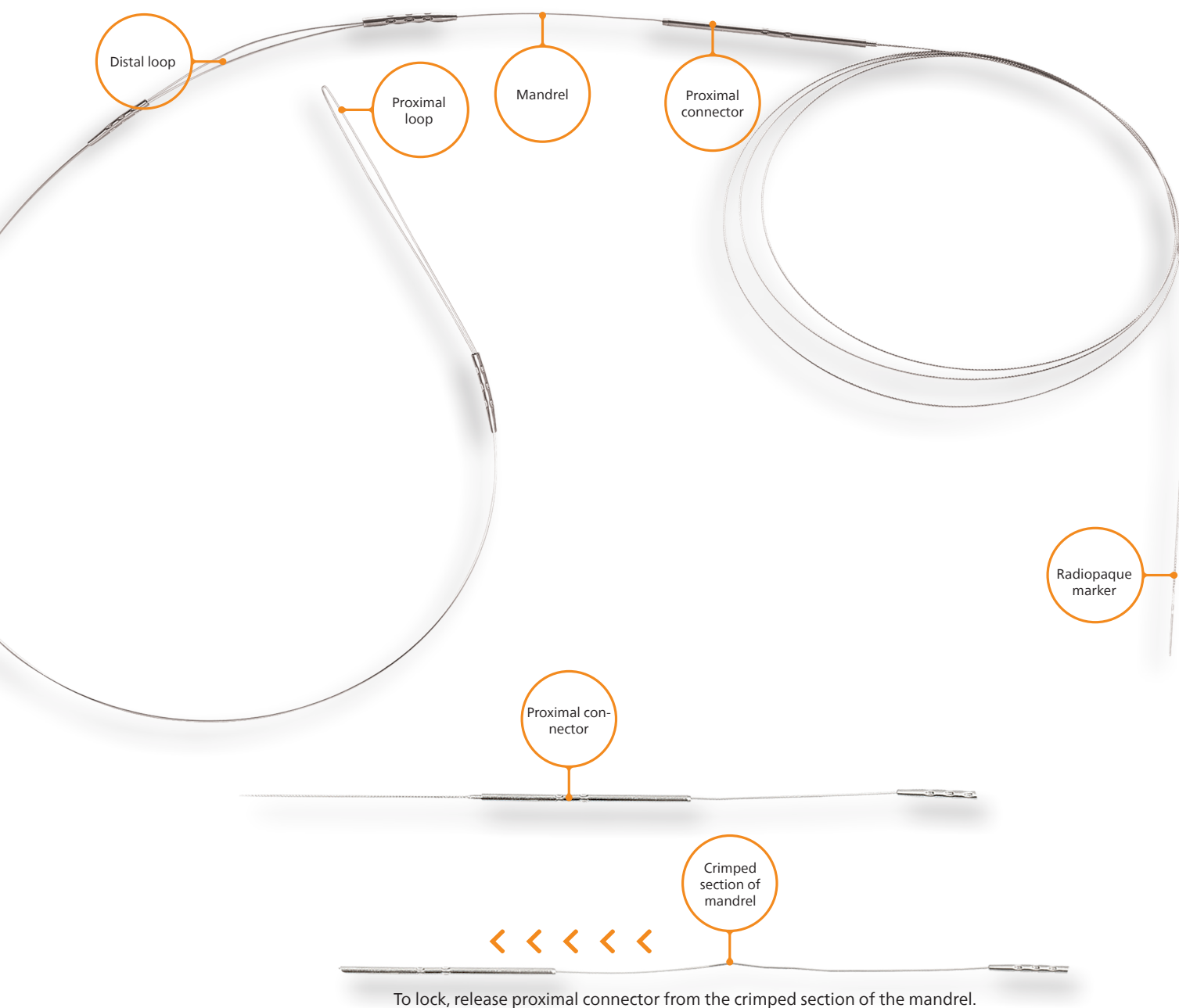
LLD E Treatment versatility for longer leads

The Enhanced Lead-Locking Device (LLD E) uniquely addresses certain lead removal and lead traction challenges.

Enhanced versatility

- 31% longer working length (85 cm) is more compatible with longer leads.
- 12% smaller unlocked diameter compared to LLD #2

LLD EZ design and operation



LLD Stable and secure traction

Only the Philips LLD design provides a stable traction platform by locking along the entire contacted lead lumen.

Stable Locking

- 100% lock success in leads with undamaged lumens (95 of 99 leads had undamaged lumens)*
- Proven ability to unlock and reposition after initial deployment*.

*Kennergren, C., et al. Cardiac Lead Extraction with a Novel Locking Stylet. Journal of Interventional Cardiac Electrophysiology 4 591-593 (2000).

LLD Lead-locking device

LLD specifications and comparisons

Feature	LLD E	LLD EZ	LLD #1	LLD #2	LLD #3	Cook Liberator®3
	Philips offers multiple options for optimum traction in different lead sizes					One option
Locks along entire lead lumen	•	•	•	•	•	No
Control for proximal end	Suture recommended	Suture recommended	Suture recommended	Suture recommended	Suture recommended	Compression coil required to increase lead control¹
Proven ability to unlock and reposition⁴	•	•	•	•	•	No
Average tensile strength²	19 lbs	19 lbs	12 lbs	24 lbs	45 lbs	Not in IFU
Loop handles	Low profile handle	Low profile handle	Standard handle	Standard handle	Standard handle	Standard handle
Locking range (diameter)	0.015"/0.38 mm to 0.023"/0.58 mm	0.015"/0.38 mm to 0.023"/0.58 mm	0.013"/0.33 mm to 0.016"/0.41 mm	0.017"/0.43 mm to 0.026"/0.66 mm	0.027"/0.69 mm to 0.032"/0.81 mm	0.016"/0.41 mm to 0.032"/0.81 mm
Working length	85 cm	65 cm	65 cm	65 cm	65 cm	70 cm
Clearing stylet included	0.012"/0.30 mm diameter	0.012"/0.30 mm diameter	0.012"/0.30 mm diameter	0.015"/0.38 mm diameter	0.015"/0.38 mm diameter	Not in IFU
Radiopaque marker	•	•	•	•	•	Not in IFU
Accessory kit⁵	•	•	•	•	•	No
Lead cutter⁵	•	•	•	•	•	•

Model # 3 pack	518-039	518-062	518-018	518-019	518-020
Model # single pack	N/A	518-067	518-021	518-022	518-023

Important safety information

Indications

The Philips Lead Locking Device, LLD, is intended for use in patients suitable for transvenous removal of chronically implanted pacing or defibrillator leads having an inner lumen and using a superior venous approach.

Contraindications

Use of the LLD is contraindicated:

- When emergency thoracotomy with cardiopulmonary bypass cannot be performed immediately in the event of a life-threatening complication.
- When fluoroscopy is not available.
- In patients in whom superior venous approach cannot be used.
- When the proximal end of the pacing lead is not accessible to the operator.
- When the LLD will not fit into the inner lumen of the device to be extracted.

Precautions

For single use only. Do not resterilize and/or reuse. The LLD is intended to be used in one lead. Do not use the LLD: if the tamper-evident seal is broken; if the LLD has been damaged. When the LLD is in the body, it should be manipulated only under fluoroscopic observation. Due to rapidly evolving lead technology, this device may not be suitable for the removal of all types of leads. If there are questions or concerns regarding compatibility of this device with particular leads, contact the lead manufacturer. If selectively removing leads with the intent to leave one or more chronically implanted leads intact, these nontargeted leads must be subsequently tested to ensure that they were not damaged or dislodged during the extraction process.

References

1. Starck C. T. et al. EP Europace (2015) 17, 499–503 doi:10.1093/europace/euu272
2. Minimum specification for LLD E, LLD EZ, LLD #2, and LLD #3 is 10 lbs; minimum for LLD #1 is 7 lbs.
3. Liberator is a registered trademark of Cook Medical. Cook Products for Lead Extraction brochure accessed 25-10-2021, from <http://www.cookmedical.com/lm/content/mmedia/LM-DM-EVOLCAT-EN-201003.pdf> and Liberator Instructions for Use on file
4. Kennergren, C., et al. Cardiac Lead Extraction with a Novel Locking Stylet. Journal of Interventional Cardiac Electrophysiology 4 591-593 (2000). Ability to reposition may be reduced if excessive force is applied.
5. Sold separately. Philips accessory kit model # 518-027 and Philips lead cutter model # 518-024.

Always read the label and follow the directions for use.
Products subject to country availability. Please contact your local sales representative.

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