MASTERFUN AC-20M Solar Automatic Chicken Coop Door

MASTERFUN Automatic Chicken Coop Door User Manual

Model: AC-20M Solar Automatic Chicken Coop Door

1. Introduction

Thank you for choosing the MASTERFUN Automatic Chicken Coop Door. This solar-powered system is designed to provide a convenient and secure solution for managing your poultry, offering automatic opening and closing based on light conditions or a set timer. With its external controller, remote operation, and safety features, it ensures your flock's well-being with minimal effort. Please read this manual thoroughly before installation and operation to ensure proper use and longevity of your product.

2. What's in the Box?

Please verify that all components listed below are included in your package:

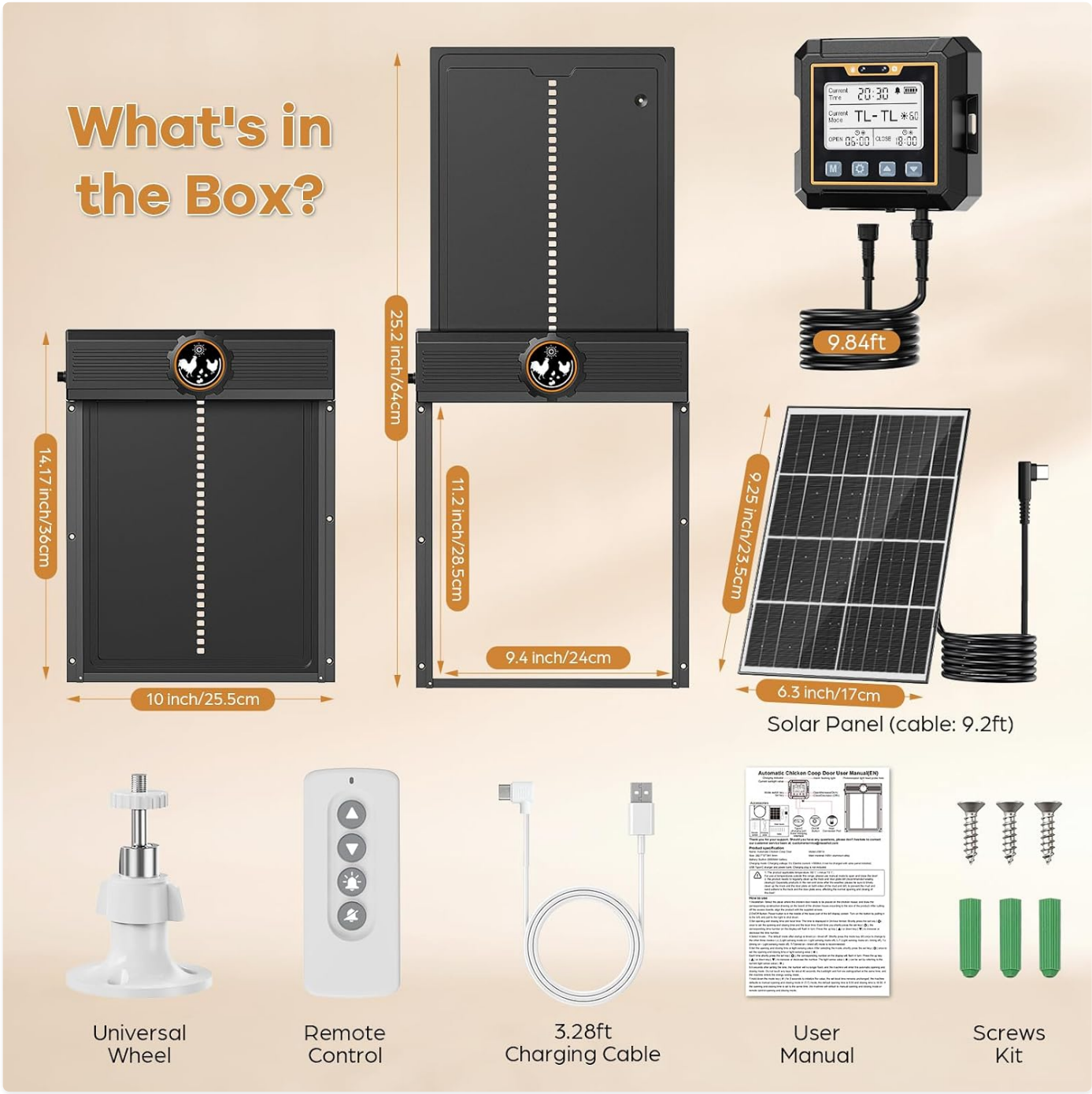


Figure 2.1: All components included in the MASTERFUN Automatic Chicken Coop Door package.

- Automatic Chicken Coop Door Unit
- External Smart Controller
- 7W Solar Panel (with 9.2ft cable)
- Remote Control
- USB-C Charging Cable (3.28ft)
- Universal Wheel (for mounting solar panel)
- Screw Kit (for installation)
- User Manual (this document)

3. Key Features

- **External Controller for Comfortable Operation:** The upgraded external controller allows you to operate the door without bending or reaching into tight spaces. Its large, easy-to-read display and intuitive buttons provide full control from outside the coop.



Figure 3.1: External controller for convenient, upright operation.

- **Large Doorway for Various Poultry:** With a generous 9.45 x 10.83 inch opening, this door comfortably accommodates chickens and ducks of various sizes. The overall frame measures 10.83 x 14.17 inches, designed to fit most coop structures.
- **Solar-Powered Efficiency:** Equipped with a built-in high-capacity battery, the door charges via a powerful 7W solar panel or a USB-C cable, ensuring continuous operation without external power or frequent battery replacements.



Figure 3.2: Dual charging options: solar power or USB-C.

- **Flexible Light & Timer Settings:** Choose between light-sensing or timer-based modes for automatic opening and closing, providing flexibility to match your flock's schedule and ensuring their safety.



Figure 3.3: Four available operating modes for flexible control.

- **Smart Safety System with Anti-Pinch & Alerts:** An intelligent anti-pinch sensor detects resistance and reverses the door to prevent injury to animals. Audible alerts notify you of incomplete closures, adding an extra layer of security.



Figure 3.4: Anti-pinch function for animal safety.

- **Remote Control Convenience:** Operate the door from up to 65 feet (20 meters) away in an open, unobstructed environment using the included remote control, ideal for quick adjustments or busy mornings.
- **All-Weather Resistant:** Designed to withstand various weather conditions, operating effectively in temperatures from -80°F to 140°F, and resistant to sun exposure, snow, and water.



Figure 3.5: All-weather design for year-round use.

4. Specifications

Attribute	Value
Brand	MASTERFUN
Product Dimensions (Overall Frame)	10.83"L x 3.14"W x 14.17"H (27.5cm L x 8cm W x 36cm H)
Door Opening Dimensions	9.45"L x 10.83"H (24cm L x 27.5cm H)
Material	Aluminum

Attribute	Value
Specific Uses	Indoor, Outdoor Poultry Habitats
Special Features	External Smart Controller, Rechargeable, Remote Control, Timer & Light Sensor, Weather Resistant, Anti-Pinch
Remote Control Range	Up to 65 feet (20 meters) in open environment
Operating Temperature	-80°F to 140°F (-62°C to 60°C)

5. Setup and Installation

Before installation, ensure your coop opening is compatible with the door dimensions (10.83"L x 14.17"H overall frame). Mounting hardware is included.



Figure 5.1: Complete system components for installation reference.

5.1 Mounting the Door Unit

1. Choose a flat, vertical surface on your chicken coop where the door unit will be installed. Ensure there is enough clearance for the door to slide freely.
2. Position the door unit against the coop wall and mark the drilling points for the mounting screws.
3. Drill pilot holes at the marked points.
4. Secure the door unit to the coop using the provided screws. Ensure it is level and firmly attached.

5.2 Connecting the External Controller and Solar Panel

1. Mount the external controller in a convenient location outside the coop, ensuring its cable can reach the door unit.
2. Connect the controller cable to the corresponding port on the chicken coop door unit.
3. Mount the solar panel in a location that receives maximum direct sunlight throughout the day. Use the universal wheel for optimal angle adjustment.
4. Connect the solar panel cable to the designated charging port on the external controller.

5. Alternatively, for initial charging or if solar power is insufficient, use the provided USB-C cable to charge the controller via a standard USB power adapter (not included).

6. Operating Instructions

6.1 External Controller Overview

The external controller features a large display and intuitive buttons for easy programming and monitoring. Refer to Figure 3.1 for a visual guide to the controller's layout.

6.2 Setting Time and Date

Upon first use or after a power reset, you may need to set the current time and date on the controller. Consult the on-screen prompts or the detailed instructions in the included printed user manual for specific steps.

6.3 Operating Modes (Light Sensor & Timer)

The door offers four flexible operating modes to suit your needs. These modes can be configured via the external controller (refer to Figure 3.3 for visual representation):

- **Mode A (Timer Open / Timer Close):** The door opens and closes at specific times you set. Ideal for consistent schedules regardless of daylight.
- **Mode B (Timer Open / Light Close):** The door opens at a set time and closes based on the light sensor (dusk). Useful for ensuring chickens are out at a specific time but safely secured at natural dusk.
- **Mode C (Light Open / Light Close):** The door opens at dawn (light sensor) and closes at dusk (light sensor). Fully automatic based on natural light, requiring no time adjustments.
- **Mode D (Light Open / Timer Close):** The door opens at dawn (light sensor) and closes at a specific time you set. Good for allowing chickens out with the sun but ensuring they are locked in by a certain hour.

Detailed instructions for setting each mode and adjusting light sensitivity can be found in the comprehensive user manual provided in the box.

6.4 Remote Control Operation

The included remote control allows for manual opening and closing of the door from a distance of up to 65 feet (20 meters) in an open, unobstructed environment. This is useful for quick manual overrides or checking the door status without approaching the coop.

- Press the **Open** button to open the door.
- Press the **Close** button to close the door.
- The remote control can also be used to pause the door's movement.

7. Maintenance

Regular maintenance ensures the longevity and optimal performance of your chicken coop door.

- **Cleaning:** Periodically clean the door tracks and the door panel to prevent debris buildup that could impede movement. Use a soft, damp cloth. Avoid abrasive cleaners.
- **Solar Panel:** Keep the solar panel clean and free of dust, dirt, or snow to ensure efficient charging. Wipe it gently with a soft,

damp cloth.

- **Battery:** The built-in battery is designed for long life. If the door is not receiving sufficient sunlight, ensure it is charged via USB-C to maintain battery health.
- **Inspection:** Regularly inspect all cables and connections for any signs of wear or damage. Ensure the door unit is securely mounted.

8. Troubleshooting

8.1 Anti-Pinch System Operation

The door is equipped with an intelligent anti-pinch sensor. If an obstacle (e.g., a chicken) is detected during closure, the door will:

1. Stop and beep.
2. Reopen for 10 seconds to allow the obstacle to clear.
3. Attempt to close again. This process repeats up to 3 times.
4. If the obstacle persists after 3 attempts, the door will stop and an audible alarm will sound for 30 seconds, indicating an incomplete closure.

If the alarm sounds, manually check the door path for obstructions and clear them before attempting to close the door again.

8.2 Common Issues and Solutions

- **Door not opening/closing:**
  - Check battery level on the controller. Recharge if low.
  - Ensure solar panel is clean and receiving direct sunlight.
  - Verify settings (timer or light sensor) are correctly configured.
  - Check for physical obstructions in the door path or tracks.
- **Remote control not working:**
  - Ensure you are within the 65-foot (20-meter) range and there are no major obstructions.
  - Check the remote control's battery.
- **Door makes unusual noises:**
  - Clean the door tracks thoroughly to remove any dirt or debris.
  - Ensure the door is properly aligned and not rubbing against the frame.

9. Warranty and Support

Specific warranty information for your MASTERFUN Automatic Chicken Coop Door is typically provided with the product packaging or on the manufacturer's official website. Please refer to those resources for details regarding warranty coverage, duration, and terms.

For technical support, troubleshooting assistance beyond this manual, or inquiries about replacement parts, please contact MASTERFUN customer service through the contact information provided on the product packaging or their official website. Always provide your product model number and purchase date when seeking support.

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