

Poultry Euthanasia: Electrical Euthanasia Device

► Learn essential guidelines and safety measures for the use and setup of an electrical euthanasia device for chickens and turkeys.

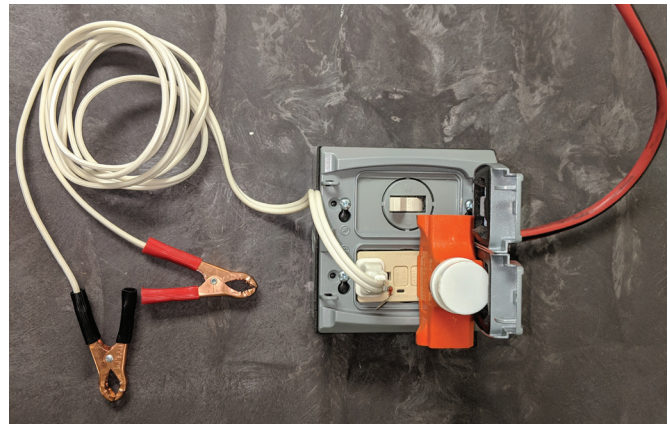
This electrical euthanasia device is for the euthanasia of chickens and turkeys of an appropriate age and size (approximately 1 pound or greater). It is recommended that a user of this device complete poultry euthanasia training offered by the Auburn University Poultry Science Department.

Tools and Supplies Required for Assembly

- Screwdriver
- Pliers
- Side cutters
- 15-amp GFCI outlet
- 15/20-amp commercial toggle switch
- 2-gang weatherproof box 2-gang metal weatherproof exterior standard square exterior electrical box
- 100-foot outdoor cord
- 1/2-inch UF cable connector conduit fitting
- 6-foot indoor cord
- 2-pack metal wire connectors, battery clips
- 2-gang square metal weatherproof electrical box cover
- Plug-in LED guide light
- 15-amp 3-wire grounding single to triple adapter

Electrical Euthanasia Device Setup

1. Use a toggle switch (figure 1) and a ground fault outlet (figure 1) appropriate for installation in an exterior watertight electrical box.
2. Insert the outdoor extension cord through the conduit fitting (figure 2) on the electrical box (figure 3), keeping the plug end outside the box.



Improper use of this tool can result in serious injury to the operator.



Figure 1. Toggle switch (left) and ground fault outlet (right)



Figure 2. Conduit fitting

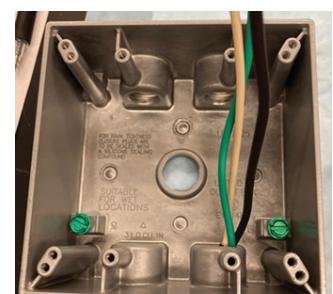


Figure 3. Electrical box

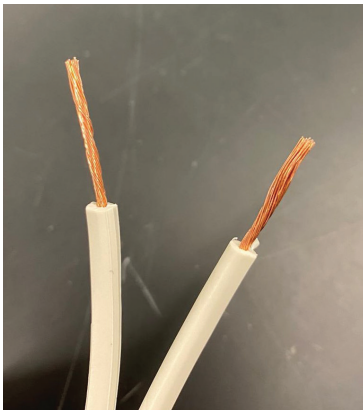


Figure 4. Indoor cord

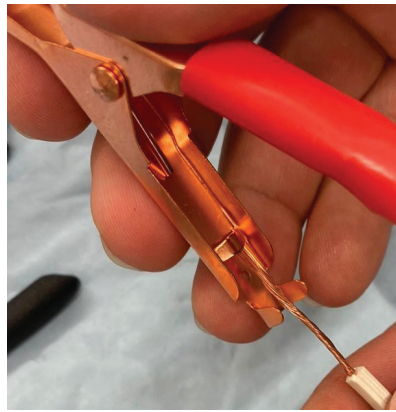


Figure 5. Battery clips wired to indoor cord

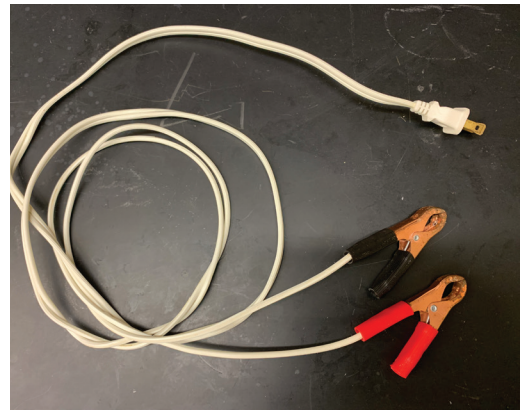


Figure 6. Battery clips wired and soldered to indoor cord

3. The black hot wire is connected to the electrical switch and then to the GFCI. The white neutral wire is attached to the GFCI. The green ground wire is connected to the switch, GFCI, and green screws of the electrical box.
4. Wire and solder together the indoor cord (figure 4) to each battery clip (figure 5). The plug end can then be plugged into the outlet on the GFCI electrical euthanasia box (figure 6).
5. Attach the weatherproof electrical box cover (figure 7) to prevent water from entering the electrical box when the device is not in use or is being sanitized.



Figure 7. Weatherproof electrical box cover

Safety Features and Procedures

- The device has two safety features: an indicator light (figure 8) plugged into a ground fault current interrupt (GFCI) outlet (figure 9). The indicator light allows the operator to visually determine whether or not electrical current is being applied. The ground fault current interrupt (GFCI) outlet is to protect the user from electrical shock.
- Standard electrical safety should be considered when using this device. Both the operator and individual restraining the bird should be standing on a dry surface and have dry hands or be wearing gloves (e.g., nitrile, fabric, leather, etc.). The operator should not be touching the clips at any time while the toggle switch is on. The bird must not be in contact with any conductive surfaces (e.g., metal cone or table).



Figure 8. Indicator light



Figure 9. Ground fault current interrupt (GFCI) outlet

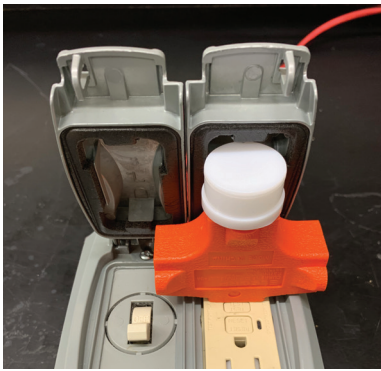


Figure 10. Current indicator light plugged into outlet; toggle switch off



Figure 11. Outdoor extension cord

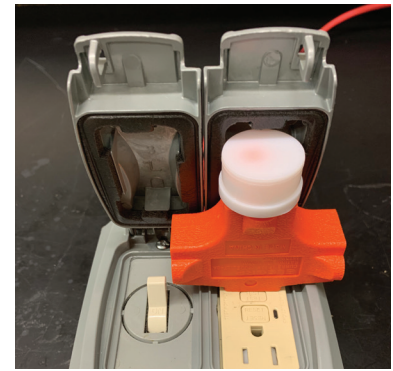


Figure 12. Toggle switch and current indicator light on

Prior to Application

1. Plug the current indicator light into one of the two outlets on the electrical euthanasia box. Turn the toggle switch to off (figure 10).
2. Plug the outdoor extension cord into an electrical outlet (figure 11).
3. Turn the electrical euthanasia device toggle switch to on. The current indicator light should light up (figure 12).
4. Turn the electrical euthanasia device toggle switch to off (figure 10).
5. Plug the extension cord with the electrode clips into the second outlet on the electrical euthanasia box (figure 13).
6. Once completed, the euthanasia device is ready for use.

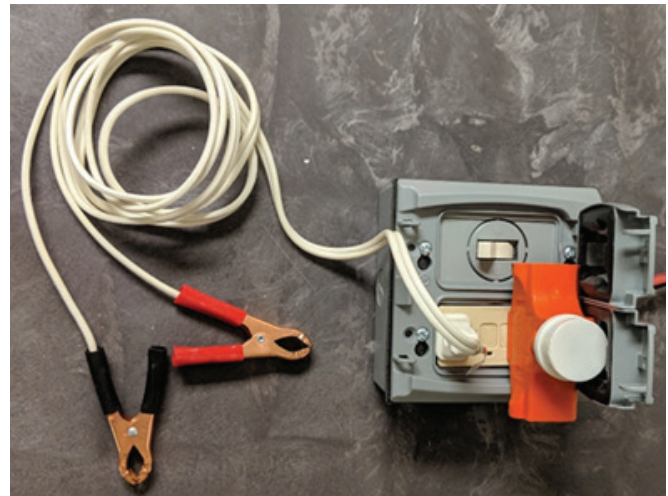


Figure 13. Extension cord with electrode clips plugged into the second outlet on the electrical euthanasia box

Method of Application

1. Restrain the bird in a secured, nonconductive traffic cone (figure 14) or have an individual restrain the bird for the operator (figure 15). Restrain in this position: legs extended, breast down, head and neck extended forward.
2. Attach one electrode clip onto the vent of the bird (figure 16).
3. Attach the other electrode clip to the bottom beak (figure 17).
4. Immediately turn the toggle switch on the electrical euthanasia box to ON.
5. If the bird is being restrained by an individual, that person should hold both legs together in an extended position when the toggle switch is turned to ON. Once the circuit is formed, the body of the bird can be touched without electrical shock.
6. Count 15 seconds then turn the toggle switch to OFF and remove the electrode clips.
7. Check the bird for signs of life such as respiration, movement, muscle tone in the neck, voluntary blinking, or involuntary blinking when touching the eye.
8. If there are no signs of life, the bird has been successfully euthanized and can be disposed of properly. In the unlikely case that signs of life are present, reapply the method extending the length of time by 5 seconds.
9. If for some reason the electrical circuit is not complete, immediately turn off the box, reconnect the bird, and euthanize for an additional 10 seconds.



Figure 14. Traffic cone secured to a gas cylinder car



Figure 15. One individual restraining a turkey for the operator



Figure 16. Clip attached to the vent of a broiler breeder

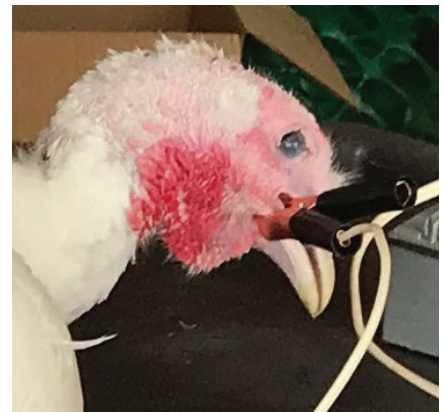


Figure 17. Clip attached to the bottom beak of a turkey

Checking for Signs of Death

Following are physical reflexes to observe following euthanasia application. Continue observations until all reflexes have stopped for a total of 1 minute.

- Nictitating membrane. Induced blinking after gently tapping the inner corner of the eye; used to indicate brain-stem death
- Rhythmic breathing. Repeated opening and closing of the beak or movements of the sternum. When rhythmic breathing has stopped for 2 minutes, indicating brain-stem death, the animal will be considered in a state of nonrecoverable onset of death.
- Body movement. Uncoordinated movement of the body, legs, or wings, indicating unconsciousness and brain dysfunction
- Absence of a pain reflex. Firm comb or toe pinch (noxious stimulus) used to indicate unconsciousness and brain dysfunction
- Heartbeat. Absence of regular heart rhythm, indicating nonrecoverable onset of death

Euthanasia is successful when one application attempt is needed, with no signs of recovery (sustained and/or return of rhythmic breathing or reflexes) at 5 minutes after euthanasia application



Ranjit S. Boyal, Poultry Science, Auburn University; **R. Jeff Buhr**, US National Poultry Research Center, Athens, GA; **Caitlin Harris**, Poultry Science, University of Georgia; **Leonie Jacobs**, Animal and Poultry Sciences, Virginia Tech; and **Dianna Bourassa**, Poultry Science, Auburn University

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