INSTALLATION INSTRUCTIONS

This safety symbol is used throughout these instructions to alert you to information about unsafe actions or situations, and may be followed by the word DANGER, WARNING, or CAUTION.

Be Alert! Your safety and the safety of others is involved.

DANGER - Indicates immediate hazards that may result in severe injury or death. WARNING - Indicates unsafe actions or situations that may cause severe injury, death and/or major equipment or property damage. CAUTION - Indicates unsafe actions or situations that may cause injury, and/or minor equipment or property damage.

Please remember that safety is the number one priority. Use caution during all phases of the assembly process. Wear proper PPE (personal protective equipment) and follow the safety recommendations included in the manual provided with your equipment.

RACK & PINION BIN WELL CONTROLLER

PART NO’s. B1123R - 6”, B1223R - 8” & B1323R - 10”

for use with

6”, 8” & 10” UNLOAD SYSTEMS

Before beginning assembly it is suggested to read through these instructions and lay out all items from the kit to ensure all parts are accounted for. This not only helps you become familiar with the parts and assembly procedures, but also makes you aware of what tools, equipment or materials you may need to complete the installation process.

Install Rack & Pinion onto Unload Tube

1. Position the rack & pinion mounting band and half-band onto the unload tube and loosely secure them using 5/16” x 1 1/2” bolts and nylon locknuts for the 6” & 8” controllers and 3/8” x 1 1/2” for 10” controllers (the slotted ends of the mount band & slide plate face the bin).

2. Attach the slide plate, the rack weldment and the housing onto the mounting band and secure using 3/8” x 1 1/2” bolts and nylon locknuts (See Fig. 1). Make sure the rack weldment is aligned with the spur gear in the housing so that the teeth on both the spur gear and rack weldment engage properly.

3. Slide the handle onto the housing shaft and install the 5/16” x 2” roll pin into the shaft to keep handle in place. Make sure the roll pin extends equal distance on each side of the shaft.

4. Attach the cover plate to the housing as shown in Fig. 1. Secure the cover using 1/4” x 3/4” bolts and lock washers.

5. Ensure all bin well gates are closed. Rotate the handle to fully extend the rack weldment towards the bin. Center the controller on the unload tube and slide it towards the bin so that it is close enough to allow the bin well control pipes to be connected to the controller (See Fig. 2).
Connect Bin Well Control Pipes

1. Connect the bin well control pipes to the controller. For 6" & 8" Models, the center well control pipe will attach to the front bolt on the rack weldment as shown in Fig. 2.

With all bin well gates closed, and rack weldment extended towards the bin, connect the center well control pipe to the front bolt hole of the rack weldment using one 5/16" x 2 1/2" bolt and nylon locknut (See Fig. 2).

After the pipe is attached, position the controller so it is aligned with the center-line of the unload tube and the bin well control pipes, then tighten half-bands to secure controller into place.

For 10" Models, an adapter will first be installed to allow the two center well control pipes to be attached. Install the adapter to the rack weldment using two 5/16" x 2 1/2" bolts and nylon locknuts.

With all bin well gates closed and rack weldment extended towards bin, connect each center well control pipe to the adapter using 5/16" x 2 1/2" bolts and nylon locknuts (See Fig. 2).

After the pipes are attached, position the controller so it is aligned with the center-line of the unload tube and the bin well control pipes, then tighten half-bands to secure controller into place.

2. Connect the intermediate well control pipes to the center well pipe(s). For the 6", 8" and 10" Models, the connection is the same.

Some intermediate well control pipes may have a hole already drilled in them. If so, ensure all well gates are closed. Use the hole as a template and drill a 3/8" dia. hole thru the center well control pipe. If a hole needs to be drilled through both the intermediate and center well control pipes, place a mark 5/8" from the end of the intermediate well pipe and drill a 3/8" dia. hole through both control pipes (See Fig. 3).

3. Install the decal plate using the existing bolts from the upper bin flange.
Bin Well Control Operation
6” & 8” Controllers
The design of the controller handle allows simple handle operation even if the handle should become restricted from completing a full circle. Simply slide handle to end of shaft to clear pin, rotate handle to the next desired notch then slide the handle inward to engage the pin. Rotate handle in desired direction for rack & pinion operation (See illustration).

Open/Close Center Bin Well Gate
6” & 8” Controllers
1. Verify all well gates are closed.
To open center well gate only, remove the bolt that connects the intermediate well control pipe to the center well control pipe. Rotate handle to pull center bin well gate open.
To close center bin well gate, rotate handle in opposite direction.

Open/Close Intermediate Bin Well Gate(s)
6” & 8” Controllers
2. Verify all well gates are closed.
Align the holes in the intermediate and center well control pipes and install the 5/16” x 2 1/2” bolt through the holes. Secure with the lock washer and non-lock nut.
Rotate handle to open both the intermediate well gate(s) as well as the center well gate. Rotate handle in opposite direction to close the well gates.
Remove the bolt to operate only the center well gate.
Note: Intermediate wells should not be opened until the bin has emptied to where grain will no longer flow into the center well.
**Bin Well Control Operation**

**10” Controllers**

The design of the controller handle allows simple handle operation even if the handle should become restricted from completing a full circle.

Simply slide handle to end of shaft to clear pin, rotate handle to the next desired notch then slide the handle inward to engage the pin. Rotate handle in desired direction for rack & pinion operation (See illustration).

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**Open/Close Only Center Bin Well Gate**

**10” Controllers**

1. Verify all well gates are closed.

   To open center well gate only, remove the bolts that connect each of the intermediate well control pipes to the center well control pipes. Rotate handle to pull center bin well gate open.

   To close center bin well gate, rotate handle in opposite direction.

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**Open/Close Intermediate Bin Well Gate(s)**

**10” Controllers**

2. Verify all well gates are closed.

   Align the holes in the intermediate and center well control pipes and install the 5/16” x 2 1/2” bolts through the holes. Secure each set of pipes with the lock washer and non-lock nut.

   **Rotate handle to open the intermediate well gate(s) as well as the center well gate.**

   After grain has stopped flowing, close bin well gates (rotate handle in the opposite direction to close the well gates).

   **Note: Intermediate wells should not be opened until the bin has emptied to where grain will no longer flow into the center well.**
## PARTS LIST

Rack & Pinion Controller
f/ 6", 8" & 10" Unload Systems

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The complete Housing Assembly can be obtained by ordering Part No. 1049047. The complete assembly includes items 2 thru 9.

### Ref. No. | Part No. | Description
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1 | 1049057 | Rack Weldment f/ Well Gate
2 | 1049048 | Housing f/ Rack & Pinion
3 | 1049055 | Shaft, Pinion, 1" dia. x 10 5/16" long
4 | 6818D | Bearing, 1" bore, 2-Hole Flange
5 | 1049056 | Spur Gear, 8DP
6 | 6386C | Roll Pin, 5/16" x 2" long
7 | 4045A1 | Key, 1/4" sq. x 2" long
8 | 33257 | Bolt, 7/16-14 x 1 1/2" G5 PLT
9 | 33137 | Nut, 7/16-14 Nylon Lock
10 | 1049125 | Adapter f/ 10" R&P Double Pull
11 | 1049062 | Slide Plate, UHMW
12 | 1049070 | Cover Plate
13 | 1049066 | Handle f/ Well Gate R&P
14 | 6386C | Roll Pin, 5/16" x 2" long

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### Ref. No. | Part No. | Description
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15 | 1049130 | Mounting Band f/ 6" Tube
16 | 1049129 | Mounting Band f/ 8" Tube
17 | 1049063 | Mounting Band f/ 10" Tube
18 | 1022018P | Half Band f/ 6" Tube
19 | 1002802P | Half Band f/ 8" Tube
20 | 106225 | Half Band f/ 10" Tube
21 | 1002217 | Bolt, 5/16-18 x 1 1/2" G5 PLT
22 | 33135 | Nut, 5/16-18 Nylon Lock PLT
23 | 33310 | Nut, 3/8-16 Nylon Lock PLT
24 | 4605-1 | Bolt, 1/4-20 x 3/4" G5 PLT
25 | 33143 | Washer, 1/4" Lock PLT
26 | 1049136 | Decal Plate w/ Decals

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**Decal Plate Includes:**
- Decal, 1006947 - Rack & Pinion Operation
- Danger Decal, 1002305 - Stay Out of Bin..

Hardware for mounting the 6" & 8" half-bands:
- Item 19, 4713-1 - 5/16-18 x 1 1/2" Bolts
- Item 20, 33135 - 5/16-18 Nylon Locknut