# Clutch Lock with Delrin Housing and Air Expulsion



140000 Delrin Housing Clutch Lock Kit w/o Plunger

- Rated to 300 lbs.
- **Clutch Lock Kit:**
- 140000 Delrin Clutch Lock Kit w/o Plunger
- 140002 **Delrin Housing for Clutch Lock**
- 140150 Clutch Lock w/ Air Expulsion Fabrication Kit for Clutch Lock
- 140065

## Plungers: (sold separately)

140040	2" Clutch Lock Plunger, 1/4-20 Thread
140041	1 1/2" Clutch Lock Plunger, 1/4-20 Thread
140043	2" Clutch Lock Plunger, M10 Metric Thread
140044	1 1/2" Clutch Lock Plunger, M10 Metric Thread

**Clutch Lock Cartridge:** 

140150	Clutch Lock w/ Air Expulsion
140116	Latch Button
140113	Air Expulsion Filter

## Fabrication Kit - Thermoforming and Lamination

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140065	Fabrication Kit
140060	Wrench
140061	Clutch Housing Dummy
140062	Distal Attachment Dummy
880488	1/4-20x2" Socket Head Set Screw
881351	Brass Nail

Push Button Extension:

140030	Push	Button	Extension	(sold	separately)
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Clutch Lock Assembly and Plungers



TLOT LLC

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#### Mold Preparation For All Clutch Lock Configurations

### Attach Assembly and Blend

The model should be prepared with a 1/4-20 x 2" set screw (P/N 880488) protruding 3/4" from the distal end with the hex socket inside the plaster. EXCEPTION: When using the 4-Hole Cylindrical Dummy (P/N 140070) a 5/16 - 18x3" set screw (P/N 880494, included in kit) should be used with 1" of the set screw protruding and the hex socket exposed. Align the set screw with the centerline of the model as shown in Figure 1 and 2 for proper alignment.

## **Prepare Model**

#### • Foam Model

For foam models, apply a nylon hose and a PVA sleeve, tied off around the protruding set screw.

#### • Plaster Model

Vacuum holes may be needed with plaster models especially near the clutch housing. If the model is wet, use a casting balloon.

Once the model has been prepared, slide the Distal Attachment Dummy (P/N 140062) over the exposed set screw and line up the two alignment posts to the medial/lateral plane. Use the two brass nails (P/N 881351, included in kit) to affix the Dummy to the model to stop rotation. Blend the distal end of the model to the inner flair of the Dummy with a plaster slurry.

## Fabricating Delrin Housing Lock

### 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 socket especially with the Socket Evaluation System. Special Care should be taken around the area of the clutch housing to prevent wrinkles especially when blister forming.

### **Two-Stage Lamination**

Pack the Delrin Housing (P/N 140002) with stick wax (P/N 990035), add a wax coating to the Clutch Housing Dummy (P/N 140061) and screw it into the clutch hole in the Delrin Housing (dummy and clutch lock housing have a left hand thread), then fill the slot with either wax or silicone gel. Next, add a silicone gel (P/N 741214) "O-Ring" to the distal attachment dummy before sliding on the Delrin Housing. The Delrin Housing is normally used with a two-stage lamination technique. In this method the Delrin Housing is incorporated in the first lamination. This inner shell consists simply of Dacron and/or Nylon.

The outer lamination is reinforced with carbon or fiberglass taking into consideration the patient's weight and activity level. It's suggested that the reinforcement include three 1" strips of carbon tape (P/N 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 Clutch Housing can also be used in a one-stage lamination technique using a pyramid 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.



## **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.
- A minimum of 3 serrations or rings must be engaged in the shuttle and clutch locks for safest operation.
- This device is intended for single patient use.

## 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 perfor mance 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.

Failure to follow these guidelines will void any warranty.