



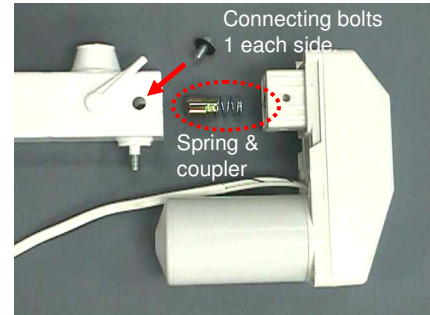
INSTRUCTIONS FOR CHANGING THE OUTER (WHITE) JACK TUBE.

Tools required: Rags, needle nose pliers, small flat blade screwdriver, small mallet, adjustable wrench, bearing grease. [On 4600 series only – snap ring pliers]

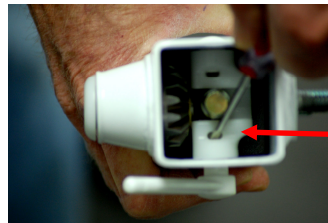
Important: Retain all removed parts for reinstallation

REMOVAL

1. If a motor is installed on the jack, begin by removing the two bolts which hold motor to jack, then lift out motor, coupler, and spring.

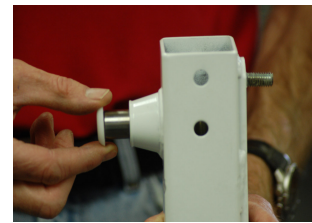
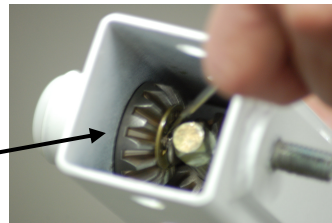


2. Use screwdriver blade to pry out cam lever and hinge button from sides of motor cam, then use needle nose pliers to remove motor cam.



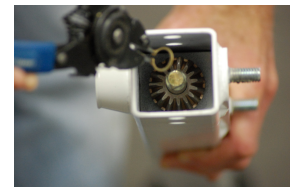
Push screwdriver blade to bottom of slot and pry outward toward handle. Do the same with hinge button at other side.

3. Use screwdriver to pop off e-ring clip from end of crank socket shaft, then pull crank socket from jack tube.



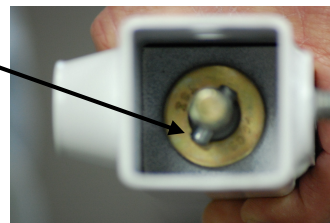
4. Lift out vertical bevel gear.

5. Lift out horizontal bevel gear.
- On 4600 series jacks only – must remove snap ring from top of horizontal bevel gear. This snap ring is not required on 4150 and 4500 series jacks.



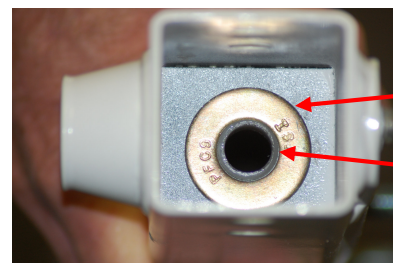
4600 Jacks Only

6. Remove drift pin from drive shaft. (This will come out easily if jack is slightly extended and drift pin is turned toward an inside corner of the jack tube. Drive shaft can be turned with adjustable or 1/2" box wrench on square end)



If jack is slightly extended, pin will drift freely and can be pulled with needle nose pliers.

7. Pull outer tube up, completely off inner tube.
8. Remove washer and nylon bushing from outer tube.



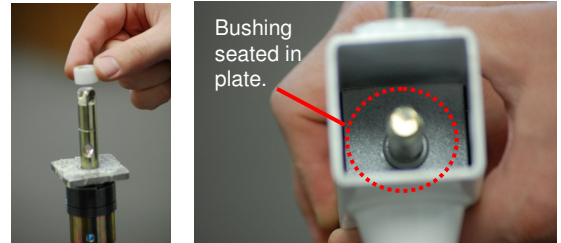
Washer

Nylon bushing

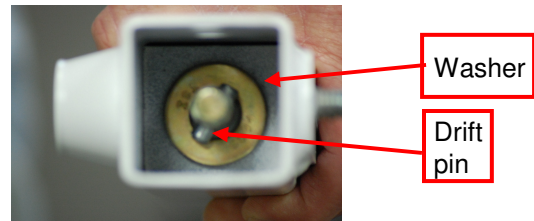
Turn over for installation instructions.

INSTALLATION

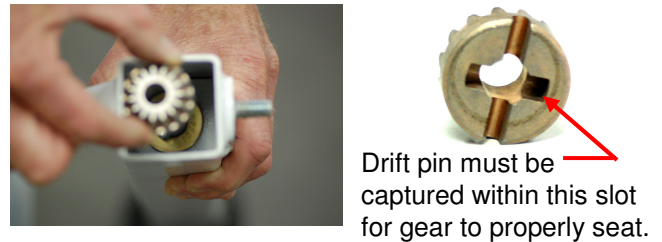
1. Slip the nylon bushing removed from the old outer tube over the drive shaft until it seats, then carefully slide the new outer tube over the inner tube until it seats and the nylon bushing comes through the plate in the outer tube.



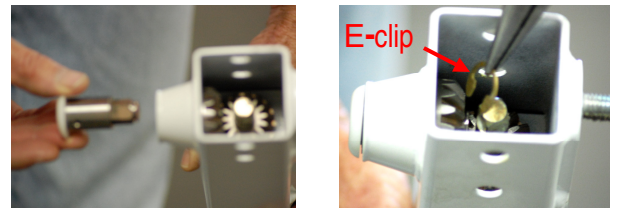
2. Install washer and drift pin. (Easiest if hole in shaft is turned toward a corner of the jack tube.) Nylon bushing around shaft should extend into and center the washer.



3. Center the drift pin and carefully drop the horizontal bevel gear over the drift pin. Be sure gear fully seats over drift pin with pin captured in the pin slot.
- On 4600 series jacks only – must reinstall snap ring over top of horizontal bevel gear.

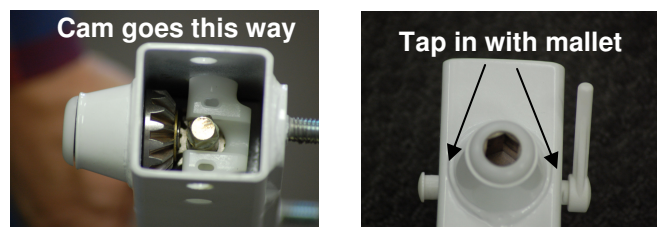


4. Drop in the vertical bevel gear and align the teeth with the horizontal bevel gear, then insert the crank socket shaft through the vertical gear. Twist until hex portion of shaft passes through hex opening in gear then reinstall the e-ring clip on the end of the shaft.



Note: If the shaft will not pass through the vertical gear, the horizontal gear is not properly seated.

5. Install the motor cam, cam lever and hinge button by dropping the cam in place then tapping in the cam lever and hinge button. Lever must align with slot in end of cam.



6. If jacks are equipped with electric motors, reinstall the motors by first installing the coupler and spring, then slipping the motor head onto the jack. Be sure motor is orientated correctly for your application. It may be necessary to turn the crank socket slightly to get the motor to drop and engage. Reinstall the two bolts securing the motor to the jack.