



CD117

Easy-Off™ Lock

Fabrication Instructions



Weight limit: 265 lbs.

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

Patent No. 6334876. Other patents pending.

Made in U.S.A.

External Prosthetic Components



EC REP

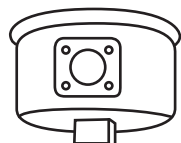
Advena Ltd
Pure Offices Plato Close
Tachbrook Park
Warwick, CV34 6WE, UK



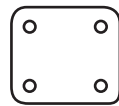
CD117.revE.12122017



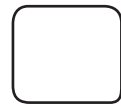
Parts Included



Housing



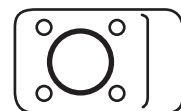
4-hole plug



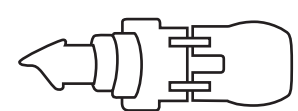
Foam rectangle



Anchor



Lamination dummy



Lever assembly



Screws (4)



8-click pin



Pin adaptor screw



Removable screw



Extra spring (1)



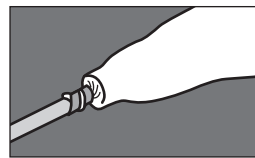
Pin spacers (3)

Manufactured by

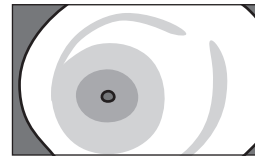


419 N. Curtis Rd., Boise, Idaho 83706
(208) 429-0026 | www.coyotedesign.com

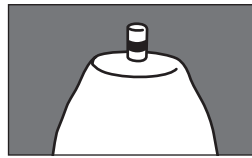
Installing Lock on Mold



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.



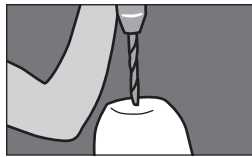
3 Mold and anchor are now ready for fabrication.



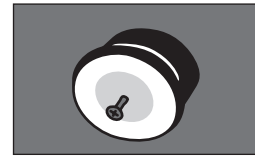
5 Place lock on mold. Trace lock.



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.



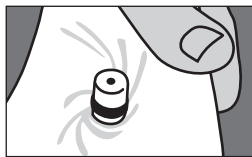
8 Place anchor in lock.



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.

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 using casting handle, begin with Step 1.
If NOT using casting handle, skip to Step 4.

Transferring Alignment

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.

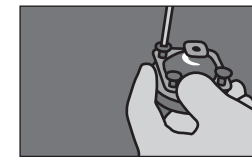
If using transfer fixture, place anchor inside lock prior to filling in alignment. Remove as normal and proceed from step 23.

NOTES FOR FLEXIBLE INNER SOCKET:

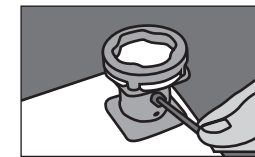
If you are using a flexible inner socket, visit our video gallery at coyotedesign.com for tutorials and instructions.



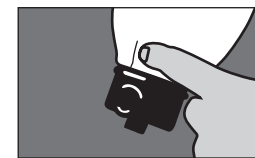
24 Lube and install glue plate on alignable connector.



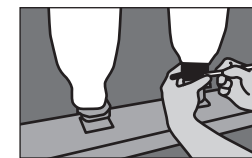
25 Attach a pyramid to alignable connector.



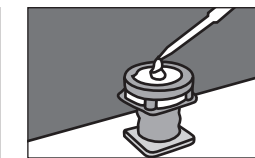
26 Install pyramid on adapter.



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



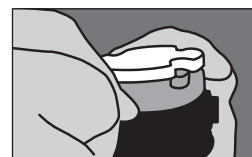
28 Rest mold and lock on alignable connector. Place test socket next to mold and compare alignments. Measure to compare accurately.



29 Separate lock from connector. Fill connector with Coyote Quick Adhesive or fast-setting epoxy.

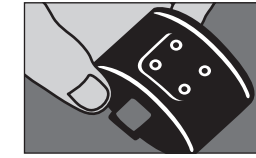


30 Place mold and lock back into connector in desired location. Let set.



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

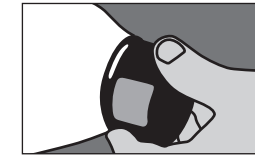
Test Socket Fabrication



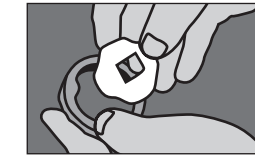
12 Install 4-hole fab plug. Snug tighten screws only. DO NOT over-torque.



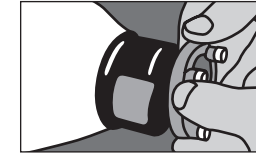
13 Place rectangle foam on fab plug.



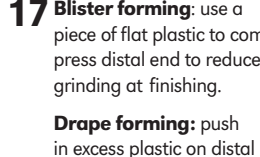
14 Place lock on mold. Mark desired location of release lever.



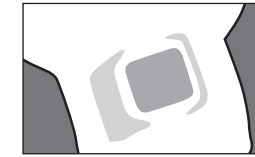
15 Install insert of choice in Coyote alignable connector.



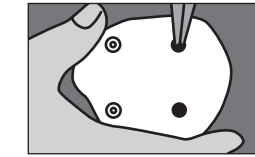
16 Place adhesive foam on connector posts. Place connector offset or centered.



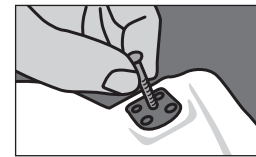
17 **Blister forming:** use a piece of flat plastic to compress distal end to reduce grinding at finishing. **Drape forming:** push in excess plastic on distal end for extra strength and to reduce grinding at finishing.



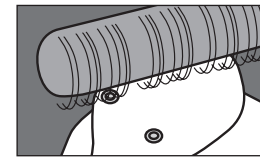
18 Expose foam rectangle and remove it.



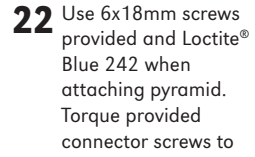
19 Expose yellow foam, using care not to hit posts. Remove socket with socket extractor or traditional methods.



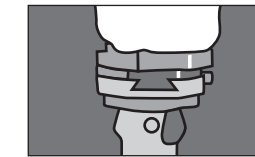
20 Remove 4-hole plug with screw, smooth and polish area.



21 Flatten distal end and polish.

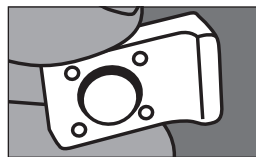


22 Use 6x18mm screws provided and Loctite® Blue 242 when attaching pyramid. Torque provided connector screws to 10 Nm. (See Caution #2 and #4)

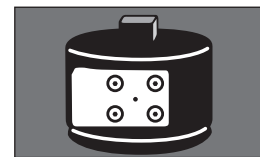


23 Use Coyote alignment coupler CD106 for alignment during fitting.

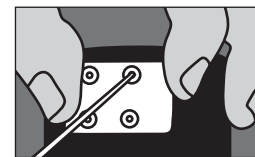
Preparation for Lamination



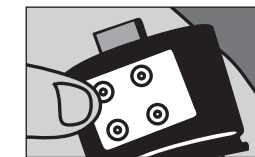
32 Make sure O-ring is in place on lamination dummy insert.



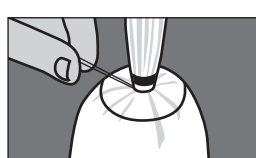
33 Install lamination dummy and orient in the desired direction of lever.



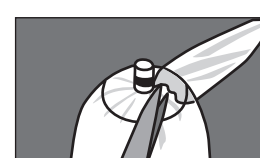
34 Tighten screws. Do not over-torque.



35 Lubricate screw heads with petroleum jelly or clean clay.



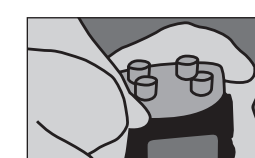
36 Pull inner PVA bag over model. Heat bag to form to distal end. Tie PVA bag to anchor tie-off ring.



37 Trim excess PVA between tie-off ring and o-rings. Keep o-rings clear.



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



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

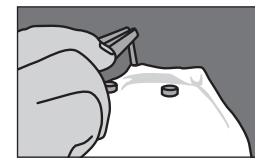
Lay-up



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



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



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




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

Need more help?

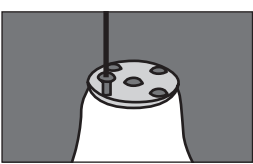
Fabrication videos can also be viewed at www.coyotedesign.com/video

Continued on back

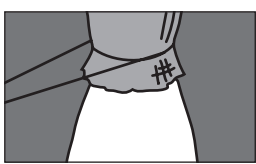
Lay-up continued



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




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



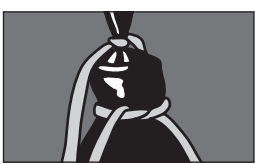
46 Tie second layer of composite under 5-hole plate, and reflect down over mold.



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



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



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

Finish



50 Expose edge and remove excess lamination.



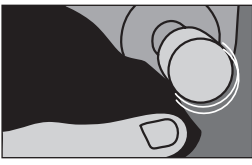
51 Remove 5-hole plate.



52 Expose lamination dummy and remove screws.

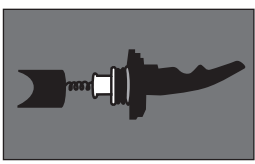


53 Extract lamination dummy with removal screw.

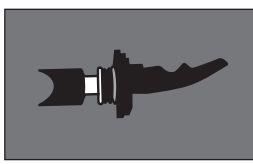


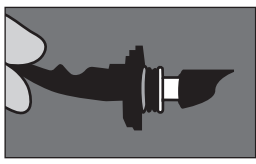
54 Smooth out edges and bottom of socket.

Installing Lever Assembly

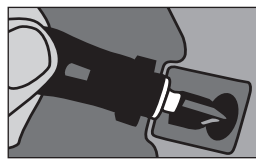


55 Make sure that lock is placed properly, as it may have dislodged during shipping. At right, a properly assembled lever.

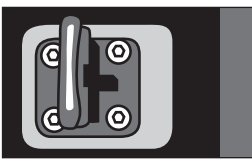





56 Line up lever assembly in groove and insert assembly.



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



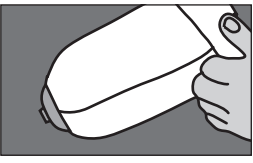
58 Install 4 screws. DO NOT over-torque.




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

Practitioner Instructions

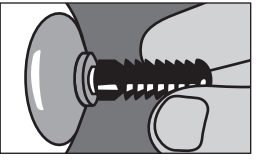
Poor seating leads to premature lock wear. The pin spacers are used to adjust the pin to seat with any liner. There should be no play between the lock and the liner when fully engaged. It is best to check seating using the Fitting Lock (CD103FL) which is reinforced to make pin evaluation fast and easy.




i Roll liner of choice onto patient. Add desired number of sock ply if used.



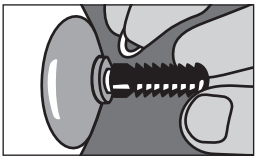
ii Install pin on liner. Engage lock to check for play between lock and liner.



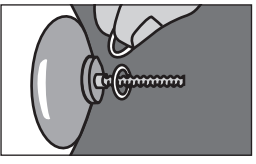
iii If there is play, loosen pin away from adaptor screw and liner.



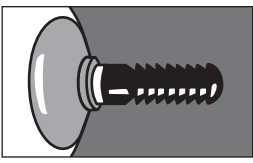
iv Reengage lock to check for play. Repeat until lock seats completely.




v Gap is created between lock and liner. Based on gap created by loosening pin, add spacers. (See Caution #5)



vi Based on the gap created by loosening pin, install appropriate number of pin spacers on adaptor (see Caution #2).



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



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



viii 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 #8 and #9).)

Parts Sold Separately

Connector Parts

- a** Alignable Connector CD103AF
- b** Five Hole Plate
- c** Glue Plate
- d** 6mm x 18mm Screws
- e** Small foam circles (4)

f Multi-Direction Insert CD103MDI

g Single-Direction Insert CD103SDI

h One-Shot Connector CD111

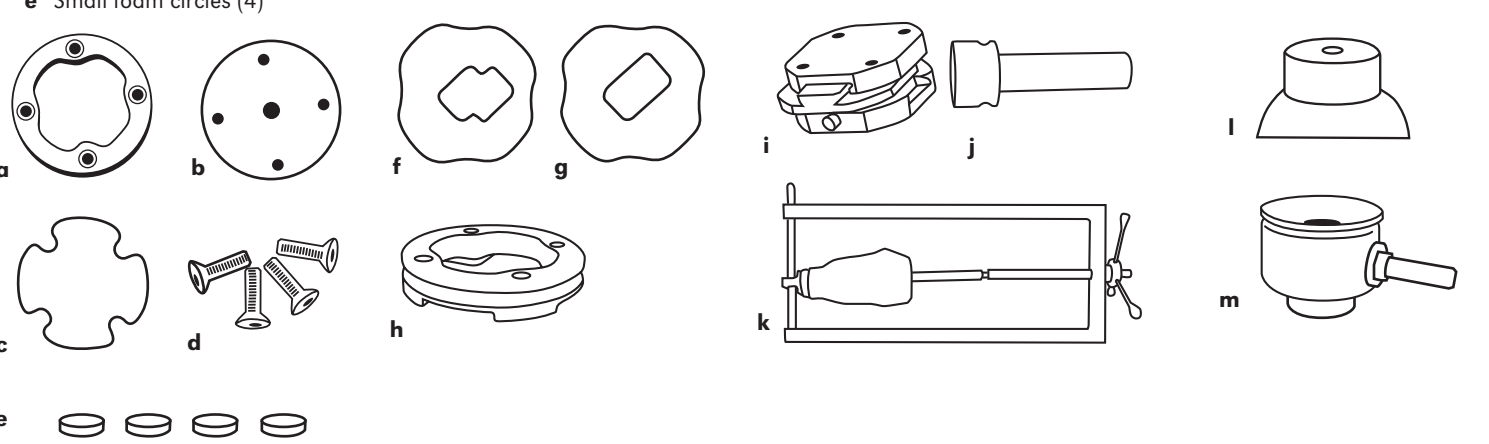
i Alignment Coupler CD106

j Casting Handle CD316A

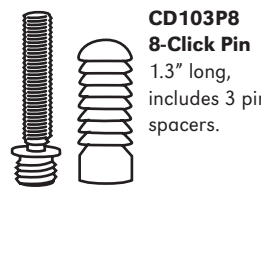
k Extractor, Socket Removal Tool CD301

l Fabrication dummy CD103FD (for flexible inner liners, NOT for drop-in system)


m Fitting Lock (for pin spacing) CD103FL



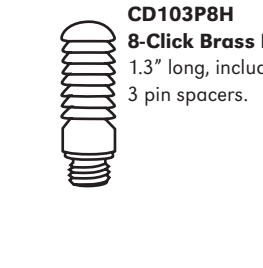
Additional Pins




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



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



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



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

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.

Easy-Off Lock with P8 Pin (Chart is a guideline, NOT a guarantee of seating. Verify seating.)			
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

Detach here and keep everything below with patient records

Patient name: _____

For tracking purpose, write LOT number (from funnel of lock) here: _____

CAUTION

1. 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.
2. Use the 6x18mm screws provided with typical components. In atypical setups, longer screws may be needed. Always use screws class 10.9 or better.
3. 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.
4. Always use screws provided during lamination to ensure proper depth is created for attachment.
5. Never exceed 3 pin spacers.
6. 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.
7. 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.
8. Liner threads vary. Begin threading pin into liner by hand whenever possible. A wrench will be needed in cases of tight threads.
9. Regardless of threading, always use Loctite 262 on lock pin threads. If installing into a plastic distal adapter Loctite® Primer 242 should also be used.
10. 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.
11. 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.