

P/N 290686

Accumulator Door Cylinder

Automated Equipment, LLC

5140 Moundview Drive
Red Wing, Minnesota 55066
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Accumulator Door Cylinder P/N 290686 Replacement

Tools Required

- 3/16 inch allen wrench
- 9/64 inch allen wrench
- 5/32 inch allen wrench
- 5/64 inch allen wrench

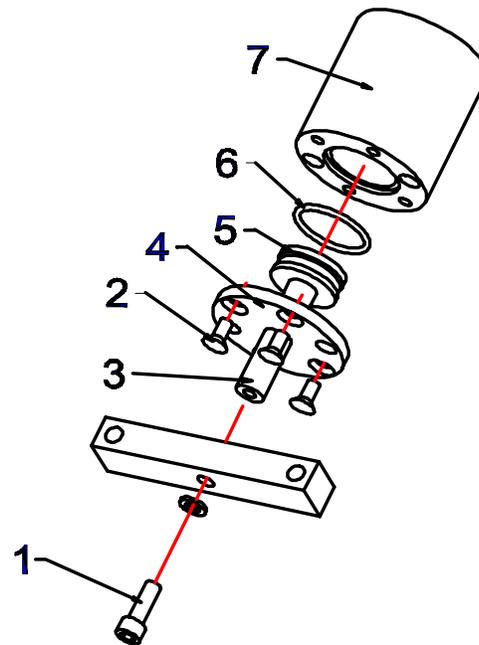
PARTIAL INSTALLATION

REMOVAL

Note: Turn the power switch off, unplug the power cord and remove air supply before proceeding.

1. Remove the lower back panel from the unit.
2. Remove the cylinder rod bolt (item #1).
3. Remove the cylinder end cap screws (item #2).
4. Remove the cylinder rod (item #3), piston (item #5), end cap (item #4) and o-ring (item #6).
5. Inspect inside the cylinder (item #7 & 10) for wear. If there is excessive wear the entire cylinder should be replaced.

Note: If the cylinder is not changed the fitting may be changed if needed.

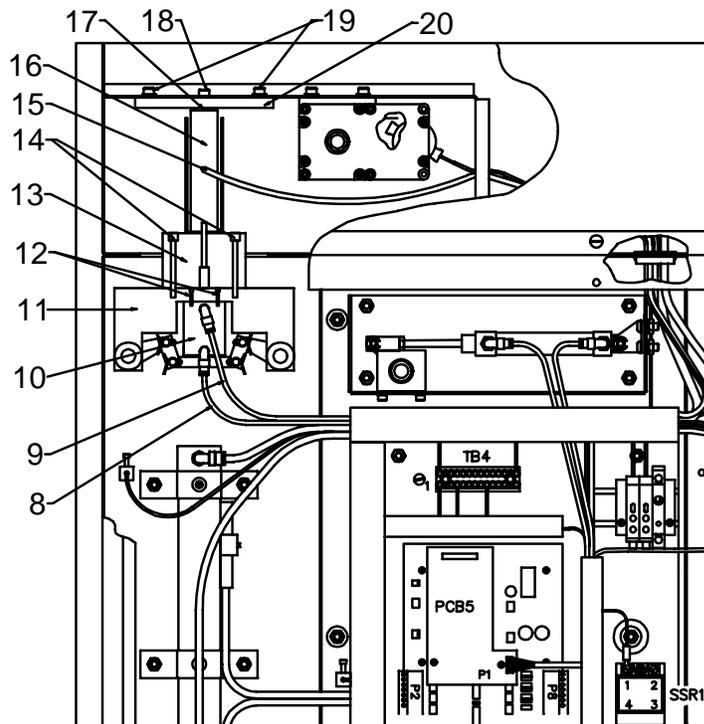


INSTALLATION

1. Install the cylinder rod (item #3), piston (item #5), end cap (item #4) and o-ring (item #6) from the new accumulator door cylinder.
2. Install and tighten the cylinder end cap screws (item #2).
3. *Install and tighten the cylinder rod bolt (item #1) using Loctite.*

Note: Do not use pliers on the cylinder rod.

4. *Calibrate the load cell.*
5. *Cycle baskets and fries through dispenser to verify proper operation.*
6. *Replace back panels and place the dispenser back in service.*



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COMPLETE REPLACEMENT

REMOVAL

Note: Turn the power switch off, unplug the power cord and remove air supply before proceeding.

1. Remove the hopper from the front of the dispenser.
2. Loosen accumulator door shaft collar set screws and slide them away from the dispenser.
3. Remove the upper and lower back panels from the unit.
4. Remove the air lines (item #8 & 9) from the accumulator door cylinder (item #10).
Push the airline into the fitting and push in on the flange at the end of the fitting. While pushing in on the flange pull out on the air line.
5. Remove the cylinder rod bolt (item #1).
6. Loosen the two (2) load cell mounting bolts (item #18) at the top of the load cell (item #16).
7. Remove four (4) pivot block bolts (item #14) from the load cell spacer block (item #13).
8. Remove the two (2) load cell mounting bolts (item #18).
9. Tip accumulator doors up in front to allow removal of the load cell (item #16)/spacer block (item #13) assembly.
10. Remove the two (2) accumulator door cylinder bolts (item #12) and remove the cylinder (item #10).

INSTALLATION

Note: Use of Blue LocTite is recommended on all 1/4" bolts.

1. Install the new accumulator door cylinder (item #10) and bolts (item #12).
2. Tip accumulator doors upward to allow placement of the load cell (item #16) and spacer block (item #13) assembly.
3. Insert two load cell mounting bolts (item #18) into the top of the load cell (item #16), through the top plate (item #20).
Note: Be sure to include the spacer washers (item #17) between the top plate (item #20) and the load cell (item #16).

Do not tighten at this time. The load cell cable (item #15) must face the rear of the dispenser.

4. Assemble the pivot block (item #11) to spacer block (item #13) using four (4) pivot block bolts (item #14).
Note: Do not apply excessive force to the load cell (item #16) when tightening these bolts.
5. Replace the hopper on front of dispenser and lock into position using hopper lock pins.
6. Center accumulator doors to opening in hopper using two (2) load cell mounting bolts (item #18) at the top of the load cell for the FRONT/BACK adjustment.
7. Center accumulator doors to opening in hopper using four (4) top plate bolts (item #19) for LEFT/RIGHT adjustment.

Note: Accumulator door shafts must not make contact with the clearance holes through the unit wall.

8. Slide accumulator door shaft collars to within 1/8" from dispenser walls and tighten the set screws.
9. Push the airlines into the accumulator door cylinder fittings.
Purple to the lower fitting and orange to the upper fitting.
10. Install and tighten the cylinder rod bolt using Loctite.
Note: Do not use pliers on the cylinder rod.
11. Calibrate the load cell.
12. Cycle baskets and fries through dispenser to verify proper operation.
13. Replace back panels and place the dispenser back in service.

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AFD-200/AFS-100 LOAD CELL CALIBRATION

Tools required: Small, standard adjustment screwdriver, Volt meter and pencil eraser.

Note: The LOAD CELL board is "L" shaped and piggy backed on the upper section of the Dispenser I/O board. The LOAD CELL board Test Points are on the left edge and labeled: "ANALOG", "VOUT" and VREF2".

**Steps 2 and 3 are applicable to AFD-200 only.

1. Remove the hopper from the dispenser.
2. Remove the upper back panel of the dispenser.
3. Verify the BASKET LOAD OFFSET ADJUSTMENT switches are in the OFF position.
4. Remove the lower back panel of the dispenser.
5. Trip the circuit breaker for the drum motor and cycle a basket through the dispenser to empty the accumulator doors.
6. Unplug load cell Molex connector from load cell board and clean the contact pins with a pencil eraser.
Reconnect the load cell harness.
7. Using the digital voltmeter, connect the negative "BLACK" lead to the test point labeled ANALOG.
8. Connect the positive "RED" lead to the test point labeled VREF2.
9. Turn the potentiometer labeled RP3 "A/D VREF" until the meter indicates 2.4 VDC.
10. Connect the positive "RED" lead to the test point labeled "VOUT".
11. Turn potentiometer RP1 "OFFSET ADJ" until the meter indicates 0 VDC +/- .010.
Reading may drift +/- 0.003 and still be acceptable.
12. Place a 2 pound weight on the accumulator doors. (e.g.Eight 4:1 patties OR 2-16 oz blocks of butter)
13. Turn potentiometer RP2 "GAIN ADJ" until the meter indicates 4.8 VDC.
14. Remove the 2 pound weight and verify that the meter returns to 0 VDC +/- .010.
15. The LOAD CELL is now calibrated.
16. Reset the circuit breaker for the drum motor by pressing the black button.
17. Install the upper and lower back panels on the dispenser.
18. Install the hopper on the dispenser and put unit back in operation.

