

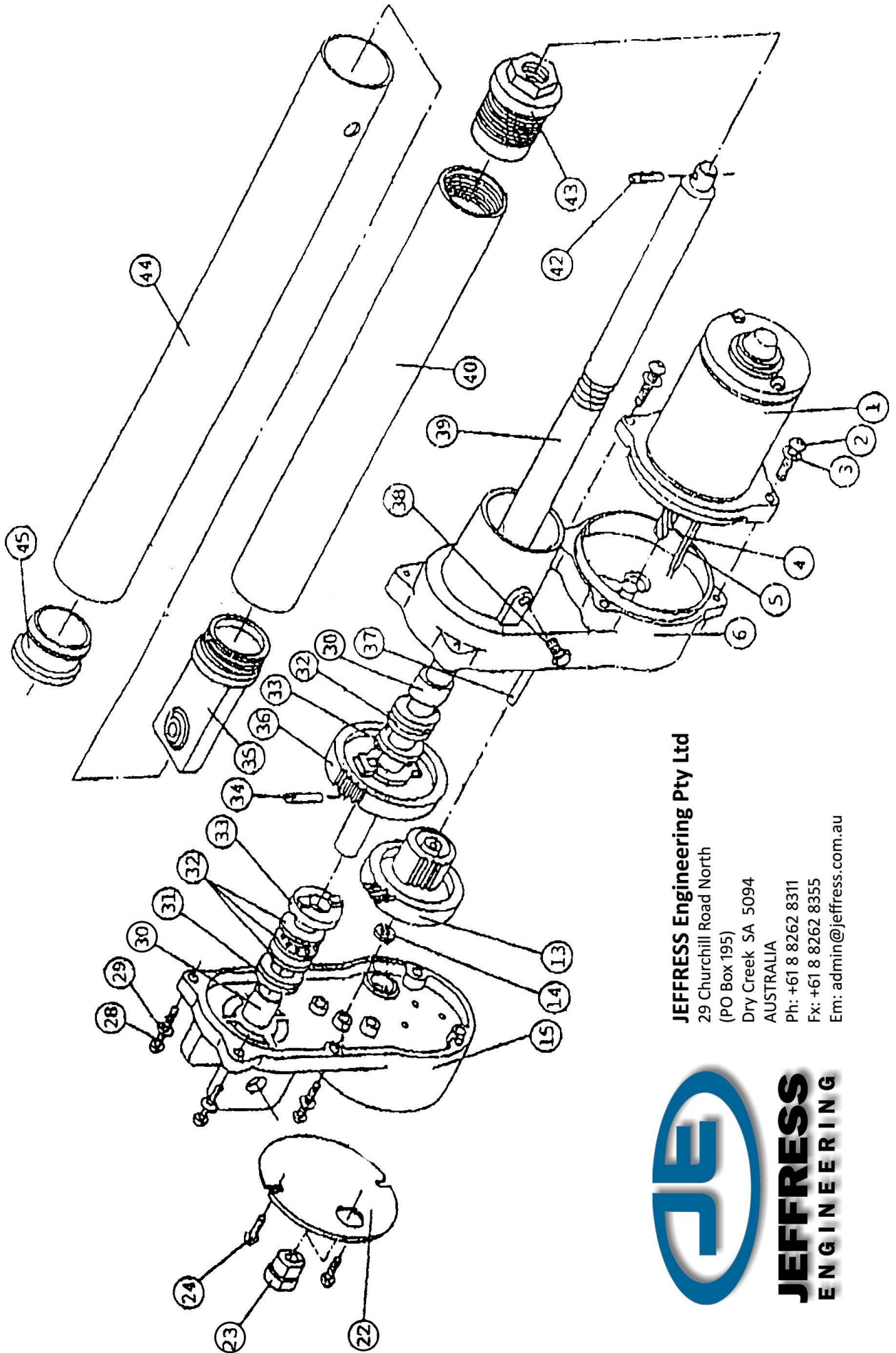
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## **Instructions for Replacement of the Linear Actuator LAC001 (or any of its component parts) on a JEFFCO WD02 Wet Disintegrator.**

1. Disconnect the WD02 from its electrical power source.
2. Remove the back cover.
3. Remove the Y-shaped tipping arm from the main lifting arm by removing the 2 bolts with spacers on either side of the slotted clevis on the main lifting arm. Do not remove the wire rope.
4. Place a support under the bowl to retain it in the raised position.
5. Disengage the Linear Actuator by removing the M12 bolt, nut and spring washer from the lower mounting point in the bottom of the disintegrator. Remove the Linear Actuator. If the whole actuator is to be replaced, proceed to step 8, substitute the new actuator and then move to step 14.
6. Remove the Gearbox housing/female clevis (item 15). Retain the screws.
7. Remove any spacer washers (item 31 & 14) that have remained with the Gearbox housing/female clevis (item 15) and slip them back on to their respective shafts.
8. If necessary, remove Cover plate (item 22) and disconnect motor cable. Retain Cover plate, screws and cable assembly. A qualified Electrician will be required to perform this step.
9. Clean out any foreign material that may be found in gearbox.
10. If fitted, remove small gear train (items 7 to 12) and discard (these are not required on this model of WD02).
11. Replace the necessary parts, noting carefully the assembly order.
12. Lubricate bearings and shafts (items 30 and 37) with light grease.
13. Assemble Gearbox housing/female clevis (item 15) onto Motor/gearbox housing (item 6) using screws retained from step 6.
14. If necessary, reconnect motor cable. A qualified Electrician will be required to perform this step.

15. Replace Cover plate retained from step 8.
16. If actuator arm is extended, wind the lifting tube in a clock-wise direction to shorten the assembly so it will clear the top clevis when it is fitted to the bottom mounting.
17. Fit actuator to bottom mounting using the existing M12 bolt. **Do not over tighten.** The bolt, spring-washer and nut should clamp lightly onto the clevis and **should not clamp the clevis onto the mounting lug.**
18. Check to see that the whole linear actuator assembly will swing freely back and forth at least 20 degrees. If this movement is obstructed in any way, relieve either the clevis or mounting lug slightly so full freedom of movement is achieved.
19. If step 17 has been resolved, then carefully lower the bowl assembly so the lifting end of the linear actuator engages into the slotted clevis on the lifting arm.
20. Replace the Y-shaped tipping arm ensuring free up and down movement of this arm. This arm should drop naturally to take up the wire rope slack.
21. Adjust the micro switches (refer to pages 4 and 5).

# JEFFCO Linear Actuator LAC001

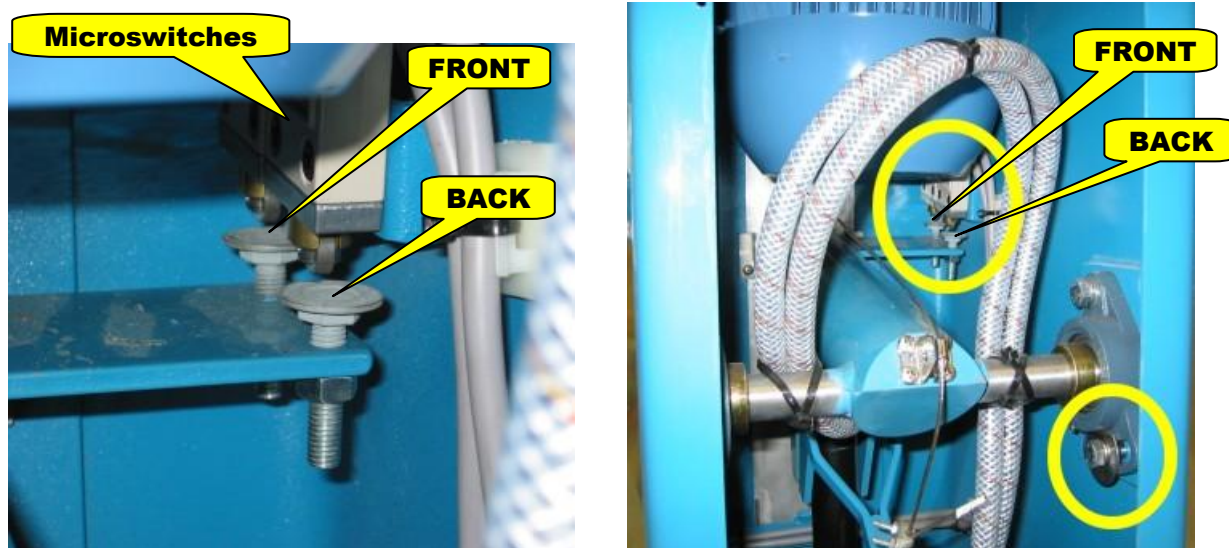


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## Instructions for Adjusting the Safety Micro Switches on the JEFFCO WD02 Wet Disintegrator

These instructions for the JEFFCO Wet Disintegrator WD02 concern the settings of the two microswitches circled in the image of the back and shown in greater detail in the second image. There may be some slight differences in the adjustment bolts in your actual machine but the principle is the same. These two microswitches control the upper cut-off point of the bowl drive linear actuator when the bowl is in the sealed position. One microswitch sets the normal sealed position and the second one is a safety cutout if the bowl is ever driven past the first microswitch. The two microswitches are special precision units which have an operation hysteresis of about 0.2mm so the adjustment is quite critical.



**\*\*\* This work must be carried out by a suitably qualified electrical tradesman using the necessary safety procedures. \*\*\***

To adjust the microswitch settings, proceed as follows:

1. Power the WD02, lower the bowl to the bottom of its vertical travel (but not so that it is tilted), remove power from the machine and remove the back.
2. Locate the two top microswitches (noted in the attached photos) mounted together on the bracket.
3. It is likely that either or both of these microswitches may be slightly loose or that the threaded actuator bolts have loosened. Using a 4mm Allen key, check the tightness of the four microswitch mounting screws. If they are loose, locate the microswitches as high as possible in the slots and tighten the screws.

4. Using a 13mm open ended spanner, release the lock nuts on the two threaded actuator bolts mounted on the plate protruding from the lifting arm.
5. Wind the threaded actuator bolt closest to the **FRONT** of the machine anticlockwise (up) by about 4 turns (we will refer to this as the **FRONT** actuator bolt) and the one closest to the **BACK** clockwise (down) about 1 turn (we will refer to this as the **BACK** actuator bolt).
6. Power up the machine and raise the bowl until the linear drive cuts out. Remove power.
7. By winding the **FRONT** actuator bolt down little by little, and repeating (6), a point will be reached where a light but positive seal will be achieved between the bowl and the fixed bowl lid gasket. Do NOT try to achieve an excessively tight seal as this will only cause the bowl to move down slightly during operation and result in an Error (Err1) cutout.
8. Tighten the lock nut on the **FRONT** actuator bolt and repeating step (6), ensure that the sealing point is repeatable but not excessive.
9. When the bowl seal is satisfactory, it is now necessary to adjust the **BACK** actuator which is the safety overtravel system and when tripped will bring up an Error condition (Err4) on the Control Panel. Wind up the **BACK** threaded actuator so that the safety (back) microswitch does NOT activate when the bowl is sealed but will actuate an error condition if a 1 mm thickness gauge blade is inserted between the microswitch and the head of the actuator bolt. Press the RESET or STOP button to clear the error message. When the **BACK** actuator bolt is correctly set, lock it firmly in place with the lock nut.
10. Power up the machine and check that the bowl seal is still correct.
11. Run the machine with a typical load eg 1000 grams bagasse with 8 litres of water. The bowl should seal well and no water should escape. The bowl should not move during a full cycle of one hour's duration and no alarm should be triggered or cutout occur except at the end of the cycle.
12. Readjust the settings slightly if necessary.
13. Replace the back panel and the system should be ready for use.