INSTALLATION & ADJUSTMENT

Exapta®s 05-10269 Mojo Wire™ for dual-tube Univ. Keeton®

Assembly for Liquid-ready (dual-tube) *planter* Keeton tails (WaveVision-ready) for <u>Universal</u> <u>wrap-around</u> brackets or scraper-mount ("Kinze") brackets.

(Mojo Wire is not intended for use with Low-Profile tails)

1A) IMPORTANT: Grind the bracket to provide enough clearance when tail flexes up into operating position.

Precision Planting's flattening of the tail to make it Wave-sensor compatible results in loss of a crucial 0.25" of clearance, which causes much greater stress on the bracket when tail is fully flexed – brackets may fail under this stress. This loss of clearance also will crush any liquid tubing at that pinch point. To prevent damage or failure of Keeton assembly, grind away

Cut/grind bracket at angle shown by red line. Continue to grind until you get to the head of the screw, which is visible in several of the photos—it's okay to skim a tiny bit off the screw- head's edge. Try to keep grinding square to the sides of the bracket—i.e., don't grind away more plastic where the screw threads are located. If done correctly, there's no weakening of bracket. Then, contour the

grinding somewhat to follow the arc of head of screw. This is to gain max clearance —since the tail curves, a straight 45° grind won't provide the full benefit. Pull tail up into maximum flex, and you'll see where it hits first with the straight grind. Round those corners off to gain more clearance.

part of bracket, as shown.



1B) To beef up the bracket further, install a very small screw (provided by Exapta) in hole above tensioning screw (see pic).

Grind off bracket at red dashed line.



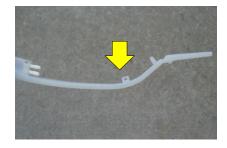








1C) Start with the Keeton bracket installed on the row unit and the tail removed. Grind off the loop (see photo: yellow arrow points to loop) until smooth since you'll want maximum clearance at this spot (**for older Keeton single-tube Liquid tails**, also grind off the 2 opposing hooks molded into the tail below the loop). For liquid tubing, first route the tubing thru the row unit but *outside** the Keeton bracket, thru the Mojo blocks & hose clamps, and then onto the barbed fittings in the dual-tube tail (attaching the lower one first, if using both). *Avoid kinking the tubing*. Using dish soap helps slide the tubing onto barbed fittings (don't use petroleum-based lubricants); heating the end slightly also helps. *Note: For a leak-free system*, don't



do any splicing of the 1/4" tubing–instead, run a continuous piece from the manifold all the way thru to the fittings in the dual-tube tail. (Or use a good auto-lock union connector.) Black 1/4" tubing is more durable than blue or red. Protect pinch points on the row unit with oversize tubing.

*Exapta recommends loosely tying the tubing to the outside of the bracket–see next page for details.

- 2) Slide Mojo Wire into place (see photo). Push the Mojo Wire's upper/forward Lbends down over the 'thumb' (retaining prong) of the tail.
- 3) Next, position the *upper* Mojo block just below the 'scar' from grinding off the loop in Step 1. Verify the upper block doesn't hit the Keeton bracket when tail is installed & fully flexed.) *Tighten hose clamp so that the worm screw is on top of the Mojo block, making sure the wire is in the notches on the sides of the block and on the upper surface of the Keeton tail. After tightening the clamp, gently tap the clamp on*

the underside of the tail to flatten the clamp there and conform it to the edges. Tighten clamps again (use a nut-driver, not a ratchet, since the clamps can't handle a lot of torque). Flex the tail a couple times, then retighten clamps.

4) Install the lower Mojo block so that there's ~1.5" gap between it & the upper block.

Preferably, snip off ends of hose clamps (to prevent mud & residue accumulation).

5) Insert tail into bracket, *making sure it pops* completely into place (so that the molded thumb is <u>above</u> the tensioning screw; the Wire's lower L-bend should also be above



Upper L-bends of Mojo are on either side of thumb/prong.

where the screw will hit the tail – *individual tails may fit so tightly as to require a violent jabbing action to get them to fully pop into position*). Tighten screw partway to retain tail. (If you chose to route tubing *inside* the bracket, be careful not to pinch the tubing.) Do not over-tighten screw! For Wave tails, start with 0.75" of threads showing on the tension screw between the head and bracket. Pressure changes dramatically in this range of the tensioning screw: 3/4-turn may cause a 1 lb change in pressure. In the field, you should adjust this screw further, but starting with too much pressure can damage the Keeton bracket.

Adjustment:

Tighten the screw on Keeton mounting bracket until satisfactory pressure is achieved in the furrow. For firm no-till seedbeds, it's generally optimum to embed the seed in the bottom of the furrow.

External routing of liquid tubing for Universal or Scraper-Mount Keeton brackets using 07-10686 holster:

If using a reinforcement screw* in bracket and Exapta's holster for the liquid tubing:

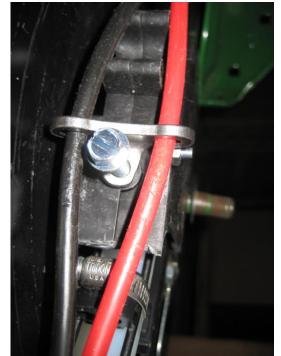
1) Install plastic tubing onto barbed fittings of Keeton dual-tube tail—warming the tubing slightly helps. Even if you are using only a single ¼" tube for liquids, install a 3-ft piece of 'dummy' tubing onto the other barbed fitting. In our photos, the red tubing is the dummy.

2) Install Mojo Wire per those instructions. *Don't route tubing thru upper plastic Mojo block on Keeton tail.* Route tubing *behind* Univ or Scraper-Mount bracket, rather than inside it, and thru the holes in Exapta's holster. Use 'pipe

& joint compound' on threads of tensioning screw, or it will not stay tight!

3) Use electrical tape to fasten the two strands of tubing together, *but only in the places shown*. See Photo C. Important: tubing should be secured or constrained in these locations but not any additional spots. *Tubing should slide freely up & down in holster as tail is flexed to the max.* (No tethering to upper

Mojo block / hose clamp; see Photos B & C.)



*All brackets shipped by Exapta now have this screw included.

