Modular Shuttle Lock with 4-Hole Housing



125461 Shuttle Lock with 4-Hole Housing w/o Plunger

Rated to 300 lbs.

Shuttle Lock Assembly:

125461	4-Hole Shuttle Lock w/o Plunger
809792	4-Hole Shuttle Housing
809782	Shuttle Body
809711	Shuttle Lock
809784	Button Shield
809731	Latch Pin
809785	Latch Pin Button
809756	Compression Spring
809783	Guide Screw
880033	6-32 x 5/16" SOC HD SS
809787	Pe-Lite™ Washer

See Fillauer Lock Systems Manual for Shuttle Lock Sub Assembly

Plungers: (sold separately)

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

Fabrication Kit for Lamination:

125204 Fabrication Kit

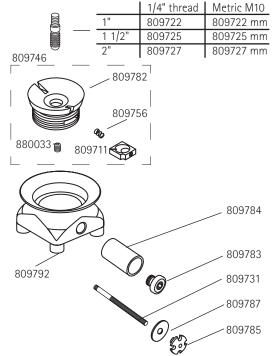
809790	Shuttle Body Dummy
809791	Button Shield Dummy
880494	5/16 - 18 x 3" SOC HD SS
809794	Flattening Plate
882610	M6 x 10 SOC SS (4)ea
885215	Nut 5/16 - 18 Acorn
809798	Jam Screw
809799	Jack Screw
809812	Button Shield Substitute

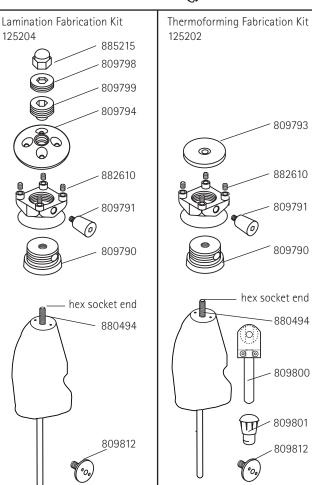
Fabrication Kit for Thermoforming:

125202 Fabrication Kit

809790	Shuttle Body Dummy
809791	Button Shield Dummy
880494	5/16 - 18 x 3" SOC HD SS
809793	Flattening Plate
882610	M6 x 10 SOC SS (4)ea.
809800	Camlock Assembly
809801	Hole Punch
809812	Button Shield Substitute

Shuttle Lock Assembly and Plungers





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Mold Preparation For Shuttle Configurations

Attach Assembly and Blend

The model should be prepared with a $5/16 - 18 \times 3$ " 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 4 - Hole Housing

Thermoforming

Heat plastic and flattening plate using standard thermoforming procedures.

Following thermoforming, use a hole punch to cut out a plug of plastic over the 5/16" center screw (E). Use a 4mm hex wrench, turn the screw up to a height of 1" above the plastic to allow for the flattening plate and cam lock.

Place hot flattening plate over the 5/16 screw and add compression nut with cam lock. Screw down to make contact with plastic. Turn cam lock to locked position (F).

Lamination

Before reattaching shuttle housing assembly, add stick wax (#990035) around both ends of the dummy to prevent entry of resin into the housing, place four set screws in the euro holes and coat with stick wax.

Button shield dummy must be screwed in the latch pin hole, then fill the hex wrench hole with silicone gel.

Rotate housing so four hole pattern is positioned correctly. Using lay-up preference, apply stockinette and reinforce over shuttle housing. It is imperative that the ends of the 4-Hole pattern and center screw be free of any fabric.

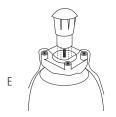
The flattening plate, 3/4" jack and locking screw should be coated with stick wax (#990035) before placing the plate on top of the shuttle housing; with center screw extending 1/4" above plate secure with acorn nut. Make sure the plate is in direct contact with the aluminum ends of the euro posts. The four holes of the flattening plate sets opposite of the euro 4-hole pattern. The selected resin should be prepared and poured into the outer PVA sleeve and thoroughly saturated around and under flattening plate, etc.

After the resin has hardened, remove the excess resin and PVA sleeve. Unscrew the acorn nut and remove the 5/16" center set screw completely. With a 3/8" hex wrench remove the jam nut from the flattening plate. Using the hex wrench, screw the inner socket screw down until the plate releases from the top of the lamination for removal.

With the fabrication tooling available the distal surfaces of the laminated and the thermoformed sockets will be flat for immediate assembly. No sanding will be required.

Thermoforming

Screw Housing Dummy to Set Screw and Attach Housing



Following thermoforming, Use A Hole Punch To Cut Out A Plug of Plastic Over the 5/16" Center Screw



Slide Heated Flattening Plate On Set Screw. attach Cam Lock and Rotate To Compress Plastic Against 4-Hole Posts

Lamination

Screw Shuttle Dummy & Housing to Center Screw



Apply Lay-up Leaving Holes for Attachment Screws and Center Screw.



Remove Center Screw and Jam Nut. Screw Inner Socket Screw Down to Release Lamination Plate

Fabrication Guidelines for Fillauer Prosthetic Locks

- 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.

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 unlocking.
 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 component 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.