

## 1890 No-Till Air Drill

**CAUTION:** Avoid serious injury or death. Always close the opener lock-up valve before performing any adjustment or maintenance on the machine.

This reference card is intended as a guide. Refer to the Operator's Manual for detailed information. Reference the tractor Operator's Manual for specific tractor operation.

Use the seed rate charts as a guide for the initial rate setting. Perform rate checks in the field to verify target rate.

A combination of adjustments determines seed placement.

<b>Adjustment of one component affects performance of other components. For best seed placement, inspect all other component adjustments after any change. Make opener adjustments with minimal product in the tanks to determine if additional ballast is needed and to ensure drill performance.</b>	
A	Gauge Wheel: Firms the furrow wall. Scrapes soil from disks. Controls furrow depth. Set the depth with the handle on each opener.
B	Press Wheel: Presses seed into furrow to promote germination. Vary spring pressure with an adjustment handle on each opener.
C	Closing Wheel: Crumbles the furrow wall to bury seed. Reposition shim washers to adjust proximity of wheel to furrow (closer for loose soil - farther for dense soil).
D	Seed Boot: Delivers seed to furrow. Adjust the height for varying conditions.

**Gauge Wheel Adjustment:** Depth adjustment handle (E) adjusts the furrow depth in 6 mm (1/4 in) increments. Changes in soil condition, field residue, and disk wear can alter disk penetration. Verify adjustment with a field check.

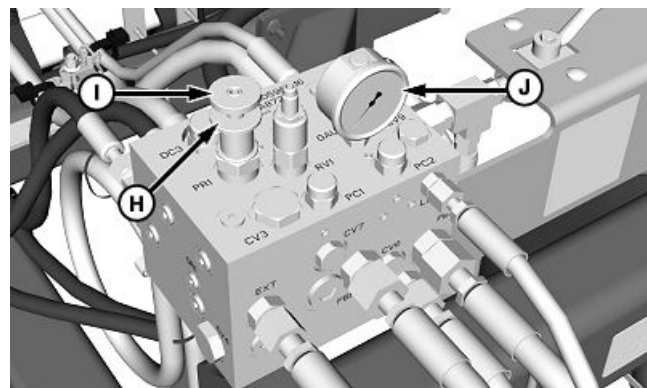
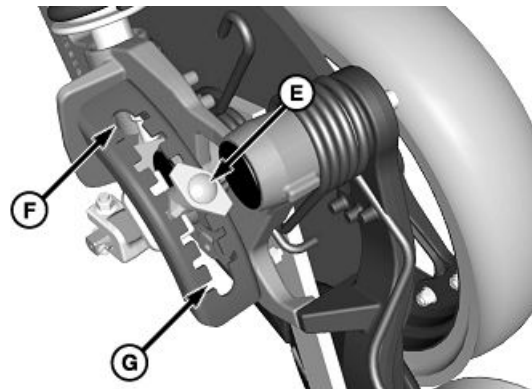
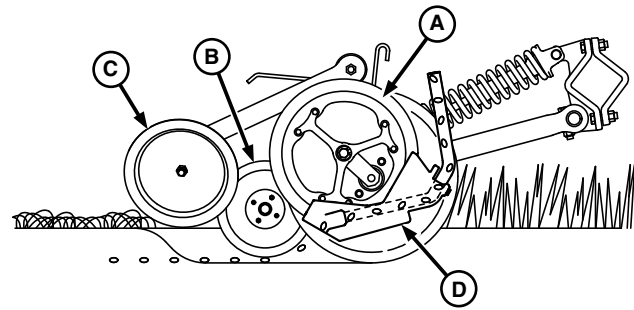
### Active Hydraulic Downforce

**IMPORTANT:** Active downforce requires a tractor with closed center hydraulics. If the tractor has an open center hydraulic system, see your John Deere dealer or qualified service provider for a conversion kit.

Adjust pressure to maintain gauge wheel contact with soil. Do not use more pressure than necessary.

Set tractor hydraulics to continuous flow for the rockshaft control lever. Install lever lock on tractors without continuous setting.

1. Open the lock-up valve and activate the continuous hydraulics and lower the openers.
2. Loosen dial (H).
3. Turn dial (I) while watching gauge (J).
  - **Green Zone:** This range is for conventional-till fields. Operate in this zone with an unballasted drill.



- |                           |                    |
|---------------------------|--------------------|
| A—Gauge Wheel             | F—Deep Setting     |
| B—Press Wheel             | G—Shallow Setting  |
| C—Closing Wheel           | H—Dial, Lock       |
| D—Seed Boot               | I—Dial, Adjustment |
| E—Depth Adjustment Handle | J—Pressure Gauge   |

- **Orange Zone:** This range is for minimum-till and no-till fields. Operate in this zone with ballast added to the drill for difficult to penetrate soil conditions.
  - **Red Zone:** Do not operate in this zone.
4. Once the target pressure is set, lock dial (I) in position with dial (H).

Adjust the seed boot for the conditions given in the table. Ensure that the leaf spring, behind the boot, remains in position during adjustment.

Seed Boot Position	
A	Top Hole: Factory setting. This position works in most conditions.
B	Bottom Hole: Use when depth is 25 mm (1 in) or less. Use in heavy residue conditions. Use if high ground speed causes inconsistent seed depth. Use if a worn boot is used with new disk openers.

Adjust the press wheel force based on soil conditions and seed depth. Place spring (C) in one of three positions:

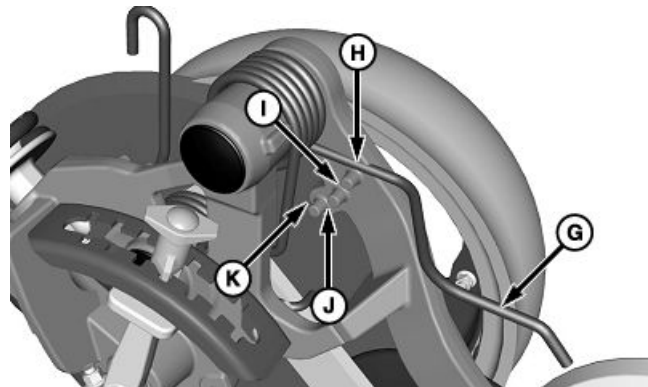
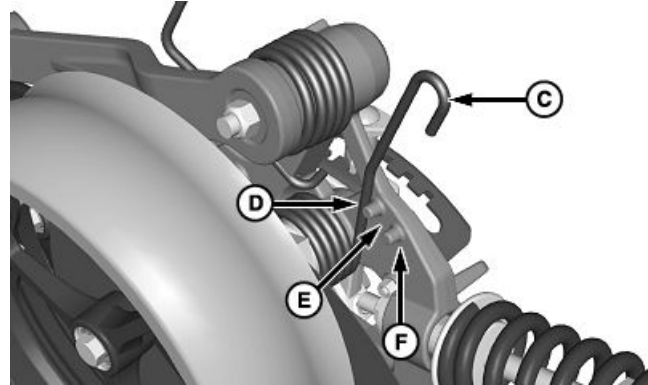
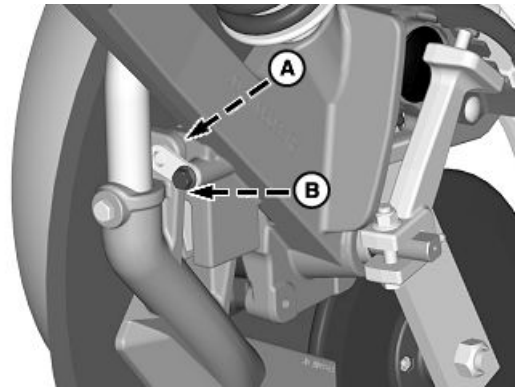
Press Wheel Force	
D	Maximum Force: Use this position when seeding shallow due to the opener arm angle.
E	Medium Force: Use this position when seeding at moderate depth.
F	Minimum Force: Use this position when seeding deep due to the opener arm angle.

Adjust the closing wheel force so the seed furrow crumbles over the seed without compacting the seed zone. Place spring (G) in one of four positions according to the soil type:

Closing Wheel Force	
H	Heaviest Force: Use in the heaviest soil conditions.
I	Heavy Force: Use in heavy moist soil.
J	Medium Force: Use in most common soil types.
K	Light Force: Use in light, loose, or sandy soil.

- A—Top Hole
- B—Bottom Hole
- C—Press Wheel Spring
- D—Maximum Force
- E—Medium Force
- F—Minimum Force

- G—Closing Wheel Spring
- H—Heaviest Force
- I—Heavy Force
- J—Medium Force
- K—Light Force



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