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# John Deere 455 Drill Scale System

## Instruction Booklet

**This product application is covered by U.S. Patents;**

**PATENTS: 6,732,667—7,059,258—7,273,017—7,357,087—7,448,335—7,523,710**

**PATENT PENDING: 12/427,915**

# John Deere 455 Drill Scale Installation- Digi-Star Scale

1. On the right side, loosen the four bolts that hold the seed bin down.
2. On the left side, remove the four bolts that hold the seed bin down.
3. Use a jack to lift the left side of the bin up, use a 4" x 4" or a 4" x 6" board. Support the 4" x 6" board with the walkway and the front frame. Put your jack between your board and the bottom of the seed bin.
4. Jack up the bin about 5".
5. Install the bottom bracket (leave the bolts loose at this time.)
6. Install the top bracket (Tighten the tapered bolts first and then the standard bolts.
7. (Photo 1) Slide the weigh bars into the sockets on the bottom bracket. Slide the weigh-bars all the way into the socket. Stop when the weigh bar cord is up to the socket.
8. Let the seed bin down slowly (and be careful not to cut the weigh bar cord next to the socket on the bottom bracket.)
9. (Photo 2) When the top bracket's 2" sockets are in line with the weigh bars, slide the weigh bars in and put the 3/8" clevis pin in. **Make sure the sticker located on the end of the weigh bar is pointing down.**
10. Let the jack down (do not tighten bolts on the bottom bracket at this time.)

11. On the right side, disconnect the drive shaft bearing the holder, the drive chain, and the clutch arm.
12. On the right side repeat steps 2-10.
13. (Photo 3) When both sides are completed, tighten the bolts on the bottom brackets. Tighten the tapered bolts first and then the standard bolts.
14. (Photo 4) Mount the drive shaft bearing holder provided with the kit. Weld the bottom bracket to the drill frame when the shaft looks straight.
15. Install the chain tightener provided with the kit (you may need to shorten the chain).
16. Install the new clutch drive arm. Drill a hole in the arm so the clutch is disengaged when the drill is up and engaged when the drill is down. The length extended on the clutch arm is the same distance that the seed bin was raised, because of the scale system.
17. Mount the readout in the cab or on the drill.
18. Install the power cord to a 12 volt, negative-ground battery (red is positive and black is negative.)
19. Route the weigh bar cords so they will not be bound or pinched by anything, and connect them into the readout. If you have a junction box, connect the weigh bar cords to the junction box. It doesn't matter which hole the weigh bar cords are placed in under the readout or junction box.

If you have any questions, don't hesitate to call Ken at 319-462-2344, or 888-962-2344.

**Power Connection:**

The power cable should be connected directly to a vehicle battery or regulated power supply. The scale end of the power cable is attached to the J901 connector located on the bottom panel of the scale.

Connect the RED wire from the power cable to +12 VDC and the BLACK wire to GROUND. The indicator is fused internally at 4 amps.

Power Cable Connections:

<b>Wire color</b>	<b>Wire Function</b>
Red	<i>Battery (+12 VDC)</i>
Black	<i>GROUND</i>

**Load Cell Connection:**

The indicator is designed to operate with strain gage load cells. The indicator will normally be supplied with a "J-BOX" cable going between the scale and the load cell junction box. Extension kits are available from your dealer in various lengths.

To connect the load cells, attach the junction box cable to the J902 or J903 connector on the bottom panel of the scale.

**How to use Drill Scale with a Digi-Star GT460 or GT400 Indicator**

1. Turn indicator on.
2. Push the "ZERO" button to zero out the scale.  
The arrow will be pointing towards "GROSS" on the display.
3. Fill the drill with seed. The GROSS weight is your inventory of seed in the drill.
4. To set population rate, stop in a level location with the drill row units up.
5. Check your acre counter.
6. Push the "START" button on the display.  
The display will show zero.  
An arrow will be pointing towards "TARE" on the display.
7. Drill 3 acres and stop in a level location with the drill row units up.
8. Divide the acres planted the amount of seed used.  
This gives the pounds per acre of seed.
9. Press "STOP", the indicator will go back to displaying the inventory of seed in the drill.  
The arrow will be pointing towards "GROSS" on the display.

## **How to Check the Drill Scale after Installation**

For the first test, lift the drill all of the way up on a level area. Next put 200-250 pounds of weight on the right side and then compare it to the left. Both sides should be within four to six pounds of each other.

-If the weight is not within the four to six pound range the problem could be that the drive chain is too tight or that the clutch is binding. Loosen the chain and check the weight again; if it weighs correctly the problem was that the chain was too tight.

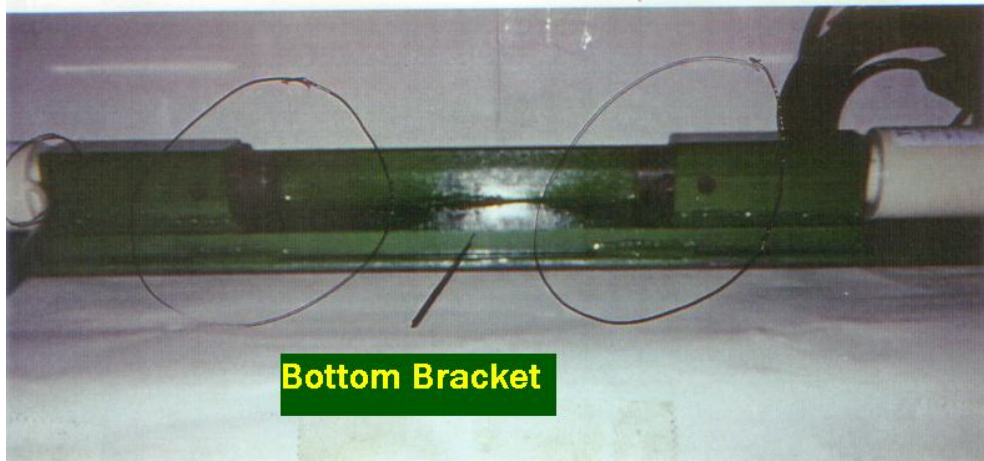
-If your scale still doesn't weigh right you must remove the clutch arm, and check the weight on both sides. If this corrects it, then your clutch was the problem. Remember that the clutch arm needs to be on the back of the clutch to work properly.

The second test is to lift the drill up on a level area and zero the scale. Next lift the drill up and down two or three times, checking to see if the scale goes back to zero. Every time the drill is up the scale should read within four to six pounds of each other time. If the scale doesn't stay in this range, remove the clutch arm and repeat the test with the clutch disconnected. If this solves the weigh problems, then the clutch is binding, or it needs lubrication (remember- the clutch arm needs to be on the back side of the clutch to work properly.)

**If you have any questions, don't hesitate to call Scale-Tec!**

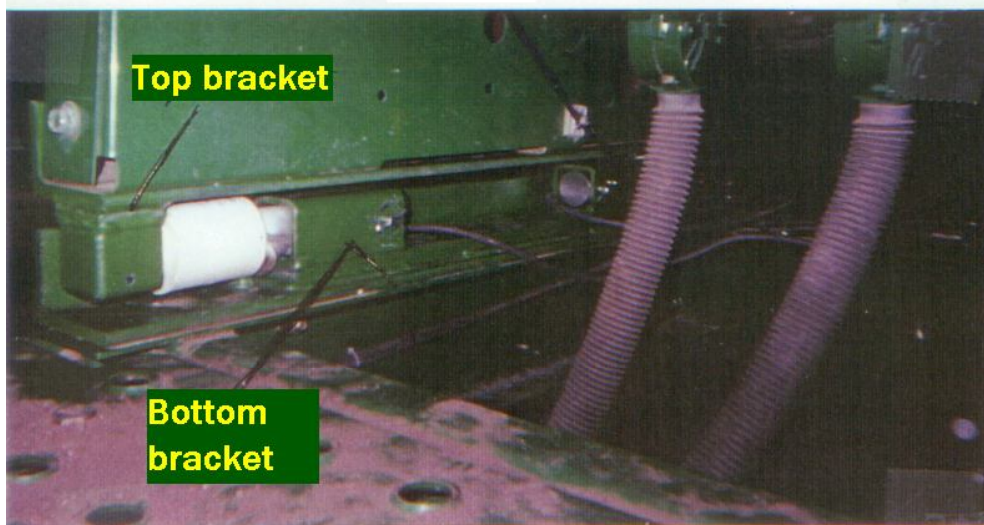
**Our number is +1-319-462-2344, or toll-free +1-888-962-2344**

1



**Bottom Bracket**

2



**Top bracket**

**Bottom bracket**

3



4



5

