



**AJ-44 Rack Conveyor Dishmachine  
Maintenance Instructions**

# Changing Conveyor Direction

The Jackson model AJ-44 series dishmachine has the ability to have its direction of travel changed from left to right, or from right to left. Direction of travel is determined by which end the rack of ware is put into the machine and which end the rack comes out.

There may come times when it is necessary to change the direction of travel after the unit is installed. The instructions provided here are for maintenance personnel only. Unauthorized persons should not attempt any of the steps contained in these instructions.

**Warning: many of the instructions and steps within this document require the use of tools and may also require that personnel change the wiring of the machine. Only authorized personnel should ever perform any maintenance evolution on the dishmachine!**

## PREPARATION

1. Power must be secured to the unit at the service breaker. Tag or lock out the service breaker to prevent accidental or unauthorized energizing of the machine.
2. Disconnect incoming water at the water pressure regulator or Y-strainer.
3. Disconnect the service drain line from the drain plumbing of the dishmachine itself. Ensure that the unit is completely drained before doing this.
4. Remove the locking screw from the control box.
5. Remove the front dress panel.

## TOOLS REQUIRED

The following tools will be needed to perform this maintenance evolution:

1. 5/16" nutdriver
2. 7/16" nutdriver
3. 7/16" combination wrench
4. 7/16" socket with drive ratchet and 4" extension
5. 12" pipe wrench
6. 10" adjustable wrench
7. Wire cutters
8. Phillipshead screwdriver

## TIME REQUIRED

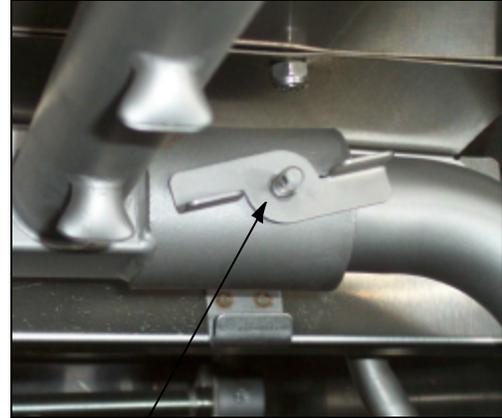
It is estimated that it will take (1) person three hours to perform this task, not including all of the items indicated in the section entitled "PREPARATION".

## IMPORTANT NOTES

1. Do not lose hardware! Place hardware in a safe spot away from the machine, ensuring that it does not fall loose into the machine tub. Hardware that is drawing into the suction of the wash pump will damage the equipment. If you do need more hardware, contact Jackson to purchase new items.
2. Read these instructions thoroughly before attempting this maintenance evolution. Become familiar with the parts and what actions need to be taken. This will save time in the long run!

## STEPS

1. Remove the upper wash arm assembly by loosening the spin nut. The spin nut has a stop so it will not come off. Once it is loosened, the wash arm assembly should slide off.



Spin nut

2. Remove the end cap from the wash arm assembly and place in the opposite end, securing it snugly.

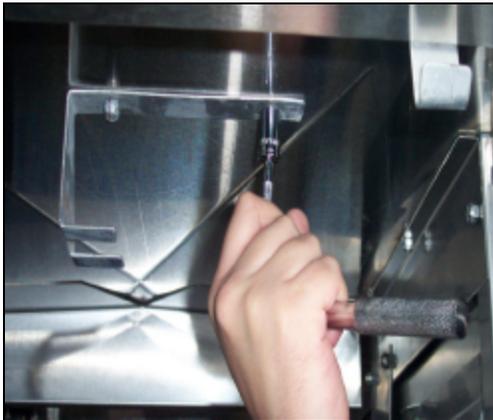


End cap

3. With the end cap securely in the opposite end of the wash arm assembly, set the assembly gently to the side. Go back inside the unit to where the upper wash arm assembly secured in the unit and turn the spin nut so that it is all the way down. This needs to be done because in a further step, if the spin nut is out, it will get in the way. Do not over-tighten the spin nut as it only needs to be out of the way, not secured.
4. Remove the upper wash arm assembly bracket. This step may require that you have help as the bolts for securing the bracket to the top of the inner hood are the same bolts that hold the control box to the hood top. Do not remove the bolts once the nuts are taken off. Once the bracket is removed, place the nuts immediately back on the bolts. To hold the bolts (to keep them from spinning),

a 7/16" combination wrench or 7/16" nutdriver will be required in order to hold the bolt head inside the control box.

6. Remove the pawl bar and set to the side.



Removing bracket (bottom view)



Remove the pawl bar by grasping firmly and lifting up.



Removing bracket (control box view)

7. Remove the lower wash arm assembly by turning the locking screw to unlatch it. The entire assembly should then lift out.



Locking screw

Remove the locknuts from the opposite bolts used to hold down the control box (do not remove the bolts) and secure the bracket to underside of the hood. The folded part of the bracket should be facing the rear of the machine. Immediately tighten down the locknuts.

5. Remove the splash shield, which is bolted to the underside of the hood next to the wash manifold and turn it 180°.

8. Remove the lower wash arm support bracket. Place it to the side with its locknuts.



Removing and turning splash shield



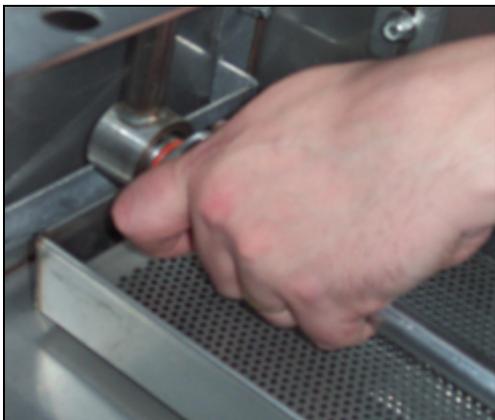
Removing the locknuts for the lower wash arm support bracket.

9. Remove the lower rinse arm support bracket, which is mounted directly opposite of the lower wash arm support bracket.



Removing the lower rinse arm support bracket

10. Remove the lower and upper rinse arms by unscrewing them and then gently pulling them out.



Unscrewing and removing the lower rinse arm

11. Behind the rinse manifold, remove the nut on the bracket.



Removing the bracket nut

12. Remove the nuts from the rinse manifold mounting bracket located on the underside of the hood. These nuts are mounted directly to the rinse injector weldment on the hood top.



Removing the locknuts from the rinse manifold mounting bracket

13. The rinse manifold must be removed. This may prove difficult while the rinse injector is still mounted. With great care, it is possible to gently lift the rinse injector off of the hood to allow the rinse manifold to be removed from the unit. Ensure that the gasket in the underside of the hood stays with the rinse manifold as it must be replaced when re-installing the manifold. If the gasket becomes lost or torn, order a new one immediately.



Lifting the rinse injector to make room

14. Remove the entire rinse tray assembly, including the pan and the strainer within in. The assembly should lift right out. (See next page for photograph detailing this step)

15. Remove the front and rear rinse pan locator brackets. **Note: the brackets are mounted to the bolts that secure the tub weldment to the frame.** Once the locknuts are removed, pull the locator brackets off and immediately replace the locknuts back onto the bolts. Failure to do so at a minimum may cause excessive leaking of the tub once the unit is placed back in operation.

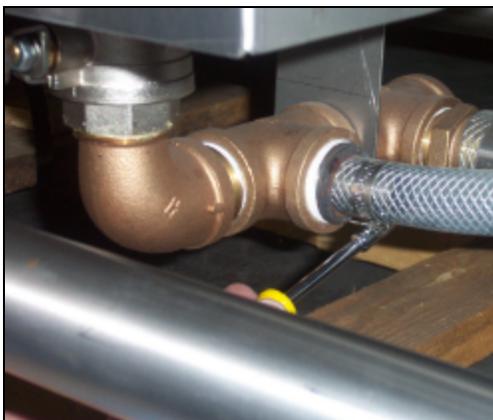


Lifting out the rinse tray assembly



Removing a rinse tray guide bracket

16. On the drain plumbing, the rinse drain tube needs to be removed from the plumbing, as well as the wash drain tube. Both of these tubes are secured with hose clamps. Loosen the hose clamps and pull the tubes off.



Loosening the rinse drain hose from the rinse drain nipple

17. The tee that the rinse drain nipple is in must be turned 180° so that it is facing the opposite direction. This may require dismantling the plumbing by removing the tee with the wash drain barb in it. Put the plumbing back together, after ensuring that the rinse drain tee has been rotated. Use thread tape to protect the threads while putting the plumbing back together. Ensure that the wash drain barb is in the exact same position it was prior to this step.

18. On the underside of the tub, remove the rinse drain weldment and the rinse drain plug. Switch their locations so that the rinse drain weldment is in the spot that the rinse drain plug was in.



Removing the rinse drain weldment



Removing the rinse drain plug

19. Reconnect the rinse drain hose and the wash drain hose to the drain plumbing.

20. On the opposite end from where they were removed, install the front and rear rinse pan assembly locating brackets. **Note: the brackets are mounted to the bolts that secure the tub weldment to the frame.** Install the brackets one at a time and ensure that they are firmly tightened down once installed.

21. Remove the hole cover weldment from the top of the hood. The cover is located on the end of the hood opposite of the rinse injection.

tor weldment. Once removed, set to the side along with its gasket.



Removing the hole cover weldment

22. Separate the rinse plumbing from the rest of the incoming plumbing by loosening the union. Ensure that the gasket on the bottom of the rinse injector stays with the assembly as you remove it.



Loosening the union on the incoming plumbing

23. Remove the remaining half of the union from the incoming plumbing.

24. Remove the incoming water pressure regulator from the incoming plumbing and replace with the union half that was removed in step 23. Place the water pressure regulator on the end that the union half was removed from.

25. Place the removed rinse plumbing assembly (with the gasket) in the hole left open from when you removed the hole cover weldment in step 21. Tighten the two halves of the union together.

26. Place the hole cover weldment (with its gasket) over the hole from where the rinse plumbing assembly was originally installed. Tighten down with the locknuts.

27. Re-install the rinse manifold (with its gasket) by connecting it to the rinse injector weldment at its new location. Remove the locknut from the stud for the bracket down near the rack rails and then secure the bracket to the machine using the same lock nut.

28. Re-install the lower wash arm support bracket to the pawl bar support on the end of the tub opposite from where it was removed.

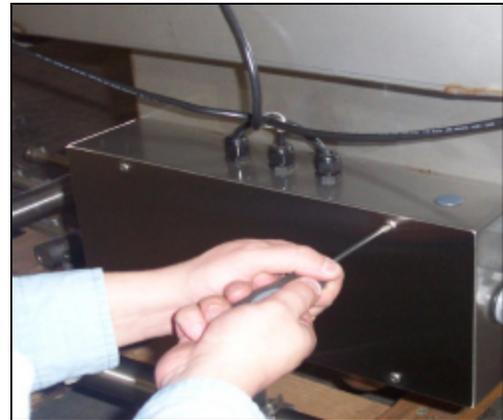
29. Re-install the upper and lower rinse arms. Reinstall the lower rinse arm support bracket.

30. Re-install the lower wash arm assembly, turning it 180° and locking it in place with the locking screw.

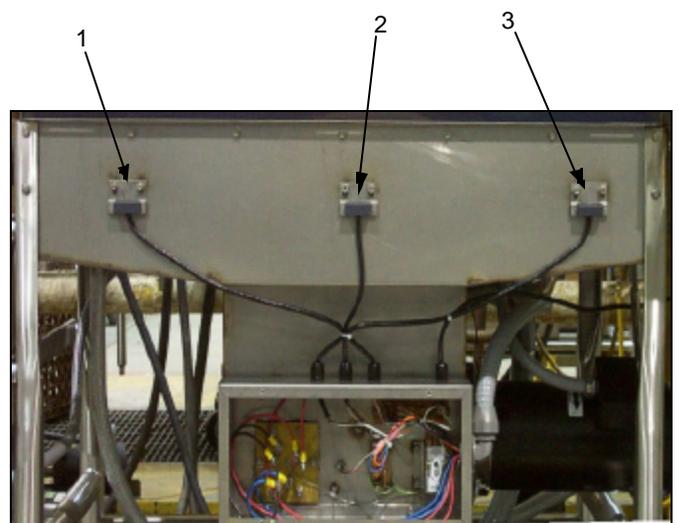
31. Re-install the pawl bar. Ensure that the pawl bar is placed so that when racks are placed in the unit, the pawl bar dogs fold down.

32. Re-install the upper wash arm assembly. If you performed all of the actions outlined in step 2, when you install it, it will be directly over the lower wash arm assembly.

33. Remove the heater box cover by unscrewing the four screws holding it on.



Removing the heater box cover



Front of rack conveyor showing the conveyor switches

**Conveyor Switch Chart:**

Unit Direction	Switch #1	Switch #2	Switch #3
Left to Right	Wash Switch #1	Wash Switch #2	Rinse Switch
Right to Left	Rinse Switch	Wash Switch #2	Wash Switch #1

The chart above lists the conveyor switches and their functions, depending on the direction of travel for the machine. As you can see, when you change the direction of the conveyor, you must also alter the way the conveyor switches operate.

There is no need to remove the switches, only to change the wiring inside the heater box.



Terminal board inside the heater box

34. **Note:** Before beginning any part of this maintenance evolution that deals with the wiring of the machine, ensure that it is performed by qualified technicians only. Always refer to the machine schematic, located inside the control box, for any questions.

Wash Switch #1 and the Rinse Switch need to have their wire positions changed on the terminal board pictured above. Locate the **gray/yellow** wire for Wash Switch #1 (do not confuse it with the gray/yellow wire for Wash Switch #2) and the **orange/yellow** wire for the Rinse Switch. Exchange their positions on the terminal board.

35. Verify that the plumbing has been reassembled correctly and that the hole cover weldment has been replaced and none of the gaskets are torn or pinched as this could lead to leaking when the machine operates.



Incoming plumbing assembly for a Left to Right machine (note hole cover weldment in lower right corner)



Incoming plumbing assembly for a Right to Left machine (note hole cover weldment in upper left corner)

35. Re-install the heater box cover.

**AFTER MAINTENANCE ACTIONS**

1. Reconnect the incoming water and drain lines and then restore power to the unit. Run the unit for at least 1/2 hour to ensure there are no leaks. Test the unit with an empty rack to ensure that it pulls the rack all of the way through the unit. If any problems arise you can contact Jackson Technical Service.

2. Replace the front dress panel once the unit is ready for service again.

**SPECIAL NOTES**

1. There is a possibility that you may be required to shorten or lengthen the conduit and wire lengths for the inlet solenoid on the rinse plumbing once it is moved. This work should be performed by qualified technicians who will do the work according to applicable local, state and national codes. Questions concerning this should be directed to Jackson Technical Service.

2. Work performed on Jackson dishmachines by unauthorized or unqualified personnel may void the warranty. Before beginning this or any other maintenance evolution on a unit under warranty, you should contact a certified Jackson technician or Jackson Technical Service. You can find a list of qualified service agencies in the back of you unit's installation manual.

## **SPECIAL PARTS**

Gasket, Rinse Injector:

Order using part number 5330-111-42-81

## **CONTACT INFORMATION**

Jackson MSC Inc. provides technical support for all of the dishmachines detailed in this manual. We strongly recommend that you refer to this manual before making a call to our technical support staff. Please have this manual with you when you call so that our staff can refer you, if necessary, to the proper page. Technical support is available from 8:00 a.m. to 5:00 p.m. (EST), Monday through Friday. Technical support is not available on holidays. Contact technical support toll free at 1-888-800-5672. Please remember that technical support is available for service personnel only.