



CD122A

Air-Lock Drop-In

Fabrication Instructions



Weight limit: 350 lbs.

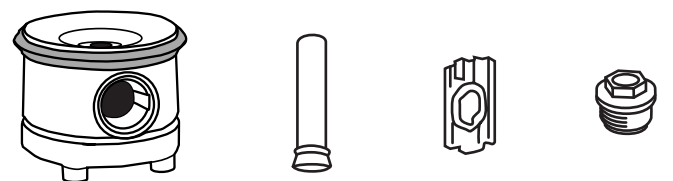
2-year warranty against manufacturer defects, excessive wear or breakage.

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

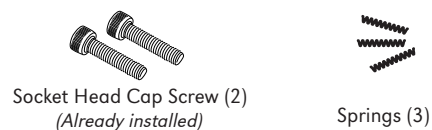


Advena Limited
Tower Business Centre
2nd Flr, Tower Street
Swatar, BKR 4013
Malta

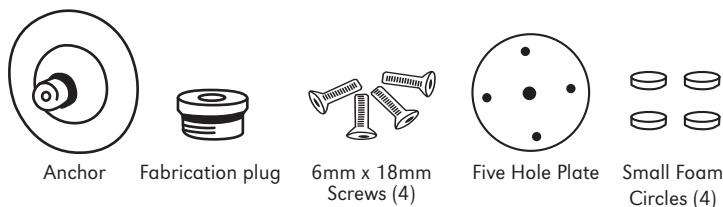
Parts Included



Housing with attached Connector (*Do not remove 4 hole connector from lock)
Release button
Lock plate
Valve body

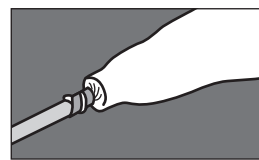


Socket Head Cap Screw (2)
(Already installed)
Springs (3)



Anchor
Fabrication plug
6mm x 18mm Screws (4)
Five Hole Plate
Small Foam Circles (4)

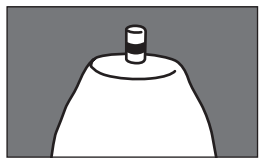
Installing Dummy on Mold



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.

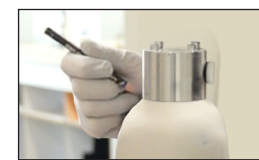


3 Mold and anchor are ready for fabrication.



4 Install Fabrication Plug and push plate into Air-Lock Drop-in Dummy.

5 Casting Handle users skip to step 10.



6 Place lock dummy on mold. Trace lock.



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



8 Drill 1/2" diameter hole. Angle hole to help anchor adhesive.



9 Place anchor in lock dummy or use threaded stud from dummy kit.



10 Fill hole in cast with Coyote Quik Glue, fast-setting epoxy, or a wet plaster mix.



11 Place Fabrication Dummy on mold.



12 When glue sets mark desired location of release button. (See Caution #1)



CAUTION (page 1)

- Do not position lock with release button pointing posterior or anterior. Typically release button is oriented medially.
- Typical Coyote® components use 6x18mm screws. In atypical setups, longer screws may be needed. Always use screws class 10.9 or better.

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

Drape Molding Check Socket



13 Apply nylon over mold. Reflect and twist nylon around lock dummy.

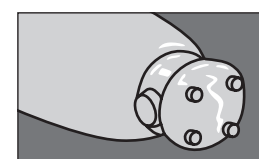


14 Use a hot awl or scissors to expose connector posts.



15 Place adhesive foam on connector posts.

16 Drape mold and blister molding instructional videos are available at www.coyotedesign.com/air-lock.



17 For extra strength, fold excess seam on distal end of connector.

18 Expose and remove small adhesive foam and fabrication plug. Grind distal end of socket flat. Take care not to sand metal posts. Foam can be left in place to act as a guide for flattening.



19 Remove socket in traditional fashion or with socket extractor.

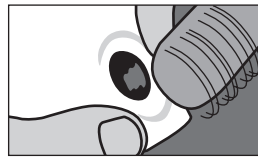


20 Use the Threaded Bolt and 3/4" socket wrench to push the dummy out.

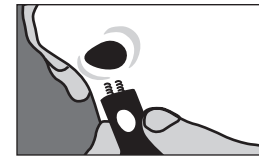


21 Press lock into place and attach pyramid with supplied 6mm x 18mm screws.

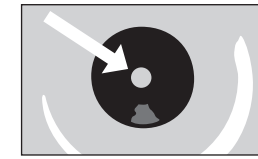
22 Typical Coyote® components use 6x18mm screws provided and Loctite® Blue 242 when attaching connector screws to 10 Nm. (See Caution #2 and #4)



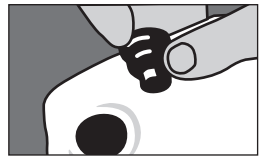
23 Carefully smooth inside of hole to allow for easy assembly of lock.



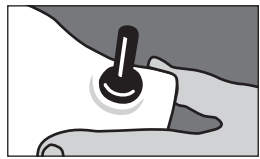
24 Slide lock plate into lock, springs first. It slides easily ONLY one way. Verify orientation first. (See Caution #3)



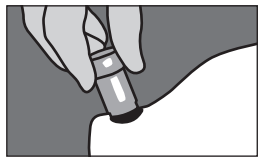
25 Place lock pin in lock to hold lock plate.



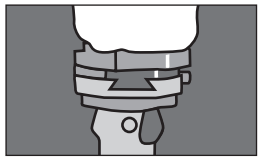
26 Add third spring. Slide release button into valve body.



27 Thread valve body into housing.



28 Hand-tighten valve body with Coyote lock wrench or 13mm deep well socket.



29 Use Coyote alignment coupler CD106 for alignment during fitting.

Laminating



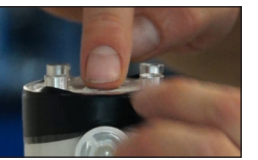
30 Pull vacuum nylon over socket and lock dummy. Add one layer of Electrical tape at edge of lock dummy and cut off excess nylon at distal end of dummy.



31 Pull PVA Bag over socket and lock dummy. Heat shrink it for tight fit.



32 Tie off PVA bag and apply vacuum. Apply one layer of electrical tape over distal end of lock.



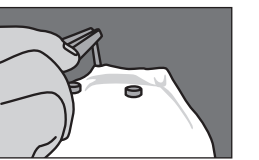
33 Cut away PVA Bag from distal end against electrical tape and lock edge. Fill circular crack of push plate with clay or putty. Cover bottom of dummy with compound 4.



34 Pull nylon stockinette or other materials over connector, lock dummy and mold.



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



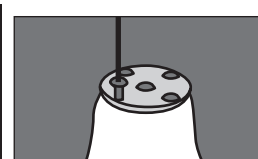
36 Ensure holes of connector are exposed. A hot nail or awl can be used.



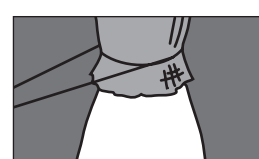
37 Pull first composite layer over mold. Cut top edges to fold around posts.



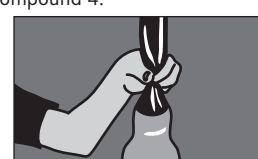
38 Reinforce with carbon tape between posts. Avoid extra material around fabrication plug for easier removal.



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



40 Tie second layer of composite under five hole plate and reflect down over mold.



41 Pull bag and laminate as usual. Initially restrict flow to force lamination through the center hole on plate, forcing out air pockets.



42 Toward end of lamination, tape can be placed over five hole plate to squeeze excess resin out of lamination.



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

Need assistance?

Call us, we would love to help.
(208) 429-0026

Finish



44 Expose edge and remove excess lamination.



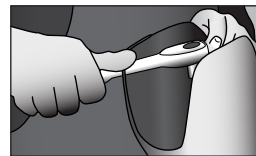
45 Remove five hole plate.



46 Expose fabrication plug and remove.

47 Smooth rough edges of distal end. Hole for valve body can be smoothed for easier install.

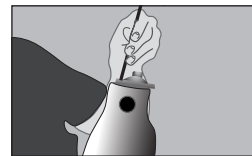
48 Remove socket in traditional fashion or with socket extractor.



49 Use the Threaded Bolt and 3/4" socket wrench to push the dummy out.

50 Do not remove connector from lock.

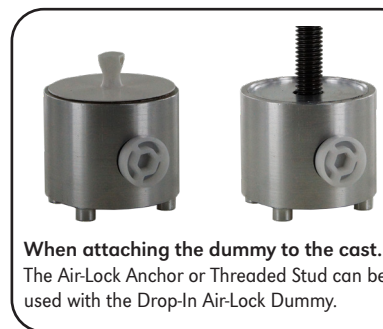
51 Wipe down O-ring on socket with alcohol before inserting.



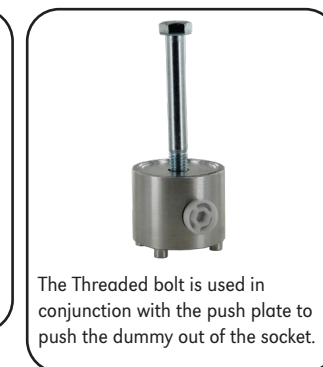
52 Press lock into place and attach pyramid with supplied 6mm x 18 mm screws.

53 Attaching pyramid to connector will draw lock into place.

54 See steps 23-27 for lock assembly instructions. Use 6x18mm screws provided (see Caution #2 and #4) and Loctite® Blue 242 when attaching pyramid. Torque provided connector screws to 10 Nm.



When attaching the dummy to the cast. The Air-Lock Anchor or Threaded Stud can be used with the Drop-In Air-Lock Dummy.

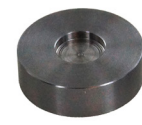


The Threaded bolt is used in conjunction with the push plate to push the dummy out of the socket.

CD122AFD Air-Lock Fabrication Dummy - Parts Sold Separately



Dummy for Drop-In Air-Lock



Drop-In Dummy Push Plate



Threaded Stud



Extractor Bolt

Other Parts Sold Separately

Related Parts

i Alignment Coupler CD106

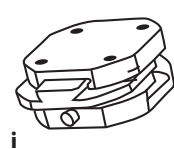
j Lock Wrench CD103WH

k Casting Handle CD316A

l Extractor, Socket Removal Tool CD301

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

n Fitting Lock (for pin spacing) CD103FL



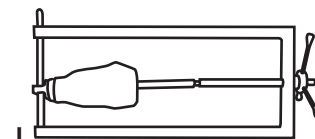
i



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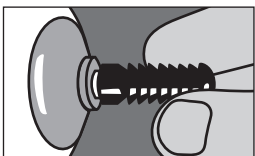
n

Practitioner 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.



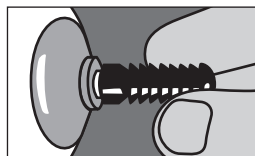
i Install pin on liner. Engage lock to check for play between lock and liner.



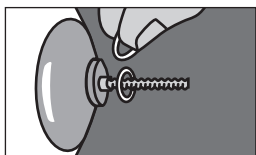
ii If there is play, loosen pin away from adapter screw and liner.



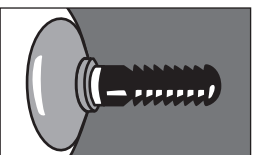
iii Reengage lock to check for play. Repeat until lock seats completely. Remove lock.



iv Gap is created between pin and liner.



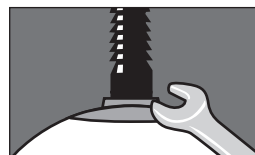
v Based on the gap created by loosening pin, install appropriate number of pin spacers on adapter (see Caution #2).



vi Replace pin on adapter, 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 #4, #5, #12)

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.
- Using the lock wrench, remove the valve body, release button, and outer spring from the lock. The amputee is still locked into the socket, but air is now allowed to flow into the bottom of the socket like a traditional pin.
- Walk the patient normally.
- Amputee may experience a difference in how the socket feels immediately, after some ambulation, or after reinstalling the valve body, release button and outer spring. Patient feedback should be documented.

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

* It is the practitioner's responsibility to demonstrate, document, and

Air-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.)

Additional Pins



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



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

Detach here and keep everything below with patient records

⚠ CAUTION (page 2)

1. Do not position lock with release button pointing posterior or anterior. Typically release button is oriented medially.
2. Typical Coyote® components use the 6x18mm screws. 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® Blue 242 on lock pin threads. If installing into a plastic distal adapter Loctite® Blue 242 should also be used.
10. Do not use the CD103P11 long pin with the Drop-In Easy-Off Lock or the Drop-In Air-Lock. With most liners this longer pin will bottom out in the lock.
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, or visit the video gallery at www.coyote.us.
12. If you have a pin you cannot install, even with a wrench, contact Coyote for a replacement.

Need more help?

Fabrication videos can also be viewed at www.coyote.us/video