



Mini Dynamic Strut AFO Fabrication Instructions

Made from Resilergy™

CD209S, CD209SS, CD209M, CD209MS, CD209R, CD209RS, CD209FK



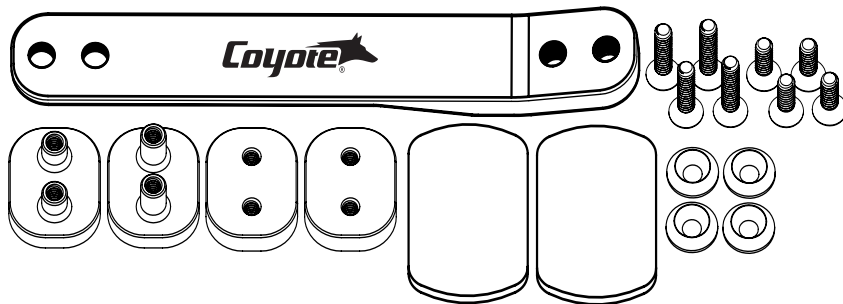
EC REP

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

Weight limit: Depends on Strut

6-month warranty against manufacturer
defects, excessive wear or breakage.

Strut.revA.10092023





EN | Instructions for Use
DE | Gebrauchsanweisung
FR | Notice d'utilisation
ES | Instrucciones para el uso
IT | Istruzioni per l'uso
NO | Bruksanvisning
DA | Brugsanvisning
SV | Bruksanvisning
NL | Gebruiksaanwijzing
PT | Instruções de Utilização
PL | Instrukcja użytkowania
CS | Návod k použití
TR | Kullanım Talimatları
RU | Инструкция по использованию

EL | Οδηγίες Χρήσης
FI | Käyttöohjeet
JA | 取扱説明書
ZH | 中文说明书
KO | 사용 설명서



www.coyote.us/instructions

Need more product info?

Visit us at www.coyote.us for more information, videos, tips, and instructions.

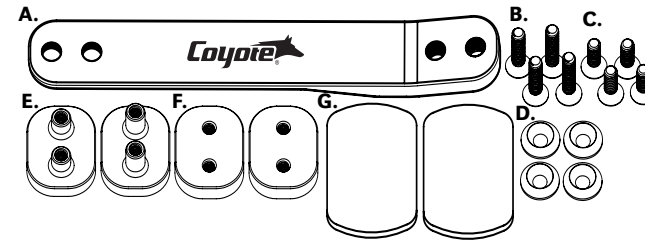


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Parts included in the Mini Dynamic Strut Kit

Parts that are included with the Mini Strut Kits:
CD209S, CD209M, CD209R



- A. Dynamic Strut made from Resilergy™
(1) (8.5 x 1.25)
B. Screws (4) for CD209S, CD209M, CD209R
(2) - 6x20 for Top Mounting Plate
(2) - 6x22 for Bottom Mounting Plate
C. Black Screws 6x14 (4)
D. Washer (4)
E. AFO Mounting Plate (2)
(1) Upper Mounting Plate - Short Posts
(1) Lower Mounting Plate - Tall Posts
F. AFO Fab Tooling Pieces (2)
G. AFO Plate Foam (2)

Replacement Mini Struts

Replacement Struts are available (only the strut and screws are included)
Mini Strut Part Numbers: CD209SS, CD209MS, CD209RS



Mini Shims

CD209FSP Flexion Shim Pair



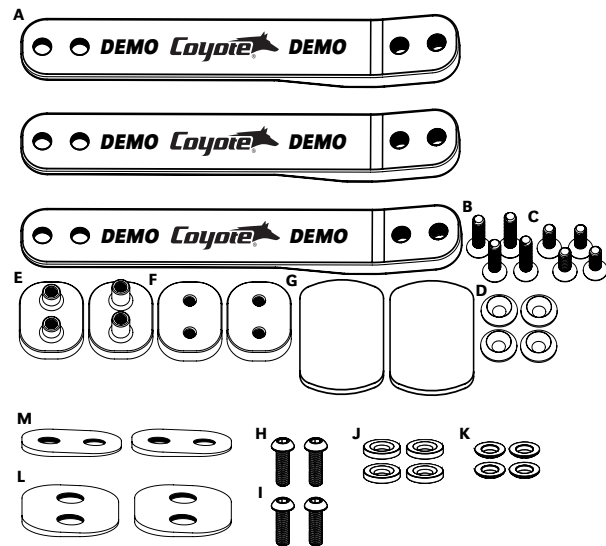
CD209RSP Rotation Shim Pair



For included screws and self leveling washers see pages 11 & 12.

CD209FK - Mini Fitting Kit - Parts Included

The Fitting Kit is available for a deeply discounted price. The demo samples are to help decide the best flex option for the patient. The Fitting Kit is for trial only and are meant to be replaced with standard product.



A. Dynamic Strut 8.5 x 1.25

- CD209SS Soft Flex Strut (1)
- CD209MS Medium Flex Strut (1)
- CD209RS Rigid Flex Strut (1)

B. Screws

- Top Mounting Plate 6x20 (2)
- Bottom Mount Plate 6x22 (2)

C. Black Screws 6x14 (4)

D. Washers (4)

- E. Upper Mounting Plate - Short Posts (1)
- Lower Mounting Plate - Tall Posts (1)

F. AFO Fab Tooling Pieces (4)

G. AFO Plate Foam (4)

For Shims

- H. Button Head Screws 6x18 (2) for S, M, R
- I. Button Head Screws 6x22 (2) for S, M, R
- J. Self Leveling Washers Bottom (4)
- K. Self Leveling Washers Top (4)
- L. Rotation Shims (2)
- M. Flexion Shims (2)

Installing AFO Dummy Plates

Coyote struts are designed for thermal plastic bracing using 3/16 inch thermal plastic Polypropylene or ProComp™ to make custom thermoplastic orthosis.



1 Cast patients' lower leg in the desired position with a similar heel height as the shoe they will be wearing. Cast similar to a solid ankle AFO. Make sure you have enough length for the strut on the posterior side of the cast. **Cast to the MPT or popliteal space.**



3 Align your toe out, or your tibia angle, depending on what degree you are looking for.



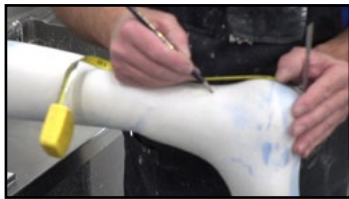
2 Assemble the AFO strut and tooling pieces with 6x14 mm. Loosely tighten the screws to the plastic tooling pieces; the plastic tooling pieces should be ruffed up on the side facing the cast to help the glue bond.

Want more Information?

Try our online instruction video at:
www.coyote.us/dynamicstrut



4 Center the tooling piece in the center of the posterior calf distal to the apex of the fibular head.



5 Place the top of the lower tooling piece at the apex of the malleolus or slightly above. This measurement is typically about 3 to 4 inches from the planter surface of the foot.



6 Standard set up of composite strut is perpendicular to the foot plate and centered in the middle of the calf.



10 Spread a little Coyote Quik Glue, or 5 minute epoxy, where the tooling pieces will go. Place the tooling pieces on the glue holding it in place until the glue sets.



11 Once the adhesive is set up, fill in the void with more Quik Glue but not quite to the edge of the tooling piece.



12 Once the glue is set, hold the strut in place and gently remove the screws.



7 Trace around your tooling pieces on the mold. Use the four 6x14mm black screws to mount struts to the tooling pieces.



8 On the distal mount create an 1/8th of an inch lift, or more, depending on patients' calf shape so the strut clears the leg.



9 Staples work well for setting tooling height.



13 Smooth out the edges with plaster on the fabrication tooling pieces. All the tooling pieces edges should be clean of plaster and adhesive.



14 The plaster should have a smooth transition to the cast. To get a clean pull so the thermoformed plastic doesn't undercut the edge of the tooling piece.

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

Pulling Plastic and Shaping AFO



15 Use two vacuum nylons over your cast to help with wicking when pulling 3/16 polypropylene or ProComp™.



16 Make sure plastic draws tight around the tooling pieces and does not bridge from the heel to the lower tooling piece.



17 Mark your trim lines and cut off in a traditional fashion.



21 Drill out your clearance holes with a 23/64th Drill bit and deburr the holes.



22 Insert AFO Mounting Plates into the shell. The radius edge inserts flush against the plastic.



23 The upper mounting plate has shorter stems. The lower mounting plate has longer stems.



18 Finish edges of plastic in the usual manner.



19 Drill out the pilot holes from the **inside of the brace**. Use a 3/16th drill bit and use threaded holes in tooling piece as guides.



20 Remove the tooling pieces and nylon.



24 Press Mounting Plates with a tool to get extra pressure to make flush.



25 Place strut on mounting posts and make sure they are not sticking out past the strut surface. **They must be below the strut surface.**



26 Ensure mounting plate is fully seated in the plastic by attaching and tightening down the washers and screws. (2 - 6x20 for Top Plate) (2 - 6x22 for Bottom Plate)



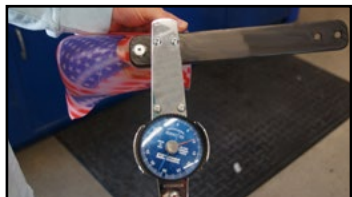
27 If the posts are sticking out past the face plate of the strut, remove the screws, strut, and grind post until it is flush with the strut surface. This may take a few tries.



28 After grinding the post down, clean the edges of any burrs.



29 Make sure the holes are clean and remount the strut. Make sure the strut is tight with brace. And the washer is flush and seats flat with the strut.



33 Tighten the screws after a couple weeks of use, also at follow up appointments, re-Loctite if needed.

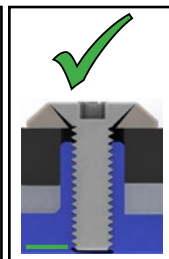
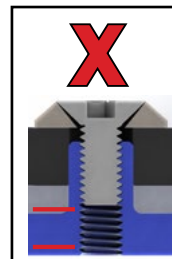
Always torque 5-8 Nm.

Note:

Depending on plastic thickness steps 26 and 27 may need to be repeated.

Always, *LOCTITE*
and torque to manufacturer specifications.

CURBELL We typically make our dynamic strut PLASTICS AFO using Curbells ProComp™. This material gives us extra dynamic response in the toe while maintaining adjustability.
Exclusive ProComp™ Carbon Reinforced Polypropylene.



30 Make sure the screws are all the way through the threaded post holes and flush with the inside of the plate.

*See Attention #4



31 Take the brace apart and Loctite® the threads with blue 242 Loctite®. Torque 5-8 Nm.



32 Skive or shape the AFO plate foam to be flush with the plastic, covering the AFO Mounting Plate.

ATTENTION

1. The instructions for this device cover a very specific method of fabrication, and we understand that a multitude of methods could be used. The fabricated device is the sole responsibility of the fabricator.
 2. Always use Loctite® Blue 242 on screw threads. Torque between 5 Nm and 8 Nm in even distribution.
 3. Tighten the screws after a couple weeks of use, also at follow up appointments, re-Loctite® if needed.
 4. Use the 6x20mm (top mounting plate) and 6x22mm (bottom mounting plate) screws provided with typical components for the (CD209S, CD209SS, CD209M, CD209MS, CD209R, CD209RS). In atypical setups, longer screws may be needed. Always use screws class 10.9 or better.
- Make sure the screw length fully seats into face plate not just the post, longer screws may be needed depending on the strut and brace thickness. *See example images on instruction #30.*
A 6 month limited warranty applies to the Mini Dynamic Strut (CD209S, CD209SS, CD209M, CD209MS, CD209R, CD209RS) go to www.coyote.us for details.

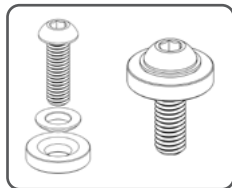
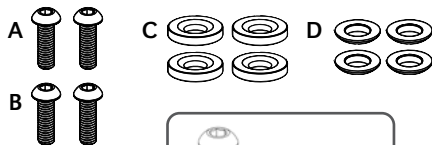
CD209FSP Mini Flexion Shim Pair



Shims are designed to adjust planter flex or dorsiflex for Coyote® Dynamic Struts

Button Head

- A - Screws (2) 6 x18 for upper mount.
B - Screws (2) 6 x22 for lower mount.



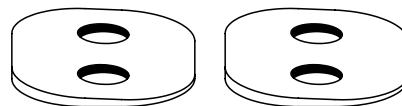
Self Leveling Washers

- C - Bottom (2)
D - Top (2)

The Flexion shim is designed for planter flex and dorsiflex adjustment.

- 1 Install the shims between the AFO shell and the strut to adjust the foot shell or cuff in a planter flex or dorsiflex direction.
- 2 The shims are not designed to be stacked.
- 3 Make sure the screws are all the way through the threaded post holes and flush with the inside of the plate.
- 4 Make sure the washers are flush and seat flat with the strut.
- 5 When all adjustments are made take the brace apart and Loctite® the threads with blue 242 Loctite®. Torque 5-8 Nm.
- 6 Tighten the screws after a couple weeks of use, also at follow up appointments, re-Loctite® if needed. Always torque 5-8 Nm.

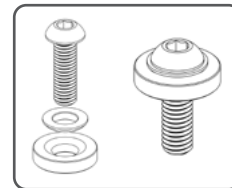
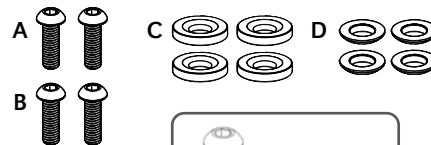
CD209RSP Mini Rotation Shim Pair



Shims designed to adjust lateral or medial rotation for Coyote® Dynamic Struts

Button Head

- A - Screws (2) 6 x18 for upper mount.
B - Screws (2) 6 x22 for lower mount.



Self Leveling Washers

- C - Bottom (2)
D - Top (2)

The Rotation Shim is designed for 2.5 degree lateral or medial rotational adjustments.

- 1 Install the shims between the AFO shell and the strut to adjust the foot shell or cuff's lateral or medial rotation.
- 2 The shims are not designed to be stacked.
- 3 Make sure the screws are all the way through the threaded post holes and flush with the inside of the plate.
- 4 Use the two piece adjustable washers and button head screws provided with the shims.
- 5 Make sure the large washers are flush and seat flat with the strut.
- 6 When all adjustments are made take the brace apart and Loctite® the threads with blue 242 Loctite®. Torque 5-8 Nm.
- 7 Tighten the screws after a couple weeks of use, also at follow up appointments, re-Loctite® if needed. Always torque 5-8 Nm.

Selection of the flex of the strut to be used is primarily based on patient preference. While most flex options can be used with a wide range of weights, it is possible that higher weight patients and higher activity patients will reduce the life of the strut, in the case of premature wear in either of these cases a different flex option may be required for warranty purposes. For additional help in selecting the flex for a specific patient please contact customer service.

Mini Dynamic Struts are available in:

CD209S - Soft Flex Kit *Weight Range 70-110 lbs.*
CD209M - Medium Flex Kit *Weight Range 90-130 lbs.*
CD209R - Rigid Flex Kit *Weight Range 110-150 lbs.*

Mini Replacement Parts:

CD209SS - Soft Flex Replacement Strut
CD209MS - Medium Flex Replacement Strut
CD209RS - Rigid Flex Replacement Strut

Mini Fitting Kit:

CD209FK - Fitting Kit of Dynamic Struts
Includes 3 struts - CD209SS, CD209MS, CD209RS,

Additions:

CD209RSP - Mini Rotation Shim Pair
CD209FSP - Mini Flexion Shim Pair
CD209MP - Mini Mounting Plate Kit

Fabrication Videos:

www.coyote.us/dynamicstrut/
www.youtube.com/user/CoyoteDesignMfg

Need assistance?

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



Our Mini Dynamic Strut design combines a unique combination of strength and flex that other posterior dynamic struts do not offer. The AFO combines the fit and comfort of a custom AFO with a posterior mounted dynamic strut for optimal ambulation. The strut is mounted to a custom thermoformed AFO.

Narrow enough to give the right amount of dynamic flex and elastic potential energy to lift the toe.

Thick enough to give extra strength where it is needed.

Our unique varying thickness design creates a very comfortable natural gait.

The strut is designed for average daily use; walking, working, hiking, biking, golf. Has not been tested with running.

Great for foot drop; the Dynamic Strut AFO also improves gait and is designed with custom thermoformed adjustability in mind.

Over time, the strut may wear out but is easy and inexpensive to replace.





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Dynamic Strut AFO instruction
videos and courses worth CE
credits are available online.



www.opqschool.com

Check our websites events page for free AFO webinars.



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