AGRI-COVER, INC.

AGRI-COVER™ CONTROL BOX INSTRUCTIONS

Use these instructions to add a control box to your roll tarp or hopper conversion system. Some installs require remote control instructions. If required, follow remote control instructions along with these instructions.

NOTICE TO INSTALLER: Even if familiar with product, read instructions prior to installation as improvements may be made without notice. Always handle components with care. If you have questions or problems, have serial number ready and call customer service. When done, these instructions must be given to the consumer.

NOTICE TO CONSUMER: Before using this product, read operating and safety sections. Save these instructions for future reference.

FOR YOUR RECORDS

DATE PURCHASED: _____

WHERE PURCHASED: _____

SERIAL NUMBER: _____

(Located inside switch box cover)

AGRI-COVER, INC.

Questions? 800-233-4655
agricover.com

PREPARATION

Ensure air and surface temperatures are above 60° F and mounting location is clean.

TOOLS NEEDED

- 3/8”, 7/16” and 7/8” Wrench
- Ratchet with 7/16” socket
- In-lb Torque wrench with 7/16” socket
- Drill with 1/4" bit
- Heat source
- Tape measure
- Marking pen
- Slotted screwdriver
- Phillips screwdriver
- Wire stripper
- Wire crimper
- Protective eyewear

⚠ CAUTION: Over torquing hardware may damage components.

NOTE: Hardware appearance and components may vary.

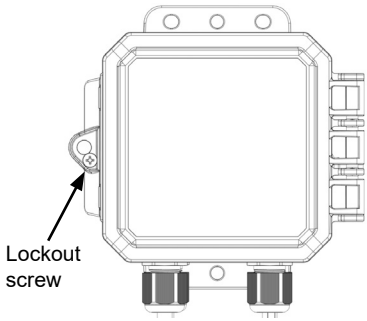
⚠ CAUTION: To avoid galling of stainless steel hardware, use anti-galling spray, grease or lubricant on threads and avoid high speed when fastening. Do not use impact tools for stainless steel hardware.

SAFETY INFORMATION

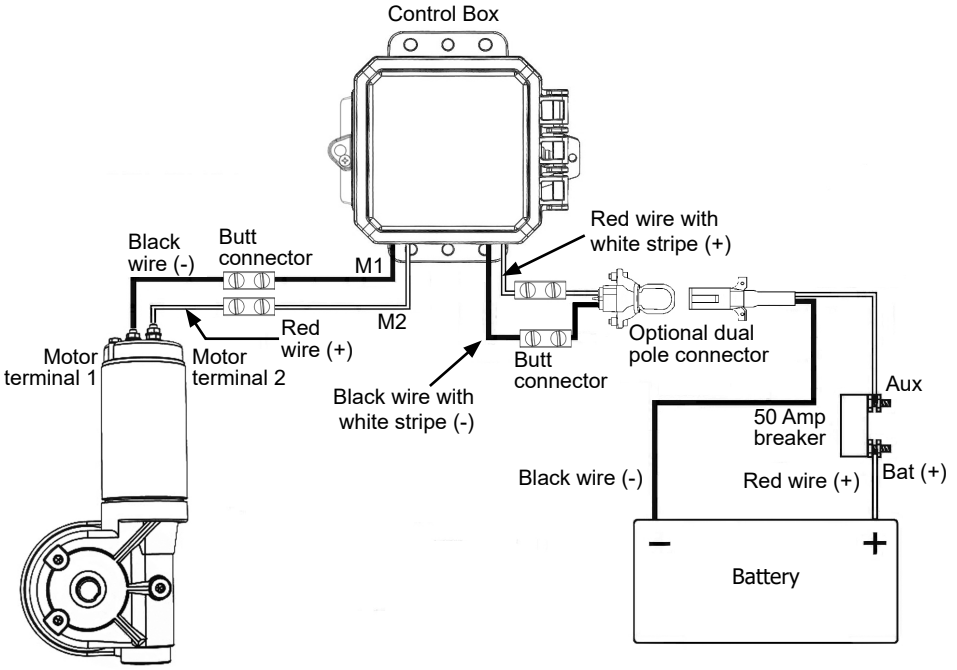
Do not install or use this product without reading and understanding these instructions. Only allow people who know and understand the safety rules to use this system.

- Always use caution when operating tarp.
- Disconnect power before servicing system or electrical components.
- Ensure tarp is fully open before unloading or loading.
- Ensure people are clear of tarp system before and during operation.
- Do not operate tarp with box hoisted in elevated position.
- If tarp is covered with snow or debris, remove before operating.
- End caps must be free from commodity that may be piled on them. Commodity should not be piled higher than end caps.
- Ensure tarp system is fully open or fully closed before operating vehicle at highway speeds.
- Instruct everyone who will operate this tarp on the proper procedures.
- Do not directly spray the electric motor and electrical connections with a pressure washer.
- Never allow children to operate or play with system.
- Only operate system when tarp is completely visible.

IMPORTANT: After Control Box and remote control (if supplied) are installed and setup, lockout with Phillips screw.



WIRING DIAGRAM



⚠ CAUTION: Disconnect power before working with electrical system or components.

NOTE: This electric system requires a 50 Amp modified reset circuit breaker. If breaker trips and does not reset, it may have detected a continuous short and will not reset until short is repaired. Disconnect battery and repair short.

If installing this electric system on an existing unit, ensure there is a circuit breaker installed and operating properly. If breaker is missing or malfunctioning, replace it with a new 50 Amp modified reset circuit breaker.

IMPORTANT: Operating system without a circuit breaker voids warranty.

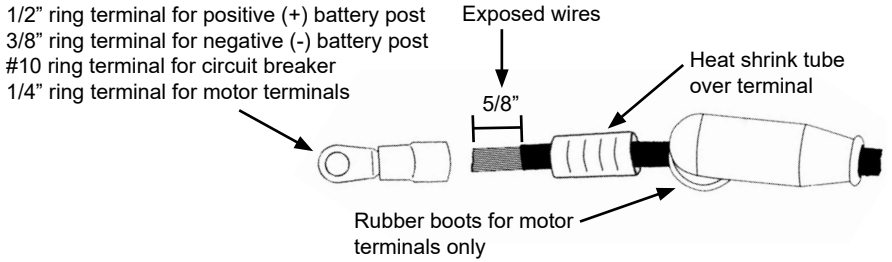
1: ROUTING HEAVY GAUGE WIRE

NOTE: There is ample heavy gauge wire supplied with each kit for standard installs. Before cutting wire, always preplan wire routing and make necessary adjustments as needed.

Tip: Use dielectric grease (packet included) at all electrical connections.

A. Route heavy gauge wires from battery to Control Box and from Control Box to tarp motor. Allow ample wire where cutting and mounting connections take place. See Figure 1 (box with hoist) and Figure 2 (semi-trailer box) on page 8. For terminal connections, prepare wire ends with terminals, heat shrink and rubber boots.

⚠ CAUTION: Do not connect wires to battery terminals at this point.



2: MOUNTING CONTROL BOX

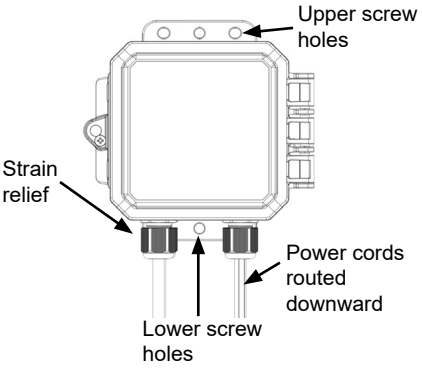
A. Mount Control Box to a rigid location away from motor and other dangerous components.

B. With power cords routed downward, use box as template to mark hole locations for drilling.

C. Drill (2) 1/4” holes and insert 1/4” x 1-3/4” hex bolts. Secure with washers, lock washers and nuts.

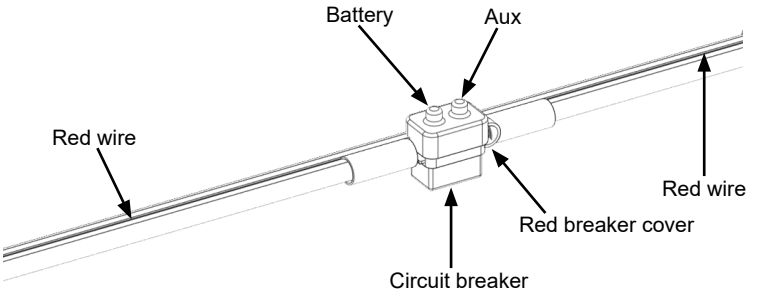
IMPORTANT: Use at least 3 bolts to mount box. Ensure bolts are mounted through upper and lower screw holes.

IMPORTANT: After mounting box, tighten strain relief fittings to ensure weathertight seal.



3: INSTALLING CIRCUIT BREAKER

A. Install circuit breaker close to battery in line with red (+) wire using #10 ring terminals and heat shrink. Cover circuit breaker with breaker cover.



IMPORTANT: Ensure system has a 50 Amp modified reset circuit breaker installed as shown. Operating system without circuit breaker voids warranty.

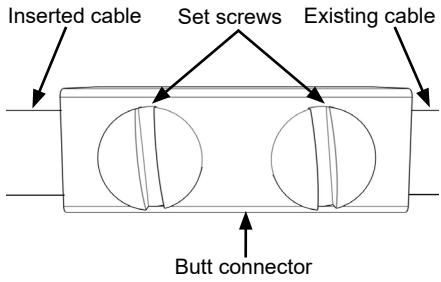
NOTE: If kit came pre-wired with 40 Amp breaker, remove and use 50 Amp breaker supplied in Control Box Kit.

4: WIRING DUAL POLE CONNECTOR (Optional)

Refer to included instructions to install Dual Pole Connector, if applicable.

5: ATTACHING BUTT CONNECTORS

The Control Box includes four pre-installed heavy gauge wires with butt connectors. Each butt connector attaches to a specific previously prepared wire (see Step 1). When attached, each combined wire connects to a specific motor terminal or battery post.



A. Position heat shrink over prepared heavy gauge wires (see Step 1). Connect heavy gauge wires to butt connectors as specified below:

- Control Box black wire **with** white stripe to black battery wire
- Control Box red wire **with** white stripe to red battery wire
- Control Box **SOLID** black wire to black motor wire
- Control Box **SOLID** red wire to red motor wire

B. Verify wiring to Control Box is as shown in Wiring Diagram on page 4.

C. Verify wires are securely connected to butt connectors. Seal heat shrink over butt connectors and wires.

6: CONNECTING WIRES TO MOTOR AND BATTERY

A. Double check all wire connections. Ensure all wires are connected properly (**as shown in Wiring Diagram on page 4**).

B. Connect black M1 wire to motor terminal 1. Connect red M2 wire to terminal 2. Always hold base nut while torquing top nut. Torque to 42 in-lbs.

C. Connect red battery wire to positive (+) battery post. Connect black battery wire to negative (-) battery post.

D. Check system operation. If system operates in reverse, switch wires at motor and retest.

NOTE: Numbers indicate steps where items were installed.

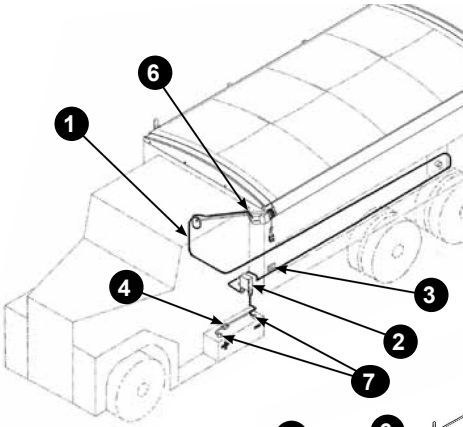


Figure 1

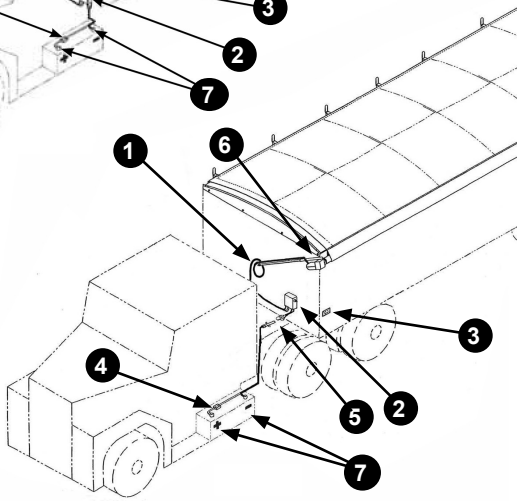


Figure 2

OPERATION

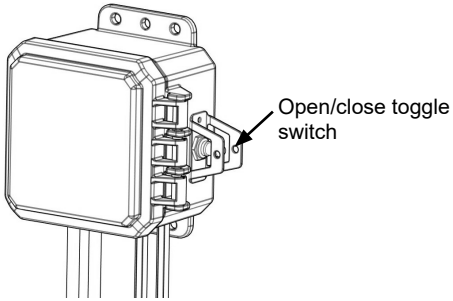
TO OPEN

A. With system on, hold switch in OPEN position, visually view tarp and release switch when roll tube touches tarp stops.

TO CLOSE

A. With system on, hold switch in CLOSED position, visually view tarp and release switch when roll tube is tight.

IMPORTANT: When tarp movement stops or if an obstruction is in path of tarp, release OPEN/CLOSE switch.



GENERAL TROUBLESHOOTING

If system has a battery cutoff switch, ensure it is turned to “ON” position.

Check all wiring components.	A. Check positive (+) and negative (-) wire connections on vehicle battery. B. Retighten and re-crimp loose connections. C. Replace any corroded connections. D. Check all wire for worn or bare spots. E. Verify 12 volts or more come into Control Box while system is operating.
Check power sources.	A. Check vehicle battery and charge, replace if required.
Check for physical damage to any equipment.	A. Repair or replace if required.

TROUBLESHOOTING SWITCH CONTROL

PROBLEM	SOLUTION
System will not operate with toggle switch (**cannot** hear a clicking noise from inside Control Box).	A. If system has a battery cutoff switch, ensure it is turned to “ON” position. B. Verify correct system wiring. See Wiring Diagram on page 4. C. Auto circuit breaker may have tripped. Wait several minutes and try again. If it still does not work, circuit breaker may have detected a continuous short and the short must be repaired.
System will not operate with toggle switch (**can** hear a clicking noise from inside Control Box, but nothing happens).	A. Verify Control Box receives a minimum of 12 volts from battery. B. Verify at least 12 volts transmit to motor terminals. If Control Box receives 12 volts but does not transmit 12 volts, problems may be in Control Box. C. Verify motor receives at least 12 volts (use caution around moving parts). If motor receives 12 volts and doesn’t turn, problem may be in motor. D. If Control Box transmits 12 volts to motor, and it does not receive 12 volts, problem may be wires connecting Control Box to motor.
Toggle switch operates motor, but tarp motor turns freely and tarp does not move.	A. Check pin connections in shaft between motor and roll tube. If missing, replace sheared bolt or pin with new clevis pin. B. Check tarp system for damaged or misaligned parts and correct as needed. C. Ensure tarp is free from obstruction.
System does not operate with toggle switch. Motor engages but stalls and system does not turn.	A. Check conditions and alignment of system. Ensure there are no broken components or obstructions. Refer to system’s manual.

MANUFACTURER'S LIMITED WARRANTY

Agri-Cover, Inc. extends the following one (1) year Limited Warranty on its AGRI-COVER™ Control Box to the original retail purchaser:

Agri-Cover, Inc. warrants a period of one (1) year from date of receipt or date of manufacture that its AGRI-COVER™ Control Box is free from defects in workmanship under normal use. This Limited Warranty does not cover any damage due to accident, abuse, misuse, alteration, neglect, improper installation, or ordinary wear and tear.

Agri-Cover, Inc.'s sole obligation under this Limited Warranty is limited to the repair or replacement, at its option, of defective parts only. No labor or service allowance is given or implied. IN NO EVENT SHALL AGRI-COVER, INC. BE LIABLE FOR INCIDENTAL, CONSEQUENTIAL, OR SPECIAL DAMAGES. AGRI-COVER, INC. EXPRESSLY DISCLAIMS ANY AND ALL IMPLIED WARRANTIES OF MERCHANTABILITY, AND THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE LIMITED WARRANTY DESCRIPTION CONTAINED HEREIN.

For warranty, have your serial number ready and call our Customer Service Department at 800-233-4655 to determine if only a replacement part is needed or if the AGRI-COVER™ Control Box needs to be returned for inspection and repair. Goods to be returned must have a pre-authorized RA # (Return Authorization Number) - obtained by calling the number above. Mark the number on the package and ship it freight prepaid to address below. Agri-Cover, Inc. will pay freight to return goods to sender.

This Limited Warranty gives you specific legal rights and you may have other rights, which vary, from state to state.

For replacement parts shop tarpreplacementparts.com or call Customer Service at 800-233-4655.