Easy-Off® Lock Instructions

Easy-Off® Lock CD117 | Easy-Off® Deep Lock CD117D

Fabrication Instructions

Patent No. 6334876.
Other patents pending. Made in U.S.A.
External Prosthetic Components

CE EC REP

MD

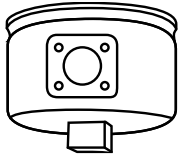
Advena Limited
Tower Business Centre
2nd Flr, Tower Street
Swatar, BKR 4013
Malta

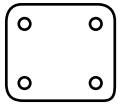
Weight limit: 265 lbs.

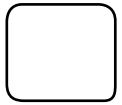
2-year warranty against manufacturer defects, excessive wear or breakage.

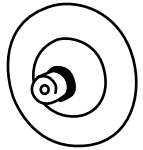
CD117.revF.11292023

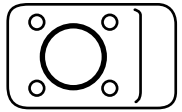
Parts Included (pins sold separately)


Housing

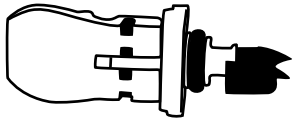

4-hole plug

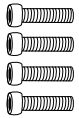

Foam rectangle

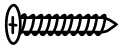

Anchor

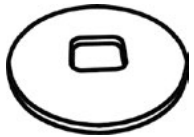

Lamination dummy


Extra spring (1)


Lock Plate


Screws (4)


Removable screw


Spacers Disk (3)

Provided with deep locks only

Manufactured by Coyote®
419 N. Curtis Rd., Boise, Idaho 83706
(208) 429-0026 | www.coyote.us

EN | Instructions for Use
DE | Gebrauchsanweisung
FR | Notice d'utilisation
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NO | Bruksanvisning
DA | Brugsanvisning
SV | Bruksanvisning
EL | Οδηγίες Χρήσης
FI | Käyttöohjeet
NL | Gebruiksaanwijzing
PT | Instruções de Utilização
PL | Instrukcja użytkowania
CS | Návod k použití
TR | Kullanım Talimatları
RU | Инструкция по использованию
JA | 取扱説明書
ZH | 中文说明书
KO | 사용 설명서

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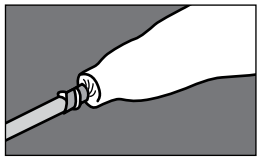
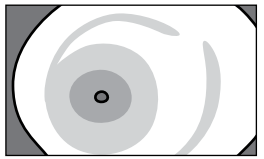
Installing Lock on Mold

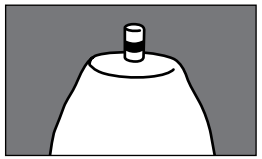
If using casting handle, begin with Step 1.



1 Cast limb with casting handle in place to create shape of lock in mold.



2 Insert anchor in cast handle of mold. Fill mold.

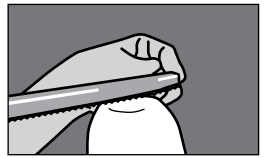


3 Mold and anchor are now ready for fabrication.

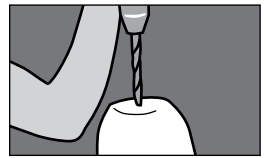
4 Remove internal components from lock with a 2mm allen wrench. Be careful not to lose springs during removal.
Casting Handle users skip to step 12.

If NOT using casting handle, skip to Step 4.

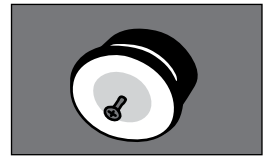
5 Place lock on mold. Trace lock.



6 Flatten mold to fit to lock. Do not flatten beyond tracing of lock.



7 Drill 1/2" wide hole. Angle hole to help anchor adhesive.

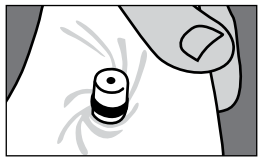


8 Place anchor in lock.

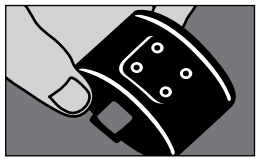
Test Socket Fabrication

9 Fill hole with Coyote Quick Adhesive or fast-setting epoxy.

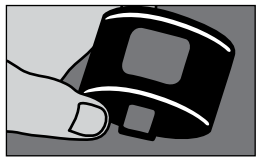
10 Place anchor and lock on mold. When glue sets, remove lock.



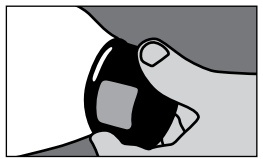
11 Apply nylon over mold. Reflect and twist nylon around tie-off ring of the anchor.



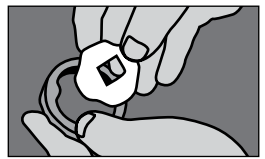
12 Install 4-hole fab plug. Snug tighten screws only DO NOT over-torque.



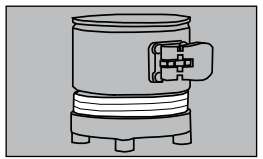
13 Place rectangle foam on fab plug.



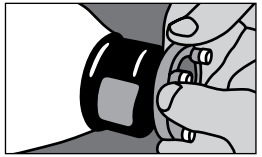
14 Place lock on mold. Mark desired location of release lever.



15 Install insert of choice in Coyote alignable connector.



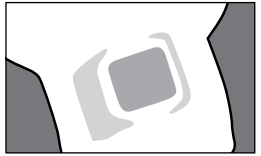
16 If using the Deep Lock add the three Spacer Disks to the lock before adding the connector.



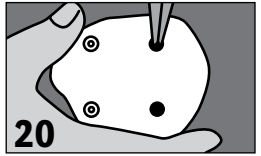
17 Place adhesive foam on connector posts. Place connector offset or centered.

18 **Blister forming**: use a piece of flat plastic to compress distal end to reduce grinding at finishing.

Drape forming: push in excess plastic on distal end for extra strength and to reduce grinding at finishing.



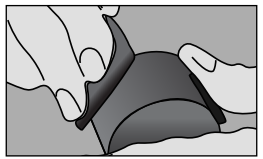
19 Expose foam rectangle and remove it.

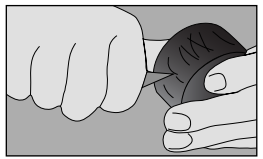


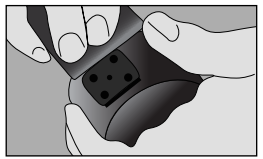
Expose yellow foam, using care not to hit posts. Remove socket with socket extractor or traditional methods.

Transferring Alignment

IF YOUR USING ELEVATED VACUUM: Before laminating ruff up the body of the lock as coarse as you can get it. Sand the lock with an aggressive sandpaper. Get as close as you can around the area with the 4 Hole Plug. A utility knife can also be used to score deeper groves.





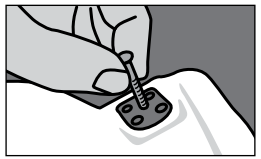


www.coyote.us/videos

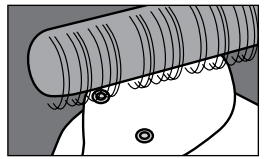
NOTES FOR TRANSFERRING ALIGNMENT: We recommend using a new lock/lock housing in the definitive socket. The lock in the test socket can be removed when time permits and reused in another test socket. This also allows you to duplicate the alignment established in the test socket in the definitive.

If using transfer fixture, place anchor inside lock prior to filling in alignment. Remove as normal and proceed from step 23.

NOTES FOR FLEXIBLE INNER SOCKET: If you are using a flexible inner socket, visit our video gallery at www.coyote.us/videos for tutorials and instructions.

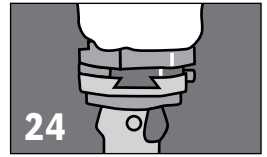


21 Remove 4-hole plug with screw, smooth and polish area.

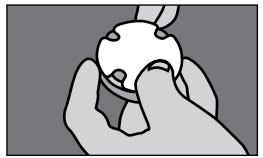


22 Flatten distal end and polish.

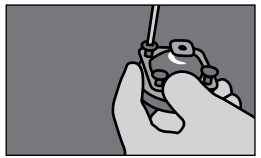
23 Use 6x18mm screws provided and Loctite® Blue 242 when attaching pyramid. Torque provided connector screws to 10 Nm. (See Caution #2 and #4)



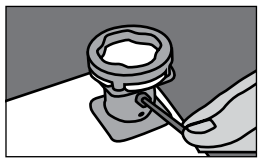
Use Coyote alignment coupler CD106 for alignment during fitting.



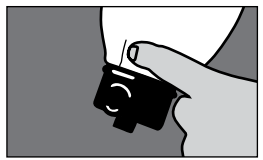
25 Lube and install glue plate on Alignable Connector.



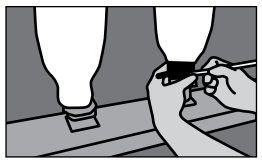
26 Attach a pyramid to Alignable Connector.



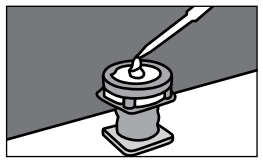
27 Install pyramid on adapter.



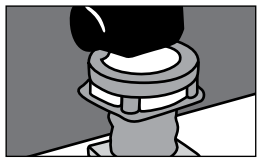
28 Install lock on mold in desired location, mark release lever location.



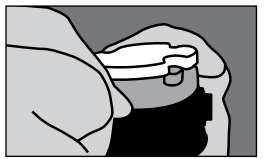
29 Rest mold and lock on Alignable Connector. Place test socket next to mold and compare alignments. Measure to compare accurately.



30 Separate lock from connector. Fill connector with Coyote Quick Glue or fast-setting epoxy.

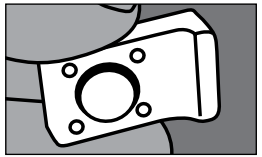


31 Place mold and lock back into connector in desired location. Let set. *If using the Deep locks add the three Spacer Disks to the lock before adding the connector.*

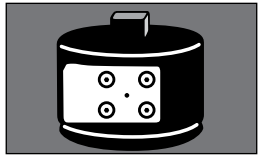


32 Remove pyramid from tube clamp then remove pyramid and glue plate.

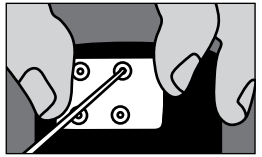
Preparation for Lamination



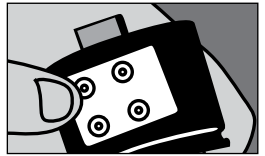
33 Make sure O-ring is in place on lamination dummy insert.



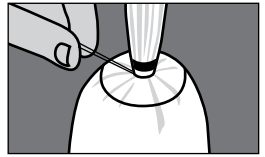
34 Install lamination dummy and orient in the desired direction of lever.



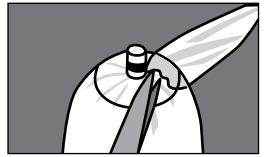
35 Tighten screws. Do not over-torque.



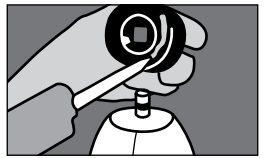
36 Lubricate screw heads with petroleum jelly or clean clay.



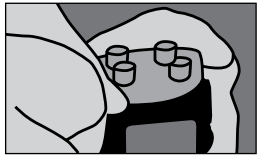
37 Pull inner PVA bag over model. Heat bag to form to distal end. Tie PVA bag to anchor tie-off ring.



38 Trim excess PVA between tie-off ring and O-rings. Keep O-rings clear.



39 Run bead of Coyote Quick Adhesive or 5-minute epoxy around inner funnel of lock.

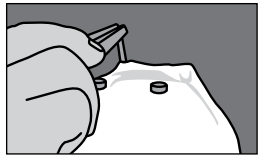


40 Place lock on anchor and ensure release lever is in desired location. Smooth out excess adhesive with finger.

Lay-up

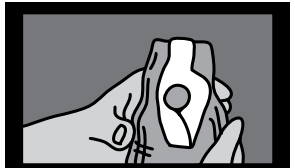
41 Reflect nylon stockinette or other material over connector, lock and mold.

42 Twist and reflect material to leave a small open circle in center of connector.

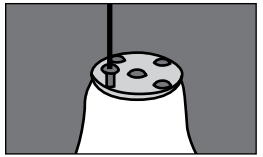


43 Ensure holes of connector are exposed. A hot nail or awl can be used.

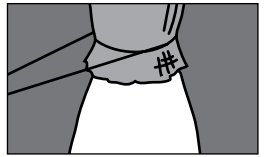
44 Pull first composite layer over mold. Cut top edges to fold around posts.



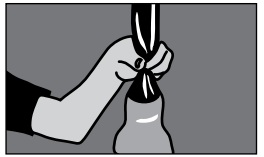
45 **Reinforce** with carbon tape between posts. Avoid extra material around fabrication plug for easier removal.



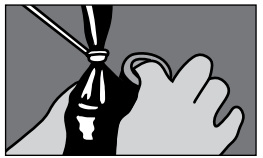
46 Lubricate screws and install five hole plate. (See Caution #4)



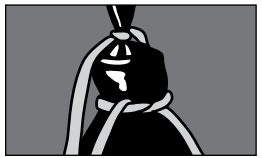
47 Tie second layer of composite under 5-hole plate, and reflect down over mold.



48 Pull bag and laminate. Initially restrict flow to force lamination through center hole on plate to force out air pockets.



49 Toward end of lamination, place tape over 5-hole plate to squeeze excess resin out of lamination.

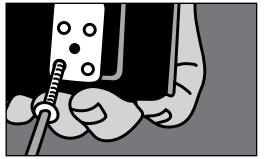


50 String can be tied between fabrication plug and top of lock to ensure seal (see Caution #6).

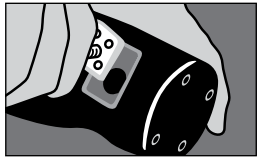
Finish

51 Expose edge and remove excess lamination.

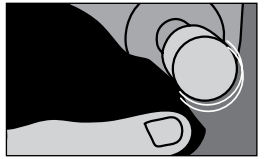
52 Remove 5-hole plate.



53 Expose lamination dummy and remove screws.



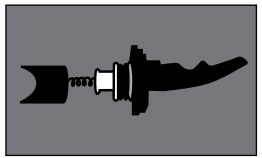
54 Extract lamination dummy with removal screw.

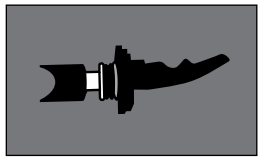


55 Smooth out edges and bottom of socket.

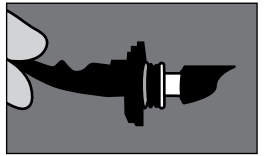
Typical Coyote® components use 6x18mm screws provided and Loctite® Blue 242 when attaching pyramid. Torque provided connector screws to 10 Nm. (See Caution #2)

Installing Lever Assembly

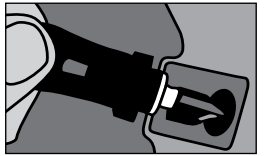




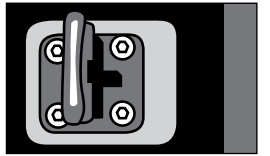
56 Make sure that lock is placed properly, as it may have dislodged during shipping. At right, a properly assembled lever.



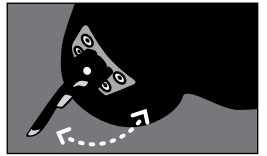
57 Line up lever assembly in groove and insert assembly.



58 Line up long side of rectangle with anterior posterior aspect of the socket.



59 Install 4 screws. DO NOT over-torque.

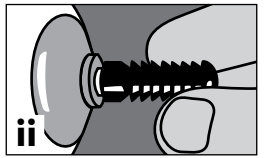


60 Lever is shown open (UNLOCKED). When lever is flush, lock is engaged (CLOSED).

Two Part Pin install and proper seating Instructions

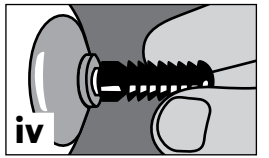
Poor lock pin spacing leads to premature wear. There should be no play between the lock and liner when fully engaged. You may need to add spacers to the pin to ensure this. Check for proper amount of play before putting lock into socket.

Install pin on liner. Engage lock to check for play between lock and liner.

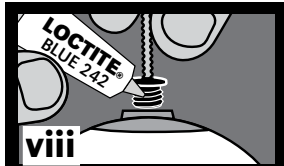


If there is play, loosen pin away from adaptor screw and liner.

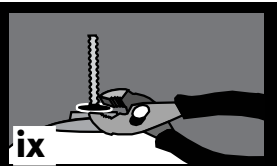
Reengage lock to check for play. Repeat until lock seats completely. Remove lock.



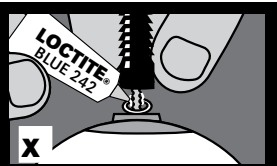
If there is a gap between pin and liner.



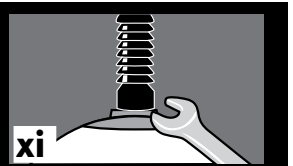
Apply Loctite® Blue 242 to threads of lock pin on adaptor screw 10 mm threads. Screw into liner finger tight.



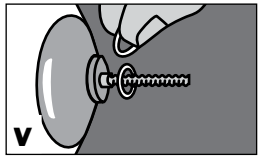
After hand tightening, tighten the brass adaptor screw base against the liner a 1/4 turn more with a wrench or pliers.



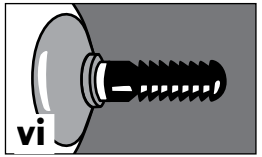
Place needed number of pin spacers on adaptor screw. Apply Loctite® Blue 242 to threads of lock pin adaptor screw. Screw the 8 click pin finger tight.



Now tighten pin assembly with 7/16", 11 mm wrench or vice grips to insure complete thread engagement of brass into liner and pin into brass.
(See Caution #4, #5, #12)



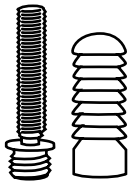
Based on the gap size created by loosening pin, install appropriate number of pin spacers on the adaptor (see Caution #5).



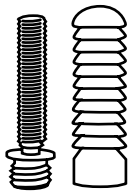
Replace pin on adaptor, making sure base fits snugly on pin spacers.

After installing pin spacers, re-engage lock to be sure there is no play.

Pins - (in 2 pack - sold separately from lock)



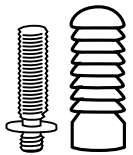
CD103P8
8-Click Pin
1.3" long, includes 3 pin spacers.
10mm thread



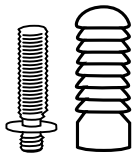
CD103P11
11-Click
Long Pin
1.65" long, includes 3 pin spacers.
10mm thread

CD103P8H
8-Click Brass Pin
1.3" long, includes 3 pin spacers.
10mm thread

CD103P11H
11-Click Brass
Long Pin
1.65" long, includes 3 pin spacers.
10mm thread



CD103PQ
8-Click Pin
1.3" long, includes 3 pin spacers.
¼ x20 thread

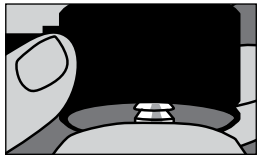


CD103PX
8-Click Pin
1.3" long, includes 3 pin spacers.
6mm thread

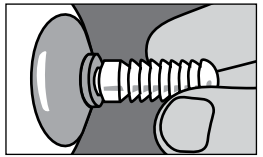
Solid Pin install and proper seating Instructions

See instruction video called "CD103P8H Installing Brass Pin" at www.coyote.us/airlock

Poor lock pin spacing leads to premature wear. There should be no play between the lock and liner when fully engaged. You may need to add spacers to the pin to ensure this. Check for proper amount of play before putting lock into socket.

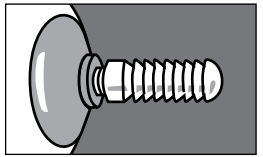


H1 Install pin on liner. Engage lock to check for play between lock and liner.

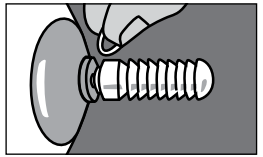


H2 If there is play, loosen pin away from adaptor screw and liner.

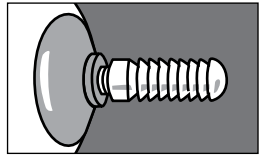
H3 Reengage lock to check for play. Repeat until lock seats completely. Remove lock.



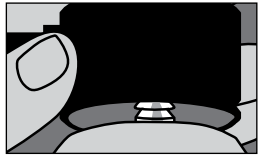
H4 If a Gap is created between the pin and liner.



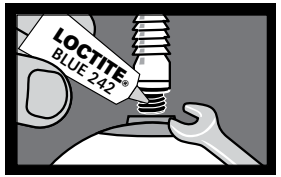
H5 Based on the size of the gap created by loosening pin, install appropriate number of pin spacers on threaded end (see Caution #5).



H6 Replace pin on adaptor, making sure base fits snugly on pin spacers.

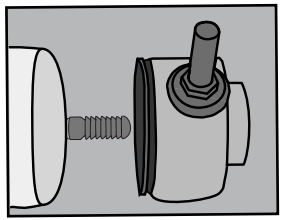


H7 After installing pin spacers, re-engage lock to be sure there is no play.



H8 Apply Loctite® Blue 242 to threads of lock pin. Pin may need to be tightened with a 7/16" or 11 mm wrench. (See Caution #5)

Fitting Lock - CD103FL



Order a fitting lock from Coyote to help with pin spacer adjustment. The reinforce distal end of the fitting lock helps give a more accurate reading on how many pin spacers to use.

Easy-Off Lock with P8 Pin

Liner	Size	Spacers used	No. of clicks
Alpha Original	M	1	5
Alpha Select	M	0	5
Ossur	26.5	1	6
Alps	26	1	5

(Chart is a guideline, NOT a guarantee of seating. Verify seating.)

Documenting Suction

We view suction not as a component or a code, but as a function. Pistoning and milking can be reduced by maintaining a suction socket when using this lock.

- The suction feature of the lock can be demonstrated and documented very simply.
- Have the amputee step into the lock and seat completely.
- Lever assembly WITHOUT o-rings will be needed. This allows airflow while the patient is locked in, and can then be compared to a lever assembly WITH o-rings.
- Walk the patient normally.
- Amputee may experience a difference in how the socket feels immediately, after some ambulation, or after reinstalling the o-rings. Patient feedback should be documented.

Call for more information on coding of the Easy-Off Lock: (208) 429-0026.

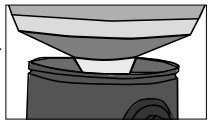
* It is the practitioner's responsibility to demonstrate, document, and select appropriate codes for insurance billing.

Important Clinical Instructions **READ FIRST**

1. Note number of clicks for engagement. There should be at least 2 - 3 clicks engagement prior to any ambulation with more clicks after a few steps. 7 - 8 clicks (depending on liner) are required for full/proper seating and engagement. If you are not getting 7 - 8 clicks within a couple hours of wearing, an adjustment to the socket may be needed to allow for better seating.

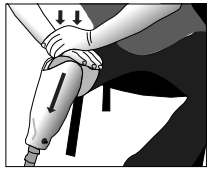
   If a long pin is needed, call Coyote® for a conversion kit to extend the depth of the lock allowing for use with a longer pin, or for a deeper lock option. A Long pin will bottom out in a standard lock creating a gap. The Coyote® Deep EasyOff Lock uses a long pin (CD103P11 or CD103P11H)

   Visit www.coyote.us or call (208) 429-0026

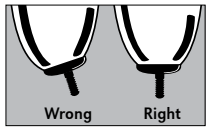


2. Preforming a CPR motion on the knee can help the initial pin engage with the lock plate.
3. Lock pins should seat into the lock completely with zero play. If the pin wiggles up and down while fully engaged it is necessary to adjust the pin with pin spacers. Do not exceed 3 pin spacers.

   A fitting lock or Easy-Off Lock can be used to determine the correct spacing. Fitting locks are available from Coyote®.



4. Clicks should be one at a time, not all at once.
5. Typical Coyote® components use 6x18mm screws. In atypical setups, longer screws may be needed. Always use screw class 10.9 or better. Use Loctite® Blue 242 when attaching pyramid. Loctite® and torque connector screws to 10 Nm.
6. Do not lubricate inside of lock, this will attract debris. If you have a noise issue, it is typically due to seating. Call for technical assistance.

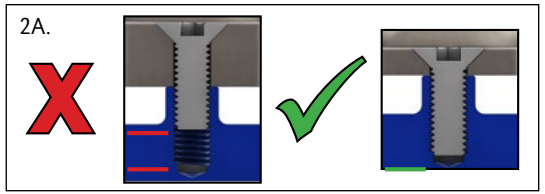


7. Liner threads vary. Begin threading pin into liner by hand whenever possible. A wrench will be needed in cases of tight threads.
8. Regardless of threading, always use Loctite® Blue 242 on lock pin threads. If installing into a plastic distal adapter Loctite® Blue 242 should also be used.
9. Make sure the pin is properly aligned when the liner is donned.
10. If you have a pin you cannot install, even with a wrench, contact Coyote for a replacement. Refer to fabrication instructions for pin install and adjustment, Loctite® and torque instructions.

⚠ ATTENTION

1A Lever and lock do not lock automatically. Ensure lock is in the closed position; when lever is flush against socket, it is CLOSED (see Step 58.) Practitioner must give instructions on donning and doffing.

2A Use the 6x18mm screws provided with typical components. In atypical setups, longer screws may be needed. Always use screws class 10.9 or better. Make sure screw length fully seats into connector base not just post, longer screws may be needed depending on pyramid thickness.



3A Do not lubricate inside of lock, this will attract debris. If you have a noise issue, it is typically due to seating. Call for technical assistance.

4A Always use screws provided during lamination to ensure proper depth is created for attachment.

5A Never exceed 3 pin spacers.

6A Lay-up instructions are helpful hints on how to work with the lock and connector. Actual lay-ups are responsibility of the technician and/or practitioner.

7A Note number of clicks for engagement. There should be at least 2 to 3 clicks engagement prior to any ambulation and more clicks should occur after a few steps. 5 to 6 clicks (depending on liner) are required for full/proper seating and engagement.

8A Liner threads vary. Begin threading pin into liner by hand whenever possible. A wrench will be needed in cases of tight threads.

9A Regardless of threading, always use Loctite 262 on lock pin threads. Follow liner manufacture instructions as they can vary.

10A The CD103P11 is the longer pin for the Easy-Off Lock. However, with most liners this longer pin will bottom out in the lock. If a long pin is needed, call Coyote for information on extending the depth of the lock to allow for use with the longer pin, or for a deeper lock option.

11A If using a flexible inner liner, do not leave plastic over lock housing, this can cause air leakage and other issues. You should laminate directly over housing. Contact Coyote for more information.

Billing Information - Recommended Codes

L5671 Addition to lower extremity, Below Knee/Above Knee suspension locking mechanism (shuttle, lanyard or equal), excludes socket insert.

L5647* Addition to lower extremity, Below Knee, suction socket.

L5652* Addition to lower extremity, suction suspension, Above Knee or Knee Disarticulation Socket.

*Not recommended for billing Medicare. Coyote® believes that "suction" in a prosthetic refers to the negative pressure created inside the socket, rather than componentry such as an expulsion valve or sleeve. Because we think of suction as a function, we believe it should be permitted to bill L5671 in conjunction with the L5647 or L5652 in cases when it is medically necessary. As with other situations where multiple suspension methods are used and billed we feel the combination of a lock and suction helps to increase safety for the patient.

**The CD117 Easy-Off Lock can be used with a vacuum system and will maintain vacuum levels. Both lock code and vacuum code can be billed when using dual suspension. Not recommended for billing with Medicare.

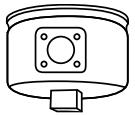
For more information on billing the Air-Lock and on our socket pressure study between airtight and traditional pins contact Coyote.

The listing of codes with our products should not be construed as a guarantee for coverage or payment.

The ultimate responsibility for the coding of services/products rests with the individual practitioner.

Part Replacement

Easy-Off® Lock Housing Only

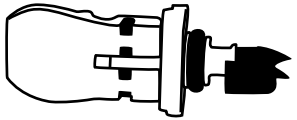


Housing

CD117HG - Standard Air-Lock Housing

CD117HGD - Standard Deep Air-Lock Housing

Easy-Off® Lock Plate - Call for Part Number



Lock Plate

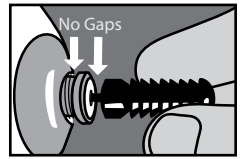
CD103SG - Air-Lock Springs

Springs (3)

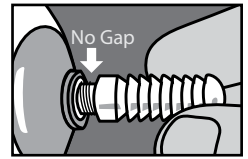
Detach here and give to patient

Amputee Instructions Easy-Off® Lock Coyote

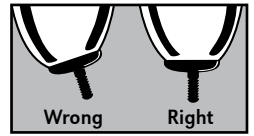
Putting on Liner



Standard two part pin



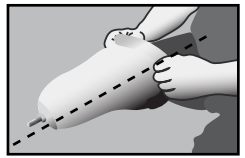
Brass Pin



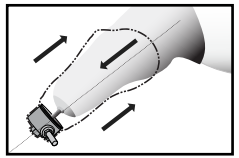
Check pin and liner to make sure pin is not gapping, loose or damaged. See practitioner to fix with Loctite®.

Try to center the pin on the bottom of your limb so that the pin is straight and an extension of your limb with no tilt in any direction

Engaging Lock Tooth and Pin

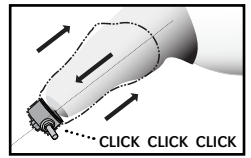


Make sure pin alignment is correct and the liner fits securely.

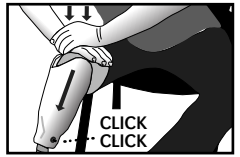


Make sure the pin slides straight into center hole in socket lock.

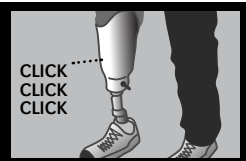
Clicks should be one at a time.



If clicks are all at once the socket is <u>too loose</u>.
If you <u>CANNOT</u> get pin to click or do <u>NOT</u> get almost all 6 clicks overtime the socket is <u>too tight</u>.



Preforming a "CPR" motion on the knee can help the pin engage with the lock plate.

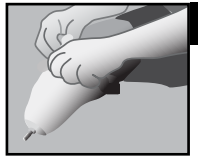


Get at least 2 clicks before standing.
3 - 4 clicks before walking.

Additional clicks required for use with long pin (11 tooth pin).

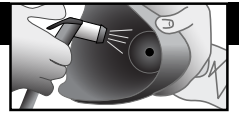
Eventually get 5 maybe 6 clicks depending on liner and sock usage. 8 to 9 clicks with the long pin *(depending on liner).*

Once completely engaged there should be no play/pistoning.
If there is, see your practitioner to evaluate your fit or adjust pin spacers.



Socks

Push the pin through the hole in your sock.
If pin is covered by sock, it can jam your lock.

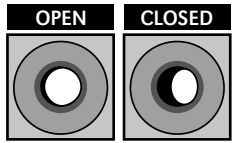


Do NOT lubricate your lock.

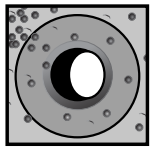
Water and Cleaning

Rinse out and dry socket if you've been in water especially a pool or saltwater. You can also clean the socket with mild soap and water.

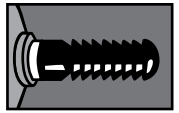
Checking Teeth



Check visually to make sure the tooth on the lock plate is showing enough in the bottom of socket with a sharp edge.
The tooth should be crescent moon shaped with a smooth sharp edge.
If the tooth looks broken, have it replaced.



If you're having trouble engaging the pin and the lock funnel is scratched and pock marked from the pin this could be a sign of poor pin alignment which can be caused by not aligning the liner and pin correctly or the lock is not aligned correctly in the socket.



Make sure teeth on pin are NOT worn smooth.
The pin should have well defined teeth, NOT rounded.

Maintenance

- The entire prosthesis should be inspected regularly for any unusual changes in wear and noise. Anything of concern should be reported to your clinician.
- Annual inspections should be conducted by your clinician.

Detach here and give to patient