

P/N 202055 Lift Cylinder

Automated Equipment, LLC

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AFD-280/U Lift Cylinder P/N 202055 Replacement and Adjustment

Tools Required

Flat blade screwdriver
1 1/8" wrench
1" wrench
1/4" wrench
9/32" wrench
5/64" allen wrench
13mm wrench
Permanent ink marker

Do not use a vice grips or pliers on the cylinder body or shaft, doing so voids warranty and will impair operation

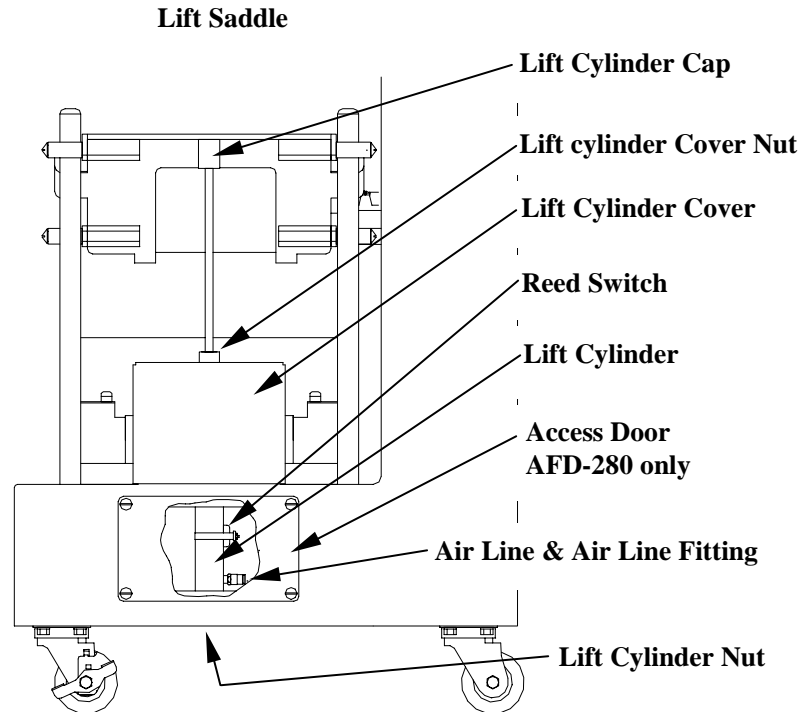
Removal

- Turn the dispenser power off and unplug from the wall outlet.
- Remove the back panel.
- Remove the lift saddle from the dispenser.
- Remove the lift cylinder cap.
AFD-280: Thread the cap off the rod. The rod has flats just below the threads for a 1/4" wrench.
AFD-280U: Pull the cap off the rod.
- Use a 1" wrench (or adjustable wrench) to remove the lift cylinder cover nut.
- Remove the lift cylinder cover.
- Remove the access door on AFD-280 dispensers.
- Remove the air line from the lift cylinder fitting:
Push the hose into the fitting and push in on the flange at end of the fitting. While pushing in on the flange pull out on the hose.
- Remove the air line fitting with a 13mm wrench.
- Remove the reed switches by loosening the jam nut with a 9/32" wrench and then loosening the screw with a 5/64" allen wrench.
- Remove the lift cylinder nut with a 1 1/8" wrench.
Note: some AFD-280 dispensers do not have a lift cylinder nut.
- Remove the lift cylinder up and out of the dispenser keeping track of any spacers that may be below the cylinder.
Note: on some AFD-280 dispensers the lift cylinder is threaded into the base of the cabinet.

Installation

Install the replacement lift cylinder in the reverse order being sure to:

- **Not use pliers on the lift cylinder or lift cylinder rod.**
- Replace any spacers between the lift cylinder and cabinet base.
- Replace the lift cylinder nut if applicable.
- Install the air line fitting and air line.
- Install and adjust the lift cylinder switches per procedure.
- Adjust the lift speed per procedure.



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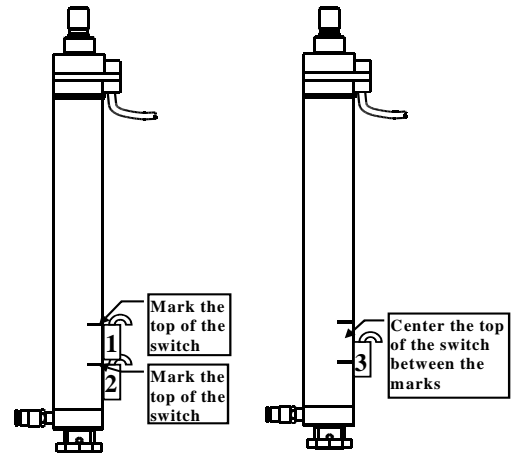
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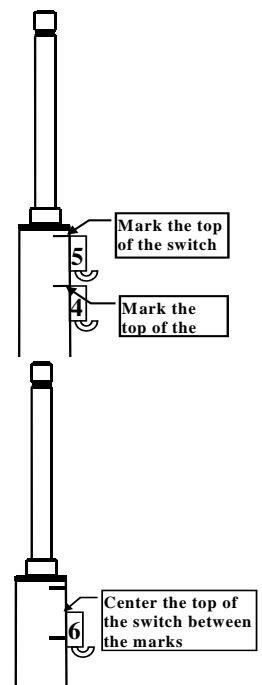
Lower lift switch:

- Turn the power switch off and unplug from the wall outlet.
- Remove the back panel.
- Remove the access door on AFD-280 dispensers to access the lower lift switch. The lower lift switch can be accessed from the back of the dispenser on other models.
- Verify the Lift Cylinder is fully retracted (down position).
- Turn the Power On/Off switch ON.
- From a location 3" up from the base of the Lift Cylinder, slowly slide the Lift Switch down until the Lift Switch LED illuminates (position #1). Mark this position at the top of the Lift Switch with the permanent marker.
- Slide the Lift Switch down until the LED goes off, then slowly up until the LED illuminates again (position #2). Mark this position at the top of the Lift Switch with the permanent marker.
- Move the Lift Switch to center the top of the switch between the marks (position #3) and lightly tighten the allen screw. Also tighten the allen screw locking nut.
- Verify L5 on the controller board is illuminated with the lift down.



Upper lift switch:

- Turn the power switch off and unplug from the wall outlet.
- Remove the back panel.
- Remove the lift saddle by lifting the back of the saddle up and over the guide posts.
- Remove the lift cylinder cap;
 - AFD-280 dispensers the cap is threaded onto the cylinder rod.
 - AFD-280U dispensers the cap is pushed onto the cylinder rod.
- Use the large crescent wrench to loosen and remove the shield nut.
- Remove the cylinder shield.
- Using the 9/32" wrench loosen the jam nut on the switch band.
- Loosen the holding screw with the 5/64" allen wrench to remove the band and switch.
- Route and connect the new wires the same as the original switch.
- Verify the Lift Cylinder is fully extended (up position). A second person can hold the Lift Cylinder rod up by hand while the switch is being adjusted.
- From a location 3" down from the top of the Lift Cylinder, slowly slide the Lift Switch up until the Lift Switch LED illuminates (position #4). Mark this position at the top of the Lift Switch with the permanent marker.
- Slide the Lift Switch up until the LED goes off, then slowly down until the LED illuminates again (position #5). Mark this position at the top of the Lift Switch with the permanent marker.
- Move the Lift Switch to center the top of the switch between the marks (position #6) and lightly tighten the allen screw. Also tighten the allen screw locking nut.
- Verify L4 on the controller board is illuminated with the lift up.



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Lift Speed Adjustment

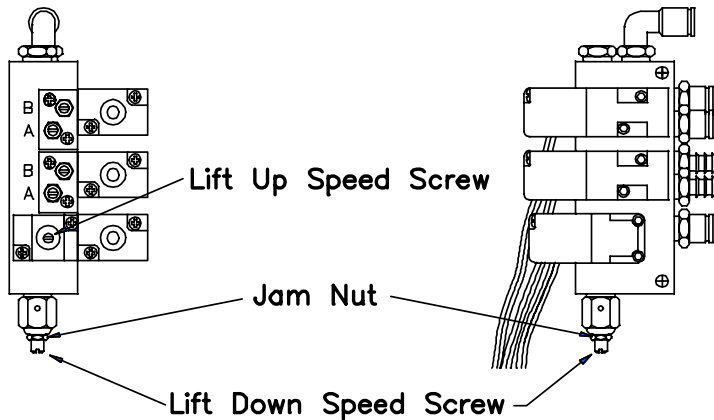
Note: the lift switches must be adjusted properly before trying to adjust the lift speed.

- Verify the regulator pressure is at 30psi.
- Select Function 12 (F12) by pressing the select button repeatedly and then press the enter button.
- Press the green restart button on the front of the dispenser to clear any errors.
- At this point pressing the enter button again will change the state of the lift (if the lift is up it will go down and if the lift is down it will go up) and display the lift speed in 1/10ths of a second. 24 would be read as 2.4 seconds.
- Lift cylinder speeds should be between 2.2 and 2.6 seconds, with the lift up speed being closer to 2.2 seconds and the down speed being closer to 2.6 seconds.
- Turn the lift up speed screw clockwise to decrease and counter clockwise to increase the lift up speed.
- Loosen the jam nut and turn the lift down speed screw clockwise to decrease and counter clockwise to increase the lift down speed. When the down speed is correct hold the screw and tighten the jam nut.
- Press the select button once to return to normal operation.

AFD-280 Manifold

Left Side View

Front View



AFD-280U Manifold

Left Side View

Front View

