Modular Shuttle Lock with Delrin Housing



125459 Shuttle Lock with Delrin Housing, w/o Plunger

• Rated to 300 lbs.

Shuttle Lock Assembly:

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125459	Delrin Shuttle Lock w/o Plunger	
809780	Large Delrin Shuttle Housing	
809782	Shuttle Body	
809784	Button Shield	
809731	Latch Pin	
809785	Latch Pin Button	
809711	Shuttle Lock	
809756	Compression Spring	
809783	Guide Screw	
880033	6-32 x 5/16" SOC HD SS	
809787	Pe-Lite Washer	

Plungers: (sold separately)

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809722	Plunger 1", w/ 1/4-20 Thread	
809725	Plunger 1 1/2", w/ 1/4-20 Thread	
809727	Plunger 2", w/ 1/4-20 Thread	
809722mm	Plunger 1", w/ M10 Metric Thread	
809725mm	Plunger 1 1/2", w/ M10 Metric Thread	
809727mm	Plunger 2", w/ M10 Metric Thread	
809720mm	Plunger 2 1/2", w/ M10 Metric Thread	
809721mm	Plunger 3", w/ M10 Metric Thread	

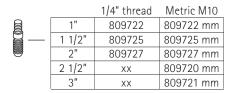
Shuttle Lock Sub Assembly:

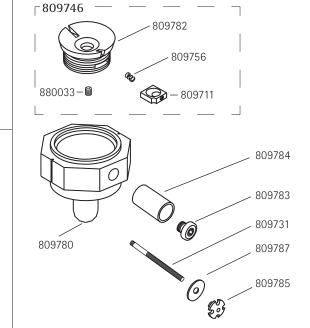
809746	Shuttle Lock Sub Assembly
809782	Shuttle Body
809711	Shuttle Lock
809756	Compression Spring
880033	6-32 x 5/16" SOC HD SS

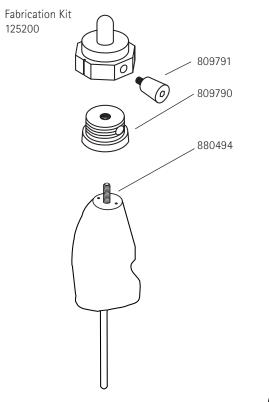
Fabrication Kit - Thermoforming and Lamination:

125200	Fabrication Kit
809790	Shuttle Body Dummy
809791	Button Shield Dummy
880494	5/16-18 x 3" SOC HD SS

Shuttle Lock Assembly and Plungers









Mold Preparation For Shuttle Configurations

Attach Assembly and Blend

The model should be prepared with a 5/16 - 18 x 3" set screw in the distal end, aligned with the center line of the model with the hex socket* within the plaster mold, the screw should protrude 1" beyond the end of the model for the housing dummy.

* Except when using the 4-Hole Housing the Hex Socket must be exposed out of the plaster and should protrude 1 1/4" from bottom of shuttle or 2" out of the plaster.

Screw the housing dummy over the exposed set screw. Blend the distal end of the model to the inner flair of the housing with a plaster slurry.

Prepare Model

- Foam Model
 - For foam models, apply a nylon hose and a PVA sleeve, tied off around protruding set screw.
- Plaster Model
 Vacuum holes may be needed with plaster models especially near shuttle housing. If model is wet, use a casting balloon.

Fabricating Shuttle Lock with Delrin Housing

Thermoforming

Any customary plastic may be used for definitive or check socket fitting. Standard drape or blister forming techniques may also be used with sufficient vacuum. Drape formed Durr-Plex is commonly used with a clear check socket especially with the Socket Evaluation System.

Special care should be taken around the area of the button shield to prevent wrinkles especially when blister forming.

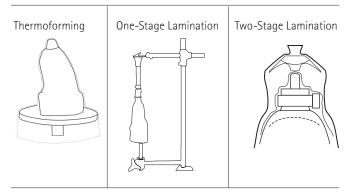
Two-Stage Lamination

Add a stick wax (#990035) coating to the shuttle housing threads before assembling to the shuttle dummy. Button shield dummy must be screwed in the latch pin hole, then fill the hex wrench hole (Small Delrin spanner wrench hole) with silicone gel. The Delrin Shuttle Housing is normally used in a two-stage lamination technique. In this method the Delrin housing is incorporated in the first lamination. The inner shell consists simply of Dacron and/or Nylon to form the inner socket. The outer lamination is reinforced with carbon or fiberglass taking into consideration the patient's weight and activity level. We suggest that the reinforcement include three 1" strips of carbon tape (#211144) fanned over the distal end of the socket, in addition to normal strengthening materials, tied into the groove of the socket adapter.

One-Stage Lamination

The Delrin Shuttle Housing can also be used in a one-stage lamination techniques using a pyramid socket adapter or 4-hole socket adapter as the distal attachment (refer to the Fillauer One-Stage Lamination Manual for suggested

techniques and fixtures). In this method the same reinforcement scheme using carbon, fiberglass, and nylon is tied into the groove of the socket adapter.



Daily Care and Maintenance

The Prosthetist should discuss the following inspection procedures and guidelines with the patient.

- Check the locking mechanism for proper operation before each use. Discontinue use of prosthesis and contact your Prosthetist if locking mechanism is not performing as expected.
- Avoid bumping the button to prevent accidental un locking. This risk increases if the prosthesis is fabricated without a button shield.
- Keep the lock clean and free of debris for the best performance and proper lock engagement.
- Avoid humid or wet environments and always dry the components should they get wet. Prolonged exposure to moisture can cause metal components to corrode and fail prematurely.
- Should the lock malfunction in any way (e.g. accidentally disengage, fail to release, etc.), discontinue use of the lock immediately and contact your Prosthetist.
- Contact your Prosthetist should you have any questions or concerns.

Fabrication Guidelines

- A trained technician must perform fabrication of the prosthesis.
- Do not modify the housing or the locking mechanism in any way.
- Use a thread locker to secure all threaded fasteners.
- Use of the button shield and guide screw, when provided, is required for safest operation. Failure to use the button shield significantly increases the likelihood of accidental disengagement of the lock.
- A minimum of 3 teeth must enter the shuttle and clutch locks for safest operation.
- This device is intended for single patient use.

Failure to follow these guidelines will void any warranty.