



AES Technical Bulletin

Magnum Countryside Auger Feed Rate Check

Product models covered: Magnum Countryside 3500P, 3500L, 3502

Topic: This technical bulletin will be addressing the procedure for checking the feed rate on the Magnum Countryside appliance, and what tools are needed.

Tools needed: Toggle switch, standard screwdriver to loosen the two screws on the right side panel, 5/16 socket to loosen the set screw on the auger shaft locking collar, stop watch, and a scale.

Procedure:

- **Unplug the unit** after first turning the fuel stirrer so that the fingers are straight up to remove.
- Bypass the Proof of Fire switch: (See Photo #1) Open the right side panel, when looking at the front of the unit, unplug the two lead wires going to the proof of fire switch. Bypassing the proof of fire switch enables you to run the stove for an extended period of time.
- Plug wires into toggle switch: Plug the two lead wires into a toggle switch, (See Photo # 2). This will allow the system to 'believe' a fire is burning when the toggle switch is in the 'on' position.

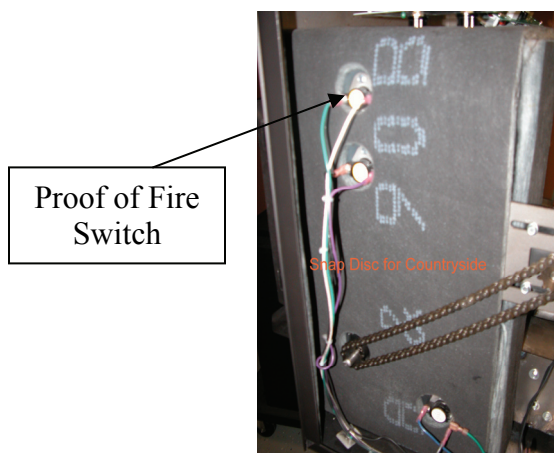


Photo # 1

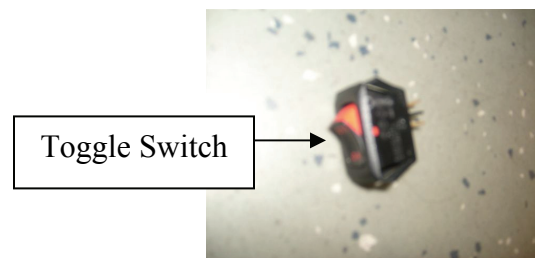
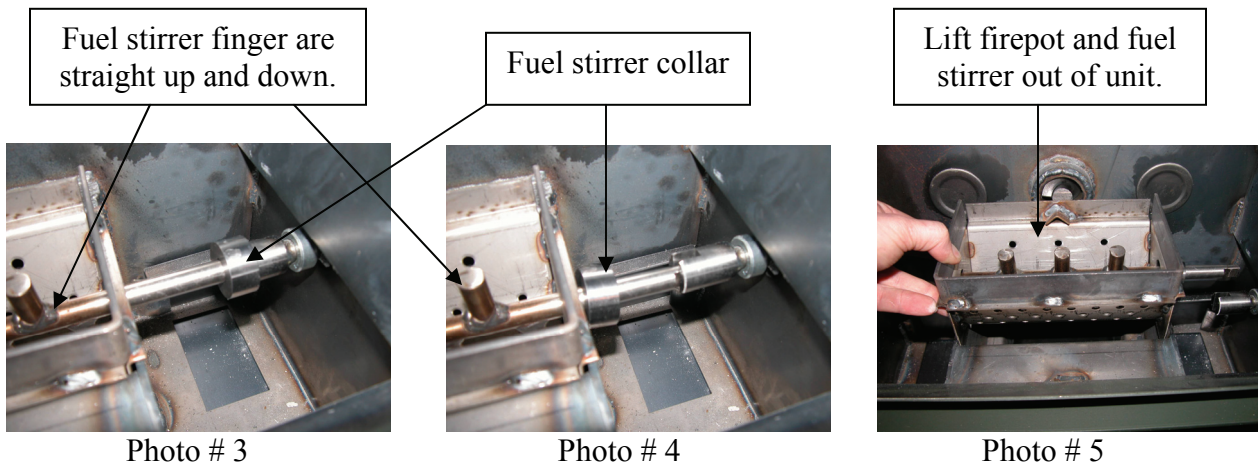


Photo # 2

- Remove the fuel stirrer:
 - A. Look at the fuel stirrer fingers; make sure they are straight up and down. (See Photo # 3) To move the fuel stirrer fingers to this position, plug the stove in and the fuel stirrer will rotate, when the fuel stirrer fingers are straight up and down, unplug the stove.
 - B. Move the fuel stirrer collar towards the firepot. (See Photo # 4) This releases the fuel stirrer from the drive shaft.)
 - C. Lift the firepot and the fuel stirrer up and out of the stove. (See Photo # 5)
 - D. Plug the unit in.

NOTE: Some of the older units did have either a set screw or bolt on the fuel stirrer collar, when you are turning the fuel stirrer watch for the screw/bolt, stop the stove, release screw/bolt. You may need to turn the stove on again to release the fuel stirrer.



- Countryside Startup: Put corn in the hopper, at least seven (7) to ten (10) pounds. Turn heat level setting to number four (4), turn fuel stirrer setting to number one (1). (Unit will NOT be burning corn; there will not be a fire.)

NOTE: Make sure the wall thermostat, if installed as an option, is turned up so that the unit will run on the heat level setting number four (4).

NOTE: Any heat level setting can be tested; this test will check the feed rate for the heat level setting number four (4). The same procedure would need to be followed on each heat setting chosen.

- Control Board:
 - For units with the Ortech control board:
 - Do NOT put the firepot back into the unit. Let the corn drop directly into the ash pan.
- Let the unit run for sixty (60) minutes. The longer you run the test, the more accurate your results will be.
- Shut the unit down: Turn heat level setting knob to the off position and the system will enter the shut down mode.
- Weighing: Weigh all of the corn that is in the ash pan, put corn back into hopper. Weigh container that fuel was in; subtract container weight from the total weight of the corn in the ash pan.
- An acceptable feed rate for the Countryside unit is app. 5.0bs/hr +/-10-15% on heat level setting number four (4). Slight variations may occur depending on your fuel, moisture and cleanliness.
- Reassemble unit: Make sure that the unit is unplugged, uninstall the toggle switch, plug lead wires into proof of fire switch and install firepot and fuel stirrer. Plug unit back in and test all operations.

Contact you local dealer or service technician for questions or concerns.