

Adjusting the Mechanical Clutch

Principle: The steel ball rides in the threads of the worm drive permitting the door to raise and lower when the shaft turns. The set screw applies pressure to the ball through the spring. The spring permits the clutch to slip if an obstruction is present.

Worm drive continues to turn and door stops raising

Using a 3/32 allen wrench turn set screw in to increase ball pressure. Only increase pressure in small increments until door rises and shuts off. Too much ball pressure can hinder motor from starting and preventing clutch from slipping if obstruction is present.

When removing clutch from shaft remove set screw first to remove tension.

Maintenance

Any debris at the base of the door should be removed. The worm shaft should be periodically cleaned and a light lithium grease applied.

Troubleshooting

Worm shaft turning, there is a clicking sound from mechanical clutch but door will not completely open.

See “Adjusting Mechanical Clutch” above.

Door will not close

Symptoms: Door remains open after dark (light sensor mode) or when Controller/Timer (C/T) is telling the door to close in the “automatic/timer” mode.

Actions: This can be the result of a defective light sensor, lower limited switch adjustment or a defective circuit board. Procedures for checking each are described below

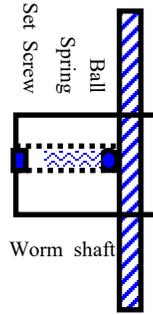
Light sensor: With light sensor placed in the dark remove one of the grey wire nuts and disconnect light sensor wire from lead. If door begins to close light sensor needs replaced. No response continue below.

Limit switch: The green limit switch located in the middle of the door frame stops the door when it reaches the closed position. Check that the lever/roller is present and as the white door begins to rise you will hear a click from the switch as the lever/roller moves from the top edge to the face of the door. This switch should pivot and there is a torsion spring located behind the switch that provides a light force keeping the switch/lever in contact with the door. If you do not hear the click you can adjust this force by lightly pulling the wire lead to the switch causing the switch body to pivot toward the white door. Pivot just enough to make the switch click on rise. Secure wire with staple. If you hear the click then proceed to circuit board check.

Circuit board: Set the C/T to the “off” position then bridge the light sensor leads originating from tabs #3 and #5 on the C/T. You should hear a click from the circuit board located at the upper left hand corner of the Poultry Butler. You will hear another click when the leads are separated. If you hear no click the circuit board should be replaced .

Replacement parts

Go to www.poultrybutler.com and click on replacement parts. If you do not see the component you need contact me directly at 724-762-2507.



Poultry Butler TM

Automatic Coop Door

with

Worm Drive

www.poultrybutler.com

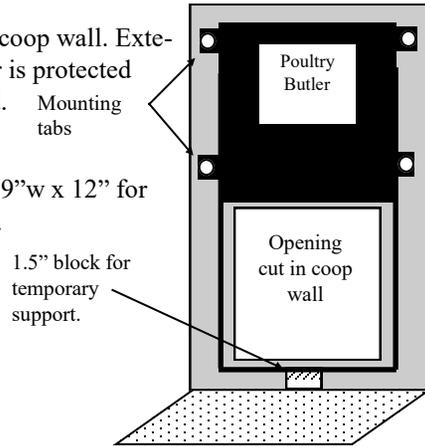
Operators Manual

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Installing Poultry Butler to your Coop

1. Install Poultry Butler on the interior of the coop wall. Exterior installations are possible if transformer is protected from the weather and top of unit is covered.
2. Cut an opening through the coop wall 2" above the coop floor. This opening will be 9" w x 12" for standard door and 11" x 14" for large door.
3. Utilizing a temporary block for a vertical support install Poultry Butler 1.5" above the coop floor and over the opening you just cut. Secure the door to the coop wall.



Timer Installation (installed)

Your unit comes with a 3' timer cord installed. A longer cord is available that will permit operation of the door from outside the bird confinement area. All of the connections have been made. The chart indicates the function of each colored wire contained in the control cable. Tab numbers are located on the back of the timer. Mount timer to the wall with 3/8" screws and secure the timer cord.

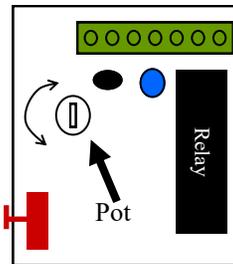
Wire color	Tab #
Red (+12vdc)	1
Black (-12vdc)	2
Green	3
White	5

Light Sensor Installation (pre-installed)

The sensor should be pointed toward the setting sun where possible. Additional wire can be added (up to 15') to reach the best sensor location. Remove the grey wire nuts from the wire leads located at timer positions 3 and 5. Using a twisting motion attached one light sensor lead to each of the exposed timer leads. Reinstall the wire nuts

Adjusting the light sensor

If the Poultry Butler door is closing before your birds have all returned to the coop you can adjust the sensitivity so the door closes later. Making the adjustments will require a small (1/8" blade width) screwdriver. 1) Remove the access cover and insert the blade into the white slot located on the circuit board. 2) The slot will only rotate 90 degrees in either direction before stopping. Clockwise rotation will make the door close latter. Counter clockwise the door will close earlier. Please do not force this adjustment or you will damage the potentiometer (pot). If door still closes to early for your birds after adjustment you will have to revert to timer operation.



Circuit board (top view)

Operating the Poultry Butler.

Pushing the "manual" button on the timer will sequence you between the operational modes of **on—auto—off**.

Operational modes

- On** Will cause the Poultry Butler door to open in light sensor or timer mode.
- Auto** **Timer mode.** Poultry Butler will open/close based on times you program into the timer. Light sensor must be disconnected
- Off** **Light sensor mode.** When the light sensor **is connected** the Poultry Butler door will open/close based on light conditions.

If no light sensor is connected the Poultry Butler door will close. To close the door while in the light sensor mode you will need to disconnect one of the sensor leads.

Programming the controller/timer

1. Using a paperclip push the reset button*.
 2. Setting day and current time (timer uses a 24 hour clock 1PM= 13 hour)
Press and hold the Clock button to set the day, hour and minute.
 3. Setting the timer "On/Off" times
Press and release the Timer button. The screen will display "1^{on}"
Press the Day, Hour and Minute buttons to select the days and the time you would like the door to open. In most cases you will be selecting all days of the week.
Press and release timer button again. This time the screen will display "1^{off}".
Press the hour and minute you would like the door to close. Do not press any buttons after 15 seconds timer will return to current time.
 4. You can program multiple times by repeating step 3
 5. You can easily change the on/off times of each programmed period by making the time changes (hour, minutes) before the timer defaults.
- * reset button clears all settings

12VDC and solar operation

The Poultry Butler will run off a rechargeable 12VDC battery. The unit draws minimal current and the larger capacity battery you install (measured in amp hours) the less frequent the battery will need recharged. You can also install a 5 watt solar panel to maintain the battery charge. Conversion will involve connecting the positive lead from your battery to tab #1 on the controller/timer and the negative lead to tab #2. Of course the existing control cable connections will need to be maintained. I can supply terminal connectors and splitters at no charge that will simplify this operation. It is very important the proper polarity is maintained or the circuit board can be permanently damaged.

