

Beekeepers Serving Beekeepers



Lyson W231 Extractor + Electric Conversion Assembly Instructions

Congratulations on your purchase! Please follow these instructions carefully to ensure that your extractor is properly assembled and ready for years of safe and reliable service.

Tools Required: Metric wrenches and/or sockets (various sizes, 6 to 17mm)

6mm Allen wrench (other sizes needed are included with extractor)

Scissors or knife

1. Unpack all components carefully and ensure all components are present as shown below. Do not set extractor directly on floor; place a few pieces of packing material underneath each side to prevent the center shaft from resting on the floor. Now is a good time to remove the white plastic film from the extractor.



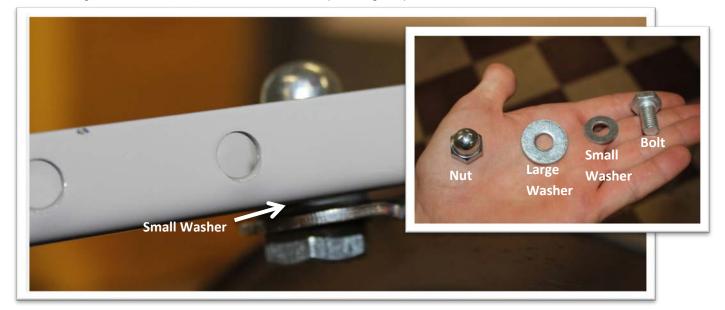




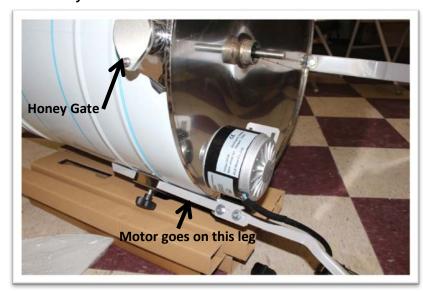
2. Lay extractor on its side on several pieces of cardboard packing material, ensuring that it is not resting on the honey gate or hand crank.



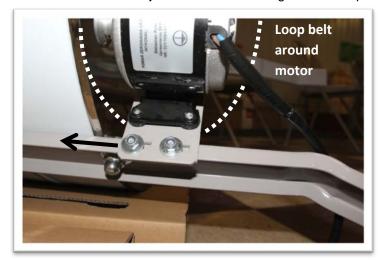
3. Bolt on the legs. You will need a large washer, small washer, cap nut, and bolt for each leg (see inset below). Place the small washer in between the leg and the extractor. Place the large washer between the nut and the outside of the leg. After installing the bolts, install the hand knobs to clamp the legs in place.



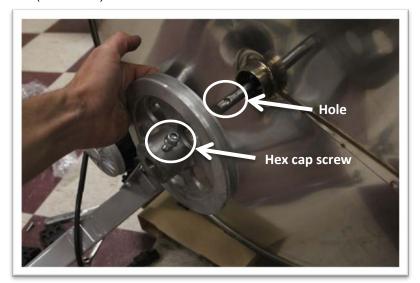
4. Install the motor with the pulley end facing up as shown below. <u>Be sure to install on the correct leg as shown relative to the honey gate (looking from below, motor is counterclockwise from the honey gate).</u> Do not tighten the screws yet.



5. Place the belt over the motor pulley, and then slide the motor up the leg until the pulley is almost touching the bottom of the extractor. This adjustment is used to align the motor pulley with the extractor pulley.



6. Align the large pulley with the center shaft. The hex cap screw must be aligned with the hole drilled in the extractor shaft (see below). Slide onto the shaft.



7. Tighten hex cap screw with hex key. **Be sure the locking nut is not touching the pulley.** Approximately 5 ft-lb torque is sufficient (do not overtighten).



8. After hex cap screw is tightened, lock it in place by tightening the nut onto the pulley with an open end wrench.



9. Slide the motor approximately 2/3 of the way out towards the leg, and tighten the four screws.



10. Install the belt on the motor pulley, and force the belt onto the large pulley by rotating the large pulley by hand. There should be no slack in the belt once installed. If there is, remove belt, slide motor outward, and reinstall belt.





11. Set extractor upright on the legs. Install the lid switch on the top bar as shown below.



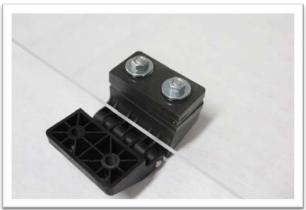
12. Loosen the top bar nut on the lid switch side (but do not remove), lift the bar $\sim 1/8$ ", and slide the lid switch cord underneath the top bar. Re-tighten the nut.





13. Identify the correct screws and washers to install the hinges on the plexiglass covers. Use the **long screws** and the **large washers**. You will need **three** plastic shims per hinge. Install the hinges on plexiglass with three shims between the hinge and the plastic. Do **not** fully tighten the nuts yet. Mount the handle on the cover with an extra hole.





14. Install the covers on the top-bar. The cover with the handle goes on the side opposite the crank. This is the side you will load and unload frames. Use short screws and small washers to mount the hinges on the steel top bar. Align the cover and adjust hinge positons before tightening all nuts. Do not overtighten as this may strip the screws. Be sure that the lid presses on the lid switch when the lid is closed.



15. Install the motor controller on the top bar. You will need to remove the two small plastic plugs from the top bar. The digital screen will face you on the left side of the extractor. See below for orientation.



16. Connect the motor cable and mount the connector on the leg with two zip ties as shown.



17. Route the motor wire as shown and mount on the extractor drum with adhesive mounts and zip ties. Place the adhesive mounts in the locations shown by arrows, below.



18. Connect lid switch to controller.



- 19. Turn extractor by hand. The extractor will not spin freely with the belt installed, but should not be difficult to turn.
- 20. Double check that all fasteners have been tightened properly, and that all pieces have been installed. Turn hand crank to the "down" position, and plug in the extractor. Press green button and gradually increase speed. Adjust belt tension or motor height if needed.



21. Clean extractor before use. **Be sure to unplug the extractor first and do not get the electronic components wet.** Regular dish soap and warm water is sufficient.

Operation:

To extract by hand, remove the belt from the center pulley. To extract with the motor, reinstall the belt. When using the motor, point the handle pointed downwards. Do not attempt to remove the handle.

Distribute frames evenly around the extractor to ensure a balanced load. Close lid and open honey gate before starting extractor. Turn unit on with switch on right side of control box. Slowly increase speed by pressing the "+" button. Allow to extract at low speeds before gradually increasing the speed as the honey extracts. Vary the speed as needed. If load becomes imbalanced, reduce the speed and/or rearrange the frames. For quickest extraction, extract in a warm room (80-90+ degrees) with warm honey supers.

Do not extract with the honey gate closed. The honey level will rise and interfere with the rotation of the basket.

When finished, clean the extractor with soap and water. **Be sure to unplug the extractor first and do not get the electronic components wet.** Do not fill the extractor with water as this can damage the bearings. Rinse clean and allow to dry before placing extractor in storage.